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OFFICIAL GAZETTE UNITED STATES PATENT OFFICE

VOL. 178 - 179

MAY - JUNE

1912

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OF THE

UNITED STATES PATENT OFFICE.

VOLUME CLXXVIII.

MAY,

1912.

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1912.

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ERRATA.

1,025,170, page 23, first claim, line 7, for the word "plate" read *plates*.

1,025,472, page 127, in heading, assignment, name of assignee, for "The Ledgerwood Manufacturing Company" read *The Lidgerwood Manufacturing Company*.

1,026,458, page 498, in heading, assignment, after the word "assignor" insert the words *of three-tenths*.

1,026,464, page 501, fourth claim, line 9, strike out the words "of the desired value."

1,026,666, page 605, in heading, assignment, name of third-mentioned assignee, for "De Witt C. Moore" read *De Witt C. Moon*.

VOL. 178.

Patents Nos. 1,025,114 to 1,025,955.

THE OFFICIAL GAZETTE OF THE United States Patent Office.

Vol. 178—No. 1. TUESDAY, MAY 7, 1912. Price—$5 per year.

The OFFICIAL GAZETTE is mailed under the direction of the Superintendent of Documents, Government Printing Office, to whom all subscriptions should be made payable and all communications respecting the Gazette should be addressed. Issued weekly. Subscriptions, $5.00 per annum; single numbers, 10 cents each.

Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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ISSUE OF MAY 7, 1912.

Patents	842—No.	1,025,114 to No. 1,025,955, inclusive.
Designs	47—No.	42,450 to No. 42,496, inclusive.
Trade-Marks	142—No.	86,358 to No. 86,499, inclusive.
Labels	15—No.	16,321 to No. 16,335, inclusive.
Prints	4—No.	3,021 to No. 3,024, inclusive.
Reissues	2—No.	13,414 to No. 13,415, inclusive.
Total	1,052	

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	2	.....	North Carolina	4	1
Arizona	1	.....	North Dakota	2	.....
Arkansas	2	.....	Ohio	42	6
California	36	6	Oklahoma	3	.....
Colorado	5	.....	Oregon	3	1
Connecticut	20	1	Pennsylvania	97	15
Delaware	1	.....	Rhode Island	7	1
Florida	4	7	South Carolina	3	1
Georgia	2	1	South Dakota	2	.....
Idaho	2	.....	Tennessee	7	3
Illinois	101	9	Texas	14	1
Indiana	21	2	Utah	6	.....
Iowa	20	1	Vermont	1	.....
Kansas	17	.....	Virginia	4	1
Kentucky	4	.....	Washington	15	1
Louisiana	5	2	West Virginia	4	1
Maine	3	5	Wisconsin	23	1
Maryland	7	5	Wyoming	.....	.....
Massachusetts	42	6	Alaska, District of	.....	.....
Michigan	26	5	Canal Zone	.....	.....
Minnesota	9	3	District of Columbia	9	1
Mississippi	2	.....	Hawaii Territory	1	.....
Missouri	22	10	Philippine Islands	.....	.....
Montana	.....	.....	Porto Rico	.....	.....
Nebraska	6	1	U. S. Army	1	.....
Nevada	.....	.....	U. S. Navy	1	.....
New Hampshire	3	3			
New Jersey	26	5	Total to citizens of the United States	766	146
New Mexico	3	1			
New York	125	39			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	1	.....	Netherlands	1	1
Austria-Hungary	2	.....	Newfoundland	.....	.....
Belgium	.....	.....	New South Wales	.....	.....
Bermuda	.....	.....	New Zealand	1	.....
Brazil	.....	.....	Norway	1	.....
British West Indies	.....	.....	Queensland	1	.....
Canada	17	.....	Roumania	.....	.....
Cape Colony	.....	.....	Russia	1	1
Chile	.....	.....	Scotland	.....	.....
China	.....	.....	South Australia	.....	.....
Costa Rica	.....	.....	Spain	1	1
Cuba	.....	1	Sweden	.....	.....
Denmark	.....	.....	Switzerland	5	.....
Ecuador	.....	.....	Tasmania	1	.....
England	27	5	Transvaal, South Africa	1	.....
France	15	3	Victoria	2	.....
Germany	42	3	Western Australia	1	.....
Ireland	.....	.....			
Italy	1	.....	Total to citizens of foreign countries	122	15
Japan	.....	.....			
Madeira	1	.....			

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 2, 1912.

J. C. Ferguson & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Cleveland Provision Co., 8 Bolivar street, Cleveland, Ohio, for registration of a trade-mark and trade-mark registered March 28, 1882, No. 9,244, to J. C. Ferguson & Co., of Chicago, Ill., and a notice of such declaration sent by registered mail to said J. C. Ferguson & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. C. Ferguson & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

Full Names of Applicants.

• • • All applications which disclose the full name of the applicant in the preamble of the specification will be received and considered as a sufficient compliance with Rule 40 of the Rules of Practice. (Order 521.)

When the full first name of the applicant does not appear either in his signature or in the preamble to the specification, the Examiner will, in his first official letter, require an amendment supplying the omission, and he will not pass the application to issue until the omission has been supplied, unless an affidavit shall have been filed setting forth that the full first name of the applicant is the one originally given by him. (Order 600.)

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 4, 1912.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	**1.** Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Mar. 18	Mar. 18	556
128	**2.** Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	Mar. 4	Apr. 1	465
175	**3.** Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Apr. 5	Apr. 22	203
232	**4.** Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	Mar. 26	Mar. 27	471
167	**5.** Bookbinding; Harvesters; Jewelry; Music.	Feb. 23	Mar. 15	462
318	**6.** Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Apr. 1	Apr. 5	274
312	**7.** Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Jan. 29	Mar. 19	684
131	**8.** Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Apr. 5	Apr. 5	303
142	**9.** Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels.	Apr. 4	Apr. 5	330
235	**10.** Carriages and Wagons.....	Feb. 26	Mar. 11	740
154	**11.** Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Mar. 2	Mar. 9	458
324	**12.** Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Mar. 13	Mar. 5	682
329	**13.** Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Mar. 18	Mar. 30	434
307	**14.** Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Mar. 4	Apr. 2	407
308	**15.** Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Feb. 17	Mar. 4	871
109	**16.** Telegraphy; Telephony.....	Mar. 13	Mar. 21	202
303	**17.** Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Mar. 29	Apr 4	327
327	**18.** Injectors and Ejectors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Mar. 18	Mar. 30	280
236	**19.** Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Mar. 23	Apr. 3	431
179	**20.** Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Mar. 2	Apr. 3	240
112	**21.** Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 2	Mar. 23	395

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
249	**22.** Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Mar. 18	Apr. 4	294
379	**23.** Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Mar. 11	Mar. 8	476
144	**24.** Apparel; Apparel Apparatus; Sewing-Machines.	Mar. 13	Mar. 14	517
315	**25.** Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Apr. 5	Apr. 11	190
106	**26.** Electricity, Generation; Motive Power.	Dec. 2	Jan. 4	595
372	**27.** Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Mar. 14	Mar. 26	430
65	**28.** Internal-Combustion Engines..	Jan. 25	Feb. 8	834
147	**29.** Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Mar. 12	Mar. 30	491
152	**30.** Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Feb. 7	Mar. 20	453
172	**31.** Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Mar. 9	Mar. 21	289
278	**32.** Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	Mar. 4	Apr. 5	270
71	**33.** Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Jan. 15	Mar. 11	483
304	**34.** Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Mar. 13	Mar. 16	511
244	**35.** Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Mar. 14	Mar. 20	762
264	**36.** Drafting; Driers; Engraving; Measuring Instruments; Photography.	Mar. 29	Mar. 20	562
107	**37.** Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Feb. 16	Apr. 2	499
378	**38.** Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working.	Jan. 17	Mar. 20	608
321	**39.** Water Distribution.....	Jan. 22	Feb. 17	625
280	**40.** Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Apr. 4	Apr. 15	331
125	**41.** Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 14	Mar. 16	620
279	**42.** Electric Railways; Electric Signaling; Railway Signaling; Signals.	Mar. 4	Mar. 7	530
382	**43.** Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Mar. 25	Apr. 1	307

Oldest new case, Dec. 2; oldest amended, Jan. 4.

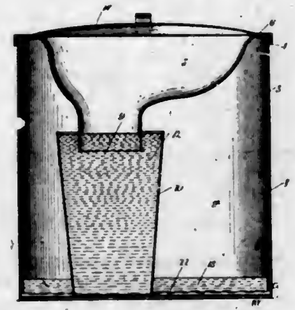
Total number of applications awaiting action..... 19,892

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Mar. 16	Mar. 19	997
	Designs.....	Feb. 12	Mar. 11	382
	Labels and Prints.....	Apr. 26	Apr. 29	27

PATENTS

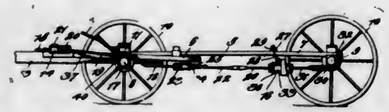
GRANTED MAY 7, 1912.

1,025,114. COMMODE. CLINTON H. BARRETT, New York, N. Y. Filed June 6, 1911. Serial No. 631,535. (Cl. 4—32.)



In a commode, an outer cylindrical receptacle, a bowl having a cylindrical depending flange telescoping within said receptacle and of a length slightly less than the depth of said receptacle, said bowl having a depending open end positioned within said flange and integral therewith, and a slop jar disposed within said receptacle, said jar normally filled with water, said open end projecting slightly below the level of the water in the jar, whereby slop falling into said jar will cause the water therein to flow over into the receptacle to form a water seal between said bowl and receptacle.

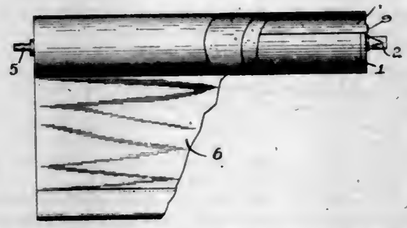
1,025,115. BRAKE MECHANISM. JAMES T. BISHOP, Saltillo, Miss. Filed Feb. 27, 1911. Serial No. 611,010. (Cl. 21—9.)



The combination with a vehicle running gear and supporting wheels, of a brake beam longitudinally movable on the running gear, means normally holding the beam in yielding engagement with the rear wheels, a U-shaped rod longitudinally movable on the running gear, the parallel ends thereof extending forwardly, means connecting said rod and the brake beam, guides for the ends of said rod, draft connections, link rods connecting the ends of the U-shaped rod with said connections, a transverse shaft rotatably mounted above the ends of said U-shaped rod and having an operating handle formed on one of its ends, said brake beam being normally held out of braking engagement with the vehicle wheels by the pull of the draft animals, and depending bifurcated plates fixed to said transverse shaft and engaging the forwardly extending ends of the U-shaped rod whereby said rod may be manually moved to release the brake beam from engagement with the wheels.

1,025,116. CURTAIN-FIXTURE. BÉLA BOWER and HARRY SPERO, Chicago, Ill. Filed Oct. 27, 1910. Serial No. 589,462. (Cl. 156—25.)

1. A device of the class described comprising a resilient sleeve having a relatively wide slot extending for its whole length, and an inwardly turned flange extending thereabout at one end and terminating at the edges of said slot.

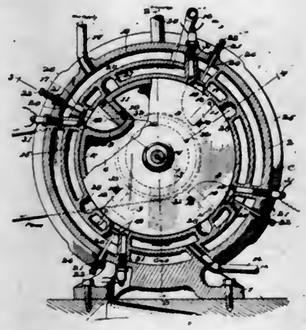


2. A device of the class described comprising a resilient longitudinally slotted sleeve, an inturned flange at one end, the interior surface of the other end flaring outwardly, integral tongues projecting beyond said flaring end adapted to be bent over, affording means of securing the same.

3. Attaching means for curtains comprising a resilient sleeve, a flange at one end, tongues adapted to be bent over at the other end, a relatively wide slot extending for the whole length thereof, and means at one end adapted to guide the curtain therebeneath during attachment.

4. In a curtain fixture of the class described, a slotted resilient sleeve adapted to be inserted over one or more rolls of the curtain, one end thereof inwardly flanged, the other end thereof provided with an internal outwardly directed taper and tongues extending beyond the latter end adapted to be bent over and adjacent the curtain roll.

1,025,117. ROTARY INTERNAL-COMBUSTION ENGINE. ORAM A. BOYER, Milwaukee, Wis. Filed Feb. 7, 1911. Serial No. 607,132. (Cl. 123—9.)



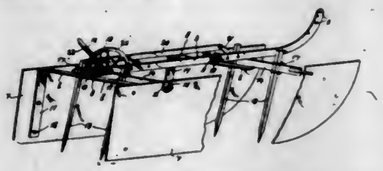
1. An engine of the character described, embodying a casing, a rotor mounted therein, the rotor being provided with a plurality of rim opening pockets, and the casing being formed with intake ports opening on the rim of the rotor and adapted to intermittently and successively communicate with said pockets, freely swinging abutments mounted in the respective pockets and arranged to be swung outwardly therein by centrifugal action from an inward substantially radial position toward the rim of the rotor, intake valves adapted to admit gaseous fuel into the pockets as they arrive at the intake ports controlled by said intake valves, means for operating said valves, and means for igniting the fuel admitted through said ports.

2. An engine of the character described, comprising a casing, a rotor mounted in said casing and provided with a plurality of rim opening abutment pockets, abutments mounted to freely swing in said pockets and arranged to be moved by centrifugal action from an inner relatively inoperative position toward the rim of the rotor, the casing being formed with a plurality of intake ports and provided with intake valves controlling said ports, the ports opening at the rim of the rotor, the casing being further provided with exhaust ports close to the intake ports and with igniting devices contiguous to the intake ports, and means for moving the intake valves toward the open position, the intake valves being located between the igniting devices and the adjoining exhaust ports.

3. An engine of the character described, comprising a casing formed with an annular gas chamber, the inner wall whereof is deflected and apertured to form intake ports, a rotor mounted in said casing and provided with a plurality of rim opening pockets, and freely swinging centrifugally acting abutments mounted in said pockets, intake valves controlling said ports, means for opening said valves to admit charges from the gas chamber into the pockets as they arrive at the intake valves in the revolution of the rotor, means for igniting the charges, and means for discharging the spent gases.

4. An engine of the character described, comprising a casing formed with an annular gas chamber, a separate water chamber surrounded by the gas chamber, a rotor mounted in the casing and surrounded directly by the annular water chamber, the inner wall of the gas chamber being deflected and apertured to form intake ports, intake valves controlling said ports, a rotor mounted in said casing and formed with a plurality of rim opening pockets, freely swinging and centrifugal acting abutments mounted in said pockets, intake valves controlling said ports, means for opening said valves, means for igniting the charges admitted by said valves into the pockets, the walls of the water chamber being deflected inwardly from opposite sides to produce laterally opening and oppositely extending exhaust ports adapted to receive the gases immediately after they have been exploded, and the casing being formed with opposite annular exhaust chambers communicating at intervals with said exhaust ports.

1,025,118. COMBINED HARROW AND SHIELD. JAMES C. BRAND, St. Joseph, Mo. Filed July 18, 1911. Serial No. 639,109. (Cl. 55—103.)



The combination of a longitudinal beam having attaching means, cross-bars extending from opposite sides of the longitudinal beam and having up-turned inner ends between which said beam is located, fastening means passing through said up-turned ends of the cross-bars and the longitudinal beam, the outer ends of the cross-bars terminating in downward bends, supports carried by the downwardly bent outer ends of the cross-bars, transverse rock shafts extending between and carried by the supports, harrow teeth carried by the rock shafts, arms extending from the rock shafts, a link connecting said arms, and a lever fulcrumed on the beam and operatively connected to one of the arms.

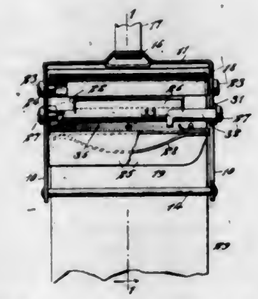
1,025,119. RAZOR-STROPPING MACHINE. MAURICE L. BRANDT, Brooklyn, N. Y. Filed Sept. 28, 1910. Serial No. 584,193. (Cl. 51—16.)

A stropping machine comprising a pivotally mounted upper frame, a strop folded over and adapted when pulled at either end to actuate said frame, a pivotally mounted blade-holder having an upper member between the sides of said frame and a lower member comprising blade-holding jaws, and springs secured within said frame and having downwardly converging fingers engaging opposite sides



of said upper member of the blade-holder, said upper member being slotted to receive the lower extremities of said fingers; substantially as set forth.

1,025,120. RAZOR-STROPPING MACHINE. MAURICE L. BRANDT, Brooklyn, N. Y. Filed May 18, 1911. Serial No. 627,904. (Cl. 51—16.)

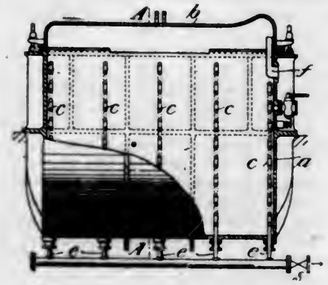


1. A stropping machine, comprising a main frame, a pivotally mounted rockable frame (18) therein having a base part and at the longitudinal center thereof a downwardly extending member, a strop folded over and adapted when pulled at either end to actuate said rockable frame, a pivotally mounted blade-holder having an upper member in operative engagement with the downwardly extending member of said rockable frame, and spring arms (32) secured to said main frame and at their inner portions extended along the upper portion of said blade-holder for yieldingly holding the latter in a central position, said spring arms being secured to the outer side of the end of said main frame and said frame being recessed (at 35) to receive the outer ends of said arms and thereby prevent swiveling action in the same; substantially as set forth.

2. A stropping machine comprising a main frame, a pivotally mounted rockable frame (18) therein having a base part and at the longitudinal center thereof a downwardly extending member, a strop folded over and adapted when pulled at either end to actuate said rockable frame, a blade-holder (19) adapted to hold a razor blade and having an upper member in operative engagement with the downwardly extending member of said rockable frame, screws (27) engaging the ends of said main frame and having inner trunnion-ends engaging and pivotally supporting said blade-holder, and a spring member comprising spring-arms (32) secured to the end of said main frame by one of said screws and at their inner portions extended along the upper portion of said blade-holder for yieldingly holding the latter in a central position; substantially as set forth.

3. A stropping machine comprising a main frame, a pivotally mounted rockable frame (18) therein having a downwardly extending longitudinal member, a strop folded over and adapted when pulled at either end to actuate said rockable frame, a blade-holder (19) to hold in its lower portion a blade to be stropped and having upwardly extending flanges (26) at the sides of said downwardly extending member of said rockable frame, screws (27) engaging the ends of said main frame and having inner trunnion-ends engaging and pivotally supporting said blade-holder, and a spring member comprising spring-arms (32) secured to the end of said main frame by one of said screws and at their inner portions extended along the upper portion of said blade-holder for yieldingly holding the latter in a central position; substantially as set forth.

1,025,121. DRYING-CHAMBER FOR ELECTRIC CABLES. ALFRED CASSIRER, Charlottenburg, Germany. Filed Nov. 30, 1908. Serial No. 465,329. (Cl. 34—30.)



1. In a drying chamber for electric cables, the combination with a vessel, of heating means arranged to provide vertical partition walls, dividing said vessel into separate compartments, adapted to receive the cable drums with their axes horizontal and an opening provided at the top of said vessel allowing cable drums to be placed with their axes horizontal into said compartments.

2. In a drying chamber for electric cables, the combination with a vessel having a semi-cylindrical bottom, of heating means arranged to provide vertical partition walls, dividing said vessel into separate compartments, adapted to receive the cable drums with their axes horizontal, and an opening in said vessel allowing cable drums to be placed with their axes horizontal into said compartments.

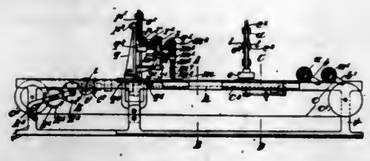
3. In a drying chamber for electric cables, the combination with a vessel, of serpentine steam pipes arranged to form vertical partition walls dividing the vessel into separate compartments adapted to receive the cable drums with their axes horizontal, and an opening provided at the top of said vessel allowing cable drums to be placed with their axes horizontal into said compartments.

4. In a drying chamber for electric cables, the combination with a vessel, of heating means arranged to provide vertical partition walls, dividing said vessel into separate compartments, adapted to receive the cable drums with their axes horizontal, an opening provided at the top of said vessel allowing cable drums to be placed with their axes horizontal into said compartments, and means to produce a vacuum within said vessel.

5. In a drying chamber for electric cables, the combination with a vessel having an opening in its top, of serpentine pipes arranged to form hollow vertical partitions dividing the vessel into separate compartments adapted to receive cable drums with their axes horizontal, means for circulating steam through said partition walls from the top to the bottom thereof, and means for hermetically sealing the open top of the vessel.

[Claims 6 and 7 not printed in the Gazette.]

1,025,122. MACHINE FOR MAKING DRESS-SHIELDS OF INDIA-RUBBER. HUGO CASSIRER, Charlottenburg, Germany. Filed Oct. 26, 1910. Serial No. 589,237. (Cl. 164—21.)



1. A machine for cutting dress shields from sheets of india rubber comprising means for feeding along two superposed strips, means for making a cut through both sheets for the inner or concave edge of the shield and means for heating the edges and pressing them together simultaneously with the cutting, thereby causing said edges of the partly cut out shields to adhere along said cut.

2. A machine for cutting dress shields from sheets of india rubber comprising means for feeding along two superposed strips, means for heating the strips, means for making a cut through both sheets for the inner or concave edge of the shield and means for pressing the edges simultaneously with the cutting, thereby causing said edges of the partly cut out shields to adhere along the cut.

3. A machine for cuting dress shields from sheets of india rubber comprising means for feeding along two superposed strips, a heated plate over which the strips are fed, means for making a cut through both sheets for the inner or concave edge of the shield and means for pressing the edges simultaneously with the cutting, thereby causing said edges of the partly cut out shields to adhere along said cut.

4. A machine for cutting dress shields from sheets of india rubber comprising means for feeding along two superposed strips, means for heating the strips, and means for simultaneously making a cut through both sheets for the inner or concave edge of the shield and causing said edges of the partly cut out shields to adhere along said cut comprising means adjacent to the cutting edge of the cutter for pressing the two sheets together after the cut is made.

5. A machine for cutting dress shields from sheets of india rubber comprising means for feeding along two superposed strips, means for heating the strips, means for simultaneously making a cut through both sheets for the inner or concave edge of the shield and means for causing said edges of the partly cut out shields to adhere along said cut, comprising a cutter having an obtusely beveled edge, and a pressing face to engage and press upon the edges of the cut out portions.

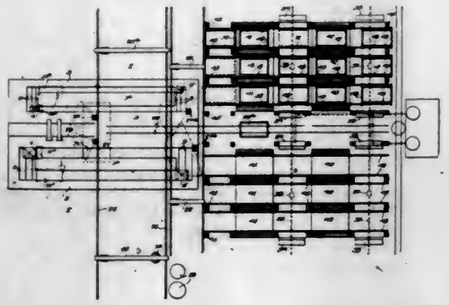
[Claims 6 to 38 not printed in the Gazette.]

1,025,123. SYSTEM OF APPARATUS FOR CASTING PIPE AND OTHER HOLLOW ARTICLES. WILLIAM E. CLOW, Chicago, Ill. Filed Feb. 7, 1910. Serial No. 542,597. (Cl. 22—20.)

1. A system of apparatus for casting pipe, having a plurality of trucks, a plurality of horizontal elevated stationary tracks upon which the trucks run, a plurality of flasks supported by and depending from said trucks vertically with respect to said tracks, a plurality of comparatively short movable tracks located at opposite ends of the stationary tracks and parallel therewith, and means for supporting the movable tracks at the same horizontal level as the stationary tracks, said supporting means being movable whereby the movable tracks may be brought to register, end to end, with any of the stationary tracks to form continuations thereof.

2. A system of apparatus for casting pipe, having a plurality of elevated horizontal stationary tracks, flasks depending vertically from said tracks, a plurality of com-

paratively short movable tracks located at opposite ends of the stationary tracks and in lines parallel therewith, transfer trucks supporting the movable tracks at the same horizontal level as the stationary tracks, and depressed transfer tracks upon which said transfer trucks run, whereby the movable tracks may be brought to register, end to end, with any of the stationary tracks and form continuations thereof.



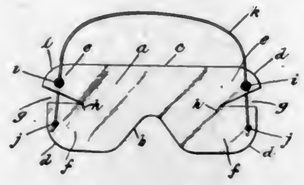
3. A system of apparatus for casting pipe, having a plurality of elevated horizontal stationary tracks, trucks running upon said tracks, flasks depending from said trucks, a plurality of comparatively short movable tracks located at opposite ends of the stationary tracks and in lines parallel therewith, transfer trucks supporting the movable tracks at the same horizontal level as the stationary tracks, said trucks having frames extending from said level downward to a level below the lower ends of the flasks, transfer tracks, located below the level last aforesaid, upon which said trucks run whereby the movable tracks may be brought to register, end to end, with the stationary tracks and form continuations thereof, said transfer tracks being arranged transversely with relation to the stationary tracks.

4. A system of apparatus for casting pipe, having a plurality of elevated horizontal and parallel stationary tracks, trucks having supporting rollers, resting upon said tracks, a plurality of flasks depending vertically from said trucks, a plurality of comparatively short movable tracks located at opposite ends of the stationary tracks and in lines parallel therewith, transfer trucks supporting the movable tracks at the same horizontal level as the stationary tracks, said trucks having frames which extend from said level downward to a level below the lower ends of the flasks and upward to a level above the upper ends of the flasks, the upper portions of said frames having suitable braces, transfer tracks, located below the level of the lower ends of the flasks, upon which said trucks run whereby the movable tracks may be brought to register, end to end, with the stationary tracks and form continuations thereof, said transfer tracks being arranged transversely with relation to the stationary tracks.

5. An apparatus for casting pipe, having a plurality of parallel horizontal stationary tracks, a plurality of comparatively short tracks located opposite the ends of said stationary tracks and in lines parallel therewith, transfer trucks supporting the movable tracks at the same horizontal level as the stationary tracks, said trucks being movable whereby the movable tracks may be brought to register, end to end, with the stationary tracks and form continuations thereof, said stationary tracks having successive sections on which the flask is supported while the several successive essential steps in the process are being performed, and suitable apparatus appropriate for the performing of said steps located in proximity of the several sections of the stationary tracks appropriate to perform them, respectively, whereby as the flasks are advanced upon said rails, step by step, the several operations are performed consecutively.

[Claims 6 to 8 not printed in the Gazette.]

1,025,124. EYE-PROTECTOR. HARRY A. CORBETT, New York, N. Y. Filed May 31, 1911. Serial No. 630,353. (Cl. 2—149.)



1. As a new article of manufacture, an eye protector comprising a normally flat sheet of flexible transparent material having birfurcated ends the opposite arms of which are movable relative to each other, and drawing means carried by one of the arms of each end and sliding freely through the other whereby when said drawing means are taken up the opposite arms at each end will be temporarily lapped and projected at substantially right angles to the portion of the sheet between said ends.

2. As a new article of manufacture, an eye protector comprising a normally flat sheet of flexible transparent material having bifurcated ends the opposite arm of which are movable relative to each other, reinforcing eyelets adjacent the end of each arm of each end, and drawing means passed outwardly through the eyelets of both arms of each end and being secured at its ends to the lowermost arm of each end of said sheet and sliding freely through the eyelet of the upper arm, whereby when said drawing means are taken up the opposite arms at each end will be temporarily lapped, projected at substantially right angles to the portion of the sheet between said ends, and be held together by said drawing means.

3. As a new article of manufacture, an eye protector comprising a normally flat sheet of flexible transparent material having birfurcated ends the opposite arms of which are movable relative to each other, reinforcing eyelets adjacent the ends of each arm of the ends of said sheet, one of said eyelets being smaller than, and adapted to nest within the other, and drawing means passed outwardly through the eyelets of both arms of each end and being secured at its ends to the lowermost arm of each end of said sheet and sliding freely through the eyelet of the upper arm, whereby when said drawing means are taken up the opposite arms at each end will be temporarily lapped, projected at substantially right angles to the portion of the sheet between said ends, and be held together by said drawing means.

1,025,125. KNITTED WEB AND STOCKING MADE THEREFROM. LOBETTO A. COSTELLO, Philadelphia, Pa., assignor, by mesne assignments, to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed June 17, 1910. Serial No. 567,505. (Cl. 66—4.)

1. A knitted web having, side by side, wales, some composed of courses of relatively slack stitches and others composed of courses of tighter stitches, a given length of web having a greater number of the tight courses than of the slack courses.

2. A knitted web having, side by side, wales, some composed of courses of relatively slack stitches and others composed of courses of tighter stitches, the slack knitted courses having corresponding tight knitted courses, and other courses being contained in the tight knitted wales only.

3. A knitted web having, side by side, wales, some composed of courses of relatively slack stitches and others composed of courses of tighter stitches, the slack knitted courses having corresponding tight knitted courses, and other courses being contained in the tight knitted wales only, and said latter courses having selvaged ends.

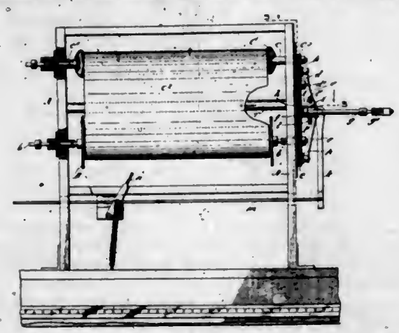
4. A knitted web having, side by side, wales, some composed of courses of relatively slack stitches and others composed of courses of tighter stitches, the slack knitted courses having corresponding tight knitted courses, and other courses being contained in the tight knitted wales only, and said latter courses having selvaged ends contained in different wales of the web.



5. A tubular knitted web having, side by side, wales, some composed of courses of relatively slack stitches and others composed of courses of tighter stitches, some of the courses extending completely around the tube and presenting both slack and tight stitches, and certain of the tight knitted courses being confined to a portion only of the tube.

[Claims 6 to 15 not printed in the Gazette.]

1,025,126. MECHANISM FOR ACTUATING MUSIC-ROLLS IN PNEUMATIC PLAYERS. WALTER R. CRIPPEN, Newton, Mass., assignor to Vose & Sons Piano Company, Boston, Mass., a Corporation of Maine. Filed June 14, 1911. Serial No. 633,143. (Cl. 84—166.)



In a player mechanism, a receiving spool and a driving gear therefor, a music roll spindle and a driving gear therefor, a driving shaft, a pinion on said shaft adapted to actuate said gears one at a time, a shiftable bearing for said shaft, a pair of brakes adapted to coöperate alternately each with one of said gears, and a lever to shift said bearing, pinion and brakes, by which said pinion may be shifted into engagement with either one of said gears and the brake simultaneously applied to the other of said gears.

1,025,127. TRACKER-BAR FOR PNEUMATIC PLAYERS. WALTER R. CRIPPEN, Newton, Mass., assignor to Vose & Sons Piano Company, Boston, Mass., a Corporation of Maine. Filed June 14, 1911. Serial No. 633,144. (Cl. 84—165.)

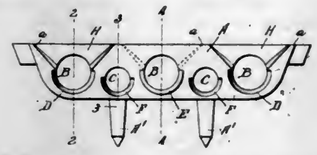
1. In a pneumatic player employing a perforated music sheet, a tracker bar provided with at least one groove in its tracker face forming ribs at each side of said groove, both of said ribs adapted to engage the music sheet and one of said ribs having a row of perforations opening through its crown.



2. In a pneumatic player employing a perforated music sheet, a tracker bar provided with at least one groove in its tracker face forming ribs at each side of said groove, the lower one of said ribs being relatively broader than the upper one and extending farther forward than the upper one, both of said ribs adapted to engage the music sheet and one of said ribs having a row of perforations opening through its crown.

3. In a pneumatic player employing a perforated music sheet, a tracker bar provided with at least one groove in its tracker face forming ribs at each side of said groove, both of said ribs adapted to engage the music sheet and one of said ribs having a row of perforations opening through its crown, said bar being formed of a solid piece of metal.

1,025,128. FIRE-BAR FOR FURNACES. WALTER GEORGE CROSTHWAITE, Leeds, England, assignor to Daniel B. Street, Washington, D. C. Filed Jan. 21, 1908. Serial No. 411,946. (Cl. 126—167.)



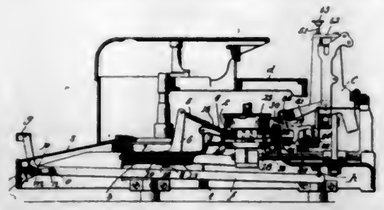
1. A firebar provided with transverse openings therethrough to form uninterrupted air passages when a series of said firebars are associated to form a grate, other openings alternating with said transverse openings in the firebar connected each with a fan shaped air duct leading upwardly to the top of said firebar and successively disposed on opposite sides of the firebar, said fan-shaped air duct being recessed wholly in one side of the firebar, the side opposite said recess being a plane surface, and flanges projecting from alternate sides of the firebar and partly encircling the under half of the transverse openings, the side of the bar opposite said flanges having recesses therein of similar shape.

2. A firebar provided with transverse openings therethrough to form uninterrupted air passages when a series of said firebars are associated to form a grate, other openings alternating with said transverse openings in the firebar connected each with a fan-shaped air duct leading upwardly to the top of said firebar and successively disposed on opposite sides of the firebar, said firebar being formed of two sections separable in a plane parallel to the upper surface of the firebar and approximately through the axes of the transverse openings connected to the fan shaped air duct, said fan shaped air duct being recessed wholly in one side of the firebar, the side opposite said recess being a plane surface, and flanges projecting from the under section of the firebar encircling on one side thereof the depressions forming the lower portions of the transverse openings, the side of the bar opposite said flanges having recesses therein of similar shape.

1,025,129. TYPE-WRITER. GEORGE WILLIAM DAVIS, Westmount, Quebec, Canada. Filed Jan. 3, 1907. Serial No. 350,637. (Cl. 197—82.)

1. In a typewriter of the sliding type bar class, the combination with the escapement wheel, a dog rocker hav-

ing the rearwardly projecting loose escapement dog pivoted thereon in engaging relation with the wheel, of a forwardly projecting arm upon such dog rocker and having a cross piece the end of which is in line with the dog, and a coiled retractile spring extending on the same vertical plane as the dog and connected at one end to the dog and at its other to the end of the said cross-arm.



2. In a typewriting machine, the combination with a carriage and means tending to move the same toward one end of the machine, of escapement mechanism comprising a dog rocker, a forwardly and diagonally upwardly extending arm upon the dog rocker, a bell-crank-lever, a retractile spring connecting the said arm to one arm of the bell-crank-lever, an adjusting screw carried by the frame of the machine and engaging the other arm of such bell-crank-lever for the purpose of enabling the resistance to the action of the machine to be varied.

3. In a typewriting machine the combination with a carriage and means tending to move the same toward one end of the machine, of escapement mechanism comprising a dog rocker, a forwardly and diagonally upwardly extending arm upon the dog rocker, a bell-crank-lever, a retractile spring connecting the said arm to one arm of the bell-crank-lever, an adjusting screw carried by the frame of the machine and engaging the other arm of such bell-crank-lever for the purpose of enabling the resistance to the action of the machine to be varied, and a pin carried by the screw and engaging a groove in the frame of the machine for preventing accidental rotation of the screw.

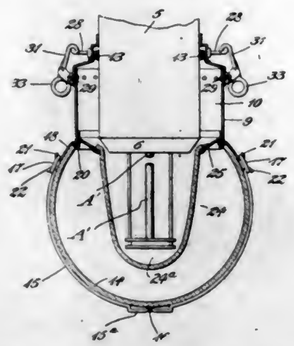
4. In a typewriting machine, the combination with a carriage and means for tending to move the same toward one end of the machine, of escapement mechanism comprising a dog rocker, a forwardly and diagonally upwardly extending arm of T-form upon the dog rocker, a bell-crank-lever, a retractile spring connecting one end of the cross-piece of the said arm to one arm of the bell-crank-lever, an adjusting screw carried by the frame of the machine and engaging the other arm of such bell-crank-lever for the purpose of enabling the resistance to the action of the machine to be varied, loose and fixed escapement dogs carried by the dog rocker, a sprocket wheel carried by the frame of the machine, a rack carried by the carriage, a retractile spring connected to the other end of the said cross-bar and to the loose escapement dog retaining the latter with its end away from the end of the fixed dog, and the sprocket wheel normally retaining the said end of the loose dog in juxtaposition with the fixed dog.

5. In a typewriter, a dog rocker, an arm projecting rearwardly from such rocker and having a pair of separate horizontal recesses, a dog flexibly secured in one of the said recesses, a dog pivotally mounted in the other recess, and an adjusting screw with a lock nut for determining the position of the said pivoted pawl relatively to the fixed pawl.

[Claims 6 to 13 not printed in the Gazette.]

1,025,130. ARC-LAMP. JOHN L. DINSMOOR, New York, N. Y. Filed Mar. 11, 1911. Serial No. 613,905. (Cl. 176—52.)

1. In an arc lamp of the class described, a shell or casing provided with a cooling chamber, an imperforate ring positioned within, and attached to, said shell or casing, an arc inclosing globe closed at the bottom and suspended from said imperforate ring, the chamber of said arc inclosing globe communicating freely with the cooling chamber of said shell or casing, and a closed outer globe supported by the shell or casing and substantially inclosing the inner globe, the chamber of said outer globe being substantially cut off from communication with the cooling chamber by said imperforate ring, said cooling chamber being positioned above the arc inclosing globe and being closed against the circulation of air and gases therethrough.



2. In an arc lamp, an inside casing, an external sleeve fitted to the inside casing for movement vertically with respect thereto, means for retaining the external sleeve in fixed relation to the inside casing, an outer globe closed against the admission of atmospheric air and supported by the external sleeve, and an inner globe positioned within the outer globe and suspended from the external sleeve, said inner globe being closed at the bottom thereof, both of said globes being movable with the external sleeve relative to the inside casing, said inside casing and the external sleeve producing above the inner globe a cooling chamber which communicates freely with said inner globe, said cooling chamber being closed against the circulation therethrough of atmospheric air or the arc gases emanating from the inner globe.

3. In an arc lamp, an inside casing, an external sleeve fitted to said casing, said sleeve being movable relative to said casing, means coöperating with the sleeve and the casing for closing the space between them when the sleeve is raised to a predetermined position relative to the casing, an outer globe suspended from the external sleeve, said outer globe being closed to preclude the admission of air thereto, and an inner globe suspended from the sleeve, said inner globe being closed at its bottom and having its upper part in free communication with a cooling chamber between the casing and the sleeve, both of said globes being movable with the sleeve.

4. In an arc lamp, a lamp casing, an outer globe closed to preclude the admission of atmospheric air thereto, a cooling chamber substantially enveloping the lower part of the lamp casing and positioned above the outer globe, said cooling chamber being closed to preclude the inflow of air and the outflow of arc gases, an inner arc-inclosing globe positioned within the outer globe, said inner globe being closed at its bottom and the chamber thereof having free communication at its upper part with the cooling chamber to permit of an upward flow of dust laden arc gases into the cooling chamber, whereby the dust will accumulate within the cooling chamber and be retained therein against return to the inner globe or to the outer globe, and means for cutting off communication between the cooling chamber and the chamber of the outer globe.

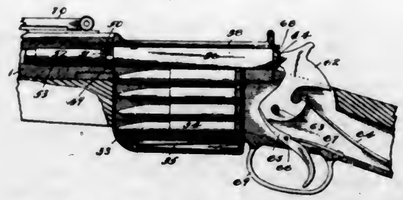
5. In an arc lamp, an outer globe, a single cooling chamber positioned above said globe, said cooling chamber being closed against the circulation therethrough of arc gases and of atmospheric air, an inner globe closed at its bottom and surrounding the arc, said inner globe having free communication with said cooling chamber, and means for substantially precluding communication between the outer globe and said cooling chamber, whereby heated gases with carbon dust suspended therein are free to flow upwardly from the inner globe, said cooling chamber acting as a reservoir for the products of combustion.

[Claims 6 and 7 not printed in the Gazette.]

1,025,131. ALLOY. JAMES W. DONNELL, Evanston, Ill. Filed Oct. 30, 1911. Serial No. 657,578. (Cl. 75—1.)

An alloy containing cast iron, copper, and platinum in the proportions of about eighty per cent. cast iron, about twenty per cent. copper and about eight-tenths of one per cent. platinum.

1,025,132. AUTOMATIC GUN OR RIFLE. WILLIAM M. DOUGLAS, Galveston, Tex. Filed June 30, 1911. Serial No. 636,248. (Cl. 42—3.)



1. In a fire arm of the character described, a barrel, a magazine for holding a plurality of cartridges to be fed into the barrel, a breech-bolt, an element to lock the breech-bolt in its closed position, compressed air operated means to actuate the element to release the breech-bolt, compressed air operated means to move the breech-bolt after it is unlocked, air compressing mechanism to supply compressed air to the first and second named compressed air operated means, a gas-cylinder having communication with the barrel and receiving gas therefrom on discharge, a gas-piston operating in the gas-cylinder and actuating said air compressing mechanism, means to return the breech-bolt to its closed position, means to return said element to its normal position, and a device to move the cartridges so that they are successively placed in loading position.

2. In a fire arm of the character described, a barrel, a gas-cylinder having communication with the barrel and receiving gas therefrom on discharge, a piston operating within the gas-cylinder, an air compressing cylinder, a plunger operating within said air compressing cylinder, means connecting the piston and plunger, a breech-bolt carrying an extractor and coöperating with the barrel, an element for locking the breech-bolt in its closed position, mechanism actuated by compressed air from the air compressing cylinder for operating said element, and means actuated by such compressed air for moving the breech-bolt after the same is unlocked.

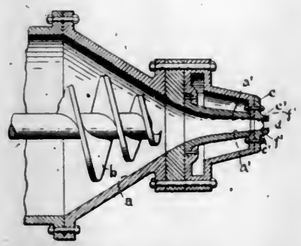
3. In a fire arm of the character described, a barrel, a gas cylinder having communication with the barrel and receiving gas therefrom on discharge, a piston operating within the gas-cylinder, air compressing mechanism operated by said piston, a breech-bolt, an arm connected with the breech-bolt and carrying a piston, a cylinder within which the last named piston operates, means of communication between said air compressing mechanism and the last named cylinder, a spring disposed within said last named cylinder to oppose the movement of the piston carried by the arm, an element to lock the breech-bolt in its closed position, and mechanism actuated by compressed air from the air compressing means to operate said element.

4. In a fire arm of the character described, a barrel, a gas-cylinder having communication therewith to receive gas therefrom on discharge, a piston operating within the gas-cylinder, air compressing mechanism operated by said piston, a breech-bolt, a locking cylinder mounted within the breech-bolt, an element to turn the locking cylinder, means to move the element, mechanism to move the breech-bolt after the same is unlocked, and conduits for supplying compressed air from said air compressing mechanism to said means and second named mechanism.

5. In a fire arm of the character described, a barrel, a gas-cylinder having communication therewith and receiving gas therefrom on discharge, a piston operating within the gas-cylinder, an air compressing cylinder, a plunger operating therein, a rod connecting the piston and plunger, a spring to return the piston to its normal position, a breech-bolt, an arm connected with the breech-bolt and carrying a piston, a cylinder within which the arm piston operates, a spring to return the arm piston to its normal position, means of communication between the air compressing cylinder and the last named cylinder, a locking element for normally holding the breech-bolt in its closed position, a nozzle for conducting air to move the locking element, and means of communication between the nozzle and said air compressing cylinder.

[Claims 6 to 8 not printed in the Gazette.]

1,025,133. BRICKMAKING-MACHINE. JAMES A. DUNNING, Aulander, N. C. Filed July 12, 1909. Serial No. 507,226. (Cl. 25—17.)



1. A die for shaping the product of a column forming machine for working clay and the like, consisting of a plate having an aperture provided with converging side walls and an inward extending endless marginal lip of comparatively slight extent entirely surrounding said aperture and having concave walls of a comparatively sharp convergence greater than that of the side walls of said aperture and gradually merging thereinto and acting to finally and sharply compress the product of the machine just before it emerges from the die.

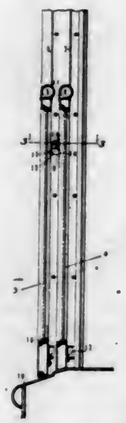
2. In a column forming machine for working clay and the like, having uninterrupted continuously converging clay compressing walls, a die consisting of a plate having an aperture provided with converging side walls in line with and forming continuations of the clay compressing walls of the machine, and an inward extending endless marginal lip of comparative slight extent and prominence entirely surrounding said aperture and having concave walls of comparatively sharp convergence, greater than that of the side walls of said aperture and merging thereinto, said lip acting to finally and sharply compress the product of the machine to a slight extent just before it emerges from the die.

3. A die for shaping the product of a column forming machine for working clay and the like, consisting of a plate having a polygonal aperture provided with converging side walls and segment-shaped extensions provided with converging walls in line with and forming continuations of the side walls of said aperture, and an inward extending endless marginal lip entirely surrounding said aperture, said lip having inner walls of a convergence greater than that of the walls of said aperture and being of greater depth and prominence and having an increased inward projection from the centers of said segmental extensions toward the corners of said aperture.

4. A die for shaping the product of a column-forming machine for working clay and the like, consisting of a plate having a polygonal opening having converging side walls and segment-shaped extensions corresponding to the sides of said opening and provided with converging walls in line with and forming continuations of said side walls of the opening, and an inward projecting endless marginal lip entirely surrounding the opening of the die, said lip

having inner walls of a convergence greater than that of said converging walls of the segmental extensions and having an endless concave-wall juncture therewith gradually merging thereinto, said lip being of greater depth and prominence and having an increased inward projection from the center of the segmental extensions toward the corners of the die opening.

1,025,134. SASH-LOCKING DEVICE. EDMUND M. ERB, Jersey City, N. J., assignor to Robert M. Dixon, East Orange, N. J. Filed Jan. 10, 1907. Serial No. 351,652. (Cl. 16—18.)



1. In window construction, in combination, a frame, a pair of registering sashes located therein and adapted to slide in the frame, and a spring-retracted locking member movably mounted upon the frame intermediate said sashes, said locking member being adapted to be held in position to lock one of said sashes by an engagement with the other thereon and to be released automatically when said last mentioned sash is opened a predetermined extent.

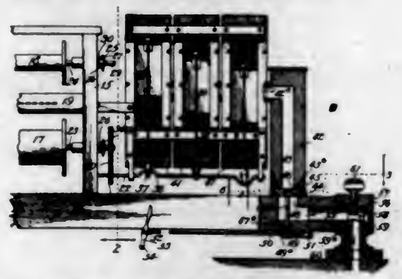
2. In window construction, in combination, a frame, a pair of registering sashes mounted to slide therein, a locking member mounted to swing upon the frame intermediate said sashes, one of said sashes being adapted to engage said member and force the same into positive locking engagement with the other thereof, and a spring adapted to swing said member out of engagement with the locked sash when the other sash is raised.

3. In window construction, in combination, a frame, a pair of sliding sashes mounted in registry therein, a swinging locking member swiveled upon the frame intermediate said sashes adapted to be engaged by the inner sash and to be forced into an opening provided in the outer sash, and a spring for retracting said device from said opening when the inner sash is raised to an open position, said outer sash being provided with another opening to accommodate said locking member when the inner sash is closed and the outer one left open.

4. In window construction, in combination, a frame, a pair of registering sashes slidably mounted therein, a pivotally mounted locking member provided with a portion adapted to enter an opening provided in the outer sash and thereby lock the same in closed position and having a cam portion adapted to be engaged by the inner sash, such engagement effecting a locking of the outer sash, and means for retracting said locking member.

5. In window construction, in combination, a car window comprising a pair of normally registering sashes, a frame in which said sashes are slidably mounted, said sashes being formed to close said window in normal registering position, and a positive locking device adapted to lock the outer sash to the frame in its normal lowered position, said device being provided with a portion adapted to be operated by the inner sash to force it into locking position as said inner sash is lowered and release the device as the inner sash is raised.

1,025,135. PNEUMATIC PIANO-PLAYER. CHARLES FREBORG, Kankakee, Ill., assignor to Schaeffer Piano Mfg. Company, a Corporation of Illinois. Filed Sept. 21, 1909. Serial No. 518,730. (Cl. 84—161.)



1. In a musical instrument, the combination with a motor and a music roller box, of a rotatively mounted supporting bar for said motor and said box, bearings for said bar, an air duct in said bar leading from said motor, and a valve in said bar adapted to control said duct.

2. In a musical instrument, a motor, a music roller box, a rotatively mounted supporting bar for said motor and said box, bearings for said bar, an air duct in said bar leading from said motor, a valve in said bar for controlling said duct and an air duct in one of said bearings communicating with said air duct in said bar.

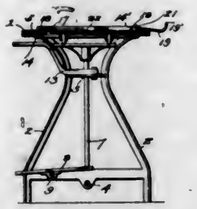
3. In a musical instrument, a motor, a music roller box, a rotatively mounted supporting bar for said motor and said box, bearings for said bar, an air duct in said bar leading from said motor, a valve in said bar for controlling said duct, an air duct in one of said bearings, and means for maintaining communication between said air ducts in the different rotated positions of said bar.

4. In a musical instrument, a motor, a music roller box, a rotatively mounted supporting member for said motor and said box, an air duct in said member, and a hand operated rotary valve carried by said bar for controlling the flow of air through said duct.

5. In a musical instrument, a motor, a music roller box, a rotatively mounted supporting member for said motor and said box, bearings for said member, an air duct in said member leading from said motor, an air duct in one of said bearings open to said duct in said member and a hand operated rotary valve carried by said bar controlling the flow of air through said ducts.

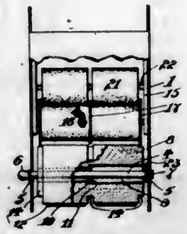
[Claims 6 to 8 not printed in the Gazette.]

1,025,136. MOLDING-MACHINE. VICTOR W. GRUMMAN, Zanesville, Ohio. Filed Dec. 13, 1909. Serial No. 532,817. (Cl. 25—43.)



In combination with a supporting structure of a molding machine and molds thereof, of a horizontally arranged brace, an injector rod mounted for vertical movement through the brace, a cross head carried by the upper end of the rod and composed of a plurality of radially arranged arms, plungers carried by the arms for elevating the pallets of the molds, a foot operating lever movably secured to the lower end of said rod, a stop collar secured to the rod and adapted to contact with the brace for limiting the downward movement of said rod, a hand operating lever having an angular lower end pivoted to the brace and contacting with the collar and the upper end of the hand lever also having an angular portion which is adapted to hold the plungers in elevated position.

1,025,137. DEVICE FOR PRINTING ON WRAPPING-PAPER. WILLIAM WALLACE HESSON, Toronto, Ontario, Canada. Filed Sept. 1, 1911. Serial No. 647,251. (Cl. 211—30.)



1. In a device for printing on wrapping paper, a printing roller supported intermediate of its length and free to swing upon its support, means for inking said roller, and means for supporting said printing roller in contact with the paper to be printed upon.

2. In a device for printing on wrapping paper, a printing roller, a casing supported adjacent to the paper to be printed upon, a spindle secured in said casing, a roller loosely encircling said spindle and supported therefrom mid-way of its length and free to tilt on said central support, and an inking roller supported within said casing and adapted to ink the printing roller.

3. In a device for printing on wrapping paper, a casing supported adjacent to the paper to be printed, a spindle extending across said casing, a printing roller having a longitudinal orifice extending centrally therethrough, an arbor secured in said orifice centrally of the length of said roller and journaled upon said spindle, and an inking roller adapted to ink said printing roller.

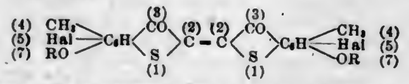
4. In a device for printing on wrapping paper, a casing, a printing roller supported centrally of its length within said casing and free to swing upon its support and having cams arranged at the ends thereof, a flanged inking roller having its flanges engaging the cams of said printing roller and adapted to rest thereon, said flanges holding the inking roller from contact with the printing roller when running on the high portion of said cams and allowing the inking roller to engage the printing roller on the further rotation of the cams.

5. In a device for printing on wrapping paper, a casing, a printing roller supported centrally of its length within said casing and free to swing upon its support and having cams arranged at the ends thereof, a flanged inking roller having its flanges resting upon said cams and adapted to move into and out of contact with the surface of the printing roller on the rotation thereof, and inking supply rollers arranged between the flanges of said inking roller and supported therebetween on said casing.

[Claim 6 not printed in the Gazette.]

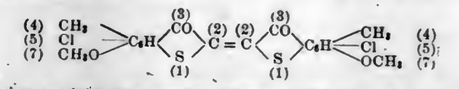
1,025,138. VIOLET-BLUE VAT DYESTUFFS. ERWIN HOFFA, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Oct. 26, 1910. Serial No. 589,160. (Cl. 8—1.)

1. As new products, the bluish-violet vat dyestuffs of the constitution:



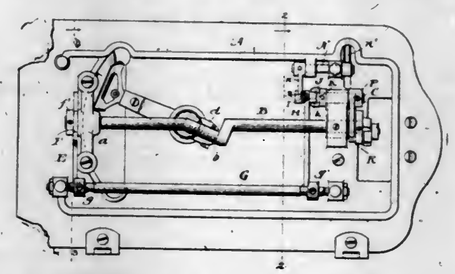
wherein "Hal" means a halogen and "R" an alkyl being a violet-blue powder, insoluble in water, almost insoluble in alcohol, soluble in nitrobenzene to a violet solution, in concentrated sulfuric acid to a green solution, yielding on addition of a solution of alkaline hydrosulfite a yellow vat which dyes cotton and wool violet-blue tints.

2. As a new product, a bluish-violet vat dyestuff of the constitution:



being a violet-blue powder, insoluble in water, almost insoluble in alcohol, soluble in nitrobenzene to a violet solution, in concentrated sulfuric acid to a green solution, yielding on addition of a solution of alkaline hydrosulfite a yellow vat which dyes cotton and wool violet-blue tints.

1,025,139. FEEDING MECHANISM FOR SEWING-MACHINES. JOHN O. HUFFMAN and EMIL J. LAUFFER, Cleveland, Ohio, assignors to The White Sewing Machine Company, Cleveland, Ohio, a Corporation of Ohio. Filed Apr. 25, 1910. Serial No. 557,364. (Cl. 112—8.)



The combination of a rotatable shaft carrying two cams, a rock shaft having two arms fixed to it, a feed bar pivoted to one of said arms and extending forward therefrom, said feed bar being forked to embrace one of the cams upon said rotatable shaft, a rock shaft C, a forked arm fixed thereto and embracing the other cam on the rotatable shaft, an arm K fixed to said rock shaft and having a guide-way which extends across the axis of said shaft, a block movable in said guide-way, a link connecting said block and the other arm of the rock shaft, a rocker pivoted to a fixture below the bed plate and having an operating arm which extends upward through a slot in the bed plate and has also a substantially horizontal arm, and a link pivotally connected with the last named arm and extending upward therefrom and being pivoted at its upper end to said block.

1,025,140. POTENTIAL SWITCH. JOHN D. IHLDER, New York, N. Y., assignor to Otis Elevator Company, East Orange, N. J., a Corporation of New Jersey. Filed Feb. 16, 1905. Serial No. 245,965. (Cl. 175—271.)

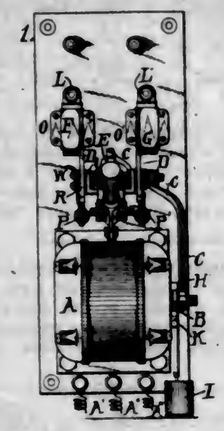
1. The combination of a switch, of an electric motor, a cam operated by the motor, and means positively actuated by the said cam for holding the said switch in closed position.

2. The combination of a switch, an alternating current motor, a cam operated by the motor, and means operated by the said cam into position to positively hold the said switch in closed position.

3. The combination with an electrical switch, a rotary motor, a cam on the shaft of said motor, and means operated by said cam to lock said switch in closed position so long as the potential applied to said motor does not fall below a pre-determined value.

4. The combination with a switch, of an alternating current motor, a cam on the motor shaft, and means operated by said cam into position to hold said switch closed and for maintaining said switch in closed position so long as the potential applied to the motor does not fall below a pre-determined value.

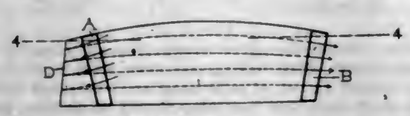
5. The combination with a switch, of an alternating current motor, means for locking said switch in closed



position, and a cam on the motor shaft for positively actuating said locking means when said motor is sufficiently energized.

[Claims 6 to 19 not printed in the Gazette.]

1,025,141. TURBINE. ARNOLD KIENAST, Leipzig, Germany. Filed Nov. 8, 1910. Serial No. 591,341. (Cl. 121—57.)



1. In a turbine of the class described, a channel element having radially extending inlets and outlets and having a region of maximum radial twist coincident with its point of maximum axial curvature, substantially as and for the purpose described.

2. In a turbine of the class described, a channel element having radially extending inlets and outlets radially twisted at its point of maximum curvature, substantially as and for the purpose described.

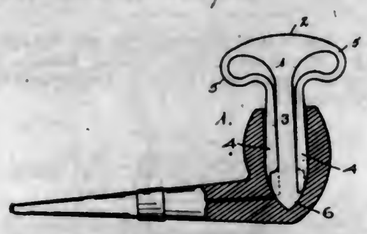
3. In a turbine of the class described, a channel element having radially extending inlets and outlets comprising a steam passage a part of which lies in one plane and the remaining part in a second plane the change from one plane to the other being coincident with the point of maximum axial curvature, substantially as and for the purpose described.

4. In a turbine of the class described, a channel element provided with an inlet and an outlet and bent both axially and radially the generatrix of said channel at the point of maximum axial curvature being parallel to the outlet, substantially as and for the purpose described.

1,025,142. SMOKING-PIPE CLEANER. CONRAD KNOTH and FRANK WHITECAR, Newark, N. J. Filed May 25, 1911. Serial No. 629,253. (Cl. 131—13.)

1. In a pipe cleaner, blades arranged with two of their longitudinal edges adjacent and their opposite outer edges adapted to engage the walls of a pipe bowl, supporting necks for said blades affording edgewise resiliency, and a point extending beyond said blades to scrape the bottom of the pipe bowl and adapted to prevent sidewise displacement of the blades with respect to each other.

2. In a pipe cleaner, blades arranged with two of their longitudinal edges adjacent and their opposite outer edges adapted to engage the walls of a pipe bowl, supporting necks for said blades affording edgewise resiliency, a central stem, and a point on said stem adapted to scrape the bottom of a pipe bowl and engaging opposite sides of said blades adjacent to their inner edges.



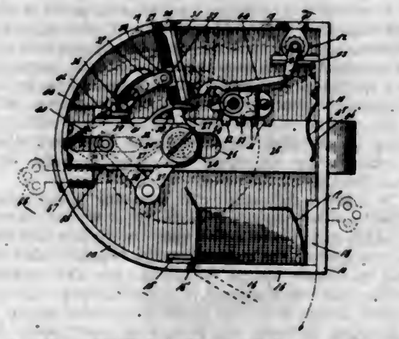
3. In a pipe cleaner, blades arranged with two of their longitudinal edges adjacent and their opposite outer edges adapted to engage the walls of a pipe bowl, supporting necks for said blades affording edgewise resiliency, and a central stem engaging opposite sides of said blades adjacent to their inner edges.

4. In a pipe cleaner, blades arranged with two of their longitudinal edges adjacent and their opposite outer edges adapted to engage the walls of a pipe bowl, supporting necks for said blades affording edgewise resiliency, a central stem engaging opposite sides of said blades adjacent to their inner edges, and a point on said stem adapted to scrape the bottom of a pipe bowl.

5. In a pipe cleaner, blades arranged with two of their longitudinal edges adjacent and their opposite outer edges adapted to engage the walls of a pipe bowl, supporting necks for said blades affording edgewise resiliency, and a point between said blades and projecting therebeyond adapted to scrape the bottom of a pipe bowl.

[Claims 6 and 7 not printed in the Gazette.]

1,025,143. COIN-CONTROLLED LOCK. NICHOLAS KRETZER, Indianapolis, Ind. Filed Sept. 11, 1911. Serial No. 648,693. (Cl. 194—74.)



1. A coin controlled lock comprising a main casing, a bolt slidably mounted in said casing, a coin receiving lever pivotally mounted in the casing and operatively connected with the bolt by means of a link pivoted at one end to the lever and at the other end engaging the bolt, said lever having a coin guide and a perforation transverse to the coin guide, means for retaining a coin within the coin guide of the lever when the lever is in normal position, means for automatically returning the lever to normal position, an operating knob accessible from the exterior of the casing, a finger carried by said knob within the casing and adapted to be projected freely through the perforations of the lever in the absence of a coin within the coin guide, and means controlled by the operating knob for temporarily retaining the lever in projected position.

2. A coin controlled lock comprising a main casing, a bolt slidably mounted in said casing, a coin receiving lever pivotally mounted in the casing and operatively connected with the bolt, said lever having a coin guide and a perfora-

tion transverse to the coin guide, means for retaining a coin within the coin guide of the lever when the lever is in normal position, means for automatically returning the lever to normal position, an operating knob accessible from the exterior of the casing, a finger carried by said knob within the casing and adapted to be projected freely through the perforations of the lever in the absence of a coin within the coin guide, and means controlled by the operating knob for temporarily retaining the lever in projected position.

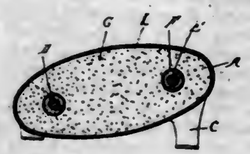
3. A coin controlled lock comprising a main casing, a bolt slidably mounted in said casing, a coin receiving lever pivotally mounted in the casing and operatively connected with the bolt by means of a link pivoted at one end to the lever and at the other end engaging the bolt, said lever having a coin guide and a perforation transverse to the coin guide, means for retaining a coin within the coin guide of the lever when the lever is in normal position, means for automatically returning the lever to normal position, an operating knob accessible from the exterior of the casing, and a finger carried by said knob within the casing and adapted to be projected freely through the perforations of the lever in the absence of a coin within the coin guide.

4. A coin controlled lock comprising a main casing, a bolt slidably mounted in said casing, a coin receiving lever pivotally mounted in the casing and operatively connected with the bolt, said lever having a coin guide and a perforation transverse to the coin guide, means for retaining a coin within the coin guide of the lever when the lever is in normal position, means for automatically returning the lever to normal position, an operating knob accessible from the exterior of the casing, and a finger carried by said knob within the casing and adapted to be projected freely through the perforations of the lever in the absence of a coin within the coin guide.

5. A coin controlled lock comprising a main casing, a bolt slidably mounted therein, an operating member accessible from one side of the exterior of the casing, a coin receiving member movably mounted within the casing and operatively connected with the bolt, a member carried by the operating member within the casing and arranged to coöperate with the coin receiving lever only with a coin therein, a second operating member accessible from the opposite side of the structure and conections between said second operating member and the bolt permitting manipulation of the bolt by said second operating member without manipulation of the coin receiving member.

[Claims 6 to 10 not printed in the Gazette.]

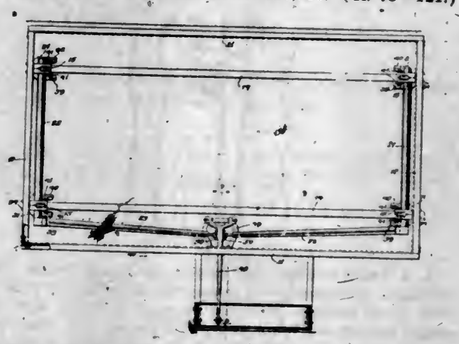
1,025,144. ELECTRIC FOOT-WARMER. FRANK KUHN, Detroit, Mich., assignor to American Electrical Heater Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 11, 1911. Serial No. 648,687. (Cl. 219—19.)



1. An electrically heated warming device comprising a casing consisting of end heads, and a tubular body, one of said end heads having a central recessed portion, cross rods positioned on opposite sides of said recessed portion and extending within said casing and connecting said heads, insulating sleeves upon said rods, an electrical resistance wound upon said sleeves, terminals for said resistance positioned in said recessed portion, and a filling of granular electrical insulating heat absorbing body surrounding said heating unit and filling said casing.

2. An electrically heated warming device comprising a casing consisting of end heads and a tubular body, feet on said end plates for holding said casing in inclined position, rods connecting said end heads, said rods being of greater length than said tubular body and extending therethrough, an insulating sleeve upon said rods, an electrical heating unit upon said sleeve, and a filling of granular electrical insulating heat absorbing body surrounding said heating unit and filling said casing.

1,025,145. SCALE. EDWARD J. LA DUE, Pontiac, Ill. Filed Mar. 27, 1911. Serial No. 617,188. (Cl. 73—121.)



1. A scale comprising the combination of a lever, a plurality of suspension devices, a support sustained by the lower ends of said devices, a lever-fulcrum carried by said support, each of said devices being pivoted at its upper end so that its lower end will be free to swing laterally and longitudinally to permit said support and said lever to move conjointly and bodily, longitudinally and transversely of the lever, a platform on said lever, and scale-operating means operated by the pivotal movement of the lever about its fulcrum on said support.

2. A scale comprising the combination of a lever, a plurality of suspension devices, a support sustained by the lower ends of said devices, a lever-fulcrum carried by said support, said device being disposed at the sides of the lever-fulcrum, and each being pivoted at its upper end so that its lower end will be free to swing laterally and longitudinally to permit said support and lever to to move conjointly and bodily, longitudinally and transversely of the lever, a platform on said lever, and scale-operating means operated by the pivotal movement of the lever about its fulcrum on said support.

3. A scale comprising the combination of a lever, three suspension devices, a support sustained by the lower ends of said devices, a lever-fulcrum carried by said support, each of said devices being pivoted at its upper end so that its lower end will be free to swing laterally and longitudinally to permit said support and lever to move conjointly and bodily longitudinally and transversely of the lever, a platform on said lever, and scale-operating means operated by the pivotal movement of the lever about its fulcrum on said support.

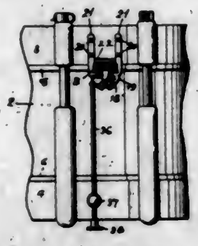
4. A scale comprising the combination of a lever, a plurality of suspension devices, a support sustained by the lower ends of said devices, a lever-fulcrum carried by said support, each of said devices being pivoted at its upper end so that its lower end will be free to swing laterally and longitudinally to permit said support and lever to move conjointly and bodily, longitudinally and transversely of the lever, a platform on said lever, a knife-edge bearing between said lever and said platform, and scale-operating means operated by the pivotal movement of the lever about its fulcrum on said support.

5. A scale comprising the combination of a frame, a bracket rigidly secured to the frame, a bracket, a lever, a plurality of suspension-devices, each pivoted at its upper end by said bracket so that its lower end will be free to swing laterally and longitudinally of the lever, a support sustained by the lower ends of said suspension devices and movable bodily, laterally and longitudinally, a lever-fulcrum on said support and movable bodily therewith, a

platform on said lever, and scale-operating means operated by the pivotal movement of the lever above its fulcrum on said support.

[Claims 6 to 9 not printed in the Gazette.]

1,025,146. SNARE STRAINER AND MUFFLER FOR SNARE-DRUMS. JOHN E. LYNEHAN, New York, N. Y. Filed June 25, 1910. Serial No. 568,792. (Cl. 84—127.)



1. A snare strainer and muffler for snare drums, comprising a U-shaped plate, means for securing the arms of said plate flatwise upon the hoop of a drum with the closed end of the plate extending toward the other end of the drum and projecting from said hoop, a bracket hinged at one end to said closed end of the plate and having its other end opposite the opening between the arms of the plate, said arms being longer than said bracket, means at said other end of the bracket for securing snares extending through said opening between the arms, and means between said plate and bracket for forcing the bracket away from the plate.

2. The combination with a snare drum, of a plate secured flatwise upon the hoop at one end of the drum and projecting from said hoop toward the other end of the drum, a bracket hinged to said plate intermediate of the ends of the drum and extending toward the hoop to which the plate is secured, means on said bracket for securing snares, a cam between said plate and bracket having a crank arm, an operating rod pivoted to said crank arm and projecting to the other end of the drum, a bearing on the drum for said rod, and grasping means on said rod beyond said bearing.

3. A snare strainer and muffler for snare drums, comprising a plate adapted to be secured flatwise upon the side of a drum, a bracket hinged to said plate, a series of snare rollers carried by said bracket, lugs on said plate at opposite sides of the bracket one having a transverse groove and perforations on opposite sides of said groove, a rod lying in said groove and having a bearing in the other lug, a staple in said perforations holding said rod in said groove, a cam on said rod between the plate and bracket intermediate of said lugs, a crank-arm on said cam-rod outside its bearing in said groove, and an operating rod pivoted to said crank-arm.

1,025,147. VAT DYESTUFF AND PROCESS OF MAKING SAME. RUDOLF MAAG, Sindlingen, near Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed May 26, 1911. Serial No. 629,630. (Cl. 8—1.)

1. As new products, the herein described yellow vat dyestuffs, being derivatives of the benzoquinonedianilid

$$C_6H_2O_2(NHC_6H_5)_2$$

which contain halogen in the benzoquinone-nucleus and in the anilido groups, in the latter combined in para position to the nitrogen; said products being yellowish-brown to brownish-red powders which are insoluble in alcohol, ether and benzene, soluble in hot glacial acetic acid and nitrobenzene with a brownish-red color, soluble in concentrated sulfuric acid with a violet coloration, and giving, when treated with alkaline hydro-sulfite, light-yellowish solutions, from which the dyestuff can be regenerated by passing air into it; and dyeing wool when subsequently oxidized fast yellow tints.

2. As a new product, the herein described yellow vat dyestuff: chlorobenzoquinone-para-para-dichlorodianilid;

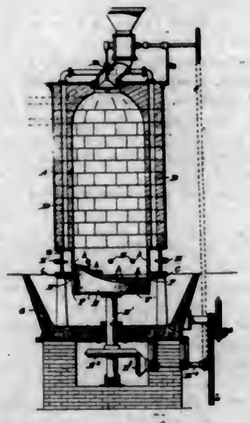
$$C_6HClO_2(NHC_6H_4Cl)_2:$$

being a yellowish-brown powder, insoluble in alcohol, ether and benzene, soluble in hot glacial acetic acid and nitrobenzene with a brownish-red color, in concentrated sulfuric acid with a violet color, yielding, when gently heated with alkaline hydrosulfite, a light yellowish vat which dyes wool, when subsequently oxidized, fast yellow tints.

3. The process of manufacturing yellow vat dyestuffs which consists in causing para-halogen substituted anilins to act upon halogen derivatives of benzoquinone containing more than one halogen atom.

4. The process of manufacturing a yellow vat dyestuff, which consists in causing para-chloranilin to act upon 2.6-dichlorobenzoquinone.

1,025,148. GAS-PRODUCER. ALBERT F. MATLACK, Philadelphia, Pa. Filed May 2, 1910, Serial No. 558,839. Renewed Sept. 11, 1911. Serial No. 648,591. (Cl. 48—66.)



1. In a gas producer, a body, an annular grate constituting a continuation of the lower portion of said body, a hearth rotatably supported at the lower end of said body and provided with means for effecting lateral movement of the ashes thereon through said grate upon rotation thereof.

2. In a gas producer, a body, an annular grate comprising separated grate bars constituting a continuation of the lower end of said body, a water seal for the lower end of the producer body and a hearth rotatably supported in the space surrounded by the annular grate and provided with means for effecting lateral movement of the ashes thereon through said grate upon the rotation of the hearth.

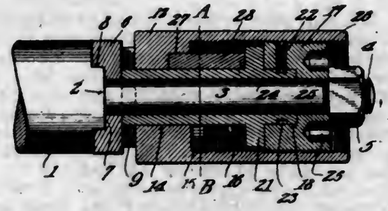
3. In a gas producer, a body, an annular grate constituting a continuation of the lower end of said body, a circular hearth rotatably supported in the lower portion of said body, the supporting surface of said hearth being imperforate and formed of a plurality of stepped platforms having inclined supporting surfaces.

4. In a gas producer, a body, an annular grate constituting a continuation of the lower portion of said body, a circular hearth rotatably supported in the lower portion of the producer body, the supporting surface of said hearth being imperforate and formed of a plurality of superposed fuel supporting platforms decreasing in diameter from the lower portion to the top of the hearth and positioned eccentrically to the axis of the hearth.

5. In a gas producer, a body, an annular grate constituting a continuation of the lower portion of said body, an imperforate circular hearth rotatably supported in the lower portion of the producer body, the supporting surface of said hearth being formed of a plurality of superposed circular fuel supporting platforms decreasing in diameter from the lower portion to the top of the hearth and positioned eccentrically to the axis of the hearth, the top of said hearth being positioned above the top of the annular grate and the lower portion of said hearth being positioned below the top of the annular grate.

[Claims 6 to 19 not printed in the Gazette.]

1,025,149. CUTTER-HEAD. WILLIAM F. MATTERN and JOEL D. MATTERN, Shamokin, Pa. Filed Oct. 4, 1911. Serial No. 652,868. (Cl. 144—231.)



1. A device of the class described comprising a socket provided with a transverse, tool-receiving slot; and a follower consisting of a head threaded into the socket, and a stock connected with the head for independent rotation, the stock having a flat face, alining with one edge of the slot, and being provided with an outstanding portion adapted to bind against the edge of the tool which is in the slot.

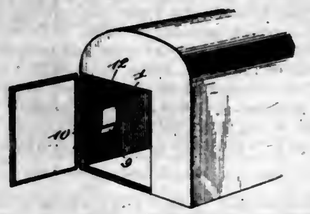
2. A device of the class described comprising a socket having a tool-receiving slot; a head threaded into the socket; and a stock adapted to engage one edge of the tool which is mounted in the slot, and to extend along one face of the tool; the rotation of the head serving to bind the stock against the tool, and to advance one end of the stock beyond the socket, to afford a connection between the socket and a rotating element, and means for connecting the head and the stock for independent rotation.

3. A device of the class described comprising a socket having a transverse slot for the reception of a tool; a head threaded into the interior of the socket: a stock connected with the head for independent rotation, and adapted to bear against the tool which is within the slot; the stock having a polygonal portion, adapted to extend beyond one end of the socket, to engage with a rotating element; there being an axial opening through the stock and through the head, to receive a driving spindle.

4. A device of the class described comprising a connection having a transverse slot in one end; a socket having a tool-receiving opening; a head threaded into the socket; a stock connected with the head for independent rotation, and adapted to bind against the tool which is within the opening, the stock having a polygonal portion adapted to register against rotation in the slot of the connection; there being communicating openings through the connection, through the stock, and through the head, adapted to receive the spindle of a driving tool.

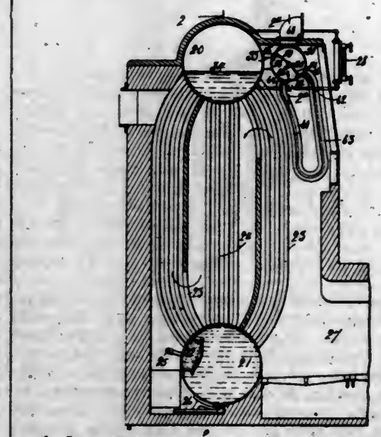
1,025,150. COIN-HOLDER FOR RURAL MAIL-BOXES. GRANVILLE J. MILLER, Fort Defiance, Va. Filed Nov. 22, 1911. Serial No. 661,785. (Cl. 133—14.)

In a device of the character described, the combination of a receptacle comprising two pivotally connected sections, flanges formed on the side edges of said sections, ears formed on said flanges, a pivot rod having its ends mounted in said ears and connecting said sections, said sections being bent slightly inwardly at their lower ends to normally close the same, a coil spring mounted on said pivot rod, having its ends engaging each opposite section on the inner wall to force the lower sections together and normally retain the lower end of said receptacle in a normally closed position, and pressure exerted upon the



upper ends of said sections contracting said spring and opening the lower end of said receptacle.

1,025,151. SUPERHEATER. JOHN MILNE, New York, N. Y. Filed Jan. 19, 1910. Serial No. 538,850. (Cl. 122—16.)



1. In a steam superheater the combination of a drum, a stationary partition in said drum, steam superheating tubes with one end of each extending from the drum on one side of said partition and the other end of each tube connected to the drum on the other side of said partition, a movable partition in said drum coacting with the stationary partition, an inlet for steam connected to the drum, means to locate the movable partition above said inlet to divide the drum into an inlet chamber for one of the ends of each tube and into an outlet chamber for the other end of each tube, means to superheat the steam in the tubes, and means to conduct the steam from the said outlet chamber.

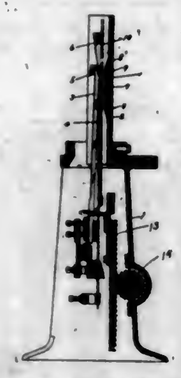
2. In a superheater the combination of a drum, a stationary partition extending part away from the inner surface of the drum, a movable partition in the drum coacting with the stationary partition to divide the drum into an inlet chamber and an outlet chamber, tubes outside of the drum with the ends of each connecting the chambers and means to locate the movable partition between the ends of each of said tubes.

3. The combination of a steam superheater drum, a partition in said drum, superheating tubes connected with said drum with one end of each tube extending from said drum on one side of said partition, and the other end of each tube connected to the drum on the other side of the partition, a steam generating drum adjacent to the superheated drum, and connections between the two drums, so that by varying the level of the water in the steam generating drum, steam or water will be delivered to the steam superheater drum for the formation of either superheated or saturated steam.

4. In a steam superheater the combination of a drum, heads for the drum, means to connect said drum with a

steam supply, an outlet for steam connected to the drum, a hinge rod journaled in said drum with one end thereof extending through one of said heads, a stationary partition extending between the hinge rod and the inner surface of the drum, a movable partition with one end fastened to the hinge rod and the other end extending to the inner surface of the drum, steam superheating tubes with one end of each connected to the drum on one side of the stationary partition and the other end of each connected to the drum on the other side of the stationary partition, and means to turn the hinge rod with its movable partition.

1,025,152. OIL-GROOVE-CUTTING ATTACHMENT FOR KEY-SEATING MACHINES. PHILIP S. MITTS, Saginaw, Mich. Filed Sept. 16, 1911. Serial No. 649,769. (Cl. 90—47.)



1. In combination with a key-seating machine having a vertically movable cutting tool, a vertical post adjacent said tool, and means for actuating said tool lengthwise said post, and for feeding it progressively into the work, means for projecting said tool forward during the middle portion of its cutting stroke, said means comprising a plate formed with tapered ends and removably mounted on the face of said post and at the rear of the middle portion of the travel of the cutting tool, and a projecting member located between the cutting tool and said plate, and adapted to travel wih the cutting tool, said projecting member adapted to engage the working face of said plate.

2. In combination with a key-seating machine having a vertically movable cutting tool, a vertical post adjacent said tool, and means for actuating said tool and for feeding it progressively into the work; independent means for projecting said tool forward during the middle portion of its cutting stroke, said means comprising a cam plate removably secured to the face of said post, and a vertically movable backing bar located at the rear of said cutting tool and having a rearward projection slidingly engaging the face of said cam plate.

3. In a key-seating machine, the combination with a vertically movable tool-carrying bar and a vertically movable feeding wedge bar having a wedge at its upper end, and means for actuating said bars, of a stationary vertical post, a cam plate removably secured to said post adjacent said tool, a vertically movable backing bar secured to said tool-carrying bar, said backing bar formed with a projection adapted to engage said cam plate during a portion only of the vertical travel of said backing bar.

1,025,153. CENTRIFUGAL OIL-BURNER. THOMAS MORRIN, San Francisco, Cal. Filed Feb. 13, 1911. Serial No. 608,206. Cl. 158—77.)

1. The combination of a cylindrical wall, an oil pipe leading to the interior thereof, a rotatable hollow head within said wall provided with a helical rib fitting snugly within said wall and adapted to rotate past the inlet opening for the oil, means for conducting air into the interior of said hollow head, said hollow head being at the end remote from the part at which the air enters, closed except for small apertures directed obliquely outward, and means for rotating said head.



2. The combination of a cylindrical wall, an oil pipe leading to the interior thereof, a rotatable hollow head within said wall provided with a helical rib fitting snugly within said casing and adapted to rotate past the inlet opening for the oil, means for conducting air into the interior of said hollow head, said hollow head being formed, at the end remote from the part at which the air enters, with openings directed obliquely outward, the corresponding end of the wall having an inner surface flaring outward at substantially the same angle as said openings, and means for rotating said head.

3. The combination of a cylindrical wall, a head rotatable therein, provided with helical ribs fitting snugly within said wall, means for conducting oil to the space between said head and wall, a casing surrounding the wall and spaced therefrom, and means for conducting air to said space between said casing and wall, the casing being formed with an annular flange directed obliquely inward, and the corresponding end of the wall being formed with a surface directed obliquely outward.

4. The combination of a cylindrical wall, one end of which is formed with an outwardly flaring inner surface, and an inwardly converging outer surface, a casing surrounding the wall and spaced therefrom, formed at the corresponding end with an inwardly converging inner surface, means for conducting air between the wall and casing, a head rotatable in said wall, and provided with helical ribs fitting snugly within said wall, means for conducting oil to the space between said head and wall, said head being formed at the end corresponding to the aforesaid ends with openings directed obliquely outward.

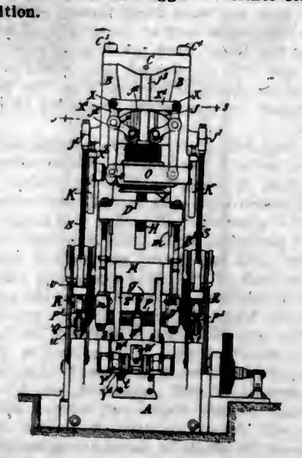
5. The combination of a casing and an inner wall spaced from each other to form an annular air passage, a rotatable hollow head within the wall and longitudinally adjustable therein provided with helical ribs fitting snugly therein, means for conducting oil to the space between said head and wall, means for conducting air to the interior of said head and to said annular passage, said wall and casing being formed to provide a discharge end for said passage directed obliquely inward, said hollow head being formed at the end corresponding with the said end of said passage with an annular series of outlets directed obliquely outward, and means for securing said head in said wall.

[Claim 6 not printed in the Gazette.]

1,025,154. DRAWING-PRESS. FREDERICK OATON, Glendale, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Dec. 9, 1911. Serial No. 664,723. (Cl. 113—46.)

1. In a double-drawing press comprising a fixed frame, a blank-holder carried thereby, a movable bed carrying first and second blank-holding and drawing dies, a hollow first drawing and blank-holding punch, a second drawing punch, a reciprocating head carrying the latter, and a reciprocating slide carrying the former punch; means for moving said slide from said head comprising toggles connecting said frame and slide, an operating link, and a connection between said link and head carried by the head and adapted to vary the effective length of the link during its oscillation to impart the blank-holding dwell to said slide, to thereby diminish the throw of the toggles to either side of their alined position.

2. In a double-drawing press comprising a fixed frame, a blank-holder carried thereby, a movable bed carrying first and second blank-holding and drawing dies, a hollow first drawing and blank-holding punch, a second drawing punch, a reciprocating slide carrying the former punch; a reciprocating head carrying the latter, means for moving said slide from said head comprising toggles connecting said frame and slide, an operating link, and an oscillatory connection between said link and head adapted to vary the effective length of the link during its oscillation to impart the blank-holding dwell to said slide, to thereby diminish the throw of the toggles to either side of their alined position.



3. In a double-drawing press comprising a fixed frame, a blank-holder carried thereby, a movable bed carrying first and second blank-holding and drawing dies, a hollow first drawing and blank-holding punch, a second drawing punch, a reciprocating head carrying the latter, and a reciprocating slide carrying the former punch; means for moving said slide from said head comprising toggles connecting said frame and slide, an operating link, and an eccentric connecting said link and head, adapted to vary the effective length of the link during its oscillation to impart the blank-holding dwell to said slide, to thereby diminish the throw of the toggles to either side of their alined positions.

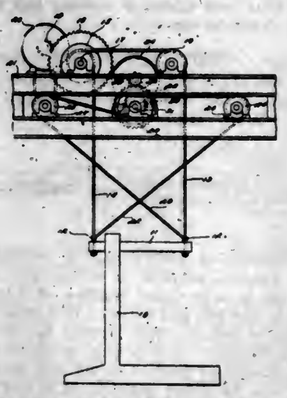
4. A two-step drawing press having an outer punch, an inner punch, a reciprocating head operating said inner punch directly and toggle mechanism for operating the outer punch from said head, an operating link connected to said toggle mechanism and said head, and means for varying the effective length of said link with the reciprocation of said head, carried by said head whereby said outer punch after its drawing operation acts as a blank-holder for the inner punch and has a dwell on the work during the operation of the inner punch.

5. A two-step drawing press having an outer punch, an inner punch, a reciprocating head operating said inner punch directly and toggle mechanism for operating the outer punch, an operating link connected to said toggle mechanism and said head, and means for varying the effective length of said link with the reciprocation of said head, comprising an oscillating support upon said head, a crank connection therefrom to said link, and means for oscillating said support as the cross-head reciprocates.

[Claims 6 to 11 not printed in the Gazette.]

1,025,155. HOISTING MECHANISM FOR BRICK-SETTERS AND THE LIKE. RAYMOND C. PENFIELD, New York, N. Y. Filed June 8, 1911. Serial No. 632,055. (Cl. 212—14.)

1. An apparatus of the kind described, comprising a carrier having flexible means for suspending and vertically adjusting the same, and other flexible means arranged to steady said carrier from sidewise movement in all positions of vertical adjustment thereof, said steadying means being held taut and extending transversely from said carrier to a fixed support.



2. An apparatus of the kind described, comprising a carrier, flexible means for supporting and vertically adjusting the same, and flexible means automatically operative in different positions of vertical adjustment of said carrier to steady the same from sidewise movement, said steadying means being held taut and extending transversely from said carrier to a fixed support.

3. An apparatus of the kind described, comprising a carrier having flexible means for suspending and vertically adjusting the same, and other flexible means engaging said carrier at separated points and having means to exert a lateral and upward pull at said points in different positions of vertical adjustment of the carrier to steady the same, said steadying means extending transversely from said carrier to a fixed support.

4. An apparatus of the kind described, comprising a carrier, means for suspending and vertically adjusting the same, and flexible means automatically operative on said carrier at separated points to exert an upward and lateral pull in opposite directions to steady thesame from lateral movement, said steadying means extending transversely from said carrier to a fixed support.

5. An apparatus of the kind described, comprising a carrier, flexible means for supporting and vertically adjusting the same, stay ropes engaged with said carrier at separated points extending laterally therefrom to a fixed support, and a normally energized motor having connections to keep said stay ropes taut and hold said carrier from lateral movement, said ropes being arranged for mutual counter-balancing on the carrier of lateral pulls transmitted thereby.

[Claims 6 to 9 not printed in the Gazette.]

1,025,156. DRESSING-COMB. RUTH L. POTTER, Chicago, Ill. Filed July 30, 1909. Serial No. 510,446. (Cl. 132—3.)



A comb embodying a handle and a body having teeth projecting from both sides thereof in the same plane and

with the points in alinement, the handle being straight and the body of involute form with the minor curve at the end opposite the handle, the body being gradually thickened from the handle outward to reinforce the outer end of the body and stiffen it against any tendency of yielding too freely in use.

1,025,157. BAG-JAW FASTENER. ROBERT L. PRAHAR, Massapequa, N. Y. Filed Feb. 26, 1912. Serial No. 679,812. (Cl. 70—116.)



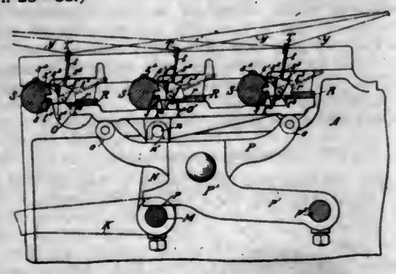
1. The combination with a pair of pivoted jaws and projections thereon adapted to spring past each other and retain the jaws in closed position, of a locking member carried by one jaw and movable to a position between said members to prevent their relative movement.

2. The combination with a pair of pivoted jaws and projections thereon adapted to spring past each other and retain the jaws in closed position, of a locking member pivoted to one jaw and movable to a position between said members to prevent their relative movement.

3. In combination two movable members having projections thereon, the terminal portions of which are adapted to spring past each other to retain said members in a predetermined position, a locking device pivoted to one of said members, and having a bar portion movable to a position between said terminal portions at an angle to their lines of movement in springing past each other to prevent relative movement of said terminal portions and means for preventing the movement of said bar portion in one direction past said position.

4. The combination with a pair of pivoted jaws of projections thereon having balls or knobs adapted to spring past each other and retain the jaws in closed position, one of said balls or knobs having a recess therein and a locking bar movable to a position within said recess to prevent the relative movement of said balls or knobs.

1,025,158. STOP-MOTION FOR WARPING-MACHINES. FESTUS S. RAND, Providence, R. I., assignor to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed Mar. 30, 1910. Serial No. 552,425. (Cl. 28—31.)



1. In a warping-machine, the combination with the driving means, of stopping mechanism to arrest the operation of said means, knock-off devices to cause the operation of the stopping mechanism, a grid member having transverse bars and supported to reciprocate in a horizontal plane, means to normally reciprocate said grid, a plurality of drop-wires supported by the yarns in upright positions above the grid member, said drop-wires comprising pivoted hinge-blocks formed with detent shoulders closely adjacent the pivot points of the blocks and adapted to fall to engage the bars of the grid member at right-angles to the horizontal plane of the latter and in line with the pivot points of the blocks, and means to actuate the knock-off devices when the grid is held from reciprocation by the engagement therewith of a drop-wire.

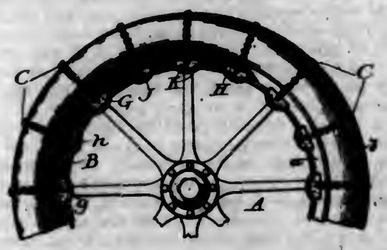
2. In a warping-machine, the combination with the driving means, of stopping mechanism to arrest the operation of said means, knock-off devices to cause the operation of the stopping mechanism, a feeler mechanism comprising a grid having horizontal bars, means to normally reciprocate said grid in a horizontal plane during the operation of the machine, a plurality of tilting drop-wires arranged above the grid and normally supported by the yarns in substantially vertical positions, said drop-wires consisting of hinge-blocks with wires projecting from their ends and each block formed with a shoulder adapted to engage the bars of the grid at right angles to the plane of the latter when the drop-wire moves through an arc of less than 60 degrees, and means to cause the operation of the knock-off devices when the grid is held from movement by engagement therewith of one of the drop-wires.

3. In a stop-motion device for warping-machines, the combination with a horizontally reciprocating grid, of horizontal rods S, hinge-members t^3 slidable along said rods and provided with slots t^6, and drop-wires T having hinge-blocks t' pivoted in said slots, said hinge-blocks having wires t projecting from their ends and formed with loops for the yarn and detent shoulders t^5 formed at an angle to the ends of the hinge-blocks and adapted to be carried into a vertical position to engage the grid at right-angles thereto when the drop-wires are tilted from the perpendicular through an arc of less than 60 degrees.

4. The combination with a hinge-member t^3 having a plurality of slots t^7, of drop-wires T comprising hinge-blocks t' pivoted in said slots with wires t projecting from the ends of said blocks and formed with loops at their ends, and detent shoulders t^5 formed at an angle to the ends of the hingle-blocks and adapted to be carried into a vertical position when the drop-wire is tilted from the perpendicular through an arc of less than 60 degrees.

5. In a drop-wire for stop-motion devices, the combination with a block t', of a wire t formed with a loop at one end for engaging the yarn and having its opposite end driven into the end of the block, and a detent shoulder t^5 formed at such an angle to the end of the block that when the drop-wire is tilted from the perpendicular through an arc of less than 60 degrees said shoulder is carried into a vertical position.

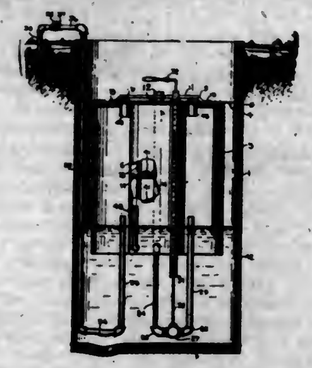
1,025,159. CHAIN-GUARD FOR VEHICLE-WHEELS. CONNESS T. RAYMOND, Chicago, Ill., assignor of one-half to John W. Pax, Chicago, Ill. Filed Jan. 18, 1909. Serial No. 472,834. (Cl. 152—14.)



1. A chain-guard for the tires of vehicles comprising parallel retaining cables, coupling-plates having knuckles along one side through which said cables are threaded, said knuckles being so arranged that said cables are threaded in a circuitous path, cross-chains, and removable means engaging and adapted to removably secure the ends of said chains to the sides of said plates opposite said knuckles.

2. A chain-guard for the tires of vehicles comprising parallel retaining cables, coupling plates having the edges of one longitudinal side inclined from its end toward its center of length and provided with knuckles on each of said oppositely inclined portions, through which said cable is threaded, cross-chains, and pins engaging and adapted to removably secure the ends of said chains to the sides of said plates opposite said knuckles.

1,025,160. ACETYLENE-GENERATOR. JEROME L. RICHARDSON, Red Oak, Iowa. Filed Apr. 27, 1911. Serial No. 623,641. (Cl. 48—42.)

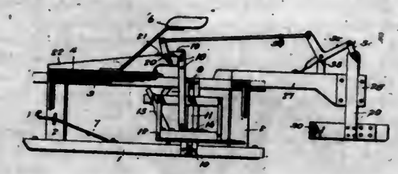


1. In an acetylene gas generator of the kind described, a carbid holder consisting of a cylindrical casing with a closed top and an open lower end, and a chamber in the lower end of said casing, a central gas tube extending through said casing, and having an open lower end, and an apertured upper end communicating with said casing, a column of perforated disks detachably mounted on said tube and spaced apart from each other, and a U-shaped tube mounted in the side of the lower end of said carbid holder with its upper end in a plane below the lower end of the column of perforated disks, and serving to form a water seal therefor.

2. In an acetylene gas generator of the kind described, a water tank, a bell vertically movable in said water tank, a carbid holder consisting of a cylindrical casing suspended from the top of said bell, and having a central gas tube, a number of removable perforated disks mounted thereon and spaced apart from each other, a number of vertical conduits having perforations and located on the inner side of said holder and extending through said disks, a U-shaped gas pipe having one arm projecting up into the end of said pipe in the carbid holder and at its other end opening into said carbid holder, a valve located between said arms in said pipe, and an operating rod connected with said valve and projecting through the top of said bell.

3. In an acetylene gas generator of the kind described, a water tank, a bell vertically movable in said water tank, and having tubes depending from its top inside thereof, and an opening in its top, a carbid holder depending within said bell and detachably mounted in said opening in its top, and having a central gas tube extending from top to bottom of said holder and open at its lower end and having apertures at its upper end opening into said holder, a number of perforated disks slidably and detachably mounted on said pipe, and spaced apart from each other, tubes on said pipe located between said disks, angular perforated conduits located on the inner sides of said holder, the lower end of said holder being formed with a chamber, a cone shaped support detachably mounted on said pipe in said chamber, a U-shaped pipe mounted on one side of said chamber and serving as a water seal, a U-shaped pipe located in the lower end of said water tank and having one arm projecting into said pipe in the carbid holder and its other arm opening into the bell, a discharge pipe projecting into the lower end of said bell, a vertical pipe connected with said discharge pipe and projecting through the top of the water tank, and a pipe leading to the point of discharge connected with said vertical pipe, the vertical pipes projecting into the bell being adapted to telescope with the pipes depending from the top of the bell.

1,025,161. STUBBLE-SHAVER. REMY A. ROUSSEL, Lafourche Crossing, La. Filed July 6, 1911. Serial No. 637,167. (Cl. 55—60.)



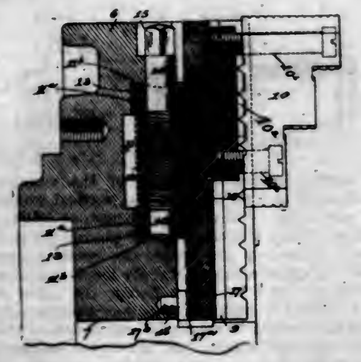
1. A stubble shaver, consisting of the runners, the frame mounted on the runners, the vertical guides carried by the frame, the rectangular shaped knife frame having the vertical strips fitting the guides of the frame, the knives carried by the frame, the brackets upon the frame, the adjustable link having its lower end connected to the bracket upon the knife frame, the upper end of said link having a series of openings therein, the rock shaft having a crank keyed to the upper end of the link, the hand lever for rocking the shaft, the vertical separator standard, the vertically movable separator carried thereby, the links pivoted to the upper end of the standard, the bell crank connected to said links, and the connection between the bell crank lever and rock shaft to cause the separator and knife frame to move in unison.

2. In a stubble shaver, the combination with a pair of runners, standards rising therefrom, recessed rails supported thereby, a platform mounted thereon, draft connections upon the runners, vertical guide strips connected to said side rails and runners, said guide strips forming with the recesses in the side rails guideways, guide strips sliding therein, a rectangular knife frame carried by said strips, knives overlapping each other secured to said frame, inclined strips secured to and protecting said knives, a bracket secured to the knife frame, an adjustable link connected at its lower end to the knife frame, a crank connected to the upper end of the link, longitudinally disposed strips carried by the platform having shaft bearings in which is mounted a shaft, said crank being secured upon said shaft, a lever having pawl and ratchet means for operating said shaft, an inclined frame mounted upon the main frame, longitudinal strips carried thereby, a guiding device formed thereon, a standard fitting in and guided by the guide device, a tapered separator secured upon the outer end of the standard, and means connecting the separator standard and the crank shaft for vertically adjusting the separator simultaneously with the knife frame.

3. In a stubble shaver, the combination with the runners, standards, recessed rails and platform, of vertical guide strips connected to said side rails and runners, said guide strips forming with the recesses in the side rails guideways, guide strips sliding in the guideways, a rectangular knife frame carried by the strips, knives overlapping each other secured to the frame, inclined strips secured to and protecting said knives, a bracket secured to the knife frame, an adjustable link connected at its lower end to the knife frame, a crank connected to the upper end of the link, longitudinally disposed strips carried by the platform having shaft bearings in which is mounted a shaft, said crank being secured upon said shaft, a lever having pawl and ratchet means for operating said shaft, an inclined frame mounted upon the main frame, longitudinal strips carried thereby, a guiding device formed thereon, a standard fitting in and guided by the guide device, a tapered separator secured upon the outer end of the standard, short links pivoted upon the upper end of the seperator standard, a bell crank lever fulcrumed at one end upon the longitudinally extending

stripe and having its other end connected to the short links, and a connecting rod connecting said bell crank lever and operating lever for vertically adjusting both the separator and knife frame simultaneously.

1,025,162. CHUCK. EDWARD C. SCHMELZKOPF, Madison, Wis., assignor to Gisholt Machine Company, Madison, Wis., a Corporation of Wisconsin. Filed Aug. 18, 1911. Serial No. 644,783. (Cl. 29—147.)



1. The combination with a chuck-body formed with a chamber to receive the adjusting screw of the chuck-jaw, said chamber having rounded concave end walls, of an adjusting screw in said chamber having a body portion and reduced end or neck portions, and end-thrust bearings for said adjusting screw formed with flat inner faces engaging the ends of the screw-body and rounded convex outer faces engaging the rounded concave end walls of the screw chamber, substantially as described.

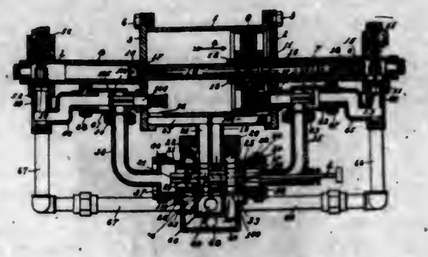
2. The combination with a chuck-body formed with a chamber to receive the adjusting screw of the chuck-jaw, said chamber having rounded concave end walls, of an adjusting screw in said chamber having a body portion and reduced end or neck portions, and end-thrust bearings for said adjusting screw formed with flat inner faces engaging the ends of the screw-body, rounded convex outer faces engaging the rounded concave end walls of the chamber, and transverse apertures receiving and forming bearings for the neck portions of the screw, substantially as described.

3. The combination with a chuck-body having a guide slot for the chuck-jaw, of a chuck-jaw slidably mounted in said slot, and a dust-excluding plug mounted on the inner end of the base of the slot and engaging the inner side of the chuck-jaw, substantially as described.

4. The combination with a chuck-body having a guide slot for the chuck-jaw, the inner end of the base of said slot being provided with a socket, of a chuck-jaw slidably mounted in said slot, and a dust-excluding plug having a stem or shank portion fitted to said socket and a head portion engaged the inner side of the chuck-jaw, substantially as described.

1,025,163. TESTING APPARATUS. FRANK SCHREIDT, Mansfield, Ohio. Filed Oct. 24, 1908. Serial No. 459,387. (Cl. 103—67.)

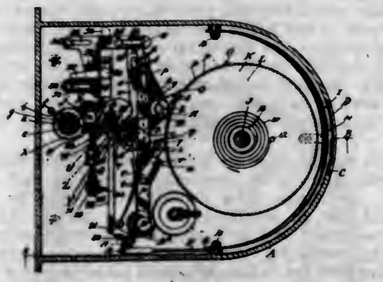
1. In a testing apparatus for valves or the like, the combination of one low and two high pressure cylinders in axial alinement with each other, a casing, a sliding piston valve having an aperture formed in the central portion thereof fitted to said casing, two valves fitted to said aperture and adapted to permit and prevent the flow of fluid under pressure through said aperture, an inlet pipe, branch pipes connected to said inlet pipe and adapted to supply the high pressure cylinders with fluid under pressure, pipes connected to said branch pipes and said casing whereby fluid under pressure is permitted to flow into the casing to operate the sliding piston valve, valves and valve operating mechanism fitted to the pipes and adapted to control the fluid passing from the branch pipes to the casing for the purpose described.



2. In a testing apparatus, a low pressure cylinder, two high pressure cylinders, pistons fitted to said cylinders, a valve casing, a sliding valve fitted to reciprocate in said casing, and provided with two small valves fitted to each end thereof, said casing also having ports leading into each end of the low pressure cylinder, spring controlled valves secured to each end of the low pressure cylinder, an inlet pipe, branch pipes connected to said inlet pipe, elbow pipes connected to said branch pipes and each end of the low pressure cylinder, valves fitted within said elbow fittings and operated by the low pressure piston to permit live water to operate the sliding valve.

3. In an automatic testing apparatus for valves or the like, the combination of two high and one low pressure cylinder connected in axial alinement with each other, pistons fitted to reciprocate therein, an inlet supply pipe, branch pipes connected to said inlet pipe, elbow fittings connected to the high pressure cylinders and the branch pipes, a casing attached to the low pressure cylinder, a sliding piston valve fitted to said casing and adapted to alternately permit an inflow of fluid to each end of the low pressure cylinder, valves fitted to apertures in each end of said sliding piston valve and valves to regulate the flow of fluid through said fittings and pipes.

1,025,164. SPEED-INDICATOR. LOUIS E. SHAW, New York, N. Y. Filed June 28, 1907. Serial No. 381,191. (Cl. 235—104.)



1. In a speed indicator, the combination of a pair of pointers and members bearing scales, actuating means connected to impart relative movement to each scale member and its pointer through a distance corresponding to the average speed at which a moving vehicle is traveling, and controlling means connected to alternately arrest the relative movement of each scale member and its pointer and restore the members to zero reading at the end of a given time.

2. In a speed indicator the combination of a pair of speed indicating devices comprising scales and pointer, means for shielding and exposing them alternately to view, means for alternately setting them while hidden to the speed to be indicated and means for arresting them alternately when set.

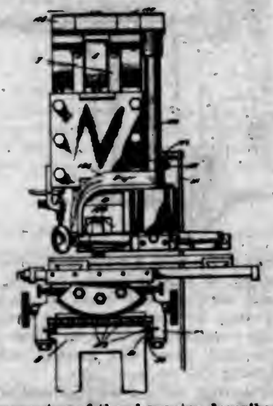
3. In a speed indicator, the combination of a source of power, driving means connected to be operated thereby at a constant rate of speed, controlling means under constant rotative stress arranged to be released at given intervals of time by the operation of said driving means, a pair of pointers and members bearing scales, actuating means for said scale members adapted to be connected to the rotating part of a moving vehicle and arranged to be controlled by the driving means, and a shield arranged to swing back and forth over said scale members, and connected to be actuated by the controlling means.

4. In a speed indicator, the combination of a main shaft adapted to be connected to the rotating part of a moving vehicle, operating bars eccentrically journaled on said shaft and provided with spring pressed operating pawls, toothed disks adapted to be engaged by said pawls when in operating position, bell-crank levers having one end in engagement with the outer ends of the operating bars, and provided with stop pawls adapted to engage the toothed disks, cams bearing on the other ends of the bell crank levers, mechanism controlling the intermittent operation of said cams to rock the bell-crank levers, members bearing scales connected to said toothed disks and pointers coöperating with said scale members.

5. In a speed indicator, the combination of a driving shaft under constant stress tending to rotate it at the rate of one revolution per minute, a slotted disk carried by said driving shaft, a toothed disk under constant stress tending to rotate it and controlled in its intermittent rotation by the slotted disk, cams connected to move with the toothed disk, levers and stop pawls thereon controlled by said cams, toothed disks controlled by said stop pawls, operating bars controlled by said levers, pawls on the operating bars for actuating the toothed disks, means for actuating the operating bars from a rotating part of a moving vehicle, and pointers and members bearing scales having relative movement due to the movement of the toothed disks.

[Claims 6 to 12 not printed in the Gazette.]

1,025,165. TRANSFER-PRESS. BURGESS W. SMITH, Washington, D. C., assignor to John R. Hill, Washington, D. C. Filed Oct. 14, 1909. Serial No. 522,578. Renewed Oct. 7, 1911. Serial No. 653,398. (Cl. 201—5.)



1. In an apparatus of the character described, the combination of a primary surface provided with a series of characters, a support for a secondary surface, means for impressing the desired characters in the secondary surface, a movable bed carrying said support, and yielding means for normally maintaining said bed in central position, substantially as described.

2. In an apparatus of the character described, the combination of a primary surface provided with a series of characters, a support for a secondary surface, means for impressing the desired characters in the secondary surface, a movable bed carrying said support, means for adjusting said support on said bed to produce the required arrangement of such impressions in the secondary surface, and yielding means for normally maintaining said bed in central position, substantially as described.

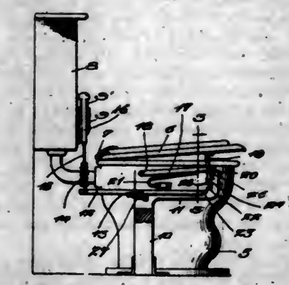
3. In an apparatus of the character described, the combination of a primary surface provided with a series of characters, a support for a secondary surface, a movable bed carrying said support, means for moving said bed, and means for automatically returning said bed to its normal central position, substantially as described.

4. In an apparatus of the character described, the combination of a primary surface provided with a series of characters, a support for a secondary surface, a movable bed carrying said support, means for impressing the desired characters in the secondary surface, means for moving said bed during such impression, and means for returning said bed automatically to its normal position upon completion of such impression, substantially as described.

5. In an apparatus of the character described, the combination of a swinging support, a primary surface adjustably mounted in said support and provided with a series of characters, a support for a secondary surface, means for impressing the desired characters in the secondary surface, and means for shifting said swinging support accurately to its central position, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,025,166. FLUSHING APPARATUS. CHRISTIAN S. SPARLING, Moline, Ill. Filed Mar. 2, 1912. Serial No. 681,023. (Cl. 4—18.)

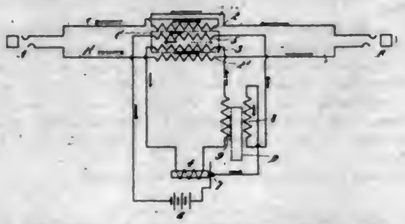


1. The combination with a bowl having a hinged seat and a flushing tank provided with a valve, of a standard arranged adjacent to the bowl, a horizontally disposed bar pivotally mounted in said standard and yieldingly held in its horizontal position, means connected to one end of said bar to actuate the tank valve and open the same, a spring pressed pivoted member mounted at one end in the standard, a trip member pivotally mounted in the free end of said spring pressed member, said trip member having a flange on one end, said horizontal bar being provided with a shoulder on one end with which the flange of the tip member coöperates, the upper end of said trip member engaging the seat and normally supporting the same in an elevated position, and means co-acting with means on the trip member to engage the flange of the trip member with the shoulder of said bar when the trip member is forced downwardly by pressure upon the seat whereby said horizontal bar is moved to open the valve when pressure on the seat is removed.

2. The combination with a bowl having a hinged seat and a flushing tank provided with a valve, of a standard having spaced parallel portions at its upper end, a bar pivotally mounted intermediate of its ends between the spaced portions of the standard, a spring engaging said bar to hold the same against pivotal movement in one direction and maintain the bar normally in a horizontal position, connecting means between one end of said bar and the tank valve, a member pivotally mounted at one of its ends between the parallel portions of the stand-

ard, a spring yieldingly holding said member against pivotal movement, a trip member pivotally mounted in the forward end of said pivoted member for movement independently thereof, one end of said trip member engaging the seat to support the same in an elevated position, the other end of said trip member being provided with a flange to coöperate with the end of said horizontal bar and also having a shoulder formed on one edge, and a pin with which said shoulder is adapted to engage whereby the flange of the trip member is engaged with the bar upon the depression of the seat, and said bar moved to open the tank valve when pressure upon the seat is released and the same is returned to its normal position.

1,025,167. TELEPHONE REPEATER SYSTEM. HENRY B. STONE, Providence, R. I. Filed Jan. 15, 1909. Serial No. 472,449. (Cl. 179—170.)



1. A telephone repeater system comprising a main line, a receiving circuit including a receiver, and a transmitting circuit including a transmitter and a source of electrical energy; a main repeating coil having its primary windings connected in series with the two sides of said main line, respectively, and arranged to act cumulatively on said receiving circuit, said repeating coil having its secondary windings connected in series with said transmittng and receiving circuits, respectively; and an auxiliary repeating coil having its primary winding connected in series with said transmitting circuit and its secondary winding connected in series with said receiving circuit; the said main repeating coil being arranged to weaken the current developed by said transmitting circuit in said receiving circuit and said auxiliary repeating coil being arranged to strengthen the current developed by the main line in said receiving circuit.

2. A telephone repeater system comprising a main line, a receiving circuit including a receiver, and a transmitting circuit including a transmitter and a source of electrical energy; a main repeating coil having its primary windings connected in series with the two sides of said main line, respectively, and arranged to act cumulatively on said receiving circuit, said repeating coil having its secondary windings connected in series with said transmitting and receiving circuits respectively; and an auxiliary repeating coil having its primary windings connected in series with said transmitting circuit and its secondary winding connected in series with its receiving circuit; the said main repeating coil being so arranged that the current developed by said transmitting circuit in said receiving circuit is opposed to the current developed therein by the main line and said auxiliary repeating coil being so arranged that the current developed by said auxiliary repeating coil in said receiving circuit is in the same direction as that developed therein by said main line.

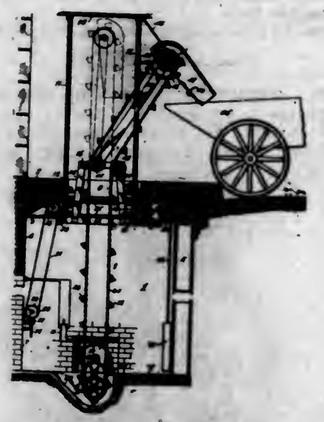
3. A telephone repeater system comprising a main line, a receiving circuit including a receiver, and a transmitting circuit including a transmitter and a source of electrical energy; a main repeating coil having its primary windings connected in series with the two sides of said main line, respectively, and arranged to act cumulatively on said receiving circuit, said repeating coil having its secondary windings connected in series with said transmitting and receiving circuits, respectively; and an auxiliary repeating coil having its primary winding connected in series with said transmitting circuit and its secondary winding connected in series with said receiving circuit; the said main repeating coil being arranged to weaken the current developed by said transmitting circuit in said receiving circuit.

4. A telephone repeater system comprising a main line, a receiving circuit including a receiver, and a transmitting circuit including a transmitter and a source of electrical energy; a main repeating coil having its primary windings connected in series with the two sides of said main line, respectively, and arranged to act cumulatively on said receiving circuit, said repeating coil having its secondary windings connected in series with said transmitting and receiving circuits, respectively; and an auxiliary repeating coil having its primary winding connected in series with said transmitting circuit and its secondary winding connected in series with said receiving circuit; the said main repeating coil being so arranged that the current developed by said transmitting circuit in said receiving circuit is opposed to the current developed therein by the main line.

5. A telephone repeater system comprising a main line provided with terminal stations, intermediate repeating apparatus including a receiving circuit and a transmitting circuit and having its main circuit elements connected in series with said stations, and an auxiliary repeating coil inductively connecting said transmitting and receiving circuits, said auxiliary repeating coil beng arranged to strengthen the current developed by the main line in said receiving circuit.

[Claims 6 and 7 not printed in the Gazette.]

1,025,168. SIDEWALK ENDLESS ASH-CONVEYER. AUGUST SUNDH, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 16, 1907. Serial No. 388,814. (Cl. 198—3.)



1. The combination with a walk provided with an opening therethrough, of a cover for the opening, a vertically movable frame carrying said cover, a compartment beneath the opening, an endless conveyer having its lower portion in the compartment and its upper portion supported within said frame and movable therewith, and means for driving the conveyer.

2. The combination with a walk formed with an opening therethrough, a cover for the opening, and a compartment beneath the opening, of an endless conveyer having its lower portion in the compartment, a support for the conveyer connected to and carrying the cover and supporting the upper portion of the conveyer above the walk when the cover is open and below the walk when the cover is closed.

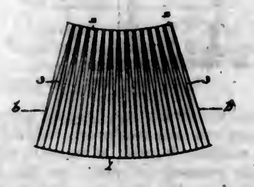
3. The combination with a walk provided with an opening therethrough, a cover for the opening, and a compartment beneath the walk, of vertical members beneath and supporting the cover, a supporting frame carried by said members, and an endless conveyer supported by the frame and extending above the opening when the cover is lifted to an open position.

4. The combination with a walk provided with an opening therethrough, and a compartment beneath the walk, of an endless conveyer in the compartment, a support for the conveyer vertically movable endwise into positions to hold the upper portion of the conveyer above and below the walk, respectively, a cover for said opening movable with said support and means for driving the conveyer.

5. The combination with a walk provided with an opening therethrough, and a compartment beneath the walk, of a cover for the opening, vertically depending rods connected to the under surface of the cover, a frame carried by said rods, an endless conveyer supported by the frame and extending above the walk when the cover is lifted and carried beneath the surface of the walk when the cover is lowered, and means for driving the conveyer.

[Claims 6 to 13 not printed in the Gazette.]

1,025,169. DIAL FOR KNITTING-MACHINES. HARRY SWINGLEHURST, Philadelphia, Pa., assignor, by mesne assignments, to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed Nov. 16, 1909. Serial No. 528,313. (Cl. 66—22.)



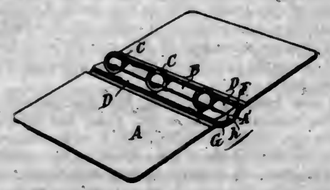
1. A knitting machine dial having formed therein radial parallel-sided slots for the reception of similarly shaped rib-forming strips, those portions of the strips which project above the face of the dial being tapered so as to form parallel-sided radial groves for the guidance of the needles.

2. A knitting machine dial having formed therein radial parallel-sided slots for the reception of similarly shaped rib-forming strips, those portions of the strips which project above the face of the dial being tapered on each side so as to form parallel-sided radial grooves for the guidance of the needles.

3. A rib-forming strip for a knitting machine needle dial, said strip having a lower parallel-sided member for application to the dial and an upper tapering member for the guidance of the needles.

4. A rib-forming strip for a knitting machine needle dial, said strip having a lower parallel-sided member for application to the dial and an upper tapering member recessed on each side for the guidance of the needles.

1,025,170. LOOSE-LEAF BINDER. CLARENCE D. TRUSSELL, Poughkeepsie, N. Y., assignor to Trussell Manufacturing Company, Poughkeepsie, N. Y., a Corporation of New York. Filed June 1, 1911. Serial No. 630,660. (Cl. 129—24.)



1. A ring binder comprising plates carrying the half-rings, and rigid members uniting them, against which members the plates bear outwardly at their outer edges, the plates having reciprocal rocking bearings at points longitudinally non-coincident with their points of contact with such members, and elsewhere separated along their inner edges, and the plate sufficiently resilient to yield by lateral distortion in their respective planes to the strains encountered in moving between the open and closed positions of said rings.

2. A ring binder comprising plates carrying the half-rings, the latter having reciprocal rocking bearings, and rigid yokes non-coincident with such half rings uniting the plates, and against which the plates bear outwardly at their outer edges, the plates separated along their inner edges, and sufficiently resilient to yield by lateral distortion in their respective planes to the strains encountered in moving between the open and closed positions of said rings.

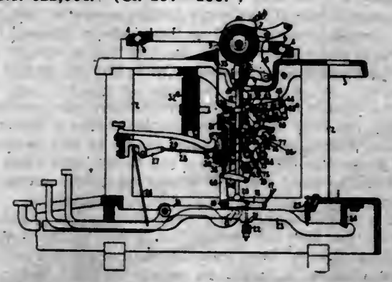
3. A ring binder comprising plates carrying the half-rings, and rigid yokes uniting them, against which yokes the plates bear outwardly at their outer edges, the plates notched at their outer edges to receive said yokes, and having reciprocal rocking bearings at points non-coincident with such yokes, and elsewhere separated along their inner edges, and the plates sufficiently resilient to yield by lateral distortion in their respective planes to the strains encountered in moving between the open and closed positions of said rings.

4. A ring binder comprising plates carrying the half-rings, and rigid yokes uniting them, against which yokes the plates bear outwardly at their outer edges, the plates having reciprocal rocking bearings at points non-coincident with such yokes, and elsewhere separated along their inner edges, and the plates sufficiently resilient to yield by lateral distortion in their respective planes to the strains encountered in moving between the open and closed positions of said rings, and an outer sheath embracing the plates and yokes.

5. A ring binder comprising plates carrying the half-rings, and rigid yokes uniting them, against which yokes the plates bear outwardly at their outer edges, the plates having reciprocal rocking bearings at points non-coincident with such yokes, and elsewhere separated along their inner edges, and the plates sufficiently resilient to yield by lateral distortion in their respective planes to the strains encountered in moving between the open and closed positions of said rings, an outer sheath engaging the plates and yokes, and a cover attached to said sheath.

[Claims 6 to 8 not printed in the Gazette.]

1,025,171. TYPE-WRITING MACHINE. JOHN WALDHEIM, Newark, N. J., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Apr. 22, 1911. Serial No. 622,664. (Cl. 197—155.)



1. Ribbon vibrating mechanism for a typewriting machine comprising toggle devices provided with a plurality of anchorages and means for at will changing from one anchorage to another to vary the vibration of the ribbon.

2. In a typewriting machine, the combination of a ribbon vibrator, and actuating devices therefor including toggle devices provided with a plurality of anchorages and means for at will changing from one anchorage to another to vary the vibration of the ribbon.

3. In a typewriting machine, the combination of a ribbon vibrator, and actuating devices therefor including a

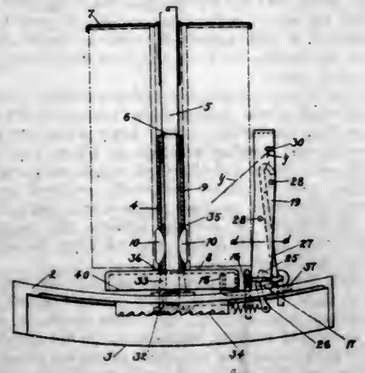
toggle, said toggle being normally broken and being operative when straightened to move the vibrator to present the ribbon in the path of the types.

4. In a typewriting machine, the combination of a ribbon vibrator, an operating lever, and devices for actuating said lever comprising toggle devices provided with a plurality of anchorages and means for at will changing from one anchorage to another to vary the vibration of the ribbon.

5. In a typewriting machine, the combination of a ribbon vibrator, an operating lever directly connected thereto, a toggle directly connected to said operating lever and supporting the same, and means for actuating said toggle at printing operation.

[Claims 6 to 30 not printed in the Gazette.]

1,025,172. BRAIDING-MACHINE CARRIER. SIMON W. WARDWELL, Providence, R. I. Filed May 3, 1909. Serial No. 493,719. (Cl. 28—4.)



1. In a tension device for braider carriers, the combination with a cop holder having a cupped base and teeth in the interior surface if the rim of said base, of a spring actuated pawl to engage said teeth, a resiliently yielding yarn finger acted upon by the yarn delivered by the cop holder and means intermediate the yarn finger and pawl whereby the latter is caused to engage or disengage the cop holder, with varying tension of said yarn.

2. In a tension device for a braider carrier, the combination with a cop holder having a cupped base and teeth in the interior of the rim of said base, of a pawl to engage said teeth, a resiliently resisting yarn finger acted upon by the yarn delivered by the cop holder, means to vary the degree of said resistance and an intermediary between the yarn finger and pawl whereby the latter is caused to engage or disengage the cop holder, with varying tension of said yarn.

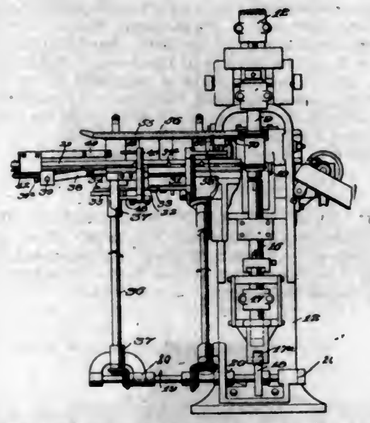
3. In a tension device for braider carriers, the combination with the body of a braider carrier having a hub and a bearing, a pawl with a trunnion seated in said bearing, a stud secured to the hub and a cop holder with teeth to coact with the pawl, the base of said cop holder acting as a retainer to hold the pawl trunnion in its bearing.

4. In a tension device for braider carriers, the combination with the body of the carrier, a cop holder having teeth and a pawl to coact with the teeth of the cop holder, of a yarn finger, a rocker on which the yarn finger is mounted, said rocker having an arm 26, a spring connected with said arm, and a swinging arm 32 to which the spring is anchored, which arm can be secured in different positions by notches in the retainer 34 on the deck of the carrier.

5. In a tension device for braider carriers, the combination with the body of the carrier, a cop holder having a cupped base and teeth within the base, and a pawl extending within the base and engaging said teeth, of an arched standard having guide pins, a rocker secured in position by the arch and having a crank within the arch, a yarn finger in said arch, sustained in vertical position by the guide pins and means to vary the intensity of resistance to movement of the yarn finger.

[Claims 6 to 8 not printed in the Gazette.]

1,025,173. CAN-HEADING MACHINE. FRED WEGNER, Fairport, N. Y. Filed June 10, 1908. Serial No. 437,665. (Cl. 113—115.)



1. The combination with a can heading mechanism, of a guide for directing the cans to the can heading mechanism having guiding surfaces formed on opposite edges thereof, a slide operating beneath the guide on the guiding surfaces, jaws carried by the slide on opposite sides of the guide, mechanism for reciprocating the slide, and mechanism for swinging the jaws toward each other at one end of the reciprocating movement and away from each other at the other end of the reciprocating movement.

2. The combination with a can heading mechanism, of a guide for directing the cans to the can heading mechanism, a slide guided on the can guide and movable beneath the latter, swingingly mounted jaws arranged on the slide on opposite sides of the can guide, means arranged on the guide between the latter and the slide for effecting the swinging of the jaws, and mechanism for reciprocating the slide.

3. The combination with a can heading mechanism, of a can guide for directing the cans to the can heading mechanism, a slide guided on the can guide and movable beneath the latter, mechanism for reciprocating the slide, jaws mounted to swing on vertical axes on opposite sides of the can guide, and devices for effecting the swinging movement of the jaws, arranged between the slide and the can guide.

4. The combination with a can heading mechanism, of a can guide for directing the cans to the can heading mechanism, a slide guided below the can guide, mechanism for reciprocating the slide, a pair of vertical posts mounted to turn on the slide and arranged on opposite sides of the slide, can engaging arms carried by the upper ends of the posts, arms on the lower ends of the posts, springs acting on the last mentioned arms to move them toward each other, and devices arranged on the can guide between the latter and the slide for separating the arms on the lower ends of the posts.

5. In a can heading machine, the combination with a can heading mechanism, of a can guide for directing the cans to the can heading mechanism, a reciprocatory member having spring pressed dogs thereon, a can-engaging member carried by and reciprocating with said reciprocatory member, and mechanism for moving said can engaging member relatively to the reciprocatory member toward and from the cans on the guide during the movement of the reciprocatory member.

[Claims 6 to 17 not printed in the Gazette.]

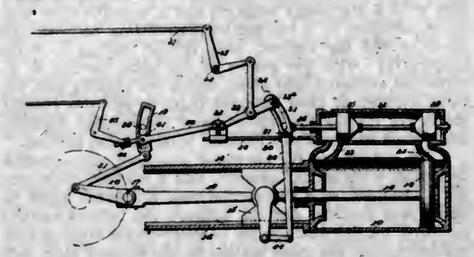
1,025,174. BLUE VAT DYESTUFF AND PROCESS OF MAKING SAME. ROBERT WELDE, Höchst-on-the-Main, and BENNO HOMOLKA, Frankfort-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Jan. 20, 1911. Serial No. 603,653. (Cl. 8—1.)

1. The process of making vat dyestuffs, which consists in causing an isatin substituted in alpha position to act upon α-oxyanthranol.

2. The vat dyestuffs hereinbefore described, being the condensation-products of α-oxyanthranol with an isatin substituted in alpha position, said dyestuffs being indigo-blue crystalline powders, insoluble in water, very little soluble in alcohol, readily soluble with a blue color in boiling xylene, phenol and nitrobenzene, also soluble with a violet color in concentrated sulfuric acid, and dissolving when treated with alkaline reducing agents, with an orange-yellow color.

3. The vat dyestuff hereinbefore described, being the condensation product of α-oxyanthranol with α-isatin anilid, said dyestuff being an indigo-blue crystalline powder, insoluble in water, very little soluble in alcohol, readily soluble with a blue color in boiling xylene, phenol and nitro-benzene, also soluble with a violet color in concentrated sulfuric acid, and dissolving when treated with alkaline reducing agents, with an orange-yellow color.

1,025,175. LEAD-CONTROLLER FOR VALVE-GEAR. RICHARD M. WIGGINS, Trenton, Mo., assignor of one-half to E. R. Sheetz, Trenton, Mo.. Filed Nov. 1, 1910. Serial No. 590,193. (Cl. 121—98.)

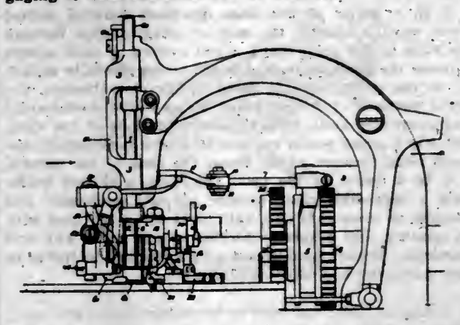


1. In a valve gear a floating lever having an open link at one end, a valve rod pivotally connected relative to said link, an outer head movable toward and away from said lever, a block slidable in the link of said lever, a radius blade pivoted respectively to said outer head and the block of said floating lever link, a reversing link swingingly supported, a block slidable in said reversing link, another radius blade pivoted to said reversing link block and to said outer head, and independent means for adjusting said radius blades.

2. In a valve gear a guide rod, an inner head slidable upon said rod, a valve rod connected to said inner head, a floating lever including an arcuate link swinging upon said inner head, means adapted to connect said lever for movement by the cross head of an engine, an outer head slidable upon said rod, a block slidable in the arcuate link of said floating lever, a radius blade pivoted respectively to said floating lever link block and to said outer head, a crank operative by the crank shaft of an engine, a reversing link, a rod pivoted respectively to said reversing link and to said crank, a block slidable in said reversing link, a radius blade pivoted respectively to said reversing link block and to said outer head, and independent means for adjusting said link blocks.

1,025,176. MACHINE FOR BORDERING FABRICS. LOUIS N. D. WILLIAMS, Ogonts, Pa., assignor, by direct and mesne assignments, to Scott & Williams, Incorporated, Camden, N. J., a Corporation of New Jersey. Filed Aug. 22, 1908. Serial No. 449,781. (Cl. 112—24.)

1. The combination, in a machine for the production of trimming for fabrics, of means for producing two separated rows of stitches, means for engaging a barring thread with one of said rows of stitches and means for forming and twisting a loop of said barring thread and engaging it with the other row of stitches.



2. The combination, in a machine for the production of trimming for fabrics, of means for producing two separated rows of stitches, and for engaging one of said rows of stitches with the fabric, means for engaging a barring thread with the row of stitches which is beyond the fabric, and means for forming and twisting a loop of said barring thread, and engaging it with the row of stitches which engages the fabric.

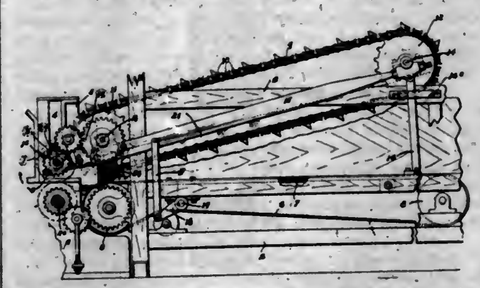
3. The combination of mechanism for producing two separated rows of stitches, a guide for engaging a barring thread with one of said rows of stitches, a hook for drawing a loop of said thread into position for engagement with the other row of stitches, and means for rotating said hook so as to twist the loop between its points of connection with the two rows of stitches.

4. The combination of means for producing two separated rows of stitches, a guide for engaging a barring thread with one of said rows of stitches, a hook for engaging said barring thread, and means for simultaneously retracting and rotating said hook to produce a twisted loop extending from one row of stitches to the other.

5. The combination of means for producing two separated rows of stitches, a guide for engaging a barring thread with one of said rows of stitches, a hook for engaging said barring thread and drawing a loop of the same to the other row of stitches, means for rotating said hook so as to twist said loop, and means for vibrating the barring thread guide so as to cause it to lay its thread in the path of the hook.

[Claims 6 to 13 not printed in the Gazette.]

1,025,177. SLOT-GUARD. MILTON F. WILLIAMS and EDWARD H. FRICKEY, St. Louis, Mo., assignors to Williams Patent Crusher and Pulverizer Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 1, 1910. Serial No. 584,928. (Cl. 146—29.)



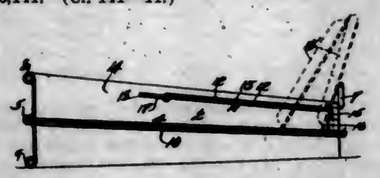
1. In a device of the character described, parallel slotted guide-ways, a roll having bearings movable in said guide-ways, curved guard plates pivoted to the guide-ways in front of the slots therein which plates extend between the slots in the guide-way and the roll; said guard plates

being shaped to cover the slots in the guide-ways as the roll rises therein and provided with horizontally disposed slots through which passes a member connected with the roll.

2. In a device of the class described parallel slotted guide ways, a spindle, the ends of which project through the slots in the guide ways, a roll carried by said spindle between the guide ways, and guard plates pivotally mounted on the guide ways in front of the slots therein, the lower portions of which guard plates curve downwardly and outwardly away from the lower portions of the slots, and which guard plates are provided with horizontally disposed slots through which passes the ends of the spindle.

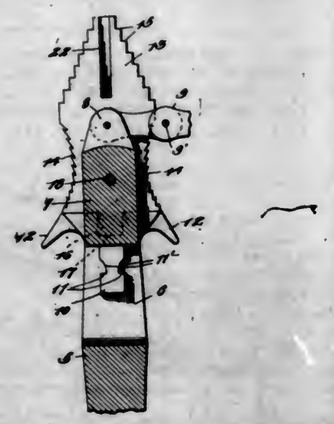
3. In a device of the class described, a slotted guide-way, a segmental plate pivoted on said guide-way and adapted to cover said slot, said plate being provided with an opening, and a spindle carried in said guide-way and extending through said opening and adapted to travel in said guide-way and oscillate said plate.

1,025,178. DRIP-TRAY FOR DISHES. GEORGE WINGENDER, New York, N. Y. Filed Dec. 16, 1911. Serial No. 666,141. (Cl. 141—11.)



A drip-tray, comprising a frame consisting of a rear member and side members bent inwardly or toward each other at the free ends thereof, a tie-rod connecting said inwardly bent ends, said side-members being provided with slots disposed longitudinally thereof, a grid carried by said frame, pins carried by said grid adapted to take into the slots in the side members of said frame, pins carried by said grid at the forward end thereof, and pockets carried by said frame adapted to receive the pins last named, said grid being tapered to correspond with the inwardly bent ends of the side members of said frame.

1,025,179. WRENCH. HEZEKIAH M. WOOD, Canadian, Tex. Filed Dec. 23, 1911. Serial No. 667,434. (Cl. 81—70.)



In a wrench of the class described, the combination of a handle having spaced arms formed on one end, a head integrally connecting said arms, jaws arranged upon opposite sides of said head and removably secured thereto, one end of each of the jaws having a lug formed thereon to be received in a recess provided in the end of the arms, the outer ends of said jaws being tapered and toothed upon their opposite edges, the inner longitudinal edge portion of said jaws being concave and serrated, the serrations on said jaws extending in opposite diagonal lines with relation to each other, a link chain pivotally connected to said head, shoulders formed upon the opposed faces of said spaced arms and having recesses in their opposite edges to receive the link pivots of said chain and retain the chain in gripping engagement upon a pipe.

1,025,180. LEVER-LOCKING DEVICE. WILLIAM B. WEBFORD, Detroit, Mich. Filed Dec. 13, 1910. Serial No. 597,038. (Cl. 74—5.)

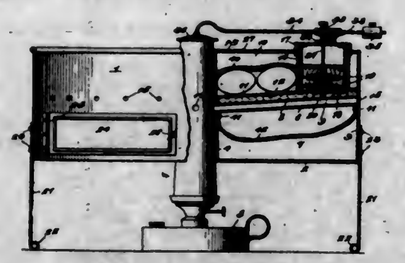


1. In a device of the character described the combination with a stationary support, and a movable stem having a shoulder, of a sectional post filling the space between said shoulder and the support, each section having a groove coöperative with the groove of the other section to receive and surround said stem, means for hinging said sections together at their adjacent edges on one side thereof, and means for locking the free edges of the sections together.

2. In a device of the character described the combination with a stationary support, and a movable stem having a shoulder, of a two-section post fitting between said shoulder and the support, each section having a groove coöperative with the groove of the other section to receive and surround said stem, means for hinging said sections together at their adjacent edges on one side thereof, means for locking the free edges of the sections together, and means for covering the joint between said sections.

3. In a device of the character described, the combination with a stationary support, and a movable stem having a shoulder, of a two-section post filling the space between said shoulder and the support, one of said sections having a longitudinal groove to receive said stem and cooperative with the other section to inclose said stem, said sections being hinged together at one side thereof and having perforated ears at their other sides, and a device passing through said perforations to hold the sections against separation.

1,025,181. COMBINED INCUBATOR AND BROODER. CYRUS W. ZIMMER, New York, N. Y. Filed Dec. 14, 1911. Serial No. 665,652. (Cl. 119—30.)



1. A combined brooder and incubator, comprising a body having a brooder chamber, an incubator chamber above the brooder chamber, said incubator chamber having a double bottom forming a hot water heating space in the bottom thereof, the brooder chamber being provided with a diaphragm spaced from the lower side of the hot water heating chamber and co-acting therewith to form a hot air heating chamber, and means for heating said chambers.

2. A combined brooder and incubator comprising a body having a brooder chamber, an incubator chamber above the brooder chamber, said incubator chamber having a double bottom forming a hot water heating space in the bottom thereof, the said brooding chamber being provided with a diaphragm spaced from the lower side of the hot water heating chamber and co-acting therewith to form a hot air heating chamber, and a heating flue extending through the brooder chamber, the hot air heating chamber, the hot water heating chamber and the incubating chamber, and having openings discharging directly into the hot air heating chamber.

3. A combined incubator and brooder comprising a body having a brooder chamber, an incubator chamber above the brooder chamber, said incubator chamber having a double bottom forming a hot water heating space in the bottom thereof, the said brooding chamber being provided with a diaphragm spaced from the lower side of the hot water heating chamber and co-acting therewith to form a hot air heating chamber, and a heating flue extending through the brooder chamber, the hot air heating chamber, the hot water heating chamber and the incubating chamber, and having openings discharging directly into the hot air heating chamber, the said body being provided with openings at its outer side communicating with and forming vents for the said hot air heating chamber.

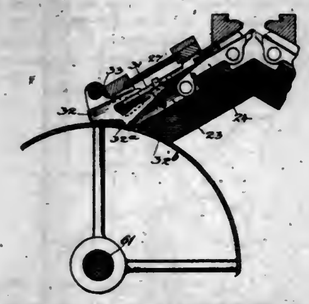
4. A combined incubator and brooder comprising a body having a brooder chamber, an incubator chamber above the brooder chamber, said incubating chamber having a double bottom forming a hot water heating space in the bottom thereof, the said brooding chamber being provided with a diaphragm spaced from the lower side of the hot water heating chamber and co-acting therewith to form a hot air heating chamber, and a heating flue extending through the brooder chamber, the hot air heating chamber, the hot water heating chamber and the incubating chamber, the said flue being disposed in the center of and extending through the body and the double bottom of the incubating chamber and the said diaphragm inclined inwardly and downwardly from the outer wall of the body to the said flue.

5. A combined brooder and incubator, including a body formed with a central vertically disposed flue opening and embodying a brooder chamber, an incubating chamber above the brooder chamber, an annular hot water chamber at the bottom of the incubating chamber, the walls of said hot water heating chamber sloping inwardly and downwardly toward the flue opening, an annular diaphragm spaced from the bottom wall of the hot water heating chamber and constituting an annular hot air heating chamber, the body being formed with openings in its outer wall registering with the outer side of the hot air heating chamber, and a heating flue extending in the flue-receiving opening through all of said chambers and formed with openings in registry with the inner side of the hot air heating chamber.

1,025,182. KNITTING-MACHINE. WILSON WORTH BURSON, Rockford, Ill. Filed Jan. 2, 1908. Serial No. 408,902. (Cl. 66—30.)

1. The combination of a needle bed formed substantially of wall plates and bottom plates held together in series to form grooves in which the needles shall move, jacks to operate the needles, vibrating levers to control the jacks, means to hold the vibrating levers in their lowest position, a fixd stop to limit the downward drop of the vibrating levers, and a rotary pattern adapted to determine which needles shall operate.

2. The straight knitting machine wherein are combined knitting needles held in stationary beds, jacks operating the needles, vibrating levers controlling the jacks, rotary pattern cylinders movable in either direction, and upon which said levers ride, a toothed wheel geared to the cylinders, a switch wheel arranged at right angles to said wheel and having a peripheral rib engaging the same, said rib embodying a movable section, a vibrating lever for shifting said movable section, blocks carried by said lever whereby it is adapted to impart different movements to the section, and means for actuating the vibrating lever.



3. The combination of a driving gear, adapted by proper means, to operate a knitting mechanism, a cam groove wheel on the driving shaft, a rocking arm controlled by said cam, a pawl pivoted on said rocking arm, a ratchet plate adapted to be moved step by step by the pawl, a pattern plate with teeth of unequal height fastened to the ratchet plate, a lever provided with a foot adapted to rest on the pattern teeth, means to connect this lever with a rocking shaft, an arm provided with cam blocks (38) fastened to said rocking shaft, whereby a driving switch may be controlled in a central, right, or left position adapted to leave the rotary pattern at rest, or move it forward or backward as desired.

4. The combination of a revolving switch wheel provided with a swinging switch, a lever provided with a toothed segment pivoted centrally over the switch wheel, a link connecting the lever to a yarn carrier changing bar provided with two or more receptacles for yarn carriers and means for moving the switch to the right or left of its central position whereby the yarn carrier bar can be moved in either direction as desired.

5. In a straight knitting machine, the combination with the needles, the needle jacks, the parallel beds in which the needles are supported, the horizontal rotary patterns arranged parallel with the beds and rotating in both directions, means for rotating the patterns in both directions, and vibrating levers controlling the jacks and having feet beveled both in front and rear adapting them to ride up on the patterns whether they are rotated forward or back.

[Claims 6 to 11 not printed in the Gazette.]

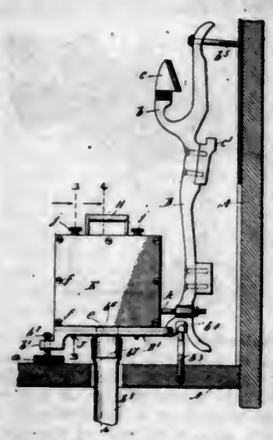
1,025,183. ACTION-BRACKET AND WIND-BOX FOR PLAYER-PIANOS. WALTER R. CRIPPEN, Newton, Mass., assignor to Vose & Sons Piano Company, Boston, Mass., a Corporation of Maine. Filed June 14, 1911. Serial No. 633,145. (Cl. 84—102.)

1. In a pneumatic player piano, a piano action, a pneumatic player action, and a unitary action bracket supporting both of said actions and holding the same rigidly in their proper relative adjustment, said bracket being provided with a wind way therethrough communicating with the wind ways of the pneumatic action.

2. In a pneumatic player piano, a piano action, a pneumatic player action, and a unitary action bracket having an upright arm supporting said piano action, and a horizontal arm supporting said pneumatic action, said arms adapted to hold said actions rigidly in their proper relative adjustment, and said horizontal arm provided with a wind way communicating with the wind ways of the pneumatic action.

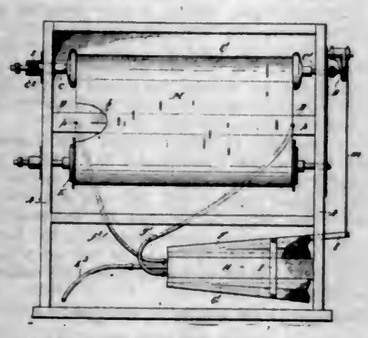
3. In a pneumatic player piano, a piano action, a pneumatic player action, and a unitary action bracket having an upright arm supporting said piano action, and a horizontal arm supporting said pneumatic action, said arms adapted to hold said actions rigidly in their proper relative adjustment, said horizontal arm provided with

a wind way communicating with the wind ways of the pneumatic action, and a tubular boss extending down-



wardly from said wind way through the horizontal arm, adapted to be connected with a suction pipe.

1,025,184. MUSIC-SHEET GUIDE. WALTER R. CRIPPEN, Newton, Mass., assignor to Vose & Sons Piano Company, Boston, Mass., a Corporation of Maine. Filed Dec. 7, 1911. Serial No. 664,440. (Cl. 84—161.)



1. In combination, a traveling music sheet, a tracker bar provided with two pneumatic guide ports, each partially open when the music sheet is in correct registration with said tracker bar, the lateral deviation of the music sheet effecting simultaneously the increase of the area of the opening of one of said guide ports and the reduction of the area of the opening of the other, and pneumatic means communicating with said guide ports and governed by the differential between said areas for adjusting the relation between the music sheet and the tracker bar.

2. In combination, a tracker bar provided with two pneumatic guide ports, a traveling music sheet, the margins of which extend part way across said guide ports, leaving each of said guide ports partially open, whereby the lateral deviation of the music sheet will simultaneously effect the increase of the area of the opening of one of said guide ports and the reduction of the area of the opening of the other, and pneumatic means communicating with said guide ports and governed by the differential between said areas for adjusting the relation between the music sheet and the tracker bar.

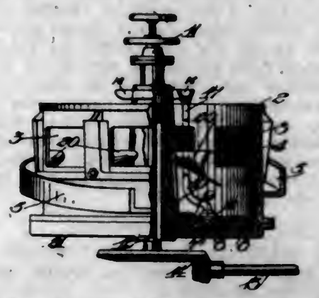
3. In combination, a traveling music sheet, a tracker bar provided with two pneumatic guide ports, each partially and equally open when the music sheet is in normal position, the lateral deviation of the music sheet effecting simultaneously the increase of the area of the opening of one of said guide ports and the reduction of the area of the opening of the other, and a pneumatic for adjusting the relation between the music sheet and the tracker bar, comprising two bellows compartments in which equal air tension is normally maintained, said compartments communicating with said guide ports respectively, and governed by the differential between the areas thereof.

4. In combination, a traveling music sheet, a tracker bar provided with two pneumatic guide ports, each partially and equally open when the music sheet is in normal position, the lateral deviation of the music sheet effecting simultaneously the increase of the area of the opening of one of said guide ports and the reduction of the area of the opening of the other, a pneumatic for adjusting the relation between the music sheet and the tracker bar, comprising two bellows compartments in which equal air tension is normally maintained, said compartments communicating with said guide ports respectively and governed by the differential between the areas thereof, and an equalizer passage connecting said compartments.

5. In combination, a traveling music sheet, a tracker bar provided with two pneumatic guide ports, each partially and equally open when the music sheet is in normal position, the lateral deviation of the music sheet effecting simultaneously the increase of the area of the opening of one of said guide ports and the reduction of the area of the opening of the other, a pneumatic for adjusting the relation between the music sheet and the tracker bar, comprising two bellows compartments in which equal air tension is normally maintained, said compartments communicating with said guide ports respectively and governed by the differential between the areas thereof, and an exhaust passage communicating with each of said bellows compartments, controlled by valves automatically actuated by the movement of said bellows to vary the air passages between said bellows compartments and said exhaust passage.

[Claim 6 not printed in the Gazette.]

1,025,185. REGRINDER. WILLIAM J. GRUSS and DAVID C. DEMAREST, San Francisco, Cal. Filed Mar. 23, 1911. Serial No. 616,536. (Cl. 83—7.)



1. A regrinder comprising a pan, having a wall provided with a plurality of discharge openings, screens closing said openings, means for grinding pulp in said pan, and means attached to the wall of the pan whereby the pulp is impinged in waves against the screens, said means including scoop shaped wings attached to the inner surface of the wall of the pan having open sides presented in opposition to the course of the pulp, said wings adapted to direct the waves of pulp against the screens.

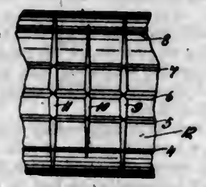
2. A regrinder comprising a pan, grinding devices mounted in said pan, said pan having discharge openings, screens covering said openings, and adjustable wave forming devices of scoop-like form having open sides presented in opposition to the travel of the pulp for diverting the course thereof, said devices being attached to the inside of the pan and adapted to direct the agitated pulp in waves against the screens of the discharge openings.

3. A regrinder having a pan provided with a plurality of openings forming a large discharge area around the circumference of the pan, screens partially closing said pan, adjustable wave forming devices of scoop-like form having open sides presented in opposition to the travel of the pulp, for diverting the course thereof, said devices being attached to the pan and adapted to create and impinge waves against the screens, and means for grinding pulp in the pan.

4. A regrinder having a pan provided with a plurality of openings forming a large discharge area around the circumference of the pan, screens partially closing said openings, adjustable wave forming devices of scoop-like form having open sides presented in opposition to the travel of the pulp, for diverting the course thereof, said devices being attached to the pan and adapted to create and impinge waves against the screens, means for grinding pulp in the pan, and a pulp feeding means comprising connections for conducting the pulp to the grinding means.

5. In an ore grinder, a pan with suitable grinding mechanism, said pan having peripheral discharge openings, and scoop shaped deflectors proximate to said openings and projecting into the pan and having open sides presented in opposition to the path of travel of the agitated contents of the pan.

1,025,186. CULVERT. THOMAS A. HILL, Brooklyn, N. Y., assignor to The Burch Plow Works Co., Crestline, Ohio, a Corporation. Filed Dec. 28, 1911. Serial No. 668,258. (Cl. 61—9.)



1. In a tubular conveyer of two longitudinal sections, transverse and longitudinal ridges upon the outer surface of each section, said transverse longitudinal ridges deeper and wider at the center than at the sides of each section, and said transverse ridges alternating short and long throughout the length of each section.

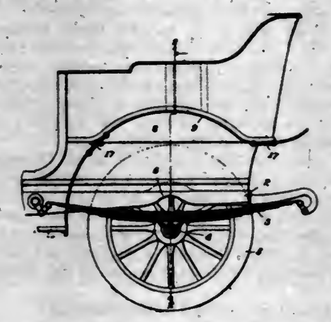
2. In a tubular conveyer of two longitudinal sections, transverse and longitudinal ridges upon the outer surface of each section, said transverse longitudinal ridges deeper and wider at the center than at the sides of each section, said transverse ridges alternating short and long throughout the length of each section, and said longitudinal ridges closer together at the center than at the sides of each section.

3. In a tubular conveyer of two longitudinal sections, transverse and longitudinal ridges upon the outer surface of each section, said transverse and longitudinal ridges deeper and wider at the center than at the sides of each section, and said transverse ridges alternating short and long throughout the length of each section, said short transverse ridges of smaller cross section than said long transverse ridges.

1,025,187. MOTOR-VEHICLE. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Aug. 28, 1907. Serial No. 390,494. (Cl. 21—90.)

1. In a motor vehicle, the combination with the rear axle and wheels, and the springs supported on said axle, of the body supported on said springs, said body comprising horizontally-elongated externally-concave or recessed metal plates partly extending over said wheels and arranged to permit the body to descend relatively to the said wheels, said plates having straight lower edges and upper edges conforming to the curvature of the wheel guards and having flanges on said edges for attachment to the adjacent parts of the body, substantially as described.

2. In a motor vehicle, the combination with the rear axle and wheels and springs supported on said axle, of the frame having off-set portions over said axle, the body supported on said frame, said body comprising horizontally-elongated externally concave or recessed metal plates partly extending over said wheels, and arranged to permit the body to descend relatively to said wheels, substantially as described.



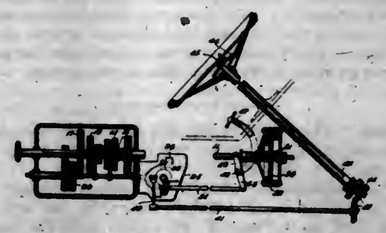
3. In a motor vehicle, the combination with the rear axle and wheels, and the springs supported on said springs, said body comprising horizontally-elongated externally concave or recessed metal plates partly extending over said wheels and arranged to permit the body to descend relatively to said wheels, the upper edge of each of said plates conforming substantially to the curvature of the wheel guard and having a vertical flange formed adjacent and parallel to said edge, and transverse parallel lugs for attachment to the adjacent parts of the body.

4. In a vehicle body, a lower panel, an upper panel overhanging the lower panel and having a segmental portion cut away from its overhanging edge, and an eternally concave or recessed metal plate at said cut-away edge, said plate having flanges to secure it to the frame of the body.

5. In a vehicle body, a lower panel, an upper panel overhanging the lower panel and having a segmental portion cut away from its overhanging edge, and an eternally concave or recessed metal plate at said cut-away edge, said plate having longitudinal and transverse flanges to secure it to the frame of the body.

[Claim 6 not printed in the Gazette.]

1,025,188. GEARING FOR MOTOR-VEHICLES. WILLIAM D. HUGHS, Atlanta, Ga. Filed Mar. 15, 1911. Serial No. 614,715. (Cl. 74—58.)



1. In a motor vehicle, a variable speed transmission gearing having an element shiftable in two directions, a device for shifting said element, and a controller arranged to make either of two connections between said device and the shiftable element for moving said element in either of two directions.

2. In a motor vehicle, a variable speed transmission gearing having two shiftable gear elements therein for effecting reverse movement and a plurality of forward speed movements of the vehicle, a device for moving said shiftable gear elements, a controller arranged between

said device and said shiftable gear elements and adapted to make either of two connections between said device and either of said shiftable elements, and means for setting said controller in any desired position.

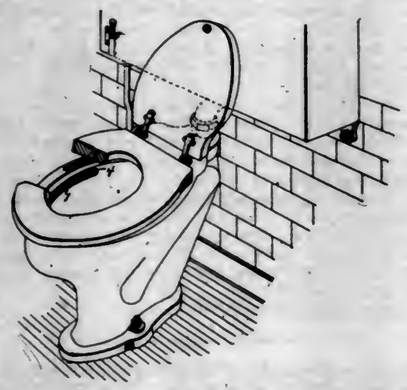
3. In a motor vehicle, a variable speed transmission gearing having an element shiftable in two directions, a spring device for shifting said element, and a controller arranged to make either of two connections between the spring device and the shiftable element for moving said element in either of two directions respectively.

4. In a motor vehicle, a variable speed transmission gearing having a plurality of shiftable elements in combination with a controller, connections between said shiftable elements extending to the controller, means for placing the controller in operative relation to either of said connections, and an indicator to show the relative positions of the controller and said connections.

5. In a motor vehicle, a variable speed transmission gearing having an element shiftable in two directions to effect different speeds, a spring device for moving said shiftable element, a controller for placing the spring device into connection with said shiftable element for moving the same in either direction, a support, and means on the support connected with said controller for setting the same.

[Claims 6 to 11 not printed in the Gazette.]

1,025,189. DISINFECTANT-HOLDER. JOSEPH R. JACKSON, Memphis, Tenn. Filed June 7, 1911. Serial No. 631,822. (Cl. 4—30.)

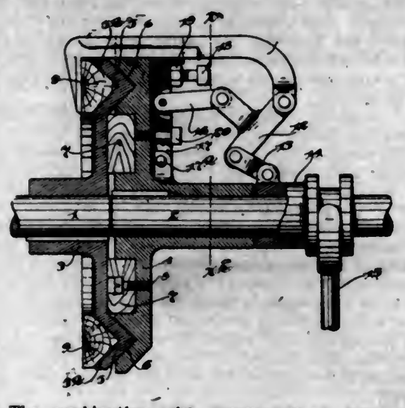


A disinfectant holder consisting of a coiled spring forming a hollow body with disconnected ends one of which is inwardly disposed, a strip having at its ends loops which snugly receive the opposite side portions of the spring and which may be turned upon the convolutions thereof to a desired position between the ends of the spring.

1,025,190. FRICTION-CLUTCH. AXEL E. JACOBSON, Minneapolis, Minn. Filed Nov. 2, 1910. Serial No. 590,251. (Cl. 192—7.)

1. The combination with axially alined driving and driven shafts, of clutch members secured to the adjacent ends of said shafts, one of said clutch members having an annular groove in its face and the other of said clutch members having a coöperative annular flange formed in its back with an annular groove, a friction shoe engageable with the latter noted annular groove, and actuating means between said first noted clutch member and said shoe.

2. A clutch comprising one member having annular grooves in one of which grooves is mounted a friction block, another member engageable with said friction block and having a coöperating groove engaging flange with an annular groove in the back of said flange, friction shoes engageable with the latter noted annular groove, and shoe operating connections carried by the first noted clutch member, substantially as described.



3. The combination with axially alined driving and driven shafts, of clutch members secured to the adjacent ends of said shafts, one of said clutch members having an annular approximately V-shaped groove in its face and the other of said clutch members having a coöperating approximately V-shaped annular flange formed in its back with an annular approximately V-shaped groove, friction shoes engageable with the latter noted annular groove, shoe actuating bars carried by the first noted clutch member, and clutch actuating levers reacting against said shoe actuating bars and against said first noted clutch member, substantially as described.

4. The combination with coöperating clutch members, of shoe actuating bars carried by one of said clutch members and provided with shoes engageable with the other clutch member, abutments adjustably applied to the back of the first noted clutch member, links connected to said abutments, levers connected to said links and the said shoe actuating bars, and means for simultaneously moving said levers to set the clutch and release the same at will, substantially as described.

5. The combination with axially alined driving and driven shafts, of clutch members secured to the ends of said shafts, one of said clutch members having an annular approximately V-shaped groove and the other clutch member having an annular approximately V-shaped friction flange with an annular approximately V-shaped groove in its back, friction shoes engageable with the latter noted groove, shoe actuating bars carried by the first noted clutch member, abutments adjustably secured to the said first noted clutch member, a clutch actuating sleeve loose on one of said shafts, three armed levers pivotally connected to said shoe actuating bars, and links connecting the said three armed levers to said abutments and to said sleeve, substantially as described.

1,025,191. CARTRIDGE FOR THE PREPARATION OF OXYGEN. GEORGE FRANÇOIS JAUBERT, Paris, France. Filed Nov. 10, 1909. Serial No. 527,178. (Cl. 23—11.)

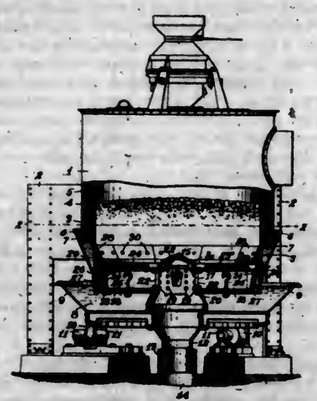
1. A cartridge for the preparation of oxygen or gaseous mixtures rich in oxygen comprising an envelop made of a combustible metal and filled with a pulverulent mixture containing a combustible substance and a substance substantially as described which when heated will give off oxygen to unite with the combustible substance and an excess of free oxygen, said pulverulent mixture being in direct contact with the metallic envelop, and said envelop having removable end covers, whereby the envelop serves for the transportation of the mixture and also as a container during combustion.

2. A cartridge for the preparation of oxygen or gaseous mixtures rich in oxygen comprising an envelop made of a combustible metal and filled with a pulverulent mixture containing combustible substance and a substance substantially as described which when heated will give off oxygen to unite with the combustible substance and an excess of free oxygen, said pulverulent mixture being in direct contact with the metallic envelop, said envelop having removable end covers and a perforated plate in its lower end, whereby the envelop serves for the transportation of the mixture and also as a container during combustion.



3. A cartridge for the preparation of oxygen or gaseous mixtures rich in oxygen comprising an envelop made of a combustible metal and filled with a pulverulent mixture containing combustible substance and a substance substantially as described which when heated will give off oxygen to unite with the combustible substance and an excess of free oxygen, said pulverulent mixture being in direct contact with the metallic envelop.

1,025,192. GAS-PRODUCER. EBENEZER A. W. JEFFERIES and GEORGE H. ISLEY, Worcester, Mass., assignors to Morgan Construction Company, Worcester, Mass., a Corporation of Massachusetts. Filed Nov. 23, 1910. Serial No. 593,977. (Cl. 48—66.)



1. In a gas producer, a stationary casing inclosing a gas producing chamber, a rotating ash pan spaced beneath said casing, means supported from the center of said ash pan for imparting a rotary movement to the lower portion of the contents of said casing, and means within said casing also supported from the center of said ash pan for restraining the centrifugal or outward movement of the contents of said casing.

2. In a gas producer, a stationary casing inclosing a gas producing chamber, a support extending from the center of said ash pan vertically into said chamber and arranged for the admission of steam and air to said chamber, means extending radially from said support for the passage of steam and air from said support to said chamber and also arranged to cause the rotation of the lower portion of the contents of said chamber, and means for restraining the centrifugal or outward movement of the contents of said chamber.

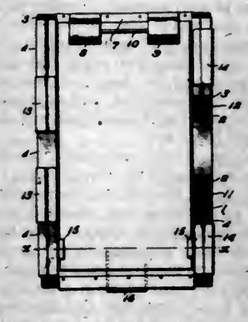
3. In a gas producer, a stationary casing inclosing a gas producing chamber, a rotating ash pan spaced beneath said casing, a vertical pipe supported by said ash pan and extending upwardly into said casing, arms connected with said pipe supported thereby and extending radially therefrom, and a circular skirt or restraining band connecting the ends of said arms.

4. In a gas producer, a stationary casing inclosing a gas producer chamber, a rotating ash pan spaced beneath said casing, a vertical central support extending vertically from said ash pan into said chamber and attached to said ash pan, horizontal inclosures extending radially from said support and open at the top and bottom, said inclosures arranged to rotate the lower portion of the contents of said chamber and deliver them to said ash pan.

5. In a gas producer, a casing inclosing a gas producing chamber, means within said casing for imparting a rotary motion to the contents of the lower part of said chamber, and a rotatable annular skirt or band inclosed in the lower part of the chamber and in the plane of said rotating means.

[Claims 6 to 9 not printed in the Gazette.]

1,025,193. FOLDABLE HOLDER FOR WRITING-PADS. OLIVER JEFFERSON KENNEDY and KENNETH BEN KENNEDY, San Antonio, Tex. Filed Mar. 1, 1911. Serial No. 611,703. (Cl. 11—11.)



1. The herein described holder for a writing pad comprising a plurality of sections connected by means adapting them to fold into substantial parallelism and out of contact with each other, the edges of adjacent sections abutting one another when in open position, and means for rigidly connecting the sections when in open position.

2. The herein described holder for a writing pad comprising a plurality of sections, and links pivotally connected at their ends with adjacent sections whereby said sections may be folded into substantial parallelism out of contact with each other and will abut one another when in open position.

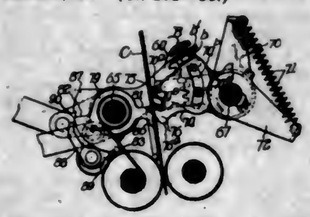
3. The herein described holder for a writing pad comprising a plurality of sections, links pivotally connected at their ends with adjacent sections whereby said sections may be folded into substantial parallelism out of contact with each other and will abut one another when in open position, and means for rigidly connecting the sections when in open position.

4. The herein described holder for a writing pad comprising a plurality of sections connected to fold one over another, the edges of adjacent sections abutting one another when in open position, and a flexible backing sheet attached to the end sections, and extending across the intermediate sections, said sheet being disconnected from each section adjacent the edge thereof that abuts on another section when in open position.

5. The herein described holder for a writing pad comprising a plurality of sections connected to fold one over another, the edges of adjacent sections abutting one another when in open position, a flexible backing sheet attached to the end sections, and extending across the intermediate sections, said sheet being disconnected from each section adjacent the edge thereof that abuts on another section when in open position, and means for rigidly connecting the sections when in open position.

[Claims 6 to 10 not printed in the Gazette.]

1,025,194. PRINTING-PRESS. KARL F. KIRKMAN, Erie, Pa., assignor to Automatic Press Feeder Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 23, 1910. Serial No. 593,788. (Cl. 101—36.)



1. In printing press stop mechanism, the combination of stop mechanism proper, a member controlling said mechanism and arranged to swing against the face of the paper and to pass thereby when a single sheet of paper is being fed and to be stopped in its swinging movement when a plurality of sheets of paper are being fed at one time, and adjustable means for regulating the degree of swinging movement of said member to adapt it for different thicknesses of paper.

2. In printing press stop mechanism the combination of stop mechanism proper, normally tending to automatically stop the press, and means adapted to control said mechanism, said means comprising a member arranged to be moved against and along the paper and across its path after a sheet has passed, to thereupon engage such mechanism and render it inoperative, and adjustable means for governing the action of said member according to the thickness of the paper being fed.

3. In printing press stop mechanism, the combination of mechanism for automatically stopping the press, means for controlling such mechanism comprising a swinging pawl arranged to be swung into the path of travel of the paper and to be oscillated by contact with the face of the paper, said pawl being arranged to swing past the paper when a single sheet of paper is being fed and to be stopped in its swinging movement when a plurality of sheets of paper are being fed at one time, and means for adjusting the degree of oscillation of the pawl to adapt it for different thicknesses of paper.

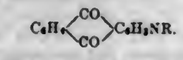
4. In printing press stop mechanism, the combination with mechanism for automatically stopping the press, means adapted to control said mechanism, comprising an oscillating carrier, a pawl pivoted therein and adapted to be oscillated into the path of travel of the paper, and means for adjusting the limit of pivotal movement of the pawl with respect to its carrier.

5. In printing press stop mechanism, the combination with mechanism for automatically stopping the press, means adapted to control said mechanism, comprising an oscillating carrier, a pawl pivoted therein and adapted to be oscillated into the path of travel of the paper, and an adjusting screw mounted on the carrier in the path of movement of the pawl to limit the latter.

[Claims 6 to 12 not printed in the Gazette.]

1,025,195. SALMON-COLORED VAT DYESTUFF AND PROCESS OF MAKING SAME. GEORG KRANZLEIN, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed June 21, 1910. Serial No. 568,100. (Cl. 8—1.)

1. The process of manufacturing a new vat dyestuff dyeing cotton salmon-colored tints, which consists in heating a product of the general formula

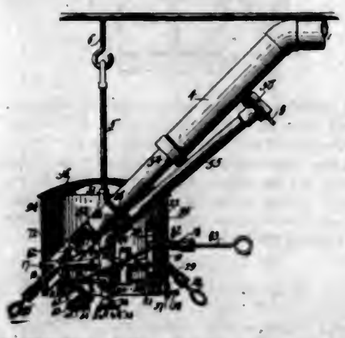


in which "R" stands for a derivative of formic acid, and an alkaline condensing agent.

2. The process of manufacturing a new vat dyestuff dyeing cotton salmon-colored tints, which consists in heating β-anthraquinonyl-urea-chlorid and an alkaline condensing agent.

3. As a new product, the vat dyestuff hereinbefore described, being a reddish-brown powder, insoluble in water, alcohol, ether, benzene, nitrobenzene, dilute acids and alkalis; soluble in concentrated sulfuric acid with an emerald-green to blue-green coloration which upon heating turns to a pure blue color; yielding when treated with an alkaline reducing agent like hydrosulfite, an orange-brown vat from which cotton is dyed salmon-colored tints of excellent fastness to washing, light and chlorin.

1,025,196. LIGHTING SYSTEM. JOHN LANDSIEDEL, Peoria, Ill. Filed Apr. 11, 1908. Serial No. 426,619. (Cl. 158—58.)



1. In an apparatus of the character described, the combination of a plurality of illuminating lamps, each of said lamps provided with a burner to which is attached a mantle, a generator tube connected with one of said lamps, and provided with a chamber surrounding the same, an inverted burner tip in communication with said chamber surrounding said generating tube, a feed pipe connected with the generating tube, feed laterals connected with said pipe, and also connected with the lamps aforesaid, and a feeder communicating with said feed pipe above said generating tube, and also communicating with the chamber surrounding said generating tube.

2. In an apparatus of the character described, the combination of a generating tube, a depending tubular extension from said tube, said extension provided with a torch comprising a plurality of radial extensions having upturned ends, a non-combustible material between the ends of said radial extensions and the tubular extension, and a ring encircling the tubular extension and disposed within the circle described by the upper ends of said radial extensions.

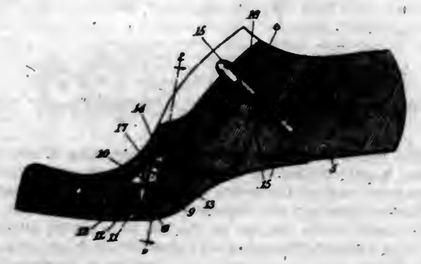
3. In an appaaratus of the character described, the combination of a generating tube having a discharge aperture, a needle valve for closing said aperture, a gas conduit having its receiving end spaced from the apertured end of the generating tube, and in axial alinement with said needle valve in the generating tube, a supplemental conduit for the receiving end of the gas conduit having a flared receiving portion, an air receiver, and means adjustably carried on the apertured end of the generating tube for removably supporting said air receiver between the apertured end of the generating tube and the receiving end of the gas conduit.

4. In an apparatus of the character described, the combination of a generating tube having a discharge aperture and provided with a radially extended lug projecting from said tube near the end having the aperture, a gas conduit having its receiving end spaced from the apertured end of the generating tube, an air receiver, and a slidable and rotatable collar on the apertured end of the generating tube adapted to lock the air receiver in position between the gas conduit and the apertured end of said generating tube, said collar having a slot to coincide with the lug on the generating tube.

5. In an apparatus of the character described, the combination of a generating tube having an apertured end, a needle point valve for closing said aperture, a lug projecting laterally from the tube near its apertured end, a gas conduit having its receiving end spaced from the apertured end of the generating tube, a collar provided with a shoulder and slidably and rotatably carried on the apertured end of the generating tube, said collar provided with a slot whereby, when said slot is brought coincident with the lug on said tube, it may slide thereon, an air receiver adapted to have its outlet end interposed between the receiving end of the gas conduit and the apertured end of the generating tube, and locked in such position by engagement therewith of the shouldered portion of said collar.

[Claims 6 to 8 not printed in the Gazette.]

1,025,197. TWO-PART LAST. ARTHUR M. LEIGHTON, Charlestown, Mass., assignor of one-half to George E. Belcher, Stoughton, Mass. Filed May 23, 1911. Serial No. 628,965. (Cl. 12—138.)



1. A last in two parts, viz., a body portion and a block, and a staple fast to said body portion with its closed end projecting into said block, the legs of said staple being in a plane extending longitudinally of said last and means to lock said block to said body portion.

2. A last in two parts, viz., a body portion and a block, and a staple fast to said body portion with its closed end projecting into said block, one of the legs of said staple being longer than the other and means to lock said block to said body portion.

3. A last in two parts, viz., a body portion and a block, and a staple fast to said body portion with its closed end projecting into said block, one of the legs of said staple terminating in a point and means to lock said block to said body portion.

4. A last in two parts, viz., a body portion and a block, and a staple fast to said body portion with its closed end projecting into said block, one of the legs of said staple terminating in a point and a prong extending laterally from said pointed leg into the body portion of said last and means to lock said block to said body portion.

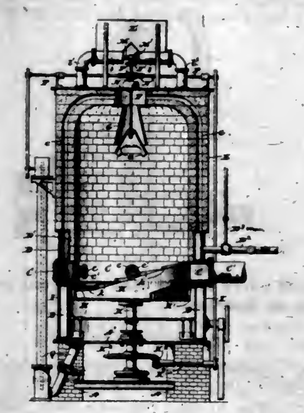
5. A last in two parts, viz., a body portion and a block, and a staple fast to said body portion with its closed end projecting into said block, and a pin in said block adapted to bear against said staple and means to lock said block to said body portion.

[Claim 6 not printed in the Gazette.]

1,025,198. GAS-PRODUCER. ALBERT F. MATLACK, Philadelphia, Pa. Filed Oct. 5, 1910. Serial No. 585,524. (Cl. 48—66.)

1. In a gas producer, a body, a gas outlet port adjacent the lower end of the body of the producer, a rotary stirrer positioned in the top of the body of the producer, and a fixed blast pipe surrounding said stirrer and positioned to discharge thereon.

2. In a gas producer, a body, a gas outlet port adjacent the lower end of the body of the producer, a fixed blast pipe positioned in the upper portion of the body of the producer, a vertical shaft rotatably supported in the upper portion of the producer within said blast pipe, a cone-shaped stirrer secured to the lower end of said shaft and projecting without the blast pipe, means for rotating said shaft.



3. In a gas producer, a body, a gas outlet port adjacent the lower end of the body of the producer, a fixed blast pipe positioned in the upper portion of the body of the producer, a vertical shaft rotatably supported in the upper portion of the producer within said blast pipe, a cone-shaped stirrer secured to the lower end of said shaft and projecting without the blast pipe, a rotary hearth positioned in the lower end of the producer, and means for rotating said hearth and stirrer in the same direction.

4. In a gas producer, a body provided with a plurality of passages in the wall thereof and with a gas outlet port adjacent the lower end thereof, a blast nozzle fixed in the upper portion of the producer body and depending therefrom, said nozzle being in communication with the upper end of the passages in the producer body, a heater box encircling the producer body and in communication with the lower end of the passages in the producer body, a stirrer rotatably supported in the upper portion of the producer body within the blast nozzle and projecting therebelow, and a fluid supply pipe communicating with said heater box.

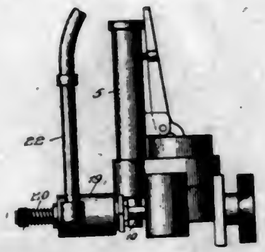
5. In a gas producer, a body provided with a plurality of passages in the wall thereof and with a gas outlet port adjacent the lower end thereof, a blast nozzle fixed in the upper portion of the producer body and depending therefrom, said nozzle being in communication with the upper ends of the passages in the producer body, a heater box encircling the producer body and in communication with the lower end of the passages in the producer body, a stirrer rotatably supported in the upper portion of the producer body within the blast nozzle and projecting therebelow, and a fluid supply pipe communicating with said heater box, a hearth rotatably supported in the lower end of the producer body, and means for rotating said hearth and stirrer in the same direction.

[Claims 6 to 11 not printed in the Gazette.]

1,025,199. CAN-TESTING MACHINE. CHARLES B. MCDONALD, Chicago, Ill., assignor to McDonald Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 23, 1911. Serial No. 616,370. (Cl. 73—51.)

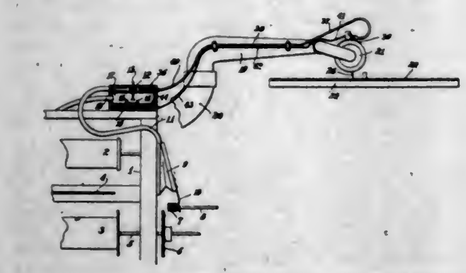
In a can testing machine, the combination of testing mechanism, a housing therefor, an air chamber in conjunction therewith, a source of pressure supply, a slidable tapered valve controlling communication between the source of pressure supply and the air chamber of the testing mechanism, including a member having a tapered seat for said valve, a tension member for normally maintaining said valve in wedging engagement with its seat, and means for periodically sliding and unseating said valve

to permit the passage of air from the source of pressure supply to the air chamber, said tension mechanism effect-



ing a quick return of said valve to normal position, substantially as described.

1,025,200. COMBINED PLAYER-PIANO AND PHONOGRAPH. PHILIP JACOB MEAHL, Bayonne, N. J., assignor to The Aeolian Company, New York, N. Y., a Corporation of Connecticut. Filed Aug. 14, 1911. Serial No. 643,949. (Cl. 84—198.)



1. In a combined player piano and phonograph comprising a stylus for the phonograph, the combination with means for moving a perforated music sheet and a motor means for operating the same, of a device for throwing said motor means into gear with the sheet moving means, and means controlled by the stylus of the talking machine by the vibrations of said stylus for operating the device for throwing the motor into gear with the sheet moving means, substantially as set forth.

2. In a combined player piano and phonograph comprising a stylus for the phonograph, the combination with means for moving the perforated music sheet and a motor means for operating the same, of a bellows for throwing the motor means into gear with the moving means, a valve mechanism controlling the bellows and means for operating said valve mechanism from the stylus of the phonograph by the vibrations of said stylus, substantially as set forth.

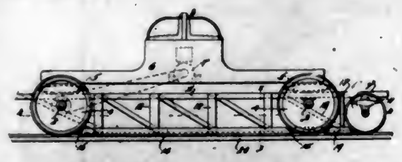
3. In a combined player piano and phonograph comprising a stylus for the phonograph, the combination with means for moving the perforated music sheet, and a motor means for operating the same, of a bellows for throwing the motor means into gear with the sheet moving means, a valve mechanism for said bellows, a controlling valve for said valve mechanism, and means for operating said controlling valve from the stylus of the phonograph, by the vibrations of said stylus, substantially as set forth.

4. In a combined player piano and phonograph comprising a stylus for the phonograph, the combination with means for moving the perforated music sheet, and a motor means for operating the same, of a bellows for throwing the motor means into gear with the sheet moving means, a valve mechanism for said bellows, a valve for controlling said valve mechanism, a lever for carrying said valve and means for operating said lever from the stylus of the phonograph, by the vibrations of said stylus, substantially as set forth.

5. In a combined piano player and phonograph comprising a stylus for the phonograph, the combination with means for moving the perforated music sheet and a motor means for operating the same, of a bellows for throwing the motor means into gear with the sheet moving means, a valve mechanism for said bellows, a valve controlling said valve mechanism, two independent ports at opposite sides of said valve, a lever carrying said valve, a means for actuating said lever from the stylus of the phonograph and connections between said ports and valve mechanism of the bellows, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,025,201. RAILWAY MOTOR-CAR. STANLEY V. MEIGS, Pueblo, Col. Filed Sept. 1, 1911. Serial No. 647,196. (Cl. 105—94.)



The herein described railway car consisting of the car body, a pair of flanged wheels at the side thereof, one near each end of the body, a continuous skid or runner extending between the flanges of the wheels, having its lower edge below the top of the rail of a width adapted to pass through frogs and switches, its ends so close to the flanges that a substantially continuous surface will be presented by the flanges and skids when crosswise of a railroad rail.

1,025,202. EYE-SHIELD FOR SPECTACLES, EYE-GLASSES, AND THE LIKE. GUSTAVE MORITZ, St. Louis, Mo. Filed June 17, 1910. Serial No. 567,512. (Cl. 128—11.)



1. An eye-shield comprising a foldable body-portion normally in unfolded position and adapted when in folded position to fit on the bow of a pair of spectacles or the like and to inclose the space between said bow and the eye of the user, means on said body-portion adapted to separably hold the ends of said body-portion together in folded position and to releasably engage with said bow and removably secure one side of said body-portion thereto when in folded position, and attaching means on said body-portion adapted to releasably engage with said bow and removably secure the other side of said body-portion thereto when in folded position; substantially as described.

2. An eye-shield comprising a foldable body-portion normally in unfolded position and adapted when in folded position to fit on the bow of a pair of spectacles or the like and to inclose the space between said bow and the eye of the user, a fastening-clip on one end of said body-portion adapted to releasably engage with the other end of said body-portion to separably hold the ends of said body-portion together and to releasably engage with said bow and removably secure one side of said body-portion thereto when in folded position, and an attaching-clip

on said body-portion between the ends thereof adapted to releasably engage with said bow and removably secure the other side of said body-portion thereto when in folded position; substantially as described.

3. An eye-shield comprising a foldable body-portion normally in unfolded position and adapted when in folded position to fit on the bow of a pair of spectacles or the like and to inclose the space between said bow and the eye of the user, a fastening-clip on one end of said body-portion adapted to releasably engage with the other end of said body-portion to separably secure the ends of said body-portion together and having attaching-hooks adapted to releasably engage with said bow and removably secure one side of said body-portion thereto when in folded position, and an attaching-clip on said body-portion between the ends thereof having hooks adapted to releasably engage with said bow and removably secure the other side of said body-portion thereto when in folded position; substantially as described.

4. An eye-shield comprising a foldable body-portion normally in unfolded position and adapted when in folded position to fit on the bow of a pair of spectacles or the like and to inclose the space between said bow and the eye of the user, a substantially H-shaped fastening-clip having its legs folded upon themselves, one leg of said clip being secured to one end of said body portion and the other leg of said clip being adapted to releasably engage with the other end of said body-portion to separably secure the ends of said body-portion together, an inturned-extension on each of said legs adapted to releasably engage with said bow and removably secure one side of said body-portion thereto when in folded position, and an attaching-clip on said body-portion between the ends thereof having hook-shaped ends adapted to releasably engage with said bow and removably secure the other side of said body-portion thereto when in folded position; substantially as described.

5. An eye-shield comprising a foldable body-portion normally in unfolded position and adapted when in folded position to fit on the bow of a pair of spectacles or the like and to inclose the space between said bow and the eye of the user, one of the ends of said body-portion being provided with an elongated slot, a substantially H-shaped fastening-clip having its legs folded upon themselves, one leg of said clip being secured to one end of said body-portion and the other leg of said clip being adapted to releasably receive the other or slotted end of said body-portion to separably secure the ends of said body-portion together and being provided with an elongated indentation adapted to coöperate with said slot, an inturned-extension on each of said legs adapted to releasably engage with said bow and removably secure one side of said body-portion thereto when in folded position, and an attaching-clip on said body-portion between the ends thereof having hook-shaped ends adapted to releasably engage with said bow and removably secure the other side of said body-portion thereto when in folded position; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,025,203. TIRE-PLUG INSERTER. FRED B. PARKS, Grand Rapids, Mich. Filed Dec. 31, 1908. Serial No. 470,260. (Cl. 152—27.)

1. The combination in an implement for inserting plugs, of a main arm having a short member pivoted to one end, said member having an enlargement at the free end, and an auxiliary arm secured to the main arm but shorter, and a suitable handle on the implement.

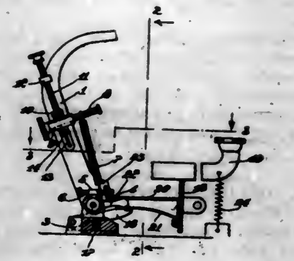
2. In combination with a tire plug having a small longitudinal aperture in the end of the stem, a plug inserting implement having a main arm, a short member pivotally secured to the end of said arm, and having a small ball on the end to enter the aperture in the plug, a suitable wrapping for securing the plug to the pivotal member, an auxiliary arm shorter than the main arm, secured to and parallel therewith and having a head at the end to engage the head of the plug and force it through a puncture in a tire.

3. In combination, a tire plug having a small longitudinal aperture in the end of the stem, an implement having a long slender arm bent at the end and having a pivotal bearing formed thereon, a member pivotally secured to the end of the arm and having a small ball at the end



to enter the aperture in the stem of the plug, a wrapping to secure the plug to the pivotal member, a short auxiliary arm integral with the main arm and in position to engage the head of the plug after the stem has been well stretched and force it into and through a puncture in a tire.

1,025,204. TYPE-WRITER. CHARLES J. PAULSON, Brooklyn, N. Y., assignor, by mesne assignments, to Sterling Typewriter Company, a Corporation of New Jersey. Filed Mar. 20, 1911. Serial No. 615,792. (Cl. 197—49.)



1. In a device of the character described a pivoted hammer having a threaded boss, an arm pivoted to the hammer pivot, said arm having a threaded boss, a horizontal threaded member in said boss, a vertical threaded member working in the boss on said hammer, a sleeve supported by said vertical threaded member, a horizontal threaded member working in said sleeve and a coil spring connected at opposite ends to said horizontal threaded members, and means for rocking said arm.

2. In a typewriter hammer operating means, a base, a hammer pivoted to said base, a sleeve carrying a threaded member, a second threaded member adjustably mounted on said hammer, said second threaded member forming a support for said sleeve, a pivoted arm having a threaded boss, a horizontal threaded member in said boss and a tension spring connected to the threaded member in said sleeve and to the threaded member in said boss.

3. In a typewriter hammer operating means, a base, a hammer pivoted in said base, a sleeve carrying a threaded member, said sleeve being connected to said hammer, a second threaded member forming a support for said sleeve, a coil spring connected at one end to the threaded member carried by said sleeve, one end of said spring being adapted to travel along the thread thereof when said threaded member is rotated.

4. In a typewriter hammer operating means, a base, a hammer having a pivot in said base, an arm on said pivot, a pin on said hammer bearing against the upper end of said arm, a coil spring connected to said arm and said hammer, a notched pawl in said base normally engaging the lower end of said hammer, a spring bearing against

the lower end of said notched pawl, a pivoted transverse member having a plurality of fingers, one of said fingers being adapted to successively engage said arm and pawl, and means for actuating said pivoted transverse member.

5. In a typewriter hammer operating means, a pivoted hammer, an inclined member carried by said hammer, a tension spring, and means for causing one end of said spring to travel along said inclined member.

[Claims 6 and 7 not printed in the Gazette.]

1,025,205. TIME-BURNING RAILWAY SIGNAL-FUSEE. LOUIS S. ROSS, Newtonville, Mass. Filed Feb. 15, 1912. Serial No. 677,853. (Cl. 52—6.)

1. A time burning railway signal fusee comprising essentially a flame-coloring metallic salt, sulfur, carbonaceous material, chlorate of barium and an acid-neutralizing agent.

2. A time burning railway signal fusee comprising essentially a flame-coloring metallic salt, sulfur, chlorate of barium and an acid-neutralizing agent.

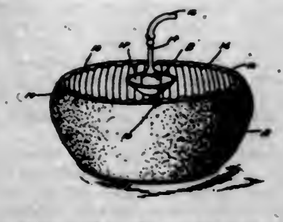
3. A time burning railway signal fusee comprising essentially a metallic nitrate, sulfur a carbohydrate, chlorate of barium and an ingredient mixed therewith and capable of neutralizing any acid developed during storage, said fuse compound burning with brilliancy and force of flame for the purpose described and not subject to spontaneous combustion.

4. A time burning railway signal fusee comprising essentially barium nitrate, sulfur, a carbohydrate, chlorate of barium, and an ingredient mixed therewith and capable of neutralizing any acid developed during storage, said fusee compound burning with brilliancy and force of flame for the purpose described and not subject to spontaneous combustion.

5. A time burning railway signal fusee compound comprising essentially a metallic nitrate, sulfur, a carbohydrate, chlorate of barium and an acid-neutralizing agent in less proportion than the sulfur and insufficient in quantity materially to retard combustion.

[Claims 6 to 12 not printed in the Gazette.]

1,025,206. DEVICE FOR WASHING PRINTS AND THE LIKE. WASHINGTON GEORGE ROUNDS, Woodstock, Ontario, Canada. Filed Sept. 20, 1909, Serial No. 518,704. Renewed Feb. 26, 1912. Serial No. 680,092. (Cl. 95—97.)



1. In a print washer, the combination with a conoidal baffle member adapted to be submerged in a fluid-containing vessel with its larger end lowermost to prevent upwardly and inwardly curved walls, of a liquid discharge member connected at the smaller end of the baffle member to direct a stream downwardly along the diverging walls of the latter.

2. In a print washer, the combination with a conoidal baffle member adapted to be submerged in a liquid-containing vessel with its larger end lowermost to present upwardly and inwardly curved walls, of a liquid discharge member embodying an interiorly corrugated cap fitting over the smaller end of the baffle member to direct a stream downwardly along the walls of the latter.

3. A device for washing prints and the like, including a vessel having a central baffle member, and an interiorly corrugated discharge member fitting over said baffle member.

4. A device for washing prints and the like, including a vessel, a central baffle member, a discharge member fitting over the same having a conical flange on the edge adapted to prevent prints adhering to the outer surface thereof, the said discharge members being adapted to discharge liquid around the baffle member.

5. A device for washing prints and the like, including a bowl, having a central conoidal member and an interiorly corrugated discharge member fitting over the conoidal member adapted to discharge a plurality of jets of liquid over the same.

[Claims 6 to 12 not printed in the Gazette.]

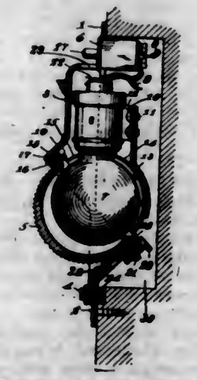
1,025,207. SURGICAL KIT. HENRY W. SANFORD, Washington, D. C. Filed July 9, 1910. Serial No. 571,155. (Cl. 128—28.)



1. A surgical kit comprising an inner small rubber stall having an opening in one side for the introduction of surgical appliances, and an independent outer larger rubber stall having an opening in one side whereby said larger stall is capable of being stretched for the introduction of said smaller stall thereinto.

2. A surgical kit comprising a smaller inner spherical soft rubber stall having an opening in one side for the introduction of surgical appliances, and closed at the other points, and a larger outer spherical soft rubber stall having an opening in one side, said larger stall being stretched over the smaller stall with the opening of the smaller stall disposed within the larger stall at a point diametrically opposite the opening in the larger stall, said larger stall being closed at all other points, the portion of the closed part of the smaller stall projecting through the opening of the larger stall.

1,025,208. ELECTRIC FIXTURE. LINDSLEY SCHEPMOES, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed July 31, 1909. Serial No. 510,525. (Cl. 240—7.)



1. An electric fixture comprising a back-plate, an electric switch carried thereby, an electric socket having a flexible connection with said switch, means carried by the back-plate for supporting said socket, an incandescent lamp carried thereby, combined with a front-plate covering said socket, a light transmitting bowl carried thereby adapted to cover a portion of the incandescent lamp and means whereby the said front plate may be readily attached in a fixed position upon the back-plate.

2. An electric fixture comprehending a back-plate, an electric switch carried thereby, an electric socket flexibly connected with said switch and elastic clamping means for supporting said socket carried by said back-plate.

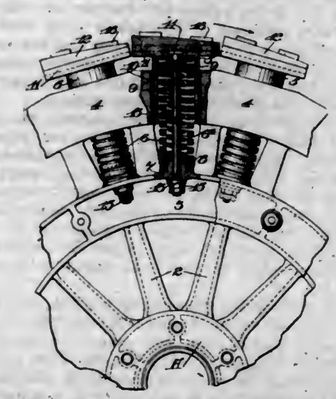
3. An electric fixture comprehending a back-plate, an electric switch carried thereby, a pair of flexible jaws carried by said back-plate, a lamp socket held in position by said jaws and flexible connection between the switch and said socket whereby vibration caused by operation of the switch is not transmitted to the said socket.

4. An electric fixture comprising a back-plate provided with flexible clamping means for engaging a lamp socket and adapted to hold the same in a vertical position, a lamp carried by said socket and a reflector carried by the back-plate and adapted to reflect the rays of said lamp.

5. An electric fixture comprising a portion adapted to be rigidly attached to a vertical wall, an electric lamp supported thereby in a substantially vertical position, combined with a front portion adapted to readily engage the back-plate in a definite operative position and a light transmitting member carried thereby adapted to parallelize the rays emitted from said lamp and cause the same to be emitted in a downward direction.

[Claims 6 to 17 not printed in the Gazette.]

1,025,209. ELASTIC VEHICLE-WHEEL. FRANK I. SEARS, Oakland, Cal. Filed Dec. 5, 1910. Serial No. 595,571. (Cl. 152—28.)



1. A vehicle wheel having radial slidable tubes with plates upon their exterior ends, other plates substantially fitting the first named plates, with tongue and groove connections between the two plates, said second plates being thicker at the rear than at the front and treads removably fitting into the second named plates.

2. A vehicle wheel having tubes radially and slidably guided in the rim, plates upon the outer ends of the tubes having convergent dove-tailed grooves in the direction of the circumference of the wheel, tread plates having corresponding dove-tailed tongues interlockable with said grooves, said tread plates being beveled and thicker at the rear than at the front and having chambers, and removable traction treads fitting said chambers.

1,025,210. AIRSHIP. JAMES E. SHERIFF, Provo, Utah. Filed June 2, 1911. Serial No. 630,753. (Cl. 244—12.)



1. An air ship provided with a sail, the front or entering edge of the sail being directed forward and downward, the trailing edge of the sail being free to assume an upward and backward position and static propellers forming a portion of the body of the sail and open to the atmosphere above and below the sail.

2. An air ship provided with a sail, the front or entering edge of the sail being directed forward and downward, the trailing edge of the sail being free to assume an upward and backward position and static propellers located between the said forward and downward and upward and backward portions of the sail and open to the atmosphere above and below the sail.

3. An air ship provided with a sail, the forward portion of the sail constructed to dip, the after portion of the sail constructed to rise and static propellers passing through the sail, leaving spaces between them open to the atmosphere above and below the sail.

4. An air ship provided with a sail, the forward portion of the sail constructed to dip, the after portion of the sail constructed to rise and curved static propellers passing through the sail and open to the atmosphere above and below the sail.

5. An air ship provided with a sail, the forward portion of the sail constructed to dip, the after portion of the sail constructed to rise and static propellers passing through the sail and having their upper and lower edges directed rearwardly, the said static propellers being open to the atmosphere above and below the sail.

[Claims 6 to 17 not printed in the Gazette.]

1,025,211. PUMP. JOHN H. SIMS, Cimarron, N. Mex., assignor of one-half to J. M. Menapace, Cimarron, N. Mex. Filed May 18, 1911, Serial No. 627,967. Renewed Mar. 22, 1912. Serial No. 685,414. (Cl. 103—63.)



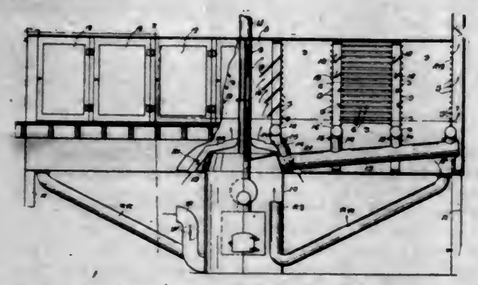
A piston including a rod having a threaded reduced end, spaced heads on said piston, bolts connecting said heads, an annulus on one of said heads, arcuate tension blocks between said bolts having their opposite ends confronting said bolts and limited in lateral movement thereby, said blocks having radial stems fitting loosely in and projecting into the interior of said annulus, an annular packing element between said heads and having its inner periphery in intimate contact with said tension blocks, a frusto-conical slide on the reduced end of said rod bearing upon the inner ends of said stems and operating to cam said tension blocks against said packing element, and an adjusting nut on the threaded portion of said reduced end bearing against said sleeve.

1,025,212. FRUIT-DRIER. CLAUDE C. SIMMS, Berkeley, Cal., assignor to California Likfresh Company, a Corporation of California. Filed Apr. 10, 1911. Serial No. 620,032. (Cl. 34—39.)

1. In a drying apparatus of the kind described, a series of drying chambers each having a column of reticulated trays, heat deflectors located above one another between said columns of trays, heat distributing pipes located in the lower part of said drying chambers, a hot air furnace connected with said heat distributing pipes, and pipes for conducting the air from said drying chambers to the furnace and redistributing the same.

2. In a drying apparatus of the kind described, a drying chamber sub-divided into a number of drying chambers, each having a vertical column of reticulated trays

separated from each other, deflectors located in a vertical column between each column of trays, pipes extending through the lower part of said drying chambers, transverse perforated pipes connected with said first named pipes, and located adjacent to said columns of trays, a furnace connected with said pipes in the bottom of the drying chambers, and a cold air inlet pipe connected with said furnace.



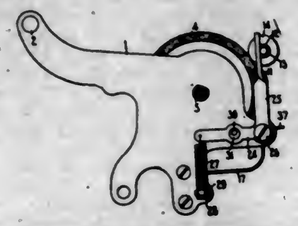
3. In a drying apparatus of the kind described, a series of drying chambers, each having a vertical column of reticulated trays spaced apart from each other, a vertical column of hot air deflectors located between each of said drying chambers, inclined hot air pipes located in the lower part of said drying chambers, and having a number of vertical pipes, transverse perforated pipes connected with said vertical pipes and located adjacent to said columns of trays, and a hot air furnace connected with the pipes in the bottom of said drying chambers.

4. In a drying apparatus of the kind described, a furnace, an oblong drying chamber located above said furnace and having a central hot air chamber provided with a central partition located above said furnace, and provided with a vertical row of heat deflectors on each side thereof, a number of drying chambers located on each side of said central drying chamber, each of said drying chambers having a column of slidable reticulated trays spaced apart from each other, a vertical row of heat deflectors of different lengths located between each of said columns of trays, inclined heat distributing pipes connected with the furnace and extending through the bottom of said drying chambers, each of said pipes having vertical pipes, and transverse perforated pipes connected with said vertical pipes, an air escape flue connected with each end of the apparatus, an air pipe connected with the bottom of the drying chamber at each end of the apparatus and extending downward to the furnace and having a vertical arm located in said furnace, and a cold air inlet pipe connected with the lower end of said central drying chamber.

5. In a drying apparatus of the kind described, a furnace, a number of drying chambers located above said furnace on each side thereof, each of said drying chambers having a column of reticulated trays spaced apart from each other, a series of heat deflectors located between said columns of trays, a series of hot air pipes connected with said furnace for distributing hot air through and over said trays, pipes for admitting and mingling cold air with the hot air from said furnace, and means for drawing air from said drying chambers back to the furnace and redistributing the same in heated condition to the drying chambers.

1,025,213. TYPE-WRITING MACHINE. GEORGE H. SMITH, Nutley, N. J., assignor to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Nov. 6, 1909. Serial No. 526,559. (Cl. 197—139.)

1. In a typewriting machine, the combination of a platen, two rock shafts parallel to said platen, one near the right-hand part of the platen and the other near the left-hand part of the platen, each of said shafts having one bearing near one end of the platen and another near the middle of the platen and each of said shafts being held against endwise motion; two paper fingers, one slidably and non-rotatively mounted on each of said shafts; and springs for turning said shafts independently to press said paper fingers toward said platen.



2. In a typewriting machine, the combination of a platen; two rock shafts parallel to said platen, one near the right-hand part of the platen and the other near the left-hand part of the platen, each of said shafts having one bearing near one end of the platen and another near the middle of the platen and each of said shafts being held against endwise motion; two paper fingers, one slidably and non-rotatively mounted on each of said shafts; springs for turning said shafts independently to press said paper fingers toward said platen; and adjustable means for regulating the tension of said springs.

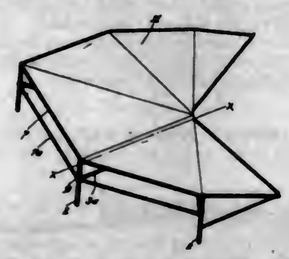
3. In a typewriting machine, the combination of a platen frame, a platen mounted in said platen frame, two rock shafts parallel to said platen, one near the right-hand part of the platen and the other near the left-hand part of the platen, each of said shafts having one bearing near one end of the platen and another near the middle of the platen and each of said shafts being held against endwise motion, a paper finger slidably and non-rotatively mounted on each of said shafts, springs for turning said shafts to press said fingers toward said platen, and handles for turning said shafts against said springs.

4. In a front-strike typewriting machine, the combination of a platen frame, a platen having the writing line at the front thereof, two rock shafts journaled in said platen frame below the writing line, one shaft at the right and the other at the left of the middle of the platen, two paper fingers slidably and non-rotatively mounted on said shafts, one on each shaft, and springs for turning said shafts to press said paper fingers toward the platen, said springs acting through said shafts on said paper fingers.

5. In a front-strike typewriting machine, the combination of a platen frame, a platen having the writing line at the front thereof, two rock shafts journaled in said platen frame below the writing line, one shaft at the right and the other at the left of the middle of the platen, two paper fingers slidably and non-rotatively mounted on said shafts, one on each shaft, springs for turning said shafts to press said paper fingers toward the platen, and handles for turning said shafts against said springs, said springs acting through said shafts on said paper fingers.

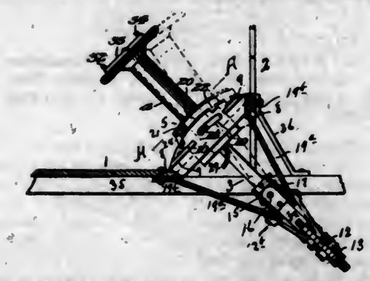
[Claims 6 to 9 not printed in the Gazette.]

1,025,214. FRUIT-PICKER. HARRY D. STARR, Lodi, Cal. Filed Aug. 30, 1911. Serial No. 646,897. (Cl. 56—99.)



A device of the character described comprising a center post, outer posts disposed in a circumferential manner around said center post, such center post being of a lesser height than said outer posts, supporting rods fixed stationary on said outer posts and having eyes on their inner ends, bolts projecting through said eyes and into said center post, brace rods projecting between said outer posts and mortising into each other, bolts projecting through said brace rods and into said outer posts, and a canvas stretched over said supporting rods, as described.

1,025,215. UNIVERSAL-JOINTED AUTOMOBILE STEERING-ROD. JACOB H. STULL, Fremont, Ohio. Filed Oct. 31, 1910. Serial No. 589,852. (Cl. 21—90.)

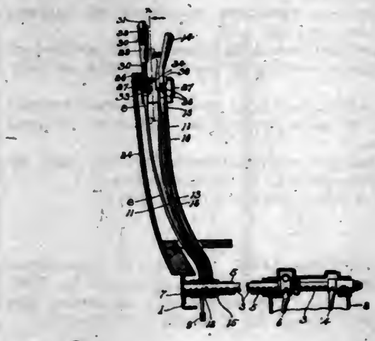


1. In a device of the character described the combination of a universal jointed steering rod; a slotted carriage body; a tubular casing for said rod and within which the same is made to operate, together with a collar for said casing which is preferably of the rectangular form and carried thereby; suitable flanged guide plates for said slot between which said collar is made to operate, together with means by which said plates are held in place; suitable studs for the support of said collar, with which the same is provided, and a slot in said guide plates therefor, one for each such plate, and in which said studs are severally made to operate, together with a supporting and staying bracket for said rod near its joints whereby the same is supported to said carriage body, and held in place; a pair of tripable dogs, both of which are oppositely pivoted to said collar, and each of which is provided with a locking member, together with coöperating locking notches therefor with which said guide plates are provided, which are made to receive said locking members, and suitable connecting means between said dogs; together with an accelerating spring between said connecting means and a relatively immovable part, whereby said rod may be tilted and the same be held in any predetermined position.

2. In a device of the character described the combination of a tiltable tubular casing; a slotted frame work therefor; a collar for said casing, which is preferably of the rectangular form and carried thereby; suitable flanged guide plates for said slot, between which said collar is made to operate, together with means by which said plates are held in place; suitable studs, for the support of said collar with which the same is provided, and a slot in said guide plates therefor, one for each such plate and in which said studs are severally made to operate; a pair of tripable dogs both of which are oppositely pivoted to said collar, and each of which is provided with a locking member, together with coöperating locking notches therefor, with which said guide plates are provided which are made to receive said locking members, and suitable connecting means between said dogs, together with an accelerating spring between said connecting means and a relatively immovable part, whereby when said casing is tilted it may be held in any predetermined position.

1,025,216. LEVER CONTROL FOR MOTOR-VEHICLES. ALFRED T. STURT, Flint, Mich., assignor to Buick Motor Co., Flint, Mich., a Corporation of Michigan. Filed Sept. 1, 1911. Serial No. 647,199. (Cl. 21—90.)

1. In a motor vehicle, the combination with a body having a side portion extending longitudinally of the body in a line the general direction of which is at an angle to the longitudinal center line of the body, of a controlling lever adjacent to said side portion of the body for actuating controlling mechanism and pivoted to turn upon a horizontal axis extending at right angles to the longitudinal center line of the body and adapted to yield laterally intermediate its ends to permit its upper end to follow substantially said line of said side portion of the body as said lever is turned upon its pivot.



2. In a motor vehicle, the combination of an automobile body of the fore-door type having a fixed side portion with the upper edge of said portion extending forwardly and inwardly at an angle to the longitudinal center line of the body, a controlling lever for actuating controlling mechanism, pivoted to turn upon an axis at right angles to the longitudinal center line of the body, and means mounted upon said side portion of the body adjacent to its upper edge to guide the upper end of said lever and cause the same to move in a path extending along said edge.

3. In a motor vehicle, the combination of an automobile body having an inwardly and forwardly curved side portion, a controlling lever pivoted at its lower end below the body upon a horizontal axis extending at right angles to the horizontal center line of the body, said lever extending upward adjacent to the inner face of the said portion of the body, and a sector secured to said portion of the body near the upper edge thereof having a guide slot for said lever extending at an angle to the longitudinal center line of the body, said lever being adapted to yield laterally intermediate its ends to permit the same to move in said slot.

4. In a motor vehicle, the combination of a vehicle body having a fixed side portion curved inwardly and forwardly and curved upwardly and outwardly from its lower edge, a lever for operating controlling mechanism pivotally supported below the plane of the body adjacent to the lower edge of said side portion, to turn upon an axis extending at right angles to the longitudinal center line of said body, said lever being bent laterally and extending upward adjacent to the inner face of said side portion and being resilient to yield laterally intermediate its ends, and a sector secured to said body portion near the upper edge thereof and having a guide slot for said lever the center line of which slot forms a chord of the curve of said portion, extending at an angle to the longitudinal center line of the body.

5. In a motor vehicle, the combination with a chassis, of a vehicle body having a seat, a dash and a fixed side curving forwardly and inwardly from the end of the seat to the dash and supported upon the chassis, a plurality of levers pivotally supported at their lower ends to turn upon a horizontal axis extending at right angles to the longitudinal center line of the body and curved outwardly and extended upwardly adjacent to the inner face of the said curved body side, said levers being resilient to permit of their being flexed laterally, a handle portion upon one of said levers projecting above the upper edge of the body side, said lever being adapted to engage and turn the other levers, and a sector secured to the body side and having an H-slot through which the lever having the handle projects.

[Claims 6 to 8 not printed in the Gazette.]

1,025,217. COMPOSITION CONTAINING VULCANIZED OIL AND PROCESS OF MANUFACTURE. EDWIN TAYLOR, Farmingdale, N. Y., assignor to Union Clay Products Company, New York, N. Y., a Corporation of New Jersey. Filed May 18, 1910. Serial No. 562,034. (Cl. 106—23.)

1. A composition containing vulcanized oil, nitrated oil and nitro-cellulose.

2. A composition containing vulcanized oil, nitrated oil, nitro-cellulose and clay.

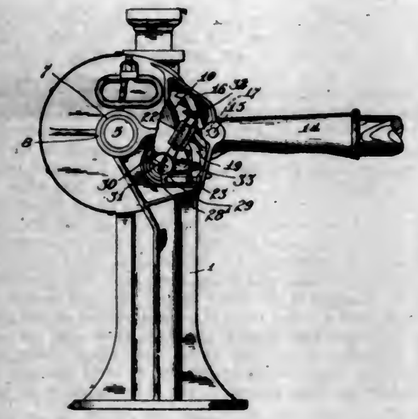
3. A composition containing vulcanized oil, nitrated oil and nitro-cellulose containing less than twelve per cent. nitrogen.

4. A composition containing about 100 parts vulcanized oil and clay, 90 parts nitrated oil, and about 10 parts nitro-cellulose.

5. A composition containing vulcanized oil, clay, nitrated oil, vulcanizable oil and nitro-cellulose.

[Claims 6 to 12 not printed in the Gazette.]

1,025,218. LIFTING-JACK. WALTER B. TEMPLETON, Chicago, Ill. Original application filed Oct. 11, 1909, Serial No. 522,061. Divided and this application filed Aug. 22, 1910. Serial No. 578,312. (Cl. 57—102.)



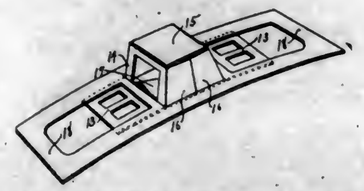
1. In a lifting jack, the combination with a ratchet lifting member, and a lever actuated pawl coöperating therewith, of a pawl actuating link comprising two recessed over-lapping link members interconnected to slide endwise upon each other, and a coiled spring interposed between said members and acting upon each.

2. In a lifting jack, the combination with a ratchet member and a lever-actuated pawl coöperating therewith, of a pawl-actuating link comprising two recessed overlapping link-members interconnected to slide endwise upon each other, and a coiled spring interposed between said members and lying partly in each, an oscillatory member mounted in the frame of the jack, and an eccentric connection between said oscillatory member and one end of said link, whereby the link, as a whole, may be placed under compressive or expansive tension, at will.

3. In a lifting jack, the combination with the main frame and lifting bar arranged to slide therein, of a ratchet member operatively connected with the lifting bar, a hand lever, a pawl operatively connected with said hand lever, a detent pawl mounted in the main frame in coöperative relation with the ratchet, a pair of pawl-actuating links, one for each of the respective pawls, each link comprising two recessed overlapping link members connected to slide endwise upon each other, and a coiled spring interposed between said members within the recesses thereof, an oscillatory escutcheon-plate in the frame of the jack, and an eccentric connection common to both links and uniting the latter with said escutcheon-plate whereby said links may be simultaneously placed in contractile or expansive tension, at will.

4. In a lifting jack, the combination with a main frame, of a ratchet lifting member carried thereby, a hand lever, a pawl operatively connected with said hand lever, a detent pawl coöperating with the ratchet, a pair of pawl actuating links one for each of the respective pawls, each link comprising two over-lapping link members connected to slide endwise upon each other, a coiled spring carried thereby and an eccentric connection common to both links whereby said links may be simultaneously placed in contractile or expansive tension, at will.

1,025,219. BRAKE-SHOE. JAMES S. THOMPSON, Chicago, Ill., assignor to Edward H. Fallows, New York, N. Y. Filed Jan. 25, 1912. Serial No. 673,476. (Cl. 188—28.)



1. A lug for securing a brake shoe to a suitable support, the same being formed from a sheet metal blank bent to provide a two-part base, two end portions extending upward from adjacent ends of the two parts of said base, a top portion extending between the upper ends of said end portions, and two top supporting sections extending from said end portions toward one another, the upper ends of which lie beneath and serve to support said top portion.

2. A lug for securing a brake shoe to a suitable support, the same being formed from a sheet metal blank bent to provide a two-part base, two end portions extending upward from adjacent ends of the two parts of said base, a top portion extending between the upper ends of said end portions, and two top supporting sections extending from said end portions toward one another, the upper ends of which lie beneath and serve to support said top portion, a portion of each of said end portions being cut free from the rest and bent downward about the adjacent ends of the parts of said base as an axis.

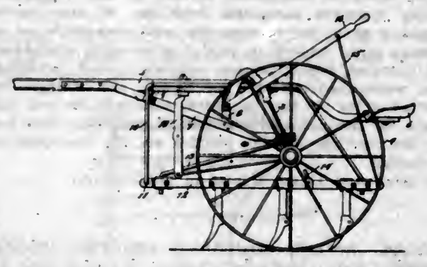
3. A lug for securing a brake shoe to a suitable support, the same being formed from a sheet metal blank bent to provide a two-part base, two end portions extending upward from adjacent ends of the two parts of said base, a top portion extending between the upper ends of said portions, and two top supporting sections extending from said end portions toward one another, the upper ends of which lie beneath and serve to support said top portion; in combination with a cast metal brake shoe in the rear face of which said two-part base and the lower ends of said top supporting sections are embedded.

4. A lug for securing a brake shoe to a suitable support, the same being formed from a sheet metal blank bent to provide a two-part base, two end portions extending upward from adjacent ends of the two parts of said base, a top portion extending between the upper ends of said end portions, and two top supporting sections extending from side edges of said end portions across the space beneath said top the upper ends of which lie beneath and serve to support said top portion.

5. A lug for securing a brake shoe to a suitable support, the same being formed from a sheet metal blank bent to provide a two-part base, two end portions extending upward from adjacent ends of the two parts of said base, a top portion extending between the upper ends of said end portions, and two top supporting sections extending from side edges of said end portions toward one another and across the space beneath said top the upper ends of which lie beneath and serve to support said top portion.

[Claims 6 to 15 not printed in the Gazette.]

1,025,220. CULTIVATOR. SAMUEL H. TINSMAN, Morris, Ill. Filed June 26, 1911. Serial No. 635,287. (Cl. 97—35.)



1. In a cultivator, the combination with an axle, wheels on said axle, a tongue connected with said axle, shovel gangs, connections from said tongue to said shovel gangs whereby a forward pull on said tongue transmits a forward push to said shovel gangs, said connections being the only connections between said tongue and the forward ends of said gangs, and a yoke member swingingly mounted on said tongue and connected at its lower ends to the front and rear of said shovel gangs, to maintain said gangs in alinement when they are swung sidewise and to prevent said forward push swinging said gangs sidewise.

2. In a cultivator, the combination with an axle, wheels on said axle, a tongue connected with said axle, shovel gangs, and connections for transmitting power to said shovel gangs, said connections being connected at one end to said tongue and having a portion extending forward and downward to said shovel gangs, a yoke member swingingly mounted on said tongue and connected at its lower ends to the front and rear of said shovel gangs, whereby a forward pull on said tongue transmits a forward push to said shovel gangs, said yoke member preventing said forward push swinging said gangs sidewise.

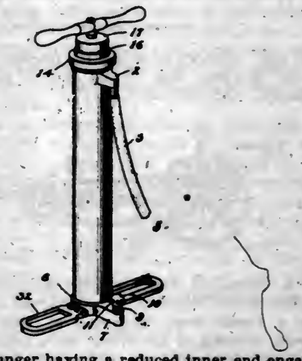
3. In a cultivator, the combination with an axle, wheels on said axle, a tongue connected with said axle, shovel gangs, a brace bar connected to said tongue and extending downwardly and rearwardly to a point in the rear of the forward ends of said shovel gangs, a connection extending forwardly and downwardly from the rear end of said brace bar to the forward end of said shovel gangs, and a yoke member swingingly mounted on said tongue and connected at its lower ends to the front and rear of said shovel gangs, whereby a forward pull on said tongue transmits a forward push to said shovel gangs said yoke member preventing said forward push swinging said gangs sidewise.

4. In a cultivator, the combination with an axle, wheels on said axle, a tongue connected with said axle, shovel gangs, and a rod pivotally connected at its rear end to a part of said cultivator and extending forwardly and downwardly and pivotally connected at its forward end to said gangs so as to be free to swing laterally at its forward end, whereby a forward pull on said tongue transmits a forward push to said shovel gangs.

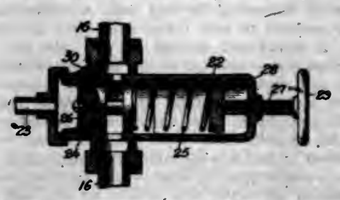
5. In a cultivator, the combination with an axle, wheels on said axle, a tongue connected with said axle, shovel gangs, a brace bar connected to said tongue and extending downwardly and rearwardly to a point in the rear of the forward ends of said shovel gangs, and a rod pivotally connected at its rear end to the rear end of said brace bar, and extending forwardly and downwardly and pivotally connected at its forward end to said gangs so as to swing laterally with said gangs, whereby a forward pull on said tongue transmits a forward push to said shovel gangs.

1,025,221. HAND-OPERATED AIR-PUMP. FRANK C. VIRTUE, Toronto, Ontario, Canada. Filed Mar. 15, 1911. Serial No. 614,601. (Cl. 230—27.)

In a hand operated air pump, a tubular casing having an inlet air passage at the bottom, and an outlet passage adjacent to the top, a valve closing said inlet passage, a cylindrical plunger operating in said casing and forming an annular chamber therein, a cupped washer on the inner end of said plunger, an annular cap closing the top of said casing and fitting snugly around said plunger, a cylindrical sleeve of larger internal diameter than the exterior of said plunger having a reduced inner end engaging said plunger and an outwardly extending lateral flange at the outer end, a gasket arranged between said flange and the top of the casing, and a cupped washer having its inner edge cupped inwardly and extending between the said cylindrical sleeve and said plunger.



1,025,222. LIQUID-PRESSURE REGULATOR. JOSEPH D. WALLACE, Champaign, Ill. Filed Mar. 18, 1909. Serial No. 484,175. (Cl. 103—87.)



1. The combination, with a pump and means for supplying a liquid to and discharging the same from said pump, of a normally open valve in said supply means, means for closing said valve by an excess of liquid pressure in said discharge means, and means for establishing a connection between said supply and discharge means subsequent to the closing of said valve.

2. The combination, with a pump, means for supplying a liquid to and discharging the same from said pump, and a normally open valve in said supply means, of means for throttling said valve in proportion to a decreasing volume of liquid discharged from said pump, and means for establishing an auxiliary connection between the supply-side and the discharge-side of said pump subsequent to the complete closing of said valve.

3. The combination, with a pump, means for supplying a liquid to and discharging the same from said pump, and a normally open valve in said supply means, of means for closing said valve by a predetermined degree of pressure of the liquid discharged from said pump and thereby establishing an auxiliary connection between the supply-side and the discharge-side of said pump.

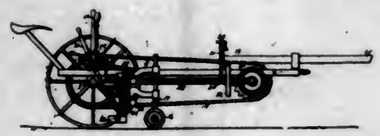
4. The combination, with a pump and a supply pipe leading to and a discharge pipe leading from said pump, of a valve in said supply pipe, means for automatically operating said valve to vary the capacity of said supply pipe in proportion to the volume of liquid passing through said discharge pipe, and means for opening said discharge pipe to said supply pipe when said valve is closed.

5. The combination, with a pump, means for driving said pump at a constant speed, and a supply pipe leading

to and a discharge pipe leading from said pump, of a valve in said supply pipe, means for automatically operating said valve to vary the capacity of said supply pipe in proportion to the volume of liquid passing through said discharge pipe, and means for opening said discharge pipe to said supply pipe when said valve is closed.

[Claims 6 to 13 not printed in the Gazette.]

1,025,223. PLANT-BLOCKER. GEORGE P. A. WEISENBORN, Houston, Tex. Filed May 6, 1911. Serial No. 625,575. (Cl. 97—45.)



1. A device of the character described composed of suitable carrier wheels rigidly mounted upon a rotatable axle, a frame work supported by said axle, a frame hingedly secured to the frame work and carrying a hoe-operative mechanism, an oscillating lever pivotally secured to said mechanism and a hoe carried thereby, a driving means operatively connected with said carrier wheels and also having operative connection with said hoe-operative mechanism, means for disconnecting said first mentioned means from said carrier wheels, and means for adjusting said oscillating arm and the hoe carried thereby, at any time, relative to the hoe-operative mechanism.

2. A device of the character described including suitable carrier wheels rigidly mounted upon an axle and a frame work supported by said axle, a supporting frame hingedly secured to said frame work near the front end thereof, a mechanism carried by the rear end of said frame work and connected to the rear end of said frame, whereby said frame may be elevated and lowered, a hoe-operative mechanism carried by said frame and having operative connection with one of said carrier wheels, a means for disconnecting said connection, an oscillating arm pivoted to said hoe-operative mechanism and operated thereby, a hoe secured to said oscillating arm, and means for manually adjusting said oscillating arm and the hoe carried thereby relative to the hoe-operative mechanism.

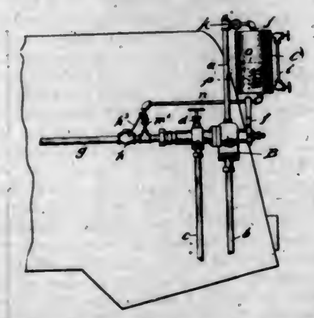
3. A device of the character described including a rotatable axle and carrier wheels rigidly secured thereto, a frame work supported by said axle, a supporting frame hingedly secured to said frame work near the front end thereof and a means carried by the frame work and having connection with the frame whereby the rear end thereof may be elevated and lowered relative to the frame work, a resilient member secured to the frame work and also to the frame and operating to suspend said frame from the frame work, a hoe-operative mechanism carried by said frame and having operative connection with one of said carrier wheels, a means for disconnecting said connection, an oscillating arm pivoted to said hoe-operative mechanism and operated thereby, a hoe secured to said oscillating arm, and means for adjusting said oscillating arm and the hoe carried thereby relative to the hoe-operative mechanism either while stationary or in motion.

4. In a device of the character described a train of spur gears and an oscillating arm pivotally secured to one of said gears and slidably secured to the other, a hoe secured to said oscillating arm and means whereby the position of the hoe may be varied relative to said arm.

5. A device of the character described including a rotatable axle and carrier wheels rigidly secured thereto, a frame work supported by said axle, a supporting frame hingedly secured to said frame work and a resilient member secured to said frame work and frame and suspending the latter from the former, a means carried by the frame work and having connection with the frame whereby the frame may be elevated and lowered relative to the frame work and secured in a fixed position with relation thereto, a hoe operative mechanism carried by said frame and having operative connection with one of said carrier wheels, a means for disconnecting said connection, an oscillating arm pivoted to said hoe-operative mechanism and operated thereby, a hoe secured to said oscillating arm, means securing said hoe to said arm whereby the position of the hoe may be varied relative to the arm, and means for manually adjusting said oscillating arm and the hoe carried thereby relative to the hoe-operative mechanism.

[Claims 6 to 11 not printed in the Gazette.]

1,025,224. BOILER-COMPOUND-FEEDING MECHANISM. WILLIAM WHITE, Chicago, Ill. Filed July 24, 1909. Serial No. 509,445. (Cl. 210—19.)



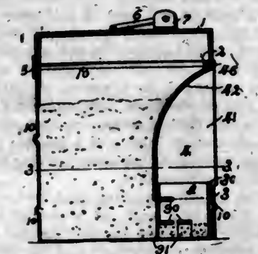
1. In a boiler compound feeding mechanism, the combination of an injector having a steam and delivery or feed pipe connection with a boiler and a suction or intake pipe connection with a source of water supply, with a receptacle charged with a boiler compound, said receptacle being connected intermediate of the steam pipe connection and the delivery pipe connection and so related to said injector that the operation of the latter will establish communication between said receptacle and the boiler and permit of the passage of the compound from said receptacle to the boiler.

2. A boiler compound feeding mechanism comprising a compound receiving receptacle provided with an outlet valve, means whereby the compound in the receptacle is placed under pressure, an injector having steam connection with the boiler and supply pipe connection with a source of water supply, a feed pipe intermediate of the injector and the boiler, provided with a valve adapted to be opened by the pressure of the passing contents, and means intermediate of said valve and the outlet valve of the receptacle whereby the latter will be operated when the pressure in the feed pipe opens the valve therein.

3. A boiler compound feeding mechanism comprising a compound receiving receptacle provided with an outlet valve, an injector having a steam connection with the boiler, a connection with a source of the water supply and a feed pipe connection with the boiler, and means intermediate of the said feed pipe connection and said outlet valve adapted to be operated by the pressure produced in the feed pipe, whereby a predetermined quantity of compound is automatically fed into the boiler.

4. A boiler compound feeding mechanism comprising an injector having steam connection with the boiler, a supply pipe connection with a source of water supply and a feed pipe connection with the boiler, a compound receiving receptacle provided with an outlet valve and connected with the steam pipe connection, means located within the receptacle adapted to be affected by the incoming steam whereby the compound is put under pressure, and means located in the feed pipe and having operative connection with the outlet valve in said receptacle, said means being adapted to be affected by the pressure of the passing contents within the feed pipe whereby a predetermined quantity of compound is automatically fed to the boiler.

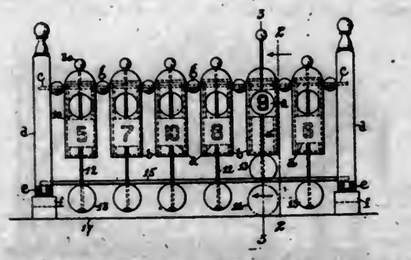
1,025,225. POULTRY FEEDING AND WATERING DEVICE. WINFRED C. WILSON, Sunset, Tex. Filed May 6, 1911. Serial No. 625,521. (Cl. 119—77.)



1. In a poultry device, a vessel closed at the top and bottom and having an opening in one side thereof, a funnel attached to the edges of the said opening and projected inside of the said vessel, said funnel having its open end at a point below the lower end of the opening in the side of the vessel whereby to form a collecting trough, and a check member removably and slidably mounted within the funnel for controlling the outfeed of the contents of the vessel into the said trough, the said check member consisting of a U-shaped spring metal body having its walls shaped to frictionally engage with the walls of the funnel.

2. In a poultry device, a vessel closed at the top and bottom and having an opening in one side thereof, a funnel attached to the edges of the said opening and projected inside of the said vessel, said funnel having its open end at a point below the lower end of the opening in the side of the vessel whereby to form a collecting trough, a check member removably and slidably mounted within the funnel for controlling the outfeed of the contents of the vessel into the said trough, the said check member consisting of a U-shaped spring metal body having its walls shaped to frictionally engage with the walls of the funnel, the lower end of the said check member body having an opening, and the upper edge of the said body having an inturned finger portion.

1,025,226. GAME APPARATUS. CHARLES L. WOOD, Woburn, Mass. Filed Feb. 23, 1912. Serial No. 679,341. (Cl. 46—62.)

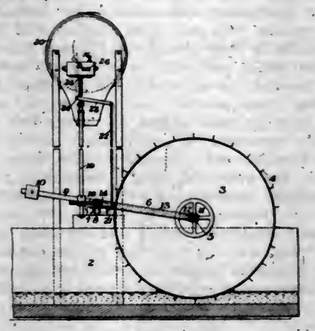


1. In a game apparatus of the character described, in combination, uprights, a rod supported by said uprights, a plurality of casings pivotally mounted on said rod and provided with display openings, tablets in said casings, rods to which said tablets are secured, springs to move said tablets into line with said openings, targets secured to the lower end of said rods, and a rod secured to said uprights and with which the said targets are engaged to hold the tablets in their concealed position and from which they are capable of being disengaged to permit the springs to move the tablets into line with the display openings, substantially as described.

2. In a game apparatus of the character described, in combination, uprights, a rod supported by said uprights, a plurality of casings pivotally mounted on said rod and provided with display openings, tablets in said casings having side bearing pieces on their front surfaces, rods to which said tablets are secured, springs to move said tablets into line with said openings, targets secured to the lower end of said rods, and a rod secured to said uprights and with which the said targets are engaged to hold the tablets in their concealed position and from which they are capable of being disengaged to permit the springs to move the tablets into line with the display openings, substantially as described.

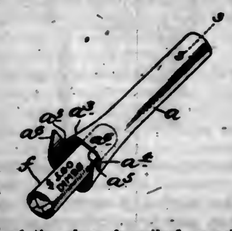
3. In a game apparatus of the character described, in combination, a sliding tablet, a pivoted support for said tablet having a display opening with which said tablet cooperates, a movable rod to which said tablet is secured, a target secured to said rod below said support, holding means with which said target coöperates to normally maintain the tablet below the display opening and to hold the tablet-support stationary until the target is disengaged from said holding means, and means to move said tablet into register with the display opening, substantially as described.

1,025,227. APPARATUS FOR MEASURING VOLUME OF FLOWING WATER, &c. THOMAS B. WYLIE, Haysville, Pa. Filed Sept. 11, 1909. Serial No. 517,325. (Cl. 73—37.)



In apparatus of the character described, a short buoyant float drum of large diameter and having peripheral blades or paddles, a rotary shaft having secured thereto a pair of projecting arms between which the drum is mounted, and which are provided with bearings for the shaft of the drum, indicating gearing arranged to be actuated by the oscillating movement of said rotary shaft imparted by the drum, and other indicating mechanism geared to the drum and actuated by its rotation; substantially as described.

1,025,228. COIN-PACKAGING DEVICE. AUGUSTUS ABBOTT, New York, N. Y., assignor to Abbott Coin Counter Company, New York, N. Y., a Corporation of Delaware. Filed Sept. 16, 1911. Serial No. 649,636. (Cl. 133—1.)



1. A device of the class described, consisting of a tube closed at one end and open at the other, the open end being slightly enlarged and one side thereof being cut away at

an angle to said end and provided with projecting wing portions.

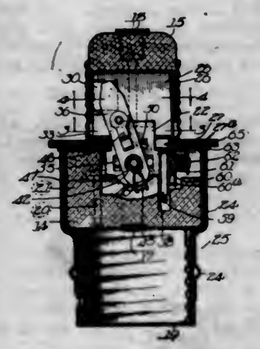
2. A device of the class described, comprising a tube open at one end and closed at the other, the open end being enlarged and made oblong in cross section, and one side portion thereof being cut away at an angle to said end and provided with projecting wing portions.

1,025,229. HOSE-SUPPORTER. SAMUEL J. AGBAY, Worcester, Mass. Filed July 26, 1909. Serial No. 509,571. (Cl. 24—245.)



In a garment supporter, a main strip, a metal loop member attached to one extremity of said strip, a clasp member, a connecting link member for connecting the said loop member with said clasp member, said link member comprising a body portion and looped end portions, one of said looped end portions adapted to embrace the said loop member, the opposite end of said link adapted to embrace the clasp member, central upwardly extending apertured ears provided on said connecting link, a clamping member comprising a curved plate having teeth on the edges thereof, said clamping member being pivotally mounted in the apertured ears, a detachable button attaching member comprising a web strip, one extremity of said web strip adapted to be adjustably held between the teeth of said clamping member and the body portion of the connecting link, and a portion of the detachable button securing member adapted to overlie and engage the top of said clamping member when the same is in operation.

1,025,230. LAMP-SOCKET. ERNST G. K. ANDERSON, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed May 12, 1909. Serial No. 495,402. (Cl. 173—334.)



1. The combination with a lamp-receiving device, of a plug associated therewith and having a center contact and side contacts, an oscillating switch for connecting one of the contacts of said plug with one of the contacts of the lamp-receiving device, and a flexible pull member for operating said switch.

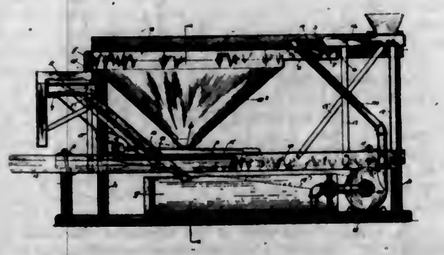
2. The combination with a lamp-receiving device, of a plug associated therewith having a center contact, a rotatable outer contact carried by said plug, a switch contact having a portion arranged to be slidably engaged by said outer contact, and a switch arm for connecting said switch contact with one of the contacts of the lamp-receiving device.

3. In a device of the character described, the combination with an insulating base, of a threaded shell and center contact mounted on one side of said base, an insulating projection on the other side of said base, a center contact mounted on said projection and a rotatable threaded contact mounted on said projection, a stationary switch contact arranged in a recess in said projection and having a sliding electrical connection with said rotatable sleeve, an oscillating switch contact mounted in a recess in said insulating base, and a flexible pull member extending to the exterior of the socket casing for operating said oscillating switch contact.

4. In a device of the character described, the combination with an insulating base, of a center contact and threaded lamp-receiving shell mounted on one side thereof, an insulating projection from said base on the other side thereof, a center contact mounted on the end of said projection, a rotatable threaded sleeve surrounding said projection, a stationary switch contact mounted in a recess in said projection and having a sliding electrical connection with said rotatable sleeve, an oscillating switch contact operating in said recess and mounted on a frame arranged in a recess in said base and having electrical connection with said threaded shell, an oscillating member, a spring connecting said oscillating member with the oscillating switch contact, a flexible pull member extending to the exterior of the socket casing for operating said oscillating member, and means for holding the oscillating switch member against movement until the spring has been placed under sufficient tension to operate the same.

5. In a device of the character described, the combination with an insulating base, of a threaded lamp receiver, a lamp-receiving shell and center contact mounted on one side thereof, an insulating projection extending beyond the opposite side thereof, a center contact and outer contact carried on said projection, a stationary switch contact connected with one of the contacts on said projection, an oscillating switch contact, an oscillating member for operating the same, a spring connecting said oscillating contact and said oscillating member, a rotatable member for operating said oscillating member, and a flexible pull member for operating said rotatable member.

1,025,231. APPARATUS FOR SEPARATING SUBSTANCES OF DIFFERENT SPECIFIC GRAVITIES. WILLIAM C. ANDERSON, San Jose, Cal. Filed June 5, 1908. Serial No. 436,970. (Cl. 130—32.)



1. In combination, a separating tank having a lower discharge for heavier material and an upper discharge for lighter material, a shaking drainer underlying said tank and receiving separated material from the lower discharge, said shaking drainer having a portion extending up in proximity to the tank, a tray upon said upstanding portion and partaking of the shake of the drainer and its upstanding portion, said tray overhanging the tank and adapted to feed material thereto.

2. In combination, a tank having an overflow outlet at one side, a relatively short substantially horizontal platform at the opposite side and delivering to the tank substantially in line with overflow, means for delivering a current of water toward the end of said platform, means in proximity to said water delivery means for reversing the current and means for delivering the material upon said current in the region of agitation due to such reversal.

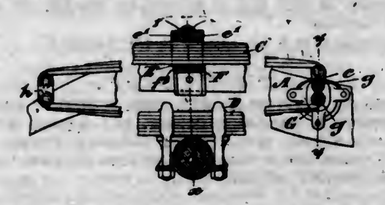
3. In combination, a tank having an overflow outlet at one side, a relatively short substantially horizontal platform at the opposite side and delivering to the tank substantially in line with the overflow, means for delivering a current of water toward the end of said platform, an end closure and a flange overhanging said platform in proximity to said water delivery means for reversing the current and means for delivering the material upon said current in the region of agitation due to such reversal.

1,025,232. SPARK-PLUG FOR INTERNAL-COMBUSTION ENGINES. VINCENT G. APPLE, Dayton, Ohio. Filed Aug. 3, 1906. Serial No. 329,031. (Cl. 123—169.)



In a device of the character described, an insulated-conductor unit, consisting of an insulating part, 5, having therein a longitudinal central bore of reduced diameter at its ends and larger diameter between its ends, and a central conductor of substantially the diameter of the reduced portion of the bore, having at each end an integral enlargement, the reduced ends of the bore and the conductor enlargements being fused together with said enlargements partially embedded intimately within the body of the insulating part, thereby permanently to unite said conductor and insulating part, and completely to close the bore of said insulating part.

1,025,233. SPRING FOR VEHICLES. HERBERT AUSTIN, Barnt Green, near Birmingham, England. Filed Apr. 14, 1909. Serial No. 489,780. (Cl. 21—103.)



1. An elliptic spring for vehicles, comprising an upper main member, a lower main member, a link connecting one end of one of the main members to the vehicle and permitting endwise movement of such end in relation to the vehicle, means for pivotally attaching the corresponding end of the other main member directly to the vehicle, a link connecting together the other ends of said members, and means for directly pivotally connecting the middle of the upper main member to the vehicle.

2. An elliptic spring for vehicles, comprising an upper main member, a lower main member, means for pivotally linking one end of one of the main members to the vehicle, means for pivotally attaching the corresponding end of the other main member directly to the vehicle, means for pivotally linking together the other ends of said members, and means for directly pivotally connecting the middle of the upper main member to the vehicle.

3. An elliptic spring for vehicles, comprising an upper main member C, mounted at its middle to rock about a pin f^3 of which the axis is rigid with the vehicle, a link o connecting one end of said member with the vehicle, a lower main member D, a pivot pin g directly pivotally connecting with the vehicle the end of such member which corresponds with said end of the upper member, and a link h connecting together the other ends of said members.

4. An elliptic spring for vehicles, comprising an upper main member C., a box E within which the member C is fixed, a bracket F within which the box E just fits easily sidewise, a pivot pin f^3 which has its axis rigid with the vehicle, a bearing e in the upper end of the box, which bears against the under side of the pin and allows the box to rock under the movements of the member C, a lower main member D, means by which the two main members are pivotally connected at one end to the vehicle one of them directly and the other by a link and are pivotally connected together at their other ends.

5. An elliptic spring for vehicles, comprising an upper member C, a box E, a bracket F, a pin f^3, a bearing e in the upper end of the box, a link o pivotally connecting one end of the member C with the vehicle, a lower member D, a pin g pivotally connecting such member directly with the vehicle, and a link h connecting together the other ends of said members, substantially as set forth.

1,025,234. DOLL. MARIE K. BAKER, Houston, Tex. Filed Dec. 12, 1910, Serial No. 596,837. Renewed Mar. 27, 1912. Serial No. 686,621. (Cl. 46—40.)



1. A doll having a stiff face piece and rearwardly extending clamps carried thereby, one on each side, and disposed to clamp the head of the doll.

2. A doll having a stiff face piece and rearwardly extending clamps carried thereby, on each side, and clamping the doll head and suitable engaging means carried by said face piece and engaging with the wig of the doll and holding the same in position on the head.

3. A doll having a stiff face and neck piece, the neck portion extending laterally over the shoulders and members extending from the shoulder portion and clamping the trunk of the doll in front and rear and rearwardly extending resilient clamps carried by the face piece and clamping the head of the doll on each side.

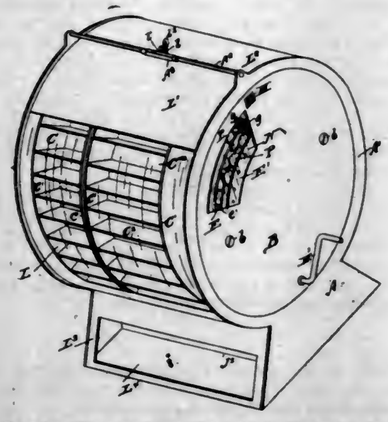
4. A doll having a stiff face and neck piece, the lower end of the neck portion extending laterally over the shoulders and resilient straps extending down in front and rear from the laterally extending neck portion and clamping the trunk of the doll and rearwardly extending resilient clamps carried by the face piece and clamping the head of the doll.

5. A doll having a trunk, head and limbs composed of a fabric covering and suitable stuffing enveloped thereby, the fabric of the head being continuous with that of the trunk; a stiff face piece, shaped to conform to the contour

of the human face and secured over the fabric of the head of the doll and suitable clamps carried by the face piece and clamping the doll head.

[Claims 6 to 8 not printed in the Gazette.]

1,025,235. VENDING-MACHINE. SAMUEL R. BEAL and JAMES D. CRANDELL, Adrian, Mich., assignors to The Adrian Novelty Co., Adrian, Mich., a Corporation of Michigan. Filed Dec. 12, 1910. Serial No. 596,764. (Cl. 194—85.)



1. In a vending machine, the combination of a frame, a coin disk having a plurality of peripheral coin pockets for supporting the coins with their periphery extending beyond the periphery of the disk, a coin chute to deliver coins to the disk, a swinging lever adapted to engage the periphery of the last inserted coin a distance equal to one of the pockets of the drum, and means extending through the frame adapted to actuate said swinging lever, substantially as described.

2. In a vending machine, the combination of a case, a frame for supporting the case, a coin disk having a plurality of peripheral coin pockets adapted to support the coins with their periphery extending beyond the periphery of the disk, a coin chute to deliver coins to the disk, a swinging lever adapted to engage the periphery of the last inserted coin, a discharge opening for the merchandise through the case, means for periodically closing said discharge opening actuated by said swinging lever, and means extending through the frame adapted for manually actuating the swinging lever.

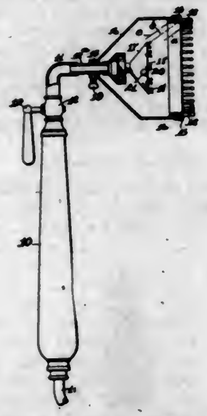
3. In a vending machine, the combination of a frame, a coin disk having a plurality of peripheral coin pockets, the pockets of said disk adapted to support the coins with their periphery extending beyond the periphery of the disk, a coin chute to deliver coins to the disk, a swinging lever provided at one end with a forked member adapted to receive the coin between its tines whereby upon operating the lever the disk may be rotated, and means for actuating said lever, substantially as described.

4. In a vending machine, the combination of a frame, a coin disk having a plurality of peripheral coin pockets, the pockets of said disk adapted to support the coins with their periphery, extending beyond the periphery of the disk, a coin chute to deliver coins to the disk, a swinging lever provided at one end with a forked member adapted to receive the coin between its tines, said member provided with a table portion to receive and support a coin delivered through the chute prior to the return of the lever to its initial position, and means for actuating said lever, substantially as described.

5. In a vending machine, the combination of a frame, a coin disk having a plurality of peripheral coin pockets to support the coins with their periphery extending beyond the periphery of the disk, a coin chute to deliver coins to the disk, a swinging lever provided with an adjustable forked member to engage the periphery of the last inserted coin, and means for actuating said lever whereby the disk may be rotated through the co-action of the coins.

[Claims 6 to 20 not printed in the Gazette.]

1,025,236. VIBRATOR. HENRY BEHM, Jersey City, N. J. Filed Feb. 2, 1912. Serial No. 675,044. (Cl. 128—16.)



1. A vibrator comprising a holder, a vibratory element on the holder, and means for intermittently directing a continuous stream of fluid on the vibrator element to cause its vibration.

2. A vibrator comprising a holder, a series of vibratory elements on the holder, and a nozzle adapted to successively subject the elements to a stream of fluid.

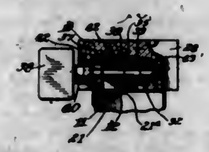
3. A vibrator comprising a holder, a vibratory element on the holder, means for intermittently directing a stream of water on the vibratory element, and an adjusting means for changing the point of the impact of the stream on the element.

4. A vibrator comprising a holder, a series of vibratory elements on the holder, a nozzle for successively directing a stream of fluid on the elements, and means for adjusting the elements toward and from the nozzle to change the point of impact of the stream on the elements.

5. A vibrator comprising a holder, a pipe in the holder, a set of vibratory elements on the edge of the holder, and a rotating nozzle in the holder, said nozzle so directing a stream of fluid that it successively engages the vibratory elements.

[Claims 6 to 9 not printed in the Gazette.]

1,025,237. SWITCH-SOCKET FOR ELECTRIC LAMPS. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed June 28, 1909. Serial No. 504,735. (Cl. 173—351.)

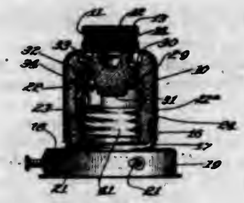


1. The combination with a base having a cavity therein; a plate in said cavity, said plate having an upturned lug at each end and one of said lugs having a spring extension projecting over said plate normally parallel therewith; said extension forming a switch contact; a second switch contact; a shaft rockably mounted in said lugs; a bridge plug carried by said shaft and arranged to make connection between said switch contacts upon movement of the shaft; and means for imparting the requisite movement to said shaft.

2. The combination of a base having a cavity in the lower side thereof; a lamp-receiving shell secured to said base so as to close the lower side of said cavity; a plate in said cavity, said plate having an upturned lug at each end, and one of said lugs having a spring extension projecting over said plate normally parallel therewith, said extension forming a switch contact; a shaft rockably mounted in said lugs, a bridge plug carried by said shaft and arranged to make connection between said extension and said lamp-receiving shell upon movement of said shaft; and means for imparting the requisite movement to said shaft.

3. The combination of a base having a cavity in the lower side thereof; a lamp-receiving shell secured to the lower side of said base and closing the lower end of said cavity; a binding terminal upon the other side of said base; a plate in said cavity, said plate having an upturned lug at each end and one of said lugs having a spring extension projecting over said plate normally parallel therewith, said extension forming a switch contact; a shaft rockably mounted in said lugs; a bridge plug, carried by said shaft and arranged to make connection between said shell and said extension upon movement of the shaft; and means for imparting the requisite movement to the shaft.

1,025,238. WEATHERPROOF ELECTRIC-LAMP SOCKET. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 23, 1909. Serial No. 509,184. (Cl. 173—358.)



1. In a lamp socket, the combination of a casing shell having means thereon for securing the same to a support, the lower end of said shell having screw threads, a threaded ring screwing into said shell, a base inserted into said shell and resting upon said ring, lamp-holding means carried by said base, and binding terminals carried by said base.

2. In a lamp socket, the combination of a casing shell, means secured thereto for supporting the same, a ring insertible into the lower end of said casing shell, means for securing said ring in position in said shell, an insulating base resting upon said ring, and lamp-holding means carried by said base.

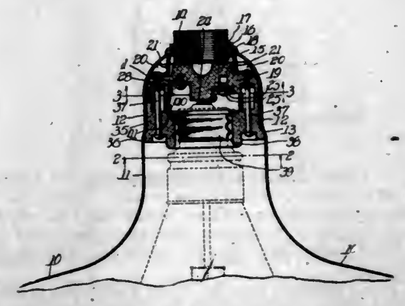
3. In a lamp socket, the combination of a casing shell, a supporting bushing secured to said shell, a member insertible into said shell from the lower end, a base resting upon said insertible member, lamp-holding means carried by said base, and binding terminals carried by said base and accessible through said lamp-holding means.

4. In a lamp socket, the combination of a casing shell having a bushing secured at its upper end and having its lower end screw threaded, an insulating base inserted into the lower end of said casing shell, a threaded sleeve carried by said base, binding terminals upon said base, and a threaded ring secrewed into the threaded end of said casing shell and arranged to support said base in said casing shell.

5. In a lamp socket, the combination of a casing shell having a supporting neck, a base inserted into the lower end of said shell, means inserted into said shell after said base is in position and supporting said base, a lamp-receiving sleeve supported by said base, and binding terminals carried by said base, said binding terminals being accessible through said sleeve.

[Claims 6 to 11 not printed in the Gazette.]

1,025,239. ELECTRIC-LAMP SOCKET. REUBEN B. BENJAMIN, Chicago, Ill., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 3, 1910. Serial No. 590,502. (Cl. 173—358.)



1. The combination with a support, of a casing secured at one end to said support and having an opening at the other end through which a lamp receiver may be passed into the casing, a bracket removably secured to said support independently of said casing, a lamp receiver and associated contacts adapted to be inserted into said casing through the opening thereof, and means for connecting said lamp receiver with said bracket.

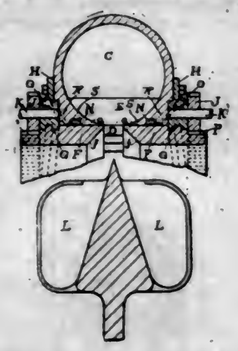
2. The combination with a support, of a casing secured to said support at one end and having an opening at the other end through which a lamp receiver may be inserted into said casing, a bracket secured to said support independently of said casing, a two part lamp receiver contained in said casing, and means, passing through both portions of said lamp receiver for removably connecting the latter to said bracket, whereby the removal of said connecting means enables the parts of the lamp receiver to be separated from each other.

3. In a lamp socket, the combination with a support having the end thereof screw threaded, of a casing having an opening in one end to enable the casing to be placed over said support, and having an opening in the other end through which a lamp receiver may be passed into the casing, a bracket threaded upon said support so as to clamp said casing against withdrawal therefrom, and a lamp receiver contained in said casing and secured to said bracket independently of said casing.

4. In a lamp socket, the combination with a support having the end thereof screw threaded, of a casing having an opening in one end to enable the casing to be placed over said support, and having an opening in the other end through which a lamp receiver may be passed into the casing, a bracket threaded upon said support so as to clamp said casing against withdrawal therefrom, a two-part lamp receiver contained in said casing, and a screw passing through both parts of the lamp receiver and entering said bracket.

5. An electric lamp socket comprising, in combination, an externally threaded bushing adapted to be secured to a conduit or the like, and having an external shoulder thereon; a casing having an opening in one end to enable said casing to be placed over said bushing in proximity to the shoulder thereof, and having an opening in the other end through which a lamp receiver may be inserted into the casing; a bracket threaded upon said bushing and clamping said casing in position upon said bushing, and a lamp receiver contained in said casing and removably secured to said bracket independently of said casing.

1,025,240. REGULATING-GATE FOR WATER-WHEELS. SENECA LUCIEN BERRY, Sunnyvale, Cal. Filed May 13, 1911. Serial No. 627,034. (Cl. 138—18.)



1. In a regulating gate for water wheels, the combination of a circumferential water conduit having its discharge surfaces disposed at an abrupt angle to the flow line of the jet, with movable circumferential plates having their inner edges beveled outwardly, substantially as described.

2. In a regulating gate for water wheels, the combination of a water conduit having its discharge surfaces disposed at an abrupt angle to the flow line of the jet, guide vanes, movable circumferential plates having their inner edges beveled outwardly, and packing placed between said movable plates and said conduit, substantially as described.

3. In a regulating gate for water wheels, the combination of a water conduit having its discharge surfaces disposed at an abrupt angle to the flow line of the jet, movable circumferential plates having their inner edges beveled outwardly, and means for operating said movable plates singly or together, substantially as described.

4. In a regulating gate for water wheels, the combination of a water conduit having its discharge surfaces disposed at an abrupt angle to the flow line of the jet, movable circumferential plates having their inner edges beveled outwardly, and means for lubricating the contact faces of said conduit and said movable plates, substantially as described.

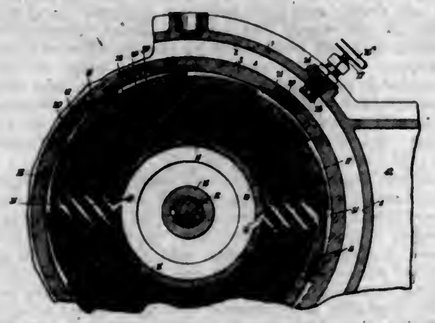
5. In a regulating gate for water wheels, the combination of a water conduit having its discharge surfaces disposed at an abrupt angle to the flow line of the jet, movable circumferential plates having their inner edges beveled outwardly, packing placed between said conduit and said movable plates, means for operating said movable plates singly or together, and means for lubricating the contact surfaces of said conduit and said movable plates, substantially as described.

1,025,241. TURBINE. JOSEPH BLAKER, New York, N. Y. Filed June 14, 1911. Serial No. 633,017. (Cl. 121—60.)

1. The combination with a casing, of a rotor rotatably mounted in said casing, said rotor embodying side plates and a plurality of concentrically-arranged solid cylinders secured to said side plates, said cylinders being equally spaced one from the other to form fluid passages of constant volume.

2. The combination with a casing, of a rotor rotatably mounted in said casing, said rotor embodying side plates and a plurality of concentrically-arranged cylinders secured to said side plates, said cylinders being equally spaced one from the other, said cylinders being arranged in groups or stages and having passages connecting one group or stage with the next adjacent group or stage.

3. The combination with a casing, of a rotor rotatably mounted in said casing, said rotor embodying side plates and a plurality of concentrically-arranged cylinders secured to said side plates, said cylinders being equally spaced one from the other, said cylinders being arranged in groups or stages and having passages connecting one group or stage with the next adjacent group or stage, and symmetrically-located stops forming the walls of said passages.

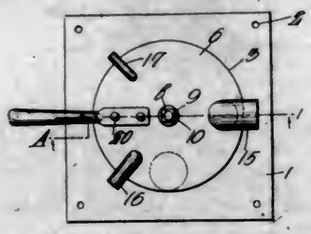


4. The combination with a casing, of a rotor rotatably mounted in said casing, said rotor embodying a plurality of plates and a plurality of concentrically-arranged imperforated cylinders secured to said plates and forming fluid passages between them.

5. The combination with a casing, of a rotor rotatably mounted in said casing, said rotor embodying a plurality of plates, said plates having concentrically-arranged grooves therein, a plurality of solid cylinders engaging said grooves and spaced apart so as to form continuous fluid passages of uniform length therebetween, and means for preventing circular movement of said cylinders relative to said plates.

[Claims 6 to 12 not printed in the Gazette.]

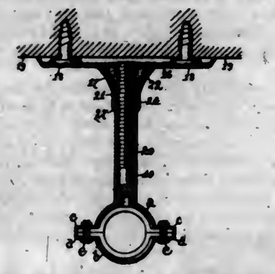
1,025,242. GATE FOR JIGS. JAMES C. BREEDEN, Oronoga, Mo. Filed Oct. 4, 1911. Serial No. 652,888. (Cl. 137—7.)



A device of the class described comprising a flat base plate provided with a circular recess in one face, and with an opening located within the recess; a flat, circular cut-off plate fitting closely in the recess and provided with openings of successively diminishing diameters, each opening in the cut-off plate being adapted to be alined successively with the opening in the base plate; angle couplings secured in the openings of the cut-off plate; a pivot element connecting the plates; and a handle secured to the cut-off plate and outstanding beyond the periphery of the same.

1,025,243. PIPE-HANGER. LEWIS A. CARPENTER and RICHARD MIDDLETON, Revere, Mass. Filed Feb. 24, 1912. Serial No. 679,594. (Cl. 248—31.)

1. In a pipe hanger, in combination, sheet-metal pipe-engaging members, a threaded rod secured to one of said members, a sheet metal base plate having a threaded nipple with which the free end of said rod engages, a sleeve loose on said threaded rod, a nut on said threaded rod having at one end a cylindrical extension for the reception of one end of said sleeve, and having at its other end a clamping extension and an external shoulder, and a sheet metal bell abutting against said shoulder and secured to said nut by said clamping extension, substantially as described.

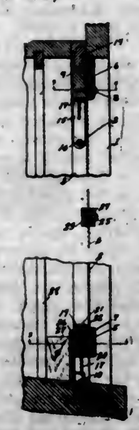


2. In a pipe hanger, in combination, pipe-engaging members, a threaded rod secured to one of said members, a base plate provided with a threaded opening with which the free end of said rod engages, a sleeve loose on said threaded rod, a nut on said threaded rod having at one end a cylindrical extension for the reception of one end of said sleeve and having at its other end a clamping extension and an external shoulder, and a sheet metal bell abutting against said shoulder and secured to said nut by said clamping extension, substantially as described.

3. In a pipe hanger, in combination, a sheet-metal pipe-engaging member having a hole extended through it, a threaded solid rod having a reduced end portion forming a shoulder and provided with a socket which forms a hollow extension of the solid rod which is inserted through the hole in said pipe-engaging member and expanded therein, a sheet metal base plate having a threaded opening for engagement with said rod, a nut engaging said threaded rod, a sleeve interposed between said nut and pipe engaging member, and a sheet metal bell secured to said nut and engaging said base plate, substantially as described.

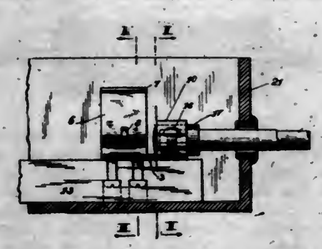
4. In a pipe hanger, in combination, sheet-metal pipe-engaging members, a threaded solid rod secured to one of said members, a sheet metal base plate having a threaded opening with which the threaded rod is engaged, a nut on said rod, a sleeve on said rod interposed between said nut and pipe-engaging members, and a metal bell interposed between said nut and said base plate and bearing against the latter, substantially as described.

1,025,244. WINDOW-SCREEN. JOHN H. CHAMBERLIN, Kalamazoo, Mich. Filed Aug. 23, 1911. Serial No. 645,496. (Cl. 156—14.)



The combination with a window casing, of a screen, cross bars secured to the top and bottom thereof, the lower cross bar having vertical slots in its ends, and means for securing the lower cross bar to the window sill, comprising hooks on the sill, threaded rods with hooks to engage said hooks on the sill, and nuts for said rods, said lower cross bar being provided with vertical holes therethrough.

1,025,245. COMBINED FUSE CONTACT-CLIP AND TERMINAL HOLDER. ROBERT C. COLE, West Hartford, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed May 4, 1911. Serial No. 624,986. (Cl. 175—273.)



1. A combined sheet metal fuse clip and line terminal strap formed from a blank having two parts with a neck connecting said parts, one of said parts being shaped into two opposing spring clips and the other being shaped to form the strap for the line terminal, the strap-forming part having wings of unequal length from the axis of the device, whereby the longer wing may embrace the line terminal and thence be opposed to the shorter wing so that the two wings may be clamped together by a screw disposed perpendicularly to the base block on which the device is mounted.

2. A sheet metal line terminal strap for fuses, said strap having a portion intermediate the ends thereof shaped to embrace the line terminal and having the ends thereof opposed, and substantially parallel, with alined screw holes therein, a flange or lip carried by one of the end portions perpendicular to the other end portion to prevent disalinement of the holes when the strap is tightened, and a screw passed through the alined screw holes for tightening the strap on the line terminal.

1,025,246. FUSE-BLOCK CLIP. ROBERT C. COLE, West Hartford, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed May 16, 1911, Serial No. 627,518. Renewed Jan. 4, 1912. Serial No. 669,437. (Cl. 175—273.)



1. A fuse-block comprising an insulating base perforated near its extremities and provided with depressions in its upper surface adjacent the perforations, in combination with fuse clips secured to the block by securing members passed through said perforations, and provided with lugs engaging said depressions to maintain the alinement of the clips, and a clamping member threaded to said securing member whereby a line terminal may be clamped in electrical contact with the clip.

2. A fuse block comprising an insulating base block having recesses in its upper surface, fuse clips provided with depressed integral lugs occupying said recesses, an eyelet securing each lug to the base block and a line terminal clamp screw screwed into the eyelet.

3. In a fuse block, a fuse clip formed of a base plate and two spring arms adapted to embrace the side or ferrule contact surfaces of an inclosed fuse, and provided with a central perforation between said arms, in combina-

tion with one or more integral lugs formed on said clip to engage a base block, a securing member in the said perforation to secure the clip to the base-block and a line terminal clamp screw screwed into said securing member.

1,025,247. INCLOSED FUSE. ROBERT C. COLE, West Hartford, Conn., assignor to The Johns-Pratt Company, Hartford, Conn., a Corporation of Connecticut. Filed Mar. 13, 1909, Serial No. 483,249. Renewed Jan. 4, 1912. Serial No. 669,438. (Cl. 175—273.)

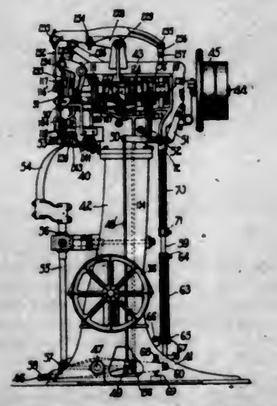


1. A conducting element for inclosed fuses comprising two fuse-link terminals provided with cup-shaped disks at their inner extremities and a plurality of separate, straight, flat fuse links arranged in radial positions with respect to the axis of said terminals and connecting said disks in multiple relation and embedded at their extremities in a conducting material contained within said cup-shaped disks.

2. An inclosed fuse comprising a casing containing a plurality of fuse links formed of flat, straight strips of fusible material arranged in multiple relation and in substantially radial positions with respect to the axis of the fuse, and two fuse link terminals each provided with a lateral enlargement at its inner end, to each of which enlargements the ends of said radially arranged links are directly and rigidly connected, thereby forming a rigid conducting element for insertion within the fuse casing.

3. In an inclosed fuse, a casing containing fuse-link terminals provided with disks at their inner extremities, and a plurality of separate fuse-links secured to and connecting said disks, in combination with an insulating sleeve surrounding said disks and forming therewith an inclosure for said fuse-links.

1,025,248. MACHINE FOR MAKING AND DRIVING STAPLES. PETER A. COUPAL, South Boston, Mass., assignor to Buffalo Shoe Co., Buffalo, N. Y., a Corporation of West Virginia. Filed Feb. 21, 1910. Serial No. 545,011. (Cl. 1—20.)



1. The combination, in a machine for making and driving fasteners, of a wire reel adapted to hold a coil of wire, instrumentalities adapted to sever a piece of said wire, form the same into a fastener and drive said fastener, means to feed said wire from said reel toward said instrumentalities, and means to rotate said reel in the proper direction to cause said wire to unwind therefrom.

2. The combination, in a machine for making and driving fasteners, of a wire reel adapted to hold a coil of wire, instrumentalities adapted to sever a piece of wire, form the same into a fastener and drive said fastener, means to feed said wire from said reel toward said instrumentalities, and means to rotate said reel by frictional engagement in the proper direction to cause said wire to unwind therefrom.

3. The combination, in a machine for making and driving fasteners, of a wire reel adapted to hold a coil of wire, instrumentalities adapted to sever a piece of wire, form the same into a fastener and drive said fastener, means to feed said wire from said reel toward said instrumentalities, a device adapted to engage said reel, a rocker arm on which said device is mounted, and means to impart a rocking movement to said arm, whereby said reel is rotated in the proper direction to cause said wire to unwind therefrom.

4. The combination, in a machine for forming fasteners from wire, of a wire feeding device adapted to grip a wire, means to impart a to and fro movement to said device, a wire locking device adapted to grip said wire, means to actuate said devices alternately, whereby said feeding device is caused to grip said wire to feed the same during the movement of said feeding device in one direction and whereby said locking device is caused to grip said wire and hold the same stationary during the movement of said feeding device in the opposite direction, means to adjust said wire feeding device to cause the same to engage said wire with more or less pressure, means to hold said adjusting means in a predetermined position of adjustment and instrumentalities adapted to sever a piece of said wire and form the severed piece into a fastener.

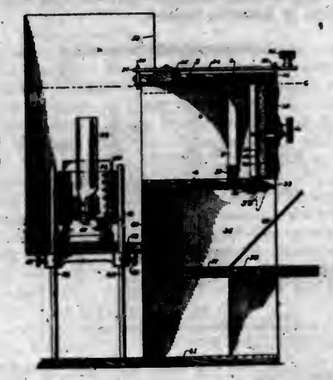
5. The combination, in a machine for forming fasteners from wire, of a wire feeding device adapted to grip a wire, means to impart a to and fro movement to said device, a wire locking device adapted to grip said wire, means to actuate said devices alternately, whereby said feeding device is caused to grip said wire to feed the same during the movement of said feeding device in one direction and whereby said locking device is caused to grip said wire and hold the same stationary during the movement of said feeding device in the opposite direction, means to adjust said wire locking device to cause the same to engage said wire with more or less pressure, means to hold said adjusting means in a predetermined position of adjustment and instrumentalities adapted to sever a piece of said wire and form the severed piece into a fastener.

[Claims 6 and 7 not printed in the Gazette.]

1,025,249. PHOTOGRAPHIC-PRINTING MACHINE. JOHN S. CUMMINGS, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed Mar. 5, 1906. Serial No. 304,156. (Cl. 95—73.)

1. In a device for exposing photographic material, the combination with a suitable chamber arranged to receive light from a suitable source, of a platen arranged to hold the sensitized material in exposing position, means normally tending to operate the platen to release the sensitized material, a shutter having a normal tendency to move to cut off light to the sensitized material, means independent of the platen operating means for moving the shutter to exposing position after the platen has been moved to exposing position, and a member coöperating with the shutter and platen for locking them in exposing position and arranged to simultaneously release them to allow said shutter to move into position between the sensitized material and the light, and to allow said platen to release said sensitized material.

2. In a device for exposing sensitized material, the combination with a suitable chamber for the sensitized material, of a platen for holding the sensitized material in exposing position, a shutter for covering and uncovering the sensitized material, having a normal tendency to move to cover the material, a locking device for holding the platen in exposing position and a locking device for holding the shutter in exposing position connected to the locking device for the platen whereby the operation of one locking device effects the operation of the other.



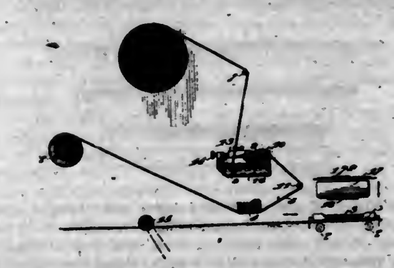
3. In a device for exposing sensitized materials, the combination with an exposure chamber adapted to receive light from a suitable source, of a platen for holding the sensitized material in exposing position having a normal tendency to release the material, a shutter having a normal tendency to cut off the light from said material, means for moving the shutter to exposing position after the platen has been moved to exposing position and means operatively connected for locking the shutter and platen in exposing position.

4. In a device for exposing photographic material, the combination with a suitable exposure chamber, and a platen for positioning the material in exposing position having a normal tendency to release the material, of a shutter, a device operating automatically to retain the shutter when the latter is moved into exposing position and a locking member for the platen having operative connection with the said device and movable to simultaneously release the platen and the shutter.

5. In a device for exposing sensitized material, the combination with a suitable exposure chamber, a device for holding the sensitized material in exposing position having a normal tendency to release the material, and a shutter, of a device operating automatically to retain the shutter when the latter is moved into exposing position, and a locking member for the material holding device, adapted to release the shutter from the automatic retaining means.

[Claims 6 to 21 not printed in the Gazette.]

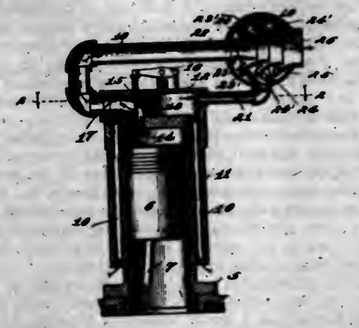
1,025,250. PROCESS OF PRINTING FROM ENGRAVED PLATES. THOMAS R. DEMERY, Philadelphia, Pa., assignor to Max Zeitler Engraving & Supply Co., Philadelphia, Pa. Filed June 28, 1911. Serial No. 635,745. (Cl. 101—182.)



1. The process of printing from engraved plates consisting in wiping the inked plate with a moist wipe, placing a sheet of paper against the plate under pressure to receive the impression, said pressure drying the plate only on the parts immediately surrounding the engraving, inking the dry portions only, and continuing the operation as before.

2. The process of printing from engraved plates consisting in wiping the inked plate with a wipe containing a predetermined amount of moisture, thereby depositing a film of moisture of a certain density upon the face, placing a sheet of paper against the plate under pressure to receive the impression, absorbing the moisture upon those portions only of the face immediately surrounding the engraving, applying ink to the dry portions only of the face, and continuing the operation as before.

1,025,251. ENGINE-COOLING DEVICE. JOHN DESMOND, Chicago, Ill., assignor to William S. Potwin, Chicago, Ill. Filed Aug. 8, 1910. Serial No. 576,035. (Cl. 123—171.)



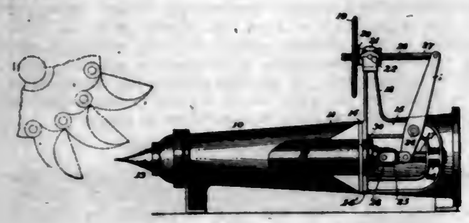
In a device of the character described, an engine cylinder casting providing a central piston-receiving chamber open at both ends and providing upon its outer surface a plurality of integral ribs extending from end to end of the cylinder, a cylindrical casing surrounding said cylinder to form independent conduits between said ribs; a separable head casting, of substantially the diameter of said engine cylinder structure, said head casting having a bottom portion for engagement over the upper end of said cylinder casting and surrounding casing to close the open head end of said cylinder casting, and providing above said bottom portion a head chamber having independent apertures through said bottom portion registering with said air conduits, an exhaust pipe integral with said head casting and leading from the bottom to the side thereof through the head chamber, a suitable valve and valve operating means associated with said exhaust pipe, an air exhaust opening in the opposite side of said head, an ejector providing an inlet and an outlet for the products of combustion from said cylinder and an inlet for air, means whereby current between said inlet and outlet for products of combustion induces flow of air through said air inlet, and suitable piping connections between said air outlets of the head casting and the air inlet of the ejector casing, and between the exhaust outlet of the head casting and the exhaust inlet of said ejector casing, said piping connections supporting the ejector in association with said cylinder and head castings; as shown.

1,025,252. NOZZLE FOR HYDRAULIC MOTORS. WILLIAM A. DOBLE, San Francisco, Cal., assignor to May E. Doble, San Francisco, Cal. Filed Jan. 18, 1910. Serial No. 538,642. (Cl. 138—18.)

1. The combination with a nozzle, of a needle extending through the wall of the nozzle and arranged to control the discharge thereof, a yoke secured to said nozzle, an outboard bearing in said yoke for said needle, and means on said yoke to operate said needle.

2. The combination with a nozzle, of a needle extending through the wall of the nozzle and arranged to control the discharge thereof, a yoke secured to said nozzle,

an outboard bearing in said yoke for said needle, an arm extending from said yoke, a lever pivoted to said yoke and operatively connected to said needle, and a hand wheel on said arm and operatively connected with said lever.



3. The combination with a nozzle, of a needle extending through the wall of the nozzle and arranged to control the discharge thereof, a yoke having an outwardly extending arm, and secured to said nozzle, an outboard bearing in said yoke for said needle, a hand wheel on said arm, and means operatively connecting said hand wheel with said needle.

4. The combination with a nozzle, of a needle extending through the wall of the nozzle and arranged to control the discharge thereof, a yoke having an outwardly extending arm, and secured to said nozzle, an outboard bearing in said yoke for said needle, a hand wheel on said arm, a lever pivoted on said yoke and connected to said needle, and a bar pivoted to said lever and having a threaded engagement with said hand wheel.

5. The combination with a nozzle having a portion curved or bent aside to receive a needle and provided with a bracket, of a needle extending through the curved wall of the nozzle and arranged to regulate the discharge thereof, a yoke bolted to said bracket and provided with an integral outwardly extending arm, an outboard bearing in said yoke for said needle, a hand wheel on said arm, and means operatively connecting said hand wheel and needle.

[Claim 6 not printed in the Gazette.]

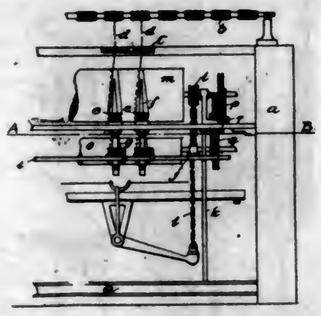
1,025,253. BOX. LOUIS W. DRAPER, Chicago, Ill. Filed July 5, 1910. Serial No. 570,216. (Cl. 229—17.)



A box comprising a body having a bottom, sides integral with said bottom, and front and rear portions integral with said bottom and having side flaps loosely fitting within said sides, and a cover having depending flanges engaging the front, back and sides of said box to hold the same in box form, the outer corner portions of the flaps on said front being cut away on curved lines to facilitate swinging the flaps into and out of said box, to permit the end to be in opened position while the cover is in place and to automatically raise the cover as said front end is pushed inwardly, substantially as described.

1,025,254. SPINNING AND DOUBLING FRAME. ALBERT EDWARD DREW, JOSEPH ARKINSTALL, WILLIAM DEAN, and JOHN HENRY HOWARTH, Bolton, England. Filed Mar. 18, 1911. Serial No. 615,376. (Cl. 118—13.)

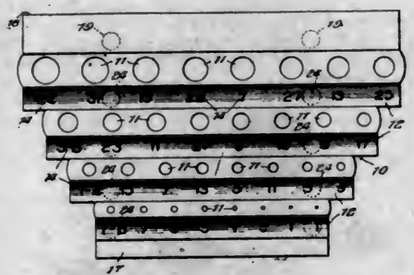
1. In apparatus of the class described, in combination, a stationary rail, ring twisters mounted thereon, a drum, driving means between said drum and said ring twisters, a lifting rail, means for raising and lowering said lifting rail, spindle sockets provided with wharves mounted on said lifting rail, a drum carried by said lifting rail, driving means between said second mentioned drum and said wharves, an endless driving member for driving one of said drums from the other of said drums, and means for keeping said endless member taut as said second mentioned dum is raised or lowered.



2. In apparatus of the class described, in combination, a stationary rail, ring twisters mounted thereon, a drum, driving means between said drum and said ring twisters, a lifting rail, means for raising and lowering said lifting rail, spindle sockets provided with wharves mounted on said lifting rail, a drum carried by said lifting rail, driving means between said second mentioned drum and said wharves, an arm pivotally mounted on the axle of said first mentioned drum, a second arm pivotally mounted on the axle of said second mentioned drum, a pulley pivotally supported by the free ends of said arms, an endless transmission member operatively associated with each of said drums and engaging said pulley.

3. In apparatus of the class described, in combination, a stationary rail, ring twisters mounted thereon, a drum, driving means between said drum and said ring twisters, a lifting rail, means for raising and lowering said lifting rail, spindle sockets provided with wharves mounted on said lifting rail, a drum carried by said lifting rail, driving means between said second mentioned drum and said wharves, a pulley fixed to the axle of said first mentioned drum, a second pulley fixed to the axle of said second mentioned drum, an arm pivotally mounted on the axle of said first mentioned drum, a second arm pivotally mounted on the axle of said second mentioned drum, a pulley pivotally supported by the free ends of said arms, and an endless transmission member passing around all of said pulleys.

1,025,255. COMBINED TOOL RACK AND GAGE. CHARLES H. DRIVER, Racine, Wis. Filed Mar. 10, 1911. Serial No. 613,657. (Cl. 206—17.)



1. A combined tool rack and gage, comprising a member having a row of graduated holes into which tools may be inserted and supported, each of said holes being of proper diameter to gage a tool and having its lower end contracted to a diameter equal to the graduated difference in the sizes of the tools, said hole being thereby prevented from receiving and supporting a tool of a gage differing from the gage of the upper end of said hole.

2. A combined tool rack and gage comprising a plurality of parallel members detachably connected together along their marginal edges, each of said members being provided with a series of gage holes adapted to receive and support a series of tools.

3. A combined tool rack and gage comprising a plurality of parallel members each provided with a series of gage holes adapted to receive and support a series of tools, each of said members being provided at its front and rear margins with flanges which overlap the flanges of adjacent members and means for securing said flanges together.

4. A combined tool rack and gage comprising a series of parallel members provided with graduated gage holes and having means for connecting them at their margins, whereby the rack may be expanded or contracted at will, and front and rear supports detachably fastened to the front and rear margins of the rack, the rear support being provided with extension legs to adapt the rear support to gages of different widths.

5. A combined tool rack and gage comprising a series of parallel members provided with graduated gage holes and having means for connecting them at their margins, whereby the rack may be expanded or contracted at will, and front and rear supports detachably fastened to the front and rear margins of the rack, the rear support being provided with screw holes to permit the device to be fastened to a vertical support.

1,025,256. WINDOW-SCREEN. HENRY A. FABER, Cincinnati, Ohio. Filed July 13, 1911. Serial No. 638,341. (Cl. 156—14.)



1. In a window screen, the combination with the wire mesh, of a main frame comprising a flat body portion, with a tubular outer edge over which the wire mesh is stretched, and a molding strip embracing the tubular edge and clamping the wire mesh upon the body portion thereof.

2. In a window screen, the combination with the wire mesh, of a main frame comprising a flat body portion, with a tubular outer edge over which the wire mesh is stretched adjacent to the beaded inner edge, and a molding strip embracing the tubular edge and clamping the wire mesh upon the body portion thereof.

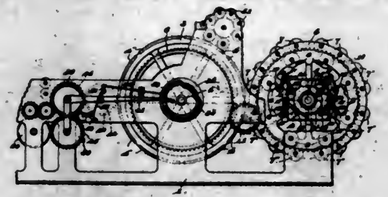
3. In a window screen, the combination with the wire mesh, of a main frame comprising a flat body portion, with a tubular outer edge over which the wire mesh is stretched adjacent to the beaded inner edge, and a molding strip embracing the tubular edge and clamping the wire mesh upon the body portion thereof, with the bead formed at one side of the plane of the body portion to form a ridge for the wire mesh to prevent moisture entering the molding.

4. In a window screen, the combination with the wire mesh, of a main frame comprising a flat body portion, with a tubular outer edge over which the wire mesh is stretched, and a molding strip embracing the tubular edge and clamping the wire mesh upon the body portion thereof, with the tubular portions of the main frame mitered and the body portions overlapping and riveted together to form the corners of the main frame.

5. In a window screen, the combination with the wire mesh, of a main frame comprising a flat body portion, with a tubular outer edge over which the wire mesh is stretched adjacent to the beaded inner edge, and a molding strip embracing the tubular edge and clamping the wire mesh upon the body portion thereof, with the tubular and beaded portions of the main frame mitered and the body portions overlapping and riveted together to form the corners of the main frame.

[Claim 6 not printed in the Gazette.]

1,025,257. PRINTING-PRESS. JOSEPH L. FIRM, Berwyn, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 3, 1911. Serial No. 600,425. (Cl. 101—89.)



1. In a printing press, the combination of a form cylinder; a plurality of sets of rotatably and revolubly mounted inking cylinders adapted each to contact a portion of the periphery of said form cylinder not contacted by the others; an impression cylinder; and an offset cylinder interposed between said impression cylinder and said form cylinder, substantially as described.

2. In a printing press, the combination of a form cylinder; a plurality of sets of rotatably and revolubly mounted inking cylinders, each set of said cylinders being adapted to contact a portion of the periphery of said form cylinder not contacted by the others; an impression cylinder; and an offset cylinder interposed between said impression cylinder and said form cylinder, the periphery of said form cylinder being to the periphery of said offset cylinder directly as the number of sets of inking cylinders coöperating with said form cylinder, substantially as described.

3. In a printing press, the combination of a form cylinder; a plurality of sets of rotatably and revolubly mounted inking cylinders, each set of said cylinders being adapted to contact a portion of the periphery of said form cylinder not contacted by the others; an offset cylinder contacting said form cylinder, the periphery of said form cylinder being to the periphery of said offset cylinder directly as the number of sets of inking cylinders coöperating with said form cylinder; and an impression cylinder adapted to intermittently contact said offset cylinder, substantially as described.

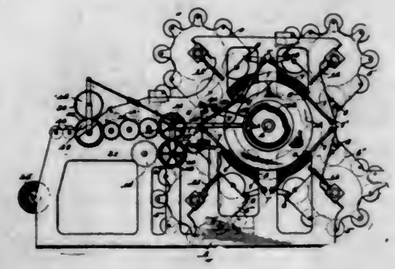
4. In a printing press, the combination of a form cylinder; a plurality of sets of rotatably and revolubly mounted inking cylinders, each set of said cylinders being adapted to contact a portion of the periphery of said form cylinder not contacted by the others; an offset cylinder contacting said form cylinder, the periphery of said form cylinder being to the periphery of said offset cylinder directly as the number of sets of inking cylinders coöperating with said form cylinder; and an impression cylinder adapted to intermittently contact said offset cylinder, the duration of the intervals of non-contact being to the duration of the intervals of contact of said impression cylinder with said offset cylinder directly as the periphery of said form cylinder is to the periphery of said offset cylinder, substantially as described.

5. In a printing press, the combination of a rotatable form cylinder; a plurality of sets of rotatably and revolubly mounted inking cylinders, each set of said cylinders being adapted to contact a portion of the periphery of said form cylinder not contacted by the others; ink fountains; ductor rollers adapted to transfer ink from said fountain to said inking cylinders; means whereby each of said ductor rollers will, upon revolution of said inking cylinders, contact a set of inking cylinders not contacted by the others; an offset cylinder contacting said form cyl-

inder, the periphery of said form cylinder being to the periphery of said offset cylinder directly as the number of sets of inking cylinders coöperating with said form cylinders; and an impression cylinder adapted to intermittently contact said offset cylinder, substantially as described.

[Claim 6 not printed in the Gazette.]

1,025,258. PRINTING-PRESS. JOSEPH L. FIRM, Berwyn, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 3, 1911. Serial No. 600,450. (Cl. 101—89.)



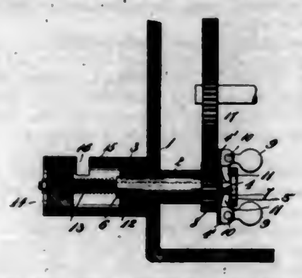
1. In a printing press, the combination of a form cylinder; inking mechanism arranged for said form cylinder; an offset cylinder arranged to contact with said cylinder; and an impression cylinder and a water applying mechanism coöperating with said offset cylinder, substantially as described.

2. In a printing press, the combination of a form cylinder; inking mechanism arranged for coöperation with said cylinder; means adapted upon rotation of said cylinder to effect the movement of each of said inking mechanisms into and out of contact with a portion of the periphery of said cylinder different from that engaged by the other inking mechanisms; an offset cylinder of less diameter than said form cylinder and arranged to contact the latter; and an impression cylinder and a water applying mechanism coöperating with said offset cylinder, substantially as described.

3. In a printing press, the combination of a form cylinder; inking mechanisms arranged for coöperation with said cylinder; means adapted upon rotation of said cylinder to effect the movement of each of said inking mechanisms into and out of contact with a portion of the periphery of said cylinder different from that engaged by the other inking mechanisms; an offset cylinder adapted to contact with said form cylinder, the periphery of said form cylinder being to the periphery of said offset cylinder directly as the number of inking mechanisms coöperating with said form cylinders; and an impression cylinder and a water applying mechanism coöperating with said offset cylinder, substantially as described.

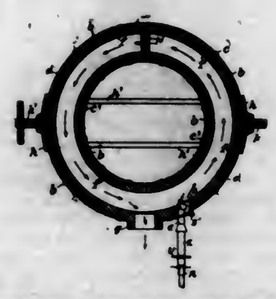
4. In a printing press, the combination of a form cylinder; inking mechanisms arranged for coöperation with said cylinder; means adapted upon rotation of said cylinder to effect the movement of each of said inking machanisms into and out of contact with a portion of the periphery of said cylinder different from that engaged by the other inking mechanisms; an offset cylinder adapted to contact with said form cylinder, the periphery of said form cylinder being to the periphery of said offset cylinder directly as the number of inking mechanisms coöperating with said form cylinder; and an impression cylinder and a water applying mechanism coöperating with said offset cylinder, the duration of the intervals of non-contact being to the duration of the intervals of contact of said impression cylinder and said water applying mechanism with said offset cylinder directly as the perihphery of said form cylinder is to the periphery of said offset cylinder, substantially as described.

1,025,259. SPEED-INDICATOR FOR CENTRIFUGAL MACHINES. HENRY N. FISHER, Waltham, Mass. Filed Dec. 18, 1909. Serial No. 533,906. (Cl. 73—123.)



A visual centrifugally-operated speed indicator comprising a casing provided with a slot, a plunger in said casing, a target adjustably mounted on said plunger and normally concealed by said casing, a sleeve carrying said plunger, centrifugally-operating levers coöperating with said plunger and arranged to draw the same through said casing and expose said target at said slot at a predetermined speed, a spring surrounding said plunger and interposed between said sleeve and target, whereby the tension of said spring may be varied by the adjustment of said target on said plunger, and means upon which said levers are mounted for rotation.

1,025,260. CONVERTER. SROL BORUCHOW FRUMKIN, Minsk, Russia. Filed Sept. 6, 1911. Serial No. 647,970. (Cl. 75—3.)



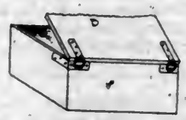
1. An apparatus of the character described, comprising an annular recipient adapted to be partly filled with the charge to be treated, means for pivotally suspending the recipient at right angles to its axis, and means for introducing an air blast into said recipient above the level of the charge so as to sweep over the surface thereof.

2. An apparatus of the character described, comprising an annular recipient adapted to be partly filled with the charge to be treated, means for pivotally suspending the recipient at right angles to its axis whereby said recipient may be completely reversed, and means for introducing an air blast into said recipient above the level of the charge so as to sweep over the surface thereof.

3. An apparatus of the character described, comprising an annular recipient adapted to be partly filled with the charge to be treated, a pair of diametrically disposed trunnions extending at right angles to the axis of said recipient, bearings supporting said trunnions whereby the recipient may be freely rotated at right angles to its axis, and means for introducing an air blast into said recipient above the level of the charge so as to sweep over the surface thereof.

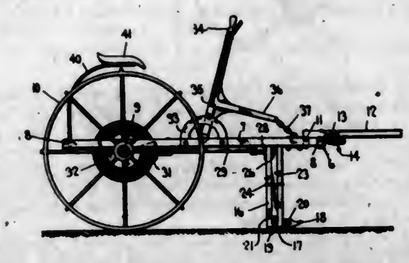
4. An apparatus of the character described, comprising a rotatable annular recipient adapted to be partly filled with the material to be treated, said recipient being provided with an air ingress opening and a gas egress opening, a nozzle entering the ingress opening and adapted to send an air blast through the recipient and over said material, air preheating tubes communicating with the nozzle, and a mantle surrounding said tubes and arranged opposite the gas egress opening, whereby the gas leaving said opening is forced to flow through said mantle.

1,025,261. BOX-HINGE. RUSSELL B. FULLER, Evansville, Ind. Filed Nov. 17, 1910. Serial No. 592,942. (Cl. 16—104.)



In a hinge, the combination with a corner iron comprising a pair of arms extending at right angles to each other, one of said arms being slotted in the direction of its length and having an outwardly struck out portion forming a loop, a link pivoted in said loop, said loop being centrally disposed with respect to the longitudinal side edges of said arm, whereby said hinge is reversible.

1,025,262. MOWER. JAMES R. FULMER, Springfield, S. C. Filed Feb. 21, 1910. Serial No. 545,105. (Cl. 56—78.)



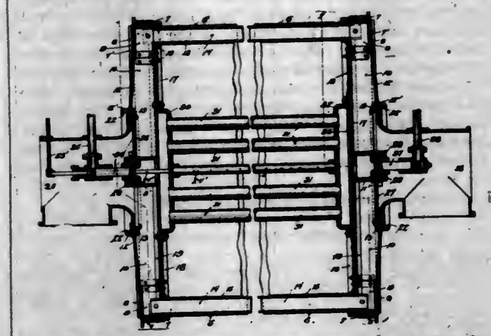
1. A machine of the class described comprising a main frame, a wheeled axle supporting said frame, a supplemental frame pivoted on said axle, downwardly extending spaced legs secured to said supplemental frame, a cutter bar supported by the lower end portions of said legs, said legs and cutter bar forming a skeleton frame wherethrough cut vines can escape rearwardly without obstruction, a cutter bar actuating lever pivotally supported between two of said legs, and shielded by said legs from clogging with cut vines, means for rocking said lever to actuate said cutter bar, and means for manipulating said supplemental frame whereby to adjust said cutter bar relatively to the ground.

2. A machine of the class described comprising a main frame, a wheeled axle supporting said frame, a supplemental frame pivoted on said axle, oppositely disposed downwardly extending spaced legs secured to the sides of said supplemental frame, a cutter bar supported by the lower end portions of said legs, a rocking cutter bar actuating lever pivotally supported between two of said legs and adapted for rocking movement between said legs whereby said lever is shielded by said legs from clogging with cut vines, means for rocking said lever to actuate said cutter bar, and means for manipulating said supplemental frame whereby to adjust said cutter bar relatively to the ground.

3. A machine of the class described comprising in combination, a horizontal main frame, a wheeled axle supporting said frame, a cutter bar, a skeleton frame depending from the forward end of said main frame and permitting of the unobstructed escape rearwardly of cut vines over said cutter bar, said cutter bar being located at the bottom of the depending portion of the frame and a series of radial fingers on said axle having a constant rotary movement and operating to pull cut vines rearwardly from said cutter bar.

4. A machine of the class described comprising a main frame, a wheeled axle supporting said frame, a swinging frame mounted within the main frame, spaced legs depending from the swinging frame, a cutter bar mounted upon the lower end portions of said legs, driven connections between the cutter bar and the axle operated by said axle, pulling fingers fixed to and radially projecting outwardly from said axle and operating to pull severed vines rearwardly from said cutter bar, said fingers having a constant rotary movement with said axle, and an operating lever secured to the main frame having connection with the swinging frame and adapted to manipulate the swinging frame whereby to maintain the cutter bar in various adjusted positions relatively to the ground.

1,025,263. APPARATUS FOR TREATING GRAIN AND OTHER MATERIALS. FRANKLIN B. GIESLER, Milwaukee, Wis. Filed July 25, 1911. Serial No. 640,493. (Cl. 34—5.)



1. In a rotary pneumatic drum type of apparatus for treatment of grain and other material, the combination of an inclosing shell having partly open heads, an inner perforated shell having closed heads, means by which communicating longitudinal and radial air spaces are established between the shells and their heads, stationary air-supply and air-exhaust flues in communication with said radial air-spaces at opposite ends of the drum, and stationary valves controlling the area of opening of said radial air-spaces to said flues, the disposition of said valves being in opposite directions from the line of obliquity of material treated in said drum.

2. In a rotary pneumatic drum type of apparatus for treatment of grain and other material, the combination of an inclosing shell having partly open heads, an inner perforated shell having closed heads, means by which communicating longitudinal and radial air spaces are established between the shells and their heads, stationary air-supply and air-exhaust flues in communication with said radial air-spaces at opopsite ends of the drum, stationary valves controlling the area of opening of said radial air-spaces to said flues, the disposition of said valves being in opposite directions from the line of obliquity of material treated in said drum, and means for distributing water and steam within the inner shell.

3. In a rotary pneumatic drum type of apparatus for treatment of grain and other material, the combination of an inclosing shell having partly open heads, an inner perforated shell having closed heads, means by which communicating longitudinal and radial air spaces are established between the shells and their heads, stationary air-supply and air-exhaust flues in communication with said radial air-spaces at opposite ends of the drum, stationary valves controlling the area of opening of said radial air-spaces to said flues, the disposition of said valves being in opposite directions from the line of obliquity of material treated in said dram, and a circulating system for cold or hot water or steam partly within the inner shell.

4. In a rotary pneumatic drum type of apparatus for treatment of grain and other material, the combination of

an inclosing shell having partly open heads, an inner perforated shell having closed heads, means by which communicating longitudinal and radial air spaces are established between the shells and their heads, stationary air-supply and air-exhaust flues in communication with said radial air-spaces at opposite ends of the drum, stationary valves controlling the area of opening of said radial air-spaces to said flues, the disposition of said valves being in opposite directions from the line of obliquity of material treated in said drum, means for distributing water and steam within the inner shell, and a circulating system for cold or hot water or steam partly within said inner shell.

5. In a rotary pneumatic malting drum type of apparatus for treatment of grain and other material, the combination of a cylindrical inclosing shell having inwardly extending outer flanges and similarly extending inner webs at regularly recurring intervals, together with spider-plate head portions matching said flanges and having hubs from which radiate webs in connection with those of said rings, said plates being provided with openings concentric to their hubs; channel-irons longitudinally of the shell and connected at their ends to the head-ring webs of the same, an inner perforated cylindrical shell attached to the channel-irons and having non-perforated heads against the connected webs aforesaid, stationary air-supply and air-exhaust flues engaging the openings in the spider-plates, and stationary segmental valves in said plate-openings, the disposition of these valves being in opposite directions from the line of obliquity of material treated in the drum.

[Claims 6 to 9 not printed in the Gazette.]

1,025,264. PULLEY. HENRY J. GILBERT, Saginaw, Mich. Original application filed Mar. 8, 1904, Serial No. 197,072. Divided and this application filed May 4, 1906. Serial No. 315,165. (Cl. 64—18.)



1. In a pulley, the combination, with a rim, of a pair of spoke arms connected therewith, the central portion of such spoke arms being outwardly curved to form the shaft bore or hub portion of the pulley, and strengthening plates each having a central portion curved to correspond with the shaft opening or hub portion of the pulley and end portions arranged to bear against the inner face of the spoke arms at points beyond the hub portions thereof; substantially as described.

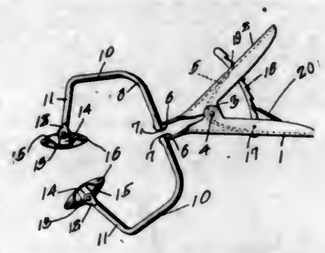
2. In a pulley, the combination, with a rim, of a pair of spoke arms connected therewith, the central portion of such spoke arms being outwardly curved to form the shaft bore or hub portion of the pulley, and strengthening plates each having a central curved portion corresponding to the hub portion and having ends arranged to bear against the inner face of the spoke arms at points beyond the hub portions thereof, said central portion of each strengthening plate being secured to the hub portion of its spoke arm, substantially as described.

3. In a pulley, the combination of a rim, a hub thimble, a pair of spoke arms having straight end portions and a central portion outwardly curved so as to be substantially concentric with the hub thimble, and plates, each having a curved part arranged between said thimble and the curved portion of the spoke arms and having end portions arranged beneath the straight portions of the spoke arms; substantially as described.

4. In a pulley, the combination of a rim, a pair of spoke arms connected therewith, the central portion of such spoke arms being outwardly curved to form the hub portion of the pulley, and strengthening plates positioned transversely of the pulley axis and consisting of plates placed on edge with their outer edges bearing upon the inner faces of the hub portions, said hub portions having rivet holes and said plates having projections *f'* adapted to pass through said holes to form rivets; substantially as described.

5. In a pulley, the combination of a rim, a pair of spoke arms connected therewith, the central portion of such spoke arms being outwardly curved to form the hub portion of the pulley, and strengthening plates positioned transversely of the pulley axis and consisting of plates placed on edge with their outer edges bearing upon the inner faces of the hub portion, said plates having projections *f'* on opposite edges, and a hub thimble which together with said hub portion have holes to receive said projections; substantially as described.

1,025,265. CHEEK-DISTENDER. EMANUEL M. GRINDLE, Holton, Kans. Filed May 26, 1911. Serial No. 629,563. (Cl. 32—7.)

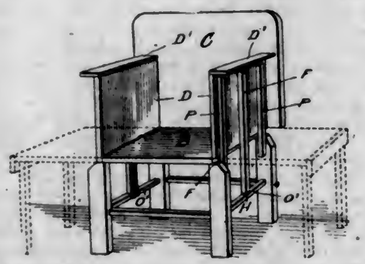


1. A cheek distender, having a pair of spring-actuated pivoted handles normally held apart, a pair of arms carried by said handles, each arm being bent to have an intermediate bowed portion to pass upon the outside of the jaws of the patient, and having their outer terminals bent inwardly, and a cheek-engaging spoon pivoted to the extreme end of each arm and substantially at right angles to the body of the handles.

2. A cheek distender, having two pivoted distended carrying arms, and a pivotally mounted distending spoon carried by each arm.

3. A cheek distender, having a pair of spring extended pivoted handles, a pair of cheek distender carrying members connected to the respective inner terminals of said handles, each of said members being made from a single piece of metal and bent to provide a hook upon one end for attachment to the handle, an outwardly extended portion terminating in a substantially U-shaped bowed portion at right angles thereto, and terminating in an inturned arm, and a cheek engaging spoon pivotally connected to said inturned arm of each member.

1,025,266. CHAIR. DANIEL M. HARMAN, Philadelphia, Pa. Filed May 2, 1911. Serial No. 624,640. (Cl. 155—6.)



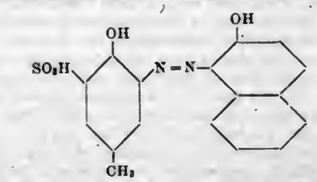
1. A chair having legs with cross-pieces connecting the same and a stationary seat supported by the legs, sides hinged to the opposite edges of the stationary seat, bars fastened to each side and projecting beyond the hinged

end thereof, a longitudinally movable rod mounted upon each of said bars, a catch upon each cross-piece and adapted to be engaged by the rod, one end of said rod being bent at an angle, springs fastened to each side, legs hinged to each side and each provided with a notch, angle levers pivoted to each side and having corresponding ends engaging the angle portion of said rod and against which levers said springs bear, each lever adapted to engage the hinged legs.

2. A chair having legs with cross-pieces connecting the same and a stationary seat supported by the legs, sides hinged to the opposite edges of the stationary seat, bars fastened to each side and projecting beyond the hinged end thereof, a longitudinally movable rod mounted upon each of said bars, a catch upon each cross-piece and adapted to be engaged by the rod, one end of said rod being bent at an angle, springs fastened to each side, legs hinged to each side and each provided with a notch, angle levers pivotally mounted upon each side and having corresponding ends engaging the angle end of said rod, said levers engaged by said springs, each lever having an L-shaped end designed for engagement with a notch in the hinged leg when the latter is in a vertical position.

1,025,267. BLUE WOOL-DYE. CARL HEIDENREICH, Leverkusen, near Cologne, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Sept. 12, 1911. Serial No. 648,996. (Cl. 8—1.)

The herein described new azo dye having the formula:



which is after being dried and pulverized in the shape of its sodium salt a violet powder soluble in water with a blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid 4-methyl-2-aminophenol-6-sulfonic acid and 1-amino-2-naphthol; and dyeing wool in the presence of a chrome mordant according to the one-bath method fast blue shades, substantially as described.

1,025,268. INSULATING COMPOUND AND PROCESS OF MAKING THE SAME. EMILE HEMMING, Passaic, N. J., assignor to Hemming Manufacturing Company, Garfield, N. J., a Corporation of New Jersey. Filed Apr. 12, 1911. Serial No. 620,548. (Cl. 106—15.)

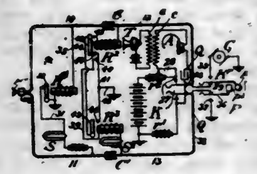
1. The herein-described composition of matter possessing high electrical insulating properties and comprising a hard, baked, molded mass composed of asbestos, coal-tar pitch, and a non-volatile residue of anthracene oil.

2. The herein-described process which consists in preparing a binding mixture of coal tar pitch and anthracene oil, mixing the same with powdered asbestos to a slightly-lumpy granular consistency, compressing the mixture in a mold, and baking the molded article.

3. The herein-described process which consists in preparing a binding mixture of coal tar pitch and anthracene oil with the aid of heat, mixing the same with powdered asbestos in the proportion of substantially 45 parts of asbestos to 55 parts of the binder, and molding the resulting material in a cold condition.

1,025,269. TELEPHONE SYSTEM. ELBERT R. HOBBS, Buhl, Idaho. Filed May 15, 1909. Serial No. 496,126. (Cl. 179—73.)

1. In a telephone exchange system, subscribers' lines provided with terminals, an operator's cord circuit provided with an answering supervisory relay on one end thereof and a calling supervisory relay and a control relay on the other end, a test coil controlled by contacts on said calling supervisory relay and said control relay, means for testing by current in one direction by the cut-off relay and means for supplying current for talking purposes through the cut-off relay in the opposite direction.



2. In a telephone exchange system, subscribers' lines provided with terminals, an operator's cord circuit provided with an answering supervisory relay on one end thereof and a calling supervisory relay and a control relay on the opposite end thereof, and a test circuit controlled by said calling supervisory relay and control relay jointly.

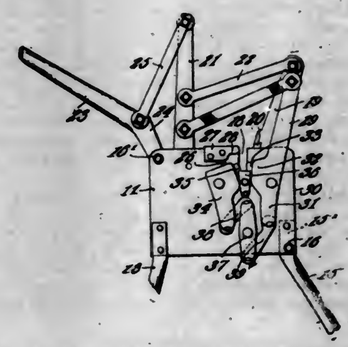
3. In a telephone exchange system, a subscriber's line provided with a line and a cut-off relay the latter relay being normally connected to battery through a resistance coil, a shunt circuit around said coil controlled by said line relay, means for testing the lines by current through said cut-off relay in one direction and means for supplying current for talking purposes through said cut-off relay in the opposite direction.

4. In a telephone exchange system, subscribers' lines provided with terminals, an operator's cord circuit, answering and calling supervisory relays therefor, a control relay for the calling supervisory, a signal lamp arranged in series with said control relay and locking means on said calling supervisory relay.

5. In a telephone exchange system subscribers' lines provided with cut-off relays, line relays and signal lamps, an operator's cord circuit provided with a test coil, means for testing said lines by current through said test coil, said cut-off relay and said line lamp, together with means for supplying talking current in the reverse direction through said cut-off relay.

[Claim 6 not printed in the Gazette.]

1,025,270. MACHINE FOR MAKING TOE-CALKS. HENRY M. HOWLETT and ALBERT LAESSELE, Sandusky, Ohio. Filed Mar. 31, 1911. Serial No. 618,121. (Cl. 59—65.)



1. In a calk-forming machine, a pivotally supported shearing member, a pivotally supported former, a pivoted lever, said forming and said shearing members having link connections with said lever, an operating lever, and a link connection between said operating lever and said first mentioned lever.

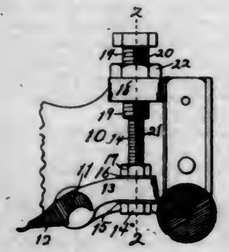
2. In a calk-forming machine, a plurality of formers, means for simultaneously moving said formers to contact with the stock of which the calk is formed, and a

shearing member having an operative connection with and operating consonant with the formers, said member being active to the stock while the same is held by said formers, said shearing members and formers being active in the same horizontal plane.

3. In a calk-forming machine, a plurality of pivotally supported formers, said formers being movable simultaneously, a shearing mechanism, an operative connection between said shearing mechanism and the formers, said formers supporting the stock while the shearing mechanism is active.

4. In a calk-forming machine, a plurality of movable formers, said formers being movable simultaneously, a shearing mechanism, an operative connection between said shearing mechanism and the formers, said formers supporting the stock while the shearing mechanism is active.

1,025,271. ATTACHMENT FOR LAWN-MOWERS. FRED A. HUDSON, Clarinda, Iowa, assignor to Clarinda Lawn Mower Company, Clarinda, Iowa, a Corporation of Iowa. Filed July 11, 1911. Serial No. 637,959. (Cl. 56—19.)



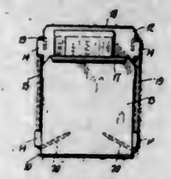
1. In a device of the class described, a fixed member formed with an ear having a screw seat, an oscillating member pivoted to the fixed member and formed with an apertured arm, a bolt mounted through the apertured arm, a locking nut connecting said bolt to said arm, a socket bolt screwed through the seat of the ear and adapted to be screwed on the first bolt, the pitch of the screw connection between the scoket bolt and ear being greater than the pitch of the screw connection between the bolts, and a locking nut on the socket bolt adapted to engage said ear.

2. An attachment for lawn mowers, comprising an apertured supporting device formed with internal threads, a ledger plate formed with an arm, which arm is apertured in its extremity in register with the aperture of the supporting device, a bolt mounted through the aperture in the arm, a socket bolt screwed through the aperture of the supporting device and adapted to be screwed on the first bolt, the pitch of the screw connection between the socket bolt and supporting device being greater than the screw connection between the bolts, and a locking nut on the socket bolt.

3. An adjusting attachment for lawn mowers, comprising a rigid support, a ledger plate pivoted on said support, a bolt rigidly mounted on the ledger plate, and a socket bolt screwed through the rigid support and screwed on the first bolt, the pitch of the screw connection between the socket bolt and rigid support being greater than the pitch of the screw connection between the bolts.

1,025,272. TICKET-HOLDER. EDWARD H. IVESON, Cohoes, N. Y. Filed Feb. 20, 1911, Serial No. 609,767. Renewed Mar. 8, 1912. Serial No. 682,517. (Cl. 40—11.)

A pocket for holding car tickets including a single oblong blank of material scored transversely and bent back upon itself and at said score, whereby spaced clamping lips are formed, said lips being inclined toward each other and being spaced apart near their free ends a distance equal to the thickness of a car ticket, one of said lips being provided on its lateral edges with tabs looped upon themselves and forming securing lugs, and the other of said lips being formed on its lateral edges with outwardly extending tabs which are bent over the longitudinal edges of the mating lip and then fixedly secured to said mating lip, these tabs forming a continuous strengthening band extending transversely across the last named lip and pins passed through said lugs and each having its opposite extremity bent back within the borders of the pocket and forming securing hooks.



1,025,273. DYE-BATH AND PROCESS OF DYEING. MYRTIL KAHN and ANTON OSSENBECK, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Sept. 7, 1911. Serial No. 648,191. (Cl. 8—5.)

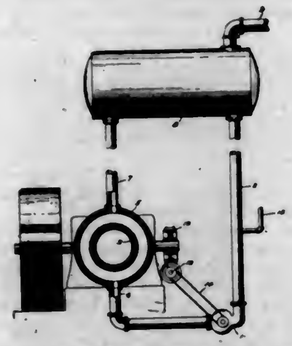
1. In the art of dyeing wool the improvement consisting in dyeing wool from an acid bath containing a chrome mordant and the dye: 4-chloro-2-aminophenol-6-sulfonic-acid-azo-beta-naphthol, substantially as described.

2. In the art of dyeing wool the improvement consisting in dyeing wool from an acid bath containing potassium bichromate and the dye: 4-chloro-2-aminophenol-6-sulfonic-acid-azo-beta-naphthol, substantially as described.

3. An acid dye-bath comprising the azo-dye: 4-chloro-2-aminophenol-6-sulfonic-acid-azo-beta-naphthol and a chrome-mordant, substantially as described.

4. An acid dye-bath comprising the azo-dye: 4-chloro-2-aminophenol-6-sulfonic-acid-azo-beta-naphthol and potassium bichromate, substantially as described.

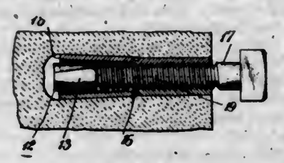
1,025,274. MEANS FOR CONSERVING HEAT. ALEXANDER T. KASLEY, Swissvale, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 7, 1910. Serial No. 570,795. (Cl. 123—6.)



1. In combination with a cooling passage of an internal combustion engine, a circulating system for water communicating with said passage, and a tank located in said system and subjected to vacuum pressure and provided with a steam delivery port.

2. In combination with a cooling passage of an internal combustion engine, a circulating system for water communicating with said passage and subjected at one portion to less than atmospheric pressure, and at said passage to a gravity head corresponding approximately to atmospheric pressure.

1,025,275. BOLT-ANCHOR. JOSEPH KENNEDY, New York, N. Y., assignor to The Clements Co., a Corporation of New York. Filed Aug. 24, 1911. Serial No. 645,871. (Cl. 85—2.4.)



1. A bolt anchor comprising a tubular shell split longitudinally, said shell being constructed to form a transverse annular groove about the central portion thereof, one part of said tube being provided with interior screw threads from the end of the tube to a point near said groove, the other part of the shell being provided with faces converging toward the unthreaded end, and an expanding member adapted to engage said converging faces.

2. A bolt anchor comprising a tubular shell split longitudinally, said shell being constructed to form a transverse annular groove about the central portion thereof, one part of said tube being provided with interior screw threads from the end of the tube to a point near said groove, the parts of said shell the other side of the groove being cut away to form openings between them having faces converging toward the unthreaded end, and an expanding member adapted to engage said converging faces.

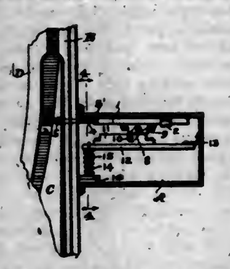
3. A bolt anchor comprising a tubular shell split longitudinally, said shell being constructed to form a transverse annular groove about the central portion thereof, one part of said tube being provided with interior screw threads from the end of the tube to a point near said groove, the adjacent parts of said shell the other side of the groove being cut away to form openings between them having faces converging toward and extending to the unthreaded end, and an expanding member within the unthreaded portion of the shell having opposed projections extending into said openings and adapted to engage said converging faces.

4. A bolt anchor comprising a tubular shell of soft metal split longitudinally, said shell being constructed to form a transverse annular groove about the central portion thereof, one part of said tube being provided with interior screw threads from the end of the tube to a point near said groove, adapted to receive a bolt, the adjacent parts of said shell the other side of the groove being cut away to form openings between them having faces converging toward and extending to the unthreaded end, and an expanding member within the unthreaded portion of the shell having opposed projections extending into said openings and adapted to engage said converging faces, said member being in the path of and arranged to be moved by a bolt inserted in the threaded portion of the shell.

1,025,276. SWITCH MECHANISM. EDWARD E. KESSLER, Anderson, Ind., assignor of one-half to James M. Rinker, Anderson, Ind. Filed Aug. 29, 1911. Serial No. 646,707. (Cl. 104—115.)

1. In combination with a rail, a tongue oscillating toward and away from the rail, a longitudinally adjustable bar connected with the tongue, a lever adjustable toward and from the side of the bar, resilient means for pressing it normally toward the bar, and a second lever having its ends pivoted to said bar and first lever to both of which it is oblique when their blocks are in contact with each other.

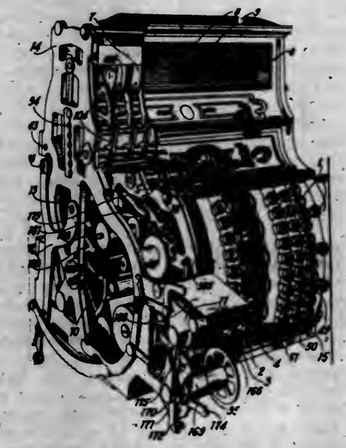
2. In combination with a rail, a tongue oscillating toward and from the rail, a bar connected with the tongue and adapted to slide endwise, a lever located at one side of the bar and adjustable toward and from the bar, a spring pressing the lever normally toward the bar, and another lever pivotally secured at one end to the bar and at the other end to said first lever to both of which it is oblique when their blocks are in contact with each other.



3. In combination with a rail, a tongue oscillating toward and away from the rail, a box, a bar slidingly mounted within the box, an extension from said bar connected with the tongue, said extension being vertically adjustable, a lever located within the box at one side of the bar and hinged at one end to the box, a spring to press the other end of the lever normally toward the bar, and another lever pivotally secured at one end to the bar and at the other end to said first lever to both of which it is oblique when their blocks are in contact with each other.

4. In combination with a rail, a tongue oscillating to and from the rail, a box, a bar slidingly mounted within the box having a vertically slotted head, a bar-extension bolted to said slotted head and connected with said oscillating tongue, a lever located within the box at one side of the bar and hinged at one end to the box, a spring to press the other end of the lever normally toward the bar, and another lever pivotally secured at one end to the bar and at the other end to said first lever to both of which it is oblique when their blocks are in contact with each other.

1,025,277. CASH-REGISTER. CHARLES F. KETTERING and WILLIAM A. CHRYST, Dayton, Ohio, assignors to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed May 4, 1909. Serial No. 493,807. (Cl. 235—2.)



1. In a machine of the class described, the combination with a main operating mechanism including a manually movable element, of means for holding said element against actuation, two latching arms normally preventing release of said holding means, two banks of keys and

detent plates operated respectively by the keys in said banks, and connections from said plates to actuate separately the two latching arms.

2. In a machine of the class described, the combination with a main operating mechanism including a manually movable element, of means including a bar for normally holding said element against movement, two pivoted latching arms normally preventing movement of said holding bar, two banks of keys, and detent plates operated by said banks respectively, connections from said detent plates to said pivoted latching arms, and a latching pawl mounted on one of said latching arms, and spring drawn to hold the corresponding detent plate in adjusted position.

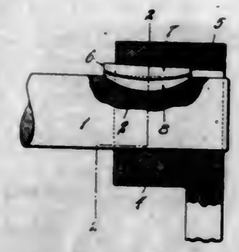
3. In a machine of the class described, the combination with a main operating mechanism comprising a cash receptacle, of holding means for said receptacle including a pivoted frame having a cross bar, two pivoted latching arms normally preventing movement of said frame bar, two banks of keys and detent plates moved respectively by said keys, connections from said detent plates to release said latching arms, and a holding arm pivoted to one of said latching arms, spring drawn to engage under said frame bar when the corresponding detent plate is actuated and thereby hold said detent plate in its adjusted position.

4. In a machine of the class described, the combination with a main operating mechanism including a manually movable element, of means for holding said element against actuation, two latching arms normally preventing release of said holding means, two banks of keys and connections from said banks for separately releasing said latching arms, and a locking plate having connections to said main operating mechanism and actuated thereby to positively lock one of said banks of keys.

5. In a machine of the class described, the combination with an operating mechanism and a pivoted plate having notches and connected to be given invariable excursions by said operating mechanism, of a series of counters having driving elements, actuating pawls connected to said driving elements and having projecting pins, and keys constructed to engage said projecting pins and force them into the notches of said pivoted plate.

[Claims 6 to 20 not printed in the Gazette.]

1,025,278. WEDGE-KEY. WILLIAM G. KIRCHHOFF, St. Louis, Mo. Filed July 24, 1911. Serial No. 640,187. (Cl. 74—8.)

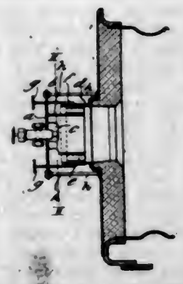


1. The combination with a shaft in which is formed a key seat that is provided with a pair of inclined faces arranged at an angle of approximately 90 degrees apart, which faces are gradually curved throughout the length of the key seat so that said key seat gradually decreases in depth and gradually tapers in width toward its ends, of a hub adapted to be positioned on said shaft, which hub is provided with a V-shaped groove, the faces of which occupy planes approximately 90° apart, and a wedge key adapted to be inserted in the coinciding groove and key seat, which key is provided on its underside with a pair of inclined faces that are curved lengthwise, and which are adapted to fit against the corresponding faces of the key seat in the shaft, and which key is provided on its upper side with a pair of oppositely inclined straight faces adapted to coöperate with the corresponding faces of the V-shaped groove in the hub.

2. The combination with a shaft having a key seat that is substantially V-shaped in cross section and the oppositely inclined faces of which are gradually curved throughout their length, and a hub or collar having a V-shaped groove, of a wedge key adapted to be inserted in the coinciding key seat and V-shaped groove, which wedge key is provided with a pair of longitudinally disposed straight faces that coöperate with the corresponding faces of the V-shaped groove in the hub, and said key being provided with a pair of oppositely disposed, longitudinally curved faces that coöperate with the faces of the key seat in the shaft.

3. As a new article of manufacture a wedge key comprising an elongated metal block having a pair of straight faces arranged at an angle of 90° apart, and also having a pair of faces that are curved throughout their length, which curved faces are arranged at an angle of 90° apart.

1,025,279. LIQUID-FUEL FURNACE. ANDREW LAING, Newcastle-upon-Tyne, England. Filed Feb. 16, 1910. Serial No. 544,178. (Cl. 158—1.)



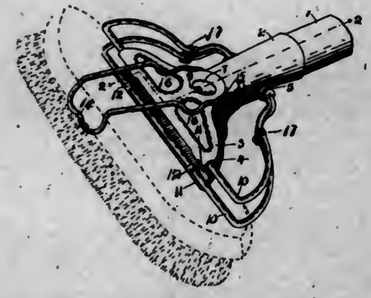
1. In a liquid fuel furnace, the combination with the front end of the furnace of a casing plate supported from the furnace front, a cylindrical primary air supply trunk attached to and projecting rearwardly from the said casing plate and having lateral openings at the outer end adjacent to the casing plate, a cylindrical secondary air supply trunk attached to and projecting outwardly from the front of the furnace, the said secondary air trunk being of considerably greater diameter than the primary and encircling the inner portion of the same, the annular space between the two air trunks providing a passage to the combustion chamber for the secondary air supply necessary for complete combustion of the fuel, and means for imparting gyratory motions of opposite sense to the liquid fuel and secondary air supply respectively, substantially as described.

2. A construction of liquid fuel furnaces comprising a casing plate supported on the furnace front and spaced therefrom, a liquid fuel injector projecting through the said casing plate and adapted to give a gyratory motion to the liquid fuel, a cylindrical primary air supply trunk fixed to and projecting rearwardly from the said casing plate and having lateral apertures in the neighborhood of the fuel nozzle, a cylindrical secondary air supply trunk fixed to the furnace trunk and encircling the rearward portion of the primary air trunk, said secondary air trunk being of considerably greater diameter than the primary, and spiral deflectors in the space between the two air trunks adapted to give a gyratory motion to the secondary air supply opposite in sense to the gyratory motion of the liquid fuel, substantially as described.

3. In a liquid fuel furnace, the combination with the front end of the furnace of a casing plate supported from the furnace front, a cylindrical primary air supply trunk attached to and projecting rearwardly from the said casing plate and having lateral openings at the outer end adjacent to the casing plate, a cylindrical secondary air supply trunk attached to and projecting outwardly from the front of the furnace, the said secondary air trunk being of considerably greater diameter than the primary and encircling the inner portion of the same, the annular space between the two air trunks providing a passage to the combustion chamber for the secondary air supply necessary for complete combustion of the fuel, and means for imparting a gyratory motion to both the liquid fuel and secondary air supply; substantially as described.

4. In a liquid fuel furnace, the combination with the front end of the furnace of an open ended cylindrical air supply trunk attached to and projecting outwardly from the furnace front, the outer open end of the trunk communicating with an air supply, a casing plate opposite to and supported from the furnace front, a second cylindrical air supply trunk concentric with and of a diameter considerably smaller than the first said air trunk, the second air trunk being attached to and projecting rearwardly from the casing plate, having its rearward end open and surrounded by the first air trunk so that an annular space is formed between the trunks for the passage to the combustion chamber of an air supply, the said second air trunk being provided with lateral openings at its end adjacent to the casing plate and communicating directly with an air supply exteriorly of the first air trunk, and means for adjusting the passage for the air through the first air trunk relatively to and independently of that through the second air trunk.

1,025,280. IMPLEMENT-CLAMP. SIMEON C. LAWLOR, Chicago, Ill., assignor to American Standard Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 8, 1910. Serial No. 542,797. (Cl. 15—56.)



1. In apparatus of the class described, the combination with a pair of pivotally connected clamping jaws of a pair of rod jaws secured to said clamping jaws, respectively, along the clamping lines thereof, extending laterally beyond the same, and pivotally connected in the axial line of the clamping jaw pivot.

2. In apparatus of the class described, the combination with a pair of co-acting clamping jaws, of a pair of broader rod jaws having their clamping portions fixed to and substantially coinciding centrally with the corresponding portions, respectively, of the clamping jaws, rearwardly and inwardly extending portions of one rod jaw forming two alining pivots for the companion jaw and said clamping jaws.

3. The combination with a handle member having a rigid projecting jaw with a broad clamping terminal margin, of a movable clamping jaw having a like and co-acting margin, a pair of broader rod jaws each having its terminal portion alining with and fixed to the corresponding portion of one of said clamping jaws, one of the roll jaws having its ends passed through said movable jaw into said rigid jaw and the other pivotally connected to its companion at substantially its point of entrance into said movable jaw, and rings sliding, respectively, upon the adjacent, slightly divergent rearwardly extending portions of the two rod jaws, substantially as set forth.

1,025,281. ELECTRIC HEATER FOR LIQUIDS. JAMES R. LAWSON, Dallas, Tex., assignor of one-third to William H. Yoakum, Fort Worth, Tex., and one-third to C. W. White, Waco, Tex. Filed Nov. 17, 1910. Serial No. 592,833. (Cl. 219—41.)



1. In an electric heater, the combination with an elongated casing having a plurality of apertures in its lower portion, of an insulating plug mounted in the lower portion of said casing and provided with a plurality of apertures, an insulating plug mounted in the upper portion of the casing and forming a water tight connection therewith, a pair of electrodes mounted between said plugs and separated by a space, with which space the apertures in the lower plug communicate, and a plurality of apertures provided in the upper portion of one of said electrodes.

2. In an electric heater, the combination of an elongated casing, a plug of insulation material forming an air tight and water tight partition in said casing, a plug of insulation material closing one end of said casing, concentric electrodes carried by said plug and said partition, the outer electrode and said casing having provision for the circulation of water between said electrodes and between the outer electrode and said casing, electrical connections for said electrodes projecting through said partition and a plug of insulation material closing the other end of said casing and forming an air and water tight inclosure for said electrical connections.

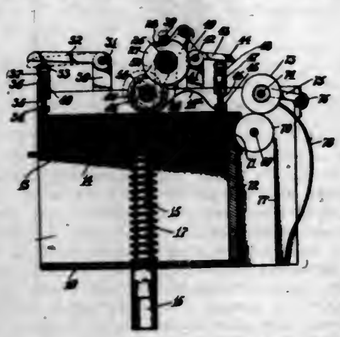
3. In an electrical heater, the combination with a casing; of an insulating plug closing one end of said casing, an insulating plug forming an air tight and water tight partition in said casing, a solid inner electrode and an outer electrode carried by said plugs, said outer electrode being spaced from the inner electrode and from said casing and said outer electrode and said casing having provision for the circulation for fluid therebetween and between the inner electrode and outer electrode, electrical connections for said electrodes projecting through said partition, and an insulating plug closing the other end of said casing and forming an air and water tight inclosure for said electrical connections, said electrical connections having provisions for the connection with a supply source of electricity.

4. In an electrical heater, the combination with an elongated casing having apertures for circulation of water therein at the lower portion; of a pair of electrodes mounted in said casing and spaced from each other and from said casing, an air and water tight inclosure being formed in the upper portion of said casing and electrical connections for said electrodes extending therefrom into said air and water tight casing, said electrical connections having provision for connection with a supply source of electricity.

1,025,282. FEEDING MECHANISM. FRANK W. LEY, New York, N. Y. Filed Oct. 15, 1910, Serial No. 587,180. Renewed Jan. 11, 1912. Serial No. 670,727. (Cl. 101—40.)

1. In a device of the character described, the combination with an automatically advancing stack holder adapted

to support a pile of blanks, of a presser member at each end of said pile tending normally to move away from the pile, a double armed lever having one arm extending over one of said presser members and its opposite arm provided with a roller, a cam having an irregularly shaped edge upon which said roller is adapted to travel, and whereby the presser member is alternately raised and lowered, a roller adapted to buckle the uppermost blank in the pile, arms by which said last named roller is carried, a spring influenced crank arm connected with one of said last named arms, said crank arm having a roller at one end thereof, and a cam upon which said last named roller is adapted to travel, said cam being so shaped that said buckling roller is alternately raised and depressed out of and into contact with said pile.



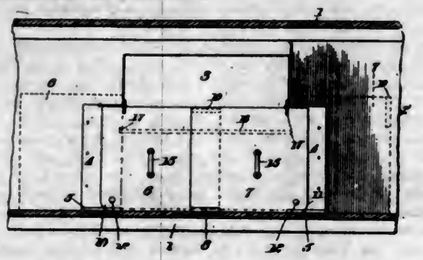
2. In a device of the character described, the combination with an automatically advancing stack holder adapted to support a pile of blanks, of a presser member at one end thereof having a curved face and a presser member at the opposite end of the pile substantially angular in form, a double armed lever in connection with each presser member, one arm of each lever extending over one of the presser members and the opposite arm of each lever being provided with a roller, a plurality of cams upon which said rollers travel and whereby said presser members are alternately raised from said pile, and a roller adapted to buckle the uppermost blank in the pile.

3. In a device of the character described, the combination with an automatically advancing stack holder adapted to support a pile of blanks, of a presser member at one end thereof having a curved face, and a presser member at the opposite end of the pile substantially angular in form, a double armed lever in connection with each presser member, one arm of each lever extending over one of the presser members, and the opposite arm of each lever being provided with a roller, a plurality of cams upon which said rollers travel and whereby said presser members are alternately raised from said pile, a roller adapted to buckle the uppermost blank in the pile, and means whereby said buckling roller is alternately moved into and out of contact with the pile of blanks.

4. In a device of the character described, the combination with a stack holder adapted to support a pile of blanks, of a spring influenced presser member adapted to exert pressure on each end of said pile, a pair of rock shafts each having an arm extending over one of said presser members, a lever arm on each of said rock shafts each said lever arm having a roller at the end thereof, a pair of irregularly shaped cams on which said rollers are adapted to travel and whereby the first mentioned arms are alternately raised from the presser members, and a blank deforming member operable intermediate the presser members.

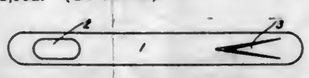
1,025,283. GRAIN-DOORS FOR RAILROAD-CARS. JAMES T. W. LOE, Marshall, Tex. Filed June 2, 1911. Serial No. 630,933. (Cl. 20—31.)

1. A device of the character described, consisting of a pair of plates having outwardly upturned lower edges forming troughs and means for securing the same to a car wall; and a pair of doors, each having a curved corner with an opening therein and adapted to pivotal attachment therethrough to the said plates; said doors being provided with upturned edges at their over-lapping ends, and adapted to swing vertically in a car door frame, substantially as described.



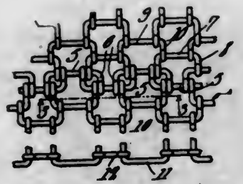
2. The combination with a car door opening of a pair of plates with outwardly upturned lower edges and means for securing the same to the walls of said car; and a pair of doors having curved corners with an opening therein and pivotally attached therethrough to the said plates; the said doors being provided with upturned edges at their overlapping ends and adapted to swing vertically in the car door frame, substantially as described.

1,025,284. LOCK ATTACHMENT. JULIUS MIKKELSEN LYBECK, Everett, Wash. Filed Oct. 11, 1911. Serial No. 653,992. (Cl. 70—3.)



The combination in a safety device for locks of a plurality of flat members of spring material each adapted to enter the keyhole of a lock, an ear struck up from each of said members to prevent the withdrawal of said members in one direction, an eye in the opposite end of said members, a flexible member on which said flat members are strung and a lock for locking the ends of said flexible members together.

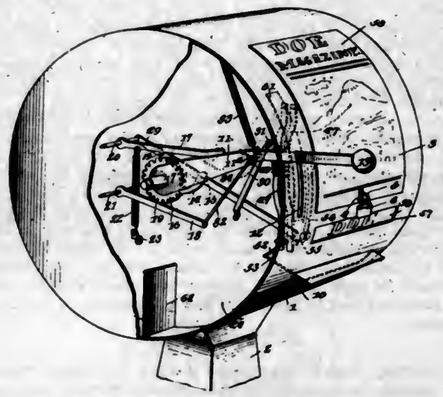
1,025,285. TIRE-ARMOR. CHARLIE H. MADDOX, Canton, Mo. Filed Sept. 12, 1910. Serial No. 581,512. (Cl. 152—16.)



1. Tire armor comprising links having a connecting portion and end portions extending at an angle from the connecting portion, each link having its end portions bent pivotally around the connecting portions of adjacent links, the said end portions of the links having their terminals presented toward the longitudinal median line of the armor at each side thereof.

2. Tire armor comprising a plurality of series of links having a connecting portion and end portions extending at an angle from the connecting portion, the said ends of the links being bent pivotally about the connecting portions of two adjacent links and said adjacent links having their adjacent ends bent pivotally about the connecting portion of the said link, and other links shorter than the first mentioned links and having each a connecting portion and end portions extending at an angle from the connecting portion and bent pivotally about the connecting portions of adjacent ones of the first mentioned links.

1,025,286. VENDING-MACHINE. HARRY EVERETT MARSHALL, San Antonio, Tex. Filed Feb. 2, 1911. Serial No. 606,111. (Cl. 211—8.)



1. In a vending machine, a substantially cylindrical casing, a partition arranged transversely of one end of the casing, and dividing it into a large and a small compartment, a shaft journaled axially of the casing, a plurality of leaves secured longitudinally of the shaft and extending radially therefrom in the large compartment, each leaf being of greater thickness at its outer end, and the leaves being spaced apart from each other to form a plurality of recesses for merchandise, each having substantially parallel walls, the receptacle having a longitudinal slot below its horizontal center at one side and adapted to register with the recesses to permit the passage of the merchandise through the slot, a door hinged to the casing for closing the slot, a gear wheel secured to the shaft in the small compartment, a lever journaled on the shaft adjacent to the wheel, the casing having a slot through which the lever extends, a pawl on the lever engaging the wheel, oppositely arranged holding pawls for the wheel; springs pressing the pawls toward the wheel, means operated by the swinging of the lever for alternately operating the holding pawls, a plurality of springs each having a lock for engaging beneath the lever to prevent the swinging thereof, means for releasing the lock, and means operated by the swinging of the lever for opening and closing the door.

2. In a vending machine, a substantially cylindrical casing, a partition arranged transversely of one end of the casing, and dividing it into a large and a small compartment, a shaft journaled axially of the casing, a plurality of leaves secured longitudinally of the shaft and extending radially therefrom in the large compartment, each leaf being of greater thickness at its outer end, and the leaves being spaced apart from each other to form a plurality of recesses for merchandise, each having substantially parallel walls, the receptacle having a longitudinal slot below its horizontal center at one side and adapted to register with the recesses to permit the passage of the merchandise through the slot, a door hinged to the casing for closing the slot, a gear wheel secured to the shaft in the small compartment, a lever journaled on the shaft adjacent to the wheel, the casing having a slot through which the lever extends, a pawl on the lever engaging the wheel, oppositely arranged holding pawls for the wheel, springs pressing the pawls toward the wheel, means operated by the swinging of the lever for alternately operating the holding pawls, a lock for preventing the swinging of the lever, means for releasing the lock, and means operated by the swinging of the lever for opening and closing the door.

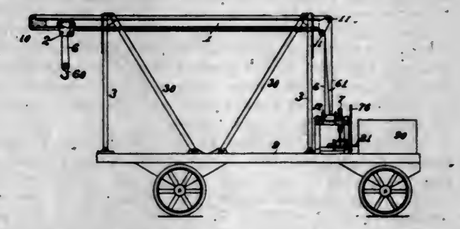
3. In a vending machine, a substantially cylindrical casing, a partition arranged transversely of one end of the casing, and dividing it into a large and a small compartment, a shaft journaled axially of the casing, a plurality of leaves secured longitudinaly of the shaft and extending radially therefrom in the large compartment, each leaf being of greater thickness at its outer end, and the leaves being spaced apart from each other to form a plurality of recesses for merchandise, each having substantially parallel walls, the receptacle having a longitudinal slot below its horizontal center at one side and adapted to register with the recesses to permit the passage of the merchandise through the slot, a door hinged to the casing for closing the slot, a gear wheel secured to the shaft in the small compartment, a lever journaled on the shaft adjacent to the wheel, the casing having a slot through which the lever extends, a pawl on the lever engaging the wheel, oppositely arranged holding pawls for the wheel, means operated by the lever for alternately releasing the holding pawls, a lock for holding the lever, means for releasing the lock, and means operated by the lever for opening and closing the door.

4. In a vending machine, a carrier wheel having a plurality of radial slots for receiving merchandise, a casing inclosing the wheel and having a longitudinal slot below its horizontal center at one side with which the recesses are adapted to register to permit the passage of the merchandise from the carrier wheel, a door hinged to the casing for closing the slot, a gear wheel secured to the carrier wheel, a lever journaled at the axis of the carrier wheel and extending out of the casing, a pawl on the lever engaging the gear wheel, a plurality of oppositely arranged holding pawls for the gear wheel, springs pressing the pawls toward the wheel, means operated by the swinging of the lever for alternately releasing the holding pawls, a plurality of springs, each having a lock for engaging the lever to prevent movement thereof, means for releasing the lock, and means operated by the lever for opening and closing the door.

5. In a vending machine, a carrier wheel having a plurality of radial slots for receiving merchandise, a casing inclosing the wheel and having a longitudinal slot below its horizontal center at one side with which the recesses are adapted to register to permit the passage of the merchandise from the carrier wheel, a door hinged to the casing for closing the slot, a gear wheel secured to the carrier wheel, a lever journaled at the axis of the carrier wheel and extending out of the casing, a pawl on the lever engaging the gear wheel, a plurality of oppositely arranged holding pawls for the gear wheel, springs pressing the pawls toward the wheel, means operated by the swinging of the lever for alternately releasing the holding pawls, a lock for preventing movement of the lever, means for releasing the lock, and means operated by the lever for opening and closing the door.

[Claims 6 and 7 not printed in the Gazette.]

1,025,287. MEANS FOR LOADING AND UNLOADING TRUCKS. CHARLES MATTSON, Bremerton, Wash. Filed Oct. 5, 1911. Serial No. 653,033. (Cl. 214—2.)

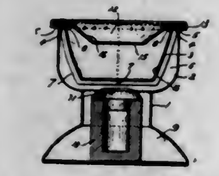


1. The combination with a motor truck, of a frame work consisting of posts having disengageable connection with the margins of the truck platform, transverse beams supported in elevated position by said posts above the truck platform, an I-beam adapted to form a trolley trackway and of a length to project rearwardly beyond the platform, releasable clamping devices adapted to secure said trackway beam to the transverse beams, a trolley

carriage running upon the lower flanges of the trackway beam, guide pulleys carried by opposite ends of the trackway beam, hoist and traversing ropes extending over the said guide pulleys to the trolley carriage, winding mechanisms upon the truck receiving said hoist and traversing ropes, and means for reversely operating said winding mechanisms from the truck propelling motor.

2. The combination with a truck, of posts rising from the margins of the truck platform, beams supported from the upper ends of said posts and extending transversely of the platform, a trackway consisting of an I-beam extending lengthwise beneath said transverse beams and projecting beyond the rear end of the truck platform, means for supporting said trackway beam comprising members secured to the transverse beams and having lugs adapted to project under the upper flange of said I-beam on one side, and slides supported from and movable lengthwise said transverse beams and having each a finger or lug adapted to extend under the upper flange at the opposite side of the trackway beam, means for securing said slides in adjusted position, a trolley mounted to travel upon the lower flanges of the trackway beam and carrying load supporting and hoisting mechanisms.

1,025,288. SANITARY CUSPIDOR. WILLIAM MOREY, Quincy, Ill. Filed May 18, 1911. Serial No. 627,929. (Cl. 4—38.)



1. A sanitary cuspidor, comprising an outer receptacle, a container having an outwardly directed flange at its top adapted to rest on the top of the receptacle and removably support the container in the receptacle out of contact with the side walls thereof, a plurality of ribs on the sides and bottom of the receptacle affording passages between the receptacle and container, there being apertures in the top of the container affording communication between said passages and the interior of the container, and a cover supported on the top of the container and extending below said apertures.

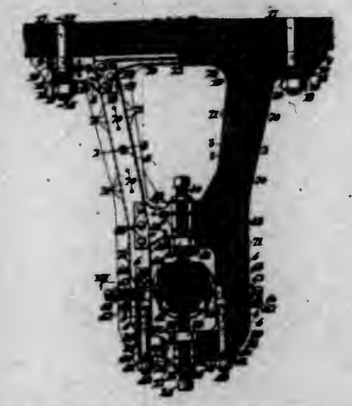
2. A sanitary cuspidor, comprising an outer receptacle, a container having an outwardly and downwardly turned flange at its top adapted to rest on the upper edge of the receptacle and support the container in the receptacle out of contact with the side walls thereof, ribs on the bottom and sides of the container, a funnel shaped cover having an outwardly and downwardly directed flange resting on the container, said cover extending into the upper portion of the container, and a porous receptacle in the outer receptacle beneath the container adapted to contain a disinfectant and emit it in a gaseous form to pass upwardly through said pasages, there being apertures through the top of the container behind the cover adapted to permit the gas to pass into the container.

3. A cuspidor, comprising an outer receptacle, a disinfectant carrying member carried in the lower portion of said receptacle, a container having an outwardly directed flange thereon adapted to support it in the receptacle above the member, there being a passage between the container and the walls of the receptacle opening into the container through apertures in the upper portion of the container and completely closed at its top by said flange, ribs extending radially of the bottom and upwardly on the sides of the container adapted to evenly distribute the disinfectant to the containers, and a cover for the container depending below said apertures.

4. A cuspidor, comprising an urn shaped outer receptacle, a container in the upper portion of the outer receptacle having a flange adapted to hook over the top of the receptacle and close the upper end of the passage between the receptacle and container, there being apertures in the container opening from the upper portion of said passage to the container, a disinfectant receptacle in the lower portion of the outer receptacle adapted to contain disinfectant and permit the disinfectant to escape to the outer receptacle in a gaseous form, and radially disposed deflecting ribs on the bottom and sides of the container adapted to distribute the gas to the said apertures.

5. A sanitary cuspidor, comprising an outer receptacle, a container adapted to be suspended in the receptacle out of contact with the walls thereof, and having an outwardly directed flange adapted to rest on the top of the receptacle and close the passage between the container and the receptacle, a porous member carried in the receptacle beneath the container adapted to absorb a gasifiable disinfectant, there being holes in the upper portion of the container adapted to permit gas from the disinfectant to pass from the passage into the container, and a cover adapted to deflect the gas downwardly in the container.

1,025,289. SHAFT-HANGER. ALBERT W. MORRIS, Philadelphia, Pa., assignor to The American Pulley Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 22, 1908. Serial No. 468,721. (Cl. 64—14.)

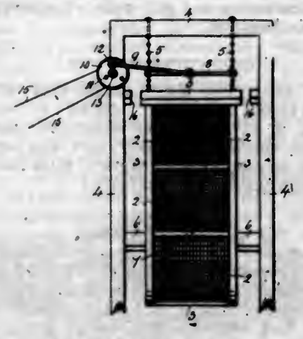


1. A shaft hanger including in combination, a metal foot-piece, metal legs secured thereto, each consisting of a pair of flat substantially-parallel strips, spacers for holding said strips in spaced relation, a metal yoke connecting the lower end of said strips, said yoke being formed of metal strips, a cross-piece intermediate the yoke and the foot-piece, said cross-piece consisting of metal strips secured to the metal strips in the legs, and a reinforce of concrete inclosing the said foot-piece, the legs, the yoke, and the cross-piece.

2. In a shaft hanger, the combination of a metallic foot-piece; metallic legs secured thereto and each comprising a pair of flat parallel strips; intermediate metallic spacers having recesses adapted to retain polygonal nuts; a detachable metallic yoke connecting the lower ends of said strips, said yoke having a recess adapted to retain a polygonal nut; a cross piece secured to said legs and also provided with a recess adapted to retain a polygonal nut; screw bolts connecting said yoke with each of said legs; adjusting screws for the bearing box, mounted upon said legs, yoke and cross piece respectively; said adjusting screws being provided with polygonal nuts retained against rotation in said recesses and with thrust bearing elements wholly comprised within the respective metallic elements; and a reinforce of concrete applied to said metallic skeleton but isolated from direct engagement with said uniting and adjusting elements.

3. In a shaft hanger, the combination with legs; of a detachable yoke piece having a receptacle at its central portion adapted to retain a polygonal nut; said yoke piece having rectangular end portions adapted to embrace and abut against the lower extremities of said legs, and also comprising elongated vertical sleeves adapted to receive bolts and form thrust bearings therefor; uniting bolts for connecting said yoke piece to said leg plates; an adjusting screw having a nut seated in said receptacle, and a reinforce of concrete applied to said yoke and legs of the shaft hanger, but isolated from direct engagement with the adjusting screw, substantially as set forth.

1,025,290. SCREEN FOR SCREENING OR SIFTING SAND, GRAVEL, STONE, AND OTHER MATTERS. EDWARD NEW, Hamilton, Ontario, Canada. Filed Dec. 9, 1911. Serial No. 664,706. (Cl. 83—56.)



1. In a screen of the character described, a stationary frame, an inclined screen, or sifter, chains connected to said frame and to the upper parts of the screen to suspend the same, a transverse bar connecting said chains, reciprocating means pivotally connected to said bar adapted to vibrate the screen transversely thereto, and rigid blocks on said frame adapted to receive the upper and opposite parts of the screen to cause an abrupt jar to the same.

2. In a screen of the character described, a stationary frame, an inclined screen, flexible means connected to the frame and to the screen to suspend said screen, a transverse bar connecting said flexible means together, means connected to said bar adapted to reciprocate the same, thereby vibrating the screen, and means on the frame adapted to allow the screen to jar therewith at each stroke of the reciprocating means, thereby loosening the material in the screen.

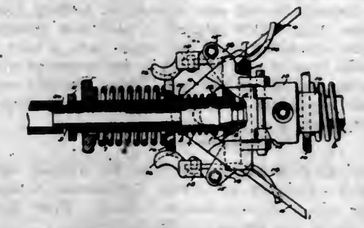
3. In a screen of the character described, a stationary frame, an inclined screen, means on the lower and rear part of the screen and on the frame, adapted to allow the screen to oscillate thereon, flexible means connected to the frame and to the upper portion of the screen, a transverse bar connecting said flexible means, reciprocating means connected to said bar adapted to oscillate the screen, and thereby loosen the material therein.

4. In a screen of the character described, a stationary frame, an inclined screen, means on the lower rear portion of the screen, and on the frame, adapted to allow the screen to oscillate thereon, flexible means connecting the upper part of the screen with the frame, means connected to said flexible means adapted to vibrate and oscillate the screen and stationary means on the frame at a predetermined distance from the screen, adapted to contact with the upper part of the screen to bump and jar the same.

5. In a screen of the character described, a stationary framework, an inclined screen-frame, removable sections of screens therein, means on the underside of the screen frame and on the framework to support the screen-frame and to allow the same to oscillate, suspending means connected to the screen-frame and to the frame work, reciprocating means connected to said suspending means adapted to oscillate the screen-frame, and means on the stationary framework adapted to receive the screen-frame at or near the terminus of its oscillatory motion, thereby causing abrupt jars to the screen-frame.

[Claim 6 not printed in the Gazette.]

1,025,291. AUTOMATIC TRAIN-PIPE COUPLING. NICHOLAS F. NIEDERLANDER, St. Louis, Mo., assignor to Westinghouse Automatic Air & Steam Coupler Company, St. Louis, Mo., a Corporation of Illinois. Filed Oct. 29, 1906. Serial No. 340,940. (Cl. 188—13.)



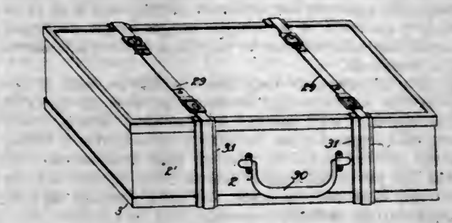
1. In an automatic pipe coupling, a coupling head carrying a gasket opening communicating with a pipe section, a main resistance spring for extending said head, means for clamping two counterpart heads together, and a preliminary spring for extending the head and releasing the clamping device.

2. In an automatic pipe coupling, a pipe section provided with a coupling head and a gasket opening, guide wings on said head, a spring for extending said head, locking levers operated by the lineal movement for clamping counterpart heads together, and a preliminary spring for extending the head to release the locking levers.

3. In an automatic pipe coupling, a pipe section provided with a coupling head and a gasket opening, guide wings on said head, a main spring for extending said head, locking levers for clamping counterpart heads together, a preliminary spring for further extending the head, and a cam plate for engaging the ends of the locking levers when the preliminary spring is compressed.

4. In an automatic pipe coupling, a pipe section provided with a coupling head and a gasket opening, guide wings on said head, a main spring for extending said head, locking levers for clamping counterpart heads together, a preliminary spring for further extending the head, a guide sleeve for carrying said pipe section, a hanger supporting the sleeve, and a cam plate carried on said sleeve for engaging the ends of the locking levers.

1,025,292. FOLDING GO-CART. OTTO NILSSON, New York, N. Y., assignor of one-third to Ernst E. L. Montelius and one-third to Vigo Nilsson, New York, N. Y. Filed Mar. 29, 1911. Serial No. 617,680. (Cl. 21—83.)

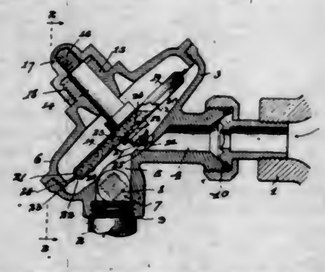


1. In a folding go-cart, the combination with a cart body comprising rigid side and bottom portions and a foot rest having a hinged connection with said cart body and comprising extensions of the side and bottom portions thereof, of wheel-carrying frames having a hinged connection with said side portions and adapted to swing from a position within said body to a position at the side thereof.

2. In a folding go-cart, the combination with a cart body comprising rigid side and bottom portions, of wheel-carrying frames having a hinged connection with said side portions and adapted to swing from a position within said body to a position at the side thereof and laterally foldable side extensions whose axes coincide with the respective axes of the wheel-carrying frames for locking said frames in their extended position.

3. In a folding go-cart, the combination of a cart body having a hinged foot rest at one end and a hinged back board at the other end, wheel-carrying frames adapted to swing from a position in the cart body to a position at the side thereof, hinged side extensions, locking dogs on said frames, toggle bars jointed to said side extensions, locking pins extending from the toggle bars, a cart body cover linked thereto and adapted to be swung to a cart-back-forming position and hinged locking brackets mounted on side extensions and adapted to engage with the swung out cover.

1,025,293. STEAM-TRAP. GEORGE W. NISTLE, Muskegon, Mich., assignor to Illinois Engineering Company, Chicago, Ill., a Corporation of Illinois. Filed May 4, 1911. Serial No. 625,042. (Cl. 236—10.)



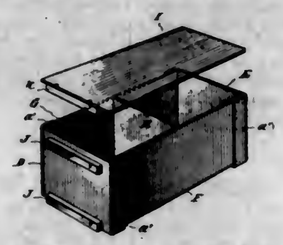
1. In a thermostatic trap, the combination with a thermostat casing, of a thermostatic member seated therein and comprising a pair of spaced apart plates bent toward each other at their edges to form side walls, one of said side walls terminating in an outstanding flange, and the other of said side walls terminating in a hook shaped flange crimped around and having interlocking engagement with said first flange, one of said plates having an aperture through which the thermostatic member may be filled with a volatile liquid, a fitting for said aperture and soldered to the plate, said fitting having a gas vent to permit the escape of gas developed in soldering and adapted to be closed after soldering is completed, and a fitting secured to the opposite plate.

2. In a thermostatic trap, the combination with a casing having inlet and outlet ports, of a valve for said inlet port, a thermostat seated in said casing and provided with an aperture through which the thermostat may be filled with a volatile liquid, said valve fitting within said aperture and soldered thereto, and said valve having a gas vent to permit the escape of gas developed in soldering and adapted to be closed after said soldering is completed.

3. In a thermostatic trap, the combination with a casing having an inlet and a discharge passage, a valve controlling said inlet passage, a thermostat seated in said casing and connected at one side to said valve, a fitting secured to the opposite side of said thermostat, and means for retracting said fitting to carry the valve away from the inlet port whereby the inlet passage may be cleaned out by radiator pressure.

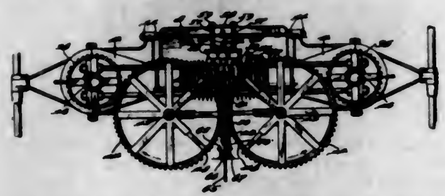
1,025,294. EGG-CASE. ANTON OLSON, Viroqua, Wis. Filed Dec. 17, 1909. Serial No. 533,740. (Cl. 217—12.)

A collapsible case comprising the two end walls each having an inwardly extending bottom flange and inwardly extending side flanges and an opening formed in the end walls at the junction of the bottom flange therewith, a removable bottom having tongues at opposite ends to fit in the openings in the end walls when the case it set up, and side walls lying within the flanges of the end walls, said side and bottom flanges to the end walls being adapted



to overlap the side walls and bottom when set-up and to receive the bottom and side walls when collapsed, substantially as described.

1,025,295. STARTING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. OSCAR P. OSTERGREN, Brooklyn, N. Y., assignor, by direct and mesne assignments, of one-half to Harry Reis and one-half to Samuel S. Marley, Wilmington, Del. Filed Mar. 7, 1911. Serial No. 612,807. (Cl. 123—179.)



1. A starting mechanism for engines, comprising an engine driven worm wheel, a worm, a shaft to which said worm is secured, a motor on said worm shaft, means for moving said worm shaft to move the worm into engagement with the worm wheel, said last-mentioned means controlling the operation of the motor, substantially as described.

2. A starting mechanism for engines, comprising an engine driven worm wheel, a worm, a shaft to which said worm is secured, a motor on said worm shaft, means for moving said worm shaft to move the worm into engagement with the worm wheel, means for operating said motor, and said shaft moving means controlling the motor operating means, substantially as described.

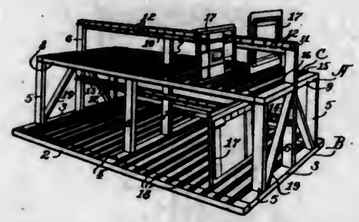
3. A starting mechanism for engines comprising an engine driven worm wheel, a worm normally out of engagement with said worm wheel, a shaft to which said worm is secured, a motor connected with said shaft, means for moving the shaft to position the worm in mesh with the worm wheel, and said shaft moving means controlling the operation of said motor, substantially as described.

4. A starting mechanism for engines comprising an engine driven worm wheel, a worm normally out of engagement with said worm wheel, a shaft to which said worm is secured, a motor connected with said shaft, means for moving the shaft to position the worm in mesh with the worm wheel, a fluid reservoir, a pipe connecting said fluid reservoir with said motor, and said shaft moving means controlling the flow of fluid to the motor, substantially as described.

5. A starting mechanism for engines comprising an engine driven worm wheel, a worm shaft, a worm on said shaft normally out of engagement with the worm wheel, a fluid motor on said worm shaft, a fluid tank, a pipe connecting said fluid tank and motor, and means constructed to move said worm shaft and control the flow of liquid through said pipe, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

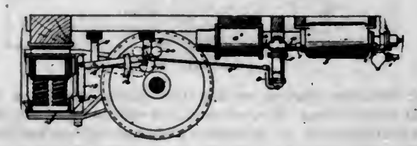
1,025,296. PRINTER'S CHASE-RACK. AUGUST F. OSTERLIND and GOTFRID S. ELMQUIST, St. Paul, Minn. Filed Jan. 4, 1911. Serial No. 600,708. (Cl. 101—52.)



1. A printer's chase rack, comprising in combination, a supporting frame, a series of channel irons disposed on said frame in substantially parallel position and having their concave sides upward to receive the edge of a chase sliding therein, and a spacing bar mounted on said frame midway of the length of said channel irons and adapted to receive and engage the forward edges of chases slid into said channels, whereby chases may be supported in substantially vertical position on each side of said spacing bar in each of said channels.

2. In a printer's chase rack, a supporting frame, a series of channel irons disposed on said frame in substantially parallel horizontal position each of said irons having its concave side upward to receive the edge of a chase slid therein, and a spacing bar mounted on said frame above said channel irons and spaced away from the ends thereof, having notches directly above said channel irons adapted to receive the ends of plates slid into the concavities of said channel irons and coöperating therewith to maintain said chases in vertical position.

1,025,297. LIGHT AND LOAD BRAKE APPARATUS. ROBERT A. PARKE, Parke Mines, Ontario, Canada, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 2, 1909. Serial No. 515,896. (Cl. 188—11.)



1. In a light and load brake apparatus, the combination with a device for limiting the fluid pressure in the brake cylinder when the brakes are applied, of means controlled by the weight of the load for cutting said device into or out of operation.

2. In a light and load brake apparatus, the combination with a device for limiting the degree of fluid pressure in the brake cylinder when the brakes are applied, of a mechanism for cutting said device into or out of operation, and means operated by the weight of the load for actuating said mechanism to either position.

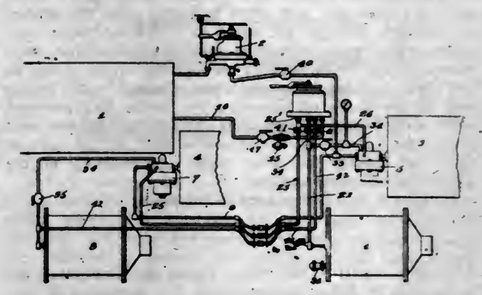
3. In a light and load brake apparatus, the combination with a device for limiting the degree of fluid pressure in the brake cylinder when the brakes are applied, of a mechanism for cutting said device into or out of operation, and means operated by the rise or fall of the car upon its springs for actuating said mechanism to its respective positions.

4. In a light and load brake apparatus, the combination with a device for limiting the pressure with which the brakes are applied, of a shifting weight for cutting said device into or out of operation, and means operated by the weight of the load for shifting said weight to one or the other position.

5. In a light and load brake apparatus, the combination with a valve device for normally limiting the pressure with which the brakes are applied in service applications, of means operated by the weight of the load for cutting said valve device into or out of effective operation.

[Claims 6 to 16 not printed in the Gazette.]

1,025,298. AIR-BRAKE SYSTEM. FRANK E. PATTON, Jackson, Tenn. Filed July 5, 1910. Serial No. 570,358. (Cl. 188—1.)



1. In an automatic air brake system including a main reservoir, engineer's automatic brake valve, train pipe, brake cylinders, auxiliary reservoirs and triple valves upon the train units in connection with the train pipe for applying and releasing the brakes upon the units, a combined straight air and retainer valve, means in connection therewith for applying straight air from the main reservoir to both the engine and tender brakes independently of the automatic system and independently releasing the engine and tender brakes, and other means in connection with the engine and tender triple valves for retaining the engine and tender brakes upon an automatic release of the train brakes.

2. In an automatic air brake system including a main reservoir, engineer's automatic brake valve, train pipe, brake cylinders, auxiliary reservoirs, and triple valves upon the train units in connection with the train pipe for applying and releasing the brakes upon the units, a combined straight air and retainer valve, separate connections between the straight air and retainer valve and the engine and tender brake cylinders respectively for applying straight air directly from the main reservoir independently of the automatic system and independently releasing the engine and tender brakes through the straight air and retainer valve, and separate connections between the engine and tender triple valves and the straight air and retainer valve for retaining the engine and tender brakes by the straight air and retainer valve upon an automatic release of the train brakes.

3. In an automatic air brake system including a main reservoir, engineer's automatic air brake valve, train pipe, engine brake triple valve, auxiliary reservoir, and brake cylinders upon the engine, and a tender brake triple valve, auxiliary reservoir, and brake cylinders upon the tender, a combined straight air brake and retainer valve provided with ports connected respectively to the main reservoir, the retaining pipe between the triple valves on the engine and tender, to the brake cylinder on the engine, and to the brake cylinder on the tender, and means for connecting the main reservoir directly to both engine and tender brake cylinders and closing the retaining port independently of the automatic air brake system.

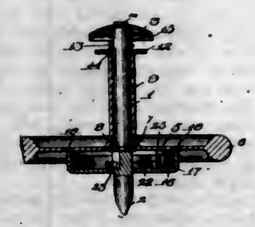
4. In an automatic air brake system including a main reservoir, engineer's automatic air brake valve, train pipe, engine brake triple valve, auxiliary reservoir, and brake cylinders upon the engine, and a tender brake triple valve, auxiliary reservoir, and brake cylinders upon the tender, a combined straight air brake and retainer valve

provided with ports connected respectively to the main reservoir, the retainer pipe between the triple valves on the engine and tender, to the brake cylinders on the engine and to the brake cylinders on the tender and provided with an exhaust port leading to the atmosphere, and means for connecting the engine brake cylinder directly with the exhaust port and closing the other ports independently of the automatic air brake system.

5. In an automatic air brake system including a main reservoir, engineer's automatic air brake valve, train pipe, engine brake triple valve, auxiliary reservoir, brake cylinders upon the engine, and a tender brake triple valve, auxiliary reservoir, and brake cylinders upon the tender, a combined straight air brake and retainer valve, provided with ports connected respectively to the main reservoir, the retaining pipe between the triple valves on the engine and tender, to the brake cylinders on the engine and to the brake cylinders on the tender and provided with an exhaust port leading to the atmosphere, and means for connecting the retaining port to the exhaust port and closing the other ports independently of the automatic air brake system.

[Claims 6 to 9 not printed in the Gazette.]

1,025,299. SPINNING-TOP. JAMES R. PEARSALL and ALBERT D. HILL, Rochester, N. Y., assignors of one-third to Robert Wadsworth, Rochester, N. Y. Filed July 21, 1911. Serial No. 639,708. (Cl. 46—52.)



1. A spinning top comprising a spindle, a body rotatable thereon, a spring having an end secured to one of said parts, and a clutch connection between the spring and the other part adapted to permit the body to rotate freely on the spindle in one direction.

2. A spinning top comprising a spindle, a body rotatable thereon, a spring secured at one end to the body, and a clutch connection between the spring and the spindle adapted to permit the body to rotate freely on the spindle in one direction.

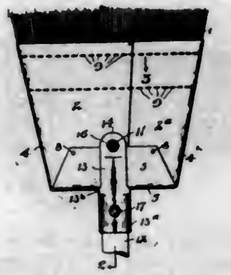
3. A spinning top comprising a spindle, a body rotatable thereon, a coil spring surrounding the spindle, and having one end secured to the body, and a clutch connection between the spindle and the other end of the spring adapted to permit the body to rotate freely on the spindle in one direction.

4. A spinning top comprising a spindle, a body rotatable thereon, a coil spring surrounding the spindle, and having one end secured to the body, and a clutch ring loosely surrounding the spindle and adapted to engage therewith and to permit the body to rotate freely on the spindle in one direction.

5. A spinning top comprising a spindle having a shoulder thereon, a body rotatable on the spindle, a coil spring surrounding the spindle, and having an end secured to the body, and a ring secured to the other end of the spring, surrounding the spindle and having a shoulder for coöperation with the shoulder on the spindle when the body is turned in one direction, said ring shoulder disengaging with the shoulder on the spindle when the body is turned in the other direction.

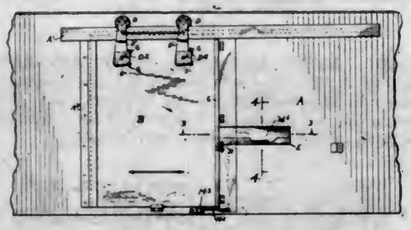
[Claims 6 to 10 not printed in the Gazette.]

1,025,300. BROOM. FREDERICK W. PENDERGAST, Cambridge, Mass. Filed June 14, 1911. Serial No. 633,153. (Cl. 15—19.)



A broom head comprising a sheet metal case provided with overlapping side wings and a single end wing overlapping said side wings, brush filaments in the case and projecting beyond the open end thereof, means for securing said wings in their overlapped positions, said means also serving to fasten the filaments in the case, a handle having ears embracing said case, and means for fastening the handle to the closed end of the case and also aiding to retain said wings in overlapped positions.

1,025,301. FREIGHT-CAR DOOR. JESS PETER PERSSON, Jersey City, N. J. Filed Aug. 12, 1911. Serial No. 643,769. (Cl. 20—26.)



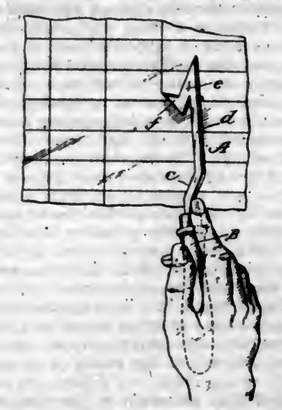
1. The combination with a rolling car door of a vertical hinged stop cleat at the rear thereof and substantially the height of the door, and a shelf longitudinally of the car pivotally mounted in a recess in the side of the car to drop down behind said cleat substantially as shown and described.

2. The combination with a rolling car door of a vertical hinged cleat at the rear thereof and a shelf arranged longitudinally of the car and pivotally mounted to swing from a vertical plane into a horizontal plane and a rod having a portion lying behind said shelf and an end arranged in a position to be engaged by the door in its closing movement to throw the shelf down to hold the cleat against the rear end of the door and thus hold the door against movement.

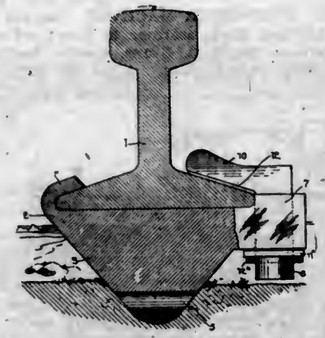
1,025,302. MARKING AND GROOVING TOOL. JOHN H. PROCTOR, Minneapolis, Minn. Filed Dec. 30, 1911. Serial No. 668,754. (Cl. 72—138.)

1. A marking and grooving tool, provided with a relatively long and narrow beveled grooving portion, an arm at the outer end of said grooving portion, and a tapered finger extending diagonally outward from the outer end of said arm having a pointed end with beveled edges.

2. A marking and grooving tool, having parallel arms and a straight beveled grooving portion connecting the arms, and a marking and grooving tapered finger extending diagonally outward from the end of one of the arms and which has a pointed beveled end.



1,025,303. ANTI-RAIL-CREEPER. OLAF K. RAMSTEAD, San Quentin, Cal. Filed Sept. 2, 1911. Serial No. 647,369. (Cl. 238—4.)

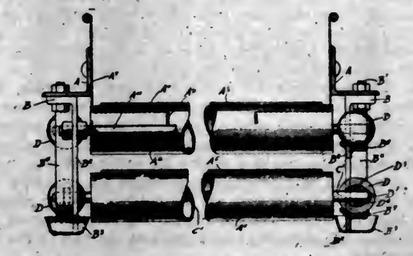


1. An anti-creeper comprising a body portion providing a tapered lower portion to be embedded in the track bed at the side of the railroad tie, a tongue formed upon one side of said body portion and bent upon said body portion to overlap the same, a rail-lock removably connected with the opposite end of said body portion and provided with an enlarged head which overhangs said body portion, the lower portion of said head being provided with oppositely beveled faces adapted to engage a rail base.

2. An anti-creeper comprising a tapered body portion, a tongue extending from said body portion and being bent back upon the same in spaced relation thereto, the opposite end portion of said body portion being provided with a vertical opening, a rail lock provided with a shank adapted to pass through said opening, means for engaging the lower portion of said shank to prevent the removal of the same, and an enlarged head formed upon the upper end of said shank and overhanging said body portion, said head being provided with oppositely beveled lower faces.

1,025,304. BALL-AND-SOCKET BEARING. AXEL G. J. RAPP, Chicago, Ill., assignor to Link-Belt Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 26, 1909. Serial No. 485,890. (Cl. 64—54.)

1. In a bearing the combination of a shaft with two balls each perforated and adapted to receive slidably one end of the shaft, two socket-shaped bearings to receive the balls and supports whereby such bearings are mounted at a distance from each other approximately the distance of the length of the shaft, each of said supports provided with an opening above the socket through which the ball when raised can be moved away from the end of the shaft.



2. In a bearing, the combination of a shaft, balls loose and slidable on the ends thereof and bearings for the balls which prevent their motion on the shaft and supports for such bearings, and openings in the supports above the bearings to permit the motion of the balls along the line of the axis of the shaft.

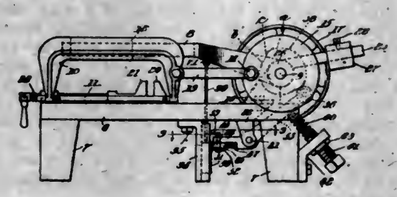
3. In a bearing, the combination of a shaft, balls loose and slidable on the ends thereof, bearings for the balls which permit rotation but not displacement of the balls and openings above the bearings which permit displacement of the balls along the line of the axis of the shaft.

4. In a bearing, the combination with a shaft of a ball slidably mounted about either end of said shaft, a socket for each of said balls, a support for such socket and an opening in such support through which the ball may be vertically movable.

5. In a bearing, the combination of a shaft with balls slidably mounted on the ends thereof, of supports and bearings on said supports for each ball, the bearing opening above so that the ball may be lifted therefrom vertically, and the support opening laterally above the bearing so that the ball can be moved along the shaft when lifted from the bearing.

[Claims 6 to 9 not printed in the Gazette.]

1,025,305. FEEDING MEANS FOR POWER HACKSAW-MACHINES. ANDREW RASMUSSEN, Racine Junction, Wis. Filed July 29, 1910. Serial No. 574,443. (Cl. 29—73.)



1. Feeding means for power hack saw machines, comprising in combination with a reciprocating saw frame and a vertically movable supporting guide, of means independent of the weight of said frame and guide for exerting feed pressure on the saw during its cutting stroke, and means for releasing said feed pressure during the non-cutting stroke of the saw, whereby the teeth of the saw on the non-cutting stroke thereof will move in a line defined by said teeth at the end of the cutting stroke.

2. Feeding means for power hack saw machines, comprising in combination with a reciprocating saw frame and a vertically movable supporting guide, means independent of the weight of said frame and guide for exerting a yielding feed pressure on the saw during the cutting stroke thereof, and means for releasing the feed pressure at the end of the cutting stroke, whereby the teeth of the saw

on the non-cutting stroke thereof will move in a line defined by said teeth at the end of the cutting stroke.

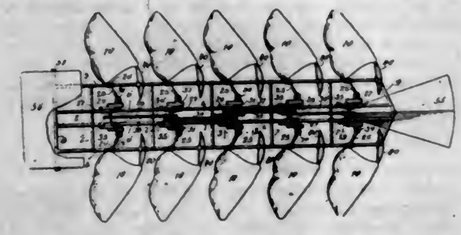
3. Feeding means for power hack saw machines, comprising in combination with a reciprocating saw frame and a vertically movable supporting guide, of means independent of the weight of said frame and guide for exerting feed pressure on the saw during its cutting stroke, means for counterbalancing the saw frame and guide and means for releasing said feed pressure at the end of the cutting stroke, whereby the teeth of the saw on the non-cutting stroke thereof will move in a line defined by said teeth at the end of the cutting stroke.

4. Feeding means for power hack saw machines, comprising in combination with a reciprocating saw frame and a vertically movable supporting guide, of means independent of the weight of said frame and guide for exerting feed pressure on the saw during its cutting stroke, means for regulating said pressure and means for releasing said feed pressure at the end of the cutting stroke, whereby the teeth of the saw on the non-cutting stroke thereof will move in a line defined by said teeth at the end of the cutting stroke.

5. Feeding means for power hack saw machines comprising, in combination with the reciprocating saw frame and its vertically movable supporting guide, means for exerting feed pressure on the saw during its cutting stroke, means for releasing said feed pressure, without lifting the saw, during the non-cutting stroke of the saw, and means for releasing the feed pressure means from the saw, constructed to permit the supporting guide and saw frame to be raised relatively to the pressure means.

[Claims 6 to 14 not printed in the Gazette.]

1,025,306. APPARATUS FOR AERIAL NAVIGATION. RANDOLPH R. RAWLE and JOHN RAWLE, Chicago, Ill. Filed June 24, 1909. Serial No. 503,985. (Cl. 244—20.)



1. In an apparatus for aerial navigation, the combination with the frame of the apparatus, of a wing member connected with the frame by means affording universal swinging movement of the wing member relatively to the frame and also rotative movement of said wing member on its longitudinal axis, and actuating means on the frame operating on the wing member to give to the latter rising and falling and backward and forward oscillatory movement, together with a simultaneous rotative or tilting movement, affording rising and falling motion of the rear, relatively to the forward, part of the said wing member at each stroke of the same.

2. In an appartaus for aerial navigation, the combination with the frame of the apparatus, of a wing-member connected with the frame by means affording universal movement of the wing-member on the frame, actuating means on the frame giving rising and falling and also backward and forward oscillatory movement to said wing-member, and a guide on the frame engaged with the rear part of the wing-member and acting to give rising and falling movement to said rear part, relatively to the forward part of the wing-member, in the oscillatory movement of the latter.

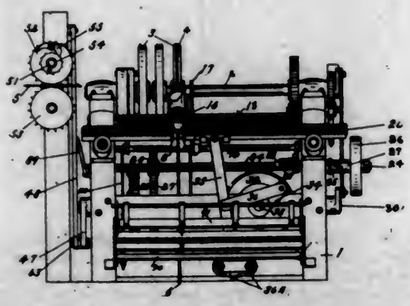
3. In an apparatus for aerial navigation, a wing member provided with a frame embracing frame bars pivotally connected with each other at their ends to permit the wing to be longitudinally expanded and contracted by the flexing of the frame bars on each other, actuating means acting on the frame as a whole to give rising and falling and forward and rearward oscillatory motion thereto, and actuating means operating through the oscillatory movement of the frame as a whole and acting on the frame bars to flex the same on each other and to thereby longitudinally expand and contract the said wing member automatically during the oscillatory movement of the same.

4. In an apparatus for aerial navigation, the combination with a main frame, of a wing-member having a frame which is connected with the main frame by a universal joint, means acting on the wing-member frame to give rising and falling and backward and forward oscillatory motion thereto, and a guide on the main frame engaging the rear part of the wing-member frame and acting in connection with the oscillatory motion of said wing-member to give rising and falling movement to the rear, relatively to the forward, margin of said wing-member.

5. In an apparatus for aerial navigation, the combination with a main frame, of a wing-member provided with a frame, an operative shaft to which said wing-member frame is attached, said operating shaft being connected with the frame by a ball and socket joint, means acting on said shaft giving rising and falling and forward and backward oscillatory movement to the wing-member, and a guide on the main frame engaging said wing-member frame at a point rearwardly of the said shaft and acting through the oscillatory movement of the wing-member to give rising and falling movement to the rear, relatively to the forward, edge of said wing-member.

[Claims 6 to 16 not printed in the Gazette.]

1,025,307. WIRE-FENCE MACHINE. GEORGE A. RAYMOND, Midland, Mich., assignor, by direct and mesne assignments, to Frank G. Evans, trustee, Battle Creek, Mich. Filed July 5, 1911. Serial No. 637,015. (Cl. 140—5.)



1. In a wire fence machine, a twister head comprising a cylindrical spindle, a pinion secured to said spindle, a bearing for said spindle, said spindle formed with a central passage having a pair of laterally inclined openings at each end of the spindle, the upper end of the spindle being flatted and formed with grooves in the opposite edges of said flatted end said flatted end formed with a transverse notch, a stripping device pivotally mounted on said bearing, the stripping device comprising a bifurcated bracket having a laterally disposed funnel-shaped guide; together with means for intermittently revolving said twister head and for drawing wires therethrough.

2. In a wire fence machine, a cross-bar crimping device comprising a crimped driving wheel, a crimped idler wheel, a shaft loosely received in the hub of said driving wheel, a pinion on said shaft, a longitudinally movable rack engaging said pinion, and driving means adapted to actuate the rack in unison with the fence-forming device of said machine, a ratchet wheel fixed to said pinion shaft, and a pawl pivoted to said driving wheel and adapted to engage said ratchet wheel to actuate it in one direction only.

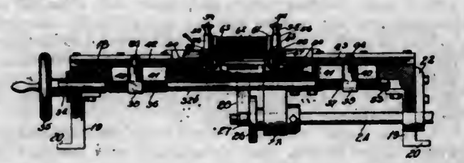
3. In a wire fence machine comprising twister heads, pinions thereon, and a reciprocating rack adapted to actuate said pinions simultaneously, a rack driving mechanism comprising a pitman pivoted at one end to said rack, a pair of guiding rollers slidingly receiving the pitman between them, a driving crank, a link connecting said driving crank with the middle portion of the pitman, a shaft for said crank, and gears adapted to actuate said shaft intermittently, and driving mechanism actuating said gears.

4. In a wire fence machine, a severing and stripping mechanism comprising in combination, twister heads, bearings therefor, a stripper rock shaft carried by said bearings, a rocker arm secured to said shaft, a shearing device carried by said rocker arm, and means for actuating said rocker arm to operate said strippers and shearing device simultaneously.

5. In a wire fence machine, drawing wheels, and means for actuating said drawing wheels intermittently, said means comprising a driven shaft, a crank secured to the end of said driven shaft, a shaft for said drawing wheels, a rocker arm loosely mounted on said shaft, a ratchet wheel fixed to said shaft, a pawl pivotally mounted on the rocker arm and engaging said ratchet wheel, a slot in said rocker arm, and a connecting rod pivoted at its lower end to said crank and adjustably pivoted at its upper end to the slot in said rocker arm.

[Claims 6 to 8 not printed in the Gazette.]

1,025,308. MEANS FOR TRIMMING BURS FROM THE CUT ENDS OF PRINTERS' RULES. CHARLES F. REMINGTON, Chicago, Ill., assignor to The American Type Founders Company, Jersey City, N. J., a Corporation of New Jersey. Filed Feb. 10, 1908. Serial No. 415,126. (Cl. 90—25.)



1. A rule-bur trimming machine comprising in combination upper and lower cutting blades in pairs, arranged at opposite sides of the path of travel of the rule to be trimmed, a pusher bar for moving the rule to contact with all of said blades, and means for actuating said bar whereby the burs are trimmed simultaneously from the four longitudinal corners of the rule, substantially as described.

2. A rule-bur trimming machine comprising in combination upper and lower cutting blades in pairs, arranged at opposite sides of the path of travel of the rule to be trimmed, means for adjusting said blades to differing thicknesses of rules, a pusher bar for moving the rule to contact with said blades, and means for actuating said bar, substantially as described.

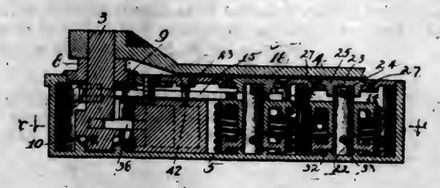
3. A rule-bur trimming machine comprising in combination upper and lower cutting blades in pairs, arranged at opposite sides of the path of travel of the rule to be trimmed, a pusher bar for moving the rule to contact with all of said blades, means for actuating said bar, the cutting edges of which blades are arranged at an oblique angle to the path of movement of said bar, substantially as described.

4. A rule-bur trimming machine comprising in combination upper and lower cutting blades in pairs, arranged at opposite sides of the path of travel of the rule to be trimmed, a pusher bar for moving the rule to simultaneously contact with said blades, means for actuating the bar, and shoulders upon said bar adapted to engage the edge of the rules and push them past the cutting blades, substantially as described.

5. A rule-bur trimming machine comprising in combination upper and lower cutting blades in pairs, arranged at opposite sides of the path of travel of the rule to be trimmed, a pusher bar for moving the rule to contact with said blades, means for actuating said bar, and a sliding stop maintaining the said rules from a backward movement with the pusher bar, substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

1,025,309. DOOR-CLOSING MECHANISM. OSCAR C. RIXSON, New York, N. Y. Filed Feb. 3, 1909. Serial No. 475,885. (Cl. 16—88.)



1. In a door-closer and check, the combination with closing-mechanism carried independently of the door and including a shaft adapted to be secured rigidly to the door to constitute one hinge-pintle therefor so as to be turned upon movement of the door between the open and closed positions and spring-mechanism upon one side of the shaft opposing the movement of said shaft when the door is being opened, of checking-mechanism carried independently of the door and being distinct from the spring-mechanism, which checking-mechanism is so located that its line of action passes to one side of the axis of the shaft when the door is in a closed position.

2. In a door-closer and check, the combination with closing-mechanism carried independently of the door, including a shaft for operative connection with the door and adapted to be turned upon movement of the door between its open and closed positions, and spring-mechanism upon one side of the shaft and having positive connection with said shaft and opposing the movement thereof when the door is being opened, of checking-mechanism distinct from said spring-mechanism and comprising a cylinder and a piston, and positive connection between said piston and said shaft.

3. In a door-closer and check, the combination with closing-mechanism carried independently of the door, including a shaft for operative connection with the door and adapted to be turned upon movement of the door between its open and closed positions, and spring-mechanism upon one side of said shaft and having positive connection to said shaft and opposing the movement thereof when the door is being opened, of liquid checking-mechanism distinct from said spring-mechanism and comprising a piston and a cylinder and valving-means for permitting liquid to pass from one side of said piston to the other.

4. The herein-described self-contained door-closer and check, comprising the combination with a closed casing, of a shaft journaled therein and adapted to be turned upon movement of the door between its open and closed positions, spring-mechanism inclosed in the same compartment of said casing upon one side of said shaft and opposing the movement thereof when the door is being opened, liquid checking-mechanism located within the same casing and distinct from said spring-mechanism, said checking-mechanism comprising a cylinder and piston and positive connection between said shaft and said piston.

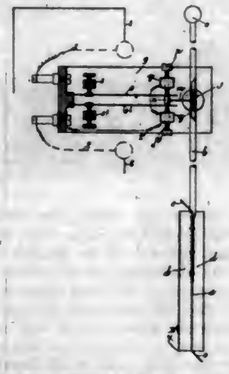
5. The herein-described self-contained door-closer and check, comprising the combination with a closed casing, of a shaft journaled therein and adapted to be turned upon movement of the door between its open and closed positions, spring-mechanism inclosed in said casing upon one side of said shaft and opposing the movement thereof when the door is being opened, liquid checking-mechanism located within the same compartment of said casing and distinct from said spring-mechanism, said checking-mechanism comprising a cylinder and a piston with a valve for permitting liquid to pass from one side of the piston to the other, and positive connection between said shaft and said piston.

[Claims 6 to 30 not printed in the Gazette.]

1,025,310. AUTOMATIC AIR-CURRENT-ACTUATED ALARM. LOUIS ROBILLOT, Besançon, France. Filed Dec. 1, 1909. Serial No. 530,810. (Cl. 73—55.)

1. An air driven actuating device comprising an elongated operating vane, oppositely disposed planes project-

ing from and coextensive in length with the lateral faces of said vane, and additional planes projecting from and coextensive in length with the ends of said vane.



2. An air driven actuating device comprising an elongated operating vane, a plane projecting from each of the lateral faces of said vane, said planes being inclined in opposite directions at an obtuse angle to the operating vane, and additional planes at the ends of said vane, said additional planes being inclined in opposite directions at an obtuse angle to the operating vane.

3. An air driven actuating device comprising the combination of a rod having an elongated operating vane at one end thereof, and a counterweight at the opposite end, oppositely disposed planes projecting from the lateral faces of said vane, and additional planes projecting from the ends of said vane.

4. An air driven actuating device comprising the combination of a rod having an elongated operating vane at one end thereof and a counterweight at the opposite end, a plane projecting from each of the lateral faces of said vane, said planes being inclined in opposite directions, and additional planes at the ends of said vane, said additional planes being inclined in opposite directions.

1,025,311. TREE OR PLANT SUPPORT. JOHN C. ROWELL, Terra Ceia, Fla. Filed June 24, 1911. Serial No. 635,230. (Cl. 47—12.)



In combination, a standard having longitudinal grooves on opposite faces, a support adapted to hold a young tree adjacent to and parallel with the standard, the support comprising a single length of wire constructed in a coil substantially at its central portion, the wire forming parallel arms projecting from the coil, each arm being bent at right angles at two points at its end portion and extending in opposite directions to embrace about three sides of the standard, each arm terminating in an elongated rolled member, the rolled members adapted to engage the longitudinal grooves.

1,025,312. PAPER-DISPENSING APPARATUS. ADOLPH RYDQUIST, Rochester, N. Y. Filed Apr. 5, 1911. Serial No. 619,152. (Cl. 211—29.)

1. In a paper dispensing apparatus, the combination with a paper feeding device, of an automatically operated locking member carried by the feeding device and movable relatively thereto, and manually controlled releasing means for actuating the locking member to permit movement of the feeding device.



2. In a paper dispensing apparatus, the combination with a paper feeding device, of an automatically operated locking member carried by the feeding device and movable relatively thereto, and manually controlled releasing means adapted to move with and independently of the feeding device.

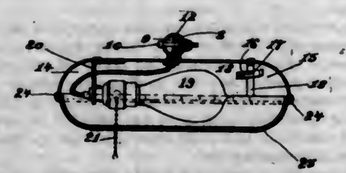
3. In a paper dispensing apparatus, the combination with a paper feeding roll, a stationary stop arranged in proximity to the feeding roll, an automatically operated locking member carried by the feeding roll and movable relatively thereto to engage said stationary stop, and manually controlled releasing means for moving the locking member out of engagement with the stationary stop to permit movement of the feeding roll.

4. In a paper dispensing apparatus, the combination with a paper feeding roll, a stationary stop arranged in proximity to the feeding roll, a spring-controlled locking lever pivoted to the feeding roll, an arm carried by the locking lever arranged to engage the stationary stop, an additional arm carried by the locking lever, a manually controlled cam wheel in engagement with the last mentioned arm, and a recessed disk having limited movement relatively to the cam wheel.

5. In a paper dispensing apparatus, the combination with a paper feeding roll, a stationary stop arranged in proximity to the feeding roll, a spring-controlled locking lever pivoted to the feeding roll, an arm carried by the locking lever arranged to engage the stationary stop, an additional arm carried by the locking lever, and manually controlled releasing means in engagement with the last mentioned arm.

[Claims 6 to 8 not printed in the Gazette.]

1,025,313. LIGHTING-FIXTURE. NEWTON L. SCHLOSS, New York, N. Y. Filed Feb. 9, 1912. Serial No. 676,605. (Cl. 240—11.)



1. A lighting fixture comprising a channeled casing with end closures one of which is removable, a lamp support in said casing, and a removable glass having interlocking engagement at its sides with the edges of said casing and at its ends with the said end closures.

2. A lighting fixture comprising a semi-cylindrical casing having end closures one of which is removable, a lamp support in said casing, and a semi-cylindrical glass having sliding engagement at its side edges with the edges of the casing, said glass also having closed end portions which engage with the edges of the said end closures.

3. A lighting fixture comprising a channeled casing having grooves at opposite edges, the groove at one edge being interrupted by recesses, and a glass having projecting margins which are slidable into said grooves to hold the glass in position, one margin being interrupted to form projections which will pass through said recesses, whereby the glass may be removed by shifting the same to register the projections with said recesses.

4. A lighting fixture comprising an elongated channeled casing having grooves at opposite edges, the groove at one edge being interrupted by recesses, end pieces on the casing, having grooves at their edges, one of said end pieces being removable, a trough-shaped glass having marginal flanges at its sides and ends engageable in said grooves to hold the glass in position, the flange at one side of the glass being interrupted to form projections, the glass being shiftable to register said projections with said recesses and permit removal of the glass, and means in the casing to support a lamp.

5. A lighting fixture comprising a channeled casing having end closures one of which is removable, the edges of said casing and closures having alined grooves, a channeled glass with closed ends, the side and end margins of the glass having flanges fitting in the grooves to hold the glass in place, the side flanges of the glass being slidable lengthwise in the side grooves of the casing to permit insertion or removal thereof, and a lamp support in the casing.

1,025,314. JAR CAP OR CLOSURE. EDWARD D. SCHMITT, Baltimore, Md., assignor, by direct and mesne assignments, to The Pure Food Process Company, Baltimore, Md., a Corporation of Maryland. Filed Nov. 18, 1909, Serial No. 528,782. Renewed Feb. 14, 1911. Serial No. 608,595. (Cl. 215—10.)



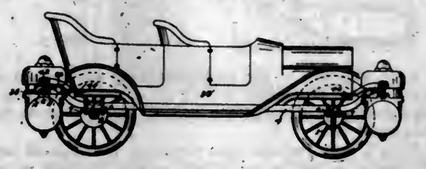
1. As an article of manufacture, a cap or closure having a sealing-flange composed of a plurality of annular, vertical walls, arranged in substantially the same horizontal plane with the cap-body, said sealing-flange being so formed as to provide a locking-bead adapted to be forced into locked-contact with the shoulder of a jar or bottle.

2. As an article of manufacture, a cap or closure having a sealing-flange composed of a plurality of annular, vertical walls, arranged substantially in the same horizontal plane with the cap-body, said sealing-flange being so formed as to provide a locking-bead, adapted to be forced into locked-contact with the shoulder of a jar or bottle, and an engaging-bead adapted to be engaged by a suitable sealing-tool.

3. As an article of manufacture, a cap or closure having a sealing-flange composed of a number of annular, vertical walls, arranged in substantially the same horizontal plane with the cap-body, said sealing-flange being so formed as to provide a locking-bead, adapted to be forced into locked-contact with the shoulder of a jar or bottle, an engaging-bead, adapted to be encountered by a suitable sealing-tool, and with a suitably-spaced edge to be engaged by a suitable removing-tool.

4. In combination with a jar or bottle, having a locking surface on the exterior of its neck and an inclined surface on the interior of the neck adjacent to the lip, a cap or closure having a channel which receives the bottle lip, said channel being formed with an inclined inner wall adapted to make contact with the inclined surface of the bottle neck, and a sealing flange composed of a plurality of annular vertical walls, arranged in substantially the same horizontal plane with the cap body, said sealing flange being so formed as to provide a locking bead adapted to be forced into locking contact with the locking surface on the exterior of the jar or bottle.

1,025,315. FLUID-SPRING FOR VEHICLES. FRANK SCHREIDT, Mansfield, Ohio. Filed Feb. 20, 1911. Serial No. 609,842. (Cl. 21—50.)



1. In a fluid spring for vehicles, the combination with an axle, of a receptacle for fluid, overhanging bars fastened by clips to the axle to suspend said receptacle from the axle, reciprocating means provided on said receptacle and adapted to be directly supported by the fluid in the receptacle and means pivotally connected to said reciprocating means and rigidly to the body whereby the body is supported and given a uniform resilient movement although the weight carried by the body is changed.

2. In a fluid spring for vehicles, a tank for fluid having an annular flanged portion, a gland threadably connected to said flanged portion, means to suspend said tank from the running gear, a cylinder fitted to said tank with the open end depending therein, pistons mounted in said cylinder and adapted to be directly supported by the fluid in the tank and means pivotally connected to said reciprocating means and rigidly to the body whereby the body is supported and given a uniform yielding movement without concussion.

3. In a fluid spring for a road vehicle, the combination of axles with overhanging supporting bars fastened thereto; of a tank suspended from said overhanging supporting bars, a cylinder depending in said tank, pistons to reciprocate in the cylinder and adapted to be directly supported by the fluid therein, said pistons movably suspending the body of the vehicle.

4. In a fluid spring for road vehicles, the combination of supporting bars and axles; of a tank suspended from said supporting bars provided with a flanged portion, a cylinder fitted to the inner periphery of said flanged portions, pistons to reciprocate in the cylinder directly supported by the fluid in the tank, a stem attached to said pistons, a piston rod, a drum attached to said piston rod, means to retard the rebound of the pistons, a diaphragm operating with the pistons between the inner periphery of the drum and top of the gland nut to prevent leakage past the rod.

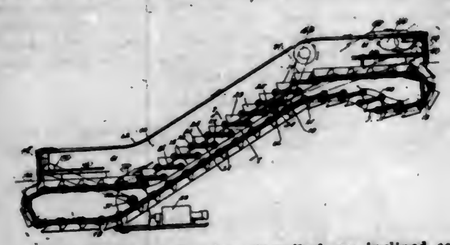
5. In a fluid spring for road vehicles, the combination of overhanging supporting bars and axles of a vehicle; of a tank provided with a flanged portion suspended from said supporting bars, a cylinder fitted to the inner periphery of said flanged portion, a movable drum, pistons adapted to reciprocate in the cylinder, means to connect the drum to the body of the vehicle, a stem attached to said pistons and carried by the drum, said pistons being directly supported by fluid in the tank and means to movably suspend said body from the movable drum as described and set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,025,316. CONVEYER. CHARLES D. SEEBERGER, New York, N. Y., assignor to Otis Elevator Company, a Corporation of New Jersey. Filed Oct. 18, 1905, Serial No. 283,302. Renewed Mar. 2, 1912. Serial No. 681,172. (Cl. 104—165.)

1. In a device of the class described, an inclined conveyer having oppositely moving runs, a drive applied to

one run, and connections between the runs to utilize one run as a medium for applying power to the other run.



2. In a device of the class described, an inclined conveyer having oppositely moving runs, driving means engaging one run, and an idler engaging both runs to drive the second run.

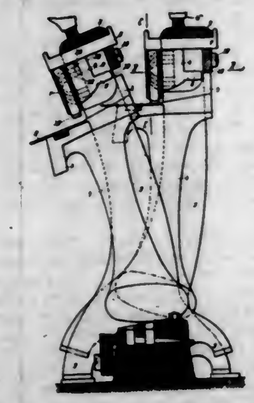
3. In a device of the class described, a connected series of steps arranged in oppositely moving inclined runs, a drive located near the base of the incline and engaging the idle run, and idlers located near the top of the incline and engaging both runs to transmit motion to the transporting run.

4. In a device of the class described, an endless inclined conveyer having oppositely moving runs and comprising a series of steps and links connecting the steps, and driving means consisting of driven pinions engaging the links of one run and idler pinions engaging the links of both runs.

5. In a device of the class described, an endless conveyer having ascending and descending inclined runs and comprising an endless series of steps and links connecting the steps, driving pinions engaging the links near the lower end of the descending run, and idler pinions driven by such run and engaging the links of the other run near the top of the incline.

[Claims 6 to 184 not printed in the Gazette.]

1,025,317. CONTROL DEVICE FOR TICKET-STAMPING MACHINES. MAX SENSENSCHMIDT and EDUARD KAISER, Frankfort-on-the-Main, Germany. Filed June 20, 1910. Serial No. 568,002. (Cl. 101—187.)



1. In a control device for ticket stamping machines the combination of a type box, a slide adapted to close said box, a plurality of stops, fixed on said slide, a control type inserted into said box and provided with a plurality of cuttings exactly fitting said stops and adapted to engage the same, and means to prevent the operation of the machine if no control type or a wrong one is inserted into said box substantially as described and for the purpose set forth.

2. In a control device for ticket stamping machines the combination of a type box, a slide adapted to close said box, a plurality of stops fixed on said slide, a control type inserted into said box and provided with a plurality of cuttings exactly fitting said stops and adapted to engage the same a projecting part on said slide and a pin mounted on the rear of said projecting part adapted on opening the slide to occupy the intermediate space between the counter pressure piece and the type casing substantially as described and for the purpose set forth.

1,025,318. MANDREL FOR SHEET-METAL WORKING. LEE C. SHARP, Plattsmouth, Nebr., assignor to Franz Brückmann, Jr., Brunswick, Germany. Filed Mar. 8, 1907, Serial No. 361,310. Renewed Oct. 2, 1911. Serial No. 652,414. (Cl. 113—103.)

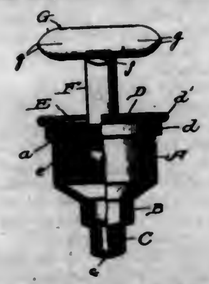


1. A horn or mandrel adapted to support the blanks of sheet metal cans and having cross-sectional shape corresponding to that of the can, said horn or mandrel being provided with electro-magnetic means acting upon the inner surface of the blank to hold the blank in position around the mandrel leaving the outer surface of the blank unobstructed.

2. A horn or mandrel adapted to have the blanks of sheet metal cans formed around it, the horn or mandrel having a cross-sectional shape corresponding to that of the can and an electromagnetic means embodied within the horn or mandrel as a part thereof, whereby said blank may be held around the mandrel in position for soldering, leaving the outer part of the blank unobstructed during the soldering operation.

3. A horn or mandrel for forming the sheet metal cans comprising two sections forming the poles of a magnet and spaced from each other, said sections forming to the cross-sectional shape of the can, a magnet core joining the said sections together and an electric magnet winding around the core, whereby the blank of the sheet metal can is held around the mandrel by electromagnetic force exerted from the interior thereof and the outer portion of the blank is left unobstructed during the soldering operation.

1,025,319. GREASE-CUP. HOWARD B. SHERMAN, Battle Creek, Mich., and FRED PERKINS, Warren, Mass.; said Perkins assignor to said Sherman. Filed Apr. 12, 1911. Serial No. 620,569. (Cl. 184—38.)



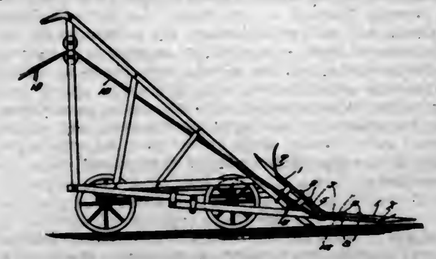
1. A drawn metal grease cup comprising a body portion having its upper end thickened by compressing the metal upon itself, and threaded internally for the engagement of a plunger and externally for the engagement of a cap; with a drawn metal plunger having an externally threaded flange engaging the interior threads of the body, and an integral hollow stem; and a cap, through which the stem passes, having an internally threaded flange engaging the exterior threads on the body portion.

2. A drawn metal grease cup having an enlarged cylindric upper portion, a contracted hexagonal portion below the upper portion and a further reduced cylindric portion below the hexagonal portion all formed integral of drawn metal, the upper cylindric portion having its upper end thickened by swaging the metal upon itself and threaded internally for engagement of a plunger, and the thickened portion being threaded externally for the engagement of a cap, and the lower cylindric portion having its end closed but provided with an aperture for the escape of grease and threaded externally; with a drawn metal plunger having an externally threaded flange engaging the interior threads of the upper portion, and an integral hollow stem integral with the plunger, and a cap through which the stem passes fitted to the top of the body portion.

3. In combination an internally threaded grease cup; a drawn metal plunger comprising a hollow stem and a disk integral with the stem having a flange on its periphery integral therewith and exteriorly threaded to engage the cup; the upper end of the stem being contracted; a handle attached to the upper end of the stem, and a cover attached to the upper end of the cup.

4. A grease cup comprising an internally threaded body of drawn metal, a drawn metal plunger therein comprising a hollow stem, and a disk integral with the stem having an exteriorly threaded flange on its periphery, the upper end of the stem being contracted, and a handle attached to the upper end of the stem and comprising a plate having foliated ends, the plate being bent in cylindric form and the foliated ends closed against themselves to close the ends of the handle.

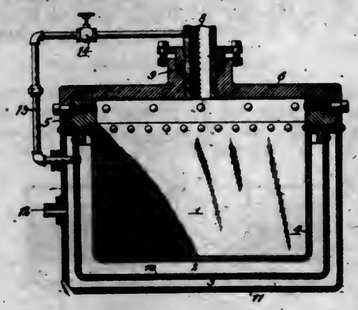
1,025,320. OVERTHROW HAY-RETAINER. MARION T. SHIELDS, EDGAR B. SHIELDS, and WILLARD L. MCGUIRE, Osborne, Kans. Filed Apr. 29, 1911. Serial No. 624,196. (Cl. 57—53.)



In a hay fork, a plurality of alternately arranged hollow and solid teeth, the hollow teeth being provided with openings at one of their ends, rods slidably arranged in the hollow teeth and provided with pivoted curved members extensible through the openings, guide loops arranged at the rear of the fork at each end, a cross beam guided in the loops and connecting the rods in the hollow teeth, and means connected between the beam and a portion of the fork for holding the pivoted extensions normally extended.

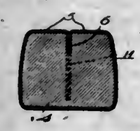
1,025,321. APPARATUS FOR IMPREGNATING FABRIC WITH RUBBER. WILLIAM CHARLES SIVERSON, Buffalo, N. Y. Filed July 3, 1911. Serial No. 636,669. (Cl. 91—46.)

1. An apparatus for impregnating fabric with plastic rubber comprising an impregnating chamber adapted to receive the fabric and the plastic rubber for filling the fabric and provided with means for producing pressure on the interior of the chamber, a cushion jacket arranged on the outer side of said impregnating chamber, and a heating jacket arranged on the outer side of said cushion jacket.



2. An apparatus for impregnating fabric with plastic rubber comprising an impregnating chamber provided with an inlet for admitting air under pressure into the interior of said chamber, a compressed of air cushion jacket arranged on the outer side of the impregnating chamber, and a steam jacket arranged on the outer side of the air cushion jacket.

1,025,322. RAKE-TOOTH POINT. HENRY ADALBERT SMITH, Elgin, Ill., assignor to Star Manufacturing Company, Carpentersville, Ill. Filed Dec. 30, 1908. Serial No. 470,054. (Cl. 56—69.)



1. A rake tooth point formed from cold metal, having infolding struts extending from the top of said point downwardly and bearing against the inner face of the bottom of the point, and adapted to take up the strain from the point.

2. As a new article of manufacture, a rake tooth point formed from an integral metal blank, said blank being provided with a pair of integral wings folded over and turned downwardly with said point and forming reinforcing struts for the point.

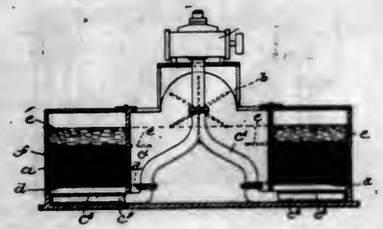
3. As a new article of manufacture, a rake tooth point formed from an integral metal blank, said blank being provided with a pair of integral wings folded over and turned downwardly within said point, and resting against the inner face of the bottom of said point, and forming reinforcing struts for the point.

1,025,323. METHOD OF DYEING FIBROUS MATERIALS. WILLIAM R. SMITH, Buffalo, N. Y., assignor to Buffalo Leather Co., Buffalo, N. Y., a Corporation of West Virginia. Filed June 26, 1909. Serial No. 504,425. (Cl. 8—18.)

1. The method of dyeing fibrous material, which consists in loosely confining it against lateral or vertical movement to prevent relative snarling or entangling movement of its fibers without preventing access of liquid thereto, immersing the confined material in a body of dye liquor, circulating the dye liquor laterally through the material and forcing air through the confined material and the liquor which permeates it.

2. The method of dyeing fibrous material which consists in confining the material in a foraminous envelop, immersing the envelop and its contents in a body of dye liquor, circulating the dye liquor laterally through the material and forcing air through the said body, the envelop and its contents.

3. The method of dyeing fibrous material which consists in confining the material in a foraminous envelop, immersing the envelop and its contents in a body of dye liquor, forcing the liquor horizontally through the envelop, and forcing air upwardly through the body of liquor and the envelop.



4. The method of dyeing fibrous material which consists in loosely confining said material against lateral movement to prevent entangling movement of the fibers, immersing the confined material in a body of dye liquor separating the fibers by forcing air between them and through the liquor which permeates them, and causing the liquor to move laterally between the fibers, while the latter are held in separated condition by the air.

1,025,324. METHOD OF TREATING LEATHER AND PRODUCT THEREOF. WILLIAM R. SMITH, Buffalo, N. Y., assignor to Buffalo Leather Co., Buffalo, N. Y., a Corporation of West Virginia. Filed May 28, 1910. Serial No. 563,931. (Cl. 149—6.)



1. The process of waterproofing and stiffening leather and imparting non-slipping qualities thereto, which consists in immersing the leather in a heated, fluid mixture containing a solid bitumen possessing at normal or somewhat higher temperatures a degree of elasticity comparable to that of elaterite, and a fusible bitumen possessing high penetrative qualities.

2. The process of waterproofing and stiffening leather and imparting non-slipping qualities thereto, which consists in immersing the leather in a heated, fluid mixture containing elaterite, combined with a fusible bitumen possessing high penetrative qualities.

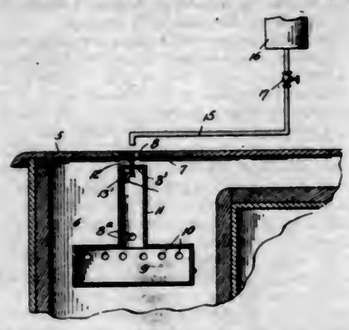
3. The process of waterproofing and stiffening leather and imparting non-slipping qualities thereto, which consists in immersing the leather in a heated, fluid mixture containing elaterite combined with ozocerite.

4. The process of waterproofing and stiffening leather and imparting non-slipping qualities thereto, which consists in immersing the leather in a heated, fluid mixture containing elaterite, modified to render it substantially soluble in liquefied paraffin, combined with a fusible bitumen possessing high penetrative qualities.

5. The process of waterproofing and stiffening leather and imparting non-slipping qualities thereto, which consists in immersing the leather in a heated, fluid mixture containing elaterite, modified to render it substantially soluble in liquefied paraffin, combined with ozocerite.

[Claims 6 to 10 not printed in the Gazette.]

1,025,325. OIL-BURNER. HARRY A. SNYDER and JOHN E. SNYDER, Watonga, Okla.; Mary C. Snyder administratrix of said Harry A. Snyder, deceased. Filed Nov. 12, 1910. Serial No. 592,087. (Cl. 158—9.)



1. The combination with a stove having a lid provided with a central opening, of a burner arranged within the fire box of the stove comprising a hollow rectangular body, a vertical tubular guide member centrally connected to said body, means arranged in the stove lid to engage said guide member and support the burner within the stove, the upper end of said guide member being disposed beneath the stove lid in spaced relation thereto and provided with an opening in alinement with the opening in the stove lid, said tubular guide member being further provided with a plurality of openings adjacent its point of connection to the burner body.

2. The combination with a stove having a lid provided with a central opening, of a burner arranged within the fire box of said stove comprising a hollow rectangular body provided with openings in its side walls, a tubular guide member integrally formed upon the top wall of said burner, the upper end of said guide member being provided with longitudinal slots in its annular wall, said slots being horizontally extended at their upper ends in opposite directions, depending bolts arranged in the stove lid laterally disposed at their lower ends for engagement in the slots of said guide member, the extremities of said bolts being upwardly extended and adapted to be received in the horizontal portions of said slots, the upper end of said tubular guide member being disposed in spaced relation to the lid and provided with an opening in alinement with the opening in the stove lid, the lower end of said tubular guide member being further provided with a plurality of openings adjacent its point of connection to the burner body.

1,025,326. PROCESS OF MANUFACTURING CANDY AND CANDY PRODUCED THEREBY. WILLIAM F. SPECK, Evansville, Ind. Filed June 6, 1910. Serial No. 565,283. (Cl. 99—11.)

1. A confection consisting of flaked corn coated with powdered nuts and a sweetening agent.

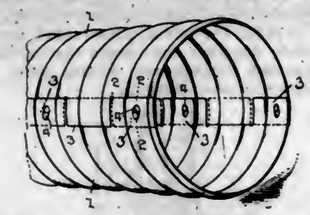
2. As a process of manufacturing candy, heating cracked or broken corn, then adding a sweetening agent which is allowed to become partially absorbed by the cracked corn, adding powdered nuts, and forming it into flakes.

3. The process of manufacturing candy consisting of heating cracked or broken corn, then adding a sweetening agent, rolling into flakes, adding a sweetening agent and powdered nuts, and, finally, rolling it into flakes.

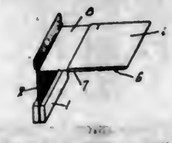
1,025,327. CULVERT. HENRY I. STANDLEY, Hope, N. D. Filed Jan. 30, 1912. Serial No. 674,313. (Cl. 61—9.)

A culvert pipe formed of longitudinal sections, each section having a straight smooth edge, each section having a plurality of tongues for engagement with the straight

smooth edge of the opposite section, and means carried by each section and adapted for engagement through the opposite section near the edges of said sections to lock the latter together.



1,025,328. STOCKING. WILLIAM STATON, Providence, R. I., assignor to Providence Silk Hosiery Company, Providence, R. I., a Corporation of Rhode Island. Filed Oct. 24, 1910. Serial No. 588,629. (Cl. 66—4.)



1. An article of the character described comprising a leg portion provided with a triple welt at the top and having the stitches of said leg portion locked with the stitches of said triple welt.

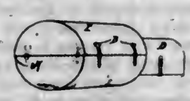
2. An article of the character described comprising a leg portion having a welt at the top, said welt having three sections joined together at each end, and having the stitches at the end of said welt which joins the leg portion locked.

3. An article of the character described comprising a leg portion provided at the top with a triple welt, the loop stitches in two sections of said welt extending in opposite directions to the loop stitches in the third section of said welt.

4. An article of the character described comprising a leg portion provided at the top with a triple welt, the end stitches at one end of two of the sections of said welt being joined together by the end stitches at one end of the third section and the opposite end stitches of all three sections being joined together by the first row of stitches of the leg portion.

5. An article of the character described comprising a leg portion provided at the top with a welt having three sections joined together by the first row of stitches of the leg portion, the stitches of said leg portion engaging corresponding stitches in two of said sections of the welt and different stitches in the other of said sections.

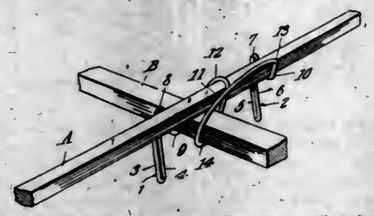
1,025,329. SAND-BAND FOR VEHICLES. JEREMIAH STOKES, Jr., East Mill Creek, Utah. Filed Mar. 7, 1910. Serial No. 547,942. (Cl. 21—40.)



1. A sand band for vehicles comprising a cylindrical hub engaging member having a semi-cylindrical axle engaging extension, an inverted U-shaped band engaged with said extension, slides adjustably engaged with said band on opposite sides thereof and having their outer ends inturned to form axle gripping members, and means for locking said slides in adjusted position.

2. A sand band for vehicles comprising a cylindrical hub engaging member having a semi-cylindrical axle engaging extension, an inverted U-shaped band engaged with said extension, slides adjustably engaged with said band on opposite sides thereof and having their outer ends inturned to form axle gripping members, said slides having finger grips on their outer faces, and means for locking said slides in adjusted position.

1,025,330. WIRE CLIP FOR CONCRETE CONSTRUCTION. JOSEPH H. STRAUS, Jr., Baltimore, Md., assignor of one-half to Raymond H. Williams, Baltimore, Md. Filed Feb. 26, 1912. Serial No. 679,909. (Cl. 72—122.)



1. A wire clip for securing together crossing bars for concrete reinforcement comprising an upright leg or support at one end, an adjacent downward curve for engaging under one of the bars, bends in the wire extending in position to pass over the second bar and under the first bar, and a support at the other end of the wire.

2. A wire clip for securing together crossing bars for concrete reinforcement comprising an upright leg or support at one end, an adjacent downward curve for engaging under one of the bars, bends in the wire extending in position to pass over the second bar and under the first bar and a support at the other end of the wire, said support being inverted in position with relation to the first mentioned support.

3. A wire clip for securing together crossing bars for concrete reinforcement comprising an upright leg or support at one end, an adjacent downward curve for engaging under one of the bars, bends in the wire extending in position to pass over the second bar and under the first bar, and a curve and a second support at the other end of the wire.

4. A wire clip for securing together crossing bars for concrete reinforcement comprising an upright leg or support at one end, an adjacent downward curve for engaging under one of the bars, bends in the wire extending in position to pass over the second bar and under the first bar, and a curve and a second support at the other end of the wire, said curve and support being reversed with relation to the first mentioned curve and support.

5. A clip for securing together crossing bars for concrete reinforcement made of a single piece of stiff flexible wire, said wire having two parallel stretches at one end forming a vertical leg or support, a downward curve beginning at the upper end of the leg, a loop formed of a continuation of the wire from the end of said curve, a long substantially horizontal stretch beginning at the termination of said loop, an upward curve at the termination of said long stretch, and two parallel vertical stretches beginning at the termination of the last named curve forming an inverted leg or support.

1,025,331. POWER-TRANSMISSION MECHANISM. CLARENCE W. TAYLOR, Chicago, Ill. Filed Apr. 24, 1911. Serial No. 622,995. (Cl. 74—7.)

1. In power transmission mechanism, a driving member and a driven member, a plurality of clutch-shoes normally in sliding contact and adapted to engage with the perimeter of the driven member, and a draw-connector in operative engagement at one end with each clutch-shoe and at the other end with the driving member, to actuate the driven member in either direction and to permit the driven member to independently revolve faster than the driving member in either direction.

2. In power transmission mechanism, the combination of a driving member and a driven member, a plurality of

clutch-shoes substantially encircling and adapted to engage with the perimeter of the driven member, and a flexible draw-connector in pivoted engagement with each clutch-shoe and the driving member, to actuate the driven member in either direction and to permit the driven member to independently revolve faster than the driving member in either direction.



3. In power transmission mechanism independent shafts, a driving member rotatable independently of the shafts, a driven member fixed to each shaft a plurality of draw-connectors with one end normally in sliding engagement therewith and its opposite end in operative engagement with the driving member, to actuate the driven members in either direction and to permit the driven members to independently revolve faster than the driving member in either direction.

4. In a power transmission mechanism, the combination of a rotatable driving shaft, a collar fixed thereto, a driven member, a plurality of clutch shoes normally in sliding contact and adapted to engage with the perimeter of the driven member, and a draw-connector in operative engagement at one end with each clutch shoe and at the other end with the driving member, to actuate the driven member in either direction, and to permit the driven member to independently revolve faster than the driving member in either direction.

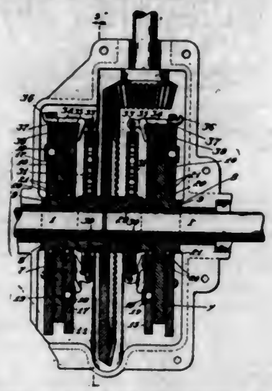
5. In power transmission mechanism, a driving member and a driven member, a plurality of draw-connectors each having one end in operative engagement with the driving member, and its opposite end disposed and adapted to engage with the perimeter of the driven member, and segmental connectors securing the draw-connectors together to facilitate synchronous movement of the clutching ends of the draw-connectors.

1,025,332. POWER-TRANSMISSION MECHANISM. CLARENCE W. TAYLOR, Chicago, Ill. Filed July 25, 1911. Serial No. 640,514. (Cl. 74—7.)

1. In a power transmission mechanism, a driving member and a driven member, an idle disk positioned for engagement with one face of the driven member, a plurality of draw-connectors each in operative engagement at one end with the idle disk and at the other with the driving member, to actuate the driven member in either direction and to permit the driven member to independently revolve faster than the driving member in either direction.

2. In a power transmission mechanism, the combination with a driving member of an idle disk upon each side of the driven member, each disk positioned for engagement with one surface of the driven member, a plurality of means each in operative engagement at one end with the driving member and at the other end connected and disposed for movement of the idle disks, to pinch the driven member and rotate therewith in either direction and to permit the driven member to disengage and independently revolve faster than the driving member in either direction.

3. In a power transmission mechanism, the combination with a driving member and a driven member, of a plurality of idle disks positioned with the driven member therebetween, anti-friction members bearing against the driven member, a plurality of draw connectors each in operative engagement at one end with the driving member, and at the other end connected and disposed for movement of the idle disks to pinch the driven member and rotate therewith in either direction and permit the driven member to disengage and independently revolve faster than the driving member in either direction.



4. In a power transmission mechanism, the combination of independent shafts, a driving member rotatable independently of the shafts, a driven member fixed to each shaft, an idle disk positioned for engagement with the driven member on each shaft, and a plurality of draw-connectors each in operative engagement at one end with the driving member and at the other end connected and disposed for movement of the respective disks to pinch the driven members therebetween and rotate therewith.

5. In a power transmission mechanism, the combination of independent shafts, a driving member rotatable independently of the shafts, a driven member fixed to each shaft, a plurality of pairs of idle disks, each pair of disks having a driven member therebetween, and a plurality of draw-connectors each in operative engagement at one end with the driving member, and at the other end connected and disposed for movement of the respective idle disks to pinch the respective driven members therebetween and rotate therewith.

1,025,333. CORE-DRILLING MACHINERY. COLEMAN ARTHUR TEARY, deceased, New York, N. Y.; Emma J. Terry, administratrix, assignor, by mesne assignments, to McKiernan-Terry Drill Company. Filed Nov. 26, 1909. Serial No. 529,948. (Cl. 166—3.)

1. In core drilling machinery comprising a rotating apparatus and a hollow drill rod to be rotated thereby, means for introducing water into the drill rod at a point below the rotating apparatus, said means including a non-rotative casing and a member extending through said casing and connected to and rotated by the rotating apparatus, said member having a drive connection with the drill rod and being channeled to provide water admission from a source of supply to the drill rod through the casing, said casing being supported by and held against axial movement with respect to the member solely below the point of entrance of the water to the casing.

2. In core drilling machinery comprising a rotating apparatus and a hollow drill rod to be rotated thereby, means for introducing abrasive material into the hollow drill rod at a point beneath the said rotating apparatus, said means including a member rotatable with the drill rod and having a radial passage a wall of which inclines obliquely to the axis of the drill rod.

3. In core drilling machinery comprising a rotating apparatus and a hollow drill rod to be rotated thereby, means for introducing abrasive material into the hollow drill rod at a point beneath said rotating apparatus, said means including a member rotatable with the drill rod and having a radial passage, a wall of which is inclined obliquely to the axis of the drill rod, said member having an annular surface without the inlet end of and forming an extension to the passage, said surface extending substantially coincident with the plane of said passage wall.



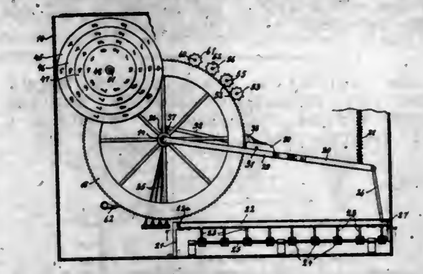
4. In core drilling machinery, a swivel comprising a hollow coupling piece provided with an opening through the side wall thereof, a collar having its upper face annular to the wall through which said opening extends, a cylindrical shell surrounding a portion of said coupling piece and fitted to said collar, and a head at the upper end of said shell, the portion between the head and collar forming a chamber annular with respect to said wall, said shell being provided with a lateral opening for admitting water or other material to said chamber and thence through said opening into the hollow portion of the coupling piece, said shell and coupling piece being connected together against relative axial movement solely below said lateral opening and being free for relative rotative movement.

5. In core drilling machinery, a swivel comprising a hollow coupling piece having an oblique channel through the side wall thereof, a collar having its upper face annular to the wall through which said opening extends, a radius of said face being on a plane in substantial continuation of the plane of the lower wall of said channel, a cylindrical shell surrounding an intermediate portion of said coupling piece and fitted to said collar, said shell and coupling piece being free to revolve relatively, said shell being provided with a seat for the lower face of said collar, an upper head carried by said shell, a nut at the lower end of said coupling piece for forcing said seat against the lower face of the collar, said nut and collar and seat serving to retain the shell and coupling piece against relative axial movement, said shell being provided with a lateral inlet opening through the side wall thereof, said inlet opening being in constant communication with the interior of the coupling piece through the annular space between the shell and coupling piece above said collar and through said opening of the coupling piece.

[Claims 6 to 8 not printed in the Gazette.]

1,025,334. CALCULATOR. WILLIAM E. THOMPSON and EMMA E. THOMPSON, Ranger Lake, N. Mex. Filed Dec. 2, 1911. Serial No. 663,559. (Cl. 235—82.)

1. In a calculator, a plurality of register wheels of different orders, a transfer mechanism for said wheels, pawls for actuating the register wheels, a lever carrying the pawls, pivoted arms arranged to swing through arcs of different magnitudes, a connection between the arms and the lever, keys operatively connected to the arms, and key-operated means for placing the pawls in operative position with respect to a selected register wheel.



2. In a calculator, a plurality of register wheels of different orders, a transfer mechanism for said wheels, a key-actuated pawl-and-ratchet mechanism for operating the register wheels, and key-operated means for placing the pawls in operative position with respect to a selected register wheel.

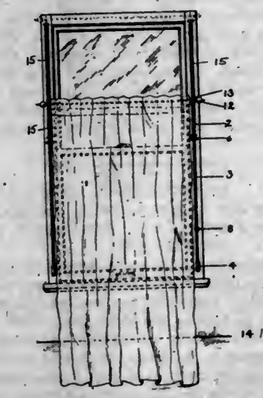
3. In a calculator, a plurality of register wheels of different orders, a transfer mechanism for said wheels, a key-actuated pawl-and-ratchet mechanism for operating the register wheels, means for normally holding the pawls in inoperative position, and key-operated means for placing the pawls in operative position with respect to a selected register wheel.

4. In a calculator, a plurality of register wheels of different orders, a transfer mechanism for said wheels, means for operating the register wheels, said means including a lever, pivoted arms swinging through arcs of different magnitudes, and keys operatively connected to the arms, and key-operated means for placing the operating means of the register wheels in operative position with respect to a selected register wheel.

5. In a calculator, a plurality of register wheels of different orders, a transfer mechanism for said wheels, a key-operated lever having a variable swing, pawls carried by the lever for actuating the register wheels, arms carried by the lever, means on the arms for lifting the pawls into inoperative position, and keys operatively connected to the arms for actuating the same to place the pawls in operative position.

[Claims 6 and 7 not printed in the Gazette.]

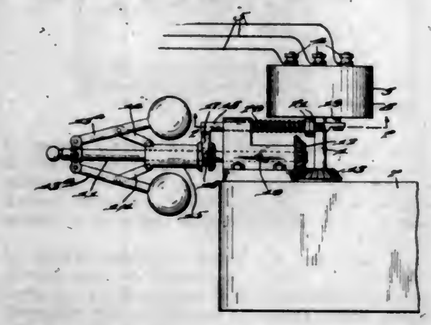
1,025,335. ADJUSTABLE CURTAIN-SUPPORT. CHARLES M. THURSTON, San Francisco, Cal. Filed Nov. 11, 1911. Serial No. 659,796. (Cl. 156—27.)



A support for a window curtain rod, comprising a pair of slotted guides arranged vertically on opposite sides of the lower part of the window, slidable rods in said

guides adapted to support the curtain rod, a second pair of slotted guides arranged on opposite sides of the upper part of the window, and buttons on said rods engaging and slidable in said upper guides.

1,025,336. AUTOMATIC SPARK-TIMING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. THOMAS TOWNSON, Philadelphia, Pa. Filed June 1, 1911. Serial No. 630,638. (Cl. 123—117.)



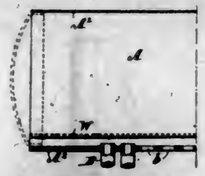
1. The combination with a support, an engine time shaft, a spark timing mechanism thereon, a sleeve in said mechanism, electric contacts in said sleeve, said time shaft mounted in the support, a rotary element on the time shaft adapted to engage respectively the several contacts, a bracket on said support, a shaft mounted in said bracket and located at right angles to the time shaft, and gears connecting said time shaft and said last-mentioned shaft, of a sleeve mounted on the last-mentioned shaft, weighted arms pivotally connected to said last-mentioned shaft, links connecting said arms and sleeve, a rod mounted in said bracket, said sleeve having a groove therein, a forked end on said rod engaging said groove, and a pin on the first-mentioned sleeve connected to said rod, substantially as described.

2. The combination with a support, a spark timing mechanism, a sleeve in said mechanism, electric contacts in said sleeve, a time shaft mounted in the support, a rotary element on the time shaft adapted to engage respectively the several contacts, a bracket on said support, a shaft mounted in said bracket and located at right angles to the time shaft, and gears connecting said time shaft and said last-mentioned shaft, of a sleeve mounted on the last-mentioned shaft, weighted arms pivotally connected to said last-mentioned shaft, links connecting said arms and sleeve, a rod mounted in said bracket, said sleeve having a groove therein, a forked end on said rod engaging said groove, a pin on the first-mentioned sleeve connected to said rod, said rod screw-threaded at its end where it connects with the pin, a spring around said rod and bearing at one end against the bracket, and a nut screwed on the rod and bearing against the other end of said spring, substantially as described.

1,025,337. MANUFACTURE OF STEAM-BOILERS. HAYDEN HOMER TRACY, Berkeley, and HARRY EUGENE BOYRIE, San Francisco, Cal. Filed May 2, 1911. Serial No. 624,571. (Cl. 122—365.)

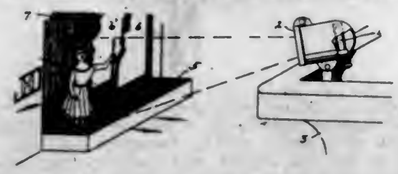
1. The combination in a water tube boiler, of a cylindrical drum made from two cylindrical segments of different thickness, which segments are welded along their contiguous edges to form a seamless drum, with the interior surfaces of the segments continuous and flush and in the same circumference, so that the inside of the drum is smooth, the thicker portion of said drum being perforated and designed to receive the tubes secured in said perforations.

2. The combination in a water tube boiler of a cylindrical drum which is of substantially the same thickness throughout its circumference except in that portion which is to receive the tubes; said tube-receiving portion being thicker and in the plane of the remainder of the boiler drum and united thereto by welding, so that the interior of



the boiler drum is substantially flush and of uniform diameter and with the thicker part in continuation with the thinner part and homogeneous therewith, and tubes piercing the thickened portion of the boiler drum, substantially as, and for the purpose described.

1,025,338. METHOD AND APPARATUS FOR THEATRICAL PURPOSES. DANIEL W. TROY, Montgomery, Ala. Filed Jan. 14, 1911. Serial No. 602,675. (Cl. 46—70.)



1. The method described, consisting in successively directing upon fluorescent material overlaid in part by non-fluorescent material and carried by a performer, lights, one substantially ultra-violet in character and the other substantially visible in character, whereby first one and then the other of said materials is rendered principally visible, substantially as set forth.

2. The method described, consisting in successively directing, upon a costume composed in part of fluorescent material and in part of non-fluorescent material and carried by a performer, lights, one the greater portion of which consists of ultra-violet rays, and another the greater portion of which consists of visible rays, whereby first one and then the other of said materials may be rendered principally visible, substantially as set forth.

3. Apparatus of the class described, consisting of a theatrical costume composed in part of fluorescent material and in part of non-fluorescent material, a source of light, and means for successively directing against said costume substantially visible and substantially ultra-violet light.

4. As means for theatrical display, a costume composed in part of fluorescent material and a source of substantially ultra-violet light arranged to excite such material, substantially as set forth.

5. As means for theatrical display, a costume comprising an inner garment composed in part of fluorescent material, and an outer garment of non-fluorescent material and of open work texture, and a source of substantially ultra-violet light arranged to excite such fluorescent material, substantially as set forth.

1,025,339. WELL-BORING TOOL. FREDERICK E. TUCKER, Taft, Cal. Filed Dec. 11, 1911. Serial No. 665,085. (Cl. 166—6.)

1. The combination in a drilling apparatus, of a rotary tubular driving member having a downwardly converging seat, a tubular, downwardly tapering carrier disconnected from the apparatus and adjustable upon said seat, lateral reamers radially movable in and connected to the carrier, and a channeled expander movable within said carrier and effective to expand said reamers when the carrier is seated.

2. The combination in a drilling apparatus, of a rotary tubular driving member having a downwardly converging

seat, longitudinally recessed throughout its length, a tubular, downwardly tapering carrier disconnected from the apparatus and adjustable upon said seat, lateral reamers radially movable in and connected to the carrier, and registrable with certain of said recesses, and a channeled expander movable within said carrier and effective to expand said reamers when the carrier is seated.



3. The combination in a drilling apparatus, of a rotary tubular driving member having a downwardly converging seat, a tubular, downwardly tapering carrier disconnected from the apparatus and adjustable upon said seat, lateral reamers radially movable in and connected to the carrier, a channeled expander movable within said carrier and effective to expand said reamers when the carrier is seated, and a fishtail cutter attached to the carrier and of less diameter than the end of the driving member.

4. The combination in a drilling apparatus, of a rotary tubular driving member having a downwardly converging seat, a tubular, downwardly tapering carrier disconnected from the apparatus and adjustable upon said seat, lateral reamers radially movable in and connected to the carrier, a channeled expander movable within said carrier and effective to expand said reamers when the carrier is seated, and a fishtail cutter attached to the carrier and of less diameter than the end of the driving member, said carrier and its associated elements being normally free of any extraneous appliance.

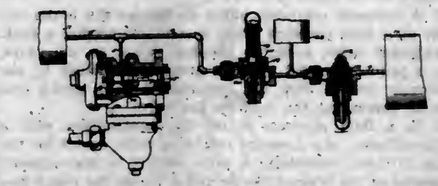
5. The combination in a drilling apparatus, of a rotary tubular driving member having a downwardly converging seat, longitudinally recessed throughout its length, a tubular, downwardly tapering carrier disconnected from the apparatus and adjustable upon said seat, lateral reamers radially movable in and connected to the carrier, and registrable with certain of said recesses, and a channeled expander movable within said carrier and effective to expand said reamers when the carrier is seated, the exterior of the carrier being provided with longitudinal keys fitting certain recesses in said member.

[Claims 6 to 8 not printed in the Gazette.]

1,025,340. FLUID-PRESSURE-CONTROL APPARATUS. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 3, 1907. Serial No. 382,010. (Cl. 188—1.)

1. In a fluid pressure brake system, the combination with a train pipe, triple valve, auxiliary reservoir and brake cylinder, of an extraneous apparatus adapted to utilize fluid under pressure from said brake system, and fluid pressure operated means for controlling communication from the auxiliary reservoir to said apparatus.

2. In a fluid pressure brake system, the combination with a train pipe, triple valve, auxiliary reservoir and brake cylinder, of an extraneous apparatus adapted to utilize fluid under pressure from said brake system, and means subject to variations in train pipe pressure for controlling communication from the auxiliary reservoir to said apparatus.



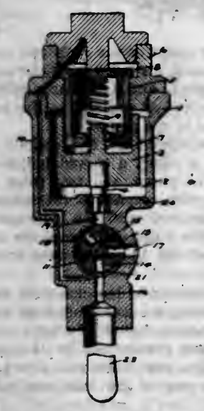
3. In a fluid pressure brake system, the combination with a train pipe, triple valve, auxiliary reservoir and brake cylinder, of an extraneous apparatus adapted to utilize fluid under pressure from said brake system, and means operating upon a reduction in train pipe pressure for closing communication from the auxiliary reservoir to said apparatus.

4. In a fluid pressure brake system, the combination with a train pipe, auxiliary reservoir and brake cylinder, of an extraneous apparatus adapted to utilize fluid under pressure from said brake system, and a triple valve device adapted to control communication between the auxiliary reservoir and said apparatus, and operating upon a reduction in train pipe pressure to close said communication.

5. In a fluid pressure brake system, the combination with a train pipe, auxiliary reservoir, brake cylinder and supplemental reservoir, of an extraneous apparatus adapted to utilize fluid under pressure derived from the auxiliary reservoir and supplemental reservoir, and means operated upon a variation in train pipe pressure to close communication between the auxiliary reservoir and said extraneous apparatus.

[Claims 6 to 12 not printed in the Gazette.]

1,025,341. RETAINING-VALVE DEVICE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 3, 1909. Serial No. 516,129. (Cl. 188—12.)



1. A pressure retaining valve device for the brake cylinder of a fluid pressure brake system comprising a loaded valve and fluid pressure operated means for varying the load on said valve to thereby retain different degrees of pressure in the brake cylinder.

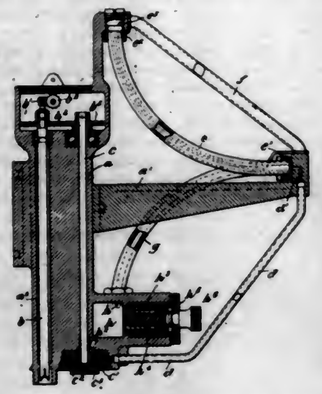
2. A pressure retaining valve device for the brake cylinder of a fluid pressure brake system comprising a cock, a loaded valve, and means operated by fluid pressure supplied upon movement of the cock for varying the load on said valve and thereby the degree of pressure retained in the brake cylinder.

3. A pressure retaining valve device for the brake cylinder of a fluid pressure brake system comprising a loaded valve, a spring adapted to act on the valve, and fluid pressure operated means adapted to compress the spring for increasing the load on the valve and thereby the pressure retained in the brake cylinder.

4. A pressure retaining valve device for the brake cylinder of a fluid pressure brake system comprising a cock, a weighted valve, a spring adapted to act on the valve, and a piston operated by fluid pressure admitted by the movement of the cock for compressing said spring and thereby increasing the load on the valve.

5. In a fluid pressure brake, the combination with a brake cylinder, of a pressure retaining valve device for the brake cylinder comprising a valve subject to the opposing pressures of the brake cylinder and a spring for regulating the degree of pressure retained in the brake cylinder and a piston operated by fluid under pressure for increasing the load on said valve.

1,025,342. TACHOMETER. CURTIS HUSSEY VEEDER, Hartford, Conn., assignor to The Veeder Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed May 3, 1911. Serial No. 624,874. (Cl. 73—123.)



1. In an instrument of the character described, the combination of a pump, a curved indicator tube having a connection to the pump, and a similarly curved reservoir tube having a connection at one end to the indicator tube and at the other end to the pump.

2. In an instrument of the character described, the combination of a pump, a curved indicator tube having a connection to the pump, and two tubes similarly but reversely curved with respect to the indicator tube having connection at one end with the indicator tube and at the other end with the pump and placed one at each side of the vertical plane of the indicator tube and below the indicator tube.

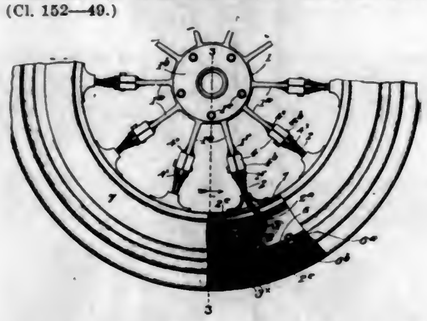
3. In an instrument of the character described, the combination of a pump, a curved indicator tube having a connection to the pump, a similarly but reversely curved reservoir tube having connections at its upper end to the indicator tube, and a regulating reservoir having connections with the other end of the indicator tube and with the pump.

4. In an instrument of the character described, the combination of a pump, a curved indicator tube having a connection to the pump, two curved reservoir tubes having connections at one end to the indicator tube and placed on opposite sides of the vertical plane of the indicator tube and below the indicator tube, and a regulating reservoir having connections with the other ends of the reservoir tubes and with the pump.

5. In an instrument of the character described, the combination of a supporting bracket having an extended arm, a pump located at the lower end of the supporting bracket, a regulating reservoir also located at the lower end of the supporting bracket and having connections with the pump, an inclined indicator tube supported at its lower, outer end by the bracket arm and at its upper, inner end by the supporting bracket, a pipe connecting the pump with the lower, outer end of the indicator tube, and connections from the upper end of the indicator tube to the regulating reservoir.

[Claims 6 to 8 not printed in the Gazette.]

1,025,343. SPRING-WHEEL. HORACE VILLIERS-STUART, Louisville, Ky. Filed Oct. 8, 1909. Serial No. 521,767. (Cl. 152—49.)



1. In a wheel the combination of a hub and felly, a multiple of leaf springs having their inner ends fast to the hub, and their outer portions fast to the felly and having intermediate curved heel portions; with spring leaves intermediate the heel portions shorter than and on opposite sides of the first leaves and reinforcing the latter.

2. A wheel comprising a hub, spokes, felly, and springs composed of a multiple of leaves having their inner ends fast to the spokes, and their outer portions fast to the felly and having intermediate bent heel portions, the leaves being normally spaced apart in such heel portion; with reinforcing leaves shorter than the first leaves and attached thereto intermediate the heel portion.

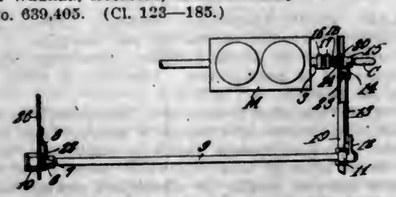
3. In a wheel the combination of a hub, a felly, and springs each composed of a series of leaves having an intermediate curved heel portion, the leaves being separated or spaced apart in the heel portion; with shorter reinforcing springs on the opposite sides of the leaves and extending from the felly to the heel portion.

4. In a wheel the combination of a hub, felly, and springs interposed between and connected with the felly and hub, each spring comprising a plurality of leaves and having an intermediate bent heel portion; with yieldable clamps binding the leaves yeldably together

5. A wheel comprising a hub, spokes, felly, and springs composed of a multiple of leaves having their inner ends fast to the spokes, and their outer portions fast to the felly and having intermediate bent heel portions, the leaves being normally spaced apart in such heel portion; with yieldable clamps for binding the leaves yieldably together.

[Claims 6 to 22 not printed in the Gazette.]

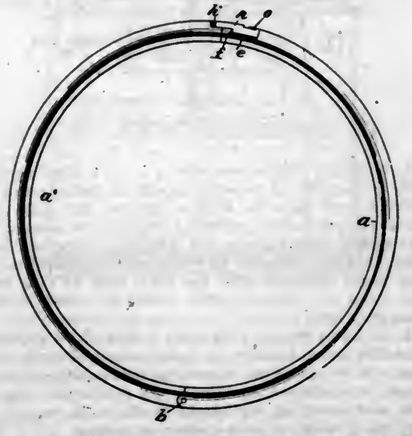
1,025,344. STARTING DEVICE FOR ENGINES. JAMES A. WALKER, Rockford, Ill. Filed July 19, 1911. Serial No. 639,405. (Cl. 123—185.)



1. The combination with an engine crank shaft and a clutch member thereon, of a starter crank shaft, a clutch member carried thereby to engage the formed clutch member, an arm projecting from the starter crank shaft, a cam mounted in the path of the said arm to disengage the clutch members, a rock shaft, an arm secured thereto, and a resilient pitman connected to said arm and giving an inward tension to the said starting crank shaft.

2. The combination with an engine crank shaft and a clutch member thereon, of a spring-pressed starter crank shaft, a clutch member carried by the said starter crank shaft and adapted to engage the formed clutch member, an arm projecting from the starter crank shaft, a cam mounted in the path of said arm to disengage the said clutch members, a rock shaft, an arm secured thereto, a pitman connecting the said arms, a lever secured to the said rock shaft, and a spring adapted to engage the lever at the end of the stroke of same to retain the clutch members in disengaged position.

1,025,345. QUICKLY-DETACHABLE HINGED CLINCHER-RING. WARREN W. WARD, New York, N. Y. Filed June 10, 1911. Serial No. 632,348. (Cl. 152—21.)



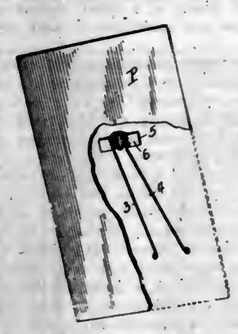
1. A clincher-ring for pneumatic tires having a division with a hinge at one side and the sections at the opposite side provided with a dowel *c* and recess *d*, one of such sections having a longitudinal peripheral notch with a shoulder at the outer end, and a socket at the inner end, and the other section having a latch hinged thereto and adapted to engage the shoulder and provided with a bolt to engage the said socket.

2. A divided clincher-ring for pneumatic tires having a latch hinged upon one of the sections and adapted to engage the opposite section, a bolt inserted longitudinally in the latch with a spring to normally project the bolt, and a slot in the latch at the top of the bolt, with a stud inserted through the slot into the bolt and having a head adapted to cover the slot.

1,025,346. SUPPORT FOR CARDS, PICTURES, AND THE LIKE. JAMES MURRAY WASHBURN, Chicago, Ill. Filed Apr. 6, 1911. Serial No. 619,315. (Cl. 40—146.)

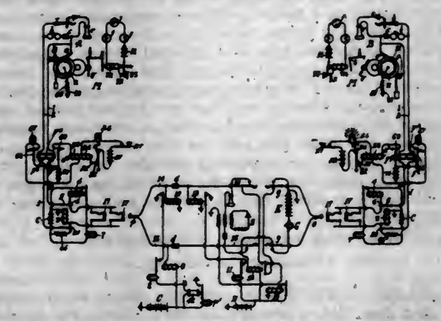
1. A support of the class described, comprising a readily flexible metallic stay provided with a loop at its upper end, said stay being readily bent into supporting position, and a piece of gummed tape threaded through said loop transversely to said stay and adapted to be readily applied to the desired article, said loop engaging the tape at its upper and lower edges to positively prevent separation of the stay from the tape when the latter is affixed to the article, while permitting ready withdrawal of the tape when the latter is detached from the article.

2. A support of the class described, comprising a readily flexible metallic stay provided at its upper end with a plurality of loops, said stay being readily bent into supporting position, and a piece of gummed tape threaded through said loops and adapted to be readily applied to the desired article, said loops engaging the tape at its upper and lower edges to positively prevent separation of the stay from the tape when the latter is affixed to the article, while permitting ready withdrawal of the tape when the latter is detached from the article.



3. A support of the class described, comprising a stay stamped out of readily flexible sheet metal provided at its upper end with a pair of openings which form closed loops, and a piece of gummed tape threaded through said closed loops and adapted to be readily applied to the desired article, said closed loops engaging the tape at its upper and lower edges to positively prevent separation of the stay from the tape when the latter is affixed to the article, while permitting ready withdrawal of the tape when the latter is detached from the article.

1,025,347. COMBINED TELEPHONE AND ALARM SYSTEM. HARRY G. WEBSTER, Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard and Supply Company, a Corporation of Illinois. Filed Sept. 17, 1904. Serial No. 224,869. (Cl. 179—5.)



1. A combined telephone and alarm system comprising a circuit extending from a substation to a central station, a central source of current having a grounded terminal, telephone signal receiving means having an energizing winding included in said circuit between said grounded terminal and said substation, means under the normal control of the subscriber for causing said telephone signal receiving means to display its signal, means for holding conversation over said circuit between said stations, alarm signal receiving means associated with said circuit, means for causing said alarm receiving means to display its signal in response to the grounding of said circuit at a point outside of the central station, whereby a false display of the telephone signal is prevented, and means associated with said alarm receiving means for indicating a ground on said circuit.

2. A combined telephone and alarm system comprising a circuit extending from a substation to a central station, a central source of current having a grounded terminal, telephone signal receiving means having an energizing winding included in said circuit between said grounded terminal and said substation, a resistance included in said circuit between the live pole of said source of current and said substation, means under the normal control of the

subscriber for causing said telephone signal receiving means to display its signal, means for holding conversation over said circuit between said stations, alarm signal receiving means associated with said circuit, means for grounding said circuit at a point outside of the central station to cause the operation of said signal receiving means.

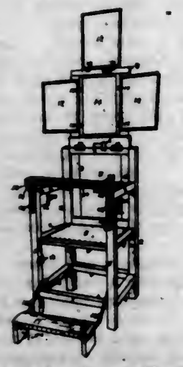
3. A combined telephone and alarm system comprising a circuit extending from a substation to a central station, a central source of current having a grounded terminal, telephone signal receiving means having an energizing winding included in said circuit between said grounded terminal and said substation, a resistance included in said circuit between the live pole of said source of current and said substation, means under the normal control of the subscriber for causing said telephone signal receiving means to display its signal, means for holding conversation over said circuit between said stations, alarm signal receiving means associated with said circuit, means for grounding said circuit at a point outside of the central station to cause the operation of said signal receiving means, and means associated with said alarm receiving means for indicating a ground on said circuit.

4. A combined telephone and alarm system comprising a circuit extending in two line limbs from a substation to a central station, a connection terminal in which said line limbs terminate, a link-circuit for establishing connection with said terminal, means for holding conversation over said line-and link-circuits, a central source of current, telephone signal receiving means having an energizing winding included between one pole of said source of current and one line limb, a resistance included between said other pole and line limb, alarm receiving apparatus having an energizing winding associated with each line limb, and means for causing the actuation of said telephone signal receiving means and said alarm receiving means.

5. A combined telephone and alarm system comprising a normally open circuit extending in two line limbs from a substation to a central station, a connection terminal in which said line limbs terminate, a link-circuit for establishing connection with said terminal, means for holding conversation over said line-and link-circuits, a central source of current, telephone signal receiving means having an energizing winding included between one pole of said source of current and one line limb, a resistance included between said other pole and line limb, alarm receiving apparatus having an energizing winding associated with each line limb, and means for causing the actuation of said telephone signal receiving means and said alarm receiving means.

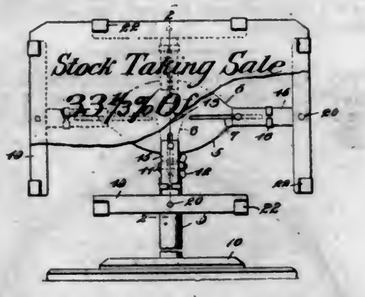
[Claims 6 to 9 not printed in the Gazette.]

1,025,348. DEVOTIONAL CHAIR. JOHN B. WEBSTER, San Jose, Cal. Filed Apr. 28, 1911. Serial No. 623,893. (Cl. 155—6.)



In a devotional chair, the combination of a picture frame in the back thereof, a false back hinged to the upper portion of said back adapted to open upward therefrom, picture frames hinged to the inner side of said false back adapted to open upward and outward therefrom, said frames adapted to fold inward upon said false back, and said false back being adapted to fold downward over the picture frame in the back of said chair, as and for the purpose described.

1,025,349. DISPLAY-FIXTURE. SAMUEL WEISBERGER, Barberton, Ohio. Filed Aug. 12, 1911. Serial No. 643,775. (Cl. 211—24.)



1. A display fixture comprising a body plate provided with a plurality of radially extending slotted arms, extensible arms mounted on the arms of the body plate, means carried thereby extending through the slots of said first named arms whereby the extensible arms may be secured in their adjusted positions, and angularly adjustable plates arranged upon the outer ends of said extensible arms and having article receiving means arranged upon their ends.

2. A display fixture comprising a body plate, oppositely extending arms mounted on said plate, plates arranged upon said arms, and box supporting and positioning means loosely mounted on the arms and frictionally engaged with said plates by the weight of the box whereby said supporting means is held against movement.

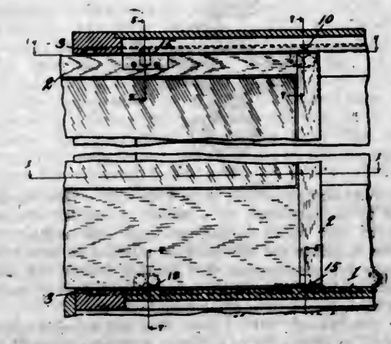
3. A display fixture comprising a body plate, oppositely extending arms mounted on said plate, and box supporting and positioning members longitudinally movable on said arms but frictionally held against such movement by the weight of the box thereon.

4. A display fixture comprising a body plate, oppositely extending arms on said plate, article receiving plates extending at right angles to the arms and carrying means to receive an article to be displayed, and box supporting members longitudinally movable on the arms and frictionally engaged with said arms and plates by the weight of the box thereon whereby said members are held against longitudinal movement.

5. A display fixture comprising a body plate, oppositely extending arms on said plate, article holding plates arranged on said arms, box supporting members movable on the arms, each of said members consisting of a body portion to be engaged by the box having an extension extending at right angles from one edge thereof, the end of said extension being flanged and adapted for engagement with the article supporting plate, said extension being provided with a slot to receive the arm, one of said members being adjustable on its arm with relation to the other member whereby the box may be disposed at an inclination, said members frictionally engaging the arms and the article supporting plates whereby they are held against movement.

1,025,350. DOOR STRUCTURE IN DISPLAY-CABINETS. LYMAN W. WELCH, Grand Rapids, Mich. Filed Dec. 30, 1911. Serial No. 668,633. (Cl. 45—37.)

1. The combination in a door structure for show cases, of a door; diametrically opposed upper and lower grooved tracks with portions parallel with the front of the case and with other portions connected thereto at an angle and extending within the case at substantially right angles thereto; an anti-friction bearing ball disposed in suitable anti-friction bearing supports comprising a pair of grooved rollers on the under side of said door intermediate the ends thereof and toward the rear engaging the groove of the lower tracks; a revoluble guiding pin at the top of said door with rounded projecting end disposed in a vertical journal bearing diametrically opposite to the said bearing ball disposed to engage in the groove of the upper track; an anti-friction bearing ball supported in suitable anti-friction bearings comprising a pair of grooved rollers at the upper inner corner of said door and in engagement with the groove of said upper track; and a revoluble guide pin disposed in a vertical journal bearing at the inner lower rear corner of said door, diametrically opposite the upper bearing ball, with projecting rounded end for engagement with the said bottom track, coacting as described.

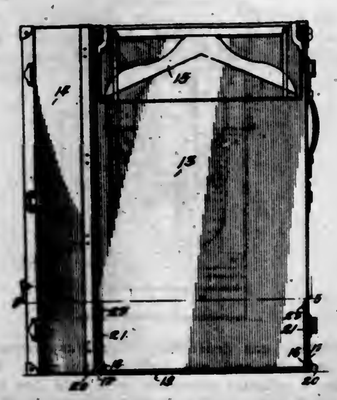


2. The combination in a door structure for show cases, of a door; diametrically opposed upper and lower grooved tracks with portions parallel with the front of the case and with other portions connected thereto at an angle and extending within the case at substantially right angles thereto; an anti-friction bearing ball disposed in suitable anti-friction bearing supports on the under side of said door intermediate the ends thereof toward the rear and engaging in the groove of the lower track; a revoluble guiding pin with projecting end disposed in a vertical journal bearing diametrically opposite to the said lower bearing ball disposed to engage in the groove of the upper track; an anti-friction bearing ball supported in suitable anti-friction bearings at the upper inner corner of said door and in engagement with the groove of said upper track; and a revoluble guide pin disposed in a vertical journal bearing at the inner lower corner of said door diametrically opposite the upper bearing ball, with projecting end for engagement with the said bottom track, coacting as described.

1,025,351. WARDROBE GRIP OR TRAY. GEORGE H. WHEARY, Racine, Wis., assignor to The Hartmann Trunk Company, Racine, Wis., a Corporation of Wisconsin. Filed Oct. 27, 1911. Serial No. 657,166. (Cl. 190—13.)

1. The combination with a wardrobe section in the form of a casing, of movable supporting mechanism movably connected only at one end of the casing, and comprising side members movable together and located at opposite sides of the casing and adapted for supporting said casing at opposite sides thereof, the said members, when moved outwardly, leaving a clear or unobstructed entrance to the interior of the casing, and adapted, when so moved outwardly, to rest upon a floor, or other medium, and thereby support the casing in its upright position, and, when moved inwardly, to be adjusted to a position within the casing.

2. A wardrobe section, comprising a casing, and arms pivoted to the sides of the casing, near one end thereof, the said arms, when the casing is set up on the end where the arms are located, for use as a wardrobe, adapted, when turned outwardly and downwardly, to rest on a floor, or other medium, and to support the casing in its upright vertical position, and when the section is not in use as a wardrobe, to be turned upwardly to a position within the casing.



3. A wardrobe section, comprising a casing, arms pivoted to the sides of the casing, near one end thereof, said arms near their pivotal connections, being offset or shouldered on their lower edges to fit over the end of the casing, and said arms, when the casing is set up on the end where the arms are located, adapted, when turned outwardly and downwardly, to rest on a floor, or other medium, and to support the casing in its upright vertical position, and when the section is not used as a wardrobe, to be turned upwardly to a position within the casing.

4. A wardrobe section, comprising a casing, arms pivoted to the sides of the casing, near one end thereof, said arms, when the casing is set up on the end where the arms are located, adapted, when turned outwardly and downwardly, to rest on a floor, or other medium, and to support the casing, and when the casing is not used as a wardrobe, the said arms adapted to be turned upwardly to a position within the casing, and a cross-piece connecting the outer ends of the arms and resting on a floor, or other medium, when the arms are turned outwardly and downwardly, and having its ends fitting within and against the opposite sides of the casing when the arms are turned upwardly.

5. A wardrobe section, comprising a casing, arms pivoted to the sides of the casing, near one end thereof, pins or studs extending inwardly from opposite sides of the casing, slotted links pivoted to the pivoted arms, and having the pins or studs extending through the slots thereof, the said pivoted arms, when turned outwardly and downwardly, and when the casing is set up on the end thereof where the arms are located, adapted to support the casing in its upright position, and the slotted links adapted to hold or brace the arms in their supporting position, and said arms and links, when turned upwardly, adapted to be swung into the interior of the casing.

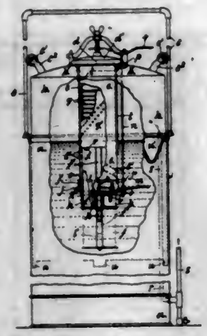
[Claims 6 to 9 not printed in the Gazette.]

1,025,352. ACETYLENE-GAS GENERATOR. FRANCIS H. WHITE, Maghull, Liverpool, England, assignor of one-half to Oliver Huntley White, Liverpool, England. Filed July 25, 1910. Serial No. 573,680. (Cl. 48—42.)

1. Acetylene gas generating apparatus, comprising a water receptacle and gas holder adapted to telescope therewith, a cylinder connected with said gas holder, a float adapted to support the weight of a charge of calcium carbid disposed within said cylinder, and means for automatically locking said float when said charge is removed from it.

2. Acetylene gas generating apparatus, comprising a water receptacle and gas holder adapted to telescope therewith, a cylinder connected with said gas holder, a

float adapted to support the weight of a charge of calcium carbid disposed within said cylinder, means for automatically locking said float when said charge is removed from it, and means for unlocking said float.



3. Acetylene gas generating apparatus, comprising a water receptacle and gas holder adapted to telescope therewith, a cylinder connected with said gas holder, a float adapted to support the weight of a charge of calcium carbid disposed within said cylinder, a projection on said float, a pivotal lever catch adapted to engage said projection and automatically lock said float when said charge is removed from it, and means for actuating said catch to unlock said float.

4. Acetylene gas generating apparatus, comprising a water receptacle and gas holder adapted to telescope therewith, a cylinder connected with said gas holder, a float adapted to support the weight of a charge of calcium carbid disposed within said cylinder, a band detachably connected to said cylinder, a catch pivotally supported on said band, adapted to automatically lock said float when said charge is removed from it, and means for actuating said catch to unlock said float.

5. Acetylene gas generating apparatus, comprising a water receptacle and gas holder adapted to telescope therewith, a cylinder connected with said gas holder, a float adapted to support the weight of a charge of calcium carbid disposed within said cylinder, means for automatically locking said float when said charge is removed from it, means for unlocking said float, and means for limiting the vertical travel of said float in relation to said cylinder.

[Claims 6 to 10 not printed in the Gazette.]

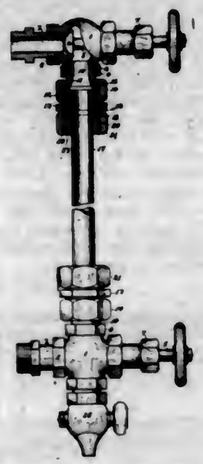
1,025,353. LOGGING-HOOK. ROBERT HUGHS WHITE, Everett, Wash. Filed Jan. 2, 1912. Serial No. 668,913. (Cl. 214—14.)



1. A device for the purpose described comprising two hooks whereof one has a cross bar at the extremity of its bill and a collar and head on its shank with an interposed reduced portion, a block swiveled on said portion and having studs projecting from opposite sides, and a yoke on the shank of the other hook pivotally mounted on said studs.

2. A device of the class described comprising two hooks whose shanks are pivotally and swivelly connected and each of which has a cross bar at the extremity of its bill, studs projecting from the ends of one of said cross bars, a pair of links pivoted at one end on said studs, a block having studs in its opposite sides pivoted between the other ends of said links, and another hook having a cross bar at the extremity of its bill and its shank swiveled through said block.

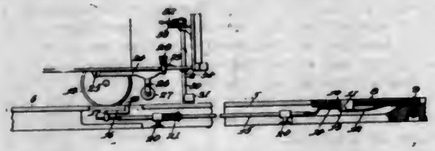
1,025,354. BOILER-GAGE CONNECTION. ARTHUR V. WILLIAMS, San Francisco, Cal. Filed Sept. 20, 1911. Serial No. 650,347. (Cl. 73—54.)



1. In combination with a gage tube and a valve casing adapted to be connected to a boiler, a tubular element secured to said valve casing, packing surrounding the gage tube, a holder for said packing slidable on said tube, and means for compressing said packing around the gage tube, said element and holder being provided with means for making a steam tight joint therebetween.

2. In combination with a gage tube and a valve casing adapted to be connected to a boiler, a tubular element secured to said valve casing, packing surrounding the gage tube, a holder for said packing slidable on said tube, and means for compressing said packing around the gage tube, said element and holder having respectively ground faces adapted to contact with each other and being provided with means for pressing said ground faces together.

1,025,355. SWITCH-OPERATING DEVICE. GEORGE F. WILLIAMS, St. Louis, Mo. Filed May 19, 1911. Serial No. 628,240. (Cl. 104—24.)



1. A switch operating device comprising a lever mechanism located parallel with the rail, a bell crank lever located in alinement with the rail and arranged to be depressed by the car wheel, a latch carried by the lever mechanism and operated when the bell crank lever is depressed, a wedge pivotally located in proper relation with the rails, a spring actuated lug carried by the wedge and arranged to project through an opening therein, said lug held in depressed position by the contact of the latch and a shoe carried by the car body by which the wedge is shifted from right to left when the same is brought in contact with the projecting lug, substantially as specified.

2. A switch operating device comprising a wedge pivotally located in proper alinement with the rails of the track, a spring actuated lug carried by said wedge and arranged to operate in a slot formed therein, a rod extending along the rail and supported in suitable bearings, a latch formed on the end of said rod and arranged to contact with the lug of the wedge and to hold the same in a depressed position simultaneously locking the wedge in its set position, a bell crank lever secured to the rail and connected to the rod, the one end of the lever located in relative position with the rail so as to be depressed when the car wheel contacts therewith, a switch operating mechanism carried by the car which will contact with the projecting lug of the wedge and shift the same to the right or left as desired and a means carried by the car body for depressing the lug, substantially as specified.

3. A switch operating device comprising a wedge located in relative position with the rails of the track, a lug carried by said wedge, means for holding the lug in a depressed position, simultaneously locking the wedge, means for releasing the lug and permitting it to project beyond the surface of the wedge and releasing the same from its locked position and a means carried by the car body by which the lug is contacted and the wedge shifted and the lug depressed and held in locked position by the passage of the car over the same, substantially as specified.

1,025,356. PROCESS OF CONVERTING WOOD INTO PAPER-MAKING STOCK AND BY-PRODUCTS. BAILEY F. WILLIAMSON, Gainesville, Fla. Filed Nov. 27, 1908, Serial No. 464,641. Renewed Oct. 11, 1911. Serial No. 654,161. (Cl. 92—2.)

1. The improvement in the art of making pulp, which consists in placing the comminuted stock in a closed chamber and substantially depriving it of free oxygen, then, while maintaining the exclusion of free oxygen, subjecting the material to the action of caustic alkali solution and heat and cooking the material, and as the cooking proceeds withdrawing the volatilized products as formed and the free oxygen as released, and continuing such procedure until the intercellular matter is dissolved and the ultimate fiber set free.

2. The improvement in the art of making pulp from resinous wood, which consists in placing the comminuted wood in a hermetically closed chamber and exhausting the air therefrom to a relatively high vacuum, then, while substantially maintaining the exclusion of air, admitting a caustic alkali solution of relatively mild strength and cooking, withdrawing volatilized products as formed and oxygen as set free, so as to accomplish the reduction without oxidation, and continuing the cooking under these conditions until the desired reduction is completed.

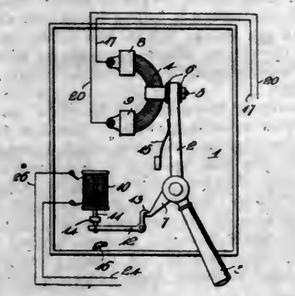
3. The improvement in the art of making pulp from resinous wood, which consists in placing the comminuted wood in a hermetically closed chamber and exhausting the air to a relatively high vacuum, then, while substantially maintaining the exclusion of air, admitting a caustic alkali solution of relatively mild strength and cooking under pressure by the circulation therethrough of steam substantially free from oxygen, withdrawing the volatilized products as formed and oxygen as set free, so as to accomplish the reduction without oxidation of the cellulose, and continuing the cooking under these conditions until the desired reduction is completed.

4. The improvement in the art of making pulp from resinous wood, which consists in placing the comminuted wood in a closed chamber and substantially exhausting the air therefrom, then, while excluding free oxygen, cooking in a caustic soda solution, of a strength less than 15° Baumé, by circulating steam therethrough which is practically devoid of free oxygen, withdrawing the volatilized products as formed and oxygen as set free, so as to accomplish the reduction without substantial oxidation of the cellulose, continuing the operation until the reduction is completed and then separating the cellulose fiber from the residue by washing.

5. The improvement in the art of making pulp from resinous wood, which consists in placing the comminuted wood in a closed digester and substantially exhausting the air therefrom, then, while excluding free oxygen, cooking in a caustic soda solution of such predetermined strength that it will, when combined with the resins and heavier oleaginous materials of the wood, form a soapy solution mildly alkaline, withdrawing the volatilized products as formed and oxygen as set free, so as to accomplish the reduction without substantial oxidation of the cellulose, continuing the cooking in the presence, and under the dissolving action, of said soapy solution until the reduction is completed and finally recovering the ultimate fiber from the residue.

[Claim 6 not printed in the Gazette.]

1,025,357. AUTOMATIC ELECTRIC CUT-OUT SWITCH. ROBERT WINTERHALDER, Kamloops, British Columbia, Canada. Filed Feb. 3, 1910. Serial No. 541,799. (Cl. 175—272.)



A switch of the character described comprising a lever pivoted intermediate its ends, a hooked arm forming a part of said lever and projecting angularly from the pivoted portion thereof, a brush attached to one end of the lever and adapted for engagement with fixed contacts, a handle forming the opposite end of the lever, a spring for moving the latter out of operative position, a solenoid having a weighted core projecting therefrom, and a pivoted bell crank lever having a short hooked arm for engagement with the hooked arm of the lever to hold the brush in operative position, the projecting weighted end of the core being hingedly attached to the long arm of the bell crank lever.

1,025,358. LIQUID-METER. HARLEY CLIFFORD ALGER, Chicago Heights, Ill. Filed July 6, 1909. Serial No. 506,035. (Cl. 73—28.)

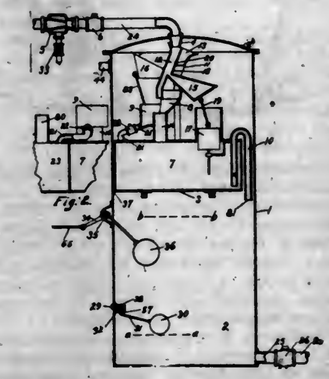


Fig. 2.

1. In a device of the character described, the combination of a liquid measuring chamber closed to the atmosphere, a storage chamber communicating therewith whereby to equalize the fluid pressure in the measuring chamber and storage chamber, means to deliver liquid from the measuring chamber to the storage chamber, and means to discharge the liquid from the storage chamber, of means controlled by the liquid level within the storage chamber to admit fluid to said chambers.

2. In a device of the character described, the combination of a liquid measuring chamber closed to the atmosphere, a storage chamber communicating therewith whereby to equalize the fluid pressure in the measuring cham-

ber and storage chamber, means to deliver liquid to the measuring chamber, means to deliver liquid from the measuring chamber to the storage chamber, and means to discharge the liquid from the storage chamber, of means controlled by the liquid level within the storage chamber to admit fluid under pressure to said chambers.

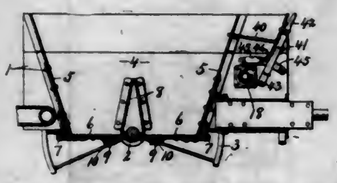
3. In an apparatus of the character described, the combination with a liquid measuring device closed to the atmosphere, a storing means in communication therewith whereby to equalize the fluid pressure in the measuring device and storing means, means to deliver liquid to such measuring device, means to deliver liquid from the measuring device to the storing means, and means to discharge liquid from the storing means, of means to automatically supply said measuring device and storing means with fluid under pressure.

4. In a device of the character described, the combination of a liquid measuring chamber closed to the atmosphere, a storage chamber communicating therewith whereby to equalize the fluid pressure in the measuring chamber and storage chamber, means to deliver liquid to the measuring chamber, means to deliver liquid from the measuring chamber to the storage chamber, and means to discharge the liquid from the storage chamber, of means automatically controlled by the liquid level within the storage chamber to admit fluid under pressure to said chambers.

5. In a device of the character set forth, the combination with a liquid measuring element closed to the atmosphere, a storing element in free communication therewith whereby the fluid pressure is equalized in the respective elements, siphoning means to automatically discharge the liquid contents of the measuring element into the storage element, and means to discharge the liquid contents of the storing element, of means controlled by the liquid level in the storing element to admit fluid to at least one of said elements.

[Claims 6 to 9 not printed in the Gazette.]

1,025,359. DUMP-WAGON. WILLIAM ATKINS, Auburn, N. Y. Filed Mar. 22, 1911. Serial No. 616.137. (Cl. 21—20.)



1. A door controlling mechanism for dump wagons having bottom doors hinged on transverse axes, a cable having its ends running transversely under the doors and adjustably secured to one side of the box, sheaves on the opposite side of the box around which the cable is passed, a fall-block around which the intermediate portion of the cable is passed, a drum and means for rotating the same, and an additional cable attached to and wound upon the drum and connected to the fall-block.

2. In combination with a dump-box having bottom doors hinged on transverse axes, a rotary drum journaled on the box, means for rotating the drum, a cable having one end attached to the drum and adapted to be wound thereon, a fall-block attached to the other end of the cable, an additional cable having its intermediate portion passed around the sheave of the fall-block and its opposite ends passed under the doors and attached to the opposite sides of the box.

3. In combination with a dump box having a door adapted to open under the wieght of a load, means including a drum for closing the door, and separate means including a cable wound upon the drum as the door opens for controlling the degree of opening of the door.

4. Door controlling mechanism for dump boxes comprising a drum, cable connections between the drum and door, a lever, a sheave on the lever, and a separate cable passed around the sheave and having one end attached to the drum and its other end attached to the box.

5. In a dump wagon, a box having a self opening door, means including a rotary member for closing the door, a cable having one end attached to said rotary member and its other end attached to the box, and means for tightening and loosening the cable.

[Claim 6 not printed in the Gazette.]

1,025,360. WEED-EXTRACTING TOOL. ABRAM T. AUTER, Denver, Colo. Filed June 3, 1911. Serial No. 631,108. (Cl. 55—148.)



1. A dandelion and weed extractor, comprising a casing, a tube reciprocally mounted within said casing, jaws pivotally mounted at the lower end of said casing and connected to the lower end of said tube and arranged to be closed and opened by reciprocal movement of said tube, a root ejecting rod within said tube, and means connected with said casing and tube for manually operating the same.

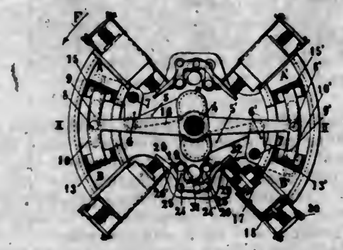
2. A dandelion and weed extractor provided with a hollow handle at its upper end and with jaws pivotally secured to its lower end to swing from a closed position to an open position, a tube reciprocally mounted within said casing provided with a handle at its upper end and connected to said jaws at its lower end in such a manner that manual reciprocative movement of said tube closes and opens said jaws, said jaws being arranged to be pressed into the ground around a dandelion or weed when in an open position relative to each other and to be closed around and against the root of said dandelion or weed by manual movement of said tube, and a rod within said tube adapted to be reciprocated therein to remove roots from said jaws after they have been removed from the ground.

3. In a dandelion and weed extractor, the combination of a tubular casing having a flanged disk member at its lower end provided with a plurality of lugs arranged at equidistances apart around its peripheral edge, a plurality of ground piercing jaws provided with offset lug portions pivotally connected through said offset lug portions to the lugs of said casing, said jaws being arranged to swing together in axial alinement with said casing, and provided with convergingly arranged ratchet teeth on their meeting faces, each of said jaws being provided with a recess in its meeting face edge, said recesses being arranged to register opposite to each other and positioned adjacent to the pivotal centers of said jaws, a disk secured to the lower end of said tubular casing and arranged to fit loosely in the recesses of said jaws, said casing being provided with a longitudinal cutaway portion at its upper end arranged to reduce its upper terminal end to one-half of its diameter and to form a semicircular open end portion that is arranged to terminate in a square shouldered

portion, said tubular casing being provided with a handle portion at its upper circular end having a semicircular recessed hub portion registering with the semicircular recess in the cutaway portion of said casing, a handle on the upper end of said reciprocal movement tube, arranged to rest normally against the shoulder of said casing that forms the end of its cutaway portion, said tube and handle being so arranged relative to the pivotal centers of said jaws as to normally hold said jaws swung apart into an open position at a suitable diverging angle that will enable them to be readily pressed into the ground and to be closed together when said tube is moved upwardly, and a rod reciprocally mounted within said tube, having a hook at one end arranged to hook over the handle portion of said casing, and having its opposite end extending adjacent to said jaws and adapted to eject weeds and roots clinging to said jaws after they have been extracted from the ground.

4. The combination with an inner and outer tube slidable with respect to each other, toothed jaws pivotally attached to the lower end of one tube, and means carried by the other tube for spreading and contracting said jaws when the tubes are slid one upon the other, of a rod extending down through the inner tube and beyond its lower end, having a hooked upper end in normal engagement with the upper end of the outer tube, said outer tube having a semicircular portion cut away at its upper end forming a shoulder, and a handle on the inner tube which is adapted to abut against the said shoulder.

1,025,361. ROTARY EXPLOSION-MOTOR. FRÉDÉRIC BECK, Neuilly-sur-Seine, France. Filed Oct. 10, 1911. Serial No. 653,791. (Cl. 123—43.)



1. In a rotary explosion motor the combination of twin ring-elements constituting the working cylinders, pistons provided in the ring elements, means for transmitting a varied circular motion to the pistons, valve chambers common to the twin-ring-elements, admission and exhaust valves contained in the valve chambers, and means for simultaneously operating the admission and exhaust valves, of a pair of twin ring-elements.

2. In a rotary explosion the combination of twin ring-elements constituting the working cylinders, pistons provided in the ring elements, means for transmitting a varied circular motion to the pistons, valve chambers common to the twin ring-elements, admission and exhaust valves contained in the said valve chambers, and means for simultaneously operating the admission and exhaust valves, of a pair of twin ring-elements, and means for preventing the effect of centrifugal force on the section of the respective ring-elements.

1,025,362. TOOL ATTACHMENT. GEORGE BEUOY, Cedar Vale, Kans. Filed Sept. 27, 1911. Serial No. 651,600. (Cl. 128—27.)

The combination with an instrument comprising a pair of opposed spring held operating members having parallel portions and inclined crossed portions, of a holding member formed from a single length of wire pivotally connected to one of said operating members adjacent to its inclined portion and having an eye formed intermediate of its ends, the other end of said holding member being provided with an open loop to receive the inclined portion of the other operating member and for movement thereon, and a coiled spring loosely connected to the instrument at one end and having its other end attached to the eye of said holding member, said spring being disposed between the parallel portions of said members and laterally movable therebetween in the movement of the holding member, said spring normally acting to retain said holding member in position at right



angles with relation to the longitudinal axis of the instrument and its free end off of the inclined portion of the operating member to hold said members in separated relation, the looped end of said holding member being moved along the inclined portion of the operating members in the movement of said members to their closed positions whereby the coiled spring is placed under tension to move said holding member to its effective position when the operating members are forced apart.

1,025,363. CAPONIZING INSTRUMENT. GEORGE BEUOY, Cedar Vale, Kans. Filed Oct. 3, 1911. Serial No. 652,512. (Cl. 128—27.)



1. An instrument of the character described comprising two relatively movable rods each having one of their ends laterally extended at right angles to the longitudinal axis of the rod, said laterally extended portions of the rods having their opposed faces beveled in opposite directions and enlargements formed upon their extremities and on their outer faces, substantially as and for the purpose specified.

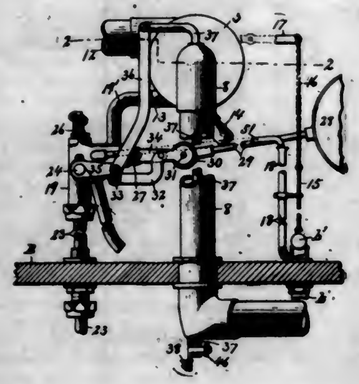
2. An instrument of the character described comprising two rods, one of said rods being bent at right angles intermediate of its ends to provide a pivot and the other of said rods having a coil formed therein intermediate of its ends to receive said pivot, a coiled spring having its convolutions arranged between the turns of the coil of said rod and its end portions engaging with the respective rods on opposite sides of the pivot, said rods on one side of the pivot providing handles, a link slidable on said handles to hold the opposite end portions of the rods in separated relation, the extremities of said latter end portions of the rods being laterally extended, substantially as and for the purpose specified.

1,025,364. VENTILATOR FOR WATER-CLOSETS. KIRK S. BLANCHARD, Brooklyn, N. Y. Filed Aug. 15, 1911. Serial No. 644,133. (Cl. 4—21.)

1. Ventilating apparatus for water closets in combination with a bowl and flush tank, a suction device, a water motor for said device, a valve casing having an inlet and separate outlets, one of said outlets leading to the motor, separate valves for said outlets, float operated means for controlling one of the valves, a main valve controlling communication between the inlet and the outlet in which said float controlled valve is located, means actuated by the main valve for controlling the operation of the other valve, and means for operating the main valve.

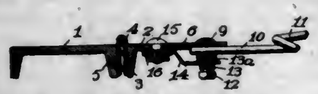
2. Ventilating apparatus for water closets in combination with a bowl and a flush tank, a suction device communicating with the bowl, a water motor for said device,

a water supply pipe, a valve casing having an inlet connected to said water supply pipe and provided with separate outlets, one of said outlets discharging directly into the tank and the other outlet discharging into the motor, a normally open valve controlling communication between the inlet and one of said outlets, means actuated by said valve for closing and opening the other outlet as the valve is opened and closed respectively, a float operated valve for controlling the discharge of water through the outlet leading directly into the tank, and means for operating the first named valve.



3. The combination with a closet bowl having a vertically movable seat spring pressed upwardly from the bowl and depressible against the action of the spring, and a flush tank, of a ventilating apparatus comprising a suction device having a suction pipe connected to the bowl, a water motor for the suction device, a water supply pipe, a valve casing having an inlet connected to the supply pipe and provided with separate outlets, one of said outlets discharging directly into the tank and the other outlet discharging into the motor, a normally open valve controlling communication between the inlet and the outlet which discharges into the tank, means actuated by the seat when depressed for closing said valve, an additional valve controlling communication between the inlet and motor, and means actuated by the first named valve for opening the additional valve when the first named valve is closed.

1,025,365. THREAD-GUIDE FOR SPINNING-FRAMES. WILLIAM O. BOSWORTH, Northbridge, Mass. Filed June 9, 1911. Serial No. 632,132. (Cl. 118—16.)



1. In a thread guiding means for a spinning frame, a supporting plate provided with a transverse groove, a rotatable head held in said plate, a thread guide held in said head, and yielding means for holding the shank of said thread guide in said groove when said guide is in operative position.

2. In a thread guiding means for a spinning frame, a supporting plate for a thread guide, a rotatable head held in said plate, a thread guide held in said head and provided with a straight shank, a groove or recess in said plate to receive the shank of said thread guide, and a spring with its tension applied to said rotatable head to press said shank into said groove.

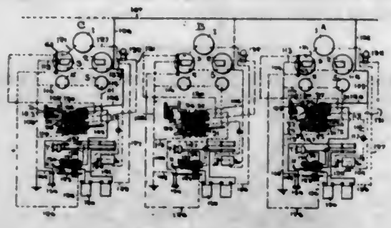
3. The combination of a supporting plate, having an opening for a rotatable head, and a single transverse groove in diametrical alinement with said opening, a rotatable head held in said opening and capable of longitudinal movement therein, a thread guide having its shank held from longitudinal movement in said head, and a spring with its tension applied to said head to hold the shank of said thread guide against said supporting plate.

4. In a spinning frame, the combination of a thread guide supporting plate having a hinged connection with the framework of the machine and provided with a series of transverse grooves, a series of thread guides having their shanks resting in said grooves when in operative position, and means for applying a yielding pressure to said shanks to press them against the supporting plate.

5. The combination with a hinged supporting plate, of a rotatable head journaled in said plate and capable of longitudinal movement, means for imparting a yielding pressure to said head to hold it from longitudinal movement, a thread guide held in said head, and means on said supporting plate for engaging said thread guide to hold it in a predetermined position.

[Claim 6 not printed in the Gazette.]

1,025,366. TELEPHONE EQUIPMENT. JUDGE BAXTER BRIGGS and VERNON P. HALL, Labette, Kans. Filed Mar. 24, 1910. Serial No. 551,284. (Cl. 179—30.)



1. The combination with a plurality of telephones and wires connecting said telephones, of rotatable disks, means to rotate said disks, means to automatically stop the rotation of said disks, means coöperating with parts of said disks to make and break controlling circuits and additional means to establish communication between any two of said telephones or all of said telephones.

2. The combination with two or more telephones and connecting wires therefor, of a rotatably mounted disk in each telephone, controlling magnets for each of said disks, means to direct an alternating current through said magnets, as oscillating armature associated with each disk and controlled by said magnets, means controlled by each of said armatures adapted to rotate its disk, means to interrupt the rotation of each disk at intervals, an additional magnet, and a movable armature for said magnet adapted to release said interrupting means.

3. The combination with two or more telephones and connecting wires therefor, of a disk for each telephone, means to rotate said disk, means to automatically stop said disk at predetermined points, a pair of magnets, means to energize said magnets, an armature adapted to be attracted by said magnets and means on said disk coöperating with parts on said armature adapted to make and break circuits.

4. A selecting mechanism for telephones comprising a disk, a generator, means controlled by said generator adapted to rotate said disk, means to interrupt the rotation of said disk at intervals, means to break the circuit between the generator and disk rotating device, means to release said disk for further rotation, and additional means to electrically control said releasing means.

5. A selecting mechanism for telephones, comprising a disk, means to rotate said disk, means to stop the rotation of said disk at predetermined points, a sliding armature coöperating with said disk adapted to disengage the stopping mechanism from the disk.

[Claims 6 to 9 not printed in the Gazette.]

1,025,367. WING-CARRIER. WALTER F. BROWN, Peoria, Ill. Filed Feb. 17, 1911. Serial No. 609,096. (Cl. 193—8.)



1. In an endless conveyer chain for wing carriers, the combination of links therein, carrier forks comprising sections adapted to be joined in pairs and pivoted upon the links laterally extending means at the base of each set of carrier forks for bearing relation with the bottom of the carrier body to sustain the forks in an upright position while traveling through the carrier body, and auxiliary extensions detachably secured to the carrier forks.

2. In a device of the class described, a carrier body, chain carrying wheels at the receiving and delivery ends thereof, a cam disposed between the axis and the periphery of the carrier wheel at the receiving end of the carrier, a carrier chain comprising links therein provided with laterally extending pintles, carrier forks pivoted to the conveyer chain and comprising vertically and horizontally disposed parts, and hooks upon the horizontally extending parts of the carrier forks adapted, when the chain is flexed by its carrier at the delivery end of the carrier body, to be released from engagement with the link pintles and when flexed about the chain carrier at the receiving end of the conveyer body, the hooks through the action of the cam upon the carrier forks will be brought into position to engage the link pintles and will engage the same as the chain is straightened out to travel through the carrier.

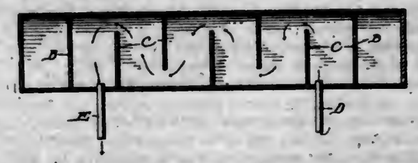
3. In an endless conveyer chain for wing carriers, the combination with links therein provided with pintles extending from each of the sides thereof, of carrier forks pivoted on link pintles comprising each two sections adapted to be supported one on each side of the conveyer chain having portions extending across the chain and overlapping, and adapted to be united by a rivet, and each carrier fork being provided with a relatively angularly disposed and rearwardly extending foot portion.

4. In an endless conveyer chain for wing carriers, the combination with links therein provided with pintles extending from each of the sides thereof, of carrier forks pivoted on link pintles comprising each two sections adapted to be supported one on each side of the conveyer chain having portions extending across the chain and overlapping, and adapted to be united by a rivet, and each carrier fork being provided with a relatively angularly disposed and rearwardly extending foot portion formed with a hook at its outer end adapted to engage link pintles to aid in maintaining the carrier forks in substantially vertical position.

5. In an endless conveyer chain for wing carriers, in combination, links provided with pintles extending from each side thereof, carrier forks pivoted on the pintles and auxiliary extension forks detachably supported in connection with the carrier forks.

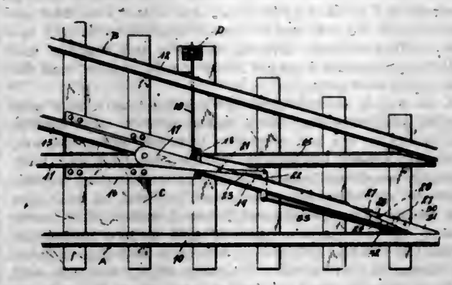
[Claims 6 to 8 not printed in the Gazette.]

1,025,368. DEAD-PLATE FOR BOILERS. JOHN W. CHAMBERS, Newark, Del. Filed July 14, 1910. Serial No. 571,987. (Cl. 122—499.)



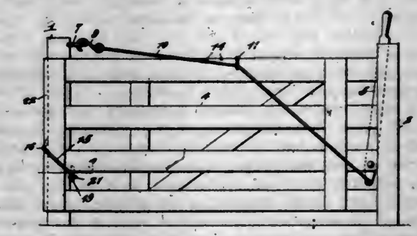
A dead plate for boilers comprising a rectangular oblong casing, solid transverse partitions arranged adjacent the ends of said casing, and a plurality of intermediate partitions arranged between the partitions first mentioned, said intermediate partitions stopping short of a side wall of the casing, and being arranged oppositely with respect to each other, and means for admitting water and withdrawing water from the space between the said first mentioned partitions.

1,025,369. RAILWAY-SWITCH. FRANK CHAMNESS, Huntington, Ind. Filed Feb. 9, 1911, Serial No. 607,501. Renewed Mar. 22, 1912. Serial No. 685,416. (Cl. 104—12.)



In a railway switch, a main track, a siding, switch rails directed respectively to one of the rails of the siding and one of the rails of the main track, a frog pivotally mounted between the ends of the switch rail and ends of the siding and main track to which said switch rails are directed and adapted to be moved into engagement selectively at its free end with said switch rails to form continuous rail lines, means for moving said frog on its pivot, a switch point slidably mounted on the switch rail directed to the siding for movement longitudinally of said switch rail and controlling entrance to the siding from the main track, connections between said switch point and frog whereby the movement of the free end of the latter into engagement with the switch rail directed to the siding will move said switch point to open the switch and the movement of the free end of said frog into engagement with the switch rail directed to the main track will move said switch point to close the switch.

1,025,370. GATE. CHRISTIAN COLEMAN, Reedy, W. Va. Filed July 5, 1911. Serial No. 636,842. (Cl. 39—25.)



1. In a gate construction, the combination with a pair of spaced apart posts; of a gate proper adapted to swing therebetween, an eye bolt carried on one of said posts, a U-shaped member encircling one of the vertical end bars of said gate and provided with projections at the ends thereof, one of the projections being adapted to engage one face of the end bar and the other engage said eye bolt to form a hinge between said gate and post, and additional suspension means between the free end of the gate and the hinge post.

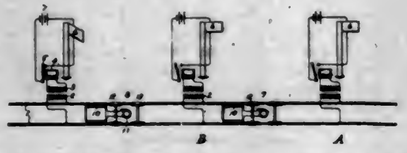
2. The combination with a pair of spaced apart posts, an eye bolt carried by one of said posts adjacent the bottom thereof, said bolt being disposed at an angle to the vertical plane of said posts; of a gate, a U-shaped member partially encircling the vertical end bar of said gate, said

U-shaped member being provided with projections on its ends, one of the projections engaging one face of said end bar and the other of said projections being engaged in said eye bolt, and additional suspension means between the free end of the gate and the hinge post.

3. In a device of the class described, the combination with a support and a gate adapted to swing thereon, said gate having a notch formed on the inner end bar thereof; of an eye bolt carried on said support, a U-shaped member partially encircling said end bar of the gate and having one arm thereof entered in the notch of said end bar, projections formed on the free ends of the arms of said U member, one of said projections contacting with the one face of said end bar and the other engaged with said eye bolt to form a hinge between the gate and support, and additional suspension means between said support and the free end of said gate.

4. In a gate construction, the combination with a supporting post, said post being rectangular in cross section and having an eye bolt extending from one corner thereof; of a gate proper comprising vertical end bars and horizontal intermediate bars, a substantially U-shaped member partially encircling the end bar at one end of said gate and having one arm thereof disposed immediately below one of the intermediate bars of said gate, a projection formed on the last referred to arm of said U-shaped member having a portion thereof loosely disposed within said eyebolt, an additional projection formed on the opposite arm of said member engaged with the one face of the adjacent end bar of the gate, and additional suspension means between said post and the free end of said gate.

1,025,371. TRAFFIC-CONTROLLING SYSTEM FOR RAILROADS. CLYDE J. COLEMAN, New York, N. Y., assignor to The Hall Signal Company, a Corporation of Maine. Filed July 7, 1908. Serial No. 442,320. (Cl. 246—25.)



1. A traffic-controlling system comprising, in combination with track rails and a car, traffic-controlling means located at a fixed point along the track and electrically connected to the track rails, a conductor carried by the car in inductive relation to the rails for inducing electromotive force in the rails to produce therein electric current to operate the traffic-controlling means, and means for generating current in said conductor.

2. A traffic-controlling system comprising, in combination with track rails and a car, traffic-controlling means located at a fixed point along the track and electrically connected to the track rails, a conductor carried by the car in inductive relation to the rails for inducing electromotive force in the track rails in advance of the car to produce therein electric current to operate the traffic-controlling means, and means for generating current in said conductor.

3. A traffic-controlling system comprising, in combination with track rails and a car, traffic-controlling means located at a fixed point along the tracks, electric controlling means therefor connected with the track rails, a conductor carried by the car in inductive relation to the rails for inducing electro-motive force in the track rails to produce therein electric current in advance of the car to operate said electric controlling means, and means for generating current in said conductor.

4. A traffic-controlling system comprising, in combination with track rails and a car, traffic-controlling means located at a fixed point along the track, transformers in control thereof and connected with the track rails, a conductor carried by the car in inductive relation to the rails for inducing electro-motive force in the track rails to produce therein electric current to energize the transformers, and means for generating current in said conductor.

5. A traffic-controlling system comprising, in combination with track rails and a car, traffic-controlling means located at a fixed point along the track and electrically connected to the track rails, a coil carried by the car in inductive proximity to the rails, and means for energizing the coil to induce electro-motive force in the track rails to produce therein current for the purpose of operating the traffic-controlling means.

[Claims 6 to 11 not printed in the Gazette.]

1,025,372. EYEGLASS-CASE. HUGH V. CONRAD, Pittsburgh, Pa. Filed Oct. 10, 1911. Serial No. 653,909. (Cl. 206—5.)



1. An eyeglass case comprising two members having a spring hinge connection and adapted to swing apart, and having an eyeglass pocket having closed ends and formed of flimsy material between the said members, and a wiper forming a lining in said pocket and disposed on opposite sides of the said pocket, permitting the wiping of the glasses while held by said pocket.

2. An eyeglass case comprising two members joined together to swing apart, members of flimsy material adapted to fold into the interior of said case forming an open pocket having closed ends and supporting said glasses when said case is open and forming side pockets at each side of said first pocket for receiving the thumb and finger to rub the said membeis against the lenses in wiping said glasses.

3. An eyeglass case having an inner pocket for the glasses provided with end walls and with flimsy side walls and a removable wiper in said pocket forming a lining therefor to lie adjacent the lenses.

4. An eyeglass case having an inner pocket therein adapted to receive the eyeglasses, said pocket having end walls to retain the glasses and having flimsy walls arranged to be rubbed against the lenses of the eyeglasses, while held in said inner pocket.

1,025,373. DEHYDRATED POTATOES AND PROCESS OF PREPARING THE SAME. ERNEST WILLIAM COOKE, New York, N. Y., assignor, by mesne assignments, to The Cokel Company, a Corporation of New Jersey. Filed Jan. 11, 1905. Serial No. 240,666. (Cl. 99—5.)

1. The process of preparing dehydrated potatoes, which consists in slightly cooking potatoes under conditions not causing rupture of the cell walls, dividing the cooked potatoes in a current of air at a temperature of from 30° to 100° F. into suitable sized pieces of particles in such a way as to leave the cell walls of substantially all of the vegetable cells containing the starch granues intact, and dehydrating the cooked and divided potatoes by subjecting them to the action of dry air at a temperature insufficient to produce material changes in the composition of the potato or to remove water of constitution.

2. The process of preparing dehydrated potatoes, which consists in cooking potatoes under conditions not causing rupture of the cell walls, dividing the cooked potatoes in a current of air at a temperature of from 30° to 100° F. into suitable sized pieces of particles in such a way as to leave the cell walls of substantially all of the vegetable cells containing the starch granues intact, and dehydrating the cooked and divided potatoes by subjecting them to the action of dry air at a temperature insufficient to produce material changes in the composition of the potato or to remove water of constitution.

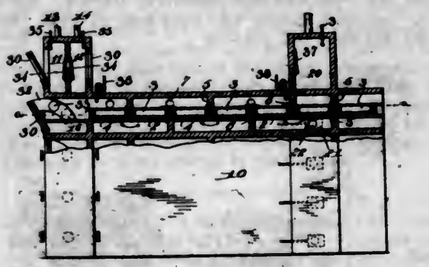
3. The process of preparing dehydrated potatoes, which consists in cooking potatoes under conditions not causing rupture of the cell walls, dividing the cooked potatoes while in a current of air of a temperature of from 30° and 100° F. into suitable sized pieces or particles in such a way as to leave the cell walls of substantially all of the vegetable cells containing the starch granules intact, and dehydrating the cooked and divided potatoes by subjecting them to the action of dry air of a temperature of from 100° to 180° F.

4. The process of preparing dehydrated potatoes, which consists in cooking potatoes under conditions not causing rupture of the cell walls, shredding the cooked potatoes by passing them through a screen in such a way as to leave the cell walls of substantially all of the vegetable cells containing the starch granules intact, and dehydrating the cooked and shredded potatoes by subjecting them to the action of dry air at a temperature insufficient to produce material changes in the composition of the potato or to remove water of constitution.

5. As a new article of manufacture, slightly cooked dehydrated potatoes having the cell walls of substantially all of the cells inclosing the starch granules intact and having such starch granules in an intact condition.

[Claim 6 not printed in the Gazette.]

1,025,374. PROCESS OF DEHYDRATING ANIMAL AND VEGETABLE SUBSTANCES. ERNEST WILLIAM COOKE, New York, N. Y., assignor, by mesne assignments, to The Cokel Company, a Corporation of New Jersey. Filed Jan. 30, 1905. Serial No. 243,304. (Cl. 99—5.)



1. The process of dehydrating succulent food substances without injuring their cell structure or texture, which consists in subjecting pervious masses of such substances to the dehydrating action of a flowing current of air in moisture absorbing condition passed through such masses in a chamber maintained under pressure, said air being at a temperature too low to produce chemical changes in said succulent food substances and the air initially used in treating said substances containing some moisture, whereby the water is removed from them with substantially no loss of other substances and they are left in a condition such that they can be restored to their original undehydrated condition simply by the addition of water.

2. The process of dehydrating succulent food substances without injuring their cell structure, which consists in forcing a flowing current of air in moisture absorbing condition and of a temperature insufficient to produce chemical change in succulent food materials through permeable masses of such material in a suitable chamber and retarding the flow of the air from said chambers so as to maintain the air in said chamber under pressure, whereby the water is removed from the material with substantially no loss of other substances and the material is left in a condition such that it can be restored to its original undehydrated condition simply by the addition of water.

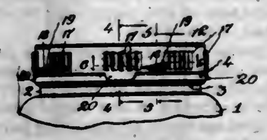
3. The process of dehydrating succulent food substances without injuring their cell structure, which consists in dividing the material into small pieces, and subjecting layers of the divided material to the dehydrating action of a flowing current of air passed therethrough in a chamber maintained under pressure, said air being in moisture absorbing condition and at a temperature too low to produce cooking or other chemical changes in succulent food materials, whereby the water is removed from the material with substantially no loss of other substances and the material is left in a condition such that it can be restored to its original undehydrated condition simply by the addition of water.

4. The process of dehydrating succulent food substances without injuring their cell structure, which consists in slightly cooking the food substance, dividing it into small pieces, and then subjecting layers of the divided material in a chamber maintained under pressure to the dehydrating action of a current of air passed therethrough and at a temperature too low to produce any further cooking or other chemical changes in said succulent food materials, whereby the water is removed from the material with substantially no loss of other substances and the material is left in a condition such that it can be restored to its original undehydrated condition simply by the addition of water.

5. The process of dehydrating succulent food substances without injuring their cell structure, which consists in subjecting permeable masses of the material to be dehydrated in a chamber maintained under pressure to the dehydrating action of a flowing current of air passed therethrough and containing some moisture, and then subjecting the partially dried material in said chamber to a flowing current of air containing less moisture than the air used at the beginning of the treatment, said current of air being in such condition as to produce no change in the composition of said succulent food materials other than the removal of water, whereby the water is removed from the material with substantially no loss of other substances and it is left in a condition such that it can be restored to its original undehydrated condition simply by the addition of water.

[Claims 6 to 14 not printed in the Gazette.]

1,025,375. BOTTLE OR JAR CLOSURE. HARRY R. COREY, New York, N. Y., assignor to American Stopper Company, Brooklyn, N. Y., a Corporation of New Jersey. Filed Oct. 31, 1910. Serial No. 589,843. (Cl. 215—35.)



1. In a bottle or jar closure, the combination of a cap comprising a crown and a pendant annular flange, the bottle having a series of interrupted threads formed on its neck, lugs extending inwardly from the flange of the cap, a circumferential projection formed on the neck of the bottle, and pendant freely resilient lips on the flange of the cap adapted to engage said projection.

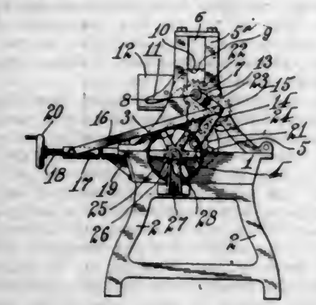
2. In a bottle or jar closure, the combination of a cap comprising a crown and a pendant flange, lugs extending inwardly from the flange of the cap, means on the bottle or jar for engaging said lugs, a circumferential projection formed on the neck of the bottle, the lower edge of said flange being provided with projections extending below the lower edge of said flange, said projections being freely resilient and adapted to resiliently engage the circumferential projection on the neck of the bottle.

3. In a bottle or jar closure, the combination of a cap comprising a crown and pendant annular flange, a bottle or jar having a projection thereon, threads on the neck of the bottle, lugs on the flange of the cap and projections on said flange between which said lugs are disposed, and resilient means carried by the cap flange adapted to cause said lugs to forcibly engage said threads by engagement with the said bottle or jar projection.

4. In a bottle or jar closure, the combination of a cap comprising a crown and pendant annular flange, a bottle

or jar having a projection thereon, means for engaging the cap with the neck of the jar or bottle, and further means secured to the cap flange, and projecting below the bottom edge thereof, said means being freely resilient and adapted to engage with the bottle or jar projection so as to center said engaging means carried by the cap with respect to the engaging means on the bottle or jar.

1,025,376. GEARING FOR GLUE-SPREADERS. WILLIAM S. CRAIG, Monroe, Mich., assignor to Craig Engineering Company, Monroe, Mich., a Corporation of Michigan. Filed July 17, 1911. Serial No. 638,844. (Cl. 74—58.)



1. In a device of the type specified, a frame, an upper and a lower roller mounted in said frame, toggle links connecting said rollers, means for varying the relative positions of said rollers by varying the angle of said links, and means on said links adapted to rotate one of said rollers in unison with the other.

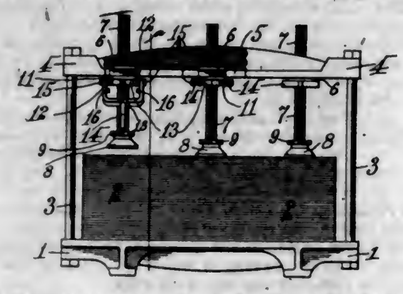
2. In a device of the type specified, a frame, an upper and a lower roller mounted in said frame, toggle links connecting said upper and lower rollers and adapted to vary their relative positions, gears connected to said rollers, intermediate driving gears mounted between said first named gears, and mounted on said toggle links, whereby said rollers may rotate in unison, and means for varying the angle of said toggle links to change the relative positions of the rollers.

3. In a device of the type specified, a frame, an upper and a lower roller mounted in said frame, toggle links connecting said rollers and adapted to vary their relative positions, bars attached to said toggle links at the pivots thereof, a threaded sleeve to which said bars are attached, and a threaded shaft adapted to actuate said sleeve to vary the angle of said toggle links.

4. In a device of the type specified, a frame, an upper and a lower roller mounted in said frame, toggle links connecting said rollers and adapted to change their relative positions, bars attached to said toggle links at their pivots, a threaded sleeve to which said bars are attached, a threaded shaft adapted to actuate said sleeve to vary the angle of said links, gears operatively attached to said rollers, and idler gears mounted between said first named gears on said toggle links.

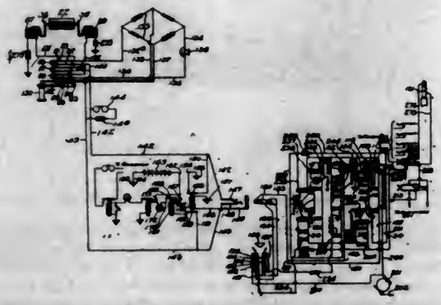
1,025,377. VENEER-PRESS. WILLIAM S. CRAIG, Monroe, Mich., assignor to Craig Engineering Company, Monroe, Mich., a Corporation of Michigan. Filed July 17, 1911. Serial No. 638,845. (Cl. 144—281.)

1. In a veneer press, the combination with the frame work thereof including base and head plates, and a pressure screw mounted in said head plate, of a sectional nut adapted to engage and release said screw, the sections of said nut having each a trunnion, said trunnions being carried by the head plate and supporting the sections of the nut, a pivotal member carried by the head plate and extending on opposite sides of the nut, said members having portions therein adapted to engage the trunnions to maintain an engagement between the nut sections and said screw, and to effect a release of such engagement.



2. In a veneer press, the combination with the frame work thereof including base and head plates, and a pressure screw mounted in said head plate, of a two part nut adapted to engage and release said screw, each part having a trunnion, journals mounted on the head plate and supporting said trunnions, means for guiding the spreading and closing movements of said nut parts, a bail fulcrumed on said head plate and extending on each side of said nut, said nut adapted to maintain an engagement between the screw and said two part nut, and to release such engagement, substantially as and for the purpose specified.

1,025,378. TELEPHONE-SERVICE METER. ARTHUR M. CRICHTON, Quincy, Ill. Filed Sept. 11, 1908. Serial No. 452,653. (Cl. 179—7.)



1. In a telephone system in combination with a calling and a called subscriber's telephone set, a meter mechanism in the calling subscriber's station, means for temporarily electrically connecting the two subscribers' sets, mechanism operated by the first use of the called subscriber's set in answering his call adapted to operate the meter at the calling subscriber's station so as to record said call, means operatable where the aforesaid means are located for reducing the count of the meter furnished by the counter that is operated to indicate the number of connections, and mechanical means for preventing operation of the meter to increase its count after it has been operated to increase its count during an established connection.

2. In a telephone system in combination with a calling and a called subscriber's telephone set, a meter mechanism in the calling subscriber's station, and means for temporarily electrically connecting the two subscribers' sets and mechanism operated by the first use of the called subscriber's set in answering his call adapted to operate the meter at the calling subscriber's station so as to record said call and then automatically operated to mechanically cut out said meter mechanism so that only one record can be made upon the meter by that use of the called subscriber's telephone.

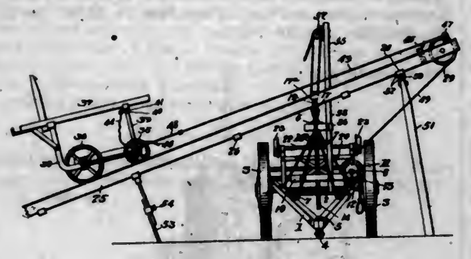
3. In a telephone system in combination with a calling and a called subscriber's telephone set, a meter mechanism in the calling subscriber's station, means for temporarily electrically connecting the two subscribers' sets and mechanism operated by the first use of the called subscriber's set in answering his call adapted to operate the meter at the calling subscriber's station so as to record said call and then automatically operated to mechanically cut out said meter mechanism so that only one record can be made upon the meter by that use of the called subscriber's telephone and mechanism operated by the calling subscriber's telephone when restored to idle position.

4. In a telephone system in combination with calling and called subscriber's telephone sets, calling and answering jacks and calling and answering plugs therefor; a meter at the calling station, an independent source of electrical energy furnishing wave form current and connected between said plugs, a plurality of switches, a relay connected between said plugs adapted to be energized when the called subscriber answers his telephone, and said plurality of switches operated by said relay and to first momentarily send electric current from said independent source to the meter at the calling subscriber's station, and at the same time open the system so that said current can not flow toward the called subscriber's set and finally cut off the wave form current and close talking circuit.

5. In a telephone system in combination with calling and called subscriber's telephone sets, jacks and calling and answering plugs therefor; a meter at the calling station, an independent source of electrical energy furnishing wave form current and connected between said plugs, a plurality of switches, a relay connected between said plugs adapted to be energized when the called subscriber answers his telephone to operate said plurality of switches which first momentarily send electric current from said independent source to the meter at the calling subscriber's station and at the same time open the system so that said current can not flow toward the called subscriber's set and finally cut off the wave form current and close the talking circuit, and means operated automatically by the calling subscriber in discontinuing the use of his set to restore all of the mechanism to original operative position.

[Claims 6 to 12 not printed in the Gazette.]

1,025,379. APPARATUS FOR CONVEYING AND LOADING SUGAR-CANE AND THE LIKE. CHARLES CROZIER, Honolulu, Hawaii. Filed July 15, 1910. Serial No. 572,119. (Cl. 214—3.)



1. In apparatus for conveying and loading sugar cane, a wheeled truck, a frame rising therefrom, a runway swiveled at the upper portion of said frame and capable of being swung into alinement with the truck, for transport from place to place, and into a laterally directed position with respect to the truck, for setting up the runway in the field, a car on said runway having a dumping platform, means, including a hoisting drum supported on the truck, for moving the car along the runway, and means to dump said platform when the car reaches the upper end of the runway.

2. In apparatus for conveying and loading sugar cane, a truck comprising a wheeled axle, and a substantially triangular frame supported thereon and having one end adapted to rest on the ground, a frame consisting of legs rising from said first named frame, and a runway having a swiveled connection with said last named frame and capable of laterally swinging movement with respect to the truck, to place it in position for loading or for being transported from place to place.

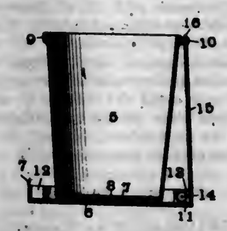
3. In apparatus for conveying and loading sugar cane, the combination of a truck comprising a wheeled axle, and a frame supported thereon with one end on the ground, a frame rising from said first named frame, a runway swiveled at the upper part of said second frame and adapted to swing laterally with respect to said truck, a car movable on said runway, and hoisting mechanism for said car comprising a drum journaled in said second frame.

4. In apparatus for conveying and loading sugar cane, the combination of an upwardly inclined runway, and a car movable thereon, said car having a platform pivoted at the rear portion thereof and projecting forwardly so as to extend out beyond the upper end of the runway when said car is at the limit of its upward travel, and coöperating means on the car and on the runway to cause said platform to tilt forwardly and downwardly when at the upper limit of its movement, to overhang the upper runway end in a forwardly and downwardly inclined position.

5. In apparatus for conveying and loading sugar cane, the combination of a truck having large wheels to transport the same over the field, a runway supported on said truck, and a frame hinged to the axle of the truck and carrying railway wheels, said frame being normally folded within the truck in inoperative position but being arranged to swing downwardly to engage its wheel with a railway track, thereby raising the large wheels off the ground, as described.

[Claims 6 to 9 not printed in the Gazette.]

1,025,380. COLLAPSIBLE DRINKING-CUP. SAMUEL CURTIS, St. Louis, Mo., assignor to Curlew Novelty Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 25, 1911. Serial No. 651,087. (Cl. 65—58.)



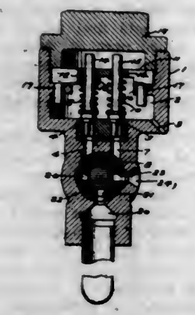
1. In a collapsible cup, the combination with a body of flexible material, of a base to which the bottom of said body is secured, and a lid for said base adapted to support the top of said body.

2. In a collapsible cup, the combination with a body of flexible material, of a base to which the bottom of said cup is secured, and a pivoted lid for said base adapted to support the top of said body.

3. In a flexible cup, the combination with a body of flexible material, of a base to which the bottom of said body is secured, a supporting ring carried by the upper end of said body, a lid pivoted to said base, and means for detachably securing said lid to said supporting ring.

4. In a collapsible cup, the combination with a body of flexible material, of a base to which the bottom of said body is secured said base having enlargements forming receptacles at diametrically opposite points, a lid pivoted to said base, a spring in one of said receptacles for moving said lid into a position substantially at right angles to the base, a supporting ring carried by the upper end of said body, and a projection carried by said ring and adapted to engage with said lid, said projection being adapted to enter the other of said receptacles when the body is rotated to fold the same.

1,025,381. PRESSURE-RETAINING VALVE. JOHN S. CUSTER, Pittsburgh, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Sept. 13, 1909. Serial No. 517,484. (Cl. 188—12.)



1. In a pressure retaining valve device, the combination with a plurality of valves and springs for loading the valves, of non-adjustable means adapted to compress said springs different relative amounts.

2. In a pressure retaining valve device, the combination with a plurality of retaining valves and a spring adapted to act on each valve, of means for simultaneously setting the springs to apply different loads on the respective valves.

3. In a pressure retaining valve device, the combination with a high and a low pressure retaining valve and springs adapted to load the valves, of a pressure plate having means for compressing the springs different relative amounts to thereby cause the springs to exert different relative pressures on said valves.

4. In a pressure retaining valve device, the combination with a plurality of valves each having a spring for loading the valve, of a pressure plate having its engaging surfaces for said springs at different heights, to thereby compress the springs different amounts.

5. In a pressure retaining valve device, the combination with two valves each having a load spring, of a pressure plate for compressing the springs to exert pressure on said valves, said plate having a thickened portion for engaging one of the springs.

[Claim 6 not printed in the Gazette.]

1,025,382. POLISHING-CLOTH. WALTER DAGNALL, Fairfield, Hampton Wick, England. Filed Feb. 20, 1911. Serial No. 609,838. (Cl. 51—1.)

Polishing cloth with an acid reaction consisting of a fabric impregnated with a mixture of olein, silicate of alumina and petrol, substantially as described.

1,025,383. CAN-FILLER. CHARLES E. EDGAR, Kansas City, Mo. Filed Apr. 3, 1911. Serial No. 618,701. (Cl. 226—13.)

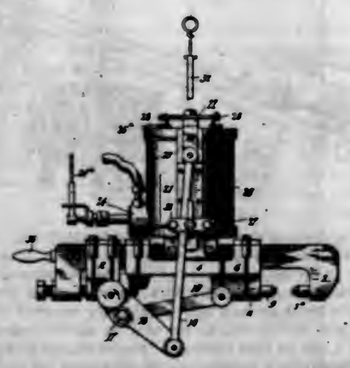
1. In a can filler, a nozzle provided with an internal valve seat and a pair of alined bearings one of which is closed to prevent the escape of water therethrough, a rock shaft journaled in said bearings and projecting completely through one of them, a crank arm secured on said shaft between said bearings and within the nozzle, means for preventing water escaping from the nozzle through the bearing through which the shaft completely projects, a valve in the nozzle for engagement with said seat, a float connected to the said projecting end of the shaft to rock the same, and means movable with the crank arm to unseat the valve when the float moves downward.

2. In a can filler, a nozzle provided with an internal valve seat and a pair of alined bearings, one of which is closed at its outer end, a rock shaft journaled in said bearings, a crank arm, secured on said shaft between said bearings and within the nozzle, a spring exerting pressure to hold the crank arm with a water tight joint against the inner end of the open bearing, a valve, a float connected to the outer end of the shaft to rock the same, and means connected to the crank arm to unseat the valve when the float moves downward.



3. A nozzle embodying a casing having alined sleeve bearings communicating at their inner ends with the interior of the casing, and one of them opening through the side of the casing at its outer end and the other closed at its outer end, a rock shaft journaled in said sleeve bearings, a crank arm secured on said shaft between said bearings, and a spring fitting in the bearing having its outer end closed and exerting pressure against the same and the adjacent end of the shaft to hold the crank arm against the inner end of the other bearing with a water-tight relation.

1,025,384. RIVETING-MACHINE. EMIL EINFELDT, Davenport, Iowa, assignor, by mesne assignments, to G. Watson French, Nathaniel French, and Joseph L. Hecht, Davenport, Iowa, a Firm. Filed June 26, 1909. Serial No. 504,451. (Cl. 78—42.)



1. In a riveting machine, a fixed jaw member comprising a body portion and depending portions, one of which constitutes a fixed jaw, a movable jaw member comprising a body portion slidably supported on said fixed jaw member and sustaining the movable jaw, a shaft supporting member supported on the body portion of the fixed jaw member, a shaft carried by said shaft supporting member, arms depending from said shaft and carrying a shaft, links connecting with said shaft and the movable jaw, upwardly extending links connecting with said arms, a piston connecting with said last mentioned links, a cylinder in which said piston operates and an abutment member carried by said movable jaw member and engaging said shaft for limiting movement of the movable jaw member.

2. In a riveting machine, the combination of a fixed jaw member provided at one end with a laterally extending jaw, a movable jaw member shiftably supported on one side of the fixed jaw member to coöperate with the laterally fixed jaw, a power cylinder supported on the opposite side of the fixed jaw member, a piston in said cylinder, a toggle mechanism connecting the movable jaw with the fixed jaw member and arranged on the side of said fixed jaw member opposite the cylinder, and links connected at one end with the toggle mechanism and at their opposite ends with the piston and extending respectively on opposite sides of the fixed jaw member and cylinder.

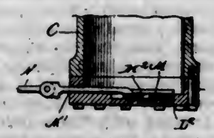
3. In a riveting machine, the combination of a fixed jaw member provided with a laterally extending jaw, a movable jaw shiftably supported on one side of the fixed jaw member to coöperate with the fixed jaw, a power cylinder supported on the oposite side of the fixed jaw member, a piston in said cylinder, a piston rod connected to the piston, a cross-head connected with the piston rod and extending beyond the sides of the cylinder, a toggle mechanism connecting the fixed jaw member with the movable jaw and arranged at the side of said fixed jaw member opposite the power cylinder, actuating arms connected with the toggle mechanism, and links connecting said actuating arms with the ends of the cross-head and extending respectively at the sides of the cylinder.

4. In a riveting machine, the combination of a fixed jaw member provided with a jaw, a movable jaw member supported on the fixed member, a lever mechanism connecting the fixed member and the movable member, a power cylinder supported by the fixed member, a piston therein, a cross-head connected with the piston and extending beyond the sides of the cylinder, a connection between the cross-head and lever mechanism for operating the latter, means for the admission of fluid beneath the piston to move the same in one direction, and springs connected to the ends of the cross-head and to a relatively fixed part and acting to retract the piston.

5. In a riveting machine, the combination of a fixed jaw member provided with a fixed jaw, a movable jaw supported thereby, a lever mechanism connecting the fixed member and movable jaw, a power cylinder supported by the fixed member, a piston therein, slides 19 on the cylinder connected with the piston, and links connecting the slides with the lever mechanism.

[Claims 6 and 7 not printed in the Gazette.]

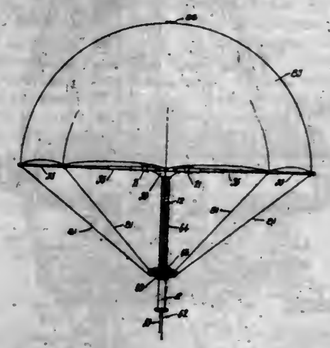
1,025,385. STEAM-ENGINE. WILLIAM ENGLISH, Sumner, Ill. Filed Sept. 27, 1910. Serial No. 584,103. (Cl. 136—8.)



A valve of the slide type provided with a vertical slot, and having a horizontal slot extending into the vertical slot midway the ends of the said vertical slot, as and for the purpose set forth.

1,025,386. SAFETY DEVICE. ADOLF ENSSLIN, North Attleboro, Mass. Filed Aug. 10, 1911. Serial No. 643,266. (Cl. 244—21.)

1. In a safety device, the combination with a rod, of a member slidably mounted upon the rod, extensible arms pivotally connected with the slidable member, a collar fixed to the rod, links connecting the collar and the arms, a cover attached to the arms, a block fixed to the rod, an abutment upon the rod, a spring upon the rod abutting against the abutment and the slidable member, and flexible connections between the block and the ends of the arms.



2. In a safety device, the combination with a rod, of a collar fixed to the upper portion of the rod, a member slidably mounted on the rod below the collar, telescoping arms pivotally connected with the slidable member, a cover upon the arms, links connecting the collar and the arms, means for outwardly pressing the links, a block fixed upon the rod below the slidable member, an abutment upon the rod, a spring upon the rod pressing against the abutment and the slidable member, a cover upon the arms, and flexible members connecting the block and the arms.

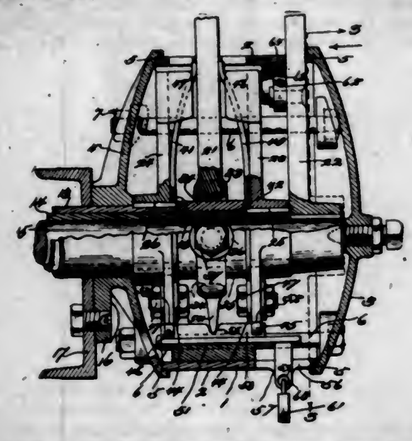
3. In a safety device, the combination of a tubular rod, a collar fixed to the rod, a member slidably mounted upon the rod below the collar, telescoping arms pivotally connected with the slidable member, links connecting the collar and the telescoping arms, hooks upon the links, a rod slidably mounted in the first mentioned rod and normally engaged by the hooks, resilient means in the first rod for forcing the second rod into engagement with the hooks, a cord depending from the second rod, a block fixed to first rod below the slidable member, an abutment upon the rod, flexible connections between the block and the arms, and a spring upon the first rod abutting against the abutment and the slidable member.

4. In a safety device, the combination of a tubular rod, a collar fixed to the rod, a member slidably mounted upon the rod below the collar, arms comprising telescoping sections pivotally connected with the slidable member, resilient means in the arms for longitudinally extending the sections, links connecting the collar and the arms, a cover attached to the ends of the arms, a block fixed to the rod, resilient means upon the rod pressing against the slidable member, rolls mounted in the block, flexible members upon the rolls attached to ends of arms, means upon the block for holding the rolls against rotation, and means in the rod for releasing the holding means.

5. In a safety device, the combination of a tubular rod, provided with two series of slots, a collar fixed to the upper portion of the rod above the slots, a member slidably mounted upon the rod below the collar expansible rods pivotally connected with the slidable member, a cover on the arms, links connecting the collar and the arms, hooks upon the links extending through the first series of slots, a longitudinally slidable tubular rod within the first rod adapted to be engaged by the hooks, a spring upon the second rod normally pressing the latter against the hooks, a block upon the first rod, a spring upon the rod in contact with the slidable member, rolls mounted in the block, ratchets upon the rolls, pawls pivotally mounted in the block engaging the ratchets and extending through the second series of slots below the inner rod, a depending cord upon the inner rod, and flexible members upon the rolls connected with the arms.

[Claims 6 and 7 not printed in the Gazette.]

1,025,387. AUTOMOBILE-CONTROLLER. OTTO EULER, Jackson, Mich. Filed Jan. 26, 1911. Serial No. 604,743. (Cl. 74—39.)



1. In a mechanism as set forth; a pair of rocking members; interlocking means therefor; and means capable of oscillatory movements for moving the interlocking means, and then moving one or the other of the rocking members; an inclosure therefor, the interlocking means and the inclosure having registerable members, and an attaching device to engage the registerable members for positively locking the rocking members and the oscillatory means in their neutral positions.

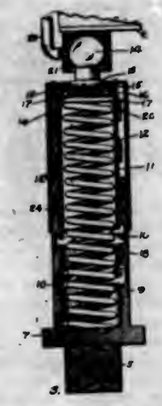
2. In a mechanism as set forth; an inclosure; a pair of rocking members therein; interlocking means therefor; and means capable of oscillatory movements at right angles to one another for moving the interlocking means, and then moving one or the other of the rocking members; and means for maintaining the oscillatory means in its neutral position; the interlocking means and the inclosure having registerable members, and an attaching device to engage the registerable members for positively locking the rocking members and the oscillatory means in their neutral positions.

3. In a controlling mechanism for automobiles, an inclosure, a pair of rocking members therein, an interlocking device therefor having a notch, and a lever having a sector to engage the notch and fulcrumed between the members capable of movements at right angles to the members for actuating the interlocking device, then moving one or the other of the rocking members, the interlocking device having a lug extending through the wall of the inclosure, the inclosure having lugs, one arranged on each side of the first lug, the lugs having registerable apertures, and an attaching device to engage the apertures for positively locking the rocking members and the fulcrumed lever.

4. In a controlling mechanism for automobiles having an inclosure, a pair of rocking members therein, an interlocking device therefor, and a lever fulcrumed between the members capable of movements at right angles to one another for actuating the interlocking device, and then moving one or the other of the rocking members, said interlocking device and the inclosure having registerable members, and an attaching device engageable with the registerable members for locking the rocking members and the lever in their neutral positions.

5. In a controlling mechanism for automobiles having an inclosure, a pair of rocking members therein, an interlocking device therefor, and a lever fulcrumed between the members capable of movements at right angles to one another for actuating the interlocking device, and then moving one or the other of the rocking members, and means interposed between the rocking members upon either side of the lever for maintaining the lever in its neutral position, said interlocking device and the inclosure having registerable members, and an attaching device engageable with the registerable members for locking the rocking members and the lever in their neutral positions. [Claims 6 to 9 not printed in the Gazette.]

1,025,388. SHOCK-ABSORBER FOR VEHICLES. HIGHLAND T. FINNELL and ERNEST SCHERNIKOW, New York, N. Y. Filed Dec. 3, 1910. Serial No. 595,519. (Cl. 21—105.)



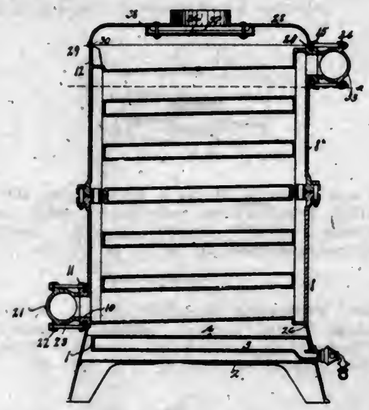
1. In a shock absorber for use between two points of compression in a moving vehicle embodying hollow telescopic members mounted for spiral motion one about the other and a spring inclosed within said members, a head adjustable within the outer end of the inner member, a ring against which the outer end of said spring bears, balls resting on said ring, the inner face of said head being formed with a race way, and a ring interposed between the head and the first-named ring and in which said balls are retained.

2. In a shock absorber for use between two points of compression in a moving vehicle embodying hollow telescopic members mounted for spiral motion one about the other and a spring inclosed within said members, a head adjustable within the outer end of the inner member, a ring against which the outer end of said spring bears, balls resting on said ring, the inner face of said head being formed with a race way, and a ring interposed between the head and the first-named ring and in which said balls are retained, said head having a projection with a ball, and a sectional socket for said ball provided with means for supplying a lubricant thereto.

1,025,389. WATER-HEATER. OTTO FOX, Cleveland, Ohio, assignor to The Bryant Heater and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 3, 1910. Serial No. 584,974. (Cl. 122—225.)

1. In a water heater, the combination of a series of heating elements, each element comprising a pair of substantially parallel vertically extending conduits with corrugated transverse ducts extending therebetween and of greater width than the conduits, said elements being placed side by side and the transverse ducts of adjacent elements being staggered, side walls coöperating with said elements and each provided with ribs projecting into the spaces between the adjacent transverse ducts, the vertical ducts at one side of the heater being provided each with an inlet connection near its lower end and those at the other side of the heater being provided each with an outlet connection near its upper end.

2. In a water heater, the combination of a series of heating elements, each element comprising a pair of substantially parallel conduits with transverse ducts extending therebetween, said elements being placed side by side and the transverse ducts of adjacent elements being staggered, side walls coöperating with said elements and each provided with ribs projecting into the spaces between the adjacent transverse ducts, the conduits at one side of the heater being provided each with an inlet connection and those at the other side of the heater being provided each with an outlet connection.



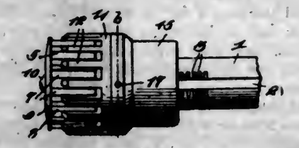
3. In a water heater, the combination of a plurality of water circulating elements placed side by side and each comprising a pair of opposed vertical conduits, said conduits being connected by transversely arranged ducts of greater width than the width of the vertical conduits, the ends of said conduits being closed and the ends of opposite conduits being substantially in the same plane but said ducts being differently spaced from such planes at the opposite ends of said conduits, one of each pair of vertical conduits being provided with an inlet connection and the other being provided with an outlet connection, alternate elements being inverted so as to bring the transverse ducts of adjacent elements into staggered relation while keeping the closed ends of said conduits in the same plane, and vertical plates secured to the sides of the outside elements and forming with said vertical conduits a closed chamber.

4. A water circulating section for a water heater comprising a pair of substantially parallel conduits, each conduit being closed at one end and having a lateral connection at the other end communicating with the interior thereof, one of said conduits being provided with an extension beyond its closed end, the end of said extension being disposed in substantially the same transverse plane as the end of the opposite conduit, and said connections being disposed at opposite ends of their respective conduits, and a plurality of transverse ducts connecting the said conduits, the terminal ducts being spaced a less distance from one end of said conduits than from the other end thereof, said conduits being provided with securing means.

5. In a water heater, in combination, a plurality of elements each element having a pair of substantially parallel conduits connected by a plurality of transverse ducts, each of said conduits having a lateral connection at one end communicating with the interior thereof, and said connections being disposed at diagonally opposite points of said elements, said ducts being inclined as regards said conduits, and the terminal ducts being nearer to one end of said conduits than to the other end thereof, alternate elements being inverted as regards the intermediate elements, and said connections being secured to common distributing pipes or headers, whereby the ends of all said conduits are maintained in substantially the same plane, and said ducts are maintained in staggered relation. [Claims 6 to 10 not printed in the Gazette.]

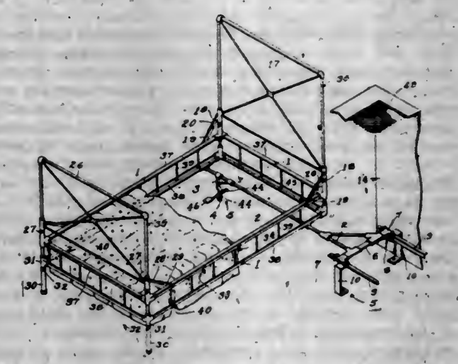
1,025,390. SOLE-EDGE TRIMMING AND FINISHING TOOL. ANTONIO D. FRASCOLA, El Reno, Okla. Filed Oct. 28, 1911. Serial No. 657,229. (Cl. 12—91.)

1. The combination with the shaft, rand guide and sole trimmer of a sole edge trimming and finishing tool, an edge burnishing sleeve mounted for longitudinal movement on the shaft toward and from the rand guide and having buffer teeth in the spaces between the teeth of the trimmer, a locking and adjusting collar mounted for longitudinal movement on the shaft, the burnishing sleeve being formed with a transversely extending slot, and a set screw extending through the collar and received in said slot, whereby the collar is connected to the burnisher for longitudinal movement therewith and also having partial rotation independently thereof, the shaft being provided with a longitudinal channel and with locking teeth opening into the channel and the collar being provided with a locking tooth adapted for longitudinal movement in said channel and to be engaged with the locking teeth of the shaft, for the purpose specified.



2. In combination with the shaft, rand guide and sole trimmer of a sole edge trimming and finishing tool, an edge burnishing sleeve mounted for longitudinal movement on the shaft toward and from the rand guide and having buffer teeth in the spaces between the teeth of the trimmer, and a locking and adjusting collar mounted for longitudinal movement on the shaft and connected to the burnisher for longitudinal movement therewith and also for partial rotation independently thereof, the said shaft being provided with a longitudinal channel and with locking teeth opening into the channel and the said collar being provided with locking teeth adapted for longitudinal movement in said channel and to be also engaged with locking teeth of the shaft when said collar is partly revolved in one direction.

1,025,391. DRAW-BED. JOSEPH MERIT GARDNER, Los Angeles, Cal. Filed June 27, 1911. Serial No. 635,680. (Cl. 5—18.)



1. A bed comprising a frame, a fixed support, a guide member mounted on said fixed support to slide horizontally thereon, said bed frame being pivotally mounted on said guide member to swing thereon on a horizontal axis from a horizontal to a vertical position and to be drawn with said guide member in its horizontal sliding movement on the fixed support.

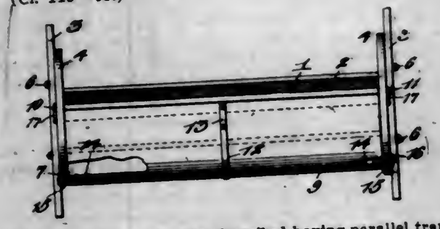
2. A bed comprising a frame, a fixed support, a guide member mounted on said fixed support to slide horizontally thereon, said bed frame being pivotally mounted on said guide member to swing thereon on a horizontal axis from a horizontal to a vertical position and to be drawn with said guide member in its horizontal sliding movement on the fixed support, the pivotal supports for the bed frame on said guide member being intermediate between the ends of the bed.

3. A bed comprising a frame, a fixed support, a member slidably mounted on said fixed support, said frame being swingingly mounted on said slidable member to be drawn therewith and to swing thereon into and out of position for use, said bed frame being provided with legs pivotally connected thereto, and said guide member having a leg provided with a roller at its lower end for the purpose set forth.

4. A bed comprising a frame, a fixed support, a guide member mounted on said fixed support to slide horizontally thereon, said bed frame being pivotally mounted on said guide member to swing thereon on a horizontal axis from a horizontal to a vertical position and to be drawn with said guide member in its horizontal sliding movement on the fixed support, the pivotal supports for the bed frame on said guide member being intermediate between the ends of the bed, a leg on said guide member for supporting one end of the same, and a foot lever pivoted to said leg and provided with a catch adapted to engage the adjacent end of the bed when the bed is raised to vertical position.

5. A bed comprising a frame, a fixed support, a member slidably mounted on said fixed support, said bed frame being swingingly mounted on said slidable member to be drawn therewith and to swing thereon into and out of position for use, and a housing secured to said fixed support and extending into position to receive the bed when it is moved away from the position for use.

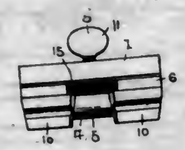
1,025,392. FEED-TROUGH. CHARLES A. GAYLOR, Winchester, Ind. Filed Feb. 21, 1911. Serial No. 609,928. (Cl. 119—63.)



A device of the character described having parallel transverse end walls, a trough centrally arranged between said end walls, supporting bars of substantially circular form having spaced ends disposed in parallel relation and adapted to be secured to the inner faces of the end walls on opposite sides of said trough, each of said supporting bars having a pair of curved slots therein concentric with relation to the bars, each of said slots extending from the upper end of the attached end of the bar and terminating at a point on one side of the center of said bar, a substantially semi-tubular guard having projecting studs at each of its ends loosely disposed in the slots of said bars, one stud on each end of the guard being disposed in the upper ends of corresponding slots in the respective supporting bars, and the other studs on the ends of said guard being disposed in the lower ends of the other slots of the respective supporting bars, and U-shaped guide members secured to the periphery of the guard at each of its ends and embracing the curved supporting bars to hold the ends of the guard out of frictional contact with said bars and prevent longitudinal movement of the guard therebetween.

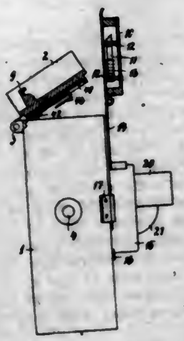
1,025,393. COMBINATION ICE-SKATE AND LAWN-MOWER SHARPENER. GEORGE W. GILLESPIE, Seattle, Wash. Filed Mar. 2, 1911. Serial No. 611,800. (Cl. 76—83.)

A one piece sharpening implement having a rear side and a front side, an extension upon the rear side, said extension being continued beyond the main portion of the implement and having a slanting wall, wings arranged in alinement with one another, said implement having a guiding passage between the wings and the main portion of the device, said implement having a second guiding passage formed by the slanting wall of the extension and the adjacent sloping edges of the



wings, said extension having a file receiving slot communicating with the first mentioned guiding passage and adapted to co-act therewith to hold a sharpening file, and means for holding the file in position.

1,025,394. PORTABLE ELECTRIC LAMP. EMIL GOTTSCHALCK, Berlin, Germany, assignor to Electric Export-Werke, G. M. B. H., Berlin, Germany. Filed Nov. 15, 1909. Serial No. 528,246. (Cl. 240—19.)



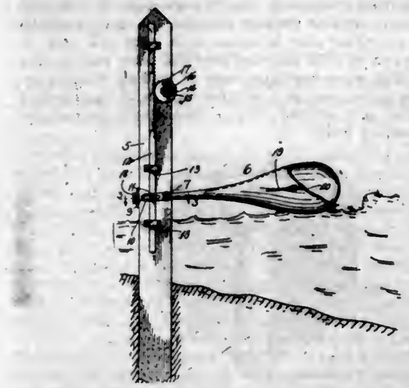
1. In a portable electric lamp, the combination of a metallic casing having a hinged cover, a magnetic lock comprising a lid provided with a spring actuated latch, normally engaging said cover for keeping the lamp closed, said latch being adapted to be retracted by a magnet, a lamp, a protecting lens therefor, a metal strip hinged to said lid, and means to interlock said metal strip with the lens for the purpose of making the removal of said interlocking means dependent upon the opening of said magnetic lock.

2. In a portable electric lamp, the combination of a metallic casing having a hinged cover provided with a central groove, a magnetic lock for said cover comprising a lid, provided with a spring actuated latch, normally engaging a hook within said central groove of the cover for keeping the lamp closed and adapted to be retracted by a magnet, a lamp, a protecting lens therefor, a metal strip hinged to said lid, means to hold the lens upon the casing, and a bayonet coupling connected to said strip and said holding means for the lens for the purpose of making the removal of said bayonet coupling dependent upon the opening of said magnetic lock.

1,025,395. WAVE-MOTOR. EZRA M. HAMILTON, Willow Springs, Cal. Filed Sept. 27, 1911. Serial No. 651,534. (Cl. 61—50.)

1. A wave motor comprising a single support, a buoyant member movably mounted thereon and having a wave engaging portion adapted to be moved by the waves and a mechanism on said support for receiving and transmitting motion from said buoyant member.

2. A wave motor comprising a single post, a buoyant member pivoted at one end to said post, its other end resting upon the water so as to be raised and lowered by the movement of the waves, a reciprocating rack also mounted on said post, mechanism on said post for transmitting motion received from said rack, the structure being such that the said post with its mechanism may be set up anywhere in the water for operation.

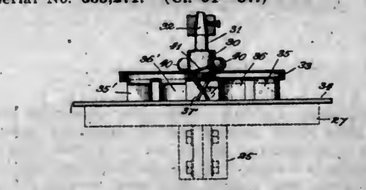


3. A wave motor comprising a post adapted to be set up in the sea, a wave engaging member having a pivotal engagement with said post at one end, and having its other end made hollow to buoyantly engage the waves whereby it will be raised and lowered, mechanism mounted on the post for receiving movement from the said buoyant member and guy ropes extending from said buoyant member to said post for bracing said buoyant member.

4. A wave motor comprising a fixed support adapted to be set up in the ocean, a pivotally mounted buoyant member having an enlarged hollow end free to rest upon the waves of the ocean, and having its other end provided with an elongated slot, brackets also secured to said support, a rack bar also mounted upon said support and guided by said brackets, a stud projecting from said rack bar, said stud engaging said slot and said buoyant member, and gearing also rotatably mounted on said fixed support and adapted to be operated by the reciprocation of said rack bar.

5. A wave motor comprising a post, a buoyant member pivoted at one end to said post, its other end being adapted to rest upon the water, and bracing means extending from the said buoyant member to a fixed support.

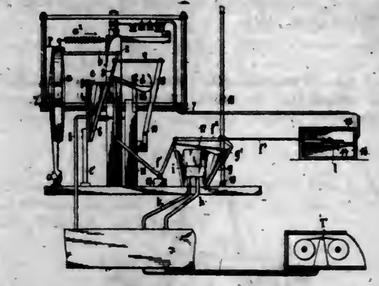
1,025,396. PAINT-MIXING APPARATUS. JOHN WILLIAM HASBURG, Chicago, Ill. Filed June 15, 1911. Serial No. 633,271. (Cl. 91—57.)



1. A paint mixing apparatus comprising a rotatable carrier, two substantially vertical, fixed, spaced apart, scraper plates on one side of the axis of the carrier, and having their lower edges in the same horizontal plane, and their approximate edges in a generally radial plane in the rear of the plane in which their remote, or front edges, are located, and a trailing plate, in a different radial plane, bridging the opening between said plates, and having its lower edge adapted and arranged to occupy the same horizontal plane.

2. A paint mixing apparatus comprising two substantial vertical, fixed, radially separated plates angularly arranged in a generally radial plane from the axis of rotation with their proximate edges in the rear of a radial line, a trailing plate bridging the opening between said angulated plates hinged to a rotatable frame and having its lower edge located behind its upper hinged edge, a yielding means for depressing the lower edge of said plate, a rotatable frame for supporting said plates, and a stop to prevent said hinged plates from assuming a vertical position.

1,025,397. EXPRESSION DEVICE FOR MECHANICALLY-OPERATED VIOLINS. GUSTAV KARL HENNIG, Wahren, near Leipzig, Germany, assignor to Ludwig Hupfeld Aktiengesellschaft, Leipzig, Germany. Filed Apr. 1, 1911. Serial No. 618,412. (Cl. 84—215.)



1. A mechanically played musical instrument comprising a driven bow, a movable stringed instrument, a pneumatic and connections between the pneumatic and stringed instrument to move said instrument to and from the bow, in combination with auxiliary means to control the pressure of the string against the bow and thereby control the intensity of tone.

2. A mechanically played musical instrument comprising a driven bow, a movable stringed instrument, and a pneumatic connected to the stringed instrument to move it to and from the bow, in combination with auxiliary pneumatic means to control the movement of the instrument and thereby the pressure of the string against the bow to control the intensity of tone.

3. A mechanically played musical instrument comprising a driven bow, a movable stringed instrument and a pneumatic connected to the stringed instrument to move it to and from the bow, in combination with both hand-operated and pneumatically operated mechanism to vary the pressure of the string against the bow.

4. A mechanically played musical instrument comprising, a bow, a motor and its connections for operating the bow, a movable stringed instrument, a pneumatic connected to said stringed instrument, in combination with auxiliary means to simultaneously control the movement of the stringed instrument and thereby the pressure of the string against the bow and the speed of the motor, and thereby control the intensity of tone.

5. A mechanically played musical instrument comprising, a bow, a motor and its connections for operating the bow, a movable stringed instrument, a pneumatic connected to and to move said stringed instrument with relation to the bow and both hand and automatic means to simultaneously control the movement of the instrument and thereby the pressure of the string against the bow and the speed of the motor.

[Claims 6 to 21 not printed in the Gazette.]

1,025,398. AUTOMOBILE-INDICATOR. JOHN HOAKER and WILLIAM I. BANKS, San Antonio, Tex. Filed Nov. 3, 1910. Serial No. 590,461. (Cl. 40—132.)

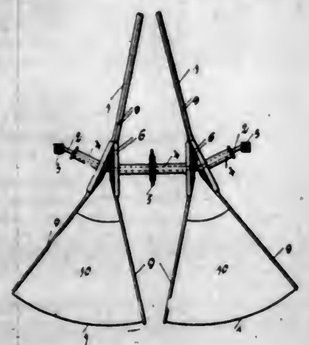
In an automobile indicator, the combination with a casing, of a source of light therewithin, a hinged door in the casing, provided with a plurality of compartments

at each end, a transparent numeral plate for which the door forms a frame, colored glass rectangles being provided upon said plate and adapted to register with said



compartments, and opaque shields adapted to be removably placed in said compartments in front of the colored rectangles of the glass plate.

1,025,399. PROPELLER. AXEL HOLMSTRÖM, Paris, France. Filed Dec. 11, 1909. Serial No. 532,581. (Cl. 115—59.)



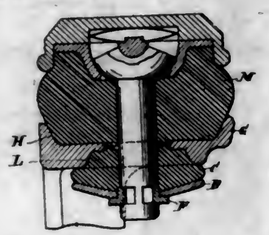
1. A propeller, comprising in combination, a plurality of continuous flexible supporting means actuated in planes disposed at an angle, arms carried by said flexible supporting means to spread or lie together as the latter are moved in their respective planes, and webbing foldable between said arms.

2. A propeller, comprising in combination, a plurality of continuous flexible supporting means actuated in planes disposed at an angle, arms carried by said flexible supporting means to spread or lie together as the latter are moved in their respective planes, webbing foldably stretched between said arms and flexible driving means operatively connected to both of said supporting means.

1,025,400. RESILIENT ANTISKIDDING WHEEL. HENRY GAUD HUGON, Calais, France. Filed Sept. 11, 1911. Serial No. 648,703. (Cl. 152—3.)

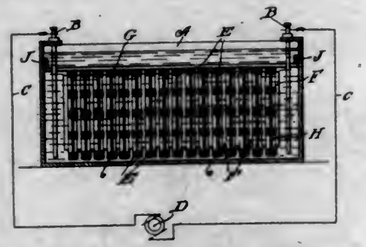
1. In a vehicle wheel, the combination with a rim having an aperture, a tread portion, a bolt for attaching said tread portion to said rim, having a reduced portion intermediate its ends and extending through said rim, a divided ring in engagement with one of the transverse walls of said reduced portion and provided with an outstanding portion, a resilient member interposed between said rim and the said outstanding portion of said divided ring, and a washer having an aperture for the reception of said divided ring and coacting with said resilient member to form a binding engagement between said ring and said apertured portion of said rim, substantially as and for the purpose set forth.

2. In a vehicle wheel, the combination of a rim having a recess at the inner and at the outer faces thereof and an aperture opening into both recesses, inner and outer resilient members positioned by said recesses and having an aperture opening into the said aperture in said rim but relatively smaller than the latter, a tread portion on the outer resilient member, a bolt operatively connected to said tread portion, passing through the said apertures in said resilient members and in engagement with the walls thereof, through the said aperture in said rim, and having a reduced portion adjacent the inner resilient member, a divided ring in engagement with the said reduced portion of said bolt and provided with outstanding portions, and a washer interposed in binding relation between the inner resilient member and said outstanding portions of said divided ring, substantially as and for the purpose set forth.



3. In a vehicle wheel, the combination of a rim having a recess at the inner and at the outer face thereof and an aperture opening into both recesses, inner and outer resilient members positioned by said recesses and having apertures opening into the said aperture in said rim but relatively smaller than the latter, a tread portion on the outer resilient member, a bolt operatively connected to said tread portion, passing through the said apertures in said resilient member in engagement with the walls thereof, through the said aperture in the said rim and means operatively connected to the free end of said bolt to bindingly confine said inner resilient member against said rim.

1,025,401. PROCESS OF CURING HIDES. FRANK P. JAMES, Nashville, Tenn., assignor to The Electric Meat Curing Company, Cleveland, Ohio, a Corporation of Maine. Filed Oct. 7, 1910. Serial No. 585,776. (Cl. 204—27.)



1. The process of giving a preliminary preserving treatment to hides before tanning thereof, consisting in washing them to remove the surface accumulations, then immersing them in a solution of sodium chlorid without tanning substances, and passing an electric current through the solution and hides.

2. The process of curing hides preceding the tanning thereof consisting of submerging the uncured hides in a solution of sodium chlorid and passing an electric current through such solution and hides.

3. The process of curing fresh hides preceding the tanning thereof consisting of placing the hides separated from each other in a solution of sodium chlorid, passing an electric current transversely of the hides through them and through the solution.

4. The process of curing fresh hides preceding the tanning thereof consisting of placing the hides in a tank containing a solution of sodium chlorid, holding them spread out and separated from each other, and passing an electric current through them and through the solution.

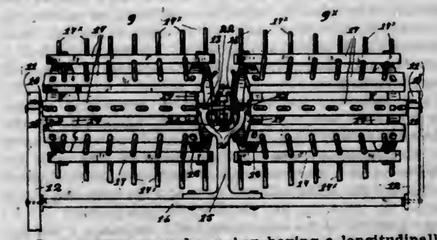
5. The process of curing hides consisting of washing them to remove the surface accumulations, then immersing them in a solution of sodium chlorid, and passing an electric current through the solution and hides.

1,025,402. PROCESS OF MAKING TABLE SAUCES. MASATARO JINBO and KINGIRO HOSHIZAKI, Kansas City, Mo. Filed June 17, 1911. Serial No. 633,897. (Cl. 99—11.)

1. The process of making a table sauce, the same consisting in browning wheat, mixing boiled beans with the wheat and storing the mixture in a ventilated room at a temperature of about ninety five degrees Fahrenheit and for a sufficient length of time to guard against fermentation and then gradually reducing the temperature of the room for about a day to about eighty-five or ninety degrees Fahrenheit and letting it stand at such temperature for sufficient time for fermentation, stirring it at intervals during such time, then adding to it a saline solution produced by the mixture of boiled water and salt and letting this mixture or compound stand for a period of more than six months and stirring the same at suitable intervals day and night during such period, then mixing with this compound a second brew consisting of dried mustard seed, cloves, thyme, cinnamon, bay leaf and pepper and boiling and straining the same and permitting it to stand a sufficient length of time to ferment and then straining this mixture and adding vinegar sufficient for pickling purposes and boiling the product for sufficient time to guard against fermentation.

2. The process of making a table sauce, the same consisting in browning wheat, boiling beans in water and mixing the same together and storing same in a ventilated room at a temperature ninety five to one hundred degrees Fahrenheit for about twenty hours and then gradually reducing the temperature of the room for about a day until it is about eighty five or ninety degrees Fahrenheit, and letting it stand at such temperature for about one hundred and forty four hours, and stirring at intervals, and then adding to it a saline solution produced by a mixture of boiled water and salt and letting the compound stand for about twelve months and stirring the same at suitable intervals during the day and night during that period; then mixing into this compound a second brew consisting of dried mustard seed, cloves, thyme, cinnamon, bay leaf, pepper and stalks of leek, and boiling and straining the same and permitting it to stand a sufficient length of time to ferment and then straining the same and adding vinegar and boiling the resultant mixture for about three hours.

1,025,403. MANURE-SPREADER. CHARLES JOHNSON, Auburn, and CHARLES FRANK, Seneca Falls, N. Y. Filed May 22, 1909. Serial No. 497,773. (Cl. 111—40.)

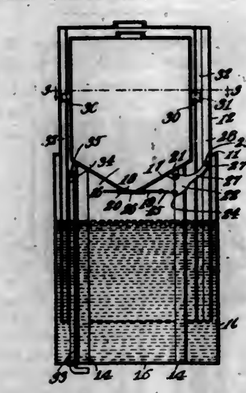


1. In a manure spreader, a box having a longitudinally movable bottom, a rotary beater composed of rearwardly inclined sections having their axes converging at a point approximately in the plane of the longitudinal center of the box, each section having a series of bars arranged about and parallel with its axis, each bar having a series of teeth projecting at gradually increasing distances from its outer face from one end toward the other end.

2. In a manure spreader, a box having a longitudinally movable bottom, a rotary beater composed of sections arranged end to end with their axes converging rearwardly to a point in proximity to the plane of the longitudinal center of the box, each beater section having a series of bars arranged around its axis with their outer faces parallel with said axis, each bar having a series of teeth projecting gradually increasing distances therefrom from its outer end toward its inner end, each beater section having a rotary shaft and a universal joint connection between the inner ends of the shafts.

3. In a manure spreader, a box having a rearwardly movable bottom and actuating means therefor, a rotary beater composed of sections arranged end to end and having separate rotary shafts disposed in rearwardly converging angles and having their inner ends coupled together by a universal joint, bearings for the outer ends of the shafts, additional bearings for the inner ends of the shafts, each beater section having a series of bars arranged about and parallel with their respective shafts, and teeth on the bars projecting gradually increasing distances therefrom from their outer ends toward their inner ends.

1,025,404. ACETYLENE-GAS GENERATOR. JAMES S. JOHNSON, Le Roy, Kans. Filed Jan. 19, 1912. Serial No. 672,110. (Cl. 48—55.)

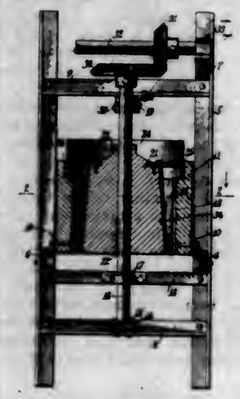


A gas generator comprising a tank, a carbid hopper supported by said tank, said hopper having its lower portion disposed within the tank, a dome, said dome embracing said hopper and extending within said tank, brackets disposed on either side of said hopper, rollers supported by said brackets, track members disposed interiorly of said dome, said rollers embracing said track members, a sliding closure for said hopper, an arm pivotally supported by said hopper, said arm being formed with an offset having a link connection with said sliding closure, said arm being formed with a curved extension, a roller supported by said curved extension, a rib disposed interiorly of said dome, said rib being formed with an obliquely disposed slot to receive said roller, the contact of said rib with said roller imparting movement to said arm to operate said closure.

1,025,405. NUTCRACKING-MACHINE. JAMES M. KING, North Vernon, Ind. Filed Aug. 9, 1910. Serial No. 576,296. (Cl. 146—3.)

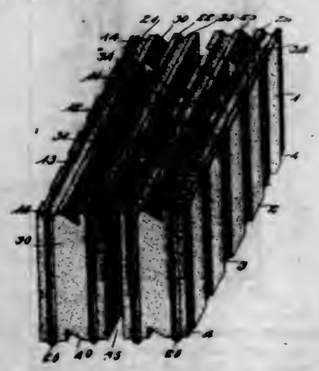
In a nut cracking machine, a grinding member having an opening with a circular shoulder therearound, a second grinding member disposed in the opening, and spaced from the inner wall of the first-mentioned member, a hopper member secured to the second-mentioned member

and disposed in the opening above the shoulder, there being openings in the hopper member leading to the space between the two members, and within the vertical plane of the shoulder, means for rotating one of the members



relatively to the other, covers for the openings in the hopper member, and means for securing the covers in a plurality of positions relatively to the openings respectively.

1,025,406. BUILDING-BLOCK. WILLIAM H. KOENIG, Beloit, Wis. Filed June 5, 1911. Serial No. 631,318. (Cl. 72—43.)



The herein described building block, the same composed of a series of upright walls each having grooves on two edges and tongues on the other two edges, and a series of upright webs between said walls and in staggered relation to each other so as to produce upright openings, each web being shorter than the height of the block and narrower than the adjacent opening and beveled off at its upper and lower extremities to produce transverse openings through the blocks, for the purpose set forth.

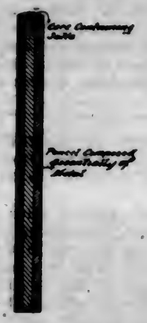
1,025,407. ARC-LIGHT ELECTRODE. ISADOR LADOFF, Cleveland, Ohio, assignor of thirty one-hundredths to Philip C. Peck, New York, N. Y. Filed June 1, 1907. Serial No. 376,868. (Cl. 176—121.)

1. A metallic arc light pencil comprising a bore containing potassium flourid.

2. An essentially metallic arc light pencil composed preponderatingly of iron and comprising a bore containing potassium fluorid.

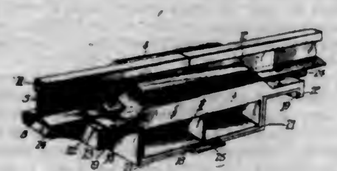
3. A metallic arc light pencil comprising a core composed of potassium fluorid.

4. An arc-light pencil composed preponderatingly of metal in elemental state and comprising a central longitudinal bore containing a salt of an alkaline metal.



5. An arc-light pencil composed preponderatingly of iron in elemental state and comprising a central longitudinal bore containing a salt of an alkaline metal.

1,025,408. RAIL-JOINT. CHARLES CALVERT LAMB, Joliet, Ill., assignor of forty-nine one-hundredths to Willard M. McEwen, Chicago, Ill. Filed Apr. 10, 1911. Serial No. 620,080. (Cl. 239—6.)



1. A device of the class described, comprising a member having a longitudinal slot therein adapted to receive the ends of adjoining rails, means for securing said rails in said slot, and a girder adapted to rest on ties at its ends and support said member.

2. A device of the class described, comprising a member having a longitudinal slot therein adapted to receive the ends of adjoining rails, means for securing said rails in said slot, a girder adapted to rest on ties at its ends and support said member, said member being formed of cast material and said girder being formed of wrought metal, substantially as described.

3. The combination with ties and rails, of a member having a longitudinal slot therein adapted to receive the ends of adjoining rails, means for securing said rails in said slot, a depending brace extending longitudinally along the under side of said member, transversely disposed depending flanges adjacent to the ends of said member and spaced away from the ends of said brace so as to form transverse slots, and a girder adapted to support said member, said girder having offset portions adjacent to its ends adapted to fit into said transverse slots and to receive said ties.

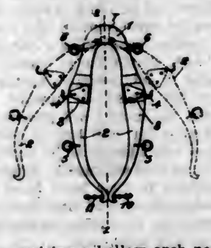
4. A device of the class described, comprising a member having a longitudinal slot therein adapted to receive the ends of adjoining rails, a plurality of keys adapted to be inserted between adjacent parts of said rails and member, and a plate secured on said member in position to engage the adjacent ends of said keys and adapted to secure the keys against accidental displacement.

5. A device of the class described, comprising a member having a longitudinal slot therein adapted to receive the ends of adjoining rails, a pair of keys adapted to be inserted between adjacent parts of said rails and member, said keys being inserted from respectively opposite ends of said member, a plate secured on said member in position

to abut against the rear end of one of said keys, and a part on said plate adapted to engage the adjacent end of the other key.

[Claim 6 not printed in the Gazette.]

1,025,409. OX-COLLAR. JUAN BAUTISTA LESQUERRE, Buenos Aires, Argentina. Filed Apr. 20, 1910. Serial No. 556,563. (Cl. 54—18.)



An ox collar comprising a hollow arch portion V-shaped in cross section adapted to embrace the scapula of an ox, hollow extension members pivoted to the arch and diverging therefrom at the joint of the scapula and humerus and reinforcing springs in the arch and extension members, the rear faces of said arch portion and extension members being curved to conform to the contour of the back and withers respectively, of an ox.

1,025,410. SPRINKLER. RUDOLF LINDNER, Erie, Pa. Filed Sept. 17, 1909. Serial No. 518,201. (Cl. 137—17.)



1. In a sprinkler, the combination of a rotating member; a valve plug formed thereon having a radial way therethrough; a nozzle mounted on the plug having a cavity in the end and having a radial jet opening adapted to be brought into register with the way in the plug; and bypasses adapted to be brought into register with the ways in the plug, and leading into a cavity in the end of the nozzle; and means arranged in the cavity in the end of the nozzle for securing the plug in the nozzle.

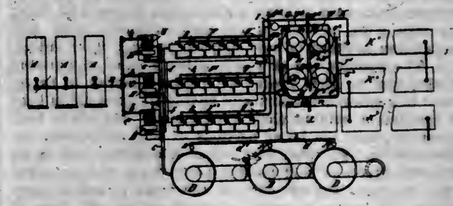
2. In a sprinkler, the combination of a rotating member; a valve plug formed thereon having a radial way therethrough; a nozzle mounted on the plug having a cavity in the end; radial jet openings adapted to be brought into register with the way in the plug, and bypasses adapted to be brought into register with the way in the plug, and leading into the cavity in the end of the nozzle; means arranged in the cavity in the end of the nozzle for securing the plug in the nozzle; and an axial jet end screwed into the cavity.

3. In a sprinkler, the combination of a rotating member; a valve plug formed thereon having a radial way therethrough; a nozzle mounted on the plug having a cavity in the end, radial jet openings adapted to be brought into register with the way in the plug, and bypasses adapted to be brought into register with the way in the plug, and leading into the cavity in the end of the nozzle; means arranged in the cavity in the end of the nozzle for securing the plug in the nozzle; and vanes on the nozzle in the path of the jets from the radial openings.

4. In a sprinkler, the combination of a stationary member; a rotary member forming a joint with the stationary member; means for adjusting the joint; a valve plug on the rotary member, the plug having a radial way therein; a nozzle mounted on the plug with a radial way adapted to be brought into register with the way of the plug and a bypass adapted to be brought into register with the way of the plug; and means actuated by the energy of the passing fluid for rotating the rotating member.

5. In a sprinkler, the combination of a stationary member; a rotary member forming a joint with the stationary member; means for adjusting the joint; a valve plug on the rotary member; the plug having a radial way therein; a nozzle mounted on the plug having a radial way adapted to be brought into register with the way of the plug and a bypass adapted to be brought into register with the way of the plug; and vanes on the rotating member in the path of the jet from the radial way in the nozzle.

1,025,411. TREATMENT OF BRINE. GEORGE WILLIAM MALCOLM, Davenham, and FREDERICK THOMAS MUNTON, Winsford, England, assignors to The Salt Union, Limited, Liverpool, England. Filed Feb. 18, 1911. Serial No. 609,313. (Cl. 204—58.)



1. In the manufacture of salt from natural brine by the vacuum process of evaporation, the herein described method of procedure consisting in electrolyzing a sufficient quantity of brine to form sodium hydrate equivalent to the magnesium and calcium present in the mass of brine to be treated, partially carbonating the sodium hydrate, mixing the electrolyzed brine with the raw brine for effecting the precipitation of the magnesium and calcium salts, then separating the precipitated salts, then conducting the purified brine to the evaporating pans which are heated by the exhaust steam from the engines.

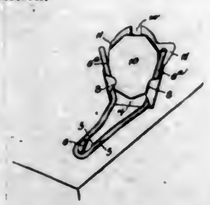
2. In the manufacture of salt from natural brine by the vacuum process of evaporation, the herein described method of procedure consisting in electrolyzing a sufficient quantity of brine to form sodium hydrate equivalent to the magnesium and calcium present in the mass of brine to be treated, partially carbonating the sodium hydrate, mixing the partially carbonated sodium hydrate with the raw brine for effecting the precipitation of the magnesium and calcium salts, then separating the precipitated salts, heating the purified brine and finally conducting the same to the evaporating pans which are heated by the exhaust steam from the engines.

3. In the herein described method of manufacturing salt by the vacuum process of evaporation, carbonating the electrolyzed brine prior to mixing the same with the raw brine so as to effect the simultaneous precipitation of the magnesium and calcium salts contained in the raw brine.

1,025,412. SHARPENING DEVICE. EMMOR M. MALLETTE, Chicago, Ill. Filed May 10, 1911. Serial No. 626,348. (Cl. 76—88.)

1. The combination of a supporting member having upstanding portions, a holding plate having means to engage said upstanding portions, and a polygonal sharpening

disk supported upon one surface of said plate, and having its side portions extending between the plate and said upstanding portions of said support, said disk being removable for readjustment to place selected ones of its sides in operative position.



2. The combination of a supporting member having upstanding portions, a holding plate having means to engage said upstanding portions and provided with guides, and a sharpening disk supported upon one surface of said plate, having its side portions extending between the plate and said upstanding portions of said support, said sharpening disk being polygonal and being removable for readjustment to present selected ones of its sides opposite the said blade guides.

3. The combination of a supporting member having upstanding portions, a polygonal sharpening disk, a holding plate having means to engage said upstanding portions of said support, and coöperate with said upstanding portions of said support to clasp the said sharpening disk therebetween, said holding plate having guides and being provided with portions which also coöperate with said upstanding portions of said support, to form other guides.

4. The combination of a supporting member comprising a wire bent to form spaced extensions adapted to be secured to a suitable support, and having its extremities bent to upstand, a holding plate having lower side wings bent inwardly about the lower portions of said upstanding extremities, and provided with upper side wings bent in an opposite direction, said holding plate being also provided with an upper cut-out portion, the sides of which form guides, and having a central indented portion, the sides of which extend beneath the upstanding wire extremities, and a polygonal sharpening disk disposed within said centrally indented portion of said holding plate, and removable for readjustment to place a new working portion in operative position.

1,025,413. UNDERREAMER. ALBERT P. MCBRIDE, Independence, Kans. Filed Feb. 6, 1911. Serial No. 606,958. (Cl. 166—6.)



1. An underreamer, comprising a rod, having a longitudinal passage and downwardly-disposed shoulders and a longitudinal slot communicating with said passage, a cross-head slidable in said passage, spring-actuated means tending to force the cross head upward, one or more bits or cutters slidable obliquely on the rod and adapted to be clamped by the cross head against said downwardly-disposed shoulders, a bolt, a spring-actuated lever fitting in said slot and loosely engaging the bolt to hold the same interlocked with the cross head, and adapted above its pivotal point to normally project out of said slot beyond the circumferential plane of said rod, and connections whereby said lever when lying wholly within said slot may prevent upward movement of the cross-head.

2. An under reamer, comprising a rod having a longitudinal passage and downwardly disposed shoulders, a cross-head slidable in said passage, spring-actuated means tending to force the cross-head upward, a device above and movable with the cross head provided with a downwardly disposed shoulder, and bits of cutters slidable obliquely on the rod and adapted to be clamped by the cross head against the said downwardly disposed shoulders of the rod, and provided in their inner faces with recesses to receive the shouldered part of said device and be locked thereby from working or sliding upwardly after having been depressed or slid downward.

3. An under reamer, comprising a rod having a longitudinal passage and downwardly disposed shoulders, a crosshead slidable in said passage, spring-actuated means tending to force the cross head upward, a device above and movable with the cross head provided with a downwardly disposed shoulder, bits or cutters slidable obliquely on the rod and adapted to be clamped by the cross-head against the said downwardly disposed shoulders of the rod and provided in their inner faces with recesses to receive the shouldered part of said device and be locked thereby from working or sliding upward after having been depressed or slid downward, and means for holding the cross-head in its depressed or lowered position.

4. An under reamer, comprising a rod having a longitudinal passage and downwardly disposed shoulders, a cross-head slidable in said passage, spring-actuated means tending to force the cross-head upward, a device above and movable with the cross-head provided with a downwardly-disposed shoulder, bits or cutters slidable obliquely on the rod and adapted to be clamped by the cross-head against the said downwardly-disposed shoulders of the rod and provided in their inner faces with recesses to receive the shouldered part of said device and be locked thereby from working or sliding upward after having been depressed or slid downward, means for holding the cross head in its depressed or lowered position, and yielding means for automatically tripping said holding means to permit the cross head, the shouldered device and the bits or cutters to be reëlevated.

5. An underreamer comprising a rod having opposite longitudinal slots, a cross-head slidable on said rod and engaging said slots, a bit or cutter in each slot and bearing a dove-tail relation to the rod and adapted to move obliquely downward and inwardly to lie wholly within the plane of the circumference or upwardly and outwardly to project beyond the plane of the circumference of the said rod, means movable with the cross-head for interlocking with the bits or cutters and disposed to hold them against accidental upward movement, and means to lock the cross-head and the bits or cutters in their elevated position.

[Claims 6 to 10 not printed in the Gazette.]

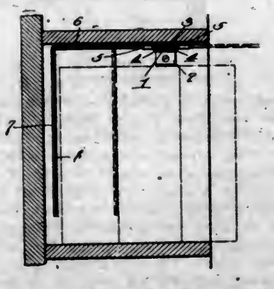
1,025,414. WINDOW SASH AND FRAME. JAMES MCCAUSLAND and WILLIAM BAILEY, Edmonton, Alberta, Canada. Filed Dec. 17, 1910. Serial No. 597,956. (Cl. 20—49.)

A window comprising a frame, grooved fixed stiles, provided with pairs of recesses, a head rail and a sill, stiles sliding in the grooves of the fixed stiles, provided with pairs of recesses, upper and lower window sashes pivotally connected at the sides to said sliding stiles, bolts on the lower sashes adapted to enter said recesses in said fixed and sliding stiles when said lower sash is raised, said recesses being of sufficient transverse length to permit of said sash being swung on its hinges, whereby said lower



sash may be moved to partially open locked position without withdrawing said bolts.

1,025,415. BOOK-REMOVER. MARY A. MCQUILLAN, Greeley, Kans. Filed Aug. 31, 1909, Serial No. 513,420. Renewed Sept. 25, 1911. Serial No. 651,294. (Cl. 45—1.)



1. In a book removing device, the combination with a book shelf, of a bar arranged above and parallel to said shelf, and a transversely movable finger slidably carried by said bar.

2. The combination with a book shelf, a bar arranged above and parallel to said shelf, and an angled strip slidably carried by said bar, the strip being movable both longitudinally and transversely with respect to the bar.

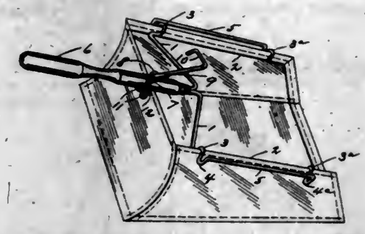
3. The combination with a book shelf, of a bar supported above and parallel to the shelf, a cross-shaped bracket slidable longitudinally upon said bar, and an angled strip slidably carried by the bracket, the said strip being at right angles to the bar.

4. The combination with a bookcase, of a bar arranged above and parallel to a shelf of the case, a bracket slidable along said bar, a metal strip sliding in the bracket and at right angles to the bar, the inner end portion of said strip being bent to form a finger, and a suitable cushion secured upon said finger, said cushion being adapted to engage the front edge of a book.

5. The combination with a book shelf, of an angled strip having a horizontal portion and a depending portion, the depending portion resting back of the books on said shelf and the horizontal portion being movable above the books, the said strip having a free movement lengthwise of the book case and a limited transverse movement, and means for supporting said strip.

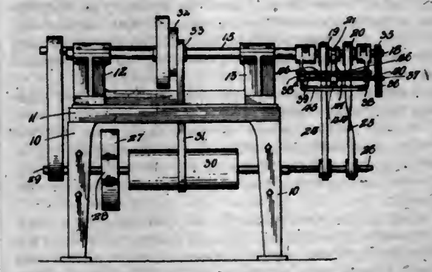
1,025,416. HANDLE. ADOLPH E. MEYER, Webster Groves, and FRANK WETTEROTH, St. Louis, Mo. Filed Nov. 21, 1910. Serial No. 593,476. (Cl. 220—30.)

1. A receptacle handle comprising a portion affording a hold for the hand, arms oppositely diverging from said portion, a plurality of crimps in each of said arms, rods spacing and in continuity with said crimps, a member vertically directed through said hand-hold, and a supporting device, said crimps arranged to engage the rim, edge or frame of a receptacle and normally secured thereupon, said rods being disposed parallel and adjacent to that portion of said receptacle engaged by said crimps, an extremity of said member engaging said device, the opposite extremity of said member engaging a portion of said receptacle different from that portion thereof engaged by said crimps.



2. A receptacle handle comprising a portion affording a hold for the hand, arms oppositely diverging from said portion, a plurality of crimps in each of said arms, rods spacing and in continuity with said crimps, a member vertically directed through said hand-hold, and a supporting device, said crimps arranged to engage the rim, edge or frame of a receptacle and normally secured thereupon, said rods being disposed parallel, external and adjacent to that portion of said receptacle engaged by said crimps, an extremity of said member engaging said device, the opposite extremity of said member engaging a portion of said receptacle different from that portion thereof engaged by said crimps.

1,025,417. GRINDING AND POLISHING MACHINE. WILLIAM F. MILLER, Fond du Lac, Wis. Filed Nov. 20, 1911. Serial No. 661,344. (Cl. 51—4.)

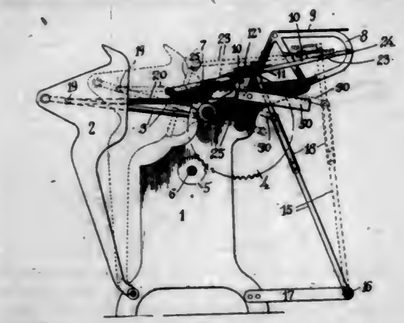


1. In a grinding machine, a frame, a sleeve supported by said frame, a shaft carrying a grinding wheel rotatable in said sleeve, means for rotating said shaft, oppositely rotating pulleys loosely mounted on said shaft, and a clutch mounted between said pulleys, a yoke having bearings supported by said sleeve, a thrust-rod slidable in said bearings, said thrust-rod having spaced collars fixed thereto, a forked arm having one end thereof fixed to said thrust-rod between said spaced collars, and the opposite end thereof adapted to engage the said clutch member for operating the same, a screw-threaded shaft mounted on said yoke, a nut threaded to travel on said shaft, said nut adapted to engage the said collars on the thrust-rod for communicating motion thereto.

2. In a grinding machine, a frame, a sleeve supported by said frame, a shaft rotatable within said sleeve, a grinding wheel rotated by said shaft, pulleys loosely mounted on said shaft, a clutch member mounted between said pulleys, a yoke supported by said sleeve, and a thrust rod carried by the yoke, means operated by said thrust rod for alternately throwing the clutch into engagement

with the pulleys, a gear wheel on one end of said shaft, and a gear wheel on said thrust rod adapted to mesh with the aforesaid gear wheel, for giving movement thereto.

1,025,418. DELIVERY MECHANISM FOR PLATEN-PRESSES. LEWIS E. MORRISON, Newark, N. J., assignor to himself and Matthias Plum, Newark, N. J. Filed Mar. 6, 1908. Serial No. 419,480. (Cl. 101—33.)



1. The combination of a platen press having a movable platen, delivery grippers, means carried by the said delivery grippers for closing the same by contact with the said platen, guiding means for said grippers and means mounted on the said guiding means for opening the delivery grippers at a predetermined point.

2. A delivery gripping mechanism for platen presses comprising a pair of oscillating levers, grippers mounted to reciprocate on said levers, means for closing said grippers, means for opening said grippers the said opening means being adjustably mounted on the aforesaid oscillating levers.

3. A delivery gripper for printing machines comprising a lower gripper jaw, an upper pivoted gripper jaw, means interposed between the said jaws for normally closing the same, a spring actuated sliding member for keeping the upper jaw in open position during given periods and means carried by said sliding member for closing the said gripper.

4. A gripping mechanism of the class described comprising oscillating guiding means, a gripper carriage movable on said guiding means, grippers carried by the said carriage, means for adjusting the said grippers transversely on the said carriage and at right angles thereto, means for closing the said grippers and means for opening the same.

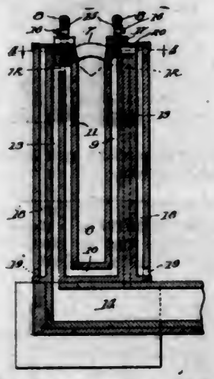
5. A gripping mechanism of the class described comprising oscillating guiding means, a gripper carriage movable on said guiding means, grippers carried by the said carriage, means for adjusting the said grippers transversely on the said carriage and at right angles thereto, means for closing the said grippers and means for opening the same, the said opening means being carried by the said guiding means.

[Claims 6 to 15 not printed in the Gazette.]

1,025,419. COKE-OVEN. ROBERT S. MOSS, Chicago, Ill., assignor of one-fourth to Arthur Roberts, Evanston, Ill., and one-fourth to Edward Anderson, Chicago, Ill. Filed Feb. 7, 1911. Serial No. 607,148. (Cl. 202—9.)

1. In a coke oven, a retort, a series of heating flues extending around said retort, means for admitting gas to said flues, the induction ends of said flues being arranged on opposite sides of the retort and alternately with respect to each of said series of flues, means for eductng the products of combustion, air flues communicating at one terminus thereof with said heating flues, said air flues extending between their termini in close proximity to the heating flues, whereby the radiant heat from the burning gas is utilized to heat the air prior to its commingling with the gas, substantially as described.

2. In a coke oven, a retort, a series of heating flues extending around said retort, means for admitting gas to said flues at a point substantially level with the top of said retort, the induction ends of said flues being arranged on opposite sides of the retort and alternately with respect to each of said series of flues, means for eductng the products of combustion, air flues communicating at one terminus thereof with said heating flues, said air flues extending between their termini in close proximity to the heating flues, whereby the radiant heat from the burning gas is utilized to heat the air prior to its commingling with the gas, substantially as described.



3. In a coke oven, a plurality of retorts, a series of heating flues extending around each of said retorts, means for admitting gas to said flues, the induction ends of said flues being arranged on opposite sides of the retorts and alternately with respect to each of said series of flues, means for eductng the products of combustion, air flues communicating at one terminus thereof with said heating flues, said air flues extending between their termini in close proximity to the heating flues and intermediate the same, whereby the radiant heat from the burning gas is utilized to heat the air prior to its commingling with the gas, substantially as described.

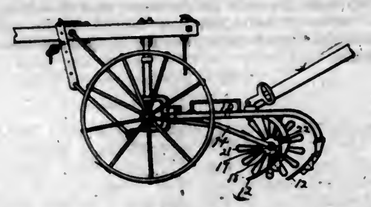
4. In a coke oven, a plurality of retorts, a series of heating flues extending around each of said retorts, means for admitting gas to said flues at a point substantially level with the top of said retort, the induction ends of said flues being arranged on opposite sides of the retort and alternately with respect to each of said series of flues, means for eductng the products of combustion, air flues communicating at one terminus thereof with said heating flues, said air flues extending between their termini in close proximity to the heating flues and intermediate the same, whereby the radiant heat from the burning gas is utilized to heat the air prior to its commingling with the gas, substantially as described.

5. In a coke oven, a retort, a series of flues extending in a direction longitudinally of said retort, and terminating in planes marking approximately the upper and lower edges of said retort, a portion of said flues being heating flues, a portion return flues, and a portion air flues, the heating flues lying closest to the retort, the air flues lying farthest from the retort, and the return flues being intermediate the heating and air flues, whereby a relatively thick wall is interposed between the heating and air flues, and a relatively thin wall interposed between the return and air flues, substantially as described.

1,025,420. REVOLVING CLOD-FENDER. HUGH H. MUNSON, Truro, Iowa. Filed June 19, 1911. Serial No. 634,159. (Cl. 97—13.)

1. A revolving clod fender, comprising a suitable hub and spokes radiating therefrom, said spokes being formed of looped wire secured to the hub at their open ends.

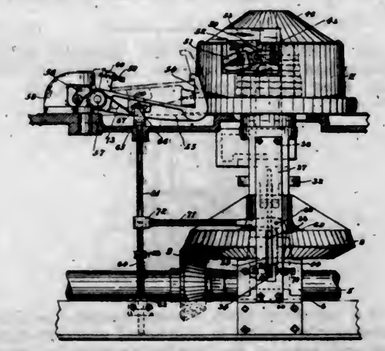
2. A revolving clod fender, comprising a suitable hub and spokes radiating therefrom, said spokes formed of separate loops of wire clamped to the hub at their open ends, the closed ends of the loops forming the periphery of the fender.



3. A revolving clod fender, comprising a stem, a pivot bolt therein, spaced clamp plates on said pivot bolt, bolts connecting said clamp plates, and spokes clamped at their inner ends between said plates, said spokes formed of separate loops of wire, the looped ends of said spokes adapted to contact with and roll on the ground.

4. In combination with a cultivator having spaced beams, stems fixed at their forward ends to said beams, said stems converging rearwardly and bent into parallel planes at their rear end portions, pivot bolts in rear end portions of said stems, and revolving clod fenders mounted on said pivot bolts and spaced apart, said fenders comprising radiating spokes of looped wire clamped together at their open ends.

1,025,421. WIRE-DRAWING MACHINE. JOHN H. O'DONNELL and WILLIAM D. PIERSON, Waterbury, Conn., assignors, by mesne assignments, to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed July 25, 1910. Serial No. 573,598. (Cl. 205—16.)



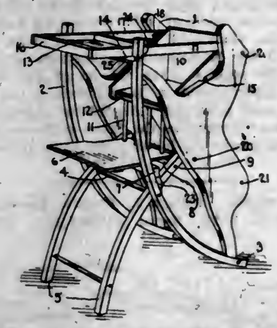
1. In a wire drawing machine, the combination with the block; of a movable die holder; a shaft; friction means for connecting said block and shaft; a treadle, a connection between said treadle and friction means; means for holding said treadle against accidental movement when said friction means has operatively connected said block and shaft; and means, actuated from said die holder, for releasing said treadle from its holding means.

2. In a wire drawing machine, the combination with the block; of a movable die holder; a shaft; friction means for connecting said block and shaft; a treadle; a connection between said treadle and friction means; means for holding said treadle against accidental movement when said friction means has operatively connected said block and shaft; means for releasing said treadle from its holding means, comprising a rock lever having a part thereon that contacts with said treadle when in its holding position; and a connection between said die holder and rock lever.

3. In a wire drawing machine, the combination with the block; of a die holder; a shaft; friction means for connecting said block and shaft; means for operating said friction means through said shaft; and means for operating said friction means from said die holder.

4. In a wire drawing machine, the combination with the block; of a shaft; friction means for connecting said block and shaft; a reciprocating rod in said shaft for actuating said friction means; a treadle; means for connecting said treadle and rod, whereby said rod may be operated during the rotation of said shaft; means for holding the treadle in one of its positions; a die holder; and means, actuated by the movement of said die holder, for releasing said treadle from said holding means.

1,025,422. HOBBY-HORSE AND HIGH CHAIR. JEREMIAH L. PETERS, Allentown, Pa. Filed Apr. 27, 1911. Serial No. 623,709. (Cl. 155—12.)



1. A device of the character described comprising oppositely positioned side members and rockers, curved arms movably attached to the said rockers intermediate their ends, a seat having its forward portion hingedly mounted between the side members, a foot rest likewise mounted between the curved arms adjacent to their inner ends and adapted to be supported upon said arms, arms having their inner ends hingedly connected to the back of the seat adjacent to the upper edge thereof, a shelf also hingedly secured to the forward connected ends of the arms and adapted for interlocking engagement with the rockers adjacent to the upper ends thereof, and means for locking the parts in a rigid position in respect to one another.

2. A device of the character described comprising oppositely positioned side members rigidly separated from one another and provided with rockers, curved arms movably secured to said rockers, foot rest having its inner end hingedly connected to said curved arms and adapted to be supported by the latter, a seat movably mounted between the side members the forward end of which is hingedly connected to the rear end of the foot rest by a rigid support whereby the seat and rest are properly operated, connecting bars the rear ends of which are hingedly attached to the upper portion of the seat, a shelf hingedly attached to the forward connected ends of the bars, a strip secured to the under surface of said shelf the opposite projecting ends of which are adapted for engagement with the recesses formed in the rockers adjacent to the upper ends thereof for interlocking engagement when the shelf is in its normal position, blocks secured to the rockers at a suitable distance along their length, a transverse strip secured to the under surface of the foot rest the opposite ends of which are adapted for engagement with said blocks, and means for locking the parts in a rigid position with respect to one another after being properly adjusted.

3. A device of the character described comprising oppositely positioned side members and rockers, curved arms movably attached to the said rockers intermediate their ends, a seat having its forward portion hingedly mounted between the side members, a foot rest likewise mounted between the curved arms adjacent to their inner ends

and adapted to be supported upon said arms, arms having their inner ends hingedly connected to the back of the seat adjacent to the upper edge thereof, and a shelf also hingedly secured to the forward connected ends of the arms and adapted for interlocking engagement with the rockers adjacent to the upper ends thereof.

4. A device of the character described comprising a pair of side members having rockers, said side members being properly separated and rigidly connected, curved bars forming supporting legs pivoted intermediate their length between the rockers, a foot rest having its rear end hingedly attached to one end of the bars and projecting therefrom, means for supporting said foot rest upon the rockers, a seat movably mounted between the side members at its forward end, posts projecting from the foot rest and having their upper ends connected by a bar forming the hinged connection for the seat, connecting bars having their inner ends hingedly attached to the connected ends of said connecting bars, a strip secured to the shelf and having its opposite projecting ends adapted for interlocking engagement with recesses formed in the rockers when the latter are elevated to form rear supports, said projecting ends of the strip carried by the shelf being also adapted for engagement with similar recesses formed in the inner surfaces of the side members, and means for holding the parts in locked position.

1,025,423. SHOE. GEORGE L. PIERCE, Brooklyn, N. Y. Filed Feb. 17, 1911. Serial No. 609,230. (Cl. 36—1.)



1. In a combination, a flexible inner sole; an upper lasted to the inner sole; a heel secured to the heel portion of the shoe thereby formed; a tap-sole secured to the toe portion of said shoe; and a light weight flexible pad under the shank of the shoe comprising a pliant covering secured under said shank, with its ends extending under the heel and tap-sole, and further comprsing a quantity of soft stuffing material between said covering and the shank of the shoe.

2. In combination, a flexible inner sole; an upper lasted to the inner sole; a heel secured to the heel portion of the shoe thereby formed; a tap-sole secured to the toe portion of said shoe; and a light weight flexible pad under the shank of the shoe comprising a pliant covering secured under said shank, with its ends extending under the heel and tap-sole, and further comprising a quantity of soft stuffing material between said covering and the shank of the shoe, said pad rounding from its sides to a longitudinal median zone which is the thickest portion of the pad and which approaches the treadline of the shoe.

3. In combination, a flexible inner sole; an upper lasted to the inner sole; a heel secured to the heel portion of the shoe thereby formed; a tap-sole secured to the toe portion of said shoe; and a light weight flexible pad under the shank of said shoe between its tap-sole and heel, said pad consisting of soft stuffing material under a flexible covering.

1,025,424. CORNER-PROTECTOR. ARTHUR PRIDDLE, San Francisco, Cal. Filed Feb. 9, 1911. Serial No. 607,601. (Cl. 72—121.)

1. A corner protector comprising a strip or plate of metal, a series of fastening teeth formed on the inner edge of said strip, and a series of bracing teeth or lugs formed between said fastening teeth whereby said protector may be supported and braced in operative position.

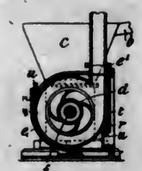
2. A corner protector comprising a strip or plate of metal, a series of pointed fastening teeth formed on the inner edge thereof, a series of bracing teeth or lugs formed between said fastening teeth and adapted to be bent laterally in opposite directions to the desired angle, a finishing bead arranged on the outer edge of said protector, a series of anchoring lugs formed in the body of the protector and also bent laterally in opposite directions therefrom.



3. A corner protector comprising a strip or sheet of metal, a series of pointed fastening teeth formed on the inner edge thereof, a series of bracing lugs formed on said edge between said fastening teeth and adapted to be bent laterally in opposite directions to any desired angle, a series of anchoring lugs struck from the body portion of the protector near its outer edge and bent laterally in opposite directions, thus forming apertures in the protector said lugs having curved outer edges, and a finishing bead formed on the outer edge of the protector in the form of a roll.

4. A corner protector comprising a strip of metal, three series of projections extending from the inner edge of said strip, the intermediate series being disposed in the plane of the body of the strip and forming fastening spurs to be driven into a support and the two side series forming braces to engage the support, whereby the protector will be supported and braced in operative position.

1,025,425. CENTRIFUGAL PUMP. ANTHONY MAURICE ROBESON and ANDREW DAVIDSON, Johannesburg, Transvaal. Filed Nov. 18, 1909. Serial No. 528,840. (Cl. 103—42.)



1. In a centrifugal pump, a casing having a peripheral door opening, an impeller in said casing, removable linings around said impeller, the said casing extending around said linings for more than one half of the circumference and the said door opening being large enough to permit the radial removal of the linings, and a door for said door opening.

2. In a centrifugal pump, a one part casing, an impeller in said casing, removable lipings around said impeller, the said casing extending at its sides and periphery more than half way around said linings and having an open end sufficiently large to permit the bodily removal of said linings radially, and a closure for said open end.

3. In a centrifugal pump, a casing open at one end and semi-circular at its other end, the said casing being provided with an outlet in its top near the open end, an annular peripheral liner fitted within said casing having a tangential outlet registering with said casing outlet, a removable door for closing said open end of said casing, and means for clamping said liner in said casing.

4. In a centrifugal pump, a casing having an outlet pipe, an impeller in said casing, an annular peripheral lining having a tangential outlet adapted to fit said outlet pipe, and a removable door in the periphery of said casing immediately back of said outlet pipe, the length of the door opening being as great as the diameter of the lining.

5. In a centrifugal pump, a casing having an outlet pipe, an annular peripheral lining having a tangential outlet fitting said casing outlet pipe, and tangential connections between said lining and casing for turning said lining to bring said lining outlet in contact with said casng outlet and to clamp the lining in place.

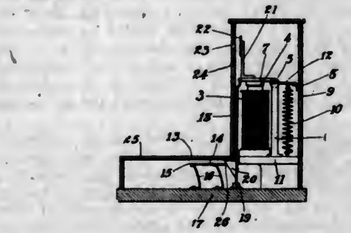
1,025,426. ARTICLE COMPOSED ESSENTIALLY OF TITANIUM AND SILVER AND METHOD OF PRODUCING THE SAME. AUGUSTE J. ROSSI, Niagara Falls, N. Y., assignor to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Original application filed Jan. 30, 1912, Serial No. 674,257. Divided and this application filed Feb. 27, 1912. Serial No. 680,370. (Cl. 75—1.)

1. The process of producing an alloy of titanium with silver which comprises incorporating titanic acid into a bath comprising molten silver and molten aluminum, subjecting the bath to a temperature sufficient to insure reduction of said titanic acid by said aluminum and withdrawing and cooling the resulting metallic product.

2. The method of producing an alloy of titanium with silver which comprises bringing into each other's presence argentic material, titanic acid and aluminum, and subjecting them to a temperature sufficient to produce therefrom under the conditions stated molten aluminum and also molten silver and molten titanium.

3. The method of producing an alloy of titanium with silver which comprises bringing into each other's presence oxid of silver, titanic acid, and aluminum, and subjecting them to a temperature sufficient to produce therefrom under the conditions stated molten aluminum, and also molten silver and molten titanium.

1,025,427. ACOUSTIC OPTICAL TELEGRAPH. ANTONIO SANANDRES, New York, N. Y. Filed May 1, 1911. Serial No. 624,298. (Cl. 178—307.)



1. A telegraph instrument including in combination, a magnet, an armature mounted for movement toward and from said magnet, a gage, an indicator having a face increasing in width as it recedes from said gage and means for moving said indicator from said armature to expose a narrow portion thereof for a dot impulse and a wider portion for a dash impulse.

2. A telegraph instrument including in combination, a magnet, an armature mounted for movement toward and from said magnet, a table having a slot therein, an indicator below said table and mounted for movement into and out of view through said slot and means for moving said indicator from said armature, distances varying with the duration of contact of said armature and magnet.

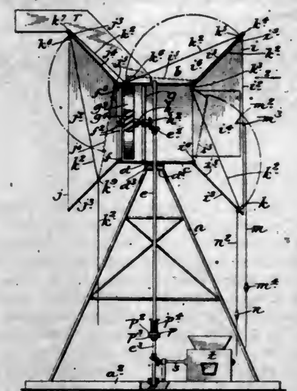
3. A telegraph instrument including in combination, a magnet, an armature pivotally mounted for movement toward and from said magnet, a reflector fixed to said armature, a gage, an indicator mounted for movement relative to said gage and means for moving said indicator from said armature, distances varying with the duration of contact of said armature and magnet.

4. A telegraph instrument including in combination, a magnet, an armature pivotally mounted for movement toward and from said magnet, a reflector fixed to said armature, a table having a slot therein, a tapered indicator below said table and mounted for movement into and out of view through said slot and means for moving said indicator from said armature to expose a narrow portion thereof for a dot impulse and a wider portion for a dash impulse.

5. A telegraph instrument including in combination, a magnet, an armature mounted for movement toward and from said magnet, a gage, an indicator mounted for movement relative to said gage and means for moving said indicator from said armature distances varying with the duration of contact of said armature and magnet.

[Claims 6 and 7 not printed in the Gazette.]

1,025,428. WIND-MOTOR. MICHAEL STANSCHUS, New York, N. Y. Filed Oct. 20, 1911. Serial No. 655,710. (Cl. 170—3.)



1. In a wind motor of the class described, a rotatable casing open at both ends, a shaft passing vertically through said casing and rotatable independently thereof, and a wind wheel mounted in the rear end portion of said casing and geared in connection with said shaft, the front end portion of said casing being provided with a bell-shaped extension having in the top and bottom and sides thereof, doors which are hinged to said casing, means for manipulating the bottom door to close the front end of said casing, and means for opening and closing the other doors, the bell-shaped extension at the rear end of said casing being also provided in the top thereof with a door which is hinged to the rear end of said casing and which is operated by the same means that operates the door in the bottom of the bell-shaped extension at the front end of said casing.

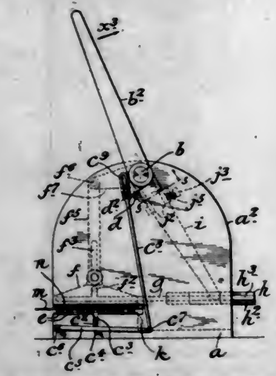
2. In a wind motor of the class described, a rotatable casing open at its front and rear ends, a shaft passing vertically through said casing and rotatable independently thereof, and a wind wheel mounted in the rear end portion of said casing and geared in connection with said shaft, said casing being also provided at the front end thereof with a bell-shaped extension in the top, bottom and side portions of which are doors hinged to said front end of said casing, and the rear end of said casing being also provided with a bell-shaped extension in the top of which is a door hinged to the rear end of said casing, means connected with the top and bottom doors in the bell-shaped extension at the front end of said casing and with the top door in the bell-shaped extension at the rear end of said casing for operating said doors, and means for operating the doors in the sides of the bell-shaped extension at the front end of said casing.

3. In a wind motor of the class described, a support, a casing mounted horizontally and rotatably on said support and both ends of which are open, a shaft passing vertically through said support and vertically and centrally

through said casing, and on which said casing is rotatable, and a wind wheel mounted in one end of said casing and geared in connection with said shaft, said casing being also provided at both ends with bell shaped extensions, the bell shaped extension at the front end being provided in the sides and bottom and top thereof with hinged doors, and the bell shaped extension at the rear end of said casing being provided at the top thereof with hinged doors and means for opening and closing said doors.

4. In a wind motor of the class described, a support, a rotatable casing mounted on said support and open at both ends, a shaft passing vertically and centrally through said support and said casing and rotatable independently of said casing, a wind wheel mounted in the rear end portion of said casing and geared in connection with said shaft, the front end portion of said casing being provided with a bell shaped extension having in the top, botom and sides thereof, doors which are hinged to said casing, means for manipulating one of said doors to close the front of said casing, and means for opening and closing the other doors.

1,025,429. PRINTING-PRESS. WILLARD A. SULLIVAN, Brooklyn, N. Y. Filed Nov. 6, 1911. Serial No. 658,673. (Cl. 101—63.)

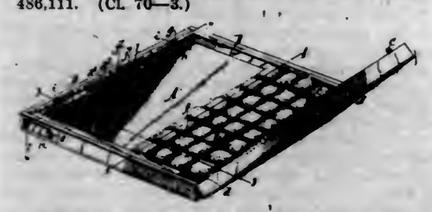


1. In a printing press of the class described, a frame, a vertically movable type box or holder mounted in the bottom portion thereof, a vertically movable platen mounted over said type box or holder, a horizontally movable inking pad device mounted over said type box or holder, and means for moving said inking pad device into position between the type box or holder and the platen and for raising said type box or holder and for moving the inking pad device backwardly from between the type box or holder and the platen, comprising a shaft mounted in the top of the frame and having a crank and a link pivoted thereto and to the platen, another crank connected with said shaft and in operative connection with means for raising the type box or holder, and arms loosely mounted on said shaft and the free ends of which are movable in recesses in the end portions of the inking pad device, the operation of said arms being controlled by tension devices supported in yoke-shaped devices secured to said shaft and having fingers between which said arms pass.

2. In a printing press of the class described, a frame, a vertically movable type box or holder mounted in the bottom portion thereof, a vertically movable platen mounted above the type box or holder, a horizontally movable inking pad device, a shaft mounted in the top of the frame and in operative connection with the platen and with the type box or holder, and arms loosely mounted on said shaft and the free ends of which operate in recesses in the ends of the inking pad device, said shaft being also provided with yoke-shaped devices having fingers between which the arms pass, and springs placed between one set of said fingers and the said arms.

3. In a printing press of the class described, a frame, a vertically movable type box or holder mounted in the bottom portion thereof, a vertically movable platen mounted above the type box or holder, a horizontally movable inking pad device, a shaft mounted in the top of the frame, devices in operative connection with said shaft and said type box or holder for operating the latter, devices in operative connection with said shaft and the platen for operating the latter, and devices connected with said shaft and operating in connection with the inking pad device for operating said device.

1,025,430. JEWELRY-BOX FASTENER. JOHN R. SUNDEE, Buffalo, N. Y., assignor, by mesne assignments, to Warner Jewelry Case Company, Buffalo, N. Y., a Corporation of New York. Filed Mar. 27, 1909. Serial No. 486,111. (Cl. 70—3.)



1. The combination of the box-body, a strip applied to the inner side of the front wall of the body substantially parallel therewith and provided at its top with an inwardly-extending flange having a slot, a spring-actuated slide movable lengthwise of said strip and guided thereon underneath said slotted flange, the slide having an inwardly extending locking lug arranged on the underside of the slotted flange, and the box-cover having a catch arranged to pass through the slot of said flange and interlock with the lug of the slide.

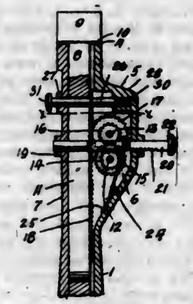
2. The combination of the box-body, a strip applied to the inner side of the front wall of the body substantially parallel therewith and provided at its top with a slotted inwardly extending flange having a depending lip at its inner edge, a spring-actuated slide guided on said strip to move lengthwise thereof, the slide having a locking lug arranged on the underside of said slotted flange, and the box-cover having a catch arranged to pass through the slot of said flange and interlock with the lug of the slide.

3. The combination of the box-body, a strip applied to the inner side of the front wall of the body substantially parallel therewith and provided at its top with a slotted inwardly-extending flange, said flange having a depending lip at its inner edge, a spring-actuated slide arranged on the underside of said slotted flange between said strip and said lip, a box-cover having a catch arranged to pass through said slotted flange and interlock with the slide, and means external to the box for shifting the slide to release the cover.

1,025,431. WRENCH. ANTONY SZABADOS, New Michel, British Columbia, Canada, assignor of one-half to Helena Mueller, New Michel, Canada. Filed Oct. 6, 1911. Serial No. 653,141. (Cl. 81—130.)

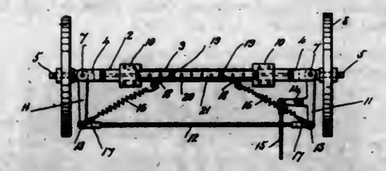
1. A wrench of the type described, comprising a channel handle, a jaw carried thereby, a shank slidably mounted in said handle, a jaw carried by the upper end of said shank, a rack carried by said shank within said handle, a train of gears arranged in said handle and adapted to move said shank, a push rod arranged in said handle and adapted to actuate said train of gears, and means arranged in said handle and adapted to lock said shank in an adjusted position.

2. A wrench comprising a channel handle, a face plate carried thereby, a jaw carried by the upper end of said handle, a slotted shank slidably mounted in said handle, a jaw carried by the upper end thereof, a rack carried by said shank, a train of gears arranged within said handle and adapted when actuated to move said shank, a spring pressed push rod arranged in said handle and adapted to actuate said train of gears, a push pin arranged



in said handle, and an arm carried by said pin within said handle and adapted to lock said shank in an adjusted position.

1,025,432. STEERING MECHANISM. ALBERT THEERMAN, Dike, Iowa. Filed Oct. 20, 1911. Serial No. 655,779. (Cl. 21—90.)



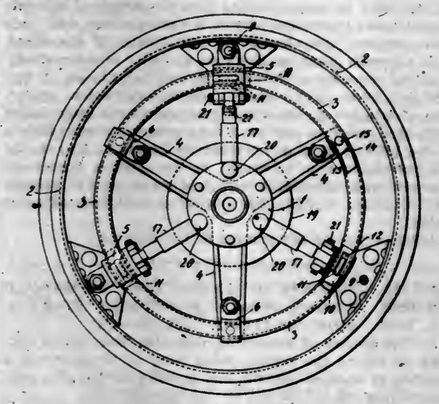
In a steering mechanism, the combination, with an axle having an offset middle portion arranged below the level of its end portions and having also plates secured to the upper side of its end portions, axle spindles for the road wheels pivoted to the end portions of the axle and provided with rearwardly projecting arms, and a coupling-rod pivoted to the said arms; of an anchor-bar secured between the said plates above the offset middle portion of the axle and provided with a series of holes, and helical springs arranged in inclined or diagonal positions and connected at one end to the pivot pins of the said arms and having at their other ends eye-bolts for engaging with the holes in the anchor-bar.

1,025,433. SPRING-WHEEL. CARL C. THOMAS, Madison, Wis. Filed Dec. 3, 1909. Serial No. 531,128. (Cl. 152—28.)

1. A spring wheel comprising a rim, a hub, and a plurality of cantaliver springs connecting said rim and hub and arranged approximately circularly, each said spring extending through a portion only of the complete circle, each said spring rigidly secured at an intermediate point to the hub, and secured rigidly near one end to the rim and slidably secured at the other end to the rim.

2. A spring wheel comprising two main members, namely, a rim and hub, and a plurality of cantaliver springs connecting said rim and hub and arranged approximately circularly, each said spring extending through a portion only of the complete circle, each such spring rigidly secured at an intermediate point to one of said main members, and secured at its ends to the other of such main members, one of its ends being so secured rigidly, the other end being free to move longitudinally.

3. A spring wheel comprising two main members, namely, a rim and hub, and a plurality of cantaliver-springs connecting said rim and hub and arranged approximately circularly, each said spring extending through a portion only of the complete circle, each such spring rigidly secured at an intermediate point to one of said main members, and means securing the ends of each such spring to the other of said main members, comprising frictional clamps which hold one end of each spring rigidly while permitting longitudinal motion of the other end of the spring.



4. A spring wheel comprising two main members, namely, a rim and hub, and a plurality of cantaliver springs connecting said rim and hub and arranged approximately circularly, each said spring extending through a portion only of the complete circle, the adjacent ends of the springs arranged to telescope one within another, each such spring rigidly secured at an intermediate point to one of said main members, and secured at its end to the other of such main members, one of its ends being so secured rigidly, the other end being free to move longitudinally.

5. A spring wheel comprising two main members, namely, a rim and hub, and a plurality of cantaliver springs connecting said rim and hub and arranged approximately circularly, each said spring extending through a portion only of the complete circle, each such spring rigidly secured at an intermediate point to one of said main members, and secured at its end to the other of such main members, one of its ends being so secured rigidly, the other end being free to move longitudinally, and dash pots interposed between the rim and hub and serving to cushion movement of one with respect to the other.

[Claims 6 to 14 not printed in the Gazette.]

1,025,434. CONCRETE PILING AND PILING UNITS. MAXWELL M. UPSON, Englewood, N. J. Filed Apr. 9, 1910, Serial No. 554,388. Renewed Sept. 26, 1911. Serial No. 651,462. (Cl. 61—52.)



1. A concrete sheet wall comprising a plurality of successively-adjacent concrete pile-units having a non-centering joint of concrete between two adjacent units, which concrete joint holds the joint-faces of said units against joint-spreading longitudinally of the piling.

2. Concrete piling comprising a plurality of successively-adjacent concrete pile-units having non-centering joints of concrete at the two joint-faces of a unit, which concrete joints hold said unit against joint-movement transversely of the piling.

3. Concrete piling comprising a plurality of successively-adjacent concrete pile-units having a non-centering joint

of concrete between two adjacent units, which concrete joint holds said unit against joint-movement longitudinally and transversely of the piling.

4. Concrete piling comprising a plurality of successively-adjacent concrete pile-units, two of which units adjacent to each other have each a single longitudinal projection of integral concrete from its joint-face, said projections having each an integral transverse projection of concrete from it, said transverse projections interlocking with each other against joint-spreading longitudinally of the piling.

5. Concrete piling comprising a plurality of successively-adjacent concrete pile-units, the two joint-faces of two adjacent units having each a single longitudinal projection of integral concrete, said two projections interlocking with each other to prevent joint-movement longitudinally of the piling and in one transverse direction; and means for preventing joint-movement in the opposite transverse direction and coöperating with said projections to provide and maintain a tight joint between said two adjacent units.

[Claims 6 to 18 not printed in the Gazette.]

1,025,435. PROCESS OF EXTRACTING VEGETABLE FIBER. CONRAD L. WEIBERG, Detroit, Mich. Filed Aug. 1, 1910. Serial No. 574,971. (Cl. 92—15.)

1. The process of separating vegetable fiber, which consists in boiling the stems, stalks, etc., of the plant in a solution of alkaline peroxid, and in the presence of a non-saponifying oil.

2. The process of extracting vegetable fiber, which consists in boiling the stems, stalks, etc., of plants in a solution having alkaline reaction, and in the presence of a non-saponifying oil, the initial treatment being with an alkaline peroxid, and a subsequent treatment with corrosive alkalis.

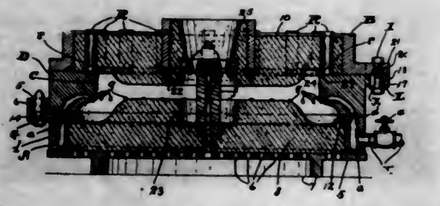
3. The process of separating vegetable fiber, which consists in boiling the stalks, stems, etc., of plants in a solution containing alkaline peroxid and a non-saponifying heavy oil and then introducing corrosive alkalis and boiling for a further period and in then drawing off the solution and washing the fiber.

4. The process of separating vegetable fiber, which consists in boiling the stems, stalks, etc., of plants, in a solution of alkaline peroxid, and in the presence of a protective oil of a non-saponifying nature.

5. The process of separating vegetable fiber which consists in boiling the stalks, stems, etc., of the plant in a solution of alkaline peroxid.

[Claims 6 to 11 not printed in the Gazette.]

1,025,436. ART OF MAKING METAL CASTINGS. THOMAS D. WEST, Cleveland, Ohio. Filed Aug. 28, 1911. Serial No. 646,457. (Cl. 22—213.)



1. An improvement in the art of making metal castings, consisting in pouring a mold in which a casting is to be formed and, upon the formation of a crust on the body of hot metal in the mold and creating a space next exteriorly of said crust while the crusted body of metal or casting is within the mold, supplying a heat-absorbing medium to said space and in contact with said crust, and causing said heat-absorbing medium upon the absorption of heat from the metal to escape from the mold.

2. An improvement in the art of making metal castings, consisting in pouring a mold in which a casting is to be formed and, upon the formation of a crust on the body of hot metal in the mold and the creation of a space next exteriorly of said crust while said body of metal is within the mold, causing fluid to pass into and through said space.

3. An improvement in the art of making metal castings, consisting in pouring a mold in which a casting is to be formed and, upon the formation of a crust on the body of hot metal in the mold and creating a space next exteriorly of said crust while said body of metal is within the mold, supplying a pneumatic pressure to said space.

4. An improvement in the art of making metal castings, consisting in chilling a body of molten metal supplied to a mold and thereby forming a chilled crust on said body, and then introducing a heat-absorbing medium to said chilled crust and causing said heat-absorbing medium upon the absorption of heat from the crusted body of hot metal or casting to escape from the mold.

5. An improvement in the art of making metal castings, consisting in pouring a mold and forming a chilled crust on the body of molten metal supplied to the molten-metal-receiving chamber of the mold and creating a space next exteriorly of said chilled crust while said body of metal is within the mold, and then treating the crusted and already chilled body of hot metal or casting by causing a heat-absorbing medium to pass through said space.

[Claims 6 to 14 not printed in the Gazette.]

1,025,437. MOLD FOR MAKING METAL CASTINGS. THOMAS D. WEST, Cleveland, Ohio. Filed Oct. 12, 1911. Serial No. 654,340. (Cl. 22—128.)



1. The combination, with a wall of a molten-metal-receiving chamber of a mold, which wall has a passageway formed therein, which passageway connects with and is adapted to discharge into said chamber, of a closure normally obstructing communication through said passageway and movable out of its passageway-obstructing position, and means for supplying a heat-absorbing medium to said passageway.

2. In a mold for making metal castings, a circular chamber for receiving molten metal, passageways spaced circumferentially of said chamber and connecting with and adapted to discharge into the chamber, closures normally obstructing communication through said passageways and movable out of their passageway-obstructing position, means for supplying a heat-absorbing medium to said passageways, and means whereby fluid is permitted to escape from the aforesaid chamber.

3. The combination, with the wall of a molten-metal-receiving chamber of the mold, which wall has a passageway formed therein, which passageway connects with and is adapted to discharge into said chamber, and means for supplying a heat-absorbing medium to said passageway, of a closure normally obstructing communication through said passageway and movable out of its passageway-obstructing position, and means acting to retain said closure in its passageway-obstructing position.

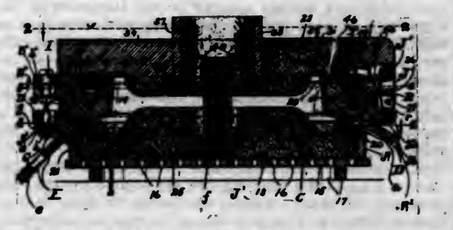
4. The combination, with the wall of a molten-metal-receiving chamber of a mold, which wall has a passageway formed therein, which passageway connects with and is adapted to discharge into said chamber, said wall having a beveled valve-seat formed at the discharging end of said passageway and facing said chamber, of a valve normally closing the discharging end of said passageway, which valve is provided with an orifice which is

continually in communication with said passageway and arranged to discharge into said chamber.

5. In a mold for making circular metal castings, a vertically arranged circular chamber for receiving molten metal; passageways spaced circumferentially and formed in the surrounding wall of said chamber and connecting with and adapted to discharge into said chamber a suitable distance below the upper end of the chamber; valves normally closing the discharging ends of said passageways; means for supplying a heat-absorbing medium to said passageways, and means for permitting the escape of fluid from the upper portion of said chamber.

[Claims 6 to 41 not printed in the Gazette.]

1,025,438. MOLD FOR CASTING CIRCULAR OBJECTS. THOMAS D. WEST, Cleveland, Ohio. Filed Feb. 20, 1911. Serial No. 609,593. Renewed Oct. 18, 1911. Serial No. 655,397. (Cl. 22—128.)



1. In a mold for casting a circular object, the combination, with a chill instrumental in forming the surrounding wall of the molten-metal-receiving chamber of the mold, and casting-centering means normally arranged to be operated to center a casting formed in the said chamber, of means whereby the said casting-centering means is operated to center the casting by the expansion of the chill by heat and then returned to its normal arrangement by the cooling and contraction of the expanded chill.

2. In a mold for casting a circular object, the combination, with a substantially vertically arranged chill instrumental in forming the surrounding wall of the molten-metal-receiving chamber of the mold, and casting-centering means normally arranged to be operated to center a casting formed in the said chamber, of means whereby the said casting-centering means is operated to center the casting by the lateral and outward expansion of the chill by heat and then returned to its normal arrangement by the horizontal contraction of the laterally and outwardly expanded chill during the cooling of the chill.

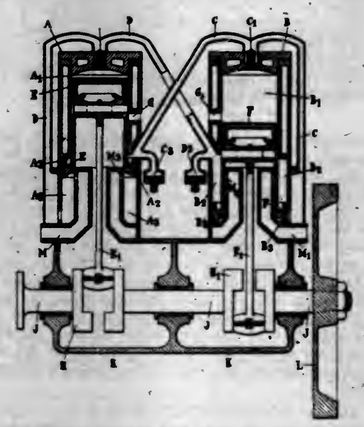
3. In a mold for casting a circular object, the combination, with a substantially vertically arranged chill instrumental in forming the surrounding wall of the molten-metal-receiving chamber of the mold, and suitably supported movable casting-centering members spaced circumferentially of the chill and normally in position to move inwardly and thereby participate in centering a casting formed in the said chamber, of means instrumental in actuating the casting-centering members inwardly and outwardly relative to the said chamber and having the operation thereof for effecting the inward movement of the casting-centering members controlled by the expansion of the chill by heat and having the operation thereof for effecting the outward movement of the said casting-centering members upon the said expansion of the chill controlled by the contraction of the expanded chill.

4. In a mold for casting a circular object, the combination, with a substantially vertically arranged chill instrumental in forming the surrounding wall of the molten-metal-receiving chamber of the mold, and suitably supported casting-centering members spaced circumferentially and movable laterally of the chill and normally in position to move inwardly and thereby participate in centering a casting formed in the said chamber, of means instrumental in actuating the casting-centering members inwardly and outwardly relative to the said chamber and having the operation thereof for effecting the inward movement of the casting-centering members controlled by the lateral and outward expansion of the chill by heat and having the operation thereof for effecting the outward movement of the said casting-centering members upon the said expansion of the chill controlled by the cooling and horizontal contraction of the laterally expanded chill.

5. In a mold for casting a circular object, the combination, with a substantially vertically arranged chill instrumental in forming the surrounding wall of the molten-metal-receiving chamber of the mold, and casting-centering means normally arranged to be operated to center a casting formed in the said chamber, of suitably supported levers operatively connected with the said casting-centering means, which levers operate the said casting-centering means to center the casting during the movement of the levers in one direction and have their said movement controlled by the expansion of the chill by heat.

[Claims 6 to 31 not printed in the Gazette.]

1,025,439. INTERNAL-COMBUSTION ENGINE. HARRY WHIDBOURNE, Plymouth, and JOHN JAMES LISHMAN, Salcombe, England. Filed Aug. 24, 1911. Serial No. 645,819. (Cl. 123—59.)



1. An internal combustion engine comprising cylinders arranged in pairs each of which has a cylindrical working chamber, a fixed sleeve forming with the walls of the cylinder, an annular chamber, a working piston having an enlarged portion dividing this annular chamber into two compartments and sliding over said fixed sleeve, means for supplying air to one of the compartments of the annular chamber in each cylinder, means for supplying gas to the other compartment of the annular chamber, conduits cross-connecting the air comparfment in the annular chamber of one cylinder and the gas compartment in the annular chamber of the other cylinder and connections between said cross-connecting conduits and the cylindrical working chambers each cross-connecting conduit being so positioned and constructed that a charge of gas is drawn in at one end and a charge of air at the other end simultaneously during one stroke of the engine while these independent charges of air and gas are simultaneously compressed from each end of the conduit during the next stroke whereby independent charges of air and gas are transferred to said cross-connections and thence to the cylindrical working chambers.

2. An internal combustion engine comprising cylinders arranged in pairs each of which has a cylindrical working chamber, a fixed sleeve forming with the walls of the cylinder, an annular chamber, a working piston having an enlarged portion dividing this annular chamber into two compartments and sliding over said fixed sleeve, means for supplying air to one of the compartments of the annu-

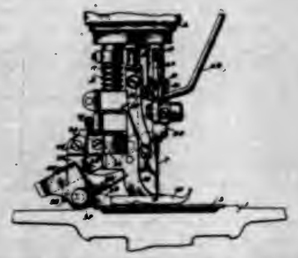
lar chamber in each cylinder, means for supplying gas to the other compartment of the annular chamber, conduits cross-connecting the air compartment in the annular chamber of one cylinder and the gas compartment in the annular chamber of the other cylinder, each cross-connecting conduit having an enlargement at the gas inlet end so that a charge of gas is drawn in at one end and a charge of air at the other end simultaneously during one stroke of the engine while these independent charges of air and gas are simultaneously compressed from each end of the conduit during the next stroke, and a connection between each cylindrical working chamber and that one of the cross-connecting conduits which connects the gas receiving compartment in the annular chamber of the same cylinder with the air receiving compartment in the annular chamber of the fellow cylinder whereby one compartment of the annular chambers is utilized for supplying a scavenging charge for the cylindrical working chamber of the fellow cylinder and the opposite compartment of the other annular chamber is utilized for supplying a working charge of gas for the same cylinder.

1,025,440. MOUTHPIECE FOR TOBACCO-PIPES AND CIGARETTE-HOLDERS. MAX WITTENBERG, Manchester, England. Filed Apr. 25, 1911. Serial No. 623,185. (Cl. 131—12.)



A mouthpiece for tobacco pipes and cigarette holders the bite end of which has a small ridge and the face of which bite end lies at right angles to the longitudinal axis of the mouthpiece from a point below the bore of the mouthpiece and which also has a lip or projection below the bore, said lip or projection extending outwardly and away from the said face of the bite and then upwardly at an oblique angle to a point level with the top of the said ridge, the bottom or floor of the channel left between the lip and bite being inclined from the center downward to the outer edges and the face of the lip opposite the said face of the bite being inclined outwardly from the lower to the upper end, so as to direct the smoke upwardly and against the roof of the smoker's mouth, as set forth.

1,025,441. OVEREDGE SEWING AND CUTTING MACHINE. CHARLES M. ABERCROMBIE, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 3, 1910. Serial No. 559,050. (Cl. 112—6.)



1. In a sewing machine, a stitch-forming mechanism including two needles each having sidewise movements to form parallel lines of stitches, a piercer having vertical movements to form openings in the fabric being acted on into which said needles descend in the formation of the inner lines of said stitches, and a cutting mechanism whose coacting blades are arranged in a line corresponding to the direction of the feed of said fabric and operatively connected with the actuating mechanism of the sewing machine to sever said fabric at the rear of and in line with said piercer openings during the stitching operation.

2. In a sewing machine, a stitch-forming mechanism including two needles each having sidewise movements to form parallel lines of stitches, a piercer having vertical movements to form openings in the fabric being acted on into which said needles descend in the formation of the inner lines of said stitches, a cloth presser mechanism including a vertically moving cloth-presser carrying bar, and a cutting mechanism secured to the lower end of said bar whose coacting blades are arranged in a line corresponding to the direction of the feed of said fabric and operatively connected with the actuating mechanism of the sewing machine to sever said fabric at the rear of said piercer and in line with said piercer openings during the stitching operation.

3. In a sewing machine, a stitch-forming mechanism including two needles each having sidewise movements to form parallel lines of stitches, a piercer having vertical movements to form openings in the fabric being acted on into which said needles deacend in the formation of the inner lines of said stitches, a cutting mechanism whose coacting blades are arranged in a line corresponding to the direction of the feed of said fabric and operatively connected with the actuating mechanism of the sewing machine to sever said fabric at the rear of and in line with said piercer openings, and a throat-plate provided with a rib over which said fabric is advanced to said cutting mechanism.

4. In a sewing machine, a stitch-forming mechanism including a needle-bar carrying two eye-pointed needles each of which are given sidewise movements to form parallel lines of stitches, a piercer having vertical movements to form openings in the fabric being acted on into which said needles descend in the formation of the inner lines of said stitches, a cutting mechanism whose coacting blades are arranged in a line corresponding to the direction of the feed of said fabric and operatively connected with said needle-bar to sever said fabric at the rear of said piercer and in line with said piercer openings, and a throat-plate provided with a rib over which said fabric is advanced to the action of said cutting mechanism.

5. In a sewing machine, a stitch-forming mechanism including a needle-bar carrying two eye-pointed needles each of which are given sidewise movements to form parallel lines of stitches, a piercer having vertical movements to form openings in the fabric being acted on into which said needles descend in the formation of the inner lines of said stitches, a cloth-presser mechanism including a vertically moving cloth-presser carrying bar, a cutting mechanism secured to the lower end of said bar whose cutting blades are arranged in a line corresponding to the direction of the feed of said fabric and operatively connected with said needle-bar to sever said fabric at the rear of said piercer, and a throat-plate provided with a rib over which said fabric is advanced to the action of said cutter.

1,025,442. ELECTRIC-LIGHT BRACKET. ALBERT F. ANDERSON and CHARLES W. ARMSTRONG, Tacoma, Wash. Filed Feb. 9, 1911, Serial No. 607,551. Renewed Dec. 18, 1911. Serial No. 666,612. (Cl. 248—1.)



In an electric light bracket, the combination with a wall plate; of a pair of vertical pintles secured thereto and lying in the same axis; a pair of hinge strips bent around said pintles; slotted links pivotally secured to each of said hinge strips and crossing each other; a friction clamp passing through the slots of said links and holding them in movable adjusted relation to each other at their crossing point; sets of crossed equal bars, each pivoted at their crossing points, and at their ends, to form an extensible bracket and pivoted to the ends of said slotted links; a pair of short bars pivoted together at one end and to the end bars of the bracket at the other end to form the end of said bracket; a goose neck adjustably pivoted to the end of said short bars; an electric lamp socket mounted on said goose neck; and an electric conductor following one set of said crossed bars of the bracket and connected to said lamp socket.

1,025,443. CORRUGATED SHEET. EDWARD H. ANGIER, Quincy, Mass. Filed Feb. 11, 1911. Serial No. 607,897. (Cl. 154—55.)



1. A composite sheet comprising a layer of corrugated stiffening material, a sheet-like waterproof layer secured to the ridges of the corrugations, and a wear-resisting layer of textile fabric applied to said waterproof layer for protecting the same.

2. A composite sheet comprising a layer of corrugated stiffening material, a sheet-like waterproof layer secured to the ridges of the corrugations, and a wear-resisting fabric layer in adhesive engagement with said waterproof layer for protecting the same.

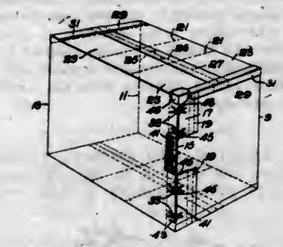
3. A composite sheet comprising a layer of corrugated stiffening material, a sheet-like waterproof layer secured to the ridges of the corrugations, and a reticulated fabric layer applied to said waterproof layer for protecting the same.

4. A composite sheet comprising a layer of corrugated stiffening material, a sheet-like waterproof layer secured to the ridges of the corrugations, and a fabric layer applied to said waterproof layer and presenting a fabric wear-resisting surface.

5. A composite sheet comprising a layer of corrugated stiffening material, a sheet-like waterproof layer secured to the ridges of the corrugations, and a protective fabric layer having fibers thereof somewhat embedded in the waterproof material of said waterproof layer.

[Claims 6 to 9 not printed in the Gazette.]

1,025,444. CARTON. EDWARD H. ANGIER, Quincy, Mass. Filed Sept. 18, 1911. Serial No. 649,806. (Cl. 229—6.)



1. A carton of composite sheet material comprising a corrugated layer, a waterproof layer and a textile fabric layer; said sheet forming the sides of the carton and presenting meeting ends, the waterproof and fabric layers of one of said ends being extended beyond the corrugated layer of said end and forming a margin overlapping the other end of said sheet and in adhesive engagement therewith.

2. A carton of composite sheet material comprising a corrugated layer, a paper layer, a waterproof layer and a textile fabric layer; said sheet forming the sides of the carton and presenting meeting ends, the paper, waterproof and fabric layers of one end being extended beyond the corrugated layer of said end and forming a margin overlapping the other end of said sheet and in adhesive engagement therewith, said waterproof and textile fabric layers being extended beyond the edge of the paper layer and in direct adhesive engagement with the side of said carton.

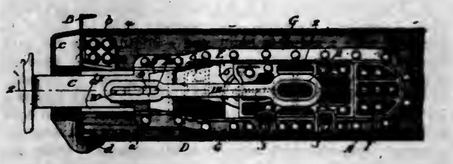
3. A carton of sheet material having sides, and meeting end flaps, and a waterproof sealing strip composed of a paper layer, a waterproof layer and a fabric layer for adhesive engagement with and to seal said flaps.

4. A carton comprising sides and end flaps; and sealing strips, each comprising paper, waterproof and fabric layers, for adhesive sealing engagement with the corners of the carton at the juncture of the edges of said sides with the edges of said flaps.

5. A collapsible carton having sides presenting meeting ends and hinged staples for securing said ends together.

[Claims 6 to 12 not printed in the Gazette.]

1,025,445. DRAFT-RIGGING. WILLIAM P. BETTENDORF, Davenport, Iowa; J. W. Bettendorf administrator of said William P. Bettendorf, deceased. Filed May 23, 1908. Serial No. 434,669. (Cl. 213—42.)



1. The combination with a draft-rigging, of an end-sill, a frame secured to the outer side thereof and surrounding an opening through which the draw-bar extends, and a single I-beam center-sill the end of which is bifurcated to receive said draw-bar and the lower bifurcation of which is secured to said frame below said draw-bar.

2. The combination with a draft-rigging, of suitable end-sills and a single I-beam center-sill the ends of which are bifurcated and secured to said end-sills, and which is provided with a longitudinally elongated opening in alinement with the space between said bifurcations from which it is separated by a portion of the web of said beam.

3. The combination with a draft-rigging, of suitable end-sills, and a single I-beam center-sill the ends of which are bifurcated and secured to said end-sills, and which is provided with a longitudinally elongated opening for the reception of the parts of said draft-rigging, which is separated from the space between said bifurcations by a web integral with the web of said I-beam, and is of a greater height than said space.

4. The combination with a draft-rigging, of suitable end-sills, and a single I-beam center-sill the ends of which are bifurcated and secured to said end-sill, and a longitudinally elongated opening in the web of said I-beam which alines with and is separated from the space between said bifurcations by a portion of the web of the I-beam, and means for reinforcing the end of said opening farthest from the end-sill.

5. The combination with a draft-rigging, of suitable end-sills, and a single I-beam center-sill the ends of which are bifurcated and secured to said end-sill, and a longitudinally elongated opening in the web of said I-beam, which alines with and is separated from the space between said bifurcations by a portion of the web of the I-beam, and a reinforcing plate at the end thereof farthest from said draw-bar.

[Claims 6 to 23 not printed in the Gazette.]

1,025,446. GUARD-CLEAT FOR RAILWAY-CAR DOORS. WILLIAM P. BETTENDORF, deceased, Bettendorf, Iowa, by Joseph W. Bettendorf, administrator, Davenport, Iowa. Filed Aug. 13, 1910. Serial No. 577,096. (Cl. 20—26.)

1. The combination with a car having a door-opening, and a vertical guard-cleat, one vertical edge of which is

hinged to the side of the car adjacent to the side of said opening and the other edge of which is constructed to engage the front of the door, of a sliding-door, the rear vertical edge of which when closed is engaged by the outer edge of said cleat, and means that close the space between the door and the adjacent edge of the door-opening.



2. The combination of a car having side-walls provided with a suitable doorway, one vertical edge of which is provided with a suitable jamb, and a sliding door for said doorway, of a vertical guard-cleat, one vertical edge of which is hinged to the side of the car adjacent to the side of the doorway opposite said jamb-plate, while the opposite vertical edge is constructed to engage the front of the door and is adapted to be swung outward to engage and seal the adjacent rear edge of the door, and means that close the space between the door and the adjacent edge of the door-opening.

3. The combination of a car having side-walls provided with a suitable doorway, one vertical edge of which is provided with a suitable jamb, and a sliding door for said doorway, of a vertical guard cleat, one vertical edge of which is hinged to the side of the car adjacent to the side of the doorway opposite said jamb-plate, while the opposite vertical edge is constructed to engage the front of the door and is adapted to be swung outward to engage and seal the adjacent rear edge of the door, a latch carried by said cleat that is adapted to engage a member on said door and lock said door, and means that close the space between the door and the adjacent edge of the door-opening.

1,025,447. ARTICLE OF JEWELRY. FRANK BLUME, Chicago, Ill. Filed Feb. 23, 1911. Serial No. 610,217. (Cl. 63—31.)



1. In an article of jewelry, the combination of a spring motor and design carrying members rotated by said motor, a hub sleeve on one of said design carrying members, a companion sleeve on one of the gears rotated by the spring motor and adapted to hold the sleeve of the said design carrying member, a screw threaded stem concentric with said hub sleeve and rotated by said spring motor, a screw threaded sleeve adapted for engagement with the screw threaded stem, said threaded sleeve being connected with the other design carrying member.

2. In an article of jewelry, the combination of a spring motor and a plurality of concentric design carrying members, a hub sleeve on one of said design carrying members, a companion sleeve rotated by the spring motor and adapted to hold the sleeve of the design carrying member, shoulders on said companion sleeve and in engagement with the edge of the hub sleeve of the design carrier, a screw threaded stem and means on the other design carrier for engagement with the threads of the stem.

3. An article of jewelry comprising in combination a spring motor and a plurality of design carrying members rotated by said spring motor, a hub sleeve on one of the design carrying members, a companion sleeve rotated by the spring motor and adapted to hold the hub sleeve of the design carrying member, a screw threaded stem rotated by said spring motor, means for securing the other design carrying member to said stem and a stationary bracket interposed between said companion sleeve and the screw threaded stem.

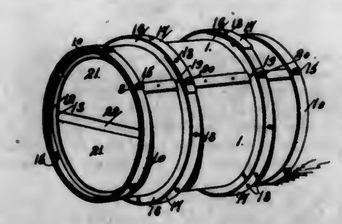
4. An article of jewelry comprising in combination a spring motor and a plurality of design carrying members, a hub sleeve carried by one of said design carrying members, a companion sleeve rotated by said spring motor and adapted to hold the hub sleeve of said design carrying member, a screw threaded stem rotated by the spring motor and means for securing the other design carrying member to said stem, a bracket interposed between said stem and said companion sleeve and serving as bearing for said stem and said sleeve, another bracket, a casing for said spring motor, said other bracket projecting from said casing and being provided with a circumferential flange.

1,025,448. LADY'S TOILET DEVICE. ALEXANDER BURNET and HERBERT TEMPLE, London, England. Filed June 2, 1911. Serial No. 630,914. (Cl. 132—3.)



A lady's toilet device, comprising a body portion of sheet metal having a handle at one end and a comb at the other end, the teeth of the comb extending longitudinally of the handle and having their free end portions arranged at an angle to their body portions, and an outwardly extending spring tongue formed in the body portion adjacent to the comb, said tongue being arranged to project downwardly toward the handle and being adapted to be sprung into engagement with the top of a support and to support the comb in a raised position with the handle bearing against the said support.

1,025,449. PACKING AND STORING VESSEL. BRITTON E. BYRD and WILLIAM M. FALLON, Durham, N. C. Filed Apr. 14, 1911. Serial No. 621,169. (Cl. 220—4.)



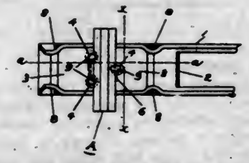
1. A knock-down cask composed of two semi-cylindrical sheet material sections, union strips for joining the longitudinal edges of said sections and each consisting of an inner and an outer strip and an intermediate spacing strip secured together, bands on the outside ends of said sections, means removably securing said bands to said sections, disk-like heads in said sections and a ring removably secured in each end of said sections to retain said heads, said outer strips being of less length than the length of said semi-cylindrical sections to abut said outside bands on the ends of said sections, and said spacing strip being of substantially the same length as said semi-cylindrical sections.

2. A knock-down cask composed of two semi-cylindrical sheet material sections, union strips for joining the longitudinal edges of said sections and each consisting of an inner and an outer strip and an intermediate spacing strip secured together, rings on the inside ends of said sections, bands on the outside ends of said sections, means removably securing said bands to said sections, and runner bands of greater depth than said end bands, and fitted over said sections between the ends thereof, said inner and outer strips abutting said inner rings and said outside bands at the ends of said sections.

3. A knock-down cask composed of a plurality of part-cylindrical sheet material sections, union strips for joining the longitudinal edges of said sections and including longitudinal edge grooves for receiving the longitudinal edges of said sections, the groove portion of said union strips being of less length than that of said part-cylindrical sections, said union strips including tongues projecting to the ends of said part-cylindrical sections, an inner abutment band held in the ends of said part-cylindrical sections, outer bands on the outside ends of said sections, said tongues projecting between said bands, and means securing said end bands to said tongue, together with disk like heads retained in said sections by said inner bands.

4. A knock-down cask composed of a plurality of part-cylindrical sheet material sections, union strips for joining the longitudinal edges of said sections and including longitudinal edges grooves for receiving the longitudinal edges of said sections, the groove portion of said union strips being of less length than that of said part-cylindrical sections, said union strips including tongues projecting to the ends of said part-cylindrical sections, an inner abutment band held in the ends of said part-cylindrical sections, outer bands on the outside ends of said sections, said tongues projecting between said bands, and means securing said end bands to said tongue, together with disk like heads retained in said sections by said inner bands, and runner hoops on the outside of said sections intermediate the ends, said runner hoops having cut-away portions to receive said union strips, and means securing said runner hoops to said union strips.

1,025,450. RAILWAY-TIE AND FASTENER. ARTHUR C. CANDLAND, Provo, Utah. Filed Sept. 9, 1911. Serial No. 648,541. (Cl. 238—5.)



1. A railway tie and fastener consisting of an upturned metal channel having its sides creased inwardly at the upper edges, a concrete block formed of plastic material within each end of said channel, a transverse recess in each block, and a cushion block adapted to fit closely within each of said recesses.

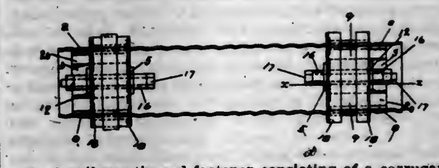
2. A railway tie and fastener consisting of an upturned metal channel having the middle portion of the bottom cut out and its sides creased inwardly at the upper edges, a concrete block formed of plastic material within each end portion of said channel, a transverse recess in the upper side of each of said blocks having its bottom below the upper edge of said metal channel, and a cushion block closely fitted in each recess.

3. A railway tie and fastener consisting of two concrete blocks formed of plastic material each within the end portion of an upturned metal channel, a transverse recess in the upper side of each block, spiral springs vertically embedded within each of said blocks adjacent said recesses each of said springs formed into a cylinder with a portion of the spring material forming a closure for the bottom of said cylinder, and a cushion block in each of said recesses.

4. A railway tie and fastener consisting of two concrete blocks formed of plastic material each within the end portion of an upturned metal channel, a transverse recess in the upper side of each block, spirally formed cylinders vertically embedded in said blocks adjacent said recesses, a closure for the bottom of said cylinders consisting of a portion of the material of which said cylinders are formed bent diametrically thereacross, and a spike having a thin wedgelike point adapted to fit closely within said cylinders.

5. A railway tie and fasteners consisting of two concrete blocks, a transverse recess in the upper side of each, spirally formed cylinders vertically embedded in each of said blocks adjacent said recesses and with a portion of the material from which said cylinders are formed bent diametrically across the bottom of said cylinders, a spike having a thin wedge-like point adapted to fit closely within said cylinders, and a cushion block adapted to fit within said recesses.

1,025,451. RAILWAY-TIE AND FASTENER. ARTHUR C. CANDLAND, Provo, Utah. Filed Nov. 23, 1911. Serial No. 662,067. (Cl. 238—5.)



1. A railway tie and fastener consisting of a corrugated open top channel, having closed sides and bottom; detachable reinforcing members carried in said channel each provided with an inverted U-shaped groove extending longitudinally therein and having a transverse slot near the end of said groove; a portion of the sides of said reinforcing members being bent downward to hook over the sides of said channel; upstanding portions forming shoulders on said reinforcing members adjacent said bent down portions; a lock piece formed by the top of said U-shaped groove being extended and bent upwardly at right angles and having an elongated hole therein; clamps adapted to engage the base flange of a rail; detachable locking members each having an elongated hole therein, and a portion bent at right angles and adapted to fit snugly within said transverse slots and to engage with the underside of the said groove in said reinforcing members; and means to detachably secure said reinforcing members in said channel.

2. A railway tie and fastener consisting of a corrugated, open top channel, said channel having closed sides and bottom; detachable reinforcing members carried therein, a portion of the sides of each of said reinforcing members being bent downward to hook over the sides of said channel; another portion provided with an inverted U-shaped groove extending longitudinally therein and having a transverse slot in the top and near the end of said groove; fibrous rail supporting blocks; a lock piece formed by the top of said U-shaped groove being extended and bent vertically upward and having an elongated hole therein; clamps bent to engage the base flange of a rail, each having an elongated hole therein, said holes partially registering with the holes in said lock piece; detachable locking members each having an elon-

gated hole therein and having a portion bent at right angles, and adapted to fit snugly within said transverse slots, and to engage the under side of said grooves; U-shaped wedge washers, adapted to fit snugly within the elongated holes within said bent-up lock pieces, said clamps and said detachable locking members; a bolt having a nut thereon adapted to fit within said U-shaped wedge washers, with the head of said bolt engaging with the larger end of one of said washers, and the nut on said bolt engaging with the larger end of the other of said washers, and adapted to force said washers along each other, and thereby cause the partially registering elongated holes in the said lock piece, locking member, and said clamps to more nearly register, and thereby bind the said clamps against the base flange of the rail.

3. A railway tie and fastener consisting of an open topped channel; reinforcing members detachably fastened therein; provided with an inverted U-shaped groove longitudinally formed in each with a transverse slot in said groove; locking members each having a portion thereof bent to engage the underside of said U-shaped grooves, and fitted within said transverse slots; clamps having one edge bent to grip the base flange of a rail; a lug on the lower side of said clamps adapted when in said transverse slots to prevent the withdrawal of the said locking members from said slots; cushion blocks fitted between said clamps, and each having a horizontal opening therethrough; U-shaped wedge washers, slidably movable on each other, and within the elongated openings in said locking members and said clamps; and means to drive said wedges in longitudinally opposed directions, said means consisting of a bolt, with a threaded nut thereon adapted to drive one of said washers in one direction, and the other simultaneously in the opposite direction.

4. A railway tie and fastener consisting of an open topped channel; reinforcing members detachably fastened therein provided with an inverted U-shaped groove longitudinally formed therein with transverse slots in said grooves; a lock piece integrally formed on the end of each of said reinforcing members and having an elongated opening therein; clamps having one edge bent to engage the base flange of a rail, and an elongated opening in each; cushion blocks fitted between said clamps, and having a horizontal opening therethrough; U-shaped wedge washers slidably movable on each other, and within said elongated openings in said lock pieces and said clamps; and a bolt with a threaded nut thereon adapted to drive one of said washers in one direction, and the other simultaneously in the opposite direction.

5. A railway tie and fastener consisting of an open channel; reinforcing members detachably fastened therein, having an inverted U-shaped longitudinally formed groove with a transverse slot in the top and near one end thereof; a lock piece formed by the top of said U-shaped groove, being extended and bent upwardly at right angles, and having an elongated hole therein, locking members each having a portion thereof bent to engage the under side of said U-shaped grooves and to fit within said transverse slots; clamps bent to engage the base flange of a rail each having an elongated hole therein, said holes partially registering with the holes in said lock pieces; other clamps bent to engage the base flange of a rail, and having similar holes therein, partially registering with the holes in said locking member; fibrous rail supporting blocks having a horizontal opening through each, fitted between said clamps; U-shaped wedge washers slidably movable on each other, and within said elongated openings in said lock pieces, locking members, and clamps; and means to drive said wedges in longitudinally opposed directions.

[Claim 6 not printed in the Gazette.]

1,025,452. RAILWAY-TIE. ARTHUR C. CANDLAND, Provo, Utah. Filed Nov. 23, 1911. Serial No. 662,068. (Cl. 238—5.)

1. A railway tie consisting of two metallic shells having closed sides and partially closed bottoms, and with the sides of one extended and bent together and detachably fastened to the extended and bent together sides of the other, and a concrete block in each shell having spike sockets formed therein.



2. A railway tie consisting of metallic shells having closed sides inclined toward each other, and with portions of the sides of one extended and bent together and detachably fastened between the extended and bent together sides of the other shell, a concrete block in each shell having spike sockets formed therein, and pieces of fibrous material and metallic stays embedded in said concrete blocks adjacent the bottom of said spike sockets adapted to hold spikes driven into said spike sockets.

3. A railway tie consisting of metallic shells having the sides of each inclined inwardly and partially corrugated, and with the sides of one extended and bent to be detachably fastened to the extended and bent together sides of the other, a concrete block in each shell having spike sockets formed therein, a transverse channel in each block, pieces of fibrous material and metal stays transversely embedded in said concrete blocks adjacent the bottom of said spike sockets adapted to hold spikes when driven in said spike sockets, and a cushion block in each of said channels.

4. A railway tie consisting of metallic shells having the sides of each inclined inwardly and partially corrugated, and with the sides of one extended and bent to be detachably fastened to the extended and bent together sides of the other, a concrete block in each shell having spike sockets formed therein, a transverse channel in each block, pieces of fibrous material and metal stays transversely embedded in said concrete blocks adjacent the bottom of said spike sockets, adapted to hold spikes when driven in said spike sockets, and a spike having a spur thereon the upper face of which is concave, and a key adapted to be driven adjacent said spike with the point adapted to penetrate said piece of fibrous material adjacent and around the metal stay in said material.

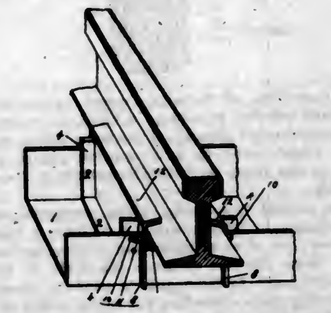
5. A railway tie consisting of metallic shells having the sides of each inclined inwardly and with the sides and bottoms partially corrugated, and with the sides of one extended and bent to be detachably fastened to the extended and bent together sides of the other, a concrete block in each having spike sockets formed therein, a transverse channel in each block, pieces of fibrous material and metal stays transversely embedded in said concrete blocks adjacent the bottom of said spike sockets adapted to hold spikes when driven in said spike sockets, and a cushion block in each of said channels.

[Claim 6 not printed in the Gazette.]

1,025,453. RAILWAY-RAIL FASTENER. ARTHUR C. CANDLAND, Provo, Utah. Filed Dec. 9, 1911. Serial No. 664,877. (Cl. 238—5.)

1. A railway fastener consisting of reinforcing members adjustably secured within an upturned channel, cushion blocks within said reinforcing members, clamps in said reinforcing members a portion adapted to grip the base flange of a rail supported by said blocks and another portion extended to lock the sides of said channel from outward movement, elongated circular openings in said clamps, locking cylinders integrally formed on the sides of said reinforcing members with the openings therethrough partially registering with the said elongated openings in said clamps, and a locking bolt having a cone shaped head and a cone shaped nut thereon passing through said elongated openings and said locking cylinders and tending to draw said clamps downward and toward each other.

2. A railway fastener consisting of reinforcing members adjustably secured within an upturned metal channel, logs extending above the sides of said channel integrally formed on the edges of said reinforcing members, cushion blocks in said reinforcing members, clamps transversely fitted in said reinforcing members adapted to grip the base flange of a rail supported on said blocks, an extended portion on each end of each clamp adapted to lock the sides of said channel against outward movement and having an elongated opening therein, locking cylinders integrally formed on the upper edges of said reinforcing members and between said lugs with the opening through said cylinders partially registering with the elongated openings in said clamps, bolts each having a cone shaped head placed through each of said cylinders with the head in the elongated openings in said clamps, and a frusto-conically shaped nut on said bolt in the elongated opening of the opposed clamp adapted to draw the said clamps downward and inward in gripping contact with said rail.



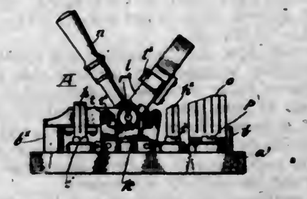
3. A railway fastener consisting of reinforcing members adjustably secured within an upturned metal channel, clamps transversely placed in said reinforcing members adapted to grip the base flange of a railway rail, and means to draw said clamps downward in said reinforcing members and inward to grip the base flange of said rail.

4. A railway fastener consisting of reinforcing members adjustably secured within an upturned metal channel, cushion blocks carried in said reinforcing members, clamps transversely placed in said reinforcing members adjacent said blocks and adapted to grip the base flange of a railway rail, and means to draw said clamps downward and toward each other in pairs to grip the base flange of a rail.

5. A railway fastener consisting of reinforcing members adjustably secured within an upturned metal channel, cushion blocks carried in said reinforcing members, clamps transversely placed in said reinforcing members adjacent said blocks and adapted to grip the base flange of a railway rail, locking cylinders integrally formed on the edges of said reinforcing members, and a locking bolt having a cone shaped head and a cone shaped nut thereon passing through said clamps and each of said locking cylinders tending to draw said clamps downward and toward each other in pairs to grip the base flange of a railway rail.

[Claim 6 not printed in the Gazette.]

1,025,454. DOUBLE-THROW SWITCH. ROBERT CANNAN and JOSEPH A. MISLAND, Brooklyn, N. Y. Filed June 7, 1907. Serial No. 377,817. (Cl. 175—287.)



1. In a double-throw snap switch, a switch lever, sets of contact terminals in position to be electrically connected by said switch lever in its respective circuit-closing positions, two springs connected to said switch lever on opposite sides of its fulcrum, an operating handle pivoted on the fulcrum of the lever and to which the other ends of said springs are connected on opposite sides of its pivotal axis, lugs on said lever, locking-dogs pivotally supported in position to engage said lugs, and a double cam connected to said handle to turn the locking-dogs and release the switch lever after the tension has been applied, substantially as described.

2. In a double-throw snap switch, a bent switch lever, main contact terminals in position to be electrically connected by the said switch lever in one circuit-closing position, an auxiliary circuit-closing piece, supported on, but electrically insulated from, each arm of the switch lever, auxiliary circuit contacts in position to be closed by said auxiliary contact pieces, two springs connected to said bent switch lever on opposite sides of its fulcrum, an operating handle pivoted on the fulcrum of the switch lever and to which the other ends of said springs are connected on opposite sides of its pivotal axis, a double cam secured to said handle, lugs on the switch lever, and pivoted spring-actuating locking-dogs engaging said lugs and operated by said cam to release the lugs after the tension has been applied, substantially as described.

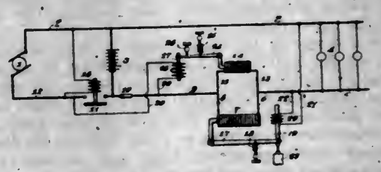
3. In a double-throw snap-switch, a bent lever provided with lugs on opposite sides of its fulcrum, spring actuated locking dogs adapted to engage said lugs in respective circuit-closing positions, a pivoted operating handle, spring connections between the operating handle and the switch lever, and a double cam carried by the operating handle and adapted to actuate the locking dogs to release the switch lever after the spring connections have been put under tension by the movement of said handle, substantially as described.

4. In a double-throw snap-switch, a bent lever provided with lugs on opposite sides of its fulcrum, spring-actuated locking dogs adapted to engage said lugs in the respective circuit-closing positions, a pivoted operating handle, springs connecting the operating handle to the switch lever on opposite sides of its fulcrum and a double cam carried by the operating handle and adapted to actuate the locking dogs to relieve the switch lever after the springs have been put under tension by the movement of said handle, substantially as described.

5. In a double-throw snap switch, the bent lever l fulcrumed in the standards r and provided with the lugs t, pivoted locking-dogs m and m' engaging said lugs, the handle n pivoted on the fulcrum of the bent lever and connected to the two arms thereof by the springs l^6 and v, and the double cam w connected to the handle and having the toes w^2 and w^3 adapted to turn the locking-dogs to release the switch lever after tension has been applied to the springs, substantially as described.

[Claims 6 not printed in the Gazette.]

1,025,455. ELECTRIC REGULATION. JOHN L. CREVELING, New York, N. Y., assignor to Safety Car Heating and Lighting Company, a Corporation of New Jersey. Filed Oct. 11, 1910. Serial No. 586,483. (Cl. 171—313.)



1. In a system of electrical distribution comprehending a generator, storage battery and translation circuit, means for regulating the translation circuit comprehending circuit regulating means, means for governing the same, circuit regulating means coöperating therewith in the regulation of the translating circuit and means for controlling the same operated by current flowing back from the battery through the generator.

2. In a system of electrical distribution comprehending a generator, a storage battery, a translation circuit and a switch between the generator and the battery, means for regulating the translation circuit and means for operating the same responsive to differences of potential across said switch.

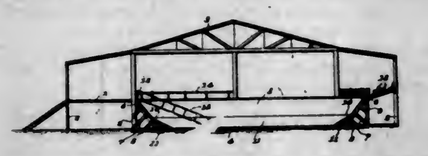
3. The combination with a supply circuit, a switch controlling the same, a storage battery in operative relation to said supply circuit, a battery circuit and a translation circuit, of means for controlling the translation circuit comprehending regulating means responsive to fluctuations in the translation circuit and regulating means coöperating therewith affected by fluctuations across said switch.

4. In a system of electrical distribution comprehending a generator, a storage battery, a translation circuit and a switch in the generator circuit, means for regulating the translation circuit comprehending a regulating element and means for operating the same responsive to fluctuations in the translation circuit, a regulating element cooperating therewith and means for operating the same responsive to differences in potential between the generator circuit and the battery circuit.

5. In a system of electrical distribution comprehending a generator, a storage battery, a translation circuit and a switch in the generator circuit, means for regulating the translation circuit comprehending a regulating element and means for operating the same responsive to fluctuations in the translation circuit, a regulating element cooperating therewith and means for operating the same comprehending a coil in shunt around said switch.

[Claims 6 to 9 not printed in the Gazette.]

1,025,456. AMUSEMENT DEVICE FOR EXHIBITING AUTOMOBILES. HARRY L. CURRAN, New York, N. Y., assignor of one-half to Edwin F. Kellogg and one-half to Henry L. Gillespie, New York, N. Y. Filed Aug. 26, 1911. Serial No. 646,271. (Cl. 104—111.)



1. In a device of the class described, the combination with a smooth level floor, of a circular track at an angle of about 50° to said floor adapted to receive and support running automobiles, and a narrow intermediate track bridging the joint between said floor and circular track, the said intermediate track being at a less angle to the floor.

2. In a device of the class described, the combination with a smooth level floor, of a circular track at an angle of about 50° to said floor adapted to receive and support running automobiles, a narrow intermediate track bridging the joint between said floor and circular track, the said intermediate track being at a less angle to the floor, and a continuous guard projecting from said circular track around its upper edge.

3. In a device of the class described, the combination with a smooth level floor, of a circular track at an angle of about 50° to said floor adapted to receive and support running automobiles, a narrow intermediate track bridging the joint between said floor and circular track, the said intermediate track being at a less angle to the floor, a continuous guard projecting from said circular track around its upper edge, and removable means for conveying automobiles into said device on said floor.

4. An amusement device of the class indicated comprising a main floor having an opening therein curved in outline, a depressed floor below the opening in the main floor, and an inclined curved track adapted to receive and support running automobiles connecting said floors.

5. An amusement device of the class indicated comprising a main floor having an opening therein curved in outline, a depressed floor below the opening in the main floor, a curved track for automobiles connecting said floors at the margin of said opening, said track being inclined and the upper portion being at substantially an angle of 50° to the horizontal, a guard along the top edge of said track, and supports and braces for said main floor and track.

[Claim 6 not printed in the Gazette.]

1,025,457. WRAPPER. JESSE DUNFEE, Coshocton, Ohio. Filed Nov. 17, 1910. Serial No. 592,863. (Cl. 93—2.)



1. The method of forming hollow corrugated wrappers, which consists in folding a blank to produce a plurality of superposed plies all of the same width, and crimping the folded blank to form oppositely inclined corrugations in the plies thereof intersecting at the folds in said blank.

2. The method of forming hollow corrugated wrappers, which consists in folding a blank to form a plurality of superposed plies of equal width and overlapping each other for the entire distance between the folds in the blank, and crimping the folded blank to produce oppositely inclined corrugations extending the entire width of the several plies, with the corrugations of the plies intersecting at the folds in the blank.

3. The method of forming hollow corrugated wrappers, which consists in folding a blank to produce a plurality of overlapping superposed plies of equal width, and passing the folded blank between corrugated rollers with one longitudinal edge of the blank arranged at an angle to the length of the corrugations on the rollers to produce oppositely inclined corrugations in the different plies, extending the entire width thereof and intersecting at the adjacent folds in said blank.

4. The method of forming hollow corrugated wrappers, which consists in folding a blank to produce a plurality of superposed overlapping plies all of the same width, introducing one corner of the folded blank between a pair of corrugated rollers, and subsequently passing the entire blank between said rollers to form oppositely inclined corrugations in the different plies extending the entire width thereof, and intersecting at the junction of said plies.

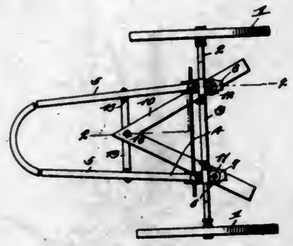
5. The method of forming hollow corrugated wrappers, which consists in folding a blank upon itself and then doubling the blank to form four plies of equal width, and finally passing the doubled blank obliquely between crimping rollers to form oppositely inclined corrugations in the different plies of the blank, with the corrugations in one ply intersecting the corrugations of an adjacent ply at the junction thereof.

[Claim 6 not printed in the Gazette.]

1,025,458. CULTIVATOR ATTACHMENT. WILLIAM C. DUNLAP, Eupora, Miss. Filed Apr. 4, 1911. Serial No. 618,876. (Cl. 55—19.)

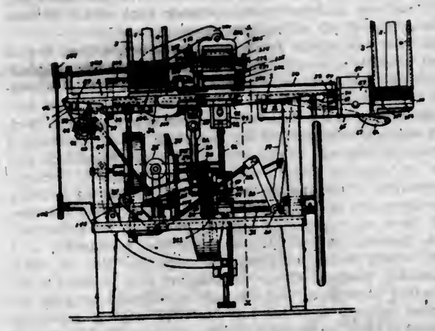
1. In a cultivator, the combination of a wheel supported frame including longitudinally disposed side bars, a V-shaped harrow frame arranged beneath said bars, sleeves on the ends of said bars, studs carried by the harrow frame and projecting through said sleeves, and bolts disposed through the harrow frame and through said studs and having nuts threaded on their upper ends to retain said bolts and the studs in said sleeves.

2. In a cultivator, the combination of a wheel supported frame including side bars, a V-shaped harrow arranged beneath said side bars and extending forwardly and rearwardly of the wheel axle, sleeves on the rear ends of said side bars, means carried by the harrow frame to be received in said sleeves to removably secure the harrow to said bars, and arms fixed to the front end of the harrow and adjustably secured to said side bars.



3. In a cultivator, the combination of a wheel supported frame, a V-shaped harrow arranged beneath said frame and extending forwardly and rearwardly of the wheel axle, sleeves carried by the frame, attaching means carried by the harrow frame to detachably secure the same to said sleeves, a transverse bar having its intermediate portion fixed to the front end of the harrow frame, the ends of said bar being vertically disposed and provided with a plurality of bolt receiving openings, and bolts to adjustably secure the ends of said bar to the frame.

1,025,459. ADDRESSING-MACHINE. STERLING ELLIOTT, Newton, Mass. Filed Mar. 9, 1909. Serial No. 482,351. (Cl. 101—1.)



1. In an addressing-machine, a reversible receptacle adapted to contain a pile of stencil-plates and provided with locating means, and a support therefor provided with coöperating locating means and adapted to receive it in either position thereon it may occupy, substantially as described.

2. In an addressing-machine, a reversible receptacle adapted to contain a pile of stencil-plates composed of several upright posts and a reversible base-plate to which they are rigidly secured having dowel pins projecting from its under side, and a support provided with dowel holes and adapted to receive said reversible base-plate in either position thereon it may occupy, substantially as described.

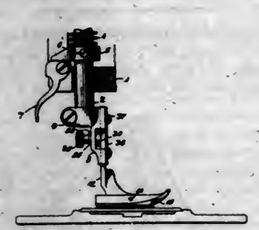
3. In an addressing-machine, a receptacle adapted to contain a pile of stencil-plates, composed of several upright posts and an open base-plate to which they are rigidly secured, said base-plates having holes for attaching screws and having dowel-pins whereby it may be detachably connected to a support and its position thereon reversed, substantially as described.

4. In an addressing-machine, a table, a pair of horizontally arranged guide-ribs supported in elevated position thereon, a receptacle for a pile of stencil-plates having as a component part of it a base-plate which rests on the support bearing the guide-ribs and which is provided with a central opening whereby the pile of stencil-plates rests on said guide-ribs and which base-plate is recessed at its under side to provide for the guide-ribs and also to provide for a sliding-pusher, a pusher sliding along on said guide-ribs and movable in said recess, and means for reciprocating said pusher, substantially as described.

5. In an addressing-machine, a receptacle adapted to contain a pile of stencil-plates and to be detachably connected to its support, comprising several upright posts and a pivotally connected guide-bar at the upper ends of said posts, movable into and out of upright position, against which the pile of stencil-plates is held while being moved into and out of the receptacle, substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

1,025,460. CLOTH-PRESSER FOR SEWING-MACHINES. JOHN S. FINCH, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 10, 1911. Serial No. 626,284. (Cl. 112—13.)



1. In a cloth-presser for sewing machines, a vertically movable and resiliently depressed cloth-presser bar, a cloth-presser frame carried by said presser-bar in which are movably mounted complementary brackets each carrying at its lower end a cloth-presser shoe, and a fulcrum pin adjustably secured in said frame and operatively connected with said brackets to transmit from said cloth-presser bar to said cloth-presser shoes like and unlike degrees of pressure on the fabric at opposite sides of a seam.

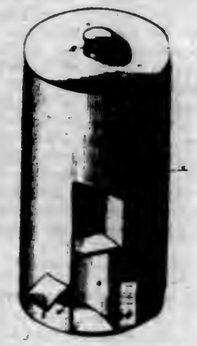
2. In a cloth-presser for sewing machines, a vertically movable and resiliently depressed cloth-presser bar, a cloth-presser frame carried by said presser-bar in which are movably mounted complementary brackets each carrying at its lower end a cloth-presser shoe, a fulcrum pin adjustably secured in said frame, and connections including a rock-lever for transmitting from said cloth-presser bar to said cloth-presser shoes like and unlike degrees of pressure on the fabric at opposite sides of a seam.

3. In a cloth-presser for sewing machines, a vertically movable and resiliently depressed cloth-presser bar, a cloth-presser frame carried by said presser-bar in which are movably mounted complementary brackets each carrying at its lower end a cloth-presser shoe, and a fulcrum pin, adjustably secured in said frame, upon which is fulcrumed a rock-lever, the opposite ends of which are operatively connected with the respective brackets to transmit from said cloth-presser bar to said cloth-presser shoes like and unlike degrees of pressure on the fabric at opposite sides of a seam.

1,025,461. AUTOMATIC HOG AND STOCK WATERING DEVICE. GEORGE WESLEY FLETCHER, Lima, Ill. Filed May 11, 1910. Serial No. 560,620. (Cl. 119—77.)

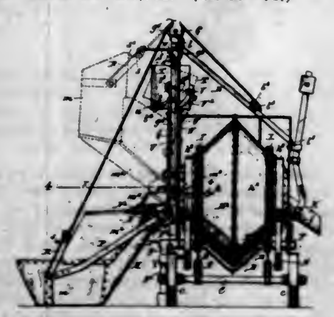
A stock watering device consisting of a tank having an integral bottom and a feed opening and a portion extending over said opening, a cover for said tank having an opening, means for controlling said cover opening, a curved portion disposed eccentrically in said tank and

engaging the bottom and wall thereof and provided with an opening above its lower edge and with a top engaging



the tank wall, whereby a supplemental compartment is formed.

1,025,462. MIXING-MACHINE. CHESTER T. FOOTE, Nunda, N. Y., assignor to Foote Manufacturing Company, Nunda, N. Y., a Copartnership. Filed Mar. 30, 1909. Serial No. 486,765. (Cl. 83—73.)

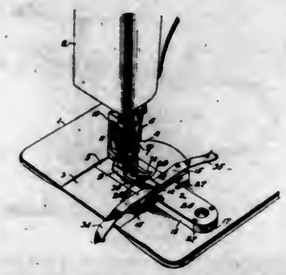


1. The combination with a mixing-machine having an upright frame, of a hopper for feeding materials into said machine, a substantially rectangular bucket mounted to tilt on said frame above said hopper and having its spindles provided with a crank-arm, a curved member secured to said frame, and a stop on said curved member and adapted to be engaged by said crank-arm to limit the extent to which the bucket may be tilted, said bucket being held in operative relation to said charging-hopper.

2. The combination with a mixing machine having an upright frame comprising two braced upright members, and a mixing drum whose charging opening is in a plane between said upright members, of a hopper pivotally supported at its outlet end by said upright members and normally in inverted position, and provided with a swinging ball at its receiving end, means for swinging said hopper upward, and a tilting bucket mounted in said frame above the discharge end of said hopper and adapted to discharge its contents therein when tilted.

1,025,463. STAY-GUIDE FOR SEWING-MACHINES. CHARLES FREDERICK GRAY, Sierra Madre, Cal., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Jan. 21, 1910. Serial No. 539,277. (Cl. 112—9.)

1. In a stay guide for sewing machines, a guide-way secured on the bed-plate of the sewing machine, a main member mounted in said guide way and provided with material engaging surfaces and a separator, said material engaging surfaces and separator acting to register the abutting edges of said material in the same plane as they are advanced to the action of the stitch forming mechanism, said main member being free to be moved, at the will of the operator and during the stitching operation, into and out of effective relationship with said stitch forming mechanism.



2. In a stay-guide for sewing machines, an adjustable main member having movements in directions corresponding substantially with the line of seam formation, a feed-dog, a material-carrying bar carried by said member and provided with an inclined concaved surface, and a separator against which the abutting edges of the materials rest as they are being advanced to the action of the feed-dog.

3. In a stay guide for sewing machines, a feed-dog, a main member mounted on the bed plate of the sewing machine and provided with a separator and material engaging surfaces, the latter cut away on opposite sides of said separator to accommodate the movements of said feed-dog, said main member being free to be moved, at the will of the operator and during the stitching operation, into and out of effective relationship with stitch-forming mechanism of the sewing machine.

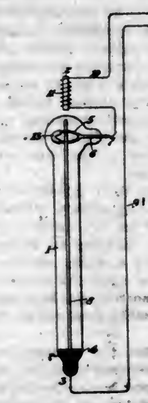
4. In a stay guide for sewing machines, a feed dog, a main member mounted on the bed plate of the sewing machine and provided with a separator and material engaging surfaces, the latter cut away on opposite sides of said separator to accommodate the movements of said feed-dog, said main member being free to be moved, at the will of the operator and during the stitching operation, into and out of effective relationship with the stitch forming mechanism of the sewing machine, and means for limiting the oppositely arranged movements of said main member.

5. In a stay-guide for sewing machines, an adjustable main member having oppositely directed movements in a line corresponding substantially with the line of seam formation, resilient means for holding said member in its retracted position, a feed-dog, and a material-carrying bar carried by said member and provided with a separator against which the abutting edges of the materials rest as they are being advanced to the action of said feed-dog.

[Claims 6 to 8 not printed in the Gazette.]

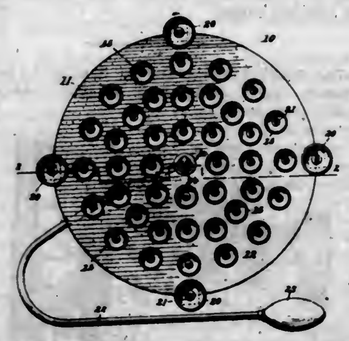
1,025,464. VAPOR ELECTRIC APPARATUS. PETER COOPER HEWITT, Ringwood Manor, N. J., assignor to Cooper Hewitt Electric Company, New York, N. Y., a Corporation of New York. Continuation of application Serial No. 204,179, filed Apr. 21, 1904. This application filed Mar. 23, 1908. Serial No. 422,616. (Cl. 176—45.)

1. In a system of electrical distribution, the combination with an alternating current source, a rectifier therefor comprising a completely exhausted container and electrodes therein, including a plurality of anodes and a vaporizable reconstructing cathode and connections between said anodes and terminals of the source and a connection between the cathode and an intermediate point of said source, of a separate direct current source connected between the intermediate point of the alternating source and a separate anode within the container, means for connecting and disconnecting said additional anode to and from said cathode within the container and automatic means responsive to the rectified current from said alternating source for operating said means, together with non-automatic means for controlling the direct current source.



2. In a system of electrical distribution, the combination with an alternating current source, a rectifier therefor comprising a completely exhausted container and electrodes therein, including a plurality of anodes and a vaporizable reconstructing cathode and connections between said anodes and the terminals of the source and a connection between the cathode and an intermediate point of said source, of a separate direct current source connected between the intermediate point of the alternating source and a separate anode within the container, means for connecting and disconnecting said additional anode to and from said cathode within the container, a magnet coil located in the said first named connection to the intermediate point of the alternating source for operating said means, together with non-automatic means for controlling the direct current source.

1,025,465. GAME APPARATUS. ALEXANDER B. HILL, Hoboken, N. J. Filed Aug. 22, 1911. Serial No. 645,417. (Cl. 46—59.)



1. A game apparatus comprising a plate, means for supporting said plate arranged along the edges thereof, a nozzle projecting upwardly from said plate, receptacles arranged upon said plate and surrounding said nozzle, a hollow projectile adapted to be fitted upon said nozzle, a second series of receptacles mounted upon the supporting means for said plate, and arranged bodily in a horizontal plane above the plane of said first mentioned receptacles, and means connected to said nozzle for projecting said projectile, substantially as specified.

2. A game apparatus comprising a plate, means for supporting said plate in elevated position arranged along the edges thereof and detachably engaging said edges, a nozzle extending through said plate, a series of receptacles arranged upon said plate and substantially covering the same, a second series of larger receptacles arranged upon the upper ends of the supporting means for said plate and arranged in a horizontal plane above the plane of said first mentioned receptacles, a hollow projectile adapted to be fitted upon said nozzle, a flexible tube connected to the lower end of said nozzle, and a compression device connected to the other end of said tube for projecting said projectile, substantially as specified.

3. A game apparatus comprising a plate, a plurality of detachable supports frictionally engaging the edge of said plate intermediate their ends, a nozzle extending centrally through said plate, separate receptacles secured upon said plate and surrounding said nozzle; said receptacles having values indicated thereon increasing as the same recede from said nozzle, a second series of receptacles mounted upon the ends of said detachable supports in a plane above said plate and the supports thereon, said second series of receptacles bearing values greater than those of any of the receptacles arranged upon said plate, a hollow projectile adapted to be fitted upon said nozzle, and a compression device connected to said nozzle for projecting said projectile, substantially as specified.

4. A game apparatus comprising a circular plate having an elastic covering thereon extending over the edge thereof, a plurality of supports provided with transverse recesses adapted to engage the edge of said plate intermediate the ends of said supports whereby to support said plate in elevated position, a nozzle centrally arranged upon said plate and extending partly above and partly below the same, a series of separated receptacles secured upon said plate and surrounding said nozzle, a second series of receptacles mounted upon the ends of said detachable supports and arranged bodily in a plane above the plane of said first mentioned receptacles, a projectile provided with an opening in its base adapted to be fitted upon said nozzle, a tube connected at one end to said nozzle, and a bulb connected to the other end of said tube for projecting said projectile, substantially as specified.

1,025,466. METHOD OF PRODUCING IRON ALBUMINATES OF ORGANOMINERAL ACIDS. PAUL HOERING, Berlin, and OTTO KIPPE, Osnabrück, Germany. Filed July 8, 1907. Serial No. 382,761. (Cl. 23—24.)

1. Process for producing alkali salts of glycero-phosphate of iron-albuminate, which consists in heating the albumen materials with solutions of glycero-phosphate of iron, dissolving the insoluble product obtained in dilute alkali-carbonate solution, and evaporating the solution.

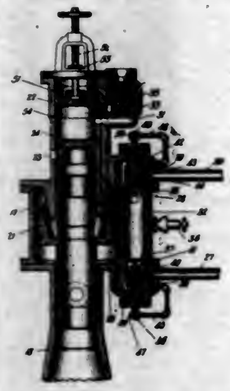
2. As new products, alkali salts of glycero-phosphate of iron-albuminate, which are tasteless, soluble in water, yields no precipitate in solution with sulfureted hydrogen, give a green coloration in solution with ammonia sulfid, give no precipitate of iron-hydroxid with ammonia, give in aqueous solution with strong mineral acids a precipitate which contains only a portion of the whole of the phosphoric acid of the undecomposed product and are capable of being readily assimilated.

1,025,467. PULSATING APPARATUS. FRED D. HOLDSWORTH, Claremont, N. H., assignor to Sullivan Machinery Company, Claremont, N. H., a Corporation of New Hampshire. Filed Apr. 22, 1907. Serial No. 369,418. (Cl. 125—2.)

1. The combination with a working cylinder and piston, the latter exposed to confined working fluid, of pulsating means for alternately raising and lowering the pressure of the confined fluid against said piston; a pressure fluid reservoir; means for supplying fluid from said reservoir to the side of said working piston; and means for automatically maintaining the pressure of said reservoir at a predetermined point.

2. In combination, a pulsator cylinder, a piston therein, means for operating said piston, a reservoir, operative connections between said reservoir and the opposite ends of said pulsator cylinder, means for supplying pressure fluid to said reservoir and automatically acting valves controlling the connections between said reservoir and said pulsator.

3. In combination, a pulsator cylinder, a piston therein, means to actuate said piston, a working cylinder having a piston exposed to working fluid confined in said pulsator, working cylinder and connections, operative connections between said pulsator cylinder and said working cylinder, a charging cylinder, a reservoir, operative connections between said charging cylinder and said reservoir and between said reservoir and said pulsator cylinder, and automatic provisions for maintaining a predetermined fluid pressure in said reservoir and in said pulsator cylinder.

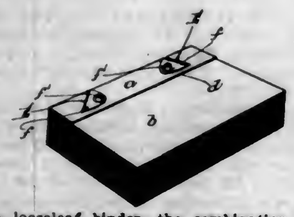


4. In combination, a pulsator cylinder, a piston therein, means to actuate said piston, a working cylinder having a piston, operative connections between said pulsator cylinder and said working cylinder, a charging cylinder, a reservoir, operative connections between said charging cylinder and said reservoir and between said reservoir and said pulsator cylinder, and fluid pressure actuated valves controlling said connections whereby a predetermined fluid pressure is maintained in said reservoir and in said pulsator cylinder.

5. In combination, a pulsator cylinder, a piston therein, means to actuate said piston, a working cylinder having a piston, operative connections between said pulsator cylinder and said working cylinder, a charging cylinder, a reservoir, operative connections between said charging cylinder and said reservoir and between said reservoir and said pulsator cylinder, and fluid pressure actuated valves controlling said connections, said valves being normally spring pressed to their seats, said valves maintaining a predetermined fluid pressure in said reservoir and in said pulsator cylinder.

[Claims 6 to 36 not printed in the Gazette.]

1,025,468. LOOSE-LEAF BOOK. FRANK E. HOUSH, Winthrop, Mass. Filed Nov. 6, 1911. Serial No. 658,806. (Cl. 129—18.)



1. In a looseleaf binder, the combination of multiple binding strips suitable to engage oppositely slanted slits in the edge of a loose leaf and having engaging devices at their respective ends, with a pair of base strips having engaging devices to coöperate with the engaging devices upon the binding strips.

2. In a looseleaf binder, the combination of flat binding strips suitable to engage oppositely slanted slits in the edge of a loose leaf; anchor plates upon the ends of strips carrying an engaging device, and a base strip having engaging devices to coöperate with the engaging device upon the anchor plates.

3. In a looseleaf binder, the combination of flat binding strips suitable to engage oppositely slanted slits in the edge of a group of loose leaves; anchor plates upon the ends of said strips, each carrying an engaging device; a base strip having engaging devices to coöperate with the engaging devices upon the anchor plates, and a group of loose leaves having oppositely slanted registering slits in their edges, to receive the binding strips, all combined to hold the binding strips in the slots without turning upon the fastening devices.

4. In a looseleaf binder, the combination of flat binding strips suitable to engage oppositely slanted slits in the edge of a group of loose leaves; anchor plates upon the ends of said strips, each carrying an engaging device; a pair of base strips having engaging devices to coöperate with the engaging devices upon the anchor plates and a hinged back member connecting the base strips and front and back cover members attached severally to the base strips.

5. In a looseleaf binder, the combination of multiple binding strips suitable to engage oppositely slanted slits in the edge of a loose leaf and having retaining ends turned over at one end of the strips and an engaging device at the other end and a base strip having engaging devices to coöperate with the engaging devices on the binding strips.

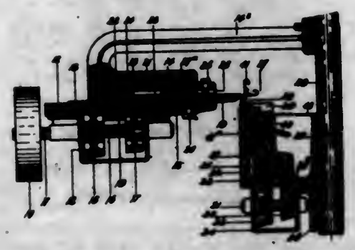
[Claims 6 to 8 not printed in the Gazette.]

1,025,469. TUBULAR METALLIZED FILAMENT. MATTHEW A. HUNTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 8, 1908. Serial No. 452,080. (Cl. 176—7.)

1. The method of producing a tubular conductor of metallized carbon, which consists in first producing a composite conductor consisting of a vaporizable core and a metallizable carbonaceous shell, and then firing said conductor at a temperature sufficient to vaporize said core and metallize said shell.

2. The method of producing a tubular conductor of metallized carbon, which consists in first producing a composite conductor consisting of a core of titanium carbid and a shell of carbonaceous material, and firing said conductor at a temperature sufficient to metallize the shell of carbonaceous material and vaporize out the core of titanium carbid.

1,025,470. KNITTING-MACHINE. WILLIS A. INGALLS, Cleveland, Ohio. Filed June 5, 1909. Serial No. 500,457. (Cl. 66—22.)



1. In a knitting machine, the combination with a needle plate having slots or grooves for the reception of needles, of an auxiliary needle plate mounted opposite thereto and provided with slots or grooves corresponding to those of the needle plate proper, needles mounted in the grooves of said needle plate proper and having shanks projecting into and adapted to engage the corresponding grooves in said auxiliary needle plate, cams mounted between said needle plate proper and the auxiliary needle plate and adapted to force said needles forward and back, cam holders or plates supporting said cams, and means for imparting motion to said cams for the purpose specified.

2. In a circular knitting machine, the combination with a needle plate having slots or grooves for the reception of the needles, of an auxiliary needle plate mounted opposite thereto and provided with slots or grooves corresponding to those of the needle plate, needles mounted in grooves in said needle plate and having shanks projecting into and adapted to engage the grooves in said auxiliary needle plate, a cam plate and cam ring provided with cams adapted to engage the shanks of the needles at a point between the needle plate and the auxiliary needle plate and to force said needles forward and back and means for imparting motion to said cam plate and cam ring, substantially as and for the purpose specified.

3. In a circular knitting machine, the combination with a needle plate having slots or grooves for the reception of the needles, of an auxiliary needle plate mounted opposite thereto and provided with slots or grooves corresponding to those of the needle plate, needles mounted in grooves in said needle plate and having shanks projecting into and adapted to engage the grooves in said auxiliary needle plate, a cam plate provided with cams mounted between the needle plate and the auxiliary needle plate and adapted to force said needles outward from the center of the machine and means for adjusting said cams, a cam ring provided with cams mounted thereon between the needle plate and the auxiliary plate and adapted to force said needles toward the center of said machine, and means for imparting motion to said cam plate and cam ring, substantially as and for the purpose specified.

4. In a circular knitting machine the combination of a horizontal dial needle plate having slots or grooves for the reception of the needles, an auxiliary horizontal dial needle plate mounted opposite thereto and provided with slots or grooves corresponding to those of the needle plate, needles mounted in said needle plate and having shanks projecting into and adapted to engage the grooves of the auxiliary needle plate, a circular cam plate 14 mounted above said needle plates with its inner edge projecting downward and adapted to support cams 25, cams 25 secured to the inner edge of the circular cam plate 14 and adapted to force the shank of the needles outward, an annular cam plate 18 mounted in the needle plate 19, and adapted to support cams 23, cams 23 secured to the upper side of the annular cam ring and adapted to force the shank of the needles inward, gears 15 and 17 mounted on a driving shaft 16 and adapted to respectively engaged the toothed lower surfaces of the cam plate 14 and the annular cam ring 18 and to rotate them in unison substantially as and for the purpose specified.

5. In a circular knitting machine the combination of a cylindrical needle plate 34 having in its inner surface vertical slots or grooves for the reception of needles, an auxiliary cylindrical needle plate 35 mounted inside of the needle plate 34 and having in its outer surface vertical slots or grooves corresponding to those in the needle plate 34, needles mounted in the slots or grooves of cylinder 34 and having shanks adapted to engage the slots or grooves in cylinder 35, a cylindrical cam plate 29 adapted to support at its upper end cams 38, cams 38 mounted on the upper end of cam plate 29 and adapted to force the shank of the needles downward, an annular cam ring 33 mounted between the needle plates 34 and 35, cams 37 mounted on the outer surface of cam ring 33 and adapted to force the shank of the needle upward, gears 30 and 32 rigidly mounted on shaft 31 and respectively engaging the toothed lower surfaces of cam rings 29 and 33 and adapted to rotate them in unison, substantially as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,025,471. TELEGRAPH-TRANSMITTER. JOSEPH R. JONES, Detroit, Mich. Filed May 29, 1911. Serial No. 630,135. (Cl. 178—69.)

1. In a telegraph transmitter, the combination of a case of non-conducting material having a well at one end, mercury in said well, means to adjust the depth of the mercury, a vibrator comprising a metal tongue having one end mounted at one end of the case and a downwardly extending finger at the free end adapted to dip into the mercury, a lever pivoted adjacent the fixed end of the vibrator with its free end in the path of the free end of the vibrator, a finger piece connected to said lever, means to control the effective length of the vibrator, a second tongue parallel to the first and having a downturned portion which may be forced into said mercury, a finger piece engaged therewith, and electric circuits connecting to the fixed ends of the tongues and to the mercury.



2. In a telegraph transmitter, the combination of a case of non-conducting material having a well at one end, mercury in said well, means to adjust the depth of the mercury, a vibrator comprising a metal tongue having one end mounted at one end of the case and a downwardly extending finger at the free end adapted to dip into the mercury, a lever pivoted adjacent the fixed end of the vibrator with its free end in the path of the free end of the vibrator, a finger piece connected to said lever, means to control the effective length of the vibrator, a second tongue parallel to the first and having a downturned portion which may be forced into said mercury, a finger piece engaged therewith, electric circuits connecting to the fixed ends of the tongues and to the mercury, and means to bridge the circuits to cut out the vibrators and mercury.

3. In a telegraph transmitter, the combination of a case having a mercury contact at one end and a retainer at the other, electric circuits connecting to said contact and retainer, a vibratory and a non-vibratory resilient tongue mounted within the case with one end secured by said retainer and their free ends turned down toward the mercury, the non-vibratory tongue tensioned away from the mercury and the vibratory tongue extending normally parallel to its surface, a lever and finger piece to depress the non-vibratory tongue to contact with the mercury, a second finger piece, a lever connected thereto and extending into the path of the vibratory tongue, and a spring to hold the vibratory tongue stationary.

4. In a telegraph transmitter, the combination of a case, a mercury contact therein, a vibratory member adapted to swing into the mercury and close the circuit, means acting on said member to hold it from engaging the mercury, finger mechanism connected thereto, a shiftable device mounted in the case in engagement with the vibratory member to control the rate of vibrations of the same, a second member adapted to be swung into the mercury to close the circuit, and a finger mechanism connected thereto.

5. In a telegraph transmitter, the combination of a case, a mercury contact therein, a vibratory member adapted to engage the mercury and close the circuit, an arm acting on said member to hold it from engaging the mercury, finger mechanism connected to said arm, and means mounted in the case to control the height of the mercury.

[Claims 6 and 7 not printed in the Gazette.]

1,025,472. LOG CONNECTION FOR HAULING-LINES. WALTER S. KIRBY, Georgetown, S. C., assignor to The Ledgerwood Manufacturing Company, a Corporation of New York. Filed May 8, 1909. Serial No. 494,862. (Cl. 214—5.)

1. A log connection for a hauling line, comprising a connecting device including a guide, a flexible log-encircling element movable in said guide and having portions extending on opposite sides of the latter, one of said portions having a guide through which the other portion is adapted to freely move, and means for connecting said last mentioned portion to the portion carrying the guide.

2. A log connection for a hauling line, comprising a

connecting device including a guide, a flexible log-encircling element movable in said guide and having portions extending on opposite sides of the latter to constitute draft elements and a contractible loop connected with said elements and adapted to be contracted when said elements are subjected to pull.

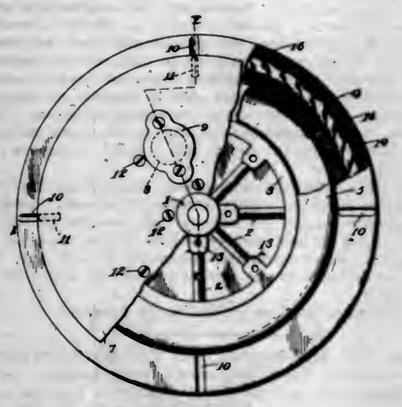


3. A log connection for a hauling line, comprising a connecting device, means for engaging a log, a plurality of draft elements connected to said engaging means and the connecting device, and means whereby a pulling force exerted upon the connecting device is distributed equally to the draft elements.

4. A log connection for a hauling line comprising means for engaging a log, a plurality of flexible draft elements connected to said engaging means and an equalizing line connection movably engaging said flexible draft elements.

5. A log connection for a hauling line comprising a connecting device including a guide, a flexible log-encircling element movable in said guide and having portions extending on opposite sides of the latter to constitute draft elements, and log-encircling means, said draft elements being connected to the encircling means in such a manner that when the latter is applied to a log, the points of connection will be on opposite sides of the longitudinal axis of the log.

1,025,473. RESILIENT WHEEL. FRANCIS H. LACEY, Richland, Mo. Filed Jan. 19, 1911. Serial No. 603,490. (Cl. 152—34.)



A resilient wheel including a hub, a rim, a series of spokes, alternate spokes being enlarged in proximity to the rim and the remaining spokes of the series being enlarged adjacent to the hub, a pair of circular side plates disposed on opposite sides of the wheel and outstanding from the rim in transversely spaced relation, a tire encircling the rim and operating between the side plates, means interposed between the tire and the rim for yieldably supporting the former from the latter, one of the side plates being separable from the wheel, and fastening devices inserted through the separable side plate into the enlargements of the spokes.

1,025,474. LADDER-FOOT. EDWIN C. MAGOON, Galesburg, Ill., assignor of one-half to Daniel W. Flynn, Galesburg, Ill. Filed Dec. 9, 1910. Serial No. 596,464. (Cl. 228—5.)



1. In a ladder foot, in combination, a base member including a projection provided with oppositely disposed undercut recesses and an eye disposed at a right angle to said recesses, said base further including a ledge disposed above one of said recesses, a stop-boss fixed on said ledge, and an L-shaped pin, its shaft slidably and pivotally mounted in said eye and its horisontal arm adapted for engagement with either of said recesses, the extent of upward movement of said pin being limited, when the pin is not engaged with either of said recesses, by said boss.

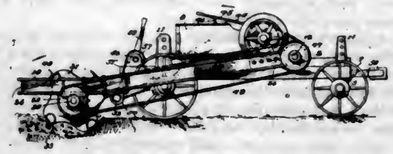
2. In a ladder foot, in combination, a base-element adapted for securement to a ladder standard and comprising, integrally, a projection provided with oppositely disposed transverse recesses, a ledge disposed above said projection to provide, together with the upper edge of said projection, a transversely disposed slot, and a vertically disposed eye, with an L-shaped pin pivotally and slidably mounted in said eye, its horisontal arm adapted to pass through said slot and to rest in the upper one of said recesses when in one position and to rest in the other of said recesses when in another position, and a stop-lug adapted to be contacted by the horizontal arm of said pin when the vertical arm thereof is turned in said eye, whereby said pin is restrained from disengagement from said eye.

3. In a ladder foot, in combination with a base element comprising a plate having a projection on its face provided with undercut recesses resulting from undercutting the upper and lower ends of said projection, said base provided also with an eye, and further provided with a ledge disposed above and spaced from the upper portion of said projection, a boss on said ledge, and an L-shaped pin, the shaft of which is pivotally and slidably mounted in said eye and the horizontal portion of which is adapted to rest in either of said recesses, and to contact said boss to restrain it from disengagement from said eye.

4. A ladder-foot including a base element having an extension from its face, said extension provided with an undercut groove and an overcut groove, and provided also with an elongated eye disposed at a right angle to said grooves, said base including also a ledge near its top and above said overcut groove, a stop-boss fixed on said ledge, and an L-shaped pin slidably and pivotally mounted in said eye, its horizontal arm adapted to rest in said overcut groove to sustain it in inoperative position, and said eye to entirely shield its point when in said position, the same arm adapted to rest in the undercut groove when in operative position, and said ledge adapted to limit the extent of upward movement of said pin.

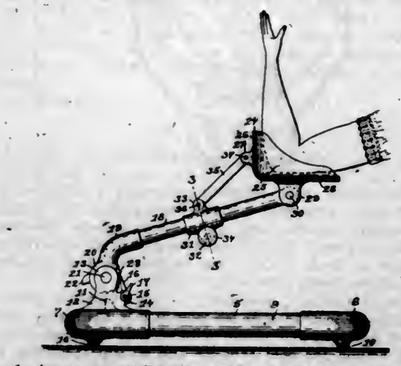
1,025,475. EARTH-CHIPPING MACHINE. JOSIAH R. MCCOY, Marshalltown, Iowa. Filed July 14, 1910. Serial No. 572,000. (Cl. 97—53.)

1. A machine of the class described including a wheeled truck, a driving shaft, a tilting frame having one end thereof pivotally mounted on the driving shaft, a cutter mounted for rotation on said frame at the free end thereof, a motor operatively connected with said driving shaft, a crank shaft journaled on the truck and provided with crank arms engaging the opposite sides of the frame, a stub shaft disposed above the crank shaft, flexible connections between the stub shaft and crank arms, a ratchet wheel secured to the crank shaft, a lever pivotally mounted on said stub shaft and adapted to engage the ratchet wheel for elevating the frame, a pawl engaging the ratchet wheel for holding the frame in adjusted position, and means for transmitting motion from the driving shaft to the cutter.



2. A machine of the class described including a wheeled truck, a driving shaft, a frame pivotally mounted on the opposite ends of the driving shaft and including side bars spaced from the adjacent sides of the truck, a cutter mounted for rotation on the free end of said frame, a crank shaft having its intermediate portion journaled on the truck and its opposite ends provided with crank arms journaled in the side bars of the frame, a stub shaft disposed above the crank shaft, sprocket wheels secured to the opposite ends of the stub shaft, sprocket chains forming a connection between the sprocket wheels and crank arms, means for rotating the stub shaft to effect the vertical adjustment of the frame, means for holding the frame in adjusted position, a motor mounted on the truck, a connection between the motor and driving shaft, and a connection between said driving shaft and cutter for transmitting motion from one to the other.

1,025,476. ARM-REST FOR GLOVE-FITTING. JOSEPH FRANCIS MELLEN, Providence, R. I. Filed Jan. 23, 1912. Serial No. 672,900. (Cl. 211—12.)



1. An arm rest for glove fitting comprising a base, an arm pivotally secured at one end to the base, an arm seat pivotally secured to the free end of the arm, a slide on the arm, a link operatively connecting the arm seat with the slide, means for adjusting the arm relative to the base and means for adjustably securing the slide to the arm to hold the arm seat in the adjusted position.

2. An arm rest for glove fitting comprising a tubular base, a tubular arm pivotally secured to the base, an arm seat pivotally secured to the free end of the tubular arm, a slide on the tubular arm, means for adjusting the tubular arm relative to the base, means for operatively connecting the arm seat with the slide and means for clamping the slide to the tubular arm.

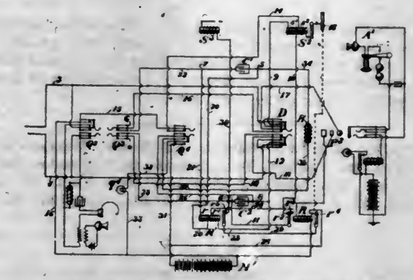
3. An arm rest for glove fitting comprising a rectangular shaped tubular base, a tubular arm pivotally secured to the base, an arm seat pivotally secured to the free end of the tubular arm, a slide on the tubular arm, a link operatively connecting the arm seat with the slide, means for adjusting the tubular arm relative to the base and means for clamping the slide to the tubular arm.

4. An arm rest for glove fitting comprising a rectangular shaped tubular base formed of front and rear fitting and tubing connecting the same, a central standard on the rear fitting, a tubular arm pivotally secured at one end to the standard, an arm seat pivotally secured to the free end of the tubular arm, a split slide on the tubular arm, a link operatively connecting the arm seat with the slide, means for adjusting the tubular arm relative to the base and means for clamping the split slide to the tubular arm.

5. An arm rest for glove fitting comprising a rectangular shaped base formed of front and rear fittings connected by tubing, a central standard on the rear fitting, said standard having top and front bearings, an elbow fitting pivotally secured to the top bearing, ratchet teeth on the elbow fitting, a shaft in the front bearings, a pawl on the shaft engaging with the ratchet teeth on the elbow fitting, means on the shaft for operating the pawl, a tubular arm secured at one end to the elbow fitting, an arm seat pivotally secured to the free end of the tubular arm, a split slide on the tubular arm, a link operatively connecting the arm seat with the slide, and means for clamping the split slide to the tubular arm.

[Claim 6 not printed in the Gazette.]

1,025,477. TELEPHONE SYSTEM. JAY GORDON MITCHELL, Cleveland, Ohio, assignor to The North Electric Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 8, 1908. Serial No. 447,583. (Cl. 179—50.)



1. A trunk signaling circuit for telephone exchanges, having a metallic circuit trunk line with a condenser at the B end in each limb and a supervisory relay having windings bridged around said condensers, together with a signal controlled by said relay, whereby current over the trunk line may pass through to a called subscriber's line for purposes of supervision.

2. A trunk signaling system for telephone exchanges comprising a metallic circuit trunk line deriving current from an A operator's cord circuit, a pair of condensers at the B end, one in each side of the trunk, and a supervisory relay having two windings, each connected around one of the condensers, together with means at a subscriber's station for controlling the flow of current in his line and a signal controlled by said supervisory relay.

3. In a telephone exchange system, subscribers' lines, an operator's position containing answering terminals for a plurality of lines, a B operator's position containing calling terminals for a plurality of lines, a cord circuit at the A position adapted to coöperate with the line terminals, a trunk line extending from the A to the B position, condensers in opposite sides of the said trunk, and an advance signal connected from a point on the B side of one condenser to a point on the A side of the other, together with a source of periodic signaling current associated with the

A operator's cord circuit, whereby said advance signal may be actuated by the A operator, but will remain irresponsive to direct current flow in any portion of the trunk.

4. In a telephone exchange system, subscribers' lines, an A operator's position containing answering terminals for a plurality of lines, a B operator's position containing calling terminals for a plurality of lines, a cord circuit at the A position adapted to coöperate with the line terminals, a trunk line extending from the A to the B position, a source of direct current and a supervisory signal responsive thereto connected with the cord circuit at the A position, a holding key in the trunk at the B position, and means controlled in the actuation of said holding key to disable the A supervisory signal.

5. In a telephone exchange system, subscribers' lines, an A operator's position containing answering terminals for a plurality of lines, a B operator's position containing calling terminals for a plurality of lines, a cord circuit at the A position adapted to coöperate with the line terminals, a trunk line extending from the A to the B position, a source of direct current and a supervisory signal responsive thereto connected with the cord circuit at the A position, a holding key in the trunk at the B position, means controlled in the actuation of said holding key to disable the A supervisory signal, so as to hold the trunk, and a guard signal also controlled in the actuation of said key to indicate that the trunk is being held.

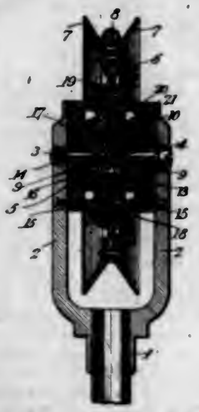
[Claims 6 to 12 not printed in the Gazette.]

1,025,478. BASE-BALL BAT. JAMES A. MURPHY, Holyoke, Mass. Filed Oct. 3, 1911. Serial No. 652,514. (Cl. 46—4.)



A base-ball bat comprising a body portion made entirely of hard wood, the handle portion thereof being provided with exterior grooves, a centrally bored hole in said bat, and small transverse holes leading from the bottom of said grooves to said centrally bored hole.

1,025,479. TROLLEY WHEEL AND HARP. WILLIAM W. NEIGHBOUR, Denison, Tex., assignor to Suspension Ball Bearing Manufacturing Company, New York, N. Y. Filed Jan. 4, 1910. Serial No. 536,301. (Cl. 191—39.)



1. A trolley wheel including a hub, a harp for supporting the wheel, and current transmitting devices arranged within the hub, said devices including conducting members arranged to rotate with and in contact with the hub, conducting elements bearing between said conducting members and the harp, and in contact with each, and means operating to hold the conducting members in contact with the hub and said elements.

2. A trolley wheel including a hub, a harp for supporting the wheel, means for transmitting the current from the wheel to the harp, said means being arranged within the wheel hub and including conductors engaging and rotating with the hub, and a plurality of washers arranged between and engaging said conductors and harp.

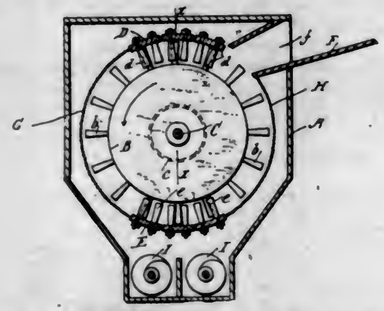
3. A trolley wheel including a hub, a harp for supporting the wheel, means for transmitting the current from the wheel to the harp, said means being arranged within the wheel hub and including conductors engaging and rotating with the hub, and a plurality of washers arranged between and engaging said conductors and harp, said washers being spaced from the hub.

4. A trolley wheel including a hub, a harp for supporting the wheel, means for transmitting the current from the wheel to the harp, said means being arranged within the wheel hub and including conductors engaging and rotating with the hub, a plurality of washers arranged between and forming a conducting medium between said conductors and harp, said washers being spaced at their periphery from the hub, and means for sealing the space at the ends of the hub from the space between the hub and washers.

5. A trolley wheel including a hub, a harp for supporting the wheel, conducting members arranged within the hub and including duplicate sections, means for maintaining said sections spaced the maximum distance permitted by the interior diameter of the hub, and a series of washers arranged between and in contact with the conducting members and harp.

[Claims 6 to 9 not printed in the Gazette.]

1,025,480. MILL FOR SHREDDING ALFALFA. RUFUS F. PACK, Cedar Vale, Kans. Filed Mar. 6, 1911. Serial No. 612,704. (Cl. 83—71.)



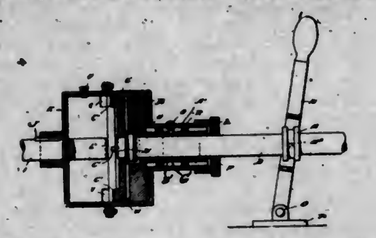
1. An alfalfa mill, comprising a casing provided with a feed chute, a toothed cylinder journaled in the casing, and toothed concaves and woven wire screens arranged alternately around the said cylinder and wholly encircling it except at the feed chute, the teeth of the said cylinder and concaves being intercurrent spikes.

2. An alfalfa mill, comprising a casing provided with a feed chute, a toothed cylinder journaled in the casing, and toothed concaves and woven wire screens arranged alternately around the said cylinder and wholly encircling it except at the feed chute, the teeth of the said cylinder and concaves being intercurrent spikes, one concave being arranged over the axis of the cylinder close behind the feed chute and the other concave being arranged at a point diametrically opposite to the upper concave.

1,025,481. FLUID-CLUTCH. THOMAS F. RAINSFORD, Cleveland, Ohio. Filed June 1, 1910. Serial No. 564,479. (Cl. 192—18.)

1. The combination of a rotatable casing adapted to contain a body of fluid and provided with internal paddles adapted to revolve said fluid, a shaft extending into the casing and provided at its inner end with a wheel of blades

movable lengthwise of the shaft into and out of the path of said body of fluid, and means to so move the blades.



2. The combination of a rotatable casing adapted to contain a body of fluid and provided with internal paddles adapted to revolve said fluid, a shaft extending into the casing, and blades fastened to the inner end of the shaft, in the casing, the shaft being shiftable lengthwise to move the blades toward the paddles, whereby they may receive the impact of the revolving fluid.

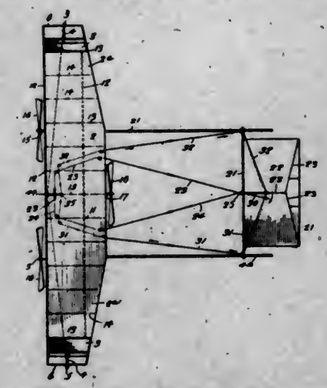
3. The combination of a rotatable casing adapted to contain a body of fluid and provided with internal paddles adapted to revolve said fluid, a drum rotatably mounted in the casing and loose on the shaft, and having recesses, and blades fastened to the inner end of the shaft, in the casing, and between the paddles and drum, the shaft being shiftable lengthwise to advance the blades toward the paddles, or to withdraw the same into the recesses in the drum.

4. The combination of a rotatable casing adapted to contain a body of fluid and provided with internal paddles adapted to revolve said fluid, a shaft extending into the casing, and blades fastened to the inner end of the shaft, in the casing, the shaft being shiftable lengthwise to move the blades toward the paddles, whereby they may receive the impact of the revolving fluid, and a positive clutch between the casing and the shaft, engageable when the shaft is shifted inwardly to full extent.

5. The combination of a rotatable casing adapted to contain a body of liquid and having internal paddles to revolve said liquid when the casing is rotated, and also having a positive clutch member therein, and a shaft extending into the casing and shiftable in and out therein, said shaft having thereon a wheel of blades movable therewith toward and from said paddles, and also having at its inner end a positive clutch member which engages with said clutch member when the shaft is shifted in to full extent.

[Claims 6 to 8 not printed in the Gazette.]

1,025,482. FLYING-MACHINE. BURT REID, U. S. Navy. Filed Aug. 14, 1911. Serial No. 643,948. (Cl. 244—14.)



In a flying-machine, a plane having flexible ends, a pivoted member, guys one end thereof being secured to said flexible ends of the plane and the other end to said pivoted member, a slide reciprocable on said pivoted member, a wheel rotatable on said pivoted member and movable lengthwise thereon and operatively associated with said slide so that movement lengthwise of said wheel on said pivoted member will reciprocate said slide, lateral turning-planes, guys one end thereof being secured to said turning planes and the other end to said slide, a longitudinal balance plane, and guys one end thereof being secured to said longitudinal balance plane and the other end to said wheel, whereby rotating thereof controls the movement of said longitudinal balance plane.

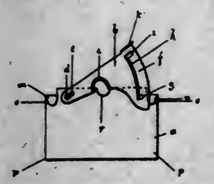
1,025,483. VEHICLE-WHEEL. THOMAS RHODUS, Chicago, Ill. Filed Feb. 18, 1911. Serial No. 609,510. (Cl. 152—8.)



1. In a spring wheel, the combination of peripheral sides forming an annular compartment, a spring band within said compartment of considerably less diameter than the external diameter of said sides, abutment lugs disposed at intervals and extending into said compartment from said sides and intimately engaged at their inner sides by said spring band when the wheel is normal, a flexible outer tire surrounding said band and slidable radially in said compartment, said abutment lugs being sufficiently few in number and spaced sufficiently far apart to allow bulging of the sections of the band between said lugs when the wheel is in action and the band compressed, said sides between said lugs offering no impediment to the outward movement of said band.

2. In a spring wheel, the combination of peripheral sides forming an annular compartment, a spring band within said compartment of considerably less diameter than the external diameter of said sides, means associated at intervals with said sides and band for affording intimate outer radial abutting engagements to axially center the band when the wheel is normal, an outer tire surrounding said band and slidable radially in said compartment, said abutting engagements being sufficiently few in number and spaced sufficiently far apart to allow bulging of the sections of the band between said abutting engagements when the wheel is in action and the band compressed, there being nothing between said abutting engagements offering any impediment to the outward movement of said band.

1,025,484. COMBINED CIGAR-CUTTER AND FASTENER FOR CIGAR-RECEPTACLES. ADOLF SCHWIEGER, Hanover, Germany. Filed Oct. 23, 1911. Serial No. 656,275. (Cl. 131—38.)



1. A combined cigar cutter and receptacle fastener comprising a support, a slotted cutting lever pivoted to said

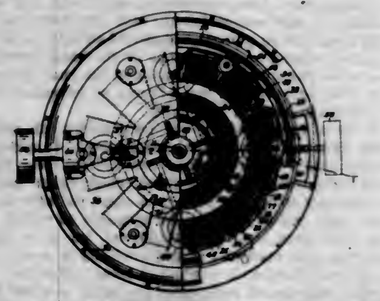
support so as to be slidable at the pivot, a catch on said lever, and a tongue fixed to said support and engaging the slot in said lever, said slot having a lateral enlargement placed so that in one position of the lever the latter can be slid on its pivot so as to engage the tongue with said enlargement and lock the lever to the support.

2. A combined cigar cutter and receptacle fastener comprising a support, tongues on said support adapted to engage a cigar receptacle, a slotted cutting lever pivoted to said support so as to be slidable at the pivot, a catch on said lever, and a tongue fixed to said support and engaging the slot in said lever, said slot having a lateral enlargement placed so that in one position of the lever the latter can be slid on its pivot so as to engage the tongue with said enlargement and lock the lever to the support.

3. A combined cigar cutter and receptacle fastener comprising a support, a frame fixed to said support adapted for holding advertisements and the like, a slotted cutting lever pivoted to said support so as to be slidable at the pivot, a catch on said lever, and a tongue fixed to said support and engaging the slot in said lever, said slot having a lateral enlargement placed so that in one position of the lever the latter can be slid on its pivot so as to engage the tongue with said enlargement and lock the lever to the support.

4. A combined cigar cutter and receptacle fastener comprising a support, having a cutting edge, a slotted cutting lever pivoted to said support so as to be slidable at the pivot, a catch on said lever, and a tongue fixed to said support and engaging the slot in said lever, said slot having a lateral enlargement placed so that in one position of the lever the latter can be slid on its pivot so as to engage the tongue with said enlargement and lock the lever to the support.

1,025,485. CENTRIFUGAL DRIER. ARTHUR R. SELDEN, Rochester, N. Y. Filed Apr. 17, 1911. Serial No. 621,715. (Cl. 127—3.)



1. A centrifugal machine having, in combination, a rotary basket provided with a rotatable transferring member having a surface against which the material in the basket is held by centrifugal force when the basket is rotated, said surface being movable, while the basket rotates, first upwardly and then outwardly so as to transfer the contents of the basket from the interior to the periphery thereof, and mechanism for rotating the basket and for controlling the movement of the transferring member.

2. A centrifugal machine having, in combination, a rotary basket provided with an upwardly and outwardly-inclined bottom and with transferring members adjacent its periphery, said members having surfaces against which the material in the basket is held by centrifugal force when the basket is rotated, said surfaces being movable, while the basket rotates, in a direction transverse to the direction of said rotation, so as to transfer the contents of the basket from the bottom thereof to a point of delivery at the periphery, and mechanism for rotating the basket and for controlling the movement of the transferring members.

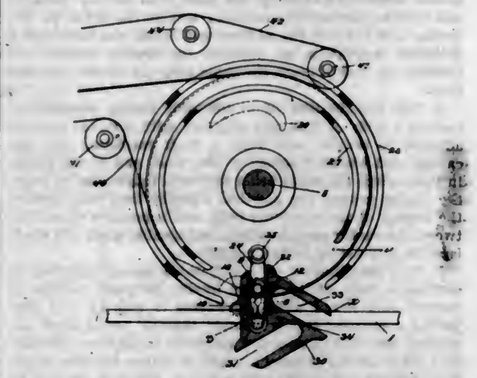
3. In a centrifugal machine, a rotary basket provided with an annular series of foraminiferous drums rotatable about axes lying substantially in a plane normal to the axis of rotation of the basket, and means for controlling the rotation of said drums.

4. In a centrifugal machine, a rotary basket comprising an upwardly and outwardly-inclined foraminiferous bottom and an annular series of foraminiferous drums arranged to receive material from said bottom and to rotate upwardly and outwardly so as to discharge said material from the periphery of the basket, and means for controlling the rotation of the drums.

5. A centrifugal machine having, in combination, a basket rotatable, as a whole, about a vertical axis and provided with a plurality of foraminiferous drums independently rotatable about horizontal axes and with a bottom terminating adjacent the drums and substantially above the bottoms thereof, and means for rotating the basket about its vertical axis and for rotating the drums about their said axes in a direction to cause their inner portions to move upwardly and outwardly.

[Claims 6 to 15 not printed in the Gazette.]

1,025,486. FOLDING-MACHINE. RALPH C. SEYMOUR, Larchmont, N. Y., assignor to Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 29, 1909. Serial No. 530,438. (Cl. 101—48.)



1. A folding machine including in combination sheet positioning means, a fixed folding blade in operative relation with the positioned sheet, a rotating carrier, a set of folding jaws rotatably mounted on said carrier, means for rotating said set of jaws relatively to said rotating carrier during the folding and taking of the sheet, and means for holding said jaws from rotation relatively to their carrier during the delivery of the sheet from said jaws.

2. A folding machine including in combination sheet positioning means, a fixed folding blade in operative relation with the positioned sheet, a rotating carrier, a set of folding jaws rotatably mounted on said carrier, means for rotating said set of jaws relatively to said rotating carrier during the folding and taking of the sheet, and means for delivering the sheet with said folded edge foremost while said jaws are at rest relatively to their carrier.

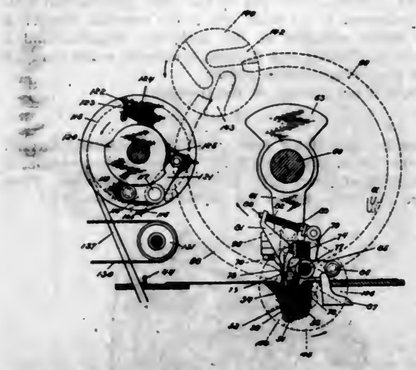
3. A folding machine including in combination sheet positioning means, a fixed folding blade in operative relation with the positioned sheet, a rotating carrier, a set of folding jaws rotatably mounted on said carrier, the jaws of said set being also movable relatively to each other about an axis substantially concentric with that of the set of jaws.

4. A folding machine including in combination sheet positioning means, a fixed folding blade in operative relation with the positioned sheet, a rotating carrier, a set of folding jaws movably mounted on said carrier, means for opening and closing the jaws, and means for causing intermittent rotation of the set of jaws.

5. A folding machine including in combination means for supporting a sheet at rest, a fixed folding blade in operative relation with the sheet, a swinging carrier, a set of folding jaws mounted to swing on said carrier, means for maintaining said set of jaws at rest relatively to said carrier as they move toward the folding blade, and means for swinging the set of jaws on its carrier as they fold and take the sheet from the folding blade.

[Claims 6 to 73 not printed in the Gazette.]

1,025,487. BINDING AND FOLDING MACHINE. RALPH C. SEYMOUR, Larchmont, N. Y., assignor to Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed July 1, 1910. Serial No. 569,948. (Cl. 101—48.)



1. A folding machine including in combination a rotating carrier, a set of folding jaws mounted thereon, a fixed folding blade, means for causing said folding jaws to approach said folding blade pointed toward said blade and to fold the sheets and to leave the folding blade carrying the folded sheets and pointing toward said folding blade, delivery means for taking the folded sheets from said jaws and means for turning the jaws to point toward the blade after the delivery of the sheets and as they again approach the folding blade.

2. A folding machine including in combination a traveling carrier, a set of folding jaws mounted thereon, a fixed folding blade, means for causing said folding jaws to approach said folding blade pointed toward said blade and to fold the sheets and to leave the folding blade carrying the folded sheets and pointing toward said folding blade, delivery means for taking the folded sheets from said jaws and means for turning the jaws to point toward the blade after the delivery of the sheets and as they again approach the folding blade.

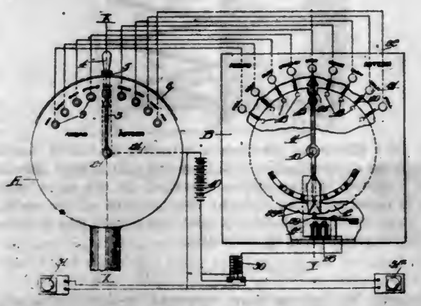
3. A folding machine including in combination a rotating carrier, a set of folding jaws mounted thereon, a fixed folding blade, means for rotating the folding jaws on to and off the folding blade to fold and take the sheets, delivery means for receiving the sheets from said folding jaws, and means for rotating said jaws after the delivery to bring them into position to be rotated over the folding blade when they next approach the blade.

4. A folding machine including in combination a traveling carrier, a set of folding jaws mounted thereon, a fixed folding blade, means for rotating the folding jaws on to and off the folding blade to fold and take the sheets, delivery means for receiving the sheets from said folding jaws, and means for rotating said jaws after the delivery to bring them into position to be rotated over the folding blade when they next approach the blade.

5. A folding machine including in combination a rotating carrier, a set of folding jaws mounted thereon, a fixed folding blade, means for rotating said jaws onto and off the blade to fold and take the sheets, means for holding the folding jaws pointed backwardly as they leave the folding blade with the folded sheets, delivery means for receiving the folded sheets from the folding jaws and means between the delivery means and the folding blade for positioning the folding jaws for again coöperating with said blade.

[Claims 6 to 31 not printed in the Gazette.]

1,025,488. ENGINE-ROOM RETURN-SIGNAL. VICTOR H. STREET, Berkeley, Cal. Filed Mar. 30, 1910. Serial No. 552,361. (Cl. 177—337.)



1. In a signal apparatus, similarly indexed sending and receiving dials, electrical contacts on the sending dial, lamps on the receiving dial, connections therebetween, indicators mounted for independent manual rotation one on each dial, a circuit closer movable in conjunction with the indicator on the sending dial, a source of electricity connected to the closer, a conductor, movable with the indicator of the receiving dial, having a peripheral gap, and notches, an armature, a pawl connected thereby and engageable with said notches, an electro-magnet for operating the armature, yieldable pins normally in contact with said conductor, one of which is adapted to enter the gap in the conductor when the receiving indicator is brought into register with an energized lamp and electrical connections between the lamps and the pins and the conductor and the source of current.

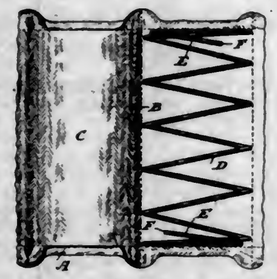
2. In a signal apparatus, similarly indexed sending and receiving dials, electrical contacts on the sending dial, lamps on the receiving dial, connections therebetween, indicators mounted for independent manual rotation one on each dial, a circuit closer movable in conjunction with the indicator on the sending dial, a source of electricity connected to the closer, a conductor, movable with the indicator of the receiving dial, having a peripheral gap, and notches, yieldable pins normally in contact with said conductor, one of which is adapted to enter the gap in the conductor when the receiving indicator is brought into register with an energized lamp, and electrical connections between the lamps and the pins and the conductor and the source of current, a pawl adapted to enter the notches of the conductor to lock same, and a releasing magnet therefor.

3. A signal system including a series of marked contacts, a series of marked lamps, and intermediate connections, a movable circuit closer engageable with said contacts, a source of electricity and connection through the circuit closer, a rotatable plate within the circuit, having peripheral notches, an armature pawl normally engaging one of said notches by gravitation, and an electro-magnet in the circuit acting to disengage the pawl, and allow the plate to be turned.

1,025,489. FILLING-SPRING FOR MATTRESSES AND THE LIKE. ALAN C. THOMPSON, Toronto, Ontario, Canada. Filed Mar. 18, 1911. Serial No. 615,299. (Cl. 5—21.)

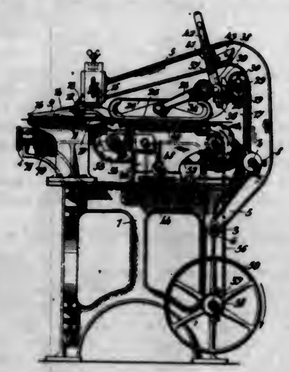
1. In a filling for mattresses a pocket of textile fabric containing a non-tapered helical spring and having its end coils inclined in the reverse direction to the main coils and reduced in diameter whereby the cut ends of

the spring are maintained out of contact with the pocket whether the spring be compressed or extended.



2. In a filling for mattresses a pocket of textile fabric containing a non-tapered helical spring and having its end coils inclined in the reverse direction to the main coils and changed in curve whereby the cut ends of the spring are maintained out of contact with the pocket whether the spring be compressed or extended.

1,025,490. MACHINE FOR CUTTING EMBROIDERIES. ALOIS TSCHERNE, Rorschach, Switzerland, assignor to The Firm of Henri Levy, Rorschach, Switzerland. Filed Aug. 1, 1911. Serial No. 641,847. (Cl. 164—38.)



1. In a machine for cutting embroidery background, a stationary knife holder, a knife fixed thereon and forming therewith a slot through which the background is passed, means for feeding the embroidery along the edge of the knife, and means to adjust the holder and knife at an angle to the direction of travel of the embroidery.

2. In a machine for cutting embroidery background, a stationary knife holder, a knife fixed thereon and forming therewith a slot through which the background is passed, means for feeding embroidery along the edge of the knife, and two supports to which the knife holder is pivotally connected at each end, whereby the knife is adjustable at an angle to the direction of travel of the embroidery.

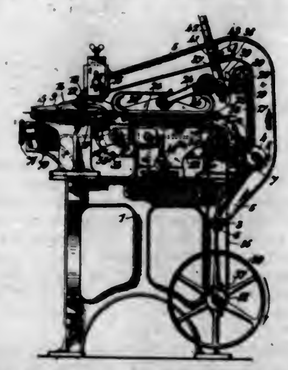
3. In a machine for cutting embroidery background, the combination with means for feeding embroidery in the direction of its length, of a support mounted on each side of the feeding means, a knife holder pivotally connected with said supports, a knife fixed on the holder and forming therewith a slot through which the background is passed, said holder and knife so positioned relatively to the direction of travel of the embroidery that the latter is fed along the edge of the knife, and means to adjust one of said supports to vary the angle of the holder and knife relatively to the direction of travel of the embroidery.

4. In a machine for cutting embroidery background, the combination with means for feeding embroidery in the direction of its length, of a support mounted on each side of the feeding means, a knife holder pivotally connected with said supports, a knife fixed on the holder and forming therewith a slot through which the background is passed, said holder and knife being so positioned relatively to the direction of travel of the embroidery that the latter is fed along the edge of the knife, and means to move one of said supports toward and from the feeding means whereby the angle of the holder and knife is varied relatively to the direction of travel of the embroidery.

5. In a machine for cutting embroidery background, the combination with means for feeding embroidery in the direction of its length, a fixed support on one side of the feeding means, a support on the other side of the latter movable toward and from said feeding means, a horizontal support pivoted at one end in the fixed support and slidably connected at its other end to the movable support, a knife holder mounted on the horizontal support, and a knife on the holder and forming therewith a slot through which the background is passed.

[Claim 6 not printed in the Gazette.]

1,025,491. MACHINE FOR CUTTING EMBROIDERIES. ALOIS TSCHERNE, Rorschach, Switzerland, assignor to The Firm of Henri Levy, Rorschach, Switzerland. Filed Sept. 12, 1911. Serial No. 648,983. (Cl. 164—38.)



1. In a machine for cutting embroidery background along the edge of the embroidery, the combination with a stationary knife, of means to feed the embroidered material in a straight line along the knife, said means stretching the material in straight lines in the direction of the width of the material.

2. In a machine for cutting embroidery background along the edge of the embroidery, the combination with a stationary knife, of a feeding mechanism for the embroidered fabric comprising two pairs of superposed feed members adapted to engage both sides of the embroidery, and means to adjust bodily one pair of members perpendicular to the direction of movement of the fabric.

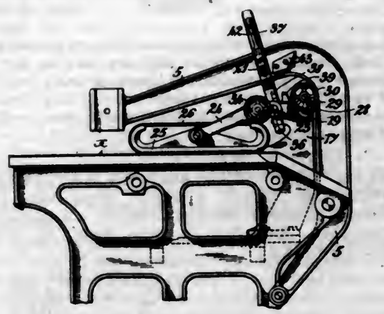
3. In a machine for cutting embroidery background along the edge of the embroidery, the combination with a stationary knife, of means to feed the embroidery along the edge of the knife comprising endless carriers, supports on which said carriers travel, and means to adjust one of said supports and carriers perpendicular to the direction of travel of the fabric.

4. In a machine for cutting embroidery background along the edge of the embroidery, the combination with a stationary knife of means to feed the embroidery along the edge of the knife comprising endless carriers, supports on which said carriers travel, means to adjust one of said supports and carriers perpendicular to the direction of travel of the fabric, and means to press the fabric onto the carriers.

5. In a machine for cutting embroidery background along the edge of the embroidery, the combination with a stationary knife of means to feed the embroidery along the edge of the knife comprising endless carriers, supports on which said carriers travel, means to adjust one of said supports and carriers perpendicular to the direction of travel of the fabric, means to press the fabric onto the carriers and means to adjust one of the pressing means with the adjustable carrier perpendicular to the direction of movement of the fabric.

[Claims 6 to 13 not printed in the Gazette.]

1,025,492. MACHINE FOR CUTTING EMBROIDERY-BACKGROUND. ALOIS TSCHERNE, Rorschach, Switzerland, assignor to The Firm of Henri Levy, Rorschach, Switzerland. Filed Sept. 14, 1911. Serial No. 649,247. (Cl. 164—49.)



1. In a machine for cutting embroidered fabric, a cutting member, endless stretching members on opposite sides of the cutting member arranged to stretch the fabric in its plane and in the direction of its width, and means to hold one of said members in yielding contact with the fabric.

2. In a machine for cutting embroidered fabric, a cutting member, endless stretching members on opposite sides of the cutting member arranged to stretch the fabric in its plane and in the direction of its width, yielding means to press one of the stretching members onto the fabric, and means to regulate the pressure of the pressing means.

3. In a machine for cutting embroidered fabric, a cutting member, a stretching member on one side of the latter in fixed relation thereto, a pivoted arm on the opposite side of the cutter, a stretching member on the arm, said stretching members adapted to stretch fabric in its plane and in the direction of its width, a spring to depress said arm, and means to adjust the tension of the spring.

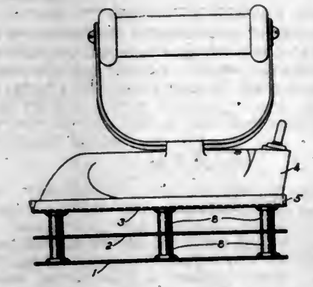
4. In a machine for cutting embroidered fabric, the combination with a cutting member, of a stretching member on one side of and in fixed relation to the latter, a rotatable pivot, an arm pivoted thereon on the opposite side of the cutting member, a stretching member carried by the arm, a spring fixed at one end on the pivot and having its free end pressing on the arm, and means to lock the pivot in adjusted position.

1,025,493. FLAT-IRON STAND. FREDERICK M. VOGEL, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Nov. 25, 1905. Serial No. 289,026. (Cl. 68—27.)

1. A flat-iron stand comprising upper and lower plates, hollow spacers between said plates, and retaining means extending through but separated from said spacers and countersunk from said plates for securing the plates and spacers into a rigid structure.

2. A flat-iron stand comprising a base-plate, a supporting plate, hollow spacers between said plates, rivets extending through said spacers and engaging said plates to secure the same into a rigid structure, said rivets and spacers being entirely below the surfaces of said plates.

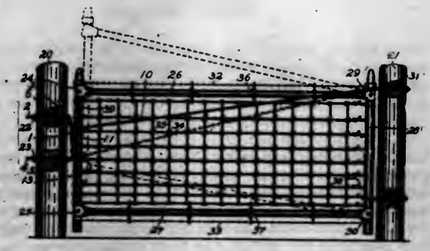
3. A flat-iron stand comprising an upper plate, a lower plate and an intermediate plate, spacers between said plates and fastenings arranged to secure said plates and spacers into a rigid structure, said fastenings being depressed below the surface of said upper and lower plates.



4. A flat-iron stand comprising a base-plate, a supporting plate and an intermediate plate, spacers between said plates, rivets arranged to secure said plates and spacers into a rigid structure, the ends of said rivets being depressed below the surfaces of the outer plates, and the shanks of the rivets being separated from the spacers.

5. A flat-iron stand comprising a base-plate, a supporting plate and an intermediate plate, hollow spacers between said plates, rivets passing through said spacers and arranged to secure said plates and spacers into a rigid structure, said rivets being countersunk below the surface of said upper and lower plates and out of contact with said spacers.

1,025,494. LATCH FOR FLEXIBLE GATES. WALTER K. VOORHEES, Cedar Falls, Iowa, assignor to Standard Manufacturing Company, Cedar Falls, Iowa. Filed Apr. 17, 1911. Serial No. 621,540. (Cl. 39—100.)



1. The combination with a flexible gate, and a support to which said gate is hinged, and a head post, of an inclined rod secured longitudinally to said post and directed toward said gate with its inclination from the post downwardly toward the gate, and a movable catch connected to said gate and adapted to detachably engage said rod in any up or down position of the gate, said catch comprising a bearing-body having horizontal alined bearing openings therein, rock-members seated in said bearings in alinement with their outer ends projecting, each projecting end being curved obliquely upward, first outward and then inward to approach each other, and said projecting ends being adapted to rock upwardly to permit them to separately move to pass over and inclose said inclined rod in any vertical adjustment of said gate, when the gate is closed.

2. The combination with a flexible gate composed of head and tail stiles, said stiles being connected at top and bottom by means of rods swiveled thereto, of a slide-body movable along said head stile, said slide having side wings with cross grooves, the upper edge of each groove being provided with an inwardly-inclined notch and said wings having a projection below each groove adapted to be bent toward said notch adjacent thereto, connecting-

means between the upper end of said tail stile and the said grooves, adapted to be secured in said grooves when said projections are bent upwardly and their ends fixed in the said notches.

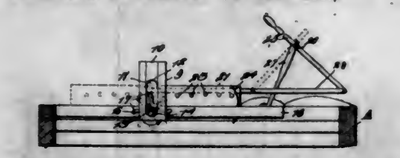
1,025,495. PRINTING. ARTHUR OCTAVIUS WATKINS, London, England. Original application filed Aug. 7, 1908, Serial No. 447,459. Divided and this application filed Feb. 14, 1910. Serial No. 543,835. (Cl. 101—182.)



1. The method of producing printed matter having a dark background and lighter characters, which consists in making a form composed of type having unreversed characters, making an intaglio mold from said form, leveling said mold to the tops of the characters of the type, inking the leveled surface, and finally taking an impression of the leveled surface.

2. The method of producing printed matter having a dark background and lighter characters, which consists in making a form composed of type having unreversed characters, making an intaglio mold from said form, leveling said mold to the tops of the characters of the type, preparing a stereotype or electrotype from said mold, inking the surface of the stereotype or electrotype, and finally taking an impression from the stereotype or electrotype.

1,025,496. STARTING MECHANISM FOR AUTOMOBILE-ENGINES. EDGAR LA MOTTE WEAVER and EDWARD CREVELING KIMMEL, Saltillo, Pa. Filed Apr. 5, 1911. Serial No. 619,129. (Cl. 123—185.)

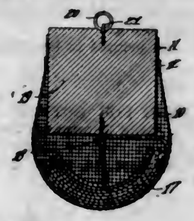


1. In a starting mechanism of the class described, the combination of an engine shaft, a starting shaft geared thereto, a tumbling shaft connected to the starting shaft and provided with a pinion, and a slide gear mounted for longitudinal movement, and having gear teeth on one side to pass over the pinion, and turn the same when the slide gear moves in one direction, and the tumbling shaft is in lowered position, the said pinion when actuated by the power of the engine, moving up on the slide gear above the teeth of the slide gear, and returning the slide gear to its initial position and means to operate the slide gear.

2. In a starting mechanism of the class described, the combination of an engine shaft, a starting shaft geared thereto, a tumbling shaft connected to the starting shaft and provided with a pinion, and a slide gear mounted for longitudinal movement, and having gear teeth on one side to pass over the pinion, and turn the same when the slide gear moves in one direction, and the tumbling shaft is in lowered position, the said pinion when actuated by the power of the engine moving up on the slide gear above the teeth of the slide gear, and returning the slide gear to its initial position, and a lever connected to the slide gear to actuate the latter.

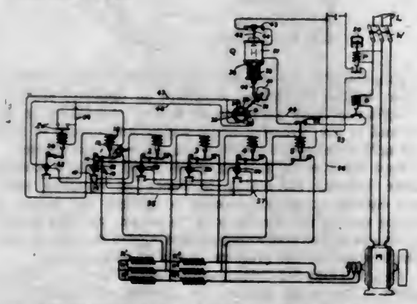
1,025,497. LIFE-SAVING DEVICE. CHARLES J. WENSLEY, Huntington, N. Y. Filed Aug. 22, 1911. Serial No. 645,383. (Cl. 9—17.)

1. A device of the character described comprising a fabric body portion, a frame connected with the upper portion of said body portion, a rope connected with said frame and normally positioned within said receptacle, a float connected with said rope and adapted to fit within said frame to close said body portion.



2. A device of the character described comprising a fabric body portion, a frame at the upper end of said body portion, a binding securing the upper portion of said portion to said frame, a loop connected with said binding, a rope connected with said loop and a float connected with said rope.

1,025,498. CONTROL OF ELECTRICALLY-OPERATED SWITCHES. HAROLD E. WHITE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 19, 1910. Serial No. 572,714. (Cl. 172—280.)



1. In combination with a power circuit, a plurality of contactors intended for operation in succession to effect certain connections in said power circuit, auxiliary switches coöperating with certain of said contactors each arranged to control the operation of a succeeding contactor, means for positively holding each auxiliary switch open while its coöperating contactor is open, magnets each coöperating with an auxiliary switch for controlling the closing thereof, and means for energizing and deënergizing successively the magnets of said auxiliary switches, the energization of each magnet being substantially coincident with the deënergization of the magnet of the auxiliary switch of the preceding contactor.

2. In combination with a power circuit, a plurality of contactors intended for operation in succession to effect certain connections in said power circuit, auxiliary switches coöperating with certain of said contactors each arranged to control the operation of a succeeding contactor, means for positively holding each auxiliary switch open while its coöperating contactor is open, magnets each coöperating with an auxiliary switch for controlling the closing thereof, a circuit to which the auxiliary switch magnets of alternate contactors are connected, a circuit to which the auxiliary switch magnets of the other contactors are connected, and means for energizing and deënergizing said circuits alternately the energization of one taking place substantially coincidently with the deënergization of the other.

3. In combination with a power circuit, a plurality of contactors intended for operation in succession to effect certain connections in said power circuit, auxiliary

switches coöperating with certain of said contactors each arranged to control the operation of a succeeding contactor, means for positively holding each auxiliary switch open while its coöperating contactor is open, magnets each coöperating with an auxiliary switch for controlling the closing thereof, means for energizing and deënergizing successively the magnets of said auxiliary switches the energization of each magnet being substantially coincident with the deënergization of the magnet of the auxiliary switch of the preceding contactor, and means responsive to the conditions in said power circuit for controlling the operation of said last mentioned means.

4. In combination with a power circuit, a plurality of contactors intended for operation in succession to effect certain connections in said power circuit, auxiliary switches coöperating with certain of said contactors each arranged to control the operation of a succeeding contactor, means for positively holding each auxiliary switch open while its coöperating contactor is open, magnets each coöperating with an auxiliary switch for controlling the closing thereof, a circuit to which the auxiliary switch magnets of alternate contactors are connected, a circuit to which the auxiliary switch magnets of the other contactors are connected, means for energizing and deënergizing said circuits alternately the energization of one taking place substantially coincidently with the deënergization of the other, and means responsive to the conditions in said power circuit for controlling the operation of said last mentioned means.

5. In combination with a power circuit, a plurality of contactors intended for operation in succession to effect certain connections in said power circuit, auxiliary switches coöperating with certain of said contactors each arranged to control the operation of a succeeding contactor, means for positively holding each auxiliary switch open while its coöperating contactor is open, magnets each coöperating with an auxiliary switch for controlling the closing thereof, a circuit to which the auxiliary switch magnets of alternate contactors are connected, a circuit to which the auxiliary switch magnets of the other contactors are connected, and a magnetically operated notching device for energizing and deënergizing said circuits alternately, the energization of one taking place substantially coincidently with the deënergization of the other.

[Claims 6 and 7 not printed in the Gazette.]

1,025,499. PROCESS OF MAKING INCANDESCENT LAMPS. WILLIS R. WHITNEY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 27, 1908. Serial No. 464,551. (Cl. 176—2.)

1. The process of freeing a glass vessel from occluded gases and moisture, which consists in heating said vessel while open to the atmosphere to a temperature at which the walls of the vessel begin to soften, washing out said vessel by passing a stream of dried gas through said vessel during the time it is above the temperature at which gases or moisture are occluded, and thereafter sealing said vessel air tight before air and moisture are again occluded.

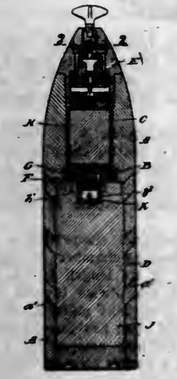
2. The process of removing occluded gases and moisture from the walls of the bulb of an incandescent lamp, which consists in heating the lamp to about 400 degrees centigrade, passing a stream of hydrogen through said bulb while hot enough to prevent occlusion of gases or moisture, and thereafter exhausting said lamp at a temperature of about 300 degrees centigrade.

3. The process of evacuating an incandescent lamp bulb, which consists in heating said lamp bulb while open to the atmosphere to a temperature at which the bulb begins to soften, passing a stream of dried inert gas through the bulb while hot enough to prevent occlusion of gases or moisture, and thereafter evacuating and sealing the bulb before air or moisture is again occluded.

4. The process of producing an evacuated glass vessel free from occluded gases and moisture, which consists in heating said vessel before evacuation to a temperature at which the walls of the vessel begin to soften, washing out said vessel by passing through it at that temperature a stream of dry gas, and thereafter evacuating said vessel at a lower temperature and sealing it before air or moisture is again occluded.

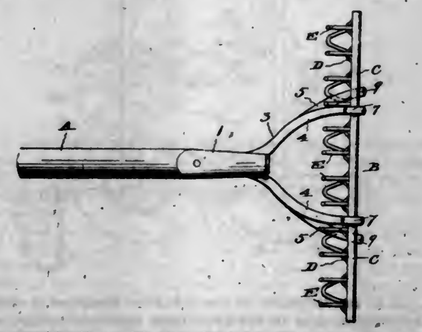
5. The process of producing an evacuated glass vessel free from occluded gases and moisture, which consists in heating said vessel before evacuation to a temperature high enough to prevent occlusion of gas or moisture, freeing said vessel from gases and moisture by passing through it while so heated a stream of gas, and subsequently evacuating and sealing said vessel before gas or moisture is again occluded.

1,025,500. PROJECTILE FOR FIRING AT AIRSHIPS. KARL WIESER and WILHELM SCHWARTZ, Bredeney, Germany, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed May 7, 1900. Serial No. 494,616. (Cl. 102—29.)



A projectile for use in firing at air ships, having a normal length and containing a burning mass that produces a thick and easily visible smoke when ignited, means causing the burning mass to be ignited by the firing of the gun, a bursting charge and an impact fuse for igniting said bursting charge, the burning mass and the bursting charge being placed in two chambers of the projectile which are separated one from the other and the chamber containing the burning mass being greater than the chamber containing the bursting charge and constructed with perforations, through which said smoke is discharged.

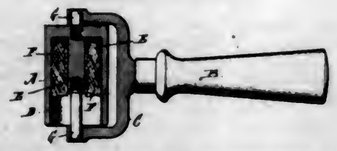
1,025,501. FERRULE FOR RAKE-HANDLES. LYMAN H. ZEIGLER, Redkey, Ind. Filed Mar. 18, 1911. Serial No. 615,227. (Cl. 55—10.)



In combination with a tool-head having a bar, and a tool-handle, a socket engaging said handle, arms extending

from said socket, each of said arms formed with two prongs on its end V-shaped in plan and elevation, the upper of said prongs bent upwardly and forwardly and the lower prong bent downwardly and forwardly to receive the tool-head bar aforesaid, and the ends of the prongs bent to engage the front of said bar, substantially as shown and described.

1,025,502. SELF-HEATING SAD-IRON. CHARLES ELLSWORTH ADAMSON, Buffalo, N. Y. Filed Apr. 30, 1908. Serial No. 430,059. (Cl. 158—23.2.)



1. A self-heating rotatable iron comprising a cylindrical body hollowed at one end to form a heating-chamber and having a pocket extending from said chamber toward its other end, and absorbent material within said pocket.

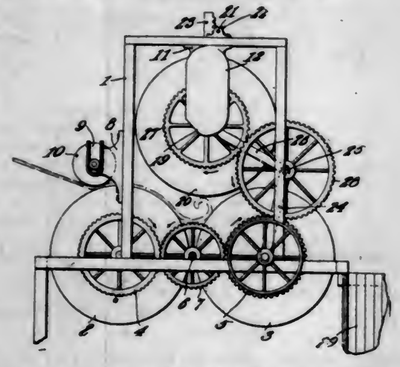
2. A sad-iron comprising a cylindrical roller hollow at one end to form a heating-chamber and having pockets around the axis of the roller extending from said chamber toward the other end of the roller, absorbent material in said pockets, and a handle in which said roller is rotatably held.

3. A rotatable sad-iron comprising a cylindrical body having an open heating-chamber at one end extending through a portion of its length and a pocket extending from said chamber lengthwise toward the opposite end of said body, and absorbent material in said pocket and exposed through said open heating-chamber.

4. A rotatable sad-iron comprising a one-piece cylindrical body having a pocket formed therein and a heating-chamber into which said pocket opens, and absorbent material held in said pocket.

5. In a self-heating sad-iron, a hollow body portion having a pocket or pockets and a heating chamber formed therein, said pocket or pockets extending inward from said heating chamber, and absorbent material retained in said pocket or pockets.

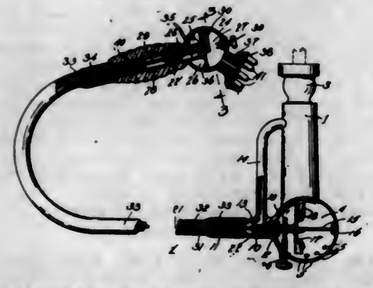
1,025,503. APPARATUS FOR SOLIDIFYING COTTON-BATTING PREPARATORY FOR PRESSING AND BALING. CHARLES BANISTER, Waco, Tex. Filed May 1, 1911. Serial No. 624,345. (Cl. 100—1.)



1. In an apparatus of the character described, a frame, brackets secured to the said frame having elliptical raceways therein and provided with gear teeth along one section thereof, a shaft having the extremities thereof arranged in the said raceways, pinions on the ends of the said shaft within the said raceways, a roller mounted on the said shaft, means for rotating the said shaft, means coöperating with the said roller for compressing the cotton batting, and means for constraining the ends of the said shaft to move in unison to and from the latter means.

2. An apparatus of the character described comprising a frame, a pair of rollers journaled therein, means for rotating the said rollers, gear wheeels for one of the said rollers at the ends thereof, brackets at the upper portion of the frame having elliptical raceways therein and provided with gear teeth along one section thereof, a shaft having the extremities thereof arranged in the said raceways, pinions on the ends of the said shaft within the said raceways, a roller mounted on the said shaft, means for maintaining the said shaft parallel to the axes of the former rollers at all times, links pivoted together at their adjacent ends, one of the ends of the said links being pivoted to the said shaft and the other end of the said links being pivoted at the axis of the former roller having the gear wheels, gear wheels pivoted to the adjacent ends of the said links, said gear wheels meshing with the former gear wheels, and gear wheels on the shaft meshing with the latter gear wheels.

1,025,504. COMBINED VIBRATOR AND VACUUM APPARATUS. JAMES BIRRELL and WILLIAM BIRRELL, Seattle, Wash., assignors, by direct and mesne assignments, to Birrell Vacuum Vibrator Company, Seattle, Wash., a Corporation of Washington. Filed July 31, 1911. Serial No. 641,647. (Cl. 128—16.)



1. In apparatus of the class described, fluid induced suction device, a motor operated by fluid discharged from said suction device, and means including suitable connections for applying suction and vibrations caused by said device and motor.

2. In apparatus of the class described, fluid actuated means for creating a vacuum, power devices actuated simultaneously by said fluid, apparatus in common whereby said vacuum is applied and power from said devices is utilized in the form of vibrations, and flexible operative connections between said apparatus and said means and devices.

3. In apparatus of the class described, a fluid induced suction device, a motor operated by fluid discharged from said suction device, means including suitable connections for applying suction and vibrations caused by said device and motor, and means to vary the amount of suction.

4. In apparatus of the class described, a vibrator, including a suction applicator, fluid actuated power mechanism, fluid operated suction inducing apparatus associated therewith, and operative connections between said mechanism and said vibrator including air-tight communication between said suction devices.

5. In apparatus of the class described, fluid induced suction device, a motor operated by fluid discharged from said suction device, means including suitable connections for applying suction and vibrations caused by said device and motor, and means to cause said motor to be inoperative.

[Claims 6 to 15 not printed in the Gazette.]

1,025,505. GAS-GOVERNOR. JAMES M. BLACKBURN, Baltimore, Md. Filed Nov. 30, 1910. Serial No. 594,961. (Cl. 67—110.)



1. A gas governor comprising a fitting having a central recess, a pair of valves movably fitted to said recess and each provided with a plurality of gas passages therethrough, one of the passages in the lower valve being smaller than the corresponding passage in the upper valve whereby both valves may be supported one bearing upon the other by a gas cushion in the recess, and stops for limiting the movement of said valves.

2. A gas governor comprising a fitting having a central recess, a pair of valves, adapted to slide in said recess and each having two flanges fitting the recess and provided with openings, suitable stops for said valves, and means for always maintaining the adjacent flanges of said pair of valves in spaced relation.

3. A gas governor comprising a fitting having a central recess, a pair of valves adapted to slide in said recess and each having two separated flanges and openings through said flanges, the openings in one flange being out of register with the openings through the other flange, suitable stops for said valves, and means for always maintaining the adjacent flanges of said pair of valves in spaced relation.

4. A gas governor comprising a fitting having a central recess, a pair of valves bearing on the wall of the recess and adapted to slide in said recess, and suitable stops for said valves, each of said valves having a central opening for the passage of gas, the opening in the lower valve being smaller than the opening in the upper valve, whereby both valves may be supported one upon the other by a gas cushion in the recess.

5. In a gas governor, the combination of a fitting having a central cylindrical chamber, a cap adjustably mounted in the upper end of the fitting and having a lateral opening adapted to be more or less closed by adjustment, a plurality of valves movable in the chamber, the upper valve being adapted to seat on said cap, and means for preventing the lower valve from dropping out of the chamber, the said valves being adapted to be operated automatically by the flow of gas to cut off more or less gas according to the pressure.

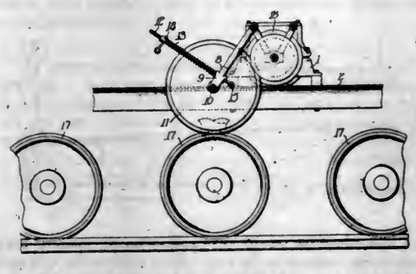
[Claims 6 and 7 not printed in the Gazette.]

1,025,506. DRIVING MECHANISM FOR GENERATORS. WILLIAM L. BLISS, Milwaukee, Wis., assignor to The United States Light & Heating Company, New York, N. Y., a Corporation of Maine. Filed May 2, 1910. Serial No. 559,016. (Cl. 105—238.)

1. In combination, a generator, a vehicle wheel angularly movable in respect to said generator and a friction wheel directly intermediate said generator and wheel and in operative relation thereto in all positions.

2. In a generator driving mechanism, a generator, a frame mounted thereon, a driving wheel, a friction wheel mounted within said frame, and means to maintain said friction wheel in active engagement between said generator and said driving wheel.

3. The combination with a car frame, of wheels beneath the same, a generator mounted on said frame, a driving pulley on the shaft of said generator, a friction wheel bearing on the rim of one of said car wheels and also on the rim of said pulley, bearings for said friction wheel mounted in a swinging frame for forcing said friction wheel between said car wheel and pulley, whereby good frictional contact is maintained.

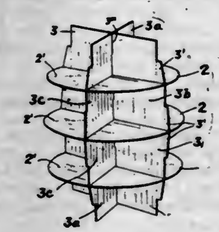


4. In a generator driving mechanism, the combination with a generator having a casing, of a frame pivoted thereto, said frame comprising telescoping members having a friction wheel mounted thereon, spring means coöperating with one of said telescoping members and a fixed support, to impel said friction wheel in a given direction, a pulley on the generator shaft and a driving wheel, both adjacent said pulley, to resist the thrust of said spring-impelled wheel, whereby frictional contact is maintained.

5. In combination, a generator mounted in a car over the car truck, a driving pulley for said generator, a wheel intermediate said pulley and one of the car wheels, said wheel having a rubber tire bearing against the rim of said pulley and the rim of said car wheel, a frame supporting said wheel, said frame consisting of a plurality of telescoping parts, certain parts being hinged to the generator frame, the others carrying bearing members for said wheel, said bearing members being provided with holes to receive sliding bars, fixed supports for one end of said bars, and adjustable stops near the other end of said bars, coil springs surrounding said bars and bearing against said stops and said bearing members, whereby said wheel is held firmly but yieldingly against said pulley and said car wheel.

[Claims 6 to 8 not printed in the Gazette.]

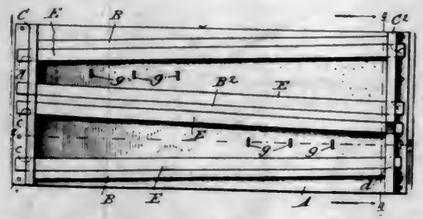
1,025,507. BARREL-PARTITION. ROBERT P. BROWN, Philadelphia, Pa., assignor to Brown & Bailey Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 12, 1912. Serial No. 676,950. (Cl. 217—75.)



1. The combination with a barrel increasing in diameter from the ends to the center, of intersecting partitions having folding wings on the ends thereof adapted for engaging the barrel and folding disks disposed in said barrel transversely to said partitions.

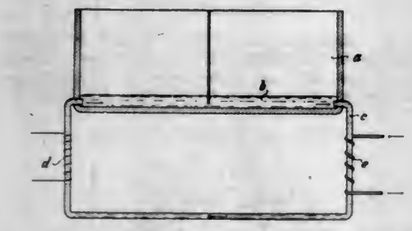
2. The combination with a barrel increasing in diameter from the ends to the center, of a folding disk fitted within said barrel transversely to the axis thereof and two pairs of intersecting partitions respectively provided with centrally disposed transverse slots whereby one engages the other, said pairs of partitions being separated by and disposed at right angles to said disk and each of said intersecting partitions having a folding end wing thereon.

1,025,508. APPARATUS FOR MAKING REINFORCED FENCE-POSTS OF PLASTIC MATERIAL. JACKSON N. CALDWELL, Manhattan, Kans. Filed July 11, 1910. Serial No. 571,434. (Cl. 25—121.)



An apparatus for use in the production of posts of plastic material, comprising a base, three side walls arranged on the base; the intermediate side wall being of even height throughout its length, and the outer side walls being tapered in height from one end to the other and being reversely arranged, end walls reversely arranged on the base and removable therefrom and each having a high portion and a low portion and each also having a pair of apertures in its high portion and a pair of lower apertures in its low portion; the lower apertures of each end wall being arranged opposite the upper apertures of the other end wall, and four longitudinal strips removably arranged in the apertures of the end walls and so that each strip is disposed in one of the higher apertures of one end wall and in one of the lower apertures of the opposite end wall; each strip being also arranged directly against the adjacent side wall.

1,025,509. MEANS FOR CAUSING MERCURY TO CIRCULATE WHILE ELECTROLYZING AQUEOUS SOLUTIONS OF METALLIC SALTS. RUDOLF CARL, Schmargendorf, near Berlin, Germany, assignor to Siemens & Halske, A. G., Berlin, Germany, a Corporation of Germany. Filed Oct. 24, 1911. Serial No. 656,506. (Cl. 204—58.)



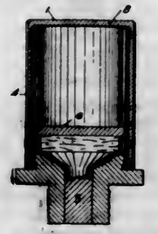
1. In a plant for electrolyzing aqueous solutions of metallic salts, the combination with a cell containing mercury of a hydrostatically closed mercury ring connected with said cell, and means for producing differences of temperature in the mercury in the ring near the points of connection.

2. In a plant for electrolyzing aqueous solutions of metallic salts, the combination with a cell containing mercury, of a pipe connecting two sides of the cell below the level of the mercury, and means for cooling the mercury in the pipe near one side of the cell.

3. In a plant for electrolyzing aqueous solutions of metallic salts, the combination with a cell containing mercury, of a hydrostatically closed pipe connecting two sides of the cell below the level of the mercury, and means for heating the mercury in the pipe near one side of the cell.

4. In a plant for electrolyzing aqueous solutions of metallic salts, the combination with a cell containing mercury, of a pipe connected with two opposite sides of the cell below the level of the mercury, cooling means for cooling the mercury in the pipe near one side of the cell, and heating means for heating mercury in the pipe near the other side of the cell.

1,025,510. METHOD OF LUBRICATING BEARINGS. JAMES F. CRAVEN, Pittsburgh, Pa., assignor to Craven Engineering Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 5, 1910. Serial No. 542,290. (Cl. 184—38.)



1. The method of supplying a lubricant to bearings consisting in inclosing the lubricant in a closed container having a week portion, inserting said container in a chamber provided with a passage leading to the bearing, applying pressure to said container and thereby rupturing the weak portion, and then forcing the lubricant out of the container and into the bearing.

2. The method of supplying a lubricant to bearings consisting in inclosing the lubricant in a closed container having a week portion, and a smooth exterior surface throughout, inserting said container in a chamber provided with a passage leading to the bearing with the weak portion of the container alined with the passage, applying pressure to said container and thereby rupturing the weak portion, and then forcing the lubricant out of the container and into the bearing.

3. The method of supplying a lubricant to bearings consisting in inclosing the lubricant in a closed, collapsible container having a weak portion, connecting said coutainer to the bearing to feed directly thereinto, and then applying pressure to said container and thereby rupturing the same and forcing the lubricant out of the same and into the bearing.

4. The method of applying a lubricant to bearings consisting in inclosing the lubricant in a closed, collapsible container or wrapper having an exterior surface free of projections or crevices, inserting the same in a cup or chamber having a lubricating passage leading therefrom to the bearing, then applying pressure on said container to form an opening from the container into the passage and to collapse the container and force the lubricant out of the same into the bearing.

5. The method of supplying a lubricant to bearings, consisting in inclosing the lubricant in a sealed container or wrapper having a surface so smooth as to prevent the lodgment of foreign matter thereon, said container being formed of material capable of being collapsed and ruptured when pressure is applied thereon, inserting the said container in a cup or chamber having a lubricating passage leading therefrom to the bearing, and then applying pressure on said container to open it at the passage and thereby rupturing the same and forcing the lubricant out of the same and into the bearing.

[Claim 6 not printed in the Gazette.]

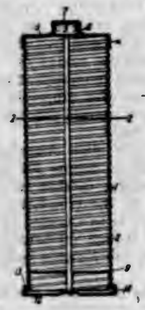
1,025,511. RECEPTACLE FOR CONTAINING AND DISCHARGING SEMISOLID AND PASTY SUBSTANCES. JAMES F. CRAVEN, Pittsburgh, Pa., assignor to Craven Engineering Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 14, 1910. Serial No. 587,081. (Cl. 221—78.)

1. A device of the character described comprising a fiber tube, a head closing one end of said tube and provided with a discharge orifice, a bearing member secured to said head and extending across said discharge orifice, a piston or follower in said receptacle arranged when moved to force the substance out of said discharge orifice, and a flexible member connected to said piston and passing over said bearing adjacent to the discharge orifice and thence extending to the outside of the receptacle and arranged to be pulled upon to move the piston toward the discharge orifice.



2. A device of the character described comprising a fiber tube having an interior unobstructed from end to end, heads closing the ends of said receptacle, one of said heads being provided with a discharge orifice, a bearing member secured to said last named head, a piston in said receptacle arranged to be moved from end to end thereof to force the contents out of the discharge orifice, and a flexible member secured to said piston and extending over said bearing member and thence extending to the opposite end of the receptacle and through the head thereon and provided, outside said receptacle with means to be grasped and pulled.

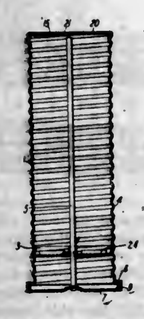
1,025,512. RECEPTACLE FOR CONTAINING AND DISCHARGING SEMISOLID AND PASTY SUBSTANCES. JAMES F. CRAVEN, Pittsburgh, Pa., assignor to Craven Engineering Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 14, 1910. Serial No. 587,083. (Cl. 221—79.)



1. A device of the character described comprising a thin light tube spirally corrugated to provide internal threads, a cap closing one end of said tube and provided with a discharge orifice, a piston or follower threaded on its periphery and engaging the internal threads in said tube, means longitudinally immovably mounted in said tube and having a sliding fit with said follower, and an imperforate end closure at the opposite end of the said tube arranged for rotating said means to cause the piston to discharge the contents from the discharge orifice.

2. A device of the character described comprising a thin light tube spirally corrugated to provide internal threads, a cap closing one end of said tube and provided with a discharge orifice, a piston or follower threaded on its periphery and engaging the internal threads in said tube, an imperforate cap closing the opposite end of the tube and being rotatable but longitudinally immovably mounted thereon, and a rod secured to said cap and extending into the tube, said follower having a sliding and driving connection with said rod.

1,025,513. RECEPTACLE FOR CONTAINING AND DISCHARGING SOLID AND SEMISOLID SUBSTANCES. JAMES F. CRAVEN, Pittsburgh, Pa., assignor to Craven Engineering Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 14, 1910. Serial No. 587,085. (Cl. 146—9.)



1. A device of the character described, comprising a suitable receptacle for the substance, end closures for the receptacle, one being non-removable therefrom, means movable the full length of said receptacle for forcing the substance endwise out of the same, connections between said non-removable closure and said means so arranged that said means may be positively moved throughout its range of travel by said closure, and said other end closure being constructed and arranged to reduce the substance to small pieces while being forced out of the receptacle.

2. A device of the character described, comprising a receptacle for the desired substance, a follower movable lengthwise in said receptacle for its full length and arranged to force the substance out of the receptacle, a rotating member extending longitudinally of the receptacle and arranged to operatively engage the follower throughout its range of travel for actuating the same, an end closure at one end of the receptacle for rotating said member, and a cutting or comminuting device at the other end of the receptacle operative by the rotation of said rotary member and arranged to reduce the substance to small pieces while being discharged therefrom.

3. A device of the character described comprising a receptacle arranged to contain the desired substance, a follower in said receptacle arranged to move longitudinally therein and force the substance out of the receptacle, a rotary member extending longitudinally of the receptacle and connected to the follower to actuate the same, an end closure rotatably mounted on the receptacle for rotating said member and a disk at the discharge end of the receptacle and operative by the rotation of the rotary member and provided with cutting or comminuting openings.

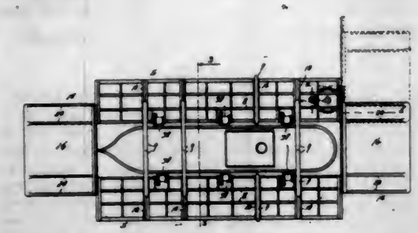
4. A device of the character described comprising a container for the substance, a follower in the container for moving the substance endwise, said follower being movable from end to end of the container, an end closure rotatably secured to one end of the container, and arranged to move the follower away therefrom, and means at the other end of the container for converting the substance into small pieces.

5. A device of the character described comprising a container for the substance, a follower in the container for moving the substance endwise, an end closure rotatably secured to one end of the container and endwise im-

movable with reference thereto, and arranged to move the follower away therefrom, and means at the other end of the container for converting the substance into small pieces, said means being secured to the container and forming an end closure therefor.

[Claims 6 and 7 not printed in the Gazette.]

1,025,514. COMBINATION DEEP-WATER-VESSEL-CARRYING BARGE. WILLIAM H. CURTIS, Denver, Colo. Filed June 6, 1911. Serial No. 631,593. (Cl. 114—51.)



1. A barge composed of two side members suitably spaced for the entrance of the hull of a vessel, the two side members being relatively buoyant, whereby they may be employed for raising a vessel to cause the latter to move in comparatively shallow water, and buoyant end members with which the side members are adjustably connected, the side members being equipped with hoisting apparatus, substantially as described.

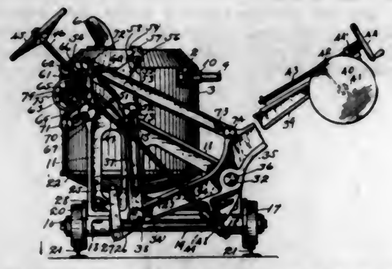
2. A barge composed of side members adapted to be spaced apart for the entrance of the hull of a vessel, the said side members being relatively buoyant, whereby they may be employed for raising a vessel to cause the latter to move in comparative shallow water, buoyant end members with which the side members are adjustably connected, and means mounted upon one of the side members and in operative relation with one of the end members for disconnecting the said end member from the opposite side member, to permit a vessel to enter between the two side members, for the purpose set forth.

3. A barge composed of two buoyant side members adapted to be spaced apart for the entrance of the hull of a vessel, whereby they may be employed for raising a loaded vessel to cause the later to move in comparatively shallow water, buoyant end members connecting the said side members, the end members being slidable upon the said side members, and means mounted upon the barge for hoisting purposes, substantially as described.

4. A barge composed of buoyant side members adapted to be spaced for the entrance of the hull of a vessel, the opposite extremities of the said side members being equipped with ways, end members adjustably mounted in the said ways and connecting the two side members, and means mounted upon one of the side members and in operative relation with one of the end members for disconnecting the said end member from one of the side members, to permit the entrance of the hull of a vessel between the said side members, the barge being equipped with vessel hoisting apparatus, substantially as described.

5. A barge composed of two buoyant side members, buoyant end members connecting the said side members, the opposite extremities of the side members being equipped with ways in which the said end members are slidably mounted, one of the said end members being equipped with a rack and one of the side members being provided with a gear in operative relation with the said rack, whereby when the gear is operated the said end member is caused to slide in the ways of the side members out of engagement with one of the side members to permit the entrance of the hull of a vessel between the two side members, and hoisting means mounted upon the barge, substantially as described.

1,025,515. PORTABLE FURNACE. MERRILL DAVIS, Watertown, N. Y., assignor to James B. Wise, Watertown, N. Y. Filed July 13, 1911. Serial No. 638,296. (Cl. 75—186.)



1. In combination, a furnace body journaled upon trunnions, means for rocking the furnace body backward and forward on said trunnions, said furnace having a pouring spout and pivotal catches in line with the trunnions and rearwardly of the pouring spout, levers journaled on the trunnions having pivot pins adapted to be engaged by said catches during the forward swinging of the furnace, and means adapted to lift the furnace body upon said levers after said catches have been brought into engagement with said pivot pins.

2. In combination, a furnace mounted upon trunnions and provided with a pouring spout, levers journaled on the trunnions and having concentric pins in line parallel to the transverse axis of the pouring spout, catches carried by the furnace adapted to engage the said pins, means for rocking the furnace upon the trunnions to bring the catches into engagement with the pins aforesaid, and means for lifting the furnace upon said pins and levers as a center and support.

3. In combination, a furnace mounted upon trunnions and provided with a pouring spout, catches pivoted to the furnace in line vertically with the trunnions, levers pivoted to the trunnions having pivot studs in the path of the catches, means for rocking the furnace upon the trunnions to bring the catches and pivot studs into engagement, and means for tilting the furnace upon the pivot studs and levers as a support.

4. In combination, a furnace body mounted upon trunnions, said furnace body being provided with a pouring spout and with rocking catches disposed above the trunnions, levers journaled to said trunnions having pivot-pins in the path of said catches, means for rocking the furnace body upon the trunnions, independent means for tilting the furnace body upon the pins aforesaid comprising an elevating device and links carried thereby engaging the trunnions of the furnace body.

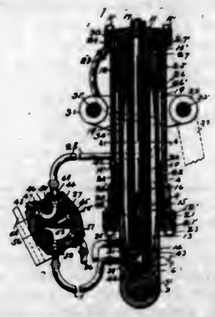
5. In a device of the class described, a furnace body mounted upon trunnions, means for rocking the furnace body upon said trunnions, catches carried by the furnace body, levers carried by the trunnions, pivot pins carried by said levers adapted to be engaged by said catches when the furnace body is rocked forwardly on the trunnions, and means for tilting the furnace body around said pivot pins as a center.

[Claims 6 to 23 not printed in the Gazette.]

1,025,516. HOIST. MERRILL DAVIS, Watertown, N. Y., assignor to James B. Wise, Watertown, N. Y. Filed Sept. 9, 1911. Serial No. 648,519. (Cl. 212—4.)

1. In combination, a stationary plunger having a cylinder arranged therein, and having a cylindrical liquid chamber encircling the said cylinder, a piston in said cylinder, a conduit for carrying a liquid from said chamber to said cylinder beneath the piston, a movable cylinder telescopically fitting the outer surface of the plunger, said movable cylinder connected with and adapted to actuate said piston, and a pipe for supplying a fluid pressure for elevating said movable cylinder.

2. In combination a stationary plunger, having a cylinder arranged therein, and having a liquid chamber encircling said cylinder, a piston in said cylinder adapted to be cushioned by liquid received from said chamber, a conduit for conducting liquid from said chamber to said cylinder beneath the piston, a lifting cylinder telescopically fitting the outer surface of said plunger, said lifting cylinder connected with and adapted to actuate said piston, and means for elevating said lifting cylinder.



3. A hoist, comprising a stationary plunger having a central cylinder and having a liquid chamber encircling said cylinder, a conduit for connecting the liquid chamber with the bottom of the central cylinder, a piston in said cylinder, a lifting cylinder telescopically mounted on said plunger and operatively connected with said piston, a pipe for supplying a fluid pressure for moving said lifting cylinder in one direction for hoisting an object, means for exhausting the fluid pressure for permitting the lifting cylinder to be moved in the opposite direction by gravity, and a liquid carried by said chamber adapted to enter said cylinder through said conduit during the hoisting operation for cushioning the said piston and for controlling the speed at which said lifting cylinder travels.

4. A hoist, comprising a stationary member having a central cylinder, and having a chamber encircling said cylinder normally filled with liquid, a conduit connecting said chamber with the bottom of said cylinder, a piston in said cylinder, said piston normally in contact with and cushioned by a body of liquid in the bottom of said cylinder, a lifting cylinder telescopically mounted on said member and operatively connected with said piston, a fluid pressure means for actuating said lifting cylinder for hoisting an object, means for effecting the operation of said lifting cylinder in the opposite direction by gravity, and means for regulating the flow of the liquid from said chamber to said central cylinder and vice versa for controlling the speed of said lifting cylinder and said piston.

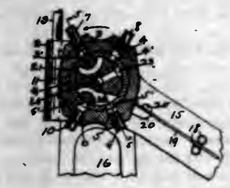
5. In combination, a stationary plunger having a central cylinder therein, a piston in said cylinder, a reciprocating outer cylinder telescopically fitting said plunger, said outer cylinder connected to and adapted to operate said piston, a fluid pressure means for actuating said outer cylinder and said piston in one direction, and means for effecting the operation of said outer cylinder and said piston in the opposite direction by gravity.

[Claims 6 to 15 not printed in the Gazette.]

1,025,517. VALVE. MERRILL DAVIS, Watertown, N. Y., assignor to James B. Wise, Watertown, N. Y. Filed Sept. 9, 1911. Serial No. 648,520. (Cl. 137—26.)

1. A valve, comprising a central body, having a plurality of passages and a cylindrical casing rotatably mounted on one end of said body, said casing having a plurality of inlet and outlet ports adapted to communicate with the said passages when the casing or body is rotated in either direction one relative to the other, means for manually operating said casing for opening and closing the valve, a support for said valve, and a lever rigidly connected to the opposite end of said body and adapted to automatically rotate said body for closing the valve.

2. A valve, comprising a central body, having a plurality of passages, and a cylindrical casing rotatably mounted on one end of said body, said casing having a plurality of inlet and outlet ports adapted to communicate with the said passages when the casing or body is rotated in either direction one relatively to the other, means for manually operating said casing for opening and closing the valve, a support for said valve, a lever rigidly connected to the opposite end of said body, and a spring connecting with said casing and also with said lever adapted to automatically rotate said casing for closing the valve when said means is released.



3. In combination, a rotatable central cylindrical body having one end tapered the other end comprising a plain cylinder, the tapered portion of said body provided with oppositely facing passages, and a radial exhaust passage communicating with the atmosphere by means of a central port, the outer end of said tapered portion having a threaded hub, a rotatable casing mounted on the tapered end of said body, said casing having a number of ports adapted to connect with said passages and said exhaust passage when either the body or the casing is rotated a measured distance one relative to the other, a hand-lever for rotating said casing, means for supporting said central body and a four-pointed spring carried by said hub for holding the casing engaged with the body.

4. In a valve, the combination with a central body provided with passages therethrough and a lever rigidly connected to and movable therewith, and a stationary part for pivotally supporting the body and said lever, of a rotatable casing fitted to one end of said body and having passages therethrough adapted to be brought into communication with the passages through the central body, a spring supported by said body for holding said casing in operative position on said body, a handle for rotating said casing for opening and closing the valve, automatic means for rotating the casing relative to the body or for rotating the body relative to the casing for closing the valve.

1,025,518. RADIATOR. ROBERT M. DIXON, East Orange, N. J., assignor to The Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed Apr. 18, 1908. Serial No. 427,893. (Cl. 237—18.)



1. A radiator for railway cars and the like provided with inlet and discharge ports and formed to provide a passage the bottom of which slopes downwardly toward the discharge port with the radiator in horizontal position, and heat-radiating flanges upon the outer surface of said radiator, said flanges projecting below said bottom to progressively greater distances whereby the lower ends of said flanges lie in a substantially horizontal plane with the radiator in a horizontal position.

2. A radiator for railway cars and the like having formed therein inlet and discharge ports adjacent the same end thereof and formed to provide converging upper and lower walls, and radiating flanges upon said radiator and projecting therefrom to a progressively greater extent from the end adjacent said ports toward the opposite end thereof.

3. A radiating device of the class described comprising a casing having its admission port connected with a pipe

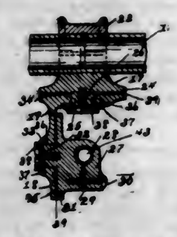
adapted to conduct thereto a circulating heating medium and its discharge port connected with water discharging means near the admission port, the interior walls of said casing converging from the admission end toward the opposite end thereof, said casing being provided exteriorly with a plurality of radiating ribs and having a passageway downwardly inclined relative to a horizontal plane in the normal position of the casing for conducting the circulating medium from the admission port to a point near the opposite end of the casing.

4. A radiating device of the class described, comprising, in combination, an elongated casing having admission and discharge ports disposed adjacent each other at one end thereof, a passageway downwardly inclined relative to a horizontal plane in the normal position of the casing connected with the admission port and extending to a point near the opposite end of the casing and transversely extending radiating ribs provided exteriorly of said casing, the radiating ribs formed upon the bottom wall thereof, gradually increasing in length from the ported end of said casing toward the opposite end thereof, whereby the bottom wall of the casing will be downwardly inclined in a direction toward the said discharge port when the radiating device rests with its lower ribs upon a horizontal surface.

5. A radiator for railway cars and the like having formed therein inlet and discharge ports adjacent the same end thereof and formed to provide converging upper and lower walls, radiating flanges upon said radiator and projecting therefrom to a progressively greater extent from the end adjacent said ports toward the opposite end thereof, a conduit extending within said radiator from said inlet port to a point adjacent the opposite end, and means adjacent said opposite end to support said conduit and permit free expansion and contraction thereof.

[Claims 6 and 7 not printed in the Gazette.]

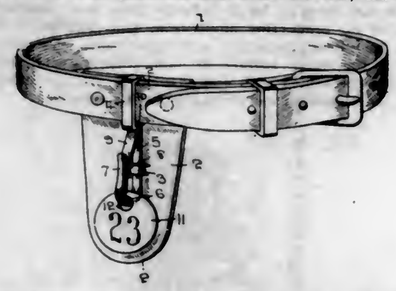
1,025,519. ELECTRIC-LAMP BRACKET. GARRY J. DORMANDY, Troy, N. Y., assignor of one-half to United Shirt and Collar Company, Troy, N. Y., a Corporation of New York. Filed Oct. 10, 1911. Serial No. 653,934. (Cl. 248—8.)



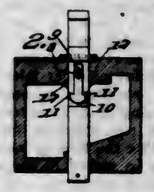
A unitary electric lamp bracket fixture comprising three parts: a body portion adapted to longitudinal and rotary adjustment on a substantially cylindric support and provided with means for clamping it thereon; a head portion having an aperture therethrough for the passage of a lamp supporting stem and means for holding said stem in desired adjustment therein; and a universal joint connection between said portions for maintaining them in desired relation with each other, substantially for the purposes set forth.

1,025,520. IDENTIFICATION-BELT. WINFIELD S. DOUGLASS, Glen Jean, W. Va. Filed May 16, 1911. Serial No. 627,523. (Cl. 224—5.)

In a device of the class described the combination with a belt having a protector secured thereto and depending therefrom of means for securing the protecter to the belt at spaced points, a suspending snap having a rectangular portion to engage the belt and depending therefrom between the points at which the protector is secured to said belt, said protector having a tongue near its central portion, the suspending snap being engaged under the tongue and thus held against swinging movement upon the belt, said suspending snap being adapted to receive an object thereover and suspend the same from the belt, the protector limiting the longitudinal movement of the snap upon the belt and preventing said snap from injuring the wearer of the device.

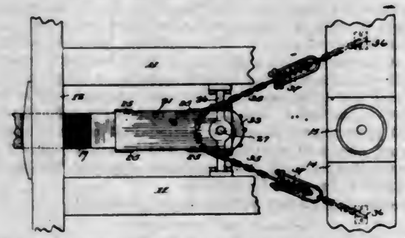


1,025,521. RAILWAY-CAR COUPLING. JAMES F. DURBIN and VOTAW S. DURBIN, Fort Scott, Kans. Filed Oct. 27, 1909. Serial No. 524,805. (Cl. 213—60.)



A car coupling comprising, in combination, a head, a knuckle mounted on said head, a latch-pin for locking said knuckle in a closed position, and a locking member pivotally mounted on said latch-pin and being free to swing into engagement with the head to prevent the withdrawal of the latch-pin when the car coupling is unduly canted or subjected to excessive jarring or swaying, said locking member being normally inoperative.

1,025,522. DRAW-BAR MECHANISM. GEORGE H. FORSYTH, Chicago, Ill. Filed Apr. 20, 1908. Serial No. 153,539. (Cl. 213—42.)



1. The combination with a car-body, a truck-frame and a draw-bar pivotally connected to said car-body, of a pulley rotatably mounted on the car-body in advance of the king-bolt, a flexible driving connection engaging the periphery of said pulley and at its ends secured to a member of the truck-frame on opposite sides of the king-bolt, and connections between said pulley and the draw-bar for imparting to the latter a lateral movement from the rotation of the pulley due to the angular movement of the truck-frame relatively to the car-body, substantially as described.

2. The combination with a car-body, a truck-frame and a draw-bar pivotally connected to said car-body in advance of the king-bolt, of a pulley mounted to rotate about the pivotal axis of the draw-bar, a flexible driving connection engaging the periphery of said pulley and at its ends secured to the truck-bolster on opposite sides of the king-bolt, and connections between said pulley and the draw-bar through which the rotation of the pulley effects a sidewise angular movement of the draw-bar, substantially as described.

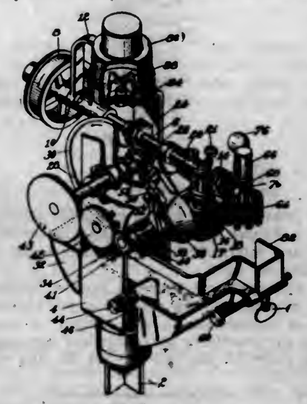
3. The combination with a car-body, a truck-frame and a draw-bar pivotally connected to said car-body in advance of the king-bolt, of a pulley mounted to rotate about the pivotal axis of the draw-bar, a flexible and extensible driving connection engaging the periphery of said pulley and at its ends secured to the truck-bolster on opposite sides of the king-bolt, and connections between said pulley and the draw-bar through which the rotation of the pulley effects a sidewise angular movement of the draw-bar, substantially as described.

4. The combination with a car-body, a truck-frame and a draw-bar pivotally connected to said car-body in advance of the king-bolt, of a sprocket-wheel mounted to rotate about the pivotal axis of the draw-bar, a sprocket-chain engaging the periphery of said sprocket-wheel and having an elastic extensible section interposed therein, said chain being connected at its ends to the front face of the truck-bolster on opposite sides of the king-bolt, and connections between said pulley and the draw-bar through which the rotation of the pulley effects a sidewise angular movement of the draw-bar, substantially as described.

5. The combination with a car-body, a truck-frame and a draw-bar pivotally connected to said car-body in advance of the king-bolt, of a pulley mounted to rotate about the pivotal axis of the draw-bar, a flexible driving connection engaging the periphery of said pulley and at its ends secured to a member of the truck-frame on opposite sides of the king-bolt, and draw-bar seating and guiding means carried by and angularly movable with said pulley, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,025,523. BLACKING-MACHINE. FREDERICK M. FURBER, Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 31, 1910. Serial No. 600,263. (Cl. 12—31.)



1. A machine of the class described comprising in combination, means movable across the heel edge to apply blacking thereto and additional means operating simultaneously therewith for applying blacking to the rand crease.

2. A machine of the class described comprising in combination, means movable across the heel edge to apply blacking thereto, additional means operating simultaneously therewith for applying blacking to the rand crease, and provision whereby relative adjustment of said means may be effected.

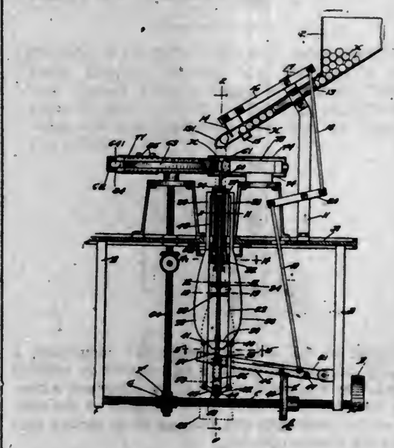
3. A machine of the class described comprising in combination means movable across the heel edge to apply blacking thereto, and rotatably mounted means for protecting the upper of the shoe from contact with said applying means during the blacking operation.

4. A machine of the class described comprising in combination a driven device for applying blacking to the heel edge of a shoe and driven guiding means to aid in presenting the shoe to said device so that the latter will wipe across the heel edge transversely of the lifts.

5. A machine of the class described comprising in combination a rotary blacking applying brush, a rand crease guide rotatable in a plane substantially perpendicular to the plane of rotation of the brush, and means for supplying blacking to said guide.

[Claims 6 to 45 not printed in the Gazette.]

1,025,524. CANDY-WRAPPING MACHINE. STEPHEN M. HAMBLIN and GEORGE N. HAMBLIN, Canton, Mass.; said George N. Hamblin assignor of one-half his right to George E. Close, Cambridge, Mass. Filed Jan. 3, 1911. Serial No. 600,620. (Cl. 93—5.)



1. In a candy wrapping machine, the combination of tube forming mechanism, and a placer extending upwardly into the tube of paper to support the piece of candy to be wrapped in proper position within the tube of paper formed by the tube forming mechanism.

2. In a candy wrapping machine, the combination with tube-forming mechanism and a placer extending upwardly into the tube of paper to support the piece of candy to be wrapped, in proper position within the tube of paper, with interior and exterior grippers and means to reciprocate said grippers vertically and to open and close said grippers upon the tube of paper to feed the tube relatively to the placer.

3. In a candy wrapping machine, the combination with tube forming mechanism, and a placer extending upwardly into the tube of paper to support the piece of candy to be wrapped in proper position within the tube of paper formed by the tube-forming mechanism, and a pair of tubular guides one inside the other to guide the paper vertically, said interior tubular guide being flared slightly at its outside edge to straighten the tube of paper when it has become crushed.

4. In a candy wrapping machine, the combination with tube forming mechanism, feeding mechanism for the tube formed thereby, and holding mechanism to support the tube and a piece of candy therein, while the tube feeding mechanism is moved out of position, comprising a spoon finger and a rotating slotted spring, said spoon finger engaging the piece of candy on one side and the slotted spring engaging the piece of candy on the other side.

5. In a machine of the character described, the improved wrapper twisting mechanism, comprising a fixed twisting member and a moving twisting member, both of said twisting members being provided with top and bottom plates of corresponding shape between the proximate edges of which is a space through which the ends of the wrappers project, both of said twisting members being also provided with resilient portions located between said top and bottom plates, said resilient portions contacting being wrapped whereby the central portion of the wrapper containing the candy is rotated while the ends are held from rotating between the pair of top and bottom plates.

[Claims 6 to 8 not printed in the Gazette.]

1,025,525. TUBULAR CARRIER. FRANK O. HOAGLAND, Bridgeport, Conn., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Feb. 28, 1912. Serial No. 680,558. (Cl. 42—87.)



1. A carrier of the character described comprising a tubular body having near one end an indentation adapted to be engaged by the contents and at the other end a closing piece consisting of a strip of the material of the body attached at the ends only and adapted to be sprung into and out of the closing position.

2. A carrier of the character described comprising a tubular body, means for preventing the escape of the contents at the tip of the body and a closing piece at the other end consisting of a strip of the material of the body attached at the ends only and adapted to be sprung into and out of the closing position.

3. A carrier of the character described comprising a tubular body having near its tip an indentation adapted to be engaged by the head of a cartridge, said body extending beyond the indentation to protect the bullet end of the cartridge.

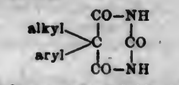
4. A carrier of the character described comprising a tubular body having at one end a closing piece consisting of a strip of the material of the body attached at the ends only and adapted to be sprung into and out of the closing position.

5. A carrier of the character described, comprising a tubular body having near one end an indentation adapted to be engaged by the contents and at the other end a closing piece formed by making a cross cut in the body leaving a strip, attached at the ends only, which may be sprung into and out of the closing position.

1,025,526. ARYLALKYLBARBITURIC ACID. HEINRICH HOERLEIN, Vohwinkel, near Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Sept. 6, 1911. Serial No. 647,903. (Cl. 23—24.)

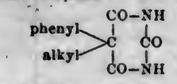
1. The herein described arylbarbituric acids, being white crystals scarcely soluble in water, forming soluble salts with alkalis; and being valuable hypnotics, substantially as described.

2. The herein described arylalkybarbituric acids of the following general formula



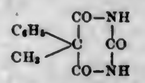
being white crystals scarcely soluble in water, forming soluble salts with alkalis; and being valuable hypnotics, substantially as described.

3. The herein described phenylalkylbarbituric acids of the following general formula:



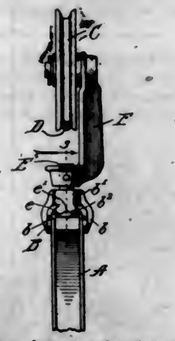
being white crystals scarcely soluble in water, forming soluble salts with alkalis; and being valuable hypnotics, substantially as described.

4. The herein described phenylmethylbarbituric acid of the formula:



crystallizing from water in the shape of white leaflets melting at 220° C., forming salts with alkali metals and calcium; and being a valuable hypnotic, substantially as described.

1,025,527. HANGER FOR LITTER-CARRIERS. ELZO B. HUNT, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill., a Corporation of Illinois. Filed Feb. 9, 1911. Serial No. 607,492. (Cl. 104—146.)



1. In combination a frame, a bracket rigidly attached thereto, a hanger carrying a roller and swiveled in the bracket, and interfitting parts on hanger and bracket for the purpose set forth.

2. In combination a frame, a bracket rigidly attached thereto, a roller-carrying hanger, a pin thereon passing through a perforation in the bracket, a head on the pin, and an interfitting projection and depression on the adjacent faces of pin and bracket for the purpose set forth.

1,025,528. DEMOUNTABLE RIM. RICHARD E. JEFFERY, Piedmont, Cal. Filed Mar. 29, 1911. Serial No. 617,677. (Cl. 152—21.)

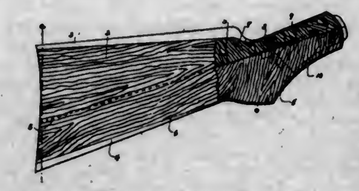
1. A tire-retaining device, comprising a wheel felly, a demountable rim and means for retaining said rim in adjusted position upon the wheel, said means including a two-part rim, one of which parts is removable and provided with key-receiving pockets with reduced slots leading therefrom, said pockets having internal shoulders, and keys adapted to pass through said slots and turnable in the pockets crosswise of the slots to lock the removable rim part in position.

2. A tire-retaining device, comprising a demountable rim adapted to receive a tire, and means whereby said rim may be demountably supported upon a wheel, said means including a detachable rim section having a flange on one side engageable with one side of the demountable rim, a fixed rim section supporting the other side of the demountable rim, and means whereby the demountable rim section may be firmly locked in position upon said fixed rim section, said last named means comprising keys having enlarged heads, said removable section having slots leading through one side and having enlarged openings at the inner ends of the slots whereby the keys upon entering the openings may be turned crosswise of the slots to lock said removable rim section in position.



3. In a vehicle wheel the combination with a felly, of a rim, a fixed section and a sidewise removable section telescoping and overlying a portion of the fixed section, means for holding said sections together, said means including turnable keys having laterally expanded heads having flattened sides, said heads projecting up through the fixed section fitting into corresponding pockets in the removable section, said pockets opening at one side of the removable section by slots sufficient to allow said head to pass, when turned in one direction, and said removable section having enlarged openings at the inner ends of the slots provided with shoulders for preventing the head from passing when the later is turned in the other direction.

1,025,529. BUTT-STOCK FOR SHOULDER-ARMS. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Mar. 21, 1912. Serial No. 685,386. (Cl. 42—71.)



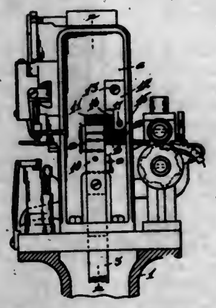
1. A buttstock for shoulder arms comprising a tang-piece made of a plurality of pieces of wood arranged to present at its comb and grip portions, grain extending across the lines of force of the recoil.

2. A buttstock for shoulder arms made of a plurality of pieces of wood and having a tang-piece composed of an upper and a lower member the grain of the said upper member extending across the lines of force of the recoil at the comb and the grain of the said lower member extending across the lines of force of the recoil at the grip, the grain in the said upper and lower members meeting at an angle along the line of the joint between the two members.

3. A buttstock for shoulder arms having two vertically arranged cheek-pieces and a vertically arranged tang-piece, the former being adhered to the opposite face of the latter, and the latter consisting of an upper and a lower member adhered on a longitudinal line and with the grain of one arranged at an angle to the grain of the other so as to cross the lines of force at the comb of the stock and at the grip of the stock.

4. As a new article of manufacture, a compound or built-up buttstock for shoulder arms, consisting of two vertically arranged cheek-pieces and a two-part vertically arranged tang-piece, the respective cheek-pieces being cemented to the opposite faces of the two-part tang-piece and selected with reference to having their grain run parallel with the bottom line of the finished stock, and across the grain of the two parts of the tang-piece, and the grain of the upper part or member of the tang-piece extending across the lines of force of the recoil at the comb of the stock, and the grain of the lower part or member of the tang-piece extending across the lines of force of the recoil at the grip of the stock, and the grain of the upper and lower parts of the tang-piece meeting at an angle along the longitudinal line on which the adjacent edges of the said upper and lower parts of the tang-piece are cemented together.

1,025,530. RATCHET LOCKING MECHANISM. FREDERICK KOHNLE, Dayton, Ohio, assignor to The Ohio Safe Deposit & Trust Company, trustee. Original application filed Apr. 30, 1906, Serial No. 314,456. Divided and this application filed Apr. 29, 1907. Serial No. 370,991. (Cl. 74—14.)



1. In a machine of the class described, a main reciprocating member, a ratchet member having a plurality of teeth on each of its opposite faces loosely mounted on said reciprocating member, and projected laterally at one side thereof, a second ratchet member provided with a plurality of teeth on each of its opposite faces yieldingly mounted on the main frame, and projected outwardly in the plane of the path of travel of the projected ratchet on the moving member, and means to alternately bring into contact the respective projected faces of said ratchet members during the forward and reverse movements of said reciprocating member.

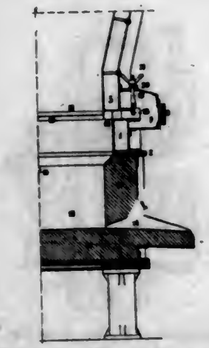
2. In a machine of the class described, a frame, a main reciprocating member slidably supported in said frame and a connecting rod for actuating said member, a ratchet member provided with a plurality of teeth upon each of its opposite faces, yieldingly supported upon said member and projecting laterally at one side thereof, a second ratchet member provided with a plurality of teeth on its opposite faces yieldingly supported upon said main frame and projecting into the path of the traveling ratchet, the free ends of said members being beveled in opposite directions to cause the engagement of the beveled ends to reverse their respective engagement with the opposite faces of said ratchet members at each alternate movement of the traveling member.

3. In a machine of the class described, a frame, a reciprocating member mounted in said frame, a plate loosely mounted upon said reciprocating member and provided

with ratchet teeth on both faces of the free end thereof, a spring for maintaining said plate under tension in a direction toward the reciprocating member, a second plate loosely mounted upon said frame, a spring for maintaining said plate under tension in a direction toward the main frame, said plate being likewise provided with ratchet teeth on both faces of its free end, said plates being provided with means for causing one plate to move and ride over the ratchet surface of the other plate during one movement of the reciprocating member, and reverse their positions during the opposite movement of the reciprocating member to prevent a retreat of the reciprocating member short of its full stroke in either direction, substantially as described.

4. In a machine of the class described, a frame, a reciprocating member supported in said frame, a pair of L-shaped ratchet plates respectively yieldingly mounted upon said reciprocating member and frame, the edges of said L portions being provided with inclined surfaces whereby the ratchet members during the reciprocation of said reciprocating member are caused to alternately engage the respective opposing ratchet faces of said plates to prevent the retreat of the reciprocating member short of its full stroke in either direction, substantially as described.

1,025,531. MEANS FOR REPLACING TWYERS IN AIR-BLAST FURNACES. ALFRED DÉSIRÉ LEDUC, Rouen, France. Filed Apr. 5, 1911. Serial No. 619,075. (Cl. 75—111.)



In a blast furnace, a wall made up of upper and lower-water jackets, said water jackets being spaced apart to provide an elongated horizontal passageway or slit, such slit having substantially horizontal top and bottom walls, an air chamber arranged on the outside of the water jackets and overlying said slit, a vertically disposed gate or valve arranged in said air chamber, outside of said water jackets and extending substantially the full length of the slit, and means for raising and lowering said valve so as to regulate the amount of air passing through said slit.

1,025,532. PROTECTIVE DEVICE FOR ELECTRICAL APPARATUS. RAY H. MANSON, Elyria, Ohio, assignor to Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed June 15, 1910. Serial No. 566,902. (Cl. 175—30.)

1. In a device of the class described, the combination of a casing, an insulating terminal rack mounted on the inside of said casing, binding posts mounted on said rack, spring clips connected to said binding posts and attached thereby to said rack, electric conductors connected to said terminals and leading to the exterior of said casing, the casing being perforated adjacent each clip, a lightning arrester consisting of a base, a pair of substantially semi-circular conducting members mounted thereon, but insulated from each other by the base, each of such members terminating in a finger which passes downward through an opening in the base, said fingers being substantially diametrically opposite each other, a third conducting member mounted on said base within said semi-circular members and having a metallic finger integral therewith passing through a third opening in said base, said fingers adapted to pass through the openings in the casing and engage the clips when the lightning arrester is mounted on the casing.

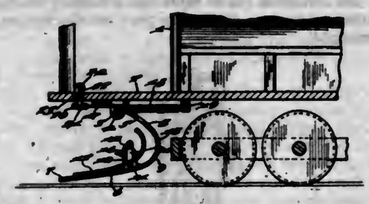


2. In a device of the class described, the combination of a casing, a terminal rack mounted upon one side of said casing, terminals for electric conductors mounted on said rack, spring clips connected to said terminals, said casing being perforated adjacent each clip, a lightning arrester consisting of a base having a plurality of perforations therein, a pair of conducting members arranged upon the periphery of a circle, a finger upon each of said members turned down and passing through said openings in the base, a third conducting member mounted within the circle, and likewise having a finger bent downward and passing through the opening in the base, said fingers adapted when the arrester is mounted on the casing to pass through the opening therein and engage the clips upon the rack.

3. In a device of the class described, the combination of a casing, an insulating member mounted on the inside of said casing, electrical terminals carried by said member, conductors connected to said terminals, spring clips carried by said member and connected to said terminals, said casing being perforated adjacent to said clips, a lightning arrester including a pair of substantially semi-circular conducting members and metallic fingers carried by said arrester and connected to the conducting members thereof, said arrester adapted to be removably mounted on the outside of the frame and when so mounted to fit with its bottom flat against the casing, said fingers adapted to penetrate the perforations in the casing spanning said casing engaging the spring clips to connect said conductors to the conducting members of the arrester and to retain the arrester on the frame, substantially as described.

4. In a device of the class described, the combination of a casing, an insulating terminal rack mounted on the inside of said casing, binding posts mounted on said rack, spring clips connected to said binding posts, the casing being perforated adjacent the spring clips, electric conductors connected to said binding posts, a lightning arrester consisting of a perforated base, a pair of substantially semi-circular conducting members mounted upon the periphery of a circle on the base and insulated from each other by the base each of such members terminating in a finger bent downward and passing through perforations in the base, said fingers being substantially diametrically opposite each other, a third conducting member mounted within the circle but spaced apart from said semi-circular conducting members, a finger on such third member passing downward through a third perforation in the base substantially on a line with said other two fingers, said arrester adapted to be removably mounted on the outside of the frame and when so mounted, to fit with its bottom flat against the casing, said fingers adapted to penetrate the perforations in the casing spanning said casing engaging the spring clips to connect said conductors to the conducting members of the arrester and to retain the arrester on the frame substantially as described.

1,025,533. CAR-FENDER. WILLIAM M. MAY, Philadelphia, Pa., assignor of one-half to Samuel F. Shannon, Philadelphia, Pa. Filed May 5, 1911. Serial No. 625,314. (Cl. 105—263.)



1. In a car fender, the combination with a car and a platform thereon, of brackets depending from the bottom of the platform, a shaft having rotary mounting in the platform, a scoop fender, side bars on said scoop fender secured between their ends to said shaft, and at one end bearing against the bottom of said platform whereby the upward movement of the free end of the fender is limited, a spring normally holding said fender in elevated position, and means for lowering said fender, substantially as described.

2. In a car fender, the combination with a car and a platform thereon, of brackets depending from the bottom of the platform, a shaft having rotary mounting in the platform, a scoop fender, side bars on said scoop fender secured between their ends to said shaft, and at one end bearing against the bottom of said platform whereby the upward movement of the free end of the fender is limited, a forwardly projecting bent rod secured to said shaft, a plunger projecting through the platform and engaging said rod, and adapted to turn said shaft when the plunger is depressed, and a rearwardly projecting spring connected at its forward end to said rod, and at its rear end to said car, substantially as described.

3. In a car fender, the combination with a car platform, a scoop fender pivotally supported below said platform, means for holding the scoop fender normally elevated, and means for depressing the scoop fender, of a holding fender pivotally supported between its ends on the main fender, and means for locking said holding fender in its tilted or operative position, substantially as described.

4. In a car fender, the combination with a car platform, a scoop fender pivotally supported below said platform, means for holding the scoop fender normally elevated, and means for depressing the scoop fender, of a holding fender pivotally supported between its ends on the main fender, a ratchet rack on said scoop fender, and a pivoted pawl on said holding fender engaging the ratchet rack and constructed to secure the holding fender in its tilted or operative position, substantially as described.

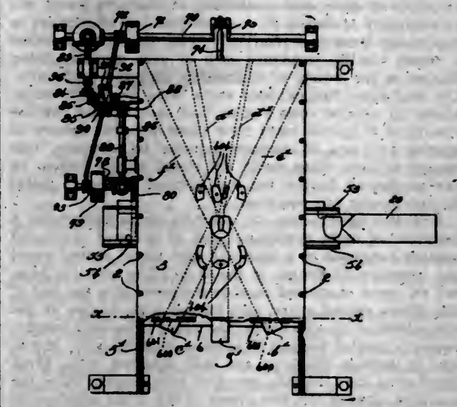
5. The combination with a main scoop fender, upwardly projecting brackets secured on said fender, a shaft supported in said brackets, a holding fender secured on said shaft and when tilted by the movement of a person or object thereon constituting a cradle for the support of said person or object, and means for locking said holding fender in its tilted position, substantially as described.

[Claim 6 not printed in the Gazette.]

1,025,534. MACHINE FOR MAKING HEELS. THOMAS H. MAYO, Melrose Highlands, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 23, 1903. Serial No. 158,406. (Cl. 12—50.)

1. In a machine for making heels, assembling mechanism for assembling in the proper relative positions the various pieces composing the heel, a reciprocatory matrix-supporting member, and a matrix removably sustained by said matrix-supporting member and movable thereby into and out of operative position relative to the assembling mechanism and capable of removal from its supporting member when in inoperative position without disturbing the assembling mechanism.

2. In a machine for making heels, heel-assembling mechanism for assembling into proper relative positions the various pieces composing the heel, a reciprocatory matrix-supporting member, a plurality of matrices sustained thereby and movable thereby into and out of operative position relative to the assembling mechanism and each capable of being removed from its supporting member when in inoperative position without disturbing the assembling mechanism, and means to move the matrix-supporting member to bring said matrices alternately into operative position.



3. In a device for making heels, a frame, a matrix removably supported thereby, and forming one of a plurality of interchangeable matrices and appliances for selecting and assembling in proper relative positions the appropriately shaped pieces to form each lift of the heel, the removability of the matrix permitting any one of said interchangeable matrices to be employed in the same frame.

4. In a machine for making heels, a frame, appliances removably sustained by the frame for selecting and assembling in proper relative positions the appropriately-shaped pieces to form the heel, operating mechanism for said appliances, connections between said mechanism and appliances for operating one from the other detachable by the removal of the appliances, thereby permitting the appliances to be removed from the frame without disturbing the operating mechanism, and a matrix in which the heel is formed.

5. In a machine for making heels, a frame, assembling mechanism removably sustained thereby for assembling in the proper relative positions the appropriately-shaped pieces to form the heel, operating mechanism for said assembling mechanism, connections between said mechanisms for operating one from the other detachable by the removal of the appliances, thereby permitting the assembling mechanism to be removed from the frame without disturbing the operating mechanism, a matrix, and means to move the matrix relative to the assembling mechanism.

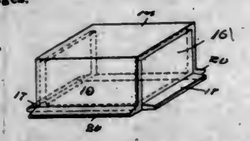
[Claims 6 to 35 not printed in the Gazette.]

1,025,535. [WITHDRAWN.]

1,025,536. TILE CONSTRUCTION FOR CONCRETE FLOORS. JULIAN ST. JOHN NOLAN, Highland Park, Ill. Filed Jan. 11, 1911. Serial No. 602,081. (Cl. 72—66.)

1. A tile construction for concrete floors comprising a plurality of units each consisting of members which are substantially U-shaped in cross section and interlocked in superposed transverse relation, so that they form together a closed box-like structure and formed on the bottom of the box-like structure with laterally projecting flanges; said units being arranged contiguously in parallel rows so as to provide channels for metal reinforcements

and concrete which are closed at the bottom by said projecting flanges.



2. A tile construction for concrete floors comprising a plurality of units each consisting of members which are substantially U-shaped in cross section and interlocked in superposed transverse relation, so that they form together a closed box-like structure each of said members being formed on the bottom of the box-like structure with laterally projecting flanges; said units being arranged contiguously in parallel rows and so that each of said box-like structures is spaced away from those adjacent thereto to provide two sets of channels running transversely with respect to each other which are closed at the bottom by said projecting flanges and are adapted to receive metal reinforcements and concrete.

3. A tile construction for concrete floors comprising a plurality of units consisting each of a lower channeled member composed of a base and side pieces spaced apart and formed with flanges in the same plane with the base, and an upper channeled member composed of a top and of side pieces spaced apart, and formed with flanges at the extremities of its side pieces, the upper channeled member having a greater vertical dimension than the lower one so that it incloses the same and said members being fitted together so that the side pieces of each member close the openings between the side pieces of the other members to form a closed box-like structure with projecting flanges on its four sides, lying in substantially the same plane; the said units being arranged with said flanges abutting so as to provide two sets of channels disposed transversely with respect to each other and adapted to receive metal reinforcements and concrete.

4. A tile construction for concrete floors comprising a plurality of units consisting each of a lower channeled member composed of a base and side pieces spaced apart and formed with flanges in the same plane with the base, and an upper channeled member composed of a top and side pieces spaced apart and formed with flanges at the extremities of its side pieces; said members being fitted together so that the side pieces of each member close the channels of the other member so as to form a closed box-like structure; said units being arranged with the flanges abutting so as to provide two sets of channels disposed transversely with respect to each other and adapted to receive metal reinforcements and concrete; and filling blocks for the spaces at the corners of said blocks being provided with flanges adapted to support said blocks upon the flanges on said units.

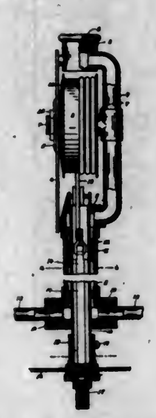
5. A hollow structural element consisting of two members which are substantially U-shaped in cross section and interlock in superposed transverse relation to each other so as to form a completely closed box-like structure, said unit being provided with projecting flanges on all four sides of the same.

[Claims 6 to 12 not printed in the Gazette.]

1,025,537. GAS OR ELECTRIC LIGHT EXTENSION-FIXTURE. CONRAD M. PITEL, Meriden, Conn. Filed July 26, 1911. Serial No. 640,629. (Cl. 240—71.)

1. An extension fixture comprising inner and outer tubes forming a gas-way between them, an extension rod or tube within the inner tube, a spring drum, connection between the extension rod or tube and the drum, a supporting-nipple and a gas-way connecting the nipple with the outer tube, a drop-light fixture secured to the lower end of the extension rod or tube, and a flexible conducting connection between a stationary part of the fixture and the drop-light.

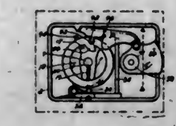
2. An extension fixture comprising inner and outer tubes forming a gas-way between them, an extension rod or tube within the inner tube, a spring drum, connection between the extension rod or tube and the drum, a supporting-nipple and a gas-way connecting the nipple with the outer tube, a drop-light swivelly connected to the lower end of the extension rod or tube, and a flexible conducting connection between a stationary part of the fixture and the drop-light.



3. An extension fixture comprising inner and outer tubes forming a gas-way between them, an extension-rod or tube within the inner tube, a spring drum, connection between the extension rod or tube and the drum, a supporting nipple and a gas-way connecting the nipple with the outer tube, a drop-light fixture, including a shade or shade band, swivelly connected with the outer end of the extension-rod or tube, and a flexible conducting connection from a stationary part of the fixture through the shade or band to the drop-light.

4. An extension fixture comprising inner and outer tubes forming a gas-way between them, an extension rod or tube within the inner tube, a supporting nipple, a gas-way swivelly connecting the outer tube with the nipple whereby the fixture may be swung into a vertical plane, a spring drum supported by the gas-way, connection between the extension rod or tube and the spring drum, and a drop-light fixture at the lower end of the extension rod or tube.

1,025,538. PERMUTATION-LOCK. JAMES ROCHE, Terryville, Conn., assignor to Eagle Lock Co., Terryville, Conn., a Corporation. Filed Aug. 31, 1911. Serial No. 647,124. (Cl. 70—53.)



1. In a permutation lock, the combination with a hub, of a series of revolving wheel tumblers mounted thereon, a movable center for each tumbler said center having two portions formed with reversely turned serrations, and a pair of reversely arranged pawls mounted in the tumblers and adapted respectively to engage with the said teeth, and means for moving said pawls out of engagement with said teeth.

2. In a permutation lock, the combination with a hub, of a series of revolving wheel tumblers mounted thereon, a fly carrier, and a center disk in each tumbler the edges of the carrier and disk formed with oppositely turned teeth, a pair of pawls mounted in the tumbler and having their ends respectively engaged with the edges of the fly carrier and center disk, and means for moving said pawls whereby the fly carrier and center disk may be turned independently of the tumblers.

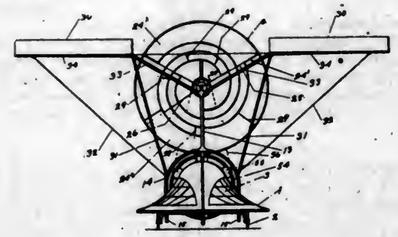
3. In a permutation lock, the combination with the hub, of a series of revolving tumblers mounted thereon, a fly carrier in engagement with each tumbler, said tumblers carrying pins, a fly on each of said carriers, said flies each formed with a lug, and the said lugs formed on opposite sides with a notch to be engaged by the pin on the next adjacent tumbler.

4. In a permutation lock, the combination with a hub, of a series of revolving wheel tumblers mounted thereon, movable centers in each tumbler said centers having reversely turned teeth, a pair of pawls mounted in said tumbler to engage with said centers the inner ends of the pawls crossing each other and over a notch formed in the tumbler, a lever mounted in the case and formed in its upper face with a rib adapted to enter said notch and engage with said pawls whereby said pawls will move out of engagement with the movable centers.

5. In a permutation lock, the combination with a hub, of a series of revolving tumblers mounted thereon and so as to have a slight amount of lateral play, and means in the case to limit the upward movement of the tumblers whereby clamping on the hub is avoided.

[Claim 6 not printed in the Gazette.]

1,025,539. AIRSHIP OR THE LIKE. FRANK ROSBORY, Chicago, Ill. Filed Sept. 23, 1910. Serial No. 583,525. (Cl. 244—18.)



1. In a device of the kind described, a drum provided with a wing arranged spirally therein and extending longitudinally thereof, said wing increasing in width from end to end.

2. In a device of the kind described, a drum comprising a frame provided with a suitable covering and plurality of spirals arranged within said drum and extending from one end to the other said spirals gradually increasing in width from one end of the drum to the other.

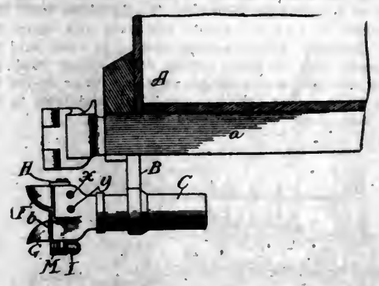
3. In a device of the kind described, a rotatable drum comprising a frame provided with a suitable covering and a plurality of members spirally arranged within said drum and extending from one end to the other, said spirals gradually increasing in width from the forward to the rear end of the drum.

4. In a device of the kind described, a rotatable drum comprising a frame and a covering therefor, said drum provided with a plurality of parts arranged therein, said parts decreasing in width and extending spirally from one end of the drum to the other, a car body adjustably secured to said drum and means for rotating the drum.

5. In a device of the kind described and in combination, a rotatable cylindrical drum comprising a frame provided with a suitable covering therefor, a plurality of spirally arranged members within said drum each member comprising a part extending diametrically and longitudinally of the drum, means for securing and staying said parts within the drum, means for adjustably suspending said car body from the drum, means for controlling said adjustable suspending means, a plurality of planes carried by said suspending means, means for rotating said drum and a vertically disposed rudder and means for controlling said rudder as descred.

[Claims 6 to 9 not printed in the Gazette.]

1,025,540. AUTOMATIC TRAIN-PIPE COUPLING. FRANK H. RUTHERFORD, Chicago, Ill. Filed Feb. 25, 1907. Serial No. 359,178. (Cl. 188—13.)



1. An automatic train-pipe coupler comprising a head the outlines of the engaging face of which substantially describes a Greek cross the upper portion of the vertical member of which is depressed and has orifices therein for longitudinal passages extending to the rear therefrom, packing applied to the marginal edges of said orifices, and a plate having openings therein registering with said orifices, which is seated in said depression and retains said packing in place.

2. An automatic train pipe coupler comprising a pivoted body, a head having an elongated engaging face consisting of a vertically disposed portion having a suitable orifice for a passage therethrough, wings extending horizontally from each side edge of said face, and a steam coupling consisting of a pipe secured to but insulated from the exterior of said head.

3. An automatic train-pipe coupler comprising a pivoted body, a head having an elongated engaging face consisting of a vertically disposed portion having a suitable orifice for a passage therethrough, wings extending horizontally from each side edge of said face, and a steam coupling consisting of a pipe secured to but insulated from the underside of said head below the vertical portion of said engaging face.

4. An automatic train-pipe coupler comprising a head the outlines of the engaging face of which substantially describes a Greek cross having a suitable orifice for a passage therethrough and a steam coupling consisting of a pipe secured to but insulated from the underside of said head having a suitably packed end projecting slightly in front of said engaging face.

5. An automatic train-pipe coupler comprising a head the outlines of the engaging face of which substantially describes a Greek cross having a suitable orifice for a passage therethrough and a steam-coupling consisting of an angle shaped pipe secured to but insulated from the exterior of said head.

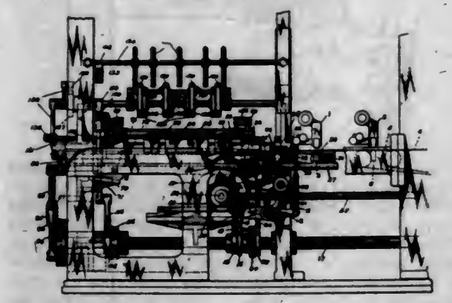
[Claims 6 to 11 not printed in the Gazette.]

1,025,541. FOLDING-MACHINE. HANS C. SCHROEDER, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 18, 1911. Serial No. 621,839. (Cl. 101—152.)

1. A folding machine including in combination means for positioning the sheets for folding, a folding blade below the positioned sheets, a pair of reciprocating folding jaws coöperating with said folding blade from above the sheets to fold the sheets thereover and carry them away upwardly, and devices for opening said jaws prior to the folding in of the sheets and for closing the jaws while still about the sheets and blade.

2. A folding machine including in combination means for positioning the sheets for folding, a folding blade below the positioned sheets, a pair of folding jaws reciprocating about a center coöperating with said folding blade from above the sheets to fold the sheets thereover and carry them away upwardly, and devices for opening said jaws prior to the folding in of the sheets and for closing the jaws while still about the sheets and blade.

3. A folding machine including in combination means for positioning the sheets for folding, a folding blade below the positioned sheets, a pair of reciprocating folding jaws coöperating with said folding blade from above the sheets to fold the sheets thereover and carry them away upwardly, spring means tending to close said folding jaws, and movable means for opening said jaws against the action of said spring means prior to the folding in of the sheet and for permitting said jaws to close while still about the sheets and blade.

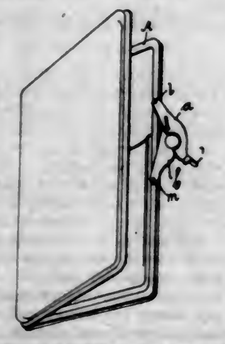


4. A folding machine including in combination means for positioning the sheets for folding, a folding blade below the positioned sheets, a pair of folding jaws reciprocating about a center coöperating with said folding blade from above the sheets to fold the sheets thereover and carry them away upwardly, spring means tending to close said folding jaws, and movable means for opening said jaws against the action of said spring means prior to the folding in of the sheet and for permitting said jaws to close while still about the sheets and blade.

5. A folding machine including in combination means for positioning the sheets for folding, a folding blade below the sheets, traveling folding jaws above the sheets coöperating with said folding blade, spring devices tending to hold said jaws closed, and a member adjacent to the path of travel of said jaws in position to force said jaws open as they approach the folding blade to fold the sheets thereover, said member being movable to permit said spring devices to close the folding jaws upon the sheets while said jaws are still about the sheets and folding blade, preparatory to carrying away the sheets upwardly by the fold.

[Claims 6 to 16 not printed in the Gazette.]

1,025,542. CIGAR-LIGHTER. ADOLF SCHWIEGER and BENNO DOCTOR, Hanover, Germany. Filed Apr. 11, 1911. Serial No. 620,382. (Cl. 131—38.)



1. A cigar cutter comprising a support, two levers having pivots spaced apart on said support, disposed so that said levers can be rocked toward a position of parallel alinement between said pivots, said levers having substantially semicircular cutting edges disposed so that in an angular position of said levers in relation to each other said cutting edges form complementary parts of the circumference of a circular opening, and means engaging said levers with each other so that by the actuation of one of them they can be collectively moved so that said circular opening is closed by the approach of the cutting edges toward each other.

2. The combination, with a receptacle having a cover, of two levers having pivots spaced apart on said receptacle disposed so that said levers can be rocked toward a position of parallel alinement between said pivots, said levers having substantially semicircular cutting edges disposed so that in an angular position of said levers in relation to each other said cutting edges form complementary parts of the circumference of a circular opening, means engaging said levers with each other so that by the actuation of one of them they can be collectively moved so that said circular opening is closed by the approach of the cutting edges toward each other, one of said levers being provided with a finger piece arranged to serve as a catch to fasten the cover of said receptacle when the levers are in the position of parallel alinement.

1,025,543. HYDROMETER FOR STORAGE BATTERIES. EDWARD W. SMITH, Philadelphia, Pa. Filed June 23, 1910. Serial No. 568,450. (Cl. 73—22.)



1. A bulb provided at one end with a compressible portion and at its other and open end with a stopper having an S-shaped tortuous channel which constitutes a seal for excluding air, substantially as described.

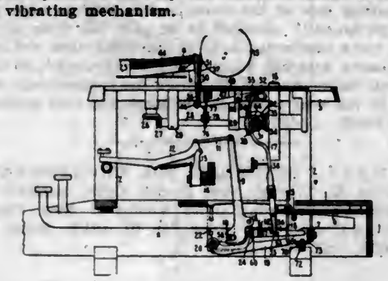
2. In combination a bulb having an opening at one end and a compressible portion at the other end, a hydrometer arranged in the bulb, and a stopper arranged near the open end and provided with an S-shaped tortuous passage which operates as an air seal, substantially as described.

3. The combination of a bulb having an open end and provided with a compressible portion, and a stopper arranged near the open end and provided with two channels opening through the respective faces and with a channel disposed in axial direction and intermediate of the first-mentioned channels and having at its ends peripheral channels which communicate with the first-mentioned channels, and all said channels constituting an S-shaped seal for excluding air, substantially as described.

1,025,544. TYPE-WRITING MACHINE. HERBERT H. STEELE, Marcellus, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Apr. 25, 1911. Serial No. 623,201. (Cl. 197—157.)

1. In a typewriting machine, the combination with ribbon vibrating mechanism, varying mechanism for the vibrating mechanism, ribbon stop devices constantly operative at each vibrating operation, and other ribbon stop devices intermittently operative.

2. In a typewriting machine, the combination with ribbon vibrating mechanism, varying mechanism for the vibrating mechanism, ribbon stop devices constantly operative at each vibrating operation, and other ribbon stop devices operative for only one extent of throw of the ribbon vibrating mechanism.



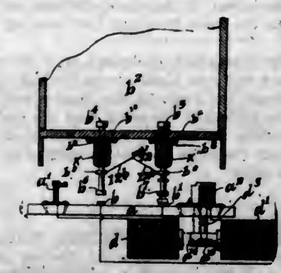
3. In a typewriting machine, the combination of ribbon vibrating mechanism, varying mechanism for the vibrating mechanism, a ribbon stop operative at each vibrating operation, and a second ribbon stop operative only when the vibrator is given its greatest extent of movement.

4. In a typewriting machine, the combination of ribbon vibrating mechanism, varying mechanism for the vibrating mechanism, and a plurality of sets of ribbon stop devices, said sets being capable of concurrent operation.

5. In a typewriting machine, the combination of ribbon vibrating mechanism, varying mechanism for the vibrating mechanism, and a plurality of sets of ribbon stop devices, said sets being capable of concurrent operation on different parts of said ribbon vibrating mechanism.

[Claims 6 to 32 not printed in the Gazette.]

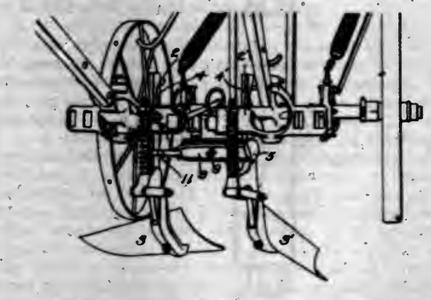
1,025,545. MEANS TO ELECTRICALLY CONTROL STREET-SWITCHES. SAMUEL K. STINGER, Jr., and HARRY K. ROBINSON, Philadelphia, Pa. Filed Sept. 20, 1911. Serial No. 650,471. (Cl. 104—155.)



In combination, tracks having a tongue-switch, two electro-magnets, a lever-arm located between said magnets and in connection suspended from said switch, the lower end of said lever-arm carrying the armatures of said magnets, an electric circuit, contact rails located adjacent to said track-rails and included in said circuit, brackets secured to the under side of the car-platform, foot-plungers mounted in said brackets and having springs, said foot-plungers provided with stops within and beneath said brackets to control in conjunction with said springs the extent of movement of said foot-plungers and the latter provided with disks adapted to make sliding contact with said contact-rails.

1,025,546. SPACING ATTACHMENT FOR CULTIVATORS OF PLOWS. JOHN H. STUBBLEFIELD, Scotts Hill, Tenn. Filed Aug. 26, 1911. Serial No. 646,259. (Cl. 97—35.)

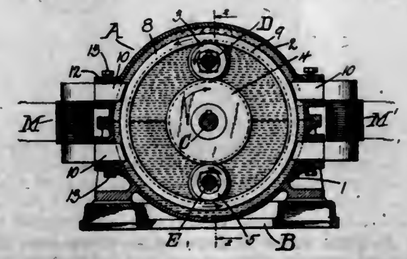
1. In a device of the class described, the combination of a wheel supported frame, beams, standards mounted on said beams, earth agitating devices secured to the standards, and means mounted on one of said standards and free with respect to the other for maintaining the desired distance between the standards aforesaid.



2. In a device of the class described, the combination of a wheel supported frame, means, standards mounted on said beams, earth agitating devices secured to the standards, and adjustable means mounted on one of said standards and free with respect to the other for maintaining the desired distance between the standards aforesaid.

3. In a device of the class described, the combination of a wheel supported frame, beams pivotally mounted on said frame, standards mounted on the beams, earth agitating devices secured to the standards, and means for spacing the standards apart comprising an attaching arm mounted on one of the aforesaid standards, an extension arm slidably secured to the attaching arm, and a horizontal bearing arm formed on the extension arm and adapted to limit the inward movement of the earth agitating devices.

1,025,547. MAGNETICALLY-CONTROLLED FRICTION-GEARING. AUGUST SUNDH, Hastings-on-Hudson, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 25, 1911. Serial No. 656,614. (Cl. 74—26.)



1. The combination of rotatable members in rolling contact, an additional rotatable member and magnetic means acting on said additional member to cause pressure between said first-named members.

2. The combination of rotary friction gears in rolling contact, a ring surrounding said gears and electromagnetic means acting on said ring to govern the pressure at the contact surfaces of said gears.

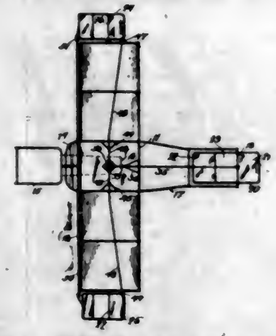
3. In combination, friction rollers, an annular friction member surrounding said rollers, and electro-magnetic means to regulate the pressure between the said member and rollers.

4. The combination of a friction roller, a ring in rolling contact therewith, and a magnet, said ring comprising magnetic material forming an armature for the magnet.

5. The combination of a magnet and a ring of magnetic material rotatable relatively to the magnet with a section of the ring continually in position to form an armature for the magnet.

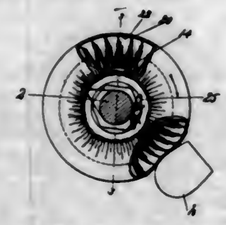
[Claims 6 to 16 not printed in the Gazette.]

1,025,548. AUTOMATIC AEROPLANE-EQUILIBRATOR. JOHN C. TEN EYCK, Yonkers, N. Y. Filed Sept. 12, 1908. Serial No. 452,774. (Cl. 244—29.)



An aeroplane, a horizontally disposed vane pivotally supported in front of said aeroplane and arranged to affect the upward or downward direction of travel thereof, a horizontally disposed pivoted vane at either side of said aeroplane arranged to affect the horizontal position thereof, a swinging arm depending from said aeroplane, a weight supported on said arm, a horizontal frame provided with a slot disposed transversely to the direction of travel of the aeroplane, surrounding said arm, a connection between said frame and the vane at the front of the aeroplane arranged to move the front vane about its pivot in proportion to the movement of the arm in one plane, a second frame provided with a slot disposed at right-angles to the slot in said first frame, and connections between said second frame and the side vanes arranged to actuate said vanes in opposite directions in proportion to the movement of the arm in a plane at right-angles to said first plane.

1,025,549. FINISHING-MACHINE. ROBERT W. THOMSON, Lynn, Mass., assignor to United-Xpedite Finishing Company, Berwick, Me., a Corporation of Maine. Filed Jan. 11, 1905. Serial No. 240,599. (Cl. 51—17.)



1. As a new article of manufacture, a removable cover for a work-rubbing roll, comprising a band adapted to encircle the roll and constructed with permanently contracted edge portions adapted to fit over the sides of the roll.

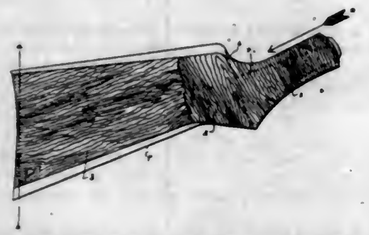
2. As a new article of manufacture, a cover for a work-rubbing roll, comprising a band adapted to encircle the roll, said band being formed with permanently contracted edge portions, and fastening means permanently attached to said contracted edge portions for securing the cover to the roll.

3. The combination with a brush having radial bristles, of a cover therefor comprising a band smaller than the circumference of the brush arranged to hold the bristles in a bent position and a wear-receiving reinforcing strip secured permanently to one face of the cover.

4. As a new article of manufacture, a removable cover for a work rubbing roll, comprising a band adapted to encircle the roll and provided with a longitudinal reinforcing strip sewed to the inner face of the band, said band being permanently gathered along its edges to contract its edge portions for adapting the band to fit over the sides of the roll.

5. The combination with a brush mounted for rapid rotation, of a removable cover therefor comprising a band adapted to encircle the brush, said band being wider than the working face of the brush and having its edge portions permanently gathered to fit over the sides of the brush, and a reinforcing strip of less width than the band permanently attached to one face of the band whereby different thicknesses of the cover are respectively subjected to the wear caused by the work and that produced by the brush.

1,025,550. BUTT-STOCK FOR SHOULDER-ARMS. WALTER H. TILTON, New Haven, Conn., assignor to Winchester Repeating Arms Company, New Haven, Conn., a Corporation. Filed Feb. 21, 1912. Serial No. 679,036. (Cl. 42—71.)



1. A composite butt-stock having a vertically arranged tang-piece, and two cheek-pieces applied to the opposite faces thereof, the grain in the tang-piece running across the lines of force exerted at the comb of the stock, at the time of the recoil following the discharge of the gun.

2. A composite butt-stock having a vertically arranged tang-piece in which the grain at the comb of the stock extends flatwise or substantially flatwise across the lines on which the force of recoil is exerted.

3. A composite butt-stock composed of a centrally arranged tang-piece and two cheek-pieces applied to the opposite sides thereof, the grain of the said tang-piece being presented, at the comb of the stock, flatwise or substantially flatwise to the lines on which the force of recoil is exerted.

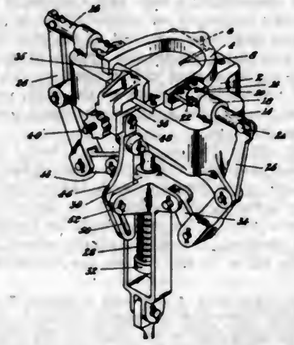
4. A composite butt-stock composed of, a centrally arranged tang-piece and two cheek-pieces applied to the opposite sides thereof, the grain of the cheek-pieces running parallel with the bottom of the stock, and the grain of the tang-piece extending flatwise or substantially flatwise to the lines on which the force of recoil is exerted at or about the comb of the stock.

1,025,551. HEEL-BUILDING MACHINE. ELIPHALET A. TRIPP, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 9, 1907. Serial No. 405,805. (Cl. 12—50.)

1. A heel building machine, having in combination, a flexible U-shaped form arranged to provide a lift-receiving space and means for closing the form upon a plurality of lifts by pressure applied to its opposite sides at predetermined points in the length thereof constructed and arranged to permit the points of application of said pressure with respect to the length of the form to be varied.

2. A heel building machine, having in combination, a flexible U-shaped form arranged to provide a lift-receiving space, means for pressing the sides of the form inwardly against the lifts being assembled, and means for guiding the curved end of the form for movement in the direction of the length of the lift-receiving space.

3. A heel building machine, having in combination, a flexible U-shaped form arranged to provide a lift-receiving space, means for pressing the sides of the form against the lifts being assembled, a breast die arranged for movement longitudinally of the lift-receiving space, and means for positively moving said die toward the rear of the form simultaneously with the closing movement of the sides of the form.

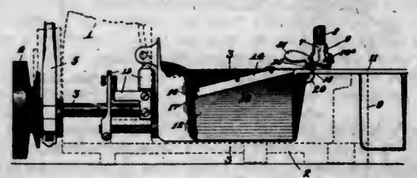


4. A heel building machine, having in combination, a U-shaped form of flexible material arranged to provide a lift-receiving space, means for pressing the sides of the form against the lifts being assembled, a breast die arranged for movement longitudinally of the lift-receiving space, means for positively moving the die toward the rear of the form simultaneously with the closing movement of the sides of the form, and means for adjusting the extent of rearward movement of said die independently of the actuation of the form.

5. A heel building machine, having in combination, a table provided with a flexible U-shaped form on its work supporting surface arranged to embrace a heel at its sides and curved end, guideways arranged on opposite sides of said surface, slides in said guideways having their inner ends connected with said form, levers pivoted between their ends on said table having ends connected with said slides, means for imparting equal movement to said levers and means for guiding the curved end of the form for movement in the direction of the length of the lift receiving space.

[Claims 6 and 7 not printed in the Gazette.]

1,025,552. TRIMMING MECHANISM FOR SEWING-MACHINES. JOHN P. WEIS, Nyack, N. Y., assignor to Metropolitan Sewing Machine Company, Nyack, N. Y., a Corporation of New York. Filed Sept. 19, 1905. Serial No. 279,116. (Cl. 112—6.)



1. In combination with a sewing machine, having a cloth-plate provided with a chute in rear of the stitching position, a trimming mechanism operating to trim the edge of the work, and means for shunting the trimmed edge from the stitching position into the said chute.

2. A trimming mechanism including, in combination, trimmer-blades; an eccentric on the driving-shaft of the machine; a strap engaging said eccentric having a tubular extension; a rod carried by the trimming mechanism in position to enter said tubular extension; a spring within said tubular extension normally tending to force the rod from the latter; means for holding the telescopic parts operatively together; and means whereby the parts of the telescopic connection may be detached during the operation of the trimming mechanism.

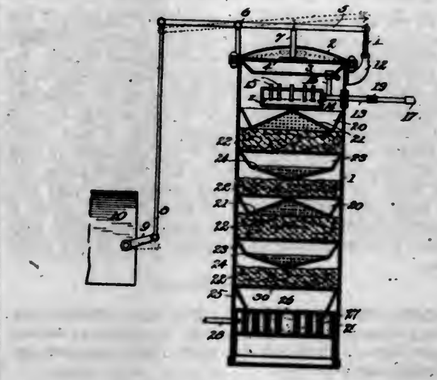
3. In combination with a sewing machine, trimming mechanism secured thereto below the work-plate and having a trimmer-blade, means for projecting said blade through the work-plate for trimming, and means whereby the trimmer-blade may be thrown out of operation and so located as to operate as a work-guide.

4. A trimming mechanism including a reciprocating trimmer-blade, means for throwing the same into and out of operation at will, and a stop for positively locating the trimmer-blade, when it is thrown out of operation, with its body-portion in position to operate as an edge-guide for the work.

5. A trimming mechanism including, in combination, trimmer-blades; an eccentric on the driving-shaft of the machine; a strap engaging said eccentric; a telescopic connection between said eccentric strap and one of said blades, including a rod pivoted to the trimming mechanism; means for holding the telescopic parts operatively together including a latch mounted concentrically with the pivot of said rod; and means connected with said latch for manipulating the latter and accessibly presented to the operator whereby the parts of the telescopic connection may be released during the operation of the trimming mechanism.

[Claims 6 and 7 not printed in the Gazette.]

1,025,553. CARBURETER. CHARLES O. WILLIAMS, St. Louis, Mo., assignor to Fred E. Arnold, Ionia, Mich. Filed July 29, 1911. Serial No. 641,289. (Cl. 48—156.)



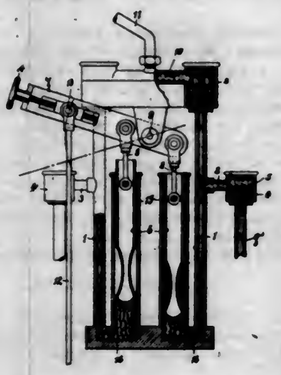
1. In a carbureter, a tank divided into a series of compartments having perforated conical bottoms, said bottoms projecting alternately upward and downward, absorbent material between the compartments, air and hydrocarbon inlets to the tank, a chamber below the lowermost compartment, said chamber having an inlet and an outlet, and containing a spirally arranged partition, and absorbent material between the convolutions of the spiral partition.

2. In a carbureter, a tank divided into a series of compartments having perforated conical bottoms, said bottoms projecting alternately upward and downward, absorbent material between the compartments, air and hydrocarbon inlets to the tank, a pan below the lowermost compartment, said pan having a central opening in its bottom, a chamber below the pan, said chamber being in communication with the pan through the aforesaid bottom opening and having an outlet, a spirally arranged partition in the chamber, and absorbent material between the convolutions of the spiral partition.

1,025,554. PUMP. JAMES WILLIAMS, Olney, England. Filed Apr. 17, 1911. Serial No. 621,508. (Cl. 103—77.)

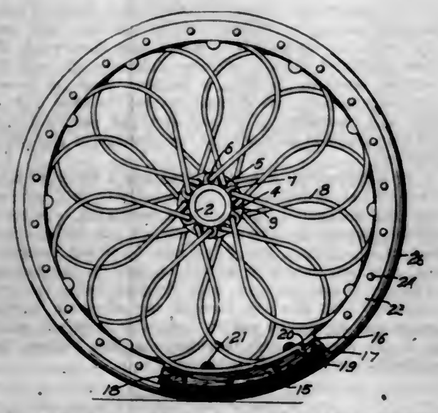
1. In an air carbureting apparatus, a pump for the carbureting liquid comprising a pair of vertical cylinders containing mercury the exposed surface areas of which

mercury vary from a maximum at midstroke to a minimum at the two ends of the stroke, closed-bottomed plungers loosely fitting said cylinders, vertical pipes communicating with the lower ends of said cylinders, supply pipes for carbureting liquid connected to said vertical pipes, non-return valves in said supply pipes, delivery pipes for carbureting liquid connected to said vertical pipes, non-return valves in said delivery pipes, a pivoted oscillating member and means connecting said plungers to said member on opposite sides of the pivot thereof.



2. In an air carbureting apparatus, a pump for the carbureting liquid comprising a pair of vertical cylinders containing mercury, closed-bottomed plungers loosely fitting said cylinders the section areas of which plungers at the mercury levels vary from a minimum at midstroke to a maximum at the two ends of the stroke, vertical pipes communicating with the lower ends of said cylinders, supply pipes for carbureting liquid connected to said vertical pipes, non-return valves in said supply pipes, delivery pipes for carbureting liquid connected to said vertical pipes, non-return valves in said delivery pipes, a pivoted oscillating member and means connecting said plungers to said member on opposite sides of the pivot thereof.

1,025,555. WHEEL. ORA W. WILLIAMS, Minneapolis, Minn., assignor of one-half to W. H. Gardner, Minneapolis, Minn. Filed Feb. 24, 1908. Serial No. 417,254. (Cl. 152—28.)



1. A wheel comprising a hub, and a series of resilient spokes radiating from each end of said hub on curved lines, the outer portions of corresponding spokes at opposite ends of the hub being oppositely curved and crossing one another and the plane of the wheel, a rim, said spokes flexing in a direction parallel substantially with the plane of the wheel and said spokes having their outer ends secured to said rim on opposite sides of the peripheral center thereof.

2. A wheel, comprising a hub, and a series of resilient spokes radiating therefrom on curved lines at each end of the hub, the spokes on each end of the hub consisting of an inner and outer group, the spokes of each inner group being inwardly turned and intersecting the opposite spokes of the corresponding group of the other end of the hub, a rim, and means for securing the outer portions of said spokes to said rim.

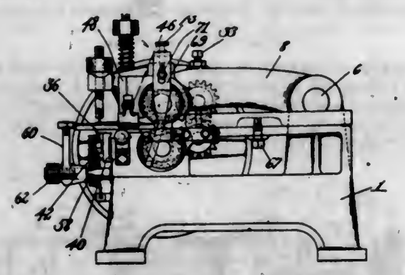
3. A wheel comprising a rim, a hub and a series of resilient spokes radiating therefrom, said spokes consisting of inner and outer groups at each end of the hub, the spokes of the outer groups radiating to the edge of the rim on the same side of the wheel and the spokes of the inner groups crossing the plane of the wheel and one another to the edges of the rim on the opposite side of the wheel.

4. A wheel comprising a hub and a series of resilient spokes radiating therefrom on curved lines, a rim, some of said spokes radiating to the edge of the rim on the same side of the wheel and others of said spokes crossing the plane of the wheel to the edge of the rim on the opposite side of the wheel, said spokes flexing in a direction parallel substantially with the plane of the wheel and means for securing the outer ends of said spokes to the rim.

5. The combination, with a hub having annular webs formed thereon and bearings therein, of spokes having inwardly turned ends fitting within said bearings and provided with annular grooves in said ends, and locking plates inclosing said hub between said webs, and having lips to enter said grooves and lock said spokes in said bearings.

[Claims 6 to 9 not printed in the Gazette.]

1,025,556. LEATHER-SKIVING MACHINE. HENRY W. WINTER, Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 3, 1908. Serial No. 436,464. (Cl. 69—14.)



1. A leather skiving machine for producing rands or the like tapering laterally to a thin edge from a point short of the opposite edge comprising means for splitting a strip of stock of predetermined width longitudinally into two beveled sections by a cut terminating short of the edges of the strip and means for trimming the beveled edges of the sections.

2. A leather skiving machine, having in combination, a knife arranged to split a strip of stock into two beveled sections, means for advancing the stock against said knife, and means for longitudinally grooving opposite faces of the strip prior to the action of said knife upon lines within and adjacent to the lines of severance thereafter produced in said faces by said knife.

3. A leather skiving machine, having in combination, means for skiving from stock a portion of predetermined width tapering transversely to a thin edge, and means for grooving the stock prior to the action of said skiving means upon a line within and adjacent to the line of severance produced by said skiving means at said thin edge.

4. A leather skiving machine, having in combination, means for skiving from stock a portion of predetermined width tapering transversely to a thin edge, and means for grooving the stock prior to the action of said skiving means upon a line within and adjacent to the line of severance produced by said skiving means at said thin edge, said grooving means being arranged to groove the stock to a uniform depth independent of variations in the thickness of the stock.

5. A leather skiving machine, having in combination, a skiving knife and means for advancing the stock against the knife, said means including a feed roll having a knife provided with a cutting edge arranged circumferentially about the periphery of the roll in position to groove the stock adjacent to and within the line of severance produced by said skiving knife.

[Claims 6 to 19 not printed in the Gazette.]

1,025,557. FACE-DROP. JOHN S. ANDERSON, St. Louis, Mo., assignor to North and Judd Manufacturing Company, New Britain, Conn., a Corporation. Filed July 17, 1911. Serial No. 639,071. (Cl. 54—76.)



1. A face drop comprising a connection plate and a strap connected thereto, the said connection plate comprising a front plate and a back plate, a channel formed in the said back plate on the side remote from the said front plate and suitable for receiving and guiding the end of the said strap, and provided with means for securing the strap therein, and the said channel open at the rear and exposing the said strap end and the securing means.

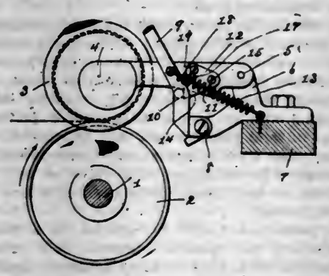
2. A face drop comprising a plurality of straps secured to a connection plate, the said connection plate comprising a front plate and a back plate, the front plate having an outer edge turned over and engaged with the edge of the back plate, and the back plate having a tongue extending inward from the outer edge, and a channel parallel with the said tongue suitable for receiving a strap, and a rivet penetrating the said front plate and tongue, and also the end of a strap received in the said channel.

3. In a face drop, a connection plate comprising a front plate and a back plate, the said front plate having the outer edge turned over the edge of the back plate, and the said back plate having a tongue extending from the outer edge, and the said front plate and tongue having holes in registration suitable for receiving a rivet for securing a strap to the said connection plate.

4. A connection plate having a front plate and a back plate connected together, the body of the said back plate dished rearwardly generally, except for a portion extending inward radially from the outer edge, whereby a radial channel is provided on the side remote from the front plate suitable for receiving and holding a strap end.

1,025,558. SPOOL CUT-OUT FOR SPOOLING-MACHINES. WILLIAM T. BALDWIN, Troy, N. Y., assignor to The Atwood Machine Co., Stonington, Conn., a Corporation of New Jersey. Filed Nov. 24, 1911. Serial No. 662,149. (Cl. 242—39.)

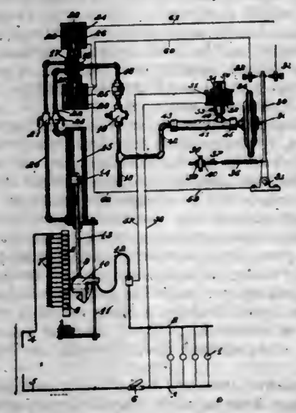
1. In a spool-winding mechanism, and in combination, a friction drive-wheel; a spool-holder movable toward and from said wheel, and adapted to support a partly filled spool in contact therewith; a cut-out lever automatically movable when released, and having a projection adapted by the automatic movement of the lever to engage and raise said spool-holder; and a stop-plate carried by said spool-holder, and vertically adjustable thereupon, said stop-plate projecting normally into the path of said projection, and adapted to be raised above said path by the accumulation of thread upon said spool.



2. In a spool-winding mechanism, and in combination, a friction drive-wheel; a pivotally mounted spool-holder oscillatory vertically toward and from said wheel, and adapted to support a partly filled spool in contact therewith; a cut-out lever having a projection; a spring connected with said lever tending to cause said projection to engage and raise said spool-holder; and a stop-plate carried by said spool-holder, and vertically adjustable thereupon, said stop-plate projecting normally into the path of said projection, and adapted to be raised above said path by the accumulation of thread upon said spool.

3. In a spool-winding mechanism, and in combination, a friction drive-wheel; a spool-holder movable toward and from said wheel, and adapted to support a partly filled spool in contact therewith; a cut-out lever automatically movable when released, and having a projection adapted by the automatic movement of the lever to engage and raise said spool-holder; and a stop on the spool-holder normally in the path of said projection, and adapted to be raised above said path by the accumulation of thread upon said spool, said stop having an inclined rear edge adapted to yieldingly permit the passage of said projection when the cut-out lever is moved forward.

1,025,559. AUTOMATIC ELECTRIC REGULATOR. WILLIAM L. BLISS, Brooklyn, N. Y., assignor, by mesne assignments, to The United States Light and Heating Company, New York, N. Y., a Corporation of Maine. Filed Jan. 6, 1905. Serial No. 239,924. (Cl. 171—229.)



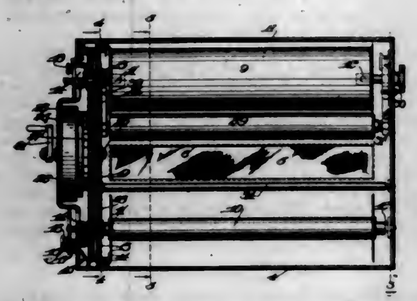
1. In combination, a regulator for a car lighting system, a motive power device for operating said regulator, means for controlling the operation of said motive power

device, a fluid pressure responsive device for actuating said means and provided with an escape vent, a source of fluid pressure supply, a valve for controlling the escape of fluid through said vent, a seat for said valve, said valve being raised from said seat by the pressure of the fluid escaping through said vent, and an electro-magnet for actuating said valve to vary the pressure upon said fluid pressure responsive device.

2. In combination, a regulator for a car lighting system, a fluid pressure motive power device for operating said regulator, a source of fluid pressure supply, means for controlling the operation of said motive power device, a fluid pressure responsive device for actuating said means and provided with an escape vent, a valve for controlling the escape of fluid through said vent to regulate the pressure upon said fluid pressure responsive device, and an electro-magnet for actuating said valve to vary the size of said vent to vary the pressure upon said fluid pressure responsive device.

3. The combination with a regulator, of a relay device for controlling the operation thereof, said relay device being provided with fluid pressure actuated means having a vent through which the fluid may escape, a seat formed around said vent, a ball valve arranged upon said seat, and an electric magnet for attracting said ball to control the pressure upon said fluid pressure actuated means.

1,025,560. STREET AND STATION INDICATOR. AIMÉ L. BRETON, San Francisco, Cal. Filed Dec. 21, 1910. Serial No. 598,598. (Cl. 40—95.)



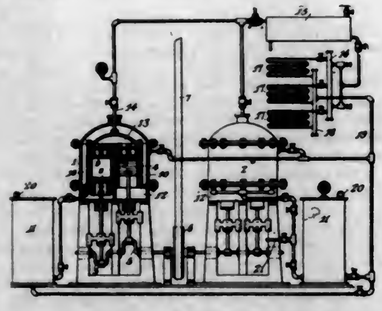
1. A mechanical directory comprising a suitable casing, a main spring, a winding shaft therefor, a disk and driving pawl on the shaft, a master gear loose on the shaft and engaged by the pawl, pinions on opposite edges of the master gear and constantly in engagement therewith, spindles on which the pinions are loosely turnable and having polygonal ends, arms secured on said spindles, detent pins slidable and turnable in said arms and adapted to engage the pinions, winding reels mounted on and driven by the spindles, and an indexed web guided in the plane of the axes of the reels and moved thereby.

2. A mechanical directory comprising a suitable casing, a main spring, a winding shaft therefor, a disk and driving pawl on the shaft, a master gear loose on the shaft and engaged by the pawl, pinions on opposite edges of the master gear and constantly in engagement therewith, spindles on which the pinions are loosely turnable and having polygonal ends, arms secured on said spindles, detent pins slidable and turnable in said arms and adapted to engage the pinions, winding reels mounted on and driven by the spindles, an indexed web guided in the plane of the axes of the reels and moved thereby, a brake for each reel, disks slidable on each spindle in which the pins are turnable, and devices engaging said disks whereby the brakes are operated.

3. A mechanical directory comprising a suitable casing, a main spring, a winding shaft therefor, a disk and driving pawl on the shaft, a master gear loose on the shaft and engaged by the pawl, pinions on opposite edges of the master gear and constantly in engagement therewith, spindles on which the pinions are loosely turnable and having polygonal ends, arms secured on said spindles, detent pins slidable and turnable in said arms and adapted to engage the pinions, winding reels mounted on and driven by the spindles, and an indexed web guided in the plane of the axes of the reels and moved thereby, and eccentric stops turnable with the pins, said detent pins being held disengaged from their respective pinions by said stops and said stops being adjustable to rest upon the arms.

4. A mechanical directory comprising a suitable casing, a main spring, a winding shaft therefor, a disk and driving pawl on the shaft, a master gear loose on the shaft and engaged by the pawl, pinions on opposite edges of the master gear and constantly in engagement therewith, spindles on which the pinions are loosely turnable and having polygonal ends, arms secured on said spindles, detent pins slidable and turnable in said arms and adapted to engage the pinions, winding reels mounted on and driven by the spindles, an indexed web guided in the plane of the axes of the reels and moved thereby, and eccentric stops turnable with the pins, said detent pins being held disengaged from their respective pinions by said stops and said stops being adjustable to rest upon the arms, a roller mounted adjacent to one reel, a manually operable bolt restraining the movement of the roller by the web-moving train, and a swinging tension roller holding the web against the roller.

1,025,561. METHOD OF TREATING REFRIGERATING-MACHINES. WILLIAM A. BYERLY, Bridgewater, Va., assignor, by direct and mesne assignments, to Champion Ice Machine Company, Springfield, Ill., a Corporation of Illinois. Filed Dec. 12, 1910. Serial No. 596,873. (Cl. 62—6.)



1. The method of treating refrigerating machines using sulfurous oxid as the refrigerant, which consists in introducing graphite into the circulatory system of the refrigerating machine and causing said graphite to pass through the circulatory system by the flow of the sulfurous oxid therethrough.

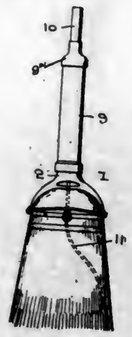
2. The method of treating refrigerating machines employing sulfurous oxid as the refrigerant and provided with means for forcing the refrigerant through the machine, which consists in causing graphite to pass through the refrigerant forcing means and from the latter to the circulatory system of the machine by the flow of the refrigerant through the forcing means and the circulatory system.

3. The method of treating refrigerating machines which consists in introducing graphite and sulfurous oxid into the machine and then causing a circulation of the sulfurous oxid and the graphite together through the machine.

4. The method of treating the circulatory system of refrigerating machines which consists in introducing thereinto a suitable quantity of graphite in finely divided condition, then producing sub-atmospheric pressure within the circulatory system, then introducing sulfurous oxid into said circulatory system, and then causing the circulation of the sulfurous oxid through the circulatory system and by such circulation of sulfurous oxid causing the distribution of the graphite through the circulatory system of the machine to produce a coating of graphite on the walls of the ducts traversed by the sulfurous oxid.

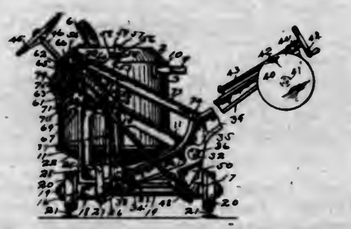
5. The method of treating the circulatory system of refrigerating machines which consists in first introducing a suitable quantity of finely divided graphite into the storage portion of said system, then introducing into the circulatory system a suitable quantity of sulfurous oxid, and then causing a circulation of the sulfurous oxid with graphite carried thereby through the circulatory system of the machine to distribute the graphite throughout such circulatory system.

1,025,562. BROOM AND MOP HOLDER. FRANK C. DAVIS, Tucson, Ariz. Filed Aug. 29, 1910. Serial No. 579,394. (Cl. 15—19.)



A holder of the kind described, comprising a head provided with depending arms carrying a clamp for securing a mop or broom, a socket member carried by said holder, and means coöperating with said socket member for removing the dust from the broom, said means also forming a handle for said broom.

1,025,563. PORTABLE FURNACE. MERRILL DAVIS, Watertown, N. Y., assignor to James B. Wise, Watertown, N. Y. Original application filed July 13, 1911, Serial No. 638,296. Divided and this application filed Dec. 22, 1911. Serial No. 667,302. (Cl. 75—186.)



1. In combination, a tiltable or rotatable furnace body having a pouring spout, and a pouring axis on a transverse line through the point of the pouring spout, means for tilting the furnace body around the pouring axis, and means for adjusting the furnace body for varying the pouring axis.

2. In combination, a tiltable or rotatable furnace body having a pouring spout and a pouring axis on a transverse line passing through the tip of the pouring spout, means for rotating the furnace body around the pouring axis, and means for adjusting the pouring spout, for pouring the metal from a number of different fixed centers.

3. In combination, a furnace body journaled upon trunnions having a pouring spout and a pouring axis transversely in line with the point of the pouring spout, elevating means for tilting the furnace body around the pouring axis, and means for adjusting and setting the pouring spout for pouring the metal at different fixed points.

4. In combination, a furnace body mounted on trunnions, said furnace body being provided with a pouring spout and with pivoting parts in line parallel with a transverse axis passing through the point of the pouring spout, means for rocking the furnace body on the trunnions, independent means for lifting and tilting the furnace body upon the pivots aforesaid, and means for adjusting the point of the pouring spout for pouring the metal at different fixed points.

5. In combination, a furnace body mounted on trunnions, said furnace body being provided with a pouring spout and with pivoting parts in line parallel with a transverse line passing through the point of the pouring spout, means for rocking the furnace body on the trunnions, independent means for lifting and tilting the furnace body upon the pivoting parts, and adjustable means for varying the center from which the metal is poured.

[Claims 6 and 7 not printed in the Gazette.]

1,025,564. ANIMAL-TRAP. REUBEN C. ELDRIDGE, Niagara Falls, Ontario, Canada, and JULIUS WILLERS, Niagara Falls, N. Y.; said Willers assignor to said Eldridge. Filed Oct. 27, 1909. Serial No. 524,782. (Cl. 43—21.)



1. In a trap having a sliding plunger for entrapping the animal, a frame comprising side bars, a plate connecting said side bars which is arranged with its flat faces parallel to the plane of said frame and has portions tightly embracing the side bars, said plate having a flange bent at an angle thereto and provided with guide holes in which said plunger slides, a second plate connecting said side bars, and a cap plate secured to the one face of said second connecting plate, said cap plate and second connecting plate having spaced end portions forming guides for the plunger, substantially as set forth.

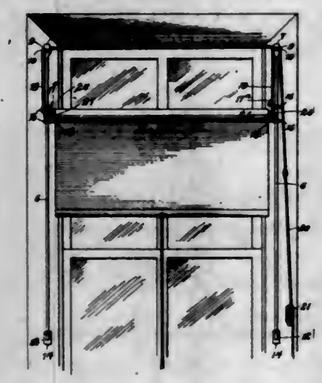
2. In a trap, the combination of a frame composed of a bent wire forming side and top bars, a plate connecting said side bars adjacent to said top bar, a bent wire forming a two-prong plunger, an actuating spring for said plunger, a cap plate secured to said connecting plate and forming therewith guides for the plunger prongs, said cap plate having a portion which embraces said top bar, said top bar, connecting plate and cap plate being bowed outwardly to afford space for said spring, and a trigger for releasably holding the plunger, which is pivoted on said cap plate, substantially as set forth.

3. In a trap, the combination of a frame composed of a bent wire forming side and top bars, a plate connecting said side bars and having a flange with plunger guide holes, and a second plate connecting said side bars adjacent to said top bar, a bent wire forming a two-prong plunger which passes through said guide holes, a cap plate

secured to said connecting plate which is adjacent to the top bar and forming therewith guides for the plunger prongs, said cap plate having a portion which embraces said top bar, a spring for actuating said plunger, and a trigger for releasably holding the plunger which is pivoted on said cap plate, substantially as set forth.

4. In a trap having a sliding plunger for entrapping the animal, the combination of a frame composed of a bent wire forming side and top bars, and sheet metal connecting plates arranged with their flat faces parallel to the plane of said frame and connecting said side bars, one of said plates having a flange bent at an angle thereto and provided with guide holes in which said plunger slides, said plunger consisting of a wire bent to form parallel impaling prongs and being mounted to slide on and to be guided by said connecting plates, and being provided with integral bent portions formed on each of said prongs and arranged to strike the flange of one of said connecting plates to limit the movement of the plunger, and means for releasably holding the plunger, substantially as set forth.

1,025,565. CURTAIN-SHADE-ADJUSTING MEANS. BERTRAM G. FOSTER, Washington, D. C. Filed May 21, 1908. Serial No. 434,152. (Cl. 156—27.)



1. In shade adjusting mechanism, guiding means comprising a single rod having its upper end bent into a rearwardly projecting complete convolution that is located on one side of the rod and forming an eye for the passage of a supporting cord, means for securing said rod to a window frame with the rear side of the eye bearing against said frame and constituting means for spacing the rod at its upper end from the window frame, a shade holding bracket slidable on the rod and a cord passing through the eye and connected to the bracket.

2. In shade adjusting mechanism, the combination with a guide rod having an integral rearwardly projecting loop at its upper end, of a pulley wheel located in the loop, a journal for the pulley wheel engaged in opposite sides of said loop, and a shade-holding bracket slidable on the rod.

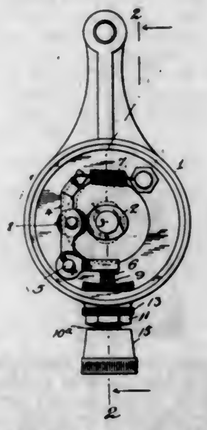
3. In shade adjusting mechanism, the combination with a guide rod having a loop at its upper end, of a fastener for securing the upper end of the rod to a window frame, said fastener passing through opposite sides of the loop, a pulley wheel journaled on the fastener and located in the loop, and a shade-holding bracket mounted on the rod.

4. In shade adjusting mechanism, the combination with a guide rod having an integral loop at its upper end that constitutes means for spacing said rod from a window frame and also forms an eye for a supporting cord, of a fastener passing through the loop for securing the same in abutted relation against a window frame with the rod spaced from said frame, a pulley wheel journaled on the fastener within the loop, a bracket slidably mounted on the rod, and a flexible adjusting and supporting cord secured to the bracket and passing over the pulley wheel.

5. In shade adjusting mechanism, the combination with a guide rod having its upper end portion flattened and bent into a loop that constitutes means for spacing said rod from a window frame, of a fastener for securing the rod to the window frame passing through the loop, a pulley wheel journaled on the fastener and located within the loop, a curtain supporting bracket slidably mounted on the rod, a supporting and adjusting cord secured to the bracket and passing over the pulley wheel, and means for fastening the lower end of the rod against movement to the window frame.

[Claims 6 to 8 not printed in the Gazette.]

1,025,566. BREAKER-BOX FOR IGNITION SYSTEMS. WILLIAM J. HART, Mount Vernon, N. Y., assignor to C. F. Splitdorf, New York, N. Y., a Corporation of New York. Filed June 6, 1910. Serial No. 565,264. (Cl. 123—167.)

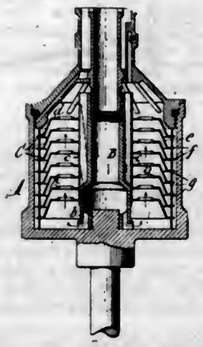


In a make-and-break device, a box having an aperture therethrough, an externally and internally threaded bushing in the aperture, insulation between the box and the bushing, a threaded contact member fitted into the bushing and extending into the box and projecting outward beyond the bushing and terminating in a polygonal head for adjusting the contact members, a lock nut screwed on the contact member, a retaining nut screwed on the bushing, and a binding cap having a threaded aperture of greater diameter than the maximum diameter of said lock nut and of said head and adapted to be fitted onto said bushing and alternately removed therefrom by passing said threaded aperture over said head and nut, whereby a conductor wire may be held between the cap and the retaining nut, said cap having a socket portion surrounding said head and lock nut for preventing adjustment of the contact member while the binding cap is on.

1,025,567. LINER FOR CENTRIFUGAL LIQUID-SEPARATORS. LEANDER J. HEDDERICH, Mulberry, Ind., assignor to Albaugh-Dover Co., Chicago, Ill. Filed Jan. 26, 1912. Serial No. 673,554. (Cl. 127—20.)

1. The combination with a centrifugal liquid separating bowl, of a liner composed of superposed units, each comprising salient and reëntering portions which are provided at the salient angles with outflow passages for the skim milk and at the reëntering angles with inflow passages for cream particles, and a top plate extending from said salient and reëntering portions inwardly, substantially as set forth.

2. The combination with a centrifugal liquid separating bowl, of a liner composed of superposed units, each comprising salient and reëntering portions which are provided at the salient angles with outflow passages for the skim milk and at the reëntering angles with inflow passages for cream particles, and a top plate extending from said salient and reëntering portions inwardly, said top plate being provided with flow passages for the full milk arranged approximately in the neutral zone of the separating space, substantially as set forth.



3. The combination with a centrifugal liquid separating bowl, of a liner composed of superposed units each comprising an inclined face wall having salient and reëntering angles, a top plate extending from said face wall inwardly, a horizontal marginal plate at the base of said inclined face wall, and an upright spacing wall having salient and reëntering angles and provided with flow passages at said angles, substantially as set forth.

4. A unit for a liner for centrifugal liquid separators comprising an inclined face wall forming lobes with salient and reëntering angles, a top plate, a marginal plate at the base of said face wall, and an upright spacing wall having salient and reëntering angles similar to those of said lobes and having flow passages at said angles, substantially as set forth.

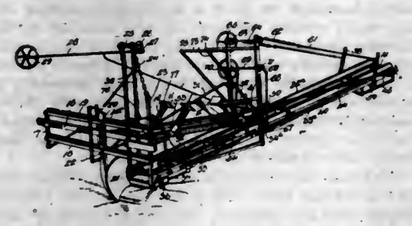
1,025,568. MODE OF HOLDING TUBES DURING THE OPERATION OF DRAWING THEM. HENRY HIGGIN, Newport, Ky., assignor to The Higgin Manufacturing Company, Newport, Ky., a Corporation of West Virginia. Filed Aug. 10, 1908. Serial No. 447,833. (Cl. 205—7.)



A tube adapted to be drawn, and having a body portion with an end portion whose periphery is folded into the interior of the tube with more than two shallow folds at regular intervals, and having a coaxial longitudinal opening throughout said end portion adapted to receive a plug to support the gripping devices.

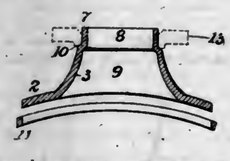
1,025,569. ROAD-GRADING AND EXCAVATING MACHINE. ELIJAH A. HOLLENBECK, Holdrege, Nebr., assignor to The Hollenbeck Manufacturing Co., Holdrege, Nebr. Filed Mar. 29, 1910. Serial No. 552,229. (Cl. 37—48.)

1. In a road grading machine, a frame adapted to be connected to a traction engine comprising a sill in substantially horizontal alinement with the line of travel of said engine, said sill having a substantially vertical standard secured to its rearward portion, substantially parallel bars pivoted at their rearward ends to said standard and at their forward ends to a vertically reciprocable rod, an excavator blade having a substantially vertical standard extending upward therefrom and pivoted to said parallel bars, and means coacting with the rod for raising and lowering the excavator, whereby the said standard thereof retains its vertical relation in its different adjusted positions.



2. In a grading machine, a combination of a conveyer and an excavator and means for movably supporting the conveyer and excavator embodying a frame consisting of a sill and vertical posts on the sill, said frame being connected with the conveyer, a vertical standard supported by the sill, bars pivotally secured to the standard above and below the sill, a vertical rod pivotally connected to the bars, an excavator-blade pivotally connected with the bars, and means embodying said posts and said vertical rod for raising and lowering the excavator-blade relative to the conveyer.

1,025,570. METHOD OF MANUFACTURING NOZZLES. WILLIAM HORSLEY, Jersey City, N. J. Filed Dec. 28, 1909. Serial No. 535,305. (Cl. 113—116.)



1. The herein described method of forming a nozzle from a sheet of ductile metal which consists in the following operations, namely, clamping the sheet annularly about its center, drawing the metal at the center of the sheet into a dome-like structure with gradually sloping walls, punching an aperture of relatively small diameter through the dome so as to provide a large annular radial flange bounding the aperture, and expanding the metal of the radial flange adjacent to the aperture in the dome outwardly through substantially ninety degrees into a cylindrical tubular flange.

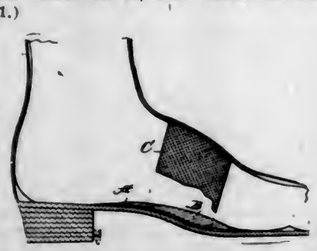
2. The herein described method of forming a nozzle from a sheet of ductile metal which consists in the following operations, namely, clamping the sheet annularly about its center, drawing the metal at the center of the sheet into a dome-like structure with gradually sloping walls, punching an aperture of relatively small diameter through the dome so as to provide a large annular radial flange bounding the aperture, expanding the metal of the radial flange adjacent to the aperture in the dome outwardly through substantially ninety degrees into a cylindrical flange, and pressing the metal of the sloping walls adjacent to the part of the cylindrical flange most distant from its free edge outwardly into an outwardly extending annular shoulder.

3. The herein described method of forming a nozzle from a sheet of ductile metal which consists in the following operations, namely, clamping the sheet annularly about its center and at a distance from its outer edge, drawing the metal at the center of the sheet into a dome-like structure with gradually sloping walls, punching an aperture of relatively small diameter through the dome so as to provide a large annular radial flange bounding the aperture, expanding the metal of the radial flange adjacent to the aperture in the dome outwardly through substantially ninety degrees into a cylindrical flange, and punching off the surplus metal beyond the portion annularly clamped in the first instance to form the flange.

4. The herein described method of making a nozzle which consists in clamping a sheet of metal against an annular surface to form a flange, then drawing the metal into a conical condition to form a dome-like structure with sloping walls within the area of the clamped portion, perforating the dome substantially centrally to the annular clamped portion of the plate to form a small aperture with radial inwardly directed flange, and spreading the metal adjacent to the perforated dome outwardly through approximately ninety degrees into a cylindrical flange of substantially uniform thickness at an angle to the flange formed by the annularly clamped portion.

5. The herein described method of forming a nozzle from a sheet of ductile metal which consists in the following operations, namely, clamping the sheet annularly about its center, drawing the metal at the center of the sheet into a dome-like structure with gradually sloping walls, punching an aperture of relatively small diameter through the dome so as to provide a large annular radial flange bounding the aperture, expanding the metal of the radial flange adjacent to the aperture in the dome outwardly through substantially ninety degrees into a cylindrical flange, and pressing the metal of the sloping walls adjacent to the part of the cylindrical flange most distant from its free edge outwardly into an outwardly extending annular shoulder, placing a ring flange about the outside of the cylindrical flange and resting it upon the annular shoulder to cause it to take the required position with respect to the main flange formed by the part of the sheet originally clamped, and mechanically securing the ring flange to the cylindrical flange so as to make a steam-tight joint.

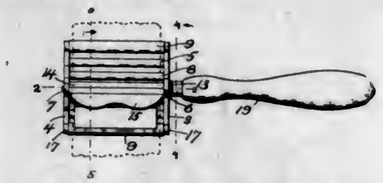
1,025,571. FOOT-SUPPORT. CHARLES A. HOWE, Chicago, Ill. Filed Oct. 24, 1910. Serial No. 588,673. (Cl. 36—71.)



1. A device of the kind specified, comprising in combination, a flexible plate having convex lower and upper faces, the upper face thereof adapted to oppose the sole of the foot, said plate being of greatest thickness at a point lying rearwardly of and adjacent the ball of the foot and on the inner side of the latter, said plate extending longitudinally to a point adjacent the heel and laterally to a point adjacent the outer side of the foot and being tapered from said thickest point in various degrees to the periphery, the latter being sharp, and an elastic band adapted to pass around the foot underneath said plate and over the instep, substantially as and for the purpose described.

2. A device of the kind specified comprising a plate of flexible material having a lower face ogee-curved in the direction of its length, and a convex upper face, the latter adapted to oppose the sole of the foot, and being of greatest height at its forward end portion, the latter adapted to support the portion of the foot lying immediately rearwardly of the ball thereof, said plate tapering sharply from said highest point in said convex face to the forward end thereof and gradually to the rear end thereof, the latter adapted to be immediately forward of the heel, the side edge portion of said plate underlying the inner side portion of the sole being of greater thickness than the other side edge portion thereof, and an elastic band passing over the arch of the foot and underneath said plate and secured to the latter adapted to hold the same in place and to coact therewith to confine the metatarsal bones, substantially as and for the purpose specified.

1,025,572. STROPPING-MACHINE. JOSEPH KAUFMAN, New York, N. Y. Filed Aug. 5, 1909. Serial No. 511,392. (Cl. 51—16.)



1. In a stropping machine, the combination of a main frame portion, an auxiliary frame portion carried thereby, an opening being formed between the auxiliary frame portion and the main frame portion for application and removal of the machine to a strop, razor blade shifting means carried by the auxiliary frame portion and adapted to be actuated by the strop, and guiding extensions projecting from the main frame portion in position for retaining the strop in proper relative position with respect to the shifting means.

2. In a stropping machine, the combination of side plates spaced apart, a rod rigidly connecting the same, guiding rollers carried between the plates and adapted to lie beneath and engage a strop, one of said plates being formed with an extension, a side plate spaced from the other side plate, a rod rigidly connecting said spaced side plate to said extension, a pair of rollers journaled in the last-mentioned side plate and extension, intermeshing gears carried by said rollers, one of the rollers being positioned for engaging and being actuated by the strop, and a razor blade clamp carried by the other roller for clasping a razor blade in condition for positioning the edge of the blade against the strop alternately on opposite sides of the machine.

3. In a stropping machine, the combination of a frame adapted to be shifted along a strop, razor blade carrying and shifting means sustained by said frame in position for being actuated by a strop along which the machine is shifted, guiding means for the strop disposed beneath the strop and above the plane of the lowermost point of the shifting means engaged by the strop, and retaining extensions projecting above said guiding means at the ends of the frame for confining the strop.

4. In a stropping machine, the combination of side plates, means rigidly connecting the same, guiding rollers carried by the side plates, an operating handle projecting laterally from one of the side plates, an edgewise extension from one of the side plates, a third side plate spaced from and rigidly connected to said extension, razor blade carrying and shifting means sustained by said last mentioned side plate and extension and adapted to be engaged and actuated by a strop, and strop confining extensions carried by the first-mentioned side plates and projecting above the guiding rollers thereof.

5. In a stropping machine, the combination of side plates, means connecting the same, arms outstanding from the side plates, strop guide rollers carried by said arms, blade holding and shifting means disposed between the rollers and positioned for being engaged and actuated by a strop engaging the guide rollers, and extensions upstanding from said arms past the edges of the strop engaging the guide rollers.

1,025,573. TERMINAL CLIP. VERNET H. KELLER, Hatfield, Mass. Filed Oct. 3, 1911. Serial No. 652,582. (Cl. 173—269.)



1. A terminal clip comprising a body provided with pivotally-attached spring-pressed terminal-gripping jaws

at its outer end, means for connecting an electric conductor with the inner end of said body, such means consisting in part of a cap, and a sleeve attached to said body to cover the jointed members and serve as a handle, such sleeve being detachable.

2. A terminal clip comprising a body provided with terminal-attaching means, engaging means for an electric conductor, and an insulating member between said body and said conductor-engaging means, the parts being arranged to form a spark-gap between said engaging means and body.

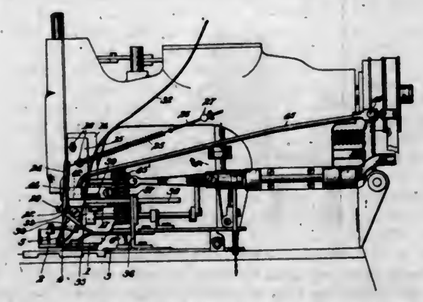
3. The combination, in a terminal clip, of a body provided with terminal-attaching means, engaging means for an electric conductor, an insulating member between said body and said conductor-engaging means, the parts being arranged to form a spark-gap between said engaging means and body, and a sleeve mounted on said body and over the jointed members and adapted to be moved to expose said spark-gap.

4. A terminal clip comprising a body provided at one end with terminal-attaching means, an insulation plug inserted in said body at the other end, and a holding cap for an electric conductor mounted on the part of said plug that protrudes from said body and supported thereon out of contact with the body, one of the members mounted on the plug having a jump-spark projection that nearly bridges the space between said members.

5. A terminal clip comprising a body, terminal-gripping jaws pivotally attached to one end of said body, means to connect an electric conductor with the other end of said body, and a spring arranged and adapted to maintain said jaws normally in a closed condition, said jaws having their front ends so shaped that they can be forced apart against the resiliency of said spring when presented to a terminal.

[Claims 6 and 7 not printed in the Gazette.]

1,025,574. CORDING ATTACHMENT FOR BUTTON-HOLE-SEWING MACHINES. FRANK M. KENNEDY, Utica, N. Y., assignor of one-half to Maxwell Manufacturing Company, New Hartford, N. Y., a Corporation of New York. Filed May 20, 1911. Serial No. 628,381. (Cl. 112—4.)



1. In a cord feeding attachment for buttonhole sewing machines, the combination of a cord feeder adapted to be moved from side to side of a needle and to be otherwise stationary, a lever for actuating said feeder, a longitudinally reciprocating slide adapted to contact the lever endwise, said slide being shiftable laterally out of the line of the lever, means for shifting the slide laterally, and means for restoring the lever to its initial position.

2. In a cord feeding attachment for buttonhole sewing machines, the combination with an oscillating, non-rotary needle carrier, and a needle carried thereby, of a cord feeder exposed to view adjacent the needle, a spring pressing the feeder to one side of the needle, means for controlling the actuation of the needle, a slide reciprocated by the controlling means, and means actuated by the slide for moving the feeder to the opposite side of the needle against the tension of the spring.

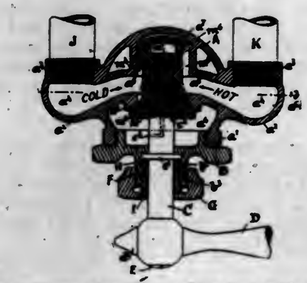
3. In a button-hole sewing machine, the combination with a needle, driving means therefor adapted to be shifted to and from an operative position, a cloth feeder and presser foot, and means for actuating the same for advancing the cloth relative to the needle, of a cord feeder positioned for delivering cord to the cloth beneath the needle and between the points of reciprocation thereof, means actuated by the shifting of the driving means for moving the cord feeder past the needle, and means for returning the cord feeder to its initial position, said cord feeder being otherwise stationary.

4. In a button-hole sewing machine, the combination with a needle, means for shifting cloth relative thereto longitudinally of the botton-hole to be stitched, means for shifting the cloth laterally for disposing a second side of the button-hole in position for receiving the stitches, and shiftable driving means for actuating the needle, of a movable cord feeder arm having a feeder disposed for being moved from side to side of the needle, means actuated by the lateral shifting means for shifting the cord feeder past the needle at one end of the button-hole being formed, and means actuated by the shifting of the driving means for moving the cord feeder past the needle at the other end of the button-hole.

5. In a cording attachment for a button-hole sewing machine, the combination of a cord feeder arm, a rock shaft carrying said arm, a lever for actuating said rock shaft, a spring exerting pressure on the lever in one direction, a stop limiting the movement of the lever in the direction of the spring pressure, a longitudinally reciprocating slide adapted to engage and actuate the lever against the spring pressure for moving the lever away from the stop, and thus oscillate the rock shaft and moving the feeder arm realtive to coöperating parts of a button-hole sewing machine, and means for shifting the slide laterally out of the engagement with the lever for allowing the lever to be moved under the action of the spring back to a position in engagement with the stop for effecting a converse movement of the feeder arm.

[Claims 6 to 21 not printed in the Gazette.]

1,025,575. MIXING-VALVE. ENGELBERT KIEWED, HENRY MOELLER, and FRANK WAGNER, Milwaukee, Wis. Filed July 5, 1910. Serial No. 570,253. (Cl. 137—26.)



1. In a mixing-valve, the combination with a cylindrical chamber having ports on opposite sides thereof, of a centrally closed valve-plug reciprocating in said chamber and having recesses on its opposite sides subtending the respective ports; and means for non-rotatively reciprocating said plug; both of said recesses lying within the outer margin of said chamber when the plug is in its inmost position; and one of said recesses being adapted to extend beyond the margin of said chamber before the other as said plug is moved out and further to pass beyond its port and close it off as said plug is further moved out while the other recess is still opposite to its port and extending beyond the margin of said chamber.

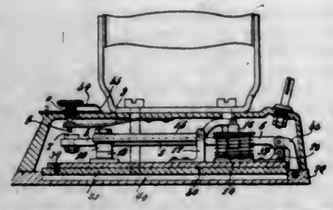
2. In a mixing-valve, the combination with a cylindrical chamber having ports on opposite sides thereof, of a centrally closed valve-plug reciprocating in said chamber and having recesses on its opposite sides subtending the respective ports, and means for non-rotatively reciprocating said plug; both of said recesses lying within the outer margin of said chamber when the plug is in its inmost

position; and one of said recesses being adapted to extend beyond the margin of said chamber before the other as said plug is moved out and further to pass beyond its port and close it off as said plug is further moved out while the other recess is still opposite to its port and extending beyond the margin of said chamber; the margin of said chamber being provided with a valve-seat and the outer end of said plug being provided with a correspondingly formed seating-face adapted to coact therewith to completely shut off the flow.

3. In a mixing-valve, the combination with a cylindrical chamber having ports on opposite sides thereof, of a centrally closed valve-plug reciprocating in said chamber and having recesses on its opposite sides subtending the respective ports, a key adapted to prevent rotation of said plug while permitting its longitudinal reciprocation, said plug being provided with a concentric internal thread, and a rotatable valve-stem having an external thread engaging with said internal thread, said valve-stem being so mounted as to prevent longitudinal movement thereof; both of said recesses lying within the outer margin of said chamber when the plug is in its inmost position; and one of said recesses being adapted to extend beyond the margin of said chamber before the other as said plug is moved out and further to pass beyond its port and close it off as said plug is further moved out while the other recess is still opposite to its port and extending beyond the margin of said chamber.

4. In a mixing-valve, the combination with a cylindrical chamber having ports on opposite sides thereof, of a centrally closed valve-plug reciprocating in said chamber and having recesses on its opposite sides subtending the respective ports, a key adapted to prevent rotation of said plug while permitting its longitudinal reciprocation, said plug being provided with a concentric internal thread, and a rotatable valve-stem having an external thread engaging with said internal thread, said valve-stem being so mounted as to prevent longitudinal movement thereof; both of said recesses lying within the outer margin of said chamber when the plug is in its inmost position; and one of said recesses being adapted to extend beyond the margin of said chamber before the other as said plug is moved out and further to pass beyond its port and close it off as said plug is further moved out while the other recess is still opposite to its port and extending beyond the margin of said chamber; the margin of said chamber being provided with a valve-seat and the outer end of said plug being provided with a correspondingly formed seating-face adapted to coact therewith to completely shut off the flow.

1,025,576. MEANS FOR REGULATING THE TEMPERATURE OF ELECTRICAL HEATING AND COOKING APPARATUS. JAMES CHARLES PARKE KIRKWOOD, Wellington, New Zealand, assignor to Herbert Douglas Vickery, Wellington, New Zealand. Filed Mar. 8, 1912. Serial No. 682,425. (Cl. 219—19.)



1. The combination, with a container having one of its normal walls free to expand and contract, of a resistance element disposed within said container adjacent said wall for heating the same, a main circuit wherein said element is included, a shunt circuit having an electro-magnetic switch included therein, and electrically-operated connections for automatically operating the switch consequent upon the expansion and contraction of said wall, to alternately make one of said circuits and break the other.

2. The combination, with a container having one of its normal walls free to expand and contract, of a resistance element disposed within said container adjacent said wall for heating the same, a main circuit wherein said element is included, a shunt circuit having a solenoid included therein, and electrically-operated connections for automatically operating the solenoid consequent upon the expansion and contraction of said wall, to alternately make one of said circuits and break the other.

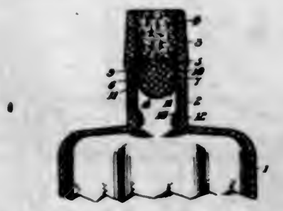
3. The combination, with a hollow flat iron having its bottom wall free to expand and contract, of a resistance element and an electro-magnetic switch disposed within the interior of said flat iron, said element being located adjacent said wall to heat the same, a main circuit wherein said switch is included, and electrically operated connections for automatically operating the switch consequent upon the expansion and contraction of said wall, to alternately make one of said circuits and break the other.

4. The combination, with a hollow flat iron having its bottom wall free to expand and contract, of a resistance element and a solenoid disposed within the interior of said flat iron, said element being located adjacent said wall to heat the same, a main circuit wherein said element is included, a shunt circuit wherein said solenoid is included, and electrically operated connections for automatically operating the solenoid consequent upon the expansion and contraction of said wall to alternately make one of said circuits and break the other.

5. The combination, with a hollow flat iron, of a resistance heating element and a solenoid disposed within the interior of said flat iron, a main circuit wherein said element is included, a shunt circuit wherein said solenoid is included, and electrically-operated means for automatically operating the solenoid to make the shunt circuit and break the main circuit when the temperature of the heated flat iron rises above a predetermined point, and to break the shunt circuit and make the main circuit when the temperature subsequently falls below such point.

[Claims 6 and 7 not printed in the Gazette.]

1,025,577. ANTIREFILLABLE BOTTLE. GEORGE H. KOEHLER and JACOB EUGENE HORN, Pittsburgh, Pa. Filed July 31, 1911. Serial No. 641,563. (Cl. 215—69.)



In a non-refillable bottle, the combination with a bottle neck provided intermediate the ends thereof with inwardly projecting lugs of unequal length located on opposite sides of the bottle neck, and a valve seat at the inner end of said neck, of a spherical valve having recesses in opposite sides at the point of greatest diameter of the valve, said recesses having an open end whereby the lugs of the bottle may enter the recesses and support the valve member, said valve member when turned in the bottle neck on the lugs as an axis adapted to drop onto said seat and said lugs adapted to act as a guard to prevent removal of the valve from the bottle neck or repositioning thereof upon the lugs.

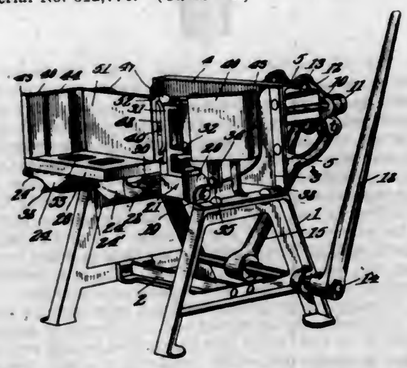
1,025,578. PIPE ATTACHMENT. JOHN W. LANG, Portersville, Cal., assignor of one-half to Ralph Calderwood, Portersville, Cal. Filed July 31, 1911. Serial No. 641,453. (Cl. 131—12.)

An attachment for tobacco pipes consisting of a short tube having a horizontal portion adapted to be inserted in the end of a pipe stem, an inclined portion extending upwardly from said horizontally inclined portion, a curved portion at the upper end of said inclined portion, a depending portion extending downward from said curved



portion and having adjacent to its upper end a projection on its rear side, and at its lower end a projection on its front side.

1,025,579. MOLDING-MACHINE. LUKE T. LOWE, Bristol, Tenn., assignor to Diamond Block Machine Company, Incorporated, Bristol, Va. Filed Mar. 7, 1911. Serial No. 612,774. (Cl. 25—4.)

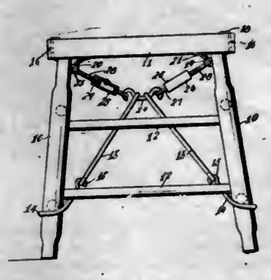


1. The combination with a supporting structure, and angular frame members secured thereon, of a back plate connecting the frame members and constituting the fixed wall of a mold, said plate having a core receiving opening therein, a core movable into and out of the opening, a guide therefor, means for actuating the core, an angle bar interposed between the frame members, a pivot rod extending therethrough and journaled within the frame members, arms extending perpendicularly from one face of the angle bar and having flanges, a pallet detachably secured to said flanges, brackets extending from the bar and at right angles to the arms, a face plate adjustably and detachably connected to said brackets, arms parallel and movable with the brackets, end plates hingedly connected to said arms and movable between the pallet and the back plate and onto the face plate, and coöperating means upon the end plates and the pallet supporting arms for locking the end plates in such positions.

2. The combination with a supporting structure, and angular frame members secured thereon, of a core receiving back plate fixedly connected to the frame members, binding lugs extending inwardly from said frame members, an angle bar interposed between the frame members, a pivot rod extending through the angle bar and frame members, brackets extending perpendicularly from the angle bar, a face plate adjustably and detachably mounted thereon, arms extending perpendicularly from the angle bar and at right angles to said brackets, a pallet detachably and adjustably connected to said arms, arms extending from the angle bar and parallel with the brackets, end plates hingedly connected to said arms and movable into positions on the face plate and between the pallet and the back plate, fingers extending laterally from the pallet supporting arms, latch members upon the fingers, means upon the end plates for engaging the latches to hold the end plates in active positions, and a wedging projection movable with each end plate and into engagement with one of the binding lugs to hold the plates in active positions.

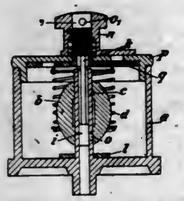
3. In a molding machine, the combination with a hingedly supported element and means adjustably connected thereto for supporting a face plate, of a pallet connected to and mounted to swing relative to said element, said pallet being normally mounted upon the inner face of said element and upon the working face of the face plate.

1,025,580. CHAIR-BRACE. ALEXIS MARCHAND, Bridgeport, Wash., assignor to Joseph Bouska, Bridgeport, Wash. Filed Aug. 4, 1910. Serial No. 575,456. (Cl. 155—3.)



A chair brace including clamps, each clamp comprising an attached plate provided with an oblique slotted extension, a rocking plate bearing on said extension, a tongue formed upon the rocking plate and producing bearing shoulders engaging the oblique extension, said tongue projecting through the slot formed in the extension and bent to produce an eye, and a tensioning means engaged within said eye.

1,025,581. LUBRICATOR. AUGUST MLITZ, Charlottenburg, Germany, assignor to The Firm of Vacuum-Adhesine-Gesellschaft M. B. H., Charlottenburg, Germany. Filed July 17, 1908. Serial No. 444,045. (Cl. 184—69.)

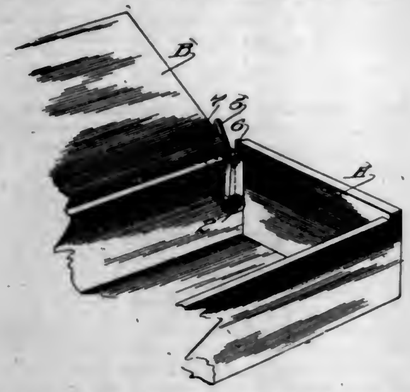


1. In an automatic lubricating-device, the combination with an oil-reservoir, of an oil supply tube in the interior of the oil-reservoir having an opening in its lower part, a lid for the oil-reservoir, means for controlling said opening arranged around the tube, and a spring carrying said means.

2. In an automatic lubricating-device, the combination with an oil-reservoir, of an oil-supply tube in the interior of the oil-reservoir having an opening in its lower part, a lid for the oil-reservoir, a spring suspended from the lid, a member arranged around the tube carried by the spring, the lower part of the member having a collar surrounding the outflow-tube for alternately opening and closing the opening in the lower part of the tube substantially as set forth.

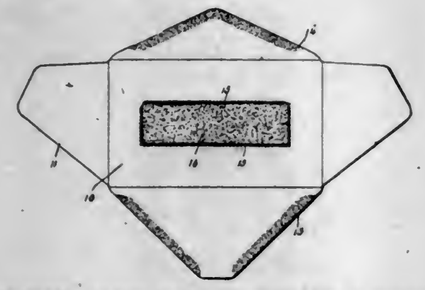
3. In an automatic lubricating-device, the combination with an oil reservoir, of an oil supply tube in the interior of the oil-reservoir having an opening in its lower part, a lid for the oil-reservoir, a spring suspended from the lid, a member arranged around the tube carried by the spring, the lower part of said member having a collar surrounding the tube for alternately opening and closing the opening in the lower part of the tube, and a spring in the interior of the said member pressing on the said collar, substantially as set forth.

1,025,582. BOX-LID HOLDER. AUGUST MOEBES, Jr., and ALBERT H. W. WEBER, San Francisco, Cal. Filed Dec. 2, 1911. Serial No. 663,486. (Cl. 217—61.)



A box-lid holder fashioned from a single piece bent to form a pair of substantially parallel members connected together at one end, one of said members being formed with an extension along one edge and said extension being bent at right angles to said plate, and having a series of lid-engaging members, and the other of said members being slitted, and bent to form tag-holding means.

1,025,583. ENVELOP. ERNEST W. MORGAN, Oakland, Cal., assignor of one-half to Nick Oster, Kinsley, Kans. Filed Feb. 20, 1911. Serial No. 609,716. (Cl. 229—811.)



An envelop having its front provided with a weakened line forming a centrally disposed detachable portion, said portion being formed on its inner face with an adhesive coating whereby said portion will become attached to the contents of the envelop and detached from the envelop upon the removal of said contents.

1,025,584. WASTE CONNECTION. PETER F. MURPHY, Milwaukee, Wis. Filed Mar. 15, 1907. Serial No. 362,464. (Cl. 4—24.)

1. A waste connection comprising a tube having a valve seat and an unobstructed bore and adapted to be secured in the waste opening of a basin or the like, and a disk valve fitted to said seat and having a handle on the upper side projecting a short distance therefrom and adapted to be grasped by hand, and a winged stem on the under side loosely fitted and guided in said tube, the tube and the valve stem having, one a guide way and the other a projection engaging with said guide way and adapted to hold the valve open, and to prevent its removal from the tube, substantially as described.

2. A waste connection comprising a tube having a valve seat and an unobstructed bore and adapted to be secured in the waste opening of a basin or the like, and a disk valve fitted to said seat and having a handle on the upper side projecting a short distance therefrom and adapted to be grasped and turned by hand, and a stem on the under side loosely fitted and guided in said tube, the tube and valve stem having one, an oblique guide way and the other a projection engaging with said guide way whereby the turning of the handle opens and closes the valve and the valve is held open and is irremovably connected with the tube, substantially as described.



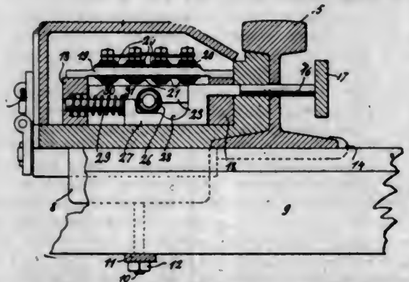
3. The combination with a basin or the like having an overflow passage leading from the upper to the lower part thereof and a waste opening in the bottom, of a tube fitted in said opening and having a valve seat adjacent to its upper end and a lateral opening in communication with said passage, and a disk valve fitted to said seat, and having a handle on its upper side projecting a short distance therefrom, and a stem on its under side loosely fitted and guided in said tube, the tube and valve stem having, one an oblique guideway and the other a projection engaging with said guideway, whereby the turning of the handle opens and closes the valve, and the valve is irremovably connected with the tube, substantially as described.

4. A waste connection comprising a tube having a valve seat adjacent to its upper end and a guideway in one side oblique to its axis, and a disk valve fitted to said seat and having a handle projecting upwardly a short distance therefrom and a winged stem fitting loosely in said tube in engagement with said guideway whereby the turning of the handle opens and closes the valve, substantially as described.

5. A waste connection comprising an externally threaded tube formed with a valve seat and with an outwardly projecting flange and having an oblique guideway in one side, a nut fitted on said tube and a disk valve fitted to said seat and having a handle projecting a short distance from the upper side thereof and a downwardly extending guide loosely fitting in said tube and engaging with said guideway, substantially as described.

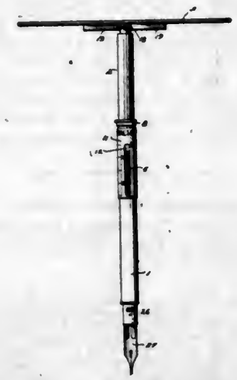
[Claim 6 not printed in the Gazette.]

1,025,585. SWITCH-BOX. BROR A. NELSON, Dixon, Mo., assignor of one-half to William T. Goodman, Dixon, Mo. Filed Nov. 14, 1911. Serial No. 660,227. (Cl. 246—35.)



A switch box having depending bottom flanges to straddle a support, fastening means carried by the flanges, a rail-engaging clip carried by the box; circuit-controlling devices in the box, and actuating means for said devices.

1,025,586. COMBINED SCALE AND WRITING INSTRUMENT. WILLIAM F. NICHOLAS, Chicago, Ill. Filed Aug. 18, 1911. Serial No. 644,870. (Cl. 73—46.)



1. A combined scale and pencil holder consisting of a tubular casing having a slot therein, a spring seated within said casing, a plunger over said spring and means for holding material to be weighed on said plunger, said means consisting of a support having a lug thereon adapted to engage said slot, arms pivoted to said support adapted to maintain a horizontal position and form said holding means said arms adapted to assume a vertical position.

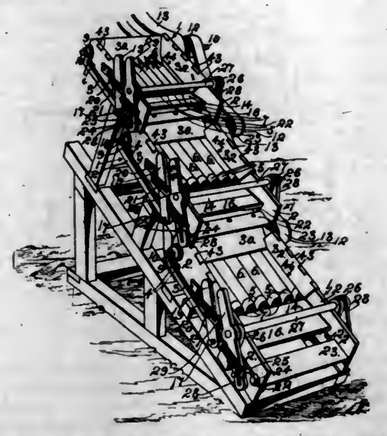
2. A combined scale and pencil holder consisting of a tubular casing having a slot therein, a spring seated within said casing, a plunger over said spring and means for holding material to be weighed on said plunger, said means consisting of pivoted arms adapted to be held at either a vertical or horizontal position.

3. A combined scale and pencil holder consisting of a tubular casing having a slot therein, a spring seated within said casing, a plunger over said spring and means for holding material to be weighed on said plunger, said means consisting of pivoted arms adapted to be held at either a vertical or horizontal position, said arms when held in a vertical position adapted to form a tubular member.

1,025,587. COAL AND SLATE SEPARATOR. JOSEPH T. NORMAN, Wilkes-Barre, Pa., assignor, by direct and mesne assignments, to The Norman Picker Co., Nanticoke, Pa., a Partnership. Filed Nov. 5, 1910. Serial No. 590,895. (Cl. 83—54.)

1. In an apparatus of the class described, a plurality of coal chutes discharging one into the other, each of said chutes including a set of longitudinally disposed uni-directionally rotatable separating rolls, the rolls of a set being spaced apart, means for turning said rolls to effect a separation of the "flake" slate from the coal, each of said chutes including a table onto which the coal and residual slate is discharged from the rolls, means for separating the "cube" slate from the coal as said mass leaves said table to enter the next succeeding chute, off-take spouts for delivering the separated coal from the chutes, the rolls of one chute being rotatable in a direction opposite to those of the next succeeding chute to effect a zig-zag travel of the mass, along the chutes from the entrant end of the first chute to the exit end of the last chute.

2. In an apparatus of the class described, a chute composed of a frame having side-boards, a set of longitudinally disposed spaced rotatable rolls mounted in said frame and onto which the coal and slate is passed, a plate at the entrant end of said chute to project over the entrant end of said rolls to project the coal onto said rolls, side plates hinged to the sides of the chute and projectable over the side rolls, a shaft mounted in said chute, gear connections between said shaft and said rolls to effect the rotation of all of said rolls in the same direction whereby to separate the slate from the coal as the mass passes along said rolls from the entrant end toward the exit end of said chute.



3. A coal and slate separating apparatus including a plurality of sets of successively arranged longitudinally disposed rotatable separating rolls, the rolls of a set being spaced apart, means for turning said rolls to effect a separation of the "flake" slate from the coal, the rolls of one set being rotatable in a direction opposite to those of the next succeeding set to effect a zigzag travel of the mass along the apparatus from the entrant end to the exit end of the same.

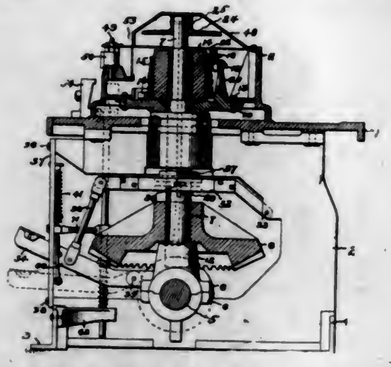
4. A coal and slate separating apparatus including a plurality of separate and distinct separating sections each of like construction to the other discharging directly one into another, and arranged in longitudinal succession, each of said sections including means for separating the coal and slate, and means for effecting a zigzag travel of the mass along the apparatus from the entrant end of the first section to the exit end of the last section.

5. In an apparatus of the class described, a plurality of coal chutes discharging directly one into the other and arranged in longitudinal succession, each of said chutes including a set of longitudinally disposed uni-directionally rotatable separating rolls, the rolls of a set being spaced apart, and means for turning said rolls to effect a separation of the "flake" slate from the coal, each of said chutes including a table onto which the coal and residual slate is discharged from the rolls, means for separating the "cube" slate from the coal as said mass leaves said table to enter the next succeeding chute, an offtake spout for each coal chute, the off-take spout of one chute delivering into the off-take spout of the next succeeding chute to deliver the separated coal from the chutes at a single place.

1,025,588. WIRE-DRAWING MACHINE. JOHN H. O'DONNELL and WILLIAM D. PIERSON, Waterbury, Conn., assignors, by mesne assignments, to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Original application filed July 25, 1910, Serial No. 573,598. Divided and this application filed Feb. 20, 1911. Serial No. 609,624. (Cl. 205—20.)

1. In a wire drawing machine, the combination with a rotary shaft; of a block rotarily mounted thereon; a coil fixed to the interior of said block and surrounding said shaft; a rock lever within said block and rotatable therewith, having an operative engagement with said coil; and means for operating said rock lever irrespective of its position about the axis of said shaft, said means comprising two pivotally mounted members, a rigid connection therebetween, a rod, having an endwise movement within said shaft and connected with one of said pivotally

mounted members, and a plate connected with said rod and movable toward and away from the free end of said rock lever.



2. In a wire drawing machine, the combination with a rotary shaft; of a block rotarily mounted thereon; a coil fixed to the interior of said block and surrounding said shaft; a rock lever within said block and rotatable therewith, having an operative engagement with said coil; and means, capable of rotation independently of said block, for operating said rock lever irrespective of its position about the axis of said shaft, said means comprising two pivotally mounted members, a rigid connection therebetween, a rod, having an endwise movement within said shaft and connected with one of said pivotally mounted members, and a plate connected with said rod and movable toward and away from the free end of said rock lever.

3. In a wire drawing machine, the combination with a rotary shaft; of a block rotarily mounted thereon; a coil fixed to the interior of said block and surrounding said shaft; a rock lever within said block; and rotatable therewith, having an operative engagement with said coil; means, capable of rotation independently of said block, for operating said rock lever irrespective of its position about the axis of said shaft, said means comprising a plate movable upon said shaft parallel to the axis thereof, a rod, having an endwise movement within said shaft and connected with said plate, and manually operated means for imparting a reciprocatory movement to said rod comprising two pivotally mounted members, rigidly connected with each other, one of said members being operatively connected with said rod.

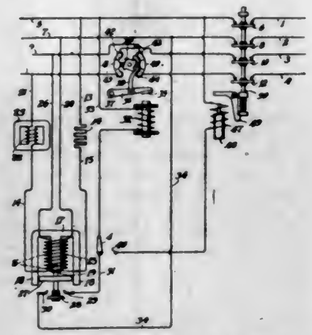
1,025,589. COUPLING OF SCREW-PROPELLERS, SCREW-VENTILATORS, FLY-WHEELS, AND OTHER ROTATING MACHINERY. HANS REISSNER, Aix-la-Chapelle, Germany. Filed Aug. 10, 1910. Serial No. 576,570. (Cl. 115—46.)



1. The combination with an aeroplane structure provided with a drive shaft extending longitudinally thereof, of a propeller disposed with its normal plane of rotation perpendicular to said drive shaft to propel the aeroplane in a forward direction, and a universal joint operatively connecting said shaft and propeller, the center of the joint coinciding with the center of gravity of the propeller and having free inclinatory movement with respect to the axis of said drive shaft, serving to allow inclination of the plane of rotation of the propeller, due to forces acting temporarily upon the elements, and automatic locating of the plane of the propeller and axis of the drive shaft perpendicular to each other by means of the gyratory or centrifugal action of the propeller.

2. In combination with an aeroplane structure provided with a drive shaft, of a propeller disposed with its normal plane of rotation perpendicular to said drive shaft, and a universal joint operatively connecting said shaft and propeller, the center of the joint coincident with the center of gravity of said propeller and having free inclinatory movement with respect to the axis of said drive shaft, serving to allow inclination of the plane of rotation of the propeller, due to forces acting temporarily upon the elements, and automatic locating of the plane of the propeller and axis of the drive shaft perpendicular to each other by means of a gyratory or centrifugal action of the propeller.

1,025,590. REVERSE-PHASE RELAY. HORACE E. RICE, Philadelphia, Pa., assignor to William C. L. Eglin, Philadelphia, Pa. Filed May 22, 1909. Serial No. 497,598. (Cl. 175—294.)



1. A reverse phase relay comprising a plurality of windings and a movable member or armature controlled thereby, one of said windings connected in potential relation with the conductors of one phase of a polyphase system, another of said windings connected in potential relation with the conductors of another phase of said polyphase system, and a phase displacing device in circuit with one of said windings for causing said windings to practically neutralize each other in their effect upon said movable member or armature when the phases of said polyphase system are properly interrelated, whereby said windings operate cumulatively upon the reversal of phase to actuate said movable member or armature.

2. A reverse phase relay comprising a plurality of windings and a movable member or armature controlled thereby, one of said windings connected in potential relation with the conductors of one phase of a polyphase system, another of said windings connected in potential relation with the conductors of another phase of said polyphase system, and an inductance in circuit with one of said windings for causing said windings to practically neutralize each other in their effect upon said movable member or armature when the phases of said polyphase system are properly interrelated, whereby said windings operate cumulatively upon the reversal of phase to actuate said movable member or armature.

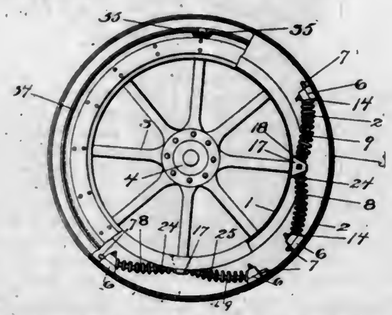
3. A reverse phase relay comprising a plurality of windings and a movable member or armature controlled thereby, said windings being potential windings connected across the conductors of the different phases of a polyphase system, and a phase displacing device in circuit with one of said windings, whereby said windings oppose or assist each other in their effect upon said movable member or armature depending upon the interrelation of the phases of said polyphase system.

4. A reverse phase relay comprising a plurality of windings and a movable member or armature controlled thereby, said windings being potential windings connected across the conductors of the different phases of a polyphase system, and an inductance in circuit with one of said windings, whereby said windings oppose or assist each other in their effect upon said movable member or armature depending upon the interrelation of the phases of said polyphase system.

5. A reverse phase relay comprising a plurality of windings and a movable member or armature controlled thereby, said windings being potential windings connected across the conductors of the different phases of a polyphase system, a non-inductive resistance in circuit with one of said windings, and a phase displacing device in series with another of said windings, whereby said windings oppose or assist each other in their effect upon said movable member or armature depending upon the interrelation of the phases of said polyphase system.

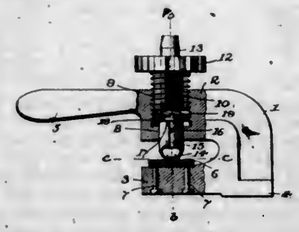
[Claims 6 to 10 not printed in the Gazette.]

1,025,591. VEHICLE-WHEEL. CHARLES B. ROSS, Greenleaf, Kans. Filed Oct. 17, 1910. Serial No. 587,411. (Cl. 152—37.)



A spring wheel comprising inner and outer spaced rims, the inner rim carrying forked blocks provided with inclined faces, the outer rim being provided with spaced blocks and having curved openings formed therethrough, the opposing faces of each being inclined, curved rods having pivotal connections with the blocks carried by the inner rim, and their free ends adapted to pass through the curved openings formed in the spaced blocks carried by the outer rim, and coil springs surrounding the curved rods, and having their terminals resting against the opposing inclined faces of the block carried by the inner rim and the inclined faces of the blocks of the outer rim.

1,025,592. DIE-STAMP. EDWARD D. N. SCHULTE, Troy, N. Y., assignor to W. & L. E. Gurley, a Corporation of New York. Filed June 28, 1910. Serial No. 569,355. (Cl. 201—3.)



1. In a stamp the combination of a supporting frame; a matrix carried by the frame; a die movably mounted in the frame and coacting with the matrix; and means for bringing a yielding pressure on the die to urge it toward the matrix; the die being adapted also to be forced positively toward the matrix independently of the action of such yielding pressure means.

2. In a stamp the combination of a supporting frame; a matrix carried by the frame; a die movably mounted in the frame and coacting with the matrix; a spring engaging the die; and means for stressing said spring to cause it to urge the die toward the matrix, said die being arranged to be operated positively by impact independently of the action of the said spring while the spring is stressed.

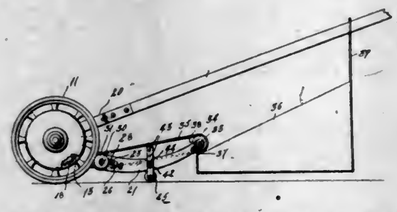
3. In a stamp the combination of a frame provided with a handle and adapted to be rested upon a support; a matrix carried by the frame; a die mounted to move in the frame and coact with the matrix; a spring engaging the die; a nut threaded in the frame so as to be movable to stress the spring and thus urge the die toward the matrix, and a member movable with the die and adapted to be struck to force the die toward the matrix while the spring is stressed, but operating independently of the action of the spring.

4. In a stamp the combination of a substantially U-shaped rigid frame having a base adjacent the point of junction of the two arms thereof, adapted to rest upon a support; a handle carried by one of the arms of the frame; a matrix carried by the lower arm of the frame; a die mounted in the upper arm of the frame and adapted to coact with the matrix; and resilient means adapted to be brought into action to urge the die toward the matrix and thereby clamp material to be impressed by the die, said action being distinct from and independent of the operation of the die in the act of impressing the material so clamped.

5. In a stamp, the combination of a substantially U-shaped frame, having a base adjacent the point of junction of the two arms of the frame, adapted to rest upon a support; a handle carried by one of the arms of the frame; a matrix carried by the lower arm; a die mounted in the upper arm and adapted to coact with the matrix; a spring engaging the die; and means for stressing said spring to urge the die toward the matrix, the die being adapted to be forced toward the matrix independently of the action of the spring while the latter is stressed.

[Claims 6 to 8 not printed in the Gazette.]

1,025,593. GRASS-CATCHER FOR LAWN-MOWERS. ELMER C. SIEBERT, Belleville, Ill. Filed Jan. 12, 1911. Serial No. 602,249. (Cl. 56—114.)

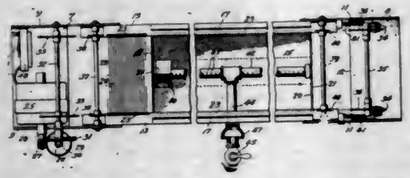


1. The combination with a lawn mower including tractor wheels, rotary cutting blades, and a handle; of a pair of spaced plates supported by the tractor wheels and having corresponding slots therein, a journal block slidably mounted in each of said slots, a shaft journaled in said blocks, a friction wheel mounted on each end of the shaft in alinement with the respective tractor wheels, means for moving said journal blocks toward the tractor wheels, whereby said friction wheels are held in engagement with the tractor wheels, a second shaft journaled between said plates, an endless belt mounted on said first and second named shafts, and a basket supported by said plates and said handle at the delivery end of said belt.

2. The combination with a lawn mower including tractor wheels, rotary cutting blades, and a handle; of a pair of spaced plates having their outer ends supported upon the tractor wheels respectively and having corresponding slots therein, a laterally projecting lug on each plate at the inner ends of said slots respectively, a set screw mounted in each of said lugs, journal blocks slidably mounted in each of said slots, and engaged by a respective set screw, whereby said blocks may be forced toward the adjacent tractor wheel, a shaft journaled in said block, a friction wheel mounted on each end of the shaft in alinement with the respective tractor wheels, a second

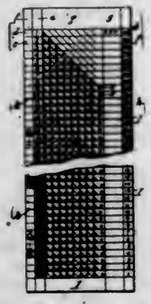
shaft journaled between said plates, an endless belt mounted on said first and second named shafts, and a basket supported by said plates and said handle at the delivery end of said belt.

1,025,594. APPARATUS FOR MELTING AND DRYING EMBOSSED PRINTING. HAZOR J. SMITH, Chicago, Ill., assignor to Embossing Process Company, Chicago, Ill., a Corporation of Arizona. Filed Sept. 11, 1911. Serial No. 648,715. (Cl. 34—12.)



In a heating apparatus for the purpose set forth, the combination of an elongated oven having end-walls provided with horizontal slots in their upper portions, an endless traveling sheet-carrier movable through said slots across the upper part of the oven and comprising a pair of parallel endless chains with wire rods at close intervals connecting them, means for driving the carrier, a heater, housed in the lower part of the oven wholly below the carrier, means for regulating the speed of the carrier, all constructed and arranged to operate substantially as described.

1,025,595. MILEAGE-BOOK. MIRABEAU E. SPARKS, Louisville, Ky., assignor of two-tenths to Herbert McConathy, Louisville, Ky. Filed June 6, 1910. Serial No. 565,256. (Cl. 11—15.)

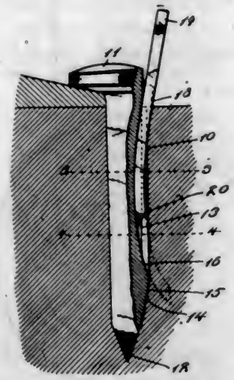


1. A mileage book marked transversely to form mile pieces, and provided with a vertical column of designating numerals arranged in arithmetical progression to designate the mile pieces, and a series of parallel diagonally extending auxiliary numbers arranged in arithmetical progression from 1 to 9, the numeral one of each series being disposed horizontally abreast of the designating numerals of the mile pieces, and in juxtaposition thereto.

2. A mileage book marked transversely to form mile pieces, and provided with a vertical column of designating numerals arranged in arithmetical progression to designate the mile pieces, and a series of parallel diagonally extending auxiliary numbers arranged in arithmetical progression from 1 to 9, the numeral one of each series being disposed horizontally abreast of the designating numerals of the mile pieces, and in juxtaposition thereto, each group of ten mile pieces being appropriately designated to indicate ten miles.

3. A mileage book marked transversely to form mile pieces and provided with a vertical column of designating numerals arranged in arithmetical progression to designate the mile pieces, and a series of parallel diagonally extending auxiliary numbers arranged in arithmetical progression from 1 to 9, the numeral one of each series being disposed horizontally abreast of the designating numerals of the mile pieces, and in juxtaposition thereto each group of ten mile pieces being appropriately designated to indicate ten miles and being progressively numbered.

1,025,596. SPIKE. GEORGE A. STRAWSER, Pfouts Valley, Pa., assignor of one-half to A. L. Long, Millerstown, Pa. Filed Oct. 9, 1911. Serial No. 653,529. (Cl. 85—23.)



The combination of a spike having a longitudinal rabbet in one side spaced from the edges of the side and formed with a curvilinear bottom wall which merges gradually at the ends into said side, a groove making projection on said spike having a cam face forming a continuation of said wall, and a key in said rabbet adapted to be bowed through substantially its entire length by said wall and face during driving to final position.

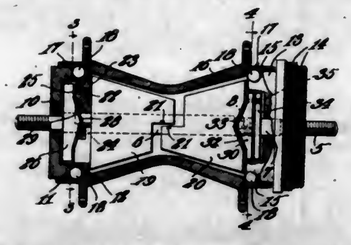
1,025,597. WINDOW-SHADE FIXTURE. MICHAEL TONTI, Pittsburgh, Pa. Filed Mar. 4, 1911. Serial No. 612,400. (Cl. 156—23.)



1. In combination with a bracket arm having a longitudinal slot formed therein, of a supporting arm movably mounted on the bracket arm, said supporting arm consisting of spaced side walls disposed on either side of said bracket arm, an arm integral with one of the side walls and projecting downwardly therefrom, the lower end thereof being twisted at right angles and provided with an opening adapted to receive one end of a curtain roller, a second arm extending outwardly from the last mentioned side wall at right angles thereto and formed at its outer end with a downwardly curved seat for receiving one end of a curtain pole, and securing means attached to the side walls and projecting through the said slot for clamping said side walls to the bracket arm.

2. A supporting arm formed from a flat rectangular piece of metal having one end split longitudinally to form a long and short arm, the end of the strip opposite the arms being bent to form opposed side walls and a connecting portion, one of the arms being bent at right angles to the contiguous wall and having its end curved to form a seat, the other arm being twisted at its lower end and formed with an opening adapted to receive one end of a curtain roller.

1,025,598. COASTER-BRAKE. PATRICK W. TOOHEY, Colorado Springs, Colo., assignor to The Toohey-Doolittle Company, Colorado Springs, Colo. Filed Mar. 10. 1911. Serial No. 613,516. (Cl. 208—57.)



1. In a coaster brake, a fixed spindle, a hollow spindle loose upon the fixed spindle, friction cones loosely mounted upon the hollow spindle, a hub inclosing the cones, the cones being arranged to coöperate with the hub when moved toward each other, cam means fixed upon the hollow spindle for moving the cones toward each other; and means upon the hollow spindle for driving the same.

2. In a coaster brake, a fixed spindle, a hollow spindle loose upon the fixed spindle, friction cones loosely mounted upon the hollow spindle, a hub inclosing the cones, the cones being arranged to coöperate with the hub when moved toward each other, means upon the hollow spindle for driving the same, and means fixed upon the hollow spindle arranged to move the cones toward each other when the hollow spindle is rotated in either direction.

3. In a coaster brake, a fixed spindle, a hollow spindle loose upon the fixed spindle, friction cones loosely mounted upon the hollow spindle, a hub inclosing the cones, the cones being arranged to coöperate with the hub when moved toward each other, means upon the hollow spindle for driving the same, and means fixed upon the hollow spindle upwardly of each cone arranged to move the cones toward each other when the hollow spindle is rotated in either direction.

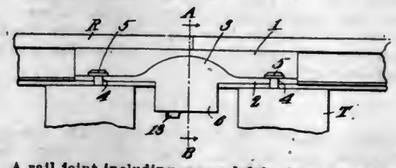
4. In a coaster brake, a fixed spindle, a hollow spindle loose upon the fixed spindle, friction cones loosely mounted upon the hollow spindle, a hub inclosing the cones, the cones being arranged to coöperate with the hub when moved toward each other, means fixed at one end of the hollow spindle arranged to move one of the cones toward the other cone when the spindle is rotated in either direction, adjustable means upon the hollow spindle outwardly of the other cone arranged to similarly move the same when the spindle is so moved; and means upon the hollow spindle for driving the same.

5. In a coaster brake, a fixed spindle, a hollow spindle loose upon the fixed spindle, friction cones loosely mounted upon the hollow spindle, a hub inclosing the cones, the cones being arranged to coöperate with the hub when moved toward each other, means upon the hollow spindle for driving the same, the cones being formed in their outer ends with recesses having anti-clinal walls, and means fixed upon the hollow spindle having cam portions seating in the recesses and coöperating with the walls whereby to move the cones toward each other when the spindle is rotated in either direction.

[Claims 6 to 11 not printed in the Gazette.]

1,025,599. RAIL-JOINT. HARRY H. WALTON and ALLAN H. YINGST, Harrisburg, Pa. Filed Dec. 23, 1911. Serial No. 667,561. (Cl. 239—6.)

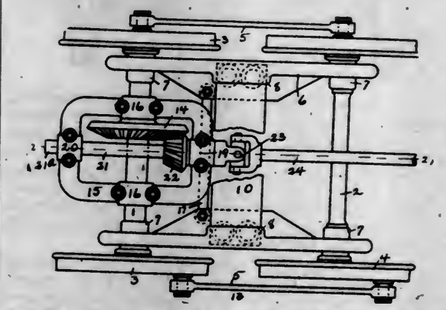
1. A rail joint including opposed fish plates, interengaging portions each formed in one piece with one fish plate and shiftable longitudinally under the rails for binding the fish plates upon the rails, coöperating means housed between the fish plates and below the joined rails for holding said fish plates against independent longitudinal movement to release the rails, said coöperating means including a toothed element and a detent for engaging said element, and a depending finger piece upon the detent and projecting below the fish plates.



2. A rail joint including opposed fish plates, base flanges thereon, each fish plate having an enlargement adjacent the center thereof and upon its flange, an extension projecting downwardly from the enlarged portion of the flange and projecting inwardly under the flange, said extension constituting a support for the end of a rail inserted between the fish plates, tongues upon the extensions, said tongues being movable together and coöperating to draw the fish plates together during the longitudinal movement of one of said plates relative to the other plate, teeth upon one of the extensions, a detent upon the other extension and normally engaging the teeth to hold the fish plate against movement in the opposite direction, and a depending finger piece upon the detent and projecting below the extensions.

3. A rail joint including opposed fish plates, base flanges thereon, each fish plate having an enlargement adjacent the center thereof and upon its flange, an extension projecting downwardly from the enlarged portion of the flange and projecting inwardly under the flange, said extension constituting a support for the end of a rail inserted between the fish plates, tongues upon the extensions, said tongues being movable together and coöperating to draw the fish plates together during the longitudinal movement of one of said plates relative to the other plate, teeth upon one of the extensions, a detent upon the other extension and normally engaging the teeth to hold the fish plate against movement in the opposite direction, and a depending finger piece upon the detent and projecting below the extensions, the meeting portions of the extensions being rabbeted and adapted to lap.

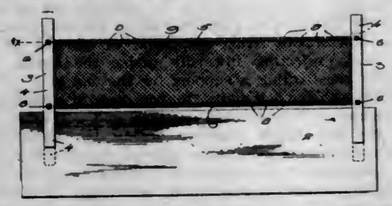
1,025,600. LOCOMOTIVE-TRUCK. JOHN WALTON, Erie, Pa. Filed Jan. 4, 1911. Serial No. 600,703. (Cl. 105—227.)



1. In a locomotive truck, the combination of a driving axle; a skew gear on the axle; a bearing frame having a bearing on the axle and bearings lengthwise of the truck to the front and rear of the axle; a shaft in the frame bearings and extending across the axle; a skew gear on the shaft meshing the skew gear on the axle; a truck frame; a connection between the truck frame and the bearing frame; a swivel bolster on the truck frame; and a universal joint in said shaft at the axis of the bolster.

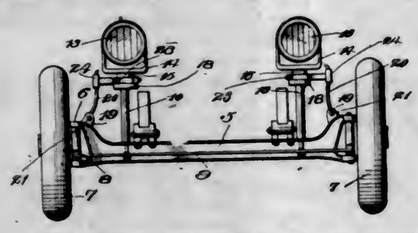
2. In a locomotive truck, the combination of a driving axle; a skew gear on the axle; a bearing frame having a bearing on the axle and bearings lengthwise of the truck to the front and rear of the axle; a shaft in the frame bearings and extending across the axle; a skew gear on the shaft meshing the skew gear on the axle; a truck frame; a connection between the truck frame and the bearing frame; a swivel bolster on the truck frame; a universal joint in said shaft at the axis of the bolster; a second axle on the truck, the axis of the bolster being between the axles; and a connecting rod forming a driving connection between the axles.

1,025,601. GRAIN-GUARD FOR WAGONS. OSCAR W. WIGGINS, Pomona, Kans. Filed Apr. 23, 1910. Serial No. 557,116. (Cl. 21—7.)



A grain guard comprising a pair of bars having eyes formed in their ends, a wire netting member secured to and connecting the said bars, bolts engaged in the eyes of the bars, and uprights disposed on each end of the bars and having the bolts of the bars passing therethrough, whereby the uprights serve to normally support the bars and hold the same in spaced relation, while the removal of the bolts of one of the bars permits of the swinging of the uprights to lie in alinement with the other bar so that the parts may be rolled up within the wire netting.

1,025,602. DIRIGIBLE AUTOMOBILE-LAMP. THOMAS G. WILBRAHAM, Alloway, N. J. Filed Jan. 6, 1912. Serial No. 669,849. (Cl. 240—62.)



1. A mechanism of the character described comprising rotatably mounted standards, a steering rod and connections between the lower ends of said standards, a lamp removably mounted upon the upper end of each of the standards and including a holder provided with an annular flange, a retaining member having resilient bowed arms to embrace said holder above said flange, and additional means engaging said retaining element and yieldingly holding the same in its effective position.

2. A mechanism of the character described comprising rotatably mounted standards, a steering rod and connections between the same and said standards, a lamp removably mounted upon the upper end of each of the standards, said lamps each including a holder having a tubular body portion and a key formed thereon, the upper end of the standard being provided with a key-way to receive said key, the lower end of said body being provided with an annular flange, a retaining member engaging said body above the flange, and a resilient rod engaging said retaining member to hold the same in its effective position upon the body of the holder.

3. A mechanism of the character described comprising rotatable supporting standards, a steering rod and connections between the same and the lower ends of the standards, a lamp mounted upon the upper end of each of the standards and including a holder provided with a tubular body portion to receive the standard, said body being provided with a key to be received in a key-way in said standard, a retaining member having bowed resilient arms to engage the holder and retain the same upon the standard, said member also including a loop, and a resilient bar rigidly fixed at one end and having its other end disposed in said loop to yieldingly hold said retaining member in engagement with the lamp holder.

1,025,603. ARRANGEMENT FOR REMOVING THE MOIST AIR FROM DRYING-CHAMBERS. HERMAN ALLARD, Geertruidenberg, Netherlands. Filed June 22, 1911. Serial No. 634,708. (Cl. 98—27.)



1. A drying chamber, the ceiling of which is provided with a plurality of horizontal passages, a common exhaust passage communicating with said horizontal passages, and with a plurality of vertically disposed passages opening into the horizontal passages, whereby the moist air is carried off from said chamber and condensation is avoided.

2. A drying chamber, the ceiling of which is provided with a plurality of horizontal passages, a common exhaust passage communicating with said horizontal passages at one side of the chamber, means for supplying warm air to said horizontal passage at the opposite side of said chamber, and having a plurality of vertically disposed passages opening into the horizontal passages whereby the moist air is carried off from said chamber and condensation avoided.

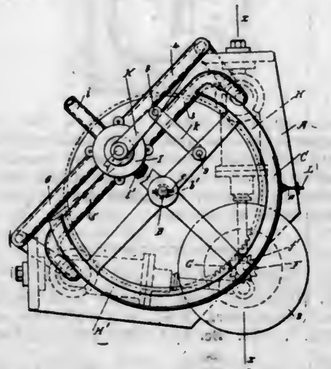
3. A drying chamber, the ceiling of which is constructed of hollow bricks laid a distance apart, the hollow portions forming continuous horizontal passages, and the spaces between said bricks forming vertically disposed passages which lead into the said horizontal passages, and a common exhaust passage communicating with said horizontal passages, whereby moist air is carried off from said chamber and condensation is avoided.

1,025,604. STEERING MECHANISM. GUSTAF ARVID ANDERSON, Waynesboro, Pa., assignor to The Geiser Manufacturing Company, Waynesboro, Pa. Filed Mar. 22, 1911. Serial No. 616,275. (Cl. 121—13.)

1. The combination, with a frame, and a shaft journaled therein; of a hand wheel and a driving wheel each free to revolve on the said shaft and having clutch members on the adjacent ends of their hubs, a slidable sleeve splined to the said shaft and provided with a clutch member at each end whereby the shaft may be placed in driving engagement with either of the said wheels, a motor operatively connected with the said driving wheel, a valve controlling the said motor, and a disengageable connection between the said valve and the said hand wheel.

2. The combination, with a frame, of a shaft journaled in the frame, a hand wheel and a driving wheel each mounted loose on the said shaft, a motor operatively connected with the said driving wheel, a valve controlling the said motor and provided with an operating lever, a disengageable link pivotally connecting the valve lever with the hand wheel, a stop for limiting the movements of the hand wheel, and clutch mechanism carried by the said shaft and operating to place it in driving engagement with either of the two said wheels.

3. The combination, with a frame, a shaft journaled therein, a hand wheel and a driving wheel each free to revolve on the said shaft, and clutch mechanism for placing either wheel in driving engagement with the driving shaft; of a motor operatively connected with the said driving wheel, a valve controlling the said motor and having a valve-spindle arranged parallel to the said shaft, a lever secured on the valve-spindle, a disengageable link pivoted to the hand wheel and to the said lever, and a flexible connection arranged between the frame and the hand wheel and provided with a disengageable fastening device and adapted to limit the motion of the hand wheel.

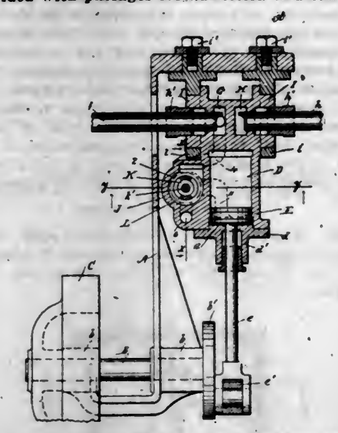


4. The combination, with a frame provided with a bearing, and a shaft journaled in the bearing and having a reduced portion at its upper end which forms a shoulder; of a driving wheel mounted to revolve on the lower part of the said shaft with the lower end of its hub resting on the said bearing and having a clutch member on the upper end of its hub, a hand wheel mounted to revolve on the upper portion of the shaft and having a shoulder inside its hub which rests on the aforesaid shoulder and having also a clutch member on the lower end of its hub, a slidable sleeve splined to the said shaft and provided with a clutch member at each end, a set-screw engaging with the sleeve and adapted to engage the shaft to prevent the sleeve from sliding down the shaft by gravity, and a motor operatively connected with the said driving wheel.

1,025,605. OSCILLATING-CYLINDER ENGINE. GUSTAF ARVID ANDERSON, Waynesboro, Pa., assignor to The Geiser Manufacturing Company, Waynesboro, Pa. Filed Mar. 25, 1911. Serial No. 616,919. (Cl. 121—42.)

1. The combination, with a stationary frame, and a crankshaft journaled therein; of an oscillatory cylinder pivoted to the said frame and operatively connected with the crankshaft, a valve-chest secured crosswise of the axis of the cylinder and having a cylindrical valve chamber arranged to oscillate longitudinally upon the same pivot as the cylinder, a substantially stationary piston-valve arranged in the said valve chamber, and means for preventing the said valve from moving longitudinally, the said valve chamber, chest, valve and cylinder being provided with passages for admission and exhaust, and the said valve chamber being adapted to reciprocate longitudinally upon the said valve.

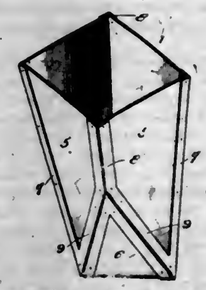
2. The combination, with a stationary frame, and a crankshaft journaled therein; of an oscillatory cylinder pivoted to the said frame and operatively connected with the crankshaft, a valve-chest secured crosswise of the axis of the cylinder and having a cylindrical valve chamber arranged to oscillate longitudinally upon the same pivot as the cylinder, a substantially stationary piston-valve arranged in the said valve chamber and provided with a spindle which projects from the valve-chest, and a link pivoted to the projecting end portion of the valve spindle and to the stationary frame, the said valve chamber being adapted to reciprocate longitudinally upon the said valve, and the said valve chamber, chest, valve and cylinder being provided with passages for admission and exhaust.



3. The combination, with a cylinder provided with a valve chest having a tapering socket, of a plate having a screwthreaded hole and secured to one end of the valve chest, a sleeve tapered externally to fit the socket and provided with a bar extending across one end of it, a valve working in the said sleeve, and a fastening screw for the sleeve engaging with the said plate and provided with a bearing which is journaled in the said bar upon the axis of the sleeve, said screw also affording a means for extracting the sleeve from the socket.

4. The combination, with a stationary frame, and a crankshaft journaled therein; of an oscillatory cylinder pivoted to the said frame and operatively connected with the crankshaft, a valve-chest secured crosswise of the axis of the cylinder and having a valve chamber arranged to oscillate longitudinally upon the same pivot as the cylinder, a substantially stationary valve arranged in the said chamber, and means for preventing the said valve from moving longitudinally, the said valve chamber, chest, valve and cylinder being provided with passages for admission and exhaust, and the said valve chamber being adapted to reciprocate longitudinally over the said valve.

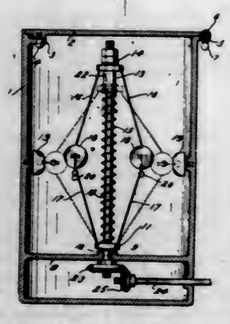
1,025,606. COLLAPSIBLE DRINKING-CUP. PATRICK A. BAYLESS, Oklahoma, and HOWARD D. HENRY, El Reno, Okla. Filed Aug. 27, 1910. Serial No. 579,305. (Cl. 65—58.)



In a device of the kind described, a cup formed from a blank comprising a central diamond-shaped portion having a fold line extending from one obtuse angle to the other, said blank further having extensions from the sides of the diamond-shaped portion defined therefrom by fold lines forming the outline of the diamond shaped central portion, each of said extensions having a curved outer edge and being united in pairs along fold lines forming the prolongation of the diagonal line of the diamond

extending from one acute angle to the other and having the other edges free inclined toward each other; in combination with a frame formed from a single piece of thin flexible material, said frame comprising a central diamond shaped portion overlapping the fold lines between the central portion of the blank and the extensions, said central portion of the frame having extensions from its acute angles overlapping the fold lines between the adjacent extensions of the blank, said frame further having extensions from the obtuse angles, each of which is folded upon itself to embrace the free edges of the extensions of the blank and unite them in pairs when the blank is folded on the fold line uniting its obtuse angles.

1,025,607. MOTOR-VEHICLE SPEED-ALARM. RUDOLPH BERLINER, DANIEL D. SWEM, and HENRY F. MOORE, Chicago, Ill. Filed Sept. 9, 1911. Serial No. 648,427. (Cl. 116—1.)



1. A motor vehicle speed alarm, comprising a bell, means operatively connected with the vehicle adapted to strike the bell at a predetermined speed of the vehicle, and mechanism adapted to lock said means in operative position when the speed of the vehicle is further increased.

2. A motor vehicle speed alarm, comprising mechanism adapted to automatically produce a signal at a predetermined speed of the vehicle, and means associated with said mechanism adapted when the speed of the vehicle is further increased to lock said mechanism in position to continue the signal regardless of the subsequent speed of the vehicle.

3. A motor vehicle speed alarm, comprising mechanism operated by the vehicle adapted to produce a signal at a predetermined speed of the vehicle, means adapted to lock said mechanism in position to continue the signal when the speed of the vehicle is further increased, and a casing containing the structure thus formed and adapted to prevent said locking means being released except by an authorized person.

4. A motor vehicle speed alarm, comprising, a gong, a centrifugal governor, means on the governor adapted to strike the gong at a predetermined speed of the vehicle, and means adapted to lock the striking means in operative position when the vehicle speed is increased.

5. A motor vehicle speed alarm, comprising a centrifugal governor adapted to be operatively connected with the vehicle, a gong positioned near the governor, means on the governor adapted to strike the gong when the vehicle reaches a predetermined speed, and locking means on the governor adapted to lock it in position for the striking means to continue to strike the gong as soon as the vehicle speed is further increased and maintain such position regardless of subsequent speed of the vehicle.

[Claim 6 not printed in the Gazette.]

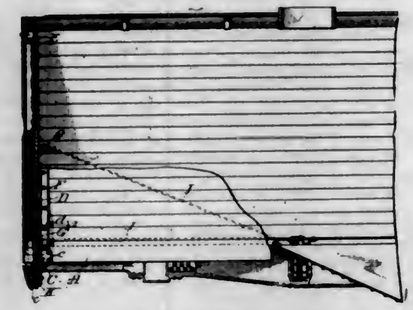
1,025,608. SIPHON. HARRY L. BLISS, Reynoldsville, Pa. Filed June 7, 1911. Serial No. 631,695. (Cl. 137—20.)

The combination with a pair of tanks disposed at different levels, of a siphon connecting said tanks and projecting into the lower tank, an elbow secured to the end of the siphon within the upper tank, a band clamped around the elbow, said band having a plurality of arms of different lengths formed integral therewith, said arms having inwardly bent upper ends, certain of said inwardly bent



ends having apertures formed therein, a valve rod slidably engaged in the apertures, a float secured to the upper end of the valve rod, a weighted valve secured to the lower end of the valve rod, and one of the arms of the band having an inwardly extending end for limiting the upward movement of the valve.

1,025,609. CONVERTIBLE CAR. CLAUS J. WERNER CLASEN, Davenport, Iowa, assignor to Bettendorf Axle Company, Bettendorf, Iowa, a Corporation of Iowa. Filed Jan. 3, 1911. Serial No. 600,535. (Cl. 105—184.)



1. A car comprising inclinable floor-sections in the ends thereof, and revoluble means the axes of which are vertically disposed in the ends of said car that directly engage and raise the adjacent transverse edges of said sections.

2. A car comprising inclinable floor-sections in the ends thereof, vertical tubular posts at the corners of the car, and vertically movable means housed within said posts that engage and raise or lower the adjacent transverse edges of said sections.

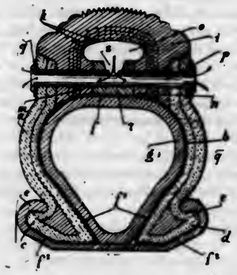
3. A car comprising inclinable floor-sections in the ends thereof, and corresponding vertical tubular posts situated in each corner of the car, and revoluble means whose axes are vertical that raise and lower the adjacent transverse edges of said sections.

4. A car comprising vertical tubular corners having vertically elongated ways open to the interior of the car, inclinable floor-sections in the ends of the same, and means movable vertically in said tubular corners and adapted to engage and raise and lower the adjacent edges of said floor-sections.

5. A car comprising vertical tubular corners having vertically elongated ways open to the interior of the car, inclinable floor-sections in the ends of the same, having lateral projections at their corners adjacent to the tubular corners of the car, and means movable vertically in said tubular corners that are provided with arms extending out through said ways that have bearings for the lateral projections of said floor-section.

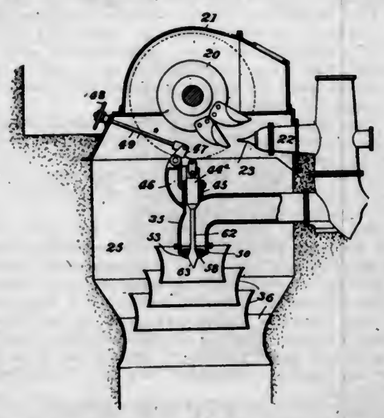
[Claims 6 to 14 not printed in the Gazette.]

1,025,610. PNEUMATIC TIRE FOR VEHICLE-WHEELS. GEORGES DESSON, Paris, France. Filed June 21, 1911. Serial No. 634,631. (Cl. 152—10.)



An improved tire for vehicle wheels comprising in combination a solid rubber tread and an air chamber, a casing for said air chamber formed of two lateral rings, a tread of thick india-rubber fixed between the outer edges of said lateral rings, said tread having an annular chamber, tubular cross bolts connecting the lateral parts of the casing with each other and with the tread having each a hole communicating with the said annular chamber, substantially as described and shown and for the purpose set forth.

1,025,611. MEANS FOR CONTROLLING THE DISCHARGE FROM HYDRAULIC MOTORS. WILLIAM A. DOBLE, San Francisco, Cal., assignor to May E. Doble, San Francisco, Cal. Filed May 24, 1910. Serial No. 563,140. (Cl. 131—18.)



1. The combination with a hydraulic motor and a conduit for conducting the water discharged from said motor, of a cone-shaped device having inlet openings in its walls in communication with said conduit, and means for directing a stream of water against the walls of said device.

2. The combination with a hydraulic motor and a conduit for conducting the water discharged from said motor, of a cone-shaped device having inlet openings in its walls in communication with said conduit, and means for directing an annular stream of water against the inside walls of said device.

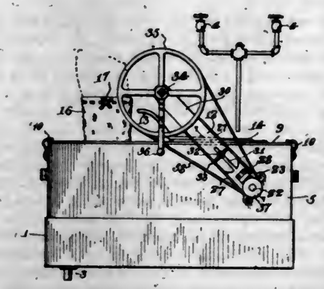
3. The combination with a hydraulic motor and a conduit for conducting the water discharged from said motor, of a device in communication with said motor and comprising a series of annular rings, and means for directing a stream of water against the walls of said rings.

4. The combination with a hydraulic motor and a conduit for conducting the water discharged from said motor, of a device in communication with said motor and comprising a series of annular rings positioned to form a cone, and means for directing a stream of water against the walls of said rings.

5. The combination with a hydraulic motor and a draft tube therefor, of a cone-shaped device located in said draft tube and having inlet openings in its walls, and means for directing a stream of water against the inside walls of said device.

[Claims 6 to 42 not printed in the Gazette.]

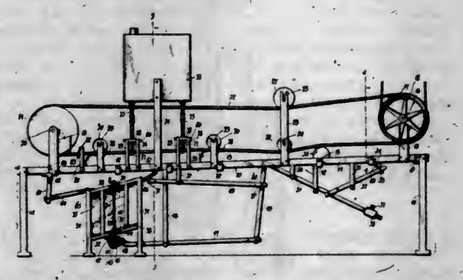
1,025,612. BATHING-MACHINE. TIMOTHY J. DONOVAN, Syracuse, N. Y. Filed July 26, 1911. Serial No. 640,547. (Cl. 4—27.)



1. A bathing machine comprising a supporting tub or sink, a tank removably mounted thereon, a cover for said tank having a plurality of apertures formed therein, a cap closure for one of the apertures, water proof fabric members surrounding the other apertures and provided with draw strings, foot rests supported in the tank beneath the latter apertures, means for agitating the contents of the tank to cause currents to impinge against the foot rests, and manually operated means within the tank for conducting the contents thereof to the supporting tub or sink.

2. A bathing machine comprising a supporting tub or sink, a tank having foot rests supported at one end thereof and having agitating members mounted in the other end of the tank, and in line with the foot rests, a foot controlled outlet mounted in the tank for conducting the contents thereof to the tub or sink, a cover for the tank having a manually controlled inlet formed therein, and having a pair of apertures formed therein disposed above the foot rests, means surrounding the apertures for preventing splashing of the contents of the tank therethrough, and manually operated means for controlling the movement of the agitators.

1,025,613. CAN-LABELER. WILLIAM A. EASTHAM, Nashville, Tenn. Filed Sept. 28, 1911. Serial No. 651,775. (Cl. 216—58.)



1. In a can labeling device, a can trough, a toggle lever operated by the passage of a can along said trough, a label receptacle, an inclined bottom for said receptacle movable vertically therein, means connected with said

toggle lever for advancing said bottom step by step, can operated means for moving the labels in succession from said receptacle, and means operated by said toggle lever for elevating the free end of a label into contact with a can.

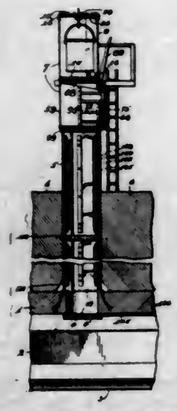
2. In a can labeling device, a can trough, a toggle lever having a portion projecting into said trough and arranged to be depressed by passage of a can thereover, a label receptacle, a hinged leaf on said receptacle, an inclined bot tom movable in said receptacle, means connected with said toggle lever and said bottom and operating to advance the bottom step by step, means connected with said toggle lever and said hinged leaf and operating to rock the latter upward at each step actuation of the bottom, and means for advancing the label out of said receptacle onto said hinged leaf.

3. In a can labeling device, a can trough, a can operated toggle lever, a label receptacle below the trough, a label elevating device carried by said receptacle and operated by said toggle lever, a tilting leaf operating by said toggle lever, can operated means for advancing labels in succession from said receptacle to said tilting leaf, said tilting leaf projecting through the bottom of said trough and being adapted to apply a label to a can rolling in the trough, and means for applying paste to the can prior to the application of the labels thereto by said leaf.

4. In a can labeling device, a can trough, a toggle lever having its elbow projecting through the bottom of said trough and adapted to be depressed by passage of a can thereover with resultant actuation of the toggle lever, means operated by said toggle lever for feeding cans at spaced intervals from the can supply into said trough, means for advancing said cans in spaced relation in said trough, a label receptacle having a tilting leaf projecting through the bottom of said trough, means for feeding labels from said receptacle on to said leaf, and means for rocking said leaf whereby to apply the label thereon to a can rolling in the trough.

5. In a can labeling device, a can trough, a toggle lever projecting through the bottom of the trough and actuated by passage of cans thereover, a label receptacle below the trough having a vertically movable bottom, a tilting leaf carried by said receptacle and adapted to project through the bottom of said trough, means actuated by said toggle lever for simultaneously elevating said bottom step by step and rocking said leaf upwardly, and can controlled means adapted to advance a label from said receptacle on to said leaf, the first and last named means being alternately actuated.

1,025,614. CAISSON. OLIVER CROMWELL EDWARDS, Jr., Troy, N. Y. Filed May 29, 1908. Serial No. 435,775. (Cl. 61—3.)



1. In an air lock, the combination with an air lock section, of a vertically disposed pivotally mounted sliding door therefor.

2. In an air lock, the combination with a section having a door-way, of a door therefor mounted to swing in lines parallel to the walls of the section to and from a position closing said door.

3. In an air lock, the combination with a lock section having a door-way, of a door for closing the same and adapted to swing about one of the axes of the section as an axis.

4. In an air lock, the combination with a lock section having a door-way, of a door for closing the same adapted to be swung about the longitudinal axis of the section as the axis of movement of the door.

5. In an air lock, the combination with a cylindrical lock section having a door-way, of a door for closing said door-way adapted to swing in a path concentric to the walls of the section.

[Claims 6 to 104 not printed in the Gazette.]

1,025,615. PROCESS OF SEPARATING META- AND PARA-CRESOLS. FRANZ ELGER, Basel, Switzerland, assignor to Hoffmann-La Roche Chemical Works, New York, N. Y., a Corporation of New York. Filed Oct. 19, 1911. Serial No. 655,562. (Cl. 23—24.)

1. That improvement in the process of separating meta and para-cresols which comprises the crystallizing of that component which retains the meta-cresol out of a liquid mixture containing the products resulting from the treatment of the two cresols with sulfuric acid.

2. That improvement in the process of separating meta and para-cresols which comprises treating a liquid mixture thereof with a limited quantity of sulfuric acid to convert the meta-cresol therein into a monosulfo acid under conditions unfavorable to the formation of any material quantity of its di-sulfo acid, and crystallizing the meta-cresol-mono-sulfo acid out of the liquid mixture in the form of a solid crystalline compound.

3. That improvement in the process of separating meta- and para-cresols which comprises in adding to a mixture thereof a limited quantity of strong sulfuric acid, the quantity of such acid approximating that which is theoretically necessary for the conversion of both cresols into their respective monosulfonic acids.

4. That improvement in the process of separating meta- and para-cresols which comprises in adding to a mixture thereof a limited quantity of strong sulfuric acid, the quantity of such acid being less than that which is theoretically necessary for the conversion of both cresols into their respective monosulfonic acids.

5. The process of separating meta- and para-cresols which comprises treating a mixture thereof with a limited quantity of strong sulfuric acid until sulfonation is ended, the quantity of such acid approximating that which is theoretically necessary for the conversion of both cresols into their respective monosulfonic acids, causing the formation of crystals in said sulfonated mixture, separating the solid and liquid portions of the mixture from each other and treating them respectively for the recovery of their cresols.

[Claims 6 to 11 not printed in the Gazette.]

1,025,616. META-CRESOL AND PROCESS OF MAKING THE SAME. FRANZ ELGER, Basel, Switzerland, assignor to Hoffmann-La Roche Chemical Works, New York, N. Y., a Corporation of New York. Filed Dec. 16, 1911. Serial No. 666,198. (Cl. 23—24.)

1. Meta-cresol in the form of a colorless liquid, becoming slightly yellowish when exposed to light for some time and solidifying at approximately 11° C.

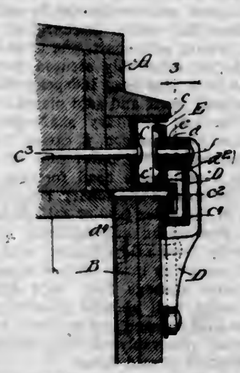
2. The process of producing meta-cresol having the property of being a crystalline solid at approximately 11° C., and of existing as a colorless liquid turning yellowish upon continual exposure to light, which consists in employing a mixture dominatingly rich in meta-cresol as a starting material and applying to it a selective agent to cause the pure meta-cresol to enter into the composition of a crystalline body and suitably separating the meta-cresol thus obtained from the other constituents.

3. The process of producing meta-cresol having the property of being a crystalline solid at approximately 11° C., and of existing as a colorless liquid turning yellowish upon continual exposure to light, which consists in employing a mixture dominatingly rich in meta-cresol as a starting material and producing a crystalline body containing as its sole cresol component the meta-cresol, by applying to the starting material a selective agent to act selectively upon the meta cresol constituent and to cause it to subsist as a pure meta-cresol component of the crystalline body, and separating said pure meta-cresol from the other constituents.

4. The process of producing meta-cresol having the property of being a crystalline solid at approximately 11° C., and of existing as a colorless liquid turning yellowish upon continual exposure to light, which consists in reducing the temperature of ordinary commercial meta-cresol to a temperature approximating 0° C., permitting the cooled substance to stand for some time, causing the pure meta-cresol to separate itself from the cooled liquid in the form of pure meta-cresol crystals.

5. The process of producing meta-cresol having the property of being a crystalline solid at approximately 11° C., and of existing as a colorless liquid turning yellowish upon continual exposure to light, which consists in reducing the temperature of ordinary commercial meta-cresol (containing approximately 80% to 92% meta-cresol) to a temperature approximating 0° C., permitting the cooled substance to stand for some time, causing the pure meta-cresol to separate itself from the cooled liquid in the form of pure meta-cresol crystals extending in long crystals throughout the vessel from a nucleus formed by inoculating the cooled substance with a pure meta-cresol crystal previously formed.

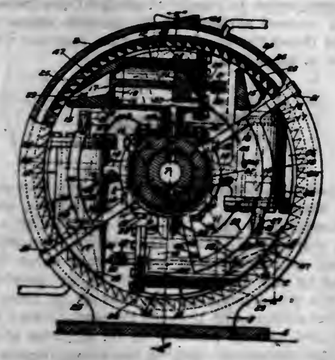
1,025,617. DOOR-HANGER. PERCY M. ELLIOTT, Chicago, Ill. Filed Oct. 11, 1911. Serial No. 654,177. (Cl. 16—7.)



The combination with a car body, of a single piece rolled metal rail extending above the door opening and comprising a flat, vertically disposed web or body portion abutting for its full width against the side of the car and secured thereto, and having integral track flanges projecting outwardly from its upper and lower edges and an integral guard flange depending from the outer edge portion of the lower track flange, a door, and hanger brackets secured to said door having rollers arranged between said track flanges and supporting the door with the upper portion thereof behind said guard flange to thereby hold said door against displacement and said rollers in proper position relatively to said track flanges, substantially as described.

1,025,618. FLUID-MOTOR. LEANDER E. FISH, Los Angeles, Cal. Filed Sept. 25, 1911. Serial No. 651,286. (Cl. 121—61.)

1. A rotary motor comprising a fixed hollow ported shaft, a hollow rotor shaft journaled on the ported shaft and provided with one or more receivers having nozzles, valves for said nozzles, and means to open and close the valves as the rotor rotates.



2. The combination with a hollow ported fixed shaft, of a ported hollow rotor shaft journaled thereon, receivers fastened on said rotor shaft to receive fluid medium from the fixed shaft, said receivers being provided with nozzles, valves for the nozzles and means to open the nozzle valves when communication between the hollow shaft and the receiver is closed.

3. The combination with a hollow shaft, of a rotor provided with a receiver having a nozzle, said rotor and shaft being provided with ports to establish and cut off communication beteween the hollow shaft and the receiver, a valve for the nozzle and valve operating means to open the nozzle when the port into the receiver is closed and to close the nozzle when said port is open.

4. The combination with a hollow shaft of a rotor provided with a receiver having a nozzle, said rotor and shaft being provided with ports to establish and cut off communication between the hollow shaft and the receiver, a valve for the nozzle, means to open the nozzle valve when the port into the receiver is closed and to close the valve when said port is open, a lever pivotally connected with the rotor and connected with the valve, and a cam to hold the lever in valve opening position when communication between the hollow shaft and the receiver is closed and to close the valve when such communication is open.

5. In a rotary engine a rotor provided with a receiver having a nozzle, a valve to control said nozzle, a lever pivotally connected with the rotor to operate said valve, and a cam to actuate the lever as the rotor rotates.

[Claims 6 to 13 not printed in the Gazette.]

1,025,619. PROCESS OF MANUFACTURING PHOSPHORIC-ACID COMPOUNDS. FELIX GIESE, Zoppot, and WILHELM WOLTERS, Ildehausen, Germany. Filed Nov. 17, 1911. Serial No. 660,892. (Cl. 71—7.)

1. The herein-described process of preparing readily soluble phosphates, which consists in melting natural phosphates in presence of the chemical elements of a silicate, and mechanically subdividing and cooling the molten mass by a blast of commingled steam and air.

2. The herein-described process of preparing readily soluble phosphates, which consists in melting natural phosphates in presence of substances adapted to react with formation of silicates, and mechanically subdividing and cooling the molten mass by a blast of commingled steam and air.

1,025,620. METHOD OF MANUFACTURING PERFORATED TEAR-OFF PAPER AND LIKE BLOCKS. JEAN GOEBEL, Darmstadt, Germany. Filed Feb. 2, 1910. Serial No. 541,427. (Cl. 11—11.)

1. Method of manufacturing perforated tear-off paper and like blocks which consists in perforating sheets of equal dimensions to form like stubs and tear-off portions,

making a hole in the same relative position in each sheet, registering said holes with one another by passing a tool therethrough, inclining the tool at an angle to the plane of the sheets so as to cause the perforations between the stubs and tear-off portions to lie stepwise above one another, and thereafter binding the stubs together while the sheets are so arranged.



2. Method of manufacturing perforated tear-off paper and like blocks which consists in perforating sheets of equal dimensions to form like stubs and tear-off portions, making a plurality of holes in the same relative position in each sheet, registering each hole in each sheet with the corresponding one in the other sheets by passing tools through the holes, inclining the tools at an angle to the plane of the sheets so as to cause the perforations between the stubs and tear-off portions to lie stepwise above one another, and thereafter binding the stubs together while the sheets are so arranged.

3. Method of manufacturing perforated tear-off paper and like blocks which consists in perforating sheets of equal dimensions to form like stubs and tear-off portions, making a hole in the same relative position in each sheet, registering said holes with one another by passing a tool therethrough, inclining the tool at an angle to the plane of the sheets so as to displace the perforations between the stubs and tear-off portions relatively to one another transversely of the sheets, and thereafter binding the stubs together while the sheets are so arranged.

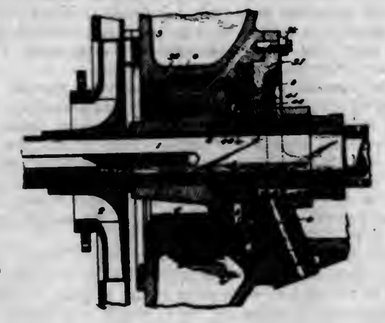
4. Method of manufacturing perforated tear-off paper and like blocks which consists in perforating sheets of equal dimensions to form like stubs and tear-off portions, making a plurality of holes in the same relative position in each sheet, registering each hole in each sheet with the corresponding one in the other sheets by passing tools through the holes, inclining the tools at an angle to the plane of the sheets so as to displace the perforations between the stubs and tear-off portions relatively to one another transversely of the sheets, and thereafter binding the stubs together while the sheets are so arranged.

5. Method of manufacturing perforated tear-off paper and like blocks which consists in perforating sheets of equal dimensions to form like stubs and tear-off portions, making a hole in the same relative position in each sheet, registering said holes with one another by passing a tool at an angle to the plane of the sheets so as to displace the perforations between the stubs and tear-off portions relatively to one another both transversely and longitudinally of the sheets, and thereafter binding the stubs together while the sheets are so arranged.

[Claim 6 not printed in the Gazette.]

1,025,621. AUTOMATIC BALANCING DEVICE FOR CENTRIFUGAL PUMPS, TURBINES, AND THE LIKE. FRANZ ARNO GRIESSMANN, Berlin, Germany, assignor to Thomas P. Kingsford and Virginia K. Higgins, Oswego, N. Y. Filed Sept. 28, 1911. Serial No. 651,783. (Cl. 103—43.)

1. In combination, in a centrifugal pump, turbine, or the like, a rotor, a casing therefor comprising a cylinder at its inner end constantly open to the pump pressure and at its outer end having a removable head, a balancing piston rotating and longitudinally movable with said rotor and in said cylinder, said piston and cylinder forming a pressure chamber between the outer end face of the piston and said removable head and a sealing fissure of constant capacity for the flow of liquid under pump pressure from the inner end of said cylinder to said pressure chamber, the inner end face of said piston being constantly and freely exposed to the pump pressure and longitudinally overbalancing the rotor in a direction to carry the piston toward said head, said pressure chamber provided with an annular throttling outlet concentric with and discharging inwardly toward the rotor axis and of reduced diameter with respect to the piston and controlled by the longitudinal movement thereof to vary the pressure in said chamber, said throttling outlet being arranged between said head and the outer end face of the piston and comprising a removable ring forming one wall of the outlet and accessible on the removal of said head.



2. Means for automatically balancing the end thrust of the shafts of rotors comprising a casing provided with a removable end head, a balancing piston rotating and longitudinally movable with said shaft and forming an annular pressure chamber between its outer end face and said head, and a sealing fissure of constant capacity for constant uniform flow of liquid to said chamber, said piston longitudinally overbalancing said rotor in a direction to constantly tend to move said piston toward said head and against the pressure in said chamber, the central portion of the outer end face of said piston and said head being provided with opposing annular walls concentric with and surrounding said shaft and of reduced diameter with respect to said piston and surrounded by said chamber and forming a throttling outlet discharging inwardly from said chamber toward said shaft, one of said walls formed by a separate ring removably secured to and carried by and removable with said head independently of and without disturbing said shaft and said piston.

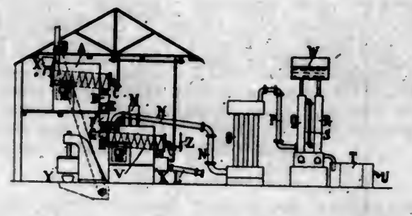
3. In combination, a rotary shaft subjected to end thrust, a piston fixed thereon, a casing therefor forming a pressure chamber at the outer face of the piston and provided with a removable head forming the outer side wall of said chamber, a stationary ring having its inner face adjacent to the outer face of said piston to coöperate therewith in forming an automatically throttling outlet opening inwardly from said chamber, said ring surrounding said shaft and at its inner surface spaced therefrom to form a discharge passage from said outlet, said ring forming the center wall of said chamber and separating the same from said passage and provided with an exterior flange, and means removably securing the ring to the head through the medium of said flange.

4. In combination, a rotary shaft subjected to end thrust, a piston fixed thereon, a casing therefor forming a pressure chamber at the outer face of the piston and provided with a removable end head having an enlarged center opening around said shaft, and a stationary ring having its inner edge adjacent to the outer face of said piston to coöperate therewith in forming an automatically throttling outlet opening inwardly from said chamber to a liquid off-take passage around said shaft and within said opening of said head, said ring being fitted within said center opening of said head and being carried by and removably secured to said head and at its inner surface forming the outer wall of said passage.

5. In combination, a rotary shaft subjected to end thrust, a balancing piston fixed thereon, a casing forming pressure chambers at the faces of said piston, and a stationary ring carried by and removably fixed to said casing concentric with said shaft and of reduced diameter with respect to said piston and presenting an end edge adjacent to the central portion of a face of said piston to coöperate therewith in forming an automatically throttling pressure agent passage, means being provided whereby said ring is adjustable independently of said casing and piston and longitudinally of said shaft whereby wear can be taken up without disturbing the piston adjustment.

[Claims 6 and 7 not printed in the Gazette.]

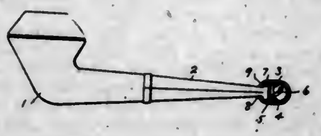
1,025,622. TREATMENT OF SEWAGE-SLUDGE. JACOB GROSSMANN, Manchester, England. Filed July 15, 1909. Serial No. 507,699. (Cl. 87—6.)



1. The herein described method of treating sewage sludge, which consists in desiccating the same mechanically, then drying the product to a suitable consistency, then mixing the dried sludge with a suitable quantity of sulfuric acid, then subjecting the resulting mixture to the simultaneous action of superheated steam and to agitation, then condensing the steam and volatilized products of distillation and finally separating the fatty acid and grease from the products of condensation.

2. The herein described method of treating sewage sludge which consists in desiccating the same by centrifugal force without the use of lime, then subjecting the product to heat to dry or partially dry the same, then mixing the dried sludge with sulfuric acid, then passing the resulting mixture through an internally and externally heated retort, subjecting the mixture in the retort to the action of superheated steam and agitation, then condensing the steam and volatilized products of distillation, and finally separating the fatty acids and grease from the products of condensation.

1,025,623. PIPE. GEORGE WADE HAMILL, Baltimore, Md. Filed Jan. 31, 1912. Serial No. 674,479. (Cl. 131—12.)

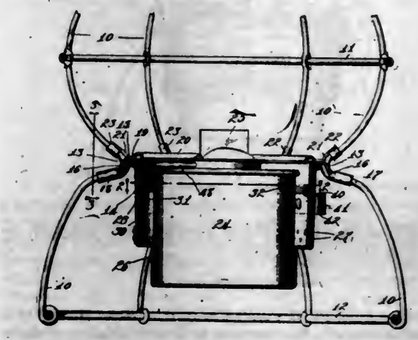


1. A mouthpiece for pipes comprising a cap having an opening through which the pipe stem projects and an aperture in its lower side, and a disk within the said cap having an opening therein and a hollow stem projecting upwardly from said disk.

2. A mouthpiece for pipes comprising a cap having an opening through which the pipe stem projects, an annular recess just back of said opening into which the rim or flange of the pipe stem fits, and an aperture in its lower side, a disk within said cap having an aperture therein and a hollow stem projecting upwardly from said aperture in said disk.

3. A mouthpiece for pipes comprising a cap having an opening through which the pipe stem projects and an annular recess just back of said opening into which the rim or flange of the pipe stem fits, and an aperture in its lower side, a disk within said cap just back of said pipe stem and provided with a hollow stem projecting upwardly to near the upper inner surface of said cap.

1,025,624. LANTERN. WILLIAM S. HAMM, Hubbard Woods, and FRANK A. SCHUETZ, Chicago, Ill., assignors to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 23, 1909. Serial No. 524,209. (Cl. 240—50.)



1. In a lantern, in combination, a frame, a guard ring secured to the frame and having an instanding flange, such flange having a recess with abrupt walls and a cam face leading to the recess, a font-holding cup fitting upon the ring, a spring finger projecting inwardly from the cup wall and engageable with the flange recess, the end of the finger being folded back to engage the upper face of the flange.

2. In a lantern, in combination, a frame, a guard ring secured to the frame and having an instanding flange, such flange having a recess with abrupt walls and a cam face leading to the recess, a font-holding cup fitting upon the ring, a spring secured to the outer face of the cup and having a finger projecting through the wall of the cup and having its inner end overturned to engage the guard ring flange.

3. In a lantern, in combination, a frame, a guard ring secured to the frame and having an instanding flange provided with a pair of adjacent recesses of unequal depth, the intervening section of the flange being beveled toward each recess, a cup engaging the guard ring, and an upstanding spring finger within the cup formed and positioned to enter the flange recesses and having its upper end turned outward.

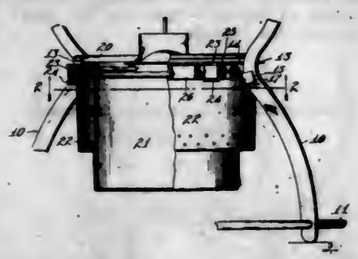
4. In a lantern, in combination, a frame, a guard ring secured thereto and having an instanding flange provided with two pair of recesses, the recesses of each pair being adjacent and of unequal depth, the section of the flange between the recesses of one pair being beveled toward each recess, and the section of the flange between the other pair of recesses being beveled toward the deeper recess and shouldered in the opposite direction, a cup engageable with the ring, an upstanding spring finger within the cup and positioned to coöperate with the first described set of recesses and having its upper end turned outward, and a spring secured to the outer face of the cup and having a finger projecting through the wall thereof and having its inner end turned upward and backward and being positioned to coöperate with the second described pair of recesses.

1,025,625. LANTERN. WILLIAM S. HAMM, Hubbard Woods, and FRANK A. SCHUETZ, Chicago, Ill., assignors to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 23, 1909. Serial No. 524,211. (Cl. 240—50.)

1. In a lantern, in combination, a guard ring having depending lugs with hook-shaped ends, a cup within the line of the lugs, leaf spring catches attached to the outer face of the cup and being looped outward to receive the lugs.

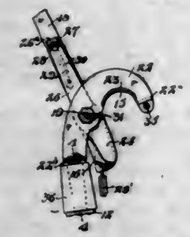
2. In a lantern, in combination, a guard ring having depending lugs with hook-shaped ends, a cup within the line of the lugs, leaf spring fingers attached to the outer

face of the cup and being inclined outwardly to pass outside of the lugs as the cup is turned, one of such lugs



being loop-shaped to provide a shoulder for engaging the lug with which it coöperates.

1,025,626. PRUNING IMPLEMENT. EBEN N. HIGLEY, Somersworth, N. H., assignor to Maude Higley, Somersworth, N. H. Filed Feb. 25, 1911. Serial No. 610,787. (Cl. 30—11.)



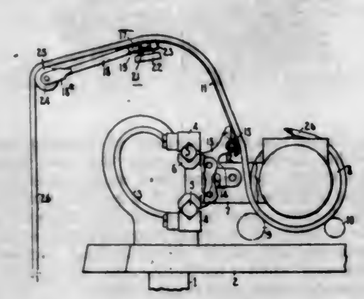
1. A pruning implement comprising a rod or handle, a fixed pruning member attached thereto, a fixed clamping member also attached to said rod or handle and spaced from said fixed pruning member, a pivot pin supported by both of said members, a movable pruning member mounted on said pivot pin, a movable clamping member pivotally supported by said movable pruning member, and a spring acting to press said movable clamping member yieldingly against said pivot pin, said movable clamping member being free to move away from said pivot pin during the clamping operation.

2. A pruning implement comprising a rod or handle, a fixed pruning member attached thereto, a fixed clamping member also attached to said rod or handle and spaced from said fixed pruning member, a pivot pin supported by both of said members, a movable pruning member mounted on said pivot pin, a movable clamping member pivotally supported by said movable pruning member and provided with a recess, and a spring acting to press the recessed portion of said movable clamping member yieldingly against said pivot pin, said movable clamping member being free to move away from said pivot pin during the clamping operation.

3. A pruning implement comprising a rod or handle, a fixed pruning member attached thereto, a fixed clamping member also attached to said rod or handle and spaced from said fixed pruning member, a pivot pin supported by both of said members, a movable pruning member mounted on said pivot pin, a movable clamping member provided with an arm or extension, means for pivotally connecting said arm or extension to said movable pruning member, and means acting on said arm to hold said movable clamping member yieldingly against said pivot pin, said movable clamping member being free to move away from said pivot pin during the clamping operation.

4. A pruning implement comprising a handle, a fixed shearing member carried thereby, a movable shearing member pivotally connected to the fixed member, a clamping member carried by the handle and having offset portions that space the same in parallel relation to the fixed shearing member, said clamping member having a serrated gripping surface, means for fastening the outer end of the clamping member to the outer end of the fixed shearing member, a movable clamping member carried by the movable shearing member and having a longitudinally grooved gripping surface, said movable clamping member projecting between the fixed shearing and clamping members, yieldable means for holding the movable clamping member in engagement with the fixed clamping member, and means for operating the movable shearing member.

1,025,627. TYPE-WRITING MACHINE. OAKLEY E. HULL, Cleveland, Ohio, assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Feb. 21, 1911. Serial No. 609,910. (Cl. 197—143.)



1. In a typewriting machine, the combination of a platen, a platen carrier, a paper table, and a backward extension detachably mounted on said paper table and terminating at its rear in an anti-frictional edge portion movable relatively to said extension.

2. In a typewriting machine, the combination of a platen, a platen carrier, a paper table, and a rear extension roller-support for the paper, said support being mounted on the paper table in rear of the platen, the paper hanging substantially straight down behind and in contact with said roller support.

3. In a typewriting machine, the combination of a platen, a platen carrier, a paper table thereon, extension arms on the paper table, and a roller guide for paper on said extension arms, the paper contacting with the top and rear sides of said roller guide and hanging substantially straight down behind the same.

4. In a typewriting machine, the combination of a platen, a platen carrier, a paper table, arms detachably supported on said paper table, and a paper guide roller on said arms, said guide roller extending lengthwise of the platen in rear of and above the same and acting to guide and support paper, said guide roller being the rearmost guide for the paper which hangs substantially straight downward behind said guide roller.

5. In a typewriting machine, the combination of a platen, a traveling carrier therefor, guide rails for said carrier, standards supporting said guide rails, a paper table, and a guide roller for sheets of paper, said guide roller being mounted on said paper table in rear of said standards and being the rearmost guide for the paper which depends directly behind said guide roller.

[Claims 6 and 7 not printed in the Gazette.]

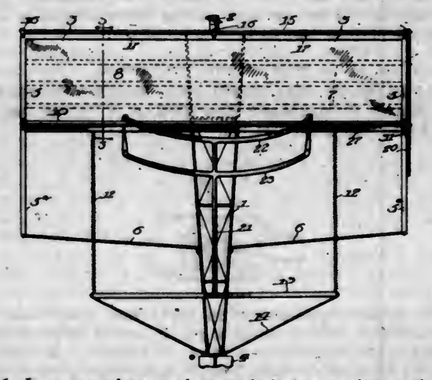
1,025,628. PROCESS OF TREATING WOOD. JOHN WARREN ILLINGWORTH, Dorsey, Md. Filed Feb. 26, 1912. Serial No. 679,839. (Cl. 99—12.)

1. The process of treating wood consisting in soaking it in water at ordinary temperature, then drying same, then sawing into planks, then soaking it in a saturated solution of lime water, then removing from said water and covering same with dry unslaked lime.

2. The process of treating wood consisting in soaking it in water of ordinary temperature, then drying the wood without exposing same to the sun light, then soaking it in lime water, then removing it from the water and covering it with dry unslaked lime to absorb the water contained in the wood.

3. The process of treating wood consisting in first cutting same into logs, then soaking in water at ordinary temperature until almost water-logged and exudation of gum appears on its surface to cause the water to dissolve the water soluble gums and acids contained in the wood, then drying for about ten days in a shady or dark place to prevent the sun's rays from affecting the wood, then sawing into planks about four inches thick, then soaking in a saturated solution of lime water for about ten days, then drawing off the water and placing the planks in rows with their edges turned upward and separated from each other, and then covering the wood with dry unslaked lime to absorb the remaining moisture and cause the planks to be heated and dried quickly to absorb and hold in its fibers a quantity of lime to preserve the wood to render it hard and resilient and to bleach the same.

1,025,629. SAFETY DEVICE FOR AEROPLANES. JAMES KENEFICK, Chicago, Ill. Filed Oct. 27, 1911. Serial No. 657,167. (Cl. 244—21.)



1. In an aeroplane, a plane made in two sections each of which comprises a parachute, one of which is stationary and the other of which is movable away from the same.

2. In an aeroplane, a plane made in two sections each of which comprises a parachute, one of which is stationary and the other of which is movable away from and opened substantially with the same.

3. In an aeroplane, a plane made in two sections each of which comprises a parachute, one of which is stationary and the other of which is movable away from the same, and means for actuating said movable section.

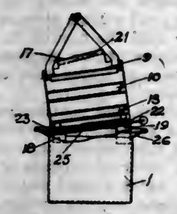
4. In an aeroplane, a plane made in two sections each of which comprises a parachute, one of which is stationary and the other of which is movable away from the same, and means for actuating said movable section substantially simultaneously with the other section.

5. In an aeroplane, a combined plane and parachute, and a separate combined plane and parachute mounted below and adjacent the same that is movable away from said first mentioned combined plane and parachute.

[Claims 6 to 9 not printed in the Gazett.e]

1,025,630. FRY-CAKE AND DOUGHNUT COOKER. GUSTAV RUDOLF VON KROGOLL, Seattle, Wash. Filed Oct. 12, 1908. Serial No. 457,440. (Cl. 53—7.)

1. In a fry cake cooker, a rectangular kettle for fat, apertured supporting members secured in angular relation to said kettle, a rack, lower apertured fastening pieces secured to said rack, securing rods engaging said apertures in said supporting members and said fastening pieces when the rack is raised substantially out of the kettle whereby said rack is held in relatively an angular position to said kettle.



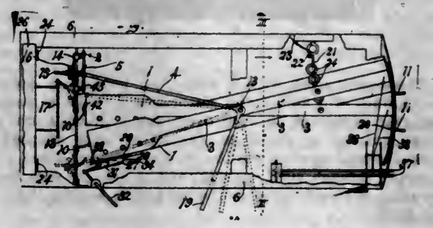
2. In a fry cake cooker, a rectangular kettle for fat, apertured supporting members secured in angular relation to said kettle, a rack, lower apertured fastening pieces secured to said rack, securing rods engaging said apertures in said supporting members and said fastening pieces when the rack is raised substantially out of the kettle whereby said rack is held in relatively an angular position to said kettle, upper apertured fastening pieces secured at an angle to said rack and adapted to receive said securing rod to prevent said rack from floating when lowered into said kettle.

1,025,631. COIN-HOLDING POCKET FOR COVERS. EMIL KRUMME, Milwaukee, Wis. Filed Aug. 4, 1911. Serial No. 642,407. (Cl. 220—12.)



A coin-holder comprising a metallic pocket having a flat bottom and circular side-walls, the bottom and side-walls being provided with lateral extensions to constitute a throat portion, a flat annular flange extending from the upper edge of the circular portion of the side walls, securing prongs extending from the edges of the flange, a circular lid for the pocket having a rearwardly extending tail-piece adapted to fit over the throat portion of said pocket, apertured ears depending from the tail-piece into the throat portion of said pocket, a hinge-pin fitted through the lid ears and side-walls of the throat-portion of said pocket, and a U-shaped spring disposed about the hinge-pin having legs adapted to engage the bottom of the throat portion of the aforesaid pocket and tail-piece of said lid, and means for detachably securing the U-shaped spring in the aforesaid throat portion of the pocket.

1,025,632. VOTING-MACHINE. CLARENCE H. LEE, Los Angeles, Cal., assignor, by mesne assignments, to James R. Townsend, Los Angeles, Cal. Filed June 20, 1901. Serial No. 65,330. (Cl. 235—54.)



1. The combination of a movable registering device; a carriage furnished with means for actuating said registering device; means for moving the carriage in a path to actuate said registering device; a member pivoted on the carriage to engage said registering device to return the same to initial position when the carriage is moved in one direction; and means to hold said member inoperative at the reverse movement of the carriage.

2. In a voting-machine, the combination of a registering device; a carriage furnished with register-operating means; a member in the form of a lever pivoted on said carriage; yielding means for holding the member in an intermediate position; and a guide between the ends of the path of the lever to hold the member in position to engage a registering device at one movement and to hold said member in position to escape said registering device at the other movement.

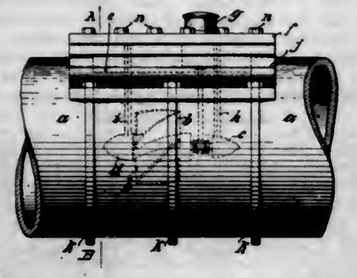
3. In a voting-machine, the combination of a plurality of movable registering devices provided with means around which a cord may be bent respectively; means for adjusting said registering devices respectively in registering position; stationary means around which a cord may be bent; flexible connections running around such means on the registering device and around such stationary means alternately, and being of a definite length to limit the number of registering devices which can be moved into the registering position at one time; connecting devices connecting with the registering devices of a series of said registering devices to simultaneously operate them for party voting; and means connected with other series of the registering devices to simultaneously operate them for party voting; the said flexible connection being of a definite length to allow the simultaneous operation of only one of said series of registering devices.

4. In a voting-machine the combination of a plurality of movable registering devices; registering-device-locking means for said registering devices respectively; stops respectively fastened to said registering device; and a locking-bar to enter between said stops and said registering-device-locking means to prevent movement of the registering devices and to move the locking means in locking position.

5. In a voting-machine, a registering device provided with a perforated case, a lock projecting through the case for engaging with the register, means for moving the lock into engagement with the register, and a spring-catch on the lock for engaging with the interior of the case and holding the lock in engagement with the register.

[Claims 6 to 24 not printed in the Gazette.]

1,025,633. FLUID-METER. RICHARD LOHSE, Breslau, Germany. Filed July 8, 1911. Serial No. 637,528. (Cl. 73—37.)



The combination with a fluid pipe, having an opening in its wall, of a fluid meter comprising a cover, a measuring gear supported on such cover and a Woltmann's sail wheel carried by the cover, the latter being adapted to close the said opening and the Woltmann's sail wheel to be inserted through such opening, and means for detachably securing the said cover to the said pipe, substantially as set forth.

1,025,634. TERMINAL AND CONTACT FOR SNAP-SWITCHES. CHARLES H. MACHEN, Philadelphia, Pa., assignor to Chelten Electric Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 26, 1910. Serial No. 540,197. (Cl. 175—293.)

1. As an article of manufacture, a terminal for electric switches, which terminal is adapted to be secured to any suitable support and the said terminal having a contact which is integrally connected thereto by means of a narrow neck portion, the said narrow neck portion being twisted as and for the purpose described.



2. As an article of manufacture, a terminal and contact for electric switches having integral connection with each other, the opposite ends of the said terminals extending at angles to the body portion thereof and being provided with screw-threaded openings whereby one end of said terminal may be secured to the casing or support of the switch and the other one of which may be connected to the ends of electric conductors and the said contact projecting from one end of the terminal portion at an angle thereto, and being located in a plane substantially at right angles to the plane of the terminal portion of the said article.

3. As an article of manufacture, a terminal for electric switches having an end at an angle to the body portion thereof, the said end being adapted to be secured to any suitable support, a contact having integral connection with the said end portion by means of a narrow neck portion, the said narrow neck portion being twisted as and for the purpose described.

1,025,635. GAS-REGULATOR FOR X-RAY TUBES. ROBERT H. MACHLETT, New York, N. Y. Filed Dec. 7, 1911. Serial No. 664,459. (Cl. 175—314.)



1. A gas regulator for an X-ray tube comprising, in combination with a source of gas of greater pressure than that in the X-ray tube, a valve for admitting gas to the X-ray tube held in closed position by external pressure and actuatable to open communication between the source of gas and the tube by a diminution of the external pressure.

2. A gas regulator for an X-ray tube comprising, in combination with a source of gas of greater pressure than that in the X-ray tube, a valve for admitting gas to the X-ray tube held in closed position by external pressure and actuatable to open communication between the source of gas and the tube by a diminution of external pressure, and manually controlled means for diminishing the external pressure.

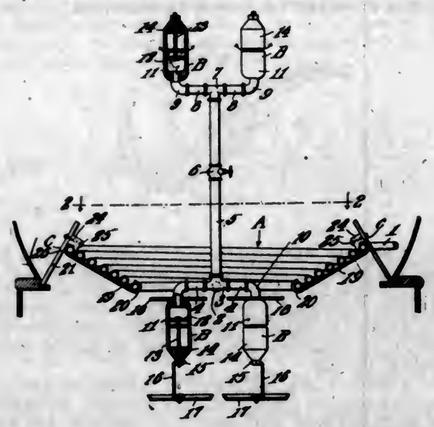
3. A gas regulator for an X-ray tube comprising a gas receptacle, a communicating conduit leading from the receptacle to the X-ray tube, and a valve controlled by the pressure of gas in the receptacle and also by an external pressure and located in such conduit so as to control communication between the receptacle and the X-ray tube.

4. A gas regulator for an X-ray tube comprising a gas receptacle, a communicating conduit leading from the receptacle to the X-ray tube, and a valve controlled by the pressure of gas in the receptacle and also by an external pressure and located in such conduit so as to control communication between the receptacle and the X-ray tube, and manually operative means for varying the external pressure.

5. A gas regulator for an X-ray tube comprising a gas receptacle, a communicating conduit between the receptacle and the X-ray tube, and a closure for the conduit held in closed position by external pressure in opposition to the pressure of gas in the receptacle and actuatable to open the conduit by a diminution of the external pressure.

[Claims 6 to 14 not printed in the Gazette.]

1,025,636. LIQUID-FUEL BURNER. WILLIAM R. MCHILL, Moran, Kans., assignor of one-third to James H. Cramer, Moran, Kans. Filed Mar. 9, 1911. Serial No. 613,279. (Cl. 158—53.)



1. In a mechanism of the character described, comprising a coiled tube, each convolution of which is smaller than the preceding one, an adjustable support for the generator, a plurality of burners connected to the inner end of the coiled tube and disposed centrally beneath the same, said burners each consisting of a pair of tubular members, a stem supported in one of the members and projecting outwardly therefrom, the other member of the burner being threadedly connected to the said stem whereby it may be adjusted upon the stem to vary the discharge opening of the burner, a deflector arranged upon the burner, said deflector being in the shape of a disk, and a drip pan detachably connected to the burner.

2. In a mechanism of the character described, a generator comprising a coiled tube, a support therefor, a burner arranged beneath the coiled tube and connected to the inner end thereof into which the coil discharges, said burner comprising a hollow cup-like member, a spider arranged in said member, a stem secured centrally of the spider and projecting from said member, a cup-like member adjustable upon the outer end of the stem and having a conical-shaped outer end the apex of which is squared to provide a means for adjusting the member upon the stem so that the discharge opening between the said members may be varied in size, a drip-pan detachably connected with the said squared end of the last-mentioned member, and a deflector comprising a flat apertured disk mounted upon the burner and surrounding the inlet pipe of the burner.

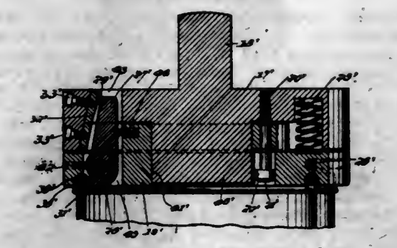
3. In a mechanism of the character described, an adjustable support, a generator comprising a coiled tube each convolution of which is smaller than the preceding one, a pair of burners arranged above and below the generator and having connection with the inner end of the coiled tube of the generator, a valve arranged between the upper and lower pair of burners whereby the said upper pair of burners may be cut out of use.

4. In a mechanism of the character described, a support, a generator comprising an elongated coiled tube, each convolution of which is smaller than the preceding one, burners arranged above and below the generator vertically and centrally thereof into which the coiled tube discharges, a valve arranged between the upper and lower burners, a deflector plate arranged upon the top of the lower burner, and a drip-pan detachably connected to the bottom of the lower burner.

5. In a mechanism of the character described, a support, a generator comprising a coiled tube, each convolution of which is smaller than the preceding one, a plurality of burners arranged centrally above and below the generator and connected together, the lower discharge end of the coiled tube being connected to the lower set of burners, and a valve arranged between the upper and lower set of burners whereby the upper set of burners may be cut off.

[Claim 6 not printed in the Gazette.]

1,025,637. HEADING-MACHINE FOR STEEL PACKAGES. ALBERT J. MEIER, Glendale, Mo. Filed June 5, 1911. Serial No. 631,285. (Cl. 113—18.)



1. A heading machine for metal packages including an upper and a lower disk, said lower disk having a series of spaced openings therein, rods carried by the lower disk and arranged to extend across said openings, screws secured to the lower disk and having their free ends engaging in depressions provided therefor in said rods to hold the latter against movement, a finger in each opening having the rod therein extending therethrough, the lower end of each finger having a nose that projects below the under face of the lower disk, the upper end of each finger having a projection, the upper disk having openings therein to receive said upper ends of the fingers, the outer walls formed by said last named openings being inclined, wedge-shaped plates secured to said inclined walls for engagement with the projections of the fingers, and springs carried by the lower disk and disposed to engage the rear sides of the fingers, said lower disk having an inner circumferential groove.

2. A heading machine for metal packages including an upper and a lower disk each having a series of openings, the openings of the disks alining with each other, a finger pivoted in each of the openings of the lower disk and having outwardly extending noses, the upper ends of the fingers extending in the openings of the upper disk and each having a projection on its front face, a wedge-shaped plate secured in each of the openings of the upper disk and arranged to engage said projections of the fingers, and a spring for each finger carried by the lower disk and bearing against the rear faces of the fingers, said lower disk having an inner circumferential groove that is disposed to encircle the noses of the fingers.

3. A heading machine for metal packages including an upper and a lower disk, fingers pivoted to the lower disk and having outwardly extending noses on the front faces of their lower ends and outwardly extending projections on the front faces of their upper ends, and cam means carried by the upper disk to engage said projections, said lower disk having a circumferential inner groove that encircles said noses of the fingers.

4. A heading machine for metal packages having casings with enlarged upper ends and covers the rims of which engage on opposite sides of the enlarged casing ends, including a lower member formed with an inner circumferential groove that receives the peripheral or outer side of the cover, a series of pivoted bending elements carried by said member within the confines of the boundary thereof having their lower ends for engagement with the inner side of the cover, and an upper member having means to operate said elements to move the lower ends thereof outwardly in a direction toward the groove of the lower member.

5. A heading machine for metal packages having casings with enlarged upper ends and covers the rims of which engage on opposite sides of the enlarged casing ends, including a lower member formed with an inner

circumferential groove that receives the peripheral or outer side of the cover, a series of pivoted bending elements carried by said member within the confines of the boundary thereof having their lower ends for engagement with the inner side of the cover, an upper member, and means carried by the upper member for engagement with the upper ends of said elements on their outer faces to move the lower ends thereof in a direction toward the groove of the lower member.

1,025,638. COMPOUND ENGINE. CARL J. MELLIN, Schenectady, N. Y., assignor to American Locomotive Company, New York, N. Y., a Corporation of New York. Filed Dec. 22, 1911. Serial No. 667,318. (Cl. 121—16.)



1. In a compound engine, the combination of an intercepting valve and a cylindrical balancing and guide piston, said piston being provided with a peripheral main discharge port, and with through balancing ports of lesser area.

2. In a compound engine, the combination of an intercepting valve, a stem on which said valve is secured, an emergency exhaust valve, and a balancing piston secured on the stem of the intercepting valve and working in a cylindrical opening in a partition interposed between the intercepting valve and the emergency exhaust valve, said piston being provided with a peripheral port and with through ports of lesser area.

3. In a compound engine, the combination of an intercepting valve, a stem on which said valve is secured, a sleeve mounted on said valve stem, a reducing valve fixed on said sleeve, a casing in which said sleeve and reducing valve work, and which is provided with circumferential ports, controlled by said valve, establishing communication between a live steam passage and a low pressure cylinder, and a balancing piston fitting in a balancing chamber and connected to the intercepting valve.

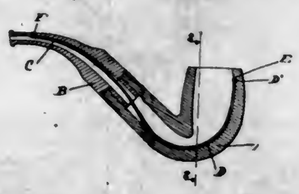
4. In a compound engine, the combination of an intercepting valve, a stem on which said valve is secured intermediate of its ends, said stem being tubular throughout a portion of its length on the side of the valve opposite the seating face thereof and open at its end to the atmosphere, a sleeve mounted on the tubular portion of said stem, a reducing valve fixed on said sleeve and controlling communication between a live steam passage and a passage to a low pressure cylinder, and means for discharging leakage past the reducing valve through the tubular portion of the valve stem.

5. In a compound engine, the combination of an intercepting valve, a stem on which said valve is secured intermediate of its ends, said stem being tubular throughout a portion of its length on the side of the valve opposite the seating face thereof and open at its end to the atmosphere, a sleeve mounted on the tubular portion of said stem, and having a circumferential recess, a reducing valve of larger diameter fixed on said sleeve, a casing in which said sleeve and reducing valve work and which is provided with ports controlled by said valve, establishing communication between a live steam passage and a low pressure cylinder, radial ports leading through the wall of the sleeve, and similar ports leading through the tubular portion of the valve stem.

[Claim 6 not printed in the Gazette.]

1,025,639. SMOKER'S PIPE. ROBERT TUTTLE MORRIS, New York, N. Y. Filed Nov. 30, 1910, Serial No. 594,937. Renewed Dec. 27, 1911. Serial No. 668,100. (Cl. 131—12.)

1. A smoking pipe, comprising in combination with the bowl and stem, of means for conducting heat from the hottest part of the pipe and distributing it throughout the rest of the pipe, thereby affording means for maintaining the vapors arising from combustion under a sufficient degree of tension to limit condensation and substantially avoiding the deposit of products of combustion.



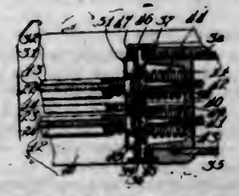
2. A smoking pipe, comprising in combination with the bowl and stem, of means located within the lumina of bowl and stem for conducting heat from the zone of combustion and distributing it throughout the rest of the pipe, thus tending to maintain the vaporous condition of the products of combustion until they have reached the mouth orifice of the stem.

3. A smoking pipe, comprising in combination with the bowl and stem, of a heat conductor extending throughout the bowl and stem and adapted to distribute the heat throughout the lumina of bowl and stem, thus maintaining a vaporous condition of the steam and volatile products of combustion and limiting the precipitation of said products in the bowl and stem.

4. A smoking pipe provided with a conductor of heat in the lumina of the bowl and stem and extending into the zone of combustion, thus limiting condensation of the vapors arising from combustion and maintaining the bowl and stem substantially free from deposited products of combustion.

5. A smoking pipe, comprising in combination with the bowl and stem of a heat conductor located wholly within the pipe and extending from substantially the top of the bowl to substantially the end of the stem, said conductor being adapted to conduct the heat from the hottest part of the pipe at the zone of combustion and concentrate and distribute said heat within the pipe throughout the lumina of the bowl and stem, thus tending to maintain the vapors laden with products of combustion at a sufficient degree of tension to limit condensation and substantially avoid the accumulation of deposits in the lumina of the bowl and stem.

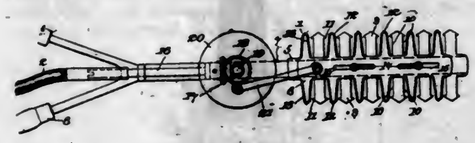
1,025,640. CAR-WINDOW. ALFRED H. NEWPHER, Chicago, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed June 21, 1909. Serial No. 503,388. (Cl. 189—73.)



In a window, in combination, a fixed frame, stile-supporting plates having countersunk apertures, screws loosely engaging the plates and in threaded engagement with the frame, springs reacting between the plate and the frame, and a stile fixed to the outer faces of the plates and spaced apart from the heads of the screws.

1,025,641. HEDGE-PRUNER. EUGENE PEARL, Passaic, N. J. Filed Nov. 25, 1911. Serial No. 662,294. (Cl. 56—16.)

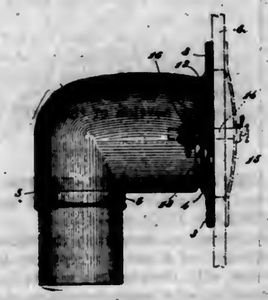
1. A hedge-trimming tool comprising a frame provided at one end along opposite sides with laterally extending projections forming a double-edged finger-bar, the frame at the other end being bifurcated, handles fitted on the bifurcated end of the frame, a double-edged cutter-blade mounted on the frame and arranged to coöperate with the finger-bar, gearing mounted on the frame and connected to impart reciprocating motion to the cutter-blade in the direction of its length, and a driving connection in the crotch of the bifurcated end of the frame.



2. A hedge trimming tool comprising an approximately V-shaped frame having one end formed as a double-edged finger-bar and the opposite forked end thereof provided with handles, a double-edged cutter-blade mounted on the frame and coöperating with the finger-bar and having curved guide slots therein coacting with fixed studs on the frame, and gearing carried by the frame for imparting reciprocating motion to the cutter blade.

3. A hedge trimming tool comprising a frame shaped at one end as a double-edged finger bar and terminating at the opposite end in a V-shaped extension having handles fitted thereon, a double-edged cutter-blade mounted on the frame and coöperating with the finger-bar, a driving shaft mounted on and extending lengthwise of the frame, one end of the shaft projecting into the crotch of the said V-shaped extension, a gear carried by the driving shaft, a fly-wheel mounted to rotate in substantially the plane of the cutter-blade, the said fly-wheel carrying a gear meshing with the gear on the driving shaft, and a connecting rod through which motion is transmitted from the fly wheel to reciprocate the cutter-bar.

1,025,642. L. WALTER H. PERKINS, Watertown, N. Y., assignor to James B. Wise, Watertown, N. Y. Original application filed Sept. 9, 1911, Serial No. 648,439. Divided and this application filed Jan. 2, 1912. Serial No. 668,999. (Cl. 4—24.)



1. A wrought metal L, comprising a hollow body having a flaring mouth surrounded by a dished flange, and having the metal of the body adjacent the said flange depressed inwardly to form a concavo-convex rib, the said rib encircling the interior of the body and having a less diameter than the said mouth and adapted to prevent the accidental withdrawal of parts connected to said body.

2. An L, comprising a wrought metal body, having a circular mouth and a laterally drawn tubular neck and a part of the metal of the body between the said mouth and the said neck depressed inwardly to form an internal annular rib, and a bridge capable of being disposed diametrically in the said body and to be held from displacement by said rib.

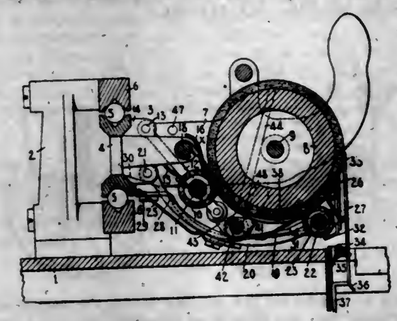
1,025,643. STOCKING. ARTHUR NATHAN PRESSMONT, Shamokin, Pa. Filed Oct. 30, 1911. Serial No. 657,525. (Cl. 2—23.)



1. A stocking formed with a garter-welt and with a pocket in the latter opening through the upper edge of the same, and formed with a flap at the upper edge of one side of said pocket and overlapping the other side of the same, and means for securing the free end of such flap to the stocking.

2. A stocking having a garter welt and a portion of the upper edge of said garter-welt slitted, and a pocket within the garter-welt and having the upper edges of its sides secured to the edges of the slit and having a flap on the upper edge of one side of the pocket to overlap the other side and provided with means for securing the free end of said flap to the stocking.

1,025,644. TYPE-WRITING MACHINE. JOHN PURDY, New York, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Feb. 8, 1909. Serial No. 476,592. (Cl. 197—127.)



1. In a typewriting machine, the combination with a cylindrical platen, of a card pressure device on the under side of the platen and normally inert, and means for pressing said device forcibly against the platen for the card theeron and causing the card to feed with the platen when the latter is rotated.

2. In a typewriting machine, the combination with a cylindrical platen, of a card pressure device arranged on the under side thereof and below the writing line and curved to conform to the surface of said platen, and independent means for at will forcibly pressing said device against the platen or against the card thereon.

3. In a typewriting machine, the combination with a cylindrical platen, of a pivotally mounted card conformator arranged on the under side of the platen and normally inert, and means for forcibly pressing the same against the platen or the card thereon and causing the card to feed with the platen when the latter is rotated.

4. In a typewriting machine, the combination with a cylindrical platen, of a card conformator mounted at one end at the rear side of the platen and extending forwardly under the platen and terminating at the lower front portion thereof, and means for pressing said conformator against the platen or against the card thereon and causing the card to feed with the platen when the latter is rotated.

5. In a typewriting machine, the combination with a cylindrical platen, of a pivoted card conformator arranged on the under side of the platen and below the writing line,

and independent hand operated means for pressing said conformator against the platen or the card thereon and causing the card to feed with the platen when the latter is rotated.

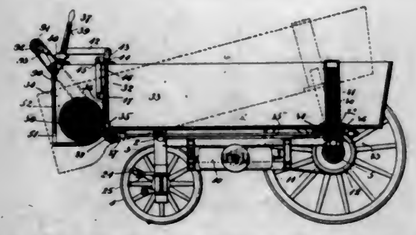
[Claims 6 to 19 not printed in the Gazette.]

1,025,645. CHAIR. JOHN E. RILLING, Milwaukee, Wis. Filed Feb. 24, 1910. Serial No. 545,729. (Cl. 155—3.)



A chair, comprising a chair frame consisting of side members connected together by a front portion and a rear portion and a transverse supporting slat, a one-piece supplemental back and seat frame provided with forwardly projecting lower back rest portions and with recessed rear portions and with transverse back and seat slats, said back rest portions extending forwardly from medial portions of the side portions of said frame and said recessed rear portions positioned to engage the transverse supporting slat of the chair frame, and means for removably fastening the supplemental frame to the chair frame.

1,025,646. APPARATUS FOR SANDING ROADS. HENRY PITT ROBERTS, Boston, Mass. Filed Aug. 13, 1910. Serial No. 577,115. (Cl. 111—34.)



1. In an apparatus for sanding roads, the combination of a wagon body having a sand compartment and a brush compartment, a brush mounted to rotate in the brush compartment, a seat at the front of the body, means operable from the seat for raising the rear end of the body, and means through which the sand is discharged by the brush.

2. In an apparatus for sanding roads, the combination of a wagon body widened toward its front end and provided with a discharge opening, a sand compartment in the rear portion of the wagon body, a seat on the wagon body, means operable from the seat for raising the rear end of the body to facilitate the feeding of the sand from the sand compartment, and means controlled from the seat for regulating the amount of sand delivered from the sand compartment.

3. In a device of the character described, the combination of a running gear, a vehicle body mounted upon the running gear and having one end thereof flared laterally so as to project beyond the running gear, a brush compartment being formed in the flared end of the vehicle body and the said brush compartment communicating with the vehicle body and being provided with a discharge slit, a brush mounted within the brush compartment for forcing material through the discharge slit, gearing between the running gear and the brush, a seat upon the vehicle body, means operable from the seat for throwing the said gearing into and out of action, and means also operable from the seat for tilting the vehicle body to cause material in the same to flow into the brush compartment.

1,025,647. TIN-FOIL CAP FOR CHAMPAGNE AND OTHER BOTTLES. GEORGES ROBINET, Rheims, France, assignor to G. H. Mumm & Co., Rheims, France, a Firm. Filed June 10, 1910. Serial No. 566,132. (Cl. 215—23.)



1. A cap for bottles having a neck-rim, a cork and a wire surrounding the neck and abutting against said rim with a portion extending therefrom, said cap comprising in combination a neck-portion and a cork-portion, said neck-portion being adapted to surround the bottle-neck contiguous to and below the rim and to extend downwardly therefrom, said cork-portion having a V-shaped recess extending inwardly from its lower edge, and said cork-portion being adapted to cover the cork, neck-rim and surrounding wire of the bottle and to extend downwardly at said recess below the upper part of the neck-portion to cover the upper part of the same and to leave the part of the neck-portion under said recess uncovered, and said cork-portion being adapted to be seated at the apex of said recess on the extending portion of the bottle-wire.

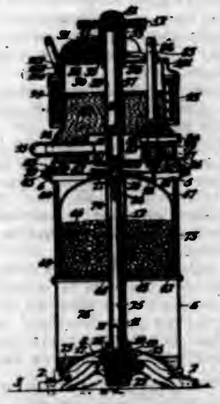
2. An improved cap for champagne bottles having a neck-rim, a cork and a wire surrounding the neck and abutting against said rim with a portion extending therefrom, the said cap being formed of two separate flat blanks, one of which is substantially rectangular in shape and the other of which is also substantially rectangular in shape and is provided with a V-shaped recess extending inwardly from one edge thereof, the neck-portion being adapted to surround the bottle-neck, and having its lateral edges overlapping each other and its upper edge contiguous to and below the rim of the bottle and extending downwardly along the neck of the bottle away from its rim, and said cork-portion being adapted to cover the cork, neck-rim and surrounding wire of the bottle and have its lateral edges overlap each other, and to extend downwardly so as to have its lower edges seated on the neck-portion, the recess of the cork-portion leaving the part of the neck-portion under said recess uncovered with the cork-portion adapted to be seated at the apex of said recess on the extending portion of the bottle wire.

1,025,648. ACETYLENE-GAS GENERATOR. EDWIN M. ROSENBLUTH, Philadelphia, Pa. Filed July 19, 1909. Serial No. 508,369. (Cl. 48—4.)

1. In an acetylene gas generator, the combination with a carbid receptacle; of a water receptacle, forming a gas chamber between said receptacles; a detachable condensing coil surrounding said water receptacle, and having its lower end detachably connected with said gas chamber, and its upper end extended to receive a flexible conduit, a foraminous cylindrical casing carrying said condensing coil; and means detachably securing said casing to said generator.

2. In an acetylene gas generator, the combination with a carbid receptacle; of a water receptacle, forming a gas chamber between said receptacles; a nozzle connected with said gas chamber; a detachable condensing coil surrounding said water receptacle; means arranged to detachably connect the lower end of said coil with said nozzle; a foraminous cylindrical casing carrying said coil, arranged to permit the free circulation of air around said coil; and means arranged to detachably secure said foraminous casing to said generator.

3. In an acetylene gas generator, the combination with a carbid receptacle; of a water receptacle, forming a gas chamber between said receptacles, and having a ledge; a nozzle connected with said gas chamber; a condensing coil surrounding said water receptacle, and having a union swiveled at its lower end, whereby it may be detachably connected with said nozzle; a foraminous cylindrical casing carrying said coil and extending exterior thereto, and having its upper edge turned inwardly and supported by said ledge; and means comprising screws, arranged to detachably secure said casing to said generator.



4. In an acetylene gas generator, the combination with a carbid receptacle; of a water receptacle, superimposed upon said receptacle, and forming a gas chamber between said receptacles; a detachable condensing coil surrounding said water receptacle, and detachably connected at its lower end with said gas chamber, and having its upper end extended to receive a flexible conduit; a foraminous casing carrying said coil, and extending exterior thereto, detachably secured to said water receptacle; and a valve having opposed outlets respectively connected with said gas chamber and with the atmosphere.

5. An acetylene gas generator including a carbid casing, a separable water receptacle, and a detachable base frame; a stem in said base frame, extending upwardly through said carbid casing, and having a threaded upper end; a connecting rod depending through the water receptacle, and provided with a head whereby it may be rotated to engage said threaded stem, and thereby rigidly secure in gas tight relation, the parts forming said generator.

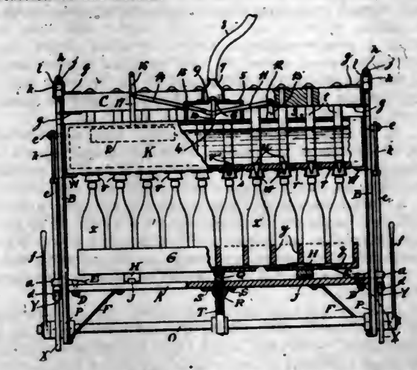
[Claims 6 to 12 not printed in the Gazette.]

1,025,649. BOTTLE-FILLING MACHINE. GEORGE ROWOHLT and OTTO GIESEKE, Jersey City, N. J. Filed Apr. 6, 1911. Serial No. 619,264. (Cl. 226—21.)

1. In a bottle filling machine, the combination of a table or support, a frame, liquid feeding devices, a bottle holder movable transversely under the liquid feeding devices, and means for reciprocating said bottle holder back and forth on the table and simultaneously therewith controlling the flow of liquid from said liquid feeding devices in accordance with the position of the bottle holder.

2. In a bottle filling machine, the combination of a table or support, a frame, a tank having a plurality of openings in its bottom, a bottle holder movable on the table transversely under the tank, and means for reciprocating said bottle holder and simultaneously therewith controlling said openings in the tank in accordance with the position of the bottle holder.

3. In a bottle filling machine, the combination of a table or support, a frame, liquid feeding devices vertically movable on said frame, a bottle holder movable transversely on the table under said feeding devices, and means for reciprocating the holder and simultaneously therewith controlling said feeding devices in accordance with the position of the holder.

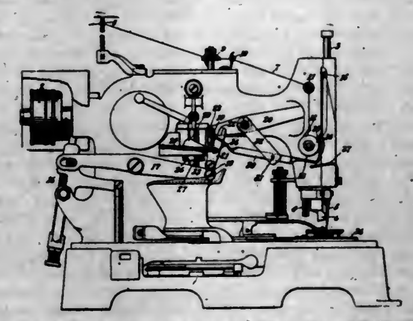


4. In a bottle filling machine, the combination of a table or support, a frame, liquid feeding devices vertically movable on said frame, a bottle holder adapted to be reciprocated horizontally under the feeding devices, and means for horizontally reciprocating the holder and simultaneously therewith moving the feeding devices vertically in accordance with the position of the holder.

5. In a bottle filling machine, the combination of a table or support, a frame, liquid feeding devices vertically movable on said frame, a bottle holder adapted to be reciprocated horizontally under the feeding devices, means for reciprocating the bottle holder on the table, and means operated simultaneously therewith for closing the feeding devices when the bottle holder is in substantially mid position of its travel and for opening the feeding devices when the bottle holder is at either side of its mid positon.

[Claims 6 to 9 not printed in the Gazette.]

1,025,650. STOP MECHANISM FOR BUTTONHOLE-SEWING MACHINES. LOUIS J. SCHAEFFER, West New York, N. J., assignor to Gilman B. Smith, Brooklyn, N. Y. Filed July 20, 1910. Serial No. 572,806. (Cl. 112—4.)



1. In a button-hole sewing machine, the combination with stitch-forming mechanism, of work-holding means, button-hole cutting mechanism including a botton-hole cutter, and automatic means operative independently of the other mechanism for preventing operation of said cutter on the breaking of a thread.

2. In a button-hole sewing machine, the combination with needle-thread mechanism, of work-holding means, a needle-thread tensioning device, and button-hole cutting mechanism including a button-hole cutter and also including a cutter controlling device normally held out of action by the tensioned needle-thread and movable into action independently of the other mechanism on the breaking of said thread to prevent operation of said cutter.

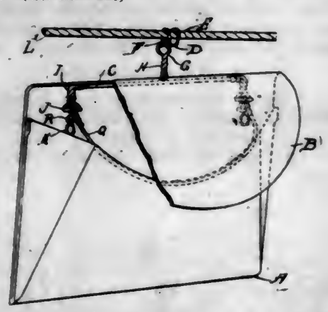
3. In a button-hole sewing machine, the combination with needle-thread mechanism, of work-holding means, a needle-thread tensioning device, and button-hole cutting mechanism including a button-hole cutter and also including a counterweighted cutter-controlling device normally held out of action by the tensioned needle-thread and movable into action independently of the other mechanism on the breaking of said thread to prevent operation of said cutter.

4. In a button-hole sewing machine, the combination with needle-thread mechanism, of work-holding means, a needle-thread tensioning device, and button-hole cutting mechanism including a button-hole cutter and also including a cutter-controlling device having an eye through which the needle-thread passes and by which it is normally deflected to an inoperative position and movable independently of the other mechanism to an operative position on the breaking of said thread to prevent operation of said cutter.

5. In a button-hole sewing machine, the combination with needle-thread mechanism, of work-holding means, a needle-thread tensioning device, and button-hole cutting mechanism including a button-hole cutter and also including a pivoted controlling lever having an eye at one end through which the needle-thread passes and by which it is normally deflected to an inoperative position and having its opposite end hooked and counterweighted and movable on the breaking of said needle-thread into operative position with the hook in engagement with a member of the button-hole cutting mechanism for preventing operation thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,025,651. CLOTHES-PIN BAG. ANNA M. SCHIELS, Philadelphia, Pa. Filed Oct. 29, 1910. Serial No. 589,764. (Cl. 68—11.)



1. A clothes pin bag comprising a bag proper provided with a flap; a frame, said frame being formed of a single piece of wire bent back upon itself at its center to form a supporting hook, the two strands coiled about one another, then spread apart to form an eye, and again coiled about one another to form a shank, said strands then being carried in opposite directions and having their ends bent downward at right angles, then bent upon itself, looped and coiled to produce an elongated eye and a loop; means passing through the loops for fastening the frame to the bag, and a semi-circular frame carried by the edge of the mouth of the bag, co-acting with the first mentioned frame for holding the mouth in an open position.

2. A clothes pin bag comprising a bag proper, provided with a mouth having a flap for closing the same, a supporting frame carried by said bag provided with right angled ends having eyes and loops and a central supporting hook, and a frame carried by the edge of the mouth of the bag provided with hooks, co-acting with said eyes.

3. A clothes pin bag comprising a bag proper, provided with a mouth having a flap for closing the same, a supporting frame carried by said bag provided with right angled ends having eyes and loops and a central supporting hook, and a frame carried by the edge of the mouth of the bag, said frame having resilient hooks produced from each end by bending the wire upon itself until the strands are in close proximity, said strands then diverging, then converging and the shorter strand coiled upon the longer strand.

1,025,652. CHLOR-ARALKYL-SULFONIC ACIDS AND PROCESS OF MAKING SUCH COMPOUNDS. OTTO SCHMIDT, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Mar. 23, 1911. Serial No. 616,448. (Cl. 23—24.)

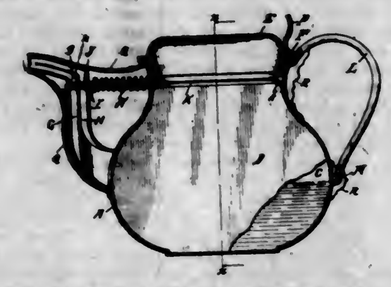
1. The process of producing omega-chlor-aralkyl acids by treating omega-chlor-aralkyl acid chlorids with a saponifying agent under mild conditions substantially as hereinbefore described.

2. The production of benzyl-chlorid-para-sulfonic acid by heating benzyl-chlorid-para-sulfo-chlorid with water in the presence of alcohol.

3. As new articles of manufacture chlor-aralkyl-sulfonic acids which when pure are colorless and hygroscopic and which upon treatment with boiling water give rise to aralkyl-alcohol-sulfonic acids and which upon treatment with dimethyl-anilin give rise to sulfonic acids of dimethyl-phenyl-aralkyl-ammonium hydroxids in the form of an anhydrid thereof.

4. As a new article of manufacture benzyl-chlorid-para-sulfonic acid which when pure is colorless and hygroscopic, upon boiling with water gives rise to benzyl-alcohol-para-sulfonic acid and upon treatment with dimethyl-anilin gives rise to dimethyl-phenyl-para-sulfo-benzyl-ammonium hydroxid in the form of an anhydrid thereof.

1,025,653. DUPLEX POURING VESSEL. CHARLES C. SIMA, Milwaukee, Wis. Filed Nov. 5, 1910. Serial No. 590,783. (Cl. 65—13.)



1. The combination with a vessel having a plurality of interior compartments, of a set of pouring spouts, one leading from each of said compartments, a handle for lifting said vessel movably connected with the vessel on the side opposite said spouts, and concealed connections for controlling the flow of liquid through the respective spouts by an adjustment of said handle.

2. The combination with a vessel sub-divided into liquid containing compartments, of a set of pouring spouts, one leading from each of said compartments, valve mechanism controlling the flow of liquid through the several pouring spouts, a manually actuated valve operating member, connections between the operating member and the valve, and means for wholly concealing the connections, and the portion of the operating member attached thereto.

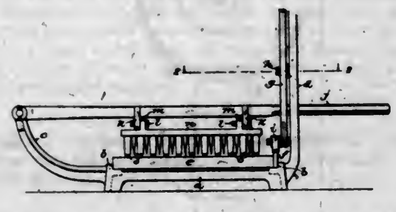
3. The combination with a vessel sub-divided into liquid containing compartments, of a set of pouring spouts, one leading from each of said compartments, valve mechanism controlling the flow of liquid through the several pouring spouts, a manually actuated valve operating member, and concealed connections between the operating member and the valve, together with a housing concealing the pouring spouts and constituting part of the concealing means for the valve actuating connections.

4. In a device of the described class, the combination of a vessel, sub-divided into liquid holding compartments and provided with a plurality of spouts, each leading from one of said compartments, a valve normally closing one of said spouts and permitting the delivery of liquid through the other, means for adjusting the valve to open the normally closed spout and close the normally open spout, a housing projection from one side of the vessel and embracing the spouts, an adjustable handle for said vessel, and concealed connections between the handle and valve extending through the upper portion of the vessel and through said housing.

5. In a device of the described class, the combination of a vessel, sub-divided into liquid holding compartments and provided with a plurality of spouts, each leading from one of said compartments, a valve normally closing one of said spouts and permitting the delivery of liquid through the other, means for adjusting the valve to open the normally closed spout and close the normally open spout, and an adjustable handle for lifting said vessel connected with the valve actuating means, said valve actuating means and valve being normally concealed from view.

[Claim 6 not printed in the Gazette.]

1,025,654. MEAT CHOPPER AND TENDERER. WILLIAM M. STANTON, Milwaukee, Wis. Filed Feb. 19, 1912. Serial No. 678,660. (Cl. 17—28.)



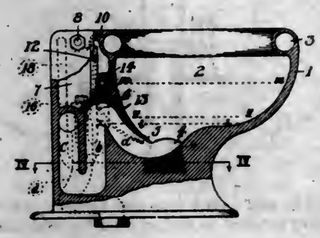
1. In a meat chopper and tenderer the combination of a frame having parallel horizontal ways and an upright guide at one side, a table fitted to slide on said ways and provided with a rack, a curved lever pivoted to said guide and provided with a pivoted pawl arranged to work with said rack, a lever handle fulcrumed to the frame and having sliding engagement with said guide and curved lever, and a cutter head carried by said lever handle and provided with blades arranged to coöperate with said table.

2. In a meat chopper and tenderer the combination of a frame having parallel horizontal ways and provided on one side with a transverse arm and on the other side with a vertical longitudinally slotted guide, a table fitted to slide on said ways and provided at one side with a rack, a curved longitudinally slotted lever fulcrumed between its ends to one side of said guide and provided at its lower end with a pivoted pawl arranged to work with said rack, a lever handle fulcrumed at one end to said arm and extending therefrom transversely over said ways through the slots in said guide and curved lever, and a cutter head carried by said lever handle and provided on the under side with blades arranged to coöperate with said table.

3. In a meat chopper and tenderer the combination of a frame having parallel horizontal ways, a table fitted to slide on said ways, a vertically movable lever extending over said ways transversely thereto and having an actuating connection with said table, and a cutter head carried by said lever and provided with chisel pointed blades arranged alternately with their cutting edges transverse to one another.

4. In a meat chopper and tenderer the combination of a frame having parallel horizontal ways, a table fitted to slide on said ways and provided at one side with a rack, a lever provided with a pawl adapted to work with said rack, a vertically movable lever fulcrumed on said frame and adapted by engagement with the other lever to reciprocate said pawl and intermittently advance the table, and a cutter head detachably fastened to the vertically movable lever over the path of said table and provided on the under side with a plurality of cutting blades.

1,025,655. WATER-CLOSET. JAMES ALBERT STEVENSON and LEWIS OLIVER PHILLIPS, New Castle, Pa. Filed May 10, 1910. Serial No. 560,415. (Cl. 4—22.)



1. In a device of the character described, the combination with a suitable bowl and communicating outlet system, of an air seal in said outlet; an air reservoir; means for forcing air from the reservoir into the seal; an auxiliary air trap; and means for an escapement of air from the first mentioned seal through the auxiliary trap.

2. In a device of the character described, the combination with a suitable bowl and communicating outlet system, of an air seal in said outlet; an air reservoir; means for forcing air from the reservoir into the seal during the filling process; an auxiliary air trap; and means for an escapement of air from the first mentioned seal through the auxiliary trap during the emptying process.

3. In a device of the character described, the combination with a suitable bowl and communicating outlet system, of an air seal in said outlet; an air reservoir; means for forcing air from the reservoir through a body of water into the said seal; an auxiliary air trap; means for supplying said trap with water; and means for forcing the water out of said trap to permit an escapement of air from the first mentioned seal.

4. In a device of the character described, the combination with a suitable bowl and communicating outlet system, of an air seal in said outlet; an air reservoir; means for forcing air out of said reservoir through a body of water into the said seal during the filling process; an auxiliary air trap; means for supplying said trap with water; means for removing the water out of said auxiliary trap to permit an escapement of air from the first mentioned seal; and means for draining the said reservoir of water to assist in furnishing the after-fill in the bowl.

5. In a device of the character described, the combination with a suitable bowl and communicating outlet system, involving two water seals and an intermediate air trap, of an air reservoir; a connection from the reservoir into one of the water seals; a drain duct opening out of the reservoir; and terminating in one of said water seals; an auxiliary air trap communicating with the first mentioned trap; means for supplying water to the bowl, air reservoir, and auxiliary air trap; and means for removing the water from said auxiliary trap to effect an escapement of air from the first mentioned trap.

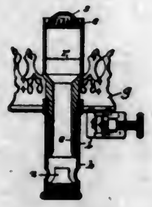
[Claims 6 to 8 not printed in the Gazette.]

1,025,656. BURNER FOR UPRIGHT INCANDESCENT GAS-LAMPS. HEINRICH SÜSSMANN, Berlin, Germany, assignor to The Firm Deutsche Gasglühlicht Aktiengesellschaft (Anergesellschaft), Berlin, Germany. Filed Dec. 28, 1909. Serial No. 534,571. (Cl. 67—97.)

1. In a gas burner, a nozzle tube, a burner tube whose lower end extends within the nozzle tube, and a heat insulator within said nozzle tube and between adjacent surfaces of the two tubes.

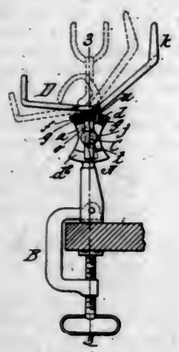
2. In a gas burner, a nozzle tube, a burner tube whose lower end extends within the nozzle tube, and a heat insulator within said nozzle between adjacent surfaces of the two tubes and secured to the lower part of the burner tube.

3. In a gas burner, a nozzle tube, a burner tube whose lower portion extends within the nozzle tube, a heat in-



sulator within said nozzle tube and between the two tubes and a gallery secured to and carried by said nozzle tube.

1,025,657. FISH-ROD HOLDER. JOHN TOWNE, Springfield, Mass. Filed Jan. 18, 1912. Serial No. 671,905. (Cl. 248—37.)

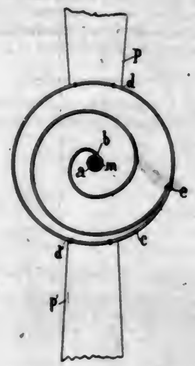


1. In a device of the character described, in combination, an upright support provided with an attachment clamp, also provided with a transverse aperture and having a series of teeth on its face, a screw threaded stud engaging through said aperture, having a thumb nut engaging thereon at one side of the upright support, and having a vertical eye at the other side of such support, and a fish-rod-holder provided with a stem, positioned alongside the face of the upright support, rotatively engaged through the said eye, made with a pinion shaped portion for engagement with the teeth on the support, and provided with a shoulder below said eye.

2. In a device of the character described, in combination, an upright support provided with an attachment clamp, and having the upper portion thereof of an axially horizontal dish shape provided with a transverse aperture therethrough, a screw threaded stud rotatively engaged through said aperture having a thumb nut thereon at the outer side of the upright support and having an axially vertical eye partially accommodated within the concave inner side of the support, a fish-rod-holder provided with a depending stem having a position of engagement against the inner face of said upright support, and engaged through the said eye, having a shoulder below the eye, and stops provided on the upright support at opposite sides of said stem for limiting the oscillatory movement of the latter in a vertical plane.

3. In a device of the character described, in combination, an upright support having an attachment clamp and having the upper portion thereof of an approximately circular form, the central part of which is of an axially horizontal dish shape, and having parts thereof marginally of the dished part conformed to a vertical plane, and made above the dished part with a series of teeth in arc arrangement, and having outstanding lugs at the opposite ends of the teeth, a screw threaded stud rotatively engaged horizontally through the dished portion of the support, having a thumb nut thereon at one side of the support, and having an axially vertical eye at the other side, and a fish-rod-holder having a depending stem rotatively engaged through said eye, having the portions above and below such eye in contact against the plane faced portions of the support, having a shoulder below the eye and having its portion above the latter made with a circularly arranged piece for engagement with the teeth of the upright support.

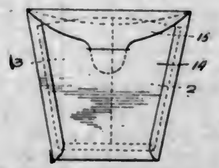
1,025,658. SCREW-PROPELLER WITH OPEN CENTER. ANDRÉ JULIEN MANOUDEAU DE VILLETHIOU, Paris, France. Filed Sept. 14, 1911. Serial No. 649,364. (Cl. 244—26.)



1. In a screw propeller a main shaft a sleeve keyed to said shaft, a spiral having one end secured to said shaft, a circular support to which the other end of said spiral is secured and blades mounted on said circular support.

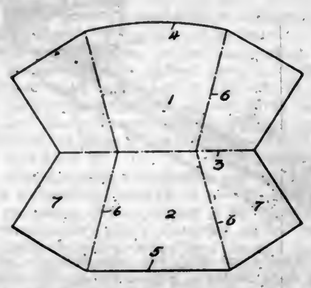
2. In a screw propeller a shaft, a spiral having one end secured to said shaft and having its other end secured to the adjoining inner convolution of said spiral and blades mounted on said spiral, as specified.

1,025,659. COLLAPSIBLE RECEPTACLE. EUGENE VON VARGYAS and JOSEPH W. DRIDRICK, Pittsburgh, Pa. Filed July 24, 1911. Serial No. 640,220. (Cl. 229—55.)



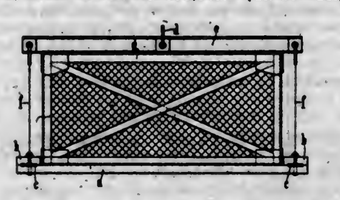
A drinking cup in substantially flat form and made from a single blank of polygonal-shape and adapted to be folded on lines transverse to the length of the blank, the folded portions of the blank constituting one side of the receptacle and the unfolded portion the other side, said folded portions adapted to have their longitudinal edges folded over in reverse directions whereby the said folded edges may interengage with each other, said unfolded portion of the blank being of greater length than the folded portions to form a flap, said flap adapted to be folded onto said folded side portions, said flap when folded, together with the lower end portions of the folded portions of the blank adapted to be folded onto the folded portions of the blank, means for securing said latter parts in folded position, and means for securing the interengaged edges of the folded portions in locked engagement.

1,025,660. COLLAPSIBLE DRINKING-RECEPTACLE. EUGENE VON VARGYAS and JOSEPH W. DRIDRICK, Pittsburgh, Pa. Filed July 24, 1911. Serial No. 640,222. (Cl. 229—55.)



A drinking cup in substantially flat form made from a substantially rectangular blank incut at its ends making the blank narrowest at its central transverse line to form two opposed side members, the marginal portions of the side members constituting flaps, one flap along one side edge of each side member being folded against one side of the cup, and the flaps along the opposite side edges of the members being folded against the same side of the cup, the flaps folded from one side edge of the cup overlying the flaps folded from the other side edge of the cup, and a securing means passed through all of the flaps at their overlapped portions.

1,025,661. DEVICE FOR CONVEYING BRICK. SAMUEL VOSS, Nieder-Schönhausen, near Berlin, Germany. Filed Dec. 5, 1910. Serial No. 595,649. (Cl. 57—13.)

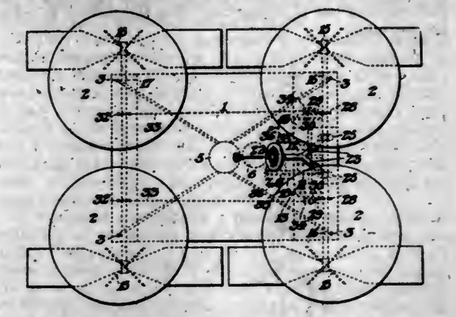


1. A device for conveying bricks comprising a bottom having a series of planks, cross-pieces at the ends of the bottom and means for securely holding the cross-pieces and planks together, handles on each side and end of the bottom and inserted between the bottom and cross-pieces, a girder, and suspension means engaging the girder and handles secured to the bottom.

2. A device for conveying bricks comprising a bottom having a series of planks, cross-pieces at the ends of the bottom and means for securely holding the cross-pieces and planks together, handles on each side and end of the bottom and inserted between the bottom and cross-pieces, a girder, suspension means, and a cage adapted to rest on said bottom between the said suspension means and girder.

1,025,662. DIRIGIBLE BALLOON. ABRAHAM MIER WAXLER, Philadelphia, Pa. Filed Jan. 10, 1910. Serial No. 537,341. (Cl. 244—6.)

1. In a dirigible balloon, the combination with a four-cornered frame having four levitating bags respectively attached to the corners thereof; of a levitating fluid reservoir on said frame connected with said bags by respective tubes; a levitating fluid pump connected with said reservoir; four propeller wheels extending exterior to said frame and arranged in pairs on respective parallel shafts; movable spring-pressed bearings on said frame for said propeller shafts; a motor provided with a shaft; respectively distinct means connecting said motor shaft with said propeller shafts arranged to turn the latter in opposite directions; and, steering gear operatively connected with one of said propeller shafts, including a handle arranged to oscillate said shaft in its bearings.



2. In a dirigible balloon, the combination with a frame having several levitating bags attached thereto; of a levitating fluid reservoir on said frame connected with said bags by respective tubes; a levitating fluid pump connected with said reservoir; four propeller wheels extending exterior to said frame and arranged in pairs on respective parallel shafts; movable spring-pressed bearings on said frame for said propeller shafts; a motor provided with a shaft; respectively distinct means connecting said motor shaft with said propeller shafts arranged to turn the latter in opposite directions; and, steering gear operatively connected with one of said propeller shafts, including a handle arranged to oscillate said shaft in its bearings.

3. In a dirigible balloon, the combination with a frame having a levitating bag; of a pump on said frame connected with said bag; four propeller wheels extending exterior to said frame and arranged in pairs on respective parallel shafts; movable spring-pressed bearings on said frame for said propeller shafts; a motor provided with a shaft; respectively distinct means connecting said motor shaft with said propeller shafts arranged to turn the latter in opposite directions; and, steering gear operatively connected with one of said propeller shafts, including a handle arranged to oscillate said shaft in its bearings.

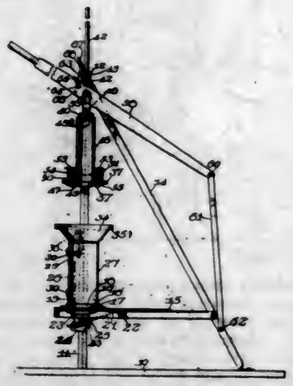
4. In a dirigible balloon, the combination with a frame having levitating means; of four propeller wheels extending exterior to said frame and arranged in pairs on respective parallel shafts; movable spring-pressed bearings on said frame for said propeller shafts; a motor provided with a shaft; respectively distinct means connecting said motor shaft with said propeller shafts and, steering gear operatively connected with one of said propeller shafts, including a handle arranged to oscillate said shaft in its bearings.

5. In a dirigible balloon, the combination with a frame having levitating means; of a motor provided with a shaft; two propeller shafts normally extending parallel with said motor shaft, but capable of oscillation; four propeller wheels extending exterior to said frame and arranged in pairs on the respective propeller shafts; the respective propellers of each pair being axially alined in invariable relation; respectively distinct means operatively connecting said motor shaft with said propeller shafts; and, steering gear operatively connected with one of said propeller shafts including means arranged to oscillate said shaft in its bearings and thereby oscillate both of said propeller shafts.

1,025,663. TILE-MACHINE. CYRUS S. WERT, Kendallville, Ind. Filed Feb. 20, 1911. Serial No. 609,619. (Cl. 25—35.)

1. In a machine of the class described, the combination of a mold having an open end, means for supporting the mold in position to receive the material, a core adapted to

be forced into the material within the mold, means for moving the core into and out of the mold, and yieldingly supported means operating in unison with the core for tamping the material, said core moving means being movable into and out of engagement with the tamper to tamp the material.



2. In a machine of the class described, the combination of a mold, a core, means for forcing the core into the mold to shape the material therein, a yieldingly supported tamper movable in unison with the core, and means movable with the first recited means, and into and out of engagement with the tamper for operating the latter to tamp the material.

3. In a machine of the class described, the combination of a mold, a hollow core, means for forcing the core into the mold to shape the material therein, a yieldingly supported tamper movable in unison with the core, means operatively related to the first recited means, movable into and out of engagement with the tamper for operating the latter to tamp the material, and means for guiding the core and tamper.

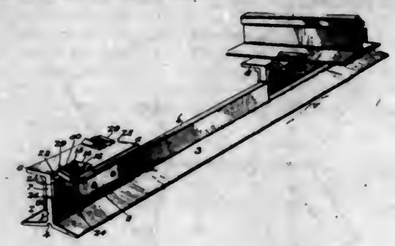
4. In a machine of the class described, the combination of a mold, having an open end, a support for holding the mold in position to receive the material, means movable into engagement with the upper end of the mold for holding the latter in position, a hollow core, means for forcing the core into the mold to shape the material therein, a yieldingly supported tamper movable in unison with the core, and means operatively related to the first recited means movable into and out of engagement with the tamper for operating the latter to tamp the material.

5. In a machine of the class described, the combination of a frame, a support thereon having an opening therethrough, a hollow mold, means for holding the mold in position on the support with one end over the said opening, a closure for the opening, a hollow core movable into the mold to shape the material and to remove a portion of the material, a tamper operating in unison with the core for tamping the material, and means for controlling the said closure whereby the material removed by the core may be discharged from the mold and through said opening, said closure also serving as a deflector for the discharged material.

1,025,664. TIE AND RAIL-SECURING MEANS. GEORGE W. WHITEMAN, Philadelphia, Pa. Filed Apr. 27, 1911. Serial No. 623,579. (Cl. 238—5.)

1. The combination with a tie having an upwardly projecting web, of rail supporting devices having a web adapted to seat upon the upper portion of the web of the tie, insulation between the abutting portions of said webs, plates on opposite sides of said webs having offsets engaging the insulation, and means coacting with said plates for securing said webs in assembled position.

2. The combination with the web of a tie, of a rail supporting plate having a web seated on the web of the tie, plates on opposite sides of said webs, and means for securing said plates to said webs.



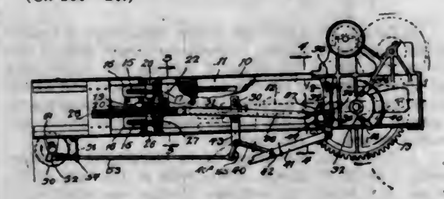
3. The combination with the web of a tie, of a rail supporting plate having a web seated on the web of the tie, plates on opposite sides of the webs, said tie having a depression beneath its web to equalize the thickness of the metal, means for insulating said webs from each other, and means engaging said plates for securing said webs in assembled position.

4. The combination with the web of a tie, of a rail supporting plate having a web seated on the web of the tie, plates on opposite sides of the webs and engaging the under face of the plate, and means for securing the webs and plates in assembled position.

5. The combination with the web of a tie, of a rail supporting plate having a web seated on the web of the tie and in alinement therewith, plates secured to the web of the rail supporting plate on opposite sides thereof and having offset portions extending beyond the web of the rail supporting plate, insulation between said webs and between the web of the tie and the off-set portions of said plates, fastening devices for securing said plates to the web of the tie, and means for insulating said fastening devices with respect to the web of the tie and said plates.

[Claims 6 to 10 not printed in the Gazette.]

1,025,665. BALING-PRESS. ANDREW WICKBY, East Chicago, Ind. Filed Dec. 29, 1911. Serial No. 668,545. (Cl. 100—20.)



1. In a baling press having a reciprocable plunger, wire passing mechanism comprising a reciprocable wire passer extending at an oblique angle to the path of movement of the plunger, and wire passer actuating mechanism arranged to act synchronously with central compression strokes of the plunger.

2. In a baling press, a reciprocable plunger having one or more transverse slots leading back from its end face, one or more reciprocable wire passer bars extending at an oblique angle to the path of movement of said plunger, and arranged to travel in said oblique line, and mechanism for reciprocating said wire passer bars synchronously with said plunger, during certain of its compression strokes, said mechanism being so timed that the reciprocating movements of the wire passer bars, takes place at or near the end of such compression strokes.

3. In a baling press, a reciprocable plunger having a plurality of transverse slots leading back from its end face, a plurality of reciprocable wire passer bars extending at an oblique angle to the path of movement of said plunger and arranged to travel in said slots, mechanism operating synchronously with certain strokes of said plunger for reciprocating said wire passer bars, said mechanism being timed to act at and near the end of said compression strokes.

4. In a baling press, reciprocable wire passers extending at an oblique angle to the path of movement of the plunger of the press, guiding means for guiding said wire passers to move in their oblique lines, a vertical rotary reciprocatory shaft journaled at the side of the press, pinions thereon meshing with toothed racks on the wire passers and power transmitting mechanism actuated by an element of the press mechanism for rotating said shaft forward and back.

5. In a baling press, reciprocable wire passer bars having teeth thereon and movable at an oblique angle to the path of movement of the plunger of the press, a vertical, rotary reciprocatory shaft journaled at the side of the press, pinions thereon meshing with the rack teeth of said wire passer bars, a driven pinion on said shaft, a reciprocable rack bar meshing with said last named pinion, and means for intermittently reciprocating said rack bar.

[Claims 6 to 10 not printed in the Gazette.]

1,025,666. SNAP-HOOK. WALTER R. YEAGLE, Eddington, Pa. Filed May 31, 1911. Serial No. 630,467. (Cl. 24—241.)



In a snap hook, a hook proper and a shank carrying the same, a pivoted tongue with a lug extending inwardly therefrom and having an oblique surface on the side facing said hook proper, a pair of ears on said shank on which said tongue is mounted, a cross bar joining said ears forming a recess opening away from said hook proper, there being an opening in the wall of the cross bar from said recess toward the hook proper, a rod slidably mounted in said opening, a head on one end of said rod and movable in said recess, a spring contained in said recess, and a block on the other end of said rod and having an oblique surface on the side facing the cross bar, the action of the spring upon the head forcing the block toward the cross bar and beneath said lug to lock the tongue in closed position.

1,025,667. CENTRIFUGAL FAN-WHEEL. WILLIAM E. ALLINGTON, Saginaw, Mich. Filed Sept. 7, 1909. Serial No. 516,317. (Cl. 230—11.)



1. In a fan-wheel the combination with radial arms, a central supporting disk, a plurality of blades carried by said arms, the edge of each sloping transversely from its arm at both edges, free at its front edge and having a portion substantially straight in face elevation beyond its sloping part on its rear edge; of a back plate secured to said straight portions of the several blades, and a conoidal guard wall extending from said back plate to the disk and substantially conforming to the slope of the back edges of the blades and free therefrom, the disk, back-plate, and guard being structurally separate parts.

2. In a fan wheel the combination with radial arms, a central supporting disk, a plurality of blades carried by said arm, the edge of each sloping from its arm in a rearward direction and having a portion substantially straight in face elevation beyond said sloping part; of a back plate secured to said straight portions of the several blades; and a conoidal guard wall, secured to said back plate and free from the blades and disks, extending from said back plate to the blades and substantially conforming to the slope of the back edges of the blades.

3. The combination with a fan wheel having a disk, a plurality of supporting arms, a blade for each arm, the radially inner edge of each of said blades being inclined from its point of juncture with the supporting arm toward the front of the casing to permit the centrifugal delivery of stringy material encountering the blade toward the front side of the wheel, and inclined from such point of juncture with the supporting arm toward the back, whence the edge extends outwardly in a radial line, and an annular plate connected to said blades at said radial edge portions thereof, of a conical guard between said annular plate and disk, secured to the plate, said guard lying adjacent to but free from connection to the blades and disk, to prevent lodgment of stringy material from the backwardly inclined edges upon the annular plate.

1,025,668. CROSS-HEAD FOR LOGGING PULLEY-BLOCKS. MILLER C. ASHTON, Doty, Wash. Filed June 7, 1911. Serial No. 631,830. (Cl. 57—27.)



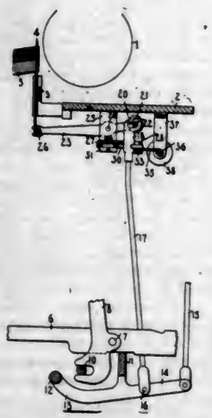
A cross-head for logging blocks having eyes for its connection to an object, a substantially Y-shaped yoke whose stem is swiveled to the cross-head and whose branches are provided with ears, a one-piece loop-shaped swinging link having one end disposed between and permanenetly pivoted to one pair of said ears and its other end free and adapted to be passed in between the pair of ears, and a removable fastening adapted to be passed through the ears last named and through the free end of the link, whereby the link may be swung open without detachment on removing of said fastening.

1,025,669. TYPE-WRITING MACHINE. EDWIN E. BARNEY, Syracuse, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Apr. 25, 1910. Serial No. 557,508. (Cl. 197—157.)

1. In a typewriting machine, the combination of a ribbon vibrator, a horizontally disposed operating lever for said vibrator, said lever having a pin, a universal bar, a vertically disposed link extending upward from said universal bar and having at its upper end an angled slot which embraces said pin, one part of said slot affording, by reason of lost motion between the link and pin, a stroke less than a full stroke of said vibrator, a guide for the upper end of said link, and means for shifting said guide to cause different parts of said slot to engage said pin.

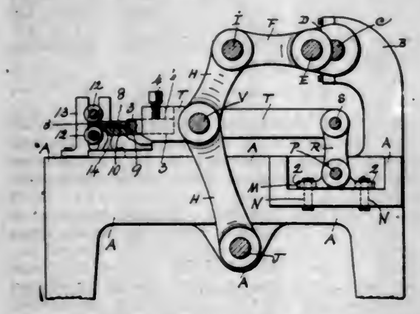
2. In a typewriting machine, the combination of a ribbon vibrator, a horizontally disposed operating lever for said vibrator, said lever having a pin, a universal bar, a vertically disposed link extending upward from said

universal bar and having at its upper end an angled slot which embraces said pin, one part of said slot affording, by reason of lost motion between the link and pin, a stroke less than a full stroke of said vibrator, a guide plate having a cam slot therein for guiding the upper end of said link, and hand operated means for shifting said plate to cause said cam slot to shift said link to bring different parts of said angled slot into coöperation with said pin.



3. In a typewriting machine, the combination of a ribbon vibrator, an operating lever for said vibrator, a universal bar, a link connecting said universal bar with said lever, means for shifting said link, said shifting means comprising a pivoted plate having an eccentric slot therein which engages said link and means for turning said plate about its pivot, and a fixed guide-plate for said link, said guide plate being arranged adjacent said pivoted plate and having an elongated slot through which said link passes, the arrangement being such that the link is guided in an opening, the side walls of which consist of the side walls of the slot in the fixed plate, and the end walls of which consist of the side walls of the slot in the pivoted plate.

1,025,670. SPIKE-MACHINE. GEORGE BARR, Hamilton, Ontario, Canada. Filed Sept. 20, 1911. Serial No. 650,440. (Cl. 10—56.)

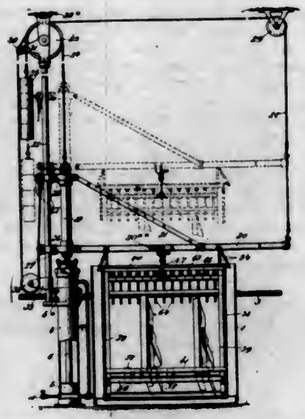


1. In a spike machine, a rigid bed, a heading lever pivotally connected thereto, a horizontal header bar pivotally connected to the lever, a bearing adjustably connected to the bed, a link pivotally connected to the bearing and to one end of the header bar, a removable heading die in the opposite end of the heading bar, a rotary driving shaft journaled in the bed, a crank secured on the shaft, and a rod loosely connected to said crank and to the opposite end of the heading lever, adapted to impart a downwardly inclined horizontal motion to said header bar.

2. In a spike machine, a rigid bed, a bearing secured thereto, means for allowing the adjustment of the bearing, a link pivotally connected to the bearing, a heading lever pivotally connected to the bed, a header bar pivotally connected to the opposite end of the link, a main shaft adapted to rotate in the bed, a rotary crank on the shaft, a rod loosely connecting the crank and the opposite end of said heading lever, a centrally located part of said heading loosely connected to a forward part of said header bar, thereby imparting a downwardly inclined horizontal movement to the header bar.

3. In a spike machine, a rigid bed, a heading lever pivotally connected thereto, a horizontal header bar loosely connected to a central part of the lever, a bearing adapted to horizontal adjustment on the bed, a link loosely connected to the bearing and to one end of the header bar, a removable concaved header die in the opposite end of the bar, a rotary driving shaft journaled in the bed, a crank secured on said shaft, a rod loosely connecting said crank and the opposite end of the lever, thereby imparting a horizontal and downwardly inclined motion to the header bar, and a chilled die, having a recess, rigid with the bed, and opposite to the heading die, and adapted to receive the blank of the spike previous to the contact of the header die therewith.

1,025,671. HOLDER FOR LIQUID-COATING MACHINES. REME A. BEAUSEJOUR, New York, N. Y., assignor to Standard Varnish Works, New York, N. Y., a Corporation of New York. Filed Mar. 30, 1909. Serial No. 486,788. (Cl. 91—60.)



1. In a machine of the character described, a tank, an article supporting bracket, fluid operated means for raising and lowering the bracket, a device independent of the bracket arm, and means engaging both the bracket arm and the independent device for steadying the outer end of the bracket during its vertical movement.

2. In a machine of the character described, a tank, an article supporting bracket, means for raising and lowering the bracket, means for steadying the inner end of the bracket, a device independent of the bracket arm, and separate means engaging both the bracket arm and the independent device for steadying the outer end of the bracket during its vertical movement.

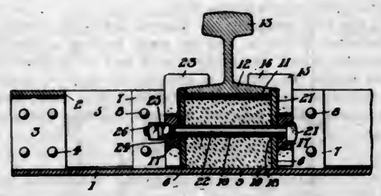
3. In a machine of the character described, a tank, an article supporting bracket, fluid operated means for raising and lowering the bracket, means for steadying the inner end of the bracket, a device independent of the bracket arm, and a separate means engaging both the bracket arm and the independent device for steadying the outer end of the bracket during its vertical movement.

4. In a machine of the character described, a tank, an article supporting bracket, means for raising and lowering the bracket, means for steadying the inner end of the bracket, a device independent of the bracket arm, and separate means engaging both the bracket arm and the independent device for steadying the outer end of the bracket during its vertical movement, the said means being also connected to the means for steadying the inner end of the bracket, whereby the lifting strains are equalized.

5. In a machine of the character described, a tank, an article supporting bracket, fluid operated means for raising and lowering the bracket, means for steadying the inner end of the bracket, a device independent of the bracket arm, and separate means engaging both the bracket arm and the independent device for steadying the outer end of the bracket during its vertical movement, the said means being also connected to the means for steadying the inner end of the bracket, whereby the lifting strains are equalized.

[Claims 6 to 26 not printed in the Gazette.]

1,025,672. TIE AND RAIL-FASTENER. WILLIAM BECK and LAVERGNE BECK, Etna, Pa. Filed Nov. 6, 1911. Serial No. 658,700. (Cl. 238—5.)



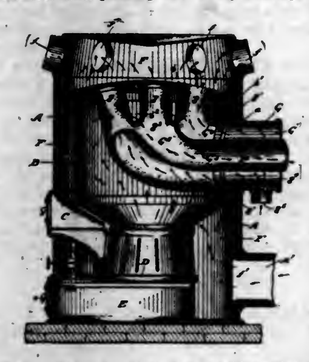
1. In a tie and rail fastener, the combination with rails, of a tie of the channel bar construction, inverted channel braces mounted in the ends of said tie, transverse partitions mounted in said tie adjacent to the ends thereof and providing compartments, concrete arranged in the compartments of said tie, cushions arranged upon said concrete and adapted to support said rails, inverted L-shaped fastener members arranged against the outer sides of said partitions and engaging the base flanges of said rails, and means arranged longitudinally of said concrete for holding said fasteners in engagement with said rails.

2. In a tie and rail fastener, the combination with rails, of a tie of the channel bar construction, inverted channel braces mounted in the ends of said tie, transverse partitions mounted in said tie adjacent to the ends thereof and providing compartments, concrete arranged in the compartments of said tie, cushions arranged upon said concrete and adapted to support said rails, inverted L-shaped fastener members arranged against the outer sides of said partitions and engaging the base flanges of said rails, and means arranged longitudinally of said concrete for holding said fasteners in engagement with said rails, said means including tie rods having heads thereof anchored in the inner fasteners and the opposite ends thereof held in engagement with the outer fasteners.

1,025,673. FURNACE. EDWARD A. BIECHELE, Canton, Ohio. Filed Dec. 12, 1910. Serial No. 596,885. (Cl. 126—106.)

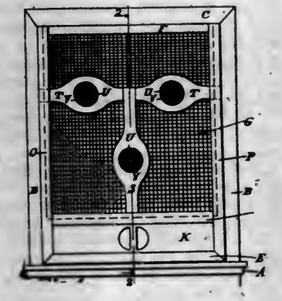
1. In a furnace, the combination of a combustion chamber; an outer casing surrounding said combustion chamber and forming an air-space; a cold-air duct-member traversing said combustion chamber, discharging into said air-space and having its inlet end in communication with the atmosphere; and an outlet-duct having its inner end communicating with the interior of said combustion chamber, surrounded by said cold-air duct-member, of smaller diameter than the latter, so as to form an intervening air-space and passing through the inlet-end of the latter.

2. In a furnace, the combination of a combustion chamber having a side opening and a plurality of top openings; a cold-air duct-member fitted in said side opening and provided with a plurality of integral branches fitted in said top openings and with an interior outlet duct having its inner end communicating with the interior of the combustion chamber and passing outwardly through the inlet-



end of the cold-air duct-member; said outlet-duct being formed integrally with the latter and of smaller diameter than same, so as to form an intervening air-space; an outer casing surrounding said combustion chamber; and a second dust-member connecting the inlet-end of said first-named duct-member with the atmosphere and passing through said casing.

1,025,674. INSECT-SCREEN. JOHN BURDEN BLANDY, Funchal, Madeira, assignor to Graham F. Blandy, New York, N. Y. Filed Jan. 25, 1912. Serial No. 673,365. (Cl. 43—22.)

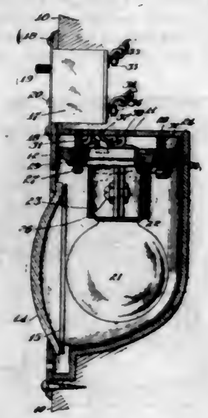


1. An insect screen comprising a box-like frame, a netting inclosing one side of the frame, a removable cover for the opposite side of the frame having apertures, and an interior support having apertures registering with the apertures in the cover and provided with conical insect traps extending inwardly.

2. An insect screen comprising a box-like frame, a netting inclosing one side of the frame, a slidable cover for the opposite side of the frame having apertures, and an interior support having apertures registering with the apertures in the cover and provided with conical insect traps extending inwardly.

3. An insect screen comprising a box-like frame, a netting inclosing one side of the frame, a support inside the frame having apertures provided with cone shaped insect traps projecting toward the netting, and a removable cover for the side of the box opposite the netting adapted to fit against said support and having apertures registering with the apertures in said interior support when the cover is in place in the frame.

1,025,675. BERTH-LAMP. WILLIAM J. BOHAN, St. Paul, Minn. Filed June 15, 1911. Serial No. 633,390. (Cl. 240—7.)



1. In a lamp, in combination, a casing adapted to fit within a wall recess, an incandescent electric lamp housed within the casing, the transverse dimension of the lamp being but slightly less than that of the casing, a vertically movable socket plate for carrying the lamp, springs supporting the socket plate, and guides for the socket plate adapted to hold the lamp against lateral movement.

2. In a lamp, in combination, a casing adapted to fit within a wall recess, an incandescent electric lamp housed within the casing, the transverse dimension of the lamp being but slightly less than that of the casing, a socket plate for carrying the lamp, a plurality of guide pins depending from the top of the casing, projecting loosely through the socket plate and having their lower ends headed, springs interposed between the socket plate and the heads of the pins, and springs interposed between the socket plate and the top of the casing.

3. In a lamp, in combination, a casing, a longitudinally separable lamp socket secured in the upper part of the casing, and an incandescent lamp carried by the socket, the length of the lamp being greater than the distance from the lower end of the socket to the bottom of the casing.

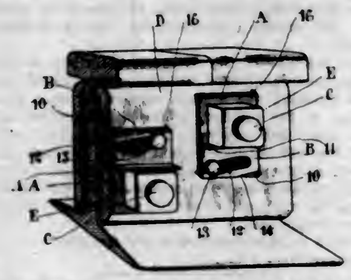
4. In a lamp, in combination, a casing; a support in the casing; a lamp socket longitudinally divided, one section of the socket being permanently attached to the support and the other section thereof being removably connected with the permanently attached section; and a lamp carried by the socket, the length of the lamp being greater than the distance from the outer end of the socket to the remoter end of the casing.

1,025,676. NUT-LOCK. THOMAS MURRY BREWER, parish of St. Marys, New Brunswick, Canada, assignor of one-half to Philip A. Logan, St. John, Canada. Filed July 6, 1911. Serial No. 637,077. (Cl. 151—62.)

1. A nut lock comprising a base plate adapted to fit about the shank of the bolt, a locking plate thereon having an inclined slot and an inclined edge and means on the base plate engaging the slot and the inclined edge at points longitudinally separated and adapted to force the locking plate against the nut when the locking plate is moved across the base plate.

2. A nut lock comprising a base plate adapted to fit over the shank of the bolt, provided with a projection, a tapered locking member adapted to lock between the projection and the nut, provided with an inclined slot, a stud provided with an enlarged head sliding therein secured to the base plate.

3. A nut lock comprising a base plate adapted to fit over the shank of the bolt, provided with a projection, a locking member provided with a flange adapted to abut the nut, said locking member being provided with an inclined slot and with an inclined edge against which the projection is adapted to bear in order to force the member against the nut, and a stud provided with an enlarged head adapted to slide in the slot and secured to the base plate.



4. A nut lock comprising a base plate having a stud and an upturned flange, a locking plate having an inclined slot through which the stud extends and an inclined edge against which the flange is adapted to bear in order to force the plate against the nut.

5. A nut lock comprising a base plate having a stud and an upturned flange, a locking plate having an inclined slot through which the stud extends and an inclined edge against which the flange is adapted to bear in order to force the plate against the nut, said locking plate having an upturned flange adapted to abut the side surface of the nut.

1,025,677. PROCESS OF MAKING GLASS-FACED TILES. PETER BRUNET, Toronto, Ontario, Canada. Filed Oct. 27, 1908. Serial No. 459,811. (Cl. 91—68.)



1. The process of making glass-faced tiles consisting of slightly roughening one surface of a plate of glass, and applying thereto a mixture of Keene's cement, water, dry coloring matter, albumen, gum arabic and citric acid.

2. The process of making glass-faced tiles consisting of grinding one surface of a plate of glass, and applying thereto a mixture of Keene's cement, dry coloring matter and citric acid.

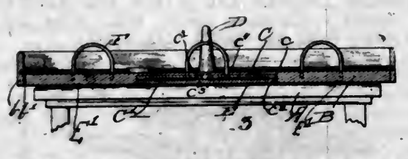
3. The process of making artificial marble tiling consisting of slightly roughening one surface of a plate of glass, and applying thereto a mixture of Keene's cement 85%, water 10%, albumen 1%, gum arabic 1%, citric acid 3% and suitable dry coloring matter.

4. The process of making glass-faced tiles consisting of roughening one surface of a plate of glass, and applying thereto a mixture of Keene's cement, and citric acid.

5. As an article of manufacture a tile comprising a sheet of glass roughened on one surface and having applied thereto a composition consisting of a mixture of Keene's cement, water and dry coloring matter and citric acid as a binding agent for securing the backing to the glass.

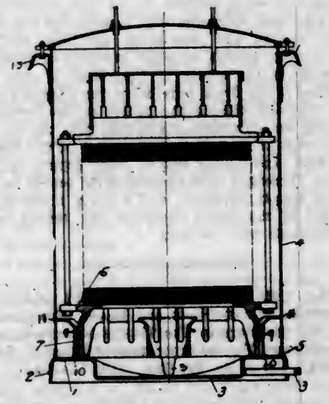
1,025,678. ROTATABLE GAME-TABLE. WILLIAM J. J. BUNCH, Chicago, Ill. Filed Mar. 30, 1906. Serial No. 423,905. (Cl. 46—61.)

1. A game apparatus, comprising a board forming the playing surface and recessed centrally in its underside, a centrally apertured plate fixed centrally in and but partially filling the recess in the underside of said board, and a bearing piece adapted to also fit into said recess in said board and having a central boss adapted to detachably engage in the central recess in said plate to support said board in rotative but detachable engagement.



2. A game apparatus, comprising a board forming the playing surface, a bearing piece upon which said board is rotatably but detachably mounted slightly raised from the plane of support of said bearing piece, and a ring of anti-slipping material fixed to the underside of said board and encircling said bearing piece but maintained above the plane of support of said bearing piece when said board is supported thereby.

1,025,679. TRANSFORMER-CASE. LOUIS H. BURKHART, Warren, Pa. Filed Sept. 18, 1911. Serial No. 649,890. (Cl. 171—124.)



1. In a transformer case, the combination of a case bottom having a flanged edge forming a support for the bottom; and a case shell having its bottom edge resting on the top surface of the bottom with the outer surface of the shell within and out of alinement with the inner surface of the flanged edge, said shell being secured to the bottom by a continuous autogenous joint along the edge of the shell.

2. In a transformer case, the combination of a case bottom arched at the center and adapted to form a support for a transformer at the edge of the arched portion; means on the bottom at the periphery thereof forming the sole support for the bottom; and a shell having its bottom edge resting on the top surface of the bottom with the outer surface of the shell offset within the inner surface of the support and secured to the bottom by a continuous autogenous joint along the edge of the shell.

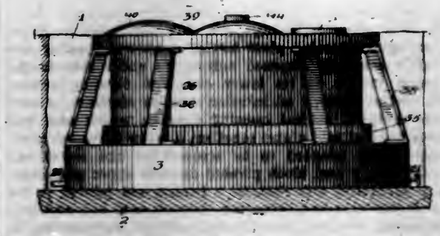
3. In a transformer case, the combination of a bottom; a shell secured to and carried by the bottom; and guides for the transformer feet secured to the bottom and forming webs for strengthening the bottom; the tops of said guides being secured to the shell, said guides being spaced from the shell to permit the circulation of liquid between the guides and shell.

4. In a transformer case, the combination of a bottom having a flanged edge forming a sole support for the bottom, a supporting platform within the flanged edge, and an arched center within the platform; a case shell having its bottom edge resting on the top surface of the platform with the outer surface of the shell within and out of alinement with the inner surface of the flanged edge, said shell being secured to the bottom by a continuous autogenous joint along the edge of the shell; and guides for the feet of the transformer secured to the bottom and forming webs for strengthening the bottom.

5. In a transformer case, the combination of a case bottom having a flanged edge forming a support for the bottom, said bottom being arched at the center and adapted to form a support for the transformer at the edge of the arched portion; and a case shell having its bottom edge resting on the bottom between the flanged edge and the arched center, the outer surface of the shell being within and out of alinement with the inner surface of the flanged edge and secured to the bottom by a continuous autogenous joint along the edge of the shell, whereby there is formed a three web supporting structure

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1,025,680. ROTARY GLASS-POT. THOMAS B. CAMPBELL Sr., Pittsburgh, Pa. Filed Apr. 5, 1911. Serial No 619,055. (Cl. 49—53.)



1. A glass pot comprising a foundation, rollers revolubly supported by said foundation, a housing revolubly mounted upon said rollers, a plurality of heaters arranged upon said foundation and extending upwardly into said housing, individual pots supported by said housing, and a cover arranged above said housing.

2. A glass pot comprising a foundation, a plurality of heaters carried by said foundation, an intermittently moving housing arranged upon said foundation and inclosing said heaters, individual pots supported in said housing and adapted to be successively moved from one heater to the other, and means adapted to intermittently move said housing.

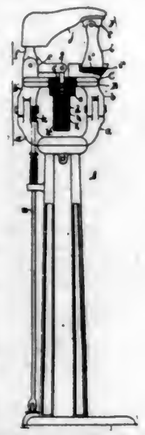
3. In a glass pot a foundation, sets of circumferentially arranged rollers supported by said foundation, heaters equally spaced upon said foundation, a gas burner arranged in each heater, a housing movably arranged upon said rollers and inclosing said heaters, and individual pots arranged in said housing above said heaters.

4. In a glass pot a foundation, sets of circumferentially arranged rollers supported by said foundation, heaters equally spaced upon said foundation, a gas burner arranged in each heater, a housing movably arranged upon said rollers and inclosing said heaters, individual pots arranged in said housing above said heaters, and a cover supported from said foundation and adapted to inclose the top of said housing.

5. In a glass pot a foundation, sets of circumferentially arranged rollers supported by said foundation, heaters equally spaced upon said foundation, a gas burner arranged in each heater, a housing movably arranged upon said rollers and inclosing said heaters, individual pots arranged in said housing above said heaters, a cover supported from said foundation and adapted to inclose the top of said housing, and means including a rack and pinion adapted to intermittently move said housing.

[Claims 6 to 16 not printed in the Gazette.]

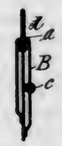
1,025,681. ADJUSTABLE SHOE-REPAIRING JACK. GEORGE T. CANTARA, Biddeford, Me. Filed June 30, 1911. Serial No. 636,188. (Cl. 12—127.)



1. In a shoe repairing jack, the combination of an upper last supporting plate having a central opening and a hollow centrally disposed hub on its under side having a screw thread on its lower end, and forming around said central opening an interior annular shoulder, a base plate having a central opening through which said hub passes to pivot said plates together, a screw threaded cylindrical casing adapted to be screwed on the lower end of said hub, a heel block pivoted on said upper plate having a horizontal arm thereon, a tension rod jointed to the end of said arm and extending through said hub and into said casing, a spring surrounding said rod and tending to pull the same downwardly and a toe rest on said upper plate.

2. In a shoe repairing jack, the combination of a head having an upper and lower plate pivoted together, a heel block and a toe rest on the upper plate, a downwardly extending hanger on each end of the lower plate, one directly beneath the heel block and one beneath the toe rest and forming an open space between them, a heel block tension device located in said open space and a stand having a pair of upwardly extending standards pivoted to said hangers.

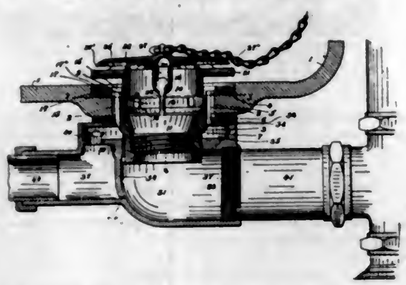
1,025,682. BUTTONHOLE ATTACHMENT. DELIA L. CARDINAL, Springfield, Mass. Filed July 1, 1911. Serial No. 636,459. (Cl. 2—41.)



1. The combination with a part of a garment having a buttonhole, of a tape having an intermediate portion thereof extending through the buttonhole and having its extremities extending beyond the buttonhole in the same direction on opposite sides of the fabric in which the buttonhole is formed and having both ends thereof permanently secured to the fabric, the intermediate portion of said tape being free and adapted to cause a distension of said buttonhole.

2. The combination with a garment having a buttonhole, of a loop of tape having the opposite extremities thereof permanently secured to opposite sides of the garment, and having an intermediate portion passed through the button-hole and a bead-like member engaged with the outwardly disposed portion of the loop.

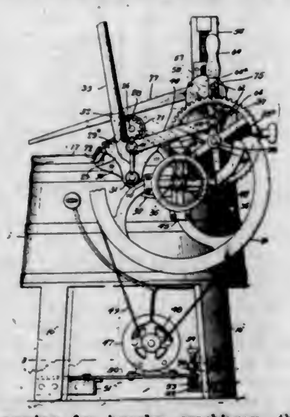
1,025,683. SUPPLY AND WASTE FOR BATH-TUBS. DENNIS C. CHARMOIS, Canton, Ohio. Filed Aug. 14, 1911. Serial No. 643,879. (Cl. 4—35.)



1. A supply and waste for a bath tub or the like including a waste pipe with a flange on its upper end and having supply apertures in its wall and flange, a loosely fitting collar adapted to move endwise in the pipe normally shielding the pipe-wall apertures with a flange on its upper end normally closing the pipe-flange apertures and having apertures with shields forming inwardly-directed supply openings above the mouth of the collar, a plug adapted to be seated in the drain pipe below the flanged collar, and a cover normally closing the mouth of the flanged collar and having an extensible connection with the plug.

2. A supply and waste for a bath tub or the like including a waste pipe having one or more supply openings in the mouth thereof, a plug adapted to be seated in the pipe below the supply openings, and a cover normally closing the mouth of the waste openings and having an extensible connection with the plug.

1,025,684. GEARING FOR LAUNDRY MACHINERY. ANDREW B. CHRISTENSEN and FRANK VONDRASEK, Chicago, Ill., assignors to The Thistle Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 17, 1911. Serial No. 621,734. (Cl. 74—50.)



1. In gearing for laundry machinery, the combination comprising a support, a rocker member fulcrumed thereon and having a handle and a gear segment, a stirrer shaft operatively connected to and driven by said gear segment, a fly wheel, operative connections between said rocker member and fly wheel, including speed converting gearing, and an operating device carried by said support and operatively connected with one element of said speed converting gearing.

2. In gearing for laundry machinery, the combination comprising a support, a rotary reciprocatory stirrer shaft journaled thereon, a rocker member having a handle whereby it may be rocked manually, said rocker member being operatively connected with the stirrer shaft so as to impart rotary reciprocatory motion thereto, a fly wheel, speed converting gearing between the rocker member and fly wheel, whereby said stirrer shaft may be manually driven from said rocker member or mechanically by power applied to the fly wheel, an operating device having rotary elements and carried by said support, gearing between said operating device and an element of the speed converting gearing, including a reversing gear, whereby the rotary elements of said device may be driven in either direction.

3. In gearing for laundry machinery, the combination comprising a support, a rotary reciprocatory stirrer shaft, a fly wheel, operative connections between the fly wheel and stirrer shaft for imparting thereto a rotary reciprocatory movement, including speed converting gearing, an operating device carried by said support and having a shaft, a pinion on said shaft, a pair of intermeshing pinions, one of which is driven by an element of said speed converting gearing, and a shift lever carrying said pair of pinions and arranged to move either thereof into mesh with the pinion on said shaft of said operating device.

4. In gearing for laundry machinery, the combination comprising a support, a rotary reciprocatory stirrer shaft, a fly wheel, operative connections between the fly wheel and stirrer shaft for imparting thereto a rotary reciprocatory movement, including speed converting gearing, an operating device carried by said support and having a shaft, a pinion on said shaft, a pair of intermeshing pinions, one of which is driven by an element of said speed converting gearing, and a shift lever carrying said pair of pinions and arranged to move either thereof into mesh with the pinion on said shaft of said operating device, stops for limiting the throw of said shift lever and a spring pressed pin arranged to seat and hold the shift lever in either of its positions.

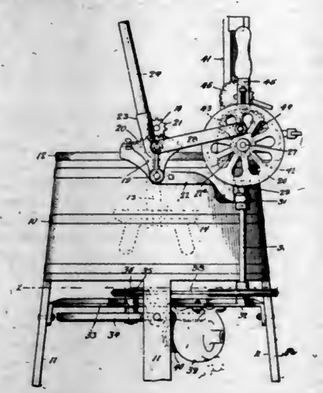
5. In gearing for laundry machinery, the combination comprising a support, a rocker member having a handle, and fulcrumed upon said support, a fly wheel and operative connections for transforming the rocking motion of said rocker member into a continuous motion of the fly wheel, said connections including speed increasing gearing, an operating device carried by said support and having a pair of rotary elements, a pinion connected with one of said rotary elements, gearing between said pinion and one element of said speed increasing gearing, including a reversing gear and a shift lever for throwing said gearing into mesh.

[Claims 6 to 14 not printed in the Gazette.]

1,025,685. GEARING FOR LAUNDRY MACHINERY. ANDREW B. CHRISTENSEN and FRANK VONDRASEK, Chicago, Ill., assignors to The Thistle Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 17, 1911. Serial No. 621,735. (Cl. 74—50.)

1. Gearing for laundry machinery, comprising in combination, a vertical, rotary reciprocal stirrer shaft, a motor driven wheel having a continuous rotary motion and arranged in a horizontal plane below said stirrer shaft, operative connections between said stirrer shaft and wheel for transforming the movement of one into that of the other, and including a vertical, rotary shaft and speed converting gearing arranged in such manner that said stirrer shaft has a slow movement as compared with the movement of said wheel.

2. Gearing for laundry machinery, comprising in combination, a vertical rotary reciprocal stirrer shaft, a wheel located below said stirrer shaft, a power driven friction wheel arranged to continuously rotate said first named wheel in one direction, and operative connections between said stirrer shaft and first named wheel for transforming the movement of one into that of the other, said connections including speed converting gearing arranged in such manner that said stirrer shaft has a slow movement as compared with that of said wheel.



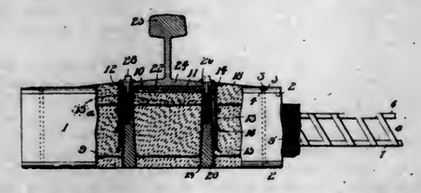
3. Gearing for laundry machinery, comprising in combination, a vertical rotary, reciprocal stirrer shaft, and a horizontal rock shaft, intermeshing gears on said shafts, a fly wheel, having a continuous rotary motion journaled underneath said stirrer shaft, and arranged to be driven by power, operative connections between said rock-shaft and fly wheel for transforming the motion of one into that of the other, including speed converting gearing arranged in such manner that the rockshaft has a slow movement as compared with the movement of the fly-wheel.

4. Gearing for laundry machinery, comprising in combination, a vertical, rotary reciprocal, stirrer shaft, a high speed motor driven wheel having a continuous rotary motion and located below said stirrer shaft, and arranged in a horizontal plane, a low speed, vertical rotary shaft driven by said wheel, and operative connections between said stirrer shaft and rotary shaft for transforming the movement of one into that of the other.

5. Gearing for laundry machinery, comprising in combination, a vertical, rotary reciprocal stirrer shaft, a motor driven wheel located below said stirrer shaft, a vertical rotary shaft driven by said wheel, and operative connections between said stirrer shaft and rotary shaft for transforming the movement of one into that of the other, said connections including speed converting gearing arranged in such manner that the stirrer shaft has a slow movement as compared with that of the rotary shaft.

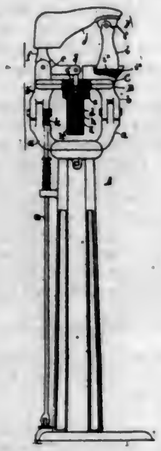
[Claims 6 to 13 not printed in the Gazette.]

1,025,686. TIE AND RAIL-FASTENER. SIMON CLARY, Carnegie, Pa., and JOHN BUTLER, Steubenville, Ohio. Filed Aug. 1, 1911. Serial No. 641,757. (Cl. 238—3.)



1. In a tie and rail fastener, a concrete body having longitudinal metallic reinforcements adapted to add rigidity to said tie, longitudinal corner pieces carried by said body, and means extending diagonally of said body for coupling said corner pieces together in pairs thereby maintaining them in position.

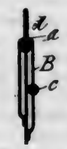
1,025,681. ADJUSTABLE SHOE-REPAIRING JACK. GEORGE T. CANTARA, Biddeford, Me. Filed June 30, 1911. Serial No. 636,188. (Cl. 12—127.)



1. In a shoe repairing jack, the combination of an upper last supporting plate having a central opening and a hollow centrally disposed hub on its under side having a screw thread on its lower end, and forming around said central opening an interior annular shoulder, a base plate having a central opening through which said hub passes to pivot said plates together, a screw threaded cylindrical casing adapted to be screwed on the lower end of said hub, a heel block pivoted on said upper plate having a horizontal arm thereon, a tension rod jointed to the end of said arm and extending through said hub and into said casing, a spring surrounding said rod and tending to pull the same downwardly and a toe rest on said upper plate.

2. In a shoe repairing jack, the combination of a head having an upper and lower plate pivoted together, a heel block and a toe rest on the upper plate, a downwardly extending hanger on each end of the lower plate, one directly beneath the heel block and one beneath the toe rest and forming an open space between them, a heel block tension device located in said open space and a stand having a pair of upwardly extending standards pivoted to said hangers.

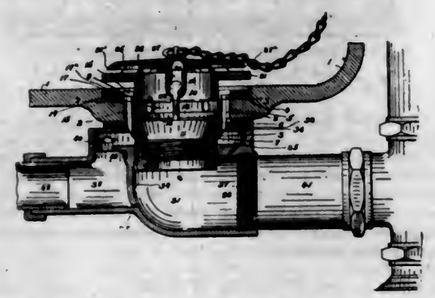
1,025,682. BUTTONHOLE ATTACHMENT. DELIA L. CARDINAL, Springfield, Mass. Filed July 1, 1911. Serial No. 636,459. (Cl. 2—41.)



1. The combination with a part of a garment having a buttonhole, of a tape having an intermediate portion thereof extending through the buttonhole and having its extremities extending beyond the buttonhole in the same direction on opposite sides of the fabric in which the buttonhole is formed and having both ends thereof permanently secured to the fabric, the intermediate portion of said tape being free and adapted to cause a distension of said buttonhole.

2. The combination with a garment having a buttonhole, of a loop of tape having the opposite extremities thereof permanently secured to opposite sides of the garment, and having an intermediate portion passed through the button-hole and a bead-like member engaged with the outwardly disposed portion of the loop.

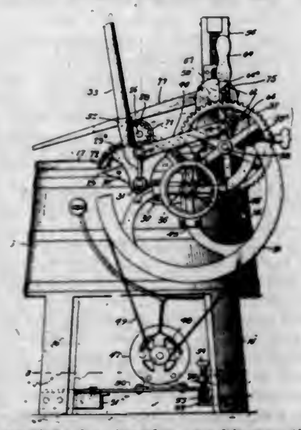
1,025,683. SUPPLY AND WASTE FOR BATH-TUBS. DENNIS C. CHARMOIS, Canton, Ohio. Filed Aug. 14, 1911. Serial No. 643,879. (Cl. 4—35.)



1. A supply and waste for a bath tub or the like including a waste pipe with a flange on its upper end and having supply apertures in its wall and flange, a loosely fitting collar adapted to move endwise in the pipe normally shielding the pipe-wall apertures with a flange on its upper end normally closing the pipe-flange apertures and having apertures with shields forming inwardly-directed supply openings above the mouth of the collar, a plug adapted to be seated in the drain pipe below the flanged collar, and a cover normally closing the mouth of the flanged collar and having an extensible connection with the plug.

2. A supply and waste for a bath tub or the like including a waste pipe having one or more supply openings in the mouth thereof, a plug adapted to be seated in the pipe below the supply openings, and a cover normally closing the mouth of the waste openings and having an extensible connection with the plug.

1,025,684. GEARING FOR LAUNDRY MACHINERY. ANDREW B. CHRISTENSEN and FRANK VONDRASEK, Chicago, Ill., assignors to The Thistle Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 17, 1911. Serial No. 621,734. (Cl. 74—50.)



1. In gearing for laundry machinery, the combination comprising a support, a rocker member fulcrumed thereon and having a handle and a gear segment, a stirrer shaft operatively connected to and driven by said gear segment, a fly wheel, operative connections between said rocker member and fly wheel, including speed converting gearing, and an operating device carried by said support and operatively connected with one element of said speed converting gearing.

2. In gearing for laundry machinery, the combination comprising a support, a rotary reciprocatory stirrer shaft journaled thereon, a rocker member having a handle whereby it may be rocked manually, said rocker member being operatively connected with the stirrer shaft so as to impart rotary reciprocatory motion thereto, a fly wheel, speed converting gearing between the rocker member and fly wheel, whereby said stirrer shaft may be manually driven from said rocker member or mechanically by power applied to the fly wheel, an operating device having rotary elements and carried by said support, gearing between said operating device and an element of the speed converting gearing, including a reversing gear, whereby the rotary elements of said device may be driven in either direction.

3. In gearing for laundry machinery, the combination comprising a support, a rotary reciprocatory stirrer shaft, a fly wheel, operative connections between the fly wheel and stirrer shaft for imparting thereto a rotary reciprocatory movement, including speed converting gearing, an operating device carried by said support and having a shaft, a pinion on said shaft, a pair of intermeshing pinions, one of which is driven by an element of said speed converting gearing, and a shift lever carrying said pair of pinions and arranged to move either thereof into mesh with the pinion on said shaft of said operating device.

4. In gearing for laundry machinery, the combination comprising a support, a rotary reciprocatory stirrer shaft, a fly wheel, operative connections between the fly wheel and stirrer shaft for imparting thereto a rotary reciprocatory movement, including speed converting gearing, an operating device carried by said support and having a shaft, a pinion on said shaft, a pair of intermeshing pinions, one of which is driven by an element of said speed converting gearing, and a shift lever carrying said pair of pinions and arranged to move either thereof into mesh with the pinion on said shaft of said operating device, stops for limiting the throw of said shift lever and a spring pressed pin arranged to seat and hold the shift lever in either of its positions.

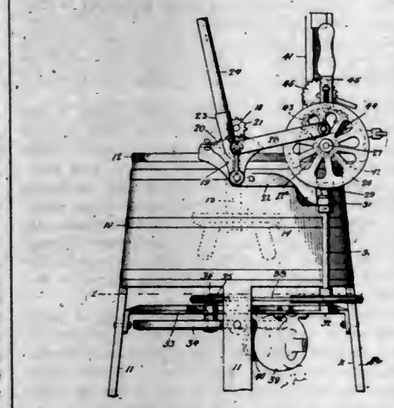
5. In gearing for laundry machinery, the combination comprising a support, a rocker member having a handle, and fulcrumed upon said support, a fly wheel and operative connections for transforming the rocking motion of said rocker member into a continuous motion of the fly wheel, said connections including speed increasing gearing, an operating device carried by said support and having a pair of rotary elements, a pinion connected with one of said rotary elements, gearing between said pinion and one element of said speed increasing gearing, including a reversing gear and a shift lever for throwing said gearing into mesh.

[Claims 6 to 14 not printed in the Gazette.]

1,025,685. GEARING FOR LAUNDRY MACHINERY. ANDREW B. CHRISTENSEN and FRANK VONDRASEK, Chicago, Ill., assignors to The Thistle Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 17, 1911. Serial No. 621,735. (Cl. 74—50.)

1. Gearing for laundry machinery, comprising in combination, a vertical, rotary reciprocal stirrer shaft, a motor driven wheel having a continuous rotary motion and arranged in a horizontal plane below said stirrer shaft, operative connections between said stirrer shaft and wheel for transforming the movement of one into that of the other, and including a vertical, rotary shaft and speed converting gearing arranged in such manner that said stirrer shaft has a slow movement as compared with the movement of said wheel.

2. Gearing for laundry machinery, comprising in combination, a vertical rotary reciprocal stirrer shaft, a wheel located below said stirrer shaft, a power driven friction wheel arranged to continuously rotate said first named wheel in one direction, and operative connections between said stirrer shaft and first named wheel for transforming the movement of one into that of the other, said connections including speed converting gearing arranged in such manner that said stirrer shaft has a slow movement as compared with that of said wheel.



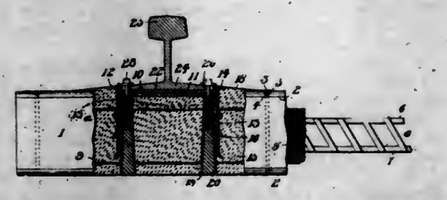
3. Gearing for laundry machinery, comprising in combination, a vertical rotary, reciprocal stirrer shaft, and a horizontal rock shaft, intermeshing gears on said shafts, a fly wheel, having a continuous rotary motion journaled underneath said stirrer shaft, and arranged to be driven by power, operative connections between said rock-shaft and fly wheel for transforming the motion of one into that of the other, including speed converting gearing arranged in such manner that the rockshaft has a slow movement as compared with the movement of the fly wheel.

4. Gearing for laundry machinery, comprising in combination, a vertical, rotary reciprocal, stirrer shaft, a high speed motor driven wheel having a continuous rotary motion and located below said stirrer shaft, and arranged in a horizontal plane, a low speed, vertical rotary shaft driven by said wheel, and operative connections between said stirrer shaft and rotary shaft, for transforming the movement of one into that of the other.

5. Gearing for laundry machinery, comprising in combination, a vertical, rotary reciprocal stirrer shaft, a motor driven wheel located below said stirrer shaft, a vertical rotary shaft driven by said wheel, and operative connections between said stirrer shaft and rotary shaft for transforming the movement of one into that of the other, said connections including speed converting gearing arranged in such manner that the stirrer shaft has a slow movement as compared with that of the rotary shaft.

[Claims 6 to 13 not printed in the Gazette.]

1,025,686. TIE AND RAIL-FASTENER. SIMON CLARY, Carnegie, Pa., and JOHN BUTLER, Steubenville, Ohio. Filed Aug. 1, 1911. Serial No. 641,757. (Cl. 238—3.)



1. In a tie and rail fastener, a concrete body having longitudinal metallic reinforcements adapted to add rigidity to said tie, longitudinal corner pieces carried by said body, and means extending diagonally of said body for coupling said corner pieces together in pairs thereby maintaining them in position.

2. In a rail fastener, the combination with rails, a concrete metallic reinforced body adapted to support said rails, of rail plates carried by said body for supporting the base flanges of said rails, vertically disposed anchoring plates engaging the rail plates to prevent longitudinal movement thereof, vertical sleeves arranged within said body, and screw bolts anchored within said sleeves and engaging the base flanges of said rails for retaining these latter upon said rail plates and further engaging with the anchoring plates to prevent longitudinal movement thereof.

3. In a rail fastener, the combination with rails, a concrete metallic body adapted to support said rails, of rail plates carried by said body for supporting the base flanges of said rails, vertical sleeves arranged within said body, screw bolts anchored within said sleeves and engaging the base flanges of said rails for retaining these latter upon said plates, said bolts further engaging said anchoring plates to prevent longitudinal movement thereof and pronged transverse anchoring plates arranged within said bolts further engaging said anchoring plates to prevent longitudinal movement thereof.

4. In a tie and rail fastener, a concrete body, a longitudinal lattice-work arranged in said body, interwoven wire arranged in said body and surrounding said lattice-work, corner pieces arranged longitudinally of said body, tie rods connecting said corner pieces, and means including screw bolts adapted to retain rails upon said tie.

5. In a tie and rail fastener, a concrete body, a longitudinally extending lattice work embedded in said body, rail plates arranged adjacent to the ends of said body and adapted to support rails, pronged anchoring plates arranged transversely of said body and bracing said rail plates, cushion plates carried by said rail plates, and means including screw bolts adapted to retain the rails upon said tie and to further prevent vertical movement of the anchoring plates.

[Claims 6 to 8 not printed in the Gazette.]

1,025,687. HEATER FOR GRAVEL, &c. ARTHUR B. COWDERY, Boston, Mass., assignor to Barrett Manufacturing Company, New York, N. Y., a Corporation of West Virginia. Filed Dec. 4, 1909. Serial No. 531,424. (Cl. 34—34.)



1. Apparatus of the class described comprising a fire box and a receptacle for material, there being flues rising through the receptacle, said flues having tops contracted into narrow and long vents, whereby escape of gases contained in the flues is retarded and entrance of material to the flues is diminished.

2. Apparatus of the class described comprising a fire-box and a receptacle for material, there being a multiplicity of flues rising through the receptacle with divisions of the receptacle intervening between them, said flues having relatively high and approximately vertical side walls combined with tops for the flues inclining from the tops of the vertical sides and covering most of a flue in a relatively short rise above the top of the sides thereof, a long vent narrower than the flue being formed between these tops.

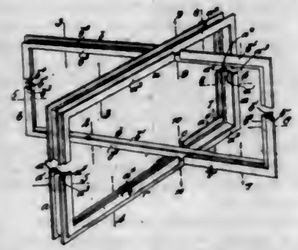
3. Apparatus of the class described comprising a fire box, a receptacle for material above it, there being flues rising from the fire box through the receptacle; the receptacle being formed into compartments between the flues having means for receiving material at the top and for discharging it at the bottom; the discharge openings from the flues being at their tops and being so small, that material deposited over them does not enter them.

4. Apparatus of the class described comprising a structure of sheet metal substantially rectangular in plan, and including a fire box underneath and a receptacle above, there being upright divisions in the receptacle, between alternate pairs of which the receptacle is bottomless, forming flues, there being bottoms, forming compartments to hold material between the other alternate pairs of divisions; the said divisions being arranged parallel with the front to rear direction of the fire-box, and said bottoms inclining upward from the front to the rear of the fire box, whereby products of combustion are distributed toward the rear of the flues and contents of the receptacle gravitate to a position ready for delivery close above the fire.

5. Apparatus of the class described comprising a structure of sheet metal substantially rectangular in plan and including a fire box and a receptacle, there being upright divisions in the receptacle forming adjacent flues and compartments; in combination with horizontal stays traversing the structure perpendicular to said divisions, and tubular spreaders arranged upon the stays between the divisions.

[Claims 6 to 8 not printed in the Gazette.]

1,025,688. MANUFACTURE OF METAL CASEMENTS. FRANCIS HENRY CRITTALL, Braintree, England. Filed June 22, 1911. Serial No. 634,764. (Cl. 20—148.)

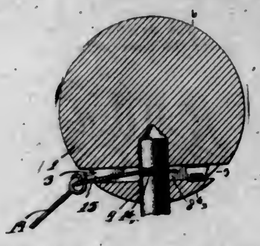


1. The process herein described of manufacturing the side bars of the fixed and pivoted members of a casement which consists in forming a bar on its longitudinal edges with parallel flanges projecting from one side of the bar and with longitudinal parallel flanges on its opposite side more widely separated than those first mentioned, cutting from the bar one of the first mentioned flanges to form the two sides of the fixed member of the casement, cutting from a similar bar both flanges on one longitudinal edge of the bar to form one side of the pivotal member of the casement and cutting from a like bar one of the flanges at one edge of the bar and an unlike flange at the opposite edge thereof to form the other side of the pivoted member of the casement.

2. The process herein described of manufacturing the top and bottom bars of the fixed and pivoted members of a casement, which consists in forming a bar on its longitudinal edges with parallel front and rear flanges projecting from one side of the bar, cutting away the front flange from one end of the bar toward the opposite end thereof and then cutting away that portion of the rear flange in rear of the remaining or standing portion of the front flange and also an additional portion thereof to produce an unflanged portion in the bar intermediate its opposite ends.

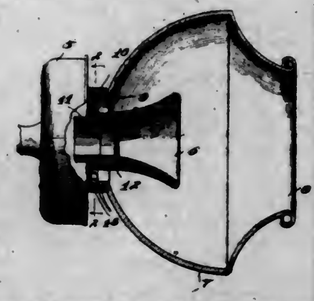
1,025,689. TOY. HENRY S. DAUPHIN, Sheldon, Vt. Filed May 16, 1911. Serial No. 627,497. (Cl. 46—32.)

A toy, comprising a handle portion having passages formed therein and extending at right angles to each other, a top having a grooved spindle engaged in one of said passages, a cord having a coil passing around the grooved portion of the spindle and having its ends extending outward through the passage at right angles to the spindle



receiving passage, and a tension device engaging one end of the cord.

1,025,690. TELEPHONE ATTACHMENT. JOSEPH L. DONAT, Chicago, Ill. Filed Feb. 11, 1911. Serial No. 607,939. (Cl. 179—188.)



1. The combination with a telephone transmitter and mouth piece therefor, said transmitter and mouth piece having the usual means of engagement therebetween of a casing open at one end adapted and arranged to surround said mouth piece, and an attaching member supporting said casing and having means of engagement appropriate to support said mouth piece within the casing and to be itself supported by said transmitter.

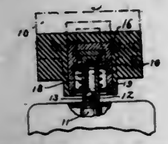
2. The combination with a telephone transmitter and mouth piece therefor adapted to be screwed to said transmitter, of a casing open at one end adapted and arranged to surround said mouth piece, and a bushing supporting said casing provided with an interior and an exterior screw-threaded portion of diameter and character of thread corresponding to the threads of said transmitter parts, respectively for engagement of the threaded portion of the mouth piece and for engagement of the threaded portion of said transmitter, to maintain said parts in position.

3. The combination with a telephone transmitter and mouth piece therefor, of a casing open at its front end adapted and arranged to surround said mouth piece, said casing having engagement means opposite its open end, a support for said casing having a conciing engaging means, and means on the transmitter and casing support for attachment of said casing in place on the transmitter, said casing support providing apertures between the transmitter and casing communicating between the mouth piece and casing with said front opening in the casing.

4. The combination with a telephone transmitter and mouth piece therefor adapted to be screwed to the transmitter, a bushing provided with an exterior screw-threaded portion for engagement with the screw-threads of said transmitter, and an interior screw-threaded portion for engagement with the threads of said mouth-piece, an extension from said bushing providing an annular cavity, a series of perforations in the outer wall of said annular cavity, casing-engaging means upon said bushing, and an enveloping sound-retaining casing supported by said casing-engaging means, and adapted and arranged to surround said mouth piece, the forward end of said casing being shaped to receive the mouth of a user.

5. In a device of the character described for use with a telephone transmitter and mouth piece therefor, said transmitter and mouth piece providing means of engagement therebetween, of an enveloping, sound-retaining casing structure providing means of engagement corresponding with the means of engagement respectively of the mouth piece and transmitter for engagement respectively with the transmitter and mouth piece to support said casing in proper position with respect to said mouth piece and transmitter.

1,025,691. SWITCH-HANDLE. CARL W. EISENMANN, Chicago, Ill., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Oct. 7, 1911. Serial No. 653,391. (Cl. 175—289.)



1. A switch handle comprising a thumb piece, means for securing the same to a switch spindle and means operative in assembled condition of the parts for rotarily adjusting said thumb piece with relation to its securing means for the purpose described.

2. A switch handle comprising a securing stem, an actuating thumb piece and a rotarily adjustable actuating connection between said stem and thumb piece operative in assembled condition of the parts.

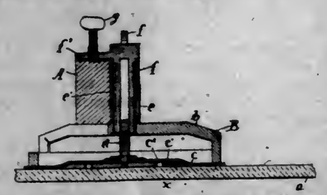
3. A switch handle comprising means for securing the same to a switch spindle, and an actuating member angularly adjustable with relation thereto during the undisturbed assembly of the handle upon the switch spindle.

4. A switch handle comprising for securing the same to a switch spindle, a thumb piece longitudinally and angularly displaceable in assembled condition with relation to said spindle and means for locking the same against angular displacement during part of its longitudinal displacement.

5. A switch handle comprising for securing the same to a switch spindle, a thumb piece longitudinally and angularly displaceable in assembled condition with relation to said spindle and means for locking the same against angular displacement during part of its longitudinal displacement, and means to hold said thumb piece in such locked position.

[Claims 6 to 11 not printed in the Gazette.]

1,025,692. DEVICE FOR HANDLING PLATE-GLASS. CYRUS H. FARLEY, Portland, Me. Filed Aug. 21, 1911. Serial No. 645,166. (Cl. 57—9.)



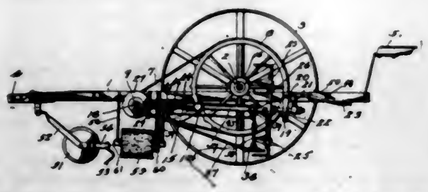
1. In a device for handling plate glass, the combination of a connecting bar, an inverted cup shaped suction head having a vertical hollow hub on its upper side, a flexible diaphragm, a screw threaded spindle connected with said diaphragm and extending upward into said hub, a thumb nut journaled in the upper end of said hub and

engaging said spindle, said thumb nut having a horizontal offset and a set screw extending through said offset and adapted to impinge on the top of said bar.

2. In a device for handling plate glass, the combination of a connecting bar, an inverted cup-shaped suction head having a vertical hollow hub on its upper side, a flexible diaphragm, a screw threaded spindle connected with said diaphragm and extending upward into said hub, a thumb nut journaled in the upper end of said hub and engaging said spindle, said thumb nut having a horizontal offset, a set screw extending through said offset and being adapted to impinge on the top of said bar, and means for securing the hub to the face of the connecting bar.

3. In a device for handling plate glass, the combination of an inverted cup-shaped suction head, a flexible diaphragm beneath said suction head and adapted to make a tight joint between the head and the glass, a supporting plate beneath said diaphragm having openings therein, a spindle and means for lifting said plate to create a vacuum beneath said diaphragm.

1,025,693. BEET-TOPPING MACHINE. CHARLES W. FRANKLIN, Leipsic, Ohio. Filed June 19, 1911. Serial No. 633,910. (Cl. 55—107.)



1. The combination in an implement as described of supporting wheels and a frame, with a roller and a rake connected at the front of the frame, a transversely rotatable brush at the rear of said rake, an adjustable supporting frame and cutting knives supported on said adjustable frame.

2. The combination in an implement as described of supporting wheels and a frame, a roller, a rake, and a transversely rotatable brush, of an adjustably supported pivoted frame, and a rotatable knife supported and actuated in said frame.

3. The combination with a frame, supporting wheels and axle, of a countershaft actuated from the axle, a frame pivoted on said countershaft and provided with a depending supporting plate, a shaft supported in the pivoted frame and driven from the countershaft, a rotary knife on said shaft, means for adjusting the height of said knife and means for adjusting the vertical position of the supporting plate with relation to said knife.

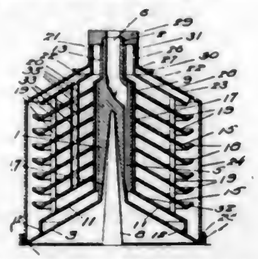
4. The combination with a frame, wheels and axle and a countershaft actuated therefrom, a frame pivoted on the countershaft and provided with a depending supporting plate, a shaft supported in the pivoted frame and carrying a rotary knife, a bearing sleeve supporting said shaft and lever mechanism for suspending said sleeve, and eccentric means for adjusting the height of the supporting plate.

5. The combination in an implement as described, of a pivoted frame, a driven shaft and a rotatable knife, with a sliding support connected to said shaft, and eccentrically operated means for adjusting the height of said support relative to the knife.

[Claim 6 not printed in the Gazette.]

1,025,694. SEPARATOR. WILLARD ALVIN FULTON, Sparta, Wis. Filed July 21, 1911. Serial No. 639,747. (Cl. 127—20.)

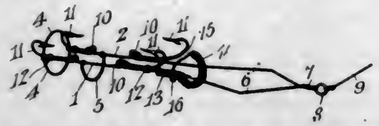
1. A separator, comprising a support, a base member rotatably mounted on the support and having a threaded upper end, said member having a central passage formed through said threaded upper end and having longitudinally extending grooves formed therein in communication with the passage, an inclosing sleeve loosely mounted on the base member and closing the upper ends of said grooves, separating disks mounted on the sleeve, an inclosing casing for the device, and a sleeve secured on the threaded end of the base member.



2. In a separator, the combination with a basal member having a threaded upper end and having a passage formed through said upper end and terminating in grooves formed in the base member, of an inclosing sleeve and a casing having reduced necks fitting around the base member said inclosing sleeve inclosing the upper ends of the grooves and a sleeve formed with internal threads for engagement on the threaded portion of the basal member, said sleeve bears against the necks of the inclosing sleeve and casing to secure said parts in position.

3. A separator, including a base section, a sleeve surrounding the base and spaced therefrom, means for introducing full milk into said space, separator disks carried by the sleeve, said sleeve and disks having apertures formed therein for the passage of the milk, apertures in disks being spanned by lips, a cover section mounted on the sleeve above the disks, and an inclosing casing, said cover section and casing having an aperture formed at the upper portion thereof for the exit of cream and the casing having apertures formed therein for the exit of milk from the space between the cover section and casing.

1,025,695. LIVE-BAIT HOLDER. ADELBERT R. GIBSON, Los Angeles, Cal. Filed Aug. 25, 1911. Serial No. 646,060. (Cl. 43—7.)



1. A bait holding device or harness comprising side members adapted to lie along the opposite sides of the body of a fish, a closed ring adapted for the passage of the head of a fish therethrough and having the side members secured thereto, a yoke connecting the side members and adapted to underride the body of the fish at an intermediate point, and a separable loop adapted to encircle the body of a fish near the tail thereof when in the harness and also to inclose the side members, the latter being provided with elongations first diverging and then converging, and finally united and formed into a loop for the attachment of a fishing line, the side members carrying fish hooks.

2. A bait holding device or harness comprising side members adapted to lie along the opposite sides of the body of a fish, a closed ring adapted for the passage of the head of a fish therethrough and having the side members secured thereto, a yoke connecting the side members and adapted to underride the body of the fish at an intermediate point, a separable loop adapted to encircle the body of a fish near the tail thereof when in the harness and also to inclose the side members, the latter being provided with elongations first diverging and then converging and finally united and formed into a loop for the attachment of a fishing line, the side members being formed at spaced points with loops, and fish hooks having their pointed ends free and their other ends engaged in the respective loops on the side members and also secured to said side members adjacent the pointed ends.

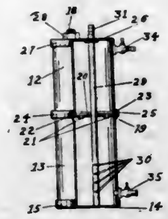
3. A bait holder or harness having a loop member and a supporting and locking member therein in the form of a coil to which one end of the loop member is secured and along which it may be adjusted lengthwise of the harness, said loop member having a free end adapted to lock in the coil in any position of adjustment therealong.

4. A bait holding device or harness comprising side members adapted to lie along opposite sides of the body of a fish, fish embracing members through respective ones of which the head and tail portions of the fish may project, the side and embracing members being related to leave the head of the fish entirely free and the tail and other swimming members also entirely free, the side members being continued in spaced relation one to the other for the accommodation of the tail and beyond the tail arranged for the attachment of a fish line thereto, the bait holder carrying fish hooks.

5. A bait holding device or harness comprising side members adapted to lie along opposite sides of the body of a fish, fish embracing members through respective ones of which the head and tail portions of the fish may project, the side and embracing members being related to leave the head of the fish entirely free and the tail and other swimming members also entirely free, the side members being continued in spaced relation one to the other for the accommodation of the tail and beyond the tail arranged for the attachment of a fish line thereto, and the bait holder being provided with oppositely directed fish hooks back of the head portion of a fish when in the bait holder and in front of the tail portion of a fish when in the bait holder, said fish hooks being out of piercing relation to the body of the fish.

[Claims 6 and 7 not printed in the Gazette.]

1,025,696. GAS-SEPARATOR. WILLIAM F. GREEN, Modesto, Cal. Filed Dec. 9, 1911. Serial No. 664,717. (Cl. 48—140.)



1. A device of the character described comprising upper and lower chambers, the upper portion of said lower chamber being flared outwardly to form a seat, a perforated plate resting upon said seat, the edge portions of said lower chamber being clamped down upon said plate, an inlet pipe passing through said upper chamber into said lower chamber and having its inner end provided with outlet openings, a gas outlet connected with the upper portion of said upper chamber, and a water outlet connected with the lower chamber.

2. A device of the character described comprising an upper and lower chambers, the lower portion of said upper chamber being flared outwardly and inclosing the upper portion of said lower chamber, the flared outer portion of said upper chamber being formed into an external ledge, means for clamping said sections together, a perforated plate between said chambers, an inlet pipe passing through said upper chamber into said lower chamber, and draw-off means connected with said upper and lower chambers.

1,025,697. SECTION FOR BOILERS AND OTHER CONTAINERS. GEORGE R. HENDERSON, Philadelphia, Pa., assignor to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 21, 1911. Serial No. 655,870. (Cl. 122—368.)



1. A channel section for boiler and other containers subjected to internal pressures, said section having a web and flanges projecting from one side thereof; the web being thicker at the center than at the edges and the flanges being thicker than the web adjacent thereto.

2. A section for a steam boiler or other container subjected to internal pressures, said section having a web and flanges projecting from one side thereof; said section being curved longitudinally, the web in cross section having its inner surface straight and its outer surface curved, the flanges and the central portion of the web being thicker than the web adjacent the flanges.

3. A section for a boiler or other container subjected to internal pressures, having a web and flanges, said section being curved longitudinally, the inner surface of the web of said section being straight and the outer surface being curved, the outer surface of each flange being at right angles with the straight surface of the web, the web near each end having a section thinner than the body of the web.

4. A boiler having an outer shell composed of a series of channel sections curved longitudinally, the flange of each section being secured to a stay plate, the inner surface of the web of each channel section being straight, the outer surface of the web being convexly curved, and the flanges of the channel sections being thicker than the web adjacent to said flanges.

5. As a new article of manufacture, a rolled channel section for boilers and other containers, having a web, and flanges projecting from the web at one side, the web being thicker at the middle than at the edges and the flanges being thicker than the thinnest portion of the web, the flanged side of the web being curved transversely, the other side being straight, and the outer surfaces of the flanges being straight and at right angles to the straight surface of the web.

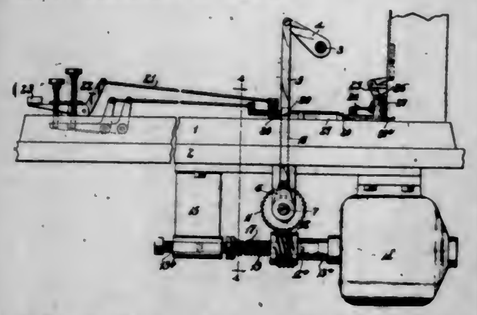
[Claim 6 not printed in the Gazette.]

1,025,698. MOTOR-DRIVE FOR CALCULATING-MACHINES. HUBERT HOPKINS, St. Louis, Mo., assignor to The Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 14, 1907. Serial No. 357,358. (Cl. 235—62.)

1. In a calculating machine, the combination with a key board composed of result keys, adding keys and multiplier keys, a motor, a driving shaft, a key for connecting said motor with the driving shaft of said calculating machine to effect a single operation, and means common to all of the multiplier keys for connecting the motor with said driving shaft and effecting two operations; substantially as described.

2. In a calculating machine, the combination with a key board composed of result keys, adding keys and multiplier keys, of stops which are positioned by said adding keys, a traveling carriage in which said stops are arranged, registering and recording devices, a driving shaft for operating said registering and recording devices after said stops are positioned, a motor, a key for connecting said motor to operate said driving shaft, and means common to all of the multiplier keys for connecting the motor with said driving shaft; substantially as described.

3. In a calculating machine, the combination with a key board containing a motor key and digit keys, a driving shaft for said calculating machine, a motor, means operated by said motor key for connecting the motor with said driving shaft to effect one operation thereof, and means operated by said digit keys for connecting the motor with said driving shaft and effecting two operations thereof; substantially as described.

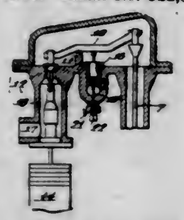


4. The combination of a calculating machine having calculating mechanism and nine numeral multiplier keys, multiplying mechanism, a motor, and means whereby upon the depression of any one of said nine numeral multiplier keys said motor will effectively drive said calculating mechanism two complete operations to effect multiplication; substantially as described.

5. The combination of a calculating machine containing multiplying devices and a motor, a key-board composed of result keys and adding keys, the driving shaft of said calculating machine being capable of operation independently of said result and adding keys, an independently operable key for connecting said motor with the driving shaft of said calculating machine to effect a single operation, and multiplier keys which, when depressed, will connect said motor to effect two complete operations thereof; substantially as described.

[Claims 6 to 41 not printed in the Gazette.]

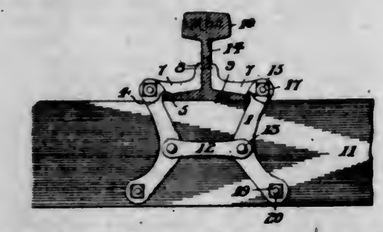
1,025,699. APPARATUS FOR RAISING LIQUIDS BY COMPRESSED AIR. PAUL KESTNER, Lille, France. Filed Oct. 15, 1909. Serial No. 522,810. (Cl. 103—8.)



1. In pulsation apparatus for raising liquids, of that type in which a body immersed in the liquid in the pulsation chamber is balanced exteriorly by a counterweight, the said liquid being forced out of the chamber by compressed air, the combination of a valve structure comprising an inlet valve, an exhaust valve, a fulcrumed lever which acts upon said valves on both sides of its support, a casing in free communication with the pulsation chamber in which said valve structure is completely inclosed, means for actuating said lever, and means for adjusting the length of the stem of the inlet valve to vary the movement of said valve.

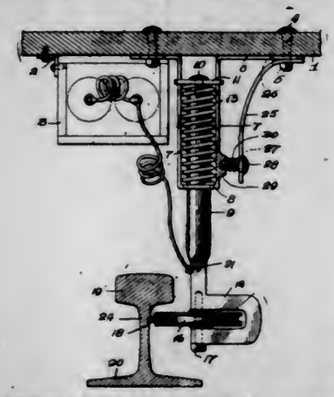
2. The combination in a pulsation apparatus, of a valve structure comprising inlet and outlet valves, a lever for operating the same, and means for actuating the lever, of a device for enabling the stroke of the valves to be regulated according to the output of the apparatus, the said regulating device being adapted to be operated from the outside.

1,025,700. RAIL-FASTENER. ALOJS HVIZDOS, Morrisdale Mines, Pa. Filed Oct. 14, 1911. Serial No. 654,581. (Cl. 238—4.)



In a rail fastener, the combination with a tie, and a rail mounted thereon, of sets of curved arms arranged at the sides of said tie, links having the ends thereof pivotally connected to the arms of each set, lips carried by the upper ends of said arms and engaging the base flanges of said rail, angular extensions formed integral with the upper ends of said arms and extending over the base flanges of said rail and bracing the web thereof, tie rods connecting the upper ends of one set of arms with the upper ends of the other set of arms, and tie rods extending through said tie and connecting the lower ends of one set of arms to the lower ends of the other set of arms.

1,025,701. TELEPHONE AND TELEGRAPH CONTACT FOR MOVABLE BODIES. HENRY F. KUNICKI and MICHAEL SWIECICKI, Philadelphia, Pa. Filed Nov. 25, 1911. Serial No. 662,327. (Cl. 191—32.)



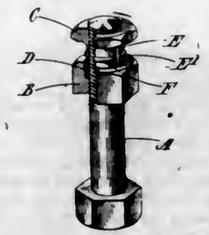
1. A contact of the type described comprising a shiftable yoke, a spring supported stem movably mounted in said yoke, a bearing carried by the lower end of said stem, a horizontal circumferentially grooved wheel journaled in said bearing and adapted to engage an electric conductor, and a flat spring associated with said yoke and adapted to normally maintain said wheel in engagement with the electric conductor.

2. In a contact, an electric conductor, a shiftable yoke, a movable stem arranged in said yoke, a bearing carried by the lower end of said stem, a horizontal wheel journaled in said bearing and engaging said electric conductor, and a flat spring associated with said yoke and adapted to normally retain said wheel in engagement with said electric conductor.

3. In a contact, the combination with a vehicle body, an electric conductor, of a yoke movably supported by said vehicle body, a stem movably mounted in said yoke, a horizontal wheel revolubly supported at the lower end of said stem and adapted to engage said conductor, and means carried by said body and engaging one side of said yoke for normally holding said wheel in engagement with said electric conductor.

4. In a contact, the combination with a vehicle body, an electric conductor, of a yoke movably supported by the under side of said vehicle body, a spring supported stem arranged in said yoke, a guide head carried by the upper end of said stem, a bearing carried by the lower end thereof, a horizontal wheel journaled in said bearing and engaging said electric conductor, and springs arranged at one side of said yoke and adapted to normally retain said wheel in engagement with said electrical conductor and a wire having its lower end connected to the lower end of said stem to establish a circuit with said electrical conductor.

1,025,702. LOCK-NUT. JOHN LEWIS LARRAD, Bexhill, England. Filed Dec. 31, 1910. Serial No. 600,288. (Cl. 151—19.)



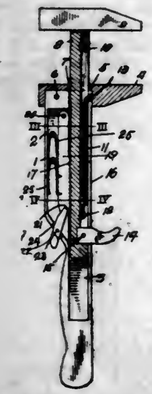
1. A nut lock comprising a nut having a recess, a lock nut having a split sleeve extension, and a rib on said extension adapted to engage the wall of the recess between the ends of said recess one of said parts having a longitudinal taper to effect the compression of the sleeve when screwed into the recess of the nut; substantially as described.

2. A nut lock comprising a nut having a recess, a lock nut having a split sleeve extension, and a rib projecting from the wall of said recess to engage the extension between the end of said extension and its junction with the lock nut, one of said parts having a longitudinal taper to effect the compression of the sleeve when screwed into the recess of the nut; substantially as described.

3. A nut lock comprising a threaded nut, a screw arranged to receive said nut, said nut having a tapered recess in its outer face, a lock nut having a split sleeve extension arranged to enter said recess, and a rib on said extension arranged to engage the tapered wall of the recess, the frictional engagement between the rib and the wall of the recess being less than the frictional engagement between the lock nut and the screw; substantially as described.

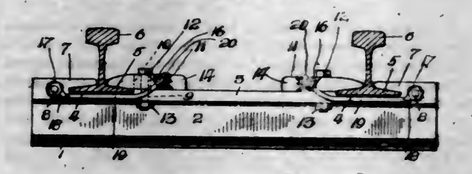
1,025,703. WRENCH. WILLIAM MACKIE, Sidney Mines, Cape Breton, Nova Scotia, Canada. Filed Dec. 9, 1911. Serial No. 664,848. (Cl. 81—135.)

A wrench embodying handle sections secured together and having the confronting sides thereof provided with confronting grooves and confronting recesses, a jaw mounted upon the outer ends of said handle sections and having an opening formed therein alining with the confronting grooves of said handle sections, a shank slidably mounted in said handle sections and having the rear sides thereof toothed, the front side of said shank having a longitudinal groove formed therein, a jaw carried by the outer ends of said shank, a handle carried by the inner ends thereof and protruding from the front sides of said handle sections, a coiled retractile spring located within the groove of said shank and having one end thereof connected to said shank, and the opposite end thereof connected to the jaw of the handle sections, a pivoted locking member arranged in the recesses of said handle sections and normally engaging said shank and a releasing member pivotally mounted between said handle sections



and engaging the inner ends of said locking member for shifting said member out of engagement with said shank.

1,025,704. METALLIC TIE AND RAIL-FASTENER. CHARLES MALÝ, Braceville, Ill. Filed Feb. 23, 1912. Serial No. 679,239. (Cl. 238—5.)



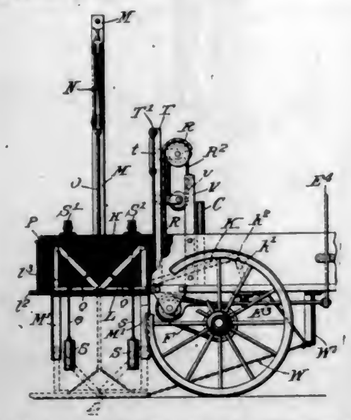
1. In a metallic tie and rail fastener, the combination with rails, and a tie of the I-beam construction having the ends thereof provided with seats adapted to support said rails, of integral outer rail fasteners at the ends of said tie and engaging the outer base flanges of said rails, bolts arranged transversely of said outer rail fasteners, inner rail fasteners positioned upon said tie and engaging the inner base flanges of said rails, straps carried by the sides of said inner fasteners, tie rods held by said bolts and extending under said rails and through said straps, nuts screwed upon said tie rods for clamping said inner fasteners in engagement with said rails, and means extending through said inner fasteners and adapted to hold said inner fasteners relatively to the top of said tie after having been adjusted by said tie rods.

2. In a metallic tie and rail fastener, the combination with rails, a tie of the I-beam construction adapted to support said rails, and outer rail fasteners formed integral with the ends of said tie and adapted to engage the outer base flanges of said rails, of inner rail fasteners arranged upon said tie and engaging the inner base flanges of said rails, straps carried by the sides of said inner rail fasteners, tie rods having the ends thereof secured to the sides of said outer rail fasteners and extending through said straps, nuts screwed upon said tie rods for moving said inner rail fasteners into engagement with said rails, bolts extending through said inner rail fasteners and the head of said tie, and nuts screwed upon said bolts for locking said inner rail fasteners relatively to said tie.

1,025,705. MACHINE FOR MAKING SHOCKS. GEORGE MARSHALL, Fremont, Nebr. Filed Nov. 21, 1911. Serial No. 661,575. (Cl. 56—122.)

1. A machine for forming shocks, comprising a wagon body carrying means for compressing sheaves and forming them into a shock, a vertically movable shock-lowering frame at the rear of the wagon, comprising outer frame bars, interposed shock-supporting rods and vertical bars

at each corner of the frame, vertical guides depending from the wagon body in which said vertical bars move, a frame rising from the wagon body above the shock-lowering frame, block-and-tackle mechanism carried by said last mentioned frame and connected with the shock-lowering frame for raising and lowering the latter, means for counterbalancing the weight of the shock-lowering frame and draft connections between the shock-lowering frame and the wagon body.



2. A machine for forming shocks, comprising a wagon body, vertical posts rising from the wagon body between which the sheaves are arranged to form the shock, an apron arranged in rear of the posts, means for raising and lowering the apron, a platform between the posts on which the butt ends of the sheaves are arranged to lie while the shock is being formed, means for adjusting the inclination of the platform, and a compressing rope passing around the platform.

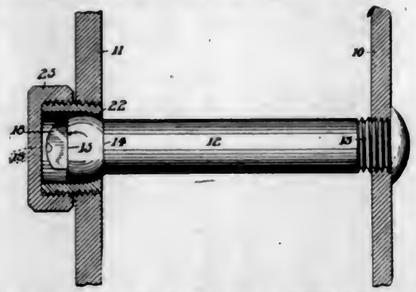
3. A machine for forming shocks, comprising a wagon body, a compressing rope at the tail end of the wagon body, means for operating the compressing rope, a vertically arranged apron at the rear end of the wagon against which the butt ends of the sheaves rest during the formation of the shock and which rises above the top of the sides of the wagon, and means for raising and lowering this apron.

4. A machine for forming shocks, comprising a wagon body, means at the tail end of the wagon body for compressing sheaves and forming them into a shock, an apron at the rear end of the wagon against which the butt ends of the sheaves rest during the formation of the shock, a vertically arranged frame supporting said apron and which rises above the top of the sides of the wagon, and means for giving to said frame an inclination relatively to the wagon body either forward or rearward, for the purpose specified.

5. A machine for forming shocks, comprising a wagon body, posts rising vertically from the wagon body between which the sheaves are laid to form a shock, a platform between the posts on which the butt ends of the sheaves are arranged to lie while the shock is being formed, means for adjusting the inclination of the platform, a compressing rope extending around the platform, an apron at the rear end of the wagon in rear of said platform against which the butt ends of the sheaves rest during the formation of the shock, a vertically arranged frame supporting said apron and means for giving to said frame an inclination either forward or rearward for the purpose specified.

1,025,706. STAY-BOLT CONSTRUCTION FOR STEAM-BOILERS. JOHN H. MCCLOY, Gradatim, and ALEXANDER M. BROWN, Oakmont, Pa. Filed Sept. 18, 1911. Serial No. 649,813. (Cl. 85—1.5.)

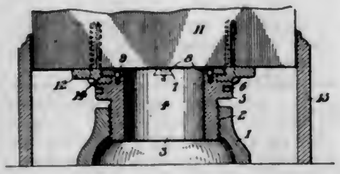
1. In combination, a stay-bolt, a socket-sleeve, and a cap, said bolt having a head integral therewith and formed spherical between two parallel planes intersecting the bolt axis at right angles, said sleeve having a seat extending to the inner end of the sleeve and formed complemental to the spherical portion of the head, the inner plane of the spherical portion being beyond the sleeve end to provide an exposed projecting portion of the spherical head when assembled, the relative arrangement of head and sleeve seat forming a joint free from cavities at the inner end of the sleeve, said cap being threaded to said sleeve.



2. In combination, a stay-bolt, a socket-sleeve, and a cap, said bolt having a head integral therewith and formed spherical between two parallel planes intersecting the bolt axis at right angles, said sleeve having a seat extending to the inner end of the sleeve and formed complemental to the spherical portion of the head, the inner plane of the spherical portion being beyond the sleeve end to provide an exposed projecting portion of the spherical head when assembled, the relative arrangement of head and sleeve seat forming a joint free from cavities at the inner end of the sleeve, said cap being threaded to said sleeve, said bolt head having its outer end beyond the outer plane of the spherical portion reduced to form a wrench-hold.

3. In combination, a stay-bolt, a socket-sleeve, and a cap, said bolt having a head integral therewith and formed spherical between two parallel planes intersecting the bolt axis at right angles, said sleeve having a seat extending to the inner end of the sleeve and formed complemental to the spherical portion of the head, the inner plane of the spherical portion being beyond the sleeve end to provide an exposed projecting portion of the spherical head when assembled, the relative arrangement of head and sleeve seat forming a joint free from cavities at the inner end of the sleeve, said cap being threaded to said sleeve, said bolt head having its outer end beyond the outer plane of the spherical portion reduced to form a wrench- hold, said cap having a removable plug opposite the wrench-hold to permit access to the bolt head.

1,025,707. LEVELING DEVICE FOR BILLIARD AND POOL TABLES. JOSEPH F. MEYER and GASTAVE LEPPENAT, Pittsburgh, Pa. Filed Feb. 3, 1912. Serial No. 675,283. (Cl. 46—13.)

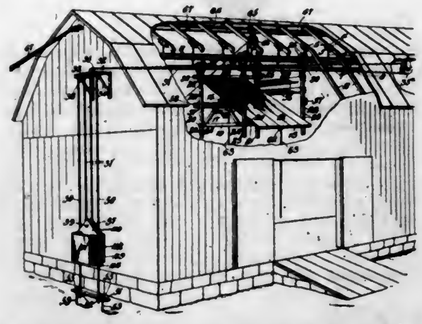


1. The combination with a table leg, of a plate secured to the bottom thereof and provided with an off-set annular flange, an adjustable member having the upper end thereof extending into said plate, dove-tailed arms mounted in the upper ends of said member and extending on to the flange of said plate, a collar carried by said adjustable member and engaging the flange of said plate, and a socket member adjustably supporting the lower end of said adjustable member.

2. The combination with a table leg, of a plate secured to the bottom thereof and provided with an offset annular flange, an adjustable member having the upper end thereof extending into said plate, dove-tailed arms mounted in the upper ends of said member and extending on to the flange of said plate, a collar carried by said adjustable member and engaging the flange of said plate, a socket member adjustably supporting the lower end of said adjustable member, and a shield movably mounted upon the lower end of said leg and inclosing the foot of said leg.

3. A leveling attachment for tables comprising a socket member, an adjustable member screwed into said socket member, a collar carried thereby, dove-tailed radially disposed arms carried by the upper end of said adjustable member, and a plate having an annular flange movable between said arms and said collar and adapted to be secured to a table leg.

1,025,708. HAY-DISTRIBUTER. NICHOLAS C. MILLER, Dodgeville, Wis. Filed Dec. 21, 1910. Serial No. 598,652. (Cl. 214—2.)



1. In an apparatus for the purpose described, a suitable track, a carrier mounted thereon for movement therealong, a tiltable platform on the carrier, a flexible strand connected to the carrier, a weight connected to the flexible strand and tending to move the carrier toward either limit of its travel, guides for the weight, and adjustable means for the guides for maintaining them in a taut condition.

2. In an apparatus for the purpose described, a suitable housing, a track mounted therein, a carrier movable along the track, a tiltable platform on the carrier, a flexible strand connected to the carrier, a weight connected to the strand and comprising a box having spaced plates at one end, a cross piece at the other end, a connecting rod between the plates and the cross piece for clamping the members together, and a pulley between the plates, the flexible strand being passed around said pulley, a support secured to the housing and receiving the end of the strand remote from the carrier, a direction changing pulley on the support, guide rods each fast at one end to the support, and a tension producing anchorage for the other ends of the guide rods, the box being provided with guides traversed by the said guide rods.

3. In an apparatus for the purpose described, a track, a tiltable platform, and a carrier therefor in pendent relation to the track, the tiltable platform being supported by the carrier in adjustable relation thereto for movement toward and from the track.

4. In an apparatus for the purpose described, a track, a carrier movable along the track, and in pendent relation thereto and including a member adjustable to and from the track, and a platform mounted on the adjustable member and tiltable thereon about an axis intermediate of the platform.

5. In an apparatus for the purpose described, a suitable track, a carrier comprising a plurality of rods each provided with a trolley support adapted to the track and from which the rod depends, a frame connecting the ends of the rods remote from the trolleys and wholly supported by said rods, and a tiltable platform mounted on said frame.

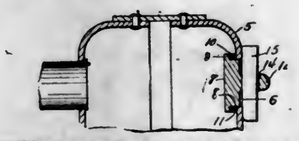
[Claims 6 to 14 not printed in the Gazette.]

1,025,709. WRENCH. RAYMOND E. MILLER, New Brighton, Pa. Filed Jan. 9, 1912. Serial No. 670,183. (Cl. 81—133.)



In a wrench, the combination with a shank having a rack, and a fixed jaw carried by one end thereof, of an adjustable jaw body slidably mounted upon said shank and having a detachable face plate, said jaw body having recesses formed therein in communication with a longitudinal groove in said jaw body, small pinions revolubly mounted in the recesses of said jaw body and meshing with the rack of said shank, a large pinion revolubly mounted in the groove of said jaw body and meshing with said small pinions, and pivoted spring pressed locking members arranged within the groove of said jaw body and engaging said large pinion for locking said pinion against rotation in either direction.

1,025,710. HAND-HOLE PLATE. WILLIAM C. MORRISON, Pittsburgh, Pa., assignor of one-half to William Richardson, St. Louis, Mo. Filed Aug. 5, 1910. Serial No. 575,643. (Cl. 220—124.)

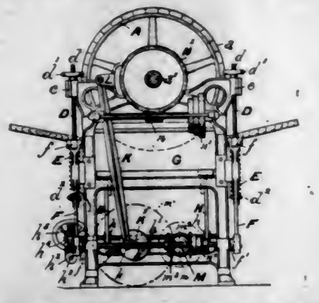


The combination with a boiler having a hand-hole, of a hand-hole cover comprising a member having its body-portion substantially solid and of a peripheral configuration approximating that of the hand-hole, said body-portion having its rear or inner portion formed with a peripheral flange projecting outwardly, the inner faces of the flange and body-portion having substantially co-incident planes, the distance between the forward faces of the flange and body-portion being greater than the thickness of the boiler plate, said body-portion also having an integral forwardly-projecting fastening member slotted diametrically intermediate its ends, yieldable means carried by the body-portion in advance of the flange for decreasing the distance between the flange and body-portion faces and acting as a packing for the cover, and a key insertible in the slot of the fastening member for securing the cover in position.

1,025,711. MACHINE FOR PLANKING FELT HAT-BODIES. PIETRO NEBBIA, Milan, Italy. Filed May 17, 1909. Serial No. 496,578. (Cl. 38—8.)

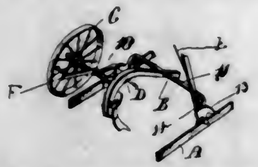
1. In a machine of the kind described, a frame, depending suspending rods arranged at the corners of the frame, a bed arranged within the frame and yieldingly supported upon the depending suspending rods, said suspending rods being loosely supported at their upper ends whereby said bed can have a limited movement in all directions, a cylinder mounted in the frame above the bed and means

for rotating said cylinder first in one direction and then in the reverse direction, the reverse movement being less than the first mentioned movement of said cylinder, together with means for simultaneously reciprocating the bed, the line of reciprocation of the bed being parallel to the axis of the cylinder.



2. In a machine of the kind described, a frame, depending suspending rods arranged at each corner of said frame, said rods being loosely mounted at their upper ends and capable of adjustment, a bed arranged within the frame, said bed being yieldingly supported at its corners and upon the depending suspending rods, a cylinder mounted within the frame above the bed and in close proximity thereto, means for rotating said cylinder alternately in opposite directions, the first movement of said cylinder being greater than the reverse movement whereby a complete rotation is ultimately accomplished, means for reciprocating said spring supported bed simultaneously with the oscillating movement of the cylinder, the line of reciprocation of said bed being parallel to the axis of the cylinder.

1,025,712. GANG AND SULKY RIDING-PLOW. IRVING CLEMENT NELSON, Winnipeg, Manitoba, Canada. Filed Nov. 5, 1910. Serial No. 590,012. (Cl. 97—36.)



1. A plow of the character described having a plow beam, a land wheel, engaging means for throwing said land wheel forwardly, said plow beam being adapted to come into engagement with and to actuate said engaging means during the upward movement of said plow beam to throw said land wheel forwardly.

2. A plow of the character described comprising a frame, a plow beam mounted thereon, a land wheel axle journaled in the frame, said plow beam being adapted to come into engagement with said axle during the upward movement of said beam.

3. A plow of the character described comprising a frame having parallel side members, an axle journaled in the frame formed with a central crank and a side crank, a land wheel mounted on the side crank, and a plow beam or beams adapted in its upward movement to come into engagement with the central crank to throw the land wheel forwardly.

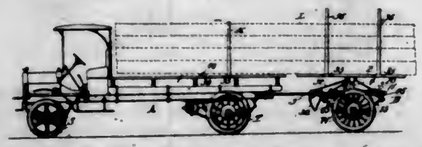
1,025,713. CALL-BOX. JAMES G. NOLAN, Chicago, Ill., assignor, by direct and mesne assignments, of one-half to Frank B. Cook, Chicago, Ill., and one-half to Automatic Fire Protection Company, a Corporation of Maine. Filed Nov. 26, 1902. Serial No. 132,857. (Cl. 178—100.)

A device for the purpose described, comprising a casing, signaling means, a spring motor, a rotarily movable handle for winding the motor, a stud upon the casing at a distance from the said handle when the latter is in wound position, a fusible link, and connecting wires, one detachably fastened around the stud, and detachably connected with the fusible link, and the other detachably connected to the link at its opposite end and adapted to be hooked



over the rotarily movable handle when it is in wound position, whereby to maintain the handle in wound position, and when the link is fused to release the handle for operation of the spring motor of the signaling means to transmit a signal over the line.

1,025,714. ART OF TRACTION-VEHICLES. WILLIAM E. PAINE, New York, N. Y. Filed Feb. 9, 1912. Serial No. 676,589. (Cl. 21—33.)



1. The described method of loading and transporting heavy loads upon wheeled vehicles having a plurality of wheels, consisting in locating the center of gravity of the load in front of the rear axle and at a point dependent upon the grade to be traversed, and applying the power under the load and at such point in front of the center of gravity thereof as will offer the least resistance thereto; and also causing the applied power to automatically shift the load for all changes of direction so that its axis assumes a direction of movement in the plane of the direction of the applied power.

2. A motor vehicle embracing a plurality of wheels and a source of propelling power carried thereby; in combination with a trailer embracing one or more wheels and rotatable means carried thereby for supporting the major portion of the load; together with lateral shifting means carried by the vehicle for supporting the minor portion of the load, the arrangement being such that the load automatically shifts itself to correspond with the direction of motion of the vehicle, substantially as described.

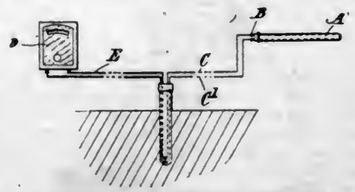
3. A motor vehicle having a plurality of wheels; a trailer, the wheels of which are adapted to assume an angular position in either direction to correspond with the angular position of the steering wheel or wheels, said trailer having a bolster adapted to support the major portion of the load at a point in front of its axle; in combination with means carried by the vehicle for supporting the minor portion of the load and at a point in front of the axle of the traction wheels; a source of power also carried by the vehicle and applied to the traction wheels at a point beneath the load and means for shifting the same laterally, substantially as described.

4. A motor vehicle having a plurality of wheels, part of which carry a major portion of the load, while the traction wheels carry the minor portion thereof; together with means for regulating the distance between said wheels in accordance with the length of the load, substantially as described.

5. A motor vehicle having a plurality of wheels, part of which carry a major portion of the load, while the traction wheels carry the minor portion thereof; together with means for regulating the distance between said wheels in accordance with the length of the load; and means located in front of the traction wheels for permitting the load to shift in accordance with the angular direction in which it may at any time be moving, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,025,715. THERMO-ELECTRIC PYROMETER. WILFRID STEVENSON PEAKE, Cambridge, England, assignor to Taylor Instrument Companies, Rochester, N. Y. Filed Nov. 13, 1909. Serial No. 527,951. (Cl. 73—32.)



1. In a thermo-electric pyrometer comprising a thermo-couple and a current indicating or measuring device, leads connected to the thermo-couple and forming a portion at least of the connection between the thermo-couple and the said current indicating or measuring device, said leads being composed of materials dissimilar to the materials forming the thermo-couple, one of said leads being composed of a base metal and the other of a low resistance alloy and so arranged as to act as a compensator for the variations of temperature at their junction with the thermo-couple; substantially as described.

2. In a thermo-electric pyrometer comprising a thermo-couple and a current indicating or measuring device, leads connected to the thermo-couple and forming a portion at least of the connection between the thermo-couple and said current indicating or measuring device, said leads being composed of materials dissimilar to the materials forming the thermo-couple, one of said leads being composed of copper and the other of a low resistance alloy and so arranged as to act as a compensator for the variations of temperature at their junction with the thermo-couple; substantially as described.

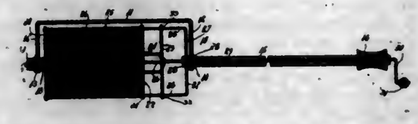
3. In a thermo-electric pyrometer comprising a thermo-couple and a current indicating or measuring device, leads connected to the thermo-couple and forming a portion at least of the connection between the thermo-couple and said current indicating or measuring device, said leads being composed of materials dissimilar to the materials forming the thermo-couple, one of said leads being composed of copper and the other of an alloy consisting of copper from 99.9% to 95% and nickel from 0.1% to 5%, substantially as described.

4. In a thermo-electric pyrometer comprising a thermo-couple of rare or noble metals and a current indicating or measuring device, leads connected to the thermo-couple and forming a portion at least of the connections between the thermo-couple and said current indicating or measuring device, one of said leads being composed of copper and the other of an alloy consisting of copper from 99.9% to 95%, and nickel from 0.1% to 5%.

1,025,716. POPCORN-POPPER. ELBERT W. PENDERGRAFT, Seligman, Mo. Filed Aug. 31, 1911. Serial No. 647,078. (Cl. 53—4.)

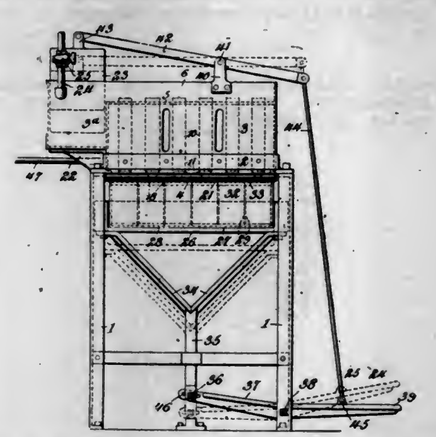
1. The combination in a pop corn popper such as described, of a frame, a receptacle rotatable therein, a handle extending from the frame, a shaft rotatable and slidable through said handle, a closure for the receptacle secured to the shaft and operated thereby and guides formed upon the receptacle for engagement with the closure.

2. The combination in a pop corn popper such as described, of a U-shaped frame, a pin extending from one leg of the U-shaped frame, a tubular handle extending from the opposite leg of the U-shaped frame, a shaft rotatable in said tubular handle, a receptacle carried by the tubular handle and supported by the pin, and a closure for the said receptacle slidable upon the shaft.



3. The combination in a pope corn popper, of a U-shaped frame, a pin secured to one leg of the U-shaped frame and extending inwardly therefrom, a tubular handle secured to the opposite leg of the U-shaped frame and extending outwardly therefrom, a shaft rotatably mounted and longitudinally movable within the tubular handle, a receptacle closed at one end and secured to the said pin, guides extending from the receptacle and secured to the tubular handle, a closure secured to the shaft, eyes formed upon the closure and slidably engaging the guides and clips carried by the closure for engaging the receptacle and preventing the displacement of the closure therefrom.

1,025,717. CAN-FILLING APPARATUS. WALTER J. PHELPS, Baltimore, Md., assignor of one-half to Frank Gebbie, Rochester, N. Y. Filed Aug. 18, 1910. Serial No. 577,735. (Cl. 226—17.)



1. An apparatus for filling liquid into cans each having a filling opening in one end and another opening in the same end spaced from the filling opening comprising a closure for the cans having means for sealing the closure against the entrance of air, an air exhaust conduit communicating with said closure, and liquid supply means having can engaging members individual to the cans for directing liquid thereto, said can engaging members being each provided at the can engaging end with air sealing means in active engagement with the can about the filling opening to the exclusion of the other opening while the filling operation is progressing.

2. In an apparatus for filling liquid into cans each having a filling opening in one end and another opening in the same end spaced from the filling opening, a closure for the cans having means for sealing it against the entrance of air, an air exhaust conduit communicating with said closure, means for placing the cans individually in communication with a source of liquid supply, means for sealing the means communicating with the liquid supply against the action of the exhaust means except through the cans individual thereto, and means other than the liquid supply means for admitting air to the

cans at the liquid inlets thereof to the exclusion of the admission of air at the outlets of said cans.

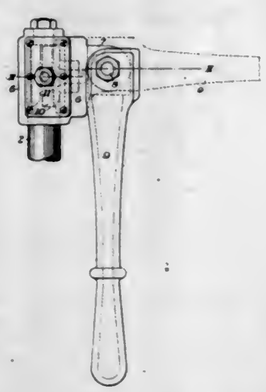
3. In an apparatus for filling liquid into cans each having a filling opening in one end and another opening in the same end spaced from the filling opening, a container for the cans, means for sealing the container against admission of air except through the cans, an exhaust conduit communicating with said container means for directing liquid into the cans, and means other than the liquid directing means for directing air at a greater pressure than the pressure maintained within the container during the filling operation to the filling openings only of the cans.

4. In an apparatus for filling liquid into cans each having a filling opening in one end and another opening in the same end spaced from the filling opening, a container for the cans to be filled, means for sealing the container against the admission of air, an exhaust conduit communicating with said container means for directing the liquid into the cans while in the container and while the latter is in the sealed condition, and means other than the liquid directing means for directing air streams to the filling openings only of the cans while the sealing of the container is maintained.

5. In an apparatus for filling cans with liquid, a source of liquid supply for each can, a container for the cans movable to bring each can into operative relation to its source of liquid supply, means for sealing the can container against the entrance of air, means other than the liquid supply means for directing air to each can, and an air exhaust conduit in operative relation to the can container when the latter is in the sealed position.

[Claims 6 to 15 not printed in the Gazette.]

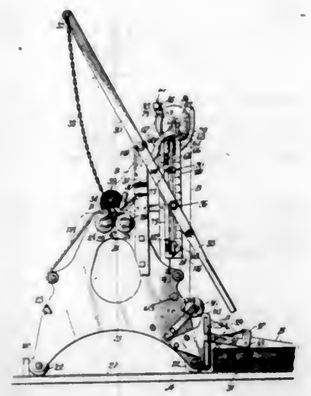
1,025,718. BRAKE-HANDLE. FRANK R. PHILLIPS, Pittsburgh, Pa. Filed Mar. 30, 1911. Serial No. 618,012. (Cl. 188—57.)



1. The combination with a rod or staff having ratchet teeth, a pawl lever, a spring for forcing the pawl lever into engagement with the teeth of the ratchet, and a drop brake handle having a cam portion adapted to engage the pawl lever and free the engagement of the pawl from the ratchet when the handle drops by gravity, substantially as described.

2. The combination with a brake rod or staff carrying a ratchet, a housing for the ratchet, a pawl member journaled in the housing, a spring seated in the housing and pressing the pawl into engagement with the teeth of the ratchet, and a pivoted operating lever pivoted to move vertically and to move from one position to another by gravity when released by the hand, and means operated by such movement of the lever for forcing the pawl away from the ratchet; substantially as described.

1,025,719. MACHINE FOR PILING TEXTILE FABRICS. CHARLES J. PRIESTER, Hackensack, N. J., assignor of one-third to Harris L. Rosenthal, New York, N. Y. Filed June 22, 1911. Serial No. 634,660. (Cl. 223—3.)



1. In a machine for piling textile fabrics, the combination with a traveling carriage, of a spreading frame having trunnions formed at the end thereof; a plurality of roller bearings for said trunnions; and elevating means for hoisting said spreading frame to rest upon said roller bearings.

2. In a machine for piling textile fabrics, the combination with a traveling carriage, of a spreading frame having trunnions formed at the end thereof; a plurality of roller bearings for said trunnions; elevating means for hoisting said spreading frame to rest upon said roller bearings; and means for leading the cloth from said spreading frame.

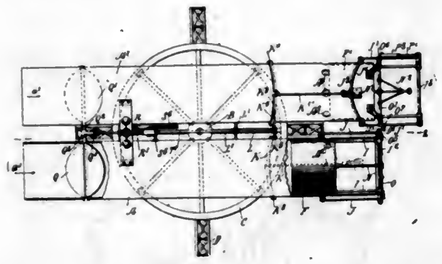
3. In a machine for piling textile fabrics, wherein said fabrics are unwound from the "piece", a supporting frame therefor comprising a plurality of heads each having a bearing trunnion and a plurality of parallel perforations; a plurality of extension arms mounted in said perforations and having adjacent the ends thereof spreading rods; and a winding key for each of said heads to engage said arms to move the same equally in opposite directions to balance the cloth on said trunnions.

4. In a machine for piling textile fabrics, wherein said fabrics are unwound from the "piece", a supporting frame therefor comprising a plurality of heads each having a bearing trunnion and a plurality of parallel perforations oppositely disposed to the center of said trunnion; a rotary key-operated member mounted in said head concentric with said trunnion and provided with a gear wheel at the inner end thereof; a plurality of extension arms mounted in said perforations having in the side thereof rack teeth to engage the teeth of said gear wheel; and a plurality of spreader rods mounted adjacent the end of said extension arms equi-distant from the center of said trunnions.

5. In a machine for piling textile fabrics, wherein said fabrics are unwound from the "piece", a supporting frame therefor comprising a plurality of heads each having a bearing trunnion and a plurality of parallel perforations oppositely disposed to the center of said trunnion; a rotary key-operated member mounted in said head concentric with said trunnion and provided with a gear wheel at the inner end thereof; a plurality of extension arms mounted in said perforations having in the side thereof rack teeth to engage the teeth of said gear wheel; a plurality of spreader rods removably connected with said arms adjacent the ends of said arms and equi-distant from the center of said trunnions; and means for holding said rods on said arms.

[Claims 6 to 11 not printed in the Gazette.]

1,025,720. WIND-MOTOR. WILLIAM T. PULLIAM, Tuscola, Ill. Filed July 25, 1911. Serial No. 640,434. (Cl. 170—1.)



1. A wind motor, comprising a pair of parallel cylinders open at the ends and provided near the rear ends with air outlets, pistons mounted to reciprocate in the rear portions of the said cylinders and in opposite directions one relative to the other, the pistons being adapted to open and to close the said air outlets, and each of the said pistons having pivoted piston heads adapted to open and to close, piston rods rods extending from the said pistons rearwardly to the outside of the cylinders, the piston rods of each piston carrying a cross rod, actuating means connected with the said cross rod and with the mechanism to be driven, crank shafts journaled exteriorly on the cylinders, links pivoted on the cross rods and having slotted connections with the cranks of the said crank shafts, and link and arm connections between the said piston heads and the said crank shaft.

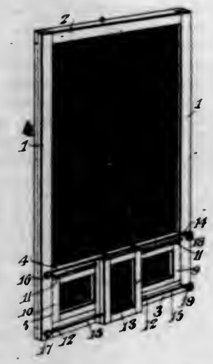
2. A wind motor, comprising a pair of parallel cylinders open at the ends and provided near the rear ends with air outlets, pistons mounted to reciprocate in the rear portions of the said cylinders and in opposite directions one relative to the other, the pistons being adapted to open and close the said air outlets, and each of the said pistons having pivoted piston heads adapted to open and close, piston rods extending from the said pistons rearwardly to the outside of the cylinders, the piston rods of each piston carrying a cross rod, actuating means connected with the said cross rod and with the mechanism to be driven, crank shafts journaled exteriorly on the cylinders, links pivoted on the cross rods and having slotted connections with the cranks of the said crank shafts, arms fixed on the said crank shafts, and links connecting the said arms with the piston heads.

3. A wind motor, comprising a pair of parallel cylinders open at the ends and provided near the rear ends with air outlets, pistons mounted to reciprocate in the rear portions of the said cylinders and in opposite directions one relative to the other, the pistons being adapted to open and close the said air outlets, and each of the said pistons having pivoted piston heads adapted to open and close, gear wheels connecting the pivots of the piston heads of each piston with each other to simultaneously open or close the piston heads of a piston, piston rods extending rearwardly from the said pistons and carrying cross rods, crank shafts journaled exteriorly on the said cylinders, links pivoted on the said cross rods and having slotted ends engaging the cranks of the said crank shafts, arms secured on the said crank shafts, and links connecting the said crank shaft arms with one of the piston heads of each piston.

4. A wind motor, comprising a pair of parallel cylinders open at the ends and provided near the rear ends with air outlets, pistons mounted to reciprocate in the rear portions of the said cylinders and in opposite directions one relative to the other, the pistons being adapted to open and close the said air outlets, and each of the said pistons having pivoted piston heads adapted to open and close, gear wheels connecting the pivots of the piston heads of each piston with each other, to simultaneously open or close the piston heads of a piston, piston rods extending rearwardly from the said pistons and carrying cross rods, crank shafts journaled exteriorly on the said cylinders, links pivoted on the said cross rods and having slotted ends engaging the cranks of the said crank shafts, arms secured on the said crank shafts, links connecting the said crank shaft arms with one of the piston heads of each piston, a pump rod, and a lever mechanism connecting the said pump rod with the said cross rods.

5. A wind motor, comprising a pair of parallel cylinders open at the ends and provided near the rear ends with air outlets, pistons mounted to reciprocate in the rear portions of the said cylinders and in opposite directions one relative to the other, the pistons being adapted to open and close the said air outlets, and each of the said pistons having pivoted piston heads adapted to open and close, gear wheels connecting the pivots of the piston heads of each piston with each other to simultaneously open or close the piston heads of a piston, piston rods extending rearwardly from the said pistons and carrying cross rods, crank shafts journaled exteriorly on the said cylinders, links pivoted on the said cross rods and having slotted ends engaging the cranks of the said crank shafts, arms secured on the said crank shafts, links connecting the said crank shaft arms with one of the piston heads of each piston, a pump rod, a lever mechanism connecting the said pump rod with the said cross rods, regulating valves in the entrance ends of the cylinders, a governor for controlling the said regulating valves, and a connection between the said lever mechanism and the said governor.

1,025,721. WINDOW-SCREEN. THOMAS H. RANEY, Chapel Hill, N. C. Filed Dec. 30, 1911. Serial No. 668,789. (Cl. 156—14.)



1. A window screen having an opening therethrough, a track spanning the screen frame and projecting laterally from the plane of the screen, a screen panel disposed against the face of the screen over the opening and sliding on the track, supporting wires spanning the screen adjacent the rails of the track and slidably connected to the screen panel, a fixed connection between one end of the wires and the screen, and a tensioning connection between the other end and the opposite side of the screen.

2. A window screen having an opening therethrough, a track spanning the screen frame above and below the opening and projecting laterally from the plane of the screen at right angles, a screen panel disposed against the face of the screen over the opening and provided in its rear face with grooves sliding on the track, supporting wires spanning the screen adjacent the rails of the track and slidably connected to the screen panel by being threaded therethrough, a fixed connection between one end of the wires and the screen, and a tensioning connection between the other end and the opposite side of the screen comprising screws threaded into the frame and having the terminals of the wires wrapped therearound.

3. A window screen having an opening extending horizontally in the lower portion thereof, a track comprising

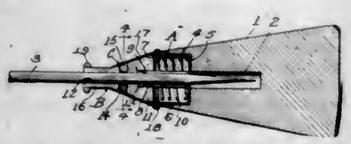
oppositely disposed rails spanning the screen frame in the plane thereof, and screen panels of an aggregate width less than the total width of the opening mounted within said opening for horizontal slidable movement upon said track, in combination wtih a track spanning the screen frame above and below the opening, a screen panel slidably mounted upon the track for horizontal movement with its rear face in contiguous relation to the front face of the first-named panels and having a width sufficient to cover the space left by the first panels.

4. A window screen having an opening extending horizontally in the lower portion thereof, a track comprising oppositely disposed rails spanning the screen frame in the plane thereof, and screen panels of an aggregate width less than the total width of the opening mounted within said opening for horizontal slidable movement upon said track, in combination with a track spanning the screen frame above and below the opening and comprising rails projecting laterally from the plane of the screen at right angles, a screen panel having it rear face provided with grooves sliding on the laterally extending rails with its rear face in contiguous relation to the front face of the first-named panels, the last-named panel having a width sufficient to cover the space left by the first panels, supporting wires spanning the screen frame adjacent the laterally extending rails and slidably connected to the last-named panel, a fixed connection between one end of the wires and the screen frame, and a tensioning connection between the other end of the wires and the opposite side of the screen frame comprising thumb screws threaded into the frame and having the terminals of the wires wrapped therearound.

5. In a window screen, the combination with the stiles and the top and bottom rails of the frame, of a spacing rail arranged at a slight distance above the bottom rail to form a panel opening therebetween, screen cloth disposed over the frame above the spacing rail, a pair of screen panels having an aggregate width less than the total width of the opening and of an individual height corresponding to the height of the opening, said screen panels slidably mounted between the spacing rail and the bottom rail for horizontal movement within the plane of the frame, a third screen panel of a size to cover the remainder of the panel opening, said third panel slidably mounted for horizontal movement in a plane parallel to the plane of the other panels and with its rear face in contiguous relation to the front face of the said first-named panels, and means for supporting and guiding the third panel.

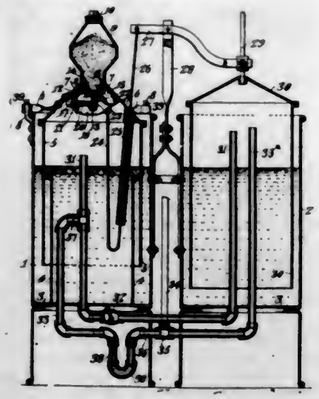
[Claims 6 and 7 not printed in the Gazette.]

1,025,722. HAT-PIN PROTECTOR. EDWARD W. ROBERTS, Los Angeles, Cal. Filed Sept. 6, 1910. Serial No. 580,681. (Cl. 24—135.)



A hat pin protector comprising a solid head having a chamber extending from one end to receive the point of a hat pin and a second chamber at the outer end of the first chamber to receive a spring casing; a spring casing mounted in the second chamber and comprising a bottom, an annular wall extending from the bottom, a bead extending from the edge of the annular wall, and a tubular guide extending from the center of the bottom, said tubular guide being in a line with the pin point chamber in the head; an expansive coil spring in the spring casing around the tubular guide; a clutch casing comprising a conical annular wall and a bead extending from the large end around the bead of the spring casing; and a clutch in the clutch casing against the spring and comprising a conical head having a central bore for the passage of a hat pin, said bore having an enlargement to receive the end of the tubular guide and having clutch ball sockets formed from the periphery of the head and opening into the bore, clutch balls in the clutch ball sockets, and a tubular handle extending from the conical head beyond the casing.

1,025,723. ACETYLENE-GAS GENERATOR. CLINTON SHAFER, Upper Sandusky, Ohio. Filed Sept. 6, 1910. Serial No. 580,611. (Cl. 48—46.)



1. In an acetylene gas generator, a generating tank, a hopper in the upper end of the generating tank, a cut off valve in the lower end of the hopper mounted to turn upon an axis adjacent one edge of the valve, a rockable dumping bucket within the tank below the hopper provided with a portion positioned to underride the valve to move it into full closed position with relation to the hopper, and means for rocking the dumping bucket.

2. In an acetylene gas generator, a generating tank, a hopper thereon, a swinging cut off valve in the lower end of the hopper, a tiltable bucket below the hopper and provided with a curved portion adapted to engage the swinging cut off valve to move the same to the closed position, and means for tilting the bucket in one direction to release the cut off valve to discharge a measured charge from the hopper into the bucket and for moving the bucket in the other direction to discharge said bucket into the generating tank and simultaneously close the valve.

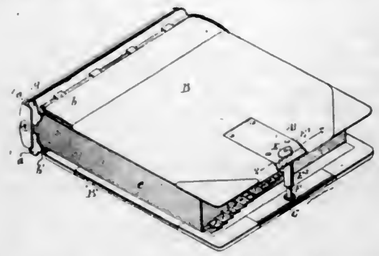
3. The combination of a generator tank, a hopper in the upper end of the same, an apron extending partly across the lower end of the hopper, a shield depending from the hopper adjacent the said apron, a cut-off valve in the lower end of the hopper adapted to extend to the said apron, a tiltable bucket mounted below the hopper and having a curved portion bearing against the shield, a second curved portion bearing against the cut-off valve, and a pocket between the two said curved portions adapted to receive a charge from the hopper, and means for automatically tilting the said bucket.

4. The combination of a generator tank, a hopper in the upper end of the same, an apron extending partly across the lower end of the hopper, a shield depending from the hopper adjacent the said apron, a cut-off valve in the lower end of the hopper adapted to extend to the said apron, guards below the hopper at opposite sides of the same and the shield depending therefrom, a tiltable bucket mounted below the hopper between said guards and having a curved portion bearing against the cut-off valve, and a pocket between the two said curved portions adapted to receive a charge from the hopper, and means for automatically tilting the said bucket.

5. The combination of a generator tank, a hopper in the upper end of the same, an apron extending partly across the lower end of the hopper, a shield depending from the hopper adjacent the said apron, a cut-off valve in the lower end of the hopper adapted to extend to the said apron, guards below the hopper at opposite sides of the same and the shield depending therefrom, a tiltable bucket mounted below the hopper between said guards and having a curved portion bearing against the cut-off valve, and a pocket between the two said curved portions adapted to receive a charge from the hopper, a hub rotatably mounted in the said casing and arranged to be locked to the lock casing by the said locking mechanism, a sleeve connected to the hub so as to turn therewith, said sleeve having a screw threaded section, and a bolt attached to the opposite cover of the book and having a screw threaded stem adapted to the screw threaded sleeve.

[Claims 6 and 7 not printed in the Gazette.]

1,025,724. BOOK-LOCK. HARRY D. SNYDER, Philadelphia, Pa., assignor to William Mann Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 28, 1909. Serial No. 525,220. (Cl. 24—2.)



1. The combination in a book of the two covers; a threaded spindle movably mounted in one cover adjacent the opening end of the book; a series of tumblers; means for moving the tumblers into engagement with the spindle to lock the latter to the said cover; a threaded stem secured to the opposite cover and engaging the threaded spindle; means for moving the tumblers to permit movement of the said spindle; said latter means serving as a lever whereby the said spindle may be turned to vary the distance between the two covers.

2. The combination in a book of the two covers; leaves mounted between the covers; means for drawing the covers together so as to bind the leaves and prevent their withdrawal; said means consisting of a lock and two members; one member being movable with respect to the lock and adapted to engage the other member; said movable member also having a key slot formed therein adapted to receive a key for actuating the lock; said movable member serving when the key is inserted and turned to adjust the relative position of the two covers and serving when the key is removed to lock the several parts.

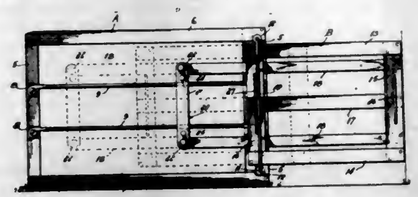
3. The combination of a book having a socket in each cover near the outer edge, a two-part locking device, one part consisting of a casing and rotatable stem mounted in the casing, a threaded sleeve carried by the stem, locking mechanism in the casing arranged to engage the stem said mechanism being displaced by the insertion of a key so as to leave the stem free to turn, the other part of the lock being in the form of a bolt having a screw threaded stem adapted to the threaded sleeve of the other part of the lock, both parts being shaped so as to prevent their turning in their sockets so that the covers of the book can be drawn together by the locking mechanism when the key is inserted, and when the key is removed the two-parts of the lock will be prevented from turning one in respect to the other by the engagement of the locking mechanism with the stem of one part.

4. The combination of a book, plates providing sockets in the opposite sides of the book, a lock casing in non-rotative engagement with one of the sockets, a rotatable spindle journaled within said casing and having a screw threaded extension, a non-rotative bolt section adapted to the socket in the other side of the book and having a threaded stem arranged to engage the threaded extension of the spindle, and means within the lock casing for locking the rotatable spindle to the lock casing.

5. The combination in a book lock, of a lock casing attached to one cover of a book, locking mechanism carried

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1,025,725. GATE. ALEXANDER T. D. TOTHILL, Davey, Nebr. Filed Dec. 27, 1911. Serial No. 668,037. (Cl. 39—7.)



1. In a gate, the combination with a supporting frame consisting of a pair of spaced posts, upper and lower longitudinal frame members connecting said posts, a pair of longitudinal tracks disposed above one another and connected at their ends to said posts in spaced relation to the longitudinal frame members, a vertically disposed guide arm having its ends inwardly bent and engaged with the upper and lower ends of one of said posts, an anti-friction roller journaled upon the lower end of said guide arm, a gate disposed within and supported by the roller of said guide arm for slidable movements, a carriage carried by said gate and coöperating with the tracks to hold the gate against tilting movements, and a handle carried by the gate and coöperating with the guide arm to limit the movements of said gate in one direction.

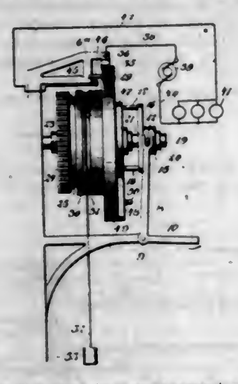
2. In a gate, the combination with a supporting frame including a pair of superimposed tracks, a guide arm connected to said frame, a gate disposed within and supported by said guide arm for slidable movements, said gate comprising a rectangular frame including spaced front and rear end members, longitudinal carriage supporting arms secured to said front and rear members, said arms being respectively disposed above and below the tracks of the supporting frame and having their rear ends projecting beyond the end of the gate frame, a carriage connected to the rear ends of said supporting arms, upper and lower rollers carried by said carriage respectively disposed above and below the respective tracks, and handles respectively secured to the front and rear end members of the gate frame and adapted to respectively engage the guide arm to limit the movements of the gate in opposite directions.

1,025,726. AUTOMATIC TIMER. FREDERICK WALLER, Jr., Lynbrook, N. Y. Filed July 2, 1910. Serial No. 570,118. (Cl. 161—27.)

1. An automatic timer, comprising a continuously driven time-controlled clutch member, a second clutch member normally free, means controllable at will for throwing said clutch members into engagement, mechanism for restoring said second-mentioned clutch member to a predetermined normal position after each engagement of said second-mentioned clutch member with said first-mentioned clutch member, and means controllable at will for pre-adjusting the time interval during which said first-mentioned clutch member engages said second-mentioned clutch member.

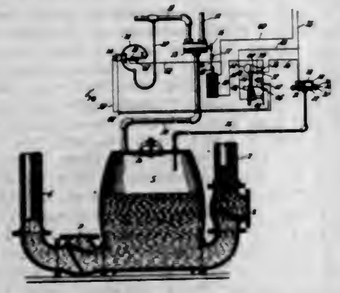
2. An automatic timer, comprising contact mechanism including a revoluble disk, means for turning said disk at a constant speed, an adjusting disk movable at will for determining the duration of rotation of said first-mentioned disk, a yoke provided with means for engaging said

adjusting disk when the latter is brought into a predetermined position, and mechanism for controlling said yoke



in order to force the same into engagement with said adjusting disk.

1,025,727. WATER AND SEWAGE EJECTOR. ARTHUR CORNWALL WELLS, Amityville, N. Y. Filed Jan. 25, 1911. Serial No. 604,524. (Cl. 103—8.)



1. In a water and sewage ejector a tank having an inlet and an outlet, a conduit connected therewith having two branches, a valve commanding the branches, a solenoid, an armature commanded thereby having means for operating the valve, a circuit for energizing the solenoid, a pipe communicating with the tank, and switch means in the circuit controlled by the pressure in the pipe.

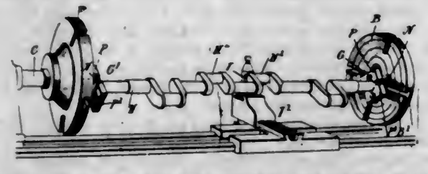
2. In a water and sewage ejector a tank having an inlet and an outlet, each commanded by a check valve, a conduit connected with the tank and having two branches, a valve commanding the branches, electrical means for operating the last-mentioned valve, a circuit connected with the electrical means, a pipe communicating with the tank, and switch means in the electrical circuit controlled by the pressure in the pipe.

3. In a water and sewage ejector a tank having an inlet and an outlet each commanded by a check valve, a conduit having two branches, connected with the tank, a valve commanding the branches, a solenoid, an armature commanded by the solenoid having means for operating the valve, a circuit for energizing the solenoid, a switch in the circuit, electrical means for throwing the switch, a Bourdon tube connected with one of the branches, and a switch commanded by the said Bourdon tube for controlling the electrical means.

4. In a water and sewage ejector a tank having an inlet and an outlet each commanded by a check valve, a conduit having two branches connected with the tank, a valve commanding the branches, a solenoid, an armature commanded by the solenoid, and having means for controlling the valve, an electrical circuit for energizing the solenoid, a pipe communicating with the tank, switch means in the circuit controlled by the pressure in the pipe, an additional switch in the circuit, a second circuit, electrical means in the second circuit for operating the said additional switch, a Bourdon tube connected with one of the branches, a third switch in the second circuit, and means by which the Bourdon tube is adapted for operating the last-mentioned switch.

5. In a water and sewage ejector a tank having an inlet and an outlet, each commanded by a check valve, a conduit having two branches, connected with the tank, a valve commanding the branches, a solenoid, an armature commanded by the solenoid, having means for controlling the valve, an electrical circuit for energizing the solenoid, a pipe for communicating with the tank, switch means in the circuit, controlled by the pressure in the pipe, an additional switch in the circuit, electrical means for commanding the said additional switch, two contact points, an electrical conductor connected with the said electrical means, a switch arm connected with the electrical conductor carried by the said additional switch for connecting the electrical conductor with the contact points, one at a time, two additional contact points, two electrical conductors, each connecting one of the first-mentioned contact points with one of the second-mentioned contact points, a Bourdon tube connected with one of the branches, a switch arm carried by the Bourdon tube adapted to communicate with the second-mentioned contact points, and an electrical conductor connected with the switch arm carried by the Bourdon tube.

1,025,728. CENTERING DEVICE. FRANK LAFYETT WHEELING and FREDERICK ARTHUR ROGERS, Los Angeles, Cal. Filed Sept. 21, 1911. Serial No. 650,513. (Cl. 82—9.)



1. A centering device for lathes, comprising a head stock face plate attached to and rotating with the head stock spindle of the lathe, a tail stock face plate mounted to rotate freely on the tail stock spindle of the lathe, centers adjustable laterally on the said face plates for engaging the ends of the work eccentrically to the axis of the said spindles, and means mounted on the said centers for engagement with the peripheral faces of the ends of the work.

2. A centering device for lathes, comprising a head stock face plate attached to and rotating with the head stock spindle of the lathe, the said face plate being provided with a radial slot and a graduation lengthwise of the slot and representing linear measurement, a tail stock face plate mounted to rotate freely on the tail stock spindle of the lathe and provided with a radial slot and a graduation lengthwise of the slot and representing linear measurement, centers adjustably mounted in the slots of the said face plates for supporting the ends of the work eccentrically to the axis of the said spindles, means carried by the centers for engaging the peripheral faces of the ends of the work, and pointers carried by the said centers for indicating on the said graduations.

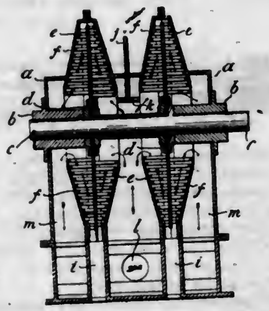
3. A centering device for lathes, comprising a head stock face plate attached to and rotating with the head stock spindle of the lathe, the said face plate being provided with a radial slot and a graduation lengthwise of the slot and representing linear measurement, a tail stock face plate mounted to rotate freely on the tail stock spindle of the lathe and provided with a radial slot and a graduation lengthwise of the slot and representing linear measurement, centers slidably mounted in the slots of the said face plates, pointers on the said centers for indicating on the said graduations, and dogs mounted on the said centers for engagement with the work.

4. A centering device for lathes, comprising a head stock face plate attached to and rotating with the said head stock spindle of the lathe, the said face plate being provided with a radial slot and a graduation lengthwise of the slot and representing linear measurement, a tail stock face plate mounted to rotate freely on the said tail stock spindle of the lathe and provided with a radial slot and a graduation lengthwise of the slot and representing linear measurement, centers slidably mounted in the slots of the said face plates, pointers on the said center for indicating on the said graduations, means for fastening the said pointers and centers in position on the face plates, and dogs, each having an attaching member adapted to be fastened on the corresponding center, and clamping members adjustably mounted on the said attaching member for engagement with the work.

5. A centering device for lathes, provided with a face plate having a radial slot and a graduation lengthwise of the slot and indicating linear measurement, a threaded center slidably engaging the said slot, a pointer on the said center for indicating on the said graduation, the pointer resting against the face of the face plate, a nut screwing on the center against the said pointer to lock the pointer and center in place on the face plate, and a dog having an attaching member screwing on the said center, and clamping members adjustably mounted on the said attaching member on opposite sides of the point of the center.

[Claims 6 to 8 not printed in the Gazette.]

1,025,729. APPARATUS FOR WASHING AND SCRUBBING GASES. MATTHEW WHITE and JAMES HENRY WHITE, Luton, England. Filed June 10, 1911. Serial No. 632,425. (Cl. 48—134.)



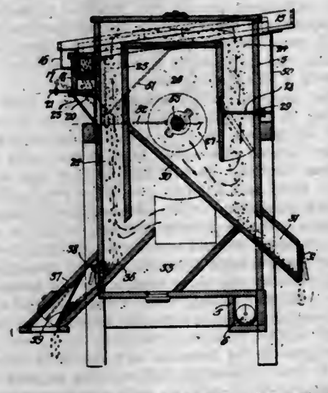
1. In an apparatus for washing and scrubbing gases, the combination with a case, of a revoluble shaft mounted therein, a plurality of disks rigidly secured to said shaft and rotatable therewith, fins secured lateraly to said disks and curved transversely with respect thereto, and means for introducing a spray of water into the casing.

2. In an apparatus for washing and scrubbing gases, the combination with an approximately cylindrical casing, of bearings carried by said casing, a revoluble shaft mounted in said bearings, a plurality of disks provided with a plurality of apertures and slots therein, keyed to said shaft, fins secured laterally thereof to said disks and carried thereby said fins being alternately curved transversely with respect to the said disks in opposite directions, conical casings within which the curved fins are adapted to rotate, means for supplying a spray of water to the interior of the apparatus, and means for the discharge of the purified gas and for the tar and other impurities.

3. In an apparatus for washing and scrubbing gases, the combination of a casing provided with inlet and outlet means, a disk revolubly mounted within said casing with the said inlet and outlet means at each side of the plane thereof, and a plurality of fins secured laterally to said disk and curved transversely with respect thereto.

4. In an apparatus for washing and scrubbing gases, the combination of a revolubly mounted disk, disposed in a vertical plane, a plurality of fins secured laterally of said disk and carried thereby, the fins being curved laterally with respect to said disk and increasing in length from the periphery of said disk toward the center thereof, a frusto conical shell positioned adjacent the said fins, and a conduit positioned in alinement with said frusto conical shell and fins at the lower ends thereof to carry away matter disposed thereon responsive to the force of gravity.

1,025,730. DUST-SEPARATOR. AUGUSTUS WOLF, Chambersburg, Pa. Filed Sept. 27, 1910. Serial No. 584,053. (Cl. 130—17.)



The combination in a dust separator, of a casing having two vertically extended compartments arranged side by side; an air trunk extending up one side, across the top and down the opposite side of one compartment; means for feeding material to be cleaned into the ascending part of said trunk; an outlet chute having an extension projecting under but spaced away from the said ascending part of the trunk; a second outlet chute having an inclined extension projecting under but spaced away from the lower end of the descending part of the trunk; said extension passing across the compartment to the ascending part of the trunk; a fan in the second compartment having its intake connected it the space defined by said latter extension and the air trunk; and a casing surrounding the fan and opening into a part of the second compartment below said inclined extension.

1,025,731. PROCESS FOR WATERPROOFING LINEN OR OTHER TEXTILE ARTICLES AND GIVING THEM A PERMANENT GLAZED WASHABLE SURFACE. ARTHUR ALPHONS ANTONY ZIMMER, London, England. Filed Oct. 14, 1910. Serial No. 587,079. (Cl. 91—68.)

1. The process for treating linen articles, which consists in first starching and ironing the articles to be treated, then subjecting the articles so treated to such a degree of saturation in a suitable waterproofing solution that they become thoroughly impregnated with such solution, then partially drying the articles and while in a partially dried and adhesive condition coating them with a nitrocelluiose compound, subjecting the articles to a calendering process, whereby the outer glazed surface becomes homogeneous with the waterproofed surface of the linen, and finally subjecting the articles to a polishing process by treatment with a suitable material.

2. The process for treating linen articles, which consists in first starching and ironing the articles to be treated, then subjecting the articles so treated to such a degree of saturation in a suitable waterproofing solution that they become thoroughly impregnated with such solution, then partially drying the articles and while in a

partially dried and adhesive condition coating them with a nitrocellulose compound dissolved in a suitable solvent, subjecting the articles to a hot calendering process, whereby the outer glazed surface become homogeneous with the waterproofed surface of the linen, and finally subjecting the articles to a polishing process by treatment with pumice stone powder, talcum, and powdered chalk successively applied.

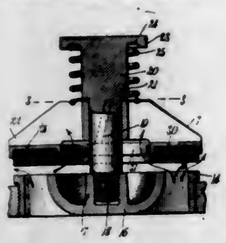
3. The process for treating starched linen articles, which consists in first starching and ironing the articles to be treated, then subjecting the articles so treated to such a degree of saturation in a suitable waterproofing solution that they become thoroughly impregnated with such solution, then partially drying the articles and while in a partially dried and adhesive condition applying a coating consisting of celluloid dissolved in a suitable solvent, subjecting the articles to a hot calendering process, whereby the outer glazed surface become homogeneous with the waterproofed surface of the linen, and finally subjecting the articles to a polishing process by treatment with a suitable material.

4. The process for treating starched linen articles, consisting in first subjecting such articles to such a degree of saturation in a suitable waterproofing solution that they become thoroughly impregnated with such solution, then partially drying the articles and while in a partially dried and adhesive condition coating them with a surface consisting of a nitrocellulose compound dissolved in a suitable solvent and into which a small proportion of castor-oil and a suitable coloring matter have been introduced, subjecting the articles to a calendering process, whereby the outer glazed surface becomes homogeneous with the waterproofed surface of the linen, and finally subjecting the articles to a polishing process by treatment with a suitable material.

5. The process for treating starched linen articles, consisting in first subjecting such articles to such a degree of saturation in a suitable waterproofing solution that they become thoroughly impregnated with such solution, then partially drying the articles and while in a partially dried and adhesive condition coating them with a surface consisting of celluloid dissolved in a suitable solvent and into which a small proportion of castor-oil and a suitable coloring matter have been introduced, subjecting the articles to a calendering process, whereby the outer glazed surface becomes homogeneous with the waterproofed surface of the linen, and finally subjecting the articles to a polishing process by treatment with pumice stone, talcum, and powdered chalk successively applied.

[Claims 6 to 8 not printed in the Gazette.]

1,025,732. VALVE. ROSCOE H. ALDRICH, Allentown, Pa. Filed Jan. 20, 1912. Serial No. 672,297. (Cl. 103—66.)



1. In a valve of the class described, a valve seat formed with an opening, a movable valve member normally resting on said valve seat and closing said opening, said movable valve member being formed with an interior opening and a plurality of inclined wings arranged in the path of movement of fluid passing through said interior opening whereby said movable valve member is rotated each time the fluid flows through the valve, and means for reseating the movable valve member.

2. In a valve of the class described, a valve seat formed with a discharge opening therein, a movable valve member arranged to normally close said seat formed with an interior opening whereby the opening in said valve seat has two discharge openings, baffle means connected with said movable valve member arranged in the path of movement of the fluid passing through the interior discharge opening whereby the movable valve member is rotated when fluid is forced through said valve, and means for reseating said movable valve member.

3. In a valve of the class described, a seat formed with a discharge opening, a movable valve member formed with an interior opening for providing a path by which fluid flowing through the discharge opening in said seat may pass around the periphery of said movable valve member and through the center thereof, a plurality of inclined blades arranged in the path of movement of the fluid passing through the interior opening whereby said movable valve member is rotated upon each unseating thereof, a spring normally pressing against the upper edge of said movable valve member, and means for guiding said movable valve member and holding said spring to its work.

4. In a valve of the class described, a valve seat formed with a discharge opening, a rotating laterally movable valve member arranged to normally close said valve seat, a shaft formed with a bearing portion extending through said movable valve member and into said valve seat whereby said valve seat and said movable valve member are held in proximity, means arranged on said movable valve member for being engaged by water passing through the valve for rotating the movable valve member when the same is forced off its seat, a spring normally holding said movable valve member to its seat, and an overhanging grooved member extending from said shaft for holding said movable valve member to its work.

1,025,733. SMALL-ARM. HUGO BORCHARDT, Charlottenburg, Germany. Filed May 13, 1909. Serial No. 495,778. (Cl. 42—3.)



1. In a breech-loading firearm, the combination with the breech thereof, of a breech-bolt movable to open and close said breech, cartridge-extracting means, means for transmitting the motion of said breech-bolt to said cartridge-extracting means upon withdrawal of said breech-bolt, and resilient means for modifying momentarily the action of said transmitting means after the beginning of the opening movement of said bolt.

2. In a breech-loading firearm, the combination with the breech thereof, of a breech-bolt for opening and closing said breech operated by recoil of the gun, cartridge-extracting means, means transmitting the motion of said breech-bolt to said cartridge-extracting means upon withdrawal of the breech-bolt, and resilient means for modifying momentarily the action of said transmitting means after the beginning of the opening movement of said bolt.

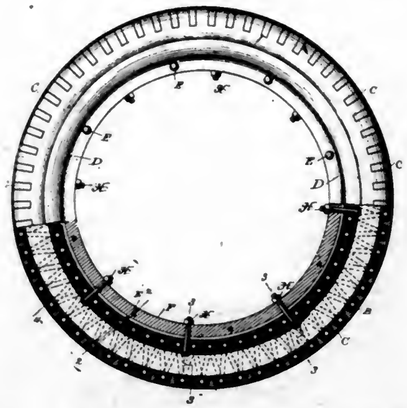
3. In a breech-loading firearm, the combination with the breech thereof, of a breech-bolt for opening and closing said breech, a part on said breech-bolt resiliently connected thereto and movable longitudinally thereon, and cartridge-extracting means carried by said movable part of the breech-bolt.

4. In a breech-loading firearm, the combination with the breech thereof, of a breech-bolt for opening and closing said breech, a part on said breech-bolt movable longitudinally thereon, a yielding or resilient connection between said movable part and breech-bolt, and cartridge-extracting means carried by said movable part of the breech-bolt.

5. In a breech-loading firearm, the combination with the breech thereof, of a breech-bolt for opening and closing said breech, a part on said breech-bolt movable longitudinally thereon, a connecting-piece attached at one end to said movable part of the breech-bolt and at its other end to the breech-bolt, resilient means between said breech-bolt and movable part thereof, and cartridge-extracting means carried by said movable part of the breech-bolt.

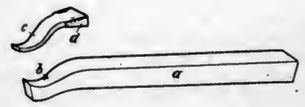
[Claims 6 to 9 not printed in the Gazette.]

1,025,734. VEHICLE-TIRE. JOHN F. BOSQUETT, Jersey City, N. J. Filed Apr. 11, 1911. Serial No. 620,311. (Cl. 152—8.)



A vehicle tire, comprising a spring coiled to form spaced convolutions and bent into an annular shape, a tube in which the spring is embedded, and tread blocks embedded transversely in the peripheral portion of the tube between adjacent convolutions.

1,025,735. PROCESS OF MAKING TOOLS. JEAN DE BOSREDON, Paris, France. Filed Oct. 13, 1911. Serial No. 654,465. (Cl. 76—101.)

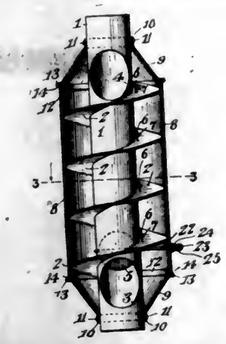


1. The process of making tools, having a working part of high speed steel and a body of softer metal, comprising shaping the working part and body to fit closely together, preliminarily heating said part and the section of the body to which it is to be applied to temperatures which are a function of their coefficients of expansion, fitting the working part to the body under pressure, subsequently heating said assembled members to a temperature in excess of that of the preliminary heating and then arranging them in a matrix of suitable shape and subjecting them to pressure.

2. A process for making tools consisting in shaping a working part of high speed steel and a support part of soft steel to fit together, heating the part having the highest coefficient of expansion to about 800° and the other part to about 900°, interposing an anti-oxidizing material between the parts, placing them together, submitting them to pressure, and subsequently heating them to about 1200–1400°, and again submitting them to strong pressure.

1,025,736. HEATING-DRUM. WILLIAM ANDREW BREWSTER, Winnipeg, Manitoba, Canada. Filed June 17, 1911. Serial No. 633,684. (Cl. 126—188.)

1. A heating drum of the class described including an inner pipe having inlet and outlet openings, annular heads or ends permanently secured to the inner pipe beyond the said openings, a spiral partition surrounding the pipe and also permanently secured to the same and arranged between the said openings, a removable cylindrical casing surrounding the spiral partition and fitted against the same and supported by the heads or ends, and means to direct the products of combustion through the inner pipe or in contact with the outer casing alternatively.



2. A heating drum of the class described including an inner pipe having inlet and outlet openings, a spiral partition surrounding the pipe between the openings, conical heads permanently secured to the pipe beyond the openings and provided with peripheral flanges, a cylindrical sectional longitudinally divided shell or casing surrounding the spiral partition and fitting the peripheral flanges and connecting the conical heads, and means to direct the products of combustion through the inner pipe or in contact with the outer casing alternatively.

3. A heating drum of the class described including an inner pipe having inlet and outlet openings, a spiral partition surrounding the pipe between the said openings, heads or ends secured to the central pipe beyond the openings and surrounding the same, and a removable shell or casing surrounding the spiral partition and connecting the heads or ends and composed of separable sections hinged together at one side and provided at the opposite side with catches connecting the sections and detachably securing the shell or casing in position.

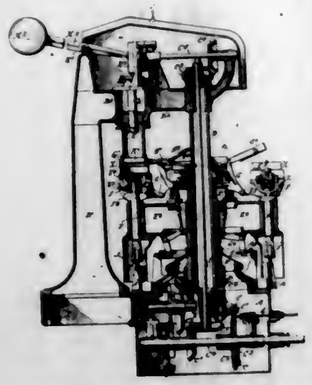
4. A heating drum of the class described including an inner pipe provided with inlet and outlet openings, a spiral partition extending around the pipe between the openings, conical ends secured to the central pipe beyond the opening, a cylindrical shell or casing surrounding the spiral partition and fitted against the same and the conical ends and composed of two sections having their edges overlapped at one side, one of the sections having its longitudinal edge at the opposite side bent outwardly, and the other section being provided with an approximately hook-shaped portion forming an inner groove to receive the said outwardly bent edge, and fastening means for detachably connecting the overlapped edges of the sections.

5. A heating drum of the class described including an inner pipe provided with inlet and outlet openings, a spiral partition extending around the inner pipe and provided at its inner edge at intervals with lugs fitted against and secured to the said pipe, a removable outer casing surrounding the partition, heads or ends permanently secured to the inner pipe and receiving the ends of the removable shell or casing and supporting the latter, and means to direct the products of combustion through the inner pipe or in contact with the outer casing alternatively.

1,025,737. MOLDING-MACHINE. JOHN WILSON BROWN, Jr., Philadelphia, Pa., assignor to The Enterprise Manufacturing Company of Pennsylvania, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 20, 1911. Serial No. 609,563. (Cl. 22—21.)

1. The combination in a molding machine, of a standard; a carrier; means for intermittently moving the car-

rier on the standard; a cylinder located above the carrier; a flange therein; a vertical driving shaft extending through the standard; a horizontal shaft adapted to bearings secured to the upper end of the standard and geared to the vertical shaft; a wheel on the horizontal shaft having cams; arms actuated by the cams; passages communicating with the cylinder in which the plunger is mounted; a valve in each passage; and arms to which the stems of the valves are connected; said arms being actuated by the cams on the cam wheel.



2. The combination in a molding machine, of a standard, a carrier, means for intermittently moving the carrier on the standard, a plunger, a vertical driving shaft, a horizontal shaft geared thereto, a cam wheel on the horizontal shaft, cams thereon, arms actuated by the cams, inlet and exhaust valves communicating with the cylinder in which the plunger is mounted and connected to the said arms, with a blow pipe leading to one of the flasks, and a valve controlling the admission of air to said blow pipe and an arm connected to the valve and also actuated by a cam on the cam wheel.

3. The combination in a molding machine, of a standard, a carrier for the flasks mounted thereon, means for intermittently moving the said carrier, a frame, a cylinder carried by the frame, a plunger mounted within the cylinder, a counterbalance for the plunger, a cam wheel, means for rotating said cam wheel, an inlet and an exhaust valve for the plunger, arms connected to said inlet and exhaust valves and actuated by the cam wheel, a lug on an extension of the plunger arranged to be engaged by the roller to move the plunger away from the flask.

4. The combination in a molding machine, of a standard, an intermittently rotated carrier for the flasks, pivoted levers, false flasks, a fixed cam, an arm arranged to travel over the cam so as to hold the false flask in a horizontal position during a portion of its movement.

5. The combination of a standard, an intermittently movable rotating carrier for the flasks, a pressure cylinder and plunger, a lever adapted to each flask carrier, a false flask pivotally mounted on the lever, means for actuating the said lever, a fixed cam, an arm on each false flask arranged to travel on the cam, a strike off, the cam being so located that it will hold the false flask in a horizontal position while traveling over the strike off.

[Claims 6 and 7 not printed in the Gazette.]

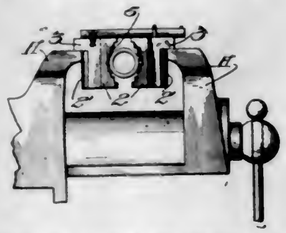
1,023,738. ELECTRIC ALARM FOR MAIL-BOXES. JOHN W. COE, Jr., Yonkers, N. Y. Filed Oct. 11, 1910. Serial No. 586,473. (Cl. 177—301.)

1. A device of the character described, comprising a movable door, a pendulum adapted to swing, means for enabling movements of said door to start said pendulum swinging, a pin carried by said pendulum, a contact wire wound upon said pin and provided with a straight portion extending from said pin, and a contact plate disposed partially within the path of travel of said straight portion for the purpose of being engaged and disengaged by said portion as said pendulum swings.



2. The combination of a swinging door, an oscillating pendulum to be actuated thereby, a contact wire carried by said pendulum, and a contact plate provided with a surface of arcuate concave form to be engaged by said contact wire for the purpose of correcting the position of said wire and thereby preventing distortion of the wire, and electrical connections for said contact plate and said contact wire.

1,025,739. HOLDING-VISE ATTACHMENT. CHARLES HENRY ALEXANDER DAVIS, San Rafael, Cal. Filed Oct. 27, 1910. Serial No. 589,503. (Cl. 81—40.)



1. The combination with a vise having parallel jaws, of a pair of supplemental jaws having horizontally convex backs and overhanging flanges, and vertical, concave, corrugated, and interlocking lugs projecting from the inner faces of said jaws.

2. Supplemental holding jaws, having convex backs adapted to fit between plain vise jaws, lips or flanges projecting from the upper portion to rest upon the tops of the vise jaws, and interlocking lugs forming the inner gripping surfaces of said jaws.

3. Independent holding jaws for vises, said jaws having convex backs and overhanging lips to contact with and be supported by the main jaws, and interlocking tongues forming the holding portions of said jaws and having concave, corrugated faces.

1,025,740. CLOSET AND URINAL FLUSHER. BERT E. DORMAN, Moline, Ill., assignor of one-half to William Coyle, Sr., Moline, Ill. Filed Sept. 9, 1909. Serial No. 516,894. (Cl. 4—5.)

1. In a closet flusher the combination with a tank, inlet and outlet pipes connected thereto, of a pivoted arm, a ball valve on the arm for closing the outlet opening and means connected to the arm whereby it is operated for opening and closing the outlet opening.

2. In a closet flusher the combination with a tank having inlet and outlet openings, of an air chamber connected to the tank adapted to receive the air from the tank during the filling operation of the tank, a valve for closing the outlet opening, and means connecting the air chamber and valve whereby the valve is operated for discharging the water from the tank when the required amount of water has entered the tank.

3. In a closet flusher the combination with a tank having inlet and outlet pipes, of an air pipe, valves for closing the air pipe and outlet pipe, an air chamber connected to the tank adapted to receive the air from the tank as the water is admitted for filling the tank, means connecting the chamber and valves whereby they are operated for discharging the water from the tank and admitting air thereto when the tank has become sufficiently filled with water.

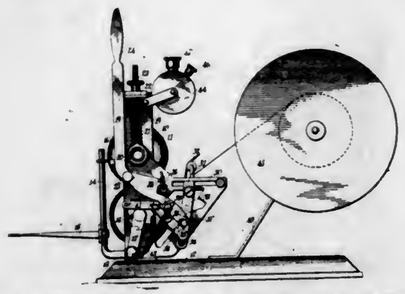


4. In a closet flusher the combination with a tank having inlet and outlet pipes, of an air pipe received within the tank, a standard, an arm pivotally mounted on the standard, valves on the arm for closing the air and outlet pipes, an air chamber connected to the tank adapted to receive the air from the tank as the water is admitted for filling the tank, means connecting the chamber and arm whereby the valves are operated when a sufficient amount of water is received in the tank.

5. In a closet flusher the combination with a tank having inlet and outlet pipes, of an air pipe received within the tank, a standard, an arm pivotally mounted on the standard, valves on the arm for closing the air and outlet pipes, an air chamber connected to the tank adapted to receive the air from the tank as the water is admitted for filling the tank, and means connecting the arm and chamber for operating the valves after each flushing operation upon the filling of the tank.

[Claims 6 and 7 not printed in the Gazette.]

1,025,741. CUTTING-MACHINE. HENRY FACHS, New York, N. Y. Filed June 22, 1910. Serial No. 568,277. (Cl. 164—42.)



1. A device of the class described, comprising a frame, an operating lever movably carried thereby, a cutting blade movably carried by the frame, means on the lever adapted to engage the blade in order to move it, a carriage movably carried on the frame and provided with a spring-controlled bar adapted to engage an end portion of a supply of paper, together with means carried by the carriage and adapted for engagement with the said lever whereby movement of the lever will move the carriage.

2. A device of the class described, comprising a frame, a lever movably carried thereby, a spring-controlled cutting blade carried by the frame, means on the lever adapted for engagement with the blade in order to move it, a carriage slidably supported on the frame and provided with a spring-controlled gripping bar, a projecting finger on the lever, and means carried by the supporting means of the carriage and adapted to engage the said finger, whereby movement of the lever moves the carriage.

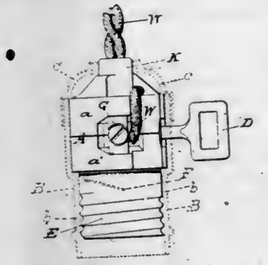
3. A device of the class described, comprising a frame, an operating lever movably carried by the frame, a finger projecting from the lever, a cutting blade carried by the frame, another blade movably supported adjacent thereto, means on the lever adapted to engage the movable blade to actuate it, a carriage having a spring-controlled gripping bar thereon slidably carried by the frame, together with means in engagement with the carriage and adapted for engagement by the said finger, whereby movement of the lever will move the carriage.

4. A device of the class described, comprising a frame, an operating lever carried thereby, a cutting blade movably carried by the frame, means on the lever adapted to engage the blade, whereby movement of the lever moves the blade, a carriage having a gripping bar thereon slidably supported on the frame, members pivotally carried on the frame and in engagement with the carriage, together with means on the lever adapted to engage the said pivotally carried members, whereby the carriage may be moved.

5. A device of the class described, comprising a frame, a blade carried thereby, a movable blade adjacent the first blade and adapted to coöperate therewith, a carriage slidably supported on the frame, a gripping bar on the carriage, movable members carried by the frame and in engagement with the carriage, together with a lever also carried by the frame and having means thereon adapted to engage the said movable blade, and other means adapted to engage the movable members engaging the carriage, whereby movement of the lever moves the said blade and also the carriage.

[Claims 6 to 18 not printed in the Gazette.]

1,025,742. PENDENT ELECTRIC-LAMP SOCKET, &c. GILBERT W. GOODRIDGE, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed July 21, 1909. Serial No. 508,764. (Cl. 173—322.)



1. A pendent electrical appliance, comprising an insulating body provided with wire terminals and an inclosing cover, the insulating body carrying a tubular neck passing out through the inclosing cover and strain relief means between the wire terminals and the tubular neck.

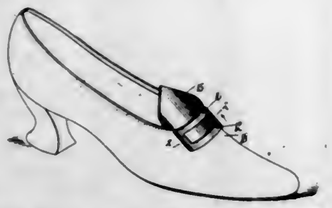
2. A pendent electrical appliance, having an insulating body provided with terminals to which the suspending wires are to be connected, and an inclosing cover, the insulating body carrying a tubular neck passing out through the inclosing cover, and side holes through which the wires pass to the tubular neck, as and for the purpose described.

3. A pendent electrical socket, having an insulating body provided on its sides with terminals to which the suspending wires are to be connected, and an inclosing cover, the insulating body carrying a tubular neck passing out through the inclosing cover and side holes through which the wires pass to the tubular neck, as and for the purpose described.

4. A pendent electrical socket comprising an insulating body, provided on its sides with grooves and wire terminals, and an inclosing cover, the insulating body carrying a tubular neck passing out through the inclosing cover and side holes in the neck out of line with the wire grooves in the sides of the insulating body.

5. A pendent electrical appliance, comprising an insulating body, provided with wire terminals and an inclosing cover, the insulating body carrying a tubular neck passing out through the inclosing cover and side holes in the neck, the bottom of the holes in the tubular neck having inclined faces leading to said side holes.

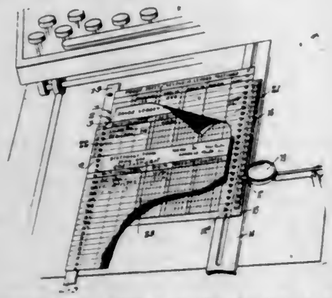
1,025,743. SHOE-BUCKLE. ELI A. GUTHMAN, New York, N. Y. Filed Sept. 22, 1911. Serial No. 650,680. (Cl. 36—1.)



1. A shoe buckle, comprising a face plate having a central opening; a cross bar extending lengthwise of said buckle and across said opening said bar being spaced from said face plate to form a channel therewith; and a leather tongue having a body portion provided with lateral recesses to receive the ends of said cross bar to hold the said tongue on said buckle.

2. A shoe buckle, comprising a face plate having a central opening; a cross bar extending lengthwise of said buckle and across said opening said bar being spaced from said face plate to form a channel therewith; a leather tongue having a body portion provided with lateral recesses to receive the ends of said cross bar to hold the said tongue on said buckle; and a plurality of fastening clips for said buckle formed by partly severing the central portion of said bar and raising the severed portions at an angle perpendicular to said bar.

1,025,744. HOLDER FOR ASSEMBLED SHEETS. GEORGE F. C. HOUGHTON, New York, N. Y., assignor of one-half to John Wilding, Fort Wayne, Ind. Filed Feb. 10, 1910. Serial No. 543,190. (Cl. 11—23.)



1. In combination with a holder having a series of studs arranged equidistant in a column, sheets having a series of apertures adapted to register on said studs, and lines on said sheets at right angles to the column of said apertures, one line to each aperture whereby the different sheets may be arranged on the studs with relatively different lines superposed, and means disposed between the different sheets whereby all the sheets will receive on relatively different lines the same data by a single writing.

2. In combination with a holder having a series of studs arranged equidistant thereon, sheets having a series of apertures arranged in the same order as said studs are arranged, a space designated for entries, one space to each aperture, said sheets disposed on said studs, different sheets arranged on the studs with relatively different spaces superposed, and carbon paper disposed between the sheets whereby all sheets will receive in relatively different spaces the same data by a single writing.

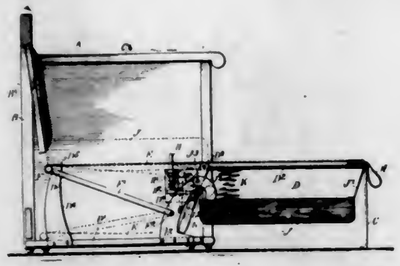
3. In combination with a holder having a series of studs arranged equidistant thereon, sheets having a series of apertures therein arranged in the same relative order as said studs and disposed on said studs, a space designed for entries to each aperture, said spaces being numbered consecutively, different sheets arranged on the studs with relatively different spaces superposed, a second series of studs on said holder disposed parallel to said first series and spaced apart therefrom a distance greater than the width of the sheets, other sheets having apertures therein in the same relative order as said second series of studs are arranged, sheets carried by said second-mentioned studs adapted to be interleaved with the sheets carried by said first-mentioned studs, and means changing the location of one series of studs with reference to the other series whereby the spaces of one set of sheets may be varied with reference to the spaces on the sheets carried by the other set of studs.

4. A holder having a series of holding studs arranged equidistant and designated in consecutive order, sheets engaging said studs, said sheets having correspondingly designated apertures therein corresponding to and in alinement with the designated studs whereby three different designated apertures on the different sheets may be superposed by disposing the sheets on the proper studs.

5. In a holder having oppositely-disposed sets of parallel studs, each set comprising at least three studs spaced apart equidistant, one set of studs being movable relatively to the other set, a feed ratchet bar attached to said movable set, one tooth of said bar to each stud, and a step-by-step feeding means engaging said ratchet bar whereby one set is moved relative to the other set of studs a distance equal to the distance between studs at each actuation of the feeding means.

[Claim 6 not printed in the Gazette.]

1,025,745. CONVERTIBLE COUCH AND BED. LEWIS B. JEFFCOTT, New York, N. Y. Filed Oct. 12, 1910. Serial No. 586,623. (Cl. 5—51.)



1. A convertible couch and bed, comprising a couch frame, a bed frame formed of rear and front sections pivoted together to fold one upon the other, the rear bed section being removably mounted in the couch frame and provided with standards at its rear end, said standards forming supports for the front section when folded, pivoted arms connected by a rod in sliding engagement with the rear faces of the standards, a fabric bed bottom secured to the rod and to the front end of the front bed section, and a couch seat on the under side of the front bed section.

2. A convertible couch and bed, comprising a couch frame, a bed frame formed of rear and front sections pivoted together to fold one upon the other, the rear section being arranged in the couch frame and provided with front and rear standards, the rear standards forming supports for the front section when folded, arms pivoted to the front standard and connected by a rod engaging the rear face of the rear standards, a fabric bed bottom secured to the rod and to the forward end of the front section, a couch seat depending from the front section, and spiral springs on the under side of the couch seat to support the bed spring when the sections are extended to form a bed.

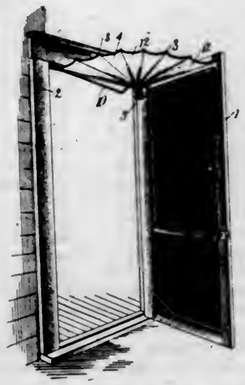
3. A convertible bed and couch, comprising a couch frame, a rear bed frame section in the couch frame and having front and rear standards, a front section pivoted to the front standards of the rear section, arms pivoted to the front standards and connected by a rod in sliding engagement with the rear faces of the rear standards, a fabric bed bottom secured to the said rod and to the front end of the front bed section, a couch seat provided with curved arms pivoted to the front standards of the rear section below their upper ends, a flexible member connecting the other end of the couch seat with the front end of the front bed section, and springs arranged on the under side of the couch seat at the rear end thereof for supporting the bed spring when the sections are extended.

4. A convertible couch and bed, comprising a couch frame, a bed frame formed of front and rear sections pivoted together to fold one upon the other, the rear section being arranged in the couch frame and having front and rear standards, the rear standards forming supports for the front bed section when folded, arms pivoted to the front standard and connected by a rod engaging the rear faces of the said rear standards, and a fabric bed bottom secured to the said rod and to the forward end of the front section.

5. A convertible couch and bed, comprising a couch frame, a bed frame formed of front and rear sections, the rear section having front and rear standards and arranged in the couch frame and the front section pivoted to the front standards, arms pivoted to the front standards and connected by a rod movable along the rear faces of the rear standards, a fabric bed bottom secured to the said rod and to the front portion of the front section, and a couch seat depending from the front bed frame section, said seat being hinged at one end to the front standards of the rear section and connected at its other end with the front section by a flexible connection.

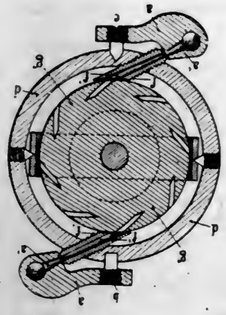
[Claim 6 not printed in the Gazette.]

1,025,746. SCREEN-DOOR ATTACHMENT. JOHN EMIL JOHNSON, Brainerd, Minn. Filed Aug. 8, 1911. Serial No. 643,028. (Cl. 156—14.)



An attachment of the class described comprising a plurality of rods of similar construction and each provided with an offset end, a bearing having opposite end portions provided with a number of openings in which the said offset ends of the rods engage, the bearing being adapted to be secured to a door casing adjacent the top thereof, a quantity of suitable flexible material engaging each of the said rods, a rod adapted to be secured to the door adjacent the top of the casing, one end of the said material being secured to the rod, another rod adapted to be secured to the top of the casing adjacent the said bearing, the other end of the said flexible material being secured to the said rod, the top of the casing being also provided with a rod extending downwardly therefrom against which the folds of the said material are adapted to engage when the door is closed.

1,025,747. GYROSCOPE FOR AUTOMOBILE TORPEDOES. ALBERT EDWARD JONES, Fiume, Austria-Hungary, assignor to Messrs. Whitehead and Company, Fiume, Austria-Hungary, a Corporation. Filed Apr. 14, 1911. Serial No. 621,095. (Cl. 74—78.)



1. In a gyroscope for automobile torpedoes, the combination with a pivoted member of a gyroscope, and a turbine wheel, of a twyer formed of two members, one mounted on a fixed part of the gyroscope and connected with the motor fluid supply and the other mounted in the said member.

2. In a gyroscope for automobile torpedoes, a fly wheel in the form of a turbine wheel, an outer vertical ring, an inner horizontal ring, two pivots for the vertical ring, two twyers attached to the said vertical ring, diametrically opposed to each other and two motor fluid supplying members opposite to the twyers, attached to the upper and lower pivot of the vertical ring respectively, substantially as described.

3. In a gyroscope driven by air or other motive fluid under pressure, a pivoted ring, a fly wheel in the form of a turbine wheel, two twyers for imparting motion to the fly wheel, diametrically opposed to each other, each twyer being divided into two parts, one attached to the vertical ring of the gyroscope and the other to the corresponding pivot of the said ring, substantially as described.

1,025,748. BASE-BALL CURVER. RALPH WILSON JONES, Lincoln, Nebr. Filed Jan. 4, 1912. Serial No. 669,335. (Cl. 46—4.)

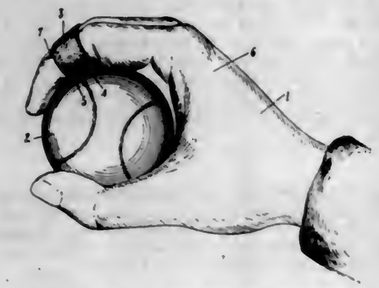
1. A baseball curver comprising a cup for engaging a ball, and means for securing the cup to the hand.

2. A baseball curver comprising a vacuum cup, and a securing member connected therewith for adjustably securing the cup to the hand.

3. A baseball curver comprising a vacuum cup formed of a yielding resilient material designed to collapse to a greater or less extent according to the amount of curve desired, and a retaining band connected to the cup for holding the cup to the hand.

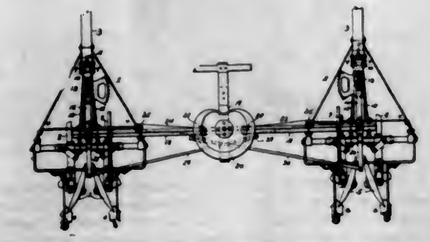
4. A baseball curver comprising a ball-engaging member and a retaining band formed so as to engage two or more of the fingers whereby the ball-engaging member is adjustably held in position opposite any point between the centers of said fingers.

5. A baseball curver comprising a rubber vacuum cup, and a rubber band designed to fit any part of the hand



for holding the cup at any desired point over the surface of the ball.

1,025,749. CULTIVATOR. MARSHALL N. KIRKHUFF, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed Nov. 10, 1911. Serial No. 659,614. (Cl. 97—31.)



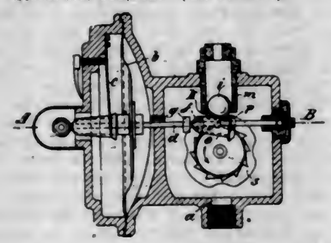
1. In a lister cultivator, the combination with two cultivator members spaced apart, and a connecting bar, of an arm pivotally connected to each of said cultivator members and having pivotal connection with said connecting bar, and movable connections between the rear end of the pivotal arm of one cultivator member and the frame of the other cultivator member.

2. In a lister cultivator, the combination with two cultivator members spaced apart, a connecting bar extending from one cultivator member to the other, and a seat having fixed connection with said bar centrally between the cultivator members, of an arm pivoted at one end to each cultivator member and having pivotal connection with the connecting bar, each of said arms having an extension rearwardly beyond its pivotal connection with the connecting bar, and movable connections between the rearward extension of one of said pivoted arms and the cultivator frame with which the other pivoted arm is connected.

3. In a lister cultivator, the combination with two cultivator members spaced apart, and a bar extending from one cultivator member to the other, of arms pivotally connected at their forward ends with the respective cultivator members and having pivotal connection with the connecting bar, each of said arms provided with a member extending rearwardly from the pivotal connection of the arm with the connecting bar, slides mounted on said connecting bar, connections between said slides and the respective cultivator members, and rods pivotally connected with said slides and connecting the same with the rearward extensions of said pivoted arm.

4. In a lister cultivator, the combination with two cultivator members spaced apart, and a connecting bar extending from one member to the other, of an arm mounted upon each cultivator member and pivotally connected at its forward end therewith, pivotal connections between said arms and the connecting bar, extensions projecting rearwardly from the pivoted arms, a seat post secured to said connecting bar centrally between its ends, slides mounted on the connecting bar at respective sides of the seat post, connecting devices located in a plane below that of the connecting bar, said connecting devices pivotally connected at one end with the slides and at the other end with the frames of the cultivator members, and crossed rods connecting said slides with the rearward extensions of the pivoted arms of the respective cultivator members.

1,025,750. APPARATUS FOR CONTROLLING THE LIGHTING OF GAS FROM A DISTANCE. EDUARD KÖRNER, Lützel, near Koblenz, Germany. Filed July 18, 1911. Serial No. 639,132. (Cl. 67—18.)



1. A device for controlling the lighting of gas from a distance comprising the combination of a member sensitive to pressure with a pawl adapted to be moved longitudinally by the said member, means for supporting the pawl, the pawl being rotatable on the said means and also partaking of a pendulous motion, the extent of which is determined by the depth of ratchet teeth with which it is adapted to engage.

2. A device for controlling the lighting of gas from a distance comprising the combination of a member sensitive to pressure with a pawl movable longitudinally by the said member, means for supporting the pawl, the pawl being rotatable on the said means whereby it may be turned about its longitudinal axis, the pawl also being capable of a pendulous motion, the extent of which depends upon the depth of the ratchet teeth with which it is adapted to engage, the said supporting means comprising a collar which forms a ball pivot about which the said pawl moves.

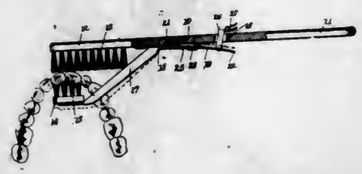
3. A device for controlling the lighting of gas from a distance comprising the combination of a member sensitive to pressure with a pawl movable longitudinally by the said member, means for supporting the said pawl, the pawl being rotatable on the said means, a ratchet wheel actuated by the movement of said pawl, a ball having free play and serving as a detent for the ratchet wheel the radius of said ball being less than the depth of the teeth of the ratchet wheel with which it engages.

4. A device for controlling the lighting of gas from a distance comprising the combination of a member sensitive to pressure, a pawl and ratchet wheel device acted upon by said first mentioned member, and a detent for the ratchet wheel consisting of a ball having free vertical play, the radius of said ball being less than the depth to which the ball enters in the teeth of the ratchet wheel.

5. A device of the class described comprising a chamber having a diaphragm therein, an opening whereby gas may enter the chamber, a cam wheel rotatably mounted within the chamber, a ball valve suitably positioned within a casing and free to turn in all directions, the ball valve being in engagement with the said cam wheel, and means connected to the diaphragm and in engagement with other means connected to the cam wheel whereby, as such diaphragm is moved, the cam wheel will be operated and the ball valve thereby turned by the cam wheel and lifted vertically so that it is held suspended over its seat.

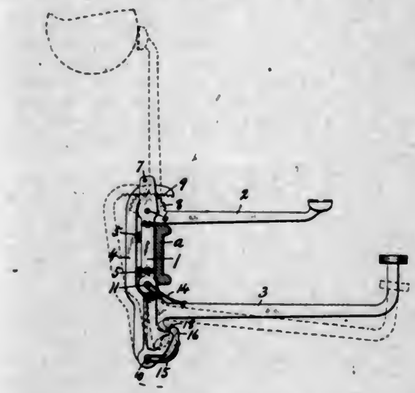
1,025,751. TOOTH-BRUSH. AUGUST OTTO KRETZSCHMAR, Endicott, N. Y. Filed May 4, 1911. Serial No. 624,944. (Cl. 15—39.)

1. A device of the class described comprising a substantially straight bar constituting a handle, a brush carried by said bar, a lever comprising angular arms and pivotally mounted upon said bar, a secondary brush mounted at the end of one of said arms, said other arm of said lever having a stud projecting to the other side of said bar and constituting means to permit the manipulation of said lever, and a spring tending to hold said lever in a normal position.



2. A device of the class described, comprising a bar constituting a handle, a brush carried by said bar, a lever fashioned from sheet metal and comprising angularly disposed arms pivotally mounted upon said bar, a secondary brush mounted at the end of one of said arms, the other of said arms being upwardly disposed at the extremity, so that it can be easily manipulated, said bar having an opening, said last-mentioned arm of said lever having a stud projection extending through said opening and constituting means to permit the manipulation of said lever, and a spring secured to said bar and engaging said lever and tending to hold the same in a normal position.

1,025,752. TYPE-WRITING MACHINE. EMMIT G. LATTA, Syracuse, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 6, 1905. Serial No. 281,661. (Cl. 197—28.)



1. In a typewriting machine, a type-bar arranged to swing upwardly and rearwardly, a detachable type-bar hanger supporting the bar, a key-lever, and auxiliary lever both pivotally connected to and removable with the hanger.

2. In a typewriting machine, a slotted segment, a series of type-bar hangers detachably seated in the segment slots, a type-bar auxiliary lever, and key-lever pivotally connected to each of the hangers, the type-bar and key-lever being mounted upon their hangers and removable therewith from the segment.

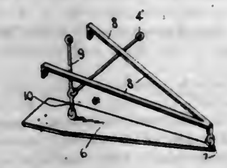
3. In a typewriting machine, a segment and hangers thereon, a series of self-contained type-bar actions, each consisting of a type-bar, a key-lever, and an auxiliary lever, each pivotally connected to its hanger and removable therewith from the segment.

4. In a typewriting machine, a type-bar arranged to swing upwardly and rearwardly, a supporting segment, and a hanger consisting of a pair of opposite side plates pivotally connected to the type-bar, the hanger plates being connected to the segment below the type-bar pivot, and having upward extensions rigidly connected by a separate part above said pivot.

5. In a typewriting machine, a type-bar arranged to swing upwardly and rearwardly, a supporting segment, and a hanger consisting of a pair of separate side plates pivotally connected to the type-bar, the hanger plates being connected to the segment below the type-bar pivot, and having their upper ends extended above said pivot and rigidly connected to form an open guide for the type-bar when at the printing point.

[Claims 6 to 17 not printed in the Gazette.]

1,025,753. GRAIN-DIVIDING ATTACHMENT FOR HARVESTERS. CHARLES C. LEINEWEBER, Firth, Nebr. Filed May 4, 1911. Serial No. 625,036. (Cl. 56—30.)



1. A grain dividing attachment for harvesting machines comprising a substantially triangular member adapted to be mounted adjacent to and in advance of the driving wheel of the machine with its apex extending forwardly, a brace pivotally connected at one end to the apex of said member, means for connecting the rear end of said triangular member to the frame of the machine to which it is to be applied and means for connecting said triangular member to the sickle bar of the machine.

2. A grain dividing attachment for harvesting machines comprising a pointed member adapted to be mounted adjacent to and in advance of the drive wheel of a machine, upwardly and rearwardly inclined brace bars pivotally connected at their lower ends to the front end of said pointed member, and means for connecting said pointed member to the sickle bar of the machine to provide for the lateral oscillation of said member.

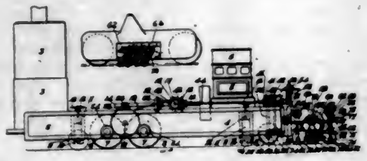
3. A grain dividing attachment for harvesting machines comprising a pointed member adapted to be mounted adjacent to and in advance of the drive wheel of a machine, upwardly and rearwardly inclined brace bars pivotally connected at one end to the front end of said pointed member, a member pivotally connected to said pointed member near its rear end.

4. The combination with a harvesting machine having a drive wheel and a reciprocating sickle bar, of a grain dividing attachment comprising a pointed member arranged in advance of said drive wheel, an upwardly and rearwardly inclined brace member pivotally connected at one end with said pointed member, and rigidly attached at its other end to said machine, a supporting member pivotally connected with said pointed member and secured to the machine frame, and a pitman connected at one end to said sickle bar and at its other end to said supporting member whereby a laterally oscillating motion is imparted to said pointed member.

1,025,754. MACHINE FOR PLANING RAILS UPON THEIR TRACKS. JOHN LITTLE, Camberwell, Victoria, Australia, assignor to Woods-Gilbert Rail Planer Company, Limited, Melbourne, Australia. Filed Sept. 27, 1910. Serial No. 584,048. (Cl. 90—24.)

1. In a machine for dressing rails while in position on the track, a platform, means connected thereto for planing the rails by passing over them with the travel of said platform, means for automatically preventing the rise and fall of the platform due to varying levels of the rail from influencing said planing means, means for

automatically preventing the lateral movement of the platform when passing around curves from influencing said planing means, and means for propelling said platform.



2. In a machine for dressing rails while in position on the track, a movable platform, a carriage pivotally and slidably connected to said platform, and dressing means carried by said carriage.

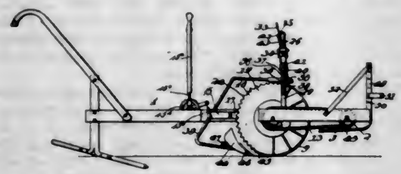
3. In a machine for dressing rails while in position on the track, a movable platform, a carriage connected thereto, means for automatically adjusting said carriage to varying levels of the rails, and dressing means carried by said carriage.

4. In a machine for dressing rails while in position on the track, a movable platform, a carriage connected thereto, means for automatically adjusting said carriage laterally when the machine is passing around curves, and dressing means carried by said carriage.

5. In a machine for dressing rails while in position on the track, a movable platform, a bracket connected to said platform above each rail, a carriage connected to each bracket, and dressing means carried by each carriage.

[Claims 6 to 15 not printed in the Gazette.]

1,025,755. BEET-TOPPER. FRANKLIN LOTTER, Elkton, Mich. Filed Sept. 30, 1909. Serial No. 520,263. (Cl. 55—107.)

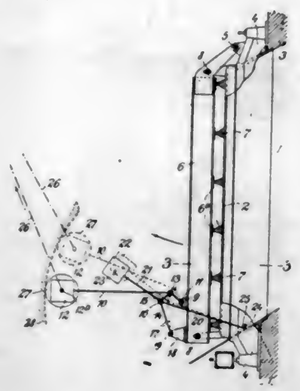


1. In a beet harvester, a wheeled supporting frame, a shaft arranged transversely therein, a substantially U-shaped frame having its free ends pivotally connected with said shaft, a disk measuring wheel revolubly mounted between the side members of said U-shaped frame, top cutting mechanism, and means connecting said cutting mechanism with said swinging U-shaped frame and operable to vary the cutting depth of said cutting mechanism.

2. In a beet harvester, a wheeled supporting frame, a U-shaped vertically swinging frame having the free ends of the legs thereof pivotally connected with the front end of said supporting frame and arranged horizontally therein, the legs of said U-shaped frame being arranged in the same horizontal plane, a measuring wheel arranged between said legs and revolubly mounted therein, top cutting mechanism, means connecting said top cutting mechanism with said swinging frame and operable to vary the cutting depth of said cutting mechanism.

3. A beet topper comprising a supporting frame having drive wheels, a frame pivoted to swing vertically in said supporting frame, a disk measuring wheel of substantially the same diameter as said drive wheels revolubly mounted in said pivoted frame, a topping knife carried by said swinging frame, and means operable by said disk wheel for regulating the cutting depth of said knife.

1,025,756. LATCH MECHANISH. BERNHARD LUDWIG, Munich, Germany, assignor to The Firm of Ofenbau-Gesellschaft mit beschränkter Haftung, Munich, Germany. Filed Dec. 11, 1909. Serial No. 532,552. (Cl. 70—49.)



1. A structure comprising two members pivotally connected at their upper ends and one movable relatively to the other, a keeper on one of said members, a latch arm carried by the other member to swing relatively thereto into and out of engagement with said keeper, the latch arm being also movable lengthwise on the member carrying it, to move the end of the arm toward or from the keeper while both members are stationary, and mechanism mounted on the latch-carrying member, for first moving the latch arm lengthwise and then swinging it transversely while both members are stationary, and then separating said members, or, in the reverse operation, first bringing said members together, then swinging the latch arm transversely into engagement with the keeper, and finally moving the latch arm lengthwise into the locking position.

2. The combination of two members one movable relatively to the other, a keeper on one of said members, a latch carried by the other member, a weighted lever connected with the latch to move it toward and from the member carrying the keeper, and a cross-bar connected with the latch and adapted to be engaged by the lever to swing the latch transversely away from the keeper.

3. A structure comprising two members one movable relatively to the other, a keeper on one of said members, a latch carried by the other member and adapted to engage the keeper, mechanism for operating the latch and for separating said members, and a guide engaging a portion of said mechanism and arranged to prevent separation of said members until the mechanism reaches a predetermined position.

4. The combination of two members one movable relatively to the other, a keeper on one of said members, a latch carried by the other member and adapted to engage the keeper, a lever connected with the latch to move it toward and from the member carrying the keeper and arranged, at a certain point of its throw, to swing the latch transversely away from the keeper, and a guide for preventing the members from separating before the lever has reached said point.

5. The combination of two members one movable relatively to the other, a keeper mounted on one of said members, a rock shaft mounted on the other member and provided with a crank, a latch pivoted on said crank and adapted to engage the keeper, and a stop on said other member to prevent the crank from passing beyond its dead center position.

[Claim 6 not printed in the Gazette.]

1,025,757. NON-REFILLABDE BOTTLE. HERMAN MARCUS, New York, N. Y., assignor of one-half to Joseph Bloch, New York, N. Y. Filed Jan. 22, 1912. Serial No. 672,607. (Cl. 215—112.)



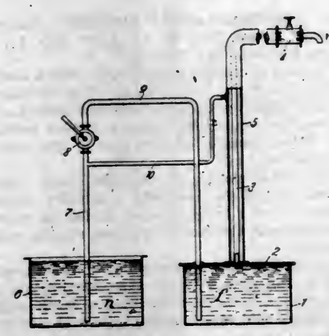
1. In a non-refillable vessel, the combination of a body having a partition inside of the same, said partition inclosing a portion of the interior space of the vessel, a conduit leading through said partition into said inclosed space, means for diverting liquid supplied to the interior of the vessel through said conduit into said inclosed space, and means for closing said conduit to prevent the egress of liquid from said inclosed space.

2. In a non-refillable vessel, the combination of a body having an annular partition therein, said partition inclosing a portion of the interior space of said vessel between the same and the outer wall thereof, a conduit leading from the mouth of said vessel through said partition into the said inclosed space, means for diverting liquid supplied to said vessel through said conduit into said inclosed space, and means for closing said conduit and preventing the return of said liquid from said space therethrough.

3. In a non-refillable vessel, means for inclosing a portion of the interior space of said vessel, a conduit leading from the mouth of said vessel through said means inside of said inclosed space, valve means located in operative relation to said conduit to permit liquid to enter said inclosed space, but preventing its egress therefrom, said conduit also having an aperture therein, a funnel connected to said conduit adjacent the mouth of said vessel to divert liquid poured into said vessel into said inclosed space, and a nipple extending from said conduit adjacent said funnel to permit air in the said inclosed space to pass through said conduit and said nipple upon the entrance of liquid into said inclosed space.

4. In a non-refillable bottle, the combination of a body, an inward-extending tube located adjacent the mouth thereof, said tube being open at its inner end and being spaced from the walls of the mouth of the vessel, a thimble closing the inner end of said tube, means for inclosing a portion of the interior space of the vessel, a conduit leading through said means, and valve means associated with said conduit inside of said space to permit liquid to flow into said space and prevent its egress therefrom, the said conduit extending through said thimble into said tube, said thimble being spaced from said tube, whereby when the bottle is inverted the contents can flow into the neck thereof and into the thimble, and thence outward through said tube to empty the bottle, and, whereby, when liquid is poured into said vessel the pressure of the air inside of the same will prevent the liquid from passing from said tube into said thimble to the inside of the vessel, and part of said liquid will be caused to pass through said conduit into said inclosed space and be trapped therein by said valve means.

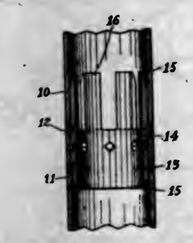
1,025,758. DEVICE FOR SAFELY STORING INFLAMMABLE LIQUIDS. CARL MARTINI, Berlin, Germany, assignor to Martini & Hüneke Maschinenbau-Aktien-Gesellschaft, Berlin, Germany, a Corporation of Germany. Filed Feb. 3, 1912. Serial No. 675,236. (Cl. 220—125.)



1. A device for the safe storage of inflammable liquids, comprising a closed receptacle for the inflammable liquid, a delivery pipe leading therefrom, a receptacle for an inert liquid, a pump provided with a suction pipe connected with the last-named receptacle and with a delivery pipe leading to the first-named receptacle, a jacket surrounding the delivery pipe for the inflammable liquid and forming therewith a space shut off from the interior of the closed receptacle, and a permanently open connection from the said space to the said suction pipe.

2. A device for the safe storage of inflammable liquids, comprising a closed receptacle for the inflammable liquid, a delivery pipe leading therefrom, a pump having a suction pipe connected with a supply of an inert liquid, and a delivery pipe leading to said receptacle, a jacket surrounding the delivery pipe for the inflammable liquid and forming therewith a space shut off from the interior of said receptacle but communicating with said suction pipe.

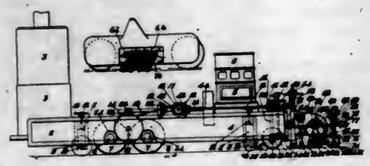
1,025,759. JOINT FOR TUBULAR PILING. FRANK MCCLUSKEY, New York, N. Y. Filed Jan. 18, 1912. Serial No. 671,804. (Cl. 61—42.)



1. A tubular piling comprising a series of abutting pipe sections of sufficient thickness and strength to resist driving blows, in combination with joining sleeves, having opposite ends telescoping into abutting pipe sections at the joints, each sleeve being provided at one of its telescoping portions with set-screws turned point outward and engaging the interior surface of the pipe section into which it fits; the whole arranged substantially as described to present a smooth surface without change of diameter at the joints.

2. A tubular piling, comprising a series of abutting pipe sections of sufficient thickness and strength to resist driving blows, in combination with joining sleeves, each of which comprises a portion fitting into one abutting pipe end and provided with set screws, turned outward to engage said

automatically preventing the lateral movement of the platform when passing around curves from influencing said planing means, and means for propelling said platform.



2. In a machine for dressing rails while in position on the track, a movable platform, a carriage pivotally and slidably connected to said platform, and dressing means carried by said carriage.

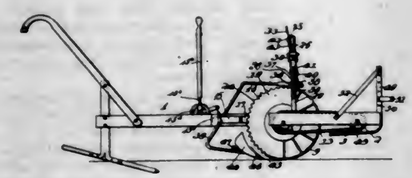
3. In a machine for dressing rails while in position on the track, a movable platform, a carriage connected thereto, means for automatically adjusting said carriage to varying levels of the rails, and dressing means carried by said carriage.

4. In a machine for dressing rails while in position on the track, a movable platform, a carriage connected thereto, means for automatically adjusting said carriage laterally when the machine is passing around curves, and dressing means carried by said carriage.

5. In a machine for dressing rails while in position on the track, a movable platform, a bracket connected to said platform above each rail, a carriage connected to each bracket, and dressing means carried by each carriage.

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1,025,755. BEET-TOPPER. FRANKLIN LOTTER, Elkton, Mich. Filed Sept. 30, 1909. Serial No. 520,263. (Cl. 55—107.)

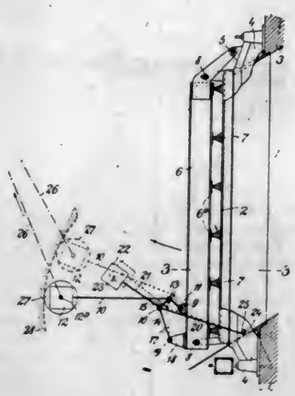


1. In a beet harvester, a wheeled supporting frame, a shaft arranged transversely therein, a substantially U-shaped frame having its free ends pivotally connected with said shaft, a disk measuring wheel revolubly mounted between the side members of said U-shaped frame, top cutting mechanism, and means connecting said cutting mechanism with said swinging U-shaped frame and operable to vary the cutting depth of said cutting mechanism.

2. In a beet harvester, a wheeled supporting frame, a U-shaped vertically swinging frame having the free ends of the legs thereof pivotally connected with the front end of said supporting frame and arranged horizontally therein, the legs of said U-shaped frame being arranged in the same horizontal plane, a measuring wheel arranged between said legs and revolubly mounted therein, top cutting mechanism, means connecting said top cutting mechanism with said swinging frame and operable to vary the cutting depth of said cutting mechanism.

3. A beet topper comprising a supporting frame having drive wheels, a frame pivoted to swing vertically in said supporting frame, a disk measuring wheel of substantially the same diameter as said drive wheels revolubly mounted in said pivoted frame, a topping knife carried by said swinging frame, and means operable by said disk wheel for regulating the cutting depth of said knife.

1,025,756. LATCH MECHANISH. BERNHARD LUDWIG, Munich, Germany, assignor to The Firm of Ofenbau-Gesellschaft mit beschränkter Haftung, Munich, Germany. Filed Dec. 11, 1909. Serial No. 532,552. (Cl. 70—49.)



1. A structure comprising two members pivotally connected at their upper ends and one movable relatively to the other, a keeper on one of said members, a latch arm carried by the other member to swing relatively thereto into and out of engagement with said keeper, the latch arm being also movable lengthwise on the member carrying it, to move the end of the arm toward or from the keeper while both members are stationary, and mechanism mounted on the latch-carrying member, for first moving the latch arm lengthwise and then swinging it transversely while both members are stationary, and then separating said members, or, in the reverse operation, first bringing said members together, then swinging the latch arm transversely into engagement with the keeper, and finally moving the latch arm lengthwise into the locking position.

2. The combination of two members one movable relatively to the other, a keeper on one of said members, a latch carried by the other member, a weighted lever connected with the latch to move it toward and from the member carrying the keeper, and a cross-bar connected with the latch and adapted to be engaged by the lever to swing the latch transversely away from the keeper.

3. A structure comprising two members one movable relatively to the other, a keeper on one of said members, a latch carried by the other member and adapted to engage the keeper, mechanism for operating the latch and for separating said members, and a guide engaging a portion of said mechanism and arranged to prevent separation of said members until the mechanism reaches a predetermined position.

4. The combination of two members one movable relatively to the other, a keeper on one of said members, a latch carried by the other member and adapted to engage the keeper, a lever connected with the latch to move it toward and from the member carrying the keeper and arranged, at a certain point of its throw, to swing the latch transversely away from the keeper, and a guide for preventing the members from separating before the lever has reached said point.

5. The combination of two members one movable relatively to the other, a keeper mounted on one of said members, a rock shaft mounted on the other member and provided with a crank, a latch pivoted on said crank and adapted to engage the keeper, and a stop on said other member to prevent the crank from passing beyond its dead center position.

[Claim 6 not printed in the Gazette.]

1,025,757. NON-REFILLABLE BOTTLE. HERMAN MARCUS, New York, N. Y., assignor of one-half to Joseph Bloch, New York, N. Y. Filed Jan. 22, 1912. Serial No. 672,607. (Cl. 215—112.)



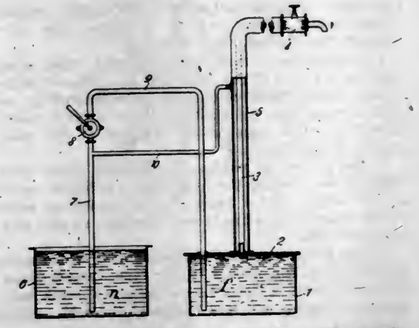
1. In a non-refillable vessel, the combination of a body having a partition inside of the same, said partition inclosing a portion of the interior space of the vessel, a conduit leading through said partition into said inclosed space, means for diverting liquid supplied to the interior of the vessel through said conduit into said inclosed space, and means for closing said conduit to prevent the egress of liquid from said inclosed space.

2. In a non-refillable vessel, the combination of a body having an annular partition therein, said partition inclosing a portion of the interior space of said vessel between the same and the outer wall thereof, a conduit leading from the mouth of said vessel through said partition into the said inclosed space, means for diverting liquid supplied to said vessel through said conduit into said inclosed space, and means for closing said conduit and preventing the return of said liquid from said space therethrough.

3. In a non-refillable vessel, means for inclosing a portion of the interior space of said vessel, a conduit leading from the mouth of said vessel through said means inside of said inclosed space, valve means located in operative relation to said conduit to permit liquid to enter said inclosed space, but preventing its egress therefrom, said conduit also having an aperture therein, a funnel connected to said conduit adjacent the mouth of said vessel to divert liquid poured into said vessel into said inclosed space, and a nipple extending from said conduit adjacent said funnel to permit air in the said inclosed space to pass through said conduit and said nipple upon the entrance of liquid into said inclosed space.

4. In a non-refillable bottle, the combination of a body, an inward-extending tube located adjacent the mouth thereof, said tube being open at its inner end and being spaced from the walls of the mouth of the vessel, a thimble closing the inner end of said tube, means for inclosing a portion of the interior space of the vessel, a conduit leading through said means, and valve means associated with said conduit inside of said space to permit liquid to flow into said space and prevent its egress therefrom, the said conduit extending through said thimble into said tube, said thimble being spaced from said tube, whereby when the bottle is inverted the contents can flow into the neck thereof and into the thimble, and thence outward through said tube to empty the bottle, and, whereby, when liquid is poured into said vessel the pressure of the air inside of the same will prevent the liquid from passing from said tube into said thimble to the inside of the vessel, and part of said liquid will be caused to pass through said conduit into said inclosed space and be trapped therein by said valve means.

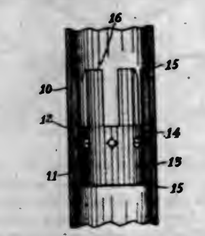
1,025,758. DEVICE FOR SAFELY STORING INFLAMMABLE LIQUIDS. CARL MARTINI, Berlin, Germany, assignor to Martini & Hüneke Maschinenbau-Aktien-Gesellschaft, Berlin, Germany, a Corporation of Germany. Filed Feb. 3, 1912. Serial No. 675,236. (Cl. 220—125.)



1. A device for the safe storage of inflammable liquids, comprising a closed receptacle for the inflammable liquid, a delivery pipe leading therefrom, a receptacle for an inert liquid, a pump provided with a suction pipe connected with the last-named receptacle and with a delivery pipe leading to the first-named receptacle, a jacket surrounding the delivery pipe for the inflammable liquid and forming therewith a space shut off from the interior of the closed receptacle, and a permanently open connection from the said space to the said suction pipe.

2. A device for the safe storage of inflammable liquids, comprising a closed receptacle for the inflammable liquid, a delivery pipe leading therefrom, a pump having a suction pipe connected with a supply of an inert liquid, and a delivery pipe leading to said receptacle, a jacket surrounding the delivery pipe for the inflammable liquid and forming therewith a space shut off from the interior of said receptacle but communicating with said suction pipe.

1,025,759. JOINT FOR TUBULAR PILING. FRANK MCCLUSKEY, New York, N. Y. Filed Jan. 18, 1912. Serial No. 671,804. (Cl. 61—42.)



1. A tubular piling comprising a series of abutting pipe sections of sufficient thickness and strength to resist driving blows, in combination with joining sleeves, having opposite ends telescoping into abutting pipe sections at the joints, each sleeve being provided at one of its telescoping portions with set-screws turned point outward and engaging the interior surface of the pipe section into which it fits; the whole arranged substantially as described to present a smooth surface without change of diameter at the joints.

2. A tubular piling, comprising a series of abutting pipe sections of sufficient thickness and strength to resist driving blows, in combination with joining sleeves, each of which comprises a portion fitting into one abutting pipe end and provided with set screws, turned outward to engage said

pipe end, and another portion divided into resilient sections fitting the opposite abutting pipe end and hugging the interior thereof by virtue of their resilience, the whole arranged substantially as described to present a smooth surface, without change of diameter at the joints.

1,025,760. ELECTROPLATING PROCESS. FRANCIS J. MCELHONE, Jersey City, N. J. Filed May 11, 1907. Serial No. 373,046. (Cl. 204—8.)

1. The process of making electroplates, which comprises treating the face of the case with a solution containing a solvent which dissolves the light oils and foreign matter, said solution also containing a finely divided conducting substance which deposits on the face of the case, and plating thereafter.

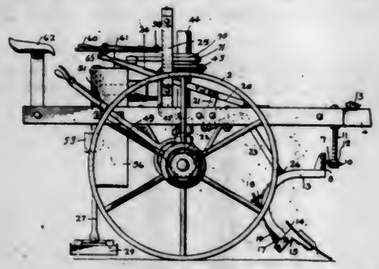
2. The process of making electroplates, which comprises washing the face of the case with a solution containing an ink solvent and a finely divided conducting substance which deposits upon the face of the case, rinsing and plating thereafter.

3. The process of making electroplates, which comprises impressing a wax case with the type, treating said case thereafter with a solution containing a weak acid and graphite, rinsing said case to remove the acid, and plating thereafter.

4. The process of making electroplates, which comprises treating the face of the case with a solvent, then rinsing thoroughly to remove the solvent and plating thereafter in a bath originally containing approximately the proportions of 1 gallon of water, 23 ounces, 205 grains of copper sulfate and 6 fluid ounces of sulfuric acid.

5. The process of making electroplates, which comprises washing the face of the case with a solution containing a finely divided conducting substance, which will deposit upon the face of the case, rinsing said face, and plating thereafter.

1,025,761. COTTON CHOPPER AND CULTIVATOR. JOHN WILLIAM MCMILLAN, El Dorado, Ark. Filed Jan. 14, 1911. Serial No. 602,560. (Cl. 97—45.)



1. The combination with a carriage, of a floating frame slidingly mounted on said carriage, springs adapted to urge said frame in one direction, and a chopper pivotally mounted on said floating frame, said chopper having a floating fulcrum adapted to yield when said chopper comes in contact with an obstacle.

2. The combination with a frame, of a chopper connected to said frame, said chopper comprising a lever and one or more knives secured to said lever, and a floating fulcrum for said chopper, comprising a plurality of horizontally-extending rods spaced apart horizontally, so as to form a passage for said lever, and spaced apart vertically so as to form a passage, a pivot bolt for said lever extending in said last-mentioned passage, and supported by the lowermost of said rods, and springs disposed on opposite sides of said lever and adapted to resist the movement of said lever and said pivot bolt.

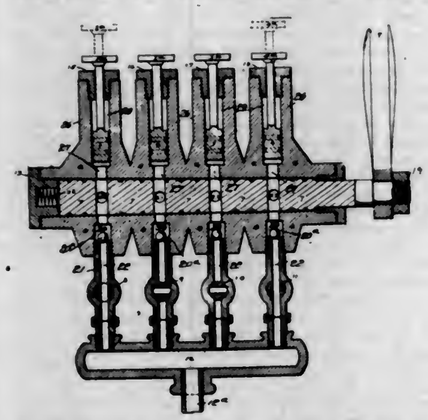
3. The combination with a frame, of a chopper connected to said frame, said chopper comprising a lever and one or more knives secured to said lever, and a floating fulcrum for said chopper, comprising a plurality of horizontally-extending rods spaced apart horizontally so as to form a passage for said lever, and spaced apart vertically so as to form a passage, a pivot bolt for said lever extending in said last-mentioned passage, springs disposed on opposite sides of said lever and adapted to resist the movement of said lever and said pivot bolt, each of said springs surrounding all of said rods, and fixed caps slidingly mounted on said rods and interposed between said springs and said lever.

4. The combination with a carriage including a frame, an axle, and wheels mounted on said axle, of a chopper pivotally mounted on said frame and having a plurality of blades so as to be adapted to cut in either direction, said chopper having a slot therein, a crank engaging said slot, a shaft for driving said crank, a bevel gear on said shaft, a bevel gear meshing with said first-mentioned bevel gear, a vertical shaft connected in driving relation with said last-mentioned gear by means of a sliding connection, so that said last-mentioned gear can be vertically adjusted relative to said shaft, and still maintain its driving relation, a bevel gear on said vertical shaft, a bevel gear meshing with said last-mentioned gear and mounted on said axle, and a clutch for connecting said axle with one of said wheels, said chopper being vertically adjustable so as to cut stalks at varying heights from the ground.

5. The combination with a carriage, of a vertically disposed driven shaft therein, a shaft at an angle to said driven shaft, gear connections between said shafts including a spline upon said vertical shaft, a frame slidingly mounted in the carriage and supporting said second shaft, and a chopper pivotally mounted on said frame and having connection with its said shaft, said chopper having a floating fulcrum adapted to yield when the chopper comes in contact with an obstacle.

[Claim 6 not printed in the Gazette.]

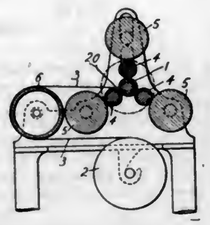
1,025,762. AUTO OR GAS ENGINE STARTER AND INDICATOR. GEORGE EDWARD OCAIN, Oak Park, Ill. Filed Feb. 17, 1911. Serial No. 609,250. (Cl. 123—180.)



1. The improved gas-engine starter and indicator, consisting of a body having a longitudinal bore or chamber and on its upper side a series of lateral chambers communicating with the said bore, pistons slidable in such chambers and having projecting heads that serve as visual indicators or finders, a plug valve adapted to rotate in the bore and having transverse passages, each formed of communicating ports in T-form, the chambered body having also lateral passages, and pipes from the engine cylinders to be started secured in said passages, tubes pendent from the chambered body and communicating with openings in the latter which register with the plug passages, pet-cocks in said tubes, and a manifold common to, or connecting, the tubes, and adapted to receive an explosive gas-mixture, as shown and described.

2. The combination of a body having a lengthwise bore and ports leading out therefrom on the top, the side, and the bottom of said body, pistons slidable in the upper ports, engine pipes communicating with the side ports and tubes connecting with the bottom ports, and provided with pet-cocks, ball valves seated downward in said bottom ports, and a rotatable plug arranged in the body and having transverse T-shape ports adapted to communicate with the several ports of the body, as shown and described.

1,025,763. PROCESS FOR MAKING INSULATING-TUBES. VICTOR PINDTER V. PINDTERSHOFEN, Wiener-Neustadt, Austria-Hungary. Filed Oct. 27, 1910. Serial No. 589,387. (Cl. 93—81.)



1. A process for making insulating tubes consisting in drying a sheet of fabric to expel the moisture therefrom and open the pores of the same, rolling said sheet, under tension, for its whole width on a mandrel to form a tubular body of non-adhering thicknesses; placing said mandrel and tubular body in an impregnating solution to completely immerge the tube; and then withdrawing said mandrel from the tube, substantially as described.

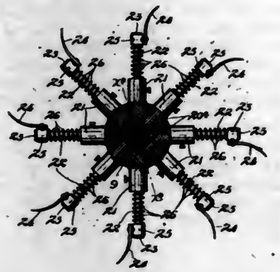
2. A process for making insulating tubes consisting in rolling a sheet of fabric on a mandrel to form a tube; placing said tube in a closed chamber; creating a vacuum in the chamber to remove moisture from the tube; and then admitting an insulating solution into said chamber to saturate the tube; substantially as described.

3. A process for making insulating tubes consisting in rolling a sheet of fabric on a mandrel to form a tube; placing the tube in a closed chamber; creating a vacuum in the chamber to remove moisture from the tube; admitting an insulating solution into said chamber; and then admitting a fluid under pressure into the chamber to impregnate the tube with said solution, substantially as described.

4. A process for making insulating tubes consisting in rolling a sheet of fabric on a mandrel to form a tube; placing the tube in a closed chamber; creating a vacuum in the chamber to remove moisture from the tube; admitting an insulating solution into said chamber; subjecting said fluid to pressure to impregnate the tube with said solution; and then expelling the solution from the chamber under pressure and allowing the solution to drain from the tubes, substantially as described.

5. A process for making insulating tubes consisting in drying a sheet of fabric to expel the moisture and open the pores thereof, rolling said sheet, under tension, for its whole width on a mandrel, which is coated with an insulating medium, to form a tubular body of non-adhering thicknesses; placing said mandrel and tubular body in a closed chamber; creating a vacuum in the chamber to further remove moisture from the tube; then admitting an impregnating solution in the chamber to completely immerge the tube; and then admitting a fluid under pressure into said chamber to impregnate the tube with said solution, substantially as described.

1,025,764. ROTARY PLOW. WILLIAM S. POSEY, Frettim, N. D., assignor of one-half to Thomas S. Pryse, Dawson, N. D. Filed Apr. 6, 1911. Serial No. 619,248. (Cl. 97—25.)

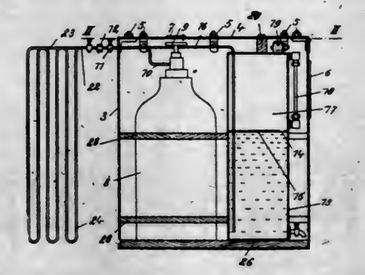


1. In a machine of the kind described, the combination with a truck, of a rotary drum carried by the truck frame and provided with radially projecting and transversely spaced pairs of spokes, cutting blades having bearing hubs slidably mounted on said pairs of spokes, and springs on the said spokes yieldingly pressing the said blades radially outward, substantially as described.

2. In a machine of the kind described, the combination with a truck, of a rotary drum carried by the truck frame and provided with radially projecting and transversely spaced pairs of hubs, headed spokes secured to said hubs, cutting blades having bearing heads slidably mounted on said headed spokes, and springs on the said spokes yieldingly pressing the said blades radially outward against the heads of said spokes, substantially as described.

3. In a machine of the kind described, the combination with a truck, of a rotary drum carried by the truck frame and provided with radially projecting and transversely spaced pairs of hubs, headed spokes adjustably secured to said hubs, cutting blades having bearing heads slidably mounted on said headed spokes, and springs on the said spokes yieldingly pressing the said blades radially outward against the heads of said spokes, substantially as described.

1,025,765. REFRIGERATING APPARATUS. JOAQUIN GARCIA DE QUESADA, Barcelona, Spain. Filed Aug. 28, 1911. Serial No. 646,313. (Cl. 62—6.)



1. In a refrigerating apparatus provided with a cooling coil, the combination of a portable generator comprising a container for gas under pressure and a closed receptacle divided by an apertured partition into a lower compartment for normally containing an absorbent of such gas and a communicating upper overflow compartment, a water glass on said overflow compartment, a valved pipe communicating with the lower portion of said lower compartment, a valved pipe leading from said container, and means for detachably securing said container pipe and lower compartment pipe respectively to the inlet and outlet of the coil.

2. In a refrigerating apparatus provided with a cooling coil, the combination of a portable generator comprising a container for gas under pressure and a closed receptacle divided by an apertured partition into a lower compartment for normally containing an absorbent of such gas and a communicating upper overflow compartment, a valved pipe communicating with the lower portion of said lower compartment, a valved pipe leading from said container, means for detachably securing said container pipe and lower compartment pipe respectively to the inlet and outlet of the coil, and valves in said inlet and outlet.

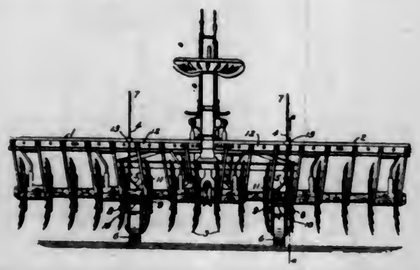
1,025,766. PHOTOGRAPHIC OBJECTIVE. RUDOLF STRAUBEL, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Mar. 9, 1911. Serial No. 613,353. (Cl. 88—57.)



1. Single objective consisting of three lenses, having a collective cemented surface, convex toward the diaphragm, and a dispersive one, concave toward the diaphragm, and having further a greater difference of index at the collective than at the dispersive cemented surface, the outer lens which faces the diaphragm consisting of fused quarts.

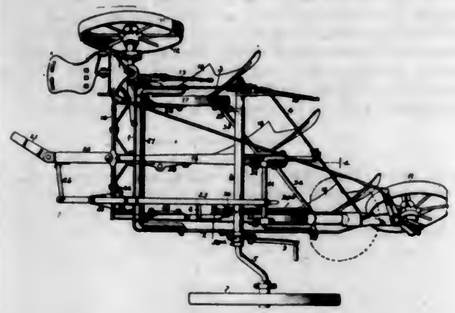
2. Double objective comprising as a component a single objective consisting of three lenses, having a collective cemented surface, convex toward the diaphragm, and a dispersive one, concave toward the diaphragm, and having further a greater difference of index at the collective than at the dispersive cemented surface, the outer lens which faces the diaphragm consisting of fused quarts.

1,025,767. WHEEL-SUPPORT FOR HARROWS. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Apr. 21, 1908. Serial No. 428,450. (Cl. 21—120.)



A wheel support for harrows, comprising a frame formed of a substantially straight handle portion and a lower forwardly curved portion having a rearwardly extending lower end, a wheel journaled on said lower end and having its axis disposed substantially in the longitudinal plane of the handle portion, and a rearwardly extending harrow-engaging projection carried by and located in the curved portion, said arrangement placing the weight of the harrow upon the support in advance of the wheel when the handle is elevated.

1,025,768. WHEELED PLOW. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Mar. 19, 1910. Serial No. 550,546. (Cl. 97—36.)



1. In a plow, a main frame, a plurality of plowing members, a yoke pivoted to the main frame and to each of the members, another yoke pivoted to the main frame and to certain only of the plowing members, and means for raising and lowering the plowing members, said means being connected to one of the plowing members that is connected to both of the yokes and also being connected to one of the plowing members that is connected to one only of the yokes.

2. In a plow, a main frame, three plow-carrying beams, a yoke pivoted to the main frame and to two of the beams, and raising and lowering means for the beams connected to one of the two that is connected to the yoke, said raising and lowering means being also connected to the third beam that is not so connected.

3. In a plow, a main frame, three plow-carrying beams of different lengths, a yoke pivoted to the main frame and to the two longer beams, and raising and lowering means for the beams connected to one of said two longer beams and to the shortest beam.

4. In a plow, the combination with a main frame having a tapered rear end that includes a diagonally disposed rear bar, of three plow-carrying beams, a yoke pivoted to the main frame and to each of the plow-carrying beams at its front ends, another yoke pivoted to two of the plow-carrying beams at their rear ends and to the diagonally disposed rear bar of the frame, and raising and lowering means located between the yokes and connected to certain of the beams.

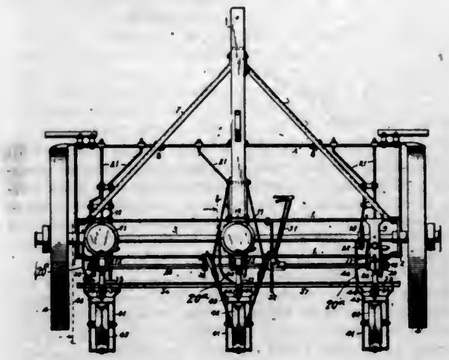
5. In a plow, the combination with a main frame, of a plurality of plow beams, a yoke pivoted to the main frame and to the front end of each of the beams, another yoke pivoted to the main frame and the rear ends of certain only of the beams, and raising and lowering means mounted on the frame between the yokes, said raising and lowering means being connected to one of the plow beams between its connection with both yokes and being connected also to a plow beam that is not attached to the rear yoke.

[Claim 6 not printed in the Gazette.]

1,025,769. CORN-PLANTER. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed July 16, 1910. Serial No. 572,396. (Cl. 111—6.)

1. In a corn planter, the combination of a main frame, wheels supporting the main frame, a plurality of seed dropping devices supported by the main frame, a furrow opener for each seed dropping device having a pivotal connection with the main frame, and a transverse bar other than the main frame bars having a pivotal connection with the furrow opener for holding them separated, and permitting of their independent vertical movement.

2. In a corn planter, the combination of a main frame, wheels supporting the main frame, a plurality of seed dropping devices supported by the main frame, a furrow opener for each seed dropping device having a pivotal connection with the main frame, a spring engagement for holding each furrow opener downward in a yielding manner, and a transverse bar other than the main frame bars having a pivotal connection with the furrow openers for holding them separated and permitting of their independent vertical movement.



3. In a corn planter, the combination of a main frame, wheels supporting the main frame, a plurality of seed dropping devices supported by the main frame, a furrow opener for each seed dropping device having a pivotal connection with the main frame, two transverse bars located below the main frame and each having a pivotal connection with the furrow openers independently of the main frame for holding them separated and permitting of their independent vertical movement, covering frames pivotally connected to one of the bars, and a wheel supported by each covering frame.

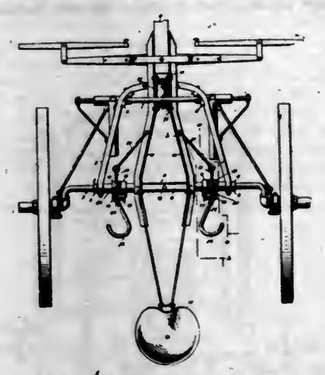
4. In a corn planter, the combination of a main frame, wheels supporting the main frame, a plurality of seed dropping devices supported by the main frame, a furrow opener for each seed dropping device having a pivotal connection with the main frame, two bars, each having a pivotal connection with the furrow openers independently of the main frame for holding them separated and permitting of their independent vertical movement, covering frames pivotally connected to one of the bars, a wheel supported by each covering frame, and spring devices for holding each opener and each covering wheel downward in a yielding manner.

5. In a corn planter, the combination of a main frame, wheels supporting the main frame, three dropping seed devices supported by the main frame, a furrow opener for each seed dropping device independently pivoted to the main frame, four bars in pairs connecting the three furrow openers, each pair having their inner ends pivotally connected to the center furrow opener frame and their outer ends pivotally connected to the outer furrow openers, covering frames pivotally connected to one pair of bars, a wheel for each covering frame, and spring devices for holding each furrow opener and each covering wheel downward in a yielding manner.

[Claims 6 to 8 not printed in the Gazette.]

1,025,770. CULTIVATOR-FRAME. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Feb. 3, 1912. Serial No. 675,386. (Cl. 97—35.)

A cultivator comprising an axle, wheels supporting the axle, a frame adapted to support the shovel supporting beams, a seat support having a pivotal connection with the axle and a roller engagement with the frame, and



foot levers pivotally supported by the axle and having a linked connection with the seat support.

1,025,771. CULTIVATOR-SHOVEL SUPPORT. LEWIS E. WATERMAN, Rockford, Ill., assignor to Emerson-Brantingham Company, Rockford, Ill., a Corporation of Illinois. Filed Feb. 3, 1912. Serial No. 675,387. (Cl. 97—11.)



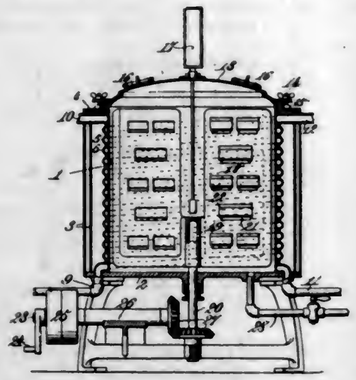
A cultivator shovel connection comprising a beam, a triangular support in cross-section adjustably connected to the beam, a clamping block adjustable along the support and having a vertical opening, a shovel standard located in the opening and against the support, a set-screw clamping the shovel standard against the support, and a shovel connected to the standard.

1,025,772. PROCESS OF MANUFACTURING ARTIFICIALLY-SOURED MILK. JOSEPH WILLMANN, Derby, Conn., assignor to Dairy Machinery and Construction Company, Incorporated, Derby, Conn., a Corporation of Connecticut. Original application filed July 17, 1909, Serial No. 508,156. Divided and this application filed Aug. 19, 1910. Serial No. 577,999. (Cl. 31—89.)

1. A process of making artificially soured milk which consists in pasteurizing milk, cooling the same to a temperature favorable to the growth of cultures, introducing cultures of souring organisms into the milk, maintaining the liquid at substantially such temperature for a period sufficient to produce the desired degree of acidity in the liquid agitating the substance, and immediately cooling the product, the foregoing steps being all performed while the liquid is kept free from exterior contamination.

2. A process of manufacturing artificially soured milk which consists in pasteurizing milk, cooling the milk to incubating temperature, introducing to and mixing cultures with the milk at such temperature, maintaining the substance at substantially such temperature for a period

sufficient to produce the desired degree of acidity, agitating the substance to break up the curd, and then immediately cooling the product, all the above-mentioned



steps of the process being performed while the liquid is contained in one receptacle and is kept free of contamination from exterior sources.

1,025,773. WOOD-SAWING MACHINE. LENARD WOLFE, Mattoon, Wis. Filed Dec. 7, 1909. Serial No. 531,789. (Cl. 143—46.)



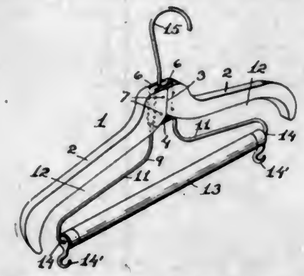
In a wood sawing machine, a supporting frame having side members provided with vertical slots, supporting beams, cranked rods secured to said supporting beams and having their outer ends journaled in and removable from the vertical slots for pivotally supporting said beams on said supporting frame, a shaft journaled on the forward ends of said supporting beams, a shaft journaled on the central portions of said supporting beams in alinement with the journaled ends of said rods, pulleys on the shafts, a drive belt movable over the pulleys, a saw mounted on the first shaft, means for feeding a log to be cut to the saw and a weight adapted to balance said beams, said cranks serving to support said beams whereby the saw may be moved vertically against the log to be cut and moved horizontally.

1,025,774. GLASS LENS. JOSEPH ALBERT YOUNG and GEORGE YOUNG, Jr., Bellevue, Iowa. Filed Sept. 28, 1911. Serial No. 651,881. (Cl. 240—106.)



The combination with a display lens having an annular rib on its rear portion, said rib being provided with a notch and a plurality of projecting beveled lugs; of a holder for said lens comprising a plate having a circular opening therein and a plurality of notches leading therefrom, and a tongue between two of the notches adapted to be engaged in the notch of the lens.

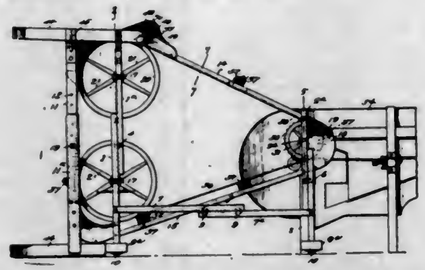
1,025,775. GARMENT-HANGER. MAURICE ACKERMAN and ABRAHAM BLEICHER, Washington, D. C. Filed Mar. 18, 1912. Serial No. 684,523. (Cl. 211—13.)



1. In a garment hanger, a coat holder composed of two abutting sections having longitudinal parallel channels commencing at their meeting ends, a loop plate having parallel branches engaging said channels and a lower loop bearing, transverse rivets engaging said sections and said branches, and a lower vest holder having a central portion engaging said loop bearing.

2. In a garment hanger, a coat holder composed of two abutting sections having longitudinal parallel channels commencing at their meeting ends, a loop plate having parallel branches engaging said channels and a lower loop bearing, transverse rivets engaging said sections and said branches, a lower vest holder having a central portion engaging said loop bearing, and a suspension hook having a stem between the meeting epds of the sections and the branches of the loop plate, said stem having a headed lower end between said loop bearing and the meeting ends of the sections.

1,025,776. MOTOR. PETER ANDERSON, Spokane, Wash., assignor to Joseph Lucas, Spokane, Wash. Filed June 16, 1911, Serial No. 633,482. Renewed Mar. 6, 1912. Serial No. 682,061. (Cl. 185—27.)



1. A motor comprising an expansible and contractible frame, upper and lower trackways on the frame extending longitudinally thereof and inclined in opposite directions, a hood connecting the trackways at their adjacent ends, a double sprocket wheel journaled in the hood, a wheel at the opposite end of each trackway, a plurality of spaced chains supported on the wheels and moving in the trackways, a plurality of buckets connecting the chains at spaced intervals, wheels on the upper and lower faces of each bucket for engaging the trackways, means for connecting the double sprocket wheel to the machine to be operated, a plurality of balls for engaging the buckets to operate the motor, a supporting bracket arranged on each side of the end of the uppermost trackway remote from the hood, interchangeable troughs on the brackets, the trackway having lateral inlet openings near the inner ends of the troughs on the upper bracket, guideways leading from the said inner ends to the openings, a stop for each opening to prevent the entrance of the balls, and a trip in the trackway for engagement by the buckets to move the arm out of position, each trip comprising an arm for

engagement by the bucket, a shaft to which the arm is secured, and a connection between the shaft and the stop.

2. A motor comprising an expansible and contractible frame, upper and lower trackways on the frame extending longitudinally thereof and inclined in opposite directions, a hood connecting the trackways at their adjacent ends, a double sprocket wheel journaled in the hood, a wheel at the opposite end of each trackway, a plurality of spaced chains supported on the wheels and moving in the trackways, a plurality of buckets connecting the chains at spaced intervals, wheels on the upper and lower faces of each bucket for engaging the trackway, means for connecting the double sprocket wheel to the machine to be operated, a plurality of balls for engaging the buckets to operate the motor, a supporting bracket arranged on each side of the end of the uppermost trackway remote from the hood, interchangeable troughs on the brackets, the trackway having lateral inlet openings near the inner ends of the troughs on the upper bracket, guideways leading the said inner ends to the openings, a stop for each opening to prevent the entrance of the balls, and a trip in the trackway for engagement by the buckets to move the arm out of position.

3. A motor comprising an expansible and contractible frame, upper and lower trackways on the frame extending longitudinally thereof and inclined in opposite directions, a hood connecting the trackways at their adjacent ends, a double sprocket wheel journaled in the hood, a wheel at the opposite end of each trackway, a plurality of spaced chains supported on the wheels and moving in the trackways, a plurality of buckets connecting the chains at spaced intervals, wheels on the upper and lower faces of each bucket for engaging the trackway, means for connecting the double sprocket wheel to the machine to be operated, a plurality of balls for engaging the buckets to operate the motor, a supporting bracket arranged on each side of the end of the uppermost trackway remote from the hood, interchangeable troughs on the brackets, the trackway having lateral inlet openings near the inner ends of the troughs on the brackets, guideways leading the said inner ends to the openings, and means operated by the movement of the buckets past the lateral openings for successively admitting the balls to the buckets.

4. A motor comprising an expansible and contractible frame, upper and lower trackways on the frame extending longitudinally thereof and inclined in opposite directions, a hood connecting the trackways at their adjacent ends, a double sprocket wheel journaled in the hood, a wheel at the opposite end of each trackway, a plurality of spaced chains supported on the wheels and moving in the trackways, a plurality of buckets connecting the chains at spaced intervals, wheels on the upper and lower faces of each bucket for engaging the trackway, means for connecting the double sprocket wheel to the machine to be operated, a plurality of balls for engaging the buckets to operate the motor, means for supporting the balls adjacent to the upper end of the upper trackway, and means operated by the buckets for successively admitting the balls to the bucket.

5. A motor comprising an expansible and contractible frame, upper and lower trackways on the frame extending longitudinally thereof and inclined in opposite directions, a hood connecting the trackways at their adjacent ends, a double sprocket wheel journaled in the hood, a wheel at the opposite end of each trackway, a plurality of spaced chains supported on the wheels and moving in the trackways, a plurality of buckets connecting the chains at spaced intervals, a plurality of balls for engaging the buckets to move the chains, and means at the upper end of the upper trackway operated by the buckets for successively admitting the balls to the buckets.

[Claims 6 to 8 not printed in the Gazette.]

1,025,777. INSTANTANEOUS GAS HOT-WATER HEATER. ADOLF BELER, Pittsburgh, Pa., assignor to Beler Water Heater Co., Pittsburgh, Pa. Filed Sept. 11, 1911. Serial No. 648,724. (Cl. 126—351.)

1. The combination with a spring closed gas control valve, a water actuated mechanism for actuating said valve, comprising a casing, a disk disposed in the open end thereof and provided with a concentric aperture therethrough, an expansible water actuated means carried by said disk within the casing and in communication through the aperture of said disk, a stem controlled thereby and projecting through the aperture of the disk, a cap for the casing providing a chamber at that end of the casing beyond the sealing disk and into which said stem projects, the water supply being connected to the casing through said cap, means for controlling the gas valve mounted concentrically at the opposite end of the casing and in operable relation to said expansible means, and means actuated by the stem within the cap for controlling the flow of water through the sealing disk into the casing.



2. The combination with a spring closed gas controlled valve, of a water actuated mechanism for actuating said valve, comprising a casing, a sealing disk disposed in the open end thereof and provided with an aperture therein, a water expanded medium carried by said disk within the casing and in communication through the aperture of said disk, a stem connected to the inner end of said medium and projecting through the aperture of the disk, a cap for the casing providing a chamber at that end of the casing beyond the sealing disk and into which said stem projects, the water supply being connected to the casing through said cap, means for controlling the gas valve operably connected to the opposite end of said casing and in operable relation to the expansible medium within the casing, and means actuated by the stem within the cap for controlling the flow of water through the sealing disk into the casing.

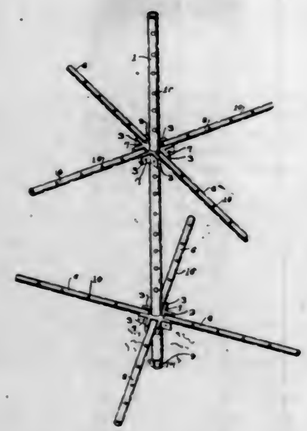
3. The combination with a spring closed gas control valve, of a water actuated mechanism for actuating said valve, comprising a casing, a disk disposed in the open end thereof and provided with a concentric aperture therein, a plurality of expansible disk chambers carried by said disk within the casing and in communication through the aperture of said disk, a stem connected to the inner disk chamber and projecting through the aperture of the disk, a cap for the casing providing a chamber at that end of the casing beyond the sealing disk and into which said stem projects, the water supply being connected to the casing through said cap, means for controlling the gas valve mounted concentrically at the opposite end of the casing and in operable relation to the expansible disk chambers within the casing, and means actuated by the stem within the cap for controlling the flow of water through the sealing disk into the casing.

4. In a wafer actuated valve control mechanism, a casing open at one end, a sealing disk therefor provided with a concentric aperture, and a plurality of valve ports therethrough, a cap fitting over the open end of the casing and locking the sealing disk therein, a stem projecting through the concentric aperture of the disk, a plurality of communicating expansible disk chambers connected to the inner face of the sealing disk and in communication at all times with the chamber of the cap through the concentric aperture of the sealing disk, another disk

mounted in the chamber of the cap and connected to the outer end of the stem for movement therewith, a plurality of valves carried thereby and disposed to control the valve ports of the sealing disk, and a slidingly mounted stem disposed concentrically of the closed end of the casing and in operable relation with the inner chamber of the expansible chambers.

5. In a water actuated valve control mechanism, a casing open at one end, a sealing disk therefor provided with an aperture therethrough and a plurality of valve ports therethrough, a cap fitting over the open end of the casing and locking the sealing disk therein, and providing a chamber beyond the sealing disk, a stem projecting through the aperture of the disk, a water expanded medium connected to the inner face of the sealing disk and in communication at all times with the chamber of the cap through the aperture of the sealing disk, another disk mounted in the chamber of the cap and connected to the outer end of the stem for movement therewith, a plurality of valves carried thereby and disposed to control the valve ports of the sealing disk, and means for actuating the main valve disposed in the closed end of the casing and in operable relation with the inner end of the expanding medium.

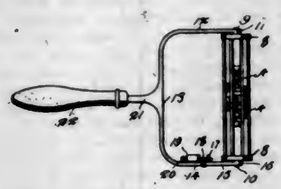
1,025,778. SUPPORTING AND VENTILATING DEVICE FOR HAYSTACKS. SAMUEL J. BLAND, Uvalda, Ga. Filed June 6, 1911. Serial No. 631,623. (Cl. 98—26.)



1. A stack supporting device comprising a tubular post having apertures throughout the length thereof, collars secured on the post and having apertures registering with some of the apertures in the post, and tubular arms hingedly connected with the collars, the inner ends of said arms aliining with the registering apertures in the post and the collars, and said arms being provided with apertures throughout the length thereof.

2. A stack supporting and ventilating device comprising a tubular post having apertures throughout the length thereof, collars secured on the post and having apertures registering with some of the apertures in the post, said collars being provided with pairs of brackets extending outwardly therefrom, the brackets of each pair being disposed in parallel relation to one another, and tubular arms hingedly supported between the pairs of brackets, said arms being provided with apertures throughout the length thereof; said tubular arms being cut off obliquely at their inner ends so as to be free to swing upwardly and to abut on the tubular post when said post is in an upright and the said arms in approximately horizontal position.

1,025,779. PRINTING-ROLL. RUSSELL H. BREMER, Reading, Pa., assignor of one-fourth to Frederick W. Maurer and one-fourth to Jonathan Kistler, Lansford, Pa., and one-fourth to Oden F. Thiry, Reading, Pa. Filed June 23, 1910, Serial No. 568,518. Renewed Mar. 7, 1912. Serial No. 682,091. (Cl. 101—61.)



A printing device including a roll, headed pins secured to the end of the roll adjacent its marginal edge, removable caps fitting the ends of said roll and having a diameter greater than the same, said caps being provided with keyhole slots to receive the headed pins whereby to secure the caps to the roll, inwardly projecting flanges formed on the caps, T-shaped type-gripping members extending longitudinally of the roll and detachably secured thereto, the opposite ends of the lateral flanges of the T-shaped type-gripping members underlying the flanges of the caps so as to be securely held in the roll, trunnions for the roll rigidly secured thereto and projecting through the caps, a substantially U-shaped frame, bearings formed in the free end of said frame to receive the trunnions of the roll, a handle formed medially of the connecting arms of the frame, one of said arms being pivoted medially of its length, a keeper formed on the pivoted portion of the arm and adjacent the pivot, and a retaining bolt carried by the stationary portion of the arm to engage with said keeper whereby to retain the pivoted portion against movement.

1,025,780. STREET-INDICATOR FOR CARS. HARRY O. BRION, Gates, N. Y. Filed Oct. 19, 1910. Serial No. 587,941. (Cl. 40—93.)



1. In an apparatus of the class described, the combination of oppositely-turning spools, a name-bearing element connected with the spools, driving means for the spools, clutches between the driving means and the spools, levers for throwing the clutches open or closed, a mechanism including motor means adapted to be set for movement in one direction and re-set for movement in the opposite direction, said motor means being connected with the levers for moving them in opposite directions to close one clutch while opening the other, means controlled by the name-bearing element to set the mechanism into operation, and means controlled by the name-bearing element for resetting the mechanism after the name-bearing element has begun its reverse movement by the changing of the clutches.

2. An apparatus of the class described comprising spools, a name-bearing element connected with the spools to wind on one and unwind from the other, driving means for the spools, clutches between the said means and spools, devices for opening one and closing the other clutch simultaneously, an endless element connected with the devices to produce simultaneous movement, a motor for actuating the endless element, and means controlled by either end of the name-bearing element to set the motor into operation to reverse the clutches and cause reverse winding of the name-bearing element.

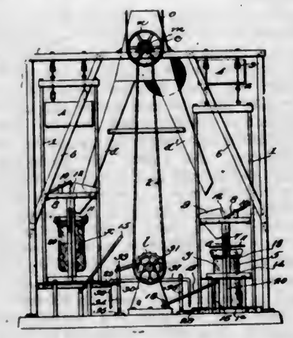
3. An apparatus of the class described comprising spools, a name-bearing element connected with the spools to wind on one and unwind from the other, driving means for the spools, clutches between the said means and spools, devices for opening one and closing the other clutch simultaneously, an endless element connected with the devices to produce simultaneous movement, a motor including a spring adapted to be set under tension for actuating the endless element, means controlled by either end of the name-bearing element to set the motor into operation to reverse the clutches and cause reverse winding of the name-bearing element, and means for automatically resetting the motor after the clutches have been changed.

4. In an apparatus of the class described, the combination of a plurality of spools, a name-bearing element adapted to wind on one and unwind from the other, driving means for the spools, clutches for connecting the spools with the driving means, a mechanism including a spring motor adapted to be set to act alternately in opposite directions for closing one clutch while opening the other, controllers for the said mechanism, and means carried by the ends of the ribbons for actuating the said controllers.

5. In an apparatus of the class described, the combination of a plurality of spools, a name-bearing element adapted to wind on one and unwind from the other, driving means for the spools, clutches for connecting the spools with the driving means, a mechanism including means adapted to be set to act alternately in opposite directions for closing one clutch while opening the other, controllers for the said mechanism, means carried by the ends of the ribbons for actuating the said controllers, and means connected with the controllers for re-setting the mechanism after the clutches have been shifted.

[Claims 6 to 15 not printed in the Gazette.]

1,025,781. BAG-FILLING MACHINE. JAMES BROUSSARD, Loureauville, La. Filed Feb. 23, 1911. Serial No. 610,342. (Cl. 83—26.)



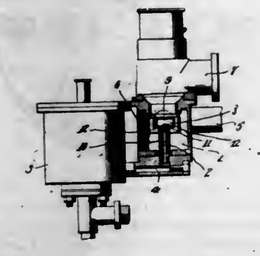
1. In a bag filling machine, the combination of a delivery chute; a device adapted to hold the bag open adjacent said chute; a flexible support for said device; and means for connecting with said flexible support to jigger the bag while filling and to automatically disengage therefrom when the bag is filled, substantially as described.

2. In a bag filling machine, the combination of a delivery chute; a platform movable vertically beneath said chute; a device for holding a bag open; a support for said holding device associated with said platform and adapted to support the bag above the platform; and means associated with said supporting device to jigger the bag vertically and independently of said movable platform; said means having a connection with the supporting device adapted to be automatically disconnected when the platform is lowered, substantially as described.

3. In a bag filling machine, the combination of a delivery chute; a platform movable vertically beneath said chute; a flexible bag supporting device comprising a rim adapted to hold the bag open beneath the chute; means on the platform for holding said flexible support; a reciprocable arm having a vertically disposed portion; a slip connection between the flexible device and the vertically disposed portion of said arm; and means for reciprocating the arm to jigger the bag vertically and independently of the platform; and said vertically disposed arm portion adapted to release the flexible device and allow the filled bag to lower to the platform, when said platform is lowered, substantially as described.

4. In a bag filling machine, the combination of a delivery chute, a support for the bags to be filled adjacent said chute, a horizontally movable member provided with an eyelet or ring, a plurality of sheaves, flexible means connected at one end of said bag thence passing upwardly and downwardly over one of said sheaves thence passing horizontally around another of said sheaves thence doubling back upon itself around another of said sheaves and connected to said horizontally movable member, a reciprocating rod having a finger adapted to aline with said eyelet or ring, and means for operating said reciprocating member, substantially as described.

1,025,782. CARBURETER. HENRY LOWE BROWNBACK, Norristown, Pa. Filed Dec. 13, 1910. Serial No. 597,131. (Cl. 137—80.)



1. A spray nozzle attachment for carbureters comprising a cup member, an oil feed tube connected to the cup member, a fuel breaker bridged across said tube, and a second fuel breaker bridged across said cup member, said cup member having inlet ports coöperating with the feed tube.

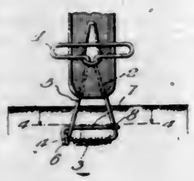
2. A unitary spray nozzle attachment for carbureters comprising a cup member, a gauze across one end of the cup member, a tube secured to the opposite end of the cup member, a gauze across the end of the tube which is connected with the cup member, and a plurality of inlet ports surrounding the gauze and extending through the bottom of the cup member.

3. In combination, a carbureter having a Venturi tube and a spray nozzle comprising a cup member having a diameter slightly less than the internal diameter of the Venturi tube, gauzes across the ends of the cup member, said cup member having air inlet openings arranged around one of the gauzes, and a feed tube connected to the cup and adapted to be connected for communication with the fuel tube of the carbureter.

1,025,783. BUTTON AND DRAWERS SUPPORT. WILLIAM A. BRYANT, Wetumpka, Ala., assignor of one-third to Marcus D. Still and one-third to George B. Britt. Filed Feb. 21, 1912. Serial No. 679,157. (Cl. 24—73.)

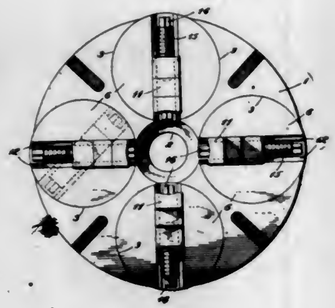
The herein described pin fastener made of a single piece of spring wire and comprising a loop, an arm depending obliquely therefrom and then turned inward and pointed at its extremity, and a second arm depending from the loop and diverging from the first arm, then formed into a coil

for receiving said point, and thence carried across behind the first arm and hooked at its extremity to engage this



arm when the point engages the coil, as and for the purpose set forth.

1,025,784. LATHE-CHUCK. WILLIAM E. CLARK, Boise, Idaho. Filed Aug. 18, 1911. Serial No. 644,843. (Cl. 29—147.)



1. In a lathe chuck, the combination of a support, a plurality of chuck-blocks mounted to have adjustment radially of said support; and pivotal mounts for said chuck-blocks whereby to effect angular adjustment thereof, substantially as described.

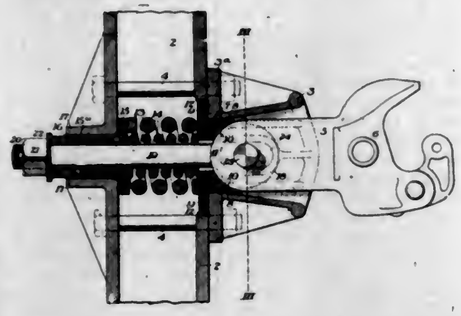
2. In a lathe chuck, the combination of a support; a plurality of chuck-block holders rotatably mounted on said support; and chuck-blocks adjustably mounted on said holders, substantially as described.

3. In a lathe chuck, the combination of a support; a plurality of chuck-block holders rotatably mounted on said support; means for securing said rotatable holders at different angular positions; and chuck-blocks adjustably mounted on said holders, substantially as described.

4. In a lathe chuck, the combination of a support; a plurality of chuck-block holders mounted in said support; each of said holders having a shaft journaled in the support whereby said holders may be angularly adjusted; a nut screw-threaded on each of said shafts for securing said adjustment; a chuck-block on each of said rotatable holders; and a screw-threaded shaft mounted in each of said holders and adapted to effect adjustment of the chuck-blocks radially of the support, substantially as described.

5. In a lathe chuck, the combination of a support provided with a plurality of counter-sunk recesses having inclined sides and extending to the edge of said support, a plurality of chuck-block holders having inclined sides mounted in said counter-sunk recesses and extending beyond the edge of said support, said holders having each a shaft journaled in the support to allow of angular adjustment of said holders; nuts on said shafts for securing said adjustments; chuck-blocks mounted on said holders; and screw-threaded shafts journaled in said holders and adapted to effect adjustment of the chuck-blocks radially of the support, substantially as described.

1,025,785. ENGINE-COUPLING. WALTER E. COFFIN, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 4, 1911. Serial No. 600,828. (Cl. 213—42.)



1. In an engine coupler, a pilot beam, a coupler pocket secured to the front side of the pilot beam, a coupler shank mounted in said pocket, front and rear followers, a yielding resistance between the followers, and a member connected to the coupler shank and extending rearwardly through the followers and having a pulling engagement with the rear end of the rear follower, substantially as described.

2. In an engine coupler, a pilot beam having a recess therein, a bell-mouthed coupler pocket secured to the front side of the pilot beam, a coupler shank mounted in said pocket, front and rear followers seated in the recess of the pilot beam, the rear end of the pocket being open for the passage of the front follower, spring means between the two followers and located wholly within the recess of the pilot beam, the rear wall of the recess having a seat for the rear follower, and a coupler shank engaging the front follower and having means which engage the rear follower to transmit draft strains thereto; substantially as described.

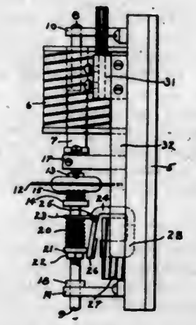
3. In an engine coupler, a pilot beam, front and rear followers seated in the front and rear walls, respectively, of said beam, a yielding resistane interposed between the followers, a coupler pocket secured to the front wall of the pilot beam, the front follower having a portion extending forwardly into the said pocket through the open rear end thereof, a coupler shank entering said pocket, and bearing against the forwardly projecting portion of the front follower, and a tail bolt connected to the coupler shank and extending through the followers and engaging the rear follower, substantially as described.

4. In an engine coupler having a pilot beam, a coupler pocket secured thereto, said pocket having elongated recesses in its upper and lower walls, a coupler shank entering said pocket, a tail bolt extending rearwardly from the coupler shank, a pin pivotally connecting the coupler shank to the tail bolt, said pin having projecting upper and lower ends engaging said recesses, and spring means operatively connected with the tail bolt and coupler to receive both pulling and buffing strains, substantially as described.

1,025,786. RELAY. ARCHIBALD S. CUBITT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 6, 1907. Serial No. 391,694. (Cl. 175—268.)

1. A relay comprising an actuating coil, a core movable in the field thereof, means for biasing said core in a direction opposite to that in which the coil when energized tends to move it, an auxiliary coil energized simultaneously with said actuating coil, and means controlled thereby for increasing the bias on said core after the core has moved under the influence of its coil.

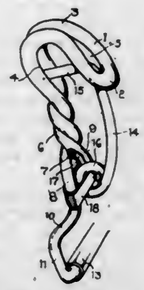
2. A relay comprising an actuating coil, a core movable in the field thereof, a spring biasing said core in a direction opposite to that in which the coil when energized tends to move, an auxiliary coil energized simultaneously with said actuating coil, and means operated by said auxiliary coil for increasing the tension on the spring after the core has moved under the influence of said actuating coil.



3. A relay comprising an actuating coil, a core movable in the field thereof, a spring biasing said core in a direction opposite to that in which the coil when energized tends to move it, an auxiliary coil in series with said actuating coil, and means magnetically operated by said auxiliary coil for increasing the tension on the spring after the core has moved under the influence of said actuating coil.

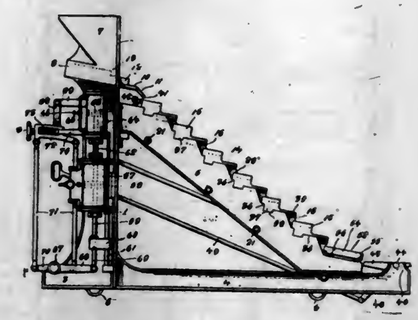
4. A relay comprising an actuating coil, a core movable in the field thereof, a spring biasing said core in a direction opposite to that in which the coil when energized tends to move it, an auxiliary coil in series with said actuating coil, and a lever device magnetically operated by said auxiliary coil for increasing the tension on the spring after the core has moved under the influence of the actuating coil.

1,025,787. SAFETY-SNAP. JUDSON N. CUTLER, Myrtle Creek, Oreg. Filed Mar. 4, 1911. Serial No. 612,286. (Cl. 24—236.)



As a new article of manufacture, a snap hook formed of two pieces of wire, the hook portion being formed of one piece of wire bolted together to form a bill and then twisted together to form a shank, said wire being spaced adjacent to the base of the shank to form a pair of arms and then terminating in a loop, a strap member engaging said arms and straddling the space between them, and a tongue formed of a piece of wire to engage said bill, and the other end of the tongue being twisted about the transverse band at the base of the shank and having a projecting end bearing against one of the arms engaged by said band and serving to form a spring for the tongue, the projecting end being seated in the groove of the adjacent convolution of the twisted shank portion of the first wire whereby said end is retained in position.

1,025,788. MECHANICAL STOKER. JENKIN P. DAVIES, Cincinnati, Ohio. Filed Nov. 18, 1910. Serial No. 593,084. (Cl. 110—133.)



1. A mechanical stoker including an inclined grate embodying stationary and reciprocatory grate sections having grate bars extending transversely thereof, the bars of each grate section being arranged to overlap the next adjacent grate section and to operate between the grate bars thereof when said reciprocatory grate sections are reciprocated, said reciprocatory grate sections being connected in series above and below the transverse center of the grate, and means for simultaneously reciprocating one of the series of reciprocatory grate sections in one direction and the other series of reciprocatory grate sections in the opposite direction.

2. A mechanical stoker comprising a frame, a reciprocatory feeder, an inclined grate embodying stationary and reciprocatory grate sections having grate bars extending transversely thereof, the bars of each grate section being arranged to overlap the next adjacent grate section and to operate between the grate bars thereof when said reciprocatory grate sections are reciprocated, said reciprocatory grate sections being connected in series above and below the transverse center of the grate, and means for simultaneously reciprocating the feeder and one of the series of reciprocatory grate sections in one direction and the other series of reciprocatory grate sections in the opposite direction.

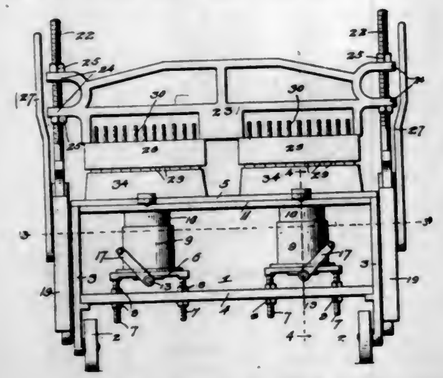
3. A mechanical stoker comprising a frame, an inclined fuel grate embodying stationary and movable sections, said movable sections being connected in series above and below the transverse center of the grate, a feeder for supplying fuel at the upper end of the grate, a horizontal dumping grate section, a sifting grate section composed of relatively fixed and movable bars and arranged between said dumping grate section and the lower end of the fuel grate, and means for operating the feeder and simultaneously reciprocating the upper and lower series of movable fuel grate sections in opposite directions, said movable bars of said sifting grate section being connected for movement with said lower series of movable fuel grate sections.

4. In a mechanical stoker, an inclined grate comprising alternately arranged stationary and movable grate sections, said sections being arranged in stepped relation and each provided with grate bars having extensions overlapping the next adjacent lower section to operate between the grate bars thereon when said movable grate sections are reciprocated, and mechanism for reciprocating said movable grate sections.

5. In a mechanical stoker, an inclined grate comprising alternately arranged stationary and movable grate sections, said sections being arranged in stepped relation and each embodying a body portion provided with a plurality of grate bars detachably connected therewith and having extensions arranged to overlap the next adjacent lower sections to operate between the bars thereon when said movable grate sections are reciprocated, and mechanism for reciprocating said movable grate sections.

[Claims 6 to 22 not printed in the Gazette.]

1,025,789. MOLD-FORMING MACHINE. ARTHUR M. DAVIS and BURT F. DAVIS, Jackson, Ohio. Filed July 20, 1911. Serial No. 639,685. (Cl. 22—50.)



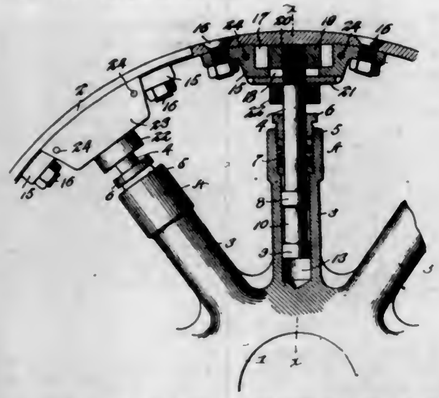
1. A mold forming machine comprising a main supporting frame, a pattern supporting plate, means to raise and lower said plate, patterns on the plate, mold flasks around said patterns, ramming boards adapted to be engaged with said flasks, each comprising a frame open at its lower side, a series of packing blocks operatively arranged in said frame, stems on said blocks and projecting through the upper side of the frame, block operating springs arranged on said stems, spring adjusting nuts arranged on the stems whereby the pressure of said springs is regulated, and a pressing mechanism engaging said frames whereby the latter are actuated to depress said packing blocks.

2. In a mold forming machine, the combination with a supporting frame, a pattern supporting plate therein, means to raise and lower said plate, the patterns, and the mold flasks; of a ramming board comprising a frame, a plurality of packing blocks slidably mounted in said frame, springs arranged between said blocks and frame whereby the pressure of the latter is yieldingly imparted to said blocks, a pressing mechanism comprising casings pivotally connected to the ends of said main frame, fixed rack bars in said casings, adjustable rack bars having a sliding engagement with the casings, pinions between and having an operative engagement with said rack bars, operating handles on said pinions, and presser bars having an adjustable connection with said rack bars and adapted to be brought into engagement with the frame of said ramming board, for the purpose set forth.

3. A mold forming machine comprising a main supporting frame, supporting wheels arranged thereon, a stripping plate forming the upper end of said frame, a pattern supporting plate, means to raise and lower said plate in the frame, patterns arranged on said plate, mold flasks arranged around said patterns and adapted to receive the sand for forming the mold, ramming boards adapted to be engaged with said flasks, said boards comprising a box or frame opened on its lower side, a series of packing blocks operatively arranged in said frame, stems arranged on said blocks and projecting through the upper side of the frame, block operating springs arranged on said stems, spring adjusting nuts arranged on the stems whereby the pressure of said springs is regulated, a pressing mechanism comprising vertically movable presser bar supporting and operating members, a presser bar adjustably secured to said members, and means whereby said members are raised and lowered thus bringing said presser bar into and out of engagement with the frame of said ramming board whereby the latter is actuated to depress said packing blocks.

4. A mold forming machine comprising a supporting frame, a pattern supporting plate arranged therein, means to raise and lower said plate, patterns adapted to be engaged with said plate, mold flasks arranged around said patterns, a ramming board comprising a frame, a plurality of packing blocks slidably mounted in said frame, springs arranged between said blocks and frame whereby the pressure of the latter is yieldingly imparted to said blocks, a pressing mechanism comprising casings pivotally connected to the ends of said main frame, fixed rack bars arranged in said casings, adjustable rack bars having a sliding engagement with the casings, pinions arranged between and having an operative engagement with said rack bars, operating handles formed on said pinions whereby when the latter are turned and will be caused to travel up and down said stationary racks and to thus multiply the movement of the adjustable racks, bar supporting screws arranged on the upper ends of said adjustable racks, presser bars having an adjustable connection with said screws and adapted to be raised and lowered by the movement of said adjustable rack bars to bring said presser bar into and out of engagement with the frame of the ramming board whereby the latter is actuated to depress the blocks therein.

1,025,790. WHEEL. ENAN M. DEAL, Philadelphia, Pa., assignor to Edward A. Schneider, Philadelphia, Pa. Filed Sept. 22, 1909, Serial No. 518,932. Renewed Jan. 18, 1912. Serial No. 671,885. (Cl. 152—48.)

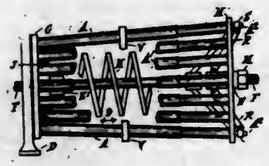


1. In a vehicle wheel the combination of a hub, cylinders radiating from the hub, rods provided at their inner ends with pistons arranged to operate in the cylinders, a rim, keepers secured to the inner side of the rim and having their middle portions spaced from said rim and provided with longitudinal slots, and cross heads confined in the spaces formed between the inner side of the rim and the parts of the keepers spaced therefrom, said cross heads being adjustably secured to the outer ends of the rods which pass through the slots in the middle portions of the keepers.

2. In a vehicle wheel the combination of a hub, cylinders radiating from the hub, piston rods mounted in the cylinders and having their outer ends threaded, a rim, keepers secured at intervals to the inner side of the rim and having their middle portions spaced therefrom and formed with longitudinal slots to receive the outer threaded ends of the piston rods, cross heads confined between the rim and slotted portions of the keepers and adjustably mounted upon the threaded ends of the piston rods, and plates closing opposite sides of the keepers and the slotted portions thereof.

1,025,791. SCREENING MECHANISM. JACOB DONGES, Drayton, Queensland, Australia. Filed Nov. 16, 1911. Serial No. 660,674. (Cl. 130—16.)

1. In a screening apparatus, the combination of a suitable support; a shaft mounted thereon; a plurality of spaced bars disposed radially of and mounted on said shaft; a pinion secured to each of said bars; a gear wheel mounted on said shaft and meshing with all of said pinions and adapted to rotate the same in one direction; and means connected with said bars at their respective ends for adjusting said bars radially whereby to change the spaces between said bars, substantially as described.



2. In a screening or separating apparatus, the combination of a suitable support; a shaft mounted thereon; a plurality of spaced bars disposed radially of said shaft; devices for mounting said bars on said shaft at either end thereof, comprising a pair of toggles for each bar; a ring disposed at either end of the shaft and provided with radially disposed slots for receiving the ends of said bars; and means for moving said toggle members to adjust the respective ends of said bars whereby to change the spaces therebetween, substantially as described.

3. In a screening or separating apparatus, the combination of a suitable support; a shaft mounted thereon; a plurality of spaced bars disposed radially of said shaft, and providing the separating or screening chamber; devices for mounting said bars on said shaft disposed at either end thereof, said devices comprising each a member slidable on the shaft, and toggles connecting said members with the respective ends of each shaft; and means for shifting said slidable members whereby to adjust the respective ends of the several bars for changing the spaces therebetween, substantially as described.

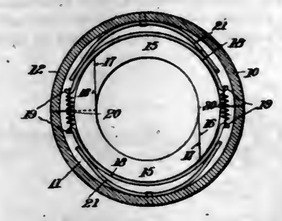
4. In a screening or separating apparatus, the combination of a suitable support; a shaft mounted thereon; a plurality of spaced bars disposed radially of said shaft; devices for mounting said bars on said shaft, comprising slidable members disposed at either end of the shaft, and toggles connecting said slidable members with the respective ends of each bar; said slidable members and toggles disposed to bring said bars into close relation at one end but in relatively wider relation at the opposite end thereof; and means for shifting said slidable members whereby to effect variation in the spaces between said bars, substantially as described.

5. In a screening or separating apparatus, the combination of a suitable support; a shaft mounted thereon; a plurality of spaced bars disposed radially of said shaft; devices for adjustably mounting said bars on said shaft, comprising a pair of slidable members, and toggles connecting the slidable members with the respective ends of each bar; a pair of plates mounted at either end of said shaft and provided with radially disposed slots to receive the ends of said bars, and permit the adjustment thereof; means for shifting said slidable members whereby to decrease the spaces between the bars at one end and to increase the spaces between the bars at the opposite end; and means for rotating said bars, substantially as described.

1,025,792. PACKING. HENRY JAMES DOOLAN, Norfolk, Va. Filed Jan. 18, 1912. Serial No. 671,961. (Cl. 121—109.)

1. A packing of the character described comprising a sectional box provided with an internal chamber and having openings in its sides, packing members located in said chamber, clamping members also located within said chambers and surrounding said packing members, the ends of each clamping member being opposite the ends of the other clamping member, and resilient connecting means exerting an equal tension on the opposed ends of said clamping members to maintain a uniform tension on the latter.

2. A packing of the character described comprising a box provided with an internal chamber and openings in its sides, packing members located in said chamber, clamping members also located in said chamber and surrounding said packing members, said clamping members being provided with opposed hook-like ends, and coil springs of equal size connecting the opposed ends of said clamping members to maintain a uniform tension on the latter.



3. A packing of the character described comprising a sectional box provided with an internal chamber and having openings in its sides, packing members located in said chamber, clamping members also located in said chamber and surrounding said packing members, the ends of each clamping member being opposite the ends of the other clamping member, resilient connecting means exerting an equal tension on the opposed ends of said clamping members to maintain a uniform tension on the latter, and spring plates secured within said chamber and engaging said clamping members.

4. A packing of the character described comprising a box provided with a packing chamber, a lubricating chamber, and openings in its sides, lubricating material in said lubricating chamber, packing members located in said packing chamber, clamping members also located in said packing chamber and surrounding said packing, the ends of each clamping member being opposite the ends of the other member, and resilient connecting means exerting an equal tension on the opposed ends of said clamping members to maintain a uniform tension on the packing.

5. A packing of the character described comprising a box having an annular chamber and openings in its sides, a covering of soft metal for the sides of said box, and packing means carried by said box.

1,025,793. CURRYCOMB AND BRUSH. HORACE F. ENDSLEY, Texarkana, Tex. Filed May 23, 1911. Serial No. 628,990. (Cl. 119—85.)



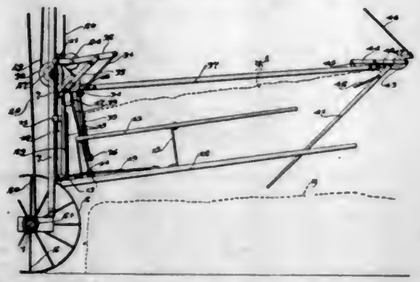
1. In a grooming device of the class described, the combination of a curry comb having a handle projecting from one end thereof, a brush pivotally connected to the opposite end of the comb, the outer end of the brush being provided with a hollow transversely arranged mane comb, a brace connecting the handle to the curry comb, and locking means including a pin adapted to enter the hollow portion of the mane comb and engage the brace of the handle so as to lock the brush folded on the back of the curry comb in an inoperative position.

2. A grooming device comprising hinged sections, a plurality of spaced ears carried by one of said sections, a locking pin slidably mounted on said ears and adapted to engage the other of said sections for retaining both sections of said grooming device in an operative position, and a mane comb consisting of a hollow body carried by one of the sections, said hollow body being adapted to receive a locking pin for retaining the other section in an inoperative position, as herein specified.

1,025,794. GRAIN OR HAY DELIVERER. HENRY C. ERBE, Java, S. D. Filed Nov. 11, 1910. Serial No. 591,777. (Cl. 56—62.)

1. In a machine of the kind described, the combination with a gathering fork, of a packer having a dependent packing arm pivoted at its upper end and movable in front

of the said fork, the lower end of said packing arm being arranged for engagement with the ground, to force said arm rearward under the advance movement of the machine, means for moving said arm into and out of engagement with the ground, and a lock for securing said packing arm rearward in position to hold the load on said fork.



2. In a machine of the kind described, the combination with a gathering fork, of a packer having a dependent packing arm pivoted at its upper end and movable in front of the said fork, the lower end of said packing arm being arranged for engagement with the ground, to force said arm rearward under the advance movement of the machine, means for moving said arm into and out of engagement with the ground, an automatic lock for securing said packing arm rearward in position to hold the load on said fork, and means for tripping the said load from a distant point.

3. In a machine of the kind described, the combination with a gathering fork, of a packer comprising a frame overlying the fork, a packer arm pivoted to the front end of said frame, a toggle connection between said packer and packer arm serving as a lock for securing said packer arm in position to hold the load on said fork, and a lock tripping connection extending therefrom to a distant point, substantially as described.

4. In a machine of the kind described, the combination with a gathering fork and means for raising and lowering the same, of a packer frame pivotally supported above said fork, a packer arm pivoted to the front end of said packer frame, a toggle connection between said packer frame and packer arm serving as an automatic lock for securing the same in position to hold the load on said fork, and a connection extending from said toggle acting lock, for tripping said toggle and moving the same packer arm into a position to be lowered for engagement with the ground ahead of said fork.

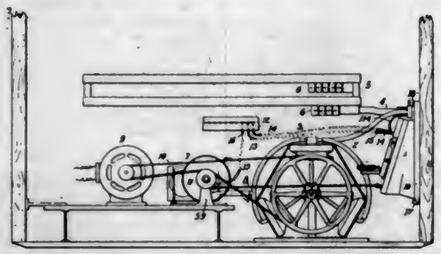
5. In a machine of the kind described, the combination with a gathering fork and means for raising and lowering the same, of a back stop for the load movably supported above the rear portion of said fork, and means for anchoring the said back stop temporarily to a stack while the fork is given its initial movement out of the stack after depositing the load on the stack.

[Claims 6 to 10 not printed in the Gazette.]

1,025,795. EXPRESSION MECHANISM FOR SELF-PLAYING MUSICAL INSTRUMENTS. OREN J. FAIRCHILD, Binghamton, N. Y., assignor of one-half to William J. Payne, Candor, N. Y. Filed July 6, 1908. Serial No. 442,072. (Cl. 84—168.)

1. In a self playing musical instrument, the combination with a duct-bridge, a vacuum chamber, and an air pump, of an expression bellows connected with the pump and the vacuum chamber, a valve for admitting air into said bellows, a pair of diaphragms operatively connected with said valve, one arranged to open the valve to admit air to the bellows, and the other arranged to disconnect the first from its operative connection with the valve, and pneumatic means connected with the duct-bridge for controlling said diaphragms, as set forth.

2. In a self playing musical instrument, the combination of an expression bellows, yielding means tending to expand the bellows, a valve to admit air to the bellows but normally held closed by said yielding means, and pneumatically actuated devices for opening said valve against the tension of said yielding means.



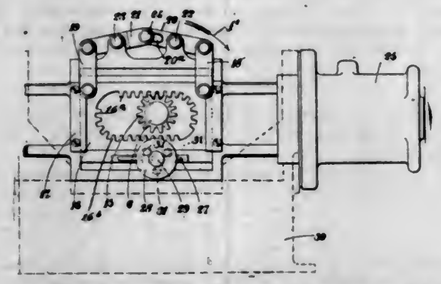
3. In a self-playing musical instrument, the combination with a vacuum chamber, an air pump, and a duct-bridge, of an expression bellows separate from but pneumatically connected with the vacuum chamber and constituting an auxiliary pressure source independent of the air pump, means for applying power to said bellows, and pneumatic means connected with the duct-bridge for controlling said first means, as set forth.

4. In a self-playing musical instrument, the combination with a vacuum chamber, an air pump, a source of power therefor, and a duct-bridge, of an expression bellows separate from but pneumatically connected with the vacuum chamber, a power-driven element, operating mechanism intermediate between the said element and the bellows to apply power to the same, including a member adapted to engage the power-driven element so as to be actuated thereby, and pneumatically operated means connected with the duct-bridge for causing momentary engagement of the said member with the power-driven element, as set forth.

5. In a self-playing musical instrument, the combination with a tracker bar, pneumatic playing instrumentalities, a note sheet coöperating with the tracker bar, and a pump to exhaust air from the playing instrumentalities, of a separate expression bellows in pneumatic communication with said instrumentalities and with the pump, and pneumatically controlled means under the control of the tracker bar and note sheet to apply power for suddenly expanding said bellows against its closing movement caused by the exhaust action of the pump.

[Claims 6 to 25 not printed in the Gazette.]

1,025,796. SYSTEM OF MECHANICAL TRANSMISSION. JOSEPH FEIDT, Lunéville, France. Filed Feb. 7, 1910. Serial No. 542,476. (Cl. 74—27.)

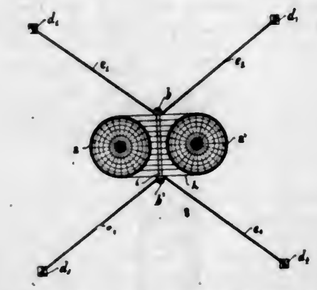


1. In a transmission mechanism of the class specified, a driving shaft, a pinion thereon, a supporting means, a slide rectilinearly movable thereover, a frame mounted for vertical movement in the slide and having superimposed racks on its inner portion for alternate engagement by the said pinion, and a frictionally driven rotatable disk carrying a plurality of rollers arranged in triangular form to engage a portion of the frame and guide the latter in its movement, the disk being rotated each time that the supporting means comes to the end of its stroke.

2. In a transmission mechanism of the class specified, a driving shaft, a pinion carried thereby, a rectilinearly movable slide, a frame vertically movable in the said slide and having two superimposed racks on its inner portion alternately engaged by the pinion, the vertically movable frame having a longitudinally extending rib at the lower portion thereof, and a frictionally driven rotating disk coöperating with the slide and having a plurality of rollers arranged in triangular form to engage the rib, the rollers riding over the ends of the rib and changing position relatively to the latter each time that the slide comes to the end of its stroke.

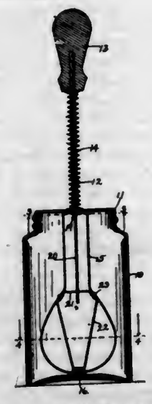
3. In a transmission mechanism of the class specified, a driving shaft, a pinion thereon, a supporting means, a slide rectilinearly movable thereover, a frame mounted for vertical movement in the slide and having superimposed racks on its inner portion for alternate engagement by the pinion, rotatable means for effecting and guiding the frame in its vertical movement, and a series of levers connected to the upper portion of opposite sides of the frame and to each other for equally moving the two sides of the frame.

1,025,797. SWING. THEODOR FISCHER, Würzburg, Germany. Filed Nov. 25, 1911. Serial No. 662,479. (Cl. 244—4.)



A swing comprising two balloons, a system of cords holding said balloons connected in juxtaposition, a bar passed through the cord system at the widest part thereof, downwardly diverging anchoring ropes connected to said bar and to the ground, and a car suspended on ropes from said balloons, substantially as and for the purpose set forth.

1,025,798. FLUID-BEATER. CHARLES G. FITCH, Indianapolis, Ind. Filed Feb. 15, 1911. Serial No. 608,812. (Cl. 107—39.)



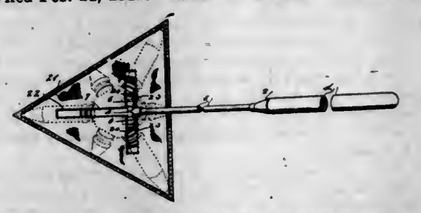
The combination with a fluid beater, a closed retainer, a metallic beater frame with the upper sides thereof substantially parallel and the lower portions thereof curved substantially ovally, and means for rotating said frame, of a bar secured to the frame at substantially the junction of said parallel and said oval portions and extending directly downward and inwardly and with the ends thereof secured to the bottom of said oval portion, whereby said oval portion will not be distorted by a direct downward pressure or by centrifugal force.

1,025,799. RAILROAD-SPIKE. VANCE P. FULENWIDER, Jonesboro, Ark. Filed Oct. 24, 1911. Serial No. 656,419. (Cl. 85—13.)



A spike comprising a main shank, an auxiliary shank thereon, the auxiliary shank being tapered downwardly and provided with a lower driving tapered point, and prongs forming an integral part of the main shank and extending downwardly against the sides of the auxiliary shank and provided with beveled inner surfaces which extend downwardly and away from the sides of the auxiliary shank, the walls of the tapered point or the auxiliary shank being extended in the direction of the beveled surfaces of the prongs, the outer surfaces of the said prongs being concaved longitudinally for the purpose described.

1,025,800. MOP. WILLARD B. FULLER, Catasauqua, Pa. Filed Feb. 21, 1912. Serial No. 679,159. (Cl. 15—13.)



1. In a mop, the combination with a handle, and a substantially triangular head carried at the lower end thereof; of a mop cloth of substantially triangular shape and comprising a fabric bottom, a fabric top stitched thereto around its edges and provided with a T-shaped opening through its body for the passage of said handle, and hook-and-eye connections between opposite sides of said opening.

2. In a mop, the combination with a handle; of a head including a hexagonal block flexibly connected with the lower end of said handle, and long fingers projecting from three of its sides and short fingers from the other three, with the outer ends of all fingers arranged in the shape of a triangle.

3. In a mop, the combination with a handle; of a head including a hexagonal block flexibly connected with the lower end of said handle, knobs projecting from the various faces of said block and having their axes inclined downward, and alternately long and short fingers each having a solid rubber tip and a tubular rubber neck, and means for holding the latter over one of said knobs.

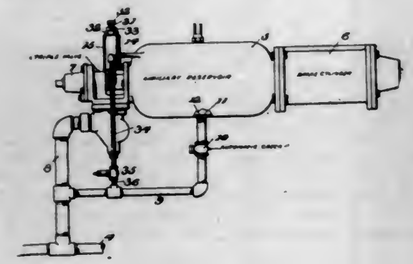
4. The herein described mop head comprising a hexagonal block having knobs projecting from its six faces and

inclined downward, every other knob being inclined at a greater angle downward than the adjacent knob, a handle connected with said block, a set of three short fingers each comprising a solid rubber tip and a tubular neck removably engaging the knob of the steepest inclination, and a set of three long fingers each comprising a similar tip, a longer tubular neck whose inner end is slipped over the remaining knobs, and a filler for said neck.

5. The herein described mop head comprising a hexagonal block having knobs projecting from its six faces and inclined downward, every other knob being inclined at a greater angle downward than the adjacent knob, a handle connected with said block, a set of three short fingers each comprising a solid rubber tip and a tubular neck removably engaging a knob of the steeper inclination, and a set of three long fingers each comprising a similar tip, a longer tubular neck whose inner end is slipped over one of the remaining knobs, a piece of rope disposed within the neck of each of the longer fingers against the outer end of its knob, and a weight between the outer end of the rope and the inner end of said solid tip.

[Claims 6 to 8 not printed in the Gazette.]

1,025,801. AIR-BRAKE. JESSE B. GARDNER, Charleston, S. C. Filed Aug. 29, 1911. Serial No. 646,598. (Cl. 188—12.)



1. A means for re-charging auxiliary reservoirs of air brake systems without releasing the brakes, comprising a connection between the train line and the auxiliary reservoir, said connection having means to permit the flow of air from the train line to the reservoir but preventing the flow from the reservoir to the train line, a retaining valve connected to the exhaust of the triple valve, a pipe connecting the retaining valve to the train line and a reducing valve interposed in said pipe between the retainer and the train line.

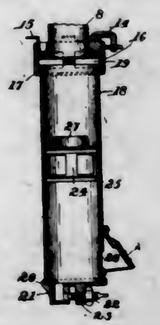
2. In an air brake system, a pipe connecting the train line and the auxiliary reservoir, a check valve in said pipe to permit the flow of air from the train line to the reservoir but preventing the flow from the reservoir to the train line, a retaining valve for controlling the exhaust from the triple valve, a piston in said retaining valve adapted to open and close the exhaust, a pipe connecting the retaining valve to the train line whereby air pressure entering the retaining valve from the train line may open the retaining valve, and a reducing valve interposed in said last mentioned pipe between the retaining valve and the train line.

1,025,802. NON-REFILLABLE BOTTLE. BENJAMIN GILOWITZ, Greenport, N. Y. Filed Mar. 30, 1911. Serial No. 617,946. (Cl. 215—69.)

A non-refillable bottle comprising a continuous solid neck portion with a plurality of downwardly oblique passages therein grouped together radially and merging together at the base of the neck to provide a valve seat, the passages at their upper ends being open and non-sealable, the passages being also provided with shoulders, a valve mounted in either of the passages and adapted to contact with the shoulders, and a flexible breakable means attached to the valve to hold the same in contact with the shoulders and also to permit of the valve to engage the valve seat.



1,025,803. PNEUMATIC-DESPATCH SYSTEM. FREDERICK J. H. HAZARD, Toronto, Ontario, Canada, assignor of one-half to William Coulter & Sons, Toronto, Canada. Filed May 20, 1908. Serial No. 433,918. (Cl. 243—15.)



1. In a vacuo-despatch system the combination of a line of tubing provided with a terminal air inlet; an exhauster connected with said line; and a closure for the air inlet adapted under the action of the vacuum alone to be moved continuously toward the closing position while a carrier is moving through the tubing and at a speed proportionate to the rate of movement of the carrier; and means for regulating the rate of movement of the closure.

2. In a vacuo-despatch system the combination of a line of despatch tubing provided with a terminal air inlet; an exhauster connected with said line; a closure for the air inlet adapted under the action of the vacuum alone to be moved continuously toward the closing position while a carrier is moving through the tubing and at a speed proportionate to the rate of movement of the carrier without effecting any reduction of the area of the inlet until just before closure takes place; and means for regulating the rate of movement of the closure.

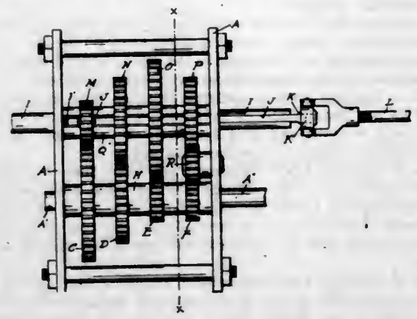
3. In a vacuo-despatch system the combination of a line of tubing provided with a terminal air inlet; an exhauster connected with said line; a closure for the air inlet adapted under the action of the vacuum alone to be moved continuously toward the closing position while a carrier is moving through the tubing and at a speed proportionate to the rate of movement of the carrier; means for regulating the rate of movement of the closure; and means for permitting a rapid reverse movement of the closure whenever the line is opened.

4. In a vacuo-despatch system the combination of a line of tubing provided with a terminal air inlet; an exhauster connected with said line; a closure for the air inlet adapted under the action of the vacuum to move toward the closing position while a carrier is moving through the tubing; and means for varying the size of the said air inlet.

5. In a vacuo-despatch system the combination of a line of tubing provided with a terminal air inlet; an exhauster connected with said line; a closure for the air inlet adapted under the action of the vacuum to move toward the closing position while a carrier is moving through the tubing without effecting any reduction of the area of the inlet until just before the closure takes place; and means for varying the size of the said air inlet.

[Claims 6 to 23 not printed in the Gazette.]

1,025,804. AUTOMOBILE TRANSMISSION MECHANISM. ORION B. HITCHCOCK, ARTHUR M. BERGGREN, and FRED M. BERGGREN, Morganville, Kans. Filed Dec. 27, 1910. Serial No. 599,351. (Cl. 74—59.)

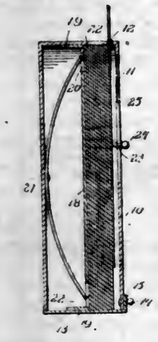


1. The combination in a transmisison mechanism of gear wheels having recesses and suitable operating means, a shaft having a groove therethrough of corresponding size throughout, a slidable key fitted into and filling said groove the entire length thereof removable from either end of the same and having a lug on the top edge thereof, collars on said shaft between said gear wheels divided at said groove to permit said lug to travel through said recesses.

2. In an automobile transmission mechanism the combination of a supporting frame, a drive shaft provided with a groove therethrough extending from end to end, a plurality of collars divided at said groove, a large gear wheel, a smaller gear wheel, two corresponding small gear wheels and a key driven solidly in said groove said division of collars forming a space, a transmission shaft, a groove therethrough of equal size from end to end of the shaft, a small gear wheel thereon engaging with said large gear wheel, a gear wheel of corresponding size with the smaller gear wheel on the drive shaft, a large gear wheel engaging with one of the small gear wheels on said drive shaft, a small gear wheel on said transmission shaft all of the wheels on said transmission shaft having corresponding recesses, a reverse gear always in mesh with said smaller gear wheel on the transmission shaft and with the opposite small gear wheel on the drive shaft, collars between the gear wheels on the transmission shaft open over said groove, a solid elongated slidable key fitted to said groove having a lug on its top edge adapted to engage with the transmission shaft gears and suitable operating mechanism having connection with said elongated key.

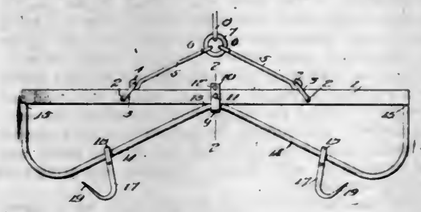
1,025,805. TICKET-HOLDER. EUGENE A. HOLDEN, Athol, Mass. Filed May 6, 1911. Serial No. 625,620. (Cl. 206—40.)

In combination with a slotted casing having an ejector mounted thereon, a cover mounted to swing on the rear side of the casing, a flange formed on the cover and adapted to overlap the lower front side of the casing, a plurality of beads formed on the said flange and adapted to be received in indentations in the lower front side of the casing to retain the cover in closed position thereon, a plate mounted within the said casing, a plurality of integral flanges formed on the ends of the said plate and



slidable relatively to the said casing, a leaf spring mounted to abut against the rear side of the casing and guide lugs formed on the ends of the said spring and operable in slots in the said plate to normally press the plate toward the front side of the casing so that the contents of the casing can be ejected therefrom.

1,025,806. GAMBREL. JUDGE L. JARVIS, Unity, Wis. Filed Feb. 2, 1912. Serial No. 674,915. (Cl. 17—30.)



1. A device of the character specified, comprising a rigid bar, a hanger at the center of the bar and depending below the same, a rod having its central portion clamped to the bar by the hanger and inclining downwardly and outwardly on each side of the hanger, the ends of the rod being bent upward and secured to the ends of the bar, and a hook provided with an eye slidably mounted on the rod on each side of the hanger.

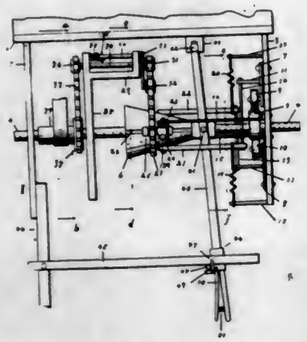
2. A device of the character specified, comprising a rigid bar provided with means for supporting the same, a rod below the bar, means for clamping the central portion of the rod to the bar, the rod inclining downwardly and outwardly on each side of the clamping means, the ends of the rod being bent directly upward and connected to the ends of the bar, and a hook slidable on the rod on each side of the clamping means.

1,025,807. VARIABLE-SPEED GEARING. CHARLES E. KEEL, Indianapolis, Ind. Filed June 23, 1911. Serial No. 634,870. (Cl. 74—34.)

1. The combination with a driving shaft, of a driven member coaxial with said driving shaft, a secondary shaft parallel with the driving shaft and geared with said driven member, a frame carrying said secondary shaft and secured on and revolved by the driving shaft, a non-rotative cone coaxial with the driving shaft and slidable thereon, a chain engaging said cone and geared with said secondary shaft, means for preventing the slippage of said chain on said cone, and spring actuated means carried by said revolving frame for tightening the chain.

2. The combination with a driving shaft, of a driven member coaxial with said driving shaft, a secondary shaft

parallel with the driving shaft and geared with said driven member, means carrying said secondary shaft secured on and revolved by the driving shaft, a non-rotative cone coaxial with the driving shaft and slidable thereon, a chain engaging said cone and geared with said secondary shaft, means connected with said cone on the periphery thereof for engaging the chain and preventing the slippage of the cone, and means actuated by the shaft for alternately operating said chain holding means on the cone.

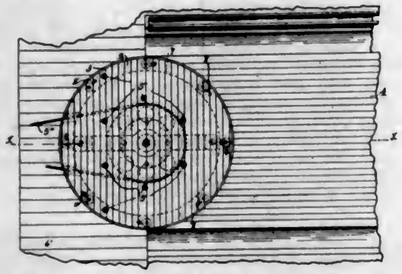


3. The combination with a driving shaft, of a driven member mounted coaxially therewith, a frame secured on said driving shaft so as to revolve therewith, a secondary shaft mounted on the outer end of said frame parallel with the driving shaft, means for gearing said secondary shaft with the driven member, a non-rotary cone coaxial with the driving shaft which has a plurality of dovetailed grooves extending longitudinally thereof and spaced apart, a chain engaging the cone and geared with said secondary shaft, means for longitudinally shifting the cone, means mounted and slidable in each of the cone grooves for gripping said chain, a cam on the driving shaft, and means actuated by said cam for alternately operating said chain gripping means.

4. The combination with a driving shaft, of a driven member mounted coaxially therewith, a frame secured on said driving shaft so as to revolve therewith, a secondary shaft mounted on the outer end of said frame parallel with the driving shaft, means for gearing said secondary shaft with the driven member, a non-rotary cone coaxial with the driving shaft which has a plurality of dove-tailed grooves extending longitudinally thereof and spaced apart, a chain engaging the cone and geared with said secondary shaft, means for longitudinally shifting the cone, a block slidable in each of said cone grooves having on one side of the chain a fixed jaw, a movable jaw pivotally mounted on the other side of the chain so as to coöperate with the fixed jaw in gripping the chain, a cam on the driving shaft, and means actuated by the cam for alternately actuating the movable jaws.

5. The combination with a driving shaft, of a driven member mounted coaxially therewith, a frame secured on said driving shaft so as to revolve therewith, a secondary shaft mounted on the outer end of said frame parallel with the driving shaft, means for gearing said secondary shaft with the driven member, a non-rotary cone coaxial with the driving shaft and which has a plurality of dove-tailed grooves extending longitudinally thereof and spaced apart, a chain engaging the cone and geared with said secondary shaft, means for longitudinally shifting the cone, a block slidable in each of said cone grooves having on one side of the chain a fixed jaw, a movable jaw pivotally mounted on the other side of the chain so as to coöperate with the fixed jaw in gripping the chain, a cam on the driving shaft, a lever fulcrumed on each side of said cam and adapted to be engaged by the cam between the ends thereof, means connecting the free ends of said levers with said movable jaws, and springs for holding said levers against the cam.

1,025,808. BOWLING-ALLEY. JOSEPH P. KEENAN, Waterbury, Conn. Filed Jan. 6, 1912. Serial No. 669,770. (Cl. 46—66.)



1. A bowling alley comprising an alley floor, a pin-supporting bed movable relatively to said floor, and means for moving said bed.

2. A bowling alley comprising an alley floor having a semi-circular recess at its distant end, a circular pin-supporting bed movable within the recess of said floor and relatively thereto, and means for moving said bed.

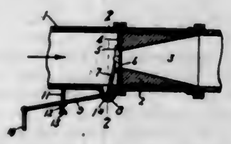
3. A bowling alley comprising an alley floor, a circular rail at the distant end of said floor, a pin-supporting bed movable on said rail and relatively to the floor aforenamed, and means for moving said bed.

4. A bowling alley comprising an alley floor, an annular trackway at the distant end of said floor, a pin-supporting bed having an anti-frictional contact with, and movable concentrically to and along said trackway relatively to the floor aforenamed, and means for moving said bed.

5. A bowling alley comprising an alley floor having a semi-circular recess at its distant end, an annular trackway also at the distant end of said floor, a pin-supporting bed movable on said trackway, an upright arbor engaging said bed and turning as a unit therewith, said arbor determining the axis of movement of said bed and the axis of the semi-circular recess aforenamed, and means for rotating said arbor.

[Claims 6 to 9 not printed in the Gazette.]

1,025,809. FLUID-FLOW MEASURING OR REGULATING DEVICE. WALTER KIESER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Sept. 8, 1910. Serial No. 580,964. (Cl. 73—167.)



1. The combination with a conduit, of a discharge nozzle therein affording a constricted opening, an admission nozzle in front of the discharge nozzle, means mounting the nozzles in the conduit so that there is a gap between them, and means connected to one of the nozzles for measuring the drop between the conduit pressure and that in the gap.

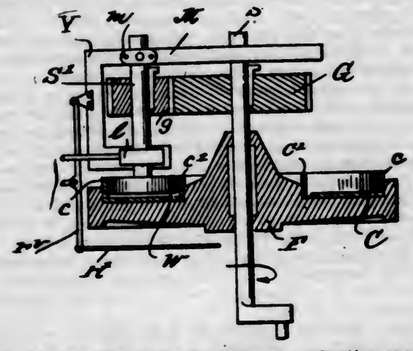
2. The combination with a conduit, of relatively movable admission and discharge nozzles therein affording a constricted opening therethrough, means mounting the nozzles in the conduit so that there is a gap between them that is in communication with the opening, and means for utilizing the relative movements of said nozzles due to variations in pressure in the conduit and in said constricted opening.

3. The combination with a conduit, of a fixed discharge nozzle therein affording a constricted opening, a movable admission nozzle in front of the discharge nozzle, there being a gap between the nozzles that is in communication with the opening, means biasing said nozzles apart, and means for transmitting the movements of said admission nozzle due to the variations between the conduit pressure and that in said gap, said pressures acting on opposite sides of the nozzle.

4. The combination with a conduit, of a fixed discharge nozzle therein affording a constricted opening, a movable admission nozzle in front of said discharge nozzle, there being a gap between the adjacent faces of the nozzles that is in communication with the opening, a lever connected with said admission nozzle, a transverse shaft on which said lever is mounted, a lever-arm on said shaft outside the conduit, and a spring acting upon said lever-arm.

5. The combination with a conduit through which fluid flows, of a member arranged in the conduit to form an orifice or nozzle through which fluid flows from one section of the conduit to another, the inlet area of said orifice or nozzle being smaller than the cross-section of the conduit and the nozzle acting to cause a drop in pressure in its inlet portion, a second member mounted in the conduit with one of its faces adjacent to the face of the inlet end of the first member so that there is a narrow gap between them communicating with the inlet portion of the nozzle, said second member being movable by variations in the resultant pressure on its opposite faces as the rate of flow through the conduit varies, and means for transmitting movements of the second member.

1,025,810. INTERNAL-COMBUSTION-ENGINE STARTER. CHARLES A. KINNEY, Seneca, Pa. Filed June 2, 1911. Serial No. 630,763. (Cl. 123—179.)



1. In a starting device for internal combustion engines, the combination with a main shaft, of a fly wheel loosely mounted thereon and being provided with an annular groove, and a clutch member for connecting the fly wheel with the shaft, said clutch member comprising a pivoted rotatable member arranged to contact with the inner or outer edges of said groove, means for transmitting motion from the pivotal contact member to the main shaft, and means for shifting said pivotal contact member.

2. In a starting device for internal combustion engines, a main shaft, a fly wheel loosely disposed on said main shaft, said fly wheel being provided with an annular groove, a frame member, a yoke pivotally secured to said frame member at one end, a stub shaft rotatably carried by said yoke and being provided with a rotatable member on the end thereof normally disposed within the groove in said fly wheel, means for transmitting the rotary motion of said stub shaft to said main shaft, and means for moving said yoke to bring said rotatable member into engagement with either the inner or the outer edges of said groove.

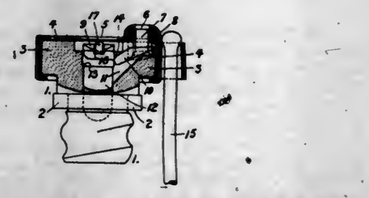
3. In a starting device for internal combustion engines, a main shaft, a fly wheel loosely disposed on said main shaft, said fly wheel being provided with an annular groove, a frame member, a yoke pivotally secured to said frame member at one end, a stub shaft rotatably carried by said yoke and being provided with a rotatable member on the end thereof normally disposed within the groove in said fly wheel, means for moving said yoke to bring said rotatable member into engagement with either the inner or the outer edges of said groove, and means for imparting the movement of said stub shaft to said main shaft.

4. In a starting device for internal combustion engines, a main shaft, a fly wheel loosely disposed on said main shaft, said fly wheel being provided with an annular groove, a frame member, a yoke pivotally secured to said frame member at one end, a stub shaft rotatably carried by said yoke and being provided with a rotatable member on the end thereof normally disposed within the groove in said fly wheel, means for moving said yoke to bring said rotatable member into engagement with either the inner or the outer edges of said groove, means for imparting the movement of said stub shaft to said main shaft, said means comprising a gear on said stub shaft, and a gear on said main shaft.

5. In a starting device for internal combustion engines, a main shaft, a fly wheel loosely disposed on said main shaft, said fly wheel being provided with an annular groove, a frame member, a yoke pivotally secured to said frame member at one end, a stub shaft rotatably carried by said yoke and being provided with a rotatable member on the end thereof normally disposed within the groove in said fly wheel, means for imparting the rotary motion of said stub shaft to said main shaft, means for moving said yoke to bring said rotatable member into engagement with either the inner or the outer edges of said groove, said means comprising a pivoted lever, and a rod connecting a portion of said lever with said stub shaft.

[Claim 6 not printed in the Gazette.]

1,025,811. BOTTLE-STOPPERING. PERCY J. KNIGHT, Liverpool, England, assignor of one-fourth to Francis Smith, Liscard, Wallasey, England. Filed June 17, 1911. Serial No. 633,881. (Cl. 215—32.)



1. In a bottle stopper, the combination of a threaded body 1; a cap or device connected with the part of the said body which comes outside the bottle, and adapted to be rotated in relation to same; and a vertically movable means in said cap, adapted to move into engagement with a part of the said stopper body, when rotated in one direction, but inoperative upon same, when moved in the other direction; substantially as described.

2. In a bottle stopper, the combination of a threaded body 1; a cap or device connected with the part of the said body, which comes outside the bottle, and adapted to be rotated in relation to same; a vertically movable means in said cap, adapted to move into engagement with a part of the said stopper body, when rotated in one direction, but inoperative upon same when moved in the other direction; and a "scotching" device adapted to be introduced to the side of the said vertical movable means away from the part of the stopper which said vertical movable means engages when moved in one direction, whereby said stopper body is rotated when the cap or like device is revolved in the opposite direction; substantially as described.

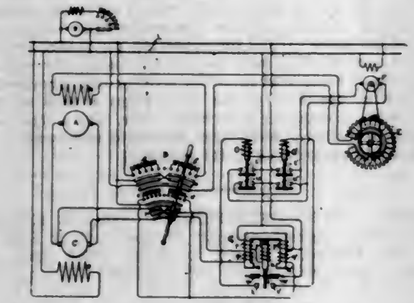
3. In a bottle stopper, the combination of a threaded body 1; a cap or device 4, fitting over the head of the stopper body, and engaging same, and adapted to be rotated in relation to same; an inclined groove, as 8, in the upper surface of the stopper body; a pin 7 movable vertically in the cap 4, and adapted to operate in a groove; a central hole in the cap, and the stopper body, respectively; and a gap or way extending between the hole in

the stopper body, and the groove 8; substantially as set forth.

4. In a bottle stopper, the combination of the body 1; cap 4 rotatable thereon, having a central aperture 5; a pin 7 working vertically in and carried by the cap; and a "scotching" device adapted to be inserted into the cap and the stopper body, and having an outer end 10, adapted to stand across the path of the lower end of the pin 7, in relation to its rotation, when the cap is turned; substantially as set forth.

5. In a bottle stopper, the combination of the stopper body 1; a cap 4; a pin 7 vertically movable in the cap; and a "scotching" device consisting of a head 9 adapted to stand in a central position in the stopper, and a radial tongue part 10 projecting out from same; the head part 9 of the "scotching" device being adapted to be readily broken from the tongue part 10; substantially as set forth.

1,025,812. SYSTEM OF MOTOR CONTROL. EDMUND KRAUSE, Waidmannslust, Germany, assignor to General Electric Company, a Corporation of New York. Filed Apr. 11, 1911. Serial No. 620,351. (Cl. 172—239.)



1. In combination, a motor, a generator supplying said motor, a controller for varying the field strength of the generator to vary the voltage supplied to said motor, and means for maintaining the speed of the motor substantially the same for the same or corresponding positions of the controller.

2. In combination, a motor, a generator supplying said motor, a controller for varying the field strength of the generator to vary the voltage supplied to said motor, and means depending on the speed of said motor for maintaining the speed of the motor substantially the same for the same or corresponding positions of said controller.

3. In combination, a motor, a generator supplying said motor, a controller for varying the field strength of the generator to vary the voltage supplied to said motor, and a relay for varying the resistance in the field circuit of said generator depending upon the speed of said motor.

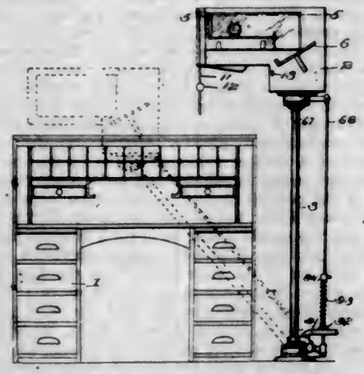
4. In combination, a motor, a generator supplying said motor, a controller for varying the field strength of the generator to vary the voltage supplied to said motor, and a relay for varying the resistance in the field circuit of said generator comprising a coil connected across the armature of said motor.

5. In combination, a motor, a generator supplying said motor, a controller for varying the field strength of the generator to vary the voltage supplied to said motor, and a relay for varying the resistance in the field circuit of said generator, said relay having a coil connected across the armature of said motor and another coil connected in series with a variable resistance across a constant source of excitation.

[Claims 6 to 12 not printed in the Gazette.]

1,025,813. TELEPHONE-CABINET. GEORGE WASHINGTON LANCASTER, Richmond, Va. Filed Mar. 3, 1911. Serial No. 612,114. (Cl. 179—183.)

1. In a telephone cabinet, a housing formed with a neck opening, a door for closing the housing at one side of the neck opening, means for normally holding the hook of a telephone in its lowered position, and cam means carried by said door for operating said first mentioned means for raising the same off the hook of the telephone when the door is closed.



2. In a telephone cabinet, a housing formed with a neck opening, a door for closing the housing at one side of the neck opening, supporting means for holding a telephone instrument in said housing, a bar pivotally mounted at one end and at the other end pressing downward on the telephone hook of said telephone instrument for normally holding the instrument disconnected, a pivotally mounted bar engaging said first mentioned bar and adapted to raise said first mentioned bar when one end is depressed, and means automatically actuated by said door for depressing said last mentioned bar when said door is closed.

3. In a telephone cabinet, a housing designed to receive a telephone instrument comprising a receiver and a transmitter, a pivotally mounted arm for supporting said receiver and arranged so that one end will rest on the hook of said telephone transmitter, a bar contacting with said arm for moving the same off of said hook, a door for said housing, and means associated with said door for automatically operating said lever when said door is closed for causing the lever to raise said arm off of said hook.

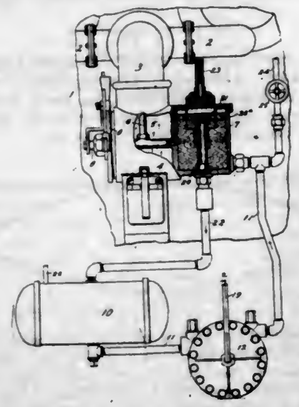
4. In a telephone cabinet, a housing adapted to receive a telephone instrument, a pivotally mounted arm arranged with one end in engagement with the hook of the telephone instrument for normally holding the hook in a lowered position, a pivotally mounted bar in engagement with said arm for raising the arm off of said hook, a door for said housing, and means associated with said door and operated thereby for automatically moving said lever when said door is closed.

5. In a telephone cabinet, a housing for receiving a telephone instrument, an arm pivotally connected at one end with said housing and at the other end loosely resting on the hook of said telephone instrument, means supported by said arm for holding the receiver of said telephone instrument whereby the weight of said receiver and said arm will normally hold said hook in its lowered position, a pivotally mounted lever contacting at one end with said arm for raising the same when the lever is moved, and means for moving said lever.

[Claims 6 to 14 not printed in the Gazette.]

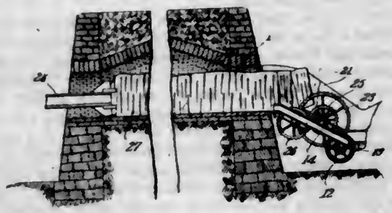
1,025,814. FUEL-SUPPLY SYSTEM FOR EXPLOSIVE-ENGINES. HERMANN LEMP, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 23, 1906. Serial No. 318,338. (Cl. 123—136.)

1. The combination with an explosive engine, a carbureter therefor comprising a mixing chamber, a fuel containing chamber, a spraying nozzle in the first chamber to which fuel flows by gravity from the second chamber, and an overflow pipe in the second chamber which determines the level of the fuel in said chamber with respect to the height of the spraying nozzle, of a fuel tank, a connection between the overflow pipe and the tank which constitutes a by-pass, and a diaphragm pump between the carbureter and the tank which is operated by pressure transmitted from the combustion chamber of the engine, said pump being located adjacent to the tank and below the level thereof so that fuel will flow by gravity to the pump and keep it flooded with fuel.



2. The combination with a carbureter comprising a mixing chamber, a fuel containing chamber, a spraying nozzle in the mixing chamber to which the fuel flows by gravity from the second chamber; and an overflow pipe in the second chamber, which determines the level of the fuel in said chamber with respect to the height of the spraying nozzle, of a fuel tank, a connection between the overflow pipe and the tank which constitutes a by-pass, a diaphragm pump between the carbureter and the tank which is operated by fluid pressure and to which the fuel flows by gravity from the tank, and a filling device so located and arranged as to first fill the fuel-containing chamber of the carbureter and thereafter fill the tank through the by-pass.

1,025,815. COKE-DISCHARGING APPARATUS. DANIEL F. LEPLEY, Connellsville, Pa. Filed May 28, 1909. Serial No. 498,870. (Cl. 202—5.)



1. In a coke discharging apparatus, means for imparting progressive movement to a coke block or core in a direction out of the discharge end of a coke oven, and an accelerator for the discharging end of the coke core imparting to a portion of the core engaged by the accelerator a greater speed of travel than that of the remainder of said core.

2. In a coke discharging apparatus, means for imparting a progressive movement to the coke block or core in a substantially horizontal direction out of the discharge end of a coke oven, and an accelerator for the bottom of the coke core being discharged for imparting to the portion of the core engaged by the accelerator a greater speed than the rate of travel of the remainder of the core.

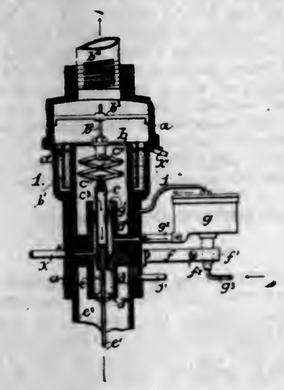
3. In a coke discharging apparatus, means for imparting progressive movement to a coke block or core in a substantially horizontal direction out of the discharge end of a coke oven, and an accelerator and elevating means for the coke core being discharged for imparting to the end of the core engaged by the accelerator a greater speed of travel than that of the remainder of the core and at the same time lifting the end engaged by the accelerator.

4. In an apparatus of the class described, a drum in the path of a coke core discharging from a coke oven, said drum projecting above the bottom of the oncoming coke core and having its periphery composed of a continuous series of spaced members each extending in a direction transverse to the line of travel of said coke core, and means for causing the progressive movement of the coke core in a substantially horizontal direction toward said drum.

5. In an apparatus of the class described, a suitable truck, a drum carried thereby in position to project above the plane of the bottom of the coke core being discharged from a coke oven in a substantially horizontal direction, and a screen or grating carried by the truck on the side of the drum remote from the coke oven side.

[Claims 6 to 11 not printed in the Gazette.]

1,025,816. CARBURETER. JACOB MATTHIAS LOFTHOUSE and EMILY ROSALIE BOOTY, Perth, Western Australia, Australia. Filed Apr. 10, 1911. Serial No. 620,152. (Cl. 48—154.1.)



1. A carbureter comprising in combination a casing having a carbureting chamber adapted to receive a supply of air, a chamber to contain a body of the liquid to be volatilized and also having an exit for the mixture, said casing also having an annular chamber containing a sealing liquid, a bell operative in said annular chamber of the casing and subject to fluctuations of pressure of the mixture at said exit, said bell also having exit ports therein controlled by said sealing liquid and adapted for the passage therethrough of the mixture from the carbureting chamber, a valve for controlling the supply of liquid to be volatilized to said carbureting chamber, and an operative connection between said bell and valve for controlling the operation of the latter by the movements of the former.

2. A carbureter comprising in combination a casing provided with an exit and having a carbureting chamber adapted to receive a supply of air and also chambers containing bodies of sealing liquid, one of said chambers also containing a body of the liquid to be volatilized, a bell floating in the sealing liquid in one of said chambers and subject to the pressure of the mixture at said exit, a tube operative in the sealing liquid and also the liquid to be volatilized in the other chamber and embodying means for controlling the supply of liquid to be volatilized in said carbureting chamber, and an operative connection between said bell and tube for depressing the latter to establish a supply of liquid to be volatilized when said bell rises.

3. A carbureter comprising in combination a casing provided with an exit and also having chambers therein containing bodies of sealing liquid, one of said chambers also containing a body of the liquid to be volatilized, a car-

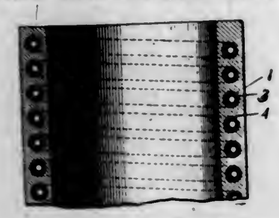
bureting chamber in said casing adapted to receive a supply of air, a bell floating in the sealing liquid in one of said chambers and subject to the pressure of the mixture at said exit, said bell also having exit ports therein for the passage therethrough of the mixture from the carbureting chamber, a tube operative in the sealing liquid and also the liquid to be volatilized in the other chamber and embodying means for controlling the supply thereto of liquid to be volatilized in said carbureting chamber, and an operative connection between said bell and tube for causing predetermined relative movements thereof in reverse directions.

4. A carbureter comprising in combination a casing provided with an exit for the mixture and also having chambers therein containing bodies of sealing liquid, one of said chambers also containing a body of the liquid to be volatilized, a carbureting chamber in said casing adapted to receive a supply of air, a bell operative in one of said chambers and subject to the pressure of the mixture at said exit, said bell also having exit ports for the passage of the mixture from the carbureting chamber, a tube operative in the other chamber and embodying means for controlling the supply of the liquid to be volatilized in said carbureting chamber, and a lazy tong connection between said bell and tube for causing predetermined relative movements of said elements in reverse directions.

5. A carbureter comprising in combination a casing provided with an exit for the mixture and also having chambers therein containing bodies of sealing liquid, one of said chambers also containing a body of the liquid to be volatilized, said casing having a carbureting space adapted to receive a supply of air, a bell operative in one of said chambers and subject to the pressure of the mixture at said exit, a tube operative in the other chamber and embodying means for controlling the supply of the liquid to be volatilized to said carbureting space, and a pipe leading into said tube for conducting therefrom the liquid to be volatilized.

[Claim 6 not printed in the Gazette.]

1,025,817. METHOD OF MAKING STRUCTURES FOR SUPERHEATING AND OTHER PURPOSES. HARRY LUCKENBACH, Chicago, Ill., assignor, by mesne assignments, to Luckenbach Inventions Development Company, New York, N. Y., a Corporation of New York. Filed Apr. 26, 1911. Serial No. 623,471. (Cl. 22—202.)



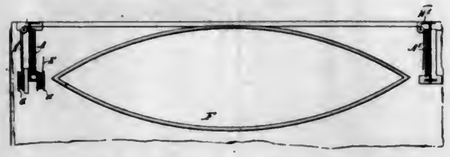
1. The method of protecting a hollow metal channel or chamber from injury by heat consisting in coating the metal chamber or channel with a plastic consisting of non-fusible material, graphite and an oil; then baking the plastic coating, and then incasing the metal channel or chamber and coating in a body of molten metal.

2. The method of protecting a hollow metal chamber or channel from injury by heat consisting in coating the metal channel or chamber with a plastic consisting of blast furnace clay, graphite and cotton-seed oil; then baking the plastic coating, and then incasing the channel or chamber and coating in a body of molten cast iron.

3. The method of protecting a metal chamber or channel from injury by heat consisting in coating the metal chamber or channel with a plastic consisting of blast furnace clay, graphite and a non-inflammable oil, such as cotton-seed oil; then baking the plastic coating; and then applying a body of molten cast metal to the chamber or channel and coating to granulate or disintegrate the coating and confine it between the chamber or channel and incasing body of cast metal.

4. The method of protecting a metal chamber or channel against injury by heat consisting in coating the metal chamber or channel with a non-fusible disintegrable plastic, and then applying a body of molten cast metal to the metal chamber or channel and the plastic composition to granulate or disintegrate the plastic and confine it between the chamber or channel and incasing body of cast metal.

1,025,818. DEVICE FOR HOISTING AND LOWERING LIFE-BOATS. ANDREAS P. LUNDIN, New York, N. Y., assignor, by mesne assignments, to Astor Trust Company, trustee, a Corporation of New York. Filed May 13, 1909. Serial No. 495,797. (Cl. 9—22.)



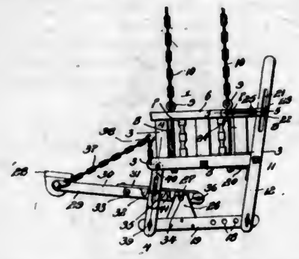
1. The combination with a pair of vertically swinging davits, each mounted in its own frame, the two frames being unconnected mechanically, of two drums mounted on a common shaft supported in the frame of one of such davits, ropes on both drums, means for carrying the ropes from one drum upwardly and over the top of one davit to one end of the lifeboat and the rope from the other drum downwardly and along the outboard edge of the deck to the other davit and the other end of the lifeboat, and actuating means adapted to interchangeably swing the davit and rotate the drums.

2. The combination with a pair of vertically swinging davits each mounted in its own frame, the two frames being unconnected mechanically, of two drums mounted on a common shaft supported in the frame of one of such davits, ropes on both drums, means for carrying the ropes from one drum upwardly and over the top of one davit to one end of the lifeboat and the rope from the other drum downwardly and along the outboard edge of the deck to the other davit and the other end of the lifeboat, means for swinging the davit, means for rotating the rope drums to hoist and lower the boat, and a common power shaft for interchangeably actuating the davit-swinging means and drum-rotating means.

3. The combination with a pair of vertically swinging davits, each mounted in a suitable frame and provided with an actuating screw suitably mounted in such frame to swing the davit vertically, of two rope drums mounted on a common shaft in the frame of one of such davits, ropes on both drums, a plurality of pulleys carrying the rope from one drum to the top of one davit and to one end of the boat and the rope from the other drum to the top of the opposite davit and to the opposite end of the boat; a brake drum mounted on said common shaft; means adapted to permit relative movement in one direction between the brake drums and the winding drums and to lock the same together in the opposite direction; a brake-band for frictionally engaging the brake drum and a pivoted and weighted lever connected to the band to normally retain the same in contact with the brake drum to prevent rotation of the latter.

1,025,819. SWING. ROY W. MACKNEER, Moorefield, W. Va. Filed Apr. 15, 1911. Serial No. 621,292. (Cl. 155—35.)

1. A chair comprising a bottom member, a back hingedly connected with the bottom, said back having side members provided with longitudinal slots adjacent their upper ends, longitudinal adjustable link members carried by the arms of the chair, retaining bolts carried by the rear of the said links and adjustably mounted in the longitudinal slots of the said side members of the back substantially as and for the purpose described.



2. A chair comprising a bottom member, a back hingedly connected with the bottom, said back having side members extending below the bottom, the bottom having side members comprising relatively adjustable links, a horizontally adjustable bar connecting the side members of the bottom with the said members of the back, and provided at its rear end with a plurality of openings, and retaining bolts extending through the said slots of the side members of the back and adapted for interchangeable engagement with the said openings substantially as and for the purpose described.

3. A chair comprising a bottom, a back hingedly connected with the bottom, said back having side members extending below the bottom, said bottom having side members pivoted thereto, a horizontally adjustable bar operatively connecting the side members, vertically disposed brackets supported by the said horizontally adjustable bars, a transversely disposed rod connecting said brackets, a foot rest located forward of the bottom, a frame supporting said foot rest and adjustably supported by said transverse rod, and means on the frame for engaging the said rod to hold the said frame in its adjusted position.

4. A chair comprising a bottom, a back hingedly mounted thereon having side bars extending below the back, side members located beneath the bottom and adjustably supported thereby, an adjustable bar connecting the side members of the bottom with the side members of the back, a vertically disposed bracket supported by the said bar, a rod connecting the brackets and supported thereby, a foot rest, an adjustable frame supporting said foot rest and comprising a pair of side bars, said bars having longitudinal grooves therein, a plate covering the grooves to provide a slot adapted for the reception of the said rod, and a retaining plate pivoted to the frame and adapted to engage the said rod to hold the said frame in its adjusted position.

1,025,820. RAILWAY-TRACK SUPPORT AND FASTENER. FRANCIS M. MCGLOCKLIN, Grand Rapids, Mich. Filed Aug. 2, 1911. Serial No. 641,999. (Cl. 238—5.)



1. In a rail joint, in combination with a track including the meeting ends of rails; of a cross tie supporting the rails of the track and arranged below the meeting ends, a pair of track engaging jaw members pivoted to the cross tie one of which is adapted to bear on the said meeting ends and the other on the opposite track rail, and a toggle connected to said jaws and formed with rail engaging jaws coöperating with the first-named jaws.

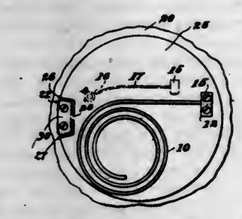
2. In combination with a cross tie; of rail engaging members pivoted together at one end and each including pivotally connected jaws one of which is pivoted to the cross tie.

3. In combination with a cross tie; of vertically movable rail engaging members pivoted together at one end and each including pivotally connected jaws one of which is pivoted to the cross tie.

4. In a railway track including the meeting ends of track rails, in combination with a cross tie supporting the rails of said track and under-lying the meeting ends and provided with a channel; of jaw members pivoted in said channel one of which is adapted to engage one of said rails and the other adapted to inter-lock with the said meeting ends and coöperating jaw members pivoted together at one end and further pivoted to the first-named jaw members.

5. In a railway track, in combination with the rails and a cross tie for supporting the same and having a longitudinal channel; of jaw members pivoted in said channel and adapted to engage the base flanges of said rails and coöperating jaw members pivoted together at one end and further pivoted to the first-named jaw members and movable into and out of said channel.

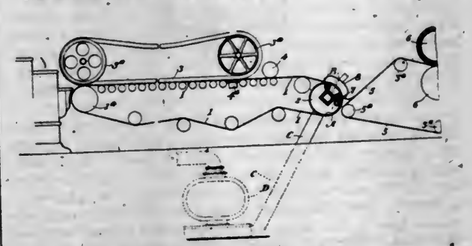
1,025,821. DEVICE FOR IMPROVING THE TONE OF CATHEDRAL-GONGS FOR CLOCKS. WALTER E. MCGRAW, Malden, Mass., assignor to Charles H. Pearson, Brookline, Mass. Filed June 20, 1911. Serial No. 634,280. (Cl. 116—33.)



1. A device of the character described, comprising a disk, a cathedral gong suspended from said disk at one edge thereof, means for connecting said disk to a support, said disk being provided with a pair of slots extending inward from its edge and converging whereby a narrow neck is formed and said connecting means being located between the slots adjacent to the edge of the disk, substantially as described.

2. A device of the character described, comprising a disk having integral annular ribs thereon, a cathedral gong suspended from said disk at one edge thereof, and means at the opposite edge of said disk for connecting it to a support, substantially as described.

1,025,822. PAPER-MAKING MACHINE. WILLIAM H. MILLSPAUGH, Sandusky, Ohio. Filed Oct. 7, 1909. Serial No. 521,535. (Cl. 92—47.)



1. In a paper-making machine, the combination of a revolving suction-roll adapted to maintain vacuum on a

portion of cylindrical surface, over which surface the paper web passes, and a positive rotary vacuum pump connected with the suction chamber of said roll and adapted to maintain therein a constant high tension vacuum so as to force a large volume of air uniformly through the sheet.

2. In a paper-making machine, the combination with a making wire on which pulp is formed into a web or sheet, the wire being free from pressure appliances for squeezing out water from the sheet, of a revolving suction roll providing a vacuum surface in contact with the wire, and a positive rotary vacuum pump connected with and adapted to maintain in said suction roll a heavy uniform vacuum while handling large volumes of air and water, whereby moisture is effectively and evenly extracted by drawing a large volume of air uniformly through the sheet.

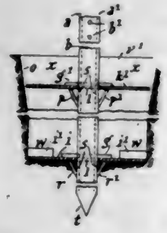
3. In a paper-making machine, the combination with a making-wire on which liquid pulp is formed into a web or sheet of paper, the wire being free from pressure-appliances for squeezing out water from the sheet, of a revolving suction-roll at the delivery end of and driving the wire, and a positive rotary air-pump connected with the suction-chamber thereof and adapted to maintain such heavy uniform vacuum as to create a high constant pressure upon and uniform draft of air through the sheet, whereby the wire is locked to the roll and the sheet is substantially freed from water.

4. In a paper-making machine, the combination with a revolving suction-roll of a positive rotary air-pump connected with the suction-chamber thereof, said pump having oppositely-revolving cycloidal impellers and adapted to maintain a uniform heavy vacuum for drawing large volumes of air uniformly through a sheet of paper passing over the suction-roll.

5. In combination with the making-wire of a Fourdrinier machine, a revolving suction-roll at the delivery end of and driving the wire, a non-rotating suction-box therein, there being provision for limiting the pressure of contact between the suction-box and inner surface of the roll, and a rotary-air-pump connected with said suction-box and having oppositely-revolving cycloidal impellers adapted to maintain in the suction-box such uniform heavy vacuum as to create a constant high pressure upon and uniform draft of air through the sheet or web of paper forming on the making-wire and lock the latter to the suction-roll.

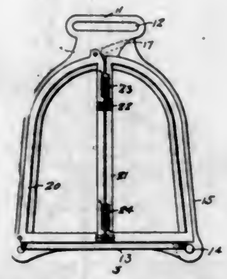
[Claims 6 and 7 not printed in the Gazette.]

1,025,823. FENCE, TELEGRAPH, AND OTHER POST. JOHN WATSON MORROW, Murrayville, Victoria, Australia, assignor of one-third to Bruce Edwards, Pinnaroo, Australia. Filed May 4, 1911. Serial No. 625,066. (Cl. 189—29.)



An anchor plate provided with an aperture, in combination with an angular post extending slidably through such aperture and having its webs slotted to form vertically-extending flaps having free upper ends, said flaps of the several webs being bent outwardly to constitute seats for firmly supporting said anchor plate with the upper face of the latter below the upper slotted edges of said webs, and keys engaging the upper slotted edges of said webs and the upper face of said anchor plate for rigidly clamping the latter in position on said seats.

1,025,824. SAFETY-STIRRUP. BENJAMIN MYERS, Spokane, Wash. Filed Oct. 14, 1911. Serial No. 654,732. (Cl. 54—40.)



1. In a stirrup, a head, a foot portion, a plurality of members connected with the head, one of said members being pivoted at its lower end to the foot portion and having detachable connection with the head at the other end, and a hood comprising a plurality of sections one of which is connected with one of the said members and the other of which is hinged to the section first mentioned.

2. In a stirrup, a head, a foot portion, a plurality of members depending from the head, one of said members being pivoted at its lower end to the foot portion and having detachable connection with the head at the other end, a spring for holding the pivoted member in its normal position, a hood comprising a plurality of sections one of which is permanently connected with one of the said members and the second of which has hinged connection with the section first mentioned.

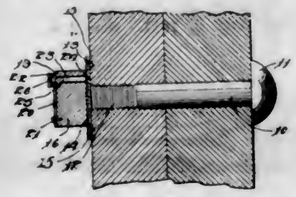
3. In a stirrup, a head provided with guides, a plurality of depending members projecting from the head, one of said members carrying lugs engaging the guides, a foot portion connecting the ends of the projecting members, a hood comprising a plurality of sections having hinged connection with each other, said hood being secured to the stirrup.

4. In a stirrup, a head, a plurality of members projecting therefrom, one of said members being constructed to swing outwardly from said head, and a hood, one portion of which has hinged connection with the remaining portion.

5. A stirrup comprising a plurality of members pivotally connected, and a hood mounted on the stirrup and comprising a plurality of members having hinged connection with each other.

[Claim 6 not printed in the Gazette.]

1,025,825. LOCK-NUT. JAMES R. ODEN, Blue Ridge, Tex. Filed Oct. 12, 1911. Serial No. 654,272. (Cl. 151—40.)



1. A nut lock comprising a bolt, a washer having teeth formed therein, a nut provided with an opening registering with said teeth and provided with an enlarged outer end portion forming a seat having a tongue formed in one portion thereof, a pin mounted in said opening and provided with a shoulder fitting in said seat and having a notch into which said tongue fits, and a spring secured to said nut and engaging said shoulder to normally hold said pin in engagement with said teeth.

2. In a nut lock, a nut provided with an opening having an enlarged outer end portion forming a seat, a tongue extending across one portion of said seat, a pin fitting in said opening, a shoulder portion formed upon said pin and fitting in said seat, and provided with a notch in which said tongue fits, and a spring secured to said nut and having its free end provided with arms engaging said shoulder to hold said pin within said opening.

1,025,826. FRUIT-PICKER. JOSEPH N. PARKER, Kingfield, Me. Filed Dec. 28, 1911. Serial No. 668,232. (Cl. 56—99.)



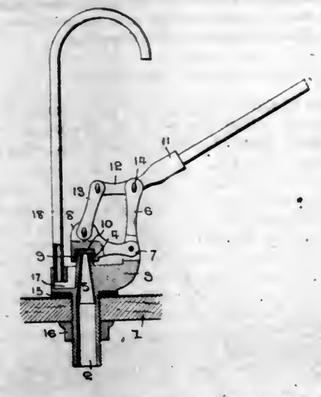
1. A fruit picker comprising a handle formed of a plurality of separable sections, a flexible shank secured to the handle and formed of spring wire bent intermediate its ends to provide a loop for insertion in the handle, said ends being bent to form spring coils, a head comprising a band secured to the ends of the shank whereby said head is yieldingly secured to the handle, a plurality of inverted U-shaped wire pickers secured to and projecting above the upper edge of said band, each of said pickers having one leg bent inwardly to form an offset adapted to be engaged with the stems of the fruit, and a receptacle adapted to receive the fruit removed by the pickers.

2. A fruit picker comprising a handle, a head having a yielding connection with the upper end of said handle, pickers arranged on said head, a receptacle comprising a fabric tube open at its opposite ends and secured at its upper end to said head, said tube having in its lower end button holes, a stud secured to the handle whereby the lower end of the tube may be buttoned around the handle and thereby closed, a cord having in its upper end a loop engaged with the upper portion of the tube whereby when the cord is pulled the loop will draw the sides of the tube together thus closing the upper end thereof, and means to secure the cord in operative engagement with the handle.

3. A fruit picker comprising a handle formed in a plurality of separably connected sections each of which is provided with a longitudinal guide groove, a head yieldingly attached to the upper end of the handle, pickers arranged on said head, a receptacle comprising a fabric tube secured at its upper end to said head, means to close the lower end of the tube, a flexible tube contracting loop engaged with the upper portion of the tube whereby the latter is drawn together or contracted to close said upper end, an operating cord secured to said loop, said cord being formed in a plurality of sections, one of which is engaged with the groove in each of said handle sections, and means to connect the ends of the cord sections together whereby the loop may be operated from the inner end of the handle to close the outer end of the tube.

1,025,827. VALVE. WILLIAM L. PARKINSON, Ashland, Ohio. Filed Nov. 8, 1910. Serial No. 591,362. (Cl. 4—5.)

In a tank valve construction the combination with a connection having an opening therethrough, a head at the upper end of the connection and a standard at one side and integral with said head, said head having a substantially U-shaped port formed therein in the side thereof opposite the standard, an overflow pipe leading from one stem of said port while the other end of said port is open, said pipe being opposite to and parallel with the standard, a valve pivoted to the lower end of said standard and having a cavity adapted to fit over the upper end of said connection, a lever pivoted to the upper end of said standard, a link connecting the inner end of said lever to the top of said valve, said link being positioned and working between the standard and overflow pipe, and a conical bushing in said connection to reduce the pressure of the water passing therethrough.



1,025,828. PLUMB-BOB. JOHN PAUL, Cleveland, Ohio. Filed May 16, 1911. Serial No. 627,404. (Cl. 73—72.)



1. A bob of the class described, comprising a body having a bore therethrough, a barrel removably fitted in the bore, suspension means connected with the barrel, and a spring controlled tip carried by the barrel.

2. A bob of the class described, comprising a body, a barrel removably fitted therein and having a spool-like knob, a tapered lug formed on the knob, suspension means engaged with the lug, binding means adapted to be wedged upon said knob for holding the suspension means when wrapped upon the barrel, and a recoiled point carried by the barrel and normally protruding outside of the body.

3. A bob of the class described, comprising a conical-shaped body, a barrel detachably fitted in the body, a point detachably connected with the barrel and normally protruded outside of the body, a knob on the barrel, and suspension means connected with the knob and having a split collar engageable with said knob when said means is wrapped about the barrel.

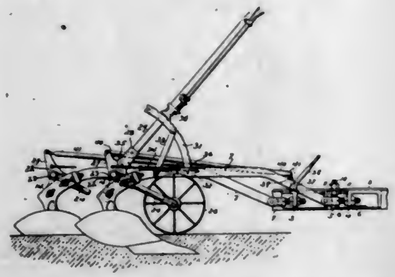
4. A bob of the class described, comprising a conical-shaped body, a barrel fitted in the body, a point connected with the barrel and normally protruded outside of the body, a knob on the barrel, a cord connected with the knob on

the barrel for suspending the same with the body, and a split collar removably engaged with the knob when said cord is wrapped about the barrel.

5. A bob of the class described, comprising a conical-shaped body, a barrel detachably fitted in the body, a point detachably connected with the barrel and normally protruded outside of the body, means connected with the barrel for suspending the same with the body, and spring means acting on the point for holding it in its protruded position.

[Claim 6 not printed in the Gazette.]

1,025,829. PLOW. WILLIAM L. PAUL, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed June 11, 1910. Serial No. 566,417. (Cl. 97—14.)



1. In a plow structure of the character described, the combination with a traveling member and a plurality of plows pivotally connected therewith, of a foot lever, raising devices for each plow, and connections between said foot lever and the raising devices of two adjacent plows.

2. In a plow structure of the character described, the combination with a traveling member and a pair of plow beams having pivotal connection at their forward ends with the traveling member, of lifting devices for each of said plows, a hand lever connected with the lifting devices of one plow, a foot lever connected with the lifting devices of the other plow, and a connection between said foot lever and the lifting devices of the first plow whereby the two plows can be lifted simultaneously by combined hand and foot power.

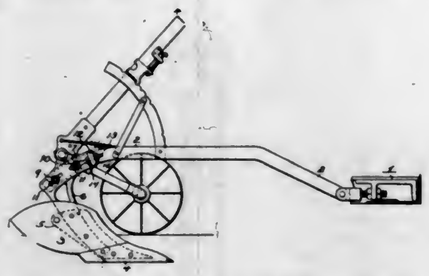
3. In a plow structure of the character described, the combination with a traveling member and a pair of plows pivotally connected at their forward ends with said traveling member, of a Z-shaped axle mounted at the rear end of each plow beam and having a laterally projecting spindle at the forward end of its forwardly projecting member, a wheel mounted on the spindle of each axle, an arm secured to each axle, a hand lever secured to the arm on one axle, a foot lever, and rods connecting said foot lever with the arms on the axles of the two adjacent plows.

1,025,830. PLOW. WILLIAM L. PAUL, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed June 11, 1910. Serial No. 566,418. (Cl. 97—29.)

1. The combination with a plow beam, a soil engaging member comprising a mold board, land-side and point, and a standard connected with said soil-engaging member, of means connecting the standard with the beam and affording adjustment of the soil engaging member in the arc of a circle the center of which is located in the plane of the bottom of the soil-engaging member rearwardly of the point of the same.

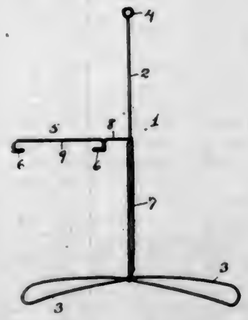
2. The combination with a plow beam terminating at its rear end in a downward curved portion, and a soil-engaging member comprising a mold-board, land-side and point, of a standard connected with the soil engaging member having a curved enlargement at its upper end concentric with a circle, the center of which is located in the plane of the bottom of the soil-engaging member rearwardly of the point of the same, and means adjustably securing said enlargement to the curved rear end of the beam.

3. The combination with a plow beam, and a soil-engaging member comprising a mold-board, a land-side and a point, of a standard connected with the soil-engaging member having an enlargement at its upper end curved in the arc of a circle, the center of which is located in the plane of the bottom of the soil-engaging member rearwardly of the point and forwardly of the heel of the land-side of said soil-engaging member, the enlargement on the standard having elongated slots, and bolts passing through said slots and the beam.



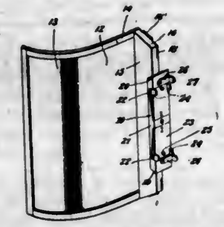
4. The combination with a plow beam terminating at its rear end in a downwardly curved portion, and a soil-engaging member, of a standard connected with the soil-engaging member, said standard having an enlargement at its upper end, said enlargement being curved concentric with a circle, the center of which is located in the plane of the bottom of the soil-engaging member rearwardly at the point and forwardly of the rear end of said soil engaging member, said enlargement lying parallel with the curved rear end of the beam and provided with elongated slots, bolts passing through said slots and the beam, and means for moving said enlargement to adjust the soil-engaging member in an arc of a circle concentric with the center of the circle of which the enlargement on the standard and the rear end of the beam form segments.

1,025,831. HAT AND COAT HANGER. FRANK PEARCE, Millers Falls, Mass. Filed Jan. 2, 1912. Serial No. 668,971. (Cl. 45—13.)



A wire hat and coat hanger having a stem provided with an upper eye, lower oppositely extending coat-supporting loops, an upper extension adjacent to said stem, and a laterally and outwardly extending arm located in substantially the same plane as the longitudinal center of said loops and at least the height of a hat above said loops, and oppositely extending downward projecting hat-supporting hooks formed in the wire of said arm and adapted to receive the brim of a hat between the same and said arm.

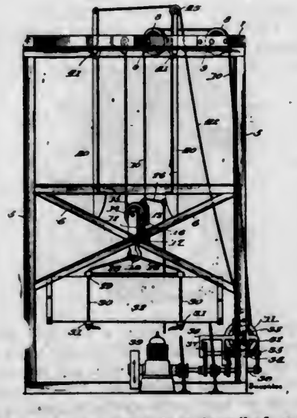
1,025,832. COMBINED DEFLECTOR AND VENTILATOR. THOMAS T. PEDDY, Bienville, La., and GEORGE F. GALLAGHER, Rochester, N. Y. Filed Mar. 7, 1911. Serial No. 612,779. (Cl. 98—2.)



1. A combined reversible and detachable deflector and ventilator for car windows, comprising a concaved shield plate having its curvature near the outer free edge thereof, a strip secured to the inner free edge of the plate and arranged at an angle thereto and having inwardly converging beveled end edges, gripping means carried at the beveled edges of the strip for biting into the base sill of a window casing, a cleat fixed to and at right angles with respect to the strip and having outwardly beveled end edges, reversely extending leaf springs fixed to the cleat and having spaced outturned toothed ears for the locking of the cleat between the guide strips of such window casing and sustaining the shield plate relative thereto.

2. A combined reversible and detachable deflector and ventilator for car windows, comprising a concaved shield plate having its curvature near the outer free edge thereof, a strip secured to the inner free edge of the plate and arranged at an angle thereto and having inwardly converging beveled end edges, gripping means carried at the beveled edges of the strip for biting into the base sill of a window casing, a cleat fixed to and at right angles with respect to the strip and having outwardly beveled end edges, the said beveled edges of the cleat being adapted for engagement by the sash of a window, reversely extending leaf springs fixed to the cleat and having spaced outturned toothed ears for the locking of the cleat between the guide strips of such window casing and sustaining the shield plate relative thereto, and clips acting upon the said leaf spring to hold the same in normal retracted position on the cleat.

1,025,833. COAL-DUMPING DEVICE. NELS PETERSON, Canton, S. D. Filed Dec. 2, 1911. Serial No. 663,611. (Cl. 214—12.)



1. In an apparatus of the class described, a frame having spaced parallel cross beams at its top, guide pulleys journaled between the beams, and hoisting cable trained over said pulleys and having one end fixed between the cross beams, motor controlled winding and unwinding means for said cable, a pulley block sustained by the cable and having a pulley wheel engaging said cable and rotated on the tightening or slackening thereof, a hook swiveled in said block for turning movement, connections between said last named pulley and the hook for rotating same on the slackening or drawing taut of the cables, means for normally holding said connections between the last named pulley and said hook out of engagement therewith, and means for throwing said connection into engagement with the said last named pulley and hook.

2. In an apparatus of the class described, a frame having spaced parallel cross beams at its top, guide pulleys journaled between the beams, and hoisting cable trained over said pulleys and having one end fixed between the cross beams, motor controlled winding and unwinding means for said cable, a pulley block sustained by the cable and having a pulley wheel engaging said cable and rotated on the tightening or slackening thereof, a hook swiveled in said block for turning movement, connections between said last named pulley and the hook for rotating same on the slackening or drawing taut of the cables, means for normally holding said connections between the last named pulley and said hook out of engagement therewith, means for throwing said connection into engagement with the said last named pulley and hook, and a lift connected with said hook.

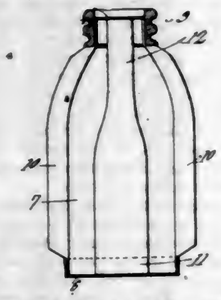
3. In an apparatus of the class described, a frame having spaced parallel cross beams at its top, guide pulleys journaled between the beams, and hoisting cable trained over said pulleys and having one end fixed between the cross beams, motor controlled winding and unwinding means for said cable, a pulley block sustained by the cable and having a pulley wheel engaging said cable and rotated on the tightening or slackening thereof, a hook swiveled in said block for turning movement, connections between said last named pulley and the hook for rotating same on the slackening or drawing taut of the cables, means for normally holding said connections between the last named pulley and said hook out of engagement with the said last named pulley and hook, a lift connected with said hook, and a manually actuated means controlling said first named means.

4. In an apparatus of the class described, a frame having spaced parallel cross beams at its top, guide pulleys journaled between the beams, and hoisting cable trained over said pulleys and having one end fixed between the cross beams, motor controlled winding and unwinding means for said cable, a pulley block sustained by the cable and having a pulley wheel engaging said cable and rotated on the tightening or slackening thereof, a hook swiveled in said block for turning movement, connections between said last named pulley and the hook for rotating same on the slackening or drawing taut of the cables, means for normally holding said connections between the last named pulley and said hook out of engagement therewith, means for throwing said connection into engagement with the said last named pulley and hook, a lift connected with said hook, a manually actuated means controlling said first named means, and a means connected with the frame and engageable with one end of a load carrier supported in said lift for assisting the dumping of such load when elevated.

1,025,834. RECEPTACLE FOR LIQUIDS. WILLIS F. PIERCE, Seattle, Wash. Filed Oct. 19, 1911. Serial No. 655,488. (Cl. 229—3.)

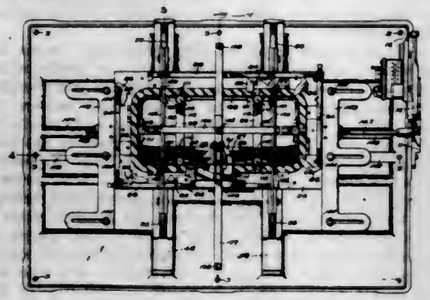
A container comprising a plurality of longitudinal side sections attached at their edges, each section having a pair of pressed plaits at its upper end to form the neck of the container, a bottom, and an intermediate longitudinal reinforcing strip secured to the inner side of each section and resting on the bottom at its lower end and having its upper end reduced forming a tapering portion, the reduced end of each reinforcing strip fitting between the plaits of the corresponding side section so that the edges of

the reinforcing strips define the line of folding of the inner folds of the plaits and the contact of the plaits with the



tapering portions of the strips stiffens the container against endwise pressure.

1,025,835. COIL-WINDING MACHINE. HENNING G. SAHLIN, Maplewood, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 19, 1907. Serial No. 369,112. (Cl. 153—64.5.)



1. The combination in an edgewise winding machine, of a non-circular former of fixed shape, an anti-buckling bending guide, and means for automatically moving such guide so that the bending is all done at substantially the same part thereof.

2. In a machine for winding metallic strip or ribbon edgewise, a non-circular former, a guide for preventing buckling of the strip, and means for moving said guide both rectilinearly and curvilinearly.

3. The combination of means for bending a flat metal strip edgewise at definite intervals whereby a polygonal shaped coil is produced, and means operating concurrently with the bending operation to maintain uniformity of cross section throughout said strip.

4. The combination with a polygonal form, of means for laying a flat metal strip edgewise thereabout, and means for exerting pressure upon said strip in a line parallel to the face of said form and transverse to said strip.

5. The combination of a polygonal form, a winding head movable about said form and adapted to lay a flat metal strip edgewise thereabout, and means carried by said head for exerting pressure upon said strip in a line parallel to the face of said form and transverse to said strip.

[Claims 6 to 34 not printed in the Gazette.]

1,025,836. SANDPAPERING-MACHINE. FRIDOLIN SCHIMMEL, Faribault, Minn. Filed Nov. 14, 1910. Serial No. 592,242. (Cl. 51—5.)

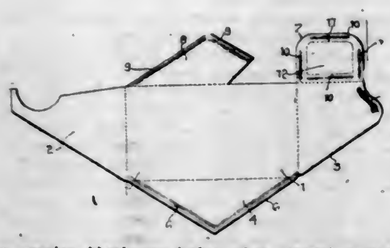
1. The combination with a sanding or polishing belt and means for guiding and moving the same, of a pair of laterally spaced guide rollers engageable with the edges of the said belt to give the same a channel-shaped form, and which guide rollers are adjustable toward and from each other, substantially as described.

2. The combination with a sanding or polishing belt and means for guiding and moving the same, of a pair of laterally spaced guide rollers engageable with the edges of said belt, with their opposing faces spaced apart a less distance than the normal width of the belt, whereby a part of the said belt is given a channel-shaped form.



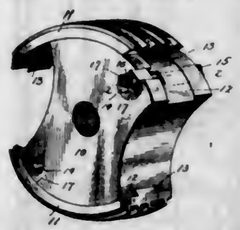
3. The combination with a sanding or polishing belt and means for guiding and moving the same, of two pairs of laterally spaced guide rollers engageable with the edges of said belt at different points longitudinally thereof, the opposing faces of the rollers of each pair being spaced apart a distance less than the normal width of said belt, whereby the said belt is given a channel-shaped form at points between the two pairs of rollers.

1,025,837. ENVELOP. FREDERICK J. SCHNORR, Two Rivers, Wis. Filed Sept. 6, 1911. Serial No. 647,821. (Cl. 229—73.)



An envelop blank consisting of a central rectangular portion, a bottom and side flaps, one of said side flaps having a flap at its upper edge foldable over the left hand upper corner of the front of the central portion of the envelop to conceal the name and address of the sender on the envelop, and an inclined flap on the upper edge of the central portion of the envelop extending from the right hand upper corner of the central portion of the envelop, and spaced from the upper edge of the central portion of the envelop and from one of the side flaps, and permitting said flap on the side flap to be folded over the upper left hand corner of the central portion of the envelop.

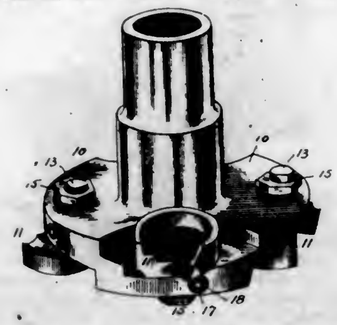
1,025,838. CUTTER-HEAD. ELMER S. SHIMER, Milton, Pa., assignor to Samuel J. Shimer & Sons, Milton, Pa. Filed Dec. 1, 1910. Serial No. 595,097. (Cl. 144—226.)



1. The combination of a head, a bit, said parts having one a groove or depression and the other a rib or projection within the groove or depression, and means for securing the bit to the head comprising a transversely extending bolt in one of said parts having a radially extending head with a lip overhanging said rib or projection, and said head fitting an outwardly extending recess in the bit head and having surfaces that overlap surfaces on the part in which said bolt is mounted, situated to resist movement of the head in a direction in which it might tend to move from stresses on its rib-engaging portion.

2. The combination of a cutter head, a bit, one of said parts having a circumferentially extending rib or projection, and the other having a circumferentially extending groove or depression to receive said rib, a bolt extending transversely of the cutter head having at one side of the latter a nut, and at the other side of the cutter head a radially extending flat-sided head having on its inner side an overhanging lip that engages said rib, and the bolt having on opposite sides radially projecting lugs, the bolt head and lugs being contained within and fitting a recess in the cutter head.

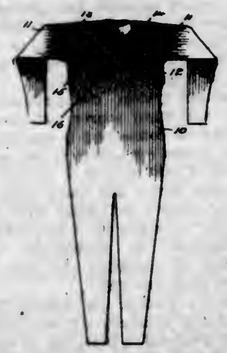
1,025,839. CUTTER-HEAD. ELMER S. SHIMER, Milton, Pa., assignor to Samuel J. Shimer and Sons, Milton, Pa. Filed Jan. 25, 1911. Serial No. 604,630. (Cl. 144—234.)



1. The combination of a cutter head, a rotatable bit, a screw mounted on the head eccentric to the axis of rotation of the bit, and notches on a part rigidly connected with the bit engaged by the thread of the screw and the screw engaged part being cut away at a point to permit the separation of the same and the screw by movement in the direction of the axis of revolution of said part.

2. The combination of a cutter head, a circular bit having a clamping bolt passing through a hole in the cutter head, said bolt having peripheral notches, and a screw mounted on the head having its thread engaging said notches, said bolt having a slabbed surface extending from said notches outward, said surfaces being adapted to be placed adjacent to the screw and thereby disengagement of the screw and bolt caused to permit the endwise movement of the bolt.

1,025,840. BUTTONLESS UNION GARMENT. WALTER L. SIEWERS, Winston Salem, N. C. Filed Apr. 14, 1910. Serial No. 555,411. (Cl. 2—144.)



A body garment comprising a main portion extending on a convex line upwardly from the bottom of the arm-pits to substantially the neck line, and side flaps extending in convex curved lines from substantially the armpits to the center and meeting the center of the upwardly extending body portion substantially at the neck line, a tie cord secured to the center of the upwardly extending body portion and positioned to pass through eyelets formed in the inner ends of the flaps and tie substantially at the neck line.

1,025,841. FUEL-FEEDING MECHANISM. WALTER F. SMITH, Baltimore, Md. Filed July 13, 1911. Serial No. 638,354. (Cl. 110—44.)



1. An automatic stoker comprising a retort provided with an imperforate bottom having spaced apart uptakes, conveyer members provided with depending walls, pivots for said conveyer members located in a plane above said uptakes, means for supplying fuel to said retort, and means for operating said conveyer members, one of the walls of each conveyer member being adapted to periodically form a prolongation of an adjacent uptake, contiguous conveyer members being arranged to oscillate in opposite directions, whereby the fuel is alternately supported and moved in said retort.

2. An automatic stoker comprising a retort provided with an imperforate bottom having spaced apart uptakes, depending shell like conveyer members provided with angularly disposed walls, pivots for said conveyer members located in a plane above said uptakes, means for supplying fuel to said retort, and means for operating said conveyer members, one of the walls of each conveyer member being adapted to periodically form a prolongation of an adjacent uptake, contiguous conveyer members being arranged to oscillate in opposite directions, whereby the fuel is alternately supported and moved in said retort.

3. An automatic stoker comprising a retort provided with an imperforate bottom having spaced-apart uptakes, conveyer members provided with depending angularly disposed walls, one of said walls of each conveyer member being adapted to periodically form a prolongation of an adjacent uptake, lugs formed on said conveyer members and coöperating with the bottom of the retort to prevent binding of the fuel, means for supplying fuel to said retort, and means for oscillating said conveyer members.

4. An automatic stoker comprising a retort provided with an imperforate bottom having spaced apart uptakes, said uptakes being of progressively increased length from front to rear, conveyer members formed with depending angularly disposed walls, pivots for said conveyer members located in a plane above said uptakes, one of said walls of each conveyer member being adapted to periodically form a prolongation of an adjacent uptake, means for supplying fuel to said retort, and means for oscillating said conveyer members, contiguous conveyer members being arranged to oscillate in opposite directions.

5. An automatic stoker comprising a retort having an imperforate bottom, a hopper for directing fuel to said retort, a plurality of independent conveyer members within said retort, each formed with angularly disposed depending walls, and means for oscillating said conveyer members, one of said conveyer members being located to receive all the fuel entering the retort through said hopper contiguous conveyer members being arranged to oscillate in opposite directions, whereby said walls alternately support and move the fuel in said retort.

[Claims 6 to 9 not printed in the Gazette.]

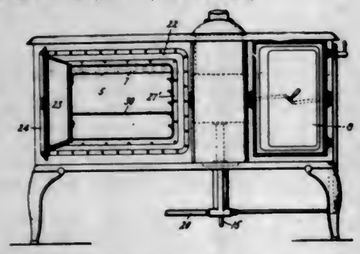
1,025,842. WRENCH. JOSEPH CALOIN SNYDER, McIlhaney, Pa. Filed Aug. 27, 1909. Serial No. 514,979. (Cl. 81—112.)



1. A wrench comprising a handle, a rigid jaw on said handle, said jaw being provided with a longitudinal groove, a jaw pivoted to the handle and provided with a longitudinal groove, a yoke provided with inwardly projecting studs to engage said grooves, and means for adjusting said yoke longitudinally of the jaw members for opening and closing the same.

2. A wrench comprising a handle, a rigid jaw thereon, said jaw being provided with a longitudinal groove, a jaw pivoted to the handle and provided with a longitudinal groove, a yoke surrounding said jaw members, a stirrup connected to said yoke, a threaded rod pivotally mounted in the stirrup, and a milled nut connected to said rod and mounted in an opening in the handle.

1,025,843. STORAGE-STOVE. WILLIAM STANLEY, Great Barrington, Mass., assignor to General Electric Company, a Corporation of New York. Filed Sept. 30, 1911. Serial No. 652,174. (Cl. 219—19.)



1. The method of storing and utilizing electrically produced heat which consists in heating a normally heat-insulated body by the energy of the electric current, and conductively transferring heat from said body at will by providing a thermal path of low resistance extending through the insulation.

2. The method of storing and utilizing electrically produced heat which consists in heating a normally heat-insulated body by the energy of the electric current, and conductively transferring the heat at will from said body through a thermal path of low resistance extending through the insulation at a rate greater than the rate of heat input.

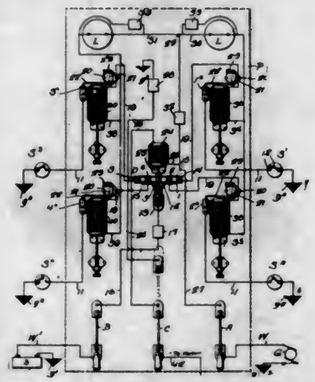
3. The method of storing and utilizing electrically produced heat which consists in heating a normally heat-insulated body by the energy of the electric current, and conducting heat from said body as and when desired by a path of low thermal resistance extending through the insulation.

4. The method of storing and utilizing electrically produced heat which consists in heating a normally heat-insulated body by the energy of the electric current, conducting heat from said body as and when desired by a path of low thermal resistance extending through the insulation and varying the said thermal resistance to vary the flow of heat.

5. The method of storing and utilizing electrically produced heat which consists in heating a normally heat-insulated body by the energy of electric current, and conveying said heated body when desired through the insulation so as to expose a high temperature surface.

[Claims 6 to 25 not printed in the Gazette.]

1,025,844. IGNITION FOR INTERNAL-COMBUSTION ENGINES. CLAUDE L. TERRY, Elyria, Ohio. Filed Mar. 4, 1910. Serial No. 547,339. (Cl. 123—147.)



1. In an ignition system, the combination of a plurality of spark plugs, a source of current, a mercury cup connected with the source of current, a mercury cup connected with each spark plug, a movable contact element for closing the circuit from the first-mentioned cup through the cups connected with the spark plugs, and means for automatically actuating the contact element to open and close the circuits.

2. In an ignition system, the combination of a plurality of spark plugs, a source of current, a mercury cup connected with the source of current, a mercury cup connected with each spark plug, a movable contact element for closing the circuit from the first-mentioned cup through the cups connected with the spark plugs, another source of current, an electromagnetically operated means responsive to current from the second source for actuating the said contact element, and means for connecting the spark plugs with the main source, said last-mentioned means including a device responsive to continuous current passing through a grounded spark plug for cutting the latter out of circuit.

3. In an ignition system, the combination of a spark plug, auxiliary and main sources of current, two make and break devices for connecting the auxiliary source with the spark plug, means responsive to the main current for opening the first of said devices, a cut-out device between the first-mentioned device and spark plug, said last-mentioned device including a bell crank lever, a mercury cup, a movable contact normally in circuit with the cup, and a solenoid responsive to continuous current passing through the plug for actuating the lever to remove the movable contact from the cup.

4. In an ignition system, the combination of separate sources of main and auxiliary current, said sources each having one side grounded, a plurality of spark plugs each having a grounded electrode, a circuit making and breaking device connected with the auxiliary source, a spark coil between the device and auxiliary source, means for connecting the said device with each ungrounded electrode and including an automatic cut-out device, means for connecting the main source with the cut-out device, means for connecting the main source with the spark plugs through the automatic cut-out devices, indicating means between the main source and the automatic cut-out devices, and a grounded conductor connected with a main source and including means for actuating the said make and break device, each cut-out device being responsive to continuous current flowing through the spark plug with which it is connected in circuit for cutting such plug out of circuit when grounded.

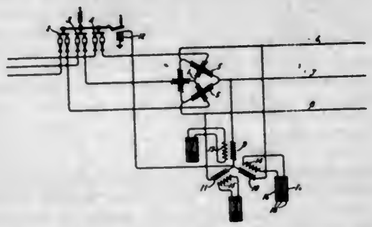
1,025,845. TRAP. HARRY A. THIBERGE, New Orleans, La. Filed Dec. 14, 1911. Serial No. 665,759. (Cl. 43—19.)



1. A trap comprising a base, a cross-bar rigidly mounted thereon, spiral springs encircling said bar with one end engaging said base, a cage carried on the free ends of said springs and provided with an open end, a lug on the exterior of said cage, a trigger device pivoted on said cross-bar for engaging said lug to lock the cage in set position, and stops on said base for limiting the swing of said pivoted trigger device.

2. A trap comprising a corrugated base, a cross-bar thereon, springs encircling said bar with one end engaging said base, a cage carried on the free ends of said springs and provided with an open end, teeth projecting from the perimeter of such open end for entering the depressions of said corrugated base in the sprung position of said cage, and a trigger device carried by said cross-bar for locking said cage in set position.

1,025,846. PROTECTION FOR ELECTRICAL SYSTEMS. MATTHEW O. TROY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 24, 1907. Serial No. 394,279. (Cl. 175—294.)



1. The combination with an electric conductor, an automatic switch in circuit with said conductor, and electro-responsive means for tripping said switch, of an impedance coil connected to said conductor and through said electro-responsive means to ground and means for preventing an abnormal rise of potential on said impedance coil in case of a heavy flow of current through said coil.

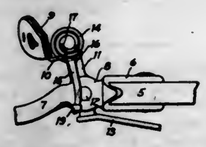
2. The combination with a plurality of electrical conductors, an automatic switch in circuit with said conductors, and current responsive means for tripping said switch, of impedance coils connected across said conductors and having a neutral point, a ground connection through said current responsive means to said neutral point, and means for preventing an abnormal rise of potential on said impedance coils in case of a heavy flow of current therethrough.

3. The combination with a plurality of current distributing conductors, an automatic switch in circuit with said conductors, and a trip coil for tripping said switch, of a plurality of impedance coils connected across said conductors to a neutral point, a ground connection from said neutral point through said trip coil, and an auxiliary winding in inductive relation with each of said impedance coils and adapted to take current when the voltage thereon reaches a predetermined value.

4. The combination with a plurality of distributing conductors, an automatic switch in circuit with said conductors, and a trip coil for tripping said switch, of a plurality of impedance coils connected across said conductors to a neutral point, a ground connection through said trip coil to said neutral point, and a secondary winding for each of said impedance coils, each of said windings having its terminals connected by a spark gap path.

5. In an electrical system, the combination of high potential windings insulated from low potential windings, automatic switches in circuit with said high potential windings, impedance devices connected across said low potential windings, a path from said impedances to ground for energy leaking across from said high potential windings to said low potential windings, current responsive means in said path for operating the switches of the high potential windings when the current to ground reaches a predetermined value, and secondary windings for said impedances short circuited in response to abnormal potential to prevent a dangerous increase in potential on said impedance devices in case of a heavy flow of current through said ground connection.

1,025,847. EYEGLASS-MOUNTING. JOHN RUTSON VAN TASSEL, Geneva, N. Y., assignor to Standard Optical Company, Geneva, N. Y. Filed Feb. 23, 1912. Serial No. 679,491. (Cl. 88—50.)



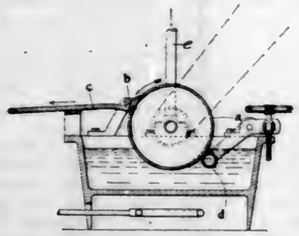
1. In an eyeglass-mounting having relatively movable members, such as a nose-clamp lever and a body upon which the lever is pivoted, a spring operatively connecting said members and comprising a resilient strip in the form of a spiral connected, adjacent its ends, with said members respectively, the extremity of the coil projecting beyond the point of connection with one of said members so as to form an extended bearing-member to engage the adjacent turn of the spiral and prevent cramping of the spring.

2. An eyeglass-mounting having, in combination, two relatively-movable members such as a nose-clamp and a body-portion adapted to be connected with the lens, and means operatively connecting said members, comprising a resilient coil of flat spiral form and an arm for connecting the coil with one of the members, said arm extending from the coil near one end thereof, and the adjacent extremity of the coil projecting beyond the point of connection with said arm so as to produce an extended bearing-portion adapted to engage the adjacent portion of the spiral and prevent cramping of the spring by the bending action of the arm.

3. In an eyeglass-mounting, a combined nose-clamp lever and spring comprising a strip of resilient sheet-metal in spiral form, a member extending integrally from the strip, adjacent its inner end, and constituting a nose-clamp lever, and an arm extending integrally from the edge of the strip, adjacent its outer end, and substantially parallel with the plane of the spiral; said arm being adapted to

connect the spring with the body of the mounting, and the extremity of the spring-coil extending beyond the point of connection with the arm so as to form an extended bearing-member to engage the adjacent portion of the spiral and prevent cramping of the spring by the lever-action of the arm.

1,025,848. PRODUCTION OF FILMS OR THIN SHEETS OF METALS. WILLIAM GEORGE WAGNER, London, England. Filed July 25, 1910. Serial No. 573,768. (Cl. 207—11.)

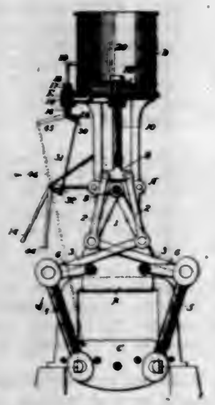


1. A process of production of films or thin sheets of metals consisting in rotating a body within a bath of metal in its molten state so that a film of metal is deposited and adheres to the said body and in removing the film or thin sheet from the rotating body.

2. A process of production of films or thin sheets of metal consisting in rotating a body within a bath of molten metal, the body being maintained at such a temperature that a film of metal is deposited and adheres to said body and in removing the film or thin sheet from the rotating body.

3. A process for the production of films or thin sheets of metal consisting in rotating a cylindrical body in a bath of molten metal, the body being maintained at such a temperature that the metal will adhere thereto, and removing the thin sheet or film of metal from the cylindrical body.

1,025,849. COMPRESS. SAMUEL J. WEBB, Minden, La.; (Mrs.) Anna Webb Miller, (Mrs.) Love Webb Mills, (Mrs.) Carrie Webb Longino, Robert D. Webb, and (Mrs.) Rosa Webb Grigsby heirs-at-law of said Samuel J. Webb, deceased. Filed June 15, 1906. Serial No. 321,937. (Cl. 100—9.)



1. The combination in a compress with a movable platen, its lifting links connected to the piston rod and arms, motor and piston links, of radius arms each swinging about a fixed point at the upper end and connected at the free end with the piston links, and intermediate cross links connected directly to the radius arms and to the lifting arms.

2. The combination in a compress with a movable platen, its lifting links and arms, motor and piston links, of radius arms each swinging about a fixed point at the upper end and connected at the free end with piston links, and intermediate cross links connected directly to the radius arms and to the lifting arms, all proportioned as set forth to secure an approximately horizontal position of the piston links and an approximately vertical position of the piston links when the movable platen is in starting position.

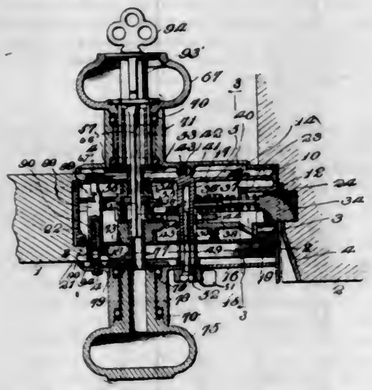
3. The combination in a compress with a movable platen, its lifting links and arms, motor and piston links, of radius arms each swinging about a fixed point at the upper end and connected at the free end with the piston links, and intermediate cross links connected directly to the radius arms and to the lifting arms, all proportioned and arranged as specified to permit the cross links and lifting arms and the radius arms and piston links to be at acute angles to each other when the movable platen is in starting position.

4. The combination with the movable platen, its lifting links and arms and motor and piston links of a compress, of radius arms each pivoted at the upper end to swing outward at the free end, links connected to the lower ends of said arms and crossing each other and connected to the free ends of the lifting arms.

5. The combination in a compress, of a movable platen, lifting links and arms, motor and piston links and radius arms each pivoted at the upper end to a fixed pivot above the point which the outer ends of the lifting arms can swing, and connections between the radius arms and the lifting arms.

[Claims 6 to 26 not printed in the Gazette.]

1,025,850. COMBINED LOCK AND LATCH. WILLIAM H. F. YOUNG, Muncie, Ind. Filed July 15, 1908. Serial No. 443,693. (Cl. 70—91.)



1. In a lock of the character described, the combination with a bolt, a latch carried thereby and movable thereon and normally outwardly spring held, means for simultaneously moving the bolt and latch inwardly by means of the knob on either side of the door, means for locking the outside knob against operation, a lock within the outside knob whereby the bolt and latch may be operated by a key independent of the knob, and means for operating the bolt from the inside independent of either knob.

2. In a lock of the character described, the combination with a bolt, a latch carried by the bolt and outwardly movable, means carried by the latch to move the bolt inwardly knobs adapted to operate the latch and bolt from either side of the door and means for locking the outside knob against operation.

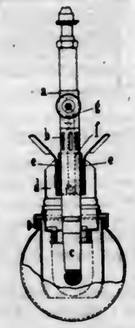
3. In a lock of the character described, comprising a bolt, a latch within the bolt and independently outwardly movable, a knob on the inside for moving the latch inwardly, a lug carried by the latch and engaging the bolt and moving the same inwardly with the latch, and a rock-shaft for moving the bolt outwardly independent of the latch.

4. In a lock of the character described, comprising a hollow bolt, a latch slidable within the bolt and normally outwardly spring held, means operated by the knobs for retracting the latch, a lug carried by the latch for engaging the bolt and moving the same inwardly with the latch and a second means for moving the bolt inwardly.

5. In a lock of the character described, comprising a hollow bolt, a latch slidably mounted in the bolt and normally outwardly spring-held, a lug carried by the latch for engaging the bolt and moving the same inwardly therewith, means carried by the lock on the inside of the door for operating the bolt and latch, means carried by the lock on the outside of the door for operating the latch and bolt, and means for locking the outside operating means against movement but allowing the inside means to operate the bolt and latch.

[Claims 6 to 14 not printed in the Gazette.]

1,025,851. INVERTED BURNER FOR LIQUID COMBUSTIBLES. FRITZ ALTMANN, Berlin, Germany. Filed Feb. 12, 1910. Serial No. 543,575. (Cl. 67—50.)



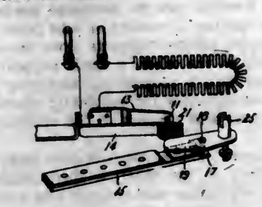
1. An inverted burner for liquid fuels, comprising in combination two groups of parts, one group comprising a gasifier, a Bunsen tube, having a nozzle connected therewith, and a cap surrounding the nozzle of said tube, and the other group comprising a chimney, an incandescent body mounted thereon, and a globe mounted on said chimney; and means detachably connecting the two groups in such a manner that the distance between the cap and the incandescent body can be varied.

2. An inverted burner for liquid fuels, comprising in combination two detachably connected groups of parts, one group comprising a gasifier, a Bunsen tube, having a nozzle connected therewith, and a cap surrounding the nozzle of said tube, and the other group comprising a chimney, an incandescent body mounted thereon, and a globe mounted on said chimney, said chimney having a centrally-arranged tube slidable on said Bunsen tube.

1,025,852. AUTOMATIC CUT-OUT FOR ELECTRIC HEATERS. WILLIAM S. ANDREWS, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 18, 1910. Serial No. 538,739. (Cl. 219—25.)

1. The combination with an electric heater, of a normally open switch in the circuit thereof, a thermostatic element for latching said switch closed and releasing the same at a predetermined temperature, and means controlled by the operator for releasing the latch.

2. The combination with an electric heater, of a normally open switch in the circuit thereof, a thermostatic element for latching said switch closed and releasing the same at a predetermined temperature, and means controlled by the operator for actuating the thermostatic element to release the latch.



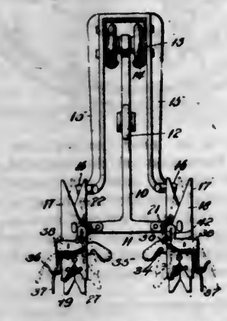
3. The combination with an electric heater, of a normally open switch in the circuit thereof, a thermostatic element for latching said switch closed, manually operated means for moving the switch to latching position and independent manually operated means for releasing the latch.

4. The combination with an electric heater, of a switch in the circuit thereof biased to open position, a resilient thermostatic element, and means for latching said switch in closed position comprising a beveled member on the thermostatic element and a similarly beveled member associated with the switch.

5. The combination with an electric heater, of a switch in the circuit thereof biased to open position, a thermostatic element, and beveled latching mechanism between the thermostatic member and the switch.

[Claims 6 to 10 not printed in the Gazette.]

1,025,853. DRY-ROOM HANGER. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill., a Corporation of New York. Filed Feb. 14, 1910. Serial No. 543,687. (Cl. 193—2.)



1. In a dry-room hanger, the combination with a support, of a fixed jaw having parallel side flanges and a supporting arm extending from one of said flanges for supporting said jaw in vertical position, a movable vertical jaw provided with parallel side flanges pivotally mounted between the flanges of the fixed jaw, gripping blocks disposed between the flanges of said jaws at their lower ends, means for holding said blocks in contact, an independently movable latch lever pivoted horizontally between the side flanges of the fixed jaw and having its free end extending through an aperture in the movable jaw, and means carried by said lever to engage a wall of said aperture when said movable jaw is moved into open position.

2. In a dry-room hanger, the combination with a carrier, of a hanger provided with a fixed and a movable retaining jaw, a releasing device adapted to be interposed between the hanger and the movable jaw, and an independently movable latch lever pivoted horizontally on the fixed jaw and having its free end extending through an aperture in the movable jaw, and means carried by said lever to engage a wall of said aperture when said movable jaw is moved into open position.

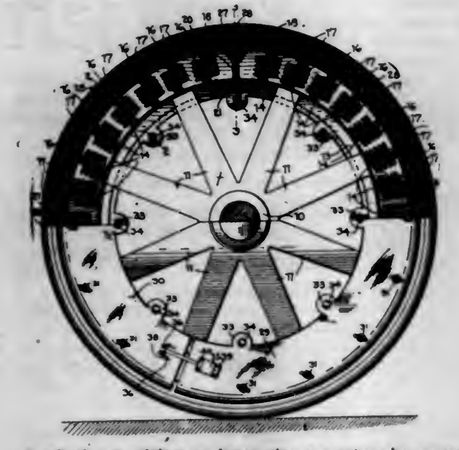
3. In a dry-room hanger, opposite jaws one of which is movable relatively to the other, a goods support carried by one of the jaws, and a coöperating stripping device connected to the movable jaw to discharge goods from said support by the opening movement of said jaws.

4. In a dryroom hanger, opposite jaws one of which is movable relative to the other, a goods support carried by one of the jaws, and a coöperating stripping device connected to the movable jaw for automatic operation to discharge goods from said support in the opening movement of said jaws.

5. In a dry-room hanger, opposite jaws one of which is movable relatively to the other, a goods support, and a stripping lever embracing said support and connected to a movable jaw for movement thereby.

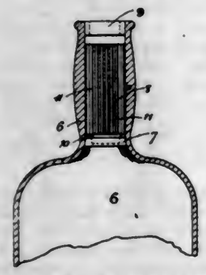
[Claims 6 to 10 not printed in the Gazette.]

1,025,854. AUTOMOBILE-TIRE. LEON CLIFFORD BEAUMONT, Hudson Falls, N. Y. Filed Nov. 13, 1911. Serial No. 660,011. (Cl. 152—38.)



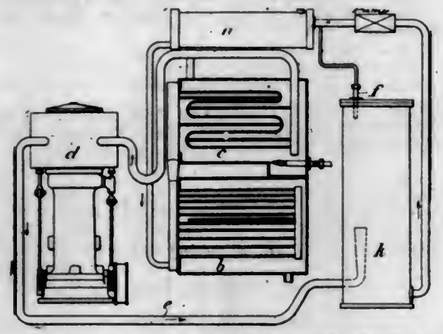
A wheel comprising an inner rim, an outer rim, means holding said rims in spaced relation, side plates secured to said outer rim, each of said side plates comprising arcuate sections, one of said sections being provided with an outstanding eye, the other of said sections being provided with claws positioned in alinement with said eye, a T-bar engaging said claws and passing through said eye, and securing nuts mounted upon said T-bar.

1,025,855. NON-REFILLABLE BOTTLE. RALEIGH ADELBERT BLACK, Hobart, Tasmania, Australia. Filed July 6, 1910. Serial No. 570,609. (Cl. 215—69.)



The combination of a bottle having a neck integral with the bottle, a plunger having longitudinal peripheral ribs thereon slidable in said neck directly against the face thereof, said plunger having a tapering axial bore passing entirely therethrough, said ribs having curved and tapered lower ends, a correspondingly shaped seat secured in said neck at the lower end of said plunger and adapted to closely contact a large portion of the curved surface of said lower end of the ribs and to close the grooves between said ribs when the plunger is seated, a ring secured in the upper end of the bottle neck for limiting the upward movement of the plunger, a tapered plug much shorter than said bore inserted in said bore, the upper end of the plug terminating remote from the upper end of the bore, and a cement filling in said bore above said plug.

1,025,856. PROCESS FOR EMPLOYING GASES HAVING A LOW BOILING TEMPERATURE IN HEAT-ENGINES. KURT AUGUST BRUNO BRÄUER, Mittweida, Germany. Filed Feb. 18, 1911. Serial No. 609,321. (Cl. 60—6.)



1. A process for employing substances having a low boiling temperature as a driving means in heat engines consisting in precipitating the exhaust vapor in the condenser by means of a substance brought by expansion to a low temperature and pushing the expansion so far that the cold carrier becomes solid, substantially as and for the purpose set forth.

2. A process for employing substances having a low boiling temperature as a driving means in a heat engine, consisting in discharging the exhaust vapor from the engine into a condenser and simultaneously precipitating said vapor by means of a substance expanding within the condenser and thereby brought to a low temperature, and carrying said expansion so far that the cold carrier has a flaky form as it passes into the condenser.

3. A process for employing carbolic acid as a driving means in a heat engine, consisting in precipitating the exhaust vapor of the heat engine in the condenser by means of carbonic acid brought to a low temperature by expanding the said carbonic acid in the condenser and carrying the expansion sufficiently far that the carbonic acid becomes solid.

1,025,857. FUSE-PLUG. PAUL A. BRENDEL, Bridgeport, Conn., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Sept. 3, 1910. Serial No. 580,358. (Cl. 175—277.)

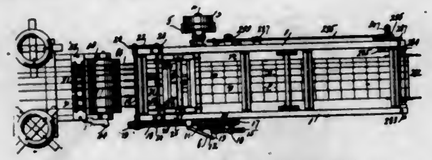


1. A fuse of the screw plug type comprising an insulating body with fuse chamber, a cover therefor with sight aperture, a center contact, a conductor leading therefrom to one side of the fuse chamber, a shoulder in the opposite side of the fuse chamber forming one side of a side contact well, a side contact communicating with said well, and a fuse passing substantially horizontally across the fuse chamber from said center contact conductor to said shoulder and connected to the side contact in said well, said fuse being offset at the end in contact with center contact conductor to retain the connecting solder, substantially as described.

2. A fuse of the screw plug type comprising an insulating body with fuse chamber, a cover therefor with sight aperture, a center contact, a conductor leading therefrom to one side of the fuse chamber, a shoulder in the opposite side of the fuse chamber forming one side of a side contact well, a side contact communicating with said well, and a fuse passing substantially horizontally across the fuse chamber from said center contact conductor to said shoulder and connected to the side contact in said well, said fuse being calibrated at a point sufficiently close to said shoulder to prevent the accidental reëstablishment of the fuse circuit through the side contact end of the fuse after the fuse is opened, substantially as described.

3. A fuse of the screw plug type comprising an insulating body with fuse chamber, a cover therefor with sight aperture, a center contact, a conductor leading therefrom to one side of the fuse chamber, a shoulder in the opposite side of the fuse chamber forming one side of a side contact well, a side contact communicating with said well, and a fuse passing substantially horizontally across the fuse chamber from said center contact conductor to said shoulder and connected to the side contact in said well, substantially as described.

1,025,858. WIRE-FENCE MACHINE. EDMUND E. BROWN, Bloomington, Ill., assignor, by mesne assignments, to Southern Iron and Steel Company, a Corporation of New Jersey. Filed June 28, 1904. Serial No. 214,566. (Cl. 140—13.)



1. In a fence machine, strand wire feeding mechanism comprising tension devices, and an equalizing drum; stay feeding mechanism consisting of vibratory hoppers and feeding disk, and means for coiling the stay around the strand wires, substantially as specified.

2. In a fence machine, the combination of a series of strand wire tension devices, an equalizing drum, means for feeding short sections of stay to the spaces between the strand wires, and means for coiling the ends of the stay sections around the strand wires, substantially as specified.

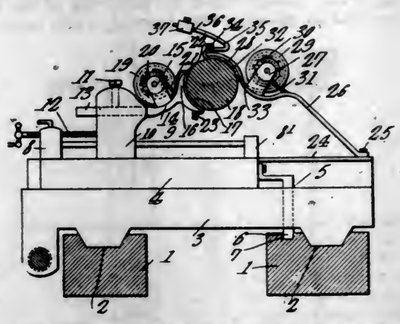
3. In a fence machine, the combination of strand wire tension devices, an equalizing device, intermittently actuated coiling devices through which the strand wires are carried, and stay feeding mechanism for advancing short sections of stays to the strand wires adapted to be coiled thereon by the coiling devices substantially as specified.

4. In a wire fence machine, the combination of strand wire feeding mechanism, means for feeding short sections of a stay to the strand wires, and means for interlocking and coiling coinciding ends of the section of a stay around a corresponding strand, substantially as specified.

5. In a wire fence machine, the combination of strand wire feeding mechanism, means for feeding short sections of a stay to the spaces between the strands, and means for coiling the coinciding ends of the stay sections around corresponding strands, by directing the ends of the coils of said sections in opposite directions on the said strand, substantially as specified.

[Claims 6 to 59 not printed in the Gazette.]

1,025,859. COLUMN-POLISHING MACHINE. DELONA L. CALAHAN, Centralia, Wash., assignor of one-half to Clyde A. Scales, Centralia, Wash. Filed Sept. 5, 1911. Serial No. 647,600. (Cl. 51—5.)



1. The combination with a lathe, and a longitudinally traveling carriage thereon, of a transversely adjustable abrasive surface carrying member, and a spring tension-weighted adjustable abrasive member disposed oppositely thereto and carried by said carriage.

2. The combination with a lathe, and a carriage thereon, of a transversely adjustable post mounted upon said carriage, an abrasive member adjustably carried in said post, and a spring tensioned abrasive member carried by the carriage and disposed oppositely to the adjustable abrasive member.

3. The combination with a lathe, and a carriage mounted thereon for longitudinal movement, of a sanding device comprising two coacting adjustable members oppositely disposed and carried by the carriage of the lathe, means carried by said members for holding the abrasive surfaces thereof in operable relation to the work within the lathe.

4. A sanding device, having two members, each member having mounted thereon a spool carrying its individual strip of abrasive material, means for engaging and retaining the free end of said strip of abrasive material to its respective member, and means for engaging the spool to retain the abrasive strip taut from its retained free end to the spool.

5. A sanding device, comprising two coacting members, each of said members being provided with a curved surface to conform to the circumference of the article operated upon, a spool rotatably mounted upon each member, a strip of abrasive material mounted upon said spool, a portion of said strip being disposed upon the curved surface of its respective member, means for connecting the free terminal of said strip to its respective member beyond the curved surface thereof, and coacting means carried by the member and the spool for retaining the strip of abrasive material taut from its retained free end to the spool.

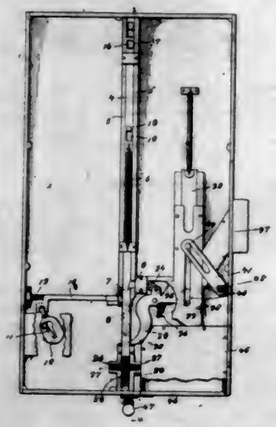
[Claims 6 to 10 not printed in the Gazette.]

1,025,860. COIN-OPERATED HAT, COAT, AND UMBRELLA RACK. SANTI CARUSO, Ardmore, Pa. Filed Feb. 25, 1911. Serial No. 610,815. (Cl. 45—13.)

1. In a rack, the combination of a retaining device embodying a movable part, an operating bar for actuating said movable part, a locking dog for holding the operating bar in a given position, a lever for effecting release of the locking dog from the operating bar and having a projecting part and an extension, the latter adapted to positively move the operating bar after the dog has been disengaged therefrom, and an operating slide adapted to engage the projecting part of the said lever.

2. In a rack, the combination of a retaining device embodying a movable part, an operating bar for actuating said movable part, a locking dog for holding the operating bar in given position, a lever for effecting release of the locking dog from the operating bar and having

a projecting part and further provided with an extension adapted to engage and positively move the operating bar, said lever having the end adjacent the projection widened and formed on the arc of a circle, a guide having a slot through which the projection of the lever extends, and an operating slide mounted in said guide.



3. In a rack, the combination of an operating bar, a locking dog therefor, a lever for effecting release of the locking dog and for moving the operating bar, said lever having an extension, a guide having the extension of the lever projecting therein, a slide arranged to operate in the guide to move the said lever, a spindle having a handle at one end, and an arm connecting said spindle with the slide.

1,025,861. TRAIN-ORDER HOLDER. JOHN MARTIN CASE, Osawatomie, Kans. Filed Dec. 12, 1911. Serial No. 665,407. (Cl. 105—231.)



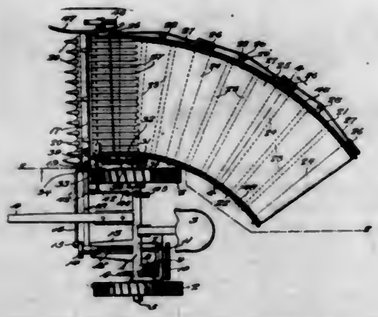
1. A train order holder comprising a staff; spaced, resilient arms secured to the staff and projecting beyond one end of the staff; spring plates secured to the staff and terminating beyond the staff in coöperating jaws; a loop engaged with the jaws and engaged with, and stretched by, the arms; and an element connecting the plates at the end of the staff to adjust the jaws, whereby the jaws will hold the loop, against the resiliency of the arms.

2. A train order holder comprising a staff having an open groove in its end; spaced, resilient arms secured to the staff, the arms having bifurcations located beyond the staff; spring plates applied to the staff and terminating beyond the staff in coöperating jaws; a securing element uniting the plates with the staff; and an element connecting the plates at the end of the staff to effect an adjustment of the jaws, the connecting element registering in the groove, to prevent the plates from rotating upon the securing element.

3. A train order holder including a staff having an open groove in its end and superficial grooves in its sides; a resilient member extended through the staff and registering in the superficial grooves, said member terminating beyond the staff in resilient arms having loop-holding means; spring plates applied to the staff and terminating beyond the staff in coöperating, loop-holding jaws; a bolt extended through the staff and through the plates and held against rotation in one plate; a nut upon the bolt; a bolt uniting the plates at the end of the staff and rotatable in both plates, the bolt registering in open groove; a nut upon the last specified bolt; and a wrapping surrounding the plates and the resilient member, to hold the resilient member in the grooves, the wrapping engaging the nuts to hold the same against rotation upon the bolts.

4. A train order holder, comprising a staff; spaced, resilient arms secured to the staff and provided beyond one end of the staff with loop-holding means; spring plates secured to the staff and terminating beyond the staff in coöperating jaws adapted to hold one portion of a loop when the loop is engaged in the loop holding means; and an element connecting the plates at the end of the staff to adjust the jaws, whereby the jaws will hold the loop, against the resiliency of the arms.

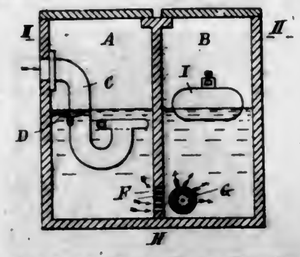
1,025,862. REAPING ATTACHMENT FOR MOWING-MACHINES. ANDREW C. CHRISTENSEN, Des Moines, Iowa. Filed July 23, 1910. Serial No. 573,486. (Cl. 56—89.)



The combination with a mowing machine, of a reaping attachment comprising an arcuate frame associated with and extending rearwardly from the cutting apparatus of the machine and terminating in rear of the wheel supported frame of said machine, an endless carrier guided over said frame, a rocking bar supported for oscillation at the front end of the carrier adjacent to and parallel with the cutting apparatus and having slats extending rearwardly above the front portion of the carrier, spring means to sustain the slats in a relatively raised position, and treadle means for actuating the rock shaft to depress the slats upon the carrier.

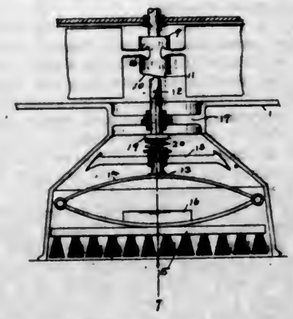
1,025,863. COMBINED OIL-SKIMMER AND FEED-WATER HEATER. CLAUS CLAUSEN, Christiania, Norway. Filed Jan. 20, 1911. Serial No. 603,743. (Cl. 62—31.)

1. In a feed water heater, the combination of a chamber having two compartments, an inlet pipe leading to one compartment for the impure water, an oil skimmer in said compartment, a second compartment communicating with the first to which the water, free from oil, passes to be heated and discharged, heating means for the water in said second compartment, a suction pipe to connect with a boiler leading from the second compartment and a valve in said suction pipe with a float connected therewith for regulating the level of the water to a point above the said valve to prevent air being sucked therethrough, said second compartment communicating with the first through a series of openings and said heating means consisting of a perforated steam pipe coextensive with and arranged opposite the said series of openings, substantially as described.



2. In a feed water heater, the combination of a chamber having two compartments, an inlet pipe leading to one compartment for the impure water, an oil skimmer in said compartment, a second compartment communicating with the first to which the water, free from oil, passes to be heated and discharged, heating means for the water in said second compartment, a suction pipe to connect with a boiler leading from the second compartment and a valve in said suction pipe with a float connected therewith for regulating the level of the water to a point above the said valve to prevent air being sucked therethrough, said second compartment communicating with the first through a series of openings and said heating means consisting of a perforated steam pipe coextensive with and arranged opposite the said series of openings, substantially as described.

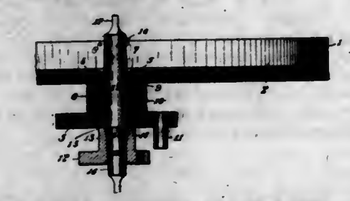
1,025,864. VACUUM-CLEANER. DALLAS J. COGDILL, Spokane, Wash. Filed Apr. 17, 1911. Serial No. 621,558. (Cl. 15—60.)



In a vacuum cleaning device, a nozzle, an exhaust mechanism disposed above the nozzle, a plunger mounted to reciprocate within the nozzle and to receive motion from the exhaust mechanism, a brush mounted in the nozzle nearly closing the same, resilient means connecting the brush and plunger, said brush being also provided with openings therethrough to permit the passage of air.

1,025,865. BALANCE STAFF AND ROLLER FOR WATCHES. VARIAN S. COREY, Canton, Ohio, assignor to The Hampden Watch Company, Canton, Ohio, a Corporation of Ohio. Filed Oct. 13, 1910. Serial No. 586,870. (Cl. 58—140.)

1. A balance-staff having each of its end portions tapered from a larger diameter in the cross-plane of their junction intermediate the ends to a smaller diameter toward the ends of the staff, a table-roller hub having a tapered axial aperture wedged on one end portion of the staff and a safety-roller hub having a tapered axial aperture wedged on the other end portion of the staff.



2. A balance-staff having each of its end portions tapered from a larger diameter in the cross-plane of their junction intermediate the ends to a smaller diameter toward the ends of the staff, a table-roller hub having a tapered axial aperture wedged on one end portion of the staff and a safety-roller hub having a tapered axial aperture wedged on the other end portion of the staff, the ends of the hubs abutting each other.

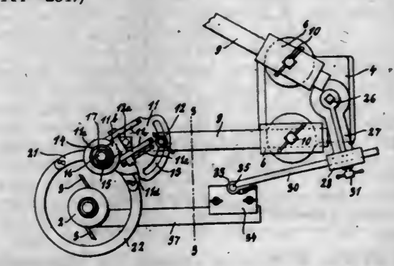
3. A balance-staff having an annular shoulder intermediate its ends and each end portion tapered from a larger diameter at the shoulder to a smaller diameter toward the ends of the staff, a table-roller hub having a tapered axial aperture wedged on one end portion of the staff and a safety-roller hub having a tapered axial aperture wedged on the other end portion of the staff, the end of one hub abutting the shoulder and the end of the other hub.

4. A balance-staff having an annular shoulder intermediate its ends and each end portion tapered from a larger diameter at the shoulder to a smaller diameter toward the ends of the staff, a table-roller hub having a tapered axial aperture wedged on one end portion of the staff and a safety-roller hub having a tapered axial aperture wedged on the other end portion of the staff, the end of the safety-roller hub abutting the shaft shoulder and the end of the table-roller hub.

5. In an escapement-mechanism, a balance-staff having an annular shoulder intermediate its ends and each end portion tapered from a larger diameter at the shoulder to a smaller diameter toward the ends of the staff, the hub of one escapement-mechanism part having a tapered axial aperture and being wedged on one end portion of the staff and the hub of another escapement-mechanism part having a tapered axial aperture and being wedged on the other end portion of the staff, the end of one hub abutting the shoulder and the end of the other hub.

[Claims 6 and 7 not printed in the Gazette.]

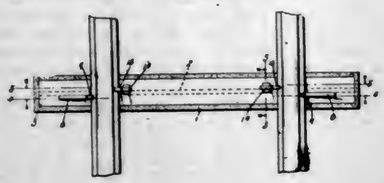
1,025,866. SHAPER-GUARD. PETER ERICKSON, Chicago, Ill. Filed Sept. 27, 1911. Serial No. 651,524. (Cl. 144—251.)



1. In a shaper guard, the combination of a supporting stand, an arm having a lengthwise adjustable and revoluble connection with said stand, a plate having an angularly adjustable connection with said arm, a guard, a shaft to which said guard is connected, a tubular guard holder having an adjustable connection with said plate and through which said shaft is mounted, and means to tension the movement of said shaft.

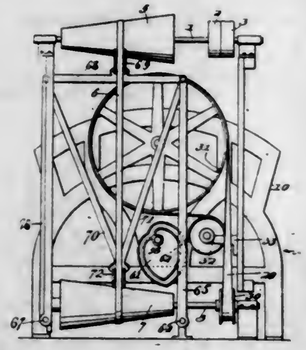
2. In a shaper guard, the combination of a supporting stand, a bearing member revolubly mounted on said stand, an arm adjustably connected to said bearing member, a plate having an angularly adjustable connection with said arm, a guard, a shaft to which said guard is connected, a tubular guard holder having an adjustable connection with said plate and through which said shaft is mounted, a spring compress between a portion of said holder and a portion of said shaft to tension the latter, a supplemental and normally inactive spring on said shaft below the holder, and means to adjust said shaft to bring said supplemental spring into operation.

1,025,867. RAILWAY-TIE. HENRY G. FILLER, Oshawa township, Nicollet county, Minn. Filed Aug. 10, 1911. Serial No. 643,388. (Cl. 238—3.)



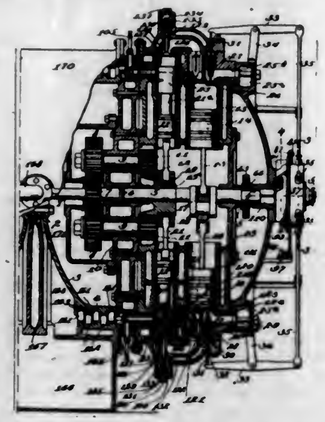
A concrete tie having a metallic reinforcing member extending longitudinally therethrough, said member having a centrally located web and a horizontal web flush with the top of the tie and forming rail seats, said latter web being provided with apertures, means co-acting with said tie for securing the outer flanges of the rails thereto, and means for securing the inner rail flanges to the tie, said latter means consisting of hooks pivoted to the vertical web and extending upwardly through said apertures and outwardly to engage said rail flanges, plates adapted to be seated in said aperture to hold said hooks in place, and lugs formed integrally with said plates to position the same.

1,025,868. BELT-GEARING FOR WINDING-MACHINES. BENJAMIN GRIDLEY, Pawtucket, R. I., assignor to George W. Payne Company, Pawtucket, R. I., a Corporation of Rhode Island. Filed Feb. 10, 1911. Serial No. 607,779. (Cl. 74—21.)



In a machine of the class specified, the combination, with a drive shaft; of a pair of reversely-arranged cones; a belt connecting said cones; a pair of pivotally-mounted parallel upstanding members; an inverted triangular frame pivoted at the ends of its base to the upper ends of the adjacent upstanding members, said frame being provided at its apex and centrally of its base with forks engaged with said belt; a second shaft; driving connections between said shafts; a pin secured to one of said upstanding members; and a grooved cam secured to the second shaft and engaged with said pin, for periodically rocking said member, to shift said belt in opposite directions upon said cones.

1,025,869. THERMODYNAMIC MOTOR. LEWIS A. HAINES, Columbus, Ohio. Filed Feb. 25, 1910. Serial No. 545,818. (Cl. 123—9.)



1. A motor of the class described having potential and kinetic energy generating means, distinct rotor devices with which portions of the generating means coöperate independently and mechanism controlling the delivery of a motive agent to different portions of the generating means, said means comprising compression and combustion chambers, the latter being exterior of the compression chamber and provided with means for igniting the motive agent subsequent to closure of the compression chamber and causing an explosion against a closed wall of said compression chamber.

2. A motor of the class described having potential and kinetic energy generating means, distinct rotor devices with which portions of the generating means coöperate independently and mechanism controlling the delivery of a motive agent to different portions of the generating means, said means comprising a compression means having communication with a combustion chamber provided with firing means, the motive agent being expanded under pressure in the combustion chamber and exploded subsequent to closure of the compression means.

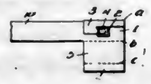
3. A motor of the class described having potential and kinetic energy generating means, distinct rotor devices with which portions of the generating means coöperate independently, mechanism controlling the delivery of a motive agent to said generating means, said generating means comprising a motive agent compressing means, and a combustion chamber adjacent to and having communication at intervals with the compressing means, the motive agent being exploded in said combustion chamber subsequently to its liberation from the compressing means.

4. A motor of the class described having potential and kinetic energy generating means, distinct rotor devices with which portions of the generating means coöperate independently, mechanism controlling the delivery of a motive agent to said generating means, said generating means comprising a motive agent compressing means, and a combustion chamber adjacent to and communicating at intervals with the compressing means and provided with igniting means in close relation to the generating means for igniting a charge of the explosive medium subsequently to its liberation from the compressing means and delivering it in highly heated condition to the generating means.

5. A motor of the class described having potential and kinetic energy generating means, distinct rotor devices with which portions of the generating means coöperate independently, mechanism controlling the delivery of a motive agent to different portions of the generating means, said latter means comprising compressing means, and means for igniting a charge of the motive agent under pressure subsequent to its liberation from said compressing means.

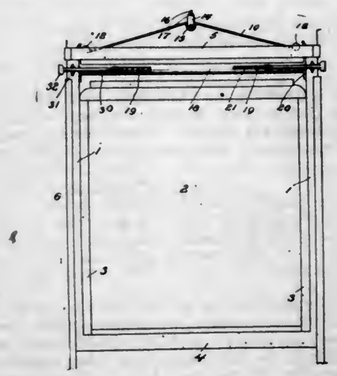
[Claims 6 to 62 not printed in the Gazette.]

1,025,870. SEAL. JOHN A. HALLSTED, Cincinnati, Ohio. Filed June 22, 1910. Serial No. 568,395. (Cl. 70—99.)



In a seal, the combination with a stem reduced and shouldered at one end to form a tongue, and an eye through said tongue; of a box shaped head closed at one end and arranged at the other end of the stem comprising a central panel integral with said stem and having a depression, a wing lying next over this panel and having a finger deflected into said depression, and a wing lying over and forming a cover for said first-named wing.

1,025,871. ELEVATOR SAFETY DEVICE. LEE HAMILTON, Le Claire, Iowa. Filed Aug. 23, 1911. Serial No. 645,481. (Cl. 187—86.)

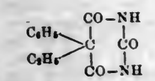


1. The combination with a car, of a casing carried thereby, a plurality of members movably connected to the sides of the car, a connecting cable connecting said members, a suspending cable for the car connected to the connecting cable, a casing extending between the sides of the car, a plurality of followers within said casing, means normally tending to force said followers outward, said followers being held pressed inward by the members at the sides of the car, and clamping members connected to the followers and adapted upon the breaking of the cable to be actuated by the followers to force the clamping members into engagement with the guide beams of the elevator shaft.

2. The combination with a car including slotted side members, of a plurality of arms hinged to the side members and movable in the slots, a connection between said arms, and a suspending cable for the car engaging the connection and normally drawing the arms inward in the slots, a tubular casing having slotted end portions extending between the side members, a plurality of plunger rods within the casing and projecting through bores in the side members, tension means bearing against said rods and normally tending to force the same outward, laterally extending arms connected to the rods and projecting through the slots in the casing, and lever arms pivoted to the side members of the car, links connecting the ends of the arms with the laterally extending arms, and jaws at the outer ends of the lever arms, the construction and arrangement being such that the jaws are held in inoperative position when the suspending cable exerts a strain on the connection between the side arms, and said jaws are thrown into operative engagement with the guide beams of the elevator shaft when said strain is released.

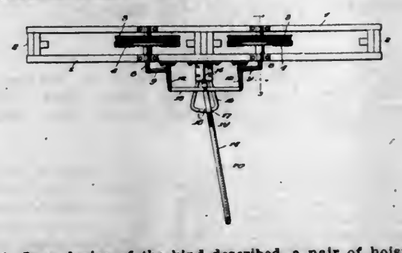
1,025,872. PHENYLETHYLBARBITURIC ACID. HEINRICH HŒRLEIN, Vohwinkel, near Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Sept. 6, 1911. Serial No. 647,902. (Cl. 23—24.)

The herein described phenylethylbarbituric acid of the formula:



crystallizing from water in the shape of white leaflets melting at 170–172° C.; forming salts with alkali metals and calcium; and being a valuable hypnotic, substantially as described.

1,025,873. ELEVATOR DEVICE. CHARLES JOHNSON and ALBERT SAHLEN, Chicago, Ill. Filed July 31, 1911. Serial No. 641,542. (Cl. 187—2.)



1. In a device of the kind described, a pair of hoisting pulleys, each provided on one of its side faces with a ratchet ring, the teeth of which project laterally from said face, a pair of elevator platforms, a line common to both extending from the platforms and over said pulleys, the pulleys being adapted to rotate first in one direction and then the other, to alternately raise and lower the two platforms, in combination with a pawl for each ratchet ring in proximity thereto and arranged to alternately engage with their coöperating ratchet rings, and an intermediate connection between the two arranged to the side of the pulleys substantially as shown whereby to operatively engage one pawl as the other pawl is disengaged from its ratchet.

2. In a device of the kind described, a pair of cable pulleys arranged to rotate in either direction substantially in unison, and each having upon its side a ratchet ring, the teeth of which extend laterally, in combination with a pawl for each pulley adapted to swing laterally arranged to coöperate with the ratchet ring thereof to limit the movement of said pulley to one direction only, resilient means arranged to hold said pawls normally in engagement with their coöperating ratchet rings, and intermediate means common to both locking mechanisms, whereby upon releasing one of the same from the ratchet ring, it will simultaneously engage the other pawl with its coöperating ratchet.

3. In a device of the kind described, a rotating pulley provided on its side with a ratchet ring, in combination with a pawl arranged to normally engage said ring, an arm attached to said pawl, a controlling arm therefor connected to said arm with a slot and pin engagement, whereby said pawl and arm are permitted a lateral movement, permitting the pawl to ride over the ratchets when

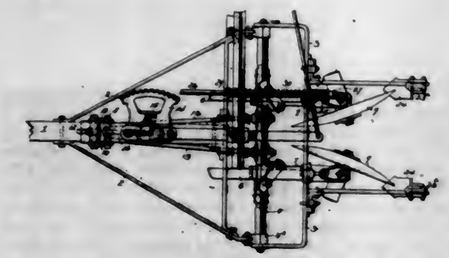
the wheel is rotated in the reverse direction, but to engage with said pawl and prevent the rotation of the wheel in the opposite direction, and the pawl being adapted to be wholly disengaged from said ratchet at will.

4. In a device of the kind described, a rotating pulley having a grooved periphery and a ring member secured to one side thereof which latter is provided with laterally extending ratchet teeth, in combination with a pawl arranged to one side of the pulley and adapted to normally engage said ring, an arm attached to said pawl, a controlling arm therefor connected to said arm with a slot and pin engagement, whereby said pawl and arm are permitted a lateral movement, permitting the pawl to ride over the ratchets when the wheel is rotated in the reverse direction, but to engage with said pawl and prevent the rotation of the wheel in the opposite direction.

5. In a device of the kind described, the combination of horizontally extending frame parts, rotatable pulleys arranged between the frame parts and having bearings adjacent the tops of said frame parts, said pulleys having on one face thereof annularly disposed laterally extending ratchet teeth, a pawl for each pulley arranged between one of said frame parts and the ratchet face of the pulley, the pawls being pivotally supported at their upper ends and arranged to engage at their lower ends the said ratchets, an arm projecting laterally from each pawl intermediate its ends, pivotally supported bell crank levers one for each arm, and a connecting arm extending longitudinally of the frame parts and connected at opposite ends to said bell crank levers.

[Claims 6 to 9 not printed in the Gazette.]

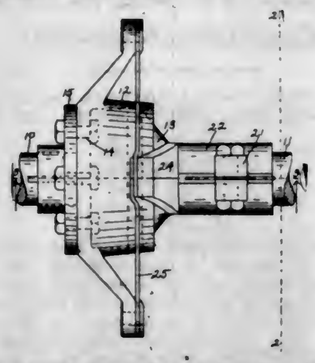
1,025,874. CULTIVATOR. MARSHALL N. KIRKHUFF, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed Nov. 10, 1911. Serial No. 659,615. (Cl. 97—31.)



1. In a cultivator, the combination with a frame, a rocking bar mounted therein, hangers depending from said rocking bar, and carrying wheels at the lower ends of said hangers, of cultivator disks connected with said rocking bar, a vertically movable frame, shovels carried by said frame, a pivoted lever section, connections between said lever section and said hangers, an upper lever section pivoted to the pivoted lever section below the upper end of the latter, means for locking the lever sections together, and connections between the upper lever section and the vertically movable frame carrying the shovels.

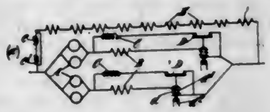
2. The combination with a main frame, a rocking bar, hangers depending from the rocking bar, carrying wheels at the lower ends of said hangers, cultivator disks connected with the rocking bar, a vertically movable frame, and shovels carried by the latter, of a lever comprising upper and lower sections pivoted together, the lower of said lever sections being pivotally supported on the main frame, locking means for the lever sections, a swinging link depending from the main frame, a connection between said link and the lower lever section, and connections between said link and said hangers below the upper ends of the latter.

1,025,875. POWER-TRANSMISSION MECHANISM. JOHN W. LAMBERT, Anderson, Ind., assignor to The Buckeye Manufacturing Company, Anderson, Ind., a Corporation of Indiana. Filed May 26, 1910. Serial No. 563,563. (Cl. 64—13.)



Power transmission mechanism including two coupling members arranged coaxially with reference to each other, one member having a longitudinally-extending cylindrical bearing portion with arms extending outwardly therefrom and the other member having a longitudinally-extending cylindrical bearing portion snugly fitting and slidable in the cylindrical portion of the first member and also having arms extending outwardly therefrom, and flat spring metal strips connecting the ends of said arms successively, substantially as set forth.

1,025,876. CONTROL OF ELECTRIC MOTORS. JOHAN GUSTAF VIKTOR LANG, Southall, England, assignor of one-half to Edward Hibberd Johnson, London, England. Filed Nov. 14, 1907. Serial No. 402,134. (Cl. 172—179.)



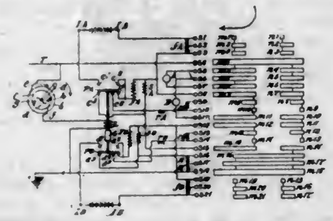
1. The described method of controlling a plurality of electric motors in a system of electrical supply consisting in shunting part of the working current around series field windings of the individual motors when desired, and in automatically interrupting such individual shunts whenever the current supply to such individual motors is interrupted, and finally in sluggishly restoring the shunt effect when the working current is closed.

2. In a system of electrical supply a plurality of electrical motors having their armatures and field magnets located in series relation therewith; a shunted resistance around each field magnet of each motor normally held in closed circuit when the working current is closed through the motors; in combination with a plurality of electromagnetic controlling devices located in such shunt circuits, each of such controlling devices being provided with a retarding device and the entire arrangement such that when the working circuit is broken to any one motor the shunt circuit thereof is likewise broken.

3. In a system of electrical supply a plurality of electrical motors having their armatures and field magnets located in series relation therewith; a shunted resistance around each field magnet of each motor normally held in closed circuit when the working current is closed through the motors; in combination with a plurality of electromagnetic controlling devices located in such shunt circuits, each of such controlling devices being provided with a retarding device and the entire arrangement such that when the working circuit is broken to any one motor the shunt circuit thereof is likewise broken; together with a plurality of resistances located in shunt around the entire motor system.

4. In a system of electrical supply a plurality of electrical motors each having field windings in series relationship to the armature; resistances capable of being shunted around series field windings of each motor; in combination with a plurality of electro-magnetic controlling devices controlling such shunt circuits, each controlling device being provided with a retarding device and the entire arrangement such that when the working circuit is broken to any one motor the shunt circuit around its series field windings is automatically interrupted and is sluggishly restored when the working circuit is again closed.

1,025,877. ART OF REGULATING ELECTRIC MOTORS. JOHAN G. V. LANG, Davenport, Iowa, assignor of one-half to Edward H. Johnson, New York, N. Y. Filed June 1, 1909. Serial No. 499,547. (Cl. 172—179.)



1. In a system of electrical energy, a power circuit, a controller, a plurality of motors each having an armature and field windings, sources of current supply extraneous to the power circuit as regards relationship to the motor system; together with circuits and circuit connections whereby the motors run as series motors during propulsion but are given a variable degree of shunt characteristic by excitation from the extraneous supply sources and thus act as generators and with breaking effect when retardation is required, substantially as described.

2. In a system of electrical energy, a power circuit, a plurality of series wound electric motors; in combination with electrical generators extraneous to the power circuit as regards relationship to the motors; together with means whereby said generators are connected to field windings of the motors when retardation is required, thus giving the motors a variable degree of shunt characteristic causing them to act as generators with braking effect, but are disconnected from the field windings during propulsion causing the motors to run as series motors, substantially as described.

3. In a system of electrical energy, a power circuit, a plurality of series motors each having an armature and series field windings, sources of current supply extraneous to the power circuit as regards relationship to the motors, said sources being disconnected from said series field windings during propulsion; together with means for connecting the said sources of extraneous current supply across the series field windings of said motors, substantially as described.

4) In a system of electrical energy, a power circuit, a plurality of series wound electric motors having each an independent field coil normally disconnected from an electrical generator independent of the power circuit; a field changing switch electro-magnetically controlled, and a controller adapted to effect the current changes to the motors; together with means operatively connected with the controller for connecting a source of electrical energy to and disconnecting it from the control magnet of the field changing switch, whereby the motors are adapted to act as series wound motors during propulsion and as regenerators with braking effect on reversal of the controller handle, substantially as described.

5. In a system of electrical energy, a power circuit, a plurality of series wound electric motors having each an independent field coil, sources of current supply independent of the power circuit, a field changing switch and connections between the same and the independent sources of current supply; together with a circuit control switch for actuating the field changing switch, the entire arrangement being such that during propulsion the independent field coils are disconnected from the independent sources of current supply, the motors acting in series relation, and when the control switch is reversed they are connected in circuit with the independent sources of current supply and acting as regenerators and with braking effect, substantially as described.

[Claim 6 not printed in the Gazette.]

1,025,878. PUMP. THOMAS B. MARTIN, Texico, N. Mex. Filed Sept. 6, 1911. Serial No. 647,825. (Cl. 103—76.)

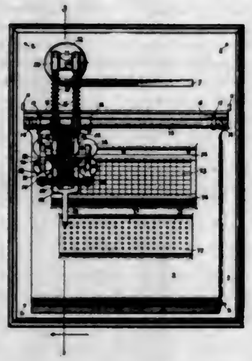


1. In a pump, the combination with a casing, of an outside cylinder arranged therein and closed at its bottom, an inside cylinder within the outside cylinder, said inside cylinder being open at the top and bottom and having openings in the sides thereof and alining with similar openings in the outside cylinder, a valve controlling the opening at the bottom of the inside cylinder, valves controlling the side passages between the outside and inside cylinders, a piston moving in the inside cylinder, a flap valve controlling the opening at the top of the inside cylinder, and a discharge pipe leading from the cylinders.

2. In a pump, the combination with a casing, an outside cylinder located therein and having a closed bottom, an inside cylinder within the outside cylinder and open at the top and bottom thereof, a spring tensioned disk valve controlling the opening at the bottom of the inside cylinder, a flap valve composed of hinged sections controlling the opening at the top of the inside cylinder, spring tensioned valves arranged at the sides of the inside cylinder and controlling lateral passageways between the inside and outside cylinders, a reciprocating plunger working in the inside cylinder, and a discharge pipe leading from the cylinder.

3. In a pump, the combination with a casing thereof, of an outside cylinder having a closed bottom portion, a cylinder within the outer cylinder and spaced apart therefrom having an open top and bottom end, a valve closing the opening at the bottom of the inside cylinder, and a flap valve comprising a plurality of hinged sections opening upwardly and controlling the opening at the top of the inside cylinder, said inside and outside cylinders having lateral openings in the sides thereof near the top and bottom, and valves controlling the side openings, each of said valves comprising a disk member, and a stem connected to the disk member, a bar supporting the stem, and a spring surrounding the stem for tensioning the valves, a plunger working in the inside cylinder, a conical reduced extension at the top of the outside cylinder, and a discharge pipe connected to said extension.

1,025,879. EMPLOYEE'S TIME-RECORDER. HARRY B. PALMER, New York, N. Y., assignor, by mesne assignments, to George E. Sly, New York, N. Y. Filed Jan. 6, 1905. Serial No. 239,842. (Cl. 234—43.)



1. In a workman's time recorder, the combination with a time-printing mechanism comprising an impression making element, and an impression receiving element of manually operated means for bringing one element toward the other to make an impression on the receiving element, and mechanism brought into action by said means whereby one element is shifted after the first registration and succeeding impressions representing the arrival and departure of the same workman are recorded in different places on the receiving element.

2. In a workman's time recorder, the combination with a time marking mechanism operable to record the times of arrival and departure of the same workman at different printing points, of a manual and connections for shifting the marking mechanism after the first registration by the same workman and for moving the marking mechanism to its printing position by the same operation of the manual by the same workman.

3. In a workman's time recorder, a time printing wheel and a shifting mechanism therefor, in combination with a workman's manual connected to actuate both said wheel and said mechanism in the same operation.

4. In a workman's time recorder, a time printing device and operating means therefor, in combination with mechanism brought into action by said means at each successive printing operation by the same workman after the first registration to shift the printing device and thereby cause successive impressions by the same workman to be made at different points.

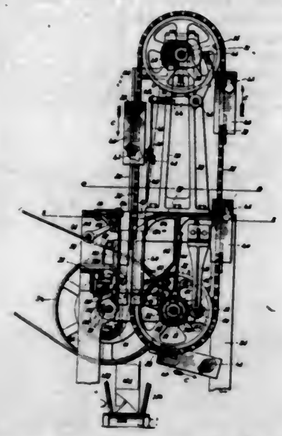
5. In a workman's time recorder, the combination of a workman's manual and a time printing wheel brought into printing action and also shifted by said manual by each successive printing operation by the same workman.

[Claims 6 to 114 not printed in the Gazette.]

1,025,880. MACHINE FOR SETTING UP CARTONS AND THE LIKE. FRANK M. PETERS, Chicago, Ill. Filed Apr. 4, 1908. Serial No. 425,215. (Cl. 93—44.)

1. A machine of the character described comprising a head, means for imparting movement thereto, means for supporting a carton blank having end flaps; certain of said end flaps being provided with interlocking means, and means arranged in the path of travel of said head and coöperating therewith, for forming a carton upon said head, and locking the ends of said carton together, in the course of its movement through the machine, substantially as specified.

2. A machine of the character described comprising a head, means for imparting movement thereto, means for supporting a carton blank having ends; certain of said ends being provided with engageable means and other of said ends with engaging means, and a lining in position upon said blank, means arranged in the path of travel of said head and coöperating therewith for forming a carton upon said head, and locking the ends of said carton together and interfolding the edges of said lining therewith, in the course of its movement through the machine, substantially as specified.



3. A machine of the character described comprising a head, means for imparting movement thereto, means for supporting a carton blank having end flaps; certain of said end flaps being provided with engaging means, and other of said end flaps provided with engageable means to receive said engaging means, and means arranged in the path of travel of said head and coöperating therewith for forming a carton upon said head, and locking said end flaps together in the course of the movement of said carton blank through the machine, substantially as specified.

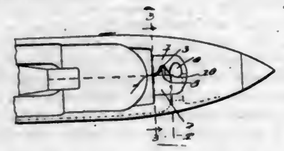
4. A machine of the character described comprising a head, means for imparting movement thereto, means for supporting a carton blank having end flaps; certain of said end flaps being provided with engaging means, and other of said end flaps provided with engageable means to receive said engaging means, a lining disposed upon said blank, and means arranged in the path of travel of said head, and coöperating therewith for forming a carton upon said head, and locking said end flaps together, and interfolding the edges of said lining therewith in the course of the movement of said carton blank through the machine, substantially as specified.

5. A machine of the character described comprising a head, means for imparting movement thereto, means for supporting a carton blank having end flaps; certain of said end flaps being provided with integral engaging means, and other of said end flaps provided with integral engageable means to receive said engaging means, and means arranged in the path of travel of said head, and coöperating therewith for forming a carton upon said head and locking said end flaps together in the course of the movement of said carton blank through the machine, substantially as specified.

[Claims 6 to 42 not printed in the Gazette.]

1,025,881. HAND-THREADING SHUTTLE. JOSEPH POISSON, Fall River, Mass. Filed Nov. 8, 1911. Serial No. 659,165. (Cl. 139—46.)

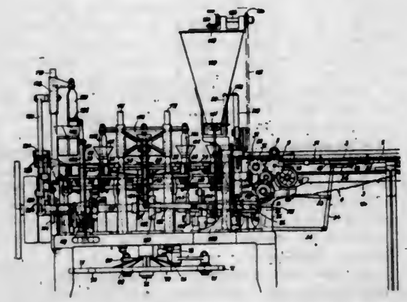
1. In a friction device for shuttles, a pair of blocks, one of the blocks having a vertical passage on one side and a depression at its upper end on the same side, the second block having an inclined opening that registers with said depression to form a thread hook passage in conjunction therewith, said second block having a vertical passage that extends up into said opening to form a thread passage, and a vertical tooth carried by the second block and projecting in said vertical passage of the first block to form a tortuous thread passage in conjunction therewith.



2. In a friction device for shuttles, a pair of abutting blocks, one of said blocks having a downwardly inclined opening that extends through the opposite side faces thereof and communicates with the shuttle delivery eye, said block also having a thread passage which communicates with said opening, and coöperating thread tensioning means formed on the blocks to the rear of said thread passage.

3. In a friction device for shuttles, a pair of abutting blocks, one of said blocks having a vertical passage, the other block having a tooth that projects in said passage and also having a slot to one side of the tooth to receive the thread, said slot being in register with the shuttle delivery eye and extending through the back of the second named block.

1,025,882. PACKAGING-MACHINE. HENRY ROSE, Gainsborough, England, assignor to Richard H. Wright, Durham, N. C. Filed Sept. 12, 1910. Serial No. 581,627. (Cl. 93—3.)



1. In a machine for making up packets of material, the combination of a movable carrier, a plurality of molds mounted thereon and movable therewith, a table reciprocable above the path of movement of said molds having means for receiving and positioning a wrapper blank thereon and also provided with a slot, means for intermittently operating the carrier to successively position the molds thereon in coöperative relation with said table, means for reciprocating the table with a wrapper positioned thereon so as to bring the slot in the table over the entrance to a mold on the carrier, and a plunger reciprocable transversely of the table and operable to engage an intermediate portion of a wrapper blank thereon and to carry it through the slot in the table and into the mold.

2. In a machine for making up packets of material, the combination of a mold, a wrapper feeding table reciprocable transversely of the mold and provided with devices for positioning a wrapper blank thereon, means operative independently of the table to feed a wrapper blank thereto, and to apply adhesive to the blank while being fed to the table, means to carry the table and the wrapper blank thereon into coöperative relation with the mold, and means operative to engage an intermediate portion of the wrapper blank and to carry it from the table and into the mold.

3. In a machine for making up packets of material, the combination of a mold, a plunger movable into and out of the mold, a table movable to and from a position between the plunger and mold and having a slot arranged in alinement with the path of movement of the plunger and also provided with devices for positioning a wrapper blank thereon, a roller mounted at the receiving end of the table and having projections thereon to receive and apply adhesive to the wrapper blank as the latter is fed to the table, said roller having means for operating it independently of the movement of the table, means for moving the table to carry the wrapper blank into coöperative relation with the mold, and means for subsequently operating the plunger whereby the latter will engage an intermediate portion of the blank and carry it through the slot in the table and into the mold.

4. In a machine for making up packets of material, the combination of a movable carrier, a plurality of molds mounted thereon and movable therewith, means for successively advancing wrapper blanks to the molds on said carrier, a former having means for introducing it into a mold, a pair of opposed and alined reciprocatory plungers mounted at opposite sides of the path of movement of said molds, one of said plungers being operative through said former, and means for operating said plungers to first grip the intermediate portion of a blank between them and to subsequently carry the wrapper blank into the respective mold on the carrier.

5. In a machine for making up packets of material, the combination of a mold, a former movable into and out of the mold, means for feeding a wrapper blank into a position between the mold and former, means for operating the former to carry the wrapper blank into the mold, a pair of opposed plungers one of which operates through the former, and means for reciprocating said plungers to grip an intermediate portion of the wrapper blank, one of said plungers being movable into the mold simultaneously with the former, and while the wrapper blank is engaged by such plunger.

[Claims 6 to 23 not printed in the Gazette.]

1,025,883. RAILWAY TIME-BURNING SIGNAL-FUSEE. LOUIS S. ROSS, Newtonville, Mass. Filed Feb. 15, 1912. Serial No. 677,852. (Cl. 52—6.)

1. A time burning railway signal fusee containing sulfur and a perchlorate, a short portion of said fusee at the igniting end having both of said ingredients commingled, one of said ingredients being contained therein in excess, thereby to cause the burning of said portion with excessive or abnormal force and rapidity, and the remainder of said fusee having said ingredients normally proportioned, thereby to burn with less force and rapidity.

2. A time burning railway signal fusee containing sulfur and a perchlorate, a short portion of said fusee at the igniting end having both of said ingredients commingled, said perchlorate being contained therein in excess, thereby to cause the burning of said portion with excessive or abnormal force and rapidity, and the remainder of said fusee having said ingredients normally proportioned, thereby to burn with less force and rapidity.

3. A time burning railway signal fusee containing metallic nitrate, sulfur and perchlorate of potassium, a short portion of said fusee at the igniting end having said ingredients commingled, at least one of said latter two ingredients being contained therein in excess, thereby to cause the burning of said portion with excessive or abnormal force and rapidity, and the remainder of said fusee having said ingredients normally proportioned, thereby to burn with less force and rapidity.

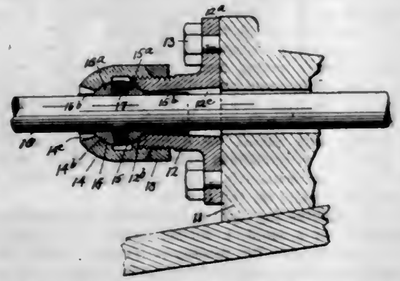
4. A time burning railway signal fusee comprising a metallic nitrate, a carbonaceous material, sulfur, and a perchlorate, a short portion of said fusee at the igniting end having said ingredients commingled, at least one of said latter two ingredients being contained therein in excess, thereby to cause the burning of said portion with excessive or abnormal force and rapidity, and the remainder of said fusee having said ingredients normally proportioned, thereby to burn with less force and rapidity.

5. A time burning railway signal fusee comprising a metallic nitrate, sulfur, a carbohydrate and a perchlorate,

a short portion of said fusee at the igniting end having sulfur and perchlorate commingled, said perchlorate being contained therein in excess, thereby to cause the burning of said portion with excessive or abnormal force and rapidity, and the remainder of said fusee having said ingredients normally proportioned, thereby to burn with less force and rapidity.

[Claims 6 to 8 not printed in the Gazette.]

1,025,884. COMBINED STUFFING-BOX AND SHAFT-BEARING. JOHN O. SCHMITT, Cleveland, Ohio. Filed July 19, 1911. Serial No. 639,296. (Cl. 121—109.)



1. In combination, a stuffing box sleeve adapted to have a shaft extend therethrough, a gland adjustably connected to and supported by said sleeve, said sleeve and gland having a pair of separate annular seats, a bearing for the shaft comprising two separate members, each provided with a spherically curved portion engaging one of said seats and having between them packing composition which is compressed and forced toward the shaft by adjusting the gland along the sleeve.

2. In combination, a stuffing box sleeve adapted to receive a shaft and a gland having an adjustable screw connection with said sleeve, the sleeve and gland having a pair of oppositely disposed annular seats, two bearing members arranged within the stuffing box and having spherically curved outer surfaces, each of which engages one of said seats, said bearing members being separated by a space adapted to receive packing material and their adjacent faces being on a taper so that when the gland is adjusted along the sleeve, said bearing members are moved toward each other so as to force the packing material toward the shaft.

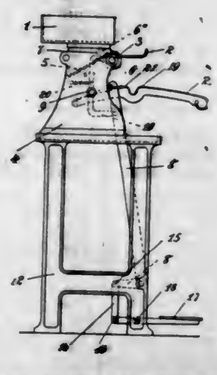
3. In combination, a sleeve having a support for holding the same in fixed relation with respect to a shaft and provided at its end with a spherically curved seat, a second sleeve having a threaded connection with said first named sleeve and having at its end a spherically curved seat opposite the first named seat, a combined bearing and packing comprising two parts having spherically curved heads, each of which engages one of the said seats and having oppositely extending tubular extensions forming shaft bearings, said members having between them packing material which is forced toward the shaft by the tightening of one sleeve on the other.

4. In combination, a sleeve having means for supporting the same in fixed relation with respect to a shaft and provided at its end with a spherically curved seat, a second sleeve having a threaded connection with said first named sleeve and having at its end a spherically curved seat opposite the first named seat, a combined bearing and packing comprising two parts having spherically curved heads, each of which engages one of the said seats and having oppositely extending tubular extensions forming shaft bearings, said members being spaced apart and having their adjacent faces tapered so as to form an annular slot about the shaft wider at the shaft than at a distance from the shaft, and yieldable material in said slot adapted to be forced toward the shaft as said bearing members are moved toward each other.

5. In combination, a stuffing box sleeve, a gland having a threaded connection therewith and adjustable thereon, said sleeve and gland having on the interior thereof two separate spherically curved seats, one on the sleeve and one on the gland, two shaft bearing members arranged in the stuffing box and provided with oppositely disposed spherically curved heads which engage said seats and provided also with oppositely extending tubular shaft bearings, yieldable material between said heads, the sleeve and gland being tapered opposite said bearing extensions so as to provide clearance therefor and permit universal movement.

[Claim 6 not printed in the Gazette.]

1,025,885. CIGAR-MAKING MACHINE. RUDOLF SCHMITT, Frankfort-on-the-Main, Germany, assignor to The Firm of Maschinenfabrik Schnarr & Schmitt, Frankfort-on-the-Main, Germany. Filed May 6, 1911. Serial No. 625,536. (Cl. 131—42.)



1. In a cigar rolling machine, the combination of a rolling cloth, a fore-mold plate pivotally mounted above said rolling cloth, a rolling lever, a projecting pin connected with said fore-mold plate, and a catch for engaging with said pin to retain said fore-mold plate, and said rolling lever adapted to release said pin from the catch, substantially as described.

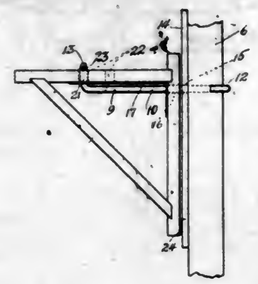
2. In a cigar rolling machine the combination with a rolling cloth of a rotatably mounted shaft thereabove, a fore-mold plate carried by the shaft, a spring tending to swing said plate upwardly, an arm projecting from the shaft and a stop for the arm to limit the upward movement of the plate, a rolling lever, and a catch operated by the rolling lever for holding the fore-mold plate in its normal position, substantially as and for the purpose described.

3. In a cigar rolling machine the combination with a rolling cloth of a rotatably mounted shaft thereabove, a fore-mold plate carried by the shaft, a spring tending to swing said plate upwardly, an arm projecting from the shaft and a stop for the arm to limit the upward movement of the plate, a rolling lever, a pin projecting from said shaft, a catch actuated by the rolling lever into engagement with the pin to hold the fore-mold plate in its normal position, and a spring for disengaging the catch from said pin when the catch is released by the rolling lever, substantially as and for the purpose described.

4. In a cigar rolling machine the combination of a table provided with a trough in its upper face, a rolling cloth over the table, and a fore-mold plate pivotally supported above the rolling cloth and adapted to coöperate with the trough whereby the form of the bunch can be retained until it is deposited in the trough, substantially as described.

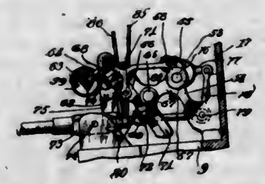
5. In a cigar rolling machine the combination of a table provided with a trough in its upper face, a rolling cloth over the table, a fore-mold plate pivotally supported above the rolling cloth and adapted to coöperate with the trough, a rolling lever, and means actuated by the rolling lever for holding the fore-mold plate in its normal position, substantially as described.

1,025,886. SCAFFOLD-BRACKET. WILLIAM A. SCHOENING, Chicago, Ill. Filed Nov. 7, 1910. Serial No. 591,138. (Cl. 20—84.)



In a device of the class described, the combination with a wooden bracket member, of an L-shaped metallic plate adapted to be secured at the upper inner corner of the bracket member, said L-shaped member being provided with an elongated slot in its vertical leg and a series of holes in its horizontal leg, the vertical leg of the bracket being provided with a slot registering with the slot in the L-shaped member, the horizontal leg of the bracket being provided with a plurality of holes registering with the holes in the L-shaped member, means for removably securing said L-shaped member to the bracket, a locking member in the form of an integral rod, one end of said rod being upturned to provide a finger adapted to be inserted in any selected of said holes, said finger being of a size to pass through said slot, the other end of the rod being bent back upon itself to form a U adapted to embrace a studding, and removable means adapted to be attached to said finger to prevent withdrawal of the finger through the hole through which it has been inserted, substantially as described.

1,025,887. MOVING-PICTURE MACHINE. EDWARD H. SPERBERG, Chicago, Ill., assignor to Oscar F. Foss, Chicago, Ill. Filed Jan. 3, 1911. Serial No. 600,533. (Cl. 88—18.)



1. In a moving picture machine, the combination of means for drawing the film at substantially uniform speed, means for intermittently depressing the film at a point in advance of the drawing means, to cause an intermittent movement of the film past the aperture of the machine, and means for varying the upper and lower limits of movement of the depressing means for framing the film, substantially as described.

2. In a moving picture machine, the combination of a film-draw sprocket, means for rotating the same at substantially uniform speed, a cam geared to the sprocket, an oscillatable kicking mechanism, pivoted in position to be engaged by the cam and to be thrown by the same, and means for raising and lowering the pivotal point of the kicking mechanism, to determine the upper and lower limits of oscillation of the same, substantially as described.

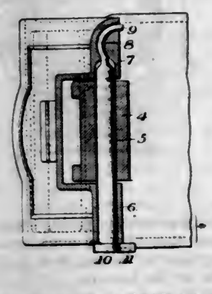
3. In a moving picture machine, the combination of a film-draw sprocket, a cam geared to the same, an oscillatable kicking mechanism in the form of a bell crank, and pivoted in position such that one of its arms may engage the film at a point in advance of the sprocket, and such that the other arm may be engaged by the cam and be thrown by the same, means for rotating the cam and sprocket at substantially uniform speed, and means for raising and lowering the pivotal point of the kicking mechanism, to determine the upper and lower limits of the same to frame the film, substantially as described.

4. In a moving picture machine, the combination of a film-draw sprocket, a cam shaft geared to the same, a cam on the shaft, an oscillatable kicking mechanism suitably pivoted at a point to depress the film in advance of the sprocket, and adapted to be intermittently engaged by the cam, and a fly wheel on the cam shaft, substantially as described.

5. In a moving picture machine, the combination of a film-draw sprocket, a cam geared to the same, an oscillatable framing plate in position such that the kicking mechanism will engage the film at a point in advance of the draw sprocket and in position to be engaged and thrown by the cam, and normally tending to fall into lowered position and away from the cam, and means for raising and lowering the framing plate to raise and lower the pivotal point of the kicking mechanism, whereby the upper and lower limits of throw thereof are varied to frame the film, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,025,888. JOURNAL-BOX. JOHN W. STEPHENSON, Toledo, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Aug. 7, 1911. Serial No. 642,666. (Cl. 64—23.)



1. A journal box pin or pintle having a reduced bendable end portion; and the lid having means to engage the pin or pintle as it is seated and thereby bend or deflect its bendable end portion, substantially as described.

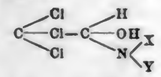
2. The combination with a journal box and its lid, of a pin or pintle forming the connection between the said parts, said pin or pintle having a bendable portion, and means carried by the box in fixed relation to the pin or pintle seat for engaging and bending said portion by and during the act of seating the pin; substantially as described.

3. The combination with a journal box and its lid, of a pin or pintle forming a connection between said parts, the pin or pintle having a bendable end portion, and the lid having a deflecting opening to receive said end portion; substantially as described.

1,025,889. CHLORAL DERIVATIVES CONTAINING THE RADICAL OF A FATTY ACID. NATHAN SULZBERGER, New York, N. Y. Filed Apr. 20, 1909. Serial No. 491,162. (Cl. 23—24.)

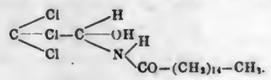
1. As new compositions of matter the herein described compounds of chloral with amids of fatty acids, such acids

containing more than twelve atoms of carbon, having the following general formula:

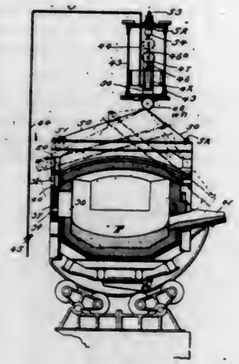


where "X" stands for the radical of a fatty acid, having more than twelve atoms of carbon and "Y" stands for the alkyl group, such compounds being insoluble in water and not volatile without decomposition.

2. As a new composition of matter the chloral-palmitic-acid amid being a white crystalline powder of fatty feel, not volatile, melting at about 110 degrees C., and soluble in alcohol and having the following structural formula:



1,025,890. DOOR-OPERATING MECHANISM. CHARLES P. TURNER and WILLIAM T. DRAKE, Harrisburg, and JAMES E. LITTLE, Steelton, Pa. Original application filed Oct. 26, 1910, Serial No. 589,282. Divided and this application filed Dec. 8, 1911. Serial No. 664,641. (Cl. 75—132.)



1. The combination with a tilting furnace and a vertically sliding door therefor; of mechanism separate from such furnace but flexibly connected to said door to operate it in any position of the furnace.

2. The combination with a tilting furnace and a sliding door therefor; of mechanism independent of the furnace permitting the movement of the furnace to any position without actuating the door, and arranged to operate the door in any position of the furnace.

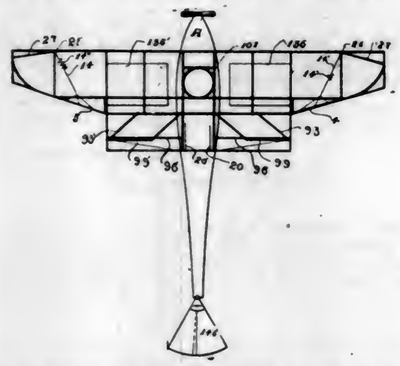
3. The combination with a tilting furnace and a sliding door therefor; of stationary mechanism separate from the furnace and flexibly connected to the door, permitting the movement of the furnace to any position without actuating the door and arranged to operate the door in any position of the furnace.

4. The combination with a tilting furnace and a sliding door therefor; of a rope connected at one end to the door and at the other end to the furnace, and stationary mechanism between the ends of the rope operating to exert a pull thereon to open the door.

5. The combination with a tilting furnace and a sliding door therefor; of a rope connected at one end to the door and at the other end to an opposite corner of the furnace, a stationary cylinder, a piston therein, a pulley carried by the piston, two guide pulleys below the cylinder, said rope passing over said pulleys, and means to supply actuating fluid behind the piston.

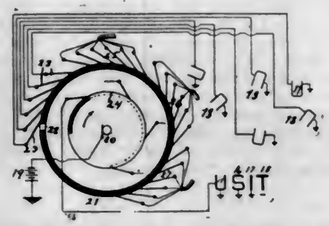
[Claims 6 and 7 not printed in the Gazette.]

1,025,891. FLYING-MACHINE. JAMES WALSH, Northfield, Minn., assignor to Joseph H. Daunt, Minneapolis, Minn., and John A. Walsh, Northfield, Minn. Filed Aug. 1, 1911. Serial No. 641,859. (Cl. 244—14.)



In an aeroplane a horizontal rudder mounted to swing vertically and horizontally, said rudder being extensible in area and so mounted that upon lateral swinging its leading edge is raised and following edge lowered to warp and cant its surface.

1,025,892. ELECTRIC SIGN. WILLIAM HOLDEN WEEKS, New York, N. Y. Filed Dec. 20, 1911. Serial No. 666,995. (Cl. 177—346.)

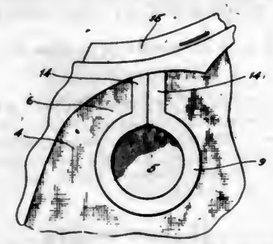


The herein described electric sign consisting of irregular lines of electric lamps or clusters of lamps each lamp or cluster of lamps forming a certain letter of a word or a certain character of an intelligible arrangement of characters, and each irregular line of said lamps or clusters of lamps extending from an initial position out of its regular order in said word or arrangement of characters through a consecutive series of disorderly positions to a final regular and orderly position in the word or intelligible arrangement of letters or characters, and means for switching an electric current successively through the line of lamps forming the first or one word or character from its initial, through its intermediate, to its final position, then through the line of lamps forming the next word or character, and then through the succeeding lines of lamps, until all the letters forming the word or intelligible arrangement of characters are shown in their regular order, then cutting out the lamps forming the intelligible word or arrangement of characters, and repeating the display substantially as described.

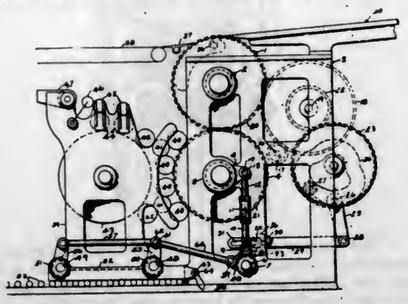
1,025,893. WATERPROOF GARMENT. JULIUS E. WEIL, Chicago, Ill. Filed Apr. 14, 1911. Serial No. 621,116. (Cl. 2—61.)

In a water proof garment, a body having arm holes, circular shaped strips arranged concentrically about said arm holes at the inner side of the body, the inner end of said strips being secured to the inner surface of the body,

sleeves having their inner ends inserted between the outer ends of said strips and the said body and secured by stitching to said strips, the inner ends of said sleeves being adhesively secured to the said body.



1,025,894. PRINTING-PRESS. JOSEPH WHITE, Beechwood Heights, N. J., assignor to Hall Printing Press Company, Dunellen, N. J., a Corporation of New Jersey. Filed Aug. 9, 1910. Serial No. 576,418. (Cl. 101—71.)



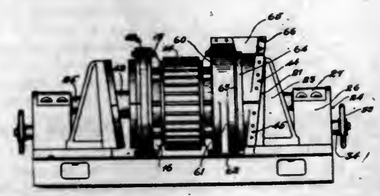
1. In a printing machine, the combination of an impression cylinder, a form carrying cylinder, an ink roller adjacent to the form cylinder, a support for said ink roller, means for moving said form cylinder into and out of printing relation with the impression cylinder during each printing operation, means for moving said ink roller support so as to maintain a relatively fixed axial relation between the form cylinder and the ink roller; and actuating means for operating the cylinder and the ink-roller-support-moving means so arranged that said actuating means may be disconnected for the purpose of maintaining the form cylinder in tripped position and the ink form roller in inking relation to the form.

2. In a printing machine, the combination of an impression cylinder, a form carrying cylinder, an ink roller adjacent to the form cylinder, a frame for said ink roller, eccentric supports for the form cylinder and eccentric supports for the ink frame so arranged as to move the form cylinder and the ink roller but maintain a relatively fixed axial relation between them.

3. In a printing machine, the combination of a form cylinder, a pair of eccentric bearings for said form cylinder, an ink frame, an ink frame carriage, ink rollers for said ink frame, eccentric bearings mounted in said carriage, a pair of shafts for supporting the ink frames fastened to said eccentrics, means for rocking all the said eccentric bearings for the purpose of moving the form cylinder and the form rollers, and maintaining an axial fixed relation to each other.

1,025,895. CRUSHING-MACHINE. JOHN WILLNERS, Chicago Heights, Ill., assignor of fifty-one one-hundredths to Horace Argo, Chicago, Ill. Filed Aug. 31, 1911. Serial No. 647,079. (Cl. 83—53.)

1. In a crushing machine, the combination of a rotatable drum having a crushing element on each end thereof lying at substantially right angles to the axis of rotation of said drum, and a stationary crushing element adjacent each end of the said drum and having the plane of its face lying at an angle to the plane of the crushing element of the adjacent end of the drum and extending from top to bottom of the drum, and means for directly driving the said drum, substantially as described.



2. In a crushing machine, the combination of a rotatable drum having a crushing element on each end thereof lying in a plane at substantially right angles to the axis of rotation of said drum, and a stationary crushing element adjacent each end of the said drum and having the plane of its face lying at an angle to the plane of the crushing element of the adjacent end of the drum and extending from top to bottom of the drum, substantially as described.

3. In a crushing machine, the combination of a rotatable drum having the end faces thereof lying at substantially right angles to the axis of rotation of said drum, a corrugated crushing element on each end of said drum and having the corrugations thereof lying in a plane substantially at right angles to the axis of rotation of the drum, a stationary member mounted adjacent each end of said drum, and an uncorrugated crushing element carried by each stationary member adjacent the corresponding crushing element of the drum and having the plane thereof lying at an angle to the plane of the corrugations of the adjacent end of the drum and extending from top to bottom of the drum, substantially as described.

4. In a crushing machine, the combination of a rotatable drum having the end faces thereof lying at substantially right angles to the axis of rotation of the said drum, a crushing element carried by each end of the drum and having the crushing face thereof also lying in a plane substantially at right angles to the axis of rotation of the drum, a bracket member adjustably mounted adjacent each end of the drum, and a crushing element carried by each bracket member adjacent the corresponding crushing element of the drum, and having its crushing face lying in a plane at an angle to the plane of the crushing face of the adjacent end of the drum and extending from top to bottom of the drum, subtsantially as described.

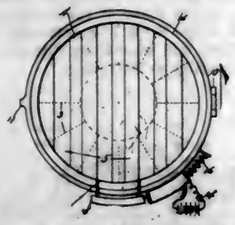
5. In a crushing machine, the combination of a rotatable drum, a crushing member carried by each end of the same and having its crushing face lying in a plane at substantially right angles to the axis of rotation of the drum, a stationary bracket mounted adjacent each end of the drum and having a substantially plane surface lying at an angle to the plane of the crushing member on the adjacent end of the drum, and a crushing element secured to each stationary member on the plane surface thereof and extending from top to bottom of the drum, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,025,896. ATTACHMENT FOR ELECTRIC LIGHTS. JUSTUS CORNELIS ZUBLI and ABRAHAM VLES, Seattle, Wash. Filed Aug. 2, 1909. Serial No. 510,917. (Cl. 240—10.)

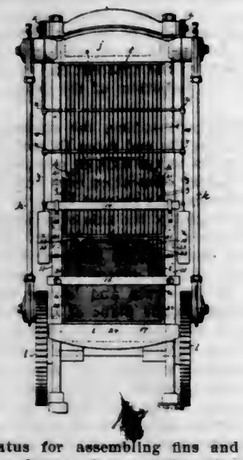
In an attachment for lamps, a plurality of divergent colored reflectors, a diaphragm comprising a plurality of triangular prisms hermetically connected to each other

and resting against said colored reflectors, means whereby said diaphragm may be detachably secured to said reflec-



tors and a means for oscillating said diaphragm to cause visual changes.

1,025,897. RADIATOR-ASSEMBLING MACHINE. JOHN D. BEEBE, Detroit, Mich., assignor, by mesne assignments, to Briscoe Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 30, 1908. Serial No. 455,438. (Cl. 29—84.)



1. An apparatus for assembling fins and tubes, comprising a holder for spacing a series of fins, a holder for a series of tubes, and a series of reciprocable plungers to simultaneously force said tubes from the tube holder through all of the fins in the fin holder in one movement of the plunger.

2. An apparatus for assembling fins and tubes comprising a holder adapted to hold a series of perforated fins in spaced relation with their perforations in alinement, a guide tube adapted to hold a tube in alinement with the alined perforations, and a reciprocable plunger adapted to pass into the guide tube to force the tube therefrom into the perforations in the series of fins.

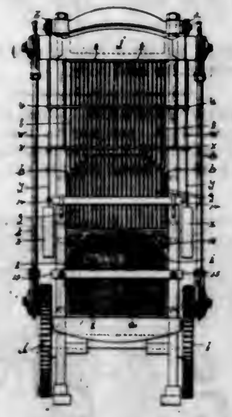
3. An apparatus for assembling a series of radiator fins and water tubes comprising a machine frame, a removable frame adapted to be supported by the machine frame, a series of retaining tubes supported by the removable frame to carry the water tubes, means for supporting fins, and means adapted to be projected into the retaining tubes to force the water tubes therefrom and through the fins.

4. An apparatus for assembling a series of radiator fins and tubes comprising a machine frame, means on the frame for spacing and holding in spaced relation a series of perforated fins with their perforations in alinement, a removable frame adapted to be secured upon the machine frame and provided with a series of retaining tubes to receive the water tubes, yielding means within the retaining tubes to engage and hold the water tubes, and means on the machine frame for forcing the water tubes from the retaining tubes.

5. An apparatus for assembling a series of radiator fins and tubes comprising means for holding the series of fins, a removable frame to carry the tubes, and means for forcing the tubes from the frame through the series of fins.

[Claims 6 to 12 not printed in the Gazette.]

1,025,898. PROCESS OF ASSEMBLING RADIATORS. JOHN D. BEEBE, Detroit, Mich., assignor, by mesne assignments, to Briscoe Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 14, 1908, Serial No. 467,548. Renewed Mar. 8, 1912. Serial No. 682,514. (Cl. 29—84.)



1. The process of assembling radiators comprising the placing and spacing of a series of fins upon a coated tube and then subjecting the tube while in an upright position with the fins thereon to heat to fuse the coating of the tube between said spaced fins so that said coating will flow into the angles formed by the junction of the tube and fins and firmly unite the same when cooled.

2. The process of assembling radiators comprising water tubes having a coating of fusible material and a series of fins of thin flexible material, consisting of supporting the fins in spaced relation forcing the tubes through the fins, and then uniting the fins to the tubes by subjecting the same while the tubes are in an upright position to heat sufficient to fuse the coating on the tubes between the fins so that said coating will flow into the angles formed by the junction of the fins with the tubes and when cooled unite the same.

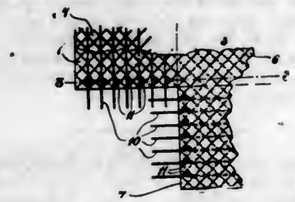
3. The process of assembling radiators comprising the spacing apart of a series of fins of thin flexible material having a series of perforations and supporting said fins adjacent to each perforation, forcing a series of coated tubes through the perforations in a single continuous operation, then uniting the fins to the tubes by subjecting the tubes while in an upright position with the fins thereon to heat sufficient to fuse the coating on the tubes between the fins whereby said coating will flow into the angles formed by the junction of the fins and tubes and unite the same.

1,025,899. BOX. JAMES L. BURTON, Plainville, Conn., assignor of one-half to Frank A. Champlin, East Long Meadow, Mass. Filed Mar. 22, 1911. Serial No. 616,054. (Cl. 229—30.)

1. A box comprising a bottom, and wings combined with wire strands molded in the wings, extending from side to side thereof and outward beyond the sides, said strands being twisted together at the corners of the box.

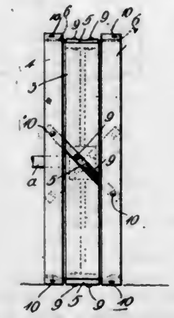
2. A box comprising a bottom and wings, combined with wire strands molded in said wings, extending from side to side thereof and also projecting beyond the said sides,

the wings having holes at the corners of the box through which the projecting portions of said wires extend, and said projecting portions being twisted together.



3. A box comprising a bottom provided with wings, combined with wire strands molded in the several wings, said strands extending from side to side of the wings and extending outward beyond said sides.

1,025,900. WHEEL. ISAIAH M. DE PEW, Palma Sola, Fla. Filed June 13, 1910, Serial No. 566,543. Renewed Sept. 21, 1911. Serial No. 650,647. (Cl. 152—28.)



A spring wheel comprising a rigid centrally disposed wheel, resilient rings disposed at opposite sides of said wheel, said rings being larger in diameter than the tire of said wheel, and diagonally disposed braces provided with spring portions at their ends and enlarged central portions, said braces being connected to the tire of said wheel and to said resilient rings.

1,025,901. APPAREL-SHOE QUARTER-CLOSURE. CHARLES M. DODSON, Des Moines, Iowa, assignor of one-half to H. W. Parker, Des Moines, Iowa. Filed Oct. 18, 1909. Serial No. 523,130. (Cl. 24—267.)



1. In a device of the class described, two wires, each having a loop at one end, and two plates connected with each other on opposite sides of said wire loops, one of said plates being provided with raised portions to enter each loop, for pivotally connecting the wires with the plates.

2. In a device of the class described, two wires, each having a loop at one end, and two plates connected with each other on opposite sides of said wire loops, one of said plates being provided with raised portions to enter each loop, for pivotally connecting the wires with the plates, and one of said plates being provided with extensions through which the body portion of the wires are passed, said extensions being wider than the wires, to limit the pivotal movement thereof.

3. A device of the class described, comprising a plate having an extension at each end, substantially at right angles to the plate, a raised portion in each end of the plate adjacent to said extension, a plate having an annular depression in each end and also an extension at each end, said extension being provided with a depression forming a continuation of said annular depression, one plate also being provided with marginal edges, designed to fold over the edges of the other plate, and also being provided with an extension to fold over the central portion of the body of said other plate, and two wires, each being provided with a loop, said loops being placed between the said plates and lying within the depressions and encircling the raised portions substantially as and for the purposes stated.

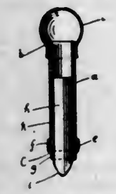
1,025,902. FUEL. EDWARD J. DOLAN, Philadelphia, Pa. Filed Jan. 27, 1912. Serial No. 673,877. (Cl. 44—2.)



1. An article of fuel comprising one or more papers folded into a compact bundle, the paper composing the package and the spaces between the sheets of the package being filled with fuel oil or other oil of suitable body, viscosity, volatility and consistency, substantially as shown and described and for the purpose specified.

2. An article of fuel comprising a sheet or sheets of paper or other material of like nature, folded into a compact bundle, the bundle being held in form by gummed strips or their equivalents, the package being saturated and the interstices between the sheets being filled with fuel oil or other oil of a suitable body, consistency, viscosity and volatility, substantially as shown and described and for the purpose specified.

1,025,903. DEVICE FOR REMOVING AND CURING CORNS. DICKRAN M. DON JIAN, Washington, D. C. Filed Oct. 18, 1910. Serial No. 587,785. (Cl. 128—28.)



1. In a device of the character described, a hollow member provided with an opening, a granular abrasive member held within the said opening with one end projecting therefrom, and grooves in the surface of the said abrasive member to supply an antiseptic solution from the hollow member to the part of the abrasive member projecting therefrom.

2. In a device of the character described, a tubular member, a granular abrasive member held within the tubular member with its end projecting therefrom, and grooves in the surface of said abrasive member to supply an antiseptic solution from the tubular member to the part of the abrasive member projecting therefrom.

3. In a device of the character described, a hollow member provided with an opening, an abrasive stone held

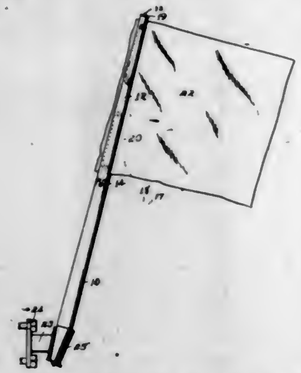
within the said opening with one end projecting therefrom, and grooves in the surface of the said abrasive stone to supply an antiseptic solution from the hollow member to the part of the abrasive stone projecting therefrom.

4. In a device of the character described, a tubular member, an abrasive stone held within the tubular member with one end projecting therefrom, and grooves in the surface of the said abrasive stone to supply an antiseptic solution from the tubular member to the part of the abrasive stone projecting therefrom.

5. In a device of the character described, an open-ended tubular member, a longitudinally grooved abrasive stone held therein with its end projecting therefrom, and an elastic bulb on the other end of the tubular member.

[Claims 6 to 14 not printed in the Gazette.]

1,025,904. FLAGSTAFF. EDWIN S. EARHART, Des Moines, Iowa. Filed July 19, 1911. Serial No. 639,381. (Cl. 116—12.)

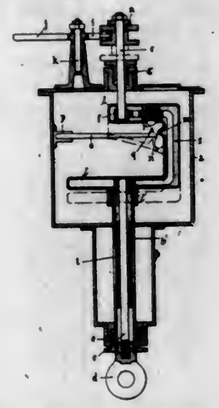


1. In a device of the class described, a flag staff body having a central, longitudinal slot in the upper end thereof, the portion of the flag staff adjacent to one side of said slot being detachable, the body portion of said flag staff being formed with a V shaped slot near the lower end of said longitudinal slot and with a third slot extending from the center of said V shaped slot to the outer side of the body of the flag staff, the lower end of said detachable portion being beveled to fit said V shaped slot, and provided with a lug designed to be received in said third slot, and means whereby the upper end of said detachable portion may be secured to the upper end of the main body of the flag staff.

2. In a device of the class described, a flag staff body having a central longitudinal slot in the upper end thereof, the portion of the flag staff adjacent to one side of said slot being detachable, said flag staff body being formed with a slot near the lower end of said longitudinal slot designed to receive the lower end of said detachable portion, and to prevent lateral movement thereof with relation to the flag staff body, the lower end of said detachable portion being formed to fit said last described slot, yielding means for securing the upper end of said detachable portion to the main body of the flag staff, said means comprising a spring clip having a body portion secured to the side of the main body of the flag staff near the upper end thereof, and a portion extended at right angles to said first named portion adjacent to the top of the flag staff, and provided with an opening, a lug on the upper end of said detachable portion designed to be freely received in said opening.

3. In a device of the class described, a flag staff body having a central longitudinal slot in the upper end thereof, the portion of the flag staff adjacent to one side of said slot being detachable, means whereby said detachable portion is secured to the staff body, and means whereby a flag placed in said longitudinal slot is firmly gripped between the parts of the flag staff, said means comprising a spring metal flag gripping plate constructed with a roughened surface, the ends of said plate being secured to the flat inner surface of the upper portion of the main body of the flag staff, and the body thereof being slightly spaced apart from the flag staff and designed to exert yielding pressure to hold a flag securely against the flat inner surface of said detachable portion when the latter is secured to the main body of the flag staff.

1,025,905. AUTOMATIC FIRING DEVICE FOR SUBMARINE MINES. GIOVANNI EMANUELE ELIA, Paris, France, assignor to Vickers Limited, Westminster, London, England. Filed Mar. 20, 1912. Serial No. 684,939. (Cl. 102—3.)



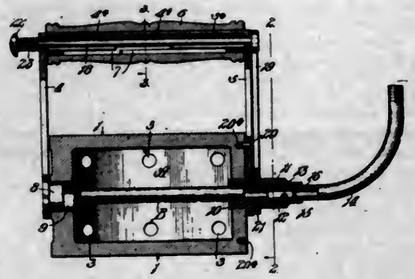
1. A percussion device for sub-marine mines, comprising a box, a rod mounted to slide in the box and formed of two sections connected by a yoke piece, the lower end of said rod being adapted to be connected with the mooring cable, a casing in which the said yoke piece is mounted, provided with a projection, a leaf spring secured to the box and provided with a nose in the path of the said projection and with a striker, a cap carried by the casing and adapted to be engaged by the strikers of the spring, and a locking device for said rod.

2. In a percussion device for sub-marine mines, a box, a sliding rod mounted in the box and adapted to be connected with a mooring cable, a striker secured to the box, means carried by the rod and coacting with the striker when released, a grooved member on one end of the rod, and a pivoted locking lever on the casing and having one end engaging the groove of said member.

3. A mechanism of the class described comprising a casing, a rod mounted to slide in the casing with its ends projecting through said casing, and to one end of which a mooring cable is adapted to be secured, a striker carried by the casing, a cap carried by the rod, means for maintaining the casing and rod in fixed position, and means for engagement with the said striker when the parts are moved relatively to each other, whereby the striker will be moved and permitted to engage the cap on its return travel.

4. A mechanism of the class described comprising relatively movable parts, one of the parts carrying a detonator, the said part also carrying a striker resiliently mounted in position, the other of the said parts carrying a cap, means for maintaining the parts in position and against movement relatively to each other, the said means being releasable, whereby the parts may move relatively to each other, the said part which carries the cap being provided with a projection coöperating with the said striker when the parts are moved, whereby the striker is brought remote from the cap, the striker returning from such remote position after movement through a suitable distance has been effected, the striker engaging the said cap, there being combustible material between the cap and the said detonator.

1,025,906. SAD-IRON. FRANK C. EMRICK and PHILIP G. SAFFORD, St. Louis, Mo.; said Emrick assignor to said Safford. Filed Feb. 13, 1911. Serial No. 608,413. (Cl. 68—26.)

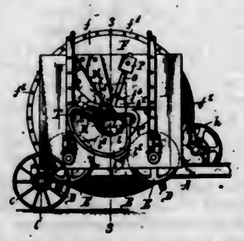


1. A sad iron comprising a body portion and a handle for said body portion consisting of two inverted L-shaped members whose horizontal portions are tubular-shaped and provided with longitudinally extending slots, a reduced extension on the horizontal portion of one of said members which is adapted to be driven into the horizontal portion of the other member, and a handle-piece of non-heat-conducting material surrounding the tubular-shaped portions of said handle members.

2. A sad iron provided with a handle which consists of two inverted L-shaped members formed of malleable iron and having horizontally disposed tubular-shaped portions which are slotted longitudinally, one of said portions having a reduced extension that is adapted to be driven into the other tubular-shaped portion.

3. A sad iron comprising a hollow body portion, a handle for said body portion comprising two tubular-shaped members of the same external diameter, one of which is expansible, a reduced extension on the other member which is adapted to be driven into the expansible member, legs on said members that are pivotally connected to the body part of the iron, a locking device that passes through one of said legs and engages the body part of the iron, a spring-operated rod arranged in the tubular-shaped members of the handle, and means for connecting said rod to said locking device.

1,025,907. MIXING-MACHINE. CHESTER T. FOOTE, Nunda, N. Y., assignor to Foote Manufacturing Company, Nunda, N. Y., a Copartnership. Filed Feb. 1, 1909. Serial No. 475,453. (Cl. 83—73.)



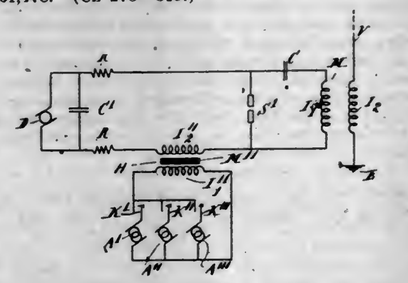
1. The combination with a rotatable mixing-drum having an opening at one end, of a chute having its inner portion within said drum and its outer portion extending out through said opening, said chute being pivotally supported to swing laterally and arranged to cross the axis of said drum at all times, a handle on said chute for swinging the same, and a weighted counter-balance arm also secured to said chute and serving to retain it at the ends of its movements in opposite directions.

2. A drum-batch mixer with an opening in one of its heads, a discharge chute mounted to rotate independent of the drum on an axis substantially parallel with the axis of the said drum, said discharge chute having one of its terminals disposed within and the other disposed without the drum, and a flange on one side of the outer terminal of the discharge chute, for conveying the material in the chute back into the drum when the said chute is revolved into inoperative position.

3. A drum batch mixer with an opening in one of its heads, a discharge chute mounted to rotate independent of the drum on an axis substantially parallel with the axis of the said drum, the discharge chute being disposed at an angle to its axis, one of the terminals of the discharge chute being disposed within the drum and the other without, and a cone shaped flange secured to one side of the discharge chute.

4. In a drum batch mixer, the combination with a drum head having a discharge aperture, of a discharge chute extending at its inner end within said aperture, inclined to the axial line of said head and mounted to rotate transversely of its length, independent of the drum, said chute being provided with a curved flange projecting from one side whereby when the chute is rotated into inoperative position the flange will be disposed substantially in the position previously occupied by the discharge chute and the material contained in the chute conveyed back into the drum.

1,025,908. TRANSMISSION OF MUSIC BY ELECTROMAGNETIC WAVES. LEE DE FOREST, New York, N. Y., assignor to De Forest Radio Telephone Co., a Corporation of New York. Filed Mar. 9, 1907. Serial No. 361,478. (Cl. 178—319.)



1. The method of transmitting musical sounds which consists in developing electrical vibrations having a frequency higher than the limit of audibility, and generating respectively independent electric currents corresponding in frequency to simple harmonic sound waves, successively modifying the electrical vibrations by said independently generated currents, and transforming the modified electrical oscillations into electro-radiant energy.

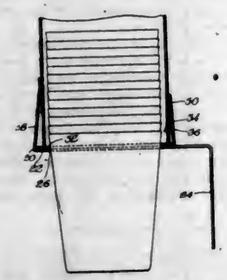
2. In a system for transmitting musical sounds, an oscillating circuit, means for producing therein practically continuous electrical vibrations having a frequency higher than the limit of audibility, a modifying circuit associated with said oscillating circuit, a plurality of means arranged in the modifying circuit respectively operating to develop therein electric currents, and means for varying each of said electric currents in accordance with the sound vibrations of a different musical note.

3. In a system for transmitting musical sounds, an oscillating circuit, means for producing therein practically continuous electrical vibrations having a frequency higher than the limit of audibility, a modifying circuit associated with said oscillating circuit, a plurality of means arranged in the modifying circuit and respectively operating to develop therein electric currents, means for varying each of said electric currents in accordance with the sound vibrations of a different musical note, and a transformer

associating said modifying and oscillating circuits, said transformer having an iron core.

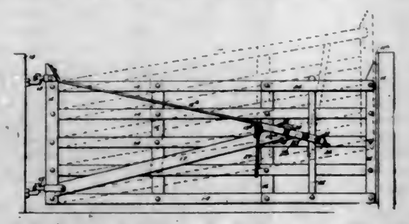
4. In a system for transmitting sounds, an oscillating circuit, means for producing therein electrical vibrations having a high frequency, a modifying circuit associated therewith, and means respectively independent of each other, and arranged in the modifying circuit for respectively varying the current therein in accordance with each note of the harmonic scale.

1,025,909. HOLDER FOR INDIVIDUAL DRINKING-CUPS. JAMES BRANDER FORSYTH, Boston, Mass., assignor to Edward H. Stone and James B. Forsyth, Copartners under the name and style of Stone & Forsyth, Boston, Mass. Filed Jan. 30, 1912. Serial No. 674,264. (Cl. 211—8.)



A holder for individual drinking cups, comprising a carton having its lower end open and provided with a slit adjacent the lower edge of one side, an apertured bracket upon which said carton is mounted having upwardly extending wings arranged to engage and support the sides of the carton, one of said wings being provided with an inwardly deflected tongue arranged to enter said slit in the carton side, and means arranged to engage a nest of cups in the carton and allow only the lowermost cup to be withdrawn therefrom at a time, substantially as described.

1,025,910. GATE. JOHN GANZLEY, Taintor, Iowa. Filed Oct. 26, 1911. Serial No. 656,820. (Cl. 98—18.)

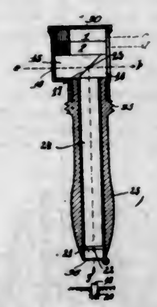


1. In a device of the class described, a post, a gate proper comprising upright end members, the inner end member being hinged to said post, a plurality of parallel horizontal gate members pivoted at their respective ends to said upright end members and means whereby the free end of said gate is automatically secured in any position of its upward movement, said means comprising arms secured to the inner upright member and inclined toward and secured near the middle of the free end of the gate, parallel bars pivoted to one of said arms and spaced apart from each other, parallel bolts extending through said arms, an upright member pivoted to the gate at one end and extending between said bars and said bolts, and means for permitting longitudinal and preventing lateral movement of the other end of said last named upright member, with relation to the gate.

2. In a device of the class described, a post, a gate proper comprising upright end members, the inner end member being hinged to said post, a plurality of parallel horizontal gate members pivoted at their respective ends to said upright end members and means whereby the free end of said gate is automatically secured in any position of its upward movement, said means comprising arms secured to the inner upright member and inclined toward and secured together near the middle of the free end of the gate, parallel bars pivoted to one of said arms and spaced apart from each other, parallel bolts extending through said arms, sleeves mounted on said bolts between the said arms, a laterally extending handle on one of said arms, a rearward extension on one of said arms, means for drawing said extension downward, said means extending to the other side of the gate, an upright member pivoted to the lower horizontal member of the gate near the free end thereof and extending upwardly between said bars and between said bolts, and means for permitting longitudinal and for preventing lateral movement of the upper end of said last named upright member with relation to said gate.

3. In a device of the class described, a post, a gage proper comprising upright end members, the inner end member being hinged to said post, a plurality of parallel horizontal gate members pivoted at their respective ends to said upright end members and means whereby the free end of said gate is automatically secured in any position of its upward movement, said means comprising arms secured to said inner upright end member and inclined toward and secured to each other near the free end of the gate, a sleeve mounted in one of said arms at right angles thereto, a bolt rotatably mounted in said sleeve, parallel arms secured to the respective ends of said bolt, parallel bolts mounted in said arms adjacent to the free end of the gate, spaced apart from each other, sleeves on said last named bolts, an upright member pivoted to the lower horizontal member of the gate near the free end thereof, and extending upwardly between said bars and between said bolts and means for permitting longitudinal and for preventing lateral movement of the upper end of said last named upright member with relation to said gate.

1,025,911. SURVEYING INSTRUMENT. MAX GASSER, Darmstadt, Germany, assignor to Aktiengesellschaft Hahn für Optik und Mechanik, Ihringhausen, near Cassel, Germany. Filed Jan. 7, 1911. Serial No. 601,437. (Cl. 88—2.)



1. In a surveying instrument, the combination with two pentagonal prisms so superposed, as to place their front faces in the same vertical plane and their adjoining faces at right angles to the front faces in two parallel vertical planes, of a part having a reflecting face inclined to the front and downward at an angle of forty-five degrees to the vertical, and a casing inclosing said two pentagonal prisms and said part and comprising a vertical tube whose axis passes through the middle of the reflecting face of said part, said casing having at the rear an opening for sighting the object, on the sides two openings, one for the face of each prism at right angles to the front face, and at the front an opening extending over said two prisms and said part.

2. In a surveying instrument, the combination with two pentagonal prisms so superposed, as to place their front faces in the same vertical plane and their adjoining faces at right angles to the front faces in two parallel vertical planes, of a first part having a reflecting face inclined to the front and downward at an angle of forty-five degrees to the vertical, a second part filling up the space behind said first part, and a casing inclosing said two pentagonal prisms and said two parts and comprising a vertical tube whose axis passes through the middle of the reflecting face of said first part, said casing having at the rear an opening for sighting the object, on the sides two openings, one for the face of each prism at right angles to the front face, and at the front an opening extending over said two prisms and said first part.

3. In a surveying instrument, the combination with two pentagonal prisms so superposed, as to place their front faces in the same vertical plane and their adjoining faces at right angles to the front faces in two parallel planes, of a first prism having a reflecting face inclined to the front and downward at an angle of forty-five degrees to the vertical, a second prism filling up the space behind said first prism, and a casing inclosing said two pentagonal prisms and said two prisms and comprising a vertical tube whose axis passes through the middle of the reflecting face of said first prism, said casing having at the rear an opening for sighting the object, on the sides two openings, one for the face of each pentagonal prism at right angles to the front face, and at the front an opening extending over said two pentagonal prisms and said first prism.

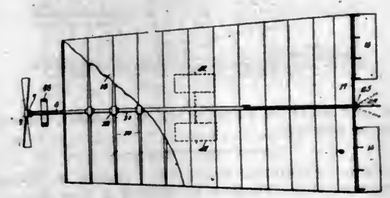
4. In a surveying instrument, the combination with two pentagonal prisms so superposed, as to place their front faces in the same vertical plane and their adjoining faces at right angles to the front faces in two parallel vertical planes, of a part having a reflecting face inclined to the front and downward at an angle of forty-five degrees to the vertical, a casing inclosing said two pentagonal prisms and said part and comprising a vertical tube whose axis passes through the middle of the reflecting face of said part, and a glass disk at the lower end of said tube having a sighting-mark, the reflecting face of said part having a sighting-mark, said two pentagonal prisms having on their front faces sighting-marks and said casing having at the rear a sight opening for sighting the object, on the sides two openings, one for the face of each prism at right angles to the front face, and at the front an opening extending over said two prisms and said part.

5. In a surveying instrument, the combination with two pentagonal prisms so superposed, as to place their front faces in the same vertical plane and their adjoining faces at right angles to the front faces in two parallel vertical planes, of a first part having a reflecting face inclined to the front and downward at an angle of forty-five degrees to the vertical, a second part in front of said first part having a sighting-mark on its front face, a casing inclosing said two pentagonal prisms and said two parts and comprising a vertical tube whose axis passes through the middle of the reflecting face of said first part, and a glass disk at the lower end of said tube having a sighting-mark, the reflecting face of said first part having a sighting mark, said two pentagonal prisms having on their front faces sighting-marks, and said casing having at the rear a sight opening for sighting the object, on the sides two openings, one for the face of each prism at right angles to the front face, and at the front an opening extending over said two prisms and said second part.

[Claim 6 not printed in the Gazette.]

1,025,912. MONOPLANE. ROBERT H. HAAG, Louisville, Ky. Filed May 17, 1911. Serial No. 627,726. (Cl. 244—14.)

1. A device of the character specified, comprising a supporting plane, said plane being of greater width at its rear than at its front and having its side edges tapering, a horizontal rudder at each side of the rear end, a shaft journaled transversely of the said rear end and provided at its center with a crank arm, said shaft having a plurality of rearwardly extending arms near each end thereof, each of the said arms extending upwardly, rearwardly and downwardly to a connection with the upper face of the adjacent rudder, and means connected with the crank arm for operating the rudders.



2. In a device of the character specified, a supporting plane, said plane being of greater width at its rear than at its front end, an aileron on each side of the longitudinal center of the plane, and journaled for swinging movement on an axis transverse to the supporting plane, means for swinging the ailerons, a horizontal rudder at each side of the rear end, a shaft journaled transversely of the plane and provided at its center with a crank arm, said shaft having a plurality of rearwardly extending arms near each end thereof, each of the said arms extending upwardly and rearwardly and downwardly to a connection with the adjacent rudder, and means connected with the crank arm for operating the rudders.

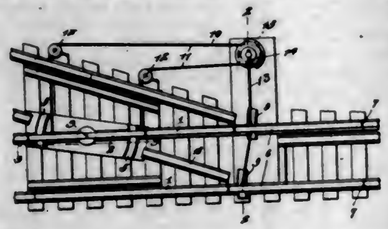
3. In a device of the character specified, a supporting plane, a horizontal rudder at each side of the rear end, a shaft journaled transversely of the plane and provided at its center with a crank arm, said shaft having a plurality of rearwardly extending arms near each end thereof, each of the said arms extending upwardly and rearwardly and downwardly to a connection with the adjacent rudder, and means connected with the crank arm for operating the rudders.

4. In a device of the character specified, a supporting plane, a vertical rudder supported below the plane and at the rear thereof, a pair of alined rollers in front of the rudder, a cord connected with each face of the rudder and winding on the adjacent roller, a shaft journaled longitudinally of the plane between the rollers and having a driving connection with the said rollers for simultaneously rotating them in opposite directions, a countershaft journaled above the said shaft, a sleeve journaled on the countershaft and provided with a hand wheel, a connection between the sleeve and the first-named shaft for operating the same, an aileron near each side of the plane at approximately the longitudinal center thereof, a shaft secured to each aileron, said shafts being in alinement, an operating shaft arranged longitudinally of the plane and having a driving connection with the shafts of the ailerons for simultaneously moving them in opposite directions, a connection between the operating shaft and the countershaft, a handle secured to the countershaft, and means for locking the handle to the hand wheel.

1,025,913. RAIL. WILLIAM F. HAMPTON and CHARLES W. HAMPTON, Waynesboro, Tenn., assignors of one-third to Robert A. Haggard, Waynesboro, Tenn. Filed Sept. 7, 1911. Serial No. 648,121. (Cl. 104—126.)

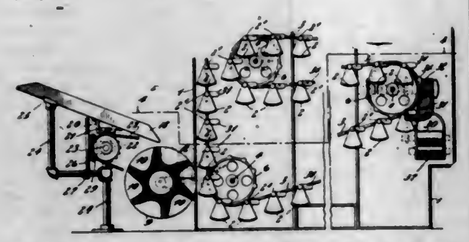
In combination with a railway switch having points hinged to both sides of the rails of a track, cross-overs, a frog comprising a relatively large flat plate, a rail member pivotally secured to the central portion of said plate, said member having dove-tailed grooves adjacent to the ends thereof, a pair of dove-tail members disposed on

and secured to said plate and adapted to fit into said grooves and guide said members transversely across said



plate, and means for actuating said rail member, substantially as described.

1,025,914. PROOFING-MACHINE. GEORGE J. HICKS, Saginaw, Mich., assignor to Richard & Otto Werner, Cannstatt, Germany Filed Nov. 12 1909. Serial No. 527,609. (Cl. 107—57.)



1. In a machine of the character described and in combination, a tray mechanism comprising a tray and a carrier therefor, a rotary feed device for delivering charges to said tray, and means actuated by the tray mechanism for controlling the action of said feed device.

2. In a machine of the character described and in combination, a tray mechanism comprising a tray and a continuously moving carrier therefor, an intermittently movable rotary feed device for delivering charges to said tray, and means actuated by the tray mechanism for controlling the action of said feed device.

3. In a machine of the character described and in combination, a tray mechanism comprising a tray and a carrier therefor, a feed device for delivering charges to said tray having an elongated charge-receiving pocket, and means movable in a general direction lengthwise of said pocket for delivering a series of charges thereto.

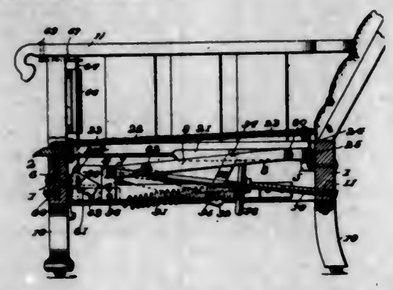
4. In a machine of the character described and in combination, a tray mechanism comprising a tray and a carrier therefor, a rotary feed device for delivering charges to said tray having an elongated charge-receiving pocket, and means movable in a general direction lengthwise of said pocket for delivering a series of charges thereto.

5. In a machine of the character described and in combination, a tray mechanism comprising a tray and a carrier therefor, a rotary feed device for delivering charges to said tray having a plurality of elongated charge-receiving pockets arranged about its periphery, and means movable in a general direction lengthwise of said pocket for delivering a series of charges thereto.

[Claims 6 to 16 not printed in the Gazette.]

1,025,915. CHAIR. EDWARD J. HOFF, Berkeley, Cal. Filed July 24, 1911. Serial No. 640,278. (Cl. 155—28.)

1. In a chair, in combination, a chair frame, a vertically movable seat, a swinging seat lifting member carried by said frame, a spring device constantly acting on said member to swing the same to lift the seat, said member having a locking projection, a locking bar to engage said projection and lock said member against seat lifting movement, and manually controlled means for moving said bar to releasing position, said locking bar having a limited range of rocking movement to be engaged by and rocked from the path of said projection when the same is moving in one direction and to slip into locking position abutting said projection as the seat approximately reaches depressed position.



2. In a chair, in combination, a chair frame, a vertically movable seat, a seat lifting device comprising a spring constantly exerting a tension to move said device to lift said seat, a lock normally holding said device against seat elevating movement, and manually controlled lock releasing means comprising a depressible button accessible to the occupant of the chair and lever and link connections therefrom to said lock, said lock consisting of a movable detent and said connections from said button arranged to swing said detent from locking position, said seat having a range of downward movement below locked position under the weight of the occupant to relieve said detent from the tension of said spring.

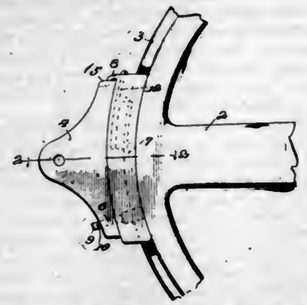
3. In a chair, in combination, a chair frame, a vertically movable seat, a vertically swingable seat lifting member, supporting means therefor in the chair frame, a spring device constantly acting thereon to propel the same on its seat lifting movement, said member provided with a projection, a tiltable locking bar carried by the chair frame, said projection adapted to slip by said bar as said member is propelled on seat depressing movement, said bar adapted to automatically engage said projection and lock said member against seat elevating movement, and manually controlled means for tilting said bar to release said projection comprising an accessible operating member and connections therefrom to said bar.

4. In an arm chair, in combination, a vertically movable seat, a swingable member for elevating said seat, a spring device constantly acting on said member to propel the same on seat elevating movement, an automatic lock for locking said member against seat elevating movement, and a manually controlled releasing device for said lock comprising a depressible button arranged at and projecting above a chair arm, a vertically swingable lever upholding said button, a vertically swingable lever for moving said lock on releasing movement, and a pull connection between said levers.

1,025,916. BRAKE-SHOE FOR RAILROAD-CARS. IRA KINCAID, Chicago, Ill., assignor of one-third to Warren H. Neureither and one-third to Mark A. Foote, Chicago, Ill. Filed Aug. 19, 1910, Serial No. 577,993. Renewed Apr. 11, 1912. Serial No. 690,001. (Cl. 184—3.)

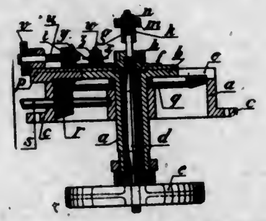
A concavo-convex brake shoe for vehicle wheels having a flange receiving groove in the concave face thereof near one longitudinal edge of the shoe and opening through the top and bottom of said shoe, there being a longitudinally curved pocket formed in the body of the shoe at the rear of the groove and of less length than the latter, said pocket being disposed at an angle to one longitudinal edge of the shoe and having its side walls unobstructed and converged in the direction of the flange receiving groove to form a contracted mouth opening through one side wall

of said flange receiving groove and terminating short of the other, there being a vertically disposed duct of less cross sectional diameter than the pocket opening through the top of the shoe in spaced relation to the grooved face thereof and communicating with said pocket to permit the introduction of a lubricant, said duct being disposed in vertical alinement with and forming



a continuation of the longitudinally curved rear wall of the pocket, and a detachable plug seated in the upper end of the duct and forming a closure for the latter, that portion of the concave face of the shoe between the flange receiving groove and the other longitudinal edge of said shoe being of the same width as and adapted to bear against the periphery of the wheel.

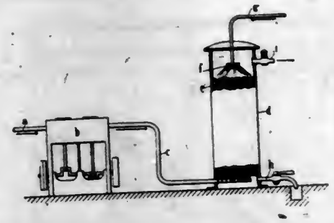
1,025,917. MACHINE FOR CUTTING KEY-BITS. BENJAMEN KOTKOVSKY, Paris, France. Filed Aug. 1, 1910. Serial No. 575,020. (Cl. 90—13.)



An improved machine for cutting key bits comprising in combination a cylindrical frame having a certain number of radial slots in the top plate, a vertical shaft revolubly mounted in the center of said cylindrical frame, means for revolving said shaft, a threaded part of said shaft projecting from said frame, a nut screwed upon said threaded part and having radial notches in its periphery designed to receive the lower ends of the keys, a sleeve adjustably mounted upon the upper end of said central shaft, radial hookshaped arms of said sleeve designed to grip the bows of the keys, a threaded part at the upper end of said central shaft and a locking nut screwed upon said threaded part and locking the sleeve in its position, slides movably mounted in said radial slots of the frame, means for simultaneously adjusting by hand all the slides in their guide slots, the tool supports adjustably mounted in said slides, means for regulating the radial distance of the tool supports from said central shaft and a circular saw on each of said supports, substantially as described and for the purpose set forth.

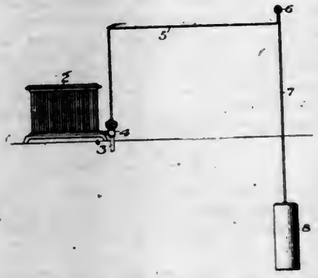
1,025,918. GAS-PURIFYING PLANT. HOWARD LANE, Birmingham, England, assignor to Internationale Wasserstoff Aktiengesellschaft, Frankfort-on-the-Main, Germany. Filed July 16, 1910. Serial No. 572,410. (Cl. 48—135.)

In apparatus for purifying crude gas, the combination of a closed fluid-tight vessel, means for introducing crude gas under pressure into said vessel, means for introducing water under pressure into said vessel, means for causing a thorough intermingling of gas and water, an outlet conduit and a relief valve in said conduit adapted to operate



to allow the escape of purified gas through said conduit when the pressure in said vessel exceeds a certain predetermined amount.

1,025,919. HEAT-CONTROLLING DEVICE FOR RADIATORS. THOMAS K. LYSINGER, Wilkinsburg, Pa. Filed July 7, 1910. Serial No. 570,878. (Cl. 236—8.)



1. The combination with a radiator having a connection for supplying it with a heated heating fluid, a valve for controlling the supply of such fluid, and a motor for actuating the valve, of a wall plug located in the wall of the apartment in which the radiator is placed, a pipe connection leading from said plug to the radiator valve motor and also from said plug to a source of pressure supply, an attachment secured to the plug and having ports therein which communicate with the said pipe connections, and a hand valve mounted in said attachment and controlling said ports, substantially as described.

2. The combination with a radiator having a fluid pressure valve, a motor therefor, of a wall plug located at a distance from said valve, a pipe connection leading from the wall plug to the radiator valve motor, a second pipe connection leading from the plug to a source of pressure supply, a casing connected to said wall plug having a plurality of ports communicating with said pipes, a rotary valve mounted in said casing, said valve having a passage arranged to register with said ports to connect the two pipes when the valve is in one position, there being a second passage open to the atmosphere in said valve arranged to register with the passage in the casing leading from the first pipe connection when the valve is moved in another position, and a valve stem connected to said valve extending through the casing; substantially as described.

3. The combination with a radiator having a fluid pressure valve, a motor therefor, of a wall plug located at a distance from said valve, a pipe connection leading from the wall plug to the radiator valve motor, a second pipe connection leading from the plug to a source of pressure supply, a casing connected to said wall plug having a plurality of ports communicating with said pipes, a rotary valve mounted in said casing, said valve having a passage arranged to register with said ports to connect the two pipes when the valve is in one position, there being a second passage open to the atmosphere in said valve arranged to register with the passage in the casing leading

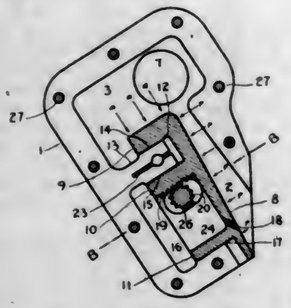
from the first pipe connection when the valve is moved in another position, a valve stem connected to said valve extending through the casing, and a combined pointer and handle connected to said valve stem; substantially as described.

1,025,920. CURTAIN-FIXTURE. HARRY S. MEEK, Wichita, Kans. Filed Apr. 8, 1910. Serial No. 554,130. (Cl. 156—24.)



A curtain fixture comprising a plate having a plurality of openings and slots formed therein, a bracket having a slot formed therein through which the plate extends, whereby the bracket is capable of sliding movement upon the plate, an angular projection connected to the bracket, a lug on the projection adapted to be received in the slot in the plate for holding the bracket against movement upon the plate, a hooked bolt passing through one of the openings in one end of the plate, the hooked portion of the bolt extending at right angles to the main portion, and received against the back of the window frame, means engaging the bolt for drawing the plate against the window frame for holding the bracket against movement, and means engaging the window frame at the other end of the plate.

1,025,921. ELASTIC-FLUID TURBINE. RICHARD OTTO MULLER, Washington, D. C. Filed Aug. 1, 1911. Serial No. 641,747. (Cl. 121—57.)



1. An adjustable elastic-fluid nozzle comprising a casing in which is provided a high pressure chamber for elastic fluid, and leading therefrom a nozzle orifice, said nozzle having all stationary walls identical with portions of the inner walls of said casing, and two of said stationary walls being parallel planes between which is fitted a movable wall for purposes of adjustment, said movable wall being provided at the throat or high pressure end with a projection extending into the high pressure chamber at substantially right angles to the nozzle axis and in the direction of motion of said movable wall, where it lies in contact with a portion of the wall of said high pressure chamber whose finished surface is adapted to act as a guide therefor and against which it is held by fluid pressure of said chamber all substantially as and for the purpose set forth.

2. An adjustable elastic-fluid nozzle comprising a casing in which is provided a high pressure chamber for elastic fluid, and leading therefrom an adjustable nozzle orifice, said nozzle having all its stationary walls identical with portions of the inner walls of said casing, two of said stationary walls being parallel planes between which is fitted a movable wall for purposes of adjustment, said movable wall being provided, near the throat or high pressure end of said nozzle, with two parallel projections or slides, extending at substantially right angles to the axis of said nozzle and in the direction of movement of said wall, one of said projections extending into the high pressure chamber and the other into an adjacent chamber of lower pressure; and a combined division wall and guide, being a part of said casing, dividing said chambers, lying between said parallel slides and provided with a finished surface in contact with each adapted to guide the same in any movement which may take place during reduced pressure in said high pressure chamber, all substantially as and for the purpose set forth.

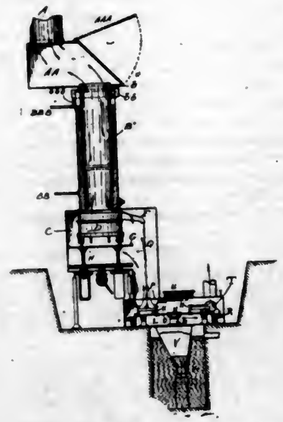
3. An adjustable elastic-fluid nozzle comprising a casing in which is provided a high pressure chamber for elastic fluid, and leading therefrom an adjustable nozzle orifice, said nozzle having all its stationary walls identical with portions of the inner walls of said casing, two of said stationary walls being parallel planes between which is fitted a movable wall for purposes of adjustment, said movable wall being provided, near the throat or high pressure end of said nozzle, with two parallel projections or slides, extending at substantially right angles to the axis of said nozzle and in the direction of movement of said wall, one of said projections extending into the high pressure chamber and the other into an adjacent chamber of lower pressure; and a combined division wall and guide, being a part of said casing, dividing said chambers, lying between said parallel slides and provided with a finished surface in contact with each, adapted to guide the same in any movement which may take place during reduced pressure in said high pressure chamber, a slot near the middle of said guide dividing it into two longitudinal prongs, a taper hole, part in each side of said slot, adapted to have forced therein a taper pin thereby spreading said guide walls to compensate for wear, the whole substantially as and for the purpose set forth.

4. An adjustable elastic-fluid nozzle comprising a casing in which is provided a high pressure chamber for elastic fluid, and leading therefrom an adjustable nozzle orifice, said nozzle having all its stationary walls identical with portions of the inner walls of said casing, two of said stationary walls being parallel planes between which is fitted a movable wall for purposes of adjustment, said movable wall being provided, near the throat or high pressure end of said nozzle, with two parallel projections or slides, extending at substantially right angles to the axis of said nozzle and in the direction of movement of said wall, one of said projections extending into the high pressure chamber and the other into an adjacent chamber of lower pressure; a combined division wall and guide, being a part of said casing, dividing said chambers, lying between said parallel slides and provided with a finished surface in contact with each, adapted to guide the same in any movement which may take place during reduced pressure in said high pressure chamber, and a rack attached to the slide located in said low pressure chamber, with pinion and shaft adapted to operate the same, the whole substantially as and for the purpose set forth.

5. An adjustable elastic-fluid nozzle comprising a casing in which is provided a high pressure chamber for elastic fluid, and leading therefrom an adjustable nozzle orifice, said nozzle having all its stationary walls identical with portions of the inner walls of said casing, two of said stationary walls being parallel planes between which is fitted a movable wall for purposes of adjustment, said movable wall being provided, near the throat or high pressure end of said nozzle, with two parallel projections or slides, extending at substantially right angles to the axis of said nozzle and in the direction of movement of said wall, one of said projections extending into the high pressure chamber and the other into an adjacent chamber of lower pressure; a combined division wall and guide, being a part of said casing, dividing said chambers, lying between said parallel slides and provided with a finished surface in contact with each, adapted to guide the same in any movement which may take place during reduced pressure in said high pressure chamber, and means for imparting motion to said movable nozzle wall operatively connected to said slide within said low pressure chamber, the whole substantially as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,025,922. SMELTER. ALLEN R. PARTRIDGE, Denver, Colo., assignor to Partridge Smelting and Refining Company, Denver, Colo., a Corporation. Filed Dec. 21, 1910. Serial No. 598,558. (Cl. 75—57.)



1. In combination with a furnace shaft and crucible, a slag box, a slag receiving well connected with the box, conveying buckets in the box for receiving the slag from the crucible and conveying it to the well and automatic means for dumping the buckets.

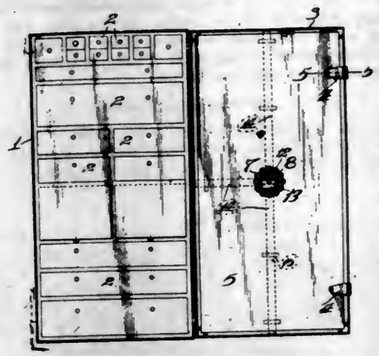
2. A smelter comprising a furnace shaft, a crucible chamber connected therewith, a vertically movable platform in said chamber, a door for the chamber forming an extension of the platform when open and a crucible adapted to pass over the door onto said platform.

3. A smelter comprising a shaft having an open bottom serving as an air inlet, a crucible chamber connected with said bottom, a crucible in said chamber, means for moving the crucible toward and from the bottom of the shaft to adjust the air inlet to the shaft, said chamber having an outlet for the slag and means for introducing air through said outlet into the chamber so that said air is heated by the slag and the heat from the crucible.

4. A smelter comprising a vertical furnace shaft having an open bottom serving as an air inlet, a crucible chamber at the bottom of said shaft, a crucible in said chamber, means for moving the same vertically toward and from the bottom of the shaft to adjust the air inlet to the shaft, a slag box connected with the bottom of the crucible chamber, means in said box for receiving the slag from the crucible and conveying it to a delivery point, and means for passing air through the box into the crucible chamber.

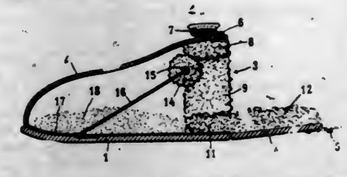
1,025,923. TRUNK-FASTENER. HENRY T. V. PERRY, St. Louis, Mo., assignor to P. C. Murphy Trunk Company, St. Louis, Mo., a Corporation of Missouri. Filed July 30, 1908. Serial No. 446,046. (Cl. 70—103.)

In a device of the class described, the combination with a door having an opening therethrough, of a plate recessed to set in said opening and flanged for securing to the door, a plate perforated coincident with the perforation in said recessed plate and secured to the inside face of the door, a disk having integral trunnions mounted for rotation in said perforations between said plates, a handle pivotally secured to one of said trunnions and occupying the recess in said first mentioned plate, pins carried by said disk, a plurality of locking bars having diagonal slots through which said pins are inserted whereby when said disk is rotated said bars will be moved in a straight line



only, the plate secured to the rear face of the door having integral raised portions to embrace the ends of said bars.

1,025,924. POWDER-RECEPTACLE. WILLIS PIKE, Fresno, Cal. Filed June 22, 1911. Serial No. 634,801. (Cl. 132—28.)



1. A powder receptacle having an opening for the foot at one end, powder distributing material arranged around the mouth of said opening and a closure for said opening having a powder distributing material thereon.

2. A powder receptacle comprising an elongated body having an opening at one end, a closure therefor hinged along the lower edge of said opening and having powder distributing material thereon and powder distributing material arranged inside of said receptacle adjacent the mouth and spaced above the bottom sufficiently for the admission of the foot.

3. In a powder receptacle, an elongated body having an opening at one end, a downwardly movable powder distributing member inside said receptacle adjacent said opening and spaced apart from the bottom of the receptacle to admit the foot between said downwardly movable powder distributing member and the bottom of the receptacle, and a closure for said opening.

4. A powder receptacle comprising an elongated body having an opening at one end, a closure therefor hinged along the lower edge of said opening and powder distributing material secured around the edges of said opening.

5. A powder receptacle comprising an elongated body having an opening at one end, a closure therefor hinged along the lower edge of said opening, powder distributing material secured around the edges of said opening and a vertically movable powder distributing member adjacent said opening.

[Claims 6 to 9 not printed in the Gazette.]

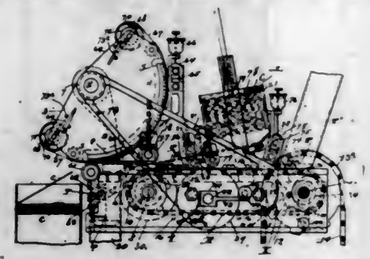
1,025,925. SMOKED MEAT. ANTHONY ROTH, Yonkers, N. Y., assignor of one-half to Henry Seifried, Yonkers, N. Y. Filed Oct. 21, 1911. Serial No. 655,844. (Cl. 99—8.)

1. As an article of manufacture, smoked meat having a coating congealed on the surface of the meat and imper-

vious to moisture from within or from without the meat, the coating being formed of oil of juniper berries, glycerin, molasses, honey, and a filler.

2. As an article of manufacture, smoked meat having a coating congealed on the surface of the meat and impervious to moisture from within or from without the meat, the coating being formed of oil of juniper berries, glycerin, molasses, honey and mutton fat.

1,025,926. COMBINED PRINTING AND ADDRESSING MACHINE. CLAY M. RUNYAN, Lakewood, Ohio. Filed Dec. 24, 1910. Serial No. 599,139. (Cl. 101—1.)



1. In a combined printing and addressing machine, a bed plate, a rotatable upper type holder and a presser roller thereunder, a receptacle for lower type holders from which said typeholders fall by gravity, a carrier provided with engaging means for said lower type holders and adapted to move said typeholders one at a time from said receptacle to a printing position, a pressure roller at the printing position for said lower type-holders, a card receptacle having an inclined rear wall, an adjustable front wall therefor, an automatically acting feed device for said cards adapted to remove said cards one at a time from said card holder and feed them to said pressure roller, inking devices for said upper and lower type holders, a main shaft and mechanism operatively connecting said carrier, said card feeding device and said rotatable upper type holder with said main shaft.

2. In a combined printing and addressing machine, a bed plate, a receptacle for lower type holders, and a receptacle for cards thereon, a carrier adapted to remove said type holders one at a time from said receptacle, a feeding device for said cards, a pressure roller to which said cards and lower type holders are fed, guides for the cards after passing said pressure roller, a rotatable type holder and pressure roller therefor in line with the said guides, said pressure rollers being adjustable.

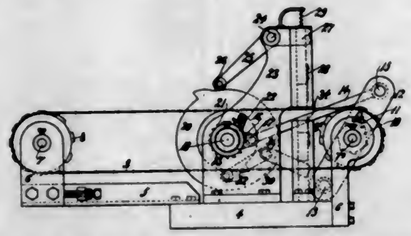
3. In a combined printing and addressing machine, in combination, a bed plate, an upper rotatable type holder thereon, and a shaft therefor, an adjustable pressure roller on said bed plate coöperating with said rotatable type holder, an intermediate shaft and rollers thereon, and a main shaft, a device operatively connecting said main and intermediate shafts, and a connecting means between said intermediate shaft and the shaft for the rotatable type holder, a receptacle for a series of lower type holders on said bed plate, engaging means on said connecting device between said main and intermediate shafts adapted to engage and convey said lower type holders one at a time to the printing positions, of upper and lower type holders, and a feeding device for a series of cards adapted to feed the cards to the printing position for said lower type holders, a device operatively connected with the main shaft for operating said card feeding device, a pressure roll over the printing position for lower type holders, and inking devices for said upper and lower type holders.

4. In a combined printing and addressing machine, a main frame, a bracket thereon and shaft therein, a rotatable upper type holder pivotally mounted on said bracket, a pressure roller in the printing position for said upper type holder, a platform for a series of lower type holders, a receptacle therefor, in which said type holders fall by gravity, upon said platform, a carrier for said type holders adapted to remove them from said receptacle to a printing position for said lower type holders, a feeding mechanism for a series of cards adapted to feed the cards to said printing position for said lower type holder, a pressure roller at the printing position for the lower type holders, said pressure roller adapted to feed the cards to the printing position for the upper type holder.

5. In a combined printing and addressing machine, adapted to print upon opposite sides of a card, successively and independently, in combination, a frame, a receptacle for lower type holders thereon, a longitudinal guide and support for said lower type holders upon which they fall by gravity from said receptacle, a carrier for the lower type holders adapted to remove them one at a time from the receptacle and convey them to the printing position for lower type holders, a card feeding device adapted to feed a card to the printing position for lower type holders, pressure rolls at said printing position, a movable type holder above said bed plate, a pressure roll therefor at the printing position for said upper type holder, the printing positions for upper and lower type holders being independent and spaced apart in the line of travel of said lower type holders.

[Claims 6 to 10 not printed in the Gazette.]

1,025,927. CUTTING MACHINERY. GODFREY P. SCHMIDT, New York, N. Y., assignor to Hazlitt A. Cuppy, New York, N. Y. Filed July 1, 1910. Serial No. 569,941. (Cl. 107—21.)

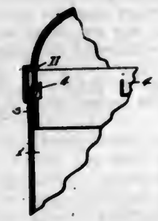


1. In a machine of the class described, a framework and a pair of sprockets thereupon carrying an endless chain, a driving shaft provided with cams and a crank, a lever pivoted upon said frame and connected to said crank, and means in combination therewith for rotating one of said sprockets, a pair of cutters adapted to travel in a guideway, a pair of levers pivoted upon said frame and adapted to operate said cutters, means in combination therewith whereby said pair of levers are operated by said cams.

2. In a machine of the class described, a framework and a pair of sprockets thereupon carrying an endless chain, a driving shaft provided with cams and a crank, a lever pivoted upon said frame and connected to said crank, and means in combination therewith for rotating one of said sprockets, a pair of cutters adapted to travel in a guideway, a pair of levers pivoted upon said frame and adapted to operate said cutters, and means in combination therewith whereby said pair of levers are operated by said cams, said sprockets rotated intermittently and said cutters operated after each time said sprockets are rotated.

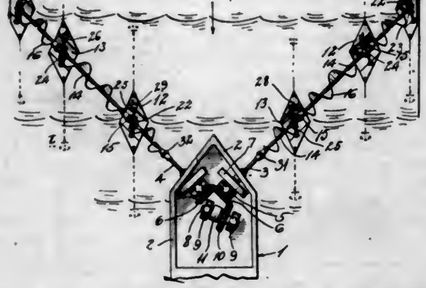
1,025,928. CASING FOR INCANDESCENT-ELECTRIC-LAMP SOCKETS. CONRAD C. SCHOENECK, Syracuse, N. Y. Filed Jan. 11, 1911. Serial No. 602,092. (Cl. 173—362.)

1. In a casing for incandescent electric sockets, a shell member, and a cap member, one of said members being formed with internal shoulders spaced apart circumferentially and located in arcs of less radii than the radii of the portions between said shoulders, and the member formed with the internal shoulders being formed with bearing faces below said shoulders for engaging the other member and such other member being formed with external shoulders arranged in arcs of greater radii than the radii of the inner edges of the first-mentioned shoulders and being adapted to interlock with the first-mentioned shoulders, substantially as and for the purpose described.



2. In a casing for incandescent electric sockets, a shell member and a cap member, the cap member being formed with internal shoulders spaced apart circumferentially and located in arcs of less radii than the radii of the portions between said shoulders, and the cap member being formed with bearing faces below said shoulders for engaging the shell member and the shell member being formed with external shoulders arranged in arcs of greater radii than the radii of the inner edges of the first-mentioned shoulders and being adapted to interlock with the first-mentioned shoulders, and the cap member being formed with an internal abutment near its upper end and the shell member shouldering against said abutment when the shoulders of the members are interlocked, substantially as and for the purpose specified.

1,025,929. WAVE-MOTOR. HENRY J. SNOOK, Santa Monica, Cal. Filed July 13, 1911. Serial No. 638,273. (Cl. 61—49.)



1. A wave motor comprising a screw having anchored supports for its ends, said screw being arranged to be operated upon by the movement of the waves of the ocean, and means for receiving motion therefrom.

2. A wave motor, comprising screw shafting, a fixed support and floating supports for said shafting for holding the shafting within the waters of the sea, so that the waves will rotate the same, and means for receiving and transmitting movement therefrom.

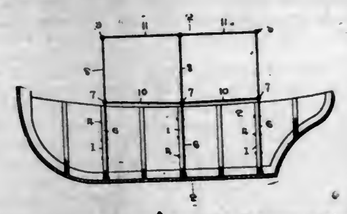
3. A wave motor comprising, flexible screw shafting, means for movably supporting the same in the waves of the sea, and means for obtaining movement therefrom.

4. A wave motor comprising a series of screw shafts, universal couplings joining the said shafts, and gearing receiving movement from said shafts when they are turned by the waves for performing work.

5. A wave motor, comprising a pier, flexible rotary shafting mounted thereon, and extending outwardly therefrom toward the approaching waves of the sea, and a series of supports secured at suitable distances from the said pier to support the shaft at points along the length thereof.

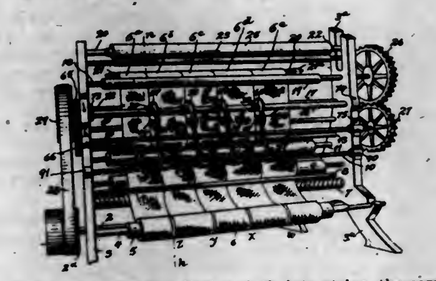
[Claims 6 to 8 not printed in the Gazette.]

1,025,930. VESSEL-RAISING DEVICE. BYRON J. SPENCER, Fort Stevens, Oreg. Filed Aug. 4, 1911. Serial No. 642,326. (Cl. 114—50.)



A sling for raising ships and the like comprising cables adapted to be disposed against the frames of a ship, U-shaped anchoring members having their ends extended through said frames and impinging said cables thereagainst, rings secured to the free ends of said cables, and horizontally arranged cables secured to said rings.

1,025,931. MACHINE FOR SLITTING CLOTH. BERNARD T. STEBER, Utica, N. Y., assignor to New Hartford Cotton Manufacturing Company, New Hartford, N. Y., a Corporation of New York. Filed Aug. 23, 1911. Serial No. 645,507. (Cl. 164—65.)



1. In a machine for slitting cloth into strips, the combination of guiding means which enter between two strands of each warp and weft thread, an adjacent support to prevent the cloth from sagging away from said guiding means and cutting means which enter between the same two strands of warp thread, with means for pulling the cloth in a direction longitudinal with its warp thread.

2. In a machine for cutting cloth into strips, the combination of guiding means which enter between two strands of each warp and weft thread, an adjacent support to prevent the cloth from sagging from said guiding means and cutting means which cut between the same two strands of warp thread with means for pulling the cloth in a direction longitudinal with its warp thread and means for rolling the strips into small rolls.

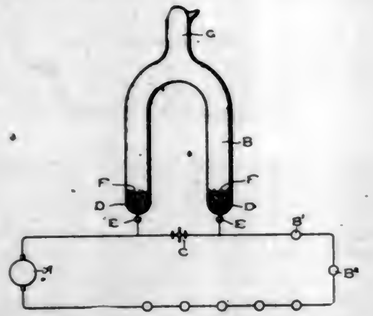
3. In a machine for slitting cloth into strips, the combination of guiding means which enter between two strands of each warp and weft thread, an adjacent support to prevent the cloth from sagging from said guiding means and cutting means which enter between two strands of warp thread, with means for pulling the cloth in a direction longitudinal with its warp thread.

4. In a machine for cutting woven cloth comprising a series of threads extending in one direction, and a series of crossing threads into strips, the combination of guiding means which extend through the cloth between two given strands each of the warp and weft threads which form weave, means for holding the cloth upon the guiding means adjacent thereto, and cutting means which cut the crossing threads.

5. In a machine for slitting cloth, the combination of a toothed guiding member, extending through the cloth between two strands of warp thread from one face of the cloth, and a toothed member intermeshing therewith on the other face of the cloth, with means for pulling the cloth in a direction longitudinal with the warp thread.

[Claims 6 to 19 not printed in the Gazette.]

1,025,932. MEANS FOR PRODUCING LIGHT. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Original application filed Mar. 5, 1900, Serial No. 7,265. Divided and this application filed Apr. 11, 1902. Serial No. 102,415. (Cl. 176—42.)



1. The combination with an arc drawn from a mercury terminal, of means for continuously furnishing to the arc diluted salts of alkali metals.

2. The combination of a glass container, a mercury electrode therein, means for maintaining an arc from said electrode and means for continuously furnishing to the arc metallic compounds in a chemically inert condition, said compounds being ionizable at the temperature of the arc.

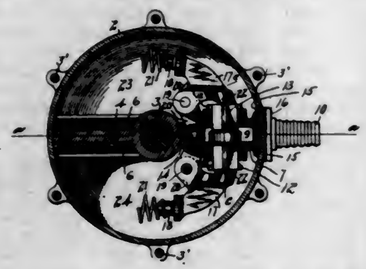
3. The combination with an arc drawn from a mercury terminal, of means for continuously furnishing to the arc halogen metallic salts.

4. The combination with an arc drawn from a mercury terminal, of means for continuously furnishing to the arc iodids of alkali metals.

5. The combination with an arc drawn from a mercury terminal, of means for continuously furnishing to the arc anhydrous iodids of alkali metals furnishing red rays.

[Claims 6 to 17 not printed in the Gazette.]

1,025,933. SEMIROTARY MOTOR. WILLIAM G. STOWELL, Dayton, Ohio, assignor to The W. G. Stowell Company, Dayton, Ohio, a Corporation of Ohio. Filed May 14, 1909. Serial No. 495,886. (Cl. 138—1.)



1. In a motor of the type specified, a cylinder and a piston, in combination with inlet and exhaust valves located on the interior of the cylinder, and valve actuators pivoted independent of the piston and located between the piston and the valve housing, said valve actuators so mounted being adapted to apply force to both of said valves in lines approximately parallel with the planes of the movement of said valves, throughout the entire movement of said valves.

2. In a motor of the type specified, a cylinder, a piston, valves located in said cylinder, valve actuators pivoted free from the piston and between the piston and the valve housing, said valve actuators imparting to both valves force on lines approximately parallel to the planes of the movement of said valves throughout their entire movement, and springs adapted to impart the final movement to said valve actuators.

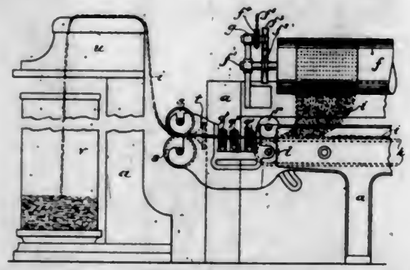
3. In a motor of the type specified, the combination with a cylinder and a piston therein, of a valve housing within said cylinder, inlet and exhaust valves mounted in said housing, valve actuators mounted upon pivots eccentric to the piston shaft, and free from connection with the piston and springs supported upon said valve actuators and adapted to be compressed by the engagement of the piston therewith and to impart the final movement to said valves after said valves have been initially moved by the piston.

4. In a semi-rotary water motor, the combination with a cylinder, a piston, inlet and exhaust valves, of spring-supporting valve actuators pivoted within said cylinder, the said pivots being free from connection with the piston, and the said valve actuators being adapted to be given their initial movement by the piston, and their final movement by the springs in reversing the piston to change the direction of the flow of motive fluid to the piston.

5. In a semi-rotary water motor, the combination with a cylinder, a piston, an inlet and exhaust valve, of valve actuators mounted independently of the piston and located between the piston and the valve housing, said actuators engaging the ends of both valves at points approximately in line with the longitudinal axes of said valves and adapted to apply force to the valves approximately parallel to the plane of the valve movement throughout the entire valve movement, and springs adapted to be compressed by the action of the piston to impart the final movement to the valves through said actuators after said valves have been initially opened by the piston engaging the actuators.

[Claims 6 and 7 not printed in the Gazette.]

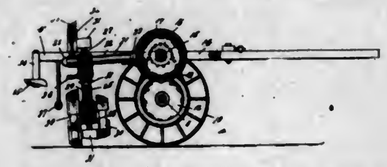
1,025,934. COMBING-MACHINE. ALBERT TOMLINSON, Manchester, England, assignor to John Hetherington and Sons Limited, Manchester, England. Filed Nov. 12, 1910. Serial No. 592,016. (Cl. 19—6.)



In combination, a combing-cylinder, a stripping brush adapted to strip the waste fibers therefrom, a rotating condensing cylinder to which the waste fibers are fed, a traveling conveyer, means for transferring said fibers to said conveyer in an open condition, an evening and consolidating roller operatively associated with said conveyer to engage the fibers thereon, a trumpet, a series of drawing rollers to receive the fibers from said traveling conveyer and deliver the same into said trumpet, calender rollers for gripping the material after it issues from said trumpet, and a coiler into which the material passes from the calender rollers.

1,025,935. COTTON-CHOPPER. JESSE C. TOWELL, Muncie, Ind., assignor of one-half to Arthur H. Towell, Muncie, Ind. Filed May 6, 1911. Serial No. 625,550. (Cl. 97—46.)

1. A plant chopper comprising a main transportable vehicle, a main chopper frame pivotally mounted thereon on a transverse axis, a supplemental chopper frame pivotally mounted on the main chopper frame on a longitudinal axis, a rotary chopper carried by the lower end of the supplemental chopper frame, a spring supporting a portion of the weight of the main and supplemental chopper frames, and means for rotating the chopper.



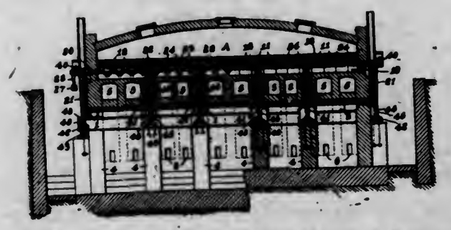
2. A plant chopper comprising a main transportable vehicle, a rearwardly extending main chopper frame pivotally mounted thereon on a transverse axis to swing independent of the main vehicle frame, a supplemental chopper frame pivotally mounted on the rearward extension of the main chopper frame on a longitudinal axis, and a rotary chopper carried by the lower end of the supplemental chopper frame.

3. A plant chopper comprising traction wheels, a main frame carried by said traction wheels, a main chopper frame pivotally mounted on the main frame on a transverse axis, a supplemental chopper frame pivotally mounted on the main chopper frame on a longitudinal axis, a rotary chopper carried by the lower end of the supplemental chopper frame, intermediate gearing between the traction wheels and rotary chopper, and a spring for supporting a portion of the weight of the main chopper frame and parts carried thereby.

4. A plant chopper comprising traction wheels, a main frame carried by said traction wheels, a main chopper frame pivotally mounted on the main frame on a transverse axis, a supplemental chopper frame pivotally mounted on the main chopper frame on a longitudinal axis, a rotary chopper carried by the lower end of the supplemental chopper frame, a sprocket wheel connected to said rotary chopper, an intermediate sprocket wheel between said first mentioned sprocket wheel and the traction wheels, a sprocket chain carried by said two sprocket wheels and provided with chopper blades, and intermediate gearing between the intermediate sprocket wheel and the traction wheels.

5. A plant chopper comprising traction wheels, a main frame carried by said traction wheels, a rearwardly extending main chopper frame pivotally mounted on the main frame on a transverse axis to swing independent of the main vehicle frame, a supplemental chopper frame pivotally mounted on the rearward extension of the main chopper frame on a longitudinal axis, a rotary chopper carried by the lower end of the supplemental chopper frame, and intermediate gearing between the traction wheels and rotary chopper.

1,025,936. ANNEALING-LEER FOR GLASS ARTICLES. WARREN R. VALENTINE, Ford City, Pa. Filed July 25, 1910. Serial No. 573,596. (Cl. 49—47.)



1. In an annealing leer for glass articles, a floor composed of separate rows of tiles, in combination with connector-strips set into the upper portions of the opposite ends of the tiles in adjacent rows and bridging the space between the rows.

2. In an annealing leer for glass sheets, the combination with a floor composed of tiles arranged transversely side by side, and having their upper side edges cut away to form longitudinal grooves between adjacent tiles, of glass-supporting rails arranged in the grooves, and means for moving the rails vertically.

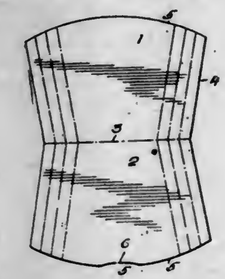
3. In an annealing leer for glass sheets, the combination with a floor composed of rows of tiles arranged transversely side by side, and having their upper side edges cut away to form longitudinal grooves between adjacent tiles in each row, the grooves in the successive rows being in longitudinal alinement, of longitudinal glass-supporting rails arranged in the alining grooves, and means for moving the rails vertically.

4. In an annealing leer for glass sheets, the combination with a floor composed of separated transverse rows of tiles, and connector-strips set into the upper portions of the opposite ends of the tiles in adjacent rows and bridging the spaces between the rows, of transverse rock-shafts arranged in the spaces beneath the connector-strips, arms fastened to the rock-shafts between the connector-strips, longitudinal grooves in the tiles in alinement with the arms, longitudinal glass-supporting rails carried by the arms and arranged in the grooves, and means for turning the rock-shafts in unison.

5. In an annealing leer for glass sheets, the combination with a series of transverse rock-shafts arranged within the annealing-chamber, arms on the rock-shafts, and a series of longitudinal glass-supporting rails carried by the arms, of supports for the rock-shafts adjustably mounted and accessible beneath the annealing-chamber and projecting through the floor into the annealing-chamber.

[Claims 6 to 14 not printed in the Gazette.]

1,025,937. COLLAPSIBLE DRINKING-CUP. EUGENE VON VARGYAS and JOSEPH W. DEIDRICK, Pittsburgh, Pa. Filed July 24, 1911. Serial No. 640,221. (Cl. 229—1.)



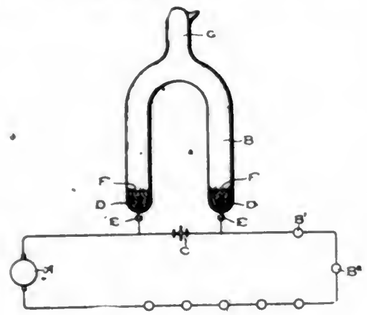
A drinking cup in substantially flat form and made from a single blank consisting of two similar parts integral with each other and adapted to be folded upon each other along the middle edge of the blank, each of said parts being formed with flaps which extend lengthwise along its side edges and which flaps are twice folded longitudinally and in the finished cup are interlocked and lie on one side of the finished cup outside the latter.

1,025,938. COMBINED LOCK AND ESCUTCHEON-PLATES. WILLIAM H. F. YOUNG, Muncie, Ind. Original application filed July 15, 1908, Serial No. 443,603. Divided and this application filed May 16, 1910. Serial No. 561,669. (Cl. 70—16.)

1. In a lock of the character described, comprising an escutcheon plate, a surface plate removably secured to the escutcheon plate, a lock-carrying barrel or casing extending inwardly from the surface plate parallel with the escutcheon plate, and a second escutcheon plate adjustably secured to the barrel or lock casing whereby the escutcheon plates may be moved to or from each other for fitting doors of different thicknesses.

2. In a lock of the character described, comprising an escutcheon plate, a face plate removably secured to the

1,025,932. MEANS FOR PRODUCING LIGHT. CHARLES P. STEINMETZ, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Original application filed Mar. 5, 1900, Serial No. 7,265. Divided and this application filed Apr. 11, 1902. Serial No. 102,415. (Cl. 176—42.)



1. The combination with an arc drawn from a mercury terminal, of means for continuously furnishing to the arc diluted salts of alkali metals.

2. The combination of a glass container, a mercury electrode therein, means for maintaining an arc from said electrode and means for continuously furnishing to the arc metallic compounds in a chemically inert condition, said compounds being ionizable at the temperature of the arc.

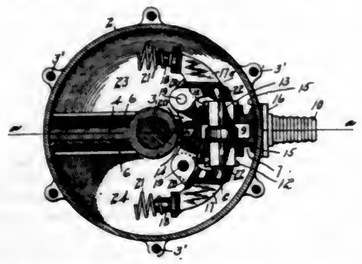
3. The combination with an arc drawn from a mercury terminal, of means for continuously furnishing to the arc halogen metallic salts.

4. The combination with an arc drawn from a mercury terminal, of means for continuously furnishing to the arc iodids of alkali metals.

5. The combination with an arc drawn from a mercury terminal, of means for continuously furnishing to the arc anhydrous iodids of alkali metals furnishing red rays.

[Claims 6 to 17 not printed in the Gazette.]

1,025,933. SEMIROTARY MOTOR. WILLIAM G. STOWELL, Dayton, Ohio, assignor to The W. G. Stowell Company, Dayton, Ohio, a Corporation of Ohio. Filed May 14, 1909. Serial No. 495,886. (Cl. 138—1.)



1. In a motor of the type specified, a cylinder and a piston, in combination with inlet and exhaust valves located on the interior of the cylinder, and valve actuators pivoted independent of the piston and located between the piston and the valve housing, said valve actuators so mounted being adapted to apply force to both of said valves in lines approximately parallel with the planes of the movement of said valves, throughout the entire movement of said valves.

2. In a motor of the type specified, a cylinder, a piston, valves located in said cylinder, valve actuators pivoted free from the piston and between the piston and the valve housing, said valve actuators imparting to both valves force on lines approximately parallel to the planes of the movement of said valves throughout their entire movement, and springs adapted to impart the final movement to said valve actuators.

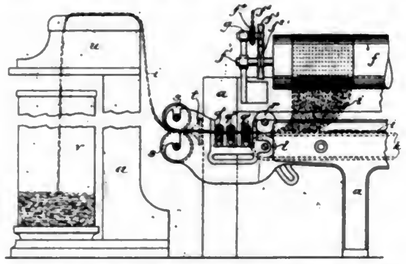
3. In a motor of the type specified, the combination with a cylinder and a piston therein, of a valve housing within said cylinder, inlet and exhaust valves mounted in said housing, valve actuators mounted upon pivots eccentric to the piston shaft, and free from connection with the piston and springs supported upon said valve actuators and adapted to be compressed by the engagement of the piston therewith and to impart the final movement to said valves after said valves have been initially moved by the piston.

4. In a semi-rotary water motor, the combination with a cylinder, a piston, inlet and exhaust valves, of spring-supporting valve actuators pivoted within said cylinder, the said pivots being free from connection with the piston, and the said valve actuators being adapted to be given their initial movement by the piston, and their final movement by the springs in reversing the piston to change the direction of the flow of motive fluid to the piston.

5. In a semi-rotary water motor, the combination with a cylinder, a piston, an inlet and exhaust valve, of valve actuators mounted independently of the piston and located between the piston and the valve housing, said actuators engaging the ends of both valves at points approximately in line with the longitudinal axes of said valves and adapted to apply force to the valves approximately parallel to the plane of the valve movement throughout the entire valve movement, and springs adapted to be compressed by the action of the piston to impart the final movement to the valves through said actuators after said valves have been initially opened by the piston engaging the actuators.

[Claims 6 and 7 not printed in the Gazette.]

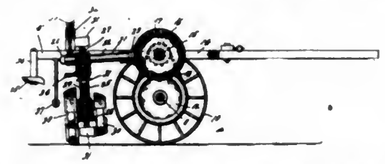
1,025,934. COMBING-MACHINE. ALBERT TOMLINSON, Manchester, England, assignor to John Hetherington and Sons Limited, Manchester, England. Filed Nov. 12, 1910. Serial No. 592,016. (Cl. 19—6.)



In combination, a combing-cylinder, a stripping brush adapted to strip the waste fibers therefrom, a rotating condensing cylinder to which the waste fibers are fed, a traveling conveyer, means for transferring said fibers to said conveyer in an open condition, an evening and consolidating roller operatively associated with said conveyer to engage the fibers thereon, a trumpet, a series of drawing rollers to receive the fibers from said traveling conveyer and deliver the same into said trumpet, calender rollers for gripping the material after it issues from said trumpet, and a coiler into which the material passes from the calender rollers.

1,025,935. COTTON-CHOPPER. JESSE C. TOWELL, Muncie, Ind., assignor of one-half to Arthur H. Towell, Muncie, Ind. Filed May 6, 1911. Serial No. 625,550. (Cl. 97—46.)

1. A plant chopper comprising a main transportable vehicle, a main chopper frame pivotally mounted thereon on a transverse axis, a supplemental chopper frame pivotally mounted on the main chopper frame on a longitudinal axis, a rotary chopper carried by the lower end of the supplemental chopper frame, a spring supporting a portion of the weight of the main and supplemental chopper frames, and means for rotating the chopper.



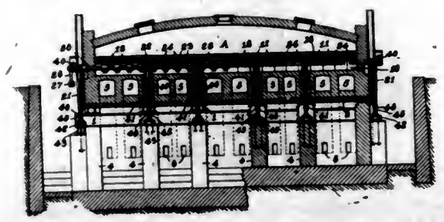
2. A plant chopper comprising a main transportable vehicle, a rearwardly extending main chopper frame pivotally mounted thereon on a transverse axis to swing independent of the main vehicle frame, a supplemental chopper frame pivotally mounted on the rearward extension of the main chopper frame on a longitudinal axis, and a rotary chopper carried by the lower end of the supplemental chopper frame.

3. A plant chopper comprising traction wheels, a main frame carried by said traction wheels, a main chopper frame pivotally mounted on the main frame on a transverse axis, a supplemental chopper frame pivotally mounted on the main chopper frame on a longitudinal axis, a rotary chopper carried by the lower end of the supplemental chopper frame, intermediate gearing between the traction wheels and rotary chopper, and a spring for supporting a portion of the weight of the main chopper frame and parts carried thereby.

4. A plant chopper comprising traction wheels, a main frame carried by said traction wheels, a main chopper frame pivotally mounted on the main frame on a transverse axis, a supplemental chopper frame pivotally mounted on the main chopper frame on a longitudinal axis, a rotary chopper carried by the lower end of the supplemental chopper frame, a sprocket wheel connected to said rotary chopper, an intermediate sprocket wheel between said first mentioned sprocket wheel and the traction wheels, a sprocket chain carried by said two sprocket wheels and provided with chopper blades, and intermediate gearing between the intermediate sprocket wheel and the traction wheels.

5. A plant chopper comprising traction wheels, a main frame carried by said traction wheels, a rearwardly extending main chopper frame pivotally mounted on the main frame on a transverse axis to swing independent of the main vehicle frame, a supplemental chopper frame pivotally mounted on the rearward extension of the main chopper frame on a longitudinal axis, a rotary chopper carried by the lower end of the supplemental chopper frame, and intermediate gearing between the traction wheels and rotary chopper.

1,025,936. ANNEALING-LEER FOR GLASS ARTICLES. WARREN R. VALENTINE, Ford City, Pa. Filed July 25, 1910. Serial No. 573,596. (Cl. 49—47.)



1. In an annealing leer for glass articles, a floor composed of separate rows of tiles, in combination with connector-strips set into the upper portions of the opposite ends of the tiles in adjacent rows and bridging the space between the rows.

2. In an annealing leer for glass sheets, the combination with a floor composed of tiles arranged transversely side by side, and having their upper side edges cut away to form longitudinal grooves between adjacent tiles, of glass-supporting rails arranged in the grooves, and means for moving the rails vertically.

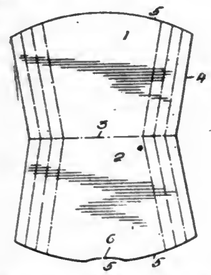
3. In an annealing leer for glass sheets, the combination with a floor composed of rows of tiles arranged transversely side by side, and having their upper side edges cut away to form longitudinal grooves between adjacent tiles in each row, the grooves in the successive rows being in longitudinal alinement, of longitudinal glass-supporting rails arranged in the alining grooves, and means for moving the rails vertically.

4. In an annealing leer for glass sheets, the combination with a floor composed of separated transverse rows of tiles, and connector-strips set into the upper portions of the opposite ends of the tiles in adjacent rows and bridging the spaces between the rows, of transverse rock-shafts arranged in the spaces beneath the connector-strips, arms fastened to the rock-shafts between the connector-strips, longitudinal grooves in the tiles in alinement with the arms, longitudinal glass-supporting rails carried by the arms and arranged in the grooves, and means for turning the rock-shafts in unison.

5. In an annealing leer for glass sheets, the combination with a series of transverse rock-shafts arranged within the annealing-chamber, arms on the rock-shafts, and a series of longitudinal glass-supporting rails carried by the arms, of supports for the rock-shafts adjustably mounted and accessible beneath the annealing-chamber and projecting through the floor into the annealing-chamber.

[Claims 6 to 14 not printed in the Gazette.]

1,025,937. COLLAPSIBLE DRINKING-CUP. EUGENE VON VARGYAS and JOSEPH W. DEIDRICK, Pittsburgh, Pa. Filed July 24, 1911. Serial No. 640,221. (Cl. 229—1.)



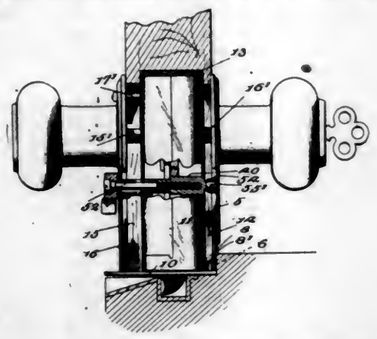
A drinking cup in substantially flat form and made from a single blank consisting of two similar parts integral with each other and adapted to be folded upon each other along the middle edge of the blank, each of said parts being formed with flaps which extend lengthwise along its side edges and which flaps are twice folded longitudinally and in the finished cup are interlocked and lie on one side of the finished cup outside the latter.

1,025,938. COMBINED LOCK AND ESCUTCHEON-PLATES. WILLIAM H. F. YOUNG, Muncie, Ind. Original application filed July 15, 1908, Serial No. 443,693. Divided and this application filed May 16, 1910. Serial No. 561,669. (Cl. 70—16.)

1. In a lock of the character described, comprising an escutcheon plate, a surface plate removably secured to the escutcheon plate, a lock-carrying barrel or casing extending inwardly from the surface plate parallel with the escutcheon plate, and a second escutcheon plate adjustably secured to the barrel or lock casing whereby the escutcheon plates may be moved to or from each other for fitting doors of different thicknesses.

2. In a lock of the character described, comprising an escutcheon plate, a face plate removably secured to the

escutcheon plate at one end at right angles thereto, a barrel or lock casing secured to the face plate and extending parallel with the escutcheon plate, a second escutcheon plate adjustably secured to the barrel or lock casing whereby the escutcheon plates may be adjusted to or from each other for fitting doors of different thicknesses, and operating means extending out through opposite sides of the barrel and extending through the escutcheon plates.



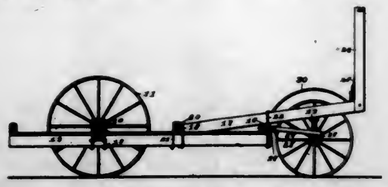
3. In a lock, comprising an escutcheon plate, a face plate carried by the escutcheon plate, a lock casing carried by the face plate, and a second escutcheon plate carried by the lock casing.

4. In a lock, comprising an escutcheon plate, a face plate carried by the escutcheon plate, a lock casing carried by the face plate, and a second escutcheon plate adjustably carried by the casing.

5. In a lock, comprising an escutcheon plate, a face plate removably secured to the escutcheon plate, a lock casing rigidly carried by the face plate and parallel with the escutcheon plate, and a second escutcheon plate adjustably carried by the lock casing.

[Claims 6 to 12 not printed in the Gazette.]

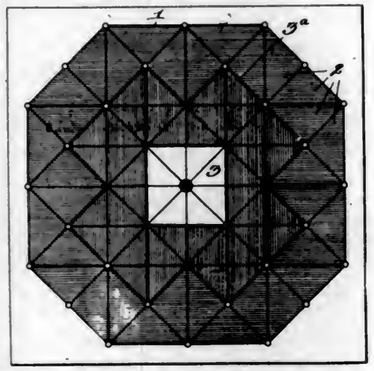
1,025,939. HAY-RACK. JOSEPH ZBORNIK, Fort Atkinson, Iowa. Filed Mar. 2, 1911. Serial No. 611,843. (Cl. 21—74.)



In combination, with rear and front wheeled axles, a bed located below the rear axle and secured thereto, a pair of beams having their inner ends spaced apart and secured on top of said bed and having their outer ends converging toward each other, a vertical standard secured between the outer ends of said beams, a cross beam interposed between the inner end of the bed and intermediate portions of the beams, and a reach pivoted to the cross beam and connected to the front axle.

1,025,940. GAME-BOARD. WILLIAM J. ARCHER, Washingtonville, Ohio, assignor of one-third to F. F. De Bolt, East Liverpool, Ohio. Filed Mar. 13, 1911. Serial No. 614,045. (Cl. 46—64.)

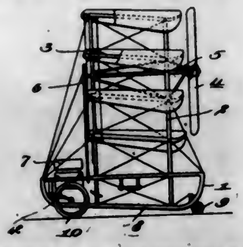
1. A game of the class described, comprising a board having an octagonal outline thereon, the space inclosed by said outline being divided into a plurality of triangles, said triangles being arranged in sets and said sets distinguished from one another, one of said sets being outlined to form a substantial square, a plurality of playing pieces of the same identity, and an additional playing piece of a different identity.



2. A game of the class described, comprising a board having an octagonal outline thereon, the space inclosed by said outline being divided into a plurality of triangles arranged in sets, said sets being distinguished from one another and the apices of one of said sets being provided with certain indications, a plurality of playing pieces of the same identity adapted to be initially positioned on the aforesaid indications, and an additional playing piece of a different identity adapted to be initially positioned in a predetermned place on said board, the first mentioned playing pieces being limited in their movements on the board.

3. A game of the class described, comprising a board having an octagonal outline thereon, the space inclosed by said outline being divided into a plurality of triangles arranged in sets, each of said sets being distinguished from the other in color and the apices of the triangles in one of said sets being provided with certain indications, the triangles of one of said sets being outlined to form a substantial central square, a plurality of playing pieces of the same identity adapted to be initially positioned on the indications at the apices of the triangles in one set, and an additional playing piece of a different identity adapted to be initially positioned in the aforesaid central square, the first mentioned playing pieces being restricted in their movements on said board.

1,025,941. AEROPLANE. RENÉ ARNOUX, Paris, France. Original application filed Nov. 20, 1909, Serial No. 529,153. Divided and this application filed June 24, 1911. Serial No. 635,146. (Cl. 244—2.)

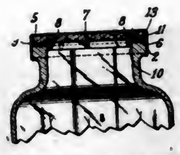


1. In an aeroplane, a frame provided with a relatively fixed shoe, landing wheels, and means for yieldably mounting said wheels with respect to said frame to permit said shoe to contact with and produce a braking action upon the ground during landing of the aeroplane and causing said wheels to normally project below said shoe and to support the aeroplane.

2. In an aeroplane, a frame provided with a long and straight skid or shoe, a landing wheel arranged toward the front of said skid or shoe, and a spring connection between said frame and landing wheel to permit said skid or shoe to descend relatively to the landing wheel and engage substantially uniformly throughout its length with the ground.

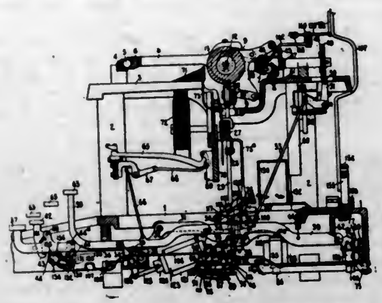
3. In an aeroplane, the combination of a main supporting frame having a substantially straight longitudinally extending skid or shoe rigidly connected in fixed relation thereto, a landing wheel arranged toward the front of the skid or shoe, and a spring connection between said landing wheel and frame and adapted to support the forward end of the skid or shoe in an upwardly and forwardly inclined position with respect to the ground, said spring connection being yieldable to permit the skid or shoe to descend relatively to the landing wheel and engage the ground to produce a braking action thereon during landing of the aeroplane.

1,025,942. COVER FOR HERMETICALLY CLOSING JARS OR VESSELS. JOHN B. BELLAMY, Wheeling, W. Va., assignor to Hazel-Atlas Glass Company, Wheeling, W. Va., a Corporation of West Virginia. Filed Jan. 13, 1912. Serial No. 671,071. (Cl. 215—83.)



A cover for closing jars or vessels, which consists in a cap, a compressible washer, and a holding-band, said holding-band having ends detachably connected with each other and locking means comprising a projection extending inwardly from said holding band adapted to hold the cap and washer in operative relation with the band when the cap is being applied to the jar and adapted to become disengaged from the cap and washer when the band is unfastened in opening the jar.

1,025,943. TYPE-WRITING MACHINE. BYRON A. BROOKS, New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 22, 1911. Serial No. 645,350. (Cl. 197—12.)



1. In a typewriting machine, the combination of escapement devices, a universal bar, keys for actuating said universal bar, lost motion connections between said universal bar and certain of said escapement devices, actuating devices separate from said keys but operative during the stroke thereof, and connections between said actuating devices and certain of said escapement devices.

2. In a typewriting machine, the combination with escapement devices including a dog rocker, of a universal bar, keys operative on said universal bar, mechanical lost motion connections between said universal bar and said dog rocker, actuating devices separate from said keys but operative during the stroke thereof, and connections between said actuating devices and said dog rocker.

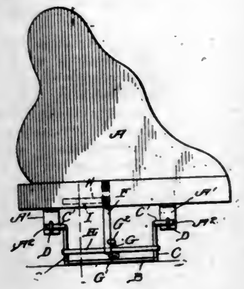
3. In a typewriting machine, the combination of escapement devices, a rock shaft connected to certain of said escapement devices, a universal bar, keys operative on said universal bar, mechanical lost motion connections between said universal bar and said rock shaft, actuating devices separate from said keys but operative during the stroke thereof, and connections between said actuating devices and said rock shaft.

4. In a typewriting machine, the combination of escapement devices, a rock shaft connected to certain of said escapement devices, a universal bar, keys operative on said universal bar, mechanical lost motion connections between said universal bar and said rock shaft, actuating devices separate from said keys, and connections between said actuating devices and said rock shaft.

5. In a typewriting machine, the combination of escapement devices, a rock shaft connected to certain of said escapement devices, a universal bar, keys operative on said universal bar, mechanical lost motion connections between said universal bar and said rock shaft, actuating devices separate from said keys, and connections between said actuating devices and said rock shaft, said actuating devices being brought into operation by a preliminary actuation of said keys.

[Claims 6 to 55 not printed in the Gazette.]

1,025,944. COLLAPSIBLE OR FALLING TARGET. CHARLES B. ELLIOTT, U. S. Army. Filed Mar. 29, 1911. Serial No. 617,569. (Cl. 124—15.)



1. In a device of the kind described, a base, a target pivotally connected to said base adjacent the forward end thereof, spring members carried by said base and target respectively, and adapted to engage each other, together with a locking device carried by the base and adapted to hold said spring members in locked engagement, together with a striker carried by the target and adapted to disengage the said locking device, as set forth.

2. In a device of the kind described, a base, a target pivotally connected therewith, a spring bar carried by the base, a spring finger carried by the target and adapted to engage the said bar, a hook carried by the base and adapted to engage the finger, and a striker pivoted to the target, and supported in a horizontal position thereon, said striker being adapted to engage the hook for the purpose of disengaging the same from the finger.

3. In a device of the kind described, a base having uprights provided with trunnions, a target pivotally connected to the said trunnions, a spring bar connecting the uprights, a depending springy finger carried by the target, and adapted to engage the spring bar, a hook pivotally connected to the base and adapted to engage the spring finger, and a striker pivotally connected to the target, a support for normally holding said striker in a horizontal position, said striker being disengaged from said support by the impact of a bullet, said striker being adapted to

engage the hook in its descent, thereby disengaging said hook from the spring finger, said finger and bar acting to project the target rearwardly as soon as the locking connection is broken, as specified.

4. A device of the kind described comprising a base, a target pivotally connected therewith, a horizontal member attached to said base, a depending member carried by said target and adapted to contact with said horizontal member, a locking device carried by said base for holding said horizontal and depending members in contact, and a gravity operated striker carried by said target and adapted to engage said locking device for the purpose of unlocking the same.

1,025,945. POLISHING. PETER FIREMAN, Washington, D. C., assignor to Magnetic Pigment Company, New York, N. Y., a Corporation of New York. Filed Oct. 31, 1907. Serial No. 400,004. (Cl. 51—1.)

1. A polishing agent, consisting of a suitable vehicle, and an abrading material whose principal constituent is precipitated magnetic ferro-ferric oxid; substantially as described.

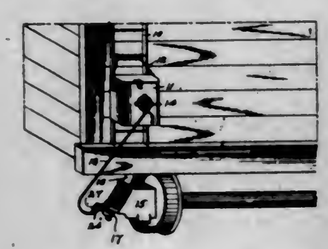
2. A polishing agent, consisting of a suitable vehicle, and an abrading material made up of a mixture of precipitated magnetic ferro-ferric oxid and rouge; substantially as described.

1,025,946. POLISHING COMPOUND. PETER FIREMAN, Washington, D. C., assignor to Magnetic Pigment Company, New York, N. Y., a Corporation of New York. Filed Jan. 15, 1909, Serial No. 472,539. Renewed Mar. 30, 1912. Serial No. 687,527. (Cl. 51—1.)

1. A polishing agent for plate glass polishing machines, consisting of chemically precipitated magnetic oxid of iron, water, and a soluble compound; substantially as described.

2. A polishing agent for plate glass polishing machines, consisting of chemically precipitated magnetic oxid of iron, water, and a soluble compound, the specific gravity of the mixture when its ingredients are intimately intermingled by stirring being approximately one to three degrees Baumé, and the specific gravity of liquid solution, after settling, being approximately .4 to 1.2 degrees Baumé, substantially as described.

1,025,947. COOLER FOR HOT BOXES FOR RAILWAY-CARS. ERNEST S. HAMMOND, Valley Junction, Iowa. Filed Dec. 26, 1908. Serial No. 469,437. (Cl. 64—28.)



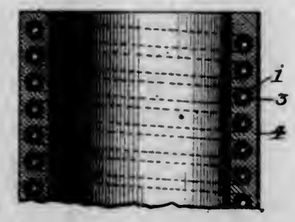
1. In an apparatus for cooling hot boxes of railway cars, a tank, means for supporting the tank on a car, a hose leading from said tank and having a nozzle, means carried by the journal box for engaging and securing the nozzle in position to play upon the bearing, said means comprising a clamp engaging the bottom wall of the journal box, an eye adjustably carried by said clamp and engaging the nozzle of said hose, and means carried by the eye and engaging the clamp for locking said eye in its adjusted position.

2. In combination with a journal box, a means for cooling same comprising in combination a suitably supported tank, a hose leading from said tank to the journal box, a nozzle carried by said hose, a clamp secured to the journal box, an eye adjustably secured to said clamp, and engaging said nozzle for supporting said hose, means for securing said eye in its adjusted position, means integral with said clamp for supporting the cover of the journal box in its open position, and means carried by the nozzle for regulating the flow of liquid from the tank.

1,025,948. STABLE HYDROGEN-PEROXID SOLUTION. OTTO LIEBKNECHT, Frankfort-on-the-Main, Germany, assignor to Roessler and Hasslacher Chemical Co., New York, N. Y., a Corporation of New York. Original application filed Nov. 18, 1908, Serial No. 463,192. Divided and this application filed Mar. 1, 1911. Serial No. 611,587. (Cl. 23—10.)

A hydrogen peroxid solution containing sulfanilic acid.

1,025,949. STRUCTURE FOR HEATING OR SUPERHEATING PURPOSES. HARRY LUCKENBACH, Chicago, Ill., assignor, by mesne assignments, to Luckenbach Inventions Development Company, New York, N. Y., a Corporation of New York. Original application filed Apr. 26, 1911, Serial No. 623,471. Divided and this application filed Oct. 26, 1911. Serial No. 656,904. (Cl. 122—250.)

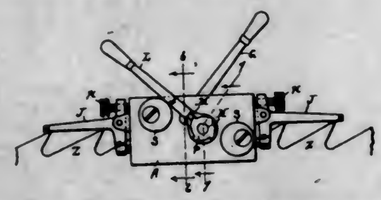


1. A heating structure comprising a metal chamber or channel, a cast iron body cast about and spaced from said chamber or channel for absorbing and transmitting heat to the channel or chamber, and a pulverized refractory substance in the space between the chamber or channel a cast-metal body for the transmission of heat received from the incasing body of cast metal and permitting expansion and contraction of the metal chamber or channel.

2. A heating structure comprising a metal chamber or channel, a metal body cast about and spaced from said chamber or channel, and a filling in the space between the chamber or channel and incasing cast metal body, said filling including a refractory material and graphite.

3. A heating structure comprising a metal chamber or channel, a cast-iron body incasing said chamber or channel and spaced therefrom, and a filling in the space between the chamber or channel and incasing cast-iron body, said filling including "blast furnace clay" and graphite.

1,025,950. SAW-SET. LAWRENCE G. MCKAM, Detroit, Mich., assignor to Standard Saw and Manufacturing Co., Detroit, Mich., a Corporation. Filed Feb. 14, 1910. Serial No. 543,888. (Cl. 76—60.)



1. In a saw set, the combination of a kerfed body block, means for holding a saw blade clamped therein, die members having alternating right and left faces rotatably journaled in said body block transversely of the kerf therein, and means for causing the periodical rotation thereof and for periodically projecting one of the die members lengthwise of its axis, substantially as described.

2. A saw set, having in combination a body block, a pair of die members provided with alternating right and left face portions, journaled therein, means for compressing said dies together and for withdrawing them from such compressed relation and means operating each time the dies are withdrawn for bringing a different set of face portions into position, whereby the teeth of a saw may be set consecutively, substantially as described.

3. A saw set, having in combination, a body block, a die member having alternating right and left face portions, and held in said block to rotate, but held from transverse movement, a shaft capable of rotating said die and slidable thereinto lengthwise itself, a second die having alternating right and left face portions complementarily arranged with the face portions of the other die member, rotatably connected with said shaft, and also slidable in the cavity of the block, means for causing said second die to approach and withdraw from said first die, and means by which said shaft may be turned to change the setting faces of said dies, substantially as described.

4. A saw set, having in combination, a body block, a die member having alternating right and left face portions and provided with a peripheral groove or race, a spring-pressed pin held in said body block and engaging in said peripheral groove to prevent transverse movement of said die, a shaft capable of rotating said die and slidable therein lengthwise itself, a second die member having alternating right and left face portions complementarily arranged with the face portions of the other die member, the said second die member being rotatably connected with the said shaft and slidable in the cavity of the block, means for causing said second die member to approach and withdraw from said first die member, and means by which said shaft may be turned to change the active face portions of said dies, substantially as described.

5. A saw set, having in combination, a body block, a die member having alternating right and left face portions and held in said block to rotate, but held from transverse sliding, a shaft squared into said die member, a second die member having alternating right and left face portions complementarily arranged with the face portions of said first die member, the said second die member being fast on said shaft, means for sliding said shaft back and forth in its cavity, and means by which said shaft may be turned to change the active face portions of the die members, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,025,951. SKIRT-MARKER. BENJAMIN SHAPIRO, Washington, D. C. Filed Jan. 10, 1912. Serial No. 670,448. (Cl. 73—48.)

1. A skirt-marking device comprising a movable carriage, a rotating marking member carried thereby, and means operated by the movement of the carriage for rotating said marking member.

2. A skirt-marking device comprising a movable carriage, a rotatable marking wheel, a chalk-holding member coöperating with said wheel, and means for rotating the wheel by the movement of the carriage.

3. A skirt-marking device comprising a movable carriage, a rotatable marking wheel, a chalk-holding member adapted to coöperate with said marking wheel, means for yieldingly pressing said chalk-holding member against said marking wheel, and means for rotating said marking wheel.

4. A skirt-marking device comprising a movable carriage, a rotatable marking wheel carried thereby, a chalk-holding member coöperating with said rotatable wheel, means for yieldingly pressing said chalk-holding member toward said rotating wheel, and means for holding said chalk-holding member in retracted position.

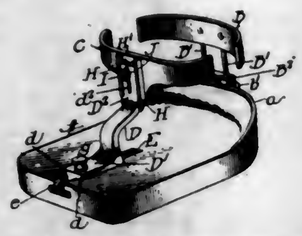
5. A skirt-marking device comprising a movable carriage, a rotatable marking wheel carried thereby, a chalk-holding member coöperating with said rotatable wheel, means for yieldingly pressing said chalk-holding member toward said rotating wheel, means for holding said chalk-holding member in retracted position, and means for rotating said marking wheel by the movement of the carriage.

[Claims 6 to 8 not printed in the Gazette.]

1,025,952. FLUID-RECEPTACLE. CARL J. SCHUSTER, Milwaukee, Wis. Filed May 15, 1911. Serial No. 627,251. (Cl. 215—9.)

In a device of the described class, the combination with a fluid receptacle terminating at its extreme upper end in a flat horizontal surface, converging from thence inwardly and downwardly forming an annular bead, the exterior surface opposite said bead being concave or reversely curved, an annular convex portion upon the exterior surface below and continuous with said concave portion; together with a resilient cover comprising a flat horizontal annular portion, a circumscribing depending peripheral flange serving as an overhanging shield and means by which removal of the cover is facilitated at every point equally well in the periphery of the cover without the use of special tools; an annular concave portion to impinge and closely fit the opposing surface of said bead, an upwardly dished central portion and an annular converging member interposed between and connecting the opposing edge of said annular concave portion with said upwardly dished central portion, both together constituting an efficient annular spring facilitating easy and thorough introduction into, retention in, and removal from the receptacle of the resilient cover.

1,025,953. INFANT'S POSING-CHAIR. LUDWIG HALLEN, Evanston, Ill. Filed Dec. 8, 1911. Serial No. 664,646. (Cl. 155—22.)



1. A seat comprising a seat-member, provided with a back-rest, a front support extending transversely of the seat-member above the same, and a centrally arranged standard for sustaining said front support from the forward part of the seat-member, said front support being adjustable in a direction toward and from the back-rest and also in a vertical direction.

2. A seat comprising a seat-member, provided with a back-rest, a front support extending transversely of the seat-member above the same and having a concave rear surface adapted for bearing engagement against the front of the body of the child seated on the seat-member, a centrally arranged standard for sustaining the said front support from the seat-member, provided with a foot-member, and means for detachably and adjustably connecting the said standard with the seat-member embracing a slot in the seat-member extending from the front to the rear of the same and opening through its front edge, and with which said foot-member has endwise sliding engagement, and means for adjustably clamping the said foot member to the seat-member in any desired position of adjustment.

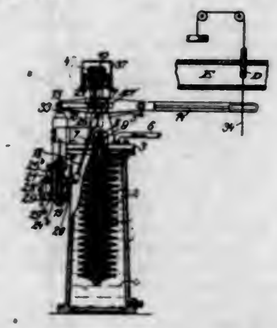
3. A seat comprising a seat-member, provided with a back-rest, a front support extending transversely of the seat-member above the same, a centrally arranged standard for sustaining the said front support from the seat-member, said standard being connected with the seat-member by means affording forward and rearward adjustment of the standard, and the said front support being connected with the standard by means affording vertical adjustment of the said front support on said standard.

4. A seat comprising a seat-member, provided with a back-rest, and having a slot in its forward part extending centrally of the seat-member from front to rear of the same and opening through its forward margin, a front support extending transversely of the said seat-member, a standard to the upper end of which said front support is attached and which is provided with a foot portion resting on the seat-member over said slot, a clamping plate engaging the downwardly facing surfaces of the seat-member at the sides of said slot, and clamping means connecting the said clamping plate with the said foot portion of the standard.

5. A seat comprising a seat-member provided with a back-rest, a front support extending transversely of the seat-member above the same, a centrally arranged standard having detachable connection with the seat-member and which is adjustable backwardly and forwardly thereon; said standard having at its upper end a vertical arm, and the front support being provided with guide flanges affording vertically sliding connection of said front support with said arm, and means for clamping the said front support to said arm.

1,025,954. PRESSURE-REGULATOR FOR BOILERS. JOHANN FRIEDRICH HEY, Strassburg, Germany. Filed Feb. 3, 1910. Serial No. 541,756. (Cl. 236—8.)

1. In apparatus for correcting variations, a capsular spring arranged to follow such variations and composed of detachable sections so that their number may be readily increased or diminished, a variation-controlling regulator, an actuating member operatively connected with said regulator to shift the same, a valve governing the movement of said actuating member, an operative connection between said spring and the valve to shift the valve as the capsular spring expands or contracts, and an operative connection between the actuating member and the valve to restore the valve to its central position as the actuating member moves.



2. In apparatus for correcting variations, the combination of a movable member arranged to follow such variations, a rod carried by said member, a piston, a cylinder in which said piston is located, a slide valve controlling the movement of the piston, a movable fulcrum supported by the piston, two rigidly connected levers mounted to rock in unison on said fulcrum, one of said levers having a pivotal connection with the said rod, and the other being operatively connected with the slide valve, and a variation-correcting regulator, operatively connected with said piston.

3. In apparatus for correcting variations, the combination of a movable member arranged to follow such variations, a rod carried by said member, a piston, a cylinder in which said piston is located, a slide valve controlling the movement of the piston, a movable fulcrum supported by the piston, two rigidly connected levers mounted to rock in unison on said fulcrum, one of said levers having a pivotal connection with the said rod, and the other extending beyond the axis of said pivotal connection, and being operatively connected with the slide valve from a point on the side of said pivotal connection opposite to the movable fulcrum, and a variation-correcting regulator, operatively connected with said piston.

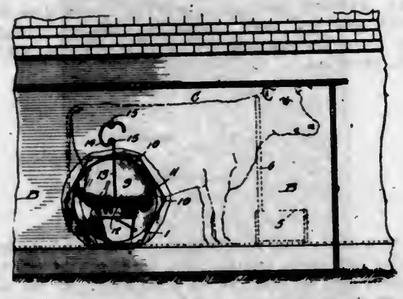
4. In boiler furnaces, a capsular spring composed of detachable sections so that their number may be readily increased or diminished, means for exposing said spring to the pressure of the steam within the boiler, a device controlling combustion whereby the generation of steam is governed, an actuating member operatively connected with said controlling device, a valve governing the movement of said actuating member, an operative connection between said spring and the valve, and an operative connection between the valve and the actuating member.

5. In apparatus for correcting variations, a capsular spring arranged to follow such variations and composed of detachable sections so that their number may be readily increased or diminished, a variation-controlling regulator, an actuating member operatively connected with said regulator, a valve governing the movement of said actuating member, an operative connection between said spring and the valve, and an operative connection between the valve and the actuating member.

[Claim 6 not printed in the Gazette.]

1,025,955. SANITARY STRUCTURE AND APPLIANCE FOR USE IN COW-MILKING. GEORGE M. LUMMIS, Fort Myers, Fla. Filed Aug. 3, 1911. Serial No. 642,135. (Cl. 119—27.)

1. A sanitary apparatus for use in milking cows, comprising a vertical wall provided with an opening and a flexible protector secured to said wall around the opening therein, the middle portion of the protector having sufficient slack to permit it to be thrust through said opening and applied to the udder of a cow, and provided with openings for receiving the teats of the animal, and a horizontal support for such middle portion of the protector, as shown and described.



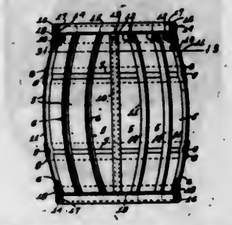
2. A sanitary apparatus for use in milking cows, comprising a vertical wall provided with an opening, a flexible protector having holes for reception of the animal's teats and adapted to be secured to the wall around the opening therein, and means attached to a suitable support and projecting through the opening and adapted to support the protector in contact with the udder of the animal, substantially as described.

3. A sanitary apparatus for the use specified, comprising a vertical wall provided with an opening, a flexible protector having holes for reception of the animal's teats and adapted to be secured to the wall along the opening and constructed with sufficient slack or fullness to adapt it to be projected through the opening, and a device for supporting the protector against the udder of the cow, the same comprising a ring attached to and arranged at right angles to a vertical rod, and means for securing the rod detachably to the wall in pendent position, substantially as described.

4. In a sanitary apparatus for the purpose specified, the combination with a vertical wall having an opening therein, of a flexible protector comprising a fabric or equivalent having sufficient fullness to adapt it for projection through the opening and provided with holes for reception of the animal's teats, headed nails inserted in the wall around the opening over which the edge of the protector is laid, and a wire arranged over such edge and engaging the heads of the nails, whereby the protector is secured detachably in place for use in the milking operation, substantially as described.

REISSUES.

13,414. METALLIC BARREL. JAMES H. GEORGE, New York, N. Y., assignor to National Steel Barrel Company, a Corporation of Maine. Filed Mar. 24, 1911. Serial No. 616,782. Original No. 967,629, dated Aug. 16, 1910, Serial No. 528,677. (Cl. 220—4.)



1. A metallic barrel comprising a plurality of staves, each stave being provided on its edges with inturned flanges, of a securing strip having inturned flanges adapted to extend around the flanges of adjacent staves to secure said staves together, the flanges on the staves and the locking strips being of a length less than the length of the staves, whereby shoulders are formed at the ends of the barrel, heads adapted to extend within the staves with their inner side in contact with the ends of the stave flanges, means for securing said heads in position, said staves being provided intermediate of their ends with annular grooves, and hoops for said barrel provided with inwardly projecting annular ribs adapted to engage the grooves to lock the hoops on the barrel.

2. A metallic barrel comprising a plurality of staves secured together at their adjacent edges, each stave being provided on its edges with inturned flanges, of a securing strip having inturned flanges adapted to extend around the flanges of adjacent staves to secure said staves together, the flanges on the staves and the locking strips being of a length less than the length of the staves whereby shoulders are formed at the ends of the barrel, heads having out-turned flanges on their edges, said heads being adapted to extend within the staves with their inner side in contact with the ends of the stave flanges and locking strips, and rings provided with inturned flanges adapted to be placed over the ends of the barrel to secure the heads in position, said rings being provided with a projecting annular rib and said staves with a registering annular groove to lock said rings in position on the barrel.

3. A metallic barrel comprising a plurality of staves, each stave being provided on its edges with inturned flanges, a bar-like securing strip having inturned flanges adapted to extend around the flanges of adjacent staves throughout substantially their entire length to secure said staves together, the flanges on the staves and the locking strips being of a length less than the length of the staves, whereby shoulders are formed at the ends of the barrel, heads adapted to extend within the staves with their inner side in contact with the ends of the stave flanges, and means for securing said heads in position.

4. A metallic barrel comprising a plurality of staves secured together at their adjacent edges, each stave being provided on its edges with inturned flanges, a securing bar-like strip having inturned flanges adapted to extend around the flanges of adjacent staves to secure said staves together, the flanges on the staves and the locking strips being of a length less than the length of the staves whereby shoulders are formed at the ends of the barrel, heads having out-turned flanges on their edges, said heads being adapted to extend within the staves with their inner sides in contact with the ends of the stave flanges and locking strips, and detachable rings provided with inturned flanges adapted to be placed over the ends of the barrel to secure the heads in position.

5. A barrel comprising a plurality of independent staves having inwardly projecting flanges extending the greater part of the entire length of the staves at their edges, each stave having a curved body portion and having a part projecting beyond the flanges at each end which is offset at a point adjacent to the ends, a bar-like locking device having angular flanges forming recesses adapted to receive the flanges of the staves and movable lengthwise thereof, heads adapted to rest against said offset part of the staves within the body formed by the staves, and rings encircling the ends of the staves for detachably holding the heads to the staves.

6. A barrel comprising a plurality of independent staves having inwardly projecting flanges extending the greater part of the entire length of the staves at their edges, each stave having a curved body portion and having a part projecting beyond the flanges at each end which is offset at a point adjacent to the ends to form a seat when the staves are held together, a bar-like locking device having angular flanges forming recesses adapted to receive the flanges of the staves and movable lengthwise thereof, heads having peripheral flanges extending outwardly and adapted to be seated against said offset part of the staves within the same and resting against the ends of the flanges, rings having inwardly extending flanges and fitting over the heads and means for holding the rings to the staves.

7. A barrel comprising a plurality of independent staves having inwardly projecting flanges extending the greater part of the entire length of the staves at their edges, each stave having a curved body portion and having an offset part at the ends of the flanges forming a seat when the staves are held together, curved bar-like locking devices having means to engage the flanges of the staves and movable lengthwise thereof, and heads detachably held against the offset part of the barrel staves and the ends of the flanges.

8. In a metallic barrel, a number of staves having inturned flanges lengthwise thereof of less length than the staves, longitudinally movable and detachable locking devices located within the barrel having means engaging said inturned flanges throughout substantially their entire length for holding the staves together, and a head resting against the ends of said flanges.

9. A barrel comprising a plurality of independent staves having inwardly projecting flanges extending the greater part of the entire length of the staves at their edges, each stave having a curved body portion and having a part projecting beyond the flanges at each end which is offset at a point adjacent to the ends, a bar-like locking device having angular flanges forming recesses adapted to receive the flanges of the staves and movable lengthwise thereof, heads having peripheral flanges extending outwardly and adapted to be seated on the offset portion of the staves, and means for detachably holding the heads to the staves.

10. A barrel comprising a plurality of independent staves having inwardly projecting flanges extending the greater part of the entire length of the staves at their edges, each stave having a curved body portion and having an offset part at the ends of the flanges forming a seat when the staves are held together, curved bar-like locking devices having means to engage the flanges of the staves and movable lengthwise thereof, and a head held against the offset part of the barrel staves.

13,415. SAFETY-PIN. ARTHUR WRIGHT, New York, N. Y. Filed Mar. 23, 1912. Serial No. 685,903. Original No. 1,019,578, dated Mar. 5, 1912, Serial No. 536,710. (Cl. 24—158.)



1. In a safety pin, a rigid head having an abutment, a plurality of prongs engaging the head, one of which is sharpened and the other of which engages with the abutment in the head in the closed position of the pin, the abutment and the prong engaging therewith being so constructed as to effect the release of the sharpened prong by merely moving the head away from the prong which engages the abutment in the head.

2. In a safety pin, a head having an abutment at its side and a pair of prongs, one of which is bent to form a loop, said loop being bent laterally out of the plane of the head to engage with said abutment.

DESIGNS.

42,450. STOVE OR RANGE LEG-BASE. ARTHUR K. BECKWITH, Dowagiac, Mich., assignor to Estate of P. D. Beckwith, Incorporated, Dowagiac, Mich. Filed Dec. 28, 1911. Serial No. 668,338. Term of patent 14 years.



The ornamental design for a stove or range leg base as shown.

42,451. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed Feb. 28, 1912. Serial No. 680,517. Term of patent 3½ years.



The ornamental design for Levers lace as shown.

42,452. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed Feb. 28, 1912. Serial No. 680,518. Term of patent 3½ years.



The ornamental design for Levers lace as shown.

42,453. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed Feb. 28, 1912. Serial No. 680,519. Term of patent 3½ years.



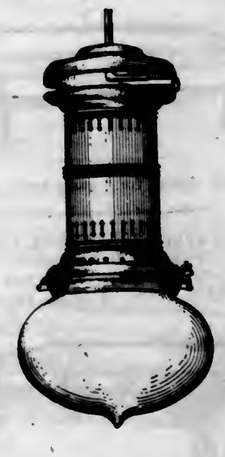
The ornamental design for Levers lace as shown.

42,454. LOCKET. HERBERT C. BLISS, Attleboro, Mass. Filed Feb. 10, 1912. Serial No. 676,832. Term of patent 7 years.



The ornamental design for a locket, as shown and described.

42,455. HANGING LAMP. JOSEPH BODERMAN, New York, N. Y. Filed May 6, 1911. Serial No. 625,652. Term of patent 7 years.



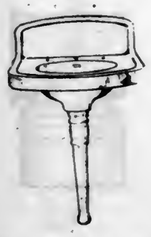
The ornamental design for a hanging lamp, as shown.

42,456. PORTFOLIO-COVER. EDWARD F. CALDWELL, Larchmont, N. Y. Filed Dec. 29, 1911. Serial No. 668,527. Term of patent 3½ years.



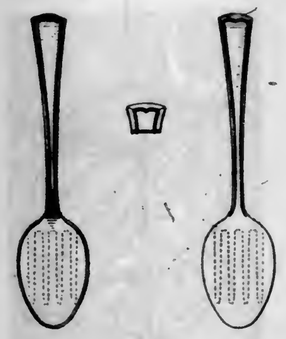
The ornamental design for a portfolio cover as shown.

42,457. LAVATORY. JOHN A. CAMPBELL, Trenton, N. J., assignor to Trenton Potteries Company, Trenton, N. J. Filed June 9, 1910. Serial No. 566,112. Term of patent 7 years.



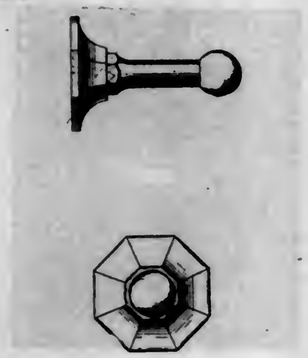
The ornamental design for a lavatory as shown.

42,458. SPOON, FORK, OR SIMILAR ARTICLE. GILBERT L. CROWELL, Jr., Arlington, N. J., assignor to Dominick & Haff, New York, N. Y. Filed Feb. 6, 1912. Serial No. 675,898. Term of patent 3½ years.



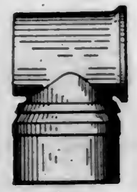
The ornamental design for a spoon, fork or similar article, as shown.

42,459. BATH-ROOM FIXTURE. EDWARD A. FARR, Meriden, Conn., assignor to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed Aug. 24, 1911. Serial No. 645,849. Term of patent 7 years.



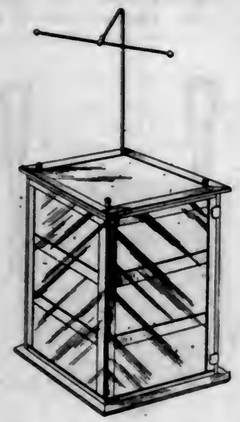
The ornamental design for a bathroom fixture, as shown.

42,460. ACETYLENE-LAMP. AUGIE L. HANSEN, Chicago, Ill. Filed Jan. 18, 1912. Serial No. 671,999. Term of patent 14 years.



The ornamental design for an acetylene lamp, as shown.

42,461. DISPLAY-CASE. JAMES HARDEN, Jr., New York, N. Y. Filed Dec. 1, 1911. Serial No. 663,456. Term of patent 7 years.



The ornamental design for a display case, as shown.

42,462. CIGAR-LIGHTER. ALFRED C. HEATH, Newark, N. J. Filed Nov. 22, 1911. Serial No. 661,870. Term of patent 7 years.



The ornamental design for a cigar lighter, as shown.

42,463. GAME-TABLE. CICERO HINE and JOHN C. SCHANK, Chicago, Ill., assignors to The Brunswick Balke Collender Co., Chicago, Ill., a Corporation of Delaware. Filed Jan. 6, 1912. Serial No. 669,871. Term of patent 14 years.



The ornamental design for a game table as shown.

42,464. GAME-TABLE. CICERO HINE, Chicago, Ill., assignor to The Brunswick Balke Collender Co., Chicago, Ill., a Corporation of Delaware. Filed Jan. 6, 1912. Serial No. 669,872. Term of patent 14 years.



The ornamental design for a game table as shown.

42,465. GAME-TABLE. CICERO HINE, Chicago, Ill., assignor to The Brunswick Balke Collender Co., Chicago, Ill., a Corporation of Delaware. Filed Jan. 6, 1912. Serial No. 669,873. Term of patent 14 years.



The ornamental design for a game table as shown.

42,466. GAME-TABLE. CICERO HINE, Chicago, Ill., assignor to The Brunswick Balke Collender Co., Chicago, Ill., a Corporation of Delaware. Filed Jan. 6, 1912. Serial No. 669,874. Term of patent 14 years.



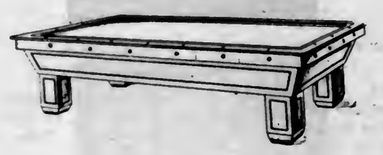
The ornamental design for a game table as shown.

42,467. GAME-TABLE. CICERO HINE, Chicago, Ill., assignor to The Brunswick Balke Collender Co., Chicago, Ill., a Corporation of Delaware. Filed Jan. 6, 1912. Serial No. 669,875. Term of patent 14 years.



The ornamental design for a game table, as shown.

42,468. GAME-TABLE. CICERO HINE, Chicago, Ill., assignor to The Brunswick Balke Collender Co., Chicago, Ill., a Corporation of Delaware. Filed Jan. 6, 1912. Serial No. 669,876. Term of patent 14 years.



The ornamental design for a game table as shown.

42,469. GAME-TABLE. CICERO HINE, Chicago, Ill., assignor to The Brunswick Balke Collender Co., Chicago, Ill., a Corporation of Delaware. Filed Jan. 6, 1912. Serial No. 669,877. Term of patent 14 years.



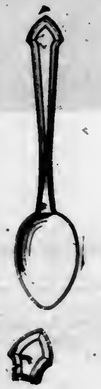
The ornamental design for a game table as shown.

42,470. GAME-TABLE. CICERO HINE, Chicago, Ill., assignor to The Brunswick Balke Collender Co., Chicago, Ill., a Corporation of Delaware. Filed Jan. 6, 1912. Serial No. 669,878. Term of patent 14 years.



The ornamental design for a game table as shown.

42,471. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. BARTON PICKERING JENKS, Concord, N. H., assignor to William B. Durgin Co., Concord, N. H., a Corporation of New Hampshire. Filed Feb. 2, 1912. Serial No. 675,069. Term of patent 14 years.



The ornamental design for a handle for spoons, forks or similar articles, as shown.

42,472. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,924. Term of patent 3½ years.



The ornamental design for a rug as shown.

42,473. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,925. Term of patent 3½ years.



The ornamental design for a rug as shown.

42,474. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911 Serial No. 662,926. Term of patent 3½ years



The ornamental design for a rug as shown.

42,475. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,927. Term of patent 3½ years.



The ornamental design for a rug as shown.

42,476. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,928. Term of patent 3½ years.



The ornamental design for a rug as shown.

42,477. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,929. Term of patent 3½ years.



The ornamental design for a rug as shown.

42,478. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,930. Term of patent 3½ years.



The ornamental design for a rug as shown.

42,479. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,931. Term of patent 3½ years.



The ornamental design for a rug as shown.

42,480. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,932. Term of patent 3½ years.



The ornamental design for a rug as shown.

42,481. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,933. Term of patent 3½ years.



The ornamental design for a rug as shown.

42,482. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,934. Term of patent 3½ years.



The ornamental design for a rug as shown.

42,483. RUG. THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,935. Term of patent 3½ years.



The ornamental design for a rug as shown.

42,484. RUG, THOMAS L. LAWTON, Philadelphia, Pa., assignor to Trorlicht-Duncker Carpet Co., St. Louis, Mo. Filed Nov. 28, 1911. Serial No. 662,936. Term of patent 3½ years.



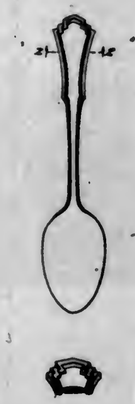
The ornamental design for a rug as shown.

42,485. CHARM OR SIMILAR ARTICLE. PASCAL LEONE, New York, N. Y. Filed Feb. 14, 1912. Serial No. 677,638. Term of patent 7 years.



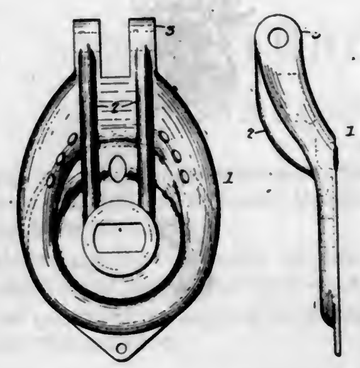
The ornamental design for a charm or similar article, as shown.

42,486. HANDLE FOR SPOONS, FORKS, OR SIMILAR ARTICLES. ERNST H. LOHRMANN, Providence, R. I., assignor to Fessenden and Company, Inc., Providence, R. I., a Corporation of Rhode Island. Filed Dec. 28, 1911. Serial No. 668,337. Term of patent 14 years.



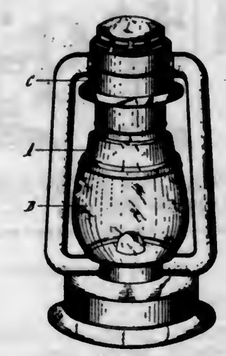
The ornamental design for a handle for spoons, forks, or similar articles as shown.

42,487. BLOCK SIDE. FREDERICK B. MALLORY, Portland, Oreg. Filed Jan. 31, 1912. Serial No. 674,618. Term of patent 7 years.



The ornamental design for a block-side as shown and described.

42,488. TUBULAR LANTERN. WARREN MCARTHUR, Jr., Chicago, Ill. Filed Feb. 7, 1912. Serial No. 676,151. Term of patent 14 years.



The ornamental design for a tubular lantern as shown and described.

42,489. SPUR-BODY. FREDERICK C. MONIER, New Britain, Conn., assignor to North & Judd Manufacturing Company, New Britain, Conn., a Corporation. Filed Sept. 18, 1911. Serial No. 650,061. Term of patent 3½ years.



The ornamental design for a spur body, as shown.

42,490. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Mar. 1, 1912. Serial No. 680,980. Term of patent 7 years.



The ornamental design for a rug, as shown.

42,491. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Mar. 29, 1912. Serial No. 687,241. Term of patent 7 years.



The ornamental design for a rug, as shown.

42,492. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Mar. 29, 1912. Serial No. 687,242. Term of patent 7 years.



The ornamental design for a rug, as shown.

42,493. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Mar. 29, 1912. Serial No. 687,243. Term of patent 7 years.



The ornamental design for a rug, as shown.

42,494. VASE. ELMER O. SIMONS, Los Angeles, Cal. Filed Oct. 5, 1911. Serial No. 653,024. Term of patent 3½ years.



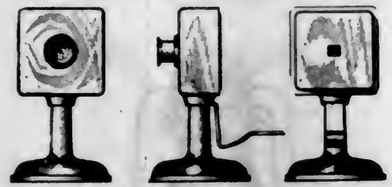
The ornamental design for a vase, as shown.

42,495. EMBLEM. HOWARD W. STEIGER, Lakewood, Ohio. Filed Feb. 26, 1912. Serial No. 680,059. Term of patent 7 years.



The ornamental design for an emblem as shown.

42,496. PICTURE-DISPLAY-MACHINE BODY. ALEXANDER FERDINAND VICTOR, Davenport, Iowa. Filed Dec. 9, 1911. Serial No. 664,880. Term of patent 14 years.



The ornamental design for a body for picture display machines, as shown and described.

TRADE-MARKS

PUBLISHED MAY 7, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 12,124. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) PAUL STEAM SYSTEM COMPANY, New York, N. Y. Filed Aug. 31, 1905. Under ten-year proviso.

PAUL

Particular description of goods.—Apparatus or Appliances for Use in Circulatory Heating or Drying Systems, Including Steam-Circulating Apparatus, Pumps, Exhausters, and Valves, All of Which Form a Part of Said System.

Claims use since Sept. 1, 1892.

Ser. No. 32,621. (CLASS 12. CONSTRUCTION MATERIALS.) UNITED STATES GYPSUM CO., Jersey City, N. J., and Chicago, Ill. Filed Feb. 7, 1908.



No claim being made to the representation of the map of the United States.

Particular description of goods.—Plaster of Paris, Calcined Gypsum, Plaster-Boards, Wood-Fiber Plaster, Wall-Plaster, and Exterior Plaster.

Claims use since July, 1905.

Ser. No. 34,550. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DWINELL-WRIGHT COMPANY, Boston, Mass. Filed May 2, 1908. Under ten-year proviso.



Particular description of goods.—A Cereal Substitute for Coffee.

Claims use since January, 1863.

Ser. No. 42,673. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) ANNA M. SCHAEFER, Indianapolis, Ind. Filed May 25, 1909.



Particular description of goods.—Ostrich-Feathers.

Claims use since Feb. 15, 1909.

Ser. No. 48,830. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HULL & DILLON PKG. CO., Pittsburg, Kans. Filed Apr. 4, 1910.

OLD HOMESTEAD

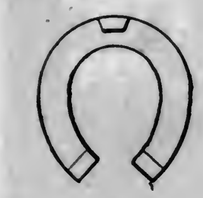
Particular description of goods.—Ham, Bacon, and Lard.
Claims use since about Jan. 30, 1909.

Ser. No. 49,410. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ROYER & ZWEIBEL, Wilkes-Barre, Pa. Filed Apr. 30, 1910.

ROYBEL

Particular description of goods.—Fibrous Mineral Packing.
Claims use since Feb. 1, 1908.

Ser. No. 51,757. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) RENNOUS, KLEINLE & Co., Baltimore, Md. Filed Sept. 12, 1910.



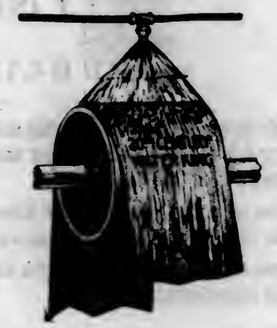
Particular description of goods.—Brushes, Paint, Varnish, Sash-Tools, Artists' and Fresco, Marking and Lacquer, Mottlers', Color and Copying, Blenders', Sign-Writers', and Grainers', Stipplers', Paper-Hangers' Paste and Smoothing, Glue, Grease, Roof, Acid, and Tar, Bag-Marking, Furniture-Rubbing, and Stencil, Calcimine and Skimming, Whitewash, Water-Tools and Radiator, Bakers' and Lather, Bill-Posters', Window, and Shoe Brushes; Scrubs; Floor-Sweeps; and Dusters.
Claims use since July 1, 1885.

Ser. No. 53,378. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AKTIEN-GESELLSCHAFT VEREINIGTE BERNER & ZÜRCHER CHOCOLADE-FABRIKEN LINDT & SPRÜNGLI, Kilchberg and Berne, Switzerland. Filed Dec. 20, 1910. Under ten-year proviso.

LINDT

Particular description of goods.—Chocolate Candies.
Claims use since 1879.

Ser. No. 53,825. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) BAY STATE BELTING CO., Boston, Mass. Filed Jan. 12, 1911.



Particular description of goods.—Leather Belting.
Claims use since on or about Oct. 1, 1908.

Ser. No. 55,351. (CLASS 48. MALT EXTRACTS AND LIQUORS.) OBERMEYER & LIEBMANN, Brooklyn, N. Y. Filed Mar. 27, 1911.



Particular description of goods.—Ale and Porter.
Claims use since Mar. 21, 1911.

Ser. No. 56,801. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BAUER & BLACK, Chicago, Ill. Filed June 2, 1911.



Particular description of goods.—Corn and Bunion Plasters.
Claims use since 1906.

Ser. No. 56,868. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) COMPAGNIE FERMIÈRE DE L'ETABLISSEMENT THERMAL DE VICHY, Paris, France. Filed June 6, 1911. Under ten-year proviso.



Particular description of goods.—Pastils Made with or from the Products Extracted from Natural Mineral waters.
Claims use since Dec. 28, 1888.

Ser. No. 57,094. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) COMPAGNIE FERMIÈRE DE L'ETABLISSEMENT THERMAL DE VICHY, Paris, France. Filed June 16, 1911. Under ten-year proviso.



Particular description of goods.—Salts Extracted from Natural Mineral Waters to be Used in the Manufacture or Preparation of Mineral Waters.
Claims use since Dec. 28, 1888.

Ser. No. 57,131. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ILLINOIS CANNING COMPANY, Hoopeston, Ill. Filed June 17, 1911.

MOOSE-HEAD



Particular description of goods.—Canned Corn.
Claims use since 1893.

Ser. No. 57,302. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) ROCHER FRERES, La Côte St. André, France. Filed June 26, 1911.



No claim being made to the words "Cherry," "La Côte," "St. Andre," "Isere," "Rocher," and "Rocher Freres."
Particular description of goods.—Liquors Made with Cherries.
Claims use since May 10, 1911.

Ser. No. 57,336. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE LA BELLE DRUG CO., Washington, Pa. Filed June 27, 1911.

LA BELLE

Particular description of goods.—Worm-Expeller, Soothing-Syrup, Liver-Pills, Beef, Iron, Wine, Celery, and Sarsaparilla Compound, Teething-Lotion, Laxatives, and Remedies for Colds, La Grippe, Coughs, Neuralgia, Acute Catarrh, Fever, Bronchitis, Headache, Dyspepsia, Diarrhea, Whooping-Cough, Colic, Croup, and Cholera Infantum.
Claims use since 1900.

Ser. No. 58,079. (CLASS 31. FILTERS AND REFRIGERATORS.) CARL SCHLEICHER & SCHÜLL, Düren, Germany. Filed Aug. 8, 1911. Under ten-year proviso.



Particular description of goods.—Filters and Filtering-Paper.
Claims use since May 1, 1882.

Ser. No. 58,080. (CLASS 31. FILTERS AND REFRIGERATORS.) CARL SCHLEICHER & SCHÜLL, Düren, Germany. Filed Aug. 8, 1911. Under ten-year proviso.



Particular description of goods.—Filters and Filtering-Paper.
Claims use since June 1, 1874.

Ser. No. 58,358. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE KRETOL COMPANY, INC., Washington, D. C. Filed Aug. 24, 1911.

CREOLA

Particular description of goods.—A Liquid Cleansing and Scouring Preparation for Woodwork, Tiling, Metal, Porcelain, and Enamel Ware.
Claims use since Aug. 15, 1911.

Ser. No. 59,212. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A/S SARDINFABRIKKEN NORRIG, Stavanger, Norway. Filed Oct. 18, 1911.

THELMA

Particular description of goods.—Kippered Herrings, Herrings, and Smoked Sardines.
Claims use since Dec. 15, 1906.

Ser. No. 59,271. (CLASS 32. FURNITURE AND UPHOLSTERY.) MANHATTAN BEDDING CO., New York, N. Y. Filed Oct. 21, 1911.

ROMELINK

Particular description of goods.—Spring-Beds and Spring-Mattresses.
Claims use since June 11, 1911.

Ser. No. 59,304. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) LUDWIG HUPFELD AKTIENGESELLSCHAFT, Böhlitz-Ehrenberg, near Leipzig, Germany. Filed Oct. 24, 1911.

UNIOLA

Particular description of goods.—Piano-Players, Interior Players, Pianos, Self-Playing Pianos, Grands, Self-Playing Grands, Harmoniums, Self-Playing Harmoniums, Reproduction Piano-Grands, Orchestrion, Violins, and Self-Playing Violins, Violin-Pianos, Violin-Orchestrions, and Music-Rolls.
Claims use since May 27, 1910.

Ser. No. 59,407. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE QUEEBACKER COFFEE CO., Louisville, Ky. Filed Oct. 28, 1911.

PEACOCK

Particular description of goods.—Coffee and Rice.
Claims use since 1905 on coffee and since 1908 on rice.

Ser. No. 59,955. (CLASS 12. CONSTRUCTION MATERIALS.) AMERICAN ENCAUSTIC TILING CO. LTD., New York, N. Y., and Zanesville, Ohio. Filed Nov. 27, 1911.

AETCO.

Particular description of goods.—Tiles and Mosaic Tiles.
Claims use since Sept. 1, 1909.

Ser. No. 59,969. (CLASS 38. PRINTS AND PUBLICATIONS.) NORTH AMERICAN PRESS SYNDICATE, Chicago, Ill., assignor to Central Press Co., Cleveland, Ohio, a Corporation of Ohio. Filed Nov. 27, 1911.



Particular description of goods.—Pictures and Illustrations Published Serially.
Claims use since Nov. 11, 1911.

Ser. No. 60,099. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) HARRY THOMPSON, South Hampstead, County of London, England. Filed Dec. 6, 1911.

GLOBE TROTTERS

Particular description of goods.—Games.
Claims use since Oct. 12, 1910.

Ser. No. 60,130. (CLASS 5. ADHESIVES.) THE STANDARD RUBBER & CABLE CO., Bridgeport, Conn. Filed Dec. 8, 1911.

VULCO

Particular description of goods.—Adhesive Cement.
Claims use since 1905.

Ser. No. 60,370. (CLASS 12. CONSTRUCTION MATERIALS.) BARRETT MANUFACTURING COMPANY, New York, N. Y. Filed Dec. 20, 1911. Under ten-year proviso.

Barrett's

Particular description of goods.—Prepared Roofings in Which the Waterproof Agent is Tar, Asphalt, or other Bitumen.
Claims use since on or about Jan. 1, 1893.

Ser. No. 60,371. (CLASS 12. CONSTRUCTION MATERIALS.) BARRETT MANUFACTURING COMPANY, New York, N. Y. Filed Dec. 20, 1911. Under ten-year proviso.

BARRETT'S

Particular description of goods.—Prepared Tar, Pitch, and Asphalt for Roofing Construction.
Claims use since on or about Jan. 1, 1893.

Ser. No. 60,476. (CLASS 32. FURNITURE AND UPHOLSTERY.) THE AEROSHADE CO., Waukesha, Wis. Filed Dec. 28, 1911.

AEROLUX

Particular description of goods.—Shades for Porches and Windows.
Claims use since Dec. 14, 1911.

Ser. No. 60,730. (CLASS 37. PAPER AND STATIONERY.) ALVAH BUSHNELL COMPANY, Philadelphia, Pa. Filed Jan. 11, 1912. Under ten-year proviso.

PAPEROID

Particular description of goods.—A Substitute for Paper.
Claims use since Jan. 1, 1894.

Ser. No. 60,790. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE CLEVELAND MILLING CO., Cleveland, Ohio. Filed Jan. 13, 1912.



Particular description of goods.—Flour.
Claims use since Sept. 28, 1903.

Ser. No. 60,791. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) M. GOTTESMAN & SON, New York, N. Y. Filed Jan. 13, 1912.

"N. A"

Comprising the letters "N. A."
Particular description of goods.—Wood-Pulp.
Claims use since June 1, 1909.

Ser. No. 60,817. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL STARCH CO., New York, N. Y. Filed Jan. 15, 1912. Under ten-year proviso.



Particular description of goods.—Corn-Starch.
Claims use since August, 1868.

Ser. No. 60,820. (CLASS 38. PRINTS AND PUBLICATIONS.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed Jan. 15, 1912.



Particular description of goods.—Cigar-Box Labels.
Claims use since Oct. 1, 1909.

Ser. No. 60,920. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) REGENTS PUBLISHING AND MERCANTILE CORP., University City, St. Louis, Mo. Filed Jan. 19, 1912.

GLENMOOR



Particular description of goods.—Coffees and Teas.
Claims use since Oct. 1, 1911.

Ser. No. 60,938. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) OSTBY AND BARTON COMPANY, Providence, R. I. Filed Jan. 20, 1912.



The trade-mark consists of the letter "O" within an eight-sided panel, the letter "B" within a similar eight-sided panel, and three crowns arranged in a pyramidal group between said two panels.
Particular description of goods.—Bracelets.
Claims use since Dec. 15, 1911.

Ser. No. 61,002. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENKEL & CIE., Dusseldorf, Germany. Filed Jan. 24, 1912.

Typon.

Particular description of goods.—Bleaching Preparations.
Claims use since Dec. 16, 1903.

Ser. No. 61,018. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WM. GROSSMAN, Milwaukee, Wis. Filed Jan. 25, 1912.

Bright Spot

Particular description of goods.—Blended Coffee and Spices.
Claims use since Apr. 1, 1905.

Ser. No. 61,146. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) OTTO KAESBACH, Zaborze, Oberschlesien, Germany. Filed Jan. 31, 1912.

Rubiacitol

Particular description of goods.—A Remedy for the Nerves.
Claims use since March, 1911.

Ser. No. 61,183. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) STE. AME. POUR LE COMMERCE & L'INDUSTRIE DU CAOUTCHOUC, Brussels, Belgium. Filed Feb. 1, 1912.



Particular description of goods.—Rubber Toy Balloons, Rubber Toys, and Rubber Dolls.
Claims use since May 15, 1911.

Ser. No. 61,201. (CLASS 39. CLOTHING.) M. PHILLIPS & SONS, New York, N. Y. Filed Feb. 2, 1912.

LITTLE JOHNNY JONES

Particular description of goods.—Boys' and Youths' Blouses, Dress and Negligée Shirts, Pajamas, Night-Shirts, and Underwear of Knitted and Textile Fabrics and a Combination of Both—Namely, Undershirts, Drawers, and Union Suits.
Claims use since Dec. 28, 1911.

Ser. No. 61,203. (CLASS 39. CLOTHING.) M. PHILLIPS & SONS, New York, N. Y. Filed Feb. 2, 1912.

Emperor

Particular description of goods.—Work and Negligée Shirts, Night-Shirts, Pajamas, Underwear of Knitted and Textile Fabrics and a Combination of Both—Namely, Undershirts, Drawers, and Union Suits—and Boys' Blouses.
Claims use since Oct. 1, 1899.

Ser. No. 61,244. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CORN PRODUCTS REFINING COMPANY, New York, N. Y. Filed Feb. 3, 1912.

TRIANGLE

三角唪稀菜粉

No claim being made to the Chinese characters.
Particular description of goods.—Laundry Starch.
Claims use since Jan. 1, 1912.

Ser. No. 61,249. (CLASS 17. TOBACCO PRODUCTS.) LAWRENCE M. CRUMP, Indianapolis, Ind. Filed Feb. 3, 1912.

EL VARRO

Particular description of goods.—Cigars.
Claims use since May, 1907.

Ser. No. 61,258. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FERNON DRUG CO., Baltimore, Md. Filed Feb. 5, 1912.

Cyn-Ka-Tone

Particular description of goods.—A Laxative Tonic.
Claims use since Jan. 25, 1912.

Ser. No. 61,279. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GEORGE H. MCLIN, Huntington, Ind. Filed Feb. 5, 1912.

KOLATONA

The word being printed in yellow.
Particular description of goods.—Syrups, Extracts, and Non-Alcoholic Beverages Made Therefrom.
Claims use since Aug. 13, 1894.

Ser. No. 61,294. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912.

Particular description of goods.—Harmonicas and Jews'-Harps.
Claims use since Jan. 23, 1912.

Ser. No. 61,298. (CLASS 11. INKS AND INKING MATERIALS.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912. Under ten-year proviso.

TOWER'S

Particular description of goods.—Type-Writer Ribbons and Carbon-Paper.
Claims use since 1871.

Ser. No. 61,321. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) GEO. R. GIBSON CO., New York, N. Y. Filed Feb. 7, 1912.

PREZONIVRY

Particular description of goods.—Hand-Mirrors, Combs, Jewelry-Boxes, Powder-Puff Cases, Manicure Sets other Than Those of Precious Metal.
Claims use since Nov. 1, 1911.

Ser. No. 61,332. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) INDEPENDENT POWDER COMPANY OF MISSOURI, Joplin, Mo. Filed Feb. 7, 1912.

GUARDIAN

Particular description of goods.—Dynamite.
Claims use since Jan. 1, 1912.

Ser. No. 61,348. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WRIGHT & DITSON, Jersey City, N. J., and Boston, Mass. Filed Feb. 8, 1912.

PEBBLE

Particular description of goods.—Golf-Balls.
Claims use since about Jan. 1, 1912.

Ser. No. 61,393. (CLASS 38. PRINTS AND PUBLICATIONS.) BEN W. CRAMER, Washington, D. C. Filed Feb. 9, 1912.

THE GUIDE

Particular description of goods.—A Periodical Published Weekly.
Claims use since Jan. 1, 1909.

Ser. No. 61,431. (CLASS 38. PRINTS AND PUBLICATIONS.) TECHNICAL PUBLISHING COMPANY, Chicago, Ill. Filed Feb. 12, 1912.

PRACTICAL ENGINEER

Particular description of goods.—A Semimonthly Magazine.
Claims use since 1897.

Ser. No. 61,464. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PARIS MEDICINE COMPANY, St. Louis, Mo. Filed Feb. 14, 1912.



The signature shown being that of E. W. Grove, president of the corporation.

Particular description of goods.—A Remedy for Diseases of the Skin and Scalp and for Toilet Uses.

Claims use since Jan. 20, 1912.

Ser. No. 61,471. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BOYNTON IDEAL LINIMENT CO., Bangor, Me. Filed Feb. 14, 1912.



The four-leaved clover being printed in green.

Particular description of goods.—A Liniment.

Claims use since Nov. 5, 1911.

Ser. No. 61,510. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MORTON E. CONVERSE & SON, Winchendon, Mass. Filed Feb. 15, 1912. Under ten-year proviso.

Converse

Particular description of goods.—Toy Drums, Toy Trunks, Rocking-Horses, Blackboards, Toy Furniture, Building-Blocks, Doll-Houses, Tenpins, Toy Sand-Pails, Toy Steel Yachts, Toy Roller-Chimes, Mechanical Toys, and Toy Rocking-Chairs.

Claims use since June, 1898.

Ser. No. 61,511. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MORTON E. CONVERSE & SON, Winchendon, Mass. Filed Feb. 15, 1912.

KAYDEE

Particular description of goods.—Children's Rockers.

Claims use since Jan. 1, 1912.

Ser. No. 61,537. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHEMISCHE FABRIK AUF ACTIEN (VORM. E. SCHERING), Berlin, Germany. Filed Feb. 16, 1912.

Jsatophan

Particular description of goods.—Remedies for the Treatment of Gout and Rheumatism.

Claims use since October, 1911.

Ser. No. 61,555. (CLASS 2. RECEPTACLES.) PUBLIC SERVICE CUP COMPANY, New York, N. Y. Filed Feb. 16, 1912.

LILY

Particular description of goods.—Paper Cups.

Claims use since Jan. 1, 1912.

Ser. No. 61,705. (CLASS 12. CONSTRUCTION MATERIALS.) CHARLES W. SAACKE, New York, N. Y. Filed Feb. 24, 1912.

GLOBE

Particular description of goods.—Asphalt.

Claims use since about Feb. 5, 1912.

Ser. No. 61,773. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GRAND RIVER CANNING COMPANY, Markesan, Wis. Filed Feb. 27, 1912.



No claim is made to the word "Brand."

Particular description of goods.—Canned Peas.

Claims use since July 15, 1910.

Ser. No. 61,779. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) STANDARD OIL COMPANY OF BRAZIL, New York, N. Y. Filed Feb. 28, 1912.

BRINDILLA Nº3.

Particular description of goods.—Oil-Stoves, Oil-Lamps, and Oil-heaters.

Claims use since Feb. 20, 1912.

Ser. No. 61,792. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUSTIN, NICHOLS & Co., New York, N. Y. Filed Feb. 28, 1912.

NORSOLINA

Particular description of goods.—A Compound of Coffee and Chicory.

Claims use since Dec. 24, 1911.

Ser. No. 61,799. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) HENRY W. ROBBINS, Medina, N. Y. Filed Feb. 29, 1912.

WHIRLWIND

Particular description of goods.—Wind-Shields for Automobiles.

Claims use since Feb. 17, 1912.

Ser. No. 61,830. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MILLSTADT MILLING CO., Millstadt, Ill. Filed Feb. 29, 1912.

HIBISCUS

Particular description of goods.—Self-Rising Wheat-Flour.

Claims use since Jan. 12, 1912.

Ser. No. 61,834. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) LANSING=COMPANY, Lansing, Mich. Filed Feb. 29, 1912. Under ten-year proviso.

LANSING

Particular description of goods.—Wheelbarrows, Hand-Trucks, Warehouse-Trucks, and Hand-Carts.

Claims use since 1881.

Ser. No. 61,835. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) LANSING=COMPANY, Lansing, Mich. Filed Feb. 29, 1912. Under ten-year proviso.

REYNOLDS

Particular description of goods.—Warehouse-Trucks.

Claims use since 1888.

Ser. No. 61,914. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRAWLEY BROTHERS, New York, N. Y. Filed Mar. 4, 1912.

Fra-Fra

Particular description of goods.—Hair-Tonic.

Claims use since Jan. 1, 1912.

Ser. No. 61,915. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FARBENFABRIKEN OF ELBERFELD COMPANY, New York, N. Y. Filed Mar. 4, 1912.

LUMINAL

Particular description of goods.—A Sedative and Hypnotic.

Claims use since Mar. 1, 1912.

Ser. No. 61,916. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HUMPHREYS, CANNON & Co., Memphis, Tenn. Filed Mar. 4, 1912.



Particular description of goods.—Compound of Coffee, Cereals, and Chicory.

Claims use since Oct. 1, 1910.

Ser. No. 61,929. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) THE WARREN FEATHERBONE COMPANY, Three Oaks, Mich. Filed Mar. 4, 1912.

GIRDELIN

Particular description of goods.—Stiffening Cords, Blades, and Tapes.

Claims use since Aug. 7, 1911.

Ser. No. 61,931. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AROMINT COMPANY, Cincinnati, Ohio. Filed Mar. 4, 1912.

AROMINTS

Particular description of goods.—Candy.

Claims use since July 25, 1911.

Ser. No. 61,939. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GORDON & DILWORTH, New York, N. Y. Filed Mar. 5, 1912.

FRUNUT

Particular description of goods.—Spiced Fruit Preserves.

Claims use since Feb. 27, 1912.

Ser. No. 61,950. (CLASS 32. FURNITURE AND UPHOLSTERY.) A. WEIGELL & SON, Milwaukee, Wis. Filed Mar. 5, 1912.



No claim being made for the pictorial representation of a pillow.

Particular description of goods.—Pillows.
Claims use since June, 1911.

Ser. No. 61,995. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) NULAC COMPANY, Portland, Oreg. Filed Mar. 7, 1912.

Anoma

Particular description of goods.—Scouring Preparations.
Claims use since Feb. 15, 1912.

Ser. No. 62,013. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PAUL P. KIRCHHOFER, Massillon, Ohio. Filed Mar. 7, 1912.

Mountain Dew

Particular description of goods.—A Cooling Emollient Application for Chapped Hands, Lips, and All Irritated Surfaces.
Claims use since 1878.

Ser. No. 62,029. (CLASS 37. PAPER AND STATIONERY.) AMERICAN LEAD PENCIL COMPANY, New York, N. Y. Filed Mar. 8, 1912.

Velvet

Particular description of goods.—Pencils.
Claims use since about Mar. 31, 1904.

Ser. No. 62,043. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SILVERBERG IMPORT CO., New York, N. Y. Filed Mar. 8, 1912.

Lizette

Particular description of goods.—Hair-Nets.
Claims use since June 15, 1910.

Ser. No. 62,052. (CLASS 39. CLOTHING.) SHMUAL L. LIPSHITZ, New York, N. Y. Filed Mar. 8, 1912.

Uneeda

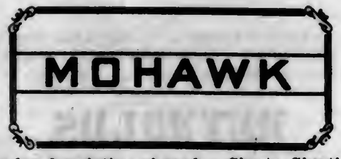
Particular description of goods.—Rain-Coats, Rain-Capes, and Bathing-Caps.
Claims use since Jan. 4, 1912.

Ser. No. 62,079. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) UTICA STEAM AND MOHAWK VALLEY COTTON MILLS, Utica, N. Y. Filed Mar. 9, 1912. Under ten-year proviso.



Particular description of goods.—Sheets, Sheetings, Pillow-Cases, and Cotton Piece Goods.
Claims use since Nov. 1, 1851.

Ser. No. 62,080. (CLASS 42. KNITTED, NETTED AND TEXTILE FABRICS.) UTICA STEAM AND MOHAWK VALLEY COTTON MILLS, Utica, N. Y. Filed Mar. 9, 1912. Under ten-year proviso.



Particular description of goods.—Sheets, Sheetings, Pillow-Cases, and Cotton Piece Goods.
Claims use since Feb. 21, 1880.

Ser. No. 62,083. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) A. G. HYDE & SONS, New York, N. Y. Filed Mar. 9, 1912.

HALCYON

Particular description of goods.—Cotton Piece Goods.
Claims use since Sept. 23, 1910.

Ser. No. 62,130. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE WESTERN CLOCK MANUFACTURING CO., Peru, Ill. Filed Mar. 13, 1912.

LITTLE BEN

Particular description of goods.—Clocks and Watches.
Claims use since Mar. 4, 1912.

Ser. No. 62,174. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) D. H. BURRELL & COMPANY, Little Falls, N. Y. Filed Mar. 15, 1912.

SIMPLEX

Particular description of goods.—Apparatus for Heating, Cooling, and Pasteurizing Milk.
Claims use since Jan. 1, 1903.

Ser. No. 62,185. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) THE B. F. GOODRICH COMPANY, Akron, Ohio. Filed Mar. 15, 1912.

MASTER TREAD

No claim being made to the word "Tread."

Particular description of goods.—Automobile-Tires Made Wholly or Partly of Rubber or Having Rubber Incorporated Therewith.
Claims use since Feb. 23, 1912.

Ser. No. 62,186. (CLASS 33. GLASSWARE.) SEMON BACHE & COMPANY, New York, N. Y. Filed Mar. 15, 1912.

MARMORITE

Particular description of goods.—Mirror-Plates, Sheet and Picture Glass, Polished Plate-Glass, and Watch-Crystals.
Claims use since 1910.

Ser. No. 62,288. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CITY BAKING COMPANY, Baltimore, Md. Filed Mar. 20, 1912.

Civic

Particular description of goods.—Bread.
Claims use since Mar. 4, 1912.

Ser. No. 62,289. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CITY BAKING COMPANY, Baltimore, Md. Filed Mar. 20, 1912.

City

Particular description of goods.—Bread.
Claims use since Mar. 4, 1912.

Ser. No. 62,305. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Mar. 20, 1912.

FASHION

Particular description of goods.—Biscuit.
Claims use since Mar. 14, 1912.

Ser. No. 62,336. (CLASS 39. CLOTHING.) THE WOVENBIGHT KNITTING COMPANY, Cleveland, Ohio. Filed Mar. 22, 1912.

GOLD BOND

Particular description of goods.—Hosiery.
Claims use since Oct. 1, 1909.

Ser. No. 62,370. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DETROIT CREAMERY COMPANY, Detroit, Mich. Filed Mar. 23, 1912.

Velvet

Particular description of goods.—Butter.
Claims use since January, 1910.

Ser. No. 62,382. (CLASS 39. CLOTHING.) THE ROLL-O-BELT COMPANY, Philadelphia, Pa. Filed Mar. 23, 1912.



Particular description of goods.—Trousers and Ladies' Outside Skirts.
Claims use since Feb. 8, 1912.

Ser. No. 62,402. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HARDWICK & MAGEE CO., Philadelphia, Pa. Filed Mar. 25, 1912.

REGO

Particular description of goods.—Woven Carpets and Rugs.
Claims use since Mar. 4, 1912.

Ser. No. 62,429. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) W. T. SMITH & SON, INC., Camden, N. J., and Philadelphia, Pa. Filed Mar. 26, 1912.

RADIUM

Particular description of goods.—Rugs, Carpets, Curtains, Draperies, and Upholstery.
Claims use since October, 1911.

Ser. No. 62,434. (CLASS 12. CONSTRUCTION MATERIALS.) WARREN CHEMICAL & MANUFACTURING COMPANY, New York, N. Y. Filed Mar. 26, 1912. Under ten-year proviso.



Particular description of goods.—Roofing-Felt.
Claims use since Nov. 2, 1886.

Ser. No. 62,443. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) GOODYEAR RUBBER HOSE & PACKING COMPANY, Philadelphia, Pa. Filed Mar. 27, 1912.
The portrait being that of Miss Helen I. Zaruba.



Particular description of goods.—Coverings for Hand-Wheels.
Claims use since Feb. 21, 1912.

Ser. No. 62,501. (CLASS 12. CONSTRUCTION MATERIALS.) CHARLES N. MILLER, Mogadore, Ohio. Filed Mar. 29, 1912.

Old Hickory

Particular description of goods.—Bricks and Blocks.
Claims use since March, 1912.

Ser. No. 62,507. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE HOLBROOK MFG. CO., Jersey City, N. J. Filed Mar. 29, 1912. Under ten-year proviso.



Particular description of goods.—Toilet and Laundry Soap.
Claims use since Apr. 1, 1887.

Ser. No. 62,537. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) ILLINOIS IRON & BOLT CO., Carpentersville, Ill. Filed Mar. 30, 1912.



Particular description of goods.—Steel Warehouse-Trucks.
Claims use since August, 1906.

TRADE-MARKS

REGISTERED MAY 7, 1912.

86,358. TURNBUCKLES. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed November 6, 1911. Serial No. 59,558. PUBLISHED FEBRUARY 6, 1912.

86,359. TURNBUCKLES. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 1, 1911. Serial No. 60,083. PUBLISHED FEBRUARY 6, 1912.

86,360. TURNBUCKLES. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 5, 1911. Serial No. 60,079. PUBLISHED FEBRUARY 13, 1912.

86,361. TURNBUCKLES. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 7, 1911. Serial No. 60,108. PUBLISHED FEBRUARY 13, 1912.

86,362. TURNBUCKLES. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 9, 1911. Serial No. 60,132. PUBLISHED JANUARY 30, 1912.

86,363. TURNBUCKLES. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 12, 1911. Serial No. 60,195. PUBLISHED JANUARY 30, 1912.

86,364. CORSETS. AMERICAN LADY CORSET COMPANY, Detroit, Mich.
Filed January 20, 1912. Serial No. 60,046. PUBLISHED MARCH 5, 1912.

86,365. SHOVELS, SPADES, AND SCOOPS. AMES SHOVEL AND TOOL COMPANY, Jersey City, N. J., and Boston, Mass.
Filed April 26, 1911. Serial No. 55,965. PUBLISHED JULY 4, 1911.

86,366. COTTON PIECE GOODS. AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H., assignor to Charles W. Amory, Boston, Mass., Theophilus Parsons, Mattapoisett, Mass., Frank P. Carpenter, Manchester, N. H., Frederic C. Dumaine, Concord, Mass., T. Jefferson Coolidge and T. Jefferson Coolidge, Jr., Manchester, Mass., George Wigglesworth, Milton, Mass., William Amory and Philip Dexter, Boston, Mass., Galen L. Stone, Brookline, Mass., George von L. Meyer, Hamilton, Mass., and George A. Gardner, Boston, Mass., trustees.
Filed September 8, 1911. Serial No. 58,596. PUBLISHED MARCH 5, 1912.

86,367. COTTON PIECE GOODS. AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H., assignor to Charles W. Amory, Boston, Mass., Theophilus Parsons, Mattapoisett, Mass., Frank P. Carpenter, Manchester, N. H., Frederic C. Dumaine, Concord, Mass., T. Jefferson Coolidge and T. Jefferson Coolidge, Jr., Manchester, Mass., George Wigglesworth, Milton, Mass., William Amory and Philip Dexter, Boston, Mass., Galen L. Stone, Brookline, Mass., George von L. Meyer, Hamilton, Mass., and George A. Gardner, Boston, Mass., trustees.
Filed September 8, 1911. Serial No. 58,598. PUBLISHED MARCH 5, 1912.

86,368. COTTON PIECE GOODS. AMOSKEAG MANUFACTURING COMPANY, Manchester, N. H., assignor to Charles W. Amory, Boston, Mass., Theophilus Parsons, Mattapoisett, Mass., Frank P. Carpenter, Manchester, N. H., Frederic C. Dumaine, Concord, Mass., T. Jefferson Coolidge and T. Jefferson Coolidge, Jr., Manchester, Mass., George Wigglesworth, Milton, Mass., William Amory and Philip Dexter, Boston, Mass., Galen L. Stone, Brookline, Mass., George von L. Meyer, Hamilton, Mass., and George A. Gardner, Boston, Mass., trustees.
Filed September 8, 1911. Serial No. 58,599. PUBLISHED MARCH 5, 1912.

86,369. EFFERVESCING AND NON-EFFERVESCING WINES. ANHEUSER & FEHRS, Kreuznach, Germany.
Filed January 20, 1908. Serial No. 32,331. PUBLISHED MARCH 5, 1912.

86,370. MACARONI. THE ATLANTIC MACARONI CO., Long Island City, N. Y.
Filed January 4, 1912. Serial No. 60,616. PUBLISHED MARCH 5, 1912.

86,371. DYES. WALTER D. BAKER, Indianapolis, Ind.
Filed November 13, 1911. Serial No. 59,692. PUBLISHED FEBRUARY 27, 1912.

86,372. DISINFECTING DEVICES. FRANZ BAUMGARDT, Spandau, near Berlin, Germany.
Filed December 19, 1911. Serial No. 60,345. PUBLISHED MARCH 5, 1912.

86,373. RUBBER TOYS. BEHREND & ROTHSCHILD, New York, N. Y.
Filed October 25, 1911. Serial No. 59,333. PUBLISHED DECEMBER 19, 1911.

86,374. CHOCOLATE CANDIES. PAUL F. BEICH COMPANY, Bloomington, Ill.
Filed January 7, 1910. Serial No. 46,976. PUBLISHED JULY 19, 1910.

86,375. LOTION FOR SKIN DISEASES. FREDERICK BRACKETT, Washington, D. C.
Filed December 16, 1911. Serial No. 60,284. PUBLISHED MARCH 5, 1912.

86,376. SALVE. BREWSTER & MAGNER, New Orleans, La.
Filed January 10, 1912. Serial No. 60,713. PUBLISHED MARCH 5, 1912.

86,377. HAIR-TONIC AND POMATUM. BERNARD L. BRUN, Baltimore, Md.
Filed January 20, 1912. Serial No. 60,937. PUBLISHED MARCH 5, 1912.

86,378. HATS AND CAPS FOR MEN, BOYS, AND CHILDREN. BUCHSTAHL & LEWIS, New York, N. Y.
Filed August 5, 1911. Serial No. 58,048. PUBLISHED MARCH 5, 1912.

86,379. MEDICINAL PREPARATION FOR STOMACH TROUBLES. AARON BURDWISE, Baltimore, Md.
Filed October 21, 1911. Serial No. 59,282. PUBLISHED FEBRUARY 27, 1912.

86,380. COTTON DUCK. GEO. B. CARPENTER & CO., Chicago, Ill.
Filed January 18, 1912. Serial No. 60,883. PUBLISHED MARCH 5, 1912.

86,381. PHOTOGRAPH-FRAMES. M. W. CARR & Co., Somerville, Mass.
Filed September 21, 1911. Serial No. 58,757. PUBLISHED FEBRUARY 27, 1912.

86,382. ORANGES AND GRAPE-FRUIT. CHASE & COMPANY, Jacksonville, Fla.
Filed November 13, 1911. Serial No. 59,684. PUBLISHED FEBRUARY 27, 1912.

86,383. WHITE LEAD. CHARLES A. CHILDS, New York, N. Y.
Filed January 31, 1912. Serial No. 61,156. PUBLISHED MARCH 5, 1912.

86,384. CERTAIN MEDICINES. LYDIA TRATTLES COATES, Kalamazoo, Mich.
Filed June 25, 1910. Serial No. 50,573. PUBLISHED FEBRUARY 27, 1912.

86,385. BELTING MADE OF CHROME LEATHER. COLONIAL LEATHER COMPANY, Chicago, Ill.
Filed February 16, 1911. Serial No. 54,566. PUBLISHED FEBRUARY 27, 1912.

86,386. WOVEN CONDUITS FOR ELECTRIC WIRINGS. THE CONDUIT & CABLE MANUFACTURING COMPANY, Chelsea, Mass.
Filed October 5, 1910. Serial No. 52,123. PUBLISHED MARCH 5, 1912.

86,387. LINIMENT. JAMES J. CONVEY, New York, N. Y.
Filed December 26, 1911. Serial No. 60,434. PUBLISHED MARCH 5, 1912.

86,388. BOOTS AND SHOES OF LEATHER OR TANNED SKIN. LEWIS A. CROSSETT, INC., Portland, Me., and Boston, Mass.
Filed November 4, 1911. Serial No. 59,553. PUBLISHED MARCH 5, 1912.

86,389. TOILET-CASES. WILLIAM L. DEMING, Salem, Ohio.
Filed December 28, 1911. Serial No. 60,479. PUBLISHED MARCH 5, 1912.

86,390. CHOCOLATE CREAMS. DOUGLAS CANDY CO., St. Joseph, Mo.
Filed January 2, 1912. Serial No. 60,536. PUBLISHED MARCH 5, 1912.

86,391. PREPARATION FOR CLEANING AND SOFTENING THE SKIN. CHARLES E. DUCK, Baltimore, Md.
Filed December 6, 1911. Serial No. 60,095. PUBLISHED FEBRUARY 27, 1912.

86,392. HAY-FEVER AND ASTHMA REMEDY. ANNIE C. DURANT, Cumberland, Me., assignor to Cyprez Remedy Co., New York, N. Y.
Filed February 5, 1908. Serial No. 32,596. PUBLISHED MAY 5, 1908.

86,393. CHEMICALS FOR USE IN TREATING PHOTOGRAPHS. EASTMAN KODAK COMPANY, Rochester, N. Y.
Filed January 22, 1912. Serial No. 60,961. PUBLISHED MARCH 5, 1912.

86,394. STOCK FOOD. EXCELLO FEED MILLING COMPANY, St. Joseph, Mo.
Filed August 21, 1911. Serial No. 58,305. PUBLISHED FEBRUARY 27, 1912.

86,395. SEDATIVE. FARBENFABRIKEN OF ELBERFELD COMPANY, New York, N. Y.
Filed December 30, 1911. Serial No. 60,533. PUBLISHED MARCH 5, 1912.

86,396. SHOES AND SLIPPERS MADE OF TEXTILE FABRIC. FILSINGER-BOETTE SHOE CO., St. Louis, Mo.
Filed December 29, 1910. Serial No. 53,527. PUBLISHED MARCH 5, 1912.

86,397. DRIED FRUITS AND RAISINS. FRESNO HOME PACKING COMPANY, Fresno, Cal.
Filed March 27, 1911. Serial No. 55,347. PUBLISHED FEBRUARY 27, 1912.

86,398. TOILET POWDERS. THEODORE H. FROEHLICH, New York, N. Y.
Filed January 9, 1912. Serial No. 60,704. PUBLISHED MARCH 5, 1912.

86,399. BROOMS. GARDNER BROOM COMPANY, Amsterdam, N. Y.
Filed November 18, 1911. Serial No. 59,800. PUBLISHED FEBRUARY 27, 1912.

86,400. AUDIPHONES. GLOBE EAR-PHONE COMPANY, Boston, Mass.
Filed October 19, 1911. Serial No. 59,230. PUBLISHED MARCH 5, 1912.

86,401. BEER. GOLDEN WEST BREWING COMPANY INC., Oakland, Cal.
Filed July 18, 1911. Serial No. 57,689. PUBLISHED MARCH 5, 1912.

86,402. LAUNDRY STARCH. WM. GROSSMAN, Milwaukee, Wis.
Filed January 25, 1912. Serial No. 61,019. PUBLISHED MARCH 5, 1912.

86,403. WOODEN SHINGLES, WOODEN FLOORING, AND WOODEN SIDING-BOARDS. HAMMER LUMBER COMPANY, Philadelphia, Pa., and Newbern, N. C.
Filed December 16, 1911. Serial No. 60,288. PUBLISHED FEBRUARY 27, 1912.

86,404. CERTAIN FOODS. HARGREAVES MERC. CO., Lincoln, Nebr.
Filed July 21, 1911. Serial No. 57,767. PUBLISHED FEBRUARY 27, 1912.

86,405. CERTAIN TOILET PREPARATIONS. HEATHER COMPANY, New York, N. Y.
Filed May 2, 1910. Serial No. 49,468. PUBLISHED FEBRUARY 27, 1912.

86,406. SELF-HEATING SAD-IRONS. LEVI HERZ, St. Paul, Minn.
Filed November 8, 1911. Serial No. 59,612. PUBLISHED FEBRUARY 27, 1912.

86,407. WINDOW-GLASS. HIRES TURNER GLASS CO., Philadelphia, Pa.
Filed January 2, 1912. Serial No. 60,541. PUBLISHED MARCH 5, 1912.

86,408. CERTAIN KINDS OF PAINTS. HOLZAPFELS LIMITED, Newcastle-upon-Tyne, England.
Filed September 22, 1911. Serial No. 58,821½. PUBLISHED JANUARY 23, 1912.

86,409. LUBRICATING-OILS. INDIAN REFINING COMPANY, INC., Augusta, Me., and Cincinnati, Ohio.
Filed February 23, 1910. Serial No. 47,978. PUBLISHED MARCH 5, 1912.

86,410. ORANGES, GRAPE-FRUIT, AND TANGERINES. ISLEWORTH GROVE COMPANY, Jacksonville, Fla.
Filed January 2, 1912. Serial No. 60,566. PUBLISHED MARCH 5, 1912.

86,411. OLEOMARGARIN. JOHN F. JELKE COMPANY, Chicago, Ill.
Filed March 3, 1910. Serial No. 48,164. PUBLISHED FEBRUARY 27, 1912.

86,412. WATCHES, WATCH-MOVEMENTS, WATCH-CASES, AND PARTS THEREOF. THE KEYSTONE WATCH CASE COMPANY, Philadelphia, Pa.
Filed October 31, 1911. Serial No. 59,446. PUBLISHED DECEMBER 26, 1911.

86,413. TONIC AND ANTIPYRETIC IN MALARIAL AFFECTIONS. THOMAS LAMB, New York, N. Y.
Filed December 1, 1911. Serial No. 60,043. PUBLISHED FEBRUARY 27, 1912.

86,414. COTTON PIECE AND COTTON DRESS GOODS. LANCASTER MILLS, Clinton, Mass.
Filed December 12, 1911. Serial No. 60,188. PUBLISHED FEBRUARY 13, 1912.

86,415. GAMES. ALBERT E. LENZ, Perth Amboy, N. J.
Filed December 15, 1911. Serial No. 60,259. PUBLISHED FEBRUARY 27, 1912.

86,416. HAIR-TONIC AND SHAMPOO PREPARATIONS. FRANCIS E. LESTER, Mesilla Park, N. Mex.
Filed December 29, 1911. Serial No. 60,505. PUBLISHED MARCH 5, 1912.

86,417. CERTAIN PHARMACEUTICAL PREPARATIONS. THE LEWIS REAR DRUG COMPANY, Pensacola, Fla.
Filed November 30, 1908. Serial No. 38,991. PUBLISHED FEBRUARY 27, 1912.

86,418. FRESH GRAPES. THOS. H. LYNCH, near Fresno, Cal.
Filed August 23, 1911. Serial No. 58,339. PUBLISHED FEBRUARY 27, 1912.

86,419. INSECT-DESTROYER. MAGIC CHEMICAL COMPANY, Jersey City, N. J.
Filed September 10, 1910. Serial No. 51,753. PUBLISHED FEBRUARY 14, 1911.

86,420. TOOTH-POWDER. MARCOS MANOOGIAN, Philadelphia, Pa.
Filed July 28, 1911. Serial No. 57,900. PUBLISHED MARCH 5, 1912.

86,421. TOBACCO-PIPES AND CIGAR AND CIGARETTE HOLDERS. MARECHAL, RUCHON & CO. LTD., London, England, and Paris, France.
Filed August 25, 1908. Serial No. 36,933. PUBLISHED FEBRUARY 27, 1912.

86,422. TWINE. MARSHALL & COMPANY, Kearney, N. J.
Filed December 14, 1911. Serial No. 60,225. PUBLISHED MARCH 5, 1912.

86,423. SPARK-PLUGS. THE MARSHALLTOWN MOTOR MATERIAL MFG. CO., Marshalltown, Iowa.
Filed January 12, 1912. Serial No. 60,771. PUBLISHED MARCH 5, 1912.

86,424. WHEAT-FLOUR. MATHERS BROTHERS, Greenville, Pa.
Filed May 1, 1908. Serial No. 34,528. PUBLISHED FEBRUARY 27, 1912.

86,425. PISTOLS, REVOLVERS, SHOTGUNS, AND RIFLES. C. M. MCCLUNG & CO., Knoxville, Tenn.
Filed November 1, 1911. Serial No. 59,459. PUBLISHED FEBRUARY 27, 1912.

86,426. PISTOLS, REVOLVERS, SHOTGUNS, AND RIFLES. C. M. MCCLUNG & CO., Knoxville, Tenn.
Filed November 1, 1911. Serial No. 59,460. PUBLISHED FEBRUARY 27, 1912.

86,427. ASPHALT AND COMPOSITION ROOFING. C. M. MCCLUNG & CO., Knoxville, Tenn.
Filed November 1, 1911. Serial No. 59,461. PUBLISHED FEBRUARY 27, 1912.

86,428. INDIGESTION REMEDY. MCCUSKER AND BARNES, Annapolis, Md.
Filed December 23, 1911. Serial No. 60,428. PUBLISHED MARCH 5, 1912.

86,429. TOBACCO-PIPES. METROPOLITAN TOBACCO CO., New York, N. Y.
Filed October 27, 1911. Serial No. 59,369. PUBLISHED MARCH 5, 1912.

86,430. PNEUMATIC TIRES FOR AUTOMOBILES. MICHELIN TIRE COMPANY, Clermont-Ferrand, France, and Milltown, N. J.
Filed December 19, 1911. Serial No. 60,350. PUBLISHED FEBRUARY 27, 1912.

86,431. CHUCKS FOR HOLDING REMOVABLE TOOLS. MILLERS FALLS COMPANY, Montague and Millers Falls, Mass.
Filed August 19, 1910. Serial No. 51,457. PUBLISHED SEPTEMBER 27, 1910.

86,432. CARBOLIZED SOAP PASTE AND HAND-SOAP. MONYBAK MFG. COMPANY, INC., Hartford, Conn.
Filed May 31, 1911. Serial No. 56,703. PUBLISHED MARCH 5, 1912.

86,433. COTTON PIECE GOODS. MUSTARD & COMPANY, New York, N. Y., and Shanghai, China.
Filed November 24, 1911. Serial No. 59,903. PUBLISHED FEBRUARY 27, 1912.

86,434. GELATIN AS INGREDIENT OF FOOD. NAAMLOOZE VENNOOTSCHAP LYM-EN GELATINEFABRIEK "DELFT," Delft, Netherlands.
Filed December 28, 1910. Serial No. 53,520. PUBLISHED MARCH 5, 1912.

86,435. CANDY. THE NATIONAL CANDY COMPANY, Jersey City, N. J., and St. Louis, Mo.
Filed October 6, 1909. Serial No. 45,162. PUBLISHED APRIL 12, 1910.

86,436. STRUCTURAL BLOCKS, BRICKS, AND TILES OF TERRA-COTTA AND CLAY. NATIONAL FIRE PROOFING COMPANY, Pittsburgh, Pa.
Filed December 29, 1911. Serial No. 60,509. PUBLISHED MARCH 5, 1912.

86,437. HORSE FEED. NATIONAL WAREHOUSE AND STORAGE COMPANY, East St. Louis, Ill.
Filed November 9, 1911. Serial No. 59,630. PUBLISHED FEBRUARY 27, 1912.

86,438. CERTAIN MEDICAL APPLIANCES. NEEL-ARMSTRONG COMPANY, Akron, Ohio.
Filed December 15, 1911. Serial No. 60,263. PUBLISHED MARCH 5, 1912.

86,439. UNCUT KID-LEATHER. NEW CASTLE LEATHER CO., New York, N. Y.
Filed June 7, 1911. Serial No. 56,872. PUBLISHED SEPTEMBER 19, 1911.

86,440. LIQUID SUBSTITUTE FOR COURT-PLASTER. NEWSKIN COMPANY, Brooklyn, N. Y.
Filed October 24, 1911. Serial No. 59,320. PUBLISHED MARCH 5, 1912.

86,441. CERTAIN SPORTING GOODS. NEWTON LINE COMPANY, Homer, N. Y.
Filed June 28, 1911. Serial No. 57,359. PUBLISHED FEBRUARY 27, 1912.

86,442. WASHING, CLEANING, AND SCOURING PREPARATIONS. PACIFIC SPECIALTY COMPANY, Portland, Oreg.
Filed January 10, 1912. Serial No. 60,723. PUBLISHED FEBRUARY 27, 1912.

86,443. RUBBER BATHING-CAPS. PARKER, STEARNS & COMPANY, New York and Brooklyn, N. Y.
Filed December 15, 1911. Serial No. 60,266. PUBLISHED MARCH 5, 1912.

86,444. RUBBER BATHING-CAPS. PARKER, STEARNS & COMPANY, New York and Brooklyn, N. Y.
Filed December 15, 1911. Serial No. 60,267. PUBLISHED MARCH 5, 1912.

86,445. TOBACCO-PIPES. PHOENIX-AMERICAN PIPE WORKS, Washington, Mo.
Filed July 12, 1911. Serial No. 57,595. PUBLISHED FEBRUARY 27, 1912.

86,446. TABLETS, A REMEDY FOR CONSTIPATION. PINKO-LAXIN MEDICINE CO., St. Louis, Mo.
Filed October 27, 1911. Serial No. 59,370. PUBLISHED MARCH 5, 1912.

86,447. POLISHING-CLOTHS. PITTSBURGH MANUFACTURERS SALES CO., Pittsburgh, Pa.
Filed December 1, 1911. Serial No. 60,030. PUBLISHED MARCH 5, 1912.

86,448. TOILET POWDERS. ED PLANTÉ, SUCESORES FRANCISCO SABIO Y CIA., Habana, Cuba.
Filed March 31, 1911. Serial. No. 55,440½. PUBLISHED FEBRUARY 27, 1912.

86,449. BLUING FOR LAUNDRY PURPOSES. RECKITT & SONS, LTD., Hull, England.
Filed September 27, 1911. Serial No. 58,872. PUBLISHED FEBRUARY 27, 1912.

86,450. BREAD-BOXES. THE REPUBLIC METALWARE COMPANY, Buffalo, N. Y.
Filed November 25, 1910. Serial No. 52,930. PUBLISHED MARCH 5, 1912.

86,451. HAIR-TONIC. ALBINO RESIDORI, Carbon Hill, Ill.
Filed December 19, 1911. Serial No. 60,354. PUBLISHED FEBRUARY 27, 1912.

86,452. SMOKING AND CHEWING TOBACCO, CIGARS, CIGARETTES, AND SNUFF. R. J. REYNOLDS TOBACCO COMPANY, Winston Salem, N. C.
Filed December 1, 1911. Serial No. 60,022. PUBLISHED MARCH 5, 1912.

86,453. CANNED OYSTERS. RICE BROS. PACKING CO., Apalachicola, Fla.
Filed November 2, 1911. Serial No. 59,498. PUBLISHED FEBRUARY 27, 1912.

86,454. COTTON, SILK, LINEN, AND MERCERIZED LACES. RICHMOND LACE WORKS, Portland, Me., and Alton, R. I.
Filed October 23, 1911. Serial No. 59,290. PUBLISHED MARCH 5, 1912.

86,455. PERFUMES, TOILET WATER, FACE-CREAM, TOOTH-PASTE, AND TOOTH-POWDER. PAUL RIEGER & Co., San Francisco, Cal.
Filed October 14, 1911. Serial No. 59,158. PUBLISHED FEBRUARY 27, 1912.

86,456. PERFUMES. ROBINSON BROS. & COMPANY, INCORPORATED, Portland, Me., and Malden, Mass.
Filed December 22, 1911. Serial No. 60,412. PUBLISHED MARCH 5, 1912.

86,457. MEDICAL COMPOUND. ROBINSON & DAVIS, San Antonio, Tex.
Filed January 16, 1912. Serial No. 60,837. PUBLISHED MARCH 5, 1912.

86,458. MOTOR-CARS AND CHASSIS. ROLLS-ROYCE LIMITED, Osmaston, Derby, England.
Filed January 4, 1912. Serial No. 60,624. PUBLISHED MARCH 5, 1912.

86,459. OVERCOATS, COATS, WAISTCOATS, AND TROUSERS. JOHN RUGHEIMER SONS, Charleston, S. C.
Filed January 17, 1912. Serial No. 60,863. PUBLISHED MARCH 5, 1912.

86,460. EMBALMING FLUID. SALAFIA PERMANENT EMBALMING METHOD CO., New York, N. Y.
Filed November 16, 1911. Serial No. 59,748. PUBLISHED MARCH 5, 1912.

86,461. MATTRESSES AND FEATHER PILLOWS. G. W. SAMMET & SON CO., Boston, Mass.
Filed January 15, 1912. Serial No. 60,823. PUBLISHED FEBRUARY 27, 1912.

86,462. SALVES AND BALMS. STEPHEN K. SASS, Chicago, Ill.
Filed January 12, 1912. Serial No. 60,760. PUBLISHED MARCH 5, 1912.

86,463. CERTAIN MEDICINES. THE C. L. SHEPPARD SANITORIUM AND REMEDY CO., Findlay, Ohio.
Filed June 29, 1908. Serial No. 35,840. PUBLISHED OCTOBER 31, 1911.

86,464. VEGETABLE GUMS FOR USE IN THE MANUFACTURE OF CHEWING-GUM. GEORGE W. SHERMAN, Akron, Ohio.
Filed August 6, 1909. Serial No. 44,005. PUBLISHED FEBRUARY 27, 1912.

86,465. CERTAIN MEDICINAL PREPARATIONS. C. F. SIMMONS MEDICINE COMPANY, INCORPORATED, St. Louis, Mo.
Filed June 3, 1910. Serial No. 50,105. PUBLISHED OCTOBER 31, 1911.

86,466. ORANGES, LEMONS, GRAPE-FRUIT, TANGERINES, AND LIMES. LEE B. SKINNER, Dunedin, Fla.
Filed January 2, 1912. Serial No. 60,562. PUBLISHED MARCH 5, 1912.

86,467. ORANGES, LEMONS, GRAPE-FRUIT, TANGERINES, AND LIMES. LEE B. SKINNER, Dunedin, Fla.
Filed January 2, 1912. Serial No. 60,563. PUBLISHED MARCH 5, 1912.

86,468. ORANGES, LEMONS, GRAPE-FRUIT, TANGERINES, AND LIMES. LEE B. SKINNER, Dunedin, Fla.
Filed January 2, 1912. Serial No. 60,564. PUBLISHED MARCH 5, 1912.

86,469. WOVEN GRASS RUGS. W. & J. SLOANE, New York, N. Y.
Filed January 31, 1912. Serial No. 61,141. PUBLISHED MARCH 5, 1912.

86,470. BULGARIAN CURDLED MILK, (YOGHOURT.) SOCIÉTÉ ANONYME LA MAYA BULGARE, Paris, France.
Filed June 13, 1910. Serial No. 50,297. PUBLISHED MARCH 5, 1912.

86,471. TEA. SOCIÉTÉ PAR ACTIONS POUR LE COMMERCE DE THÉ K H C POPOFF FRÈRES MOSCOU, Moscow, Russia.
Filed January 25, 1911. Serial No. 54,078. PUBLISHED MARCH 5, 1912.

86,472. CHEMICAL PREPARATION AND DEVICES FOR KILLING FLIES. HAROLD SOMERS, Brooklyn, N. Y.
Filed January 3, 1912. Serial No. 60,581. PUBLISHED MARCH 5, 1912.

86,473. REFRIGERATORS. ST. PAUL SHOW CASE MANUFACTURING CO., St. Paul, Minn.
Filed November 25, 1910. Serial No. 52,941. PUBLISHED FEBRUARY 27, 1912.

86,474. TANKS FOR CHEMICAL FLUIDS. STEWART & HOLMES DRUG COMPANY, Seattle, Wash.
Filed October 2, 1911. Serial No. 58,960½. PUBLISHED FEBRUARY 27, 1912.

86,475. REMEDY FOR KIDNEY AND BLADDER DISEASES. HARRY M. SWARTLEY, Savannah, Ga.
Filed November 2, 1911. Serial No. 59,499. PUBLISHED MARCH 5, 1912.

86,476. MEDICATED PLASTERS. FRANK G. THOMAS, Mankato, Minn.
Filed May 18, 1911. Serial No. 56,431. PUBLISHED FEBRUARY 27, 1912.

86,477. ELECTRICAL MASSAGING APPLIANCE. EDWIN THOMPSON, Liverpool, England.
Filed September 25, 1911. Serial No. 58,845. PUBLISHED MARCH 5, 1912.

86,478. FLOUR. THORNTON & CHESTER MILLING CO., Buffalo, N. Y.
Filed October 9, 1911. Serial No. 59,065. PUBLISHED FEBRUARY 27, 1912.

86,479. FLOUR. THORNTON & CHESTER MILLING CO., Buffalo, N. Y.
Filed October 9, 1911. Serial No. 59,067. PUBLISHED FEBRUARY 27, 1912.

86,480. FLOUR. THORNTON & CHESTER MILLING CO., Buffalo, N. Y.
Filed October 9, 1911. Serial No. 59,068. PUBLISHED FEBRUARY 27, 1912.

86,481. FLOUR. THORNTON & CHESTER MILLING CO., Buffalo, N. Y.
Filed October 9, 1911. Serial No. 59,069. PUBLISHED FEBRUARY 27, 1912.

86,482. BAKING-POWDER. JOHN W. TRENTMAN, Cleveland, Ohio.
Filed December 26, 1911. Serial No. 60,451. PUBLISHED MARCH 5, 1912.

86,483. TALCUM POWDER, TOILET WATER, AND ROUGE. ELLA R. TREVASKIS, St. Louis, Mo.
Filed January 27, 1911. Serial No. 54,150. PUBLISHED MAY 16, 1911.

86,484. CERTAIN MEDICINAL PREPARATIONS. H. TROMMSDORFF, Erfurt and Aix-la-Chapelle, Germany.
Filed February 21, 1908. Serial No. 32,913. PUBLISHED FEBRUARY 27, 1912.

86,485. WOVEN TUBES FOR ELECTRICAL CONDUCTORS. TUBULAR WOVEN FABRIC CO., Pawtucket, R. I.
Filed October 21, 1911. Serial No. 59,264. PUBLISHED MARCH 5, 1912.

86,486. SKIN-LOTION. THE UNION NEWS COMPANY, New York, N. Y.
Filed November 4, 1911. Serial No. 59,543. PUBLISHED MARCH 5, 1912.

86,487. CIGARS. UNITED CIGAR MANUFACTURERS COMPANY, New York, N. Y.
Filed July 28, 1911. Serial No. 57,903. PUBLISHED MARCH 5, 1912.

86,488. VEILINGS. E. & Z. VAN RAALTE, New York, N. Y.
Filed January 18, 1912. Serial No. 60,894. PUBLISHED MARCH 5, 1912.

86,489. DENTIFRICE. ARISTIDE VÊVE, Paris, France.
Filed November 21, 1911. Serial No. 59,842. PUBLISHED MARCH 5, 1912.

86,490. ANTISEPTICS. DAVID PAUL WALDMAN, New York, N. Y.
Filed November 11, 1911. Serial No. 59,653. PUBLISHED FEBRUARY 27, 1912.

86,491. CHEWING-GUM. WHEELING GUM COMPANY, Wheeling, W. Va.
Filed December 15, 1911. Serial No. 60,278. PUBLISHED FEBRUARY 27, 1912.

86,492. SHERRY-WINE. JULIUS WILE, SONS & Co., New York, N. Y.
Filed January 11, 1912. Serial No. 60,734. PUBLISHED MARCH 5, 1912.

86,493. CERTAIN PHARMACEUTICAL PREPARATIONS. WALTER M. WILLETT, San Francisco, Cal.
Filed November 6, 1911. Serial No. 59,584. PUBLISHED FEBRUARY 27, 1912.

86,494. HAIR-TONIC. DOROTHY D. WOOD, Kansas City, Mo.
Filed November 13, 1911. Serial No. 59,707. PUBLISHED MARCH 5, 1912.

86,495. NURSES' UNIFORMS — NAMELY, SHIRT-WAISTS, SKIRTS, APRONS, AND CAPS. BERTHA MFG. CO., South Norfolk, Va.
Filed October 11, 1911. Serial No. 59,098. PUBLISHED MARCH 5, 1912.

86,496. FERTILIZERS. BOWKER FERTILIZER COMPANY, New York, N. Y.
Filed December 15, 1911. Serial No. 60,243. PUBLISHED MARCH 5, 1912.

86,497. SALVES. HENRY VON FRIELING, New York, N. Y.
Filed January 18, 1912. Serial No. 60,893. PUBLISHED MARCH 5, 1912.

86,498. LINIMENTS. LANMAN & KEMP, New York, N. Y.
Filed October 2, 1909. Serial No. 45,106. PUBLISHED FEBRUARY 15, 1910.

86,499. CERTAIN CUTLERY AND TOOLS. NORVELL-SHAPLEIGH HARDWARE COMPANY, St. Louis, Mo.
Filed November 14, 1905. Serial No. 14,613. PUBLISHED JANUARY 11, 1910.

LABELS

REGISTERED MAY 7, 1912.

16,321.—*Title:* "KIL-BUG." (For Insect-Powder.) EDWARD M. CASHION, Schenectady, N. Y. Filed March 1, 1912.

16,322.—*Title:* "SURINAM CHOCOLATE." (For Chocolate.) GOTTMANN & KRETCHMER, Chicago, Ill. Filed April 5, 1910.

16,323.—*Title:* "HORSE SHOE GRIST MILL CEREAL STAFF OF LIFE." (For Cereal.) HORSE SHOE GRIST MILL, Horseshoe, N. Y. Filed April 19, 1912.

16,324.—*Title:* "FLAG BRAND MAKE WINNER SHIRT." (For Work-Shirts.) DAY KROLIK, Detroit, Mich. Filed March 28, 1912.

16,325.—*Title:* "FLAG BRAND MAKE MASCOT SHIRT." (For Work-Shirts.) DAY KROLIK, Detroit, Mich. Filed March 28, 1912.

16,326.—*Title:* "SERAFIN ALVAREZ." (For Wine.) LUISA MARTINEZ IDA DE ALVAREZ, Puerto de Santa Maria, Spain. Filed March 18, 1912.

16,327.—*Title:* "CRISPY FLUFFS THE SHREDDED CANDY." (For Candy.) THE MAX GLICK CO., Cleveland, Ohio. Filed February 7, 1912.

16,328.—*Title:* "HAVANA STYLE." (For Cigars.) THE MOEHLE LITHOGRAPHIC COMPANY, New York, N. Y. Filed February 7, 1912.

16,329.—*Title:* "FRENCH MARKET." (For Roasted Coffee and Chicory.) NEW ORLEANS COFFEE CO., L'T'D, New Orleans, La. Filed March 26, 1912.

16,330.—*Title:* "GOLDEN ROD." (For Tablets.) OSBORN PAPER COMPANY, Marion, Ind. Filed April 17, 1912.

16,331.—*Title:* "MOTHER'S DELIGHT." (For Canned Corn.) SMITH-YINGLING CO., Westminster, Md. Filed February 10, 1912.

16,332.—*Title:* "BANGORIA." (For Pockets of Shirts.) HARRY SOFFERMAN, Bangor, Pa. Filed January 26, 1912.

16,333.—*Title:* "ULRICI'S MORRHUALTA COMPOUND ELIXIR." (For Pharmaceutical Preparation.) CHARLES J. ULRICI, New York, N. Y. Filed March 30, 1912.

16,334.—*Title:* "VAN'S PURE CALIFORNIA HONEY." (For Honey.) THE VAN-THOMAS CO., Los Angeles, Cal. Filed February 19, 1912.

16,335.—*Title:* "COFFEE RANCH." (For Coffee.) JOHN T. WATKINS, Lansing, Mich. Filed April 15, 1912.

PRINTS

REGISTERED MAY 7, 1912.

3,021.—*Title:* "JOY-WALK." (For Corn-Plasters.) ASEPTIC PRODUCTS COMPANY, Long Island City, N. Y. Filed April 10, 1912.

3,022.—*Title:* "TIFFIN ROOM COFFEE." (For Coffee.) FRED WOLFERMAN "GOOD THINGS TO EAT" CO., Kansas City, Mo. Filed February 8, 1912.

3,023.—*Title:* "GALAXY." (For Soap.) HERMAN GENSEKE, Streator, Ill. Filed April 3, 1912.

3,024.—*Title:* "BRASS BEDS MAKE THIS TEST." (For Brass Beds.) PITTSBURGH-HICKSON COMPANY, East Butler, Pa. Filed April 10, 1912.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE BEARD.

Decided February 28, 1912.

APPLICATION—PROSECUTION—ABANDONMENT.

The fact that an amendment filed at the end of the year and presenting new claims did not point out wherein those claims avoided the references did not justify the Examiner in holding the case abandoned for lack of sufficient prosecution where it appeared that the new claims were drawn along the line of an allowed claim.

ON PETITION.

CAR-COUPLER.

Messrs. Mason, Fenwick & Lawrence for the applicant.

MOORE, *Commissioner:*

This is a petition from the action of the Examiner holding the above-entitled application abandoned for lack of proper prosecution.

The record shows that on November 17, 1910, the Examiner rejected all of applicant's claims except claim 8. On November 17, 1911, applicant filed an amendment in which he canceled all the rejected claims except claim 10, made an amendment to said claim and a formal amendment to claim 8, and added two additional claims. The Examiner held this amendment insufficient in that applicant failed to point out wherein the new claims submitted differentiated from the references of record.

Applicant states that the new claims were drawn along the lines of claim 8 and included the features upon which said claim was supposed to have been allowed, and that under these circumstances an argument pointing out wherein the claims differentiated from the references was deemed unnecessary.

The Examiner states that claim 8 was overlooked and should have been rejected in his action of November 17, 1910, and that whether claim 8 was rejected or allowed would not seem to have any bearing on the status of the case.

It is considered, however, that the action of the Examiner in apparently allowing claim 8 warranted applicant in assuming that in presenting his claims relating to the same subject-matter an argument was unnecessary.

The record further shows that in applicant's previous amendment, filed August 20, 1910, in response to the Examiner's action of January 28, 1910, a new claim, without argument, was presented, concerning which the Examiner raised no question about the sufficiency of the action. Apparently applicant had no reason to suppose that in presenting a similar amendment at the end of the year a different view of the matter would be taken by the Examiner.

Under the conditions presented it is held that the amendment of November 17, 1911, was a proper prosecution of the case and that the application is not abandoned.

The petition is granted.

DIETZE AND DIETZE *v.* GUSSMAN.

Decided April 8, 1912.

INTERFERENCE—TESTIMONY—SURREBUTTAL.

Where G. introduced in evidence as proof of reduction to practice of the invention in issue certain machines and in rebuttal D. introduced testimony to show that these machines would not operate in the manner alleged, *Held* that G. was not entitled to take surrebuttal testimony.

APPEAL on motion.

DUPLICATING-MACHINE.

Mr. John D. Caplinger for Dietze and Dietze.

Mr. Arthur B. Jenkins for Gussman.

MOORE, *Commissioner:*

This is an appeal by Gussman from a decision of the Examiner of Interferences denying his request for permission to take surrebuttal testimony.

During the taking of his testimony-in-chief Gussman introduced in evidence as proof of his reduction to practice of the invention in issue a certain exhibit, which was marked "Exhibit Second, Key Cutting Machine." He also testified that this machine was operated to cut keys for several years, stating that he could only cut blanks of the pin-cylinder type. In rebuttal Dietze and Dietze offered testimony to show that the construction of the machine was such that it could not have been successfully operated to cut keys of this type. It is alleged on behalf of Gussman that this testimony took him by surprise and that he was entitled to offer testimony in rebuttal thereof. He admits that it was his duty to guard against all ordinary attacks upon his evidence, but submits that it was absolutely impossible to guard against "erroneous and mistaken supposition" as to the operation of the device.

Gussman having introduced this machine in evi-

dence, the testimony on behalf of Dietze and Dietze that it would not operate in the manner alleged was clearly proper rebuttal and such as Gussman might well have anticipated. He may have been surprised at the view that the witness took of his machine; but certainly it is not a legal surprise that Dietze and Dietze saw fit to attack the manner of operating this device.

In the case of *Ritter* v. *Krakau and Connor* (104 O. G., 1897) it was held that Krakau and Connor were not entitled to present surrebuttal testimony where Ritter had called a witness to testify that the device shown in a drawing introduced in evidence on behalf of Krakau and Connor was inoperative. After stating the facts of the case it was said:

> The record does not support the allegation of surprise. Wright's testimony does not refer to a new subject, but merely presents a different view of the evidence introduced by Krakau and Connor. They introduced a drawing as proof that they made the invention at a certain date prior to filing their application and as a part of their evidence described the construction and operation of the device shown in the drawing. To rebut this, Ritter attempted to show that the device would not operate as described and was inoperative. This was legitimate rebuttal evidence. Krakau and Connor may have been surprised at the reasoning of Wright and Ritter as to the operation of the device and may differ with them as to their conclusion; but there is no good ground for the allegation that new matter was brought into the case.

The decision of the Examiner of Interferences is affirmed.

GAMMETER *v.* THROPP.

Decided April 16, 1912.

INTERFERENCE—MOTION TO AMEND PRELIMINARY STATEMENT—DISCRETION OF EXAMINER OF INTERFERENCES.

When the Examiner of Interferences postpones consideration of a motion to amend a preliminary statement until the final hearing, his action will not be disturbed unless it is apparent that in so ruling he has abused his discretion.

APPEAL from Examiner of Interferences on motion.

TIRE-MAKING MACHINE.

Mr. Seward Davis for Gammeter.

Messrs. Brown & Seward for Thropp.

BILLINGS, *First Assistant Commissioner:*

This is an appeal by Gammeter from a decision of the Examiner of Interferences upon his motion to amend his preliminary statement.

Upon a rehearing the Examiner of Interferences ruled:

> In cases such as this where the testimony has already been taken, a consideration of the question of the right to amend can be best determined upon a review of all of the evidence when the case is taken up for final disposition. If the evidence is already in there is no special reason for passing upon the motion to amend prior to final disposition of the case. A similar situation arose in the case of *Bauer v. Crone*, (111 O. G., 1939; C. D., 1904, 336.) In that case the Examiner of Interferences had denied Bauer's motion to amend his preliminary statement and also denied a petition for rehearing. Upon appeal to the Commissioner the decision of the Examiner of Interferences was affirmed and Bauer was given an opportunity to renew his motion to amend when the case came up for final hearing. It is believed that in this case it might have been well to postpone consideration of the original motion until the case was ready for final disposition. Although this was not done, there appears to be no sufficient reason for further investigating the matter prior to the time when the whole case can be considered together. The present petition for rehearing will therefore be denied, but Gammeter will be given an opportunity to present a renewed motion to amend his preliminary statement at the final hearing.

When the Examiner of Interferences postpones consideration of a motion to amend a preliminary statement until the final hearing, his action will not be disturbed unless it is apparent that in so ruling he has abused his discretion. No such abuse of discretion appears. On the contrary, inasmuch as it is necessary to consider the testimony in order to properly decide the motion, the Examiner of Interferences wisely postponed his decision until final hearing.

The appeal is dismissed.

EX PARTE POPE.

Decided February 17, 1912.

APPLICATION—CLAIMS FOR INDEPENDENT INVENTION—PRACTICE.

A requirement by the Examiner that claims be canceled and presented, if at all, in a copending divisional application *Held* reviewable in the first instance by the Examiners-in-Chief on appeal.

ON PETITION.

DRAFT-GEAR AND BUFFING MECHANISM.

Messrs. Bakewell, Byrnes & Parmelee for the applicant.

TENNANT, *Assistant Commissioner:*

This is a petition from the action of the Primary Examiner requiring that certain claims recently presented in this case be canceled and presented, if at all, in a copending divisional application.

It appears that the divisional application was based upon certain modifications described, but not illustrated, in this application and which were eliminated from this case upon a requirement of the Examiner at about the time the divisional application was filed. The Examiner holds that the claims in question cannot be properly read upon the present disclosure of this case, but can be properly entered in the divisional case. Applicant maintains that the claims can be made here and that there is no proper line of division between them and others which admittedly have a foundation in this application.

The question presented is clearly one equivalent to a requirement for division, and it is well settled that an action if this kind is reviewable upon appeal to the Examiners-in-Chief in the first instance and not upon petition. (*Ex parte Selle*, 110 O. G., 1728; *ex parte Tuttle*, 113 O. G., 1967; *ex parte Barnes*, 115 O. G., 347; *ex parte Bullock*, 127 O. G., 1580.)

The fact that the Examiner of Interferences shifted the burden of proof in an interference involving the divisional case by giving applicant the benefit of the date of the parent case is not controlling on the question of division. In order to so shift the burden of proof, it was only necessary for the Examiner of Interferences to find that the second case was a true division of the earlier case. This is admitted by the Primary Examiner. Furthermore, even assuming that the claims in question can be read accurately upon both the drawing and description of each of the cases, the requirement from which this petition is taken might still be made under certain circumstances—as, for instance, where the Examiner was of the opinion that the claims in question cover a separate species or an invention distinct from that previously elected. Applicant has mistaken his remedy.

The petition is dismissed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

MILLS AND CONN *v.* DARLINGTON, (No. 731.) MILLS AND CONN *v.* ELLIOTT AND DARLINGTON, (No. 730.)

Decided January 2, 1912.

1. INTERFERENCE—BURDEN OF PROOF.

The burden of proof is upon the junior party to an interference, and where such junior party consists of joint applicants the burden is upon them to establish that they jointly conceived the invention at or about the time alleged in their preliminary statement.

2. SAME—PRIORITY.

Evidence considered and priority *Held* properly awarded to D., the senior party.

Mr. G. H. Parmelee for the appellants.

Mr. F. W. Winter for the appellees.

SHEPARD, *C. J.:*

These are appeals in two separate interference proceedings. But while separately declared they relate substantially to the same invention and involve the same controlling issue. The testimony was taken to be used in both. Separate decisions were rendered in the Patent Office, after consolidation, and they have been heard together in this court.

The subject-matter of the invention is an improved rotary motor, operated by means of compressed air, and devised for use in removing the scale from boiler-tubes, though it may be put to some other uses.

The first application making claims to any part of the invention was a joint one filed by Mills and Conn and Herman Van Ormer on December 8, 1906. Darlington filed one application February 15, 1907, and another June 17, 1907. Mills and Conn filed two separate applications September 24, 1907. William S. Elliott filed an application January 20, 1908. Van Ormer filed a separate application November 12, 1907, which resulted in a patent August 30, 1910.

Four interferences in all were declared, involving some of the claims in the various applications. Two having been disposed of in the Office finally, the litigation proceeded in the last two. Interference No. 28,678 to which Elliott was a party also, was declared with an issue of six counts as follows:

> 1. In a rotary motor, a piston shaft, a rear bearing for said shaft, an air space adjacent to said bearing, and means for venting said space.
> 2. A rotary motor having an air space at the rear end of the piston shaft, and means for venting said space.
> 3. In a motor, a cylinder having a longitudinally extending admission port, ported heads fitted to the ends of the cylinder and detachably secured thereto, said heads having bearings for the motor shaft, and the rear head having an admission chamber therein, the rear head having a vent opening therein communicating with the rear shaft bearing.
> 4. A rotary motor having front and rear heads, a cylinder secured between the heads, a piston shaft journaled in the heads, a collar on the rear end of said shaft behind its bearing, an air chamber surrounding said collar, and means for venting the air chamber.
> 5. In a rotary motor, a piston shaft, a rear bearing for said shaft, and an air space adjacent to said bearing, said shaft having a shoulder forming a thrust bearing against the front wall of said air-space.
> 6. In a rotary motor, a piston shaft, a rear bearing for said shaft, an air space adjacent to said bearing, said shaft having a shoulder forming a thrust bearing against the front wall of said air space and means for venting said space.

Appeal No. 730 embodies this controversy. Interference No. 28,670 (appeal No. 731) was declared with an issue of eleven counts as follows:

> 1. In a motor, a cylinder having longitudinally extending admission and exhaust ports, ported heads fitted to the ends of the cylinder, and tension rods connecting the heads, said heads and cylinder having seats for said rods.
> 2. In a motor, a cylinder having a longitudinally extending admission port, a head at one end of the cylinder having an admission chamber therein, and a plug seated within the admission chamber and having a port therethrough which connects the chamber with the admission port of the cylinder.
> 3. In a rotary machine, a cylinder having a longitudinal piston chamber located eccentrically therein and having in its ends circular counterbores, heads, seated in counterbores, and tension rods connecting said heads.
> 4. In a rotary machine, a cylinder having a longitudinal piston chamber therein, heads closing the ends of said cylinder, and a piston shaft journaled in said heads, the rear end of said shaft being reduced and seated in the rear head and the front end of said shaft being of full diameter and projecting through the front head and being provided with means for the attachment of a tool.
> 5. In a motor, a cylinder having a longitudinally extending admission port, a head at one end of the cylinder having an admission chamber therein, and a bushing member seated within the admission chamber and having a bearing for the motor shaft, and also having a port therethrough which connects the chamber with the admission port of the cylinder.
> 6. In a motor, a cylinder having a longitudinally extending admission port, a head at one end of the cylinder having an admission chamber therein, a bushing seated within the admission chamber and having a port therethrough which connects the chamber with the admission port of the cylinder, and a piston shaft journaled at one end in said bushing and having a thrust collar at its rear end engaging said bushing.
> 7. In a motor, a cylinder having longitudinally extending admission and exhaust ports, ported heads fitted in the ends of said cylinder, a bushing member seated in one of said heads, and tension rods connecting the said heads and engaging the bushing member.
> 8. In a motor, a cylinder having a longitudinally extending admission port, a head at one end of the cylinder having an admission port therein, a supply pipe extending into said admission chamber, and means for filtering the air entering said chamber from said pipe.
> 9. A rotary motor having a rear head provided with a shaft bearing, a front head also having a shaft bearing, and lubricant passages in the front head, said passages communicating with the front shaft bearing, and one of them extending through the motor cylinder and into the rear head to the rear shaft bearing.
> 10. A rotary motor having front and rear heads, and a cylinder secured between said heads, the rear head having a chamber communicating with the air supply for the motor and also with the interior of the cylinder, and the front head having a lubricant passage extending therethrough and through the cylinder wall and rear head to the said chamber.
> 11. A rotary motor having a rear head, a bushing screwed in said head, and a hose shank extending through the said bushing and having a flange at its inner end, said bushing having a bore which is larger than the body of the shank, but which is of smaller diameter than the flange thereof.

By the decision of the Examiner of Interferences in No. 28,678, rendered March 16, 1910, priority was awarded to Elliott as to counts 1 and 2 and to Darlington as to counts 3, 4, 5, and 6. Darlington took no appeal. On appeals prosecuted by Elliott, and Mills and Conn, the Examiners-in-Chief reversed the decision appealed from, awarding priority to Elliott as to count 3 and to Mills and Conn as to counts 4, 5 and 6. Darlington appealed to the Commissioner, who affirmed the award as to count 3, but reversed it as to counts 4, 5 and 6, awarding priority to Darlington. From this decision Mills and Conn have appealed from so much thereof as awarded priority to Darlington. Darlington took no appeal. In No. 28,679 (appeal No. 731) the Examiner of Interferences held that count 11 was not patentable to either claimant; as to the remaining ten counts he awarded priority to Darlington. On appeal this latter part of the decision was reversed and priority awarded to Mills and Conn as to the

ten counts remaining. On appeal to the Commissioner by Darlington, the interference was dissolved as to count 11, the decision appealed from was reversed and priority was awarded to Darlington as to ten counts. The Examiner of Interferences and the Commissioner criticized the evidence of both parties declaring it unsatisfactory, and concluded that Mills and Conn had not overcome the burden of proof imposed upon them as the junior parties. In reaching this conclusion, the Commissioner said he had not found it necessary to consider Darlington's own testimony.

The Examiners-in-Chief (two members only, sitting) held that Darlington was wholly discredited, and that the evidence on behalf of Mills and Conn, while unsatisfactory, was sufficient to sustain the burden of proof. This appears in the following extract from their opinion in No. 28,679, (appeal 731:)

The Examiner of Interferences considered that the testimony introduced on behalf of Mills and Conn is insufficient to meet the demands of the burden of proof resting upon them by virtue of the fact that their applications were filed later than the applications of Darlington. The unsatisfactory character of the testimony introduced on behalf of Mills and Conn must be admitted, but in view of the fact that Darlington is discredited, we do not attach the same significance to the question of the burden of proof that we otherwise would. And, moreover, as the question to be decided is one of originality, and as the testimony shows that the Liberty Manufacturing Company was in possession of a motor or motors embodying the subject-matter of all of the counts in issue prior to the filing dates of either of the parties, the order of their filing dates loses its usual significance. The question to be determined is merely who was the originator of the motor or motors so proven to have been made.

The Office tribunals have discussed the several groups of counts relating to different features of the invention in a clear and satisfactory manner, and it is necessary, only, to consider the one question upon which the entire controversy rests. This is not one of priority of conception of the invention, but rather of originality; the parties are not independent inventors. Darlington by virtue of his prior application is the senior party, and Mills and Conn have the burden of overcoming his *prima facie* case. They must show by credible evidence that they jointly conceived the invention on or about the date alleged in their preliminary statement. The depositions of the chief witnesses are lengthy, and references are made to some documentary evidence filed as exhibits. These have not been incorporated in the printed record, but their substance and effect have been stated in the decisions below, as well as in the briefs of counsel, with substantial agreement. It is not necessary to consume space with a discussion of this evidence in detail, and we shall content ourselves with a statement of the conclusions therefrom on which our judgment is founded.

In the first place there are some undisputed facts and circumstances which may be recited. W. S. Elliott, the principal witness for the appellants, is the president of the Liberty Manufacturing Company, a Pennsylvania corporation, whose office and factory are in the city of Pittsburgh. That corporation is the assignee of Mills and Conn, and of Van Ormer, and their applications, including the joint application of the three, of December 8, 1906, were filed by Elliott's direction, and through the company's retained counsel. Darlington became vice-president and general manager of the company on November 5, 1905, under a contract, terminable or renewable at the end of six months. He was paid a salary and a certain percentage of net profits. He was in special charge of the manufacturing department, under the direction of the president, Elliott. Conn was a traveling salesman of the company. Mills was superintendent and foreman of the manufacturing department, under Darlington, and was employed in May, 1906, upon his recommendation. Van Ormer was a machinist in the employ of the Hartford Street Railway Co. and had constructed a machine for removing boiler-tube scale. It was a compressed-air motor. Prior to this the Liberty Company had been manufacturing and selling a water-driven motor. An agent of the company having seen Van Ormer's motor in a New York boiler-house, negotiations were entered into with Van Ormer, which resulted in the construction and delivery by him of a sample motor, and the transfer of the same and all his rights to the Liberty Company. Van Ormer had not applied for a patent, and, it seems, did not deem his construction patentable. It is in improvements upon this motor that the inventions in issue consist. These attempted improvements ran through the year 1906. Darlington is admitted to have devised a curved form of cylinder, called the "rotocentric curve," which it is claimed enable the larger motor of Van Ormer to be made of smaller size for use in small boiler-tubes. In January, 1907, Darlington went to the solicitors of the Liberty Company with a letter of introduction from Elliott, and retained them to file the application of February 17, 1907. The fees were paid by him personally, and the application was in his name and for his benefit. The application of June 17, 1907, was filed in the same way, but no letter of introduction from Elliott was then necessary. The first application embraced the "rotocentric curve" feature also. When the controversy arose, the solicitors informed Darlington that they had been under the impression when they accepted his retainer that there was no conflict with the interest of the company, and returned the fee paid to them. There was no objection to this, and Darlington retained another solicitor to represent him in the Patent Office. Darlington was discharged by the company and severed his connections therewith on August 31, 1907. Elliott, the chief witness for Mills and Conn, admits that he knew that Darlington intended to patent his "rotocentric curve," and gave him the letter to his solicitors with that expectation; but denies that he had knowledge of his purpose to claim any other improvements in the motor. His first step, upon discovery, and after disagreement with Darlington, was the institution of a suit in equity against him, in the name of the company, alleging a verbal agreement upon his employment, to assign all inventions made by him during the same to the company. A specific performance of his agreement was prayed, and a temporary injunction was obtained restraining Darlington from assigning the inventions to

others pending the suit. Testimony appears to have been taken—but it is not set out in the record. The injunction was, however, dissolved, and the bill dismissed. Thereafter the rival applications were filed by Elliott's direction. Mills was not called as a witness though it seems his attendance might have been procured. No original sketches have been produced by any of the parties, and the blue-prints produced from the files of the company nearly all bear the signature of Darlington. These indorsements are attempted to be explained by Elliott, as indicating not that they were made from Darlington's sketches, but by reason of his duty as manager of the mechanical department to formally approve all working drawings and plans to be used in manufacture.

Interferences reasonably deducible from some of the foregoing circumstances have more or less bearing upon the weight of the evidence. The only tribunal of the Office which found the evidence on behalf of the appellants to be sufficient to overcome the *prima facie* case of the appellee, admitted that it was of an unsatisfactory nature. In this we fully concur, and we further concur with the other tribunals that it is not of sufficient weight to sustain the burden of proof.

It was necessary to show that Mills and Conn jointly invented. The former, an experienced machinist, did not testify, and Conn, who was a traveling salesman of the company, did not testify with any certainty to joint invention. The burden of his testimony was a denial of invention by Darlington and an attack upon his credibility. Elliott was the chief witness relied on to support the claims of Mills and Conn, who had assigned their interest to the company of which he was president and majority stock-holder. His testimony tends to show that Conn and himself were the inspirers of nearly all of the improvements, and lacks certainty as regards the participation of Mills. It must be remembered that these efforts to improve the Van Ormer motor began in February, 1906, and that Mills did not come to the company's shops until May of that year. In this connection, also, it is to be borne in mind that Elliott inspired the joint application of Conn, Mills and Van Ormer. This application made after the alleged "tie-rod" improvement, a feature of the issue, did not include that construction. This joint application, it is now admitted, should have been in the name of Van Ormer alone. The explanation attempted to be made of this blunder, based on ignorance of law and facts, at the time, is a lame one. It is difficult to believe that the necessity of filing an application in the name of the real inventor alone is not well known to the manufacturers of machinery and mechanical devices in this country and that the facts relating thereto are not thoroughly investigated before making the application. Elliott claims that Darlington was deficient in practical knowledge and was discharged for that reason, yet he had been retained for more than a year after the end of the six-months period, and permitted to receive a considerable sum of the net profits. This dissatisfaction with Darlington seems rather to have followed upon the beginning of this controversy, because Elliott, in January in 1907, gave him the introduction to the company's patent solicitors knowing that he intended applying for a patent for one improvement, at least. He denies, however, that he had any further knowledge, while Darlington, on the other hand, testifies that he knew all. Elliott's assertion that he did not know of the applications, and that he knew positively that Darlington was not the true inventor, is inconsistent with his action in filing the bill to compel Darlington to assign his claims to the company. If he knew the claims to be baseless, why seek to compel their assignment? If convinced at that time, as he now says he was, that Darlington's claim was false and fraudulent, his proper course was to do as he did after the adverse decision in that case, namely, file the rival applications and contest the right in the Patent Office. Similar conduct was said in a recent case to be strongly persuasive that the claimant was then considered the inventor. (*Ladoff* v. *Dempster*, 36 App. D. C., 520–530.) Nor is Elliott's testimony to Darlington's incompetency as the manager of the mechanical department of his business reconcilable with the continuation of his contract of employment until the conflict occurred concerning these inventions.

Darlington's own testimony has been justly criticized by the Examiner of Interferences and the Commissioner who, nevertheless, awarded him priority. Elliott's testimony is, to say the least, subject to similar animadversion. But Darlington's case, as held by the Commissioner, does not necessarily depend upon the credibility and weight of his own testimony. By virtue of his seniority he is entitled to the award unless his opponents have been able to overcome his *prima facie* case. This, we agree with the Commissioner, they have not succeeded in doing. We are constrained, therefore, to affirm the decisions. It is so ordered, and that this decision be certified to the Commissioner of Patents.

Affirmed.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Cummer patent, No. 545,120, for a drier for drying paint, powder, drugs, and other material, claims 7, 8, 9, and 10 *Held* void for lack of patentable invention in view of the prior art. Claim 11 *Held* valid and infringed and claims 12, 21, 22, 23, and 28 not infringed. *F. D. Cummer & Son Co.* v. *Atlas Dryer Co.*, 193 Fed. Rep., 993.

(U. S. C. C.) The Moxham patent, No. 539,878, for a railway-switch structure, claims 1 and 2 *Held* valid and infringed. *Lorain Steel Co.* v. *White Mfg. Co.*, 193 Fed. Rep., 1001.

(U. S. D. C. The Litle patent, No. 961,504, for a globe or shade for gas-lamps, *Held* valid and infringed. *Welsbach Light Co.* v. *Elkins*, 193 Fed. Rep., 999.

Changes in Classification.

(ORDER No. 1,972.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 17, 1912.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division XXXIX, class 137, Water Distribution, establish subclass—

Mains and pipes—
Hose—
205. Take-up,

the patents therein being taken from class 212, Cranes and Derricks, hereinafter abolished.

In Division IV, class 214, Loading and Unloading, abolish subclasses—

Elevated carriers—
15. Draft-sustaining,
16. Lever-lock,
18. Ratchet-lock,
19. Rope-catch,
20. Sheave-frame catch,
22. Fall-rope carriers,

the patents formerly contained therein being placed in class 212, Traversing Hoists, hereinafter established.

In same division abolish class 212, Cranes and Derricks, with the existing subclasses, and establish class 212, Traversing Hoists, with the following subclasses and definitions:

CLASS 212.—TRAVERSING HOISTS.

Subclasses.

145. **Auxiliary supports.**
4. **Door-lifters.**
3. **Floating.**
144. **Jibs and masts.**
71. **Linear—**
76. Cable—
86. Automatic stop,
122. Carriage-holders, track-clamp,
87. Draft-rope, hoist-rope traverse—
91. Cable-return,
88. Divided hoist-rope,
92. Gravity return—
93. Cable,
89. Hook-lowering,
90. Running track,
94. Draft-rope, independent traverse—
95. Anchored hoist-rope,
96. Hook-lowering,
77. Load-handling—
78. Draft-rope—
79. Dumping—
80. Double-tackle,
81. Grab,
82. Sling,
83. Load-suspension—
84. Grab,
85. Sling,
97. Load-suspension—
98. Hoist, carry and lower,
115. Ratchet-sheave,
106. Rope-catch—
108. Pivoted—
109. Double,
107. Sliding,
110. Rope-grip—
114. Coacting sheave,
111. Variable-elevation—
112. Carriage-release,
113. Side-draft,

Linear—
Cable—
Load-suspension—
99. Running-rope,
100. Sheave-catch—
101. Pivoted cable-extension,
102. Sheave-frame catch—
104. Pivoted—
105. Double,
103. Sliding,
116. Trips, stops and knockers,
123. Pulley changers,
117. Rope carriers—
118. Cable-stop operated,
120. Carrier-sheave operated,
121. Permanently-spaced,
119. Trolley-supported,
72. Cable, ship-coaling type,
133. Hanging-cable traverse,
134. Non-motor traverse—
138. Fluid hoist,
139. Lever hoist,
135. Load-handling—
136. Discharging—
137. Automatic,
124. Self-propelled—
131. Electric—
132. Automatic stop,
125. Load-handling—
126. Electric—
127. Grab,
128. Guide-bar—
129. Grab,
130. Ladle,
73. Shiftable track—
74. Longitudinally-movable,
75. Tilting,
140. Surface—
142. Drum—
143. Intermittent-grip,
141. Self-propelled.

CLASS 212.—TRAVERSING HOISTS.—Continued.

Subclasses.

1. **Miscellaneous.**
28. **Rotary cranes—**
50. Automatic sluing—
51. Portable,
52. Variable radius—
53. Portable,
39. Automatic stop,
29. Combined crane and supporting rack,
48. Counterbalanced—
49. Portable,
61. Fixed radius—
62. Lever, first-class,
65. Portable,
63. Trolley,
64. Vertically-movable jib,
30. Fluid—
31. Swinging hoist-motor, cable-hoist,
32. Swinging hoist-motor, trolley-mounted,
33. Vertically-movable jib—
34. Mast-jack,
35. Vertically-swinging jib,
36. Line-shaft driven,
41. Load-handling—
42. Grab,
43. Portable—
44. Grab,
45. Sling,
40. Load-suspension,
47. Opposing jibs,
70. Pivots, steps and mast-caps,
46. Portable, horizontally-pivoted mast,
38. Self-propelled,
66. Sluing mechanism—
67. Bull-wheel,
68. Gear-sector,
69. Sluing-platform,
54. Variable radius—
55. Extensible jib,
60. Lever, first-class,
56. Trolley,
57. Vertically-movable jib
58. Vertically-swinging jib—
59. Portable,
37. Vehicle-wheel power.
7. **Skidding.**
5. **Track-straddling—**
6. Self-propelled.
10. **Traveling cranes—**
13. Gantry—
14. Load-handling,
15. Overhanging end—
16. Flexible bridge,
12. Horizontally-swinging bridge,
17. Jib,
11. Load-handling,
18. Overhead—
20. Bridge-mounted hoist-motor,
21. Electric—
22. Multiple-track,
19. Flexible bridge,
23. Stationary motor—
24. Cable-driven—
25. Fluid,
27. Traveling motor, cable-shift,
26. Traveling motor, fluid-hoist.
8. **Vertically-swinging hoist-frame—**
9. Load-handling.
2. **Weighing.**

(ORDER No. 1,974.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., April 24, 1912.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division VI establish class 252, Substance Preparation.

In Division XII, class 74, Machine Elements, establish subclass—

Cranks and levers—
81. Foot-levers,

the patents contained therein being taken from subclass 33, Cranks and levers, Handles, and subclass 39, Cranks and levers, Hand-levers, in the same class.

EDWARD B. MOORE,
Commissioner.

(ORDER No. 1,976.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 2, 1912.

The following change in the classification of inventions is hereby directed, to take effect immediately:

In Division XXXIII, class 72, Masonry and Concrete Structures, change the title of subclass—

Plastering—
Plaster-boards—
125. Ornaments,

to read—

Plastering—
125. Ornaments.

EDWARD B. MOORE,
Commissioner.

THE
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ISSUE OF MAY 14, 1912.

Patents	600—No.	1,025,956 to No.	1,026,645, inclusive.
Designs	33—No.	42,497 to No.	42,529, inclusive.
Trade-Marks	65—No.	86,500 to No.	86,564, inclusive.
Labels	5—No.	16,336 to No.	16,340, inclusive.
Prints	5—No.	3,025 to No.	3,029, inclusive.
Reissues	5—No.	13,416 to No.	13,420, inclusive.
Total	803		

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	4	1	North Carolina	....	1
Arizona	1	....	North Dakota	4	....
Arkansas	3	....	Ohio	42	8
California	27	3	Oklahoma	9	....
Colorado	11	....	Oregon	3	....
Connecticut	26	1	Pennsylvania	57	9
Delaware	1	....	Rhode Island	2	....
Florida	....	2	South Carolina	2	....
Georgia	5	....	South Dakota	1	....
Idaho	3	....	Tennessee	3	....
Illinois	76	2	Texas	14	....
Indiana	11	....	Utah	2	....
Iowa	10	....	Vermont	2	....
Kansas	7	....	Virginia	3	2
Kentucky	2	....	Washington	15	....
Louisiana	6	....	West Virginia	3	2
Maine	....	....	Wisconsin	14	1
Maryland	6	5	Wyoming	1	....
Massachusetts	38	2			
Michigan	23	....	Alaska, District of	....	....
Minnesota	13	1	Canal Zone	....	....
Mississippi	3	....	District of Columbia	7	....
Missouri	23	2	Hawaii Territory	1	....
Montana	....	....	Philippine Islands	....	....
Nebraska	4	1	Porto Rico	....	....
Nevada	....	....	U. S. Army	....	....
New Hampshire	2	3	U. S. Navy	....	....
New Jersey	34	5			
New Mexico	3	....	Total to citizens of the United States	646	65
New York	120	14			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	1	....	Netherlands	....	....
Austria-Hungary	1	....	New South Wales	1	....
Belgium	....	3	New Zealand	2	....
Brasil	....	....	Norway	....	1
Canada	11	....	Portugal	....	....
Columbia	....	....	Queensland	....	....
Cuba	....	....	Russia	....	....
Denmark	....	....	Scotland	....	....
Egypt	....	....	South Australia	....	....
England	12	1	Spain	....	....
Ecuador	....	....	Sweden	2	....
France	5	2	Switzerland	3	....
Germany	34	3	Transvaal, South Africa	1	....
Guatemala	....	....	Uruguay	1	....
India	....	....	Victoria	....	....
Ireland	....	....			
Italy	1	....	Total to citizens of foreign countries	76	10
Japan	1	....			
Mexico	....	....			

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 2, 1912.

J. C. Ferguson & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Cleveland Provision Co., 8 Bolivar street, Cleveland, Ohio, for registration of a trade-mark and trade-mark registered March 28, 1882, No. 9,244, to J. C. Ferguson & Co., of Chicago, Ill., and a notice of such declaration sent by registered mail to said J. C. Ferguson & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. C. Ferguson & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

Full Names of Applicants.

* * * All applications which disclose the full name of the applicant in the preamble of the specification will be received and considered as a sufficient compliance with Rule 40 of the Rules of Practice. (Order 821.)

When the full first name of the applicant does not appear either in his signature or in the preamble to the specification, the Examiner will, in his first official letter, require an amendment supplying the omission, and he will not pass the application to issue until the omission has been supplied, unless an affidavit shall have been filed setting forth that the full first name of the applicant is the one originally given by him. (Order 600.)

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 11, 1912.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Mar. 23	Mar. 23	570
128	2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	Mar. 8	Apr. 8	452
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Apr. 12	Apr. 29	189
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	Mar. 29	Apr. 3	532
167	5. Bookbinding; Harvesters; Jewelry; Music.	Feb. 23	Mar. 27	472
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Apr. 12	Apr. 12	294
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Feb. 5	Mar. 30	731
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Apr. 12	Apr. 12	328
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels.	Apr. 8	Apr. 9	332
235	10. Carriages and Wagons	Mar. 6	Mar. 19	755
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Mar. 4	Mar. 21	441
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Mar. 14	Mar. 14	709
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Mar. 19	Apr. 11	469
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Mar. 1	Apr. 4	453
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Feb. 23	Feb. 26	960
109	16. Telegraphy; Telephony	Mar. 29	Mar. 28	231
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Apr. 12	Apr. 11	338
327	18. Injectors and Ejectors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Mar. 18	Mar. 30	301
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Mar. 23	Mar. 20	429
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Mar. 16	Apr. 3	249
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 5	Mar. 28	412

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Apr. 1	Apr. 10	310
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Mar. 20	Mar. 20	479
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Mar. 16	Mar. 18	535
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Apr. 13	Apr. 17	201
106	26. Electricity, Generation; Motive Power.	Jan. 2	Jan. 4	592
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Apr. 1	Apr. 1	434
65	28. Internal-Combustion Engines	Jan. 31	Feb. 21	847
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Mar. 16	Apr. 10	502
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Feb. 23	Mar. 21	478
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Mar. 20	Mar. 23	333
278	32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	Mar. 15	Apr. 12	284
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Feb. 15	Mar. 12	491
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Mar. 13	Mar. 26	538
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Mar. 14	Mar. 27	757
264	36. Drafting; Driers; Engraving; Measuring Instruments; Photography.	Mar. 29	Mar. 29	622
107	37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Mar. 2	Apr. 5	493
378	38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working.	Feb. 19	Mar. 22	625
321	39. Water Distribution	Feb. 9	Feb. 20	626
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Apr. 15	Apr. 22	372
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 14	Mar. 26	639
279	42. Electric Railways; Electric Signaling; Railway Signaling; Signals.	Mar. 12	Mar. 11	530
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Apr. 12	Apr. 12	323

Oldest new case, Jan. 2; oldest amended, Jan. 4.

Total number of applications awaiting action..... 20,655

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Mar. 16	Mar. 19	1,202
	Designs	Feb. 12	Mar. 11	367
	Labels and Prints	May 1	Apr. 30	31

PATENTS

GRANTED MAY 14, 1912.

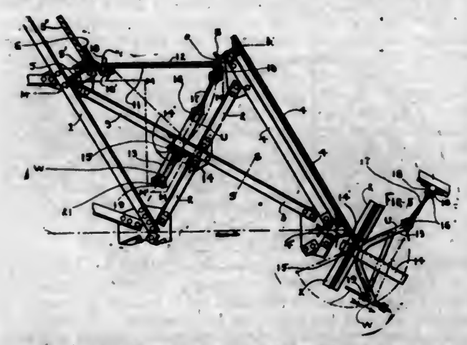
1,025,956. PROCESS FOR OBTAINING REFINED LEAD. JULIUS ASBECK, Krantscheid-Westerwald, Germany. Filed May 20, 1910. Serial No. 562,377. (Cl. 75—15.)

1. The process of refining lead which consists in adding a sulfid producing substance and caustic alkali thereto and mixing the ingredients in a molten condition and separating the lead from the slag.

2. The process of refining lead which consists in adding an alkaline sulfid and caustic alkali thereto and mixing the ingredients in a molten condition and separating the lead from the slag.

3. The process of refining lead which consists in adding sulfid of sodium and caustic soda thereto and mixing the ingredients in a molten condition and separating the lead from the slag.

1,025,957. LANTERN-WINDOWS AND THEIR OPERATING MECHANISM. WILLIAM BAYLEY, Springfield, Ohio. Filed Apr. 18, 1911. Serial No. 621,941. (Cl. 108—31.)



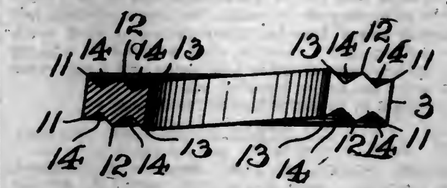
1. A supported main roof provided with a lantern opening along it, a lantern construction involving posts and rafters upholding a lantern roof above the lantern opening, vertical spaces from the main roof at the edges of the lantern opening to the undersides of the lantern roof, window sashes adapted to fill said vertical spaces, and the side posts of the lantern construction set in from the edge of the lantern opening to permit of window sashes being spung open inwardly into the space provided by setting the post in.

2. A main roof supported by trusses, with a lantern opening along it, within the opening a lantern construction involving posts, rafters and roof is supported by the trusses and held above the lantern opening, the outside posts of the lantern construction inclined inwardly from bottoms to tops, the lantern roof extending out beyond the edges of the lantern opening, vertical spaces from the main roof at the edges of the lantern opening to the undersides of the lantern roof in which to place window sashes, angles secured on top of the main roof at the edges of the lantern opening with one leg projecting upward, downward projecting shoulders under the edges of the lantern roof placed vertically above said angles, and a separate window sash with means to open it inwardly at the top closing each side of said lantern between said angles and said shoulders.

3. A supported main roof provided with a lantern opening along it, angles with one leg projecting upwardly, secured to the main roof at the edges of the lantern opening, and within the opening a lantern construction, involving outside posts, rafters and roof, extending above said main roof, the lantern roof extending out over the edges of the lantern opening, said lantern roof extensions having downwardly projecting shoulders under their outer edges and placed vertically above said angles on the main roof, a separate long window sash closing each side of said lantern between said angles and said shoulders, and the outside posts of the lantern construction set far enough in from the vertical line of the angles and shoulders to permit of long window sashes being swung open inwardly without interference from said posts.

4. A roof lantern construction involving in combination with roof rafters of lantern truss bars supported at one end on said roof rafters at the edge of a lantern opening in the main roof and inclining upwardly and inwardly toward the roof of the lantern, transverse truss bars connected to the roof rafters crossing the first mentioned truss bars and lantern rafters connected at the ridge and eaves respectively, with the first and second mentioned truss bars, a longitudinal bar running from end to end of the lantern and connected to the truss bars at their points of intersection, side sashes for said lantern and operating means mounted at the intersections of the truss bars and the longitudinal bar.

1,025,958. LOCK-WASHER. CHARLES F. BEERS, Newark, N. J. Filed July 16, 1908. Serial No. 443,752. (Cl. 151—36.)



1. A lock-washer comprising a spirally shaped body, a plurality of concentric raised portions arranged thereon providing intermediate depressions, said concentric raised portions being triangular in cross section, substantially as and for the purposes set forth.

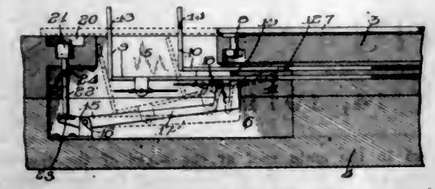
2. A lock-washer comprising a spirally shaped body, a plurality of concentric raised portions upon the lateral faces of said body, said concentric raised portions providing intermediate depressions, and said concentric raised portions being triangular in cross-section with outwardly presented apex, substantially as and for the purposes set forth.

3. A lock-washer comprising a spirally shaped body, said body being provided with marginal ridges of substantially triangular cross-section, an intermediate ridge also triangular in cross-section, said ridges presenting their apexes outwardly and providing intermediate depressions, substantially as and for the purposes set forth.

1,025,959. CONTROLLING DEVICE FOR SELF-PLAYING PIANOS. ROBERT J. BENNETT, Moline, Ill., assignor to Artista Piano Player Company, Milan, Ill., a Corporation of Illinois. Filed Aug. 25, 1909. Serial No. 514,471. (Cl. 84—226.)

1. In a player piano, the combination with a key slip, a recess therein, of levers for actuating the player mecha-

nism mounted in said recess, and a pivoted lever for throwing said levers into operative position.



2. In a player piano, the combination with a key slip having a recess therein, of levers for controlling the player mechanism, mounted in said recess, and a pivoted lever, one arm of said lever supporting said actuating levers, and a stem adapted to engage the other, whereby said actuating levers may be thrown into operative position.

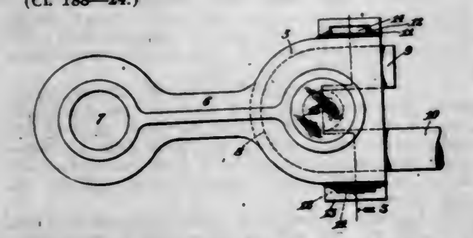
3. In a player piano, the combination with a key slip, a key rail, said slip and rail being provided with communicating recesses, of a plurality of operating levers mounted in said recesses, connections with said levers and the automatic player mechanism, a pivoted lever mounted in the recess in said rail and engaging said levers, and means for actuating said pivoted lever to throw said levers into operative position.

4. In a player piano, the combination with a key slip, a key rail, said slip and rail being provided with communicating recesses, of a plurality of operating levers mounted in said recesses, connections with said levers and the automatic player mechanism, a pivoted lever mounted in the recess in said rail and engaging said levers, and a push-button mounted in said key slip and provided with a stem adapted to engage one arm of said pivoted lever and to throw said operating levers into operative position.

5. In a player piano, the combination with a key slip having a recess therein, of levers for actuating the player mechanism mounted in said recess, a pivoted lever, one arm of said lever supporting said actuating levers and a stem adapted to engage the other, whereby said actuating levers may be thrown into or out of operative position, and a covering plate mounted on said key slip and arranged to cover said recess and levers when said levers are out of operative position.

[Claims 6 to 10 not printed in the Gazette.]

1,025,960. BRAKE-ROD JAW. STERLING H. CAMPBELL, St. Louis, Mo. Filed Jan. 6, 1912. Serial No. 669,893. (Cl. 188—24.)



1. The combination with a brake rod provided with a loop, of a brake jaw having a pocket in its shank, said pocket being adapted to receive and snugly fit the loop of said brake rod, said pocket being open at the rear whereby the loop of the brake rod may be inserted longitudinally and fastening means passing through the shank of said jaw and the loop of said rod.

2. The combination with a brake rod provided with a loop, of a brake jaw having a pocket in its shank, said pocket being adapted to receive and snugly fit the loop of said brake rod, said pocket being open at the rear whereby the loop of the brake rod may be inserted longitudinally and a rivet passing through the shank of said jaw and the loop of said rod.

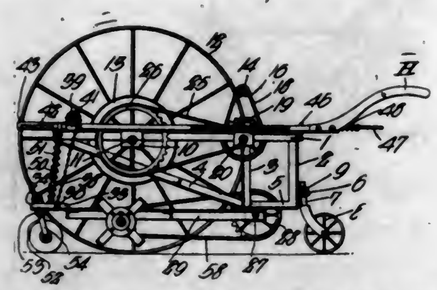
3. In a brake rod jaw the combination with a two-part shank provided with a pocket adapted to receive the loop of a brake rod, of auxiliary means for fastening the two parts of the jaw together before the brake rod is inserted, and means passing through both parts of the shank and the loop of the rod for fastening the parts of the shank permanently together and securing the rod in the pocket.

4. In a brake rod jaw the combination with a shank composed of two similar parts, each of said parts carrying one member of the fork for embracing the brake lever, of auxiliary means for securing the parts of said shank together to form a pocket for the loop of the brake rod, and a rivet passing through both parts of said shank and the loop of the brake rod to permanently secure the parts of the shank to each other and to secure the brake rod in position.

5. In a brake rod jaw the combination with a shank composed of two similar parts, of a lug carried by each of said parts and provided with an opening, a second lug carried by each of said members, and provided with a riveting projection adapted to enter the opening in the first mentioned lug on the other part, said lugs forming means for securing the two members of the shank together to form a pocket to receive the loop of a brake rod, and a rivet adapted to pass through both parts of said shank and the loop of the brake rod to permanently secure said parts together.

[Claim 6 not printed in the Gazette.]

1,025,961. BEET-BLOCKING CULTIVATOR. ARNOLD CLARK, Latty, Ohio. Filed Dec. 7, 1911. Serial No. 664,417. (Cl. 97—25.)



1. A motor driven blocking cultivator, having a frame, a motor on said frame, traction wheels operably connected to the motor, a plurality of pivoted frames disposed in spaced relation throughout the width of the main frame, the free ends thereof being projected toward the forward portion of the main frame, a caster wheel carried in the free end of each pivoted frame for regulating the positioning of the same with relation to the ground, means for simultaneously elevating the free ends of all of said pivoted frames, a pair of rotary cutters disposed in each of said pivoted frames, and means for operably connecting all of said cutters to the motor for operation in unison.

2. A motor driven blocking cultivator, having a frame, a motor on said frame, traction wheels operably connected to the motor, a plurality of pivoted frames disposed in spaced relation throughout the width of the main frame, the free ends thereof being projected toward the forward portion of the main frame, a caster wheel carried in the free ends of each pivoted frame for regulating the position of the same with relation to the ground, means for simultaneously elevating the free ends of all of said pivoted frames, a pair of rotary cutters disposed in each of said pivoted frames, means for operably connecting all of said cutters of the pivoted frames for operation in unison through the motor, and a spring cushioned means interposed between the free end of each frame and the main frame for holding the free ends of the pivoted frame yieldably toward the ground.

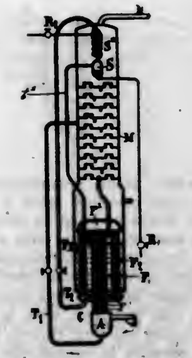
3. A motor driven blocking cultivator, having a frame, a motor on said frame, traction wheels operably connected to the motor, a plurality of pivoted frames disposed in spaced relation throughout the width of the main frame, the free ends thereof being projected toward the forward portion of the main frame, a caster wheel carried in the free end of each pivoted frame for regulating the position of the same with relation to the ground, means for simultaneously elevating the free ends of all of said pivoted frames, a shaft journaled in each pivoted frame intermediate of its ends, means for operably connecting all of said shafts for rotation in unison through the motor, and a pair of adjustably mounted cutting arms connected to each shaft within its respective pivoted frame.

4. A cultivator of this character, having a main frame, a motor carried thereby, a pair of traction wheels mounted in the main frame and operably connected to said motor, a plurality of swinging frames having the rear ends thereof pivoted to the main frame, a caster adjustably mounted upon the forward free end of each pivoted frame for regulating the relative position thereof to the ground, manually operated means for elevating the free ends of said pivoted frames in unison, and a rotory cutting and cultivating means disposed in each of said pivoted frames and operably connected to the motor for operation in unison, said cutting means being disposed within the pivoted frames and adjustable relative to each other.

5. A cultivator of this character, having a main frame, a motor mounted therein, traction wheels operably connected to said motor, a pair of handles for guiding the cultivator connected to the main frame, a plurality of pivoted frames disposed in spaced relation throughout the width of the main frame, the free ends of said frames being toward the forward portion of the main frame, a caster adjustably connected to the free end of each of said pivoted frames for regulating the position thereof to the ground, a shaft journaled in the forward portion of the main frame, a plurality of flexible connections connected to said shaft and to the free ends of the pivoted frames, manually operated means for rotating said shaft to elevate and lower the free ends of the pivoted frames in unison, and a pair of rotary cutters and cultivators journaled in each pivoted frame and operably connected to the motor.

[Claims 6 and 7 not printed in the Gazette.]

1,025,962. METHOD OF EXTRACTING RARE GASES FROM THE AIR. GEORGES CLAUDE, Paris, France, assignor to Société l'Air Liquide, Société Anonyme pour l'Etude et l'Exploitation des Precédés Georges Claude, Paris, France. Filed Sept. 22, 1909. Serial No. 519,065. (Cl. 62—18.)



1. A process for separating rare gases from the atmosphere which consists in bringing cold compressed air into indirect contact with liquid oxygen or liquid rich in oxygen, thus liquefying the greater part of the oxygen and of the nitrogen of the air and causing the gaseous residue of this liquefaction to partially liquefy by circulating it in indirect contact with liquids rich in nitrogen and in oxygen.

2. A process for separating rare gases from the atmosphere which consists in bringing cold compressed air into indirect contact with liquid oxygen or liquid rich in oxygen, thus liquefying the greater part of the oxygen and of the nitrogen of the air, using the liquid oxygen and nitrogen obtained for partially liquefying by indirect contact the gaseous reside of said liquefaction and causing the liquefied portions of this residue to travel in the opposite direction to and in direct contact with further quantities of the residue to be partially liquefied.

3. A process for separating rare gases from the atmosphere which consists in bringing cold compressed air into indirect contact with liquid oxygen or liquid rich in oxygen, thus liquefying the greater part of the oxygen and of the nitrogen of the air, using the liquid oxygen and nitrogen obtained for partially liquefying by indirect contact the gaseous residue of said liquefaction under the same pressure and at lower temperature than the aforesaid liquefaction takes place.

4. A process for separating rare gases from the atmosphere which consists in bringing cold compressed air into indirect contact with liquid oxygen or liquid rich in oxygen, thus liquefying first the greater part of the oxygen of the air with some of the nitrogen by causing the liquefied portions to travel in the opposite direction to and in direct contact with further quantities of the air to be liquefied, then liquefying the greater part of the nitrogen, finally causing the gaseous residue of these liquefactions to partially liquefy by circulating it in indirect contact with liquids rich in nitrogen and in oxygen.

5. A process for separating rare gases from the atmosphere which consists in bringing cold compressed air into indirect contact with liquid oxygen or liquid rich in oxygen, thus liquefying first the greater part of the oxygen of the air with some of the nitrogen by causing the liquefied portions to travel in the opposite direction to and in direct contact with further quantities of the air to be liquefied, then liquefying the greater part of the nitrogen, using the liquids above obtained for partially liquefying by indirect contact the gaseous reside of the aforesaid liquefactions under the same pressure and at lower temperatures than the aforesaid liquefactions take place.

[Claims 6 to 8 not printed in the Gazette.]

1,025,963. RAZOR AND BLADE STROPPER. ELISHA W. COLE, Richmond, Va. Filed Mar. 16, 1910. Serial No. 549,587. (Cl. 51—16.)



A stropping machine for double edge blades comprising a main roller having end extensions, a pair of frames pivotally connected with said end extensions, an anchoring bracket connected with said extensions, a sleeve loosely surrounding said main roller, an arm rigidly connected with on end of said main roller and having a slot in

its outer end, a blade holder having a shaft formed with a crank extension engaging said slot, interlocking spring catches for locking said frames in closed position, and a razor strop extending through said frames and around said loose sleeve.

1,025,964. PICTURE-HOOK. JACOB A. COSTUMA, New York, N. Y. Filed Feb. 23, 1911. Serial No. 610,254. (Cl. 40—145.8.)



1. A picture hook formed of a plate of sheet metal and having a hook at one end for attachment to the molding and a hook at the other end for a picture wire or cord, said last-mentioned hook comprising three symmetrical, curved, rigid, hook-shaped fingers, each opening upwardly and having their portions at the point of bend in substantially the same plane and having their outer fingers convex on their upper surface and the inner finger convex on the lower surface, and formed with a guiding notch on the outside of its lower part, said fingers separated a sufficient extent to permit the passing of a wire or cord between them but permitting movement of the cord or wire relatively to the hook to adjust the same, whereby the wire or cord is held against accidental movement but may be moved relatively to the hook to adjust same.

2. A picture hook having a hook at one end for attachment to the molding and a hook at the other end for the picture wire or cord, said last-mentioned hook comprising a plurality of symmetrical, curved, rigid hook-shaped fingers coinciding in general curvature, and each opening upwardly and having their portions at the point of bend in substantially the same plane and having their outer fingers convex on their upper surface and the inner finger convex on the lower surface, and separated a sufficient extent to permit the passing of a wire or cord between them and lying closely enough together to form a substantially sharp bend in the wire or cord when in place, and to prevent movement thereof relatively to the hook but permitting movement of the cord or wire relatively to the hook to adjust same.

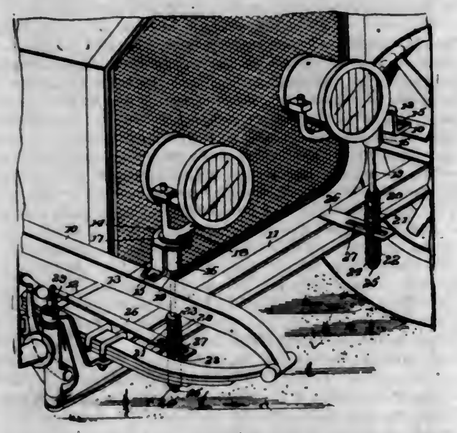
1,025,965. WEED-ROOT CUTTER. CATHARINE MALINDA DEEKS, Toronto, Ontario, Canada, assignor to Mabel C. L. Deeks, Florence A. Deeks, and Annie E. Deeks, Toronto, Canada. Filed Sept. 27, 1910. Serial No. 584,111. (Cl. 55—65.)



1. A weed root cutter, comprising, a suitable handle, and a broad thin blade formed with its lower end set in inclined relation to the axis of the handle and having a cutting head of greater width than the body portion, said head having an arc-shaped cutting edge.

2. A weed root cutter, comprising, a suitable handle and a broad flat blade of thin material formed with a curved offset and an angularly set extremity terminating in a cutting end of greater width than said blade, said cutting end having an arc-shaped cutting edge and dull upper edges extending inwardly to the main portion of the blade.

1,025,966. REVOLVING LAMP-SUPPORT FOR AUTOS. JAMES B. EASTES, Konawa, Okla. Filed June 3, 1911. Serial No. 631,147. (Cl. 240—62.)



In combination with a wheel pivotally mounted to effect steering, a rod pivotally mounted and having a non-circular section, a bar pivotally mounted and having an elongated slot which receives the non-circular section of the rod, springs carried by the rod and bearing against the opposite sides of the arm, a lamp supported upon the rod and means for swinging the bar to turn the rod as the wheel is steered.

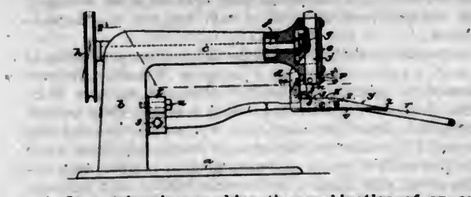
1,025,967. WELL-AUGER POINT. GOTTFRIED A. ESTEL, Jacob, Ill. Filed Apr. 25, 1911. Serial No. 623,267. (Cl. 166—8.)



1. A well auger point, comprising a pipe having a peripheral rib and provided with a longitudinally disposed spline, a sleeve adapted to receive the end of the pipe and abut against the rib, said sleeve having a slot which receives the spline, a spirally disposed blade carried by the sleeve, and an auger point carried by the pipe.

2. A well auger point, comprising a pipe having a peripheral rib and provided with a longitudinally disposed spline located between the rib and the end of the pipe, a sleeve adapted to receive the end portion of the pipe and abut against the rib, said sleeve having a slot which receives the spline, a spirally disposed blade carried by the sleeve, and an auger point carried by the pipe and being less in diameter than the inside diameter of the sleeve.

1,025,968. TRIMMING-MACHINE. HUMPHREY EVANS, Milwaukee, Wis., assignor to Holeproof Hosiery Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 3, 1912. Serial No. 675,232. (Cl. 164—47.)



1. In a trimming machine the combination of an arm on which the tubular article to be trimmed is adapted to be drawn, a tapering guide arranged approximately in the plane of said arm and adapted to separate loops of waste yarn from the adjoining side of the article held on said arm, and cutters arranged to sever such loops adjacent to their ends as the article is moved along said arm and guide.

2. In a trimming machine the combination of a loop-shaped arm unsupported at one end, a tapering loop guide supported between and independently of the sides of said arm and having its sides converging toward the unsupported end of said arm, and cutters arranged adjacent to the sides and wider end of the guide.

3. In a trimming machine the combination of an arm supported at one end and adapted to hold and guide the article to be trimmed, a tapering loop guide having its sides converging toward the free end of said arm, and cutters located adjacent to the sides and wider end of the guide and each consisting of a stationary blade and a movable blade coöperating with the stationary blade.

4. In a trimming machine the combination of an arm for holding and guiding the article to be trimmed, a tapering loop guide supported adjacent to and independently of said arm, stationary blades located adjacent to the sides and wider portion of the guide, a reciprocating head, blades mounted on said head, the blades of one set being movable laterally toward and from the others, and spring means yieldingly pressing one blade of each pair flatwise against the other.

5. In a trimming machine the combination of a work supporting arm, a tapering loop guide supported adjacent to and independently of said arm, blades arranged with their cutting edges lengthwise of the guide adjacent to its sides and wider end, and a reciprocating head provided with blades having oblique cutting edges arranged to make a shearing cut with the stationary blades.

[Claims 6 and 7 not printed in the Gazette.]

1,025,969. TOY. FREDERICK W. FLEGEL, Racine, Wis., assignor to Edward J. Schowalter, Racine, Wis. Filed Sept. 18, 1911. Serial No. 649,985. (Cl. 46—40.)



1. A top comprising a stationary picture member having an aperture therein, a contortive diaphragm member closing the aperture in the stationary member and having a portion of the picture displayed thereon, and means in connection with the diaphragm member for actuating the same.

2. A toy comprising a stationary picture member having an aperture therein, a contortive diaphragm member having a portion of the picture displayed thereon and closing the aperture in the stationary member, and an actuating device in connection with the diaphragm member.

3. A toy comprising a stationary picture member and a backing member therewith having apertures therein, a contortive diaphragm member attached to the backing member to close the apertures in it and the picture member, a portion of the picture being displayed on the diaphragm member; and means in connection with said diaphragm member for actuating the same.

4. A toy comprising a stationary picture member and a backing member therewith having apertures therein, a piece of thin sheet rubber constituting a diaphragm member stretched in connection with the backing member to close the apertures in it and the picture member, a portion of the picture being displayed on the diaphragm member; and an actuating device in connection with said diaphragm member.

5. A toy comprising a stationary picture member having an aperture therein, a contortive diaphragm member closing the aperture in the stationary member and having a portion of the picture displayed thereon, a manipulating card attached to the diaphragm, and abrasive studs suitably disposed on the manipulating card.

1,025,970. DRAFT-EYE FOR HAMES. THOMAS A. FOX, Newark, N. J., assignor to The Steffens-Amberg Co., a Corporation of New Jersey. Filed Jan. 5, 1912. Serial No. 669,584. (Cl. 54—30.)



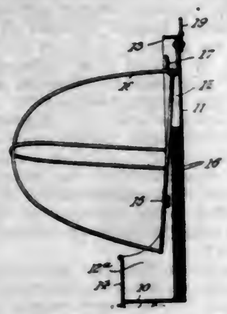
1. A draft-eye for the hames of a harness-collar, comprising a bearing-member consisting of a main body-portion and a pair of perforated lugs or ears extending therefrom, the body-portion of said bearing-member having its outer surface made convex and formed with a flat part between said lugs or ears, an eye or loop-shaped body, a tubular member extending from said eye or loop-shaped body, a pivot-pin mounted in said perforated lugs or ears and the tubular member of said eye or loop-shaped body, and means connected with said tubular member of said eye or loop-shaped body, adapted to be brought into arresting engagement with the flat part of the body-portion of said bearing-member to limit the rotary movement of said eye or loop-shaped member.

2. A draft-eye for the hames of a harness-collar, comprising a bearing-member consisting of a main body-portion and a pair of perforated lugs or ears extending therefrom, the body-portion of said bearing-member having its outer surface made convex and formed with a flat part between said lugs or ears, an eye or loop-shaped body, a tubular member extending from said eye or loop-shaped body, a pivot-pin mounted in said perforated lugs or ears and the tubular member of said eye or loop-shaped body, and the tubular member of said eye or loop-shaped body being provided with an eccentrically disposed and angularly-shaped enlargement adapted to be brought into arresting engagement with the flat part of the body-portion of said bearing-member to limit the rotary movement of said eye or loop-shaped member.

1,025,971. BAKER'S DRIP-PAN. CHARLES FULDE, New York, N. Y. Filed Jan. 10, 1912. Serial No. 670,372. (Cl. 65—61.)

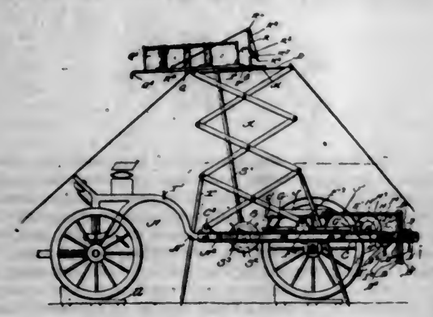
A baker's drip pan comprising a back plate, a trough at the lower end thereof, side plates that close the ends of the trough and have upper sections that extend upwardly along the ends of the back plate, said upper sections being of less width than their lower trough-closing sections, a transverse spacing bar secured to the upper side-sections and set back from the front of the trough, and a hook carried by the back plate above the spacing bar whereby a

paper-receiving slot is formed between the back plate and spacing bar, while said bar is adapted to deflect an



article suspended from the hook away from the slot and toward the front of the trough.

1,025,972. PORTABLE FIRE-ESCAPE. CRISTOPH J. GEISEL, Mansfield, Ohio. Filed Oct. 25, 1909. Serial No. 524,492. (Cl. 227—15.)



1. In a portable fire escape, the combination with a wagon provided with a skeleton body formed with side bars having T shaped slotted heads provided with teeth, of a shaft carried by the side bars of said body, a frame pivotally mounted on said shaft provided with slotted ends, a shaft loosely mounted in said slotted ends, gears carried by said shaft meshing with the teeth of the T shaped heads, and a crank for rotating said shaft.

2. A portable fire escape comprising a truck having a skeleton body formed with side bars provided with T shaped slotted heads at their rear ends having teeth, of a shaft mounted in the forward ends of said side bars, a frame comprising side bars pivotally mounted on said shaft provided with rear slotted ends, a shaft extending through the slots of said frame, gears carried by said shaft meshing with the teeth of the T shaped heads, shafts slidably mounted within the slots of the T shaped heads, links connecting said shafts with the gears, and means for rotating said shafts.

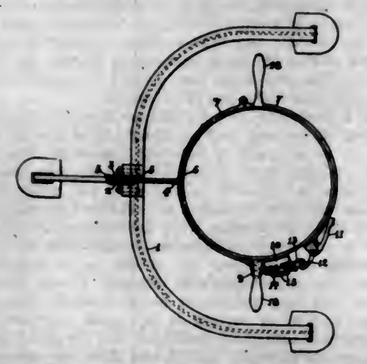
1,025,973. SAFETY-CLASP FOR JEWELRY. MAX A. GERSON, Jersey City, N. J. Filed July 6, 1911. Serial No. 637,086. (Cl. 24—157.)



1. A safety catch for bar pins or the like, consisting of a catch member, comprising a plurality of vertically disposed resilient tongues adapted to receive and hold a pin therebetween, said tongues being enlarged and rounded at their free ends, a pivoted latch, the free end of which is adapted to rest upon the enlarged ends of said tongues, and convexed lips carried by said latch adapted to engage the enlarged rounded ends of said tongues, at the sides thereof.

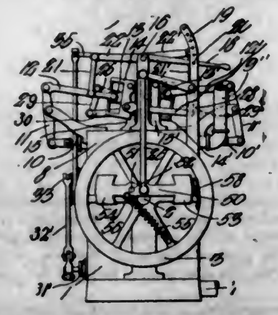
2. A safety catch for bar pins or the like, consisting of a catch member, comprising a plurality of resilient tongues adapted to receive and hold a pin, said tongues being rounded at their free end, a latch, a downwardly extending flange carried by said latch at one end thereof and convexed lips also carried by said latch, said latch being provided with a slot in the body portion thereof, said slot bifurcating said flange, the convexed lips of said latch being adapted to engage the rounded ends of said tongues.

1,025,974. BAG-HOLDER. ROY E. GIPPLE, Williamsville, N. Y., assignor of one-third to Alvin A. Klein and one-third to Albert G. Beach, Williamsville, N. Y. Filed Sept. 1, 1910. Serial No. 580,113. (Cl. 83—26.)



A bag holder comprising a yoke, a horisontally disposed ring secured to the yoke, a pair of semi-circular pivotally connected clamping members, a hinge plate on the ring to which one end of one clamping member is pivoted, a spring-retracted latch plate on the hinge, a clamping lever on the free end of the other clamping member, a hook on the lever adapted to interlock with the latch plate when the members encircle the ring, and a bracket on the yoke normally free of the clamping members and adapted to support the clamping members when opened.

1,025,975. ROTARY ENGINE. JOSEPH GOUGEON, Baltic, Mich. Filed Oct. 10, 1911. Serial No. 653,808. (Cl. 121—56.)



1. A rotary engine comprising a casing having induction and exhaust ports, a shaft, a fly wheel upon each end, a rotor journaled in the casing between the induction and exhaust ports, valves movably mounted over the induction ports, links pivoted upon the casing, valve gears operatively connecting the valves with the links, manually operable mechanisms connected with the valve gears and adapted when operated to engage one of the valve gears with the active end of one of the links, while the other valve gear is arranged with the passive end of the other link and a governor carried by each fly wheel and operably connected to said links.

2. A rotary engine comprising a casing having induction and exhaust ports, a shaft projecting through and beyond opposite sides theerof, a fly wheel at each end of the shaft, a rotor journaled in the casing between the induction and exhaust ports, valves arranged to move over the induction ports, links pivoted upon the casing, valve gears operatively connecting said valves with said links, a manually operable means located upon the casing and connected with the valve gears and adapted to hold the terminal member of one of the valve gears in contact with the active end portion of one link while the terminal member of the other valve gear is held in contact with the passive end of the other link, valves located in the exhaust passage and operatively connected together, means connecting the operating mechanism of the exhaust valves with the means for manually adjusting the valve gears with relation to said links, and two governors, one carried by each fly wheel, and operably connected to the links to automatically control all valves.

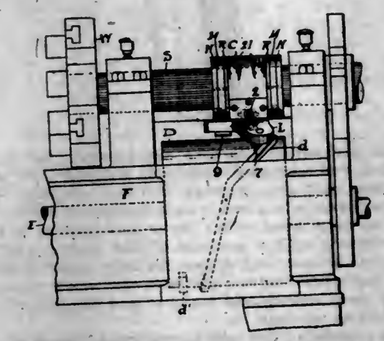
3. A rotary engine comprising a casing having induction and exhaust ports, a shaft, two fly wheels, a rotor journaled in the casing between the induction and exhaust ports, valves arranged to move over the said induction ports, links pivoted upon the casing valve gears operatively connecting said valves with said links, a shaft journaled upon the casing and operatively connected with the terminal members of the valve gears to slide the same simultaneously along the links whereby one valve gear is connected with the active end of one link, while the other valve gear is connected with the passive end of the other link, valves located in the exhaust passages, a valve gear connecting the said exhaust valves together, means operatively connecting the said exhaust valve gear with the said shaft, the valve gear of the exhaust valves having its parts so arranged when one exhaust opens the other exhaust valve closes and vice versa, and two governors, one carried by each fly wheel and operably connected to the links to automatically control all valves.

4. A rotary engine comprising a casing having induction and exhaust ports, a shaft, a fly wheel upon each end, a rotor journaled in the casing between the induction and exhaust ports, valves movably mounted over the induction ports, links pivoted upon the casing, valve gears operatively connecting the valves with the links, manually operable mechanisms connected with the valve gears and adapted when operated to engage one of the valve gears with the active end of one of the links, while the other valve gear is engaged with the passive end of the other link, a governor carried by each fly wheel and operably connected to said links, said governor comprising a bar having weighted terminals pivoted intermediate of its ends and eccentrically to the fly wheel, and a spring connected to the bar and to the fly wheel at the opposite side to and in line with its connection to the fly wheel, said bar being connected to the link to actuate the valves automatically.

5. A rotary engine comprising a casing having induction and exhaust ports, a shaft projecting through and beyond opposite sides thereof, a fly wheel at each end of the shaft, a rotor journaled in the casing between the induction and exhaust ports, valves arranged to move over the induction ports, links pivoted upon the casing, valve gears operatively connecting said valve with said links, a manually operable means located upon the casing and connected with the valve gears and adapted to hold the terminal member of one of the valve gears in contact with the active end portion of one link while the terminal member of the other valve gear is held in contact with the passive end of the other link, valves located in the exhaust passage and operatively connected together, means connecting the operating mechanism of the exhaust valves with the means for manually adjusting the valve gears with relation to said links, and two governors, one carried by each fly wheel and operably connected to the links to automatically control all valves said governor comprising a bar having weighted terminals pivoted intermediate of its ends and eccentrically to the fly wheel, and a spring connected to the bar and to the fly wheel at the opposite side to and in line with its connection to the fly wheel, said bar being connected to its link to actuate the valves automatically.

[Claims 6 and 7 not printed in the Gazette.]

1,025,976. VARIABLE-THROW MECHANISM FOR AUTOMATIC MACHINES. ROY T. GULLIFORD, West Nottingham, Ohio. Filed Apr. 16, 1910. Serial No. 555,970. (Cl. 74—14.)



1. A reciprocable spindle and a cam drum in parallel relation side by side, in combination with a collar on said spindle and a transversely adjustable nut next beneath the same and supported therefrom and having a stem, and a slotted lever into which said stem extends provided with a projection on its under side engaging said cam drum.

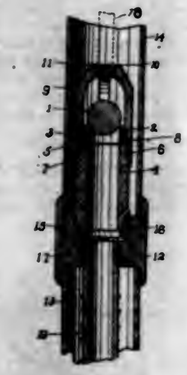
2. In a machine as described, a reciprocable spindle, a collar sleeved on said spindle, means to fix said collar in different set positions longitudinally of said spindle, a nut carried by said collar having a stem, means to adjust said nut transversely beneath said collar, a slotted lever engaging said stem and pivotally mounted to oscillate transversely beneath the spindle and its collar, and a cam drum to operate said lever and therethrough the spindle.

3. In a machine substantially as described, a reciprocable spindle and means to impart a longitudinal movement thereto comprising a lever, a collar fixed on said spindle and a nut and a screw to provide a variable throw for said spindle having operating connection with said collar and clamping means adapted to fix said nut in any adjusted position thereon, in combination with a rotatable drum having a cam grove and a roller on the bottom of said lever engaged in said cam groove.

4. In a machine substantially as described, a reciprocable spindle and means to impart a longitudinal movement thereto comprising a lever, a collar fixed on said spindle and a nut and a screw therewith adapted to provide a variable throw for said spindle and clamping means adapted to fix said nut in any adjusted position thereon comprising bolts through said collar, in combination with a cam drum parallel to said spindle and having a channel in which said lever is operatively engaged.

5. In a machine substantially as described, a reciprocable spindle having a collar thereon and a screw mounted transversely thereon, a transversely adjustable nut adapted to travel on said screw and having a stem and a roller on the stem, clamping plates and bolts adapted to lock said nut upon said collar when adjusted, a lever for operating said spindle having a slot in which said roller is operatively engaged and a cam drum operatively engaging the free end of said lever.

1,025,977. STANDING-VALVE. ANDREW J. HENDERSON, Saratoga, Tex. Filed Nov. 27, 1911. Serial No. 662,635. (Cl. 103—80.)



1. In combination with the screen pipe and upper tubing of a well and a coupling detachably connecting the same, a tubular part also screwing into said coupling at its lower end and having two external annular shoulders, the lower of which bears on the top of said coupling, a valve cage screwing on the uper end of said tubular part and bearing at its lower end against the upper annular shoulders of said part, a valve within said cage and a valve seat held in place between said cage and said tubular part substantially as set forth.

2. A reversible valve body having screw-threads at each end and integral annular shoulders between said screw-threads and unthreaded middle portion, in combination with a supporting device and a valve cage, each of which is adapted to engage the threads of either end of said valve body and to bear against either one of said annular shoulders.

3. A valve seat, valve and cage, in combination with a supporting coupling and a reversible valve body having at each end a recess for said valve, external screw-threads and an external annular shoulder, the said cage and coupling being adapted to screw on either end of said body and bear against either annular shoulder substantially as set forth.

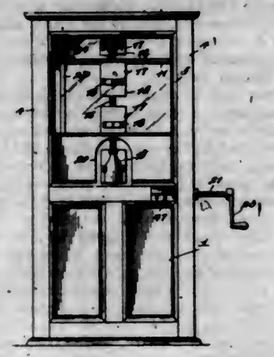
4. In combination, a coupling, a valve casing and a reversible valve body connecting the two by means of screw-thread engagement.

5. In combination, a ball-valve, a valve-seat, a valve-casing, a coupling and a reversible valve body, said valve body having its ends externally screw-threaded and of the same diameter and provided with internal recesses to receive said valve-seat and connecting said coupling and valve-casing by means of screw-threaded engagement therewith.

1,025,978. BOTTLE-VENDING MACHINE. WILLIE H. HERMAN, Wesson, Miss. Filed July 22, 1911. Serial No. 639,981. (Cl. 194—57.)

1. In a coin operated vending machine, the combination with a casing, a shaft rotatably mounted in said casing, a pinion carried on said shaft and means to rotate said shaft; of a pawl pivotally mounted within said casing and adapted to engage the pinion to lock said shaft against rotation, means to normally retain said pawl in its ineffective position, additional means to temporarily retain said pawl in its effective position, and means to counteract the action of the last referred to means.

2. In a coin vending machine of the class described, the combination with a casing, a shaft rotatably mounted in said casing, a pinion carried on said shaft and means to rotate said shaft; of a pawl pivotally carried within said casing and adapted to engage the teeth of said pinion, means to retain said pawl in its ineffective position, a spring trigger adapted to engage said pawl to retain the same in its effective position, and means to release the engagement of said trigger with the pawl.



3. In a vending machine of the class described, the combination with a casing, a shaft rotatably mounted in said casing, a pinion carried on said shaft and means to rotate said shaft; of a pawl pivotally mounted within said casing and adapted to engage the teeth of the pinion, said pawl being provided with an extension on its ineffective end, spring means acting on the free end of said extension to normally dispose said pawl in its ineffective position, a spring trigger adapted to engage a portion of said extension to retain said pawl in its effective position, and means to release the trigger from its engagement with the extension of said pawl.

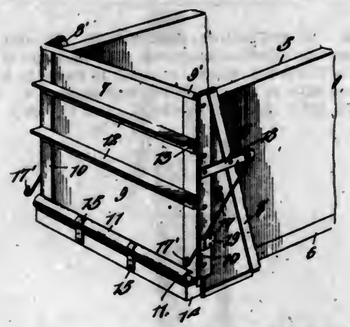
4. In a vending machine of the class described, the combination with a casing, a shaft rotatably mounted in said casing, a pinion carried on said shaft and means to rotate said shaft; of a pawl pivotally mounted within said casing and adapted to engage the teeth of the pinion, said pawl being provided with an extension on its ineffective end, spring means acting on the free end of said extension to normally dispose said pawl in its ineffective position, a spring trigger adapted to engage a portion of said extension to retain said pawl in its effective position, means to release said trigger from its engagement with the extension of the pawl to permit said shaft to be rotated, and additional means operated through the rotation of the shaft for causing the pawl to return to its effective position after being ineffectively disposed.

5. In a vending machine of the class described, the combination with a casing, a shaft rotatably mounted therein, a pinion carried on said shaft and means to rotate said shaft; of a pawl pivotally carried within said casing and adapted to engage the teeth of the pinion, said pawl being provided with an extension arm on its free end, spring means acting on the free end of said extension arm to normally dispose said pawl in its ineffective position, a spring trigger adapted to engage a portion of said extension arm to retain the pawl in its effective position, means to release said trigger from its engagement with the extension arm, an additional shaft rotatably mounted in said casing and operated through the rotation of the first referred to shaft, and means carried on said additional shaft adapted to engage portions of the extension arm to force said pawl to its effective position after being ineffectively disposed.

[Claims 6 to 9 not printed in the Gazette.]

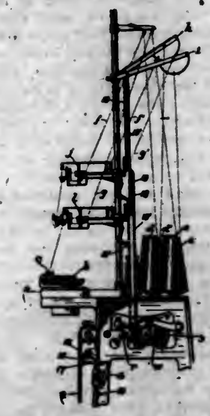
1,025,979. WAGON END-GATE. WILLIAM E. HINZE, Hamburg, Iowa. Filed June 25, 1910, Serial No. 568,907. Renewed Nov. 1, 1911. Serial No. 658,062. (Cl. 21—21.)

An end gate for wagons comprising a metallic bottom plate, angular corner strips having one of their flanges secured to the bottom plate, the edge of said bottom plate at one end being bent over said flanges of the corner stripe, the edge of said bottom plate at its other end being bent into tubular form, side plates riveted to the other flanges of the corner strips, one of the longitudinal edges



and one of the end edges of each of said side plates being bent upon itself to form strengthening beads, and a plurality of angle bars extending across the bottom plate of the gate and rigidly secured at their ends to the first named flanges of the corner strips.

1,025,980. KNITTING-MACHINE. HARRY A. HOUSEMAN, Philadelphia, Pa., assignor to Standard Machine Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 28, 1911. Serial No. 657,326. (Cl. 66—12.)



1. In a knitting machine, in combination, two main-thread yarn-holders, two splicing-thread yarn-holders, two splicers one for each splicing yarn, means to successively shift the operation of the machine from rotation to reciprocation and vice versa, and mechanism, controlled by said means, to move said splicers respectively into operation at alternate shifts from rotation to reciprocation.

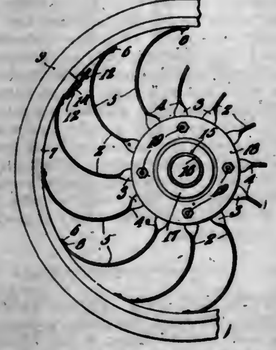
2. In a knitting machine, in combination, two main-thread yarn-holders, two splicing-thread yarn-holders, two splicers one for each splicing yarn, means to successively shift the operation of the machine from rotation to reciprocation and vice versa, and mechanism, controlled by said means, to move into and out of operation said splicers respectively at alternate shifts from rotation to reciprocation, and means adapted to operate intermediate of said shifts to stop the machine.

3. In a knitting machine, in combination, the needles, two main-thread yarn-holders, two splicing thread yarn-holders, a splicer, clamp and cutter for each pair of main-thread and splicing-thread yarn holders, means to twice shift the operation of the machine from rotation to reciprocation and vice versa, mechanism, controlled by said means, to throw one splicer and its appurtenant clamp and cutter into operative relation with one of said pairs of yarn-holders at one of said shifts and the other splicer and its appurtenant clamp and cutter into operative position at the other of said shifts, and means adapted to operate intermediate of said shifts to stop the machine to permit the yarn connection from the needles to be transferred from one main-thread to the other.

4. In a knitting machine, in combination, two sets of yarn-holders, each set comprising a yarn-holder for the main thread and a yarn-holder for a splicing thread, two splicers, a clutch shifting shaft and connections adapted in one rotation of the shaft to shift the machine from rotation to reciprocation and return it to rotation, a second shaft, connection between said shafts whereby said second shaft makes one half revolution in one rotation of the clutch shifting shaft, operating cams upon said second shaft adapted respectively to move into and out of action the respective splicers, one cam being operative in one half of the revolution of the second shaft, and the other cam in the other half of said revolution.

5. In a knitting machine, in combination, two sets of yarn-holders, each set comprising a cop for the main thread and a yarn-holder for a splicing thread, two splicers, a clutch shifting shaft and connections adapted in one rotation of the shaft to shift the machine from rotation to reciprocation and return it to rotation, a second shaft, connection between said shafts whereby said second shaft makes one half revolution in one rotation of the clutch shifting shaft, operating cams upon said second shaft, adapted respectively to move into and out of action the respective splicers, one cam being operative in one half of the revolution of the second shaft, and the other cam in the other half of said revolution, and means intermediate of the rotations of the clutch shifting shaft to stop the machine.

1,025,981. SPRING-WHEEL. FREDERICK H. JOHN, Middleport, Pa. Filed June 19, 1911. Serial No. 633,947. (Cl. 152—28.)



1. In a device of the class described, a spoke plate having integrally formed spokes projecting therefrom, the spokes being twisted, adjacent the plate, to extend transversely of the plate; a rim with which the outer ends of the spokes are engaged; hub members applied to opposite sides of the plate; and connecting elements extended through the hub members and through the plate.

2. In a device of the class described, a plate having integrally formed spokes projecting therefrom, the spokes being twisted adjacent the plate, to extend transversely of the plate; a rim assembled with the outer ends of the spokes; a bushing extended through the central portion of the plate; hub members mounted upon opposite ends of the bushing, and having upstanding flanges, inclosing the plate; and connecting elements extended through the flanges and through the plate.

1,025,982. IMPLEMENT FOR BEATING EGGS, WHIPPING CREAM, OR FOR MIXING INGREDIENTS. EDWARD H. JOHNSON, Binghamton, N. Y., assignor to The A. & J. Manufacturing Co., Binghamton, N. Y. Filed Nov. 8, 1909. Serial No. 526,901. (Cl. 107—39.)



An article of manufacture comprising a rotatable vane-carrying shaft, a spherical member on the lower end of said shaft, a base formed from a sheet metal piece and slitted radially to form sections, adjacent sections being bent upwardly and downwardly respectively to form a socket and feet.

1,025,983. AZO DYE. MYRTIL KAHN and ANTON OSSENBECK, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Nov. 2, 1911. Serial No. 658,151. (Cl. 8—1.)

1. The herein described new tetrakisazo dyestuffs, which are after being dried and pulverized dark powders yielding upon reduction with stannous chlorid and hydrochloric acid a diamin, triaminobenzene compounds, a diaminophenol sulfonic acid and carbonic acid; dyeing cotton generally orange shades which on being diazotized and combined with meta-phenylenediamin turn into yellowish-brown shades of good fastness, substantially as described.

2. The herein described new tetrakisazo dyestuffs, which is after being dried and pulverized a dark brown powder which is soluble in water with a brown coloration and in concentrated sulfuric acid with a violet coloration; yielding upon reduction with stannous chlorid and hydrochloric acid benzidin, diaminophenol sulfonic acid, 1.2.4-triaminobenzene and carbonic acid; dyeing cotton orange shades which on being diazotized and combined with meta-phenylenediamin turn into a yellowish-brown of good fastness, substantially as described.

1,025,984. BROWN AZO DYE. MYRTIL KAHN and ANTON OSSENBECK, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Nov. 2, 1911. Serial No. 658,152. (Cl. 8—1.)

1. The herein described new tetrakisazo dyestuffs, which are after being dried and pulverized dark powders yielding upon reduction with stannous chlorid and hydrochloric acid a diamin, triaminobenzene compounds and carbonic acid; dyeing cotton generally orange shades which on being diazotized and combined with meta-phenylenediamin turn into yellowish-brown shades of good fastness, substantially as described.

2. The herein described new tetrakisazo dyestuff, which is after being dried and pulverized a dark brown powder which is soluble in water with a yellowish-brown coloration and in concentrated sulfuric acid with a blue coloration; yielding upon reduction with stannous chlorid and hydrochloric acid benzidin, 1.2.4-triaminobenzene-5-sulfonic acid, 1.2.4-triaminobenzene and carbonic acid; dyeing cotton orange shades which on being diazotized and combined with meta-phenylenediamin turn into a yellowish-brown of good fastness, substantially as described.

1,025,985. TURPENTINE-GATHERING APPARATUS. WILLIAM E. KENNER, Brunswick, Ga., assignor of one-sixth to Edward H. Mason, one-sixth to David L. Keller, and one-sixth to Albert Findig, Brunswick, Ga. Filed Jan. 16, 1911. Serial No. 603,033. (Cl. 47—40.)



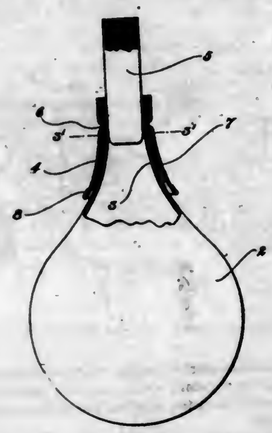
1. A turpentine conductor, comprising a sheet metal plate formed of two wings arranged at right angles to each other, the said wings on each side of the apex having a slit extending about half the width of the wings, the wings having laterally turned lower ends above the slits forming two converging troughs, and the portion between the slits bent inwardly to bring the same in beyond the lower ends of the trough, and having a horizontal slot to receive and support a bucket or receptacle.

2. A turpentine conductor comprising a sheet metal plate formed of two wings arranged at right angles to each other, the said wings on each side of the apex having a slit extending about half the width of the wings, the wings having laterally turned lower ends above the slits forming two converging troughs, having their edges slightly turned inwardly throwing the lower ends outwardly, and the upper end of the portion between the slits bent inwardly to bring it inwardly beyond the lower ends of the troughs and the lower end of said portion bent outward and having a horizontal slot to receive a hook for supporting a bucket or receptacle.

3. A turpentine conductor comprising a sheet metal plate formed of two wings, at an angle to each other, means carried by the upper end for attaching it to the tree, the said wings on each side of the apex having a slit extending about half the width of the wings, the wings having laterally turned lower ends above the slit forming two converging troughs gradually decreasing in width toward their lower ends, and the lower end of said plate between the slits bent inwardly to bring it inwardly beyond the lower ends of the troughs and to hold the plate in an outwardly slanting position, and the lower end of the inwardly bent portion bent outward and having a slot to receive a hook for supporting a bucket below the trough.

4. A turpentine conductor, comprising a metal plate formed of two wings arranged at an angle to each other, means for attaching it to the tree, the said wings on each side of the apex having a slit extending inwardly at substantially right angles, the wings having laterally turned lower ends above the slit forming two converging troughs, and the lower end of said plate between the slits bent inwardly beyond the lower ends of the trough to engage the tree and hold the lower ends of the trough away from the tree.

1,025,986. BULB. HOWARD W. LESTER, Hartford, Conn., assignor to The Post & Lester Company, Hartford, Conn., a Corporation of Connecticut. Filed July 29, 1911. Serial No. 641,312. (Cl. 230—3.)



1. As an article of manufacture a compressible bulb having a reduced neck, and a ferrule permanently fitted to the neck and having a flange flared toward the larger portion of the bulb, the inner face of the flange being spaced from the bulb.

2. An article of manufacture comprising a compressible bulb having a reduced neck, a ferrule fitted to the outer end of the neck and provided with a perforated head overlying the outer edge of said neck, and a nipple extending into said neck through the perforation of said head, the ferrule having an internal annular head fitting against the neck and also having a flange flared toward the larger portion of the bulb, the inner face of said flange being spaced from said bulb.

1,025,987. TIRE-TOOL. ADAM A. LONG, Rochester, N. Y. Filed July 26, 1906. Serial No. 327,383. (Cl. 157—6.)



1. In a tire tool, the combination with a tire-engaging shoe comprising a bottom plate adapted to travel on the rim of a wheel and provided with a downward projection on one edge thereof adapted to engage the flange of the wheel rim and a guard on the opposite edge, of a roller having a journal supported at one end in the plane of the said rim-engaging projection and in the guard at the other.

2. In a tire tool, the combination with a tire engaging shoe comprising a bottom plate provided with a flange at one edge adapted to engage the flange of a wheel rim and with oppositely arranged extensions substantially perpendicular to the bottom plate and projecting beyond one end thereof, one of said extensions being arranged in the plane of the flange, of a roller supported between said extensions.

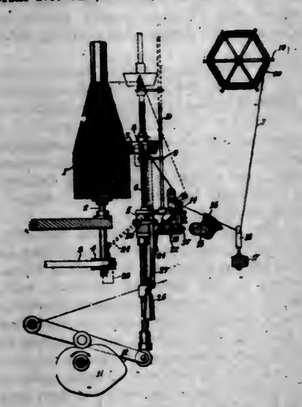
3. In a tire tool, the combination with a tire-engaging shoe embodying a bottom plate adapted to travel upon the wheel rim having a projection for engagement with the flange thereof upon one side and a guard at the other, of a pintle having one end secured to the guard and a conical roller journaled on the pintle with the end of greater diameter against the guard for raising the tire and guiding it inwardly upon the rim.

4. In a tire tool, the combination with a tire-engaging shoe comprising a bottom plate provided with a downward projection on one edge thereof adapted to engage the flange of a wheel rim and a guard on the opposite edge, of a pintle having one end thereof supported in the plane of the said rim-engaging projection and the other supported in the guard and extending therethrough, a roller on the pintle, an eye pivoted on the projecting end of the pintle and an operating handle extending through the eye.

5. A tire tool, comprising a tire-engaging shoe adapted to travel on the rim of a wheel and formed of a single piece of sheet metal bent downwardly at one edge to engage the flange of the rim and upwardly at the opposite edge to form a guard, and a roller extending transversely of the shoe and rim on a journal supported by the guard.

[Claims 6 to 22 not printed in the Gazette.]

1,025,988. WINDING-MACHINE. WILLIAM MARLOW, New York, N. Y., assignor to Standard Knitting Mills Company, a Corporation of New York. Filed Feb. 25, 1911. Serial No. 610,680. (Cl. 242—45.)



1. In a winding machine, a bobbin, a vertically oscillating build bar, a lever and an adjustable engaging member carried by the build bar and adapted to engage said lever for varying the tension of the thread delivered to the bobbin.

2. In a winding machine, a bobbin, a vertically oscillating build bar, a pivoted and weighted lever and an adjustable engaging member carried by the build bar and adapted to engage said lever for varying the tension of the thread delivered to the bobbin.

3. In a winding machine, a bobbin, a vertically oscillating build bar, a pivoted and weighted lever carrying a tension bar and an adjustable engaging member carried by said build bar and adapted to engage said lever to oscillate the same and vary the tension upon the thread delivered to the bobbin.

4. In a winding machine, a bobbin, an oscillating bar, a lever carrying a tension bar, a guide and means controlled by said oscillating bar to vary the amount of the surface of the guide and the tension bar with which the thread is in contact.

5. In a winding machine, a bobbin, a vertically oscillating build bar, a pivoted lever carrying a tension bar, an engaging member carried by the build bar and adapted to raise one end of said lever during the upward movement of the build bar and a weight attached to said lever and adapted to return the same to its normal position during the downward movement of the build bar.

1,025,989. LIFE-PRESERVER. JAMES W. MASTER, San Diego, Cal., assignor of one-third to Nils S. Abrahamson, San Diego, Cal. Filed Feb. 20, 1912. Serial No. 678,753. (Cl. 9—18.)



1. In a life preserver, a buoyant member, a propeller carrying member pivotally attached to said buoyant member and foldable thereon, and a clamping hinge joint connecting said members, comprising knuckles on each member having notched ends, a pintle passing through the knuckles, flanges on each end thereof, one flange being uniform, and the other having a wedge surface engaging with a corresponding wedge face on the adjacent knuckle, substantially as set forth.

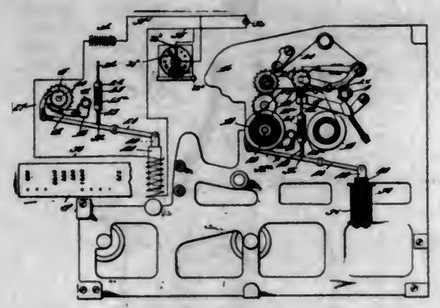
2. In a life preserver, a buoyant member, a propeller carrying member foldable thereon, and a clamping hinge connecting said members, comprising knuckles on each member, radially notched inner and corresponding faces on said knuckles, a flanged pintle connecting said knuckles, a wedge shaped face on one knuckle, and a corresponding face on the adjacent flange of the pintle, substantially as set forth.

3. In a life preserver, a hollow buoyant member having a socket in the forward end thereof, a propeller carrying member foldable thereon, a clamping hinge to connect and hold said members in the extended position, and an adjustable steering device adapted to be extended relative to the propelling member, comprising an extension bar in said socket, a set screw to clamp said extension bar, and a rudder connected to said bar by a swivel joint, substantially as set forth.

4. In a life preserver, a buoyant member, a steering rudder attached thereto, a propeller carrying member foldable on said buoyant member, a clamping hinge connecting said members in the extended position, and means for propulsion on said propeller carrying member, comprising guide rods extending therefrom, a cross-head slidably mounted between said guides, an operating nut in said cross-head, a loop member on each side of the cross-head, a bearing member at the end of said guide rods, a flat bar having a spiral twist journaled in said carrying member and said bearing member and passing through said nut in the cross-head, means for causing said nut to drive said spiral bar during the reciprocating motion of the cross-head, comprising a ratchet end on the nut and a corresponding ratchet in the cross-head, and a propeller on the rear end of said spiral bar, substantially as set forth.

5. In a life preserver, a buoyant member acting for suspension, a member foldable thereon, means for clamping said members in the extended position, and means for propulsion on said foldable member, comprising guide rods extending at the rear of said foldable member, a cross-head operated upon said guide rods having a reciprocating movement, a spiral bar rotatably mounted between said guide rods, an operating nut in said cross-head engaging with said spiral bar, ratchets which cause the nut to drive the spiral bar during one reciprocating movement of the cross-head, and a smooth face on the other end of the nut allowing the nut to rotate with the spiral bar, an enlarged end on the spiral bar mounted in a recessed bearing to prevent longitudinal movement, and a propeller mounted on the rear end of said spiral bar, and foot loops on each side of the cross-head, substantially as set forth.

1,025,990. CASH-REGISTER. WILLIAM H. MUSEY, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed May 22, 1907. Serial No. 375,143. (Cl. 235—2.)



1. In an accounting machine, the combination with means for spacing a record strip upon the operation of the machine, of mechanism for spacing the strip automatically and periodically.

2. In an accounting machine, the combination with means for feeding and imprinting a record strip, and keys controlling said means, of a clock mechanism and devices controlled by said clock mechanism and having connections for independently feeding said record strip and making an indentification thereon.

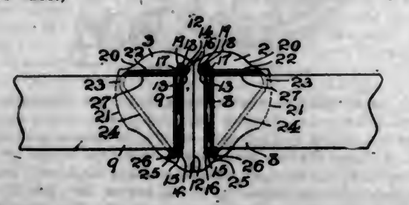
3. In an accounting machine, the combination with means for feeding and imprinting a record strip, and keys controlling said means, of a clock mechanism, and a circuit controlled by said clock and including means for independently and periodically feeding said record strip and making an identification thereon.

4. In an accounting machine, the combination with means for feeding and imprinting a record strip, and keys controlling said means, of a clock mechanism, devices controlled by said clock mechanism for independently feeding said record strip and making an identification thereon, and an auxiliary manually actuated device also controlling said independent feeding and identifying devices.

5. In an accounting machine, the combination with means for feeding and imprinting a record strip, and keys controlling said means, of a clock mechanism, a circuit controlled by said clock mechanism and including means for independently and periodically feeding said record strip and making an identification thereon, and a shunt to said circuit including a manually actuated auxiliary circuit closing device.

[Claims 6 to 14 not printed in the Gazette.]

1,025,991. BELT-BUCKLE. LEWIS A. MYERS, Jr., Newark, N. J. Filed Nov. 5, 1910. Serial No. 590,796. (Cl. 24—265.)



1. A clasp comprising a pair of plates provided with means for securing said plates in separable connection, and a harp-shaped and spring-like belt-retaining device upon the back of each plate, to a portion of which an end-portion of the belt is attached, and with another part of which the upper edge of a portion of the belt is adapted to be brought in retaining engagement to prevent the wrinkling and folding over of the belt.

2. A clasp comprising a pair of plates, each plate being provided with means for securing said plates in separable connection, and a harp-shaped and spring-like belt-retaining device upon the back of each plate, consisting of a bar arranged near the vertical marginal edge-portions of the plate, said bar having downwardly extending end-portions secured to said back of the plate, a straight bar located near the upper marginal edge-portion of the plate and terminating near the outer marginal edge-portion of the plate, a curved end-portion connected with said straight bar, and an angularly disposed bar connected with said curved end-portion, the other end-portion of said angularly disposed bar terminating near said first-mentioned bar located near the vertical marginal edge-portion of the plate, said straight bar and said angularly disposed bar each having a downwardly extending end-portion secured to said back of the plate, substantially as and for the purposes set forth.

1,025,992. TRANSMITTER FOR TELEPHONIC OR AUDIPHONIC SYSTEMS. HERMAN G. PAPE, Buffalo, N. Y. Filed Jan. 3, 1910. Serial No. 535,909. (Cl. 179—107.)



1. In a telephonic apparatus, the combination with a sound box, a diaphragm mounted thereon, an electrode mounted on the sound box in rear of the diaphragm, and a cap covering the face of said diaphragm, of a cap mounted upon the rear portion of the sound box but spaced therefrom and defining a series of channels above the sound box adapted to direct sound waves into the rear of the sound box and against the rear of the diaphragm.

2. In telephonic apparatus, a transmitter including the combination with a sound box, a diaphragm mounted thereon, an electrode supported in the sound box in rear of the diaphragm, and a plate covering the face of the diaphragm, of a plate mounted upon the rear face of the sound box but spaced therefrom and having a circumferential series of channels leading to the interior of the sound box and adapted to direct the sound waves thereto and against the rear face of the diaphragm.

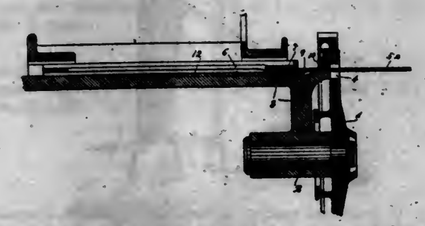
3. In telephonic apparatus, a sound box, a diaphragm mounted thereon, an electrode centrally mounted in the sound box, and means for directing sound waves circumferentially about the sound box and the electrode into the sound-box and against the rear face of the diaphragm.

4. In telephonic apparatus, a transmitter consisting of a sound box, a diaphragm supported thereon, an electrode centrally mounted in the sound box at the rear of the diaphragm, said sound box having a circumferential series of passages located around the electrode and leading to the interior of the sound box, and means for directing sound waves through said passages and against the rear face of the diaphragm.

5. In telephonic apparatus, a sound box, a diaphragm supported thereon, a centrally arranged granular carbon electrode mounted in said sound box, and contacting with the rear face of the diaphragm, and a plate mounted upon the back of said sound box adapted to permit the entrance of sound waves into the said sound box and against the rear face of the diaphragm, said plate protecting the electrode supporting means.

[Claims 6 to 48 not printed in the Gazette.]

1,025,993. EJECTOR-BLADE FOR LINOTYPE-MACHINES. HANS PETERSEN, Minneapolis, Minn., assignor to The Linograph Manufacturing Company, Minneapolis, Minn., a Corporation of Minnesota. Filed May 1, 1911. Serial No. 624,512. (Cl. 199—13.)



1. In a mechanism of the kind described, the combination with an ejector slide and a support therefor, of an ejector blade having interlocking engagement with the said slide and normally held interlocked to the said slide by the said support, the said support having a releasing notch, whereby said blade when moved into alinement with said notch may be detached from said slide by lateral movement.

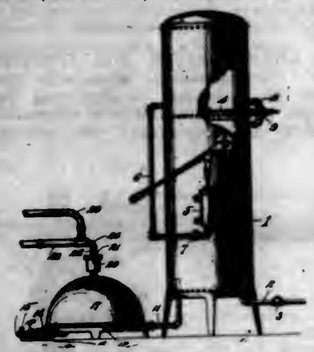
2. In a mechanism of the kind described, a combination with an ejector slide and a support therefor, of an ejector blade having an end portion normally confined between said ejector slide and support, the said slide having a stud detachably engaging a seat in said blade, and the said support having a releasing notch, whereby said blade may be detached from said slide by lateral movement, when moved to an extreme or predetermined abnormal position.

3. In a mechanism of the kind described, a combination with an ejector slide and a support therefor, of an ejector blade having an end portion normally confined between said ejector slide and support, the said slide having a stud detachably engaging a seat in said blade, and the said support having a releasing notch, whereby said blade may be detached from said slide by lateral movement, when moved to an extreme or predetermined abnormal position, and the said ejector slide further having a stop lug for limiting the backward or inward movement of said blade when disconnected from the stud of said slide.

4. The combination with a mold slide, a mold wheel journaled thereto, and an ejector slide movable thereon, of an ejector blade having an end normally confined between said mold slide and ejector slide, and having stud seats at such confined end, the said mold wheel having a slot through which said ejector blade may be removed, the said ejector slide having studs normally engaging the seats in said blade, and the said mold slide having a releasing notch, adapting the said blade to be detached from the said ejector slide, by lateral movement when moved to an extreme or predetermined abnormal position.

5. The combination with a mold slide, a mold wheel journaled thereto, and an ejector slide movable thereon, of an ejector blade having an end normally confined between said mold slide and ejector slide, and having studs or seats at such confined end, the said mold wheel having a slot through which said ejector blade may be removed, the said ejector slide having studs normally engaging the seats in said blade, and the said mold slide having a releasing notch, adapting the said blade to be detached from the said ejector slide, by lateral movement, when moved to an extreme or predetermined abnormal position, and the said ejector slide having a stop lug for limiting the inward or rearward movements of said blade, when detached from the stud of said slide.

1,025,994. VACUUM CLEANING SYSTEM. JOHN R. PETTIFORD, St. Louis, Mo., assignor to Charles E. Gaffney, St. Louis, Mo. Filed Apr. 20, 1911. Serial No. 622,204. (Cl. 230—13.)



1. In a vacuum cleaning system, a fuel burner, a steam generating coil arranged to be heated by said burner, a hood inclosing said coil, a valve chamber connected to the upper end of said coil, a float valve in said valve chamber, an exhaust pipe, a passage from said exhaust pipe to said valve chamber, a valve for said passage controlled by said float, an aspirator in said passage projecting into said exhaust pipe, and a suction pipe opening into said exhaust pipe, substantially as specified.

2. A vacuum cleaning system, comprising a water tank, a compressed air chamber located above said tank, a passage between said air chamber and said water tank, a valve in said passage effective to maintain substantially uniform pressure on the water in said tank, a water supply pipe leading from said tank, a pipe coil connected to said supply pipe, a burner arranged to supply heat to said generator, a passage leading from the upper end of said coil, a valve in said passage, an exhaust pipe into which said passage leads, a suction pipe, an aspirator in said passage through which steam passes effectively to create a suction in said suction pipe, and discharge matter drawn in through said suction pipe into said exhaust pipe, substantially as specified.

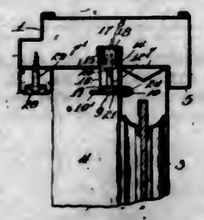
3. In a vacuum cleaning system, the combination with a steam generating coil, a burner for supplying heat to said coil to generate steam, a valve case connected to said coil and arranged to receive a quantity of water, and a steam outlet from said valve case, of a valve within said valve case held in adjustment to close said outlet by the water in said valve case when the cleaning system is idle, and automatically moved to open said outlet when heat is applied to said generating coil, and suction and exhaust pipes controlled by the steam passing from said valve case when said valve opens said outlet, as aforesaid, substantially as specified.

4. A vacuum cleaning system, comprising in combination, a steam coil, a burner arranged to supply heat to said coil effective to generate steam in said coil, a valve chamber connected to said coil arranged to receive water from said coil, a passage leading from said valve chamber, a float valve in said valve chamber arranged to close said passage when water rises from said coil into said valve chamber, and to open said passage when water recedes in said valve chamber, a water tank operatively connected to said coil whereby water is supplied to said coil, and a pressure tank connected to said water tank effective to maintain water in said coil and said valve chamber whereby the passage leading from said valve chamber is closed or sealed when the system is idle, substantially as specified.

5. A system of the character described comprising in combination, a steam generating coil, a valve chamber arranged to receive water from said coil, a passage from said valve chamber, an exhaust pipe communicating with said valve chamber by means of said passage, a suction pipe communicating with said exhaust pipe, an aspirator in said passage, a float valve in said valve chamber arranged to close said passage when water is in said valve chamber, means for supplying water to said coil under substantially uniform pressure, and to maintain water in said valve chamber when the system is idle, a burner arranged to supply heat to said coil whereby steam may be generated effectively to cause said passage from said valve chamber to open and permit the passage of steam through said aspirator creating a suction in said suction pipe, and causing the discharge of matter drawn into said suction pipe into said exhaust pipe, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

1,025,995. FIREPROOF WINDOW. SILAS H. POMEROY, New Rochelle, N. Y. Filed Feb. 24, 1909. Serial No. 479,709. (Cl. 189—73.)

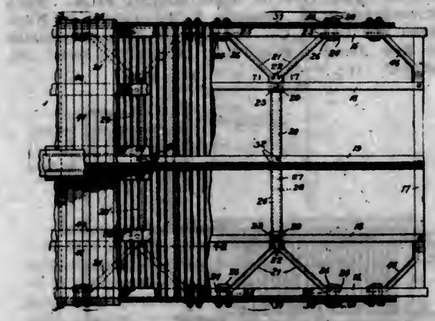


1. In a fireproof window, a side casing member provided with a longitudinal jamb channel, a pair of sash frames seated therein, a parting strip dividing said sash frames and having interlocking engagement with the latter, and means for locking said parting strip to the casing comprising a socket member provided with inwardly inclined tongues, a stud seated in said socket and having grooves at opposite sides to receive said tongues, said stud having longitudinal movement in said socket, and a screw bolt extending through the face of the parting strip and detachably holding the stud against longitudinal movement in its socket.

2. In a fireproof window, a side casing member provided with a longitudinal jamb channel, a pair of sash frames seated in said channel, a T-shaped parting strip formed of sheet metal, said sashes having grooves for receiving the head of said parting strip, said jamb having a rectangular countersunk portion into which the end of said parting strip extends a distance, a block at the inner end of said countersunk portion and having side grooves, the inner corners of said countersunk portions having slots, tongues having hooked ends extending through said slots and having their other ends engaging in the grooves of said block whereby said block is anchored to the inner end of said countersunk portion, and a screw swiveled in the head of said parting strip and having threaded engagement with said block whereby said parting strip may be adjusted toward and away from said jamb.

3. In a fireproof window, a side casing member provided with a longitudinal jamb channel having an intermediate rectangular countersunk portion, a sash frame engaging with said jamb at each side of said countersunk portion, the opposed faces of said sash frames having grooves, a T-shaped parting strip built up of sheet metal and having the sides of its head engaging in the sash frame grooves, the inner end of said parting strip telescoping a distance into said rectangular countersunk portion, a block at the inner end of said countersunk portion having grooves in its opposed sides, there being slots at the inner corners of said countersunk portion, tongues having hooked ends engaging in said slots and having their inner ends engaging in the block grooves whereby said block is securely anchored at the inner end of the countersunk portion, a reinforcing strip secured to the inner side of the head of said parting strip, a screw having its head swiveled in said reinforcing strip, and a pin extending through the screw shank at the inner surface of said reinforcing strip to lock said screw to said strip, the inner end of said screw having threaded engagement with said block within the countersunk portion whereby turning of the screw will effect adjustment of the parting strip head toward or away from said side casing.

1,025,996. ROOF-FRAME FOR CARS. EDWARD POSSON, Chicago, Ill., assignor to Camel Company, Chicago, Ill., a Corporation of Maine. Original application filed Mar. 20, 1910, Serial No. 552,181. Divided and this application filed Mar. 7, 1911. Serial No. 612,797. (Cl. 108—5.)



1. In roof construction for railway cars, a carline comprising a central member and end members secured to the ends of the central member, each of said end members being divided longitudinally and spread diagonally apart.

2. In roof construction for railway cars, a carline comprising a central member and end members secured to the ends of the central member, each of said end members being divided longitudinally and spaced diagonally apart and terminating in extremities spread still farther apart so as to lie in the same plane.

3. In a roof construction for railway cars, a carline comprising a central member having side flanges and flanged end members overlapping and secured to the ends of the central member, the flanges of the overlapped portions of said members being in close contact, each of said end members being divided longitudinally and spaced diagonally apart.

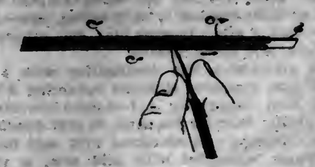
4. In a car roof framework, the combination with side plates, of carlines each comprising a central member and end members secured to the ends of the central member, the end members of each carline being divided longitudinally and spread diagonally apart and secured to the side plates, purlins, a rigid beam supported by the carlines, and a roof resting on said purlins.

5. In a car roof framework, the combination with side walls, of metal carlines extending completely across the car and secured to and supported upon said side walls, each of said carlines comprising a central arched member and bifurcated end members secured to the ends of the central member, the bifurcated parts of the end members diverging toward the car sides to which they are secured, whereby the arches formed by the carlines are braced against tilting longitudinally of the car and whereby the entire structure forms an approximately horizontal truss.

[Claims 6 and 7 not printed in the Gazette.]

1,025,997. ADJUSTABLE INDEX. JAMES H. RAND, Newton, Mass. Filed Jan. 16, 1911. Serial No. 602,852. (Cl. 40—63.)

An indicator device comprising a frame provided with inwardly facing guide channels, and a plurality of longitudinally resilient protective sheaths, each formed of stiff, transparent, resilient material, and having a relatively long and narrow, closed front face, and inwardly-turned retaining lips on the rear side to form a slide for removably holding indicator strips, said sheaths by their resiliency being removable from the guide channels of the



frame, and interchangeably held at their ends by said guide channels.

1,025,998. DIAPHRAGM HORN OR ALARM. SOLOMON ROSOFSKY, Brooklyn, N. Y. Filed Oct. 22, 1910. Serial No. 588,431. (Cl. 116—1.)



1. An alarm-horn, or the like, comprising a casing, a diaphragm secured over the open end of said casing, agitating elements connected with said diaphragm, each comprising, a foot-piece provided with means for rigidly securing the same to said diaphragm, a rearwardly extending arm connected with said foot-piece, a contact-finger connected with the free end of said arm, a means arranged within said casing for vibrating said agitating elements, comprising an electric motor, a vibrator-wheel connected with the shaft of said motor and rotated thereby, said vibrator-wheel being provided with a plurality of cam-portions adapted to engage with said contact-fingers of said agitating elements when said vibrator-wheel is rotated, and means for regulating the contact of said contact-fingers with said cam-portions of said vibrator-wheel, comprising an adjusting pin loosely connected with said rearwardly extending arm of each agitating element, said adjusting pin being adapted to pass through a suitable opening in said casing, screw-threads on the free ends of said adjusting pins, and adjusting-nuts arranged upon said screw-threads.

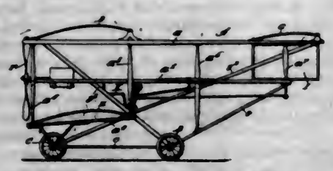
2. An alarm-horn, or the like, comprising a casing open at one end, a flange providing a diaphragm seat at the open end of said casing, a diaphragm secured upon said seat and extending across the open end of said casing, a cover-member provided with an opening secured upon the open end of said casing and extending in front of the outer face of said diaphragm, a horn or megaphone, means connected with said cover-member for supporting said horn or megaphone in registration with said opening of said cover-member, agitating elements connected with said diaphragm, each comprising, a foot-piece provided with means for rigidly securing the same to said diaphragm, a rearwardly extending arm connected with said foot-piece, a contact-finger connected with the free end of said arm, a means arranged within said casing for vibrating said agitating elements, comprising an electric motor, a vibrator-wheel connected with the shaft of said motor and rotated thereby, said vibrator-wheel being provided with a plurality of cam-portions adapted to engage with said contact-fingers of said agitating-elements when said vibrator-wheel is rotated, and means for regulating the contact of said contact-fingers with said cam-portions of said

vibrator-wheel, comprising an adjusting pin loosely connected with said rearwardly extending arm of each agitating element, said adjusting pin being adapted to pass through a suitable opening in said casing, screw-threads on the free ends of said adjusting pins, and adjusting-nuts arranged upon said screw-threads.

3. In an alarm-horn, the combination with a casing of a diaphragm, agitating elements connected with said diaphragm, each comprising, a foot-piece provided with means for rigidly securing the same to said diaphragm, a rearwardly extending arm connected with said foot-piece, a contact-finger connected with said arm, a vibrator-wheel arranged to rotate within said casing and in contact with said contact-fingers of each agitating element, and means for regulating the contact of said contact-fingers with said vibrator-wheel, comprising an adjusting pin loosely connected with said rearwardly extending arm of each agitating element, said adjusting pin being adapted to pass through a suitable opening in said casing, screw-threads on the free ends of said adjusting pins, and adjusting-nuts arranged upon said screw-threads.

4. In an alarm-horn, the combination, with a casing of a diaphragm, rearwardly extending arms rigidly connected with said diaphragm, contact-fingers connected with said arms, a rotatable vibrator-wheel, cam-portions on said vibrator-wheel adapted to travel in the path of and in contact with said contact-fingers when said vibrator-wheel is rotated, and means for regulating the contact of said contact-fingers with said cam-portions of said vibrator-wheel, comprising adjusting pins loosely connected with each rearwardly extending arm, said adjusting-pins being adapted to pass through suitable openings in said casing, screw-threads on the free ends of said adjusting pins, and adjusting-nuts arranged upon said screw-threads.

1,025,999. FLYING-MACHINE. RUDOLF SALMEN, Chicago, Ill. Filed Dec. 23, 1909. Serial No. 534,607. (Cl. 244—14.)



1. In a flying machine, a longitudinal frame, a pair of main planes at the rear of said frame, disposed one over the other, the upper one being at the top of the frame, a relatively small plane at the forward end of said frame, which small plane bears a fixed relation to said main planes, and a flat deck between said front and rear planes, the said small plane and deck being at the top of the frame.

2. In a flying machine, a longitudinal frame, fixed planes at the front and rear ends thereof, the front plane being much smaller than the rear plane, and a dipping plane or horizontal rudder intermediate the front and rear fixed planes, disposed at a substantially lower level, said rudder consisting of two small planes spaced apart and connected to work in unison, as set forth.

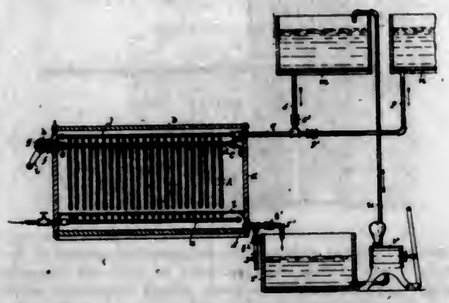
3. In a flying machine, a frame composed of upper and lower longitudinal members, connecting members therefor, a vehicle, braces running from the front ends of the lower members to the front of said vehicle, braces running from the forward end of the upper members to the rear of said vehicle, braces running from the rear ends of the upper members to the front of said vehicle, short lower longitudinal members, and planes on the frame.

4. In a flying machine, a rear main transverse plane, a front transverse plane, said planes being disposed horizontally and fixed relatively to each other, a vertical rudder immediately below said front plane, at the head of the machine, movable about a vertical axis to steer the machine to right or left, said front plane being smaller than the said main plane, and a horizontal rudder disposed between said planes, movable about a horizontal axis to raise and lower the machine, said horizontal rudder being lower than the vertical rudder.

5. In a flying machine, a rear main transverse plane, a front transverse plane, said planes being disposed horizontally and fixed relatively to each other, a vertical rudder immediately below said front plane, at the head of the machine, movable about a vertical axis to steer the machine to right or left, said front plane being smaller than the said main pane, and a horizontal rudder disposed below the level of said planes, movable about a horizontal axis to raise and lower the machine, said horizontal rudder being lower than the vertical rudder.

[Claims 6 to 8 not printed in the Gazette.]

1,026,000. PROCESS OF DEGUMMING SILK. EMIL SCHNURRENBERGER, Paterson, N. J., assignor to Weidmann Silk Dyeing Co., Paterson, N. J., a Corporation of New Jersey. Filed Nov. 29, 1911. Serial No. 663,053. (Cl. 8—2.)



1. The herein-described process of separating the gum from silk which consists in placing the silk in a suitable receptacle, wetting the silk while in said receptacle with soap in solution, treating the silk with a steam bath while still in said receptacle and while wet with the soap solution, and finally washing the silk, substantially as described.

2. The herein-described process of separating the gum from silk which consists in placing the silk in a suitable receptacle, wetting the silk while in said receptacle with soap in solution, filling the receptacle with free steam while the silk is still in said receptacle and still wet with the soap solution, and finally washing the silk, substantially as described.

3. The herein described process of separating the gum from silk which consists in placing the silk in a suitable vessel and, while in said vessel, spraying the silk with soap solution and treating the silk with a steam bath, and finally washing the silk, substantially as described.

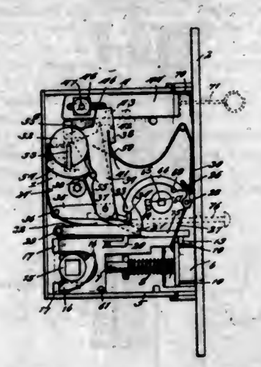
4. The herein described process of separating the gum from silk which consists in placing the silk in a substantially closed vessel, then, while in said vessel, spraying the silk with soap solution and filling the vessel with free steam, and finally washing the silk, substantially as described.

5. The herein described process of separating the gum from silk which consists in placing the silk in a substantially closed vessel, then, while in said vessel, spraying the silk with soap solution and simultaneously filling the vessel with free steam, substantially as described.

1,026,001. LOCK. SIMON H. SHANK, Chicago, Ill. Filed July 31, 1911. Serial No. 641,512. (Cl. 70—29.)

1. In a lock the combination of a bolt, a spring for urging the same toward locked position, a tripper arm adapted to be acted upon by said bolt, a dog adapted to be held in non acting position by said arm, a sliding frame adapted to be held in locked position by said dog, and a stop arm adapted to engage said frame and said bolt to hold the latter in locked position when said frame is in locked position, said stop arm being removable.

2. In a lock the combination of a bolt, a sliding frame adapted to retract said bolt, a stop arm interposed between said bolt and said frame for holding the bolt forward when the frame is forward, said arm being removable, hand operated means for sliding said frame, a dog for holding said frame forward, and means for controlling said dog.



3. In a lock, the combination of a plurality of independently slidable wards provided with notches, means adapted to engage all of said wards for sliding them to initial position when they are to be adjusted to a new key, tumblers adapted to engage the notches in the respective wards, means for forcing the tumblers into engagement with the wards when the latter are in initial position, and a nut and screw operable from outside the lock for rigidly securing the wards in the lock when said wards have been adjusted to proper position.

4. In a lock, the combination of a plurality of independently slidable wards provided with notches, means adapted to engage all of said wards for sliding them to initial position when they are to be adjusted to a new key, tumblers adapted to enter the notches in the respective wards, said tumblers being articulately connected together, a setting tool, a stationary cam ridge in the lock for forcing the tumblers toward the wards through the agency of said tool, a key adapted to move the different tumblers to different positions when said tumblers are in engagement with said wards, and means for setting the wards when they have thus been moved by the key.

5. In a lock, the combination of a plurality of independently slidable wards provided with notches, a sliding L shaped member adapted to engage all of said wards for moving them to initial position when they are to be adjusted to a new key, tumblers adapted to engage the notches in the respective wards, a stationary cam ridge, a tool adapted to coöperate with said ridge for forcing the tumblers into engagement with the wards when the latter are in initial position, and means operable from the outside of the lock for fastening the wards after they have been adjusted.

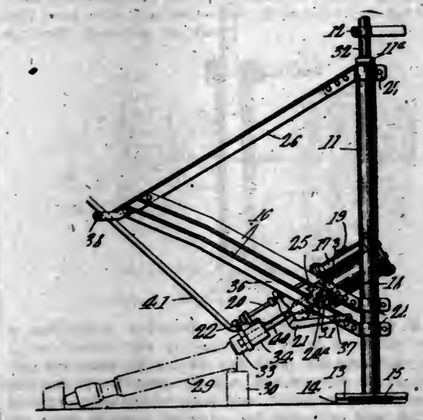
[Claims 6 and 7 not printed in the Gazette.]

1,026,002. STEAM-HAMMER. THEODORE MICHAEL SHEARER, Oakland City, Ind. Filed July 21, 1911. Serial No. 639,842. (Cl. 76—5.)

1. In a support for steam hammers, a horizontally rotatable frame including inclined slideways, and a ram operating mechanism slidably and pivotally mounted between the slideways.

2. In a support for steam hammers, a horizontally rotatable frame including inclined slideways, a ram operating mechanism slidably and pivotally mounted between the slideways, and means for clamping the said mechanism at various positions on the slideways.

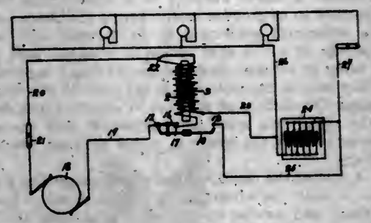
3. In a support for steam hammers, a pair of vertical masts mounted to turn horizontally, slideways secured to the said masts and inclined therefrom, a ram operating mechanism slidably and pivotally mounted between the slideways, a yoke joining the upper ends of the slideways, and a bar connected to the ram operating mechanism and passing over the yoke to manipulate the said mechanism.



4. In a support for steam hammers, a pair of vertical masts mounted to turn horizontally, slideways secured to the said masts, boxes slidable in the slideways, and a ram operating mechanism trunnioned between the said boxes.

5. A support for a steam hammer comprising a pair of vertical masts, a turn-table for the said masts, slideways secured to the lower ends of the said masts and inclined outwardly, braces connecting the outer ends of the said slideways and the upper ends of the said masts, and a ram operating mechanism slidably mounted between the said slideways and pivoted to turn vertically therebetween.

1,026,003. CIRCUIT OPENING AND CLOSING SWITCH FOR CHARGING-CIRCUITS. ALFRED J. STECKER, Detroit, Mich. Filed Apr. 28, 1909. Serial No. 492,619. (Cl. 171—312.)



A charging circuit including a generator and a battery, an electro-magnet having a winding forming a portion of the charging circuit, a shunt circuit including a winding of said electro-magnet, one terminal of which is connected to one line of the charging circuit, a movable contact connecting the other terminal of the shunt circuit to the other line of the charging circuit, a movable armature for said magnet carrying a circuit opening and closing member, contact points in the charging circuit with which said circuit opening and closing member is adapted to have contact to close the charging circuit, an arm actuated by said armature engaging the movable contact of the shunt circuit, whereby upon an energization of said magnet to close the charging circuit, the shunt circuit will be opened at said movable contact, and upon the deënergization of said magnet to open the charging circuit, the contact will move to close the shunt circuit.

1,026,004. GROOVING-TOOL. AARON F. STRAPER, Cincinnati, Ohio, assignor to Herman A. Holts, Cincinnati, Ohio. Filed Aug. 7, 1911. Serial No. 642,867. (Cl. 90—11.)



1. A tool of the character described comprising a groove cutter, a shaft for actuating the cutter, and a sleeve inclosing the shaft and having an eccentric projection at its forward end, a shaft extending across and secured to the projection and upon which said cutter is mounted, said projection being tapered so as to force the cutter into engagement with the surface to be cut as the sleeve moves along the surface.

2. A tool of the character described comprising a groove cutter, a shaft for actuating the cutter, and a sleeve for the shaft located eccentric thereto and having an eccentric projection at its forward end on which said cutter is mounted, and an inclined face located immediately to the rear of the axis of the cutter for forcing the cutter into engagement with the surface to be grooved as the sleeve is moved along the surface.

3. A tool of the character described comprising a groove cutter, a shaft for actuating the cutter, a casing inclosing the shaft and having a bifurcated eccentric projection located at one end between the prongs of which said cutter is mounted, one side of said projection being flush with the surface of the sleeve beyond which the cutter projects and the other side being tapered immediately to the rear of the axis of the cutter.

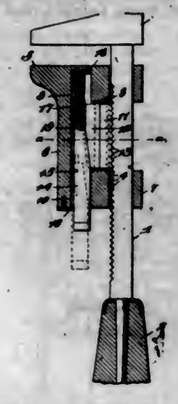
4. A tool for cutting grooves in the surfaces of bores or apertures, comprising a cutter, a shaft for actuating said cutter, a sleeve adapted to be moved into the bore or aperture to be grooved and inclosing the shaft and having a bifurcated projection at its forward end between the prongs of which said cutter is mounted, said projection being of reduced diameter and having a tapered bearing face located immediately to the rear of the cutter for engaging the surface of the bore or aperture and for forcing the cutter into operative engagement with the surface to be grooved as the sleeve is moved through the bore or aperture.

5. A tool of the character described comprising a groove cutter, a shaft for actuating the cutter, a sleeve inclosing the shaft and having an eccentric projection at its forward end upon which the cutter is mounted, an inclined face located immediately to the rear of the axis of the cutter between the body of the sleeve and the extension, and an eccentric bushing having an inclined face adapted to form a continuation of the inclined face of the sleeve.

[Claim 6 not printed in the Gazette.]

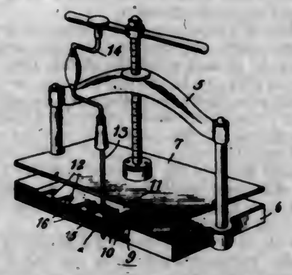
1,026,005. WRENCH. CLARENCE E. STRAUB, Middleburg, Pa. Filed July 8, 1911. Serial No. 637,518. (Cl. 81—148.)

A wrench comprising a stem formed on one edge with teeth, a relatively stationary jaw secured to said stem, a movable jaw mounted to move on said stem and formed with a cavity, a handle carried by the stem, the cavity opening at one end of the movable jaw adjacent the handle and also communicating at its side with the toothed edge of the stem, a wedge block mounted in the side opening of the cavity and formed with teeth opposed to the teeth of the stem, a contractile spring secured in the cavity, a locking bar movable through the first named opening of the cavity into engagement with the wedge



block and connected at its inner ends to the spring, and means for detachably holding the locking bar extended from the cavity of the movable jaw toward the handle with the said spring under tension, as and for the purpose set forth.

1,026,006. DEVICE FOR BINDING PAPER SHEETS. CHARLES THIEM, Sandusky, Ohio. Filed July 12, 1911. Serial No. 638,098. (Cl. 11—2.)

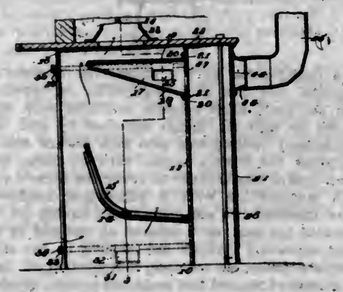


1. An attachment for a press for holding books while being sewed, comprising a plate with one edge substantially as long as the portion to be sewed, said plate having notches along its edge to register with holes in the book through which the sewing threads pass, the tongues between said notches being grooved on the under side to allow of passing the sewing needle from one notch and hole to the next.

2. An attachment for a press for holding books while being sewed, comprising a plate with one edge substantially as long as the portion to be sewed, said plate having notches along its edge to register with holes in the book through which the sewing threads pass, the tongues formed between said notches being provided upon the under side with grooves extending at an angle thereacross and opening at the inner end of one notch and the outer end of the adjacent notch to allow of passing the sewing needle from one notch and hole to the next.

1,026,007. HEATER ATTACHMENT FOR GRATES AND STOVES. THOMAS C. WALKER, Morristown, Ohio. Filed Oct. 17, 1910. Serial No. 587,544. (Cl. 126—121.)

1. A heater including a casing having an open front and provided with a perforated top plate, a draft pipe secured to the top plate at the perforation therein, a vertically disposed partition spaced from the rear wall of the casing to form a hot air chamber, spaced walls arranged within the casing and converging in the direction of and secured to the partition, said converging walls being spaced from the side walls of the casing to form auxiliary hot air chambers, there being openings in the rear walls of the auxiliary chambers and in the partition and forming a source of communication between said auxiliary hot air chambers and rear hot air chamber, a grate interposed between the converging walls, a hollow baffle secured to the partition and having its free end tapered and spaced from the front of the casing to form a passage communication with the perforation in the top of said casing, a conductor communicating with the rear hot air chamber, and a second conductor communicating with one of the auxiliary hot air chambers, there being openings in the converging walls and partition and forming a source of communication between the interior of the baffle and the adjacent hot air chambers.

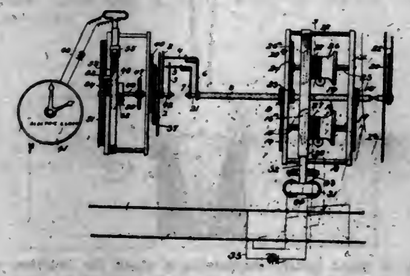


2. A heater including a casing, a partition disposed within the casing and spaced from the rear thereof to form a hot air chamber, vertical walls disposed within the casing and secured to said partition, said vertical walls being spaced from the side walls of the casing to form auxiliary hot air chambers communicating at their lower ends with the hot air chamber at the rear of said casing, a grate interposed between the vertical walls of the casing, a hollow baffle secured to the partition and having its reduced end spaced from the front of the casing to form a passage, a plate forming a closure for the top of the casing and having an opening therein communicating with the passage, a draft pipe surrounding said opening, a hot air flue communicating with the rear hot air chamber, a second hot air flue communicating with one of the auxiliary hot air chambers, and means for cutting off communication between the main and auxiliary hot air chambers, there being openings in the vertical walls and partition and forming a source of communication between the interior of the hollow baffle and the adjacent hot air chambers.

1,026,008. CLOCK MECHANISM FOR SIGNALS. FRANK O. WARNER, Baltimore, Md. Filed Apr. 2, 1910. Serial No. 553,081. (Cl. 246—42.)

1. In clock mechanism for signals, the combination of an indicating disk, pointers mounted to pass over the face thereof, fingers movable with said pointers, a secondary clock embodying hands arranged in the path of movement of said fingers to stop the movement thereof and the movement of the pointers, electrically actuated apparatus controlling the movements of the pointers, means tending to move said clock hands, a master clock, and means controlled by said master clock for intermittingly holding the actuating mechanism of the secondary clock inoperative and for operating the secondary clock mechanism.

2. In clock mechanism for signals, the combination of an indicator disk, pointers adapted to move over the face of said disk, fingers movable with said pointers, clock hands arranged in the path of movement of said fingers, electrically actuated means for controlling the movement of the pointers and the fingers, the movement of the fingers being adapted to be stopped by their engagement with the clock hands, actuating mechanism for the clock hands, a master clock, and electric controlling means for holding said hand actuating mechanism inoperative and for intermittently operating the same.



3. In mechanism of the character described, the combination of an indicator disk, pointers adapted to move over the face of said disk, fingers movable with said pointers, clock hands adapted to stop the movement of said fingers, and means for intermittingly and positively moving the clock hands and for positively holding them stationary at the end of each movement.

4. In mechanism of the character described, the combination with movable fingers, clock hands adapted to limit the movement of said fingers, actuating mechanism for said clock hands, said actuating mechanism including an escapement pawl, a controller arm, and a stop finger carried by the controller arm arranged to engage the escapement pawl, for the purpose specified.

1,026,009. FOUNTAIN PAINT-BRUSH. TETSUSABURO WATANABE, New York, N. Y. Filed Sept. 28, 1911. Serial No. 650,945. (Cl. 15—49.)



1. A paint brush, comprising a stock for bristles, a paint reservoir carried thereby having an open funnel-shaped extension and connecting with said bristles, and means in said extension operable by the wiping motion of the brush in applying paint, for maintaining a free passage for paint through said extension to said bristles.

2. A paint brush, comprising a circular stock for bristles, an open centrally disposed funnel-shaped tube depending therefrom and surrounded by said bristles, a rod supported on said stock and extending across said tube, a rod suspended from said first-named rod, passing through said tube and extending beyond the same, and a paint reservoir on said stock and communicating with said tube.

1,026,010. FOUNTAIN PAINT-BRUSH. TETSUSABURO WATANABE, New York, N. Y. Filed Sept. 23, 1911. Serial No. 650,946. (Cl. 15—49.)

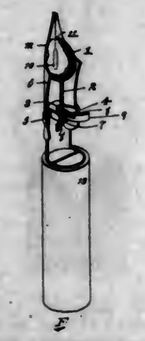


1. A paint brush, comprising a stock for bristles, an open inverted frusto pyramidal tube disposed in an opening in said stock and entering among said bristles, a plate suspended at its edge from said stock and extending through and protruding below said tube, and a paint reservoir detachably secured to said stock and communicating with said tube.

2. A paint brush, comprising a stock for bristles, an open inverted frusto pyramidal tube disposed in an opening in said stock and eptering among said bristles, a plate suspended at its edge from said stock and extending through and protruding below said tube, and a hollow handle having an enlargement hinged to and covering said stock and internally communicating with said tube.

3. A paint brush, comprising a stock for bristles, an open inverted frusto pyramidal tube disposed in an opening in said stock and entering among said bristles, a plate suspended at its edge from said stock and extending through and protruding below said tube and having an opening near its lower portion, and a paint reservoir detachably secured to said stock and communicating with said tube.

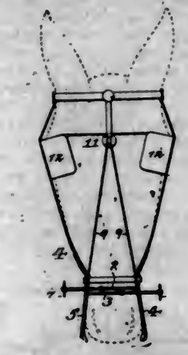
1,026,011. RESERVOIR ATTACHMENT FOR PENS. TETSUSABURO WATANABE, New York, N. Y. Filed Sept. 23, 1911. Serial No. 650,948. (Cl. 120—114.)



1. An ink fountain for pens, comprising a cup, a supporting rod therefor, a spring clip on said rod, having loops for engaging the edges of the pen, and operating arms on said clip.

2. An ink fountain for pens, comprising a cup, a supporting rod therefor, a clip formed of two members pivoted on the end of said rod and having loops for engaging the edges of the pen, a helical spring on said rod engaging with said clip members, and operating arms on said members.

1,026,012. DEVICE FOR STOPPING RUNAWAY HORSES. TETSUSABURO WATANABE, New York, N. Y. Filed Sept. 23, 1911. Serial No. 650,949. (Cl. 54—9.)

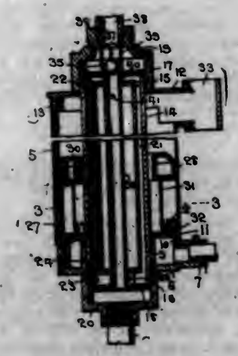


1. In combination with a supporting headstall, blinders thereon, two side bars respectively on opposite sides of said headstall, a bit between said side bars, and reins connected to said bit, means operated by said reins for simultaneously moving said side bars toward one another to compress the horse's mouth between them, and said blinders toward one another to cover the horse's eyes.

2. In combination with a supporting headstall, and blinders thereon, two side bars, each having an opening, two jointed bit bars, each secured at one end to one side bar and extending through the opening in the other side bar, reins attached to the free ends of said bit bars, and cords connected to said free ends and to said blinders.

3. In combination with a supporting headstall, and blinders thereon, two side bars, each having an opening, two jointed bit bars, each secured at one end to one side bar and extending through the opening in the other side bar, reins attached to the free ends of said bit bars, a fair leader suspended from the upper headstall strap, and having openings, and cords connected to the free ends of said bit bars, passing through said fair leader openings and secured to said blinders.

1,026,013. HEATING DEVICE. FRANK H. WHEELOCK, Washington, D. C. Filed Aug. 15, 1911. Serial No. 644,198. (Cl. 122—25.)



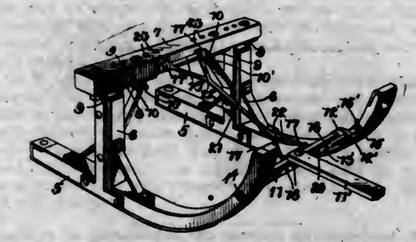
1. In a heating device the combination with a casing, a burner and a water containing tube extending through the casing, of a ring-like bridge wall within the casing and above the burner, said bridge wall being spaced from the water containing tube and having its opposite edge engaged with the inner wall of the casing, whereby the travel of the products of combustion will be retarded and forced inwardly and into direct contact with the water containing tube and supporting means extending from the burner to the bridge wall.

2. In a heating device the combination with a casing, a burner therein and means to convey water through the casing and burner, of a bridge wall within the casing the outer edge of which is engaged with the inner wall of the casing and having its inner edge spaced from the water conveying means, said bridge wall having a cavity and openings therein and pipes connecting the interior of the burner with the interior of said bridge wall, whereby an auxiliary burner will be provided.

3. In a heating device the combination with a water containing tube, of a casing surrounding said tube, a burner at the lower end of the casing,, a hollow ring-like bridge above the burner to retard the products of combustion through the casing said bridge having its outer edge engaged with the inner wall of the casing and its inner edge spaced from said water containing tube and a head plate at the opposite end of the casing, said head plate having an off-set portion communicating through a recess with the head plate through which the products of combustion may pass from the casing.

4. In a heating device the combination with a water containing tube and a casing surrounding and spaced from said tube, of a burner having a pair of flanges extending upwardly therefrom, a ring removably mounted upon the upper edges of said flanges, a hollow ring-like bridge above the burner, the outer edge of the bridge engaging the inner wall of the casing and the inner edge of the bridge being spaced from the tube and supporting means extending between said ring and bridge, said supporting means also being hollow.

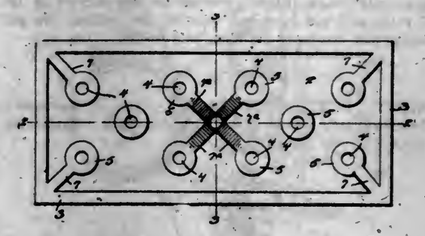
1,026,014. BOB-SLED. BEN W. WHITNEY, Dale, N. D. Filed Sept. 12, 1910. Serial No. 581,487. (Cl. 21—48.)



1. The combination with the bolsters, knees and runners of a bob-sled, of an adjustable connection between the front ends of said runners, eye bolts vertically disposed through the bolster, said bolster having a plurality of openings therein for the adjustment of the eye bolts, the eyes on said bolts being disposed beneath the bolster, rods extending through the eyes of said bolts, braces secured to the knees and extending inwardly therefrom, said rods being disposed through the upper ends of the braces, adjustable collars on said rods adapted to be secured thereon against the ends of the braces to rigidly secure the runners to the bolster and prevent their transverse movement with relation to said bolster, and a connecting member between said bolster and the adjustable connecting means at the front ends of the runners.

2. The combination with a bolster, knees and runners of a bob-sled, of means for adjusting the runners beneath the ends of the bolster, a transverse bar disposed between the forward ends of the runners, rods extending through the runners inwardly upon the bar, guides on the ends of the bar for said rods, means for rigidly securing the rods in the runners, the inner opposed ends of said rods being flattened and provided with a plurality of openings, eye bolts extending through the bar, the inner ends of said rods being adjustable upon said eye bolts, nuts threaded on the ends of the bolts for securing the rods thereto, a rod disposed through the eyes of said bolts and connecting the same, eye bolts extending through the bolster, a rod connecting said eye bolts, a bar bifurcated at its ends disposed upon said connecting rods and connecting the bar and the bolster, and collars longitudinally adjustable upon said connecting rods.

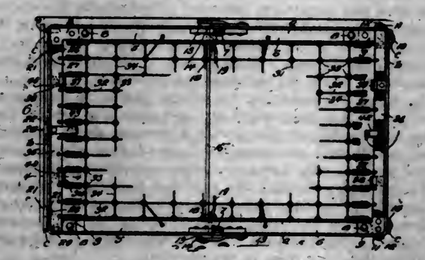
1,026,015. OIL-BURNER. FOREST WILLIAMS, Hobart, Okla. Filed Aug. 24, 1911. Serial No. 645,779. (Cl. 158—91.)



1. An oil burner comprising a plate having a marginal upstanding wall, said plate being formed with a pair of air inlet openings at each end, each surrounded by an upstanding wall, the plate being also formed with a central oil supply opening and with a plurality of air inlet openings disposed around the oil supply opening, each of said last named air inlet openings being surrounded by an upstanding wall, deflecting walls extending radially from the central oil supply opening, and deflecting walls extending from each of the walls surrounding the pairs of openings at the ends of the plate to the adjacent corners of the plate.

2. An oil burner comprising a plate having a marginal upstanding wall, said plate being formed with a pair of air inlet holes at each end, each surrounded by an upstanding wall, the plate being also formed with a central oil supply opening and with a plurality of air inlet openings disposed around the oil supply opening, each of said last named inlet openings being surrounded by an upstanding wall, centrally disposed deflecting walls extending radially from the central oil supply opening, and having faces inclined upwardly from said opening to the walls of the adjacent air inlet openings, and deflecting walls extending from each corner of the plate to the wall surrounding the adjacent air inlet opening.

1,026,016. BEDSTEAD. JOHN A. WILSON, Columbus, Kans. Filed July 1, 1911. Serial No. 636,376. (Cl. 5—5.)



1. In a collapsible bed, the combination of end rails, side rails including pivotally connected sections pivoted to the end rails, each of said side sections being foldable one upon the other and also foldable parallel to the end rails.

2. In a collapsible bed, the combination of end rails, side rails including pivotally connected sections pivoted

to the end rails, said side rails being foldable one upon the other and also foldable onto and parallel with the end rails.

3. In a collapsible bed, the combination of end rails, side rails including pivotally connected sections pivoted to the end rails, said side rails being foldable one upon the other and also foldable onto and parallel with the end rails, and supporting legs pivotally connected to said side and end rails and foldable thereonto.

4. In a collapsible bed, the combination of the end rails, hooks carried thereby, a spring having end bars to engage said hooks and coöperating devices carried by the end rails and end bars and adapted for locking the end bars against displacement from said hooks.

1,026,017. BUTTON-FASTENER. CLAUS J. ANDERSON, Newburyport, Mass. Filed Nov. 20, 1909. Serial No. 529,077. (Cl. 24—90.)



1. A button fastening comprising a base and means for permanent attachment of the base to material; a projection from the base, formed as a hook; another projection therefrom formed as a tongue flap, diverging from the first projection and adapted at its remote end to close the entrance to the hook exteriorly; and means secured to the base and movable thereon toward the remoter portions of the diverging parts to surround them and prevent the opening of the tongue closed entrance, and movable from said remoter portions toward the base to allow the tongue to open.

2. A button fastening comprising a base having a surface adapted to bear against the back side of material and having a shank adapted to project through an opening in the material to the face side thereof; a hook projecting from the shank adapted to engage a button; a sleeve surrounding the shank and movable lengthwise thereof to obstruct the mouth of the hook when moved in one direction; said sleeve having a surface adapted to bear against the face side of the material thereby to grip the material between the base and the sleeve when the sleeve is moved in the other direction.

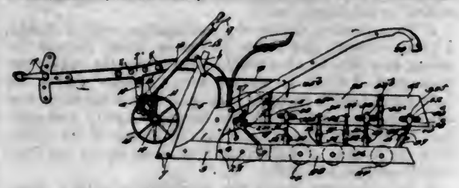
3. The combination of a base and means for attaching it permanently to material, said base having a flat face adapted to lie against the material parallel to the face of the material; a hook supported on the base and projecting therefrom in a direction perpendicular to said flat surface; the hook having a mouth and a screw sleeve mounted on the base and projecting therefrom in the same direction as the hook and adapted to surround substantially the entire mouth of the hook when moved outward on said screw in the direction of the hook; the said sleeve where it is mounted on the base extending into a hole formed in the material to which the said base is attached.

4. A button fastening comprising means to engage a button; a base supporting it; and means to fasten the base to material, combined with a movable sleeve adapted to maintain said engagement with the button when moved from the base; the fastening means comprising pins adapted to be driven through the base and material, the sleeve being adapted to bear close against the face of the material when moved toward said base and having there a surface adapted to stop and bend backward the points of said pins thereby clenching them in the material.

5. A button fastening comprising a base and means to fasten the base to material; a hook projecting therefrom adapted to engage a button; the hook having a four-fold shank mounted in the base; two of said folds projecting from the shank and forming the hook, and one of them closing the hook's mouth.

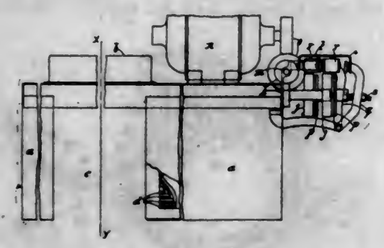
[Claims 6 and 7 not printed in the Gazette.]

1,026,018. GRADING-MACHINE. ROLAH ALPHERD BAKER, Rice, La. Filed Oct. 23, 1911. Serial No. 656,122. (Cl. 97—12.)



In combination with a plow, a grading wing adjustably connected to the moldboard of the plow, an extension connected to the land side of the plow, telescopical rod connections between the extension and the grading wing, rods having turnbuckle connections between the wing and the extension whereby the wing may be brought toward or from the extension, means carried by the telescoping rod for holding the wing when adjusted, an extension wing hinged to the grading wing, means for holding the extension wing adjusted at various angles relative to the grading wing, the telescoping rods having universal connections with the grading wing and the first extension, means for holding the grading wing in adjusted position vertically, and an adjustable gage wheel and cutter for the plow.

1,026,019. PROJECTING-LANTERN. ROBERT BRIGHT, Jr., Aberdeen, Scotland, and JOHN MORICE WILSON WRIGHT, Sunderland, England. Filed June 1, 1909. Serial No. 499,442. (Cl. 240—47.)



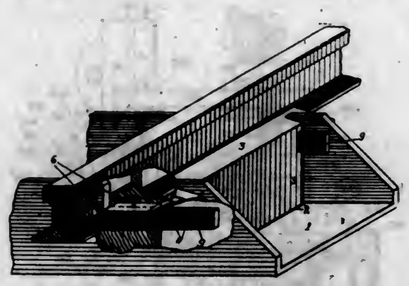
1. In projecting lanterns the combination of a source of light, a screen, means for traveling said screen in front and clear of said source of light, and an electro-magnetic clutch for rendering said traveling means operative and inoperative.

2. In projecting lanterns the combination of a source of light, a plurality of screens, a screw-and-nut mechanism for traveling each of said screens in front and clear of said source of light, means for actuating said screw-and-nut mechanism, electro-magnetic clutches for putting said actuating means into and out of gear with any of said screw-and-nut mechanisms and means for selectively actuating said clutches.

1,026,020. RAILWAY-TIE AND FASTENER. JOHN T. CLARK, Provo, Utah. Filed July 19, 1911. Serial No. 639,354. (Cl. 238—5.)

1. A railway tie consisting of a channel having transverse slots in the bottom and rail receiving cuts in the sides a portion of the rail receiving cuts being at an angle, cushion blocks in the end portions of said channel, rail clamps adapted to be vertically moved in said transverse slots in said channel and having key slots cut in the sides thereof, and keys adapted to engage the bottom of said last-mentioned slots and an inwardly extending portion of the sides of said channel.

2. A railway tie consisting of a channel having rail receiving slots in the sides thereof, inwardly extended flanges on said channel formed integral with the sides thereof and adjacent said rail receiving slots, clamps having open slots and cuts in the sides thereof, keys adapted to engage one side of said open cuts and said inwardly extended flanges, and means to secure said keys from unintentional removal.



3. A railway tie and fastener therefor consisting of a channel formed from a sheet of metal and having rail receiving cuts in the sides thereof and transverse slots in the bottom, metal clamps adapted to move vertically in said transverse slots and to contact with the flanges on the base of a rail, and having key slots in the sides thereof, and keys adapted to engage one side of said last mentioned slots and a portion of the sides of said channel.

4. A railway tie and fastener consisting of a channel formed from a sheet of metal and having rail receiving cuts in the edges of said channel a portion of said cuts being at an angle, metal clamps having open slots in the sides thereof and adapted to fit transversely in said channel and to engage the base flange of the rail, cushion blocks in each end portion of said channel, and keys adapted to engage a portion of the sides of said channel and a portion of said clamps.

5. A rail way tie and fastener consisting of a channel having transverse slots in the bottom and rail receiving cuts in the sides, a cushion block in each end portion of said channel, L-shaped clamps having open slots in the sides thereof, and keys adapted to draw the bottom of said clamps through the said transverse slots by their engagement with said clamps and a portion of the sides of said channel.

1,026,021. NAILING-MACHINE. EDWARD M. CORCORAN, St. Louis, Mo., assignor to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 17, 1910. Serial No. 597,910. (Cl. 1—18.)

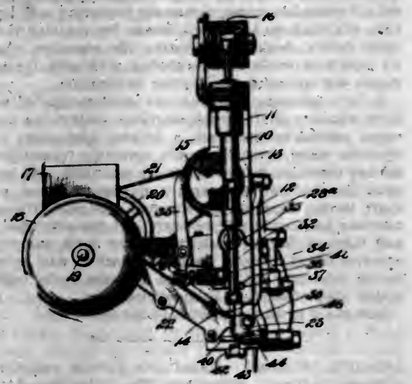
1. In a nailing machine, the combination with a head, and a driver and a nail loader thereon, of a raceway movable in said loader and having a nail block rigidly connected thereto at its lower end, and means for moving said nail block into and out of alinement with said driver.

2. In a nailing machine, the combination with a head, and a driver and a nail loader thereon, of a raceway having a nail block rigidly secured thereto to form a part thereof, means for supporting said raceway and nail block for transverse movement on said head, and means for reciprocating said raceway and nail block transversely in the line of feed of the work to move the nail block into and out of alinement with the driver.

3. In a nailing machine, the combination with a head and a driver thereon, of a raceway having a nail block thereon, a supporting member mounted for transverse movement on said head, and means for pivotally connecting said raceway and nail block to said supporting member.

4. In a nailing machine, the combination with a head and a driver thereon, of a raceway having a nail block thereon, and a link pivotally connected to said head and said nail block for supporting said raceway and nail block for transverse movement on said head.

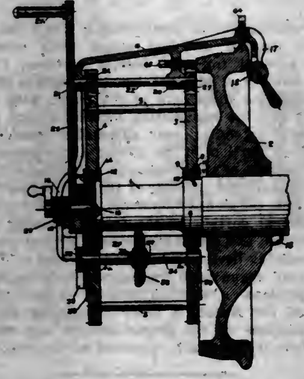
5. In a nailing machine, the combination with a stationary head having guides and a driver in said guides, of a raceway having a nail block rigidly secured to its



lower end, a transverse movable support on said head, and means for connecting said nail block to said support to move therewith in the line of feed of the work.

[Claims 6 to 12 not printed in the Gazette.]

1,026,022. GRINDING-MACHINE. WILLIAM F. CREMEAN, Logan, Ohio. Filed Nov. 1, 1911. Serial No. 657,953. (Cl. 51—4.)



1. In a grinding machine the combination of a revoluble frame, a shaft having bearings therein and bodily revoluble therewith, an abrasive wheel carried by the shaft, means for rotating said wheel on its axis while bodily rotating with the frame, and a feeding mechanism for the abrasive wheel mounted in the revoluble frame.

2. In a grinding machine the combination of a revoluble frame, a shaft having bearings therein, an abrasive wheel carried by the shaft, a feeding mechanism for the abrasive wheel mounted in the revoluble frame, means for rotating the revoluble frame, means for rotating the abrasive wheel on its axis while bodily rotating with the revoluble frame, and means for operating the feeding mechanism.

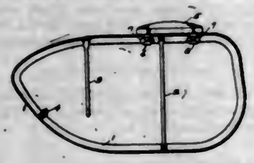
3. In a grinding machine the combination of a revoluble frame, a shaft having bearings therein, an abrasive wheel carried by the shaft, means for rotating the abrasive wheel while bodily revolving with said frame, a feeding mechanism for the abrasive wheel mounted in the revoluble frame, bearings for the revoluble frame and means for mounting them upon the shaft to be ground.

4. In a grinding machine the combination of a revoluble frame, a shaft having bearings therein, an abrasive wheel carried by the shaft, feeding mechanism for the abrasive wheel mounted in the revoluble frame, bearings for the revoluble frame, means for mounting said bearings upon the shaft to be ground, means for rotating the revoluble frame, means for rotating the abrasive wheel on its own axis while bodily rotating with said frame, and means for operating the feeding mechanism.

5. In a grinding machine, the combination of a revoluble frame, a shaft having bearings therein, an abrasive wheel carried by the shaft, a feeding mechanism for the abrasive wheel mounted in the revoluble frame, bearings for the revoluble frame, means for mounting said bearings upon the shaft to be ground, a stationary frame, a drive shaft having bearings therein, and separate driving connections between the drive shaft and the revoluble frame and between the drive shaft and the shaft carrying the abrasive wheel whereby the abrasive wheel will be rotated on its own axis and bodily fed sidewise while bodily rotating about the shaft being ground.

[Claims 6 to 20 not printed in the Gazette.]

1,026,023. SLEIGH. MAODALENA DIENER and CHARLES FREDOLIN URBAN, Milwaukee, Wis. Filed Nov. 14, 1910. Serial No. 592,403. (Cl. 21—94.)



1. A coasting device, comprising a single runner frame of T-iron having an oval shape with comparatively straight parallel top and bottom portions, the bottom portion forming a straight bearing surface of approximately one-third the length of the frame with a rounded front end and the top portion forming a seat support, a transversely extending seat adjustably mounted on the straight top portion of the frame and clamped thereto, said top portion of the frame also affording a support for a swinging foot rest in front of the seat support, a swinging foot rest suspended therefrom, and the rounded front of the bottom portion of the frame affording a support for a foot rest, and a foot rest adjustably mounted thereon.

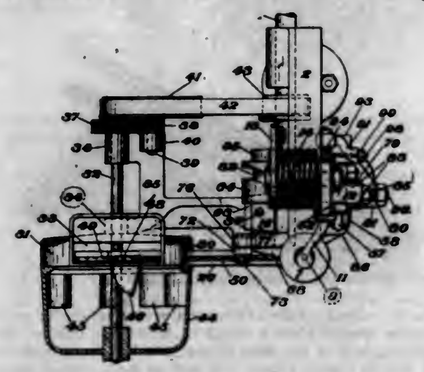
2. A coasting device, comprising a frame of T-iron having an oval shape with approximately parallel top and bottom portions, a seat adjustably clamped to the top portion of the frame, a brace connecting the top and bottom portions of the frame beneath the seat, and a bracket foot rest pivotally mounted on the brace.

1,026,024. LOOSE-NAILING MACHINE. STEPHEN A. DOBYNE, St. Louis, Mo., assignor to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 21, 1910. Serial No. 593,330. (Cl. 1—18.)

1. In a nailing machine the combination of a support, a reciprocating driver, a nail guide pivoted to said support and having a groove to receive said driver, means for rocking said guide in one direction, a cam adapted to actuate said driver, and means actuated by said cam adapted to return said nail guide to its normal position.

2. In a nailing machine, the combination of a support, a reciprocating driver, a nail guide pivoted to said support and having a groove to receive said driver, means for rocking said guide in one direction, a cam adapted to actuate said driver, means for returning said guide to its normal position comprising a plunger, a spring adapted to press said plunger against one side of said nail guide, and a pivoted member actuated by said cam and adapted to hold said plunger against said nail guide, when said cam releases said driver.

3. In a nailing machine, the combination of a support, a nail-chute, a nail guide provided with a groove, a reciprocating picker adapted to feed the nails successively from said chute into said groove, means for rocking said guide in one direction, a reciprocating driver operating in said groove, a cam for actuating said driver, and means actuated by said cam for returning said guide to its normal position.



4. In a nailing machine, the combination of a support, a nail chute, a nail guide provided with a groove, a reciprocating picker adapted to feed the nails successively from said chute into said groove, means for rocking said guide in one direction, a reciprocating driver operating in said groove, means for actuating said driver, and means operated by said actuating means for moving said nail guide in the opposite direction.

5. In a nailing machine, the combination of a support, a nail-chute, a nail guide provided with a groove, a reciprocating picker adapted to remove a nail from said chute and force the same directly into said groove during each movement thereof in one direction, means for moving said guide in one direction, a reciprocating driver operating in said groove, means for actuating said driver, and means operated by said actuating means for moving said nail guide in the opposite direction.

[Claims 6 to 27 not printed in the Gazette.]

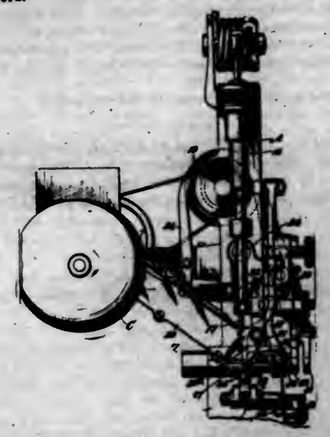
1,026,025. FASTENER-INSERTING MACHINE. STEPHEN A. DOBYNE, St. Louis, Mo., assignor to Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Jan. 26, 1911. Serial No. 604,906. (Cl. 1—18.)

1. In a fastener inserting machine, the combination with a shoe support, mechanism for inserting nails into the shoe on said support, shoe feeding mechanism, and an independently mounted gage for the shoe, of means for rendering said shoe feeding mechanism effective and ineffective to feed the shoe, constructed to leave the nail inserting mechanism uninterrupted to insert nails, the said gage being movable into and out of operative position.

2. In a fastener inserting machine, the combination with fastener inserting mechanism, a work support and a work feeding member, of mechanism for moving said member to engage the work and in the line of feed of the work, and means for controlling the work engaging movement adapted to place the work feeding member in withdrawn position, to interrupt the feed and constructed to leave the fastener inserting mechanism uninterrupted to insert fasteners.

3. In a fastener inserting machine, the combination with fastener inserting mechanism, a work support and work feeding mechanism positively operated in one direction and yieldingly retracted, of controlling mechanism for throwing said mechanism out of action constructed to leave it in retracted position and leave the fastener inserting mechanism uninterrupted to insert fasteners.

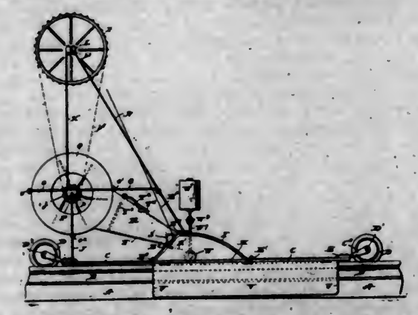
4. In a fastener inserting machine, the combination with fastener inserting mechanism, a work support and work feeding mechanism positively operated in one direction and yieldingly retracted, of controlling mechanism for throwing said mechanism out of action to interrupt the work feeding operation and constructed to leave the fastener inserting mechanism uninterrupted to insert fasteners.



5. In a fastener inserting machine, the combination with fastener inserting mechanism, a work support and awl feed mechanism, of means for interrupting the feeding action of said awl feed mechanism constructed to leave the fastener inserting mechanism uninterrupted to insert fasteners.

[Claims 6 to 34 not printed in the Gazette.]

1,026,026. DEVICE FOR BURNING WEEDS ON BEDS OF RAILWAY-TRACKS. EDWARD ENGEBRITSON, FRANK YUHA, and FREDERICK DOEBRINER, Crosby, N. D. Filed July 20, 1911. Serial No. 639,498. (Cl. 104—58.)



1. The combination of the reservoirs, drum, fan, vertical standards, inclined brace, short horizontal brace, sprocket wheel and sprocket pinion, boxings and link chain, slotted burner, perforated oil feed pipes located in said burner, and asbestos packing interposed between the burner and the perforated oil feed pipes.

2. The combination of the reservoir, drums, fan, vertical standards, inclined brace, short horizontal brace, sprocket wheel, sprocket pinion, boxings, link chain, slotted burner, perforated oil feed pipes, asbestos packing interposed between the burner and the perforated oil feed pipes, longitudinal angular bars, air chute, wind boards, pins connecting said wind boards, pointers connected to the pins, and sectors over which the pointers travel.

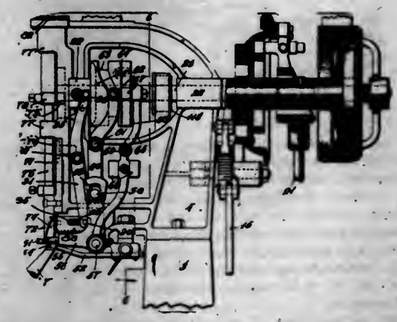
3. The combination of the reservoirs, drum, fan, vertical standards, inclined brace, short horizontal brace, sprocket wheel, sprocket pinion, boxings, link chain, slotted burner, perforated oil feed pipes, asbestos packing interposed between the burner and the perforated oil feed pipes, longitudinal angular bars, air chute, wind boards, pins connected to the said wind boards, pointers connected to the pins, sectors over which the pointers travel and wind board for deflecting the air over, against and under the burner and for closing the mouth of the air chute.

4. The combination of the reservoirs, drum, fan, vertical standards, inclined brace, short horizontal brace, sprocket wheel, sprocket pinion, boxings, link chain, slotted burner, perforated oil feed pipes, asbestos packing interposed between the burner and the perforated oil feed pipes, longitudinal angular bars, air chute, wind boards, pins connected to said wind boards, pointers connected to the pins, sectors over which the pointers travel, wind boards for deflecting the air over, against and under the burner for closing the mouth of the air chute, and wire rope connected to the wind board of the air chute.

5. The combination of the reservoirs, drum, fan, vertical standards, inclined brace, short horizontal brace, sprocket wheel, sprocket pinion, boxings, link chain, slotted burner, perforated oil feed pipes, asbestos packing interposed between the burner and the perforated oil feed pipes, longitudinal angular bars, air chute, wind boards, pins connected with said wind boards, pointers connected to the pins, sectors over which the pointers travel, wind board for deflecting the air over, against and under the burner and for closing the mouth of the air chute, and the hangers for supporting the burner and curvilinear extinguisher.

[Claim 6 not printed in the Gazette.]

1,026,027. LOOSE-NAILING MACHINE. JOHN B. FLINT, St. Joseph, Mo., assignor to The Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 26, 1910. Serial No. 557,642. (Cl. 1—18.)



1. In a machine of the class described, the combination of a frame, a nail guiding throat mounted thereon to swing in a vertical plane, yielding pressure means for holding the throat in normal position, a driver operating through said throat, and an independently mounted awl adapted to move vertically and laterally, and which awl engages the work and moves the same beneath the throat.

2. In a machine of the class described, the combination with a frame and a driver thereon, of a plate pivoted at its upper end to said frame and provided at its lower end with an elongated driver passage adapted to receive said driver therein and guide a nail while being driven by said driver, and means for moving said plate to move said driver passage into and out of alinement with the driver.

3. In a machine of the class described, the combination with a frame and a driver thereon, of a plate pivoted at its upper end to said frame and having a nail guiding throat at its lower end, said plate being adapted to swing to move the throat into and out of alinement with the driver, and a spring pressed plunger engaging said plate to move it.

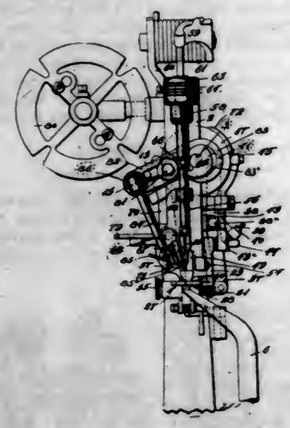
4. In a machine of the class described, the combination

with a frame and a driver thereon, of a plate pivoted at its upper end to said frame and having a nail guiding throat at its lower end, awl mechanism including an awl carrier adapted to move said plate with the throat out of alinement with the driver, and means engaging said plate for returning said plate with the throat into alinement with the driver.

5. In a machine of the class described, the combination of a frame, a member arranged to swing thereon, a throat piece detachably applied to said swinging member, there being a nail groove formed through said throat piece, independently mounted means for feeding the work beneath the throat piece, driving means operating through the nail groove, and a nail chute connected to the throat piece.

[Claims 6 to 32 not printed in the Gazette.]

1,026,028. STRING-NAILING MACHINE. JOHN B. FLINT, St. Joseph, Mo., assignor to The Champion Shoe Machinery Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 26, 1910. Serial No. 557,643. (Cl. 1—28.)



1. In a machine of the class described, a throat piece mounted for rocking movement and provided with a nail passage way, nail driving means arranged to move through said passage way, a spring held adjustable member mounted to slide and rock, an awl carried thereby for engaging the work and moving the same beneath the rocking throat piece, and means for feeding a string of cut nails to the driving means and detaching the lowermost one of the string of nails before the same is engaged by the driving means.

2. In a machine of the class described, a member mounted for rocking movement and provided with a nail passage way, driving means operating through said passage way, a spring held adjustable member mounted to slide and rock, an awl carried thereby for engaging in the work and moving the same beneath the rocking member, and means whereby a continuous string of cut nails is fed into the passage way.

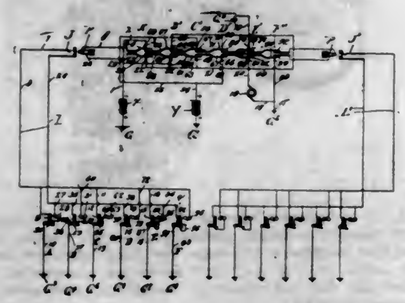
3. In a machine of the class described, a member mounted for rocking movement and provided with a nail passage way, driving means operating through said passage way, means whereby a continuous string of cut nails is fed into said passage way, a spring held adjustable member mounted to slide and rock, an awl carried thereby for engaging in the work and moving the same beneath the rocking member, and means for severing the lowermost one of the string of nails after the same is positioned in the passage way.

4. In a machine of the class described, a throat piece mounted for rocking movement, a driver operating therethrough, a rigid work support provided with an opening beneath the throat piece, and a vertically and laterally moving awl operating through the opening in the work support, an awl carrier bearing against the throat piece during its lateral movement in one direction, a nail chute, and means for intermittently moving a string of cut nails through said chute and delivering the lowermost nail of the string into the throat piece.

5. In a machine of the class described, the combination with nail driving means, of a spring held adjustable member mounted to slide and rock, an awl carried thereby for intermittently engaging and moving the work beneath the driving means, and means for feeding a string of cut nails to the driving means and detaching the lowermost nail of the string before the same is engaged by the driving means.

[Claims 6 to 45 not printed in the Gazette.]

1,026,029. SELECTIVE ELECTRICAL SIGNALING SYSTEM. CHARLES LANE GOODRUM, Philadelphia, Pa., assignor, by mesne assignments, to P. C. Burns, Chicago, Ill. Filed Aug. 8, 1903. Serial No. 168,717. (Cl. 179—35.)



1. A selective electrical signaling system, comprising a pair of line conductors, six sub-station equipments connected with said line conductors, each equipment including a relay and a bell, a spring jack connected with said line conductors, an operator's cord circuit provided with six ringing keys, a grounded battery having its negative pole connected with the open contacts of two of said keys, another grounded battery having its positive pole connected with the open contacts of another pair of said keys, the relays at two of said substations being adapted to be operated by minus current only, the relays at two other substations being adapted to be operated by plus current only, and a generator having one pole connected with open contacts of all of said keys, the other pole of said generator being grounded and also connected with open contacts of the remaining two keys, and the relays of the remaining two substations being adapted to be operated by both plus and minus current substantially as set forth.

2. A selective electrical signaling system, comprising a pair of line conductors, six substation equipments connected with said line conductors, each of said equipments including a relay and a bell, the bell being connected with one line conductor and the relay with the other line conductor, a spring jack connected with said line conductors, an operator's cord circuit provided with a plug adapted to be inserted in said jack, said cord circuit being provided with six ringing keys, the relays at two substations being adapted to respond to minus currents, the relays at two other substations being adapted to respond to plus currents, the relays at the remaining two substations being responsive to both plus and minus currents, the apparatus by which the operator at the central station operates the system, for the purpose of calling the different subscribers, comprising a plurality of ringing keys, an alternating current ringing generator having one pole grounded, having both of its poles connected with said ringing keys, and grounded batteries for supplying the plus and minus currents for energising the relays, substantially as set forth.

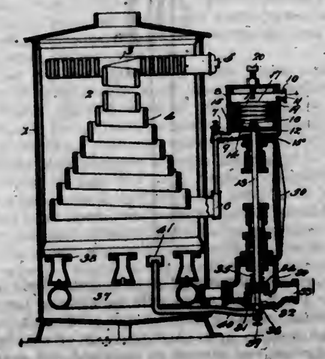
3. A selective electrical signaling system, comprising a pair of line conductors, six substation equipments connected with said line conductors, each of said equipments including a relay and a bell, two of said relays being polarized and adapted to respond only to minus currents, two other of said relays being polarized and adapted to respond only to plus currents, the remaining two relays being responsive to both plus and minus currents, six ringing keys and means for connecting the same with the line conductors, so as to selectively energise said polarized relays and thereby close the circuits of the bells associated with these polarized relays, and at the same time open the circuits of the bells associated with the said remaining two relays, the apparatus by which the operator at the central station operates the system, for the purpose of calling the different subscribers, comprising a plurality of ringing keys, an alternating current ringing generator having one pole grounded, having both of its poles connected with said ringing keys, and grounded batteries for supplying the plus and minus currents for energising the relays, substantially as set forth.

4. A selective electrical signaling system, comprising a pair of line conductors, two polarized minus relays connected between the ground and opposite sides of the line circuit, two polarized plus relays connected between ground and opposite sides of the line circuit, two relays responsive to both plus and minus currents connected between ground and opposite sides of the line circuit, the apparatus by which the operator at the central station operates the system, for the purpose of calling the different subscribers, comprising a plurality of ringing keys, an alternating current ringing generator having one pole grounded, having both of its poles connected with said ringing keys, and grounded batteries for supplying the plus and minus currents for energising the relays, substantially as set forth.

5. A telephone system comprising a central office, telephone lines leading therefrom, a series of calling instruments normally in circuit with said lines, a series of calling instruments normally out of circuit therewith, and means controlled by central for cutting the first mentioned series of instruments out of circuit with said lines and for cutting in circuit therewith the second mentioned series of instruments, the apparatus by which the operator at the central station operates the system, for the purpose of calling the different subscribers, comprising a plurality of ringing keys, an alternating current ringing generator having one pole grounded, having both of its poles connected with said ringing keys, and grounded batteries for supplying the plus and minus currents for energising the relays, substantially as set forth.

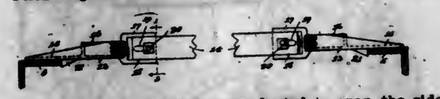
[Claims 6 to 8 not printed in the Gazette.]

1,026,030. WATER-HEATER. NELSON G. GOREAU, New Orleans, La. Filed June 8, 1909. Serial No. 500,824. (Cl. 122—28.)



In water heating apparatus, the combination of a lower heating coil composed of a tube of vertically elongated cross section, the convolutions of the tube being arranged approximately in conical form and just far enough apart to permit flame to pass between the two, and an approximately flat heating coil above the first, the coils being connected in series.

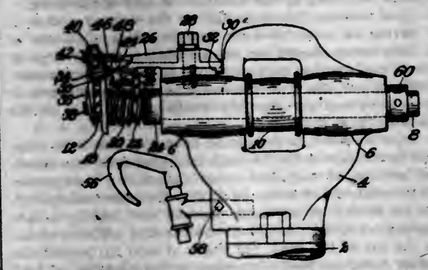
1,026,031. BED-BOTTOM SUPPORT. WILLIAM J. GROTENHUIS, Chicago, Ill., assignor to Cushion-Corner Bed Spring Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 21, 1911. Serial No. 645,246. (Cl. 5—39.)



1. A support for bed-bottoms adapted to span the side rails of a bed-stead frame, comprising a pair of end pieces each having an outer portion adapted to rest directly on the side rail, an intermediate spring-seat, and an inner shank portion, and an intermediate bar detachably secured to and connecting the shank portions of said end pieces, substantially as described.

2. A support for bed-bottoms adapted to span the side rails of a bed-stead frame, comprising a pair of end pieces each having an outer portion adapted to rest directly on the side rail, an intermediate spring seat, and an inner socketed shank portion, and an intermediate bar detachably and adjustably secured to and connecting the socketed shank portions of said end pieces, substantially as described.

1,026,032. MACHINE FOR OPERATING ON THE SOLE EDGES OF BOOTS AND SHOES. JOHN B. HADAWAY, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 22, 1910. Serial No. 539,490. (Cl. 12—17.)



1. A machine of the character described comprising a rotary tool having an acting face constructed and shaped to act upon the welt to force some of the stock backwardly and upwardly toward the upper.

2. A machine of the character described comprising a rotary tool of frusto conical shape provided on its lateral surface with ribs arranged to act upon the marginal portion of the welt to force some of the stock backwardly and upwardly toward the upper to conceal the stitches of the out-seam.

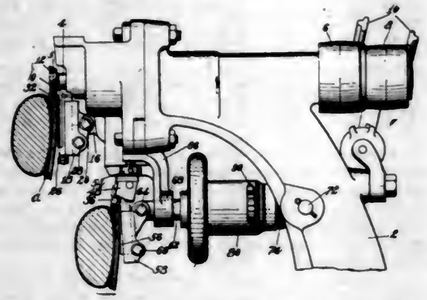
3. A machine of the character described comprising a rotary tool having a working surface provided with ribs, said ribs being inclined to the axis of the tool and arranged to operate upon the welt portion of a sole edge to force some of the stock backwardly toward the upper.

4. A machine for operating on the welt of a shoe to force some of the stock backwardly toward the upper comprising a rotary tool having a ribbed lateral surface with the crests of the ribs arranged substantially in the surface of a cone.

5. A machine for operating on the welt of a shoe to force some of the stock backwardly toward the upper comprising a rotary tool having a ribbed lateral surface with the crests of the ribs arranged substantially in the surface of a cone, the ribs being inclined to the elements of the cone.

[Claims 6 to 14 not printed in the Gazette.]

1,026,033. MACHINE FOR OPERATING ON THE SOLE EDGES OF BOOTS AND SHOES. JOHN B. HADAWAY, Swampscott, and JOHN V. ALLEN, South Weymouth, Mass., assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 7, 1910. Serial No. 547,842. (Cl. 12—17.)



1. A machine of the character described comprising a tool having an acting face constructed and shaped to act upon the marginal portion of the welt of a shoe to force some of the stock backwardly toward the upper in combination with means for imparting a succession of rapid blows to said tool.

2. In a machine of the character described, a tool comprising a portion arranged to be secured rigidly in a holder and a work engaging portion comprising a shoulder arranged to engage the edge of the welt of a shoe and a beveled lip projecting beyond said shoulder and adapted to engage the top of the welt, the width of said lip being gradually increased in the direction of feed of the work.

3. In a machine for operating on the welt of a shoe, a tool having an extended work engaging face, a portion of said face being shaped for engagement with the edge of the welt and another portion being shaped for engagement with the top of the welt and constructed and arranged to operate progressively over the width of the welt as the work is fed past the tool.

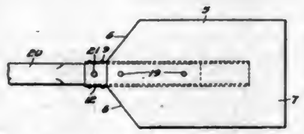
4. In a machine for operating upon the welt of a shoe, a tool having a shouldered work engaging face, the shouldered portion of said face being shaped for engagement with the edge of the welt and having its ends rounded off, a lip projecting beyond said shoulder and having a face extending obliquely from the shoulder and adapted to engage the top of the welt, the width of said lip beyond the shoulder being gradually increased in the direction of feed of the work whereby it operates progressively over the width of the welt as the work is fed past the tool.

5. In a machine for operating upon the welt of a shoe, a tool having an extended work engaging face, a portion of said face having the shape of a shoulder adapted to engage the edge of the welt of a shoe, a lip having an operating face projecting varying distances beyond said shoulder and arranged to engage the top of the welt whereby as the work is fed past the tool the tool operates a plurality of times on each portion of the welt and successive portions of the lip act successively upon different widths of the welt.

[Claims 6 to 16 not printed in the Gazette.]

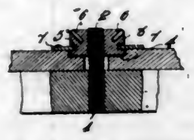
1,026,034. BAKER'S PEEL. FRANK A. HANEL, Los Angeles, Cal. Filed May 10, 1911. Serial No. 626,162. (Cl. 107—67.)

The herein described bakery peel comprising a blade substantially rectangular in plan view and composed of two metallic plates contacting with each other and forming a sharp edge along the front of the blade and diverging from each other away from such edge, their side edges being turned in toward each other and lapped and rigidly connected, a handle holder connected to the blade and composed of two metallic strips converging to the same degree as the convergence of said plates and having their edges turned toward each other and rigidly connected, their rear ends projecting beyond the rear end of the blade



and forming a socket, a handle inserted in the latter, and a bolt through the socket and handle.

1,026,035. NUT AND BOLT LOCK. HARRY HEDDEN, Evansville, Ind. Filed Sept. 22, 1910. Serial No. 583,273. (Cl. 151—33.)



A device of the character described, the combination with two members to be clamped, of a bolt secured to one of said members and projecting therefrom and adapted to pass freely through an opening in the other member, a nut adjustably mounted on said end of the bolt, said nut having an external annular groove, a nut retaining washer the inner edge of which freely engages with the groove formed in the nut, said washer being composed of two semicircular sections having reduced overlapping ends, and fastening devices passed through said ends of the sections and into the last named member, whereby the nut is revolubly mounted upon the latter.

1,026,036. COMBINATION VISE AND PIPE-WRENCH. DARRELL G. HEWITT, Pittsburgh, Pa. Filed July 15, 1911. Serial No. 638,639. (Cl. 81—65.)



A pipe wrench comprising a rectangular body portion having its inner end formed with an opening for removably receiving either a support for holding it in relatively fixed position or a handle, a pair of parallel jaws mounted against and secured to the front and rear faces of said body portion below the forward end thereof, said jaws projecting beyond the forward end of the body portion, said projecting portion of said jaws of greater width

than the width of the body portion, an apertured lug projecting laterally from the inner end of said body portion at one side thereof, the wall of the aperture of said lug being threaded, a laterally extending pair of protuberances projecting from the other side of said body intermediate the ends thereof, a longitudinally extending adjustable screw engaging the threads of said aperture, a hook-shaped member fixed to said screw and bearing against said body, a flexible clamping element having one end pivoted to said pair of protuberances and its other end engaged by said member for drawing it taut to clamp a pipe when said screw is adjusted inwardly with respect to said body portion.

1,026,037. TRACTION-ENGINE. BENJAMIN HOLT, Stockton, Cal. Filed Dec. 22, 1909. Serial No. 534,420. (Cl. 21—114.)



1. The combination with a main frame and flexible endless traction members, of independent wheeled trucks upon which opposite sides of the frame are supported, said trucks being located within said traction members, journal boxes fixed to the trucks, a transverse shaft mounted in said boxes and about which the boxes and trucks may oscillate, and springs located between the trucks and the main frame.

2. The combination with a main frame, of a pair of endless, flexible, traction members, trucks on opposite sides of the frame and within the traction members, a shaft disconnected from the main frame and pivotally connecting the trucks so that each truck has a free, limited, oscillating vertical motion, springs interposed between the main frame and the trucks and supporting the load on the trucks, and means for maintaining the trucks parallel with the main frame.

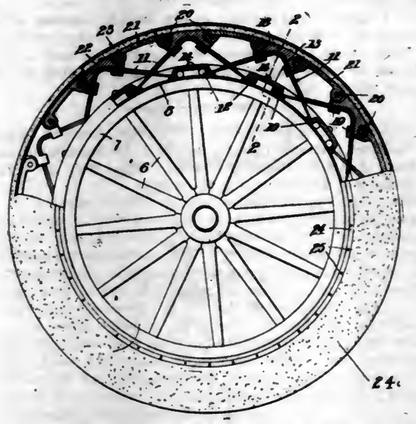
3. The combination with a main frame and flexible, endless, traction members, of wheeled trucks upon which opposite sides of the frame are supported, said trucks being located within said traction members, journal boxes fixed to the trucks approximately midway of their length, a transverse shaft about which the boxes and trucks may oscillate, springs located contiguous to the shaft and compressible between the trucks and main frame, and transverse distance bars pivoted to the trucks, and centrally to the main frame.

4. The combination with a main frame and flexible, endless traction members, of independent wheeled trucks upon which opposite sides of the main frame are supported, said trucks being located within the traction members, a centrally journaled transverse shaft about which the trucks may oscillate, springs contiguous to the shaft, upon which springs the main frame is supported, transverse distance bars having their outer ends pivoted to opposite ends of the trucks, and their inner ends approximately midway between the sides of the main frame.

5. The combination with a main frame and flexible, endless, traction members, of independent wheeled trucks outside of the main frame and located within said traction members, springs upon the trucks upon which the main frame is supported, a shaft journaled across the trucks and about which said trucks may oscillate, and radius rods extending longitudinally and having their opposite ends fulcrumed respectively to the trucks and the main frame.

[Claims 6 to 17 not printed in the Gazette.]

1,026,038. TIRE. GEORGE S. HOWE, Richmond, Va. Filed May 6, 1911. Serial No. 625,613. (Cl. 152—8.)



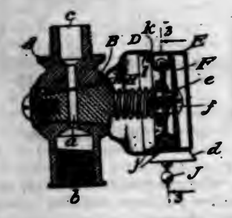
1. A wheel tire comprising a rim, a flexible structure, including blocks, extending around the tire outside of the rim, a series of angular leaf springs attached to the blocks and bearing slidably at their ends against the rim, the springs being interlocked with each other against lateral movement, and means to retain the ends of the springs on the rim.

2. A wheel tire comprising a rim, a flexible structure, including blocks, extending around the tire outside of the rim, a series of angular leaf springs attached to the blocks and bearing slidably at their ends against the rim, the springs being slotted to form tongues which extend through the slots of adjacent springs to prevent relative lateral movement, and means to retain the springs between said rim and flexible structure.

3. A wheel tire comprising an inner rim, an outer flexible structure, a series of leaf springs fastened to said flexible structure and bearing slidably at their ends against the rim, the ends having projecting tongues interlocking with the tongues of adjacent springs, and keeper plates attached to the rim and engaging over said ends, the plates having notches through which the said tongues also extend.

4. A wheel tire comprising a rim, a series of blocks and connecting links therebetween, extending around the tire outside of the rim, said blocks having lips at opposite edges thereof, and a series of leaf springs between the blocks and the rim, the lips being bent over the edges of the springs and under the inner sides thereof to clamp the same to the blocks.

1,026,039. GAS-COCK-OPERATING DEVICE. ALFRED H. HUMPHREY, New York, N. Y. Filed Aug. 25, 1910. Serial No. 578,884. (Cl. 240—123.)



1. A gas-cock operating device consisting of suitable devices, mounted upon the cock-stem, whereby the cock is

opened and closed as desired, and an inclosing shell consisting of a sliding section and a stationary section mounted upon a projection of the gas-jet-body adapted to grip and support said sliding section.

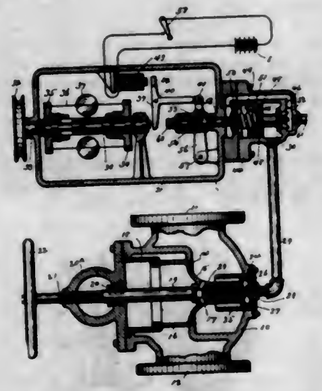
2. A gas-cock operating device which consists of a notched friction disk mounted on the end of the cock-stem, a chain wheel loosely mounted on said stem and a shell adapted to cover and protect the same supported by the gas-jet-body.

1,026,040. PIPE-WRENCH. WILLIAM ANDREW HYLE, Toronto, Ontario, Canada, assignor to Macdonald and Sons, Limited, Toronto, Canada. Filed Feb. 23, 1911. Serial No. 610,284. (Cl. 81—105.)



In a pipe wrench, the combination with the main body member provided with an enlarged jaw member and having an orifice extending through the enlarged jaw member at the back and provided with side circular recesses, of an adjustable jaw member provided with a screw threaded shank, a nut internally threaded to fit the shank and located in the circular recesses, and sectoral blocks fitting above and below the nut and provided with openings through which the shank passes as and for the purpose specified.

1,026,041. ENGINE-STOP. JAMES L. KIMBALL, Salem, Mass., assignor to Locke Regulator Company, Salem, Mass., a Corporation of Massachusetts. Filed Oct. 28, 1911. Serial No. 657,305. (Cl. 136—11.)

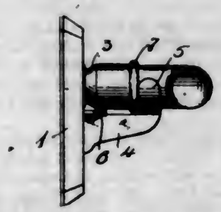


1. An engine stop comprising a shut-off valve having a cylinder and hollow piston, a manually operated valve operating the said piston for admitting steam thereto, a coiled spring adapted to engage said piston and force the valve seat into engagement with the second mentioned valve, a pilot valve associated with the shut-off valve, a spring pressed valve operating in said pilot valve, and means for automatically operating said pilot valve and venting the shut-off valve.

2. An engine stop comprising a shut off valve having a cylinder and piston, a pilot valve associated with said shut-off valve, said pilot valve comprising a casing, a valve seat in said casing, a spring pressed hollow valve operating in conjunction with said valve seat, an auxiliary valve for venting the hollow valve, means for holding said auxiliary valve closed, and means for opening said pilot valve and venting the shut-off valve.

3. An engine stop comprising a main valve casing, a cylinder in said casing, and a hollow piston operating in said cylinder, a manually operated auxiliary valve for admitting steam to said hollow piston, a valve casing mounted above said main valve casing, and connected therewith by a steam pipe, a pilot valve operating in said second-mentioned valve casing, a valve seat associated with said valve, an auxiliary valve associated with said pilot valve, an arm and latch for holding said valve into engagement with its seat, and electric means operated by a switch remote from said valves, for releasing said latch member, and a coiled spring for forcing the pilot valve from its seat, and thereby opening the pilot valve and venting the main valve.

1,026,042. CURTAIN-ROD AND ATTACHMENT. FRANK LA OTIS LATHROP and GEORGE T. S. SPOKES, Wallingford, Conn., assignors to H. L. Judd Company, Wallingford, Conn., a Corporation of New York. Filed Jan. 24, 1911. Serial No. 604,313. (Cl. 156—22.)



1. A curtain rod and attachment comprising a base having a socket to receive the extremity of the rod, a bracket extending from said base and having upwardly extending fingers adapted to embrace the rod, and means on said rod arranged to be snapped behind said fingers whereby said rod may be securely held and supported in said socket.

2. A curtain rod and attachment, comprising a base having a socket in the face thereof, a bracket extending upwardly from a point adjacent said socket, in combination with a rod having an extremity formed to fit said socket, said bracket having fingers adapted to embrace the rod, said rod having a projection arranged to be snapped behind said fingers when said rod is forced into place to hold said rod in position in said socket.

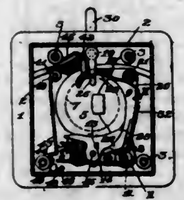
3. A curtain rod and attachment comprising a base having a cone-shaped recess, a rod having an extremity to fit said recess, a bracket extending from said base and having fingers adapted to embrace the rod, said rod having an annular rib near its end arranged to be snapped behind said fingers whereby said fingers will hold said rod in said socket.

4. A curtain rod and attachment comprising a base, a socket formed in the face thereof, a bracket extending from said base adjacent said socket and having a guiding portion adjacent the base and also having supporting fingers spaced from said base, in combination with a rod having its extremity formed substantially to fit said socket and having a shoulder formed near the extremity whereby the end of said rod may be positioned in said socket and said shoulder snapped behind said supporting fingers to hold the rod in position.

5. A curtain rod device consisting of a pair of supports, each comprising a base having a socket formed in the face thereof, a bracket extending from said base adjacent said socket and having spring supporting fingers spaced from said base, in combination with a rod having ends bent at an angle to the body thereof, each end formed to fit the socket of its support, said ends each having a shoulder formed near the extremity whereby the ends of said rod may be positioned in said sockets and said shoulders snapped behind the supporting fingers of the adjacent bracket by depressing the body of the rod.

[Claims 6 and 7 not printed in the Gazette.]

1,026,043. PHOTOGRAPHIC SHUTTER. JOHN LINDER, Deer Park, Wash., assignor to Eastman Kodak Co., Rochester, N. Y., a Corporation of New York. Filed Aug. 5, 1910. Serial No. 575,638. (Cl. 95—62.)



1. In a photographic shutter, the combination with a blade and a spring actuated operating member therefor, of a spring actuated master lever for tripping the operating member and an abutment on the latter for arresting the movement of the master lever.

2. In a photographic shutter, the combination with a blade and a spring actuated operating member therefor having a pair of abutments thereon, of a master lever engaging said abutments successively with a continued movement in one direction to move the operating member in one direction and open the shutter with the first engagement and in the reverse direction to close the shutter with the second.

3. In a photographic shutter, the combination with a blade and a spring actuated operating member therefor having a pair of abutments thereon, of a master lever engaging said abutments successively with a continued movement in one direction to move the operating member in one direction against the tension of its spring and open the shutter with the first engagement and in the reverse direction accelerating the action of said spring to close the shutter with the second.

4. In a photographic shutter, the combination with a blade and a spring actuated operating member therefor, of a spring actuated master lever for tripping the operating member, an abutment for arresting the movement of the master lever and a shock absorbing device acting between the latter and the abutment embodying a spring arm on one of the parts arranged for initial engagement with the other.

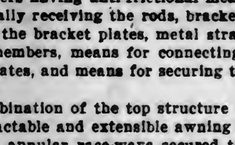
5. In a photographic shutter, the combination with a shutter mechanism and a spring for actuating the same, of a device for regulating the tension of the spring and a latch movable into and out of position for detaining the shutter in open position and controlled by the regulating device.

[Claims 6 to 17 not printed in the Gazette.]

1,026,044. BURIAL-CASKET. MINNIE PEARL LITTLE and LUAR EDNA LITTLE, Columbia, Mo. Filed July 20, 1911. Serial No. 639,618. (Cl. 27—8.)

1. A coffin formed of plastic material and having a reinforcing member in the walls thereof, a bent portion of said reinforcing member extending beyond the surface of the wall and formed with ears, a handle carried by said ears, and metallic bands having oppositely disposed notches, said notches adapted to engage the bent portions of the reinforcing members and said ears adapted to keep the band in place.

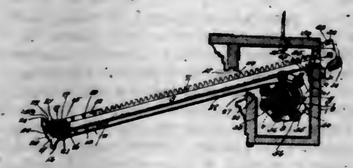
2. A coffin formed of plastic material having a metallic band, said band including a cover retaining part and a bottom part adjustably connected, the bottom part having notches cut therein, a reinforcing member coöperating with said notches for keeping the band in place.



3. A coffin formed of plastic material having a metallic surrounding band comprising a cover retaining part, a bottom part adjustably connected thereto, a reinforcing member embedded in the plastic material of the coffin having its opposite ends protruding from the body of said coffin and coöperating with the bottom part aforesaid to prevent displacement of the said surrounding band.

4. A coffin formed of plastic composition including a metallic band formed of a bottom and a top part which parts have adjustable connecting means, said means consisting of an elongated nut curved and hinged to the aforesaid top part, the said bottom part having a threaded extension to engage the said nut.

1,026,045. RECEDING AWNING. SILAS C. MACDOWNEY, Chicago, Ill. Filed Feb. 20, 1911. Serial No. 609,674. (Cl. 156—44.)



1. In an awning adapted to be projected and retracted, the combination of a pair of adjustable side rods, tubular members adapted to receive said rods telescopically and provided with slots, and means to actuate the side rods, with ball bearings for the rods, comprising members having elongated grooved extensions carrying anti-frictional rollers and located in the slots.

2. In an awning fixture, a pair of retractable rods, tubular members to telescopically receive the rods, bracket plates, metal straps surrounding the tubular members, means for connecting the straps to the bracket plates, means for adjusting the bracket plates, and means for securing the straps about the members.

3. In an awning fixture, a pair of retractable side rods, tubular members having anti-frictional means for the rods for telescopically receiving the rods, bracket plates, means for adjusting the bracket plates, metal straps surrounding the tubular members, means for connecting the straps to the bracket plates, and means for securing the straps about the members.

4. The combination of the top structure of a show window and retractable and extensible awning side rods, with plates having annular race-ways secured to the structure of the show window, anti-frictional balls arranged in the race-ways, and means for permitting the plates to be adjusted vertically so as to cause the balls to frictionally contact with the rods.

5. In combination, an awning roll having awning material secured thereto and wound thereabout and adapted for unreeling, a pair of retractable and extensible side rods having a transverse connection to which the awning material is secured, and anti-frictional roller members for engaging the awning material to cause it to reel tightly on the roll and when unreeling holds the same taut.

[Claims 6 to 15 not printed in the Gazette.]

1,026,046. BRICK-HACKING APPARATUS. RAYMOND C. PENFIELD, New York, N. Y. Filed Jan. 13, 1911. Serial No. 602,458. (Cl. 214—6.)



1. The combination with means for forwarding a continuous line of material, of a conveyer system for delivering the same, said conveyer system comprising a portion arranged to deliver the material in definite units from the receiving point to a subsequent conveyer portion with a time interval between deliveries, and a subsequent conveyer portion constructed to definitely increase said time intervals as extended periods of rest of a predetermined length sufficient to permit a unit of material to be removed by handling mechanism.

2. The combination with means for forwarding a continuous line of material composed of individual pieces, of a conveyer system comprising a part arranged to receive the individual pieces of material and deliver the same to a subsequent part in units with a time interval between deliveries, and a subsequent conveyer part arranged for automatic coöperation with said first part to receive and deliver said units with further definitely extended intervals between deliveries.

3. The combination with means for forwarding continuous parallel lines of material, of a conveyer system for receiving said lines comprising means for delivering the material to handling mechanism in main units with a time interval between deliveries and means for sub-dividing said units into sub-units for handling purposes.

4. The combination with means for receiving a line of material, of a conveyer system for delivering the same, said conveyer system having a portion formed in plural parts arranged to successively receive material thereon without destroying its line formation and means for shifting said parts so that each is successively out of receiving position and at rest to permit the material to be removed therefrom.

5. A brick hacking apparatus, comprising means for delivering bricks in units at regular intervals, and receiving means for said units constructed and arranged for automatic coöperation with said delivery means to increase the intervals between unit deliveries as definitely predetermined extended periods of rest, when loaded.

[Claims 6 to 58 not printed in the Gazette.]

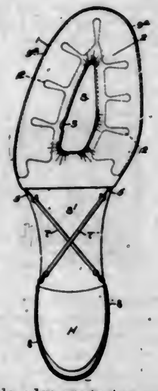
1,026,047. FOOD FROM GRAIN AND METHOD OF MAKING THE SAME. HENRY D. PERKY, Glencoe, Md.; Laban Sparks, administrator of said Henry D. Perky, deceased, assignor, by mesne assignments, to The Shredded Wheat Company, Niagara Falls, N. Y. Filed Jan. 19, 1906. Serial No. 296,880½. (Cl. 99—11.)



1. The process of cooking ground corn with a limited amount of water, cooling the cooked mass until it is set in solid condition, cutting from the solid material successive small cross sections, and causing them to adhere together by their cut surfaces to provide fine filaments of semi-jointed or crinkled character, and drying the same in separate condition.

2. An article of food of cooked ground corn, consisting of separate thin dried filaments, each composed of small cross sectional accretions adherent to each other by their cut surfaces, whereby it is given a jointed structure.

1,026,048. SOLE-EDGE PROTECTOR FOR BOOTS OR SHOES. THOMAS G. PLANT, Boston, Mass., assignor to United Shoe Machinery Company, Boston, Mass., a Corporation of New Jersey. Filed Feb. 1, 1909. Serial No. 478,952. (Cl. 36—72.)



1. A fore-part sole edge protector comprising a pliable shield having a top edge engaging portion, and means within the limits of the fore-part thereof to tension the same in position encompassing the sole edge.

2. A fore-part sole edge protector comprising a textile shield having a top edge engaging portion, and means within the limits of the fore-part thereof to tension the same in position encompassing the sole edge.

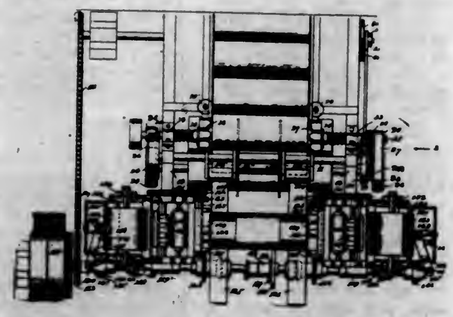
3. A fore-part sole edge protector comprising a pliable shield having a top edge engaging portion constructed to cover the sole edge and top edge face thereof, and retaining means therefor within the limits of the fore-part thereof.

4. A fore-part sole edge protector comprising a pliable shield, and means within the limit of the fore-part to stretch it across the sole bottom.

5. A sole edge protector comprising a laterally expansible shield to encompass the fore-part sole edge, and heel engaging retaining means therefor.

[Claims 6 to 16 not printed in the Gazette.]

1,026,049. WRAPPING-MACHINE. MICHAEL J. POWER, Nekoosa, Wis. Filed June 19, 1911. Serial No. 634,122. (Cl. 93—2.)



1. In a wrapping machine, the combination of feed mechanism for feeding rolls to be wrapped, rotatable conveyer mechanism having pockets for receiving the rolls from the feed mechanism, supporting drums for receiving rolls from the conveyer mechanism, means for rotating said drums to cause rotation of the rolls supported thereon, means for feeding paper bands between said roll and the supporting drums to be wrapped about the ends of said roll upon rotation thereof by said drums, rotatable folding members mounted adjacent said drums to engage with the overhanging ends of the bands to fold said ends against the roll ends, and means for securing paper disks to said folded ends.

2. In a wrapping machine, the combination of feed mechanism for feeding rolls to be wrapped, rotatable conveyer mechanism having pockets for receiving said rolls one by one from the feed mechanism, drums for receiving the paper rolls one by one from said conveyer mechanism, means for rotating said drums to cause rotation of the roll thereon, means for feeding wrapping bands over said drums to be received between said drums and the roll thereon and to be wrapped about the ends of said roll upon rotation thereof by said drums, rotatable disks mounted adjacent the ends of said drums and having semi-spherical projections for engaging with the overhanging ends of said bands as said bands are wrapped about the roll ends whereby said overhanging ends are folded together against the roll ends, and means for applying heads against said folded ends.

3. In a wrapping machine, the combination of feed mechanism for feeding rolls to be wrapped, rotatable conveyer mechanism having pockets for receiving the rolls from the feed mechanism, supporting drums for receiving rolls from the conveyer mechanism, means for rotating said drums to cause rotation of the rolls supported thereon, means for feeding paper bands between said roll and the supporting drums to be wrapped about the ends of said roll upon rotation thereof by said drums, rotatable folding members mounted adjacent said drums to engage with the overhanging ends of the bands to fold said ends against the roll ends, heading mechanism, said conveyer mechanism acting to convey a roll to the heading mechanism after application of the end wrapping bands thereto, laterally reciprocable heads, means for providing heading blanks on said heads, and means for moving said heads toward the ends of the roll and the heading mechanism to cause application of the supported heading blanks over the folds of the wrapping bands on said roll.

4. In a wrapping machine, the combination of feed mechanism for feeding rolls to be wrapped, rotatable conveyer mechanism having pockets for receiving the rolls from the feed mechanism, supporting drums for receiving rolls from the conveyer mechanism, means for rotating said drums to cause rotation of the rolls supported thereon, means for feeding paper bands between said roll and the supporting drums to be wrapped about the ends of said roll upon rotation thereof by said drums, rotatable folding members mounted adjacent said drums to engage with the overhanging ends of the bands to fold said ends against the roll ends, heading mechanism, said conveyer mechanism acting to convey a roll to the heading mechanism after application of the end wrapping bands thereto, laterally reciprocable heads, means for providing heading blanks on said heads, means for moving said heads toward the ends of the roll and the heading mechanism to cause application of the supported heading blanks over the folds of the wrapping bands on said roll, and means for automatically discharging the roll from said heading mechanism.

5. In a wrapping machine, the combination of supporting framework, rotatable conveyer mechanism mounted on said framework, peripheral pockets, feed mechanism for feeding to said pockets rolls to be wrapped, a pair of drums journaled on said framework for receiving a roll from the conveyer mechanism, means for causing rotation of said drums and of the roll carried thereby, two sets of wrapping paper feed mechanism mounted on said supporting structure and adapted when operated to feed paper bands toward the ends of said drums to be received between said drums and the roll thereon and to be carried by the rotation of said drums and roll to be wrapped about the roll ends and to overhang the roll ends, rotatable disks mounted adjacent the roll ends and having semi-spherical projections for engaging the overhanging ends of the wrapping bands to fold said ends against the roll ends, means for applying paste to the wrapping bands for application thereof to the roll, heading mechanism, means controlled by said conveyer mechanism for automatically transferring a roll from the drums to the heading mechanism, means forming part of the heading mechanism for pasting paper heads against the folds of the wrapping bands on the roll, and means for automatically discharging the roll from the heading mechanism.

[Claims 6 to 11 not printed in the Gazette.]

1,026,050. STAPLE. JOHN G. REBER, Chicago, Ill.; Olive S. Reber, administratrix of said John G. Reber, deceased, assignor to The Sefton Manufacturing Company, Anderson, Ind., a Corporation of Indiana. Filed Oct. 9, 1908. Serial No. 456,956. (Cl. 85—49.)



1. An article of manufacture, comprising a series of individual staples assembled with their legs in parallel planes, said planes being oblique to the length of the series of staples.

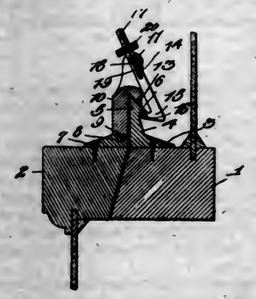
2. A new article of manufacture comprising a series of individual staples assembled or grouped together in parallel planes oblique to the general operation of the group, and frangible material for detachably securing the staples together; substantially as described.

3. A series of individual staples assembled together in parallel planes with a portion of an edge of each staple exposed for engagement with a feeding tool; means for securing the members of the series together composed of a more readily severable material than that of the staples.

4. A series of individual staples assembled together in parallel planes with a portion of each staple exposed for engagement with a feeding tool; means for securing the members of the series together composed of a more readily severable material than that of the staples and engaging the staples only at angles between the legs and cross pieces.

5. A series of staples secured in parallel relation by means of a material more readily severable than the material of the staples, the angles at the edges of the several staples being exposed for engagement by a tool.

1,026,051. SASH LOCK OR FASTENER. AUGUST C. RODATT, Cleveland, Ohio. Filed Apr. 10, 1911. Serial No. 620,073. (Cl. 16—58.)



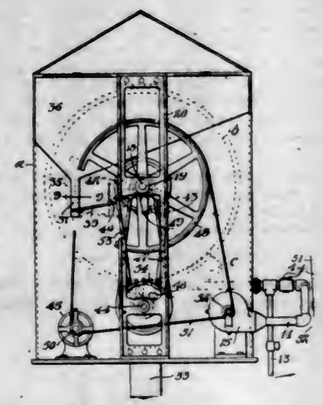
1. In a device of the character described, the combination with a plate, a post formed thereon, said post being

provided at its upper end with a substantial hook portion; of an additional plate, a post removably mounted on said additional plate, the upper portion of said last referred to post being bifurcated to form arms, and a bolt pivotally mounted between the arms of said post, said bolt having one end thereof provided with a substantial hook portion adapted for engagement with said other hook portion.

2. In a device of the character described, the combination with a plate having a vertical post formed thereon, said post having its upper face beveled outwardly from its upper to its lower edge and provided with a shoulder below said beveled portion; of an additional plate, a post removably secured thereto, said post being bifurcated on its upper end, a bolt pivotally mounted between said bifurcations and having a hook formed at one end thereof adapted to engage the shoulder of the opposite post, said removable post being also provided with a shoulder on one face thereof adapted to receive in engagement therewith the beveled upper face of the opposing post.

3. In a device of the class described, the combination with a plate having a vertical post formed thereon, said post having its upper face beveled outwardly from its upper to its lower edge and also provided with a shoulder immediately below the beveled upper face; of an additional plate, a vertical post removably engaged therewith, said post having its upper portion bifurcated, a bolt pivotally mounted between the bifurcations of said post and provided with a hook at one end thereof adapted to engage the shoulder of the opposite post, said bolt being also capable of a limited sliding movement on the removable post, and means to adjust the sliding movement of said bolt, said removable post being provided with a shoulder on one face thereof, the wall of said post being beveled coincident to the inclination of the upper face of the opposing post and adapted to receive the same in engagement therewith.

1,026,052. CORN-POPPING MACHINE. JAMES ALFRED ROTHERHAM, Revere, Mass. Filed May 25, 1911. Serial No. 629,471. (Cl. 53—4.)



1. A rotary corn popper comprising a casing, a foraminous hollow cylinder rotatively mounted in said cylinder, means for causing a movement of corn lengthwise of said cylinder, a collector composed of a tapering tube having a longitudinal opening, and having an inwardly projecting flange at one edge of the opening, and an outwardly projecting flange at the other edge of the opening, means for conducting popped corn from the said foraminous hollow cylinder to the opening of the collector, and means for automatically supplying unpopped corn to one end of said cylinder.

2. A rotary corn popper comprising a foraminous hollow cylinder having an outlet for unpopped corn, a foraminous screen within the cylinder and separated therefrom by an annular space, said screen having a longitudinal opening and a series of tangential extensions projecting across said space and constituting corn guides, the screen having larger openings than the cylinder and being adapted to separate the smaller from the larger kernels entering it, a screw conveyer forming a helical passage in the space between the cylinder and screen, the screen extensions projecting between the convolutions of said conveyer, and interrupting all the convolutions of the helical passage excepting the outer one, said outer convolution communicating with the outlet of the cylinder, and a popped corn collector composed of a tapering tube located within the screen and having a longitudinal opening, an outwardly projecting flange extending across the space between the collector and screen at one edge of the opening in the collector, and an inwardly projecting flange at the opposite edge of said opening, the smaller end of the collector being closed while its larger end is open and constitutes a popped corn outlet.

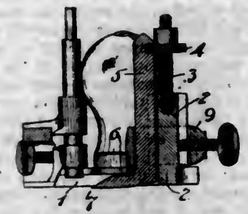
3. A rotary corn popper comprising a casing, a foraminous hollow cylinder, having an outlet for popped corn, a popped corn collector within the cylinder composed of a tapered tube which is open at its larger end for popped corn, said tube having a longitudinal opening, a closed head forming the inner end of the popper and provided with a corn inlet at one side of the axis of the popper, an annular flange at the larger end of the collector forming the outer end of the popper, means for delivering corn intermittently into the cylinder inlet, means for assorting the corn in the cylinder and transferring the popped corn to the collector, and a fixed chute supported by said casing in position to receive unpopped corn from the outlet of the hollow cylinder.

4. A rotary corn popper comprising a foraminous hollow cylinder having an outlet for unpopped corn, a popped corn collector within the cylinder, composed of a tapered tube which is open at its larger end to provide an outlet for popped corn, said tube having a longitudinal opening, a closed head forming the inner end of the popper and provided with a corn inlet at one side of the axis of the popper, an annular flange at the larger end of the collector forming the outer end of the popper, means for delivering corn intermittently to the cylinder inlet, a foraminous cylindrical screen between the cylinder and the collector, said screen having a longitudinal opening and a series of extensions projecting across the space between the screen and cylinder, and constituting guides to direct corn into the opening of the screen, and a screw conveyer forming a helical passage in said space, all the convolutions of said passage excepting the outer one being interrupted by said guides, and the said outer convolution communicating with the corn outlet of the cylinder, the collector being provided at one edge of its opening with an outwardly projecting flange joined at its outer edge to the screen, and at the other edge of said opening with an inwardly projecting flange forming one side of a corn-conducting gutter.

5. A corn-popping machine comprising a casing, a substantially horizontal foraminous hollow cylinder having an outlet for popped corn, and mounted rotatively in said casing, a popped corn collector within the cylinder composed of a tapered tube which is open at its larger end to provide an outlet for popped corn, means for deflecting popped corn from the cylinder into said collector, a hopper secured to the casing and having an inwardly curved spout at its lower end, a segmental spout carried by the rotary cylinder in a path to receive corn from said curved spout, a pivoted gate mounted in said curved spout, and having a lever, and means rotatively connected with said cylinder to actuate said lever.

1,026,053. ROUTER-PLANE CUTTER. THOMAS BENJAMIN SANER, Clifton, Ariz., assignor to The Stanley Rule & Level Company, New Britain, Conn., a Corporation of Connecticut. Filed Dec. 19, 1911. Serial No. 666,763. (Cl. 145—17.)

In a cutter for a rabbet plane, a shank portion, a foot portion at the lower end of said shank portion and extending at an angle thereto, the toe of said foot portion being pointed, the opposite oblique sides of said foot being beveled on the top to form two oppositely arranged cutting edges, the underside of the toe immediately to the rear of the pointed cutting end being formed in a plane only



slightly oblique to the sole of the plane body with which said cutter may be used whereby the two opposite side cutting edges and the pointed cutting end will lie in a substantially horizontal working plane.

1,026,054. MAGNETO. ALBERT SCHMIDT, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Filed Mar. 25, 1911. Serial No. 616,965. (Cl. 123—167.)



1. In a magneto, a distributing mechanism comprising a contact disk having an insulated contact plate, a rotatable member of insulating material, a brush movable in said member, and a two-arm bow spring detachably secured on the face of said member for moving said brush into coöperation with said contact plate.

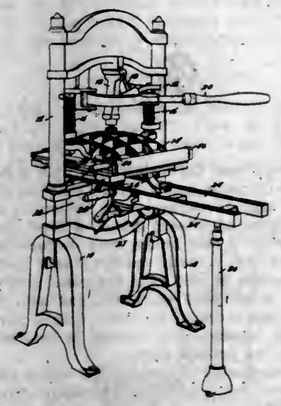
2. In a magneto, a distributing mechanism comprising a contact disk having an insulated contact plate, a rotatable member of insulating material, a brush movable in said member, and a two-arm spring detachably secured to the face of said member, engaging opposite sides of said brush for moving said brush into coöperation with said contact plate.

3. In a magneto, the combination with the armature shaft, of a distributing mechanism comprising a driver operable by said shaft, a pair of pins on said driver, an apertured plate of insulating material on said pins, a bow-spring engaging said pins and detachably holding said plate thereon, and electrically connected contacts carried by said plate.

4. In a magneto, the combination with the armature shaft, of a distributing mechanism comprising a driver operable by said shaft, a pair of pins on said driver, an apertured plate of insulating material fitted on said pins, a bow-spring pivotally attached to said driver and engaging said pins and detachably holding said plate thereon, and electrically connected contacts carried by said plate.

1,026,055. HAND-PROOF-PRESS TYMPAN. PAUL J. SHNIEDEWEND, Jr., Chicago, Ill., assignor to Paul Shniedewend and Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 19, 1909. Serial No. 513,697. (Cl. 101—13.)

A hand proof press tympan consisting of a flat plate adapted to be secured to a powerfully operating mechanism, a rod at one end of the plate adapted to have a sheet of flexible material secured thereto, a roller at the opposite end of the plate adapted to be detachably engaged by said flexible member, means for rotating said roller to tighten the flexible member, means for locking said roller



in selected position and latches upon the sides of the plate adapted to engage the flexible material to secure it to the sides of the plate.

1,026,056. TYPE-WRITER. ZALMON G. SHOLES and JOSEPH M. FRAAZ, New York, N. Y., assignors, by mesne assignments, to Zalmon G. Sholes Typewriter Company, a Corporation of Delaware. Filed Feb. 28, 1911. Serial No. 611,378. (Cl. 197—41.)



1. In a typewriter, a support provided with slots, flat hangers within said slots, and type bars pivoted in pairs on opposite sides of said hangers within said slots, substantially as described.

2. In a typewriter, a support provided with slots, removable flat hangers adapted to be slid into said slots, and type bars pivoted in pairs on opposite sides of said hangers and so placed thereon as to be within said slots when said hangers are slid into place, substantially as described.

3. In a typewriter, a support provided with slots and having a rabbet extending along the bases of said slots in a plane at right angles to the plane of said slots, flat hangers adapted to slide into said slots, each provided with a flange fitting said rabbet, type bars pivoted to said hangers, and means for fastening said flanges in place in said rabbet, substantially as described.

4. In a typewriter, a support provided with slots cut across one edge thereof and having a rabbet on one adjoining face extending along the bases of said slots, flat hangers adapted to slide into said slots each provided with a flange fitting said rabbet, type bars pivoted to said hangers within said slots, and means for fastening said flanges in place in said rabbet, substantially as described.

5. In a typewriter, a support having a slot with a beveled shoulder at its bottom, a hanger shaped to fit in said slot against said shoulder and having a flange for attachment to said support, and a pair of type bars pivoted to opposite sides of said hanger, substantially as described.

[Claim 6 not printed in the Gazette.]

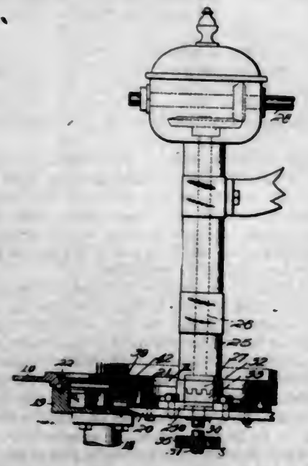
1,026,057. MICROPHONE. HERBERT E. SHREEVE, Wyoming, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Sept. 2, 1909. Serial No. 515,937. (Cl. 179—122.)



1. In a microphone, the combination with a mouthpiece, of a movable electrode and a bridge clamped against the inner face of said mouthpiece by an adjustable annulus, a plurality of openings in said bridge, a fixed electrode secured in a recess in said bridge with its face in intimate relation to, but not actually touching, said movable electrode, a depression in said fixed electrode, granular material partially filling said depression and held therein by contact with said movable electrode, a back plate or casing adapted to be removably secured to said mouthpiece, and a locking ring for said parts.

2. In a microphone, the combination with a cap forming the mouthpiece, said cap being interiorly threaded and having a raised rim near the periphery of its interior face, a mica diaphragm resting upon said rim, a thin carbon diaphragm adapted to lie flush with said mica diaphragm, a metallic bridge provided with a series of openings, the periphery of said bridge resting upon said carbon diaphragm, a threaded ring adapted to clamp said diaphragms and bridge to said cap, an annular recess in the center of said bridge, a carbon block secured in said recess with its face in intimate juxtaposition to said carbon diaphragm, a plurality of hemispherical cavities in the face of said block, the surfaces of said cavities being highly polished, each of said cavities containing carbon granules held therein by contact with said diaphragm, a back plate or casing adapted for screw threaded engagement with said face plate, a terminal block in said back plate and having mounted thereon the leading-in wires, and a locking ring for maintaining permanent the adjustment of said front and back plate.

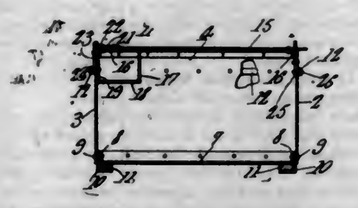
1,026,058. CIRCULAR COMBING-MACHINE. JAMES SMITH, Worcester, Mass. Filed Oct. 25, 1909. Serial No. 524,296. (Cl. 19—2.4.)



1. In a circular combing machine, the combination with a large stationary circle, and a large circle plate rotatably mounted thereon, of a small circle plate rotatable within the large circle plate, a fixed flat support for the small circle plate located below the level thereof and having a bearing therein, a vertical shaft passing through said bearing and projecting below said support and having a clutch member on the upper end thereof just above said support and entirely below the top of the small pin circle plate and provided with upwardly projecting clutch teeth, a pillar having a bottom flange adapted to be secured directly to said support below the top of the small circle plate and provided with a passage therethrough having an enlargement at the bottom thereof, and a vertical driving shaft extending through said pillar and having a clutch member thereon located entirely in said enlargement and elevated above the bottom thereof and provided with downwardly extending clutch teeth for engaging the first mentioned clutch member, said enlargement being arranged and adapted to receive and contain the first mentioned clutch member when the flange is secured in position on the support.

2. In a circular combing machine, the combination of a small circle plate, a fixed flat support for the circle plate, a vertical shaft projecting below said support and having a clutch member on the upper end thereof just above said support and entirely below the top of the pin circle plate, a pillar having a bottom flange adapted to be secured directly to said support below the top of the circle plate and provided with a passage therethrough having an enlargement at the bottom thereof, and a vertical driving shaft extending through said pillar and having a clutch member thereon located entirely in said enlargement and elevated above the bottom thereof for engaging the first mentioned clutch member, said enlargement being arranged and adapted to receive and contain the first mentioned clutch member when the flange is secured in position on the support.

1,026,059. TOOL-BOX. WASHINGTON S. SMITH, Parkersburg, W. Va. Filed July 26, 1910. Serial No. 573,920. (Cl. 220—5.)

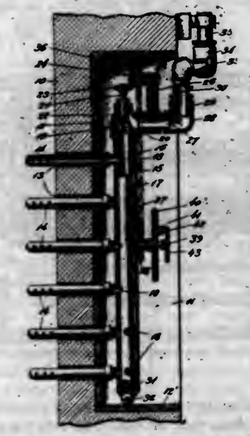


A device of the class described comprising a box; a bottom for the box having a flange disposed parallel to the side wall of the box; an angle member having one flange engaged between the flange of the bottom and the side wall of the box, the other flange of the angle member being disposed below the bottom and approximately parallel to the bottom; and a bar transversely insertible between the last mentioned flange and the bottom, to reinforce the bottom, and to reinforce the last mentioned flange, whereby the same may serve as a runner, a band surrounding the box; securing elements extended through the band, through the wall of the box, and through the rear wall of the tray.

1,026,060. BLOWER FOR BOILERS. LOUIS SPRENGER, Detroit, Mich., assignor to Diamond Power Specialty Co., Detroit, Mich. Filed Sept. 1, 1911. Serial No. 647,170. (Cl. 122—391.)

1. The combination with a steam-supply pipe, of a shell, nozzles secured to said shell and projecting thereinto, a ported tube rotatable in the shell, means for rotating said tube to bring its ports into register with the nozzles respectively, and means for supporting said shell for bodily swinging movement on the supply pipe to move said nozzles simultaneously and equally.

2. The combination with a steam-supply pipe, of a shell connected therewith and having stationary ported annular seats, nozzles secured to said shell and projecting into said seats, a ported tube rotatable in the shell, and means for rotating said tube to bring its ports into register with the nozzles respectively.



3. The combination with a vertical steam-supply, a horizontal leader swiveled thereon, a vertical nipple on said leader, and a casing swiveled on said nipple for movement in a horizontal plane, of a vertical shell secured to said casing, nozzles communicating with the interior of said shell, a valve tube having unalined ports adapted to register with the nozzles, and means for rotating said tube.

4. The combination with a vertical steam-supply, a horizontal leader swiveled thereon, a vertical nipple on said leader, and a casing swiveled on said nipple for movement in a horizontal plane, of a vertical shell secured to said casing, nozzles communicating with the interior of said shell, a valve tube having unalined ports adapted to register with the nozzles, a spindle passing through said casing and secured to said tube, and means for rotating said spindle.

5. The combination with a vertical steam-supply, a horizontal leader swiveled thereon, a vertical nipple on said leader, and a casing horizontally swiveled on said nipple, of a vertical shell secured to said casing, nozzles communicating with the interior of said shell, a valve tube having unalined ports adapted to register with the nozzles, a spindle passing through said casing and secured to said tube, a hand-wheel, and means for connecting said spindle and hand-wheel for rotating said spindle.

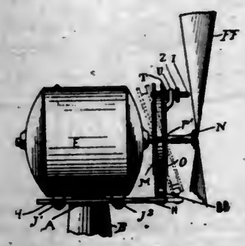
[Claims 6 and 7 not printed in the Gazette.]

1,026,061. WATCH-BOW. SAMUEL STEINBERG, Laporte, Ind. Filed Dec. 27, 1911. Serial No. 668,043. (Cl. 58—97.)



The combination with a watch casing stem having recesses, and threaded passages extending inwardly from said recesses; of a bow having ears with reduced ends for engagement within the recesses, securing screws within the ears and having reduced threaded ends for engagement within the threaded passages, and screw plugs having threads directed oppositely to the threads on the reduced ends of the securing screws and engaged in the outer ends of the ears for closing said outer ends and preventing the securing screws from working out of position.

1,026,062. OSCILLATING MOTOR-DRIVEN FAN. CHARLES C. WAITE, Roselle Park, N. J., assignor to Shedd Electric Company, Roselle Park, N. J., a Corporation of New Jersey. Filed Jan. 14, 1910. Serial No. 538,144. (Cl. 230—1.)



1. In a motor driven fan, the combination with a motor pivotally mounted upon a suitable base, of an immovable sprocket horizontally disposed upon the top of said base, a rod having a rack at one side, said rack engaging the teeth of said sprocket, such rod horizontally disposed and movably affixed upon the bottom of the motor casing and susceptible of horizontal rectilinear motion, a lug upon the outer end of said rod, a suitable reducing gear disposed upon the armature shaft of said motor, a ring having a groove upon its outer periphery pivotally disposed upon the outer periphery of said reducing gear, the lug of the rod engaging the groove of the ring, a means for retaining said ring in desired position, all substantially as set forth and for the uses herein expressed.

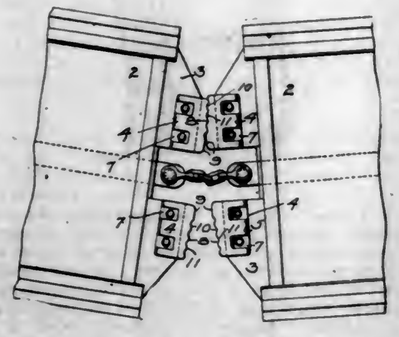
2. In a motor driven fan, the combination with a motor susceptible of horizontal rotary oscillation, of an immovable sprocket disposed under said motor and affixed to the base, a suitable reducing gear disposed upon the armature shaft of said motor, a ring having a groove upon its outer periphery, pivotally affixed upon the outer periphery of the reducing gear, a means for retaining said ring in desired position, a rod having a lug upon one end engaging the groove in the ring, said rod horizontally disposed and movably affixed upon the bottom of the motor casing, at one side of the center thereof, a rack cut upon the inner side of said rod, its teeth engaging those of the sprocket all substantially as set forth for the uses and purposes herein expressed.

3. In a motor driven fan, the combination with a motor of a base having an immovable sprocket horizontally disposed at its top, a pivot at the top, the motor mounted upon said pivot and susceptible of horizontal rotation thereupon, a rod horizontally disposed and movably attached to the bottom of the motor casing, said rod having a rack cut upon its inner side, said rack engaging the teeth of the sprocket, a lug upon the end of said rod, a suitable reducing gear disposed upon the armature shaft of said motor, a ring having a groove upon its outer periphery pivotally disposed upon said reducing gear, the lug upon the rod engaging the groove upon the ring, a means for retaining said ring in desired position, all substantially as set forth and for the uses and purposes herein expressed.

4. In a motor driven fan, the combination with a motor pivotally disposed upon a suitable base and susceptible of horizontal rotation thereupon, of a suitable reducing gear disposed upon the armature shaft of said motor, a ring having a groove upon its outer periphery pivotally disposed upon the outer periphery of said reducing gear, a bracket upon the face of the reducing gear containing a

nurl nut and a pin engaging said ring, with a spring between said bracket and said ring, a rod movably affixed upon the bottom of the motor casing at one side of the center thereof and susceptible of horizontal rectilinear motion, a lug upon the end of said rod engaging the groove of the ring, a rack cut upon the inner side of said rod, a sprocket horizontally disposed and immovably affixed upon the top of the base, its teeth engaging those of the rack in the rod, all substantially as set forth and for the uses and purposes herein expressed.

1,026,063. CAR-BUFFER CONSTRUCTION. THOMAS WATKINS, Wilson, Pa., assignor of one-half to Ubel U. Carr, Pittsburgh, Pa. Filed Nov. 12, 1909. Serial No. 527,642. (Cl. 213—39.)

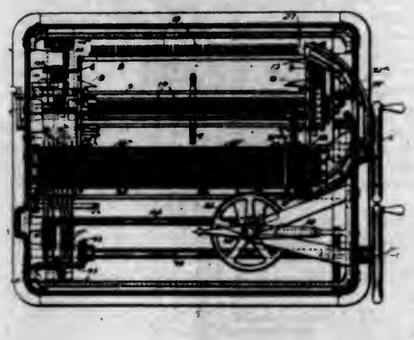


A car buffer provided with a plurality of operative faces comprising a straight plain face disposed substantially in parallelism with the end plane of the car adapted to receive the buffer and a face disposed at an angle to the first named face and provided with a vertically disposed rib, the first named face being adapted to have straight buffing action with a similarly disposed face on an opposing car whereby the cars may be rendered free to slight lateral relative movement, and the second face being adapted to have operative association with a complementary face on the opposing car only when the cars assume such angular position as to bring the first named faces out of straight buffing relationship.

1,026,064. MECHANICAL CALCULATOR. FRANK E. WEBNER, Norwood, Ohio, assignor to The American Mechanical Calculator Company, Cincinnati, Ohio. Filed Sept. 13, 1907. Serial No. 392,746. (Cl. 234—53.)

1. The combination in a mechanical calculator of movable type carriers; type movable therein; a series of elements having steps corresponding to numerals denoting multiples of a selected multiplicand; a series of elements having steps corresponding to numerals denoting selected multipliers; type selecting mechanism movable relatively to the stepped elements, and adapted by engagement with the steps to control the position of the type carriers; means for bringing the type selecting members into operative alinement with the stepped members denoting any desired multiplier and the corresponding multiple; and means for actuating the type selecting mechanism and the type.

2. The combination in a mechanical calculator of a series of type carriers having movable type; a series of type carriers having movable type adapted to duplicate the printing of the first series; recording mechanism; a series of elements having steps corresponding to numerals denoting multiples of a selected multiplicand; a series of elements having steps corresponding to numerals denoting selected multipliers; type selecting mechanism movable relatively to the stepped elements, and adapted by engagement with the steps to control the position of the type carriers; means for bringing the type selecting members into operative alinement with the stepped members denoting any desired multiplier and the corresponding multiple; and means for actuating the type selecting mechanism and the type.



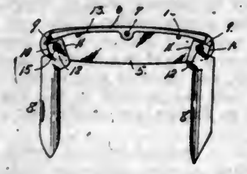
3. The combination in a mechanical calculator of movable type carriers; type movable therein; a series of elements having steps corresponding to numerals denoting multiples of a selected multiplicand; a series of elements having steps corresponding to numerals denoting selected multipliers; type selecting mechanism movable relatively to the stepped elements, and adapted by engagement with the steps to control the position of the type carriers; adding mechanism controlled by the type selecting mechanism; means for bringing the type selecting members into operative alinement with the stepped members denoting any desired multiplier and the corresponding multiple; and means for actuating the type selecting mechanism and the type.

4. The combination in a mechanical calculator of a series of type carriers having movable type; a series of type carriers having movable type adapted to duplicate the printing of the first series; recording mechanism; a series of elements having steps corresponding to numerals denoting multiples of a selected multiplicand; a series of elements having steps corresponding to numerals denoting selected multipliers; type selecting mechanism movable relatively to the stepped elements, and adapted by engagement with the steps to control the position of the type carriers; adding mechanism controlled by the type selecting mechanism; means for bringing the type selecting members into operative alinement with the stepped members denoting any desired multiplier and the corresponding multiple; and means for actuating the type selecting mechanism, the type and the recording mechanism.

5. The combination in a mechanical calculator of a series of movable type carriers; type movable therein, a series of elements having steps corresponding to numerals denoting multiples of a selected multiplicand; a series of elements having steps corresponding to numerals denoting selected multipliers; type selecting mechanism movable relatively to the stepped elements, and adapted by engagement with the steps to control the position of the type carriers; recording mechanism; adding mechanism controlled by the type selecting mechanism; means for bringing the type selecting members into operative alinement with the stepped members denoting any desired multiplier and the corresponding multiple; means for actuating the type selecting mechanism and the type; totaling mechanism adapted to be connected with and to control the position of the type carriers; means for bringing the totaling mechanism into operative connection with the type carrier; and means for operating the totaling mechanism.

[Claims 6 to 92 not printed in the Gazette.]

1,026,065. TAKE-DOWN POCKET-KNIFE. CARL H. WHITE, Denver, Colo., assignor to The Piogran Sales Company, Denver, Colo., a Corporation of Colorado. Filed Mar. 28, 1911. Serial No. 617,422. (Cl. 30—10.)



1. In a pocket knife, the combination with a handle having a main spring suitably secured in place, of a blade pivotally connected with the end of the handle and having oppositely located side faces and an end face adapted to occupy positions respectively adjacent the end of the spring when the blade is in the wide-open, closed and intermediate positions, the faces of the blade adjacent the spring when the blade is in the wide-open and closed positions being farther from the pivotal center of the blade than the face adjacent the spring when the blade is in the intermediate position, and being respectively engaged by the main spring when the blade is in the said wide open and closed positions, and means acting on the main spring to prevent its engagement with the end face of the blade when the blade is in the intermediate position, and allowing the spring to engage the side faces of the blade when the blade is in the other positions, substantially as described.

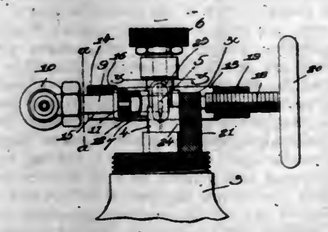
2. A knife composed of a handle, a main spring and a blade pivoted at the extremity of the handle, the pivoted extremity of the blade having three faces which occupy positions respectively adjacent the end of the spring when the blade is in the wide-open, closed and intermediate positions, the faces of the blade which are engaged by the spring when in the wide-open and closed positions being equi-distant from the pivotal center of the blade and farther from the center than the third or end face, and respectively engaged by the main spring when the blade is in the said wide open and closed positions, and means for preventing the spring from engaging the said third or end face of the blade when the blade is in the said intermediate position, substantially as described.

3. A knife provided with a main spring, and a blade whose pivoted extremity is equipped with three faces adapted to occupy positions respectively adjacent the end of the spring when the blade is in the wide-open, closed and intermediate positions, the faces occupying the positions adjacent the spring when the blade is in the wide-open and closed positions being farther from the pivotal center of the blade than the third face of the blade, and respectively engaged by the main spring when the blade is in the said wide-open and closed positions, and means for preventing the spring from engaging the third face of the blade when the latter is in the intermediate position, for the purpose set forth.

4. A knife provided with a main spring and blades whose pivoted extremities are each provided with three faces adapted to occupy positions respectively adjacent the end of the spring when the blade is in the wide-open, closed and intermediate positions, the two faces of each blade which respectively lie adjacent the spring when the blade is in the wide-open and closed positions being farther from the pivotal center of the blade than the third face, and respectively engaged by the main spring when the blades are in the wide-open and closed positions, and means for preventing the spring from engaging the third faces of the blades, when the latter are in the intermediate position, substantially as described.

5. A knife composed of a handle, a main spring, and a blade pivoted in the handle, the pivoted extremity of the blade having faces which respectively occupy positions adjacent the spring, when the blade is in the wide-open, closed and intermediate positions, the face adjacent the spring when the blade is in the intermediate position being located nearer the pivotal center of the blade than the other faces, the faces adjacent the main spring when the blade is in the wide-open and closed positions being respectively engaged by the main spring when the blade is in the said wide-open and closed positions, and means for maintaining the blade when in the intermediate position free from engagement with the spring.

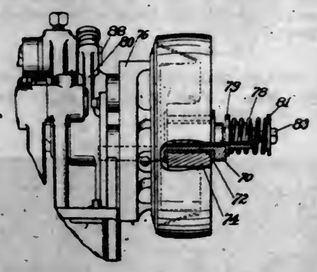
1,026,066. CONNECTION FOR PRESSURE-TANKS. LINUS WOLF, Boston, Mass. Filed Mar. 30, 1909. Serial No. 486,739. (Cl. 137—28.)



1. The combination with the neck of a tank or container having a nipple extending laterally therefrom and a headed connection separable from the nipple, of a yoke-shaped coupling member separable and detachable from both the neck and the connection and embracing said neck and provided with a slotted boss embracing the connection and engaging the head thereof, a positioning abutment member separate from the coupling member and embracing and positioned by the neck and received between the sides of and positioning the coupling member, and a clamping screw engaging said abutment and clamping the connection to the nipple.

2. The combination with a neck of a tank or container having positioning lugs extending therefrom and a nipple also extending laterally therefrom, of a connection having a headed projection to be coupled to the nipple, a yoke-shaped coupling member separable and detachable from both the neck and connection and embracing said neck and provided with a slotted boss embracing the connection and engaging the head thereof, a positioning abutment member separate from the coupling member and embracing the neck and engaging the positioning lugs thereof, said member being received between the sides of and positioning the coupling member, and a clamping screw engaging said abutment and clamping the projection to the nipple.

1,026,067. STOP MECHANISM. ORRELL ASHTON, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 30, 1908. Serial No. 465,076. (Cl. 74—46.)



1. The combination with a driven member held from turning movement upon a shaft, of a driving member, means for holding said driving member yieldingly in frictional engagement with the driven member, a longitudinal member connected to the driving member and extending through said driven member in a direction parallel to the shaft, a movable cam arranged to be brought into the path

of said longitudinal member to force the driving member out of engagement with the driven member and a stop arranged to be brought into the path of the longitudinal member simultaneously with the cam to arrest the motion of the driven parts.

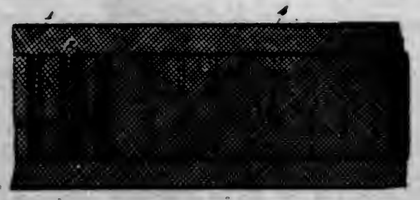
2. The combination with a driven member held from turning movement upon a shaft, of a driving member, means for holding said driving member yieldingly in frictional engagement with the driven member, a longitudinal member connected to the driving member and extending through said driven member in a direction parallel to the shaft, a slide arranged for movement transverse to the driven shaft provided with a cam surface arranged for engagement with one end of the longitudinal member for forcing the driving member out of engagement with the driven member and with a stop surface arranged to arrest the motion of the driven parts by engagement with the longitudinal member, and means for sustaining the slide yieldingly against the impact of the longitudinal member.

3. The combination with a driven member held from turning movement upon a shaft, of a driving member, means for holding said driving member in frictional engagement with the driven member, a longitudinal member connected to the driving member extending through said driven member and arranged for sliding movement in a groove formed in the shaft, and a device arranged for movement into and out of the path of said longitudinal member provided with a cam surface for forcing said longitudinal member into an inoperative position wherein the driving member is out of engagement with the driven member, and with a stop surface arranged for engagement with the longitudinal member for arresting the motion of the driven parts.

4. The combination with a driven member held from turning movement upon a shaft, of a driving member, means for holding said driving member yieldingly in engagement with the driven member, a lever mounted for a limited amount of turning movement about an axis parallel with the axis of the shaft, means for holding said lever yieldingly from movement in the direction of movement of the driving member, and a slide arranged for movement upon said lever transverse to the shaft provided with a cam surface for forcing the driving member out of engagement with the driven member and with a stop surface for arresting movement of the driven

5. The combination with a driven member held from turning movement upon a shaft, of a driving member, means for holding said driving member yieldingly in engagement with the driven member, a lever mounted for a limited amount of turning movement about an axis parallel with the axis of the shaft, means for holding said lever yieldingly from movement in the direction of movement of the driving member, a slide arranged for movement upon said lever transverse to the shaft provided with a cam surface for forcing the driving member out of engagement with the driven member and with a stop surface for arresting movement of the driven parts and a pawl mounted upon said lever for checking the rebound of the driven member.

1,026,068. CARTRIDGE-BELT. FRANK R. BATCHELDER, Worcester, Mass. Filed Feb. 25, 1911. Serial No. 610,854. (Cl. 139—72.)



1. The method of forming belts of woven fabric consisting in weaving a wide portion of multiply fabric, then continuing the weaving a portion of the threads utilized in forming the wide portion, as a web of less width and thickness than the wide portion, extending the weaving of the wide portion a sufficient distance beyond the beginning of the narrow portion to provide a finishing-portion, and then suitably finishing the same.

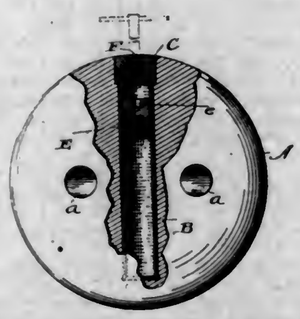
2. The method of forming belts of woven fabric consisting in weaving a wide portion of multiply fabric, then continuing the weaving a portion of the threads forming the wide portion as a web of less thickness and width than the wide portion, and carrying any threads of such ply or plies which may not be used in the weaving of the narrow portion as floaters, and cutting off such threads and finishing.

3. The method of forming belts of woven fabric consisting in weaving a wide portion provided with cartridge-receptacles integrally woven, then continuing the weaving of the threads used in the formation of such receptacles or a portion of such threads, as a web of less thickness and width than the cartridge-carrying portion of the belt.

4. The method of forming belts of woven fabric consisting in weaving a portion of multiply fabric, then weaving the threads of a ply or plies of said multiply portion as an extended loop of less thickness than the multiply portion, then continuing the weaving of another multiply portion, then separating the fabric thus formed to provide belts having portions of different thicknesses but cutting through the wall of the extended loop and also through the body portion of the fabric between the walls of the loops.

5. The method of forming belts of woven fabric consisting in weaving a wide portion of multiply fabric, then weaving the threads of a ply or plies of said wide portion as an extended loop of less thickness and width than the multiply portion, then continuing the weaving of another wide multiply fabric portion, then separating the fabric thus formed to provide belts having wide portions of one thickness and narrow portions of a less thickness by cutting through the wall of the extended loop and also through the body portion of the fabric between the walls of the loop, and finishing the raw edges formed by cutting.

1,026,069. BOWLING-BALL. FREDERICO N. BENDELARI, Cleveland, Ohio. Filed Mar. 4, 1912. Serial No. 681,370. (Cl. 46—4.)



1. A bowling ball having two finger holes and having a third hole which extends from one side in the direction of a diameter which is at right angles to a diametrical plane which passes through the center of both finger holes, and a weight which is adjustable longitudinally in said third hole.

2. A bowling ball having two finger holes and having a third hole which extends from one side of the ball across the center thereof in a direction such that its axis is at right angles to a diametrical plane which extends through the center of both finger holes, and a weight which is adjustable in said hole across and on both sides of the center of the ball.

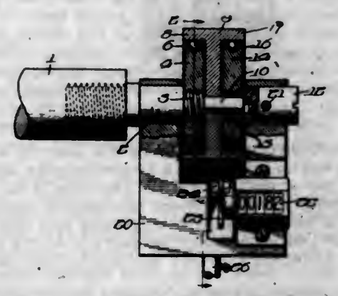
3. A bowling ball having two finger holes and having a third hole which extends from one side in the direction of a diameter which is at right angles to a diametrical plane which passes through the center of both finger holes, a threaded member held in said hole against endwise movement, and a threaded weight engaging with the first mentioned threaded member whereby through the relative turning of said weight and threaded member the weight will be caused to travel longitudinally in said holes.

4. A bowling ball having therein a diametrical hole which extends from one side past the center, an internally threaded bushing which is fixed in said hole and which extends substantially equal distances on both sides of the center, and an externally threaded weight which is screwed into said bushing and has on one end means for engaging a tool wherewith it may be turned.

5. A bowling ball having therein a diametrical hole which extends from one side past the center, an internally threaded bushing which is fixed in said hole and which extends substantially equal distances on both sides of the center, and an externally threaded weight which is screwed into said bushing and has on one end means for engaging a tool wherewith it may be turned, a plug which is permanently secured in the outer end of said hole, and has through it a small hole which is coaxial with said bushing.

[Claim 6 not printed in the Gazette.]

1,026,070. REGISTER. FREDERICK K. BOOMHOWER and WILLIAM A. EBERMAN, Chicago, Ill. Filed Dec. 11, 1911. Serial No. 665,079. (Cl. 235—95.)



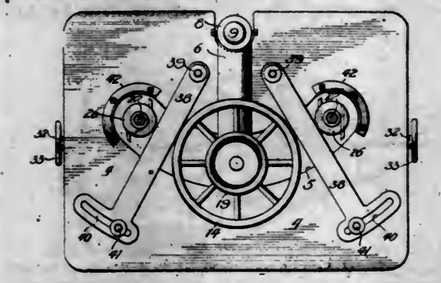
In a register for elevators, a nonrotating disk, a rotating disk of equal size therewith rotating backward and forward, in correspondence with the movement of the elevator, a central rotatable disk located between them, a register actuated by said central disk, and a ball clutch connection between said central disk and each of the others so arranged that the central disk is driven forward by the rotating disk and prevented from rotating backward by the nonrotating disk, said central disk having peripheral flanges which extend over and house both of the other disks and form parts of said ball clutch connections.

1,026,071. COLUMN CAP AND BASE SHAPING MACHINE. CHARLES W. BORG, Rock Island, Ill. Filed Sept. 2, 1910. Serial No. 580,194. (Cl. 142—1.)

1. A shaping machine of the character described comprising a table having an opening therein, a pair of separated shaping heads revolving in opposite directions, a clamp frame projecting above and beneath the table and mounted to swing to carry a blank from one shaping head to the other, and means for securing a blank in said frame.

2. A shaping machine of the character described comprising a table having an opening therein, a pair of separated shaping heads revolving in opposite directions, a clamp frame projecting above and beneath the table and mounted to swing between said shaping heads, means for securing a blank in said frame, and diameter gages arranged on the table between the shaping heads and the clamp frame.

3. A shaping machine of the character described comprising a table having a curved slot therein, a pair of shaping heads located at the ends of said slot and revolving in opposite directions, a clamp frame comprising an arm projecting above the table and an arm projecting beneath the table and mounted to swing to carry a blank from one shaping head to the other, and means for securing a blank in said frame.

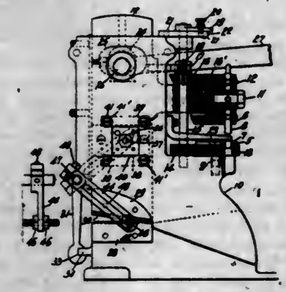


4. A shaping machine of the character described comprising a table having an opening therein, a pair of separated shaping heads revolving in opposite directions, a clamp frame having an arm projecting above the table and an arm projecting beneath the table and mounted to swing to carry a blank from one shaping head to the other, means for securing a blank in said frame, and diameter gages arranged between the shaping heads and the clamp frame.

5. A shaping machine of the character described comprising a table having an opening therein, a vertical standard projecting above and below the table, a clamp frame mounted to swing on said standard and having an arm projecting above the table and an arm projecting beneath the table, and means for securing a blank in said frame.

[Claims 6 to 10 not printed in the Gazette.]

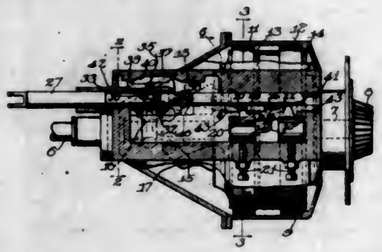
1,026,072. CUTTING AND PUNCHING MACHINE. SEYMOUR A. BOSTWICK, Roxbury, Mass., assignor to Philip G. H. Bennet, Boston, Mass. Filed Sept. 14, 1911. Serial No. 649,267. (Cl. 164—59.)



A machine of the class described having, in combination, a stationary member, another member slidable thereon, a pair of wire-cutting plates placed face to face and provided respectively with perforations adapted to register with each other, one of said plates mounted in said stationary member, the other in said slidable member, adjusting means in said stationary member adapted to engage the back face of the cutting plate mounted in said stationary member to move said plate to take up the wear thereof, a pair of coöperating shear cutters, one fast to said stationary member, the other fast to said slidable member, an arm adjustably mounted upon said stationary

member having a slot at its free end, and a screw mounted in said slot adapted to be moved lengthwise of said slot, laterally through said slot and to be moved by said arm to coöperate with either of said pairs of cutting instrumentalities.

1,026,073. TRANSMISSION-GEARING. GEORGE W. BULLEY, Chicago, Ill., assignor to Holsman Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 27, 1911. Serial No. 611,249. (Cl. 74—34.)



1. In a device of the class described, the combination of a driving shaft, a driven shaft, mechanism for transmitting motion from the driving to the driven shaft embodying a plurality of clutching or gripping means each having a movable element which when operated effects connection between said driving and driven shafts, a movable actuating member having means for successively engaging and operating said elements at different points along its path of movement, means for locking one of said elements to said member at a given point along said path of movement, and means for releasing said locking means upon return movement of said actuating member.

2. In a device of the class described, the combination of a driving shaft, a driven shaft, mechanism for transmitting motion from the driving to the driven shaft embodying a plurality of clutching or gripping means each having a movable element which when operated effects connection between the driving and driven shafts, a movable actuating member having means for successively engaging and operating said elements at different points along its path of movement, means for locking one of said elements to said actuating member at a given point along said path of movement, a lock-actuating element arranged to be engaged by a part of said locking means as the latter moves, to thereby lock the locking means, and means releasing said locking means upon return movement of said actuating member.

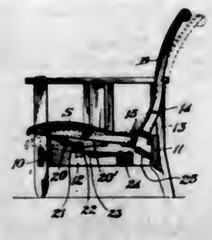
3. In a device of the class described, the combination of a driving shaft, a driven shaft, mechanism for transmitting motion from the driving to the driven shaft embodying a plurality of clutching or gripping means each having a movable element which when operated effects connection between the driving and driven shafts, a slidable actuating rod having means for engaging and operating one of said elements at a given point along the path of movement of said rod, and locking means for locking another one of said elements to said rod at another given point along said path of movement, including a locking dog adapted to engage said rod after the latter has moved a given distance with relation to the dog.

4. In a device of the class described, the combination of a driving shaft, a driven shaft, mechanism for transmitting motion from the driving shaft to the driven shaft embodying a plurality of clutching or gripping means each having an element which when operated effects connection between the driving and driven shafts, a sliding actuating rod having means for operating one of said elements at a given point along the line of movement of the rod, a locking dog mounted on another of said elements and movable therewith for locking said element and actuating rod together after the rod is moved a given distance with relation to the latter said element, and a lock actuating means arranged adjacent the line of movement of said dog and adapted to be engaged thereby for actuating the dog to lock the second said element and actuating rod together.

5. In a device of the class described, the combination of a driving shaft, a driven shaft, mechanism for transmitting motion from the driving to the driven shaft embodying a plurality of clutching or gripping means each having an element which when operated effects connection between the driving and driven shafts, a slidable actuating rod having means for operating one of said elements at a given point along the path of movement of said rod, said rod having means for engaging and operating another one of said elements after moving a given distance with relation thereto, a dog movable with the latter said element, said rod having a notch for the engagement of said dog, and means arranged adjacent the line of movement of said dog for forcing the dog into engagement with said notch and thereby locking the dog and rod together.

[Claims 6 to 11 not printed in the Gazette.]

1,026,074. CHAIR. CASPER J. CAIN, Stockbridge, Mich. Filed Feb. 13, 1911. Serial No. 608,184. (Cl. 155—28.)



1. The combination with a frame of a chair, of a seat, a back pivoted on said frame, a hinge-connection between the lower end of the back and the rear edge of the seat a shoe having a long frictional bearing-face supporting said seat, a bolt for pivotally supporting said shoe, and a spring for yieldingly supporting said bolt on the frame, means for retracting said seat and back to their normal positions.

2. The combination with the frame of a chair, of a seat, a back pivoted on said frame, a hinge connection between the lower end of the back and the rear edge of the seat, a shoe supporting the forward end of the seat, and a blade spring secured at one end to the frame and pivoted at its free end with said shoe.

3. The combination with the frame of a chair comprising side rails, of a seat, a back pivoted on the frame, a hinge connection between the rear of the seat and the lower part of the back, shoes slidably supporting the front end of the seat, brackets attached to the side rails of the chair, and independent blade springs attached to said brackets and pivotally supporting said shoes.

4. In a reclining chair, a stationary frame, a tilting frame mounted on the stationary frame, a pair of arms secured to the stationary frame and being yieldable bodily from their securing means to their opposite ends, a brake shoe on each arm at its said opposite end and adapted to be held normally in engagement with the tilting frame, by the resiliency of said arms, so that upon tilting movement of the tilting frame, the frictional resistance between the tilting frame and the brake shoes arrests the movement of the tilting frame and maintains it at the tilting angle desired by the chair-occupant.

1,026,075. CENTRIFUGAL MACHINE. FRANK E. COOMBS, Brookfield, Vt. Filed May 11, 1910. Serial No. 560,704. (Cl. 127—20.)

1. A centrifugal machine comprising a rotor within a stationary casing adapted to contain a body of liquid and withstand internal pressure, said rotor having peripheral passages, means for feeding liquid to be separated to the interior of the rotor, separate means for withdrawing clarified liquid and for withdrawing light impurities from the interior of the rotor and valve-controlled means for withdrawing separated matter from the inner periphery of the stationary casing.



2. A centrifugal machine comprising a rotor within a closed stationary casing adapted to contain a body of liquid and withstand internal pressure and provided with an annular channel around the periphery of said rotor, said rotor having peripheral passages communicating with said channel, means for feeding liquid to be separated to the interior of the rotor, separate means for withdrawing clarified liquid and for withdrawing light impurities from the interior of the rotor and valve-controlled means for continuously withdrawing separated solids from said channel.

3. A centrifugal machine, comprising a doubly-conical rotor mounted within a stationary casing provided with venting means and with valve-controlled means for continuously removing solids, said rotor having peripheral passages opening to the interior of the casing, means for feeding liquid to the interior of the rotor, means within the rotor for causing a circuitous passage of liquid therein, means for withdrawing clarified liquid from the rotor and means for withdrawing light impurities from the rotor.

4. A centrifugal machine comprising a rotor mounted within a stationary casing provided with venting means and with valve-controlled means for continuously removing solids, said rotor comprising two hollow cones mounted base to base with intervening spacing means providing peripheral passages from their interior, means for feeding liquid to the interior of the rotor, means within the rotor for withdrawing clarified liquid from the rotor and means for withdrawing light impurities therefrom.

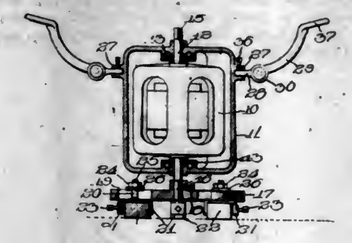
5. In a centrifugal machine, a rotor comprising two hollow cones mounted base to base but spaced apart to leave free communication with their interior, an inclosing stationary closed casing within which such rotor is rotatably mounted, a hollow shaft communicating with one such cone and forming a supply conduit therefor, a hollow shaft communicating with the other cone and forming an exit conduit; valve-controlled exit means for such conduit, a conduit located within the last-stated conduit and provided with valve-controlled exit means for light impurities, and valve-controlled means for the exit of separated solids from such stationary casing.

[Claims 6 to 10 not printed in the Gazette.]

1,026,076. POLISHING OR DRESSING MACHINE. WILLIAM D. COUPER, Chicago, Ill. Filed Oct. 19, 1908. Serial No. 458,892. (Cl. 51—13.)

1. In a machine for the purpose set forth, the combination of a frame, a motor supported thereby, an abrading tool supported by one end of the motor shaft and adapted to engage the work, and supports connected with the motor frame and adjustable into and out of engagement with the work, said supports permitting the weight of the motor and frame to hold the abrading tool into engagement with the surface of the work and cause the tool to automatically advance.

2. In a machine for the purpose set forth, the combination of a frame, a motor supported thereby, an abrading tool supported by one end of the motor shaft, and supports constructed of yielding material secured to the frame and adapted to be adjusted into engagement with the work to yieldingly support the structure.



3. In a machine for the purpose set forth, the combination of a shaft, an abrading tool secured to the shaft, a motor mounted upon the shaft for rotating the same, a frame for the motor, handles secured to the frame, the weight of all of said parts being sustained by the abrading tool when the machine is in an upright operative position, and means coöperating with the frame for sustaining a portion of the weight of the parts when the machine is tilted at an angle to the work surface.

4. In a machine for the purpose set forth, the combination of a shaft, an abrading tool secured to the shaft, a motor mounted upon the shaft for rotating the same, a frame for the motor, handles secured to the frame, the weight of all of said parts being sustained by the abrading tool when the machine is in an upright operative position, and a support secured to the frame, said support normally standing out of engagement with the work surface and in proximity thereto, and adapted to engage the surface when the machine is tilted.

5. In a machine for the purpose set forth, the combination of a shaft, an abrading tool secured to the shaft, a motor mounted upon the shaft for rotating the same, a frame for the motor, handles secured to the frame, the weight of all of said parts being sustained by the abrading tool when the machine is in an upright operative position, and a support secured to the frame and adjustable with respect to the work surface, said support normally standing out of engagement with the work surface and in proximity thereto and adapted to engage the surface when the machine is tilted.

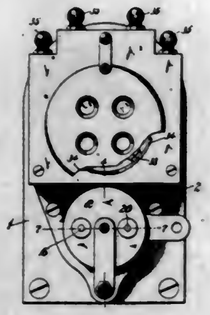
[Claims 6 to 16 not printed in the Gazette.]

1,026,077. DUAL IGNITION SYSTEM. CHARLES CUNO, Meriden, Conn., assignor to The Connecticut Telephone & Electric Company, Incorporated, Meriden, Conn., a Corporation of Connecticut. Filed Nov. 10, 1910. Serial No. 591,584. (Cl. 123—148.)

1. In electric ignition apparatus, the combination with a generator and an interrupter therefor, a transformer having sparking mechanism connected therewith, a switch having a single switch arm, and means, when said arm is in one position, to connect said generator and said transformer in series when said interrupter is open, and to short circuit said generator through said interrupter when the latter is closed, an external source of current connected with said switch, and means, when said switch arm is in another position, to connect said external source, said transformer and said interrupter in series when the latter is closed, said circuit being broken by the opening of said interrupter.

2. In electric ignition apparatus, the combination with a magneto and an interrupter therefor, of a switch having a switch arm and means when said arm is in one position to connect said magneto armature and said transformer in series when the interrupter is open, and to

short circuit said magneto through said interrupter when the latter is closed, an external source of current and a vibrator unit, and means, when said switch arm is in another position, to connect said external source, said transformer and said interrupter in series when the latter is closed, said circuit being broken by the opening of said interrupter, and means, when the switch arm is in the same position to break said interrupter connection and connect said external source, said transformer and said vibrator unit in series.



3. In electric ignition apparatus, the combination with a magneto and an interrupter therefor, of a switch having a switch arm and means, when said arm is in one position, to connect said magneto armature and said transformer in series when the interrupter is open, and to short circuit said magneto armature through said interrupter when the latter is closed, an external source of current and a vibrator unit, and means on said switch, when the switch arm is in another position, to connect said external source, said transformer and said interrupter in series when the latter is closed, said circuit being broken by the opening of the interrupter, and means on said switch to connect said external source, said transformer and said vibrator unit in series irrespective of the position of said interrupter.

4. In electric ignition apparatus, the combination with an inductive coil and a mechanically operated circuit breaker, with a source of current and a vibrator, a switch having means to connect said source of current, inductive coil and circuit breaker in series, exclusive of said vibrator, and having means to connect said source of current, said coil and said vibrator in series exclusive of said circuit breaker.

5. In electric ignition apparatus, the combination with a generator of an inductive coil having sparking mechanism connected with the secondary thereof, a mechanically operated circuit breaker and an external source of current, of a switch having a single switch arm and means, when said arm is in one position, to connect said generator and said coil in series when said circuit breaker is open, and to short circuit said generator current through said circuit breaker when the latter is closed, and when in another position to break said generator circuit and connect said external source, said coil and said circuit breaker in series.

[Claims 6 to 12 not printed in the Gazette.]

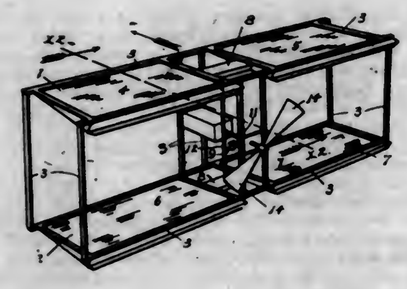
1,026,078. MAIL-BOX. ELIAS VAN OCTON DAVIS, Hornell, N. Y., assignor of one-half to James T. Foody, Hornell, N. Y. Filed Mar. 8, 1911. Serial No. 613,208. (Cl. 232—17.)

A mail box comprising a receptacle having a body provided with an upright back wall, two upright side walls and an inclined top which are fixed, and a movable inclined front wall pivoted centrally on the side walls to swing vertically and normally engaging its lower end with the rear wall, said rear and front walls converging downwardly in the closed position of the front wall and



said front and rear walls diverging downwardly in the open position of the front wall.

1,026,079. STABILIZING LIFTING-PLANE FOR FLYING-MACHINES. ANDREW F. DIERDORFF, Los Angeles, Cal. Filed Sept. 5, 1911. Serial No. 647,776. (Cl. 244—12.)

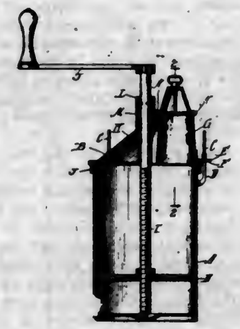


1. In a flying-machine, a bellows-shaped lifting plane on each side of the machine, each of said planes containing air, and means affording atmospheric communication between the chambers of said planes to permit the pressure of the outer air against the under side of one of the planes to automatically force air into the chamber of the other plane to change the angle of incidence of the under side thereof.

2. A flying machine provided with a transverse lifting plane, said plane consisting of the bottom walls of two communicating bellows, and a contracted neck connecting said bellows, the deflation of one of said bellows causing the inflation of the other.

3. A flying machine provided with two superposed transverse lifting planes, said planes each consisting of the bottom walls of a set of two communicating bellows, a horizontal way or conduit affording communication between the bellows of each set, and another conduit to afford atmospheric communication between said horizontal conduits and thereby place all of said bellows in atmospheric communication with each other.

1,026,080. ICE-CREAM DISPENSER. CHARLES DOERING, Jr., Oak Park, Ill. Filed May 5, 1909, Serial No. 494,165. Renewed Oct. 13, 1911. Serial No. 654,541. (Cl. 107—48.)



1. An apparatus of the character described comprising a receptacle, a cover therefor, a discharge pipe carried by said cover, a shaft extending through said receptacle, a disk mounted for longitudinal movement on said shaft, and means for rotating said shaft to actuate said disk and thereby force the contents of the receptacle through said discharge pipe.

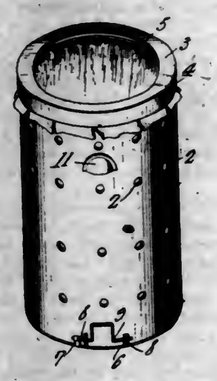
2. An apparatus of the character described comprising a receptacle, a cover therefor, a discharge pipe carried by said cover, a shaft extending through said receptacle, a disk mounted for longitudinal movement on said shaft, a mold movable over the delivery end of said discharge pipe and receiving the contents of said receptacle, and means for rotating said shaft to actuate said disk to discharge said contents through said discharge pipe.

3. An apparatus of the character described comprising a receptacle, a cover therefor, a discharge pipe carried by said cover, a shaft extending through said receptacle, a disk mounted for longitudinal movement on said shaft, a mold movable in guides transversely to the axis of the discharge pipe and adapted to be disposed over the delivery end of the latter, and means for rotating said shaft to actuate said disk and force the contents of the receptacle through said discharge pipe into said mold, the latter being adapted to be moved to shear the contents thereof from the column contained in the discharge pipe and deliver the same.

4. An apparatus of the character described comprising a receptacle, a cover therefor, a discharge pipe carried by said cover, a shaft extending through said receptacle, a disk mounted for longitudinal movement on said shaft, means for rotating said shaft to actuate said disk and thereby force the contents of the receptacle through said discharge pipe, and a receptacle movable in guides in a direction transversely to the direction of projection of the contents receiving the latter and subsequently separating the received portion from the body of said contents.

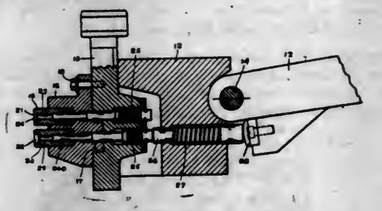
1,026,081. WASTE-COTTON CONTAINER. LOUIS P. DORAIS, Eureka, Cal. Filed Feb. 27, 1911. Serial No. 610,987. (Cl. 220—60.)

The combination with a cylindrical casing, and a hinged bottom therefor, of an upstanding eye at the free edge of the bottom adapted to project over the outside of the casing, a pair of eyes mounted upon the casing, a bolt slidably mounted in the last mentioned eyes and adapted to be projected into the former eye when the bottom is closed, the said bolt having a crank portion between the eyes on the casing forming a handle and limiting the longitudinal movement of the bolt and the said bolt also being bowed about the axis of the casing as a center, whereby upon the bolt being engaged to the eye of the bottom the bolt is constrained against swinging and the said crank is held against the side of the casing and upon



the bolt being disengaged from the eye of the bottom the same may be swung permitting the use of the crank as a handle.

1,026,082. HEADING MECHANISM. ERNEST W. DUSTON, Waterbury, Conn., assignor to The Blake and Johnson Company, Waterbury, Conn., a Corporation of Connecticut. Filed Jan. 18, 1911. Serial No. 603,294. (Cl. 10—26.)



1. The combination with a heading punch having a bore of substantially the diameter of the end of the blank to be headed and arranged to receive the same, of a plunger of substantially the same diameter as said bore and operating therein to force the end of said blank therefrom and upset the same outside said bore as it is forced therefrom, the walls of said bore acting to support said end during the upsetting operation.

2. The combination with a heading punch having a forming cavity and a bore of less diameter than said cavity beyond the same, said bore being of substantially the diameter of the blank to be headed and arranged to receive the same, of a plunger of substantially the same diameter as said bore and operating therein to force the end of said blank therefrom and upset the same in the forming cavity, the walls of said bore acting to support said end during the upsetting operation.

3. The combination with a heading punch having a forming cavity and a bore of less diameter than said cavity, said bore being of substantially the diameter of the end of the blank to be headed and arranged to receive the same, of a plunger of substantially the same diameter as said bore and operating therein to force the end of said blank therefrom and upset the same in the forming cavity, the walls of said bore acting to support said end during the upsetting operation, and mechanism for advancing said punch to enter the end of said blank into said bore and thereafter holding said punch

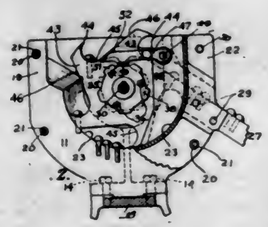
in advanced position and advancing said plunger to upset said end.

4. In a machine of the character described, the combination with a heading punch having a bore adapted to receive the end of a blank, and a plunger operating in said bore for partly upsetting said end, of a second heading punch having a bore similar to the bore of the first-named punch, a second plunger operating in the bore of the last-named punch for further upsetting the end of said blank, and actuating means for said plungers for moving the same relatively to said punches, said punches and plungers being shiftable to bring either pair into operative position with respect to said blank and to bring either of said plungers into position to be operated by said actuating means.

5. In a machine of the character described, the combination with a heading punch having a forming cavity and a bore of less diameter than said cavity beyond the same adapted to receive and support the end of a blank, and a plunger operating in said bore to force a portion of the blank therefrom and upset the same in the forming cavity, of a second heading punch having a cavity and a bore similar to the cavity and bore of the first-named punch, a second plunger operating in the bore of the last named punch to force the remainder of the blank therefrom and upset the same in the forming cavity, actuating means for said plungers for moving the same relatively to said punches, and a punch carrier in which said punches and plungers are mounted, said carrier being movable to bring either of said punches into operative position and to bring the corresponding plunger into operative relationship to said actuating means.

[Claims 6 to 10 not printed in the Gazette.]

1,026,083. MACHINE FOR FEEDING HEADED BLANKS. ERNEST W. DUSTON, Waterbury, Conn., assignor to The Blake and Johnson Company, Waterbury, Conn., a Corporation of Connecticut. Filed June 7, 1911. Serial No. 631,826. (Cl. 10—162.)



1. A blank feeding machine of the character described comprising a hopper having a slot adapted to receive the shanks but not the heads of blanks and a feed wheel having teeth and a slot corresponding with the slot in the hopper, said teeth having forwardly extending points adapted to pass under the heads of the blanks on opposite sides of their shanks and walls along which the heads of the blanks slide and from which they pass with the heads upward when said walls swing downward.

2. A blank feeding machine of the character described comprising hopper members with a slot between them adapted to receive the shanks but not the heads of blanks and a feed wheel comprising disks with a corresponding slot between them and having teeth with forwardly extending points and walls along which the heads of the blanks slide and from which they pass when said walls swing downward.

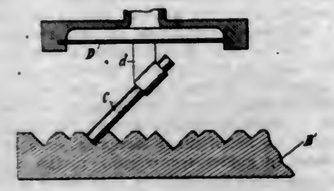
3. A blank feeding machine of the character described comprising hopper members having their contiguous faces parallel, means for adjusting one of said members toward or from the other, a feed wheel consisting of two independent disks each having forwardly extending points to pick up blanks and carrying walls for the heads of the blanks and means for adjusting said disks toward or from each other.

4. A blank feeding machine of the character described comprising hopper members having their contiguous faces parallel, means for adjusting one of said members toward or from the other leaving a slot between them adapted to receive the shanks but not the heads of blanks, a feed wheel consisting of two independent disks each provided with teeth having forwardly extending points and carrying walls, for the purpose set forth, a shaft journaled in the hopper members by which said disks are carried and means for adjusting the disks on the shaft leaving a slot between them corresponding with the slot between the hopper members.

5. A blank feeding machine of the character described comprising a hopper consisting of two corresponding members, means for adjusting one of said members to form a slot between them adapted to receive the shanks but not the heads of blanks, a shaft journaled in said members, a feed wheel carried by said shaft and consisting of two disks having corresponding teeth with forwardly extending points and carrying walls for the heads of blanks, means for adjusting the disks on the shaft to form a slot between them corresponding with the slot between the hopper members and an inclined chute comprising plates secured to the hopper members and having a slot into which the blanks pass from the carrying walls of the feed wheel.

[Claims 6 to 17 not printed in the Gazette.]

1,026,084. REPRODUCER FOR GRAPHOPHONES. VICTOR H. EMERSON, New York, N. Y., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Apr. 15, 1905. Serial No. 255,802. (Cl. 181—10.)



1. The combination of a tablet having a spiral sound-groove the walls of which groove converge at an angle, and a stylus presented transversely of said groove and at less than a right angle to said tablet, the end of the stylus engaging one wall of the groove and the side of the stylus engaging the other wall of the groove.

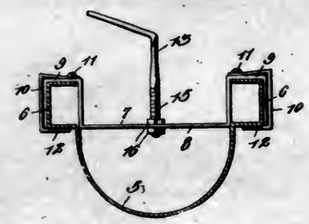
2. The combination of a disk tablet having a spiral sound-groove characterized by vertical irregularities, a diaphragm, and a stylus entirely supported by said diaphragm and lying in the vertical plane through a radius of said disk, said stylus being presented at an angle of approximately 45° to the surface of the disk.

3. In a talking machine, the combination of a tablet containing a vertically undulating sound-groove whose walls converge at an angle of approximately 90°, and a reproducing stylus whose end face engages one wall of the groove and whose side engages the other wall of the groove.

4. The combination of a disk tablet having a spiral sound-groove characterized by vertical irregularities, a diaphragm, and a stylus entirely supported by said diaphragm and lying in the vertical plane through a radius of said disk.

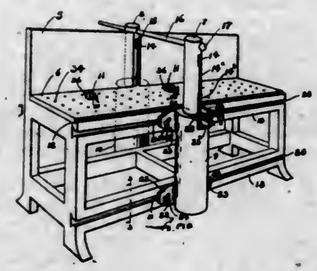
1,026,085. EAVES-TROUGH. ARCHIBALD N. FAUPEL, Johnstown, Pa. Filed Aug. 12, 1911. Serial No. 643,716. (Cl. 108—29.)

The combination with an eaves trough having a bead formed on each of its longitudinal edges, of a rigid transverse brace bar bent at its ends to receive the beaded edges of the trough, and spring plates rigidly fixed upon the ends of said brace bar and extending beyond the beaded edges of the trough and having vertically disposed portions



spaced therefrom, the extremities of said spring plates extending beneath the beads on the trough and closely engaging with the same to yieldingly support the trough for movement in a vertical plane independent of the brace bar.

1,026,086. ADJUSTABLE MITER-BOX. OTIS H. FISK, Cincinnati, Ohio. Filed Mar. 17, 1911. Serial No. 614,984. (Cl. 143—89.)



1. A miter box comprising a frame, a sleeve rigidly mounted on the frame, a saw guide rotatably mounted in said sleeve and movable longitudinally thereof, a second sleeve adjustably mounted on the frame, a second saw guide rotatably mounted in the second sleeve and movable longitudinally thereof, means for connecting the guides together, and means engaging the second guide for locking both the guides against rotative and longitudinal motion relatively to their sleeves.

2. A miter box comprising a frame, a sleeve rigidly mounted on the frame, a saw guide rotatively mounted in and longitudinally movable of the sleeve, a second sleeve movably mounted on the frame, a second saw guide rotatively mounted in and longitudinally movable of the second sleeve, means for locking the second sleeve in adjusted positions on the frame, a slidable bar connecting the guides together, and means for engaging the second guide for locking both the guides in position relatively to their respective sleeves.

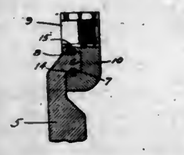
3. A miter box comprising a frame, a sleeve rigidly mounted on the frame, a saw guide slidably mounted in the sleeve, a second sleeve movably mounted on the frame, a second saw guide slidably mounted in the second sleeve, a slidable bar connecting the guides together, and a clamp engaging the second guide for locking both guides in adjusted positions relatively to their respective sleeves.

4. In combination in a miter box, a sleeve, a saw guide slidably mounted in the sleeve, and a clamp comprising a pivotally mounted member yieldingly forced into engagement with the sleeve and capable of being moved out of locking engagement therewith by the upper movement of the slide.

5. In combination in a miter box, a saw guide, a sleeve in which the guide is slidably mounted, a clamp carried by the sleeve and comprising a pivotally mounted member, and means for yieldingly forcing it into locking engagement with the slide, and a handle for moving the hinged member out of engagement with the slide guide.

[Claims 6 to 8 not printed in the Gazette.]

1,026,087. MEANS FOR SECURING BLADES. WARREN B. FLANDERS, Pittsburgh, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 2, 1910. Serial No. 590,261. (Cl. 121—57.)



1. The combination with a blade carrying element and a blade, one of these being provided with a jaw and the other a projection to be received by the jaw, alining slots in the jaw and projection and a key for engaging said slots.

2. The combination with a blade carrying element and a blade, one of these being provided with a projection and the other a jaw, slots on opposite edges of the projection, slots in the jaw to aline with those on the projection and keys for engaging the respective slots.

3. The combination with a blade carrying element and a blade, one of these being provided with a projection and the other a jaw, slots in the projection and jaw, fastening means engaging the slots to lock the jaw and projection together and a fastening device extending transversely through the jaw and projection.

1,026,088. RAIL-JOINT. CHARLES P. GOETZINGER, Guthrie, Okla., assignor of one-half to John H. Milam and one-fourth to John W. Thomas, Guthrie, Okla. Filed Dec. 11, 1911. Serial No. 665,025. (Cl. 239—6.)



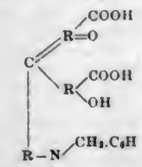
1. In combination, a rail joint consisting of two angle-bar members adapted to engage opposite sides of two abutting rails, a loop on one of said angle-bar members provided with an elongated slot, a tongue on the companion angle-bar member adapted to extend beneath the base of the rails and into the slot of the first-mentioned angle-bar member, said tongue having a beveled underside adapted to draw the angle-bar members firmly upon the sloping upper surface of the rail bases, and means to draw said angle-bar members firmly against the opposite sides of the rail webs and reliably secure them to said webs, substantially as described.

2. In combination, a rail joint consisting of two angle-bar members adapted to engage opposite sides of two abutting rails, a loop on one of said angle-bar members provided with an elongated slot and a depending reinforcing rib, a tongue on the companion angle-bar member adapted to extend beneath the base of the rails and into the slot of the first-mentioned angle-bar member, said tongue having a beveled underside adapted to draw the angle-bar members firmly upon the sloping upper surface of the rail bases, a rib integral with the underside of the tongue where it joins its respective angle-bar member, and means to draw said angle bar members firmly against the opposite sides of the rail web and reliably secure them to said webs, substantially as described.

3. In combination, a rail joint consisting of two angle-bar members adapted to engage opposite sides of two abutting rails, a loop on one of said angle-bar members provided with an elongated slot and a depending reinforcing rib, a tongue on the companion angle-bar member adapted to extend beneath the base of the rails and into the slot of the first-mentioned angle-bar member, said tongue having a beveled underside adapted to draw the angle-bar members firmly downward upon the sloping upper surface of the rail bases, a rib integral with the underside of the tongue where it joins its respective angle-bar member, means to draw said angle bar members firmly against the opposite sides of the rail web and reliably secure them to said webs, and reinforcing members integral with the central portions of the angle-bar members, substantially as described.

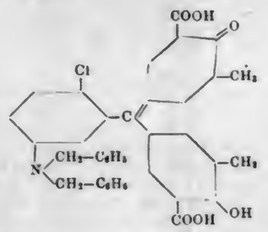
1,026,089. DYE OF THE TRIPHENYLMETHANE SERIES. ARTHUR HAUSDÖRFER, Elberfeld, and CARL HEIDENREICH, Leverkusen, near Cologne, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Dec. 13, 1910. Serial No. 597,124. (Cl. 8—1.)

1. The herein-described new mordant dyestuffs of the triphenylmethane series characterized by having probably in their molecule the following group:



in which R stands for an aryl radical which dyestuffs are after being dried and pulverized dark powders, their alkaline salts and the alkaline salts of their sulfonic acids being soluble in water and in dilute solutions of sodium carbonate with from a yellow to brown coloration; dyeing wool from acid baths generally red shades which on being treated with bichromate change into a blue fast to fulling, potting and light, substantially as described.

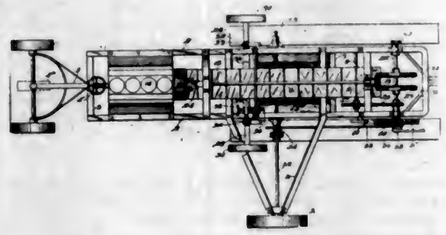
2. The herein described dibenzylated dyestuff having probably the formula:



which is after being dried and pulverized a red powder scarcely soluble in water and soluble in a dilute solution of sodium carbonate with a yellowish-brown color; its sulfonic acid being soluble in dilute caustic soda lye with a bluish-violet coloration, dyeing wool from acid bath a red shade which on being treated with bichromate changes into a blue fast to fulling, potting and to light, substantially as described.

1,026,090. TRACTION-ENGINE. BENJAMIN HOLT, Stockton, Cal. Filed Aug. 17, 1909. Serial No. 513,309. (Cl. 21—114.)

1. In a vehicle, the combination with a frame and steering wheel, of a driver embodying front and rear sprockets supported in bearings and themselves supporting no part of the weight of the vehicle, an endless flexible track belt passing around and guided by the sprockets, a truck traveling on the ground run of the belt and having an extended operative face normally in a plane below the level of the sprockets whereby the truck carries the weight of the vehicle, and resilient means interposed between the truck and frame to permit the truck to yield upwardly bodily or at either end.



2. In a vehicle, the combination with a frame and steering wheel, of a driver embodying front and rear sprockets supported in bearings and themselves supporting no part of the weight of the vehicle, an endless flexible traction member passing around and guided by the sprockets, a rigid truck extending longitudinally between the sprocket on the ground run of the traction member, and having its traction member engaging face normally in a plane below a plane tangent to the bottom of the sprockets, whereby the truck carries the weight of the vehicle, resilient means interposed between the truck and frame to permit the truck to yield upwardly bodily or at either end, and means for limiting the longitudinal and lateral movements of the truck.

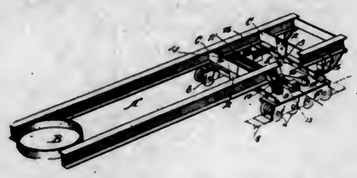
3. In a vehicle, the combination with a frame, of front and rear sprockets in line on the frame and themselves supporting no part of the load, an endless flexible track belt passing around the sprockets, a truck traveling on the ground run of the belt, springs interposed between the truck and frame to permit the truck to have a rocking and bodily yielding upward movement independent of the sprockets, rollers interposed between the under side of the truck and the ground run of the belt, said truck supporting the load and preventing the portion of the ground run of the belt on which the truck runs from buckling upward.

4. The combination with a vehicle frame and front and rear wheels in line and journaled on the frame, of supporting means therefor; said supporting means including an endless belt passing over said wheels with the lower run in contact with the ground, and a vertically movable rigid truck inside the belt and between the wheels and having spring connections with the frame to permit of a yielding oscillating movement of the truck independent of said wheels and frame, and against the under side of which truck the back of the ground run of the belt operates, said truck being so positioned with respect to said wheels that the truck projects below the level of the bottom of the wheels and supports the load.

5. The combination with a vehicle frame, and front and rear wheels in line and journaled on the frame, of supporting means therefor; said supporting means including an endless belt passing over said wheels with the lower run in contact with the ground, and a yieldingly supported upwardly movable rigid truck inside the belt and between the wheels and having a yielding oscillating movement independent of said wheels, and against the under side of which truck the back of the ground run of the belt operates; means for preventing the fore and aft movements of said yieldingly supported truck and means to impart motion to the rearmost of said wheels to drive the belt in either direction, said truck and not the wheels supporting the load.

[Claims 6 to 8 not printed in the Gazette.]

1,026,091. TRACTION-ENGINE. BENJAMIN HOLT, Stockton, Cal. Filed June 13, 1910. Serial No. 566,634. (Cl. 21—114.)



1. The combination with a main frame, of flexible, endless traction members, trucks located within said members, springs between the trucks and frame and yieldingly supporting the latter, and means for maintaining said trucks upright, said means including a transversely extending arm on each truck and rigidly secured thereto, with the free ends of said arms pivotally supported on the frame, so that each truck is free to rock and move in a vertical plane.

2. The combination of a main frame and flexible endless traction belts, trucks outside of and having means for yieldingly supporting the frame and around which the traction belts travel, transverse connections between the central part of the frame and each truck, said transverse connections having a pivotal connection with the frame and a rigid connection with its truck to permit the trucks to tilt independently of each other.

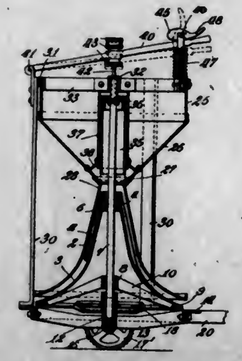
3. The combination of an engine frame, a flexible, endless track, a truck bearing upon the ground run of said track and resiliently supporting the frame, and means for maintaining said truck upright, said means including an inwardly extending plate on the truck and rigidly connected thereto, and said plate having its inner end pivotally connected to the frame.

4. In a traction engine, a main frame, endless, flexible tracks, wheels on the frame carrying and driving said tracks, trucks outside the frame and swivelly connected by transverse rigid brackets to said frame, and rollers on the trucks resting on the ground run of the tracks, said rollers and wheels on the frame being interlapped.

5. The combination with a main frame, of parallel, endless, flexible tracks, trucks disposed within said tracks, rollers journaled in said trucks and supported on the ground run of said tracks, and wheels supported on the main frame and around which the flexible tracks travel, and certain of said wheels interlapping the rollers, whereby the trucks are prevented from twisting sidewise.

[Claim 6 not printed in the Gazette.]

1,026,092. MATERIAL-SPREADER. THOMAS ION, Westmount, Quebec, Canada. Filed May 22, 1911. Serial No. 628,802. (Cl. 111—38.)



1. In a material spreader, the combination with a distributer, and a hopper for containing the material to be spread, such hopper having an opening in its bottom communicating with the said distributer, of a valve for controlling the discharge of material from the hopper and comprising a tube located above and being of larger diameter than the said opening, and means for adjusting the tube toward and away from the said bottom wall and retaining it at varying distances therefrom.

2. In a material spreader, the combination with a distributer, and a hopper for containing the material to be spread, such hopper having an opening in its bottom communicating with the distributer, of a valve for controlling the discharge of the material from the hopper and comprising a tube located above and being of larger diameter than the said opening, a sleeve supported on the hopper and inclosing the said tube, and means for adjusting the tube toward and away from the said bottom wall.

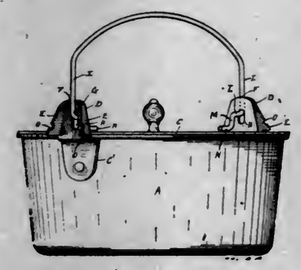
3. In a material spreader, the combination with a distributer and a hopper for containing the material to be spread, such hopper having an opening in its bottom communicating with the said distributer, of a non-rotary reciprocatory valve located within the hopper above the said opening for controlling the discharge of material therethrough, and a vertically movable lever supported upon the hopper, and operatively connected to the valve, and means for guiding such valve.

4. In a material spreader, the combination with a distributer and a hopper for containing the material to be spread, and having a discharge opening communicating with the distributer, a valve for controlling the discharge opening, a lever operatively connected to the valve, a spring normally retaining the lever in position with the valve open, and a cam adapted to operate the lever to close the said valve.

5. In a material spreader, the combination with a distributer and a hopper for containing the material to be spread, and having a discharge opening communicating with the distributer, a valve controlling the discharge opening, a lever fulcrumed upon the hopper, a link connecting the lever and valve, means for adjusting the link relatively to the lever, a spring normally retaining the lever in position with the valve open, and a cam adapted to operate the lever to close the said valve.

[Claims 6 and 7 not printed in the Gazette.]

1,026,093. BAIL FOR POTS AND KETTLES. WALFRED JOHNSON, Milwaukee, Wis. Filed Oct. 25, 1909. Serial No. 524,308. (Cl. 53—9.)



1. In a device of the described class, the combination with a receptacle, of a bail, having resilient arms, provided with inwardly extending pivotal extensions at their lower ends, and a set of retaining ears apertured and receiving said pivotal extensions, and provided with ribs outwardly projecting at the sides of said apertures, tapering upwardly, inwardly and convergingly and terminating in centrally disposed notches above the apertures, said apertures being elongated, and one of said ribs having a notch adapted to receive a bail arm when swung downwardly to an extreme position and depressed in its pivot aperture; said notch being below the normal position of the bail when swung downwardly.

2. In a device of the described class, the combination with a receptacle, of a ball, having resilient arms, provided with inwardly extending pivotal extensions at their lower ends, and a set of retaining ears apertured and receiving said pivotal extensions, and provided with ribs outwardly projecting at the sides of said apertures, tapering upwardly, inwardly and convergingly and terminating in centrally disposed notches above the apertures, said pivotal extensions having inner ends, normally in cover-retaining position, and of a length to be retracted from such position when the ball is depressed and the arms are spread by said ribs.

1,026,094. ARSENO COMPOUNDS AND PROCESS OF MAKING SAME. ROBERT KAHN, Frankfort-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed July 19, 1911. Serial No. 639,413. (Cl. 23—24.)

1. As new products, the aromatic primary arsins which besides the arsin group AsH_2 contain salt-forming atom groups; being colorless to faint-yellow compounds, soluble in glacial acetic acid and concentrated sulfuric acid, being easily oxidized and converted thereby into arseno compounds; capable of forming salts which are soluble in water.

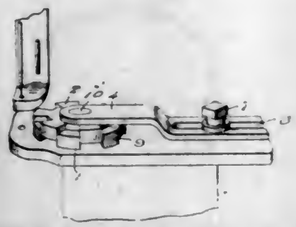
2. The process of producing arsins, which consists in treating those aromatic arsinic acids which contain salt-forming atom groups as substituents, with nascent hydrogen in a strongly acid solution.

3. The process of producing arsins, which consists in treating those aromatic arsinic acids which contain salt-forming atom groups as substituents, with zinc and hydrochloric acid in a strongly acid solution.

4. The process of producing arsins, which consists in treating those aromatic arsinic acids which contain a hydroxyl group, with nascent hydrogen in a strongly acid solution.

5. The process of producing arsins, which consists in treating those aromatic arsinic acids which contain a hydroxyl group and an amino group, with nascent hydrogen in a strongly acid solution.

1,026,095. GUIDING MECHANISM FOR SEWING-MACHINES. JAMES L. KIMBALL, Haverhill, Mass. Filed Dec. 1, 1911. Serial No. 663,228. (Cl. 112—9.)



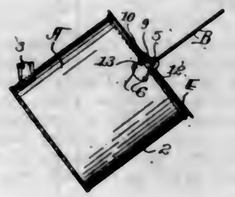
1. The combination of guiding members mounted one above the other and having outer interlocking guiding flanges, yieldingly expanding mechanism disposed intermediate the guiding members, and means for mounting the same adjustably relative to the sewing machine.

2. The combination of rotatable superposed circular guiding members having marginally-positioned guiding surfaces, with resilient mechanism whereby the guiding members are yieldingly pressed apart.

3. In sewing machine guiding mechanism, the combination of rotatable guiding members having interlocking flanges, resilient mechanism so positioned as to expand said guiding members, with means for mounting the mechanism adjustably relative to the sewing machine.

4. In mechanism of the class described, the combination of rotatable guiding members formed so as to interlock one with the other, yieldingly expanding mechanism disposed intermediate the guiding members, and a slotted, fastening device with a pivotal part, pivotally securing the guiding members and capable of adjustable attachment rigidly to a sewing machine.

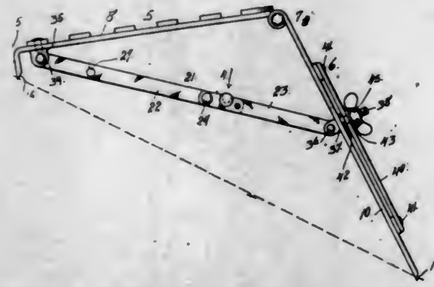
1,026,096. RETAINER FOR RECEPTACLE-COVERS. PHEBE A. LAWRENCE, St. Paul, Minn. Filed June 2, 1911. Serial No. 630,809. (Cl. 53—8.)



1. A receptacle comprising a body, a cover loosely disposed upon said body, a bail ear upon said body and a bail journaled in said bail ear and having an end formed with a shank at substantially right angles to said bail, the end of said shank having a hook, said cover having a perforated extension through which said hook passes when said bail is turned into upright position, whereby the cover of said receptacle is held against entire displacement from said body and limited play permitted when said bail is elevated.

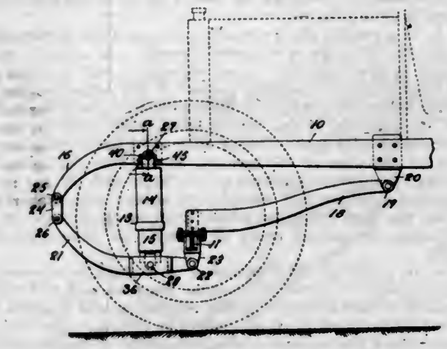
2. A receptacle comprising a body, a cover loosely disposed upon said body, a bail ear upon said body, a bail journaled in said bail ear and having an end formed with a shank at substantially right angles to said bail, the end of said shank being formed with a hook, said cover having a perforation near the perimeter through which said hook is adapted to pass when said bail is turned into upright position and said bail ear being formed with a lug against which said hook is adapted to impinge to limit the movement of said bail in one direction when said hook is engaged through said cover, and said shank being spaced from said cover when said bail is in elevated position, whereby limited displacement of said cover is permitted when engaged by said hook to provide pouring space between the perimeter of said cover and the body of said receptacle for the purposes specified.

1,026,097. ADJUSTABLE AND COLLAPSIBLE SHINGLING-STOOL. JACKSON GARFIELD LEWIS, New Windsor, Colo. Filed Mar. 11, 1910. Serial No. 548,551. (Cl. 20—86.)



A shingling stool composed of two members hinged together, one of which is adapted to form a shelf, while the other is adapted to form a prop for the shelf, the prop member being provided with an elongated graduated slot, a link composed of two members pivotally connected at one extremity with the shelf member, a leaf spring, one extremity of which is secured to the link, its opposite extremity being bow-shaped and adapted to enter a registering opening formed in the respective link members, a lug pivotally secured at the opposite extremity of the link, the said lug being slidably mounted in the graduated slot of the prop member, and means for holding the said lug against movement in the slot, in the desired position of adjustment, substantially as described.

1,026,098. SPRING-VEHICLE. RICHARD LIEBAU, Watervliet, N. Y. Filed July 27, 1910. Serial No. 574,160. (Cl. 21—105.)



1. In a vehicle, the combination with a body and running gear, and running-stress-transmitting linkage interposed between the two and comprising radius links, of lever links distinct from said linkage, being connected to the body and the running gear, one of said connections of each lever link being adapted to permit of the relative fore and aft component of link movement, and body-supporting pneumatic cylinders mounted at their lower ends on said lever links.

2. In a vehicle, the combination with a body and running gear, and running-stress-transmitting linkage interposed between the two and comprising radius links, of lever links distinct from said linkage, being connected adjacent their opposite ends to the body and the axles, one of said connections of each lever link being adapted to permit of the relative fore and aft component of link movement, and body-supporting pneumatic cylinders pivotally connected at their lower ends to said lever links intermediate the connections of the latter with the body and the axle.

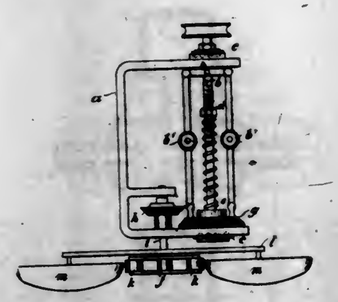
3. In a vehicle, the combination with a body and running gear, and running-stress-transmitting linkage interposed between the two, of interposed lever links distinct from said linkage and swung below the axles, and body-supporting springs connected to the lever links intermediate their connections with the body and running gear.

4. In a vehicle, the combination with a body and running gear including an axle, and radius links connecting the body and axle, of lever links distinct from said radius links and connected to the body and running gear in such manner as to permit of the relative fore and aft component of link movement, said lever links being swung below said axle, and body-supporting springs connected to the lever links intermediate their connections with the body and running gear.

5. In a vehicle, the combination with a body and an axle, of a pair of radius links connecting the body and axle adjacent the ends of the latter, a pair of lever links distinct from said radius links connected adjacent their opposite ends to the body and said axle, the connections with the axle being adjacent the ends thereof, said lever links being swung below said axle, and body-supporting springs connected to the lever links intermediate the connections of the latter with the body and axle.

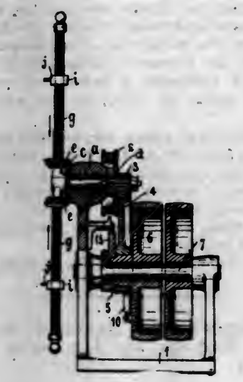
[Claims 6 to 17 not printed in the Gazette.]

1,026,099. ALARM-GOVERNOR. GEORGE LONG, London, England. Filed Sept. 22, 1910. Serial No. 583,308. (Cl. 73—123.)



An alarm governor mechanism comprising in combination, a frame, a vertically disposed shaft rotatively mounted in said frame and provided with graduations thereon, a locking member on said shaft movable abreast of said graduations, a loosely mounted gear on said shaft, a centrifugal governor mounted on said shaft and connected with said gear to raise the same, a spring on said shaft between said locking member and said gear wheel, a clapper shaft provided with a gear wheel adapted to mesh with said first named gear wheel when the latter is raised by said governor, a clapper device on said clapper shaft, and sounding members in the path of said clapper device.

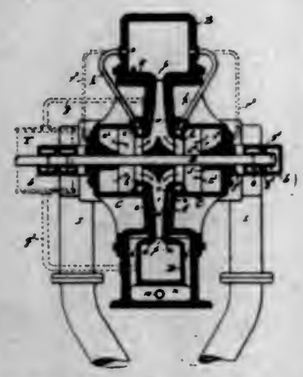
1,026,100. GEARING. RAOUL LORY, St. Benoit-sur-Loire, France. Filed Mar. 6, 1911. Serial No. 612,513. (Cl. 74—7.)



1. An apparatus of the class described comprising in combination, a shaft, a brake wheel and a pinion on said shaft, a sector for driving said pinion, a driving pulley and a yielding connection between said pulley and sector, a cam driven by said pulley, and brake mechanism actuated by said cam and coacting with said brake wheel to arrest rotation of the shaft when said sector is out of gear with said pinion.

2. An apparatus of the class described comprising in combination, a driven shaft and a brake member therefor, means for intermittently driving said shaft, a driving pulley and a yielding connection between said pulley and said means, and brake mechanism actuated by said pulley and coacting with said brake member to arrest rotation of said shaft when the latter is not driven by said means, substantially as described.

1,026,101. CENTRIFUGAL PUMP. ELON A. MARSH, Detroit, Mich. Filed Dec. 23, 1910. Serial No. 599,036. (Cl. 103—46.)



1. In a centrifugal pump, an impeller wheel of the closed or box type, a chamber in which the impeller wheel revolves, means for filling said chamber with air under pressure, means for preventing a leakage of air from the chamber, and a trap for removing liquid from the chamber.

2. In a centrifugal pump, an impeller wheel of the closed or box type, a chamber in which the impeller wheel revolves, means for filling the chamber with air under pressure corresponding with the discharge pressure of the pump, means for preventing a leakage of air from the chamber.

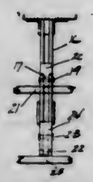
3. In a centrifugal pump, an impeller wheel of the closed or box type, a chamber in which the impeller wheel revolves, means for filling the chamber with air under pressure, and means for preventing a leakage of air from the chamber.

4. In a centrifugal pump, an impeller wheel of the closed or box type, a chamber in which the impeller wheel revolves, means for filling the chamber with air under pressure, means for preventing a leakage of air from the chamber and of producing a leakage of water into the chamber, and means for removing the water from the chamber.

5. In a centrifugal pump, an impeller of the closed or box type, a chamber in which the impeller revolves, means for filling the chamber with air, said means including an external source of supply, means whereby the discharge pressure of the pump is communicated to the air in the chamber, and means for preventing a leakage of air from the chamber.

[Claims 6 to 24 not printed in the Gazette.]

1,026,102. VEHICLE-STEP. SAMUEL W. MATHER, Cleveland, Ohio. Filed Apr. 10, 1911. Serial No. 620,107. (Cl. 21—55.)



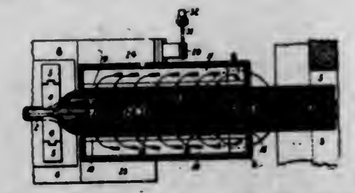
1. In a vehicle, the combination of a vertical support; a bracket pivoted to said support; a step secured to said bracket; a second bracket pivoted to said support below the first bracket; a step secured to the second bracket, the width of the last-named step being greater than the distance between the pivotal axes of said brackets, and the first bracket and step being unconnected with the second bracket and step; and means for swinging the second bracket on its pivotal axis.

2. In a vehicle, the combination of a plurality of vertical supports; a series of brackets pivoted to the respective supports; a step secured to said brackets; a second series of brackets pivoted to the respective supports below the brackets of the first series; a step secured to the brackets of the second series, the width of the last-named step being greater than the distance between the pivotal axes of the brackets of the first and second series, and the upper brackets and step being unconnected with the lower brackets and step; projections provided at the inner ends of the respective brackets and designed to engage said supports when the steps are in horizontal position; and means for swinging the second series of brackets on their pivotal axes.

3. In a vehicle, the combination of a plurality of vertical supports; a series of brackets pivotally and slidably secured to said supports; a step secured to said brackets; a second series of brackets pivoted to the respective supports below the brackets of the first series; a step secured to the brackets of the second series; the width of the last-named step being greater than the distance between the pivotal axes of the brackets of the first and second series; projections provided at the inner ends of the respective brackets and designed to engage said supports when the steps are in horizontal position; and means for swinging the second series of brackets on their pivotal axes.

4. In a vehicle, the combination of a plurality of vertical supports; a series of brackets pivotally and slidably secured to said supports; a step secured to said brackets; a second series of brackets pivoted to the respective supports below the brackets of the first series; a step secured to the brackets of the second series, the width of the last-named step being greater than the distance between the pivotal axes of the brackets of the first and second series; projections provided at the inner ends of the respective brackets and designed to engage said supports when the steps are in horizontal position; a cable connected with the lower step; and a drum for operating said cable.

1,026,103. METHOD OF MANUFACTURING METAL TUBES. WESLEY JAMES MOON and JOHN WEST MOON, Hayden Hill, Old Hill, England. Filed June 11, 1907. Serial No. 378,369. (Cl. 78—82.)

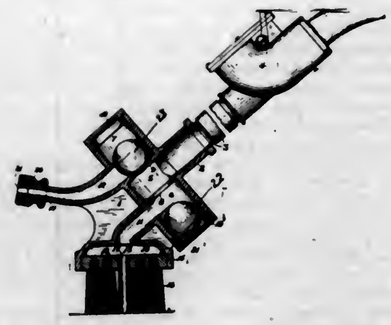


1. The herein described method of manufacturing iron and steel tubes from skelp, which consists in heating the skelp to a cinder stage before the edges of the same are brought together, withdrawing the skelp from the source of heat and feeding it continuously forward, directing a blast of gas containing oxygen against the exposed edges of the skelp while the same is in the shape in which it emerges from the source of heat for the purpose of elevating the temperature of the edges and cleaning the same from foreign substances, and then simultaneously bringing the edges together and welding them, substantially as described.

2. The herein described method of manufacturing butt welded iron and steel tubes from flat strips, which consists in subjecting the strip to the action of a suitable source of heat in which the strip is heated to about the cinder stage, withdrawing the heated strip from the source of heat and feeding it continuously forward, and while said strip is in motion simultaneously directing a blast of gas containing oxygen against the edges of the strip beyond the source of heat to elevate the temperature of the edges and clean the strips of foreign matter, thereby preparing them for welding, and subsequently bending the strip into a tubular form and bringing and welding the edges together, substantially as described.

3. The herein described method of manufacturing butt welded iron and steel tubes from flat strips, which consists in subjecting the strip to the action of a suitable source of heat in which the strip is heated to about the cinder stage, withdrawing the heated strip from the source of heat and feeding it continuously forward, and while said strip is in motion simultaneously directing blasts of gas containing oxygen in opposite directions toward the edges of the strip in substantially the plane of the moving strip, and then bending the strip in a tubular form and simultaneously therewith butt-welding the edges together, substantially as described.

1,026,104. PNEUMATIC SCRUBBING APPLIANCE. ALBERT E. MOORHEAD, San Francisco, Cal., assignor to American Rotary Valve Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 22, 1910. Serial No. 550,817. (Cl. 15—60.)



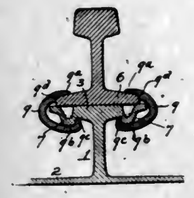
1. In a device of the character described, comprising a hollow handle, a hollow casing secured to one end of said handle, conduits leading from said casing, each adapted for communicating with a cleaning tool, and automatic valve mechanism for simultaneously opening communication between one of said conduits and the casing and closing communication between the other conduit and the casing.

2. In a device of the character described, comprising a hollow handle, a hollow casing secured to one end of said handle, diverging conduits leading from said casing and each adapted for communicating with a cleaning tool, said casing being provided with ports opening into each conduit, and gravity controlled valves, one for each port, each valve being adapted for closing its port when the associated conduit is in inoperative position and for opening its port when said conduit is in operative position.

3. In a device of the character described, a hollow handle, a hollow casing secured to said handle, said casing having a central chamber into which said handle opens, and valve chambers at opposite sides of said central chamber and opening thereinto by ports, ball valves, one in each valve chamber, adapted for closing said ports, and diverging conduits secured to said casing, each adapted for communication with a cleaning tool, each conduit opening into one of said valve chambers.

1,026,105. CLAMP FOR SECURING RAILROAD-RAILS TO METAL TIES. WILLIAM H. MORGAN and WALTER V. HARTZELL, Alliance, Ohio; said Hartzell assignor to said Morgan. Filed Mar. 18, 1911. Serial No. 615,397. (Cl. 238—4.)

1. A spring clamp for locking a railroad rail to a metal tie having a top flange, the said clamp comprising two integral jaws, the lower one having a projection to engage a retaining shoulder below the top flange of the tie, and the upper jaw to engage a member above said top flange, the said jaws grasping said parts with an elastic force.



2. A spring clamp for locking a railroad rail to a metal tie having a top flange, the said clamp being substantially U-shape, and its lower member or jaw having a projection to engage a retaining shoulder below the top flange of the tie, the said clamp adapted to grasp the parts with an elastic force, and be sprung into position over the part on the top flange that is engaged by the upper jaw of the clamp.

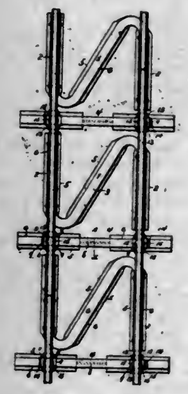
3. A spring clamp for locking a railroad rail to a metal tie having a top flange, the said clamp being substantially U-shape, its lower member or jaw having a projection to engage a shoulder below the top flange of the tie, and its top member being inclined or beveled on its lower face, the said clamp adapted to grasp the parts with an elastic force.

4. The combination with a tie having top flange forming a support for the rail, a retaining rib below said top flange and a rail resting on said top flange of the tie, of a U-shaped integral spring metal clamp the upper jaw of which rests on the base flange of the rail, and its lower jaw provided with a shoulder adapted to engage the rear face of said retaining rib.

5. The combination with a tie having a top flange and a rail resting thereon, the said top flange having a depending rib with inclined ends, of a U-shaped, integral spring metal clamp, the upper jaw of which rests on the base flange of the rail, its lower jaw being provided with a shoulder adapted to engage the rear side of the rib for locking the clamp in place.

[Claim 6 not printed in the Gazette.]

1,026,106. METAL TIES FOR RAILROADS. WILLIAM HENRY MORGAN and WALTER V. HARTZELL, Alliance, Ohio; said Hartzell assignor to said Morgan. Filed May 15, 1911. Serial No. 627,270. (Cl. 238—5.)



1. The combination of a series of metal ties, the ends of each of which are bent into parallel planes to form carrying members for the rails, and straight ties alternating

with the bent ties, the ends of the straight ties projecting beyond the carrying members of said bent ties.

2. The combination of a series of metal ties the ends of each of which are bent into parallel planes to form carrying members for the rails, the said carrying members having outwardly bent ends, and straight ties alternating with the bent ties, the ends of the straight ties projecting beyond the carrying members of said bent ties.

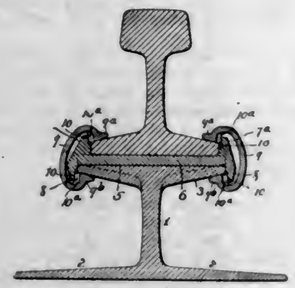
3. The combination of a series of Z-shaped metal ties, the parallel ends of which form the rail supports, and straight ties alternating with the Z-shaped ties.

4. The combination of a series of Z-shaped metal ties the parallel ends of which form the rail supports, and straight ties alternating with the Z-shaped ties and projecting at the sides of the rails beyond said Z-shaped ties.

5. The combination of a series of Z-shaped metal ties, and straight ties alternating with the Z-shaped ties, the straight ties having depending anchors extending lengthwise the tie.

[Claim 6 not printed in the Gazette.]

1,026,107. MEANS FOR SECURING RAILS TO METAL TIES. WILLIAM HENRY MORGAN and WALTER VARIAN HARTZELL, Alliance, Ohio; said Hartzell assignor to said Morgan. Filed July 18, 1911. Serial No. 639,446. (Cl. 238—4.)



1. The combination of a rail, a tie, a chair located thereon and provided with upwardly and downwardly projecting flanges, the lower flanges engaging the sides of the tie and the upper flanges the edges of the base of the rail and a spring clamp at each end of the chair, each clamp engaging the adjacent edges of the tie and rail.

2. The combination of a metal tie, a chair thereon and provided at one end with two flanges, one projecting upwardly and the other downwardly, a rail resting on said chair and a spring metal clamp having two integral jaws, one bearing on the base flange of the rail and against the inner side of the upper flange on the chair and the other against the lower face of the top flange of the tie and the inner side of the lower flange on the chair.

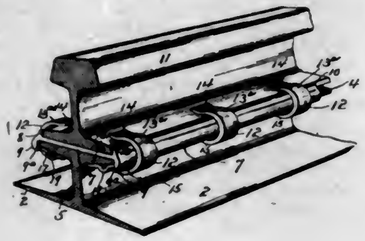
3. The combination of a metal tie, a chair thereon and provided at one end with a flange to engage the edge of the rail and project above the latter and with a flange to engage the top member of the tie and depend below said member, both of said flanges being recessed on their inner faces, and a spring metal clamp having two separated jaws one to engage the rail, and recess in the top flange, and the other to engage the under side of the top member of the tie and the recess in the lower flange.

4. The combination of a rail, a metal tie, a chair thereon, said chair having two flanges at each end, one flange at each end projecting upwardly above the base of the rail and the other flange at each end projecting below the top member of the tie, each flange having a recess in its inner face, and two spring metal clamps, each clamp having two jaws one of which engages the top of the rail and recess in the top flange, and the other the top member of the tie and recess in the lower flange.

5. The combination of a metal tie having a recess in its upper face, a chair seated in said recess and having depending end flanges for engaging the opposite side edge of the tie and two upwardly projecting end flanges for engaging the opposite edges of a rail, and means engaging the rail and tie for securing the rail to the tie.

[Claims 6 to 8 not printed in the Gazette.]

1,026,108. RAILWAY-TIE AND MEANS FOR SECURING RAILS TO THE SAME. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed Aug. 10, 1911. Serial No. 643,418. (Cl. 238—2.)



1. The combination of a tie having parallel rail supporting members having plain flat top surfaces, a chair resting on the top surface of each supporting member and having upwardly projecting flanges for the lateral support of the rail and downwardly projecting flanges for engaging the top of the tie, a rail resting on said chair and clamps for securing the parts together.

2. The combination of a tie having parallel rail supporting members, a chair resting on the top surface of each of said supporting members, each chair having depending flanges to engage the side edges of the top flange of the tie, and upwardly projecting flanges for engaging the side edges of the base flange of the rail, and a plurality of spring clamps bearing against the rail and tie at each side of the chair.

3. The combination of a tie having parallel rail supporting members, a chair on each supporting member, each chair having downwardly projecting flanges, and upwardly projecting flanges, the latter being located unequal distances from the center of the chair between the depending flanges, and a plurality of clamps for locking each side of the rail down on its chair.

4. The combination of a tie having parallel rail supporting members, a chair resting on each supporting member and having upwardly projecting flanges for the lateral support of the rail and downwardly projecting flanges for engaging the top of the tie, rails resting on said chairs, insulating material interposed between the rail and tie and means for securing the parts together.

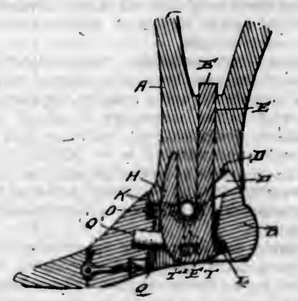
5. The combination of a tie having parallel rail supporting members, a chair resting on each supporting member and having upwardly projecting flanges for the lateral support of the rail, and downwardly projecting flanges for engaging the top of the tie, rails resting on said chair, insulating material interposed between the chair and tie and means for securing the parts together.

[Claims 6 to 14 not printed in the Gazette.]

1,026,109. ARTIFICIAL LIMB. HARRY J MORRIS and JOHN A. COWLIN, Kansas City, Mo. Filed June 30, 1911. Serial No. 636,276. (Cl. 8—3.)

1. An artificial limb comprising a shank and a foot portion, the latter being recessed, a pin projecting from the lower part of the shank portion and having a hook at one end, a bearing shell supported by said hook, a buffer mounted in a hole in the wall of the recess of the foot and bearing against the said hook, another buffer interposed between the edge of the pin opposite the hook, and an under cut wall at end of the recess, as set forth.

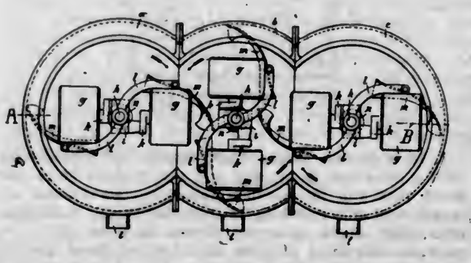
2. An artificial limb comprising a shank and a foot portion, the latter being recessed, a pin projecting from the shank portion, a bearing shell supported by said pin, a rock shaft journaled in said shell, threaded rods fastened to said rock shaft and passing through slots in the shell and through apertures in the foot, nuts mounted upon the threaded ends of the bolts, and buffers intermediate the opposite edges of the pin and the walls of the recess.



3. An artificial limb comprising a shank and a foot portion, the latter being recessed, a pin fastened to the shank portion and having a hook at its lower end one edge of the hook being convexed and the edge of the pin opposite the hook, and near its lower end, being slightly concaved and extending laterally, a bearing shell mounted in said recess and provided with annular ribs seated in grooves in adjacent contact surfaces of the shank portion and foot, a rock shaft mounted in said shell, threaded rods fixed to the rock shaft and passing through slots in the shell and through apertures in the foot, nuts mounted upon the bolts, and buffers bearing against the opposite edges of hook of the pin.

4. An artificial limb comprising a shank and a foot portion, the latter being recessed, a slotted pin fastened to the shank portion and having one edge of the hook convexed and the edge of the pin opposite the hook, and near its lower end, being slightly concaved and extending laterally, a bearing shell mounted in said slot and provided with circumferential ribs seated in grooves in adjacent contact surfaces of the shank portion and foot, a rock shaft mounted in said shell, threaded rods fixed to the rock shaft and passing through slots in the shell and through apertures in the foot, nuts mounted upon the bolts, buffers bearing against the opposite edges of the hook of the pin, the lower end of the shank having a recess and adapted to receive the heel portion of the foot.

1,026,110. APPARATUS FOR REFINING CHOCOLATE MASSES AND THE LIKE. FRIEDRICH ERNST FERDINAND NEUMANN, Wandsbek, near Hamburg, Germany. Filed Aug. 17, 1911. Serial No. 644,708. (Cl. 83—45.)



1. An apparatus of the character described, comprising a receptacle having arcuate sides, a plurality of rotatable rolls revoluble in the receptacle in paths concentric to said sides, the path of one roll intersecting the path of an adjacent roll.

2. An apparatus of the character described, comprising a receptacle having arcuate sides, a plurality of rotatable rolls revoluble in the receptacle in paths concentric to said sides, the path of one roll intersecting the path of an adjacent roll, and scrapers movable with the rolls to remove material from the sides of the receptacle.

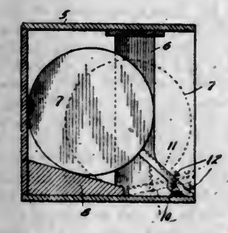
3. An apparatus of the character described, comprising a receptacle having grooved arcuate sides, a plurality of pairs of rotatable rolls revoluble in the receptacle in paths concentric to said sides, the paths of one pair of rollers intersecting the paths of the adjacent pair of rolls.

4. An apparatus of the character described, comprising a receptacle having grooved arcuate sides, a plurality of pairs of rotatable rolls revoluble in the receptacle in paths concentric to said sides, the paths of one pair of rollers intersecting the paths of the adjacent pair of rolls, and scrapers conforming to the contour of said walls movable with the rolls to remove material from the walls.

5. An apparatus of the character described, comprising a receptacle having grooved arcuate sides, a plurality of pairs of rotatable rolls revoluble in the receptacle in paths concentric to said sides, the paths of one pair of rollers intersecting the paths of the adjacent pair of rolls, and scrapers movable with the rolls having their free ends conforming to the contour of the sides and pointing in the direction of movement of the rolls.

[Claims 6 to 20 not printed in the Gazette.]

1,026,111. HOLDER FOR DISK RECORDS. AARON S. NICHOLS, New York, N. Y. Filed Jan. 22, 1912. Serial No. 672,582. (Cl. 211—16.)



1. A holder for record disks for talking machines, comprising a suitable case having vertical partitions dividing it into disk spaces, and means for supporting and retaining the disks in place, comprising a plurality of spring controlled keys independently operable and each adapted to engage a disk on its front edge at a point above the lowest point on the periphery and retain it within the case against the force of gravity one end of each of said keys being depressible to a position below the lowest point on the periphery of the disk, whereby the disk will roll outwardly from the case by gravity upon the key being depressed, and said key will automatically return when released to its original position after the disk has rolled out.

2. A holder for disks comprising, in combination, a suitable case having an open front and having also partitions dividing it into disk spaces, means located in the rear of the case and adapted to support the disks in position above the bottom of the case, a plurality of pivoted keys or retainers, one for each disk, and each adapted to engage a disk at a point above the lowest portion of the disk and in front of the point where the disk is engaged by the disk supporting means and retain it in the position within the case, said keys being independently movable and each provided with a spring for normally throwing its inner end upwardly and means for limiting the upward movement of the inner ends of the keys, the inner end of each key being adapted to be depressed to release a disk whereby the latter will roll outwardly from its support by gravity.

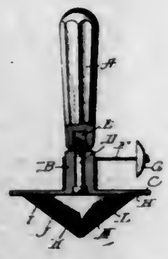
3. A holder for disks comprising, in combination, a suitable case having a open front and having also partitions dividing it into disk spaces, means located in the rear of

the case and adapted to support the disks in position above the bottom of the case, a plurality of pivoted keys or retainers, one for each disk, and each adapted to engage a disk at a point above the lowest portion of the disk and in front of the point where the disk is engaged by the disk supporting means and retain it in the position within the case, said keys being independently movable and each provided with a spring for normally throwing its inner end upwardly and means for limiting the upward movement of the inner ends of the keys, the inner end of each key being adapted to be depressed to release a disk whereby the latter will roll outwardly from its support by gravity, each of said keys comprising a U-shaped metal member.

4. A holder for disks comprising, in combination, a suitable case having an open front and having also partitions dividing it into disk spaces, means located in the rear of the case and adapted to support the disks in position above the bottom of the case, a plurality of pivoted keys or retainers, one for each disk, and each adapted to engage a disk at a point above the lowest portion of the disk and in front of the point where the disk is engaged by the disk supporting means and retain it in the position within the case, said keys being independently movable and each provided with a spring for normally throwing its inner end upwardly and means for limiting the upward movement of the inner ends of the keys, the inner end of each key being adapted to be depressed to release a disk whereby the latter will roll outwardly from its support by gravity, each of said keys comprising a U-shaped metal member, and when depressed serving as a support for the disk as the same rolls outwardly.

5. A holder for disks comprising, in combination, a suitable case having an open front and having also partitions dividing it into disk spaces, means located in the rear of the case and adapted to support the disks in position above the bottom of the case, a plurality of pivoted keys or retainers, one for each disk, and each adapted to engage a disk at a point above the lowest portion of the disk and in front of the point where the disk is engaged by the disk supporting means and retain it in the position within the case, said keys being independently movable and each provided with a spring for normally throwing its inner end upwardly and means for limiting the upward movement of the inner ends of the keys, the inner end of each key being adapted to be depressed to release a disk whereby the latter will roll outwardly from its support by gravity, and a flexible member extending across the case and adapted to be engaged by each of the keys when moved from its normal position, said flexible member having an excess length sufficient to allow the operation of one key at a time.

1,026,112. SPINNING-TOP. ARTHUR P. O'BRIEN, Mount Vernon, N. Y. Filed May 11, 1911. Serial No. 626,642. (Cl. 46—32.)



1. A spinning top comprising in combination, a plurality of interfitting members each adapted to spin independently of the others, and a single manually rotatable member adapted to engage all of said interfitting members to impart rapid rotary movement thereto simultaneously to cause the same to spin.

2. A spinning top comprising in combination, a plurality of conical interfitting members varying in depth and diameter and each adapted to spin independently of the others, and a single manually rotatable member adapted to engage all peripheral edges of all of said conical members to impart rapid rotary movement thereto simultaneously to cause the same to spin.

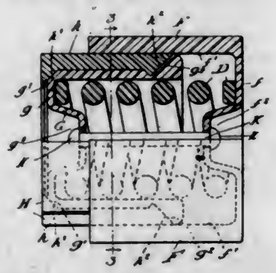
3. A spinning top comprising in combination, a plurality of interfitting members each adapted to spin independently of the others, and a member for simultaneously imparting rapid rotary movement to all of said first-named members, comprising a handle, a disk revolubly mounted thereon and adapted to be rapidly rotated relatively thereto, one face of said disk adapted to be maintained in contact with the peripheral edges of all of said interfitting members when nested to simultaneously rotate all of the latter.

4. A spinning top comprising in combination, a plurality of conical interfitting members varying in depth in diameter and each adapted to spin independently of the others, and a member for simultaneously imparting rapid rotary movement to all of said first-named members, comprising a handle, a disk revolubly mounted thereon and adapted to be rapidly rotated relatively thereto, one face of said disk adapted to be maintained in contact with the peripheral edges of all of said interfitting members when nested to simultaneously rotate all of the latter.

5. A spinning top comprising in combination, a plurality of interfitting members each adapted to spin independently of the others, and a member for simultaneously imparting rapid rotary movement to all of said first-named members comprising a handle, a disk revolubly mounted thereon and adapted to be rapidly rotated relatively thereto, one face of said disk adapted to be maintained in contact with said interfitting members when nested to simultaneously rotate all of the latter, said face of said disk provided with an annular groove in which the edge portion of the largest of said members is adapted to be received and engaged to maintain the same concentric with said disk during rotation of the latter.

[Claims 6 to 8 not printed in the Gazette.]

1,026,113. FRICTION DRAFT-RIGGING. JOHN F. O'CONNOR, Chicago, Ill., assignor, by mesne assignments, to William H. Miner, Chicago, Ill. Filed Apr. 27, 1907. Serial No. 370,551. (Cl. 213—64.)

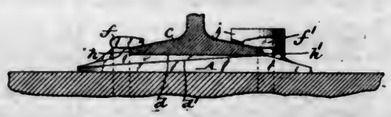


1. In a tandem spring draft rigging, the combination with a draw-bar, front, rear and intermediate stops and front, rear and intermediate followers, two tandem arranged sets of coöperating friction and spring containing telescoping shells, a spring within each set of shells, each set comprising an inner shell against which one end of the contained spring abuts and an outer shell against which the other end of the contained spring abuts, and segmental friction blocks between the inner and outer shells of each set, said tandem arranged springs and said tandem arranged sets of friction shells coacting together to cushion both pulling and buffing movements of said draw-bar, substantially as specified.

2. In a tandem spring draft rigging, the combination with a draw-bar, front, rear and intermediate stops and front, rear and intermediate followers, two tandem arranged sets of coöperating friction and spring containing telescoping shells, a spring within each set of shells, each set comprising an inner shell against which one end of the contained spring abuts and an outer shell against which the other end of the contained spring abuts, and segmental friction blocks between the inner and outer shells of each set, said friction blocks and one of the shells of each set having interengaging wedging faces, said tandem arranged springs and said tandem arranged sets of friction shells coacting together to cushion both pulling and buffing movements of said draw-bar, substantially as specified.

3. In a draft rigging, the combination with a draw-bar, stops and followers, of a spring between the followers, a pair of telescoping shells both surrounding said spring, and each having a closed head at one end against which one end of the spring abuts, segmental friction blocks interposed between the telescoping shells and provided with wedging faces at each end thereof, and one of said shells having coöperating wedge faces, one pair at each end thereof, substantially as specified.

1,026,114. TIE-PLATE. JOHN F. O'CONNOR, Chicago, Ill., assignor to Clifton W. Sherman, Buffalo, N. Y. Filed Dec. 27, 1910. Serial No. 599,413. (Cl. 238—2.)



1. A tie plate and anti-creeper adapted to support and fasten a railway rail on a tie, comprising a body adapted to be placed between the tie and rail and provided on one side with a shoulder which is adapted to engage with one side of a rail base and provided on its opposite side with a guide which is adapted to overhang the opposite side of a rail base, and a pin adapted to be driven through said guide and into the tie and into engagement with the adjacent edge of the rail base.

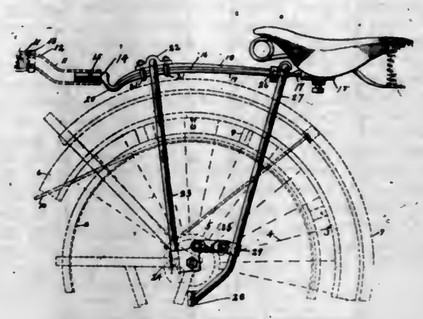
2. A tie plate and anti-creeper adapted to support and fasten a railway rail on a tie comprising a body adapted to be placed between the tie and rail and provided on one side with a shoulder which is adapted to engage with one side of the rail base and provided on its opposite side with a guide which is adapted to overhang the opposite side of the rail base, and a punch pin adapted to be driven through said guide so as to displace a part of the adjacent edge of the rail base and become interlocked therewith.

3. A tie plate and anti-creeper adapted to support and fasten a railway rail on a tie comprising a body adapted to be placed between the tie and rail and provided on one side with a shoulder which is adapted to engage with one side of the rail base and provided on its opposite side with a guide which is adapted to overhang the opposite side of the rail base, and a punch pin adapted to be driven through said guide so as to displace a part of the adjacent edge of the rail base and become interlocked therewith and to enter said tie.

1,026,115. MOTOR-CYCLE REAR-SEAT SPRING. FRANK E. PALIN and RONALD A. PALIN, San Mateo, Cal. Filed Nov. 6, 1911. Serial No. 658,642. (Cl. 208—24.)

1. In a motorcycle tandem attachment, a leaf spring, means to secure said spring near one end to the frame of the motorcycle, a yoke having foot rests secured to the rear end of the spring and pivoted links connected to the frame of the motorcycle and to the yoke, to permit said yoke to vibrate with said spring, substantially as described.

2. In a motorcycle tandem attachment, a leaf spring having means at one end to secure the same to the frame of the motorcycle and a projection at the opposite end for securing a seat thereto, leaf springs secured to the aforesaid spring above and below the same, a yoke connected to the spring and having stirrups at its lower ends and pivoted links connected to the frame of the machine and to said stirrup yoke for permitting vibration of said stirrups with the spring, substantially as described.



3. In a motorcycle tandem attachment, a spring having means at one end to secure the same to a motorcycle and a projection at the other end for securing a seat thereto, leaf springs above and below said spring, a yoke having stirrups at the lower end thereof and secured to the end of said spring, clips secured to said yoke and links pivotally connecting said yoke to said motorcycle frame for permitting vibration of said springs, substantially as described.

4. In a motorcycle tandem attachment, a motorcycle frame, a spring having a projection at each end, the former to secure the spring to a motorcycle frame and the latter to secure a seat to, a yoke to connect the spring and the frame at the front end of the former, and adjustable longitudinally of the spring, a yoke supported on the rear end of the spring and having stirrups at the lower end and pivoted links connecting said frame and said yoke adjacent the stirrups, substantially as described.

5. In a motor cycle tandem attachment, a motor cycle frame, a spring secured to said frame, a seat on said spring, a yoke having stirrups depending from said spring, links connected to said yoke, and a bracket secured to the frame of the machine to which the links are pivoted, substantially as described.

1,026,116. HAT-NESTING DISPLAY-RACK. ROBERT PARKER, Jr., Sterling, Colo. Filed Sept. 25, 1911. Serial No. 651,146. (Cl. 211—14.)

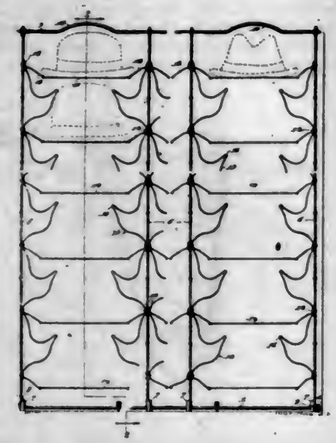
1. A collapsible display rack for hats comprising means for supporting hats in vertical alinement, and means actuated by the collapsing of the rack whereby the hats are enabled to nest one within another when the rack is collapsed.

2. A collapsible display rack for hats comprising means for supporting hats in alinement, and means actuated by the collapsing to shape the hats for nesting and then nest each hat within the hat above it.

3. In a collapsible display rack, the combination with means for supporting hats in alinement, of formers actuated by the collapsing of the rack to compress and indent the sides of the hats, whereby they are enabled to nest, one within another, when the rack is collapsed.

4. In a collapsible display rack, the combination with a series of annular hat rests arranged in vertical alinement, of formers disposed on opposite sides of the hat rests and actuated by the collapsing of the rack to move inwardly and thereby compress and indent the sides of the hats to prepare them for nesting, one within another, when the rack is collapsed.

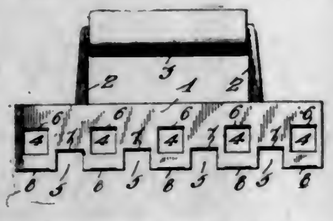
5. A collapsible display rack for hats, adapted, when extended, to hold a series of hats in vertical alinement and spaced apart so as to be separately removable, and means



actuated by the collapsing of the rack to compress and indent the opposite sides of the hats so that they will nest, one within another, as the rack is collapsed.

[Claims 6 to 19 not printed in the Gazette.]

1,026,117. TROWEL. JOHN PARKHILL, Rochester, Minn. Filed June 15, 1911. Serial No. 633,314. (Cl. 72—136.)



1. A trowel comprising a blade having a plurality of openings and by the sides of said openings a plurality of tables sufficiently separated from each other to prevent the taking up of mortar between them.

2. A trowel comprising a blade having a plurality of separate flat tables of less area than the spaces by which they are separated, whereby mortar may be taken up by the tables only.

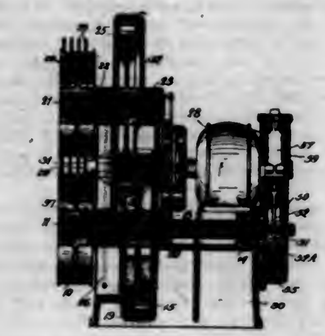
3. A trowel comprising a blade having a plurality of separate tables at substantially right angles to the blade, the tables being sufficiently separated from each other to prevent the taking up of mortar between them.

4. A trowel comprising a main blade having a row of openings, the material displaced from each of said openings being bent at one side thereof substantially at right angles to the blade forming a row of tables, and tongues bent at the edge of the blade opposite each table forming an additional parallel row of tables.

5. A trowel comprising a main blade having a row of openings, the material displaced from each of said openings being bent at one side thereof substantially at a right angle to the main blade, and a row of notches cut in the edge of the main blade alternating with the tables, the material displaced to form said notches being likewise bent at substantially right angles to the main blade to form a second parallel row of tables.

[Claims 6 to 8 not printed in the Gazette.]

1,026,118. HOISTING APPARATUS. CHARLES O. PEARSON, New York, N. Y. Filed Feb. 6, 1908. Serial No. 414,475. (Cl. 187—20.)



1. A pair of traction sheaves, a pair of electric motors, separate intermediate mechanisms connecting each motor with one of the sheaves, the axes of the sheaves and the motors being parallel and the two motors being in a line at right-angles to the line between the sheaves; and a rope or ropes in frictional contact with both of the sheaves forming the only mechanical connections between the sheaves.

2. A traction sheave, a motor, a spur gear connected with the sheave, a pinion meshing therewith and connected with the motor; a second traction sheave, a second motor, a spur gear connected with the second traction sheave, a pinion meshing therewith and connected with the second motor, a casing inclosing the gears and pinions and supporting the traction sheaves and the motors at right-angles to each other, and a rope or ropes in frictional contact with both of the sheaves forming the only mechanical connection between the sheaves and the two motors.

3. A traction sheave, a motor, a spur gear connected with the sheave, a pinion meshing therewith and connected with the motor; a second traction sheave, a second motor, a spur gear connected with the second traction sheave, a pinion meshing therewith and connected with the second motor, a casing inclosing the gears and pinions, a lubricating bath within the casing, said casing supporting the traction sheaves on one side thereof and the motors on the other side thereof and at right-angles to the sheaves, and a rope or ropes in frictional contact with both of the sheaves forming the only mechanical connection between the sheaves and the two motors.

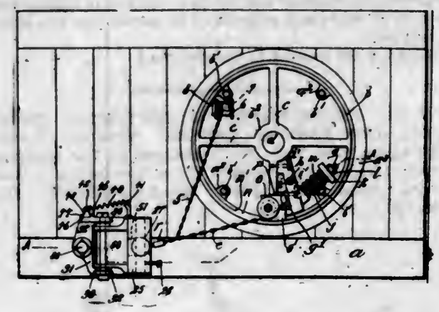
4. In combination with an elevator hoisting apparatus comprising a pair of traction sheaves, means for driving each of said sheaves independently of the other, and a rope about the sheaves forming the only mechanical connection between the sheaves; a plurality of brakes, one of said brakes being arranged to be applied before the other or others.

5. In combination with an elevator hoisting apparatus, comprising a pair of traction sheaves, a motor for driving one of the sheaves, another motor for driving the other of the sheaves, and a rope about the sheaves flexibly connecting them together; a brake for one of the traction sheaves, brakes for the motors, means for actuating all of the brakes, and means for causing the brake for the traction sheave to be applied after the motor brakes have been applied.

[Claims 6 and 7 not printed in the Gazette.]

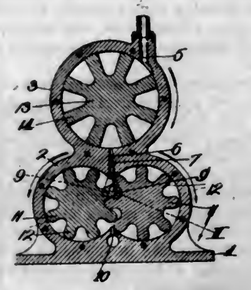
1,026,119. WIRE-DRAWING MACHINE. JOHN FREDERICK PENDER, St. John, New Brunswick, Canada, assignor of one-half to James Pender, St. John, Canada. Filed July 15, 1910. Serial No. 572,155. (Cl. 205—20.)

A wire drawing attachment for a hollow cylindrical wire drawing block having a hub and an outer wall and including a bracket extending between and abutting against the hub and the outer wall of the block, bolted to the wire block and having a boss thereon and a hole therethrough and through the boss, a longitudinally slidable bolt within the hole, one end of such bolt being hooked



and adapted to have a chain connected thereto, a sleeve upon the bolt, of less length than the latter and abutting against the boss, a spring encircling the bolt and sleeve and bearing against the boss, a washer upon the bolt and a nut for securing such washer in place.

1,026,120. ROTARY MOTOR. ALFRED PETERSON, Independence, Mo. Filed Mar. 4, 1912. Serial No. 681,581. (Cl. 121—54.)



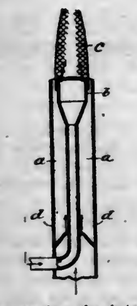
1. A rotary motor comprising a cylinder, a pair of toothed rotary pistons in said cylinder and intermeshing with each other, a valve cylinder, a port connecting the valve cylinder with the piston cylinder, a supply port communicating with the valve cylinder, an exhaust port leading from the piston cylinder, and a multiple bladed valve within the valve cylinder and adapted to be driven by fluid supplied thereto through said supply port and to alternately open and close the port leading from the valve cylinder to the piston.

2. A rotary motor, comprising a cylinder, a pair of toothed rotary pistons in said cylinder and intermeshing with each other, a valve cylinder, a port connecting the valve cylinder with the piston cylinder, a supply port communicating with the valve cylinder, an exhaust port leading from the piston cylinder, a multiple bladed valve within the valve cylinder and adapted to be driven by fluid supplied thereto through said supply port and to alternately open and close the port leading from the valve to the piston, and a branched by-pass leading from the last-named port in the piston cylinder at opposite sides of the vertical plane of the port from which the by-pass leads, the branches of said by-pass being adapted to alternately supply steam to the pistons between a pair of the blades of one of the pistons and the blade of the other piston which at said time is fitting between said pair of blades.

3. In a rotary motor, a cylinder, a rotary element therein provided with outwardly tapering axial cones having cylindrical portions at the reduced ends of the cones, one of said cylindrical portions having a shaft extension; the heads of the cylinder having tapered openings receiving said cones and recesses, rings fitting in said recesses and around said cones and against the adjacent ends of the rotary element, and oiling packings fitting in said recesses between said heads and said rings and around said cones.

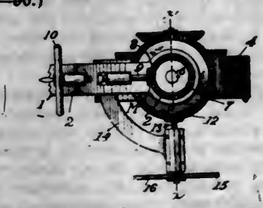
4. In a rotary motor, a cylinder, a rotary element therein provided with outwardly tapering axial cones having cylindrical portions at the reduced ends of the cones, one of said cylindrical portions having a shaft extension; the heads of the cylinder having tapered openings receiving said cones and recesses, rings fitting in said recesses and around said cones and against the adjacent ends of the rotary element, oiling packings fitting in said recesses between said heads and said rings and around said cones, caps secured to the heads and fitting around said cones and provided with hollow heads inclosing the cylindrical portions at the reduced ends of the cones, bearings in said heads and engaging the periphery of the said cylindrical portions, packing plates interposed between said caps and said heads and around said cones, and means to clamp said packing plates firmly between the caps and said heads and upon said cones.

1,026,121. PROCESS OF INCREASING THE INTENSITY OF INCANDESCENT LIGHT. RAOUL PIERRE PICTET, Berlin, Germany, assignor to The Firm of Sauerstoff-Industrie Aktiengesellschaft, Berlin, Germany. Filed Jan. 19, 1904. Serial No. 189,775. (Cl. 67—88.)



The process for increasing the intensity of incandescent lights, which consists in conducting streams of nonluminescent hydrocarbon gas and oxygen in the same vertical direction under different pressures to opposite sides of the mantle, and in contact with the said surfaces of the mantle, the height of the pressures being so chosen that the stream of increased pressure upon one side of the mantle draws by its movement the stream of lesser pressure upon the other side of the mantle through the meshes or openings of the mantle.

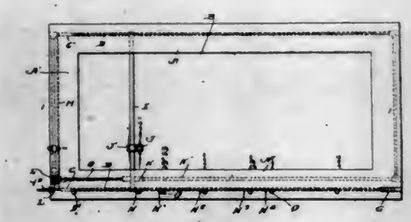
1,026,122. STEERING-WHEEL. JOSEPH L. PRATHER, Fresno, Cal. Filed Sept. 7, 1909. Serial No. 516,577. (Cl. 21—90.)



A steering wheel as described comprising a frame, a projecting arm on said frame, another frame, a pin in said

second frame projecting through the said first named frame, a beveled gear on the top of said pin, a frame secured to the first named frame, a shaft on said third named frame, a beveled gear on one end of said shaft engaging the beveled gear on said pin, a steering wheel on the other end of said shaft, a pin on said first named frame, a two faced beveled gear disposed around said pin and bearing on said second named frame, a shaft in said arm, a beveled gear on one end of said shaft engaging the upper face of said double faced beveled gear, a sprocket wheel on the other end of said shaft, a shaft disposed on said second named frame near the top thereof, a beveled gear on the end of said shaft engaging the under face of said doubled faced beveled gear, a sprocket wheel on said shaft, another shaft in the lower end of said named second frame, a wheel mounted on said last named shaft, a sprocket wheel connected with said last named wheel and a chain connecting the two last named sprocket wheels as described.

1,026,123. CALCULATOR. WENDELL RICE, Caldwell, Idaho. Filed Mar. 30, 1911. Serial No. 617,907. (Cl. 235—89.)



1. An apparatus for measuring and computing cloth consisting of a frame, an index sheet, ratchet shafts, an indicating bar, pawls carried thereby and engaged by the teeth of said shafts, means for imparting a longitudinal movement to one of said shafts to cause the bar to move over the dial, an adjustable indicating pointer, and a magnifying glass movable upon said bar and coöperating with the pointer to disclose a particular price per yard.

2. An apparatus for measuring and computing cloth consisting of a frame, an index sheet, ratchet shafts, an indicating bar, pawls carried thereby and engaged by the teeth of said shafts, means for imparting a longitudinal movement to one of said shafts to cause the bar to move over the dial, an adjustable indicating pointer, a magnifying glass movable upon said bar and coöperating with the pointer to disclose a particular price per yard, connections between the shafts for rocking the same, and means for returning the indicating bar to its starting position.

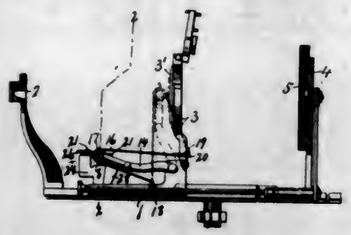
3. An apparatus for measuring and computing cloth consisting of a frame, an index sheet, ratchet shafts, an indicating bar, pawls carried thereby and engaged by the teeth of said shafts, means for imparting a longitudinal movement to one of said shafts to cause the bar to move over the dial, an adjustable indicating pointer, a magnifying glass movable upon said bar and coöperating with the pointer to disclose a particular price per yard, connections between the shafts for rocking the same, a spring-pressed rotatable reel, and a cable winding about said reel and fastened to said bar.

4. An apparatus for measuring and computing cloth consisting of a frame, an index sheet, ratchet shafts, an indicating bar, pawls carried thereby and engaged by the teeth of said shafts, a depressible key, a pivotal angle lever actuated by said key and having pivotal connection with one of the ratchet bars, an adjustable indicating pointer, and a magnifying glass movable upon said bar and coöperating with the pointer to disclose a particular price per yard.

5. An apparatus for measuring and computing cloth consisting of a frame, an index sheet, ratchet shafts, an indicating bar, pawls carried thereby and engaged by the teeth of said shafts, a depressible key, a pivotal angle lever actuated by said key and having pivotal connection with one of the ratchet bars, pins projecting from the longitudinally movable ratchet shaft, and keys designating fraction of yards and adapted to be moved into the paths of said pins.

[Claim 6 not printed in the Gazette.]

1,026,124. INSTRUMENT FOR CENTERING, MARKING, AND TESTING LENSES. WILLIAM MARTIN RICHARDS, New York, N. Y., assignor to The Standard Optical Company, Geneva, N. Y., a Corporation of New York. Filed Dec. 9, 1909. Serial No. 532,260. (Cl. 88—56.)



1. In an instrument for centering, marking and testing lenses, a lens marking device having a series of marking points in the same straight line, and means for displacing and holding at least one of the said points from its operative position.

2. In an instrument for centering, marking and testing lenses, a lens rest, a mechanical marking device operative manually to and from the lens rest and having a plurality of marking points in a direct line to mark the horizontal axis of the lens, and means for displacing at least one of the points and holding it from its marking position.

3. In an instrument for centering, marking and testing lenses, a transparent lens rest, a sight tube, an ink pad and a marking device having a plurality of yielding marking pins normally disposed in the same straight line, and means for displacing and holding at least one of the pins from its marking position.

4. In an instrument for centering, marking and testing lenses, a lens rest, and a marking device movable to and from the lens rest and comprising a rotary head, a plurality of marking pins disposed in the same straight line and yieldingly mounted in said head, means for adjusting and holding the end pins out of their operative positions, and means brought into action by the movement of the head toward and from the lens rest for rotating said head with the pins thereon.

1,026,125. DECORATED FABRIC. FREDRICK RINK, New York, N. Y., assignor to The Kursheedt Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Aug. 3, 1911. Serial No. 642,091. (Cl. 2—147.)

An article of the class described, comprising a base fabric and an elongated decorative material secured upon the fabric, and means for securing the decorative material comprising a sewing thread, a stitch formed in the base fabric with said thread, on one side of the decorative material, a stitch formed of said thread on the opposite side of said decorative material, the said thread forming a transverse loop around the decorative material between said first and second stitches, a stitch formed of said thread on the said first side of the decorative material, and said thread forming a transverse loop around said decorative material between said second and third stitches, said thread progressing between the stitches on said first side of the decorative material and in the same general direction as the latter.



1,026,126. ADVERTISEMENT-DISPLAYING APPARATUS. JOSEPH T. ROFFY, Chicago, Ill., assignor, by mesne assignments, to Nernst Lamp Company, a Corporation of Pennsylvania. Filed July 7, 1909. Serial No. 506,264. (Cl. 88—24.)



1. An advertisement-displaying apparatus comprising, in combination, an opaque body containing transparent sections, a luminous body coöperating with said opaque body, and means for forming a magnified image of said luminous body exposed through said sections upon a display-surface, for the purpose set forth.

2. An advertisement-displaying apparatus comprising, in combination, an opaque body containing transparent sections, a luminous body behind said opaque body, a display-surface exposed to portions of said luminous body through said sections, and means for forming a magnified image of said luminous body through said sections upon a display-surface, for the purpose set forth.

3. An advertisement-displaying apparatus comprising, in combination, an opaque body containing transparent sections, a luminous body behind said opaque body, a display-surface exposed to said luminous body through said sections, and a lens for forming a magnified image of said body upon the display-surface, for the purpose set forth.

4. An advertisement-displaying apparatus comprising, in combination, an opaque body containing transparent sections, an incandescible strip supported behind said body, and means for forming a magnified image of said strip exposed through said sections, upon a suitable display-surface, for the purpose set forth.

5. An advertisement-displaying apparatus comprising, in combination, an opaque body containing transparent sections of a shape corresponding, generally, to the advertising matter to be displayed, a luminous body behind said opaque body and registering with said sections thereof, and means for forming on a suitable display-surface the magnified image of those portions of the luminous body which are exposed through said sections, for the purpose set forth.

[Claims 6 to 14 not printed in the Gazette.]

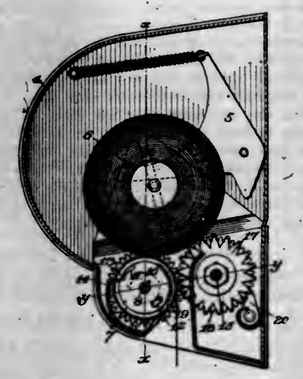
1,026,127. CASK AND BARREL STAND. MAX ROGLER, Dusseldorf, Germany. Filed Apr. 25, 1911. Serial No. 623,186. (Cl. 248—12.)



1. In a device of the character described, the combination with a main frame of sufficient length to support at least two barrels, rotating mechanisms on said frame for supporting said barrels and permitting rotation thereof, and an element movably supported on said frame and adapted to be projected from either end to form an incline on which the barrels may be rolled up on the frame or a support for a receptacle to be filled from the frame.

2. In a device of the character described, the combination with a main frame provided with interior grooved portions longitudinally disposed thereon, means disposed on said frame for rotatively supporting a barrel, and an elongated ladder-like element slidable in said grooves and adapted to be projected from either end of said frame to form an incline for rolling the barrels on to the support or a support to be filled from the barrel.

1,026,128. PAPER-DISPENSING APPARATUS. ADOLPH RYDQUIST, Rochester, N. Y. Filed Apr. 5, 1911. Serial No. 619,153. (Cl. 211—29.)

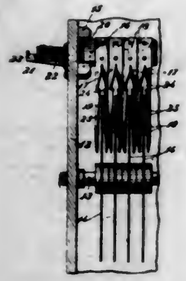


1. In a paper dispensing apparatus, the combination with a paper feeding roll, of a movable locking member arranged in proximity to the feeding roll and normally in engagement therewith, and a manually controlled cam wheel arranged to engage the locking member and having a limited movement relatively to the feeding roll.

2. In a paper dispensing apparatus, the combination with a paper feeding roll, of a locking member normally in engagement with the feding roll, and a manually controlled member carried by the feeding roll and adapted to move the locking member out of engagement therewith, the locking member again moving into locking engagement with the feeding roll upon a limited movement of the latter.

3. In a paper dispensing apparatus, the combination with a paper feeding roll, of a locking member normally in engagement with the feeding roll, and manually controlled releasing means carried by the feeding roll and having a limited movement independently of the feeding roll for moving the locking member out of engagement therewith.

1,026,129. GIN-SAW CLEANER. JESSE C. SHROPSHIRE, Anice, Ark., assignor of one-half to P. C. Mays, Vista, Ark., and one-fourth to A. B. McLain, Branch, Ark. Filed June 26, 1911. Serial No. 635,512. (Cl. 13—15.)



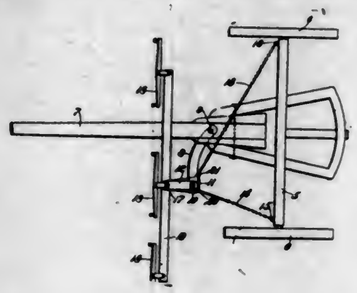
1. A gin saw cleaning device comprising a slide or carrier which is laterally movable relative to the gin saws, combined with a series of cleaning knives atached to the said laterally movable slide or carrier, each of said knives comprising a body portion and two flexible cleaning blades which are normally separated from each other a distance greater than the thickness of a gin saw, said cleaning blades being twisted so that their backs diverge from their edges and being bent slightly so that their edges diverge from the body portions of the knives toward their outer ends.

2. A gin saw cleaning device comprising a slide or carrier which is laterally movable relative to the gin saws, combined with a series of cleaning knives attached to the said laterally movable slide or carrier, each of said knives comprsing a body portion and two flexible cleaning blades which are normally separated from each other a distance greater than the thickness of a gin saw, said cleaning blades being twisted so that their backs diverge from their edges and being bent slightly so that their edges diverge from the body portions of the knives toward their outer ends, means for moving the said slide or carrier laterally, and means for retaining the said slide or carrier in different positions of lateral adjustment.

1,026,130. DRAFT-EQUALIZER. FRANCIS E. SPENCER, Dover, Okla., assignor of one-half to Scott Gilchrist, Kiel, Okla. Filed Feb. 13, 1912. Serial No. 677,351. (Cl. 21—76.)

1. In combination with the steering axle of a vehicle and the tongue secured thereto, of a lateral arm pivoted to the tongue, a member pivoted to the arm, draft cables connecting the said member at points at each side of the pivotal point with the corresponding extremities of the axle, and a whiffletree connected to the said member.

2. In combination with the steering axle of a vehicle and the tongue secured thereto, of a lateral arm pivoted to the tongue, a triangular plate pivoted to the said arm, a pair of draft cables adjustably connecting two corners of the said plate with the corresponding extremities of



the axle, and a whiffletree connected to the other corner of the said plate.

1,026,131. DECORATED FABRIC. GEORGE H. TAYLOR, New York, N. Y., assignor to The Kursheedt Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Aug. 4, 1911. Serial No. 642,230. (Cl. 2—147.)

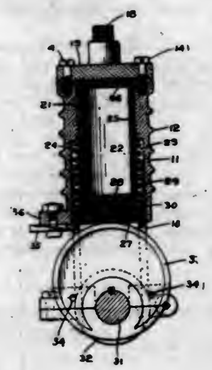


1. An article of the character described, comprising a base fabric, and an elongated decoration, embodying a plurality of beads or the like strung on a holding thread, a sewing thread, juxtaposed stitches formed of said sewing thread in the base fabric and on one side of the bead thread, said stitches progressing in the same general direction as the decoration, stitches formed of the sewing thread on the opposite side of the bead thread from said first stitches, and substantially transverse loops formed of the sewing thread between the stitches formed on opposite sides of the bead thread, said loops passing over the bead thread, and a plurality of said loops being formed close to, between and on each side of said beads, whereby the bead thread will be secured to the fabric and the beads will be retained in definite positions.

2. An article of the character described, comprising a base fabric, and an elongated decoration, embodying a plurality of beads or the like strung on a holding thread, a sewing thread, juxtaposed stitches 7, 12, formed of said sewing thread in the base fabric and on one side of the bead thread, said stitches progressing in the same general direction as the decoration, stitches formed of the sewing thread on the opposite side of the bead thread from said first stitches, and juxtaposed, substantially transverse loops formed of the sewing thread between the stitches formed on opposite sides of the bead thread, said loops passing over the bead thread, and a plurality of said loops

being formed close to, between and on each side of said beads, whereby the bead thread will be secured to the fabric and the beads will be retained in definite positions, and intermediate stitches 12, 15, formed of the sewing thread between said first mentioned stitches.

1,026,132. AIR-COMPRESSOR. WILLIAM R. THOMPSON, South Norwalk, Conn., assignor of one-half to John Tiebout, Brooklyn, N. Y., and one-fourth to Elmer E. Case, South Norwalk, Conn. Filed Oct. 19, 1911. Serial No. 655,571. (Cl. 230—27.)



1. An air compressor comprising a casing having a longitudinal bore and enlarged at one end to form an annular recess, a rigid lining shell secured within said bore and coöperating with the wall of said recess to form an annular chamber, a piston mounted to reciprocate within said shell, a spring in said chamber acting against said piston, and means for moving the piston in opposition to said spring.

2. An air compressor comprising a casing having a longitudinal bore and enlarged at one end to form an annular recess, a rigid lining shell secured within said bore, a second lining shell secured within said recess, a piston mounted to reciprocate in the first mentioned shell and having an enlargement working in the second shell, a spring located between said shells and acting against the enlargement in said piston, and means for moving the piston in opposition to the spring.

3. An air compressor comprising a casing having a bore provided with an annular enlargement, a tube mounted to reciprocate within said bore, a plug closing the upper end of said tube, whereby a piston is provided, an enlarged base closing the lower end of said tube and arranged to reciprocate within the annular enlargement of said bore, a spring acting against said base, and means for moving the piston in opposition to said spring.

4. An air compressor comprising a casing having a bore provided with an annular enlargement, a tube mounted to reciprocate within said bore, a plug closing the upper end of said tube, whereby a piston is formed, an enlarged base larger in diameter than said tube and having a reduced plug for closing the outer end of the latter, said base being arranged to reciprocate within the annular enlargement of said bore, a spring acting against said base, and means for moving the piston in opposition to said spring.

5. An air compressor comprising a casing having a longitudinal bore and an enlarged recess, a lining shell secured in said bore, and coöperating with said recess to form a chamber, a tube mounted to reciprocate in said sleeve, a plug closing the upper end of said tube, whereby a piston is formed, an enlarged base closing the lower end of said tube and arranged to reciprocate within the annular enlargement of said bore, a spring within said chamber and acting upon said base, and means for moving the piston in opposition to said spring.

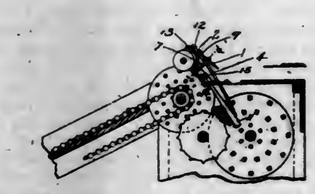
1,026,133. GARDEN-TOOL. FREDERICK W. ULRICH, Rock Falls, Ill. Filed May 18, 1911. Serial No. 628,061. (Cl. 55—39.)



1. The combination with a tool provided with a V-shaped shank of a forked socket, formed in two parts, and adapted to engage said shank; a handle socket, integral with said forked socket, also formed in two parts; means for detachably uniting the parts of said handle socket; and means for detachably uniting the sections of said forked socket.

2. In a garden tool, the combination of a pair of cultivator shovels; a V-shaped shank uniting the same; a forked socket formed in two similar sections, adapted to hold said shank; an eye-bolt uniting said sections; an auxiliary shovel, provided with a shank capable of being held in said eye-bolt; recessed lugs on one of said sections engaging the shank of said auxiliary shovel; a handle socket, integral with said forked socket, also formed in two similar sections, and means for uniting the parts of said handle socket.

1,026,134. SPRING MECHANISM FOR CORN-SHELLERS. JOHN VELDER, Petersburg, Nebr. Filed Feb. 10, 1912. Serial No. 676,808. (Cl. 130—7.)



1. In a spring corn sheller, a bow spring, a bow-spring bolt working in a hole through the bow spring, an adjusting nut on the bow-spring bolt, and an auxiliary spring mounted on the back of the bow spring and engaging the adjusting nut.

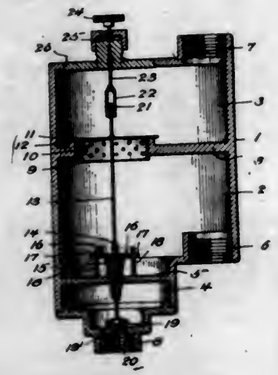
2. Spring mechanism for a corn sheller, comprising a bow spring and an auxiliary spring, fastened together at one end, a bow-spring bolt occupying registering bolt holes through both these springs, and an adjusting nut working on the bow-spring bolt and engaging the auxiliary spring.

3. Spring mechanism for a corn sheller, comprising a bow spring adapted to be held fast at one end, an auxiliary spring having one end fastened on the back of the fastened end of the bow spring, a bolt occupying registering bolt holes in both said springs, and a nut adjustable on the bolt.

4. Spring mechanism for a corn sheller, comprising a bow spring having a bolt hole, a strap spring fastened at one end to one end of the bow spring and having a bolt hole and laterally extending grooves, a bolt working in the bolt holes, and a nut working on the bolt and having wings adapted to engage the strap spring by the grooves.

5. Spring mechanism for a corn sheller, comprising a bow spring, an auxiliary spring having a sliding engagement with the bow spring, a bolt working in registering bolt holes through both springs, and a nut working on the bolt and adapted to engage said springs.

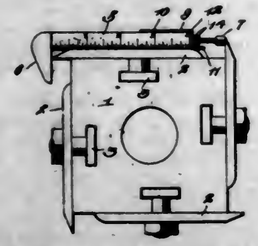
1,026,135. GAS-MIXER. RUDOLPH J. WALTHER, Davenport, Iowa. Filed Dec. 28, 1911. Serial No. 668,363. (Cl. 48—180.)



1. A gas mixer comprising an outer shell, a plurality of transverse partitions within said shell provided with apertures, gas and air inlet connections at one end thereof, a mixture outlet at the opposite end of said shell, a bell having a series of perforations in its cylindrical wall fitted to the aperture in the partition adjacent to the mixture outlet and opening in the direction of the flow of gas, a cone valve opening inwardly away from the air connection, a valve stem centrally secured to the cone and the bell, guides in slidable coöperation with the cone valve to maintain said valve in alinement with said stem and bell and means for adjusting the distance between said cone and said bell for regulating the admission of air through the air inlet.

2. A gas mixer comprising an outer shell, a plurality of transverse partitions within said shell provided with apertures, gas and air inlet connections at one end thereof, a mixture outlet at the opposite end of said shell, a bell having a series of perforations in its cylindrical wall fitted to the aperture in the partition adjacent to the mixture outlet and opening in the direction of the flow of gas, a cone valve opening inwardly away from the air connection, a valve stem centrally secured to the cone and the bell, a valve disk in alinement with the cone valve and disposed away from same in the direction of the external air, a ball bearing in said valve disk, an upwardly projecting rod threaded into the cone valve and passing centrally through the bell, a milled adjusting rod entering the shell above the bell and engaging the upwardly projecting end of said rod to alter the distance between the cone valve and said bell.

1,026,136. GAGE FOR CUTTER-HEADS. GRANT WATKINS and SAMUEL M. TAYLOR, Truckee, Cal. Filed Feb. 14, 1912. Serial No. 677,487. (Cl. 73—139.)

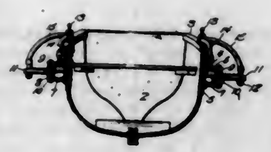


1. A gage of the class described consisting of a graduated shank provided at one end with a laterally projecting arm adapted to engage the knife edge, a screw adjustably positioned in the other end of the shank and projecting longitudinally therefrom, an angular member loosely mounted on said screw and means for retaining the screw and angular member in a fixed position.

2. A gage for setting cutter-head knives consisting of a graduated shank provided at one end with a laterally projecting arm adapted to engage the edge of the knife, a screw adjustably positioned in the other end of the shank and projecting longitudinally therefrom, an angular member loosely mounted on said screw having a long arm, a short arm parallel thereto and an intermediate portion bent at right angles to the arms and connecting their inner ends, and means for securing said angular member in its adjusted position.

3. A gage for setting cutter-head knives consisting of a graduated shank provided at one end with a laterally projecting arm, a screw adjustably positioned in the other end of the shank and projecting longitudinally therefrom, an angular member positioned on said screw having a long arm, adapted when in operative position to engage the edge of the cutter-head, a short arm parallel to the long arm and an intermediate portion bent at right angles to the arms and connecting their inner ends, said intermediate portion and short arm of the angular member being provided with openings for the passage of said screw, and means for locking the screw and angular member in adjusted position.

1,026,137. ATTACHMENT FOR LIFE-BOATS. ALBIN E. WICKMAN, Peoria, Ill. Filed Mar. 13, 1911. Serial No. 614,257. (Cl. 9—3.)



1. The combination with a yawl or boat of, a longitudinally extending tank secured to the hull thereof, a resilient partition within said tank for dividing the same into upper and lower compartments, the upper compartment being adapted to contain oil, a faucet disposed upon the upper side of the yawl having connection with the upper tank compartment and means within the lower tank compartment for ejecting the contents of the oil compartment through the said faucet.

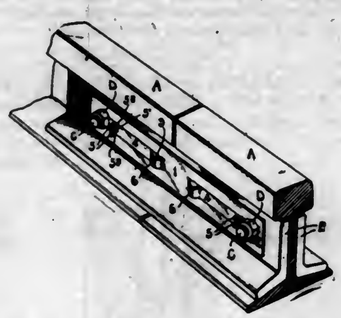
2. The combination with a yawl or boat of, a longitudinally extending tank secured to the hull thereof, a resilient partition within said tank for dividing the same into adjoining compartments, one of said compartments being adapted to retain oil and the other gas and a faucet arranged upon the top of one side of the boat and having connection with the oil compartment.

3. The combination with a yawl or boat of, a longitudinally extending tank secured to the hull thereof, a resilient partition within said tank for dividing the same into oil and gas compartments, a hollow U-shaped member encircling said tank, a tank guard secured to the last named member, an exhaust pipe secured below said tank guard and a faucet connecting the tank and exhaust pipe.

1,026,138. NUT-LOCK. ROBERT E. WOODSON, St. Louis, Mo. Filed Aug. 31, 1911. Serial No. 647,029. (Cl. 151—61.)

1. A nut lock comprising a plate provided with a slot and having a nut engaging tongue located in said slot, the said tongue being provided with a hump adapted to be straightened out to present the tongue to the nut to be held thereby.

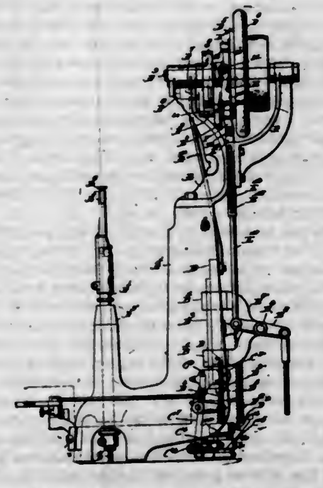
2. A nut lock comprising a plate provided with a slot and having a nut engaging tongue located in said slot and provided with a free end having an outturned lip, the said tongue being provided with a hump adapted to be straightened out to present the free end of the tongue to the nut to be held thereby.



3. A nut lock comprising a plate provided with a bolt hole and a slot and having a nut engaging tongue located in said slot, the tongue being connected to the plate at its end farthest removed from said bolt hole and having a free end near said bolt hole, the tongue being provided with a hump adapted to be straightened out to present the free end of the tongue to a nut on a bolt extending through said bolt hole.

4. A nut lock comprising a plate provided with a slot and having a nut engaging tongue located in said slot, the said tongue having a free end containing a notch and being provided with a hump adapted to be straightened out to present the tongue to the nut to be held thereby.

1,026,139. MECHANISM FOR ACTUATING STOCK-SUPPORTS. GEORGE A. AMBLER, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Aug. 31, 1901, Serial No. 74,036. Divided and this application filed Nov. 27, 1905. Serial No. 289,160. (Cl. 1—41.)



1. Stock support actuating mechanism comprising a reciprocatory member connected to the stock support, a locking member connected with said reciprocatory member to be rotated as the latter is reciprocated, means for holding the locking member against axial movement, and means operating intermittently to lock said member against rotation and to hold the stock support rigidly in position.

2. Stock support actuating mechanism comprising a screw connected to the stock support, a nut fixed against axial movement and coöperating with said screw, a spring for moving the stock support into position to clamp the stock, and means for locking the said nut against rotation to prevent axial movement of the screw and thus to hold the stock support rigidly in clamping position.

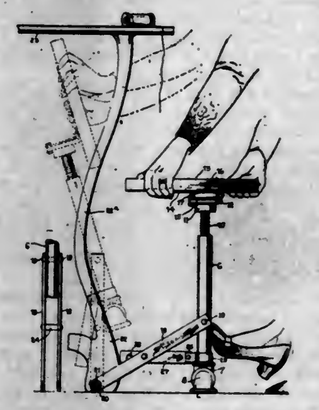
3. Stock support actuating mechanism comprising a screw positively connected to the stock support, a nut fixed against axial movement and coöperating with said screw, means independent of said nut for moving said stock support, and means for locking said nut against rotation to prevent axial movement of the screw and thus to hold the stock support rigidly in position.

4. Stock support actuating mechanism comprising a screw positively connected to the stock support, a nut fixed against axial movement and coöperating with said screw, means constructed and arranged to be operatively connected with and disconnected from said screw for actuating the stock support, and means for locking said nut against rotation to hold the stock support rigidly in position when said actuating means is disconnected from the screw.

5. Stock support actuating mechanism comprising a screw positively connected to the stock support, a nut fixed against axial movement coöperating with said screw so as to be rotated as the screw moves through it, means constructed and arranged to be operatively connected with and disconnected from said screw for depressing said stock support, a spring constantly tending to raise the stock support, and coöperating devices acting to disconnect said means and then after a predetermined interval by engaging the nut to lock the stock support rigidly in position.

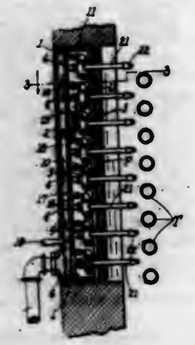
[Claims 6 to 20 not printed in the Gazette.]

1,026,140. SEAT FOR PIANOS, SEWING-MACHINES, &c. JOHN G. BAUER and FRED GARDNER, Warsaw, N. Y. Filed Apr. 27, 1911. Serial No. 623,648. (Cl. 155—22.)



A stool comprising a standard, supporting feet connected thereto and extending at right angles to said standard, said feet being provided with an enlarged bead at their lower end, an adjustable post positioned in said standard, links connected to said standard intermediate its ends, and connected at their other ends to a support, a transverse pin connecting said links intermediate their ends, an adjusting bar, a collar carried by said standard, said adjusting bar pivotally connected to said collar, and being provided with a plurality of notches upon the under side thereof, and a seat connected to said adjustable post, and said seat being adapted to be raised and folded under a machine or other article supporting the same by raising the top of said seat and placing the foot against said standard below the connection of said links with said standard.

1,026,141. BOILER-CLEANER. AUGUST V. BAYER, St. Louis, Mo., assignor to Bayer Steam Soot Blower Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 1, 1911. Serial No. 663,350. (Cl. 122—390.)



1. In combination with a fluid-conducting pipe, a stationary hollow joint section connected thereto and communicating therewith, a rotatable section mounted in the stationary section and provided with a passageway opposite to, and in direct continuation of, the inlet to the stationary section, said passage-way terminating in an enlargement on the side facing the inlet to the stationary section, said enlargement being in permanent communication with said inlet.

2. In combination with a fluid-conducting pipe, a stationary hollow joint section connected thereto and communicating therewith, a rotatable section mounted in the stationary section and provided with a transverse passage-way opposite to, and in direct continuation of, the inlet to the stationary section, said passage-way terminating in an enlargement on the side facing the inlet to the stationary section, said enlargement being in permanent communication with said inlet, and a nozzle leading from said transverse passage-way of the rotatable section through the wall of the stationary section.

3. In combination with a fluid-conducting pipe, a stationary hollow joint section connected thereto and communicating therewith, a rotatable section mounted in the stationary section and provided with a transverse passage-way opposite to, and in direct continuation of, the inlet to the stationary section, said passage-way terminating in a basin or dish-shaped enlargement on the side facing the inlet to the stationary section, said basin being in permanent communication with said inlet, and a nozzle leading from said transverse passage-way of the rotatable section through the wall of the stationary section.

4. In an apparatus of the character described, a joint comprising an outer hollow section or casing provided with a peripheral intake and an outlet opening opposite thereto, a rotatable member in said casing provided with a transverse passage-way between said intake and outlet opening said transverse passage-way terminating in an enlarged basin on the intake side of the casing in full and permanent communication with the said intake, a nozzle leading from the discharge end of said transverse passage-way and operating through the outlet opening of the casing, the bounding walls of said outlet opening arresting the rotation of the rotatable member by engaging the nozzle when the latter has been oscillated to one of its extreme positions.

5. In an apparatus of the character described, a joint comprising an outer hollow casing provided with a peripheral intake and a laterally enlarged outlet opening opposite said intake, a rim bounding said outlet, the sides of the rim converging inwardly, an inner rocker member provided with a transverse passage-way between the intake and outlet of the casing, said transverse passage terminating on the side of the intake in a basin-shaped enlargement, and at the opposite end in a cylindrical enlargement separated by a shoulder from the passage-way, a nozzle inserted in said cylindrical enlargement and limited by said shoulder, the converging portions of the rim of the outlet opening of the casing being positioned to arrest the nozzle and thus maintain the basin in full and permanent communication with the intake opening of the casing.

[Claims 6 to 9 not printed in the Gazette.]

1,026,142. HAIR-PIN. LOUIS C. BELZ, Philadelphia, Pa. Filed Nov. 20, 1911. Serial No. 661,260. (Cl. 132—22.)



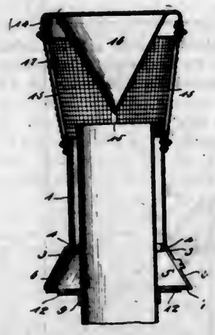
1. A hair pin formed of a single strand bent upon itself and twisted to form a middle prong and the two free ends of the strand bent substantially parallel to the twisted prong to form two side prongs, and in which further the twisted middle prong is composed partly of a twist of great pitch extending to the free end of the prong and partly of a twist of relatively small pitch adjacent to the branching parts connecting with the side prongs.

2. A hair pin formed of a single strand bent upon itself and twisted to form a middle prong and the two free ends of the strand bent substantially parallel to the twisted prong to form two side prongs, and in which further the twisted middle prong is composed partly of a twist of great pitch extending to the free end of the prong and partly of a twist of relatively small pitch adjacent to the branching parts connecting with the side prongs, the cross sectional area of the strand forming the twisted part of great pitch being smaller than the cross sectional area in any other part of the hair pin and the part of the strand forming that portion of the twisted middle prong of relatively small pitch being of substantially uniform but of less cross sectional area than the cross sectional area of the side prongs and of greater cross sectional area than the cross sectional area of the strand in the remaining portion of the twisted middle prong.

3. A hair pin formed from a wire having two cylindrical end portions of largest diameter, a cylindrical central portion of smallest diameter and two cylindrical portions between the central portion and the end portions of a diameter intermediate of the diameters of the central and end portions and of greatly less length than the length of either of the central or end portions, the said wire being bent upon itself to form three prongs and in which the union of the three prongs is formed of a twisted portion of fine pitch formed from the portions of intermediate diameter and in which further the portions of largest diameter are bent tangentially from the twisted portions in opposite directions to form a substantially semi-circular head with the central prong extending radially inward.

1,026,143. SPARK-ARRESTER. ORLANDO SHIVELY BENNETT, Moulton, Iowa. Filed Dec. 1, 1911. Serial No. 663,866. (Cl. 110—133.)

1. A spark arrester comprising a body portion adapted to be engaged with the upper end of a smoke stack and spaced therefrom to form a spark conducting passage, means engaged with the stack to support and space said body from the stack, a spark receiving chamber formed of a bottom plate and hingedly connected sections adapted to encircle the stack and be engaged with the lower end of the body to receive the sparks caught by the arrester, said sections being adapted to be swung open to permit the discharge of the sparks received in the chamber, a supporting collar clamped around the stack and engaging said bottom plate to support said chamber in operative engagement with the lower end of the body of the arrester, and a spark catching and deflecting mechanism arranged on the upper end of said body and over the upper end of said stack.

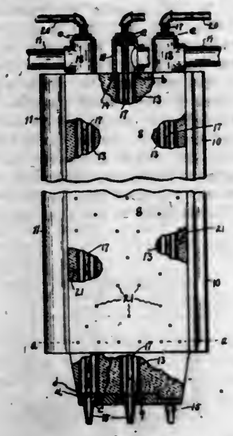


2. A spark arrester comprising a body portion adapted to be engaged with the upper end of a smoke stack and to form between the same and the outer side of said stack, a spark conducting passage, set screws arranged in said body and adapted to be engaged with the stack to support and space said body from the stack, a spark receiving chamber formed of a bottom plate and hingedly connected sections adapted to be brought around the stack and in engagement with the lower end of the body to receive the sparks caught by the arrester, said sections being adapted to be swung open to permit the discharge of the sparks received by the chamber, doors arranged in the chamber, a supporting collar clamped around the stack adjacent said bottom to support said chamber in operative engagement with the lower end of the body of the arrester, and a spark catching and deflecting mechanism arranged on the upper end of said body and over the upper end of the stack.

3. A spark arrester comprising a body arranged on and spaced a suitable distance from the stack to form a spark conducting passage between the same and the outer side of the stack, an inwardly offset depending flange on the lower end of the body, a spark receiving chamber formed of a bottom plate and hingedly connected suitably fastened sections having inwardly inclined outer side walls, the upper edges of which are adapted to engage the offset flange on the lower end of the body, a supporting collar formed in separable sections adapted to be clamped around the stack below and adjacent said bottom and having thereon lugs adapted to support said spark receiving chamber, a cap arranged above the upper end of the stack, a series of supporting standards secured to the upper end of the body and to said cap whereby the latter is held in position, an inverted spark deflecting cone secured to the inner side of the cap and a screen covering arranged around said standards to cover the space between the upper end of the body of the arrester and said cap.

1,026,144. CONCRETE PILING. EDWARD BIGNELL, Lincoln, Nebr. Filed Feb. 19, 1912. Serial No. 678,470. (Cl. 61—52.)

1. In combination with the elongated body of a pile having a flat bottom, a plurality of nozzles mounted upon and projecting below said bottom, and means to conduct separate columns of water under pressure through the pile, each of said columns communicating with one of said nozzles.



2. In combination with the elongated body of a pile having a flat bottom, a nozzle mounted upon and projecting below said bottom, a duct formed within and extending longitudinally of the pile adapted to conduct water under pressure to said nozzle.

3. The combination of a pile formed with longitudinal apertures and transverse passageways communicating with the apertures to open upon its sides; a bearing-plate provided with nozzles and mounted upon the bottom of the pile to form a closure for said apertures; conducting pipes communicating with the nozzles and traversing said apertures, said nozzles projecting below the bearing-plate.

4. In combination with a pile having a body of adhesive material, a housing-tube embedded within and traversing the pile longitudinally, said tube being provided with a closure at its lower terminal and having branches between its terminals opening upon the sides of the pile; a conducting pipe traversing the housing-tube, and a nozzle in communication with the conducting-pipe and projecting below the bottom of said pile.

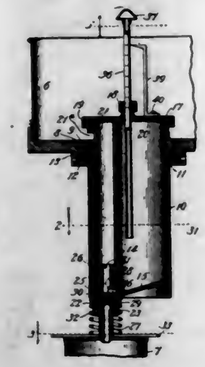
5. In combination with a pile having a body of adhesive material, a bearing-plate disposed at substantially right angles to the longitudinal axis and mounted upon the bottom of the pile; a nozzle mounted in and projecting below the bearing-plate, and a pipe adapted to conduct water under pressure longitudinally traversing the pile and having removable connection with said nozzle.

[Claims 6 to 9 not printed in the Gazette.]

1,026,145. FILLING APPARATUS FOR LIQUID-RECEPTACLES. PHILO M. BLACKMAN and WILLIAM MARSHALL, Elgin, Ill. Filed Feb. 15, 1911. Serial No. 608,777. (Cl. 226—18.)

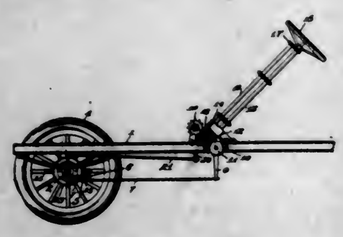
1. In a filling apparatus of the character described, the combination with a reservoir, of a measuring trap depending therefrom having a port in its lower end, a filling tube in said trap having a port in its upper end open to the reservoir, and provided with a port near its lower end whereby liquid from the reservoir may flow through said filling tube into the trap, a double-ported reciprocating valve seated in said tube and having one of its ports registering, in the seated position of the valve, with the trap-port and its other port registering with said trap-port in the raised position of the valve, said valve ports being in such spaced relation to each other and to the trap port as to close the trap to one before registering the other therewith as the valve is moved to its different positions, and means in the trap to vent the same.

2. In a filling apparatus of the character described, the combination with a reservoir, of a measuring trap depending therefrom having a port in its lower end, a filling tube in said trap having a port in its upper end open to the reservoir, and provided with a port near its lower end whereby liquid from the reservoir may flow through said filling tube into the trap, a double-ported reciprocating valve seated in said tube and having one of its ports registering, in the seated position of the valve, with the trap-port and its other port registering with said trap-port in the raised position of the valve, said valve ports being in such spaced relation to each other and to the trap port as to close the trap to one before registering the other therewith as the valve is moved to its different positions, engageable means carried by the valve whereby the same may be removed for cleansing, and means in the trap to vent the same.



3. In a filling apparatus of the character described, the combination with a reservoir, of a depending measuring-trap, a vertical filling-tube in the trap open near its upper end to the reservoir and having an internally-thickened lower end protruding through the trap-bottom and forming a valve-seat, a port in said tube above the valve-seat and opening into the trap, and a valve having an upper section and a lower tubular section separated by an interposed seating-head and containing a port in the upper section registering with said tube-port in the seated position of the valve and a port in the lower section registering with the trap-port in the raised position of the valve, said valve being withdrawably contained in the tube.

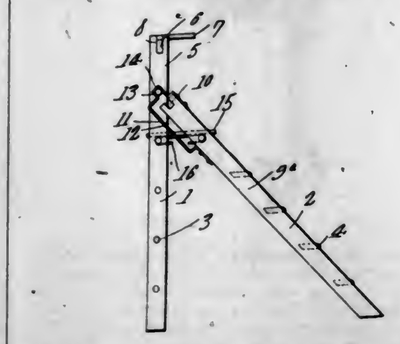
1,026,146. STEERING MECHANISM FOR VEHICLES. EDWARD W. BLISS, Rochester, N. Y., Filed May 5, 1909. Serial No. 493,996. (Cl. 21—90.)



1. In a vehicle, the combination with a main steering mechanism embodying an upright shaft having a manually controlled member secured to the upper end thereof, of a supplemental steering mechanism having operative connection with the vehicle independently of the main steering mechanism and embodying a shaft parallel with the first named shaft and geared to the latter to be operated thereby.

2. The combination with a vehicle having swingingly mounted spindles and wheels turning thereon, of a main steering mechanism embodying an upright shaft having a manually controlled member secured to the upper end thereof, of a supplemental steering mechanism embodying a shaft parallel with the first named shaft and geared to the latter to be operated thereby, said supplemental steering mechanism having operative connection with the vehicle independently of the main steering mechanism comprising devices coöperating with the wheels and pivots for said devices supported independently of the wheels and arranged coincident with the swinging axes of the spindles.

1,026,147. COMBINED STEP AND EXTENSION LADDER. EUGENE N. BOTSFORD, Platteville, Wis. Filed June 3, 1911. Serial No. 630,983. (Cl. 228—19.)



1. In a combined step and extension ladder, including ladder-sections, one ladder section having loop-forming straps at their uper ends certain of the loops being parallel with the longitudinal edges of the side rails of one ladder-section, said loops in continuation extending parallel with the upper ends of said side rails, and the other ladder-section being provided with lateral studs adapted to be received by said loops in both their longitudinal and end portions.

2. In a combined step and extension ladder, including ladder-sections, one ladder-section having loop-forming straps applied to the side rails thereof, the loops formed thereby in continuation ranging along the longitudinal edges and along the ends of said side rails, said loop-forming straps having additional or supplemental loops in their upper forward end-portions, and the other ladder-section having lateral studs adapted for engagement with said loops.

3. In a combined step and extension ladder, including ladder-sections, one ladder section having applied thereto loop-forming straps, the loops thereof ranging along the longitudinal and end portions of the side-rails of said ladder-section, said straps having supplemental loops in their upper forward ends, the side-rails of said ladder-section being provided in their upper ends with upwardly opening slots, and the other ladder-section having in the upper ends of their side-rails upwardly opening slots, said side-rails having lateral studs engaging the first-referred to slots, the latter-referred to slots receiving a rung of the opposite ladder-section, said loops all being in continuation.

1,026,148. KNOB. HERBERT G. COLLINS, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed May 25, 1909. Serial No. 498,224. (Cl. 70—10.)

1. In a knob, a plate, a shell or head superposed on said plate, a screw having its head in non-rotative engagement with said plate, and a rose embracing said screw, said plate being dished, and the rose having a contracted neck portion below said plate, in order to present a neck for the knob having its apex portion below the outer edge of said shell or head; substantially as described.



2. A knob comprising a screw, a plate of elongated form non-rotatively engaged with the head of said screw and having recesses or notches at its respective ends, and a cap piece or shell having integral depending lugs at its edge portion bent around the ends of said elongated plate in said notches or recesses; substantially as described.

3. A knob comprising a screw, a plate having notches or recesses in its marginal portion, and non-rotatively engaged with the head of said screw, said plate being dished in order to provide a seat for the screw head, a cap piece or shell having depending lugs at its marginal portion engaged with said plate by being bent around the edges of the same within said notches or recesses, said shell lying above the head of said screw, and a rose separate from said plate and embracing the screw below said plate; substantially as described.

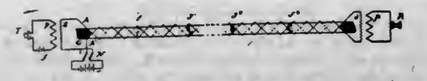
1,026,149. BED ATTACHMENT. FRANK H. CRANE, Cleveland, Ohio. Filed July 1, 1910. Serial No. 569,993. (Cl. 45—82.)



1. An attachment for beds comprising a clamp for engagement with the post of the bed formed of three sections, two of the sections being hinged to the third section, a sectional pintle, one portion of the pintle being formed integrally with the said third section, and the other portion of the pintle being formed integrally with the adjacent clamp section, and being disposed on opposite sides of one of the hinged connections, said pintle sections having their abutting faces flattened and a supporting arm having an eye in one end to receive the pintle sections, whereby when said clamp sections are secured to the post the pintle sections will be separated to frictionally wedge in the eye.

2. A bed attachment comprising a clamp for attachment to the post of the bed, said clamp having hinged sections, pintle sections on the hinged sections, an eye member for engagement on the pintle sections, said eye member having a longitudinal socket therein, a stem in the socket, a tray supporting arm hinged to the stem, a stop lug on the arm, a shoulder on the stem for engagement by the lug, a yoke slidably mounted on the said arm, a tray on the yoke, a vertical lug on the free end of the arm, whereby the tray is supported and the yoke limited in its outward movement.

1,026,150. ELECTRIC-WAVE TRANSMISSION. JOHN H. CUNTZ, Hoboken, N. J. Filed Apr. 14, 1905. Serial No. 255,487. (Cl. 178—45.)



1. In a system of electric wave transmission, the main conductor or conductors disposed about a magnetizable core, and means for modifying the permeability of said core by a current flowing through said conductor or conductors.

2. In a system of electric wave transmission, the main conductor or conductors disposed about a magnetizable core, and means for causing continuous magnetizing current to flow through said conductor or conductors.

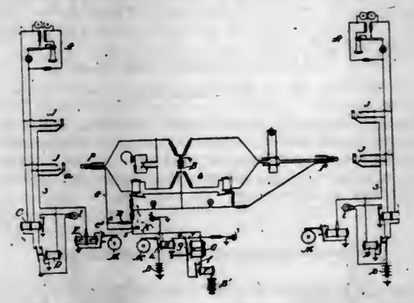
3. An electric cable having the working conductor or conductors disposed helically about a magnetizable core, and means for raising the permeability of the core by a current flowing through said conductor or conductors.

4. An electric cable having the working conductor or conductors disposed helically about a magnetizable core, with means for causing continuous magnetizing current to flow through said conductor or conductors.

5. An electric circuit having the main conductor or conductors wound about a paramagnetic core so as to constitute a source of inductance with means for causing continuous magnetizing current to flow through said conductor or conductors.

[Claim 6 not printed in the Gazette.]

1,026,151. SERVICE-METER CIRCUITS. HIRAM D. CURRIER, Chicago, Ill., and GEORGE WOLF, New York, N. Y., assignors to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 7, 1907. Serial No. 401,068. (Cl. 179—8.)



1. In a telephone system the combination with a telephone line, of a central office connection switch, an electromagnetically operated line meter having a circuit controlled at one point by said connection switch, a local circuit including an independent source of high potential current and an electromagnetically operated position meter, a connection register switch for completing said local circuit through said line meter and thereby operating said meters, a magnet energized upon the operation of said connection register switch while said line meter is in its operated position, and a device operated by said magnet when excited directly controlling said position meter to prevent the operation thereof.

2. In a telephone system, the combination with a telephone line, of a central office connection switch, an electromagnetically operated line meter having a circuit controlled at one point by said connection switch, a local circuit including an electromagnetically operated position meter, a guard lamp associated with said local circuit, a connection register switch for completing said local circuit through said line meter and thereby operating said meters, a magnet energized upon the operation of said connection register switch while said line meter is in its operated position, and a device operated by said magnet when excited directly controlling said position meter to prevent the operation thereof and to operate said guard signal.

3. In a telephone system, the combination with a telephone line, of a central office connection switch, an electromagnetically-operated line meter having a circuit controlled at one point by said connection switch, a local circuit including an electromagnetically-operated position meter, a connection register switch for completing said

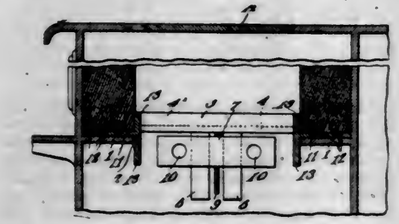
local circuit through said line meter and thereby operating both of said meters, means in the circuit of said meters for increasing the flow of current in said circuit upon the operation of said meters, and a relay responsive only to said increased flow of current and by its operation preventing more than a single operation of said position meter for a given connection.

4. In a telephone system, the combination with a telephone line, of a central office connection switch, an electromagnetically-operated line meter having a circuit controlled at one point by said connection switch, a local circuit including an electromagnetically-operated position meter, a connection register switch for completing said local circuit through said line meter and thereby operating both of said meters, a guard signal, means in the circuit of said meters for increasing the flow of current in said circuit upon the operation of said meters, and a relay responsive only to said increased flow of current and by its operation preventing more than a single operation of said position meter for a given connection, and for operating said guard signal in response to a further closure of said connection register switch.

5. In a telephone system, the combination with a telephone line, of a central office connection switch, a line meter having a circuit adapted to be completed by said connection switch, a local circuit including a high resistance relay, a low resistance relay and an independent battery in series with one another, a shunt of said high-resistance relay controlled by said low resistance relay, a position meter included in said shunt circuit, and a connection register switch for completing said local circuit through said line meter.

[Claims 6 to 11 not printed in the Gazette.]

1,026,152. GRATE. DANIEL DEE, Pocatello, Idaho, assignor of one-half to Egbert C. Stratford, Pocatello, Idaho. Original application filed Aug. 19, 1911, Serial No. 644,902. Divided and this application filed Nov. 23, 1911. Serial No. 661,986. Cl. 126—152.)



A grate frame composed of four members adjustably connected together, the two opposed longitudinal members being T-shaped in cross section with the head of the T forming one wall for the grate frame, the other two members being L-shaped, two spaced lugs depending from each of said last two members, a grate bar carrying cross piece vertically slidable upon said lugs, and provided with a sleeve projecting between said lugs, a bolt connected to the frame member and passing through said sleeve, and means engaging the bolt and sleeve for holding the cross-piece relative to the frame member and in adjusted position.

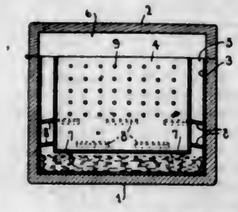
1,026,153. COLLAR-BUTTON. HERMAN C. DEGNER, Jr., Los Angeles, Cal. Filed Mar. 3, 1910. Serial No. 547,118. (Cl. 24—97.)

A button comprising a base, a post projecting from the base, said base having resilient forks extending therefrom, a head mounted between said forks, said head and forks being provided with inter-locking spurs and sockets, each socket having two upper and two lower walls meeting substantially in a point, the walls being inwardly convexed, and each spur extending into a socket and having an angular edge to contact with two walls of the socket, and an



upper surface adapted to contact with the opposite walls of the socket.

1,026,154. HUMIDOR. HOWARD W. DOUGHTY, Amherst, Mass. Filed Jan. 2, 1912. Serial No. 669,056. (Cl. 131—30.)



1. A humidor comprising a casing having an acid resisting lining, a cover to close said casing, a receptacle having acid resisting outer surfaces and having its upper portion perforated, supporting feet arranged on the bottom of the receptacle to space the same a suitable distance above the bottom of the casing, and combined spacing and baffle flanges arranged on the outer side of the casing below the perforations therein whereby the receptacle is held centrally in the casing, and the humidifying solution in the latter is prevented from being splashed up into the perforated upper portion or open top of the receptacle.

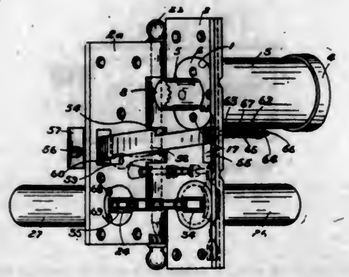
2. A humidor comprising a casing having an acid resisting lining, a hollow top to close said casing, a receptacle formed of acid resisting material and having its upper portion perforated to provide a free circulation of air therethrough, combined spacing and baffle flanges arranged around the sides and ends of the receptacle below the perforated upper portion thereof, said flanges being arranged in rows and in staggered relation whereby the flanges of one row are disposed opposite the spaces between the flanges of the other row, said flanges inclining slightly from their inner toward their outer ends and feet arranged on said receptacle to support the latter a suitable distance above the bottom of the casing.

3. A humidor comprising a casing, a receptacle arranged in said casing and having an apertured upper portion, said receptacle being smaller than the interior of the casing whereby a space is formed between the receptacle and the casing, and baffle members arranged in staggered relation on the outer side of the receptacle below the apertures therein whereby the humidifying solution will be prevented from splashing into said receptacle.

4. A humidor comprising a casing, a receptacle arranged in said casing and having apertures in the side walls thereof, said receptacle being smaller than the interior of the casing whereby a space is formed between the receptacle and the casing, and combined spacing and baffle members arranged on the outer face of the receptacle below the apertures therein whereby the receptacle is centered in the casing and the humidifying solution prevented from being splashed into said receptacle.

1,026,155. DOOR-CLOSING APPARATUS. WILLIAM DUGGAN, Jr., Dunedin, New Zealand. Filed Sept. 10, 1910. Serial No. 581,384. (Cl. 16—87.)

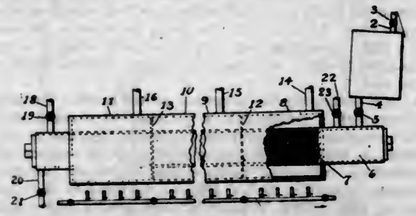
1. In combination, a hinge-post, a door hung to said hinge-post by a hinge having two leaves, means for closing said door automatically when it has opened, a latch 53 having a notched surface pivoted at one end on one leaf and adapted to enter a slot formed in the other leaf, a spring buffer 61 lying with its front end in the upper part of said slot, and means 58 for setting said latch so as to cause its notched surface to pass below or engage said buffer.



2. In combination, a hinge-post, a door hinged to said post by a hinge having two leaves, means for closing said door automatically when it has opened, a curved latch 53, provided with a plurality of notches, pivoted at one end to one leaf and adapted to enter a slot formed in the other leaf, a buffer 61 normally lying with its front end in the path of movement of said latch and displaceable in a line tangent thereto, and mechanism 65 for retaining said buffer in a normal position but yieldable relative to movement of the door responsive to the said first mentioned means for retarding movement thereof, and responsive to manual closing of said door, permitting the front end of said buffer to be forced in a tangential direction sufficiently to allow the said latch to pass thereby.

3. In combination, a hinge-post, a door hinged to said hinge-post by a hinge having two leaves, means for closing said door automatically when it has opened, a curved latch 53 provided with a notch, pivoted at one end to one leaf, and adapted to enter a slot formed in the other leaf, a buffer 61 normally lying with its front end in the path of movement of said latch for engagement with said notch, and displaceable in a line tangent thereto, and mechanism 65 for retaining said buffer in a normal position, but yieldable relative to movement of the door responsive to said first mentioned means for retarding movement thereof, and responsive to manual closing of said door, permitting the front end of said buffer to be forced in a tangential direction sufficiently to allow the said latch to pass thereby.

1,026,156. HYDROGENATING FATTY MATERIALS. CARLETON ELLIS, Montclair, N. J., assignor to New Jersey Testing Laboratories, a Corporation of New Jersey. Filed Oct. 23, 1911. Serial No. 656,100. (Cl. 87—12.)



1. The process of adding hydrogen to oily material containing unsaturated fatty bodies which comprises forming of said material a traveling liquid stream of great length, in causing said stream to flow along a passage way carrying a stationary mass of catalytic material throughout its length, in simultaneously bringing water gas into contact with said stream as a counter current, whereby gas of maximum hydrogen content comes in contact with that portion of said stream containing a minimum of unsaturated fatty bodies, and in differentially heating said stream in different parts thereof; whereby saturated fatty material is produced in a continuous manner.

2. The process of adding hydrogen to oily material containing unsaturated fatty bodies which comprises forming of said material a traveling liquid stream of considerable length, in causing said stream to flow along a passage way carrying a stationary mass of catalytic material substantially throughout its length, in simultaneously bringing a counter current of hydrogen-containing gas into contact with said stream, whereby gas of maximum hydrogen content comes in contact with that portion of said stream containing a minimum of unsaturated fatty bodies, and in differentially heating said stream in different parts thereof; whereby saturated fatty material is produced in a continuous manner.

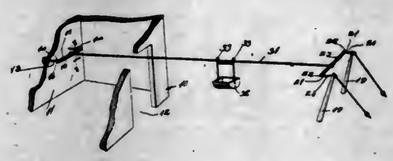
3. The process of adding hydrogen to oily material containing unsaturated fatty bodies which comprises forming of said material an unbroken traveling liquid stream, in causing said stream to flow past a stationary mass of catalytic material and in simultaneously bringing a current of hydrogen-containing gas into contact with said stream; whereby saturated fatty material is produced.

4. The process of adding hydrogen to oily material containing unsaturated fatty bodies which comprises forming of said material an unbroken traveling liquid stream, in causing said stream to flow past a stationary mass of catalytic material, and in simultaneously bringing a current of hydrogen into contact with said stream; whereby saturated fatty material is produced.

5. The process of adding hydrogen to oily material containing unsaturated fatty bodies which comprises forming of said material an unbroken traveling liquid stream, in causing said stream to flow past a stationary mass of catalytic material under thermal conditions adapted to the absorption of hydrogen, and in simultaneously bringing a current of hydrogen into contact with said stream; whereby saturated fatty material is produced.

[Claims 6 to 8 not printed in the Gazette.]

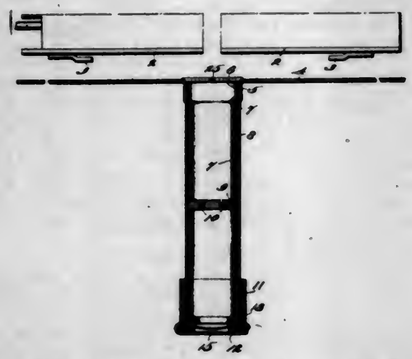
1,026,157. MANURE-CARRIER. ADOLPH GILBERTSON, Hixton, Wis. Filed Jan. 8, 1912. Serial No. 670,042. (Cl. 104—146.)



1. A manure conveyer comprising a member suitably mounted within a barn, a member suitably mounted at a convenient point outside of a barn, the outer member being of a greater length than the member within the barn, each of said members consisting of a pair of plates secured together at their ends, a flanged roller engaging the rear edges of the said plates, a loop passed over the shank of the roller and extending between the plates, a conveyer cable secured at its opposite ends respectively to the loops, of the said members, a car mounted to run on the cable, said rollers being movable longitudinally among the plates, and wedge members for stopping the rollers to prevent their movement from adjusted position.

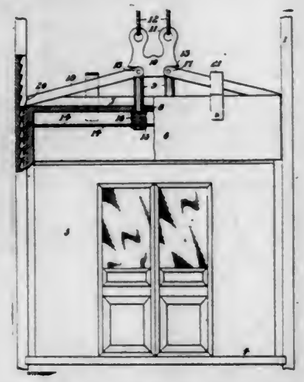
2. A manure conveyer comprising a pair of stationary supports of different sizes, a cable stretched between the supports, means for moving the ends of the cable longitudinally on the supports, and means for holding said adjusting means, one of said supports being of a greater length than the other whereby manure may be deposited at various points within the length of the cable and within the length of the larger support.

1,026,158. X-RAY FINDER. AMÉDÉE GRANGER, New Orleans, La. Filed Sept. 19, 1911. Serial No. 650,276. (Cl. 175—313.)



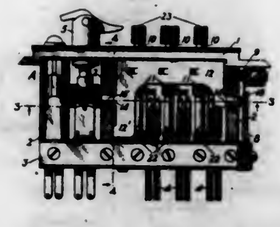
In an X-ray apparatus having a box provided with an opening, the combination of a metal tube detachably supported coaxially about such opening for receiving a cone of X-rays, and a combined finder and indicator comprising a metal indicator supported on said box, and a metal ring and fluorescent screen carried by said detachable tube at a distance from said indicator to coöperate with the latter for locating the axial ray of such cone.

1,026,159. ELEVATOR SAFETY DEVICE. LOUIS GYORFFY, Alliance, Ohio. Filed Sept. 6, 1911. Serial No. 647,809. (Cl. 187—84.)



In an elevator safety device, the combination with vertical guides having the confronting faces thereof provided with teeth, a cage slidably mounted between said guides, and hoisting cables adapted to raise and lower said cage, of transverse beams arranged in parallelism at the top of said cage, a web connecting the confronting faces of said beams, vertical rods movably arranged in said web, a guide plate carried by the lower ends of said rods between said beams, coiled compression springs encircling said rods between said web and said plate, a connecting head connecting said rods and said hoisting cables and providing horizontal shoulders, locking arms having the inner ends thereof pivotally connected to said rods adjacent to said shoulders and the outer ends thereof beveled and adapted to engage the teeth of said guides, and straps carried by the outer sides of said beams and adapted to be engaged by said arms whereby the car will be supported from said straps.

1,026,160. INDICATING RINGING-KEY. WILLIAM E. HARKNESS, East Orange, N. J., assignor to Western Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 14, 1909. Serial No. 489,950. (Cl. 179—177.)



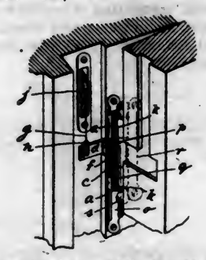
1. In a switch key for telephone switch-boards, the combination with a framework, a plurality of vertical rotatable operating shafts adapted to rock in bearings in said framework, each of said shafts having an off position, an intermediate indicating position and a ringing position, switch springs adapted to be operated by said shafts when rotated to their ringing positions, means for rotating said shafts to their ringing positions and for indicating the positions of said shafts, means for restoring said shafts to their off positions, and a latch plate common to said shafts for retaining an operated shaft in its indicating position.

2. In a switch key for telephone switch-boards, the combination with a framework, of a plurality of vertical rotatable operating shafts adapted to rock in bearings in said framewark, each of said shafts having an off position, an intermediate indicating position and a ringing position, switch springs adapted to be operated by said shafts when rotated to their ringing positions, levers carried by said shafts adapted to indicate the positions of said shafts and for rotating said shafts to their ringing positions, springs on said shafts for restoring them to their off positions, a latch plate common to said shafts adapted to retain an operated shaft in its indicating position and to be actuated to release said shaft upon the operation of any other shaft.

3. In a switch key for a telephone switch-board, the combination with a framework, of two parallel rows of vertical rotatable operating shafts adapted to rock in bearings in said framework, each of said shafts having an off position, an intermediate indicating position and a ringing position, switch springs adapted to be operated by said shafts when rotated to their ringing position, a lever adapted to indicate the positions of said shafts and for rotating said shafts to their ringing positions, means for restoring said shafts to their off positions, a hinged latch plate common to each row of shafts adapted to retain an operated shaft in its indicating position, means carried by each shaft for actuating the plate common to its row, and a link connecting said plates; whereby when a shaft is operated it will release any previously operated shaft in either row.

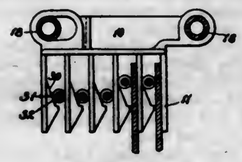
4. In a switch key for telephone switch-boards, the combination with a framework, a plurality of vertical rotatable operating shafts adapted to rock in bearings in said framework, each of said shafts having an off position, an intermediate indicating position and a ringing position, horizontal operating levers, adapted to indicate the positions of said shafts, carried by said shafts above said framework, switch springs supported in said framework and adapted to be operated by said shafts when rotated to their ringing positions, cam-hooks carried by said shafts, a latch plate common to said shafts having projections adapted to be maintained normally in the path of said cam-hooks to retain an operated shaft in its indicating position, but adapted, upon the operation of any other shaft, to be removed to release said first-operated shaft.

1,026,161. CASEMENT-WINDOW. BERNARD HAUSMANN, San Francisco, Cal. Filed Dec. 8, 1909. Serial No. 531,981. (Cl. 20—53.)



A window frame having a sash groove in the jamb, a hinge guide outside of the said groove and upon the face of the jamb adjacent to the inside edge of the groove, a hinge having one member secured to the sash stile and the other member vertically movable in the hinge guide, said last-named member having an arm, a portion of which extends between the bottom of the sash groove and the edge of the sash, and a counter-balance means attached to said arm.

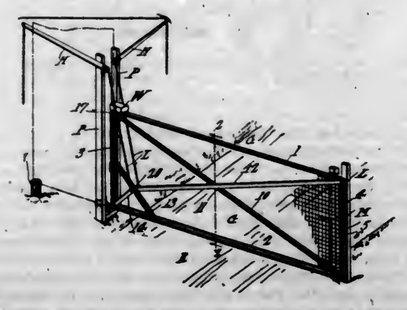
1,026,162. DRIER FOR WALL-BOARDS. HERMAN S. HEICHERT, Ford City, Pa., assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 1, 1909. Serial No. 499,598. (Cl. 34—12.)



1. A conveyer for drying apparatus comprising a plurality of links arranged in pairs, a plurality of arms depending from each link having a flat surface on one side and an inclined rib on the other, and a plurality of rods extending through the pairs of links and supported between the arms by the inclined ribs.

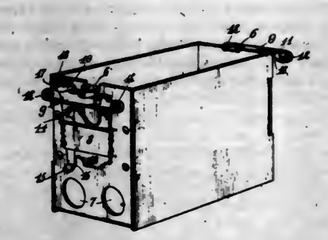
2. A conveyer for drying apparatus comprising a plurality of links arranged oppositely in pairs, a plurality of substantially parallel arms depending from each link provided with inclined faces, a purality of rods extending between the pairs of links, and rollers on the rods supported between the arms by the said inclined faces.

1,026,163. GATE STRUCTURE. JESSIE JAMES HINES, Houston, Tex. Filed Feb. 23, 1911. Serial No. 610,226. (Cl. 39—13.)



The herein described gate comprising a frame, a major diagonal brace extending from the upper inner corner to the outer lower corner thereof, a truss brace extending across the lower inner corner of the frame, and a minor diagonal brace extending from the upper corner of the gate to about the center of said truss brace, riveted thereto, and then extended to the inner lower corner of the frame, the ends of all said braces being riveted to the frame.

1,026,164. SWITCH OR JUNCTION BOX. OTTO C. HOFFMANN, Buffalo, N. Y., assignor to Chauncey R. Hatch, Buffalo, N. Y. Filed Dec. 9, 1911. Serial No. 664,810. (Cl. 247—6.)



1. A switch or junction box having loops on opposite walls, brackets adjustable in said loops, and retainer wedges co-acting with said brackets to hold the same in adjusted position.

2. A switch or junction box having brackets adjustably held thereon, and retainer wedges co-acting with said brackets to hold them in adjusted position.

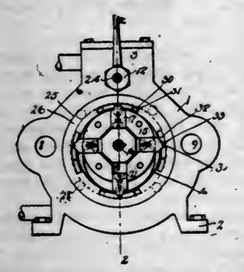
3. A switch or junction box having integral loops on opposite walls, brackets adjustably fitting into said loops and having outstanding securing flanges, and a retainer wedge coacting with each bracket and movable within the loop into which its co-acting bracket fits.

4. A switch or junction box having loops on opposite walls, a bracket adjustable in each loop and having a securing flange at its outer end, retainer wedges in said loops engaging said brackets and having outstanding ears at this upper end.

5. A switch or junction box having loops on opposite walls, one end wall of each loop being tapered inward, a bracket adjustable in each loop and having a securing flange at its outer end, and retainer wedges fitting into said loops between the tapered walls thereof and the brackets therein.

[Claims 6 to 8 not printed in the Gazette.]

1,026,165. ROTARY ENGINE. FRANKLIN P. HUMMEL, Bellevue, Ohio, assignor of one-third to Frank A. Higgins, Bellevue, Ohio. Filed Sept. 19, 1910. Serial No. 582,679. (Cl. 121—79.)



1. A rotary engine comprising in combination a cylinder, a rotor in said cylinder and eccentric thereto, radially movable blades carried by said rotor, a circular cam groove surrounding said cylinder, a ring in said cam groove, and operative connections between said blades and said ring

for causing the blades to follow the curvature of the cylinder wall.

2. A rotary engine comprising in combination a cylinder, a rotor in said cylinder and eccentric thereto, radially movable blades carried by said rotor, a circular cam groove surrounding said cylinder and concentric therewith, a ring in said cam groove, and operative connections between said blades and said ring for causing the blades to follow the curvature of the cylinder wall.

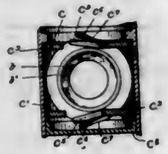
3. A rotary engine comprising in combination a cylinder, a rotor in said cylinder and eccentric thereto, radially movable blades carried by said rotor, a circular cam groove surrounding said cylinder, a groove between the cylinder bore and said cam groove, packing in said intermediate groove, a ring in said cam groove, said ring having an internal flange overlying said packing and approaching the cylinder bore, and operative connections between said blades and said ring for causing the blades to follow the curvature of the cylinder wall.

4. A rotary engine comprising in combination a cylinder, a rotor in said cylinder and eccentric thereto, radially movable blades carried by said rotor, a circular cam groove surrounding said cylinder and concentric therewith, a groove between the cylinder bore and said cam groove, packing in said intermediate groove, a ring in said cam groove, said ring having an internal flange overlying said packing and approaching the cylinder bore, and operative connections between said blades and said ring for causing the blades to follow the curvature of the cylinder wall.

5. A rotary engine comprising in combination a cylinder, a rotor in said cylinder and eccentric thereto, radially movable blades carried by said rotor, hangers connected with said blades and lying substantially flush with the end of the rotor body, a cam groove surrounding the end of the cylinder, means connected with said hangers and engaging said cam groove for causing the blades to follow the curvature of the cylinder wall, a cover plate attached to the end of the rotor, and packing means carried by said cover plate and engaging the first-mentioned means for sealing the end of the cylinder.

[Claims 6 to 14 not printed in the Gazette.]

1,026,166. VENDING-MACHINE. ALFRED R. HUSSEY, Harvard, Mass., assignor to American Water Supply of New England, Boston, Mass., a Corporation of Massachusetts. Original application filed Jan. 25, 1909, Serial No. 474,021. Divided and this application filed Dec. 27, 1910. Serial No. 599,464. (Cl. 211—8.)

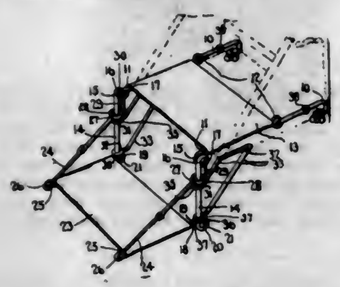


1. In a vending machine wherein cups are successively taken from a pile and conveyed to a cup-support, the combination of means for supporting a pile of inverted cups, an oscillating-member having means for removing the lowermost cup from the pile, and having a cup-receiver upon which the cup thus removed falls, and also having releasing-devices operating to release the cup at the end of the stroke, permitting it to fall upon the cup-support, substantially as described.

2. In a vending machine wherein cups are taken from a pile and conveyed to a cup-support, the combination of means for supporting a pile of inverted cups, an oscillating-member having a cup-receiver and having tapering cup-engaging flanges provided with outwardly movable end portions, and means for positively moving outward said end portions as the member bearing them is oscillated to permit the cup to fall upon the cup-support, substantially as described.

3. In a vending machine, the combination of a cup-support, an oscillating-member having a cup-receiver adapted to receive upon it an inverted cup and having releasing-devices for the cup, permitting it to fall from said receiver upon said support by gravity, and means for oscillating said member and for operating said releasing-devices, substantially as described.

1,026,167. FOLDING STEPS. MICHAEL JEFFERSON, Monroe, La. Filed Mar. 23, 1911. Serial No. 616,456. (Cl. 105—86.)

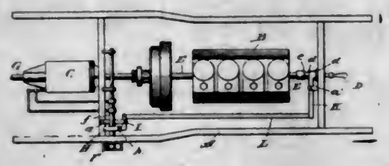


1. Skeleton steps comprising treads connected by spaced risers, swinging props fitted on said risers and forming inclined braces engageable with the overlying treads for preventing collapsing of the steps, and interlocking means between said risers and props.

2. Skeleton steps comprising upper and lower treads, risers connecting said treads, the lower tread being foldable upon said riser, and both of them foldable bodily upon the upper tread, a swinging prop carried by said riser and engaging with said upper tread, and interlocking means between said prop and riser.

3. Skeleton steps comprising upper and lower treads, an intermediate riser connecting said treads, pivotal connections between said treads and risers, an inclined prop mounted for swinging movement on said riser, and engageable with the overlying tread, a locking lug on said prop, and a locking seat carried by said riser engageable with said locking lug.

1,026,168. SAFETY ATTACHMENT FOR AUTOMOBILES. THOMAS B. JEFFERY, Kenosha, Wis.; Kate E. Jeffery, Charles T. Jeffery, and Harold W. Jeffery executors of said Thomas B. Jeffery, deceased. Filed Dec. 30, 1909. Serial No. 535,605. (Cl. 123—179.)



In an automobile having an engine and a controlling lever, a starting crank for the engine movable between an operative position and an idle position, a pivoted lever having one end projecting into proximity to said starting crank and movable between positions corresponding to the two positions of the crank, a disk movable with the controlling lever, said disk having a notch in its periphery, and means extending from the other end of said lever into proximity to said disk, the parts being so proportioned and arranged that the disk locks said lever in the positon to hold the crank in its inoperative position except when the notch in the disk occupies a predetermined position.

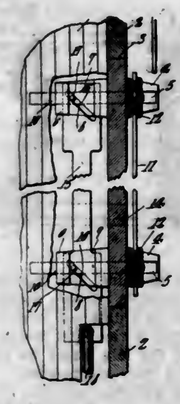
1,026,169. RETORT-OVEN FOR PRODUCING GAS AND COKE. HEINRICH KOPPERS, Essen-Ruhr, Germany. Filed Feb. 17, 1911. Serial No. 609,261. (Cl. 202—9.)



1. In a retort oven for producing gas and coke, a pair of coking chambers, an intermediate heating flue, two pairs of regenerators communicating with said flue, and means for jointly utilizing the regenerators of both pairs for preheating the air of combustion, combined with means for separately utilising the regenerators of each pair for respectively preheating the gas and the air of combustion.

2. In a retort oven for producing gas and coke, a pair of coking chambers, an intermediate heating flue, means adapted to admit the gas of a first supply into said flue, two pairs of regenerators communicating with said flues, and reversible means for admitting the air of combustion to both regenerator-pairs, combined with reversible means adapted to admit gas of a second supply to one regenerator-pair, and with reversible means adapted to admit the air of combustion to the other regenerator-pair.

1,026,170. DOOR-OPERATING MECHANISM. ALBERT D. LAKE, Cripple Creek, Colo., assignor of one-fourth to Charles Boetting and one-fourth to Louis Schnuettgen, Cripple Creek, Colo. Filed Sept. 11, 1911. Serial No. 648,614. (Cl. 20—23.)

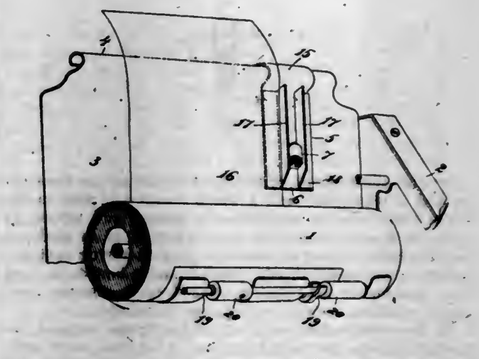


1. A device of the class described comprising a supporting structure; a shifting bar and a guide bar, one of which is provided with a diagonally disposed slot, the other of which is provided with a projection adapted to ride in the slot, both bars being sliable in the supporting structure, at right angles to each other; means for connecting the shifting bar with a door, to move the same transversely; and means for operating the guide bar.

2. A device of the class described comprising a supporting structure; a guide bar and a shifting bar, one of which is provided with a diagonal slot, the other of which is provided with a projection adapted to ride in the slot, both bars being slidably mounted in the supporting structure, at right angles to each other; means for connecting the shifting bar with a door, to move the door transversely; a shaft journaled for rotation in the supporting structure; a connection pivotally united with the guide bar and eccentrically pivoted to the shaft; and a lever secured to the shaft, for the rotation of the shaft.

3. A device of the class described comprising a supporting structure provided with a door-way; a bracket secured to the inner face of the supporting structure, adjacent the door-way, the bracket having a guide-way and an opening at right angles to the guide-way; a guide bar slidable in the guide-way and provided with a diagonal slot; a shifting bar slidable in the opening and having a projection adapted to ride in the slot, the shifting bar being extended through the supporting structure; means upon the outer end of the shifting bar for engagement with a door; a shaft journaled for rotation in the supporting structure; a connection pivotally united with the guide bar and eccentrically connected with the shaft, the means for uniting the connection with the shaft consisting of a lever of the first order uniting the shaft with the connection; and an arm secured to the shaft and movable upon the outside of the supporting structure.

1,026,171. TYPE-WRITING MACHINE. FRANK C. MILLER, Salt Lake City, Utah, assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Mar. 25, 1911. Serial No. 616,916. (Cl. 197—142.)



1. A paper guide attachment for the paper shelf of a typewriting machine, comprising a sleeve fitting upon the upper edge of the paper shelf, a gage, and a guide roller running on the paper shelf, and facilitating the shifting of said guide.

2. A guide for attachment to the paper shelf of a typewriting machine, comprising a body plate lying over the upper face of the paper shelf, a sleeve engaging the upper edge of the paper shelf, a gage for the paper's edge, and a roller running on the face of the paper shelf.

3. A guide for attachment to a paper shelf of a typewriting machine, having a body with a sleeve adapted to engage the upper edge of the shelf, a gage for guiding the edge of the paper, a roller carried by said body rolling on the upper side of the shelf, and a roller rolling on the under side of the shelf.

4. A guide for attachment to the paper shelf of a typewriting machine, consisting of a body having two gages mounted thereupon, a guide roll to run on the upper face of the shelf, and a guide roller to run on the back or under side of the shelf.

1,026,172. LIFE-PRESERVER. JOHN A. O'BRIEN, Seattle, Wash. Filed Jan. 9, 1912. Serial No. 670,216. (Cl. 9—17.)

A life preserver comprising an inner air-tight bag provided at one end with a tube for expanding the same, said bag between said tube and the opposite end of the

bag having a relatively narrow portion, and an outer casing having draw-strings at each end which retain



the bag in the casing and act also as a means for connecting the ends of the casing together.

1,026,173. BAG-CATCH. KARL OSWALD, Newark, N. J., and CHARLES FLAX, New York, N. Y. Filed Dec. 19, 1910. Serial No. 598,261. (Cl. 70—116.)



1. The combination with hinged bag-frame sections one having a projection, and a catch member hinged to the other frame section longitudinally thereof and having an aperture adapted to receive said projection, of an auxiliary catch member hinged to the frame section having said projection also longitudinally thereof and adapted to hook over the top of said first-mentioned catch member, said catch members opening in opposite directions.

2. The combination with hinged bag-frame sections one having a projection on its top, and a box-like catch member hinged to the other frame section longitudinally thereof and adapted to resiliently seat upon the tops of both frame sections, said box-like member having an aperture receiving the said projection, of an auxiliary catch member hinged to the side of the frame section having said projection and adapted to hook over the top of said box-like catch member.

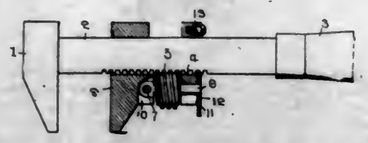
3. The combination with hinged bag-frame sections one having a projection, and a box-like catch member hinged to the other frame section longitudinally thereof, said box-like member having an aperture in its bottom to receive said projection and a depression in its top, of an arm hinged to the frame section having said projection also longitudinally thereof, and a lateral projection on said arm adapted to snap into the said depression in the top of the box-like member.

4. The combination with bag frame sections, of a male catch member on one section, and a female member on the other section, said female member comprising a box-like finger-piece open at its bottom and a plate in said open bottom having one edge which extends longitudinally of the frame fixed to said finger piece and its opposite longitudinal edge fixed to the bag frame section.

5. The combination with bag frame sections, of a male catch member on one section and a female catch member on the other section adapted to overlap the first-mentioned section, said female member comprising a body portion or plate extending longitudinally of the bag frame and fixed at one longitudinal edge to its section, said body portion or plate having at its opposite edge an upturned portion and being apertured between said edges to engage the male catch member, and a boxlike finger piece with an open bottom setting down over said body portion or plate and having one of its side walls secured flatwise to said upturned portion of the body portion or plate.

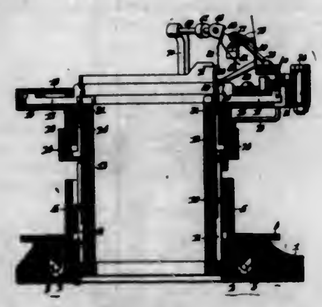
[Claims 6 and 7 not printed in the Gazette.]

1,026,174. WRENCH. GEORGE C. PANGRATZ, Athens, Ohio, assignor of one-half to James T. Banahan, Athens, Ohio. Filed June 15, 1911. Serial No. 633,259. (Cl. 81—168.)



A wrench having a toothed shank carrying a fixed jaw, a jaw movable thereon having open intersecting transverse and longitudinal slots, an adjusting worm wheel having a shaft, said worm wheel engaging the shank and seated in the transverse slot and a leaf spring carried by the movable jaw and engaging the shaft of the worm wheel to hold it in the longitudinal slot as set forth.

1,026,175. YARN-FEEDING DEVICE FOR KNITTING-MACHINES. ALBERT M. PIGEON, Philadelphia, Pa. Original application filed Sept. 19, 1908, Serial No. 453,774. Divided and this application filed Nov. 8, 1910 Serial No. 591,265. (Cl. 66—12.)



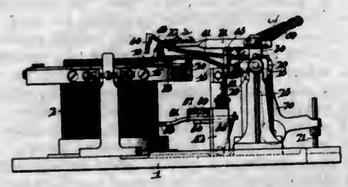
1. In a knitting machine, the combination of a series of independently movable needles, means for moving certain of said needles to a different level to render the same idle, a thread feeding device, and means coöperating with the end needles of the idle series for moving the thread feeding device away from the needles.

2. In a circular knitting machine, the combination of two complementary series of needles at different levels; a thread feeding device; means coöperating with the end needles of one of the series for drawing the thread away from the needles; and means coöperating with said first mentioned means for placing the thread in feeding position, during reciprocatory knitting.

3. In a knitting machine, the combination of a series of independently movable needles, means for supporting and oscillating said needles, means for moving certain of said needles to a different level to render the same idle, a thread feeding device, and means coöperating with the shanks of the idle needles for raising the thread feeding device to prevent the thread from being fed to said idle needles when the machine is moving in one direction, and means for returning said thread feeding device to feeding position upon the reversal of the direction of movement of the machine.

4. In a knitting machine, the combination of a series of independently movable needles, sinkers having yarn engaging portions coöperating with each needle, means for moving certain of said needles to a different level to render the same idle, a thread feeding device, and means coöperating with the end needles in the idle series for moving the thread feeding device away from the idle needles and sinkers coöperating therewith.

1,026,176. YARN-FEED DEVICE FOR KNITTING-MACHINES. ALBERT M. PIGEON, Philadelphia, Pa. Filed May 25, 1911. Serial No. 629,259. (Cl. 66—12.)



1. In a knitting machine, the combination of a series of independently movable needles provided with operating butts, and having the capacity of being thrown to idle position; a yarn feeding device; and means coöperating with the butts of the idle needles for moving the yarn feeding device away from said idle needles.

2. In a knitting machine, the combination of a series of independently movable needles provided with operating butts and having the capacity of being thrown into idle position; sinkers having yarn engaging portions and co-operating with each needle; a yarn feeding device; and means for coöperating with the butts of the idle needles for moving the yarn feeding device away from said idle needles and the sinkers coöperating therewith.

3. In a knitting machine, the combination of a series of independently movable needles provided with operating butts, means for moving certain of said needles to a different level to render the same idle; a yarn feeding device; and means coöperating with the butts of the idle needles for moving the yarn feeding device away from the idle needles.

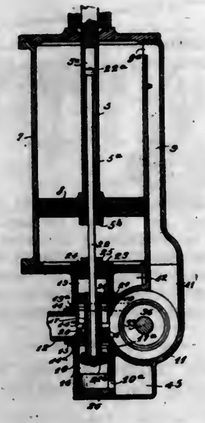
4. In a knitting machine, the combination of a series of independently movable needles provided with operating butts, means for moving certain of said needles to a different level to render the same idle; sinkers coöperating with each needle; a yarn feeding device; and means for moving the yarn feeding device away from said idle needles and the sinkers coöperating therewith.

5. In a circular knitting machine, the combination of two complementary series of needles; means for positioning one series of needles at a different level from the other series of needles; said needles being movable independently and provided with operating butts; a yarn feeding device; and means coöperating with the butts of the needles of one of the series for drawing the yarn feeding device away from the needles in said series.

[Claims 6 to 16 not printed in the Gazette.]

1,026,177. HYDRAULIC MOTOR. JOSEPH F. PROSSER, Cleveland, Ohio, assignor of one-half to Louis Caul, Cleveland, Ohio. Filed May 18, 1909. Serial No. 496,736. (Cl. 138—2.)

1. In a device of the character described, a cylinder, a piston within said cylinder, water inlets to said cylinder, a valve cylinder associated with said cylinder, a valve in said casing controlling the passage of water to said cylinder, a cylindrical opening in the valve casing, tubular sections within said opening, said tubular sections being spaced apart to form ports, one of said ports communicating with the first-mentioned valve, ducts communicating with other ports for conducting water to the opposite ends of the first-mentioned valve, a water inlet pipe communicating with all the ports in the cylindrical opening, a valve provided with heads which engage with the tubular sections in the casing, and means for operating said valve to successively open and close the ports which govern the supply of water to the opposite ends of the first-mentioned valve.



2. In a device of the character described, a cylinder having a piston therein, water inlets to said cylinder, a valve casing associated with said cylinder, a valve in said casing governing the supply of water to the interior of said cylinder, a cylindrical opening in said valve casing, a plurality of ports in said opening, one of said ports communicating with the valve which regulates the supply of water to the first-mentioned casing, the other ports controlling the supply of water to the opposite ends of the first-mentioned valve for operating the same, a valve plug in said cylindrical opening for successively opening and closing the ports which govern the supply of water to the opposite ends of the first-mentioned valve, said plug being hollow, whereby the waste water from one end of the first-mentioned valve may flow through the same.

3. A hydraulic motor comprising in combination a cylinder, a piston within said cylinder, water inlets to said cylinder, a valve casing associated with said cylinder, a valve in said casing controlling the passage of water to said cylinder, a cylindrical opening in the valve casing, a tubular lining within said opening, said tubular lining having spaced ports theren, one of said ports communicating with the first mentioned valve, ducts communicating with other of said ports for conducting water to the opposite ends of the first mentioned valve, a water inlet pipe communicating with all the ports in the tubular lining, a valve provided with heads engaging said lining and adapted to govern the passage through the ports therein, and means for operating said valve to successively open and close the ports which govern the supply of water to the opposite ends of the first mentioned valve.

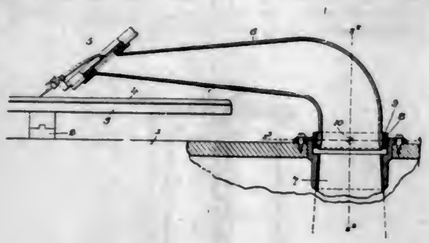
1,026,178. TALKING-MACHINE. WALTER HYER PUMPHREY, New York, N. Y., assignor to Boston Talking Machine Company, a Corporation of Maine. Filed Jan. 9, 1912. Serial No. 670,257. (Cl. 181—3.)

1. In a talking machine, a tone-arm, a helical bearing on which the arm has free movement in substantially horizontally planes and a pivotal bearing within the helix on which the arm swings freely in vertical planes.

2. In a talking machine, a fixed member shaped to provide a helical bearing, and a tone-arm pivotally mounted within the helical bearing and being freely movable on said bearings.

3. In a talking machine, a mounting for a tone-arm comprising helical and pivotal bearings arranged one

within the other, and a tone-arm having free movement on the bearings in planes substantially at right angles to each other.

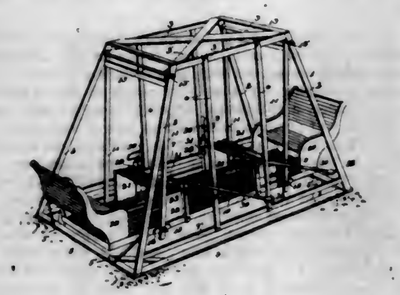


4. In a talking machine, a mounting for a tone-arm comprising helical and pivotal bearings arranged one within the other in substantially the same plane.

5. In a talking machine, a mounting for a tone-arm comprising a helical bearing, a pivotal bearing, and means supporting the pivotal bearing within the helical bearing.

[Claims 6 to 11 not printed in the Gazette.]

1,026,179. SWING. PATRICK H. REGAN, Nashville, Tenn. Filed July 24, 1911. Serial No. 640,186. (Cl. 46—69.)



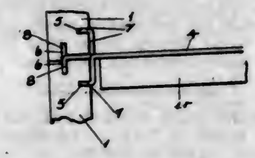
1. In a swing, the combination of a supporting frame, a movable platform having seats thereon, rigid hanger bars for suspending the platform, said hanger bars being journaled on the supporting frame and on the platform, sweeps for imparting motion to the platform, said sweeps having supports on the platform, and abutments for the sweeps.

2. In a swing, the combination of a supporting frame, a movable platform having seats thereon, rigid hanger bars for suspending the platform, said hanger bars having eyes provided with bushings, cross rods on the frame and on the platform on which rods the rigid hanger bars are journaled, sweeps for imparting motion to the platform, said sweeps having supports on the platform, and abutments for the sweeps.

3. In a swing, the combination of a supporting frame, a movable platform, rigid hanger bars for suspending the platform, said hanger bars journaled on the supporting frame and on the platform, sweeps having supports on the platform for imparting motion to the platform, and abutments for the sweeps, the sweeps and the sweep supports being provided with stops to limit the movement of the sweeps and the platform.

1,026,180. KNOCKDOWN SECTIONAL CASE. OLIVER B. ROWLETTE, Grand Rapids, Mich. Filed Apr. 13, 1911. Serial No. 620,894. (Cl. 45—78.)

1. In a knockdown sectional case, the combination of section ends each having parallel horizontal grooves cut inwardly at an angle in a vertical plane to each other, and a shelf extending between the ends of a section and having flanges adapted to be slid in the grooves to retain the ends in relative position.



2. In a knockdown sectional case, the combination of four section ends comprising two ends for each of two adjoining sections, each of said ends having parallel horizontal grooves cut inwardly at an angle in a vertical plane to each other, and a shelf extending between the ends of a section and having flanges adapted to be slid in the grooves to retain all the ends in relative position.

3. In a knockdown sectional case, the combination of section ends having parallel horizontal grooves cut inwardly at an angle in a vertical plane to each other, and a shelf extending between the ends of a section and having flanges adapted to be slid in the grooves to retain the ends in relative position, said flanges being formed by slitting each sheet-metal end of such shelf to form tongues, and bending one tongue upwardly, another downwardly, a third upwardly and outwardly and a fourth downwardly and outwardly.

4. In a knockdown sectional case, the combination of section ends each having parallel vertical grooves cut inwardly at an angle in a horizontal plane to each other, a shelf extending between the section ends and adapted to hold them together, and a back having flanges slidable in the grooves of the section ends.

5. In a knockdown sectional case, the combination of section ends having parallel vertical grooves cut inwardly at an angle in a horizontal plane to each other, a shelf extending between the section ends and adapted to hold them together, and a back having flanges slidable in the grooves of the section ends, said flanges being formed by slitting each sheet-metal side of such back to form tongues and bending one tongue at an angle with the back.

[Claims 6 and 7 not printed in the Gazette.]

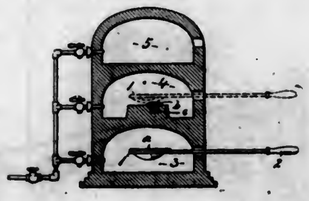
1,026,181. GOLF-CLUB. CHARLES H. SEELY, Noroton, Conn. Filed Jan. 19, 1912. Serial No. 672,203. (Cl. 46—4.)



1. A golf club, comprising a blade or head, spaced resilient metal tangs extending vertically from the heel of said blade or head, and a shaft whose lower extremity is inserted between said tangs and secured thereto.

2. A golf club, comprising a blade or head, a pair of spaced resilient diverging and tapered metal tangs extending vertically from the heel of said blade or head, the space between said tangs being continued down through the heel of said club to the bottom edge thereof, a shaft whose lower extremity is inserted within said space so as to be embraced on two opposite sides only by said tangs, and means for securing said shaft and tangs together.

1,026,182. METHOD OF MAKING LENS-BLANKS. WALTER I. SEYMOUR, Chicago, Ill., assignor, by mesne assignments, to United Bifocal Company, New York, N. Y., a Corporation of New York. Filed May 4, 1909. Serial No. 493,974. (Cl. 49—82.)



1. The herein described method of making bifocal lens blanks consisting in heating a piece of lead glass on a convex form to softness so as to assume such form, then heating a piece of crown glass to a greater degree and applying it to the softened lead glass while still on the form so as to assume the complementary form and unite with the lead glass, then removing the united body and allowing it to cool.

2. The herein described method of making bifocal lens blanks consisting in heating a piece of glass to softness on a convex form so as to assume a complementary form, separately heating another piece of glass of different density to softness and causing a portion thereof to assume a concavo-convex form, then bringing the second named softened glass into position so that its convex side will rest and settle upon the convex side of the first named softened glass while still under heat on the form to unite said pieces, and finally withdrawing the united body and allowing it to cool.

3. The herein described method of making lens blanks consisting in giving a definite curve to a piece of glass while softened by heat, and applying another piece of heat-softened glass to the convex surface of the first named piece while the latter is still heated to softness to unite said pieces and then withdrawing such body and allowing it to cool.

4. The herein described method of making lens blanks consisting in giving a definite curve to a piece of glass while softened by heat, and applying another piece of heat-softened glass of different density to the curved surface of the first named piece while the latter is still heated to softness until the adjacent surfaces are welded and then removing the united body and allowing it to cool.

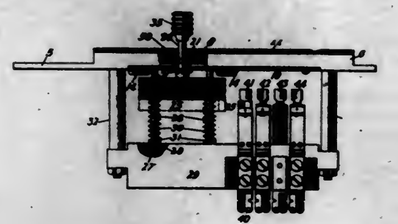
5. The herein described method of making lens blanks consisting in giving a definite curve to a piece of glass while softened by heat, then separately heating another piece of glass of different density to softness and impressing it onto the previously curved piece while the latter is still in a softened condition to weld the adjacent surfaces together and form the blank and then removing the blank and allowing it to cool.

[Claim 6 not printed in the Gazette.]

1,026,183. CIRCUIT-CONTROLLING KEY. HERBERT E. SHREEVE, Millburn, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Oct. 12, 1911. Serial No. 654,279. (Cl. 179—176.)

1. In a switch key, the combination with a plurality of sets of contact springs, of a spring-actuating member for said springs adapted to be moved in two directions, said actuating member having a plurality of preliminary positions in one direction of its movement and being adapted to be brought into engagement with said switch springs when moved in a different direction and while in any one of its preliminary positions.

2. In a switch key, the combination with a plurality of sets of contact springs, of a spring-actuating member adapted to be moved in two directions, said member having a plurality of preliminary positions in one direction of its movement and adapted to engage said switch springs when moved in a different direction and while in any of its preliminary positions, and means for locking said member against movement in the first mentioned direction while it is in engagement with said switch springs.



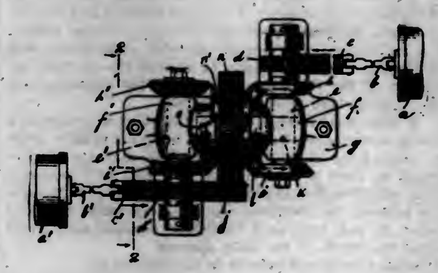
3. In a switch key structure, the combination with a key base, of a plurality of sets of contact springs, a plunger therefor having a plurality of preliminary positions in a direction at right angles to said base, and adapted to be moved in a direction parallel to said base into engagement with said springs in any of its preliminary positions.

4. In a switch key structure, the combination with a key base, of a sliding block carried thereby, a reciprocally mounted plunger rod carried by said block, a spring-actuating member carried by said plunger rod and having a plurality of preliminary positions controlled by said plunger rod and a plurality of sets of switch springs adapted to be engaged by said actuating member in the movement of said sliding block.

5. In a switch key, the combination with a base, of a longitudinal movable block mounted in said base, a reciprocally mounted plunger rod carried by said block, a spring-actuating member carried by said plunger rod and having a plurality of preliminary positions controlled by said rod, a plurality of sets of switch springs of different lengths adapted to be engaged by said actuating member, and means for locking said plunger rod against reciprocation when said actuating member is in engagement with any of said sets of springs.

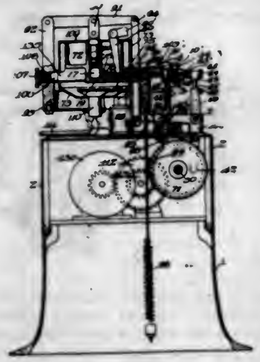
[Claims 6 to 10 not printed in the Gazette.]

1,026,184. GEARING. JOHN STENZ, Brooklyn, N. Y. Filed Feb. 5, 1912. Serial No. 675,491. (Cl. 74—7.)



In combination with oppositely arranged toothed members, gearing for imparting alternate reciprocating motion thereto, said gearing comprising a driving gear having toothed beveled sectors on its two faces, the said sectors being concentric to the said gear and displaced relative to one another at a certain angle, a shaft and a pair of beveled toothed sectors on the latter, on each side of said gear, the said last named sectors of each set being adapted to alternately come into meshing connection with the respective first named sectors and to transmit reciprocatory rotary motion to their respective shafts, and a gear on each shaft meshing with the said toothed members.

1,026,185. TYPE-CASTING MACHINE. JOHN S. THOMPSON, Chicago, Ill. Filed Dec. 5, 1907. Serial No. 405,230. (Cl. 22—6.)



1. A type mold comprising a cap and a base, an intermediate body piece controlling the body-wise and set-wise dimensions of the mold, two jet blocks associated with said cap and base for forming a jet on said type, a jet piece working between said jet blocks, a vertically movable plate forming one side of the mold and jet cavities, and a pusher plate and associated parts to which said body piece and jet piece are attached, and means for independently altering the cross sectional area of said mold and jet cavities.

2. In a casting machine, an adjustable mold, and means for presenting a matrix to said mold, in combination with an adjustable stop rigidly attached to one of said mold members adapted to coöperate with said matrix for limiting the set-wise dimension of the mold.

3. A type mold comprising a stationary base, an adjustable cap, a variable intermediate body-piece, a stationary jet forming block, and an adjustable jet forming block associated therewith, a variable intermediate jet piece, a pusher plate to which said body piece and said jet piece are removably attached, a vertically movable plate forming a fixed wall for the mold cavity, means for advancing said body-piece and jet-piece variably toward said vertical plate for varying the size of the mold cavity.

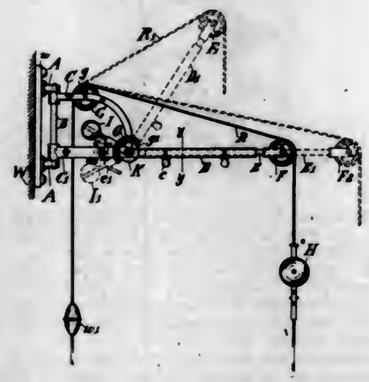
4. A type mold comprising top and bottom members, an intermediate body member, a vertical member forming one side of the mold and provided with an abutting surface for a matrix and an auxiliary member coöperating with said member and said matrix to control the set-wise adjustment of the body member, means for adjusting the parts to form type of varying widths.

5. A type mold comprising top and bottom members, a movable intermediate body member, and an auxiliary member, coöperating therewith, a vertically movable member adapted to form a fixed side of the mold and coöperate with a matrix and said auxiliary member to gage the distance between the members, means for adjusting the body member to and from said vertically movable member to control the width of the mold opening.

[Claims 6 to 22 not printed in the Gazette.]

1,026,186. CORD OR CABLE SUPPORTING BRACKET. JOHN V. TRENAMAN, New York, N. Y., assignor to Trenaman Dental Manufacturing Company, New York, N. Y., a Corporation of New York. Filed June 4, 1909. Serial No. 500,145. (Cl. 32—21.)

1. In a device of the character described, a bracket pivoted to swing upon a vertical axis; an arm pivotally supported on the bracket to swing upon a horizontal axis; a counter weight on the inner end of the arm; a roller on the outer end of the arm; a roller carried by the bracket; a cable extending over such rollers and a body to be supported connected to the end of the cable extending over and downwardly from the roller on the arm and a combined counter weight and handle accessibly located on and connected to the portion of the cable extending downwardly from the roller carried by the bracket.



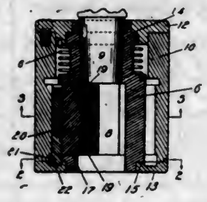
2. In a device of the character described a bracket pivoted to swing upon a vertical axis; an arm pivotally supported on the bracket to swing upon a horizontal axis; a counter weight on the inner end of the arm; a roller on the outer end of the arm; a roller carried by the bracket; a cable extending over such rollers; a body to be supported connected to the end of the cable extending over and downwardly from the roller on the arm; a combined counter weight and handle accessibly located on and connected to the portion of the cable extending downwardly from the roller carried by the bracket and a spring for yieldably and adjustably supporting the arm adapted to compensate for varying weights of the arm at different angular positions by correspondingly varying tensions effected thereby on the spring.

3. In a device of the character described, a bracket pivoted to swing upon a vertical axis; an arm pivotally supported on the bracket to swing upon a horizontal axis; a counter weight on the inner end of the arm; a roller on the outer end of the arm; a roller carried by the bracket; a cable extending over such rollers; a body to be supported connected to the end of the cable extending over and downwardly from the roller on the arm; a combined counter weight and handle accessibly located on and connected to the portion of the cable extending downwardly from the roller carried by the bracket; a spring for yieldably and adjustably supporting the arm adapted to compensate for varying weights of the arm at different angular positions by correspondingly varying tensions effected thereby on the spring and means for adjusting the tension on such spring for any position of the arm to compensate for different longitudinal extensions of the arm.

1,026,187. CHUCK. VERNER J. WAHLSTROM, Brooklyn, N. Y., assignor of one-half to Bernhard T. Burchardi, Brooklyn, N. Y. Filed June 5, 1911. Serial No. 631,481. (Cl. 29—124.)

1. In a chuck, the combination with a body having a central aperture and a plurality of slots opening into the aperture, of a plurality of jaws movable within the slots, a shell rotatably mounted on the body and having a plurality of internal cam surfaces, spacing means normally interposed between the jaws and surfaces, and means for moving the spacing means from between the jaws and surfaces.

2. In a chuck, the combination with a body having a central aperture and a plurality of slots opening into the aperture, of a plurality of jaws movable within the slots, a shell rotatably mounted on the body and having a plurality of internal cam surfaces, a plurality of spacing blocks normally lying between the jaws and surfaces, and means for moving the blocks from between the jaws and surfaces.



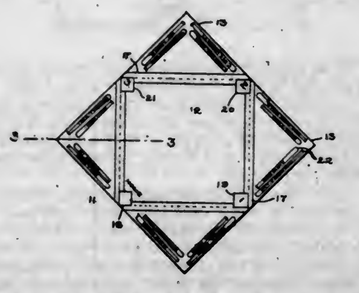
3. In a chuck, the combination with a body having a central aperture and a plurality of slots opening into the aperture, a plurality of jaws movable within the slots, a shell rotatably mounted on the body and having a plurality of internal cam surfaces, a plurality of spacing blocks normally lying between the jaws and surfaces, each of the blocks being provided with an enlarged head, and means engaging the heads of the blocks to move them between the jaws and surfaces.

4. In a chuck, the combination with a body having a central aperture and a plurality of slots opening into the aperture, a plurality of jaws movable within the slots, a shell rotatably mounted on the body and having a plurality of internal cam surfaces, a plurality of spacing blocks normally lying between the jaws and surfaces, means engaging the blocks for retaining the same in line with the jaws during a part of the rotating movement of the shell, and means for moving the blocks out of line with the jaws during another part of the movement of the shell.

5. In a chuck, the combination with a body having a central aperture and a plurality of slots opening into the aperture, a plurality of jaws movable within the slots, a shell rotatably mounted on the body and having a plurality of internal cam surfaces, a plurality of spacing blocks normally lying between the jaws and surfaces, means carried by the body for retaining the blocks in line with the jaws during a part of the movement of the shell, and means for moving the blocks out of line with the jaws during another part of the movement of the shell.

[Claims 6 to 12 not printed in the Gazette.]

1,026,188. GAME APPARATUS. CHARLES WATTS, Newark, N. J. Filed Nov. 25, 1910. Serial No. 594,087. (Cl. 46—61.)

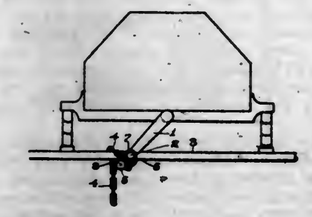


1. The hereindescribed game apparatus, comprising a board having a baseball diamond with bases represented thereon, a single base runner adapted to be moved from base to base continuously around said diamond, and means for simultaneously indicating by chance three of nine "outs" representing the team in the field and nine "plays" of said base runner around said diamond representing the team at bat.

2. The herein described game apparatus, comprising a board having a baseball diamond with bases represented thereon, a single base runner adapted to be moved from base to base continuously around said diamond, and dice providing eighteen faces nine of which faces are marked with the field positions of a baseball team and indicate "outs" the other nine faces being marked to indicate movements of said base runner around the diamond from one base to a complete circuit.

3. The hereindescribed game apparatus, comprising a board having a baseball diamond with bases represented thereon, a single base runner adapted to be moved from base to base continuously around said diamond, and three cubical dice the faces of which represent the players of two opposing teams, nine of said faces being marked with the positions of a baseball team in the field and the other nine being marked with possible moves of the base runner around the diamond.

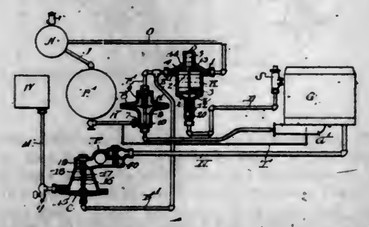
1,026,189. LOCKING DEVICE FOR AUTOMOBILE-CRANKS. CHARLES A. WHEELER, Bridgeport, Conn., assignor of one-half to The Smith & Egge Manufacturing Co., Bridgeport, Conn., a Corporation of Connecticut. Filed June 20, 1911. Serial No. 634,311. (Cl. 70—90.)



1. A locking device for automobile cranks, including a chain, a pad-lock connected to one end of the chain, and an elongated socket formed of a series of wire convolutions, one end of the wire being pivotally connected to the chain, the socket being for the reception of the crank handle, and the chain being adapted to be passed around the stationary part of the automobile and connected to the pad-lock shackle.

2. A locking device to prevent rotation of automobile cranks, including a socketed member designed to be received over the crank handle, a chain connected to said member for engagement with a stationary part of the automobile by passing the chain around said stationary part, said chain when drawn taut causing the inner end of said member to abut the crank, and a padlock carried by the chain to hold same taut.

1,026,190. BOILER-REGULATOR. CHARLES C. WORTHINGTON, Dunnfield, N. J. Filed Jan. 27, 1909. Serial No. 474,580. (Cl. 122—448.)



1. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel

feed under pressure, a regulator for said feeds, means whereby the pressure which acts upon the fuel and the pressure in the generator will constantly act upon the regulator in opposition to each other, and means whereby the admission of the first recited pressure upon the regulator to the fuel and feed supplies and the exhaust from said supplies may be controlled, the last said means including means for controlling the admission and exhaust of pressure upon the fuel and feed supplies.

2. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed under pressure, a regulator for said feeds, means whereby the pressure which acts upon the fuel and the pressure in the generator will constantly act upon the regulator in opposition to each other, said regulator embodying means whereby pressure upon the regulator may be admitted to the fuel and feed supplies and also embodying exhaust therefrom, and a valve for controlling the admission and exhaust of pressure fluid.

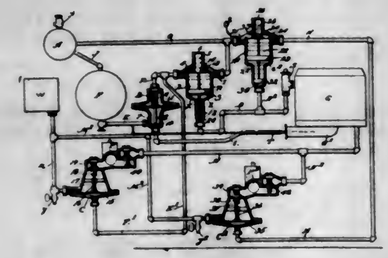
3. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed under pressure, a controlling valve for the fuel feed, means whereby the pressure exerted by the fuel will normally open the valve, a regulator for controlling the valve, means for actuating the regulator, and means for intermittently closing the valve by the operation of the regulator.

4. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed under pressure, a controlling valve for the fuel feed, means whereby the pressure of the fuel will normally open the valve, a regulator, means whereby the pressure on the fuel will act upon the regulator, and means whereby the pressure acting upon the fuel will be controlled by the regulator to intermittently actuate the valve.

5. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed under pressure, a controlling valve for the fuel feed, means whereby the pressure of the fuel will normally hold the valve open, a pressure controlled regulator, means whereby the pressure acting upon the regulator will be controlled by the regulator to permit the valve to be intermittently operated, a valve for controlling the fuel feed, and means whereby the operation of the regulator will permit the valve controlling the fluid feed to be intermittently operated.

[Claims 6 to 16 not printed in the Gazette.]

1,026,191. FEEDER FOR STEAM BOILERS OR GENERATORS. CHARLES C. WORTHINGTON, Dunnfield, N. J. Filed Jan. 27, 1909. Serial No. 474,581. (Cl. 122—448.)



1. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a plurality of regulators for controlling said fluid feed, a fuel feed, means whereby one of the said regulators will control the fuel feed, said regulators having communication with the generator, and means whereby the regulators will be actuated with respect to each other by different degrees of pressure in the generator.

2. In an appartus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed, a plurality of regulators for controlling said feeds, said regulators being adapted to be acted upon by the generator pressure, and means whereby each of the regulators will be actuated by a degree of pressure different from the degree of pressure necessary to actuate the other regulators.

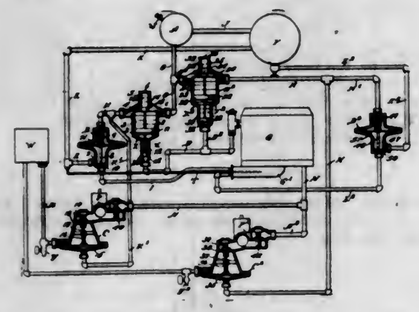
3. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a plurality of pumps for such feed, a regulator for each of said pumps for controlling the supply of fluid from the respective pumps, a fuel feed, and means whereby one of the said regulators will control such fuel feed.

4. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed, a plurality of regulators for controlling the fluid feed, each provided with means whereby the regulators will be actuated by the pressure from the generator, but respectively at different predetermined pressures, one of said regulators acting to control the fuel feed and part of the fluid feed and the other regulator acting to control an additional fluid feed.

5. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed, a plurality of regulators, means whereby the regulators will control the fluid feed, means whereby one of the regulators will control the fuel feed, means whereby the pressure in the generator will act upon all the regulators, means for exerting an opposing pressure on all of the regulators, said regulators being actuated with respect to each other by different degrees of pressure in the generator, and means whereby the said opposing pressure on the regulators may be varied.

[Claims 6 to 26 not printed in the Gazette.]

1,026,192. FEEDER FOR STEAM BOILERS AND GENERATORS. CHARLES C. WORTHINGTON, Dunnfield, N. J. Filed Jan. 27, 1909. Serial No. 474,586. (Cl. 122—448.)



1. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed, a plurality of regulators for controlling the said feeds, means whereby one of the regulators will control a supply of fuel and a supply of fluid, and means whereby the other regulator will control an additional supply of the fluid and the fuel.

2. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed, a plurality of regulators, means whereby one of the regulators will cause the fluid and fuel to be admitted to the generator at one pressure of steam in the generator, and means whereby the other regulator will cause an additional supply of fluid and fuel to be admitted to the generator at a different pressure in the generator.

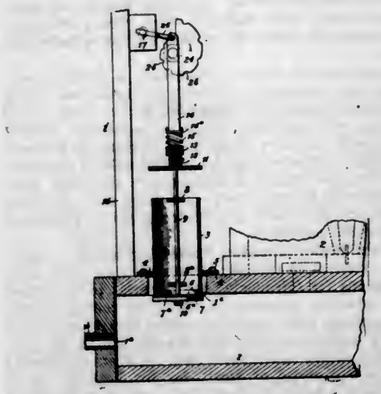
3. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed, a plurality of regulators, each of said regulators controlling a supply of fluid and a supply of fuel, said regulators being adapted to be acted upon by the generator pressure, and means whereby each of the regulators will be actuated to control their respective feeds by a degree of pressure different from the degree of pressure necessary to actuate the other regulators.

4. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed, a plurality of regulators each of said regulators being adapted to control a supply of fluid and fuel, means whereby said regulators will be acted upon by the generator pressure, means for exerting an opposing pressure upon said regulators, means whereby one of the regulators will start and stop a supply of fluid and fuel simultaneously when a predetermined pressure in the generator is reached, and means whereby the other regulator will start and stop an additional supply of fluid and fuel when a different predetermined pressure is obtained.

5. In an apparatus of the character described, the combination with a vapor generator, of a fluid feed, a fuel feed, a plurality of regulators, each of said regulators being adapted to control a supply of fluid and fuel, means whereby said regulators will be acted upon by the generator pressure, means for exerting air pressure upon said regulators, means whereby one of the regulators will start and stop a supply of fluid and fuel simultaneously when a predetermined pressure in the generator is reached, and means whereby the other regulator will start and stop an additional supply of fluid and fuel when a different predetermined pressure is obtained.

[Claims 6 and 7 not printed in the Gazette.]

1,026,193. RELIEF-VALVE FOR PNEUMATIC CLEANING SYSTEMS. MORRIS S. WRIGHT, Worcester, Mass., assignor to Morris S. Wright Company, Worcester, Mass., a Corporation of Massachusetts. Filed Apr. 23, 1910. Serial No. 557,223. (Cl. 230—24.)



1. In a pneumatic cleaning apparatus the combination of a vacuum chamber having an inlet and a pneumatic supported thereon, a valve opening in one of its walls, a cylinder fitted in said opening and having an open end projecting above the wall of said opening, and an automatically operable valve for the lower end of said cylinder.

2. In a pneumatic cleaner of the character described, the combination of a vacuum chamber having an inlet opening and vacuum creating means, one wall of said chamber having an opening, a cylinder fitted to said opening having an annular flange overlying the wall of said opening, said cylinder being open at opposite ends, a valve for closing the lower end opening, resilient means for normally holding the valve closed, and means for regulating the tension of said resilient means.

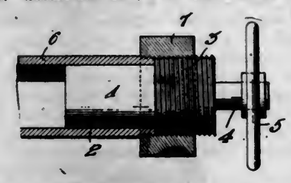
3. In a pneumatic cleaner of the character described, the combination of a vacuum chamber having an inlet opening and vacuum creating means, one wall of said chamber having an opening, a cylinder fitted to said opening having an annular flange overlying the wall of said opening, said cylinder being open at opposite ends, a valve for closing the lower end opening, spring means for normally holding the valve closed, and means for adjusting the spring and indicating mechanism associated with said last mentioned means.

4. In a pneumatic cleaning apparatus, the combination of a vacuum chamber having an inlet opening and vacuum creating means, one wall of said chamber having a relief valve opening, a cylinder fitted to said opening and open at opposite ends an automatically operable valve for one of the openings in the cylinder, and a hood arranged opposite said other opening of the cylinder.

5. In a pneumatic cleaning apparatus, the combination of a vacuum chamber having an inlet opening and vacuum creating means, one wall of said chamber having a relief valve opening, an automatically operable valve for said opening, and a dust guard mounted upon the valve stem and having a diameter slightly greater than the valve opening.

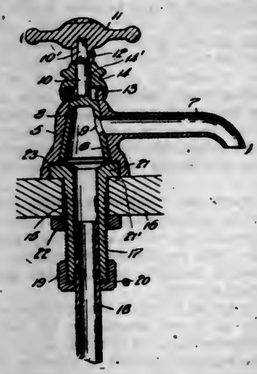
[Claims 6 to 15 not printed in the Gazette.]

1,026,194. DIE-STARTER. JOHN J. YOUNG, Denver, Colo. Original application filed Apr. 27, 1910, Serial No. 557,894. Divided and this application filed Sept. 8, 1910. Serial No. 580,955. (Cl. 10—127.)



A die starter comprising a smooth reduced portion adapted to be snugly inserted into the pipe to be operated upon, an enlarged threaded outer portion having a diameter of the pipe and adapted to abut against the outer end of the latter, a die adjustably mounted upon said screw threaded portion, a reduced centrally disposed shank projecting from the enlarged threaded portion, and a stop handle secured to the shank to hold the starter in position and for limiting the movement of the die in one direction, said shank being of sufficient length to permit the die to be entirely removed from the pipe when brought in contact with the stop handle.

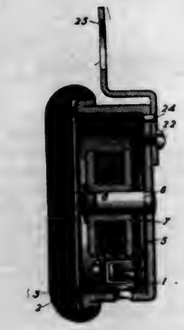
1,026,195. VALVE. GEORGE A. BAUGHAM, Seattle, Wash. Filed Sept. 8, 1910. Serial No. 581,114. (Cl. 137—7.)



A basin faucet comprising a substantially frusto-conical casing providing a valve chamber, said chamber of frusto-

conical shape in contour, said casing at its lower end provided with an offset interiorly threaded annular flange depending from and constituting a support for the casing, said flange further provided with a pocket, said casing further provided at its top with a peripherally threaded annular collar, a spout communicating with said chamber, a frusto-conical shaped hollow plug mounted in said chamber and engaging the walls thereof and provided with a side opening adapted to communicate with said spout, said plug having a closed top and being of less length than the chamber, a stem integral with the top of the plug and projecting above said peripherally threaded collar, a cap engaging said threaded collar and through which said stem projects, a handle connected to the projecting end of the stem, said cap constituting a lifting nut for adjustment of the plug, a sleeve having its upper end formed with a laterally-projecting annular peripherally threaded head extending in said pocket and engaging with the threads of said offset flange of the casing whereby the latter is coupled with the sleeve, and means in connection with said head for fixedly securing the sleeve and casing to a support, the lower faces of the annular flange and the threaded head being flush and both engaging said support.

1,026,196. WATCHCASE-RECEIVER. WILLIAM O. BECK, Weehawken, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Aug. 10, 1910. Serial No. 576,481. (Cl. 179—114.)



1. A telephone receiver having a shallow annular casing, a segment of insulation mounted in said casing, binding posts carried thereby, a core projecting from the bottom of the casing and extending through an opening in said insulation, and a coil adapted to slip over said core into engagement with said insulation, said coil having its terminals secured to said binding posts.

2. A telephone receiver having a shallow annular metalic casing, a segment of insulation mounted in said casing, binding posts carried thereby, a core projecting from the bottom of the casing and extending through an opening in said insulation, and a coil adapted to slip over said core and clamp said insulating segment to said casing, said coil having its terminals soldered to said binding posts.

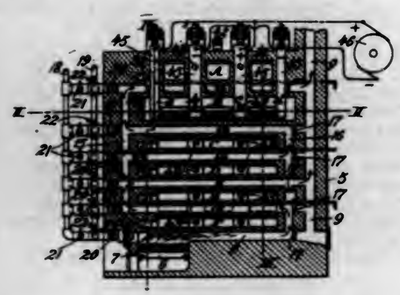
3. In a watch case receiver, a casing, a segment of insulation within said casing, binding posts carried thereby, an electro-magnet within said casing, and a supporting eye, said eye being secured to the exterior of said casing by a pin which projects through said casing and into said insulation segment.

4. In a telephone receiver, the combination with an annular casing, of a core secured to the end wall of said casing, a magnetizing helix adapted to slip over said core, an insulating segment adapted to slip over said core, binding posts carried by said segment to which the terminals of said helix are connected, and a single means for clamping both said helix and said segment in said casing.

5. In a telephone receiver, the combination with an annular casing, of a core secured to the end wall of said casing, a magnetizing helix adapted to slip over said core, an insulating segment adapted to slip over said core, binding posts carried by said segment to which the terminals of said helix are connected, and removable clamping means engaging said core to secure said helix and said insulating segment in said casing.

[Claims 6 to 8 not printed in the Gazette.]

1,026,197. METALLURGICAL FURNACE. GEORGE HILLARD BENJAMIN, New York, N. Y. Filed Aug. 17, 1911. Serial No. 644,663. (Cl. 204—64.)



1. A metallurgical furnace, comprising a series of treating chambers, means for charging the material to be treated into said chambers, means for heating said chambers to definite degrees of temperature, means for heating one of said chambers to a relatively much higher degree of temperature than the other chambers, means for separately exhausting said chambers, and means for separately introducing gases or pulverized bodies into said chambers.

2. A metallurgical furnace, comprising a series of connected treating chambers, a series of valves for separating said chambers, means for charging the material to be treated into said chambers, means for separately heating certain of said chambers to different degrees of temperature, means for heating one of said chambers relatively to a much higher degree of temperature than the other chambers, means for separately exhausting said chambers, and means for separately introducing gases or pulverized bodies into said chambers.

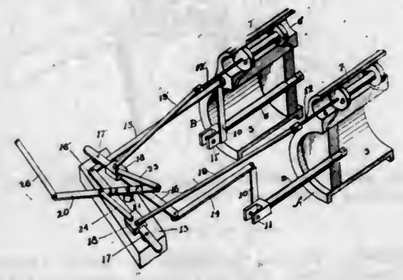
3. A metallurgical furnace, comprising within a single structure, a series of treating chambers, a series of independent means for introducing the material to be treated into the separate chambers, a series of communicating passages between said chambers, valves in said chambers, a series of separately controlled heating means for raising the temperature of certain of said chambers to different temperatures, a series of electrodes for heating one of said chambers, a source of electricity, a series of separately controlled gas exhausting means, and a series of separately controlled gas or flux introducing means.

4. A metallurgical furnace, comprising a series of horizontally disposed treating chambers, a series of horizontally disposed heating flues, said chambers and flues alternately arranged, means for heating certain of the chambers to the maximum temperature of a gas and air flame, means for heating one of said chambers to the maximum temperature obtained by the passage of electricity between the electrodes and an interposed resistant body.

5. A metallurgical furnace, comprising a series of horizontally disposed treating chambers, a series of horizontally disposed heating flues, said chambers and flues alternately arranged, means for heating certain of the chambers to the maximum temperature of a gas and air flame, means for heating one of said chambers to the maximum temperature obtained by the passage of electricity between the electrodes and an interposed resistant body, means for exhausting the air from said chambers, and means for introducing gases or fluxes into said chambers.

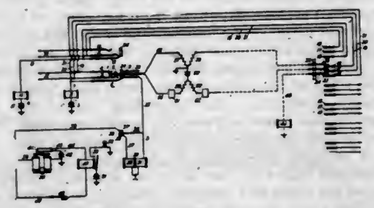
[Claims 6 and 7 not printed in the Gazette.]

1,026,198. DOUBLE-CYLINDER ENGINE. ALBERT G. BETHARD, Decatur, Ala. Filed Dec. 11, 1911. Serial No. 665,042. (Cl. 121—97.)



In combination, an engine having a cylinder, a cylinder valve, a piston and a piston rod, means reversing the engine, comprising a rock arm pivoted to the bed frame of the engine, means for oscillating said rock arm, a sleeve on said arm, a reversing lever connected to said sleeve by a bell crank and link connection, and means connecting said sleeve with the cylinder valve.

1,026,199. REVERTIVE-CALL-INDICATING MEANS FOR TELEPHONE-EXCHANGE SYSTEMS. ALBERT M. BULLARD, deceased, by Marion R. Bullard, administratrix, New York, N. Y., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed June 4, 1909. Serial No. 500,148. (Cl. 179—27.)



1. In a telephone exchange system, the combination with a party telephone line having multiple terminals, of a connecting circuit adapted to be united therewith, a signal device associated with the originating end of said connecting circuit, a circuit for said device independent of the talking circuit, and means including multiple terminals of said party line at each end of said connecting circuit for closing the circuit of said signal device, whereby said signal device will be operated in the test of a multiple terminal of the same line to which said connecting circuit is united at the originating end.

2. In a telephone exchange system, the combination with a party telephone line having multiple terminals and a test conductor extending to contacts at all of said multiple terminals, of a connecting circuit adapted to be united with said line at one of said multiple terminals, a signal device adapted to be temporarily associated with said line by said connecting circuit, and means for closing a circuit for said signal device through said test conductor and corresponding multiple contacts of said connecting circuit at each end thereof, whereby said signal device will be operated when said connecting circuit is connected at both ends to the same line.

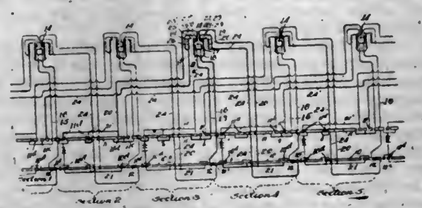
3. In a telephone exchange system, the combination with a party telephone line having multiple terminals, of a connecting circuit adapted to be united with said terminals, a signal device associated with the originating end of said connecting circuit, a circuit for said signal device independent of the talking circuit and including multiple terminals of said party line at each end of said connecting circuit, and a switch in said circuit momentarily operated to close the circuit of said signal device, whereby said signal device will be operated by the closure of said switch when said connecting circuit is connected at both ends to the same line.

4. In a telephone exchange system, the combination with a party telephone line having multiple terminals, of a test conductor extending to contacts at all of said multiple terminals, a connecting circuit adapted to be united with said multiple terminals, a signal device associated with the originating end of said connecting circuit, a circuit for said signal device independent of the talking circuit and including said test conductor and contacts at each end of said connecting circuit, and a switch in said circuit momentarily operated to close the circuit of said signal device, whereby said signal device will be operated by the closure of said switch when said connecting circuit is connected at both ends to the same line.

5. In a telephone exchange system, the combination with a party telephone line having multiple terminals, of a connecting circuit adapted to be united therewith terminating in an automatic switching device, one of said multiple terminals being located in said switching device, test means associated with said switching device, a signal device, a circuit for said signal device including said test means and contacts of said multiple terminals at both ends of said connecting circuit, and a switch for closing the circuit of said signal device, whereby said signal device will be operated by the closure of said switch in the test of a multiple terminal of the same line to which said connecting circuit is united at its originating end.

[Claims 6 to 15 not printed in the Gazette.]

1,026,200. RAILWAY BLOCK-SIGNALING SYSTEM. YORKE BURGESS, Chicago, Ill., assignor, by mesne assignments, to International Automatic Signal Company, Kansas City, Mo., a Corporation of Missouri. Filed Oct. 18, 1910. Serial No. 587,748. (Cl. 246—27.)



1. In a block signaling system, the combination of a track providing a continuous rail and a rail divided into block sections; a track circuit for each block including a track relay, two sets of control contacts for each block, respectively for connection with track relays in advance and in rear thereof, each set comprising a danger contact and a caution contact, two sets of connections controlled by each track relay extending respectively in advance of the local block of the relay and in rear of said local block, each such set of connections normally connecting directly a danger contact with the continuous rail and a caution contact with the continuous rail; and a cab signaling system comprising two main circuits having separate contact members respectively arranged to coöperate with the two sets of control contacts of any block, and caution signal and danger signal display means for each said main circuit.

2. In a block signaling circuit, the combination of a track divided into blocks, a track circuit for each block

including a track relay, two sets of insulated control contacts for each block, two sets of connections controlled by each relay extending respectively in advance of the local block and in rear of the local block of said relay, the forwardly extending connections controlling the electrical association of certain control contacts of one set with the track and the rearwardly extending connections controlling the electrical association of certain control contacts of the other set with the track; and a cab signaling system comprising two main circuits having separate contact members respectively arranged to coöperate with the two sets of control contacts, each such main circuit including a source of current supply carried by the cab, and a motor part for brake-control arranged for operative association with either main circuit alternatively.

3. In a block signaling system, the combination of a track divided into blocks; two sets of insulated control contacts for each block, a track circuit for each block including a track relay, connections controlled by each said relay governing the electrical association with the track of certain controls of one set in advance of the local block, and of certain controls of the other set in rear of the local block; and a cab signaling system comprising two main circuits respectively dependent upon the connection of the two sets of control contacts, each such main circuit including a source of current supply, electro-responsive devices, display means associated with each said electro-responsive device; a motor part for brake control; and means for connecting said motor part to be governed by one of the electro-responsive devices of either main circuit.

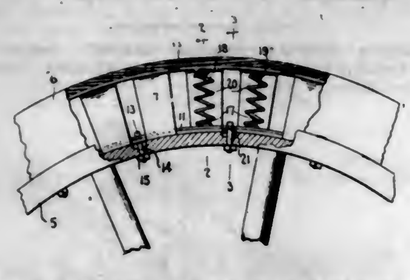
4. In a block signaling system, the combination of a track divided into blocks, two sets of insulated control contacts for each block, a track circuit for each block including a relay; connections controlled by each said relay governing the electrical association with the track of certain control contacts of one set in advance of the local block and certain control contacts of the other set in rear of the local block, and a cab signaling system comprising two main circuits respectively dependent upon the condition of the two sets of control contacts along the track, each such main circuit comprising a source of current supply and an electro-responsive device, a brake-controlling magnet, means connecting said brake-controlling magnet to be governed by the electro-responsive device of either main circuit; and means for association with the engine reversing lever for connecting said brake-controlling magnet to be governed alternatively by one or the other of said two electro-responsive devices, according to the position of said reversing lever.

5. In a block signaling system, the combination of a track divided into blocks; a track circuit for each block including a track relay, insulated control contacts disposed in foreign blocks in advance of and in rear of the local block of each relay, electrical connections for each relay governing the association of said control contacts respectively in advance and in rear of the local block with the track; and a cab signaling system comprising two main circuits arranged respectively for inclusion of said advance control contacts and said rear control contacts, signal display means responsive to the condition of said respective main circuits, and brake-controlling means arranged for association alternatively with either of said main circuits to be governed by the condition thereof.

[Claim 6 not printed in the Gazette.]

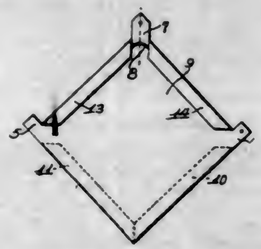
1,026,201. SPRING-TIRE. GEORGE BURSON, Winamac, Ind. Filed July 20, 1910. Serial No. 572,947. (Cl. 152—8.)

In a spring tire, the combination with a wheel rim, of an inclosing casing engaged therewith, a plurality of spaced and bowed spring members located within said casing and holding said casing in distended position, opposed portions connecting the ends of all of said spring members to space and hold them in position, and notches formed in the edges of said portions to form slots when said portions are brought edge to edge, an overlying retaining plate extending entirely around the rim and having elongated slots formed therethrough which register with the first mentioned slots, and T-bolts, the length of the heads of which exceeds the width but not the length of said



slots, said bolts passing through the retaining plate, the connecting portions and the rim.

1,026,202. METALLIC SHINGLE. HIRAM CLAWSON, Hamilton, Ohio. Filed July 5, 1910. Serial No. 570,264. (Cl. 108—17.)



1. A metallic shingle comprising, a rectangular body, overturned hooking flanges at the upper edges of the body, underturned hooking flanges at the lower edges of the body, tabs formed by upward prolongations of the lower edges of the body beyond the upper edges of the body, a tab formed by prolonging the upper corner of the body beyond the folding lines of the upper flanges, and a dam formed by an upwardly projecting ridge extending across the upper corner of the body between the contiguous ends of the upper flanges, combined substantially as set forth.

2. A shingle comprising a sheet metal body having underturned edges on two adjacent sides and overturned edges on the other two adjacent sides, the last named edges being cut away at their meeting corner to accommodate a tile to be superposed, a convex dam being formed in the corner of said tile between said overturned edges.

3. A roofing tile formed of sheet metal having underturned locking edges on two adjacent sides and having overturned locking edges on the other two adjacent sides, said overturned edges being cut away to leave a space at their meeting corner, the tile being provided with a nailing tab extending from said corner, an outwardly convex dam being also provided across said corner between said overturned flanges.

1,026,203. FLOAT. GEORGE B. CRIST, Mohawk, N. Y., assignor, by mesne assignments, to American Pin Company, Waterbury, Conn., a Corporation of Connecticut. Filed Mar. 9, 1909. Serial No. 482,261. (Cl. 4—5.)

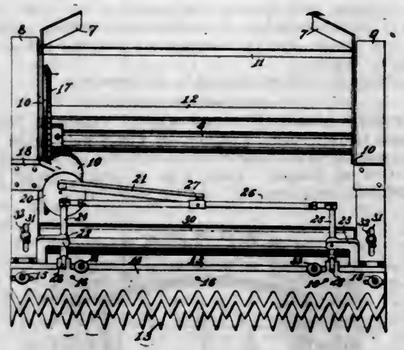
1. In a float valve for controlling the discharge of water from tanks, a hemispherical shell made of elastic material and having an internal groove near its top, and reinforcing ribs formed on its inner surface converging downwardly toward the center of the shell, the upper ends of said ribs being spaced some distance below the internal groove whereby an unbroken seat is formed between the groove and the tops of the ribs.

2. In a float valve for controlling the discharge of water from tanks, the combination with a metallic shell having an externally projecting annular bead and a downwardly projecting flange of less diameter than said bead, of a hemispherical shell made of elastic material and having an annular internal groove, reinforcing ribs formed on its inner surface converging downwardly toward the center



of the shell, the upper ends of said ribs being spaced below the said groove whereby an unbroken surface is formed between said groove and the top of said ribs; the bead of the upper shell being adapted to engage the groove of the lower shell while the depending flange of the upper shell engages the unbroken surface of the lower shell between said groove and the top of said ribs.

1,026,204. LAWN-MOWER. JOHN EDMUNDS, Shamokin, Pa. Filed Dec. 22, 1911. Serial No. 667,380. (Cl. 56—19.)



1. In a lawn-mower the combination with the ground-wheels and driving shaft, of wheel guards arched over the ground wheels and supported on said shaft and having extensions in front of said wheels, a finger bar connecting said extensions, a cutter bar mounted for reciprocation upon the finger bar, a roller mounted at its ends for vertical adjustment upon said extensions, and a cutter-bar driving mechanism connected to said cutter bar and geared to said driving shaft.

2. In a lawn-mower, the combination with the ground-wheels and driving shaft, of guards for said wheels, means connected to said guards and supported on said shaft, said guards having extensions in front of said wheels, a finger bar connecting said extensions, a cutter bar mounted for reciprocation upon the finger bar, upright arms on said extensions, upright levers pivoted to said arms and at their lower ends pivoted to the cutter bar, a link connecting the upper ends of said levers, and a pitman connected to said link and geared to said driving shaft.

3. In a lawn-mower, the combination with the ground-wheels and driving shaft, of wheel guards supported on said shaft and having extensions in front of said wheels, a finger bar connecting said extensions, a cutter bar mounted for reciprocation upon the finger bar, upwardly extending arms on said extensions, levers pivoted in said arms and at their lower ends pivoted to the cutter bar, a link connecting the upper ends of said levers, a pitman connected to said link, a counter-shaft mounted in a bearing on one of said wheel guards, and a pair of gear wheels connecting said counter-shaft to said driving shaft.

4. In a lawn-mower, the combination with the ground wheels and driving shaft, of wheel guards arched over said wheels and having forwardly and downwardly inclined extensions in front of the wheels the inclined portions being longitudinally slotted, cutting mechanism supported on the forward ends of said extensions, and a roller having bearings at its ends adjustably supported in the slots of said extensions.

1,026,205. THREAD-CUTTING APPARATUS. SIMON FREY, Zurich, Switzerland. Filed Nov. 2, 1911. Serial No. 658,201. (Cl. 10—126.)



1. A thread cutting apparatus comprising in combination, a drum-shaped stock provided with a plurality of recesses in the periphery thereof and a fluid chamber, a die carried by said stock and provided with a fluid conducting port open to the cutting edge thereof and communicating with the said fluid chamber of said stock, a band surrounding the periphery of said drum, movable therewith, and provided with fluid conducting means communicating with its periphery and the said fluid chamber in said stock, a handle structure secured to said band and provided with a cavity adapted to contain fluid and in communication with the fluid conducting means of said band, and a ratchet pawl carried by said handle structure and coacting with the said recesses in the periphery of said stock to operate the apparatus.

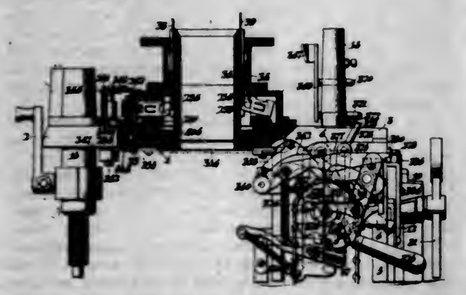
2. A thread cutting apparatus comprising in combination, a drum-shaped stock provided with a plurality of recesses in the periphery thereof and a fluid chamber, a die carried by said stock and provided with a fluid conducting port open to the cutting edge thereof and communicating with the said fluid chamber of said stock, a band surrounding the periphery of said drum, movable therewith, and provided with fluid conducting means communicating with its periphery and the said fluid chamber in said stock, a handle structure secured to said band and provided with a cavity adapted to contain fluid and in communication with the fluid conducting means of said band, a ratchet pawl carried by said handle structure and coacting with the said recesses in the periphery of said stock to operate the apparatus, and means for fixing said pawl in one of said recesses to rigidly connect said handle structure and said stock.

3. A thread cutting apparatus comprising in combination, a drum-shaped stock provided with a plurality of recesses in the periphery thereof and a fluid chamber, a die carried by said stock and provided with a fluid conducting port open to the cutting edge thereof and communicating with the said fluid chamber of said stock, a band surrounding the periphery of said drum, movable therewith and provided with fluid conducting means communicating with its periphery and the said fluid chamber in said stock, a handle structure secured to said band and provided with a cavity adapted to contain fluid and in communication with the fluid conducting means of said band, a spring actuated piston within the said cavity for feeding the fluid to said die, and a ratchet pawl carried by said handle structure and coacting with the said recesses in the periphery of said stock to operate the apparatus.

4. A thread cutting apparatus comprising in combination, a drum shaped stock provided with a plurality of recesses in the periphery thereof and a fluid chamber, a die carried by said stock and provided with a fluid conducting port open to the cutting edge thereof and communicating with the said fluid chamber of said stock, a band surrounding the periphery of said drum, movable therewith, and provided with fluid conducting means communicating with its periphery and the said fluid chamber in said stock, a handle structure secured to said band and provided with a cavity adapted to contain fluid and in communication with the fluid conducting means of said band, a second handle structure adapted to be disposed diametrically opposite said first mentioned handle structure with respect to said stock, and provided with means for embracing said band and securing said second mentioned handle structure to said first mentioned handle structure, and a ratchet pawl carried by said first mentioned handle and coacting with the said recesses in the periphery of said stock to operate the apparatus.

5. A thread cutting apparatus comprising in combination, a drum shaped stock provided with a plurality of recesses in the periphery thereof and a fluid chamber, a die carried by said stock and provided with a fluid conducting port open to the cutting edge thereof and communicating with the said fluid chamber of said stock, means adapted to control admission of fluid into the conducting port of said die, a band surrounding the periphery of said drum, movable therewith, and provided with fluid conducting means communicating with its periphery and the said fluid chamber in said stock, a handle structure secured to said band and provided with a cavity adapted to contain fluid and in communication with the fluid conducting means of said band, and a ratchet pawl carried by said handle structure and coacting with the said recesses in the periphery of said stock to operate the apparatus.

1,026,206. KNITTING-MACHINE. EMIL A. HIBNER, Allentown, Pa. Filed May 22, 1908. Serial No. 434,298. (Cl. 66—23.)



1. In a circuit knitting machine, the combination of a series of needles, a thread carrier for said needles, a second thread carrier for said needles, operating simultaneously with said first named carrier, mechanism whereby one or more threads may be introduced into the thread carriers, and mechanism whereby one or more threads may be substituted for those which have been previously introduced, in accordance with the predetermined pattern, means for controlling said needles whereby they receive the thread of the first named thread carrier and pattern controlled means for controlling certain of said needles only, whereby they receive the thread of the second thread carrier.

2. In a circular knitting machine, the combination of a series of needles, means for feeding a body thread to said needles, means for feeding a plating thread at a point above the body thread feeding means, means for raising said needles, so as to receive the body thread, a cam for raising all of said needles so as to receive the plating thread, pattern controlled means operating upon the individual needles, whereby certain of the same only may be raised to receive the plating thread, and pattern controlled mechanism for throwing out of action the plating cam and into action the said pattern controlled means for the individual needles.

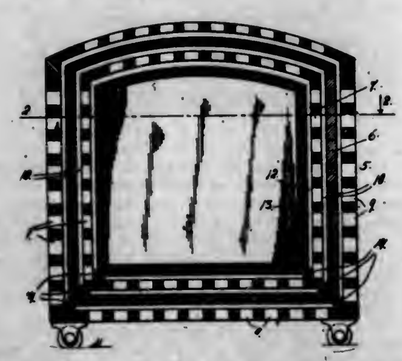
3. In a circular knitting machine, the combination of a series of needles, means for feeding a body thread to said needles, means for feeding a plating thread to said needles at a point above the body thread, means for raising said needles so that the same receive the body thread, a cam for raising said needles to receive the plating thread, an independent jack for each needle for raising the same to receive the plating thread, pattern means for causing certain only of said jacks to be operated, and pattern controlled mechanism for throwing out said cam and throwing into action said jacks.

4. A circular knitting machine including in combination, a series of needles, a plurality of thread carriers arranged in different planes, means for causing certain of said needles only to coöperate with the upper thread carrier including a separate jack for each needle, said jacks being provided with means on their outer ends whereby they may be selectively controlled and means for moving said jacks in accordance with a predetermined pattern.

5. A circular knitting machine including in combination, a series of needles, a plurality of thread carriers arranged in different planes, means for causing certain of said needles only to coöperate with the upper thread carrier including a separate jack for each needle, said jacks being provided with means on their outer ends whereby they may be selectively controlled, a plurality of levers adapted to coöperate with the selective means on the jacks, and means for throwing into action first one and then another of said levers, whereby the pattern may be varied in separate courses.

[Claims 6 to 25 not printed in the Gazette.]

1,026,207. BURGLAR-PROOF SAFE. PIERCE X. JOHNSON, Denver, Colo., assignor, by direct and mesne assignments, to Johnson-Bradford Safe Company, a Corporation of Oregon. Filed Feb. 3, 1911. Serial No. 606,312. (Cl. 109—1.)



1. A safe whose walls are composed of a number of telescoping members suitably spaced and perforated, for the purpose set forth.

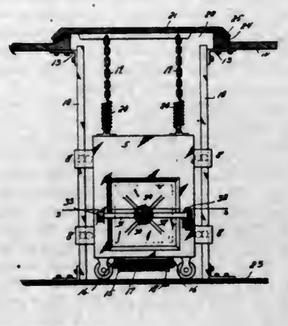
2. A safe having a wall composed of a plurality of perforated members arranged in parallel relation and separated by air spaces, for the purpose set forth.

3. A safe having a plurality of walls, each provided with a multiplicity of narrow slots, for the purpose set forth.

4. A safe having a wall composed of a number of members separated by air spaces, each member being provided with a multiplicity of narrow slots, for the purpose set forth.

5. A safe whose walls are composed of a plurality of telescoping members suitably spaced and provided with perforations, the perforations of adjacent members being arranged in staggered relation, substantially as described.

1,026,208. MARINE SAFE. PIERCE X. JOHNSON, Denver, Colo., assignor, by direct and mesne assignments, to Johnson-Bradford Safe Company, a Corporation of Oregon. Filed Feb. 3, 1911. Serial No. 606,313. (Cl. 9—10.)

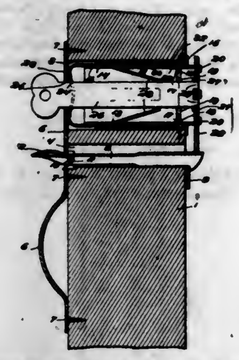


1. The combination with a vessel, of a buoyant safe slidably located on the vessel to permit of vertical movement, a detached plate mounted upon the vessel, a yielding connection between the safe and the plate, a spool journaled on the safe, and a flexible device one extremity of which is connected with the spool, while the other extremity is connected with the vessel, whereby as the safe rises in the event of the sinking of the vessel, the flexible cable is unwound from the spool, substantially as described.

2. The combination with a vessel, of standards interposed between the decks, an opening above the standards, a cover adapted to close the said opening, a buoyant safe located between the standards and connected therewith, the standards acting as guides for the safe, the top of the safe being yieldingly connected with the said cover, a spool mounted on the safe, and a flexible device wound upon the said spool and having one extremity secured to the spool, and the other extremity secured to the lower deck of the vessel, the flexible device being of sufficient length to connect the safe with the vessel after the latter has sunk, substantially as described.

3. The combination with a vessel, of standards interposed between the two decks thereof and suitably secured thereto, a buoyant safe having brackets equipped with anti-frictional devices engaging the standards, a hatchway cover closing an opening in the upper deck above the safe, the said cover having a yielding connection with the top of the safe, a flexible device mounted on a spool connected with the bottom of the safe, said flexible device having one extremity connected with the spool and the other extremity connected with the lower deck, whereby as the safe rises in the event of the sinking of the vessel the flexible device is unwound from the spool, thus serving to locate the wreck, while the safe acts as a buoy.

1,026,209. LOCK. RICHARD J. KEPPEL, Philadelphia, Pa. Filed May 9, 1911. Serial No. 625,986. (Cl. 70—46.)



1. The combination with a door and a frame, a keeper secured to the frame and projecting into the door opening, a pivoted spring latch supported in the door and adapted to engage the keeper, and a lock supported in said door and comprising a cylindrical casing, a cylindrical barrel having rotary mounting in the casing, and a latch engaging cam plate secured on the inner end of said barrel, said cam plate having openings therein, and tongues formed on the ends of the barrel projected through said openings in the cam plate and bent thereagainst, substantially as described.

2. The combination with a door and a frame, a keeper secured to the frame and projecting into the door opening, a pivoted spring latch supported in the door and adapted to engage the keeper, and a lock supported in said door and comprising a cylindrical casing, a cylindrical barrel having rotary mounting in the casing, said barrel having slots therein, blocks secured in the barrel and projecting into the slots limiting the rotary movement of the barrel, a latch engaging cam plate secured to the end of the barrel, said cam plate having openings therein, and tongues formed on the ends of the barrel projected through said openings in the cam plate and bent thereagainst, substantially as described.

3. The combination with a door and a frame, a keeper secured to the frame and projecting into the door opening, a pivoted spring latch supported in the door and adapted to engage the keeper, and a lock supported in said door and comprising a cylindrical casing, a cylindrical barrel having rotary mounting in the casing, a latch engaging cam plate secured on the inner end of said barrel, said cam plate having key receiving openings therein, a key adapted to be projected through the barrel and into said openings, and a spring tongue secured to the casing and frictionally engaging said barrel, substantially as described.

4. The combination with a door and a frame, a keeper secured to the frame and projecting into the door opening, a pivoted spring latch supported in the door and adapted to engage the keeper, and a lock supported in said door and comprising a cylindrical casing, a cylindrical barrel having rotary mounting in the casing, said barrel having slots therein, blocks secured in the barrel and projecting into the slots limiting the rotary movement of the barrel, a latch engaging cam plate secured to the end of the barrel, said cam plate having key receiving openings therein, a key adapted to be projected through the barrel and into said openings, and a spring tongue secured to the casing and frictionally engaging said barrel, substantially as described.

5. The combination with a door and a frame, a keeper secured to the frame and projecting into the door opening, a pivoted spring latch supported in the door and adapted to engage the keeper, and a lock supported in said door and comprising a cylindrical casing, a cylindrical

barrel having rotary mounting in the casing, a latch receiving cam plate secured on the inner end of said barrel, said cam plate having openings therein, tongues formed on the ends of the barrel projected through said openings in the came plate and bent thereagainst, said cam plate having key receiving openings therein, a key adapted to be projected through the barrel and into said openings, and a spring tongue secured to the casing and frictionally engaging said barrel, substantially as described.

[Claim 6 not printed in the Gazette.]

1,026,210. SAFETY-CATCH. JOSEPH R. KILE, Neodesha, Kans. Filed Oct. 9, 1911. Serial No. 653,706. (Cl. 24—157.)

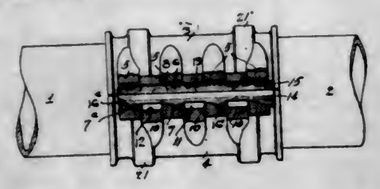


1. The combination, with an article of jewelry or the like having a fastening pin, and a hook to receive the free end of the pin, of a circular supporting plate fixedly mounted on the shank of the hook on the inner side of and in a plane at right angles to the plane of the hook, a locking member embracing and rotatably mounted upon the periphery of said plate, and a bar carried by said member and adjustable therewith to open and close the mouth of the hook.

2. The combination, with an article of jewelry or the like having a fastening pin, and a hook to receive the free end of the pin, of a circular supporting plate rigidly mounted on the shank of the hook in a plane at right angles to the plane of the hook and provided with a tapered peripheral groove, a partially circular locking member rotatably mounted on said plate and having a tapering inner edge engaging said groove, and a bar carried by sid member and adjustable therewith to open and close the mouth of the hook.

3. The combination, with an article of jewelry or the like having a fastening pin, and a hook to receive the free end of the pin, of a slotted plate rigidly connected with the shank of the hook in a plane at right angles to the plane of the hook, a portion of the said hook being received in the slot of the said plate, a locking member rotatably mounted on the said plate, and a locking bar formed on the said locking member and adapted to be adjusted therewith to open or close the mouth of the said hook.

1,026,211. PIPE-COUPLING. GEORGE B. KISSINGER, Aspinwall, Pa. Filed June 27, 1911. Serial No. 635,695. (Cl. 137—28.)



1. In pipe couplings, the combination of two members adapted to embrace adjoining pipe sections and provided with fastening means along one side, one of said members having a plurality of lugs along its other side provided with slots, and the other member having lugs disposed respectively between successive lugs of the first named member and provided with inclined slots, a key insertible longitudinally of said slots, and provided with inclined teeth registering with said inclined slots, and a filler piece insertible within said slots and coöperating with said key to hold said members in mutually contracted position when said key is driven further into said slots, substantially as described.

2. In pipe couplings, the combination of two members, adapted to embrace adjoining pipe sections and provided with fastening means along one side, one of said members having a plurality of lugs along its other side provided with slots, and the other member having lugs disposed respectively between successive lugs of the first member and provided with inclined slots, a key insertible longitudinally of said slots, and provided with inclined teeth registering with said inclined slots, means for filling said slots coöperating with said key to draw said members together when said key is forced further longitudinally of said slots, and means for holding said key in final position.

3. In pipe couplings, the combination with two semicylindrical members adapted to grip the ends of adjoining pipe sections, each of said members having a plurality of lugs along both sides thereof, the lugs of one member being registerable between the lugs of the other member, all of said lugs being provided with slots, the slots of opposite members registering with each other when the members are applied to the pipe sections, the slots of the one member having inclined faces, keys having inclined teeth insertible on the respective sides of said members through said slots, and a filler piece substantially filling said slots when said key is in inserted position.

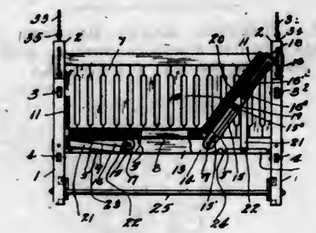
4. In pipe couplings, the combination with two semicylindrical members adapted to grip the ends of adjoining pipe sections, each of said members having a plurality of lugs along both sides thereof, the lugs of one member being registersble between the lugs of the other member, all of said lugs being provided with slots the slots of opposite members registering with each other when the members are applied to the pipe sections, the slots of the one member having inclined faces, keys having inclined teeth insertible on the respective sides of said members through said slots, and a filler piece substantially filling said slots when said key is in inserted position, said filler piece having a tapered forward end and one of said members having a screw bolt adapted to engage said key after said filler piece and key have been driven home, substantially as described.

5. In pipe couplings, the combination with two semicylindrical members adapted to grip the ends of adjoining pipe sections, each of said members having a plurality of lugs along both sides thereof, the lugs of one member being registerable between the lugs of the other member, all of said lugs being provided with slots, the slots of opposite members registering with each other when the members are applied to the pipe sections, the slots of one member having inclined faces, keys having inclined teeth insertible on the respective sides of said members through said slots, and a filler piece substantially filling said slots when said key is in inserted position, each of said members being provided with a pair of transversely extending gaskets registering with the like gaskets of the other member, and one of said members being provided with a longitudinal gasket along the meeting faces of the members.

1,026,212. PORCH-SWING AND THE LIKE. ALBERT H. KLESA, Wilkinsburg, Pa. Filed July 18, 1911. Serial No. 639,086. (Cl. 155—35.)

1. The combination with a sectional seat, of a pair of pivoted bars having slots and a connecting cross rod therein, a supporting frame having a cross rod pivoted in the free ends of said bars, an extensible frame comprising bars attached to the first cross rod and formed with slots to accommodate the second cross rod, and means for holding said extensible frame in extended position.

2. The combination in a porch swing having a sectional jointed seat portion, of a pair of pivoted bars having slots and a connecting cross rod therein, an extensible frame comprising bars attached to the said cross rod and formed with slots, a supporting frame having a conecting cross rod located in the slots of the extensible frame and pivoted in the first pair of bars, and means for holding the supporting frame in adjusted position.



3. The combination in a porch swing having a sectional jointed seat portion, of a pair of pivoted bars having slots and a connecting cross rod therein, an extensible frame comprising bars attached to said cross rod and formed with slots, a supporting frame having a connecting cross rod located in the slots of the extensible frame and pivoted in the first pair of bars, a pair of oppositely disposed recessed cleats, and a rod in the supporting frame adapted for support in said cleats.

4. The combination in a porch swing of a pair of oppositely disposed pivoted bars having slots and a cross rod in said slots, an extensible frame comprising a pair of bars attached to said cross rod and provided with an end bar, means for holding said frame in extended position, and means for supporting the parts.

5. The combination with a pair of oppositely disposed pivoted bars having slots and a cross rod in said slots, of an extensible frame comprising a pair of bars attached to said cross rod and formed with slots, and an end bar, a supporting frame comprising side bars and a connecting cross bar, the latter pivoted in the free ends of the pivoted bars and retained in the slots of the extensible frame, a pair of recessed cleats, and a second cross rod in the supporting frame adapted to seat in said recessed cleats.

1,026,213. ARTIFICIAL TOOTH AND CROWN. JOSEPH KOHN, Philadelphia, Pa. Filed Aug. 16, 1910. Serial No. 577,457. (Cl. 32—9.)

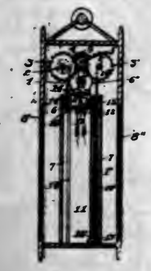


1. An artificial tooth or crown comprising a body portion of plastic material provided with a cavity of half-round shape in the top thereof, a strip of refractory metal embedded within the body of the tooth and below the surface of said cavity and extending up forming a metal wall along the flat side of said cavity, and a pin of less refractory metal having its lower end shaped to fit the cavity and adapted to be secured to said metal strip.

2. An artificial tooth or crown comprising a body portion of plastic material provided with a cavity having a flat side, a strip of refractory metal anchored within the body of the tooth and having a portion fitting against the flat wall of the cavity, and a pin or pivot of less refractory metal having an end similar in shape to the cavity adapted to fit within the cavity and be secured to said strip, and provided with a recess fitting over said strip.

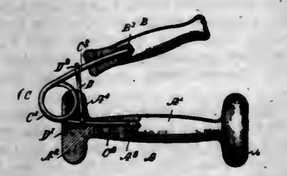
3. An artificial tooth or crown, comprising a body portion made of a plastic material, said body portion being provided with a cavity having a flat side, a strip of metal anchored and baked within the body and having a portion forming a flat wall of the cavity and extending slightly above the mouth of the cavity, and a pin or pivot having an end similar in shape to the cavity adapted to fit within the cavity, and provided with a recess fitting over the projecting portion of the strip.

1,026,214. DISPLAY APPARATUS. KIHEI KOIKE, Seattle, Wash., assignor to Shuichiro Hirai, Seattle, Wash. Filed Feb. 8, 1911. Serial No. 607,417. (Cl. 40—53.)



In display apparatus, two aprons, means supporting said aprons for movement toward and from a displaying position, means for operating said aprons simultaneously in relatively opposite directions, movably mounted controlling means for said last named means for changing the direction of movement of said aprons, and means on said aprons each arranged for operating said controlling means in a respective direction by and during movement of said aprons in one direction.

1,026,215. GRIP DUMB-BELL. JOHN CHARLES KORTH, New York, N. Y. Filed June 29, 1911. Serial No. 635,924. (Cl. 46—68.)



1. An exerciser, comprising a dumb-bell, a grip spaced from the dumb-bell, and a spring connected at its ends with the said dumb-bell and grip at one end thereof, the portion of the spring intermediate the ends of the dumb-bell and grip forming a fulcrum to allow the dumb-bell and grip to swing toward and from each other.

2. An exerciser, comprising a dumb-bell having a longitudinal bore, a grip having a longitudinal bore, and a coil spring having terminals engaging the said bores to connect the dumb-bell and grip with each other.

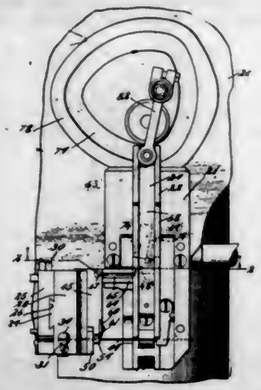
3. An exerciser, comprising a dumb-bell, a grip, a spring connecting the said dumb bell and grip with each other at one end, and a stop on the spring for limiting the opening movement of the dumb-bell and grip.

4. An exerciser, comprising a dumb-bell having a longitudinal bore, a grip having a longitudinal bore, a coil spring having terminals engaging the said bores to connect the dumb-bell and grip with each other, and a stop having hooks at its ends engaging the said spring terminals to limit the opening movement of the said dumb-bell and grip.

5. An exerciser, comprising a dumb-bell having a longitudinal bore, a grip having a longitudinal bore, and a coil spring having terminals engaging the said bores to connect the dumb-bell and grip with each other, the spring terminals for the grip having a kink to hold the grip against accidental displacement.

[Claims 6 to 10 not printed in the Gazette.]

1,026,216. CUTTING MECHANISM FOR WIRE-STITCHING MACHINES. HARRY H. LATHAM and WILLIAM OSTERHOLM, Chicago, Ill., assignors to Latham Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed June 5, 1907. Serial No. 377,454. (Cl. 59—75.)



1. In combination, a staple-forming mechanism to which the wire is adapted to be fed, means for retaining the wire against retrograde movement, a cutter, means controlled by the staple-forming mechanism for operating the cutter, and means controlled by the movement of the cutter for operating the retaining means to release the wire.

2. In combination, a staple forming mechanism to which the wire is adapted to be fed, a supporting member, a cutter-block, a cutter supported by the block, means for detachably securing the block to the supporting member, said means comprising yielding jaws and a member adapted to exert a tension on the jaws to grip the block, a cutter operating member, a detachable and adjustable connection between the cutter and its operating member, and means for intermittently moving the cutter-operating member.

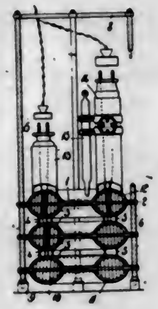
3. In combination, a staple forming mechanism to which the wire is adapted to be fed, a supporting member, a cutter block, a cutter movably supported by the block, wire gripping mechanism also supported by the block, a cutter operating member, means for operating the staple former, means operatively related to the former for intermittently moving the cutter operating member, and means controlled by the movement of the cutter for intermittently moving the gripping member to release the wire.

4. In combination, a staple-forming mechanism to which the wire is adapted to be fed, a supporting member, a cutter-block, means for removably securing the block to the support, a cutter movably supported by the block, wire gripping mechanism also supported by the block and comprising a stationary and a yieldingly supported member, operating means, a detachable connection between said operating means and the cutter, and means controlled by the movement of the cutter for intermittently moving the yieldingly supported gripper member to release the wire.

5. In combination, a staple forming mechanism to which the wire is adapted to be fed, a supporting member, a cutter-block, a cutter supporting member movable on the block and provided with a shoulder, a cutter secured to said member, gripper mechanism also supported by the block and including a movable member, means for normally holding the gripping members in engagement, a cutter-operating member, means controlled by the operation of the staple-former for moving the cutter, and means operatively related to the movable gripper member and adapted to be engaged by the shoulder on the cutter-supporting member for intermittently moving the gripper member against the tension of the yielding member to release the wire.

[Claims 6 to 16 not printed in the Gazette.]

1,026,217. ELECTRIC WATER-HEATING DEVICE. HJALMAR LÖFQUIST, Stockholm, Sweden. Filed Oct. 14, 1911. Serial No. 654,636. (Cl. 219—41.)



1. In electric water heating devices, in combination, a plurality of annular metal casings, each of said casings containing cores having metallic resistance elements wound thereon, said casings being superposed and connected together by watertight channels.

2. In electric water heating devices, in combination, a plurality of casings, each of said casings containing radially arranged cores having metal resistance wires wound spirally thereon, said casings being superposed and connected together by watertight channels.

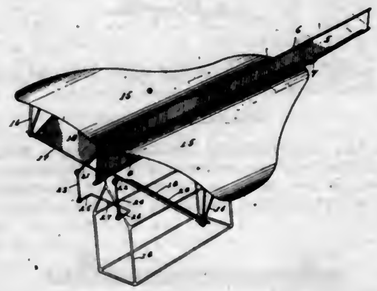
3. In electric water heating devices, in combination, a plurality of casings, each of said casings containing cores having metallic resistance elements wound thereon, said casings being superposed and connected together by watertight channels, said casings being divided into groups, each group being provided with separate terminals, whereby any one of said groups may be utilized.

1,026,218. PERFORATING MEANS FOR CYLINDER-PRESSES. WILLIAM LOWY and JACOB MILCH, New York, N. Y. Filed Jan. 20, 1911. Serial No. 603,767. (Cl. 164—100.)



In cylinder printing presses, the combination with the toothed printing cylinder, and the paper guard bar, of recessed blocks secured to the ends of said bar, vertical slotted brackets slidably borne in said blocks, bearing boxes vertically adjustable within said brackets, a spindle journaled in said bearing boxes, a gear on said spindle adapted to be brought into meshing connection with the teeth of said printing cylinder, longitudinally adjustable toothed disks on said spindle, said disks acting as perforators and adapted to perforate the paper prior to printing, and horisontally adjustable slotted arms embracing said disks and serving as guards to prevent vibration of said perforators.

1,026,219. AUTOMATICALLY-BALANCING AEROPLANE. MARIUS MATHIESEN, San Antonio, Tex. Filed June 27, 1911. Serial No. 635,657. (Cl. 244—29.)



1. In a device of the character described, the combination with a main plane structure comprising a longitudinally extending vertical web and a pair of main planes carried thereby, of a pair of transverse shafts supported at one end in said web and supported at their other ends from the main planes, tilting planes carried by said transverse shafts, arms carried by said tilting planes, a car pendulously supported from the main plane structure, a rigid transverse member carried by said car, and a pair of links each pivotally connected at one end to an end of the rigid member and at its other end to one of the arms of the tilting planes.

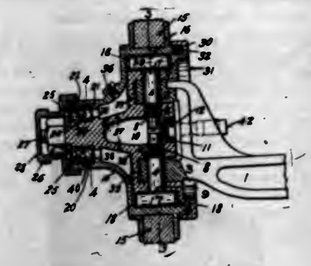
2. In a device of the character described, the combination with a main plane structure, of a car pendulously supported therefrom, a pair of transverse shafts, planes mounted upon said transverse shafts, connections between said planes and said car for tilting said planes in opposite directions when the main plane structure tilts with relation to said car, means for limiting the tilting movement of the main plane structure with relation to said car, said means comprising a fixed yoke secured to the main plane structure and embracing a portion of the car structure.

3. In a device of the character described, the combination with a main plane structure comprising a longitudinally extending vertical web and a pair of main planes carried thereby, of a pair of transverse shafts supported from said web and from said planes, tilting planes supported from said shafts, arms carried by said tilting planes, a car pendulously supported from the main plane structure, rigid arms carried by said car, and link connections between said arms and the arms of said planes.

4. In a device of the character described, the combination with a main plane structure comprising a longitudinally extending vertical web and a pair of main planes carried thereby, of a pair of transverse shafts supported at one end in said web and supported at their other ends from the main planes, tilting planes carried by said transverse shafts, arms carried by said tilting planes, a car pendulously supported from the main plane structure, a rigid transverse member carried by said car, a pair of links each pivotally connected at one end to an end of the rigid member and at its other end to one of the arms of the tilting planes, and a rigid yoke depending from said web and embracing a portion of the car to limit the sidewise tilting movement of the main planes with relation to said car.

1,026,220. VEHICLE WHEEL AND AXLE. JAMES E. MURRAY, McKeesport, Pa. Filed Apr. 21, 1910. Serial No. 556,681. (Cl. 21—93.)

1. In a vehicle, the combination of an axle, a wheel provided with a hub having a large recess in the plane of the spokes and a contracted recess extending outside of said plane, a wheel journal hinged to the axle, cylindrical roller bearings between said journal and hub substantially in the plane of the spokes and contacting directly with the inner face of the hub and the outer face of the journal, a ball race in the contracted outer portion of the hub and bearing against an internal shoulder therein, a cap secured to the hub and closing the outer end thereof and clamping said ball race against said internal shoulder, a ball race fitting on the outer end of the journal against an external shoulder thereon, a collar secured to the journal and clamping said ball race against said external shoulder, said ball races being one within the other and having their coöperating faces substantially parallel to the axis of the wheel and provided with registering semi-circular ball receiving grooves, and balls in said grooves.



2. In a vehicle, the combination of an axle, a wheel provided with a hub, a wheel journal, trunnions connecting said journal and axle, said trunnions having a threaded connection in the journal, and means for locking said trunnions against rotation.

3. In a vehicle, the combination of an axle, a wheel provided with a hub, a wheel journal projecting into the hub and having bearing therein and provided on its inner end with a central recess, trunnions connecting the journal to the axle, said trunnions having a threaded connection in the journal and extending into the central recess therein, and means in said central recess for preventing rotation of said trunnions.

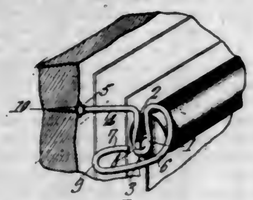
4. In a vehicle, the combination of an axle, a wheel provided with a hub, a wheel journal projecting into the hub and having a bearing therein and provided at its inner end with a central recess and with concentric portions provided with alining openings, trunnions fitting into said alining openings, said trunnions having a threaded connection in the journal, and extending into the central recess in said journal, a key arranged to engage the ends of said trunnions and prevent rotation thereof, and a closure for said central recess.

5. In a vehicle, the combination of a forked axle, a hub, a wheel journal hinged to the forks of the axle by oppositely arranged trunnions and projecting into said hub and having bearing therein and provided at its inner end with a centrally closed chamber, said journal and hub providing an oil chamber therebetween, a port in the journal extending from said oil chamber to the chamber in the journal, a port extending from said central chamber to the lower trunnion, a roller bearing surrounding the journal in the plane of the trunnions, and an oil duct extending inwardly through the journal from the roller bearing to the upper trunnion.

1,026,221. BRACKET. LEVI W. OLMSTEAD and CHARLES W. MESSIMER, Jersey Shore, Pa. Filed Dec. 2, 1910. Serial No. 595,260. (Cl. 156—24.)

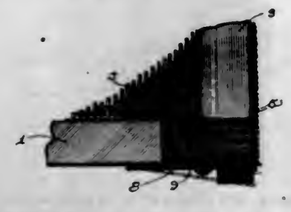
A shade bracket constructed from a length of wire bent intermediate of its ends to form a crotch having a weakened wall and a constricted throat, one terminal of the wire being bent substantially at right angles to the crotch to provide a shank having a threaded end, the other terminal of the wire being bent around but spaced from the

crotch to provide a lever for spreading the crotch and adapted to bend against the supporting wall upon the



shade being inserted into the crotch to form a brace, as before set forth.

1,026,222. FLY-TRAP. JAMES V. RIGSBY and WILLIAM H. ROYAL, Macomb, Mo. Filed July 15, 1911. Serial No. 638,677. (Cl. 43—22.)



A fly trap having a solid bottom with an opening therein, and a second opening adjacent to one edge of the bottom, wire gauze inclosing said trap, a cone of wire gauze open at each end and mounted over the opening in the bottom of the trap, said bottom also having a rectangular opening at one edge thereof, the wire gauze of the side adjacent to said opening projecting below the outer end of the opening, and a flexible strip of wire gauze covering the bottom of said opening, and having its outer end engaging the lower edge of the wire gauze of the adjacent side of the trap.

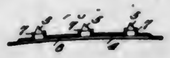
1,026,223. LOCK-FERRULE. CLARK ROBINSON, Spokane, Wash., assignor to Charles G. Taylor and William Bartelt, Spokane, Wash. Filed Sept. 23, 1911. Serial No. 650,987. (Cl. 21—79.)



In a ferrule, a metal portion hollowed out for the reception of the end of a whiffle-tree, a solid end portion thereto, a hub portion of less diameter extending from the solid end portion and an oblong nut at the end thereof all cast integral together with a collar rotatably engaging the solid end portion and having an oblong block extension thereto loosely engaging the hub, the said collar having a slot therein extending half way around the same in the path of a pin inserted in the solid end portion.

1,026,224. ANTISKIDDING DEVICE FOR VEHICLES. MARSHALL J. ROHR, Washington, D. C., assignor of one-fourth to Emory H. Bogley and one-fourth to John W. Bogley, Washington, D. C. Filed Dec. 16, 1910. Serial No. 597,684. (Cl. 152—14.)

In an anti-skidding device, a band offset outwardly forming a recess upon its inner face and a plurality of separated openings with surrounding projections, a plate non-rotatably held within said recess and having spaced projections extending through said openings and beyond



said surrounding projections and snugly embraced thereby, and means for connecting the ends of the band.

1,026,225. REINFORCED INSOLE. GEORGE L. ROLLINS, Bridgewater, Mass., assignor to W. H. McElwain Company, Boston, Mass., a Corporation of Massachusetts. Filed Sept. 28, 1911. Serial No. 651,694. (Cl. 36—43.)



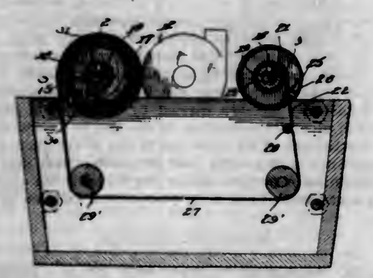
1. An insole having a lip rising from the face thereof and having a channel in the same face inside the lip, a reinforcing strip filling such channel and lying beside the lip, and a reinforce overlying the sole, the strip, and the lip.

2. An inner sole having an upstanding lip and having a channel of substantially uniform depth which has a distinct inner boundary, formed in one face inside of the lip, and a reinforce strip lying in and substantially filling said channel and lying against the inner face of the lip with its inner edge substantially coincident with such boundary.

3. An insole having a lip rising from one face thereof and having a channel in the same face located within the lip, a reinforcing strip lying against the inner side of the lip and the bottom of the channel, of such width and thickness as substantially to fill the channel, and a reinforce overlying the sole and strip, and being turned up on the inner side of the lip.

4. An insole having an integral lip turned up at right angles to the plane of the sole and having a channel located within the lip, and having also its full strength outside the said lip, a reinforce lying on the surface of the sole inside the lip and turned up at the rib, and a supplemental reinforce intermediate the first-named reinforce and rib, lying beneath the first-named reinforce immediately adjacent to the base of the rib, and coextensive in width with the channel.

1,026,226. TEXTILE ROLL. WILLIAM MORRIS ROSSITER, Sunbury, Pa. Filed Aug. 11, 1911. Serial No. 643,572. (Cl. 8—19.)



1. In a dyeing apparatus of the kind described, a hollow roller having a longitudinal opening, a roller mounted within said roller, means wound upon said inner roller and projecting through said opening for suspending one end of the material to be dyed, and means connected to

one end of said suspending means for connecting thereto one end of the material to be dyed.

2. In a dyeing apparatus of the kind described, a hollow roller having a longitudinal opening, a roller mounted within said roller, means wound upon said inner roller and projecting through the opening in the outer roller for suspending one end of the material to be dyed, a rod extending longitudinally of the outer roller and connected to one end of said suspending means, and adapted to be detachably connected with one end of the material to be dyed.

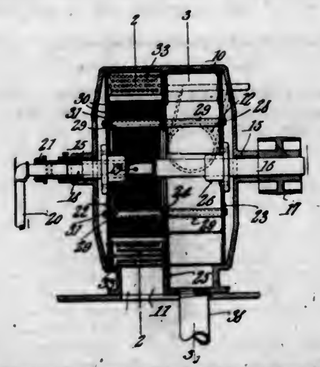
3. In a dyeing apparatus of the kind described, a hollow roller having a longitudinal groove and a longitudinal opening in said groove, a roller mounted within said hollow roller, and suspending means wound upon said inner roller and projecting through the opening in the outer roller, a rod connected to said suspending means projecting through the outer roller and adapted to be seated in the groove in said roller, and provided with means for attaching one end of the material to be dyed.

4. In a dyeing apparatus of the kind described, a hollow roller having a longitudinal groove within its periphery, said groove being formed with an opening, a roller mounted within said hollow roller, cords wound upon said inner roller and projecting through the opening in said groove of the outer roller, a tubular rod secured to the cords extending from said outer roller and having a longitudinal groove, said tubular rod being adapted to be seated within the groove in the outer roller, and means for detachably securing to said tubular rod one end of the material to be dyed.

5. In a dyeing apparatus of the kind described, a dye vat, a hollow roller on which material to be dyed is adapted to be wound, said roller having a longitudinal groove within its periphery and adapted for the passage of suspending means located within said roller, a shaft extending through said roller and having its ends mounted in the walls of said vat, a roller mounted on said shaft within said hollow roller and rotatable within said roller, the hollow roller being rotatable on said inner roller, means for suspending one end of the material to be dyed within the vat, said means being wound upon said inner roller and extending through the longitudinal groove of the outer roller, a rod attached to said suspending means and adapted to be seated within said groove in the outer roller, and provided with means to detachably connect therewith one end of the material to be dyed.

[Claim 6 not printed in the Gazette.]

1,026,227. METHOD OF TREATING GASES. PETER G. SCHMIDT, Olympia, Wash. Original applications filed Sept. 10, 1909, Serial Nos. 517,065 and 517,066. Divided and this application filed Dec. 10, 1909. Serial No. 532,474. (Cl. 48—220.)



1. The method of treating gas which consists in causing the movement of the gas in wire drawn condition through a whirling mist or cloud of a treating fluid in a direction contrary to the action of centrifugal force on said treating fluid.

2. The method of treating gas which consists in causing a whirling movement of the gas in wire drawn condition and a whirling mass of treating fluid in intimate relation, the treating fluid moving under the action of centrifugal force and the gas moving in a direction contrary to centrifugal force.

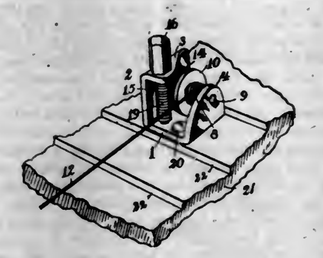
3. The method of treating gas which consists in producing a whirling mass of treating fluid in the form of a mist or cloud yieldable to the action of centrifugal force generated by the rotative movement of the said mass, and causing the gas being treated to traverse said mass in wire drawn condition and in a direction opposed to the action of centrifugal force.

4. The method of treating gas which consists in producing a whirling mass of treating fluid in the form of a mist or cloud yieldable to the action of centrifugal force generated by the rotative movement of said mass, and wire drawing the gas and causing it to traverse said mass in a direction opposed to the action of centrifugal force and at the same time imparting a whirling movement to and subdividing the gas in intimate relation to the treating fluid.

5. The method of treating gas which consists in causing a movement of the gas in wire drawn condition through a whirling mist or cloud of treating fluid in a direction contrary to the action of centrifugal force on the said treating fluid, and then directing the gas into another path and there subjecting it to rotative or whirling movement and the action of centrifugal force.

[Claims 6 to 9 not printed in the Gazette.]

1,026,228. TUNING DEVICE FOR PIANOS. MELVIN L. SEVERY, Arlington Heights, and GEORGE B. SINCLAIR, Medford, Mass. Filed July 1, 1909. Serial No. 505,404. (Cl. 84—67.)

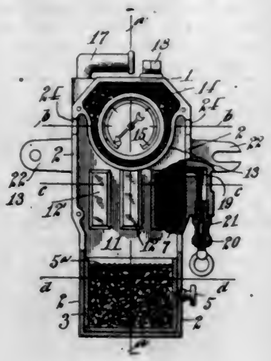


1. A tuning device for stringed instruments comprising a hollow supporting member consisting of a top, bottom and two opposing sides, a small bearing-opening being formed in one of said sides and a large bearing-opening in the opposite side, said openings being in axial alinement, a small bearing-opening being formed in said bottom and a slightly larger one directly above it in said top, a member consisting of a toothed head, a winding drum and a pintle, said pintle fitting in the first-named small bearing-opening and said head fitting in the first-named large bearing-opening, and a tangent screw passed through and rotatable in the second-named larger bearing-opening, and having a small end turning in the second-named small bearing-opening, said tangent screw engaging said toothed head and the latter being formed with an annular groove entered by said screw to enable the screw to retain the winding drum in place in its bearings.

2. A tuning device for stringed instruments comprising three separable members, one being a single integral supporting member having bearing-openings therein, another being a winding member fitted to certain of said openings and having a toothed head, and the third member being a tangent screw fitted to the other of said bearing-openings,

the winding member being adapted to be introduced into its bearing openings, and then the tangent screw into its bearing openings, the tangent screw acting to lock the winding member in place.

1,026,229. PORTABLE STEAM-VULCANIZER. EUGENE A. STIER and RALPH C. BYRD, Dayton, Ohio. Filed July 11, 1911. Serial No. 637,866. (Cl. 18—18.)



1. A vulcanizer comprising a casing having a vulcanizing surface, an inner wall parallel with said vulcanizing surface, joining the side walls and providing a steam chamber for said vulcanizing surface, said inner wall being extended laterally and annularly from said steam chamber to provide a steam gage pocket, the upward terminals of said annular wall uniting with the side walls, and the rearward terminal of said laterally extended portion being extended downwardly and thence laterally and uniting with the front wall of the combustion chamber, and providing a series of steam pockets above the combustion chamber, the side walls being provided with openings on each side of the annular wall, which form outlets for the products of combustion, and whereby a storage of heat around said gage pocket is prevented, and a face plate forming the rear closure for the combustion chamber and having an opening in its upper portion, which coincides substantially with the circumference of the gage pocket.

2. In a hand manipulative vulcanizer, a casing, a vulcanizing wall supported on said casing, said wall being curved lengthwise and transversely whereby the entire surface thereof is adapted to engage the tire to be repaired, an inner wall forming a steam chamber against said vulcanizing wall, said inner wall joining the vulcanizing wall below said steam chamber, a series of steam pockets in said combustion chamber joined to said inner wall, an annular wall joined to said inner wall above the combustion chamber and providing a pocket for a steam gage, a pipe opening between said pocket and the steam chamber, and a face plate inclosing the combustion chamber and engaging the annular wall of the gage pocket at the rear of the vulcanizer, substantially as described.

3. A portable vulcanizer of the character specified, comprising a front wall providing a vulcanizing surface, and top and side walls united to said front wall, an inner wall extending from the top parallel with the front vulcanizing wall and providing a steam chamber thereat, said inner wall having a rearwardly extended and annularly walled pocket for the reception of a steam pressure gage, said inner wall below said pocket having a series of steam pockets lying in the combustion chamber and communicating with the steam chamber, the lower portion of said inner wall being extended to form a burner pocket, substantially as described.

1,026,230. OPERATING MECHANISM FOR CAR-DOORS. RALPH G. TAYLOR, Davenport, Iowa, assignor to Bettendorf Axle Company, Bettendorf, Iowa, a Corporation of Iowa. Filed Oct. 26, 1910. Serial No. 589,108. (Cl. 105—185.)



1. A dump-car, comprising a hopper depending below the plane of the underframe and having a discharge-opening therein, a door for closing said discharge-opening, a worm, the axis of which is arranged transversely of the car, a horizontally disposed worm-gear actuated thereby, a connecting-rod pivotally connected to said gear at one end, and means connecting it to the door at the other end.

2. A dump-car, comprising a hopper depending below the plane of the underframe and having a discharge-opening, therein, a door for closing said discharge-opening, a worm, the axis of which is arranged transversely of the car, a horizontally disposed worm-gear actuated thereby, a connecting-rod having one end bifurcated and pivotally connected to said gear, and means connecting it to the door at the other end.

3. A dump-car, comprising a hopper depending below the plane of the underframe and having a discharge-opening therein, a door for closing said discharge-opening, a worm, the axis of which is arranged transversely of the car, a horizontally disposed worm-gear actuated thereby, a connecting-rod pivotally connected to said gear at one end, a transverse bar or beam secured to said door, one end of which projects beyond the side edge of the same, and a yoke for connecting it to the door at the other end.

4. A dump-car, comprising two hoppers arranged one on each side of the center of width of the car, and depending below the plane of the underframe, and having discharge-openings therein, a door for closing the said opening of each hopper, a transverse member connecting said doors, a worm, whose axis is transverse of the car, a horizontally disposed worm-gear actuated by said worm, a connecting-rod disposed between said hoppers and pivotally connected to said worm-gear at one end, and adapted to impart the motion of the same to said transverse member.

5. A dump-car comprising two hoppers arranged one on each side of the center of width of the car, and depending below the plane of the underframe, and having discharge-openings therein, a door for closing the said opening of each hopper, a transverse member connecting said doors, a worm whose axis is transverse of the car, a horizontally disposed worm-gear actuated by said worm, a connecting-rod disposed between said hoppers, and pivotally connected to said worm-gear at one end, and a yoke connecting the opposite end of said connecting rod to said transverse member.

[Claims 6 to 9 not printed in the Gazette.]

1,026,231. AUDIPHONE-TRANSMITTER. CHARLES E. WILLIAMS, Chicago, Ill. Filed Jan. 14, 1911. Serial No. 602,598. (Cl. 179—122.)



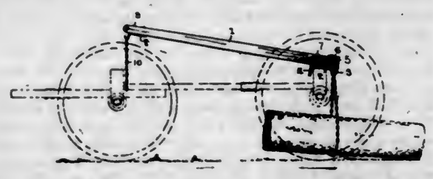
1. In an audiphone transmitter provided with apparatus for electrically transmitting sound waves, a closed reverberatory chamber on one side of said apparatus, and an externally opening reverberatory chamber on the other side of said apparatus; the combination therewith of a resonator having an open side and secured in operative relation to said externally opening chamber, substantially as described.

2. The combination in an audiphone transmitter of apparatus for electrically transmitting sound waves, and provided with a diaphragm, a closed reverberatory chamber in front of said diaphragm, a reverberatory chamber in the rear of said diaphragm and provided with peripheral openings, and a resonator having an open side placed in front of and external to the closed reverberatory chamber and having the peripheral edges thereof adapted to cover and be spaced from the openings in the said rear reverberatory chamber.

3. In an audiphone transmitter, the combination of a closed electrode chamber having a resilient wall, a reverberatory chamber having peripheral openings, a vibratory diaphragm between said chambers, and a resonating chamber concentric with the reverberatory chamber having free edges spaced therefrom, and extended beyond the said peripheral openings.

4. In an audiphone transmitter, in combination, a pair of electrodes one thereof being a diaphragm, caps covering the electrodes, and a cap mounted upon and being of greater diameter than one of the first-named caps and having its outer edge free.

1,026,232. LIFTING DEVICE. WILLIAM H. WILLIAMS, Statesboro, Ga. Filed Nov. 9, 1911. Serial No. 659,431. (Cl. 21—33.)



In a device of the class described, the combination with a vehicle; of a beam, a plate secured upon one side of the beam and at one end thereof, and positioned over the rear axle of said vehicle, the inner end of said plate being bent outwardly at right angles to the beam to form a foot, a depending loop formed in the opposite end of said plate, a right angled extension integral with said plate and secured over the end of the beam, and an anchoring hook secured to the opposite end of said beam for securing the beam in adjusted position to the forward end of the vehicle.

1,026,233. DOOR-LATCH. STEFAN ZACSEK, Los Angeles, Cal. Filed May 16, 1910. Serial No. 561,758. (Cl. 20—16.)

1. A door latch comprising a plate provided with a stud hole and with a hole for the arm of a thumb piece, a handle provided with a stud in the stud hole, a thumb piece provided with a shoulder on one side of the plate and with a transverse notch on the other side of the plate, and a strip having an edge inserted in the notch and also having a hole to receive the stud, and means for fastening the strip on the stud.

2. The combination with an escutcheon plate, of a thumb piece extending through the plate and having a shoulder at one side of the plate and also having a transverse notch in its under side on the other side of the plate, and a strip fastened to the plate and provided with an edge inserted in said notch.

3. The combination with an escutcheon plate, of a thumb piece provided with a shoulder on one side of said plate and with an arm extending from the shoulder through the plate and a retainer fixed to the plate and extending into the underside of the arm to form a fulcrum for the arm on the inner side of the plate.

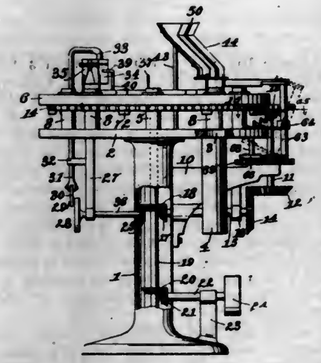


4. The combination with an escutcheon plate of a thumb piece having a shoulder outside the plate and an arm provided with a transverse slot and extending from the shoulder through the plate, and a strip fastened to the plate and having an edge inserted into the slot and being provided with a spring portion to depress the arm.

5. In a door latch, the combination with an escutcheon plate, of a thumb piece provided with a shoulder on one side of the plate and with an arm extending through the plate and provided with a slot on the other side of the plate from the shoulder, a strip provided with an edge inserted in the slot and with side extensions bent to form a spring to depress the arm of the thumb piece, and a bolt and nut to secure the strip to the escutcheon plate.

[Claims 6 to 8 not printed in the Gazette.]

1,026,234. MACHINE FOR APPLYING CLIPS TO COLLAPSIBLE TUBES. LOUIS ABRAHAMS, Washington, D. C. Filed June 23, 1910. Serial No. 568,597. (Cl. 113—1.)



1. A machine for applying clips to collapsible tubes, comprising means for compressing the upper end of the tube, means for imparting a fold to the closed end, means for supplying a clip over the folded end, and means for clamping the clip upon the end of the tube and for forming inwardly extending tube-gripping members in the clip.

2. A machine for applying clips to collapsible tubes, comprising means for compressing the upper end of a tube, a reciprocatory member for folding the upper end of the tube, means for applying the clip to the folded end, and means for clamping the clip upon the end of the tube and for forming inwardly extending tube-gripping members in the clip.

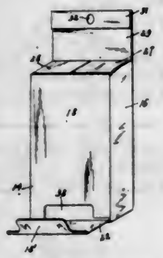
3. A machine for applying clips to collapsible tubes comprising a member having an approximately V-shaped throat to receive the upper end of the tube and compress the same, a reciprocatory member arranged at the apex of the throat to impart a fold to the tube, means for applying a clip to the folded end of the tube, and means for clamping or crimping the clip on the tube.

4. A machine for applying clips to collapsible tubes comprising a member embodying two jaws the opposed faces of which are beveled to provide tube-compressing means, one of the members being movable relatively to the other, a plunger arranged to reciprocate within the stationary member to force the movable member outward thus to provide a fold on the compressed end of the tube, means for applying a clip to the folded end, and means for clamping or crimping the clip on the tube.

5. A machine for applying clips to collapsible tubes comprising a rotary table, tube supports carried thereby, a tube compressing member comprising two jaws one of which is stationary and the other movable, a plunger arranged to move within the stationary jaw to force the movable jaw outward to form a fold on the upper end of the tube, means for actuating the plunger, means for applying a clip to the upper end of the tube, and means for clamping or crimping the clip upon the tube.

[Claims 6 to 17 not printed in the Gazette.]

1,026,235. MATCH-BOX. PAUL P. ADOLPH, New York, N. Y. Filed June 2, 1911. Serial No. 630,856. (Cl. 206—31.)



1. In a match box, the combination with a receptacle having a bottom, two sides and two ends, of a casing which receives said receptacle and comprises a front divided by a transverse incision into an upper section and a comparatively smaller lower section, a rear, two side walls, a cover, a flap having a slit and adapted to be folded upon the lower end of said receptacle, a flap made integral with the lower section of said front having a tongue and adapted to be folded upon said first-named flap, a bottom holding said flaps in folded positions, said lower section of said front being adapted to be separated from the upper section and to be pulled outward until said tongue is brought into engagement with said slit, whereby an opening is formed in said front through which the contents of said receptacle may be removed.

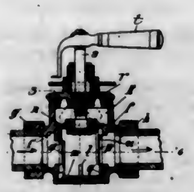
2. In a match box, the combination with a receptacle having a bottom, two sides and two ends, of a casing which receives said receptacle and comprises a front divided by a transverse incision into an upper section and a comparatively smaller lower section, the ends of said incision running at a distance from the lower edge of said front which corresponds about to the thickness of the matches contained in said receptacle, a rear, two side walls, a cover, a flap having a slit and adapted to be folded upon the lower end of said receptacle, a flap made integral with the lower section of said front having a tongue and adapted to be folded upon said first-named flap, a bottom holding said flaps in folded positions, said lower section and said front being adapted to be separated from the upper section and to be pulled outward until said tongue is brought into engagement with said slit, whereby an opening is formed in said front through which the matches in said receptacle may be removed one after the other.

3. A box comprising a front divided by a transverse incision into an upper section and a comparatively smaller lower section, a rear, two side walls, a cover, a flap having a slit and adapted to be folded in a plane at right angles to said side walls, a flap made integral with the lower section of said front having a tongue and adapted to be folded upon said first-named flap, a bottom holding said flaps in folded positions, said lower section of said front being adapted to be separated from the upper section and to be pulled outward until said tongue is brought into engagement with said slit, whereby an opening is formed in said front through which the contents of said box may be removed.

4. A match box comprising a front divided by a transverse incision into an upper section and a comparatively smaller lower section, the ends of said incision running at a distance from the lower edge of said front which corresponds about to the thickness of the matches contained in said box, a rear, two side walls, a cover, a flap having a slit and adapted to be folded in a plane at right angles to said side walls, a flap made integral with the lower section of said front having a tongue and adapted to be folded upon said first-named flap, a bottom holding said flaps in folded positions, said lower section of said front being adapted to be separated from the upper section and to be pulled outward until said tongue is brought into engagement with said slit, whereby an opening is formed in said front through which the matches in said box may be removed one after the other.

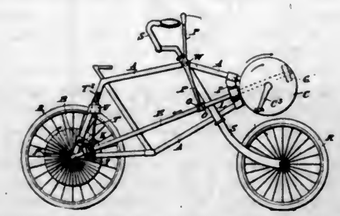
5. In a match box, the combination with a receptacle having a bottom, two sides and two ends, of a casing which receives said receptacle and comprises a front divided by a transverse incision into an upper section and a comparatively smaller lower section, the ends of said incision running at a distance from the lower edge of said front which corresponds about to the thickness of the matches contained in said receptacle, a rear, two side walls, a cover adapted to be folded into the plane of said rear provided with perforations, a flap having a slit and adapted to be folded upon the lower end of said receptacle, a flap made integral with the lower section of said front having a tongue and adapted to be folded upon said first-named flap, a bottom holding said flaps in folded positions, said lower section of said front being adapted to be separated from the upper section and to be pulled outward until said tongue is brought into engagement with said slit, whereby an opening is formed in said front through which the matches in said receptacle may be removed one after the other.

1,026,236. HOT-WATER HEATING SYSTEM. HERMANN AHRENS, Posen, Germany. Filed Dec. 5, 1910. Serial No. 595,725. (Cl. 237—19.)



A hot water heating system comprising in combination, a supply main communicating with the source of heat supply, heat radiating means, and a circulation control device interposed along said supply main and in communication with said heat radiating means, said circulation control device including a casing provided with a chamber having inlet and outlet ports for communication with said supply main, alined to permit uninterrupted flow therethrough, and a chamber in communication with said first mentioned chamber adapted for communication with said heat radiating means, and a plunger, movable cross-wise the direction of current flow, adapted to close or open the communication between the said chambers of said casing, and provided with a wall adjacent to the said outlet port of said first mentioned casing, whereby said plunger may be moved to retard the current flow at said outlet port and divert the same into said second mentioned chamber, or to simultaneously close the said communication between the said chambers and allow uninterrupted passage through said first mentioned chamber.

1,026,237. ELASTIC VARIABLE GEARING. ARTHUR M. ALLEN, New Brighton, N. Y. Filed Mar. 22, 1909. Serial No. 485,150. (Cl. 74—41.)



1. A driving gear and a driven gear, whose contact surfaces are hard angular teeth, said gears being separated beyond possible contact distance, in combination with a membrane of tough and elastic material, into which both sets of teeth bury without tearing, whereby the full tensile strength of the material is available for power transmission.

2. A driving pinion and a driven gear whose contact surfaces are hard angular teeth, said gears being separated beyond possible contact distance in combination with a tube of tough and elastic material covering the pinion, and means to keep the pinion teeth buried in the elastic material forming elastic gearing.

3. A driving pinion and a driven gear, whose contact surfaces are hard ratchet shaped teeth, said gears being separated beyond possible contact distance, in combination with a tube of tough and elastic material covering the pinion, said tube being an elastic tensional connection between the gears, the whole thereby forming improved elastic gearing.

4. A frame, a shaft, a hard tooth ratchet crown gear fixed thereon, and mounted in said frame, an eccentric mounted in the frame, another shaft at right angles to the first, and mounted in the eccentric, and a ratchet faced pinion carried thereby, and a tough and elastic tube covering the pinion, in combination with means to give the pinion shaft, both rotary and endwise motion, and means to control the position of the eccentric.

5. A frame, two parallel shafts and two eccentrics mounted thereon, a ratchet tooth crown gear mounted on each of said shafts, in combination with a third shaft transverse to said shafts, and mounted in the eccentrics and two hard toothed ratchet faced pinions carried thereby, tubes of tough and elastic material inclosing said pinions, means to control the position of the eccentrics, and means to give the pinion shaft endwise motion.

[Claims 6 to 8 not printed in the Gazette.]

1,026,238. ELECTRICAL CONNECTION. JOHAN M. ANDERSEN, Boston, Mass., assignor to Albert and J. M. Anderson Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed Feb. 15, 1912. Serial No. 677,727. (Cl. 173—322.)

1. The combination with the plug member of an electrical connection having a metal shell provided at its end with an opening through which the electric conductors are passed, of a combined anti-chafing and strain relieving device comprising members extended through said opening into and outside of said metal shell and provided with means for engaging said shell within the same, and means for securing said members in fixed relation to said conductors.



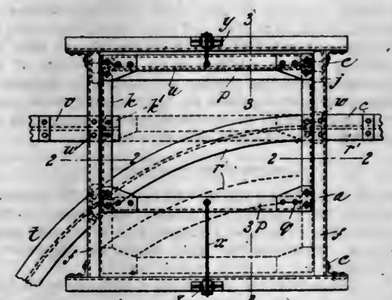
2. The combination with the plug member of an electrical connection having a metal shell provided at its end with an opening through which the electric conductors are passed, of a combined anti-chafing and strain relieving device comprising members extended through said opening into and outside of said metal shell and provided near the end within the said shell with transverse grooves for the reception of the walls of said opening and forming external flanges for engagement with the walls of said opening within the said shell, substantially as described.

3. An anti-chafing and strain relieving device of the character described comprising members having in their inner surfaces longitudinally extended grooves and projections or teeth within said grooves and provided on their outer surfaces near one end with transversely extended grooves forming external flanges, substantially as described.

4. An anti-chafing and strain relieving device of the character described comprising members having in their inner surfaces longitudinally extended grooves and provided on their outer surfaces near one end with transversely extended grooves forming external flanges, substantially as described.

5. The combination with a metal shell having at its end an opening through which electric conductors are passed of an anti-chafing and strain relieving device comprising members capable of being inserted into said shell between the walls of the said opening and said conductors and provided with means of engaging the shell within the same, and means for securing together the ends of the members outside of said shell.

1,026,239. SWITCH FOR I-BEAM TROLLEY-TRACKS. HARRY E. BALLARD, Holyoke, Mass., assignor to Coburn Trolley Track Manufacturing Company, Williamsett, Mass., a Corporation of Massachusetts. Filed July 17, 1911. Serial No. 638,836. (Cl. 104—180.)

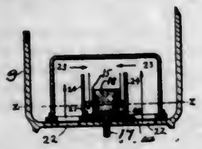


1. In an overhead trolley switch of I-beam construction, a main frame composed of channel iron and supported on the end sections of the main track, a track on a flange of the main frame, a frame mounted for transverse movement in the main frame and provided with antifriction rollers to engage the track on the web of the main frame, sections of I-beams mounted in the movable frame and adapted to register with the end sections of the main track.

2. An overhead trolley switch for trolley tracks that are adapted to run on the flanges of I-beams, an open rectangular shaped fixed frame formed from channel iron, a movable frame located within the fixed frame, sections of I-beams mounted in the movable frame and adapted to register with the end portions of the I-beams of the main tracks when the movable frame is operated, a stop device in the movable frame to prevent a trolley truck from becoming derailed if the movable frame is in a certain position, and cable devices to operate the movable frame.

3. An overhead trolley switch construction having in combination with the end sections or portions of the main tracks to permit a trolley truck to pass from a main track to either one of the other tracks, a main frame composed of channel-iron and supported on the ends of the main tracks, tread-bars secured to a horizontal web of the main frame, a movable frame, track sections mounted therein to connect the end sections of the main track, rollers on the movable frame to engage the tread-bars, a stop plate attached to the movable frame to block the end of a main track section when one of the track-sections of the movable frame is in use, and means to operate the movable frame to shift the track-sections therein.

1,026,240. OIL-BURNER. GEORGE JOSEPH BOLDUC, Seattle, Wash. Filed June 27, 1911. Serial No. 635,694. (Cl. 158—80.)

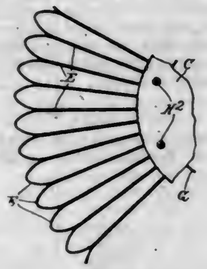


In a burner of the class described, a floor-bottom provided with a hole in its central portion through which oil may flow toward a point of combustion, vertical walls disposed about said hole and fixed upon said floor-bottom, a solid plug of metal removably disposed within said walls to rest upon and be supported by said floor-bottom, said plug being of a size to afford suitable space for flow of oil between its sides and said walls, oil-grooves formed on the bottom of said plug to extend radially from the center of said bottom to the vertical sides of said plug, two oblong holes which form openings through said floor-bottom and which are disposed one on each of two opposite sides of said walls, and a removable, oblong and box-like casing adapted to rest upon said floor-bottom and cover said walls, said plug and said two oblong holes, said casing being provided on each of its two largest sides with an opening through which a flame and products of combustion may pass and further provided with suitable deflecting partitions disposed to direct air currents to the point of combustion, in combination with means for conducting oil to said hole in said floor-bottom.

1,026,241. DISPLAY-RACK. BENJAMIN J. BUCKINGHAM, Chicago, Ill., assignor, by mesne assignments, to Buckingham-Rae Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 26, 1906. Serial No. 336,228. (Cl. 211—30.)

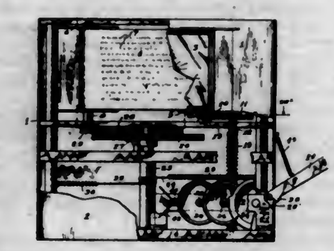
1. A garment holder comprising a support and a group of flat, outwardly arched spring-fingers in contact with each other along their sides, and each supported on each side near the base of its arch, and all of such length and strength that they form near their respective ends high-tension clamping areas with intermediate low-tension clamping surfaces.

2. A garment holder comprising a support and a group of flat, outwardly arched spring-fingers in contact with each other along their sides, and each supported on each side near the base of its arch, and all of such length and strength that they form near their respective ends high-tension clamping areas with intermediate low-tension clamping surfaces, the fingers arranged in a continuous group, each supported on each side by the adjacent spring-fingers.



3. A garment holder comprising a support and a group of flat, outwardly arched spring-fingers in contact with each other along their sides, and each supported on each side near the base of its arch by another spring-finger so as to form a continuous group, and all of such length and strength that they form near their respective ends high-tension clamping areas with intermediate low-tension clamping surfaces, said support comprising a vertical part with a laterally projecting rotating part mounted thereon.

1,026,242. ADVERTISING DEVICE. WILLIAM C. CUTLER and GEORGE I. LEONARD, Los Angeles, Cal., assignors to Isabel M. Cutler, Sawtelle, Cal. Filed Aug. 14, 1911. Serial No. 644,048. (Cl. 40—31.)

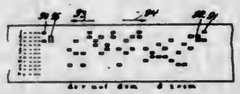


1. An information and advertising display device, comprising a case, two rolls rotatably mounted therein, a curtain winding on said rolls and provided with information and advertising matter, spring means acting on one of said rolls tending to wind the curtain thereonto, a shaft connected to rotate the other of said rolls, a spring having one end connected to said shaft, a member connected to the other end of said spring and movable to put said spring under tension, a handle for operating said member to put said spring under tension, retarding mechanism connected with said member to retard the back movement thereof, a plurality of stop devices and keys for controlling the same, and means connected to the aforesaid shaft for engaging said stop devices to arrest the rotative movement of said shaft, and another spring connected to said shaft for returning the same to normal position when its operating spring is released.

2. An information and advertising display device comprising a case, two rolls rotatably mounted therein, a curtain winding on said rolls and provided with information and advertising matter, spring means acting on one of said rollers tending to wind the curtain thereonto, a shaft connected to rotate the other of said rolls, a spring having one end connected to said shaft, a member connected to the other end of said spring and movable to put said spring under tension, a handle for operating said member to put said spring under tension, retarding mechanism connected with said member to retard the back movement thereof, a plurality of stop devices and keys for controlling the same, and means connected to the aforesaid shaft for engaging said stop devices to arrest the rotative movement of said shaft, and another spring connected to said shaft for returning the same to normal position when its operating spring is released, said handle and said member having shoulder means for operating the member in the forward movement of the handle, but allowing the handle to move back independently of said member, and a spring connected to said handle for restoring same to normal position.

3. An information and advertising display device comprising a case, two rolls rotatably mounted therein, a curtain winding on said rolls and provided with information and advertising matter, spring means acting on one of said rollers tending to wind the curtain thereonto, a shaft connected to rotate the other of said rolls, a spring having one end connected to said shaft, a member connected to the other end of said spring and movable to put said spring under tension, a handle for operating said member to put said spring under tension, retarding mechanism connected with said member to retard the back movement thereof, a plurality of stop devices and keys for controlling the same, and means connected to the aforesaid shaft for engaging said stop devices to arrest the rotative movement of said shaft, and another spring connected to said shaft for returning the same to normal position when its operating spring is released, said handle and said member having shoulder means for operating the member in the forward movement of the handle, but allowing the handle to move back independently of said member, a spring connected to said handle for restoring same to normal position and a locking strip movable transversely to the movement of said keys and provided with notches and means operated by said keys engaging with said notches in said locking strip to move the locking strip forwardly on depression of the keys, said locking strip having shoulders engaging said key operating means to hold the operated key in depressed position and to prevent operation of the other keys.

1,026,243. TYPE-SETTING DEVICE. HEINRICH DREWELL, Charlottenburg, Germany, assignor to Schnellsetz-Maschinengesellschaft mit beschränkter Haftung, Berlin, Germany. Filed Dec. 9, 1908. Serial No. 466,706. (Cl. 101—130.)



1. In means for automatically operating type setting machines the combination of a perforated band containing both character selecting symbols comprising incorrectly punched single characters, words and lines, and also character canceling symbols, word canceling symbols, line canceling symbols, word separating symbols and line separating symbols, means controlled by said line canceling symbols for rendering said character selecting symbols inoperative, means controlled by said line separating symbols for rendering operative said character selecting symbols after the same have been rendered inoperative by said line canceling symbol, means controlled by the word separating symbol for rendering operative said character selecting symbols after the same have been rendered inoperative by means of a word canceling symbol, means controlled by the said character canceling symbols and rendering said character selecting symbols inoperative and means controlled by each of the said character selecting symbols for rendering operative the same after they have been rendered inoperative by means of a character canceling symbol.

2. In means for automatically actuating operating electromagnets of a type-setting machine, wherein the circuit connections for said operating electromagnets are controlled by a perforated band, said operating electro-magnets being connected with a common conductor, the combination, with the latter, and the source of current for operating said electromagnets, of two electromagnetic switching devices connected in series between said common conductor and said source of current, the electromagnets of said electromagnetic switching devices being connected, substantially as shown, with said circuit connections, for rendering inoperative perforated symbols in the band.

3. In means for automatically actuating operating electromagnets of a type-setting machine, wherein the circuit connections for said operating electromagnets are controlled by a perforated band, said operating electromagnets being connected with a common conductor, the combination, with the latter, and the source of current for operating said electromagnets, of an electromagnetic switching device comprising a plurality of contacts, a spring-pulled bar adapted to contact with the latter, a catch for holding said bar in its "on" position, a releasing electromagnet for releasing said catch from said bar whereupon the bar is pulled into its "off" position, and an inserting electromagnet for returning said bar from its "off" to its "on" position; a conductor connecting said bar with the source of current, said common conductor being connected with a contact which is contacted by said bar when in its "on" position, the remaining contacts being connected with the armature of one of said operating electromagnets, and conductors, substantially as shown, connecting said releasing and inserting electromagnets with said operating electromagnets.

4. In an electromagnetic switch, a base, two contacts mounted thereon, a set-screw on said base between said contacts, two supports having slots in the same on said base below said contacts, a bar movable freely in said slots, catch adapted to hold one end of the bar, and a spring arranged attached to said bar between said set-screw and one of said contacts and tending to pull the bar upward, the arrangement being such that when said catch holds one end of the bar the other end of the bar contacts with one of said contacts, whereas when the bar is released by said catch, the bar contacts only with the other contact and said set-screw.

1,026,244. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed June 14, 1909. Serial No. 501,993. (Cl. 101—169.)



1. A printing device comprising a frame plate having an elevated bed stamped up therefrom, and also provided with printing plate retaining means struck up from the frame plate at opposite sides of the bed, and a detachable printing plate having an elevated panel stamped up therefrom and provided with printing characters on the panel, said panel embracing and engaging the elevated bed and suported thereby, and the edges of the printing plate engaging the printing plate retaining means, the plane of the printing characters being above the plane of the printing plate retaining means, substantially as described.

2. A printing device comprising a frame plate having an elevated bed made up of a plurality of sections stamped up from the plate with their outer faces lying in one and the same plane, the frame plate also having printing plate retaining means struck up from the frame plate at opposite sides of the bed, and a detachable printing plate having an elevated panel stamped therein and provided with printing characters on the panel, said panel embracing and engaging the elevated bed and supported thereby, opposite edges of the printing plate engaging the printing plate retaining means, the plane of the printing characters being above the plane of the printing plate retaining means, substantially as described.

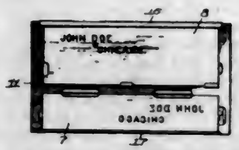
3. A printing device comprising a frame plate having a bed stamped up therefrom and provided with printing plate retaining means stamped up from the frame plate at opposite sides of the bed, and a printing plate having an elevated panel stamped therein with edge flanges at opposite side of the printing plate below the elevated face of the panel, said elevated face of the panel having printing characters thereon, the panel embracing and engaging the elevated bed and supported thereby, and the flanges engaging the printing plate retaining means, the plane of the printing characters being above the plane of the printing plate retaining means, substantially as described.

4. A frame adapted to receive a printing plate and provided with a sectional elevated bed therefor, each section of the bed being stamped up from the frame and cut at opposite edges to separate it at said edges from the rest of the frame.

5. A frame adapted to receive a printing plate and provided with a sectional elevated bed therefor, each section of the bed being stamped up from the frame and cut at its top and bottom edges to separate it at said edges from the rest of the frame.

[Claims 6 to 9 not printed in the Gazette.]

1,026,245. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 6, 1910. Serial No. 553,737. (Cl. 101—169.)



1. A printing device consisting of a metal plate having one edge portion folded back upon the plate, and said folded portion also being bent outwardly at substantially right angles to the plate to form a spacing flange extending in substantial parallelism with said edge of the plate.

2. A printing device consisting of a metal plate having an edge portion folded back upon the plate, and said folded portion also being bent outwardly at substantially right angles to the plate and then inwardly at substantially right angles to the plate to form a spacing flange extending in substantial parallelism with said edge of the plate.

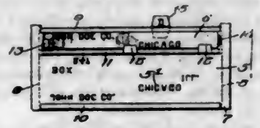
3. A printing device comprising a metal plate having an edge portion folded back upon itself and said folded portion being bent outwardly at substantially right angles to the plate, then inwardly toward the plate at substantially right angles thereto and then bent into substantial parallelism with the plate.

4. A printing device consisting of a metal plate having opposite edges formed into retaining flanges upon one side of the plate, the other opposite edges of the plate being folded back upon the other side of the plate, each of said folded portions being bent intermediate of its ends to form a spacing flange extending across the plate transversely with respect to the retaining flanges.

5. A printing device frame made of sheet metal and having its ends bent inwardly and against the body of the frame, said bent portions being upset between the inner edges thereof and the outer end edges of the frame to project outwardly in a direction at right angles to the plane of the body of the frame and the upset parts being squeesed together to form spacing flanges.

1,026,246. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed May 7, 1910. Serial No. 559,905. (Cl. 101—178.)

1. A printing device comprising a metal blank having opposite edges bent to form spacing flanges, and a rib stamped up from the blank, extending at substantially right angles to the spacing flanges throughout substantially the length of the space between the flanges, and disposed intermediate of the other edges of the blank and dividing the blank into a card-receiving space at one side of the rib, and a printing space at the other side of the rib.



2. A printing device comprising a metal blank having opposite edges bent to form spacing flanges, the other opposite edges being bent to form stiffening beads, and the metal of the blank being stamped from the back forwardly to form a continuous groove at the back of the blank and a continuous rib on the front of the blank, said rib lying between the stiffening beads and parallel therewith and extending substantially throughout the length of the space between the spacing flanges and dividing the blank into a card receiving space between the rib and one of the beads, and a printing space between the rib and the other bead.

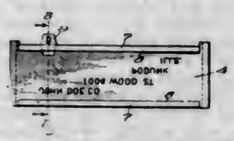
3. A printing device comprising a metal blank having opposite edges bent to form spacing flanges, the other opposite edges being bent to form stiffening beads, a rib stamped up from the blank in substantial parallelism with the beads and dividing the blank into a card-receiving space between the rib and one of the beads, and a printing device between the rib and the other bead, the printing space having printing characters stamped therein.

4. A printing device made out of a single sheet of metal and comprising a printing plate section having printing characters stamped up therefrom and on the front thereof, the ends of said sheet being bent to form spacing flanges, the edges of the sheet between the spacing flanges being bent to form beads, and a rib stamped up from the sheet and extending between the spacing flanges and parallel with and between the beads, said spacing flanges being at the back of the device and said beads and rib being at the front of the device.

5. A printing device made out of a single sheet of metal and comprising a printing plate section having printing characters stamped up therefrom and on the front thereof, the ends of said sheet being bent to form spacing flanges at the back thereof, the edges of the sheet between the spacing flanges being bent to form beads, and a rib stamped up from the sheet and extending between the spacing flanges and parallel with and between the beads, said beads and rib being on the front of the device and projecting above the face of the printing characters.

[Claims 6 to 8 not printed in the Gazette.]

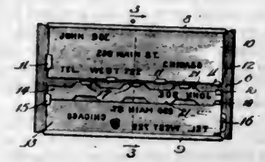
1,026,247. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed May 7, 1910. Serial No. 559,906. (Cl. 101—178.)



1. A printing plate consisting of a single sheet of metal having printing characters stamped up therefrom on one side, opposite edges of said sheet being bent to form spacing flanges, each spacing flange having a part extending from the sheet at substantially right angles thereto, and another part extending inwardly from the outer end of the first mentioned part in substantial parallelism with the plate and spaced therefrom, and the other opposite edges of the sheet between the spacing flanges being bent to form stiffening beads.

2. A printing plate consisting of a single sheet of metal having printing characters stamped up therefrom on one side, the opposite edges of said sheet being bent at substantially right angles to the sheet and thence inwardly to form spacing flanges, and the other opposite edges of the sheet between said spacing flanges being bent to form beads at the top and bottom of the sheet, and an index tab stamped wholly out of the sheet below the upper bead and bent to project above said bead.

1,026,248. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed July 25, 1910. Serial No. 573,591. (Cl. 101—169.)



1. A printing device comprising a frame provided with integral plate retaining means projecting from the plane thereof, and a printing plate consisting of a plurality of detachable sections disposed side by side flat against the frame, each printing plate section being engaged by said retaining means, one of said sections when in position serving to prevent both lateral and longitudinal movement of the other section.

2. A printing plate comprising a frame provided with integral plate retaining means projecting from the plane thereof, and a sectional printing plate, each section lying flat against the frame and engaged by said plate retaining means, adjacent sections of said plate being provided with interengaging means whereby one of said sections maintains the other against longitudinal displacement.

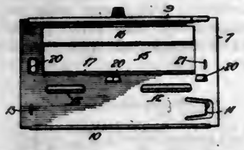
3. A printing device comprising a frame provided with integral plate retaining means projecting from the plane thereof, and a printing plate consisting of a plurality of detachable sections lying flat against the frame and engaged by said retaining means, the adjacent edges of said sections being provided, respectively, with a notch and a projection adapted to engage therewith, whereby longitudinal displacement of one of said sections is prevented by the other section.

4. A printing device comprising a frame and an address printing plate divided longitudinally into two sections, one of said sections having projections arranged in staggered relation on its side edges, and means for securing said sections in the frame one above and alongside the other, a portion of said means engaging with the projections on the edge of one of said sections whereby the printing face of said section is spaced from said securing means.

5. A printing device of the character described comprising a frame having spaced printing plate retaining means, and an address printing plate made up of sections disposed in mutual edge engagement, the meeting edge of one section being continuous, and the meeting edge of the other section having edge projections engaging the continuous edge of the first-mentioned section, the outer edge of each section being engaged by the adjacent printing plate retaining means, means to prevent endwise displacement of the plates in one direction, a spring locking device to prevent endwise displacement in the opposite direction of the printing plate section having the continuous meeting edge, and an interengagement between the two plates to prevent endwise displacement of the plate having edge projections, the printing plate section having the projections and the opposite printing plate retaining means coöperatively forming a guideway for the endwise insertion and removal of the printing plate section having the continuous meeting edge.

[Claims 6 and 7 not printed in the Gazette.]

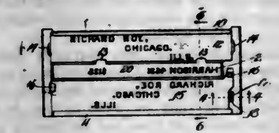
1,026,249. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 29, 1910. Serial No. 584,419. (Cl. 101—169.)



1. A printing device frame made out of a single sheet of metal and having means to hold a printing device and an information card thereon, a portion of the frame behind the card being cut on three sides and bent over upon the frame to leave an opening disclosing the back of the card and to strengthen and stiffen the frame, substantially as described.

2. A printing device frame made out of a single sheet of metal and having means to hold a printing device and an information card thereon, said frame having an opening therein to disclose the back of the card, parts of the frame cut out to form said opening being bent upward and downward respectively and against the front of the frame to form continuous strengthening and stiffening beads at the longitudinal edges of said opening, substantially as described.

1,026,250. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 29, 1910. Serial No. 584,420. (Cl. 101—169.)



1. A printing device comprising a frame having an elevated panel stamped therein and provided with a permanent printing form, means upon the frame at one side of the panel for holding a printing plate, and means upon the frame at the opposite side of the panel for holding a card, substantially as described.

2. A printing device comprising a frame plate having permanent type characters stamped in an intermediate portion thereof, card-retaining means stamped up from the plate at one side of the permanent printing characters, printing plate retaining means stamped up from the plate at the other side of the permanent printing characters, and a detachable printing plate engaged with the printing plate retaining means, said detachable printing plate having printing characters stamped up therefrom, the planes of the printing faces of the printing characters of the frame plate and of the printing plate being disposed for making substantially simultaneous impressions.

3. A printing device comprising a frame having a central longitudinal elevated panel provided with a permanent printing form stamped in relief on the elevated face of the panel, means upon the frame at one side of the panel for holding a printing plate, and means upon the same side of the frame and at the opposite side of the panel for holding a card, substantially as described.

1,026,251. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 24, 1910. Serial No. 588,584. (Cl. 101—169.)

1. A printing device of the character described comprising a frame plate provided with printing-plate retaining means struck up therefrom, a plurality of detachable printing plate sections lying flat against the frame plate and engaged with the retaining means, one of the

printing plate sections being held against movement in three directions by the retaining means and held against movement in a fourth direction by the other printing plate section, said other printing plate section being free to move in one direction out of engagement with the retaining means, and the frame plate being provided with a spring lock to engage said other printing plate section and hold it against disengagement from the plate retaining means.



2. A printing device of the character described comprising a frame having a space to receive a card and means for retaining a card in place thereon, and a space to receive a printing plate and means struck up from the frame for retaining the plate in place thereon, said plate consisting of a plurality of sections adapted to be slidably engaged with said retaining means with one section engaged with an edge of another section to maintain said other section in place on the frame.

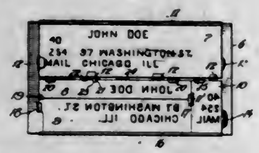
3. A printing device of the character described comprising a frame, means struck up from the frame for retaining a printing plate flat upon the frame, and a printing plate consisting of a plurality of detachable sections adapted to be engaged with said retaining means, two of said sections being located end to end lengthwise of the frame with one edge of each adjacent the same edge of the frame and the other section extending lengthwise of the frame with one longitudinal edge engaging an edge of each of the other sections.

4. A printing device of the character described comprising a frame, a printing plate consisting of a plurality of detachable sections arranged flat upon the frame, means for securing one of said sections on the frame and for preventing movement of a second section in any of three directions, and means for securing a third section on the frame in position to prevent movement of the second section in a fourth direction, all of said means being integral with the frame and projecting from the plane thereof.

5. A printing device of the character described comprising a frame plate, a pair of printing plate sections cut away at adjacent corners, a retaining device struck up from the frame plate and projecting from the plane thereof to be engaged by said sections at said corners, and means struck up from the frame plate for locking the sections on the frame.

[Claims 6 to 13 not printed in the Gazette.]

1,026,252. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 24, 1910. Serial No. 588,585. (Cl. 101—169.)



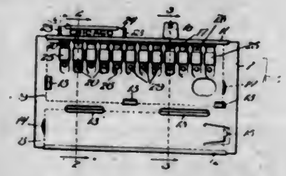
1. A printing device comprising a frame provided with printing plate retaining means struck up therefrom, and a printing plate consisting of a plurality of detachable sections, certain of the sections extending lengthwise of the frame in edge engagement with one another, and one of the other printing plate sections being disposed with one of its edges in engagement with corresponding end edges of the first-mentioned printing plate sections, and a retaining lip struck up from the plate and overlapping the ends of said first-mentioned printing plate sections and located between the latter and the second mentioned printing plate section.

2. A printing device comprising a frame, means for retaining a printing plate flat on the frame, and a printing plate consisting of a plurality of detachable sections adapted to be engaged with said retaining means, two of said sections being arranged longitudinally of the frame with their long edges in engagement with each other and another section being disposed transversely of the frame with its long edge in engagement with the ends of the other sections.

3. A printing device comprising a frame provided with means for retaining a printing plate in position on the frame, and a printing plate consisting of a plurality of detachable sections adapted to be slidably engaged with said retaining means, two of said sections being arranged side by side in mutual edge engagement and another section of a length approximately equal to the aggregate width of the first mentioned sections being disposed with its long edge in engagement with corresponding ends of the other sections.

4. A printing device comprising a frame, a sectional printing plate, two of said sections being arranged side by side with their ends contiguous to a third section, and means for securing said sections on the frame comprising a lip on the frame arranged to engage the adjacent corners of the first two sections, the third section being cut away to accommodate said lip.

1,026,253. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 25, 1910. Serial No. 594,024. (Cl. 129—16.)



1. A printing device frame comprising a plate having a keeper offset on one side thereof within the periphery of the plate and open at one end and a detachable tab seated in said keeper.

2. A printing device frame comprising a plate having a keeper stamped up and offset therefrom at one side of the plate within the periphery thereof and open at one end, and a detachable tab seated in said keeper through its open end.

3. A printing device frame having a keeper open at one end, and a detachable tab having a stem seated in said keeper through its open end.

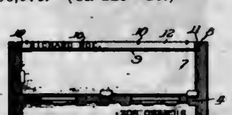
4. A printing device frame having a keeper stamped up and offset therefrom on the front of the frame and open at one end, and a detachable tab seated in said keeper through its open end.

5. A printing device frame having a plurality of keepers thereon spaced apart and extending adjacent to the top of the frame approximately from end to end thereof, each keeper being open at one end, and a detachable tab seated in one of said keepers through its open end.

[Claims 6 to 14 not printed in the Gazette.]

1,026,254. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 28, 1910. Serial No. 594,480. (Cl. 101—169.)

1. A printing plate having a type form stamped in relief upon the front thereof and provided with an opening at one side of the type form, and a detachable printing plate upon the front of the main plate extending across the opening and provided with printing characters stamped in relief thereon and exposed to view at the back of the main plate through the opening, substantially as described.



2. A printing plate having a type form stamped in relief upon the front thereof and provided with an opening at one side of the form, lips struck up from the front of the plate at opposite sides of the opening, and a detachable printing plate upon the front of the main plate extending across the opening and provided with projections engaging beneath the lips to hold the detachable plate in place, said detachable plate having printing characters stamped in relief thereon and exposed to view at the back of the main plate through the opening, substantially as described.

3. A printing plate having a type form stamped in relief thereon and provided with an openng at one side of the printing form, lips struck up from the plate at opposite sides of the opening, a detachable printing plate extending across the opening and having projections engaging beneath the lips, said detachable plate having printing characters stamped in relief thereon and exposed to view through the opening, and means carried by one of the plates and engaging the other plate to lock the detachable plate, substantially as described.

4. A printing plate having a type form stamped in relief thereon and provided with an opening at one side of the form, lips struck up from the plate at opposite sides of the opening, a detachable printing plate extending across the opening and having projections engaging beneath the lips and provided with a locking tongue, the main plate having a seat to receive the tongue and lock the detachable plate in place, said detachable plate having printing characters stamped in relief thereon and exposed to view through the opening, substantially as described.

5. A printing plate having a printing form stamped in relief thereon and provided with a depression located at one side of the printing form, lips struck up from the plate at opposite sides of the depression, and a detachable printing plate fitted in the depression and provided with projections engaging beneath the tongues, said detachable plate having printing characters stamped in relief thereon, and the back of the depression having an opening to expose the printing characters of the detachable plate, substantially as described.

1,026,255. PRINTING DEVICE. JOSEPH S. DUNCAN, Chicago, Ill., assignor to Addressograph Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 2, 1911. Serial No. 606,076. (Cl. 129—16.)

1. A printing device having spacing flanges at opposite edges and on one side thereof, and a display ledge on the other side of the device extending longitudinally thereof and terminating short of and adjacent the spacing flanges, said ledge being located at the top of the frame and inclined transversely downwardly and outwardly from the device, substantially as described.

2. A printing device comprising a plate having spacing flanges at opposite edges and on one side of the plate, the upper edge portion of the plate being bent over to form a display ledge on the other side of the device extending longitudinally thereof and inclined transversely downwardly and outwardly from the frame, substantially as described.

3. A printing device having spacing flanges at opposite edges and on one side thereof, and a display ledge on the other side of the device extending longitudinally thereof at the top of the frame and inclined transversely downwardly and outwardly from the frame, substantially as described.

1,026,256. SOUNDING-DISK. CHARLES C. EHRMAN, Winthrop, Mass., assignor to Ehrman Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Oct. 4, 1911. Serial No. 652,823. (Cl. 46—46.)



1. A sounding disk consisting of a holder having a depression therein, a diaphragm, the ends of which are secured to said holder, each side of the diaphragm being separated by a space from the edges of said holder.

2. A sounding disk consisting of a holder having a depression therein, a convex diaphragm the ends of which are secured to said holder, each side of the diaphragm being separated by a space from the edges of said holder.

3. A sounding disk consisting of a holder with a depression therein formed from one piece of metal, a convex diaphragm the ends of which are secured to said holder, each side of the diaphragm being separated by a space from the edges of said holder.

4. A sounding disk consisting of a holder having a depression therein, a convex diaphragm the ends of which are immovably secured to said holder, each side of said diaphragm being separated by a space from the edges of said holder.

1,026,257. MANUFACTURE OF A NEW PYRAZOLONE-AZO DYE. KARL ELBEL, Biebrich, Germany, assignor to The Firm of Kalle & Co., Aktiengesellschaft, Biebrich, Germany. Filed Sept. 18, 1911. Serial No. 649,959. (Cl. 8—1.)

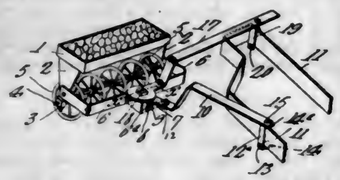
1. As a new product an azo coloring matter obtainable by combining the chloro-1-diazo-2-oxy-naphthalene-4-sulfonic acid with a pyrazolone, which dyestuff is decomposed when treated with reducing agents into a chloro-1-amino-2-oxy-naphthalene-4-sulfonic acid, and an amino derivative of the pyrazolone component used.

2. As a new product the azo coloring matter obtainable by combining the chloro-1-diazo-2-oxy-naphthalene-4-sulfonic acid with 1-phenyl-3-methyl-5-pyrazolone, which is in dry state a red powder, soluble in water with a yellowish-red color turning into a dull bluish-red on the addition of alkali, and in concentrated sulfuric acid with a pure bluish-red color, producing on wool in an acid bath reddish-orange tints, which after treatment with bichromate turn into a bright bluish-red, and being decomposed by means of reducing agents into chloro-1-amino-2-oxy-naphthalene-4-sulfonic acid on the one hand, and 4-amino-1-phenyl-3-methyl-5-pyrazolone on the other hand.

1,026,258. PLOW ATTACHMENT. GEORGE W. ELLIOTT, Mohall, N. D. Filed Aug. 7, 1911. Serial No. 642,614. (Cl. 97—44.)

1. A device comprising a packer, including a frame-member therefor and adjunctive member thereof, a draw-bar, a plow-frame, and means of connection between said packer frame-member and said draw-bar for the independent movement of said packer frame, embracing a member having fixed relation to said frame-member and

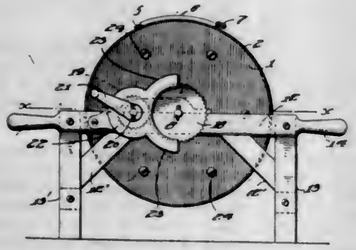
connected to said draw-bar, said fixed member having pendent clip-like members one receiving and secured to said packer frame-member and the other secured to an adjunctive member of the latter.



2. A device comprising a packer, including a frame therefor, said frame having an offset extension, a disk-like member having depending clip-like members adapted to receive the forward portions of said frame and said offset extension, means for securing said clip-like members to said frame and said extension, a plow-frame, means effecting pivotal connection between said disk-like member and said plow-frame, a draw-bar, means effecting pivotal connection between said plow-frame and said draw bar, and means connecting said draw bar to said offset-extension.

3. A device comprising a packer, including a frame therefor, said frame having an offset extension, a disk-like member having depending clip-like members adapted to receive the forward portions of said frame and said offset extension, means for securing said clip-like members to said frame and said extension, a plow-frame, means effecting pivotal connection between said disk-like member and said plow-frame, a clip applied to said plow-frame and having at its upper end an offset arm and at its lower end a lateral extension, and interconnected bolts connected to said offset arm and said lateral extension respectively, the upper bolt effecting connection between said draw bar and said clip, and means connecting said draw bar to said offset-extension.

1,026,259. FOOD-MIXER. HARRY H. FELLOWS, Macleay, Oreg. Filed Aug. 26, 1911. Serial No. 646,144. (Cl. 99—2.)



1. In a food mixing machine of the kind described, a frame, a revoluble drum mounted in said frame, and having a door opening in its periphery, and a resilient slidable door mounted over said opening and formed with a curve eccentric to the periphery of the drum.

2. In a food mixing machine of the kind described, a frame, a revoluble drum mounted in said frame, having a door opening in its periphery, and a door slidable over said opening and formed of flexible resilient material curved longitudinally and eccentric to the periphery of the drum.

3. In a food mixing machine of the kind described a frame having a cross bar at each end, a drum revolubly mounted in said frame and having a door opening in its periphery, and a flexible resilient metallic door slidably mounted over said opening and having a handle at one end, said door being curved eccentrically to the periphery of the drum and adapted to rest at its handle end upon an end cross bar of the frame.

4. A machine for mixing food for poultry comprising a frame, a revoluble drum having a plurality of rods located therein adjacent to the periphery of the drum, and a door opening in its periphery, a flexible resilient curved slidable door mounted over said opening and movable away from said opening at a tangent to the periphery of the drum, a shaft secured to said drum and mounted on said frame, a driving gear mechanism connected with said shaft and a casing partly inclosing said gear mechanism.

1,026,260. TELEPHONE-BRACKET. EUGENE P. GUTHRIE, Oklahoma, Okla. Filed May 5, 1911. Serial No. 625,196. (Cl. 248—20.)

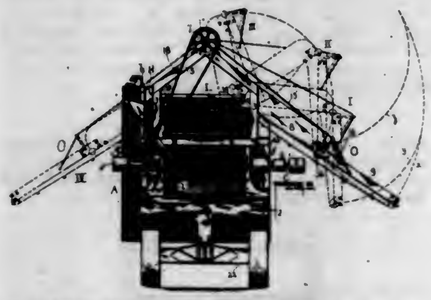


1. In a portable telephone bracket, in combination, a vertically disposed curved support, a vertically movable stand pivoted to one end of the support, a keeper at the other end of the support, the stand being adapted to positively engage the base and the keeper to yieldingly engage the upper portion of the telephone.

2. A portable telephone bracket comprising a horizontally swinging support, a vertically rocking stand connected thereto, and a resilient keeper connected to the support and spaced from the stand.

3. In a portable telephone bracket, the combination with a support; of a vertically rocking stand arranged thereon, a keeper associated with the support and adapted to engage the upper end of a telephone when the base of the same is moved onto the stand.

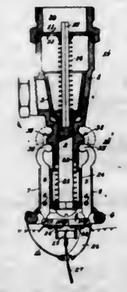
1,026,261. FEEDING MECHANISM FOR THRESHING-MACHINES. FREDERICO HANSEN, Buenos Aires, Argentina, assignor, by mesne assignments, to Avery Company, a Corporation of Illinois. Filed July 11, 1907. Serial No. 383,347. (Cl. 193—18.)



1. The combination with a threshing-machine, of a longitudinally arranged straw feeder at the rear end thereof, a transversely arranged feeder pivoted to the side of the longitudinally arranged feeder and comprising an outer and an inner section, the outer section being pivoted to swing downward with respect to the inner section but limited in its upward movement to a position of alinement with respect to the inner section, an upstanding frame carried by the inner end of the outer section of the transverse feeder, a shaft mounted on the longitudinal feeder and above the same, a flexible draft device secured to the outer section, and adapted to pass in a straight line from the upper end of the said upstanding frame directly to the said shaft uninterrupted by parts of the inner section located above the straight line joining the axes of the pivotal connections of the inner section with the longitudinal feeder and the inner with the outer section, respectively, for all positions of adjustment of the transversely arranged feeder, and means for drawing the draft devices around the shaft.

2. The combination with a threshing machine, of a longitudinally arranged straw feeder at the rear end thereof, a transversely arranged feeder pivoted to the side of the longitudinally arranged feeder and comprising an outer and inner section, the outer section being pivoted to swing downward with respect to the inner section but limited in its upward movement to a position of alinement with respect to the inner section, a winding mechanism mounted above the axis of pivotal connection between the transverse feeder and longitudinal feeder, a rope wound upon the said winding mechanism at one end and secured at the other end to the inner end of the outer feeder section at a point approximately above the axis of pivotal connection between the outer and inner sections whereby the two sections may be swung upward from a downwardly and outwardly inclined position with the two sections in alinement, or can be swung from a downwardly and outwardly inclined position to the position of contact with the shaft of the winding mechanism with the outer section maintained constantly in a vertically depending position.

1,026,262. AUTOMATICALLY-OPERABLE PRESSURE-REGULATING VALVE AND MECHANISM THEREFOR. CHARLES EDWARD HASTY, Elgin, Ill., assignor to Hasty Manufacturing Company, Elgin, Ill., a Corporation of Illinois. Filed Dec. 2, 1911. Serial No. 663,550. (Cl. 137—92.)



1. The combination with a valve having mechanism for automatically operating the valve and a heat-susceptible element for normally holding the said mechanism against operation, of electrical means for causing the said heat-susceptible element to release the said mechanism, and means for manually removing the said heat-susceptible element from the said mechanism from a distance, for releasing the latter.

2. The combination with a valve having mechanism for automatically operating the valve and a heat-susceptible element for normally holding the said mechanism against operation, of means for manually removing the said heat-susceptible element from the said mechanism from a distance, for releasing the latter.

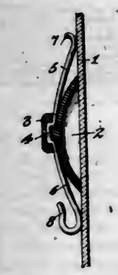
3. The combination with a valve having mechanism for automatically operating the valve and a fusible link for normally holding the said mechanism against operation, of electrothermal means for heating the said link to cause the operation of the said mechanism, and a cord for manually removing the said link from the said mechanism from a distance, for releasing the latter.

4. The combination with a valve having mechanism for automatically operating the valve and a fusible link for normally holding the said mechanism against operation, of a cord for manually removing the said link from the said mechanism from a distance, for releasing the latter.

5. A valve having spring mechanism for causing the operation thereof and mechanism for holding the valve in set position against the action of the said spring mechanism, the said holding mechanism comprising a hand wheel, a pair of arms pivoted to the hand-wheel member and coöperating with the valve casing, a jointed link pivoted to the said arms, and an electrothermal device removably connected with the said link for holding the said holding mechanism intact, and a pull-cord attached to the said electrothermal device and operable from a distance from the valve for removing the said device from the said holding mechanism to permit the operation of the valve.

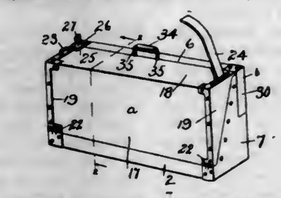
[Claims 6 to 14 not printed in the Gazette.]

1,026,263. VACUUM SUPPORTING DEVICE. ROSS HAZELRIGG, Oakland, Cal., assignor to Vaco Manufacturing Co., a Corporation of California. Filed July 15, 1909, Serial No. 507,844. Renewed Oct. 9, 1911. Serial No. 653,724. (Cl. 248—39.)



As a new article of manufacture, a vacuum cup, and resilient arms projecting from said cup and adapted to contact with the surface to which the cup is attached to increase the suction space thereof, said arms having an arch-shaped connecting portion embedded within said cup.

1,026,264. PORTABLE TOOL-CHEST. ANDREW S. HOKANSON, Rumford, R. I. Filed Sept. 20, 1911. Serial No. 650,415. (Cl. 206—16.)

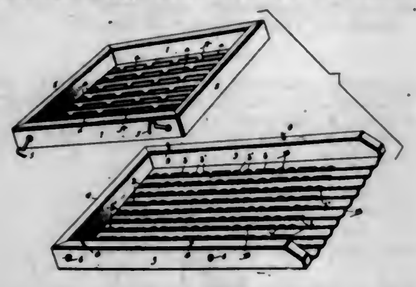


1. A portable tool chest comprising a main body portion of wood having metallic ends, a longitudinally disposed wooden partition set on a slight angle in said body portion supported on said ends and extending from a point near the front and bottom upward to the top and a short distance forward from the back of the chest, a front lid arranged to cover a majority of the front and top of the chest and having metal ends hinged to the main metallic end members near the lower edge of said partition, and a comparatively narrow rear wooden lid having metallic ends hinged to the rear of the main end members.

2. A portable tool chest comprising a main body portion of wood having metallic ends, a longitudinally disposed wooden partition set on a slight angle in said body portion supported on said ends and extending from a point near the front and bottom upward to the top and a short distance forward from the back of the chest, a front lid having top and front of wood and arranged to cover a majority of the front and top of the chest and having metal ends, one edge of each end member being formed on an angle substantially parallel with that of said partition and

to meet the corresponding edges of the main metallic ends, said lid ends being hinged to the main metallic end members near the lower edge of said partition, and a rear wooden lid one-half the height of the chest and having metallic ends hinged to the rear of the main end members.

1,026,265. SEED-CORN GRADER. CHARLES HUNNICUTT, Wilmington, Ohio, assignor to The Charles Hunnicutt Company, Clinton county, Ohio, a Corporation of Ohio. Filed Dec. 2, 1909. Serial No. 531,055. (Cl. 130—19.)



1. In a corn grader, an upper rectangular frame, and a screen attached at its edges beneath the frame and having coarse perforations extending longitudinally thereof; combined with a lower frame comprising an end piece standing beneath one end of the upper frame and two side pieces standing beneath its sides and projecting beyond their other ends, a second screen attached to the three parts of this lower frame and provided with finer perforations extending longitudinally thereof and located below the perforated area of the upper screen, an imperforate portion of said second screen extending beyond the end of the upper screen and between the projecting portions of the side pieces of the lower frame to form a spout, and means for detachably connecting the two frames.

2. The corn grader formed of two separable parts, to wit, a lower metal perforated screen having its sides and rear end extended upward and provided with a bent top flange, and an upper perforated screen having a rectangular frame adapted to slide in the lower one, substantially as shown and described.

3. In a corn grader, the combination with upper and lower rectangular screens corrugated longitudinally and in parallelism and having differently sized perforations extending longitudinally in the valleys of their corrugations, the lower screen being continued beyond the upper at one end into a corrugated imperforate spout; of a frame in two parts detachably connected, the upper inclosing the perforated area of the upper screen and rising above it, and the lower part connecting one end and both edges of the lower screen and projecting forward to form the sides of said spout.

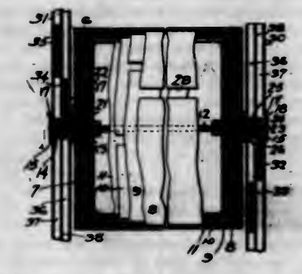
1,026,266. COMPUTING-SCALE. ALBERT F. JOHNSON, McKeesport, Pa. Filed Apr. 29, 1909. Serial No. 492,973. (Cl. 73—104.)

1. In a computing scale, the combination of a weighing frame, two or more computing cylinders the one within the other, and means operated by the weighing frame for rotating said cylinders separately and in succession.

2. In a computing scale, the combination of a weighing frame, two or more computing cylinders, the one within the other, pinions on said cylinders, racks adapted to engage said cylinders separately and in succession, and connections between said racks and said weighing frame.

3. In a computing scale, the combination of a weighing frame, two or more computing cylinders, the one within the other, pinions connected to said cylinder, a movable bar, racks on said bar, the one above the other, adapted to engage said pinions separately and in succession, and connections between said bar and said weighing frame.

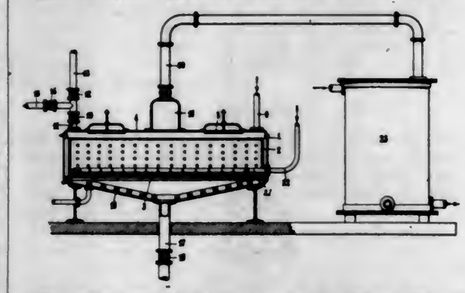
4. In a computing scale, the combination of a weighing frame, two or more computing cylinders, the one within the other, means operated by said frame for rotating said cylinders separately and in succession, and means for locking each of said cylinders.



5. In a computing scale, the combination of a weighing frame, two or more computing cylinders, the one within the other, pinions connected to said cylinders, movable bars at opposite ends of said cylinders, having rack faces arranged at different heights on said bars engaging said pinions, and connectons between said bars and said weighing frame.

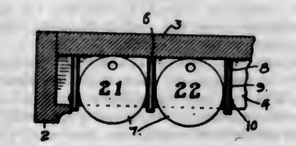
[Claims 6 to 16 not printed in the Gazette.]

1,026,267. PROCESS FOR RENOVATING COTTON-WASTE. JULIUS KAUFFMANN, Berlin, Germany. Filed Mar. 1, 1910. Serial No. 546,759. (Cl. 87—12.)



The herein described process of renovating solid cotton waste, consisting in washing the same with a volatile solvent liquid and blowing compressed air through the liquid to agitate the waste, evaporating the solvent by the action of heat and simultaneously blowing compressed air through the waste to prevent packing, and finally drying the waste and blowing off dust by the action of compressed air.

1,026,268. TIME-CHECK HOLDER. FREDERICK KEES, Minneapolis, Minn. Filed July 22, 1911. Serial No. 640,030. (Cl. 211—14.)

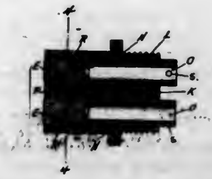


1. A time check board having a series of longitudinal slots therein adapted to receive time checks placed edgewise in said slots, said board also having transverse slots intersecting said longitudinal slots, and check retaining devices fitting into said transverse slots and engaging the edges of the time checks.

2. A time check board having a series of longitudinal slots adapted to receive time checks placed edgewise therein, said board also having transverse slots intersecting said longitudinal slots, and spring tongues provided in said transverse slots and having open ends engaging the edges of said disks and yieldingly holding them in said longitudinal slots.

3. A time check board having a series of longitudinal slots adapted to receive time checks placed edgewise therein, said board also having transverse slots intersecting said longitudinal slots, plates, U-shaped in cross section, fitting within said transverse slots and having spring tongues pressed or punched therefrom and adapted to engage the edges of time checks inserted into said longitudinal slots between said transverse slots.

1,026,269. ATTACHMENT-PLUG. GEORGE C. KNAUFF, Chicago, Ill. Filed Nov. 20, 1911. Serial No. 661,375. (Cl. 173—361.)



1. An electric contact-carrier including an insulating body made of a material adapted to be simultaneously softened and expanded, and to contract while hardening; a current-carrier made of a material unaffected by the influence required to soften and expand the aforesaid body; a perforation in the said body for receiving the said current-carrier; and enlargements on the said current-carrier which would prevent the same from being slipped through the said perforation while the said body is in its normal condition; the said enlargements being adapted to repress the walls of the perforation when inserted in the said perforation when the body has been softened and expanded, and to engage with the said walls when the body contracts in hardening, whereby the said current-carrier is united in fixed relation with the said insulating body.

2. An electric contact-carrier including an insulating body made of a material adapted to be simultaneously softened and expanded, and to contract while hardening; an anchoring element made of a material unaffected by the influence required to soften and expand the aforesaid body; a perforation in the said body for receiving the said anchoring element; and enlargements on the said anchoring element which would prevent the same from being slipped through the said perforation while the said body is in its normal condition; the said enlargements being adapted to repress the walls of the perforation when inserted in the said perforation when the body has been softened and expanded, and to engage with the said walls when the body contracts in hardening, whereby the said anchoring element is united in fixed relation with the said insulating body.

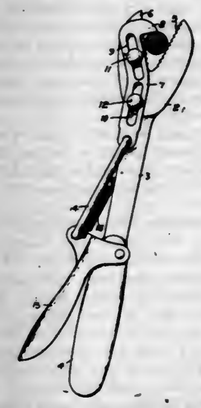
3. In an attachment plug, an insulating body made of a material adapted to be simultaneously softened and expanded, and to contract while hardening; wire terminals made of material unaffected by the influence used to soften and expand the aforesaid body; perforations in the said body for receiving the said wire-terminals; and an anchoring member inserted through the said insulating body transversely to the said wire-terminals; the said wire terminals being reduced in section at the portions adjacent to the said anchoring member; the said anchoring member being inserted in the transverse perforation after the said wire terminals have been inserted and while the material of the insulating body is in the softened and expanded state; the said anchoring member having enlargements upon it adapted to expand the walls of the perforation in the softened body inserted in the same, whereby the material adjoining the said anchoring member is expanded into the recesses formed by the adjacent reduction in size of the wire terminals.

4. In a device of the class described, a body made of a material adapted to expand when subjected to a softening influence, and to contract and harden when removed from the said softening influence; in combination with current carrying members made of material unaffected by the said softening influence; perforations in the said body for receiving the said members; the said members having raised threads, whereby they are adapted to impress threads into the material of the said body member when inserted in the said body while the same is in the softened state.

5. In a device of the class described, an insulating body made of a material adapted to expand when subjected to a softening influence, and to contract and harden when removed from the said softening influence; contact members carried by the said body; a casing which the said body is adapted to enter; a slot in the said casing leading to a seat; and an anchoring element projecting from the said body; the said anchoring element being adapted to be guided by the said body to the said seat for anchoring the said body to the said casing; the said anchoring element being rigidly united to the said body by the pressure due to the contraction of the said body after the said element has been inserted in the same while the said body was in the softened and expanded state.

[Claim 6 not printed in the Gazette.]

1,026,270. PIPE-WRENCH. WILBER W. LEONARD, Hinckley, Minn. Filed Sept. 5, 1911. Serial No. 647,655. (Cl. 81—88.)



1. The combination, with a pipe wrench, having a V-shaped recess, the inclined walls of which are serrated and form rigid jaws, of a sliding bar arranged upon said wrench head, and means for moving said bar and causing a portion thereof to project partially across the space between said jaws.

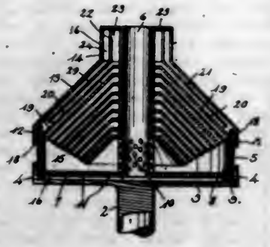
2. The combination, with a shank having a handle at one end and a V-shaped longitudinal recess at its opposite end provided with serrated edges forming a rigid jaw, a bar slidably mounted on said shank and having a jaw arranged to project across said V-shaped recess, and means for drawing said bar jaw toward the apex of said recess.

3. The combination, with a pipe wrench having a V-shaped recess forming rigid jaws, of a bar having longitudinal slots therein and pins mounted on said wrench and on which said bar is slidable, said bar having an angular extension projecting partially across said recess, and means for moving said bar toward the apex of said recess.

4. The combination, with a pipe wrench having inclined rigid jaws, of a sliding bar arranged upon the wrench head, said bar having longitudinal slots therein,

one of said slots being parallel substantially with one of said jaws, said bar having an angular projection extending partially across the space between said jaws, the outward movement of said bar causing said angular projection to be withdrawn from the space between said jaws, and means for moving said bar.

1,026,271. CENTRIFUGAL SEPARATOR. GEORGE M. LESHER, Newark, N. J. Filed Oct. 10, 1911. Serial No. 653,824. (Cl. 127—20.)



1. In a centrifugal separator bowl, a vertical series of disks having conical portions flaring downwardly outward and terminating at their edges at different radial distances from the axis of rotation of the bowl, said edges being free and spaced from each other and the other parts of the bowl, means for feeding liquid against said edges, and discharge means.

2. In a centrifugal separator bowl, a vertical series of disks having conical portions flaring downwardly outward and terminating at their edges at different radial distances from the axis of rotation of the bowl and at different heights from the floor of the bowl, said edges being free and spaced from each other and the other parts of the bowl, means for feeding liquid against said edges, and discharge means.

3. In a centrifugal separator bowl, a vertical series of disks having conical portions flaring downwardly outward and terminating at their edges at different radial distances from the axis of rotation of the bowl, the lower edges of said disks lying in a surface flaring upwardly outward and being free from other parts of the bowl so as to provide a flow space past themselves, means for feeding liquid against said edges, and discharge means.

4. In a centrifugal separator bowl, a vertical series of disks having conical portions flaring downwardly outward and terminating at their edges at different radial distances from the axis of rotation of the bowl, the lower edges of said disks lying in a substantially conical surface flaring upwardly outward and being free from other parts of the bowl so as to provide a flow space past themselves, means for feeding liquid against said edges, and discharge means.

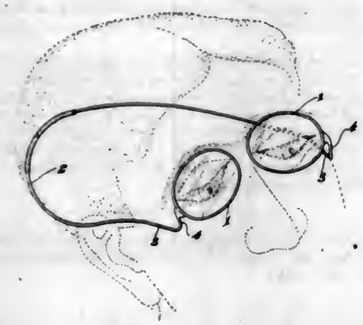
5. In a centrifugal separator bowl, the combination with a central axial feed tube and suitable discharge means, of a vertical series of disks on said feed tube apertured adjacent thereto and having outer conical portions flaring downwardly outward and terminating at their edges at different radial distances from said feed tube, said edges being free and spaced from each other and the other parts of the bowl, means for feeding liquid against said edges, and discharge means.

[Claims 6 to 17 not printed in the Gazette.]

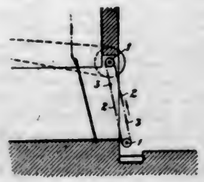
1,026,272. EYEGLASSES. CYRILLE LEVEQUE, Montreal, Quebec, Canada. Filed Oct. 16, 1911. Serial No. 654,991. (Cl. 88—41.)

1. In combination, a frame adapted to fit about a wearer's head, rest portions formed in said frame to support the same on the cheek of the wearer, and lenses carried by the ends of said frame.

2. In combination, a frame adapted to fit about a wearer's head, rest portions formed in said frame to support the same on the cheek of the wearer, an arm extending at an angle from each rest portion, and a lens carried by each arm.



1,026,273. CRUMBLING DEVICE FOR SUPERPHOSPHATE AND OTHER MATERIALS. NILS KRISTIAN EMIL MALMSTEN and KARL THEODOR THORSSELL, Malmö, Sweden. Filed Nov. 27, 1911. Serial No. 662,738. (Cl. 37—50.)



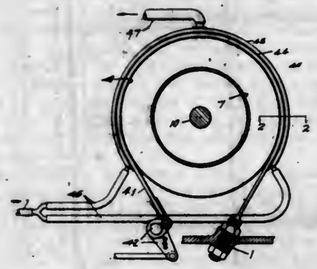
1. The combination, in a device for crumbling superphosphate or other materials of like consistency, of a number of rotatory bodies, independent of each other and mounted on a common shaft being each of the bodies provided with toothed disks or flanges forming oblique angles with the center line of the shaft, and means for simultaneously carrying the shaft with the rotatory bodies along the surface of the mass to be crumbled.

2. The combination, in a device for crumbling superphosphate or other materials of like consistency, of a number of rotatory bodies, independent of each other and mounted on a common shaft being each of them provided with toothed disks or flanges forming oblique angles with the center line of the shaft, the teeth of two adjacent disks being different in number, and means for simultaneously carrying the shaft with the rotatory bodies along the surface of the mass to be crumbled.

3. The combination, in a device for crumbling superphosphate or other materials of like consistency, of a number of rotatory bodies independent of each other, each having projecting parts and all of them mounted on a flexible shaft or a chain that is connected with means for simultaneously carrying it together with the rotatory bodies along the surface of the mass to be crumbled.

4. The combination, in a device for crumbling superphosphate or other materials of like consistency, of a number of rotatory bodies having projecting parts jointly and pivotally connected with each other, the two outmost ones being connected with means for simultaneously carrying the shaft with the rotatory bodies along the surface of the mass to be crumbled.

1,026,274. BRAKE MECHANISM. JOHN R. MCGIFFERT, Duluth, Minn., assignor to Clyde Iron Works, Duluth, Minn., a Corporation of Minnesota. Filed Oct. 26, 1910. Serial No. 589,218. (Cl. 74—37.)



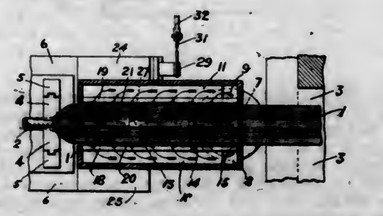
1. In mechanism of the class described, the combination of a drum; a flexible brake band therefor; means for flexing said band; a chamber substantially co-extensive with the band provided on the outer face of said band; and means for circulating a cooling fluid through said chamber.

2. In mechanism of the class described, the combination of a drum; a flexible brake band therefor, said band having its two ends directed downwardly; means for flexing said band; a chamber, substantially co-extensive with said band, provided on its outer face, a bifurcated connection for supplying water to such chamber at its respective ends; and another connection for withdrawing water from approximately the highest part of said chamber.

3. In mechanism of the class described, the combination of a drum; a flexible brake-band therefor; means for flexing said band; a chamber substantially co-extensive with the band provided on the outer face of said band; heat insulating material disposed on the surface of said drum designed for the application of said band; and means for circulating a cooling fluid through said chamber.

4. In mechanism of the class described, the combination of a drum; a flexible band therefor, said band having its two ends directed downwardly; means for flexing said band; a chamber substantially co-extensive with said band, provided on its outer face; a bifurcated connection for supplying water to such chamber at its respective ends; another connection for withdrawing water from approximately the highest part of said chamber; and heat insulating material disposed on the surface of said drum designed for the application of said band.

1,026,275. APPARATUS FOR MANUFACTURING METAL TUBES. WESLEY J. MOON, Economy, and JOHN W. MOON, Conshohocken, Pa. Original application filed June 11, 1907, Serial No. 378,369. Divided and this application filed Aug. 30, 1910. Serial No. 579,726. (Cl. 78—83.)



1. In an apparatus for manufacturing metal tubes, the combination with a furnace and a device to bring together and weld the edges of the tube, of a blast pipe, substantially spanning the space between the furnace mouth and the welding device, adapted to direct a blast of air against the edges of the traveling skelp nearly throughout its entire exposed length, whereby the edges of the skelp between its emergence from the furnace and the welding operation are kept substantially continuously exposed to an air blast for the purpose of preventing cooling of the edges and also of elevating the temperature of the edges and cleaning them from foreign substances, thereby permitting welding without danger of overheating in the furnace and without direct application of heat between the furnace and the welding device.

2. In an apparatus for manufacuring metal tubes, the combination with a furnace and a device to bring together and weld the edges of the tube, of a guiding support between the furnace mouth and the welding device over and along which the skelp is adapted to travel, and a blast pipe arranged along the guiding support having a nozzle located above the support and adapted to direct a blast of air against the edge of the traveling skelp.

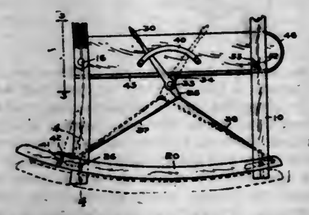
3. In an apparatus for manufacturing metal tubes from strips, the combination with a furnace and a bell in which the strip is bent into tubular form, of means, located between the mouth of the furnace and the bell, for directing blasts of air transversely toward each other, and means to guide the strip between said nozzles whereby the opposite edges of the strip are acted upon by said blasts.

4. In an apparatus for manufacturing metal tubes from strips, the combination with a furnace and a bell in which the strip is bent into tubular form, of side blast pipes extending between the mouth of the furnace and the bell, nozzles in the inner side walls of said pipes, and supports, between the furnace mouth and the bell, located immediately below the level of said nozzles and over and along which the strip is adapted to travel in its passage from the furnace mouth to the bell.

5. In an apparatus for manufacturing metal tubes from strips, the combination with a furnace and a bell in which the strip is bent into tubular form, of side blast pipes extending between the mouth of the furnace and the bell, nozzles in the inner side walls of said pipes, supports, between the furnace month and the bell, located immediately below the level of said nozzles and over and along which the strip is adapted to travel in its passage from the furnace mouth to the bell, and a top plate extending between the side blast pipes and adapted to overlie the strip.

[Claims 6 to 10 not printed in the Gazette.]

1,026,276. CONVERTIBLE CHAIR. RUDOLPH MOSKOWITS, Indianapolis, Ind. Filed Dec. 19, 1911. Serial No. 666,817. (Cl. 155—18.)

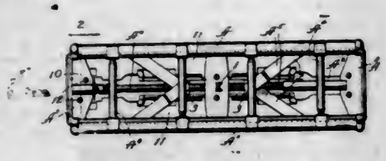


1. The combination with a chair, a pair of movable rockers, a pair of parallel shafts extending from one front chair leg to the other and from one rear chair leg to the other; cranks formed of the ends of said shafts to engage the rockers, cranks formed intermediate the crank-ends and the main body portions of the shafts to engage the chair legs, means connecting the main bodies of the shafts with a single operating-lever, and a single operating-lever adapted to impart vertical travel to said rockers along said chair legs.

2. The combination with a chair, a pair of movable rockers, a pair of crank-shafts for mounting the rockers and chair in operative relation, said shafts having cranked

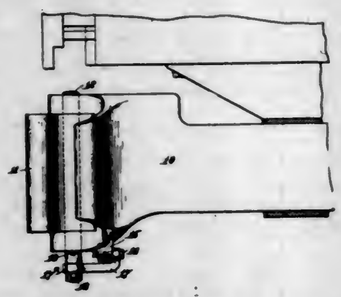
ends for engaging the rockers, means connecting said crank-shafts with a single operating-lever, an operating-lever adapted to impart a rocking movement to said shafts, for actuating the rockers, and means for holding said operating-lever in the desired position.

1,026,277. TEMPORARY BINDER. JOSEPH A. MUDD, Chicago, Ill. Filed Oct. 12, 1909. Serial No. 522,262. (Cl. 129—13.)



In a loose-leaf binder, the combination with leaf-holding and clamping devices and actuating means therefor, including a right and left threaded actuating rod, of a key controlled and actuated rotary member, and a tubular connecting member journaled on the inner end of said rotary member and the adjacent end of said actuating rod, said tubular connecting member being provided with a pair of substantially circumferential slots, and laterally projecting pins carried by said rotary member and said rod and working in said slots, whereby the key may, after serving to actuate said clamping devices, be turned back to one point for withdrawal regardless of the position of the clamping devices.

1,026,278. KNUCKLE-PIN RETAINER FOR CAR-COUPLINGS. CHARLES FREDERIC MURRAY, Chicago, Ill., assignor to American Steel Foundries, Chicago, Ill., a Corporation of New Jersey. Filed Apr. 10, 1908. Serial No. 426,274. (Cl. 213—13.)

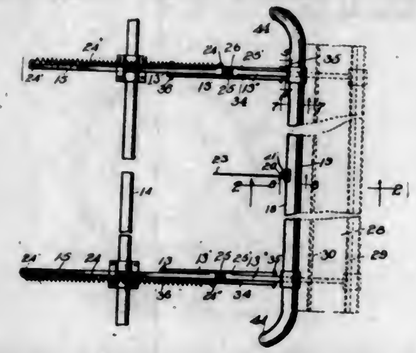


1. A car coupler comprising, in combination, a coupler head, a knuckle, a knuckle pivot pin provided with a longitudinally extending slot in its lower end, and a gravity actuated arm pivoted to the lower portion of said coupler head said arm having a portion adapted to project into the slot in said pivot pin, substantially as described.

2. In a knuckle pin retainer for car couplers, the combination with the coupler head, knuckle and knuckle pin, said head being provided on its under face with a perforated lug and said knuckle pin being provided with a transversely extending aperture, of a key formed with an eye and an extending into the aperture of the knuckle pin, and a headed pin extending through the eye in said key and engaging the perforated lug on the under side of the coupler.

1,026,279. COMBINED BUMPER AND FENDER. HARRY T. MYERS, Chicago, Ill. Filed Feb. 21, 1910. Serial No. 545,207. (Cl. 105—33.)

1. A combined bumper and fender comprising a two-part bumper, an apron normally held in compact form by the bumper, and means for opening the bumper and releasing the apron.



2. A combined bumper and fender comprising a two-part bumper, an apron normally arranged in compact form within the bumper, and means for opening the bumper and stretching the apron.

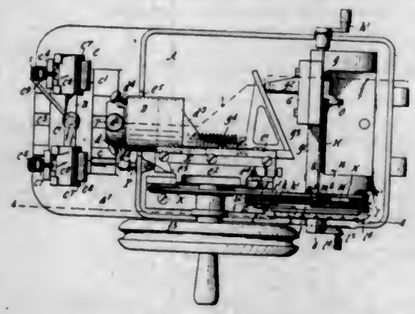
3. A combined bumper and fender comprising a two-part tubular bumper, an apron normally arranged in compact form in said bumper, and means for opening the bumper and stretching the apron.

4. A combined bumper and fender comprising a two-part bumper, an apron normally arranged in compact form in the bumper and attached to the parts thereof, means for holding the parts of the bumper together, and means for opening the apron when said holding means are released.

5. A combined bumper and fender comprising a two-part bumper, an apron having its upper and lower edges fastened to the parts of the bumper and normally arranged in compact form therein, and means for separating the parts of the bumper to stretch the apron.

[Claims 6 to 11 not printed in the Gazette.]

1,026,280. MICROTOME. HARVEY N. OTT, Buffalo, N. Y., assignor to Spencer Lens Company, Buffalo, N. Y. Filed Sept. 19, 1910. Serial No. 582,713. (Cl. 88—40.)



1. The combination with a knife, and a specimen holder, one of which parts reciprocates for cutting the specimen, of feed mechanism for advancing the reciprocating part relative to the cutting plane, comprising a feed device which is mounted on a stationary support and normally holds the reciprocating part from movement away from the cutting plane, and actuating means for said feed device, substantially as set forth.

2. The combination with a knife, a specimen holder, and a carriage on which one of said parts is mounted and which reciprocates for cutting the specimen, said part being movable on said carriage toward and from said other part, of feed mechanism for advancing said reciprocating part toward the cutting plane, comprising a feed device which is mounted on a stationary support and normally holds the reciprocating part from movement away from the cutting plane, and actuating means for said feed device, substantially as set forth.

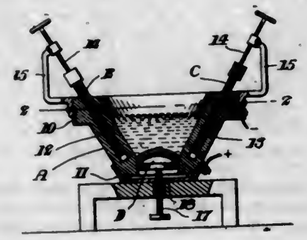
3. The combination with a knife, a specimen holder, and means for reciprocating the specimen holder for cutting the specimen, of feed mechanism for advancing the specimen holder toward the knife, comprising a feed device which is mounted on a stationary support and normally holds the specimen holder from movement away from the knife, and actuating means for said feed device, substantially as set forth.

4. The combination with a knife, a specimen holder and a reciprocating carriage on which the specimen holder is mounted, the specimen holder being movable on the carriage toward and away from the knife, of feed mechanism for advancing the specimen holder toward the knife, comprising a feed device which is mounted independently of said carriage and which bears against the specimen holder and normally holds it from movement away from the knife, and actuating means for said feed device, substantially as set forth.

5. The combination with a knife, a specimen holder and a reciprocating carriage on which the specimen holder is mounted, the specimen holder being movable on the carriage toward and away from the knife, of feed mechanism for advancing the specimen holder toward the knife, comprising a feed device against which the specimen holder bears and slides in the reciprocations of the carriage, and means for actuating said feed device to advance the specimen holder, substantially as set forth.

[Claims 6 to 23 not printed in the Gazette.]

1,026,281. ELECTRIC REFINING-CRUCIBLE. JAMES HENRY REID, Newark, N. J., assignor, by mesne assignments, to The Patents Purchasing Company, Appleton, Wis., a Corporation of Wisconsin. Filed July 19, 1911. Serial No. 639,469. (Cl. 204—64.)



1. An electric refining crucible having means for varying the conductivity of the walls thereof during the operation of the furnace.

2. An electric refining crucible formed of material only possessing conductivity when heated and having means for reducing the conductivity of the crucible as the operation proceeds.

3. An electric refining crucible having a second class current conducting wall and a conducting element, contacting with the same and adapted to be moved into positions to increase the conductivity of the sides.

4. An electric refining crucible having a recessed current conducting wall, a current conducting element movable therein and means for moving the current conducting element inwardly and outwardly.

5. An electric refining crucible of refractory material having recesses extending down the walls and current conducting elements movable in the recesses.

[Claim 6 not printed in the Gazette.]

1,026,282. CAP OR CLOSURE FOR MILK AND OTHER BOTTLES. EDWARD D. SCHMITT, Baltimore, Md., assignor to American Bottle Cap Company, Baltimore, Md., a Corporation of Delaware. Continuation of application Serial No. 606,666, filed Feb. 4, 1911. This application filed Aug. 21,. 1911. Serial No. 645,104. (Cl. 215—10.)



1. A bottle cap of easily rupturable material, formed with a flange adapted to make locking contact with a locking surface on the exterior of a bottle neck, said flange being provided with markings to serve as starting means for tearing the cap, converging linear markings in the top of the cap, said top markings ceasing at a point approximate to the center of the cap, the top markings being a continuation of the markings of the flange, the part within said markings being adapted to be torn out along said markings, whereby the seal is broken without rendering the cap unfit as a temporary seal.

2. A bottle cap of easily rupturable material, formed with a flange adapted to make locking contact with a locking surface on the exterior of a bottle neck, said flange being provided with linear indentations to serve as starting means for tearing the cap, converging linear indentations in the top of the cap, forming a continuation of the indentations in the flange, the top indentations intersecting at a point approximate to the center of the cap, whereby the tearable portion of the cap is made to invariably follow the lines of indentations, and a tab integral with the flange portion of the cap between the flange indentations.

3. A bottle cap of easily rupturable material, formed with a flange adapted to make locking contact with the exterior of a bottle neck, said flange being provided with linear indentations, linear indentations in the top of the cap and running into the indentations in the flange, the flange indentations serving as starting means for tearing the cap, and the top indentations as guiding lines upon which the cap is torn, a lug at each side of the flange indentations, serving as means for readily removing the cap, after the seal has been broken, substantially as and for the purpose set forth.

4. A bottle cap of easily rupturable material formed with a flange adapted to make locking contact with a locking surface on the exterior of a bottle neck, said flange being provided with indentations to serve as starting means for tearing the cap, converging linear indentations in the top of the cap running into the flange indentations, a tab integral with the flange and adapted to serve as means for readily tearing the cap, and a lug on the flange on each side of the tab, substantially as and for the purpose set forth.

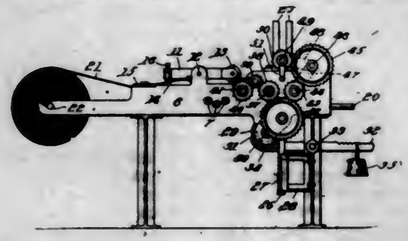
5. A bottle cap of easily rupturable material, formed with a flange adapted to make locking contact with a locking surface on the exterior of a bottle neck, said flange being slitted at two points for about one-half its depth, indentations in the flange running into said slits, linear indentations in the top of the cap, intersecting at a point approximate to the center of the cap, and serving as guide lines for tearing the cap, a tab integral with the flange between the slits and lugs on each side of the tab, substantially as and for the purpose set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,026,283. MACHINE FOR MAKING SURGICAL BANDAGES. OTTO C. SCHULZ, Chicago, Ill., assignor to Bauer & Black, Chicago, Ill., a Corporation of Illinois. Filed May 5, 1909. Serial No. 494,019. (Cl. 164—65.)

1. In a machine for making surgical bandages, the combination of a platen roller, feed rollers for feeding the

material over the platen roller, a plurality of cutters operating against the platen for dividing the material into bandages, a spindle arranged between the feed rollers to receive the material after it is cut, and a vertically movable presser roller engaging the material on the spindle and holding it in contact with the feed rollers.



2. In a machine for making surgical bandages, the combination of a platen roller, a plurality of circular cutters operating against the platen for dividing the material into bandages, a pair of rollers for feeding the material over the platen, a spindle to receive the cut material and located between the feed rollers, a vertically movable presser roller to engage the material as it is wound on the spindle and press it against the feed rollers, and a brake device for retarding the upward movement of the presser roller.

3. In a machine for making surgical bandages, the combination of a platen roller, a plurality of circular cutters operating against the platen for dividing the material into bandages, a pair of rollers for feeding the material over the platen, a spindle to receive the cut material and located between the feed rollers, a vertically movable presser roller to engage the material as it is wound on the spindle and press it against the feed rollers, a pair of rack bars movable vertically with the presser roller, a shaft, a brake roller on said shaft, gears on said shaft meshing with said rack bars, a brake shoe engaging the brake roller, and a weighted lever carrying said shoe.

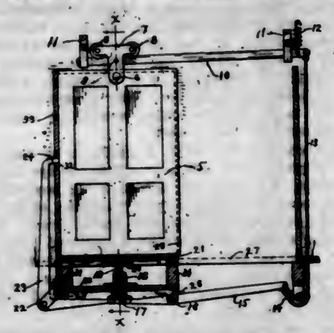
4. In a machine for making surgical bandages, the combination of a platen roller, independent cutters each having a straight peripheral cutting edge and oppositely disposed cutting edges extending axially of the cutters, said cutters being adapted to coöperate with said platen roller to divide the material passing over said platen roller into a plurality of bandages, a spindle adapted to receive said bandages, and means for rotating the spindle whereby all of the bandages are wound in coaxially disposed rolls on said spindle.

5. In a machine for making surgical bandages the combination of a platen roller, means for feeding the material to be operated upon over said roller, a plurality of independent cutters coöperating with said platen roller to divide the material into a plurality of bandages, a spindle upon which said bandages are wound, and means for rotating said spindle to wind up the bandages thereon in coaxially disposed rolls.

[Claims 6 to 9 not printed in the Gazette.]

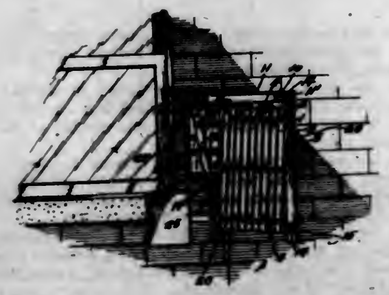
1,026,284. DOOR-OPENER. BENJAMIN FRANKLIN SOUTHER, Seattle, Wash. Filed May 23, 1911. Serial No. 628,947. (Cl. 39—94.)

1. In a door opener of the class described, a vertically movable platform disposed within a doorway and extending for a suitable distance on each side thereof, a track supported by a pivot disposed at a point above the middle of said doorway whereby one end of said track shall move upwardly when its other end is moved downwardly and vice-versa, a carrier adapted to travel on said track, a door associated with and suspended by said carrier in such manner that when said door is in its normal position to close said doorway then the weight of said door is evenly balanced on, and sustained by, said pivot whereby slight force may be required to tilt said track, a retractile device adapted to be operated to raise one end of said track, and a lever associated with said track and adapted to be operated to pull downwardly said one end of said track in opposition to the force of said retractile device, in combination with means for communicating motion to said lever in response to a vertical movement of said platform.



2. In a door opener of the class described, a vertically movable platform disposed within a doorway and extending for a suitable distance on each side thereof, a track supported by a pivot disposed at a point above the middle of said doorway whereby one end of said track shall move upwardly when its other end is moved downwardly and vice-versa, a carrier adapted to travel on said track, a door associated with and suspended by said carrier in such manner that when said door is in its normal position said doorway is closed and the weight of said door is evenly balanced on and sustained by said pivot whereby a slight force may tilt said track, a retractile device associated with said track adapted normally to maintain said track at such tilted position as should cause said door to close by its own gravity, and means associated with said track and said platform whereby a downward movement of said platform may cause said track (in opposition to said retractile force) to move to a position that should cause such door to move by its own gravity to open said doorway, in combination with a fulcrumed lever having one end connected with said platform while its other end is adapted to engage the edge of said door whereby a downward movement of said platform will actuate said lever to exert force against said edge of said door to give initial movement thereto in its process of opening which movement is maintained by the door's own gravity.

1,026,285. FIRE-ESCAPE. JOHN STEPHAN, Milwaukee, Wis. Filed Aug. 23, 1911. Serial No. 645,602. (Cl. 228—31.)



In a fire escape of the described class, the combination of a frame adapted to be supported from the exterior wall of a building, a foldable ladder supported by said frame, mechanical means for normally retaining said ladder in a folded position on said frame, a coiled power spring, a winding shaft for supporting said spring, means for communicating motion from said winding shaft to said ladder retaining means, means for normally holding said winding shaft against the recoil of said power spring, electrically controlled means for releasing said winding shaft, and manually actuated means for producing the initial action for releasing said electrically controlled means, all substantially as and for the purpose specified.

1,026,286. CURTAIN-FIXTURE. CHARLES A. STERLING, East Orange, N. J. Filed Apr. 29, 1911. Serial No. 624,204. (Cl. 156—26.)



1. A curtain fixture for a spring actuated curtain, embracing stationary holding means having curvilinear locking faces, the inclinations of the lower faces which incline in opposite directions being more abrupt than the inclinations of the upper faces; together with locking devices and springs for holding said devices against the stationary locking faces of the holding means with sufficient stress to prevent the curtain from being rolled up by its spring, substantially as described.

2. A window curtain fixture having curvilinear holding racks located in the casings of the window, the lower curvilinear faces of the racks being more abrupt than are the upper faces thereof; together with a curtain rod or stick and spring actuated locking devices pivotally secured to the ends thereof, the two bearing faces of the said locking devices corresponding in angular relation with the like bearing faces of the racks, whereby when the curtain is being raised a maximum braking effect is had between the locking devices and the abrupt braking surfaces, and when the curtain is being lowered a minimum braking effect is had between the locking devices and the less abrupt braking faces of the racks, substantially as described.

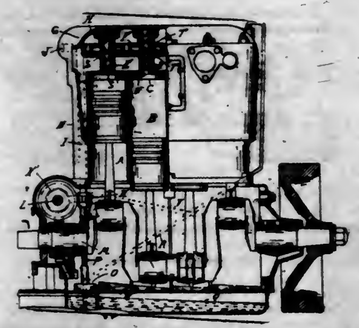
3. In a curtain fixture two racks having curvilinear teeth the faces of which have relatively widely different angular relation to each other; in combination with a curtain rod or stick and a spring pressed locking device at each end thereof, the frictional faces of the locking devices having a definite angular relation to each other and to the corresponding angular faces of the racks, substantially as described.

4. A curtain fixture embracing racks having curvilinear teeth the frictional faces of which are more abrupt upon the lower side than upon the upper side; in combination with a curtain stick having a holding locking device pivotally secured at each end thereof; each locking device being provided with a spring for forcing it outward into frictional bearing with the teeth of the rack, as the curtain is raised or lowered; the curvilinear faces of the locking devices being respectively angularly related the same as are the frictional faces of the racks, substantially as described.

5. A curtain fixture having a curtain stick secured to the lower end thereof; a pivoted arm or part T at each end; a holding device provided at the free end of each pivoted part, and a spring secured at one end to each pivoted part with its free end resting behind the corresponding holding device; together with two racks having each curvilinear teeth the faces of which differ in angular relation to each other and to the inclined faces of the holding devices, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,026,287. LUBRICATING SYSTEM FOR EXPLOSION-ENGINES. CECIL HAMELIN TAYLOR and HOWARD E. COFFIN, Detroit, Mich. Filed June 27, 1910. Serial No. 569,205. (Cl. 121—115.)



1. In an engine, the combination of the engine casing having a lubricant receptacle, there being a second lubricant receptacle at a level above the first-mentioned receptacle, means for supplying lubricant to the upper receptacle, mechanism adjacent the higher level lubricated from the higher receptacle, mechanism lubricated from the lower receptacle, and an overflow from the higher to the lower receptacle.

2. In an engine, the combination of the engine casing having two lubricant receptacles therein at different levels, a series of ribs for dividing each receptacle into individual pockets having an overflow from one to another, means for supplying the lubricant to the upper receptacle at one end of the casing, and means at the same end of the casing for feeding to the lower receptacle the lubricant discharged from the upper receptacle at the opposite end of the casing.

3. In an engine, the combination of the engine casing having two lubricant receptacles therein at different levels and a drain receptacle at a still lower level, means for pumping the lubricant from the drain receptacle and conveying the same to the upper level at one end of the casing, a conduit discharging to the next lower receptacle at the same end of the casing and leading from an overflow of the upper receptacle at the opposite end of the casing, and an overflow from the lower receptacle at the latter end of the casing to the drainage receptacle.

4. In a lubricating system for engines, the combination with the cylinder and the crank case, of a lubricant receptacle at the upper end of the cylinder, a discharge conduit leading from said receptacle to the crank case, a drainage receptacle below the crank case with an overflow from the latter connecting therewith, and means for pumping the lubricant from said drainage receptacle to the receptacle at the upper end of the cylinder.

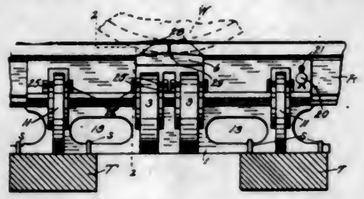
5. In a lubricating system for engines, the combination with the cylinder, the crank case and crank shaft, of a rotary valve for the cylinder, a drive mechanism between said crank shaft and said valve including a vertically-extending shaft, a lubricant receptacle for said valve, a tubular housing for said shaft forming a duct for conveying the lubricant from said receptacle to the crank case.

[Claims 6 to 9 not printed in the Gazette.]

1,026,288. RAIL-JOINT. CHASER A. TIECHE, Seattle, Wash. Filed Dec. 18, 1911. Serial No. 666,581. (Cl. 238—8.)

A rail chair and clamp comprising in combination with a pair of rail-ends, a suitably supported rail chair and clamp provided with a body having a plane supporting surface for said rails, and a plurality of integral hooked arms extending upwardly in oppositely arranged pairs between which said rails are engaged, the centrally disposed

portion of said arms upon opposite sides of the body terminating in a block adjacent and parallel to said abutting rail-ends, one of said blocks having a curved upper surface



whose middle portion extends above the plane of the rail treads, and the other of said blocks having a curved upper surface entirely below the plane of the rail treads.

1,026,280. MANIFOLD SALES-BOOK. LINWOOD G. WHITNEY, New York, N. Y., assignor to Whitney Duplicating Check Company, New York, N. Y., a Corporation of New York. Filed Feb. 10, 1906. Serial No. 300,374. (Cl. 11—23.)



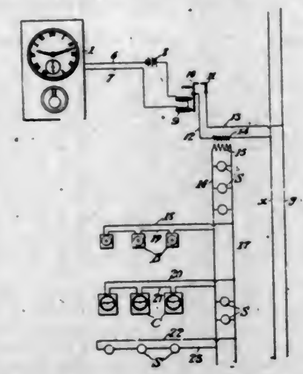
1. A manifold sales-book comprising a cover having three about equal sections 10, 11, 12, in line with each other, the section 11 being the middle one, and said sections being hinged together, a pad of duplicate check-slips secured at its left hand edge upon that face of said section 10 which is uppermost when said section is folded between the sections 11, 12, a set of original checks, and means freely hinging at one end said set of original checks to said cover adjacent to the top edge of said pad, when the section 10 is in folded position, and adjacent to the hinged adjoining ends of said sections 11, 12, whereby said original checks may be turned and lie flat upon either the sections 11 or 12 and be independently placed upon said pad of duplicate check-slips; substantially as set forth.

2. A manifold sales-book comprising a cover having three about equal sections 10, 11, 12, in line with each other, the section 11 being the middle one, and said sections being hinged together, a pad of duplicate check-slips secured at its left hand edge upon that face of said section 10 which is uppermost when said section is folded between the sections 11, 12, a set of original checks, and rings freely hinging at one end said set of original checks to said cover adjacent to the top edge of said pad, when the section 10 is in folded position, and adjacent to the hinged adjoining ends of said sections 11, 12, whereby said original checks may be turned and lie flat upon either the sections 11 or 12 and be independently placed upon said pad of duplicate check-slips; substantially as set forth.

3. A manifold sales book comprising three cover portions arranged in successive order in the direction of the longitudinal axis of the cover and hinged together along their adjacent ends, a pad of duplicate checks carried on the back of the lower cover portion and secured thereto along the left hand edge thereof, a pad of original checks carried on the face of the intermediate cover portion and means for securing such pad to the cover and for permitting the separate checks to be swung upward from the intermediate cover and turned clear back upon the upper cover and made to lie thereon throughout their entire lengths without bending.

4. A manifold sales book comprising three cover-portions arranged in successive order in the direction of the longitudinal axis of the cover and hinged together along their adjacent ends, a pad of duplicate checks carried on the back of the lower cover portion and secured thereto along the left hand edge thereof, a pad of original checks carried on the face of the intermediate cover portion and means for securing such pad upon the cover and for permitting the separate checks to be swung clear back throughout their entire lengths and made to lie without bending upon the cover, such means including a removable ring having hinged portions adapted to be opened to permit the removal or replacement of the separate original checks.

1,026,290. ALTERNATING-CURRENT PROGRAM SYSTEM. JOHN L. WRENN, Washington, D. C. Filed Jan. 17, 1912. Serial No. 671,698. (Cl. 58—24.)

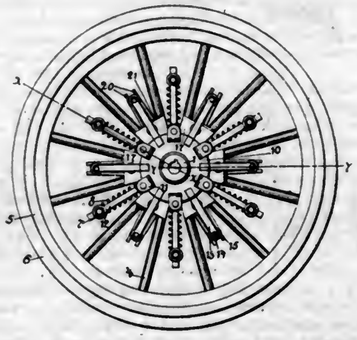


1. An electrically operated program system, comprising a source of alternating current, a working circuit including translating devices to be intermittently actuated, a transformer for delivering relatively low tension current to the working circuit, a relay for closing the circuit from the alternating current source to the transformer, and means for actuating the relay at desired intervals.

2. A program system adapted for operation by alternating electric current, comprising a working circuit including translating devices to be intermittently actuated, a step-down transformer for supplying relatively low tension current to the working circuit, a relay for closing the transformer circuit, and means for closing the relay circuit at desired intervals.

3. A program system adapted for operation by alternating electric current, comprising a working circuit including translating devices to be intermittently actuated, a step-down transformer including a primary winding supplied from an alternating current source and a secondary winding supplying relatively low tension current to the working circuit, a relay for closing the transformer circuit, and a master-clock for intermittently closing the relay circuit.

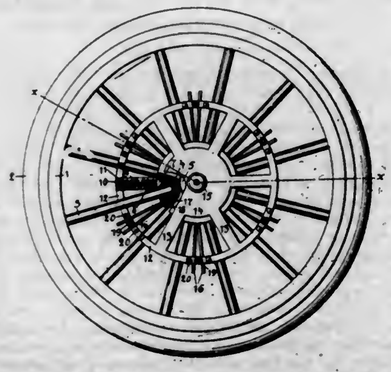
1,026,291. VEHICLE-WHEEL. ALFRED R. WYLIE and JAMES G. WRIGHT, Big Spring, Tex. Filed Sept. 27, 1910. Serial No. 584,032. (Cl. 152—28.)



1. The combination in a vehicle wheel of inner and outer spaced hubs, spokes rigid with the outer hub, a rim rigid with the spokes, a plurality of arms projecting radially from the inner hub, rods extending from the outer hub, collars carried by the arms and embracing the rods, coil springs surrounding the rods and engaging the hub and the collars, arms projecting from the inner hub, rollers pivoted between these arms, coil springs carried by the outer hub, extensions formed upon the springs and engaging the rollers, and antifriction rings interposed between the hubs.

2. The combination in a vehicle wheel of inner and outer spaced hubs, spokes rigid with the outer hub, a rim rigid with the spokes, a plurality of arms projecting radially from the inner hub, rods extending from the outer hub, collars carried by the arms, said rods slidable in said collars, coil springs surrounding the rods and engaging the hub and the collars, arms projecting from the inner hub, rollers mounted between said arms, plates secured to each side of said outer hub, lugs extending therefrom, spindles mounted between said lugs, a pair of coiled springs carried by each spindle, one extremity of each spring bearing against the opposite sides of said rollers and the other extremity resting upon the outer edge of said lugs, substantially as described.

1,026,292. VEHICLE-WHEEL. ALFRED R. WYLIE and JAMES G. WRIGHT, Big Spring, Tex. Filed Mar. 14, 1911. Serial No. 614,364. (Cl. 152—28.)



1. In a vehicle wheel, the combination with a rigid frame, consisting of a rim and spokes and an outer hub, of a rigid frame consisting of an inner hub spaced from the outer hub, and a pair of circular apertured plates mounted upon each extremity of the inner hub, radially mounted coiled springs having their inner extremities seated upon the outer hub, and their outer extremities mounted between the outer portions of said apertured plates, the middle portions of said springs being adapted to undergo a lateral displacement, and a plurality of flat radial springs having their inner extremities rigidly mounted in the outer hub, and having their outer extremities engaged by the outer portions of said apertured circular plates.

2. In a vehicle wheel, the combination with the rim and spokes, and an outer hub rigidly receiving the inner extremities of the spokes, of an inner hub spaced from the outer hub, an apertured circular plate mounted upon each extremity of the inner hub, a plurality of blocks rigidly mounted at equal distances between the outer portions of said plates, a pin projecting inwardly from each block, pins mounted upon the outer hub opposite to the last named pins, and a plurality of radially mounted coiled springs, having their extremities secured upon said pins.

3. In a vehicle wheel, the combination with a rim and spokes, and an outer hub rigidly receiving the inner extremities of the spokes, of an inner hub spaced from the outer hub, an apertured circular plate rigidly mounted upon each extremity of the inner hub, a plurality of blocks rigidly mounted between the outer portions of said plates at equal distances, a radial pin projecting inwardly from each block, a plurality of pins projecting radially from the outer hub and oppositely positioned to the pins just mentioned, a plurality of radial coiled springs having their extremities seated upon said pins, a plurality of flat radial springs projecting in pairs from the outer hub, and means carried by the outer portions of said plates engaging the outer extremities of said flat springs.

4. In a vehicle wheel, the combination with a rim and spokes, and an outer hub receiving the inner extremities of the spokes, of an inner hub spaced from the outer hub, a pair of circular plates rigidly attached to the outer hub at each side thereof, and provided with central apertures alined with the apertures of the hub, a plurality of blocks mounted between the outer portions of said plates, a pin projecting radially outward from each block, a plurality of radially mounted coiled springs having their inner extremities seated upon said pins, a pair of apertured circular plates rigidly mounted upon the extremities of the inner hub, and contacting with the plates mounted upon the outer hub, a plurality of blocks rigidly mounted at equal distances between the outer portions of said aperturned circular plates, a pin projecting rigidly inward from each of the last named blocks, and receiving the outer extremity of one of said coiled springs, and a plurality of flat springs projecting radially in pairs from the outer hub, and means carried between the outer portions of the apertured circular plates engaging the outer extremities of the last named springs.

1,026,293. GUARD FOR CULTIVATOR-WHEELS. FRANCIS ADIX, Boone, Iowa. Filed Aug. 26, 1911. Serial No. 646,118. (Cl. 21—23.)

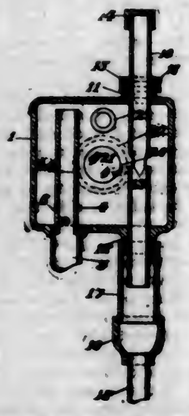


1. An improved guard for cultivator wheels, comprising a semicircular body portion and an annular flange thereon, means for detachably securing said guard to a cultivator, and for adjusting said guard vertically with relation to

the frame of the cultivator, said guard being provided with a horizontal slot at the middle of its straight edge, a plate, screw threaded bolts extending through said plate and said slot, and nuts on said bolts.

2. An improved guard for cultivator wheels, comprising a semicircular body portion and an annular flange thereon, for detachably securing said guard to a cultivator, means for adjusting said guard vertically with relation to the frame of the cultivator, said guard being provided with a horizontal slot at the middle of this straight edge, a plate, screw threaded bolts extending through said plate and said slot, nuts on said bolts, said plate being provided with a roughened inner face, a block having a roughened face designed to fit against the roughened face of said plate, a screw threaded bolt extended through said plate and said block and through the body of said wheel guard, a nut on said last mentioned bolt.

1,026,294. MEASURING DEVICE. J. FRANK ANDRES, St. Louis, Mo., assignor to United States Safety Gas Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 6, 1911. Serial No. 606,759. (Cl. 73—157.)

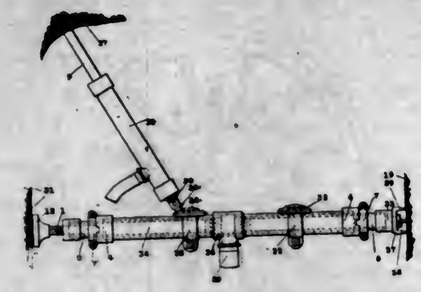


1. A measuring device including a casing having an inlet and an outlet, a tube extending upwardly on the interior of the casing, said tube having a pair of openings located at diametrically opposite points adjacent to the casing bottom, one of said openings being threaded and the other acting as an inlet to conduct the liquid from the casing to the interior of said tube, a screw-threaded cone-pointed valve in said threaded opening, the cone-point of the valve being for engagement with the wall surrounding the other opening, said casing being formed with an opening in one side thereof which is in alinement with said valve, and a plug closing said last named opening.

2. A measuring device including a casing having integral closed ends, said casing having an inlet and an outlet in its bottom end, a vertical tube inserted in the outlet and projecting upwardly on the interior of the casing, said tube having an inlet to conduct the liquid from the casing interior to the tube interior, a transverse valve to control said tube inlet, said casing having one side thereof formed with an opening which alines with the outer end of said valve to allow access to the latter for the purpose of manipulating said valve, and removable means to close said opening.

1,026,295. MINING-MACHINE BAR. GEORGE C. ARNDT, Portland, and GILBERT N. JACK, Willamina, Oreg. Filed Mar. 23, 1911. Serial No. 616,408. (Cl. 125—10.)

1. In a device of the character described, a column,—an end-piece telescoping therein,—a collar provided at its edge with recesses, secured at the upper end of said column,—a clamp mounted on the end-piece and adapted to be secured at any point thereon,—and projections on the clamp adapted to engage the recesses of said collar.



2. In a machine bar, a tube, end pieces provided with inner terminal pistons telescoping therein, a collar secured to each end of the tube and provided at its edge with recesses, and a clamp detachably secured upon each end piece having projections adapted to engage in said recesses.

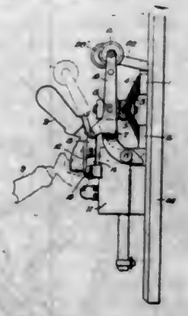
3. In a machine bar, a tube, end-pieces provided at their outer ends with means for engaging external walls and at their inner ends with a piston telescoping therein, a collar secured to each end of the tube provided at its edge with recesses, and a clamp detachably secured upon each end-piece having projections adapted to engage in said recesses.

4. The combination of a machine bar having end members telescoping therein, with a drill seat comprising a segment of a sphere, which is provided in its upper face with a central vertical recess and with a series of angularly disposed recesses about its periphery,—and a clamp, for detachably securing the seat at varying positions along the bar.

5. A column for supporting drills comprising in combination, a tubular body portion, end-pieces telescoping therein, pistons secured on said end-pieces, a clutch comprising a collar having recesses at its edge secured at each end of the body portion, a clamp detachably secured upon each end-piece having projections adapted to engage in said recesses, and means for admitting an elastic fluid to the body portion for extending the end-pieces.

[Claim 6 not printed in the Gazette.]

1,026,296. AUXILIARY CARBON-CONTACT CIRCUIT-BREAKER. CHARLES C. BADEAU, Boston, Mass., assignor to Sears B. Condit, Jr., Boston, Mass. Filed July 27, 1909. Serial No. 509,919. (Cl. 175—282.)



1. In an electric circuit breaker, primary and secondary contacts having fixed and movable elements, supporting means for the fixed elements, and carrying means for the movable elements, said secondary contacts having the fixed and movable elements thereof of like dimension in the direction of relative movement and being mounted for flatwise sliding frictional engagement, and the contacts being mounted on said supporting and carrying means so that as the primary contacts separate the secondary contacts have substantially complete engagement of their opposing flatwise extending surfaces with undiminished frictional pressure, and the members comprising the secondary contacts being arranged so that further movement of said carrying means gradually diminishes the secondary contacting surfaces to final separation.

2. In an electric circuit breaker, primary and secondary contacts having fixed and movable members, supporting means for the fixed contacts and carrying means for the movable contacts, said secondary contacts being composed of flat plates of like dimension in the direction of relative movement mounted for flatwise sliding frictional engagement and being held from their outer sides only so as to leave the opposing sides free for full contacting engagement, said secondary contacts being mounted and arranged relative to the primary contacts so as to have substantially full surface engagement with undiminished pressure as the primary contacts separate.

3. In an electric circuit breaker, primary and secondary contacts having fixed and movable members, supporting means for the fixed members and carrying means for the movable members, one of the members of the primary contacts being a yielding one and relatively mounted for increasing contacting pressure as the circuit breaker is moved to fully closed position, and said secondary contacts being composed of flatwise frictionally engaging plates of like dimension in the direction of relative movement arranged to occupy a position past maximum contact with the circuit breaker in fully closed position and for movement to substantially full engagement of the opposing surfaces with undiminished pressure as the pressure on the primary contacts is relieved and they are separated, the secondary contacts then gradually separating by further movement of said carrying means to final separation.

4. In an electric circuit breaker, primary and secondary contacts having fixed and movable members, supporting means for the fixed members and carrying means for the movable members, said secondary contacts being composed of flat disks of like dimension in the direction of relative movement held at their outer sides and arranged relative to the primary contacts so as to occupy positions past maximum contact with the circuit breaker fully closed, and to have their opposing faces in substantially full engagement with undiminished pressure as said carrying member is moved to separate the primary contacts.

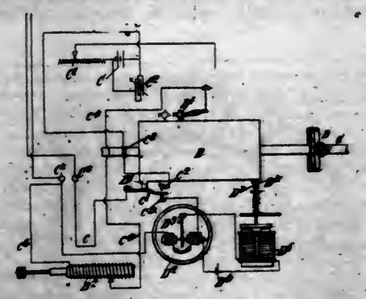
5. In an electric circuit breaker, secondary contacts mounted for relative movement to make and break a circuit, one thereof being composed of a carbon disk arranged to engage the other contacts on its lateral surface with a flatwise sliding engagement, said disk being mounted for rotatable adjustment to present fresh peripheral arcing surfaces.

[Claims 6 to 8 not printed in the Gazette.]

1,026,297. PHOTOTELEGRAPHY. THOMAS THORNE BAKER, Cricklewood, England. Filed Jan. 20, 1910. Serial No. 539,175. (Cl. 178—310.)

1. In a phototelegraphic system, the combination with a source of electric current, of means at a transmitting station for interrupting the current for different periods of time corresponding to the variations of light and shade at different parts of the photograph to be transmitted, a sheet of material at a receiving station capable of being discolored by the passage of an electric current therethrough, means for enabling the interrupted passage of the current transmitted along the line to be recorded on the surface of the material by its discoloring effect, and at the receiving station for sending a current along the line, after each interruption of the line current, in the opposite direction to that in which the line current traveled to the receiving station.

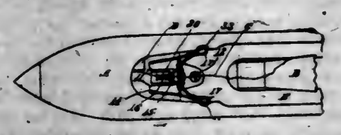
2. In a phototelegraphic system, the combination with a source of electric current, of means at a transmitting station for interrupting the current for different periods of time corresponding to the variations of light and shade at different parts of the photograph to be transmitted, chemically prepared paper at a receiving station capable of being discolored by the passage of an electric current therethrough, a stylus having its point riding upon the paper and connected in circuit with the line, means for producing relative movement between the paper and the stylus, and means at the receiving station for sending a current along the line, after each interruption of the line current, in the opposite direction to that in which the line current traveled to the receiving station.



3. In a phototelegraphic system, the combination with a source of electric current, of means at a transmitting station for interrupting the current for different periods of time corresponding to the variations of light and shade at different parts of the photograph to be transmitted, a sheet of material at a receiving station capable of being discolored by the passage of an electric current therethrough, means for enabling the interrupted passage of the current transmitted along the line to be recorded on the surface of the material by its discoloring effect, a battery and a variable resistance in series at the receiving station and connected in shunt upon the line, and a variable condenser connected in shunt upon the said battery.

4. In a phototelegraphic system, the combination with a source of electric current, of means at a transmitting station for interrupting the current for different periods of time corresponding to the variations of light and shade at different parts of the photograph to be transmitted, chemically prepared paper at a receiving station capable of being discolored by the passage of an electric current therethrough, a stylus having its point riding upon the paper and connected in circuit with the line, a battery and a variable resistance in series at the receiving station and connected in shunt upon the line, and a variable condenser connected in shunt upon the said battery.

1,026,298. TENSION DEVICE FOR SHUTTLES. DANIEL BLANCHARD, Lowell, Mass. Filed July 3, 1908. Serial No. 441,770. (Cl. 139—46.)

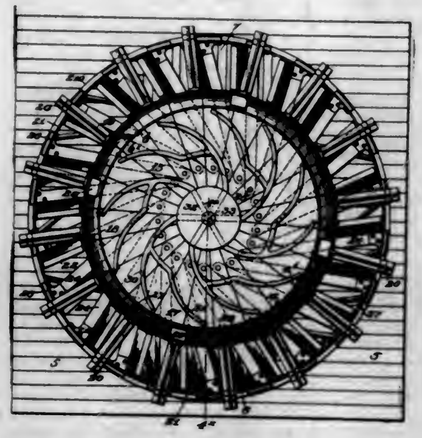


1. A tension device for shuttles which comprises a base plate, blades which project therefrom, sides, which rise vertically therefrom, wings attached thereto which slant downward between said sides toward the shuttle eye and are formed with lips which pass below and between said blades.

2. A tension device for shuttles which comprises a base plate, blades which project therefrom, sides which rise vertically therefrom, wings attached thereto which slant downward between said sides toward the shuttle eye and are formed with lips which pass below and between said blades and means for attaching the base plate to the shuttle.

3. A tension device for shuttles which comprises a base plate, blades, pointed prongs which project therefrom and enter the wood of the shuttle, sides which rise vertically therefrom, wings attached thereto which slant downward between said sides toward the shuttle eye and are formed with lips which pass below and between said blades as described.

1,026,299. FRUIT-HANDLING MACHINE. WILLIAM H. BOUTELL, Rochester, N. Y., assignor to Boutell Manufacturing Co., Rochester, N. Y., a Corporation of New York. Filed Jan. 25, 1911. Serial No. 604,640. (Cl. 146—11.)



1. In a distributing mechanism, the combination with a stationary platform, of a revoluble turntable on which articles are deposited, sweeps movable over the platform, and means for directing said articles outwardly from the turntable into the path of the sweeps.

2. In a distributing mechanism, the combination with a stationary platform, of a revoluble turntable, sweeps moving therewith and traversing the platform, and means for causing articles deposited on the platform to be directed into the path of the sweeps.

3. In a distributing mechanism, the combination with a horizontal platform, of a circular revoluble turntable, sweeps surrounding the turntable and traveling therewith over the platform, and means arranged stationary relatively to and coöperating with the turntable for directing articles placed thereon into the path of the sweeps.

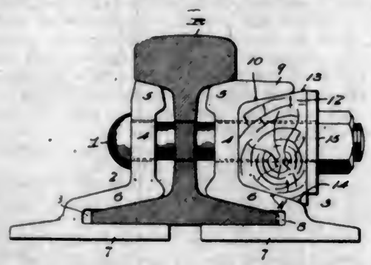
4. In a machine of the character described, the combination with a table, of a circular turntable, sweeps surrounding the turntable and traveling over the stationary table, a wall rising above the turntable having an opening and means for causing articles deposited on the platform to pass out of said opening into the path of the sweeps.

5. In a distributing mechanism for fruit handling machines, the combination with a horizontal table, two stationary curbs spaced apart and forming a path between them, and sweeps traversing said path, of a turntable revolving within the inner curb its rotary movement acting to distribute single pieces of fruit placed upon it in alinement against and carry them along the face of the inner curb, said curb having an opening through which pieces of fruit may pass laterally into the path of the sweeps.

[Claims 6 to 22 not printed in the Gazette.]

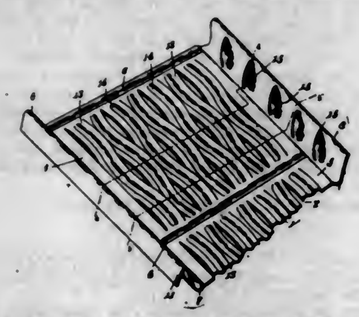
1,026,300. RAIL-JOINT. BANCROFT G. BRAINE, New York, N. Y., assignor to The Rail Joint Company, New York, N. Y., a Corporation of New York. Filed Aug. 26, 1908. Serial No. 450,355. (Cl. 239—6.)

1. A rail joint comprising, in combination with the rails, a pair of opposite adjustable joint bars of angle formation and provided with integral horizontal rail supporting base sections terminating short of the vertical center of the joint, one of said bars being further provided with a channeled outer side and formed at its top edge with an outwardly projecting reinforcing flange having at its under side an inclined face of greater area than the area of the under side of the rail head, a compressible filler member having inclined faces respectively engaging said inclined face of the reinforcing flange and of the foot flange of the channeled bar, a metallic bolt strap arranged at the outer side of the filler member, and joint bolts.



2. A rail joint comprising in combination with the rails a pair of opposite adjustable joint bars of angle formation, one of said bars being provided with an integral, horizontal, rail supporting base section, said bar being further provided with a channeled outer side and formed at its top edge with an outwardly projecting reinforcing flange having at its under side an inclined face of greater area than the area of the under side of the rail head, a compressible filler member having inclined faces respectively engaging said inclined face of the reinforcing flange and of the foot flange of the channel bar, a metallic bolt strap arranged at the outerside of the filler member, and joint bolts.

1,026,301. METALLIC FURRING-PLATE. WILLIAM L. CALDWELL, Canton, Ohio, assignor to The Berger Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Oct. 21, 1910. Serial No. 588,304. (Cl. 72—117.)



1. A furring plate formed from sheet metal provided with parallel strands formed by parallel slits of uniform length all terminating at a line substantially at right angles to the length of said slits, said strands being immediately adjacent each other and provided with longitudinal beads, and portions of each of said strands being curved out of the general plane of the plate on both sides thereof.

2. A furring plate formed of sheet metal comprising a plurality of sections, each section having side frame portions and transverse, beaded frame portions, all of said frame portions lying substantially in a single plane, and the body of the plate lying intermediate said frame portions provided with slits extending from one transverse frame portion to the other and forming parallel strands, said strands provided with longitudinal beads and portions of each of said strands curved outwardly from the general plane of said frame portions.

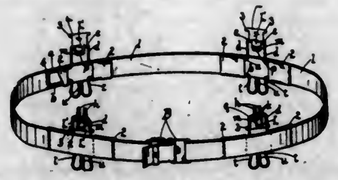
3. A furring plate formed from sheet metal comprising a plurality of sections, each section having side frame portions and transverse frame portions, all of said frame portions lying substantially in a single plane and a body portion lying intermediate said frame portions, said body portion provided with slits parallel to said side frame portions, said slits forming parallel strands extending from one transverse frame portion to the other, said strands provided with longitudinal beads, portions of each of said strands curved out of the general plane of the plate on one side and other portions curved out of the general plane of the plate on the other side, and the portions of said strands curved out of the general plane of the plate having their lateral edges bent toward the general plane of the plate.

4. A furring plate formed from sheet metal provided with parallel strands formed by parallel slits, said strands provided with longitudinal beads, portions of each of said strands curved out of the general plane of the plate on one side and other portions curved out of the general plane of the plate on the other side, and the lateral edges of the said portions bent toward the plane of the plate.

5. A furring plate formed from a single sheet of metal and comprising a plurality of longitudinal series of formed sections, the various series being arranged side by side, strengthening ribs interposed between laterally adjacent series and the body of each section provided with longitudinally disposed strands formed by parallel, longitudinal slits, portions of each of said strands curved out of the general plane of the plate on one side and other portions curved out of the general plane of the plate on the other side.

[Claims 6 and 7 not printed in the Gazette.]

1,026,302. GARMENT-SUPPORTER. LORWIN N. CATES and FRANKLIN O. CATES, St. Louis, Mo. Filed Nov. 18, 1911. Serial No. 661,088. (Cl. 241—9.)

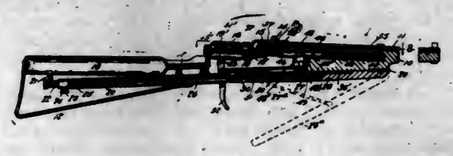


1. In combination with a waist-band, a wire member provided with two wings or members extending in opposite directions and secured to the band, an upper member bent from the inner portions of the wings and projecting above the band, a depending member bent from the inner portions of the wings and projecting below the band, a clasp on the upper member, and a bite formed on the bottom member.

2. In combination with a waist-band, a member provided with two wings or members extending in opposite directions and secured to the band, an upper member bent from the inner portions of the wings and projecting above the band, a depending member bent from the inner portions of the wings and projecting below the band, fastening means on the upper member, and a bite formed in the bottom member.

1,026,303. REPEATING AIR-RIFLE. ARTHUR V. DICKEY, Seattle, Wash., assignor of one-half to Wm. M. Sheffield, Seattle, Wash. Filed Oct. 26, 1911. Serial No. 657,009. (Cl. 124—8.)

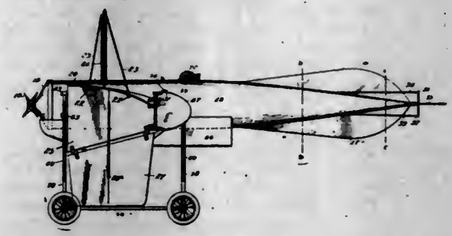
1. In an air-gun, a magazine for projectiles, a gun-barrel, a compressed air reservoir, communicative connections between said reservoir and the barrel, a valve for said connections, trigger controlled normally inoperative devices for actuating said valve, means for conveying one projectile at a time from said magazine to said barrel, said means also serving to render said devices operative, an air-pump cylinder, a connection between the cylinder and said reservoir, a non-return valve in the last named connection, a plunger for said cylinder, a pump handle hingedly connected to said gun frame, and operative connection between the pump handle and said plunger.



2. In an air-gun, a magazine for projectiles, a gun barrel, an air reservoir connected by an air-passage with the rear end of said barrel, a valve for said passage, trigger controlled normally inoperative devices for actuating said valve, and means for conveying one projectile at a time from said magazine to said barrel, said means also serving to render said devices operative.

3. An air-gun provided with a gun-frame, a reservoir for compressed air, a gun-barrel, a passage between the reservoir and the gun barrel, a valve for said passage, a breech-block, a receptacle for a projectile provided in said breech-block, an actuator movably connected to said gun-frame, a hammer-block for said valve, a spring for operating the hammer-block, and operative connection between the actuator and the hammer-block and also between the actuator and said breech-block whereby the hammer-block and the breech-block are respectively actuated to cause the compression of said spring and to afford motion to the breech-block to present the receptacle thereof successively to the magazine and to the gun-barrel.

1,026,304. HYDROAEROPLANE. EINAR P. EKMAN, Chicago, Ill. Filed Sept. 15, 1911. Serial No. 649,526. (Cl. 244—14.)



1. A machine of the class described, comprising a tapering tubular body, the rear end of which is flattened in a horizontal directon, a pair of laterally extending sustaining surfaces or planes secured to opposite sides of the forward end of the body, ailerons pivotally secured to the under sides of the planes and normally at right angles thereto, means operatively connected with the ailerons whereby the relative position of the ailerons to the planes may be determined. rudders pivotally mounted to the rear sides of the planes and arranged to swing about vertical axes, a rudder pivotally mounted at the rear end of the tubular body and arranged to swing about a horizontal axis, and means whereby the rudders may be controlled.

2. A machine of the class described comprising a tapering tubular body, a pair of laterally extending sustaining surfaces or planes secured to opposite sides of the forward end of the body, ailerons pivotally mounted beneath the planes and normally held in vertical position, means whereby the ailerons may be moved out of their vertical planes, a pair of rudders pivotally secured to the rear sides of the planes and arranged to move about vertical axes, and a pontoon slidably mounted to the body portion.

3. A machine of the class described, comprising a tapering tubular body, a pair of sustaining surfaces or planes

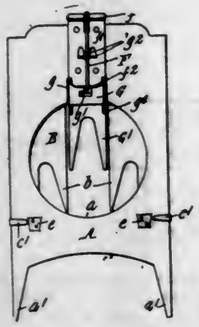
rigidly secured to opposite sides of the forward portion of the body, rigidly held members depending from the planes at right angles thereto, ailerons pivotally secured to the lower ends of said members, means whereby the ailerons may be moved at an angle to the perpendicular plane of said members, rudders arranged to move about vertical axes at the rear sides of the planes, an ascending or descending rudder pivotally secured to the rear end of the body, means whereby the rudders may be manipulated, and a pontoon slidably mounted beneath the body of the machine.

4. A machine of the class described, comprising a tapering tubular body, a pair of sustaining surfaces or planes rigidly secured at opposite sides to the forward part of the body, said planes being bowed downwardly toward the rear, anti-skidding members secured at right angles to the under surfaces of the planes, said members being of greater dimensions vertically at the front than at the rear, ailerons pivotally mounted at the lower edges of said members, means whereby the ailerons may be manipulated, a pair of vertically disposed rudders mounted to the rear of the planes, means whereby said rudders are controlled, and a horizontally disposed rudder pivotally mounted at the rear end of the tubular body.

5. In a machine of the class described, the combination of a tapering tubular body provided with sustaining surfaces or planes rigidly secured to opposite sides of the forward portion thereof, with a pontoon slidably mounted beneath the body portion thereof and means whereby the pontoon may be locked in its adjusted positions.

[Claims 6 to 14 not printed in the Gazette.]

1,026,305. ANIMAL-TRAP. REUBEN C. ELDRIDGE and HERBERT M. ELDRIDGE, Niagara Falls, Ontario, Canada; said Herbert M. Eldridge assignor to said Reuben C. Eldridge. Filed Oct. 27, 1909. Serial No. 524,783. (Cl. 43—21.)



1. In a trap having a frame provided with an opening for the entrance of the animal, and a movable member for entrapping the animal, the combination of a lever pivoted between its ends to swing in a plane transversely to the plane of said opening, one of the ends of said lever extending at an angle to the plane of said opening and being adapted to engage said movable member to hold the same from action and the other end having a lateral projection, and a trigger pivoted to swing in the plane of movement of said lever and adapted to be actuated by the animal entering said opening from either direction, said trigger having a slot through which said projection of said lever is adapted to move, and a lug which engages said projection of the lever to hold the lever, substantially as set forth.

2. In a trap having a movable member for entrapping the animal, the combination of a lever for holding the movable member from action, and a trigger comprising a movable head which engages and holds the lever, and an extension which has a limited movement independently of the trigger head, substantially as set forth.

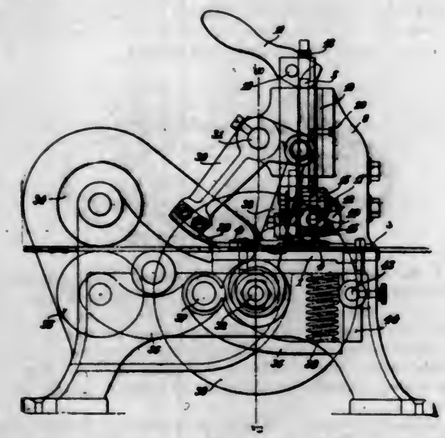
3. In a trap having a movable member for entrapping the animal, the combination of a lever for holding the movable member from action, and a trigger comprising a movable head which engages and holds the lever and an extension which is pivoted to said head and is movable freely between shoulders on the head whereby the extension has a limited movement independently of said head and causes the movement of the head by a continued movement of said extensions, substantially as set forth.

4. In a trap having a movable member for entrapping the animal, the combination of a lever for holding the movable member from action, and a trigger comprising a movable head which engages and holds the lever, and an operating extension which has a limited movement in opposite directions independently of the trigger head and which is adapted to be moved by an animal entering the trap from either direction to release said lever, substantially as set forth.

5. In a trap having a sliding member for entrapping the animal, and means for holding the sliding member at its set position which are actuated by the animal to release the sliding member, the combination of a body plate having integral portions thereof bent to form guides for the sliding member and tubular spring housings, and springs for actuating said sliding member located in said spring housings, said body plate having portions thereof bent to close the ends of said spring housings and form stops for the sliding member, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,026,306. MACHINE FOR PREPARING WELTS. ANDREW EPPLER, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 20, 1906. Serial No. 326,970. (Cl. 12—67.)



1. A machine for preparing welts, having, in combination, means for supporting and guiding a welt strip, means for continuously feeding the strip, and means for forming in the strip a series of transverse slits extending partially through the thickness of the strip and partially across the width of the strip.

2. A machine for preparing welts, having, in combination, means for supporting and guiding a welt strip, means for continuously feeding the strip, a welt slitting knife arranged to form transverse slits in the strip extending partially through the strip, and means for moving the knife in the direction of the feed while making its retracting stroke and in the opposite direction while making its cutting stroke.

3. A machine for preparing welts, having, in combination, means for supporting and guiding a welt strip, means for continuously feeding the strip, a vibrating slitting knife arranged to form transverse slits in the strip extending partially through the thickness of the strip and partially across the width of the strip, and means for actuating the knife.

4. A machine for preparing welts, having, in combination, means for supporting and guiding a welt strip, means for continuously feeding the strip, a welt slitting knife arranged to form transverse slits in the strip extending partially through the thickness of the strip, and means for oscillating the knife in a path obliquely disposed with relation to the surface of the strip and extending from the strip in the direction of the feed.

5. A machine for preparing welts, having, in combination, means for supporting and guiding a welt strip, welt grooving and beveling knives, a welt slitting knife arranged to form transverse slits in the welt extending partially through the thickness of the welt, and means for continuously feeding the welt strip to the knives.

[Claim 6 not printed in the Gazette.]

1,026,307. COVER-KNOB. JAMES F. FOSTER, Buffalo, N. Y., assignor to The Republic Metalware Company, Buffalo, N. Y., a Corporation of New York. Filed Sept. 18, 1908. Serial No. 453,653. (Cl. 53—8.)



1. The combination of a cover having a solid central portion, and a skeleton-knob consisting of crossed loops each bent from a single piece of wire and comprising a substantially horizontal top bar and side-bars converging downwardly therefrom, the side bars having outwardly-bent feet resting upon the solid central portion of the cover and terminating in extensions which pass through the cover and are clenched against the underside thereof.

2. A cover provided with a solid central portion and having a knob consisting of crossed loops each bent from a single piece of wire, the side bars of the loops having outwardly-bent feet resting upon the solid central portion of the cover and terminating in extensions which pass through openings in the cover and are clenched against the underside thereof.

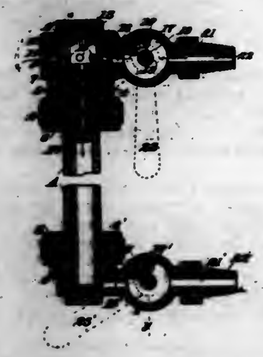
1,026,308. MANIFOLDING DEVICE. ALFRED GILBERT, Birmingham, England. Filed Dec. 30, 1910. Serial No. 600,198. (Cl. 11—23.)



The hereindescribed manifolding device, comprising the combination, with a fork-shapeed binder strip (B) of paper, of an extension (6) integral with one member of the fork, and a base sheet (A) also of paper, to the underside and near the end of which the said extension is glued in such a manner that the edge of the base sheet projects between the fork members, substantially as and for the purpose specified and shown.

1,026,309. WATER-GAGE. JAMES HACKETT, Port Costa, Cal. Filed Mar. 27, 1911. Serial No. 617,223. (Cl. 73—54.)

1. In a water gage, the combination of a valve casing having a chamber and having an internal shoulder, a glass tube mounted in said casing, a baffle plate disposed in said casing above the tube and having a flange engaging said shoulder, means on said plate for directing steam through the plate to the interior of the tube some distance below the upper end thereof, a cap fitting the casing and having a flange with openings to a space above said disk, and to the chamber of the casing, said casing having a port, and a valve for closing said port.



2. In a water gage, the combination of a valve casing, having a chamber and having an internal shoulder, a glass tube mounted in said casing, a baffle plate disposed in said casing above the tube and having a flange engaging said shoulder, means on said plate for directing steam through the plate to the interior of the tube some distance below the upper end thereof, a cap fitting the casing and having a flange with openings to a space above said disk and to the chamber of the casing, said casing having a port, and a valve for closing said port, said valve having a stem, and a lever thereon for operating the valve.

3. In a water gage, the combination with a valve casing, and a glass tube supported at its upper and lower ends therein, of a metallic tube extending into the upper end of the glass tube, a baffle plate mounted in the upper valve casing on which plate said tube is formed, and a cap fitting the upper casing and having a flange engaging the plate from above, said flange being of reduced thickness at one end to form a circumscribing space between itself and the inner wall of the casing, and said flange having openings forming a connection between said space and said tube.

1,026,310. PRESSURE-RETAINING DEVICE. GEORGE OVERTON HAMMOND and JOHN ATLEE BARNES, Watertown, N. Y., assignors to The New York Air Brake Company, a Corporation of New Jersey. Filed Feb. 8, 1911. Serial No. 607,266. (Cl. 188—12.)



1. In a pressure retaining device, a pressure retaining valve; a load acting on said valve to resist the pressure which tends to open the said valve; a free exhaust passage for the fluid under pressure; a cock controlling said free exhaust passage; and means for removing the load entirely from the pressure retaining valve when said free exhaust passage is open.

2. The combination with a pressure retaining valve; of a loaded lever adapted to act on said valve; differently

positioned fulcrum supports for said lever; and means for causing said lever to be supported on said supports selectively.

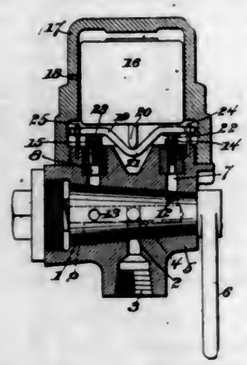
3. The combination with a valve; of a lever adapted to act on said valve; means for causing said lever to act selectively around different fulcrums; a weight adapted to act on said lever; and means for independently supporting said weight.

4. The combination with a valve; of a lever adapted to act on said valve; a fixed fulcrum for said lever; a movable fulcrum for said lever adapted by its movement to separate the lever from its fixed fulcrum; a weight adapted to act on said lever; and an independent support for said weight.

5. The combination with a valve; of a lever adapted to act on said valve; a fixed fulcrum for said lever; a movable fulcrum for said lever adapted by its movement to separate the lever from its fixed fulcrum; a weight adapted to act on said lever; an independent support for said weight; and an actuating device common to said movable support and said independent fulcrum.

[Claims 6 to 8 not printed in the Gazette.]

1,026,311. PRESSURE-RETAINING VALVE. GEORGE O. HAMMOND, Watertown, N. Y., assignor to The New York Air Brake Company, a Corporation of New Jersey. Filed Mar. 21, 1911. Serial No. 615,933. (Cl. 188—12.)



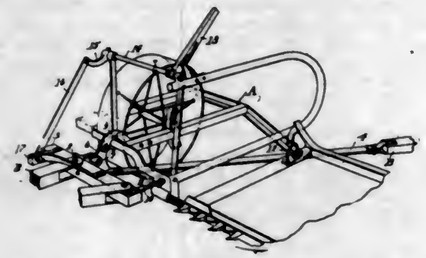
1. In a pressure retaining valve, a brake cylinder exhaust port; automatic valves controlling communication with said exhaust port, said valves having different areas subjected to the pressure of the escaping air; means for causing the escaping air to act on said valves selectively; a weight adapted to act on both the said valves; and a support for said weight interposed between the weight and the valves, and resting directly on the said valves.

2. In a pressure retaining valve, a controlling member consisting of a three-way cock interposed between the brake cylinder exhaust and the pressure retaining valve; a direct outlet adapted to be opened when the said three-way cock is in one position; ducts controlled by said three-way cock in addition to said direct outlet; supplemental valves controlling said ducts and having different areas subjected to pressure; a weight arranged to act on both the said valves; and a yoke supported at one end on one of said valves, and at the other end on the other of said valves, the weight resting on the yoke at a point between the valves.

3. In a pressure retaining valve, the combination with a cock adapted to control selectively a plurality of ports; of valves controlling two of said ports; a yoke or lever engaging said valves and tending to hold them seated; and a weight bearing on said yoke at a point between the parts which engage the valves.

4. A pressure retaining device comprising automatic valves controlling separate ports leading from a source of pressure, said valves differing in the area exposed to the pressure; a load common to both valves and adapted to act on either valve which is subjected to pressure; and means for causing the pressure to act on said valves selectively.

1,026,312. ADJUSTABLE STEERING MECHANISM. PAUL HANSMANN, Long Prairie, Minn., assignor to Hansmann Manufacturing Company, Long Prairie, Minn., a Corporation of Minnesota. Filed Jan. 17, 1911. Serial No. 603,176. (Cl. 21—114.)



1. In combination with a vehicle, a draw bar supported from said vehicle, a forwardly extending tongue for said vehicle having pivotal connection with one end of said draw bar, said draw bar being adapted at its opposite end for vertical connection with the free end of the tongue of a following vehicle, and means for securing said tongue in horizontally adjusted angular position with reference to said draw bar.

2. In combination with a vehicle and its tongue, means for holding said tongue at an angle with the vehicle comprising a draw portion supported from said vehicle, said draw portion at the front of the vehicle having pivotal connection with said tongue and at the rear end of the vehicle at a point laterally offset from the connection with said tongue being adapted for vertical pivotal connection with the free end of the tongue of a following vehicle, and means for securing said tongue in horizontally adjusted angular position with reference to said draw portion and vehicle.

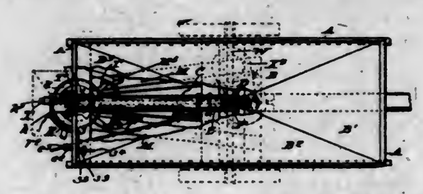
3. In combination with a vehicle and its tongue, a draw portion supported from said vehicle and pivotally connected at the front of the vehicle with said tongue to permit the same to swing in vertical and horizontal planes, said draw portion at the rear of the vehicle at a point laterally offset from the pivotal connection with the tongue being adapted for pivotal connection with the free end of the tongue of a following vehicle, means for holding said tongue in horizontally adjusted angular position with reference to said draw portion and vehicle, and means for tilting the forward end of said vehicle with relation to said draw portion.

4. An adjustable steering mechanism for vehicles comprising a tongue, a cross bar pivotally supporting said tongue, means for securing said tongue at an angle with said cross bar, a draw member pivotally connected at one end to said tongue at an angle therewith and adapted for pivotal connection at its other end with the free end of the tongue of a following vehicle, and means for supporting said draw member from an associated vehicle in alinement with the adjacent cross bar.

5. An adjustable steering mechanism comprising a tongue, a cross bar pivotally supporting said tongue, means for holding said tongue secured at an angle with its supporting cross bar, a draw member having horizontal pivotal connection with said cross bar and positioned at an angle therewith, said draw member being adapted for vertical pivotal connection at its opposite end with the free end of the tongue of a following vehicle, means for removably supporting said draw member from said vehicle with said vehicle in alinement with the adjacent cross bar, and means for tilting the end of said vehicle.

[Claim 6 not printed in the Gazette.]

1,026,313. BROADCAST SEEDER. STACY B. HART, Peoria, Ill. Filed Mar. 25, 1911. Serial No. 616,033. (Cl. 111—38.)



1. In a device of the class described, in combination with a conveyer and a distributing fan, of means interposed therebetween to receive, to mix and to scatter the grain to cause it to fall within the field of movement of the fan in scattered relation, comprising a substantially confined chamber having an inlet and outlet, and an agitator therein.

2. In a device of the class described, in combination with a grain feeding conveyer, a grass feed and a distributing fan, of means interposed therebetween to receive, to mix and to scatter the grain and grass seed to cause them to fall within the field of movement of the fan in scattered relation, comprising a substantially confined chamber having an inlet and outlet, and an agitator therein.

3. In a device of the class described, in combination, a conveyer, a distributing fan, a stirring chamber interposed between the conveyer and the fan provided with an inlet from the conveyer and an outlet to the fan, and a stirrer within the stirring chamber.

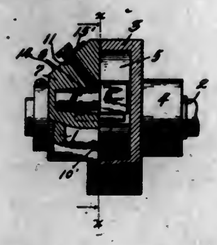
4. In a device of the class described, in combination, a containing receptacle for grain suitably mounted for transportation, a conveyer adapted to receive the discharge of grain by gravity from the receptacle and to discharge it at a point approximately at the rear thereof, a grass seed hopper and a force feed therefor, a hopper provided with inlet openings to receive the discharge from the conveyer and the force feed from the grass seed hopper and a discharge outlet therefrom, rotatable distributing means within the hopper, a fan disposed below the hopper and adapted to deflect the discharge of grain therefrom and suitable means for driving the conveyer, the fan and the distributing arms simultaneously.

5. In a device of the class described, in combination, a containing receptacle for grain suitably mounted for transportation, a conveyer adapted to receive the discharge of grain by gravity from the receptacle and to discharge it at a point approximately at the rear thereof, a slide valve for controlling the flow of grain from the receptacle into the conveyer, a grass seed hopper, a force feed connected therewith, means for controlling the discharge of grain from the grass seed hopper into the force feed, a hopper adapted to receive the discharge of grain from the force feed of the grass seed hopper and from the conveyer provided with a discharge opening therein, a stud shaft, rotatable distributing means on said shaft within said hopper, a fan on said shaft disposed below the hopper and suitable means for driving the conveyer, the fan and the distributing arms simultaneously.

[Claims 6 to 20 not printed in the Gazette.]

1,026,314. STARTING DEVICE FOR EXPLOSIVE-ENGINES. WILLIAM C. HARTMANN, Milwaukee, Wis., assignor to Milwaukee Separator Company, Milwaukee, Wis., a Corporation. Filed Jan. 13, 1911. Serial No. 602,435. (Cl. 123—185.)

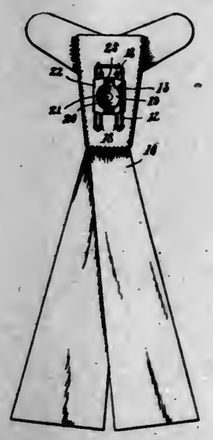
1. In a starting device for explosive engines, the combination of a shaft, a collar rigidly affixed to said shaft, an expansion ring slidably supported within said collar, a hub revolubly supported on said shaft, a crank attached to said hub, a lever supported in an aperture provided therefor in said hub, an angular member formed integrally with said lever between the opposing ends of said expansion ring, and a screw having threaded bearings in said hub, adapted to bear at its inner end against said angular member and thereby limit and control the action of said member and expansion ring.



2. In a starting device for explosive engines, the combination of a shaft, a collar rigidly affixed to said shaft, an expansion ring slidably supported within said collar, a hub revolubly supported on said shaft, a crank attached to said hub, a lever supported in an aperture provided therefor in said hub, an angular member formed integrally with said lever between the opposing ends of said expansion ring, a screw having threaded bearings in said hub, adapted to bear at its inner end against said angular member and thereby limit and control the action of said member and expansion ring, an index dial located on said hub around the protruding end of said screw, and a pointer carried by said screw over the face of said dial.

3. In a starting device for explosive engines, the combination of a shaft, a collar rigidly affixed to said shaft, means for coupling said shaft to the shaft of an engine, an expansion ring slidably supported within said collar, a hub revolubly supported on said shaft, a crank attached to said hub, a lever supported in an aperture provided therefor in said hub, an angular member carried by said lever between the opposing ends of said expansion ring, a screw having threaded bearings in said hub, adapted to bear at its inner end against said angular member and thereby limit and control the action of said member and expansion ring, an index dial located on said hub around the protruding end of said screw, and a pointer carried by said screw over the face of said dial.

1,026,315. NECKTIE-FASTENER. WILLIAM HODGKINSON, Waterbury, Conn. Filed June 28, 1911. Serial No. 635,809. (Cl. 24—57.)



1. An adjustable button engaging necktie fastener, comprising a wire base member adapted to be attached to a necktie and including a pair of longitudinal, yieldable wire guides upon each side and arranged parallel to each other, a sheet metal button engaging socket slidably mounted between the members of each pair of guides and friction-

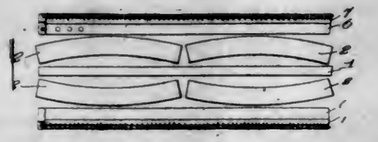
ally held and including two spring jaws adapted to be sprung apart by direct pressure of a button to receive the head thereof.

2. An adjustable button engaging necktie fastener, comprising a wire base member having returned sharpened ends to engage a necktie and further adapted to be sewed to a necktie, and including two pairs of longitudinally parallel yieldable wire guides spaced at a uniform distance apart, a sheet metal button engaging socket frictionally and slidably mounted between the members of each pair of longitudinal guides, and including two jaws adapted to be sprung apart by the direct pressure of a button and to receive the head thereof.

3. An adjustable button engaging necktie fastener, comprising a wire base member adapted to be attached to a necktie and including two pairs of parallel longitudinal yieldable wire guides, a sheet metal button engaging socket including a back that is slidably mounted between the members of each pair of guides and two yieldable spring jaws to engage a collar button and having pointed ends disposed forwardly at substantially a right angle to engage the face of a collar and to prevent the tie from turning.

4. An adjustable button engaging necktie fastener, comprising a wire base member, a sheet metal button engaging member adjustably attached to the base and including a back and two spring jaws adapted to spring apart to receive the head of a button the extreme ends of said jaws being pointed and disposed outward to engage a collar and prevent the tie from turning, and said back portion having a central hole therein in line with the opening between the jaws to form a pivotal socket for the head of the collar button.

1,026,316. SPARE-TIRE CASE. CHARLES F. HOPEWELL, Newton, Mass. Filed Feb. 2, 1912. Serial No. 674,885. (Cl. 150—54.)



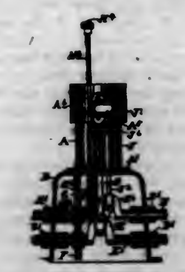
1. A spare tire case comprising a straight edged bead strip, concentric circular edged flange strips united at their concave edges to the edges of said bead strip, tread sections united respectively to the concave edges of said flange strips, one of said tread sections folded and fastened between its edges to present a line of demarcation, and means to maintain the free edge of said tread section permanently puckered whereby the outer portion of the tread section between the folded line of demarcation and the puckered edge will conform to the curved side of the tire when in place.

2. A spare tire case comprising a straight edged bead strip, concentric circular edged flange strip united at their concave edges to the edges of said bead strip, tread sections united respectively to the concave edges of said flange strips, one of said tread sections folded and fastened between its edges to present a line of demarcation, and having its free edge hemmed, a cord of substantially less length than the said edge located in said hem and permanently secured at its ends whereby the said edge is held permanently puckered so that the outer portion of the tread section between the folded line of demarcation and the puckered edge will conform to the curved side of the tire when in place.

3. A spare tire case comprising a straight edged bead strip, concentric circular edged flange strips united at their concave edges to the edges of said bead strip, tread sections united respectively to the convex edges of said flange strips, each of said tread sections folded and fastened between the edges thereof to present a line of demarcation, and means to maintain the free edges of said tread sections permanently puckered whereby the outer portions of said tread sections between the folded lines of demarcation and the puckered edges will conform to the curved sides of the tire when in place.

4. A spare tire case comprising a straight edged bead strip, concentric circular edged flange strips united at their concave edges to the edges of said bead strip, tread sections united respectively to the convex edges of said flange strips, each of said tread sections folded and fastened between the edges thereof to present a line of demarcation, and having their free edges hemmed, cords of substantially less length than said edges located respectively in said hems and permanently secured at their ends whereby the said edges are held permanently puckered so that the outer portions of said tread sections between the folded lines of demarcation and the puckered edges will conform to the curved sides of the tire when in place.

1,026,317. INTERNAL-COMBUSTION ENGINE. JAMES F. HOPPER, Sherman, Tex., assignor of one-half to Hamlet C. Smith, Sherman, Tex. Filed July 26, 1911. Serial No. 640,714. (Cl. 123—143.)

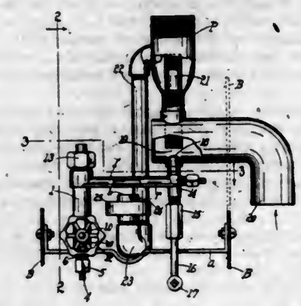


1. In an internal combustion engine, a primary cylinder having a firing space, a piston working in said primary cylinder and an auxiliary cylinder having communication with said primary cylinder, in combination with a valve opening and closing the communication between said cylinders and held on its seat by the compressed gases in said primary cylinder except at predetermined intervals, means working in said auxiliary cylinder to compress air therein and means for actuating the same, said air compressing means engaging and unseating said valve at predetermined intervals to allow the compressed air in said auxiliary cylinder to escape into the firing space of said primary cylinder and thereby ignite the charge therein.

2. In an internal combustion engine, the combination with a combustion chamber having intake and exhaust ports, of an air compressor cylinder, air compressing means working therein, said air compressor cylinder opening into the combustion chamber, a valve controlling said opening, said air compressing means engaging and unseating said valve at predetermined intervals to allow the escape of compressed air into the combustion chamber to fire the charge therein.

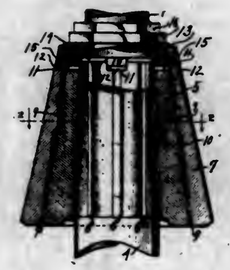
1,026,318. VAPOR-GENERATOR. RICHARD A. HORST and JULIUS C. GOESEL, St. Louis, Mo., assignors, by direct and mesne assignments, to Paris Lamp & Manufacturing Company, St. Louis, Mo., a Corporation of Missouri. Filed Apr. 8, 1911. Serial No. 619,780. (Cl. 158—58.)

In combination with a vertically disposed hydrocarbon supply pipe, a vapor generator leading from one end thereof at substantially right angles thereto, a mixing chamber into which the generator discharges, the latter being provided with outer heat-absorbing and heat-radiating formations, an air intake for the mixing chamber, a service pipe leading from the mixing chamber, a burner positioned centrally beneath the generator, a shunt leading from the service pipe to the burner and disposed in proximity to the heat-absorbing formations of the generator so as to receive the heat radiated therefrom, a starting



basin surrounding the burner to preheat the walls of the burner and generator, and a valve controlling the discharge from the generator into the mixing chamber.

1,026,319. CRUSHER-HEAD FOR GRINDING-MILLS. HARRY A. HUNT, Wilmington, Del. Filed Mar. 12, 1912. Serial No. 683,208. (Cl. 83—10.)



1. In a crusher head, a supporting core conical in form and having a recess at its smaller end; a conical mantle surrounding said core and adjustable longitudinally thereupon, said mantle having a recess at its smaller end adapted to register with the recess aforesaid in said core; an annular collar adjacent the smaller ends of said core and mantle; and a lug upon said collar and which lug lies within the recesses aforesaid when the parts are assembled.

2. In a crusher head, a supporting core conical in form and having a recess at its smaller end; a conical mantle surrounding said core and adjustable longitudinally thereupon, said mantle having a recess at its smaller end adapted to register with the recess aforesaid in said core; an annular collar overlying the smaller ends of said core and mantle; and a lug upon said collar and which lug lies within the recesses aforesaid when the parts are assembled.

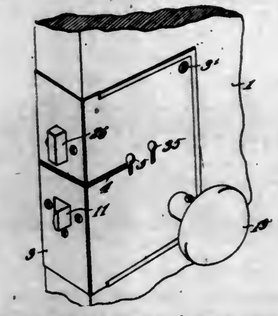
3. In a crusher head, a supporting core conical in form and having a recess at its smaller end; a conical mantle surrounding said core and adjustable longitudinally thereupon and the smaller end of which projects above the corresponding end of said core, said mantle having a recess at its smaller end adapted to register with the recess aforesaid in said core; an annular collar overlying the smaller ends of said core and mantle; and a lug upon said collar and which lug lies within the recesses aforesaid when the parts are assembled.

4. In a crusher head, a supporting core conical in form and having a recess at its smaller end; a mantle surrounding said core and adjustable longitudinally thereupon and the inner surface of which is conical in form throughout its entire length, said mantle having a recess at its smaller end adapted to register with the recess aforesaid in said core; an annular collar adjacent the smaller ends of said core and mantle; and a lug upon said collar and which lug lies within the recesses aforesaid when the parts are assembled.

5. In a crusher head, a supporting core conical in form and having a recess at its smaller end; a mantle surrounding said core and adjustable longitudinally thereupon, the inner surface of which mantle is conical in form throughout its entire length and the smaller end of which projects above the corresponding end of said core, said mantle having a recess at its smaller end adapted to register with the recess aforesaid in said core; an annular collar overlying the smaller ends of said core and mantle; and a lug upon said collar and which lug lies within the recesses aforesaid when the parts are assembled.

[Claims 6 and 7 not printed in the Gazette.]

1,026,320. LOCK. ROBERT W. HUTCHISON, Sixlakes, Mich., assignor to John S. Jones, Sixlakes, Mich. Filed Dec. 16, 1911. Serial No. 666,112. (Cl. 70—8.)



1. A lock having a casing with two alined key-holes and a single key-hole in the walls, a bolt mounted in the casing and provided with two key-engaging portions and a movable part mounted in the casing between the alined key-holes and made reversible, said part having one key slot to aline with either of said alined key-holes of the casing.

2. A lock having a casing provided with two alined and a single key-hole in the walls thereof, a locking bolt mounted in said casing and provided with a key engaging portion adapted to be in operable relation to the respective key-holes of the casing, and a reversible key socket casing disposed within the main casing of the lock to be swung on a vertical axis for bringing its key slot to either side of the door to aline with one or the other of the alined key-holes of the main casing.

3. A lock provided with a casing adapted to incase the solid portion and sides of a door, said casing being provided with two alined key-holes, and a slot connecting the said key-holes, a locking bolt disposed in said casing and provided with a key engaging portion, and a rotatable casing mounted in the main casing and provided with a key slot at one side thereof and a sealed wall at the opposite side, said casing being adapted to have its key-hole aline with one or the other of said alined key-holes of the main casing while the closed portion thereof seals the opposite key-hole of the main casing.

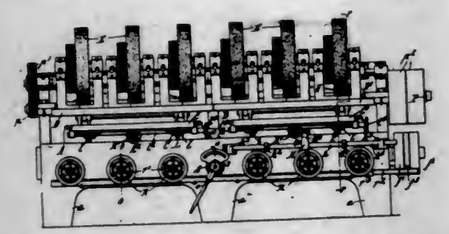
4. A lock provided with a casing adapted to incase the solid portion and sides of a door, said casing being provided with two alined key-holes, and a slot connecting the said key-holes, a locking bolt disposed in said casing and provided with a key engaging portion, a rotatable casing mounted in the main casing and provided with a key slot at one side thereof and a sealed wall at the opposite side, said casing being adapted to have its key-hole aline with one or the other of said alined key-holes of the main casing while the closed portion thereof seals the opposite key-hole of the main casing, said main casing

being further provided with a single key-hole to the side of one of the other key-holes in one face of the casing, said locking bolt being provided with a key-engaging portion adjacent said last mentioned key-hole.

5. A lock, having a casing adapted to fit astride the edge of a door and provided with two alined key-holes connected by a slot formed in the connecting portion of the casing and with a single key-hole to the rear of one of said key-holes, a bolt disposed within said casing and provided with two key-engaging portions adjacent the two alined key-holes and the single key-hole of the casing, a rotatable socket provided with a single key slot, and a pin mounted within the socket, said socket being adapted to have its key slot aline with one or the other of the alined key-holes and seal the remaining alined key-hole, said pin being adjacent the slot formed in the main casing, whereby a key placed thereon may be turned and moved in said slot of the main casing to rotate the socket and operate the bolt from either side of the main casing.

[Claim 6 not printed in the Gazette.]

1,026,321. POLISHING-MACHINE. WILLIAM LA HODNY, Buffalo, N. Y. Filed Oct. 9, 1911. Serial No. 653,493. (Cl. 51—11.)



1. In a machine of the character described, the combination of a horizontally-reciprocating carriage, a slide which is adjustable on the carriage in a direction at an angle to the direction of movement of the carriage, a work table which is supported by said slide and is adjustable thereon to a position parallel with or inclined to the plane of said slide, a plurality of wheels which are mounted near one edge of said work table to move independently of each other toward and from the work table, means for driving said wheels, and means for regulating the pressure of said wheels on the work independently of each other, substantially as set forth.

2. In a machine of the character described, the combination of a horizontally-reciprocating carriage, a plurality of slides which are adjustable on the carriage in a direction at an angle to the direction of movement of the carriage, means for independently adjusting said slides, a work table supported by each of said slides, means for independently adjusting said work tables to positions parallel with or at an angle to the plane of said slides, a plurality of wheels which are mounted near one edge of said work tables to move toward and from the work tables, means for driving said wheels, and means for adjusting the wheel for each table toward and from the table independently of the wheel for the other table, substantially as set forth.

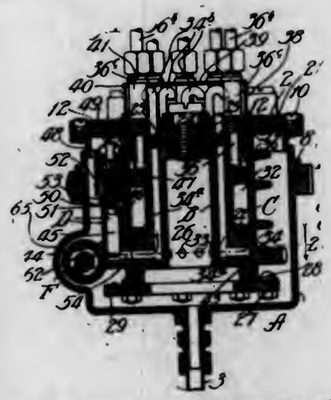
3. In a machine of the character described, the combination of a horizontally-reciprocating carriage, a slide which is adjustable forwardly and rearwardly on said carriage, a work table which is supported by said slide and is adjustable thereon to a position parallel with or inclined to the plane of said slide, a plurality of wheels which are mounted side by side parallel with each other in independently movable frames at the rear portion of the machine, means for driving said wheels, and means for adjusting said wheel frames independently to regulate the pressure of said wheels on the work, substantially as set forth.

4. In a machine of the character described, the combination of a plurality of driven rotary wheels mounted side by side to move up and down independenly of each other, a work support, means for reciprocating the work support in a direction at an angle to the direction of rotation of the wheels, means for adjusting said work support toward and from said wheels and also to a position parallel with or inclined to the plane of reciprocation of the work support, and means for independently regulating the pressure of said wheels on the work, substantially as set forth.

5. In a machine of the character described, the combination of a horizontally reciprocating carriage, a slide adjustable laterally thereon and adapted to support the glass plate, a plurality of wheels mounted side by side parallel to each other in independently movable frames at the rear portion of the machine, means for driving said wheels, and means for reciprocating said carriage in a direction across the grinding surfaces of said wheels a distance slightly greater than the distance between two wheels, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,026,322. LUBRICATING DEVICE. IVERT LARSEN, Chicago, Ill. Filed Oct. 7, 1910. Serial No. 585,832. (Cl. 184—33.)



1. In an oiling device, the combination of a pair of members adapted to rotate with relation to each other, one of said members having measuring-pump suction-ducts and discharge-ducts, and having also delivery-pump suction-ducts and discharge-ducts, and the other member equipped with a measuring-pump and a delivery-pump adapted to draw and discharge the lubricant through their respective ducts, and a sight-feed device through which the oil is delivered from the discharge-ducts of the measuring-pump to the suction-ducts of the delivery-pump.

2. In an oiling device, the combination of a member having a plurality of measuring-pump suction-ducts and a plurality of measuring-pump discharge-ducts opening at a given surface and in a given plane, and having also a plurality of delivery-pump suction-ducts and a plurality of delivery-pump discharge-ducts opening at a different plane, and a second member equipped with a measuring-pump and a delivery-pump having inlet-outlet ducts opening at planes corresponding with the orifices of the measuring-pump and delivery-pump suction and discharge-ducts mentioned respectively; and means for imparting relative rotation to said members, and a sight-feed device through which the lubricant is delivered from the measuring-pump discharge-ducts to the delivery-pump suction-ducts.

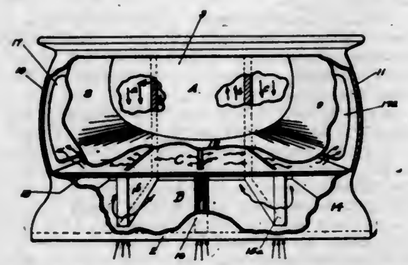
3. In an oiling device, the combination of a stationary cylinder provided with measuring-pump discharge-ducts, and provided, also, with delivery-pump suction and discharge-ducts, a sight-feed device through which the oil is delivered from the measuring-pump discharge-ducts to the delivery-pump suction-ducts, a rotary member equipped with a measuring-pump and a delivery-pump, means for rotating said member, adjustable cams serving to actuate the measuring-pump, and cams serving to actuate the delivery-pump.

4. In an oiling device, the combination of a casing, a stationary cylinder projecting from one wall thereof and equipped with measuring-pump suction and discharge-ducts, and equipped, also, with delivery-pump suction and discharge-ducts, sight-feed tubes connected with the measuring-pump discharge-ducts and communicating with the delivery-pump suction-ducts, a rotary member equipped with a measuring-pump and a delivery pump having ducts adapted, respectively, to be brought into registration with the measuring-pump and delivery-pump suction and discharge-ducts, adjustable cams serving to actuate the measuring pump, and cams serving to actuate the delivery pump.

5. In an oiling device, the combination of a casing equipped with a removable-plate, a stationary cylinder carried by said plate and equipped also with delivery-pump suction-ducts and discharge-ducts, sight-feed tubes connected with said plate through which oil is delivered from the measuring-pump discharge-ducts to the delivery-pump suction-ducts, a pump-carrying cylinder equipped with a measuring-pump and a delivery-pump having inlet-outlet ducts coacting with the corresponding ducts of said first named cylinder, means for rotating said pump-carrying cylinder, and cams actuating said pumps.

[Claims 6 to 14 not printed in the Gazette.]

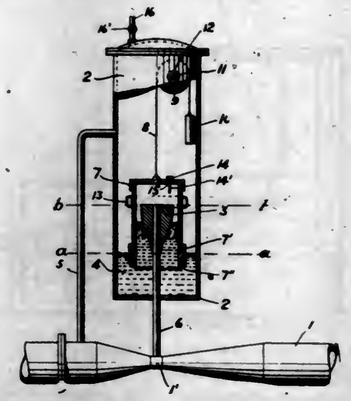
1,026,323. BASE-HEATER. FRANK K. LEARNED, Royal Oak, Mich. Filed Aug. 21, 1911. Serial No. 645,136. (Cl. 126—69.)



A base heater having in combination, a chamber through which the products of combustion are circulated, an ash chamber, an intermediate chamber located between the ash chamber and the chamber through which the products of combustion are circulated and adapted to be heated by these two chambers, three hollow baffle plates having long and narrow passageways for the air drawn from the floor through the chamber through which the products of combustion are circulated and delivering such air into the intermediate chamber, the said baffle plates also dividing the said chamber through which the products of combustion are circulated into four flues, one baffle plate being attached to the front of the chamber at the center and the other two baffle plates being attached to the back of the chamber, one midway between the center plate and each side, whereby the placing of the baffle plates affords a circulating passage way that does not obstruct the draft and the long and narrow passage ways for the air drawn from the floor through the chamber in which the products of combustion so circulate, efficiently heat the air and deliver it into the intermediate chamber where it is further heated before being liberated at the sides, substantially as described.

1,026,324. FLUID-METER. JOHN W. LEDOUX, Swarthmore, Pa. Filed June 22, 1911. Serial No. 634,723. (Cl. 73—167.)

1. In a fluid meter, in combination with a conduit having a contracted section, a closed casing, a hood comprising a reservoir and a float, a fluid in said casing in which said float is adapted to be immersed and which seals said reservoir, ducts connecting said contracted section and a different section of said conduit with the interior of said casing above said fluid respectively within and without said reservoir, and a stationary displacing device of variable cross section within said reservoir, said displacing device and said float having complementary cross sections such that the movement of said hood bears a constant ratio to changes in the velocity of a fluid flowing in said conduit.



2. In a fluid meter, in combination with a conduit, a casing, a hood in said casing, means whereby said hood is counterbalanced and adapted to reciprocate, a liquid in said casing heavier than that to be measured and adapted for sealing said hood, a stationary displacing device of variable cross section within said hood, and means comprising ducts connecting said conduit with the interior of said chamber above said heavier liquid respectively within and without said hood whereby differential pressures exerted by fluid flowing in said conduit are caused to act upon said hood.

3. In a fluid meter, in combination with a conduit, a closed casing, a liquid heavier than that to be measured contained in said casing, a hood in said casing sealed by said liquid, means whereby said hood is balanced and adapted to reciprocate, a stationary displacing device of varying cross section disposed within said hood, and means comprising ducts whereby differential pressures are communicated from a fluid flowing in said conduit to the interior of said casing above said liquid respectively within and without said hood, the parts of said displacing device and said hood subject to immersion in said liquid having complementary cross sections which vary so that the movement of said hood bears a constant ratio to changes in the velocity of flow in said conduit.

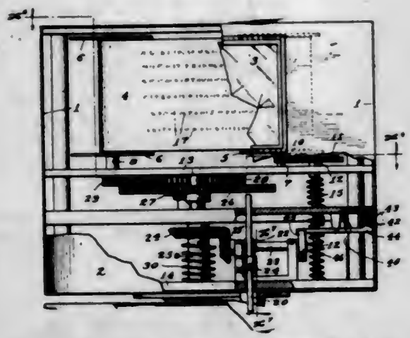
4. In a fluid meter, in combination with a conduit, mechanism whereby the pressure of fluid flowing in said conduit is differentiated, a hood comprising a reservoir and a displacing device, a liquid which seals said reservoir and in which said displacing device is adapted to be immersed, means whereby said differentiated pressures are communicated to the interior and exterior of said hood, means whereby said hood is counter-balanced and adapted to be reciprocated by changes in said pressures, and a stationary displacing device of varying cross section disposed in said reservoir, the cross section of said stationary displacing device increasing from the normal level of said liquid to the higher levels attained thereby in said reservoir.

5. In a fluid meter, in combination with a conduit having a contracted section, a casing containing a liquid heavier than the fluid to be measured, a hood adapted to reciprocate in said casing and to be sealed by said liquid, a stationary device of variable horizontal cross section and adapted to displace said liquid in said hood, and ducts connecting said contracted section and a dif-

ferent section of said conduit with the interior of said casing above said liquid within and without said hood respectively.

[Claims 6 to 8 not printed in the Gazette.]

1,026,325. PLATFORM-OPERATED MACHINE. GEORGE I. LEONARD and WILLIAM C. CUTLER, Los Angeles, Cal., assignors to Isabel M. Cutler, Sawtelle, Cal. Filed Sept. 27, 1911. Serial No. 651,650. (Cl. 40—31.)



The combination of a curtain, rollers on which said curtain is wound, curtain operating mechanism connected to said rollers, a bank of keys for selectively controlling the operation of said curtain operating mechanism, a weight operated platform and mechanism connected to said platform and to said curtain operated mechanism to operate the curtain through variant distances under the control of said keys.

1,026,326. BREAST-SUPPORTING CORSET. HENRY F. LEPORIN, New York, N. Y. Filed Apr. 11, 1910. Serial No. 554,786. (Cl. 2—73.)

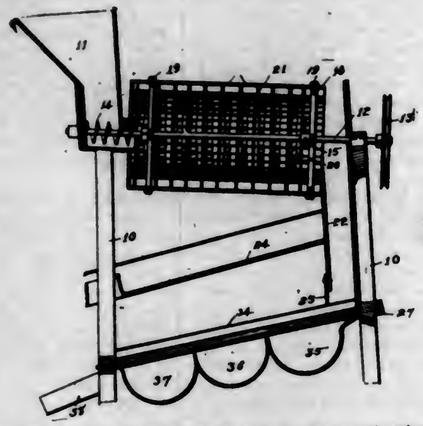


1. The combination with a corset of a pair of cresent-shaped pads of substantially circular cross-section tapering to each end, each pad being detachably attached to the inner face of the corset at the breast portion to lie beneath and support the breasts of the wearer along their full width.

2. The combination with a corset, of a pair of cresent-shaped pads of substantially circular cross section, tapering to each end, apertures formed in the corset on each side of each of the breast receiving pockets, fastening devices on the outer side of the corset adjacent each of said apertures, loops on the ends of said pads adapted to pass through said apertures and engage the fastening devices, whereby each of said pads is held snugly against the inner face of the corset at the breast portion and lie beneath and support the breasts of the wearer in natural position along their full width.

1,026,327. SEED-GRADER. ARTHUR T. MARTIN, Sac City, Iowa. Filed Jan. 27, 1911. Serial No. 604,987. (Cl. 130—16.)

1. In a device of the class described, the combination of a cylinder, a series of longitudinally arranged ribs on the interior of the cylinder and transversely extended partitions between the ribs to form pockets open at both ends, the openings at the outer ends of the pockets being of substantially the same size both transversely and longitudinally of the cylinder.



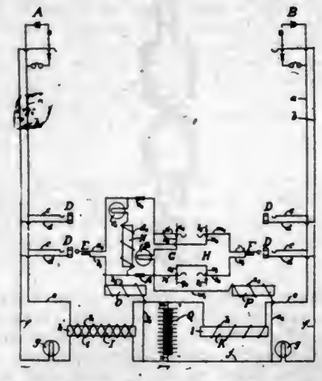
2. In a device of the class described, the combination of a sheet metal cylinder, formed with a series of longitudinally arranged ribs extending inwardly, the material between each pair of ribs being provided with a series of round openings, the material cut from the cylinder to form said round openings being inclined inwardly to thereby form with each other and with the said ribs substantially rectangular pockets open to the interior of the cylinder and provided each with a round opening through the cylinder.

3. In a device of the class described, the combination of a cylinder provided with a series of pockets open on the interior of the cylinder, said pockets being of substantially the same size both longitudinally and transversely of the cylinder and each pocket being provided with an opening at its outer end, said opening being of substantially the same size both transversely and longitudinally of the cylinder, an inclined shaft, means for operating said shaft, means for supporting said cylinder on the inclined shaft, and means for delivering seeds to the upper end of the cylinder, the lower end thereof being open to permit seeds to discharge.

4. In a device of the class described, the combination of a cylinder, provided with a series of pockets open on the interior of the cylinder, said pockets being of substantially the same size both longitudinally and transversely of the cylinder and each pocket being provided with an opening at its outer end, said opening being of substantially the same size both transversely and longitudinally of the cylinder, a frame, an inclined shaft mounted in the frame, means for fixing the cylinder to the shaft, a screw conveyer fixed to the shaft, and a hopper having said screw conveyer mounted therein, said hopper being extended into the interior of the cylinder, for the purposes stated.

1,026,328. TELEPHONE SYSTEM. FREDERICK R. PARKER, Chicago, Ill. Filed Nov. 23, 1904, Serial No. 234,039. Renewed Aug. 23, 1911. Serial No. 645,630. (Cl. 179—56.)

1. The combination with a telephone line and connection terminals therefor, of a signaling device associated with the line, a plug-cord circuit adapted to be connected with the connection terminals, a source of electricity associated with the line, a resistance through which the said source is associated with a main strand of the cord circuit, a lamp in series with a resistance, bridged across the main strands of the cord circuit, and means whereby, when connection is made with the line, the circuit of the said source is closed through a main connection terminal of the line, a main contact of the connecting plug, a main strand of the connecting cord, the said lamp with its resistance, and the resistance through which the said source is associated with the cord circuit, thus lighting the said lamp, substantially as described.



2. A telephone line having a connection terminal, a central source of electricity associated with the line, connecting means for the line comprising a pair of conductors to be included in the talking circuit, signal-initiating means in a series circuit with a portion of the said pair of conductors, means whereby the said signal-initiating means is supplied with electricity from the said source, from the telephone line through the connection terminal, for actuating the signal-initiating means, when connection is made with the line, and means whereby the telephone line shunts the signal-initiating means, relatively to the said source, when connection is made with the line and the latter is in use, to render the said signal-initiating means inactive.

3. A telephone system having a plurality of lines extending to a central station and supplied by a common source of electricity, in combination with a connecting circuit for the lines having a pair of conductors to be included in the talking circuit, a condenser in each conductor of the pair, a signal-initiating device connected across the said pair of conductors on one side of the said condensers, means whereby the signal-initiating device is supplied with electricity from a telephone line through a portion of one of the said pair of conductors when connection is made with the line, and means whereby the telephone line shunts the signal-initating device to render same inactive when connection is made with the line and the latter is in use.

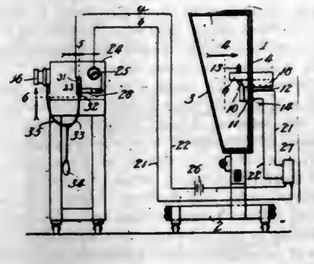
4. A telephone line extending from a substation to a source of electricity at a central station, a connecting circuit for the line, a lamp bridged across the talking strands of the connecting circuit, means whereby connection with the line supplies the said lamp with current to light same, over a portion of the line extending to the said source, when the line is not in use, the said connection causing the line extending to the substation to shunt the said lamp out when the line is in use.

5. An electrical transmitting line, a connecting circuit therefor having a conductive path comprising portions of the main strands of the connecting circuit and a signal-initiating device, a central source of electricity connected with one of the said main strands exclusive of the said path, and means whereby the said signal-initiating device is connected with at least one pole of the said source over a line connection when connection is made with the line, for energizing the said device.

[Claims 6 to 48 not printed in the Gazette.]

1,026,329. FLASH-LIGHT APPARATUS. JAY A. SMITH, Chicago, Ill. Filed Aug. 18, 1911. Serial No. 644,822. (Cl. 67—31.)

1. The combination with a flashlight closure having an opening therein for the reception of a flashlight tray, a normally open electric circuit, contact elements upon said tray and closure respectively for closing a lead of an electric circuit to ignite powder within said tray, when said circuit is closed, and a normally open circuit closer interposed in said circuit.

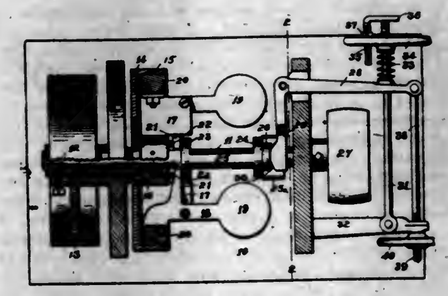


2. The combination with a flashlight closure having an opening therein, of a powder-receiving tray adapted to enter said opening, said tray being formed from refractory insulating material, an electric circuit, a normally open circuit closer interposed therein, a spark terminal carried by said tray, means for causing a metallic connection between the same and a lead of said circuit and a stationary spark terminal within said closure in operative proximity to said first named terminal when said tray is in position.

3. The combination with a flashlight closure having an opening in one of its walls, of a flashlight powder tray formed from insulating material, said tray being adapted to be projected horizontally through said opening, a normally open electric circuit, means within said tray for igniting powder therein when said circuit is closed, contact elements upon said tray and closure respectively for closing a portion of said circuit when said tray is in position for use, and means for closing said circuit.

4. The combination with a flashlight closure having an opening in one of its walls, of a flashlight powder tray adapted to be projected horizontally through said opening, said tray being formed from refractory insulating material, an electric spark terminal arranged to extend through said tray into the powder receptacle thereof, an opposing spark terminal located within said closure, a normally open electric circuit, a contact element within said circuit for engaging said first named terminal when said tray is in position for use and means for closing said circuit.

1,026,330. GOVERNOR PULLEY DEVICE. CHARLES P. STRITE, Cedar Rapids, Iowa, assignor to Cedar Rapids Foundry & Machine Company, Cedar Rapids, Iowa. Filed Sept. 20, 1910. Serial No. 582,845. (Cl. 74—45.)



1. In a device of the class described, the combination of a friction wheel, centrifugally operated friction shoes, designed in one position of their movement to frictionally

engage said wheel, yielding means tending to hold the friction shoes away from the friction wheel, a sliding collar operatively connected with the friction shoes, whereby they may be forced into engagement with the friction wheel, a pivoted lever engaging said sliding collar, and means for adjusting the lever comprising a rod, a hand-wheel adjustably connected therewith and arranged, when moved in one direction, to force the lever to position for moving the friction shoes into engagement with the friction wheel, and adjustable means for limiting the movement of said hand wheel in one direction.

2. In a device of the class described, the combination of a friction wheel, centrifugally operated friction shoes to coact with the friction wheel, springs tending to oppose the centrifugal action and to hold the friction shoes away from the friction wheel, a sliding collar operatively connected with the friction shoes, whereby they may be forced into engagement with the friction wheel, a pivoted lever engaging said sliding collar, means for adjusting the said lever comprising a rod, a hand-wheel adjustably connected therewith and arranged, when moved in one direction, to force the lever to position for moving the friction shoes into engagement with the friction wheel, and an adjustable gage device operatively connected with the hand-wheel for limiting the adjustment of said lever when the hand-wheel is moved in one direction.

3. In a device of the class described, the combination of a friction wheel, centrifugally operated friction shoes to coact with the friction wheel, springs tending to oppose the centrifugal action and to hold the friction shoes away from the friction wheel, a sliding collar operatively connected with the friction shoes, whereby they may be forced into engagement with the friction wheel, a pivoted lever engaging said sliding collar, means for adjusting the said lever comprising a rod, a hand-wheel adjustably connected therewith and arranged, when moved in one direction, to force the lever to position for moving the friction shoes into engagement with the friction wheel, an adjustable gage device operatively connected with the hand-wheel for limiting the adjustment of said lever when the hand-wheel is moved in one direction, and a lock nut for said adjustable gage device.

4. In a device of the class described, the combination of a shaft, a driving pulley and a friction wheel connected with each other and rotatable on the shaft, friction shoes for the friction wheel carried by the shaft, weighted levers operatively connected with the friction shoes and arranged to move them away from contact with the friction wheel when rotated at high speed, a sliding collar on the shaft capable of holding the friction shoes in engagement with the friction wheel, a lever having one end capable of engaging said sliding collar, a screw threaded rod having one end stationary and the other end extended through said lever, a spring on the rod to engage the lever, a hand-wheel on the screw threaded portion of the rod to engage the spring, and an adjustable gage device carried by the hand-wheel to engage the rod and limit the movement of the hand-wheel relative to the rod in one direction.

5. In a device of the class described, the combination of a shaft, a driving pulley and a friction wheel connected with each other and rotatable on the shaft, a friction device for the friction wheel carried by the shaft, weighted levers operatively connected with the friction device and arranged to move it away from contact with the friction wheel when rotated at high speed, a sliding collar on the shaft for holding the friction device in engagement with the friction wheel, a lever having one end for engaging said sliding collar, a screw threaded rod having one end stationary and the other end extended through said lever, a spring on the rod to engage the lever, a hand-wheel on the screw threaded portion of the rod to engage the spring, a rod pivoted to the lever, a stationary support having said rod extended through it, and a hand-wheel adjustably mounted on the rod to engage the stationary support for securely holding the lever in position for holding the friction device applied to the friction wheel, for the purposes stated.

[Claim 6 not printed in the Gazette.]

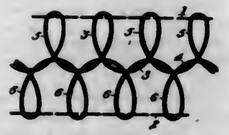
1,026,331. DEVICE FOR PLANTING SEEDLINGS. HARRY JAMES TOMPKINS, Berkeley, Cal. Filed Mar. 11, 1912. Serial No. 683,159. (Dedicated to the public.) (Cl. 55—67.)



1. A planting device, consisting of an inner and an outer tube, said inner tube provided with a lug at one end, said outer tube having a radial face, B, a handle secured to said outer tube, a spring having a radially bent end secured in the upper portion of said inner tube, said spring responding to pressure and rotating said inner tube, thereby forcing said lug against the face, B, for holding seedling roots, substantially as specified.

2. A planting device consisting of an inner and outer tube, said inner tube provided with a lug at one end, said outer tube having a radial face, B, a handle secured to said outer tube, a spring attached at the lower end to the outer tube and at the upper end to the inner tube, said spring being attached in tension and when released from pressure rotating said inner tube thereby throwing said lug in contact with the face, B, a pin projecting through the upper portion of said outer tube and detachably connected with said inner tube, said pin adapted to release said lug from contact with the face, B, in response to pressure, substantially as specified.

1,026,332. SEAM FOR SEWED ARTICLES. VANDIVER J. VAN HORN, Chicago, Ill., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed June 23, 1908. Serial No. 439,921. (Cl. 112—34.)



1. A seam for sewed articles, including a fabric, a plurality of substantially parallel lines of stitching inserted in said fabric, and a plurality of cross threads formed into loops interlocked between the lines of stitching and having the projecting loops secured by said lines of stitching to the fabric.

2. A seam for sewed articles, including a fabric, a plurality of substantially parallel lines of stitching inserted in said fabric, and a plurality of threads formed into loops interlocked with each other between the lines of stitching and having said loops extending in opposite directions and secured by said lines of stitching to the fabric.

3. A seam for sewed articles, including a fabric, a plurality of substantially parallel lines of stitching inserted in said fabric, and a plurality of threads interlocked with each other between the lines of stitching, and having loops extending alternately to the right and left and secured by said lines of stitching to the fabric.

4. A seam for sewed articles, including a fabric, a plurality of substantially parallel lines of stitching, and a plurality of threads interlocked with each other between the lines of stitching, and having half twisted loops extending in opposite directions and secured by said lines of stitching to the fabric.

5. A seam for sewed articles, including a fabric, a plurality of substantially parallel lines of stitching, and a plurality of threads interlocked with each other between the lines of stitching, and having a plurality of half twisted loops extending to one of said lines of stitching and secured by alternate stitches, and a plurality of intermediate half twisted loops extending in the opposite direction and secured by intermediate alternate stitches in the other line of stitching.

[Claims 6 to 8 not printed in the Gazette.]

1,026,333. AMUSEMENT APPARATUS. WILLIAM S. VAN SANT and JOHN R. BANKER, Oakland, Cal., assignors to The Eureka Amusement Co., Oakland, Cal., a Corporation of California. Filed Oct. 9, 1911. Serial No. 653,744. (Cl. 46—27.)



1. An amusement apparatus, comprising a turn-table, and supports therefor, means for revolving said turn-table, pairs of passenger-carrying cars mounted upon independent axes on the turn-table, connections between the cars of the same pair and within the control of the occupants thereof whereby the direction of rotary movement of cars of the same pair may be independently governed, and means for positively revolving the cars.

2. An amusement apparatus, comprising a turn-table, and supports therefor, means for revolving said turn-table, pairs of passenger-carrying cars mounted upon independent axes on the turn-table, connections between the cars of the same pair and within the control of the occupants thereof whereby the direction of rotary movement of cars of the same pair may be independeutly governed, means for positively revolving the cars, and a platform upon which said cars are adapted to swing.

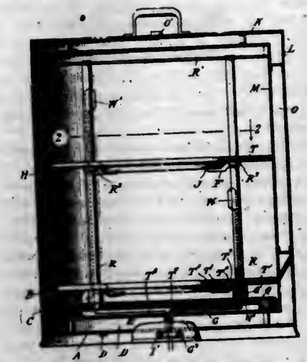
3. An amusement apparatus, comprising a suitable platform having an undulating surface, a turn-table, means for revolving said turn-table, revoluibly supported cars, and a mechanism mounted on the turn-table to which the cars are connected, said cars being arranged in pairs with each car of a pair adapted to alternately roll over the turn-table and platform.

4. An amusement apparatus, comprising a suitable platform having an undulating surface, a turn-table, means for revolving said turn-table, a mechanism mounted on the turn-table to which are connected cars adapted to roll over the turn-table and said platform, and means for manually controlling the direction of rotation of said cars.

5. An amusement apparatus, comprising a platform having an undulating surface, a turn-table, means for moving said turn-table, a plurality of sets of flexibly connected passenger-carrying cars, a turnable sleeve about which each set is connected, bearings in the turn-table for the sleeves, and means extending through said sleeves whereby the direction of rotation of the car sets about their axes may be controlled.

[Claim 6 not printed in the Gazette.]

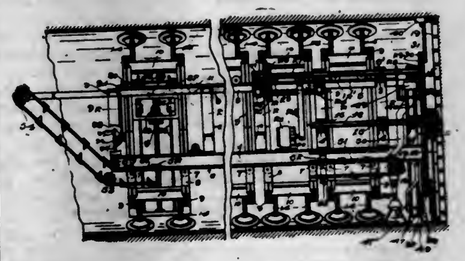
1,026,334. COOKING APPARATUS. RALPH B. VESSEY, Flint, Mich. Filed Sept. 26, 1911. Serial No. 651,430. (Cl. 219—35.)



1. Cooking apparatus comprising a base and a super-imposed structure resting thereon and each having double walls spaced apart and forming vacuum spaces, a plate supported upon the bottom section and tubular standards rising therefrom, a disk supported upon said standards, heaters, one supported by each disk and insulated therefrom, thermostats within the upper super-imposed section, and electric wires connected to the heaters and thermostats, as set forth.

2. Cooking apparatus comprising a base and a super-imposed structure resting thereon and each having double walls spaced apart and forming vacuum spaces, a plate supported upon the bottom section and having hollow bosses rising about apertures formed in said plate, tubes telescoping within said bosses, collars upon the tubing, disks supported by the collars, a heater supported by each disk and insulated therefrom, thermostats and electric connections intermediate the same and the heaters, and switches in the circuit, as set forth.

1,026,335. TUNNELING-MACHINE. ADOLPH FRED WALTHER, Oakland, Cal. Filed May 22, 1911. Serial No. 628,706. (Cl. 61—44.)



1. A tunneling apparatus comprising a plurality of main frames, detachable braced supports for holding said frames in a tunnel, a frame movable longitudinally in said plurality of frames, a rotary shaft and head mounted in said frame, radial bars provided with cutters mounted on said rotary head, and mechanism for operating said rotary head and cutter bars.

2. A tunneling apparatus comprising a plurality of octagon frames connected together in pairs, jacks radially connected to said octagon frames, a frame movable longitudinally in said octagon frames, a rotary head, bars with a plurality of cutters on each bar radially mounted on said head with a cutter on the outer end of each of said bars, and mechanism for rotating said cutter head.

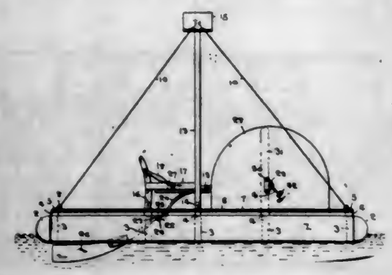
3. A tunneling apparatus comprising a plurality of supporting frames, each of said frames consisting of a pair of octagon shaped frames connected together, said pairs of frames being disconnected from each other, and each of said frames having supporting rollers, a longitudinal frame mounted on said supporting rollers and movable longitudinally thereon, a rotary head mounted on said longitudinal frame and having radial cutter bars, each of said bars having a plurality of cutters, and a cutter at the outer end of the bar, mechanism for operating said rotary head, and a mechanism for feeding said longitudinal frame forward.

4. A tunneling apparatus consisting of a plurality of main supporting frames movable independently of each other, jacks radially connected to said frames, said frames being provided at the top and bottom with bearing rollers, a longitudinal frame having tracks mounted on said rollers, said frame being movable longitudinally on said rollers, means for independently and successively moving said frames forward in a tunnel upon releasing the jacks, a rotary head mounted on said longitudinal frame, and having radial cutter bars with a plurality of cutters located on said bars, and a laterally projecting yielding cutter on the outer end of each of said cutter bars, and a mechanism for operating said rotary head.

5. A tunneling apparatus consisting of a plurality of independent main supporting frames each provided with bearing rollers, jacks radially mounted on said frames, a longitudinal frame movable longitudinally in said frames and having tracks at its top and bottom mounted on said bearing rollers, a central rotary shaft mounted in said longitudinal frame, a rotary head on said shaft having radial cutter bars, each provided with a plurality of cutters, and a laterally projecting yielding cutter at its outer end, a mechanism for operating said rotary head, and a mechanism for independently feeding forward said main supporting frame and consisting of drums, endless cables mounted on said drums, pulleys over which said endless cables extend, means for independently securing said supporting frames to said cable, and a mechanism for operating said cables.

[Claims 6 to 14 not printed in the Gazette.]

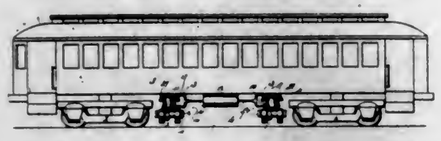
1,026,336. BOAT. WILLIAM H. WILLIAMS, Statesboro, Ga. Filed Jan. 30, 1912. Serial No. 674,310. (Cl. 115—26.)



1. A boat comprising buoys, means for reinforcing the buoys, means connecting the buoys and having their ends secured to the buoys and the buoy reinforcing means, flooring strips secured to the buoy connecting means, a seat positioned upon the flooring strips, posts projecting upwardly from the flooring strips, auxiliary buoys carried by the posts, bracing means connecting the posts and the flooring strips, a paddle wheel for propelling the boat, means for supporting and protecting the paddle wheel, means for operating the paddle wheel, a rudder for the boat, and means positioned beneath the seat and projecting through and secured to the flooring strips for controlling the propeller.

2. A boat comprising buoys of cylindrical form in cross section and having rounded closed ends, means within the buoys for reinforcing the latter, joists secured to the buoys to hold the same in spaced parallel relation to one another, flooring strips secured across the joists, bracing wires secured diagonally above the flooring strips, a paddle wheel casing secured upon the flooring strips, a paddle wheel within the casing and working through a suitable opening in the flooring strips, a shaft for said paddle wheel, bearing means for the shaft, pedals upon the ends of the shaft outwardly of the casing and bearing means, a strengthening arch within the casing and over the paddle wheel, an operator's seat rearwardly of the casing, means for guiding the boat, and means beneath the seat for controlling the guiding means.

1,026,337. CAR LIFTING AND REPLACING DEVICE. JOHN WOLFSON, New Haven, Conn. Filed Dec. 1, 1911. Serial No. 663,417. (Cl. 104—161.)



1. In a car, the combination with the main trucks thereof, of an auxiliary truck arranged adjacent to each of the main trucks, a motor mounted in each auxiliary truck, means for operating said motors and means for raising and lowering the said auxiliary trucks.

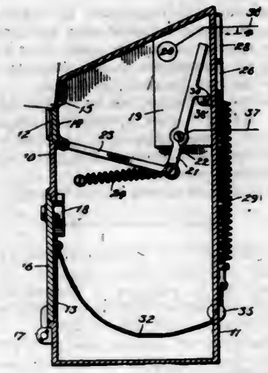
2. The combination with a car and the main trucks thereof, of a compressed air tank, auxiliary trucks arranged adjacent to the main trucks, a motor for each auxiliary truck, means for operating said motors, a piston and cylinder connection for each auxiliary truck with the car, and connections between said cylinders and compressed air tank, whereby the auxiliary trucks may be raised or lowered, and means for operating said motors.

3. The combination with a car and main trucks thereof, of auxiliary trucks arranged adjacent to the main trucks, cylinders above the auxiliary trucks, pistons connected with the auxiliary trucks and extending into said cylinders, means for operating the piston, and latches arranged on opposite sides of the cylinder and adapted to engage with the auxiliary trucks whereby the auxiliary trucks are held in their elevated position.

4. The combination with a car and main trucks thereof, of auxiliary trucks arranged adjacent to the main trucks, cylinders above the auxiliary trucks, pistons connected with the auxiliary trucks and extending into said cylinders, means for operating the piston, and latches arranged on opposite sides of the cylinder and adapted to engage with the auxiliary trucks, whereby they are held in their elevated position, and a lever adapted to release said latches.

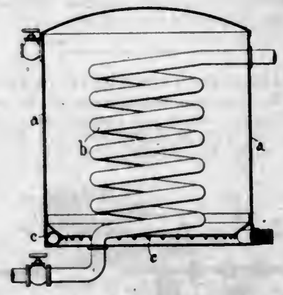
1,026,338. SIGNAL ATTACHMENT FOR LETTER-BOXES. CLARK BAILEY, Utica, N. Y., assignor to Lewis J. Small, Utica, N. Y. Filed Dec. 10, 1910. Serial No. 596,720. (Cl. 232—35.)

The combination with a mail box having a slot through one of its walls and with an opening through which the mail is inserted, a movable closure to said opening, a bar carrying a target and movably connected to the box, a stop lug extending from said target-carrying bar and projecting through said slot, a spring operating to elevate said bar, an arm pivoted intermediate its ends within the box, a catch lug extending from said bar at one side of its pivot and engaging the stop lug of the target-carrying bar, and a rigid member connected to the swing-



ing closure and to the lever at the opposite side of its pivot.

1,026,339. PROCESS FOR THE CONVERSION OF UNSATURATED FATTY ACIDS, THEIR GLYCERIDS, AND OTHER ESTERS INTO THE CORRESPONDING SATURATED COMPOUNDS. FRED BEDFORD and CHARLES EDWARD WILLIAMS, Sleaford, England. Filed Aug. 14, 1911. Serial No. 644,020. (Cl. 87—12.)



1. A process for the conversion of unsaturated fatty acids, their glycerids and other esters into the corresponding saturated compounds which consists in treating substances to be reduced with purified hydrogen in the presence of heated finely divided metallic oxid the process being carried out under low pressures.

2. A process for the conversion of unsaturated fatty acids, their glycerids and other esters into the corresponding saturated compounds which consists in treating the substances to be reduced with purified hydrogen in the presence of heated finely divided nickel oxid the process being carried out under low pressures.

3. A process for the production of hydroxy-fatty acids which consists in treating unsaturated fatty acids, their glycerids and other esters with purified hydrogen mixed with oxygen in the presence of heated finely divided metallic oxid.

4. A process for the production of hydroxy-fatty acids which consists in treating unsaturated fatty acids, their glycerids and other esters with purified hydrogen mixed with oxygen, the amount of the latter gas being varied as desired to suit the required amount of hydroxylated fatty substances.

1,026,340. METHOD OF MANUFACTURING METAL BOXES. WILLIAM H. BRAKENRIDGE, Waterbury, Conn., assignor to Waterbury Mfg. Co., Waterbury, Conn., a Corporation. Filed June 19, 1911. Serial No. 633,988. (Cl. 113—116.)



A method of forming metal boxes consisting of drawing the box with a deep tubular neck, slitting the neck from the upper edge inward to form a series of fingers, rolling the fingers outward to form hinged knuckles near the bottom of the neck, trimming the remaining portion of the upper edge of the neck to a line with the upper edges of said knuckles, forming the cover with a flange, forming knuckles in said flange corresponding to the spaces between the knuckles on the neck and so that the knuckles of the cover contact with the neck between the knuckles thereof, and inserting a pin through the knuckles in the cover and box.

1,026,341. RAIL-SUPPORT AND RAIL. WILLIE BURCH, Lowell, Mich. Filed Sept. 22, 1910. Serial No. 583,285. (Cl. 238—6.)



1. A support for railway rails, comprising a hollow annular casing having a relative flat circular top for the support of the rail and an outwardly and downwardly flared wall, said wall being flanged at its lower margin, and fastening devices passing through said rail and through the said flange.

2. A support for railway rails, comprising a hollow circular casing having an outwardly and downwardly flared annular wall, the top of said casing being relatively flat and formed with filling openings, through which a filling material may be tamped into the interior of the casing, and covers for said filling openings.

3. A support for railway rails, comprising a hollow circular casing having an outwardly and downwardly flared annular wall, the top of said casing being flat for the support of a rail and provided with a series of segmental filling openings, and covering plates for said openings detachably engaged with the top of the casing.

4. The combination with parallel railway rails, of supports therefor, each comprising a hollow annular casing disposed beneath each rail and having a relatively flat top, an outwardly and downwardly flared annular wall, a cross bar extending transversely beneath both of said rails and resting upon the said casings to which the rails are bolted, and means connecting the cross bar with the annular casings.

5. The combination with the parallel rails of a railway track, of a plurality of pairs of supports located beneath the rails, each support comprising a hollow annular casing having a relatively flat top, an outwardly and downwardly annularly flared wall, the lower margin of the annular wall being outwardly flanged, a cross bar extending transversely beneath the rails and bolted to the said rails, and fastening devices extending downward from the cross bar and connecting the cross bar to the flanged margins of the supports.

[Claims 6 to 15 not printed in the Gazette.]

1,026,342. STOP-MOTION FOR LOOMS. GEORGE W. C. CHAPMAN, Huntsville, Ala. Filed July 14, 1910. Serial No. 571,977. (Cl. 139—54.)



1. In a loom, a detector, means for both supporting the detector and moving the same across the cloth, and means controlled by the detector and operating independently of the aforesaid means, for automatically stopping the loom.

2. In a loom, a detector bearing against the cloth, means for supporting the detector and moving the same across the cloth, means permitting the detector to have an independent movement relative to the said means upon encountering a defect in the cloth, and means actuated by the independent movement of the detector and operating independently of the first-named means for automatically stopping the loom.

3. In a loom, a support, a detector mounted on the support and bearing against the cloth, means for moving the detector across the cloth, means permitting the detector to move in another direction and relatively to the support upon engaging a defect in the cloth, and means to which the last-mentioned movement is imparted to stop the loom.

4. In a loom, a series of detectors bearing against the cloth, means for carrying the series of detectors across the cloth, and means actuated by any one of the detectors and operating independently of the carrying means, to stop the loom.

5. In a loom, a carrier rod extending transversely of the loom, a series of detectors projecting laterally from the carrier rod and extending longitudinally of the loom, said detectors being rotatably mounted on the carrier rod for movement in a vertical plane, means for confining each detector against longitudinal movement on the rod, means for reciprocating the carrier rod in the direction of its length, and means actuated by the vertical movement of any one of the detectors for stopping the loom.

[Claims 6 to 16 not printed in the Gazette.]

1,026,343. MANUFACTURE OF REFRACTORY CONDUCTORS. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 7, 1907. Serial No. 377,781. (Cl. 176—132.)

1. The method for the manufacture of articles of refractory metal which consists in incorporating together to form a coherent workable composition refractory metal and other metals adapted to be expelled by heat at substantially different temperatures, forming the article desired from the composition, and heating to eliminate said other metals from the article successively and convert it into a coherent refractory one.

2. The process for manufacturing refractory articles which consists in incorporating powdered material in a cadmium alloy, shaping and manipulating the resulting material as desired, and subjecting the article thus produced to heat treatment to eliminate everything except a refractory residue and render the latter coherent.

3. The process which consists in forming a plastic composition consisting of fine particles held together by a cadmium alloy comprising a metal which vaporizes at a temperature substantially different from the vaporizing temperature of cadmium, squirting the same into wire, and subjecting said wire to heat treatment to eliminate the metals above mentioned and produce a coherent refractory filament.

4. The process which consists in rubbing powdered tungsten into a plastic cadmium alloy containing mercury, shaping the product into wire, and treating such wire to eliminate all components except tungsten and produce a coherent refractory tungsten conductor.

5. The process which consists in mixing refractory powder with a cadmium alloy containing bismuth, shaping the product so formed into wire, and heating said wire to eliminate the components of the alloy and produce a coherent refractory conductor.

[Claims 6 to 21 not printed in the Gazette.]

1,026,344. BINDER FOR THE MANUFACTURE OF REFRACTORY CONDUCTORS. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 7, 1907. Serial No. 387,549. (Cl. 176—132.)

1. A composition of matter consisting of refractory metal powder bound together by an amalgam containing cadmium and lead.

2. A composition of matter consisting of refractory metal powder bound together by an alloy containing cadmium, lead and mercury.

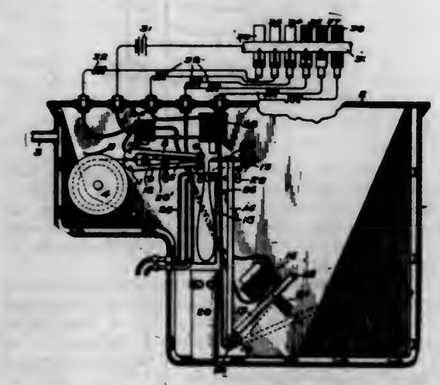
3. A composition of matter consisting of powdered tungsten bound together by an amalgam containing cadmium and lead.

4. A composition of matter comprising powdered tungsten bound together by an alloy containing cadmium, lead and mercury.

5. A conductive pliant wire consisting of refractory metal powder bound together by an amalgam containing cadmium and lead adapted to be converted into a refractory incandescent body by suitable heat treatment.

[Claim 6 not printed in the Gazette.]

1,026,345. APPARATUS FOR TREATING FILAMENTS. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 13, 1907, Serial No. 357,141. Renewed Jan. 27, 1911. Serial No. 605,074. (Cl. 176—4.)



1. The combination of a container, means for exhausting the air therefrom, a spool of ductile wire within said container, means for unreeling a section of said wire and for shaping it into a loop, means for supplying current to said loop to treat the same, and means for separating the treated loop from the untreated wire.

2. The combination of a container, a supply of ductile wire therein, automatic means for forming a portion of said wire into a loop, means for supplying current to said loop to produce changes therein, and means for separating the treated loop from the supply of wire.

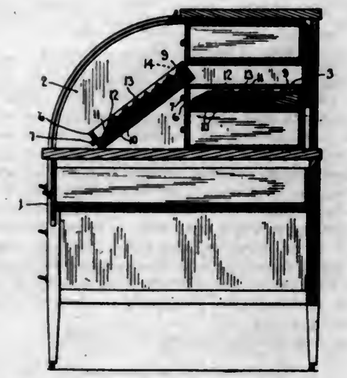
3. The combination of a container, a supply of ductile wire therein, and automatic means for treating successive portions of said wire with current and for separating said portions.

4. The combination with a sealed envelop, a reel of wire therein, means for unreeling a predetermined length of said wire and for shaping it into a loop, means for supplying a relatively low current to said loop, automatic means for increasing the current to heat the loop to incandescence, and means for releasing the treated loop to make room for a second length of wire.

5. The combination of a sealed envelop, a ductile conductor therein, means for shaping a predetermined length of said conductor into a loop, means for supplying current thereto to treat the conductor, and automatic means for repeating this treatment on successive lengths of said conductor.

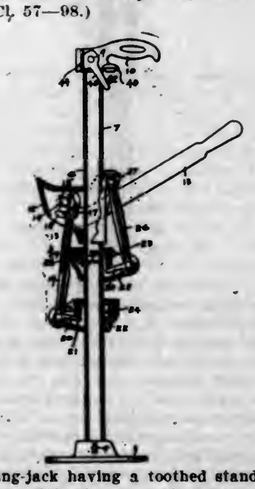
[Claims 6 to 10 not printed in the Gazette.]

1,026,346. FILING DEVICE. ALBERT T. ELWELL, Seattle, Wash. Filed Dec. 29, 1910. Serial No. 599,852. (Cl. 129—16.)



In a device of the class described, the combination with a casing having its rear wall inclined inwardly and downwardly, of a plurality of index leaves bent at right angles along a line parallel to one end, and means for pivotally and slidably securing said leaves in said casing.

1,026,347. COMBINATION-TOOL. FRANK E. FOOR, Indianapolis, Ind. Filed Apr. 13, 1911. Serial No. 620,745. (Cl. 57—98.)



1. In a lifting-jack having a toothed standard-bar and having a runner slidingly mounted thereon said runner having a slotted plate, and said jack having a pawl pivoted to the runner and dapted to engage the teeth of the standard-bar, a spring-bar attached at one end to the pawl and having its other end bent and extending through said slot in the plate of the runner, and said slot having notches to hold given adjustments of the bar.

2. A toothed standard-bar, a hollow runner slidingly mounted on the bar having a slotted plate with end notches, a pawl mounted in the runner and adapted to engage the teeth of the bar, and a spring-bar having one end bent and attached to the pawl and the other end bent and passed out of the runner-plate through its slot and adapted to engage the notches in the slot, said spring-bar having a coil between its ends to give it resiliency.

1,026,348. KEY-RING. WILLIAM C. FORD, Lawrence, Mass. Filed Dec. 20, 1911. Serial No. 666,976. (Cl. 59—96.)

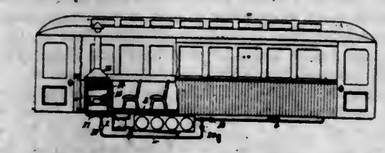


1. The combination with a ring for holding keys, of a device for the purpose described comprising a bar extending across the ring and slidably connected at each end thereto and means carried by one end of said bar for retaining a key.

2. The combination with a ring for holding keys, of a member extending across said ring and provided at its respective ends with means for slidably engaging said ring, and means carried by said member for retaining a key on the ring separate from the remainder of the keys carried thereon.

3. The combination with a ring for holding keys, of a device adapted to extend across the key-ring and having loops received by and slidable on the ring, one of said loops adapted to receive and hold a key.

1,026,349. CAR-HEATING SYSTEM. LUCIUS T. GIBBS, Hempstead, N. Y.; Angelica Gibbs, Flushing, N. Y., administratrix of said Lucius T. Gibbs, deceased, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 23, 1905. Serial No. 293,082. (Cl. 237—5.)



1. In a car heating system, the combination of an internal combustion engine and a water circuit to cool the same, said circuit including radiators or heaters located inside the car, and a cooler for the water located outside the car between the engine and said radiators or heaters, and means for varying at will the amount of radiating surface in the cooler which is exposed to the outside air.

2. In a car heating system, the combination of an internal combustion engine and a water circuit arranged to cool the same, said circuit including radiators or heaters located inside the car, and a cooler for the water, said cooler located outside the car between the engine and said radiators or heaters, and consisting of a hollow body having a duct extending therethrough for the passage of air, and means for controlling the flow of air through said duct.

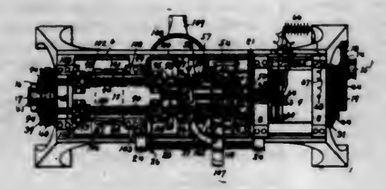
3. In a car heating system, the combination of an internal combustion engine and a water circuit to cool the same, said circuit including radiators or heaters located inside the car, and a cooler for the water, said cooler located outside the car between the engine and said radiators or heaters and consisting of a hollow body having ducts extending therethrough for the passage of air, and means for controlling the flow of air through said ducts whereby the cooling surface may be varied.

4. In a car heating system, the combination of an internal combustion engine and a water circuit to cool the same, said circuit including radiators or heaters located inside the car, and a cooler for the water, said cooler located outside the car between the engine and said radiators or heaters and consisting of a hollow body having a plurality of ducts extending through the same from end to end and open to the atmosphere, and means for controlling the flow of air through said ducts whereby the cooling surface may be varied.

5. In a car heating system, the combination of an internal combustion engine and a water circuit to cool the same, said circuit including radiators or heaters located inside the car, and a cooler for the water, said cooler located outside the car between the engine and said radiators or heaters and consisting of a hollow body having a plurality of air pipes extending through the same from end to end and open to the atmosphere, and a shield or plate arranged to cover an end of the cooler, said plate being movable to vary the number of tubes exposed to the atmosphere.

[Claims 6 to 12 not printed in the Gazette.]

1,026,350. MACHINE FOR GRINDING BALLS. AUGUSTINE E. GREENE, Hartford, Conn. Filed Feb. 20, 1911. Serial No. 609,562. (Cl. 51—4.)



1. The combination, in a machine for abrading spherical objects, with an abrader, of means to hold an object while in contact with such abrader and at the same time impart an orbital gyratory motion to said object on its own center.

2. The combination, in a machine for abrading spherical objects, with an abrader, of means to hold an object while in contact with such abrader and at the same time impart an orbital gyratory motion to said object on its own center and means partially to rotate said object also on its own center independently of its holding means.

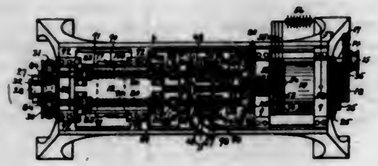
3. The combination, in a machine for abrading spherical objects, with abraders, of means to hold an object while in contact with either of such abraders and at the same time impart a gyratory motion to said object, means to carry said object from one of said abraders to the other, and means partially to rotate said object independently of its holding means during the transfer from one abrader to the other.

4. The combination, in a machine for abrading balls, with an abrader, of an intermittently rotating member, a plurality of ball-holding chucks carried by such member, and means to impart a gyratory motion to said chucks.

5. The combination, in a machine for abrading balls, with an abrader, of an intermittently rotating member, a plurality of ball-holding chucks carried by said member, means to impart a gyratory motion to said chucks, and means partially to rotate balls while connected with said chucks independently of the latter.

[Claims 6 to 34 not printed in the Gazette.]

1,026,351. METHOD OF GRINDING BALLS. AUGUSTINE E. GREENE, Hartford, Conn. Original application filed Feb. 20, 1911, Serial No. 609,562. Divided and this application filed July 20, 1911. Serial No. 639,656. (Cl. 51—4.)



1. A method of abrading spherical objects, consisting in imparting an orbital gyratory motion to an object on its own center while subjected to an abrading action.

2. A method of abrading spherical objects, consisting in imparting a combined rotary and orbital oscillatory motion to an object on its own center while subjected to an abrading action.

3. A method of abrading spherical objects, consisting in imparting a varying conical orbital rotation to an object on its own center while subjected to an abrading action.

4. A method of abrading spherical objects, consisting in applying an elemental force to an object to hold the same, in imparting a combined rotary and orbital oscillatory motion to said object on its own center while thus held, and in subjecting the moving object to an abrading action.

5. A method of abrading spherical objects, consisting in applying an elemental force to an object to hold the same, in imparting a combined rotary and oscillatory motion to said object while thus held, in subjecting the moving object to an abrading action, in releasing and turning said object independently, in reapplying said force and restoring said combined rotary and oscillatory motion to the object, and in again subjecting the moving object to said abrading action.

[Claims 6 to 8 not printed in the Gazette.]

1,026,352. WINDMILL-COUPLING. LOUIS C. HAMEL, Appleton, Wis., assignor of one-half to William H. Killen, Appleton, Wis. Filed Apr. 21, 1910. Serial No. 556,887. (Cl. 74—17.)



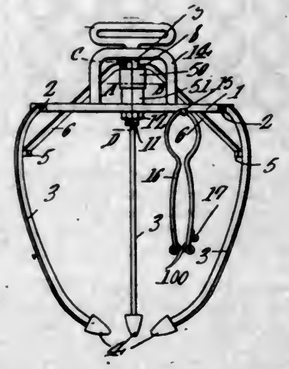
A coupling device comprising a sleeve having a transverse hole, a rod telescoping into the sleeve and also having a transverse hole adapted to aline with that in the sleeve, a pin through the alined holes, and a cross pin through its outer end; combined with a spring attached to the sleeve and engaging said cross pin with a tendency to press the former pin toward said sleeve, and a lever having a fork whose branches engage the extremities of said cross pin, the outer face of the sleeve being grooved alongside its hole for the sliding reception of the tips of said branches.

1,026,353. TOOL FOR BENDING PIPE. HARRY E. HARMER and WILLIAM M. WYLLIE, Calgary, Alberta, Canada. Filed Oct. 16, 1911. Serial No. 654,884. (Cl. 81—15.)



A pipe bender comprising two hingedly connected clamping members, said members having semi-circular grooves formed in their inner face, the concave face of one of said grooves being cut away at its ends to form depressions gradually widening at their outer ends, a locking member hinged to the outer edge of one of said clamping members and extending longitudinally the full length thereof, said locking member having a longitudinal groove formed therein, the other of said clamping members having an outwardly extending flange formed on its free edge and adapted to be disposed in the groove in the first clamping member, a threaded socket formed on the exterior of one of said clamping members, and a handle threaded into said socket to manipulate said clamping member.

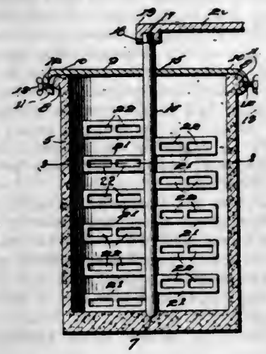
1,026,354. CUSPIDOR-LIFTER. ROBERT HENRY, Blue Lake, Cal. Filed July 14, 1911. Serial No. 638,542. (Cl. 57—111.)



1. A device of the class described comprising a plate; gripping arms pivoted to the periphery of the plate; an operating member movable in the plate; connections extended through openings in the plate, the connections being pivotally united with the arms below the plate, and being pivotally united with the operating member above the plate; a spring thrusting at one end against the plate, and at the other end thrusting against the operating member to effect a closing together of the arms; and adjustable means upon the operating member, below the plate, to engage the plate, and to limit the movement of the arms, under the actuation of the spring.

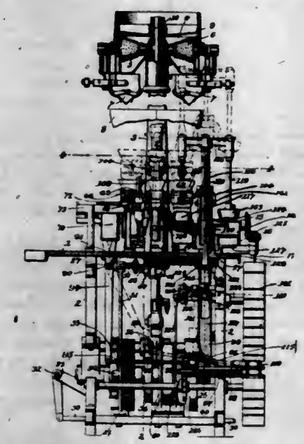
2. A device of the class described comprising a body; arms pivoted to the periphery of the body; an operating member mounted for sliding movement in the body; connections extended through the openings in the body and united pivotally, at one end, with the arms, the connections being pivotally united at their other ends with the operating member; a spring thrusting against the body and against the operating member, the operating member being threaded, where it passes through the body; and a nut upon the operating member, below the body.

1,026,355. COMBINED CAKE-MIXER AND EGG-BEATER. MAHALAH T. HUDSON, Enid, Okla. Filed May 24, 1911. Serial No. 629,157. (Cl. 107—38.)



In a device of the kind described, a dasher element consisting of a central rod and blades projecting from the outside of said rod, each of said blades being rectangular in elevation and provided with vertical side faces, each of said blades being further provided with a plurality of alined rectangular slots, each of said blades further having parallel upper and lower edges, said blades being in staggered relation and the spaces between adjacent blades on one side of said rod being equal to the width of the blades on the opposite side of said rod, the bottom edge of each blade being alined with the top edge of the blade on the opposite side of the rod next adjacent.

1,026,356. MACHINE FOR PACKAGING LOOSE SUBSTANCES. GEORGE AUBREY LEE, Yonkers, N. Y., assignor to Automatic Packing & Labeling Company, Durham, N. C., a Corporation of North Carolina. Filed May 1, 1906. Serial No. 314,714. (Cl. 93—6.)



1. In a machine for packaging material, the combination of a form-carrier; a form; weighing mechanism; a packer; a package-receiving turret; means to move the form-carrier to present the forms successively to the weighing mechanism and to the packer; a bag-folding mechanism adapted to close the bag after the material therein has been packed; and an indenter arranged to act upon the folded portion of the bag.

2. In a machine for packaging materials, the combination of folding mechanism, serving to infold the open end of a package; and means movable toward and from the

package while the same is at rest, for indenting or crimping the marginal portions of the infolded flaps.

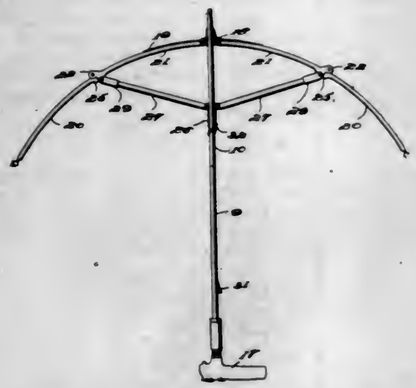
3. In a machine for packaging materials, the combination of folding mechanism; and a head having a plurality of blunt projections formed upon its lower face, said projections serving to indent or crimp the inturned flaps of the package preparatory to permanently closing the same.

4. In a machine for packaging material, the combination of a turret; means for raising and lowereing said turret; means for imparting a partial rotation to said turret when in its raised position; a bag-shape or form; hooks carried by the turret for engaging the bag-shape or form; and means for positively locking said hooks after they have engaged the form.

5. In a machine for packaging material, the combination of a turret; means for raising and lowering the same; hooks carried by the turret adapted and arranged to engage a bag-shape or holder; gravitating locking pins carried by the turret and normally standing in rear of the hooks; and means for raising said pins out of their locking position as the turret is lowered.

[Claims 6 to 16 not printed in the Gazette.]

1,026,357. FOLDING UMBRELLA. MARRETT F. MAREAN, Joplin, Mo. Filed Mar. 14, 1911. Serial No. 614,326. (Cl. 135—25.)



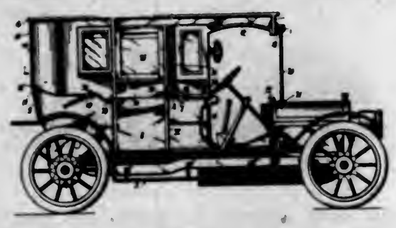
1. As a new article of manufacture, an umbrella rib section formed of a single piece of sheet metal stamped to provide a body, ears extending from one end thereof, and a lateral lug extending from each ear, said body being bent to a U-shaped cross section and the ears offset in the direction of the bight of the U.

2. As a new article of manufacture, an umbrella rib section formed of a single piece of sheet metal stamped to provide a body, ears extending from one end thereof, and a lateral lug extending from each ear, said body being bent to a U-shaped cross section and the ears offset in the direction of the bight of the U; in combination with a coacting rib section similarly constructed, but with the ears pressed together to fit between the ears of the first rib section.

1,026,358. DETACHABLE LIMOUSINE-TOP FOR AUTOMOBILES. OSCAR N. MCCALLISTER, Mount Vernon, Ind. Filed June 20, 1911. Serial No. 634,331. (Cl. 21—62.)

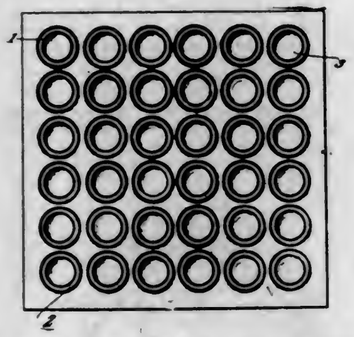
1. The combination with an automobile of a removable top section therefor, said top section having portions extending downwardly over the curved surfaces of the automobile in spaced relation thereto, said downwardly extending portions having slots therein, filler plates slidably engaged in the slots and means for holding the filler plates yieldably extended and in engagement with the curved surfaces of the automobile.

2. The combination with an automobile, having hinge blocks terminating short of the upper edge of the front seat, of a limousine top having uprights extending down



and resting upon the upper ends of the hinge blocks, and adjustable filler members carried by the uprights and extending between the uprights and the surface of the front seat.

1,026,359. EGG-SAVING PACKER. JEROME J. MILLER, Omaha, Nebr. Filed July 10, 1911. Serial No. 637,837. (Cl. 217—27.)



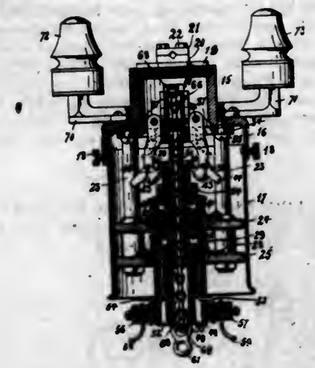
1. A device of the character described, including duplicate members having numerous opposed circular corrugations, said opposed circular corrugations having central depressions therein, said members being secured together back to back and adapted to provide a cushioning space therebetween.

2. In an egg-packing case, opposed members of yieldable material, each having formed therein numerous upraised formations of circular outline, said upraised formations having centrally therein concavities forming depressions for the reception of the eggs in endwise upright position, the upraised formations of the opposed members being adapted to provide spaces therebetween, said concavities being of less depth than said spaces.

1,026,360. ARC-LAMP HANGER AND AUTOMATIC CUT-OUT. ALLAN G. MENSON and MERTON N. WEBSTER, St. Paul, Minn. Filed May 24, 1910. Serial No. 563,054. (Cl. 240—66.)

1. In an electric lamp hanger, a supporting body having contacts spaced apart and adapted to be connected into the main line circuit, a movable body adapted to support an electric lamp and having spaced contacts for connection to the lamp circuit and engaging with the main line contacts when the movable body is in one position, trip latches carried by said supporting body, coupling means carried by said movable body for engaging with said latches when the movable body is elevated into its normal position, and means operating to move the trip latches and hold them out of operative position when the movable body is elevated above its normal position.

2. In an electric lamp hanger, a supporting body, two members spaced apart and suspended from said supporting body, contacts carried by said spaced members and adapted to be connected into the main line circuit, a movable body adapted to support an electric lamp and having spaced contacts for connection to the lamp circuits and engaging with the main line contacts when the movable body is in one position, trip latches carried by said supporting body, coupling means carried by said movable body for engaging with said latches when the movable body is elevated above its normal position, and means operating to move the trip latches and hold them out of operative position when the movable body is elevated above its normal position.



3. In an electric lamp hanger, a head member, two members spaced apart and suspended from said head member, an electric contact carried by each of said spaced members and having means for connection in the main line circuit, a body movable through said spaced members and adapted to support an electric lamp and provided with contacts spaced apart and arranged to engage said main line contacts when the body is in one position, the contacts of said body being adapted to be coupled to the conductors of a lamp which is supported by the same, trip latches carried by said head member, and coupling means carried by said body for engaging said latches when the body is elevated to its normal position.

4. In an electric lamp hanger, a supporting body having contacts spaced apart and adapted to be connected into the main line circuit, a movable body adapted to support an electric lamp and having spaced contacts for connection to the lamp circuits and engaging with the main line contacts when the movable body is in one position, trip latches carried by said supporting body, coupling means carried by said movable body for engaging said latches when the movable body is elevated above its normal position, and a member movable upon said coupling means and operating to move said latches and hold them out of operative position when the movable body is elevated above its normal position.

5. In an electric lamp hanger, a supporting body having contacts spaced apart and adapted to be connected into the main line circuit, a movable body adapted to support an electric lamp and having spaced contacts for connection to the lamp circuits and engaging with the main line contacts when the movable body is in one position, trip latches carried by said supporting body and including inwardly directed toes, a coupling member carried by said movable body and including a barbed terminal for engaging the toes of said latches when the movable body is in normal position, and a member movable upon said coupling means and operating to move said latches and hold them out of operative engagement when the movable body is disposed in abnormal position.

[Claims 6 to 8 not printed in the Gazette.]

1,026,361. INSECTICIDE. WILMON NEWELL, College Station, Tex. Filed Nov. 20, 1909. Serial No. 529,131. (Cl. 167—6.)

1. An insecticide containing arsenate of lead existing in the physical state of an impalpable powder.

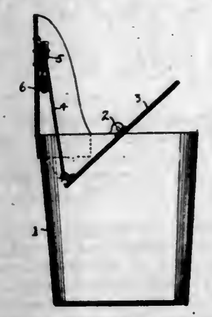
2. A chemical compound consisting of lead arsenate in the form of an impalpable powder.

3. An insecticide containing arsenate of lead existing in the physical state of an impalpable powder, composed of particles not exceeding one one-thousandth of an inch in diameter.

4. An insecticide consisting essentially of arsenate of lead in the physical state of an impalpable powder composed of particles not exceeding one one-thousandth of an inch in diameter.

5. A chemical compound consisting of lead arsenate in the form of an impalpable powder composed of particles not exceeding one one-thousandth of an inch in diameter.

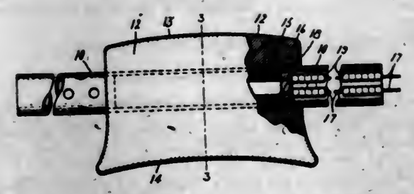
1,026,362. RAT-TRAP. ROBERT NYE, Grass Valley, Cal. Filed Nov. 16, 1911. Serial No. 660,677. (Cl. 43—24.)



1. In a rat trap, a receptacle for liquid, a cover on the top thereof balanced and pivoted thereon, one side of said cover being adapted to turn downwardly into said receptacle, a shield extending upwardly from one side of said receptacle, a bait holding cord attached to said cover and a pulley supported by said shield and over which said cord moves, as described.

2. In a rat trap, a receptacle for liquid, a cover on the top thereof balanced and pivoted thereon, a shield extending upwardly from one side of said receptacle, a bait holding cord attached to said cover, and means carried by the shield for suitably supporting the bait holding cord so that one end thereof will support bait adjacent the downwardly movable edge of said cover, as described.

1,026,363. ELECTRICALLY-HEATED TOOL. LEON F. PARKHURST, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed July 13, 1908. Serial No. 443,260. (Cl. 219—23.)



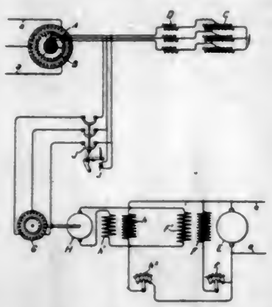
1. An electrically heated tool comprising a metallic tube, a mass of metal cast around the tube intermediate its ends, and a cylindrical heating unit slidably fitting into said tube so as to be in intimate thermal relation therewith.

2. An electrically heated tool comprising a metallic tube having handles at opposite ends, a self-contained heating

unit slidably fitting into said tube so as to be in intimate thermal relation therewith, and a mass of iron cast around the tube between the handles.

3. An electrically-heated tool comprising an elongated steel tube having handles at opposite ends, a mass of iron cast around the same intermediate said handles, and a self-contained heating unit within said tube and in intimate thermal relation therewith, said unit having conductors passing through one of said handles.

1,026,364. SYSTEM OF CONTROL. KARL A. PAULY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 19, 1910. Serial No. 556,337. (Cl. 172—239.)



1. In combination, an induction motor, a direct current motor mechanically independent thereof, and means mechanically independent of said motors and responsive to speed variations in the induction motor for varying the field strength of the direct current motor to maintain a proportionality between the speeds of said motors.

2. In combination, an induction motor, a direct current motor mechanically independent thereof, and means mechanically independent of said motors for maintaining a proportionality between the speeds of said motors comprising an electrically operated apparatus responsive to speed variations in the induction motor and controlling the speed of the direct current motor.

3. In combination, an induction motor, a direct current motor mechanically independent thereof, and electrodynamic apparatus connected to a field winding of said direct current motor and supplied with current from the secondary member of said induction motor.

4. In combination, an induction motor, a direct current motor mechanically independent thereof, and rotary transforming apparatus connected on its alternating current side to the secondary member of the induction motor and on its direct current side to a field winding of the direct current motor.

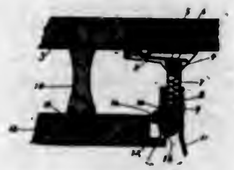
5. In combination, an induction motor, a direct current motor mechanically independent thereof, and means for automatically increasing the field strength of the direct current motor upon a decrease in speed of the induction motor.

[Claims 6 to 15 not printed in the Gazette.]

1,026,365. WIND-SHIELD HOLDER. FRANK P. PFLEGHAR, New Haven, Conn., assignor to The English & Mersick Co., New Haven, Conn., a Corporation. Filed Feb. 13, 1911. Serial No. 608,411. (Cl. 16—78.)

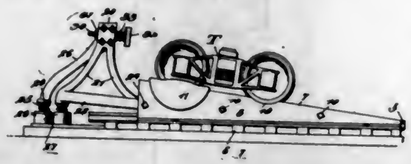
1. The combination with a housing, of a spring-actuated hook mounted therein, the body of the hook formed with a slot, a spring in said slot, and a latch having a projection extending through said slot and bearing on said spring.

2. The combination with a housing, of a hook mounted therein, a spring in said housing and acting on the inner end of said hook, the body of the hook formed with a slot, a spring within said slot, a latch having a projection extending through said slot, a finger-piece secured to said projection, combined with a strike-plate adapted to be engaged by said hook and latch.



3. The combination with a housing, of a hook pivotally mounted therein, a spring in said housing and bearing on the inner end of said hook, said hook formed at its outer end with a nose and its body formed with a slot, a spring within said slot, a latch sliding on said body and formed with a stud extending through said slot beneath said spring, a finger-piece secured to said stud, and a strike plate formed with an opening to receive the nose of the hook, and with a notch to receive the end of said latch.

1,026,366. LOCKING DEVICE FOR ENGINE-TRUCKS. GEORGE E. REID, Meridian, Miss. Filed June 17, 1911. Serial No. 633,644. (Cl. 104—49.)



1. In a device of the character described, the combination with a bumper including a movable spring pressed plate, of an inclined track-way, and means arranged in the upper end of said track-way to engage the truck wheels of an engine and lock the same thereon.

2. In a device of the character described, the combination with a pivotally supported bumper and a plurality of springs yieldingly holding the same against pivotal movement, of an inclined track-way, and means arranged in said track-way at its upper end to engage the truck wheels and lock the same thereon.

3. A device of the character described comprising an inclined track-way, and movable locking elements arranged in the upper end of said track-way for locking engagement with the wheels of an engine truck.

4. A device of the character described comprising an inclined track-way, and locking elements arranged in the upper end of said track-way and adapted to engage with opposite faces of the truck wheels of an engine.

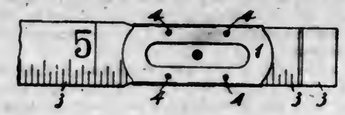
5. A device of the character described comprising an inclined track-way, and opposed locking elements arranged in the upper end of the track-way and actuated by the weight of an engine to lock the truck wheels thereof.

[Claims 6 to 20 not printed in the Gazette.]

1,026,367. ZIGZAG-RULE JOINT. HUBERT P. RICHARDS, New Britain, Conn., assignor to The Stanley Rule and Level Company, New Britain, Conn., a Corporation of Connecticut. Filed Oct. 7, 1911. Serial No. 653,335. (Cl. 73—40.)

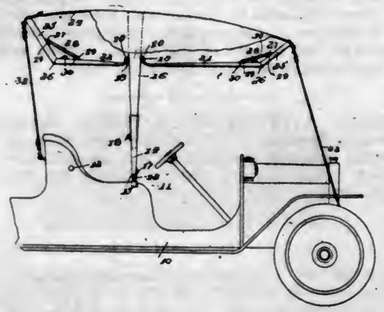
In a folding rule of the character described two flat wood sections the flat surfaces of which overlap, a foldable joint arranged between and connecting the overlapping portions of said sections, said joint including a metallic plate, flanges along the side edges of said plate, said flanges being bent to tightly embrace the rule section adjacent thereto, and a locking projection extending from

the inner surface of said plate and projecting into said wood section and across the grain thereof, said locking



projection being in the form of an annular flange open at the center.

1,026,368. VEHICLE-TOP. ALEXANDER RITCHIE, Detroit, Mich. Filed Mar. 13, 1911. Serial No. 614,116. (Cl. 21—62.)



1. A vehicle top including an intermediate bow, pairs of spacing rods hingedly connected to the intermediate bow and extended forwardly and rearwardly from the same, terminal bows hinged to the rods, a fabric cover engaging over the various bows, braces detachably connected respectively to said terminal bows and to said rods and adapted to support the terminal bows in inclined position relative to the rods or in longitudinal alinement to the same, the forward terminal bow being also foldable into parallel relation with the forward rods to provide protection to the lining of the cover.

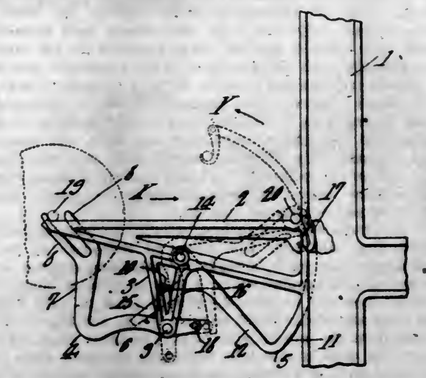
2. A vehicle top including an intermediate hinged supporting bow, pairs of oppositely extending spacing rods adjustably carried upon the intermediate bow, terminal bows hinged upon the outer ends of the spacing rods and adapted to swing against the lower sides thereof, braces carried upon the terminal bows, and means for adjustably connecting said braces with the rods.

3. In a vehicle top, sockets adapted to be hingedly connected to a vehicle body and provided with apertured ears extending forwardly and rearwardly of the same, an intermediate bow engaging by its terminals in said sockets and provided with forwardly and rearwardly extending perforated ears, spacing rods adapted to be connected at their inner ends to the ears of the bows when the top is extended and to the ears of the sockets when the top is folded, terminal bows hinged to the outer ends of the rods, a cover engaging over the various bows, braces swinging at one end from said terminal bows, and means for adjustably connecting said braces to the rods, whereby the terminal bows may be retained in upwardly inclined position or in longitudinal alinement with the rods.

1,026,369. DEVICE FOR CHANGING ROLLS OF PAPER. EDNA G. ROBESON, Atlanta, Ga. Filed May 1, 1911. Serial No. 624,347. (Cl. 242—58.)

1. In a device for replacing an empty roll by a full roll, a track; roll-actuators above the track; and interengaging means supporting the roll actuators, for moving them in opposite directions, in the direction of the length of the track, and for elevating one roll actuator above the other.

2. In a device for replacing an empty roll by a full roll, a track; roll-actuators above the track; and interengaging means supporting the roll-actuators, for moving one roll-actuator in a right line along the track in one direction, and for moving the other roll-actuator in an opposite direction, in an arc above the first named roll-actuator.



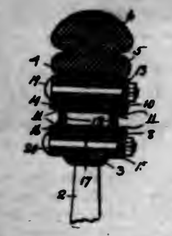
3. In a device for replacing an empty roll by a full roll, levers; means for supporting the levers; a roll-actuator upon each lever; and interengaging means upon the levers for operating them simultaneously, and for moving the roll-actuators in opposite directions, to replace an empty roll by a full roll.

4. In a device for replacing an empty roll by a full roll, levers; means for supporting the levers; a roll-actuator upon each lever; and interengaging means upon the levers for operating them simultaneously, and for elevating one roll actuator above the other roll-actuator.

5. In a device for replacing an empty roll by a full roll, levers interengaged for simultaneous operation, each lever having a roll-actuator, one roll-actuator operating in a fixed plane, and the other roll-actuator rising above and in an opposite direction to, the first mentioned roll-actuator.

[Claims 6 to 10 not printed in the Gazette.]

1,026,370. VEHICLE-WHEEL. HERBERT J. SEWELL, Detroit, Mich. Filed May 4, 1911. Serial No. 625,012. (Cl. 152—36.)



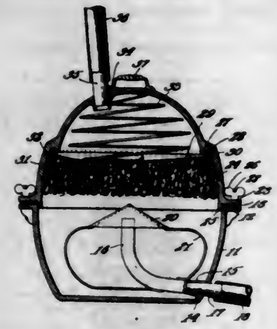
1. A vehicle wheel having in combination a pair of annular rim members spaced by an annular chamber, resilient cushioning members engaging in said chamber, said cushioning members being circular in form and arranged with the axes of the central cushioning members parallel with the axle of the wheel and with the cushioning members in contact, rings of resilient material extending as described over the space of said chamber and with zones of said rings engaging over the side face of said rim members, holding rings secured to said rim members and extending from each rim member partially over said annular chamber adapted to support the resilient ring and form an abutment for said cushioning members and

adapted to coact with said cushioning members to prevent the lateral movement of one of said felly members with respect to the other.

2. A vehicle wheel comprising a spoke-supported felly, an annular band surrounding said felly and separated therefrom to provide an annular space, a resilient cushioning element arranged in said annular space, a pair of annular rings of resilient material lapping the lateral faces of said felly and band and closing said annular space, each of said resilient rings provided on its outer face opposite said annular space with a concave groove to permit said grooved portions to bend inwardly toward said annular space under radial compression, clamping bands arranged on the lateral faces of said resilient rings opposite to the sides of said felly and band, and means engaging said felly and band for securing said clamping rings in position to thereby hold said resilient rings against displacement and simultaneously resist the lateral distortion of said cushioning element.

3. A vehicle wheel comprising a felly, an annular band surrounding said felly and separated therefrom to provide an annular space, a resilient cushioning element arranged in said annular space, a pair of annular rings of resilient material lapping the lateral faces of said felly and band and closing said annular space, abutting bands arranged on the lateral faces of said resilient rings opposite to the sides of said felly and band, the inner edges of the outer pair of abutting bands extending substantially inwardly beyond the inner face of said annular band, and the outer edges of the inner pair of abutting bands extending substantially outwardly beyond the outer face of said felly, and means engaging said felly and band for securing said abutting bands in position to thereby hold said resilient rings against displacement to resist the lateral distortion of said cushioning element and to hold the inner and outer feilies in proper side relations, substantially as set forth.

1,026,371. VACUUM-CLEANER. WALTER T. SMITH, Jackson, Mich. Filed Feb. 28, 1911. Serial No. 611,418. (Cl. 83—47.)



1. In apparatus of the class described, a dust receiver having an inlet and an outlet, a flexible diaphragm intersecting the interior of the receiver and between the inlet and the outlet, a mat of unconfined fibers supported in contact with that face of the diaphragm adjacent the inlet, and means embedded within the mat for holding it in position upon the diaphragm.

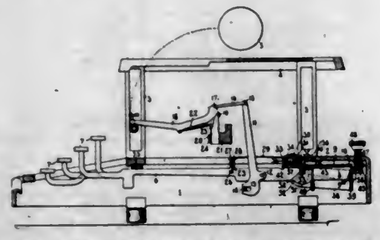
2. In apparatus of the class described, a dust receiver having an inlet and an outlet, a flexible diaphragm detachably mounted within the receiver between the inlet and the outlet, a mat of exposed loose fibers detachably supported within the receiver and in contact with face of the diaphragm nearest the inlet, and spreading means interposed between the inlet and the mat.

3. In apparatus of the class described, a dust receiver having an inlet and an outlet, a flexible diaphragm interposed between the inlet and the outlet, an expansible member for binding the peripheral portion of the diaphragm upon the wall of the receiver, a mat of fibrous material contacting with that face of the diaphragm nearest the inlet, and an expansible element embedded in the mat for binding the marginal portion thereof against the wall of the receiver.

4. In apparatus of the class described, a dust receiver having an inlet and an outlet, a flexible diaphragm interposed between the inlet and outlet, a mat of loose fibers supported in contact with the one face of the diaphragm and between the diaphragm and inlet, and yieldable means contacting with the other face of the diaphragm for holding said diaphragm normally depressed at its center toward the inlet.

5. A dust receiver including a body having an inlet, a cap having an outlet, means for detachably securing the cap upon the body, a flexible diaphragm, means for detachably securing the diaphragm within the cap, a mat of lose fibers supported in contact with the lower portion of the diaphragm, and elastic means interposed between the diaphragm and the top of the cap for holding said diaphragm normally depressed toward the inlet.

1,026,372. TYPE-WRITING MACHINE. HERBERT H. STEELE, Syracuse, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed May 31, 1907. Serial No. 376,509. (Cl. 197—28.)



1. In a typewriting machine, the combination of a series of type bars, a series of creeping key levers therefor having a constant amount of creep, a series of restoring springs operatively connected to said key levers, a pivoted frame to one side of which said springs are connected, and a screw carried by a fixed part of the machine and cooperative with the opposite side of said pivoted frame to simultaneously adjust the tension of all of said springs.

2. In a typewriting machine, the combination of a series of type bars, a series of key levers, a pivoted frame, a series of forwardly projecting restoring springs secured to said pivoted frame forward of its pivot, means for connecting the restoring springs to the key levers, and adjustable means carried by a fixed part of the machine and coöperative with said frame in the rear of the pivot thereof to resist the pressure of the springs and also to vary the tension of all of said springs simultaneously.

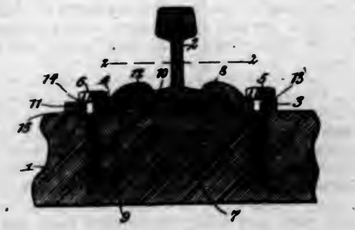
3. In a typewriting machine, the combination of a series of type bars, a series of key levers, a pivoted frame having a portion that extends above and across the system of key levers and a portion that extends rearwardly beyond the rear ends of said key levers, a series of forwardly projecting restoring springs secured to that portion of said pivoted frame which extends above and across the system of key levers, means for connecting the restoring springs to the key levers, and adjustable means coöperative with said frame at that portion thereof which extends rearwardly beyond the rear ends of the key levers to resist the pressure of the springs and also to vary the tension of all of said springs simultaneously.

4. In a typewriting machine, the combination of a series of type bars, a series of key levers, a frame comprising end bars pivoted to the frame of the machine, a front cross bar and a rear cross bar, restoring springs connected to said front cross bar and to the series of key levers, and means coöperative with the rear cross bar to control the position of the frame around its pivot and also to adjust the tension of all of said springs simultaneously.

5. In a typewriting machine, the combination of a series of type bars, a series of key levers, a pivoted frame within which the rear ends of the key levers are arranged, said frame comprising end bars outside the system of key levers, a front cross bar above the key levers and a rear cross bar below the system of key levers, restoring springs connected to said front cross bar and to the series of key levers, and means coöperative with the rear cross bar to control the position of the frame around its pivot and to adjust the tension of all of said restoring springs.

[Claims 6 to 14 not printed in the Gazette.]

1,026,373. RAIL-TIE FASTENER. AUGUST STILKE, Buffalo, N. Y. Filed Nov. 8, 1911. Serial No. 659,179. (Cl. 238—2.)

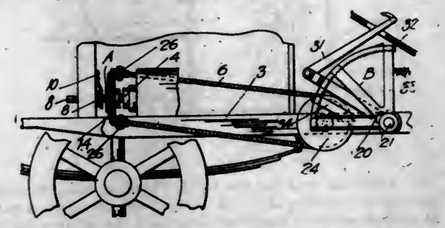


1. A fastener for securing a rail to a tie comprising a tie plate adapted to rest on a tie and provided on its upper side with an elevated face which is adapted to engage with part of the underside of the rail base and with a recess arranged below another part of the rail base and also provided on its upper side adjacent to the outer end of said elevated face with an inwardly projecting hook which is adapted to engage over one edge of the rail base, a locking plate arranged in said recess and having its upper side engaging with part of the underside of the rail base and provided with an inwardly projecting hook which is adapted to engage over the other edge of the rail base, the inner side of said recess being undercut and the outer side being vertical and the inner end of the locking plate being beveled and engaging with the undercut side of said recess while the outer edge thereof is vertical and engages with the vertical outer side of the recess.

2. A fastener for securing a rail to a tie comprising a tie plate adapted to rest on a tie and provided on its upper side with an elevated face which is adapted to engage with part of the underside of the rail base and with a recess arranged below another part of the rail base and also provided on its upper side adjacent to the outer end of said elevated face with an inwardly projecting fixed hook which is adapted to engage over one edge of the rail base, a locking plate arranged in said recess and having an inwardly projecting movable hook which is adapted to engage over the other edge of the rail base, an inner flange projecting inwardly from the movable hook into engagement with the inner side of said recess and an outer flange projecting outwardly from the movable hook into engagement with the outer side of said recess, the inner side of said recess being undercut and the inner end of the locking plate being beveled and engaging with the undercut side of said recess, and means for securing said tie plate and locking plate to the tie, comprising screws passing through the tie plate outside of the fixed hook and through the outer flange of the locking plate and the adjacent part of the tie plate.

1,026,374. STARTING DEVICE FOR EXPLOSIVE-ENGINES. ERNEST V. SWERN, Denver, Colo., assignor of one-fourth to John H. East, Denver, Colo. Filed Mar. 1, 1911. Serial No. 611,681. (Cl. 123—185.)

1. A starting device for explosive engines comprising in combination with an engine shaft having an end portion of reduced diameter, a clutch member loosely mounted upon the said end portion, the said member and the shoulder on the shaft at the beginning of its reduced portion, having coöperative interlocking means, and means for converting a rotary movement of the said member into a simultaneous movement of the same toward the said shoulder, whereby the said interlocking means are brought into operative engagement.



2. A starting device for explosive engines, comprising in combination with an engine shaft, a sleeve mounted in axial alinement therewith and having an external spiral groove, and a clutch-member loosely mounted upon the said sleeve and having a projection within the said groove whereby a rotary movement of the said member is converted into a simultaneous longitudinal movement of the same with relation to the said sleeve, the said member and the said shaft having opposite, normally separated, coöperative interlocking means.

3. A starting device for explosive engines, comprising in combination with an engine shaft, a sleeve mounted in axial alinement therewith, and having an external spiral groove, a clutch-member loosely mounted upon the said sleeve and having a projection within the said groove, whereby a rotary movement of the said member is converted into a simultaneous longitudinal movement of the same in one direction with relation to the said sleeve, and a spring between the said sleeve and a relatively stationary surface to resiliently oppose its movement with the said member in the opposite direction, the said member and the said shaft having opposite, normally separated, coöperative interlocking means.

4. A starting device for explosive engines, comprising in combination with an engine shaft, a sleeve mounted in axial alinement therewith and having an external spiral groove, a clutch member loosely mounted upon the said sleeve, and a ball carried on the said member, within the said groove, whereby a rotary movement of the said member is converted into simultaneous longitudinal motion of the same with relation to the said sleeve, the said member and the said shaft having opposite, normally separated interlocking means.

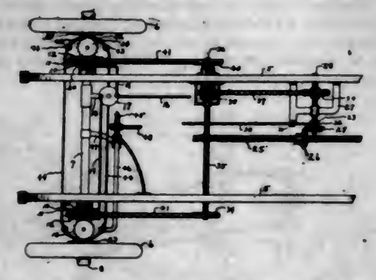
5. A starting device for explosive engines comprising in combination with an engine shaft having an end portion of reduced diameter, a sleeve mounted upon the said end portion and having an external, spiral groove, and a clutch member loosely mounted upon the said sleeve and having a projection within the said groove, whereby a rotary movement of the said member is converted into a simultaneous longitudinal movement of the same with relation to the sleeve, the said member and the shoulder on the shaft surrounding its reduced portion having normally separated, coöperative interlocking means.

[Claims 6 to 12 not printed in the Gazette.]

1,026,375. DRIVING-GEAR FOR VEHICLES. JUDSON R. TIBBLES, Macedonia, Iowa. Filed Sept. 25, 1911. Serial No. 651,135. (Cl. 21—90.)

1. A driving gear for the front wheels of vehicles, comprising, in combination with a non-rotatable axle; a pair of sleeves non-rotatably mounted upon the axle; a pinion mounted upon each vehicle wheel; a rotatable wheel-member loosely mounted upon each sleeve; a pinion carried by each sleeve and in mesh with the rotatable wheel-member; and means to reciprocate the sleeves longitudi-

nally of the axle to cause the pinions of the sleeves to make contact or non-contact with the pinions of the vehicle wheels.



2. A driving gear for the front wheels of vehicles, comprising, in combination with a non-rotatable axle; a pair of sleeves mounted non-rotatively upon the axle; a pinion mounted upon each vehicle wheel; vertically-disposed, rotatable wheel-members; one of said rotatable wheel-members having a bearing upon each sleeve; horizontally-disposed pinions; one of said pinions being mounted upon each sleeve and in mesh with a vertically-disposed wheel-member; means to cause sliding movements of the sleeves upon said axle, the horizontally-disposed pinions moving in alternation to engagement and disengagement with the pinions of the vehicle wheels; and means upon the vehicle for terminating the rotation of the vertically-disposed wheel-members.

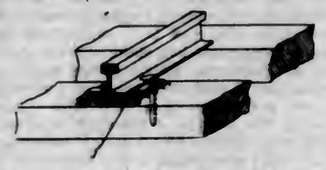
3. A driving gear for the purpose described, comprising, in combination with a non-rotatable axle provided with projections near its ends, and with vehicle wheels each provided with a pinion and loosely mounted upon the axle; sleeves upon the axle; an operating pinion mounted upon each sleeve; a rotatable member loosely mounted upon each sleeve and having a gear in contact with an operating pinion; said sleeves being adapted to have co-incident sliding movements in directions opposed to each other to cause their engagement with said projections, the operating pinions moving into engagement with the pinions of the vehicle wheels; said sleeves being adapted to have co-incident movements in directions toward each other, the operating pinions thereby being disengaged from the pinions of the vehicle wheels; and means upon the vehicle to terminate the movements of the rotatable members.

4. A driving gear for vehicles, comprising, in combination with a non-rotatable axle having projections formed thereon and with wheels normally rotatable upon said axles; a pinion mounted upon each vehicle wheel; sleeves non-rotatively mounted upon the axle; a vertically-disposed rotatable member upon each sleeve; an operating pinion supported by each sleeve and in mesh with the rotatable member thereof; said sleeves being movable in directions opposed to each other for engagement with the projections of the axle, the pinions upon the sleeves moving into engagement with the pinions of the vehicle wheels; and said sleeves being movable in directions of each other to cause disengagement of the pinions of the sleeves and the pinions of said vehicle wheels.

5. A driving gear for the front wheels of vehicles, comprising, in combination with a non-rotatable axle, and with a driving shaft provided with a gear; a differential gear; an intermediate gear between and adapted to engage the gear of the driving shaft for rotating the differential gear; a pair of sleeves non-rotatively mounted upon the axle; a pinion mounted upon each vehicle wheel; wheel-members having bearings upon the sleeves and adapted to be rotated by the differential gear; a pinion carried by each sleeve and in mesh with a wheel-member; means to reciprocate the sleeves longitudinally of the axle to cause the pinions of the sleeves to make contact or non-contact with the pinions of the vehicle wheels; and means upon the vehicle for disengaging the intermediate gear from the gear of the driving shaft.

[Claims 6 to 10 not printed in the Gazette.]

1,026,376. SHIM FOR RAILWAY-TIES. WILL W. WILLARD, Saginaw, Mich. Filed Aug. 7, 1911. Serial No. 642,661. (Cl. 238—2.)



1. As an article of manufacture, a shim for filling the clearance space between a railway tie and rail, comprising a substantially rectangular wooden body portion of a thickness to substantially fill the space between the top of the tie and the rail flange, said shim having one of its edges provided with a spike-receiving notch, the width of said notch being of substantially the width of a spike, the distance from the end of said notch to the opposite edge of the shim being subetantially equal to the width of the rail flange.

2. As an article of manufacture, a shim for filling the clearance space between a railway tie and rail, comprising a substantially rectangular wooden body portion of a thickness to substantially fill the space between the top of the tie and the rail flange and provided with a plurality of spike-receiving notches along one of its edges, said notches being of unequal length and of a width substantially equal to the width of a spike, each notch extending inwardly from said edge, the distance from the end of each notch to the opposite edge of the shim being substantially equal to the width of a corresponding rail flange.

3. As an article of manufacture, a shim for filling the clearance between a railway tie and rail, comprising a wooden body portion, the grain of which extends transversely thereof, said body portion being of a thickness to substantially fill the space between the top of the tie and the rail flange and of a width greater than the width of the rail flange, to form a spiking portion at one side of said flange, said spiking portion being provided with a plurality of spike-receiving notches of unequal length, each of said notches being of substantially the width of a spike extending inwardly from one end of the body portion of the shim, the distance from the end of each notch to the opposite end of the shim being substantially equal to the width of a corresponding rail flange.

4. As an article of manufacture, a shim for filling the clearance between a railway tie and rail, comprising a body portion formed of veneer, the grain of which extends transversely thereof, said body portion being of a thickness to substantially fill the space between the top of the tie and the rail flange and of a width greater than the width of the rail flange, said spiking portion being provided with a plurality of spike-receiving notches of unequal length and of substantially the width of a spike and extending inwardly from the sides of the body portion of the shim, the distance from the end of each notch to the opposite edge of the shim being substantially equal to the width of a corresponding rail flange.

1,026,377. RESISTANCE UNIT. LAWRENCE E. BARRINGER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 14, 1910. Serial No. 571,912. (Cl. 219—67.)

1. A resistance unit comprising a tubular insulating support having a metallic member enameled to the inner surface thereof and a resistance conductor enameled to the outer surface.

2. A resistance unit comprising a support of porcelain and metal enameled together and a resistance conductor enameled to the porcelain.

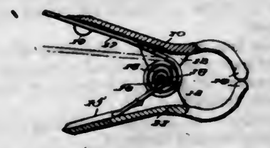
3. A resistance unit comprising a support composed of a porcelain tube having a metal tube enameled to the inner surface thereof and a resistance conductor enameled to the outer surface.

4. The process of making resistance units which consists in mounting a resistance conductor on an insulating support, coating the same with enamel, enameling a metallic member to the support and firing to unite the parts.



5. The process of making resistance units which consists in winding a resistance conductor on an insulating tube, coating the same with enamel, then coating a metallic member with enamel inserting it within the insulating tube, and firing the whole to cement the parts together.

1,026,378. COW-TAIL HOLDER. SYLVESTER C. BRADSLEY, Kirksville, Mo. Filed Dec. 20, 1910. Serial No. 598,365. (Cl. 119—105.)

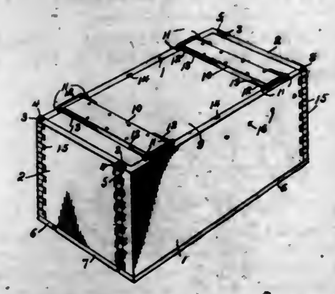


1. A cow tail holder comprising a pair of levers having registering gripping jaws upon one end and spaced handle portions at their opposite ends, one of said handle portions having inwardly directed stops spaced apart, a pin hingedly connecting the levers intermediate their ends, and a spring coiled around the pin between the levers and having its ends extended and bearing against the inner opposite faces of the handle portions with one of said extended spring ends therein between said stops and projecting in advance of the same.

2. A cow tail holder comprising a pair of levers having registering gripping jaws upon one end and spaced handle portions at their opposite ends and with inwardly directed perforated ears intermediate the ends of the levers, a pivot pin extending through said ears, stops extending inwardly from one of said handle portions, a spiral spring formed with relatively large outer helices and a relatively small inner helix closely engaging around the pin, one end of the spring being extended from its smaller inner helix and engaging with one of the handle portions and the other end of the spring extended from its larger outer helix and engaging the other handle portion and between the stops.

3. A cow tail holder comprising a pair of levers having registering gripping jaws upon one end and spaced handle portions at their opposite ends and with inwardly directed perforated ears intermediate the ends, a pivot pin extending through said ears, a spiral spring formed with relatively large outer helices and projecting into the space between the gripping jaws and the ears and a relatively small inner helix closely engaging around the pin, one end of the spring being extended from its smaller inner helix and engaging with one of the handle portions and the other end of the spring extended from its larger outer helix and engaging the other handle portion.

1,026,379. COLLAPSIBLE PACKING-CASE. FRANK F. BRADSHAW, Topeka, Kans., assignor of one-half to F. G. Thomas, Topeka, Kans. Filed Oct. 6, 1911. Serial No. 653,093. (Cl. 217—16.)



1. A collapsible packing case, having a body comprising two side members and two end members, two pairs of eyes mounted respectively in two oppositely disposed members of the body, a top member adapted to be removably fitted between the body members and having two laterally extending portions disposed respectively between said pairs of eyes, and two locking devices adapted to extend respectively across said two laterally extending portions and through said two pairs of eyes for releasably locking the top member to the body.

2. A collapsible packing case having a body comprising two side members and two end members, two pairs of eyes mounted respectively in two oppositely disposed members of the body, a top member adapted to be removably fitted between the body members and having a cleat which is adapted to rest upon said two oppositely disposed members and between said pairs of eyes opposite edges of the cleat having recesses, and two U shaped clips having inwardly extending ends and adapted to be removably mounted in said pairs of eyes respectively and when in the said positions respectively extending across said cleat and having their inwardly turned ends extending respectively into said recesses.

3. A collapsible packing case having a body comprising two side members and two end members hinged at their ends to the ends of the side members whereby the body may be collapsed or expanded, a top member adapted to be removably fitted between the body members for holding the body expanded, and means including a U shaped clip for locking the top member to the body when the body is expanded, the clip being adapted to embrace the body at opposite sides thereof to hold the body collapsed.

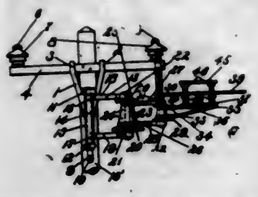
4. A collapsible packing case having a body comprising two side members and two end members hinged to the side members at their ends whereby the body may be expanded or collapsed, the outer sides of two oppositely disposed members of the body having recesses, a top member adapted to be removably fitted between the body members for holding the body expanded, the top member having a cleat adapted to rest upon the upper edge of the body, opposite edges of the cleat having recesses, two pairs of eyes in the body and disposed at opposite sides of the cleat, and two U shaped clips having inwardly turned ends and adapted to be mounted respectively in said two pairs of eyes and to extend across said cleat to hold the top member releasably on the body and in said positions having their inwardly turned ends disposed respectively in the recesses in the cleat, said clips being adapted to embrace said two oppositely disposed body members when the body is collapsed, the clips in the last named positions having their inwardly turned ends disposed in the recesses of said oppositely disposed members whereby the body is held collapsed.

5. A collapsible packing case having a body comprising two side members and two end members hinged at their ends to the ends of the side members, whereby the body may be expanded or collapsed, a top member adapted to be removably fitted between the body members for holding

the body expanded, the top member having a cleat adapted to rest upon the upper edge of the body, and means including two U shaped clips for releasably holding the cleat to the body.

[Claims 6 to 9 not printed in the Gazette.]

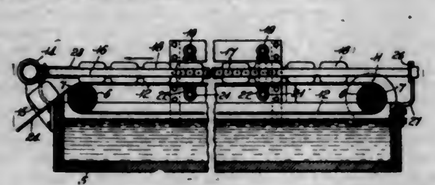
1,026,380. INSULATED PLATFORM. GEORGE L. BROOKS, Seattle, Wash. Filed July 11, 1910. Serial No. 571,500. (Cl. 20—84.)



1. In an insulated platform, a pole, a cross arm secured to said pole, a frame work secured to said cross arm and to said pole, a bracket secured to said framework and insulated therefrom, a pair of platforms supported by said bracket and insulated therefrom whereby said platforms are secured to and insulated from said pole.

2. In an insulated platform, a bracket constructed of insulating material, a platform supported thereby, a pole and a framework secured thereto adapted to support said bracket, and insulated supports securing said platform to said bracket whereby said platform may be insulated from said pole.

1,026,381. APPARATUS FOR CLEANING CANS. FRANCIS D. CLEVELAND, Winchester, Mass. Filed July 23, 1910. Serial No. 573,514. (Cl. 141—7.)



1. An apparatus for cleaning cans and the like having, in combination, a carrier for said cans consisting of an endless belt and a plurality of stationary parallel pipes extending longitudinally of and above said belt with orifices therein adapted to direct jets of water against cans located on said belt between said pipes, said pipes adapted to guide said cans as they are carried along by said belt.

2. An apparatus for cleaning cans and the like having, in combination, a carrier for said cans consisting of an endless perforated belt, a plurality of stationary parallel pipes constituting guides for said cans extending longitudinally of and above said carrier with orifices in the sides thereof adapted to direct jets of water against cans located on said belt between said pipes and a pipe located beneath said carrier with orifices therein adapted to direct jets of water through the orifices in said belt between said parallel pipes and against cans on the upper face of said belt between said guide pipes.

3. An apparatus for cleaning cans and the like having, in combination, a carrier for said cans consisting of a perforated endless belt, a plurality of stationary parallel pipes constituting guides for said cans extending longitudinally of and above said carrier with orifices in the sides thereof adapted to direct jets of water against cans located on said belt between said pipes, pipes located above and beneath said belt and extending transversely thereof, said pipes having orifices therein adapted to direct jets of water through the orifices in said belt between said parallel pipes and against cans on the upper face of said belt between said guide pipes.

4. An apparatus for cleaning cans and the like having, in combination, a carrier for said cans consisting of an endless belt, a main supply pipe extending transversely of said belt beyond one end thereof, a series of stationary pipes fast to said main supply pipe extending longitudinally of said belt, said pipes provided with orifices in their sides through which jets of water may be directed against cans located on said belt between said pipes, said pipes adapted to guide said cans as they are carried along by said belt, and a chute adjacent to one end of said belt extending downwardly at an angle therefrom beneath said main supply pipe.

1,026,382. METAL FILAMENT. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 9, 1906. Serial No. 316,005. (Cl. 176—132.)

1. The composition consisting of a cadmium-bismuth alloy containing metallic tungsten.

2. The composition consisting of a bismuth alloy containing refractory metal.

3. The composition consisting of a cadmium-bismuth alloy containing finely divided refractory metal.

4. A conductive pliant wire consisting of fine particles held together by a cadmium-bismuth alloy adapted to be converted into a refractory incandescent body by suitable heat treatment.

1,026,383. METAL FILAMENT. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed May 9, 1906. Serial No. 316,006. (Cl. 176—132.)

1. A ductile wire composed of an amalgam impregnated with finely divided refractory metal.

2. A conducting wire consisting of finely divided refractory metal the particles of which are cemented together with an amalgam.

3. The composition of matter consisting of a mixture of cadmium amalgam and a powdered refractory metal.

4. The composition of matter consisting of an amalgam impregnated with tungsten.

5. The composition of matter consisting of cadmium amalgam and finely divided tungsten.

[Claim 6 not printed in the Gazette.]

1,026,384. METAL FILAMENT. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 23, 1908. Serial No. 454,446. (Cl. 176—132.)

1. The method which consists in producing a ductile mixture containing a metallic binder, a finely divided refractory material, and a diluent capable of combining with one component of the binder, forming a body of desired shape therefrom, effecting chemical reaction between said diluent and said binder and then removing from said mixture all components except said highly refractory material.

2. The method which consists in forming wires containing a metallic binder, a highly refractory powder and a chemical compound, heating to cause reaction between said compound and one component of said binder, and subsequently heating to a higher temperature to drive from the wire all components except said highly refractory material.

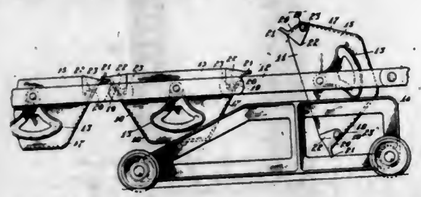
3. The method which consists in producing a wire containing a cadmium alloy, tungsten and cupric oxid, heating to effect oxidation of at least part of said cadmium, and subsequently heating to a higher temperature to successively drive out all easily vaporizable components.

4. The method which consists in forming a wire containing a metallic binder, a finely divided refractory material and a chemical compound capable of reacting with one component of said binder to produce a relatively staple material, heating to effect this chemical reaction and then heating to higher temperatures to remove from the wire all components except said highly refractory material.

5. A ductile wire consisting of a refractory powder, a chemical compound and a metallic binder, said compound being such that it will react chemically with one component of said binder to form a relatively stable material.

[Claims 6 to 17 not printed in the Gazette.]

1,026,385. CONVEYER-BUCKET. RAYMOND W. DULL, Aurora, Ill., assignor to Stephens-Adamson Manufacturing Company, a Corporation of Illinois. Filed Oct. 22, 1910. Serial No. 588,478. (Cl. 193—28.)



In a conveyer bucket, in combination, a tilting body having upright end walls and a sloping side wall of less height than the said end walls, trunnions mounted in alinement on the said end walls of the body adjacent the upper edge of the said sloping side wall, and an oscillatable plate of substantially L-shape in cross section mounted to swing on the said trunnions, one arm of the plate normally occupying the plane of the said sloping side wall to form a continuation of the same extending it to substantially the same height as the said end walls of the body and the other arm of the plate constituting an outstanding discharge lip.

1,026,386. EYEGLASSES. WILLIAM W. ESSICK, Reading, Pa. Filed Feb. 20, 1912. Serial No. 678,833. (Cl. 88—42.)



1. A post fitting for framed eye-glasses formed of a single piece of sheet metal comprising parallel side portions and a uniting eye-wire end portion, the opposite end of each of said side portions being formed with a seating recess and clenching projections.

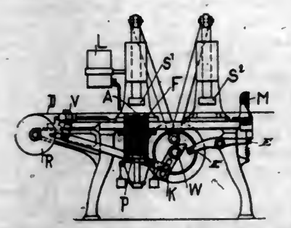
2. A post fitting for framed eye-glasses formed of a single piece of sheet metal comprising parallel side portions having inwardly flanged and abutting edges, and a uniting eye-wire end portion; the opposite end of each of said side portions being cut away between the extremities of said flanged edges to form a seating recess and a pair of clenching projections thereon.

3. In eye-glasses the combination of a pair of separately framed lenses; post fittings thereto each formed of a single piece of sheet metal comprising parallel side portions having the edges thereof inwardly flanged and abutting, a uniting end-plate rigidly secured to one of the framing eye-wires, and clenching projections at the opposite end of each of said side portions; and spring bow and nose guard pieces attached to the fittings by means of said clenching projections.

4. A post fitting for framed eye-glasses formed of a single piece of sheet metal comprising parallel side portions and a uniting eye-wire end portion, the opposite end of each of said side portions being formed with clenching projections.

1,026,387. MACHINE FOR MAKING ARTIFICIAL FOLIAGE. GEORG GUSTAV FOCKE, Dresden, Germany. Filed Jan. 9, 1911. Serial No. 601,698. (Cl. 41—3.)

1. A machine for making artificial foliage, comprising a reel for the wire, a wire-feed device, a guide-box for the blanks a glue-feeding device above the wire, a die for attaching the glue-covered wire to the blank, and a second die for stamping the blank into a leaf.



2. A machine for making artificial foliage, which comprises a feed-box for the blanks having inwardly projecting lugs at its upper end, a vertically reciprocating die above said feed-box, a wire-reel, means for intermittently feeding the wire to and over the blank, a glue-feeding device, and a second vertically-reciprocating die for pressing the blank into a leaf.

3. A machine for making artificial foliage, comprising a reel for the wire, a wire-feed device, a guide-box for the blanks, a glue-feeding device above the wire, a die for attaching the glue-covered wire to the blank, a second die for stamping the blank into a leaf, and an intermittently-actuated cutting device for cutting off the wire on the leaves so as to form stems for the same.

1,026,388. MAST FOR WIRELESS TELEGRAPHY. OTTO FRICKE, New York, N. Y. Filed Feb. 20, 1912. Serial No. 678,758. (Cl. 178—319.)

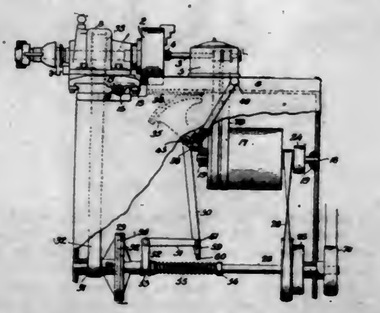


1. A mast for wireless telegraph stations, comprising a main or foundation-mast, and a counterbalanced auxiliary or pendulum-mast supported on the apex of the main-mast.

2. A mast for wireless telegraph stations, comprising a main or foundation-mast having a terminal bearing at its apex, and an auxiliary or pendulum-mast supported on said terminal bearing and being provided with downwardly-extending arms having counter-balancing weights at their lower ends.

3. A mast for wireless telegraph stations, comprising a main or foundation-mast, having a concave bearing at its apex, and an auxiliary or pendulum-mast having a rounded off lower end supported on said concave bearing, said pendulum-mast being provided with outwardly-inclined downwardly-extending arms having counter-balancing weights at their lower ends.

1,026,389. HOLE-GRINDING MACHINE. GEORGE K. GARVIN and EDWARD J. MCCLELLAN, New York, N. Y., assignors to The Garvin Machine Company, a Corporation of New York. Filed Aug. 11, 1911. Serial No. 643,487. (Cl. 51—4.)



1. In a machine of the class described, a chuck spindle, a grinding spindle, a transversely adjustable head-stock for said chuck spindle, a longitudinally movable carriage for said grinding spindle, and means for stopping the rotation of the chuck spindle when said carriage is moved beyond a predetermined range.

2. In a machine of the class described, a chuck spindle, a grinding spindle, a swiveled and transversely adjustable head stock for said chuck spindle, a longitudinally movable carriage for said grinding spindle, and means for stopping the rotation of said chuck spindle when the said carriage is moved beyond a predetermined range.

3. In a machine of the class described, a chuck spindle, a grinding spindle, an adjustable head-stock for said chuck spindle, a constantly rotating drum beneath said grinding spindle and belted thereto, said drum having a peripheral length equal to the travel of the carriage and a longitudinally movable carriage having bearings for said grinding spindle.

4. In a machine of the class described, a chuck spindle, a grinding spindle, a carriage for said grinding spindle, a hand-lever connected to reciprocate said carriage longitudinally, and means operated by a movement of the said hand-lever beyond a predetermined range for stopping the rotation of said chuck spindle.

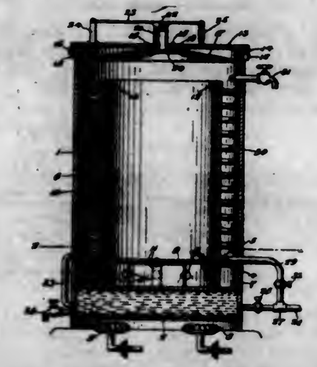
5. In a machine of the class described, a chuck spindle, driving connections therefor including a clutch, a grinding spindle, a hand-lever for moving said grinding spindle longitudinally, and means including a slotted link connection for throwing out said clutch when said hand-lever is moved beyond a predetermined range.

[Claims 6 and 7 not printed in the Gazette.]

1,026,390. STEAMER. SAMUEL B. GOFF, Camden, N. J. Filed Jan. 19, 1912. Serial No. 672,141. (Cl. 53—2.)

1. An apparatus of the character described, comprising a tank, an internal annular flange in said tank at a point removed from the bottom thereof, a casing smaller than the tank, a flange around the outside of said casing, supported on said first-mentioned flange, said casing having perforations in its sides below the flange, a receptacle fitting within the casing and having a perforated bottom, and feet secured to said bottom and spacing it from the casing above the perforations in the latter, substantially as described.

2. An apparatus of the character described, comprising a tank, an internal annular flange in said tank at a point removed from the bottom thereof, a casing smaller than the tank, a flange around the outside of said casing, supported on said first-mentioned flange, said casing having perforations in its sides below the flange, a receptacle fitting within the casing and having a perforated bottom, feet secured to said bottom and spacing it from the casing above the perforations in the latter, a cover on said tank, a disk secured to the under face of the cover and larger in diameter than the casing, a pipe connecting the tank above and below the internal flange therein, substantially as described.



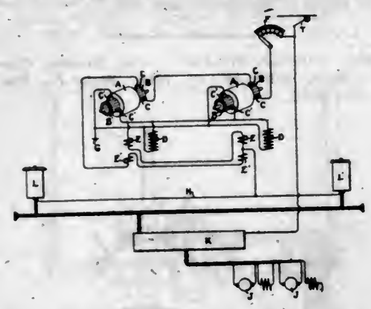
3. An apparatus of the character described, comprising a tank, an internal annular flange in said tank at a point removed from the bottom thereof, a casing smaller than the tank, a flange around the outside of said casing, supported on said first-mentioned flange, said casing having perforations in its sides below the flange, a receptacle fitting within the casing and having a perforated bottom, feet secured to said bottom and spacing it from the casing above the perforations in the latter, a cover on said tank, a disk secured to the under face of the cover and larger in diameter than the casing, a pipe connecting the tank above and below the internal flange therein, said disk and cover having central openings, a tube secured in said central openings, a bracket on the cover, a lever pivoted at one end to the bracket, a valve on said lever engaging the upper end of the tube, and means for exerting downward pressure on the free end of said lever, substantially as described.

4. An apparatus of the character described, comprising a tank, an internal annular flange in said tank at a point removed from the bottom thereof, a casing smaller than the tank, a flange around the outside of said casing, supported on said first-mentioned flange, said casing having perforations in its sides below the flange, a receptacle fitting within the casing and having a perforated bottom, and feet secured to said bottom and spacing it from the casing above the perforations in the latter, a water pipe communicating with the lower end of said tank, a T-coupling in said pipe, a valve between the T-coupling and the tank, a cover on said tank, a disk secured to the under face of the cover and larger in diameter than the casing, a coil in the tank around the receptacle and in line with the outer edge of said disk, a pipe connecting the lower end of said coil with said T-coupling, a valve in said last-mentioned pipe, and a spigot outside of the tank and communicating with the upper end of the coil, substantially as described.

5. An apparatus of the character described, comprising a tank, an internal annular flange in said tank at a point removed from the bottom thereof, a casing smaller than the tank a flange around the outside of said casing, supported on said first-mentioned flange, said casing having perforations in its sides below the flange, a receptacle fitting within the casing and having a perforated bottom, feet secured to said bottom and spacing it from the casing above the perforations in the latter, a cover on said tank, a disk secured to the under face of the cover and larger in diameter than the casing, a pipe connecting the tank above and below the internal flange therein, a water pipe communicating with the lower end of said tank, a T-coupling in said pipe, a valve between the T-coupling and the tank, a coil in the tank around the receptacle and in line with the outer edge of said disk, a pipe connecting the lower end of said coil with said T-coupling, a valve in said last-mentioned pipe, and a spigot outside of the tank and communicating with the upper end of the coil, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,026,391. VOLTAGE TRANSFORMATION. MAX R. HANNA, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Nov. 23, 1911. Serial No. 661,954. (Cl. 171—97.)



1. In combination, a high voltage supply circuit, a low voltage load circuit, and a plurality of direct current rotary transformers, each having a motor winding and a generator winding, said generator windings being connected in parallel across said load circuit, said motor windings being connected, in series with each other and in series with said generator windings in parallel, across said supply circuit.

2. In combination, a high voltage circuit, a low voltage circuit, and two direct current rotary transformers, each having two armature windings provided with commutators, one armature winding of one rotary transformer being connected in parallel with an armature winding of the other rotary transformer across said low voltage circuit, the other armature windings being connected, in series with each other and in series with said windings in parallel, across said high voltage circuit.

3. In combination, a supply circuit, a load circuit, and two direct current rotary transformers, each having a motor armature winding, a generator armature winding, a field winding supplying the normal excitation of the transformer and two series field windings, said generator armature windings being connected in parallel and in series with one series field winding of each rotary transformer across the load circuit, said motor windings being connected, in series with each other, the other series field windings in series, the first mentioned series field windings in series and in series with the generator armature windings in parallel, across said supply circuit, said series field windings of each rotary transformer normally opposing and neutralizing each other.

1,026,392. INCANDESCENT-LAMP FILAMENT. CHARLES A. HANSEN, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 8, 1908. Serial No. 425,814. (Cl. 176—132.)

1. The method of filament manufacture which consists in forming threads consisting of a mixture of powdered refractory conductive material with a binder composed essentially of a gelatinous oxalate of a metal having a stable refractory oxid, and subsequently heating said threads to convert the oxalate into the oxid and to consolidate the materials into a coherent conductor.

2. The method of filament manufacture which consists in forming threads consisting of refractory metal powder held together by a binder composed essentially of a gelatinous oxalate decomposable to yield a refractory oxid, and heating said threads in an inert environment to convert the oxalate into oxid and to consolidate and sinter the refractory metal.

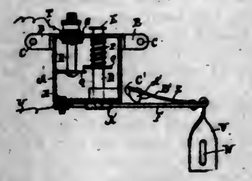
3. The method of filament manufacture which consists in forming threads consisting of refractory powder held together by a binder composed essentially of zirconium oxalate, and subsequently treating these threads to convert them into homogeneous conductors containing zirconium oxid mixed with refractory material.

4. The method of filament manufacture which consists in forming threads consisting of tungsten powder with a binder composed essentially of zirconium oxalate, and subsequently treating said threads to convert them into homogeneous conductors containing zirconium oxid mixed with refractory oxid.

5. A squirting mixture for the production of lamp filaments, consisting of powdered refractory material and a binder composed essentially of a metal oxalate decomposable to produce a stable refractory oxid.

[Claims 6 to 8 not printed in the Gazette.]

1,026,393. BURGLAR AND FIRE ALARM. JAMES HARTLEY, Philadelphia, Pa. Filed Apr. 20, 1911. Serial No. 622,280. (Cl. 177—202.)



1. The herein described combination of a casing, a plunger fitted to slide therein, a spring adapted to force said plunger downward, and means for holding the plunger against the action of the spring, consisting of a pivoted retaining lever, and a clip carrying a plate mounted in the under-side of said lever said plate underlying the plunger.

2. In combination, a casing, a plunger fitted to slide therein, a spring adapted to force said plunger downward, a retaining lever provided with an aperture through which the plunger may pass pivoted to the casing, and a clip having a plate soldered to the under-side thereof, said clip adapted to engage the lever, whereby the plate may rest beneath the aperture to underlie the plunger.

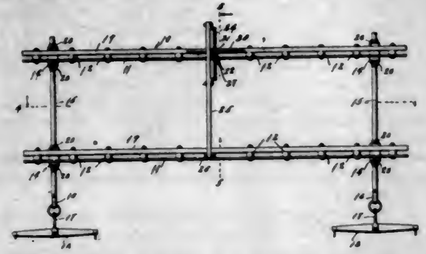
3. In combination, a casing provided with a spring actuated plunger, a retaining lever pivoted to said casing and provided with an aperture through which the plunger may pass, a clip adapted to engage said lever in proximity to the aperture, and a plate soldered to the clip on the outside thereof adapted to rest beneath the aperture and underlying the plunger.

4. In combination, a casing provided with a spring actuated plunger, a retaining lever pivoted to said casing and provided with an aperture, a clip provided with an aperture and having a portion thereof bent upon itself to form a chamber for engagement with the retaining lever, and a plate soldered to said clip on the outside thereof across the aperture thereof.

5. The herein described combination of a casing, a plunger fitted to slide therein, a spring adapted to force said plunger in one direction, a contact device carried by said plunger, a second contact device supported by the casing, a retaining lever having an aperture therein through which the plunger may pass and carrying means for engagement with the door, and a clip carrying a plate held in place on the outside of said clip by soft solder and adapted to support the plunger against the action of the spring.

[Claim 6 not printed in the Gazette.]

1,026,394. LEVER-HARROW. ATHOL B. HAYS, Wolf Butte, N. D., assignor of one-half to Frank A. Hays, Wolf Butte, N. D. Filed Sept. 23, 1910. Serial No. 583,476. (Cl. 55—103.)

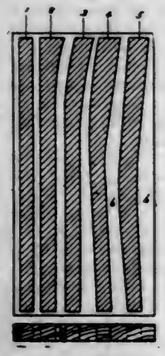


1. In a harrow, a plurality of rotatable bars, a plurality of teeth pivotally connected to said bars, and a lever capable of movement in a plurality of directions for laterally adjusting said teeth relative to the line of draft of the harrow and for rotating said bars.

2. In a harrow, spaced parallel bars, bearings supported by said bars, rotatable bars journaled in said bearings transversely of the first named bars, a series of harrow teeth pivotally supported by the last named bars, adjustable bars arranged at right angles to each other and connected with the said teeth and rotatable bars respectively, and a lever capable of movement in a plurality of directions for independently adjusting said adjusting bars.

3. In a harrow, spaced parallel bars, bearings carried by said bars, a pair of tooth supporting bars rotatably mounted in the bearings transversely of the parallel bars, a series of harrow teeth pivoted to each of the transverse bars, a second pair of transverse bars disposed above the first named transverse bars respectively and to which the upper ends of the corresponding harrow teeth are pivoted, a link pivoted to the upper bars, a notch segment carried by the link, a lever pivoted to one of the rotatable bars in proximity to the segment and to an upper transverse bar, a latch carried by the lever in coöperative relation to the notch segment, a second notch segment carried by the link and disposed in proximity to the lever and a second latch carried by the lever in coöperative relation to the second notch segment.

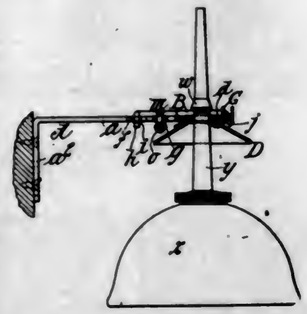
1,026,395. METHOD OF MAKING BULGE-PANELS FOR FURNITURE. JOHN HERZOG, Saginaw, Mich. Filed Sept. 19, 1911. Serial No. 650,136. (Cl. 144—309.)



1. The herein described method of producing bulge panels, consisting in first producing a plurality of shaped strips; second, gluing said strips together side by side to form a stepped core of irregular surface contour; third, removing the surplus material from the face of the core; fourth, preparing two warped sheets of veneer, each of approximately the contour of half the bulge panel; fifth, fitting the ends of said pieces of veneer together to form a veneer shell of approximately the contour of the face of said core; and sixth, gluing said veneer shell to the face of said core.

2. The herein described method of producing bulge panels, consisting in first producing a plurality of shaped strips; second, fastening said strips together side by side to form a core of irregular surface contour; 3rd, removing the surplus material from the face of the core; 4th, preparing a bulged sheet of veneer of approximately the contour of the bulge panel; 5th, securing said bulged sheet of veneer to the face of said core.

1,026,396. OIL-CAN HOLDER. AMOS HUTTON, Chicopee Falls, Mass. Filed Apr. 21, 1910. Serial No. 556,864. (Cl. 221—53.)



1. In an oil can holder, in combination, a supporting bar having a recess vertically therethrough and having a forwardly extending projection at the middle of its front end portion, a pair of jaws on said support, pivotally connected with the latter, having intermediate portions of their edges extending in adjacent relations across said recess, and having downturned forward extremities, making shoulders for engaging against said forwardly extending projection of the bar, and a spring connected to both of said jaws for forcing them yieldingly to closed relations.

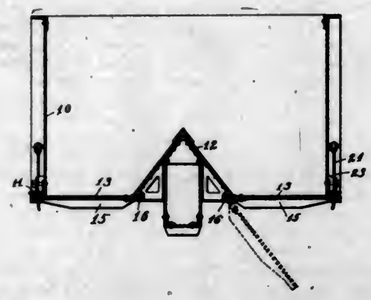
2. In an oil can holder, in combination, a supporting bar having a recess vertically therethrough, a pair of jaws pivotally mounted on the upper side of said bar, having intermediate portions of their edges extending in adjacent relations across said recess and having downturned and rearwardly continued forward extremities for engaging the front end portion of the bar, and preventing the uplifting of the jaws relatively thereto, and a spring for forcing the jaws to their closed relation.

3. In an oil can holder, in combination, a supporting bar, a pair of jaws pivotally supported by said bar and having angularly turned ear lugs extending across the opposite edges of the bar, and a spiral spring the ends of which are connected to said ear lugs.

4. In an oil can holder, in combination, a supporting bar or plate having a pair of elongated slots vertically therethrough, a pair of jaws made in the form of bars having angularly turned neck provided lugs engaged with said slotted portions of the supporting plate, and a spiral spring having its end connected with said jaws for yieldingly holding the latter in closed relation.

5. In a device of the character described, in combination, a supporting bar or plate having a forward extension at the middle of its end portion, having a vertical aperture slightly to the rear thereof, having a pair of elongated slots in a further rearwardly located portion thereof, and having opposite edge recesses between said slots and the said aperture, a pair of jaws having at their rear ends downwardly turned necked lugs engaged through said slotted portions of the plate, said jaws having at their intermediate portions downwardly turned ear lugs extending into and through the opposite edge recesses of the plate, and also having portions toward their forward ends extending in proximity longitudinally across the first named aperture of the plate, and having downturned and rearwardly extended forward extremities for engaging the front end portion of the plate at opposite sides of the aforesaid forward extension of the latter, and a spiral spring having its end connected to the intermediately located downwardly turned ear lugs of both of said jaws.

1,026,397. DUMP-CAR. FRANK S. INGOLDSBY, St. Louis, Mo., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo., a Corporation of West Virginia. Filed July 2, 1907. Serial No. 381,902. (Cl. 105—14.)



1. The combination, in a dump car, of a load supporting door having a surface with an opening through it and a floor beam on its under side adjacent to such opening and a supporting member adapted to extend through the opening and engage the floor beam to hold the door, said means being movable to release the floor beam and door.

2. In a dump car, the combination with a car side, of a hinged door having its free edge coöperating with such side and having an opening near such side, and a supporting hook carried by the car side on its outer side and adapted to extend through such opening.

3. The combination, in a dump car, of a car side, a hinged door having a load supporting surface with an opening through it and a floor beam on its under side adjacent to such opening, and a supporting member carried by the car side and adapted to extend through the opening and engage the floor beam or be moved in the opening to free the floor beam.

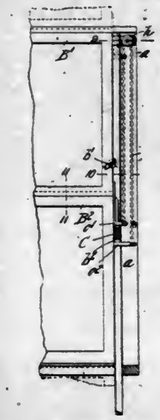
4. In a dump car, the combination of a car side having a plate with a comparatively narrow lower edge, a dumping door adapted to engage such edge, and means carried outside of such edge for supporting the door.

5. In a dump car, the combination with a car side having a lower chord and a narrow plate extending lower than such chord, a dumping door having a load supporting surface adapted to extend beneath and engage the lower edge of such plate, and supporting hooks carried by the car side and adapted to extend through openings in the door surface beyond such narrow plate.

[Claims 6 to 14 not printed in the Gazette.]

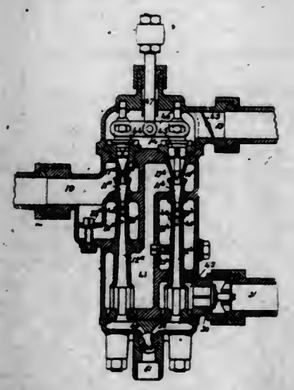
1,026,398. BALANCE WINDOW-SASH. HERBERT KNOX, Warehouse Point, Conn. Filed Dec. 19, 1911. Serial No. 666,669. (Cl. 16—116.)

1. The combination with upper and lower sashes of a window casing having the vertical wall thereof made with guideways for the edge portions of the sashes, having vertical slots therethrough in lines with the sashes and having at an upper part thereof a mortise therethrough, a bracket extending through said mortise and outwardly beyond said wall, comprising an attachment plate secured to the inner face of said wall marginally of the mortise and having in its portion which is extended through and beyond the wall a pulley, studs on the respective sashes extending through adjacent slots, and a flexible connection having an intermediate portion thereof in running engagement around the pulley and having its opposite depending ends secured to the studs of the separate sashes.



2. In combination, a window casing having an edge wall dividing the sash opening at one side from a vertical pocket at the other side, upper and lower sashes vertically movable in parallel planes and said window casing wall having a vertical parting bead groove, and having slots in vertical parallel lines coincident with the planes of the sashes and provided with a mortise therethrough at a location below the top of the sash opening, an attachment plate secured within the inner face of said window casing wall and provided with a bracket extending through and beyond the mortise and having a pulley rotatable in a plane at right angles to the faces of the sash, a parting bead in said groove and covering the said attachment plate, studs on the respective sashes and extending through the edgewise adjacent slots and a flexible connection in running engagement around said pulley and having its opposite depending ends secured to said studs.

1,026,399. INJECTOR. ERNST KOERTING, Pegli, near Genoa, Italy, assignor to Schutte & Koerting Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 19, 1910. Serial No. 538,869. (Cl. 162—0.)



1. An injector having a mixing couple for steam and water comprising a nozzle and a converging combining tube and having an inlet for admitting secondary water

to the injector tube beyond the critical part of the injector tube, or part of smallest cross-section.

2. An injector having a mixing couple for steam and water comprising a nozzle and a converging combining tube and having an inlet for admitting secondary water to the injector tube beyond the point where the combining tube of the mixing couple for steam and water reaches its smallest cross-section.

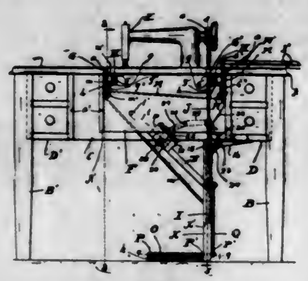
3. An injector having a mixing couple for steam and water comprising a nozzle and a converging combining tube and having an inlet for admitting secondary water to the injector tube beyond the point where the combining tube of the mixing couple for steam and water reaches its smallest cross-section, and a check valve for controlling the supply passage leading to said inlet.

4. An injector having a mixing couple for steam and water comprising a nozzle and a converging combining tube and having the steam inlet of the mixing couple for steam and water of a size to admit steam in sufficient quantity to impel the water with a velocity in excess of that required to overcome the counterpressure, and having an inlet for admitting secondary water to the injector tube beyond the point where the combining tube of the mixing couple for steam and water reaches its smallest cross-section.

5. In an injector, the combination of a mixing couple for steam and water having a converging combining tube and having the steam inlet of a size to admit steam in sufficient quantity to impel the water with a velocity in excess of that required to overcome the counterpressure, an inlet for admitting secondary water to the injector tube beyond the point where the combining tube of the mixing couple for steam and water reaches its smallest cross-section, and means for regulating the steam supply.

[Claims 6 to 23 not printed in the Gazette.]

1,026,400. SEWING-MACHINE TABLE. THEODOR KUNDTZ, Lakewood, and ALBERT SCHUSTER, Cleveland, Ohio; said Schuster assignor to said Kundtz. Filed June 9, 1910. Serial No. 565,982. (Cl. 45—27.)



1. The combination, with the stationary portion of a sewing-machine table, which portion is adapted to rest on the floor and comprises a table-top which is provided with an opening extending vertically therethrough, and a platform for carrying a sewing-machine head, which platform is pivotally connected to the stationary portion of the table and arranged to swing in a vertical plane, said platform being within the aforesaid opening in its upper position, of two cables connected to the platform adjacent opposite side edges respectively of the platform at points spaced from the axis of the platform; a movable stand employed in carrying the treadle and the driving-wheel of a sewing-machine and arranged under the table-top, which stand is operatively connected with said cables and rests on the floor, or has been elevated from the floor, according as the platform is in its upper or lower position, and guide-sheaves for said cables, said sheaves being supported from the stationary portion of the table and arranged externally of the sweep and spaced from the axis of the platform.

2. The combination, with the stationary portion of a sewing-machine table, which portion is adapted to rest on the floor and comprises a table-top which is provided with an opening extending vertically therethrough, and a platform for carrying a sewing-machine head, which platform is pivotally connected to the stationary portion of the table at the front of said opening and arranged to swing in a vertical plane, said platform being within the aforesaid opening in its upper position, of two cables connected to the platform adjacent opposite side edges respectively of the platform and rearwardly of the axis of the platform; a movable stand employed in carrying the treadle and the driving-wheel of a sewing-machine and arranged under the table-top, which stand is operatively connected with said cables and rests on the floor, or has been elevated from the floor, according as the platform is in its upper or lower position, and guide-sheaves for said cables, said sheaves being supported rearwardly of the axis of the platform from the stationary portion of the table and arranged externally of the sweep of the platform.

3. The combination, with the stationary portion of a sewing-machine, which portion is adapted to rest on the floor and comprises a table-top which is provided with an opening extending vertically therethrough, of a stand pivotally connected to the stationary portion under the right-hand end-portion of the table-top, said stand being in an upright position, or having been swung upwardly to the left from the floor, according as the stand is in the one or the other of its extreme positions; a platform for carrying a sewing-machine head, which platform is pivotally supported from the stationary portion of the table at the front of the aforesaid opening and arranged to swing in a vertical plane, said platform being in its upper or lower position according as the aforesaid stand is in its upright or inwardly swung position; two guide-sheaves arranged under and spaced longitudinally and a suitable distance rearwardly of the axis of the platform and having their axes substantially parallel with the said axis, which sheaves are supported from the stationary portion of the table and arranged externally of the sweep of the platform; two guide-sheaves arranged below the first-mentioned sheaves and spaced longitudinally of the said axis and having their axes substantially parallel with the axis of the stand, and two cables connected to the platform forward of the upper sheaves and to the stand, one of said cables being guided by the right-hand upper sheave and both lower sheaves, and the other cable being guided by the left-hand upper sheave and by the left-hand lower sheave.

4. The combination, with the stationary portion of a sewing-machine table, which portion is adapted to rest on the floor and comprises a table-top which is provided with an opening extending vertically therethrough, and a platform for carrying a sewing-machine head, which platform is pivotally connected to the stationary portion of the table and arranged to swing in a vertical plane, said platform being within the aforesaid opening in its upper position, of a movable stand employed in carrying the driving-wheel of a sewing-machine and arranged under the table-top, which stand is operatively connected with the platform and rests on the floor, or has been elevated from the floor, according as the platform is in its upper or lower position, said stand having a member for supporting a treadle, and a treadle carried by said member of the stand and occupying the same position relative to said member in either extreme position of the stand.

1,026,401. CONDUCTIVE FILAMENT. HOWARD LYON, Gloucester City, N. J., assignor to Welsbach Light Company, a Corporation of New Jersey. Filed Oct. 3, 1910. Serial No. 584,967. (Cl. 23—28.)

1. A conductive filament for igniters composed of a refractory metallic core and a sheath consisting of material having a catalytic action upon illuminating gas.

2. A conductive filament for igniters, incandescent lamps and the like, composed of a refractory metallic core and a sheath containing a metal of the platinum group.

3. A conductive filament for igniters, incandescent lamps and the like, composed of a core of tantalum and a sheath containing a metal of the platinum group.

4. A conductive filament for igniters composed of a core of tantalum and a sheath consisting of material having a catalytic action upon illuminating gas, substantially as set forth.

1,026,402. ANCHOR. WILLIAM MARSHALL and NEWTON SIMISON, Des Moines, Iowa. Filed Apr. 27, 1911. Serial No. 623,651. (Cl. 189—92.)



1. In a device of the class described, a base plate designed to be placed at the bottom of a hole of slightly larger diameter than said plate, anchor plates slidingly received in said base plate, a V shaped wedge, the apex of which is slidingly received in the said base plate at right angles to the surface thereof and engaging the inner edges of said anchor plates.

2. In a device of the class described, a base plate designed to be placed at the bottom of a hole of slightly larger diameter than said plate, anchor plates slidingly received in said base plate, a V shaped wedge, the apex of which is slidingly received in the said base plate at right angles to the surface thereof and engaging the inner edges of said anchor plates, means for driving said wedge downwardly and thus forcing said anchor plates laterally into the ground.

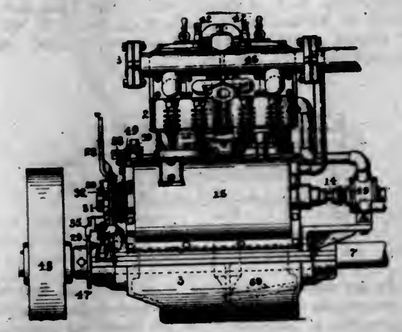
3. In a device of the class described, a base plate designed to rest in the bottom of a hole, said plate being constructed with a central opening with a solid central portion around said opening and with slots on opposite sides of said opening designed to receive the points of a slotted V shaped wedge, a V shaped wedge slotted from its apex to a point spaced apart from its base, the apex of said wedge being slidingly received in the slots in said base plate with the solid central portion of said base plate received in the slot in said wedge, anchor plates slidingly received in said base plate, each of said anchor plates being slotted on its side adjacent to said wedge to slidingly receive the same, when said anchor plates are received in the base plate.

4. In a device of the class described, a base plate designed to rest in the bottom of a hole, said plate being constructed with a central opening, and with a solid central portion around said opening and with slots on opposite sides of said opening designed to receive the points of a slotted V shaped wedge, a V shaped wedge slotted from its apex to a point spaced apart from its base, and constructed with a central opening in its base extending to said slot, the apex of said wedge being slidingly received in the slots in said base plate with the solid central portion of said base plate received in the slot in said wedge, anchor plates slidingly received in said base plate, each of said anchor plates being slotted on its side adjacent to said wedge to slidingly receive the same, means for driving said wedge downwardly to spread said anchor plates apart.

5. In a device of the class described, a base plate designed to rest in the bottom of a hole, said plate being constructed with a central opening, and with a solid central portion around said opening and with slots on opposite sides of said opening designed to receive the points of a slotted V shaped wedge, a V shaped wedge slotted from its apex to a point spaced apart from its base, and constructed with a central opening in its base extending to said slot, the apex of said wedge being slidingly received in the slots in said base plate with the solid central portion of said base plate received in the slot in said wedge, anchor plates slidingly received in said base plate, each of said anchor plates being slotted on its side adjacent to said wedge to slidingly receive the same, means for driving said wedge downwardly to spread said anchor plates apart, and means for withdrawing said wedge block from said base plate after said anchor plates have been driven into the ground.

[Claims 6 and 7 not printed in the Gazette.]

1,026,403. EXPLOSIVE-ENGINE. ROBERT MCKEE, Philadelphia, Pa. Filed Mar. 5, 1908. Serial No. 419,263. (Cl. 123—41.)



1. In an explosive engine having a crank shaft, a valved inlet for the explosive gases, a valved exhaust for escape of the gases, a cam to operate the exhaust valve, means for operating the cam from the crank shaft, automatic means for advancing the lead of the cam relatively to the crank shaft at the moment of reversing, and means for continuously maintaining the rotation of the cam in the same direction before and while reversing and after reversing the direction of rotation of the crank shaft.

2. In an explosive engine having a crank shaft, a valved inlet for the explosive gases, a valved exhaust for escape of the gases, a rotating cam to operate the exhaust valve, means for operating the cam from the crank shaft consisting of a rotating shaft, automatic means for advancing the lead of the cam relatively to the crank shaft at the moment of reversing, and automatic means for continuously maintaining the rotation of the cam in the same direction before and while reversing and after reversing the direction of rotation of the crank shaft.

3. In an explosive engine having a crank shaft, a valved inlet for the explosive gases, a valved exhaust for escape of the gases, a rotating cam to operate the exhaust valve, means for operating the cam from the crank shaft consisting of a rotating shaft and automatic means for continuously maintaining the rotation of the cam in the same direction before and while reversing and after reversing the direction of rotation of the crank shaft, and automatic means for advancing the circumferential position of the cam relatively to the cranks exactly at the moment of reversing the direction of rotation of the crank shaft.

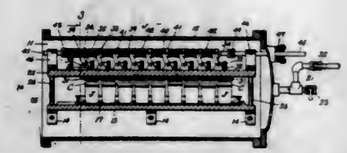
4. In an explosive engine having a crank shaft, a valved inlet for the explosive gases, a valved exhaust for escape of the gases, a rotating cam to operate the exhaust valve, means for operating the cam from the crank shaft consisting of a rotating shaft, means for maintaining the same direction of rotation of the cam while reversing the di-

rection of rotation of the crank shaft, means for advancing the circumferential position of the cam relatively to the cranks at the moment of reversing the crank shaft, and means for automatically retarding the time of ignition at the time of advancing the circumferential position of the cam.

5. In an explosive engine having a crank shaft, a valved inlet for the explosive gases, a valved exhaust for escape of the gases, a rotating cam to operate the exhaust valve, means for operating the cam from the crank shaft consisting of a rotating shaft and means for continuously maintaining the same direction of rotation of the cam before and while reversing and after reversing the direction of rotation of the crank shaft, and means for advancing the circumferential position of the cam relatively to the cranks at the exact moment of reversing the direction of rotation of the crank shaft and under the control of the crank shaft.

[Claims 6 to 17 not printed in the Gazette.]

1,026,404. HERMETIC-SEALING APPARATUS. JOSEPH MERRITT, Hartford, Conn., assignor, by mesne assignments, of one-half to Beech-Nut Packing Company, Canajoharie, N. Y., a Corporation of New York, and one-fourth to William A. Lorenz and one-fourth to William H. Honiss, Hartford, Conn. Filed Mar. 5, 1906. Serial No. 304,399. (Cl. 220—97.)



1. In jar sealing apparatus, a plurality of individual jar pressers, an operating member, devices for translating the direction of pressure from the operating member to the jar pressers, and springs for distributing and substantially equalizing the pressure transmitted to the said individual pressers.

2. In jar sealing apparatus, a plurality of individual jar pressers, an operating member common to the plurality of pressers, a direction translating device interposed between the said operating member and each of its individual pressers, and springs for distributing and substantially equalizing the pressure transmitted to the said pressers.

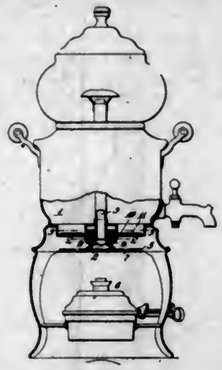
3. In jar sealing apparatus, a plurality of individual jar pressers, means for guiding the movement of the pressers, an operating member movable at an angle with the movement of the pressers, direction translating devices interposed between the operating member and the individual pressers, and an equalizing spring interposed between each presser and its operating member, for distributing and substantially equalizing the pressure transmitted to the pressers.

4. In jar sealing apparatus, the combination of a jar chamber, a series of independently movable jar pressers, means for guiding the movement of the pressers, an operating member for the said series of pressers, movable in a direction at an angle with the movement of the pressers, direction translating devices interposed between the said operating member and its individual pressers, and equalizing springs between the operating member and the respective pressers for distributing and substantially equalizing the pressure transmitted to the said pressers.

5. In jar sealing apparatus, the combination of a jar chamber, a set of independently movable individual jar-pressers, means for guiding the pressers, an operating bar, a set of equalizing springs carried on the bar, and connecting means for transmitting the substantially equalized movement of the springs to the pressers.

[Claims 6 to 11 not printed in the Gazette.]

1,026,405. COFFEE-MACHINE. CHARLES NELSON, New York, N. Y., and HARRY J. AXT, Newark, N. J., assignors to S. Sternau & Co., Brooklyn, N. Y., a Copartnership. Filed Sept. 8, 1909. Serial No. 516,646. (Cl. 53—3.)

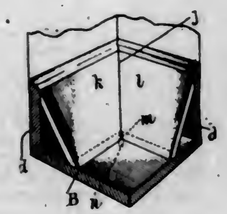


1. In a coffee machine, the combination with a receptacle and a heating chamber, of less diameter than the receptacle, secured to the bottom thereof and communicating therewith, of a plate secured to the bottom of the chamber, said plate being of greater diameter than the chamber, and perforations in the plate beyond the sides of the chamber.

2. In a coffee machine the combination with the receptacle, chamber and lamp, of a plate connected with the chamber above the lamp and extending below the bottom of the receptacle, said plate having a row of circularly disposed holes therethrough.

3. A coffee machine having a receptacle, with a sleeve in the bottom thereof, said bottom having radiating corrugations, which extend from the sleeve to the periphery of the bottom in combination with a chamber depending from the sleeve.

1,026,406. ARRANGEMENT FOR INCLOSING VACUUM CONDUIT SYSTEMS. CHARLES W. NICHOLS, Rahway, N. J. Filed July 20, 1909. Serial No. 508,629. (Cl. 20—1.)



1. In an arrangement for inclosing conduit systems for vacuum cleaners a corner fitting consisting of two sections of sheathing having their adjoining ends mitered and joined permanently, the upper and lower edges of each of said sections being beveled to conform to the surbase and the flooring at the corner of a room and means alined with the miter joint whereby the fitting may be set relative to the floor and said surbase.

2. In an arrangement for inclosing conduit systems for vacuum cleaners a corner fitting consisting of two sections of sheathing having their adjoining ends mitered and joined permanently, the upper and lower edges of each of said sections being beveled to conform to the surbase and the flooring at the corner of a room, said flooring having a dowel hole bored therein projecting downwardly and at an angle toward the base board, and a dowel pin mounted on the lower beveled edge of said fitting and adapted to enter said dowel bore whereby said fitting will be forced toward said surbase.

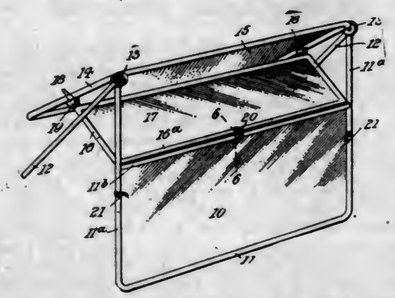
1,026,407. FOOTWEAR. NATHAN M. RUTHSTEIN, Racine, Wis., assignor to Steel Shoe Company, Racine, Wis., a Corporation of Wisconsin. Filed Dec. 21, 1908. Serial No. 468,457. (Cl. 36—59.)



1. In a device of the class described, a shoe having a sheet-metal bottom comprising the sole and heel and having a plurality of perforations, the metal around the perforations providing inwardly extending screw-threaded bearings, and a series of knobs having screw-threaded shanks in threaded engagement with the bearings for engagement and disengagement therewith from the outside of the shoe.

2. A shoe bottom formed of drawn sheet metal and having openings in its lower side, the metal at the edge of each opening being bent inwardly or upwardly out of the plane of the body of the metal to form an angular flange surrounding the opening, said flange and opening being screw-threaded, and a stud having a screw-threaded shank engaging with the screw-threads of said flange and opening, the head of said stud being of greater diameter than said shank and having a tapering lower end and a wrench face, said head and said flange lying at opposite sides of the metal, said head being turned into watertight contact with the lower or outer surface of the metal.

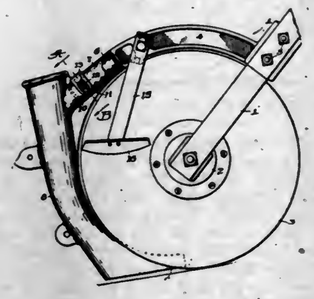
1,026,408. WIND-SHIELD. FREDERICK SCHIMPER, Union, N. J., assignor of one-half to Alfred H. Koeller, Ridgefield Park, N. J. Filed Jan. 24, 1912. Serial No. 673,020. (Cl. 21—81.)



1. A wind shield comprising a lower fixed member, a frame extending upwardly beyond the same, an upper member pivoted to said frame, an intermediate member pivoted to the upper member at a distance from the free end thereof, and means for removably connecting the lower end of the intermediate member to the upper end of the lower member.

2. A wind shield comprising a lower fixed member, a frame extending upwardly therefrom, an upper member pivoted to the frame, an intermediate member pivoted to the upper member at a distance back of the free end thereof, said intermediate member being adapted to be passed through the frame of the lower member, and catches adapted to secure the intermediate member to said frame.

1,026,409. GRAIN-DRILL. DUNY A. SCHUTT, Chicago, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed Dec. 12, 1910. Serial No. 596,986. (Cl. 111—11.)

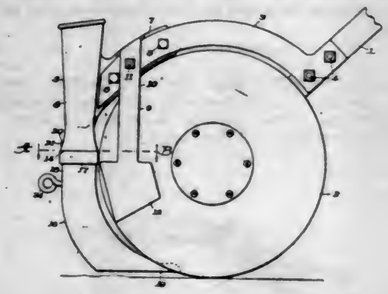


1. A disk furrow opener for grain drills including, in combination, a drag bar, a rotatable disk connected with said drag bar, a grain delivery boot having a toe member at its lower end adapted to contact with the surface of said disk near its peripheral edge, an arm secured to said drag bar and extending rearward therefrom, said arm having a stem at its rear end arranged in the direction of draft of the machine, said boot being provided with a socket member adapted to loosely receive said stem, and resilient means operative to turn said boot angularly relative to said stem whereby said toe member is yieldingly held in contact with the surface of said disk.

2. A disk furrow opener for grain drills including, in combination, a drag bar, a rotatable disk connected with said drag bar, a grain delivery boot having a toe member at its lower end adapted to contact with the surface of said disk near its peripheral edge, an arm secured to said drag bar, said arm having a stem at its rear end inclined downward and rearward and arranged in the direction of the line of draft of the machine, said boot being provided with a socket member adapted to receive said stem, slotted openings through opposite walls of said socket member, a pin received by said slotted openings and passing through said stem, and a spring operative to yieldingly turn said socket about its axis in a manner to cause said toe to contact with the surface of said disk.

3. A disk furrow opener for grain drills including, in combination, a drag bar, a rotatable disk connected with said drag bar, a grain delivery boot having a toe member at its lower end adapted to contact with the surface of said disk near its peripheral edge, an arm secured to said drag bar, said arm having a stem at its rear end inclined downward and rearward and arranged in the direction of the line of draft of the machine, said boot being provided with a socket member adapted to receive said stem, slotted openings through opposite walls of said socket member, a pin received by said slotted openings and passing through said stem, a spring seated in a cavity in the wall of one of said slotted openings, said spring being operative between the end wall of said cavity and the head of said pin in a manner to turn said boot about the axis of said stem and cause said boot to contact with said disk.

1,026,410. GRAIN-DRILL. DUNI A. SCHUTT, Chicago, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed Dec. 12, 1910. Serial No. 596,987. (Cl. 111—11.)



1. A disk furrow opener for grain drills including, in combination, a rotatable disk, a grain conduit adapted to conduct the grain into the furrow opened by said disk, said conduit including upper and lower members, said lower member having a forwardly projecting toe member adapted to contact with the side of said seed disk near its periphery, said lower member being adapted to turn about said upper member the axis thereof being substantially vertical whereby said toe is permitted to move toward or from said disk.

2. A disk furrow opener for grain drills including, in combination, a rotatable disk, a grain conduit adapted to conduct the grain into the furrow opened by said disk, said conduit including upper and lower members, said lower member having a forwardly projecting toe member adapted to contact with the side of said seed disk near its periphery, said lower member being adapted to turn about said upper member the axis thereof being substantially vertical whereby said toe is permitted to move toward or from said disk, and a spring connected with the two members of the conduit and operative to turn the lower member in a manner to yieldingly press said toe against said disk.

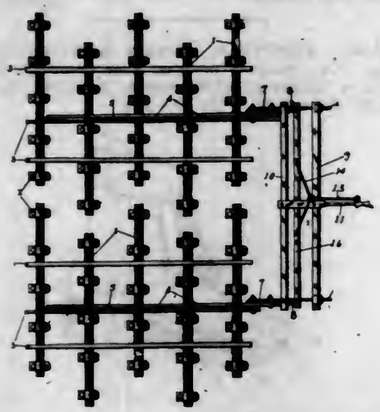
3. A disk furrow opener for grain drills including, in combination, a rotatable disk, a grain conduit adapted to conduct the grain into the furrow opened by said disk, said conduit including upper and lower members, said upper member having a bearing upon its lower end, said lower member being journaled upon said bearing, and a spring encircling said bearing and operative to yieldingly turn said lower member in one direction upon its axis.

4. A disk furrow opener for grain drills including, in combination, a rotatable disk, a grain conduit adapted to conduct the grain into the furrow opened by said disk, said conduit including upper and lower members, said lower member having a socket at its upper end, said upper member having a reduced portion received by said socket, a spring received by said socket and encircling said bearing, said spring having oppositely disposed tangs at opposite ends thereof, one of said tangs engaging with the upper member of said conduit and the other with the lower member thereof whereby said lower member is yieldingly turned about its axis in one direction.

5. A disk furrow opener for grain drills including, in combination, a rotatable disk, a grain conduit adapted to conduct the grain into the furrow opened by said disk, said conduit including upper and lower members, said lower member having a socket at its upper end and its lower end curved downward and forward, said upper member having a bearing received by said socket and upon which said lower member may turn, and an extension bearing, said bearing projecting within said lower member at its rear side and operative as a deflector for the grain as it flows therethrough.

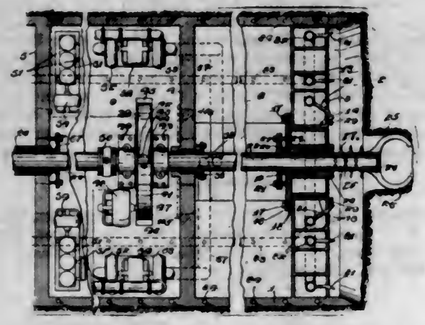
[Claims 6 and 7 not printed in the Gazette.]

1,026,411. SECTION-HARROW. GROVER C. SHANKLE, Ennis, Tex. Filed Feb. 9, 1912. Serial No. 676,579. (Cl. 55—103.)



In a device of the character described, the combination with a plurality of harrow sections, of a lever associated with each section for adjusting the teeth thereof at various angles, and a supplementary lever by which the section levers may be simultaneously adjusted.

1,026,412. TUNNELING-MACHINE. RICHARD T. STONE, Deming, N. Mex. Filed July 12, 1911. Serial No. 638,134. (Cl. 61—44.)



1. In a tunneling apparatus of the kind described, an extended cylindrical shell formed with compartments accessible to one another, the forward end of said shell having a cylindrical cutting edge, means for compressing air in said compartments, a longitudinal rotary tube having its forward end projecting from the forward end of said shell and provided with a cutting head, and inlet apertures, mechanism for rotating said tube, and means for discharging water at the forward end of said shell.

2. In a tunneling apparatus of the kind described, a cylindrical shell formed with compartments and having a plurality of openings in its walls, a rotary tube extending longitudinally of said shell and having cutters at its forward end and water inlet apertures, a plurality of water discharge pipes at the forward end of said shell, means for discharging water through said pipes, means for drawing collected material into the forward end of said rotary tube, and means for compressing air in said compartments.

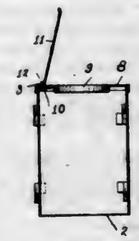
3. In a tunneling apparatus of the kind described, an extended cylindrical shell formed with a cylindrical cutting edge at its forward edge and with transverse partitions forming compartments, each of said partitions having a man hole, a rotary hollow shaft extending through said partitions and having cutters and water inlet apertures at its forward end, a cylindrical shell at the rear end of said cutting shell, rings and inflatable tubes located between said shell and said cutting shell, circular brace bars located within said inner shell and provided with cross bars, and a plurality of jacks located between said inner shell and brace bars and the rear partition of said cutting shell.

4. In a tunneling apparatus of the kind described, an extended cylindrical shell with a cutting edge at its forward end, said shell being formed in compartments, a revoluble hollow shaft extending lengthwise through said shell and having its forward end provided with a cutting head, water inlet apertures, and lateral cutting projections adjacent to said apertures, means for creating a suction in said shaft, and a discharge pipe at the end of said shaft.

5. In a tunneling apparatus of the kind described, an extended cylindrical shell having a cutting edge at its forward end, transverse partitions forming compartments in said shell, each of said partitions having man holes, and the partition at the forward end of the shell having an opening, a removable door in said opening, a revoluble hollow shaft having its bearings in said door and in said partitions and movable rearwardly, and having water inlet openings at its forward end, a cutter head on said forward end, and lateral cutting projections adjacent to said openings, and a discharge pipe in telescopic connection with the rear end of said revoluble shaft.

[Claims 6 to 14 not printed in the Gazette.]

1,026,413. LATRINE. WILLIAM M. SULLIVAN, Middletown, Ohio. Filed May 12, 1911. Serial No. 626,740. (Cl. 4—32.)

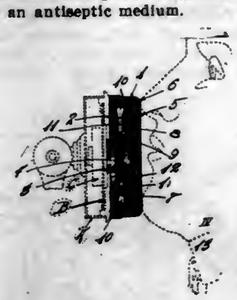


In a device of the character described, the combination of a foldable rectangular box structure of sheet metal having an open bottom, a top formed of sheet metal, one of the side portions being provided with an inwardly extended member to which the top is hinged, the top also being provided with a downwardly-turned edge overlapping the upper end of the side structure, the top also being provided with a central aperture having a downwardly-turned lip, a sheet metal cover hinged to the top and adapted to close the aperture, and a stop on said cover to limit its opening movement.

1,026,414. ANTISEPTIC MOUTHPIECE FOR TELEPHONES. FRANK C. TABLER, St. Louis, Mo., assignor of fifty-one one-hundredths to Gus V. R. Mechin, St. Louis, Mo. Filed July 10, 1911. Serial No. 637,809. (Cl. 179—185.)

1. An antiseptic mouth piece for telephones, comprising a housing having a centrally disposed opening, a roll of absorbent material the web of which extends across said opening, means for moving said web across the opening and a marginal bead or rib on the front side of said mouth piece, which bead or rib extends beyond the central portion of the face plate of said mouth piece.

2. An antiseptic mouth piece for telephones, comprising a housing having a centrally disposed opening, a section of absorbent material extending across said opening, means for moving said absorbent material across said opening, a marginal bead or rib on the front side of said mouth piece, which bead or rib extends beyond the central portion of the face plate of said mouth piece, and means within the housing for supplying the absorbent material with an antiseptic medium.



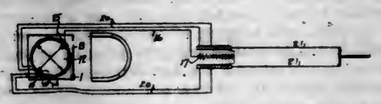
3. An antiseptic mouth piece for telephones, comprising a housing having front and rear walls, which walls are provided with centrally disposed openings, an outwardly projecting annular bead formed on the front wall immediately adjacent the opening therein, and a marginal bead on said front wall, which margin bead extends beyond the bead on the central portion of said front wall.

4. An antiseptic mouth piece for telephones, comprising a housing having front and rear walls, which walls are provided with centrally disposed openings, an outwardly projecting annular bead formed on the front wall immediately adjacent the opening therein, a marginal bead on said front wall, which margin bead extends beyond the bead on the central portion of said front wall, and an antiseptic carrying member within said housing.

5. An antiseptic mouth piece for telephones, comprising a housing having a face plate in which is formed an opening, an outwardly projecting annular bead formed on the front face of said said face plate immediately adjacent the opening therein, a marginal bead on said face plate, which bead extends beyond the central portion of the face plate, and a removable back plate for said housing.

[Claims 6 to 16 not printed in the Gazette.]

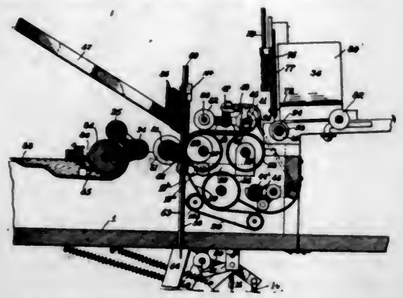
1,026,415. AUTOMATIC STEERING DEVICE FOR FLYING-MACHINES. ROBERT M. THOMPSON, Tacoma, Wash. Filed June 29, 1910. Serial No. 569,418. (Cl. 172—282.)



In an automatic steering device, the combination with steering means; means adapted to operate and control said steering means; a frame; a cylindrical ring 2, mounted in said frame and having its axis in a substantially vertical line, and being rotatably adjustable about its axis; a body 5, supported at diametrically opposite points by pivots engaging said cylindrical ring and adapted to turn thereon, the axis of said pivots being at right angles to the axis of said cylindrical ring; a body 8, hung inside said body 5 on pivots whose axis is at right angles to the axis of the pivots of said body 5; a weight 6, mounted on said body 5 and adapted to keep the pivots of said body 8 horizontal; a weight 9, mounted on said body 8 and adapted to keep the upper plane of said body horizontal; a pointed body 10, attached to said body 8 and being central between the pivots thereof; a magnetic needle, freely suspended on the point of said body 10; electrical contacts, mounted on said body 8; electric connections, joining said contacts with said controlling and operating means; and a contact brush, secured to and moving with said magnetic needle and adapted to engage any of said contacts, and connected to a source of electric energy, whereby when said brush

engages any of the contacts an electric circuit is completed to correspondingly operate said steering means operating means.

1,026,416. ADDRESSING-MACHINE. WILLIAM W. TUCK, Richmond Hill, N. Y., assignor to Velox Manufacturing Company, a Corporation of New York. Filed Dec. 2, 1909. Serial No. 530,932. (Cl. 101—1.)



1. In a machine of the kind described, a rotatable printing cylinder, a rotatable ink roll bearing an ink pad, means for delivering stencils in succession to a point immediately above the line of contact of said roll, and cylinder, and means for detaining them in such position until the pad has rotated into operative position with said cylinder, substantially as described.

2. In a machine of the kind described, a rotatable printing cylinder, a rotatable ink roll bearing an ink pad, means for delivering stencils in succession to a point immediately above the line of contact of said roll and cylinder and a smooth ring on said roll for detaining them in such position until the pad has rotated into operative position with said cylinder, substantially as described.

3. In a machine of the kind described, a rotatable ink roll bearing on a portion of its circumference an ink pad adapted to feed and ink a series of stencils and on the other portion of its circumference a smooth surface adapted to support the stencils until the ink pad has rotated into operative position, substantially as described.

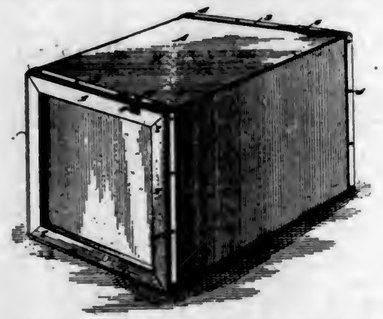
4. In a machine of the kind described a printing cylinder, an ink roll adapted to coöperate therewith, stencil holders above and below the roll, means for removing the stencils one at a time from the upper holder and for passing them between the printing cylinder and ink roll and depositing them in the lower holder and a feed cylinder and two feed rolls adapted to operate intermittently and alternately one in contact with the printing cylinder and the other in contact with the feed cylinder for the purpose of feeding blanks to the ink roll and printing cylinder, substantially as described.

5. In a machine of the kind described, a printing cylinder, an ink roll adapted to coöperate therewith, stencil holders above and below the roll, means for removing the stencils one at a time from the upper holder, for passing them between the printing cylinder and ink roll and depositing them in the lower holder and means for lowering the lower holder at the same rate as the stencils accumulate therein, and a feed cylinder and two feed rolls adapted to operate intermittently and alternately one in contact with the printing cylinder and the other in contact with the feed cylinder for the purpose of feeding blanks to the ink roll and printing cylinder, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,026,417. FASTENING THE ENDS OF THE BINDING STRIP OR BAND WHICH PASSES AROUND A BOX. HARRISON B. WALTER, Danville, Ill., assignor to National Fibre Box Company, Danville, Ill., a Corporation of Illinois. Filed Aug. 25, 1911. Serial No. 645,918. (Cl. 217—66.)

The combination with the body portion of a box and a frame to which the body portion is secured, said frame having an open slot in the edge to which the body portion is attached, of a band facing and encircling the part of the body portion adjacent to the frame, the ends of the



band overlapping each other over the open slot, and a rivet extending through the overlapped ends of the band, the body portion adjacent thereto, and into the slot in which latter its inner end is upset.

1,026,418. PRODUCING DIOLEFINS. FRANZ WEBEL, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Jan. 30, 1912. Serial No. 674,417. (Cl. 23—24.)

1. The process of producing diolefins by heating a dihalogen paraffin with a solid compound which is capable of splitting off halogen hydrid.

2. The process of producing diolefins by heating a dihalogen paraffin under reduced pressure with a solid compound which is capable of splitting off halogen hydrid.

3. The process of producing isoprene by heating trimethyl-ethylene-bromid with barium chlorid.

4. The process of producing isoprene by heating trimethyl-ethylene bromid with barium chlorid under reduced pressure.

5. The process of producing isoprene by passing vaporized trimethyl-ethylene bromid at a pressure of from 15 to 20 millimeters over barium chlorid at a temperature of from 340° to 360° C.

1,026,419. PRODUCING DIOLEFINS. FRANZ WEBEL, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Jan. 30, 1912. Serial No. 674,418. (Cl. 23—24.)

1. The process of producing diolefins by heating a monohalogen alkylene with a solid compound which is capable of splitting off halogen hydrid.

2. The process of producing diolefins by heating a monohalogen alkylene under reduced pressure with a solid compound which is capable of splitting off halogen hydrid.

3. The process of producing isoprene by heating 3-brom-2-methyl-butene-(2) with caustic lime.

4. The process of producing isoprene by heating 3-brom-2-methyl-butene-(2) with caustic lime under reduced pressure.

5. The process of producing isoprene by passing vaporized 3-brom-2-methyl-butene-(2) at a pressure of from 15 to 20 millimeters over caustic lime at a temperature of from 500° to 520° C.

1,026,420. PRODUCING DIOLEFINS. FRANZ WEBEL, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Jan. 30, 1912. Serial No. 674,419. (Cl. 23—24.)

1. The process of producing diolefins by heating a monohalogenated monohydric alcohol with a solid compound which is capable of catalytically splitting off halogen hydrid and water.

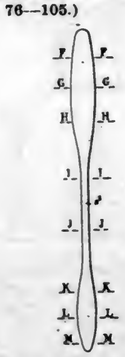
2. The process of producing diolefins by heating a monohalogenated monohydric alcohol under reduced pressure with a solid compound which is capable of catalytically splitting off halogen hydrid and water.

3. The process of producing isoprene by heating trimethyl-ethylene-glycol chlorhydrin with alumina.

4. The process of producing isoprene by heating trimethyl-ethylene-glycol chlorhydrin with alumina under reduced pressure.

5. The process of producing isoprene by passing vaporized trimethyl-ethylene-glycol chlorhydrin at a pressure of from 15 to 20 millimeters over alumina at a temperature of from 340° to 360° C.

1,026,421. PROCESS FOR THE MANUFACTURE OF METAL FORKS AND SPOONS. ARTHUR WILZIN, St.-Ouen, Seine, France. Filed Jan. 3, 1910. Serial No. 536,088. (Cl. 76—105.)



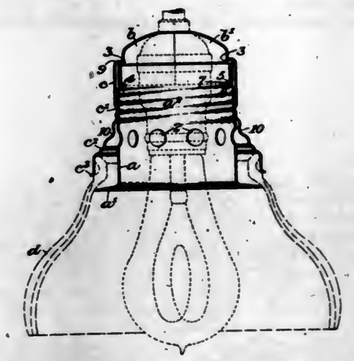
A process for the manufacture of blanks for forks, spoons and the like, which consists in submitting to a thinning and grading action a profiled piece of practically the same thickness throughout its length and of the same weight and nearly of the same length as the finished graded blank, and so shaped as to present at the various points of its length, different cross-sections, essentially equal to the cross-sections at corresponding points of the finished fork or spoon blank, said thinning action widening out and grading the blank into a blank of the contour and thicknesses required for the final design shaping and stamping of a spoon or fork.

1,026,422. SHADE-HOLDER FOR ELECTRIC FIXTURES OR ELECTROLIERS. LAURITZ W. ANDERSEN, Waterbury, Conn., assignor to The Plume & Atwood Manufacturing Company, Waterbury, Conn., a Corporation of Connecticut. Filed Jan. 30, 1912. Serial No. 674,295. (Cl. 240—114.)

1. A holder for shades, globes, or reflectors for electric fixtures, comprising a tubular supporting body having attached movable dome sections, and a surrounding and locking sleeve adapted for axial movement and engagement with said tubular body and to be passed over parts of the fixtures without dismantling the same.

2. A holder for shades, globes, or reflectors for electric fixtures, comprising a tubular supporting body, movable dome sections connected thereto near its upper end and adapted to permit the lamp and socket to be passed through the tubular body, said body and dome sections forming a cover for the socket, and a surrounding locking sleeve adapted for axial movement and engagement with the tubular supporting body.

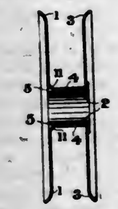
3. A holder for shades for electric fixtures, comprising a tubular supporting body having a flanged lower edge, and dome sections connected thereto in a hinged relation, a locking sleeve of tubular sheet metal, adapted to surround the tubular supporting body to be moved axially in relation thereto, means for connecting the said parts in an adjustable relation and the said locking sleeve having a lower flanged skirt portion to come over the rim of a shade and clamp the same to the flange of the tubular body.



4. A holder for shades for electric fixtures, comprising a tubular supporting body having a flange at the lower end and a screw-threaded portion about midway, similar dome sections and means for connecting the same in a hinged relation to the upper end of the tubular supporting body, an outer locking sleeve part adapted for axial movement in relation to the body, the same having a short screw-threaded portion to be engaged with the tubular body as rotated about the same, and having a flange at the lower end between which and the flange of the supporting body the shade or sphere is to be engaged at its rim or neck.

5. A holder for shades for electric fixtures, comprising a tubular supporting body having a flange at the lower end and a screw-threaded portion, similar dome sections and means for connecting the same in a hinged relation to the upper end of the tubular supporting body, an outer locking sleeve part adapted for axial movement in relation to the body, the same having a short screw-threaded portion to be engaged with the tubular body as rotated about the same, and having a flange at the lower end between which and the flange of the supporting body the shade or sphere is to be engaged at its rim or neck, and the outer locking sleeve part having an inturned flange at its upper end adapted to surround the dome sections of the inner member or supporting body and maintain the dome sections together in a fixed relation substantially independent of an appreciable longitudinal movement of the outer part in its relation to the inner part.

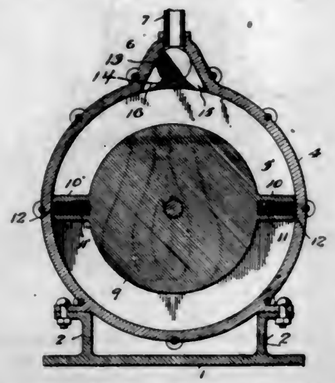
1,026,423. MARKING DEVICE FOR ATTACHMENT TO THE EARS OF ANIMALS. FREDERICK ANDREWS, Mercer, New Zealand. Filed Nov. 25, 1910. Serial No. 594,219. (Cl. 40—3.)



In a device of the class described, a plate having a tubular shank adapted to be passed through a hole in the ear and having its free end adapted to be flanged, and a plate adapted to be placed upon the end of the shank, the portion

of the shank which joins the first-named plate being formed for the purpose of providing a grip to prevent turning when the parts are being united, substantially as and for the purpose set forth.

1,026,424. ENGINE. THEODORE J. ASHBY, Perryville, Ark., assignor of one-fourth to J. E. Bell, Gordon, Ga. Filed Oct. 5, 1911. Serial No. 653,080. (Cl. 121—56.)



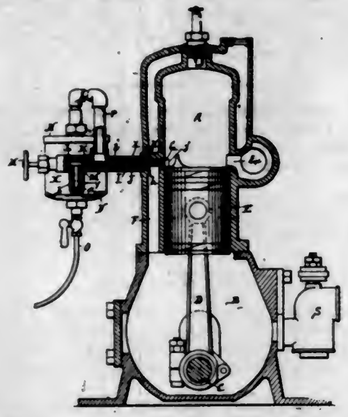
1. In a rotary engine, a cylinder, a rotatable piston mounted therein, a pair of piston heads formed integral with the piston, said heads comprising a pair of outwardly projecting parallel lugs and a spring receiving recess formed thereby, a spring in the recess having its inner coil abutting against the outer perimeter of the piston, a wear plate interposed between the spring and the inner perimeter of the cylinder, said outer perimeter of the piston and inner perimeter of the cylinder forming a circular steam chamber, a valve seated at the inlet to said chamber for controlling the admission of the steam, a pair of diverging nozzle-shaped inlet ports adapted to be alternately closed by said valve, a rack mounted above the valve, a toothed lever engaged thereby, and a stuffing box for preventing the escape of the steam from the cylinder.

2. A rotary engine, comprising a base plate, vertical uprights rising therefrom, journal boxes thereon in which bear the ends of the drive shaft horizontally disposed with reference to the base plate, a cylinder, a rotatable piston mounted therein upon the said shaft, projecting lugs formed integral with the piston and having spring pressed wear plates secured between the said springs and the inner perimeter of the cylinder, a circular chamber formed between the piston and the cylinder, a steam receiving chamber mounted thereabove, a valve seated therein and adapted to alternately open and close two nozzle-shaped diverging ports in said chamber, means for moving said valve, and a stuffing box for preventing the escape of the steam from the said steam receiving chamber.

1,026,425. CARBURETER. FREDERICK BARTHEL, Detroit, Mich., assignor to Frederick E. Wadsworth, Detroit, Mich. Filed Jan. 7, 1911. Serial No. 601,263. (Cl. 123—73.)

1. The combination with a two-cycle internal combustion engine having a combustion chamber, a compression chamber and a transfer passage connecting said compression and combustion chambers, means for compressing air in said compression chamber and transferring the same to said combustion chamber through said transfer passage, an inclosed hydrocargon reservoir, a conduit for liquid leading from said reservoir beneath the level of the hydrocarbon therein and opening to the interior of said transfer passage and an unobstructed passage leading from said reservoir above the liquid therein and opening into said transfer passage adjacent to the opening from said conduit, for the purpose described.

2. In an apparatus of the kind described, the integral casting X having a bore i formed therein and terminating in said casting, an aperture formed in the end wall of said bore, a pipe J smaller than the bore i extending through said bore and having its inner end fitting into said aperture, said casting being provided with a lateral opening, opening into said bore, a passage for hydrocarbon communicating with said pipe, an engine casing and cylinder, a passage for air in said casing leading to said cylinder and provided with an aperture in its wall, said casting engaging in said opening so that its bore shall communicate with said passage.

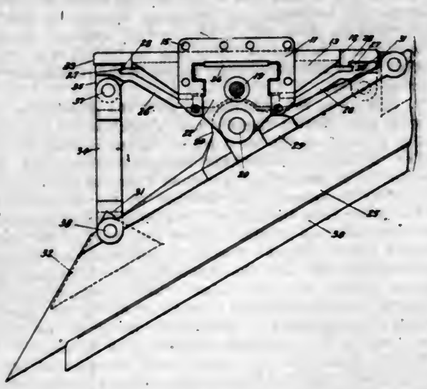


3. The combination with a two-cycle internal combustion engine having a combustion chamber, an apparatus for compressing the charge and transferring the same to the combustion chamber having a screw threaded aperture through its wall of a casing X having a hollow portion I screw threaded at its end to engage in said aperture and closed at its outer end, a pipe J extending through the bore of said hollow portion, a hydrocarbon reservoir, means for putting said pipe into communication with said reservoir below the level of the hydrocarbon therein, and means for putting the interior of said hollow portion into communication with said reservoir above the level of the hydrocarbon therein.

4. The combination with a two-cycle internal combustion engine having a combustion chamber, a compression chamber and a transfer passage permanently open to said compression chamber, a port connecting said combustion chamber and said transfer passage, means for compressing air in said compression chamber and means for opening and closing said port so as to transfer said compressed air to said combustion chamber through said transfer passage of an inclosed hydrocarbon reservoir, a conduit for liquid leading from said reservoir beneath the level of the hydrocarbon therein, said conduit opening into said transfer passage between said port and the opening of said passage into said compression chamber, and a permanently open passage leading from said reservoir above the liquid therein, and opening into said transfer passage adjacent to the opening from said conduit so that the static pressure in said reservoir above the liquid therein shall be the same as the static pressure in said transfer passage adjacent to the opening of said conduit into said transfer passage.

1,026,426. CINDER-LEVELER. EDWIN J. BEST, Ensley, Ala., assignor of one-half to Fred Kestler, Birmingham, Ala. Filed May 15, 1911. Serial No. 627,347. (Cl. 37—22.)

1. A plow and leveler of the character described comprising a car, a vertical guide thereon formed by a heavy metal plate connected near its center to the side of the car, means to brace said plate to the car, a slide adjustable in said guide and having a lateral brace member, a bearing which said brace slidably engages, and a plow-wing connected to said slide and set at an angle to the side of the car, substantially as described.



2. A plow and leveler of the character described comprising a car, a vertical guide plate rigidly attached to the side of the car, a slide adjustable in a vertical slideway in said guide plate and having a laterally disposed integral brace member on each side, rigid bearings with which said braces slidably engage, a plow-wing formed by a rigid body centrally hinged to said slide and adjustable to face in reverse directions, and means to brace said wing at an angle to the side of the car and facing in the direction of its movement, substantially as described.

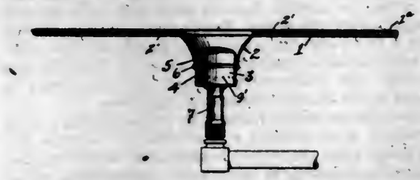
3. A plow and leveler of the character described, comprising a car body, a vertical guide member rigidly attached to the car body at the side, a centrally hinged rigid plow wing mounted in said guide, means to vertically adjust said wing, an elongated vertical abutment disposed on each side of the pivot point of the wing and formed by a metal plate rigidly bolted to the side of the car, shoulders at each end of the plow wing which is adapted to be set at an angle to the side of the car with the shoulder at its forward end engaging in all operating positions of said wing the adjacent vertical abutment on the side of the car to transfer the end thrust thereto, and means to brace the rear end of the wing from the car body against lateral thrust.

4. A plow and leveler of the character described comprising a car, a vertical guide plate rigidly connected and braced to the side of the car body, a slide, means to adjust said slide vertically in the guide in said plate, a rigid plow-wing hinged near its center to said slide and having shoulders at each end, vertical bearing platea rigidly attached to the side of the car and disposed on each side of said guide, said wing being set normally at an angle to the side of the car with the forward one of its shoulders adapted to engage the forward bearing edge of the forward bearing plate in the several adjusted positions of the plow wing, there being sufficient lost-motion in the hinge joint of said wing to permit of said abutment relieving the hinge of end thrust, and means to brace the rear end of the wing against lateral thrust in its angular position with relation to the car, substantially as described.

5. In an apparatus of the character described, a car, a vertical guide member rigidly attached to the car and suitably braced, a slide member vertically adjustable in the guide and having a laterally projecting brace arm, a plow-wing hinged near its center to an intermediate portion of said slide and disposed at an angle to the side of the car, means to brace the inner forward end of the plow, a connection from said lateral brace arm to the outer rear end of the plow-wing to brace the latter against lateral thrust, and a member spaced from said guide which said arm slidably engages and is braced thereby, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,026,427. GAS-HEATER. LEWIS F. BETTS, New York, N. Y., assignor to Abbot A. Low, Horseshoe, N. Y., and Maurice J. Wohl and Harry Hertzberg, Brooklyn, N. Y., trustees. Filed Mar. 25, 1910. Serial No. 551,413. (Cl. 126—249.)



1. A gas heater comprising a flat disk of non-combustible substance formed with a central aperture, a hollow projection at the central portion of said disk surrounding said aperture and converging downwardly therefrom, the upper end of said projection being formed with radiating tongues penetrating the disk from the under side to connect the projection therewith, and a burner comprising a hollow body having its upper portion partially removably received in the projection, the upper extremity of the body of the burner being closed and forming a partition below the central aperture of the disk, and also provided with a number of small orifices below the lower end of said hollow projection, substantially as described.

2. A gas heater comprising a disk provided with a central aperture and having a hollow projection extending therefrom and surrounding said aperture on the bottom of the disk, and a burner connected with said projection and partially received by the latter, said burner comprising an upper cup shaped member constituting that portion which is received by the projection, and which member forms a partition at the upper end of the burner and below the central aperture of the disk.

1,026,428. TUNGSTEN PURIFICATION. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 23, 1908. Serial No. 454,450. (Cl. 204—64.)

1. The method for the purification of raw material containing iron for tungsten filament manufacture which consists in firing the raw material to a temperature below the fusing point of tungsten but sufficient to remove iron and its compounds.

2. The method for the purification of raw material containing iron for tungsten filament manufacture which consists in removing iron from the material by firing in a vacuum at a temperature below the fusing point of tungsten.

3. The method for the purification of powdered tungsten containing iron for tungsten filament manufacture which consists in firing the powdered tungsten in a vacuum at a temperature below the fusing point of tungsten but sufficient to insure vaporization of iron and its compounds.

1,026,429. REFRACTORY CONDUCTOR. WILLIAM D. COOLIDGE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Aug. 1, 1906, Serial No. 328,726. Renewed Dec. 8, 1910. Serial No. 596,373. (Cl. 176—132.)

1. The process which consists in shaping a body from refractory material, impregnating said body with a metallic material having a relatively low vaporizing temperature, and subsequently heating said product by current passed therethrough to vaporize said metallic material and consolidate said body.

2. The process which consists in compressing a refractory powder into a rigid body, impregnating said body with ductile metal, and subsequently passing current through said body to vaporize said ductile metal and consolidate said body.

3. The process which consists in compressing a refractory material into a predetermined shape, heating said

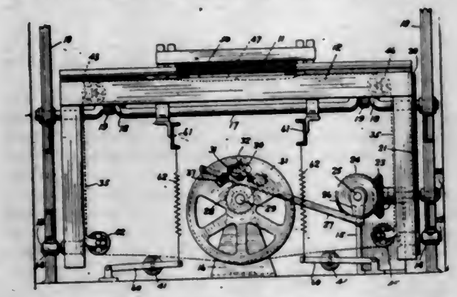
material in a vacuum to remove gases therefrom, impregnating with a ductile metallic material, and subsequently driving out said ductile material by current passed through said body.

4. The process which consists in shaping a rigid body from refractory powder, heating said body in a vacuum to remove gases therefrom, immersing a portion of said body in a fused metallic material to impregnate said body with said material, shaping the resultant product into conductors, and subsequently heating said conductors to drive the easily fusible components therefrom.

5. The process which consists in impregnating a stick of refractory material with a less refractory metallic material, shaping the product so formed into conductors, and subsequently treating to remove all components except said more refractory material.

[Claims 6 to 12 not printed in the Gazette.]

1,026,430. HAIRCLOTH-LOOM. GEORGE S. COX, Edge Hill, Pa., assignor to himself, and Walter S. Cox, Philadelphia, Pa., trading as George S. Cox and Brother. Filed Nov. 13, 1909. Serial No. 527,792. (Cl. 139—49.)



1. In a loom, the combination with the pivoted lay, the shuttle race carried thereby, and a shuttle, of shuttle reciprocating means comprising a pulley, a flexible connection engaging the shuttle and adapted to be wound and unwound from the pulley in its oscillatory movement, the distance of the working face of the pulley from its axis gradually increasing between each end and the center of said working face, and means to maintain substantially uniform the distance around the working face of the pulley plus the distance between the ends of the flexible connection and the feed-off and feed-on points of the pulley, thereby maintaining a substantially uniform degree of tautness in the flexible connection.

2. In a loom, the combination with the pivoted lay, the shuttle race carried thereby, and a shuttle, of shuttle reciprocating means comprising a grooved pulley, a flexible connection engaging the shuttle and adapted to be wound and unwound from the pulley in its oscillatory movement, the distance of the working face of the pulley from its axis gradually increasing between each end and the center of said working face, means to maintain substantially uniform the distance around the working face of the pulley plus the distance between the ends of the flexible connection and the feed-off and feed-on points of the pulley, and means to maintain substantially constant the direction of extension of both reaches of the flexible connection adjacent to the pulley, thereby maintaining the flexible connection uniformly taut and preventing its escape from the pulley groove.

3. In a loom, the combination with a shuttle, and shuttle reciprocating means comprising a driving pulley, means to oscillate the pulley, and a flexible connection engaging the shuttle and adapted to be wound and unwound from the pulley in its oscillatory movement, the distance of the working face of the pulley from the center of rotation gradually increasing from each end of said working face toward the center thereof, of guiding means for said flexible connection between the shuttle race and the driving pulley including two pulleys so located on opposite sides of the driving pulley that a line tangential to the working faces of both said two guide pulleys intersects the radius, perpendicular to said line, of the driving pulley at a point between the maximum and minimum distance of the latter's working face and its center of rotation, thereby avoiding any substantial variation in the tension of the flexible connection at different points in the rotation of the driving pulley.

4. In a loom, the combination with the pivoted lay, the shuttle race carried thereby and a shuttle, of a driving pulley pivoted on the loom frame, means to oscillate the pulley, a flexible connection engaging the shuttle and adapted to be wound and unwound from the pulley in its oscillatory movement, the distance of the working face of the pulley from the center of rotation gradually increasing from each end of said working face toward the center thereof, guiding means for said flexible connection between the shuttle race and the driving pulley including two pulleys located on opposite sides of the driving pulley and mounted to rotate adjacent to the axis of the lay, thereby avoiding transmission to the driving pulley of the vibration imparted to the flexible connection by the lay.

5. In a loom, the combination with the pivoted lay, a shuttle, and shuttle reciprocating means comprising a driving pulley on an axis below the shuttle race and at an angle to the axis of the lay, means to oscillate the pulley, and a flexible connection engaging the shuttle and adapted to be wound and unwound from the pulley in its oscillatory movement, the distance of the working face of the pulley from the center of rotation gradually increasing from each end of said working face toward the center thereof, of a pair of guide pulleys at opposite ends of the shuttle race, and a pair of guide pulleys at opposite sides of the driving pulleys and beneath the first-named pair of guide pulleys, said flexible connection engaging said guide pulleys between the driving pulley and the shuttle.

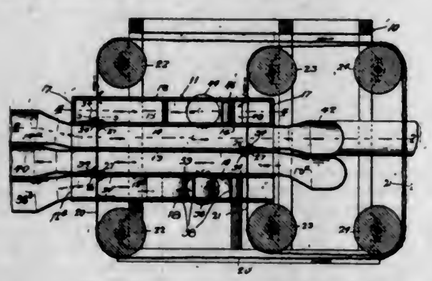
[Claims 6 to 15 not printed in the Gazette.]

1,026,431. STREET-RAILWAY SWITCH. ANTHONY C. M. DEURLOO and CORNELIUS VANDERWEEL, Lodi, N. J. Filed Mar. 27, 1911. Serial No. 617,022. (Cl. 104—24.)



In a street railway switch, a wedge shaped piece a rod pivotally connected with said piece, a lateral extension on the lower portion of said wedge, and a stationary bottom plate in the ground having a short neck, and means for actuating the device.

1,026,432. PNEUMATIC FEATHER-CLEANING APPARATUS. CHARLES V. DEY, Chicago, Ill., assignor of one-half to Joseph Hirsch, Chicago, Ill. Filed Aug. 21, 1911. Serial No. 645,190. (Cl. 13—19.)



1. An apparatus of the class described, comprising a plurality of feather receiving conduits, one having an inlet opening for incoming feathers and one having a discharge opening for outgoing feathers, air circulating means for passing a column of air through each conduit, a movable screen extending transversely across said conduits, and means for moving said screen from one conduit to the other.

2. An apparatus of the class described, comprising a plurality of feather receiving conduits, one having an inlet opening for incoming feathers and another having a discharge opening for outgoing feathers, a movable separating wall extending transversely through said conduits and traveling from one to the other, and means for forcing air through said conduits.

3. An apparatus of the class described, comprising open ended feather receiving conduits, one having an inlet opening intermediate said open ends, and another one having a discharge opening intermediate said ends, a pair of traveling screens arranged adjacent to said open ends and moving from one conduit to the other, and air circulating mechanism for forcing air through said conduit, substantially as described.

4. An apparatus of the class described, comprising a plurality of open ended feather receiving conduits, one having an inlet opening for incoming feathers, and one having a discharge opening for outgoing feathers, a plurality of traveling, endless belts of reticulated fabric passing transversely through said conduits and moving from one to the other, and air circulating mechanism having air pipes opening to said conduits.

5. An apparatus of the class described, comprising a plurality of feather receiving conduits, one having a lateral inlet opening intermediate its ends, through which unclean feathers may be delivered to the conduit, and another conduit having a lateral discharge opening through which clean feathers may be discharged from the apparatus, a traveling endless screen extending transversely through said conduits, and air circulating mechanism for forcing air through said conduits.

[Claims 6 to 9 not printed in the Gazette.]

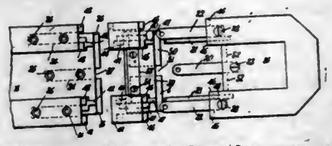
1,026,433. SCORE-CARD. EDWARD L. DE FOREST, Westhampton, N. Y. Filed Sept. 11, 1911. Serial No. 648,728. (Cl. 235—90.)



A score card, comprising a hollow casing provided with two adjacent columns of parallel slots, each slot having a reading space at one end thereof and notches along one wall of the slot and the slots of one column being opposite the spaces between the slots of the other column, a plurality of slides in the casing, one for each slot, each movable lengthwise of its slot to bring any one of a plurality of characters thereon into the reading space of the slot, a projection on each slide adapted to enter the notches in the wall of the slot for that slide, and a spring for positioning each slide with its projection in one of the coacting notches, each slide being depressible against the tension of its spring to carry its projection out of the coacting notch and within the casing, substantially as set forth.

1,026,434. EXTENSION BURIAL-CASKET. AUGUST FRANKE, Cuero, Tex. Filed Feb. 15, 1912. Serial No. 677,685. (Cl. 27—3.)

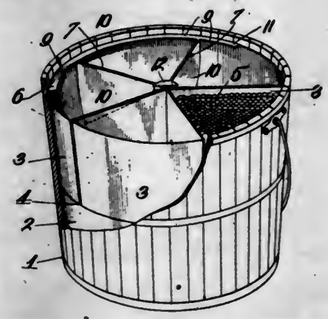
1. A casket, comprising a body and a cover, each consisting of main sections and an intermediate unitary section, the intermediate body section comprising a bottom and sides, the respective sides being in line transversely with each other and the bottom having its front and rear edges out of lines with the corresponding edges of the sides.



2. A casket comprising a body and a cover, each consisting of main sections and an intermediate unitary section, the intermediate body section comprising a bottom and sides, the respective sides being in line transversely with each other, and the bottom having its front and rear edges out of line with the corresponding edges of the sides, and the intermediate section of the cover comprising a top and sides, the sides being in line with each other transversely and the front and rear edges of the top being out of line with the corresponding edges of the sides.

3. A casket comprising a head and foot section and an intermediate section in both the body and cover of the casket, the intermediate sections of the body and cover being each unitary and having U-shaped reinforcing devices, one of the main sections having in the body and cover parts, longitudinal joint bars extending thereinto between the inner and outer surfaces of the said main sections, and the opposed main section having pockets closed except at the front end and receiving the said joint bars.

1,026,435. TOP TRIM FOR CANDY-PAILS. GUSTAV A. GOELITZ, Kansas City, Mo. Filed Jan. 4, 1912. Serial No. 669,473. (Cl. 217—10.)



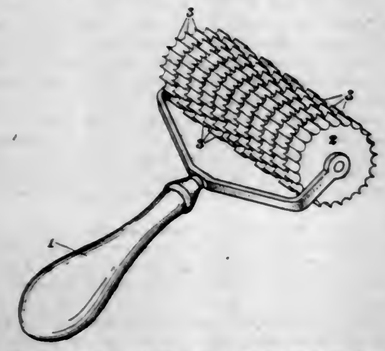
1. A top trim, comprising a device of skeleton form and consisting of a central portion, an outer portion surrounding the central portion and radial portions connecting the central and outer portions and each provided with a pair of depending wings.

2. The combination with a circular receptacle and radial partitions therein, of a trim upon said radial partitions consisting of a central portion covering the inner ends of the radial partitions, an outer portion fitting against the inner side of the receptacle, radial portions extending from the inner portion to the outer portion and upon the radial partitions, and wings depending from said radial portions and fitting against the opposite sides of the said radial partitions.

3. The combination with a circular receptacle or pail, a series of triangular cartons fitting in the receptacle and lying in the same horizontal plane and abutting sidewise together so that their abutting sides shall extend radially from the center of the pail to the wall thereof, of a trim resting upon said tier of cartons and consisting of a small central portion covering the inner ends of the side walls of the cartons, an outer circular portion fitting against

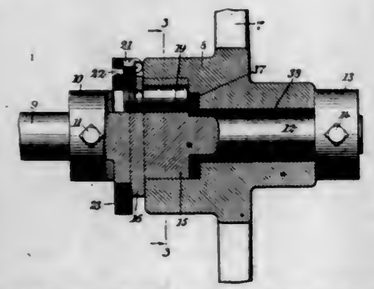
the inner side of the pail and resting upon said cartons, and radial portions extending from the inner portion to the outer portion in the vertical plane of and above the abutting walls of said cartons and provided with depending wings, the wings of each of said radial portions depending into adjacent cartons and fitting flatly against the adjacent walls of the said cartons.

1,026,436. DEVICE FOR PREPARING SURFACES TO BE PAINTED. NORRIS B. GREGG, St. Louis, Mo. Filed July 11, 1910. Serial No. 571,259. (Cl. 145—1.)



A device of the type set forth including a roller formed with a plurality of series of independent circular rows of concave grooves, the meeting edges of the walls formed by said grooves providing straight knife edge projections that are co-extensive with the longitudinal axis of said roller, the outer end portions of the walls and said knife edge projections formed by one row of grooves projecting outwardly and being disposed in the center of the spaces between the pairs of knife-edge projections formed by the adjacent row of grooves.

1,026,437. CLUTCH. JOHN GUSTAFSON, New York, N. Y. Filed June 1, 1910. Serial No. 564,350. (Cl. 192—6.)



1. In a clutch, the combination of a normally stationary shaft provided with a longitudinal ungrooved cylindrical portion serving as a bearing, and with a cylindrical portion of large diameter also serving as a bearing, said cylindrical portion of large diameter being provided with pocket grooves, a hub provided with a cylindrical bearing surface encircling said longitudinal cylindrical bearing portion, said hub being further provided with a substantially cylindrical bearing surface of large diameter encircling said large cylindrical portion of said shaft and with recesses interrupting said substantially cylindrical bearing surface, key members pivotally mounted within said pocket grooves and adapted to engage said cylindrical bearing surface of large diameter and also to extend into said recesses, and means controllable at the will of the operator for actuating said key members.

2. In a clutch, the combination of a normally stationary shaft provided with a longitudinal ungrooved cylindrical portion serving as a bearing, said shaft being further provided with a cylindrical portion of large diameter and having a pair of pocket grooves disposed upon diametrically opposite sides of the axis of rotation of said shaft, key members mounted within said pocket grooves, a hub provided with a portion encircling said longitudinal cylindrical portion of said shaft, said hub being further provided with a portion of enlarged diameter encircling said portion of large diameter of said hub and thus encircling said key members, said portion of enlarged diameter of said hub being also provided with recesses into which said key members may project when said key members are turned within their pocket grooves, and mechanism controllable at the will of the operator for turning said key members.

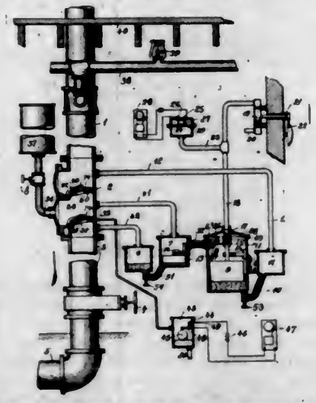
1,026,438. SOAP CAKE. WILLIAM HADDOW, Ossining, N. Y. Filed Aug. 17, 1910. Serial No. 577,689. (Cl. 87—23.)



1. A soap cake having an axial hole therethrough and a helical groove in said hole.

2. A soap cake having a protruding end and opposite thereto a complementary hollow end, a hole endwise therethrough and a helical groove in said hole.

1,026,439. SPRINKLER-ALARM APPARATUS. JOHN R. HAMILTON, Yonkers, N. Y., assignor to Venturi Alarm Company, Dover, N. J., a Corporation of New Jersey. Filed June 26, 1909. Serial No. 504,423. (Cl. 169—23.)



1. In sprinkler alarm apparatus, a supply pipe connected with a distributing system and formed with a supply chamber, a distributing check valve between said supply chamber and said distributing system and a supply check valve governing the inlet of said supply chamber away from said distributing system, an air chamber provided with an adjustable connection communicating with said supply chamber, said distributing and supply valves being provided with bleeding passages and with seats having annular recesses, one of said valves having a Venturi passage therethrough and having the exhaust throat of said Venturi passage connected to the annular recess in the coöperating valve seat and one of said valves having the annular recess in its seat connected to a relief drip chamber to cause a differential action, a float chamber, a coöperating detent chamber, a channel connecting said float chamber and said detent chamber and provided with a detent valve seat, a reservoir connected to said float chamber through a choke passage provided with an adjustable choke valve adjacent its lower portion, mercury in said float chamber, a float having a float stem and lock and having a float valve loosely connected thereto, electrical and mechanical alarms, an alarm pipe connected with and adapted to actuate said alarms and connected to said float chamber through a valve seat controlled by said float valve, a receiver connected with said detent chamber through a throttle passage having an adjustable throttle valve adjacent its lower portion, mercury in said detent chamber, a detent member mounted in said detent chamber, a detent operatively connected with said detent member and coöperating with said lock to prevent the release of said float valve when said detent member is actuated, a detent valve on said detent coöperating with said detent valve seat in said channel, and closing connection between said detent chamber and said float chamber when said detent member is actuated, a supply chamber connection between said detent chamber and said supply chamber, a distributing connection between said reservoir and said distributing system normally tending to operate said float valve and alarms when the pressure in said distributing system becomes less than in said supply chamber and a main connection between said receiver and said supply pipe to actuate said detent devices when the pressure in said supply pipe increases beyond that in said supply chamber.

2. In sprinkler alarm apparatus, a supply pipe connected with a distributing system and formed with a supply chamber, a distributing valve between said supply chamber and said distributing system and a supply valve governing the inlet of said supply chamber, an air chamber communicating with said supply chamber, said distributing and supply valves being provided with seats having annular recesses, one of said valves having a Venturi passage therethrough and having the exhaust throat of said Venturi passage connected to the annular recess in the coöperating valve seat and one of said valves having an annular recess in its seat provided with a relief connection to cause a differential action, there being bleeding passages provided on both sides of said supply chamber, a float chamber, a coöperating detent chamber, a channel connecting said float chamber and said detent chamber, a choke passage connected with said float chamber and provided with an adjustable choke valve, buoyant fluid in said float chamber, a float having a float stem and lock and having a float valve loosely connected thereto, an alarm connected to said float chamber through a valve seat controlled by said float valve, a throttle passage connected to said detent chamber and having an adjustable throttle valve, buoyant fluid in said detent chamber, a detent member mounted in said detent chamber, a detent operatively connected with said detent member and coöperating with said lock to prevent the release of said float valve when said detent member is actuated, a supply chamber connection between said detent chamber and said supply chamber, a distributing connection between said choke passage and said distributing system normally tending to operate said float valve and alarm when the pressure in said distributing system decreases and a main connection between said throttle passage and said supply pipe to actuate said detent devices when the pressure in said supply pipe increases.

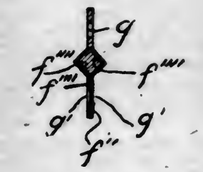
3. In sprinkler alarm apparatus, a supply chamber to be connected with a distributing system and with a supply pipe, a distributing valve between said supply chamber and said distributing system and a supply valve governing the inlet of said supply chamber away from said distributing system, an air chamber communicating with said supply chamber, bleeding passages on both sides of said supply chamber, a float chamber, a coöperating detent chamber adapted to be connected to said supply chamber, an adjustable choke passage connected to said float chamber and adapted to be connected to said distributing system, buoyant fluid in said float chamber, a float and connected float valve in said float chamber, an alarm connected to said float chamber and actuated when said float valve is withdrawn from its seat, an adjustable throttle passage connected to said detent chamber adapted to be connected with said supply pipe, buoyant fluid in said detent chamber, a detent member mounted in said detent chamber and a detent operatively connected with said detent member and preventing the operation of said float valve when said detent member is actuated.

4. In sprinkler alarm apparatus, a supply chamber to be connected with a distributing system and with a supply pipe, a distributing valve between said supply chamber and said distributing system and a supply valve governing the inlet of said supply chamber away from said distributing system, an air chamber communicating with said supply chamber, a float chamber, a coöperating detent chamber adapted to be connected to said supply chamber, a choke passage connected to said float chamber and adapted to be connected to said distributing system, buoyant fluid in said float chamber, a float and connected float valve in said float chamber, an alarm connected to said float chamber and actuated when said float valve is withdrawn from its seat, a throttle passage connected to said detent chamber adapted to be connected with said supply pipe, buoyant fluid in said detent chamber, a detent member mounted in said detent chamber and a detent operatively connected with said detent member and preventing the operation of said float valve when said detent member is actuated.

5. In sprinkler alarm apparatus, a supply chamber to be connected with a distributing system and with a supply pipe, a distributing valve governing the discharge from said supply chamber to said distributing system, a supply valve governing the entrance of fluid into said supply chamber from said supply pipe, an air chamber to be connected with said supply chamber, a float chamber and a coöperating detent chamber to be connected with said supply chamber, a choke passage connected to said float chamber and adapted to be connected with said distributing system, buoyant fluid in said float chamber, a float in said float chamber, an alarm to be actuated by movement of said float, a throttle passage connected to said detent chamber and adapted to be connected with said supply pipe, buoyant fluid in said detent chamber, a detent member mounted in said detent chamber and a detent operatively connected with said detent member and preventing the actuation of said alarm by said float when said detent member is actuated.

[Claims 6 to 15 not printed in the Gazette.]

1,026,440. FUSIBLE LINK FOR AUTOMATIC SPRINKLERS. ARNT C. HANNIBAL, Chicago, Ill. Filed Dec. 11, 1911. Serial No. 665,134. (Cl. 236—16.)

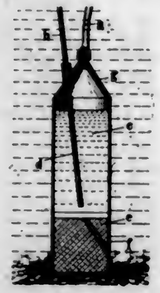


A fusible link comprising three members joined together by solder, one of said members consisting of a metal body part provided with an aperture therethrough and having a horizontally extending rib on the lower edge thereof, and the remaining parts substantially duplicates and respectively consisting of a metal body part provided with an aperture therethrough and having a horizontally extending recess on the upper edge thereof, fitting to the corresponding side of the rib on the first named part.

1,026,441. BATHOMETER. FRIEDRICH HERMANN CARL HEYN, Hamburg, Germany. Filed Jan. 16, 1911. Serial No. 602,765. (Cl. 73—5.)

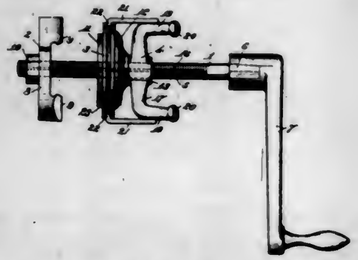
1. In a bathometer the combination of a vessel, an air-conduit attached thereto, a manometer communicating

with said air-conduit, a tube passing through the upper end of the said vessel and terminating above the bottom of the vessel, the vessel bottom having a duct which forms theretrough a continuation of the said tube, substantially as set forth.



2. In a bathometer the combination of a vessel, an air-conduit attached thereto, a manometer communicating with said air-conduit, a tube passing through the upper end of the said vessel and extending to a point near the bottom of said vessel, the said bottom being removable and having a duct leading from the lower portion of the said vessel to the interior thereof, substantially as set forth.

1,026,442. TOOL FOR CLEANING BOILER-HEAD CAP-SEATS. WILLIAM T. HOGARTH and DANIEL K. DEAL, Williamsport, Pa. Filed May 5, 1911. Serial No. 625,160. (Cl. 83—64.)



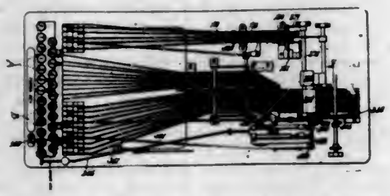
1. A tool of the class described, comprising a stem, a transverse scraper fixed thereto, a slide keyed to said stem and provided with an extension to engage in a hand hole in a boiler head and a clamping member threaded on said stem and adapted to engage said slide.

2. A tool of the class described, comprising a stem, a transverse scraper fixed thereto, a slide on said stem, a clamping member threaded on said stem and adapted to engage said slide, means for clamping said slide and said scraper against opposite sides of a boiler head and means for turning said stem.

3. A tool of the class described, comprising a stem, a transverse scraper fixed thereto, a slide upon said stem provided with an annular recess, a clamping member threaded on said stem and engaging said slide, arms connected to said slide and engaging in said recess and means for turning said stem.

4. A tool of the class described, comprising a stem provided with a longitudinal slot, a transverse scraper upon said stem, a slide on said stem provided with a key engaging in said slot, said slide having a reduced bearing shoulder on its outer face encircling said stem and an extension on its inner face adapted to engage in a hand hole of a boiler head and also provided with a peripheral groove, a clamping member threaded upon said stem and adapted to engage said bearing shoulder, angularly disposed arms on said clamping member substantially parallel with said stem, extensions fixed to said arms and having their ends inturned to engage said peripheral groove, and means for turning said stem.

1,026,443. CALCULATING-MACHINE. HUBERT HOPKINS, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Oct. 26, 1908. Serial No. 459,602. (Cl. 235—60.)



1. In a calculating machine the combination with means for decimally multiplying numbers, a totalizer in which the products are accumulated, and means whereby certain decimals in the product are eliminated, or increased and computed in the totalizer as a digit of next higher denomination.

2. In a calculating machine, the combination of totalizer wheels, actuating racks therefor, printing type positioned by said racks, a total key and connections whereby a total may be taken, and means for preventing the operation of type of low denomination in total taking operations.

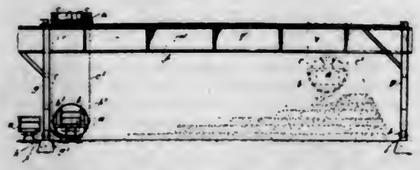
3. In a calculating machine, the combination of totalizer wheels, actuating racks therefor, printing type positioned by said racks, means for adding a predetermined digit to said total through one of said racks, and means for making a record of the total from said totalizer of the amount registered therein, except in the wheel operated a predetermined distance.

4. In a calculating machine, the combination of totalizer wheels, carrying mechanism, actuating racks therefor, printing type under the control of certain of said racks, and means for effecting a relative lateral movement between said totalizer and said racks, whereby digits of lower denomination will be eliminated in total taking operations.

5. In a calculating machine, the combination of totalizer wheels, actuating means therefor, and means for taking the total from said totalizer, said means excluding the amount registered on a certain wheel or wheels of lower denomination.

[Claims 6 to 68 not printed in the Gazette.]

1,026,444. STORAGE OF COAL, ORES, &c. WILLIAM F. HUNT, New Brighton, N. Y., assignor to C. W. Hunt Company, West New Brighton, N. Y., a Corporation of New York. Filed July 25, 1911. Serial No. 640,524. (Cl. 214—4.)



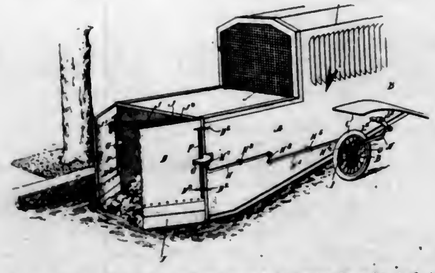
1. Apparatus for storing coal, etc., from railway cars comprising a bridge, a trolley mounted thereon, a cage suspended from the trolley and adapted to receive a railway car, means to hoist the cage and means to impart a rotary movement to the cage and car whereby the contents of the latter are discharged.

2. Apparatus for storing coal, etc., from railway cars comprising a bridge, a trolley mounted thereon, a cage suspended from the trolley and adapted to receive a railway car, means to hoist the cage and means to impart a rotary movement to the cage and car about their longitudinal axis whereby the contents of the car are discharged.

3. Apparatus for handling coal, etc., from railway cars comprising a cage, a trolley mounted on a bridge and having two sets of hoisting mechanisms, a cage adapted to receive a railway car, and hoisting ropes connected to the cage on opposite sides and to the several hoisting mechanisms, whereby the car with its contents may be hoisted, transported to the point of discharge, and discharged of its contents.

4. Apparatus for storing coal, etc., from railway cars comprising a bridge, a trolley mounted thereon, a cage suspended from the trolley and adapted to receive a railway car, mechanism carried on said trolley to hoist the cage and to impart a rotary movement to the cage and car whereby the contents of the latter are discharged.

1,026,445. STREET-CLEANING MACHINE. MARTHA B. HUSON, New York, N. Y. Filed June 7, 1911. Serial No. 631,728. (Cl. 15—17.)



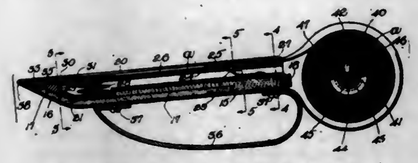
1. A street cleaner, comprising a receptacle adapted to be pushed over the pavement and having an open front end, the front edge of the bottom of the receptacle being close to the pavement, doors provided at their lower ends with cleaning members mounted to swing and to slide up and down on the sides of the receptacle at the front, and means for imparting a swinging motion and an up and down motion to the said doors and cleaning members.

2. A street cleaner, comprising a receptacle adapted to be pushed over the pavement and open at the front, the front bottom edge of the receptacle being close to the ground, wheels on which the rear portion of the receptacle is supported, doors provided with cleaning members at their lower ends and mounted to swing and to slide up and down on the sides of the receptacle at the front end thereof, cams turning with the said wheels, raising and lowering means controlled by the said cams and connected with the said doors to raise the doors and cleaning members during the outward swinging motion, and to lower the doors and cleaning members to the pavement during the closing movement of the doors and cleaning members, and actuating means controlled by one of the said wheels and connected with the said doors to swing the latter into open or closed position.

3. A street cleaner, comprising a wheeled receptacle open at the front, doors mounted to swing and to slide up and down on the open front of the said receptacle, the lower ends of the doors being provided with cleaning members, means for imparting a swinging motion to the said doors, and means for imparting an up and down motion to the said doors, both of said means having connection with the receptacle wheels, the doors during the closing movement being lowered, and raised during the outward movement.

4. A street cleaner, comprising a receptacle adapted to be pushed over the pavement and open at the front, the front bottom edge of the receptacle being close to the ground, wheels on which the rear portion of the receptacle is supported, bearings on the sides of the receptacle at the front end thereof, doors having pintles mounted to turn and to slide up and down in the said bearings, cleaning members on the lower ends of the doors, supporting plates on the said doors, cams on the said wheels, lever mechanisms on each side of the receptacle and controlled by the said cams and engaging the said supporting plates to raise and lower the doors and cleaning members, links pivotally connected with the said doors and extending within the receptacle, a rod mounted to slide in the receptacle and connected with the said links, a rock shaft mounted on the receptacle and provided with oppositely extending arms, a link connecting one of said arms with the said rod, and a crank and link connection between the other arm and one of the said wheels.

1,026,446. GUMMED-STRIP APPLIER. JOHN C. KENNEDY, Boston, and WILLIAM S. KINSLEY, Reading, Mass. Filed May 21, 1910. Serial No. 562,735. (Cl. 216—29.)



1. A hand implement of the character described, comprising a guide for a gummed strip, a moistener adjacent the exit for the strip, and a movable manually operable cutter for severing the strip at a point in the rear of the moistener, the implement having a form to enable it to be manipulated by one hand of the operator to apply and cut off a strip of any length.

2. A device of the character described, comprising a guide for a gummed strip, an applying tip at one end of the guide, a moistener adjacent said tip, and a strip cutter in the rear of the moistener.

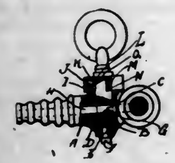
3. A device of the character described, comprising a guide for a gummed strip, a tapering exit throat for the strip, a moistener adjacent the tip of the device, and a cutter for severing the strip at a point in the rear of the moistener, said tapering exit throat leading from the cutter to the moistener.

4. A device of the character described, comprising a strip guide having an elongated opening to permit a gummed strip to be engaged by a thumb or finger for feeding it, a moistener adjacent the exit for the strip, and means for severing the strip at a point in the rear of the moistener.

5. A device of the character described, comprising a guide for a gummed strip, a reservoir, a wick throat leading from said reservoir, a movable cover plate opposite the end of said wick throat, and means for severing the strip at a point in the rear of the end of the wick throat.

[Claims 6 to 16 not printed in the Gazette.]

1,026,447. GAS-FIXTURE. JOHN W. LANGENDORFER, Philadelphia, Pa. Filed Apr. 14, 1911. Serial No. 621,041. (Cl. 137—7.)

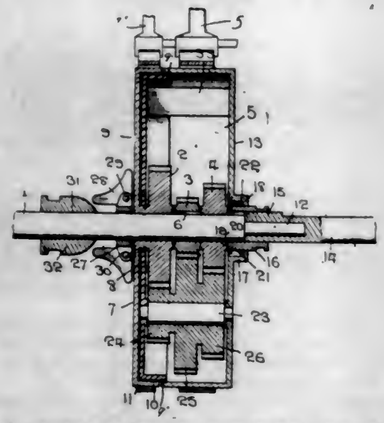


1. In combination a gas fixture having a key seat, a key co-acting with the key seat, a collar having a flange formed therewith, said collar having a perforation therein, a

secondary collar having a portion cut away producing shoulders, said collar lying flush with the flange of the first named collar, a screw carried by the fixture and co-acting with the shoulders of the second named collar, and a coiled spring having an extension, said coiled spring being wound about a screw, the extension thereof co-acting with the perforation for holding the key closed.

2. In combination a gas fixture having a key seat, a key co-acting with said seat, a collar having a flange carried by said key, a secondary collar having a portion cut away to produce shoulders, said collar also carried by the key and lying flush with the flange of the first named collar, a pin carried by the body of the fixture, and resilient means carried by the pin and co-acting with the first named collar for holding the key against accidental opening.

1,026,448. TRANSMISSION-GEARING. GEORGE W. MARSTON, Dexter, Iowa. Filed May 27, 1911. Serial No. 629,764. (Cl. 74—34.)



1. A transmission gearing comprising a main drum, a small drum engaging with said main drum, a brake for each of said drums, a drive shaft, said drums being mounted on said drive shaft, a driven shaft positioned on the end of said drive shaft, gears carried upon said drive shaft within said drums, one of said gears being integral with said small drum, a shaft carried by said main drum and positioned parallel with the end of said drive shaft within said drum, gears mounted upon said shaft carried by said drum for engagement with said gears on said drive shaft, and a sliding clutch mounted on said driven shaft for connecting said driven shaft with one of the gears on said drive shaft.

2. A transmission gearing comprising a main drum, a small drum engaging with said main drum, a brake for each of said drums, a drive shaft, said drums being mounted on said drive shaft, gears carried upon said drive shaft within said drums, one of said gears being integral with said small drum, a shaft carried by said main drum and positioned parallel with the end of said drive shaft within said drum, gears mounted upon said shaft carried by said drum for engagement with said gears on said drive shaft, and a sliding clutch keyed to said driven shaft for connecting the latter with the main drum.

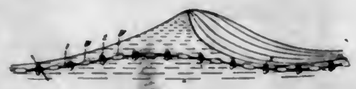
3. A transmission gearing comprising a main drum, a small drum engaging with said main drum, a brake for each of said drums, a drive shaft, said drums being mounted on said drive shaft, gears carried upon said drive shaft within said drums, one of said gears being integral with said small drum, a shaft carried by said main drum and positioned parallel with the end of said drive shaft within said drum, gears mounted upon said shaft carried by said drum for engagement with said gears on said drive shaft, a sliding clutch keyed to said driven shaft for connecting the latter with the main drum or one of the gears on said drive shaft, and means upon said main shaft adjacent said small drum to press the latter against said main drum to lock said drums to one another for rotation with said main shaft.

1,026,449. HORSESHOE-CALK. WILLIAM I. MILLER and JESSE MILLER, Red Wing, Minn. Filed Jan. 31, 1912. Serial No. 674,461. (Cl. 168—35.)



In a horseshoe calk, a pair of rotatable members threaded into the horseshoe, each of said rotatable members being formed with a slotted portion extending toward the opposite member whereby said slots form a substantially continuous slot, and a hardened strip of material positioned in said continuous slot formed with a notch acting as a key receiving portion, said strip of material being designed to wear slower than the remaining parts of the calk whereby the calk will be substantially self-sharpening.

1,026,450. WAVE-MOTOR. JOHN WALKER NEAL, Kealia, Hawaii. Filed July 14, 1911. Serial No. 638,467. (Cl. 61—49.)



1. In a wave motor, the combination with a flexible shaft adapted to extend longitudinally into a body of water, of floating means for buoying said transmission member up in said water, means for anchoring one end of said transmission member, and a plurality of propellers mounted on said transmission member at suitable spaced intervals and adapted to transmit the rotary motion engendered therein by the waves of said water to said transmission member.

2. In a wave motor, the combination with a power transmission member adapted to extend longitudinally into a body of water, of floating means for buoying said transmission member up in said water, means for anchoring one end of said transmission member, a plurality of propellers mounted on said transmission member at suitable spaced intervals and adapted to transmit the rotary motion engendered therein by said water to said transmission member, said propellers being loosely mounted on said transmission member, and clutching means for connecting said propellers in driving relation with said transmission member.

3. In a wave motor, the combination with a power transmission member adapted to extend longitudinally into a body of water, of floating means for buoying said transmission member up in said water, means for anchoring one end of said transmission member at suitable spaced intervals and adapted to transmit the rotary motion engendered therein by said water to said transmission member, said propellers being loosely mounted on said transmission member, clutching means for connecting said propellers in driving relation with said transmission member, and floats on said transmission member interposed between said propellers for buoying up said transmission member in said water.

4. In a wave motor, the combination with a flexible shaft adapted to be extended into a body of water, of a plurality of propellers connected to said shaft at suitable spaced intervals and adapted to impart to said shaft the motion engendered in it by the waves of said water.

5. In a wave motor, the combination with a shaft adapted to be extended into a body of water, of a plurality of propellers rotatably mounted on said shaft at suitable spaced intervals, a clutch on each of said propellers, and corresponding clutches on said shaft, said clutches being adapted to interlock with each other during the motion of said propellers in one direction, and to cam off from each other during the motion of said propellers in the other direction.

[Claims 6 and 7 not printed in the Gazette.]

1,026,451. FORM FOR SHAPING AND FINISHING GARMENTS. HERBERT L. NELKE, Philadelphia, Pa. Filed Mar. 15, 1911. Serial No. 614,643. (Cl. 223—19.)



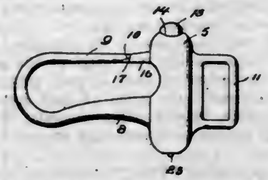
1. The combination of a primary form for garments; and a tapered auxiliary form independent of the primary form, said auxiliary form being attached to the primary form with its narrow end adjacent the body portion of the primary form.

2. The combination of a primary form for garments having its contour shaped to correspond to the bust, waist and limb portions of a garment; and a plurality of tapered auxiliary forms detachably connected to the primary form with their narrow ends adjacent the junction of the limb portions and body portions of the primary form.

3. The combination of a primary form comprising a wire frame having a shaped contour corresponding to the bust, waist and limb portions of a garment; means for suspending said primary form; a plurality of tapered auxiliary forms; and means for suspending the auxiliary forms with their narrow ends adjacent the junction of the limb and waist portions of the primary form.

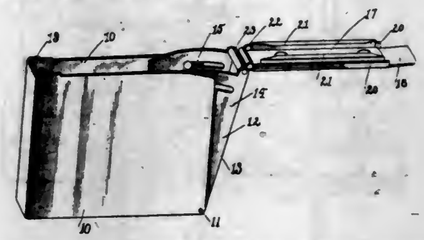
4. The combination of a primary form, having its contour shaped to correspond to the bust, waist and limb portions of a garment; means whereby the primary form may be suspended; said primary form having a plurality of sockets formed therein; two tapered auxiliary forms, each of said auxiliary forms having a hook adjacent its narrow end; said hooks being adapted to the sockets and forming means whereby the auxiliary forms may be suspended from the primary forms.

1,026,452. SNAP-HOOK. VICTOR F. NELSON, Spokane, Wash. Filed Sept. 13, 1911. Serial No. 649,013. (Cl. 24—239.)



A snap hook, comprising a body having a recess therein, a hook projected outwardly from one side of the body and having a bill terminating at a distance from the body, a slide arranged within the recess and having one end projected through one end of the body, a guard carried by the slide and engageable with the bill for closing the hook, movable spring means acting upon the slide for normally holding the guard closed and having a free end, means within the body and engaging the free end of the spring means to hold the slide locked, and means for releasing the spring means from the last-named means.

1,026,453. CONTAINER. FERNAN N. PHILLIPPAR and PETER J. DESSELLE, Weir, Kans. Filed July 29, 1911. Serial No. 641,192. (Cl. 206—41.)

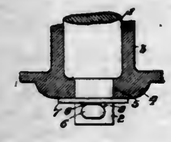


1. A container comprising a casing, a section mounted to slide and to turn on the said casing and forming one end thereof, a cover pivotally mounted on the said section and adapted for engagement with the said casing, gripping members on the said cover, a stop flange formed at one end of the said cover and retaining lugs formed on the said casing and adapted to be engaged by the said cover to retain the same in locking engagement with the said casing.

2. A container comprising a casing, a section mounted to slide and to turn on the said casing and forming one end thereof, a cover pivotally mounted on the said section and adapted for engagement with the said casing, gripping members on the said cover and means formed on the said casing and adapted to be engaged by the said cover to retain the same in locking engagement with the casing.

3. A container comprising a casing, a section mounted to slide and to turn on the said casing and forming one end thereof, a cover pivotally mounted on the said section and adapted for engagement with the said casing, gripping members on the said cover, a stop flange formed at one end of the said cover and means formed on the said casing and adapted to be engaged by the said cover to retain the same in locking engagement with the said casing.

1,026,454. MINE-CAR WHEEL. ROBERT F. PHILLIPS and LOUIS J. MCCLOSKEY, Carrick borough, Pa., assignors to Phillips Mine and Mill Supply Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 4, 1912. Serial No. 681,530. (Cl. 105—67.)

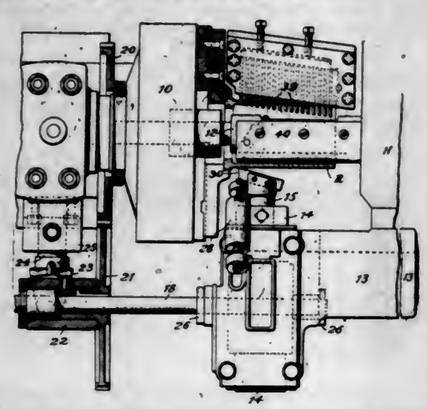


The combination with a wheel, an axle, a malleable washer arranged on the axle and a linch pin passing through the axle, the washer being provided with integral lugs bent outwardly to engage both sides of the linch pin.

1,026,455. PISTON-RING-TURNING ATTACHMENT FOR TURRET-LATHES. JAMES CHARLES POTTER, Providence, R. I., assignor to Potter & Johnston Machine Company, Pawtucket, R. I. Filed Nov. 28, 1910. Serial No. 594,582. (Cl. 29—39.)

1. As a mechanism for turret lathes, the combination of a turret, a reciprocable turning tool carrier, an eccentric acting on said tool carrier to reciprocate the same,

means for connecting it with a rotating member of the lathe and a bracket supporting said tool carrier and eccentric and formed for attachment to the turret.



2. In a piston ring turning mechanism, the combination of a turret, a tool-carrier means for causing eccentric turning by said tool-carrier, an automatic marking device to indicate the parting points for the rings and means to cause it to act at a predetermined time.

3. In a piston ring turning mechanism, the combination of a turret, a turret-engaging bracket, a reciprocating tool carrier whose path of movement is crosswise of the path of travel of the turret slide, a shaft extending in the same direction as the path of travel of the turret slide, and movable with and supported by said bracket, a connection between said shaft and said tool-carrier for imparting movement to the latter, and means for revolving said shaft including a stationarily supported gear wheel.

4. In a piston ring turning mechanism, the combination of a turret, a turret-engaging bracket, a reciprocating tool carrier whose path of movement is crosswise of the path of travel of the turret slide, a shaft extending in the same direction as the path of travel of the turret slide and movable with and supported by said bracket, a connection between said shaft and said tool carrier for imparting movement to the latter, means for revolving said shaft including a stationarily supported gear wheel, a ring marking device, and means for actuating the same from said shaft at a predetermined time.

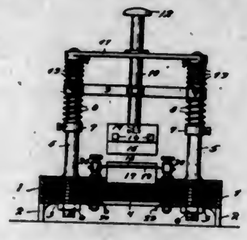
5. In a piston ring turning mechanism, the combination of a turret, a bracket attached to the turret, a tool-carrier movably supported by the bracket, a shaft, means connecting the shaft to the tool-carrier for imparting movement to the latter, the shaft being supported by the bracket, and an adjustable support for the shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,026,456. MACHINE FOR SEALING THE ENDS OF METALLIC TUBES. GEORGE G. RAMBAUD, New York, N. Y. Filed Feb. 19, 1912. Serial No. 678,543. (Cl. 219—12.)

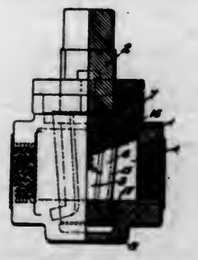
1. A machine for soldering the ends of metal tubes, comprising a fixed anvil of heat-resisting material provided with an electric heater, a gage-stop integral with said anvil for determining the width of the seam to be soldered, a pressure-block, means for moving said pressure-block, means for supplying a current of electricity to the heater, and a suitable electric switch.

2. A machine for sealing the ends of metal tubes, comprising a fixed anvil of porcelain provided with an electric heater, a gage-stop integral with said anvil for limiting the width of the seam to be soldered, a plunger carrying a porcelain presser-block, said plunger being attached to a horizontal bar vertically movable on a pair of supports, compressible springs adapted to return the plunger to normal position after having been depressed, and means for supplying a current of electricity to the heater.



3. A machine for sealing the ends of metal tubes, comprising a fixed porcelain anvil provided with an electric heater, a gage-stop integral with said anvil for limiting the width of the seam to be soldered, means for supplying a current of electricity to the heater, a plunger attached to a horizontal bar vertically movable upon supporting-posts, a porcelain presser-block carried by the plunger, compressible and expansible springs for returning the plunger to normal position after having been depressed, and means for opening and closing the electric circuit.

1,026,457. PACKING-RING. CHARLES H. REYNOLDS, Rochester, N. Y. Filed Feb. 4, 1911. Serial No. 606,620. (Cl. 137—7.)



1. The combination with a valve casing having a segmental recess in the wall of the chamber thereof, of a segmental vulcanized asbestos packing therefor, applicable and removable therefrom in its entirety, substantially as described.

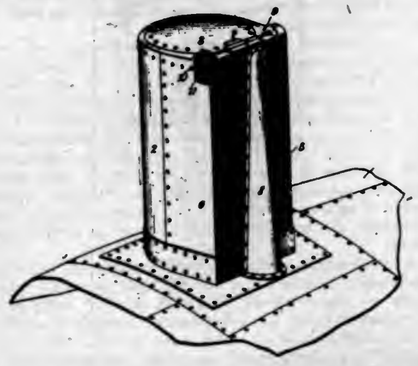
2. The combination with a valve casing having a segmental recess provided with wedge elements; of a segmental packing ring therefor provided with wedge elements complementary to the segmental recess, and applicable and removable therefrom in its entirety, substantially as described.

3. A packing ring for valves comprising a rectangular body with a rectangular opening and having off-set and arcuate end portions, and having the side portions constructed with beveled edges whereby said ring may be wedged in its seat, substantially as described.

4. A packing ring for valves comprising a rectangular body with a rectangular opening and having off-set and arcuate end portions; one of said arcuate portions having the end surface thereof lying in the same straight plane, and the other of said arcuate portions having a curved end surface; the sides of said rectangular body constructed with beveled edges whereby said ring may be wedged in its seat, substantially as described.

1,026,458. SUBMARINE RESCUING APPARATUS. SAMUEL ROTH, New York, N. Y., assignor to Pieter Treffers, Brooklyn, N. Y. Filed June 14, 1911. Serial No. 633,020. (Cl. 114—16.6.)

1. Rescuing apparatus for submarine craft, comprising a casing carried by the craft, means for closing the outer end of said casing, mechanism for moving said means to open position to enable the occupant of the casing to make his exit, a signal device inside the submarine vessel, and means carried by the means for closing the outer end of the casing and independent of the mechanism for moving said means to open position, to control said signal.



2. Rescuing apparatus for submarine craft, comprising a casing carried by the hull of the submarine vessel, means mounted on the interior of said casing for actuating an electric signal inside of the hull of the submarine vessel, said means comprising a pair of movable conductors and a button switch therefor, said casing having means for closing its outer end, mechanism for moving said closing means to open position, the movable conductors and the switch enabling the occupant of the casing to indicate his exit from the casing, and a weight for returning the conductors and the switch, to their original positions.

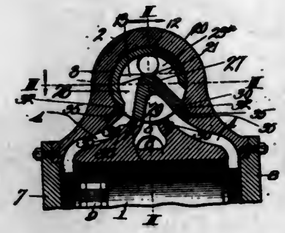
3. Rescuing apparatus for submarine craft, comprising a casing carried by the hull of the submarine vessel, closure means for the inner end of the casing, means operable from the inside of said casing to enable the occupant thereof to secure said means in closing position, means to enable the occupant to admit water to said casing, mechanism for exhausting air simultaneously from said casing, means operable either from within the casing by the occupant thereof or by another person inside of the hull of the submarine craft, to throw said exhausting means into operation, said casing also having closure means for its outer end, mechanism for moving said closure means to open position, and means for enabling either the occupant of the casing or a person inside of the hull of the submarine vessel to throw said last named mechanism into operation, to enable the occupant of the casing to make his exit therefrom.

4. Rescuing apparatus for submarine craft, comprising a casing carried by the hull of the submarine vessel, means for closing the inner end of said casing, means for closing the outer end of said casing, locking mechanism for securing said last-named means in closed position, and a signal device associated with said locking means and actuated thereby, to enable the occupant of the casing to indicate to a person inside of the hull of the submarine the movement of the locking means to unlocking position.

5. Rescuing apparatus for submarine craft, comprising a casing carried by the hull of the submarine vessel, closure means for the inner end of the casing, closure means for the outer end of the casing, means to enable the occupant thereof to admit water to the casing, a conduit communicating at one end with said casing and having a controlling valve adjacent said end and connected to pumping means at its other end for exhausting air from said casing, an electric motor for operating said pumping means, a rod connected to said valve and extending from the interior to the exterior of said casing, switching means controlled by said rod for controlling the supply circuit of the motor, and means carried by said rod to enable the same to be actuated either on the inside or outside of said casing, whereby, when said rod is turned to open the valve, the motor controlling the air pump will be set in operation to exhaust the air from said casing.

[Claims 6 to 11 not printed in the Gazette.]

1,026,459. OSCILLATING VALVE. GEORGE A. RUSH, Kansas City, Kans. Filed Dec. 27, 1910. Serial No. 599,392. (Cl. 136—7.)



1. The combination with a cylinder and a cylindrical steam chest having ports connecting opposite ends of the former with the latter at opposite sides of its center and an exhaust port between the first-named ports connecting the steam chest with the atmosphere and having longitudinal grooves between the said ports and outward of the first-named ports and transverse grooves connecting the ends of the longitudinal grooves, of a packing frame fitting in the grooves surrounding each of the first-named ports, said packing frames having inwardly projecting lapping extensions at their ends occupying the central portions of the said transverse grooves, and springs underlying said frames and tending to press them upwardly out of said grooves.

2. The combination with a cylinder and a cylindrical steam chest having ports connecting opposite ends of the former with the latter at opposite sides of its center and an exhaust port between the first-named ports connecting the steam chest with the atmosphere and having longitudinal grooves between the said ports and outward of the first-named ports and transverse grooves connecting the ends of the longitudinal grooves, of a packing frame fitting in the grooves surrounding each of the first-named ports, said packing frames having inwardly projecting lapping extensions at their ends occupying the central portions of said transverse grooves, springs underlying said frames and tending to press them upwardly out of said grooves, and an oscillatory valve fitting in the steam chest and provided with a supply chamber and an exhaust chamber, and an inlet opening through which steam passes into the supply chamber, said valve being engaged peripherally by the spring actuated packing frames.

1,026,460. WATER-BOTTLE FOR INFANTS. MARY L. RUSK, New York, N. Y. Filed Dec. 12, 1911. Serial No. 665,257. (Cl. 46—40.)

1. In a device of the kind described, a hot liquid container and a cover therefor comprising a doll's head, an outer covering and a strap permanently secured to one side of the head and detachably secured to the other.

2. In a device of the kind described, a hot liquid container, a heat retaining covering therefor in the form of a doll's dress, a doll's head and means for detachably securing the liquid container to the head.

3. In a device of the kind described, a hot liquid container, a heat retaining covering therefor in the form of a doll's dress open at its lower end, a doll's head, means for detachably securing the liquid container to the head and means for detachably securing the covering to the head.

4. In a device of the kind described, a hot liquid container, a heat retaining covering therefor in the form of a doll's dress open at its lower end, a doll's head, means

for detachably securing the covering to the head and means for detachably securing the hot liquid container to



the head comprising a strap permanently secured to one side of the head and detachably secured to the other.

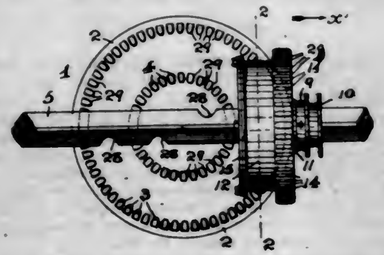
1,026,461. SAFE OR STEEL-VAULT WALL. FRANZ WILHELM SCHILLING, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Apr. 6, 1910. Serial No. 553,810. (Cl. 75—1.)

1. A safe or steel-vault wall made from an iron-carbon alloy having the composition of steel and containing such a high amount of chromium, that it cannot be melted through by the blow-pipe flame of oxyhydrogen gas.

2. A safe or steel-vault wall made from an iron-carbon alloy having the composition of steel and containing such a high amount of chromium and tungsten, that it cannot be melted through by the blow-pipe flame of oxyhydrogen gas.

3. A safe or steel-vault wall, made from an iron-carbon alloy having the composition of steel and containing more than 1% carbon, more than 9% chromium and more than 3% tungsten.

1,026,462. TRANSMISSION MECHANISM. LEWIS E. SCHLOTTERBACK, East Orange, N. J., assignor to L. E. Schlotterback Manufacturing Co., a Corporation of New Jersey. Filed Aug. 4, 1911. Serial No. 642,222. (Cl. 74—58.)



1. A combined variable speed transmission and clutch mechanism comprising a transmission shaft, a carrier-member slidably mounted on said transmission-shaft and rotating therewith, a gear mounted to rotate freely upon said carrier-member, and automatic clutch-mechanism arranged with said gear and said carrier-member for transmitting the rotary movement of the former to the latter at predetermined times.

2. A combined variable speed transmission and clutch mechanism comprising a transmission shaft, a carrier-member slidably mounted on said transmission shaft and rotating therewith, a gear mounted to rotate freely upon said carrier-member, and automatic clutch-mechanism arranged with said gear and said carrier-member for transmitting the rotary movement of the former to the latter at predetermined times, and means for driving said gear at variable speeds.

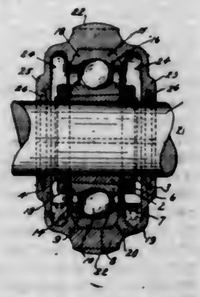
3. A combined variable speed transmission and clutch-mechanism comprising a driving disk provided with a series of concentrically arranged sets of gear-teeth, a transmission-shaft, a carrier-member slidably mounted on said transmission-shaft, and rotating therewith, a gear mounted to rotate freely upon said carrier-member and adapted to be carried thereby into meshing engagement with any one of said sets of gear-teeth on said driving-disk, and automatic clutch mechanism arranged with said gear and said carrier-member for transmitting the rotary movement of the former to the latter at predetermined times.

4. A combined variable speed transmission and clutch mechanism comprising a driving disk provided with a series of concentrically arranged sets of gear-teeth, a transmission-shaft, a carrier-member slidably mounted on said transmission-shaft, and rotating therewith, a gear mounted to rotate freely upon said carrier-member and adapted to be carried thereby into meshing engagement with any one of said sets of gear-teeth on said driving disk, automatic clutch-mechanism arranged with said gear and said carrier-member for transmitting the rotary movement of the former to the latter at predetermined times, and means upon said transmission-shaft for operating said clutch-mechanism.

5. A combined variable speed transmission and clutch-mechanism comprising a transmission-shaft, a carrier-member slidably mounted on said transmission-shaft and rotating therewith, a clutch-drum rotatably mounted on said carrier-member, a gear-member connected with said clutch-drum, a clutch-band coöperating with said clutch-drum, and means carried by said carrier-member and operated by the slidable movements of the same to automatically operate said clutch-band at proper times.

[Claims 6 to 13 not printed in the Gazette.]

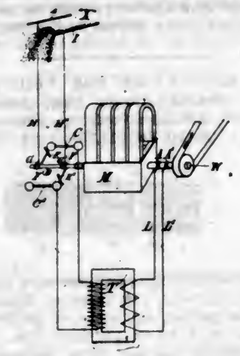
1,026,463. BALL-BEARING. STEFAN SCHNEIDER, Chicago, Ill. Filed Oct. 27, 1911. Serial No. 657,157. (Cl. 64—36.)



1. In a ball bearing, an outer and inner race ring, each race ring being cut partially through from its back at a plurality of points and broken the remainder of the way, a casing holding the sections of the outer race ring together, and clamping rings on each side of the inner race ring and adapted to hold the sections thereof together.

2. A ball bearing comprising a split sleeve, clamping rings having threaded engagement on the ends of the sleeve and each having an inwardly inclined lip on its inner face, a sectional race ring on the sleeve between said rings having sides inclined complementally with said lips, a sectional casing, a sectional race ring in the casing, and balls in the raceways of said rings.

1,026,464. METHOD OF ELECTRICALLY CHARGING ELECTROSTATIC SEPARATING DEVICES. FRIEDRICH OSCAR SCHNELLE, Frankfort-on-the-Main, Germany. Filed Dec. 27, 1904. Serial No. 288,387. (Cl. 83—49.)



1. The method of maintaining a working charge at substantially constant potential of the desired value on the active part of an electrostatic separator, which consists in establishing said working charge thereon, and during the period that the charge is exercising its separating effect, maintaining the charge at substantially constant potential by the periodic transmission of fractional charges from a source of electrical energy having a potential which does not substantially exceed the desired potential of the charge; substantially as described.

2. The method of maintaining a working charge at substantially constant potential of the desired value on the active part of an electrostatic separator, which consists in establishing said working charge thereon, and during the period that the charge is exercising its separating effect, maintaining the charge at substantially constant potential by the periodic transmission of fractional charges from a source of electrical energy of periodically changing potential which does not substantially exceed the desired potential of the charge, such fractional charges being synchronously collected during transmission; substantially as described.

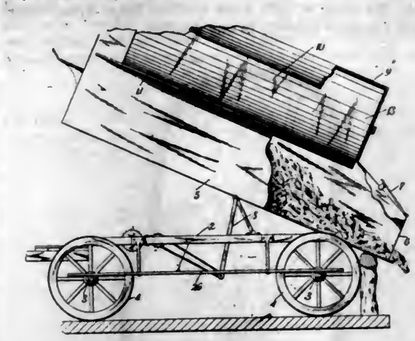
3. The method of electrically charging the active parts of an electrostatic separator and maintaining the charge at substantially constant potential of the desired value, which consists in establishing communication between a source of periodically changing potential and the parts to be charged at moments when the potential of the respective poles of the source is of the same sign as the parts to be chargd and does not substantially exceed the desired potential of the charge; substantially as described.

4. The method of electrically charging the active parts of an electrostatic separator and maintaining the charge at substantially constant potential of the desired value, which consists in establishing such a charge, generating a periodically changing potential of relatively low value, transforming said potential to increase its value and periodically establishing communication between the transformer and the parts to be charged at moments when the potential of the desired value of the respective poles of the transformer is of the same sign as the parts to be charged and does not substantially exceed the desired potential of the charge; substantially as described.

5. The method of electrically charging the active parts of an electrostatic separator and maintaining the charge at substantially constant potential of the desired value, which consists in generating a periodically changing potential of relatively low value, transforming said potential to increase it to a value which does not substantially exceed the desired potential of the charge, and conducting the rectified charges to the active parts of the separator; substantially as described.

[Claim 6 not printed in the Gazette.]

1,026,465. REFUSE-WAGON. LEOPOLD F. SCHOLZ, New York, N. Y. Filed May 29, 1911. Serial No. 630,017. (Cl. 214—1.)



1. The combination with a casing having an opening in the side thereof, of a dumper movably mounted in said casing, means for automatically moving said dumper, a lock for preventing the automatic movement of said dumper, and a tripper for said lock, adapted to be actuated by the placing of cans or barrels to be emptied into said casing, on said dumper.

2. The combination with a casing having an opening in the side thereof, of a dumper movably mounted in said casing, means for automatically moving said dumper, a lock for preventing the automatic movement of said dumper, a tripper for said lock, adapted to be actuated by the placing of cans or barrels to be emptied into said casing, on said dumper, and a guard for preventing the falling of said barrels into said casing.

3. The combination with a casing having an opening in the side thereof, of a shelf arranged in juxtaposition to the bottom of said opening and extending partly within and partly without said casing, a dumper rotatably mounted in said casing, said dumper having a platform adapted to extend in alinement with said shelf, and a cylindrical partition for closing said opening when said dumper is in its dumping position.

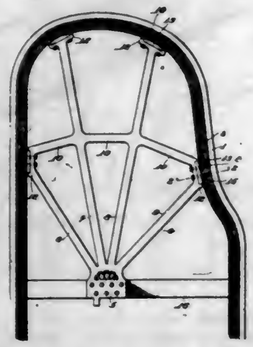
4. The combination with a casing having an opening in the side thereof, of a shelf arranged in juxtaposition to the bottom of said opening and extending partly within and partly without said casing, a dumper rotatably mounted in said casing, said dumper having a platform adapted to extend in alinement with said shelf, a cylindrical partition for closing said opening when said dumper is in its dumping position, a latch for locking said dumper in its erect position, and a tripper for tripping said latch so as to permit it to swing to its dumping position.

5. The combination with a casing having an opening in the side thereof, of a dumper rotatably mounted in said casing, said dumper having a plurality of partitions adapted to cut off communication between the interior and the exterior of said casing through said opening, one of said partitions being located circumferentially of said dumper, and the other of said partitions extending at an angle to said last-mentioned partition, eccentrically-weighted fly-wheels connected to said dumper, adapted to automatically rotate the same from an erect position to a dumping position, and additional means for manipulating said dumper.

1,026,466. METAL PIANO-BRACE. WARREN C. SCHWAMB, Philadelphia, Pa., assignor to John Wanamaker, Philadelphia, Pa. Filed Dec. 17, 1908. Serial No. 467,926. (Cl. 84—28.)

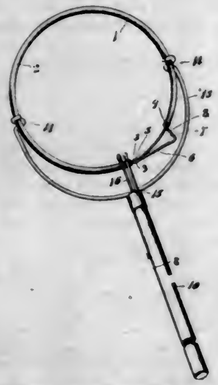
1. The combination with a piano rim and a cross-bar, of a piano brace comprising a plurality of stiff arms integrally united at one end and extending radially from said union, said united ends being rigidly attached to said cross-bar intermediate of the ends of said cross-bar and the outer ends of said arms being rigidly attached to said rim, the

outer ends of the outer of said arms being rigidly secured to the sides of said rim adjacent to said cross-bar, and a rigid tie-rod extending between and connecting the outer ends of the outer of said arms and the inner arms, intermediate the ends thereof, to one another.



2. The combination with a piano rim and a cross-bar, of a piano brace comprising a plurality of stiff arms integrally united at one end and extending radially from said union, said united ends being rigidly attached to said cross-bar intermediate of the ends of said cross-bar and the outer ends of said arms being rigidly attached to said rim, the outer ends of the outer of said arms being rigidly secured to the sides of said rim adjacent to said cross-bar, and a rigid tie-rod integral with said arms, connecting the outer ends of said outer arms together and the intermediate arms between their ends to each other and to the ends of said outer arms.

1,026,467. TRAIN-ORDER-DELIVERING DEVICE. WILLIAM T. SEE, Meadville, Pa. Filed Aug. 26, 1911. Serial No. 646,175. (Cl. 105—231.)



1. A message holder comprising a supporting member having yieldable arms thereon, the said arms having sockets therein, a message retaining device having portions fitting in the sockets of said yieldable arms, and means on the supporting member for holding the message retaining device operatively associated with said yieldable arms.

2. A message holder comprising a supporting member, a message retaining device, means on the supporting member for engaging the supporting device to hold the same in hand-receiving position, and second means on the supporting member for engaging the message retaining device to hold the same operatively associated with the first means.

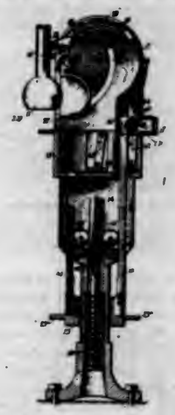
3. A message holder comprising a handle member, yieldable arms thereon, the said arms having socket portions thereon, a ring removably fitted in the socket portions, a forked member carried by the handle member and having spaced arms portions extending against the sides of the ring to hold the ring against rotation in the arms, and a message retaining device carried by the ring.

1,026,468. CUSHION-TIRE FOR VEHICLE-WHEELS. MICHEL J. SELZER, Akron, Ohio, assignor to The American Tire & Rubber Company, Akron, Ohio. Filed Mar. 2, 1911. Serial No. 611,750. (Cl. 152—1.)



A cushion tire comprising an inner base portion, formed of hard tough material, rim engaging flanges formed on said inner base portion, and series of parallel reinforcing rods arranged in rows in the base and rim engaging flanges, the rods of one row being disposed at substantially right angles to the rods of the other row, said rods being connected at their outer ends to form staple shaped members.

1,026,469. LIFE-BOAT-RELEASING APPLIANCE. DAVID SENACOL, Greenwood, British Columbia, Canada. Filed Jan. 14, 1911. Serial No. 602,554. (Cl. 9—23.)



1. The combination of a boat hanger having a head, a releasing apparatus having a socket hanger carrier to receive the head in suspending the boat, and means to swing the socket hanger carrier downwardly and eject the hanger laterally from one side of the releasing apparatus.

2. The combination of a boat hanger, a releasing apparatus having a head, and a hanger carrier fulcrumed in the head to swing downwardly and outwardly, and adapted to receive and hold the hanger, the head of the apparatus and hanger carrier having a vertical slot passing through one side thereof for the entry and ejectment of the hanger.

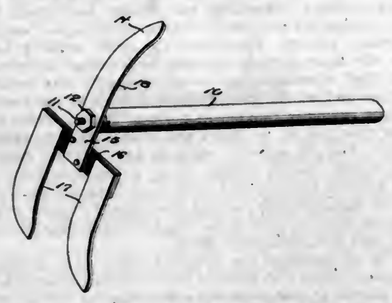
3. In a hanger releasing apparatus for boats, a head, and a hanger carrier arranged in the head and fulcrumed to swing downwardly and outwardly in a position to eject the hanger laterally, the hanger carrier and the head being vertically slotted through one side, for the entry and ejectment of the hanger.

4. In a hanger releasing apparatus for boats, a head, a hanger carrier arranged within the head and fulcrumed to swing downwardly and outwardly to a position to release the hanger, and an ejector to force the hanger clear of the head when the hanger is released by the carrier.

5. In a hanger releasing apparatus for boats, a head, a hanger carrier arranged in the head and fulcrumed to swing downwardly and outwardly to a position to release the hanger, an ejector arranged to engage back of the hanger and force it clear of the head when released by the carrier, and an actuating mechanism coöperatively connected to the carrier and ejector.

[Claims 6 to 17 not printed in the Gazette.]

1,026,470. COMBINED HOE AND POTATO-DIGGER. CHARLES E. SHAFER, Lewistown, Md. Filed May 31, 1911. Serial No. 630,527. (Cl. 55—39.)



A hoe comprising a blade, a handle attached thereto at a point between the ends thereof, a resilient bar attached to one end of the blade and lying transversely with relation to the same and spaced from the handle, and tines attached to the end of the said bar and extending approximately parallel with the blade.

1,026,471. VENTILATOR. GEORGE R. SIEFKEN, New York, N. Y. Filed June 13, 1910. Serial No. 566,572. (Cl. 98—31.)



1. A ventilator having a casing provided with a plurality of independent air passages, and a plurality of valve members, each arranged to move in one of said passages and adapted to close the same under the influence of air pressure, each of said valve members being adapted to operate at an air pressure different from that required to operate another of said valve members.

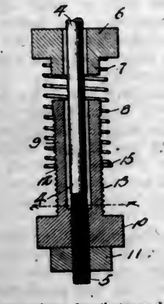
2. A ventilator comprising a casing having a plurality of inlet openings, independent passages, each communicating with one of said openings, each of said passages having therein a valve seat, and a valve member in each of said passages and adapted to rest against said seat to close its passage, each of said valve members being adapted to operate at an air pressure different from that required to operate another of said valve members.

3. A ventilator comprising a casing having a plurality of independent air passages therein, and valve members in said passages, said valve members being of different weights, whereby each of said members is adapted to operate at an air pressure different from that required to operate another of said valve members.

4. A ventilator comprising a casing adapted to have air pass therethrough, a plurality of valve members each arranged to move from an open toward a closed position, to regulate the amount of air entering through said casing, said valve members being adapted to close under the influence of air pressure, each of said valve members being adapted to operate at an air pressure different from that required to operate another of said valve members.

5. A ventilator comprising a casing having a passage therein, and a movable valve in said passage, said valve having a tubular stem extending downwardly therefrom, said casing having associated therewith a guide received in said stem, said stem being open at the lower end only.

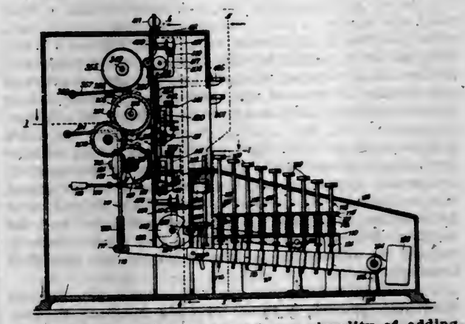
1,026,472. VALVE-LIFT SPACER. CHARLES W. SMITH, Annapolis, Ill. Filed July 29, 1910. Serial No. 574,534. (Cl. 137—32.)



1. In valve mechanism for internal combustion engines, the combination of an inlet controlling valve having a stem, a sleeve mounted upon said stem and having its exterior screw threaded, a valve closing spring, and a lock device mounted upon said sleeve for sustaining the end thrust of the valve closing spring, said lock device being of circular form and having crumps or loops at intervals in its circumference to provide both a support for the valve closing spring, and spring means for contracting the lock device about the said sleeve.

2. In valve mechanism for internal combustion engines, the combination of an inlet controlling valve having a stem, a sleeve mounted upon said stem and having its exterior screwthreaded, and having longitudinal grooves intersecting the screwthreads, a valve closing spring, and a spring lock device mounted upon the sleeve and formed of a wire bent into circular form and having a loop at one end and an eye at the opposite end laterally deflected and adapted to interlock with the terminal loop to secure the ends of the wire when brought together, and having loops or crimps to form both a support for the valve closing spring and spring means for contracting the lock device about the said sleeve.

1,026,473. CALCULATING-MACHINE. NELSON STAFFORD, New York, N. Y. Filed June 14, 1911. Serial No. 633,015. (Cl. 235—59.)



1. A calculating machine having a plurality of adding mechanisms disposed in parallel arrangement; means for operating said adding mechanisms in unison; and a print-

ing mechanism for transferring impressions of the composited characters of said adding mechanisms to a proper medium, said printing mechanism being removable to disclose the adding mechanisms.

2. A calculating machine having a plurality of adding mechanisms the wheels whereof are provided with printing characters; a printing mechanism being disposed in front of said adding mechanisms to imprint the composited characters on a proper medium, said printing mechanism being mounted on a member removable to expose the said compositing characters.

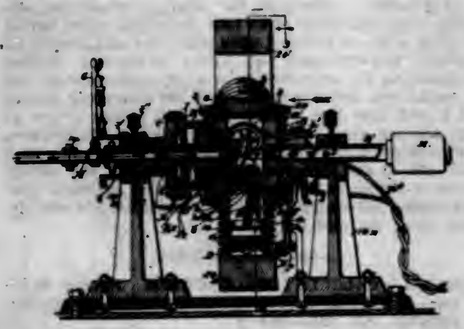
3. In a calculating machine, a calculating mechanism having an adding mechanism, a plurality of key bars each operatively connected with to rotate one of the wheels of said adding mechanism; and means connected with each of said key bars for operating the same to the full limit to complete the rotation of each wheel to present the same in the initial position.

4. A calculating machine having an adding mechanism provided with a series of operatively connected progressively actuated wheels; a plurality of key bars each operatively connected with one of said wheels to rotate the same; a plurality of weighted members each adapted to rest upon one of said key bars to depress the same to the full limit thereof; and means for suspending said weighted members.

5. In a calculating machine of the character set forth, a plurality of operating key bars; a plurality of weight carrying plungers each supported above one of said key bars; a supporting rack for said plungers; and means for depressing said rack to permit said plungers to depress said key bars.

[Claims 6 to 11 not printed in the Gazette.]

1,026,474. ROTARY ENGINE. ALONZO STONE, Coalgate, Okla., assignor of one-half to James W. Davis, Coalgate, Okla. Filed July 29, 1910. Serial No. 574,480. (Cl. 123—20.)



1. In an interchangeable gas and steam engine, a rigid shaft like support, a rotor rotatably mounted thereon, said rotor including a rim portion, radial cylinders and a crank case, pistons operating in said cylinders, a relatively stationary crank, connecting rods between said crank and said pistons, an exhaust pipe, said rotor including a duct for each cylinder, each of said ducts having a port in communication with the working chamber of the respective cylinder, and having a port which serves as an exhaust port wholly when said rotor is acting as an internal combustion engine, means for admitting working agent into said crank case, piston controlled ducts in said rotor for effecting communication between said crank and the working chamber of said cylinders, and means for controlling the exhaust of working agent through said first mentioned ducts.

2. In an interchangeable gas and steam engine, a rigid shaft like support, a rotor rotatably mounted thereon, said rotor including a rim portion, radial cylinders and a crank case, pistons operating in said cylinders, a relatively stationary crank, connecting rods between said crank and said pistons, an exhaust pipe, said rotor including a duct for each cylinder, each of said ducts having a port in communication with the working chamber of the respective cylinder, and having a port which serves as an inlet and an outlet port when said rotor is in one position to act as a steam engine and which serves as an exhaust port wholly when said rotor is in another position and acting as an internal combustion engine, said rotor also having cross ducts which extend entirely through said rotor from one side to the other and which, when said rotor is operating as a steam engine will serve in connection with said first mentioned ducts as auxiliary exhaust ducts.

3. A fixed shaft and crank, a rotor mounted on the shaft, said rotor having a working chamber, a piston for the chamber and a connecting rod joining said piston and crank, means for admitting working agent to said working chambers, and for exhausting the spent working agent from the same working chamber, said means including a duct that communicates at one end with the working chamber and which, when the said rotor is in one position and the engine is running as a steam engine, serves both as an inlet and as an outlet and which, when in another position and the egine is runig as an "internal combustion engine," serves wholly as an outlet duct from the said working chamber and said rotor having cross ducts, one for each working chamber that extend entirely across the rotor from one side to the other and coöperate at times with said first mentioned ducts.

4. In an engine of the character described, a relatively stationary shaft, and crank, a rotor having working chambers, pistons in said chambers and connecting rods between said pistons and said crank and means for shifting the position of the shaft and crank relatively to the rotor, said shaft serving as an infeed for the working agent, piston controlled means for admitting working agent to the working chambers, and means for exhausting the spent working agent from the said chambers, said exhausting means including a duct that communicates at one end with the working chamber and which, when said rotor is in another position and the engine is running as an internal combustion engine serves wholly as an outlet duct for the said working chamber, and a lever actuated means for shifting the crank relatively to the rotor.

5. In an engine of the character described, a relatively stationary shaft, and crank, a rotor including cylinders having working chambers, pistons operating in said cylinders, connecting rods between said pistons and said crank and means for shifting the position of the shaft and crank relatively to the rotor, said shaft serving as an infeed for the working agent, piston controlled means for admitting working agent to the working chambers, and means for exhausting the spent working agent from the said chambers, said means including a duct that communicates at one end with the working chamber and which, when said rotor is in another position and the engine is operated as an internal combustion engine serves wholly as an exhaust duct from the said working chamber, a chambered casing rotatable with the rotor a fuel feed controlling valve in the casing, said valve being held relatively stationary to the casing, said valve coöperating with the infeed and exhaust ducts, and lever controlled means for shifting the crank and the valve relatively to the rotator.

[Claims 6 to 9 not printed in the Gazette.]

1,026,475. CLAMP. WALTER TARBUCK, Philadelphia, Pa. Filed Nov. 2, 1911. Serial No. 658,096. (Cl. 90—59.)

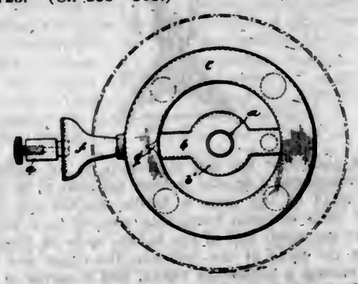
1. A clamp of the character stated, comprising a U-shaped integral yoke having one work-supporting limb forming a foot having lateral flanges adapted to engage a T-groove in a machine table, and a clamping screw threaded into the opposite limb of the yoke and directly opposed to said work-supporting limb.

2. A clamp of the character stated, comprising a U-shaped integral yoke formed with an upper limb having a vertical screwthreaded bearing and a lower limb provided with laterally projecting flanges at its lower edge forming a straight T-shaped tongue adapted to engage a T-groove in a machine table and with a raised portion, and a clamping-screw in the threaded bearing in the upper limb and directly opposed to the raised portion of the lower limb.



3. A machine table formed with a T-groove, a clamp comprising a U-shaped integral yoke formed with an upper limb having a vertical screwthreaded bearing and a lower limb provided with laterally projecting flanges at its lower edge forming a straight T-shaped tongue slidable in the T-groove and with a raised portion, and a clamping-screw in the threaded bearing in the upper limb and directly opposed to the raised portion of the lower limb.

1,026,476. GAS-BURNER. AUGUSTUS F. THOMPSON, Huntington, W. Va. Filed Feb. 10, 1912. Serial No. 676,723. (Cl. 158—108.)



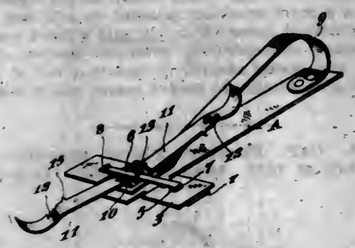
1. In a gas burning fixture of the type set forth, a gas receiving chamber, a mixing chamber, means connecting these two chambers embodying air intake means, a burner tube connected with the mixing chamber, said two chambers being disposed in the same horizontal plane when the fixture is in operative position and in the direct path of the ascending products of combustion, for the purpose set forth.

2. In a burner of the type set forth, a gas supply pipe, a gas heating and expanding chamber connected thereto, a mixing and distributing chamber surrounding the aforesaid chamber and provided with depending burner tubes, and means for discharging the gas from the receiving chamber into the mixing chamber and drawing in with it a quantity of air.

3. In a burner of the type set forth, a gas receiving chamber, a mixing chamber surrounding said gas receiving chamber and lying in the same horizontal plane therewith, the two chambers being structurally connected, and conduit means for conveying gas from the gas chamber into the mixing chamber, said means embodying air intake devices, said mixing chamber being provided with depending burner tubes and both said chambers lying in the path of the ascending products of combustion of the burners.

4. In a burner of the type set forth, a horizontal gas receiving chamber, a horizontal mixing chamber surrounding the same and carrying burner tubes, both chambers lying in the path of the ascending products of combustion from the burner tubes, said mixing chamber being provided with a depending burner tube, an air injector connected to one side of the mixing chamber, and a gas pipe connecting the gas chamber to said air injector, said gas pipe and both said chambers lying in the path of the ascending products of combustion from the burners.

1,026,477. TRAP. JOHN TIPPETT, Mogollon, N. Mex. Filed Nov. 15, 1911. Serial No. 660,521. (Cl. 43—23.)



1. A trap of the class described comprising a base, feet formed integral with the base and projecting laterally therefrom, jaw members pivoted to the base, a spring fixed to the base and adapted to operate said jaw members, trigger actuating plates pivoted upon said feet, a trigger pivoted to one of said plates and adapted to hold said jaws in open position, and means carried by the other of said plates to hold the trigger against the action of the spring.

2. A trap of the class described comprising a base, a foot projecting laterally from each side of the base, a trigger actuating plate pivoted upon each foot, a pair of jaws pivoted upon the base, a spring for operating said jaws, and a trigger mounted upon one of said plates and adapted to be engaged by the other of said plates to hold the jaws in open position.

1,026,478. BARBER'S CABINET. GABRIEL TOUS, Montevideo, Uruguay. Filed Oct. 14, 1911. Serial No. 654,613. (Cl. 132—11.)



1. In a barber's cabinet, a sterilizing cylindrical casing forming a compartment, a roll of paper revolubly mounted in said casing, and a receptacle positioned below and opening into said casing adapted to contain a volatilizing solution, for sterilizing said paper as it is unwound from said roll.

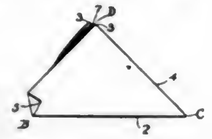
2. In a barber's cabinet, a sterilizing casing forming a compartment having a slit extending therethrough, a roll of paper revolubly mounted in said casing, a waterproof covering for said casing adjacent said slit, said waterproof covering adapted to afford a stropping surface for a razor, and adapted to receive the paper as it is unwound from said cylinder to afford a wiping surface for a razor.

3. In a barber's cabinet, a base having a compartment adapted to receive an antiseptic solution, a cylindrical casing mounted on said base and positioned above the same to afford a razor storing compartment between said base and said cylindrical casing, a roll of paper revolubly mounted in said cylindrical casing, said cylindrical casing having a slot therein through which said paper is unrolled,

and a receptacle depending from the lower part of said cylindrical casing and adapted to contain an antiseptic solution, said cylindrical casing having apertures affording a communication between said antiseptic solution containing receptacle and said cylindrical casing, whereby the vaporized antiseptic solution will permeate the razor storing compartment and the paper carrying cylinder.

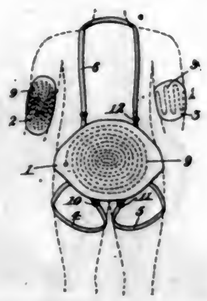
4. A barber's cabinet comprising a base plate having an antiseptic receiving compartment in the upper side thereof, a support removably mounted on said base plate, and a cylindrical casing carried by said support and having openings communicating with the interior of said support, said casing adapted to contain a roll of paper, and said plate adapted to receive razors within said support.

1,026,479. CAP. ELIZABETH TURNER, Knoxville, Tenn. Filed July 20, 1910. Serial No. 572,866. (Cl. 2—106.)



As an article of manufacture, a cap comprising a sheet folded upon itself and having lower fold edges and upper oblique fold edges and upper oblique free edges, and an end portion formed of two joined open corners, substantially as described.

1,026,480. MEANS FOR MECHANICALLY MASSAGING THE HUMAN BODY. JULIUS A. WARD, New York, N. Y. Filed Aug. 23, 1911. Serial No. 645,604. (Cl. 128—16.)



1. In a system of manipulation as described, a protective body shield adapted to be removably attached to the body, said shield being composed of a composite flexible fabric having an outer glossy surface, the under surface thereof being comprised of an adhering fabric.

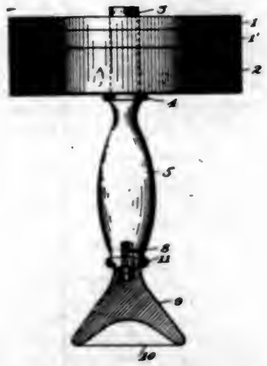
2. In a system of manipulation as described, a protective body shield adapted to be removably attached to the body, said shield being composed of a composite flexible fabric having an outer glossy surface, the under surface thereof being comprised of an adhering fabric, and having an intermediate fabric therebetween.

3. In a system of manipulation as described, a protective body shield adapted to be removably attached to the body, said shield being composed of a composite flexible fabric having an outer glossy surface, the under surface thereof being comprised of an adhering fabric, and having an intermediate fabric therebetween, said fabrics being bound together by continuous stitching.

4. In a system of manipulation as described, a protective body shield adapted to be removably attached to the body, said shield being composed of a composite flexible fabric having an outer glossy surface, the under surface thereof being comprised of an adhering fabric, and having an intermediate fabric therebetween, said fabrics being bound together by continuous stitching, said stitching being arranged to indicate the direction of movement of manipulation thereon.

5. In a system of manipulation as described, a protective body shield adapted to be removably attached to the body, said shield being composed of a composite flexible fabric having an outer glossy surface, the under surface thereof being comprised of an adhering fabric, and having an intermediate fabric therebetween, said fabrics being bound together by continuous stitching, said stitching being arranged in a spiral or longitudinal manner to indicate the direction of manipulation thereon.

1,026,481. UNDULATOR. JULIUS A. WARD, New York, N. Y. Filed Dec. 7, 1911. Serial No. 664,455. (Cl. 128—16.)



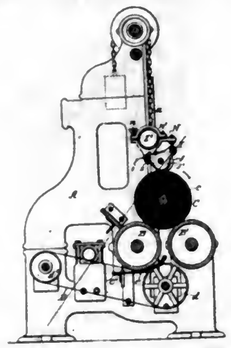
1. An undulator for self massaging in an upright position, comprising a handle member adapted to be grasped by the hand of the user, a flaring shallow cup shaped head of rigid material removably secured in a fixed position at the lower end of the handle to be in close proximity to the hand of the operator, the upper end of the handle having a projecting shank, and a series of superposed disk weights apertured at their centers to loosely fit upon said shank to be readily removed therefrom.

2. An undulator for self massaging in an upright position, comprising a handle member adapted to be grasped by the hand of the user, a massaging head of rigid material removably secured in a fixed position at the lower end of the handle to be in close proximity to the hand of the operator, the upper end of the handle having a projecting shank, and a series of superposed disk weights apertured at their centers to loosely fit upon said shank to be readily removed therefrom.

1,026,482. PAPER-SLITTING MACHINE. JOSEPH ATWOOD WHITE, Philadelphia, Pa., assignor to The Moore and White Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 5, 1911. Serial No. 647,570. (Cl. 164—65.)

1. The combination in a paper slitting machine, of means for winding paper into roll form; a rotary cutter located so as to bear upon and cut the paper of the roll; a presser roller on each side of the rotary cutter; the said rotary cutter being located off center with respect to the presser rollers so that the paper is held on the roll by the presser rollers immediately in advance of the cutting point whereby buckling is prevented due to the action of the cutting blade in severing the paper.

2. The combination in a paper cutting machine, of means for forming a roll of paper; a bracket located in close proximity to the roll; a bearing adjustably mounted on the bracket and carrying a presser roller; and a cutting blade, the cutting blade being arranged off center in respect to the roller; the bearing being adjustable on the center of the presser roller as a pivot so that the blade can be adjusted toward and from the roll of paper independently of the roller.



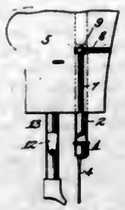
3. The combination of means for forming a roll of paper; a bracket; a bearing; a roller mounted on the bearing; and a rotary cutter mounted also on the bearing off center in respect to the roller; a segmental slot in the bearing; a bolt extending through the slot and holding the bearing in the position to which it is adjusted; with means for adjusting the bearing.

4. The combination in a paper cutting machine of a frame; two supporting drums for the roll of paper; means for feeding the paper to from the roll; a transverse bar; brackets clamped to the bar; each bracket having a pair of presser rollers; and an intervening rotating cutting blade; the cutting blade being arranged off center in respect to the rollers so that the rollers will hold the paper in advance of the point where the cut is made.

5. The combination of means for forming a roll of paper; a bar; a bracket adjustably mounted on the bar; two bearings pivotally mounted on the bracket; each bearing having a hub; a presser roller mounted on each hub; a rotary cutter located between the hubs; and a spindle on which the cutter is mounted.

[Claims 6 and 7 not printed in the Gazette.]

1,026,483. THREADING MEANS FOR SEWING-MACHINES. MARGARET ELIZABETH BERDLE WILLIAMS, Westernport, Md. Filed Oct. 21, 1911. Serial No. 656,056. (Cl. 112—18.)

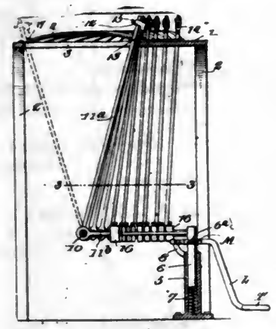


1. In threading means for sewing machines, the combination with a perpendicularly and horizontally slotted needle head of a needle bar in sections, one of which carries the needle, said sections being secured together but capable of relative axial adjustment, and means for effecting and limiting such adjustment and for securing said sections when adjusted, substantially as set forth.

2. In threading means for sewing machines, the combination of a face plate, a needle bar capable of axial adjustment therein, a presser bar, and an adjustable plate on said presser bar serving as a background for the needle eye, substantially as set forth.

3. In threading means for sewing machines, the combination with a perpendicularly and horizontally slotted face plate, of a needle bar capable of axial adjustment, and means for effecting and limiting such adjustment, substantially as set forth.

1,026,484. BUTTONHOLE-MARKER FOR SHOES. EARL T. ADAMS, Portsmouth, Ohio. Filed Feb. 2, 1911. Serial No. 606,119. (Cl. 12—56.)



1. In a button-hole marking device, a series of marking points, means permitting the movement of the marking points along radial lines, a series of anvils disposed beneath said marking points, means for causing a simultaneous movement of said marking points toward said anvils, and automatic means for returning said marking points to their original positions.

2. In a button-hole marking device, a series of bell-crank levers, an arc-shaped support for said bell-crank levers, a series of marking devices carried upon the upper end of said levers, a series of arc-shaped anvils for said marking devices, and means for moving said levers simultaneously to cause the movement of said marking devices toward said anvils.

3. In a button-hole marking device, a series of bell-crank levers, an arc-shaped support for said bell-crank levers, a series of marking devices carried upon the upper end of said levers, a series of arc-shaped anvils for said marking devices, and means for moving said levers simultaneously to cause the movement of said marking devices toward said anvils, said means comprising a plunger, a spring for maintaining said plunger in a normally raised position, lateral arms secured to said plunger for supporting said arc-shaped rod, and a foot-lever for actuating said plunger.

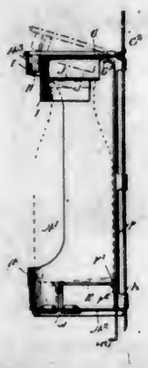
4. In a button hole marking device, a series of marking points, means permitting the movement of the marking points toward or away from a common center, a series of anvils disposed beneath said marking points, the space between said anvils serving as guide slots for the marking points, and means for causing a simultaneous movement of said marking points toward said anvils.

1,026,485. SAFETY-HOLDER FOR BOTTLES, JARS, AND OTHER RECEPTACLES. GEORGE FRANKLIN BARR, New York, N. Y. Filed June 6, 1911. Serial No. 631,571. (Cl. 232—41.)

1. A safety holder for bottles, jars and like receptacles, comprising a casing having an opening at the front for the insertion or removal of a receptacle, a hinged cover for the casing and having a retaining means for the upper portion of the receptacle, a lock for locking the cover when in closed position on the said casing, a support mounted to swing in the lower portion of the casing and adapted to support the receptacle, and a spring-pressed rod engaged by the said support and connected with the said cover.

2. A safety holder for bottles, jars and like receptacles, comprising a casing having an opening at the front for the

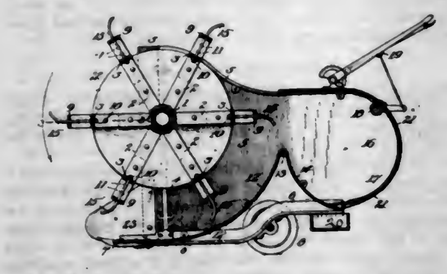
insertion or removal of a receptacle, a hinged cover for the casing and having a retaining means for engagement with the upper end of the receptacle, a lock for locking the cover when in closed position to the said casing, a support mounted to swing in the lower portion of the casing and adapted to support the receptacle, and a spring-pressed rod intermediately engaged by the said support and connected at its upper end with the said cover, the said rod having its lower free end extending exteriorly of the casing and provided with a handle for manual control of the same.



3. A safety holder for bottles, jars, and like receptacles, comprising a casing provided with a side opening for the insertion and removal of a receptacle, and having a closed base, a hinged cover for the top of the casing having a depending flange, a lower support hinged upon the casing base, a rod intermediately engaged with said support, said rod having its upper end connected to the cover and having its lower free end extended exteriorly of the casing, and a lock for securing the cover in closed position.

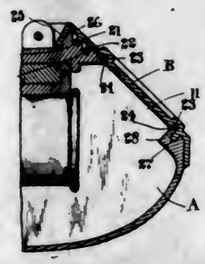
4. A safety holder for bottles, jars, and like receptacles, comprising a casing provided with a side opening for the insertion and removal of a receptacle, and having a closed base, a hinged cover for the top of the casing having a depending flange, a lower support comprising a substantially circular wire having its ends bent downwardly and hingedly connected to the casing base, a rod having an intermediate loop through which said circular support wire passes, said rod having its upper end connected to the cover and having its lower free end extended exteriorly of the casing, and a lock for securing the cover in closed position.

1,026,486. REEL ATTACHMENT FOR MOWING-MACHINES AND HARVESTERS. IRA C. BENSON, Hulett, Wyo. Filed Sept. 18, 1911. Serial No. 649,826. (Cl. 56—22.)



The combination, with the reel frame having radial spokes at its ends and transverse bars connecting the outer ends of said spokes, of the adjustable attachment comprising bars (9) which are arranged exterior and parallel to the first-named or spoke bars, and having parallel end portions that overlap and lie against the spokes, and means for adjustably connecting the lapped portions, as described.

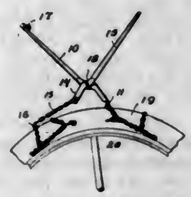
1,026,487. CAR JOURNAL-BOX. AUSTIN BERRY, Ottawa, Ontario, Canada. Filed Mar. 17, 1910. Serial No. 550,056. (Cl. 64—23.)



1. A car journal box having outwardly turned shoulders on each side of the opening therein, and a cover having flanges fitting closely to the outer surface of said shoulders, said shoulders having grooves at the sides of said opening and open at their lower ends, the upper portion of said side grooves diverging in an upwardly and inwardly direction to a common point, said grooves being closed except at their lower ends.

2. A car journal box having the usual opening and grooves formed in the edges at each side of the opening, said grooves being inclined and converging toward each other at the top to a point where they meet, said grooves further opening at the bottom of the box, and a cover having tongues adapted to enter said grooves.

1,026,488. TONGS. JOHN BITTNER, Newcastle, Ind. Filed Aug. 15, 1911. Serial No. 644,155. (Cl. 214—5.)



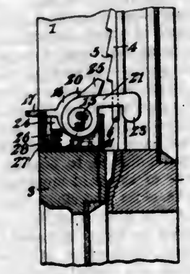
1. A pair of tongs comprising a handle, an offset hook formed at one end of the said handle, a second handle pivotally mounted on the first handle, an offset shank formed on the second handle, a chain pivotally connected with the said offset shank, a hook mounted to swing on the outer end of the said chain and means for releasably retaining the said handle in engagement.

2. In a pair of tongs a handle, an offset hook formed at one end of the said handle, a second handle pivotally mounted on the first handle, an offset shank formed on the second handle, a chain pivotally mounted on the said offset shank and a hook mounted to swing on the outer end of the said chain.

3. In a pair of tongs the combination of a plurality of pivotally connected handles, a hook formed on one of the said handles and gripping means connected to an end of the other said handle and spaced a distance therefrom.

1,026,489. SASH-LOCK. ALBERT E. BLAKE, Rochester, N. H., assignor of one-third to James L. Blaisdell and one-third to Frank H. Blake, Rochester, N. H. Filed Oct. 30, 1911. Serial No. 657,653. (Cl. 16—18.)

1. In a sash lock, a latch member carried by one sash, a coacting member carried by the other sash, an adjusting member carried by the first named sash, a coacting means for the adjusting member carried by the second-named sash, and a common manipulating means for the latch member and the adjusting member carried by the first named sash.



2. A sash lock comprising a ratchet bar having lateral extensions at the ends and adapted to be attached to a sash, and a coacting member adapted to be attached to the other sash, said coacting member comprising a pawl having a normal tendency toward the ratchet bar when in installed position, a sash locking latch normally in the path of the lateral extension of the ratchet bar when in installed position, and a manipulating member connected to both the pawl and the latch and adapted to actuate the pawl and latch in opposite directions.

3. In a sash lock, a ratchet bar adapted to be attached to a sash and provided with spaced lateral extensions, a supporting and holding member adapted to be attached to a companion sash, a manipulating cam member journaled in the supporting member and provided with eccentric hubs on opposite sides, a normally constrained pawl member mounted on one of the hubs in position to engage the teeth of the ratchet bar, and a latch member mounted on the other hub of the cam member and having one end in the path of the lateral extension of the ratchet bar.

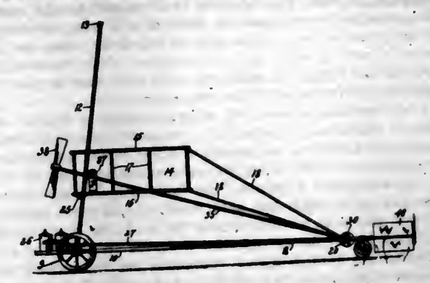
4. In a sash lock, a ratchet bar adapted to be attached to a sash and provided with spaced lateral extensions, a supporting and holding member adapted to be attached to a companion sash, a manipulating cam member journaled in the supporting member and provided with eccentric hubs on opposite sides, a normally constrained pawl member mounted on one of the hubs in position to engage the teeth of the ratchet bar, and a latch member mounted on the other hub of the cam member and having one end in the path of the lateral extensions of the ratchet bar, the pawl member being provided with an extension in the path of the manipulating member in one direction of movement of the latter.

5. A sash lock comprising a ratchet bar with terminal lateral extensions, and a coacting member comprising a casing, a journal pin therein, a cam member on the pin with oppositely directed eccentric hubs and also having an outstanding manipulating portion and a stop tooth each in position to engage the casing, a pawl member on one of the hubs having a tooth extension and a shoulder, a spring normally constraining the pawl into engagement with the ratchet teeth, and a latch on the other hub provided with a finger normally in the path of the lateral extensions of the ratchet bar and adapted to engage over one of said extensions.

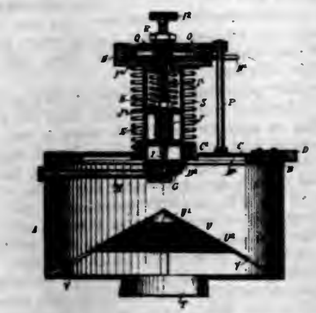
[Claims 6 to 8 not printed in the Gazette.]

1,026,490. AEROPLANE. VLADIMIR BREUER, New York, N. Y. Filed Jan. 16, 1912. Serial No. 671,514. (Cl. 244—14.)

The combination with a main frame, of uprights pivotally attached to the front portion thereof, a poiser frame slidably arranged upon said uprights and pivotally attached to the rear portion of said main frame, a motor upon said main frame, a propeller mounted upon said poiser frame, a driving connection between said motor and said propeller, and means for arresting the sliding movement of said poiser frame upon said uprights when in its uppermost position.



1,026,491. CARBURETER. WILLIAM HULL BROWNING, Rye, N. Y. Filed Nov. 2, 1910. Serial No. 590,328. (Cl. 48—155.1.)



1. A carbureter provided with a casing having an outlet in its bottom for the explosive mixture, and an air inlet opening in its top, an air admission valve mounted to turn on the casing, a valve seat in the said casing connected with a liquid fuel supply, a needle valve controlling the said valve seat, a tube on the casing and carrying the said valve seat at its lower end, a cap plate for the upper end of the tube, the stem of the needle valve passing through the said tube and cap plate, a member through which the needle valve stem passes and adapted when moved to move the needle valve, a guide connected with the air admission valve and with which said member has a sliding connection, a manually controlled means engaging said member for bodily moving the needle valve in the direction of its axis, and a spring surrounding the said tube and pressing on the air admission valve.

2. A carbureter provided with a casing having an outlet for the explosive mixture, a valve seat in the said casing and connected with a gasolene supply pipe, a needle valve controlling the said valve seat, the said needle valve having a screw threaded stem, a collar screwed on the stem of the needle valve, a spring surrounding the stem of the needle valve and bearing on said collar to press the said needle valve in the direction of its seat, a face cam mounted to turn and under the control of the operator, the said needle valve stem passing through said face cam, an arm through which the needle valve stem passes, the said arm engaging said cam and adapted when moved to move the needle valve, an air admission valve, and a guide rod having a sliding connection with the said arm.

3. A carbureter provided with a casing, a valve seat in the said casing and connected with gasolene supply pipe, a needle valve controlling the said valve seat, a collar secured on the stem of the needle valve, a spring bearing on the said collar to press the said needle valve in the direction of its seat, a face cam mounted to turn and

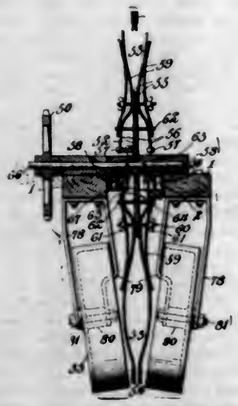
through which the stem of the needle valve extends, the said cam being under the control of the operator, an arm engaging the cam and adapted to be moved by the same, the needle valve stem passing through said arm, a member on the needle valve stem and engaged by said arm to move the needle valve, an air admission valve mounted to turn on the casing, a guide for said arm, and means for adjusting the tension of the said spring.

4. A carbureter provided with a casing, a valved air inlet in the casing, a valve seat connected with a gasolene supply, an outlet in the casing for the explosive mixture, a needle valve controlling the said valve seat and having a threaded stem, a tube on the said casing and carrying the said valve seat, the said needle valve stem passing through the tube, a collar fitting the said tube and secured on the said needle valve stem, a spring in the tube and pressing the said collar, a cap plate for the end of the tube, a face cam having a handle and mounted to turn on the said cap plate, an arm mounted on the said needle valve stem, a member adjustably mounted on the needle valve stem above the said arm and adapted to be engaged by the arm, the said arm riding on the said cam plate, and a vertical guide connected with the valve of said valved inlet and engaging an opening in one end of said arm, the said arm when the cam is turned in one direction, riding downward on the face cam under the action of said spring, to move the needle valve toward its seat, the arm moving upward against the tension of said spring when the cam is turned in the opposite direction to move the needle valve from the valve seat.

5. A carbureter provided with a casing having an air inlet, an air admission valve controlling said air inlet, a spring pressing on said air admission valve, a valve seat in the said casing and connected with a liquid supply, a needle valve controlling the said valve seat and having a screw threaded stem, a spring pressing the needle valve in the direction of its seat, a collar screwing on the upper part of the needle valve stem, an arm through which the said collar passes, a nut screwing on the said collar and resting on said arm, a guide with which said arm has a sliding connection, and a face cam mounted to turn and through which said collar passes, the said cam actuating said arm to move the needle valve bodily from the valve seat.

[Claims 6 to 8 not printed in the Gazette.]

1,026,492. PLANT SETTING AND FERTILIZING MACHINE. FRED BAUHN and ROBERT BAUHN, Vicksburg, Miss. Filed May 24, 1910. Serial No. 563,173. (Cl. 55—1.)



1. A machine of the class described including a plant setter comprising a pair of plant carrying members fulcrumed at an intermediate point to form inner and outer arms, exterior springs extending longitudinally of the said members and engaging the same to hold the outer arms normally closed, means for adjustably connecting the springs for varying the tension of the same, and means located in the path of the inner arms and adapted to actuate the same to open the outer arms.

2. A machine of the class described including a plant setter comprising a pair of plant carrying members bowed at an intermediate point to form fulcruming portions, exterior longitudinal springs extending across the said bowed portions and engaging the plant carrying members for holding the outer arms normally closed, a transversely disposed adjusting device connecting the springs for varying the tension thereof, and means arranged in the path of the inner arms and adapted to engage the same for opening the outer arms of the said members.

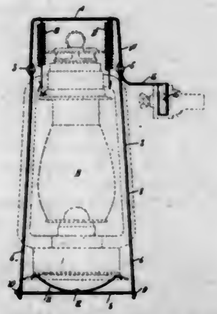
3. A machine of the class described including a plant setter comprising a pair of plant carrying members bowed at an intermediate point to form fulcruming portions and provided with inner and outer arms, exterior longitudinal springs extending across the bowed portions of the members and arranged to hold the outer arms normally closed, a rod piercing the springs and the arms and having threaded portions, nuts mounted on the threaded portions of the rod and engaging the springs, and means for engaging the inner arms and adapted to engage the same for opening the outer arms.

4. A machine of the class described including a plant setter comprising a pair of plant carrying members inwardly bowed at an intermediate point to form fulcruming portions and provided with inner and outer arms, exterior longitudinal springs extending across the said bowed portions of the members and engaging the same to hold the outer arms normally closed, a rod piercing the springs and the bowed portions of the members and having threaded terminals, nuts arranged on the threaded portions of the rod and engaging the spring, and a guide rod extending through the inner ends of the springs and the inner arms of the members.

5. A machine of the class described including a plant setter comprising a central support, radially disposed plant carrying members arranged in pairs and bent at an intermediate point to form fulcruming portions and to provide inner and outer arms, said fulcruming portions being fitted against the said support, exterior springs engaging the members for holding the outer arms normally closed, adjusting means connected with the springs for varying the tension thereof, and guiding means carried by the central support for the springs and the said members, and means for opening the said members.

[Claims 6 to 8 not printed in the Gazette.]

1,026,493. LANTERN-SUPPORT. JAMES BURKE, Ellsworth, Minn. Filed Mar. 18, 1912. Serial No. 684,375. (Cl. 240—90.)



1. A lantern frame, comprising a substantially U-shaped member, the sides of which may be sprung outward away from each other, each leg having a longitudinally-disposed slot therein adapted to receive parts of a lantern

disposed between said sides, a bridge piece pivoted to the free end of one of said sides and removably fastened to the end of the other side, and a flat spring plate supported by said bridge piece and adapted to resiliently support the lantern.

2. A lantern frame, comprising a substantially U-shaped member, the sides of which may be sprung outward away from each other, each leg having a longitudinally-disposed slot therein adapted to receive parts of a lantern disposed between said sides, a bridge piece pivoted to the free end of one of said sides and removably fastened to the end of the other side, a flat spring plate supported by said bridge piece and adapted to resiliently support the lantern, and a tension spring between said sides supported from the crotch of said U-shaped member, adapted to engage the lantern.

3. A lantern frame, comprising a substantially U-shaped member, the sides of which may be sprung outward away from each other, each leg having a longitudinally-disposed slot therein adapted to receive parts of a lantern disposed between said sides, a bridge piece pivoted to the free end of one of said sides and removably fastened to the end of the other side, a flat spring plate supported by said bridge piece and adapted to resiliently support the lantern, a tension spring between said sides supported from the crotch of said U-shaped member, adapted to engage the lantern, and a pivot pin offset from and integral with one of said sides.

1,026,494. CARBORUNDUM-DRESSER. ALPHONSE CLARENCE CHAMPAGNE and JOHN NELSON BRAHN, Jersey City, N. J. Filed May 2, 1911. Serial No. 624,552. (Cl. 125—19.)



1. A dressing tool for roughening and renewing the surfaces of grinding wheels, comprising a head having a roughening roller mounted therein, and having a bore formed transversely therein with respect to the axis of the roughening roller, a shank mounted in said bore, said shank having a longitudinal slot, and a pivot pin for said roughening roller, said pin being extended to pass through said slot to the opposite side of said bore, to prevent the withdrawal of said shank from said longitudinal bore.

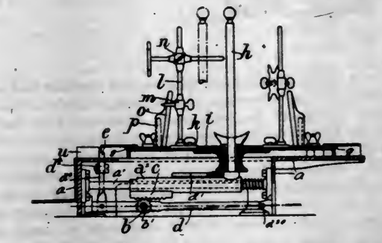
2. A dressing tool for roughening and renewing the surfaces of grinding wheels, comprising a head, a roughening roller mounted in said head, a longitudinal bore formed in said head and extending transversely of the axis of said roughening roller, a pivot pin on which said roughening roller is mounted, said pin having its inner end extending across said longitudinal bore, a shank mounted in said longitudinal bore and having a longitudinal slot formed therein to receive the end of the pivot pin, the inner end of said shank being threaded, and an adjusting nut carried by the inner end of said shank, said adjusting nut being located in a recess in the head, so as to be operable from without, said shank having a bearing formed in its outer end to receive the operating shank of the polishing wheel and support the same in position to contact with the roughening roller.

3. A dressing tool for roughening and renewing the surfaces of grinding wheels, comprising a head having a handle projecting therefrom and having a recess in one side thereof, a roughening roller mounted in said recess, and shaft-bearing means comprising a shank carried by a bore formed in said head and projecting therefrom adjacent said roller and longitudinally adjustable with respect thereto.

4. A dressing tool for roughening and renewing the surfaces of grinding wheels, comprising rotary roughening means and a bearing member to receive and support the shaft of the grinding wheel in operative relation to said roughening means, said bearing member being adjustable, and means forming a continuation of the axis around which the roughening means rotates, for engaging the bearing member to limit the amount of adjustment thereof.

5. A dressing tool for roughening and renewing the surfaces of grinding wheels, comprising a head having rotary roughening means mounted therein and having a bore, a bearing member adjustably mounted in said bore to receive and support the shaft of the grinding wheel in operative relation to the roughening means, and means forming a continuation of the axis around which the roughening means rotates, and engaging the bearing member inside the bore to limit the amount of adjustment of said bearing member and prevent the separation thereof from said head.

1,026,495. MACHINE FOR SLICING FOODSTUFFS. FRANÇOIS CLERC, Geneva, Switzerland, assignor to The Firm Kustner Frères, Vollandes-Geneva, Switzerland. Filed Dec. 7, 1911. Serial No. 664,472. (Cl. 17—24.)



1. A cutting and slicing machine, in which a cutting disk is employed, comprising a base, a support disk, means for automatically moving the support disk to bring the food stuff thereon up to the cutter, and means for automatically feeding the support disk after the food stuff thereon has been brought up to the cutter.

2. A cutting and slicing machine, in which a cutting disk is employed, comprising a revoluble support disk, means for moving the same up to the cutter, means for then automatically feeding the support disk a predetermined distance every time the cutter is actuated, and means for locking the support disk into position and simultaneously rendering the last aforesaid means operative.

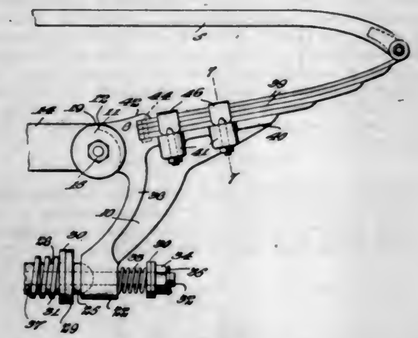
3. A cutting and slicing machine, in which a cutting disk is employed, comprising a base, a revoluble disk, a shaft secured to the base, a sleeve on the said shaft, means for connecting and supporting the said disk to and upon the said sleeve, means for sliding the said sleeve on the said shaft for bringing the food stuff on the disk up to the cutter, and means operative, when the disk is in the last aforesaid position, for feeding the same a predetermined distance every time the cutter is actuated.

4. A cutting and slicing machine, in which a cutting disk is employed, comprising a base, a revoluble disk, a shaft secured to the base, a sleeve on the said shaft, means for connecting and supporting the said disk to and upon the said sleeve, a rack on said sleeve, an auxiliary shaft, a pinion on the auxiliary shaft adapted to engage said rack, and means whereby the pinion is rotated to move the sleeve and feed the disk by a step-by-step movement up to the cutter.

5. A cutting and slicing machine, in which a cutting disk is employed, comprising a base, a revoluble disk, a shaft secured to the base, a sleeve on the said shaft, means for connecting and supporting the said disk to and upon the said sleeve, a rack on said sleeve, an auxiliary shaft, a pinion on the auxiliary shaft adapted to engage said rack, means for disengaging the said pinion and rack so that the sleeve may be operated by the aforesaid means for actuating the same, and means whereby the pinion is rotated to move the sleeve and feed the disk by a step-by-step movement up to the cutter.

[Claims 6 to 8 not printed in the Gazette.]

1,026,496. VEHICLE-SPRING. ARTHUR COLLETTE, Brockton, Mass. Filed Dec. 18, 1911. Serial No. 666,401. (Cl. 21—101.)



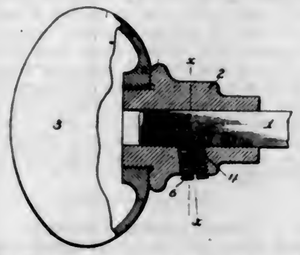
1. In a shock absorber for vehicles, the combination with the axle and body structure of a vehicle, of pairs of levers movably connected to said body structure and having sockets at the inner opposing sides of the lower ends, saddles attached to the axle and having the levers fulcrumed thereon, pressure caps having outer ball members engaging the sockets at the inner opposing sides of the lower ends of the levers, spring means interposed between and engaging the inner sides of said caps, and a single bolt extending through the lower ends of the levers, the pressure caps and the spring means.

2. In a shock absorber for vehicles, the combination with the axle and body structure of a vehicle, of pairs of levers movably connected to said body structure and provided with fulcrum means attached to the axle and also having sockets at the inner sides of their lower ends, pressure caps having loose bearing at their outer extremities against the inner sides of the lower ends of the levers, spring means interposed between and engaging the inner portions of the caps, and a single connecting device inserted through the lower ends of the levers, the pressure caps and the spring means and having unrestricted movement in the outer portions of said lever ends.

3. In a shock absorber for vehicles, the combination with the axle and body structure of a vehicle, of opposed levers movably connected to said body structure and provided with fulcrum means at intermediate points attached to the axle, pressure caps having outer ball members loosely bearing in the sockets of the lower ends of the levers, spring means interposed between and engaging the inner opposing portions of the caps, a bolt loosely extending through the spring means, caps and said lever ends and projecting outwardly beyond the latter and having free movement in the outer portions of the said lever ends, auxiliary springs on the outer extremities of the bolt, and means on the outer extremities of the bolt for holding the auxiliary springs in place.

4. In a shock absorber for vehicles, the combination with the axle and body structure of a vehicle, of opposed levers provided with fulcrum means attached to the axle, the lower arms of the levers extending below the axle and inwardly toward each other and having upper table members with inner seats and overhanging flanges, the upper arms of the levers being in the form of closely associated leaf springs, the inner ends of the latter springs being fitted in said seats beneath said flanges, bolts extending through the inner ends of said springs with their heads countersunk in said seats and their opposite ends terminating beneath said flanges, clips applied over the leaf springs and engaging the table members, and shock absorbing spring means interposed between and coöperating with the lower ends of the levers below the axle.

1,026,497. MEANS FOR SECURING KNOB-SHANKS TO SPINDLES. THOMAS E. CROUCH, Stamford, Conn., assignor to The Yale & Towne Manufacturing Company, Stamford, Conn. Filed Jan. 10, 1912. Serial No. 670,457. (Cl. 70—88.)



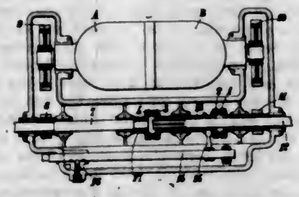
1. A knob shank having a socket for the spindle and a recess located transversely of the socket at one side thereof and communicating with the same, a locking piece within said recess and a support having an inclined face on which said locking piece rests and has movement in the direction of the length of the spindle.

2. A knob shank having a spindle socket and a recess communicating with said socket, a cylindrical clamping pin within said recess and a support having an inclined face on which said clamping pin rasts and has a rolling movement.

3. A knob shank having a spindle socket and a recess communicating with said socket, the said recess being longer than the socket is wide and closed at its ends, a locking piece within said recess, the said locking piece being longer than the socket is wide, and a support having an inclined face forming a seat for said locking piece and for holding the latter in contact with the spindle.

4. A knob shank having a socket for the spindle, a recess or pocket communicating with said socket, a locking piece within the pocket, and a screw secured in a diagonally disposed threaded hole in the knob shank and forming a support for the wedge.

1,026,498. POWER-TRANSMISSION MECHANISM. LOUIS MARIE GABRIEL DELAUNAY-BELLEVILLE, St.-Denis, France, assignor to The Société Anonyme des Automobiles Delaunay-Belleville, St.-Denis, France, a Corporation of France. Filed Mar. 27, 1911. Serial No. 617,166. (Cl. 138—3.)



1. A hydraulic power transmission mechanism comprising a pump casing, driving and driven pumps coöperating in said casing, individual shafts normally independent of said pumps, mechanism whereby said shafts can be connected through said pumps, and mechanism whereby said shafts can be directly coupled.

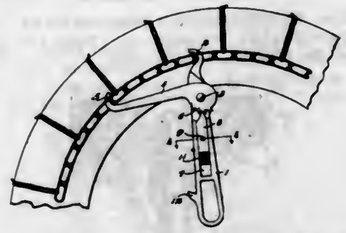
2. A hydraulic power transmission mechanism comprising a pump casing, driving and driven pumps coöperating in said casing, individual shafts normally independent of said pumps, loose sleeves carried by said shafts, and means to make said sleeves rigid with said shafts thereby connecting said shafts through said pumps.

3. A hydraulic power transmission mechanism comprising a pump casing, driving and driven pumps in said casing, a driving shaft independent of said pumps and adapted to be connected with the driving pump, a driven shaft also independent of said pumps and adapted to be connected to said driven pump, and means to couple said shafts to form a unitary shaft independent of said pumps.

4. A hydraulic power transmission mechanism comprising a pump casing, driving and driven pumps in said casing, a driving shaft independent of said pumps, a sleeve loosely mounted on said shaft adapted to operate the driving pump when rigid with said shaft, a clutch carried by said shaft adapted to engage said sleeve to connect the same rigidly with the shaft, a second shaft independent of said pumps provided with a sleeve adapted to be operated by the driven pump, a clutch member carried by said shaft adapted to engage the sleeve so that the driven pump will rotate said second shaft, and means whereby the said shafts can be coupled directly to produce a unitary revolving shaft.

5. In a hydraulic power transmission mechanism, a driving pump, a driven pump, independent individual shafts, and a mechanism adapted when in one position to connect said shafts through said pumps, and when in the other position to connect the shafts directly.

1,026,499. JACK FOR TIGHTENING ANTISKID-CHAINS. WILLIAM F. EDGINGTON, Springfield, Ohio, assignor of one-half to Alexander Murray, Springfield, Ohio. Filed Feb. 29, 1912. Serial No. 680,704. (Cl. 214—5.)



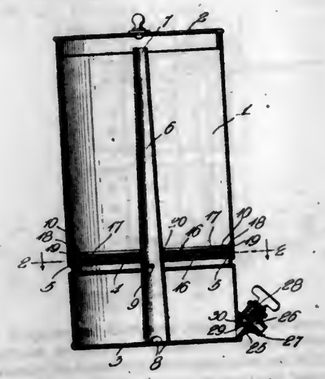
1. In a chain tightener, a main lever portion having a hook-shaped end, an arm pivotally connected therewith with its free end also provided with a hook, said arm having a series of ratchet teeth arranged about its pivotal point, and a pawl on the main lever portion for engagement with said ratchet teeth.

2. In a chain tightener, a main lever portion having a hook-shaped end, an arm pivotally connected with said lever portion, said arm having a hook at its free end and ratchet teeth at its pivotal end, and a pawl slidably mounted in said main lever portion for engagement with the said ratchet teeth.

3. In a chain tightener, a main lever portion having a hook-shaped end, an arm pivotally connected with said main lever portion, said arm having a hook at its free end and ratchet teeth at its pivotal end, a groove-way in said main lever portion, and a pawl in said groove-way slidably connected with said main lever portion for engagement with said ratchet teeth.

4. In a chain tightener, a main lever portion having a hook-shaped end, an arm pivotally connected with said lever portion, said arm having a hook at its free end and ratchet teeth on its pivotal end, a pawl on said main lever portion for engagement with said ratchet teeth, and a projection on said main lever portion adapted to engage the hook end of said arm and hold the same in closed position.

1,026,500. SYRUP-PERCOLATOR. WILLIAM N. ELLEDGE, Beeville, Tex. Filed May 18, 1911. Serial No. 628,015. (Cl. 167—4.)



1. In a syrup percolator, the combination with an upright cylinder, a spigot opening out of it at a low point, a grate of coarse mesh secured within and across the interior of said cylinder above said spigot, and an upright air tube fixed through said grate and opening within the cylinder above and below the grate; of a filter comprising a ring of smaller external diameter than the internal diameter of said cylinder, and two fabric sheets respectively above and below said ring and stitched to each other inside the same and again outside the same so as to leave a margin which contacts with the interior of said cylinder, said sheets having a central hole into which said tube closely fits.

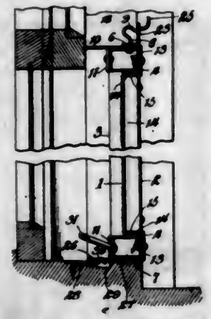
2. In a syrup percolator, the combination with an upright cylinder, an outlet opening out of it at a low point, and a grate of coarse mesh secured within and across the interior of said cylinder at some distance above said outlet; of an upright air tube fixed through the center of said grate and resting upon the bottom of the cylinder, said tube being provided with vents just below said grate and notches around its lower end, and a filter proper comprising a ring smaller than the interior of the body but adapted to rest upon the grate, and two sheets of flannel respectively above and below said ring, having holes through their center into which said tube closely fits and stitched to each other outside the ring so as to leave a projecting margin which fits closely within the interior of the cylinder.

1,026,501. WINDOW-SCREEN. WILLIAM H. ETTER, Marietta, Ohio. Filed May 9, 1910. Serial No. 560,309. (Cl. 156—14.)

1. A screen of the class described including a frame comprising two approximately rectangular clamping sections removably fitted together and each composed of channel bars rigidly secured together at their ends, wire netting having its marginal portion clamped between the inner sides or flanges of the channel bars, the inner sides or flanges of the outer frame member having their terminals free to permit such inner flanges to spring inward and outward uniformly to enable the netting to contract and expand without twisting the frame or buckling the wire, and fastening devices piercing the outer sides or flanges of the channel bars and detachably connecting the two clamping sections together.

2. A screen of the class described including a frame comprising inner and outer rectangular clamping sections detachably fitted together and each composed of channel

bars provided at the corners of the clamping sections with overlapping angularly disposed extensions, the outer clamping section being also provided at the top and bottom with inwardly extending lugs, said extensions and lugs being secured to the contiguous channel bars and rigidly connecting the same at the corners of the clamping sections, and wire netting having its marginal portion clamped between the interfitting clamping sections.



3. A screen of the class described including a screen frame comprising two rectangular clamping sections detachably fitted together and each composed of channel bars rigidly secured together at their ends, fastening means for detachably securing the clamping sections together, and detachable vertical strips extending from the top to the bottom of the screen and secured to the same by the said fastening means for the clamping sections forming lateral extensions of the screen and provided with attaching means secured between the outer flanges of the channel bars of the clamping sections.

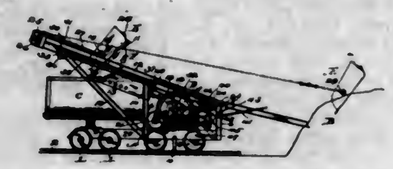
4. A screen of the class described including a screen frame comprising two rectangular clamping sections detachably fitted together and each composed of channel bars connected together at their ends, wire netting having its marginal portions held between the inner flanges of the channel bars, and detachable angle strips extending from the top to the bottom of the screen and forming lateral extensions, which project over the face of the window casing, said angle strips also forming inner attaching members fitted between the outer flanges of the clamping sections, and fastening devices piercing the said outer flanges and the attaching members of the angle strips and securing the latter and the clamping sections together.

5. A screen of the class described including a screen frame comprising two rectangular clamping sections detachably fitted together and each composed of channel bars connected together at their ends, fastening means for detachably securing the clamping sections together, wire netting having its marginal portion held between the inner flanges of the channel bars, and detachable vertical strips extending from the top to the bottom of the screen and forming lateral extensions of the screen and provided with approximately U-shaped attaching members fitted around the outer flanges of the channel bars of one of the clamping sections and secured between the same by the said fastening means for the clamping sections and the outer flanges of the channel bars of the other clamping section.

[Claims 6 to 8 not printed in the Gazette.]

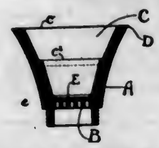
1,026,502. ORE-LOADER. NELS P. FLODIN, Marquette, Mich., assignor of one-half to Joseph P. Hodgson, Ishpeming, Mich. Filed Oct. 28, 1910. Serial No. 589,643. (Cl. 214—10.)

1. The combination of an inclined way, a scoop movable along the same, a tilting cradle upon which the scoop passes from the upper end of the way, a cable connected with the scoop, a winding device connected with the cable, an engine, a clutch between the engine and winding device, means for automatically opening the clutch after the scoop reaches the cradle and tilts therewith, and a throttle valve controlling means automatically operated with the clutch.



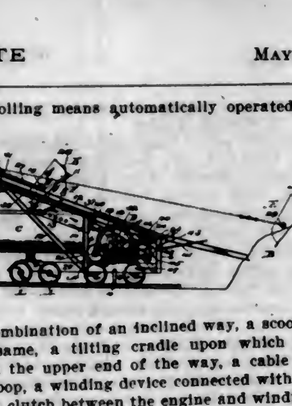
2. The combination of an inclined way, a scoop movable along the same, a tilting cradle upon which the scoop passes from the upper end of the way, a cable connected with the scoop, a winding device connected with the cable, an engine, a clutch between the engine and winding device, means for automatically opening the clutch after the scoop reaches the cradle and tilts therewith, a throttle valve controlling means automatically operated with the clutch, and an operator's controlling lever operatively connected with the throttle and clutch.

1,026,503. SANITARY TELEPHONE-MOUTHPIECE. CLAUDE V. FULLER, Newark, N. J. Filed July 20, 1911. Serial No. 639,600. (Cl. 179—185.)



A sanitary guard for mouth pieces of telephone transmitters, comprising telescopic sections having the form of truncated cones, said sections further having different degrees of inclination and being extended and secured together.

1,026,504. STEERING-HEAD FOR VEHICLES. GEORGE FRANCIS GARRITY, Scranton, Pa. Filed Feb. 6, 1911. Serial No. 606,993. (Cl. 74—33.)



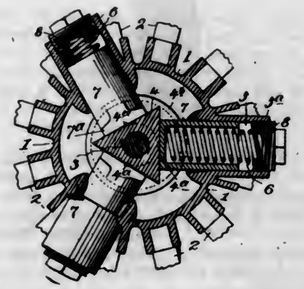
1. In a steering head for vehicles, a steering wheel, a steering pillar, an annular grip member carried by the steering wheel with springs interposed between said grip member and the rim of the steering wheel, a clutch having one member connected directly to the steering pillar for rotation therewith, and another member fixedly connected to a non-rotatable part of the vehicle, and connections between the grip member and the member of the clutch carried by the pillar.

2. In a steering head for vehicles, a steering wheel, springs carried by the rim of the steering wheel on the side thereof toward the operator, an annular grip member carried by the springs, a clutch for connecting the steering wheel to a fixed part of the vehicle, and connections between the grip member and the clutch, said connections comprising a series of levers carried by the wheel in radial relation thereto and each connected at one end to a clutch, and link members each connected at one end to a respective lever and at the other end to the grip member.

3. In a steering head for vehicles, a steering pillar, a steering wheel at one end of said steering pillar, a hollow post traversed by the pillar and fixed with reference thereto, said post terminating at the end toward the steering wheel in a clutch head, a clutch block rotatable with the steering pillar and carried by the latter in operative relation to the clutch head on the pillar, a series of levers carried by the steering wheel and each connected at one end to the clutch block, a link for each lever extending through the steering wheel to the side thereof remote from the lever, a circular grip member on the side of the steering wheel remote from the clutch, said grip member being connected to the links at the ends thereof remote from the levers, and springs interposed between the grip member and the steering wheel and tending normally to move the grip member away from the steering wheel.

4. In a steering head for vehicles, a steering pillar, a steering wheel at one end of said steering pillar, a hollow post traversed by the pillar and flexed with reference thereto, said post terminating at the end toward the steering wheel in a clutch head, a clutch block rotatable with the steering pillar and carried by the latter in operative relation to the clutch head on the pillar, a series of levers carried by the steering wheel and each connected at one end to the clutch block, a link for each lever extending through the steering wheel to the side thereof remote from the lever, an annular grip member of concavo-convex cross section having tongues and ears on the inner edge connected to the ends of the links remote from the levers, the grip member conforming to the shape of the steering wheel, and springs interposed between the steering wheel and the concaved face of the grip member.

1,026,505. RESILIENT WHEEL. ADAM F. GLASER, Jersey City, and JOHN OLSEN, Whippany, N. J., assignors of one-third to George W. Crane, Rahway, N. J. Filed July 19, 1909. Serial No. 508,430. (Cl. 152—28.)

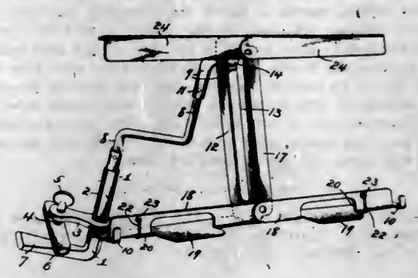


1. The combination of a hub provided with an opening to permit free movement of an axle therein, a head for the axle provided with triangularly disposed faces, thrust pieces co-acting with said faces, and springs interposed between the thrust pieces and the hub.

2. The combination of a hub provided with an opening to permit free movement of an axle therein, a head for the axle provided with traingularly disposed faces, thrust pieces to co-act with said faces, means for operatively connecting said thrust pieces with said hub, and springs interposed between the thrust pieces and the hub.

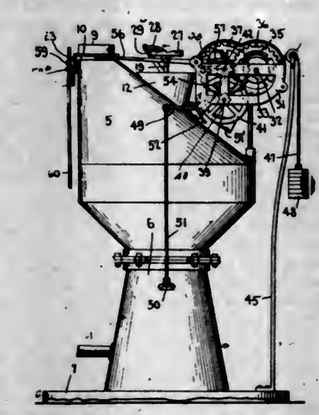
3. The combination of a hub provided with an opening to permit free movement of an axle therein, a head for the axle provided with angularly disposed cam faces, thrust pieces co-acting with said faces, said head having flanges on opposite sides of said cam faces, the thrust pieces being located between said flanges, said hub having faces co-acting with said flanges, springs interposed between the thrust pieces and the hub, and means retaining said springs in place.

1,026,506. ADJUSTABLE SUPPORT FOR BOOKS, PAPERS, &c. CHARLES T. HARD, East Liverpool, Ohio. Filed Feb. 9, 1910. Serial No. 542,996. (Cl. 45—58.)



In a book support, the combination with an upright member, and supporting means therefor, of arms made angular in cross section and attached at their inner ends to the lower portion of said upright member, each of said arms provided intermediate of its ends with integral projections to support a book and each arm provided at its outer end with an integral fixed clip spaced outwardly from the upright face of the arm, and spring clips secured to the bottom faces of the book supporting projections and having their free ends terminating substantially parallel with the upright portions of the arms between said supporting projections and the fixed clips at the outer ends of said arms.

1,026,507. ACETYLENE-GAS GENERATOR. JAMES T. HAYS and THOMAS C. HAYS, Emmitsburg, Md. Filed May 18, 1911. Serial No. 628,069. (Cl. 48—52.)

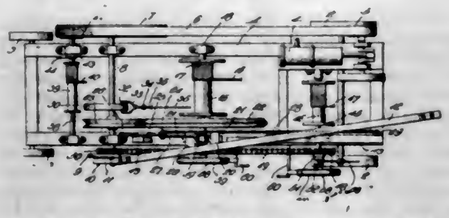


1. The combination with a carbid feeding device for acetylene gas generators, of a motor for actuating the same, a brake mechanism for controlling said motor, the latter comprising a rotary member, a brake shoe the opposite ends of which are adapted for frictional engagement with the peripheral edge of the rotary member, means for controlling said brake shoe by the volume of gas generated whereby the momentum of the motor is gradually stopped as the volume of gas becomes excessive and whereby the motor becomes inactive upon a sudden and accidental release of the gas.

2. In an acetylene gas generator, the combination of carbid feeding means, a motor for actuating the same, a rotary member actuated by the motor, a pivoted brake shoe forming a part of the motor and adapted to have either of its ends engage said member to stop the motor, means for holding one end of said shoe normally in contact with said rotary brake member, a movable trip operatively connected to said shoe to move the same, and a gasometer having a movable member arranged in the path of said trip adapted to engage the same.

3. In an acetylene gas generator, the combination of carbid feeding means, a motor for actuating the same, a rotary member actuated by the motor, a rocking brake shoe adapted to have either of its ends engage said member to stop the motor, a weight carried by said shoe to hold one of its ends in contact with said member to stop the motor, an arm forming a part of said brake shoe, a trip lever secured to said arm, a gasometer having a movable bell, and means upon said bell to engage and actuate said trip lever, for the purpose set forth.

1,026,508. WELL-DRILLING MACHINE. FREDERICK A. HEBERLING, Centralia, Ill. Filed July 13, 1911. Serial No. 638,345. (Cl. 166—3.)



1. In a well drilling machine, a supporting frame, a motor, a main drive shaft operatively connected with said motor, a drill operating shaft geared to said main drive shaft, a drum fixed on said drill operating shaft, a drill operating cable adapted to be wound on and off said drum, a spudding cam fixed on said main drive shaft, said cam comprising a disk having laterally projecting annular flanges, a spudding cable having a slidable and detachable connection with said drilling cable, a grappling hook coupling adapted to detachably connect said spudding cable with said cam, said coupling comprising pivotally connected jaws having on one end overlapping hook shaped handles adapted to be detachably engaged with the end of the spudding cable and having on their opposite ends bearing rollers adapted to engage and travel on the inner surface of the flanges of said spudding cam whereby a steady pull and a quick release is imparted through said spudding cable to the drilling cable.

2. In a well drilling machine, a supporting frame, a motor arranged on said frame, a main drive shaft operatively connected with said motor, a fixed bearing arranged on one side of said frame, an adjustable bearing slidably mounted on the opposite side of the frame, means to slidably connect said adjustable bearing to the frame, a drill operating shaft revolubly mounted in said bearings, a friction gear fixedly mounted on said main drive shaft, a similar gear fixedly mounted on said drill operating shaft and adapted to be brought into and out of operative engagement with the gear on the drive shaft when said adjustable bearing is shifted in one direction or the other, a shifting lever, a link connected at one end to said lever and at its opposite end to a fixed support, a link connected at one end to the lower end of said lever and at its opposite end to said adjustable bearing whereby the latter is shifted to bring the friction gear on said drill operating shaft into and out of engagement with the friction gear on said drive shaft, a cable winding drum fixed on said drill operating shaft, and a drill operating cable adapted to be wound on and off said drum.

3. In a well drilling machine, a wheeled supporting frame, a motor arranged thereon, a main drive shaft operatively connected with said motor, a friction gear fixed on said shaft, a drill operating shaft revolubly and adjustably mounted on said drum, a friction gear fixedly mounted on said drill operating shaft, means whereby one end of said shaft is shifted to bring said friction gear into and out of engagement with the friction gear on said main drive shaft, a cable winding drum fixed on said drill operating shaft, a drill operating cable adapted to be wound on and off said drum, a spudding cam fixed on said main drive shaft, a spudding cable adapted to operatively connect said cam with said drill cable, a sand line shaft revolubly and adjustably mounted on said frame, a drive pulley fixed on one end of said shaft and adapted to be driven by said main drive shaft, a drum fixed on said sand line shaft, a sand bucket operating cable adapted to be wound on and off said drum, a casing line shaft revolubly mounted on said frame and geared to said main drive shaft, means to throw said line shaft into and out of operation, a cable winding drum fixed on said casing line shaft, a casing driving line or cable adapted to be wound on and off said drum, a mast, a series of pulleys revolubly mounted on said mast and adapted to independently support and guide said cables, a suitably mounted walking beam, means to operatively connect one end of said beam to said main drive shaft, and means to detachably connect the opposite end of the beam to said drill operating cable.

1,026,509. TOOL FOR EXTRACTING WELL-POINTS. BERTUS G. HOBLING, Coopersville, Mich. Filed Mar. 14, 1910. Serial No. 549,279. (Cl. 166—4.)

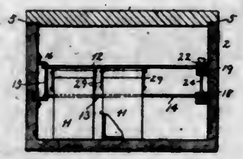


A tool of the class described, comprising a plug adapted to be screwed into a coupling and having an angular opening extending therethrough, an angular rod freely slidable in said opening, a shoulder at each end of the rod to engage the respective ends of the plug, a rod or tube attached to said slidable rod and extending upward, and a spring attached to the same to yieldably support the movable parts of the device.

1,026,510. ICE-CREAM FREEZER. LAURA EMMA HUDSON, Lancaster, S. C., assignor to North Pole Ice Cream Freezer Company, Charlotte, N. C., a Corporation of North Carolina. Filed Jan. 6, 1910. Serial No. 536,769. (Cl. 62—4.)

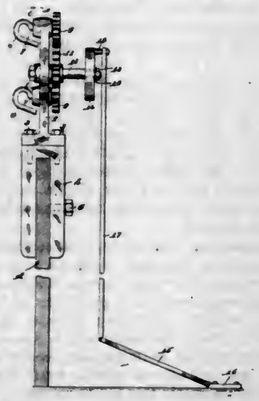
1. An ice-cream freezer, consisting of a receptacle, cans for the same, a slotted casing supported in the receptacle, a series of bars adapted to be received in the slots, a locking rod to clamp the free ends of the bars, and means for securing the locking rod.

2. An ice-cream freezer, consisting of a receptacle, cans for the same, bars to hold the cans in position, locking bars for the main bars, a lug on the side of the receptacle, and a latch pivoted on the locking bar and adapted to engage the lug on the receptacle.



3. An ice-cream freezer, consisting of a receptacle, cans for the same, a slotted casing supported in the receptacle, perforated bars adapted to be received in the slots, supporting means for the other ends of the bars, bars adapted to be supported in the slotted casing and contact with the tops of the cans, and locking means for the bars.

1,026,511. TWISTING DEVICE FOR MAKING ROPE. OTTO C. H. JESCHKE, Maywood, Ill. Filed Feb. 24, 1911. Serial No. 610,516. (Cl. 28—21.)



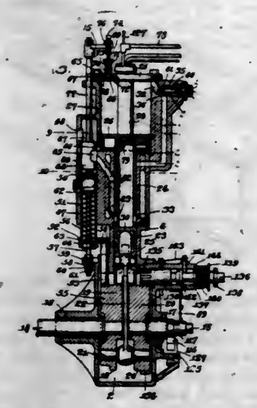
A twisting device comprising member 1 having a plurality of bearing hubs 6 extending well out from the face thereof; stub shafts 7 mounted in said bearing hubs and provided with inwardly turned hooks 8, the inner ends of of said hooks 8 terminating well within the plane of the outer ends of bearing hubs 6; and means for rotating shafts 7, substantially as described.

1,026,512. COMPOUND GAS-ENGINE. GEORGE W. JESSUP, Jr., Newton, Mass. Filed Sept. 21, 1910. Serial No. 582,975. (Cl. 123—36.)

1. In a compound gas engine, the combination of a fixed cylinder; a movable piston therein; a movable cylinder; a fixed piston within the movable cylinder, one cylinder receiving the high pressure and one cylinder receiving the low pressure during the operation of the engine; a power shaft; means for transmitting power from said movable piston and said movable cylinder to said power shaft; means for establishing communication between said cylinders at predetermined intervals; and means for causing explosions within the high pressure cylinder at predetermined intervals.

2. In a compound gas engine, the combination of a frame; a fixed low pressure cylinder; a movable piston therein; a movable high pressure cylinder carried by said piston; a fixed piston within said movable cylinder; a power shaft journaled in the frame; power transmitting connections between said movable cylinder and movable piston and said shaft; means for establishing communication between said high pressure cylinder and said low pressure cylinder between one of its ends and one face of its piston at predetermined intervals, said low pressure cylinder forming a compression chamber between its other end and the other face of its piston and said compression chamber having an inlet passageway and an outlet passageway leading to a position adjacent the high pressure cylinder; a valve controlling said inlet passageway; and means for establishing communication between said outlet passageway and said high pressure cylinder at predetermined intervals.

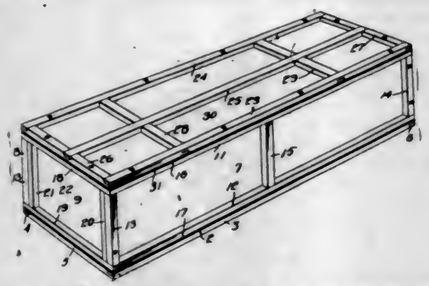
3. In a compound gas engine, the combination of a frame; a fixed low pressure cylinder; a movable piston therein; a movable high pressure cylinder carried by said piston; a fixed piston within said movable cylinder; a power shaft journaled in the frame; power transmitting connections between said movable cylinder and movable piston and said shaft; means for establishing communication between said high pressure cylinder and said low pressure cylinder between one of its ends and one face of its piston at predetermined intervals, said low pressure cylinder forming a compression chamber between its other end and the other face of its piston and said compression chamber having an inlet passageway and an outlet passageway leading to a position adjacent the high pressure cylinder; a valve controlling said inlet passageway; means for establishing communication between said outlet passageway and said high pressure cylinder at predetermined intervals; and a valve permitting air to pass through said outlet passageway toward the high pressure cylinder and preventing air from passing in a reverse direction.



5. In a compound gas engine, the combination of a frame; a fixed low pressure cylinder; a movable piston therein; a movable high pressure cylinder carried by said piston and extending downwardly therefrom; a fixed piston extending downwardly through the low pressure cylinder and into the upper portion of the high pressure cylinder; a power shaft journaled in the frame; power transmitting connections between the lower end of the high pressure cylinder and said shaft; means for establishing communication between said cylinders at predetermined intervals; and means for causing explosions within the high pressure cylinder at predetermined intervals.

[Claims 6 to 28 not printed in the Gazette.]

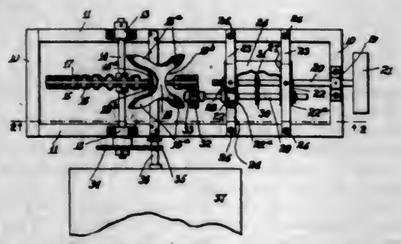
1,026,513. METALLIC COFFIN-CASE. JASPER JONES, Newark, Ohio. Filed Aug. 14, 1911. Serial No. 643,907. (Cl. 27—7.)



1. A metallic box comprising a sheet metal bottom having a reinforcing metal frame arranged around the edge thereof, side members secured to said bottom and each comprising a rectangular frame having a supporting brace arranged transversely thereof with a sheet metal plate arranged over its inner face and having the side edges thereof bent at right angles to form flanges which overlap the upper and lower faces of the side bars of said side members, end members composed of top, bottom and side bars connected at their ends with their metal lining arranged on the inner faces thereof and having flanges extending therearound and engaging the outer faces of said bars, and a skeleton top secured to a sheet metal plate and provided with means for connecting it with the side and end members of said box.

2. A metallic box comprising a sheet metal bottom having a reinforcing metal frame arranged around the edge thereof, side members secured to said bottom and each comprising a rectangular frame having a supporting brace arranged transversely thereof with a sheet metal plate arranged over its inner face and having the side edges thereof bent at right angles to form flanges which overlap the upper and lower faces of the side bars of said side members, end members composed of top, bottom and side bars connected at their ends with their metal lining arranged on the inner faces thereof and having flanges extending therearound and engaging the outer faces of said bars, and a top composed of two side bars with a longitudinally extending brace bar arranged between them, cross bars connecting the ends of said longitudinally disposed bars, transversely arranged brace bars spaced from said end bars, and a sheet metal plate secured to the inner faces of said bars.

1,026,514. MECHANICAL MOVEMENT. LOUIS JUDELSON, New York, N. Y. Filed July 6, 1911. Serial No. 637,103. (Cl. 74—50.)



1. In a mechanical movement, the combination with a main gear wheel having gear teeth on both of its lateral faces, of a pinion for revolving said main gear wheel, a shaft upon which said pinion is carried, a driving shaft from which the pinion shaft is driven, rotatable members arranged one in front of the other through which both shafts project, supports in which said rotatable members rotate about their centers and means whereby the pinion and pinion shaft are moved about the driving shaft as a center from one side to the other thereof whereby the pinion is moved from one side to the other of the main gear wheel to reverse the direction of rotation of the latter.

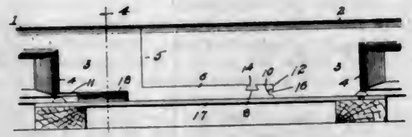
2. In a mechanical movement, the combination with a main gear wheel having gear teeth on both of its lateral faces, and an arcuate guide carried by said wheel, of a pinion adapted to be brought into mesh with the teeth on either face of the main gear wheel to revolve the latter, a shaft on which the pinion is carried, a friction roller on said shaft adjacent the pinion and adapted to travel in said guide, a driving shaft from which said pinion and pinion shaft are driven, rotatable members through which the driving shaft passes centrally and the pinion shaft passes eccentrically and supports for the rotatable members.

3. In a mechanical movement, the combination with a driving shaft and a pinion shaft driven therefrom, of a pinion rigidly carried by said pinion shaft, a main gear wheel having gear teeth on both of its lateral faces, a guide for swinging the pinion and pinion shaft in the arc of a circle to move the pinion from one side to the other of the main gear wheel, disks through which both the said shafts project, and annular supports in which said disks revolve about the driving shaft as a center when the pinion and pinion shaft are swung by the guide.

4. In a mechanical movement, the combination with a main gear wheel having gear teeth on both of its lateral faces, of a driving shaft having its longitudinal axis in substantial alinement with the periphery of the main gear wheel, a pinion shaft extending parallel to the driving shaft, rotatable disks through which the driving shaft passes centrally and the pinion shaft eccentrically, a pinion carried by said pinion shaft and adapted to engage alternately with the series of gear teeth on the main gear wheel, and means whereby the pinion and pinion shaft are moved in the arc of a circle from one side to the other of the driving shaft.

5. In a mechanical movement, the combination with a main gear wheel having gear teeth on both of its lateral faces, of a driving shaft having its longitudinal axis in substantial alinement with the periphery of the main gear wheel, a pinion shaft extending parallel to the driving shaft, rotatable disks through which the driving shaft passes centrally and the pinion shaft eccentrically, a pinion carried near one end of said pinion shaft and adapted to engage alternately with the series of gear teeth on the main gear wheel, an intermediate gear wheel on each of said shafts, said last named gear wheels being adapted to mesh whereby the pinion shaft is driven from the driving shaft, and means carried by the main gear wheel whereby the pinion and pinion shaft are moved in the arc of a circle from one side to the other of the driving shaft.

1,026,515. RAILWAY-SWITCH JOINT. WILLIAM KAYLOR, Muskogee, Okla., assignor of one-half to S. R. Taylor, Muskogee, Okla. Filed June 22, 1911. Serial No. 634,725. (Cl. 104—115.)

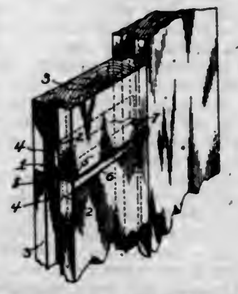


1. In a joint of the character described the combination with the end of a main track rail, said end being cut away on its upper side to form a flat base portion, said base portion having therein dove tail shaped notches which open from the opposite sides of the rail, and a centrally disposed pivot hole, of the end of a switch rail, said end having its lower side cut away whereby said cut away ends of the switch and main track rail are adapted to form an overlapping engagement, dove tail shaped lugs formed on the lower side of the cut away end of the switch, said lugs being adapted to be swung into the grooves in the base formed by the cut away portion of said end, a pivot stud formed on said end of the switch and adapted to engage the pivot hole in said base portion of the rail end whereby said end of the switch is pivotally connected to the end of the rail, and a base plate arranged beneath the connected ends of the switch and rail.

2. In a joint of the character described the combination with the end of a main track rail, said end being thickened on its sides and cut away to form a flat horizontal base, said base having in its upper side transversely disposed dove tail shaped notches, and a centrally disposed pivot hole and having in its sides longitudinal grooves and in its end a transverse groove, of the end of a switch member, said end being thickened and cut away on its under side to fit the recessed end of the rail, dove tail shaped lugs arranged on the under side of the cut away end of the rail and adapted to engage the dove tail shaped notches in the base of the rail end, a pivot stud also formed on the cut away end of the switch member and adapted to engage the pivot hole in said base whereby said switch member is pivotally connected to the rail member and adapted to be swung thereon to open and close the same, a tongue formed on the end of the cut away portion of the switch and adapted to engage the groove in the end of the base of the rail, a base plate arranged beneath the joined ends of said rail and switch member and means whereby said base plate is secured to the thickened end of the rail.

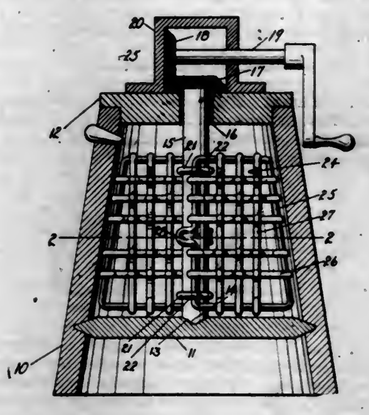
3. In a joint of the character described the combination with the end of a main track rail, said end being thickened on its sides and cut away to form a flat horizontal base, said base having in its upper side transversely disposed dove tail shaped notches and a centrally disposed pivot hole having in its sides longitudinal grooves and in its end a transverse groove, of the end of a switch member, said end being thickened and cut away on its under side to fit the recessed end of the rail, dove tail shaped lugs arranged on the under side of the cut away end of the rail and adapted to engage the dove tail shaped notches in the base of the rail end, a pivot stud also formed on the cut away end of the switch member and adapted to engage the pivot hole in said base whereby said switch member is pivotally connected to the rail member and adapted to be swung thereon to open and close the same, a tongue formed on the end of the cut away portion of the switch and adapted to engage the groove in the end of the base of the rail, a base plate arranged beneath the joined ends of said rail and switch member, said base plate having formed therein spike receiving holes and notches, rail engaging flanges formed on the upper edges of said flanges and adapted to engage the grooves in the side of the thickened base portion of the rail.

1,026,516. SILO. ALBERT KEIRLE, Bunker Hill, Ill. Filed Nov. 13, 1911. Serial No. 660,008. (Cl. 20—1.4.)



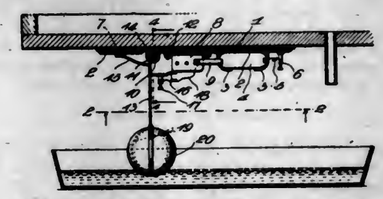
The combination with tongue and grooved boards placed end to and and grooved at their abutting ends, of a metal strip or member resting within the grooves in the ends of both boards and extending from the outer edges of the tongues at one side into the grooves at the other side so as to enter the tongues of the next adjacent board, and a second metal member projecting horizontally outwardly between the ends of the boards to the front thereof and turned down over the outer face of the lower board so as to form a water shed, the said second member being of slightly less length than said first mentioned member.

1,026,517. CHURN AND DASHER. FLOY D. KINCAID, Long Creek, Oreg. Filed Nov. 2, 1911. Serial No. 658,216. (Cl. 31—42.)



In a churn, a body, a vertical shaft therein, means for rotating the shaft, rings on the shaft, said rings having a series of loops, and dashers, said dashers being formed with means for pivotal movement in the said loops, said dashers having openings therethrough, and an extension on the pivotal side of each of the dashers for engagement with the said shaft to prevent the movement of the dashers on their pivots in one direction.

1,026,518. ELECTRIC ALARM. WILLIAM J. KNOBLOCH, Washington, D. C. Filed Dec. 4, 1911. Serial No. 663,768. (Cl. 177—317.)

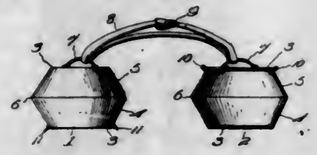


1. An electric alarm comprising a frame having a battery and a buzzer located thereon, an electric connection between the battery and buzzer, an electric connection between the battery and frame, an arm hingedly mounted upon the frame and insulated therefrom, said arm being formed from a strip of sheet material having a finger struck up therein and adapted at times to encounter the frame, said arm also having a finger struck up therefrom which is electrically connected with the buzzer, said arm being provided at its lower end with longitudinally disposed slits forming fingers which are bowed at their intermediate portions away from each other and which are disposed toward each other at their lower ends, and a ball float detachably received between the last mentioned fingers.

2. An electric alarm comprising a frame having a battery and buzzer mounted thereon, an electric connection between the battery and buzzer, an electric connection

between the battery and the frame, an arm hingedly mounted upon the frame and insulated therefrom, said arm being formed from a strip of sheet material, a portion of the material of which the arm is formed being struck up into a finger adapted to encounter the frame at times, a second finger formed up from the arm and a wire connecting the last mentioned finger with the buzzer, the strip of which the arm is formed having at its lower end longitudinally disposed slits forming three fingers which are bowed from each other at their intermediate portions and which are disposed toward each other at their lower ends, a ball inserted between the last mentioned fingers, the said arm having sufficient resiliency to permit the said ball to be brushed to one side or the other as a pan is inserted under the same or removed from under the same.

1,026,519. FLOAT FOR BATHERS. WILLIAM C. KNOPH, New Orleans, La. Filed Oct. 5, 1911. Serial No. 652,974. (Cl. 9—17.)

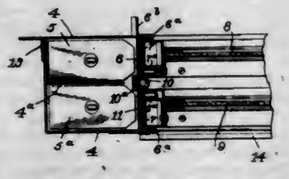


1. In a float, the combination of a pair of hollow vessels, means connecting the vessels together for supporting a bather, and means for connecting one vessel below the other locking the vessels together for the purpose of carrying same, substantially as described.

2. In a float, the combination of a pair of hollow vessels, a strap connecting the vessels together, one of the vessels being provided with a plurality of eye members, and the other vessel having a corresponding number of hooks for engaging said eye members whereby the vessels may be coupled together for the purpose of carrying same, substantially as described.

3. In a float, the combination of a pair of hollow vessels, each vessel having circular ends and flared sides meeting in a ridge having a greater diameter than said vessels, each vessel having a handle fixed to one end, a strap attached to the handles for connecting the vessels together and securing same to a bather, eye members projecting from the periphery of one of the vessels near the opposite end to which said handle is fixed, and hooks projecting from the periphery of one of the vessels near the opposite end to which the handle is fixed for engaging said eye members whereby the vessels may be coupled together for the purpose of carrying same, substantially as described.

1,026,520. FIREPROOF WINDOW CONSTRUCTION. EDMUND H. LUNKEN, Cincinnati, Ohio, assignor to The Lunkenheimer Company, Cincinnati, Ohio, a Corporation. Filed Feb. 20, 1912. Serial No. 678,913. (Cl. 189—73.)



1. In a fire proof window construction, a main frame including side members of channel form providing weight boxes, channel shaped cap plates secured to the edge of the side members and having openings for access to the pulleys and weights, upper and lower removable cover plates secured to said cap plates and having guides for sliding sashes and transversely arranged spacing strips interposed between the cap and cover plates, substantially as described.

2. In fire proof window construction, a main frame including side members of channel form provided with weight boxes, channel shaped cap plates, the legs of which are secured to the outer edges of the side members forming projecting flanges, openings in the cap plates for access to the weights and pulleys, and upper and lower cover plates removably secured between the projecting flanges of the cap plates, said cover plates having guides for the sashes.

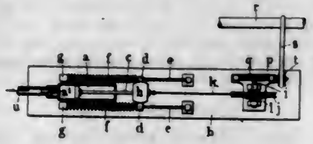
3. In fire proof window construction, a main frame including side members of channel form provided with weight boxes, channel shaped cap plates, the legs of which are secured to the outer edges of the side members forming projecting flanges, openings in the cap plates for access to the weights and pulleys, and upper and lower adjustable cover plates removably secured between the projecting flanges of the cap plates, said cover plates having guides for the sashes.

4. In fire proof window construction, a main frame including side members of channel form provided with weight boxes, channel shaped cap plates the legs of which are secured to the outer edges of the side members forming projecting flanges, openings in the cap plates for access to the weights and pulleys, and upper and lower adjustable cover plates removably secured between the projecting flanges of the cap plates and having guides for the sashes, the lower cover plates being longer than the upper cover plates.

5. In fire proof window construction, a main frame including side members of channel form provided with weight boxes, channel shaped cap plates the legs of which are secured to the outer edges of the side members forming projecting flanges, openings in the cap plates for access to the weights and pulleys, and upper and lower adjustable cover plates removably secured between the projecting flanges of the cap plates, and having guides for the sashes, the lower cover plates being longer than the upper cover plates, said upper and lower cover plates having interlocking ends.

[Claim 6 not printed in the Gazette.]

1,026,521. AIR-COMPRESSOR. ANDRÉ HENRI MARCOU, Versailles, France. Filed Apr. 25, 1911. Serial No. 623,206. (Cl. 230—27.)



1. In an air compressor, the combination of a piston, a heavy body secured on the piston rod, an elastic device for throwing forward said piston and its body, a device for stretching the elastic device and a releasing device for allowing said elastic device to suddenly unstretch.

2. In an air compressor, the combination of a piston, a heavy body secured on the piston rod, one or more coil springs attached on the heavy body, a device for bringing back said body by stretching the springs, and a device for suddenly releasing said body.

3. In an air compressor, the combination of a piston, a heavy body secured on the piston rod, one or more coil springs attached on the heavy body, a ribbon attached to the heavy body, a drum for winding the ribbon and drawing the heavy body, a driving device for the drum, producing the winding of the ribbon and a device for releasing the drum and allowing said ribbon to suddenly unwind.

4. In an air compressor, the combination of a piston, a heavy body secured on the piston rod, one or more coil springs attached on the heavy body, a ribbon attached to the heavy body, a drum for winding the ribbon and drawing the heavy body, a rotary driving shaft for the drum, producing the winding of the ribbon, a pawl to render the drum integral with the driving shaft and a fixed abutment in the path of the pawl tail for releasing the pawl and disengaging the drum from the driving shaft.

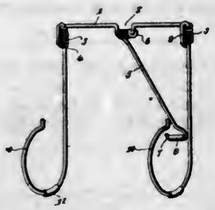
1,026,522. WHIFFLETREE. T. MARTIN, Missouri City, Tex. Filed Mar. 6, 1912. Serial No. 681,920. (Cl. 21—78.)



1. A draft device comprising a tubular metallic body open at both ends and provided in its front side near each end with a notch which notch intersects and extends rearwardly beyond the bore of the body, said body being provided longitudinally along its rear side with a rib or bead extending from end to end of the body and widened rearwardly at points opposite the transverse notches, and also widened rearwardly at a point midway its ends having the latter widened portion provided with an opening for the reception of a coupling device, and a rod extending through the tubular body and projecting beyond the ends thereof, all substantially as and for the purposes set forth.

2. A draft device comprising a tubular body piece open at both ends and provided in its front side with notches intersecting the bore of the body and extending rearwardly beyond the same, and a fastening rod extending longitudinally through the body and across the notches and operating at one end to secure a coupling device inserted in one notch and at its other end to secure a coupling device inserted in the other notch and means operating in connection with said rod to prevent its longitudinal displacement when applied for use, substantially as set forth.

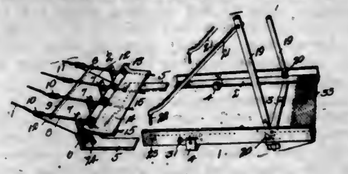
1,026,523. BOOK-HOLDER. JOHN S. MAXWELL, Anadarko, Okla. Filed Aug. 12, 1911. Serial No. 643,719. (Cl. 45—57.)



A device of the class described comprising a top member having right angular coils formed at its ends, a central pivoted loop, legs passing through said coils and journaled therein, the ends of said legs being bent back parallel with their bodies, and having their terminals extending beneath the coils and adapted to engage the terminal ends of the coils to limit the movement of the legs in one direction, the opposite ends of the legs being curved upwardly and inwardly to form spring clamping members, a supporting strut pivoted in the loop, and frictional members carried by the strut and supporting legs for preventing the device from slipping, said supporting legs and strut being adapted to fold in a common plane with the top member and loop.

1,026,524. HAMMOCK. JOHN J. MAXWELL, Washington, D. C. Filed Oct. 13, 1911. Serial No. 654,475. (Cl. 5—61.)

1. The combination with a hammock, of a bottom frame therefor having a series of end slots, a series of bolts attached to said hammock and arranged to slide through said end slots, means for maintaining said bolts in parallel positions, and suspension means attached to said bolts.



2. The combination with a hammock, of a bottom frame therefor having a series of end slots, a series of bolts attached to said hammock and arranged to slide through said end slots, suspension means attached to said bolts, and a spreader bar for maintaining the bolts in parallel positions.

3. The combination with a hammock, of a bottom frame therefor having a series of end slots, a series of bolts attached to said hammock and arranged to slide through said end slots, flexible cords attached to said bolts, a spreader for maintaining the bolts in parallel positions, and auxiliary flexible members secured to said flexible cords and attached to the frame ends for supporting the latter.

4. The combination with a hammock, of a spreader rod at each end thereof, a series of eye bolts loosely connected with said spreader, a bottom frame provided with slotted ends, said bolts being arranged to extend through said slotted ends, a support, a flexible suspension cord attached to each bolt, an auxiliary spreader for maintaining the bolts in parallel positions, and auxiliary flexible members secured to certain of said flexible cords at one end and attached to the main frame at the other end for suspending the main frame.

5. The combination with a hammock member, of a frame therefor, said frame comprising a pair of side members, slotted end members detachably connected to said side members, a series of bolts adapted to slide through the slots in said end members and having connection with said hammock member, a cover frame secured to said main frame, and braces for said cover frame, said braces serving to secure the end portions of said main frame to the side portions.

1,026,525. FLUE-CLEANER. HOLDEN C. MCKEEL, Newbern, N. C., and JOSEPH GRIFFIN, Little River, S. C. Filed Dec. 15, 1911. Serial No. 665,983. (Cl. 83—64.)



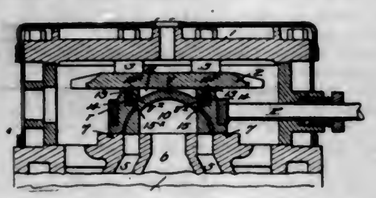
1. A flue cleaner composed of a shaft, an abutment thereon, a slide movable along the shaft, means for yieldingly pressing the slide along the shaft, a series of similar scrapers each composed of a pair of blades, the blades

of each pair being jointed at their outer ends, one to the abutment and the other to the slide and stop nuts on the shaft, the said blades being composed of body portions set radially edgewise and scraping wings one for each of the blades of the pair bent laterally at an angle to the body portions and the body portions being lapped side by side and pivoted together adjacent to their scraping wings, substantially as set forth.

2. In a flue cleaner, a scraper composed of a pair of flat blades each blade having at one end a laterally projecting scraping wing at an angle to the body of its blade, the said blades having their body portions lapped side by side adjacent to their scraping wings with their lapped portions pivoted together, the scraping wings being at the inner extremities of their blades and the pivotal connection between the blades being located between said wings and the opposite ends of their respective blades, substantially as set forth.

3. A flue cleaner comprising a shaft, an abutment thereon, a slide movable along the shaft, a series of scrapers composed each of a pair of flat blades whose outer ends are pivoted respectively to the slide and abutment, the said blades having at their inner ends laterally projecting scraping wings at an angle to the body portions of the blades and the said blades being lapped side by side adjacent to their scraping wings and pivots connecting the lapped portions of the scraping wings, said pivots being located between the scraping wings and the opposite ends of their respective blades, substantially as and for the purposes set forth.

1,026,526. STEAM-ENGINE LUBRICATOR. DAVID MOREHOUSE, Delphos, Ohio. Filed Feb. 9, 1912. Serial No. 676,486. (Cl. 121—115.)



1. The combination with a valve chest having an inner upper bearing surface, of a valve seat having inlet and exhaust ports, an oil supply passage and oil grooves running parallel with said inlet and exhaust ports and being provided with lateral extensions at their ends, a valve having end grooves in its bottom arranged to be brought into registration with said oil grooves and said oil supply passage, said valve being provided with grooves on its upper side, bearing strips disposed in the grooves on the upper side of the valve and arranged to bear on said bearing surface, said bearing strips being provided with oil grooves adjacent to said bearing surface, and registering oil passages in said bearing strips and in the body of the valve for establishing communication between the end grooves in the bottom of the valve and the grooves in the bearing strips.

2. The combination with a valve chest, of a pressure plate disposed within the valve chest and secured to the top thereof, a valve seat having inlet and exhaust ports, an oil supply passage and oil grooves running parallel with said inlet and exhaust ports and being provided with lateral extensions at their ends, a valve having end grooves in its bottom arranged to be brought into registration with said oil grooves and said oil supply passage, said valve being provided with grooves on its upper side, bearing strips disposed in the grooves on the upper side of the valve and arranged to bear on said pressure plate, said bearing strips being provided with oil grooves adjacent to said pressure plate, and registering oil passages in said bearing strips and in the body of the valve for establishing communication between the end grooves in the bottom of the valve and the grooves in the bearing strips.

3. The combination with a valve chest, of a pressure plate disposed within the valve chest and secured to the top thereof, a valve seat having inlet and exhaust ports, an oil supply passage and oil grooves running parallel with said inlet and exhaust ports and being provided with lateral extensions at their ends, a valve having end grooves in its bottom arranged to be brought into registration with said oil grooves and said oil supply passage, said valve being provided with grooves on its upper side, bearing strips disposed in the grooves on the upper side of the valve and arranged to bear on said pressure plate, and bearing strips being provided with oil grooves adjacent to said pressure plate, and registering oil passages in said bearing strips and in the body of the valve for establishing communication between the end grooves in the bottom of the valve and the grooves in the bearing strips, the movement of said bearing strips serving to break the registration of the oil grooves in the strips and the body of the valve, thereby permitting oil to enter between the strips and the adjacent sides of the grooves.

1,026,527. PROCESS TO REGENERATE AND IMPROVE THE STRUCTURE OF LEAD ELECTRODES OF SECONDARY BATTERIES. ERASMUS HENRY NAYLOR, London, England. Filed Dec. 27, 1910. Serial No. 599,394. (Cl. 204—29.)

1. The herein described process of treating electrodes for secondary batteries which consists in subjecting an electrode to the action of a compound of sulfur and a halogen.

2. The herein described process of treating electrodes for secondary batteries, which consists in subjecting an electrode to the action of a compound of sulfur and a halogen and then treating the electrode.

3. The herein described process of treating electrodes for secondary batteries, which consists in subjecting an electrode to the action of a compound of sulfur and a halogen, then heating the electrode, and then treating it with a bath of acid.

4. The herein described process of treating electrodes for secondary batteries which consists in subjecting an electrode to the action of sulfothionyl chlorid.

5. The herein described process of treating electrodes for secondary batteries which consists in subjecting an electrode to the action of sulfothionyl chlorid, heating the electrode, treating it with acid, washing the electrode and then forming it.

1,026,528. STARTING-CRANK FOR HYDROCARBON-ENGINES. ELIAS J. PATTON, Michigan City, Ind., assignor of one-half to Jay P. Bergeron, Michigan City, Ind. Filed May 1, 1911. Serial No. 624,337. (Cl. 123—185.)



1. A starting crank for hydro-carbon engines, including an arm having means for engaging and rotating with a shaft, a second arm mounted for rotation relative to said means, and a weighted trip upon one arm and adapted to engage the other arm to hold the arms against relative movement, said trip being shiftable automatically by the quick reverse of the arms, to release the arms from each other.

2. A starting crank for hydro-carbon engines, including relatively movable arms, means upon one of the arms for engaging and rotating with the engine shaft, the other arm being mounted to freely rotate relative to the shaft and a weighted trip upon one of the arms and engaging the other arm to hold said arms against relative movement, the weight on the trip constituting means for automatically shifting the trip and releasing the arms from each other upon the quick reverse of the arms.

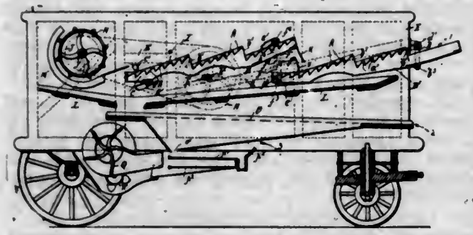
3. A starting crank for hydro-carbon engines, including relatively movable arms, means upon one of the arms for engaging and rotating with the engine shaft, the other arm being mounted to rotate freely relative to the shaft, a trip pivotally connected to one of the arms and having a weighted portion, means upon the trip and the other arm for holding the arms against relative movement, said weight constituting means for automatically shifting the trip to release the arms during the quick reverse movement of the arms.

4. A starting crank for hydro-carbon engines, including relatively movable arms, means upon one of the arms for engaging and rotating with the engine shaft, the other arm being mounted to rotate freely relative to the shaft, a trip pivotally connected to one of the arms and having a weighted portion, means upon the trip and the other arm for holding the arms against relative movement, said weight constituting means for automatically shifting the trip to release the arms during the quick reverse movement of the arms, and coöperating means upon the trip and its arm for holding the trip in and out of holding position.

5. A starting crank including relatively movable arms, means upon one of the arms for engaging and rotating with the engine shaft, the other arm being mounted to rotate freely relative to the engine shaft, a trip pivotally mounted on one of the arms, coöperating means upon the trip and its arm for limiting the swinging movement of the trip relative to the arm, coöperating means upon the trip and the other arm for holding the arms against relative movement, and a weight upon the trip, said weight constituting means for automatically shifting the trip to release the arm engaged thereby upon the quick reverse of the arms.

[Claims 6 to 9 not printed in the Gazette.]

1,026,529. RIDDLING APPARATUS FOR SEPARATING STRAW, CAVINGS, CHAFF, AND THE LIKE FROM GRAIN OR SEEDS. HENRY SLACK RAINFORTH, Lincoln, England. Filed Oct. 8, 1910. Serial No. 586,016. (Cl. 130—24.)



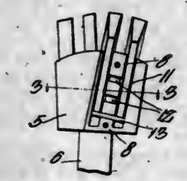
1. A sieve for use in a threshing machine comprising a plurality of corrugated screening members, the corrugations in adjacent members being arranged alternately, so that the ridges of the corrugations of one member lie in line with the furrows of the corrugations of the adjacent members.

2. A sieve for use in a threshing machine comprising a plurality of corrugated screening members having their forward ends downturned, the corrugations in adjacent members being arranged alternately.

3. A sieve for use in a threshing machine comprising a plurality of corrugated screening members having their forward ends downturned and provided at their forward ends with apertures arranged alternately in adjacent members, the corrugations in adjacent members also being arranged alternately.

4. A sieve for use in a threshing machine comprising a plurality of corrugated screening members having their forward ends downturned and their rearward ends downturned, the furrows of the downturned rearward parts lying in line with the ridges of the main parts of the members.

1,026,530. DRILL-BIT. JOHN SOHACKI and GEORGE W. COOK, Larksville, Pa. Filed July 19, 1911. Serial No. 639,404. (Cl. 125—10.)



1. A drill bit comprising an integral body having a pair of parallel and contiguous channels in one face and extending to one end thereof and having a series of cross slots in and extending through the portion separating the channels, prongs slidable in the channels and projecting therefrom, a member fitting in one of the said cross slots to have its ends projecting into the channels to form seats for the prongs, and means on the said face of the body to clamp the prongs and retain the said member in position.

2. A drill bit, comprising a body having a pair of parallel and contiguous channels in opposite faces and extending to one end thereof, which channels converge toward their upper ends in one direction and diverge toward their upper ends in another direction, the said body having a series of cross slots in and extending through the portions separating the channels, prongs slidable in the channels and projecting therefrom, a bar fitting in a cross slot of each series to have its ends project into the respective channels to form seats for the said prongs, and a cover plate removably secured on each face of the body to clamp the said prongs and retain the said bars in position.

1,026,531. ADVERTISING DISPLAY-SIGN. CHARLES F. SPERY, Chicago, Ill., assignor to American Art Works, Coshocton, Ohio, a Corporation of New Jersey. Filed Jan. 22, 1912. Serial No. 672,583. (Cl. 46—37.)



1. An improved advertising device, including, in combination, a container, a picture board in said container, said picture board having on its face the pictorial representation of an object, there being in said picture board an opening which mutilates the object represented on said card, a swinging rod in said container carrying a target, said target bearing on its face that portion of the pictorial representation of an object that is obliterated by said opening therein, in a multiplicity of different expressions and mechanism for moving the target intermittently at predetermined intervals of rest.

2. An improved advertising device, including, in combination, a container, a picture board in said container, said picture board having on its face the pictorial repre-

sentation of an object, there being in said picture board an opening which mutilates the object represented on said card, a swinging rod in said container carrying a target, said target bearing on its face that portion of the pictorial representation of an object that is obliterated by said opening, in a multiplicity of different expressions, a further opening in said picture board, a card behind the latter opening, said card being pivotally connected to the swinging rod carrying said target, and mechanism for throwing said rod at predetermined intervals of rest in opposing directions.

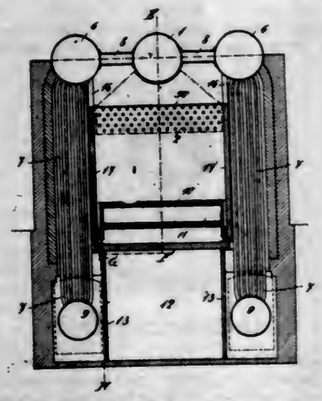
3. An improved advertising device, including, in combination, a container, a face card in said container having an opening, a target carrying rod in said container, pivoted at its lower end, a target on said rod near its upper end, said target being directly behind said opening in the face card, and a motor in said container constructed to swing said target after predetermined periods of rest, in opposing directions.

4. An improved advertising device, including, in combination, a container, a face card in said container, there being an opening in said face card, a target carrying rod in said container, pivoted at its lower end, a target on said rod near its upper end, said target being directly behind the opening in said face card, and a motor in said container, said motor including electrically operating mechanism whereby said target is moved at predetermined periods of rest, in opposing directions.

5. An improved advertising device, including, in combination, a container, a face card in said container, there being an opening in said face card, a target carrying rod pivotally mounted in said container, a target on said rod, said target being located directly behind the opening in said face card, and a motor in said container for moving said target, said motor including an electromagnet, a battery, an electric wire circuit, means for opening and closing this circuit, and mechanism operated by said electromagnet whereby said target is thrown at predetermined intervals of rest in opposing directions.

[Claims 6 to 9 not printed in the Gazette.]

1,026,532. WATER-TUBE BOILER. LEBRECHT STEINMÜLLER, Gummersbach, Germany. Filed Feb. 28, 1910. Serial No. 546,303. (Cl. 122—351.)



1. In a water-tube boiler the combination of a furnace, a horizontally inclined tube-element arranged within said furnace, so as to be exposed to the hottest gases, a set of vertical tubes arranged on both sides of said tube-element and a separate flue for inclosing each of said sets.

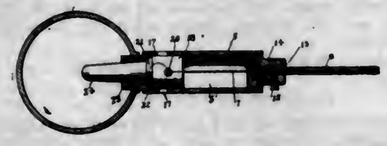
2. In a water-tube boiler the combination of a furnace, a horizontally inclined tube-element arranged within said furnace, so as to be exposed to the hottest gases, an upper and a lower water chamber for said element connected to an upper longitudinal water drum, and a set of vertical tubes arranged on each side of said tube-element, a separate flue for inclosing each of said sets, an upper and a lower water chamber for each of said sets and means for connecting the upper water chamber of each set with the upper water drum.

3. In a water-tube boiler the combination of a furnace, a horizontally inclined tube-element arranged within said furnace, so as to be exposed to the hottest gases, vertical tubes arranged on both sides of said tube-element, and divided longitudinally of the boiler into a plurality of sets, separate flues for inclosing the said vertical tubes, division walls in said flues, adapted to permit the gases to flow in paths parallel to said tubes through successive sets, and separate upper and lower water spaces for said sets of tubes.

4. In a water-tube boiler the combination of a furnace, fire-bars in said furnace, a horizontally inclined tube-element, arranged within said furnace so as to be exposed to the hottest gases, a set of vertical tubes arranged on both sides of said tube-element and extending below the level of said fire-bars, a flue for inclosing each of said sets of tubes and a removable portion at the bottom of the inner side of each of said flues, forming two walls of a chamber below said fire-bars, and adapted to permit the removal of said tubes through said chamber.

5. In a water-tube boiler the combination of a furnace, a horizontally inclined tube-element within said furnace, so as to be exposed to the hottest gases, a superheater located above said element and exposed to the gases after these have passed the said tube-elements, separate flues leading from said furnace to both sides of said tube-element, and vertical tubes arranged within said flues so as to be exposed to gases of the next lower temperature.

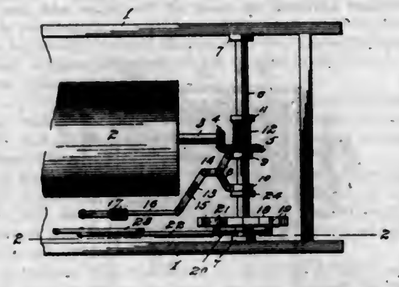
1,026,533. AUXILIARY AIR-VALVE FOR CARBURETERS. ALFRED C. STEWART, Los Angeles, Cal. Filed Aug. 16, 1911. Serial No. 644,448. (Cl. 137—4.)



An auxiliary air valve for the inlet pipe of an internal combustion engine, comprising a cylindrical casing having a reduced portion adapted for connection to said inlet pipe and a shoulder adjacent to said reduced portion, and provided with openings in its side, a valve body slidably mounted in said cylindrical casing and movable to close or open more or less of said openings, and having a conical valve face coöperating with said shoulder of said casing, said valve body being provided with a tapered extension extending through said reduced portion of said casing, a flexible tubular casing secured to the outer end of said cylindrical casing and having a flexible wire secured to said valve body and extending through said flexible tubular casing and an operating handle connected to said flexible wire.

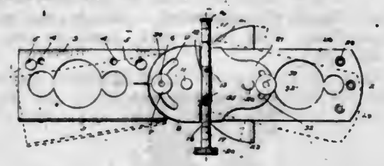
1,026,534. AUTO CRANKING DEVICE. FLETCHER H. WADDILL and ROY D. FONDA, Dexter, N. Mex. Filed June 28, 1911. Serial No. 635,725. (Cl. 123—185.)

In a starting device for explosive engines, the combination with an engine shaft and a bevel gear mounted thereon, of a cranking shaft arranged transversely to the engine shaft and forwardly thereof, a bevel gear mounted on said cranking shaft for longitudinal movement and adapted to engage said first-named gear, a collar fixed to said cranking shaft upon one side of the bevel gear thereon, a spring encircling the shaft intermediate the collar and the gear thereon and adapted to hold the second-named gear normally out of engagement with the first-named gear, a pair of movable collars loosely encircling said cranking shaft upon the opposite side of the gear and adapted for sliding movement thereon, a link mechanism pivotally connected to said collars, a stop collar rigidly secured to said shaft and adapted to be engaged by one of said movable collars, the other of said movable collars engaging the second-named gear for sliding the same into engagement with the first-named gear against the action of the said spring, an operating lever pivotally connected to said link mechanism, a ratchet gear rigidly secured to said shaft beyond said stop collar, a power



lever loosely mounted on said cranking shaft intermediate its ends and adjacent the ratchet gear, a dog pivotally connected to one end of said lever and engaging the ratchet gear, an operating lever pivotally connected to the opposite end of the power lever, and a hand lever pivotally connected to the operating lever for actuating the ratchet gear to start the engine.

1,026,535. MITER-BOX. PHILIP ROBERT WALLIS, Elizabethville, Pa. Filed Oct. 9, 1911. Serial No. 653,661. (Cl. 143—88.)



1. A miter box comprising a bed plate, a support with a swivel mounting for movement in a horizontal plane and pivoted for movement in a vertical plane, a plate adjustably pivoted to said support, a plate adjustably pivoted to said first named plate, means for separating said plates, and opposed walls mounted upon said plates and forming a guide for a saw.

2. A miter comprising a bed plate, a hinged support pivoted to said bed plate, opposed walls forming a saw guide mounted on said support, means carried by said support for holding said walls in registering position, means for adjusting said registering walls angularly on the support, and means for enabling said walls to be swung out of registration with one another.

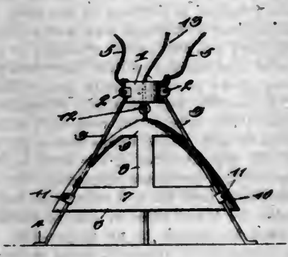
3. In a miter, in combination, a bed plate having a rectangular flange, a hinged member having one of its sections adjustably pivoted to said bed plate, a plate mounted at its inner end to the opposite section of said member, a stud carried at the free end of said plate, a guide wall mounted at the lower inner end of said plate, a plate pivoted at its outer end to the top of said stud, a spaced apart wall mounted on said last named plate in registering position adjacent said first named wall to form a saw guide therewith, and means for holding said last named plate when turned on its pivot.

4. In a miter, in combination, a bed plate having a rectangular flange, a hinged member having one of its sections adjustably pivoted to said bed plate, a plate pivoted at its inner end to the opposite section of said member, a stud carried at the free end of said plate, a guide wall mounted at the lower inner end of said plate, a plate pivoted at its outer end to the top of said stud, a wall mounted on said last named plate, in register adjacent said first named wall to form a saw guide therewith, means for holding said walls in register, means for adjustably holding said last named plate, and means for adjustably holding said first named plate.

5. A miter comprising a bed plate having a rectangular flange, a segmental member pivoted to said bed plate and having a segmental slot, a stud on said bed plate and projecting through said slot and formed with a screwthreaded portion, a tubular screw engaging said screw threaded portion, and said member, a plate hingedly connected to said member, a guide wall mounted upon said plate, a stud at the free end of said plate, a plate pivoted at the end of said stud and carrying a guide wall movable into registering position facing said other guide wall, internally screw threaded studs on said hinged plate, said last named plate formed with cut-away portions through which said last named studs project to accommodate it to radial movement, and set screws on said studs for clamping said last to said first named plate.

[Claim 6 not printed in the Gazette.]

1,026,536. DEVICE FOR LIFTING TUBES, TILES, AND THE LIKE. FRANK L. WATSON, Womer, Kans. Filed Nov. 11, 1911. Serial No. 659,871. (Cl. 166—67.)



1. A device of the class described, comprising a head member, a plurality of arms pivoted thereto and provided with laterally extending portions at their free ends, a follower of cone-shaped design disposed between said arms, guiding means carried on said follower engaging said arms to permit of the sliding movement of said follower thereon, suspension means for the head member, and means to raise and lower said follower.

2. A device of the class described, comprising a collar, a plurality of arms pivoted thereto and said arms being provided with hook members at the free ends thereof, a cone-shaped follower disposed between said arms, said follower having guiding means thereon through which said arms slidably extend, suspension means for the collar and parts carried thereby, and additional means extending through said collar for raising and lowering said follower with respect to the collar.

3. A device of the class described, comprising a collar, a plurality of arms having one of their ends pivotally secured to said collar, the free ends of said arms being provided with laterally extending hook portions, a cone-shaped follower disposed between said arms, said follower being provided with a plurality of guiding members through which said arms extend, suspension means for said collar and parts carried thereby, and a flexible connection swivelly engaged with said follower extending through said collar to raise and lower the follower with respect to the collar.

4. A device of the class described, comprising a collar, a plurality of arms having one of their ends pivoted thereto, the free ends of said arms being provided with laterally extending hook portions, a cone-shaped follower disposed between said arms, said follower being provided with a plurality of ears arranged in pairs through which said arms extend, bolts extending through each pair of ears to retain the arms between said ears, a flexible connection swivelly

engaged with said follower and extending through said collar to raise and lower the follower and correspondingly expand and contract said arms, and suspension means for the collar and parts carried thereby.

1,026,537. DRAINING ATTACHMENT FOR SINKS. MARY A. WEAVER, Dalhart, Tex. Filed July 23, 1910. Serial No. 573,580. (Cl. 141—11.)

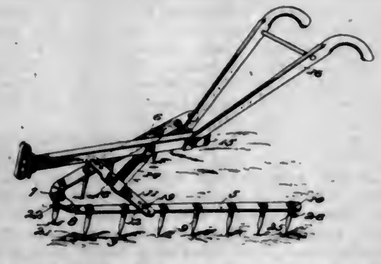


1. In combination, a drainage sink, and a rack arranged therein adjacent to a side thereof and comprising a frame, pivotal connections between the outer side of said frame and the adjacent side of the sink, said rack being provided with spaced bars to support cups and similar dishes, legs pivotally connected at corresponding ends to the opposite end portions of the rack and adapted to engage the bottom of the sink at their opposite ends to support the rack in operative position, said legs being foldable against the ends of the rack to permit the latter to move downwardly into an inoperative position in relation to the sink.

2. In combination, a draining sink and a rack arranged therein comprising a frame and a plurality of spaced bars to receive cups and similar dishes therebetween to support the same, plates at the opposite ends of the rack and provided with recesses, legs pivotally connected at corresponding ends to the ends of the rack and arranged upon the inner sides of said plates, finger pieces projecting outwardly from the opposite ends of the legs, said legs being movable into vertical positions supporting the rack in an operative horizontal position and being also movable so as to rest against the inner sides of the aforesaid plates to permit the rack to remain in an inoperative or vertical position, the finger pieces aforesaid being movable into the recesses of the plates when the legs are inoperative with respect to the rack.

1,026,538. [WITHDRAWN.]

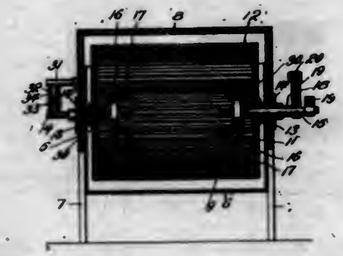
1,026,539. COMBINED HARROW AND DRAG. THOMAS J. WHEELER, Lewisville, Ark., assignor of one-half to George M. McKnight, Lewisville, Ark. Filed Sept. 9, 1910. Serial No. 581,322. (Cl. 55—125.)



In a harrow a bar, a harrow tooth passing through the same, a bolt passing through the tooth parallel with the bar and at a point below the same and having an eye for attachment to a drag.

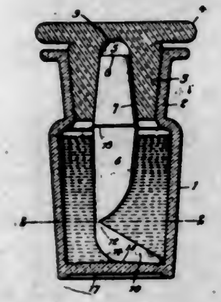
1,026,540. WASHING-MACHINE. CHARLES WILLES, East Auburn, Cal., assignor of one-half to C. E. Cole, East Auburn, Cal. Filed May 31, 1911. Serial No. 630,341. (Cl. 68—18.)

A washing machine, comprising a stationary body, a semi-rotatable drum mounted therein, stud journals passed through the ends of the body and the ends of the drum centrally thereof, a sleeve surrounding one stud journal and fixed to one end of the drum, the opposite end of the sleeve being projected exteriorly of the body, tensioning means acting upon the other stud journal for sustaining the same under tension when partially rotated and also to limit its rotary movement, rubbing heads fixed to the inner ends of the stud journals, coiled expansion springs interposed between the ends of the drum and the said



rubbing heads, an arm fixed to the stud journal surrounded by the sleeve, an arm fixed to the sleeve, a double crank driven shaft mounted exteriorly of the body, throw links loosely connected to the crank and to the said arms, respectively, and means coöperative with the driven shaft for rotating the same, whereby semi-rotary movements will be imparted to one of the rubbing heads and the drum and cause the same to move in reverse directions to each other.

1,026,541. MEDICINE-DROPPER. JOHN DALLAS WISE, Jackson, Tenn. Filed Aug. 9, 1910. Serial No. 576,338. (Cl. 215—16.)



1. In combination a bottle, a stopper therefor provided with a tapering recess in its inner end, a medicine dropper comprising a shank having a tapered end fitting the recess, and having an angular foot at its lower end the shank being cut away at the junction of the foot therewith to form a neck, the upper face of the foot being grooved and inclining downwardly away from the shank, the under face of the foot having a flattened surface intermediate its ends to rest on the bottom of the receptacle and being rounded at its ends, said foot extending into approximate contact with the side wall of the receptacle.

2. In combination a bottle, a stopper therefor, a medicine dropper comprising a shank connected at one end with the inner end of the stopper, and having at the other an angular foot, the shank being cut away at the junction of the foot therewith to form a neck, the upper face of the foot being grooved and inclining downardly away from the shank, the under face of the foot being flattened intermediate its ends, and rounded at its ends, said foot extending approximately into contact with the side wall of the receptacle.

1,026,542. SEALING-RING FOR JAR-CLOSURES. GEORGE H. WOMELSDORF, Philadelphia, Pa. Filed Mar. 29, 1910. Serial No. 552,159. (Cl. 215—80.)



1. A packing ring consisting of an outer annular member of relatively compact fibrous material, having a second annular member mounted within it and made of a loose texture fibrous material.

2. A packing ring consisting of an outer annular member of substantially U-shaped section formed of pulp board; and having mounted within it a second annular member of loose texture wood pulp.

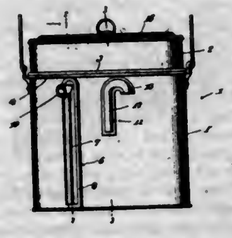
3. A packing ring consisting of an outer annular member of substantially U-shaped section formed of pulp board; and having mounted within it a second annular member of loose texture wood pulp treated with a material for maintaining it in a soft condition.

4. A packing ring consisting of an outer annular member of substantially U-shaped section formed of pulp board; and having mounted within it a second annular member of loose texture wood pulp; said inner ring having applied to it a material for maintaining it in a soft condition; and also being coated with an impervious material different from said material for keeping it soft.

5. A sealing ring consisting of an outer member formed of relatively compact pulp board impregnated with a pore filling compound and made of a substantially U-shaped section; with a second annular member mounted within the cavity of the first member consisting of a loose texture wood pulp impregnated with a material for maintaining it in a soft condition and having an impervious coating different from said material for keeping it soft.

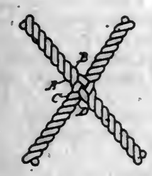
[Claim 6 not printed in the Gazette.]

1,026,543. DINNER-PAIL. RUBBIN J. WOODARD, Danville, Ill. Filed Apr. 11, 1911. Serial No. 620,372. (Cl. 220—51.)



A pail comprising a member including upper and lower sections, said lower section being formed to provide a reinforcing bead, a cover fitting the upper section, the bottoms of the sections being spaced from each other to form an intervening liquid chamber, the bottom of the lower section being formed with an angular flange surrounding the said section, a draw-off tube embodying a member stamped from a single piece of material and formed to provide a vertical substantially semi-cylindrical portion arranged in opposing relation to the wall of the lower section, and a substantially rectangular attaching flange secured to the said section, the said tube having one of its ends opening directly into the chamber and having its opposite end provided with a mouth piece, the said flange having a portion thereof extending beyond the upper and lower ends of the semi-cylindrical portion adapted to be snugly fitted between the said bead and annular flange of the bottom of the lower receptacle, whereby the tube is securely retained in position upon the section and the said flange protected from accidental displacement therefrom.

1,026,544. INTERLOCKED NETTING. TAKEJIRO YAMAMOTO, Tokyo, Japan, assignor to Yeizaburo Hitaka, Tokyo, Japan. Filed Nov. 6, 1909. Serial No. 526,592. (Cl. 66—4.)

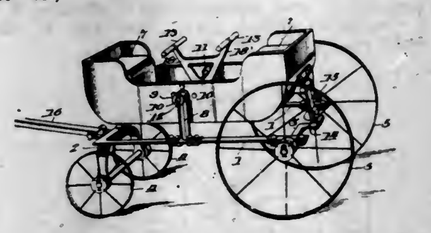


1. An interlocked netting consisting of intersecting first and second cords each composed of twisted strands, the strands of the first cord passing between the strands of the second cord in substantially opposite directions, and the strands of the second cord passing between the strands of the first cord in substantially opposite directions, whereby each cord is locked against axial displacement with respect to the cord intersected thereby.

2. An interlocked netting consisting of intersecting first and second cords each consisting of twisted strands, one strand of the first cord extending between one lap of twist of the strands of the second cord and the other strand of the first cord extending between the next adjacent lap of twist of the strands of the second cord, the strands of the second cord extending between adjacent laps of twist of the first cord, whereby each cord is locked against axial displacement with respect to the cord intersected thereby.

3. An interlocked netting comprising first and second intersecting cords each consisting of a plurality of strands, all of the strands of the first cord being intertwined through and between the strands of the second cord and all of the strands of the second cord being intertwined through and between the strands of the first cord, at the point of intersection of said cords.

1,026,545. TOY VEHICLE. JOHN L. YOAKUM, Fowler, Ind. Filed Jan. 20, 1912. Serial No. 672,313. (Cl. 46—48.)



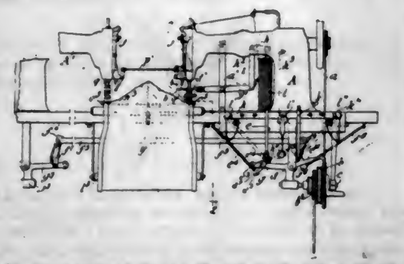
1. A toy vehicle comprising a wheeled frame, a rocking body thereon, means for rocking the body when the frame is propelled, and a combined hand grip and body support for connecting the body with the frame.

2. A toy vehicle comprising a frame having a wheeled driving axle, standards supported by the frame, a member mounted for rocking movements in the standards, a rocking body fixedly connected with said member, a seat located in the rocking body, the said member having a hand gripping portion extending in the direction of the seat, and means connecting the driving axle with the rocking body so that as the axle is revolved the body will be rocked.

1,026,546. MACHINE FOR STITCHING HANDKERCHIEFS OR THE LIKE. MONTAGUE ADAIR, New York, N. Y., assignor to Adair Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 25, 1908. Serial No. 423,148. (Cl. 112—24.)

1. The combination of a plurality of independently operable sewing mechanisms for making seams in a fabric,

and means for automatically stopping the making of the seam on one machine when a thread of another mechanism fails.



2. The combination of a plurality of independently operable sewing mechanisms for making seams in a fabric, means for manually controlling the independent operation of said mechanisms, and means for automatically stopping the making of the seam on one mechanism when a thread of another mechanism fails.

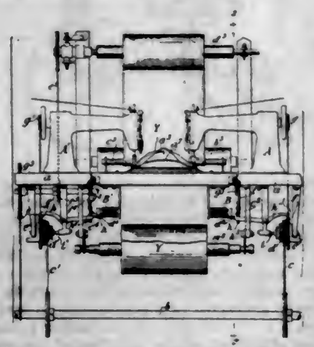
3. The combination of two independently operable sewing mechanisms for making seams in a fabric, and means for stopping one mechanism when a thread of the opposite mechanism fails.

4. The combination of two independently operable sewing mechanisms for making seams in a fabric, clutches for said mechanisms, adapted to be independently operated, and means for operating the clutch of one mechanism to stop it when a thread of the opposite mechanism fails.

5. The combination of two independently operable sewing mechanisms for making seams in a fabric, and means for automatically stopping the making of the seam on one mechanism when a spool thread of the opposite mechanism fails.

[Claims 6 to 11 not printed in the Gazette.]

1,026,547. HANDKERCHIEF-MACHINE. MONTAGUE ADAIR, JAMES A. CAMERON, and FRANKLIN AINSWORTH, New York, N. Y., assignors, by direct and mesne assignments, to Adair Machine Company, Brooklyn, N. Y., a Corporation of New York. Filed July 25, 1908. Serial No. 445,398. (Cl. 112—24.)



1. The combination of a plurality of independently operable sewing mechanisms for making seams in a fabric, and electrically-operated means for automatically stopping the making of the seam on one mechanism when a thread of another mechanism fails.

2. The combination of a plurality of independently operable sewing mechanisms for making seams in a fabric, means for manually controlling the independent operation of said mechanisms, and electrically-operated means for automatically stopping the making of the seam on one mechanism when a thread of another mechanism fails.

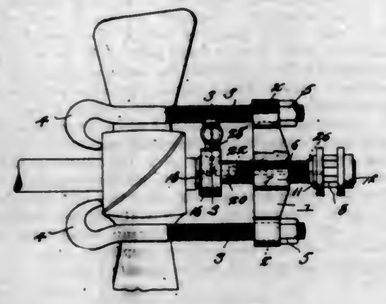
3. The combination of two independently operable sewing mechanisms for making seams in a fabric, and electrically-operated means for stopping one mechanism when a thread of the opposite mechanism fails.

4. The combination of two independently operable sewing mechanisms for making seams in a fabric, clutches for said mechanisms, adapted to be independently operated, and electrically-operated means for operating the clutch of one mechanism to stop it when a thread of the opposite mechanism fails.

5. The combination of two independently operable sewing mechanisms for making seams in a fabric, and electrically-operated means for automatically stopping the making of the seam on one mechanism when a spool thread of the opposite mechanism fails.

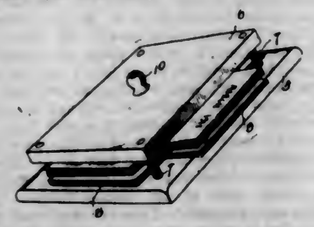
[Claims 6 to 34 not printed in the Gazette.]

1,026,548. DEVICE FOR STRIPPING WHEELS FROM SHAFTS. LEON F. ALLIEN, Morgans Point, near La Porte, Tex. Filed Dec. 23, 1910. Serial No. 598,880. (Cl. 138—10.)



A device for stripping wheels from shafts comprising a yoke, screw threaded shanks adjustably associated therewith and having hub engaging hooks, a jack screw extending through the yoke, a casing swiveled upon the jack screw and having a plunger, a pump cylinder mounted upon the casing and having a port opening into said casing and a spring actuated valve to obstruct the port, said valve being provided with a stem extending longitudinally into the pump cylinder, a branch extending laterally from the pump cylinder, a liquid receptacle supported by said branch, a spring actuated valve to obstruct the passage through the branch, a rod extending longitudinally through the liquid receptacle and having threaded engagement with the latter, said rod being adapted to engage and unseat the obstructing valve, and a piston operating in the pump cylinder and adapted to unseat the valve obstructing the port opening from the latter into the casing.

1,026,549. PAPER-FILE. JAMES WALTER ALMOND, Ruckersville, Va. Filed May 24, 1911. Serial No. 629,213. (Cl. 129—35.)



A paper file comprising a lower plate, an upper plate less in two dimensions than the lower plate, extensible elements connecting said plates, and a cushion arranged on the inner surface of one of said plates.

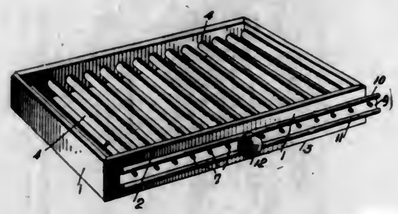
1,026,550. SEED-CORN-DRYING DEVICE OR UTENSIL. JOSEPH SMITH BAIN, Luverne, Iowa, and BENJAMIN L. BAIN, Chicago, Ill. Filed May 4, 1911. Serial No. 625,029. (Cl. 34—26.)



1. A drier of the class described, comprising a skeleton frame, including separable sections having horizontally arranged bands, and corn ear holders detachably and adjustably supported upon the bands.

2. A drier of the class described, comprising a skeleton frame, including separable sections having horizontally arranged bands, corn ear holders detachably and adjustably supported upon the bands, and resilient clamping portions formed in the holders for engaging said bands.

1,026,551. EGG-TRAY. CHARLES D. BARR, Omaha, Nebr., assignor of one-half to William C. Katzenstein, Omaha, Nebr. Filed Apr. 27, 1911. Serial No. 623,646. (Cl. 199—44.)

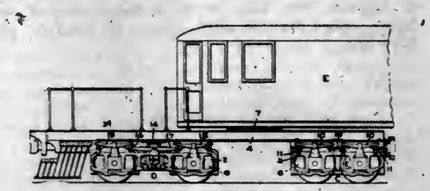


A tray of the character described comprising a frame, a plurality of rollers mounted in said frame, axles for said rollers, each having one end portion bent to form a crank, a bar mounted upon the crank ends of said axles, the outer end of one of said axles being bent parallel to said bar, and a button mounted upon the outer end of said last mentioned axle and provided with a diametrically disposed groove terminating in an opening extending through said button through which the end of said last mentioned axle passes.

1,026,552. LOCOMOTIVE. ASA F. BATCHELDER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 30, 1911. Serial No. 668,770. (Cl. 105—239.)

1. In a locomotive, two running gear sections, each of said sections comprising a section frame and two trucks, said trucks nearest the middle of the locomotive being rigidly attached to said section frames, said trucks near the ends of said locomotive being pivotally connected to said section frames, a cab, and pivotal connection for said cab, one of said connections for said cab being located on each of said frames between the trucks.

2. In a locomotive, two running gear sections, each of said sections comprising a section frame and two trucks, said trucks nearest the middle of the locomotive being rigidly attached to said section frames, said trucks near the ends of said locomotive being pivotally connected to said section frames, means connecting the adjacent ends of said section frames, a cab, and pivotal connections for said cab, one of said connections for said cab being located on each of said section frames between the trucks.



3. In a locomotive, two running gear sections, each of said sections comprising a section frame and two trucks, said trucks nearest the middle of the locomotive being rigidly attached to said section frames, said trucks near the ends of said locomotive being pivotally connected to said section frames, an articulated joint connecting adjacent ends of said section frames, a cab, and pivotal connections for said cab, one of said connections for said cab being located on each of said section frames between the trucks.

4. In an electric locomotive, two running gear sections, each of said sections comprising a section frame and two trucks, electric motive power for driving each truck, said trucks nearest the middle of the locomotive being rigidly attached to said section frames, said trucks near the end of the locomotive being pivotally connected to said section frames, a cab, and pivotal connections for said cab, one of the connections of said cab being located on each of said section frames between the trucks.

1,026,553. VACUUM-CLEANER. LONNIE A. BAXTER, Cincinnati, Ohio. Filed Mar. 14, 1911. Serial No. 614,317. (Cl. 83—47.)



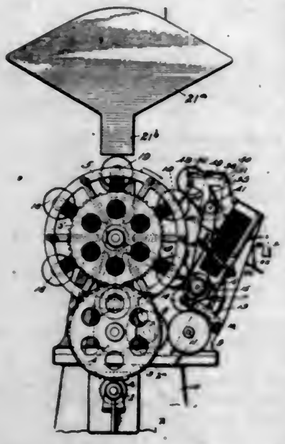
1. The combination with a dust collecting chamber, of a vacuum cleaner, of a flexible bag located in the chamber, and an automatic oscillating agitator mounted in the chamber and disposed at one side of the bag, and contacting with the bag to shake the same when suction is applied to the chamber.

2. In a dust collector, a cylinder, a head closing one end of the cylinder, a fabric dust collecting sack mounted in the cylinder and expansible and collapsible when suction is applied to the cylinder, an oscillating beater movably mounted in the cylinder and adapted for beating contact with the sack on expansion and contraction thereof.

3. In a dust collector, a cylinder, a head closing one end of the cylinder and removably fitted thereto, a fabric dust collector sack mounted in the cylinder and expansible and collapsible when suction is applied to the cylinder and an oscillating beater movably mounted in the cylinder, and a withdrawing rod secured to the closed end of the sack and having a manipulating portion disposed in prox-

limity to the head whereby the rod may be engaged by the hand and withdrawn from the cylinder when the head is removed so that the bag also can be partly withdrawn from the cylinder to discharge the dust therefrom.

1,026,554. LABELING ATTACHMENT FOR CARTON-CRIMPING MACHINES. GEORGE W. BEADLE, Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed Sept. 30, 1910. Serial No. 584,755. (Cl. 216—59.)



1. In a carton labeling machine the combination of a power shaft; a spider having mandrels for carrying cartons; gears connecting said spider and said shaft and causing said cartons to travel in a circular path; a belt carrying an adhesive located in the path of said cartons and adapted to be engaged by a portion of the periphery of each carton as it passes said belt to lick up the adhesive; means to hold a plurality of labels located near said path; means for forcing said labels one at a time into said path; and gears connected to said first mentioned gears for rotating said cartons on their axes as they successively contact with said labels, substantially as described.

2. In a carton labeling machine the combination of a power shaft; a spider having mandrels for carrying cartons; gears connecting said spider and said shaft and causing said cartons to travel in a circular path; a belt carrying an adhesive located in the path of said cartons and adapted to be engaged by a narrow portion of the periphery of each carton as it passes said belt to lick up the adhesive; means for moving said belt to supply fresh adhesive to successive cartons; means to hold a plurality of labels located near said path; automatic means for forcing said labels one at a time into said path; means to successively and bodily displace the outermost label after each carton has passed; and gears connected to said first mentioned gears for rotating said cartons on their axes as they successively contact with said labels, substantially as described.

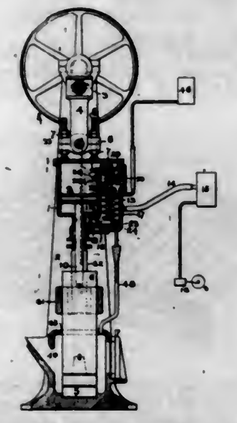
3. In a carton labeling machine the combination of carton carrying mandrels adapted to move in a circular path; an adhesive carrying belt in said path adapted to be successively engaged by a longitudinal portion of the periphery of said cartons; means to hold a plurality of labels located near said path; means to apply an adhesive successively to one end of said labels; means to successively force the other end of said labels into said path to be contacted by the adhesive on the cartons; and means to rotate said cartons on their axes and thereby wind said labels around the body portions of said cartons, substantially as described.

4. In a carton labeling machine the combination of carton carrying mandrels, means to move the mandrels in a circular path; an adhesive carrying belt in said path adapted to successively apply an adhesive to said cartons; means to hold a plurality of labels located near said path; means to apply an adhesive successively to one end of said labels; means to successively force the other end of said labels into said path to be contacted by the adhesive on the cartons; means to rotate said cartons on their axes and thereby wind said labels around the body portions of said cartons; and means for firmly pressing said labels to said body portions during the winding operation, substantially as described.

5. In a carton labeling machine the combination of carton carrying mandrels adapted to move in a circular path; an adhesive carrying belt in said path adapted to successively apply an adhesive to said cartons; means to hold a plurality of labels located near said path; means to apply an adhesive successively to one end of said labels; means to successively force the other end of said labels into said path to be contacted by the adhesive on the cartons; means to rotate said cartons on their axes and thereby wind said labels around the body portions of said cartons; means for firmly pressing said labels to said body portions during the winding operation; and means connected to said pressing means for bodily moving the next succeeding label, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,026,555. PNEUMATIC PERCUSSIVE APPARATUS. HANS CHARLES BEHR, Johannesburg, Transvaal. Filed June 10, 1911. Serial No. 632,459. (Cl. 85—57.)



1. The combination of a cylinder, a piston working therein, means for causing a relative reciprocation between said cylinder and piston, a piston rod projecting from the front end of the cylinder, a valve for the front end of the cylinder controlling communication between the same and a reservoir of air, and automatic means causing said valve to be open during the forward stroke of the piston and closed during the rearward stroke of the same.

2. The combination of a cylinder, means for reciprocating the same, a piston working therein, a piston rod projecting from the front end of the cylinder, a valve for the front end of the cylinder controlling communication between the same and a reservoir of air, and automatic means causing said valve to be open during the forward stroke of the cylinder and closed during the rearward stroke of the same.

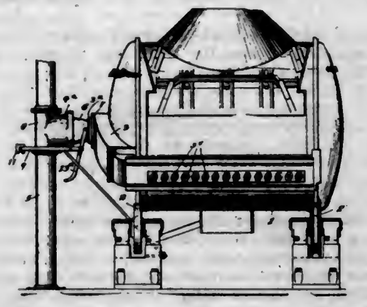
3. The combination of a cylinder, means for reciprocating the same, a piston working therein, a piston rod projecting from the front end of the cylinder, a valve for the front end of the cylinder controlling communication between the same and a reservoir of air, said valve being free to open upon the reservoir pressure exceeding that in the front end of the cylinder and tending to close when the reservoir pressure is less than that in the front end of the cylinder, and automatic mechanism adapted to open and close said valve.

4. The combination of a cylinder, means for reciprocating the same, a piston working therein, a piston rod projecting from the front end of the cylinder, a valve for the front end of the cylinder controlling communication between the same and a reservoir of air, means causing said valve to be open during the forward stroke of the cylinder and closed during the rearward stroke of the same, and automatic means controlling communication between the rear end of the cylinder and a reservoir of air, and adapted to open such communication while the cylinder is effecting its forward stroke and to close the same before the termination of the return stroke.

5. The combination of a cylinder, means for reciprocating the same, a piston working therein, a piston rod projecting from the front end of the cylinder, a valve for the front end of the cylinder controlling communication between the same and a reservoir of air, means causing said valve to be open during the forward stroke of the cylinder and closed during the rearward stroke of the same, a valve controlling communication between the rear end of the cylinder and a reservoir of air, said latter valve being free to open when the reservoir pressure exceeds that in the rear end of the cylinder, automatic means for opening said latter valve during the forward stroke of the cylinder and for closing the same before the termination of the return stroke.

[Claims 6 to 8 not printed in the Gazette.]

1,026,556. BLAST CONNECTION FOR CONVERTERS. RICHARD BERNHARD and ARTHUR NIEDERMEYER, Milwaukee, Wis., assignors to Power & Mining Machinery Company. Filed Dec. 21, 1907. Serial No. 407,497. (Cl. 75—3.)



1. In a blast connection, the combination with the blast conduit and the converter, of the connecting thimble between the conduit and converter in telescoping engagement with the conduit, and means for counterbalancing the thimble when out of engagement with the converter, substantially as set forth.

2. In a blast connection, the combination with the blast conduit and converter, of the telescoping connection between the conduit and converter, and means for counterbalancing the converter end of said connection, substantially as set forth.

3. In a blast connection, the combination with the blast conduit and converter of the universally adjustable connection extending from the conduit to the converter with which it detachably engages, and means for counterbalancing the converter end of the connection, substantially as set forth.

4. In a blast connection, the combination with a blast conduit and converter, of the tubular connection between said conduit and converter in telescoping engagement with the conduit, the counterbalancing device for supporting the tubular connection, and means associated with said device for limiting the outward telescoping movement of the connection, substantially as set forth.

5. In blast connection, the combination with a blast conduit and converter, of the telescoping connection between the blast conduit and converter, the counterbalancing device for the connection, and means associated with said device for limiting the outward telescoping movement of the connection, substantially as set forth.

[Claims 6 to 13 not printed in the Gazette.]

1,026,557. ANTHRACENE COMPOUNDS AND PROCESS OF MAKING SAME. JOHANN HEINRICH BONER, Ludwigshafen-on-the-Rhine, and OSCAR BALLY, Mannheim, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Aug. 14, 1908. Serial No. 448,608. (Cl. 8—1.)

1. The process of producing compounds of the anthracene series by treating an anthraquinone sulfonic acid which is free from nitrogen, with a halogenizing agent in the presence of strong, including fuming, sulfuric acid, and treating the product obtained with an amino compound containing at least one hydrogen atom attached to the nitrogen atom.

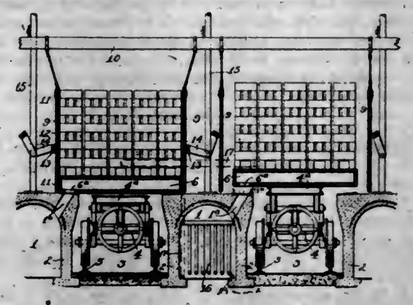
2. The process of producing compounds of the anthracene series by treating an anthraquinone sulfonic acid which is free from nitrogen, with a halogenizing agent in the presence of strong, including fuming, sulfuric acid, and in the presence of a halogen carrier, and treating the product obtained with an amino compound containing at least one hydrogen atom attached to the nitrogen atom.

3. The process of producing compounds of the anthracene series by treating an anthraquinone sulfonic acid which is free from nitrogen, with a halogenizing agent in the presence of strong, including fuming, sulfuric acid, and in the presence of a halogen carrier, and treating the product obtained with an amino compound containing at least one hydrogen atom attached to the nitrogen atom, and then sulfonating.

4. As new articles of manufacture the anthracene compounds which are condensation products of 1.4-dihalogen-anthraquinone-2-sulfonic acid with an anilin-sulfonic acid, which new compounds are soluble in water yielding from fuchsin red to blue-green solutions, which yield olive to blue solutions in concentrated sulfuric acid, and which dye unmordanted wool from red to blue-green shades.

5. As a new article of manufacture the anthracene compound is a condensation product of 1.4-dichloranthraquinone-2-sulfonic acid with sulfanilic acid, which new compound is soluble in water yielding a fuchsin red solution, which yields an olive solution in concentrated sulfuric acid, and which dyes unmordanted wool red.

1,026,558. APPARATUS FOR DRYING BRICKS. JOHN C. BOSS, Elkhart, Ind. Filed July 8, 1911. Serial No. 637,582. (Cl. 34—19.)



1. In a brick drying apparatus, a plurality of parallel hollow walls forming drier ducts provided with exit ports terminating in the upper faces of the walls near the edges

thereof, a series of pallets for supporting the bricks, and having their ends resting on and supported by said hollow walls which pallets have openings in their upper faces for the passage of air to the bricks, and have also openings in their under faces communicating with the ports in the drier duct walls.

2. In a brick drying apparatus, a plurality of parallel hollow concrete walls forming drier ducts provided with exit ports terminating in the upper faces of the walls near the edges thereof, a series of pallets for supporting the bricks, and having their ends resting on and supported by said hollow walls which pallets have openings in their upper faces for the passage of air to the bricks, and have also openings in their under faces communicating with the ports in the drier duct walls, and underground connecting ducts leading from a source of supply of heated air to the bottom of the drier ducts.

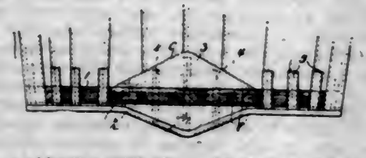
3. The combination with a brick drying apparatus having means for supporting a pile of bricks and means for forcing a drying medium vertically therethrough, of a plurality of movable shields adapted to be held against opposite sides of the pile of brick.

4. The combination with a brick drying apparatus having means for supporting a pile of bricks and means for forcing a drying medium vertically therethrough, of a plurality of movable shields adapted to be held against opposite sides of the pile of brick, said shields being freely suspended from their upper edges.

5. The combination with a brick drying apparatus having means for supporting a pile of bricks and means for forcing a drying medium vertically therethrough, of a plurality of movable shields adapted to be held against opposite sides of the pile of brick, said shields being freely suspended from their upper edges, and coöperating movable clamping devices for holding the partitions pressed against the side faces of the pile of bricks.

[Claims 6 and 7 not printed in the Gazette.]

1,026,559. WAIST FOUNDATION. SARAH L. BRUNDIDGE, Savannah, Ga. Filed Sept. 6, 1911. Serial No. 647,988. (Cl. 2—98.)

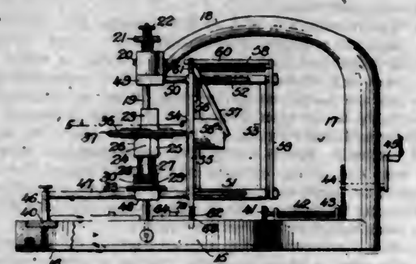


The combination with the waist portion of a garment, of a waist foundation consisting of a body, a belt attached to said body at the transverse central portion of the latter so that the upper and lower ends of the body project some distance above and below the belt respectively, said projecting portions tapering toward a vertical line centrally, through the body, stays arranged vertically of the foundation body at intervals in its length, and connections between the belt line portion of the foundation and the waist whereby the portion of the foundation body above the belt is adapted to fit closely against the person to resist upward shifting of the foundation and the waist connected thereto.

1,026,560. ELLIPSOGRAPH. LOUIS BURKE, New York, N. Y. Filed Mar. 7, 1911. Serial No. 612,737. (Cl. 33—5.)

1. In an ellipsograph, the combination with a supporting frame, of a rotating ring, a vertical shaft, a tilting disk on the shaft, means for tilting the disk and a shifting frame carried by the ring and adapted to operate a pencil.

2. In an ellipsograph, the combination with a frame, of a rotating ring within the frame, a vertical shaft carried by the frame, a tilting disk on the shaft, means for tilting the disk, a shifting frame bearing on the disk and carried by the ring, a slide on the ring, a pencil carrier in the slide and a lever connecting the shifting frame with the pencil slide.



3. In an ellipsograph, the combination with a circular frame having a frictional lower surface, of a rotating ring in the frame, means for rotating the ring, a shaft carried by the frame, horizontal rods journaled on the shaft and connected with the ring, a sliding frame on the rods, a tilting disk on the shaft, adjusting screws adapted to tilt the disk, a sliding pencil carrier and a lever connecting the sliding frame with the pencil carrier.

4. In an ellipsograph, the combination with a circular frame having an upright, of a rubber base for the frame, a rotating ring in the upper side of the frame, gearing adapted to rotate the ring, a vertical shaft carried by the upright, horizontal arms rotating about the shaft, a tilting disk, blocks carrying the tilting disk, sleeves on the shaft and carrying the blocks, adjusting screws playing in the blocks, a thumb nut operating the adjusting screws, a shifting pencil carrier operating on guide-ways, a shifting frame carried by the rods and bearing against the edge of the disk, a lever connecting the shifting frame with the pencil carrier, and a lever with a spring carried by one of the rods and bearing against the shifting frame.

1,026,561. LACE-CURTAIN-DISPLAY CASE. WILLIAM A. CHARLET, Kewanee, Ill. Filed Jan. 19, 1912. Serial No. 672,082. (Cl. 211—22.)

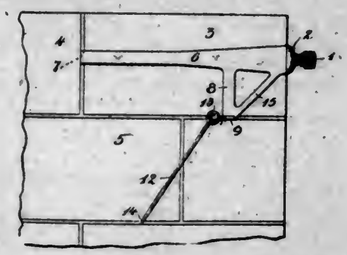


1. A curtain support for lace curtain display cases comprising a body portion provided on its upper side with vertically extending prongs adapted to pass through the meshes of the curtain, and further provided on its opposite faces with grooves, a clamping rod adapted for securing a portion of the curtain in the groove and pivotally connected to one end portion of the body, a latch for latching the clamping rod against movement from the groove, and an opaque screen depending from the lower side of the body.

2. A curtain support for lace curtain display cases comprising a body portion provided on its upper side with vertically extending prongs adapted to pass through the meshes of the curtain, and further provided on its opposite faces with grooves, a clamping rod adapted for securing a portion of the curtain in the groove and pivotally connected to one end portion of the body, a latch for latching the clamping rod against movement from the groove, an opaque screen depending from the lower side of the body, and provided with a tab for the purpose described.

1,026,562. ANCHOR FOR SAFETY-BELTS. WILLIAM A. CHERRY, Jr., White Plains, N. Y., assignor to Cherry-Driscoll Company, New York, N. Y., a Corporation of New York. Filed Aug. 17, 1911. Serial No. 644,704. (Cl. 72—108.)

1. In an anchor for window cleaners' safety belts, an anchorage head having a flanged base, a flat arm extending rearwardly from said base and having a hook arranged transversely thereof at its rear end, another arm extending laterally from the first mentioned arm and having a hook at the end thereof transverse thereto and a brace running obliquely from the last mentioned arm to the base of the first mentioned arm near said flange.



2. In an anchor for window cleaners' safety belts, an anchorage head having a flanged base, a flat arm extending rearwardly from said base and having a hook arranged transversely thereof at its rear end, another arm extending laterally from the first mentioned arm and having a hook at the end thereof transverse thereto and a brace running obliquely from the last mentioned arm to the base of the first mentioned arm near said flange, said hooks aforesaid extending in opposite directions relatively to the plane of the arms and brace.

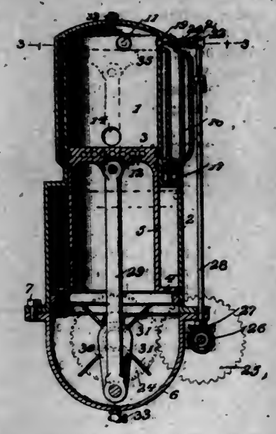
3. In an anchor for window cleaners' safety belts, an anchorage head having a flanged base, a flat arm extending rearwardly from said base and having a hook at its rear end, another arm extending laterally from the first mentioned arm and having a laterally extending hook at its end, a brace running obliquely from the last mentioned arm to the base of the first mentioned arm near said flange, and a swinging hook extension carried by the laterally extending arm.

4. In an anchor device for window cleaners' safety belts, an anchor head, a flange at the base thereof, a rearwardly extending arm having a hook, a space between said flange and said hook corresponding with the overall length of the brick, a laterally extending arm projecting from said first mentioned arm at a point intermediate its length, a hook at the end of the laterally extending arm arranged to overstand the edge of the same brick, a swinging extension having a hook end, said extension being connected to the laterally extending arm and of a length sufficient to overstand the edge of an adjacent brick and to stand in a line oblique to the line of the first mentioned arm, and a brace connecting the end of said laterally extending arm with the first mentioned arm near said flange and lying in substantially the same or a parallel line with the swinging hooked extension.

1,026,563. INTERNAL-COMBUSTION ENGINE. DAVID H. COLES, Brooklyn, N. Y., assignor, by mesne assignments, to Requa Motor Company, a Corporation of New York. Filed Oct. 16, 1909, Serial No. 523,044. Renewed Apr. 1, 1912. Serial No. 687,773. (Cl. 123—69.)

1. In an explosive engine, an engine cylinder having an exhaust port near one end thereof, a piston in said cylinder provided with a plurality of passages opening on opposite sides of the piston, a crank casing for compressing a cooling fluid, a conduit one end of which opens into said casing and the opposite end into said cylinder, said piston controlling the supply of said fluid through said conduit and passages, and means directing said fluid over the face of said piston to cool the same and scavenge the products of combustion through said exhaust port.

2. In an explosive engine, a power cylinder having a valve controlled gas inlet at one end and an exhaust port at the opposite end, a piston therein provided with air-cooled passages open to said cylinder near the end of the power stroke, means actuated by said piston on its up stroke to compress a charge of gas, and means for holding the same for delivery through said gas inlet at or near the end of the power stroke, and a crank casing for compressing air during the power stroke and delivering therefrom a blast of air through said piston passages, and means deflecting said blast of air over the face of the piston and out of said exhaust port at or near the end of the power stroke.



3. In an explosive engine, a power cylinder provided with a fluid deflecting channel, a piston in said cylinder having a fluid cooled passage, a double acting air and gas pump operated by said piston and having communication on opposite sides of its piston member with said power cylinder, said engine piston being adapted to register its passage with one of said communications and with said channel at or near the end of its power stroke for the purpose of admitting a blast of air through said piston and over its face to cool said piston and expel products of combustion from said cylinder.

4. In an explosive engine, an engine cylinder having an exhaust port near one end thereof, a piston in said cylinder provided with a cooling passage, fluid compression means, a conduit opening into said cylinder at points on opposite sides of said exhaust port and connected with said compression means, said piston controlling said exhaust port and supply of fluid through one of said openings and passage, means directing said fluid over the face of said piston to cool the same and scavenge the products of combustion through said exhaust port and valve means for controlling the other of said openings.

5. In an explosive engine, a power cylinder having an air inlet port at or near each end of said cylinder and an exhaust port intermediate the said air ports, a conpression chamber for supplying combutible gas under pressure to said cylinder, a piston in said cylinder provided with an air cooled passage, a double acting air and gas pump having communication on one side of its piston member with said cylinder through said compression chamber and on the opposite side of said piston member with said cylinder through said air ports and piston passage at or near the end of the power stroke and means directing the flow of air over the face of said piston to cool the same and scavenge the exhaust gases through said exhaust port.

[Claims 6 to 9 not printed in the Gazette.]

1,026,564. ELECTRIC WATER-HEATING SYRINGE. HARRY M. CRAWFORD, Lima, Ohio. Filed Dec. 7, 1911. Serial No. 664,399. (Cl. 219—39.)

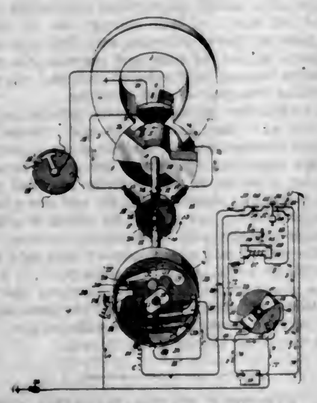
1. In a syringe of the class described, a tubular casing, a hose secured therein, a plug arranged in the inner end of said hose and having a discharge passage, a discharge spout arranged in one end of the tubular casing and communicating with the passage in said hose, a valve seat at

the inner end of said spout, a valve arranged in the passage of said plug, a spring to hold said valve in engagement with said seat whereby the flow of the water through the tube is cut off, an electric heating coil arranged in said hose and having an electrical connection at one end with said plug and at its opposite end with one wire of an electric circuit, a valve opening plunger having a fluid tight sliding engagement with the plug in said hose and in a plane at right angles to the plane of movement of said valve, and a switch connected with said casing and with the other current conducting wire of the electric circuit, said switch being adapted to be brought into electrical engagement with the valve operating plunger whereby the latter is depressed and the valve opened simultaneously with the closing of the electric circuit.



2. In a syringe of the class described, a tubular casing, a hose secured therein, a plug arranged in the inner end of said hose and having a discharge spout provided with a valve seat, a valve arranged in the passage or seat plug and adapted to sit on the seat in the spout, a spring for holding said valve closed, a sliding plunger mounted in said plug in a plane at right angles to said spout and having a beveled inner end for engaging said valve when forced inwardly, an electric head coil arranged in said hose and having an electrical connection at one end with said plug and its opposite end with one wire of an electric circuit, a plate spring secured at one end to the outer face of said casing with its free end extending over the said plunger and normally spaced therefrom, a hood inclosing said spring and plunger and having an opening therein and an operating element connected with said spring and projecting through the opening in said hood, said spring being connected with the upper current conducting wire of the electric circuit and adapted to be brought into an electrical engagement with the valve operating plunger to simultaneously open the valve and close the circuit.

1,026,565. COMBINED IGNITION SYSTEM. RICHARD H. CUNNINGHAM, New York, N. Y. Filed Apr. 29, 1910. Serial No. 558,442. (Cl. 123—148.)



1. In a combined ignition system, a magneto having a plurality of poles, and primary and secondary windings, a commutator having a plurality of segments, means for affording connection between a primary winding of said magneto and at least one of said segments, circuit breaking means in circuit with said primary winding and normally in contact when the magneto is at rest, an external source of current, a switch for cutting said external source of current into or out of circuit with said primary winding, as desired, vibratory means adapted to be placed in circuit with said primary winding and said external source of current, and an auxiliary normally open contact-making device in circuit with the external source of current, current flowing through said vibratory means and through the primary winding aforesaid from said external source only when said device is actuated by the operator.

2. In a combined ignition system, a magneto having an armature and primary and secondary windings, a distributer in circuit with said secondary winding, an external source of current, means for throwing said source of current in circuit with a primary winding of said magneto, a communicator in said circuit, and a breaker box comprising means for automatically and periodically interrupting current through said primary winding, regardless of the source of current therethrough, said box further comprising additional periodically actuated circuit breaking and making contacts for economizing the flow of current from said external source when the latter is in circuit, the periodicity of actuation of said contacts being the same as that of the periodic circuit interrupting means aforesaid but of different phase.

3. In a combined ignition system, a magneto having primary and secondary windings, a commutating device, means for affording connection between a primary winding of said magneto and a part of said commutating device, an external source of current, and a plurality of circuit making devices at least one of which is normally closed and another of which is normally open, connections between said external source of current and said devices, and between some of said devices and said primary winding, and means for opening one of said normally closed circuit making devices whereby one of said normally open circuit making devices which is in circuit with said primary wnding may be cut out of circuit, said means substantially simultaneously closing another of said devices of the latter type, and means for causing pulsations in the current from said external source.

4. In a combined ignition system, a magneto having primary and secondary windings, a commutating device, means for affording connection between a primary winding of said magneto and a part of said commutating device, an external source of current, and a plurality of circuit making devices at least one of which is normally closed and another of which is normally open, connections between said external source of current and said devices, and between some of said devices and said primary winding, and means for opening one of said normally closed circuit making devices whereby one of said normally open circuit making devices which is in curcuit with said primary winding may be cut out of circuit, said means substantially simultaneously closing another of said devices of the latter type, and a vibrator in circuit with said external source.

5. In a combined ignition system, a magneto having a primary winding, a commutating device, an external source of current, a plurality of automatic contact-making devices, means for successively actuating said devices in accordance with the movement of the magneto armature shaft, a switch having two positions, electrical connections between said primary winding, one of said contact-making devices and said switch forming a circuit including such parts when the switch is in one position, and additional connections electrically uniting another of said contact-making devices, the switch and the external source of current, said last mentioned connections coöperating with the connections aforesaid to form a circuit including said primary winding, second contact-making device, external source of current and the switch when the latter is in its second position.

1,026,566. ELASTIC CONNECTING DEVICE. JERRY N. CUTLER, Tacoma, Wash. Filed July 6, 1911. Serial No. 637,154. (Cl. 74—75.)

A coupling of the class described comprising a pair of substantially U-shaped members, the arms of one of said members being positioned between the arms of the other of said members, cups mounted upon the arms of said members, a spring positioned between said cups, and a



band positioned between the arms of said members and passing around said cups and partially inclosing said spring.

1,026,567. WIRE-NAIL FEEDER. JOHN PATRICK DELIHANTY, Pueblo, Colo. Filed Feb. 13, 1911. Serial No. 608,283. (Cl. 140—130.)



1. A feeder for wire-nail machines, comprising a barrel having a bore with the walls at one end tapering to form a conical clutch chamber, clutch-members loosely mounted in symmetrical relation within said chamber, a hollow spring-pressed plunger having an enlarged head normally forcing said clutch-members into engagement with the tapering walls of said chamber, and means causing said members to move outwardly from said tapering walls upon the release of pressure from said plunger.

2. A feeder for wire-nail machines, comprising a barrel having a bore with the walls at one end tapering to form a conical clutch chamber, clutch-members loosely mounted in symmetrical relation within said chamber, a hollow spring-pressed plunger normally forcing said clutch-members into engagement with the tapering walls of said chamber, and a hollow spring-pressed plug slidingly mounted in an opening in the end wall of said barrel normally exerting a pressure upon said clutch-members in opposition to the pressure of said plunger.

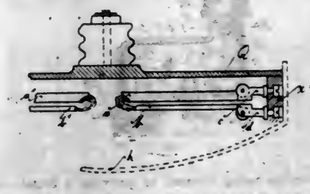
3. A feeder for wire-nail machines, comprising a barrel having a bore with the walls at one end tapering to form a conical clutch chamber, clutch-members loosely mounted in symmetrical relation within said chamber, a hollow spring-pressed plunger having an enlarged head to engage said clutch-members, a spring surrounding said plunger and bearing against said head to normally force the plunger into engagement with said clutch members, and means for moving the plunger outwardly and out of engagement with said clutch-members.

4. A feeder for wire-nail machines, comprising a barrel having a bore with the walls at one end tapering to form a conical clutch chamber, clutch-members loosely mounted in symmetrical relation within said chamber, a hollow spring-pressed plunger normally forcing said clutch-members into engagement with the tapering walls of said chamber, a cap upon one end of said barrel having an opening through which said plunger projects and provided with a ratchet face, and a disk or head upon the end of the plunger having inclined surfaces coöperating with said ratchet face.

5. A feeder for wire-nail machines, comprising a barrel having a bore with the walls at one end tapering to form a conical clutch chamber, clutch-members loosely mounted in symmetrical relation within said chamber, a hollow spring-pressed plunger normally forcing said clutch-members into engagement with the tapering walls of said chamber, a cap upon one end of said barrel having an opening through which said plunger projects and provided with a ratchet face, a disk or head upon the end of the plunger having inclined surfaces coöperating with said ratchet face, and a hollow spring-pressed plug slidably mounted in the end wall of the barrel adjacent the clutch-chamber and normally exerting a pressure upon said clutch-members in opposition to the pressure of said plunger.

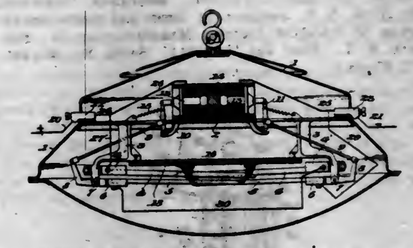
[Claim 6 not printed in the Gazette.]

1,026,568. ELECTRIC-ARC LAMP. KARL VON DREGER, Berlin, Germany, assignor to Gesellschaft für Verwertung Technischer Patente mit beschränkter Haftung, Bremen, Germany. Filed June 30, 1908. Serial No. 441,263. (Cl. 176—52.)



A flaming arc lamp comprising a pair of carbons arranged substantially horizontal, one above the other, the burning tip of the upper of said carbons normally projecting beyond that of the lower carbon, and a plate for steadying the flaming arc, said plate being disposed above the upper carbon and out of contact therewith.

1,026,569. ELECTRIC-ARC LAMP. KARL VON DREGER, Berlin, Germany, assignor to Gesellschaft für Verwertung Technischer Patente mit beschränkter Haftung, Bremen, Germany. Filed June 17, 1909. Serial No. 502,672. (Cl. 176—52.)

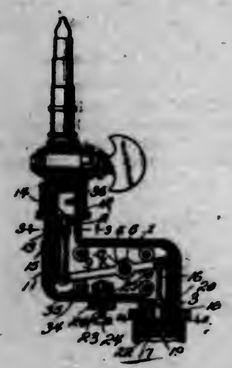


A flaming arc lamp comprising two pairs of carbons, each pair arranged substantially horizontal, one carbon of each pair being above the other carbon of said pair, said pairs of carbons having their respective burning tips oppositely directed, the burning tips of the upper carbons normally projecting beyond the corresponding burning tips of the lower carbons, and a plate for steadying the flaming arcs developed between said carbons, said plate disposed above the upper carbons and being out of contact therewith.

1,026,570. GAS CUT-OFF. CHARLES P. DRESSEL, Wilkes-Barre, Pa., assignor of two-thirds to Arthur Morgan and I. W. Mendelsohn, Wilkes-Barre, Pa. Filed Sept. 21, 1909. Serial No. 518,782. (Cl. 67—115.)

A gas cut-off including a casing formed with an outlet nipple and an inlet nipple, an operating lever pivotally

mounted in the casing and composed of two arms, the pivot point of said lever being arranged nearer the inlet nipple than the outlet nipple, one of said arms being of a greater length than the other, a pressure disk pivotally connected with said longer arm and arranged in the outlet nipple of the casing, a stop arranged in the outlet nipple and in the path of movement of the disk and adapted to limit the upward movement of the disk in the operation thereof, the shorter one of said arms being formed with an elongated slot, a cylindrical controlling valve arranged in the inlet nipple of the casing, the upper



end of said valve being formed to provide a frusto conical valve plug for closing the communication between the inlet nipple and the casing, an inverted conical deflecting surface formed integral with the lower end of the valve, a connection between said valve and the last-named arm of said lever and operating in the slot therein, a guide ring formed in the outlet nipple of the casing and embracing the controlling valve for guiding the same, and a manually operable means arranged in the casing below the longer arm of said lever and forwardly of the pivot point thereof and adapted to actuate the lever to open the valve.

1,026,571. POCKET-LIGHTER. BENJAMIN DUBINSKI, New York, N. Y., assignor, by direct and mesne assignments, to Standard Lighters Manufacturing Co., New York, N. Y. Filed Jan. 18, 1911. Serial No. 602,481. (Cl. 67—8.)



1. In a device of the class described, a fuel container, a wick carried thereby, a pyrophoric element carried by the container, and a spring actuated rotatable friction element coöperating with the pyrophoric element and having a projecting finger arranged at its free end to snuff the wick.

2. In a device of the class described, a fuel container, a tube carried thereby, a wick fitted in the tube, a packing element fitted around the tube, a pyrophoric element carried by the container, and a spring actuated friction element coöperating with the pyrophoric element and having a portion arranged to fit over the tube and against the packing element.

3. In a device of the class described, a fuel container; a cover therefor; a pyrophoric element carried by the container; a friction element, separate from the cover, and having an eccentric portion bearing slidably against the cover to open the same, the friction element coöperating with the pyrophoric element, and being journaled for rotation upon the container; and a spring directly connected with the friction element to rotate the same, said spring constituting the sole means for moving the cover into an open position.

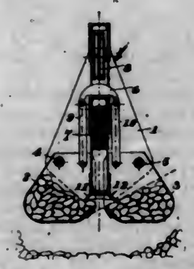
4. In a device of the class described, a fuel container; a cover hinged thereto; a tubular socket in the container; a pyrophoric element slidable in the socket; a friction element, separate from the cover, and having an eccentric portion, bearing slidably against the cover to open the same, the friction element coöperating with the pyrophoric element, and being journaled for rotation upon the container; a spring in the socket, thrusting the pyrophoric element continuously against the friction element; and a second spring directly connected with the friction element, to rotate the same, the last mentioned spring constituting the sole means for moving the cover into an open position.

1,026,572. SPOKE-SOCKET. PATRICK S. DUFFY, Barre, Vt. Filed Nov. 2, 1911. Serial No. 658,157. (Cl. 21—49.)



A spoke socket comprising a disk or head, a partially circular socket forming member fixed to one side of said disk or head, a complemental socket-forming member adapted to be arranged at the opposite side of the disk or head and having an opening therein, a threaded projection integral with the disk or head and adapted to pass through said opening, a nut adapted to engage said projection, and clamping ears or jaws carried by said socket-forming members to bear against opposite sides of the wheel rim.

1,026,573. AUTOMATIC GRAB FOR MATERIAL IN LARGE PIECES. WILHELM ELLINGEN, Cologne-Lindenthal, Germany. Filed Aug. 17, 1911. Serial No. 644,542. (Cl. 37—30.)



1. In an automatic grab for material in large pieces, the combination with a frame and cups pivotally mounted on said frame, of a vertically slidable member on the latter, links connecting said member to the upper parts of the gripping cups, and deflecting sheets secured to the lower end of the frame so as to secure the closing of the grab even if the edges of the cups do not meet, substantially as set forth.

2. In an automatic grab for material in large pieces, the combination with a frame and cups pivotally mounted on said frame, of a vertically slidable member on the latter, links connecting said member to the upper parts of the gripping cups, and deflecting sheets secured to the lower end of the frame and extending throughout the whole width of the gripper cups to coöperate with the edges of the cups, substantially as set forth.

1,026,574. PROCESS OF DYEING AND THE PRODUCT THEREOF. GADIENT ENGI and JAROSLAV FRÖHLICH, Basel, Switzerland, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Filed Dec. 28, 1910. Serial No. 599,723. (Cl. 8—5.)

1. The process of producing yellow shades on textile fibers consisting in treating the condensation products, obtained by the action of halids of aromatic acids on an indigo compound in presence of a condensing agent, with alakaline reducing agents, applying the leuco compound thus produced to the fibers and finally oxidizing the same on the fibers.

2. The process of producing yellow shades on textile fibers consisting in treating the condensation products, obtained by the action of halids of aromatic acids on an indigo compound in presence of a condensing agent, with alkaline hydrosulfites, applying the leuco compound thus produced to the fibers and finally oxidizing the same on the fibers.

3. The process of producing yellow shades on textile fibers consisting in treating the condensation product, obtained by the action of benzoyl chlorid on indigo in presence of a condensing agent, with alkaline hydrosulfite, applying the leuco compound thus produced to the fibers and finally oxidizing the same on the fibers.

4. As a new article of manufacture, a textile fiber dye with the oxidation products of the leuco compounds of the condensation products which are obtained by treating an indigo compound with halids of aromatic acids in presence of a condensing agent, the so dyed fiber changing its yellow color, on warming it with watery alkaline hydrosulfite solution, to a Bordeaux red to wine red shade, which on exposure to air assumes again its original yellow color, and on tipping it with concentrated sulfuric acid, to an intense orange which is again transformed into the original yellow color by washing with water, while the yellow color of the said fiber is not changed when it is tipped with soda lye of 30° Bé. and the said dyed fiber giving further pure bright yellow solution when it is warmed with xylene or nitrobenzene and coloring concentrated sulfuric acid intense orange when it is shaken with this acid.

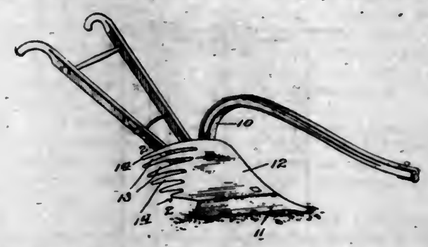
5. As a new article of manufacture, a yellow textile fiber dyed with the oxidation product of the leuco compound of the condensation product, which is obtained by treating indigo with benzoyl chlorid in presence of a condensing agent, the said fiber changing its yellow color, on warming it with a watery alkaline hydrosulfite solution, to a Bordeaux red shade, which on exposure to air assumes again its original yellow color, and, on tipping it with concentrated sulfuric acid, to an intense orange which is again transformed into the original yellow color by washing with water, while the yellow color of the said fiber is not changed when it is tipped with soda lye of 30° Bé. and the said dyed fiber giving further a pure bright yellow solution when it is warmed with xylene or nitrobenzene and coloring concentrated sulfuric acid intense orange when it is shaken with this acid.

1,026,575. PLOW. BENJAMIN F. FRAZER, Lafayette, Ala. Filed Feb. 28, 1912. Serial No. 680,546. (Cl. 97—18.)

1. In a plow, a mold-board having a plurality of spaced fingers at the delivery end of the mold-board such fingers being formed by slitting the metal and turning the edges backwardly to produce flanges at the rear of the fingers.

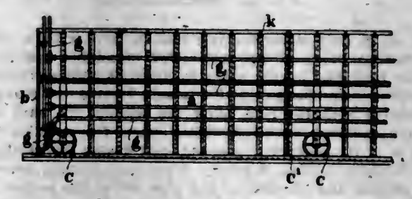
2. In a plow, a mold-board having a plurality of spaced fingers at the delivery end the said fingers embodying flanges turned upon the rear of the fingers and extending in the rear of the mold-board.

3. In a plow, a mold-board having spaced fingers at the delivery end thereof said fingers being slitted with the metal extending in the rear of such fingers forming



flanges, the flanges increasing in width toward the tapered end of the fingers.

1,026,576. HORTICULTURAL FORCING-HOUSE. AUGUST FRIELING, Langenfeld, Germany. Filed Feb. 17, 1911, Serial No. 609,173. Renewed Feb. 27, 1912. Serial No. 680,162. (Cl. 47—27.)



A forcing house having a floorless structure, movable end parts on said structure, wheels on which said structure is supported, a lateral chamber on said structure, a heating device in said chamber, circulating pipes from said heating device to the interior of said structure, a plurality of planks adapted to be loosely laid on the ground, rails fixed to said planks, eye plates on said planks and cross tie rods fitting in said eye plates to give a cross bracing for said planks and rails.

1,026,577. METHOD OF PRODUCING PAPER-PULP FROM OLD PAPER. CARL KURTZ HÄHNLE, Reutlingen, Germany. Filed Dec. 5, 1911. Serial No. 663,979. (Cl. 92—14.)

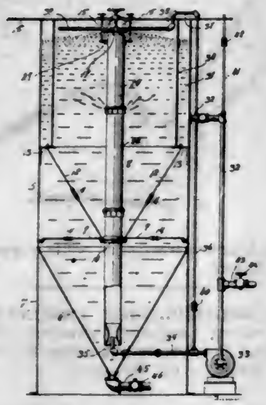
A process for cleaning paper from printing and writing thereon by the use of alkaline liquids which may be afterward recovered which consists in first soaking the paper with a diluted alkaline solution, then subjected to a light pressure for squeezing out the liquid, then mixing the mass with water and reducing the same to fibers without pressure, and finally sprinkling said fibrous mass with water for carrying off the impurities.

1,026,578. PULP-AGITATOR. WILLIAM HAMMOND, Warren, Pa., assignor to Hammond Iron Works, Warren, Pa., a Corporation of Pennsylvania. Filed Oct. 18, 1911. Serial No. 654,488. (Cl. 75—86.)

1. In a pulp agitator, the combination with a pulp-containing tank having an open-ended standpipe, and means for introducing solution into the lower extremity of the pipe whereby the circulation of the pulp through the tank and pipe is established, a portion of the pipe being composed of movable sections and means mounted thereon for introducing liquid jets from the pipe into the surrounding pulp, for the purpose set forth.

2. In a pulp agitator, the combination with a pulp-containing tank having an open-ended standpipe, and means for introducing solution into the lower extremity of the pipe, whereby the circulation of the pulp through the tank and pipe is established, a ring mounted upon the said

pipe and having openings which are adapted to be placed in communication with the pipe, for the purpose set forth.



3. In a pulp agitator, the combination with a pulp-containing tank, of an open-ended standpipe suspended in the tank and having a vertically-adjustable section, an exteriorly located ring applied to said section and movably connected with the pipe below the section, the said ring having openings normally closed when the movable section is in its lowermost position, and means for elevating the movable section, whereby a space is formed between the section and the part of the pipe below the section for the escape of the liquid from the pipe through the openings in the ring, substantially as described.

4. The combination with a pulp-containing tank having an open-ended standpipe suspended therein, means for introducing liquid at the bottom of the standpipe, whereby a circulation of the pulp is established through the tank and standpipe, the standpipe having a movable section provided at its lower extremity with a member which surrounds the adjacent part of the pipe, the said member being movable on the pipe below the movable section, the said member having pulp escape openings which are normally closed, and means for raising the movable pipe section whereby the said openings are placed in communication with the liquid in the standpipe, for the purpose set forth.

5. The combination with a pulp-containing tank having an open-ended standpipe suspended therein, and means for introducing liquid at the bottom of the standpipe whereby a circulation of pulp through the standpipe and tank is established, the standpipe being provided with movable sections whereby the pipe is vertically extensible, the movable sections having openings adapted to be brought into communication with the interior of the pipe when the sections are lifted, and suitable means for raising the movable pipe sections, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,026,579. ENGINEER'S SLOPE-ROD. CHARLES R. HAUKE, Rossfork, Idaho. Filed Sept. 19, 1911. Serial No. 650,223. (Cl. 73—16.)



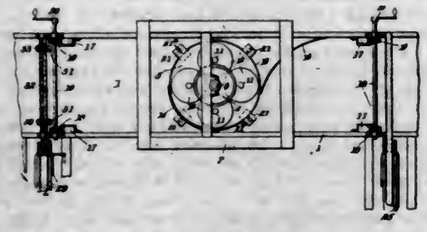
1. Apparatus for determining the position of slope-stakes and the depth of cuts or fills in engineering work, comprising a two-part extensible slope-rod, each section thereof having a clamping device upon one end adapted to coöperate with the opposite end of the other section, and each section being provided with a leveling bulb and having graduations upon the outer face corresponding to the desired slope and upon the inner face to the ditch bottoms, in combination with an auxiliary rod adapted to be placed at different points along the slope-rod to indicate the difference of levels at said points.

2. An engineer's slope-rod comprising two sections and clamping collars secured to the opposite ends of the respective sections, each collar surrounding both sections and being provided with a spring tongue and a coöperating thumbscrew, and guard-plates secured to the opposite ends of the respective sections, each plate extending across both sections and having a handle projecting therefrom opposite the section to which it is secured.

3. An engineer's slope-rod comprising two sections, clamping collars secured to the opposite ends of the respective sections, each collar surrounding both sections and being provided with a spring tongue and a coöperating thumb-screw, and guard-plates secured to the opposite ends of the respective sections, each plate extending across both sections and having a handle projecting from the plate opposite the section to which it is secured.

4. An engineer's slope-rod comprising two sections, clamping collars secured to the opposite ends of the respective sections, each collar surrounding both sections and being provided with a spring tongue and a coöperating thumb-screw, a slidable frame surrounding the sections and slidable thereon and having a centrally disposed handle, and guard-plates secured to the opposite ends of the respective sections, each plate extending across both sections and having a handle projecting therefrom opposite the section to which it is secured.

1,026,580. TURBINE WATER-WHEEL. JOHN HAY, Junction City, Kans. Filed Aug. 18, 1911. Serial No. 644,858. (Cl. 138—3.)



1. The combination, with a flume and a vertically adjustable wheel mounted therein, a buoy arranged below said wheel, and an adjustable horizontal diaphragm fitting within the flume and around the wheel for the purpose specified.

2. The combination, with a flume and a vertically adjustable wheel mounted therein, a buoy arranged below said wheel, an adjustable horizontal diaphragm fitting within the flume and around the wheel for the purpose specified, and a sectional gate for controlling the inflow to said flume to accord with the positions of the diaphragm.

3. The combination, with a flume, and a vertically adjustable wheel mounted therein, of a buoy arranged below said wheel for the purpose specified, a horizontal adjustable diaphragm fitting within the flume and around the wheel, and means to prevent the current from flowing below said diaphragm when it is raised.

4. The combination, with a flume and a vertically adjustable wheel mounted therein, of a buoy arranged below said wheel, a horizontal diaphragm fitting within the flume and around the wheel, and means to raise or lower said diaphragm in order to adjust it to the level of the bottom of said wheel.

5. The combination, with a flume and a vertically adjustable wheel mounted therein, of a buoy arranged below said wheel, a horizontal diaphragm fitting within the flume and around the wheel, means to raise or lower said diaphragm in order to adjust it to the level of the bottom of the wheel, and means to prevent the current from flowing below the diaphragm when it is raised.

[Claims 6 to 15 not printed in the Gazette.]

1,026,581. HEAD FOR POLO-CLUBS. ROBERT D. HAYES, New Haven, Conn., assignor to William B. McCarthy, Milford, Conn. Filed Jan. 8, 1912. Serial No. 669,940. (Cl. 46—4.)



1. In a polo club, a head comprising not less than three laminations secured together lengthwise of said head, the interior lamination or laminations being formed of relatively springy material as compared with the external lamination or laminations and having a handle shaft secured thereto and extending therefrom.

2. In a polo club, a head comprising not less than three laminations secured together lengthwise of said head, the interior lamination or laminations being formed of relatively springy material as compared with the external lamination or laminations, and being centrally apertured to receive a handle shaft, the material of the exterior lamination or laminations being also more dense and heavier than the material of the interior lamination or laminations.

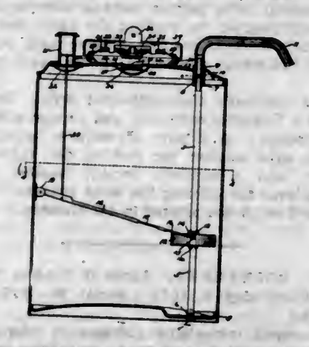
3. In a polo club having a head composed of not less than three laminations, the external lamination or laminations being of heavier material than the interior lamination or laminations, said head having a passage obliquely arranged and centrally located between the ends thereof and entering the exposed edge of the internal lamination or laminations.

4. In a polo club having a head composed of not less than three laminations, the external lamination or laminations being of heavier material than the interior lamination or laminations, said head having a passage obliquely arranged and centrally located between the ends thereof and entering the exposed edge of the internal lamination or laminations, the cross sectional outline of said opening being elongated in the line of the club head.

5. In a polo club having a head composed of not less than three laminations, the external lamination or laminations being of heavier material than the interior lamination or laminations, said head having a passage obliquely arranged and centrally located between the ends thereof and entering the exposed edge of the internal lamination or laminations, the cross sectional outline of said opening being elongated in the line of the club head, and a shaft fitted to said opening and secured therein.

[Claims 6 and 7 not printed in the Gazette.]

1,026,582. DISPENSING-CAN. CHAUNCEY A. HERTENSTEIN and WILLIAM F. PROBST, Chillicothe, Ohio. Filed Aug. 11, 1911. Serial No. 643,542. (Cl. 221—77.)



1. A dispensing can comprising a tank, a discharge pipe, an air compressing device on said tank for forcing air thereinto, and means for admitting the air under pressure to the said pipe near its mouth to simultaneously cut off the flow of liquid and exhaust the compressed air.

2. A dispensing can comprising a tank, a discharge pipe, an air compressing device on said tank for forcing air thereinto, means for releasing the air under pressure from said tank, and means alternately effective with said last named means for admitting the compressed air to and exhausting out through said pipe.

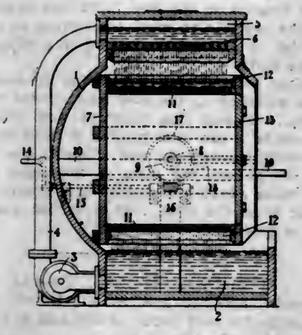
3. A dispensing can comprising a tank, a discharge pipe, an air compressing device on said tank for forcing air thereinto, and a valve in said pipe for admitting air directly to said pipe to equalize the pressure in said tank and pipe.

4. A dispensing can comprising a tank, a discharge pipe movable from a normally inoperative position to an operative position, and a valve structure for admitting air from said tank to said pipe when in normal position and shutting off direct air communication between said tank and pipe when in operative position.

5. A dispensing can comprising a tank having a depression formed in its bottom and constituting the lowest point therein, an air compression device for forcing fluid from said tank, a discharge pipe extending from a point within the said depression, said pipe having its lower end cut away, an indicator float slidable on said pipe, and an extended journal for said float having cut-away portions for registering with the cut-away portions in the lower end of said pipe.

[Claim 6 not printed in the Gazette.]

1,026,583. BLEACHING APPARATUS. EDUARD HERZOG, Erlach, Austria-Hungary. Filed Apr. 26, 1910. Serial No. 557,784. (Cl. 8—18.)



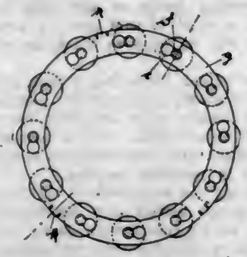
1. In bleaching apparatus of the character described, the combination, with a vat divided into an upper, a lower and an intermediate compartment, said compartments being in communication with each other, of a receptacle for holding material to be bleached mounted revolubly in one of said compartments and in open relation therewith, substantially as described, and a pump outside the vat and having its suction connected to the lower compartment and its discharge connected to the upper compartment.

2. In bleaching apparatus of the character described, the combination, with a vat divided into three compartments in open relation one with another, and cross-bars on the sides of the vat, of a perforated receptacle normally mounted revolubly in the middle compartment on said cross-bars and adapted to be withdrawn on the same from the vat, substantially as described.

3. In a bleaching apparatus of the character described, the combination with a vat divided into an upper, a lower and an intermediate compartment, the upper compartment being separated from the intermediate compartment by a perforated partition, of a receptacle for the goods to be treated, said receptacle having opposite sides formed as distributing tanks with perforated bottoms, said recep-

tacle being revolubly mounted in the intermediate receptacle, and a pump arranged to pump bleaching fluid from the lower compartment to the upper compartment of the vat.

1,026,584. ROLLER-BEARING CAGE. ALBERT HIRTH, Cannstatt, Germany, assignor to Norma Compagnie G. M. B. H., Cannstatt-Stuttgart, Germany. Filed Apr. 11, 1911. Serial No. 620,389. (Cl. 64—62.)

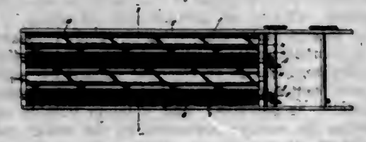


1. A roller bearing cage comprising in combination a ring, bolts attached to the said ring, rollers mounted on these bolts, a second ring fitting flush onto the free ends of the said bolts, and a third ring adapted to be brought into engagement by turning with grooves in the ends of the bolts in order to prevent the second ring slipping off the ends of the bolts.

2. A roller bearing cage comprising in combination a ring, bolts attached to the said ring, rollers mounted on these bolts, a second ring fitting flush onto the free ends of the said bolts, a third ring adapted to be brought into engagement by turning with grooves in the ends of the bolts, and tongues on the said third ring engaging in recesses in the second ring when the locking ring is in position in order to prevent the second ring slipping off the ends of the bolts.

3. A roller bearing cage comprising in combination a ring, bolts attached to the said ring, rollers mounted on these bolts, a second ring provided with holes through which the ends of the bolts project, a third ring provided with apertures through one end of which the ends of the bolts can be passed, the sides of the other end of the apertures being adapted to engage in a groove in the end of the bolt when the third ring is turned and thus lock the rings in position.

1,026,585. HUSKING DEVICE. JOSHUA S. HOFER, Bridgewater, and JACOB P. STAHL, Huron, S. D.; said Stahl assignor to said Hofer. Filed Aug. 8, 1911. Serial No. 643,018. (Cl. 130—5.)

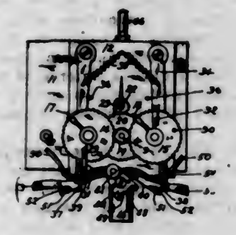


1. In a device of the class described, a pair of husking rollers, one of said rollers being closely wound from end to end with tightly twisted fibrous material, and the other of said rollers being spirally wound with similar tightly twisted fibrous material, the individual coils being spaced in corkscrew fashion.

2. In a device of the class described, a pair of oppositely driven cylindrical husking rollers, one of said rollers being provided with a strand of covering material closely wound thereon from end to end and attached firmly to the roller at and intermediate the ends of the latter, and the other roller being provided with a spirally wound strand of tightly twisted material wound thereupon from end to end in corkscrew fashion and attached securely to the roller adjacent to and intermediate the ends of the latter.

3. In a device of the class described, a husking device comprising a plurality of rollers supported for rotation in an inclined plane, in combination with a retarding device comprising a pivotally supported frame, an endless retarding member guided upon said frame, said retarding member including a lead which is opposed to the upper faces of the husking rollers, a portion of said lead being guided at an angle to the remaining portion of the lead to diverge from the receiving ends of the husking rollers, and means for so driving the retarding member that the lead opposed to the husking rollers will move in the direction of the receiving ends of said rollers.

1,026,586. APPARATUS FOR AUTOMATICALLY OPENING AND CLOSING COCKS, VALVES, SWITCHES, AND THE LIKE. WILLIAM HOWLIN, Newtown, near Sydney, New South Wales, Australia. Filed July 5, 1910. Serial No. 570,477. (Cl. 161—0.)



1. In an automatic time-controlled device, the combination, with a movable controller and an operating member secured thereto; of a pair of reversely-arranged levers pivoted to said operating member; a pair of levers directly associated with the fist-named levers for actuating the same; a clockwork; and a pair of members operatively connected with the clockwork for actuating the second-named levers.

2. In an automatic time-controlled device, the combination, with a rotatable controller and an operating member secured thereto; of a pair of endwise movable levers pivoted to said member for rocking the same and said controller; and individual means for shifting said levers endwise.

3. In an automatic time-controlled device, the combination, with a rotatable controller and an operating member secured thereto; of a pair of endwise movable levers pivoted to said member for rocking the same and said controller; means associated directly with one of said levers, for shifting both levers endwise in one direction; and additional means associated directly with the other lever, for shifting both levers endwise in the opposite direction.

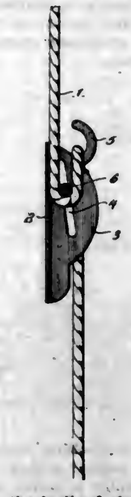
4. In an automatic time-controlled device, the combination, with a rotatable controller and an operating member secured thereto; of a pair of endwise movable levers pivoted to said member for rocking the same and said controller; individual means for rocking said levers; and additional individual means for shifting said levers endwise.

5. In an automatic time-controlled device, the combination, with a rotatable controller and an operating member secured thereto; of a pair of endwise movable levers pivoted to said member for rocking the same and said controller; and a separate impact member associated with each lever for shifting the same endwise.

[Claims 6 to 13 not printed in the Gazette.]

1,026,587. ROPE-CLAMP. JACOB W. ISBERG, West Allis, Wis. Filed May 9, 1911. Serial No. 625,979. (Cl. 24—136.)

A rope clamp comprising a frame of substantially U form in cross section, said frame embodying a base and side pieces, the latter having slots arranged in a plane inclining to the plane of the base, one of the side pieces having a hook at the end adjacent the end of the frame where the ends of the inclined slots are nearer the base for the rope to pass over, and a roller having journals at its ends



which are mounted in the inclined slots of the side pieces of the frame, said roller serving to clamp the rope against the base of the frame when the loose end of the rope is drawn upon after being passed over the said hook.

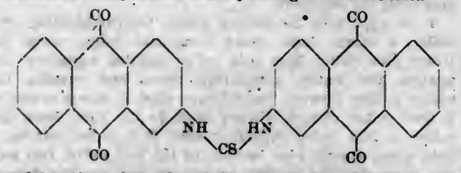
1,026,588. ANTHRACENE DYES AND PROCESS OF MAKING SAME. MAX HENRY ISLER, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Jan. 31, 1911. Serial No. 605,746. (Cl. 8—1.)

1. The process of producing coloring matters of the anthracene series by treating an amino-anthraquinone body with trichlor-methyl-sulfur chlorid.

2. The process of producing coloring matter of the anthracene series by treating 2-amino-anthraquinone with trichlor-methyl-sulfur chlorid.

3. As new articles of manufacture the coloring matters which can be obtained by treating an amino-anthraquinone body with trichlor-methyl-sulfur chlorid, which new coloring matters are dianthraquinonyl-thiourea bodies, contain sulfur and are insoluble in water, soluble in sulfuric acid and in nitrobenzene giving colored solutions, soluble in the hydrosulfite vat, dyeing both cotton and wool various shades.

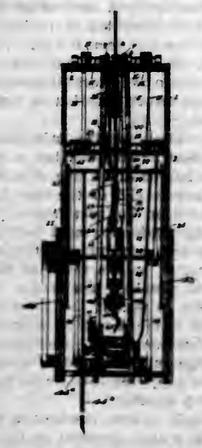
4. As a new article of manufacture the coloring matter which can be obtained by treating 2-amino-anthraquinone with trichlor-methyl-sulfur chlorid, which coloring matter possesses a composition corresponding to the formula



consists when dry of a brick-red powder, which yields an orange solution in concentrated sulfuric acid and a yellow solution in boiling nitrobenzene and which dyes cotton from the vat orange shades.

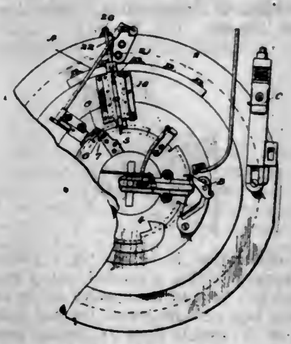
1,026,589. WELL BORING AND CASING MACHINE FOR WELLS. SUBN JACKSON, Stockton, Cal. Filed June 9, 1911. Serial No. 632,191. (Cl. 166—3.)

1. A drill mechanism comprising a frame, a hollow drill rod movable therein, a transverse pipe connected with said hollow drill rod, a steam pipe connected with said transverse pipe, a tubular member having packing at its upper end, said steam pipe being movable vertically through said packing, and means for supplying fluid to said tubular member as described.



2. A device of the character described comprising a frame, a drill rod movable vertically in said frame, an independent casing movable over said drill rod, flange seats on said independent casing, tubular members seated on said flange seats, means for lifting said tubular members away from said seats and a drilling mechanism on said drill rod as described.

1,026,590. SAFETY BREECH-BLOCK LOCK FOR GUNS. SIMON JACOBS, New York, N. Y. Filed July 26, 1910. Serial No. 573,987. (Cl. 89—20.)



1. In breech block locking mechanism for recoil guns, a stop disposed on the rear face of the breech block, a locking member on the rear face of the breech of the gun yieldingly projected toward the axis of the breech block and into position where it will engage with the stop but shiftable radially out of such position, and means for automatically withdrawing the locking member from its locking position upon the recoil of the gun.

2. In a breech block locking mechanism for guns, a stop disposed on the rear face of the breech block, a locking member on the rear face of the breech of the gun normally projected into a position where it will engage with the stop on the breech block but shiftable radially out of such position, and a pivoted member freely movable toward the muzzle of the gun and operated by the recoil of the gun to automatically withdraw the locking member from its locking position upon the discharge of the gun.

3. In a breech block locking mechanism for guns, a rotatable breech block, a locking member operatively engaging a

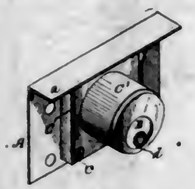
stop on the breech block to prevent any opening movement thereof, means actuated by the recoil of the gun for withdrawing said locking member from its locking engagement, means for holding the locking member in its unlocked position while the breech block is being initially turned, means actuated by the breech block mechanism for releasing the locking member and returning it to its locking position after the breech block has been initially rotated to a position where it may be removed, and means carried by the breech block for forcing the locking member radially outward to permit the return rotation of the breech block to its initial position.

4. In a breech block locking mechanism for guns, a rotatable breech block, a stop member, a radially disposed, radially shiftable bolt member, one of said members being mounted upon the rear end of the breech of the gun and the other mounted upon the rear face of the breech block, means for radially projecting said bolt into position to engage said stop and prevent a rotation of the breech block, means actuated by the recoil of the gun for withdrawing said bolt member, means for holding the bolt member withdrawn to permit the rotation of the breech block to a position where it may be withdrawn, and means actuated upon a rotation of the breech block to its unlocked position for disengaging said holding means to permit the bolt member to be projected into its locking position with relation to the stop member.

5. In breech block locking mechanism for guns, a rotatable breech block, a stop mounted on the rear face of the breech block, a locking bolt on the rear face of the breech of the gun radially disposed and radially movable, said bolt being yieldingly projected into the path of movement of the stop, and means operated by the recoil of the gun for radially shifting the bolt out of the path of movement of the stop, permitting the initial rotation of the breech block.

[Claims 6 to 15 not printed in the Gazette.]

1,026,591. LOCK. GEORGE B. KOHLER, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 29, 1910. Serial No. 558,362. (Cl. 70—46.)

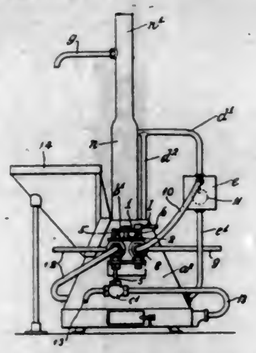


1. The combination in a lock, of a plate having an opening therein, a casing, a pivoted bolt, a spring tending to retain the bolt back of the opening in the plate; a hub, a cam on the hub, a projection on the bolt engaged by the cam, a lug on the cam to limit its turning movement, and a keeper shaped to be engaged by the bolt.

2. The combination in a lock of a plate having an opening therein, a casing, two bolts arranged opposite each other, springs tending to bring the bolts toward each other and back of the opening in the plate, a hub, a cam on the hub, projections on the bolts engaged by the cam, and lugs on the cam to limit the turning movement, with a keeper shaped to be engaged by the bolts when projected through the opening in the plate.

1,026,592. APPARATUS FOR BOILING WATER. ROBERT MACKAY, Walthamstow, England. Filed Aug 4, 1911. Serial No. 642,333. (Cl. 122—23.)

1. In apparatus for boiling water, the combination of a boiler, a steam dome rising from said boiler, water delivery pipe rising from said boiler, heating apparatus for heating the water, generating steam and causing the water to flow through the delivery pipe by steam pressure, a feed water cistern always open to the said dome and boiler, a ball valve supplying said feed water cistern, a cold water supply pipe leading to the ball valve, two rods one governing the heating apparatus and one the flow of cold water to the ball valve, and means for simultaneously turning off the cold water to the cistern and turning on the heating apparatus, and turning off the heating apparatus and turning on the cold water supply to the cistern, substantially as set forth.



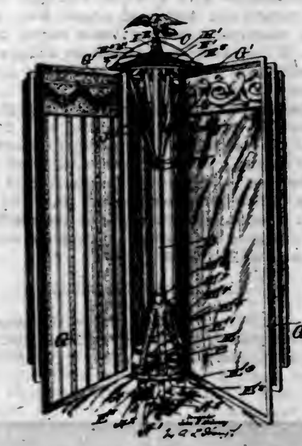
2. In apparatus for boiling water, the combination of a shallow boiler, a conical shaped vessel surrounding the shallow boiler, a number of hollow columns connecting the two vessels, said columns being open at their bottom and provided with a small vent at their top, water tubes open at both ends passing through said hollow columns, a dome connected to the shallow boiler, a delivery pipe rising from the shallow boiler, heating apparatus for heating the water, generating steam and causing the water to flow by steam pressure, a feed water cistern always open to the said dome and boiler, a ball valve supplying said feed water cistern, a cold water supply pipe leading to the ball valve, two rods one governing the heating apparatus and one the flow of cold water to the ball valve, and means for turning off the cold water to the cistern and turning on the heating apparatus, and turning off the heating apparatus and turning on the cold water to the cistern, substantially as set forth.

3. In apparatus for boiling water, the combination of a boiler, a steam dome rising from said boiler, water delivery pipe rising from said boiler, heating apparatus for heating the water, generating steam and causing the water to flow through the delivery pipe by steam pressure, a feed water cistern always open to the said dome and boiler, a ball valve supplying said feed water cistern, a cold water supply pipe leading to the ball valve, two rods one governing the heating apparatus and one the flow of cold water to the ball valve, and a rotating cam for turning off the cold water to the cistern and turning on the heating apparatus, and turning off the heating apparatus and turning on the cold water to the cistern, substantially as set forth.

4. In apparatus for boiling water, the combination of a boiler, a steam dome rising from said boiler, water delivery pipe rising from said boiler, heating apparatus for heating the water, generating steam and causing the water to flow through the delivery pipe by steam pressure, a feed water cistern always open to the said dome and boiler, a ball valve supplying said feed water cistern, a cold water supply pipe leading to the ball valve, two rods one governing the heating apparatus and one the flow of cold water to the ball valve, and a rotating cam plate having two cams thereon one for first turning off the supply of cold water to the cistern and then turning on the heating apparatus and a second cam which comes into operation for turning on the cold water again while the first mentioned cam retains the heating apparatus in operation, substantially at set forth.

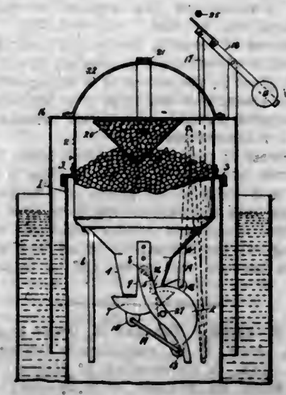
5. In apparatus for boiling water, the combination of a boiler, a steam dome rising from said boiler, water delivery pipe rising from said boiler, heating apparatus for heating the water, generating steam and causing the water to flow through the delivery pipe by steam pressure, a feed water cistern always open to the said dome and boiler, a ball valve supplying said feed water cistern, a cold water supply pipe leading to the ball valve, two rods one governing the heating apparatus and one the flow of cold water to the ball valve, and a rotating cam plate having two cams thereon one for the first turning off the supply of cold water to the cistern and then turning on the heating apparatus and a second cam which comes into operation for turning on the cold water again while the first mentioned cam retains the heating apparatus in operation, and a stop on this second cam to limit the motion thereof, substantially as set forth.

1,026,593. DISPLAY-RACK. JOHN R. MAHONEY, Washington, D. C. Filed Mar. 4, 1910. Serial No. 547,263. (Cl. 40—72.)



In combination with a standard, hinged wings mounted thereon, rods fastened to said standard, a segment plate fixed to said rods, a friction plate, springs connecting said plates, said friction plate positioned in the paths of the upper ends of said wings and adapted to frictionally engage and hold the wings in adjusted positions.

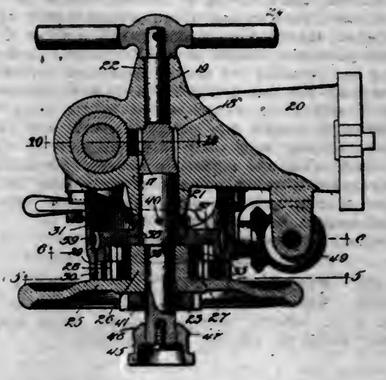
1,026,594. CARBID-FEEDER. EDWIN MILLER, Detroit, Mich., assignor to Miller Lighting Company, Inc., Detroit, Mich., a Corporation. Filed June 19, 1911. Serial No. 634,115. (Cl. 48—52.)



1. A carbid feeder, having in combination, a magazine provided with a delivery spout, an interrupter-pan arranged to swing thereunder, a dumping-pan arranged to swing below the spout and interrupter-pan, a link connecting the interrupter-pan with the adjacent side of the dumping-pan, and reciprocating means and a weight for returning the same connected with the dumping-pan opposite the link connection, for automatically swinging the pans, alternately, below the delivery spout, substantially as described.

2. A carbid feeder, having in combination, a magazine provided with a delivery spout, an interrupter-pan arranged to swing thereunder, a dumping-pan arranged to swing below the spout and interrupter-pan, a link connecting with the adjacent side of the dumping-pan, and reciprocating rod-connections, attached to the dump-pan at the extreme opposite side of the link connection and passing to the outside of the generator, and a pivoted lever having a weight at one end for actuating the rod-connections and automatically swinging the pans alternately below the delivery spout, substantially as described.

1,026,595. FEEDING ATTACHMENT FOR DRILL-SPINDLES. ROBERT MILNE, Rockford, Ill., assignor to Rockford Drilling Machine Co., Rockford, Ill., a Corporation of Illinois. Filed Jan. 3, 1911. Serial No. 600,551. (Cl. 77—32.)



1. In a device of the class described, the combination of a drill spindle, a rack on said spindle, a shaft provided with a pinion meshing with said rack, an internal gear fixed on said shaft, an internal gear loose on said shaft, said internal gears having a different number of teeth, a hand wheel provided with a hub loosely mounted eccentrically on said shaft, ring gears loosely mounted on said hub and joined to rotate in unison and meshing with said internal gears, a series of ratchet teeth upon the outer periphery of the loose internal gear, and a dog held against movement with respect to said gears and adapted to be thrown into and out of engagement with said ratchet teeth, substantially as described.

2. In a device of the class described, the combination with a drill spindle, a rack on said spindle, a shaft provided with a pinion meshing with said rack, a hand wheel loose on said shaft, a planetary gear connection between the hand wheel and shaft, means for making and breaking said gear connection between the hand wheel and shaft, a toothed member secured to said shaft, and a dog carried by the hand wheel adapted to be thrown into engagement with said toothed member, whereby the shaft may be driven directly by the hand wheel when the connection between the hand wheel and planetary gear is broken, substantially as described.

3. In a device of the class described, the combination of a drill spindle, a rack on said spindle, a shaft provided with a pinion meshing with said rack, a hand wheel loose on said shaft, a planetary gear connection between the hand wheel and shaft, means for making and breaking said gear connection between the hand wheel and shaft,

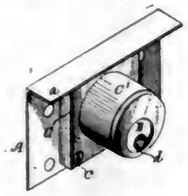
stop on the breech block to prevent any opening movement thereof, means actuated by the recoil of the gun for withdrawing said locking member from its locking engagement, means for holding the locking member in its unlocked position while the breech block is being initially turned, means actuated by the breech block mechanism for releasing the locking member and returning it to its locking position after the breech block has been initially rotated to a position where it may be removed, and means carried by the breech block for forcing the locking member radially outward to permit the return rotation of the breech block to its initial position.

4. In a breech block locking mechanism for guns, a rotatable breech block, a stop member, a radially disposed, radially shiftable bolt member, one of said members being mounted upon the rear end of the breech of the gun and the other mounted upon the rear face of the breech block, means for radially projecting said bolt into position to engage said stop and prevent a rotation of the breech block, means actuated by the recoil of the gun for withdrawing said bolt member, means for holding the bolt member withdrawn to permit the rotation of the breech block to a position where it may be withdrawn, and means actuated upon a rotation of the breech block to its unlocked position for disengaging said holding means to permit the bolt member to be projected into its locking position with relation to the stop member.

5. In breech block locking mechanism for guns, a rotatable breech block, a stop mounted on the rear face of the breech block, a locking bolt on the rear face of the breech of the gun radially disposed and radially movable, said bolt being yieldingly projected into the path of movement of the stop, and means operated by the recoil of the gun for radially shifting the bolt out of the path of movement of the stop, permitting the initial rotation of the breech block.

[Claims 6 to 15 not printed in the Gazette.]

1,026,391. LOCK. GEORGE B. KOHLER, Philadelphia, Pa., assignor to The J. G. Brill Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Apr. 20, 1910. Serial No. 558,362. (Cl. 70—46.)

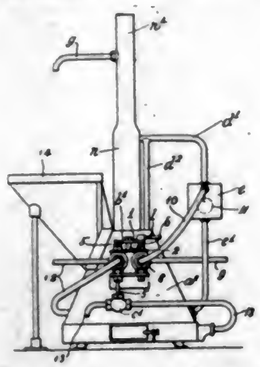


1. The combination in a lock, of a plate having an opening therein, a casing, a pivoted bolt, a spring tending to retain the bolt back of the opening in the plate; a hub, a cam on the hub, a projection on the bolt engaged by the cam, a lug on the cam to limit its turning movement, and a keeper shaped to be engaged by the bolt.

2. The combination in a lock of a plate having an opening therein, a casing, two bolts arranged opposite each other, springs tending to bring the bolts toward each other and back of the opening in the plate, a hub, a cam on the hub, projections on the bolts engaged by the cam, and lugs on the cam to limit the turning movement, with a keeper shaped to be engaged by the bolts when projected through the opening in the plate.

1,026,592. APPARATUS FOR BOILING WATER. ROBERT MACKAY, Walthamstow, England. Filed Aug 4, 1911. Serial No. 642,333. (Cl. 122—23.)

1. In apparatus for boiling water, the combination of a boiler, a steam dome rising from said boiler, water delivery pipe rising from said boiler, heating apparatus for heating the water, generating steam and causing the water to flow through the delivery pipe by steam pressure, a feed water cistern always open to the said dome and boiler, a ball valve supplying said feed water cistern, a cold water supply pipe leading to the ball valve, two rods one governing the heating apparatus and one the flow of cold water to the ball valve, and means for simultaneously turning off the cold water to the cistern and turning on the heating apparatus, and turning off the heating apparatus and turning on the cold water supply to the cistern, substantially as set forth.



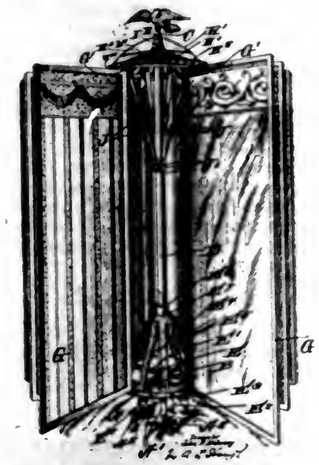
2. In apparatus for boiling water, the combination of a shallow boiler, a conical shaped vessel surrounding the shallow boiler, a number of hollow columns connecting the two vessels, said columns being open at their bottom and provided with a small vent at their top, water tubes open at both ends passing through said hollow columns, a dome connected to the shallow boiler, a delivery pipe rising from the shallow boiler, heating apparatus for heating the water, generating steam and causing the water to flow by steam pressure, a feed water cistern always open to the said dome and boiler, a ball valve supplying said feed water cistern, a cold water supply pipe leading to the ball valve, two rods one governing the heating apparatus and one the flow of cold water to the ball valve, and means for turning off the cold water to the cistern and turning on the heating apparatus, and turning off the heating apparatus and turning on the cold water to the cistern, substantially as set forth.

3. In apparatus for boiling water, the combination of a boiler, a steam dome rising from said boiler, water delivery pipe rising from said boiler, heating apparatus for heating the water, generating steam and causing the water to flow through the delivery pipe by steam pressure, a feed water cistern always open to the said dome and boiler, a ball valve supplying said feed water cistern, a cold water supply pipe leading to the ball valve, two rods one governing the heating apparatus and one the flow of cold water to the ball valve, and a rotating cam for turning off the cold water to the cistern and turning on the heating apparatus, and turning off the heating apparatus and turning on the cold water to the cistern, substantially as set forth.

4. In apparatus for boiling water, the combination of a boiler, a steam dome rising from said boiler, water delivery pipe rising from said boiler, heating apparatus for heating the water, generating steam and causing the water to flow through the delivery pipe by steam pressure, a feed water cistern always open to the said dome and boiler, a ball valve supplying said feed water cistern, a cold water supply pipe leading to the ball valve, two rods one governing the heating apparatus and one the flow of cold water to the ball valve, and a rotating cam plate having two cams thereon one for first turning off the supply of cold water to the cistern and then turning on the heating apparatus and a second cam which comes into operation for turning on the cold water again while the first mentioned cam retains the heating apparatus in operation, substantially at set forth.

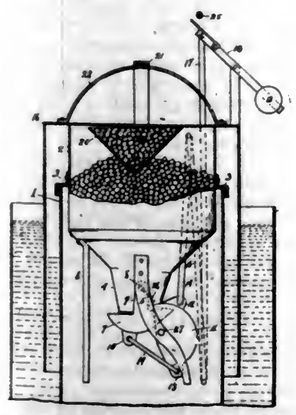
5. In apparatus for boiling water, the combination of a boiler, a steam dome rising from said boiler, water delivery pipe rising from said boiler, heating apparatus for heating the water, generating steam and causing the water to flow through the delivery pipe by steam pressure, a feed water cistern always open to the said dome and boiler, a ball valve supplying said feed water cistern, a cold water supply pipe leading to the ball valve, two rods one governing the heating apparatus and one the flow of cold water to the ball valve, and a rotating cam plate having two cams thereon one for the first turning off the supply of cold water to the cistern and then turning on the heating apparatus and a second cam which comes into operation for turning on the cold water again while the first mentioned cam retains the heating apparatus in operation, and a stop on this second cam to limit the motion thereof, substantially as set forth.

1,026,593. DISPLAY-RACK. JOHN R. MAHONEY, Washington, D. C. Filed Mar. 4, 1910. Serial No. 547,263. (Cl. 40—72.)



In combination with a standard, hinged wings mounted thereon, rods fastened to said standard, a segment plate fixed to said rods, a friction plate, springs connecting said plates, said friction plate positioned in the paths of the upper ends of said wings and adapted to frictionally engage and hold the wings in adjusted positions.

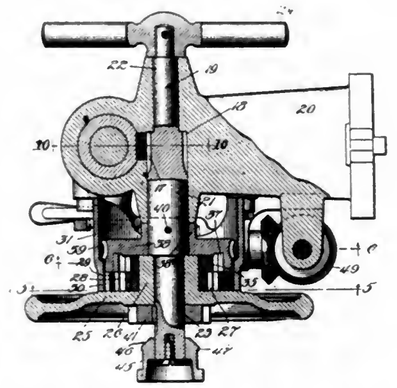
1,026,594. CARBID-FEEDER. EDWIN MILLER, Detroit, Mich., assignor to Miller Lighting Company, Inc., Detroit, Mich., a Corporation. Filed June 19, 1911. Serial No. 634,115. (Cl. 48—52.)



1. A carbid feeder, having in combination, a magazine provided with a delivery spout, an interrupter-pan arranged to swing thereunder, a dumping-pan arranged to swing below the spout and interrupter-pan, a link connecting the interrupter-pan with the adjacent side of the dumping-pan, and reciprocating means and a weight for returning the same connected with the dumping-pan opposite the link connection, for automatically swinging the pans, alternately, below the delivery spout, substantially as described.

2. A carbid feeder, having in combination, a magazine provided with a delivery spout, an interrupter-pan arranged to swing thereunder, a dumping-pan arranged to swing below the spout and interrupter-pan, a link connecting with the adjacent side of the dumping-pan, and reciprocating rod-connections, attached to the dump-pan at the extreme opposite side of the link connection and passing to the outside of the generator, and a pivoted lever having a weight at one end for actuating the rod-connections and automatically swinging the pans alternately below the delivery spout, substantially as described.

1,026,595. FEEDING ATTACHMENT FOR DRILL-SPINDLES. ROBERT MILNE, Rockford, Ill., assignor to Rockford Drilling Machine Co., Rockford, Ill., a Corporation of Illinois. Filed Jan. 3, 1911. Serial No. 600,551. (Cl. 77—32.)



1. In a device of the class described, the combination of a drill spindle, a rack on said spindle, a shaft provided with a pinion meshing with said rack, an internal gear fixed on said shaft, an internal gear loose on said shaft, said internal gears having a different number of teeth, a hand wheel provided with a hub loosely mounted eccentrically on said shaft, ring gears loosely mounted on said hub and joined to rotate in unison and meshing with said internal gears, a series of ratchet teeth upon the outer periphery of the loose internal gear, and a dog held against movement with respect to said gears and adapted to be thrown into and out of engagement with said ratchet teeth, substantially as described.

2. In a device of the class described, the combination with a drill spindle, a rack on said spindle, a shaft provided with a pinion meshing with said rack, a hand wheel loose on said shaft, a planetary gear connection between the hand wheel and shaft, means for making and breaking said gear connection between the hand wheel and shaft, a toothed member secured to said shaft, and a dog carried by the hand wheel adapted to be thrown into engagement with said toothed member, whereby the shaft may be driven directly by the hand wheel when the connection between the hand wheel and planetary gear is broken, substantially as described.

3. In a device of the class described, the combination of a drill spindle, a rack on said spindle, a shaft provided with a pinion meshing with said rack, a hand wheel loose on said shaft, a planetary gear connection between the hand wheel and shaft, means for making and breaking said gear connection between the hand wheel and shaft,

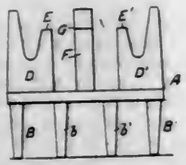
a toothed member secured to said shaft, a dog carried by the hand wheel adapted to be thrown into engagement with said toothed member, whereby the shaft may be driven directly by the hand wheel when the connection between the hand wheel and planetary gear is broken, and a shiftable member for moving and holding said dog out of engagement with said toothed member, substantially as described.

4. In a device of the class described, the combination of a drill spindle, a rack on said spindle, a shaft provided with a pinion meshing with said rack, an internal gear loose on said shaft, an internal gear fast to said shaft, said internal gears having a different number of teeth, a hand wheel loose on said shaft, pinions rotated by said hand wheel traveling eccentrically with respect to said internal gears and located to move in unison, means for making and breaking the driving connection between the pinions and the internal gears, a toothed member secured to said shaft, and a dog carried by the hand wheel adapted to be thrown into engagement with said toothed member, whereby said shaft is driven directly by the hand wheel when the connection between the shaft and internal gears is broken, substantially as described.

5. In a device of the class described, the combination of a drill spindle, a rack on said spindle, a shaft provided with a pinion meshing with said rack, an internal gear loose on said shaft, an internal gear fast to said shaft, said internal gears having a different number of teeth, a hand wheel loose on said shaft, pinions rotated by said hand wheel traveling eccentrically with respect to said internal gears and located to move in unison, means for making and breaking the driving connection between the pinions and the internal gears, a toothed member secured to said shaft, a dog carried by the hand wheel adapted to be thrown into engagement with said toothed member, whereby said shaft is driven directly by the hand wheel when the connection between the shaft and internal gears is broken, and a shiftable member for moving and holding said dog out of engagement with said toothed member, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

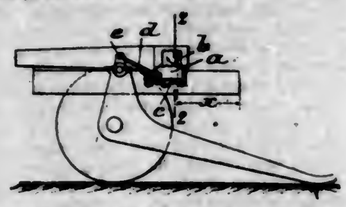
1,026,596. STAND FOR ELECTRIC HEATERS AND IRONS. ROBERT PRESTON MOODIE and CHARLES WARREN BALL, Ottawa, Ontario, Canada. Filed Nov. 24, 1909. Serial No. 529,753. (Cl. 68—27.)



A reversible stand for electric irons and heaters comprising a single apertured plate, formed with legs at the end corners and a leg at each side near the front, and having affixed thereon branching side-standards and a shouldered front-standard; said legs adapted to support said plate carrying an inverted sad-iron on said standards, and on said plate being reversed, said legs adapted to fit around said iron in an upright position upon said plate; said standards being adapted to hold and support said iron in an inverted position, as a heater, a distance above said plate and, on said plate being reversed, adapted to act as legs for said plate carrying an iron in an upright position.

1,026,597. FIRING DEVICE FOR GUNS WITH DIFFERENTIAL RECOILS. EMIL MÜLLER, Dusseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany, a Corporation of Germany. Filed May 25, 1911. Serial No. 629,403. (Cl. 89—27.)

1. A firing device for differential recoil guns comprising, in combination with a barrel, a trigger lever, and means coöperating with the trigger lever for repeatedly operating it during the run out of the barrel.



2. A firing device for differential recoil guns comprising, in combination with a barrel, a trigger lever, and a series of teeth for operating the trigger lever during the run out of the barrel.

3. A firing device for differential recoil guns comprising, in combination with a barrel, a trigger lever, and a plate for coöperating with said trigger lever and having means for operating it several times during the run out movement of the barrel, and means for automatically displacing said plate relatively to the barrel according to the elevation of the latter.

4. In combination with a barrel, the cradle therefor, and means pivotally supporting the cradle, of a trigger lever carried by the barrel, a plate slidably mounted on the cradle and having a series of teeth with which the trigger lever is designed to engage on the run out of the barrel, and a link pivotally connecting said plate and the cradle support at a point above the pivot of the cradle for automatically changing the position of the plate when the barrel and cradle are elevated.

1,026,598. HOSE. FRANK R. NEFF, Philadelphia, Pa., assignor to Charles A. Daniel, Philadelphia, Pa. Filed Apr. 4, 1911. Serial No. 618,824. (Cl. 137—90.)



A hose comprising an outer covering of rubber having longitudinally extending closely spaced ribs forming corrugations extending longitudinally of the hose, said ribs terminating in solid annular sections, equally spaced along said hose, the outer faces of said ribs and the outer faces of said annular sections being substantially in alinement.

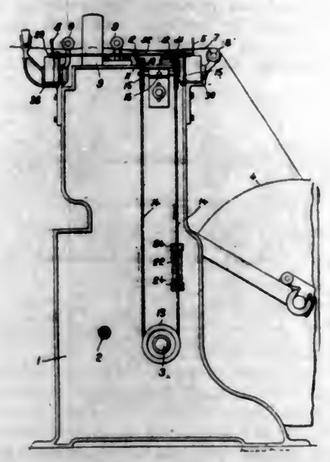
1,026,599. PROCESS OF DESTROYING COTTON-BOLL WEEVILS. WILMON NEWELL, College Station, Tex. Original application filed Nov. 20, 1909, Serial No. 529,131. Divided and this application filed Mar. 4, 1912. Serial No. 681,626. (Cl. 167—6.)

1. The process of treating the cotton plant for destroying the cotton boll weevil which consists in subjecting the buds of said plant to the action of a bud-opening air-blast carrying lead arsenate in the form of a dry practically insoluble impalpable powder which enters between the leaves and by impact adheres thereto.

2. The process of treating the cotton plant for destroying the cotton boll weevil which consists in subjecting the buds of said plant to the action of a bud-opening air-blast carrying lead arsenate in the form of a dry practically insoluble impalpable powder composed of particles not exceeding one one-thousandth of an inch in diameter, which enters between the leaves and by impact adheres thereto.

1,026,600. WARPER. HERBERT W. OWEN and RALPH N. WELCOME, Dover, N. H., assignors to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Feb. 2, 1912. Serial No. 674,990. (Cl. 28—14.)

1. The combination, in a warper having a series of drop-wires provided with eyes through which the warp-threads travel, and a fixed support for the said drop-wires and above which their eyes are held by intact warp-threads, of a flexible, rough-surfaced and rope-like endless clearer band, means to sustain a portion thereof immediately above the support for and adjacent the eyes of the drop-wires but below the sheet of warp-threads, and means to effect a continuous longitudinal movement of said clearer band in one direction whereby that portion thereof moving past the drop-wires and above the support therefor collects and removes lint deposited from the warp-threads.



2. In a warper, two series of drop-wires having eyes through which the warp-threads travel and arranged in parallelism, an endless flexible clearer having a rough surface, means to support two portions of the clearer in parallelism below the warp-threads and adjacent the two series of drop-wires, respectively, and means actuated by a moving part of the warper to effect continuous longitudinal movement of the clearer, whereby movement of the latter past the drop-wires takes up and clears away the lint deposited in the vicinity of the drop-wires.

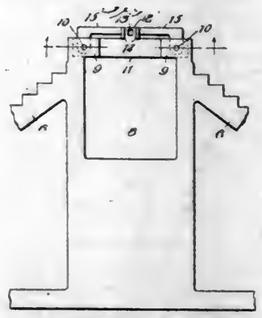
3. In a warper, two series of drop-wires having eyes through which the warp-threads travel and arranged in parallelism, an endless flexible clearer having a rough surface, means to support oppositely moving runs of the clearer adjacent the eyes of the two series of drop-wires and below the warp-threads, means to effect continuous longitudinal movement of the clearer, to take up and carry away from the drop-wires the lint deposited adjacent thereto, and a brush across which the clearer travels, to clean the lint therefrom.

4. In a warper, front and back reeds through which the warp-threads pass, a series of drop-wires between the reed and coöperating with intact warp-threads, an endless, flexible clearer movable for a part of its length in a path below the warp-threads and adjacent the drop-wires, to collect and remove lint deposited adjacent thereto, a rotatable sheave around which the clearer travels, a second, attached sheave, a second endless clearer traveling around it, means to support the said clearer with two portions thereof adjacent the front and back reeds, respectively, to clear the deposited lint therefrom, and means to effect continuous longitudinal movement of the drop-wire clearer, coöperation thereof with the first sheave effecting longitudinal movement of the reed clearer through the second sheave.

5. In a warper, a reed for the warp-threads, a series of drop-wires coöperating with intact threads, a clearer to take up and remove lint deposited adjacent the drop-wires, a second clearer operating in like manner for the reed, means to effect operative movement of one of the clearers, and means to effect operative movement of the other clearer by or through the first-mentioned clearer.

[Claims 6 and 7 not printed in the Gazette.]

1,026,601. TYPE-WRITER CENTERING MECHANISM. MAX PFAU, Woodstock, Ill., assignor to The Emerson Typewriter Co., Woodstock, Ill., a Corporation of Illinois. Filed Apr. 14, 1911. Serial No. 621,106. (Cl. 197—43.)



1. A type centerer for typewriters, comprising a recessed member, and tension mechanism lying across and in alinement with said recess and adapted to be engaged by that portion of the type projected through said recess prior to the engagement of the type with the platen, whereby a rebounding action is imparted to the type to assist in its return to normal position, substantially as described.

2. A type centerer for typewriters, comprising a recessed member, and tension mechanism consisting of overlapping leaf springs having their free ends lying across said recess, said free ends being moved by the type during the centering operation and exerting a rebounding action on the type tending to assist in its return to normal position, substantially as described.

3. In a typewriter, the combination of a type bar supporting frame, a plate secured to said frame carrying a recessed centering member for the type, and tension members secured to said plate, adapted to be engaged by that portion of the type projected through the recess, whereby a rebounding action is imparted to the type to asisst in its return to normal position, substantially as described.

4. In a typewriter, the combination of a type bar supporting frame, a recessed plate secured to said frame acting as a centering member for the type, and tension members in the form of overlapping leaf springs secured to said plate and having their free ends lying across said recess, said free ends being sprung away by the engagement of the type therewith during the centering operation, whereby a rebounding action is imparted to the type to assist in its return to normal position, substantially as described.

5. A type centerer for typewriters, comprising a plate-like member having a portion constituting a recessed centering member, and tension members lying across said recess and adapted to be engaged by that portion of the type projected through the recess prior to the contact of the type with the platen, whereby a rebounding action is imparted to said type to assist in restoring the same to normal position, substantially as described.

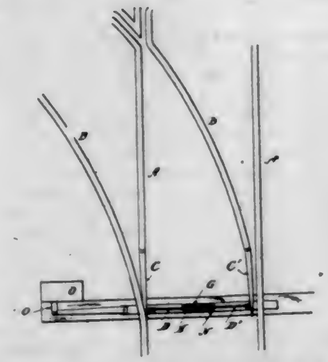
[Claim 6 not printed in the Gazette.]

1,026,602. SWITCH-THROWING DEVICE. ZACHARIAH L. PIERCE and DAVID WARREN, Hanna City, Ill.; said Warren assignor to Samuel A. Stewart, Trivoli, Ill. Filed Feb. 2, 1910. Serial No. 541,646. (Cl. 104—24.)

1. The combination with the switch points of a track, of a separate member adapted to control each of them, one of said members adapted to place pressure upon the other, means interposed between the members and adapted to maintain a yielding pressure on both of them simultaneously in opposite directions, and mechanism to shift said means between the rails.

2. The combination with the switch-points of a track, of separate members connected with each point, said mem-

bers terminating adjacent to one another and adapted to abut at their adjacent ends, a yielding member interposed between said bars and adapted to place pressure upon both of them in opposite directions simultaneously, and means to shift the same.



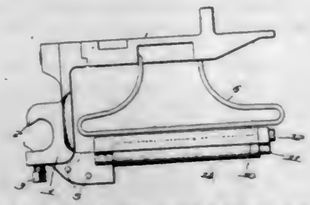
3. The combination with the switch-points of a track, of separate members for each adapted for shifting it, said members adapted to abut, a yielding member interposed between the members and having pressure upon both simultaneously, and a member to move said yielding member relative to both the first said members.

4. The combination with the switch points of a track, of a member in positive control of each said point, a spring interposed between and exerting a constant pressure in opposite directions upon each member simultaneously, means to carry the spring, and a device on each member to engage the said means.

5. The combination with the switch-point of a track, of a member extending transversely of said track apd shiftable relative thereto, a device secured to and movable with said member, an expanding spring carried by said device, a separate rod having connection with each switch-point and extending into the device and controlled by said spring.

[Claims 6 to 11 not printed in the Gazette.]

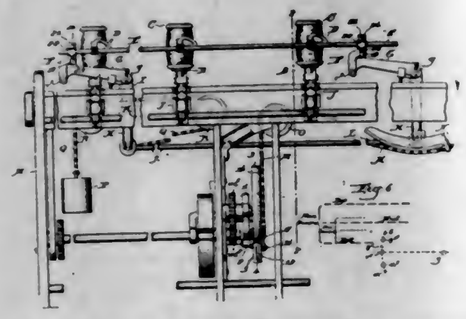
1,026,603. BOBBIN-HOLDER. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed July 12, 1911. Serial No. 638,079. (Cl. 242—132.)



In a bobbin holder, a rest comprising a U-shaped body, a cross bar connecting the ends of the limbs thereof, the throat of the body and the cross bar having alined bearings therein, and a pair of rolls parallel with and between said limbs and projecting above the surface thereof to support the bobbin and rotate therewith, said rolls being journaled at their ends in the bearings and freely rotatable therein.

1,026,604. SPOOLER. ALONZO E. RHOADES, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Dec. 8, 1911. Serial No. 664,606. (Cl. 242—41.)

1. In a spooler, a plurality of thread-guides, an elongated support on which they are mounted, rocker-arms having fixed fulcra transverse to said support, links pivotally connected with the rocker-arms, a vertically adjustable, rigid connection between each link and said support, whereby the position of the latter relative to the fulcra of the rocker-arms can be changed, an oscillating arm having a fixed fulcrum, a traverse-cam coöperating with said arm to oscillate it with a constant stroke, transmitting means between said arm and the rocker-arms, to swing the latter on their fulcra and thereby effect traverse of the thread-guides, an adjustable connection between said means and the arm, to determine the position of the high and low points of the stroke of the rocker-arms, and means to lock said adjustable connection at different points on the oscillating arm, to thereby increase or diminish the length of the stroke of said rocker-arms.



2. In a spooler, a series of rotatable spool-carriers, thread-guides, an elongated support on which they are mounted, adjustable means to reciprocate said support vertically and effect traverse of the thread-guides, conforming to the length of the spools, and quick-adjusting connecting means between said thread-guide support and the means for reciprocating it.

3. In a spooler, a series of rotatable spool-carriers, thread-guides, an elongated support on which they are mounted, means, including vertically reciprocated members, to effect traverse of the thread-guides, links pivotally connected with said members, and a connection between said thread-guide support and each link and vertically adjustable upon the latter.

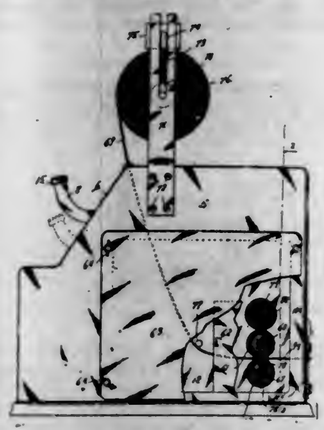
4. In a spooler, a series of rotatable spool-carriers, thread-guides, an elongated support on which they are mounted, means, including vertically reciprocated members, to effect traverse of the thread-guides, upright and longitudinally grooved links pivotally connected with said members, the bottom of each groove having a series of apertures, and a block vertically movable in the groove of each link and having a latch to engage one of the apertures and retain the block in adjusted position, the thread-guide support being fixedly attached to the several blocks, adjustment of the latter on the links varying the height of the thread-guides.

5. In a spooler, a series of rotatable spool-carriers, thread-guides, an elongated support on which they are mounted, means, including vertically reciprocated members, to effect traverse of the thread-guides, links pivotally connected with said members, a block slidably mounted on each link and rigidly attached to the thread-guide support, and manually controlled means to lock each block in adjusted position on its link.

[Claims 6 to 10 not printed in the Gazette.]

1,026,605. AMUSEMENT-TICKET MACHINE. ROY M. RICKERT, Denver, Colo., assignor of one-half to Frank D. Sandy, Denver, Colo. Filed Oct. 31, 1911. Serial No. 657,904. (Cl. 101—187.)

1. In a machine of the class described, the combination of a rotating drum, key levers and coöperating retaining levers, the drum being equipped with cams arranged in the planes of the different retaining levers, the cams being at varying distances from the said levers in the direction of the drum's rotation, and ticket printing mechanism normally out of engagement with the drum, the latter being vertically movable and connected to be depressed into interlocking engagement with the printing mechanism when a key lever is operated, the latter being pivotally mounted, for the purpose set forth.



2. The combination with a suitable frame, of a frame mounted to oscillate in the main frame, a drum journaled on the oscillatory frame and equipped with cams arranged at varying distances from an initial point in the direction of the drum's rotation, key levers pivotally mounted, retaining levers arranged to interlock with the key levers when the latter are pressed, the key levers being connected in operative relation with the oscillatory frame, whereby the latter, together with the drum, is moved downwardly by the operation of a key lever, the key levers and retaining levers being arranged to interlock upon the downward movement of a key lever, drum-operating mechanism, and ticket printing mechanism located to engage the drum upon the downward movement of the latter, whereby the drum is operated and in turn operates the ticket printing mechanism, substantially as described.

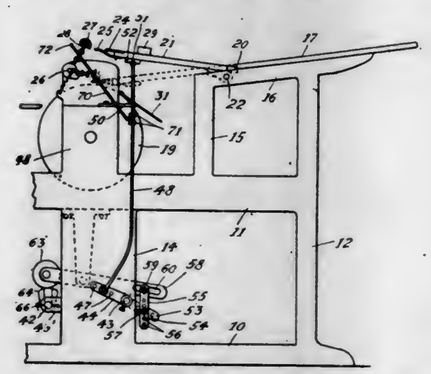
3. The combination with a suitable frame, of a vertically movable frame mounted therein and normally spring-retained at its upward limit of movement, the said drum being equipped with cams arranged in different planes and at varying distances from an initial point in the direction of the drum's rotation, key levers pivotally mounted and arranged to move the drum downwardly when any lever is operated, retaining levers adapted to interlock with key levers when the latter are operated whereby the drum is held at its downward limit of movement for a predetermined period, the retaining levers being arranged in planes corresponding with the arrangement of the cams on the said drum, drum operating mechanism and ticket printing mechanism located to be connected in operative relation with the drum when the latter is depressed, substantially as described.

4. The combination with a suitable frame, of spring-held key levers, pivotally mounted thereon, spring-actuated retaining levers arranged to interlock with the respective key levers when the latter are pressed, a drum rotatably mounted in the frame and vertically movable, the drum being normally spring-supported at its upward limit of movement and equipped with cams arranged in planes corresponding with the position of the retaining levers, the drum being also normally spring-retained in an initial position with reference to its rotary travel, drum-operating mechanism, ticket printing mechanism, both of which are arranged to be brought into operative relation with the drum when the latter is depressed, the drum being arranged to be moved downwardly by the operation of any key lever, the drum being held at its downward limit of movement as long as the key lever and retaining lever are in interlocked relation, the cams on the drum being arranged to act upon their respective retaining levers whereby any interlocked retaining lever is actuated to release its coöperating key lever as soon as the proper cam of the drum reaches the interlocked retaining lever, substantially as described.

5. The combination with a suitable frame, of a drum vertically movable therein and spring-supported at its upward limit of movement, ticket printing and operating mechanism arranged to be connected in operative relation with the drum when the latter is at its downward limit of movement, means for depressing the drum into operative relation with the operating and printing mechanism, and means for maintaining the drum in such operative relation at varying intervals, the said means being automatically unlocked by the movement of the drum, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,026,606. ATTACHMENT FOR PRINTING-PRESSES. EDWIN G. ROBB, Minneapolis, Minn. Filed Sept 23, 1911. Serial No. 650,966. (Cl. 101—36.)



1. In combination with the feeding cylinder of a printing press having means for gripping and holding the edge of a card, a superposed feed table having the face thereof in a plane normally tangent to the periphery of said cylinder, means for continuously rotating the cylinder in one direction to carry the cards from said table a complete revolution and beneath said table to discharging position, and means for periodically lifting said table to permit the printed card to pass therebeneath without contacting.

2. In combination with the feeding cylinder of a printing press having means for gripping and holding the edge of a card, a pivoted feed table the free end of which extends into close proximity to the periphery of said cylinder, means for continuously rotating the cylinder in one direction to carry the cards from said table a complete revolution and beneath said table to discharging position, a series of fingers extending from said edge above the cylinder, a series of pivotally mounted guide heads normally resting upon said fingers, and means periodically oscillating said feed table and said guide fingers simultaneously to provide clearance for the printed card.

3. In combination with the feeding cylinder of a printing press having means for gripping and holding the edge of a card, a pivoted feed table extending into close proximity to the periphery of the cylinder, means for continuously rotating the cylinder in one direction to carry the cards from said table a complete revolution and beneath said table to discharging position, and means including sliding rods for periodically oscillating said table to provide clearance for the printed card.

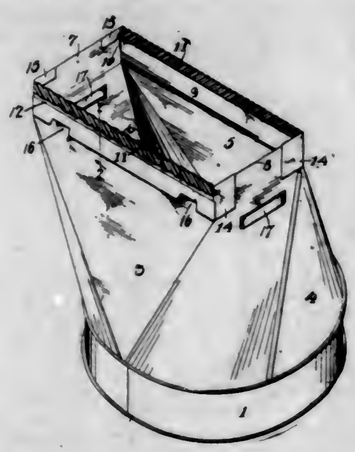
4. In combination with the feeding cylinder of a printing press having means for gripping and holding the edge of a card, a pivoted feed table extending into close proximity to the periphery of the cylinder, sliding rods, bearing blocks freely movable on the ends of said

rods and engaging the underside of said feed table, and means for operating said rods to cause the same periodically to lift said table to provide clearance for the printed card.

5. In combination with the feeding cylinder of a printing press having means for gripping and holding the edge of a card, a pivoted feed table extending into close proximity to the periphery of the cylinder, means engaging the underside of the feed table and adapted to lift the same, and means operative once for each two revolutions of the cylinder for actuating said lifting means to lift the table and provide clearance for the printed card.

[Claims 6 to 10 not printed in the Gazette.]

1,026,607. CONNECTION FOR SECTIONS OF HOT-AIR PIPE. ALBERT G. SCHERER, Chicago, Ill. Filed July 21, 1911. Serial No. 639,758. (Cl. 237—1.)



1. An adjustable connection for rectangular stack comprising a piece of pipe the corners thereof adjacent the end being split and cut away, two opposite sides being provided with pockets for the reception of the end of an adjoining section, and the metal forming said pockets being bent around the corner and folded over the adjacent sides so as to close said split corners.

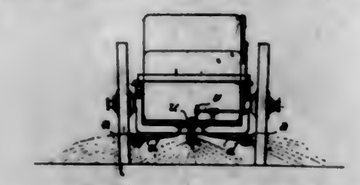
2. An adjustable connection for hot air stack comprising a pipe of rectangular cross section, the corners adjacent the end being split and cut away, pieces of metal folded over and secured to two opposite sides, said pieces being folded backwardly upon themselves to form pockets and the ends thereof being bent around the corners of the pipe and folded over the adjacent sides so as to close said split corners.

3. An adjustable connection for hot air stack comprising a pipe of rectangular cross section, the corners adjacent the end being split and cut away, pieces of metal folded over and secured to two opposite sides by diagonal crimping of the metal and the side over which it is folded, said pieces being folded backwardly upon themselves to form pockets and the ends thereof being bent around the corners of the pipe and folded over the adjacent sides so as to close said split corners.

4. An adjustable connection for hot air stack comprising a pipe of rectangular cross section, the corners adjacent the ends being cut away, pieces of metal folded over and secured to two opposite sides by diagonal crimping of the metal and the side over which it is folded, said pieces being folded backwardly upon themselves to form pockets, said pockets having notches in the bottom thereof and the ends of said pieces being bent around the corners of the pipe and folded over the adjacent sides so as to close said split corners.

5. A connection for hot air stack comprising a pipe having an area at one end of rectangular cross section, the corners adjacent the ends being split and cut away, pieces of metal folded over and secured to the ends of said pipe upon two opposite sides by crimping the fold and the end included therein diagonally, said pieces of metal being extended on the outside of said pipe beyond said crimped portion, said extended portion being folded back upon itself to form pockets having notches in the bottom thereof adapted to expose to view from the outside of the pipe a portion of the adjoining section when in position within said pockets.

1,026,608. CONTROLLING-VALVE FOR WATER-CARTS. WILHELM SCHORN, Neuss-on-the-Rhine, Germany. Filed Aug. 14, 1911. Serial No. 643,957. (Cl. 137—63.)



1. In combination with a watering cart, central and lateral sprayers therefor, and a single valve having ports of different sizes arranged to gradually restrict the flow to said lateral sprayers while maintaining a full flow to the central sprayer, or, cut out either side sprayer and cut in full or restrict the flow to the central sprayer, substantially as described.

2. In combination with a watering cart, central and lateral sprayers therefor, and a single rotary controlling valve having ports of different sizes arranged to gradually restrict the flow to said lateral sprayers while maintaining a full flow to the central sprayer, or, cut out either side sprayer and cut in full or restrict the flow to the central sprayer, substantially as described.

3. In combination with a watering cart, central and lateral sprayers therefor, and a single rotary valve having ports of different sizes all disposed laterally of the axis of rotation of said valve and arranged to gradually restrict the flow to said lateral sprayers while maintaining open a full flow to the central sprayer, or, cut out either side sprayer and cut in full or restrict the flow to the central sprayer, substantially as described.

1,026,609. AUTOMATIC FIREARM WITH FIXED BARREL AND LOCKED BREECH. ANDREAS WILHELM SCHWARZLOSE, Charlottenburg, Germany. Filed Jan. 3, 1912. Serial No. 669,231. (Cl. 42—3.)



1. In an automatic fire arm of the character described, the combination of a breech bolt rotatably movable to unlocked position, a momentum block, and a force accumulating spring in the form of a crank lever operable by the momentum block to turn the breech bolt in a direction to unlock it.

2. In an automatic fire arm of the character described, the combination of a breech bolt rotatably movable to unlocked position, a momentum block, and a force accumulating spring in the form of a flat cranked lever embodying arms one of which is designed to engage the breech bolt to turn it toward unlocking position and the other of which is arranged for engagement by the momentum block as specified.

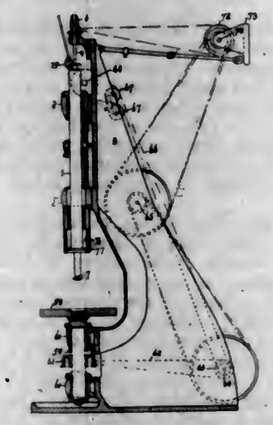
3. In an automatic fire arm of the character described, the combination of a breech bolt, a barrel extension with which the bolt is designed to detachably lock, a momentum block, and a force accumulating spring in the form of a cranked lever mounted along one side of the breech bolt and arranged to be tensioned by the momentum block and to automatically engage the breech bolt to unlock the same from the barrel extension.

4. In an automatic fire arm of the character described, the combination of a breech bolt rotatably movable to unlocking position, a momentum block, a force accumulating spring embodying overlying arms one of which is designed to engage the breech bolt to turn the same and the other of which is designed for engagement by the momentum block, the two arms being arranged for a detachable engagement with each other and the momentum block in the act of firing being arranged to disengage the said arms whereby to permit the first said arm to act and axially move said breech bolt to unlocked position.

5. In an automatic fire arm of the character described, the combination of a breech bolt rotatably movable to unlocked position, a barrel extension with which the breech bolt is designed to co-act, a momentum block movable on the barrel extension and formed with a shoulder, and a force accumulating spring in the form of a crank lever embodying normally overlapping arms detachably connected together and one of which is arranged for engagement with the breech bolt to turn the latter, the forward movement of the momentum block causing the shoulder thereof to engage the other arm of said spring so as to disengage the detachable connection between the arms.

[Claims 6 and 7 not printed in the Gazette.]

1,026,610. GRINDING AND LIKE MACHINE. ALFRED ANGAS SCOTT, Bradford, England. Filed Dec. 18, 1911. Serial No. 666,380. (Cl. 51—4.)



1. In a machine of the character described, the combination of a rigid quill or tube, bearing for said tube, a tool spindle mounted eccentrically in said tube, means for driving said tool spindle, means for adjusting said tube angularly about its own axis; and means for imparting a reciprocating motion to said tube.

2. In a machine of the character described, the combination of a rigid tube or quill, bearings for said tube or quill, a tool spindle eccentrically mounted in said tube at one end thereof, a driving spindle mounted concentrically in the other end of said tube, operative connections between said driving spindle and said tool spindle and means for adjusting the tube angularly about its own axis and for reciprocating the same substantially as described.

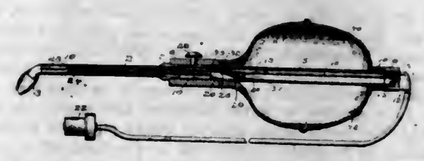
3. In a machine of the character described, the combination of a tube or quill, bearings for said tube or quill, a tool spindle mounted eccentrically in one end of the said tube, a driving spindle mounted concentrically in the other end of said tube, a connecting shaft between said driving spindle and said tool spindle, universal joints connecting said connecting shaft to said driving spindle and said tool spindle, means for adjusting said tube angularly about its own axis, and means for reciprocating said tube in the direction of its length.

4. In a machine of the character described, the combination of a rigid tube or quill, bearings for said tube, a tool spindle mounted eccentrically in one end of said tube formed of two parts, a flexible coupling between the two parts of said tool spindle, a driving spindle mounted concentrically in the other end of said tube, operative connections between said driving spindle and said tool spindle, means for adjusting said tube angularly, and means for reciprocating said tube in the direction of its length.

5. In a machine of the character described, the combination of a quill or rigid tube, bearings for said tube, a tool spindle mounted eccentrically in said tube, a collar held against longitudinal movement on said tube, a swinging half nut mounted on said collar, a lead screw, bearings for said lead screw, means for rotating said lead screw, means for reversing the direction of rotation of said lead screw at predetermined times, and means for adjusting said tube or quill angularly about its axis.

[Claims 6 to 14 not printed in the Gazette.]

1,026,611. ELECTRICALLY-HEATED SYRINGE. MILTON H. SHOENBERG, San Francisco, Cal., assignor to The Presto Electrical Manufacturing Company, San Francisco, Cal., a Corporation of California. Filed Mar. 6, 1912. Serial No. 682,008. (Cl. 219—39.)



1. An electrically heated syringe, comprising a nozzle tube, an elastic bulb connected therewith, and an electric heating element in said tube comprising a spiral resistance wire doubled upon itself and an insulating septum interposed between the portions of said spiral wire and separating the heater from the opposite walls of the tube.

2. An electrically heated syringe, comprising a nozzle tube, a hollow stem, an insulating bushing intermediate said tube and stem, an elastic bulb surrounding said stem, a bushing threaded to the other end of said stem and provided with electrical contacts, an electric heating coil in said tube, and conductors connecting said coil and said contacts.

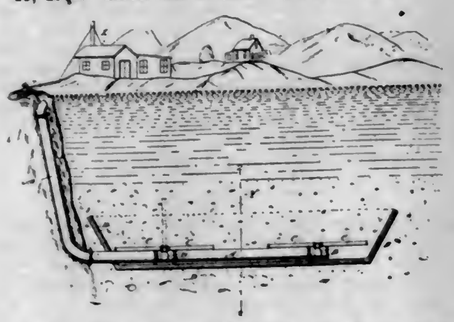
3. An electrically heated syringe, comprising a nozzle tube, a hollow stem, an insulating bushing intermediate said tube and stem, an elastic bulb surrounding said stem, a bushing threaded to the other end of said stem and provided with electrical contacts, an electric heating coil in said tube, conductors connecting said coil and said contacts, and a switch member within said stem having a push-button projecting through an aperture in said intermediate bushing, said switch member being arranged to interrupt the flow of current from said conductors to said heating coil.

4. An electrically heated syringe, comprising a nozzle tube, a hollow metal stem provided with a lateral aperture, an insulating bushing connecting said tube and said stem, an elastic bulb surrounding said stem, a bushing threaded to the outer end of said stem, an electric heating coil in said tube, conductors passing through said end bushing, means connecting one of said conductors to said stem, a wire connecting the other conductor with one terminal of said coil, and a wire connecting the other end of said coil with said stem.

5. An electrically heated syringe, comprising a nozzle tube, a hollow metal stem provided with a lateral aperture, an insulating bushing connecting said tube and said stem, an elastic bulb surrounding said stem, a bushing threaded to the outer end of said stem, an electric heating coil in said tube, conductors passing through said end bushing, means connecting one of said conductors to said stem, a

wire connecting the other conductor with one terminal of said coil, a wire connecting the other end of said coil with said stem, and a spring-pressed switch member within said stem having a push-button projecting through an aperture in said intermediate bushing, said switch member being arranged to normally interrupt the flow of current from said conductors to said heating coil.

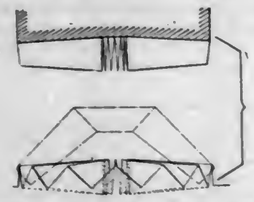
1,026,612. WATER FILTRATION AND SUPPLY SYSTEM. LLOYD E. SMITH, Charleston, W. Va. Filed Jan. 15, 1912. Serial No. 671,177. (Cl. 210—17.)



1. In a system of water filtration and supply as described, the combination with an intake pipe, of a shield arranged horizontally beneath the same, the two being connected and adapted to be buried in a sand-bed in a body of water constituting a source of supply, as described.

2. In a system of water filtration and supply as described, the combination with an intake pipe and its connections, of a shield constructed in the form of a tray having a closed bottom and sides and open top, and arranged horizontally and buried in a sand-bed, the pipes being arranged directly over the shield, as described.

1,026,613. MANUFACTURE OF WHEELS. ROBERT THOMAS SMITH, Jr., Warrington, England. Filed Nov. 12, 1910. Serial No. 591,990. (Cl. 113—116.)

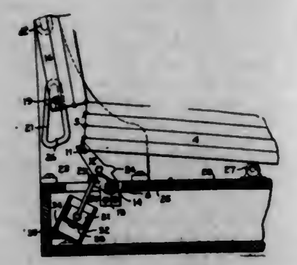


1. An improved method of forming radially corrugated wheel webs which consists in constricting the hub end of a longitudinally corrugated blank and pressing the resulting frusto-cone into disk form whereby the sides of the corrugations at the hub end of the blank are brought into proximity and the blank as a whole transformed into a radially corrugated disk.

2. An improved method of forming radially corrugated wheel webs which consists in bending a sheet of metal into a longitudinally corrugated annulus of cylindrical or conical form, constricting the hub end of said corrugated annulus and pressing the resulting frusto-cone into disk form, whereby the sides of said corrugations at the hub end of the blank are brought into proximity and the blank as a whole transformed into a radially corrugated disk.

3. An improved method of forming radially corrugated wheel webs which comprises the step of pressing a longitudinally corrugated frusto-conical blank into disk form whereby the sides of the corrugations at the hub end of the blank are brought into proximity and the blank as a whole transformed into a radially corrugated disk, substantially as described.

1,026,614. ACCOUNT-REGISTER. ALBERT F. STAPLES, Canisteo, N. Y., assignor to Superior Register Company, Canisteo, N. Y., a Corporation of New York. Filed Apr. 28, 1911. Serial No. 623,989. (Cl. 45—2.)



1. An account-register having, in combination, a series of bill-holder frames pivotally connected at the bottom, the foremost frames being rearwardly movable at the bottom, and means connected with the bottom of the foremost frame and tending to hold said frame yieldingly in its forward position until a plurality of frames have been swung forwardly and downwardly.

2. An account-register having, in combination, a series of bill-holder frames pivotally connected at the bottom, means for guiding the rearmost frame adapted to restrain the latter, at its bottom, first to a forward movement and then to an upward movement, and means for supporting the bottom of the foremost frame adapted to permit rearward movement thereof but to resist such movement until the rearmost frame has made the forward movement aforesaid.

3. An account-register having, in combination, a series of bill-holder frames pivotally connected at the bottom, a guide for the rearmost frame adapted to permit upward and downward movement thereof, and a support for the foremost frame, said support being pivotally connected with the bottom of said frame and being also pivotally mounted at a point below and behind the normal position of the bottom of the frame, so that as the support swings rearwardly the bottom of said frame is first raised and then lowered.

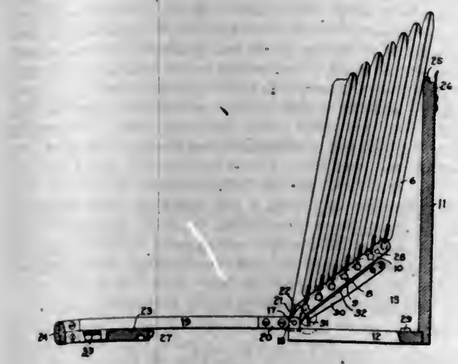
4. An account-register having, in combination, a series of bill-holder frames pivotally connected at the bottom, a guide for the rearmost frame adapted to permit free upward and downward movement and limited angular movement thereof, a support for the foremost frame, said support being pivotally connected with the bottom of said frame and being also pivotally mounted at a point below and behind the normal position of the bottom of the frame, so that as the support swings rearwardly the bottom of said frame is first raised and then lowered, and means for yieldingly resisting rearward movement of the support.

5. An account register having, in combination, a series of bill-holder frames hinged directly together at the bottom, a rock-shaft journaled below the frames, arms extending upwardly from the rock-shaft and pivoted to the bottom of the foremost frame so as to support the frames while permitting forward and rearward movement of the foremost frame, and means for guiding the rearmost frame in substantially vertical movements.

[Claim 6 not printed in the Gazette.]

1,026,615. ACCOUNT-REGISTER. ALBERT F. STAPLES, Canisteo, N. Y., assignor to Superior Register Company, Canisteo, N. Y., a Corporation of New York. Filed May 1, 1911. Serial No. 624,408. (Cl. 45—2.)

1. An account-register having, in combination, a plurality of bill-holder frames pivotally mounted at the bottom, a cabinet, in which the frames may stand in upright position, provided at the front with a door pivoted at the bottom, a support for the bottoms of the frames pivoted at its forward end, the support lying in substantially horizontal position within the cabinet when the account-register is not in use, and coöperating abutments on the door and the support whereby the support is swung upwardly when the door is swung downwardly to open position, so as to raise the bottoms of the frames into an inclined plane and permit the frames to be swung forwardly and downwardly into substantially horizontal position upon the door.



2. An account-register having, in combination, a plurality of bill-holder frames pivotally mounted at the bottom, a cabinet in which the frames may stand in upright position, a support for the bottoms of the frames which lies in substantially horizontal position when the account-register is not in use, so as to support the frames with their edges substantially in horizontal alinement, and springs connected with the support and tending to raise it into inclined position so as to support the bottoms of the frames in an inclined plane.

3. An account-register having, in combination, a plurality of bill-holder frames pivotally mounted at the bottom, means for sustaining the frames normally in upright position, a support for the bottoms of the frames, said support being normally in horizontal position when the account-register is not in use but being movable into inclined position, a catch for retaining the support in one of said positions, and a single means for moving the support to said position and for operating the catch to release the support and permit it to move to the other of said positions.

4. An account-register having, in combination, a cabinet provided with a front door pivoted at the bottom, a frame-support pivoted, at its forward extremity, coaxially with the door, a plurality of bill-holder frames pivoted, at the bottom, on the frame-support and standing normally upright in the cabinet, and a catch mounted in the cabinet and adapted to retain the frame-support in raised, inclined position, the door being provided, adjacent its pivotal axis, with a lug adapted to engage and raise the frame-support when the door is moved to open position, and to engage the catch and disengage it from the frame-support when the door is moved to closed position.

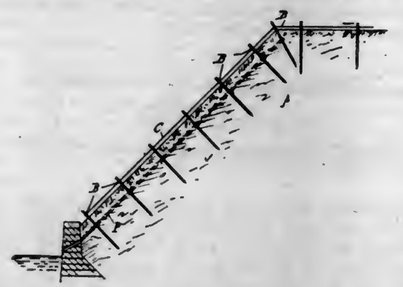
1,026,616. EMBANKMENT. ELIPHALET PLATT STRATTON, College Point, N. Y. Filed Jan. 18, 1912. Serial No. 671,832. (Cl. 61—30.)

1. A soil embankment protection, comprising a series of spiles driven into the face of the embankment and united into a network by connecting wires above the surface.

2. A soil embankment protection, comprising a series of spiles driven into the face of the embankment and connected together, in combination with oblique drainage conduits.

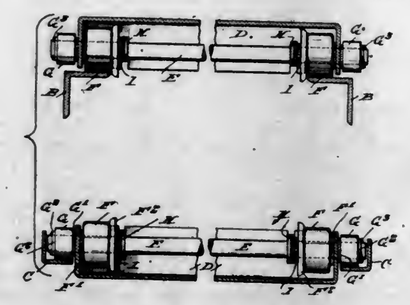
3. A soil embankment protection, comprising a series of spiles driven into the face of the embankment and connected together, in combination with drainage conduits supported by the spiles.

4. A soil embankment protection, comprising a series of spiles driven into the face of the embankment and con-



nected to each other, in combination with oblique drainage conduits supported by the spiles.

1,026,617. CONVEYER. WALTER J. TURNBULL, New Orleans, La. Filed Sept. 22, 1911. Serial No. 650,717. (Cl. 193—2.)



1. A conveyer, substantially as described, comprising a plurality of slats having end plates provided with shaft openings and side plates provided with notches to avoid sprocket wheels and with slots for the passage of connecting links, shafts extended through the openings in the end plates and projecting beyond the ends of the slats, rollers on the shafts outside of the slats, rollers on the shafts within the slats and adjacent to the end plates thereof, links connecting the shafts of the adjacent slats and extending through the slots in the side plates and continuous or free of joints between the shafts they connect and upper and lower tracks for respectively the inner and outer rollers of the slats, all substantially as and for the purposes set forth.

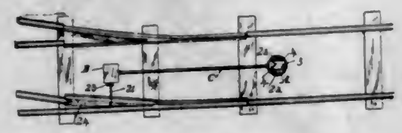
2. A conveyer comprising a slat, a roller within the slat for bearing the load and a roller beyond the slat for supporting the same on the return run of the conveyer.

3. The combination in a conveyer with a sprocket wheel and a conveyer chain rounding the same and having slats provided with end plates having notches for the sprocket wheel and slots for the passage of connecting links and links extending continuously between the shafts of the adjacent slats and through the slots in the side plates of said slats, substantially as set forth.

1,026,618. SWITCH THROWING AND LOCKING MECHANISM. GEORGE F. WEISS, Springfield, Ill. Filed Jan. 27, 1910. Serial No. 540,424. (Cl. 104—24.)

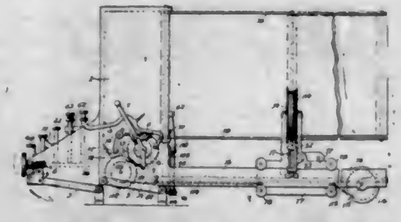
1. Locking mechanism comprising a box, a channeled segmental lever mounted to oscillate in the box, a bell-crank lever mounted to oscillate in the box and equipped

with a wheel adapted to travel in the channel of the segmental lever, an actuating rod connecting with the bell-crank lever, a pivoted switch rail, a second rod connecting said switch-rail with said bell-crank lever, and a spring acting on said segmental lever.



2. The combination of a locker-box, a bell-crank lever mounted to oscillate in the locker-box and having a fork adapted to accommodate a wheel and a rod, also having a fork adapted to accommodate a connecting rod; a segmental lever mounted to oscillate in said box and having a channel accommodating the wheel on said bell-crank lever and also having an upwardly extending lug; and a spring having one end connected with said box, and the other end connected with the lug of said segmental lever.

1,026,619. BOOK TYPE-WRITER. FRANZ WISSNER, Mainz, Germany. Filed Dec. 5, 1910. Serial No. 595,739. (Cl. 197—2.)



1. In a book typewriter, the combination with a movable type carrier of means for holding said carrier suspended at one side of and away from the casing containing the key mechanism, cord connections between the keys of the machine and the type levers for operating the latter, and means for maintaining the tension of the cords during the movements of the type carrier.

2. In a book typewriter, the combination with a movable type carrier and a ribbon mechanism connected thereto, of means for holding said carrier suspended at one side of and away from the casing containing the key mechanism, cord connections between the keys of the machine and the type carrier for operating the types and the ribbon mechanism, sheaves threaded on upright shafts, some being fast and some movable, for guiding the cords, and movable links connecting the shafts to maintain the tension of the cords during the movements of the type carrier.

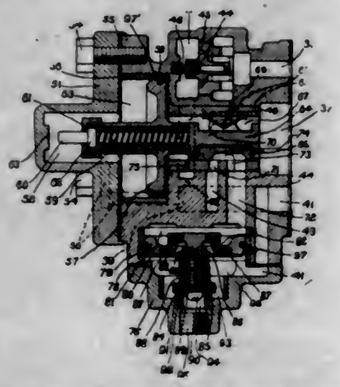
3. In a book typewriter, the combination with a movable type carrier of a rack bar loosely guided in a carriage and holding said type carrier at one end away from said carriage, key operated cords for operating the types, means for feeding the rack bar in the carriage for letter spacing, means for moving the rack bar with the carriage for line spacing, and means for effecting a return of the bar to its initial position by the depression of keys.

4. In a book typewriter, the combination with a movable type carrier of a rack bar loosely fitted in a carriage and holding said type carrier at one end away from said carriage, a spring tensioned spool acting on the rack bar by means of a cord in longitudinal direction and tending to hold it in its starting position, a detent pawl engaging the rack, connections between the keys of the machine and the rack bar for advancing the latter in opposition to the spool after each depression of a key, a key operated lever for releasing the rack bar and allowing it to be returned by the spool to its initial position, means for releasing the rack bar automatically at the end of the lines, and means for moving the rack bar with the carriage from line to line.

5. In a book typewriter, the combination with a key board of a rearwardly extending frame connected thereto, a carriage adapted to travel along said frame, a rack bar mounted in said carriage so as to allow of longitudinal adjustment, a type carrier held by said rack bar at one side of and away from the frame, a spring tensioned spool on the carriage acting on the rack bar by means of a cord and tending to hold it in its initial position, a detent pawl engaging the rack, a bell-crank lever adapted to advance the rack bar by means of a pawl, a strip mounted in the frame so as to be continually in engagement with the bell-crank lever, the strip being rotatable about eccentrically disposed journals, connections between the keys of the machine and the strip for actuating the latter and advancing the rack bar in opposition to the spool after each depression of a key, a key operated lever for releasing the rack bar and allowing it to be returned by the spool to its initial position, means for releasing the rack bar automatically at the end of the lines, and means for moving the rack with the carriage from line to line.

[Claims 6 to 8 not printed in the Gazette.]

1,026,620. AUTOMATIC VALVE. BURTON S. AIKMAN, Chicago, Ill., assignor to National Brake & Electric Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 7, 1910. Serial No. 547,887. (Cl. 188—1.)



1. In a fluid pressure brake system, the combination of a main reservoir, an auxiliary reservoir, a brake cylinder, means for connecting said main reservoir with said brake cylinder, and means for automatically connecting the auxiliary reservoir with the brake cylinder when the flow of fluid to the brake cylinder exceeds a predetermined rate.

2. In a fluid pressure brake system, the combination of a main reservoir, an auxiliary reservoir, a brake cylinder, means for connecting said main reservoir with said brake cylinder, means for restricting the passage of fluid from said main reservoir to said brake cylinder, and means for automatically connecting the auxiliary reservoir with the brake cylinder when the flow of fluid to the brake cylinder exceeds a predetermined rate.

3. In a fluid pressure brake system, the combination of a main reservoir, an auxiliary reservoir, a brake cylinder, a brake pipe, means connecting said main reservoir with said brake pipe, means connecting said brake pipe with said brake cylinder, means for restricting the passage of fluid from the brake pipe to the brake cylinder, and means for automatically connecting the auxiliary reservoir with the brake cylinder when the passage of fluid from the brake pipe to the brake cylinder exceeds a predetermined rate.

4. In a fluid pressure brake system, the combination of a main reservoir, a brake cylinder, an auxiliary reservoir, and an automatic valve connected with the main reservoir, brake cylinder and auxiliary reservoir, said valve adapted to normally connect the main reservoir with the brake cylinder, and to connect the auxiliary reservoir with the brake cylinder when the flow of fluid from the main reservoir to the brake cylinder exceeds a predetermined rate.

5. In a fluid pressure brake system, the combination of a main reservoir, a brake cylinder, a brake pipe, an auxiliary reservoir, and an automatic valve connected directly and independently with the main reservoir, brake cylinder, brake pipe and auxiliary reservoir, adapted to automatically establish connection between the auxiliary reservoir and the brake cylinder when the pressure in the brake pipe becomes lower than the pressure in the auxiliary reservoir.

[Claims 6 to 12 not printed in the Gazette.]

1,026,621. HALOGENATED VAT DYES AND PROCESS OF MAKING SAME. OSCAR BALLY, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Jan. 20, 1911. Serial No. 603,736. (Cl. 8—1.)

1. The process of producing halogenated coloring matter of the anthracene series by treating an anthraquinone thioxanthone with a halogenating agent.

2. The process of producing halogenated coloring matter of the anthracene series by reacting with bromin on anthraquinone-1.5-di-thioxanthone.

3. As new articles of manufacture coloring matters being halogenated anthraquinone-thioxanthones which can be obtained by treating an anthraquinone thioxanthone with a halogenating agent, which new coloring matters contain at least one halogen atom in a benzene ring which is attached to the anthraquinone residue, are insoluble in dilute acids and alkalis, soluble in concentrated sulfuric acid with a yellow to red color, and dye cotton from a vat yellow-red shades, and in the sulfonated form dye wool from yellow to red shades.

4. As a new article of manufacture the halogenated coloring matter of the anthracene series which can be obtained by reacting with bromin on anthraquinone-1.5-dithioxanthone, which new coloring matter contains bromin in at least one benzene residue and consists when dry of a red powder which is insoluble in dilute acids and alkalis, but is soluble in concentrated sulfuric acid with an orange-red color, and which dyes cotton from the vat yellow-red shades which are yellower than those obtained from the non-brominated product.

1,026,622. MINER'S LAMP. NELSON BLOUNT, New York, N. Y. Filed Aug. 26, 1911. Serial No. 646,268. (Cl. 240—33.)



1. The combination of a lamp, a hook handle therefor provided with a sharpened prong in fixed relation thereto, and a connecting means between said lamp and hook handle which permits a plurality of different adjustments of the one relatively to the other.

2. The combination of a lamp, a hook handle therefor provided with a sharpened prong in fixed relation thereto, and connecting means which permits longitudinal, rotary and inclined adjustments of said hook handle with relation to said lamp.

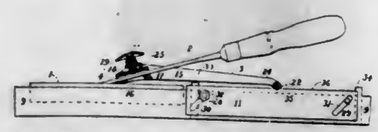
3. The combination of a lamp, a hook handle therefor provided with a sharpened fixed prong, and a clamp engaging said hook handle and having a swiveling adjustment in connection with said lamp.

4. The combination of a lamp, a hook handle therefor comprising a shank provided at one end with a sharpened prong and at the other end with a hook, both in fixed relation to said shank, and a connecting means which permits the adjustment of said hook handle relatively to said lamp.

5. The combination of a lamp, a hook handle therefor comprising a shank provided at one end with a sharpened prong and at the other end with a hook, both in fixed relation to said shank, and a connecting means which permits the axial adjustment bodily of said hook handle relatively to said lamp.

[Claims 6 to 9 not printed in the Gazette.]

1,026,623. TOOL-SHARPENING MACHINE. HARRY P. CASWELL, Evanston, Ill. Filed Feb. 7, 1908. Serial No. 414,836. (Cl. 51—7.)



1. In a tool sharpening machine, the longitudinally extended frame, provided at its front end with the tool seat and mechanism adapted to hold a tool rigidly on said tool seat, in combination with a lateral frame bearing, extending crosswise of the frame fixed to the rear end of said frame, said frame bearing being adapted to slide on a guiding surface fixed in relation to a whetstone to maintain the lateral and longitudinal angles of the frame, and of a tool held in said frame, to the whetstone, and to allow sliding motions in all directions, of the tool on the whetstone, and resulting varying sliding motions of the said frame bearing on the said guiding surface; substantially as and for the purposes set forth.

2. In a tool sharpening machine, the combination, of a whetstone with a guiding surface; said guiding surface being wider than the whetstone, placed in extension endwise in relation to the abrasive surface of the whetstone and adjustably fixed in relation to the abrasive surface of the whetstone.

3. In a tool sharpening machine, a longitudinally extended frame, provided with mechanism, adapted to hold a tool fast in the front end of the frame, and a lateral frame bearing, extended crosswise of the frame, fixed to the rear end of said frame, in combination, with a whetstone, having an abrasive surface, for sharpening the tool, and fixed, in extension endwise, in relation to said abrasive surface, a guiding surface, wider than the whetstone, on which the frame bearing of the frame, holding the tool, is adapted to travel, and maintain the longitudinal and lateral angles of the frame, and of a tool held in the frame, to the whetstone in all directions, while allowing sliding motions, in all directions, of the tool on the whetstone, and resulting varying motions of the frame bearings on the guiding surface; substantially as and for the purposes herein before set forth.

4. In a tool sharpening machine, a frame having a bearing seat shaped for engagement with one side of the tool rectangular in cross section, a saddle movably mounted on the frame above said seat and having on its underside two oppositely inclined plane surfaces each making an angle of less than 90 degrees with the plane of the aforesaid seat, each of said plane surfaces being adapted to engage with one of the corners of such tool adjacent to the side opposite to that resting on said seat.

5. In a tool sharpening machine, a frame, having a tool opening provided with a flat tool seat, in which a tool to be

sharpened may be inserted, in combination with a saddle adapted to be inserted in said tool opening and to fit between the sides of said tool opening, and mechanism to clamp the said saddle against said tool, said saddle having two inclined plane surfaces, adapted to press against two corners of one surface of the tool, and hold said tool sidewise in said frame, and against the flat tool seat of the frame; substantially as and for the purposes set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,026,624. PAPER DOLL. CAROLYN O. CHESTER, New York, N. Y. Filed Jan. 29, 1912. Serial No. 674,027. (Cl. 46—40.)



1. A sheet-paper doll comprising a bust composed of a front and one or more back portions foldable upon the rear side of the front portion, and a single-piece skirt folding from the front around the waist line and meeting in the back.

2. A paper doll blank including a bust portion comprising a foldable back portion united thereto on a folding line extending obliquely to the axis of the bust, and a single-piece skirt folding around the waist-line from the front to the back of the bust.

3. A paper doll blank including a bust portion having a decorated front and one or more integral back-portions foldable over upon the rear of the front of said bust portion and forming a decorated dorsal region, and a single-piece skirt portion foldable around to form a conical supporting skirt overlapping the aforesaid dorsal region.

4. A paper doll blank comprising a bust portion having a decorated front and two parts foldable over against the back of the front and decorated to resemble a dorsal region, and a single-piece skirt integral with the said bust portion and adapted to be rolled around upon itself and over the lower part of the said dorsal region, and means for connecting the meeting edges of said skirt portion forming an upright seam in the rear of the doll.

5. A paper doll blank comprising a bust with arms, a skirt depending from the bust, and a gown for the doll having a single-piece waist provided with sleeves foldable on the edges of said arms.

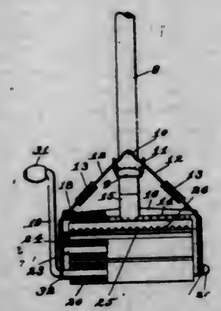
[Claims 6 to 10 not printed in the Gazette.]

1,026,625. COMBINED MOP HOLDER AND WRINGER. WILFRED DUPRÉ, Worcester, Mass. Filed Jan. 11, 1911, Serial No. 601,979. Renewed Feb. 21, 1912. Serial No. 679,189. (Cl. 15—43.)

1. In a mop and wringer, a mop head having bearings thereon, a clamp slidable in the bearings and adapted to coact with the mop head for clamping a mop cloth, wringer rolls journaled in the bearings, and means for exerting a tension on the rolls and clamping member.

2. In a mop and wringer, a mop head having bearings, a clamping member slidable in the bearings and adapted to coact with the mop head for clamping a mop cloth, wringer rolls journaled in the bearings, tension members connected to one of the rolls, and means for adjusting the tension members.

3. In a combined mop and wringer, a mop head having bearings, wringer rolls having shafts journaled in the bearings, a crank handle connected to one of the shafts for turning the same, yielding means for holding the rolls in contact with each other, and means for operating the yielding means to release said rolls from contact with each other, and a clamp made operative by the action of the said last named means.

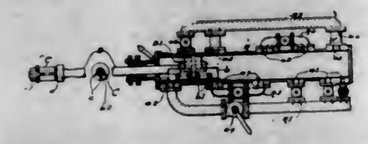


4. In a mop and wringer, a mop head having journal bearings, a clamping member having lugs slidable in the journal bearings and shoulders at the junction of the clamping member and lugs adapted to engage the journal bearings for guiding the said clamping member, teeth on the clamping member adapted to coact with the mop head for holding a mop cloth, and means for yieldingly pressing the clamping member against the cloth.

5. In a combined mop and wringer, a mop head having journal bearings, a clamping bar having lugs slidable in the bearings, teeth on the clamping member for engaging a mop cloth, rolls having shafts journaled in the bearings, one of said shafts projecting beyond the bearings, tension wires connected to the shafts beyond the bearings, and means for regulating the tension of the tension wires.

[Claims 6 to 8 not printed in the Gazette.]

1,026,626. RETARDING DEVICE. OSCAR V. GREENE, Cleveland, Ohio, assignor to Frank C. Greene, Cleveland, Ohio. Filed Apr. 5, 1909. Serial No. 487,861. (Cl. 74—69.)



1. In mechanism of the class described, the combination of a cylinder, a piston in said cylinder, and means operated by said piston adapted to alternately cut off and permit flow from one side to the other of said piston pending movement thereof in said cylinder, said means being adjustable to vary the frequency of such cutting-off operations.

2. In mechanism of the class described, the combination of a cylinder, a piston in said cylinder, and means operated by said piston adapted to alternately cut off and permit flow from one side to the other of said piston pending movement thereof in said cylinder, said means being adjustable to vary the duration of such cutting-off operations.

3. In mechanism of the class described, the combination of a cylinder, a piston in said cylinder, and means operated by said piston adapted to alternately cut off and permit flow from one side to the other of said piston pending movement thereof in said cylinder, said means being adjustable to vary both the frequency and the duration of such cutting-off operations.

4. In mechanism of the class described, the combination of a cylinder provided with a by-pass, a piston in said cylinder, and means operated by said piston adapted to alternately cut off and permit flow through said by-pass, said means being adjustable to vary the frequency of such cutting-off operations.

5. In mechanism of the class described, the combination of a cylinder provided with a by-pass, a piston in said cylinder, and means operated by said piston adapted to alternately cut off and permit flow through said by-pass, said means being adjustable to vary the duration of such cutting-off operations.

[Claims 6 to 18 not printed in the Gazette.]

1,026,627. ELECTRODEPOSITION OF METALS. AUGUST LEUCHTER, New York, N. Y. Filed Feb. 15, 1912. Serial No. 677,863. (Cl. 204—2.)

1. The improvement in the art of simultaneously depositing two metals electrolytically upon a conducting surface both of which metals are capable of being plated, which consists in using the metal of lower resistance in solution in the electrolyte, forming the anode of the metal of higher resistance and reducing by the rheostatic effect of the anode the electromotive force of the current to a value intermediate to the voltages necessary and suitable for the deposition of either metal alone.

2. The improvement in the art of simultaneously depositing nickel and iron electrolytically upon a conducting suface, which consists in using a nickel anode in an electrolyte containing iron in solution, and reducing by the rheostatic effect of the anode the electromotive force of the current to a value intermediate to the voltages necessary and suitable for the deposition of either nickel or iron alone.

3. The improvement in the art of simultaneously depositing two metals electrolytically upon a conducting surface both of which metals are capable of being plated, which consists in using in predominating proportion the metal of lower resistance in solution in the electrolyte, forming the anode of the metal of higher resistance and reducing by the rheostatic effect of the anode, the electromotive force of the current to a value intermediate to the voltages necessary and suitable for the deposition of either metal alone.

4. The improvement in the art of simultaneously depositing nickel and iron electrolytically upon a conducting surface, which consists in using a nickel anode in an electrolyte containing iron and maintaining at all times in the electrolyte a preponderance of the iron.

5. The improvement in the art of simultaneously depositing nickel and iron electrolytically upon a conducting surface, which consists in using a nickel anode in an electrolyte containing iron, maintaining at all times a preponderance of iron in the electrolyte, and effecting the deposition of the metals by a current of a voltage intermediate to that required for the deposit of nickel alone and that suitable for the deposit of iron alone.

1,026,628. ELECTROPLATING. AUGUST LEUCHTER, New York, N. Y. Filed Feb. 15, 1912. Serial No. 677,869. (Cl. 204—2.)

1. An electro-plating bath comprising an anode of nickel and manganese, and an electrolyte containing the salts of nickel and of manganese.

2. An electro-plating bath comprising an anode of nickel and manganese alloy and an electrolyte containing salts of nickel and of manganese.

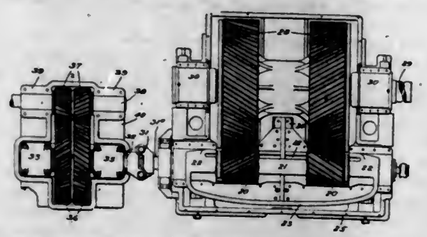
3. An electro-plating bath comprising an anode of nickel and manganese in which the nickel predominates, and an electrolyte containing nickel and manganese, the nickel predominating.

4. An electro-plating bath comprising an anode of nickel alloyed with from two to seven per cent. of manganese, and a bath containing nickel ammonium sulfate and manganese ammonium sulfate the nickel being present in the proportions of from 75 to 85 per cent. to from 25 to 15 per cent. of manganese.

1,026,629. REDUCTION-GEARING. JOHN H. MACALPINE, Pittsburgh, Pa. Filed Sept. 8, 1910. Serial No. 580,975. (Cl. 74—7.)

1. The combination of two gear-carrying shafts, frames supporting said shafts, yielding supports for said frames and a coupling connecting said shafts.

2. The combination of two gear-carrying shafts, frames carrying said shafts, yielding means supporting said frames and a flexible coupling connecting said shafts.



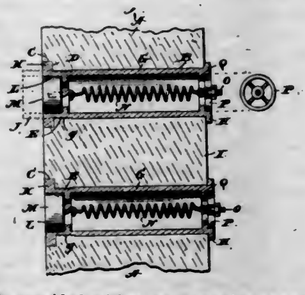
3. The combination of a plurality of change speed units, each unit consisting of two shafts having inter-meshing gears and one shaft of each unit being mounted in bearings capable of permitting the gears on the shaft to have angular movement with respect to the gears with which they mesh, and a coupling for connecting the shafts having such angular movement together.

4. The combination of two change speed units, each of which is provided with gear driving shafts mounted in yielding bearings and means for connecting said shafts together.

5. The combination of two gear carrying shafts mounted in yielding bearings and a coupling connecting said shafts.

[Claims 6 and 7 not printed in the Gazette.]

1,026,630. SAFE. HARRY MINTZ, Passaic, N. J. Filed Jan. 4, 1912. Serial No. 669,484. (Cl. 109—1.)



1. A safe provided with a vent opening, a valve therein, a stop member, and a spring interposed between the stop member and the valve constituting the connection therebetween, said spring being located within the vent opening, substantially as described.

2. A safe provided with a vent opening, a valve therein, a stop member, and a spring in the vent opening connecting the valve and stop member, said stop member comprising a spider or screen permitting free passage of gases etc. to the inner surface of the valve.

3. A safe provided with a vent opening, a tube fixed therein, and a valve fitting said tube adapted to open to afford a passage through said tube, said tube having threaded engagement with the body of the safe.

4. A safe provided with a vent opening, a tube fixed therein, and a valve fitting said tube adapted to open to afford a passage through said tube, said tube having threaded engagement with the body of the safe and having its opposite ends offset to prevent removal of the tube.

5. A safe provided with a vent opening, a tube fixed therein, and a valve fitting said tube adapted to open to afford a passage through said tube, said tube being offset to engage the body of the safe.

[Claims 6 to 8 not printed in the Gazette.]

1,026,631. TWINE-CUTTER. WILLIAM MOORE, Duluth, Minn., assignor of fifty-one one-hundredths to John E. Mattson, Deer Wood, Minn. Filed Oct. 9, 1911. Serial No. 653,552. (Cl. 30—14.)

1. A twine cutter including a pair of plates provided with registering peripheral slots and with perforations, a

sharpened may be inserted, in combination with a saddle adapted to be inserted in said tool opening and to fit between the sides of said tool opening, and mechanism to clamp the said saddle against said tool, said saddle having two inclined plane surfaces, adapted to press against two corners of one surface of the tool, and hold said tool sidewise in said frame, and against the flat tool seat of the frame; substantially as and for the purposes set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,026,624. PAPER DOLL. CAROLYN O. CHESTER, New York, N. Y. Filed Jan. 29, 1912. Serial No. 674,027. (Cl. 46—40.)



1. A sheet-paper doll comprising a bust composed of a front and one or more back portions foldable upon the rear side of the front portion, and a single-piece skirt folding from the front around the waist line and meeting in the back.

2. A paper doll blank including a bust portion comprising a foldable back portion united thereto on a folding line extending obliquely to the axis of the bust, and a single-piece skirt folding around the waist-line from the front to the back of the bust.

3. A paper doll blank including a bust portion having a decorated front and one or more integral back-portions foldable over upon the rear of the front of said bust portion and forming a decorated dorsal region, and a single-piece skirt portion foldable around to form a conical supporting skirt overlapping the aforesaid dorsal region.

4. A paper doll blank comprising a bust portion having a decorated front and two parts foldable over against the back of the front and decorated to resemble a dorsal region, and a single-piece skirt integral with the said bust portion and adapted to be rolled around upon itself and over the lower part of the said dorsal region, and means for connecting the meeting edges of said skirt portion forming an upright seam in the rear of the doll.

5. A paper doll blank comprising a bust with arms, a skirt depending from the bust, and a gown for the doll having a single-piece waist provided with sleeves foldable on the edges of said arms.

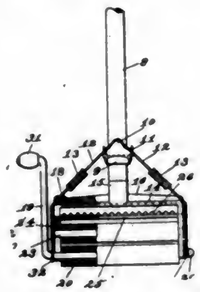
[Claims 6 to 10 not printed in the Gazette.]

1,026,625. COMBINED MOP HOLDER AND WRINGER. WILFRED DUPRÉ, Worcester, Mass. Filed Jan. 11, 1911, Serial No. 601,979. Renewed Feb. 21, 1912. Serial No. 679,189. (Cl. 15—43.)

1. In a mop and wringer, a mop head having bearings thereon, a clamp slidable in the bearings and adapted to coact with the mop head for clamping a mop cloth, wringer rolls journaled in the bearings, and means for exerting a tension on the rolls and clamping member.

2. In a mop and wringer, a mop head having bearings, a clamping member slidable in the bearings and adapted to coact with the mop head for clamping a mop cloth, wringer rolls journaled in the bearings, tension members connected to one of the rolls, and means for adjusting the tension members.

3. In a combined mop and wringer, a mop head having bearings, wringer rolls having shafts journaled in the bearings, a crank handle connected to one of the shafts for turning the same, yielding means for holding the rolls in contact with each other, and means for operating the yielding means to release said rolls from contact with each other, and a clamp made operative by the action of the said last named means.

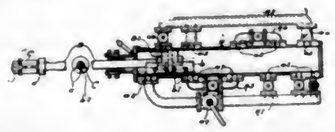


4. In a mop and wringer, a mop head having journal bearings, a clamping member having lugs slidable in the journal bearings and shoulders at the junction of the clamping member and lugs adapted to engage the journal bearings for guiding the said clamping member, teeth on the clamping member adapted to coact with the mop head for holding a mop cloth, and means for yieldingly pressing the clamping member against the cloth.

5. In a combined mop and wringer, a mop head having journal bearings, a clamping bar having lugs slidable in the bearings, teeth on the clamping member for engaging a mop cloth, rolls having shafts journaled in the bearings, one of said shafts projecting beyond the bearings, tension wires connected to the shafts beyond the bearings, and means for regulating the tension of the tension wires.

[Claims 6 to 8 not printed in the Gazette.]

1,026,626. RETARDING DEVICE. OSCAR V. GREENE, Cleveland, Ohio, assignor to Frank C. Greene, Cleveland, Ohio. Filed Apr. 5, 1909. Serial No. 487,861. (Cl. 74—69.)



1. In mechanism of the class described, the combination of a cylinder, a piston in said cylinder, and means operated by said piston adapted to alternately cut off and permit flow from one side to the other of said piston pending movement thereof in said cylinder, said means being adjustable to vary the frequency of such cutting-off operations.

2. In mechanism of the class described, the combination of a cylinder, a piston in said cylinder, and means operated by said piston adapted to alternately cut off and permit flow from one side to the other of said piston pending movement thereof in said cylinder, said means being adjustable to vary the duration of such cutting-off operations.

3. In mechanism of the class described, the combination of a cylinder, a piston in said cylinder, and means operated by said piston adapted to alternately cut off and permit flow from one side to the other of said piston pending movement thereof in said cylinder, said means being adjustable to vary both the frequency and the duration of such cutting-off operations.

4. In mechanism of the class described, the combination of a cylinder provided with a by-pass, a piston in said cylinder, and means operated by said piston adapted to alternately cut off and permit flow through said by-pass, said means being adjustable to vary the frequency of such cutting-off operations.

5. In mechanism of the class described, the combination of a cylinder provided with a by-pass, a piston in said cylinder, and means operated by said piston adapted to alternately cut off and permit flow through said by-pass, said means being adjustable to vary the duration of such cutting-off operations.

[Claims 6 to 18 not printed in the Gazette.]

1,026,627. ELECTRODEPOSITION OF METALS. AUGUST LEUCHTER, New York, N. Y. Filed Feb. 15, 1912. Serial No. 677,863. (Cl. 204—2.)

1. The improvement in the art of simultaneously depositing two metals electrolytically upon a conducting surface both of which metals are capable of being plated, which consists in using the metal of lower resistance in solution in the electrolyte, forming the anode of the metal of higher resistance and reducing by the rheostatic effect of the anode the electromotive force of the current to a value intermediate to the voltages necessary and suitable for the deposition of either metal alone.

2. The improvement in the art of simultaneously depositing nickel and iron electrolytically upon a conducting suface, which consists in using a nickel anode in an electrolyte containing iron in solution, and reducing by the rheostatic effect of the anode the electromotive force of the current to a value intermediate to the voltages necessary and suitable for the deposition of either nickel or iron alone.

3. The improvement in the art of simultaneously depositing two metals electrolytically upon a conducting surface both of which metals are capable of being plated, which consists in using in predominating proportion the metal of lower resistance in solution in the electrolyte, forming the anode of the metal of higher resistance and reducing by the rheostatic effect of the anode, the electromotive force of the current to a value intermediate to the voltages necessary and suitable for the deposition of either metal alone.

4. The improvement in the art of simultaneously depositing nickel and iron electrolytically upon a conducting surface, which consists in using a nickel anode in an electrolyte containing iron and maintaining at all times in the electrolyte a preponderance of the iron.

5. The improvement in the art of simultaneously depositing nickel and iron electrolytically upon a conducting surface, which consists in using a nickel anode in an electrolyte containing iron, maintaining at all times a preponderance of iron in the electrolyte, and effecting the deposition of the metals by a current of a voltage intermediate to that required for the deposit of nickel alone and that suitable for the deposit of iron alone.

1,026,628. ELECTROPLATING. AUGUST LEUCHTER, New York, N. Y. Filed Feb. 15, 1912. Serial No. 677,869. (Cl. 204—2.)

1. An electro-plating bath comprising an anode of nickel and manganese, and an electrolyte containing the salts of nickel and of manganese.

2. An electro-plating bath comprising an anode of nickel and manganese alloy and an electrolyte containing salts of nickel and of manganese.

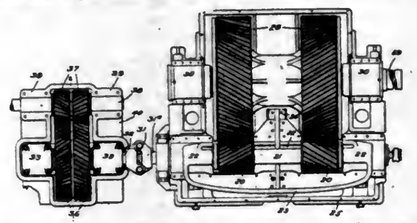
3. An electro-plating bath comprising an anode of nickel and manganese in which the nickel predominates, and an electrolyte containing nickel and manganese, the nickel predominating.

4. An electro-plating bath comprising an anode of nickel alloyed with from two to seven per cent. of manganese, and a bath containing nickel ammonium sulfate and manganese ammonium sulfate the nickel being present in the proportions of from 75 to 85 per cent. to from 25 to 15 per cent. of manganese.

1,026,629. REDUCTION-GEARING. JOHN H. MACFARLANE, Pittsburgh, Pa. Filed Sept. 8, 1910. Serial No. 580,975. (Cl. 74—7.)

1. The combination of two gear-carrying shafts, frames supporting said shafts, yielding supports for said frames and a coupling connecting said shafts.

2. The combination of two gear-carrying shafts, frames carrying said shafts, yielding means supporting said frames and a flexible coupling connecting said shafts.



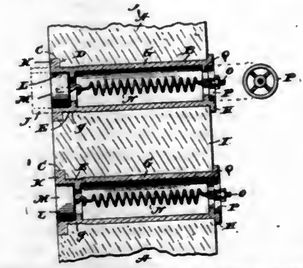
3. The combination of a plurality of change speed units, each unit consisting of two shafts having inter-meshing gears and one shaft of each unit being mounted in bearings capable of permitting the gears on the shaft to have angular movement with respect to the gears with which they mesh, and a coupling for connecting the shafts having such angular movement together.

4. The combination of two change speed units, each of which is provided with gear driving shafts mounted in yielding bearings and means for connecting said shafts together.

5. The combination of two gear carrying shafts mounted in yielding bearings and a coupling connecting said shafts.

[Claims 6 and 7 not printed in the Gazette.]

1,026,630. SAFE. HARRY MINTZ, Passaic, N. J. Filed Jan. 4, 1912. Serial No. 669,484. (Cl. 109—1.)



1. A safe provided with a vent opening, a valve therein, a stop member, and a spring interposed between the stop member and the valve constituting the connection therebetween, said spring being located within the vent opening, substantially as described.

2. A safe provided with a vent opening, a valve therein, a stop member, and a spring in the vent opening connecting the valve and stop member, said stop member comprising a spider or screen permitting free passage of gases etc. to the inner surface of the valve.

3. A safe provided with a vent opening, a tube fixed therein, and a valve fitting said tube adapted to open to afford a passage through said tube, said tube having threaded engagement with the body of the safe.

4. A safe provided with a vent opening, a tube fixed therein, and a valve fitting said tube adapted to open to afford a passage through said tube, said tube having threaded engagement with the body of the safe and having its opposite ends offset to prevent removal of the tube.

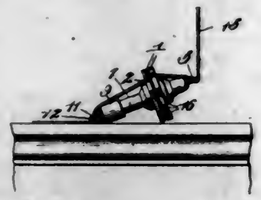
5. A safe provided with a vent opening, a tube fixed therein, and a valve fitting said tube adapted to open to afford a passage through said tube, said tube being offset to engage the body of the safe.

[Claims 6 to 8 not printed in the Gazette.]

1,026,631. TWINE-CUTTER. WILLIAM MOORE, Duluth, Minn., assignor of fifty-one one-hundredths to John E. Mattson, Deer Wood, Minn. Filed Oct. 9, 1911. Serial No. 653,552. (Cl. 30—14.)

1. A twine cutter including a pair of plates provided with registering peripheral slots and with perforations, a

cutting blade having openings registering with said perforations, fastening devices passing through said perforations and openings to clamp the said blade between said plates, one of said plates having an extension, an eye bolt swivelly connected to the outer end of said extension, the other plate having formed on its outer face a projection provided with a longitudinal bore, the inner end of which is enlarged to form a recess in the inner face of said plate, a nut mounted in said recess, a cap telescopically mounted on said projection, an eye bolt extending through said bore into said recess and engaging said nut, a grooved bar formed integral with the outer end of the cap and adapted for sliding engagement in the eye of the last named eye bolt, and a coil spring surrounding said bolt for holding the grooved bar in yielding engagement with the free end of the twine when passed through the eyes of said bolts.



2. A twine cutter including a pair of plates, a blade clamped between said plates, an eye bolt carried by one of said plates, the other plate being provided with a projection formed with a longitudinal bore, a cap slidingly mounted on said projection, a spring mounted in said cap and tending to move outwardly on the projection, the cap being formed with a grooved bar, and an eye bolt mounted in the bore of said projection, the eye of said bolt receiving said grooved bar, whereby twine passed through the eye of said last named eye bolt will be yieldingly held therein by engagement with said bar.

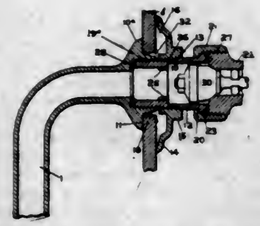
3. A twine cutter, including plates, a cutter held between said plates, an eye bolt carried by one of the plates, the other plate being formed with a projection having a longitudinal bore, a cap slidingly mounted on the outer end of said projection, an eye bolt mounted in said bore, the cap being formed with a grooved bar extending through the eye of said last named bolt, and means tending to move the cap outwardly on the projection.

4. A twine cutter, including a body portion, a cutting element carried thereby, an eye at one end of the body portion, an eye at the other end of the body portion, a cap mounted on the last named end of the body portion and formed with a bar passing through the last named eye, and means tending to move the cap outwardly on the body portion so as to clamp between the bar and said eye, the twine passed through the latter.

5. A twine cutter, including a pair of plates, a cutting blade clamped between said plates and formed with peripheral cutting notches, one of said plates being formed with a projection, an eye carried by said projection, the other plate being formed with a projection provided with a longitudinal bore, an eye bolt adjustably mounted in said bore, a cap slidingly mounted on the outer end of said last named projection, and a spring mounted in said cap and tending to move it outwardly on the projection, the cap being formed with a grooved bar passing through the eye of the eye bolt, for the purpose specified.

1,026,632. BATH OR BASIN FITTING. PHILIP MUELLER, Decatur, Ill., assignor to H. Mueller Manufacturing Co., Decatur, Ill., a Corporation of Illinois. Filed Oct. 31, 1908. Serial No. 460,437. (Cl. 4—24.)

1. In a lavatory fitting, a supply pipe having an enlarged outlet provided with an annular flange having a flat face on one side to bear against the outer wall of a lavatory fitting, and an integral projection from said face larger than said supply pipe extending into an aperture in said lavatory member, said projection having a screw threaded opening continuous with the bore of the water pipe, a thimble screwed into the threaded opening of said projection on the water pipe, said thimble having means on its opposite end for the attachment of a cock, and a clamping member threaded onto the intermediate portion of said thimble adapted to engage the inner wall of the lavatory member, and in connection with the flange on said supply pipe secure the latter and the thimble in fixed position.



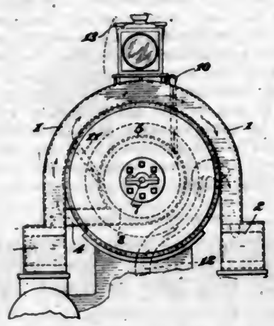
2. In a lavatory fitting, a supply pipe having a flange around its upper end larger than the body of the pipe and integral therewith and adapted to bear against the outer wall of a lavatory member, an annular extension beyond the flange adapted to enter the aperture in said wall and having an interiorly threaded opening within the flange and extension, an exteriorly threaded thimble bearing a clamping member adapted to engage the inner wall of said lavatory member, and means on the thimble to receive a valve.

3. In a lavatory fitting comprising a supply pipe having its upper end flanged, said flange being greater than the body of the pipe and the aperture of the wall of a lavatory member and integral with the pipe, an extension beyond the flange adapted to enter the aperture, interior threads within the flange of greater diameter than the bore of the pipe and a thimble bearing a clamping member adapted to engage said threads from within said member, said clamping member engaging the inner wall thereof, a shoulder between the engaging threads of the thimble and the threads bearing the clamping member, and means in the flange beyond its thread to allow for variation in the length of the thimble.

4. In a lavatory fitting comprising a supply pipe having its upper end flanged, said flange being greater than the body of the pipe and the aperture of the wall of a lavatory member and integral with the pipe, an extension beyond the flange adapted to enter the aperture, interior threads within the flange of greater diameter than the bore of the pipe and a thimble bearing a clamping member adapted to engage said threads from within said member, said clamping member engaging the inner wall thereof, a shoulder between the engaging threads of the thimble and the threads bearing the clamping member, a chamber in the flange beyond the thimble, a valve chamber within the thimble adjacent its inner end and a shoulder around its perimeter for receiving the coupling nut of a cock.

5. In a lavatory fitting comprising a supply pipe having its upper end flanged, said flange being greater than the body of the pipe and the aperture of the wall of a lavatory member and integral with the pipe, an extension beyond the flange adapted to enter the aperture, interior threads within the flange of greater diameter than the bore of the pipe and a thimble bearing a clamping member adapted to engage said threads from within said member, a shoulder between the engaging threads of the thimble and the threads bearing the clamping member, a chamber in the flange beyond the thimble for allowing the extension of the thimble, a valve chamber within the thimble of greater diameter than the supply pipe adapted to receive a valve and threads on the exterior surface of the thimble adjacent its inner end for receiving the coupling nut of a cock.

1,026,633. SPARK-ARRESTER. SIMÉON PICHÉ and JÉAN BAPTISTE PICHÉ, Montreal, Quebec, Canada. Filed May 29, 1911. Serial No. 630,172. (Cl. 110—183.)



1. A spark arrester comprising, a jacket provided with an outlet, settling tanks formed in opposite sides of said jacket, means for delivering smoke into one end of said jacket, and means for causing the smoke to take a serpentine spiral path from the point of entrance back and forth from one tank to the other and rearwardly toward the aforesaid outlet.

2. A spark arrester comprising, a U shaped jacket provided with a smoke stack outlet at one end, settling tanks formed in the opposite sides of said jacket, baffle plates extending laterally across said jacket from one side toward the other, the ends of alternate plates extending into one tank and the ends of the other alternate plates extending into the other tank, and the opposite ends of all plates terminating a short distance above the tank opposite to the one into which they extend, and means for delivering smoke into said jacket.

3. A spark arrester comprising, a jacket provided with a smoke stack outlet at one end, settling tanks formed in the opposite sides of said jacket, baffle plates extending laterally across said jacket from one side toward the other, the ends of alternate plates extending into one tank and the ends of the other alternate plates extending into the other tank, and the opposite ends of all plates terminating a short distance above the tank opposite to the one into which they extend, and means for delivering smoke into said jacket.

4. A spark arrester comprising, a jacket provided with a smoke stack outlet at one end, settling tanks formed in the opposite sides of said jacket, baffle plates extending laterally across said jacket from one side toward the other, the ends of alternate plates extending into one tank and the ends of the other alternate plates extending into the other tank, and the opposite ends of all plates terminating a short distance above the tank opposite to the one into which they extend, a blower casing mounted in the forward part of said jacket and communicating direct with the forward end of the boiler, a delivery flue leading from said casing into said jacket at a point just above one of said tanks, a blower in said casing, and means for operating said blower.

5. A spark arrester comprising, a jacket provided with a smoke stack outlet above one end, settling tanks formed in its opposite sides, baffle plates extending across said jacket from one side to the other, the ends of alternate plates extending into one tank and the ends of the other alternate plates extending into the other tank, and the opposite ends of all plates terminating a short distance above the tank opposite to the one into which they extend, a blower casing mounted in the forward end of said jacket and communicating direct with the forward end of the boiler, a delivery flue leading from said casing into said jacket at a point just above one of the tanks, a blower in said blower casing, a turbine casing connected direct to said blower casing, an exhaust flue leading from said turbine casing into said jacket at a point above the connection of the exhaust flue of the blower casing, a turbine in said turbine casing, a single shaft for said turbine and said blower, and means for driving said turbine.

[Claim 6 not printed in the Gazette.]

1,026,634. DISPLAY DEVICE. JULIEN STRANDERS, New York, N. Y., assignor to Seiter & Kappes Lithographing Co., New York, N. Y., a Corporation of New York. Filed Nov. 21, 1911. Serial No. 661,528. (Cl. 40—126.)



1. A display-device adapted to simulate articles of merchandise, comprising a front-wall formed of a plurality of sections diminishing in width from the lower to the upper ends and intermediate bands between said sections, said bands being adapted to hinge on their meeting edges with the sections, extension-pieces on the individual sections of the front-wall projecting above the intermediate bands, a stay hinged to the back of the lowermost section and means for connecting said stay with the intermediate bands of the front-wall.

2. A display-device adapted to simulate articles of merchandise, comprising a front-wall, composed of sections and intermediate folding bands between said sections, said bands being provided with slots midway between their edges, extension-pieces on the individual sections of the front-wall and projecting above the intermediate bands, and a stay hinged to the back of the lowermost section and provided with lugs interlocking with the slots of the intermediate bands.

3. A display-device adapted to simulate articles of merchandise, comprising a plurality of sections diminishing in width from the lowermost toward the uppermost section and being spaced apart from each other, intermediate bands connecting said sections, said bands being adapted to be folded along their meeting edges with said sections, extension-pieces on the middle portions of said sections, and a supporting stay hinged to the lowermost section and provided with lugs engaging transverse slots of the intermediate bands and an upwardly-extending portion for supporting the uppermost section of the front-wall.

4. A display-device adapted to simulate articles of merchandise, comprising a front-wall formed of a plurality of sections diminishing in width from the lower to the upper ends, intermediate bands between said sections, said bands being adapted to hinge on their meeting edges with said sections, a stay hinged to the back of the lowermost section, and means for connecting said stay with the intermediate bands of the front-wall.

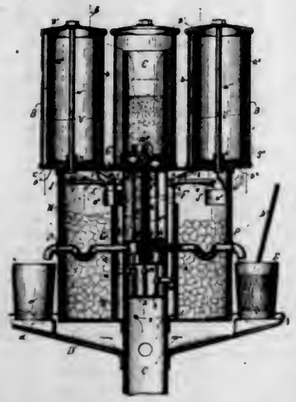
1,026,635. BEVERAGE-DISPENSING MACHINE. CHARLES E. TOMLINSON, Syracuse, N. Y. Filed Mar. 16, 1907. Serial No. 362,773. (Cl. 225—21.)

1. In a liquid dispensing machine, a liquid container, a passage leading therefrom, a valve controlling said passage, operating means for the valve, mouthpiece holding and feeding means, operating means for controlling the feeding of the mouthpieces, and a single part for actuating both of said operating means, substantially as and for the purpose described.

2. In a liquid dispensing machine, a liquid container, a support for a receptacle, a passage leading from the container and having a nozzle overhanging the support, mouthpiece holding and feeding means arranged to deliver a mouthpiece into the receptacle on the support beneath the nozzle, substantially as and for the purpose specified.

3. In a liquid-dispensing apparatus, a liquid container, a valve-controlled passageway leading therefrom, a mouthpiece holder having a rotary part adapted to carry a plu-

rality of mouth pieces, said mouth-piece holder having a single discharge outlet, and means for operating the valve in the passageway leading from the liquid container and for bringing a single mouth-piece into registration with said outlet in the mouth-piece receptacle, and a single movable element for operating said means, substantially as and for the purpose set forth.



4. In a liquid dispensing machine, a liquid container, a support for a receptacle, a passage leading from the container and having a nozzle overhanging the support, a valve controlling said passage, operating means for the valve, mouthpiece holding and feeding means including a part having an exit for the mouthpieces located above and slightly out of vertical alinement with said nozzle in order that a mouthpiece released from the holding and feeding means will drop into the receptacle under the nozzle, operating means for controlling the feeding of the mouthpieces through said exit, and a single part for actuating both of said operating means, substantially as and for the purpose set forth.

5. In a liquid-dispensing apparatus, a liquid container disposed centrally of the apparatus, discharge passages leading laterally from said container and valve controlled, a plurality of receptacles adapted to each inclose a plurality of mouth-pieces and each provided with a single discharge outlet, one of said receptacles being associated with each discharge passage, and means common to each passage and its associated receptacle for opening the valve controlling said passage and for bringing one of the mouth-pieces in such receptacle into registration with the discharge outlet thereof, substantially as and for the purpose specified.

[Claims 6 and 7 not printed in the Gazette.]

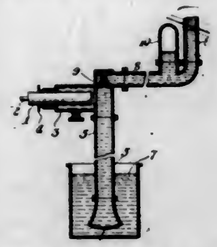
1,026,636. PLANE. CHRISTIAN BODMER, New Britain, Conn., assignor to The Stanley Rule & Level Company, New Britain, Conn., a Corporation of Connecticut. Filed July 26, 1911. Serial No. 640,618. (Cl. 145—5.)



1. As an article of manufacture, a one-piece metal casting forming the body of a plane and comprising a work collocating tool guiding flange and a slotted tool carrying flange extending therefrom and forming a right angle, and an integral palm rest arranged at the rear end of said casting extending outwardly from and obliquely to the line of junction of said flanges and formed by a cross-web or flange set at an angle on the upper edge of the tool carrying flange and which projects above the first mentioned flange.

2. As an article of manufacture, a one-piece metal casting forming the body of a plane and comprising a work collocating tool guiding flange and a slotted tool carrying flange extending therefrom and forming a right angle, and an integral palm rest arranged at the rear end of said casting extending outwardly from and obliquely to the line of junction of said flanges and formed by a cross-web of flange set at an angle on the upper edge of the tool carrying flange and which projects above the first mentioned flange, the ends of said web being widened to form flanges across the latter flange.

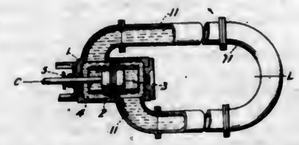
1,026,637. METHOD OF PUMPING LIQUIDS. HENRY M. CHANCE and THOMAS M. CHANCE, Philadelphia, Pa. Filed Apr. 13, 1911. Serial No. 620,804. (Cl. 103—67.)



1. A method of pumping liquids, in which an oscillating body of liquid is used to transmit and to absorb energy and to give out energy in performing useful work and in which the liquid to be pumped is drawn in and is discharged by changes in pressure produced by the application of energy and by the oscillations of said body of liquid, which consists in applying pressure to and imparting velocity to said body of liquid, in cutting off from said body of liquid further application of pressure after said body of liquid has attained movement of relatively high velocity, in permitting said body of liquid to continue in motion, thus creating a space not filled with liquid adjacent to the rear end of said moving body of liquid, in preventing the entrance of air or gases into said space simultaneously with the intake of liquid to be pumped and in causing the return oscillation of said body of liquid to be made toward said space, thereby increasing the velocity of said return oscillation and reducing the pressure necessary to effect said return oscillation and permitting liquid to be pumped to be taken into the apparatus while the said return oscillation is being made.

2. A method of pumping liquids with internal combustion pumps which consists in imparting motion of relatively high velocity to a body of liquid by means of the pressure and expansive force produced by the combustion of a combustible mixture, in cutting off from said body of liquid further application of said pressure after said body of liquid has attained said high velocity, in permitting said body of liquid to continue in motion, thereby creating a space not filled with liquid adjacent to the rear end of said moving body of liquid, in preventing the entrance of air or gases into said space, in causing the momentum of said moving body of liquid to be expended against the pressure of an accumulator, in causing the return stroke of said body of liquid to be actuated by the pressure of said accumulator and to be made toward said space not filled with liquid, in causing the energy represented by the momentum of said body of liquid acquired during said return stroke to compress a new charge of the combustible mixture in preparation for the combustion thereof and in causing the liquid to be pumped to be drawn in and to be discharged by the variations in pressure thus produced in said oscillating body of liquid.

1,026,638. METHOD OF OPERATING RECIPROCATING PUMPS. HENRY M. CHANCE and THOMAS M. CHANCE, Philadelphia, Pa. Filed May 6, 1911. Serial No. 625,488. (Cl. 103—76.)



1. A method of operating reciprocating pumps which consists in imparting relatively high velocity to a confined body of liquid which is in free communication with one chamber of said pump from which liquid is being expelled and is in free communication with another chamber of said pump into which liquid is being drawn, in causing the momentum of said body of liquid to discharge liquid from the last named chamber, to produce a region of low pressure in the first named chamber and to draw in a new increment of liquid into said first named chamber.

2. In a reciprocating pump the combination of a pump chamber, provided with an inlet valve and a discharge valve, another pump chamber, provided with an inlet valve and a discharge valve, and a conduit connected at one end with one of said pump chambers and at the other end with the other of said pump chambers.

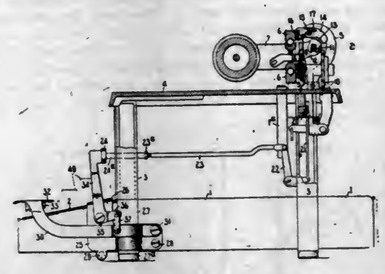
1,026,639. METHOD OF OPERATING INTERNAL-COMBUSTION PUMPS. HENRY M. CHANCE and THOMAS M. CHANCE, Philadelphia, Pa. Filed May 16, 1911. Serial No. 627,563. (Cl. 103—67.)

1. The hereinbefore described method of operating internal combustion pumps in which a moving body of liquid acts upon an actuator to effect compression of the combustible mixture prior to the ignition thereof, which consists in transmitting energy to said body of liquid to effect the return-stroke of said body of liquid; in causing said body of liquid to attain relatively high velocity; in so proportioning the dimensions and velocity of said body of liquid that the energy represented by the momentum of said body of liquid and the energy directly transmitted by said body of liquid will be sufficient to compress said combustible mixture to a pressure such that the rise in temperature produced by said compression will be sufficient to cause said combustible mixture to ignite; in so compressing said combustible mixture and in causing the ignition of said combustible mixture by the rise in temperature produced by the compression thereof.

2. The hereinbefore described method of operating internal combustion pumps in which a moving body of liquid acts directly upon a combustible mixture to effect the compression of said mixture prior to the ignition thereof, which consists in transmitting energy to said body of liquid to effect the return-stroke of said body of liquid; in causing said body of liquid to attain relatively high velocity; in so proportioning the dimensions and velocity of said body of liquid that the energy represented by the momentum of said body of liquid and the energy directly transmitted by said body of liquid will be sufficient to compress said combustible mixture to a pressure such that the rise in temperature produced by said compression will be sufficient to cause said combustible mixture to ignite; in so compressing said combustible mixture and in causing the ignition of said combustible mixture by the rise in temperature produced by the compression thereof.

1,026,640. TYPE-WRITING MACHINE. JACOB FELBEL, New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Oct. 3, 1910. Serial No. 585,119. (Cl. 197—176.)

1. In a typewriting machine, the combination with a carriage and printing keys, of tabulator mechanism including a built-in tabulator key and a detachable tabulator key, said detachable key having a comparatively large surface and detachably mounted at one side of the key board in position to be operated by the body of the hand without removing the fingers from the keyboard.



2. An attachment for a typewriting machine having printing keys and a tabulator mechanism having an operating key, said attachment comprising a frame adapted to be detachably secured to the framework of the typewriting machine, an auxiliary key with a comparatively large surface, and means operated by said key for operating said tabulator key, the said attachment key, when the attachment is in place on the machine, being situated at one side of the printing keyboard in position to be operated by the flat part of the hand without removing the fingers from the keyboard.

3. An attachment for a typewriting machine having a tabulator, a tabulator key and printing keys, said attachment comprising a frame adapted to be attached to the framework of the typewriting machine, a key lever having a key with a comparatively large surface, and means including a second lever mounted in the attachment and operated by said key lever for operating said tabulator key, the attachment key, when the attachment is in place on the machine, being situated at one side of the printing keyboard in position to be operated by the flat part of the hand without removing the fingers from the keyboard.

4. An attachment for a typewriting machine having a tabulator, a tabulator key and printing keys, said attachment comprising a frame adapted to be attached to one of the side bars of the main frame of the typewriting machine, a key lever pivoted to said detachable frame and having an enlarged key, and means operated by said key lever for operating said tabulator key; the attachment key, when the attachment is in place on the machine, lying over said side bar in position to be operated by the flat part of the hand and to be arrested by said side bar at the end of its down stroke.

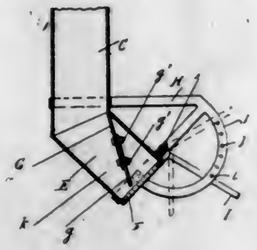
5. An attachment for a typewriting machine having printing keys, a tabulator and a push key for said tabulator, said attachment comprising a frame or support adapted to be attached to the frame of said typewriting machine, a horizontal key lever mounted on said support, and an upright lever mounted on said support and operated by said horizontal key lever and adapted to operate said push key.

[Claims 6 to 16 not printed in the Gazette.]

1,026,641. CHUTE-CLOSURE. HOWARD S. GARDNER, East Orange, N. J. Original application filed Feb. 24, 1910, Serial No. 545,630. Divided and this application filed June 27, 1911. Serial No. 635,674. (Cl. 193—22.)

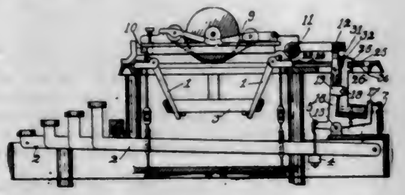
1. The combination, with a chute provided with a tubular delivery-pipe arranged at an angle to the vertical, of a discharge-door pivoted to the upper side of the discharge end of the said delivery-pipe, and a retarding-plate for the material secured diagonally in the delivery-pipe, a converging outlet passage for the material being formed between the said plate and the lower side of the delivery-pipe, through which passage the material is discharged clear of the door pivot.

2. The combination, with a chute provided with a tubular delivery-pipe which is arranged at an angle to the vertical, of a discharge-door at the lower part of the delivery-pipe, a retarding-plate secured diagonally in the delivery-pipe and forming with it a converging passage, the upper portion of the said plate being arranged in contact with the said pipe and a discharge opening being formed between the bottom edge of the said plate and the side of the discharge-pipe at the smaller end of the converging passage, and a slidable plate provided with a fastening device and arranged on one side of the aforesaid plate and adapted to adjust the width of the said discharge-opening.



3. The combination, with an inclined tubular delivery chute, of a discharge door hinged to the chute above its lower side and normally closing its bottom end, and a retarding plate for the material secured diagonally in the tubular chute and forming a delivery passage against its lower side, said passage being provided with an outlet opening at the bottom of the chute below the level of the door hinge.

1,026,642. TYPE-WRITING MACHINE. FREDERIC W. HILLARD, Tottenville, N. Y. Original application filed Aug. 25, 1896, Serial No. 603,845. Divided and this application filed Aug. 15, 1899. Serial No. 727,275. (Cl. 197—82.)



1. In a typewriter escapement, the combination with a carriage-rack, of a pivoted dog having a beveled face on its side opposing the forward movement of said rack and a carriage controlling tooth determining the position of the dog when it is in engagement therewith, substantially as described.

2. In a typewriter escapement, the combination of a spaced member having unbeveled engaging faces thereon, of a pair of dogs alternately engaging with the spaced member, each of the dogs having an unbeveled engaging face, and a beveled face thereon, the beveled engaging face of each dog engaging the spaced member prior to the total disengagement of the dog from the spaced member.

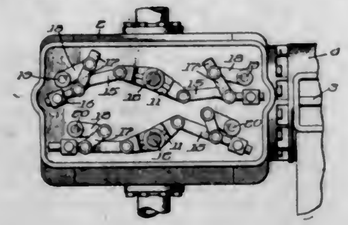
3. In a typewriter escapement, the combination with a spaced member having unbeveled engaging faces thereon, of a normally engaged dog having an unbeveled face normally engaging the spaced member, and a beveled face engaging the spaced member as soon as the normally engaged face is disengaged therefrom, a normally disengaged dog having an unbeveled engaging face and a beveled engaging face, and a key connected to the said dogs to disengage the normallyengaged dog and to engage the unbeveled face of the normally disengaged dog with the said spaced member, substantially as described.

4. The combination in a typewriter escapement, with a power propelled carriage, of a rack and a dog member, comprising two dogs which alternately engage with the rack, one of which is engaged with and the other disengaged from the rack in the normal position of the escapement, a key and connections for disengaging the normally engaged dog from the rack and for engaging the normally disengaged dog therewith, and a controlling member rigidly mounted on the machine and brought into engagement with the normally disengaged dog when that dog is engaged with the rack, and which is acted on by the carriage propelling power to disengage the normally disengaged dog from the rack, substantially as described.

5. The combination in a typewriter escapement, with a power propelled carriage, of a rack and a dog member, comprising two dogs which alternately engage with the rack, one of which dogs is engaged with and the other disengaged from the rack in the normal position of the escapement, a key and connections for disengaging the normally engaged dog from the rack and for engaging the normally disengaged dog therewith and a controlling member rigidly mounted on the machine and having thereon a beveled face which is engaged by one of said dogs.

[Claims 6 to 22 not printed in the Gazette.]

1,026,643. STEAM-ENGINE OF THE CORLISS TYPE. FRANCIS P. IDE, Springfield, Ill., assignor to A. L. Ide & Sons, Springfield, Ill., a Copartnership. Filed Aug. 7, 1911. Serial No. 642,802. (Cl. 191—97.)



1. A steam engine of the Corliss type including a link operatively connected with the engine governor whereby said link is operated according to the engine load; a second link operated by the first link; a guide in sliding relation with the second link; a third link connected with the second link; and a fourth link connecting the third link and an admission valve of the engine.

2. A steam engine of the Corliss type including a link operatively connected with the engine governor whereby said link is operated according to the engine load; a second link operated by the first link; a guide in sliding relation with the second link; a third link connected with the second link between the first link and said guide; and a fourth link connecting the third link and an admission valve of the engine.

3. A steam engine of the Corliss type including a link operatively connected with the engine governor whereby said link is operated according to the engine load; a second link operated by the first link; an oscillating guide in sliding relation with the second link; a third link connected with the second link; and a fourth link connecting the third link and an admission valve of the engine.

4. A steam engine of the Corliss type including a link operatively connected with the engine governor whereby said link is operated according to the engine load; a second link operated by the first link; an oscillating guide in sliding relation with the second link; a third link connected with the second link between the first link and said guide; and a fourth link connecting the third link and an admission valve of the engine.

5. A steam engine of the Corliss type including a link; means operated by the engine independently of the engine load and serving to operate said link which is consequently unaffected by change in engine load; a second link operated by the first link; a guide in sliding relation with the second link; a third link connected with the second link; and a fourth link connecting the third link and an exhaust valve of the engine.

[Claims 6 to 9 not printed in the Gazette.]

1,026,644. SOAP-DISPENSING MACHINE. WILLIAM HADDOW, Ossining, N. Y. Filed Aug. 17, 1910. Serial No. 577,688. (Cl. 146—11.)



1. A soap dispensing machine including in combination, a receptacle, a stem supported therein, means for rotating a cake of material supported on said stem and a dish shaped cutter supported in said receptacle and having its axis at an angle to the axis of said stem.

2. A soap dispensing machine including in combination, a receptacle, a stem supported therein, means on said stem for simultaneously rotating and urging cutterward a cake of material supported on said stem and a cutter supported in said receptacle and having its axis at an angle to the axis of said stem.

3. A soap dispensing machine including in combination, a receptacle, a stem supported therein, means for rotating a cake of material supported on said stem, a cutter of approximately hollow spherial zone shape supported in said receptacle and having its axis at an angle to the axis of said stem and having cutting means at its lower edge and between its lower and upper edges.

4. A soap dispensing machine including in combination, a receptacle, a stem supported therein, means on said stem for simultaneously rotating and urging cutterward a cake of material supported on said stem, a cutter of approximately hollow spherical zone shape supported in said receptacle and having its axis at an angle to the axis of said stem and its lower circular edge comprising cutting means and having a plurality of teeth projecting inwardly from its inner surface.

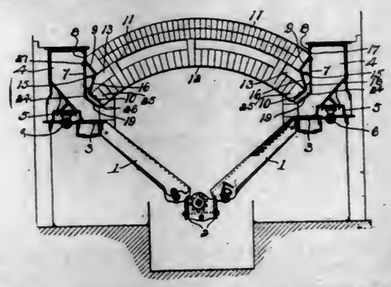
5. A soap dispensing machine including in combination, a receptacle, a stem supported therein, a sleeve rotatably mounted on said stem, driving means on the sleeve, means for rotating the sleeve and a cutter of approximately hollow spherical zone shape supported in said receptacle and having its axis at an angle to the axis of said stem.

[Claims 6 and 7 not printed in the Gazette.]

1,026,645. ARCH-PLATE. FRANK B. BIGELOW, Detroit, Mich., assignor to Murphy Iron Works, Detroit, Mich., a Corporation of Michigan. Filed Oct. 1, 1910. Serial No. 584,822. (Cl. 110—67.)

1. The combination of a coal magazine having an arch seat member forming one side thereof and provided with a seat for an arch, an arch engaging said seat, a removable protecting member having a portion forming a vertical side wall of the magazine and a portion extending outwardly beneath the said arch seat, said protecting member being spaced from said arch seat to form an air passage between them, and means on the arch seat member for attaching the protecting member thereto and permitting a movement thereof relative to the arch seat member upon expansion or contraction of said members.

2. The combination of a coal magazine having an arch seat member formed with laterally extending arch seat portions spaced apart and connected by a wall, arches engaging said seat portions, a removable protecting member formed with a portion forming a plane side wall of the magazine and a portion extending laterally beneath the lower arch seat, said protecting member being spaced from said arch seats and their connecting wall to form an air passage between them and said member, and means for detachably attaching said protecting member to the arch seat member.



3. The combination of a coal magazine having an arch seat member forming one side thereof and provided with a seat for an arch, an arch engaging said seat, a series of protecting members having portions extending beneath the arch seat and portions extending upwardly within the magazine to form a portion of the side wall thereof, said upwardly extending portions being provided with notches in their ends, and studs on the arch seat member to engage the notches and support said members.

4. An arch plate adapted to form one side of a coal mazazine, comprising a member formed with an arch seat at one side and provided with openings above said seat, and a member detachably attached to the other side of said seat member extending beneath said seat and spaced from said member to form an air passage communicating with the space above said arch seat through said openings.

5. An arch plate adapted to form one side of a coal magazine, comprising a member formed with an arch seat at one side, and a member detachably attached to the other side of said seat member extending beneath said seat and formed with a series of ribs for spacing said member from said seat member and forming a series of air passages between said members extending beneath the arch seat.

[Claims 6 to 11 not printed in the Gazette.]

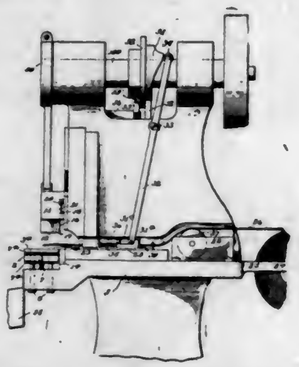
REISSUES.

13,416. EYELET-STAY-JOINING MACHINE. FREDERICK L. ANDERSON, Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 1, 1911. Serial No. 611,729. Original No. 913,934, dated Mar. 2, 1909, Serial No. 414,093. (Cl. 12—51.)

1. A device of the character specified, embracing a bed plate, a pressing member yieldably sustained above said plate and constructed to permit stay sections of unequal thicknesses to be joined and to receive equal pressure, means for intermittently feeding an adhesive tape over the face of the pressing member, a plunger adapted to depress the presser member on the bed plate, and a die carried by the plunger for severing a portion of the tape.

2. In a device of the character described, the combination with a bed plate, of a presser member yieldably sustained above the same, a plunger adapted to depress the presser member, means for intermittently feeding an adhesive tape across the face of the presser member, means carried by the plunger for gripping or engaging the tape during the descent and ascent of the presser member, and a

die carried by the plunger for severing a portion of the tape at each downward stroke of the plunger, and discharging mechanism for discharging the work from the presser member.



3. In a machine of the character described, the combination with a machine bed having a bed plate, of a supporting structure for the machine bed, a presser member yieldably sustained above the bed plate, an upright extension formed on the machine bed adjacent the rear side of the presser member, mechanism for intermittently feeding an adhesive tape across the face of the presser member, a plunger adapted to depress the presser member, a spring-pressed slide carried by the plunger, the lower end of the slide projecting below the plunger and having a finger for engaging the tape and said upright extension of the machine bed, and a die carried by the plunger for co-acting with said extension to sever a portion of the tape at each downward stroke of the plunger.

4. In a machine of the character specified, the combination with a bed plate, a presser member yieldably sustained above said plate, said member comprising two vertically spaced horizontally disposed plates, the upper being formed of two sections, guiding means for the presser member, means for intermittently feeding an adhesive tape across the face of the presser member, a plunger adapted to depress the presser member, and a die carried by the plunger for severing a portion of the tape at each downward stroke or movement of the plunger, with actuating means for the plunger.

5. In a machine of the character specified, the combination with the machine bed plate, of a presser member yieldably sustained above said plate, said member comprising two vertically spaced plates, the upper of which is formed of two sections, and upright springs fixed to the bed plate arranged to work through corresponding apertures or openings in the lower presser member plate and fixed to the upper presser member plate, means for connecting the sections comprising the upper plate of the presser member with the lower plate of such member, but permitting such sections to move relatively to each other and to the lower presser member plate, guiding means for the presser member, means for intermittently feeding adhesive tape across the face of the presser member, a plunger adapted to depress the presser member, and a die carried by the plunger for severing a portion of the tape at each downward stroke or movement of the plunger.

6. In a machine of the character specified, the combination with a machine bed plate of a presser member yieldably sustained above said plate, said member comprising two vertically spaced horizontally disposed plates or members, the upper of which is formed of two sections, vertically disposed resilient elements fixed at their inner ends to the bed plate extending through corresponding openings or apertures in the lower presser member plate and fixed at their opposite ends to the sections forming the upper presser member plate, means for so connecting the presser member plates as to permit the sections forming the upper plate to move relatively to the lower plate, and guiding means for the presser member.

7. In a stay-joining machine, the combination of a bed plate, a yielding pressing member arranged thereon, a plunger arranged above said pressing member, automatic means for intermittently feeding an adhesive tape over the face of said pressing member, means for severing said tape after the feeding thereof, and automatic means for discharging the spliced stays from the machine.

8. In a device of the class described, the combination of a bed plate, a pressing member yieldably sustained above said plate, means for intermittently feeding a tape over the face of said pressing member, a plunger adapted to depress the presser member on the bed plate, a die carried by the plunger for severing a portion of the tape and means for gripping the tape during the descent and ascent of the presser member.

9. A stay joining machine having a pressing member, automatic means for intermittently feeding a tape over said pressing member and comprising a slidably mounted member provided with tape engaging means, a spring arranged to normally hold and return said member into normal position, and a cam operated lever connected with said sliding member for moving it forward intermittently.

10. A stay joining machine having a pressing member, automatic means for intermittently feeding a tape over said pressing member comprising a slidably mounted member provided with tape engaging means, a spring arranged to normally hold and return said member into normal position, a cam operated lever connected with said sliding member for moving it forward intermittently, and means carried by said sliding member to regulate the length of the piece of tape to be fed forward.

11. A stay joining machine having a pressing member, automatic means for intermittently feeding tape over said pressing member comprising a slidably mounted member provided with tape engaging means, a spring arranged to normally hold and return said member into normal position, and a cam operated lever connected with said sliding member for moving it forward intermittently, and an adjustable stop carried by said sliding member to regulate the length of the tape to be fed forward.

12. A stay joining machine having a pressing member, automatic means for intermittently feeding tape over said pressing member comprising a slidably mounted member provided with tape engaging means, a spring arranged to normally hold and return said member into normal position, a cam operated lever connected with said sliding member for moving it forward intermittently, and an adjustable stop carried by said sliding member to regulate the length of the tape to be fed forward and composed of an L-shaped plate having horizontally arranged slots in one arm and screws passing through said slots and engaging said sliding member.

13. A stay joining machine having a pressing member, automatic means for intermittently feeding tape over said pressing member, comprising a slidably mounted member provided with tape engaging means, a spring arranged to normally hold and return said member into normal position, a cam operated lever connected with said sliding member for moving it forward intermittently, a rotary shaft, and a cam carried by said shaft arranged to engage one end of said lever to swing it on its fulcrum and move said sliding member forward.

14. A stay joining machine having a pressing member, automatic means for intermittently feeding a tape over said pressing member comprising a bracket provided with guides, a block slidable on said guides, tape engaging means carried by said block, springs arranged on said guides to normally hold and return said block into normal position and a lever connected to move said block intermittently against the tension of its spring.

15. In a stay joining machine, the combination of a bed plate, a yielding pressing member mounted thereon, a plunger supported above said pressing member and provided with tape severing means, automatic means for intermittently feeding a tape over said pressing member and means for discharging the work from the pressing member comprising a sliding member provided with arms arranged to operate on opposite sides of said plunger over the face of the pressing member to engage the completed stays and eject them from said pressing member, means for actuating said sliding member and means for returning said member after actuation.

16. In a stay joining machine, the combination of a bed plate, a yielding pressing member mounted thereon, a plunger supported above said pressing member and provided with tape severing means, automatic means for intermittently feeding a tape over said pressing member and means for discharging the work from the pressing member comprising a sliding member provided with arms arranged to operate on opposite sides of said plunger over the face of the pressing member to engage the completed stays and eject them from said pressing member, a lever connected with said sliding member and a rotary shaft provided with means for operating said plunger, said tape feeding means and the lever of said discharge means.

17. In a stay joining machine, the combination of a bed plate, a presser member yieldably sustained above said plate, a plunger adapted to depress the presser member, means for intermittently feeding a tape across the face of the presser member, means carried by said plunger for gripping the tape during the descent and ascent of the presser member and a die carried by the plunger for severing the tape at each down stroke of the plunger.

18. In a stay joining machine, the combination of a bed plate, a presser member yieldably sustained above said plate, said member comprising two vertically spaced horizontally disposed plates, yielding means arranged between said plates, means for intermittently feeding tape over said pressing member, a plunger adapted to depress the presser member and a die carried by the plunger for severing a portion of the tape.

19. A machine of the class described having, in combination, a yielding pressing member constructed to permit stay sections of unequal thickness to be joined and to receive approximately equal pressure, means for feeding a piece of adhesive tape across said pressing member, a plunger, and means for producing relative movement between said member and plunger.

20. A machine of the class described having, in combination, a bed plate, a pressing member yieldably sustained above said plate and constructed to permit stay sections of unequal thickness to be joined and to receive equal pressure, means for intermittently feeding an adhesive tape over the face of the pressing member, a plunger arranged to coöperate with the pressing member, and means for cutting off a portion of the tape.

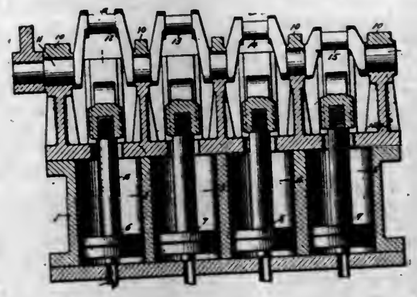
21. A machine of the class described comprising a support for the abutting ends of stays, mechanism to feed a strip of adhesive tape, means to sever a piece therefrom, a member arranged to press said severed piece of tape upon the abutting end portions of the stays, and means to impart an approximately uniform pressure upon the abutting ends of stays irrespective of variations in the thickness of said ends.

22. A machine to join the end portions of stays by adhesive means comprising upper and lower pressing mechanism constructed and arranged to press the end portions of stays between them whereby said end portions will be united by the adhesive means, and mechanism to remove automatically the united stays from said pressing mechanism.

23. A machine of the class described, comprising a yielding presser member arranged to permit stay sections of unequal thicknesses to receive approximately equal pressure during the operation of the machine, means to feed intermittently an adhesive tape over the abutting ends of the stays, and a plunger movable to press said tape upon the stays.

24. A machine of the class described, comprising a yielding presser member for engaging abutting end portions of stays, constructed and arranged to compensate automatically for different thicknesses in the abutting ends of the stays, a plunger relatively movable toward said presser member, and means to feed adhesive material between the plunger and said presser member.

13,417. FLUID-PRESSURE CONTROL DEVICE. LELAND F. GOODSPEED, Milwaukee, Wis., assignor of one-half to Henry Herman Westinghouse, New York, N. Y. Filed Nov. 18, 1911. Serial No. 661,171. Original No. 1,004,016, dated Sept. 26, 1911, Serial No. 511,853. (Cl. 192—1.)



1. A control device comprising a movable controlling member having a plurality of operating positions, a plurality of pistons each adapted to operatively engage said member and each operated by fluid under pressure for shifting said member to one of its operating positions independent of the other pistons.

2. A control device comprising a controlling member and pistons operated by fluid under pressure for shifting said controlling member, one piston being adapted to shift said controlling member to one position and another piston to another position and each piston operating independently of the other pistons.

3. In a self-propelled vehicle, the combination with a plurality of clutch devices for controlling the speed gear and a controlling member for operating said clutch devices, of a plurality of pistons each operated by fluid under pressure for shifting said controlling member to a position for throwing in one of the said clutch devices, the movement of each piston being limited by the position of the controlling member.

4. A control device comprising a shaft provided with a plurality of cranks set at different angles and a plurality of pistons, each operated by fluid under pressure for engaging one of the cranks to thereby turn the shaft to one of a series of different predetermined positions.

5. A control device comprising a shaft provided with a crank and a piston operated by fluid under pressure and carrying inclined faces adapted to engage said crank and thereby turn the shaft to a certain position.

6. A control device comprising a shaft provided with a crank and a piston operated by fluid under pressure and carrying inclined faces adapted to engage said crank and turn same into a position of alinement with the piston, thereby turning the shaft to a predetermined position.

7. In a self-propelled vehicle, the combination with a clutch device adapted to be connected to a high, an intermediate, and a low speed gear mechanism, and an operating device having an off position and three other positions in which a corresponding speed gear mechanism is adapted to be thrown in, of a plurality of pistons operated by fluid under pressure for shifting said operating device to each of its respective positions.

8. A control device comprising a controlling member having a plurality of operating positions, a plurality of fluid pressure operated pistons each adapted to shift said controlling member to one of its positions, and means for rendering the operation of a piston ineffective unless the controlling member is in a predetermined position.

9. A control device comprising a controlling member having a plurality of operating positions, a plurality of fluid pressure operated pistons each adapted to shift said controlling member to one of its positions, and means for rendering the operation of a piston ineffective to shift the controlling member unless the controlling member is in a certain position.

10. A control device comprising a controlling member having a plurality of operating positions, a plurality of fluid pressure operated pistons each adapted to shift said controlling member to one of its positions, and means for limiting the operation of the pistons to a predetermined sequence or order in one direction and for permitting the operation in the opposite direction without regard to sequence.

11. A control device comprising a controlling shaft provided with a crank, a fluid pressure operated piston, and a head operated by said piston and having an inclined face adapted to engage the crank for actuating the same.

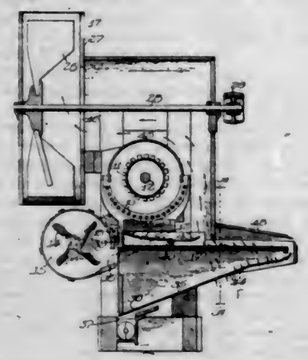
12. A control device comprising a controlling shaft provided with a crank, a fluid pressure operated piston, and a head operated by said piston and having oppositely inclined faces for engaging and thereby actuating said crank.

13. A control device comprising a controlling shaft provided with a crank, a fluid pressure operated piston, and a head operated by said piston and having oppositely inclined faces for engaging said crank to effect the angular movement thereof in opposite directions, one inclined face being of greater extent than the other to permit the actuation of said crank through a greater angle.

14. A control device comprising a controlling shaft provided with a series of cranks disposed at different angles, fluid pressure operated pistone each provided with a head having an inclined face adapted to engage and operate one of said cranks, an inclined face of a head being adapted to operatively engage the corresponding crank only when within a certain range of movement.

15. A control device comprising a controlling shaft provided with a series of cranks disposed at different angles, fluid pressure operated pistons each provided with a head having an inclined face adapted to engage and operate one of said cranks, the inclined face of each head being so limited in extent as to prevent operation of the corresponding crank unless turned to a predetermined position.

13,418. CLEANING APPARATUS FOR CORN-SHELLERS, &c. FRANK HALL, Fairbury, Ill., assignor to King & Hamilton Company, Ottawa, Ill., a Corporation of Illinois. Filed Jan. 27, 1912. Serial No. 673,945. Original No. 878,725, dated Feb. 11, 1908, Serial No. 319,035. (Cl. 130—6.)



1. In a device of the class described, the combination with a shelling concave, of the main screen extending beneath and beyond the concave to one side thereof, the shorter auxiliary screen extending beneath the shelling concave and above the receiving side of the main screen, a blast fan for forcing air transversely of the shelling concave and through the auxiliary screen and a portion of the main screen beneath said auxiliary screen, a suction fan for drawing air up through the main screen, beyond and past the edge of the auxiliary screen, and a casing surrounding the shelling concave and imperforate above said concave except as described.

2. In a device of the class described, the combination with the shelling concave, of the main screen extending beneath and beyond the concave to one side thereof, the shorter auxiliary screen extending beneath the shelling concave and above the receiving side of the main screen and terminating in the wires having their free ends directed upwardly, a blast fan for forcing air transversely of the shelling concave and through the auxiliary screen and the portion of the main screen beneath said auxiliary screen, a suction fan for drawing air up through the main screen, beyond and past the wires constituting the edge of the auxiliary screen, and a casing surrounding the shelling concave and imperforate above said concave except as described.

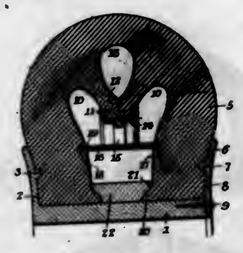
3. In a device of the class described, the combination with the shelling concave, of the main screen extending beneath and beyond the concave to one side thereof, the shorter auxiliary screen extending beneath the shelling concave and above the receiving side of the main screen, a blast fan for forcing air transversely of the shelling concave and through the auxiliary screen and the portion of the main screen beneath said auxiliary screen, a suction fan for drawing air up through the main screen, beyond and past the edge of the auxiliary screen, the plate beneath the main screen having the imperforate portion beneath the auxiliary screen and the perforated portion beneath the portion of the main screen extending beyond the shelling concave, and a casing surrounding the shelling concave and imperforate above said concave except as described, and including the hood extending out over the perforated portion of the plate.

4. In a device of the class described, the combination with the shelling concave having the upper portion thereof closed, of the main screen extending beneath and beyond the concave to one side thereof, the shorter auxiliary screen extending beneath the shelling concave and above the receiving side of the main screen, a blast fan for forcing air transversely of the shelling concave and through the auxiliary screen and the portion of the main screen beneath said auxiliary screen, a suction fan located above the concave for drawing air up through the main screen, beyond and past the edge of the auxiliary screen and over the shelling concave, and a casing surrounding the shelling concave and imperforate above said concave except as described, and coöperating with the closed upper portion of the shelling concave to form an air passage.

5. In a device of the class described, the combination with the casing having its upper portion imperforate except as described and containing the shelling concave having the upper portion thereof closed to form a passage between the concave and the top of the casing, of the main screen extending beneath and beyond the concave to one side thereof, the shorter auxiliary screen extending beneath the shelling concave and above the receiving side of the main screen, a blast fan for forcing air transversely of the shelling concave and through the auxiliary screen and the portion of the main screen beneath said auxiliary screen, a suction fan located above the concave for receiving the air from the blast fan and for drawing air up through the portion of the main screen not beneath the auxiliary screen, past the edge of the auxiliary screen and through the passage between the concave and the top of the casing, a plate beneath the main screen having the imperforate portion beneath the auxiliary screen and the perforated portion beneath so much of the main screen as extends beyond the shelling concave, and the hood constituting a part of the casing and extending out over the perforated portion of the plate.

13,419. ELASTIC TIRE. GILES S. DOTY and JOHN D. SHOW, Philadelphia, Pa., assignors to D. & S. Airless Tire Company, a Corporation of Delaware. Filed Nov. 10, 1911. Serial No. 659,663. Original No. 1,002,046, dated Aug. 29, 1911, Serial No. 601,889. (Cl. 152—1.)

1. A tire comprising a hollow annular member, independent semi-rigid projections extending into the tire, and a reinforced resilient band connecting said projections and adapted to expand upon separation of the projections when the tire is depressed.



2. A cushion tire comprising a body substantially horseshoe-shaped in cross section, said body having annular pockets formed on the inner sides of the legs thereof, an expansible member having reinforced edges to removably engage said pockets, projections extending into the cavity formed and adapted to engage the expansible member when the tire is depressed, and elastic means for connecting said projections.

3. A tire comprising a hollow annular member, a plurality of semi-rigid ribs connected to and forming part of said tire and projecting inwardly from the wall of the same, and an elastic webbing attached to and connecting said ribs.

4. A tire comprising a hollow annular member substantially horseshoe-shaped in cross section, said tire having a continuous annular air pocket adjacent its tread formed by independent separable semi-rigid portions of the inner wall of the tire projecting inwardly in the shape of ribs and an elastic webbing connected to said ribs.

5. A tire comprising a hollow annular member, independent semi-rigid projections forming part of and extending inwardly from the wall of said member, and an elastic webbing connecting said projections, said webbing having side flanges gradually decreasing in thickness in engagement with the outer surface of the projections, and a thicker portion between said side flanges.

13,420. ELECTRODE FOR REVERSIBLE GALVANIC BATTERIES. WILLIAM MORRISON, Des Moines, Iowa. Filed Mar. 11, 1912. Serial No. 683,094. Original No. 975,981, dated Nov. 15, 1910, Serial No. 586,335. (Cl. 204—29.)



1. An electrode for reversible galvanic batteries, in which an alkaline electrolyte is used, consisting of one or more tubes of porous material, each of said tubes consisting of a series of cells within which the active material is held.

2. In an electrode for reversible galvanic batteries, in which an alkaline electrolyte is used, a tube of porous material, suitable plugs in the ends thereof, a metallic rod extending through said tube and said plugs, a plurality of washers placed on said rods whereby said tube is divided into sections, and active material held in said sections.

3. In an electrode for reversible galvanic batteries, in which an alkaline electrolyte is used, a tube consisting of an inside lining of paper surrounded by a layer of asbestos and a wire binding on the exterior thereof, a metallic rod extending through the center thereof, and division plates on said rods dividing said tube into sections and active material in said sections and surrounding said rod.

4. A negative-pole electrode for reversible galvanic batteries, in which an alkaline electrolyte is used, consisting of one or more tubes electrically connected by means of a suitable connector, a metallic rod extending through the interior of each tube, and active material consisting of a zinc chromium compound placed within said tubes and surrounding said rods.

5. In a positive electrode for reversible galvanic batteries, in which an alkaline electrolyte is used, a tube of porous material, a metallic rod extending through said tube, and active material consisting of a zinc chromium compound surrounding said rod.

6. In a positive electrode for reversible galvanic batteries, in which an alkaline electrolyte is used, a tube of porous material, a metallic conductor extending through said tube, and active material containing a chromium compound surrounding said conductor.

7. In a positive electrode for reversible galvanic batteries, in which an alkaline hydrate electrolyte is used, a tube of porous material, a metallic conductor extending through said tube, and active material, containing zinc and a compound adapted to reduce the solubility of the zinc in the alkaline hydrate solution, surrounding said conductor.

8. An electrode for reversible galvanic batteries, containing a chromium compound held within a porous tube.

9. An electrode for reversible galvanic batteries, comprising a support and conductor, active material thereon, and a permeable metal sheath surrounding but electrically insulated from said active material.

10. An electrode for reversible galvanic batteries, comprising a support and conductor, active material thereon, a porous envelop inclosing said active material, and a permeable metal sheath surrounding said envelop.

DESIGNS.

42,497. TOY ANGORA POODLE-DOG. JACOB WALTER BERKOF, New York, N. Y. Filed Dec. 18, 1911. Serial No. 666,611. Term of patent 7 years.



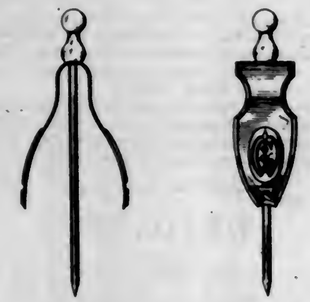
The ornamental design for a toy Angora poodle dog, as shown.

42,498. TOY POODLE-DOG. JACOB W. BERKOF, New York, N. Y. Filed Dec. 30, 1911. Serial No. 668,773. Term of patent 7 years.



The ornamental design for a toy poodle dog, as shown.

42,499. LEMON-SQUEEZER. WILLIAM H. CARROLL, Closter, N. J. Filed Feb. 21, 1912. Serial No. 679,139. Term of patent 14 years.



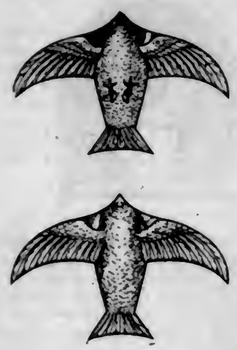
The ornamental design for a lemon squeezer, as shown.

42,500. PAPER CUP. EDWARD E. CLAUSSEN and EMIL A. CLAUS, Hartford, Conn., assignors to Public Service Cup Company, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1911. Serial No. 668,777. Term of patent 14 years.



The ornamental design for a paper cup as shown.

42,501. FLYING AND GLIDING DEVICE. ERNST EBBINGHAUS, New York, N. Y. Filed Jan. 24, 1912. Serial No. 673,260. Term of patent 3½ years.



The ornamental design for a flying and gliding device, as shown.

42,502. CHAFING-DISH HANDLE. EDWARD ALBERT FARR, Meriden, Conn., assignor to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed Dec. 26, 1911. Serial No. 668,001. Term of patent 7 years.



The ornamental design for a chafing dish handle as shown.

42,503. PARASOL. CHARLES J. FOLLMER, New York, N. Y. Filed June 2, 1911. Serial No. 630,913. Term of patent 3½ years.



The ornamental design for a parasol, as shown.

42,504. COLLAPSIBLE-TUBE CAP. LESLIE A. D. GARDNER, Oakland, Cal. Filed Dec. 22, 1911. Serial No. 667,878. Term of patent 7 years.



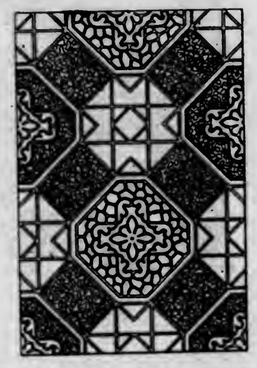
The ornamental design for a collapsible tube cap, as shown.

42,505. LINOLEUM, OIL-CLOTH, OR OTHER PRINTED OR INLAID FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a Corporation of Pennsylvania. Filed Mar. 4, 1912. Serial No. 681,636. Term of patent 7 years.



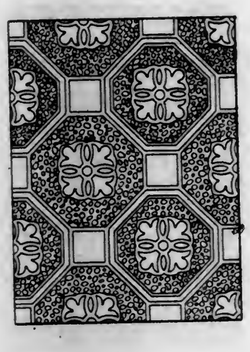
The ornamental design for linoleum, oil cloth, or other printed or inlaid floor covering, as shown.

42,506. LINOLEUM, OIL-CLOTH, OR OTHER PRINTED OR INLAID FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a Corporation of Pennsylvania. Filed Mar. 4, 1912. Serial No. 681,637. Term of patent 7 years.



The ornamental design for linoleum, oil cloth, or other printed or inlaid floor covering, as shown.

42,507. LINOLEUM, OIL-CLOTH, OR OTHER PRINTED OR INLAID FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a Corporation of Pennsylvania. Filed Mar. 4, 1912. Serial No. 681,638. Term of patent 7 years.



The ornamental design for linoleum, oil cloth, or other printed or inlaid floor covering, as shown.

42,508. LINOLEUM, OIL-CLOTH, OR OTHER PRINTED OR INLAID FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a Corporation of Pennsylvania. Filed Mar. 4, 1912. Serial No. 681,639. Term of patent 7 years.



The ornamental design for linoleum, oil cloth, or other printed or inlaid floor covering, as shown.

42,509. LINOLEUM, OIL-CLOTH, OR OTHER PRINTED OR INLAID FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a Corporation of Pennsylvania. Filed Mar. 4, 1912. Serial No. 681,640. Term of patent 7 years.



The ornamental design for linoleum, oil cloth, or other printed or inlaid floor covering, as shown.

42,510. LINOLEUM, OIL-CLOTH, OR OTHER PRINTED OR INLAID FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a Corporation of Pennsylvania. Filed Mar. 9, 1912. Serial No. 682,811. Term of patent 7 years.



The ornamental design for linoleum, oil cloth, or other printed or inlaid floor covering, as shown.

42,511. LINOLEUM, OIL-CLOTH, OR OTHER PRINTED OR INLAID FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a Corporation of Pennsylvania. Filed Mar. 9, 1912. Serial No. 682,812. Term of patent 7 years.



The ornamental design for linoleum, oil cloth, or other printed or inlaid floor covering, as shown.

42,512. LINOLEUM, OIL-CLOTH, OR OTHER PRINTED OR INLAID FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a Corporation of Pennsylvania. Filed Mar. 9, 1912. Serial No. 682,813. Term of patent 7 years.



The ornamental design for linoleum, oil cloth, or other printed or inlaid floor covering, as shown.

42,513. LINOLEUM, OIL-CLOTH, OR OTHER PRINTED OR INLAID FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Lancaster, Pa., a Corporation of Pennsylvania. Filed Mar. 9, 1912. Serial No. 682,814. Term of patent 7 years.



The ornamental design for linoleum, oil cloth, or other printed or inlaid floor covering, as shown.

42,514. GEM-SETTING. HARRY H. MEYERS, New York, N. Y. Filed Oct. 11, 1911. Serial No. 654,158. Term of patent 7 years.



The ornamental design for a gem setting, as shown.

42,515. PADLOCK. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 29, 1909. Serial No. 493,049. Term of patent 14 years.



The ornamental design for a pad lock, as shown and described.

42,516. BOTTLE OR SIMILAR RECEPTACLE. EDDY PALMER, New York, N. Y., assignor to Solon Palmer, Inc., New York, N. Y. Filed Jan. 24, 1912. Serial No. 673,258. Term of patent 14 years.



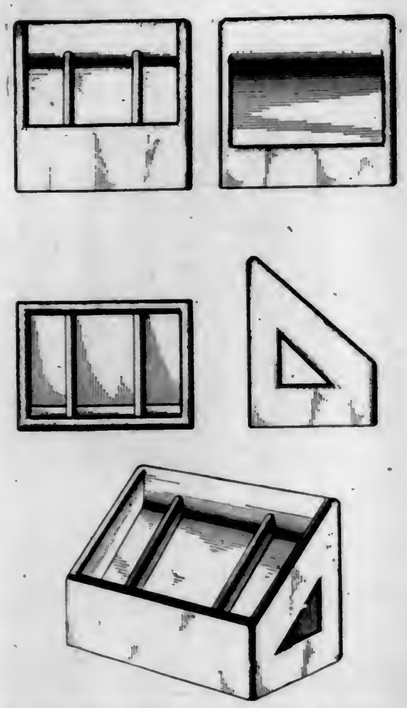
The ornamental design for a bottle or similar receptacle as shown.

42,517. SCARF. WILLIAM H. SCOTT, Jr., New York, N.Y., assignor to Susquehanna Silk Mills, New York, N. Y. Filed Dec. 7, 1911. Serial No. 664,495. Term of patent 3½ years.



The ornamental design for a scarf as shown.

42,518. SOAP-DISH. MARTIN LOUIS UNGRICH, Brooklyn, N. Y. Filed Nov. 15, 1911. Serial No. 660,533. Term of patent 7 years.



The ornamental design for a soap dish, as shown.

42,519. PAPER CLOSURE OR STOPPER FOR PAPER VESSELS. ANDREW L. WEIS, Monroe, Mich., assignor to Weis-Van Wormer Company, a Corporation of Michigan. Filed Sept. 16, 1911. Serial No. 649,765. Term of patent 14 years.



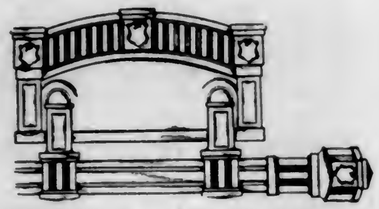
The ornamental design for a paper closure or stopper for paper vessels, as shown.

42,520. BURIAL-CASKET HANDLE. CHARLES BLESCH, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 7, 1911. Serial No. 664,514. Term of patent 7 years.



The ornamental design for a burial-casket handle as shown and described.

42,521. BURIAL-CASKET HANDLE. CHARLES BLESCH, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 7, 1911. Serial No. 664,515. Term of patent 7 years.



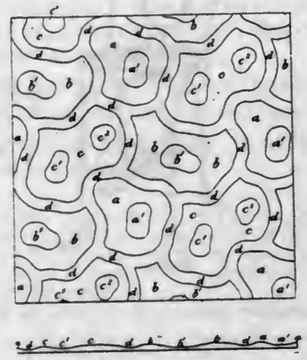
The ornamental design for a burial-casket handle as shown and described.

42,522. SAD-IRON STAND. FRANK A. BURGESS, Geneva, Ill. Filed Feb. 5, 1912. Serial No. 675,679. Term of patent 7 years.



The ornamental design for a sad iron stand, as shown.

42,523. PLATE-GLASS. EDWARD FERGUSON CHANCE, Sandford St. Martin, England, assignor to Chance Brothers and Co., Limited, Glass Works, near Birmingham, England. Filed Oct. 4, 1911. Serial No. 652,858. Term of patent 14 years.



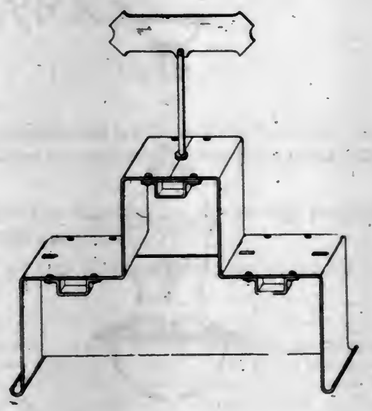
The ornamental design for plate glass as shown and described.

42,524. WICKER OR RUSTIC CHAIR. MICHAEL FEDORINA, Cleveland, Ohio. Filed Jan. 24, 1912. Serial No. 673,259. Term of patent 3½ years.



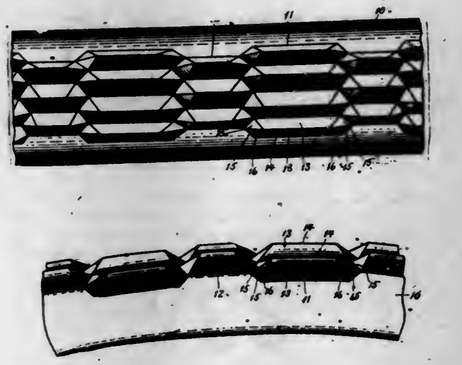
The ornamental design for a wicker or rustic chair, as shown.

42,525. DISPLAY-STAND. OSCAR MOBERG, New Britain, Conn. Filed Jan. 29, 1912. Serial No. 674,220. Term of patent 7 years.



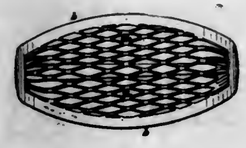
The ornamental design for a display stand as shown.

42,526. ELASTIC TIRE. PHILIP W. PRATT, Boston, Mass. Filed Nov. 10, 1911. Serial No. 659,661. Term of patent 14 years.



The ornamental design for an elastic tire as shown and described.

42,527. BARRETTE. FRANK SPILL, Rutherford, N. J., assignor to Rutherford Comb Company, East Rutherford, N. J., a Corporation of New Jersey. Filed Feb. 9, 1912. Serial No. 676,678. Term of patent 7 years.



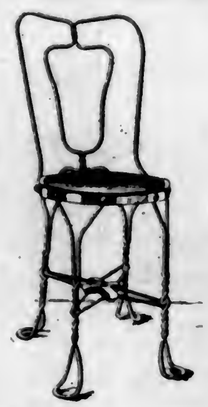
The ornamental design for a barrette as shown and described.

42,528. LIGHT-FIXTURE. WENDELL P. THORÉ, Boston, Mass., assignor to General Electric Company, a Corporation of New York. Filed Mar. 28, 1911. Serial No. 617,536. Term of patent 14 years.



The ornamental design for a light fixture as shown.

42,529. WIRE CHAIR. CHARLES J. TRAVERS, Chicago, Ill., assignor to Royal Metal Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 3, 1911. Serial No. 600,671. Term of patent 7 years.



The ornamental design for a wire chair, as shown.

TRADE-MARKS

PUBLISHED MAY 14, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 29,843. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE BABCOCK & WILCOX COMPANY, Bayonne, N. J. Filed Sept. 10, 1907. Under ten-year proviso.

STIRLING

Particular description of goods.—Boilers, Superheaters, Stokers, and Parts Thereof.
Claims use since 1890.

Ser. No. 44,457. (CLASS 39. CLOTHING.) THE BEACON FALLS RUBBER SHOE COMPANY, Beacon Falls, Conn. Filed Aug. 31, 1909.

GRANITE

Particular description of goods.—Rubber Boots, Rubber Shoes, Arctics, Rubber Overshoes, Rubber Sandals, Insoles, Spats, and Overgaiters.
Claims use since Mar. 15, 1899.

Ser. No. 46,746. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NELSON, BAKER & Co., Detroit, Mich. Filed Dec. 27, 1909.

GALLO

Particular description of goods.—Antiseptic Compounds.
Claims use since July, 1909.

Ser. No. 48,823. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE OWL DRUG CO., San Francisco, Cal. Filed Apr. 2, 1910. Under ten-year proviso.

THE OWL DRUG CO.'S

Particular description of goods.—Emulsions for Diseases of the Respiratory Organs and Digestive Tract, Pills for Diseases of the Digestive Tract, Syrups for Diseases of the Digestive Tract and Respiratory Organs, Granular Effervescent Salts for Diseases of the Stomach and Digestive Tract, Capsules for Diseases of the Stomach and other Organs of Digestive Tract, Facial Lotions, Ointments, Tooth-Paste, Tooth-Powder, Tooth-Washes, Hair-Shampoos, Foot-Powder, and Talcum Powder, All for Medicinal Purposes.
Claims use since Feb. 20, 1895.

Ser. No. 49,264. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BELLEVUE CHEMICAL COMPANY, Brooklyn, N. Y. Filed Apr. 23, 1910.

FLOROZONE

Particular description of goods.—Aromatic Disinfectants, Germicide, and Deodorizer.
Claims use since 1902.

Ser. No. 50,507. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) AMERIKAI PORCZELLAN-POUDER RESZVENY-TARSASAG, Budapest, Hungary. Filed June 22, 1910.

YES

Particular description of goods.—Toilet Powder, Perfumes, Perfumed and Powdered Papers, Perfumed and Powdered Buckskins, Face-Cream, Massage-Milk, Toilet Vaseline, Lip-Salve, Cosmetic for the Hands, Preparation for the Removal of Superfluous Hair, Dentifrice, Tooth-Powder, Toilet Water, Liquid Shampoo, Borax, Borax Lotion, Powder-Puffs, Disinfectants, Crayons for Penciling Eye Brows and Lashes, and Hair-Tonic.
Claims use since Nov. 14, 1907.

Ser. No. 52,915. (CLASS 12. CONSTRUCTION MATERIALS.) EDWIN C. WALLACE, Boston, Mass. Filed Nov. 23, 1910.

ENDURITE

Particular description of goods.—Bituminous Paving Material.
Claims use since Oct. 24, 1910.

Ser. No. 53,025. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) GERMAN-AMERICAN BUTTON CO., Rochester, N. Y. Filed Nov. 28, 1910.

ROYAL BLUE

Particular description of goods.—Buttons.
Claims use since June 1, 1903.

Ser. No. 53,065. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE R. ELLIOTT, Stockton, Cal. Filed Dec. 1, 1910.



The portrait shown being an arbitrary picture and the two teeth shown in shading in the drawings being golden in color.
Particular description of goods.—Tooth Paste and Powder.
Claims use since Nov. 4, 1910.

Ser. No. 53,626. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) DEUTSCH-AMERIKANISCHE GASGLÜHLICHT-GESELLSCHAFT PATENT ROSS G. M. B. H. DUSSELDORF, Dusseldorf, Germany, assignor to Internationale Gasgluhlicht-Actien-Gesellschaft, Dusseldorf, Germany. Filed Jan. 3, 1911.



Particular description of goods.—Incandescent Gas-Mantles.
Claims use since 1907.

Ser. No. 54,018. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE FORT SCOTT SORGHUM SYRUP CO., Fort Scott, Kans. Filed Jan. 23, 1911.

UNCLE JOSH'S

Particular description of goods.—Corn-Syrup with Cane Flavor and Sorgum.
Claims use since Aug. 1, 1906.

Ser. No. 54,748. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAMESON, HEVENER & GRIGGS, St. Paul, Minn. Filed Feb. 27, 1911.

IMPERIAL

Particular description of goods.—Mixed Poultry and Chick Food.
Claims use since Jan. 1, 1906.

Ser. No. 54,798. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WOODINGTON MANUFACTURING COMPANY, Philadelphia, Pa. Filed Mar. 1, 1911.



Particular description of goods.—Liquid Metal-Polish.
Claims use since Feb. 1, 1910.

Ser. No. 55,013. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) YENJO SHOTEN, Tokyo, Japan. Filed Mar. 11, 1911.



No claim is made to the word "Yenjo's."
Particular description of goods.—Vegetable Digestive Enzym.
Claims use since Jan. 5, 1909.

Ser. No. 55,570. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) SHINOLA COMPANY, Rochester, N. Y. Filed Apr. 7, 1911.

SHINOLA

Particular description of goods.—Shoe-Polish.
Claims use since about Jan. 1, 1900.

Ser. No. 55,656. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MANGELS, HEROLD CO. INC., Baltimore, Md. Filed Apr. 10, 1911.

GOLDEN GEM

Particular description of goods.—A Compound of Cane and Corn Syrup.
Claims use since about Nov. 1, 1907.

Ser. No. 56,127. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BROWN, DEXTER CO., Boston, Mass. Filed May 2, 1911.



Particular description of goods.—Finished Goatskins.
Claims use since Jan. 25, 1911.

Ser. No. 56,150. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) PARKER & WHYTE, Winnipeg, Canada. Filed May 4, 1911.



Particular description of goods.—Sanitary Chemical Closets.
Claims use since Feb. 4, 1911.

Ser. No. 56,220. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BOLESLAUS J. ROZANSKI, Chicago, Ill. Filed May 6, 1911.

ST. CELIA

Particular description of goods.—A Remedy for Each of the Following Ailments: Headache, Foot Troubles, Summer Complaints, Colds, Catarrh, Grippe, Neuralgia, Female Weakness, Throat and Lung Affections, Asthma, and Stomach and Liver Troubles.
Claims use since September, A. D. 1910.

Ser. No. 56,865. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) COMPAGNIE FERMIÈRE DE L'ETABLISSEMENT THERMAL DE VICHY, Paris, France. Filed June 6, 1911. Under ten-year proviso.





Particular description of goods.—Pastils Made with Salts Extracted from Natural Mineral Waters.
Claims use since the 28th day of December, 1888.

Ser. No. 57,160. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CHASE DIRT COMPANY, Seattle, Wash. Filed June 19, 1911.



No claim being made to the descriptive words "Chase Dirt."
Particular description of goods.—Washing Compound.
Claims use since May 10, 1911.

Ser. No. 57,492. (CLASS 17. TOBACCO PRODUCTS.) PROGRESS TOBACCO WORKS, New Albany, Ind. Filed July 5, 1911.

GOOD RUN

Particular description of goods.—Smoking-Tobacco.
Claims use since June, 1911.

Ser. No. 57,684. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) CARGILL ELEVATOR CO., Minneapolis, Minn. Filed July 15, 1911.

FALCON

Particular description of goods.—Seed-Wheat, Seed-Barley, Seed-Oats, Seed-Rye, Flax-Seed, Seed-Corn, and Grass-Seeds.
Claims use since July 8, 1911.

Ser. No. 57,937. (CLASS 5. ADHESIVES.) WM. WOTHERSPOON, LTD., Paisley, Scotland. Filed July 29, 1911.

FECULOSE

Particular description of goods.—Adhesive Soluble Starch, Gelatin-Glue, Glue, Gum-Arabic, Tragacanth, and Dextrin.
Claims use since the 29th day of June, 1903.

Ser. No. 58,280. (CLASS 2. RECEPTACLES.) AMERICAN PAPER PRODUCTS COMPANY, St. Louis, Mo. Filed Aug. 19, 1911.

APPCO

Particular description of goods.—Paper Boxes, Paper Shipping-Cases, Paper Egg-Cases, Paper Box-Partitions, Paper Bottle-Wrappers, Paper Coops, Paper Calendar-Mailers, Paper Photograph-Protectors, Paper Bundle-Protectors, Paper Circles, and Paper Bundle-Covers.
Claims use since July 28, 1911.

Ser. No. 58,355. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARTER OAK CITRUS ASSN., Charter Oak, Cal. Filed Aug. 24, 1911.

HESPERIDES

Particular description of goods.—Oranges.
Claims use since May 22, 1911.

Ser. No. 58,548. (CLASS 39. CLOTHING.) HAYNES HENSON SHOE COMPANY, Knoxville, Tenn. Filed Sept. 6, 1911.

KING ARTHUR

Particular description of goods.—Leather Boots and Shoes.
Claims use since about 1902.

Ser. No. 58,618. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHARTER OAK CITRUS ASSOCIATION, Charter Oak, Cal. Filed Sept. 11, 1911.



Particular description of goods.—Oranges.
Claims use since Aug. 20, 1911.

Ser. No. 59,063. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SOCIÉTÉ ANONYME R. BÉZIERS & CIE., Douarnenez, France. Filed Oct. 7, 1911.

PIERRE DE CASCADEC

Particular description of goods.—Canned Sardines.
Claims use since July 1, 1906.

Ser. No. 59,188. (CLASS 32. FURNITURE AND UPHOLSTERY.) JOSIAH H. HARVEY, Scranton, Pa. Filed Oct. 16, 1911.

GAN-EDEN

Particular description of goods.—Mattresses, Bed-Springs, Beds, and Pillows.
Claims use since Sept. 15, 1911.

Ser. No. 59,525. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) DEITSCH BROTHERS, New York, N. Y. Filed Nov. 3, 1911.

WHITE CROSS

Particular description of goods.—Toilet-Brushes.
Claims use since Aug. 1, 1902.

Ser. No. 59,711. (CLASS 17. TOBACCO PRODUCTS.) J. WALLACH'S SONS, New York, N. Y. Filed Nov. 13, 1911.

EL FUMO DE ORO

The upper portion of the heart, the panel on either side thereof, and the words "De Oro" being red.
Particular description of goods.—Cigars.
Claims use since 1900.

Ser. No. 60,197. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. A. BROMUND COMPANY, New York, N. Y. Filed Dec. 13, 1911.

E-Z

Particular description of goods.—Laundry-Starch Polish.
Claims use since Oct. 1, 1907.

Ser. No. 60,382. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Dec. 20, 1911.



Particular description of goods.—Biscuit.
Claims use since February, 1901.

Ser. No. 60,553. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) COLUMBIA G. M. B. H., Tsingtau, China. Filed Jan. 2, 1912.

Colovo

Particular description of goods.—Eggs and Egg Preparations Intended for Food.
Claims use since July, 1908.

Ser. No. 60,559. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DOOLEY, SMITH & COMPANY, New York, N. Y. Filed Jan. 2, 1912.

EL CARIBE

Particular description of goods.—Canned Pears.
Claims use since Nov. 16, 1911.

Ser. No. 60,667. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) NETTIE ILLOWAY, New York, N. Y. Filed Jan. 6, 1912.

E-Z

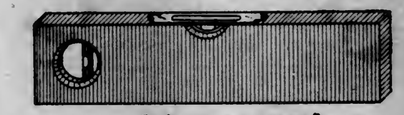
Particular description of goods.—Collar-Supporters.
Claims use since about Oct. 18, 1907.

Ser. No. 60,718. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) SHINOLA COMPANY, Rochester, N. Y. Filed Jan. 10, 1912.

SHINOLA

Particular description of goods.—Polishing-Brushes and Daubers for Shoe-Polish.
Claims use since about Jan. 1, 1903.

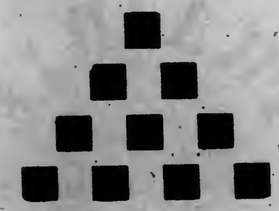
Ser. No. 60,727. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE D. L. CLARK COMPANY, Pittsburgh, Pa. Filed Jan. 11, 1912.



"IT'S ON THE LEVEL"

The level being printed in red.
Particular description of goods.—Chewing-Gum.
Claims use since the early part of July, 1911.

Ser. No. 60,739. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed Jan. 12, 1912.



Particular description of goods.—Sugar.
Claims use since about 1876.

Ser. No. 60,741. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed Jan. 12, 1912.

CRESCENT

Particular description of goods.—Sugar.
Claims use since about 1901.

Ser. No. 60,743. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed Jan. 12, 1912. Under ten-year proviso.

EMPIRE

Particular description of goods.—Sugar.
Claims use since about the year 1876.

Ser. No. 60,744. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed Jan. 12, 1912. Under ten-year proviso.

CENTRAL

Particular description of goods.—Sugar.
Claims use since about the year 1872.

Ser. No. 60,745. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed Jan. 12, 1912. Under ten-year proviso.

PRAIRIE

Particular description of goods.—Sugar.
Claims use since prior to Aug. 11, 1874.

Ser. No. 60,746. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed Jan. 12, 1912. Under ten-year proviso.

IDEAL

Particular description of goods.—Sugar.
Claims use since prior to Nov. 13, 1877.

Ser. No. 60,747. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed Jan. 12, 1912. Under ten-year proviso.

WINDSOR

Particular description of goods.—Sugar.
Claims use since about the year 1876.

Ser. No. 60,748. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed Jan. 12, 1912. Under ten-year proviso.

METROPOLITAN

Particular description of goods.—Sugar.
Claims use since prior to the 11th day of August, 1874.

Ser. No. 60,749. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed Jan. 12, 1912. Under ten-year proviso.

COLUMBIA

Particular description of goods.—Sugar.
Claims use since prior to the 13th day of November, 1877.

Ser. No. 60,750. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed Jan. 12, 1912. Under ten-year proviso.

PHOENIX

Particular description of goods.—Sugar.
Claims use since about the year 1872.

Ser. No. 60,795. (CLASS 2. RECEPTACLES.) THE SANISTEEL COMPANY, New York, N. Y. Filed Jan. 13, 1912.

SANISTEEL

Particular description of goods.—Sheet-Metal Closet-Tanks, Medicine-Cabinets, Toilet-Cabinets, and Humidors.
Claims use since Nov. 9, 1911.

Ser. No. 60,813. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) G. A. STAFFORD & COMPANY, New York, N. Y. Filed Jan. 15, 1912.



Particular description of goods.—Silk, Woolen, Worsted, Cotton Piece Goods Made Wholly or in Part of One or More of Such Materials.
Claims use since February of 1908.

Ser. No. 60,888. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN SUGAR REFINING COMPANY, Jersey City, N. J. Filed Jan. 18, 1912. Under ten-year proviso.

TRADERS

Particular description of goods.—Sugar.
Claims use since about the year 1872.

Ser. No. 61,047. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ALFRED WOLFF & Co., New York, N. Y. Filed Jan. 26, 1912.



Particular description of goods.—Dry Batteries, Incandescent-Electric-Light Lamps and Flash-Lights, and Miniature Electric Railways.
Claims use since about February, 1908.

Ser. No. 61,154. (CLASS 31. FILTERS AND REFRIGERATORS.) ICELESS ICE BOX COMPANY, Chicago, Ill. Filed Jan. 31, 1912.

Cedurin

Particular description of goods.—Refrigerating Devices Which Utilize the Principle of Surface Evaporation of Water to Absorb Heat from the Interior of the Container.
Claims use since Jan. 15, 1912.

Ser. No. 61,187. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS PHILIPPE, New York, N. Y. Filed Feb. 1, 1912.

ANGÉLUS



Particular description of goods.—Face-Creams, Face-Powders, and Rouge.
Claims use since Jan. 1, 1912.

Ser. No. 61,214. (CLASS 39. CLOTHING.) HICKEY FREEMAN CO., Rochester, N. Y. Filed Feb. 2, 1912.



Particular description of goods.—Men's and Boys' Ready-Made Coats, Trousers, Waistcoats, and Overcoats.
Claims use since Jan. 1, 1907.

Ser. No. 61,281. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912.



Particular description of goods.—Shawl-Straps, Pocket-Books, Leather School-Bags, and Leather Valise-Tags.
Claims use since Mar. 1, 1908.

Ser. No. 61,282. (CLASS 5. ADHESIVES.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912.

N T Y

Particular description of goods.—Paper Tape Gummed on One Side, Used for Binding Purposes, Glue, and Mucilage.
Claims use since Mar. 1, 1908.

Ser. No. 61,567. (CLASS 39. CLOTHING.) P. W. ROUSS, New York, N. Y. Filed Feb. 17, 1912.



Particular description of goods.—Work-Shirts.
Claims use since Feb. 1, 1912.

Ser. No. 61,569. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES JOSEPH CRAIG, Salisbury, Conn. Filed Feb. 17, 1912.



Particular description of goods.—Malarial Tablets.
Claims use since April, 1903.

Ser. No. 61,603. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) BURMONT SPECIALTY COMPANY, Fernwood, Pa. Filed Feb. 19, 1912.

ORIGINAL VESUVIUS
SAFETY TORPEDO

The color of the upper band being red and the lower blue. No claim is made to the words "Safety Torpedo."
Particular description of goods.—Hand-Torpedoes.
Claims use since July, 1907.

Ser. No. 61,619. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) R. BLACKINTON & CO., North Attleboro, Mass. Filed Feb. 20, 1912. Under ten-year proviso.

R B Co

Particular description of goods.—Tableware, Flat and Hollow Ware, Toilet Ware, Jewelry for Personal Adornment, Manicure-Pieces, Book-Marks, Picture-Frames, Purses, Card-Cases, Vanity-Cases, Holders for Powder-Paper Books, Jewel-Cases, Eyeglass and Spectacle Cases, Lorgnettes, Miniature-Cases, Tea-Balls, Cigarette-Holders, Match-Boxes, Cigarette-Holder Cases, Cigarette-Cases, Cigar-Cases, Cigar-Lighters, Corkscrews, Bottle-Openers, Desk Sets, Holders for Cigarette-Paper Books, Cigar-Cutters, Address-Tablets and Memorandum-Pencils, Stamp-Cases, Hair-Pin Cases, Mirrors, Pungents and Perfume Disks, All of Precious Metal, Watch-Holders, Mesh-Bags, Vanity-Boxes, Bonbon-Boxes, Holders for Eyebrow-Pencils, Memorandum-Tablets, Coin-Balls, Coin-Cases, Puff-Balls.
Claims use since 1892.

Ser. No. 61,701. (CLASS 39. CLOTHING.) ELIZABETH CITY HOSIERY CO., Elizabeth City, N. C. Filed Feb. 24, 1912.



Particular description of goods.—Hosiery.
Claims use since Jan. 1, 1912.

Ser. No. 61,722. (CLASS 2. RECEPTACLES.) YALE NOVELTY COMPANY, Leominster, Mass. Filed Feb. 26, 1912.

Inorloid

Particular description of goods.—Trays and Boxes Made of a Plastic Composition Known to the Trade as "Celluloid."
Claims use since the 17th day of February, 1912.

Ser. No. 61,732. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE W. KINSEY, Paterson, N. J. Filed Feb. 26, 1912.



The words "Red Tailed Tag" and the border on the end of the tag being printed in red, no claim being made to the representation of a tag as such.
Particular description of goods.—Smoked Finnan Haddies.
Claims use since Jan. 1, 1912.

Ser. No. 61,768. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CECILIE LANDE, New York, N. Y. Filed Feb. 27, 1912.

Nutzyme

Particular description of goods.—Nut-Butter.
Claims use since July 1, 1911.

Ser. No. 61,771. (CLASS 38. PRINTS AND PUBLICATIONS.) UNITED ANCIENT ORDER OF DRUIDS, New Orleans, La., and Albany, N. Y. Filed Feb. 27, 1912. Under ten-year proviso.

U.A.O.D.

Particular description of goods.—Books.
Claims use since 1839.

Ser. No. 61,787. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) DAVID & JOHN ANDERSON LIMITED, Glasgow, Scotland. Filed Feb. 28, 1912. Under ten-year proviso.

D J A

Particular description of goods.—Cotton, Worsted, and Woolen Dress Goods and Shirtings.
Claims use since January, 1876.

Ser. No. 61,815. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE GREEN FUEL ECONOMIZER CO., Matteawan, N. Y. Filed Feb. 29, 1912. Under ten-year proviso.



Particular description of goods.—Hot-Water Heaters, Hot-Air Heaters for Heating Buildings, Hot-Air Heaters for Drying Purposes and for Blast Purposes.
Claims use since 1851.

Ser. No. 61,829. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LAWRENCEBURG ROLLER MILLS CO., Lawrenceburg, Ind. Filed Feb. 29, 1912.

SNOWFLAKE

Particular description of goods.—Middlings, Bran, and Mixed Stock Feed.
Claims use since July, 1897.

Ser. No. 61,848. (CLASS 43. THREAD AND YARN.) JOSEPH ROBERT LEESON, Boston, Mass. Filed Mar. 1, 1912.



Which consists of the name "Leeson," being a part of the signature and in the handwriting of Joseph Robert Leeson. No claim is made for the representation of the cop or thread-package.
Particular description of goods.—Cops, Bobbins, Cones, and Packages of Thread and Yarn.
Claims use since Feb. 16, 1912.

Ser. No. 61,852. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) FRANK STEVENS, New York, N. Y. Filed Mar. 1, 1912. Under ten-year proviso.

NEW YORK AWNING CO.

Particular description of goods.—Awnings and Tents.
Claims use since 1880.

Ser. No. 61,858. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) GENERAL GAS APPLIANCE CO., New York, N. Y. Filed Mar. 2, 1912.

Triplex

Particular description of goods.—Gas, Coal, Wood, Kerosene, and Alcohol Stoves, Ranges, Furnaces, Water-Heaters, and Burners.
Claims use since Feb. 6, 1912.

Ser. No. 61,859. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE CEDAR-SWEEP COMPANY, Los Angeles, Cal. Filed Mar. 2, 1912.

CEDAR-SWEEP

Particular description of goods.—A Sweeping Compound.
Claims use since November, 1908.

Ser. No. 61,973. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) STEPHEN S. THOMAS, Warren, Ohio. Filed Mar. 6, 1912.

ECOTHERMAL

Particular description of goods.—Fireless Cookers.
Claims use since Sept. 19, 1911.

Ser. No. 61,998. (CLASS 38. PRINTS AND PUBLICATIONS.) NEW IDEA PUBLISHING CO., New York, N. Y. Filed Mar. 7, 1912.

THE WOMAN'S MAGAZINE

Particular description of goods.—A Monthly Magazine.
Claims use since Feb. 28, 1911.

Ser. No. 62,037. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) WILLIAM ODDY, Bradford, Yorkshire, England. Filed Mar. 8, 1912.

WULVAS

Particular description of goods.—Piece Goods of Cotton, Wool, and Hair; Wool and Hair; and Cotton and Hair.
Claims use since 1900.

Ser. No. 62,117. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM E. PENTZ, St. Joseph, Mo. Filed Mar. 11, 1912.

WEP

Particular description of goods.—Toilet Powders.
Claims use since Mar. 1, 1912.

Ser. No. 62,120. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AUSTIN, NICHOLS & CO., New York, N. Y. Filed Mar. 12, 1912.

TANDEM

Particular description of goods.—Canned Peas, Corn, and Peaches.
Claims use since about Jan. 1, 1891.

Ser. No. 62,137. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ULRICH & CO., Buffalo, N. Y. Filed Mar. 13, 1912.

RADO
RAYDO

Particular description of goods.—Metal-Polishes.
Claims use since Dec. 1, 1904.

Ser. No. 62,141. (CLASS 39. CLOTHING.) WM. R. MOORE DRY GOODS COMPANY, Memphis, Tenn. Filed Mar. 13, 1912.

STRONGHOLD

Particular description of goods.—Hosiery.
Claims use since Mar. 7, 1912.

Ser. No. 62,156. (CLASS 38. PRINTS AND PUBLICATIONS.) CORN PUBLISHING COMPANY, Waterloo, Iowa. Filed Mar. 14, 1912.

CORN

Particular description of goods.—A Monthly Magazine.
Claims use since Jan. 16, 1912.

Ser. No. 62,181. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) LOUIS B. FORTNER, Philadelphia, Pa., and Boston, Mass. Filed Mar. 15, 1912.

NATROPOL

The word "Natropol."
Particular description of goods.—A Castor-Oil Product Employed in Dyeing Processes.
Claims use since about Jan. 1, 1908.

Ser. No. 62,205. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) OTTO W. HINES, Washington, D. C. Filed Mar. 16, 1912.



Particular description of goods.—Eyeglasses and Spectacles.
Claims use since Feb. 19, 1912.

Ser. No. 62,242. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE M. & M. MANUFACTURING COMPANY, Akron, Ohio. Filed Mar. 18, 1912.

M & M

Particular description of goods.—A Vulcanizing Solution.
Claims use since October, 1905.

Ser. No. 62,251. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) ELLIS V. GUSTAVSON, New York, N. Y. Filed Mar. 18, 1912.

VIKTOR

Particular description of goods.—Automatic Advertising-Machines.
Claims use since Oct. 15, 1911.

Ser. No. 62,302. (CLASS 11. INKS AND INKING MATERIALS.) MITTAG & VOLGER, INCORPORATED, Park Ridge, N. J. Filed Mar. 20, 1912.

TAGGER

Particular description of goods.—Type-Writer Ribbons and Carbon-Paper.
Claims use since about Jan. 10, 1912.

Ser. No. 62,310. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) COMPAGNIE GENERALE DE PHONOGRAPHES, CINEMATOGRAPHES ET APPAREILS DE PRECISION, Paris, France. Filed Mar. 21, 1912.

"KOK"

Particular description of goods.—Kinematographic Films.
Claims use since July 1, 1911.

Ser. No. 62,321. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE M. W. DUNTON COMPANY, Providence, R. I. Filed Mar. 21, 1912.

BLACK DIAMOND

Particular description of goods.—Friction-Tape.
Claims use since June 11, 1908.

Ser. No. 62,326. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) "ITALA" FABBRICA DI AUTOMOBILI, Turin, Italy. Filed Mar. 21, 1912.

Avalve

Particular description of goods.—Internal-Combustion Engines.
Claims use since Mar. 17, 1911.

Ser. No. 62,329. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) S. TWITCHELL COMPANY, Camden, N. J., and Philadelphia, Pa. Filed Mar. 22, 1912.

Echo

Particular description of goods.—Carbonated Beverages and Beverages Containing Syrups.
Claims use since on or about Aug. 1, 1911.

Ser. No. 62,333. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) STANDARD PLAYING CARD CO., Chicago, Ill. Filed Mar. 22, 1912.

Suffragette

Particular description of goods.—Playing-Cards.
Claims use since November, 1911.

Ser. No. 62,342. (CLASS 39. CLOTHING.) WERTHEIMER BROS., New York, N. Y. Filed Mar. 22, 1912. Under ten-year proviso.

PROGRESS KNITTING MILLS

Particular description of goods.—Knitted Sweaters, Bathing-Suits, Cardigan Jackets, Jerseys, and Ladies' Coats.
Claims use since the year 1888.

Ser. No. 62,390. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) "ITALA" FABBRICA DI AUTOMOBILI, Turin, Italy. Filed Mar. 25, 1912.

ITALA

Particular description of goods.—Internal-Combustion Engines and Parts Thereof.
Claims use since Jan. 7, 1907.

Ser. No. 62,405. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ELWOOD T. RAMER, Philadelphia, Pa. Filed Mar. 25, 1912.

Morbred

Particular description of goods.—Bread.
Claims use since November, 1911.

Ser. No. 62,420. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) IDEAL VENTILATOR CO., Boston, Mass., and Providence, R. I. Filed Mar. 26, 1912.

IDEAL

Particular description of goods.—Ventilators.
Claims use since Apr. 16, 1900.

Ser. No. 62,421. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) MASSACHUSETTS CHEMICAL COMPANY, Walpole, Mass. Filed Mar. 26, 1912.

RESISTOLAC

Particular description of goods.—Insulating Compound.
Claims use since on or about Dec. 8, 1911.

Ser. No. 62,460. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) HARTMAN BROOM CO., Clay Center, Kans. Filed Mar. 28, 1912.



Particular description of goods.—Brooms.
Claims use since Feb. 1, 1901.

Ser. No. 62,477. (CLASS 37. PAPER AND STATIONERY.) THE AUTOPIANO COMPANY, New York, N. Y. Filed Mar. 28, 1912.

Celeste

Particular description of goods.—Player-Pianos and Pianos.
Claims use since February, 1912.

Ser. No. 62,485. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) M. HOHNER, New York, N. Y. Filed Mar. 28, 1912.

Ironclad

Particular description of goods.—Harmonicas.
Claims use since Mar. 24, 1911.

Ser. No. 62,506. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE E. INGRAHAM CO., Bristol, Conn. Filed Mar. 29, 1912.

INDIAN

Particular description of goods.—Clocks.
Claims use since Mar. 1, 1912.

Ser. No. 62,521. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Mar. 30, 1912.

CAMPA

Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 6, 1912.

Ser. No. 62,523. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Mar. 30, 1912.

OLD BALDY

Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 6, 1912.

Ser. No. 62,524. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Mar. 30, 1912.

CRISS CROSS

Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 6, 1912.

Ser. No. 62,525. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Mar. 30, 1912.

John Hancock

Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Oct. 10, 1883.

Ser. No. 62,526. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Mar. 30, 1912.

WARP & WOOF

Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Apr. 1, 1896.

Ser. No. 62,529. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Mar. 30, 1912.

LIGHT & SHADOW

Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 13, 1912.

Ser. No. 62,530. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Mar. 30, 1912.

RED TOP



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 4, 1907.

Ser. No. 62,531. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Mar. 30, 1912.



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 6, 1912.

Ser. No. 62,551. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE ROCKFORD WATCH CO. LTD., Rockford, Ill. Filed Mar. 30, 1912. Under ten-year proviso.

R.W.Co.

Particular description of goods.—Watchcases and Watch-Movements.
Claims use since 1889.

Ser. No. 62,552. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE ROCKFORD WATCH CO. LTD., Rockford, Ill. Filed Mar. 30, 1912. Under ten-year proviso.

ROCKFORD WATCH CO.

Particular description of goods.—Watchcases and Watch-Movements.
Claims use since 1889.

Ser. No. 62,564. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL CARBON COMPANY, Cleveland, Ohio. Filed Apr. 1, 1912.

Farmer's Friend

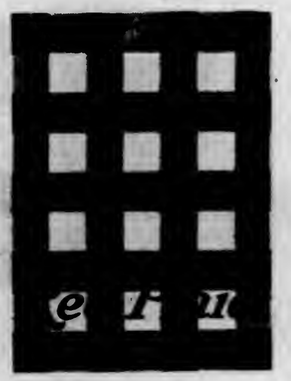
Particular description of goods.—Dry Cells.
Claims use since Mar. 20, 1912.

Ser. No. 62,565. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL CARBON COMPANY, Cleveland, Ohio. Filed Apr. 1, 1912.

Iron State

Particular description of goods.—Dry Cells.
Claims use since Mar. 13, 1912.

Ser. No. 62,624. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Apr. 3, 1912.



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 1, 1912.

Ser. No. 62,625. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed Apr. 3, 1912.

Countess

Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 6, 1912.

Ser. No. 62,635. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) A. G. SPALDING & BROS., Jersey City, N. J., and New York, N. Y. Filed Apr. 3, 1912.

WITCH

Particular description of goods.—Golf-Balls.
Claims use since Mar. 1, 1912.

Ser. No. 62,658. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) D. & W. FUSE Co., Providence, R. I. Filed Apr. 4, 1912.

D&W

Particular description of goods.—Magnetic Chucks.
Claims use since August, 1911.

Ser. No. 62,672. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) THE E. A. PFLUEGER COMPANY, Akron, Ohio. Filed Apr. 5, 1912.

Portage

Particular description of goods.—Fishing-Tackle.
Claims use since Mar. 6, 1912.

Ser. No. 62,696. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) R. C. H. CORPORATION, Detroit, Mich. Filed Apr. 6, 1912.



Particular description of goods.—Automobiles.
Claims use since Aug. 1, 1911.

Ser. No. 62,718. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) JOHN THORNTON, Jr., New York, N. Y. Filed Apr. 6, 1912.



Particular description of goods.—Sewing-Needles.
Claims use since November, 1880.

TRADE-MARKS

REGISTERED MAY 14, 1912.

86,500. WOOD-PULP MANUFACTURED BY SPECIAL PROCESS. A/S. HURUM FABRIKER, Jelöen, Norway.
Filed October 13, 1910. Serial No. 52,256. PUBLISHED FEBRUARY 14, 1911.

86,501. CERTAIN ABRASIVE, DETERGENT, AND POLISHING MATERIALS. ADESA & Co., London, England.
Filed November 24, 1911. Serial No. 59,895. PUBLISHED MARCH 12, 1912.

86,502. RECEPTACLES FOR CIGARETTE-HOLDERS. AMERICAN ANTI-CIGARETTE COMPANY, Roanoke, Va., and New York, N. Y.
Filed November 1, 1910. Serial No. 52,554. PUBLISHED MARCH 12, 1912.

86,503. HEAT-INSULATING MATERIALS FOR INSULATING HEATED SURFACES. ARMSTRONG CORK COMPANY, Pittsburgh, Pa.
Filed November 9, 1911. Serial No. 59,620. PUBLISHED MARCH 12, 1912.

86,504. WRITING-PAPER. B. D. RISING PAPER COMPANY, Housatonic, Mass.
Filed January 12, 1912. Serial No. 60,763. PUBLISHED MARCH 5, 1912.

86,505. HOSIERY. BALTIMORE BARGAIN HOUSE, Baltimore, Md.
Filed February 1, 1912. Serial No. 61,194. PUBLISHED MARCH 12, 1912.

86,506. HOSIERY. BALTIMORE BARGAIN HOUSE, Baltimore, Md.
Filed February 1, 1912. Serial No. 61,195. PUBLISHED MARCH 12, 1912.

86,507. WATCHES. ADOLPHE BIEN, Paris, France.
Filed November 21, 1911. Serial No. 59,828. PUBLISHED MARCH 5, 1912.

86,508. CORSETS. BIRDSEY-SOMERS CO., New York, N. Y.
Filed January 31, 1912. Serial No. 61,163. PUBLISHED MARCH 12, 1912.

86,509. PAPER AND STATIONERY. J. C. BLAIR COMPANY, Huntingdon, Pa.
Filed May 16, 1911. Serial No. 56,386. PUBLISHED JUNE 13, 1911.

86,510. MEN'S OUTER SUITS. ABE BLOCH & COMPANY, Cincinnati, Ohio.
Filed September 26, 1911. Serial No. 58,859. PUBLISHED MARCH 12, 1912.

86,511. GO-CARTS AND BABY-CARRIAGES. MOSES L. BLOCH, Philadelphia, Pa.
Filed January 20, 1912. Serial No. 60,949. PUBLISHED MARCH 12, 1912.

86,512. STOVE, SHOE, AND METAL POLISHES. CARBON PRODUCTS COMPANY, Charleston, W. Va.
Filed November 13, 1911. Serial No. 59,700. PUBLISHED MARCH 12, 1912.

86,513. LEATHER BELTING. COLONIAL LEATHER COMPANY, Chicago, Ill.
Filed February 16, 1911. Serial No. 54,565. PUBLISHED MARCH 12, 1912.

86,514. CERTAIN KNITTED, NETTED, AND TEXTILE FABRICS. CONSOLIDATED COTTON DUCK COMPANY, Baltimore, Md.
Filed May 21, 1909. Serial No. 42,581. PUBLISHED APRIL 12, 1910.

86,515. ICE-CREAM FREEZERS. THE DANA MANUFACTURING COMPANY, Norwood, Ohio.
Filed December 11, 1911. Serial No. 60,165. PUBLISHED MARCH 12, 1912.

86,516. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES. CHARLES A. DANIEL, Philadelphia, Pa.
Filed December 19, 1911. Serial No. 60,346. PUBLISHED MARCH 12, 1912.

86,517. GLOVES AND MITTENS. THE DEMPSTER & PLACE COMPANY, Gloversville, N. Y.
Filed September 8, 1911. Serial No. 58,590. PUBLISHED MARCH 12, 1912.

86,518. ELASTIC LISLE WEBBING. DIECKERHOFF, RAFFLOER & Co., New York, N. Y.
Filed January 18, 1912. Serial No. 60,895. PUBLISHED MARCH 12, 1912.

86,519. JEWELRY GOODS FOR PERSONAL WEAR. FRANK R. DOBROWSKY, Redding, Cal.
Filed July 18, 1910. Serial No. 50,882. PUBLISHED MARCH 7, 1911.

86,520. WORK SHIRTS AND TROUSERS. ELY & WALKER DRY GOODS CO., St. Louis, Mo.
Filed January 30, 1912. Serial No. 61,131. PUBLISHED MARCH 12, 1912.

86,521. HOT-WATER HEATERS AND GAS-BURNERS FOR HEATING PURPOSES. EUREKA WATER HEATER Co., Chicago, Ill.
Filed August 7, 1911. Serial No. 58,061. PUBLISHED MARCH 5, 1912.

86,522. STATIONERY SUPPLIES. A. W. FABER, Stein, Germany.
Filed December 16, 1905. Serial No. 15,458. PUBLISHED DECEMBER 26, 1911.

86,523. STATIONERY SUPPLIES. A. W. FABER, Stein, Germany.
Filed August 15, 1911. Serial No. 58,211. PUBLISHED MARCH 12, 1912.

86,524. SOAPS AND CLEANSING-POWDERS. OTTO H. FOERSTER, Milwaukee, Wis.
Filed February 7, 1911. Serial No. 54,362. PUBLISHED MARCH 12, 1912.

86,525. DRESSERS, CHIFFONNIERS, COMMODES, BUFFETS, AND TABLES. FRENCH & HEALD CO., Milford, N. H.
Filed October 28, 1911. Serial No. 59,399. PUBLISHED MARCH 12, 1912.

86,526. TOY POOL-TABLES. ISAAC FULD, Baltimore, Md.
Filed December 29, 1911. Serial No. 60,501. PUBLISHED MARCH 12, 1912.

86,527. METALLIC FILING-CABINETS. THE GENERAL FIREPROOFING CO., Youngstown, Ohio.
Filed November 22, 1911. Serial No. 59,856. PUBLISHED MARCH 12, 1912.

86,528. CASKS AND BARRELS. THE GREIF BROS. CO., Cleveland, Ohio.
Filed May 5, 1911. Serial No. 56,205. PUBLISHED DECEMBER 5, 1911.

86,529. CASKS AND BARRELS. THE GREIF BROS. CO., Cleveland, Ohio.
Filed May 5, 1911. Serial No. 56,206. PUBLISHED DECEMBER 5, 1911.

86,530. CASKS AND BARRELS. THE GREIF BROS. CO., Cleveland, Ohio.
Filed May 5, 1911. Serial No. 56,207. PUBLISHED DECEMBER 5, 1911.

86,531. SHOW-CASES, WARDROBES, WINDOW-BACKS, MIRRORS, AND COUNTERS. JOHN HOFMAN Co., Rochester, N. Y.
Filed November 23, 1911. Serial No. 59,891. PUBLISHED MARCH 12, 1912.

86,532. LEATHER BOOTS AND SHOES. F. M. HOYT SHOE COMPANY, Manchester, N. H.
Filed February 3, 1912. Serial No. 61,232. PUBLISHED MARCH 12, 1912.

86,533. CIGARS AND CIGARETTES. C. INGENOHL, Antwerp, Belgium, and Manila, Philippine Islands.
Filed January 25, 1911. Serial No. 54,090. PUBLISHED MARCH 12, 1912.

86,534. CIGARS AND CIGARETTES. C. INGENOHL, Antwerp, Belgium, and Manila, Philippine Islands.
Filed January 25, 1911. Serial No. 54,091. PUBLISHED MARCH 12, 1912.

86,535. CIGARS AND CIGARETTES. C. INGENOHL, Antwerp, Belgium, and Manila, Philippine Islands.
Filed January 25, 1911. Serial No. 54,093. PUBLISHED MARCH 12, 1912.

86,536. RUBBER PACKING, GASKETS, DISKS, RINGS, AND WASHERS. JENKINS RUBBER Co., Elizabeth, N. J.
Filed December 30, 1911. Serial No. 60,524. PUBLISHED MARCH 5, 1912.

86,537. LIGHTING APPARATUS FOR GAS-LAMPS. HERMANN BERNHARD GIESELER JOACHIM, Paris, France.
Filed June 22, 1911. Serial No. 57,257. PUBLISHED MARCH 5, 1912.

86,538. PISTON-PACKING MADE OF TEXTILE FABRICS. H. W. JOHNS-MANVILLE COMPANY, New York, N. Y.
Filed August 9, 1911. Serial No. 58,111. PUBLISHED MARCH 5, 1912.

86,539. CERTAIN CONSTRUCTION MATERIALS. THE KLEIN MANUFACTURING COMPANY, Cleveland, Ohio.
Filed October 28, 1911. Serial No. 59,403. PUBLISHED MARCH 12, 1912.

86,540. DRESS-SHIELDS. I. B. KLEINERT RUBBER COMPANY, New York, N. Y.
Filed February 2, 1912. Serial No. 61,228. PUBLISHED MARCH 12, 1912.

86,541. CERTAIN KNITTED, NETTED, AND TEXTILE FABRICS. ARNOLD OTTO MEYER, Hamburg, Germany.
Filed July 28, 1911. Serial No. 57,912. PUBLISHED MARCH 12, 1912.

86,542. RANGE-BOILERS. NATIONAL COMMITTEE OF THE CONFEDERATED SUPPLY ASSOCIATIONS, New York, N. Y.
Filed January 8, 1912. Serial No. 60,685. PUBLISHED MARCH 5, 1912.

86,543. AIR-BRAKES AND PARTS THEREOF. THE NEW YORK AIR BRAKE COMPANY, New York, N. Y.
Filed December 1, 1910. Serial No. 53,077. PUBLISHED MARCH 12, 1912.

86,544. CHEWING-TOBACCO. OGBURN, HILL & Co., Winston Salem, N. C.
Filed June 12, 1911. Serial No. 56,977. PUBLISHED MARCH 12, 1912.

86,545. STEEL TRAPS. ONEIDA COMMUNITY, LIMITED, Oneida, N. Y.
Filed November 6, 1911. Serial No. 59,576. PUBLISHED MARCH 12, 1912.

86,546. WEEKLY TRADE MAGAZINE. OPPENHEIMER & TREBITSCH, COMPANY, New York, N. Y.
Filed January 24, 1912. Serial No. 61,006. PUBLISHED MARCH 12, 1912.

86,547. LEATHER BELTING. N. PALMER & Co., Bridgeport, Conn.
Filed November 3, 1911. Serial No. 59,530. PUBLISHED MARCH 5, 1912.

86,548. BELTING COMPOSED OF RUBBER OR RUBBER AND FABRIC. PEERLESS RUBBER MANUFACTURING COMPANY, New York, N. Y.
Filed December 3, 1907. Serial No. 31,536. PUBLISHED MARCH 12, 1912.

86,549. TOILET AND OTHER SOAP. THE PENNSYLVANIA SOAP COMPANY, Lancaster, Pa.
Filed December 4, 1911. Serial No. 60,062. PUBLISHED MARCH 12, 1912.

86,550. PRINTED ADVERTISING DEVICES. WALTER L. PYLE, Philadelphia, Pa.
Filed October 27, 1911. Serial No. 59,388. PUBLISHED MARCH 12, 1912.

86,551. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES. REVERE RUBBER COMPANY, Chelsea, Mass.
Filed September 30, 1910. Serial No. 52,026. PUBLISHED MARCH 5, 1912.

86,552. OIL AND GAS LAMPS, GAS GENERATORS AND BURNERS. ROSE MANUFACTURING Co., Philadelphia, Pa.
Filed October 13, 1911. Serial No. 59,141. PUBLISHED MARCH 5, 1912.

86,553. PIANOS. THE RUDOLPH WURLITZER Co., Cincinnati, Ohio.
Filed December 15, 1911. Serial No. 60,279. PUBLISHED MARCH 5, 1912.

86,554. ADHESIVE SUBSTANCE USED AS MECHANICAL INSECT-CATCHER. RUSSELL & PROELL, Keene, N. H.
Filed December 6, 1911. Serial No. 60,101. PUBLISHED MARCH 12, 1912.

86,555. GAMES. RUSTICO, Wheeling, W. Va.
Filed December 3, 1910. Serial No. 53,124. PUBLISHED MARCH 12, 1912.

86,556. WATER-HEATERS. RUUD MANUFACTURING COMPANY, Pittsburgh, Pa.
Filed December 23, 1911. Serial No. 60,498. PUBLISHED MARCH 12, 1912.

86,557. CIGARS. SANCHEZ & HAYA Co., Tampa, Fla.
Filed May 29, 1905. Serial No. 6,912. PUBLISHED MARCH 12, 1912.

86,558. CIGARS. SANCHEZ & HAYA Co., Tampa, Fla.
Filed May 22, 1906. Serial No. 19,767. PUBLISHED MARCH 12, 1912.

86,559. GOLF-BALLS. A. G. SPALDING & BROS., Jersey City, N. J., and New York, N. Y.
Filed April 14, 1911. Serial No. 55,764. PUBLISHED MARCH 12, 1912.

86,560. SURGICAL BANDAGES, SURGICAL BELTS, SANITARY BELTS, AND ABDOMINAL BELTS. THE SPIRELLA COMPANY, Meadville, Pa.
Filed September 9, 1910. Serial No. 51,740. PUBLISHED MARCH 12, 1912.

86,561. REFRIGERATORS. CORUS D. STOLL, Kansas City, Mo.
Filed January 20, 1912. Serial No. 60,955. PUBLISHED MARCH 12, 1912.

86,562. LIME AND CONSTRUCTION-CEMENT. TIDEWATER PORTLAND CEMENT COMPANY, Union Bridge, Md., and New York, N. Y.
Filed November 9, 1911. Serial No. 59,619. PUBLISHED MARCH 12, 1912.

86,563. PENS, PENCILS, WRITING-PAPER, AND WRITING-TABLETS. THE UNITED NEWS & STATIONERY Co., Rochester, N. Y.
Filed January 20, 1911. Serial No. 53,988. PUBLISHED MARCH 5, 1912.

86,564. INCANDESCENT GAS-LAMPS AND PARTS THEREOF. WELSBACH COMPANY, Gloucester City, N. J.
Filed August 30, 1911. Serial No. 58,445. PUBLISHED JANUARY 2, 1912.

LABELS

REGISTERED MAY 14, 1912.

16,336.—*Title:* "ALOA BRAND." (For Fresh Fruit Flavors.) THE ANGELUS COMPANY, Pasadena, Cal. Filed January 19, 1912.

16,337.—*Title:* "ELK-LITHIA GINGER ALE." (For Ginger-Ale.) ELKTON LITHIA BOTTLING Co., Elkton, Va. Filed March 23, 1912.

16,338.—*Title:* "TAYLOR'S PORK GOODIES." (For Pork Product.) THE TAYLOR PROVISION Co., Trenton, N. J. Filed March 9, 1912.

16,339.—*Title:* "VEGE-LENE BRAND." (For Vanilla Flavor.) THE VEGE-LENE Co. INC., Warsaw, N. Y. Filed October 31, 1911.

16,340.—*Title:* "PERFECTION LEATHER DRESSING." (For Perfection Leather-Dressing.) WHITE STAR CHEMICAL COMPANY, Paterson, N. J. Filed April 3, 1912.

PRINTS

REGISTERED MAY 14, 1912.

3,025.—*Title:* "ALAGA BRAND." (For Cane-Syrup.) ALABAMA GEORGIA SYRUP Co., Montgomery, Ala. Filed April 25, 1912.

3,026.—*Title:* "WINNERS 'MADE TO MAKE GOOD.'" (For Rubber Tires.) CONSOLIDATED RUBBER TIRE COMPANY, New York, N. Y. Filed April 25, 1912.

3,027.—*Title:* "STINGY! STINGY! WANT IT ALL DO YOU?" (For Wheat Breakfast Food.) CREAM OF WHEAT Co., Minneapolis, Minn. Filed April 26, 1912.

3,028.—*Title:* "NONPAREIL HAIR TONIC DE LUXE." (For a Hair-Tonic.) JOSEPH LEIGHTON, Los Angeles, Cal. Filed April 25, 1912.

2,029.—*Title:* "SUGACO PURE FOOD GOOD TO EAT." (For Ice-Cream Cones.) OMAHA SUGAR CONE Co. INC., Omaha, Nebr. Filed April 26, 1912.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

DECISIONS OF THE U. S. COURTS.

Supreme Court of the United States.

THE UNITED STATES *v.* SOCIÉTÉ ANONYME DES ANCIENS ETABLISSEMENTS CAIL. SOCIÉTÉ ANONYME DES ANCIENS ETABLISSEMENTS CAIL *v.* THE UNITED STATES.

Decided April 8, 1912.

1. COURT OF CLAIMS—JURISDICTION—IMPLIED CONTRACT.
Record considered and *Held* to sustain the finding of the Court of Claims that there was an implied contract on the part of the Government to pay for the use of the patented invention and that therefore the Court of Claims had jurisdiction.

2. PATENTABILITY—INFRINGEMENT—GAS-CHECK.
The De Bange patent, for a gas-check, *Held* not anticipated, valid, and infringed.

Mr. Timothy D. Merwin and *Mr. Philip Mauro* for the appellant.

Assistant Attorney-General Thompson and *Mr. Malcolm A. Coles* for the United States.

Mr. Justice MCKENNA delivered the opinion of the Court.

This suit is for royalties alleged to be due for the use by the Government of a certain patented invention known as a "gas check" or "obturator," a device applied to breech-loading cannon to prevent the escape of gas.

The Court of Claims rendered judgment against the United States for the sum of $136,000. Both parties appeal, the United States contending against any judgment, the claimant contending for the recovery of a larger sum. No further distinction is necessary to be observed between the appeals. The discussion of the case will dispose of both.

The first contention of the Government is that the facts set out in the findings did not constitute an implied contract in fact as distinguished from a tort, and that, therefore, the Court of Claims had no jurisdiction of the case.

Such a contract is necessary to sustain the exercise of jurisdiction. (*Russell* v. *United States*, 182 U. S., 516, and cases cited.) The Court of Claims decided that such a contract existed and that the jurisdiction of the court was established, citing *United States* v. *Berdan Fire-Arms Company*, (156 U. S., 552.) The court said:

> The findings disclose an invitation to present the details of the patent to the defendant [the Government], its examination by a board of officers appointed to investigate such inventions, and its final use without the slightest claim of ownership. Nothing appears to show an intention to dispute claimant's title to the patent, hence an implied contract arose to pay for such use.

In discussing the correctness of these conclusions we necessarily assume the validity of the patent, its utility and use by the Government, the question being only for the present whether such use was a trespass upon the rights of the claimant, or in concession of such rights and of an obligation to pay for them.

The findings lack, and, it may be, necessarily lack, definiteness. They trace the history and progress of the invention of gas checks from an early period to the culmination in the patent to Colonel De Bange, an officer of the French army, in 1884, granted upon an application made in 1883. It immediately attracted the notice of American army and naval officers and received favorable commendation in ordnance notes.

In 1883, under an act of Congress of that year, (24 Stat., 474,) a board was constituted known as the "Gun Foundry Board," composed of eminent officers of the army and navy, headed by Rear Admiral Sampson of the navy, whose duty it was, among others, as it is recited in the findings, to report on the establishment of a Government foundry,

> or what other method, if any, should be adopted for the manufacture of heavy ordnance adapted to modern warfare, for the use of the army and navy of the United States.

The board visited the claimant's works at Paris on June 29, 1883.

> In the official report of this board reference is made to a visit to the claimant's works at Paris, France, on August 29, 1883, and to the inspection by said board of the De Bange system of ordnance. In the said report of said board is the following:
> "*Breech fermeture.*—All the French guns are breech-loading, and are fitted with the interrupted screw system, as modified by Colonel De Bange to suit his gas check.
> "*Gas check.*—The De Bange gas check is universally employed."

Prior to the visit of the Gun Foundry Board the De Bange obturator was brought directly to the attention of the United States ordnance authorities through Lieutenant Commander Chadwick, naval attaché at London, to whom De Bange explained his invention and who gave to Lieutenant Commander Folger of the Bureau of Ordnance, Navy Department, a detailed description of the gas-check, with a description of the method of making it, furnished by De Bange, subsequently (July 5, 1883)

forwarding to the Department the device, accompanied by the following letter:

SIR: I have the honor to forward herewith a De Bange "obturator," which was kindly presented on request by the French minister of war.

I am, very respectfully, your obedient servant,

F. E. CHADWICK,
Lt. Comdr., U. S. Navy, Naval Attaché.

Commodore J. E. WALKER, U. S. Navy,
Chief of Bureau of Navigation,
Navy Department, Washington.

In 1884 the ordnance officers of the United States, after experimenting with the De Bange device, adopted it for heavy ordnance (five-inch caliber and upward) and have used no other device since.

The United States Government [we quote from the findings] has never disputed the title of claimant's assignor, Colonel De Bange, as inventor of the said invention; but, on the contrary, the said invention has, ever since its adoption, been known in the service of the United States as the "De Bange gas check," and is described by that name in the official reports of the Secretaries of War and of the Navy.

The findings contain certain correspondence which is relied on by the Government to sustain its contention, and, as it is not possible to condense it, it is given in full:

PARIS, *June 29, 1891.*

Colonel De Bange to H. E.,
The Minister Plenipotentiary of the United States.

MR. MINISTER: In order to respond to the desire expressed by your excellency in the letter which you have done me the honor to address to me, I add some details to my previous observations.

One of my patents bears the number 331,618; it relates to gun carriages; it is not very important because one can do without it; but the second, No. 301,220, which is connected with the obturation of guns and breech mechanism is of the highest importance. Without my obturator the loading of a gun by the breech is difficult and the service is rendered ineffectual. The metallic ring used in Germany is far from having its value and imparts to the gun a considerable inferiority. Thus all the makers of cannon are led to employ my invention, either openly or in a disguised form, styled by them improvement. The War and Navy Departments at New York, which are well acquainted with the question, will certainly not contest the truth of my assertions; they have under their eyes, on trial, guns which speak for themselves.

This is not the first time that I have had to complain of my idea being borrowed without my knowledge in France or abroad. The English Government particularly had taken up my system, and without my having demanded anything had offered me twenty thousand pounds sterling to indemnify me. I refused this offer, it is true, but because as a French officer I ought not to aid in the arming of a power which I do not consider as friendly. In part, deprived of my assistance, England has copied me badly and possesses but a moderate artillery.

In any case, I appeal to the sentiments of equity of the Government of the United States, convinced that it will recognize easily the justice of my claim.

Pray accept, &c., &c.,

(Sgd.) Colonel DE BANGE.

UNITED STATES LEGATION, NAVAL ATTACHÉ,
Paris, July 2nd, 1891.

The naval attaché at London suggested in a communication to Mr. Reid, our Minister there, that Colonel De Bange's letter be forwarded to the Navy Department. The Minister, however, referred it to the Secretary of State.

De Bange sent the following letter to the Secretary of the Navy:

VERSAILLES, NEAR PARIS, 16/8/91.

Colonel De Bange to Monsieur Benjamin F. Tracy,
Secretary of the Navy at Washington.

MR. SECRETARY: Some months ago I addressed the United States Minister at Paris, verbally and by writing, several remarks on the subject of loans which I had made of my invention to the Departments of War and of the Navy; finally, as I have undertaken to write to you directly, I now have the honor to lay before you the following:

I had taken out Letters Patent, which treated of artillery in the United States, one number, 301,220, relative to l'obturation of guns, and of principal importance; the other number, 331,618, relative to the carriage.

Furthermore, I have seen at Paris many of your officers to whom I furnished without reserve all the information which they have asked of me.

Under these circumstances I hope that if the Government has desired to utilize my inventions, it will inform me; there has been no defect, and I have learned from a reliable source that my systems was copied, unknown to me, by the Departments of War and of the Navy, be it under the disguise of an improvement or be it openly.

I regret that this has occurred, but in any case I consider that an indemnity is due me. If you will have the kindness to notify the Government of my claim, I am confident that it will see that justice is accorded me in the indemnity to which I believe myself to be entitled.

Please accept, Mr. Secretary, the expression of sentiments of highest consideration, with which I am

Your obedient servant,

DE BANGE.

Please reply.

This letter seems also to have been sent to the Department of State and referred by it to the Secretary of the Navy, as appears from the following letter of the Chief of the Bureau of Ordnance:

BUREAU OF ORDNANCE, *August 27, 1891.*

Respectfully returned to the honorable Secretary of the Navy.

The Bureau has not manufactured and is not using any gun carriages which contain principles which could be held as infringing any claims secured in United States Patent No. 331,618. The gas check which has been adopted for the naval guns of 6-in. caliber and upward resembles in certain features that described in United States Patent No. 301,220, issued to Col. De Bange. It also differs from it materially in particulars which are original in this Bureau.

I am not in position to give an opinion as to the question of infringement, and have to suggest that the applicant refer the matter to the Court of Claims.

The Bureau will note for the information of the applicant that there are no funds appropriated or available for the payment of any claim that might be allowed by the Court of Claims, and that it will be necessary for the applicant to go to Congress for relief in the event of a decision being obtained which will warrant such action.

(Sgd.) WM. M. FOLGER,
Chief Bureau of Ordnance.

The Navy Department then addressed the Secretary of State as follows:

NAVY DEPARTMENT,
Washington, September 3, 1891.

SIR: I have the honor to acknowledge the receipt of your communication of the 20th ultimo, inclosing copies of correspondence relating to a claim of Colonel De Bange, a retired officer of the French army, residing in Paris, France, who alleges the use by this Government of certain inventions patented by him in guns and gun carriages.

In reply I have to state that the Chief of the Bureau of Ordnance, in this Department, to whom the communication and accompanying papers were referred, reports as follows:

The Bureau has not manufactured, and is not using, any gun carriages which contain principles which could be held as infringing any claims described in U. S. Patent No. 331,618.

The gas check which has been adopted for the naval guns of 6-inch caliber and upward resembles in certain features that described in U. S. Patent 301,220, issued to Colonel De Bange. It also differs from it materially in particulars which were original in this Bureau.

In view of the statement made by the Chief of the Bureau of Ordnance, there appears to be no proper ground for the claim of Colonel De Bange.

Very respectfully,

F. M. RAMSAY,
Acting Secretary of the Navy.

The honorable the SECRETARY OF STATE.

On January 31, 1894, the claimant, by its attorneys addressed substantially similar letters to the Secretary of War and the Secretary of the Navy, stating its claim for the use of its patented invention and requesting payment for the use of it. The letters described and extolled the device and stated that they "deemed it expedient to take a low average price and apply it to all guns." They fixed such price at $200 per gun.

The Secretary of the Navy, on February 10, 1894, in replying, referred to and quoted from the Department's letter of August 20, 1891, and added:

As the status of the case has not been changed since the date of the Department's letter above mentioned, and as the matter has been previously disposed of by the Department, no further consideration of the case appears to be required.

The letter of the claimant's attorneys, however, was the subject of a report and recommendation by the Chief of Bureau of Ordnance, which resulted in the following letters:

BUREAU OF ORDNANCE, *December 4, 1894.*

Respectfully returned to the Department.

The gas check applied to guns constructed for the navy is that illustrated in United States Letters Patent No. 318,093, of May 10, 1885, and so far as this patent is valid no royalties should be paid. (See *Court of Claims Reports*, p. 334, vol. 23, 1887–88.) If, however, as the Bureau believes to be the case, the above-mentioned patent is only valid so far as it covers improvements on the De Bange patent (No. 301,220, of July 1, 1884), then, so far as the latter patent is valid, the within claim for royalties, in the Bureau's opinion, is a proper one, and would be maintained by the courts.

It must be noted, however, that until recently there has been no authority of law for the payment of royalties out of the naval appropriations, and the manufacture of most of the gas checks in question had been completed prior to the legislation giving such authority. Moreover, the Bureau is of opinion that the Davis patent (No. 318,093, of May 19, 1885) covers real and important improvements, without which it is doubtful if the De Bange system would have been adopted for United States naval guns, and consequently it will be necessary to decide as to the relative values of the device in its original and improved forms. The fact that practically the same gas check is in use in all United States army guns of recent construction, and is being applied to guns now being made by the Bethlehem Iron Company, under contract with the War Department, should also be considered, since independent action on the part of the Navy Department might easily be against the interests of the Government.

It is therefore recommended that an investigation to be made in regard to the De Bange patent, and if this patent is concluded to be valid that the War Department be consulted as to whether a definite sum, to be fixed upon either by a board or in some other way, should not be offered the claimants for the right on the part of the Government to use the device in question on all its guns.

W. T. SAMPSON,
Chief of Bureau of Ordnance.

The final action of the Navy Department upon petitioner's claim was communicated to the petitioner in a letter of the Secretary of the Navy, dated December 31, 1894, as follows:

NAVY DEPARTMENT,
Washington, December 31, 1894.

GENTLEMEN: The Department has carefully considered the questions presented in the brief filed by you, as well as in former correspondence, relative to the matter of the claim of the Société Anonyme des Anciens Établissements Call for compensation for the use by the United States of a gas check invented by Col. Charles T. W. V. De Bange, of the French army.

It appears that the matter is now in such a condition that it will in all probability involve not only questions arising under the patent issued to Colonel De Bange, but also those growing out of the claims and affecting the rights of other patentees. Under these circumstances the Department is of opinion that the full consideration and determination of these questions can be more certainly and equitably reached and the rights of all the parties concerned, as well as the Government, more definitely ascertained and assured through the medium of a court of justice. It is therefore suggested that the necessary proceedings for the consideration and adjustment of the matter by the Court of Claims be instituted.

Very respectfully,

H. A. HERBERT,
Secretary.

Messrs. POLLOCK & MAURO,
Attorneys at Law, Washington, D. C.

The final action of the War Department was communicated to claimant's attorneys in a letter dated January 14, 1895, in which the language and suggestion of the Secretary of the Navy were adopted substantially verbatim.

It is not possible to review the arguments by which the claimant asserts and the Government denies the sufficiency of the facts as we have related them to constitute an implied contract between the claimant and the Government. The ultimate contention of the Government is that the mere use of the patentee's invention with his knowledge does not create an implied contract in fact to pay for such use, but—

there must be (1) a use of it with the patentee's assent, and there must *also* be (2) an *agreement* or *meeting of minds* on the part of the patentee and on the part of the user *as to compensation for the use*, even though the amount of the compensation be not fixed.

These elements, it is insisted, were present in the Berdan case, which we have seen was relied on by the Court of Claims; they are, it is further insisted, absent in the case at bar.

But these elements do not have to appear by the explicit declaration of the parties. They may be collected from their conduct. The alternative of a contract is important to be kept in mind. The officers of the Government knew of the De Bange invention and were aware of its great importance, and the purpose to deliberately take property of another without the intention that he should be compensated—in other words, to do plainly a wrongful act—cannot be imputed to them without the most convincing proof. Such proof does not exist in the present case. On the contrary, the record shows that compensation was contemplated. There was doubt as to the extent of it because there was doubt as to how far the devices used were attributable to or belonged to De Bange or whether they constituted an infringement of his patent, and therefore there was hesitancy and doubt, not as to compensation, but as to the amount and extent of it.

We agree with the Court of Claims that there is resemblance between this case and the Berdan case. In that case the Court had no difficulty in adducing the assent of Berdan to the use of his invention. The Court found more difficulty in inferring the assent of the Government. The Court said, by Mr. Justice Brewer:

While the findings are not specific and emphatic as to the assent of the Government to the terms of any contract, yet we think they are sufficient. There was certainly no denial of the patentee's rights to the invention; no assertion on the part of the Government that the patent was wrongfully issued; no claim of the right to use the invention regardless of the patent; no disregard of all claims of the patentee, and no use in spite of protest or remonstrance. Negatively, at least, the findings are clear. The Government used the invention with the consent and express permission of the owner, and it did not, while so using it, repudiate the title of such owner.

Like comment may be made of the facts in the case at bar. It is true that the letter of William F. Folger, Chief of the Bureau of Ordnance, stated that while the gas check used by the Government resembled in certain features De Bange's gas check, it differed from it materially in particulars which were original in the Bureau. But this was not a denial of the use or the utility of De Bange's invention. Whether there was infringement the officer did not decide, but suggested that the "applicant refer the matter to the Court of Claims." Subsequently the Acting Secretary of the Navy did deny infringement. But that position was abandoned and the Secretaries of War and the Navy—

suggested that the necessary proceedings for the consideration of the adjustment of the matter by the Court of Claims be instituted.

There were parallel circumstances in the Berdan case.

The invention of Berdan was an "extractor-ejector" for use in breech-loading rifles, and that which was used by the Government was devised by one of its employees. There was a difference be-

tween it and Berdan's device, but the officers of the Government doubted if the difference was material, and concluded that it was a matter for the courts to decide. It is true there was no assertion of right against the Berdan device in consequence of the difference between it and the device used by the Government as, it may be said, there was in the case at bar by the letter of Admiral Ramsey of September 3, 1891. But the position taken in that letter was, as we have seen, abandoned, and it was declared that so far as the De Bange patent was valid its claim for royalties was, in the opinion of the Bureau of Ordnance, a proper one and would be sustained by the courts. This was in 1894. Prior to that time and afterward the Government continued to use the device. We think the Court of Claims had jurisdiction.

The Government contends that it has not infringed the De Bange patent. Infringement is a question of fact, and as an aid to its solution courts are furnished usually with an expert comparison of the contending devices, their identity or difference of construction and modes of operation. This record is destitute of such testimony. The Government contends for the very narrow construction of the patent based on its claims and the prior art. The only proof of the prior art, however, is a reference to thirteen or fourteen patents by number and patentee, some of which are English, some French and some American. The only explanation of them is in the argument of counsel and an exhibition of the patents. It is very doubtful if we may take notice of even the American patents; more doubtful if we may of the foreign ones. We, however, have considered counsel's explanation of them. They reveal nothing material to be considered that the findings of the Court of Claims do not show of the prior art and the progress from its failure to the success of the De Bange invention, a success, it may be conceded, that availed itself of all that the prior art demonstrated, but went beyond it to the fulfilment that it had not achieved.

The necessity of a gas check to the success of breech-loading guns all could see, and what a device, to be successful, must do; but the world struggled a long time with the problem, and that problem was to find something which would stand the intense heat generated and the great force caused by the explosion of the powder in a high power gun and the backward escape of the resultant gas under the enormous pressure exerted, and this not in one service of the gun, but in many services. The experiments are detailed in the findings. Metallic cups were tried and paper cups. As early as 1858 india rubber was suggested. Its elasticity, it was thought, would afford all that was necessary for a complete automatic obturation, the gas by its expansion "to seal its own escape."

Rubber had some success when constructed in rings of varying degrees of suppleness and hardness, and seemed to have settled the problem. But defects subsequently developed and experiments continued for something better and which would fulfil all the conditions. Then soap obturators were tried, and finally Colonel De Bange's invention of tallow and asbestos. If our purpose was speculative, not practical, we might pause to wonder how such substances could produce such results under the conditions to which they are subjected, and by wondering we express in a way the quality of the invention. We are told by the findings of the Court of Claims that a gas check—

> is subject to a pressure of from 30,000 to 40,000 pounds per square inch, to very high temperatures, to the effects of corrosive gases, and the effects of rapid and violent shocks.

We need not, however, dwell longer on the excellence of the invention. The Government has testified to its excellence by using it in the guns intended for the national defense.

But it is contended that the claim of the patent is for a specific combination of elements and that that combination of elements is not used by the Government.

This contention is based upon what is considered to be the proper construction of claim 1 of the patent, a strict construction being urged of it—indeed, as we understand the argument, the claim must be confined to the specific forms of its elements, giving the widest latitude to imitation.

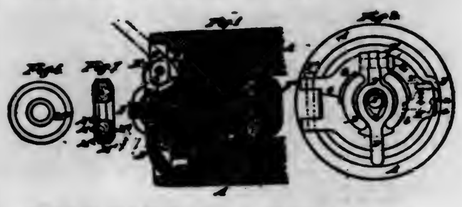
The patent answers the contention. Describing his invention, De Bange calls it "certain new and useful improvements in breech-loading guns." Specifying the improvements, he says that they—

> apply to breech-loading guns which employ a screw-plug having its threads interrupted.

Further specifying, he adds:

> I have devised a system of packing placed in advance of the plug, and which is expanded by the force of the explosion of the powder to make a tight joint to prevent the leakage of gas.

He declares the drawings form a part of the specification and represent what he considers the best means of carrying out the invention. It is only necessary to give Figures 1, 2, 6 and 7.



They are described in the patent as follows:

> Fig. 1 is a central longitudinal section. The strong lines show the parts ready for firing. The dotted lines show the transverse lever in a position for conveniently operating to turn the screw-plug. Fig. 2 is a rear view showing the parts locked. Fig. 3 is a corresponding view showing the parts unlocked. * * * Figs. 6 and 7 represent the packing-ring detached. Fig. 6 is a face view, and Fig. 7 a section in the plane of the axis.

The specification then proceeds as follows:

> A liberal hole in the line of the axis of the screw-plug B carries a stout sliding pin, N, at the extreme front of which is a stout head, N'. The portion of the body adjacent to the head N' is slightly enlarged. The head N' is adapted to receive the force of the powder at the discharge. At the moment of the discharge this head moves backward, compressing a relatively soft and expansible packing-ring, M, behind it. Certain portions of this ring will be distinguished, when necessary, by additional marks, as M' M^2. The body M' of this packing is of asbestos saturated with tallow, and affords a sufficiently yielding mass with the required capacity for enduring heat and for withstanding the very strong compressive force to which it is subjected by the discharge. It is inclosed between two thin shells, M^2 M^2, of copper, one fitting the body M' on the inner and the other on the outer side, and nearly incasing the entire packing. Both the body M' and the copper M^2 are then inclosed between two strong shells of brass, M^2 M^2. The entire packing thus made is adapted to maintain its form, but to allow a small amount of radial expansion sufficient to pack the joint tightly against the escape of gas. This expansion is due to two causes—the tapering form of the front end of the pin N, which acts on the interior of the packing, and the powerful compression received from the head N'. The expansion from one or both causes is sufficient to press the exterior of the copper M^2 tightly against the interior of the gun, thus effectually preventing any leakage of gas.

Claim 1 is the important one and is as follows:

> 1. The partially-threaded plug B, headed pin N N', extending through said plug, and the yielding packing M, arranged between the head N' and the inner end of the plug, in combination with each other and with the gun A, arranged as shown, to allow the pin to be driven rearward and compress the packing, as herein specified.

It will be observed, therefore, that De Bange declared that what he devised was a "system of packing" which by the force of the explosion of the powder is expanded to make a tight joint to prevent the leakage of gas. The mechanical parts are but aids to this result, securing in place the packing and enabling its qualities to operate, enabling it to maintain its form but to allow radial expansion sufficient "to pack the joint tightly against the escape of gas." This expansion has also the effect of pressing "the copper (M^2)" against the interior of the gun and cooperates to prevent the leakage of gas.

That this packing constitutes the very essence of the invention is declared in all of the literature on the subject and recognized in all of the Government publications. The Government now contends for a limitation of it, and insists that it consists of "a yielding packing M," exactly as described, although the description is declared by De Bange to represent "the best means of carrying out his invention," and he declares also that "modifications could be used in the forms and proportions."

We cannot therefore assent to the contention of the Government, and in rejecting it we do not render "the claim elastic and indefinite where it should be certain." We preserve that which was declared to be and which has always been recognized to be the invention, and by those competent to declare, whose duty it was to comprehend and estimate, not only the result achieved but by what achieved.

In the description furnished by De Bange to Commander Chadwick a covering of cloth is described. The description in the *Ordnance Notes* of April 20, 1883, mentions "plates of tin, strengthened at the edges by thin brass rings." Another description speaks of "a metallic split ring." These are but details. As said by the Court of Claims, through Booth, J.:

> The invention described by the language of the claim was the yielding pad of asbestos and tallow.

And this, the learned judge also said, predominates as the one "central idea" in every description of the patent in either the specifications or claim.

We learn from the court that it heard much expert testimony, and in its opinion it considers two subsequent patents expressed to be improvements on the De Bange patent. One of these was issued to James B. Davis and the other to Gregory Gerdom. The difference between them and the De Bange patent was commented on, and it was said that the record disclosed that in all inventions subsequent to De Bange's—

> the pad of asbestos and tallow is the functioning element of the device, without which its utility is as nothing,

and that a pad of that composition supplied—

> the necessary expansion, indispensable to forward the operation of both the Davis and Gerdom patents. The United States used the Gerdom patent and paid him substantial royalties for its use.

It would seem, therefore, that the contention of the Government turns upon a question of fact found against it by the court below; that is, it was found that the particular envelop of the tallow and asbestos pad were not essential features of De Bange's invention, and that the substitution of steel rings for brass rings could be an infringement of the invention. As said by counsel for claimant, claim 1—

> does not recite among its elements the materials whereof the envelop [of the pad] and rings are made. * * * It is, on the contrary, obvious that any suitable material may be used for these subsidiary parts.

It is conceded that the pliable copper envelop (M^2) may be properly regarded as a part of the "yielding packing." The patentee so states, but he does not say that the "strong shells of brass M^2 M^2 are parts" of it. It would indeed be arbitrary, as said by claimant, to read into the claim the specific metal of which those shells are composed "for no other purpose than to render it [the claim] worthless."

We have seen De Bange describe what he conceived to be the best form of his invention, and contemplated that it could be represented in other forms and proportions. This, however, was unnecessary, for the law would secure him against imitation by other forms and proportions. (*Winans* v. *Denmead*, 15 How., 330; *Hotchkiss* v. *Greenwood*, 11 How., 248, 265; *Western Electric Co.* v. *La Rue*, 139 U. S., 601, 608.)

We think, therefore, that the Court of Claims rightfully decided the question of infringement against the Government.

The cross-appeal of claimant is directed to the question of damages.

In the original petition filed by it on January 31, 1895, damages were laid at $140,000. There was no traverse filed until October, 1907. An amended petition was filed April 12, 1909, and judgment was prayed for $1,447,667.98. In this petition it was alleged that the invention was used upon 1,518 guns of various calibers within the six years next preceding the filing of the original petition, the number which was used by the army and that used by the navy being given. The total cost of the guns was stated to be $18,226,263. There is no finding responding to these allegations. The opinion of the court was filed December 2, 1907, that is, before the filing of the amended petition. The opinion contains the following statement:

> There is no testimony in the record upon which the quantum of damages can be predicated. The measure of damages would be the value of the device to the defendants. Following the precedents heretofore established, the case will stand upon the docket, with leave to furnish testimony upon this point.

On the 20th of May, 1909, judgment was rendered for claimant in the sum of $136,000. Each party moved for an amendment to the findings, which were overruled in part and allowed in part. The

former findings were withdrawn and amended findings of fact filed. No exception appears to have been taken to this action. Indeed, the record does not furnish us with a comparison between the findings which were withdrawn and those filed. There is nothing to show upon what the court's ruling was invoked.

A motion was presented to this Court April 25, 1910, to remand the case to the Court of Claims, and that that court be instructed to find and certify as matters of fact, in addition to the facts found, in regard to the cost of the guns in which the De Bange obturators were used, the amount the Government paid or contracted to pay for patented improvements in breech-loading mechanism for ordnance, and whether there appears in the record the testimony of experts as to the value of the De Bange device, or what would be a reasonable compensation for its use, and, if so, to state the amounts of such estimates.

It was further moved that the Court of Claims be instructed to strike out certain matters in the findings which were described to be evidentiary. The motion was postponed to the hearing, and is now to be considered. The motion is, in effect, for a direction to the Court of Claims to certify the evidence of this Court, and not its conclusions from the evidence. This is clearly in contravention of the rule of this Court which requires the record on appeal from the Court of Claims to contain a finding by the court—

of the facts in the case established by the evidence in the nature of a special verdict, but not the evidence establishing it.

Besides, as we have seen, the record does not disclose what ruling was invoked. We can only act upon the record, and that shows a finding of the court upon the question of compensation, to which finding there was no objection taken nor exception reserved. The finding determines the matter, being in the nature of a special verdict of a jury. (*United States* v. *New York Indians*, 173 U. S., 464.)

Ceballos & Co. v. *United States* (214 U. S., 47) is not applicable. There was a contract of which there could be no dispute, and therefore a motion to embrace it in the record from the Court of Claims was granted and the case reviewed in the light thereof.

The motion to remand the case is therefore denied.

Judgment affirmed.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Scott patent, No. 899,439, claims 2 and 4, for a knitted fabric and method of producing the same, *Held* valid and infringed. *General Knit Fabric Co.* v. *Steber Mach. Co.*, 194 Fed. Rep., 99.

(U. S. C. C. A.) The Scott patent, No. 925,393, for a knitting-machine for producing a ribbed fabric, *Held* not infringed if conceded invention. *General Knit Fabric Co.* v. *Steber Mach. Co.*, 194 Fed. Rep., 99.

(U. S. C. C. A.) The Fisk patent, No. 521,461, for a combined annunciator and spring-jack for switchboards, *Held* not infringed. *Western Telephone Mfg. Co.* v. *Swedish American Telephone Co.*, 194 Fed. Rep., 104.

(U. S. C. C. A.) The Campbell patent, No. 704,971, for a flume-gate, *Held* void for lack of patentable invention in view of the prior art. *Campbell* v. *Mangle*, 194 Fed. Rep., 110.

(U. S. C. C. A.) The McCanna patent, No. 822,900, for a force-feed lubricator, *Held* valid and infringed. *Lavigne Mfg. Co.* v. *John F. McCanna Co.*, 194 Fed. Rep., 112.

(U. S. C. C. A.) The Sarfert patents, No. 667,142, for a process of singeing hosiery after it has been distended on a stocking-board, and No. 758,937, for a singeing-machine, both *Held* void for anticipation by prior use. *Sarfert Co.* v. *Chipman*, 194 Fed. Rep., 113.

(U. S. C. C. A.) The Sarfert patent, No. 667,140, for a process of singeing hosiery "in the green" or after it has been saturated with an oxidizing solution, *Held* void for lack of invention. *Sarfert Co.* v. *Chipman*, 194 Fed. Rep., 113.

(U. S. C. C. A.) The Bates patent, No. 577,639, for a wire-fence machine, *Held* not infringed. *American Steel & Wire Co. of New Jersey* v. *Denning Wire & Fence Co.*, 194 Fed. Rep., 117.

(U. S. C. C. A.) The Winston patent, No. 849,824, for an apparatus for making concrete blocks, *Held* void for lack of patentable invention. *Winston* v. *Croton Falls Const. Co.*, 194 Fed. Rep., 123.

(U. S. C. C. A.) The Dulin patent, No. 578,550, for a paper-bag machine, *Held* not infringed by the machine of the Bartholomew patent, No. 736,673. *Union Paper Bag Mach. Co.* v. *Advance Bag Co.*, 194 Fed. Rep., 126.

(U. S. C. C.) The Burgess patent, No. 906,099, for a pipe-coupling, *Held* void for anticipation because of prior knowledge of the device by others than the patentee. *Imperial Brass Mfg. Co.* v. *Nelson*, 194 Fed. Rep., 165.

(U. S. C. C.) The Luten patent, No. 852,970, for improvements in concrete arches, claim 46 *Held* valid and infringed. *Luten* v. *Rhoads & Knisely*, 194 Fed. Rep., 169.

(U. S. D. C.) The Greth patent, No. 775,901, for a water-purifying apparatus, *Held* void for anticipation and lack of invention; also, not infringed. *William B. Scaife & Sons Co.* v. *Falls City Woolen Mills*, 194 Fed. Rep., 139.

(U. S. D. C.) The Ruddick patent, No. 553,873, for a non-interference signal apparatus, *Held* valid and infringed. *Gamewell Fire Alarm Telegraph Co.* v. *City of Bayonne, N. J.*, 194 Fed. Rep., 147.

(U. S. D. C.) The Cole patent, No. 553,839, for a fire-alarm signal apparatus, *Held* valid and infringed. *Gamewell Fire Alarm Telegraph Co.* v. *City of Bayonne, N. J.*, 194 Fed. Rep., 147.

(U. S. D. C.) The Loggie patent, No 837,087, for sawmill apparatus, *Held* invalid as to claims 1, 2, 3, 4, and 5 and valid and infringed as to claims 6, 7, and 8. *Loggie* v. *Puget Sound Mills & Timber Co.*, 194 Fed. Rep., 158.

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ISSUE OF MAY 21, 1912.

Patents	750	No. 1,026,646 to No. 1,027,395	inclusive.
Designs	29	No. 42,530 to No. 42,558,	inclusive.
Trade-Marks	116	No. 86,565 to No. 86,680,	inclusive.
Labels	7	No. 10,241 to No. 10,247,	inclusive.
Prints	4	No. 3,030 to No. 3,033,	inclusive.
Reissues	2	No. 13,421 to No. 13,422,	inclusive.
Total	908		

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	4	.....	North Carolina	3	.....
Arizona	.....	.....	North Dakota	1	.....
Arkansas	3	.....	Ohio	53	8
California	32	6	Oklahoma	2	.....
Colorado	15	.....	Oregon	6	.....
Connecticut	18	4	Pennsylvania	61	10
Delaware	3	.....	Rhode Island	4	2
Florida	3	1	South Carolina	2	.....
Georgia	4	.....	South Dakota	4	.....
Idaho	.....	.....	Tennessee	4	1
Illinois	78	13	Texas	5	3
Indiana	18	1	Utah	.....	.....
Iowa	17	3	Vermont	1	.....
Kansas	8	3	Virginia	8	1
Kentucky	5	.....	Washington	12	2
Louisiana	1	2	West Virginia	5	.....
Maine	4	.....	Wisconsin	17	2
Maryland	6	2	Wyoming	.....	.....
Massachusetts	42	9			
Michigan	27	2	Alaska, District of	.....	.....
Minnesota	11	1	Canal Zone	1	.....
Mississippi	2	.....	District of Columbia	9	.....
Missouri	15	2	Hawaii Territory	.....	.....
Montana	3	.....	Philippine Islands	.....	.....
Nebraska	7	.....	Porto Rico	1	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	3	.....	U. S. Navy	.....	.....
New Jersey	34	8			
New Mexico	.....	.....	Total to citizens of the United States	689	110
New York	126	24			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Netherlands	1	1
Austria-Hungary	1	3	Newfoundland	.....	.....
Belgium	2	.....	New South Wales	.....	.....
Bermuda	.....	.....	New Zealand	1	.....
Brazil	.....	.....	Norway	.....	.....
British West Indies	.....	.....	Queensland	.....	.....
Canada	12	.....	Roumania	.....	.....
Cape Colony	.....	.....	Russia	1	.....
Chile	.....	.....	Scotland	1	.....
China	.....	.....	South Australia	.....	.....
Costa Rica	.....	.....	Spain	.....	.....
Cuba	.....	.....	Sweden	2	.....
Denmark	1	.....	Switzerland	1	.....
Ecuador	.....	.....	Tasmania	1	.....
England	16	2	Transvaal, South Africa	.....	.....
France	8	2	Victoria	2	1
Germany	38	7	Western Australia	.....	.....
Guatemala	1	.....			
Italy	1	.....	Total to citizens of foreign countries	90	17
Japan	.....	1			
Madeira	.....	.....			

Disclaimer.

962,220.—*William B. Hughes*, Cleveland, Ohio. NUMBER-PLATE SUPPORT FOR VEHICLES. Patent dated June 21, 1910. Disclaimer filed May 11, 1912, by the assignee, the *Rose Manufacturing Company*.

"Enters this disclaimer—

"To that part of the claims in said Letters Patent which was the issue of said interference proceeding and which is in the following words, to wit:

"1. A device of the character set forth comprising a base having a vertical socket, said socket being provided with an elongated slot and with a transverse enlargement of said slot, a set screw carried by the socket and adapted to be adjusted thereacross at said enlargement, a lamp-supporting member carried by said base, and a number-plate supporting member also carried by said base.

"3. A device of the character set forth comprising a base having at one end a lamp-supporting member and at the other end a vertical socket, said socket having an elongated slot therein provided with a central enlargement, a set screw carried by said enlargement, and a horizontal socket above the former socket.

"4. A device of the character set forth comprising a base having a lamp-supporting member and a vertical socket, said socket having an elongated slot therein and a central enlargement and a set screw common to said slot and said enlargement."

Renewal of Forfeited Cases.

A petition for the renewal of a forfeited application need not be signed by the inventor or assignee, but may be signed by the attorney.

A power of attorney in the original application authorizing an attorney to transact all business in the Patent Office in connection with the application construed to be of sufficient scope to include the signing of a petition for renewal and the subsequent prosecution of the application. (*Ex parte Agee*, 101 O. G., 1609.)

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 18, 1912.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Mar. 28	Mar. 26	546
128	2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	Mar. 11	Apr. 13	445
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Apr. 23	May 6	182
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	Apr. 8	Apr. 8	538
137	5. Bookbinding; Harvesters; Jewelry; Music.	Mar. 4	Mar. 30	480
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Apr. 18	Apr. 19	315
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Feb. 5	Apr. 3	765
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Apr. 22	Apr. 19	358
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels.	Apr. 11	Apr. 18	360
235	10. Carriages and Wagons	Mar. 19	Apr. 1	724
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Mar. 4	Mar. 25	441
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Apr. 1	Mar. 14	711
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Mar. 27	Apr. 10	454
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Mar. 16	Apr. 8	452
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Feb. 28	Mar. 4	1033
109	16. Telegraphy; Telephony	Apr. 4	Apr. 2	227
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Apr. 19	Apr. 18	358
327	18. Injectors and Ejectors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Mar. 19	Apr. 6	295
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Apr. 11	Mar. 20	428
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Mar. 16	Apr. 3	254
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 5	Apr. 9	418

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention	Oldest new application and oldest action by applicant awaiting office action. New.	Amended.	No. of applications awaiting action.
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Apr. 1	Apr. 16	314
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Apr. 2	Mar. 25	537
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Mar. 16	Mar. 28	549
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Apr. 19	Apr. 26	186
106	26. Electricity, Generation; Motive Power.	Jan. 2	Jan. 13	584
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Apr. 8	Apr. 12	439
65	28. Internal-Combustion Engines	Feb. 14	Feb. 24	811
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Mar. 21	Apr. 18	515
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 1	Mar. 26	471
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Mar. 21	Mar. 28	339
278	32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	Mar. 25	Apr. 19	318
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Feb. 21	Mar. 25	500
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Mar. 13	Apr. 8	530
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Mar. 14	Apr. 3	786
264	36. Drafting; Driers; Engraving; Measuring Instruments; Photography.	Apr. 5	Apr. 6	608
107	37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Mar. 12	Apr. 16	489
378	38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working.	Feb. 19	Apr. 5	635
321	39. Water Distribution	Feb. 10	Mar. 7	637
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Apr. 20	Apr. 24	419
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 14	Mar. 26	664
279	42. Electric Railways; Electric Signaling; Railway Signaling; Signals.	Mar. 12	Mar. 25	521
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Apr. 19	Apr. 18	353

Oldest new case, Jan. 2; oldest amended, Jan. 13.

Total number of applications awaiting action 20,989

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Mar. 16	Apr. 16	1202
	Designs	Feb. 12	Mar. 11	331
	Labels and Prints	May 13	May 6	16

PATENTS

GRANTED MAY 21, 1912.

1,026,646. METALLIC CREEL. CHARLES A. ALLEN, Linwood, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Aug. 20, 1910. Serial No. 578,155. (Cl. 242—131.)



1. In a creel, the combination with a sheet metal creel-plate having a plurality of punch-holes through the same, of a plurality of metallic, cup-shaped receptacles, formed with rim bosses inserted within and upset over the edges of the punch-hole in said creel plate, and porcelain skewer steps supported within said receptacles with their step bearing surfaces substantially flush with the surface of the sheet metal substantially as set forth.

2. In a creel, a sheet metal creel-plate having a plurality of punch-holes through the same, a corresponding plurality of metallic, cup-shaped receptacles having rim-bosses, respectively upset in said punch-holes, in combination with a skewer step occupying each said receptacle and a cementitious lining in the annular space between said step and the wall of its receptacle.

3. In a roving creel, a sheet of metal flanged at its margins and punched with a plurality of punch holes, metallic cup-shaped receptacles riveted by their upper margins in said punch holes and provided with apertures in their bottoms, and porcelain skewer steps seated in said receptacles with their step-bearing surfaces substantially flush with the metallic sheet and adapted to be ejected therefrom by thrusting an implement through the said aperture.

1,026,647. CURTAIN-POLE. HENRY A. ANDERSON, Missoula, Mont. Filed Aug. 25, 1911. Serial No. 646,029. (Cl. 156—19.)

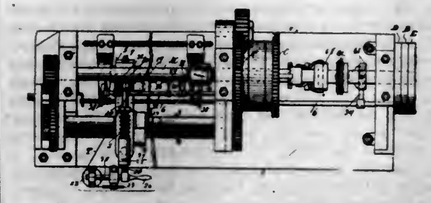


1. In a curtain pole, a central tubular section and a pair of end tubular sections telescoping over the same, in combination with a nipple fixed to the inner end of each of the end sections and projecting beyond the same said nipples fitting snugly about the central section and exteriorly threaded for a portion of their length, the ends thereof being smooth, tapered and longitudinally split, sleeves threaded upon said nipples, the bore of each of said sleeves being formed with a conical portion to engage the tapered end of the nipple and a cylindrical portion fitting snugly about the central section of the pole, substantially as described.

2. In a curtain pole, a main pole portion, a tubular member telescoping over the end thereof, a head on the outer end of said member, a threaded rod fixed in said head and threaded into the end of the main pole portion, said rod extending the full length of said member and projecting beyond the outer end thereof, substantially as described.

3. In a curtain pole, main pole sections, means for adjusting said sections longitudinally, tubular members telescoping over the outer end of the outer pole sections, a threaded connection between said members and said outer pole sections, and support engaging means on the outer ends of said members, substantially as described.

1,026,648. TUBULAR-FABRIC-FORMING DEVICE. EUGENE D. C. BAYNE and LAWRENCE A. SUBERS, Cleveland, Ohio. Filed Dec. 15, 1908. Serial No. 467,621. (Cl. 154—11.)



1. In a machine for laying cords or threads upon a mandrel, alternately in spiral and horizontal parallel rows, in combination with said mandrel, a traveling head, a pair of grooved director wheels adjustably mounted upon said traveling head, and adapted to take alternately a vertical and a horizontal position thereon relatively to said mandrel, a locking device adapted to secure said director wheels in each position, a worm shaft and a fine screw feed shaft passing through said traveling head, means for operatively connecting said traveling head, alternately with said shafts, means for reversing the movement of the worm shaft at predetermined intervals, a pawl and ratchet wheel device for rotating said mandrel, the diameter of one cord or thread, while the traveling head is connected with the worm shaft, at the end of the travel of the head in each direction, and means for applying a coating of rubber to the mandrel and last laid cord or thread in advance of the director wheels.

2. In a machine for laying a succession of rows of cords or threads upon a mandrel, in combination with said mandrel, a support for said mandrel, a traveling head adapted to move longitudinally of said mandrel, director wheels for said cord or thread, adjustably secured in said head, a reservoir for fluid coating material adjacent to said traveling head, a nozzle for said fluid adapted to travel with said traveling head, said nozzle communicating with said reservoir, said nozzle adapted to travel in advance of said director wheels and to apply said coating fluid to the surface upon which said cord or thread is about to be laid and to the row of cord or thread last laid, and mechanism for moving said traveling head.

3. In a machine for laying a cord or thread in parallel rows upon a mandrel, the combination with the mandrel, of a support therefor, a traveling head adapted to move longitudinally of the mandrel, a pair of director wheels adjustably secured in said head, over one of which said cord or thread is adapted to pass to said mandrel, means for giving a positive parallel movement to said traveling head relatively to said mandrel, a reservoir for tenacious vulcanizable fluid adjacent to said mandrel, a nozzle secured closely adjacent to said director wheels, and mov-

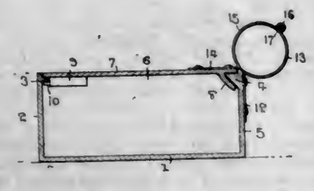
able therewith and communicating with said reservoir, and adapted to apply said fluid to the surface upon which the said cord or thread is to be laid and upon the adjacent row of cord or thread, in advance of the laying director wheel.

4. In a machine for laying parallel rows of cords or threads longitudinally upon a mandrel, in combination with the mandrel, a supporting bed for the mandrel, a worm shaft mounted in said bed, parallel with said mandrel, means for rotating said worm shaft, a head adapted to travel on said worm shaft and to be actuated thereby, a pair of director wheels, a support therefor in said traveling head, said wheels adapted to apply said cord or thread to said mandrel, means for intermittently and periodically rotating said mandrel, and means for reversing the movements of the said shaft, said reversing means controllable by the movement of said traveling head, means for securing the mandrel from rotation alternating with said rotating means therefor, mechanism for securing the row of cord or thread last laid from movement while the following row is being laid, means for doubling the cord or thread at the end of each row, said securing and doubling mechanism being controlled by the movements of said traveling head and instrumentalities for applying a coating of non-fibrous and vulcanizable material to the receiving surface in advance of the cord or thread being laid.

5. In a machine for applying longitudinal rows of cords or threads upon a mandrel, the combination with the mandrel, of a traveling head, adapted to move longitudinally of said mandrel, a pair of director wheels, adjustably and horizontally secured in said traveling head, over which alternately said cord or thread is adapted to pass to said mandrel, mechanism the movements of which are controlled by said traveling head, for giving a reciprocating longitudinal movement of said traveling head parallel to said mandrel, a pawl and ratchet device for periodically rotating said mandrel, the diameter of one cord or thread spring pressed holding fingers adapted to secure the last laid row of cord or thread while the next is being laid, one finger located at each end of the row, a common pivot shaft for both said fingers, a needle point on each finger over which the cord or thread is adapted to be folded on the return movement of the director wheels, intermediate holding fingers on said pivot shaft and mechanism controlled by the movement of the traveling head for withdrawing said holding fingers at the time that the mandrel is being rotated by said ratchet device and releasing the same before the said cord or thread is doubled.

[Claims 6 to 13 not printed in the Gazette.]

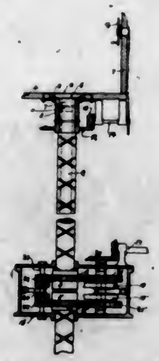
1,026,649. SAFE. HIRAM BESHORE, Marion, Ind. Filed Oct. 6, 1911. Serial No. 653,095. (Cl. 109—1.)



1. The combination of a receptacle and a cover therefor, means connected to said cover and said receptacle adapted to be positioned around an object when said cover is open, and means to lock said cover to said receptacle.

2. The combination of a receptacle and a cover therefor, means adapted to be positioned around an object and having its opposite ends connected to the cover and to an end of the receptacle, coöperating means on said cover and said end of said receptacle adapted to hold said end of the cover in place when said cover is in closed position, and means to lock the other end of said cover to the receptacle.

1,026,650. ELEVATOR. MOSES E. BLOOM, New York, N. Y. Filed Feb. 8, 1912. Serial No. 676,269. (Cl. 187—24.)



1. The combination substantially as described, of an elevator car, a screw shaft connected thereto and held against rotation in its bearing on said car, a nut mounted on a fixed bearing and engaging the thread of said shaft, means for rotating said nut, means for freeing the shaft to permit it to rotate in its bearing on the car and means on the car for rotating the same.

2. The combination with an elevator car, of a screw shaft depending therefrom, means for fixing it against rotation in its bearing on the car or freeing it for rotation therein at will and means on the car for rotating said shaft when freed, as and for the purpose described.

3. In an elevator, the combination substantially as described, of a car, a screw shaft normally fixed against rotation and connected to the car, said shaft being provided with a pair of reversed threads, a pair of correspondingly threaded nuts engaging said threads respectively, means for rotating one or the other of said nuts at will and means for locking both nuts against rotation.

4. The combination with an elevator car, of a double threaded screw shaft connected thereto, a pair of nuts, a motive power shaft, means for coupling the power to one or the other of said nuts at will and means for locking both nuts when the power shifting appliance is in neutral position.

5. The combination with an elevator car, of a screw shaft connected thereto, means for fixing the same against rotation at its point of connection with the car or freeing it at will, a nut engaging said shaft and mounted on a fixed bearing, means for applying power to said nut, means for locking said nut against rotation and means on the car for rotating the shaft.

[Claim 6 not printed in the Gazette.]

1,026,651. BLADE-MOUNTING. WILLIAM A. BOLE, Pittsburgh, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 15, 1910. Serial No. 592,419. (Cl. 121—57.)



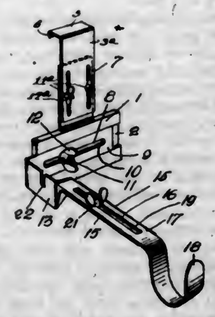
1. In combination, blades, spacing pieces, each provided with a transversely extending slot, a pin in said slot and projecting beyond the concave face of the spacing piece and engaging a notch in the convex face of the blade, and means engaged by the pins for connecting the said pieces and blades.

2. In combination, blades, spacing pieces, each provided with a transversely extending slot, a pin in said slot and projecting beyond the concave face of the spacing piece and engaging a notch in the convex face of the blade, and side pieces engaged by the pins for connecting the said pieces and blades.

3. In combination, blades, spacing pieces, each provided with a transversely extending slot, a pin in said slot and projecting beyond the concave face of the spacing piece and engaging a notch in the convex face of the blade, and side pieces comprising strips engaged by the pins for connecting the said pieces and blades.

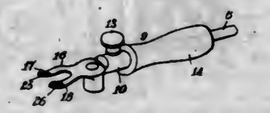
4. In combination, blades, spacing pieces, each provided with a transversely extending slot, a pin in said slot and projecting beyond the concave face of the spacing piece and engaging a notch in the convex face of the blade, and side pieces comprising strips and engaged by the said pins for connecting the said pieces and blades.

1,026,652. CURTAIN-FIXTURE. WILLIAM BRADLEY, Pittsburgh, Pa., assignor of one-half to Thomas Schofield, Pittsburgh, Pa. Filed Nov. 25, 1911. Serial No. 662,329. (Cl. 156—24.)



A curtain fixture comprising a support having a longitudinal groove formed therein, a sectional adjustable hanger carried by the upper edge of said support, a plate slidably mounted in the groove of said support, an arm carried by the end of said plate and having an opening formed therein, said arm having the outer end thereof bent to provide a horizontal bracket, a pole holder slidably mounted upon the bracket of said arm, and means for adjustably holding said holder in engagement with said bracket.

1,026,653. COMBINATION SPARK-PLUG. WILLIAM C. BRUNT, Boston, Mass. Filed Dec. 9, 1911. Serial No. 664,752. (Cl. 173—269.)



1. A spark plug terminal having, in combination, an insulated current conductor, a shank portion adapted to receive the bared end of said conductor, means adapted to fasten said conductor within said shank, a handle composed of insulating material, attached to said shank, and provided with a hole to receive a portion of said insulated conductor, a bifurcated member on said shank having resilient legs each of which is provided with a depression and a tubular member formed upon said shank portion disposed transversely of the median axial line thereof.

2. A spark plug terminal having, in combination, an insulated current conductor, a shank portion adapted to receive the bared end of said conductor, means adapted to fasten said conductor within said shank, a handle composed of insulating material attached to said shank, and provided with a hole to receive a portion of said insulated conductor, and a tubular member formed upon said shank portion and disposed transversely of the median axial line thereof.

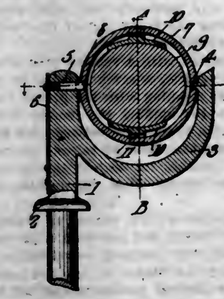
3. A spark plug terminal having, in combination, an insulated current conductor, a shank portion adapted to receive the bared end of said conductor, a thumb screw adapted to fasten said conductor within said shank, a handle composed of insulating material, attached to said shank, and provided with a hole to receive a portion of said insulated conductor and a bifurcated member on said shank having resilient legs, each of which is provided with a depression.

4. A spark plug terminal, having in combination, an insulated current conductor, a shank portion adapted to receive the bared end of said conductor, means adapted to fasten said conductor within said shank, a handle composed of insulating material, separably connected with said shank and provided with a hole to receive a portion of said insulated conductor, a bifurcated member on said shank and a tubular portion disposed transversely of the median axial line of said shank portion.

5. A spark plug terminal having, in combination, an insulated current conductor, a shank portion adapted to receive the bared end of said conductor, means adapted to fasten said conductor within said shank, a handle composed of insulating material, separably connected with said shank and provided with a hole to receive a portion of said insulated conductor, a bifurcated member on said shank and a tubular portion disposed transversely of the median axial line of said shank portion intermediate said shank portion and said bifurcated member.

[Claims 6 to 8 not printed in the Gazette.]

1,026,654. OAR-LOCK. JOHN CAMPBELL, Minneapolis, Minn., assignor of fifty-one one-hundredths to Thomas E. McDermott, Minneapolis, Minn. Filed May 12, 1910. Serial No. 560,939. (Cl. 9—26.)

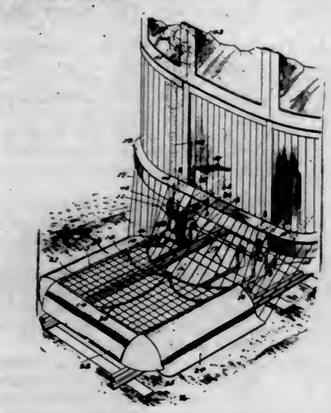


An oarlock including a yoke, a trunnion fixed relative thereto, a movable trunnion alining with the fixed trunnion, the two trunnions being oppositely disposed within the yoke, a spring for holding the movable trunnion normally projected into the yoke, a one-pieced continuous ring having diametrically opposed recesses for the reception of the trunnions, oppositely disposed plates for attachment to an oar, and spaced projections upon each plate for slidably engaging the ring, said plates being disposed within said ring and constituting means for holding an oar against longitudinal movement within the ring.

1,026,655. FENDER. CIRIACO CEFALO and ROBERT C. H. REID, Bangor, Me. Filed June 28, 1910. Serial No. 569,394. (Cl. 105—252.)

1. The combination with a vehicle, of a fender pivotally mounted on the vehicle, a catch carried by the fender, a rack bar engaging the catch for normally holding the fender in lowered position, means for releasing the rack bar from engagement with the catch, and means for auto-

matically elevating the free end of the fender when said rack bar is released.



2. The combination with a vehicle, of a fender pivotally mounted on the vehicle, means for locking the fender in lowered position, means for releasing the locking means, means for swinging the entire fender on its pivotal axis to a substantially vertical position when the locking means is released, and manually controlled means for retarding the downward movement of the fender when said fender is returned from its elevated position to its normal position.

3. The combination with a vehicle, of a fender pivotally mounted on the vehicle, a catch carried by the fender, a pinion, a rack bar meshing with the pinion and adapted to engage the catch for holding the fender in lowered position, means for rotating the pinion to release the rack bar from the catch, and manually controlled means for automatically elevating the front end of the fender when the locking means is released.

4. The combination with a vehicle, of a fender pivotally mounted on the vehicle, a catch carried by the fender, a pinion, a rack bar meshing with the pinion and adapted to engage the catch for holding the fender in lowered position, a foot lever, a connection between the foot lever and pinion for rotating the latter to release the rack bar from the catch, and means for automatically elevating the front end of the fender when the locking means is released.

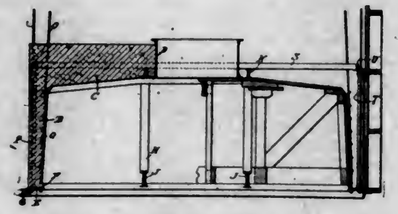
5. The combination with a vehicle, of a fender pivotally mounted on the vehicle and provided with front and side aprons, one of which is yieldably supported on said fender, means for locking the fender in lowered position, means for releasing the locking means, means for elevating the free end of the fender when the locking means is released, and manually controlled means for retarding the downward movement of the fender when the latter is returned to lowered position.

[Claims 6 to 12 not printed in the Gazette.]

1,026,656. CAISSON. RALPH H. CHAMBERS, New York, N. Y., assignor to The Foundation Company, a Corporation of New York. Filed Dec. 21, 1911. Serial No. 667,178. (Cl. 61—3.)

1. A caisson the sides of which are formed chiefly of concrete and comprise vertical I-beams with their webs extending transversely and the flanges engaged by the concrete to receive the transverse pressure thereof, a cutting edge extending around the lower edge of the caisson and means independent of said cutting edge for bracing the lower ends of said I-beams.

2. A caisson the sides of which are formed chiefly of concrete and comprise vertical I-beams with their webs extending transversely and the flanges engaged by the concrete to receive the transverse pressure thereof, and braces extending directly across the caisson between the lower ends of said I-beams.



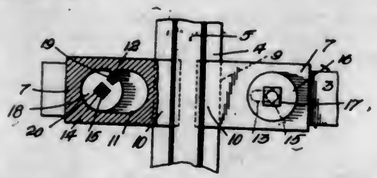
3. A caisson the sides of which are formed chiefly of concrete and comprise vertical I-beams with their webs extending transversely and the flanges engaged by the concrete to receive the transverse pressure thereof, a concrete roof and braces between the upper ends of said I-beams and embedded in said roof.

4. A pneumatic caisson having a working chamber with a roof, long side walls and short end walls, said roof and walls being chiefly of concrete, said long side walls being stiffened at considerably separated intervals in their length by stiff vertically extending metal members embedded in the concrete and extending from the roof to the cutting edge of said side walls, and transverse braces extending across the lower part of the chamber and connecting the lower ends of said vertically extending members so as to resist the lateral pressures on the lower ends of said members without transmitting such pressures to the cutting edge.

5. A pneumatic caisson having a working chamber with a roof, long side walls and short end walls, said roof and walls being chiefly of concrete, said long side walls being stiffened at considerably separated intervals in their length by stiff vertically extending metal members embedded in the concrete and extending from the roof to the cutting edge of said side walls, the width of said members being at least substantially as great as that of the concrete so as to secure the maximum stiffness and to permit the separation of said members by considerable intervals, as aforesaid.

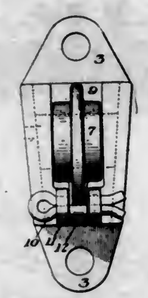
[Claims 6 to 10 not printed in the Gazette.]

1,026,657. TIE AND RAIL-FASTENER. MIKE CHILA, Whiting, Ind. Filed Mar. 6, 1912. Serial No. 681,939. (Cl. 238—4.)



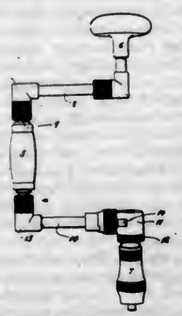
In a metallic tie and rail fastener, the combination with rails, and a tie of the I-beam construction adapted to support said rails, said tie having sockets formed therein, of inner and outer fastener blocks slidably mounted upon said tie and engaging the base flanges of said rails, each block having an oval recess formed therein with one of the walls of said recess provided with a lug, each block having the top thereof provided with a longitudinal slot in communication with said recess, a bolt extending through said slot and said recess into the socket of said tie, a head carried by said bolt and closing the slot of said fastener block, and a washer detachably mounted upon said bolt within the recess of said fastener block and having a notch to receive the lug carried by the wall of said recess, whereby said fastener block can be shifted by partially rotating said bolt.

1,026,658. BRACKET FOR UNCOUPLING-RODS OF CAR-COUPLINGS. WALTER E. COFFIN, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed June 23, 1910. Serial No. 568,588. (Cl. 213—59.)



A bracket of the character described, comprising a base member having attaching means and formed with a T-shaped guideway whose lateral walls converge downwardly, the base member also having perforated lugs at opposite sides of the guideway at the lower portion thereof, and an eye member having a vertical portion from which the eye proper projects, said vertical portion also having downwardly converging beveled edges adapted to wedge against the walls of the guideway and also having at its lower portion a perforation adapted to be brought into alinement with the openings in said lug, substantially as described.

1,026,659. SECTIONAL BRACE. EDWIN COOPER, East Hartford, and CHARLES E. CLARK, Hartford, Conn. Filed Dec. 2, 1911. Serial No. 663,613. (Cl. 145—66.)



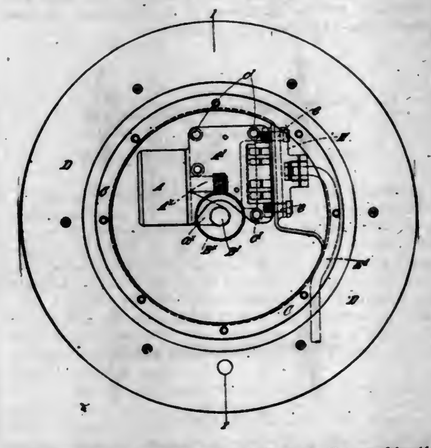
1. A sectional brace comprising two members, and an angular coupling device into the branches of which said members are fitted, said members having a bearing engagement against each other to prevent the rotation of one of said members with respect to the other.

2. A sectional brace comprising two members, and an angular coupling device into one branch of which one of said members is driven, the other member being slidable longitudinally in the other branch of said coupling member, said members having a bearing engagement inside the coupling device to prevent rotation of said longitudinally slidable member.

3. A sectional brace comprising a tubular elbow, a member driven into one branch of the elbow, and a second member slidingly fitted in the other branch of the elbow, said second member having a portion of its circumference cut away to form a flat bearing face and the butt of the first mentioned member engaging said bearing face to prevent rotation of said slidable member.

4. A sectional brace comprising a tubular elbow, a member driven into one branch of the elbow, and a second member slidingly fitted in the other branch of the elbow said second member having a portion of its circumference cut away to form a flat bearing face and the butt of the first mentioned member engaging said bearing face to prevent rotation of said slidable member, said elbow having a bearing therein against which the first member abuts.

1,026,660. SIGHTING APPARATUS FOR ORDNANCE. ARTHUR TREVOR DAWSON and GEORGE THOMAS BUCKHAM, Westminster, London, England, assignors, by mesne assignments, to Vickers Limited, Westminster, London, England. Filed Dec. 28, 1910. Serial No. 599,721. (Cl. 89—32.)



1. In sighting apparatus for ordnance, the combination with the motor, the motor casing and the moving indicating member actuated by the motor, of means for detachably securing the said motor and the indicating member as an integral unit to the casing.

2. In sighting apparatus for ordnance, the combination with the electric motor, the motor casing and the moving pointer actuated by the motor, of means for detachably securing the said motor and the moving pointer as an integral unit to the casing.

3. In sighting apparatus for ordnance, the combination with the electric motor, the motor casing and the moving pointer actuated from the motor by gearing, of a plate carrying the said motor, the gearing and the pointer, and means for detachably securing the plate to the casing.

4. In sighting apparatus for ordnance, the combination with the electric motor, the motor casing and the moving pointer actuated by worm gearing, of a plate carrying the said motor, the gearing and the pointer, a substitute plate of the same weight and balance as the said plate carrying the motor, the gearing and the pointer and means for detachably securing either the last mentioned plate or the substitute plate to the casing.

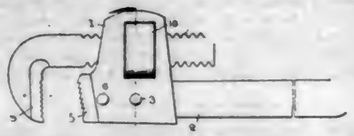
5. In sighting apparatus for ordnance, the combination with the electric motor, the motor casing, the moving pointer, and means for returning the pointer to zero during the setting of the sight, of a plate, means for detachably securing the said plate to the casing and means for attaching the motor and the pointer to the said plate.

[Claims 6 and 7 not printed in the Gazette.]

1,026,661. WRENCH. FRANK H. DICKSON, Oswego, N. Y. Filed Oct. 6, 1911. Serial No. 653,119. (Cl. 81—167.)

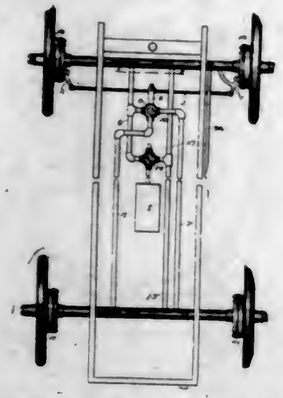
A wrench comprising a stationary jaw frame having a longitudinal bore terminating in a seat for the jaw, a han-

die positioned within a portion of said bore, and having recesses in its forward end, a stationary jaw having abutments adapted to engage the forward end of the frame



and having a lugged reduced portion adapted for engagement within said seat and recesses, and means respectively for directly securing said jaw and handle to said frame.

1,026,662. CONTROL OF VEHICLE DRIVING-WHEELS. FELIX A. EISNER, Rochester, N. Y. Filed July 10, 1908. Serial No. 442,927. (Cl. 21—90.)



1. The combination with a vehicle having driving wheels on opposite sides thereof mounted to swing relatively to the vehicle body, of motors each driving one of said wheels, a steering device, and controlling means for the motors operated by the steering device and adapted to effect the equal driving of the motors when the vehicle is moving straight ahead and an unequal driving of the motors when the vehicle is turning.

2. The combination with a vehicle having driving wheels on opposite sides thereof, of a pair of fluid motors for driving the wheels, a fluid supply connected to both motors, means for controlling the supply, having one position for effecting the equal driving of both motors, another position for effecting the slower driving of one motor, and still another position for effecting the slower driving of the other motor and steering mechanism for the vehicle operatively connected to the fluid controlling means.

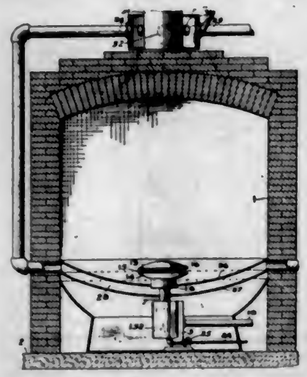
3. The combination with a vehicle having driving wheels on opposite sides thereof, of a pair of fluid motors for driving the wheels, a fluid supply connected to both motors, and a valve in said connection having one position effecting the equal driving of both motors, and two other positions, each effecting the slower driving of one motor and a steering mechanism for the vehicle operatively connected to the valve.

4. The combination with a vehicle having driving wheels on opposite sides thereof, of a pair of fluid motors for driving the wheels, a fluid supply connected to both motors, a valve in said connection, and a steering device for the vehicle connected to the valve.

5. The combination with a spindle, of a stator arranged at the inner end of the same, a rotor surrounding the stator and held to the latter, and a wheel turning on the spindle and having a connection with the rotor permitting the removal of the wheel from the spindle without removing the rotor.

[Claims 6 to 16 not printed in the Gazette.]

1,026,663. CENTRIFUGAL OIL-BURNER. MILTON A. FESLER, San Francisco, Cal. Filed Apr. 13, 1910. Serial No. 555,162. (Cl. 158—28.)



1. The combination of a vertical shaft, upper, lower and intermediate plates carried by said shaft, the peripheries of said plates approaching into close proximity to each other, centrally disposed conduits leading respectively into the spaces between the upper and intermediate plates and the intermediate and lower plates, an oil pipe extending upward and discharging into one of said conduits, and means for rotating said shaft, substantially as described.

2. The combination of a vertical shaft, upper, lower and intermediate plates carried by said shaft, radial vertical webs between said plates, the peripheries of said plates approaching into close proximity to each other, centrally disposed conduits leading respectively into the spaces between the upper and intermediate plates and the intermediate and lower plates, an oil pipe extending upward and discharging into one of said conduits, and means for rotating said shaft, substantially as described.

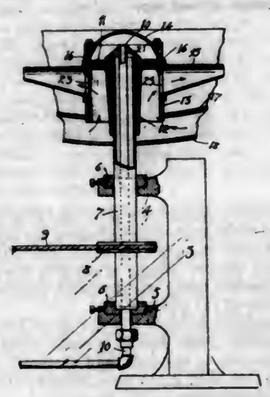
3. The combination of a vertical shaft, upper, lower and intermediate plates carried by said shaft, the peripheries of said plates approaching into close proximity to each other, the intermediate and the lower plates having depending tubular extensions, and one of said extensions being formed with an annular channel to receive a supply of oil, an oil pipe extending upward and discharging into said channel, and means for rotating said shaft, substantially as described.

4. The combination of a vertical shaft, upper, lower and intermediate plates carried by said shaft, radial vertical webs between said plates, the peripheries of said plates approaching into close proximity to each other, the intermediate and the lower plates having depending tubular extensions, and one of said extensions being formed with an annular channel to receive a supply of oil, an oil pipe extending upward and discharging into said channel, and means for rotating said shaft, substantially as described.

5. The combination with a furnace, of a vertical shaft, upper, lower and intermediate plates carried by said shaft, the peripheries of said plates approaching into close proximity to each other, the intermediate and the lower plates having depending tubular extensions to form an annular air supply conduit, and one of said extensions being formed with an annular channel to receive a supply of oil, an oil pipe extending upward and discharging into said channel, partitions beneath said burner, the space between the partitions opening into said air supply conduit, a pipe for conducting the air to said space, and means whereby the heat of the products of combustion of the furnace heats said air, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,026,664. OIL-BURNER. MILTON A. FESLER, San Francisco, Cal. Filed July 27, 1908, Serial No. 445,496. Renewed July 12, 1910. Serial No. 571,657. (Cl. 158—1.)



1. In an oil burner, the combination of bearings, a vertical tubular shaft in said bearings, means for rotating said shaft in said bearings, a deflector wheel secured at the upper end of said shaft and having a depending outer rim spaced from said shaft, and outwardly extending tubes secured to said rim and communicating with the space between said rim and shaft, said wheel having oil conduits leading into the respective tubes, substantially as described.

2. In an oil burner, the combination of bearings, a vertical tubular shaft in said bearings, means for rotating said shaft in said bearings, a deflector wheel secured at the upper end of said shaft and having a depending outer rim spaced from said shaft, a cap inclosing the top of the wheel and forming therewith an oil chamber, and outwardly extending tubes secured to said rim and communicating with the space between said rim and shaft, said wheel having oil conduits leading into the respective tubes, substantially as described.

3. In an oil burner, the combination of bearings, a vertical tubular shaft in said bearings, means for rotating said shaft in said bearings, a deflector wheel secured at the upper end of said shaft, an oil tube leading centrally through said hollow shaft, and a conical spreader secured to the top of said oil tube and discharging on to said wheel, substantially as described.

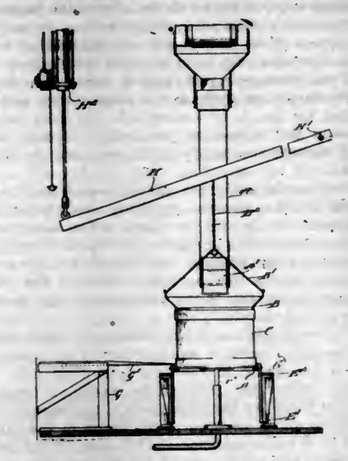
4. In a furnace, the combination of upper and lower partitions therein, a centrifugal oil burner above the upper partition, and means for admitting air into the space between the partitions at points remote from said oil burner, substantially as described.

5. In a furnace, the combination of upper and lower concave partitions, a stand below said partitions, bearings supported by said stand, a vertical tube rotatably supported in said bearings, an oil supply pipe passing through said tube, a deflector secured upon the upper end of the tube, deflector tubes extending from said deflector, means carried by the upper end of said oil supply pipe for supplying oil to said deflector, and means for rotating said tube, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,026,665. PACKING-MACHINE FOR TOOTHPICKS AND THE LIKE. MAURICE W. FORSTER, Dixfield, Me., assignor to Forster Manufacturing Company, Dixfield, Me., a Corporation of Maine. Filed Mar. 30, 1911. Serial No. 617,808. (Cl. 144—191.)

1. In a contrivance for densely packing toothpicks or similar articles, the combination of a support, means to vibrate the support, means adapted to secure a box to the support, a frame to fit vertically slidable in such a box, said frame comprising parallel vertical partitions, and means to raise the frame on the box.



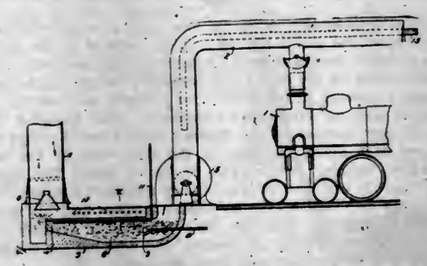
2. In a contrivance for densely packing toothpicks or similar articles, the combination of a support, means to vibrate the support, means adapted to secure a box to the support, a frame to fit vertically slidable in such a box, said frame comprising parallel vertical partitions tapered downwardly, and means to raise the frame on the box.

3. A contrivance for densely packing tooth picks or similar articles, which consists of a support, means to vibrate the support, a frame adapted to fit within a box on the support, comprising parallel vertical partitions with top edges at diverse levels.

4. A contrivance for densely packing tooth picks or similar articles, which consists of a support, means to vibrate the support, and a frame adapted to fit within a box on the support, comprising parallel vertical partitions, every other partition having its top edge lower than that of the intermediate partitions.

5. A contrivance for densely packing tooth picks or similar articles, which consists of a support, means to vibrate the support, a frame adapted to fit within a box on the support, comprising parallel vertical partitions, and means to lift the frame.

1,026,666. GAS OR SMOKE WASHER. OLIVER M. FOSTER, Elkhart, Ind., assignor, by mesne assignments, of one-fifth to S. K. Dickerson, one-fifth to D. R. MacBain, and one-fifth to De Witt C. Moore, Cleveland, Ohio, and one-fifth to Charles E. Schaff, Chicago, Ill. Filed July 11, 1911. Serial No. 637,981. (Cl. 110—183.)



1. In combination in a gas washer, a tank provided with a cleaning liquid, a substantially horizontal passage-way lying below the surface of the liquid in the tank and filled with liquid therefrom, means for forcing the gases of combustion through the liquid in the passage-way, and means for supplying steam under pressure to the liquid in the said passage-way.

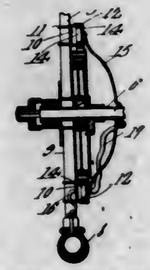
2. In combination in a gas washer, a tank provided with a cleaning fluid, a substantially horizontally extending passage-way lying adjacent the surface of the liquid in the tank but beneath such surface and having its ends open, the outlet end of the passage-way communicating with the liquid in the tank and lying beneath the surface thereof whereby the passage-way is filled by water from the tank, means for supplying steam to the passage-way, and means for forcing the gas to be washed into the inlet end of the passage-way and throughout the length of such passage-way and through the outlet end thereof into the liquid of the tank.

3. In combination in a gas washer, a tank provided with a cleaning liquid, a passage-way lying beneath the surface of the liquid and having its outlet end opening into the tank below the surface of the liquid and filled with water from such tank and its inlet end connected to the gas supply passage, means for supplying steam to the passage-way, a spraying means in the passage-way, and means for suplying a fluid thereto.

4. In combination in a gas washer, a tank provided with a cleaning liquid, a passage-way lying beneath the surface of the liquid in the tank and filled with liquid therefrom, means for forcing the gases of combustion through the liquid in the passage-way, and means for supplying steam under pressure to the liquid in the said passage-way at a point intermediate the ends of the passage-way whereby the bodies of gas passing through the said passage-way are broken up and saturated.

5. In combination in a gas washer, a body of liquid, means for forcing the gas to be washed into and through the body of liquid, and means intermediate the entrance and exit sides of the body of liquid and separate from and independent of the last mentioned means for supplying steam under pressure to the said body of liquid to agitate such liquid and break up and saturate the bodies of gas passing therethrough.

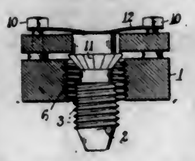
1,026,667. TIRE-INFLATION MECHANISM. ROYAL L. FOSTER, Fort Riley, Kans. Filed Nov. 26, 1910. Serial No. 594,350. (Cl. 152—11.)



The combination with an axle and a wheel thereon, having spokes and a rim, of a spider secured to the axle; an annular, trough-shaped primary member secured to the extremities of the spider; an annular, trough-shaped secondary member fitting within the primary member for rotation and for transverse movement; clips securing the secondary member to the spokes; flexible valve strips secured each along one edge of the side walls of the secondary member and curved to lie at their free edges against the end wall of the primary member; a pipe entering the end wall of the secondary member and extended through the rim, into the tire; and a pipe entering the end wall of the primary member, and adapted for connection with a source of fluid pressure supply.

1,026,668. PIPE THREADING AND REAMING DEVICE. LORENZO S. FROST, Cambridge, Mass. Filed Mar. 30, 1911. Serial No. 617,843. (Cl. 77—3.)

1. The combination with a pipe die, of a guide for the same formed with threads adapted to loosely fit within the pipe for which said die is designed and to engage the bur usually existing in the pipe-end, one face of said threads being at right angles to the axis of said guide, and the pitch of said threads being unequal to the pitch of the internal threads of said die.



2. The combination with a pipe die, of a guide for the same formed with ratchet-shaped screw threads adapted to loosely fit within the pipe for which said die is designed and to engage the bur usually existing in the pipe-end, the threads in the die being slightly more numerous per inch than are those of the guide.

3. The combination with a pipe die, of a terminally tapered cylindrical guide having threads fitted to the pipe for which said die is designed, and a reamer at the upper end of the guide, said guide being adapted to hold the die for proper presentation to the pipe.

4. The combination with a pipe die, of a threaded guide fitted to enter the pipe for which the die is designed, a reamer above the threaded part of the guide, and means for holding the die at right angles to the guide and permitting relative longitudinal movement of the guide and die.

1,026,669. PLUMB-BOB. ERNEST P. GARNER, Dapersville, Va. Filed July 18, 1911. Serial No. 639,145. (Cl. 73—72.)



1. A plumb bob comprising a body having an axially projecting post, a spool mounted on the post, a cap mounted above the spool, a plate coöperating with the cap, the plate and the cap being relatively rotatable and the cap having a slot extending from its lower edge to its apex and the plate having an edge recess with which the slot may be brought into registry and means for putting a tension on the spool, and on the plate and the cap, to prevent an accidental rotation of said spool and an accidental relative rotation of the plate and the cap.

2. A plumb bob comprising a body, a spool disposed coaxially of the body, a cap also disposed coaxially of the body above the spool, and a plate coöperating with the cap, the plate and the cap being relatively rotatable and the cap having a slot extending from its lower edge to its apex and the plate having an edge recess with which the slot may be brought into registry.

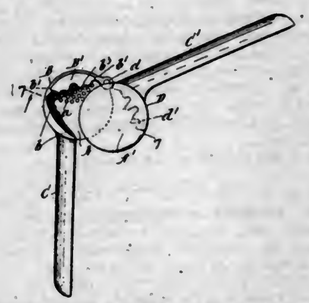
3. A plumb bob comprising a body having an axially projecting post, the post having a threaded and slotted portion, a spool surrounding the post, a plate also surrounding the post and having a lip which projects into the slot of the post, a cap threaded upon the post and having a shoulder against which the plate bears, the cap having a slot extending from its edge to its apex and the plate having an edge recess with which the slot in the cap may register, and a spring acting against the lower flange of the spool to force the latter against the plate.

4. A plumb bob comprising a body having an axially projecting post, the post having a threaded and slotted portion, a spool surrounding the post, a plate also surrounding the post and having a lip which projects into the slot of the post, a cap threaded upon the post and having a shoulder against which the plate bears, the cap having a slot extending from its edge to its apex and the plate having an edge recess with which the slot in the cap may register, and a spring acting against the lower flange of the spool to force the latter against the plate, the plate having a concave under face and the spool having a relatively thin flexible flange arranged to bear against said concave face.

5. A plumb bob comprising a body having an axially projecting post, a cap mounted on the post and spaced from the body, a spool also mounted on the post between the body and the cap and having a knurled flange whereby it may be turned manually, the cap being constructed to serve as a cord guide whereby the cord passing from the spool may leave the cap at the apex thereof, and means for putting a tension on the spool to prevent an accidental turning movement thereof.

[Claim 6 not printed in the Gazette.]

1,026,670. FRUIT AND NUT SQUEEZER. RUSSELL J. GOODNOW, Boston, Mass. Filed Mar. 23, 1911. Serial No. 616,338. (Cl. 100—41.)



1. A squeezer comprising a plate having a curved segmental wall arising from the edge thereof and integral therewith, and a similar segmental wall forming a jaw similarly curved and pivotally mounted on said plate and movable with relation thereto, said jaw forming a continuation of said first-named wall, said plate and said jaw each having a handle, the whole forming a collapsible chamber normally approximately circular in shape to receive a fruit and when in closed position forming a receptacle for the waste.

2. A squeezer comprising a plate having a curved segmental wall arising from the edge thereof and integral therewith, and a similar segmental wall forming a jaw similarly curved and pivotally mounted on said plate and movable with relation thereto, said jaw forming a continuation of said first-named wall, said plate and said jaw each having a handle, the whole forming a collapsible chamber normally approximately circular in shape to receive a fruit and when in closed position forming a receptacle for the waste, a portion of the inner surface of said first-named wall being formed on the radius of said jaw whereby the inner edge of said jaw will hug said surface during the squeesing operation.

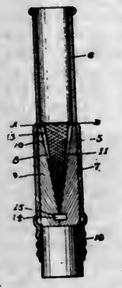
3. A squeezer comprising a plate having a curved wall extending at right angles from it and a jaw pivoted to one end of said wall, its free end being adapted to be moved over the surface of said plate in substantial contact with the further portion of said wall, and means for moving said jaw with reference to said wall, said wall being provided with means adapted to retain a jaw piece in position to coöperate with said jaw.

4. A squeezer comprising a plate having a curved wall extending at right angles from it and a jaw pivoted to one end of said wall, its free end being adapted to be moved over the surface of said plate in substantial contact with the further portion of said wall, means for moving said jaw with reference to said wall, in combination with a separable jaw piece and means adapted to hold said jaw piece against said wall in position to coöperate with said jaw.

5. A squeezer comprising a perforated plate having mounted on its edge a curved segmental wall thicker at one end than at the other, and a second segmental wall forming a jaw similarly curved and pivotally connected with the said plate to form a hinged continuation of the thin edge of said first-named wall, the thickened portion of said first-named wall being curved on its inner surface whereby the free end of said jaw during the squeesing operation will hug said inner surface, and handles, one attached to said thickened portion of said first-named wall and the other attached to said jaw.

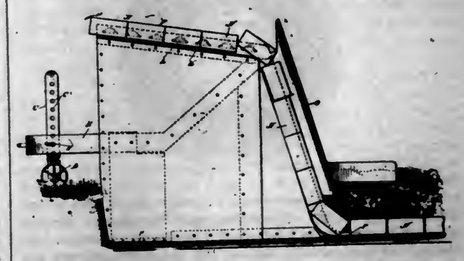
[Claim 6 not printed in the Gazette.]

1,026,671. PENCIL-SHARPENER. JOHN E. HAGER and ROBERT H. PORTEOUS, New York, N. Y. Filed Dec. 11, 1911. Serial No. 664,980. (Cl. 120—92.)



A pencil sharpener comprising a tubular sleeve adapted to fit over the end of a pencil, a plurality of tapering sections within said sleeve, said tapering sections being grooved to form a pocket, the inner walls of said sections being spaced to form a conical opening, file like projections on the inner faces of said sections, and said sections having smooth portions adjacent their abutting side edges to form inclined pockets.

1,026,672. DITCHING-MACHINE AND TILE-DISTRIBUTER. ALBERTUS E. HANSON, Mason City, Iowa. Filed Apr. 4, 1911. Serial No. 618,795. (Cl. 37—53.)



1. A machine of the class described, comprising a vertically-disposed longitudinal center plate, front cutters at opposite sides of the said plate and extending sidewise in an outward and upward direction from the bottom edge of the center plate, carrying boards on the sides of the

center plate and extending upwardly and rearwardly from the rear lower ends of the said cutters, and a guideway along the upper and rear edge of the said center plate for the passage of tiles.

2. A machine of the class described, comprising a vertically-disposed longitudinal center plate, front cutters at opposite sides of the said plate and extending sidewise in an outward and upward direction from the bottom edge of the center plate, carrying boards on the sides of the center plate and extending upwardly and rearwardly from the rear lower ends of the said cutters, and mold and retaining boards at the upper ends of the said carrying boards for directing the material sidewise.

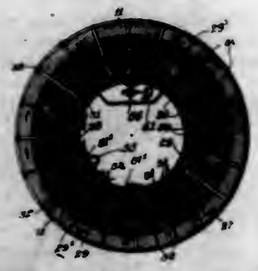
3. A machine of the class described, comprising a vertically-disposed longitudinal center plate, front cutters at opposite sides of the said plate and extending sidewise in an outward and upward direction from the bottom edge of the center plate, carrying boards on the sides of the center plate and extending upwardly and rearwardly from the rear lower ends of the said cutters, an open top guideway at the upper edge of the said center plate, and a tubular guideway at the rear edge of the said center plate.

4. A machine of the class described, comprising a vertically-disposed longitudinal center plate, front cutters at opposite sides of the said plate and extending sidewise in an outward and upward direction from the bottom edge of the center plate, carrying boards on the sides of the center plate and extending upwardly and rearwardly from the rear lower ends of the said cutters, an open top guideway at the upper edge of the said center plate, a tubular guideway at the rear edge of the said center plate, and trailers at the lower end of the said tubular guideway and extending rearwardly into the bottom of the ditch.

5. A machine of the class described, comprising a vertically-disposed longitudinal center plate, front cutters at opposite sides of the said plate and extending sidewise in an outward and upward direction from the bottom edge of the center plate, carrying boards on the sides of the center plate and extending upwardly and rearwardly from the rear lower ends of the said cutters, a trough-like guideway at the top of the center plate and provided with friction rollers for the tiles to rest on, the said guideway being inclined rearwardly and downwardly, and a tubular guideway at the rear end of the said center plate and inclined downwardly and rearwardly.

[Claim 6 not printed in the Gazette.]

1,026,673. MAGNETIC SEPARATOR. FRANK C. HEINEN, Chicago, Ill. Filed Aug. 10, 1908. Serial No. 447,675. (Cl. 83—71.)



1. In a magnetic separator, a rotatable cylinder comprising a plurality of sections each having an arcuate polar face forming a section of the operative interior periphery of the cylinder, means for magnetizing said sections, means for feeding the material to be separated to said cylinder, and removable non-magnetic division strips between and locking said sections against inward radial movement and having faces concentric with said polar face-portions.

2. In a magnetic separator, a rotatable cylinder comprising a plurality of separately removable sections each having an arcuate polar face forming a section of the operative interior periphery of the cylinder and tapered on its sides to enlarge outwardly, removable non-magnetic filling strips having similarly tapered sides interposed between the tapered sides of said face-portions to lock the same against inward radial movement, and having their faces substantially concentric with said arcuate polar face-portions, means for magnetizing said sections, and means for feeding the material to be separated into the cylinder.

3. In a magnetic separator, a rotatable cylinder comprising an exterior para-magnetic shell, pole-pieces having radially extending cores and arcuate heads having inner polar faces forming a section of the internal periphery of the cylinder and formed to leave tapered spaces between the contiguous edges of the adjacent heads, non-magnetic filling strips wedged in said spaces, bolts connecting said filling-strips with the exterior shell, and means for feeding the material to be separated into contact with the internal periphery of the cylinder.

4. In a magnetic separator, a rotatable cylinder comprising an exterior shell, a plurality of pole-pieces secured to said shell each comprising a core projecting radially inwardly from the shell and an arcuate head forming part of an interior shell and forming a portion of the internal periphery of the cylinder and inwardly beveled at its longitudinal edges to provide between adjacent heads outward tapering spaces, wedge shaped filling strips in said spaces and tension means connecting said filling-strips with the exterior shell.

5. In a magnetic separator, a rotatable cylinder comprising pole-pieces having their inner faces forming a section of the internal periphery of the cylinder, non-magnetic strips between the pole-pieces, packing interposed between the contiguous surfaces of the strips and the pole-pieces to render the internal periphery of the cylinder water-tight, and means for securing the strips and pole-pieces together.

[Claim 6 not printed in the Gazette.]

1,026,674. RIVETED STRUCTURE. FRANK R. HENRY, St. Louis, Mo., assignor to Majestic Manufacturing Company, St. Louis, Mo., a Corporation. Filed Jan. 15, 1912. Serial No. 671,180. (Cl. 126—190.)

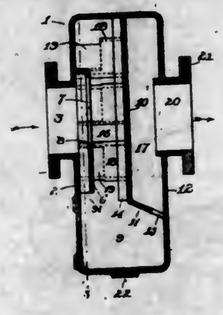


A range oven door, comprising a door frame provided with rivet receiving members located at the back of the frame and having undercut grooves therein, a lining plate at the back of said frame provided with rivet holes, and rivets extending through the holes in said lining plate and upset in the undercut grooves in said rivet receiving members.

1,026,675. SEPARATOR. JOHN HICKEY, New Haven, Conn., assignor to National Pipe Bending Company, New Haven, Conn., a Corporation of Connecticut. Filed Apr. 29, 1911. Serial No. 624,137. (Cl. 83—90.)

1. A fluid separator having inlet and outlet ports, baffle means between said ports extending substantially at right angles to the path between the latter and interrupting the direct flow of fluid, said baffle means affording outlets at the sides of the separator, and baffle means associated with said outlets and comprising members open at the side and substantially closed at their front ends by the front wall of the separator; substantially as described.

2. A fluid separator having inlet and outlet ports, baffle means extending substantially at right angles to the line or path between said ports and having an imperforate portion in said line and outlets offset from said line, and baffle means comprising members located adjacent and in front of the aforesaid outlets said members being open at the side and substantially closed at their front ends by the front wall of the separator; substantially as described.



3. A fluid separator having a baffle plate in a plane at right angles to the flow of the fluid and extending across the separator, and having ports therethrough, and hollow baffling members extending from said plate and substantially closed at their front ends by the front wall of the separator, substantially as described.

4. A fluid separator having a transverse baffle with side outlets, and baffle members extending longitudinally adjacent said outlets and formed of hollow bodies closed at their front ends and open at the sides farthest from the center of said transverse baffle; substantially as described.

5. A fluid separator having inlet and outlet ports, a transverse baffle plate having a port therethrough out of the line of said first named ports, and a semi-tubular member extending from the front wall of the separator to interrupt the flow of fluid toward said last named port and having its convexity inward, substantially as described.

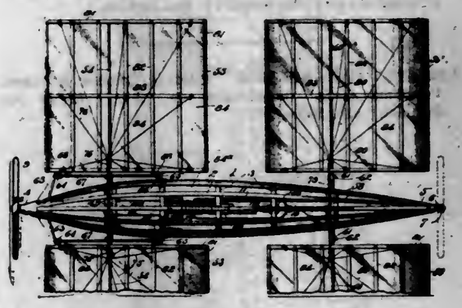
[Claims 6 to 11 not printed in the Gazette.]

1,026,676. BRUSH. FRED HOUSTON, Rockford, Ill., assignor to Houston Manufacturing Company, Rockford, Ill., a Corporation of Illinois. Filed Mar. 31, 1911. Serial No. 618,069. (Cl. 15—60.)



A brush for use with suction sweeping apparatus comprising a head provided with a central opening, a hollow handle connected thereto and communicating with said opening, long bristles secured to said head and surrounding said opening, a resilient curtain surrounding said bristles but of less length than said bristles and having its lower edge scalloped and a series of resilient strips of material secured to said curtain longitudinally of the axis thereof.

1,026,677. AEROPLANE. THOMAS H. KEPPEL and ROBERT F. KEPPEL, St. Louis, Mo., and JESSE E. KEPPEL, Jr., Indianapolis, Ind. Filed July 20, 1911. Serial No. 639,529. (Cl. 244—14.)



1. An aeroplane embodying an elongated body, a propeller and motor mechanism for driving the same mounted thereon, a pair of rock-shafts located, respectively, toward the front and rear of said body, plane-supporting frames secured to said rock-shafts, pairs of planes located, respectively, at the front and rear of the body, the planes of each pair being on opposite sides of the body, respectively, each of said planes being detachably connected to the ends of the respective rock-shafts and having brace-wires extending from the tops and bottoms thereof, and detachably connected to opposite sides of said plane-supporting frames, and means for turning said rock-shafts to adjust the inclination of the planes.

2. An aeroplane embodying an elongated body, a propeller and motor mechanism for driving the same mounted thereon, rock-shafts mounted, respectively, at opposite ends of the body, means for turning said shafts, a plane-supporting frame mounted on each end of the rock-shaft at the front of the machine and comprising a ring, guide-pins mounted on the body and embracing said rings at opposite sides thereof, a plane rigidly connected to each of said rings and having a transverse shaft connected to and forming a continuation of said rock-shaft, a pair of planes located, respectively, on opposite sides of the body at the rear thereof, each of said rear planes having a transverse shaft connected to and forming a continuation of said rear rock-shaft, and brace rods connecting the outer ends of said transverse shafts.

3. An aeroplane embodying an elongated body, a propeller and motor mechanism for driving the same mounted thereon, planes pivotally mounted on the body at opposite sides thereof, means for turning said planes, and means for bracing the planes comprising a ring rigidly connected thereto, and guide-pins mounted on the body and embracing opposite sides of said ring.

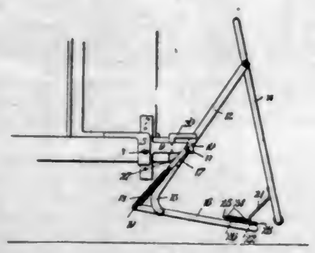
4. An aeroplane embodying a body having adjustable planes mounted thereon, a pair of alining shafts mounted on said body, one of said shafts carrying a propeller at the front of the body and the other a propeller at the rear of the body, clutch mechanism for connecting or disconnecting said shafts at will, a friction clutch mounted on each of said shafts, one member of each clutch being loose on the shaft, and the other member being keyed thereon, a pair of motors, driving connections between each motor and the loose member of the respective clutches, whereby the shafts when connected may be rotated as a whole from either of said motors by operating the appropriate clutch mechanism, and lever mechanism for operating independently the various clutches.

5. An aeroplane embodying a body having adjustable planes mounted thereon, a pair of alining and abutting

shafts, one of which carries a propeller at the front of the machine, and the other a propeller at the rear of the machine, a socket member carried by one shaft and having roller bearings embracing the end of the opposite shaft, a friction clutch, one member of which is fixedly secured near the abutting end of one shaft, and the other member of which is keyed on the other shaft, means for operating the movable member of the clutch to connect or disconnect said shafts at will, and motor driven mechanism controllably connected with each of said shafts.

[Claims 6 and 7 not printed in the Gazette.]

1,026,678. CAR-FENDER. THOMAS JOSEPH KILLEEN, Portland, Oreg. Filed Aug. 31, 1911. Serial No. 647,003. (Cl. 105—255.)



1. In a car fender levers, a fender member mounted on the levers at one side of their fulcrums and disposed vertically, another fender member articulated to the levers at the other side of their fulcrums, so that one fender member will be moved forwardly when the other fender member is pressed rearwardly, and means for normally supporting the front end of the second-mentioned fender member by the first-mentioned fender member.

2. In a car fender levers, a fender member mounted on the levers at one side of their fulcrums and disposed vertically, a second fender member having an eye and pivoted to the levers at the other side of their fulcrums, so that one fender member will be moved forwardly when the other fender member is pressed rearwardly, a hook on the first-mentioned fender member normally disposed in the eye, and resilient means for holding the hook in the eye.

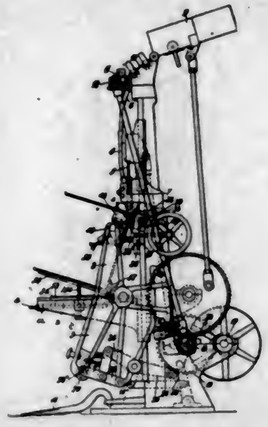
3. In a car fender levers, a fender member mounted on the levers at one side of their fulcrums and disposed vertically, another fender member pivoted to the levers at the other side of their fulcrums, so that one fender member will be moved forwardly when the other fender member is pressed rearwardly, means for normally supporting the front end of the second-mentioned fender member by the first-mentioned fender member, and resilient means for holding the front of the second-mentioned fender member downwardly.

4. In a car fender, brackets having bearings, levers fulcrumed in the bearings, a fender member pivoted to the levers above the horizontal plane of the bearings, a second fender member pivoted to the levers, below the horizontal plane of the bearings, and detachable means for supporting the front of the second-mentioned fender member by the first-mentioned fender member.

5. In a car fender, brackets having bearings, levers fulcrumed in the bearings, a fender member pivoted to the levers above the horizontal plane of the bearings, a second fender member pivoted to the levers, below the horizontal plane of the bearings, detachable means for supporting the front of the second-mentioned fender member by the first-mentioned fender member, and resilient means for holding the rear of the second-mentioned fender member beyond its pivoted point, yieldingly upward.

[Claims 6 to 10 not printed in the Gazette.]

1,026,679. NAILING-MACHINE. ALFRED STEPHEN KING, Norwich, England. Filed June 9, 1911. Serial No. 632,164. (Cl. 1—15.)



1. In a box nailing machine the combination of a row of nail chucks or holders, plungers or hammers reciprocated to and fro for driving down the nails from the chucks or holders, a pair of inclined clamp jaws below the chucks or holders, one clamp jaw fixed with the lower part of its inner face positioned in front of the longitudinal central lines of the plungers or hammers and the upper part of the same face in rear of these lines, the other clamp jaw movable toward and away from the said inner face of the fixed jaw so that when the upper part of one board is held between the clamp jaws and another board is held down on to the top of the movable clamp jaw and on to the top edge of the board held between the jaws, nails may be driven down through both of them and the nail points brought down on to the inner face of the fixed clamp jaw and thereby clenched.

2. In a box nailing machine the combination of a row of nail chucks or holders, plungers or hammers reciprocated to and fro for driving down nails from the chucks or holders, a pair of clamp jaws below the chucks, one jaw having means for mounting and for adjusting it in such manner that it can be raised or lowered and moved horizontally backward or forward and inclined at any desired angle to the plane in which the hammers move and a jaw movable toward and away from the first mentioned jaw and provided with means constructed and arranged to permit adjustment of the movable jaw into parallelism with the first mentioned jaw when clamping a board against it.

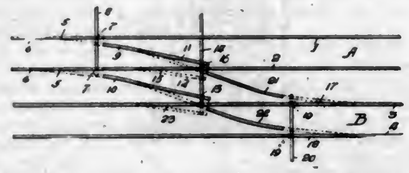
3. In a box nailing machine the combination of a row of nail chucks or holders, plungers or hammers reciprocated to and fro for driving nails from the chucks or holders, a pair of clamp jaws below the chucks or holders, one jaw fixed and the other movable and provided near its center with a ball and socket joint, means for raising and lowering said movable jaw and devices for moving said movable jaw toward and away from the fixed jaw.

4. The combination of the back clamp jaw, means capable of adjustment so that this jaw can be raised and lowered and moved horizontally forward and backward and also inclined to any desired angle and of a front jaw mounted at its center on a ball and socket joint, a lever arm at the end of which this joint is mounted, means for rocking this lever to move the front jaw toward and away from the fixed jaw and means whereby the front jaw can be set nearer to and farther away from the fixed jaw to adapt it for different thicknesses of work.

5. The combination of the back jaw, the front jaw, the ball and socket joint by which said front jaw is carried, the rocking lever carrying the ball and socket joint, the spring arms projecting downward from the front jaw one on either side of the ball and socket joint and means for causing the lower ends of these spring arms to bear against the lever to tend normally to hold the front jaw in any position into which it may have been set and yet allow of the front jaw when moved toward the fixed jaw adapting its position to give a uniform pressure against any piece of work placed between the jaws.

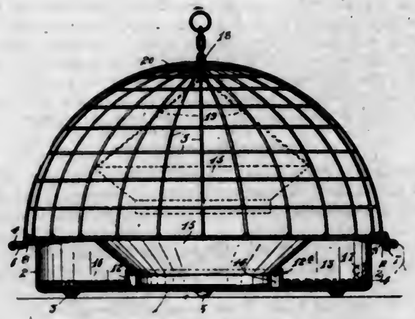
[Claims 6 and 7 not printed in the Gazette.]

1,026,680. SWITCH. WILLIAM HARRISON KIRKWOOD, Vandergrift Heights, Pa. Filed Feb. 3, 1912. Serial No. 675,220. (Cl. 104—12.)



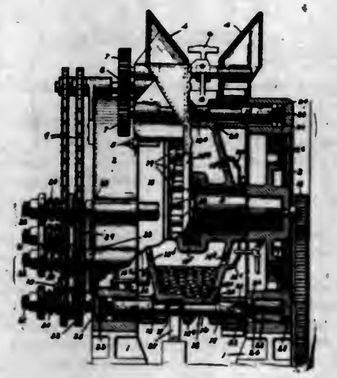
In a switch, the combination with tracks A and B, pivoted switch tongues forming part of the rails of said tracks, switch bars pivotally connected to said tongues for shifting said tongues, switch rails associated with the main rails of said tracks and in proximity to said switch tongues, pivoted switch tongues forming part of said switch rails, an intermediate switch bar loosely connected to said tongues, and pivoted switch tongues forming part of the inner rails of said tracks and pivotally connected to said intermediate switch bar.

1,026,681. FLY-POISON CAGE. CHARLES M. KLEIN, Millerville, Minn. Filed Mar. 10, 1911. Serial No. 613,639. (Cl. 43—22.)



In a device of the kind described, the combination with a cage, of a pan-like bottom for said cage and having a cage supporting flange projecting horizontally from the top walls thereof, means for detachably securing said cage to said cage supporting flange, supporting feet pressed from said pan-like bottom, an upwardly projecting retaining flange secured to said pan-like bottom and spaced materially inward from the walls thereof, thereby forming inner and outer compartments, the walls of said pan-like bottom being materially higher than the said retaining flange, a removable dish supported on said pan-like bottom within said inner compartment and having its outer edge projected above said retaining flange and outside thereof, and an absorbent material placed within said outer compartment, substantially described.

1,026,682. BRIQUET-MACHINE. GUSTAV KOMAREK, St. Louis, Mo., assignor, by direct and mesne assignments, to St. Louis Briquette Machine Company, a Corporation of Missouri. Filed Mar. 23, 1911. Serial No. 616,530. (Cl. 25—65.)



1. In a briquet machine, the combination of a feed box, a mold carrier having a feed groove in its periphery and forming the bottom of the feed box, and a mold carried by said carrier extending transversely below and opening outwardly into the bottom of the feed groove through an opening of less width than the diameter of the mold.

2. In a briquet machine, the combination of a feed box, a revoluble mold carrier forming the bottom of said box, sectional flights in said box, said mold carrier having a feed groove in its periphery, transversely disposed molds of capacity to hold material for a single briquet extending across and opening outwardly through the bottom of said feed groove, and oppositely movable plungers in said molds.

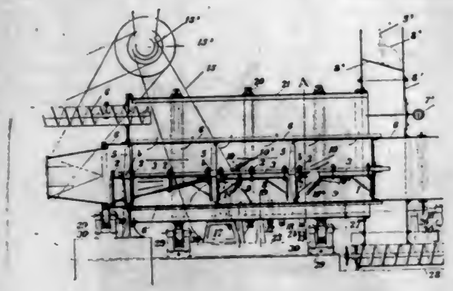
3. In a briquet machine, the combination of a feed box, a revoluble mold carrier forming the bottom of said box, said mold carrier having a feed groove in its periphery communicating with said box, and also a discharge groove in its periphery which is located to one side of said box, and molds in said carrier which extend across and open outwardly through the bottom of the feed groove and laterally into the discharge groove, the portion of said molds lying below said feed groove having a capacity for material for a single briquet.

4. In a briquet machine, the combination of a feed box, a revoluble mold carrier forming the bottom of said box, said mold carrier having a feed groove in its periphery in communication with the feed box, and also a discharge groove relatively deeper than said feed groove and which discharge groove is located to one side of the feed box, molds in the mold carrier which communicate with the bottom of the feed groove, and laterally with the discharge groove by means of openings through the walls of the molds of less width than the diameter of the molds, opposite movable plungers, and a means for moving said plungers laterally.

5. In a briquet machine, the combination of a feed box, a mold carrier forming the bottom of said box, said mold carrier having a feed groove communicating with the box and molds having capacity for the material of one briquet extending transversely below the feed groove and communicating outwardly therewith, and angular flights arranged in the feed box and extending down into the feed groove so as to sweep the material therein down into said molds.

[Claims 6 to 10 not printed in the Gazette.]

1,026,683. DRYING APPARATUS. FERNAND LAFEUILLE, Charmes, France. Filed Feb. 13, 1911. Serial No. 608,321. (Cl. 34—5.)



1. In drying apparatus, a rotary drying carrier, means for delivering materials to be dried onto the upper part of said carrier, a heating medium supply conduit for said carrier, means for obstructing the flow of heating medium in the lower part of said carrier, and adjustable means for varying the area of the cross-section of the heating medium passage in the upper part of said carrier.

2. In drying apparatus, a rotary drying carrier, means for delivering material onto the upper part of said carrier, centrally arranged bearings fixed within said carrier, a shaft freely mounted in said bearings, obstructing structures fixed to said shaft and depending freely in the lower part of said carrier, and adjustable devices adapted to vary the cross sectional area of the upper part of said carrier.

3. In drying apparatus, a rotary drying carrier means for delivering material onto the upper part of said carrier, centrally arranged bearings fixed within said carrier, a shaft freely mounted in said bearings, obstructing structures fixed to said shaft and depending freely in the lower part of said carrier, hinged shutters adapted to vary the cross-sectional area of the upper part of said carrier, and means for adjusting said shutters.

4. In drying apparatus, a rotary drying carrier, means for delivering material onto the upper part of said carrier, centrally arranged bearings fixed within said carrier, a shaft freely mounted in said bearings, obstructing structures fixed to said shaft and depending freely in the lower part of said carrier, hinged shutters adapted to vary the cross-sectional area of the upper part of said carrier, and means for adjusting said shutters.

5. In drying apparatus a rotary drying carrier of cylindrical form, means for delivering material onto the upper part of said carrier, baffles freely suspended within said carrier and preventing the flow of heating medium along the lower part thereof, shutters hinged to the upper parts of said baffles, and means for adjusting said shutters.

[Claims 6 to 16 not printed in the Gazette.]

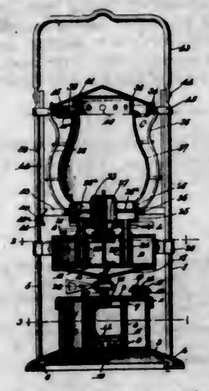
1,026,684. LAMP. EMIL A. LAUER, Brooklyn, N. Y. Filed Jan. 25, 1910, Serial No. 539,084. Renewed Sept. 16, 1911. Serial No. 649,736. (Cl. 240—11.)

1. A lamp or lantern having a hydro-carbon chamber, an oxygen generating chamber, a water supply chamber communicating with said oxygen chamber, and oxygen ducts passing through the hydro-carbon chamber.

2. A lamp or lantern having a hydro-carbon chamber, containing a wick, an oxygen generating chamber, a water chamber communicating therewith, ducts for discharging oxygen adjacent the wick, and controlling means in the oxygen.

3. A lamp or lantern comprising a frame, an oil chamber, a water chamber, and an oxygen generating chamber secured within the frame.

4. A lamp or lantern comprising a frame, and an oil chamber, a water chamber and an oxygen generating chamber removably secured within the frame.



5. A lamp or lantern comprising a frame, a burner, an oxygen generator, and means for conveying oxygen to the burner.

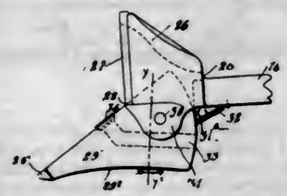
[Claims 6 to 9 not printed in the Gazette.]

1,026,685. GRAIN THRESHING AND SEPARATING MACHINE. TURNER ASHLEY LEWIS, Winchester, Va. Filed June 15, 1911. Serial No. 633,373. (Cl. 130—23.)



In a grain threshing and separating machine, the combination with the threshing mechanism, the rotary pickers, and a cam fixedly mounted on one of the picker shafts; of the grain pan, a series of hanger bars supporting it beneath the pickers, one of said bars having an eccentric ring formed therein and loosely embracing said cam, and means for rotating the shaft on which the cam is mounted.

1,026,686. PIPE-LINE COUPLING. HORATIO OWEN LLOYD-JONES, Winnipeg, Manitoba, Canada. Filed Aug. 26, 1910. Serial No. 579,094. (Cl. 188—13.)



1. The combination with a suitable supporting means, of a shank carrying an open mouthed end piece, a swingable jaw pivotally secured to the end piece and let in to the side thereof, and a spring pressing the jaw normally, backwardly, as and for the purpose specified.

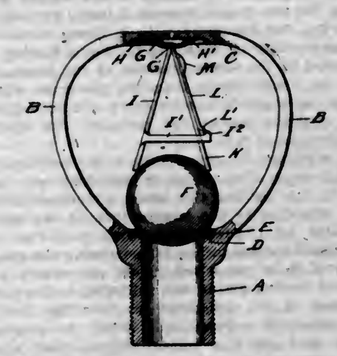
2. The combination with a suitable supporting means, of a shank carried by the supporting means and provided with an open mouthed end piece, having one of the walls thereof inclined, a wedge-shaped jaw swivelly secured to the end piece and a spring passing between the jaw and the shank, as and for the purpose specified.

3. The combination with a suitable supporting means, of a shank carried by the supporting means and provided with an open mouthed end piece having one of the walls thereof inclined toward the shank, a wedge-shaped jaw pivotally secured to the end piece and let in to the side thereof, a spring passing between the jaw and the shank and a lug extending from the jaw and engageable with the shank, as and for the purpose specified.

4. The combination with a suitable supporting means, of a shank carried by the supporting means and provided with an open mouthed end piece having an inclined wall, a wedge-shaped jaw pivotally secured to the end piece and let in at the side thereof, said jaw being provided with suitable ducts, gaskets located in the ends of the ducts, a spring passing between the jaw and the shank and a lug extending from the jaw and engageable with the shank, as and for the purpose specified.

5. The combination with a suitable supporting means, of a shank carried by the supporting means and provided with an open mouthed end piece having an inclined inner wall, said end piece being further provided with an opening adjoining the shank having converging walls, a wedge shaped jaw pivotally secured to the end piece and let in to the side thereof, said jaw being provided with suitable ducts and gaskets at the ends of the ducts, a spring passing between the end of the jaw and the shank and a lug extending from the jaw and engageable with the shank, as and for the purpose specified.

1,026,687. AUTOMATIC SPRINKLER-HEAD. EUGENE MCLEAN LONG, New York, N. Y. Filed Aug. 2, 1911. Serial No. 642,037. (Cl. 169—5.)

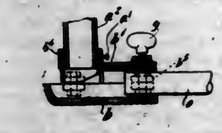


1. In a sprinkler head of the character described, the combination with the head, communicating with the pipe system, of a spherical valve, a deflector plate positioned in a line extending through the center of the valve and outlet, valve locking mechanism consisting of inclined plates or members, the lower ends of which are in contact with the valve upon opposite sides thereof and are held in their locked position by means of a trigger controlled by fusible metal.

2. In a sprinkler head, the combination with a suitable frame and valve stopper, of a locking or holding device for the stopper consisting of two inclined members held in their relationship by the ends in contact being confined, and the opposite ends being held in place by a wedge shaped or spherical surface and a trigger plate normally secured by means of fusible metal, substantially as set forth.

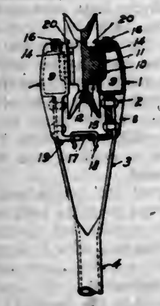
1,026,688. SAND-BLAST DEVICE. WALTER MACLEOD, Fort Thomas, Ky., and WILLIAM HEXT, Cincinnati, Ohio. Filed May 17, 1909. Serial No. 496,605. (Cl. 51—12.)

1. In a sand blast device the combination of a sand collector consisting of a pan and a cover for the pan, both of which have a reduced delivery neck, the pan projecting beyond the front edge of the cover and forming thereby an air inlet, the cover having an opening adapted to admit sand centrally to the bottom of the pan.



2. In a sand blast device, a sand collector, consisting of a pan and a cover for the pan, the pan projecting beyond the front edge of the cover, and thereby forming an air inlet port, a sand delivery port, and a port provided in said cover between said air inlet and said sand delivery port for admitting sand to said collector.

1,026,689. TROLLEY-HARP. PETER A. MCCULLOUGH, Pittsburgh, Pa. Filed Aug. 30, 1909. Serial No. 515,205. (Cl. 191—39.)



1. A trolley comprising a fork consisting of flat spring arms integral with a tubular socket, said socket and arms being of metal of substantially the same thickness, one-piece members provided with oil reservoirs and bearings for the wheel journals rigidly secured to the ends of said spring arms, and a trolley wheel having journals immovable with respect thereto and projecting into said bearings.

2. A trolley comprising a fork having flat spring arms, one-piece members provided with oil reservoirs and bearings for the wheel journals riveted to the free ends of said arms, means arranged to prevent said spring arms from spreading, and a trolley wheel having journals immovable with respect thereto and projecting into said bearings.

3. A trolley harp comprising a pair of members provided with oil reservoirs and having tapered openings in their facing walls, tapered bearing bushings secured in said openings, a trolley wheel journaled in said bushings, and a fork having spring arms to which said members are riveted.

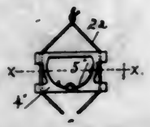
4. A trolley harp comprising a pair of castings provided with oil reservoirs and with openings in their facing walls, bearing bushings secured in said openings and held against rotation, a trolley wheel journaled in said bushings, and a fork having spring arms riveted to said castings.

5. A trolley harp comprising a fork formed from a steel tube split from one end and spread apart to form spring arms united to a tubular socket, members provided with oil reservoirs and bearings for the wheel journals secured to the free ends of said arms, and means connecting said last named members and arranged to prevent said spring arms from separating.

1,026,690. CORD-ADJUSTER FOR ELECTRIC LAMPS. JAMES MCGAVIN, Springfield, Ill. Filed June 1, 1911. Serial No. 630,632. (Cl. 248—7.)

1. In a cord adjuster, the combination of a block having notches adapted to accommodate the separated strands of

a lamp cord and a hole to accommodate a lifter passing through the block, a lifter passing through the block and connectible with the lamp cord, and a keeper mounted on the block and acting on the lifter.



2. In a cord adjuster, the combination of a block having notches adapted to accommodate the separated strands of a lamp cord and a hole adapted to accommodate a spring; a spring mounted in the hole in the block and adapted to contact with the lifting cord; and a lifting cord having both ends connected with the lamp cord and mounted to slide in contact with the spring.

3. In a cord adjuster, the combination of a ball having a curved channel adapted to accommodate a lamp cord, a rib in the curve of the channel adapted to prevent the ball from slipping on the lamp cord, and two lateral channels in communication with the curved channel and adapted to accommodate the knotted parts of a lifting cord; and a knotted lifting cord having its knotted parts respectively located in the lateral channels of said ball.

4. A keeper comprising a spring attached to a lamp cord and provided with an arched part; in combination with a lifter having both ends connectible with the lamp cord and adapted to slide in contact with the arched part of the spring of the keeper.

5. A keeper adapted for attachment to a lamp cord and comprising a spring provided with an inwardly curved part adapted to guide a lifter into position for control by the spring; in combination with a lamp cord supporting the keeper; and a lifter having both ends connected with the lamp cord and controlled by the spring.

[Claim 6 not printed in the Gazette.]

1,026,691. PROCESS OF PRODUCING ISOPRENE. GEORG MERLING and HUGO KÖHLER, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Feb. 18, 1911. Serial No. 609,444. (Cl. 23—24.)

1. The herein described process for producing isoprene, which process consists in treating isopropenylmethylcarbinol with a dehydrating agent, substantially as described.

2. The herein described process for producing isoprene, which process consists in treating isopropenylmethylcarbinol with oxalic acid, substantially as described.

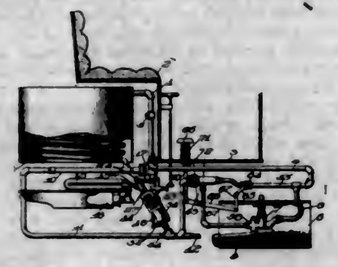
1,026,692. PROCESS OF PRODUCING ISOPRENE. GEORG MERLING and HUGO KÖHLER, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Feb. 20, 1911. Serial No. 609,565. (Cl. 23—24.)

1. The herein described process for producing isoprene, which process consists in at first replacing the hydroxyl of isopropenylmethylcarbinol by a halogen and then treating the halogenated product thus obtained with an agent which is capable of splitting off halogen hybrid, substantially as described.

2. The herein described process for producing isoprene, which process consists in at first replacing the hydroxyl of isopropenylmethylcarbinol by chlorin and then treating the chlorinated product thus obtained with alcoholic alkali, substantially as described.

1,026,693. FUEL AND WATER REGULATOR FOR STEAM-GENERATORS. ROBERT MIEHLE, Chicago, Ill. Filed June 12, 1908. Serial No. 438,097. (Cl. 122—448.)

1. In a regulator for steam boilers, the combination of a steam generator of the flash or semi-flash type, a thermostatic fuel regulator subjected to the temperature of the steam in the generator, a burner having its fuel supply controlled by said thermostatic regulator, a steam pressure fuel regulator subjected to the pressure of the steam in the generator and operatively connected to the burner for controlling the supply of fuel thereto, a liquid forcing means for supplying the generator with the liquid to be vaporized, and pressure controlled means operatively related to said liquid forcing means and to the steam generator for automatically diverting the liquid supply from the generator when the pressure in the generator rises above a certain degree.



2. In a regulator for steam boilers, the combination of a steam generator of the flash or semi-flash type, a thermostatic fuel regulator subjected to the temperature of the steam in the generator, a burner having its fuel supply controlled by said thermostatic regulator, a steam pressure regulator subjected to the pressure of the steam of the generator and operatively related to the burner also for controlling the fuel supply thereof, a liquid forcing means for supplying the generator with a liquid to be vaporized, means operatively related to the liquid forcing means and subjected to the steam pressure of the generator for diverting the liquid supply from the generator when the pressure in the generator rises above a certain degree, and manually operable means for rendering the last said means ineffectual at will.

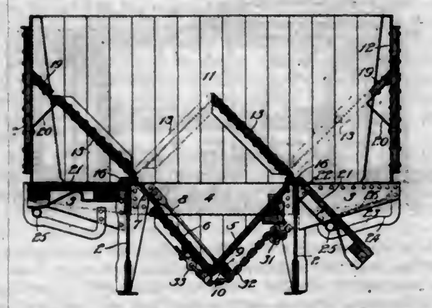
3. In a regulator for steam boilers, the combination of a steam generator of the flash or semi-flash type, a fluid fuel burner for heating the same, a thermostatic fuel regulator subjected to the temperature of the steam in the generator for controlling the supply of fuel to the burner, a liquid forcing means for supplying the generator with a liquid to be vaporized, means operatively related to the liquid forcing means and subjected to the pressure of the steam in the generator for diverting the liquid from the generator automatically when the pressure of the steam rises above a certain degree, and manually operable means for rendering the last said means ineffectual at will.

4. In a regulator for steam generators, the combination of a steam generator, a burner for heating the same, thermostatic means subjected to the heat of the steam in the generator for controlling the supply of fuel to the burner, steam pressure fuel controlling means operatively related to the burner and subjected to the pressure of the steam of the generator for reducing the supply of fuel to the burner when the pressure of the generator rises above a certain degree, liquid forcing means for feeding a liquid to be vaporized to the generator, a by-pass passage connecting the inlet and outlet sides of the liquid forcing means together, a valve for closing said by-pass passage, steam pressure controlled means subjected to the pressure of the steam in the generator for closing said valve when the generator pressure rises above a certain degree, a manually operable valve situated in the by-pass between the first said valve and the outlet side of the liquid forcing means, means for holding the said manually operable valve normally open, and means for closing said manually operable valve at will.

5. In a regulator for steam generators, the combination of a steam generator, a burner for heating the same, a valve for controlling the fuel supply to the generator, an elastic means for opening the said valve, and means subjected to the pressure of the steam in the generator for overcoming the resistance of said elastic means and allowing the valve to be closed.

[Claims 6 to 22 not printed in the Gazette.]

1,026,694. DUMP-CAR. JOHN O. NEIKIRK, Morgan Park, Ill., assignor to Rodger Ballast Car Company, a Corporation of Maine. Filed Nov. 12, 1908. Serial No. 462,288. (Cl. 105—184.)



1. In a car of the class described, an underframe comprising bolsters, longitudinal girders extending between the bolsters intermediate the center and sides of the car leaving an open central space between said bolsters and girders, a hopper bottom extending downwardly in said central space, supports extending outwardly from said girders, sides extending upwardly from the outer ends of said supports, the ends of said hopper being inclined and extending upwardly to the top of the car and from side to side thereof, floor sections extending between the inclined ends of said hopper, the lower edges of said floor sections being pivoted along the upper edges of said girders, the free edges of said floor sections being beveled and their width being such that when turned inward said free edges will abut, downwardly inclined ledges extending inwardly from the car sides, shoulders at the free edges of said ledges, horizontal dump doors between said girders and the car sides, said dump doors being pivoted at their inner edges, and operating mechanism for said dump doors, said operating mechanism being located entirely beneath the same and below the floor level.

2. In a car of the class described, an underframe comprising bolsters, longitudinal girders extending between the bolsters intermediate the center and sides of the car leaving an open central space between said bolsters and girders, a hopper bottom extending downwardly in said central space, supports extending outwardly from said girders, sides extending upwardly from the outer ends of said supports, the ends of said hopper being inclined and extending upwardly to the top of the car and from side to side thereof, floor sections extending between the inclined ends of said hopper, the lower edges of said floor sections being pivoted along the upper edges of said girders, the free edges of said floor sections being beveled and their width being such that when turned inward said free edges will abut, horizontal dump doors between said girders and the car sides, said dump doors being pivoted at their inner edges, and operating mechanism for said dump doors, said operating mechanism being located entirely beneath the same and below the floor level.

3. In a car of the class described, vertical sides, an underframe comprising bolsters, longitudinal girders extending between the bolsters intermediate the center and sides, a hopper bottom extending downwardly between said girders, floor sections pivoted along the upper edges of said girders and movable to incline toward the center or sides of the car, downwardly inclined ledges extending inwardly from the car sides and adapted to support said floor sections in their outwardly inclined positions in the same plane therewith, horizontal floor sections or dump doors extending from said girders to the sides of the cars, said dump doors being pivoted at their inner edges, and operating mechanism for said dump doors located entirely beneath the floor level.

4. In a car of the class described, vertical sides, an underframe comprising bolsters, longitudinal girders extending between the bolsters intermediate the center and sides, a hopper bottom extending downwardly between said girders, floor sections pivoted along the upper edges of said girders, and movable to incline toward the center or sides of the car, downwardly inclined ledges extending inwardly from the car sides and adapted to support said floor sections in their outwardly inclined positions in the same plane therewith, horizontal floor sections or dump doors extending from said girders to the sides of the cars, said dump doors being pivoted at their inner edges, operating mechanism for said dump doors comprising guide rails beneath the floor level, shafts resting on said rails supporting said doors, and means to move said shafts on said rails to close and open the doors.

5. In a car of the class described, an underframe comprising bolsters, longitudinal girders extending between the bolsters intermediate the center and sides of the car, the space between said girders and between the girders and sides of the car being free of longitudinal supporting members, a longitudinal hopper bottom extending downwardly between said girders, supports extending from said girders to the sides of the car, vertical sides resting on said supports, downwardly inclined ledges extending inwardly from the car sides and adapted to support said floor sections in their outwardly inclined positions in the same plane therewith, longitudinal floor sections pivoted along the uper edges of said girders and adapted to rest against and support each other when inclined inwardly and to rest against and in the same plane with said ledges, horizontal floor sections or dump doors pivoted adjacent the upper edges of said girders and extending to the car sides, and operating mechanism for said dump doors located entirely beneath the floor level.

[Claims 6 to 10 not printed in the Gazette.]

1,026,695. LIGHTER. ALBERT H. NELSON, Newton, Mass., assignor, by mesne assignments, of one-third to John R. Learned, Newton, Mass., one-third to Clifford J. Larkin, Everett, Mass., and one-third to Leland Coburn Nelson, Faneuil, Mass. Filed Nov. 12, 1910. Serial No. 591,933. (Cl. 67—20.)



1. In an ignition device, a support, a lever pivoted to said support, a second lever pivoted on said first named lever, means for normally holding said second named lever in predetermined position relative to said first named lever, a curved abrasive member and means for supporting a spark producing material, said member and means being mounted one on one lever and the other on the other lever, and means for effecting a relative movement of said levers upon the actuation of the first named lever to secure a passing contact between said abrasive member and said spark producing material.

2. In an ignition device, a support, a lever pivoted to said support, a second lever pivoted on said first named lever, means for normally holding said second named lever in predetermined position relative to said first named lever, a segmental abrasive surface on said second lever and concentric with its point of pivot, means on said first named lever for supporting a spark producing material in yielding contact with said abrasive surface and means for effecting a relative movement of two said levers upon the actuation of the first named lever.

3. In an ignition device, a support, a lever pivoted to said support, a second lever pivoted on said first named

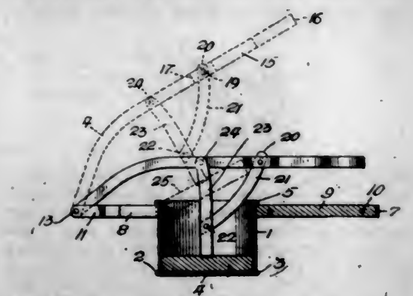
lever and adjacent to one end thereof, resilient means for holding said first named lever in a predetermined position relative to said support, resilient means for holding said second named lever in predetermined position relative to said first named lever, a segmental abrasive surface on said second lever and concentric with its point of pivot, means on said first named lever for supporting a spark producing material in yielding contact with said abrasive surface and means for effecting a relative movement of said two levers upon the actuation of the first named lever.

4. In a gas lighter, a clamp for a gas jet, a lever pivoted to said clamp, an ignition lever pivoted to said first named lever near one of its ends, means for yieldingly holding said first named lever with its ignition end depressed, an abrasive segmental surface on said ignition lever concentric with the pivot thereof, means for holding a spark producing material yieldingly against said surface, means for yieldingly holding said two levers so raltively positioned that said abrasive segment shall be turned past said spark producing material and means for retarding the opposite end of said ignition lever during the swing of said first named lever.

5. In a gas lighter, a clamp for a gas jet having a bearing thereon, a lever pivoted within said bearing, an ignition lever pivoted to said first named lever near one of its ends, means for yieldingly holding said first named lever with its ignition end depressed, an abrasive segmental surface on said ignition lever concentric with the pivot thereof, means for holding a spark producing material yieldingly against said surface, means for yieldingly holding said two levers so relatively positioned that said abrasive segment shall be turned past said spark producing material and means for retarding the opposite end of said ignition lever during the swing of said first named lever until the sparking end of said lever shall be adjacent to said gas tip, said retarding means thereupon ceasing to be effective, whereby said friction lever will be released and said friction segment suddenly rotated.

[Claim 6 not printed in the Gazette.]

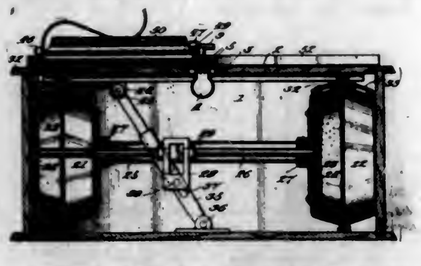
1,026,696. SQUEEZING AND PRESSING DEVICE. MIKE NEMES, Fort Dodge, Iowa. Filed Feb. 3, 1912. Serial No. 675,264. (Cl. 100—41.)



1. A squeezing and pressing device comprising a receptacle having a perforated bottom, a holder made of a single piece of material clamped upon the upper end of said receptacle and providing a handle and a bracket, a lever pivotally connected to said bracket, arms pivotally connected to said lever and extending into said receptacle, a presser head carried by said arms within said receptacle, and a curved brace pivotally connected to said arms and loosely connected to said lever.

2. A squeezing and pressing device comprising a receptacle having a perforated bottom, a holder made of a single piece of material and clamped upon the upper end of said receptacle to provide a handle and a bracket longitudinally alining with said handle, a lever pivotally connected to the bracket of said holder, arms pivotally connected to said lever and extending into said receptacle, a presser head carried by said arms within said receptacle, and a curved brace pivotally mounted between said arms and loosely mounted in said lever.

1,026,697. VACUUM ERASER-CLEANER. CLARENCE W. POLLEY, Skaneateles, N. Y. Filed Jan. 30, 1911. Serial No. 605,580. (Cl. 15—25.)



1. A vacuum cleaner having mechanism for creating a vacuum and provided with a stationary suction head, a movable holder adapted to traverse said suction head, and a connection between said holder and vacuum creating mechanism for operating said mechanism by the movement of said holder.

2. In a vacuum eraser cleaner, the combination with a suction head, guides for the eraser arranged on said head, of scrapers arranged on said head, and mechanism for creating suction through said head.

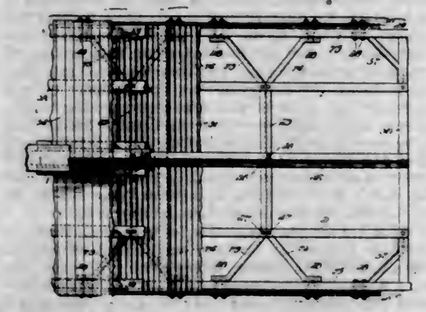
3. In a vacuum eraser cleaner, the combination with a suction head having scraping members, of means for creating suction through said head, an eraser holder and means actuated by the movement of the eraser holder for actuating said suction creating mechanism.

4. In a vacuum cleaner, the combination with a fixed suction head, of a movable eraser holder and suction creating means operated by said movable holder for creating suction through said head.

5. In a vacuum cleaner, the combination with a housing, of a suction head arranged on said housing, scraper bars carried by said suction head, a fixed and a movable guide arranged on said head, suction pumps for creating suction through said head, and means for actuating said pumps.

[Claims 6 to 19 not printed in the Gazette.]

1,026,698. CAR-ROOF CONSTRUCTION. EDWARD POSSON, Chicago, Ill., assignor to Camel Company, Chicago, Ill., a Corporation of Maine. Filed Mar. 29, 1910. Serial No. 552,131. (Cl. 108—5.)



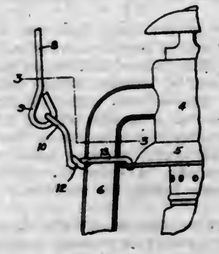
1. In a car roof, the combination with a set of carlines, each comprising two complementary angle bars, each angle bar having a vertical flange and a flange extending outwardly at a right angle from the upper edge of said vertical flange, the vertical flanges of said two angle bars lying in parallel relation for a certain distance upon each side of the longitudinal center of each carline and there secured together, said angle bars upon the opposite sides of said center portion inclining downwardly and diverging from each other; of purlins extending across the carlines, and means securing each purlin to each of the angle bars forming each of said carlines.

2. In a car roof, the combination with a set of carlines, each comprising two complementary angle bars, each angle bar having a vertical flange and a flange extending outwardly at a right angle from the upper edge of said vertical flange, the vertical flanges of said two angle bars lying in parallel relation for a certain distance upon each side of the longitudinal center of each carline and there secured together, said angle bars upon the opposite sides of said central portion inclining downwardly and diverging from each other, of purlins extending across the carlines, and means securing each purlin to the horizontal flange of each of the angle bars forming each of said carlines.

3. In a car roof framework, the combination with side plates, of metal carlines each comprising two complementary angle bars, each angle bar having a vertical flange and a flange extending outwardly at a right angle from the upper edge of said vertical flange, the vertical flanges of said two angle bars lying in parallel relation for a certain distance upon each side of the longitudinal center of the carline and there secured together, said bars upon the opposite sides of said central portion inclining downwardly and diverging from each other, the vertical flanges of the corresponding ends of the angle bars of each carline being bent to lie in the same plane, means securing the flanges at the ends of the angle bars forming the carlines to the side plates, purlins overlying the said carlines, and means securing each purlin to the oppositely projecting flanges of the angle bars of each of said carlines.

4. In a railroad car, side walls and metal carlines, each having an arched form and sloping downwardly from the central part of the car toward the sides thereof, said carlines extending completely across the car and secured to and supported solely upon said side walls, thus affording an unobstructed space beneath said carlines, each of said carlines comprising two flanged metallic bars having parallel intermediate portions secured together, each of said bars having its opposite end portions disposed at an angle to the intermediate portion, whereby the carline as an entirety has bifurcated ends, the bifurcated end parts diverging toward the car sides to which they are secured, whereby the arches formed by the carlines are braced against tilting longitudinally of the car and whereby the entire structure forms an approximately horizontal truss.

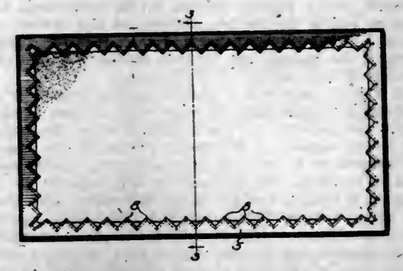
1,026,699. TUBULAR LANTERN. ALBERT R. PRITCHARD, Rochester, N. Y. Filed Jan. 23, 1911. Serial No. 604,290. (Cl. 240—52.)



1. The combination, with the dome, the air-tube and the bail of a tubular lantern, of a member comprising a single length of wire looped at the middle to form a bearing-lug to which the bail is pivoted and extending inwardly from said lug upon each side of the air-tube and thence directly to the skirt of the dome, the ends of the wire being bent to form hooks which are fixed in the edge of the skirt.

2. In a tubular lantern having a self-elevating bail, an oil-font provided with a detent-abutment on its upper surface, the bail being of such length as to swing over the upper surface of the oil-font and to engage said abutment resiliently so as to be retained in depressed position thereby.

1,026,700. SNAP-MOLD JACKET. EDWARD H. PUTNAM, Moline, Ill. Filed Feb. 14, 1912. Serial No. 677,587. (Cl. 2.2—112.)



1. A snap mold jacket having a plurality of recesses extending transversely across its inner faces whereby the jacket is adapted to engage a mold vertically at intervals about its periphery.

2. A snap mold jacket having two opposite inner faces converging from the bottom to the top of the jacket, and adapted to engage a mold vertically at intervals about its periphery.

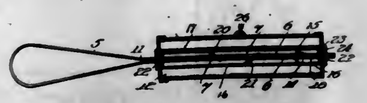
3. A snap mold jacket having its opposite inner faces converging from the bottom to the top of the jacket and adapted to engage a mold vertically at intervals about its periphery.

4. A snap mold jacket having its inner faces provided with a plurality of inwardly extending ribs adapted to engage a mold vertically at intervals about its periphery.

5. A snap mold jacket having its inner faces inclined and provided with a plurality of inwardly extending ribs adapted to enter partially the material of a mold when the jacket is positioned thereabout.

[Claims 6 to 9 not printed in the Gazette.]

1,026,701. SEAL. GEORGE H. REID, Mecca, Cal. Filed Oct. 21, 1911. Serial No. 655,859. (Cl. 70—99.)



1. A seal comprising a shackle having severable tongues at its ends, said tongues being provided with notches in their edges, and perforations, which register when the tongues are placed together, a lock-casing into which the tongues are adapted to be inserted, said lock-casing having openings in its ends for the insertion and removal of the tongues, said tongues entering the casing through one of the end openings and being removable from the casing through the other end opening when severed, guides extending from the opening through which the tongues are inserted, and catches in the lock-casing engagable with the notches and perforations of the tongues.

2. A seal comprising a shackle having severable tongues at its ends, said tongues being provided with notches in their edges, and perforations, which register when the tongues are placed together, and said shackle being shouldered at the inner ends of the tongues, a lock-casing into

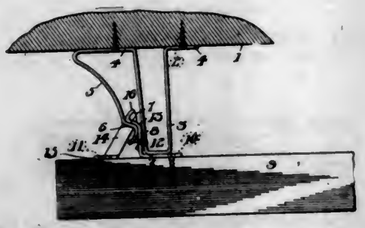
which the tongues are adapted to be inserted, said lock-casing having an end opening for the insertion of the tongues, and said end of the lock-casing being engageable by the shoulder of the shackle, the other end of the casing having an opening through which the tongues are removable when severed, and catches in the lock casing engageable with the notches and perforations of the tongues.

3. A seal comprising a shackle having tongues at its ends, said tongues being provided with notches in their edges, and perforations, which register when the tongues are placed together, a lock-casing into which the tongues are adapted to be inserted, said lock-casing having openings in its ends for the insertion and removal of the tongues, and a tubular member in the lock-casing, said member having internal top, bottom and side catches, the top and bottom catches being engageable with the perforations of the tongues and the side catches with the edge notches of the tongues.

4. A seal comprising a shackle having tongues at its ends, said tongues being provided with notches in their edges, and perforations, which register when the tongues are placed together, a lock-casing into which the tongues are adapted to be inserted, said lock-casing having openings in its ends for the insertion and removal of the tongues, a tubular member in the lock-casing, said member having internal top, bottom and side catches, the top and bottom catches being engageable with the perforations of the tongues and the side catches with the edge notches of the tongues, and guide tongues extending from the ends of the tubular member and passing through the end openings of the lock-casing.

5. A seal comprising a shackle having tongues at its ends, said tongues being provided with notches in their edges, and perforations, which register when the tongues are placed together, a lock-casing into which the tongues are adapted to be inserted, said lock-casing having openings in its ends for the insertion and removal of the tongues, and a tubular member in the lock-casing, said member having internal top, bottom and side catches, the top and bottom catches being engageable with the perforations of the tongues and the side catches with the edge notches of the tongues, the free ends of the side catches being concave to guide the tongues.

1,026,702. DOOR STOP AND HOLDER. GEORGE W. RIGNEY, Battle Creek, Mich. Filed Feb. 17, 1912. Serial No. 678,168. (Cl. 16—78.)

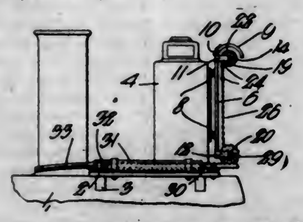


1. A door stop and holder comprising a stop member including a U-shaped body portion adapted to be secured to a support and having one of its legs terminating in a forwardly extending resilient keeper arm formed with a hook-shaped end positioned in proximity to the outer end of said body portion, an arm adapted to be secured to a door and capable of being engaged by said body portion, said arm provided with a hook-shaped end capable of engaging with the hook-shaped end of the keeper when said body abuts against said arm, and an angularly disposed brace adapted to be secured at one end of said arm and formed integral at its other end with the hook-shaped end of the arm whereby the latter is braced when the hook-shaped end thereof rides into and out of engagement with the hook-shaped end of the keeper.

2. A door stop and holder comprising a stop member adapted to be secured to a support and including a body portion and a resilient keeper having a hook-shaped end, said keeper disposed at the side of the body portion, a holder adapted to be secured to a door and comprising an angle-shaped arm having the terminus of one leg thereof provided with a hook capable of engaging the hook of the keeper, and an angle-shaped brace adapted to be secured to the door and formed integral with the hook-shaped end of the arm.

3. A door stop and holder comprising a U-shaped stop member adapted to be secured to a support, a resilient keeper carried by and arranged at one side of said member and having a hook-shaped end, an angle-shaped arm adapted to be secured to the door and having a hook-shaped free end capable of engaging the hook-shaped end of the keeper, and an angle-shaped brace adapted to be secured to the door and formed integral with the hook-shaped end of said arm, said arm adapted to abut against said member to arrest the movement of the door.

1,026,703. HEADLIGHT-CURTAIN. WILLIAM L. RUSSELL, Wellsboro, Pa. Filed Jan. 2, 1912. Serial No. 669,085. (Cl. 240—47.)



1. The combination with a lamp housing, of a spring-actuated roller journaled adjacent the top of the housing; a secondary roller journaled adjacent the bottom of the housing; a curtain wound about the spring-actuated roller and connected with the secondary roller; a pinion connected with the secondary roller; a rack bar supported for sliding movement and meshing into the pinion; a fluid pressure cylinder into which the rack bar protrudes; and a piston head upon the rack bar, within the cylinder; the cylinder being located outside of the lamp housing.

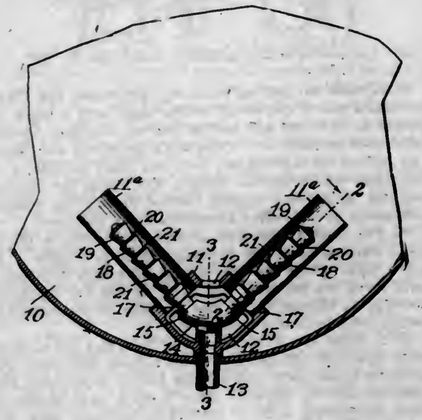
2. In a device of the class described, a supporting plate having an opening to disclose the lens of a lamp housing; upper and lower arms projecting from the edges of the plate; a spring-actuated roller removably journaled in the upper arms; a roller journaled for rotation in the lower arms; a curtain connected with the spring-actuated roller and also connected with the other roller; a pinion connected with said other roller; a rack bar mounted for sliding movement, and meshing into the pinion; a fluid pressure cylinder in which the rack bar reciprocates; and a piston head upon the rack bar, operating within the cylinder.

3. In a device of the class described, a supporting structure; spaced rollers carried thereby; a curtain connected with the rollers; one of said rollers being equipped with a pinion; a rack bar adapted to mesh into the pinion; a fluid pressure cylinder into which the rack bar protrudes; a platform; an adjustable bearing upon the platform, for maintaining the rack bar in mesh with the pinion; and an adjustable standard upon the platform, supporting the cylinder, whereby the cylinder may be adjusted to correspond with the adjustment of the rack bar.

4. In a device of the class described, a supporting structure; spaced rollers journaled thereon; a curtain engaged with the rollers; a pinion carried by one of the rollers; a platform; a rack bar meshing into the pinion; a fluid-pressure cylinder in which the rack bar operates; and means upon the platform for moving the cylinder and the rack bar transversely, with respect to the platform and the pinion.

5. In a device of the class described, a supporting structure; a spring-actuated roller journaled for rotation thereon; a secondary roller journaled for rotation upon the supporting structure; a curtain wound about the spring-actuated roller; spaced rods connected with the curtain, adjacent the lower end of the curtain, the ends of the rods protruding beyond the edges of the curtain; spaced flexible elements connected at their lower ends with the secondary roller, and at their upper ends connected with the protruding ends of the rods; and fluid-pressure means for actuating the secondary roller.

1,026,704. VAT-HEATER. ALLAN C. SARGENT, Westford, Mass., assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass., a Corporation of Massachusetts. Filed Feb. 9, 1912. Serial No. 676,644. (Cl. 62—31.)



1. As an article of manufacture, a vat heater having a conical surface, and means for directing fine jets of steam along said conical surface to spread the steam in the liquid to be heated.

2. As an article of manufacture, a vat heater comprising a nozzle having a plurality of conical surfaces, and jet openings for directing a heating fluid along said conical surfaces toward their larger ends.

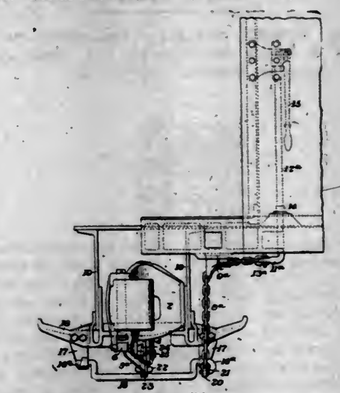
3. The combination with a vat for holding liquids, of a heater therefor comprising a nozzle made up of a plurality of hollow truncated cones, the base of each one of which, except the end one, is connected with the small end of the next one, and provided with a circle of perforations therearound for directing jets of heating fluid along the next conical surface.

4. In a vat heater, the combination of a casing, a steam inlet and a nozzle projecting from said casing, connected with said steam inlet and comprising a series of conical surfaces each conical surface having a base connected with the small end of the next conical surface and provided with perforations in said base for directing jets of steam along the next conical surface.

5. In a device for heating, circulating, and mixing liquids in vats or the like, the combination of a casing, a steam pipe entering said casing, and a nozzle connected with the steam pipe within the casing and projecting from one end of the casing, and consisting of a plurality of hollow truncated cones connected together end to end, the base of each one projecting beyond the small end of the next one, and being provided with a series of perforations therethrough for permitting jets of steam to pass therefrom into contact with the conical surface next adjacent thereto.

[Claim 6 not printed in the Gazette.]

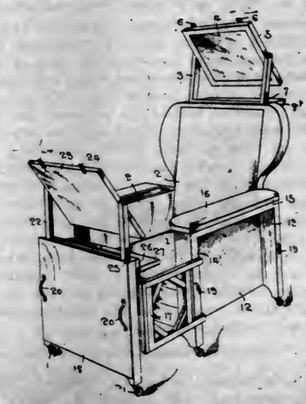
1,026,705. UNCOUPLING MECHANISM FOR CAR-COUPLINGS. ERNEST H. SCHMIDT, Cleveland, Ohio, assignor to The National Malleable Castings Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 12, 1909. Serial No. 522,352. (Cl. 213—59.)



1. The combination with a car coupler of the bottom-opening type, and having a vertically movable lifting piece and a vertically movable lever for actuating said piece, of a pivoted member connected to said lever, a lifting rod extending transversely underneath said member, a lifting chain connected to said rod, and a vertical rotary uncoupling rod to which the opposite end portion of the chain is connected; substantially as described.

2. The combination with a car coupler of the bottom-opening type and having a vertically movable lifting member and a vertically movable actuating lever therefor, of a longitudinally extending rod loosely connected to the lever at one end and having a loose-connection with the coupler shank extension at the opposite end, a bail-shaped lifting rod having a portion lying transversely underneath the longitudinal rod, a lifting chain connected to an arm of the bail-shaped rod, and means for actuating said chain to exert an upward pull thereon; substantially as described.

1,026,706. CHAIR. JAMES A. W. SEARS, Chattanooga, Tenn., assignor of one-half to W. F. Stephens and (Mrs.) Mary A. Stephens, Chattanooga, Tenn. Filed Jan. 20, 1912. Serial No. 672,287. (Cl. 155—26.)



1. A chair comprising a seat, back and arms, a mirror carrying member connected to one arm and adapted to be folded into the same to form a part of said arm, and means for supporting the mirror carrying member.

2. A chair comprising a seat, arms and back, a mirror carrying member connected to one of said arms and adapted to be swung to a position opposite the back, a mirror for said mirror carrying member and a shelf carried by said member.

1,020,707. STREET-RAILWAY TRANSFER-TICKET. FRANK W. SHEAN, San Francisco, Cal. Filed Aug. 22, 1911. Serial No. 645,338. (Cl. 11—15.)

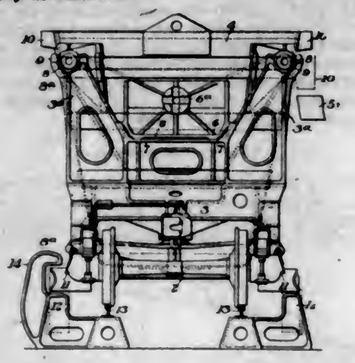


1. A street railway transfer comprising a body provided on one face with a plurality of names thereon indicating in sequence the transfer points along the route of the car from which the same is issued, and on the reverse face provided with a plurality of names thereon indicating in sequence the re-transfer points along the route of a branch line for which the transfer is issued, said body being also provided on each face thereof with a plurality of registering hour indications for punching to denote the hour of departure of the car, and said body on each face thereof being provided with a plurality of registering numerical indications adjacent the names of the several transfer and re-transfer points, the numerical indications opposite any such points indicating when punched in conjunction with the punched hour indication the time limit for the use of the issued transfer at all transfer points to a branch line and for re-transferring therefrom to associated car lines.

2. A street railway transfer comprising a body provided on one face with a plurality of names thereon indicating in sequence the transfer points along the route of the car, and on the reverse face thereof with a plurality of names indicating in sequence the re-transfer points along the route of a branch line for which the transfer is issued, said body being also provided on each face thereof with a plurality of registering hour indications thereon for punching to denote the hour of departure of the car at the commencement of its run, and said body being provided on each face thereof with a plurality of registering numerical indications adjacent the names of the several transfer points, the numerical indications opposite any of such transfer points indicating when punched in conjunction with the punched hour indication the time of departure of the car, each indication adjacent the subsequent transfer points noted on each face of the ticket indicating in conjunction with the hour indication punched the time limit for the use of the transfer at such transfer and re-transfer points, and said body being also provided on each face thereof with a table of minute indications thereon adapted when punched to vary the reading of the indications opposite all the transfer points to the extent of the number punched.

1,026,708. LADLE-CAR. ERWIN C. SHERMAN, Youngstown, Ohio, assignor to The William B. Pollock Company, Youngstown, Ohio, a Corporation of Ohio. Filed Apr. 29, 1911. Serial No. 624,191. (Cl. 105—190.)

1. A ladle car having a tipping ladle supported thereon, the ladle having a bearing member whose center lies in a vertical line outside of the track upon which the car stands, and the frame having a bearing for said bearing member, together with means for preventing tipping of the car during the tipping movement of the ladle; substantially as described.

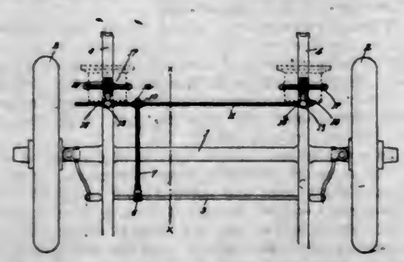


2. A ladle car having upwardly projecting end frames extending above the center of the ladle, and a ladle supported on said car and having bearing members provided with open bearings on the upwardly projecting end frames, the centers of said bearing members being outside of the rail upon which the car stands, and means for engaging the car to prevent tipping thereof during the dumping movement of the ladle; substantially as described.

3. The combination with a ladle car having a pivoted ladle adapted to tip on a center which is outside of the track upon which the car stands, of means adjacent to said track for engaging the frame of the car to prevent the tipping thereof during the dumping movements of the ladle; substantially as described.

4. A ladle car having a frame provided at each end with upwardly extending portions formed with open seats at their upper ends, and a ladle having supporting members secured to opposite sides thereof, said supporting members having arms or extensions provided with trunnions or bearings adapted to engage said open seats, together with tie means connecting each pair of said extensions; substantially as described.

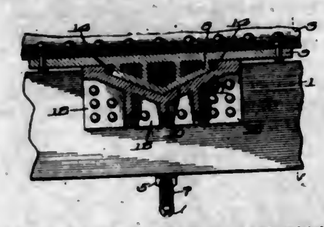
1,026,709. AUTOMOBILE-HEADLIGHT. CONRAD SHERMUND and RAYMOND ALFRED MALLETT, Sacramento, Cal. Filed Nov. 22, 1911. Serial No. 661,750. (Cl. 240—62.)



1. A device of the character described comprising a vehicle, lamps turnably mounted on the frame of said vehicle, bars connected with said lamps, blocks having pins projecting through said bars, a rod projected through said blocks and means connecting said rod and steering mechanism of said vehicle whereby said rod will be operated to turn said lamps in the direction taken by the forward wheels of said vehicle, as described.

2. A device of the character described comprising a vehicle having a cross steering rod, a vertical bar clamped to said steering rod, a rod hinged to said vertical bar at one end, another bar hinged to said rod at the other end, a collar on said last named bar, a rod projecting through said collar, two blocks spaced apart, said last named rod projecting through said blocks, pins on the lower ends of said blocks, bars turnably mounted on said pins and lamps turnably mounted on the frame of said vehicle and connected with said last named bars, as described.

1,026,710. TANK-CAR. CHARLES A. SHOEMAKER, Chicago, Ill. Filed May 26, 1911. Serial No. 629,676. (Cl. 105—264.)



1. A tank car structure including a tank which may rise from its support; an under frame for supporting the tank and permitting movement of the tank longitudinally thereon the tank and underframe structures having friction faces in frictional engagement; and means for forcing the tank to rise against the action of friction when the tank is moved longitudinally of the underframe.

2. A tank car structure including tank and under frame elements between which relative movement longitudinally of the car structure may occur and which tank may rise from the underframe, one of said elements of the car structure having a friction surface sloping with respect to the horizontal and longitudinally of the car structure and which surface is frictionally engaged by the other of said elements of the car structure whereby the tank is caused to rise when it is moved longitudinally of the under frame.

3. A tank car structure including tank and under frame elements between which relative movement longitudinally of the car structure may occur and which tank may rise from the under frame, the car structure having sloping surfaces which are frictionally engaged to support the tank in different positions, one of said sloping surfaces being positioned to force the tank to rise when it is moved in one direction from normal position longitudinally of the under frame and the other of said sloping surfaces being positioned to force the tank to rise when it is moved in the other direction longitudinally of the under frame.

4. A tank car structure including tank and under frame elements between which relative movement longitudinally of the car structure may occur and which tank may rise from the under frame, each of said elements of the car structure having oppositely sloping friction surfaces which are frictionally engaged by the sloping fricton surfaces upon the other element of the car structure, one set of engaging sloping surfaces being positioned to force the tank to rise when it is moved in one direction from normal position longitudinally of the under frame and the other set of engaging sloping surfaces being positioned to force the tank to rise when it is moved in the other direction longitudinally of the under frame.

5. A tank car structure including a tank which may rise from its support; an under frame for supporting the tank and permitting movement of the tank longitudinally thereon, the tank and under frame structures having friction faces in frictional engagement; means for forcing the tank to rise against the action of friction when the tank is moved longitudinally of the under frame; and means for yieldingly holding the tank down upon the under frame.

[Claims 6 to 9 not printed in the Gazette.]

1,026,711. SHEET-METAL INSULATOR-PIN. BARTON R. SHOVER, Youngstown, Ohio. Filed Mar. 1, 1912. Serial No. 680,973. (Cl. 173—28.)

1. An insulator pin formed of a sheet of metal slitted lengthwise to form a plurality of tongue portions connected by an integral body portion and bent in the direction of the length of the slits to form oppositely facing tongues on which the insulators are secured, and means on the body portion of the so-formed pins whereby the pins are fastened in place.



2. An insulator pin formed of a sheet of metal slitted lengthwise to form a plurality of tongue portions connected by an integral body portion and bent in the direction of the length of said slits to form oppositely facing tongues, means on the tongues by which the insulators are secured in place thereon and means on the body portion of the pins whereby the pins are fastened in place.

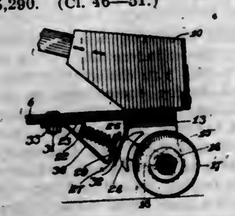
3. An insulator pin formed of a sheet of metal slitted lengthwise to form a plurality of tongue portions connected by an integral body portion and bent in the direction of the length of said slits to form oppositely facing tongues, means on the side edges of the tongues by which the insulators are secured in place on the pins, and means on the body portion of the pins whereby the insulator pins are held in place.

4. An insulator pin formed of a sheet of metal slitted lengthwise to form a plurality of tongue portions connected by an integral body portion and bent in the direction of the length of said slits to form oppositely facing tongues, the side edges of said oppositely facing tongues having serrations therein forming a thread whereby the insulators are held in place on the pins, and means on the body portion thereof whereby the pins are secured in place.

5. An insulator pin formed of a sheet of metal slitted lengthwise to form a plurality of tongue portions connected by an integral body portion, said tongues being bent in the direction of the length of said slits to form oppositely facing tongues, the side edges of at least part of said tongues having angularly extending teeth engaging with the insulators in holding the insulators in place and means on the body portion of the pins whereby the pins are held in place.

[Claims 6 to 8 not printed in the Gazette.]

1,026,712. ROLLER-SKATE. HENRY SIMON, Philadelphia, Pa., assignor of one-fourth to Edward E. Wright, one-fourth to William Joyce, and one-fourth to John E. McAllister, Philadelphia, Pa. Filed June 26, 1911. Serial No. 635,290. (Cl. 46—51.)



1. In a roller skate, the combination of the rear roller, a brake lock supported adjacent said roller, a bracket in which said brake block is removably mounted, and a retaining member carried by the framework of the skate for maintaining said brake block in its supporting bracket.

2. In a roller skate, the combination of the rear roller, a brake block supported adjacent said roller, a bracket having a slot in which said brake block is removably mounted,

and a retaining member carried by the framework of the skate for supporting said brake block in the slot of the supporting bracket.

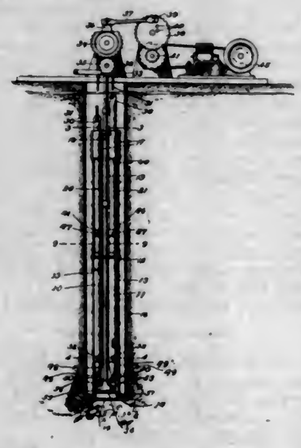
3. In a roller skate, the combination of the rear roller, a brake block supported adjacent said roller, a bracket having a slot in which said brake block is removably mounted, and a retaining member carried by the framework of the skate for supporting said brake block in the slot of the supporting bracket, said retaining member also serving as a brace to resist the strain when the roller bears against said brake block.

4. In a roller skate, the combination of the rear roller, an arbor upon which said roller is journaled, a bracket, having slots in which said arbor is slidably mounted, the slots in said bracket being inclined forwardly and upwardly and being open at the forward end, a brake block mounted adjacent the roller and against which said roller is adapted to impinge, and spring means for normally maintaining said roller out of contact with said brake block.

5. In a roller skate, the combination of the rear roller, an arbor upon which said roller is journaled, a bracket having slots in which said arbor is slidably mounted, a brake block mounted adjacent the roller and against which said roller is adapted to inpinge, a bail member having slotted ends which engage the roller arbor, and a spring bearing against said bail member to normally maintain the roller out of contact with the brake block.

[Claims 6 to 8 not printed in the Gazette.]

1,026,713. GRAVITY-PUMP. GEORGE E. SMITH and BENJAMIN F. HUDSON, Jacksonville, Oreg., assignors of one-fourth to James B. Smith and one-fourth to William V. Smith, Jacksonville, Oreg. Filed Jan. 4, 1911. Serial No. 600,831. (Cl. 103—77.)

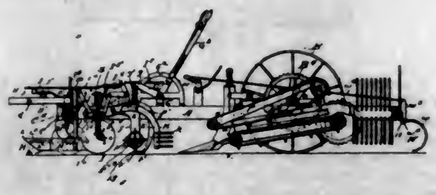


1. A pumping apparatus including companion cylinders, a head joining the cylinders and having an opening in one side thereof, a feed pipe engaging through the opening of the head and having communication at its lower end with the cylinders, check valves interposed between the cylinders and the feed pipe, plungers operable in the cylinders and extending between the same, straps carried against the sides of the cylinders and extending above the same, a guide carried upon the upper ends of the straps and receiving the upper ends of the plungers therethrough, operating means connected to the plungers for alternately lifting the same, and stop collars adjustable upon the plungers and between the upper ends of the cylinders and the guide.

2. A pumping apparatus including companion cylinders, straps carried by the cylinders and extending up therefrom, a guide secured between the upper ends of the straps and having vertical openings therethrough, plungers operable in the cylinders and engaging up through the guide, lifting means for the plungers, and stop collars carried by the plungers to limit the movement thereof.

3. Pumping apparatus comprising parallel vertical cylinders, a support for the cylinders, straps extending up from the support against the sides of the cylinders and above the same, a head joining the upper ends of the cylinders, a feed pipe passing through the head between the cylinders and communicating therewith at their lower ends, a guide carried between the upper ends of the straps, plungers operable in the cylinders and extending up through the guide, and stop collars carried upon the plungers for movement between the cylinders and the guide to limit the throw of the plungers.

1,026,714. BEET-HARVESTER. GEORGE H. SMITH, Broughton, Ohio. Filed Feb. 24, 1908. Serial No. 417,549. (Cl. 55—107.)



1. The combination of the frame, the rear relatively lower horizontally acting cutter, the forward relatively higher horizontally acting cutter, and the intermediate vertically arranged cutters, substantially as set forth.

2. The combination of the frame, the rear relatively lower horizontally acting cutter, the forward relatively higher horizontally acting cutter, and the intermediate vertically acting disk cutters, substantially as set forth.

3. The combination of the frame, the rear relatively lower horizontally acting cutter, the forward relatively higher horizontally acting cutter, and the intermediate cutters adapted to move bodily to different vertical planes, substantially as set forth.

4. The combination of the main frame, the horizontally acting cutting devices carried thereby for severing the tops, and the vertically acting cutters adapted to be positioned in different vertical planes, substantially as set forth.

5. The combination of the main frame, draft devices, the horizontally acting cutter for severing the tops, the vertical acting cutters, and means connecting the vertically acting cutters with the draft devices, whereby they can be moved to different vertical positions, substantially as set forth.

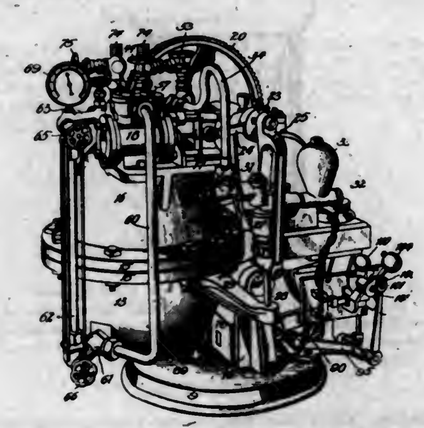
[Claims 6 to 22 not printed in the Gazette.]

1,026,715. CARBONATING APPARATUS. HORACE M. SMITH, Chicago, Ill., assignor to The Liquid Carbonic Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 14, 1910. Serial No. 549,107. (Cl. 209—13.)

1. In a carbonating apparatus, the combination of a tank, means for supplying gas thereto, mechanism for supplying liquid thereto, mechanism for circulating the surplus gas through the tank, means for operating said liquid supplying and circulating mechanisms, a support upon which all of the aforesaid are pivotally mounted, and a device adapted to be controlled by the movement of the mechanisms about the support for controlling the means for operating said mechanisms.

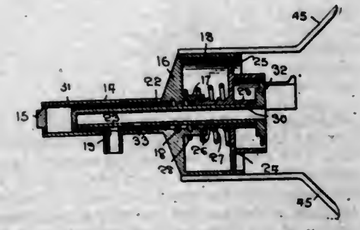
2. In a carbonating apparatus, the combination of a mixing tank, means for supplying gas thereto, a pump for supplying liquid thereto, a circulating pump adapted to draw the surplus gas from the top of the tank and deliver it to the bottom of the tank and a motor for operating said liquid and circulating pumps, all mounted to oscillate together about a pivotal support, and a device adapted to be actuated upon said oscillatory movement to control the operation of said motor.

3. In a carbonating apparatus, the combination of a mixing tank, a turret attached to the top of the tank, said turret being provided with radially disposed passageways adapted for the connection of pipes to supply water to the tank, to supply gas to the tank, to withdraw gas from the tank and to discharge the carbonated liquid from the tank, said passageways being arranged in a horizontal



plane and a separate passageway for the attachment of a water gage disposed in a plane below the other passageways, the pipe through which gas is withdrawn from the tank being connected with the bottom of the tank whereby a circulation of gas through the tank may be maintained.

1,026,716. COUPLING. WILLIAM M. SMITH, Bastrop, La., assignor of one-third to H. Flood Madison, Bastrop, La. Filed Jan. 3, 1912. Serial No. 669,261. (Cl. 188—13.)



1. The combination with a draw bar; of a supporting guide, a brace for said guide, cup carrying means working on said guide, an outer cup carried by said cup carrying means, an inner cup within the outer cup, a stationary cylinder carried by said outer cup, a movable valve tube carried by said inner cup and adapted for movement within the cylinder, and means for adjusting the cup carrying means within the guide.

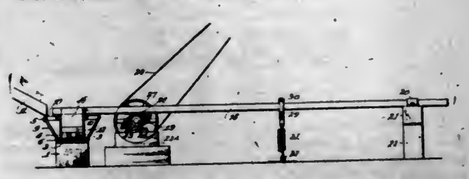
2. A device of the class described comprising guides, means for bracing the guides, cup carrying rods engaged through said guides, outer cups carried by said rods, inner cups within the outer cups, cylinders carried by said outer cups, valve tubes carried by said inner cups, said cups being adapted for engagement with one another, means for guiding said outer cups, and means for rotating the inner cups as they engage one another to lock said inner cups in engaged position, said inner cups being adapted to force the valve tubes carried thereby into the cylinders during the interlocking engagement of said inner cups, and tension springs to either side of the guides to relieve the cups of strain.

3. A device of the class described comprising an inner cup and an outer cup, means for supporting said cups beneath a car truck, a second inner cup and outer cup and means for supporting said cups beneath a car truck, said cups carried by each car being adapted for engagement with the cups carried by the other car, a cylinder carried by each outer cup, means for connecting said cylinders with the train line pipe of the car beneath the truck of which said cylinder is supported and valve rods controlled by the inner cups for obtaining communication between the train line pipe of the two cars when the cups of said cars are engaged with one another.

4. A train line pipe coupler comprising a rigid cup and a movable cup within said rigid cup, connecting rods for carrying said cups, said rigid cup being secured between said rods, a guide for said rods, means for holding said rods in adjusted position within said guide, said rods being adapted for reciprocating movement through said guide, means for resiliently controlling said movement, said inner cup being adapted to be forced inwardly, means for compelling said cup to rotate during its movement inwardly, means for returning said cup to its outer position, and a valve rod adapted to be moved with said inner cup to register with a valve opening when said inner cup is in its innermost position.

5. The combination with a car coupler draw bar; of a guide depending therefrom, means connected with the guide and the draw bar for bracing said guide, cup carrying bars positioned through said guide, means for resiliently retaining said bars in position through said guides, a cup carried between the outer end of said bars, a movable cup within the first cup, a cylinder carried by the first cup, flexible connecting means connected with the cylinder and adapted for connection with a train line pipe, said cylinder having a valve opening therein, packing for said cylinder to produce an air tight cylinder, a valve tube carried by the second cup and adapted for movement with the latter, said valve tube having an opening adapted for registration with the opening in the cylinder, and means for limiting the movement of said tube and said inner cup.

1,026,717. ORE-CRUSHING STAMP-MILL. PHILIP R. STANHOPE, Denver, Colo. Filed Aug. 12, 1911. Serial No. 643,744. (Cl. 83—57.)



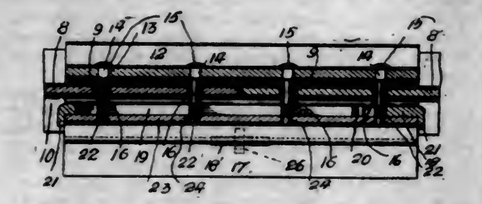
In a stamp mill as specified, the combination with a support, of a resilient beam secured at one end to the support; a stirrup having a roller mounted therein, which rests upon said beam between its ends; a coil spring for exerting a down pull upon said stirrup; a stamp on the free end of the beam; a mortar operatively positioned relatively to the stamp; and a cam between the stamp and stirrup for raising and releasing the stamp end of the beam.

1,026,718. RAIL-JOINT. CHARLES STEWART, Pittsburgh, Pa. Filed Dec. 18, 1911. Serial No. 666,418. (Cl. 239—11.)

1. A rail joint comprising a combined rail chair and fish plate positioned in operative relation with respect to a pair of track rails, bolts extending through said fish plate and the track rails, said bolts having their shanks provided with reduced portions, a longitudinally slotted fish plate mounted upon the reduced portions of said shanks and engaged by the shoulders formed by the reduced portions to prevent transverse movement of said bolts, and means engaging with the rail chair and mounted upon said bolts to prevent longitudinal movement of said slotted fish plate.

2. A rail joint comprising a combined rail chair and fish plate positioned in operative relation with respect to

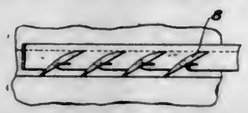
a pair of track rails, bolts extending through said fish plate and the track rails, said bolts having their shanks provided with reduced portions, a longitudinally slotted fish plate mounted upon the reduced portions of said shanks



and engaged by the shoulders formed by the reduced portions to prevent transverse movement of said bolts, said slotted fish plate provided at each end with an outwardly extending lug, and means mounted upon the shanks of the bolts, interposed between said lugs and connected with said chair to prevent longitudinal movement of said slotted fish plate.

3. A rail joint comprising a pair of fish plates, one of said plates provided with a longitudinally extending slot, said plates positioned in operative relation with respect to a pair of track rails, bolts extending through said fish plates and the track rails, said bolts having their shanks provided with reduced portions positioned in the slotted fish plates, the shoulders formed by said reduced portions abutting against the slotted fish plates thereby preventing transverse movement of the bolts, and means mounted upon the shanks of the bolts to prevent longitudinal movement of said slotted fish plate.

1,026,719. BLADE-TIE. CHARLES E. SWEET, Wilkinsburg, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed May 11, 1907. Serial No. 373,045. (Cl. 121—57.)



1. In combination with a plurality of blades comprised in a row and provided with notches and slots to receive and secure in place a binding member, a binding member provided with notches adapted to coöperate with the notches of said blades and tips, which when distorted, cooperate with the slots of said blades.

2. A blade provided with a notch in one edge thereof and a perforation substantially the same distance from the end of the blade as but independent of said notch.

3. In combination with a group of blades perforated near one end, a strip lying alongside of said blades and provided with members extending into said perforations.

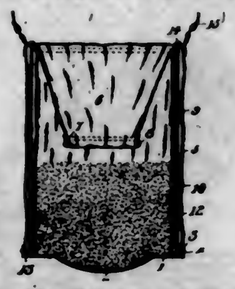
4. In combination with a group of perforated turbine blades, a binding strip extending along one side of said group and provided with members which engage said perforations from the other side.

5. In combination with a locking strip for the outer or free ends of blades, a blade notched to receive said strip and a slot in said blades coöperating with a flexible tip on said strip which is distorted when in place for securing said strip to said blades.

[Claims 6 to 16 not printed in the Gazette.]

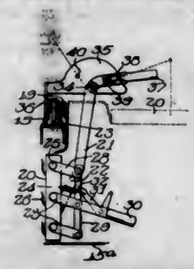
1,026,720. FEED-BAG. PAUL SZATHMARY, Clarence, N. Y. Filed Oct. 14, 1911. Serial No. 654,627. (Cl. 119—65.)

A feed bag comprising a circular bottom plate having an upwardly extending annular flange and a centrally disposed depressed concave portion, a flexible casing provided at its upper portion with an inwardly extending funnel-shaped mouthpiece, means for securing the casing to said flange, vertical strips attached at their lower ends to said bottom plate and at the upper ends to the upper portion of the casing and further secured at their side edges to the inner face of the casing, thereby providing cases, elastic



cords arranged within the cases and having their lower ends connected to the bottom plate and their upper ends extending through the upper portion of said casing and the upper ends of said cords provided with heads and supporting straps attached to said casing.

1,026,721. MEAT-HOLDER. HENRY THOMAS, East Ham, London, England, assignor to U. S. Slicing Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Dec. 20, 1911. Serial No. 666,932. Substituted for application Serial No. 617,071, filed Mar. 27, 1911. (Cl. 17—14.)



1. A device of the class described embodying a surface adjacent which the meat is arranged, meat holding prongs coöperating with the said surface and adapted to be projected outwardly and beyond the plane of such surface into engagement with the meat and to be retracted, and means for thus projecting and retracting the prongs.

2. A device of the class described embodying a support for the meat, a supplemental support adjacent which latter the meat is placed, and meat holding prongs connected with the supplemental support and adapted to be projected outwardly beyond the face thereof and retracted with respect to the surface and into and out of engagement with the meat.

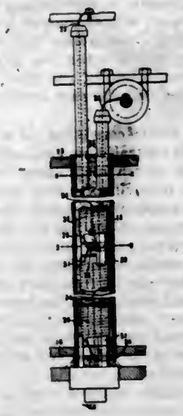
3. A device of the class described embodying a support for the meat, a supplemental support adjacent which latter the meat is placed, and meat holding means connected with the supplemental support and adapted to be projected outwardly beyond and retracted with respect to the face of the latter and into and out of engagement with the meat, said meat holding means when thus projected penetrating the meat.

4. A device of the class described embodying a support for the meat, a supplemental support adjacent which latter the meat is placed, meat holding means connected with the supplemental support and adapted to be projected and retracted with respect to the latter and into and out of engagement with the meat, and means for locking said meat holding means when thus projected.

5. A device of the class described embodying a support for the meat, a supplemental support adjacent which latter the meat is placed, meat holding means coöperating with the supplemental support and adapted to be projected and retracted with respect to the latter, and means tending normally to thus retract the said meat holding means.

[Claims 6 to 27 not printed in the Gazette.]

1,026,722. HEATING. WILLIAM I. THOMSON, Newark, and HARRISON G. THOMPSON, Glen Ridge, N. J., assignors to Safety Car Heating & Lighting Company, a Corporation of New Jersey. Filed Jan. 11, 1907. Serial No. 351,836. (Cl. 219—38.)



1. In apparatus of the class described, in combination, a boiler having heating means therein a portion of which is above and a portion of which is below the water-line thereof, and electrical means adapted te generate heat locally in the submerged portion of said heating means.

2. In apparatus of the class described, in combination, a boiler having heating means therein a portion of which is above and a portion of which is below the waterline, electrical means adapted to generate heat locally in the submerged portion of said heating means, and non-heating electrical connections leading through the unsubmerged portion of said heating means.

3. In apparatus of the class described, in combination, a boiler having vertical heating tubes extending above and below the waterline thereof, and means adapted to generate heat locally in the submerged portion of said tubes.

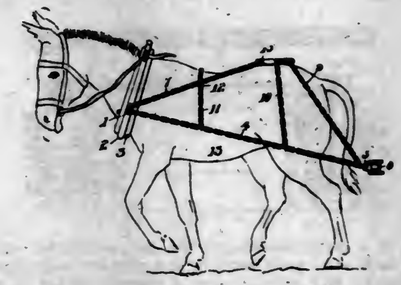
4. In apparatus of the class described, in combination, a boiler having vertical heating tubes extending above and below the waterline thereof, means adapted to generate heat locally in the submerged portion of said tubes, and non-heating electrical connections leading through the unsubmerged portions thereof.

5. In apparatus of the class described, in combination, an electric conductor of high resistance adapted to serve as a source of heat upon a current passing therethrough, a series of relatively detachable members upon which said conductor is coiled, a member within which the coils of said conductor are positioned, and means interposed between said coils and said last-mentioned member adapted to transmit heat from one to the other thereof.

[Claims 6 to 65 not printed in the Gazette.]

1,026,723. HARNESS. RALPH TOWARD, Russellton, Pa. Filed Dec. 9, 1911. Serial No. 664,711. (Cl. 54—1.)

A harness comprising the combination with a pair of hames, each provided with a ring, of a pair of inclined tug chains each having its forward ends connected to one of said rings, a back ring adapted to be mounted upon the horse's back, inclined trace chains connecting said back ring to the rear end of the said tug chains, inclined connecting chains connecting said back ring to the rings of the hames, a saddle chain attached at its ends to said tug chains, links for connecting the saddle chains to said con-

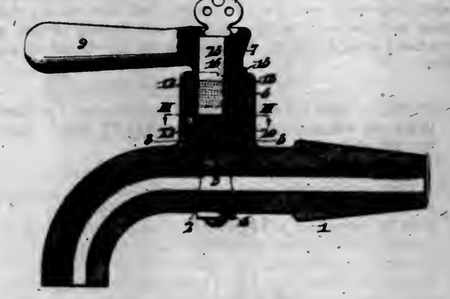


necting chains, and supporting chains connecting said back ring to said tug chains.

1,026,724. POROUS GRANULAR HYGROSCOPIC MATERIAL. EDWARD N. TRUMP, Syracuse, and JOHN D. PENNOCK, Solvay, N. Y., assignors to The Solvay Process Company, Syracuse, N. Y., a Corporation of New York. Filed Mar. 18, 1910. Serial No. 550,236. (Cl. 23—11.)

A soluble, hygroscopic, solid compound of a metal in the form of small, rounded, porous granules, formed by the rapid solidification of the compound from its liquid form.

1,026,725. LOCK-FAUCET. FRANK M. ULMER, Philadelphia, Pa. Filed Jan. 12, 1911. Serial No. 602,202. (Cl. 137—7.)

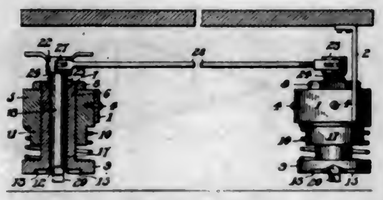


The combination in a faucet with its plug, a spring by the continuous tension of which the plug is normally rotated to close the faucet; a spring-pressed bolt by which the plug is normally locked in its closed position; and a key-operated lock by rotation of which the bolt is withdrawn from its bolt hole to permit rotation of the plug to open the faucet.

1,026,726. SWITCH-THROWING DEVICE. OLIVER S. WEDDELL, McKeesport, Pa. Filed Oct. 6, 1911. Serial No. 653,227. (Cl. 104—24.)

1. In a switch-throwing device, the combination with a car, rails and switch-tongues, of housings carried by said car above said rails, yieldable and rotatable stems arranged in said housings, shoes carried by the lower ends of said stems in the path of said switch-tongues and adapted to be lowered by a rotary movement of said stems, cross-heads carried by the upper ends of said stems, connecting rods pivotally connected to the ends of said cross-heads, a shaft carried by said car, a cross-head carried by the lower end

of said shaft and having flexible connection with one of the cross-heads of said stems, and means carried by said car for moving said shaft.

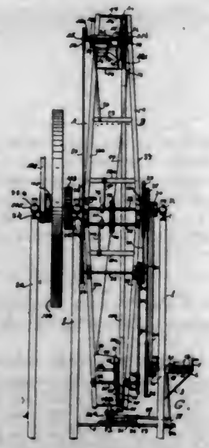


2. In a switch-throwing device, the combination with a car, rails, and a switch-tongue, of a yieldable contact-piece carried by said switch-tongue, a housing carried by said car, a yieldable and rotatable stem supported by said housing, a shoe carried by the lower end of said stem and adapted to be lowered by a rotary movement of said stem to engage said contact-piece and throw said tongue, a cross-head carried by the upper end of said stem, an operating shaft carried by said car, and a cross-head carried by the lower end of said shaft and having flexible connection with the cross-head of said stem.

3. In a switch-throwing device, a switch-tongue, a yieldable contact-piece carried thereby, a shoe adapted to be disposed at an angle to engage said contact-piece and throw said tongue, a yieldable stem supporting said shoe, a yieldable plunger supporting said stem, and means including an operating shaft and a flexible connection for moving said stem and the shoe attached thereto.

4. In a switch-throwing device, a car, a housing carried by said car, a yieldable plunger arranged in said housing, a yieldable and rotatable stem arranged in said plunger, a head carried by the lower end of said plunger, a throwing-shoe carried by the lower end of said stem and movably held in engagement with said head, means including an operating shaft and flexible connections for moving said stem and the shoe carried thereby, and means carried by the head of said plunger for limiting the movement of said shoe.

1,026,727. GRAVITY-MOTOR. GREENWALDT STEFFIN WELLING, Sioux City, Iowa. Filed May 27, 1911. Serial No. 629,836. (Cl. 185—27.)



1. A gravity motor consisting of a supporting frame, an axis pivotally supported thereon, a beam pivotally supported on the axis, a clutch mechanism connecting the beam with the axis for revolving the axis, spool wheels pivotally secured at each end of the beam, a flexible band adapted to be wound on said wheels, means for winding said band alternately on each of said wheels, and means for holding the beam in a fixed position as the band is wound and for releasing the same when the winding is completed, substantially as described.

2. A gravity motor consisting of a supporting frame, an axis pivotally supported thereon, a beam pivoted on the axis, a clutch mechanism connecting the beam with the axis for revolving the axis as the beam oscillates, spool wheels pivotally secured at each end of the beam, a tape connecting the spool wheels and adapted to be wound alternately thereon, mechanism for winding the tape alternately on each of the spool wheels, means for holding the beam in a fixed position, mechanism for releasing the beam from the holding means when the tape is wound on the wheel at the elevated end of the beam, whereby the beam is caused to rotate and the axis revolved, substantially as described.

3. A gravity motor consisting of a beam, an axis on which the beam is centrally pivoted, a frame supporting the axis and beam, a clutch mechanism connecting the beam with the axis for revolving the axis, spool wheels pivotally supported at each end of the beam, clutches for the alternate engagement and release of the spool wheels, a tape connected to the spool wheels and adapted to be alternately wound thereon, means for holding the beam in a fixed position and mechanism for releasing the beam from the holding means, and mechanism for controlling the clutches operating the spool wheels whereby the spool wheels are alternately operated and the tape moved from the lower to the higher end of the beam and the beam rotated, substantially as described.

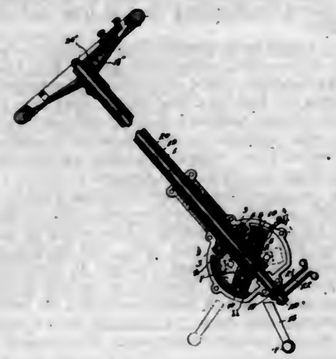
4. A gravity motor consisting of a beam, an axis on which the beam is centrally pivoted, a supporting frame, a clutch mechanism connecting the beam with the axis for revolving the axis as the beam oscillates, a spool wheel pivotally supported at each end of the beam, a tape mounted on said spool wheels, clutches for the engagement of the spool wheels, levers for the control of the clutches, a screw mechanism and a traveling cam thereon for the operation of the levers, means connecting the levers for the alternate engagement of the clutches with the spool wheels, whereby the tape is wound alternately on each of the spool wheels, means for holding the beam in a fixed position while the tape is wound and for releasing the beam, and means for the operation of the screw mechanism, substantially as described.

5. A gravity motor consisting of a beam, an axis on which the beam is centrally pivoted, a supporting frame, a clutch mechanism connecting the beam and the axis for revolving the axis as the beam oscillates, spool wheels pivoted at each end of the beam, a tape mounted on the spool wheels, means for winding the tape on each of the spool wheels alternately, a trip for holding the beam in a fixed position, a lever for the release of said trip, a screw mechanism and a traveling cam thereon for the operation of said lever, and means for the operation of said screw mechanism, substantially as described.

[Claim 6 not printed in the Gazette.]

1,026,728. STEERING MECHANISM. MARTIN L. WILLIAMS, South Bend, Ind. Filed Mar. 9, 1908. Serial No. 420,012. (Cl. 74—14.)

1. In a steering mechanism for automobiles, the combination with a main shaft, of an annular bearing member mounted thereon in a plane oblique to a plane at right angles to the shaft and having a ball race, a bearing ring provided with a ball race upon its inner periphery and extending exteriorly around said bearing member, a set of balls interposed between said races and extending around the same, trunnions carried by the outer periphery of the bearing ring, a yoke ring provided with journal bearings in which said trunnions are seated, stub shafts extending at right angles to said trunnions and carried by said yoke ring, a relatively fixed member in which said stub shafts are seated, a crank rigidly connected to one of the stub shafts, and leverage mechanism for actuating said main shaft.



2. In a steering mechanism for automobiles, the combination with a shaft, of an annular bearing member thereon mounted in a plane oblique to a plane at right angles to the shaft, a continuous bearing ring extending around said bearing member, opposed segments fitting over the periphery of said ring and secured thereto, trunnions carried by said segments, a yoke member extending around said ring and having journal bearings in which the said trunnions are seated, stub shafts on said yoke member extending at right angles to said trunnions, a casing inclosing said parts and provided with bearings for said shafts, one of said shafts extending through the side of the casing, and an operating member connected to said latter shaft.

3. In a steering mechanism for automobiles, the combination with a shaft, of an annular bearing member thereon mounted in a plane oblique to a plane at right angles to the shaft, a continuous bearing ring extending around said bearing member, trunnions carried by the periphery of said ring, a yoke member extending around said ring and having bearings for the trunnions, said bearings having removable caps to admit the trunnions, stub shafts carried by said yoke member, a casing inclosing said parts and provided with bearings for said shafts, one of said shafts extending through the sides of the casing, and an operating member connected to said shaft.

4. In a steering mechanism for automobiles, the combination with a shaft, of an annular bearing member mounted thereon in a plane oblique to a plane at right angles to the shaft, a continuous bearing ring extending around said annular bearing member and operatively engaging the same throughout its circumference, trunnions carried by said bearing ring, a movable yoke member connected to said ring, stub shafts carried by said yoke, a closed casing inclosing said operative parts and having journal bearings for said stub shafts, and a part to be connected to one of said stub shafts.

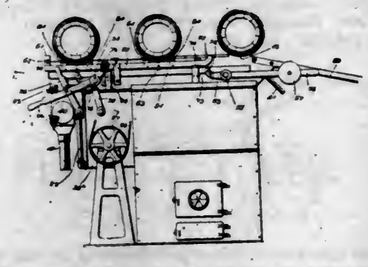
1,026,729. PITCHING-MACHINE. JOHN H. G. ZUNNER, Chicago, Ill. Filed Nov. 3, 1909. Serial No. 525,990. (Cl. 91—11.)

1. The combination of means for removing an old coating from a package; means for placing a new coating on the package; and a package-support movable from one of the said means to the other.

2. The combination of means for coating a package; means for cooling the coating; and a package-support for moving the package from the coating means to the cooling means.

3. The combination of a nozzle; a package-seat adjacent said nozzle; and a package-support movable to place a package on said seat, said support being arranged during its placing movement to remove a package theretofore placed on said seat.

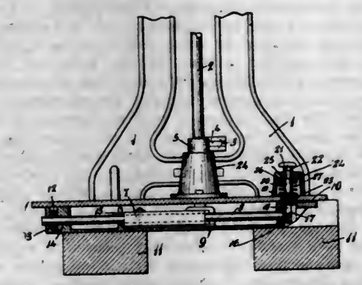
4. The combination of a nozzle; a package-seat adjacent said nozzle; and a package-carriage which is reciprocable to place a package on said seat, said carriage being arranged to push a package off said seat during its placing movement.



5. The combination of means for coating a package; means for cooling the coating; and a package-support for moving the package from the coating means to the cooling means, said support being arranged to discharge a package from said cooling means.

[Claims 6 to 29 not printed in the Gazette.]

1,026,730. INTERLOCKING MECHANISM. FRANK C. ANDERSON, Cincinnati, Ohio, assignor to The American Valve & Meter Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 7, 1911. Serial No. 653,315. (Cl. 104—25.)



1. In an interlocking switch stand having interlocking mechanism provided with a plunger adapted to engage and lock an interlocking bar secured to the point rails of a switch, a dog adapted to prevent the operation of said interlocking plunger, said dog having an opening therein, a spring adapted to hold said dog in position to prevent the operation of said plunger, and a push-button by which said dog is moved to bring said opening opposite said plunger to permit said plunger to be operated, substantially as set forth and for the purposes specified.

2. In an interlocking switch stand having an interlocking plunger adapted to engage an interlocking bar secured to the point rails of a switch when the switch is in locked position, a dog adapted to prevent the operation of said interlocking plunger, said dog having an opening therein, a stem for said dog, a push-button for said stem, a housing in which said stem is mounted, a spring surrounding said stem within said housing and adapted to hold said dog in position to prevent the operation of said plunger and only permit the operation of said plunger when said dog is depressed by the push-button, permitting the opening in said dog to register with said plunger and allow said plunger to be operated, substantially as set forth.

3. In a device of the class described having an interlocking plunger, a housing, a dog, means whereby said dog may be manually operated to permit the operation of said plunger to throw the switch to open position and means whereby said dog will automatically operate to

prevent the operation of said plunger when the switch is thrown to closed position, substantially as set forth and for the purposes specified.

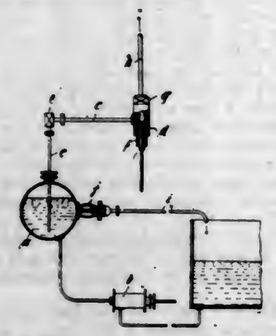
1,026,731. AGRICULTURAL IMPLEMENT. GEORGE T. BOUNDS, Hampton, Ark. Filed Aug. 29, 1911. Serial No. 646,642. (Cl. 97—10.)



1. An agricultural implement consisting of side beams made in two parts having between the said two parts vertical rectangular openings horisontally corrugated, said parts adjustably and laterally hinged together at their front ends in a twin block and adjustably and laterally held together at their rear ends by means of perforated arms secured together at their free ends by bolts passing through said free ends, a central beam secured longitudinally and centrally between said side beams, said center beam provided at each end with rectangular vertical openings corrugated horizontally, plow standards corrugated and adapted to fit in the said corrugated rectangular openings and adapted each to carry a plow, handles adjustably secured to said central beam and to said side beams, substantially as shown and described.

2. In an agricultural implement substantially as shown and described, two side beams made in two halves adapted to be secured together by bolts and nuts, said halves, when secured together, having between their two parts vertical rectangular openings, each provided with horizontal corrugations, said parts laterally hinged together at their front ends in a block, a central beam somewhat longer than the side beams, its front end protruding beyond said block and provided with horizontal perforations and a rectangular vertical opening, having horizontal corrugations, its rear end extending rearwardly beyond the rear end of said side beams and having a vertical, rectangular opening provided with horizontal corrugations, corrugated plow standards adjustably secured in said rectangular openings and adapted to carry plow points, said agricultural implement provided with handles, substantially as shown and described.

1,026,732. APPARATUS FOR DISTRIBUTING FUEL IN INTERNAL-COMBUSTION ENGINES. HANS TH. BAUNS, Nuremberg, Germany. Filed Jan. 24, 1911. Serial No. 604,496. (Cl. 123—139.



1. In an apparatus for distributing fuel in internal combustion engines, the combination with a fuel supply tank of an intermediate closed air-containing chamber, a pump for forcing fuel from said supply tank into said chamber to an amount sufficient to constantly maintain in said chamber a pressure, and a second pump connected with said chamber for delivering the fuel from said chamber to the engine.

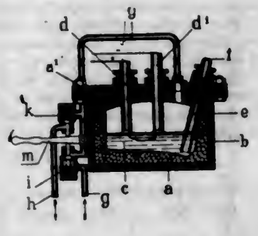
2. In an apparatus for distributing fuel in internal combustion engines the combination with a fuel supply tank of an intermediate closed air-containing chamber, a pump for forcing the fuel from said supply tank into said chamber to an amount sufficient to constantly maintain a pressure in said chamber, a conduit entering said chamber, and a second pump connected to said conduit for delivering fuel from the chamber to the engine.

3. In an apparatus for distributing fuel in internal combustion engines the combination with a fuel supply tank of an intermediate closed air-containing chamber, a pump for forcing the fuel from said supply tank into said chamber to an amount sufficient to constantly maintain a pressure in said chamber, a conduit entering said chamber, and a second pump connected to said conduit for delivering fuel from the chamber to the engine, and a valve in said conduit intermediate the chamber and said second pump.

4. In an apparatus for distributing fuel in internal combustion engines, the combination with a fuel supply tank of an intermediate closed air-containing chamber, a pump for forcing fuel from said supply tank into said chamber to an amount sufficient to constantly maintain a pressure in said chamber, a second pump connected to said chamber and adapted to deliver fuel therefrom to the engine, a discharge pipe connected to said chamber and a loaded valve in said discharge pipe, adapted to automatically control the pressure in said chamber.

5. In an apparatus for distributing fuel in internal combustion engines the combination with a fuel supply tank of an intermediate closed air-containing chamber, a pump for forcing the fuel from said supply tank into said chamber to an amount sufficient to constantly maintain a pressure in said chamber, a conduit entering said chamber, and a second pump connected to said conduit for delivering fuel from the chamber to the engine, and a valve in said conduit intermediate the chamber and said second pump, and a discharge pipe connected to said chamber, and a loaded valve in said discharge pipe adapted to automatically control the pressure in said chamber.

1,026,733. PROCESS FOR CASTING METALS. FRANZ DE BUIGNÉ, Magdeburg, Germany. Filed Oct. 14, 1911. Serial No. 654,781. (Cl. 22—57.)



1. In a process of casting molten metals under pressure, which consists in heating a metal bath internally, suddenly releasing the pressure established by an indifferent gas so as to produce by the rapid escape of the gases a partial vacuum in the melting chamber, substantially as and for the purposes described.

2. In a process of casting molten metals under pressure, which consists in heating a metal bath internally by means of electricity, suddenly releasing the pressure established by an indifferent gas so as to produce by the rapid escape of the gases a partial vacuum in the melting chamber, substantially as and for the purposes described.

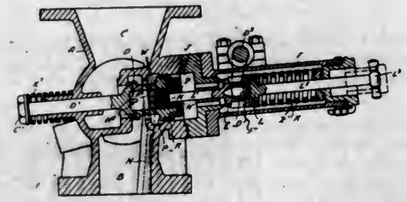
3. In a process of casting molten metals under pressure, which consists in heating a metal bath internally, suddenly releasing the pressure established by an indifferent gas so as to produce by the rapid escape of the gases a partial vacuum in the melting chamber and then increasing the vacuum thus created, substantially as and for the purposes described.

4. In a process of casting molten metals under pressure, which consists in heating a metal bath internally by means of electricity, suddenly releasing the pressure established by an indifferent gas so as to produce by the rapid escape of the gases a partial vacuum in the melting chamber and then increasing the vacuum thus created, substantially as and for the purposes described.

5. In a process of casting molten metals under pressure, which consists in heating a metal bath internally by means of electricity, maintaining an atmosphere of an indifferent gas above the molten metal, releasing the pressure to establish a partial vacuum and then increasing the said vacuum, substantially as and for the purposes described.

[Claims 6 to 9 not printed in the Gazette.]

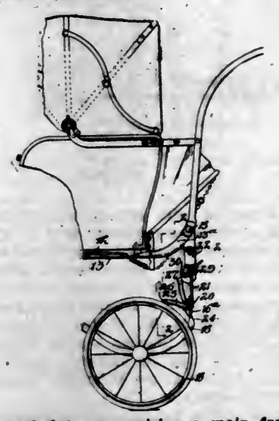
1,026,734. SAFETY-VALVE. DAVID COCKBURN and DONALD MACNICOLL, Cardonald, Glasgow, Scotland. Filed July 11, 1911. Serial No. 637,968. (Cl. 137—53.)



1. A safety valve comprising, in combination, a casing provided with inlet and outlet branches, and having a cylindrical passage J between said branches and at one side thereof, a main valve seated within said casing and arranged coaxial with said passage and having an extension providing a hollow piston P movable with said main valve and adapted to operate within said cylindrical passage, said hollow piston having one or more steam inlets to its chamber, a spring-closed pilot valve for controlling said main valve, said pilot valve being seated exteriorly of said passage and arranged in line with the said main valve, a hollow piston P^1 within the chamber of the said hollow piston P, a nut fitting loosely within said hollow piston P^1, a rod connecting said nut with said pilot valve, means for retaining said nut in the chamber of said piston P^1, and means for lifting said pilot valve from its seat.

2. A safety valve comprising, in combination, a casing provided with inlet and outlet branches, and having a cylindrical passage J between said branches and at one side thereof, a main valve seated within said casing and arranged coaxial with said passage and having an extension providing a hollow piston P movable with said main valve and adapted to operate within said cylindrical passage, said hollow piston having one or more steam inlets to its chamber, a spring-closed pilot valve for controlling said main valve, said pilot valve being seated exteriorly of said passage and arranged in line with the said main valve, a hollow piston P^1 within the chamber of the said hollow piston P, a nut fitting loosely within said hollow piston P^1, a rod connecting said nut with said pilot valve, means for retaining said nut in the chamber of said piston P^1, and a rocking device for lifting said pilot valve from its seat, and thus serving, through the said pilot valve, to operate both of said pistons and also the main valve.

1,026,785. PERAMBULATOR. DAVID R. COLLIER, Gardner, Mass., assignor to Collier-Keyworth Company, Gardner, Mass., a Corporation of Massachusetts. Original application filed Dec. 23, 1910, Serial No. 599,037. Divided and this application filed July 27, 1911. Serial No. 640,952. (Cl. 21—84.)



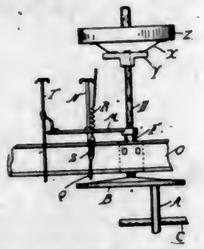
1. A perambulator comprising a main frame having a seat, a transverse supporting member connected with the main frame behind the seat and having a raised central portion and depressed ends, wheel frames pivoted at their rear ends to the depressed ends of the supporting member behind the seat, wheels mounted on said wheel frames, a transverse brake rod having a raised central portion and depressed end portions, the latter being extended to form journal portions adapted to turn in bearings on the depressed ends of the supporting member, angular arms, portions of which constitute brake shoes, projecting outwardly from said journal portions over the rear wheels, the central portion and depressed ends of the brake rod constituting a lever arm adapted to be moved to apply and remove the brake shoes, and being substantially parallel with the said supporting member so that the wheel frames may swing inwardly under it, means for positively moving said lever arm to apply the brake shoes, and means for yieldingly moving the lever arm to remove the brake shoes.

2. A perambulator comprising a main frame having a seat, a transverse supporting member connected with the main frame behind the seat and having a raised central portion and depressed ends, wheel frames pivoted at their rear ends to the depressed ends of the supporting member behind the seat, wheels mounted on said wheel frames, a transverse brake rod having a raised central portion and depressed end portions extending substantially parallel with the corresponding portions of the supporting member, the said end portions being extended to form journal portions adapted to turn in bearings on the depressed ends of the supporting member, angular arms, portions of which constitute brake shoes, projecting outwardly from said journal portions over the rear wheels, the central portion and depressed ends of the brake rod constituting a lever arm adapted to be moved to apply and remove the brake shoes, a cam lever pivoted to the raised central portion of the supporting member and adapted to positively move said lever arm in one direction to apply the brake shoes, and a spring adapted to yieldingly move the lever arm in the opposite direction to remove the brake shoes.

1,026,736. GEARING. CLIFFORD T. DARBY, Detroit, Mich., assignor to Stephen A. Griggs, trustee, Walkerville, Canada. Filed Apr. 7, 1911. Serial No. 619,607. (Cl. 74—26.)

1. The combination with coöperating friction wheels arranged at substantially right angles to each other, of a

lever for pressing the friction wheels into contact with each other, and a spring operating upon said lever to supply a normal degree of friction.



2. The combination with coöperating friction wheels, one of which is adjustable axially toward or from the center of the other, of a lever for pressing the coöperating friction wheels into contact, and a tension spring operating upon said lever to supply a normal degree of friction.

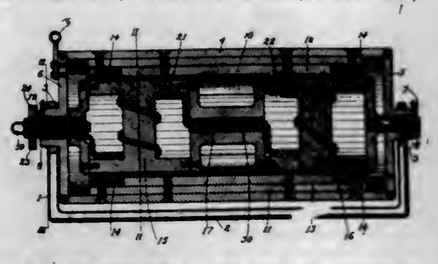
3. The combination with a friction drive gearing, of a thrust bearing for one of the friction elements, a screw for adjusting said thrust bearing, a pedal lever for actuating said screw, and a spring operating upon said pedal lever to supply a normal degree of friction between the cooperating friction elements.

4. In a friction drive gearing, the combination with a friction disk, of a shaft on which said disk is mounted, a bearing for said shaft, a sleeve or bushing intermediate said shaft and bearing and having a spiral engagement with the latter, a thrust bearing for said shaft on said sleeve, a rock lever for adjusting said sleeve, a pedal lever connected with said rock lever, and a tension spring for actuating said pedal lever and supplying a normal degree of friction.

5. In a friction drive gearing, the combination with a friction wheel, of a shaft on which said wheel is mounted, a bearing for said shaft, a sleeve intermediate said shaft and bearing having a spiral engagement with the latter, a thrust bearing for said shaft upon said sleeve, a lever for rocking said sleeve, a pair of pedals for actuating said lever in opposite directions, and a spring for actuating one of said pedals and supplying the normal degree of friction to said gear.

[Claims 6 to 9 not printed in the Gazette.]

1,026,737. DYNAMO-ELECTRIC MACHINE. WILLIAM W. DEAN, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed Jan. 28, 1910. Serial No. 540,591. (Cl. 171—209.)



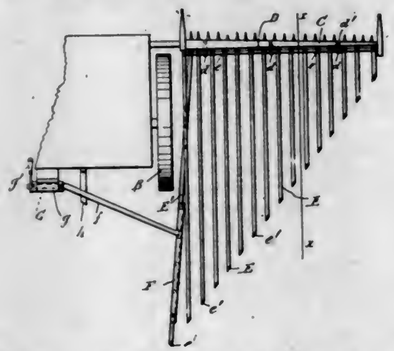
1. In a magneto electric machine, the combination of a closed casing mounted to rock, a pair of straight bars mounted in said casing, one of said bars being longer than the other, said bars constituting field magnets for said machine, pole pieces at the end of said bars and an armature in said casing adapted to be rotated to cut the flux of the field.

2. In a magneto electric machine, the combination of a closed casing, trunnions for said casing, said casing being mounted to rock in said trunnions, a pair of straight bars mounted on the interior of said casing and adapted to be rocked therewith, one of said bars being longer than the other, the longer bar being nearer the casing and having its ends projecting beyond the ends of the short bar, said bars being the field magnets of said machine, pole pieces between the ends of said bars and an armature in said casing adapted to be rotated to cut the flux of said field.

3. In a magneto electric machine, the combination of a closed casing, trunnions for said casing said casing being mounted to rock in said trunnions, a bar magnet mounted inside said casing to rock therewith, a second bar magnet mounted upon the inside of said first bar magnet, said first named magnet being longer than said second named magnet and having its ends projecting beyond the ends of the first named magnet, pole pieces between the ends of said magnets and an armature in said casing adapted to be rotated to cut the flux of said magnets.

4. In a magneto electric machine, the combination of a closed casing, trunnions for said casing, said casing being mounted to rock in said trunnions, a bar magnet mounted inside said casing to rock therewith, a second bar magnet mounted upon the inside of said first bar magnet, said first named magnet being longer than said second named magnet and having its ends projecting beyond the ends of the second named magnet, pole pieces between the ends of said magnets and a pair of armatures mounted in said casing to cut the flux of said magnet, said armatures being rigidly fastened together.

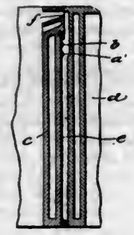
1,026,738. ATTACHMENT FOR MOWING-MACHINES. AUGUST H. ECKARDT, St. Paul, Minn. Filed May 12, 1911. Serial No. 626,802. (Cl. 56—128.)



The combination, with a mowing machine provided with a wheeled frame and a cutter-bar, and a receiver for the cut crop secured to the rear of the cutter-bar; of a bearing secured to the said frame, a shaft journaled in the said bearing and provided at one end with an arm arranged at an angle to its axis and projecting rearwardly and laterally toward the said receiver, a gate having its top member secured to the free end of the said arm and provided with downwardly projecting teeth which normally close the outlet from the receiver, an operating lever secured to the other end of the said shaft on the other side of the bearing from the receiver, and a stop or rest, for supporting the said gate, secured to the said frame between the said bearing and receiver and projecting rearwardly under the said inclined arm.

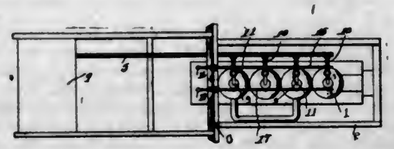
1,026,739. MATRIX FOR STEREOTYPE-PLATE MOLDS. ARNOLD EGLI, Plauen, Germany, assignor to Vogtländische Maschinen-Fabrik (vormals J. C. & H. Dietrich) Actiengesellschaft, Plauen, Germany. Filed Nov. 10, 1909. Serial No. 527,235. (Cl. 198—7.)

A matrix for molds for casting stereotype-plates, provided with the usual elevation for restraining the liquid metal and a number of supplementary elevations, situated beyond said elevation and adapted to accommodate any



depressions due to shrinkage of the metal within said elevation.

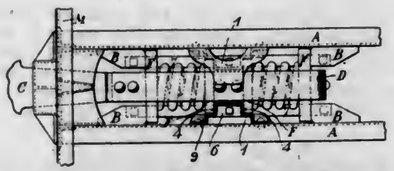
1,026,740. PRIMING DEVICE. JOSEPH L. FISCHER, Appleton, Wis. Filed July 26, 1911. Serial No. 640,544. (Cl. 123—187.5.)



1. The combination with an internal combustion engine, of priming cups in communication with the various cylinders, pet-cocks for controlling flow from said cups into the cylinders, means for operating the various pet-cocks in unison, a supply tank, a pipe leading therefrom, branch pipes leading from said pipe to the various priming cups, valves for controlling the branch pipes and means for operating the various controlling valves simultaneously.

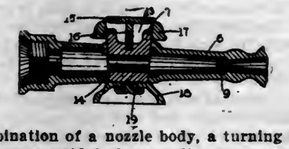
2. The combination with the cylinders of an internal combustion engine, of priming cups in communication with said cylinders, pet-cocks controlling the flow from the cups into the cylinders, a supply pipe, branches from said pipe discharging into the cups, valves in said branches, means for operating the various pet-cocks simultaneously, and independent means for operating the various valves simultaneously.

1,026,741. TANDEM-SPRING DRAFT-RIGGING. ROBERT E. FRAME, St. Louis, Mo., assignor to American Car & Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Jan. 19, 1909. Serial No. 473,079. (Cl. 213—42.)



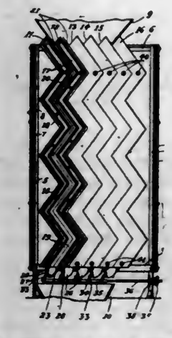
In a tandem spring draft rigging, front and back draft lugs secured to the draft sills, an independent intermediate combined bridge and follower stop spanning the middle portion only of the yoke and abutting the intermediate followers.

1,026,742. COMBINATION HOSE NOZZLE AND SPRAYER. FRANCIS J. FRENCH, Cleveland, Ohio, assignor of one-fourth to Wilkin Towle, one-fourth to James H. McConkey, and one-eighth to Frank B. Kennedy, Cleveland, Ohio. Filed May 16, 1911. Serial No. 627,588. (Cl. 137—17.)



The combination of a nozzle body, a turning plug valve extending across said body, a collar at one end of the plug, forming a handle to turn the same and a base for the nozzle to stand on, said valve having a passage communicating with the bore of the body and extending to an outlet at the opposite end of the plug, and a spreader at said outlet.

1,026,743. WHEAT-HEATER. JOHN G. HAGMANN, La Crosse, Wis., assignor of one-half to George M. Heath, La Crosse, Wis. Filed July 31, 1911. Serial No. 641,641. (Cl. 34—35.)



1. A grain heater comprising a plurality of irregular heating bodies forming heating passages therebetween open at top and bottom, a discharge hopper below said openings comprising a curved back wall and end walls, a gate pivotally mounted to swing between said end walls in the arc of curvature and against the forward edge of said back wall, said gate including curved plates extending within said curved wall, means to move said gate positively to open said hopper, and means to lock the gate where moved.

2. A grain heater comprising a plurality of zigzag heating sections provided with longitudinal ribs and being vertically arranged so as to provide a series of grain passageways between each pair of sections, said passageways having bottom openings extending in a line, an undivided discharge hopper positioned below all of said openings for each of said series, said discharge hopper comprising a curved back wall and end walls, a gate pivotally mounted to swing between said end walls in the arc of curvature and against the forward edge of said back wall, said gate including curved plates extending within and engaging said curved wall, and means to move said gate positively to open said hopper in a plurality of places beneath said line of passageways.

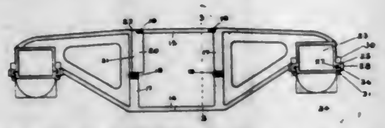
3. A grain heater comprising a plurality of irregular heating bodies, said bodies being constructed and arranged to form a plurality of series of heating passages between adjacent pairs thereof, a common receiving hopper below all of said passages, a separate discharge hopper for each series of passages into which said series of passages open, a swinging gate forming one side of each of said separate hoppers, and means connected to each of said

gates positively to move all of them simultaneously to open said hoppers, and means to lock the same where moved.

4. A grain heater comprising a plurality of irregular heating bodies, said bodies being constructed and arranged to form a plurality of series of heating passages between adjacent pairs thereof, a common receiving hopper below all of said passages, a separate discharge hopper for each series of passages into which said series of passages open, a swinging gate forming one side of each of said separate hoppers, arms on each of said gates extending centrally therefrom in parallel relation, a rod pivotally connected to each of said arms whereby all of said gates may be simultaneously and positively moved to open said hoppers, one end of said rod being threaded and extending through an elongated aperture in a frame member, and hand-nuts on said threaded end for securing said rod in any desired position.

5. A grain heater comprising a plurality of zigzag heating sections provided with longitudinal ribs and being vertically arranged so as to provide a series of grain passageways between each pair of sections, said passageways having bottom openings extending in a line, an undivided discharge hopper positioned below all of said openings for each of said series, and means movable as a unit to effect opening of said hopper in a plurality of distinct and separated places beneath said line of passageways.

1,026,744. TRUCK-FRAME. HARRY S. HART, Chicago, Ill., assignor to Wolff Truck Frame Company, Chicago, Ill., a Corporation of Maine. Filed Oct. 11, 1907. Serial No. 396,981. (Cl. 105—243.)



1. In a car truck side frame, a journal box having the upper part thereof integral with said frame, the lower part having a sliding connection with the upper part.

2. In a car truck side frame, a journal box having a part thereof integral with the side frame, and another part detachably connected thereto, one part having a tongue and the other part having a groove, the tongue and groove being adapted to coact in uniting the two parts of the journal box.

3. In a car truck side frame, a journal box having two parts separated by a substantially horizontal plane located approxiately midway the top and bottom thereof, all of said box above said plane being integral with the side frame, and all of said box below said plane being detachable therefrom, and interlocking means formed integrally with the two parts of the journal box for supporting the lower part of the box.

4. In a car truck side frame, a journal box having the upper part thereof integral with said frame, the lower part having a sliding connection with the upper part, and means for locking the two parts against a sliding movement.

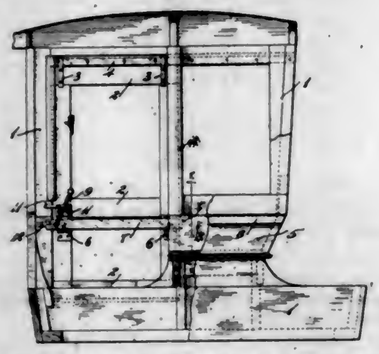
5. In a car truck side frame, a journal box having the upper part thereof integral with said frame, the lower part being wholly supported by direct engagement with the upper part.

[Claim 6 not printed in the Gazette.]

1,026,745. DOOR-SECURING DEVICE. REGINALD HEINZELMAN, Belleville, Ill. Filed Sept. 23, 1911. Serial No. 650,977. (Cl. 70—102.)

1. The combination with the body of a vehicle, of a door slidably mounted thereon, a rocking member extending across the door, a device mounted on the body of the vehicle with which said rocking member slidably engages, and means for actuating said rocking member to bind it with respect to said device on the vehicle body.

2. The combination with the body of a vehicle, of a door slidably mounted thereon, a rocking member extending across the door, a device mounted on the body of the vehicle with which said rocking member slidably engages, means for actuating said rocking member to bind it with respect to said device on the vehicle body, and means for holding said actuating means to lock the door.



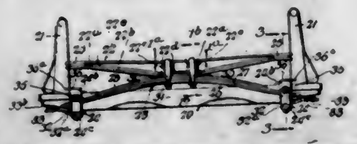
3. The combination with the body of a vehicle having a horizontally disposed channeled slideway thereon, of a door slidably mounted on said body, a horizontally disposed flat metal bar hinged at one edge portion to the door, the opposite edge portion of the bar being adapted to slidably engage the channeled slideway on the body, and means for rocking said bar on its hinges so that the free edge portion of the bar is made to impinge against the side of said slideway and the door is drawn close to the side of the body.

4. The combination with the body of a vehicle having a horizontally disposed channeled slideway extending along the side thereof, of a door slidably mounted on said body, a horizontally disposed flat bar hinged at one edge portion to the door, the free edge portion of said bar being adapted to slide in said channeled slideway, one end portion of said bar being continuously in engagement with said slideway and the opposite end portion of the bar being adapted to coöperate with the adjacent portion of the body when the door is in closed position, and means for rocking said bar on its hinges so as to impinge it against the sides of the channeled slideway and portion of the body with which the bar coöperates in the closed position of the door.

5. The combination with the body of a vehicle having an elongated channeled slideway thereon, of a door slidably mounted on said body, a flat bar hinged at one edge to said door, its free edge portion being adapted to travel in said slideway, a lever-arm pivoted on said bar, and a cam device on said door with which said lever-arm is adapted to coöperate to actuate said bar so as to cause it to bind in said slideway and lock the door.

[Claim 6 not printed in the Gazette.]

1,026,746. BOLSTER-SPRING FOR WAGONS. NATHAN L. HOLMES, Racine, Wis., assignor to George C. Petersen and William C. Petersen, Copartners doing business under the firm name of G. C. Petersen & Son, Racine, Wis. Filed Oct. 13, 1911. Serial No. 654,450. (Cl. 21—102.)



1. A bolster spring comprising two laterally spaced curved leaf springs and two saddle pieces each having a body portion and two lateral, rigidly attached, depending members and adapted to rest loosely on the top of the wagon bolster, with its said depending members at the sides of the same, said springs each embracing a leaf which extends at its ends outwardly beyond the saddle-pieces, and short spring members attached at their outer ends to the outer ends of said leaf and extending inwardly therefrom; the inner ends of said spring sections being connected with the lower ends of said lateral depending members of the saddle-pieces by means permitting relative flexing movement but preventing relative horizontal movement between the ends of said spring sections and said depending arm.

2. A bolster spring comprising two laterally spaced curved leaf-springs and two saddle pieces with which the ends of said springs are connected, each having a body portion adapted to rest on the top of the wagon bolster, and lateral, rigid depending members each consisting of two upright parallel parts and upper and lower horizontal parts, each end of each spring extending beneath the upper horizontal part of the lateral member of one of the saddle-pieces and being provided with an inwardly extending spring section, the inner end of which is loosely engaged with the lower horizontal part of said lateral member of said saddle-piece.

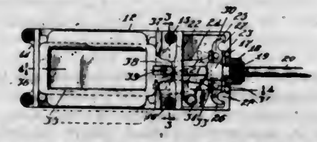
3. A bolster spring comprising two laterally spaced leaf-springs and two saddle pieces each having a body portion adapted to rest loosely on the top of the wagon bolster and two rigidly attached, depending members, each consisting of two upright parts and upper and lower horizontal parts forming an open rigid frame, said springs each embracing a leaf which extends at its ends outwardly beyond the saddle-pieces, and two short spring sections attached at their outer ends to the outer ends of said leaf and extending inwardly therefrom, the end portions of the said leaf being inserted through the said open frames below the upper horizontal members thereof, and the inner ends of the said spring sections being connected with the lower parts of said frames by means permitting relative flexing movement but preventing relative horizontal movement, of the said inner ends of the spring sections relatively to said depending members of the saddle-pieces.

4. A saddle-piece for bolster springs comprising a piece of metal bent to form a horizontal body portion, depending side members and two horizontal arms extending outwardly from the side members; uprights attached to and extending upwardly from the outer ends of said horizontal arms, and bolts inserted through the depending side members and the upper parts of said uprights.

5. In combination with two bolster springs, two saddle-pieces each embracing a body portion adapted to rest on the top of the wagon bolster and depending side members provided with horizontal spring-supporting arms; said horizontal arms being provided with longitudinal slots, and the end of each spring being provided with a downwardly extending prong adapted to enter one of said slots.

[Claims 6 to 8 not printed in the Gazette.]

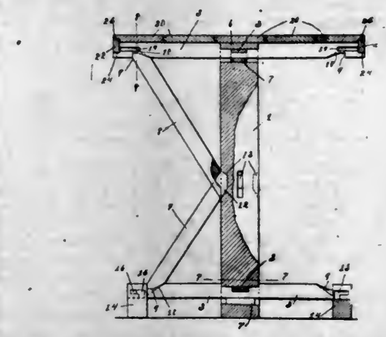
1,026,747. SASH LOCK AND LIFT. WILLIAM JANSEN, Chicago, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 13, 1911. Serial No. 614,192. (Cl. 16—53.)



1. In a lock, in combination, a chambered casing having an apertured face plate, a reciprocable bolt carried by the casing and projecting beyond the end thereof, a grip member housed within the casing and slidable transversely of the bolt axis, such member comprising two finger pieces disposed adjacent the sides of the face plate aperture and a cross bar, and operative connection between the grip member and the bolt.

2. In a lock, in combination, a chambered casing having an apertured face plate, a reciprocable bolt carried by the casing and projecting beyond the end thereof, a grip member housed within the casing and slidable transversely of the bolt axis, such member comprising two finger pieces disposed adjacent the sides of the face plate aperture and a cross bar, a lever having fulcrum points on either side of the bolt and being in longitudinal engagement with the bolt, the power arm of the lever engaging the cross bar of the grip member.

1,026,748. KNOCKDOWN STAND OR TABLE. HUGH JUDGE, Johnstown, N. Y. Filed Oct. 19, 1910. Serial No. 587,992. (Cl. 45—48.)



1. In a stand or table, and in combination, a central post having a closed end, and provided near said end with an aperture through the post, and provided with side-openings in the vertical plane of said aperture; a horizontal cross-bar removably inserted through said aperture; detachable diagonal braces stepped at one end into the respective ends of said cross-bar, and at the other end adapted to occupy the respective side-openings in said post; and a removable locking-key interposed between the wall of said aperture and the outer side of said cross-bar.

2. In a stand or table, and in combination, a central post having a closed end, and provided near said end with a four-way aperture, and provided with side-openings; a pair of horizontal cross-bars removably inserted one above the other at right angles to each other through said four-way aperture; detachable diagonal braces stepped at one end into the respective ends of said cross-bars, and at the other end adapted to occupy the respective side-openings in said post; and a removable locking-key interposed between the wall of said aperture and the outer of said cross-bars.

3. In a stand or table, and in combination, a central post having closed ends, and provided near each end with an aperture through the post, and provided with side-openings in the vertical plane of said aperture; a pair of horizontal cross-bars inserted in parallel relation to each other through said respective apertures; a removable locking-key interposed between the wall of one of said apertures and the inner side of the cross-bar extending therethrough; a pair of braces stepped at their outer ends into the respective ends of said cross-bar, and extending diagonally inward toward the post; another pair of braces stepped into the respective ends of said other cross-bar, and extending diagonally inward to said post, and having on their inner ends members adapted to occupy the respective side-openings in the post, and members adapted to engage the inner ends of the respective first-mentioned diagonal braces; and a removable locking-key interposed between the outer side of said other cross-bar and the wall of the aperture through which the same passes.

4. In a stand or table, and in combination, a central post; a cross-bar extending horizontally through an aperture in the lower end of said post and provided near its ends with a bayonet groove; a foot having side-arms pro-

vided with a projection adapted to travel along said bayonet groove; and a removable brace stepped into the outer end of said cross-bar in engagement with said foot and serving to hold said foot at the end of said bayonet groove and extending upward and inward to said post.

5. In a stand or table, and in combination, a central post; horizontal cross-bars provided with longitudinal side-grooves open at their outer ends; horizontal braces formed with tenons adapted to be slid into said grooves through their open ends; and a band inclosing said cross-bars and horizontal braces, and serving to retain said braces within said grooves.

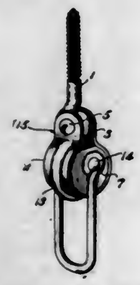
1,026,749. BALL-CAGE FOR BALL-BEARINGS. HERMANN KAPPER, Treptow, near Berlin, Germany, assignor to The Firm of Deutsche Waffen & Munitionsfabriken, Berlin, Germany. Filed Feb. 10, 1912. Serial No. 676,838. (Cl. 64—59.)



1. In a ball-cage, the combination with an upper and a lower ring each having a plurality of slots arranged one opposite another, of a plurality of distance pieces disposed between the rings, each of said distance pieces having lugs entering into the slots in the rings and having hooked portions engaging the edges of the rings.

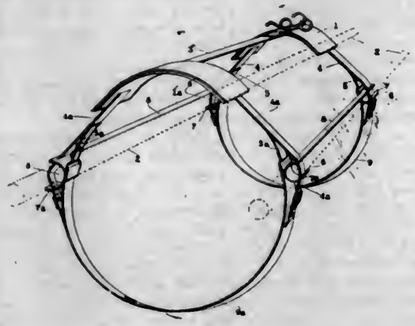
2. In a ball-cage, the combination of an upper and a lower ring each having outwardly projecting edges and a plurality of slots one opposite another, and a plurality of laterally flanged distance pieces disposed between the rings each of said distance pieces having two lugs entering into opposite slots in the rings, and the lateral flanges having hooked portions engaging the said edges of the rings.

1,026,750. NOISELESS PIVOT-HINGE. EUGENE E. KELLEY, Greensburg, Pa. Filed July 18, 1911. Serial No. 639,141. (Cl. 155—35.)



A noiseless pivot hinge comprising a bearing block of yielding material having a peripheral ridge, a continuous retaining strap encircling said bearing block and provided with a longitudinal groove adapted to register with the peripheral ridge of the block, an eye bolt pivoted between the ends of the retaining strap so as to permit its oscillation transverse the block, a journal member loosely mounted in the block, and an attaching loop secured to the extremities of the journal member.

1,026,751. HARNESS. JAMES E. KEKSHAW, Vancouver, Wash. Original application filed Dec. 10, 1910, Serial No. 596,727. Divided and this application filed June 15, 1911. Serial No. 633,372. (Cl. 54—50.)



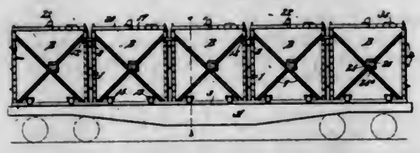
1. In a single harness, a saddle comprising two transverse members, rigidly connected by a central longitudinal portion,—a flexible element secured at each end of said transverse members,—and means for supporting the shafts, which are secured to and space apart said flexible elements.

2. In a single harness, a saddle comprising two transverse members rigidly connected by a single longitudinal portion, a flexible element secured to each end of said transverse members, a rigid longitudinal member for maintaining the relative positions of each pair of flexible elements, and a shaft support secured to each pair of flexible elements.

3. In a single harness, a saddle comprising two transverse members rigidly connected by a central longitudinal portion,—a girth secured to each of said transverse members,—and a rigid shaft support secured at each side of said girths for sustaining the shafts and for maintaining the relative positions of the girths.

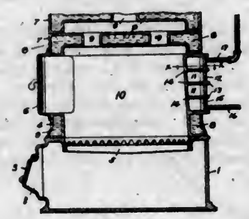
4. In a shaft support, a stay,—a shaft rest formed transversely at each end of the stay,—and means whereby the shaft may be secured in said rests.

1,026,752. REMOVABLE AND INTERCHANGEABLE UNIT FOR FREIGHT-CARS. HENRY W. KIRCHNER, St. Louis, Mo., assignor to River & Rail Transportation Company, St. Louis, Mo., a Corporation of Oklahoma. Original application filed Mar. 17, 1910, Serial No. 549,865. Divided and this application filed June 9, 1910. Serial No. 565,969. (Cl. 57—13.)



A freight car unit or removable compartment, consisting of a rectangular-shaped sheet metal receptacle, X-shaped braces secured to the side walls of said receptacle and formed from commercially rolled angles, trunnion plates secured to the side walls of said receptacle and provided on their inner faces with grooves and recesses for receiving the webs and flanges of said X-shaped braces, laterally projecting trunnions on said plates arranged eccentric with reference to the centers of said X-shaped braces, and enlarged heads on said trunnions provided with means that is adapted to coöperate with locking devices on a lifting apparatus.

1,026,753. WATER-HEATING ATTACHMENT FOR FURNACES. HARRY LAWBIE, Omaha, Nebr. Filed Dec. 12, 1911. Serial No. 665,384. (Cl. 122—37.)



1. The combination with a cast-metal heating furnace, of an auxiliary water-heater comprising means integral with the walls of the fuel and combustion chamber and forming a heating chamber adjoining the same, water pipes connecting with said auxiliary heater chamber, and an external removable cover-plate for said heater chamber.

2. The combination with a heating furnace having a cast-metal casing inclosing a combustion chamber and a main water-heating chamber, of a casing integral with the first and inclosing an auxiliary water-heating chamber separate from the main water-heating chamber, and water supply and outlet pipes connected with said auxiliary water-heating chamber.

3. In a furnace, the combination with a metal casing inclosing a combustion chamber and a main heating chamber, of a casing formed integrally therewith and inclosing an auxiliary water-heating chamber adjoining the combustion chamber, supply and outlet pipes connected with the latter casing, and flanges extending into the latter chamber from the wall thereof adjoining the combustion chamber.

4. The combination with a cast-metal heating furnace, of a metal casing having one side thereof adjoining the combustion chamber of the furnace, a removable cover-plate at the outer side of the casing, water-supply and outlet pipes connected with the casing, and flanges extending across the casing from the wall thereof adjoining the combustion chamber, said flanges being arranged to form a passage through the casing from the supply pipe to the outlet pipe.

5. In a furnace, a casing inclosing a combustion chamber and a main heating chamber, a casing integral with the first and inclosing a water-chamber separated from the combustion chamber by a single wall, a removable cover-plate forming the outer wall of the water-chamber, and flanges extending from the wall of the combustion chamber into the water chamber.

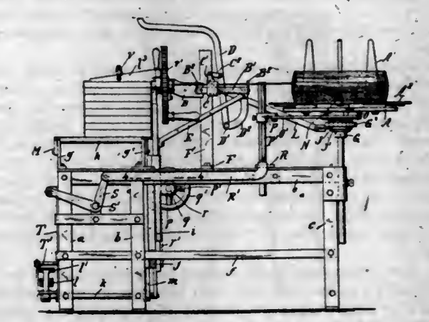
[Claim 6 not printed in the Gazette.]

1,026,754. BUNDLING-MACHINE. ROBERT C. LOWRY, New York, and FREDERICK EMMERICH, Brooklyn, N. Y. Filed Mar. 16, 1911. Serial No. 614,820. (Cl. 100—31.)

1. A bundling-machine having a bundle-support, a wire reel, and mechanism for forming a tie of binding wire about a bundle on the support, said mechanism including an actuating lever and connections for rewinding upon the reel excess wire drawn off during the bundling operation, said actuating lever being in convenient proximity to the bundle-support; substantially as described.

2. A bundling-machine having a bundle-support, a wire reel, and mechanism for forming a tie of binding wire about a bundle on the support, said mechanism including an actuating lever and connections for rewinding upon the reel excess wire drawn off during the bundling operation, and an actuating lever and connections for gripping the wire and drawing it tightly about the bundle, both of said levers being in convenient proximity to the bundle-support; substantially as described.

3. A bundling-machine having a bundle-support, a wire reel, mechanism for turning the reel to re-wind upon it excess wire drawn off in the bundling operation, and an actuating connection for said mechanism extending into convenient proximity to the bundle-support; substantially as described.

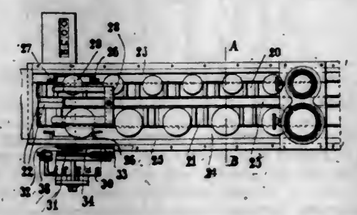


4. A bundling-machine having a bundle-support, a wire-reel, mechanism for resisting the rotation of the reel to prevent overrunning thereof, mechanism for turning the reel to re-wind upon it excess wire drawn off in the bundling operation, and an actuating connection for said mechanism extending into convenient proximity to the bundle-support; substantially as described.

5. A bundling-machine having a bundle-support, a wire-reel, mechanism for resisting the rotation of the reel to prevent overrunning thereof, mechanism for turning the reel to rewind upon it excess wire drawn off in the bundling operation, an actuating connection for said mechanism extending into convenient proximity to the bundle-support, and gripper-mechanism including an actuating lever for gripping the wire and drawing it tightly about the bundle, said actuating lever also being in convenient proximity to the bundle-support; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,026,755. COIN-COUNTING APPARATUS. BIRGER LUNDIN, Skultuna, Sweden. Filed Dec. 9, 1910. Serial No. 596,444. (Cl. 133—8.)



1. A coin counting device comprising an endless band divided into coin compartments, rollers about which said band travels, means for supplying coins upon said band, a counting mechanism, a longitudinal ledge parallel with the longitudinal edges of the upper part of the band and adapted to engage the coins so as to cause them to project with one edge beyond one longitudinal edge of the band and operate the counting mechanism.

2. A coin counting device comprising an endless band divided into coin compartments, rollers about which said band travels, means for supplying coins upon said band, a counting mechanism, a longitudinal ledge made as a fixed ledge extending along and parallel with the upper part of the band and adapted to engage the coins so as to cause them to project with one edge beyond one longitudinal edge of the band and operate the counting mechanism.

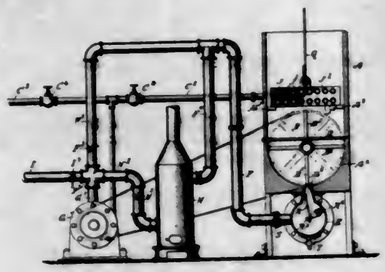
3. A counting device comprising an endless band divided into coin receiving compartments, a counting mechanism, a fixed plate supporting the upper part of the band, a longitudinal ledge projecting from the upper surface of said plate so as to cause the coins to project with one edge beyond one longitudinal edge of the band and operate the counting mechanism, another longitudinal ledge projecting from the upper surface of said plate to limit the lateral movement of the coins from the first mentioned ledge.

4. A counting device comprising two endless bands divided into coin receiving compartments, a counting mechanism for each of said bands, a fixed plate supporting the upper parts of the bands, a longitudinal ledge projecting between the two bands from the upper surface of said plate so as to cause the coins on each band to project with one edge beyond the outer edges of the bands and to operate the counting mechanism, two other longitudinal ledges projecting from the upper surface of said plate to limit the lateral movement of the coins from the intermediate ledge.

5. A coin counting device comprising a band divided longitudinally and laterally into coin receiving compartments, means for supplying coins to said compartments, a ledge parallel with the upper edge of said band and on which the coins carried by said band project, counting mechanism and means actuated by coins carried by said band for operating said counting mechanism.

[Claims 6 to 8 not printed in the Gazette.]

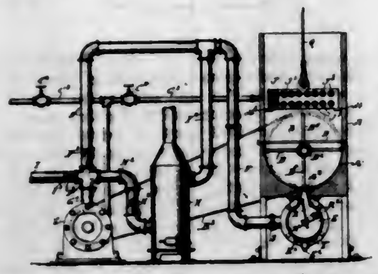
1,026,756. PROCESS OF TREATING MILK. JOHN MCINTYRE, Jersey City, N. J., assignor, by mesne assignments, to Watkin M. Griffith, Freeport, Long Island, N. Y. Continuation of application Serial No. 162,031, filed June 18, 1903. Renewed May 31, 1905, Serial No. 259,827. This application filed Oct. 30, 1905, Serial No. 285,175. Renewed Oct. 11, 1911. Serial No. 654,164. (Cl. 99—5.)



1. The herein described process for producing solid milk in separated solid soluble particles, which consists in subjecting the milk in an open vessel to the action of a heating medium, directly under the level of the milk, and simultaneously passing highly heated air into the milk in an upward direction, and simultaneously agitating the heated air and the heated milk mechanically, below the heating medium, until the milk is reduced to an approximately creamy consistency, and then, without interruption, continuing the action of the highly heated air and mechanical agitation on the reduced milk under exclusion of the heating medium for the milk, the temperature of the milk being kept in excess of 90° F. during the entire operation.

2. The herein described process for producing solid milk in separated soluble particles, which consists in subjecting the upper portion of the milk, contained in an open vessel, to the action of a heating medium and simultaneously passing a jet of heated air into the bottom portion of the milk uninterruptedly, throughout the length of the said bottom portion, at the same time agitating the milk and the heated air mechanically throughout the bottom portion of the milk, until the milk reaches a creamy consistency, and continuing the mechanical agitation and the introduction of the heated air under exclusion of the heating medium, the temperature of the milk being kept in excess of 90° F. during the entire operation.

1,026,757. APPARATUS FOR DRYING MILK. JOHN MCINTYRE, Jersey City, N. J., assignor, by mesne assignments, to Watkin M. Griffith, Freeport, Long Island, N. Y. Continuation of application Serial No. 162,032, filed June 18, 1903. Renewed May 10, 1904, Serial No. 259,828. This application filed Oct. 30, 1905, Serial No. 285,174. Renewed Oct. 11, 1911. Serial No. 654,165. (Cl. 99—5.)



1. An apparatus for drying milk, comprising a vessel for containing the milk and having an open top and a bottom semi-circular in cross section, the said bottom being provided with an air induction slot extending throughout the length of the bottom, an agitator in the bottom portion of the vessel sweeping the surface of the bottom portion, and an air supply connected with the said slot, for forcing a blast of compressed air through the slot into the milk, as set forth.

2. An apparatus for drying milk, comprising a vessel for containing the milk and having an open top and a bottom semi-circular in cross section, the said bottom being provided with an air induction slot extending throughout the length of the bottom, an agitator in the bottom portion of the vessel, an air supply connected with the said slot, for forcing a blast of compressed air through the slot into the milk, and a removable and replaceable heating coil wholly immersed in the milk above the said agitator, as set forth.

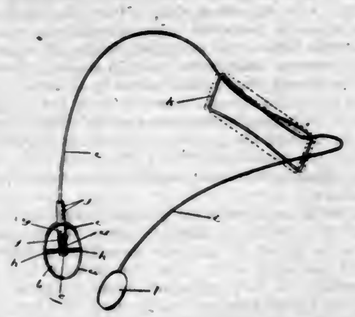
3. An apparatus for drying milk, comprising a vessel for containing the milk and having an open top and a bottom semi-circular in cross section, the said bottom being provided with an air induction slot extending throughout the length of the bottom, an agitator in the bottom portion of the vessel, an air supply connected with the said slot, for forcing a blast of compressed air through the slot into the milk, a heating coil removable and replaceable while wholly immersed in the milk, above the said agitator, and means for preventing the milk from entering the coil on removing or replacing it, as set forth.

4. An apparatus for drying milk, comprising a vessel for containing the milk and having an open top and a bottom semi-circular in cross section, the said bottom being provided with an air induction slot extending throughout the length of the bottom, an agitator in the bottom portion of the vessel, an air supply connected with the said slot, for forcing a blast of compressed air through the slot into the milk, and a manually controlled wiper for clearing the said slot, as set forth.

5. An apparatus for drying milk, comprising a vessel for containing the milk and having an open top and a bottom semi-circular in cross section, the said bottom being provided with an air induction slot extending throughout the length of the bottom, an agitator in the bottom portion of the vessel, an air supply connected with the said slot, for forcing a blast of compressed air through the slot into the milk, and a manually controlled wiper for clearing the said slot, the said wiper being located within the air supply and having operating means extending to the outside of the said air supply, as set forth.

[Claims 6 to 21 not printed in the Gazette.]

1,026,758. TRUSS. DONALD MCKAY, Collingwood, Ontario, Canada. Filed Apr. 1, 1911. Serial No. 618,448. (Cl. 128—26.)



1. In a truss, a pad having a convex face and a concave back, a slotted stem movable lengthwise through the pad into the concave back, a cross bar passing through the slotted stem and fixedly attached to the pad within the concave back, and springs bearing against the slotted stem and concave back to normally maintain the slotted stem centrally on the cross bar.

2. In a truss, a pad having a convex face and a concave back, a slotted stem movable lengthwise through the pad into the concave back, a cross bar passing through the slotted stem and fixedly attached to the pad within the concave back, springs bearing against the slotted stem and concave back to normally maintain the slotted stem centrally on the cross bar, and a spring contained within the slotted stem bearing against the cross bar.

3. In a truss, a pad having a convex face and a concave back, a slotted stem movable lengthwise through the pad into the concave back, a flexible cross bar passing through the slotted stem and fixedly attached to the pad within the concave back, and springs bearing against the slotted stem and concave back to normally maintain the slotted stem centrally on the cross bar.

4. In a truss, a pad having a convex face and a concave back, a slotted stem movable lengthwise through the pad into the concave back, a flexible cross bar passing through the slotted stem and fixedly attached to the pad within the concave back, springs bearing against the slotted stem and concave back to normally maintain the slotted stem centrally on the cross bar, and a spring contained within the slotted stem bearing against the cross bar.

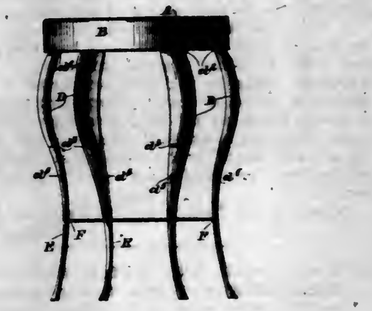
5. In a truss, a pad, a slotted stem movable lengthwise of the pad, a cross bar passing through the slotted stem and fixedly attached to the pad, and springs bearing against the slotted stem and pad to normally maintain the slotted stem centrally on the cross bar.

[Claims 6 to 8 not printed in the Gazette.]

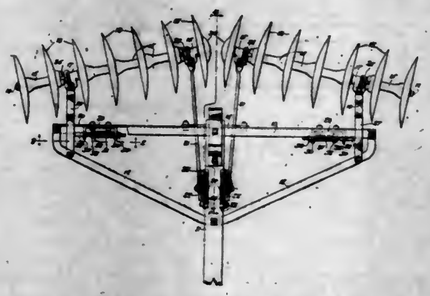
1,026,759. FOLDING STOOL. ALBERT A. MEEKER, New York, N. Y. Filed Feb. 17, 1911. Serial No. 609,262. (Cl. 155—32.)

1. In a collapsible stool, a seat member, a plurality of spaced brackets attached to the seat member adjacent its edge, socketed lugs upon the brackets, folding legs pivoted to each bracket, sockets in the leg members, a brace having means detachably engaging the leg sockets, whereby upon disengaging the brace from the legs, the legs may be folded adjacent the seat and held in such position by engagement of brace with the socketed lugs of the seat brackets.

2. In a collapsible stool, a seat member, folding legs pivoted to the seat, each leg consisting of two pivotally connected sections formed of a substantially channel shape, the upper section being provided with a shoulder spaced from its lower end, the lower section being pivoted adjacent its upper end so that its upper edge engages the shoulder of the upper section, whereby the sections may be collapsed to nest one within the other, and folded up against the seat member.



1,026,760. DISK HARROW. CLEMENT W. MICHAEL, Racine, Wis., assignor to J. I. Case Plow Works, Racine, Wis., a Corporation. Filed Dec. 31, 1909. Serial No. 535,751. (Cl. 55—81.)



1. In a disk harrow, the combination with a frame, two disk-gangs and draw-bars pivotally connecting said gangs and said frame, of spring-held plungers arranged to engage said draw-bars to resist the side thrust of said gangs and yieldingly hold the same apart, and supporting guides fixed to the frame wherein said plungers are slidably mounted, substantially as described.

2. In a disk harrow, the combination with the frame comprising front and rear bars, of a pair of disk gangs, inner and outer draw bars pivotally connected to said gangs, said outer draw bars being pivotally connected to said front frame bar, adjusting levers on the frame connected to said inner draw bars and spring-held plungers mounted on said rear bar and engaging said outer draw bars to yieldingly hold said gangs apart, substantially as described.

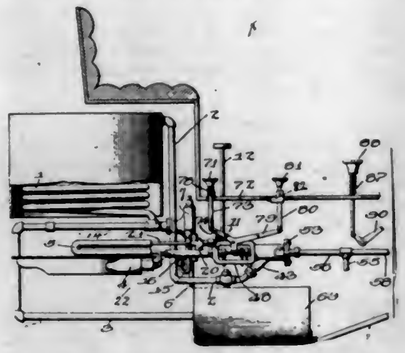
3. In a disk harrow, the combination with the frame comprising front and rear bars, of a pair of disk-gangs, draw-bars pivoted to said gangs and to said front frame bars, and spring-held plungers engaging said draw-bar to yieldingly resist the inward movement of said disk-gangs and for holding the same apart, and supporting guides fixed to said rear frame bar wherein said plungers are slidably mounted, substantially as described.

4. In a disk harrow, the combination with the frame comprising front and rear bars, of a pair of disk gangs, draw bars pivoted to said gangs and to said front frame bars, and spring-held stop plungers in one way engagement with said draw bars to yieldingly resist the inward movement of said gangs, said rear bar having guides wherein said stop plungers are slidably mounted, and means for adjusting the normal position of said stop plungers.

5. In a disk harrow, the combination with the frame comprising front and rear bars, of two disk-gangs, inner and outer draw-bars pivotally connected to said gangs, adjusting levers on the frame connected to said inner draw-bars, said outer draw-bars extending through slots in said rear frame bar and being pivotally connected to said front frame bar, and sliding, spring-held plungers mounted on said rear frame bar and engaging said outer draw-bars to yieldingly hold said gangs apart, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,026,761. FUEL AND WATER REGULATOR FOR STEAM-BOILERS. ROBERT MIEHLE, Chicago, Ill. Filed Sept. 26, 1907. Serial No. 394,605. (Cl. 122—22.)



1. In an apparatus for the purpose described, the combination of a steam generator, liquid forcing means for supplying said generator with the liquid to be vaporized, a burner for fluid fuel arranged to heat the generator, a source of supply for said burner, a valve interposed between the burner and the source of supply for controlling the amount of fuel admitted to the burner, thermostatic means operatively related to the generator for closing said valve when the heat of the generator reaches a certain degree, a second valve interposed between said first valve and the burner, also for reducing the supply of fuel to the burner, a flow regulator subjected to the pressure of the liquid discharged by said liquid forcing means, having operative relation to said second valve, and manually operative means for closing said second valve independently of said flow regulator.

2. In an apparatus for the purpose described, the combination of a steam generator, liquid forcing means for supplying the generator with the liquid to be vaporized, a burner for fluid fuel arranged to heat the generator, thermostatic means operatively related to the generator for altering the supply of fuel to the burner when the heat of the generator reaches a predetermined degree, a valved by-pass connecting the outlet and the inlet sides of said liquid forcing means together, means for opening the valve of said by-pass by the pressure in the generator, means for closing said by-pass manually at will, and a flow regulator subjected to the pressure in said by-pass and operatively related to the burner for altering the supply of fuel to the burner by the pressure of the liquid in said by-pass.

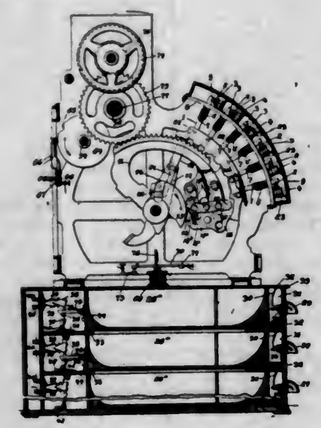
3. In an apparatus for the purpose described the combination of a steam generator, a liquid forcing means for supplying the generator with a liquid to be vaporized, a by-pass connecting the inlet side of the liquid forcing means with its outlet side, pressure controlled means operatively related to the generator for opening the said by-pass automatically, a manually actuated valve also arranged in said by-pass for closing it at will, and means for automatically opening said manually operated valve.

4. In an apparatus for the purpose described the combination of a steam generator, liquid forcing means for supplying the generator with the liquid to be vaporized, a by-pass connecting the inlet side of the liquid forcing means with its outlet side, a valve for closing said by-pass, pressure controlled means operatively related to the generator and to said valve for opening the valve automatically, means independent of said pressure controlled means for closing the by-pass manually at will, a second pressure controlled means connected with the outlet side of said liquid forcing means and also with said by-pass, a burner for heating the generator embodying a passage for fluid fuel, and means operatively connected with the second said pressure controlled means for regulating the said fuel passage.

5. In an apparatus for the purpose described the combination of a steam generator, means for forcing the liquid to be vaporized into said generator, a burner for fluid fuel associated with a fluid fuel passage for heating said generator, a flow regulator means subjected to the pressure of the said liquid forcing means for altering the supply of fuel to the burner, and said flow regulator means embodying a valve for closing said passage when the pressure of the flow of said liquid decreases, a second valve arranged to close said passage, operatively related to the flow regulator means and also to said first valve for opening the latter, and a manually actuated means operatively connected with said second valve.

[Claims 6 to 11 not printed in the Gazette.]

1,026,762. CASH-REGISTSR. WILLIAM H. MUZZY, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed May 18, 1907. Serial No. 374,426. (Cl. 235—11.)



1. In a machine of the class described, the combination with an accounting mechanism, of a series of cash receptacles, and means for operating the accounting mechanism set in operation by the opening of any one of the cash receptacles.

2. In a machine of the class described, the combination with an accounting mechanism, of a series of cash receptacles, means for operating the accounting mechanism and devices controlling the operating means by the initial opening movement of any one of the receptacles.

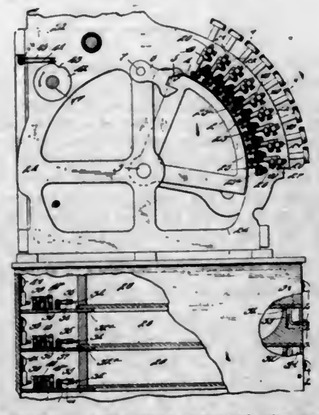
3. In a machine of the class described, the combination with an accounting mechanism, of a series of cash receptacles, an operating device for the acounting mechanism, means controlled by the opening of any one of the cash receptacles, for setting the operating devices in motion, with provisions for continuing the operation of said devices irrespective of said cash receptacles until the operation is completed.

4. In a machine of the class described, the combination with an accounting mechanism, of a series of department controlling devices, a series of cash receptacles, and means governing the department controlling devices by initial opening movements of the cash receptacles.

5. In a machine of the class described, the combination with a main operating mechanism, of a lock for the same, a series of cash receptacles, and means actuated by the movement of any one of the cash receptacles for operating the lock.

[Claims 6 to 37 not printed in the Gazette.]

1,026,763. CASH-REGISTER. WILLIAM H. MUZZY, Dayton, Ohio, assignor to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed May 25, 1907. Serial No. 375,665. (Cl. 235—9.)



1. In a machine of the class described, the combination with an operating mechanism, of selective devices, a series of clerks' cash receptacles, a series of signals, means controlled by the selective devices or the cash receptacles for starting the signals, and means requiring an operation of the operating mechanism for arresting said signals.

2. The combination with an operating mechanism, of clerks' selective devices, a series of cash receptacles, a series of alarms, one for each receptacle, means controlled by any of the receptacles for starting its alarm, and means controlled by the operating mechanism and the selective device corresponding to the receptacle operated for arresting the alarm.

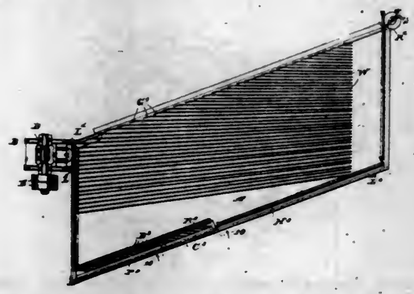
3. The combination with an operating mechanism, of a series of clerks' keys, a series of cash receptacles, alarms, and connections whereby the operation of a clerk's key or the opening of a cash receptacle will put one of the alarms in operation, with provisions whereby such alarm will be arrested by the operation of the corresponding clerk's key or cash receptacle and the movement of the operating mechanism.

4. In a machine of the class described, the combination with a main operating mechanism for the machine, of a clerk's key, a cash receptacle, an alarm, a circuit for said alarm, and circuit breakers for said alarm circuit controlled respectively by said operating mechanism, said key and said cash receptacle.

5. In a machine of the class described, the combination with a series of clerks' keys, a series of cash receptacles, a series of alarms, and connections whereby the alarms are operated upon either the operation of a clerk's key or the opening of a cash receptacle.

[Claims 6 to 32 not printed in the Gazette.]

1,026,764. CONCENTRATING-TABLE. GUSTAVE A. OVERSTROM, Chicago, Ill., assignor to Overstrom Concentrator Company, Butte, Mont., a Corporation of Montana. Filed Jan. 13, 1903. Serial No. 138,935. (Cl. 83—88.)



1. The combination with a table and means connected to one end thereof for moving the same in one direction, a pivoted arm arranged to bear against the table at the opposite end thereof in a direction to move said table in the opposite direction, a spring arranged to bear against said arm, and means for adjusting the tension of said spring, as and for the purpose set forth.

2. The combination with a table, of means connected to one end thereof for moving the same in one direction, of a casting connected to the table at the opposite end thereof and provided with a bearing projection or stud, a rocking arm arranged to bear against said projection or stud, a bracket, and a spring interposed between said bracket and arm as and for the purpose set forth.

3. The combination with a table and means connected to one end thereof for moving the same in one direction, of a casting connected to the table at the opposite end thereof, and provided with a stud or projection, a rocking arm having a guiding seat arranged to receive said stud or projection and to form a bearing thereagainst, and a spring arranged to exert its tension upon said arm to rock said arm to move said table in the opposite direction, as and for the purpose set forth.

4. The combination with a table, rocking arms arranged at opposite ends thereof to freely bear against said table in opposite directions, actuating mechanism for rocking one of said arms, and a spring arranged to exert its tension upon the other of said arms, whereby the table is constantly maintained under tension during the operation thereof, as and for the purpose set forth.

5. The combination with a table having suitably spaced parallel frame beams, pivotally mounted arms arranged at the respective ends of said table and having bearing connection in opposite directions with said table in the geometric central line of the space between said beams, mechanism for positively rocking one of said arms, and a spring arranged to exert its tension against the other of said arms, as and for the purpose set forth.

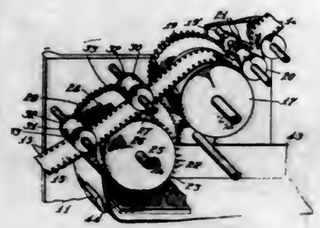
[Claims 6 to 9 not printed in the Gazette.]

1,026,765. COATING-MACHINE. EL RAY G. PALMER, Chicago, Ill., assignor to Walter A. Daniels, Chicago, Ill. Filed Feb. 5, 1912. Serial No. 675,615. (Cl. 91—10.)

1. In a machine for coating an apertured web, in combination, liquid applying means and a puncturing needle movable into the web aperture.

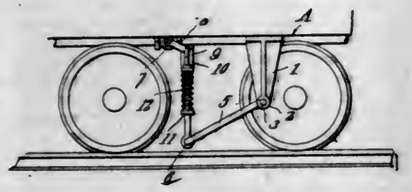
2. In a machine for coating a moving web having a longitudinal row of apertures, in combination, a sprocket wheel, liquid applying means, a wheel having a peripheral row of puncturing needles, means for guiding the web over the sprocket wheel, by the liquid applying means and in front of the wheel having the peripheral row of puncturing needles and gear connection between the sprocket wheel and the said wheel having the peripheral row of puncturing needles.

3. In a machine for coating a moving web having a longitudinal row of apertures, in combination, a sprocket wheel, a liquid applying roll, a wheel having a peripheral row of puncturing needles, gear connection between the



sprocket wheel and each of said other members, means for guiding the web over the sprocket wheel and liquid applying roll and in front of the said wheel having the peripheral row of puncturing needles.

1,026,766. AUTOMATIC SAFETY APPLIANCE FOR RAILWAY-CARS. WALTER L. POOLE, Covington, Va., assignor of one-half to Arthur Medwedeff, Baltimore, Md. Filed Sept. 8, 1911. Serial No. 648,340. (Cl. 188—2.)



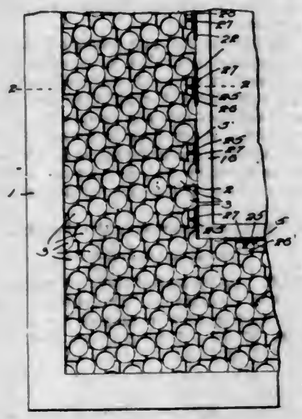
1. In a device of the character described comprising brackets supported by a car, a bar journaled in said brackets, a plurality of tappets carried by said bar and adapted to contact with the rail when the car is derailed, a release valve connected with the train line pipe of an air brake system, means for operably connecting the valve with the tappets, and means for returning the valve to normal position after derailment.

2. In a device of the character described comprising a bracket supported by a car, a push rod slidably mounted in said bracket, a tappet carried by said push rod, a release valve operably connected with the train line pipe of an air brake system, the push rod adapted to be actuated by the derailment of said car, and flexible means for preventing actuation of said valve other than by derailment of said car.

3. In a device of the character described comprising a bracket supported by a car, a push rod slidably mounted in said bracket, a tappet carried by said push rod, a release valve operably connected with the train line pipe of an air brake system, the said push rod adapted to be actuated by the derailment of the car, flexible means for preventing actuation of said valve other than by derailment of the car, and means for returning said valve to normal position after derailment.

4. In a device of the character described, comprising a plurality of brackets supported by a car, push rods slidably mounted in said brackets, tappets carried by said push rods, a release valve operably connected with the train line pipe of an air brake system, the said push rods adapted to be actuated by the derailment of the car, flexible means for preventing actuation of said valve, other than by derailment of the car, and means for returning said valve to normal position after derailment.

1,026,767. PRINTING APPLIANCE. JOHN P. QUIGGAN, Brooklyn, N. Y. Filed Sept. 30, 1910. Serial No. 584,712. (Cl. 101—169.)



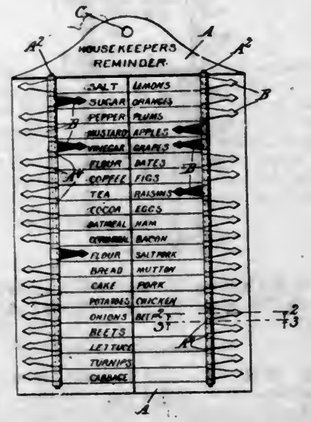
1. In a printing appliance, the combination with a base block having a plurality of tapering openings therein and a printing plate positioned thereon, of clamps adapted to be inserted in the openings of the base block, said clamps comprising a vertical body portion, a lateral extension on said body portion, a movable jaw mounted on said body portion, a horizontally disposed threaded bolt in the upper portion of the body of the clamp, said jaw having a lateral opening therein to receive said bolt therethrough, a spring secured in the said lateral extension to retain the clamp within an opening on the said base block, and a pinion threaded on the said bolt, said pinion, when rotated, advancing and receding said jaw with respect to the printing plate.

2. In a printing appliance, the combination with a base block having a series of tapering openings therein and a printing plate positioned thereon, of clamps adapted to be inserted in one of the openings in said base block surrounding said plate, each of said clamps comprising a vertical body portion having a transverse opening through its upper part, a lateral extension formed integrally with the lower part of said body portion, a spring secured within a groove in said extension, a jaw having a tubular portion adapted to move through the said opening in the upper part of the body portion, a guiding lug on said cylindrical portion for engagement within an offset recess in the upper part of the body portion, a T-shaped member formed on the forward end of said cylindrical portion, the forward face of the cross of said T-member being beveled and adapted for engagement with the edge of said printing plate, the vertical part of said T member having an opening therethrough, a threaded bolt secured at one end to the upper part of the body portion and extending through the opening in said T member, and a pinion threaded on said bolt between the said T member and the said lug.

3. In a printing appliance, the combination with a base block having a series of tapering openings therein, and a printing plate positioned thereon, of clamps in the openings in said base block, surrounding said plate, each of said clamps comprising a vertical body portion, the horizontal extension of the lower portion thereof, a bowed spring secured to said extension, and projecting upwardly, said spring engaging in the openings in the base block, and resilient means on the upper end of the body portion for engagement with the printing plate.

4. In a printing appliance the combination with a base block having a series of tapering openings, therein and a printing plate positioned thereon, of clamps in the openings in said base block surrounding said plate, each of said clamps comprising a vertical body portion, the horizontal extension of the lower portion thereof, a bowed spring secured to said extension, and projecting upwardly, said spring engaging in the openings in the base block, and resilient adjusted means on the upper end of the body portion for engagement with the printing plate.

1,026,768. HOUSEKEEPER'S REMINDER. AVIS F. RAE, Chicago, Ill. Filed Sept. 28, 1910. Serial No. 584,174. (Cl. 116—31.)



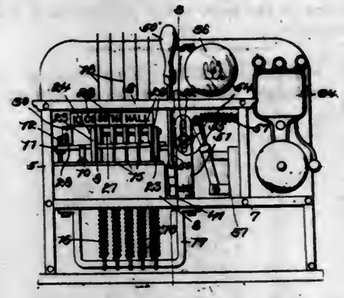
1. A housekeeper's reminder comprising a plate, an index thereon, a series of alternately oppositely bent loops struck from the material of the plate and adjacent one to the other, a straight rod mounted in said loops, a series of pointers bent around at their inner ends and thus pivotally mounted on such rod, each between a pair of loops and in opposition one to each item in the index.

2. A housekeeper's reminder comprising a plate, an index thereon, a series of alternately oppositely bent loops struck from the material of the plate and adjacent one to the other, a straight rod mounted in said loops, a series of pointers bent around at their inner ends and thus pivotally mounted on such rod, each between a pair of loops and in opposition one to each item in the index, the two sides of the different pointers differing in appearance.

3. A housekeeper's reminder comprising a plate, an index thereon, a series of alternately oppositely bent loops struck from the material of the plate and adjacent one to the other, a straight rod mounted in said loops, a series of pointers bent around at their inner ends and thus pivotally mounted on such rod, each between a pair of loops and in opposition one to each item in the index, the two sides of the different pointers differing in appearance, that side which is exposed when the pointer is turned toward the index differing in appearance from the body of the plate.

1,026,769. FIRE-SIGNAL DEVICE. COLIS RAYMOND, Windsor, Conn. Filed May 23, 1911. Serial No. 628,966. (Cl. 177—203.)

1. An alarm device of the character described comprising a plate pivotally mounted intermediate of its ends, a plurality of rods movable through said plate, springs normally under tension connected to the lower ends of said rods, fusible wires connected to the upper ends of the rods, said wires extending around the walls of the apartment of a building and having their ends secured, an electrical alarm device and a circuit therefor, a contact member forming one of the terminals of the circuit arranged on said pivoted plate, a stationary contact member forming the other terminal of the circuit, a plurality of movable annunciator members associated with said rods, the fusing of any one of said wires permitting of the contraction of one of the springs to move the rod to which said wire is connected and move said pivotally mounted plate to engage the contacts of the alarm circuit and simultaneously move one of the annunciator elements to its indicative position.



2. An alarm device of the character described comprising a plate pivotally mounted adjacent to one of its ends, the longer end portion of said plate having a plurality of openings therein, vertically disposed rods movable through the openings in said plate, springs normally under tension connected to the lower ends of said rods, fusible wires connected to the upper ends of the rods, an electric bell and circuit therefor, a contact member carried by said pivoted plate and forming one of the terminals of said circuit, a stationary contact forming the other circuit terminal, an electric lamp and circuit therefor, said circuit including a knife switch, means tending to hold said switch closed, additional means to hold said switch open, said latter means including a movable bar, one end of said pivoted plate engaging said bar, the fusing of any one of said wires permitting of the contraction of the spring connected to the rod to which said wire is attached thereby moving said pivoted plate and connecting the bell circuit and simultaneously moving said pivoted bar to release said last named means and permit of the closing of the knife switch to close the lamp circuit.

3. An alarm device of the character described comprising a plate pivotally mounted adjacent to one of its ends, a plurality of vertically disposed movable rods, a coiled spring connected to the lower end of each of said rods, said springs being normally under tension, fusible wires connected to the upper ends of the rods, a bell circuit, a contact arranged on the pivoted plate forming one of the terminals of said circuit, a stationary contact forming the other circuit terminal, an electric lamp and circuit therefor, said circuit including a knife switch, means normally acting to hold said knife switch closed, a pivoted bar, one end of said bar being engaged by said pivoted plate, means yieldingly holding the end of said bar in contact with the plate, means associated with said bar and connected to the switch blades to hold said switch open in the normal position of said bar, the fusing of any one of said wires permitting of the contracting of the spring connected to the end of the rod to which said wire is attached whereby said pivoted plate is moved to connect the bell circuit, and said pivoted bar is simultaneously moved to permit of the movement of the switch blades to their closed positions whereby the lamp circuit is connected.

4. An alarm device of the character described comprising an electrical alarm device including an electric circuit, a movable contact member forming one of the terminals of said circuit, a stationary contact member forming the other circuit terminal, a plurality of vertically disposed movable rods, fusible wires connected to said rods, means for moving one of said rods upon the fusing of its respective wire to cause said contact members to engage and close the electric circuit, an electric lamp and circuit therefor including a knife switch, a pivotally mounted bar, a spring connected to said bar and yieldingly holding the same against pivotal movement, a

pivoted dog engaging said bar, means acting to close the knife switch, a guide pulley, a flexible connection between said dog and the movable knife blades to hold said switch open, and means actuated by the movement of any one of said rods upon the fusing of its respective wire to move said pivoted bar and release said dog to permit of the closing of the knife switch whereby said lamp circuit is connected.

1,026,770. FRUIT-PICKER. FRED REMALY, Roscoe, Iowa. Filed July 26, 1911. Serial No. 640,552. (Cl. 56—90.)



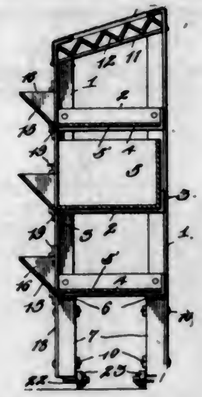
1. A fruit picker, comprising a cruciform frame having loops formed at the ends of certain of its arms and having one arm twisted for engagement in a handle, a bag supporting frame having a looped portion formed at one end and engaged in one of the loops of the cruciform frame and having its end twisted around the handle engaging portion of the cruciform frame, and a bracing frame disposed exterior to the cruciform frame and having portions directly secured to the handle engaging portion of the picker frame and to one of the other arms of the cruciform frame and having hooked portions formed therein and engaged around the bag frame and in the other loops of the picker frame for securely connecting and bracing the various parts of the device.

2. In a fruit picker, the combination with a bag supporting frame having an integral loop formed at one end, of a picker frame having a loop portion adapted to engage the loop of the bag supporting frame, the ends of the picker frame opposite its looped portion being twisted for engagement with a handle, the meeting ends of the bag supporting frame being secured to the twisted ends of the picker frame, and a brace frame disposed between the bag supporting frame and picker frame.

1,026,771. DISPLAY-RACK. ANDREW H. RIEDERER, Rozel, Kans. Filed Sept. 20, 1911. Serial No. 650,359. (Cl. 211—14.)

1. In a display rack, a frame comprising vertical supporting members and horizontal spacing members of angle iron of L cross section with their concave faces inwardly disposed to constitute of their webs shelf guiding and confining means, and retaining plates having their ends angularly offset and provided with flanges removably secured in front of the vertical members in an inclined plane intersecting the plane of the horizontal shelf guiding members.

2. In a display rack, a frame comprising vertical supporting members and horizontal spacing members of angle iron of L cross section with their concave faces inwardly disposed to constitute of their webs shelf guiding and confining members, retaining plates having their ends angularly offset and provided with flanges, and keepers pivotally mounted on the front vertical members and taking over the flanges to removably secure the retaining plates



in front of the end vertical members in an inclined plane intersecting the plane of the horizontal shelf guiding members.

1,026,772. SIGN OR CARD CLAMP. HARRY W. RIBB, Collingswood, N. J. Filed Apr. 15, 1911. Serial No. 621,434. (Cl. 24—221.)

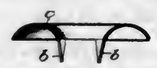


1. A locking device comprising in combination a circular shank having a winged head on the upper portion thereof and a hole disposed at right angles to the axis of the shank through the bottom portion thereof, a locking washer nut disposed and movable on said shank and having grooves of various depths on the bottom portion thereof, a plurality of spaced stop devices disposed on said shank between said head and said nut, resilient means between said stop devices adapted to press said stop devices against said head and said nut, and a pin adapted to be disposed in said hole and engage the grooves to lock the shank and washer-nut together.

2. A locking device comprising in combination a circular shank having a winged head on the upper portion thereof and a hole disposed at right angles to the axis of the shank through the bottom portion thereof, a washer nut disposed and movable on said shank having its upper portion of rectangular shape and its lower portion circular, said bottom portion having a plurality of grooves therein, said grooves being of various depth, a plurality of spaced stop devices disposed on said shank between said head and said nut, resilient means between said stop devices adapted to press said stop devices against said head and said nut, and a pin adapted to be disposed in said hole and arranged to lock said shank in position.

3. A locking device comprising in combination a shank having a winged head on the upper portion thereof and a hole disposed at right angles to the axis of the shank and through the bottom portion thereof, a locking washer-nut disposed and movable on said shank, and having grooves of various depths on the bottom portion thereof, resilient means disposed between said head and washer-nut, and a pin adapted to be disposed in said hole and engage the grooves to lock the shank and washer-nut together.

1,026,773. FURNITURE-CASTER. ADAM E. SCHATZ, Mount Vernon, N. Y. Filed Sept. 11, 1911. Serial No. 648,633. (Cl. 155—33.)



1. A metallic sliding caster having an annular raised surface between the inner and outer periphery and provided on the inner periphery with two or more depending legs, constructed of stiff metal, substantially as described.

2. As an article of manufacture, a sliding caster made of non-rusting aluminum and having an annular raised convexed ridge between the periphery and the inner opening, the edges of the inner opening having legs, depending therefrom, substantially as described.

1,026,774. SHOE-CLEANER. FREDERICK SCHIMPER, Union, N. J., assignor of one-half to Alfred H. Koeller, Ridgefield Park, N. J. Filed Jan. 11, 1912. Serial No. 670,534. (Cl. 15—2.)



1. A foot board having a slot, a slotted frame secured to said board and provided with depending bearings, a plurality of cylindrical brushes journaled in said bearings, and a pair of side brushes extending over the ends of the cylindrical brushes.

2. A foot board having a slot, a slotted frame secured to said board and having depending bearings, and a plurality of cylindrical brushes journaled in said bearings, adjoining brushes overlapping each other along their working faces.

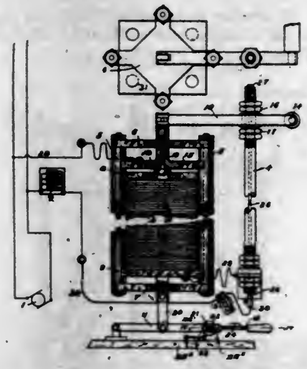
3. A foot board having a slot, a slotted frame secured to said board and having depending bearings, pockets in the frame at the sides of the bearings, a plurality of cylindrical brushes journaled in the bearings, and a pair of side brushes fitted in the pockets, and projecting over the ends of the cylindrical brushes.

1,026,775. CURRENT-REGULATOR. WILLIAM H. SHERBONDY, Fort Wayne, Ind. Filed June 8, 1910. Serial No. 565,853. (Cl. 171—229.)

1. In a current regulating device, a circuit, a carbon pile in the circuit, a hollow expansible operating member having such connection with the pile that the members thereof are normally pressed together when the operating member is cool and the pressure between the members of the pile is decreased as the member is heated and expands, and a heating wire connected to the circuit to be regulated and extending through the said hollow member.

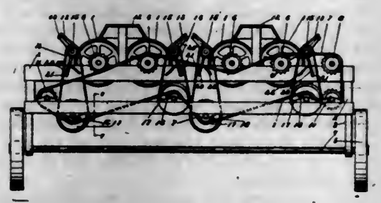
2. In a current regulating device, a circuit, a carbon pile in the circuit, an expansible operating tube of a material having a relatively high coefficient of expansion which when cold holds the members of the pile together and arranged so that the pressure between the members of the pile is decreased as the tube is heated and expands, and a heating wire extending through the tube and adapted to heat such tube and connected to the circuit to be regulated.

3. In a current regulating device, a circuit, a carbon pile in the circuit, an expansible operating tube of a material having a relatively high coefficient of expansion, a lever connection between the tube and pile arranged to decrease the pressure between the members of the pile as the tube is heated and expands, and a heating wire extending through th tube and adapted to heat such tube and connected to the circuit to be regulated.



4. In a current regulating device, a circuit, a carbon pile in the circuit, an expansible operating tube adjacent the pile, a multiplying connection from the tube to the pile arranged to reduce the pressure between the members of the pile as the tube expands, and a heating wire connected to the circuit and extending through the tube and arranged so as to heat such tube.

1,026,776. ONION OR VEGETABLE TOPPING MACHINE. JOHN H. SHIRLEY, Kalamazoo, Mich., assignor to The A. M. Todd Co., Limited, Kalamazoo, Mich., a Copartnership. Filed Sept. 20, 1910. Serial No. 582,853. (Cl. 146—11.)



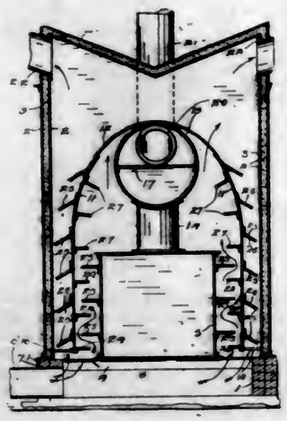
1. In an onion topping machine, the combination of a suitable frame; a feed roll; a rotatable cutter bar coacting with said feed roll, the same being connected to rotate toward each other; a pivoted support for said cutter bar pivoted beneath the same; a guard plate for the said cutter bar; means for driving the feed roll; and an independent sprocket gear disposed beneath the cutter bar with suitable sprocket chain for driving the said cutter bar toward the feed roll and acting downwardly between the pivoted support and the axis of said feed roll, coöperating for the purpose specified.

2. In an onion topping machine, the combination of a suitable frame; a feed roll; a rotatable cutter bar coacting with said feed roll, the same rotating toward each other; a pivoted support for said cutter bar pivoted beneath the same; means for driving the feed roll; and an independent sprocket and chain disposed beneath the cutter bar with suitable sprocket chain for driving the said cutter bar toward the feed roll and acting downwardly between the pivoted support and the axis of said feed roll, coöperating for the purpose specified.

3. In an onion topping machine, the combination of a suitable frame; a feed roll; a rotatable cutter bar coacting with said feed roll, the same rotating toward each other;

a pivoted support for said cutter bar pivoted beneath the same; means for driving the feed roll; and flexible driving means disposed beneath said cutter bar for rotating said cutter bar toward the feed roll and permitting a yielding of the same, coacting as specified.

1,026,777. HOT-AIR FURNACE. WILLIAM H. SWETT, Berkeley, Cal., assignor of one-half to William Asbury Wann, Berkeley, Cal. Filed Mar. 23, 1911. Serial No. 616,422. (Cl. 126—104.)



1. In a hot air furnace of the kind described, a foundation provided with an air chamber, means for the admission of air to said chamber, a fire box mounted above said chamber, a casing mounted on said foundation and having its sides, ends and top formed of metallic walls with a lining of heat non-conducting material, vertical plates located between the fire box and the side walls of the casing and spaced apart from the fire box and said side walls, horizontal baffle plates mounted on the sides of the fire box, horizontal baffle plates mounted on the inside of said vertical plates and in staggered relation to the plates on the fire box and baffle plates mounted on the outside of said plates, a drum mounted above said fire box and having a longitudinal baffle plate extending from the rear end of the drum and to a point adjacent to its front end, a pipe connecting the rear end of the drum with the rear end of the fire box, and a discharge pipe connected to the rear end of the drum above said baffle plate.

2. In a hot air furnace of the kind described, a foundation provided with an air chamber, means for supplying outside air to said air chamber, a metallic casing mounted on said foundation, a fire box mounted above said air chamber and having longitudinal horizontal baffle plates on its sides, vertical metallic plates extending lengthwise of the fire box and above the same, and curved at their upper edges and having horizontal baffle plates on the inner side in zigzag relation to the baffle plated on the fire box and inclined baffle plates on their outer sides between said plates and the side walls of the casing, said plates forming with the side walls of the casing and the fire box air passages from the air chamber beneath the fire box, a drum mounted above the fire box and having a longitudinal baffle plate extending to the inner end of the drum and provided with an opening at its outer end, a pipe connecting the inner end of the drum at its bottom with the inner end of the fire box, and a discharge pipe connected to the inner end of the drum.

3. In a hot air furnace of the kind described, a foundation provided with an air chamber, an air inlet pipe connected with said air chamber, a metallic casing mounted on said foundation, transverse bars mounted on said foundation and extending across said air chamber, a fire box mounted on said transverse bars and having longitudinal horizontal baffle plates on its sides, a vertical metallic wall on each side of the fire box and spaced therefrom and from the side walls of the casing and having on its inner side horizontal baffle plates located in zigzag relation to the plates on the fire box and on its outer side inclined baffle plates with apertures, a drum located above the fire box and having a longitudinal baffle plate extending to the rear end of the drum and having an opening at its forward end, a pipe connecting the rear end of the drum at its bottom with the rear end of the fire box, a discharge pipe connected to the rear end of the drum above the baffle plate and air discharge pipes located at the top of the side walls of the casing.

4. In a hot air furnace of the kind described, a foundation provided with an air chamber, having an open top, means for the admission of outside air to said air chamber, transverse bars mounted on the side walls of said foundation, a fire box mounted on said transverse bars and having longitudinal horizontal baffle plates on its sides, a metallic casing mounted on said foundation and consisting of sheet metal plates with a lining between them of heat non-conducting material, the top of said casing being of a V-shape, a vertical metallic wall on each side of the fire box and mounted above the air chamber in the foundation, and having horizontal baffle plates on its inner side in a zigzag relation to the baffle plates on the fire box, the upper end of said metallic walls being curved and provided with baffle plates on the inner sides, inclined baffle plates on the outer side of said metallic walls each having perforations and located between the said metallic walls and the walls of the casing, a drum mounted above the fire box, a longitudinal baffle plate extending to the rear end of the drum and terminating at a short distance from the front end of the drum, a pipe connecting the rear end of the bottom of the drum with the rear end of the fire box, a discharge pipe connected to the rear end of the drum above the baffle plate, and a number of discharge pipes located in the upper end of each of the side walls of the casing.

1,026,778. COMBINED CONTAINER AND CUTTER. JUSTIN KAY TOLES, Berkeley, Cal. Filed Dec. 8, 1910, Serial No. 596,232. Renewed Mar. 4, 1912. Serial No. 681,657. (Cl. 206—52.)

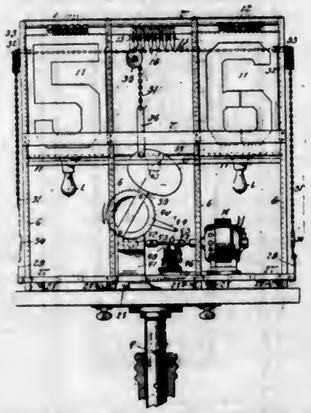


1. In a device of the class specified, the combination of a container provided with a slot therein and guides adjacent to said slot, a spindle in the container, a sleeve loosely mounted on the spindle and adapted to carry a coil of adhesive plaster thereon, and a cutter arranged movably in said guides.

2. In a device of the class specified, the combination of a container having guides formed thereon, said container provided with a slot therein and having a lip and a depression adjacent to said slot, means permitting rotation of a coil of adhesive plaster disposed within said container, and a cutter arranged movably in said guides on said container adjacent to said slot, substantially as described.

1,026,779. ANNUNCIATOR OR INDICATOR. WILLARD S. WOODRUFF, New York, N. Y. Filed Nov. 3, 1910. Serial No. 590,532. (Cl. 177—326.)

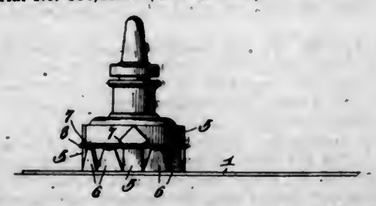
1. An annunciator or indicator comprising a suitable casing; a plurality of character disks mounted to have vertical movement in said casing; devices for holding the disks individually in raised position; electrically controlled means for actuating the holding devices individually to selectively release said disks; and means for raising the released disks comprising a vertically movable member, a weighted lever fulcrumed in the casing, connections between said weighted lever and the movable member, and electrical means for restoring said weighted lever to normal position, substantially as described.



2. An annunciator or indicator comprising a suitable casing; a plurality of character disks mounted to have vertical movement in said casing; devices for holding the disks individually in raised position; electrically controlled means for actuating the holding devices individually to selectively release said disks; and means for raising the released disks comprising a vertically movable bar, a weighted lever fulcrumed in the casing, a flexible connection between said weighted lever and the vertically movable bar, an electric motor connected to actuate said lever, and a device associated with said lever for automatically cutting off the motor current, substantially as described.

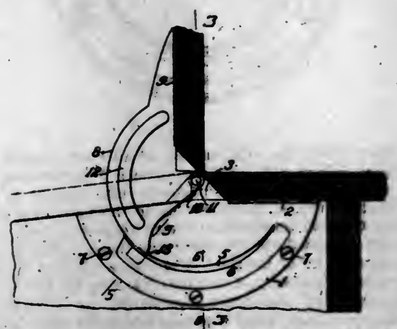
3. An annunciator or indicator comprising a suitable casing; a plurality of groups of character disks, said groups disposed in opposite pairs in said casing, the disks of each group arranged in close vertical relation; vertically disposed guide-ways in said casing provided with grooves within which said disks have vertical movement; a plurality of laterally movable bars for each group of said disks, each of said bars adapted to engage with one of said disks and hold said disk in raised position; adjustable devices for guiding the raised disks located adjacent said disk holding bars; electromagnets for actuating said bars to release said disks selectively; a vertically movable bar disposed beneath the groups of disks on either side of said casing; a weighted lever fulcrumed in the casing; flexible connections between said bars and said lever whereby to move said bars to raise the released disks; an electric motor mounted in the casing; and a gearing between said weighted lever and the motor whereby to restore said weighted lever to normal position, substantially as described.

1,026,780. INK-BOTTLE STAND AND HOLDER. LEONARD ASHEIM, Bridgeport, Conn. Filed Dec. 5, 1911. Serial No. 664,104. (Cl. 120—73.)



As a new article of manufacture, the herein described bottle holder, consisting of a single piece of material having a cut and stamped portion of an area and size to conform to that of the bottle to be held, the said cut and stamped portion being designed to form a plurality of upstanding tongues and intermediate upstanding lips, the tongues being formed with downwardly facing shoulders and the lips terminating at their upper ends in upwardly facing shoulders in a plane slightly below the downwardly facing shoulders of the tongues, whereby an elastic band encircling the bottle inserted within the circle of the tongues and lips and engaged with the downwardly facing shoulders and upwardly facing shoulders, will be held as against upward and downward displacement.

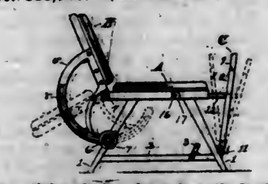
1,026,781. FRICTION-HINGE. JOHN BAHNSEN, Chicago, Ill., assignor to American Seating Company, a Corporation of New Jersey. Filed May 5, 1909. Serial No. 494,474. (Cl. 16—78.)



1. In a friction hinge, a rotative member and a stationary member; a pivot joining said members; a semi-circular slot in one of said members having its outer wall bent outwardly from the plane of said member to form a friction surface; a projection on the other of said members formed and arranged to extend through said slot and bear against said friction surface under tension.

2. In a friction hinge, a rotative member and a stationary member; a pivot joining said members; a semi-circular slot in one of said members having its outer wall bent to form a friction surface, said wall being bent outwardly the greatest distance midway said slot, the bend gradually lessening to the ends of said slot; a projection on the other of said members arranged to extend through said slot and bear against said friction surface under tension, the tension being greatest at the ends of said slot.

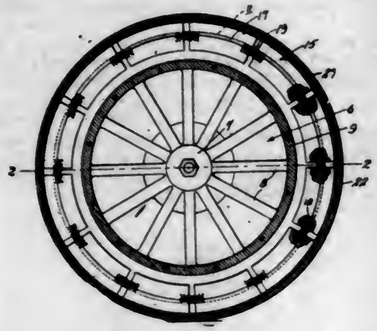
1,026,782. OSTEOPATHIC-TREATMENT CHAIR. TELL J. BERGGREN, Battle Creek, Mich. Filed Jan. 3, 1910. Serial No. 535,946. (Cl. 155—23.)



1. In an article of the class described, the combination with a chair, of a leg-securing holder arranged forward of and above the plane of the chair seat, said holder comprising a transverse foot securing head piece having a standard pivoted to the lower forward portion of said chair, as and for the purpose set forth.

2. In an article of the class described, the combination with a chair, of a leg-securing holder arranged forward of and above the plane of the chair seat, said holder comprising a transverse foot securing head piece having a standard pivoted at or near the lower forward portion of said chair and means to adjustably secure said standard in various angular relations with respect to said chair, as and for the purpose set forth.

1,026,783. WHEEL. WALTER BLACK, Mendota, Ill. Filed Nov. 5, 1910. Serial No. 590,841. (Cl. 152—28.)



1. In a wheel, the combination of an inner section, including a hub, a rim, and connections therebetween, all fixed against diametrical movement with respect to the axle of the wheel, an outer section in the form of a tread member movable diametrically with respect to said axle, a section intermediate the outer and inner sections, composed of a series of unattached members adapted to move toward one another and toward the axle of the wheel, shock-absorbing mechanism, consisting of a series of springs, one spring being interposed between each of said members, said springs extending circumferentially of the axle of the wheel and exerting a force tending to space the members apart and hold them outwardly from the axle of the wheel, substantially as described.

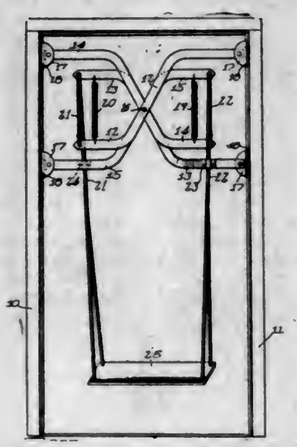
2. In a wheel, the combination of an inner section, including a hub, an inwardly flanged channeled rim, and connections therebetween, all of which are fixed against diametrical movement with respect to the axle of the wheel, an outer section in the form of a tread movable diametrically with respect to the axle of the wheel, a series of blocks adapted to rest in said channeled rim and provided with shoulders adapted to engage the flanges of said rim, and shock-absorbing mechanism, consisting of a series of springs, said springs extending circumferentially of the axle of the wheel, one spring being interposed between each of said blocks, the inner faces of the tread member and flanges providing a series of faces against which the blocks rest and upon which they slide, substantially as described.

1,026,784. SWING. JOSEPH S. BOHATKA, Chicago, Ill. Filed Mar. 1, 1912. Serial No. 680,796. (Cl. 155—35.)

1. In a swing support, the combination of four levers pivotally mounted relative to each other, two of which levers extend in one direction and two of which extend in the opposite direction to engage oppositely-disposed uprights, and a rope at each side connecting the short arms of said levers whereby a downward pull upon said ropes tends to draw the levers together at each side.

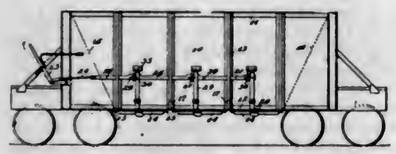
2. In a swing support, the combination of four levers pivotally mounted on a horizontal axis, the longer arm of each of which levers bears upon one of two oppositely-disposed uprights, and a rope at each side connected to the lower short arm at that side and passing through a suitable opening in the upper short arm at that side, whereby a downward pull upon said ropes tends to draw the levers at each side together.

3. In a swinging support, the combination of four levers pivotally mounted relative to each other, shoes pivotally mounted on the arms of two of said levers extending in one direction, shoes pivotally mounted on the arms of the other two of said levers extending in the opposite direction whereby said shoes are adapted to bear upon oppositely-disposed uprights, springs connecting said levers tending to draw together the shoes at each side, and a rope at each side connecting the short arms of said levers where-



by a downward pull upon said ropes tends to draw the levers together at each side.

1,026,785. DUMP-CAR. JOSEPH R. BOWLING, St. Louis, Mo., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo., a Corporation of West Virginia. Filed Nov. 14, 1907. Serial No. 402,181. (Cl. 105—14.)



1. In a dump car, the combination of a plurality of dumping doors on the same side of the car, and means operated by the same mechanism for releasing any of them without affecting the other, as desired.

2. In a dump car, the combination of a plurality of dumping doors, locking means, and means for releasing either door while the remaining door or doors are locked, said last mentioned means being actuated by the same mechanism for any door.

3. In a dump car, the combination of a plurality of dumping doors, locking means, common operating means therefor, and means for releasing either door while the remaining door or doors are locked, said last mentioned means being actuated by the same mechanism for any door.

4. In a dump car, the combination of a plurality of dumping doors, supporting means carried by the side of the car, and means actuated by the same mechanism for all doors for causing the supporting means to release any of the doors as desired.

5. The combination, with the car sides, of dumping doors forming a portion of the load carrying floor, floor beams carried by the doors extending beyond the car sides, means on the car sides for engaging and supporting said beams, said means being independent for the different doors, mechanism for independently locking said means, and common operating mechanism for said means when unlocked.

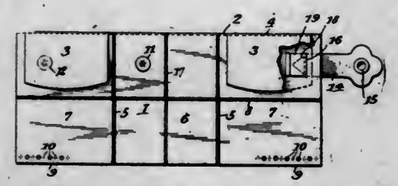
[Claims 6 to 37 not printed in the Gazette.]

1,026,786. CORN-PLASTER. JOHN M. BRANDENBURG, Elgin, Ill. Filed Dec. 7, 1911. Serial No. 664,357. (Cl. 167—8.)



A corn plaster comprising a binding strip of uniform width and having adhesive material on one side thereof throughout its length, a shield fixed to the adhesive side of said strip midway of the ends thereof, said shield provided with an opening, and a medicated plaster consisting of flexible material having medicament on one side thereof on said shield and overlapping the edge of said aperture, in combination with a removable protecting sheet covering the adhesive side of the binding strip and the medicated side of the plaster.

1,026,787. BILL-FOLD. HENRY JAMES COLLIS, Taunton, Mass. Filed Mar. 25, 1911. Serial No. 616,903. (Cl. 150—38.)

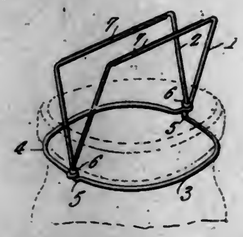


1. A bill fold, comprising a pliable body strip having a plurality of transverse fold lines and a longitudinal fold line crossing said transverse fold lines, a plurality of fastening devices at the outer face of said body strip, said fastening devices being respectively located at points intermediate of said transverse fold lines and at one side of said longitudinal fold line, and fastening means carried by said body strip at one end and at one side of said longitudinal fold line and in line with said plurality of fastening devices and engageable with one of said fastening devices when the body strip is folded, whereby the bill fold can be employed in differently folded conditions.

2. A bill fold, comprising a pliable body strip having a plurality of transverse fold lines and a longitudinal fold line crossing said transverse fold lines, one or more flaps projecting at the inner face of said body strip and extending over areas intermediate of said transverse and longitudinal fold lines, a plurality of fastening devices at the outer face of said body strip, said fastening devices being respectively located at points intermediate of said transverse fold lines and at one side of said longitudinal fold line, and fastening means carried by said body strip at one end and at one side of said longitudinal fold line and in line with said plurality of fastening devices and engageable with one of said fastening devices when the body strip is folded, whereby the bill fold can be employed in differently folded conditions.

3. A bill fold, comprising a pliable body strip having a longitudinal fold line intermediate of its top and bottom edges and a plurality of transverse fold lines extending between its top and bottom edges and crossing said longitudinal fold line, a plurality of fastening devices located at the outer face of said body strip and at one side of said longitudinal fold line, one of said fastening devices being at a point between one of the end edges of the body strip and the first transverse fold line and another of said fastening devices being at a point between said first transverse fold line and the next transverse fold line, and fastening means carried by said body strip at the end opposite from said fastening devices and beyond the transverse fold line adjacent that end, said fastening means being in line with said plurality of fastening devices and engageable respectively therewith when the body strip is folded in different positions.

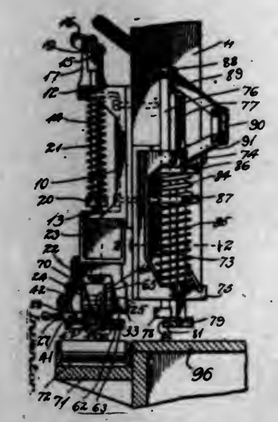
1,026,788. BOTTLE-CARRIER. JOHN W. COPE, Cumberland, Md. Filed July 1, 1911. Serial No. 636,354. (Cl. 215—1.)



1. A bottle carrier comprising two members each constituting a bail handle and a bottle neck engaging clip, the ends of the bail handles having a sliding connection with each other whereby the clips may be separated for positioning the carrier on a bottle, and whereby upon the said members being in normal position they are adapted to be swung with respect to each other.

2. A bottle carrier comprising two members each bent from a length of wire to form a bail handle and a bottle neck engaging clip, one member at the junction of the side members of the handle and the clip having bends, and the other member at the junction of the side members of the handle and clip having eyes through which the other member passes, whereby the members are hingedly connected and the bail handles may be slid with respect to each other to separate the clips for positioning the carrier upon a bottle.

1,026,789. MACHINE FOR SECURING WIRE TO FRAMES. GEORGE W. DARLINTON, Los Angeles, Cal. Filed June 12, 1911. Serial No. 632,575. (Cl. 140—109.)



1. A machine for applying wire screening to frames, comprising rolls for holding the screening and frame in proper relation to each other, and means for forcing securing strips into contact with said frames so as to secure the edge of the screening thereto.

2. Means for applying wire screening to frames, comprising rolls for holding the screening with respect to the said frames, and a roller adapted to force a binding strip or reed into a groove upon the frame for wedging the wire screening in place.

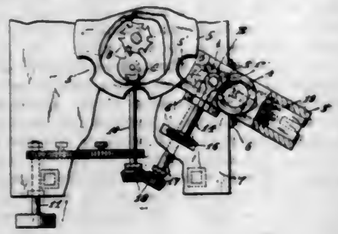
3. Means for applying wire screens, comprising a roll for bearing on a framing, a roll for pressing screening against the frame, and a roll for forcing the edges of the screening into the groove of the framing, and wedging a securing means in said groove.

4. Means for applying wire screens to grooved frames, comprising a pressure roll for holding the screening with respect to the groove of the rail, a grooved roll for forcing a strip or ratan into said groove along the edge of the screening, and means for forcing the said rolls into their work under a suitable pressure.

5. A mechanism for securing wire screening to grooved frames, comprising pressure heads adapted to hold the wire screening with respect to the grooves of a frame, along the straight sides, and at the corners of said frame, and means for forcing a securing ratan into said grooves along the straight part and at the corners of the frame for wedging the edges of the screening in place.

[Claims 6 to 19 not printed in the Gazette.]

1,026,790. RECEPTACLE-CLOSURE-MARKING MACHINE. HARRY J. DOUGLASS, Bellingham, Wash. Filed May 11, 1911. Serial No. 626,584. (Cl. 113—1.)



1. In a device of the character described, a closure marking means comprising a pair of members one of which is movable toward and from the other, means for advancing a closure between said marking members and past the same, and means for operating said movable marking member toward the other when a closure is received therebetween.

2. In a device of the character described, a closure marking means comprising a pair of members one of which is movable toward and from the other, reciprocatory means for advancing a closure to said marking members on one stroke and removing the closure from said members on a corresponding succeeding stroke, and means for operating said movable marking member to mark the advanced closure.

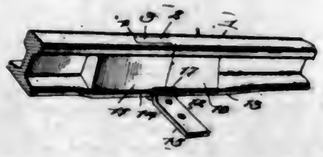
3. In a device of the character described, a closure marking means comprising a pair of members one of which is movable toward and from the other, reciprocatory means for advancing a closure to said marking members and past the same by intermittent movements, and means for operating said movable marking member to mark the closure in its intermission of movement by said reciprocatory means.

4. In a device of the character described, a closure marking means, a closure hopper arranged in advance thereof, means for feeding the closures from said hopper to said marking means, and closure separating means supported for movement between the closure to be advanced by said feeding means and the remaining closures in said hopper.

5. In a device of the character described, reciprocatory means for advancing a closure by successive steps, said reciprocatory means being provided with cover forwarding parts arranged one in advance of the other for alternative engagement with the cover, and means for marking a cover advanced through engagement with one of said forwarding parts and positioning the same in the path of the other forwarding part of said reciprocatory means.

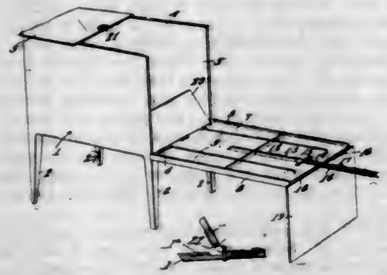
[Claims 6 to 11 not printed in the Gazette.]

1,026,791. BOLTLESS RAIL-JOINT. JACOB H. EZARD, Hocking, Iowa. Filed Sept. 30, 1911. Serial No. 652,029. (Cl. 239—13.)



The combination with a rail provided with a socket having vertical walls and a V-shaped bottom, a portion of said socket being sunk deeper into said rail, another socket having vertical walls and a portion of the bottom of the last mentioned socket provided with a V-shaped bottom and the remaining portion relatively flat and at right angles to said walls, the portion of said sockets having a flat bottom being disposed deeper in said rail than that having the V-shaped bottom, of a second rail having a tongue adapted to fit closely into the first mentioned socket, and a socket similar to the second mentioned socket of the first mentioned rail, a locking member arranged to fit into the last mentioned sockets of said rails for locking said rails together, and a plate having portions arranged to engage with the lower web of the rails in question, for locking said member in position, and for affording means for attaching said rails to a sleeper.

1,026,792. FILING-CABINET. LOUIS FREDRICK FEE, Kokomo, Ind. Filed Dec. 7, 1911. Serial No. 664,418. (Cl. 45—2.)



1. A filing cabinet, having a vertically disposed receptacle, with a portion of the top and an entire front open, a main closure for the front hingedly connected to the bottom of the cabinet, a closure for the top hingedly connected to the upper end of said main closure and disposed to close the upper portion of the cabinet or form a support for the outer free end of the main closure when in horizontal position, file carrying means connected to and carried by said main closure, and means connected to and operated by the main closure for supporting the files carried by the main closure in an inclined position when the top closure is disposed to support the outer free end of the main closure.

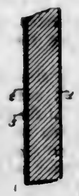
2. A filing cabinet, having a vertically disposed receptacle with a portion of the top and an entire front open, a main closure for the front hingedly connected to the bottom of the cabinet, a closure for the top hingedly connected to the upper end of said main closure and disposed to close the upper portion of the cabinet or form a support for the outer free end of the main closure when in horizontal position, file carrying means connected to and carried by said main closure, and means connected to and operated by the main closure for supporting the files carried by the main closure in an inclined position when the top closure is disposed to support the outer free end of the main closure, and a plate operably connected to the lower end of the main closure upon its inner face and disposed to move to and from the bottom of the cabinet to provide a support for the upper ends of the files when in exhibiting position.

3. A filing cabinet, having a vertically disposed receptacle with a portion of the top and an entire front open, a main closure for the front hingedly connected to the bottom of the cabinet, a closure for the top hingedly connected to the upper end of said main closure and disposed to close the upper portion of the cabinet or form a support for the outer free end of the main closure when in horizontal position, file carrying means connected to and carried by said main closure, and a plate hingedly connected to the lower inner end of the main closure to be moved in an arc of a circle from the bottom of the cabinet to an inclined position therewithin, said plate forming a support for the files carried by the main closure.

4. A filing cabinet, having a receptacle with an open front, a main closure for said open front hingedly connected to the bottom of the cabinet and disposed for movement at right angles thereto, file carrying devices connected to the inner face of said closure, and means operably connected to said main closure for engaging the files when connected to such device for retaining the files in inclined position when the closure is at right angles to the receptacle.

5. A filing cabinet, having a receptacle with an open front, a main closure for said open front hingedly connected to the bottom of the cabinet and disposed for movement at right angles thereto, file carrying devices connected to the inner face of said closure, means for supporting the outer free end of said closure when at right angles to the receptacle, and means for engaging the lowest file carrier by the closure and forming a support for the files when the closure is at right angles to the receptacle.

1,026,793. METHOD OF ATTACHING WALL-PAPER. CAROLINE R. FRANTZ, Wilmington, Del., assignor to Abram E. Frantz, Wilmington, Del. Filed Sept. 18, 1911. Serial No. 649,079. (Cl. 216—62.)



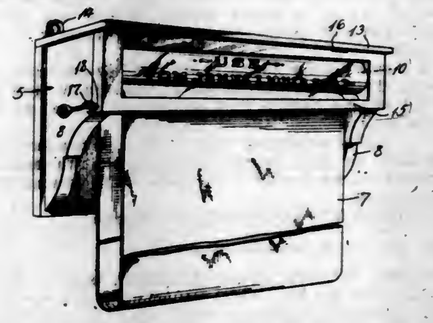
1. The method of securing in place wall-paper having a water-proofed backing consisting in placing a coating or layer of mineral cement mixed with only sufficient water to make it plastic between said backing and the surface to which it is to be secured and pressing said paper uniformly in place, while said cement is in plastic condition.

2. The method of securing in place on a surface, wall-paper in a dry condition, which consists in providing said paper with a water-proofed backing, placing a layer of mineral cement mixed with only sufficient water to bring it into plastic condition between said backing and surface and pressing said paper uniformly in place against said cement.

3. The method of securing in place on a surface, wall-paper in a dry condition, which consists in providing said paper with a water-proofed backing, placing a layer of mineral cement composed of water-proofing material and finely powdered material having the characteristics of gypsum and only sufficient water to bring it into plastic condition between said backing and surface and pressing said paper uniformly in place.

4. The method of securing in place on a surface, wall-paper having an enameled outer surface and a water-proofed backing having thereon a roughened surface of finely powdered mineral matter which consists in placing a layer of mineral cement mixed with only sufficient water to make it plastic between the back of said paper and the surface to which it is to be secured and pressing said paper uniformly in place.

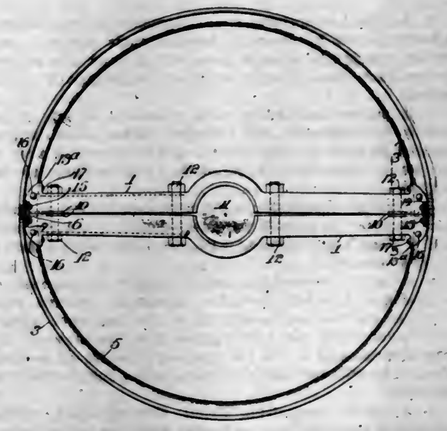
1,026,794. ROLLER TOWEL-RACK. CURTIS GILBERT, Anaheim, Cal. Filed Apr. 10, 1911. Serial No. 619,997. (Cl. 40—68.)



1. A mechanism of the class described, comprising a movable supporting roller, a rotatable advertising medium, mounted adjacent to said supporting roller, and an endless frictional member mounted upon the supporting roller and receiving the weight of the advertising medium whereby the advertising medium will be rotated when the friction medium is moved.

2. A device of the class described, comprising a casing having a door formed with an opening therein, a supporting roller journaled within the casing, a superposed roller journaled in the casing above the supporting roller and adapted to receive advertising data upon its surface, an endless fabric band mounted between the rollers for turning them when it is moved, and removable blocks engaging the journals of the said rollers for permitting their withdrawal from the casing, the said door being arranged to fasten said blocks in position.

1,026,795. PULLEY. HENRY J. GILBERT, Saginaw, Mich. Filed Mar. 8, 1904. Serial No. 197,074. (Cl. 64—18.)



1. A pulley comprising rim segments each composed of two parts 2 and 3, the part 3 having its edges inturned and bent around the edges of the part 2, and spoke arms interlocked with both parts of the rim; substantially as described.

2. A pulley comprising rim segments each composed of two parts 2 and 3, the part 3 having its edges inturned and bent around the edges of the part 2 and the part 2 having an inwardly directed portion or corrugation 5, and spoke arms interlocked with both parts of the rim and formed at their ends to embrace said corrugation; substantially as described.

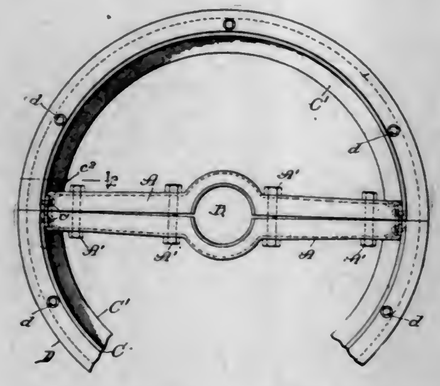
3. A pulley comprising a two-part rim, the inner one of which parts has a hollow circumferential corrugation, and spoke arms whose ends are fitted to such corrugation and secured thereto by rivets passing through said corrugation and ends of the spoke arms; substantially as described.

4. A pulley comprising spoke arms, and two-part rim segments, the meeting ends of one of which parts have infolded tongues bent to form sockets and secured to the spoke arms; substantially as described.

5. A pulley comprising spoke arms, and two-part rim segments, the outer one of which parts has two separate infolded tongues secured to the spoke arms; substantially as described.

[Claims 6 to 24 not printed in the Gazette.]

1,026,796. PULLEY. HENRY J. GILBERT, Saginaw, Mich. Filed Mar. 8, 1904. Serial No. 197,075. (Cl. 64—18.)



1. A pulley comprising metal segments having internal sockets formed by reversely bending their meeting ends, spokes engaged by such sockets, and a wood rim secured to the outer face of such segments; substantially as described.

2. A pulley comprising metal segments having an inwardly directed web, and inturned meeting ends, spokes secured to such web and ends, and a wood rim secured to the outer face of such segments; substantially as described.

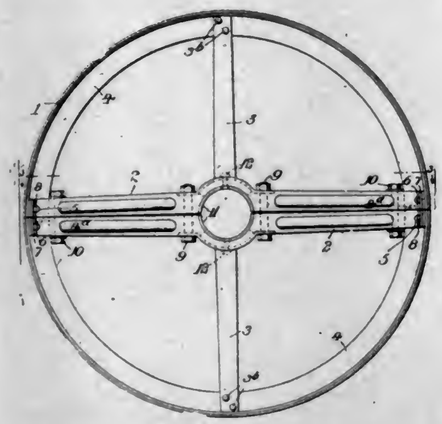
3. A pulley comprising metal segments having an inner and an outer web, spokes connected with the inner web, and a wood rim connected with the outer web; substantially as described.

4. A pulley comprising metal segments composed of flanges and inwardly and also outwardly directed webs arranged substantially centrally of the segments, spokes interlocked with both the flanges and the inwardly directed webs, and a rim composed of a series of sections secured to said outwardly directed webs; substantially as described.

5. A pulley comprising metal rim segments having outwardly and inwardly projecting webs, spokes connected with both the segments proper and their inwardly projecting webs, and a rim secured both to the outwardly projecting webs and to the segments; substantially as described.

[Claims 6 to 19 not printed in the Gazette.]

1,026,797. PULLEY. HENRY J. GILBERT, Saginaw, Mich. Filed Apr. 7, 1904. Serial No. 202,050. (Cl. 64—18.)



1. A pulley comprising a rim, and spokes connected therewith, each spoke consisting of a hub portion substantially U-shape in cross section and pairs of radiating side bars or spoke arms connected with the rim, said arms being connected at their hub portion but separated along their length; substantially as described.

2. A pulley comprising a rim, and spokes connected therewith, each spoke consisting of a hub portion substantially U-shape in cross section and pairs of radiating side bars or spoke arms connected with the rim, said spokes being arranged parallel to each other and said arms being connected at their hub portion but separated along their length; substantially as described.

3. A pulley comprising a rim having an interior web, and spokes connected therewith, each spoke consisting of a hub portion substantially U-shape in cross section and pairs of radiating side bars or spoke arms secured to the web, said arms being connected at their middle or hub portion but separated along their length; substantially as described.

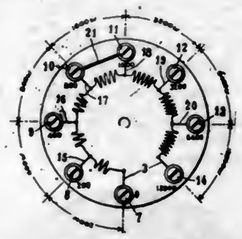
4. A pulley comprising a rim having an interior web, spokes connected therewith, each spoke consisting of a hub portion substantially U-shape in cross-section, and pairs of spoke arms extending from substantially the corners of said hub portion and secured to opposite sides of said interior web on the rim; substantially as described.

5. A pulley comprising a rim having an interior web, spoke arms connected therewith, each spoke arm consisting of a hub portion substantially U-shape in cross section, and pairs of spoke arms extending from substantially the corners of said hub portion and secured to opposite sides of said interior web on the rim, clamping bolts passing through said spokes adjacent their hub portion, and a second set of clamping bolts passing between said spoke arms near their outer ends and bearing against their outer edges; substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

1,026,798. VARIABLE-RESISTANCE MEANS. EDWIN R. GILL, Yonkers, N. Y. Filed Aug. 2, 1911. Serial No. 641,890. (Cl. 219—48.)

1. In a device of the class described, the combination of a suitable support, a coil of resistance wire mounted thereon, a plurality of terminal members mounted upon said support, means for connecting the ends of said resistance wire to certain of said terminal members, means for connecting the other terminal members with said resistance wire at various predetermined points intermediate the ends thereof, whereby a predetermined length of resistance wire is interposed between adjacent terminal members, and means for directly electrically connecting any pair of terminals whereby the resistance wire between such pair of connected terminal members will be short circuited.



2. In a device of the class described, in combination with a support, a coil of resistance wire mounted thereon, a plurality of terminal members positioned upon said support, means for connecting certain of said terminal members with the respective ends of said resistance wire, means for connecting others of said terminal members with said resistance wire at various predetermined points along the length thereof intermediate the ends, whereby a predetermined length of resistance wire is interposed between each pair of adjacent terminal members, and means carried by each terminal member whereby any two thereof may be connected in the line.

3. In a device of the class described, in combination with a support, a coil of resistance wire mounted thereon, a plurality of terminal strips positioned upon said support, means for connecting certain of said terminal strips with the respective ends of said resistance wire, means for connecting the other of said terminal strips with said resistance wire at various predetermined points along the length thereof intermediate the ends, whereby a predetermined length of resistance wire is interposed between each pair of adjacent terminal strips, means carried by each terminal strip whereby any two thereof may be connected in the line, and means whereby any pair or pairs of adjacent terminal strips may be directly connected, thereby short circuiting the resistance wire between the connected terminals.

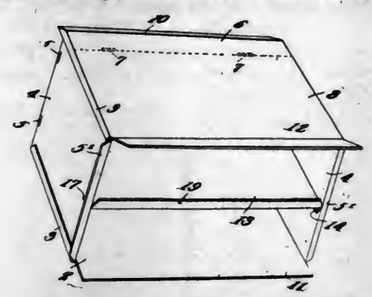
4. In a device of the kind described, in combination, a spool, a coil of resistance wire thereon, a plurality of terminal strips secured upon the flange of the spool, means for connecting one end of said resistance wire to one terminal strip, means for connecting the opposite end of said resistance wire to an adjacent terminal strip, independent means for connecting each of the other terminal strips to the resistance wire of said coil at a predetermined point along the length thereof, and means whereby any pair of terminals may be directly connected, whereby the resistance wire interposed between the connected pair of terminal strips will be short circuited.

5. In a device of the class described, the combination of a suitable support, a coil of resistance wire thereon, a plurality of terminal members mounted upon said support, a plurality of tap wires, each of which connects one of said terminals with said resistance wire, the length of resistance wire intervening between the points of connection of adjacent tap wires being different than that intervening between other adjacent tap wires at other points of connection with the resistance wire.

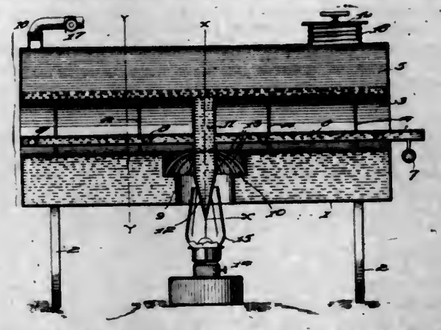
[Claims 6 to 11 not printed in the Gazette.]

1,026,799. REFRIGERATOR. BART E. GRADY, Philadelphia, Pa. Filed May 22, 1911. Serial No. 628,643 (Cl. 45—104.)

A knock-down refrigerator including a back wall, a ledge integral with the upper edge of the wall and extending perpendicularly therefrom, a bottom hingedly connected to the back wall and foldable thereon and under the ledge, side walls hingedly connected to the back wall, a top hingedly connected to the free longitudinal edge of the ledge and extending over and normally bearing on the ledge, means upon the top and bottom for limiting the swinging movement of the side walls away from the back wall, said side walls being foldable against the back wall and under the ledge, means upon the side walls for engaging a supporting structure when said walls are at the said limits of their movement, and means for holding the side walls against movement inwardly against the back wall.



1,026,800. BOILER. FELIX GUAY, Michigamme, Mich. Filed May 24, 1911. Serial No. 629,117. (Cl. 122—8.)



1. A horizontal boiler formed with a longitudinal tube extending from end to end thereof and open at each end and forming an annular chamber in the boiler, a vertical tubular air passage way extending across the lower portion of said annular chamber and opening at its upper end into said tube and at its lower end into the open air, a tube extending across said horizontal tube and through said vertical passage way and open at its upper end and closed at its lower end, and branch water circulating pipes located in the longitudinal tube and in the vertical passage way and communicating with said vertical tube and with the annular chamber in the boiler.

2. A horizontal boiler formed with a longitudinal tube extending from end to end thereof and open at each end and forming an annular chamber in the boiler, a vertical air passage way extending from the bottom of said longitudinal tube and opening into the open air, a tube closed at its lower end depending from the upper side of said longitudinal tube and opening into the boiler and projecting across said longitudinal tube and through said vertical passage way, and branch water circulating pipes connecting said vertical tube with the boiler.

3. A horizontal boiler having a longitudinal tube extending from end to end of the boiler and open at each end and forming an annular chamber in the boiler, a vertical tubular air passage way connecting said tube with the open air beneath the boiler, a vertical tube opening at its upper end into the boiler and depending from the upper side of the longitudinal tube and across the same and through the vertical air passage way and formed with a closed tapering lower end, a longitudinal pipe extending through said longitudinal tube and having cross pipes connecting it with the annular chamber in the boiler,

means for supplying water to said longitudinal pipe, said longitudinal pipe opening into said vertical tube, and water circulating pipes located in said vertical air passage way and communicating with the vertical tube and with the annular chamber in the boiler.

1,026,801. CONCRETE LAMP-POST. LEO G. HAASE, Pasadena, Cal. Filed Aug. 24, 1911. Serial No. 645,769. (Cl. 72—84.)



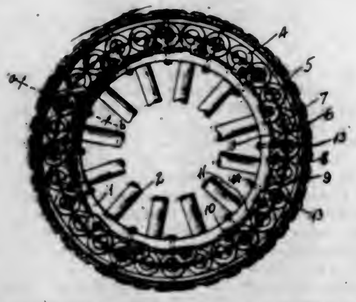
A lamp post, comprising a base section and a shaft section, both sections being formed of a cementitious material, said base section being provided at the upper end thereof with a socket adapted to receive the lower end of the said shaft section and also having a laterally disposed recess therein, said socket being connected to said recess by vertically disposed passages, a reinforcing means embedded in said base section adjacent to said socket adapted to prevent the collapse of the material adjacent to the socketed end of said base section, a hollow permanent core, said shaft section being formed thereon, a hollow tube extending through said shaft section and through the vertically disposed passage into said base section, and terminating in said laterally disposed recess in said base section, said tube being provided on its upper end with a bearing cap, and an adjustable clamping means on the lower end of said tube adapted to force the tube and cap downwardly to maintain the shaft section in rigid engagement with the base section.

1,026,802. PIPE-WRENCH. OLIVER W. HALL, San Jose, Cal. Filed May 8, 1911. Serial No. 625,782. (Cl. 81—179.)



In a wrench of the class described, the combination with a pair of opposed jaws and a handle member therefor; of a gripping member slidably mounted on one of said jaws, means to limit the movement of said gripping member, a leaf spring member bent in its length and having one end thereof engaged with said gripping member to normally force the same in its lowermost position, a split screw extending through one of said jaws and having the opposite end of said spring engage therewith, and means to lock said spring in engagement with said screw.

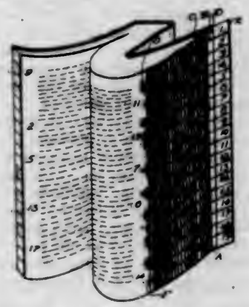
1,026,803. AUTOMOBILE-TIRE. EZRA M. HAMILTON, Willow Springs, Cal. Filed Dec. 17, 1910. Serial No. 597,987. (Cl. 152—9.)



1. A vehicle tire, comprising a rim, a series of transversely yielding tube sections mounted thereon and a chain passed through the central portion of said tube sections for flexibly connecting them and binding them to the rim of the wheel, and means for further limiting the outward movement of said sections with respect to said rim.

2. A vehicle tire, comprising a rim, a plurality of transversely arranged tube sections of yielding material mounted upon said rim, a tread rim for holding said sections to the said rim, and a chain passed through the adjacent walls of said sections for flexibly holding them in place and further holding the said sections upon the rim of the wheel.

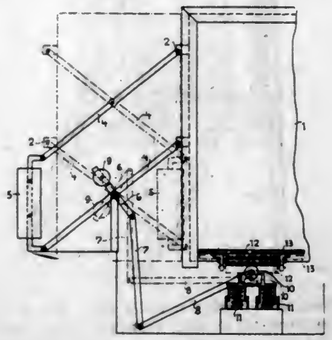
1,026,804. SYNCHRONICAL INDICATOR OR INDEX FOR BOOKS, CARD SYSTEMS, AND RECORDS. SIDNEY J. HARE, Kansas City, Mo. Filed June 5, 1909. Serial No. 500,467. (Cl. 11—7.)



1. In an indicator for books the combination with the index consisting of principal and topical subjects located on the index leaf of marginal markers printed upon the margin and face of the leaves and parallel with the subject on the index leaf, and also located opposite thereto and related thereto.

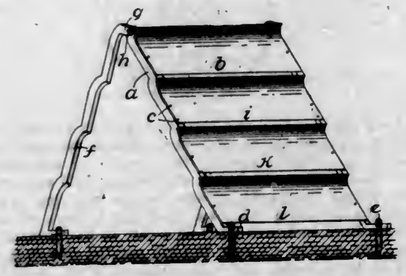
2. In a book, the cobination with an index leaf having an extended portion extending beyond the cut edges of the leaves of the book having the principal and topical subjects printed on the extended portion of the index leaf and marginal markers printed upon the margin of the face of the leaves set parallel with the subjects on the index leaf and located opposite thereto and related thereto, said marginal markers being brought into view when the leaves are bent backwardly, thereby indicating instantly every page upon which any individual subject is treated.

1,026,805. AUTOMATIC DOOR-OPERATING APPLIANCE. MAX HYNEK, Riesa-on-the-Elbe, Germany. Filed Oct. 10, 1911. Serial No. 653,798. (Cl. 39—44.)



An automatic door operating-appliance of the character described, comprising two pivoted double-armed levers carrying the door with one end, a weighted element connected to the opposite ends of the levers so as to balance the door, hinged flaps adjoining the floor at opposite sides of the door, a double-armed lever supporting the free ends of said flaps with one arm, connections between the other arm of the supporting lever and the door carry-levers so arranged as to cause the latter levers to be turned for moving the door in its own plane into open position when the flaps are trod on, and springs acting on said supporting lever so as to restore the elements to their normal position and reclose the door when the flaps are relieved of the weight, substantially as set forth.

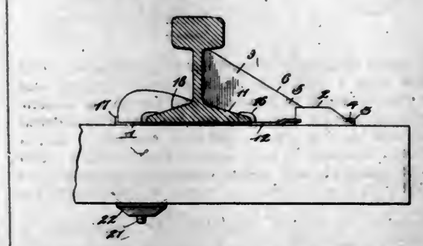
1,026,806. SNOW-FENCE. JOHN I. IBLINGS, Cedar Falls, Iowa. Filed May 25, 1911. Serial No. 629,406. (Cl. 39—104.)



1. A fence composed of a plurality of uprights connected by a plurality of superposed metal bars, the bars being longitudinally troughed, braces pivoted to said uprights, said uprights being formed to conform to the shapes of said bars and said braces being formed to conform to the same shape and adapted to swing toward the uprights, and means for securing both the uprights and the braces to the ground.

2. A fence composed of a plurality of uprights, a plurality of longitudinally curved bars connecting said uprights, braces hinged to the tops of said uprights, both said uprights and braces being of like form and formed to conform to the curvatures of said bars, and plate-like bodies so pivoted to the bases of said uprights and bars as to be adapted to be embedded substantially horizontally in or placed on the earth for securing said uprights and braces to the earth.

1,026,807. RAIL-BRACE. STEPHEN W. JOYAL, Cavendish, Vt. Filed Nov. 22, 1911. Serial No. 661,686. (Cl. 238—2.)



1. A rail brace comprising a base plate, vertically disposed flanges struck up from the edges of said base plate at one end thereof, having notches formed therein, a brace member mounted on said base plate, and means carried by said brace member adapted to engage with said vertical flanges to prevent any lateral movement of the brace member.

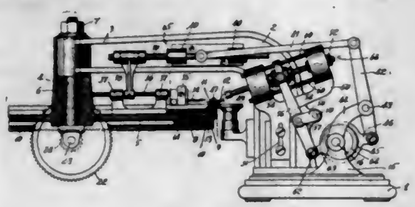
2. A rail brace comprising a base plate, a brace member formed of heavy sheet metal, having an inclined outer face, the upper edge of said outer face being bent to fit snugly under the tread of the rail at the junction of the web and the tread of the rail, and means for interlocking said base plate and brace member to prevent any lateral movement of the latter.

3. A rail brace comprising a base plate, vertically disposed flanges struck up from the edges of said base plate at one end thereof, having slots formed therein, a brace member mounted on said base plate, horizontally disposed flanges formed integral with said brace member and arranged on each side thereof, and having slots formed therein to register with the slots in the flanges on the base plate whereby said flanges are interlocked to prevent any lateral movement of the brace member.

4. A rail brace comprising a base plate, having one end bent to form a channel, vertically disposed flanges struck up from the edges of said base plate at one end thereof, having slots formed therein, a brace member formed of heavy sheet metal, having an inclined outer face, the lower end of which is bent to lie flat on the base plate and the outer edge disposed in the channel on the base plate, horizontally disposed flanges formed integral with said brace member and arranged on each side thereof, and having slots formed therein to register with the slots in the flanges on the base plate, whereby said flanges will be interlocked to prevent any lateral movement of the brace member.

5. A rail brace comprising a base plate, a brace member interlocked therewith and adapted to fit snugly up against the web of the rail on one side thereof, a vertical flange formed on the end of the base plate opposite the brace member, a rail fastener disposed between the flange of the rail and said vertical flange, said fastener extending inwardly and formed to overlie the flange of the rail and adapted to fit snugly thereon, said fastener having a recess formed in the top side thereof, and an opening formed therein, a bolt passing through said opening, said bolt passing through an opening in the base plate and the tie, a nut threaded on the lower end thereof, and means for engaging the head of the bolt and coacting with one of the side walls of the recess to hold said bolt against movement.

1,026,808. LOOPING-MACHINE. MAX KOEHLER, Limbach, Germany, assignor to The Firm of Julius Koehler, Limbach, Germany. Filed June 17, 1909. Serial No. 502,741. (Cl. 112—19.)



1. Looping mechanism comprising in combination a dial provided with a series of points, a head carrying said dial, a needle, means to impart to and fro motion thereto, a bifurcated bracket having in one member a cylindrical bearing and in the other member a stationary nut, a spiral hook mounted in said bearing and having a worm engaging said nut, and means operatively engaging the hook between the bearing and worm to reciprocate the hook.

2. Looping mechanism comprising in combination a dial having a series of points, a head carrying said dial, a bifurcated bracket having in one member a cylindrical bearing and in the other member a nut, a spiral hook having a shank mounted in said bearing and having a worm engaging said nut, and a lever directly engaging said hooked shank between said bearing and nut to reciprocate the hook.

3. Looping mechanism comprising in combination a dial having a series of points, a head carrying said dial, means to rotate the dial, a needle mounted upon the head within the dial, means to reciprocate the needle, a bifurcated bracket mounted outside said dial and having in one member a cylindrical bearing and in the other member a nut, a spiral hook mounted in said bearing and having a worm engaging said nut, a lever directly engaging said shank to reciprocate said hook, and means to operate said lever.

4. Looping mechanism for uniting looped fabrics by two interengaging threads comprising in combination a dial provided with a series of points, a head carrying said dial, means to rotate said dial, a needle mounted upon the head and to which needle a looping thread is fed, means to reciprocate said needle, a bifurcated bracket mounted outside said dial and having in its members a cylindrical bearing and a nut, a spiral hook having a shank mounted in said bearing and having a worm engaging said nut and to which hook a second looping thread is fed for interengaging with the first looping thread, a lever to reciprocate said hook, and means to operate said lever.

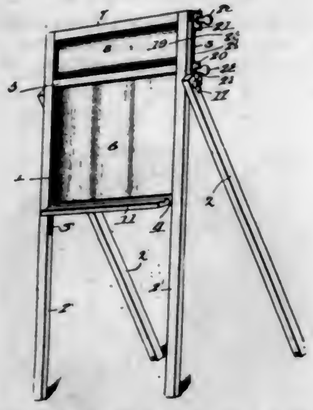
5. Looping mechanism for uniting looped fabrics by two interengaging threads comprising in combination a dial provided with a circular series of points, a head carrying said dial, worm gearing for rotating said dial, a needle mounted upon the head and to which needle a looping thread is fed, means to impart a to and fro motion to said needle, a spiral hook mounted outside said dial and to which hook a second looping thread is fed for interengaging with the first looping thread, means to project said hook within said points and to retract it therefrom, and means to rotate said hook.

[Claims 6 to 21 not printed in the Gazette.]

1,026,809. BLACKBOARD. EDWARD L. KRAUS, Slatington, Pa. Filed June 2, 1911. Serial No. 630,897. (Cl. 35—15.)

1. A black board comprising a frame having a board proper arranged therein and provided with openings, a chalk tray having headed projections fitting in the openings formed in the frame of said board, and pivoted legs for supporting said frame.

2. A blockboard comprising a frame formed of side bars and cross-bars having transverse slots formed in one of the cross-bars, and a chalk tray having headed pins adapted to fit in said slots when in a set-up or knock-down position.



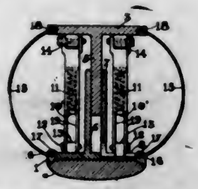
3. A blackboard having a chart case, rollers mounted in said case carrying a chart, knobs carried by said rollers and pivoted means carried by said knobs for locking said rollers against rotation.

4. A blackboard having a chart case, rollers mounted in said case carrying a chart, and pivoted members carried by said rollers for locking the rollers against rotation.

5. A black board having a chart case detachably secured thereto, spring pressed rollers mounted in said case, knobs carried by said rollers, pivoted cranks mounted in said knobs, said cranks being capable of being swung into position to lock said rollers.

[Claims 6 to 8 not printed in the Gazette.]

1,026,810. SPRING-WHEEL. JOSEPH KUEHL and JOSEPH STEFANOWSKI, Detroit, Mich. Filed July 1, 1910. Serial No. 569,897. (Cl. 152—8.)

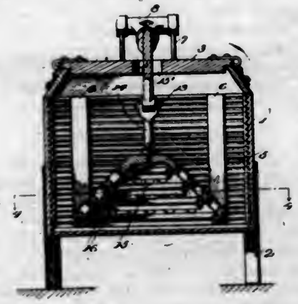


In a cushion tire, the combination with an outer rim having an internal annular guide flange, an inner ring having an external annular rib, means for maintaining said flange and rib in sliding engagement with each other, and springs interposed between the rim and ring and for normally centering the same relatively to each other, of tension-links each consisting of a pair of flat metal strips bent intermediate its ends to form parallel side-arms connected by a shank and both members being hooked together, a spring under compression between the shanks of each pair, and lugs on the rim and ring for pivotally receiving the outer ends of said members and for maintaining the rotative relation between said rim and ring.

1,026,811. WASHING-MACHINE. ARTHUR LAMARRE and LUDGER FIALA, Fall River, Mass. Filed Oct. 18, 1911. Serial No. 655,314. (Cl. 68—19.)

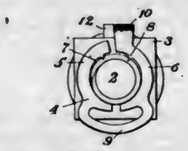
In a washing machine, the combination of a receptacle having an opening in the top and provided on its inner

walls with a plurality of horizontal ribs, vertical smooth cleats extending across the horizontal ribs, said cleats being disposed in spaced relation on each wall of the receptacle, a pounder located in the receptacle, said pounder being of less width than the interior width of the receptacle to provide lateral play for said pounder, a stem extending from the pounder, a handle pivoted to one side of



the top of the receptacle and having a depending arm which operates in the opening in the top of the receptacle, and a pivotal connection between the stem and the depending arm, whereby when the handle is vertically reciprocated, the pounder will be free to be oscillated by contact with the clothes and will ride on the smooth surfaces of the cleats.

1,026,812. NUT-LOCK. ANDREW M. LANCE, Batson, Tex., assignor of one-half to Amzi F. Haynie, Batson, Tex. Filed June 20, 1911. Serial No. 634,356. (Cl. 151—30.)



1. A nut lock comprising in an integral structure a pair of jaws spaced apart to embrace a bolt and resiliently connected at one end, one of said jaws being of a greater length than the other with its free end bent at an angle to engage a nut.

2. A nut lock comprising in an integral structure a pair of resiliently connected jaws of a greater length than the diameter of the bolt, said jaws being normally spaced apart a less distance than the diameter of the bolt, with one of said jaws having its free end extended and bent at an angle to engage the nut.

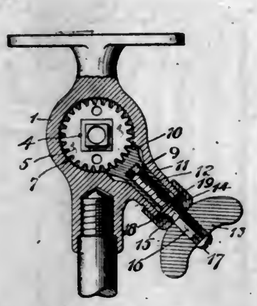
3. A nut lock comprising in an integral structure a pair of resilient jaws of a greater length than the diameter of the bolt, with the inner faces of the jaws curved and normally spaced apart to embrace the bolt, one of said jaws being of a greater length than the other and having its extended portion adapted to engage the nut to prevent its turning upon the bolt.

4. A nut lock comprising in an integral structure a pair of jaws normally spaced apart and provided upon their adjacent faces with teeth to engage a bolt, said jaws being of a greater length than the diameter of the bolt and resiliently connected at one end, with the free end of one jaw bent at an angle to engage a bolt.

5. A nut lock comprising in an integral structure a pair of jaws normally spaced apart to embrace a bolt and of a greater length than the diameter of the bolt, said jaws being resiliently connected at one end and provided upon their adjacent faces with means to engage the bolt, with the free end of one jaw adapted to overlap and engage the nut in position to force the bolt engaging means toward each other when the nut is turned in one direction.

[Claims 6 and 7 not printed in the Gazette.]

1,026,813. HINGE-JOINT FOR WIND-SHIELDS. PETER N. LANDINE, Milford, Conn., assignor to The Rostand Manufacturing Company, Milford, Conn., a Corporation of Connecticut. Filed Dec. 5, 1911. Serial No. 664,109. (Cl. 21—81.)



1. A hinge joint for a wind shield comprising a ring member, a hub housed within and bearing at each end upon the inner circumference of said ring member, the middle portion of the circumference of said hub being roughened, the highest part of said roughened portion being spaced away from the surrounding wall of said ring member, a manually controllable locking device carried by said ring member and coacting with the roughened part of the hub, and flanges at the ends of said hub overstanding the ends of the ring member.

2. A hinge joint for a wind shield comprising a ring member, a hub housed within and bearing at each end upon the inner circumference of said ring member, the middle portion of the circumference of said hub being roughened, the highest part of said roughened portion being spaced away from the surrounding wall of said ring member, a manually controllable locking device carried by said ring member and coacting with the roughened part of the hub, and flanges secured to the ends of said hub and overstanding the ends of the ring member.

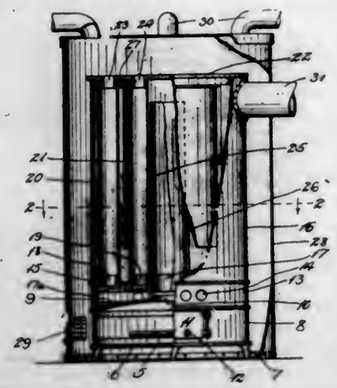
3. A hinge joint for a wind shield comprising a ring member, a hub housed within and bearing at each end upon the inner circumference of said ring member, the middle portion of the circumference of said hub being roughened, the highest part of said roughened portion being spaced away from the surrounding wall of said ring member, a manually controllable locking device carried by said ring member and coacting with the roughened part of the hub, flanges at the ends of said hub overstanding the ends of the ring member, and a coacting arm for the swinging section of a wind shield, said arm being carried by the fixed flange of the hub.

4. A hinge joint for a wind shield comprising a ring member, a hub housed within and bearing at each end upon the inner circumference of said ring member, the middle portion of the circumference of said hub being roughened, the highest part of said roughened portion being spaced away from the surrounding wall of said ring member, a manually controllable locking device carried by said ring member, and coacting with the roughened part of the hub, and flanges at the ends of said hub overstanding the ends of the ring member, said locking means being located wholly at one side of said hub.

5. A hinge joint for a wind shield comprising a ring member, a hub housed within and bearing at each end upon the inner circumference of said ring member, the middle portion of the circumference of said hub being roughened, the highest part of said roughened portion being spaced away from the surrounding wall of said ring member, a manually controllable locking device carried by said ring member and coacting with the roughened part of the hub, flanges at the ends of said hub overstanding the ends of the ring member, said locking means being located wholly at one side of said hub, and means for positively moving said locking means toward and from the hub.

[Claim 6 not printed in the Gazette.]

1,026,814. GAS-FURNACE. ANDREW K. LINDLEY, Los Angeles, Cal., assignor of one-half to Mabel E. Sharp, Los Angeles, Cal. Filed May 11, 1911. Serial No. 626,475. (Cl. 126—116.)

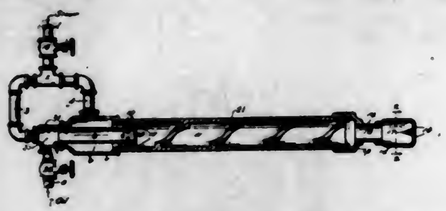


1. A furnace structure, comprising a combustion chamber adapted to receive a burner having a dome shaped cover with a central outlet, a heating drum mounted above the combustion chamber and arranged to leave an air inlet space between its lower end and the dome shaped cover of the combustion chamber, a perforated casing for supporting the drum above said space and yet admitting air thereto, the said heating drum having longitudinally extending air heating flues arranged in concentric rows, a baffle apron extending between the said concentric rows, a central flue extending into said apron from the outlet of the combustion chamber, and a smoke outlet carried by the said heating drum.

2. A furnace structure comprising a base, a sectional casing mounted thereon, made up of a lower section an intermediate section and a top or drum section, a dome plate mounted upon the lower section and having a central flue opening therein, a lower drum head mounted upon the intermediate section, the said intermediate section resting upon the said dome plate and having apertures formed therein for admitting air to the space between the said dome plate and the said lower drum head, the said lower drum head having a central flue opening corresponding with the flue opening in the dome plate, a pipe section connecting the opening in said plates, an upper drum head mounted upon the upper casing or drum section, the said drum plates having oppositely arranged heat flue apertures, hot air pipes connecting said apertures and permitting the air which is heated between the dome plate and the lower drum head to pass upwardly through the said drum, a flue pipe extending into the drum from the central flue aperture of the lower drum plate, a depending baffle drum extending downwardly from the upper drum head and between the rows of hot air pipes, the upper casing section having a smoke flue extending outwardly therefrom and an outer inclosing casing surrounding the said casing sections and having means for directing the hot air to the place desired.

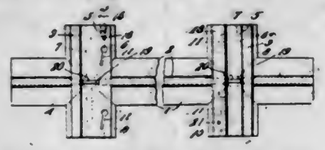
1,026,815. OIL-BURNER. VERNIE MATTESON, Seattle, Wash., assignor of one-half to Reinder B. Tolsma, Seattle, Wash. Filed Aug. 21, 1911. Serial No. 645,107. (Cl. 158—75.)

1. In an oil burner, a casing having a chamber therein, a tubular member secured to said casing and having a bore therethrough communicating with said chamber, a burner tip provided at the forward end of said tubular member, a union secured to said casing and having an auxiliary chamber therein, a tubular extension communicating with said auxiliary chamber and secured to said union and extending centrally through said casing and within the outer end of said tubular member and provided with radial openings in the end thereof within said member, a steam pipe, branch pipes leading from the latter to said casing and union, and an oil supply pipe leading to said union.



2. In an oil burner, a casing, a tubular member secured thereto, a burner tip provided at the forward end of said tubular member, a steam pipe, two branch steam pipes leading from the latter, an axially arranged tubular extension provided through the entire length of the casing and terminating at one end a comparatively short distance within the tubular member, an oil supply pipe, the latter and one of said steam branch pipes discharging into said tubular extension and the other of said steam branch pipes discharging into said casing exteriorly of and substantially midway of the length of the said extension.

1,026,816. RAILWAY-TIE AND FASTENER. ROBERT EDWARD LEE MAXEY, Hot Springs, Ark. Filed June 20, 1911. Serial No. 634,362. (Cl. 238—5.)



1. A metallic railway tie including a beam having a head, a web and base flanges, wings extending laterally therefrom adjacent the ends thereof, each wing including a bearing head, a web and base flanges, said wings being disposed in pairs, the wings of each pair alining, rail engaging elements integral with the heads of the wings, clamping plates extending longitudinally of said heads and shiftable diagonally relative thereto, coöperating means upon said clamping elements and the heads for guiding said elements during such movement, and coöperating means upon said elements and the heads for automatically locking said elements against return movement.

2. A metallic railway tie including a beam, wings extending in opposite directions therefrom and alining, each of said wings having a head, there being a rail engaging device integral with the heads, a rail clamping element movably mounted on the heads and shiftable diagonally thereof, coöperating means upon said element and the heads for guiding the element during such movement, and coöperating means upon said element and one of the heads for automatically locking said element against movement in the opposite direction.

3. A metallic railway tie including a beam, wings extending in opposite directions therefrom and alining, each of said wings having a head, there being a rail engaging device integral with the heads, a rail clamping element movably mounted on the heads and shiftable diagonally thereof, coöperating means upon said element and the heads for guiding the element during such movement, coöperating means upon said element and one of the heads for automatically locking said element against movement in the opposite direction, and means for clamping said element upon the heads to hold said locking means against separation.

4. A metallic railway tie including a beam, oppositely extending alining wings thereon, said wings having alining heads, a rail engaging device integral with the heads, a movable rail engaging element mounted on said heads, means for guiding said element diagonally during its movement, means for locking said element against movement in one direction, and a spacing device interposed between said element and the fixed rail engaging device.

5. A metallic railway tie including a beam, oppositely extending alining wings having heads, a rail engaging device integral with the heads, a rail engaging device movably mounted on the heads, there being a slot within the tie and between and perpendicular to said rail engaging devices, and a spacing element removably seated within the groove and retained by said devices.

[Claim 6 not printed in the Gazette.]

1,026,817. HAME-FASTENER. PATRICK F. MCCRONE, Scranton, Pa. Filed Sept. 15, 1911. Serial No. 649,474. (Cl. 54—26.)



1. A hame fastener comprising two members, one of the said members having a dovetailed channel on its inner end and a series of splayed notches in the bottom of the channel, and the other member having the inner end thereof of dovetailed cross section and fitting into said channel, the inner end of the latter member being bifurcated and the end of the bifurcation being connected by a bridge portion which is extended into a curved fingerpiece, a pawl pivoted within the bifurcated end of the said member, the inner end thereof being adapted to engage in the said notches and the outer end thereof being bent outwardly over the outer side of the bridge portion, and a leaf spring secured to the outer face of the latter member and engaging the inner end of the pawl to give an inward tension to same.

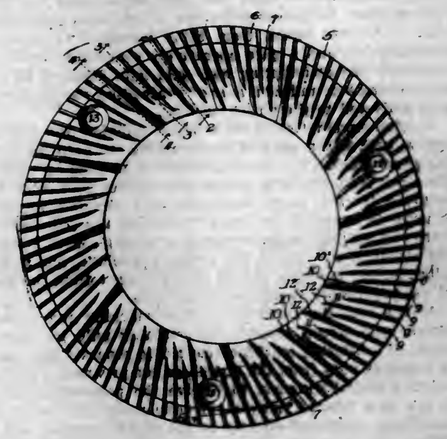
2. A hame fastener comprising two members having a sliding engagement with each other, one of the said members having a series of notches and the inner end of the other member being bifurcated and the end of the bifurcation being connected by a bridge portion, a pawl pivoted within the bifurcated end of the said member, the inner end of the pawl being adapted to engage in the said notches and the outer end thereof being bent outwardly over the outer side of the bridge portion, and a leaf spring secured to the outer face of the latter member and engaging the inner end of the pawl to give an inward tension to same.

1,026,818. GRINDING-BUR. HARRY G. MCCULLOCH, Freeport, Ill., assignor to The Stover Manufacturing Company, Freeport, Ill., a Corporation of Illinois. Filed Mar. 1, 1911. Serial No. 611,709. (Cl. 83—8.)

1. A grinding bur provided with a series of teeth, each having a flat grinding portion adjacent the periphery of the bur and a sharp edged cutting portion extended inwardly from said flat portion, said flat portions being disposed in a common plane.

2. A grinding bur provided with a series of teeth, all of said teeth having flat topped base portions, the grinding faces of which are disposed in the same plane, and all of said teeth having sharp edged portions projecting inwardly from the base portion, the sharpened portions of some of said teeth being higher than the sharpened portions of other teeth.

3. A circular grinding bur having a tapered face terminating in a flat portion adjacent the periphery of the bur and a series of teeth having grinding and cutting portions arranged upon the face of the bur, the faces of the grinding portions of all the teeth lying in a plane parallel with the flat portion of said bur, the cutting surfaces of some of the teeth throughout their length extending in a right line from the grinding portion thereof, and the cutting faces of the remaining teeth tapering from a right line along the tapered portion of the face of said bur.

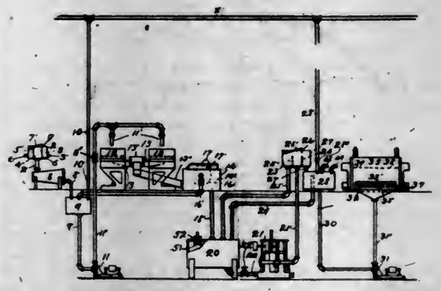


4. A grinding bur having a flat outer portion and a tapered inner portion, said bur being provided with a series of gringing teeth, the grinding faces of some of said teeth being disposed throughout their length in a plane parallel with the flat portion of said bur, and the grinding faces of the remaining teeth being disposed throughout a part of their length in a plane parallel with the tapered portion of said bur all of said teeth being disposed tangentially to a common circle.

5. A grinding bur having a flat outer portion adjacent its outer periphery, and a tapered portion disposed within said outer portion, a series of teeth on the face of said bur, the outer portions of all the teeth being provided with flat grinding surfaces lying in a plane parallel to the plane of the outer portion of the bur, and the inner portions of said teeth being cut away to form cutting edges, some of said teeth extending across the face of the bur in a right line, and the others deflected parallel to the tapered portion of the bur.

[Claim 6 not printed in the Gazette.]

1,026,819. PAPER-STOCK REFINING AND DISTRIBUTING SYSTEM. LOWELL N. MCINTYRE, Carthage, N. Y. Filed Aug. 4, 1911. Serial No. 642,304. (Cl. 92—20.)



1. The combination with a paper machine and a pulp screen, of a filtering machine adapted to receive the pulp direct from said screen, a flow-box connected with the paper machine, a distributing-box carried by the flow-box adapted to receive the pulp after it passes from the filtering machine and to deliver the same to the flow-box, and a gate carried by the flow-box for controlling the passage of the pulp from the distributing-box into said flow-box.

2. The combination with a paper machine and a pulp screen, of a flow-box connected to the paper machine, a distributing-box connected to the flow-box, a Decker machine interposed between the pulp screen and the distributing-box for preventing slugs or lumps of pulp given off by the said screen from being delivered to the distributing-box, and a gate operatively connecting the flow box, with the distributing box, said gate disposed in the distributing-box and adapted for controlling the supply of pulp delivered to the paper machine.

3. The combination with a paper machine and a pulp screen, said screen adapted for straining the pulp for making paper-stock, of a slushing machine adapted to receive the stock from the pulp screen and to filter said stock for reducing it to a pasty condition, said slushing machine adapted to separate the slugs formed in the pulp screen from the serviceable paper-stock, a mixing-box to receive the stock after it leaves the slushing machine, and a distributing-box having a slotted gate for controlling the flow of the paper-stock to the paper machine.

4. The combination with a paper machine and a pulp screen, said screen adapted for straining pulp for paper-stock, of a filtering machine adapted to separate the slugs or lumps of pulp from the fine fibers comprising the paper-stock, a distributing-box to receive the paper-stock after it has been filtered adapted to deliver the said stock to a flow-box connected directly to the paper machine, and a sliding slotted gate disposed in the distributing-box adapted to permit or to prevent the delivery of the paper-stock from the distributing-box to said flow-box.

5. The combination with a screen for straining pulp and a machine for making paper, of a slushing machine adapted to receive the pulp from said screen for filtering and for separating a part of the slugs from the fine fibers contained in the pulp, a flow box operatively connected to the paper machine, a distributing box carried by the flow box, means interposed between said slushing machine and said distributing box for regulating said pulp, means for delivering the pulp to the distributing box under pressure, said means adapted to break up the remaining slugs carried by the pulp, and a reciprocating gate for controlling the passage of the pulp from the distributing box into said flow box.

[Claims 6 to 12 not printed in the Gazette.]

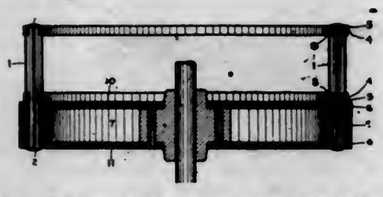
1,026,820. UMBRELLA. HENRY MILLER, Washington, Pa. Original application filed Jan. 3, 1910, Serial No. 536,130. Divided and this application filed May 3, 1911. Serial No. 624,713. (Cl. 135—25.)



1. A folding umbrella comprising a stick, a head secured to the stick, and ribs pivoted on said head and each constructed of sheet metal sections, each section having a channel on one side and a crown on the opposite side and having a pair of pivot ears bent reversely from the longitudinal edges of the channel beyond the crown on the opposite side thereof, the pivot ears of said sections overlapping each other and being pivotally connected.

2. A folding umbrella comprising a stick, a head secured to the stick, ribs pivoted on said head and each constructed of sheet metal sections, each section having a channel on one side and a crown on the opposite side and having a pair of pivot ears bent reversely from the longitudinal edges of the channel beyond the crown on the opposite side thereof, the pivot ears of said sections overlapping each other and being pivotally connected, and each rib having an inwardly bent lug, and a spring arranged lengthwise of said rib sections and across the joint between the same and connected at its opposite ends with said lugs.

1,026,821. TURBINE-ROTOR. RICHARD OTTO MULLER, Washington, D. C. Filed Sept. 16, 1911. Serial No. 649,755. (Cl. 121—60.)



1. A radial flow turbine rotor comprising a shaft; a rotor body or wheel mounted thereon, with crescent shaped vanes projecting from the side thereof in a direction parallel with said shaft and having the greatest width of vane lying in a radial plane through said shaft, said rotor body being composed of a set of laminations having duplicate perforations, and so assembled upon a suitable center or hub as to afford a plurality of open passages through the set in a direction parallel with said shaft and adapted to receive and fit the trunnions of said vanes; and said crescent shaped vanes, each having a portion of its edge cut away at one end thus leaving a trunnion of a shape otherwise the same as the body of the vane and adapted to pass through and fit tightly into one of said openings provided therefor in said rotor body, and by riveting, to locate and fasten itself while clamping said laminations tightly together, the whole substantially as and for the purpose set forth.

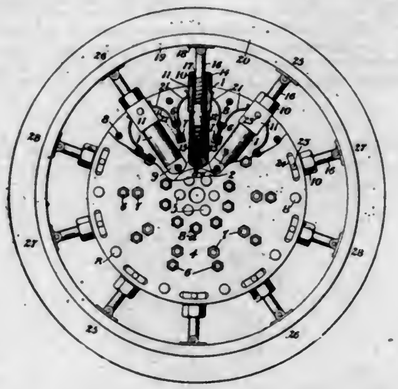
2. A radial flow turbine rotor comprising a shaft; a rotor body or wheel mounted thereon, with crescent shaped vanes projecting from the side thereof in a direction parallel with said shaft and having the greatest width of vane lying in a radial plane through said shaft, said rotor body being composed of a set of laminations having duplicate perforations, and so assembled upon a suitable center or hub as to afford a plurality of open passages through the set in a direction parallel with said shaft and adapted to receive and fit the trunnions of said vanes, part of said laminations, in the interior of said rotor body, being floating annular spacing rings while those near the surface extend inwardly to the hub to which they are firmly secured; and said crescent shaped vanes, each having a portion of its edge cut away at one end thus leaving a trunnion of a shape otherwise the same as the body of the vane and adapted to pass through and fit tightly into one of said openings provided therefor in said rotor body, and by riveting, to locate and fasten itself while clamping said laminations tightly together, the whole substantially as and for the purpose set forth.

3. A radial flow turbine rotor comprising a shaft; a rotor body or wheel mounted thereon, with crescent shaped vanes projecting from the side thereof in a direction parallel with said shaft and having the greatest width of vane lying in a radial plane through said shaft, said rotor body being composed of a set of laminations having duplicate perforations, and so assembled upon a suitable center or hub as to afford a plurality of open passages through the set in a direction parallel with said shaft and adapted to receive and fit the trunnions of said vanes; part of said laminations, at the shoulder of the vane trunnions, being floating annular shroud rings, while others are extended inwardly to the hub to which they are firmly secured; and said crescent shaped vanes, each having a portion of its edge cut away at one end thus leaving a trunnion of a shape otherwise the same as the body of the vane and adapted to pass through and fit tightly into one of said openings provided therefor in said rotor body, and by riveting, to locate and fasten itself while clamping said laminations tightly together, the whole substantially as and for the purpose set forth.

4. A radial flow turbine rotor comprising a shaft; a rotor body or wheel mounted thereon, with crescent shaped vanes projecting from the side thereof in a direction parallel with said shaft and having the greatest width of vane lying in a radial plane through said shaft, said rotor body being composed of a set of laminations having duplicate perforations, and so assembled upon a suitable center or hub as to afford a plurality of open passages through the set in a direction parallel with said shaft and adapted to receive and fit the trunnions of said vanes; a shroud ring composed of annular laminations having duplicate perforations, assembled similarly to said rotor body and adapted to receive and fit other similar trunnions at the outer end of said vanes; and said crescent shaped vanes, each having a portion of its edge cut away at either end thus leaving a trunnion of a shape otherwise the same as the body of the vane and adapted to pass through, fit tightly and rivet into the openings provided therefor, one end in the said rotor body and the other in said shroud ring, the whole substantially as and for the purpose set forth.

5. A rotor body composed of laminations having duplicate perforations, and so assembled upon a suitable center or hub as to afford a plurality of open passages through the set in a direction parallel with said shaft and adapted to receive, fit and be clamped together by the riveted trunnions of suitable vanes; said laminations being of a variety of materials, those on the interior being of greater strength and those on the surface of greater resistance to corrosive action, the whole substantially as and for the purpose set forth.

1,026,822. RESILIENT WHEEL. FREDERICK C. OLDHAM, Brooklyn, N. Y. Filed Oct. 19, 1910. Serial No. 587,961. (Cl. 152—28.)



1. In a resilient wheel, a hub, plates secured thereto, a plurality of telescopic spokes pivotally secured therebetween, a leaf spring secured between each set of spokes to said plates, and adapted to bear circumferentially against said spokes, guide slots in said plates, concentric with the swing of each spoke, lugs carried by spokes and adapted to register in said slots and limit the movement of the parts, the telescoping portion of the spoke having a piston adapted to fit snugly within said shell portion of the spoke, and helical springs within said shell portion of said spokes, adapted to bear against the closures at the ends of said shell portion and the ends of the piston.

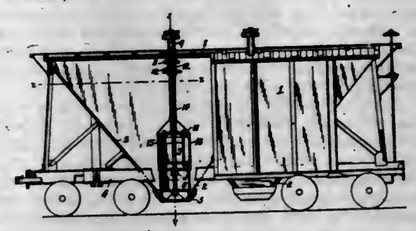
2. In a resilient wheel for vehicles, a hub, plates secured thereto, a plurality of telescopic spokes pivotally mounted between said plates, helical springs within said spokes acting on both parts thereof, leaf springs carried by the side plates and between said spokes, said springs being adapted to bear circumferentially against said spokes and so arranged as to exert extreme pressure against only the spoke on which there is a circumferential strain, circumferential slots in said side plates struck from the center of the axis of the pivotal mounting of said spokes, lugs carried by said spokes adapted to register in said slots and help to carry the strain exerted upon said spokes.

1,026,823. TRUCK-BOLSTER. ALLEN E. OSTRANDER, Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 8, 1911. Serial No. 613,194. (Cl. 105—107.)



In a box girder-like bolster, complementary boxes, the upper being composed of cast metal, and constructed with a flat or horizontal upper surface carrying the king-pin socket and side bearings, the lower box being composed of pressed metal, the greatest depth of the lower box being at the greatest point of strain between the supporting ends, and suitable outstanding flanges and means extending through said flanges for uniting the boxes rigidly together.

1,026,824. VALVE FOR BOTTOM-DUMP CARS. MICHAEL J. OWENS, Toledo, Ohio, assignor to The Owens Bottle Machine Company, Toledo, Ohio, a Corporation of Ohio. Filed Dec. 20, 1911. Serial No. 667,014. (Cl. 105—14.)



1. In a car having a bottom discharge opening, a valve vertically movable within the car to open and close said opening, a stem projecting upward from the valve, a member threaded to said stem, and means carried by the car for resisting the lower end thrust of said member.

2. In a car having a bottom discharge opening, a vertically elongated valve movable within the car to open and close said opening and a stationary superimposed guard shell into which the valve moves when opened, said shell having its top adapted for the deflection of loose matter therefrom.

3. In a car having a bottom discharge opening, a valve vertically movable within the car to open and close said opening, a stem projecting upward from the valve, means operable to impart vertical movements to said stem, and a stationary guard shell encircling portions of said stem and valve and into which the valve works when raised and adapted to be entirely submerged in the car contents.

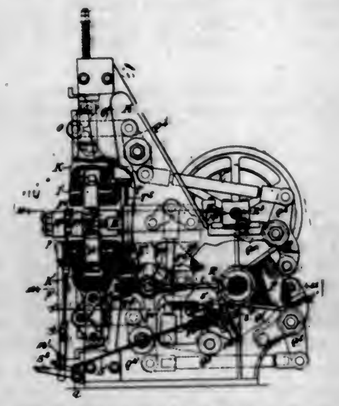
4. In a car having a hopper-like discharge passage, a valve capable of vertical movements in said passage to open and close its outlet, a stem projecting from the valve

without the top portion of the car, and guard means incasing portions of the stem and valve and telescoping with the valve when raised.

5. In a car having a bottom discharge passage, a cylindrical valve vertically movable within the passage to open and close the same and having a stem projecting without the top portion of the car, rotatable means coöperating with said stem and operable to effect a raising and lowering thereof, and a stationary guard part with which the valve telescopes.

[Claims 6 to 8 not printed in the Gazette.]

1,026,825. METAL-WORKING MACHINE. FRANK C. B. PAGE, New York, N. Y., assignor to E. W. Bliss Company, Brooklyn, N. Y., a Corporation of West Virginia. Filed Apr. 6, 1910. Serial No. 553,837. (Cl. 29—33.)



1. A machine of the class described, including in combination means for holding the work, means for punching a hole through the web, means for slitting the web, and for bending down a portion thereof adjoining said hole, means for bending outwardly the slitted portion of the web adjacent to said hole, means adapted to enter said hole and move laterally therein to bend outwardly the head, means for bending back the bent-down portion of the web, mechanism for operating said means successively, adapted when started to perform one series of operations.

2. A machine of the class described, including in combination means for holding the work, means for punching a hole through the web, a shearing and bending punch for simultaneously slitting and bending down the web adjoining said hole, means adapted to enter said hole to bend outwardly the head, means for bending back the bent-down portion of the web, and mechanism for operating said means successively, adapted when started to perform one series of operations.

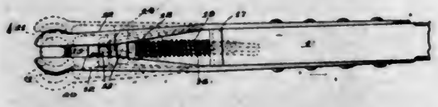
3. A machine of the class described, including in combination a clamp for holding the work stationary, means for punching a hole through the web, means for slitting the web and for bending outwardly the slitted portion thereof adjacent to said hole, means for bending outwardly the head adjacent to said hole, and automatic mechanism for bringing said means successively to the same point and for operating them to perform said operations upon the work adapted when started to perform one series of operations.

4. A machine of the class described, including in combination a clamp for holding the work stationary, means for punching a hole through the web, means for slitting the web and bending down portions thereof adjoining said hole, means for bending outwardly the slitted portion of the web adjacent to said hole, means adapted to enter said hole to bend outwardly the head, means for bending back said bent-down portions to flatten the web, and mechanism for bringing said means successively to the same point and for operating them to perform said operations upon the work adapted when started to perform one series of operations.

5. A machine of the class described, including in combination a clamp for holding the work stationary, means for punching a hole through the web, means for slitting the web and for bending outwardly the slitted portion adjacent to said hole, means for bending outwardly the head adjacent to said hole, a finishing punch for trimming the hole, and mechanism for bringing said means successively to the same point to perform said operations upon the work adapted when started to perform one cycle of operations.

[Claims 6 to 30 not printed in the Gazette.]

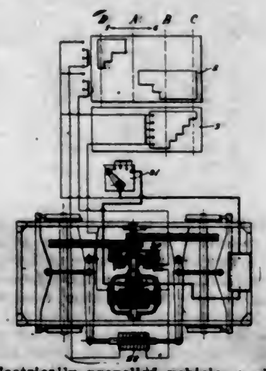
1,026,826. PITMAN CONNECTION. CHARLES PEARSON, Chicago, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed June 12, 1911. Serial No. 632,530. (Cl. 74—17.)



1. A pitman connection including, in combination, a bearing block, and a pitman having oppositely disposed resilient jaws adapted to engage with said bearing block, said jaws being provided with inwardly projecting overlapping ears having slotted openings therein, a sliding wedge received by said openings and engaging with the walls thereof in a manner to close said jaws when moved in one direction, said wedge having a tang portion slidably received by the body portion of said pitman, and a coiled spring encircling said tang and operative between said pitman and the head of said wedge in a manner to cause the latter to close said jaws.

2. A pitman connection including, in combination, a bearing block, and a pitman having oppositely disposed resilient jaws adapted to engage with said bearing block, said jaws being provided with inwardly projecting overlapping ears having slotted openings therein, a sliding wedge received by said openings and engaging with the walls thereof in a manner to close said jaws when moved in one direction, said wedge having oppositely disposed wing portions projecting laterally and a longitudinally extended tang portion from the head thereof, said tang portion being slidably received by the body of said pitman, and a compression spring encircling said tang and operative between said pitman and the head of said wedge in a manner to cause the latter to close said jaws.

1,026,827. PROPULSION OF MOTOR-VEHICLES. HENRI PIEPER, Liege, Belgium. Filed Jan. 23, 1911. Serial No. 604,225. (Cl. 172—179.)



1. In an electrically propelled vehicle, a shunt wound motor for driving the same, means for controlling the application of driving power to the wheels of the vehicle, means for progressively weakening the shunt field of the motor to increase the speed, and means for automatically restoring the full strength of such field when the wheels are entirely deprived of driving power.

2. In an electrically propelled vehicle, a shunt wound motor for driving the same, a controller for governing the application of driving power to the wheels of the vehicle, said controller also comprising means for progressively weakening the shunt field of the motor to increase the speed, means for automatically restoring the full strength of such field when the controller is moved to "off" position, and the wheels thereby entirely deprived of driving power, friction brakes for the said wheels, and means associated with said controller for preventing the setting of the brakes except when the wheels are free from driving power.

3. In an electrically propelled vehicle, a shunt wound motor for driving the same, a storage battery for supplying current to said motor, means for controlling the application of driving power to the wheels of the vehicle, means for progressively weakening the shunt field of the motor to increase the speed, and means for automatically restoring the full strength of said field, whereby, when the vehicle is coasting, the voltage of the motor acting as a generator will be sufficient to recharge said battery.

4. In an electrically propelled vehicle, a shunt wound motor for driving the same, a controller consisting of two parts, one part serving to govern the application of driving power to the wheels of the vehicle, and the other serving to regulate the strength of the shunt field of said motor, a connection between said parts whereby they move together in one direction but are capable of independent movement in the other direction, and means for retarding the movement of one of said parts.

5. In an electrically propelled vehicle, a shunt wound motor for driving the same, a controller consisting of two parts, one part serving to govern the application of driving power to the wheels of the vehicle and the other part serving to regulate the strength of the shunt field of said motor, a connection between said parts whereby they move together in one direction but whereby the first mentioned part may move independent of the other in the opposite direction, means for automatically restoring the last mentioned part to normal position when disengaged from the first part, and means for retarding the movement of said second part in both directions.

1,026,828. DISPENSING-CAN. WILLIS F. PIERCE, Seattle, Wash. Filed Sept. 11, 1911. Serial No. 648,671. (Cl. 221—62.)



1. In a device of the class described, a delivery member comprising a body and a foldable trough; and a flexible strip extended transversely of the trough and protruding at both ends beyond the trough, the strip being located at the discharge end of the trough to prevent a splitting of the discharge end of the trough, those portions of the strip which protrude beyond the trough constituting means for securing the trough in parallelism with the body.

2. In a device of the class described, a delivery member comprising a body and a foldable trough; and a flexible strip extended transversely of the trough and protruding at both ends beyond the trough, the strip being located at the discharge end of the trough to prevent a splitting thereof, said ends being provided with adhesive material.

3. In a device of the class described, a delivery member fashioned from a single plate of material and provided with a single transverse crease defining a body adapted to be secured to a receptacle and a foldable trough; there being an opening in the body at one side of the crease; and a frangible closure for the opening.

4. In a device of the class described, a delivery member comprising a body and a foldable trough; there being an opening in the body; a frangible closure for the opening; and a sealing member carried by the trough and extended beyond both the end and lateral edges of the trough, the trough being foldable into parallelism with the body, to house the closure and to cause the sealing member to extend beyond the end of the body.

5. In a device of the class described, a delivery member comprising in a one piece structure a body and a foldable trough; the body having an opening therein; a frangible closure engaging the body about the periphery of the opening; and a flexible strip extended transversely of the trough and provided with adhesive material adapted to engage a receptacle, whereby the trough may be maintained in approximate parallelism with the body, to serve as a protection for the frangible closure.

[Claim 6 not printed in the Gazette.]

1,026,829. VEHICLE-WHEEL. KNUT A. READ, Oskaloosa, Iowa. Filed Apr. 24, 1911. Serial No. 623,036. (Cl. 152—48.)



The herein described vehicle wheel comprising a hub in which is formed a series of radially arranged recesses, a web integral with the hub, in which web is formed openings communicating with the recesses in the hub, a ring integral with the edge of the web, in which ring is formed openings communicating with the openings in the web, a spoke body arranged for sliding movement in each of the openings in the ring, a stem integral with each spoke body, which stem extends into the corresponding recess in the hub, a coil spring mounted on each stem and bearing against the under side of the corresponding spoke body, a solid rim and series of sockets thereon a series of leaf springs carried by each spoke body, the outer ends of which leaf springs are loosely seated in the sockets and flexible tire applied to the rim.

1,026,830. STOPPER. WILLIAM H. REDINGTON, Evanston, Ill. Filed Nov. 4, 1911. Serial No. 658,598. (Cl. 215—100.)

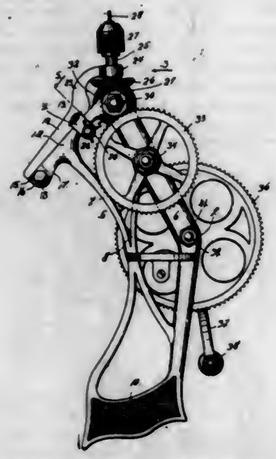
A stopper composed of elastic material and containing two parallel apertures extending entirely through said stopper, one of which communicates with a compressible bulb imporforate except at the point of such communication and the other of which contains a hard rubber tube

which extends beyond such aperture and forms the exit spout, and two flanges projecting laterally from the body



of such stopper, one at the top and the other at the bottom of such body portion.

1,026,831. PORTABLE GEARED ROTARY TOOL. JAMES W. REED, Denver, Colo., assignor to The Reed International Manufacturing Company, Denver, Colo., a Corporation of Colorado. Filed Dec. 31, 1910. Serial No. 600,236. (Cl. 77—7.)



1. The combination with a frame having a handhold at one extremity, a holder at the opposite extremity of the frame, a chuck member journaled in the said holder, the holder being provided with an arm, the arm having a lug provided with an opening adapted to register with an opening formed in the extremity of the frame, the arm also having separated members adapted to straddle the extremity of the frame, means passed through the registering opening of the frame and the lug and through the extremities of the separated members for securing the chuck holder to the frame, an operating spindle journaled in the main frame, and a gearing connection between the operating spindle and the rotary chuck member, substantially as described.

2. The combination with a main frame member having a handhold at one extremity, a holder arranged transversely of the opposite extremity of the main frame member, the said holder being pivotally connected at one extremity with the said main frame member, and adapted to be swung upon its pivot away from the main frame member, the said holder comprising a portion offset from the main frame member, means for retaining the holder rigid with the frame, a chuck member journaled in the said offset portion of the said holder, an operating spindle journaled in the main frame, a connection between the chuck member and the operating spindle including a gear carried by the chuck member, and a coöperating gear carried by the adjacent extremity of the frame, substantially as described.

3. The combination with a main frame member having a handhold at one extremity, of a holder, a chuck member journaled in the said holder, the holder being provided with an arm having means thereon for detachably connecting the same with the extremity of the frame opposite to the hand-hold, comprising separated members adapted to straddle the said extremity of the frame, an operating spindle journaled in the main frame, and a gearing connection between the operating spindle and the rotary chuck member, including a beveled gear carried by the chuck member and a coöperating beveled gear carried by the adjacent extremity of the frame, substantially as described.

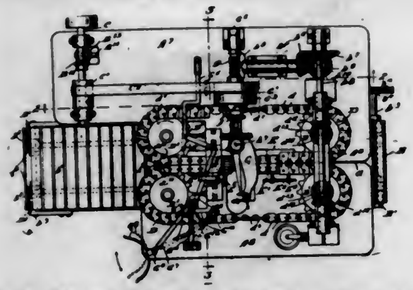
1,026,832. MOLD. CLARA KALKBRENNER SCHINDHELM, Cincinnati, Ohio. Original application filed May 18, 1908, Serial No. 433,472. Divided and this application filed Apr. 11, 1910. Serial No. 554,739. (Cl. 223—16.)



1. The process of forming a mold to be used in the manufacture of garment forms which consists first in applying to the body of a person a jacket formed of a plurality of parts detachably connected together, then applying to each part of said jacket separately, pliable material which is adapted to adhere to said parts respectively, then allowing the same to dry and harden, and then removing each part of the mold from the person.

2. The herein described process which consists in first forming a flexible jacket in separate parts, each separate part having outwardly projecting flanges along its edges, then detachably connecting said flanges together, then covering said outwardly projecting flanges and detachably securing said parts together, then placing said jacket upon a person and conforming it to the figure, then placing pliable and adhesive material on said parts respectively and between the outwardly projecting flanges and allowing the same to dry and harden to form a rigid structure, then removing the detachable connections and removing the mold in parts.

1,026,833. FILLED-SACK-SEWING MACHINE. GEORGE E. SCOTT and EDWARD D. SCOTT, Chicago, Ill., assignors, by mesne assignments, to Timewell Sack Filling and Sewing Machine Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 15, 1909. Serial No. 477,901. (Cl. 112—24.)



1. In a filled sack sewing machine, the combination with a sewing mechanism, of a pair of endless traveling sack holder chains adapted to receive, clamp and hold the mouth edges of a sack between them, and a movable starting device for the sewing mechanism intermittently actuated by the chain, substantially as specified.

2. In a filled sack sewing machine, the combination with a sewing mechanism, a device for controlling the operation of the sewing mechanism, and a pair of opposing endless traveling sack holder chains, one of said chains having at certain portions thereof only a device engaging said controlling device, substantially as specified.

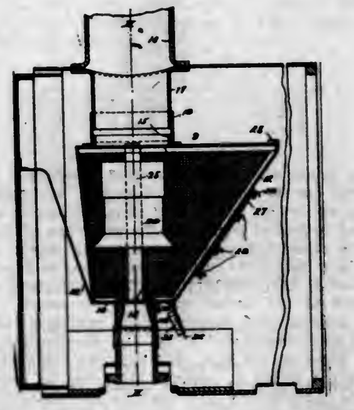
3. The combination with a sewing mechanism, of a device for automatically intermittently controlling the operation of the sewing mechanism, and a pair of opposing endless sack holder chains portions only of which engage said controlling device, substantially as specified.

4. The combination with a sewing mechanism, of opposing endless traveling sack holder chains, one of said chains having a gage for the front edge of the sack, and means carried by one of these chains for automatically stopping the chains substantially as specified.

5. In a filled sack sewing machine, the combination with a sewing mechanism, of a pair of endless opposing sack holding chains, provided with a series of removable sack holding clamp members to adapt the machine for operation upon sacks of different sizes or widths, substantially as specified.

[Claims 6 to 63 not printed in the Gazette.]

1,026,834. SPARK-ARRESTER. FRANK SLATER, Escanaba, Mich. Filed July 7, 1911. Serial No. 637,362. (Cl. 110—124.)



1. The combination with a locomotive smoke box, an exhaust nozzle having upwardly projecting engaging means on its end, and an outlet pipe, of a removable screening box with an outlet at its upper end having a slip collar connection with the outlet pipe whereby the screening box may be moved upward, and having an inlet at its lower end in telescopic relation with the projecting means on the end of the exhaust nozzle, the said upwardly projecting engaging means terminating adjacent the bottom of the screening box so that the screening box and nozzle may be disengaged by a limited vertical movement of the box, and detachable means for holding the screening box against vertical movement.

2. The combination with a locomotive smoke box, an exhaust nozzle having upwardly projecting engaging means on its end, and an outlet pipe, of a removable screening box having an outlet, a slip collar having sliding connection with the said screening box outlet and the outlet pipe whereby the screening box may be moved upward, the said screening box having an inlet at its lower end in telescopic relation with the said upwardly projecting means on the end of the exhaust nozzle, and the said upwardly projecting means terminating adjacent the bottom of the screening box so that the box and nozzle may be disengaged by a limited vertical movement of the screening box, and detachable means for securing the screening box to the nozzle.

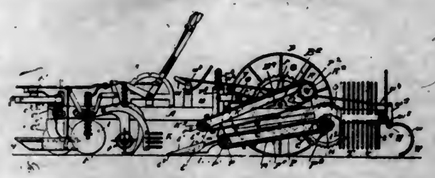
3. The combination with a locomotive smoke box, an exhaust nozzle, and an outlet pipe, of a removable screening box with an outlet at its upper end having a slip detachable connection with the outlet pipe, whereby the box may be moved upward, and having a bottom plate with an inlet opening and resting removably upon the extreme end of the said nozzle, and means for detachably clamping the said bottom plate to the nozzle.

4. The combination with a locomotive smoke box, an exhaust nozzle, and a downwardly projecting outlet pipe, of a removable screening box comprising a metal framework, top, back and bottom of solid plates, and sides and front of foraminous material, an outlet pipe carried by the top plate, a slip collar connecting said last mentioned outlet pipe and the said downwardly projecting outlet pipe, the said bottom plate resting for free vertical movement upon the extreme end of the nozzle, and detachable means for clamping the box in position upon the nozzle.

5. The combination with a smoke box, an outlet pipe, and exhaust nozzle, of a foraminous metal screening box with its walls permanently secured together and having an outlet provided with a detachable slip collar connection with the outlet pipe permitting vertical movement of the box, and with a bottom plate fitting telescopically over the end of the nozzle and freely removable therefrom laterally when the box is moved upwardly as permitted by the slip collar connection, and releasable means for clamping the screening box upon the top of the nozzle.

[Claims 6 to 9 not printed in the Gazette.]

1,026,835. BEET-HARVESTER. GEORGE H. SMITH, Broughton, Ohio. Original application filed Feb. 24, 1908, Serial No. 417,549. Divided and this application filed Apr. 6, 1909. Serial No. 488,286. (Cl. 55—138.)



1. In a beet harvester comprising beet pulling plows and means adapted to receive the beets therefrom, the combination with the plows of a vertically movable upright plow frame to which the plows are secured in normally substantially horizontal positions, means for raising and lowering the frame and the plows, a longitudinal plow frame guiding arm pivotally connected at one end to the upper part of the frame and at the other end to the main frame of the machine, a second longitudinal plow frame guiding arm, substantially parallel to the first arm, connected at one end to the lower part of the frame and at the other end to the main frame, the lower of the arms being longer than the upper whereby the plow frame is guided to hold the plows in slightly downward inclined positions when at or near the surface of the ground and in more nearly horizontal positions when below the surface of the ground, substantially as set forth.

2. In a beet harvesting machine, the combination of beet pulling plows, a supporting frame for the said plows, and a guiding and controlling means for the said frame whereby the plows are pointed downward when in position to enter the ground and whereby they are maintained substantially horizontal when in operative position in the ground, substantially as set forth.

3. In a beet harvesting machine, the combination of beet pulling plows, a frame upon which the plows are mounted, means for raising and lowering the frame, a guiding device for the upper end of the frame, a link pivotally connected at its forward end to the bottom of the frame and at its rear end to the main frame of the machine, an endless conveyer co-extensive with the said link and adapted to be moved with it, and a second endless conveyer above the first, the said second conveyer being pivotally connected at its rear end to the main frame of the machine, and supported at its forward end from the plow frame, substantially as set forth.

4. In a beet harvesting machine comprising a beet pulling mechanism, a backward extending conveying mech-

anism adapted to receive the beets from the pulling mechanism, the said conveying mechanism comprising an endless conveyer below the beets, an endless vertically adjustable conveyer above the beets, and resilient means for supporting the said upper conveyer whereby a portion of its weight is carried by the said means and a portion by the beets, substantially as set forth.

5. In a beet harvesting machine comprising beet pulling devices, a backward extending elevating mechanism adapted to receive beets from the pulling devices, the said mechanism comprising an endless conveyer below the beets, an endless vertically adjustable conveyer above the beets, means for driving the upper conveyer at a greater speed that of the lower conveyer, and resilient supporting means for the said upper conveyer whereby a portion of its weight is carried by the said means and a portion by the beets, substantially as set forth.

1,026,836. PNEUMATIC-TIRE FABRIC HAVING ANNULAR ELASTIC ZONES. LAWRENCE A. SUBERS, Cleveland, Ohio. Filed Oct. 17, 1910. Serial No. 587,631. (Cl. 152—13.)



1. In a pneumatic tire, a layer of fibrous members therein, inclosing the sides and tread surface, said layer composed of twisted cords, and having an integral annular zone therein, the cords in which have a greater amount of twist than in the other portions, the limit of elasticity of the fibrous members in said zone being greater than in the fibrous members composing the rest of said layer.

2. In a pneumatic tire, a layer of fibrous members therein composed of twisted cords and having integral annular zones therein, one on each side of the tread side, the cords in which zones have greater amount of twist than in the other portions, the limit of elasticity in the fibrous members composing the said zones being greater than in the fibrous members composing the rest of said layer.

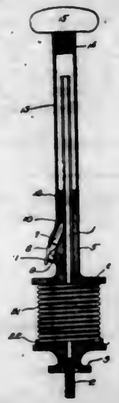
3. In a pneumatic tire, a layer composed of twisted cords elastically united together, each cord provided with regularly recurring zones in which the limit of elasticity is greater than in other portions, the corresponding zone portions in said cords forming corresponding annular zone portions in said layer.

4. In a pneumatic tire, layers composed of uneven laminated cohering regularly spaced bands of fibrous materials, laid at an angle to the sides of the tire, a lining of vulcanizable material, and an outer layer for controlling the limit of expansibility of the tire, said layers each provided with annular integral zones, in which the ratio of elasticity is greater than in the other portions.

5. In a pneumatic tire, layers composed of unwoven laminated cohering regularly spaced bands of fibrous material, and a more rigid controlling outer layer composed of parallel twisted cords, corresponding portions of said twisted cords having a greater limit of expansibility than other portions, whereby annular zones are formed in the tire, having a higher degree of expansibility than other portions.

1,026,837. SPRING COMPRESSING AND ASSEMBLING DEVICE. WILLIAM N. TITUS, Jr., Watertown, Mass. Filed May 15, 1911. Serial No. 627,345. (Cl. 29—87.1.)

1. A device of the kind described, comprising members mounted one in relation to the other for guided free sliding movement, one of said members having a handle adapted to impart thrusts in the axial line of the device and the other member being adapted to engage an abutment in a manner to resist thrusts along said axial line, and both of said members extending to opposite sides of the axis of the device sufficiently to permit a spring to be symmetrically disposed about said axis and be engaged when compressed by each of the members on opposite sides of the axis, and means for detachably holding said members interengaged at will to maintain a spring under compression.



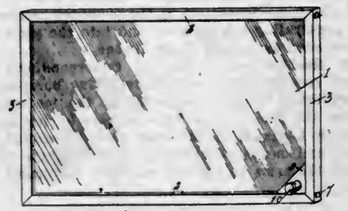
2. A device of the kind described, comprising members mounted one in relation to the other for guided free sliding movement, one of said members having a handle adapted to impart thrusts in the axial line of the device and the other member being adapted to engage an abutment in a manner to resist thrusts along said axial line, and both of said members extending to opposite sides of the axis of the device sufficiently to permit a spring to be symmetrically disposed about said axis and be engaged when compressed by each of the members on opposite sides of the axis, said members being formed to engage the spring at opposite sides and to leave intermediate opposite side portions free and unobstructed so that holding clamps may be applied thereto, and means for detachably holding said members interengaged at will to maintain a spring under compression.

3. A device of the kind described, comprising members mounted one in relation to the other for guided free sliding movement, one of said members having a handle adapted to impart thrusts in the axial line of the device and the other member being adapted to engage an abutment in a manner to resist thrusts along said axial line, and both of said members extending to opposite sides of the axis of the device sufficiently to permit a spring to be symmetrically disposed about said axis and be engaged when compressed by each of the members on opposite sides of the axis, said members being formed to engage the spring at opposite sides and to leave intermediate opposite side portions free and unobstructed so that holding clamps may be applied thereto, and means for detachably holding said members interengaged at will to maintain a spring under compression, said means consisting of ratchet teeth on one of said members and a pawl on the other of said members engageable with such ratchet teeth.

4. A device of the kind described, comprising members mounted one in relation to the other for guided free sliding movement, one of said members having a handle adapted to impart thrusts in the axial line of the device and the other member being adapted to engage an abutment in a manner to resist thrusts along said axial line, and both of said members extending to opposite sides of the axis of the device sufficiently to permit a spring to be symmetrically disposed about said axis and be engaged when compressed by each of the members on opposite sides of the axis, said members being formed to engage the spring at opposite sides and to leave intermediate opposite side portions free and unobstructed so that holding clamps may be applied thereto, and means for detachably holding said members interengaged at will to maintain a spring under compression, said means consisting of ratchet teeth on one of said members and a pawl on the other of said members engageable with such ratchet teeth, one of said members having a further provision for a lengthening adjustment of its operative portion relative to the other member without disturbing the interengaging hold between the members.

5. A device of the kind described, comprising relatively slidable members formed to clamp between them a spring to be compressed with the spring engaged so as to have like pressures exerted thereon at opposite sides and with opposite exposed portions to receive holding clamps, a pawl and ratchet locking connection between said members to hold the same with the spring compressed as desired, and separate means for releasing said members to permit the pawl and ratchet locking means to be disengaged.

1,026,838. FRAME. ANDREW L. WEIS, Monroe, Mich., assignor to The Weis Manufacturing Company, Monroe, Mich., a Corporation. Filed Sept. 9, 1910. Serial No. 581,288. (Cl. 189—76.)



1. In a device of the described character, a longitudinally channeled metal strip mitered at its end, the central transverse portion of the end of the strip being elongated to form a tongue, a corresponding mitered channeled metal strip-end having through the bottom of its channel an aperture through which said tongue extends, said tongue being bent into parallel relation with said latter metal strip-end.

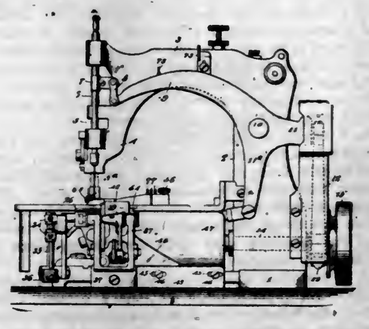
2. A frame comprising a series of longitudinally channeled metal strips, the channels of which are adapted to receive, with a close fit, the margins of a sheet of glass or the like, said strips being correspondingly mitered at their meeting ends, and means for securing the meeting ends of said strips together consisting of a tongue formed by extending the bottom portion of the channel of one of the meeting ends, said tongue passing through a transverse slot in the bottom portion of the channel of the other meeting end, the projecting tongue being turned to overlap the outer margin of the slotted member.

3. In a device of the described character, a sheet of glass, a sheet metal plate having flanges which engage the converging margins of one corner of the glass, a handle secured to said plate and a frame consisting of metal strips having channels which receive the margins of the glass and the flanges of said plate.

1,026,839. SEWING-MACHINE. JOHN P. WEIS, Nyack, N. Y., assignor to Lucius N. Littauer, Gloversville, N. Y. Filed July 13, 1909. Serial No. 507,368. (Cl. 112—1.)

1. The combination in a sewing machine of stitch-forming mechanism, feeding mechanism, and trimming mechanism, the feeding mechanism comprising independent feed-dogs arranged one behind the other and having coöperating feeding parts extending past each other at one side of the stitching position, and the trimming mechanism being arranged in advance of the stitch-forming mechanism and at one side of the front feed-part.

2. The combination in a sewing machine of stitch-forming mechanism, differential feeding mechanism, and a binder, the feeding mechanism comprising independent feed-dogs having parts arranged in alinement but separated so as to leave a space between them, and the binder having its delivery end set in said space in front of the stitch-forming mechanism.



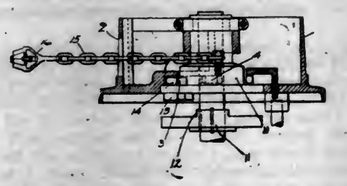
3. The combination in a sewing machine of stitch-forming mechanism, feeding mechanism, and a binder, the feeding mechanism comprising two independent feed-dogs having portions in alinement and arranged at one side of the stitch-forming mechanism, and also having other portions arranged in front of and behind the needle of the stitch-forming mechanism, a binder arranged in front of said needle and between the last-named portions of the said feed-parts, and means for giving the feed-parts differential movements.

4. The combination in a sewing machine of stitch-forming mechanism, differential feeding mechanism, the feeding mechanism comprising feed-dogs having portions arranged at one side of the stitching position and extending one past the other in a horizontal plane, for the purposes described.

5. The combination in a sewing machine of a feeding mechanism, a throat-plate, and a presser-foot, the throat-plate, presser-foot and feeding-devices of the feeding mechanism having registering cut-out portions, and a binder arranged with its delivery end in said cut-out portions in advance of the stitching position, and with a feed-portion of the feeding mechanism in front of and behind said binder end, and means whereby the binder may be withdrawn from its operative position at will during the operation of the machine.

[Claim 6 not printed in the Gazette.]

1,026,840. MECHANISM FOR DRAWING WIRE. HARRY E. WHEELER, Cuyahoga Falls, Ohio, assignor to The Turner, Vaughn and Taylor Company, Cuyahoga Falls, Ohio, a Corporation of Ohio. Filed Dec. 31, 1910. Serial No. 600,271. (Cl. 205—20.)



1. In a device of the character described the combination of a rotatable drum, an independently rotatable member, means for bringing said rotatable member into driving relation with said drum, means for positively retaining said drum from rotation, and means operable by said member for releasing said retaining means.

2. In a device of the character described, the combination of a rotatable drum, a stationary member, locking means mounted on said drum and adapted to engage said member, a member rotatable independently of said drum, means for bringing said rotatable member into driving relation with said drum, and means for releasing said locking means from engagement with said stationary member.

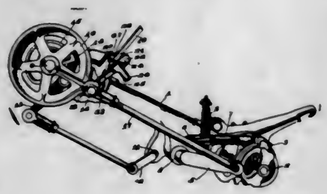
3. In a device of the character described, the combination of a rotatable drum, a stationary member, a catch secured to said drum and adapted to engage said member, a member rotatable independently of said drum, means for bringing said rotatable member into driving relation with said drum, and means for releasing said catch from engagement with said stationary member.

4. In a device of the character described, the combination of a rotatable drum, a stationary member, a catch secured to said drum and adapted to engage said member, a member rotatable independently of said drum, means for bringing said rotatable member into driving relation with said drum, and means operable by said rotatable member for releasing said catch from engagement with said stationary member.

5. In a device of the class described, the combination of a hollow rotatable drum, a stationary member, a catch secured to the interior of said drum and adapted to engage said member, a member within said drum and rotatable independently thereof, means for bringing said rotatable member into driving relation with said drum, and means operable by said rotatable member for releasing said catch from engagement with said stationary member.

[Claims 6 and 7 not printed in the Gazette.]

1,026,841. GRAIN-BINDER. GEORGE W. WILLIS, Auburn, N. Y., assignor to International Harvester Company, a Corporation of New Jersey. Filed Nov. 4, 1911. Serial No. 658,468. (Cl. 56—126.)



1. A grain binder including in combination, a binder frame, a knotter and needle actuating gear wheel rotatably mounted upon said frame, a bracket secured to said frame, and provided with depending ear portions spaced apart, a stop dog having one end received between said ears and pivotally connected therewith, the opposite end of said dog engaging with said gear wheel; a compression spring carried by said dog and operative in a manner to yieldingly hold the latter in engagement with said gear wheel, and a depending shield integral with said dog and operative in a manner to shield said spring against incoming grain.

2. A grain binder including in combination, a binder frame, a needle shaft, a knotter and needle actuating gear wheel, rotatably mounted upon said frame and having a crank pin thereon whereby it is connected with said needle shaft, a boss portion integral with said wheel and having said pin secured thereto; a cam forming part of the periphery of said boss, a bracket secured to said frame and provided with depending ears spaced apart, a stop dog having one end received between said ears and pivotally connected therewith, the opposite end of said dog engaging with said boss, a compression spring carried by said dog and operative in a manner to yieldingly hold the latter in engagement with said boss, and a depending shield integral with said dog and operative in a manner to shield said spring against the incoming grain.

1,026,842. HORSESHOE. CHARLES ALLEN, Winifrede, W. Va. Filed Feb. 16, 1912. Serial No. 677,952. (Cl. 168—19.)

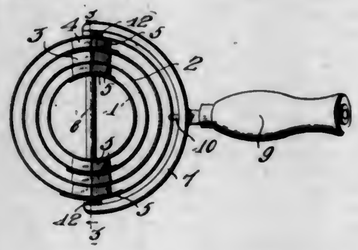


1. In combination, a pair of complementary members hingedly connected at their forward portions, the members having upwardly extending flanges with inclined inner walls to fit the inclined wall of a hoof, the flanges having a series of lugs to embed in the hoof, the rear ends of the members having L-shaped recesses provided with beveled walls, and a U-shaped tie-bar having arms dovetailed in the L-shaped recesses, and means penetrating the members to prevent rearward movement of the tie-bar.

2. In combination, a pair of complementary members hingedly connected at their forward portions, the members having upwardly extending flanges with inclined inner walls to fit the inclined wall of a hoof, the rear ends of the members having L-shaped recesses, a U-shaped tie-bar having arms dovetailed in the U-shaped recesses, and means penetrating the members and into the arms to prevent rearward movement of the tie-bar.

3. In combination, a pair of correspondingly-shaped members constituting a socket-like fitting horse-shoe, the members being hingedly connected at the toe portion of the shoe, the heel ends of the members having L-shaped recesses, a U-shaped tie-bar with arms dovetailed in the recesses, and means penetrating the heel of the members and into the arms to prevent rearward movement of the tie-bar.

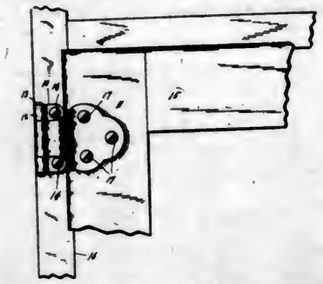
1,026,843. CURRYCOMB. DAVID J. ALSTON, Keokuk, Iowa. Filed Oct. 5, 1911. Serial No. 652,960. (Cl. 119—92.)



A curry comb having a body composed of a plurality of concentric rings, an axle passing diametrically through said rings, means for spacing said rings apart, means operable in connection with said spacing means for frictionally holding the rings together, a frame in the ends of which the ends of said axle are mounted, means for detachably connecting said frame to one of said rings to lock all of the rings against movement relatively to said frame, said rings being individually revoluble on the application of abnormal pressure, and a handle connected with said frame.

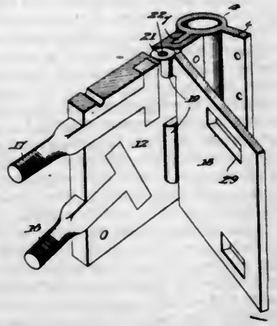
1,026,844. HINGE. HENRY W. BERTRAM, Frankfort, Ind., assignor to McDougall Company, Frankfort, Ind., a Corporation of Indiana. Filed July 27, 1911. Serial No. 640,808. (Cl. 16—106.)

As an article of manufacture, an externally applied hinge comprising a butt member and strap member both of sheet metal and pivotally connected and formed to have the strap member extend completely across the butt member transversely to the hinge axis when the parts are in "closed" position, and the butt member having per-



forated portions extending beyond the strap member in the direction of the hinge axis so as not to be covered thereby.

1,026,845. DERRICK CONNECTION. WILLIAM BISHOP, Saxonburg, Pa. Filed July 31, 1911. Serial No. 641,569. (Cl. 189—36.)



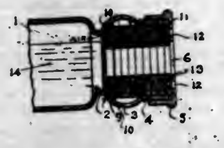
1. In a derrick connection, the combination with uprights, braces and girts, of anchoring bolts carried by the ends of said braces and girts, a bearing block supported by said uprights and adapted to receive the ends of said anchoring bolts, and gate-blocks pivotally connected to said bearing blocks and adapted to be closed to retain said anchoring bolts in engagement with said bearing blocks.

2. In a derrick connection, the combination with uprights, braces and girts, of anchoring bolts carried by the ends of said braces and girts, a bearing block supported by said uprights and adapted to receive the ends of said anchoring bolts, gate-blocks pivotally connected to said bearing blocks and adapted to be closed to retain said anchoring bolts in engagement with said bearing blocks, and means for retaining said gate-blocks in a closed position.

3. In a derrick connection, the combination with uprights, braces and girts, of anchoring bolts carried by the ends of said braces and girts, sleeves mounted upon said uprights, bearing blocks carried by said sleeves and adapted to receive the ends of said anchoring bolts, gate-blocks pivotally connected to said bearing blocks and adapted to be closed to retain said anchoring bolts in engagement with said bearing blocks, and means adapted to retain said gate-blocks in a closed position.

4. In a derrick connection the combination with uprights, braces and girts, of anchoring bolts carried by the ends of said braces and girts, sleeves mounted upon said uprights, bearing blocks carried by said sleeves and adapted to receive the ends of said anchoring bolts, gate-blocks pivotally connected to said bearing blocks and adapted to be closed to retain said anchoring bolts in engagement with said bearing blocks, means adapted to retain said gate-blocks in a closed position, said means including locking bolts carried by said bearing blocks and pins adapted to extend through said bolts.

1,026,846. EVAPORATION-CONTROLLING APPARATUS. ROBERT S. BLAIR, South Orange, N. J. Filed Aug. 3, 1910. Serial No. 575,368. (Cl. 131—30.)



1. In a device of the general nature of that described, in combination, a receptacle adapted to contain a liquid, a member adapted to change its form upon being moistened, means adapted to lead the liquid from said receptacle to said member, and means controlled by the condition of said member and controlling the passage of said liquid from said receptacle to said member and tending to admit liquid to said member as said member dries.

2. In a device of the general nature of that described, in combination, a receptacle adapted to contain a liquid, a member adapted to change its form upon being moistened, means adapted to lead a liquid from said receptacle to said member, and means controlling the passage of liquid from said receptacle to said member and adapted to maintain said member at a substantially constant degree of dampness.

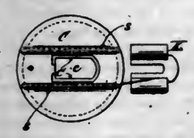
3. In a device of the general nature of that described, in combination, a receptacle adapted to contain a liquid, a member adapted to change its form upon being moistened, means adapted to lead a liquid directly from said receptacle to said member, and means controlled solely by the condition of said member and controlling the passage of said liquid from said receptacle to said member and tending to admit liquid to said member as said member dries.

4. In a device of the general nature of that described, in combination, a receptacle adapted to contain a liquid, a member adapted to change its form upon being moistened, means adapted to lead a liquid from said receptacle to said member, and a valve controlling the passage through said last means and controlled in accordance with the condition of said member.

5. A unitary device having formed at one portion a receptacle adapted to contain a liquid and having another portion formed to support an absorbent member with a portion of its surface exposed to the outer air and a portion of its surface positioned to receive liquid from said receptacle, an absorbent member supported in said device, and a valve in said device and controlled by the expansion and contraction of said member and controlling the passage of liquid from said receptacle to said member.

[Claims 6 to 27 not printed in the Gazette.]

1,026,847. COVER FOR ELECTRIC BATTERIES. HORATIO J. BREWER, New York, N. Y. Filed Oct. 21, 1911. Serial No. 655,880. (Cl. 204—53.)



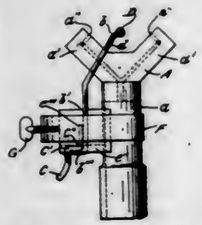
1. In combination with a battery jar, a cover therefor formed of composite material with an approximately cen-

tral opening the sides of which constitute the support for a battery element, and two transverse girders embedded in said composite material, on opposite sides of said approximately central opening, said girders being of sufficient length to end-lap the jar, as and for the purpose described.

2. In combination with a battery jar, a cover therefor formed of composite material with an elongated approximately central flanged opening, a bifurcated collar key fitting said flanged opening and supporting a battery element, and two transverse girders embedded in said composite material on opposite sides of and parallel to said elongated opening, said girders being of sufficient length to end-lap the jar, as and for the purpose described.

3. In combination with a battery jar, a cover therefor formed of composite material with an elongated approximately central opening, two transverse reinforcing girders embedded in said composite material on oppisite sides of and parallel to said elongated opening, said girders being of sufficient length to end-lap the jar, and a bifurcated collar key fitting in said central opening and supporting a battery element and also formed to overlap said transverse reinforcing girders, as and for the purpose described.

1,026,848. ELECTRIC LIGHTER FOR GAS-BURNERS. STEWART BROWN, Chicago, Ill. Filed Dec. 30, 1911. Serial No. 668,624. (Cl. 175—116.)

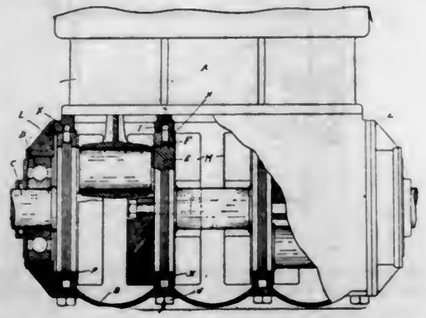


1. In an electric igniter for gas burners the combination of a base made of insulating material, and provided with a groove on the upper side thereof, grooves on the under side thereof, and apertures, electric conducting wires provided with bends, standards made of metal tubes and provided with bends, said wires and standards inserted in the apertures and grooves of the base and electrically joined to each other, a resistance coil the ends whereof are inserted in the ends of the standards, and electrically joined thereto, a band of ductile metal and a thumb screw, said band arranged to secure the base in a determined position on turning said thumb screw in a given direction.

2. In an electric igniter for gas burners, a base made of insulating material and provided with grooves and apertures, wires provided with bends, metal standards provided with bends and with apertures in the upper end thereof, said wires and standards mounted in said grooves and apertures in the base and electrically joined together, and a resistance coil electrically connected to the standards with the ends thereof in said apertures in the standards, in combination with a band, a nut and a thumb screw, said band, nut and thumb screw co-acting with said base to secure said base in a determined position.

1,026,849. BEARING. HOWARD E. COFFIN, Detroit, Mich., assignor to Chalmers Motor Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 13, 1908. Serial No. 426,758. (Cl. 64—10.)

1. The combination with a crank case, of a crank shaft having a plurality of cranks, a disk mounted on said shaft intermediate said cranks, and an annular member peripherally engaging said disk so as to permit independent rotation of the latter and arranged concentric with the axis of said shaft, a seat within said crank case for receiving said annular member and having a channel for lubricant therein registering with a channel in said annular member for conducting the lubricant to the periphery of said revoluble disk, and means for locking said annular member in fixed position to said seat.



2. The combination with a crank shaft, of a casing having separated journal bearings for said shaft and permitting the endwise removal of the shaft therefrom, and a partition for dividing the case into a plurality of compartments arranged intermediate the bearings and removable with said shaft, said partition comprising a rotary disk mounted on this shaft, an annular member mounted upon the periphery of said disk so as to permit of the independent rotation of the latter and forming an air tight joint therewith, and a seat within said crank case for said annular member to which the latter is fixedly secured.

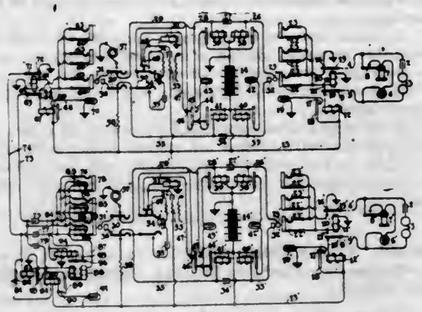
3. The combination with a crank shaft, of a casing having separated journal bearings for said shaft and permitting the endwise removal of the shaft therefrom, and a partition for dividing the case into a plurality of compartments arranged intermediate the bearings and removable with said shaft, said partition comprising a rotary disk having its periphery of angular cross section, a seat within the casing concentric with the disk and surrounding the latter, and a soft metal annulus fixed to the periphery of said disk and interlocking and forming a gas-tight joint with said angular section but permitting independent rotation of said disk, and means for fixedly securing said annulus to said seat.

4. The combination with a casing, of a shaft therein, a disk carried by the shaft adapted to rotate therewith, said disk having its periphery of annular cross section, an annular member formed of soft metal fixed to the seat and having a recessed portion with which the projection on the disk has a rotatable engagement, the connection between the annular member and the disk being gas-tight, and a seat within the casing to which said annular member is fixed.

5. The combination with a casing of a shaft therein, a disk fixedly secured to said shaft and arranged within the casing, said disk having a periphery of annular form, an annular seat in the casing, and a soft metal annulus fixed to the periphery of the disk and interlocking with said annular periphery but permitting independent rotation of the disk, said annulus fitting the seat and being secured thereto.

1,026,850. TELEPHONE TRUNKING SYSTEM. FRED M. DAVIS, Chicago, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 14, 1908. Serial No. 452,827. (Cl. 179—49.)

1. In a telephone system, the combination with a pair of telephone lines terminating at different switchboards, of connecting circuits at each of the switchboards, a trunk circuit extending between said switchboards and terminating at each end in jacks, a trunk signal at each end of the trunk line, a supervisory signal for each connecting circuit, and means to display the trunk signal at either end of the trunk when a connecting circuit is connected with the other end of the trunk, and means to display the supervisory signal at the latter end of the trunk when the connecting circuit is connected with the trunk at said end and to again efface said signal when the connecting circuit is connected with the trunk at the opposite end, substantially as described.



2. In a telephone system, the combination with a pair of telephone lines, of a pair of cord circuits, one adapted to be connected with each of said lines, a trunk circuit terminating at each end in jacks and adapted to connect said cord circuits for conversation, trunk signals, one associated with each end of the trunk, a supervisory signal for each of said cord circuits, means to display the supervisory signal at one end of the trunk and the trunk signal at the other end of the trunk when the cord circuit at the first end is connected with the trunk, and means to efface both said signals when a cord circuit is connected with the other end of the trunk, substantially as described.

3. In a telephone system, the combination with a pair of cord circuits, of a trunk circuit terminating in jacks and adapted to connect said cord circuits for conversation, trunk signals at each end of said trunk adapted to be displayed when the cord circuit is connected with the opposite end of the trunk and again effaced when a cord circuit is connected with each end of the trunk, a supervisory signal for each cord circuit, means to display one of said signals when only its associated cord circuit is connected with the trunk and to efface said signal when both cord circuits are connected with the trunk, substantially as described.

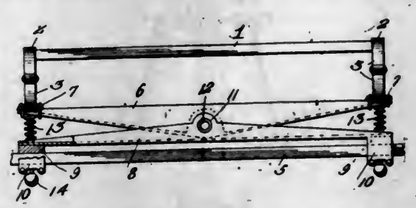
4. In a telephone system, the combination with a pair of cord circuits, of a trunk circuit adapted to connect said cord circuits for conversation, trunk signals at each end of said trunk adapted to be displayed when the cord circuit is connected with the opposite end of the trunk and again effaced when a cord circuit is connected with each end of the trunk, a supervisory signal for each cord circuit, means to display one of said signals when only its associated cord circuit is connected with the trunk and to efface said signal when both cord circuits are connected with the trunk, substantially as described.

5. In a telephone system, the combination with a trunk line, of a relay and condenser normally in series with the trunk at one end thereof, a cord circuit adapted to be connected with the other end of the trunk, a source of alternating current, means to send alternating current over the trunk line and through said relay and condenser when the cord is connected with the trunk at the latter end, whereby said relay is actuated, a signal displayed by the actuation of said relay, and means for disconnecting said relay and condenser from said trunk, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

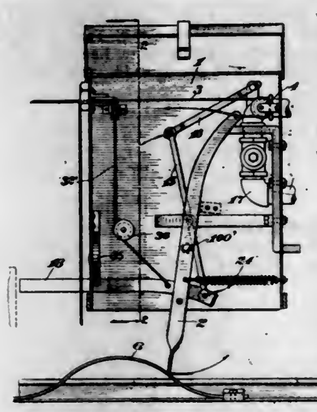
1,026,851. RUNNING-GEAR FOR MOTOR-VEHICLES. DAVID M. DEARING, Jackson, Mich. Filed Nov. 12, 1909. Serial No. 527,625. (Cl. 21—90.)

In a motor vehicle running gear comprising a supporting frame composed of two members hingedly connected with their ends separated, springs disposed between the opposite ends of the members of the frame whereby the upper section thereof is held substantially in a horizontal position, a body supporting frame, elliptic springs having their opposite ends movably attached to the last named frame with their medial portions secured to the opposite ends of the movable portion of the supporting frame adjacent to the opposite ends thereof and immediately above the coiled springs positioned below the same, and brace



rods secured to the attaching ends of the lower fixed member of the supporting frame and below the axle of the vehicle whereby the parts yieldingly connected are held in their proper position in respect to the body supporting frame.

1,026,852. AUTOMATIC TRAIN STOP AND SIGNAL. JOSEPH ALPHONSE DEMERS, St. Romuald, Quebec, Canada. Filed May 9, 1910. Serial No. 560,388. (Cl. 246—59.)



1. A device of the character described, comprising an air brake pipe, a controlling valve therefor, a casing, a bar slidably mounted in said casing, a lever pivoted in said casing and connected to one end of said bar, connections between said levers and said controlling valve, means for holding said bar in inoperative position, and a trip adapted to operate said bar.

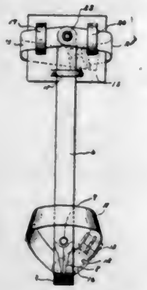
2. A device of the character described, comprising an air brake pipe, a controlling valve therein, a casing, a bar slidably mounted in said casing, a lever pivoted in said casing and connected to one end of said bar, connections between said lever and said controlling valve, means for moving said bar to inoperative position, and a trip adapted to operate said bar.

1,026,853. LINEMAN'S CLIMBER. JOHN DONNELLY, Branford, Conn. Filed Dec. 23, 1911. Serial No. 667,521. (Cl. 36—60.)

1. A lineman's climber comprising a leg portion terminating in a spike, an independently formed foot portion the inner end of which is pivotally connected to the inner face of the lower end of the leg portion above the spike, and straps connected with the outer end of the foot portion and with the upper end of the leg portion.

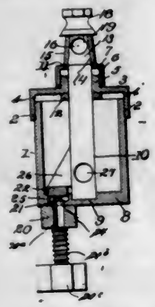
2. A lineman's climber, comprising a leg portion and a foot portion, the leg portion formed with a spike and with a rivet hole with a shoulder around the rivet hole,

and the foot member having an opening adapted to set over the shoulder around said rivet hole, and a rivet for connecting the foot portion with the leg portion.



3. A lineman's climber, comprising a leg portion and a foot portion, and a leg pad provided with a loop through which the upper end of the leg portion extends, and with vertical loops through which two members of the leg strap extend, said two members secured to the upper end of the leg member.

1,026,854. FAUCET. FRED A. DUNNEBACKE and EDWARD A. HARRIS, Lansing, Mich.; said Fred A. Dunnebacke assignor to Henry J. Dunnebacke, Lansing, Mich. Filed Sept. 21, 1910. Serial No. 583,144. (Cl. 137—4.)



1. In a faucet, a cylinder, a discharge tube extending radially from the cylinder and a rocker cut-off for controlling the flow through said tube.

2. In a faucet, a cylinder, an axial discharge tube therein, a rocker cut-off, and means on the tube for controlling said cut-off.

3. In a faucet, a cylinder, an axial discharge tube therein, a rocker cut-off, means on the tube for controlling said cut-off, and a discharge spout on said tube serving as the means for regulating the discharge.

4. In a faucet, a cylinder, an axial discharge tube therein, a rocker cut-off, and a lug carried by said tube for contact with said rocker cut-off.

5. In a faucet, a cylinder, an axial discharge tube therein, a rocker cut-off, a lug carried by said tube for contact with said rocker cut-off, and means for retaining the cut-off in position.

[Claims 6 to 11 not printed in the Gazette.]

1,026,855. ROOFING MATERIAL. CARLETON ELLIS, Larchmont, N. Y., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed May 7, 1909. Serial No. 494,697. (Cl. 154—51.)

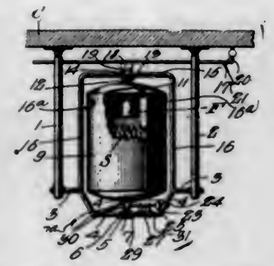
1. As a roofing material a plurality of layers of bituminous composition, each such layer containing a reinforcing fabric and holding a dissolved fungotoxic mineral salt, the proportion of such dissolved mineral salt being greater in an outer layer.

2. As a roofing material a plurality of layers of a bituminous composition containing reinforcing fabric and holding a dissolved fungotoxic copper salt, the proportion of such dissolved fungotoxic copper salt being greater in an outer layer.

3. A roofing material comprising a plurality of layers of asphalt-like material holding a dissolved fungotoxic salt, each such layer being reinforced with fabric and the proportion of such dissolved fungotoxic salt being greater in an outer layer.

4. A roofing material comprising a plurality of layers of asphalt-like material holding a dissolved copper salt, each such layer being reinforced with fabric and the proportion of such dissolved copper salt being greater in an outer layer.

1,026,856. FIRE-EXTINGUISHER. JONATHAN D. FARR, Middleton, Ga. Filed July 24, 1911. Serial No. 640,282. (Cl. 169—8.)



1. A fire extinguisher including a tank mounted for swinging movement about an axis extending transversely through one end portion thereof and for rotation about its longitudinal axis, and means for discharging the contents of the tank in jets to rotate the tank when swung to inverted position.

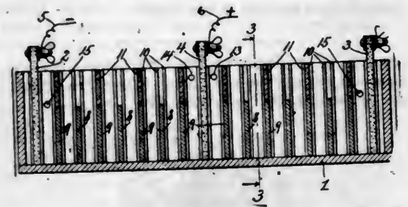
2. A fire extinguisher including a frame, a tank mounted for rotation in the frame about the longitudinal axis of the tank, said frame being arranged to swing about an axis extending transversely through one end portion of the tank, suitable means for holding the tank normally in one position, said tank and frame being adapted to swing to inverted positions when released, and nozzles for directing jets upwardly and downwardly along lines receding from the tank when the tank is inverted, to rotate the tank.

3. A fire extinguisher comprising a hanger, a trip rod journaled therein and provided intermediate of its ends with a dog and at one terminal with a weight, an oscillating shaft journaled in the lower ends of the hanger, a cylinder supported for rotary movements by the frame and by the shaft and containing fire extinguishing chemicals, means carried by the frame to engage the dog to maintain the cylinder in upright position, and a discharge nozzle carried by the cylinder and operating to cause rotation of the cylinder and thus the discharge of the contained chemicals over a large area when the cylinder is inverted.

4. A fire extinguisher including a tank mounted for swinging movement about an axis extending transversely through one end portion thereof and for rotation about its longitudinal axis, and nozzles for directing the contents of the tank in jets upwardly and downwardly along lines receding from the tank when the tank is inverted, to rotate the tank about its longitudinal axis.

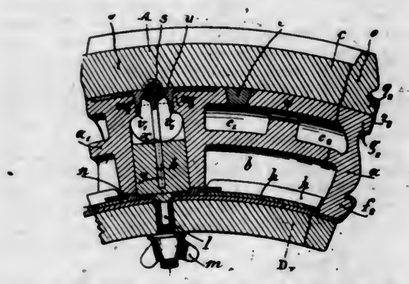
1,026,857. ELECTROLYTIC APPARATUS. LAURA G. FIXEN, Chicago, Ill. Filed June 4, 1910. Serial No. 564,949. (Cl. 204—59.)

An electrolytic apparatus comprising a tank, an electrode near the middle thereof, an electrode near each end thereof, said latter electrodes of opposite polarity from the former electrode, a series of plates extending across the tank and located between the electrode near the center of the tank and the electrodes at the ends thereof, said plates extending entirely across the tank and from the bottom about half way up the sides thereof, some of said plates being continuous and the others provided with openings,



means for inserting the liquid to be treated into said tank near the middle thereof, discharge openings near the ends of said tank through which the material treated may pass, said discharge openings located above the tops of said plates, and means associated with the plates, having holes therethrough, for preventing the liquid from passing over the tops thereof.

1,026,858. PNEUMATIC TIRE FOR VEHICLE-WHEELS. LOUIS ANTOINE GARCHEY, Paris, France. Filed June 29, 1910. Serial No. 569,601. (Cl. 152—22.)

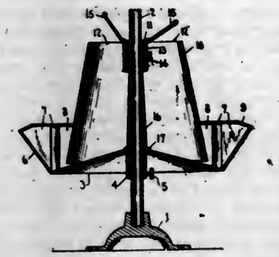


1. An improved pneumatic tire for vehicle wheels, comprising in combination a certain number of identical independent blocks of india-rubber having a large cavity in the lower end and pneumatic chambers in the upper part, a channel connecting two adjacent chambers, means for fixing said blocks on the felly and a tread covering all the blocks, substantially as described and shown and for the purpose set forth.

2. An improved pneumatic tire for vehicle wheels, comprising in combination a certain number of identical independent blocks of india-rubber having a large cavity in the lower end, closed chambers in the upper part of said blocks, said chambers being filled partly with a mixture of air and of a suitable liquid which is inoffensive for the india-rubber, a channel connecting two adjacent chambers, a tread covering all said blocks and means for fixing the blocks in the felly, substantially as described and shown and for the purpose set forth.

3. An improved pneumatic tire for vehicle wheels, comprising in combination a certain number of identical independent blocks of india-rubber having a large cavity in the lower end, chambers in the upper end which are open at their upper ends and filled with an elastic fluid, a channel connecting two adjacent chambers, a tread covering all said blocks and conical stoppers made in one piece with the said tread and projecting from the lower surface of the same to close the said chambers, and means for fixing the blocks on the felly, substantially as described and shown and for the purpose set forth.

1,026,859. POULTRY-FEEDER. THEODORE GARRISON, Hazleton, Pa. Filed Dec. 28, 1911. Serial No. 668,273. (Cl. 119—53.)



A poultry feeder comprising a base, a supporting standard secured therein, a feed pan arranged on said standard, said pan having its bottom inclined from its center toward the outer sides thereof and having its sides flared outwardly, a pan supporting collar arranged on said post, a set screw to hold said collar in its adjusted positions on the post, a series of radially disposed partitions secured to the inner surface of the sides of the pan to provide a plurality of feed spaces, a guard flange secured to the upper edge of the sides of the pan and the upper ends of the partitions whereby the food is prevented from being scattered by the fowls feeding from the pan, a frusto-conical shaped hopper arranged on the post and having its lower end operatively engaged with the pan whereby the food in the hopper is automatically discharged into the feeding spaces of the pan, a hopper supporting collar arranged on said post, a set screw to hold said collar and hopper in their adjusted positions and cover plates to open and close the upper end of the hopper.

1,026,860. PORTABLE DETONATOR-MAGAZINE. ABRAM S. HAMILTON, Nanaimo, British Columbia, Canada. Filed Aug. 7, 1911. Serial No. 642,862. (Cl. 206—3.)



1. A detonator magazine, comprising a cylindrical body provided with radial detonator chambers said magazine being rotatable within a casing provided with a closable aperture, a spring for normally holding said aperture in the closed position and a spring lock for automatically securing it thereat.

2. A detonator magazine, comprising a cylindrical body having detonator chambers in its periphery said magazine being rotatable within a casing having a delivery aperture, a casing ring rotatable outside the first named casing and provided with a similar aperture susceptible of registering with the other, means for normally holding the two rings with their apertures out of register and means for automatically locking them in the out of register position.

3. A detonator magazine, comprising a cylindrical body having detonator chambers in its periphery said magazine being rotatable within a casing ring having an aperture through which a detonator may be delivered, a second casing ring rotatable outside the first named and provided with a similar delivery aperture, a spring normally hold-

ing these two rings with their apertures out of register, a spring lock for securing them in that position and means for rotating them into the register position when the lock is released.

4. A detonator magazine, comprising a cylindrical ring radially penetrated from the outside with detonator chambers and provided with means by which it may be rotated from outside of the casing, a casing ring designed to receive and rotate on this magazine ring the outer ring of the casing having a delivery aperture which may be brought to register with any of the detonator receptacles of the magazine, a closing cover for this casing having a ring rotatable outside that of the other part of the casing said second ring having an aperture corresponding to that in the other part of the casing, a spring drawing the two casing rings to a position where their delivery apertures are out of register, a spring lock securing them in that position and means for rotating them into register when the securing means is released.

5. A detonator magazine, comprising a cylindrical ring provided with radial chambers, a two part cylindrical casing within which the magazine is rotatable said casing being provided with flanges projecting beyond its periphery, by means of which flanges said casing parts may be turned with relation to one another, each of said casing parts having discharge slots that are brought into and out of register with one another as said parts are turned with relation to one another.

[Claims 6 and 7 not printed in the Gazette.]

1,026,861. FIGURE TOY. HENRY L. HASKELL, Ludington, Mich. Filed June 17, 1911. Serial No. 633,755. (Cl. 46—40.)



1. A figure toy comprising body and leg portions, formed integrally of four-ply wood stock, the grain of the two inner plies being vertically disposed and the grain of the two outer plies being horizontally disposed, the outer plies being glued to their adjacent inner plies throughout, the inner plies being glued to each other only in the upper portion of said body, for the purpose specified.

2. A figure toy comprising body and leg portions, formed integrally of four-ply wood stock, the grain of the two inner plies being vertically disposed and the grain of the two outer plies being horizontally disposed, the outer plies being glued to their adjacent inner plies throughout, the inner surfaces of the inner plies being glued to each other only in part, whereby the leg portions are curved outwardly, for the purpose specified.

3. A figure comprising a body and appendicular members, formed integrally of stock having a plurality of plies, the grain of the inner plies being disposed longitudinally of the appendicular members, and the grain of the outer plies being disposed transversely thereof, the inner surfaces of the inner plies being united in the body portion only and the outer plies being united to the inner plies throughout, for the purpose specified.

4. A figure comprising body and appendicular members formed integrally of stock having a plurality of plies, the grain of the inner plies being disposed longitudinally of the appendicular members, the grain of the outer plies being disposed transversely thereof, the inner surfaces of the central plies being united in part only, whereby the appendicular members are spread apart, for the purpose specified.

5. A figure comprising a body and leg portions formed integrally of four ply material, the outer plies being secured to their adjacent inner plies throughout so that the leg portions are two ply, the inner surfaces of the inner plies being secured to each other in part only, the outer plies and their adjacent inner plies being arranged to coact to curve the leg portions outwardly for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,026,862. ELECTRIC WATER-HEATER. EDWARD M. HENGELL, San Francisco, Cal. Filed Dec. 19, 1910. Serial No. 598,109. (Cl. 219—41.)

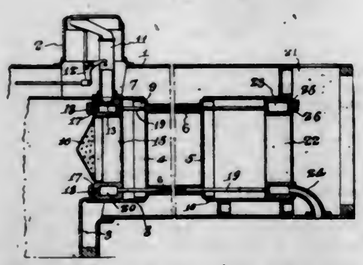


1. An electric water heater comprising a circular frame provided with diametrically disposed cross bars spaced apart vertically and a helically wound resistance element arranged spirally between said cross bars.

2. An electric water heater comprising open circular frames, cross bars on said frames, the cross bars on one of said frames being recessed to receive the resistance element, a helically wound spirally arranged resistance element and means for holding said frames together to confine the resistance element.

3. An electric water heater, comprising circular frames, cross bars on said frames, legs spaced apart circumferentially of the frames adapted to hold the frames apart and to provide openings between the frames, a helically wound resistance element arranged spirally between said frames, the cross-bars of one of said frames being recessed to receive the resistance element, and terminals on one of said cross bars.

1,026,863. LOCOMOTIVE-SUPERHEATER. HAROLD H. HENSZEY, Philadelphia, Pa. Filed July 21, 1911. Serial No. 639,748. (Cl. 122—463.)



1. In a locomotive, the combination with a boiler having a steam dome, of casings therein, heads for the ends of the casings to prevent the water of the boiler from entering the flue and fire box chambers located within the casings, fire tubes having their ends secured in the heads and connecting the fire box and flue chambers, a pipe having one end projecting into the steam dome and the other end depending into the fire box chamber, a throttle for controlling the flow of steam through said pipe, a steam ring located in the fire box chamber, and secured on the depending end of the pipe, a plurality of tubes having one end in communication with the steam containing portion of the ring and having their intermediate portions disposed within the fire tube, a second steam ring secured on the other end of the steam tubes and located within the flue chamber, said pipes having their opposite ends in direct communication with the interior of both rings, and a steam outlet pipe for conveying the steam from the last named ring.

2. A locomotive superheater, comprising a steam ring secured within the fire box chamber, a second steam ring secured within the flue chamber, pipes extending through the fire tubes of the locomotive and connecting the two steam rings, said pipes having their opposite ends in direct communication with both rings, a connection between the steam dome of the locomotive and the steam ring of the fire box chamber, and an outlet pipe extending from the other steam ring.

1,026,864. WINDOW-SCREEN. ALFRED W. HINEY, Philadelphia, Pa. Filed July 17, 1911. Serial No. 638,920. (Cl. 156—39.)



1. In a device of the character described, the combination with a window-frame, the sill of which is provided with an elongated slot, and a sash slidably mounted in said frame; of a rolling screen also mounted in said frame below said sill, one end of said screen being extended through the slot in said sill, means carried on said sash adapted for engagement with the extended end of said screen, said sill being provided at the ends of said slot with depressions for coöperation with the screen-engaging means on said sash, and means on said sash to manually actuate said mentioned means.

2. The combination with a window-frame, the sill of which is provided with an elongated slot, said sill being also provided with depressions at the ends of said slot, and a sash slidably mounted in said frame; of a rolling screen also mounted in the frame below said sill, one end of said screen being extended through said slot and provided with an angular strip, spring-engaging members carried on said sash in alinement with the depressions in said sill, and means carried on said sash to operate said engaging members, whereby the latter may be engaged with the strip of said screen when said sash is lowered to the sill.

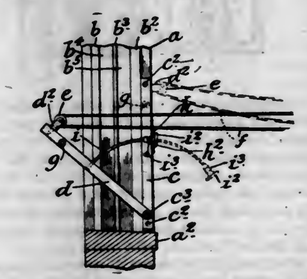
3. The combination with a window-frame, the sill of which is provided with an elongated slot, said sill being also provided with depressions at the ends of said slot, and a sash slidably mounted in said frame; of a rolling screen carried in said frame below said sill, one end of said screen being extended through said slot and provided with an angular strip thereon, spring members carried in channels on the side edges of said sash, the free ends of said springs being bent at right angles to the general trend of said springs to form locking lugs thereon, said locking lugs being disposed in alinement with the depressions in said sill, and means carried on said sash to manually operate said spring members, whereby the same may be engaged with the strip on said spring when said sash is lowered to the sill.

4. The combination with a window-frame, the sill of which is provided with an elongated slot, said sill being also provided with depressions at the ends of said slot, and a sash slidably mounted in said frame; of a rolling screen also carried in said frame and having one end thereof extended through said slot and provided with an angular strip thereon, spring members carried on said sash, the free ends of which are bent to form locking lugs and disposed in alinement with the depressions in said sill, and pins carried on said sash for the manual operation of said spring members, whereby the locking lugs may be engaged with the strip of said screen when said sash is lowered into engagement with the sill.

5. The combination with a window-frame, the sill of which is provided with an elongated slot, said sill being also provided with depressions at the ends of said slot, and a sash slidably mounted in said frame; of a rolling screen carried in said frame below said sill, one end of said screen being extended through said slot and provided with an angular strip thereon, spring members carried on the side edges of said sash and having the free ends thereof bent to form locking lugs, said locking lugs being disposed in alinement with the depressions of said sill, and pins extending through the frame of said sash and adapted to coöperate with said spring members, whereby when said sash is moved to its closed position, said spring members may be engaged with the angular strip of said screen.

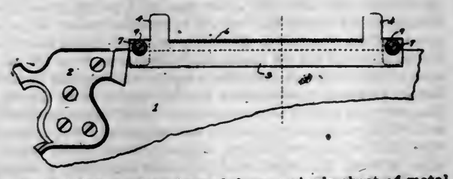
[Claims 6 to 14 not printed in the Gazette.]

1,026,865. CLOTHES-LINE SUPPORT. MAX HOROVICH, New York, N. Y., assignor of one-half to Samuel Lieberman, New York, N. Y. Filed Jan. 29, 1912. Serial No. 673,989. (Cl. 68—3.)



A window line attaching device comprising, a bar adapted to be secured to a side of a window frame, a main arm pivoted to the bottom portion of said bar and a supplemental spring arm connected with the main arm centrally thereof, and movable through a keeper connected with said bar centrally thereof, said supplemental arm and said keeper being provided with means for holding the main arm in a predetermined position and the free end portion of the main arm being provided with a pulley.

1,026,866. SIDING-MARKER. JACOB N. HORTON and EMIL CARLSON, Benson, Nebr. Filed Mar. 31, 1911. Serial No. 618,219. (Cl. 73—143.)

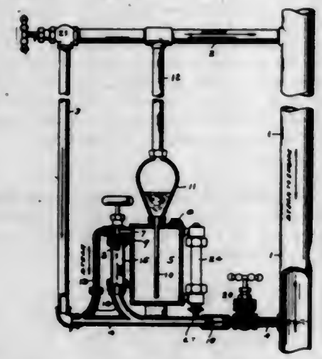


1. A siding marker, formed from a single sheet of metal and comprising a straight flat blade having a marking edge, a pair of mutually alining flat guides projecting from the marking edge and lying in the plane of the blade, two terminal portions bent over from the same edge of the blade, and clamping screws connecting the flat body of the blade with the bent over portions thereof respectively.

2. A siding marker, stamped out from a single sheet of

metal and comprising a flat blade, a plurality of beveled teeth and two flat guides, all formed on one edge of said blade, and two terminal arms extending from the aforesaid edge of the blade and bent over into the form of hooks adapted to engage operatively the straight flat blade of a handsaw or other similar tool, in combination with screws working in said arms and operating said hooks as clamps to engage and to disengage said last mentioned blade.

1,026,867. LUBRICATOR. BENJAMIN F. HOWARD, Indianapolis, Ind., assignor of one-half to John W. Staub, Indianapolis, Ind. Filed June 5, 1911. Serial No. 631,326. (Cl. 184—50.)



1. The combination with a main steam conducting pipe, of a branch pipe therefrom, an oil reservoir having a discharge nozzle, a condenser connected with the branch pipe and discharging water of condensation into the oil reservoir to force the oil out, means connected with said branch pipe for supplying steam against said oil discharge nozzle and for returning water of condensation to said branch pipe, means for nebulizing the oil and steam and means for discharging the product into said main pipe.

2. The combination with a main steam conducting pipe, of a branch pipe therefrom, which discharges through a reduced diameter into said main pipe at a point nearer the engine, an oil reservoir above said pipe discharge, a steam condenser, means for supplying steam to the condenser, means for connecting the condenser with the oil reservoir, a discharge from the reservoir terminating in a nipple, a needle valve seated in said nipple, means for discharging the oil issuing from the nipple into said branch pipe, a steam conduit taking from the branch pipe below the nipple and discharging against the outer wall of the nipple, a nozzle in the branch pipe between its discharge end and said nipple, and means to supply steam under pressure for forcing said oil product through the nozzle into said main pipe.

3. The combination with a main steam conducting pipe, of a branch pipe therefrom which discharges through a reduced diameter into said main pipe at a point nearer the engine, an oil reservoir, a steam condenser, means for supplying steam for the condenser means for connecting the condenser with the oil reservoir, a discharge from the reservoir terminating in a nipple, a needle valve seated in said nipple, means for discharging the oil issuing from the nipple into said branch pipe, a steam conduit taking from the branch pipe considerably below the nipple and discharging against the outer wall of the nipple, a nozzle in the branch pipe between the nipple and the main pipe, and a steam pipe from said branch pipe between the nipple and branch pipe inlet to supply steam pressure for forcing the oil product from the nipple through the nozzle.

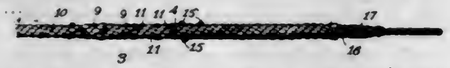
4. The combination with a main steam conducting pipe, of a branch pipe therefrom discharging into said main pipe at a point nearer the engine, an oil reservoir above said discharge of the branch pipe, a steam supply pipe thereto, a discharge pipe therefrom to the branch pipe, a nipple in said last pipe, a nozzle in the branch pipe between its discharge into the main pipe and the discharge of the reservoir pipe into it, and a pipe taking steam below the oil reservoir from the branch pipe and discharging into the upper end of said reservoir discharge pipe against the nipple.

1,026,868. SIGN CHARACTER. DANIEL KABER, Cleveland, Ohio. Filed June 24, 1911. Serial No. 635,135. (Cl. 40—140.)



A sign character comprising a sheet of transparent paper cut in the shape of the character and coated first upon the front side with adhesive material and then coated on both sides in register and over the adhesive material with the material setting forth the sign character, the sign character coating portions being smaller than the paper character itself, thus leaving a margin of adhesive covered surface surrounding the coated character.

1,026,869. SPLICE BETWEEN MANILA AND WIRE CABLES. GEORGE H. KLINGLER and WILLIAM H. KLINGLER, Emlenton, Pa., assignors of one-half to Wright Wire Company, Worcester, Mass., a Corporation of Massachusetts. Filed Oct. 16, 1911. Serial No. 654,842. (Cl. 166—7.)



1. A splice between a Manila cable and a wire cable, with a portion of one end of said Manila cable and of said wire cable untwisted and interlocked, of strands of the untwisted portion of said wire cable inserted beneath the strands of the integral portion of the Manila cable, the untwisted portion of said Manila cable being wound around the integral portion of said wire cable by a twist approximately parallel to the natural twist of said Manila cable, with an additional strand of Manila cable wound around said integral portion of said wire cable between the successive twists of said untwisted portion of said Manila cable.

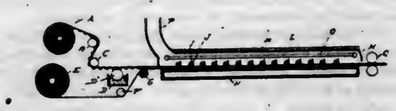
2. A splice between a Manila cable and a wire cable, with each cable fastened near its ends to limit the untwisting and having the portion of each cable between said fastening and its end untwisted and interlocked, and with strands of the untwisted portion of said wire cable inserted beneath the strands of the integral portion of said Manila cable, the untwisted portion of said Manila cable being wound around the integral portion of said wire cable arranged to leave spaces between successive turns of said untwisted portion, and with an additional strand of Manila cable wound around said integral portion of said wire cable in said spaces between said successive twists.

3. A splice between a Manila cable and a wire cable, with a portion of one end each of said Manila cable and of said wire cable untwisted and interlocked, the strands of the untwisted portion of said wire cable inserted beneath the strands of the integral portion of said Manila cable, the untwisted portion of said Manila cable wound around the integral portion of said wire cable arranged to leave spaces between successive turns of said untwisted portion, with an additional strand of Manila cable wound around said integral portion of said wire cable in said spaces between successive turns, and means for attaching the ends of said untwisted portion of said Manila cable and the end of said additional strand to said wire cable.

4. A splice between a Manila cable and a wire cable, having untwisted strands of the wire cable inserted beneath the strands of the integral portion of the Manila cable, and untwisted strands of the Manila cable wound around the integral portion of the wire cable, with their ends tapered and secured to the wire cable.

5. A splice between a Manila cable and a wire cable, with the strands of the untwisted end of the wire cable inserted beneath the strands of the integral Manila cable, with untwisted strands of the Manila cable wound around the wire cable, with their ends attached thereto, and a metallic strap around said strands.

1,026,870. MACHINE FOR MANUFACTURING PAPER-BOARD. PETER G. KLOTZ, Sandusky, Ohio, assignor to Hinde & Dauch Paper Company, Sandusky, Ohio, a Corporation of Ohio. Filed June 11, 1910. Serial No. 566,398. (Cl. 154—32.)



1. The combination with a hot plate, of means for feeding the material to be dried thereover, a plurality of presser bars for yieldably holding the material in contact with said plate during its movement, the pressure placed upon the material by one presser bar being independent of the remaining bars.

2. The combination with a hot plate, of means for feeding a strip of material to be dried thereover, and a series of transversely-extending presser rollers for holding said strip in contact with said plate.

3. The combination with a hot plate, of means for feeding a strip of material to be dried thereover, a series of transversely extending free presser rollers for holding said strip in contact with said plate, and means for limiting the travel of said rollers.

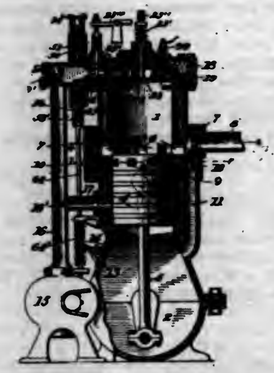
4. The combination with a hot plate, of means for feeding a strip of material to be dried thereover, a series of transversely extending free rollers resting upon said strip above said plate, and stops at the opposite ends of each roller for limiting the forward movement thereof.

5. The combination with a hot plate, of means for feeding a strip of material to be dried thereover, a transversely extending roller for holding said strip in contact with said plate said rollers having end portions of reduced diameter, and stops adjacent to the reduced ends of said rollers for limiting the travel thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,026,871. INTERNAL-COMBUSTION ENGINE. SIMON LAKE, Milford, Conn. Filed Mar. 21, 1911. Serial No. 615,992. (Cl. 123—34.)

1. An internal combustion engine, comprising a power cylinder having an exhaust port and an air inlet port in the power end thereof, an air-tight base upon which the cylinder is mounted communicating with said air inlet port, a power piston working in said cylinder, a crank-shaft mounted in said base, a connecting rod connecting said piston and crank-shaft, a mixing chamber at one end of said power cylinder and communicating therewith, a valve controlling the communication, means for injecting fuel oil and air into said mixing chamber wherein the oil and air are converted into a gas by the heat of said chamber, and a common means for supplying air to said base to be used for scavenging the power cylinder of the products of combustion and for supplying air under pressure to said mixing chamber to force the gas therein into said power cylinder when the valve controlling the communication between said cylinder and said mixing chamber is open.



2. An internal combustion engine, comprising a power cylinder having an exhaust port and an air inlet port, a power piston working in said power cylinder, an air-tight base upon which the cylinder is mounted, a crank-shaft mounted in said base, a connecting rod connecting said power piston and crank-shaft, a passage connecting the base and the said air inlet port, a head having a recess in its lower side mounted upon said cylinder, a plate arranged between said cylinder and head to provide a chamber in the head, a valve controlled opening in said plate leading into said cylinder, an injector for supplying fuel oil and air to said chamber wherein the oil and air are converted into gas by the heat of said chamber, and a common means for supplying air to said base and to said chamber, for the purposes specified.

3. An internal combustion engine, comprising a power cylinder, a piston working therein, a base upon which the cylinder is mounted, a crank-shaft, a connecting rod connecting the piston and crank-shaft, a head having a recess in its lower side mounted upon the cylinder, a divisional plate arranged between the cylinder and head providing a chamber in said head, a valve controlled opening in said plate leading into said cylinder, an injector for forcing oil and air into said chamber against said plate and wherein the oil and air are converted into gas by the heat of said plate, means for opening said valve, and means for supplying air under pressure to said chamber to force the gas therein into said power cylinder when said valve is open.

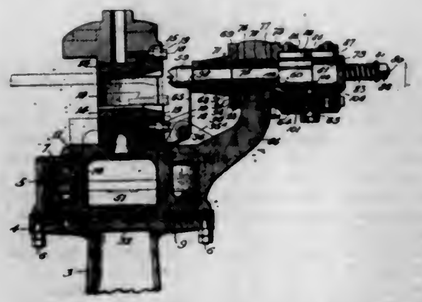
4. An internal combustion engine, comprising a power cylinder, a power piston working therein, a base upon which the cylinder is mounted, a crank-shaft, a connecting rod connecting the piston and crank-shaft, a head for said cylinder having a recess in its lower side, a plate arranged between the cylinder and head forming a chamber in said head, a valve controlled opening in said plate, a rib formed upon said plate extending partly around said valve opening and having one end extended to the side of the recess to provide a semi-circular passage in said chamber, an injector for spraying oil and air into said semi-circular passage in said chamber wherein the oil and air are converted into gas, means for opening the valve in said plate, means for forcing air under pressure into said chamber to force the gas therefrom into the power cylinder, and means controlling the inlet of air to said chamber.

5. An internal combustion engine, comprising a power cylinder having exhaust ports and air inlet ports in the walls thereof, an air-tight base upon which the cylinder is mounted, a passage connecting the base and said air inlet ports, a piston working in said cylinder controlling

said ports, a crank-shaft mounted in the base, a connecting rod connecting the piston and shaft, a head mounted upon the cylinder having a recess in its lower side, a divisional plate arranged between the cylinder and head to provide a fuel mixing chamber at the end of the cylinder, a valve controlled opening in said plate, an injector for forcing oil and air into said fuel mixing chamber wherein the oil and air are converted into gas as specified, valves controlling the admission of the oil and air into said chamber, a pump for forcing scavenging air into said base and for supplying air under pressure to said fuel mixing chamber to drive the gases therefrom into said power cylinder, and means controlling the admission of air into said fuel mixing chamber.

[Claims 6 to 24 not printed in the Gazette.]

1,026,872. FLUID-CONTROLLED DRILL-STEEL-FORMING AND DRILL-BIT-SHARPENING MACHINE. JOHN GEORGE LEYNER, Denver, Colo., assignor to The J. Geo. Leyner Engineering Works Company, Littleton, Colo., a Corporation of Colorado. Filed Oct. 18, 1910. Serial No. 587,650. (Cl. 76—5.)



1. In a fluid controlled drill-steel forming and drill-bit sharpening machine, the combination with a supporting base having a projecting arm, of a hammer piston cylinder provided with a hammer piston, a support, a drill-bit sharpening dolly mounted in the support and arranged to be actuated by said hammer piston, a rear cylinder head, and resiliently yielding bolt rods for clamping said cylinder and its cylinder head and dolly support to said arm with a yielding clamping pressure that permits said dolly support and its securing bolts to yield resiliently under torsional and lateral strains imparted to it during the operative drill sharpening movements of said dolly.

2. A fluid controlled drill sharpener comprising a supporting base provided with a fluid controlled drill-bit holding vise, an arm projecting from said base having a circular opening, a fluid receiving cylinder arranged to be clamped to the opposite side of said arm from said fluid controlled drill-bit holding vise and in axial line with the opening in said arm, a hammer piston reciprocally mounted in said cylinder, and the aperture in said arm, a dolly support mounted on the opposite side of said arm from said cylinder, said arm being provided with tapering apertures on the opposite sides of the circular opening therein, bolt rods extending loosely through the tapering apertures in said arm and through said dolly support and along the sides of and beyond the rear end of said cylinder, a rear cylinder head provided with laterally extending apertured ears through which said bolts extend, a spanner plate over the ends of said bolts, nuts threaded to the ends of said bolts against the outside of said spanner plate, and expansive coiled springs mounted on said bolts between said spanner plate and the ears of said rear cylinder head, a drill sharpening dolly reciprocally mounted in the dolly support in the reciprocal path of said hammer piston and adapted to be driven by said hammer piston on its drill sharpening strokes, and means connected with said dolly and independent of the fluid controlled reciprocal movement of said hammer piston for moving said dolly on the inoperative strokes of its reciprocal movement.

3. A fluid controlled drill sharpener comprising a supporting base provided with a fluid operated drill-bit holding vise, and a projecting arm portion having a central opening and tapered bolt receiving apertures opening out of opposite sides of the same, an operative valve controlled cylinder provided with a rear cylinder head and arranged to be clamped to one side of said arm, a dolly support arranged to be clamped to the opposite side of said arm, bolts extending through said dolly support and through said apertures in said arm and along the side of said cylinder and through and beyond said rear cylinder head, a pair of coiled springs mounted on said bolts and bearing against said rear cylinder head at one end, a washer plate mounted on said rods, nuts threaded to the ends of said rods and arranged to force said plate to compress said springs against said rear cylinder head and thereby clamp said cylinder and dolly support to the opposite sides of said arm, and also to clamp said rear cylinder head to said cylinder, a hammer piston in said cylinder, a drill sharpening dolly reciprocally mounted in the dolly support in the path of said hammer piston and adapted to be actuated by said hammer piston on its drill sharpening stroke, said dolly being provided with apertures in the opposite sides of the same, and means including springs connected to said apertures for actuating said dolly on the inoperative strokes of its reciprocal movement.

4. In a drill-steel forming and sharpening machine, the combination of a support, a drill-bit holding vise thereon, a hammer piston cylinder, a hammer piston reciprocally mounted in said cylinder, a dolly support in axial line with said cylinder, a dolly reciprocally mounted in said support, an automatically operating air pressure exhaust valve for controlling a port extending from said dolly's bearing to the atmosphere, said valve being arranged and adapted to permit the air to exhaust behind the rear end of said dolly when the hammer piston moves forward and to close said port and thus enable said hammer piston to exert a sectional drawing influence on said dolly sufficient to move it on the rearward stroke of its reciprocal movement.

5. In a drill-steel forming and sharpening machine, the combination of a hammer piston cylinder, a hammer piston reciprocally mounted therein, a dolly support, a dolly reciprocally mounted in said support and arranged to be driven on its forward strokes by said hammer piston, said dolly support being provided with a port connecting it with the bore in rear of the dolly with the atmosphere, a spring controlled valve in said port adapted to be opened by the forward dolly driving stroke of said hammer piston and arranged to close said port on the rearward stroke of said hammer piston, whereby said hammer piston exerts a suctional pulling influence on said dolly of sufficient force to move said dolly on the rearward stroke of said dolly's reciprocal movement, and means including a spring detachably connected to said dolly for assisting the suction action of said hammer piston to move said dolly on the rearward stroke of its reciprocal movement.

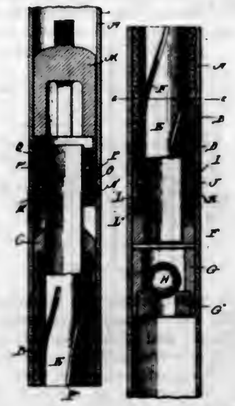
[Claims 6 to 9 not printed in the Gazette.]

1,026,873. PLUNGER. WILLIAM S. LOCKE, Los Angeles, Cal. Filed Feb. 28, 1911. Serial No. 611,416. (Cl. 103—63.)

1. In an oil pump, a plunger tube provided with spiral slots, said plunger tube being rotatable and adapted for rotation through action of the oil upon said slots.

2. In an oil pump, a casing, a gasket held therein against rotation, and a rotatable plunger tube working through said gasket, said plunger tube being provided with spiral slots and adapted for rotation by action of the oil upon said slots.

3. In an oil pump, a casing, a gasket secured therein, a rotatable plunger tube working through said gasket, said plunger tube having spiral slots, sets of ball cups arranged at the upper and lower end portions of the plunger tube, one cup of each set being secured to the plunger



tube, and the others loose upon the plunger tube, and balls arranged between the cups of each set.

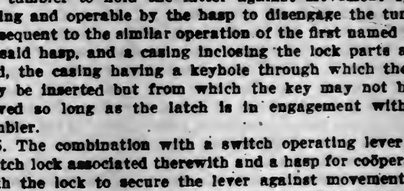
1,026,874. OVERHEAD TROLLEY. ALLEN P. LORD, CHARLES A. LINDBERG, and JOHN V. FLANIGAN, Bradford, Pa.; said Lord and Lindberg assignors to said Flanigan. Filed Mar. 27, 1911. Serial No. 617,120. (Cl. 191—37.)

1. In combination a harp having recesses in the upper ends of the arms thereof, bearing blocks seated in said recesses and having depending flanges embracing opposite sides of the respective arms, cotter pins connecting said depending flanges with said arms, and a trolley wheel having its shaft journaled in said bearing blocks.

2. In combination a harp having bearing blocks removably carried by the arms thereof, and a trolley wheel having its shaft journaled in said blocks, said harp having an oil containing chamber and communicating passages extending up through said arms and communicating with corresponding ports or passages through the bearing blocks, and inverted U-shaped wicks having their lower ends resting in the oil chamber and means for holding their intermediate portions in contact with the under side of the trolley wheel shaft.

1,026,875. SAFETY SWITCH-LOCK. GEORGE MARSHALL, East Ely, Nev. Filed July 18, 1911. Serial No. 639,160. (Cl. 104—25.)

1. The combination with a switch operating lever of a switch lock associated therewith and a hasp for coöperation with the lock to secure the lever against movement, the lock including a movable tumbler for locking engagement with the hasp, a spring for moving the tumbler to its locking position, key operated means for moving the tumbler against the tension of its spring, a spring pressed latch for engagement with the tumbler to prevent an operative movement thereof, the latch being operable by the hasp to release the tumbler, and a casing inclosing the lock parts aforesaid, the casing having a keyhole through which the key may be inserted but from which the key may not be removed so long as the latch is in engagement with the tumbler.



2. The combination with a switch operating lever of a switch lock associated therewith and a hasp for coöperation with the lock to secure the lever against movement, the lock including an approximately semicircular tumbler for locking engagement with the hasp, a spring for moving the tumbler to its locking position, key operated means for moving the tumbler against the tension of its spring, a spring pressed latch for engagement with the tumbler to prevent an operative movement thereof, the latch being operated by the hasp to release the tumbler, and a casing including the lock parts aforesaid, the casing having a key-hole through which the key may be inserted but from which the key may not be removed so long as the latch is in engagement with the tumbler.

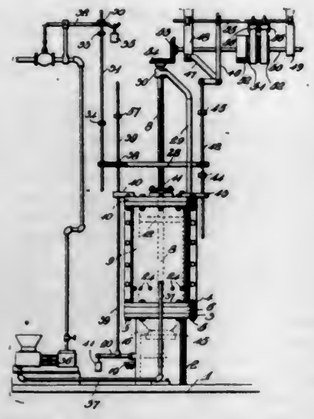
3. The combination with a switch operating lever of a switch lock associated therewith and a hasp for coöperation with the lock to secure the lever against movement, the lock including a movable tumbler for locking engagement with the hasp, a spring for moving the tumbler to its locking position, key operated means for moving the tumbler against the tension of its spring, a spring pressed latch for engagement with the tumbler to prevent an operative movement thereof, the latch being operable by the hasp to release the tumbler, an auxiliary spring pressed latch normally engaging the first named latch to hold the latter from movement against the tension of its spring and being also operable by the hasp to permit of a subsequent releasing movement of said first named latch by said hasp, and a casing inclosing the lock parts aforesaid, the casing having a keyhole through which the key may be inserted but from which the key may not be removed so long as the latch is in engagement with the tumbler.

4. The combination with a switch operating lever, of a switch lock associated therewith and a hasp for coöperation with the lock to secure the lever against movement, the lock including a movable tumbler for locking engagement into the hasp, a spring for moving the tumbler to its locking position, key operated means for moving the tumbler against the tension of its spring, a spring pressed latch for engagement with the tumbler to prevent an operative movement thereof, the latch being operable by the hasp to release the tumbler, a supplemental latch also engaging the tumbler to hold the latter against movement by its spring and operable by the hasp to disengage the tumbler subsequent to the similar operation of the first named latch by said hasp, and a casing inclosing the lock parts aforesaid, the casing having a keyhole through which the key may be inserted but from which the key may not be removed so long as the latch is in engagement with the tumbler.

5. The combination with a switch operating lever of a switch lock associated therewith and a hasp for coöperation with the lock to secure the lever against movement, the lock including a movable tumbler for locking engagement with the hasp, a spring for moving the tumbler to its locking position, key operated means for moving the tumbler against the tension of its spring, a spring pressed latch for engagement with the tumbler to prevent an operative movement thereof, the latch being operable by the hasp

to release the tumbler, an auxiliary spring pressed latch normally engaging the first named latch to hold the latter from movement against the tension of its spring and being also operable by the hasp to permit of a subsequent releasing movement of said first named latch by said hasp, a supplemental latch also engaging the tumbler to hold the latter against movement by its spring and operable by the hasp to disengage the tumbler subsequent to the similar operation of the first named latch by said hasp, and a casing inclosing the lock parts aforesaid, the casing having a keyhole through which the key may be inserted but from which the key may not be removed so long as the latch is in engagement with the tumbler.

1,026,876. PRESS. HERMAN C. MCLEARN, Yarmouth, Me. Filed Aug. 1, 1911. Serial No. 641,723. (Cl. 100—44.)



1. A press comprising a plurality of perforated cylinders, the perforations therein being arranged in an annular series, and the perforations of the respective series being in longitudinal alinement with those of the adjacent series, filtering fabric arranged between said cylinders, a shell surrounding said cylinders and having longitudinally extending grooves on its inner face registering with said perforations, said shell having outlets at the lower ends of said grooves, a plunger operating in said cylinders, and means for the exit of the compressed material from the cylinders.

2. A press comprising a cylinder, a plunger operating in said cylinder, an automatically operated valve for the exit of the compressed material, and means to automatically reverse the action of the plunger subsequently to the opening of the valve.

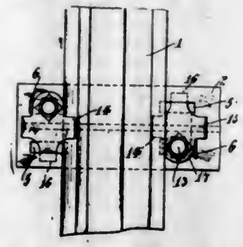
3. In a press, the combination with a cylinder, of a valve for the exit of the compressed material from said cylinder, a plunger operating shaft, and means carried by the plunger operating shaft for controlling the action of the valve.

4. In a press, the combination with a cylinder, of a valve controlling the exit of the compressed material from said cylinder, a plunger operating to compress the material in said cylinder, means for operating said plunger, means controlled in the operation of sad plunger for releasing the exit valve, and means controlled subsequently to the release of said valve for reversing the operating means.

5. A press comprising a cylinder, a rod therein having right and left hand threads thereon, a plunger mounted on the rod and operated by one set of threads, to reciprocate within the cylinder, a member carried by the rod and operated by the opposite set of threads, a valve for the exit of the compressed material, and a connection between the valve and said member.

[Claim 6 not printed in the Gazette.]

1,026,877. TRACK CONSTRUCTION AND RAIL-CLIP. JOHN NOLL, New York, N. Y., assignor to Continuous Rail Company, New York, N. Y., a Corporation of New York. Filed Feb. 7, 1912. Serial No. 676,134. (Cl. 238—4.)



1. In a track construction the combination of transversely extending rail supporting members, flanged rails supported thereupon and means for adjustably securing the rails to the transverse members, the transverse members having upon opposite sides of each rail a pair of slots extending transversely to the rail, the means for adjustably securing the rails comprising a bolt and a rail clip having at one end a rail engaging and holding portion, at the other end a depending portion to engage the top of the transverse member, at one side a depending hook passing through one of the slots so that an upper surface of the hook always presses upwardly against the rail supporting member and at the other side a bolt receiving portion arranged so that the bolt projecting from the other slot of the pair of slots through the bolt receiving portion of the clip when tightened will swing the depending hook portion of the clip upwardly against the supporting member around an axis passing between the rail engaging portion and depending portion at the opposite end of the clip.

2. In a track construction the combination of a transversely extending supporting member, a rail supported thereupon and means upon opposite sides of the rail for adjustably securing the rail to the transverse member, the transverse member having upon opposite sides of the rail a pair of slots extending transversely to the rail, the means for adjustably securing the rail comprising a bolt and a rail clip having at one end a rail engaging and holding portion, at the other end a portion to engage the top of the transverse member, at one side a depending hook passing through one of the slots and at the other side a bolt receiving portion arranged so that the bolt projecting from the other slot will enter the bolt receiving portion of the clip whereby when the bolt is tightened the depending hook portion of the clip will be forced upwardly and the ends of the clip will be drawn downwardly against the rail and the transverse member, the slots, the bolt and the depending hook of the clip being so shaped and proportioned that the rail can be held in different transverse positions on the supporting member.

3. The combination of a rail supporting member having a flanged top provided with a pair of slots extending transversely of the rail when in position on the member and a rail clip having at one side thereof a depending hook to enter one of the slots and engage the under portion of the flange of the supporting member, at the other side a bolt receiving opening located over the second slot when the clip is in position on the track member said clip having at one end a portion to engage the supporting flange of a rail to hold the rail and at the other end a depending portion to engage the top of the transverse member.

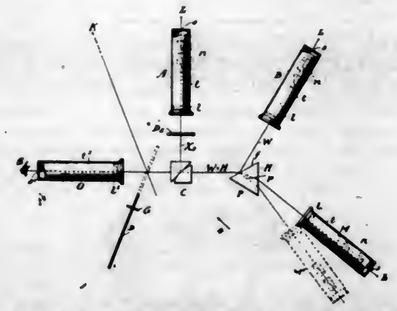
4. The combination of a rail supporting member, a rail clip and a bolt, the supporting member having a pair of slots extending lengthwise of the member and the rail clip having at one side thereof a depending hook, at the other side a bolt receiving portion, at one end thereof a rail engaging portion and at the other end a depending portion, the arrangement of the slots in the transverse member and the construction of the clip and bolts being such

that the depending hook is adapted to enter one of the slots and the bolt is adapted to pass through the other of the slots into the bolt receiving portion of the clip whereby when the bolt is tightened the ends of the rail clip will be firmly drawn toward the transverse member so as to secure a rail thereupon.

5. A rail clip having at one end a rail engaging portion, at the other end a depending portion, at one side a depending hook and at the other side a bolt receiving portion.

[Claim 6 not printed in the Gazette.]

1,026,878. COLORIMETER. PERLEY GILMAN NUTTING, Washington, D. C. Filed Jan. 17, 1912. Serial No. 671,756. (Dedicated to the public.) (Cl. 88—14.)



1. A method of determining the hue, purity and luminosity of a beam of light consisting in determining the wave-length of the dominant hue (or its complementary, as the case may be), the proportion that the white light in the unknown bears to the pure light of dominant hue therein, and the luminosity of said beam.

2. In combination, means for producing a beam of white light and two beams of colored light, means for matching as to hue and purity either of two of the three beams against the combination of the other two beams, and means for measuring the luminosities of all of said beams.

3. Means for producing a beam of light of unknown color, means for producing a beam of white light, means for producing a beam of light of any desired pure spectral hue, means for adjusting independently the intensities of all of said beams, means for combining said last-named beam with either of said first-named beams, and means for matching as to hue and purity the combined beams against the remaining beam.

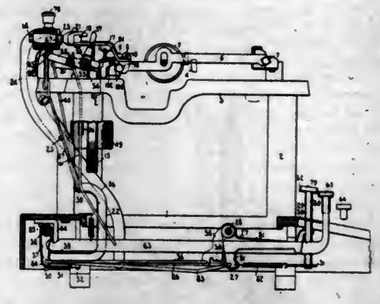
4. Means for producing a first beam of light of known quality, means for producing a second beam of light, means for producing a third beam of light, one of the two last-named beams being white light and the other being the unknown light, means for combining the first and second beams, means for matching as to hue and purity the third beam against said combined beams.

5. Means for producing a first beam of light of known quality, means for producing a second beam of light, means for producing a third beam of light, one of the two last-named beams being white light and the other being the unknown light, means for combining the first and second beams, means for matching as to hue and purity the third beam against said combined beams, said matching means comprising a photometer cube.

[Claims 6 to 25 not printed in the Gazette.]

1,026,879. TYPE-WRITING MACHINE. LEENDERT PIETER POLHUIS, Amsterdam, Netherlands, assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 5, 1912. Serial No. 669,661. (Cl. 197—179.)

1. In a typewriting machine and tabulating mechanism, the combination of a power driven carriage, a column stop movable into and out of operative position, a resetting device which is effective to bring about a movement of the column stop to inoperative position, means for releasing the carriage, and means for simultaneously actuating said carriage releasing means and said resetting device.



2. In a typewriting machine and tabulating mechanism, the combination of a power driven carriage, a series of independently movable column stops movable into and out of operative position and adapted to remain indefinitely in either of such positions, a resetting device effective to bring about a movement of all of the set column stops to inoperative position, means for releasing the carriage, and key controlled means operable at will for simultaneously actuating said carriage releasing means and said resetting device.

3. In a typewriting machine and tabulating mechanism, the combination of a power driven carriage, a series of independently movable column stops movable into and out of operative position and adapted to remain indefinitely in either of such positions, a resetting device movable into and out of coöperative relation with the set column stops and effective when operative to move the set column stops successively to inoperative position during the travel of the carriage, means for releasing the carriage, and key controlled means operable at will for simultaneously actuating said carriage releasing means and for moving said resetting device to operative position.

4. In a typewriting machine and tabulating mechanism, the combination of a power driven carriage, a series of independently movable column stops movable into and out of operative position and adapted to remain indefinitely in either of such positions, a resetting device which is in the nature of a wiper which is movable into and out of coöperative relation with said column stops and which is effective when operative to cam the set column stops successively to inoperative position during the travel of the carriage, means for releasing the carriage, and key controlled means operable at will for simultaneously actuating said carriage releasing means and for moving said wiper to operative position, whereby the power exerted to feed the carriage may be utilized to move the set column stops to inoperative position.

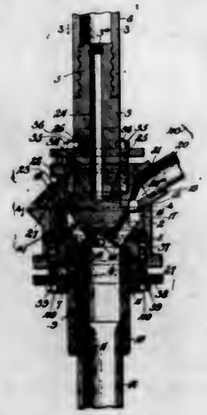
5. In a typewriting machine and tabulating mechanism, the combination of a power driven carriage, a series of independently movable column stops movable into and out of operative position and adapted to remain indefinitely in either of such positions, said column stops being situated in the rear of the machine, a key at the front of the machine, a resetting device arranged at the rear of the machine and effective to bring about a movement of the set column stops to inoperative position, intermediate actuating connections between said key and said resetting device to actuate the latter, and means controlled by an actuation of said key for releasing the carriage.

[Claims 6 to 25 not printed in the Gazette.]

1,026,880. WATER AND SHOT FEED COUPLING. WILLIAM I. RAVERT, Lattimer Mines, Pa., assignor to Augustus W. Drake, Lattimer Mines, Pa. Filed Sept. 12, 1910. Serial No. 581,547. (Cl. 166—3.)

1. A water and shot feed coupling for drilling machines including a rotary coupling member having a socket at the

bottom and provided above the same with an annular groove and having a plurality of radially arranged inclined passages extending from the groove to the socket, and an outer shell fitted on the rotary coupling member and provided with a tapered inlet communicating with the groove of the rotary coupling member and having an inclined inner wall arranged to be struck by the shot to cause the latter to rebound and positively fall into the annular groove.



2. A water and shot feed coupling for drilling machines including a rotary coupling member provided with an annular groove and having a plurality of passages extending downwardly from the groove, and an outer shell arranged on the coupling member and having an opening for the attachment of a pipe and provided with a tapered inlet passage extending from the said opening and communicating with the groove of the rotary coupling member and having an inclined inner wall arranged at an angle to the pipe opening and adapted to be struck by the shot and cause the latter to rebound and positively fall into the annular groove.

3. A water and shot feed coupling for drilling machines including a rotary coupling member having an annular groove recessed at the outer wall to form an upper overhanging shoulder to prevent the shot from rising and escaping from the annular groove, said upper member being also provided with passages extending downwardly from the groove, and a stationary outer shell fitted on the rotary coupling member and having an inlet communicating with the annular groove.

4. A water and shot feed coupling for drilling machines including a rotary coupling member having an annular groove recessed at the outer wall to form an upper overhanging shoulder to prevent the shot from rising and escaping from the annular groove, said rotary member being also provided with passages extending downwardly from the groove, and a stationary outer shell fitted on the rotary coupling member and provided with an inlet communicating with the annular groove and having an inclined inner wall arranged to direct shot downwardly and adapted to cause the same to rebound and fall into the groove.

5. A water and shot feed coupling for drilling machines including an inner rotary coupling member provided with an annular groove having an annular recess in its outer wall forming an over-hanging shoulder to prevent the balls from rising and escaping from the annular groove, said coupling member being also provided with inclined passages extending downwardly and inwardly from the groove, and an outer stationary shell fitted on the coupling member and provided with an annular groove registering with the groove of the coupling member and coöperating with the same to form an annular passage, said outer shell having an inlet tapered at the inner portion and communicating with the said annular passage and presenting an inner inclined wall.

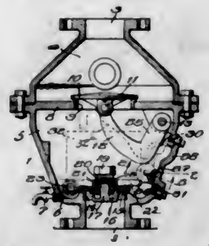
[Claims 6 to 9 not printed in the Gazette.]

1,026,881. PROCESS OF MANUFACTURING BLACK SULFURIZED COLORING-MATTERS. OTTO REINHARDT and JULIUS HOERLIN, Uerdingen-on-the-Rhine, Germany, assignors to The Firm of Chemische Fabriken vorm. Weiler-ter Meer, Uerdingen-on-the-Rhine, Germany. Filed Dec. 5, 1906. Serial No. 346,511. (Cl. 8—1.)

1. The process of manufacturing black sulfurized coloring matters which consists in heating, under pressure, aqueous solutions of alkali polysulfids with aromatic nitrohydroxy compounds.

2. The process of manufacturing blue-black or green-black sulfurized coloring matters which consists in heating an amount corresponding to between 1.5 molecules and 2.5 molecules of an alkali polysulfid in an aqueous solution under pressure with an amount corresponding to one molecule of oxydinitrophenylamin.

1,026,882. MAIN VALVE FOR DRY-PIPE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS. FRANK H. RICE, Oak Park, Ill. Filed Jan. 14, 1911. Serial No. 602,727. (Cl. 169—23.)



1. A main valve for automatic fire extinguishers having a casing, said casing having a chamber, a port opening thereinto for the inlet of water, a second chamber communicating with the system, and a port through which said chambers communicate, in combination with valves adapted to said ports, respectively, and means interposed between said valves for transmitting pressure from one to the other, said transmitting means having a strut comprising two members contacting with each other and operating after the manner of a toggle, a fixed abutment on which the outer end of one of said members is fulcrumed, and means interposed between one of said members and one of said valves, whereby the air pressure normally prevents the buckling of the strut.

2. A main valve for automatic fire extinguishers having a casing, said casing having a chamber, a port opening thereinto for the inlet of water, a second chamber communicating with the system, and a port through which said chambers communicate, in combination with valves adapted to said ports, respectively, and means interposed between said valves for transmitting pressure from one to the other, said transmitting means having a strut comprising two members contacting with each other and operating after the manner of a toggle, and means interposed between one of said members and the valve for controlling the port through which the chambers communicate, whereby the air pressure normally prevents the buckling of the strut.

3. A main valve for automatic fire extinguishers having a casing, said casing having a chamber, a port opening thereinto for the inlet of water, a second chamber communicating with the system, and a port through which said chambers communicate, in combination with valves adapted to said ports, respectively, and means interposed between said valves for transmitting pressure from one to the other, said transmitting means having a strut comprising two members contacting with each other and operating after the manner of a toggle and means interposed between one of said strut members, adjacent to its point of contact with the other strut member, and the valve for controlling the port through which the chambers communicate.

4. A main valve for automatic fire extinguishers having a casing, said casing having a chamber, a port opening thereinto for the inlet of water, a second chamber communicating with the system, and a port through which said chambers communicate, in combination with valves adapted to said ports respectively and means interposed between said valves for transmitting pressure from one to the other, said transmitting means having a strut comprising two members contacting with each other and operating after the manner of a toggle, and a stop for preventing the strut members from reaching the dead center.

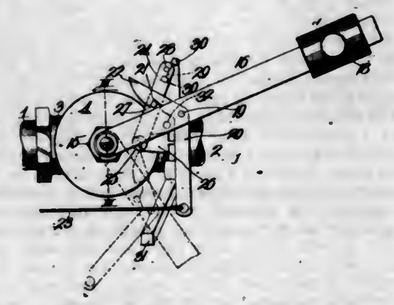
5. A main valve for automatic fire extinguishers having a casing, said casing having a chamber, a port opening thereinto for the inlet of water, a second chamber communicating with the system, and a port through which said chambers communicate, in combination with valves adapted to said ports, respectively, means interposed between said valves for transmitting pressure from one to the other, said transmitting means having a lever fulcrumed at one end in the chamber first aforesaid, means interposed between the free end of said lever and one of the valves, and a strut member contacting with the lever at an intermediate point, that portion of the lever which is between its fulcrum and its point of contact with said strut member forming the other of two strut members operating after the manner of a toggle, whereby the air pressure normally prevents the buckling of the strut.

[Claims 6 to 15 not printed in the Gazette.]

1,026,883. METAL-POLISH. AMBROSE RIDD, Newport, Ky. Filed Oct. 2, 1911. Serial No. 652,376. (Cl. 134—25.)

A metal polish consisting of the following ingredients in substantially the proportions stated by measure; copal varnish, 1 part, turpentine, 1 part, boiled linseed oil, ½ part, turpentine asphaltum ½ part, and finely divided graphite in quantity to produce a mass having the consistency of thick house paint.

1,026,884. FLUID SHUT-OFF. ROYAL SALMON, Kansas City, Mo. Filed Mar. 11, 1911. Serial No. 613,938. (Cl. 137—92.)



1. A fluid shut-off, comprising a valve, a lever for closing the valve, a movable holder for normally holding the valve open, a fusible support for the holder, a connection between the lever and holder to compel the latter to move under the force of the former when the fusible support is broken, and means whereby the lever can be pulled down until the valve is closed when the fusible support remains intact.

2. A fluid shut-off, comprising a valve, a lever for closing the valve, a movable holder for normally holding the valve open, a fusible support for the holder, a connection between the lever and holder, and means to effect disengagement between the holder and the said connection to permit the lever to swing downward and close the valve when the fusible support remains intact.

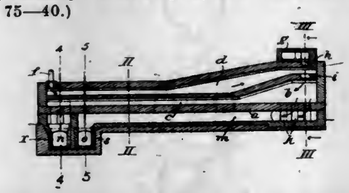
3. A fluid shut-off, comprising a valve, a lever for closing the valve, a movable holder for normally holding the valve open, a fusible support for the holder, a connection between the lever and holder to compel the latter to move under the force of the former when the fusible support is broken, and means to trip the said connection from engagement with the holder when the fusible support remains intact.

4. A fluid-shut-off, comprising a valve, a lever for closing the valve, a movable holder for normally holding the valve open, a fusible support for the holder, a connection between the lever and holder to compel the latter to move under the force of the former when the fusible support is broken, and means susceptible of being pulled to trip the said connection from engagement with the holder and thus exert a positive downward pull on the lever until the valve is closed when the fusible support remains intact.

5. A fluid shut-off comprising a valve, a lever for closing the valve, a bracket suitably supported, a movable holder pivoted to the bracket for normally holding the valve open, a fusible support carried by the bracket and preventing pivotal movement of the holder, a trigger pivoted to the lever and engaging the said movable holder, and a pull connection to trip the trigger from engagement with the said holder when the fusible support remains intact.

[Claims 6 to 8 not printed in the Gazette.]

1,026,885. GAS-FURNACE FOR HEATING, SCALING, AND HARDENING PURPOSES. PAUL SCHMIDT, Hanover, Germany. Filed July 18, 1910. Serial No. 572,655. (Cl. 75—40.)



1. A furnace of the character described comprising in combination, means forming an elongated inclosure extending in substantially a horizontal plane, means for dividing said inclosure into upper and lower chambers having a communication between the said chambers adjacent one end of the inclosure, means for introducing hot gases into said inclosure adjacent the end thereof having the said communication between the upper and lower chambers thereof, separate egress means for gases, for said upper and lower chambers and disposed adjacent the end of the inclosure remote from the said communication between the said chambers thereof, and means for independently controlling said egress means, substantially as and for the purpose set forth.

2. A furnace of the character described comprising in combination, means forming a first or lower elongated chamber, a second or upper elongated chamber, and a third elongated chamber disposed in superposed relation to each other, means for admitting air into the third chamber adjacent one end thereof, means for admitting gas into said third chamber adjacent the end opposite the said air admission means, nozzles for mixing the said air and gases and conveying the mixture into said second chamber, the first and second chambers having a communication therebetween adjacent the mixture inlet of the second chamber, egress means for said first chamber adjacent an end opposite from said communication between the first and second chambers, means for controlling said egress means, second egress means for said second chamber adjacent an end thereof opposite said communication between the first and second chambers, and means for controlling said second egress means, substantially as and for the purpose set forth.

3. A furnace of the character described comprising in combination, means forming a first or lower elongated chamber, a second or upper elongated chamber, and a third elongated chamber disposed in superposed relation to each other, means for admitting air into the third chamber ad-

jacent one end thereof, means for admitting gases into said third chamber adjacent the end opposite the said air admission means, for mixing the air and gases and conveying the mixture into said second chamber, the first and second chambers having a communication therebetween adjacent the mixing inlet of the second chamber, egress means for said first chamber adjacent an end opposite from said communication between the first and second chamber, means for controlling said egress means, second egress means for said second chamber adjacent the end thereof opposite said communication between the first and second chamber, and means for controlling said second egress means, substantially as and for the purpose set forth.

1,026,886. ROCK-DRILL. MARTIN E. THOMAS, Bowling Green, Ky., assignor of three-fourths to Willis W. Hester and Baley P. Belk, Bowling Green, Ky. Filed Dec. 7, 1910. Serial No. 596,155. (Cl. 125—10.)



A cutter head provided at its active end with a circular series of integral and substantially radial lugs with opposite plane faces parallel one to the other and inclined to the longitudinal axis of the cutter head, the end of the cutter head remote from the lugs being formed into a socket with the exterior walls substantially parallel with the longitudinal axis of the socket, rotatable cutting disks one for each lug and mounted on that face of the lug toward the active face of the cutter head, the axis of rotation of the cutting disk being perpendicular to the corresponding face of the lug, and a sleeve provided with externally inclined material-directing wings and having an internal bore conforming to the external form of the socket end of the cutter head.

1,026,887. ROTARY ENGINE. JOHN H. VAN DEVENTER, Buffalo, N. Y., assignor to Buffalo Forge Company, Buffalo, N. Y., a Corporation of New York. Filed May 15, 1911. Serial No. 627,166. (Cl. 121—54.)



1. In a rotary engine, the combination of two or more intermeshing and engaging rotors, shafts secured in said rotors and rotatably mounted in suitable bearings, each rotor having a plurality of right hand spirally disposed tooth blades extending from a plurality of circumferential points on said rotors located in a plane at right angles to the axis thereof toward one end of said rotors, and a plurality of left hand spirally disposed tooth blades extending from said plurality of circumferential points toward the opposite end of said rotors, said right and left hand tooth blades of each rotor meeting and joining and thereby forming angular pockets and a fluid inlet provided with a port for conducting fluid under pressure to said rotors, said port being so located and formed that said conducted fluid will be impinged within the angular pockets formed by said tooth blades.

2. In a rotary engine, the combination of two or more intermeshing and engaging rotors, shafts secured in said rotors and rotatably mounted in suitable bearings, each rotor having a plurality of right hand spirally disposed tooth blades extending from a plurality of circumferential points on said rotors located in a plane at right angles to the axis thereof toward one end of said rotors, and a plurality of left hand spirally disposed tooth blades extending from said plurality of circumferential points toward the opposite end of said rotors, said right hand and left hand spirally disposed tooth blades of one rotor meshing respectively with said left hand and right hand spirally disposed tooth blades of another rotor, whereby buckets are formed between the meshing tooth blades of said rotors, and a fluid inlet provided with a port for conducting fluid under pressure to said rotors, said port being so located and formed that said conducted fluid will be impinged within the buckets formed by said tooth blades.

3. In a rotary engine the combination of two or more intermeshing and engaging rotors, shafts secured in said rotors and rotably mounted in suitable bearings each rotor having a plurality of right hand spirally disposed tooth blades extending from a plurality of circumferential points on said rotors located in a plane at right angles to the axis thereof toward one end of said rotors and a plurality of left hand spirally disposed tooth blades extending from said plurality of circumferential points toward the opposite end of said rotors, said right and left hand tooth blades of each rotor meeting and joining and thereby forming angular pockets, and said right hand and left hand spirally disposed tooth blades of one rotor meshing respectively with said left hand and right hand spirally disposed tooth blades of another rotor, whereby buckets are formed between the meshing tooth blades of said rotors, and a fluid inlet provided with a port for conducting fluid under pressure to said rotors, said port being so located and formed that said conducted fluid will be impinged within the angular pockets formed by said tooth blades.

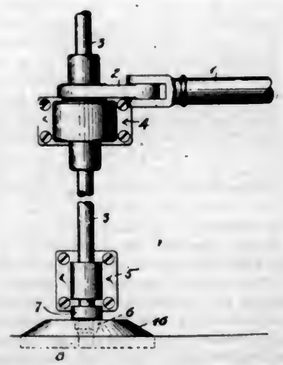
4. In a rotary engine the combination of two or more intermeshing and engaging rotors, shafts secured in said rotors and rotatably mounted in suitable bearings, each rotor having a plurality of right hand spirally disposed tooth blades extending from a plurality of circumferential points on said rotors located in a plane at right angles to the axis thereof toward one end of said rotors, and a plurality of left hand spirally disposed tooth blades extending from said plurality of circumferential points toward the opposite end of said rotors, said right and left hand tooth blades of each rotor meeting and joining and thereby forming angular pockets and a fluid inlet provided with a port having lateral passages leading into said pockets whereby the conducted fluid impacts in said pockets and against said tooth blades substantially in the direction of rotation of said rotors.

5. In a rotary engine the combination of two or more intermeshing and engaging rotors, shafts secured in said rotors and rotatably mounted in suitable bearings, each rotor having a plurality of right hand spirally disposed tooth blades extending from a plurality of circumferential points on said rotors located in a plane at right angles to the axis thereof toward one end of said rotors and a plurality of left hand spirally disposed tooth blades extending from said plurality of circumferential points toward the opposite end of said rotors, said right and left hand tooth blades of each rotor meeting and joining and thereby forming angular pockets, and a rib extending substantially parallel to the axes of said rotors and in contact with the peripheries of said rotors for at least a portion of their

circumferences, said rib being provided with a port for conducting fluid under pressure to the said angular pockets of said rotors.

[Claims 6 to 22 not printed in the Gazette.]

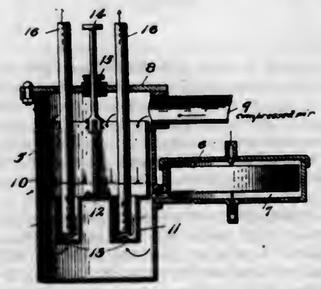
1,026,888. EMERGENCY-DOOR LOCK. HENRY G. VOIGHT, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Feb. 15, 1911. Serial No. 608,700. (Cl. 70—120.)



1. In an emergency door lock, a rotatable bar arranged to be carried at the inner side of a door, a crank pin on said bar, the center of said pin being normally between the center of the bar and the door, a stop pin arranged to be carried by the door casing, said crank pin being arranged to engage the remote side of said stop pin relatively to the door, and an operating bar connected to said rotatable bar to rotate the same in a direction to dislodge said crank pin from said stop pin.

2. In an emergency door lock, a rotatable bar arranged to be carried by a door, a crank pin on said bar arranged between the center of said bar and the door, a stop pin arranged to be carried by the door casing, a stop also arranged to be carried by the door casing, said crank pin being arranged to engage the remote side of said stop pin, said stop coöperating to hold said crank pin in position just beyond a line intersecting the axis of the stop pin and the bar, and means for rotating the bar by pressure toward the door to dislodge said crank pin.

1,026,889. CARBURETER FOR STARTING INTERNAL-COMBUSTION ENGINES. FRANK H. WALKER, Lincoln, Nebr. Filed Apr. 21, 1911. Serial No. 622,597. (Cl. 123—180.)

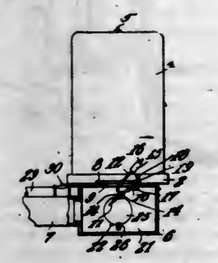


1. A carbureter comprising a closed vessel, a liquid fuel supply therefor, a reservoir immerged in the liquid contents of the vessel and adjustable to vary the extent of the reservoir is immerged, said reservoir having an inlet for said contents, a delivery pipe extending into the reservoir, and means for placing air pressure on the liquid contents of the reservoir.

2. A carbureter comprising a closed vessel, a liquid fuel supply therefor, a reservoir immerged in the liquid contents of the vessel and adjustable therein to vary the extent the reservoir is immerged, said reservoir having a bottom pocket provided with a valve-controlled inlet, a delivery pipe entering the vessel and extending through the reservoir into the pocket, and means for placing air pressure on the liquid contents of the reservoir.

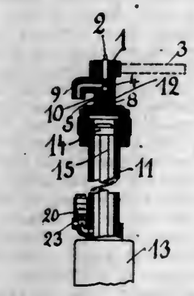
3. A carbureter comprising a vessel having air and liquid fuel inlets, and an outlet extending below the level of the liquid fuel, a vessel within said vessel, means for adjusting the second-mentioned vessel up or down with respect to the liquid fuel level within the first-mentioned vessel, and a valve cutting off the fuel supply from the first-mentioned to the second-mentioned vessel when the carbureter is discharging.

1,026,890. HYDRAULIC RAM. JOHN D. WEAVER, Mifflinburg, Pa. Filed June 19, 1911. Serial No. 634,029. (Cl. 103—29.)



In a device of the class described, a body provided with an opening; an air chamber communicating with the body; a valve located within the body and pivoted to the body, to serve as a closure for the opening, the valve being provided with a rearwardly extended finger; a screw threaded through the body and adapted to engage the finger, to limit the movement of the valve into open position; an arm secured to the valve and curved rearwardly toward the pivotal mounting of the valve, the arm being extended through the opening; a weight movably mounted upon the arm; and means for holding the weight against movement upon the arm.

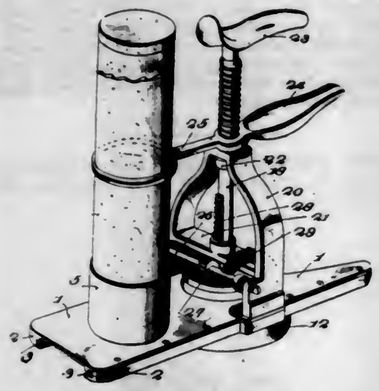
1,026,891. HAND-RAMMER. FRANZ WEGENER, Halle, Germany. Filed Jan. 18, 1912. Serial No. 671,996. (Cl. 94—4.)



An improved paving rammer comprising in combination a supply valve for the motor fluid, a cylinder having a vertical channel in its wall and having said valve fixed upon its upper end and a monkey fixed at the lower end

of said cylinder, said monkey having a cavity in its lower end, a working piston in said cylinder, a piston rod, an enlarged lower end of said piston rod located in said cavity of the monkey and serving as support for the monkey, and buffer means between said working piston and said monkey and designed to lift the support for the monkey before the monkey begins to fall, substantially as described and shown and for the purpose set forth.

1,026,892. CAPPING-MACHINE. WILBUR L. WRIGHT, Washington, D. C. Filed Nov. 5, 1909. Serial No. 526,388. (Cl. 226—5.)



1. In a capping machine, in combination, a horizontally disposed base at its under side having opposite longitudinal cap-edge-receiving grooves, said base being open at the bottom between said grooves, the distance between said grooves being less than the diameter of the caps, a cap magazine opening through said base and through the top walls of said grooves whereby caps can drop from said magazine onto the bottom walls of said grooves, the top walls of said grooves at the front of said opening forming stop shoulders holding back the cap immediately above the cap in the grooves, said grooves at the front ends terminating in an opening adapted to register with the bottle mouths to be capped, whereby the caps drop from the front ends of said grooves into said opening, a cap seating plunger movable through said opening, a cap forcing slide movable in said grooves to push each cap forwardly therein and to normally close said grooves against entrance of caps thereinto, and operating means.

2. In a capping machine, in combination, a base formed with a vertical cap-delivery opening adapted to register with the bottle mouths to be capped, a cap-seating plunger movable through said opening, said base having depressed longitudinal cap supporting ledges at their front ends terminating in said opening to drop caps thereinto, said ledges being spaced apart a distace less than the diameter of the caps, whereby caps are supported on said ledges by their diametrically opposite edge portions resting thereon, said base having a vertical cap-supply opening above said ledges so that caps can drop therethrough onto said ledges, spaced cap abutments in front of said cap-supply opening and a distance above said ledges approximately equal to the thickness of the caps to permit each cap to move forward on said ledges and under said abutments and to hold back the cap in said opening and immediately over the cap on the ledges, a reciprocatory slide to push caps forwardly on said ledges from said supply opening to said delivery opening, and actuating means.

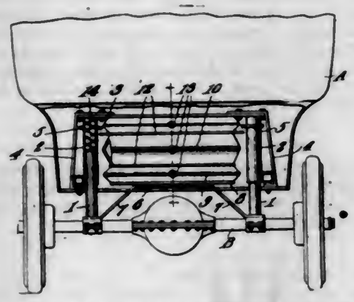
3. In capping machine, in combination, a frame having longitudinal depending ribs along its under side formed with longitudinal cap-edge-receiving grooves opening through their inner edges and arranged a distance below the intervening bottom face of the frame, said grooves being spaced apart a distance less than the diameters of the caps and of a width approximately equal to the thickness of the caps, said frame having a vertical-cap receiving opening extending through the top walls of said grooves to deliver caps onto the bottom walls of said grooves, said frame also having a cap delivery opening therethrough at which said grooves terminate at their front ends to drop caps thereinto, a reciprocatory slide along its opposite edges fitting and sliding in said grooves to force caps forwardly therein, a cap forcing plunger movable through said delivery opening, and actuating means.

4. In a capping machine, in combination, a horizontal frame having a cap-receiving opening and a cap-delivering opening spaced from said delivery opening, said frame having a pair of longitudinal cap-edge-receiving grooves of the approximate thickness of a cap and extending from said receiving opening and at their front ends terminating in said delivery opening, said grooves spaced apart a distance less than the diameter of the caps, said receiving opening extending through the top walls of said grooves to drop caps onto the bottom walls thereof, a longitudinally unobstructed passage being provided between the top walls of said grooves and from the receiving opening to the delivery opening and over the top faces of caps being forced along said grooves, a slide at its opposite edges confined in said grooves to force caps forwardly along said grooves, a cap seating plunger, and actuating means.

5. In a capping machine, in combination, a horizontal frame having a vertical cap-receiving opening and a vertical cap-delivery opening, and a cap passage from the receiving opening to the delivery opening, a cap-stop spanning said passage at the rear of the receiving opening, a pair of cap-abutments at the front of said receiving opening spaced a distance apart less than the diameter of the caps, passages about equal to the thickness of the caps being provided below said abutments for the successive passage of the diametrically opposite edge portions of the caps, a reciprocatory slide movable below said stop and abutments for successively pushing caps through said passage way, a cap seating plunger, and actuating means.

[Claims 6 to 21 not printed in the Gazette.]

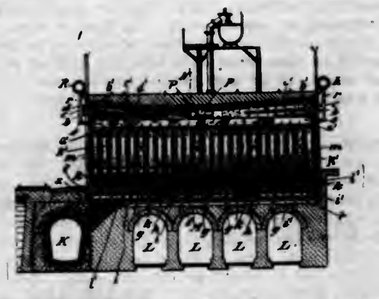
1,026,893. PNEUMATIC CUSHION FOR VEHICLES. FRED I. BAKER, Orange, Mass. Filed Nov. 17, 1911. Serial No. 660,936. (Cl. 21—50.)



1. A cushion for vehicles, including superposed non-communicating compartments, said compartments being inflated to different degrees of pressure, means for connecting the upper and lower compartments to a vehicle body and axle respectively, telescopically connected guides adapted to be secured to the body and axle of the vehicle at points remote from the compartments, and compression devices interposed between the guides.

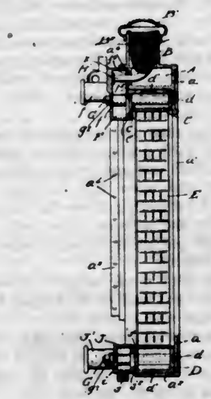
2. The combination with the body of a vehicle and an axle thereunder, of guides upstanding from the axle, additional guides depending from the body and slidably engaging the first mentioned guides, compression devices disposed between said guides, a cross bar connected to the body and between the guides, a base bar secured to the axle and between the guides, and a plurality of constantly exposed non-communicating superposed inflatable elements secured to and interposed between said bars and between the guides and constituting a pneumatic cushion, one of said elements being inflated for greater resistance than the remaining elements.

1,026,894. COKE-OVEN. THEODOR V. BAUER, Berlin, Germany. Filed May 4, 1908. Serial No. 430,699. (Cl. 202—9.)



In combination with a series of retorts, of combustion chambers in the side walls thereof, a gas distributing chamber located above said combustion chambers and communicating therewith, a slidable baffle member in said gas distributing chamber for regulating the direction of flow of gas to the combustion chambers, a plurality of channels for supplying gas to said distributing chamber, and flues for conveying preheated air to the combustion chambers.

1,026,895. RADIATOR. JACOB B. BEAM, Punxsutawney, Pa. Original application filed Feb. 16, 1911, Serial No. 608,944. Divided and this application filed July 26, 1911. Serial No. 640,656. (Cl. 62—28.)



1. An automobile radiator, comprising a frame, a chamber at the top thereof provided with a filling opening, a water leg connected with the upper part of the frame and communicating with said chamber; a series of independently removable radiator sections comprising upper headers communicating with the upper water leg and bearing against the bottom of said chamber and against the upper part of the front frame of the radiator and lower headers resting on the bottom of the radiator frame and bearing against the lower part of the front frame, and vertical tubes communicating with the upper and lower headers; and a lower water leg communicating with the lower headers and detachably connected with the lower part of the radiator frame.

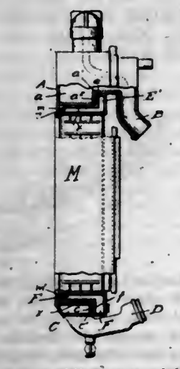
2. An automobile radiator, comprising a radiator frame, a chamber at the upper part thereof having a filling opening, a water leg in rear of said chamber communicating therewith and having horizontal bolt-receiving sleeves extending through it, a series of upper radiator headers arranged in close contact with each other, communicating with the water leg and having elongated bolt-receiving grooves in their sides, bolts extending through the sleeves of said chamber and through the grooves of the headers and connected with the radiator frame, a series of lower headers having elongated bolt-receiving grooves in their sides, a lower water leg communicating with the lower headers and having bolt-receiving sleeves extending through it, tubes connecting the upper and lower headers and bolts extending through the sleeves and grooves and connected to the radiator frame for detachably connecting the lower water leg, headers and frame together.

3. A radiator, comprising a radiator frame, a chamber at the top thereof, a lower water leg detachably connected with the lower part of the radiator frame, a water leg secured at the rear of the chamber at the top of the frame, communicating therewith and having sides or branches extending diagonally downward and outward therefrom, and a series of independently removable vertically arranged radiator sections of different lengths, comprising upper and lower headers, and vertical connecting tubes, said lower headers being connected with the lower water leg and said upper headers being arranged in different horizontal planes in front of the upper water leg and having separate connections therewith some with the top of the water leg and others with the downwardly extending branches thereof.

4. A radiator, comprising a radiator frame, a chamber at the top thereof having a filling opening, a series of upper radiator headers detachably connected with each other and with the frame and arranged horizontally below the chamber in the top of the frame, and a series of radiator headers arranged in series on opposite sides of the first mentioned headers and extending downward and outward therefrom, a water leg having an upper horizontal portion and sides or branches extending diagonally downward and outward therefrom arranged in rear of said headers and communicating separately with all of them, lower headers, vertical tubes connecting the upper and lower headers and a water leg communicating separately with the lower headers and detachably connected therewith.

5. An automobile radiator, comprising a radiator frame, a series of independently removable radiator sections mounted in said frame and resting on and supported by the bottom thereof, an upper water leg communicating with the headers at the top of the radiator sections, means for detachably connecting said water leg with the radiator frame, and a lower water leg communicating with the lower headers and detachably connected therewith.

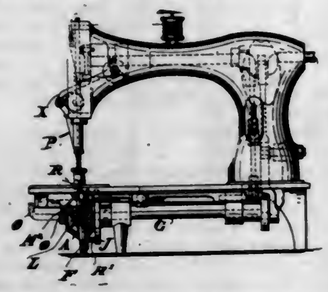
1,026,896. RADIATOR. JACOB B. BEAM, Punxsutawney, Pa. Original application filed Feb. 16, 1911, Serial No. 608,944. Divided and this application filed July 26, 1911. Serial No. 640,657. (Cl. 62—28.)



A radiator for automobiles, comprising an upper water chamber formed with a depressed portion having a rear

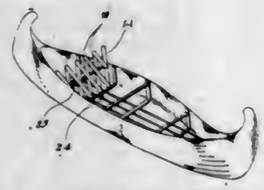
wall provided with ports, a lower water chamber having a rear wall provided with ports, a front frame rigidly connecting the upper and lower water chambers having an inwardly projecting flange below the bottom wall of the upper water chamber and above the top wall of the lower water chamber; and a series of separately removable radiator sections, comprising lower headers which rest on the top of the lower water chamber with their front walls close to the flange of the front frame and which have portions extending behind the lower water chamber and communicating therewith, upper headers with their top walls close to the bottom wall of the upper water chamber and having their front walls arranged close to the flange of the front frame and which have upwardly projecting portions communicating with the rear portion of the upper water chamber, and vertical tubes rigidly connecting the upper and lower headers.

1,026,897. SEWING-MACHINE. FREDERICK JOHN TURNER BELL, Accrington, England. Filed Mar. 4, 1910. Serial No. 547,384. (Cl. 112—22.)



In a two reel sewing machine, the combination of a driving shaft provided with driving pins and a reel casing with its axis slightly angularly inclined relatively to such driving shaft such reel casing consisting of two truncated conical shells united at their bases, driving holes in one such shell for intermittent engagement with such driving pins, an axial opening in the other such shell for the insertion and withdrawal of the reel carrier, a single radial notch formed in the casing and extending to the periphery of such casing, a hook formed about the periphery of the casing and extending into such notch, means separate from the reel casing for taking up the slack of the needle loop, a reel carrier within the casing such reel carrier having an end disk externally formed with a projecting thread guide, and a gate for engaging with the projecting thread guide of the reel carrier and holding such carrier stationary during the operation of the machine, substantially as described.

1,026,898. BACK-REST FOR CANOES. JOHN E. BENSON, Minneapolis, Minn. Filed Apr. 6, 1912. Serial No. 688,933. (Cl. 9—7.)

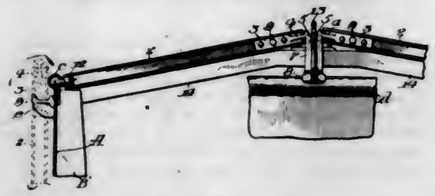


1. A back rest for canoes comprising a set of strips pivotally connected at their centers and ends, two of said strips at the same side of the back rest being of half length whereby an expansible member is provided of greater width along one side than the other.

2. A back rest for canoes comprising a series of thin strips of wood, part of said strips being pivotally connected at their ends to the ends of other strips and at their centers to the centers of other strips, the two end strips being connected at one end only with ends of other strips, and at their centers with the ends of short strips pivotally connected at their other ends with the ends of said first named strips.

3. A back rest for canoes comprising a series of thin strips of wood, part of said strips being pivotally connected at their ends to the ends of other strips and at their centers to the centers of other strips, the two end strips being connected at one end only with ends of other strips, and at their centers with the ends of short strips pivotally connected at their other ends with the ends of said first named strips, all of said pivotal connections comprising pivot members concealed between the said bars.

1,026,899. ROOF FOR CARS. WILLIAM P. BETTENDORF, deceased, Bettendorf, Iowa, by Joseph W. Bettendorf, administrator, Davenport, Iowa. Original application filed Apr. 8, 1910, Serial No. 554,184. Divided and this application filed Aug. 13, 1910. Serial No. 577,094. (Cl. 105—78.)



1. A car-body comprising a suitable underframe, corner-posts, car-lines at each end of said car-body removably secured to and arching from one post to the other, and integral roof members each extending from end to end of said body between the ridge thereof and the eaves of the roof and removably secured upon said car-lines.

2. A car-body comprising an underframe, corner-posts, end-walls secured to said posts, carlines removably secured to and arching from one post to the other, roof members removably supported upon said carlines, and standards resting upon said end-walls the upper ends of which are engaged by said roof elements.

3. A car-body comprising an underframe, corner-posts, end-walls secured to said posts, carlines removably secured to and arching from one post to the other, roof members removably supported upon said carlines, transverse fingers secured to and projecting from the corners of said roof members and provided with enlarged ends, and standards resting upon said end-walls the upper ends of which are engaged by said fingers.

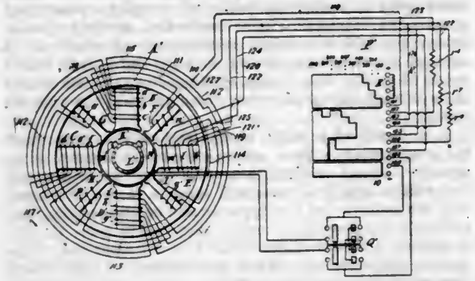
4. The combination with a car-body, of a roof therefor comprising carlines at each end of said body and secured to and arching from side-wall to side-wall of the same, and integral half roof members one on each side of the ridge of the roof and extending from end to end of the car-body each of which are removably supported by said carlines, between the ridge and eaves of the roof.

5. The combination with a car-body, of a roof therefor comprising carlines secured to and arching from side-wall to side-wall of said body, standards supported by the end-walls intermediate their ends, and integral half roof-members one on each side of the ridge of the roof that are removably supported by said carlines and the upper corners of which rest upon said standards.

[Claim 6 not printed in the Gazette.]

1,026,900. APPARATUS FOR REGULATING DYNAMO-ELECTRIC MACHINES. CHARLES E. BONINE, Elizabeth, N. J., assignor to Electro-Dynamic Company, Bayonne, N. J., a Corporation of New Jersey. Filed Feb. 17, 1906, Serial No. 301,609. Renewed Oct. 11, 1910. Serial No. 586,556. (Cl. 172—179.)

1. The combination with a dynamo electric machine, comprising a frame, a plurality of poles supported thereby, windings upon said poles, an armature and conductors communicating therewith, the windings upon alternate poles being in sections, and means for shunting certain of said sections without shunting the remainder thereof.



2. The combination with a dynamo electric machine, comprising a frame, a plurality of poles supported thereby, windings upon said poles, an armature and conductors communicating therewith, the windings upon alternate poles being in sections, and means for shunting equal sections upon each of said alternate poles without shunting the remainder of the sections.

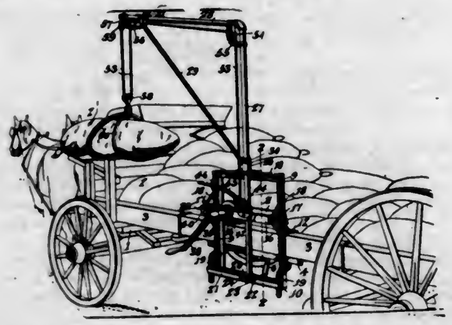
3. The combination with a dynamo electric machine, comprising a frame, main and commutation poles supported thereby, windings upon said poles, an armature and conductors communicating therewith, of means for shunting the windings upon the main poles without shunting the windings upon the commutation poles.

4. The combination with a dynamo electric machine, comprising a frame, main and commutation poles supported thereby, said commutation poles alternating with said main poles, windings upon said poles, an armature and conductors communicating therewith, of means for shunting the main pole windings without shunting the windings upon the commutation poles.

5. The combination with a dynamo electric machine, comprising a frame, main and commutation poles supported thereby, windings upon said poles, an armature and conductors communicating therewith, the windings upon the main poles being in section, of means for shunting equal sections on each of the main poles without shunting the remainder of the field windings.

[Claims 6 to 31 not printed in the Gazette.]

1,026,901. HOISTING APPARATUS. EUGENE BROWN, Colfax, Wash., assignor to Colfax Manufacturing Company, Colfax, Wash., a Corporation. Filed Aug. 28, 1911. Serial No. 646,430. (Cl. 212—9.)



1. A hoisting attachment for vehicles comprising a crane, a windlass therefor, and a supporting frame for the crane and windlass having clips for engaging a wagon frame, and latches carried by the supporting frame in position to engage the wagon frame and coacting with the clips for locking the supporting means for the crane to the wagon frame.

2. In a hoisting attachment for wagons, a crane and windlass therefor, and a support for the crane and windlass comprising a frame having bearings for the crane and for the windlass, wagon engaging clips carried by the frame, and latch levers also carried by the frame in position to engage the wagon in locking relation to the clips.

3. In a hoisting attachment for wagons, a crane and windlass therefor, and a support for the crane and windlass comprising a frame having bearings for the crane and for the windlass, wagon engaging clips carried by the frame, and latch levers also carried by the frame to engage the wagon in locking relation to the clips, said latch levers being in spaced relation one to the other and each in coactive relation to a respective clip.

4. In a hoisting attachment for wagons, a crane and a windlass therefor and a supporting frame for the crane and windlass comprising side and end members, the end members carrying bearings for the crane and the side members carrying bearings for the windlass, clips carried by the side members for engagement with a portion of the wagon body, latch levers carried by the side members in opposition to the clips and each in coöperative relation to a respective clip, said levers being connected by a junction bar for simultaneous movement, and a bracket or stirrup adapted to be made fast to the wagon body, the junction bar for the latch levers having a passage therethrough for the stirrup and the latter being provided with means for securing the junction bar thereto.

5. In a hoisting attachment for wagons, a crane, and a windlass therefor, a supporting frame for the crane composed of side and end members and an intermediate member joining the side members, another member spaced from the intermediate member and connected to the side members, said intermediate members being provided with bearings for the windlass and the ends members being provided with bearings for the crane, adjustable clips on the side members for engagement with the wagon frame, latch levers carried by the side members in coöperative relation to the clips, a slotted junction strip for the levers, and a bracket or stirrup adapted to be secured to the wagon frame in position to extend through the slot in the junction bar of the latch levers when the levers are in latching engagement with the wagon frame, and means for connecting the junction strip to the stirrup when the latter is in traversing relation to the slot in said junction strip.

1,026,902. MANUFACTURE OF AZO COLORING-MATTER. HANS BUCHERER, Biebrich, Germany, assignor to The Firm of Kalle & Company, Aktiengesellschaft, Biebrich, Germany. Original application filed May 4, 1910, Serial No. 559,399. Divided and this application filed July 7, 1911. Serial No. 637,268. (Cl. 8—1.)

1. The manufacture of azo coloring matters which comprises diazotizing an amino compound and coupling it with a 2-amino-5-oxynaphthalene-1-sulfonic acid.

2. The manufacture of azo coloring matters which comprises diazotizing an amino compound and coupling it with a substituted 2-amino-5-oxynaphthalene-1-sulfonic acid.

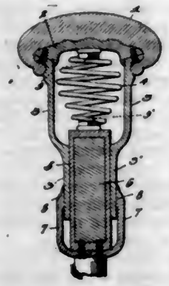
3. The manufacture of azo coloring matters which comprises diazotizing an amino compound and coupling it with an acyl substituted 2-amino-5-oxynaphthalene-1-sulfonic acid, substituted in the amino group.

4. The manufacture of azo coloring matters which comprises diazotizing an amino compound and coupling it with a benzoyl substituted 2-amino-5-oxynaphthalene-1-sulfonic acid, substituted in the amino group.

5. As new products the azo coloring matters obtainable from a 2-amino-5-oxynaphthalene-1-sulfonic acid, and which yield upon reduction an amino compound and an amino derivative of 5-oxynaphthalene-1-sulfonic acid containing an amino group substituted in 2-position on the naphthalene ring, substantially as described.

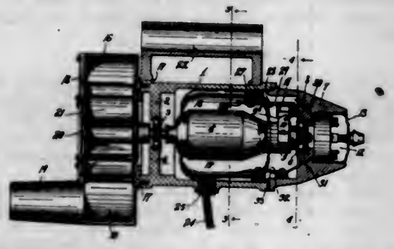
[Claims 6 to 9 not printed in the Gazette.]

1,026,903. RESILIENT WHEEL. LOUIS BURDY and EMILE F. MOINE, Eureka, Cal. Filed June 14, 1911. Serial No. 633,032. (Cl. 152—37.)



In a resilient wheel, the combination of a rim having relatively straight sides, a plurality of annular rings disposed on said sides, and having their lower portions flattened and relatively straight so as to closely embrace the sides, said rings having their upper portions flared and provided with holes therein, a peripheral portion arranged to conform with said flared portion of the rings and provided with threaded holes therein arranged to come into registry with the holes in said rings and provided with lugs arranged to engage with the inner surfaces of said rings, fastening means disposed in said holes for holding said rings and peripheral portion together, a plurality of ring plates secured to the under portion of said rim, arranged to extend outwardly by the sides of said rim, said plates being arranged to permit said annular rings to move freely between them and the ring, and having their outermost portions extending inwardly into engagement with the outside surfaces of said annular rings, and a plurality of coiled springs secured to said rim and peripheral portions.

1,026,904. ELECTRIC MOTOR. JAMES BURKE, Erie, Pa., assignor to Burke Electric Company, a Corporation of Pennsylvania. Filed Mar. 14, 1906. Serial No. 305,973. (Cl. 172—36.)



1. In an electric motor, the combination of a field frame having internally projecting field poles with field exciting coils thereon, a removable blower casing at one end of the field frame, an armature having a shaft projecting through the field frame, the rotary blower element being mounted on said shaft, a removable casing at the other end of the field frame having a bearing for the armature shaft, commutator brushes carried by and removable with the latter casing, a control switch carried by the latter casing, and a separable connector for making electric connections with the motor terminals when the removable casing is applied.

2. In an electric motor, the combination of a field frame having internal poles and field coils thereon, a removable blower casing at one end of the field frame, an armature connected to the rotary element of the blower within said casing, a removable casing at the other end of the field frame, a control switch carried thereby, separable terminals carried respectively by said removable casing and the field frame, and current supply leads to the motor windings led through the field casing.

3. A combined portable blower and electric motor provided with a removable end cap carrying commutator brushes, an automatic circuit connecting device for establishing the field connections of the motor when the cap is applied, a centrifugal blower with a central air intake mounted on the field frame of the motor, current supply leads through said field frame, and a control switch on the end cap.

4. A combined portable blower and electric motor having connections with a source of current supply, a removable end cap carrying commutator brushes and a control switch, two fixed terminals secured to the motor casing, two coöperating terminals carried by the cap for automatically completing the motor connections when the cap is applied, a blower casing applied to the other end of the motor, and a rotary blower element within said casing secured to the armature shaft.

5. In an electric motor, the combination of a field frame having a bearing for the armature shaft at one end of said frame, a removable casing at the other end of said frame and having a bearing for the armature shaft, brushes carried by said casing and yieldable contact terminals mounted on said frame and also on said casing adapted to engage each other when said casing is in place for making the main circuit connections.

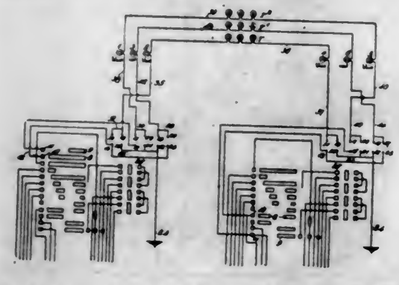
[Claim 6 not printed in the Gazette.]

1,026,905. CLOCK-OPERATED ELECTRIC SWITCH. FRANKLIN PIERCE CAUBLE, High Point, N. C. Filed Mar. 2, 1912. Serial No. 681,151. (Cl. 161—27.)



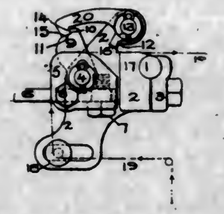
In combination with an alarm clock embodying a vibratory alarm lever, a cord connected at one end to said lever, a trigger connected to the other end of said cord, a lock lever adapted to be held down by said trigger, a spring actuated swinging bail adapted to be held in abnormal position by said lock lever, a cord connected to said bail and a switch device adapted to be operated by a pull on this latter cord.

1,026,906. ELECTRIC CAR-SIGNAL. EVAN B. CHAPMAN, Chicago, Ill. Filed July 7, 1909. Serial No. 506,268. (Cl. 177—311.)



In an electric car signal, in combination a plurality of electrically operated signals at each end of the car, a plurality of separate signaling circuits each including in series one of the signals at each end of the car, a reversing drum and a controlling drum at each end of the car, each controlling drum including signaling contacts which are connected to power when the controlling drum is turned, a circuit closer operated by each reversing drum each said circuit closer having three positions corresponding with the three positions of the reversing drum and connections between said three position circuit closer and the said signaling circuits, whereby when either reversing drum is at "off" position the signaling circuits are connected through its circuit closer to ground while when either reversing drum is moved to "ahead" or "reverse" position certain of said signaling circuits are connected through its circuit closer to the signaling contacts while other of said signaling circuits are opened so that when said car is being operated from either end a distinctive signal is given, when the controller drum is turned, to indicate the direction of movement of the car.

1,026,907. YARN-CLEARER. CLARENCE N. CHILDS, Lowell, Mass. Filed June 16, 1911. Serial No. 633,506. (Cl. 28—20.)



1. In combination an automatic yarn-ripper normally tending to grip the yarn, and a movable slub-detector, normally in trigger-engagement with the gripper while yarn without slubs is passing the detector but having slub-actuated means for releasing such trigger-engagement.

2. In combination a weight-actuated yarn-gripper normally tending to grip the yarn, and a movable slub-detector, normally in trigger-engagement with the gripper while yarn without slubs is passing the detector but having slub-actuated means for releasing such trigger-engagement.

3. In combination a yarn-gripper having a movable jaw, and a movable slub-detector, comprising a movable detector-block, a yarn-gage fastened to the block, and a cam integral with the block and having a trigger for engaging the jaw.

4. In combination a movable slub-detector in trigger-engagement with a yarn-gripper, the gripper comprising a movable jaw and means for operating the jaw when the detector moves out of engagement therewith.

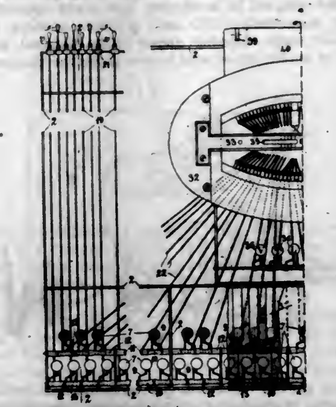
1,026,908. MUSIC-RECORDER. GIOVANNI BATTISTA CIRIOLIANO, Turin, Italy. Filed Aug. 23, 1910. Serial No. 578,598. (Cl. 84—68.)

1. A piano player and recorder, comprising a plurality of strikers adapted to engage the keys of a piano, a recording member for each striker, and means to operate a striker and recording member simultaneously.

2. A piano player and recorder, comprising a plurality of strikers adapted to engage the keys of a piano, a recording member for each striker, a plurality of operating keys, and means connecting each of the latter with a striker and a recording member.

3. A piano player and recorder, comprising a platen, a plurality of recording elements adapted to engage the latter at different points, keys for operating the recording elements, and a plurality of strikers adapted to engage the keys of a piano and operable by said operating keys simultaneously with the recording elements.

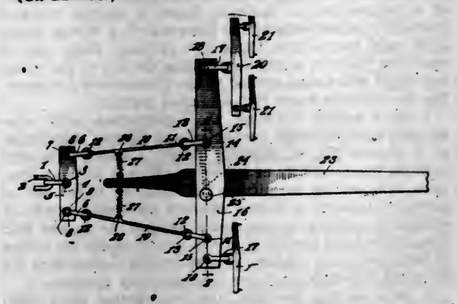
4. A piano player and recorder, comprising a plurality of strikers adapted to depress the keys of a piano, a keyboard operatively connected with the strikers, a rotatable non-traveling platen and a plurality of recording elements operatively connected with the keyboard and strikers and adapted to engage the platen at different points thereof.



5. In a machine for playing a keyboard musical instrument, a plurality of strikers adapted to engage the keys of said instrument, a keyboard, members connecting the keyboard and strikers, a rotatable non-traveling platen, recording elements adapted to engage the latter at different points, and members connecting the recording elements with said keyboard whereby a striker and a recording element are operated simultaneously.

[Claims 6 to 9 not printed in the Gazette.]

1,026,909. DRAFT-EQUALIZER. LENNIE RAY CROM, Bladen, Nebr. Filed Nov. 23, 1910. Serial No. 593,888. (Cl. 21—76.)

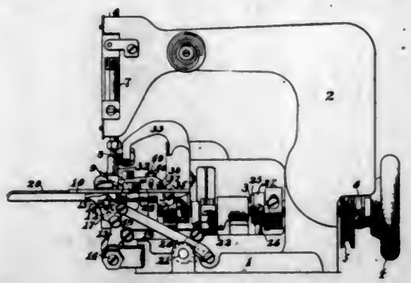


In a draft equalizer, a forward main equalizer beam, a rear supplemental equalizer beam, link connections between the beams, a tongue having its rear portion arranged between the link conections, a cranking connection between the tongue and the forward equalizer beam, and springs on each side of the rear end of the tongue and connecting between the rear end and the links of each of the link connections.

1,026,910. OVERSEAMING SEWING-MACHINE. ALBERT H. DE VOE, Elizabeth, N. J., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 11, 1908. Serial No. 432,015. (Cl. 112—24.)

1. In a sewing machine, the combination with the throat-plate, overseaming stitch-forming mechanism including a reciprocating needle and a looper moving above the throat-plate and transversely of the line of stitch-formation, and feeding mechanism, of a spring-pressed presser-foot having a rigid shank and a tilting pressure-member fulcrumed thereon, means for lifting the presser-

foot, and a chaining finger mounted upon a fulcrum supported independently and disposed transversely in relation to that of said pressure member and spring-pressed upwardly but adapted to be thrown into lower operative position by engagement with said pressure member of the presser-foot, said chaining finger being disposed beneath the path of movement of said looper above the throat-plate.



2. In a sewing machine, the combination with the throat-plate, overseaming stitch-forming mechanism including a reciprocating needle and a looper moving above the throat-plate and transversely of the line of stitch-formation, and feeding mechanism, of a spring-pressed presser-bar, a presser-foot having a shank portion rigidly secured to said bar and provided with a hinged tilting pressure-member, and an adjacent chaining finger arranged above the throat-plate and between the same and the path of movement of the looper, said chaining finger being pivotally mounted independently of and having its axis of movement disposed transversely of that of the pressure-member of the presser-foot and parallel with the direction of feed, and the chaining finger being adapted for differential movement in relation to said pressure-member.

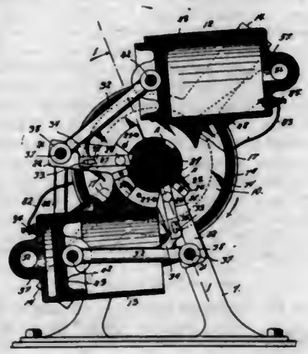
3. In a sewing machine, the combination with overseaming stitch-forming mechanism and feeding mechanism, of a presser-foot, a chaining finger, a carrier therefor movable independently of the presser-foot, a spring acting upon said carrier for lifting the chaining finger out of operative position, a stop for limiting the lift of the chaining finger, and means carried by the presser-foot for throwing the chaining finger into operative position.

4. In a sewing machine, the combination with overseaming stitch-forming mechanism and feeding mechanism, of a presser-foot, a chaining finger, a carrier therefor movable independently of the presser-foot, a spring acting upon said carrier for lifting the chaining finger out of operative position, a lateral stop-pin upon said carrier, a stationary adjustable stop-screw adapted to engage said stop-pin to limit the throw of the carrier under the action of said spring, and means carried by the presser-foot for throwing the chaining finger into operative position.

5. In a sewing machine, the combination with overseaming stitch-forming mechanism and feeding mechanism, of a spring-pressed presser-foot provided with a hinged tilting pressure member, an adjacent chaining finger having a flat lower face forming a pressure member auxiliary to the operative work-engaging face of the pressure member of said foot, a vibrating carrying lever for said chaining finger, a spring acting upon said carrying lever for raising the chaining finger, and means carried by the hinged pressure member of the presser-foot for lowering the chaining finger into operative position in opposition to said spring.

1,026,911. ROTARY EXPLOSIVE-ENGINE. OLOF F. EDQVIST, Denver, Colo. Filed Apr. 7, 1911. Serial No. 619,521. (Cl. 123—43.)

1. In a rotary explosive engine, the combination with a stationary shaft, of a cylinder mounted to rotate continuously around the shaft, a piston arranged to reciprocate in said cylinder, means for intermittently locking the said piston against travel, means for releasing the piston, and means for varying the speed of the piston with respect to the cylinder.



2. In a rotary explosive engine, the combination with a stationary shaft, of a cylinder mounted to rotate continuously around the shaft, a piston mounted to reciprocate in said cylinder, means for automatically and intermittently locking said piston against travel, means for automatically releasing the piston, and means for varying the speed of the piston with respect to the cylinder.

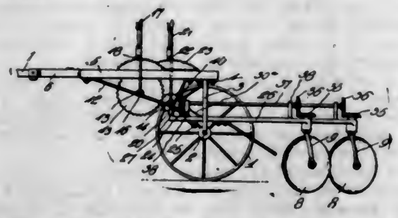
3. In a rotary explosive engine, the combination with a stationary shaft, of a plurality of cylinders mounted to rotate continuously around the shaft, pistons mounted to reciprocate in the respective cylinders, means for intermittently locking the pistons against travel, means for automatically releasing the pistons, and means for varying the speed of the pistons with respect to the cylinders, substantially as described.

4. In a rotary explosive engine, the combination with a stationary shaft, of a plurality of cylinders mounted to rotate continuously around the shaft, pistons arranged to reciprocate in said cylinders, means for automatically locking the pistons against travel in alternate order, and means for varying the speed of the rotary travel of the pistons with respect to the cylinders, substantially as described.

5. In a rotary explosive engine, the combination with a stationary shaft, of a plurality of cylinders mounted to rotate continuously around the shaft, the cylinders being so arranged that their produced axes do not intersect the axis of rotation, pistons arranged to reciprocate in said cylinders, means for automatically and intermittently locking the pistons against travel, means for releasing the pistons, and means for varying the speed of the latter with respect to their cylinders, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,026,912. REVERSIBLE HARROW. TYSON THOMAS HARDT, Bluemont, Va. Filed Aug. 14, 1911. Serial No. 643,903. (Cl. 55—73.)



1. In a disk harrow, the combination with the wheeled frame, a transverse shaft therein, a series of beams having eyes loosely mounted on said shaft, and springs for normally depressing their rear ends; of the disks whose hangers have upright shanks journaled in said beams, a pinion mounted loosely on said shaft adjacent each beam, a train of gearing connecting this pinion with the shank of the disk carried by this beam, means for setting the position of said pinions in gangs, and means for lifting said beams in gangs.

2. In a disk harrow, the combination with the wheeled frame, a transverse shaft therein, a series of beams having eyes loosely mounted on said shaft, and springs for normally depressing their rear ends; of the disks whose hangers have upright shanks journaled in said beams, a pinion mounted loosely on said shaft adjacent each beam, a train of gearing connecting this pinion with the shank of the disk carried by this beam, a second shaft journaled across the frame, a series of gears fast thereon and engaging said pinions in gangs, means for setting the gear-shafts from a point on the frame, and independent means for lifting said beams in gangs from a point on the frame.

3. In a disk harrow, the combination with the wheeled frame, a transverse shaft therein, a series of beams having eyes loosely mounted on said shaft, and springs for normally depressing their rear ends; of the disks whose hangers have upright shanks journaled in said beams, means for adjusting said shanks in their bearings from a point on the frame, arms depending rigidly from said shaft alongside the endmost beams, and a lifting bar connecting said arms and passing beneath the beams.

4. In a disk harrow, the combination with the wheeled frame, a transverse shaft therein, a series of beams having eyes loosely mounted on said shaft, and springs for normally depressing their rear ends; of the disks whose hangers have upright shanks journaled in said beams, a pinion mounted loosely on said shaft adjacent each beam, a train of gearing connecting this pinion with the shank of the disk carried by this beam, a second shaft journaled across the frame, a series of gears fast thereon and engaging said pinions in gangs, means for setting the gear-shaft from a point on the frame, arms depending from said first-named shaft alongside the endmost beams, and a lifting bar connecting said arms and extending beneath the beams in gangs.

5. In a disk harrow, the combination with a main frame having a lifting shaft journaled therein, means for setting its position within the frame, and beam lifting mechanism carried by this shaft; of a series of beams each having an upturned front end provided with an eye mounted loosely on said shaft, a brace projecting obliquely from said beam and having an upturned portion provided with an eye also journaled on said shaft, a pin through the latter between said eyes, a spring coiled on the shaft with its center engaging said pin and its ends hooked behind said upturned portions, a disk carried by the rear end of each beam, and means for adjusting its angle.

[Claims 6 to 9 not printed in the Gazette.]

1,026,913. PHARMACEUTICAL PRODUCT. WILHELM HIEMENZ and WALTER KROPF, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Sept. 21, 1911. Serial No. 650,526. (Cl. 23—24.)

The herein described borneol ester of the dibromo-dihydrocinnamic acid, which crystallizes from alcohol in the shape of white brilliant crystals melting at 73° C., difficultly soluble in water and being a valuable sedative, substantially as described.

1,026,914. PHARMACEUTICAL PRODUCT. WILHELM HIEMENZ and WALTER KROPF, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Sept. 21, 1911. Serial No. 650,525. (Cl. 23—24.)

The herein described isoborneol ester of the dibromo-dihydrocinnamic acid, which crystallizes from alcohol in the shape of white brilliant crystals melting at 69° C., difficulty soluble in water and being a valuable sedative, substantially as described.

1,026,915. HAMMER ATTACHMENT. HENRY B. HUDSON, Fargo, N. D. Filed Feb. 28, 1912. Serial No. 680,501. (Cl. 145—45.)

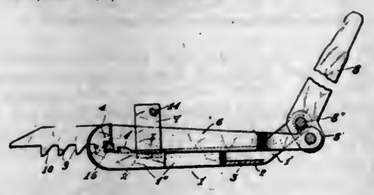


1. In combination, a hammer head, an attachment comprising a U-shaped metallic strap arching the head, the sides of the strap having bayonet slots, and a bolt passing through the slots and the head, for adjustably securing the strap to the head.

2. In combination, a hammer head, an attachment comprising a U-shaped metallic strap arching the head, the sides of the strap having bayonet slots, and a bolt passing through the slots and the head, for adjustably securing the strap to the head, the U-shaped strap having a base provided with an offset tooth, adapted to hold the strap anchored, while extracting a nail with a hammer.

3. In combination, a hammer head, an attachment comprising a U-shaped metallic strap arching the head, the sides of the strap having bayonet slots, and a bolt passing through the slots and the head, for adjustably securing the strap to the head, the strap having a base provided with a V-shaped recess, to receive the shank of a nail immediately below the head, and a spring secured to the base, adapted to bear against the head of the nail.

1,026,916. BENDING APPLIANCE. JOHN W. JOHNSON, WILLIAM A. BAUERIS, PETER J. JENSEN, and WALTER D. LAWSHE, Seattle, Wash. Filed Aug. 15, 1911. Serial No. 644,248. (Cl. 153—38.)



1. A bending appliance comprising a support, spaced work holding jaws on said support, a reciprocatory bending member arranged between said jaws and provided with a plurality of work engaging parts spaced in the direction of its length for alternative engagement with the work by and during movement of said member, and means for reciprocating said member.

2. A bending appliance comprising a support, spaced work holding jaws on said support, a reciprocatory bending member arranged between said jaws and provided on its under side with a plurality of engaging parts spaced in the direction of its length for alternative engagement with the work, said member being provided with cam surfaces intermediate said engaging parts for riding on the work during retractive movement of said member, and means for reciprocating said member.

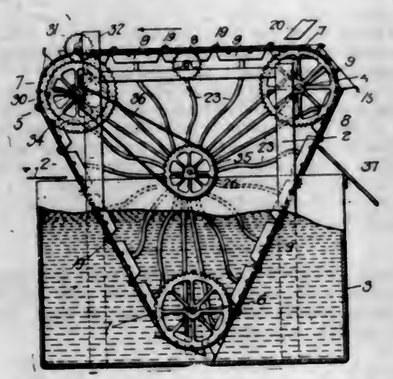
3. A bending appliance comprising a support, spaced work holding jaws on said support, a reciprocatory bending member arranged between said jaws and provided with a plurality of engaging parts, said engaging parts being spaced lengthwise of said member for alternative engagement with the work, and a lever fulcrumed on said support and connected to said member for reciprocating the same.

4. A bending appliance comprising a support, spaced work holding jaws on said support, a bending member comprising a bar provided on its lower face with a plurality of shoulders and intermediate forwardly and downwardly inclined cam surfaces, said shoulders and cam surfaces being spaced lengthwise of said member, and means for reciprocating said member.

5. A bending appliance comprising a support, spaced work holding jaws on said support, a bending member arranged between said jaws and provided on its under face with a plurality of work engaging parts spaced in the direction of its length, a lever fulcrumed on said frame and pivotally connected with said member for reciprocating the same, vertical standards on said support on opposite sides of said member, and means on said standards for holding said member elevated from said jaws.

[Claim 6 not printed in the Gazette.]

1,026,917. FILTERING APPARATUS. HARRY E. KIRK, Colorado Springs, Colo. Filed Aug. 16, 1910. Serial No. 577,407. (Cl. 75—86.)



1. An apparatus of the class described comprising a tank, an endless series of filtering units mounted to travel along an angular course over and through said tank, suction means for exhausting liquid from said units, while moving toward and through said tank, and a launder disposed to supply material to be treated to the same while moving over said tank.

2. An apparatus of the class described comprising a tank, an endless series of filtering units mounted to move over and through the same, means to supply material to be treated to said units while moving over said tank, suction means for exhausting liquid from said units, and means adapted to bring the latter in communication with said suction-means during the greater part of their travel and to temporarily discontinue said communication after the units emerge from said tank.

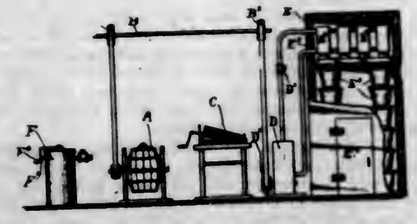
3. An apparatus of the class described comprising a tank, an endless series of filtering units mounted to move along an angular course, over and through the same, a launder to supply material to be treated to said units while moving over the tank, a suction device for exhausting liquid from said units, a rotary valve connecting said device with each of said units, and a mechanism for moving said series and said valve in unison.

4. An apparatus of the class described comprising a tank, an endless series of filtering units mounted to move along an angular course, over and through the same, a launder to supply material to be treated to said units while moving over the tank, a suction device for exhausting liquid from said units, a supply of air under compression, a rotary valve connected with said suction device and with said air supply, flexible conduits between the said valve and the several units, and a mechanism for moving said series and said valve in unison, the latter being constructed to connect each unit with the suction device while moving to and through the tank, and with the supply after emerging from the fluid contained in the same.

5. An apparatus of the class described comprising a tank, an endless series of filtering units mounted to travel over and through the same, means for exhausting liquid from the said units while moving over and through said tank and means for supplying material to the said units while moving over the tank.

[Claim 6 not printed in the Gazette.]

1,026,918. METHOD OF MAKING AND PRESERVING BUTTER. JOSEPH MOSES WARD KITCHEN, East Orange, N. J. Filed Aug. 29, 1910. Serial No. 579,538. (Cl. 99—8.)



1. The method of making and preserving butter herein described which consists in, refrigerating butter down to a temperature so much below the freezing point of water as to prevent deteriorating fermentation in the butter, and maintaining said low temperature in the butter from the time of making the butter up to the time immediately prior to the consumption of the butter.

2. The method of making and preserving butter herein described which consists in, refrigerating cream to a sufficient degree to prevent undesirable fermentation in the cream prior to the formation of butter from the cream, churning the cream at a suitable temperature to form butter and immediately after the churning refrigerating the butter produced to a temperature so much below the freezing point of water as to prevent deteriorating fermentative changes in the butter, and which further consists in forming the butter before its delivery to the consumer into thin slabs of approximately the thickness of the butter patty usually served at table to the individual consumer, and enwrapping each thin slab in protective paper to prevent atmospheric and other infection of the butter.

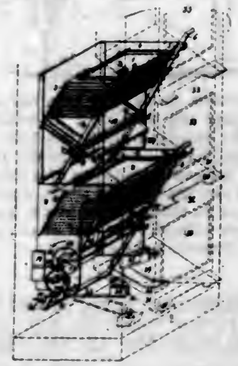
3. The method of making and preserving butter herein described which consists in, subjecting cream and the butter made from the cream, to a temperature both before and after the butter is churned, sufficiently low to prevent undesirable fermentation in the butter, forming and printing the butter into thin slabs of partly divided individual butter patty prints, enwrapping each slab in protective paper, enwrapping a plurality of individual enwrapped slabs in one protective carton, and shipping a plurality of the enwrapped butter packages to market in an insulated shipping case.

4. The method of making and preserving butter herein described which consists in, making butter, immediately refrigerating the butter after its making and before obvious fermentation in the butter has occurred and before its shipment from the place of its making, to a selected temperature at least as low as will prevent fermentation in the butter, and holding the butter at the selected temperature until the consumption of the butter by the consumer is immediately assured.

5. The method of making and preserving butter herein described which consists in, refrigerating cream at the place of its production, conveying the cream in refrigerated condition to a place for its manufacture into butter, warming the cream to a suitable temperature to form butter and making butter from the cream, refrigerating the butter immediately after its making to a temperature sufficiently low to prevent fermentation in the butter, and holding the butter in refrigeration until its consumption is immediately assured.

[Claims 6 to 11 not printed in the Gazette.]

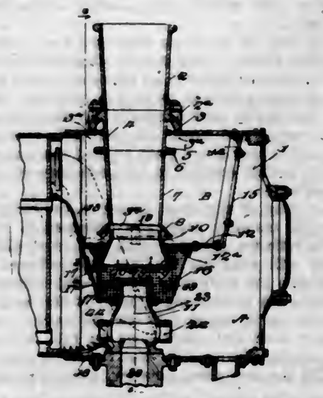
1,026,919. VENDING-MACHINE. THEODOR LEEMANN and WALTER LEEMANN, Zurich, Switzerland. Filed June 8, 1911. Serial No. 631,953. (Cl. 211—8.)



1. An automatic machine for delivering post cards and like articles, comprising a frame, a plurality of article carriers, each of said carriers having one of its ends hinged to said frame, rails supporting the free ends of the carriers, and means for raising said rails to release said article carriers.

2. An automatic machine comprising a frame, a plurality of article carriers, each of said carriers having one of its ends hinged to said frame, sliding rails forming acute angles with the article carriers, flanges on the rails and supporting the free ends of the carriers, guiding rollers on the sides of the frame for the rails, and means for raising said rails to release said article carriers.

1,026,920. LOCOMOTIVE FRONT END. LAWRENCE C. MOONEY, Montgomery, Ala. Filed May 25, 1910. Serial No. 563,441. (Cl. 110—122.)



1. In a locomotive front end, a substantially horizontal crown dividing the said front end into upper and lower chambers, a downwardly tapering smoke stack, an updraft pipe mounted in the upper chamber forming a downward extension of the smoke stack and having a like taper with a spreading lower end, a conical thimble projecting through an opening larger than itself in said crown in spaced relation to the spreading lower end of the updraft pipe, and a spark arresting basket shaped screen in the lower chamber entirely surrounding the lower end of the thimble and attached to said crown exterior of the opening therethrough.

2. In a locomotive front end, a substantially horizontal crown dividing said front end into upper and lower chambers, a downwardly tapering smoke stack, a base for said stack projecting into the upper chamber and forming a continuation of said stack and tapered like it, an updraft pipe mounted in the upper chamber forming a downward extension of the smoke stack and having a like taper with a spreading lower end, a conical thimble projecting through an opening larger than itself in said crown in spaced relation to the spreading lower end of the updraft pipe and having a short cylindrical upper end, the inner diameter of which is the same as the lower tapering end of said updraft pipe, a spark arresting basket screen in the lower chamber entirely surrounding the lower end of the thimble and attached to said crown exterior of the opening therethrough, and an exhaust pipe projecting through the bottom of said spark arresting screen coaxially with the updraft pipe and spaced below the same.

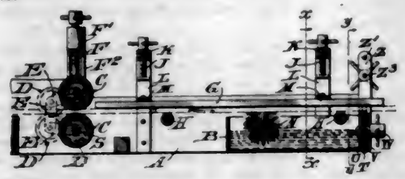
3. In a locomotive front end, a substantially horizontal crown sheet dividing said front end into upper and lower chambers, a downwardly tapering smoke stack, the base for said stack having a tubular portion projecting into the upper chamber and forming a continuation of said stack and having the same taper, an updraft pipe mounted in the upper chamber forming a downward extension of the smoke stack and having a like taper, an outwardly flaring flange on the lower end of said updraft pipe, a conical thimble projecting through an opening larger than itself in said crown sheet having a short cylindrical upper end projecting into said flange and spaced a short distance from the lower end of said updraft pipe and of the same internal diameter as said lower end, and means connecting said thimble to said flange whereby a passageway is left between said parts through which passageway air currents are adapted to pass and converge a short distance above said thimble, an exhaust nozzle in axial alinement with the updraft pipe and smoke stack spaced below the thimble, and a spark arresting screen entirely surrounding the lower end of the thimble and the upper end of said nozzle and attached to said crown sheet exteriorly of the opening therethrough and to the nozzle below its outlet.

4. In a locomotive front end, a substantially horizontal crown sheet dividing said front end into upper and lower chambers, a front sheet connected to the front edge of said crown and to the shell of the front end above said crown sheet, a deflecting sheet attached to the rear end of the crown sheet and to the front tube sheet of the boiler, a draft sheet adjustably connected to the lower end of the deflecting sheet, a downwardly tapering smoke stack, an updraft pipe mounted in the upper chamber attached to said stack and having a like taper, an outwardly projecting flange on the lower end of said updraft pipe, a conical thimble projecting through an opening larger than itself in said crown sheet and in spaced relation to the spreading lower end of the updraft pipe, an exhaust nozzle below said thimble in axial alinement with the stack, and a spark arresting screen surrounding the thimble and upper end of the nozzle and attached to the latter and to the crown sheet.

1,026,921. MACHINE FOR PAINTING, VARNISHING, FILLING, OR OTHERWISE COATING BOARDS OR OTHER PIECES OF MATERIAL. WILLIAM WINFRED NUSS, Towanda, Pa. Filed Sept. 8, 1911. Serial No. 648,339. (Cl. 91—41.)

1. In a coating machine of the character stated, a bed, feed rollers at the front end thereof, a pressure device above said bed, a roller for supporting the article to be coated on said bed below said device, a tank on said bed below said device, a brush in said tank, a wiper on the bed rearward of said roller, and means for vertically ad-

justing said feed rollers, said pressure device and said wiper.



2. In a machine of the character stated, a bed, a support on the bed for the piece to be coated, a tank thereon, a brush in said tank, feed rollers at the front end of said bed, means for rotating said rollers and said brush, and a wiper at the discharge end of said bed at the rear end of said tank, said brush and wiper being both below said device.

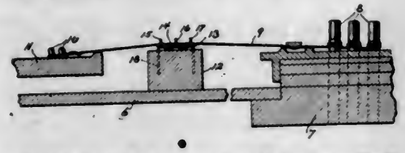
3. In a machine of the character stated, a tank, a pressure device above the same, a brush in said tank, a wiper on the bed below said device removed from said brush, and means for sustaining said wiper against said tank and permitting vertical adjustment of the former.

4. In a machine of the character stated, a bed, a tank, feed rollers at the front end of said bed, a pressure device above said bed, supporting rollers on the bed below said pressure device, a brush in said tank below said device, a wiper about the discharge end of said bed and adjacent portion of said tank, means for rotating said rollers and brush, and means for vertically adjusting said device.

5. In a machine of the character stated, a tank for coating material, a pressure device above the same, a brush in said tank, a wiper for surplus coating material on the bed below said device, and wipers for surplus coating material on the bed at the sides of said device.

[Claims 6 to 10 not printed in the Gazette.]

1,026,922. PIANO-AGRAFFE. MARTIN NYSTROM, Chicago, Ill. Filed Sept. 19, 1910. Serial No. 583,530. (Cl. 84—138.)



1. A piano agraffe comprising a horizontally-disposed base plate provided on its upper surface with a row of three alternately staggered side-bearing elements for a string to rest against.

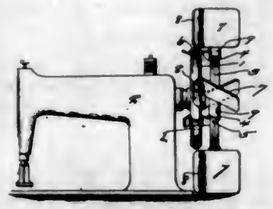
2. A piano agraffe comprising a horizontally-disposed base plate provided on its upper surface with a row of three integral extensions having their lateral bearing surfaces alternately staggered.

3. A piano agraffe comprising a horizontally-disposed base plate provided on its upper surface with three alternately staggered side bearing members for a string to rest against and its under surface provided with a depending fastening extension.

4. A piano agraffe comprising a horizontally-disposed base plate provided on its upper surface with a row of three integral extensions having their lateral bearing surfaces alternately staggered and its under surface provided with two integral fastening pins or extensions.

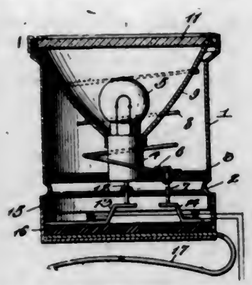
1,026,923. FAN FOR SEWING-MACHINES. ALBERT W. OWNBY, Denison, Tex. Filed Jan. 5, 1912. Serial No. 669,599. (Cl. 230—9.)

1. In combination, an annular band having arms adapting for connecting the band to a fly wheel of a sewing machine, blades arranged about the band and disposed at angles thereto. the blades having lateral extension plates provided with inturned ears to lap over the annular band.



2. In combination, an annular band having arms adapted for connecting the band to a fly wheel of a sewing machine, blades arranged about the band and disposed at angles thereto, the blades having lateral extension plates provided with inturned ears to lap over the annular band, the plates and ears constituting means whereby the blades may be adjusted on the band, the blades having angularly arranged flanges adapted to be bent at various angles thus increasing or decreasing the air drafts.

1,026,924. ELECTRICAL SAFETY-LAMP FOR MINERS. VICTOR V. PATTON, Tollarburg, Colo. Filed Nov. 29, 1910. Serial No. 594,760. (Cl. 240—17.5.)



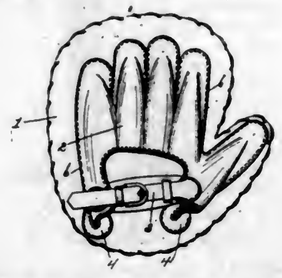
1. In a lamp of the class described, the combination of a collapsible casing, a cover glass disposed in said casing, a metallic reflector disposed on said cover glass and having an end portion arranged to engage with the cover glass so that the latter will normally insulate said reflector from the casing.

2. In a lamp of the class described, the combination of a collapsible casing, a cover glass disposed in said casing, a metallic reflector disposed on said cover glass and having an end portion arranged to engage with the cover glass so that the latter will normally insulate said reflector from the casing, and means for resiliently forcing said reflector against said cover glass so that the removal of the latter will permit contact to be made between the casing and the reflector.

3. In a lamp of the class described, the combination of a collapsible casing, a cover glass disposed in said casing, a metallic reflector engaging with said cover glass so that the latter will normally insulate said reflector from the casing, means for resiliently forcing said reflector against said cover glass so that the removal of the latter will permit contact to be made between the casing and the reflector, and electrical connections for said resilient means and the casing arranged so that the lamp circuit will be shunted by the casing and reflector, when the latter is compressed.

4. In a device of the class described, the combination of a collapsible casing having one end portion inwardly bent, a cover glass disposed on said bent portion, a metallic reflector disposed on said cover glass and arranged to keep the same against the casing and adapted to make contact with said casing when the same is compressed or the cover glass removed, resilient means disposed in said casing and arranged to keep said reflector in position and to form electrical contacting means therefor, a lamp socket arranged to support said reflector and electrically connected therewith, and means for electrically connecting said casing, silient means and reflector to a lamp circuit.

1,026,925. BASE-BALL GLOVE. JOHN A. PEACH, Gloversville, N. Y. Filed Nov. 18, 1910. Serial No. 592,999. (Cl. 2—195.)



A glove having a superimposed attached pocket, the edge portion of which lies flat upon the glove, stitching inserted through said flat edge-portion of the pocket and the body of the glove, and a bifurcated patch embracing the wall of the pocket at a corner thereof, one member of said patch being stitched directly to the glove within the pocket, and the other member of the patch being superimposed upon the flat edge-portion of the pocket, and having additional stitching inserted through said superimposed member of the patch, the body of the glove and the interposed flat edge-portion of the pocket.

1,026,926. BOBBIN-CASE FOR SEWING-MACHINES. JOHN C. RINGE, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed May 20, 1911. Serial No. 628,592. (Cl. 112—23.)

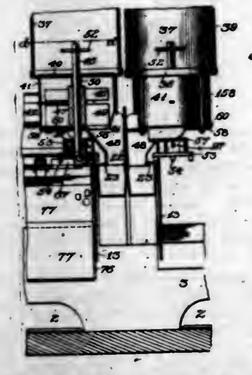


1. A bobbin-case for sewing machines comprising a cap provided with a tubular portion, a base provided with a pin having at its free end a groove, a resiliently held slide mounted on said cap and normally held in operative relationship with said pin, and a lever pivoted to said slide which, when raised, serves to disengage said slide from said pin, said lever being arranged parallel with at the side of and in the same plane as said slide.

2. In a bobbin-case for sewing machines, a cap provided with a tubular portion, a base provided with a pin having at its free end a groove, a resiliently held slide provided with a bobbin-retaining finger, said slide being mounted on said cap and normally held in operative relationship with said pin, and a pivoted lever operatively connected with said slide which, when raised, serves to disengage said slide from said pin and to move said bobbin-retaining finger in gripping contact with the bobbin, said lever being arranged at the side of and in the same plane as said slide.

3. In a bobbin-case for sewing machines, a cap provided with a tubular portion, a base provided with a pin having at its free end a groove, a resiliently held slide provided with a catch and a bobbin-retaining finger, said slide being mounted on said cap and normally held in operative relationship with said pin, and a pivoted lever operatively connected with said slide which, when raised, serves to disengage said catch from said groove and move said bobbin-retaining finger in gripping contact with the bobbin, said lever being arranged parallel with at the side of and in the same plane as said slide.

1,026,927. VENDING-MACHINE. ADOLPH RYDQUIST, Rochester, N. Y. Original application filed Apr. 26, 1909. Serial No. 492,130. Divided and this application filed Feb. 16, 1910. Serial No. 544,273. (Cl. 211—8.)



1. In a vending machine, the combination with a casing, of a casing carrying a controlling mechanism and interlocking with the casing, a closure for the front wall of the casing supported at its lower end on the casing of controlling mechanism, having a device coöperating with the front wall of the last mentioned casing, a plate secured to the rear face of the closure to depend below the latter and coöperate with a rear face of the casing of the controlling mechanism, rearwardly extending hooks formed at opposite ends of the plate, projections on the side walls of the cabinet casing engaged by the hooks, and a locking device for the closure.

2. In a vending machine, the combination with a casing having an open front and a cross piece near its lower end, of a chute removably interlocking with the cross piece at its lower end, a controlling mechanism also removably interlocking with the cross piece at its lower end and arranged to one side of the chute, a vending receptacle within the casing discharging through the chute, and a closure coöperating with the upper ends of the chute and the controlling mechanism to retain said parts within the casing.

3. A chute for vending machines comprising a pair of side pieces each provided with a hook at its lower end, a front wall having an opening at its lower end, an inclined trough arranged between the said side pieces and discharging through the opening in the front wall, and a cross piece connecting the side pieces below the trough.

4. A receptacle for vending machines comprising a cylindrical bottom section having a discharge, a cylindrical transparent section abutting and surrounding the upper edge of the bottom section, a section above the transparent section abutting the latter, and tie rods connecting the upper cylindrical section with the bottom section.

5. The combination with a receptacle having a discharge, of a chamber receiving material from said discharge, a second chamber having communication with the first named chamber and having a discharge, a measuring feed device operating in the first named chamber to carry the material to the second named chamber, and a feed device operating in the second named chamber to carry the material to the discharge of the latter and having connection with the first named feed device to move therewith.

[Claims 6 to 17 not printed in the Gazette.]

1,026,928. BRAKE-SHOE. FITZ WILLIAM SARGENT, Mahwah, N. J., assignor to Edward Huntington Fallows, New York, N. Y. Filed Aug. 8, 1911. Serial No. 643,032. (Cl. 188—27.)

1. A brake shoe comprising a body portion formed from cast metal and having a continuous metallic surface adapted to contact with the tread of a wheel, and a flange

portion adapted to contact with the flange of the wheel; said shoe having a recess or pocket located entirely in the flange portion thereof and filled with a non-metallic substance.

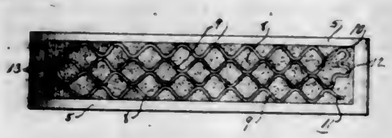


2. A brake shoe comprising a body portion formed from cast metal and having a continuous metallic surface adapted to contact with the tread of a wheel, and a flange portion adapted to contact with the flange of the wheel, said shoe having a recess or pocket located entirely in the flange portion thereof and filled with a non-metallic composition at least one ingredient of which has lubricating properties.

3. A brake shoe comprising a body portion formed from cast metal and having a continuous uniform metallic surface adapted to contact with the tread of a wheel, and a flange portion adapted to contact with the flange of the wheel, said shoe having a recess or pocket located entirely in the flange portion thereof and filled with a non-metallic substance having lubricating properties.

4. A brake shoe comprising a body portion formed from cast iron and having a continuous and uniform metallic surface adapted to contact with the tread of a wheel, and a flange portion adapted to contact with the flange of the wheel; said shoe having a recess or pocket located entirely in the flange portion thereof and filled with a non-metallic substance, and openings extending through said flange portion.

1,026,929. BRAKE-SHOE. FITZ WILLIAM SARGENT, Mahwah, N. J., assignor to Edward H. Fallows, New York, N. Y. Filed Jan. 23, 1912. Serial No. 672,891. (Cl. 188—27.)



1. A brake shoe having a spirally wound ribbon of wrought metal embedded in it and arranged edgewise with reference to its wearing face.

2. A brake shoe having a recess formed in its body portion and extending longitudinally thereof, a non-metallic insert contained within said recess, and a ribbon of wrought metal embedded in said insert and arranged edgewise with reference to the wearing face of the shoe, said ribbon being unconnected with the body portion of the shoe.

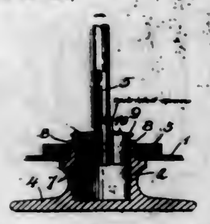
3. A brake shoe having a recess formed in its body portion and extending longitudinally thereof, a non-metallic insert contained within said recess, and a ribbon of wrought metal embedded in said insert and arranged edgewise with reference to the wearing face of the shoe, said ribbon being bent to provide a plurality of segments extending longitudinally of the shoe and the same being unconnected with the body portion of the shoe.

4. A brake shoe having a recess formed in its body portion and extending longitudinally thereof, an insert contained within said recess, and a ribbon of metal embedded in said insert and arranged edgewise with reference to the wearing face of the shoe, said ribbon being bent to provide a plurality of segments extending longitudinally of the shoe and other portions extending transversely to and located adjacent the ends of the shoe, and which transverse portions extend past the ends of intermediate segments of said ribbon.

5. A brake shoe having a recess formed in its body portion, an insert contained within said recess, and a spirally wound ribbon of metal embedded in said insert and arranged edgewise with reference to the wearing face of the shoe.

[Claims 6 to 12 not printed in the Gazette.]

1,026,930. PERCOLATING DEVICE. GEORGE E. SAVAGE and LOUIS H. WILKINSON, Meriden, Conn., assignors to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed July 1, 1911. Serial No. 636,417. (Cl. 53—8.)



1. In a device of the character described the combination of a main chamber; a heating chamber at the base thereof; and a percolating tube having an enlargement at its lower end adapted to be seated within said heating chamber, said enlargement having a restricted opening therethrough communicating with said main chamber and having an enlarged tubular passage communicating with said restricted opening and with said heating chamber.

2. In a device of the character described the combination of a main chamber; a heating chamber at the base thereof; and a percolating tube having a hollow enlargement at its lower end adapted to be seated within said heating chamber, said enlargement having a restricted opening therethrough communicating with said main chamber and having an enlarged passage immediately below and in communication with said restricted opening and with said heating chamber.

3. In a device of the character described, the combination of a main chamber; a heating chamber at the base thereof; and a percolating tube having an enlargement at its lower end shaped to be removably seated within said heating chamber, said enlargement having a restricted opening at its upper portion communicating with said main chamber and having an enlarged passage immediately below said restricted opening and in communication with the latter and with the heating chamber.

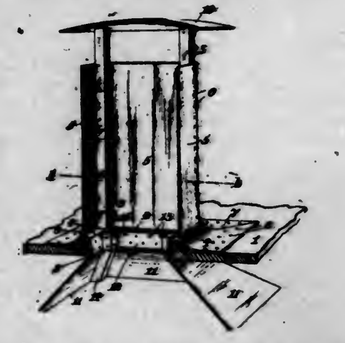
4. In a device of the character described the combination of a main chamber; a heating chamber at the base thereof; and a percolating tube having a hollow tubular enlargement at its lower end, said enlargement having a restricted opening in its top in communication with said main chamber and having an enlarged passage formed in said tubular enlargement and in communication with said restricted opening and with said heating chamber.

5. In a device of the character described the combination of a main chamber; a heating chamber at the base thereof; a percolating tube having a hollow enlargement at its lower end shaped to snugly fit within said heating chamber; said enlargement having a restricted opening at its top in communication with said main chamber and an enlarged passage below said restricted opening communicating with the latter and with said heating chamber.

[Claim 6 not printed in the Gazette.]

1,026,931. SMOKE-JACK FOR ENGINE-HOUSES. WILLIAM SCLATER, Westmount, Quebec, Canada, assignor of one-half to Archibald William Stevenson, Montreal, Canada. Filed Sept. 26, 1910. Serial No. 583,913. (Cl. 104—208.)

1. In a smoke jack for engine houses, a chimney portion having a frame formed of a plurality of wooden posts sheathed in metal and rigidly secured to the roof of the engine house and projecting upwardly therefrom and metal walls rigidly fastened to the roof and extending part way up said posts, a cowl of metal rigidly secured to the top ends of said posts and a smoke-bell rigidly secured to said roof and having a frame formed of a plurality of wooden lengths sheathed in metal and metal walls rigidly secured to said frame and extending upwardly into said chimney.



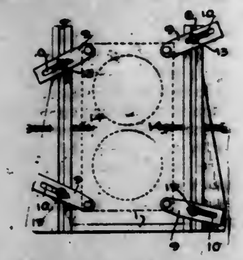
2. In a smoke jack for engine houses, a chimney portion having a frame formed of four wooden posts projecting upwardly and rigidly secured to the roof of the engine house and sheathed in copper, and sheets of copper securely fastened to the roof beyond the base of said posts and extending up said posts and secured thereto and forming the walls in rectangular arrangement, a sheet of copper suitably curved and secured to the top ends of said posts and forming a cowl, and a smoke-bell having a frame formed of wooden lengths sheathed in copper extending from underneath said roof into said chimney portion and sheets of copper rigidly secured to the said wooden lengths and forming the walls and extending upwardly into said chimney portion.

3. In a smoke jack for engine houses, the combination with the roof of an engine house having a square opening therethrough, of a chimney portion having four wooden posts rigidly secured to the roof at the corners of said opening and sheathed in copper and walls of copper rigidly secured to the outer sides of said posts and to the roof and terminating intermediate of the height of said posts, a cowl formed of sheet copper and rigidly secured to the top end of said posts, and a smoke-bell having a frame of wooden lengths turned upwardly at their inner ends and sheathed in copper and walls of copper bent upwardly at the upper end and secured to the inner edge face of said opening in the roof.

4. In a smoke jack for engine houses, the combination with the roof of an engine house having a square opening therethrough of a chimney portion formed of four wooden posts rigidly secured to the upper surface of the roof at the corners of said opening and sheathed in copper, distance pieces secured to said posts and the roof between said posts and copper walls secured to said posts and fastened to the roof and extending upwardly over said distance pieces and terminating intermediate of the height thereof, and a cowl of copper rigidly secured to the top end of said posts and a smoke-bell having a wooden frame sheathed in copper and copper walls turned upwardly at the upper ends and rigidly secured to said roof at the edge face of said opening and to said distance pieces.

1,026,932. UNIVERSAL ANGLE-PLATE. FREDERICK E. SEDDON, Hoboken, N. J., assignor to Garvin Machine Company, a Corporation of New York. Filed Aug. 11, 1911. Serial No. 643,406. (Cl. 90—59.)

1. A knee for holding flanged engine cylinders with their bores parallel to a given axis, comprising a base, uprights integrally projecting therefrom, integral webs for bracing the uprights from the base, finished vertical plane surfaces on said uprights, brackets having flat inner faces, and means for clamping the flat faces of said brackets in contact with the finished faces of said uprights, said brackets having perforations at their extremities, as and for the purposes set forth.

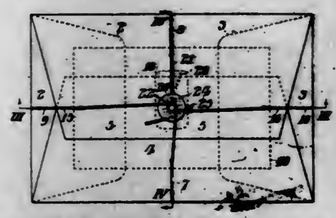


2. A knee for holding flanged engine cylinders with their bores parallel to a given axis, comprising a frame formed with an opening, T slots extending among a plurality of sides of said opening, brackets having longitudinal slots and holes, bolts in said T and bracket slots, said brackets and frame being adapted to be clamped into engagement in various positions of adjustment by means of said bolts, and additional bolts passed through the holes of said brackets to clamp the work thereto.

3. A knee for holding faced castings perpendicular to a given axis comprising a base, uprights, webs extending rearwardly from the uprights toward the base and flaring outwardly from one another as they extend toward the base, and brackets, said brackets and uprights having finished plane surfaces and adapted to be clamped into engagement in various positions of adjustment in a plane perpendicular to the base, said brackets being clamped in engagement in every possible position within the plane of said faces and within a certain radius of movement.

4. A knee for holding flanged engine cylinders with their bores parallel to a given axis, comprising a broad flat bottomed base having rigid vertical frame bars with finished faces perpendicular to a given axis, and T slots extending along a middle line of said faces, brackets having longitudinal slots and holes at their extremities and having finished faces, and T bolts, said brackets and frame bars being adapted to be clamped into engagement by said bolts in various positions of adjustment with their finished faces in contact.

1,026,933. ENVELOP. EPHRAIM G. SHREVE, Atlantic City, N. J. Filed Oct. 28, 1910. Serial No. 588,021. (Cl. 229—68.)



1. The combination with a reversible envelop, comprising a quadrangular body portion having flaps upon respective sides thereof, an opening for the passage of a string therethrough and slots extending from said body portion into the respective flaps, crossing the lines where said flaps are folded with respect to said body portion and respectively forming notches at the folded edges of the envelop; of a string; means upon said envelop securing one end of said string thereto; and, a quadrangular reinforcing card fitted in said envelop, having notches upon respective sides thereof adapted to register with the slots in said envelop; whereby said body portion may be presented either side out and in either case said string may be wrapped exterior to said envelop and engaged in said notches at the edges thereof and in the notches in said reinforcing card.

2. The combination with an envelop, comprising a quadrangular body portion having notches at opposite edges of the envelop; of a band; and, a reinforcing card fitted in said envelop, having notches at opposite edges thereof adapted to register with the notches in said envelop; whereby said band may be wrapped exterior to said envelop and engaged in said notches at the edges thereof and in the notches in said reinforcing card.

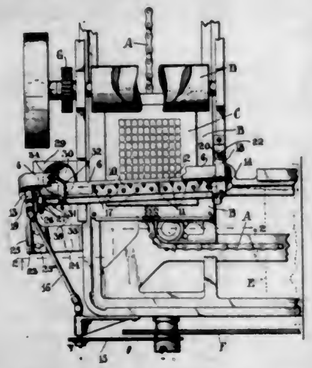
3. The combination with an envelop, comprising a quadrangular body portion having notches at opposite edges of the envelop; of a band; whereby said band may be wrapped exterior to said envelop and engaged in said notches at the edges thereof.

4. The combination with a reversible envelop, comprising a quadrangular body portion having flaps upon respective sides thereof, an opening for the passage of a string therethrough, and slots extending from said body portion into the respective flaps, crossing the lines where said flaps are folded with respect to said body portion and respectively forming notches at the folded edges of the envelop; of a string; and, means upon said envelop securing one end of said string thereto; whereby, said body portion may be presented either side out and in either case said string may be wrapped exterior to said envelop and engaged in said notches at the edges thereof.

5. The combination with an envelop having notches at opposite edges; of a reinforcing card fitted in said envelop, having notches at its opposite edges in registry with the notches in said envelop; reinforcing tabs on said card, having their inner ends respectively attached at the inner ends of said notches therein, adapted to be folded backward with respect to said card over the edges of an article inclosed in said envelop; and, a flexible band; whereby said band may be wrapped exterior to said envelop and engaged in said notches in said card, with said tabs interposed between said band and the article inclosed by said envelop.

[Claim 6 not printed in the Gazette.]

1,026,934. PRINTING-PRESS. CHARLES A. STURTEVANT, Plainfield, N. J., assignor to American Bank Note Company, a Corporation of New York. Filed Oct. 19, 1909. Serial No. 523,495. (Cl. 101—105.)



1. In a printing press, a mechanism for removing the surface ink from an engraved or intaglio plate, embodying therein a scraper of non-absorbent material having a narrow edge bearing continuously upon a plate, said scraper having a surface thereon adapted to receive and accumulate the ink removed from the plate, means varying the position of said scraper relative to said plate while in engagement therewith, means removing the accumulated ink from said scraper, and means moving said plate toward said scraper, whereby the movement of the plate forces the ink upon said surface of said scraper.

2. In a printing press, a mechanism for removing the surface ink from an engraved or intaglio plate, embodying therein a scraper of flexible material having a narrow edge, bearing continuously upon a plate, said scraper having a surface thereon adapted to receive and accumulate the ink removed from the plate, means varying the position of said scraper relative to said plate while in engagement therewith, means removing the accumulated ink from said scraper, and means moving said plate toward said scraper, whereby the movement of the plate forces the ink upon said surface of said scraper.

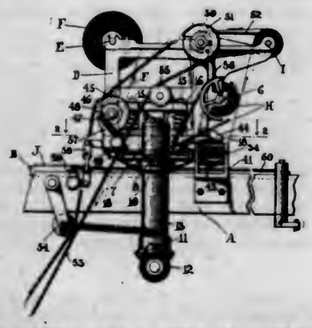
3. In a printing press, a mechanism for removing the surface ink from an engraved or intaglio plate, embodying therein a scraper consisting of a strip of non-absorbent material extending at an angle with a narrow edge thereof bearing continuously upon said plate, said scraper having a surface thereon above the edge engaging the plate, adapted to receive and accumulate the ink removed from the plate, means varying the position of said scraper relative to said plate during its engagement therewith, means removing the ink accumulated upon the surface of said scraper, and means moving said plate toward said scraper.

4. In a printing press, a mechanism for removing the surface ink from an engraved or intaglio plate, embodying therein a scraper consisting of a strip of flexible material extending at an angle with a narrow edge thereof bearing continuously upon said plate, said scraper having a surface thereon above the edge engaging the plate, adapted to receive and accumulate the ink removed from the plate, means varying the position of said scraper relative to said plate during its engagement therewith, means removing the ink accumulated upon the surface of said scraper, and means moving said plate toward said scraper.

5. In a printing press, a mechanism for removing surface ink from an engraved, or intaglio plate, consisting of a strip of flexible, non-absorbent material extending at an angle toward and with a narrow edge thereof bearing continuously upon, said plate, said scraper above said edge having a surface adapted to receive and accumulate the ink removed from the plate, means whereby said scraper may be adjusted toward or from the plate to vary the pressure exerted thereby, means varying the position of said scraper relative to said plate while in engagement therewith, means removing the ink accumulated upon said surface of said scraper, and means moving said plate toward said scraper.

[Claims 6 to 39 not printed in the Gazette.]

1,026,935. PRINTING-PRESS. CHARLES A. STURTEVANT, Plainfield, N. J., assignor to American Bank Note Company, a Corporation of New York. Filed Oct. 19, 1909. Serial No. 523,496. (Cl. 101—105.)



1. In a printing press, a wiping and polishing mechanism embodying therein a back, a plurality of expansible members carried by said back, individual means through the medium of which the operative plane of said expansible members may be severally and independently adjusted, whereby said expansible members may be caused to exert a variable pressure upon the plates, absorptive material passing over said expansible members and means imparting a feeding movement to said material.

2. In a printing press, a wiping and polishing mechanism embodying therein a back, a plurality of parallel airtight inflatable and expansible tubes carried by said back, individual valves through the medium of which the operative plane of said tubes may be severally and independently adjusted, whereby said expansible members may be caused to exert a varible pressure upon the plates, absorptive material passing over said tubes and means imparting a feeding movement to said material.

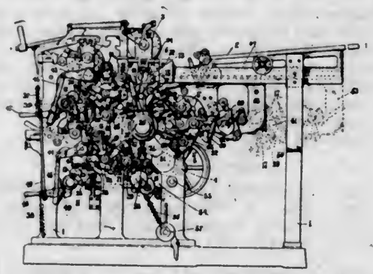
3. In a printing press, a wiping and polishing mechanism embodying therein a back, a plurality of parallel airtight inflatable and expansible tubes carried by said back, individual valves through the medium of which the operative plane of said tubes may be severally and independently adjusted, whereby said expansible members may be caused to exert a variable pressure upon the plates, a continuous facing drawn taut over said tubes, absorptive material passing over said facing and means imparting a feeding movement to said material.

4. In a printing press, a wiping and polishing mechanism embodying therein a back, a plurality of parallel straight sections of air tight inflatable and expansible tubes carried by said back, individual valves through the medium of which the operative plane of said tubes may be severally and independently adjusted, whereby said expansible members may be caused to exert a variable pressure upon the plates, a continuous facing drawn taut over said tubes, absorptive material passing over said facing and means imparting a feeding movement to said material.

5. In a printing press, a wiping and polishing mechanism embodying therein a back, a plurality of parallel straight sections of air tight inflatable and expansible tubes, cleats clamping the ends of said tube sections upon said back, individual valves through the medium of which the operative plane of said tubes may be adjusted, a continuous facing drawn taut over said tubes, absorptive material passing over said facing and means imparting a feeding movement to said material.

[Claims 6 to 9 not printed in the Gazette.]

1,026,936. PRINTING-MACHINE. CHARLES A. STURTEVANT, Plainfield, N. J., assignor to American Bank Note Company, a Corporation of New York. Filed Nov. 11, 1911. Serial No. 659,794. (Cl. 101—89.)



1. A printing machine, embodying therein a main impression cylinder, carrying an impression surface adapted to receive an imprint from a planographic plate, and adapted to receive a planographic plate diametrically opposite said impression surface, a planographic or transfer cylinder, a damping and an inking mechanism therefor, the plate upon said planographic or transfer cylinder being adapted to transfer an impression to the impression surface upon said main cylinder, a damping and an inking mechanism adapted to coöperate with the planographic plate upon said main cylinder, an impression cylinder oppositely disposed to said main cylinder, and means automatically shifting said planographic or transfer cylinder, and said damping and inking machnisms coöperating with the planographic plate upon said main cylinder, whereby said planographic cylinder and said damping and inking mechanisms are respectively made inoperative during each rotation of the main cylinder to afford clearance for the planographic plate upon the main cylinder and the impression surface thereon respectively.

2. A printing machine, embodying therein a main impression cylinder carrying an elastic impression surface adapted to receive an imprint from a planographic plate, and adapted to receive a planographic plate diametrically opposite said impression surface, a planographic or transfer cylinder, a damping and an inking mechanism therefor, the plate upon said planographic or transfer cylinder being adapted to transfer an impression to the impression surface upon said main cylinder, a damping and an inking mechanism adapted to coöperate with the planographic plate upon said main cylinder, an impression cylinder, having an elastic printing surface, oppositely disposed to said main cylinder, and means automatically shifting said planographic or transfer cylinder, and said damping and inking mechanisms coöperating with the planographic plate upon said main cylinder, whereby said planographic cylinder and said damping and inking mechanisms are respectively made inoperative during each rotation of the main cylinder to afford clearance for the planographic plate upon the main cylinder and the impression surface thereon respectively.

3. A printing machine, embodying therein a main impression cylinder, carrying an impression surface adapted to receive a planographic plate diametrically opposite said impression surface, a plurality of planographic or transfer cylinders, a damping and an inking mechanism for each of said cylinders, the plates upon said planographic or transfer cylinders being adapted to transfer an impression to the impression surface upon said main cylinder, a damping and an inking mechanism adapted to coöperate with the planographic plate upon said main cylinder, an impression cylinder oppositely disposed to said main cylinder, and means automatically shifting said planographic or transfer cylinders, and said damping and inking mechanisms coöperating with the planographic plate upon said main cylinder, whereby said planographic cylinders and said damping and inking mechanisms are respectively made inoperative during each rotation of the main cylinder to afford clearance for the planographic plate upon the main cylinder and the impression surface thereon respectively.

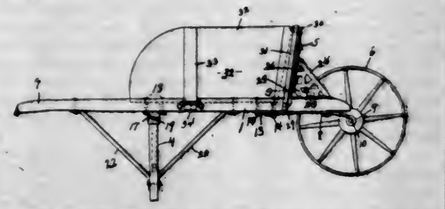
4. A printing machine, embodying therein a main impression cylinder, carrying an impression surface adapted to receive an imprint from a planographic plate, and adapted to receive a planographic plate diametrically opposite said impression surface, a planographic or transfer cylinder, a damping and an inking mechanism therefor, the plate upon said planographic or transfer cylinder being adapted to transfer an impression to the impression surface upon said main cylinder, a damping and an inking mechanism adapted to coöperate with the planographic plate upon said main cylinder, an impression cylinder oppositely disposed to said main cylinder, and means automatically shifting said planographic or transfer cylinder, and said damping and inking mechanisms coöperating with the planographic plate upon said main cylinder, whereby said planographic cylinder and said damping and inking mechanisms are respectively made inoperative during each rotation of the main cylinder to afford clearance for the planographic plate upon the main cylinder and the impression surface thereon respectively, and means whereby the planographic cylinder may be held out of the operative relation to the main cylinder.

5. A printing machine, embodying therein a main impression cylinder, carrying an impression surface adapted to receive a planographic plate diametrically opposite said impression surface, a plurality of planographic or transfer cylinders, a damping and an inking mechanism for each of said cylinders, the plates upon said planographic or transfer cylinders being adapted to transfer an impression to the impression surface upon said main cylinder, a damping and an inking mechanism adapted to coöperate with the planographic plate upon said main cylinder, an impression cylinder oppositely disposed to said main cylinder, means automatically shifting said planographic or transfer cylinders, and said damping and inking mechanisms coöperating with the planographic plate upon said main cylinder,

whereby said planographic cylinders and said damping and inking mechanisms are respectively made inoperative during each rotation of the main cylinder to afford clearance for the planographic plate upon the main cylinder and the impression surface thereon respectively, and independently operative means whereby either or both planographic cylinders may be held out of the operative relation to the main impression cylinder.

[Claims 6 to 36 not printed in the Gazette.]

1,026,937. WHEELBARROW. WILLIAM J. TAYLOR, Canastota, N. Y. Filed Sept. 24, 1907, Serial No. 394,331. Renewed Feb. 29, 1912. Serial No. 680,593. (Cl. 21—68.)

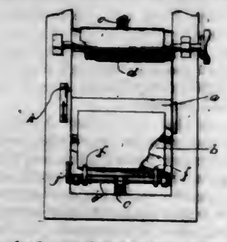


1. In a wheel barrow, the combination of opposite forwardly converging handle bars and a cross bar having its ends terminating and abutting against the inner faces of the handle bars, metal tie pieces secured to the under sides of the handle bars and adjacent ends of the cross bar and provided with upwardly projecting flanges engaging opposite sides of said cross bar.

2. In a wheel barrow, the combination of opposite forwardly converging handle bars, metallic tie pieces secured to the under side of the handle bars, opposite legs terminating at their upper ends at the under side of said tie pieces, said tie pieces having pendent portions embracing the adjacent ends of the legs and secured thereto.

3. In a wheel barrow, the combination of opposite forwardly converging handle bars, a cross bar having its opposite ends terminating and abutting against the opposite faces of the handle bars, metallic tie pieces secured to the under sides of the handle bars and adjacent ends of the cross bar, opposite legs having their upper ends terminating and abutting against the under side of said tie pieces, the latter being provided with pendent portions embracing the outer faces and sides of the adjacent ends of the legs and secured thereto.

1,026,938. PAPER-FEED ATTACHMENT FOR UNDER-SURFACE PRINTING-PRESSES. WILLIAM H. VOORHEES, New York, N. Y., assignor to American Bank Note Company, a Corporation of New York. Filed July 20, 1911. Serial No. 639,531. (Cl. 101—102.)



1. A paper feed attachment for under surface printing presses having a reciprocating work bed, a plate thereon, and a platen roller under which said bed passes, embodying therein, holding members mounted upon and movable with the work bed, and adapted to engage and rest upon a sheet upon the engraved plate, and automatically operating means embodying therein an actuating element arranged in advance of the platen roller whereby said members are disengaged from said sheet when the forward edge of the plate and the sheet have passed under the platen roller.

2. A paper feed attachment for under surface printing presses having a reciprocating work bed, a plate thereon, and a platen roller under which said bed passes, embodying therein, a plurality of vibratory fingers mounted upon and movable with the work bed and adapted to engage and rest upon a sheet upon the engraved plate, means whereby said fingers may be thrown into engagement with the sheet, and automatically operating means embodying therein an actuating element arranged in advance of the platen roller whereby said fingers are disengaged from the sheet when the forward edge of the plate and the sheet have passed under the platen roller.

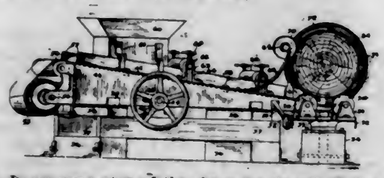
3. A paper feed attachment for under surface printing presses having a reciprocating work bed, a plate thereon, and a platen roller under which said bed passes, embodying therein, holding members mounted upon and movable with the work bed, and adapted to engage and rest upon a sheet upon the engraved plate, means applying yielding pressure to said holding members, and automatically operating means embodying therein an actuating element arranged in advance of the platen roller whereby said fingers are disengaged from the sheet when the forward edge of the plate and the sheet have passed under the platen roller.

4. A paper feed attachment for under surface printing presses having a reciprocating work bed, a plate thereon, and a platen roller under which said bed passes, embodying therein, a plurality of vibratory fingers mounted upon and movable with the work bed and adapted to engage and rest upon a sheet upon the engraved plate, means applying uniform pressure to each of said fingers, means whereby said fingers may be thrown into engagement with the sheet, and automatically operating means embodying therein an actuating element arranged in advance of the platen roller whereby said fingers are disengaged from the sheet when the forward edge of the plate and the sheet have passed under the platen roller.

5. A paper feed attachment for under surface printing presses having a reciprocating work bed, a plate thereon, and a platen roller under which said bed passes, embodying therein, a rotatable shaft mounted upon and movable with the work bed, a plurality of radially projecting holding fingers mounted upon said shaft, said fingers being adapted to project over the work bed and engage a sheet upon the engraved plate, an arm carried by said shaft whereby said shaft may be rotated, and a fixed abutment arranged in advance of the platen roller adjacent to said bed and adapted to engage said arm whereby said shaft will be automatically rotated to disengage said fingers from the sheet when the forward edge of the sheet and the plate have passed under the platen roller.

[Claims 6 to 14 not printed in the Gazette.]

1,026,939. MACHINE FOR FORMING JACKETS ON PILES. JOHN F. WHITTLE, Point Richmond, and HENRY D. FOSTER, Berkeley, Cal. Filed Feb. 13, 1911. Serial No. 608,241. (Cl. 25—30.)

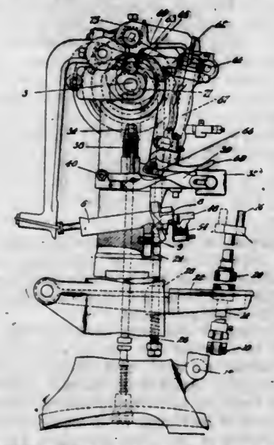


1. In an apparatus of the character described, the combination of a truck, a rotatable device mounted on said truck provided with means for retaining the end of a pile or the like, means for producing simultaneously a longitudinal movement of the truck and a rotary movement of said device, an apron for feeding plastic material to the surface of said pile, a hopper for supplying plastic material to said apron, means for regulating the thickness of said plastic material, means for varying the angle of inclination of said apron to said pile, and means located adjacent to said apron for rotatably supporting said pile, substantially as described.

2. In an apparatus of the character described, the combination of a truck, a rotatable device mounted on said truck provided with means for retaining the end of a pile or the like, means for producing simultaneously a longitudinal movement of the truck and a rotary movement of said device, an apron for feeding plastic material to the surface of said pile, a hopper for supplying plastic material to said apron, means for regulating the thickness of said plastic material, means located adjacent to said apron for rotatably supporting said pile, and means for simultaneously varying the angle of inclination to said pile of said apron and said supporting means, substantially as described.

3. In an apparatus of the character described, the combination of a truck, a rotatable device mounted on said truck provided with means for retaining the end of a pile or the like, means for producing simultaneously a longitudinal movement of the truck and a rotary movement of said device, an apron for feeding plastic material to the surface of said pile, a rotatable device engaging said pile to prevent movement thereof toward said apron, a roller suitably located relatively to the apron for supplying sheet material over said apron to said pile, and means for supporting said pile adjacent to an end of said apron, substantially as described.

1,026,940. ASSEMBLING-MACHINE. ORRELL ASHTON, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 26, 1907, Serial No. 407,993. Renewed Feb. 23, 1912. Serial No. 679,497. (Cl. 12—2.)



1. A machine of the class described, having in combination, mechanism for inserting a fastening in the rear face of a shoe, and means for relatively shifting said mechanism and the shoe laterally of the shoe into operative relation preliminary to the insertion of a fastening.

2. A machine of the class described, having in combination, mechanism for inserting a fastening in the rear face of a shoe, and means for determining the position in the width of said face at which the fastening is inserted.

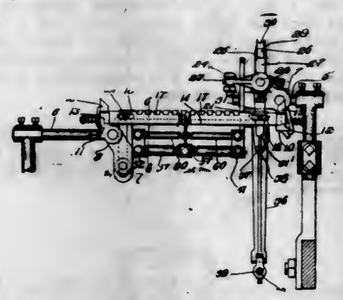
3. A machine of the class described having, in combination, mechanism for inserting a fastening and means for determining the position of a shoe relative to said mechanism to insure that it shall receive a fastening in its rear face from said mechanism.

4. A machine of the class described having, in combination, mechanism for inserting a fastening, and means for determining the position of a shoe relative to said mechanism to insure that it shall receive a fastening in its rear face from said mechanism, said means being constructed to accommodate shoes of different sizes.

5. A machine of the class described, having in combination, mechanism for inserting a fastening, means for locating a shoe relatively to said mechanism in position to receive a fastening in its rear face from said mechanism and for simultaneously wiping the upper forwardly along the sides of a shoe at the heel.

[Claims 6 to 30 not printed in the Gazette.]

1,026,941. WARP STOP-MOTION. WILLIAM H. BAKER, Bridgeport, Conn. Filed July 9, 1910. Serial No. 571,253. (Cl. 139—92.)



1. A warp stop motion comprising a notched bar slidably mounted, a vibrator pivotally mounted and connected with said bar, a rock shaft having a yielding connection with which said vibrator is engaged, drop detectors for arresting the movement of said bar and its vibrator under abnormal conditions, and a feeler mounted to move in a path intersecting the path of said vibrator.

2. A warp stop motion comprising a notched bar slidably mounted, a vibrator pivotally connected with said bar and having an arm furnished with a lateral projection, a rock shaft, a spacing block on said rock shaft, yielding plates secured to said spacing block between which said projection is engaged, drop detectors for arresting the movement of said notched bar and its vibrator under abnormal conditions, and a feeler coöperating with said vibrator and mounted to move in a path intersecting the path of said vibrator.

3. A warp stop motion for looms comprising a notched bar slidably mounted, a pivotally mounted vibrator to reciprocate said bar, operating means for said vibrator including a yielding connection, means for arresting the movement of said notched bar under abnormal conditions, a feeler mounted to move in a path intersecting the path of said vibrator and coöperating with said vibrator and having a lever, means for operating said lever from the lay of the loom such means including a dagger, the knock off lever, an arm pivotally mounted on the breast beam and adapted to act against the last mentioned arm and said dagger.

4. A warp stop motion comprising a pair of notched bars slidably mounted, means for reciprocating the said bars under normal conditions including a pivotally mounted member movable in unison with said bars, a rock shaft, two flexible plates upon said rock shaft in engagement with the said movable member, drop detectors for arresting the movement of either of said bars and said movable member under abnormal conditions, a feeler coöperating with said movable member and mounted to move in a path intersecting the path of said movable member.

1,026,942. HAT OR BONNET PIN PROTECTOR. AMANDA BRUTNER, New York, N. Y. Filed Sept. 6, 1911. Serial No. 647,916. (Cl. 132—25.)

1. The combination with a hat or the like and hat pin, of a shield for the point of the said pin embodying a head piece having an opening directed toward the crown

of the hat and a rigid member extending downward from said head piece and pivotally secured to the rim of the hat to be capable of tilting forwardly and backwardly in a vertical plane longitudinally of the hat.



2. The combination with a hat or the like and hat pin, of a shield for the point of the said pin embodying a head piece having an opening directed toward the crown of the hat, a rigid member extending downward from said head piece and having lateral pivots, and a member secured to the rim of the hat and having eyelets engaging said pivots and forming a hinge therewith, permitting the head piece to tilt forwardly and backwardly in a vertical plane longitudinally of the hat.

1,026,943. SNAP-SEAL. EDWARD J. BROOKS, East Orange, N. J. Filed Jan. 31, 1912. Serial No. 674,457. (Cl. 70—99.)



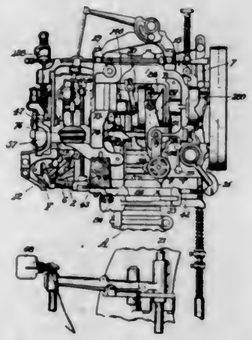
1. The combination in a snap seal, of a bulb-shaped seal part having a pair of upwardly projecting seat-forming ribs indented in its lower end and a shackle admitting aperture in its upper end surrounded by downwardly pressing edges, a flexible shackle having a sheath end formed by a longitudinal fold and provided on its sides with a pair of laterally projecting horns, the extremity of said sheath end being seated between said ribs and said horns coöperating with said downwardly pressing edges surrounding said aperture to fasten said sheath end within said seal part, the other end of said shackle being adapted to be inserted endwise into said sheath end, and a snap fastening device within said seal part adapted to fasten said other end of the shackle at the sealing operation.

2. The combination, in a snap seal, of a bulb-shaped seal part made in one piece of sheet-metal, having seat-forming ribs indented in its lower end and a shackle-admitting aperture formed in its upper end surrounded by edges turned inward and downward, a flexible shackle having a sheath end formed by a longitudinal fold and provided with laterally projecting horns, the extremity of said sheath end being seated between said ribs and said horns coöperating with the edges surrounding said aperture to fasten said sheath end within said seal part, the other end of said shackle being adapted to be inserted endwise into said sheath end, and a snap fastening device within said seal part adapted to fasten said other end of the shackle at the sealing operation.

3. The combination, in a snap seal, of a bulb-shaped seal part having a shackle-admitting aperture surrounded by edges turned inward and downward in its upper end, a flexible shackle having a sheath end formed by a longitudinal fold provided with laterally projecting horns adapted to coöperate with the edges surrounding said aperture to fasten said sheath end within said seal part, eyebrow-shaped projections beneath said horns, eyes formed by holes beneath said projections, and a slot forming a mouth having upturned ends beneath said holes and a ring-tumbler of resilient material adapted to be set under tension with a portion bridging the space within said sheath end of the shackle and its respective ends seated beneath said eyebrow-shaped projections and above said eyes, the other end of said shackle being slotted and adapted to be inserted endwise into said sheath end and to move said tumbler therewith out of said mouth, and into end alinement with said eyes at the sealing operation.

4. A snap seal having, in combination, a bulb-shaped seal part constructed with a shackle-admitting aperture surrounded by downwardly pressing edges turned inward and downward in its upper end, a flexible shackle formed from a rectangular strip folded longitudinally at each end and provided with portions adapted to coöperate with said downwardly pressing edges to preliminarily fasten one end of the shackle within the seal part, and a ring-tumbler adapted to interlock with the shackle ends at the sealing operation; said preliminarily fastened end being a sheath end, the other longitudinally folded shackle end being adapted to be inserted endwise into said sheath end; and the two shackle ends being provided respectively with duplicate holes and slots arranged to admit the ends of said ring tumbler within said seal part in the snap-fastened seal, substantially as hereinbefore specified.

1,026,944. TACKING MECHANISM. JAMES CAVANAGH, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Dec. 1, 1909, Serial No. 530,816. Divided and this application filed Dec. 1, 1910. Serial No. 595,078. (Cl. 1—18.)



1. In a machine of the class described, the combination with a tack-carrier bar, of actuating mechanism therefor including a lever, and a reciprocable member connecting said bar and lever and capable of disconnecting said parts by a single movement.

2. In a machine of the class described, the combination with a tack-carrier bar, of actuating mechanism therefor including a lever, and manually-controllable means comprising a reciprocable member provided with a handle and arranged to normally connect said bar and lever, but capable of movement to disconnect said parts.

3. In a machine of the class described, the combination with a tack-carrier bar provided with an aperture, of actuating mechanism therefor including a lever, a yieldingly actuated locking bolt to coöperate with said aperture, and means for holding said bolt out of locking engagement with said bar.

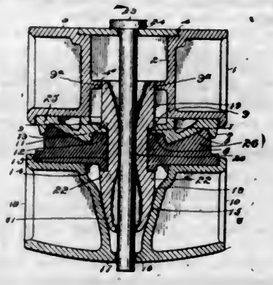
4. In a machine of the class described, the combination of a tack-carrier bar, actuating mechanism therefor including a lever, a pin to pivotally sustain said lever, a support for said pin, a plate clamped to said support and provided with a transverse slot, a block carried by said lever and having an extension arranged to move in said slot, and a bolt movable in the block and adapted for locking engagement with said bar.

5. In a machine of the class described, the combination with a tack-carrier bar, of actuating mechanism therefor including a lever, a block carried by the lever and provided with an aperture, a bolt guided for movement in said block and arranged for locking engagement with

said bar, and a pin connected with said bolt and arranged to enter said aperture for permitting such engagement, or to rest upon a shoulder of the block for preventing such engagement.

[Claim 6 not printed in the Gazette.]

1,026,945. CAR CONSTRUCTION. JAMES MCCUTCHEON COLEMAN, Westmount, Quebec, Canada. Filed July 28, 1911. Serial No. 641,075. (Cl. 105—108.)



1. In car construction, a joint between the car body and the truck formed by the meeting center bearing parts of bolster members, locked together by expanding tie members engaging upper and under surfaces of said bolster members respectively.

2. In car construction, a center bearing comprising meeting convex and concave parts, a plurality of flanged tie members inserted centrally therethrough, and a king pin inserted between said tie members, to expand same into engagement with said parts.

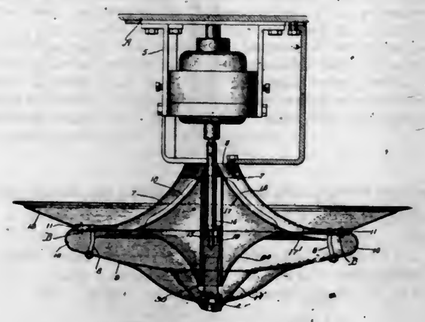
3. In car construction, a center bearing comprising meeting convex and concave parts, a plurality of flanged tie members inserted centrally therethrough, and a king pin inserted between said tie members whereby said tie members engage at their upper ends an upper surface of said convex part and at their lower ends an under surface of said concave part.

4. In a device of the class described, in combination, a car body, a bolster rigidly secured to said car body and having a center bearing portion centrally recessed and a pin-hole through the lower side thereof, said lower side being convexed and centrally recessed around said pin-hole, a truck, a bolster rigidly secured to said truck having a center bearing portion with an upper side concaved in dish shape around a central upwardly projecting boss and a pin hole through said boss and the lower side of the bolster, a plurality of tie members having flanged heads and flanges toward the lower end thereof, said head flanges engaging said body bolster and said lower flanges extending under the lower surfaces in said truck bolster and a pin extending through said pin holes between the said tie members.

5. In a device of the class described, in combination, a car body, a bolster rigidly secured to said car body having a central bearing portion recessed centrally from the upper side thereof and centrally from the under side and a pin-hole through the bed of said recesses, said underside being convexed around said lower recess and flanged around said convexed surface, a truck bolster having a central bearing portion with an upper surface correspondingly concaved to the convexed surface of said body bolster and a corresponding central boss extending into said underside recess in the body bolster and a central recess under said boss leading to a reduced recess in the lower part of said truck bolster, said recesses forming enlargements of the pin-hole therethrough, a punched ring covering in the upper recess in the body bolster, a king pin extending through said punched ring and through the pin holes in said bolsters and keys rigidly held to said body bolster and having flanged heads engaging an upper surface of the body bolster and intermediate flanges extending under the lower surface of the truck bolster and tails engaging said pin.

[Claims 6 and 7 not printed in the Gazette.]

1,026,946. HUMIDIFIER. FRANK B. COMINS, Sharon, Mass. Filed Dec. 5, 1910. Serial No. 595,684. (Cl. 98—41.)



1. A humidifier comprising a conical shield having an opening at the apex thereof, a pan supported from the outer periphery of said shield, said pan having a central contracted water compartment and an inner annular chamber opening at its top circumferentially of the periphery of the shield, a member consisting of two conical paraboloids placed base to base and rotatably-mounted between said pan and said shield with its greatest circumferential dimension positioned upon a level with said chamber opening and shield periphery and having its lower portion extending into said water compartment, and fan blades mounted upon the upper outer surface of the said rotatable member.

2. A humidifier comprising a conical shield having an opening at the apex thereof, a pan supported from the outer periphery of said shield, said pan having a central contraced water compartment and an inner annular chamber opening at its top circumferentially of the periphery of the shield, two conical paraboloids secured together forming a rotatable member mounted between said pan and said shield with its greatest circumferential dimension positioned upon a level with said chamber opening and shield periphery and having its lower portion extending into said water compartment, fan blades mounted upon the upper outer surface of the said rotatable member, an outwardly-extending flange upon said rotatable member and the upper surface of said rotatable member with the said flange having surfaces substantially parallel to and co-extensive with said shield.

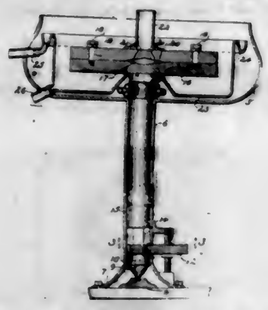
1,026,947. MACHINE FOR TREATING LIQUIDS. JOHN W. DAVIES, Reading, Mass., assignor to Manton-Gaulin Manufacturing Company, Boston, Mass., a Corporation of Maine. Filed Jan. 5, 1910. Serial No. 536,573. (Cl. 127—3.)

1. A machine for treating liquid of the nature described comprising a pair of rotatable members having their faces in annular contact, and devices for pressing said members together.

2. A machine for treating liquid of the nature described comprising a pair of rotatable members having their faces in contact and having a chamber embraced by said contacting faces and bolts extending through one of said members and adjustably secured in the other of said members, substantially as described.

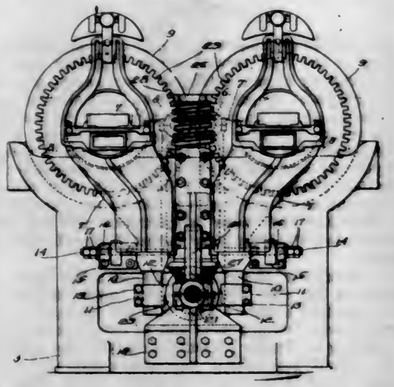
3. A machine for treating liquids of the nature described comprising a pair of rotatable members having annular

contacting faces, a chamber embraced by said faces, ducts communicating with said chamber, bolts for securing said



faces in contact, and means for receiving the liquid after it has passed between said members.

1,026,948. DRIVING MECHANISM FOR PULP-SCREENS. LEWIS F. FALES, Walpole, Mass. Filed Jan. 18, 1912. Serial No. 671,943. (Cl. 92—35.)



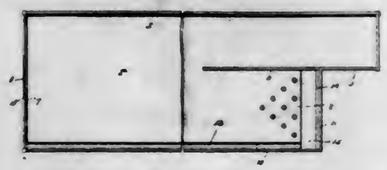
1. Driving mechanism for rotary pulp screens comprising a main frame, a drive gear frame secured to the main frame and having a horizontal bearing and a vertical bearing, a main shaft journaled in the horizontal bearing and having a miter pinion, a power transmission shaft journaled in said vertical bearing and having a miter pinion meshing with the pinion of the main shaft, a cylindrical pulp screen rotatably mounted in bearings, and driving connections between said power transmission shaft and said pulp screen, substantially as described.

2. Driving mechanism for rotary pulp screens comprising a main frame having a pair of studs, frames pivotally mounted on said studs, means for vibrating said frames, a pair of cylindrical pulp screens rotatably mounted in said frames and having worm gears, a worm located between said worm gears and in engagement therewith, and means for driving said worm.

3. Driving mechanism for rotary pulp screens comprising a main frame, a pair of vibratory frames carried on members of the main frame, a pair of pulp screens journaled in said vibratory frames and having worm gears, a worm shaft journaled in a vertical bearing and having its worm located between and in engagement with said worm gears, the pitch points of said worm and worm gears being approximately coincident with the axes about which said frames are adapted to vibrate.

4. Driving gear for rotary pulp screens comprising a main frame, a drive gear frame secured thereto, studs extending from the main frame, vibrator frames pivotally mounted on said arms and having arms furnished with cam blocks pulp screens journaled in said vibrator frames and having worm gears, a shaft journaled in a vertical bearing of said drive gear frame and having a worm located between said worm gears and in engagement with both thereof, a miter pinion at the lower end of said worm shaft, and a main shaft journaled in bearings respectively of said main frame and drive gear frame, said main shaft having a throw cam acting on the cam blocks of the vibrator frames and a miter pinion in engagement with the similar pinion of the worm shaft, substantially as described.

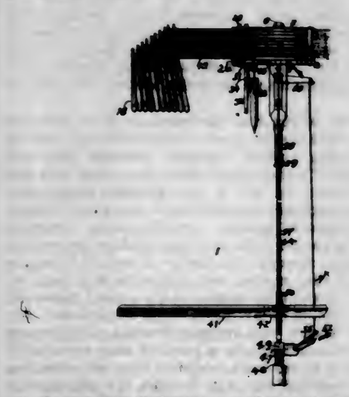
1,026,949. BOWLING-ALLEY. LUTHER D. HASKELL, Essex, Mass., assignor to Albert R. MacKusick, Boston, Mass. Filed Jan. 28, 1911. Serial No. 605,268. (Cl. 46—66.)



1. A bowling alley comprising a runway having a ball-reflecting cushion at its farther end, and a pin-deck at its nearer end, and having in addition at the nearer end a continuation of the said runway constituting a ball-entry portion extending forwardly in advance of the pin-deck so that the player may stand alongside said continuation in front of the pin-deck, and his arm may swing above and along the same in projecting the ball, and also so that the ball may be delivered upon such continuation in being projected.

2. A bowling alley comprising an inclined plane runway having a ball-reflecting cushion at its farther end, and a pin-deck at its nearer end, and having in addition at the nearer end a continuation of the said runway constituting a ball-entry portion extending forwardly in advance of the pin-deck so that the player may stand alongside said continuation in front of the pin-deck, and his arm may swing above and along the same in projecting the ball, and also so that the ball may be delivered upon such continuation in being projected.

1,026,950. MUSIC-LEAF TURNER. SIMON HAUSLER, San Francisco, Cal. Filed Jan. 9, 1909. Serial No. 471,531. (Cl. 84—135.)



1. In a music leaf turner, a frame, a series of plates carried by the frame, a spring carried within each plate

to hold the said plate in a given position, a catch for each plate to hold said plate in a position substantially 180 degrees different from the first mentioned position, leaf holding fingers carried by each plate, and a vertically slidable trigger mounted in said frame for releasing the plates and fingers successively, said trigger having a portion coöperating with the released finger to set the trigger into position to release the succeeding finger.

2. In a music leaf turner, a frame, a series of plates carried by the frame, a leaf holding finger carried by each plate, a catch carried by each plate and adapted to hold each plate in a position ready for a movement of substantially 180 degrees, a holding post, a slidable trigger adapted to release the catches from the post one at a time, means to move the plates through an angle of substantially 180 degrees, and means to hold a series of sheets of music in proximity to the turning device, as set forth.

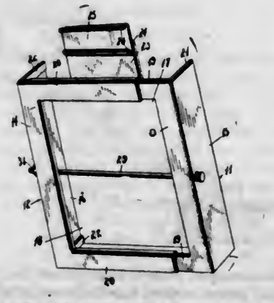
3. In a music leaf turner, a frame, a series of plates carried thereby, a leaf holding finger carried by each plate, a spiral spring and a latch carried by each plate, means to hold the plates in a position ready for a movement of substantially 180 degrees, a vertically slidable trigger to release the latches successively, means whereby said slidable trigger will be moved to operate said latches successively, and means to operate said trigger to release said latches, as set forth.

4. In a music leaf turner, a frame, a series of plates carried thereby, a finger secured to each plate and movable therewith through an angle of substantially 180 degrees, a latch carried by each plate, a spring to turn said plates and fingers through said angle, a holding post with which said latches contact, a vertically slidable trigger to move and release said latches successively, said trigger being so formed that each finger will successively move the same so that it will remove the next latch, and a music holding shelf secured to said frame, as set forth.

5. In a music leaf turner, the combination of a frame, a series of plates carried thereby, a leaf holding finger carried by each of said plates and movable therewith through an angle of substantially 180 degrees, a latch carried by each plate, a holding post, a slidable trigger to release said latches successively, said trigger being so formed that it will contact with each successive finger in such a manner that the trigger is set to operate the next latch, a rod connected with the frame, a music holding shelf secured to said rod, and means to hold sheets of music against said rod, as set forth.

[Claim 6 not printed in the Gazette.]

1,026,951. CURTAIN-HANGER. JOSHUA GEORGE HEARNSR, Jacksonville, Fla., assignor of three-tenths to S. P. Livingston, Jacksonville, Fla. Filed Dec. 15, 1911. Serial No. 665,918. (Cl. 156—24.)

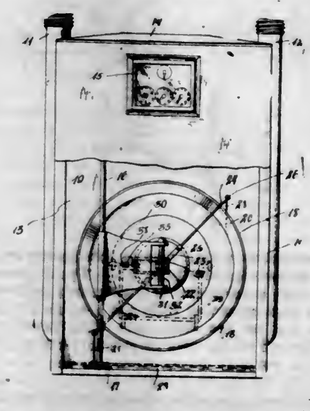


1. In a curtain hanger, a pair of angular clamping sections having portions thereof slidably connected and adapted to engage around one side portion of a window frame, a clamping member disposed through the side portions of the angular members for securing the same in binding contact with the frame and a bracket support carried by one of the members.

2. In a window shade fastener, a pair of metallic sections having their ends bent rearwardly and provided with upper and lower extensions, the extensions of one section being formed with guideways slidably receiving the other extensions, means extending through the rearwardly bent ends for adjusting sections one toward the other for clamping the same upon a window frame and an upwardly extending plate portion formed upon one of the extensions and stamped from its section to support a shade bracket.

3. A fixture of the class described comprising sections of metal having their inner portions cut out to provide upper and lower extensions, the opposed edges of the extensions being rebent, said extensions being connected for longitudinal adjustment, the lower edge portion of the upper extension of one section being bent upwardly above its upper edge, a guide strip carried by the upper front portion of said upwardly extending portion and having thereof longitudinal edges bent inwardly and outwardly to provide receiving grooves for a shade bracket.

1,026,952. SELF-OILING DEVICE. JOHN HENNING, Augusta, Ga., assignor of one-fourth to M. D. Schindler and one-fourth to George L. Hatsel, Augusta, Ga. Filed Mar. 27, 1911. Serial No. 617,105. (Cl. 73—1.)



1. An oiling device of the character described comprising the combination with a diaphragm, and an adjacent operating member; of a shaft secured centrally of the diaphragm, a series of arms rotatably carried by the shaft, operative connections between the shaft and the operating member aforesaid to support said shaft, and connections between the operating member and the arms to rotate the same, the extremities of said arms being adapted for distributing a lubricant over the diaphragm.

2. In an oiling device, the combination with a diaphragm, an adjacent rockable operating member and a suitable valve operating mechanism controlling the passage of gas to and from the diaphragm; of a rock arm carried by said rockable member, a disk secured to the diaphragm, a connecting means between the rock arm and the disk to cause operation of the rockable member, and means rotatably carried by the shaft and connected to said rock arm to distribute oil over the diaphragm.

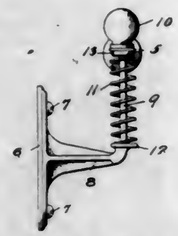
3. In a self oiling device, the combination with a casing, diaphragms mounted within the casing, valves controlling the passage of gas to and from the diaphragms, flag wires connected to the valves, swiveled connecting means between the flag wires and the diaphragms, oil distributing members extending over the diaphragms, means rotatably mounted upon said connecting means for supporting said members, said oil distributing members being adapted to take up oil from the bottom of the casing and connecting means between said distributing members and the swiveled connecting means to rotate said distributing members.

4. An oil distributing device for diaphragms comprising the combination with a meter casing; of flag wires rotatably mounted, rock arms carried by the flag wires, shafts secured to movable ends of the diaphragms, pinions mounted upon the shafts for rotation, sockets formed with said pinions, arms carried by the sockets, oil distributing members carried by the ends of the arms and adapted to be in contact with the diaphragms, said distributing members being adapted to take up oil from a suitable source and brackets secured to the rock arms and formed with rack bars adapted to engage the pinions to rotate said arms and distributing members carried thereby, upon the expansion and contraction of the diaphragms.

5. A device of the class described comprising the combination with a diaphragm of oppositely extended arms rotatably mounted centrally of one end of the diaphragm, and means for rotating said arms during the expansion and contraction of the diaphragm, said arms carrying oil distributing members.

[Claim 6 not printed in the Gazette.]

1,026,953. CURTAIN-POLE HOLDER. HENRY TUFTS, HOLLAND, Winfield, N. Y. Filed Nov. 23, 1910. Serial No. 593,859. (Cl. 156—22.)



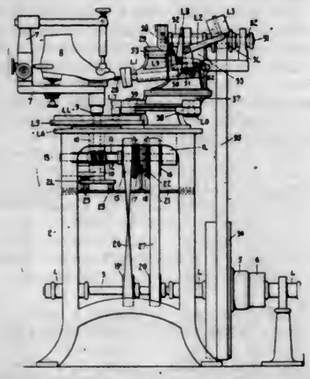
The combination with a curtain pole having eyes at its ends; of holders for said pole, each of said holders comprising a base, a horizontal arm extending from the base, a vertical stem extending from the arm, an abutment at the inner end of the stem, said stem passing loosely through the eye of the pole to permit vertical movement of said pole, resilient means carried by the stem and engageable with the eye to provide a yielding support for the pole, and a head removably connected to the extremity of the stem.

1,026,954. FINISHING-MACHINE FOR BOOTS AND SHOES. WALTER JACKSON and HAROLD NICHOLS POCHIN, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 22, 1906, Serial No. 339,956. Renewed Oct. 8, 1908. Serial No. 456,770. (Cl. 12—78.)

1. An edge setting machine comprising the combination with a work support rotatable alternately in opposite directions, and a pivoted tool carrying member, of a roller on said member, and a cam rotatable in unison with the work support to engage said roller and cause the tool carrying member to move horizontally about its center coincidently with the rotation of the work support, substantially as and for the purpose described.

2. An edge setting machine comprising the combination with a work support rotatable alternately in opposite directions, and a pivoted tool carrying member, of a roller on said member, and a cam rotatable in unison with the work support to engage said roller and cause the tool carrying member to move horizontally about its center coincident with the rotation of the work support, and mechanism for automatically rotating said work support, substantially as described.

3. In an edge setting machine having a work support automatically rotatable in opposite directions alternately and a tool carrying head controlled and actuated by the movement of said work support, a finishing tool, a sliding rod mounted in the head and carrying said tool, bell crank levers connected to said rod and counterweights on said levers to constantly move the sliding rod forward, a handlever and rotating arms for moving said slide rod rearward, a drop catch for maintaining the rod in its rearward position and a release handle to lift said drop catch, substantially as described.

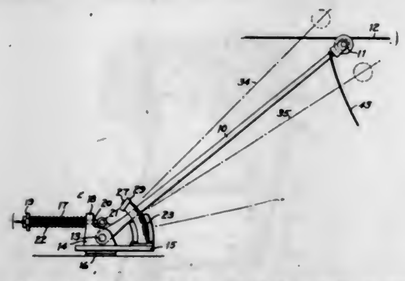


4. In an edge setting machine a finishing tool having a bayonet slot therein, a yielding tool holder consisting of a spring controlled and slidable plate, a boss on said plate to receive the tool, a pin on said boss to engage the bayonet slot in said tool, a block to carry said slidable plate, a sliding rod having a jawed or grooved end for the reception of the said block, and springs located between the block and jaw, substantially as described.

5. In a machine of the class described, a tool having a working face, means for vibrating said tool over the work and means for supporting said tool rigidly in the direction of its vibrations but permitting said tool to be rotated on its axis, to be canted by the work and to be moved bodily on the supporting means without canting.

[Claims 6 to 22 not printed in the Gazette.]

1,026,955. TROLLEY-RETRIEVER. SAMUEL P. KAY, Rochester, N. Y., assignor of one-third to George F. Roth and one-third to Fred B. Graves, Rochester, N. Y., and one-sixth to Arethusa Kay. Filed Apr. 17, 1911. Serial No. 621,642. (Cl. 191—35.)



1. In combination with a trolley-arm pivoted to move in a vertical plane, a downwardly-movable retriever-member having a portion located above the trolley-arm and adapted to engage and depress the arm when the retriever-member moves downwardly, a spring tending to move the retreiver-member downwardly, and a detent by which said member is normally retained in raised position, the detent having a portion located above and in the path of movement of the arm, so as to be engaged by the arm in its upward movement and trip the detent when the arm moves above a predetermined position.

2. In combination with a trolley-arm pivoted to move in a vertical plane, a downwardly-movable retriever-member having a portion located above the trolley-arm and adapted to engage the arm directly when the retriever-member moves downwardly, a spring tending to move the retriever-member downwardly, a detent by which said member is normally retained in raised position, the detent having a portion located above and directly in the path of movement of the arm, so as to be engaged by the arm in its upward movement and trip the detent when the arm moves above a predetermined position, and means operable by the arm, when drawn below a predetermined position, to raise and reset the retriever-member.

3. In combination with a trolley-arm pivoted to move in a vertical plane, an upright slide-guide fixed at the side of said plane, a retriever-slide mounted on said guide and provided with an abutment engageable with the trolley-arm when the slide is moved downwardly on the guide, a spring tending to move the slide, and a detent for normally retaining the slide in raised position, the detent having a portion located above and in the path of vertical movement of the trolley-arm, so that the detent may be engaged and tripped by the arm to release the slide when the arm moves above a predetermined position.

4. In combination with a trolley-arm pivoted to move in a vertical plane, an upright slide-guide fixed at the side of said plane, a retriever-slide mounted on said guide and provided with an abutment engageable with the trolley-arm when the slide is moved downwardly on the guide, a spring tending so to move the slide, a detent for normally retaining the slide in raised position, the detent being operable to release the retriever-slide when the trolley-arm moves above a predetermined position, and resetting-mechanism for raising the retriever-slide to normal position, said mechanism comprising a second slide mounted on said guide and downwardly-movable by engagement with the trolley-arm when the arm is drawn below a predetermined position.

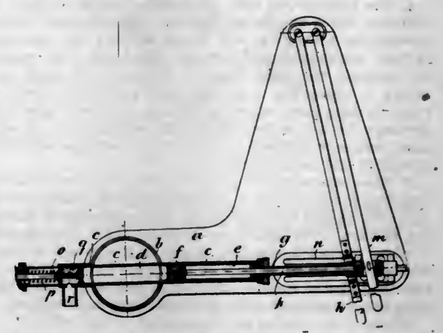
5. In combination with a trolley-arm pivoted to move in a vertical plane, a retriever-member movable downwardly and adapted to engage the trolley-arm in such downward movement to depress the arm, a spring for so moving the retriever-member, means for retaining the retriever-member normally in operative position, said means being operable by the arm to release the retriever-member when the arm moves above a predetermined position, and mans for resetting the retriever-member, said means comprising a slide engageable by the trolley-arm when the arm is drawn below a predetermined position, a second slide upwardly-movable and adapted to engage and raise the retriever-member, and gearing connecting said slides whereby downward movement of the one causes upward movement of the other.

[Claim 6 not printed in the Gazette.]

1,026,956. APPARATUS FOR THE FILLING OF TUBES. ALBERT JÖRGEN KIER, Copenhagen, Denmark. Filed June 10, 1911. Serial No. 632,514. (Cl. 73—163.)

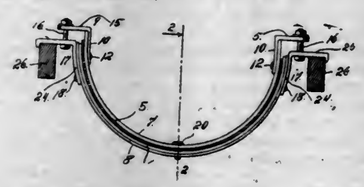
1. In apparatus for filling tubes with a measured quantity of paste or the like, the combination of a paste reservoir, a supply tube passing across the reservoir near the bottom of and through opposite walls of the same, a supply opening being provided in the upper part of said supply tube and a port being provided at one end of the supply tube, a movable measuring tube fitting into said supply tube, an ejector piston in the measuring tube, a delivery mouth-piece connected with said port at one end of the supply tube, movable means for normally closing the port leading to said mouth piece, means for independently moving said measuring tube through said supply tube and means for independently moving said ejector piston toward the port closing means, substantially as described.

2. In apparatus for filling tubes with a measured quantity of paste or the like, the combination of a paste reservoir, a supply tube passing across the reservoir near the bottom of and through opposite walls of the same, said supply tube being provided with a supply opening in the upper part thereof, a movable measuring tube fitting into said supply tube, an ejector piston in the measuring tube, a cylinder connected with one end of said supply tube and provided with a port, a delivery mouth-piece provided on said cylinder for said port, a spring controlled piston arranged in said cylinder and normally closing the port leading to said mouth-piece, means for independently moving said measuring tube through said supply tube, and means for independently moving said ejector piston toward said spring controlled piston, substantially as described.



3. In apparatus for filling tubes with a measured quantity of paste or the like, the combination of a paste reservoir, a supply tube provided at one end with a port and passing across the reservoir near the bottom of and through opposite walls of the same, said supply tube being provided with a supply opening in the upper part thereof, a movable measuring tube provided with an ejector piston and fitting into said supply tube, a delivery mouth piece connected with said port at one end of said supply tube, movable means, which normally close said port, levers for moving the supply tube and the ejector piston respectively toward the port leading to the mouth piece and means for locking the lever, which operates the ejector piston, in its initial position.

1,026,957. TROUGH OR OPEN FLUME. WILLIAM LENNON, Manitou, Colo. Filed July 17, 1911. Serial No. 638,880½. (Cl. 61—5.)



1. The combination with overlapping trough sections, of inner and outer clamping bands applied to the said sections, their extremities being equipped with angular brackets having laterally-projecting arms, the brackets of the coöperating clamping bands having their laterally-disposed arms located one above the other on each side of the trough, means for connecting the said arms whereby the bands are drawn tightly together and caused to clamp the overlapping trough sections, the bracket arms of the outermost band being extended beyond the connecting means to engage a suitable support, substantially as described.

2. The combination of overlapping trough sections, clamping bands applied to the sections both interiorly and exteriorly, the opposite extremities of both bands being equipped with angular brackets, means for connecting the brackets of the two arms whereby the latter are caused

to clamp the trough sections, and suitable means for preventing the trough sections from slipping upon each other, substantially as described.

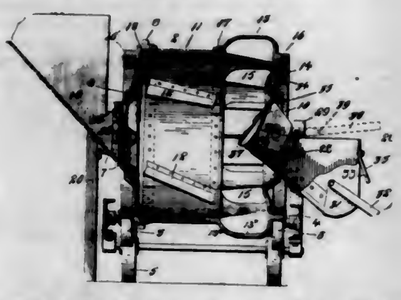
3. The combination with overlapping trough sections, of clamping bands applied to the sections, both interiorly and exteriorly, the said bands being equipped at their extremities with laterally-projecting coöperating arms, means for connecting the said arms whereby the bands are caused to clamp the trough sections, and means for preventing the sections from slipping upon each other, comprising pins carried by the bands and entering registering openings formed in the trough sections, substantially as described.

4. The combination with overlapping trough sections, of clamping bands shaped to conform approximately to the overlapping portions of the trough sections and equipped at their extremities with laterally-projecting arms, means for securing the arms together, whereby the bands are caused to clamp the trough sections, each band having a rivet pin near each extremity adapted to enter registering openings formed in the overlapping sections, one of said bands having a centrally located pin also entering openings formed in the trough sections.

5. The combination with overlapping trough sections, of clamping bands applied to said sections both interiorly and exteriorly, means for securing the bands together in clamping relation, the bands being equipped with pins adapted to enter elongated openings formed in the trough sections near their upper edges, one of the bands having a pin entering elongated openings formed in the two trough sections and its companion band, substantially as described.

[Claim 6 not printed in the Gazette.]

1,026,958. CONCRETE-MIXING APPARATUS. CHRISTOPHER W. LEVALLEY, Milwaukee, Wis. Filed Nov. 10, 1908. Serial No. 461,891. (Cl. 88—73.)



1. In a machine for mixing concrete, the combination of a rotatable mixing drum having a feed opening at one end and a discharge opening at the other, a delivery chute, and an adjustable pivoted gate within the drum, arranged when adjusted to one position to set vertically above the inner end of the chute and substantially closing the same, and when in this position having its free edge adjacent to the end wall of the drum above the discharge opening, the gate being then inclined downward and inward, whereby it serves to divert material which is lifted back into the drum toward its feed end for further mixing and prevents it from passing out of the machine, and the pivot of the said gate being so disposed that the free edge of the gate moves into the drum when the gate is adjusted from the aforesaid diverting position.

2. In a machine for mixing concrete, the combination of a rotatable mixing drum having a discharge opening, a delivery chute extending through the said opening into the drum, and a gate pivoted on an axis that is transverse to the axis of rotation of the drum, and is disposed adjacent to the inner end of the delivery chute and arranged when adjusted to one position to set vertically above and substantially closing the inner end of the delivery chute with one of its edges adjacent to the end wall of the drum above the discharge opening, and extending thence downward and inward, whereby it serves to divert material which is lifted back into the drum for further mixing and prevent it from entering the delivery chute.

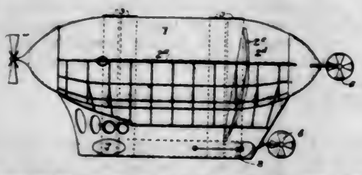
3. In a machine for mixing concrete, the combination of a rotatable mixing drum having a discharge opening, a delivery chute, and a gate pivotally supported by the chute upon an axis that is transverse to the axis of rotation of the drum, and arranged when adjusted to one position to set vertically above the inner end of the delivery chute and closing it and with one of its edges adjacent to the end wall of the drum above the discharge opening, and extending thence downward and inward, whereby it serves to divert material which is lifted back into the drum for further mixing and prevent it from entering the delivery chute.

4. In a machine for mixing concrete, the combination of a rotatable mixing drum having a discharge opening, a delivery chute extending into the drum through the said opening, and a gate pivoted on a line intermediate between its ends and transverse to the axis of rotation of the drum and located adjacent to the inner end of the delivery chute, and arranged when adjusted to one position to set vertically above and substantially closing the inner end of the delivery chute and with one of its edges adjacent to the end wall of the drum above the discharge opening and extending thence downward and inward, whereby it serves to divert material which is lifted back into the drum for further mixing and prevent it from entering the delivery chute.

5. In a mixing machine, the combination of a rotatable mixing drum adapted to lift the material being mixed and having a rear end wall in which is formed an axial discharge opening, a delivery chute extending into the drum through the said opening, and an adjustable gate or cut-off arranged entirely within the drum and pivoted upon a line that is transverse to the axis of rotation of the drum, whereby when adjusted to one position to overlie the inner end of the chute and substantially close it, and to incline downward and inward whereby material lifted by the drum is caught by the said gate and directed away from the chute and back into the drum toward the feed end, and when adjusted to another position arranged to uncover the delivery chute and incline downward and outward whereby it serves in effect as an extension of the said chute.

[Claims 6 and 7 not printed in the Gazette.]

1,026,959. AIRSHIP. JOHN T. LONG, Encanto, Cal. Filed Feb. 16, 1911. Serial No. 609,031. (Cl. 244—7.)



1. An airship comprising a gas bag, a frame attached thereto, adjustable side planes one on each side attached to the said frame, a plurality of tubes extending vertically through said bag, and said frame, vertical propellers in said tubes, means for operating said propellers, and reversible propellers on the rear end adapted to change the lateral direction of the machine, all substantially as set forth.

2. An air ship comprising, a gas bag, a frame attached thereto, adjustable side planes attached to each side of said frame, a plurality of tubes extending vertically through said bag and frame, vertical propellers in said tubes, means for operating said propellers, a reversible propeller on the rear end adapted to change the lateral direction of the machine, longitudinal tubes in the frame of said machine, and propellers adapted to operate therein, all substantially as set forth.

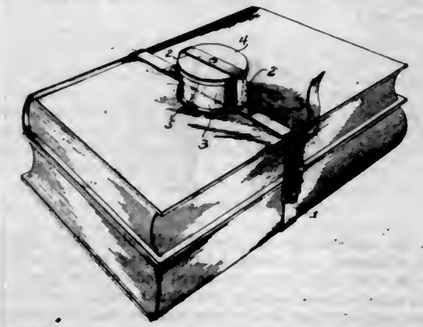
3. An air ship comprising, a gas bag, a frame suspended therefrom, adjustable side planes attached one on each side of said frame, a plurality of tubes extending vertically through said bag and frame, propellers in said tubes, a reversible propeller on the rear end of said frame adapted to change the lateral direction of the machine, a plurality of longitudinal tubes in the frame of said machine, propellers adapted to operate therein, and common power means for operating all of said propellers, all substantially as set forth.

4. In an air ship, the combination of a gas bag, vertical tubes extending through said bag, propeller means for propelling said machine forward and backward, adjustable longitudinal planes adapted to guide said machine, vertically, a plurality of reversible propellers comprising pivotally mounted blades and means for rotating said blades, all substantially as set forth.

5. In an air ship, the combination of a gas bag, vertical tubes extending through said bag, propeller means for propelling said machine forward and backward, adjustable longitudinal planes adapted to guide said machine vertically, a steering means comprising a reversible propeller having pivotally mounted blades, means for rotating said blades, and an annular guard around said blades, all substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,026,960. COMBINED STRAP AND DRINKING-CUP HOLDER. RUDOLF LUBLINTZ, New York, N. Y. Filed Feb. 29, 1912. Serial No. 680,759. (Cl. 224—45.)



1. As a new article of manufacture a strap having a loop and a cap secured within the loop and adapted to receive one end of a collapsible cup.

2. As a new article of manufacture, a strap having a flexible loop, and a cap secured at its center to the inner surface of said loop and having a peripheral flange adapted to receive and engage one end of a collapsible cup.

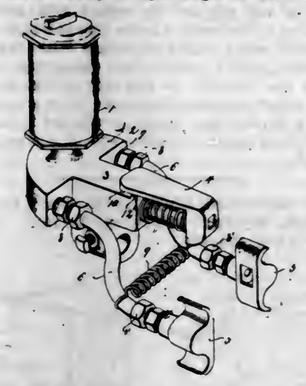
1,026,961. LUBRICATOR. JOHN FRANKLIN MACINDOE, Philadelphia, Pa. Filed Dec. 20, 1910. Serial No. 598,306. (Cl. 184—21.)

1. In an elevator guide lubricator, the combination of a body, arms rotatively mounted thereon, distributers rotatively connected with said arms, and a resilient connection between the arms.

2. In an elevator guide lubricator, the combination of a body, a lubricant supply means therefor, spaced arms rotatively mounted on the body and offset intermediate their ends, a resilient connection between said arms, and lubricant distributers carried by the outer ends of the arms.

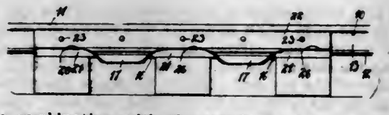
3. In an elevator guide lubricator, the combination of a hollow body, lubricant supply means therefor, tubular arms rotatively connected at one end with the body, distributers rotatively mounted upon the outer ends of the arms, said arms being offset intermediate their ends, and a resilient connection between the outer ends of the arms, the distributers having passages in communication with the tubular portions of said arms.

4. In an elevator guide lubricator, the combination of a body, means for supplying a lubricant thereto, a distributer, a tube adapted to supply the lubricant from the body to the distributer and reciprocally mounted on the body, said body being provided with lubricant inlets arranged at substantially a right angle to the direction of



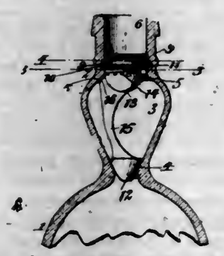
movement of the tube on the body, and an adjustable screw carried by the tube for regulating the operative size of the inlets.

1,026,962. BASE-PLATE. FRANK S. PARRIGIN, St. Augustine, Fla. Filed Oct. 30, 1911. Serial No. 657,638. (Cl. 239—2.)



The combination with the meeting ends of a pair of rails and supporting ties therefor, of a base plate underlying the base flanges of the said rail ends and resting upon the ties, depending extensions provided upon the longitudinal edges of the base plate and extending between the ties for engagement with the adjacent faces thereof, horizontal extensions provided upon the longitudinal edges of the base plate between the said depending extensions, enlargements formed upon the horizontal extensions in planes above the plane of the upper side of the base plate and parallel thereto, vertically extending lateral flanges formed upon the outer sides of the enlargements, fish plates engaging the opposite sides of the rails and resting upon the seats produced by the parallel faces of the enlargements and engaging the lateral extensions and spikes passing through slots formed in the lower edges of the fish plates and openings formed in the enlargements for engagement with the ties.

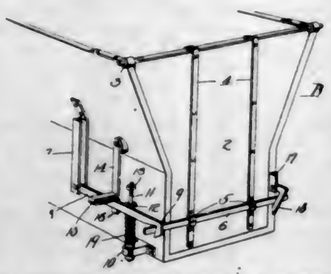
1,026,963. BOTTLE-STOPPER. JAMES S. PORTER, Buffalo, N. Y. Filed Feb. 16, 1911. Serial No. 609,024. (Cl. 215—62.)



The combination of a bottle having its neck provided with an enlargement forming an outwardly facing valve

seat at the inner end of said enlargement, a perforated plug secured in the neck beyond the outer end of said enlargement, an outwardly opening valve arranged in said enlargement and adapted to engage said valve seat, a guard having a free concave outer side provided at its edge with notches and adapted to engage with the underside of said plug, and a weight bar connecting said guard and valve and deflected to one side of the axes of said valve and guard and provided on the outer side of its outer end with a beveled face which is adapted to engage with a beveled shoulder at the outer end of the enlarged part of the neck.

1,026,964. MINE-CAR-DOOR LOCK. JOHN ANOS RIVERS, Monongah, W. Va. Filed Aug. 1, 1911. Serial No. 641,877. (Cl. 105—15.)



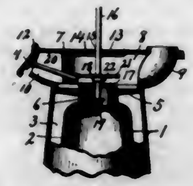
1. The combination with a mine car having its front end in the form of an upwardly and outwardly swinging door, a cross bar carried by said door and projecting beyond the side of the car, a lever mounted pivotally upon one side of the car and adapted to engage the projecting end of the bar, a spring for throwing said lever upwardly out of engagement with the bar and a pivoted locking bar having a bent portion adapted to bear upon the top of the lever and hold the same in engagement with the cross bar.

2. The combination with a mine car having a door at the front end adapted to swing outwardly and upwardly, a cross bar carried by said door, projecting upon one side of the car, a depending bracket carried by the car side, a lever pivoted at one end to said bracket having a hook at the opposite end to engage the bar, a vertically swinging bar pivotally carried by the car side, and having an outwardly bent portion adapted to bear upon said lever, a block carried by the car below said lever, a vertical rod carried by said block and extending above the lever, a stop carried by the upper end portion of the rod, and a coil spring surrounding said rod and bearing respectively upon the block and the lever.

3. The combination with a mine car having an upwardly and outwardly swinging front door, a transverse bar carried by the door and projecting upon opposite sides of the car, a pivoted hook carried by the car and engaging said bar upon one side, a depending bracket carried by the opposite side of the car, the lower portion of said bracket being spaced from the car, a lever pivoted in said bracket and having its free end bent to form a hook engaging said bar, a block arranged beneath the lever, a perforated lug carried by the lever in alinement with said block, a vertical rod carried by the block passing loosely through said lug, an adjustable nut upon the upper end portion of the rod forming a stop for the lever, a coil spring encircling the rod and bearing upon the block and lever, and a pivoted locking bar carried by the side of the car and adapted to bear upon the top of the lever, said locking bar comprising an outwardly horizontally extending portion adapted to be struck by an obstruction arranged adjacent the track.

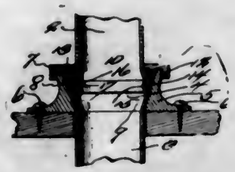
1,026,965. DRAFT-REGULATOR FOR HOT-WATER HEATERS. WILLIS A. SCHLEIT, Syracuse, N. Y. Filed June 26, 1911. Serial No. 635,420. (Cl. 236—6.)

In combination with a hot water heater having a combustion chamber, a water chamber, a smoke chamber communicating with the combustion chamber, said smoke chamber having a check damper in one side thereof provided with an inwardly-extending arm, a valve controlling communication between the combustion chamber and smoke chamber, a vertically-movable rod slidingly passed



through said valve and provided with means to lift the valve from its seat during the upward movement of the rod, a check valve operating member adjustably mounted on the rod for engaging said arm and operating the check valve in a downward movement, a water column connected to the water chamber of the heater, a float in said column, and means actuated by the float for operating the rod.

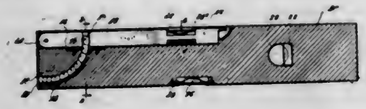
1,026,966. PIPE-COUPLING. HARRY SHIPP, Ida Grove, Iowa. Filed Feb. 9, 1912. Serial No. 676,543. (Cl. 137—94.)



1. In combination, a pair of adjoining pipes having their adjoining ends flared, a flanged ring having an inner beveled wall with which the flared ends of the pipes contact, a gasket surrounding the flared end of one of the pipes, and arranged in the ring against the bevel wall, a collar exteriorly surrounding one of the pipes above its flared end and threaded to the ring.

2. In combination, a pair of adjoining pipes having their adjoining ends flared, a flanged ring having an inner beveled wall with which the flared ends of the pipes contact, a gasket surrounding the flared end of one of the pipes, and arranged in the ring against the bevel wall, a collar exteriorly surrounding one of the pipes above its flared end and threaded to the ring, the flared ends of the pipes having their adjacent peripheral portions arranged in contact with one another to prevent displacement, and a ring having outer oppositely beveled surfaces arranged interiorly of the flared ends and in contact therewith at the point where the peripheral portions of the pipes come together.

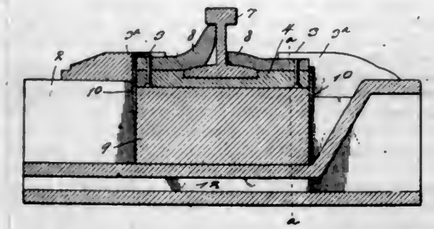
1,026,967. COMBINED LEVEL AND PITCH GAGE. CLEVELAND W. SWICK, Glenwood Springs, Colo. Filed Feb. 1, 1911. Serial No. 606,003. (Cl. 73—80.)



In a device of the kind described, a body portion having a straight edge formed on one edge and a recess formed in the other edge, said recess having an arcuate extension adjacent the end of the body, a plate at the end of said

extension adjacent the recess and partially covering the same, an arm pivoted to swing into and out of said recess, the pivot of said arm being concentric with the arcuate extension, an arcuate member extending from said arm within the arcuate extension and provided with a lug at its extremity engaging beneath said plate when the arm is at right angles to the body, bubble tubes carried by said arm, and means to lock said arm in adjusted position.

1,026,968. RAILWAY-TIE. SHOUBEL C. TURNER, Parkersburg, W. Va. Filed Aug. 4, 1911. Serial No. 642,312. (Cl. 238—5.)



1. In combination a railway tie, means for rigidly supporting rails thereon, said means consisting of substantially square base plates having recessed surfaces adapted to conform to the bottom flanges of the rails, four legs depending from the corners of each base plate, lugs rigidly mounted thereon adapted to engage and rigidly support said flanges and sides of said rails, blocks adapted to support said base plates in adjusted position, and transversely disposed keys adapted to lock said blocks and said base plates in operative relation to said tie.

2. In combination a railway tie having oppositely disposed recesses therein, integral lugs projecting partially over and partly closing the top of said recesses, means for rigidly supporting rails on said tie, said means projectable into said recesses and consisting of substantially square base plates having recessed surfaces adapted to conform to the bottom flanges of the rails, four legs depending from the corners of each base plate, clips rigidly mounted thereon adapted to rigidly engage said flanges and sides of said rails, blocks adapted to support said base plates in adjusted position and transversely disposed keys adapted to lock said blocks and said base plates in operative relation to said tie.

3. In combination a railway tie having oppositely disposed recesses therein, integral lugs projecting partially over and partly closing the top of said recesses, hollow chambers in said tie blocks adapted to be projected into said recesses, means for rigidly supporting rails on said tie, said means projecting into said recesses and consisting of substantially square base plates or chairs having recesses adapted to conform to the bottom flanges of the rails, four legs depending from the corners of each base plate or chair, lugs rigidly mounted on the top surface of said base plate, adapted to rigidly engage said flanges and sides of said rails, blocks adapted to support said base plates or chairs in adjusted position, and transversely disposed keys adapted to lock said blocks and said base plates or chairs in operative relation to said tie.

4. In combination a railway tie having oppositely disposed recesses therein, integral lugs or abutments projecting partially over and partly closing the top of said recesses, hollow chambers in said tie, a conduit beneath said hollow chambers extending the entire length of the tie and open at either end thereof for the intake and discharge of water, means for rigidly supporting rails on said tie, said means consisting of substantially square base plates or chairs having recessed surfaces adapted to conform to the bottom flanges of the rails, four legs depending from the corners of each base plate, lugs rigidly mounted on the top surface of said base plates or chairs adapted to rigidly engage said flanges and sides of said rails, blocks adapted to support said base plates or chairs in adjusted position, and transversely disposed keys adapted to lock said blocks and said base plates or chairs in operative relation to said tie.

5. In combination a railway tie having oppositely disposed recesses therein, integral lugs or abutments projecting partially over and partly closing the top of said recesses, said lugs provided with jaws adapted to receive and hold in a normally locked position rail-supporting clips, hollow chambers in said tie communicating respectively with said recesses, a conduit beneath said hollow chambers extending the entire length of the tie and open at either end thereof for the intake and discharge of water, means for rigidly supporting rails on said tie, said means consisting of substantially square base plates or rail chairs, having recessed surfaces and adapted to conform to the bottom flanges of said rails, legs depending from the four corners of said base plates or chairs, lugs swivelly mounted on the top surface of said base plates or rail chairs, adapted to engage and rigidly support said flanges and sides of said rails, said lugs adapted to enter said jaws and be locked thereto in a normally fixed position, blocks adapted to support said base plates or rail chairs in adjusted position and transversely disposed keys adapted to lock said blocks and said base plates or rail chairs in operative relation to said tie.

1,026,969. FLOWER-STEMMING DEVICE. LAURA E. TYGERT, Albany, N. Y. Filed Sept. 8, 1911. Serial No. 648,309. (Cl. 47—17.)

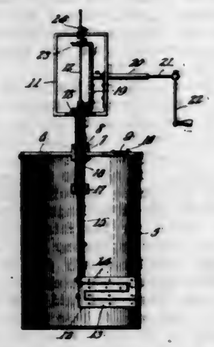
1. A flower stemming device formed from an integral sheet metal blank comprising a stem portion having a longitudinal groove extending substantially its entire length, and a flat transverse portion near the upper end of said stem portion and adapted to embrace the stem or calyx of a flower.

2. A flower stemming device formed from an integral sheet metal blank comprising a stem portion having a longitudinal groove extending substantially its entire length, and a plurality of flat transverse portions near the upper end of said stem portion, on opposite sides thereof and spaced apart from each other, said transverse portions being adapted to embrace the stem or calyx of a flower.

1,026,970. CHURN. WILLIS BYRON WOODRUFF, Cadiz, Ky. Filed Sept. 25, 1911. Serial No. 651,229. (Cl. 31—43.)

In a churn, the combination of a churn body, a cover therefor, a frame having a depending sleeve adjustably

mounted through the said cover, a pair of oppositely rotating dasher rods passing through the said sleeve, dashers



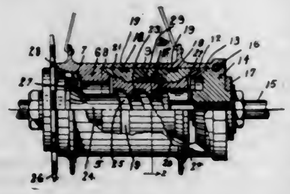
secured to the lower ends of the said rods, and means carried by the said frame for rotating the said dasher rods.

1,026,971. COFFEE PREPARATION. ALBERT H. BULLARD, New Rochelle, N. Y. Filed Dec. 24, 1910. Serial No. 599,110. (Cl. 99—11.)

1. A dry coffee preparation comprising a dry mixture of a dry pulverized evaporated extract of coffee, dry powdered milk, dry malted milk, and dry powdered sugar, intimately mixed together.

2. A dry coffee preparation comprising a dry mixture, consisting of about 25% dry pulverized, evaporated extract of coffee, about 12½% of dry malted milk, about 32% of dry milk, about 30% dry powdered sugar and about ½% dry ordinary salt, all intimately mixed together.

1,026,972. COASTER-BRAKE. WALTER T. CARTER, Los Angeles, Cal. Filed Feb. 5, 1912. Serial No. 675,664. (Cl. 208—57.)



1. A coaster brake comprising a hub having an outer shell provided near one end with an inwardly projecting expanding flange; an annular expandible brake shoe having the ends tapered outwardly within the shell; an annular spool having expanding flanges at the ends thereof within the brake shoe, said spool being interiorly threaded; an axle; an annular spool operating screw mounted on the axle in threaded engagement with the spool; a sprocket wheel mounted on the outer end of said screw; a brake gear mounted on the axle within the hub at the end opposite the sprocket wheel; means for preventing the rotation of the brake shoe when it engages the brake gear and a brake lever secured upon said brake gear.

2. A coaster brake comprising a hub having brake shoe expanding means; an expandible brake shoe within said hub, means to move said shoe longitudinally and expand said shoe; and means to lock said brake shoe when the wheel is backpedaled.

1,026,973. AGITATOR FOR CHEESE-MAKING. ANDREW CHRISTENSEN, Tillamook, Oreg. Filed Sept. 21, 1911. Serial No. 650,531. (Cl. 31—25.)

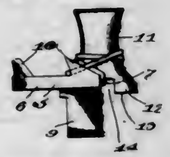


1. The combination in an agitator of a handled head, arms depending therefrom, a rod connecting said arms, plates hinged to the rods, rods connecting the plates and the head, and a sliding connection between the last mentioned rods.

2. The combination in an agitator such as described, of a head, a handle extending from the said head, spaced arms extending from said head, a rod connecting said arms, plates hinged to this rod, rods extending from the plates, rods extending from the head, eyes formed upon the terminals of these last mentioned sets of rods, the eyes formed upon the rods connected to the plates surrounding the rods connected to the head, and the rods connected to the head surrounding the rods connected to the plates, as and for the purposes set forth.

3. The combination in an agitator of a head having a transverse opening formed therein, a handle located in said opening and formed with a notch in its under side, the said head having vertical openings formed in its opposite ends, and a vertical opening formed intermediate its ends and in communication with the said transverse opening, arms extended into the said vertical opening, the terminal of the arms located in the intermediate of the vertical openings engaging the notch formed in the handle, agitator plates supported by the arms and means for limiting the movement of the agitator plates.

1,026,974. WIRE-TIGHTENER. ALEXANDER H. A. DEHLINGER, Rosholt, Wis. Filed July 31, 1911. Serial No. 641,411. (Cl. 30—123.)



A wire tightener formed from a single casting and consisting of a flat body portion having a substantially semicircular peripheral edge and a straight edge, an angular stud projecting from one face of the body portion and disposed concentric with the peripheral edge thereof, a plurality of ratchet teeth projecting from the marginal edge of the other face of the body portion, a spool projecting from the last mentioned face of the body portion and also projecting oppositely from the stud and offset from the latter, the inner end of the spool being formed with a projection having a flat face, the inner end of the spool being formed with a transverse slot, one wall thereof forming a continuation of the straight edge of the body portion for receiving a strand of wire.

1,026,975. TIRE-SETTING MACHINE. CHARLES A. DEVERO, Keokuk, Iowa, assignor to Keokuk Hydraulic Tire Setter Company, a Corporation. Filed Nov. 2, 1911. Serial No. 658,143. (Cl. 78—59.)

1. In a tire setting machine, a pair of head blocks, tire gripping blocks slidably mounted on said head blocks, tubular levers pivotally mounted in said blocks and rods slidably mounted in said tubular levers and engaging said gripping blocks whereby the latter are brought into position to grip the tire, and means whereby the rods are raised and said levers are oscillated.



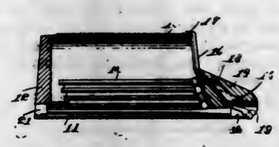
2. In a tire setting machine, a pair of head blocks, tire gripping blocks slidably mounted on said head blocks, operating levers pivotally mounted in said head blocks, rods carried by said levers slidable with relation thereto and having operative engagement with said gripping blocks, bell crank levers pivoted to said operating levers and having one arm of each engaging the end of its corresponding slidable rod, and means whereby said bell crank levers are simultaneously rocked to raise the slidable rods and rock the operating levers.

3. In a tire setting machine, a pair of head blocks, pairs of tire gripping blocks having a sliding engagement with said head blocks, block supporting and adjusting plates operatively connected with said gripping blocks whereby the latter are adjustably supported, grip operating levers pivotally mounted in said head blocks, grip adjusting rods having a sliding engagement with said grip operating levers and having an operative connection at their upper ends with said block supporting and adjusting plates, bell crank levers having an operative engagement with the lower ends of said rods whereby the latter and the block adjusting plates are lifted to bring said gripping blocks into position to engage the tire of the wheel, a connecting bars having a loose connection at its ends with said bell crank levers, and a pivotally mounted foot lever adapted to be engaged with said connecting rod whereby the latter is depressed and said bell crank levers thus operated to first actuate said plate adjusting rods and then said block operating levers.

4. In a tire setting machine, a frame, a pair of head blocks slidably mounted therein, said blocks having in their upper sides tapered recesses, pairs of gripping blocks slidably mounted in the recesses of said head blocks, said gripping blocks having tapered outer edges adapted to coact with the tapered sides of the recesses in the head blocks whereby when said gripping blocks are adjusted longitudinally in one direction the same will be brought together into operative engagement with the edges of the tire and compound oscillating and sliding levers engaging said gripping blocks whereby they are adjusted vertically and moved longitudinally in said head blocks.

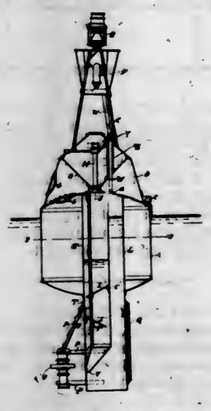
5. In a tire setting machine, a frame, a pair of head blocks having in their upper sides tapered recesses, gripping blocks slidably mounted in the recesses of said head blocks, gripping block supporting plates arranged in the recesses of said head blocks, block engaging lugs formed on the inner ends of said plates, attaching lugs formed on the outer ends thereof, tubular block operating levers pivotally mounted in said head blocks, block adjusting rods slidably mounted in said tubular levers, heads arranged on the upper ends of said rods and having an operative engagement with the attaching lugs on said plates, bell crank levers pivotally mounted on the lower ends of said tubular levers and having an operative engagement with the lower ends of said block adjusting rods whereby when said bell crank levers are actuated, said rods will be forced upwardly and the plates and gripping blocks thereby lifted into position to engage the tire of the wheel, a lever operating mechanism connected with said bell crank levers whereby the latter are first actuated to lift said adjusting rods and whereby after said rods have been actuated, said block operating levers will be actuated to shift said gripping blocks longitudinally in the tapered recesses of the head blocks and thereby operatively engage said gripping blocks with the edges of the tire, and means whereby said head blocks and said gripping mechanism is shifted to shrink the tire.

1,026,976. MATCH-BOX. RUEL DINGWELL, Boston, Mass., assignor of one-half to Albert A. Thompson, Boston, Mass. Filed July 1, 1911. Serial No. 636,356. (Cl. 206—27.)



In a match box, a casing having one side thereof provided with a longitudinal channel to receive a single match from the interior of the casing, and being further provided with a relatively thick wall closing the intermediate portion of one end of the casing, said wall being provided with a passage extending from side to side thereof, a resilient barrier comprising an intermediate stem portion disposed in said passage and enlarged end portions one of which is roughened and disposed across the channel on one side of the wall for frictioning against the match head and the other serving to close the end of the casing on the other side if the thickened wall, and means for forcing a match longitudinally of the channel so as to lift the roughened end of the barrier and eject the match exteriorly of the casing.

1,026,977. BUOY. REGINALD W. EARLE, New York, N. Y., assignor to Nelson Goodyear, New York, N. Y. Filed Aug. 7, 1909. Serial No. 511,823. (Cl. 9—8.3.)



1. A gas buoy having a hopper and a generating chamber for making gas, a whistling tube or compartment, and a float therefor, and in which the generating chamber and whistling compartment are constructed together and are eccentric, the said generating chamber terminating at its lower end in a restricted mouth within the whistling compartment.

2. A gas buoy having a hopper and a generating chamber for making gas, a whistling tube or compartment, and a float therefor, and in which the generating chamber and whistling compartment are constructed together and are eccentric, the said generating chamber terminating above and within the lower part of the whistling compartment and opening thereinto below the water level of the generating chamber.

3. A gas buoy having a float and a hopper contained in said float and a generating chamber placed substantially centrally of the float, and having a whistling tube con-

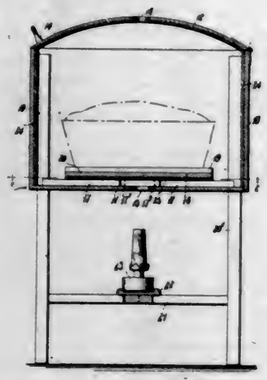
structed together with and close to the generating chamber on one side thereof, eccentric to the float.

4. A gas buoy having a float and a hopper and a generating chamber supplied from the hopper placed substantially centrally of the float and contained therein, and a whistling compartment lying close to the said generating chamber, the generating chamber and whistling compartment being eccentric to each other and one of them eccentric to the float.

5. In a gas buoy, the combination with the float, of generating and whistling compartments constructed together and eccentrically disposed to each other, and means for counterbalancing the eccentric disposition of the weight of said compartments.

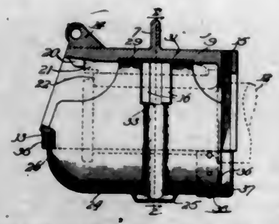
[Claims 6 to 8 not printed in the Gazette.]

1,026,978. DOUGH-RAISER. ARTHELLO L. FENTON, Richfield, N. Y. Filed July 26, 1910. Serial No. 573,855. (Cl. 126—282.)



A dough raiser including a casing having an approximately centrally disposed opening in the bottom, a plurality of radial ribs integral with the top face of the bottom and extending from the borders thereof to nearly the central opening of the bottom, the confronting inner ends of the ribs being pointed and forming deflector surfaces, a pan rack supported by said ribs, and a heater disposed beneath the opening in the bottom and arranged to discharge its heat therethrough against said rack.

1,026,979. CAR-TRUCK JOURNAL-BOX AND OIL-CELLAR. GEORGE G. FLOYD, Granite City, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Mar. 4, 1911. Serial No. 612,424. (Cl. 105—243.)



1. The combination of a car-truck side-frame shaped to form the upper portion of a journal box and having one or more lugs integral therewith, and an element adapted to form the lower portion of a journal box engaged with said lugs and retained in position by the weight of said side-frame, substantially as described.

2. The combination of a car-truck side-frame shaped to form the upper portion of a journal box, the side walls of said upper portion being provided with one or more grooves, and an element adapted to form the lower portion of a journal box, said element being provided with ribs adapted to fit in the grooves in said upper portion whereby relative longitudinal movement between the portions of the journal box is prevented, substantially as described.

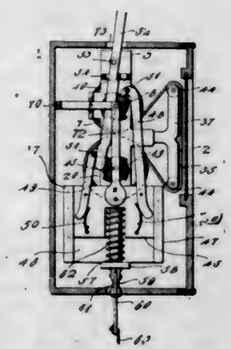
3. The combination of a car-truck side-frame shaped to form the upper portion of a journal box, said portion being equipped with one or more lugs and having its side walls provided with grooves, and an element adapted to form the lower portion of a journal box, the side walls of said element being provided with ribs adapted to fit in said grooves, and the upper portion of said element being shaped to receive said lugs, substantially as described.

4. The combination of a car-truck side-frame adapted to form the upper portion of a journal box and providing a journal box cover-seat having a groove extending across the lower wall thereof, and an element adapted to form the lower portion of a journal box, said element being fitted into said upper portion with the upper end of its front wall seated in said groove in the journal box cover-seat, substantially as described.

5. The combination of a car-truck side-frame having one or more lugs integral therewith and shaped to form the upper portion of a journal box and to provide a seat for a journal box cover, and an element adapted to form the lower portion of a journal box, said element being shaped to receive said lugs on the side-frame and to have its front wall fit into a groove in the wall of said journal box cover-seat, substantially as described.

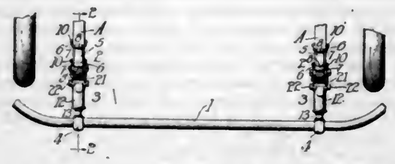
[Claims 6 to 13 not printed in the Gazette.]

1,026,980. STREET-INDICATOR FOR CARS. PEDER MARTIN GULBRANTSON, Rockford, Ill., assignor of one-fourth to Karl Haglund and one-fourth to Anton Haglund, Rockford, Ill. Filed Apr. 27, 1911. Serial No. 623,658. (Cl. 40—87.)



In an indicator of the character described, the combination with two rollers, an apron connecting them, oppositely facing ratchet gears on their adjacent extremities, a frame having upright guides, a plate movable in the latter below said gears, two pawls pivoted to said plate and having inturned upper extremities adapted to engage said ratchet gears respectively, studs projecting laterally from said extremities, and springs on the plate bearing the extremities in a direction to normally engage said gears; of manually-operated mechanism, for actuating said plate at will, a reversing lever pivoted on a fixed support above said pawls with its lower arm swinging between the studs thereof to hold either pawl disengaged from its ratchet gear, and means for holding the lever in either of its extreme positions.

1,026,981. AUTOMOBILE-FENDER. JOSEPH HADKA, Chicago, Ill. Filed Dec. 5, 1910. Serial No. 595,547. (Cl. 105—33.)



1. In an automobile fender, a member located upon the upper side of an automobile-part; a pair of bolts having angular ends threaded into opposite sides of said member, said bolts being arranged to lie at opposite sides of such automobile-part; an extensible and contractible device located at the under side of said automobile-part, the lower ends of said bolts extending through said extensible and contractible device; and nuts turned on the lower ends of said bolts to clamp said automobile-part between the first mentioned member and the extensible and contractible device.

2. In an automobile fender, a coiled spring, a chambered member containing said spring and having an inner end wall, an impact bar, and an integral casting comprising a bearing for the bar, a compressible neck portion, and a rod extending through said spring, one end of the spring bearing against a portion of said casting and the other end against a portion of said chambered member, the inner end of said rod having thereon a projection adapted to be passed through a non-circular opening in said inner wall and to lie at the inner side of said wall when the casting is given a partial rotation, said projection serving to limit the spring-caused movement of said casting.

3. In an automobile fender, in combination, an impact bar; and supporting devices at opposite ends of said bar, each of said devices comprising a member adapted to fit upon a part of an automobile; bolts carried by said member, and adapted to lie at opposite sides of said automobile part, said bolts being adjustable toward and away from each other; means carried at the ends of said bolts and adapted to engage said automobile part; and nuts threaded on the ends of said bolts and engaging said means to clamp the supporting device upon the automobile part.

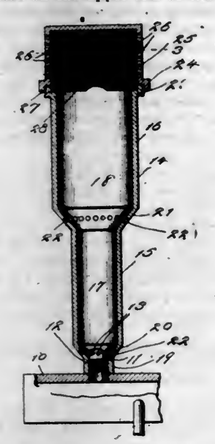
4. In an automobile fender, in combination, members adapted to fit upon parts of an automobile; bolts adapted to lie at the sides of said parts, said bolts having angular ends threaded in said members, means carried by said bolts for engaging said parts; nuts threaded on said bolts and adapted to clamp said means against said parts for securing said members to said parts; an impact bar; and means at one end of each of said members for supporting said impact bar.

5. In an automobile fender, in combination, members adapted to fit upon parts of an automobile; pairs of bolts adapted to lie at the sides of said parts, said bolts having angular ends threaded in said members; pairs of washers fitting upon the ends of said bolts, the washers of each pair having a screw thread connection; nuts threaded upon said bolts, and adapted to clamp said washers against said parts; an impact bar; and means carried by said members for supporting said impact bar.

[Claims 6 to 9 not printed in the Gazette.]

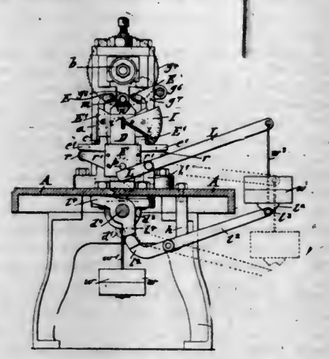
1,026,982. BURNER. DAVID HAMILTON, Greensburg, Pa. Filed June 13, 1910. Serial No. 571,707. (Cl. 158—12.)

The combination with a gas drum having an externally threaded nipple rising therefrom; of a burner comprising a tubular body having a cylindrical interiorly threaded attaching portion and a pair of cylindrical portions enlarged relative thereto, the portions of the body between the cylindrical portions being of conical formation and having a series of transverse perforations therethrough to form air inlets for separate mixing with the gas in the respective cylindrical portions of the burner, a burner cap detachably fitted on the upper end of the body and having



a series of rows of perforations therethrough, and a foraminous fabric mounted within the cap.

1,026,983. MACHINE FOR ROLLING FINGER-RINGS. HENRY HENRICH, New York, N. Y. Filed June 2, 1910. Serial No. 564,635. (Cl. 80—5.)



1. The combination of a ring forming roller, two pairs of mandrel supporting rollers, and a mandrel having an annular working face and supported at opposite ends and opposite sides by said rollers between the same and said ring forming roller and having said working face between said working rollers.

2. In a machine for rolling finger-rings, the combination of a main-shaft, gearing for rotating the same, a grooved ring-forming roller on said shaft, a mandrel-spindle, a mandrel inserted in said spindle, two pairs of supporting rollers for said mandrel, means for raising or lowering said supporting rollers and the mandrel-spindle, and gearing between the main-shaft and the mandrel-spindle for rotating the mandrel-spindle when raised.

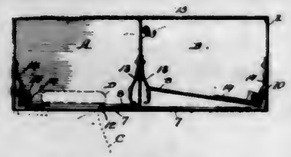
3. In a machine for rolling finger-rings, the combination of a grooved ring-forming roller, means for rotating the same, a mandrel-spindle, a detachable mandrel below said roller, two pairs of rollers for supporting the ends of the mandrel, a vertically-guided slide-piece supporting the mandrel-spindle and mandrel-supporting rollers, grooved guide-rollers, one at each side of the mandrel, and means for actuating the same for moving them toward or away from the mandrel.

4. In a machine for rolling finger-rings, the combination of a main-shaft, means for rotating said shaft, a grooved ring-forming roller attached to the front-end of said shaft, a mandrel-spindle, a vertically movable slide-piece provided with a bearing for said mandrel-spindle, a mandrel inserted in said spindle, gearing between the shaft of the grooved roller and the mandrel-spindle for rotating the latter when the slide-piece is raised, two pairs of rollers for supporting the mandrel, grooved guide-rollers, one at each side of the mandrel, and means for moving them in and out of contact with the ring-blank.

5. In a machine for rolling finger-rings, the combination of a main-shaft, gearing for imparting rotary motion to the same, a grooved ring-forming roller at the front-end of said shaft, a vertically reciprocating slide-piece, a mandrel-spindle supported in a journal bearing of said slide-piece, a mandrel inserted in the front-end of said mandrel-spindle, two pairs of supporting rollers for said mandrel, laterally movable guide-rollers, and means for moving the guide-rollers in contact with the ring-blank or away from the same.

[Claims 6 to 11 not printed in the Gazette.]

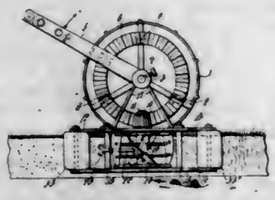
1,026,984. BOTTLE-RETAINER. HARRY E. HIXSON, Akron, Ohio. Filed Sept. 14, 1911. Serial No. 649,268. (Cl. 232—41.)



1. A bottle retainer comprising a casing having its bottom provided with a bottle receiving opening, said opening having diverging side walls, a jaw pivoted within the casing adjacent the bottom thereof and having a similar but reversely arranged opening, means at one side of said jaw tending to force the same against the bottom, and means at the opposite side of the jaw to normally support the jaw off the bottom and to lock the jaw against the bottom after it has been engaged by the bottle.

2. A bottle retainer comprising a casing having a bottle receiving opening in its bottom, a jaw pivotally mounted within the casing and having a bottle receiving opening adapted to co-act with the bottle receiving opening in the bottom of the casing, means at the pivotal support of the said jaw to force the said jaw against the bottom of the casing, and a detent within the casing arranged in the path of the free edge of the jaw whereby the said detent will normally support the jaw off the bottom of the casing and will project over the free edge of the jaw when the same has been drawn against the bottom of the casing by an inserted bottle.

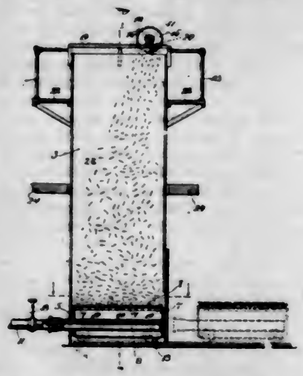
1,026,985. GRASS-CUTTER FOR CUTTING EDGES OF LAWNS AND THE LIKE. HAROLD IRWIN, Tikokino, New Zealand. Filed Apr. 14, 1910. Serial No. 555,360. (Cl. 56—19.)



1. In a machine for the purpose described, the combination of a roller, a frame in which the roller is mounted, a supplemental frame suspended from the roller supporting frame beyond one end of and extending below the lowest surface of the roller, a vertical shaft mounted in the supplemental frame, gearing connecting said shaft and the roller, and cutting mechanism comprising a blade fixedly mounted in the supplemental frame and a plurality of blades connected with said vertical shaft.

2. In a machine for the purpose described, the combination of a roller, a frame in which the roller is mounted, a handle secured to the frame, said frame being of greater width than the roller, a supplemental frame secured to and depending from the roller supporting frame, a rotatable cutter head mounted in said supplemental frame, to rotate about an axis extending transversely of the axis of the roller and extending below the lowest surface of the roller, and across the space separating the roller and its supporting frame, and a gear supported from the roller in said space between the roller and its frame and adapted to drive the cutter head.

1,026,986. APPARATUS FOR DISTRIBUTING AND LEVELING PIECES OR SCALES OF MICA OR OTHER MATERIAL. CHARLES W. JEFFERSON, Schenectady, N. Y., assignor to Mica Insulator Company, New York, N. Y., a Corporation of New Jersey. Filed July 29, 1908. Serial No. 446,011. (Cl. 154—1.)



1. An apparatus for distributing pieces or scales of mica or other material, comprising a vertical shaft with closed walls, a support arranged transversely in said shaft and pervious to an aeriform agent, an exhaust pipe arranged below said support in said passageway and provided with an inlet, and a hollow cylinder provided with openings in its periphery and extending across and adapted to rotate over the top of the shaft.

2. An apparatus for distributing pieces or scales of mica or other material, comprising a vertical shaft with closed walls, a support arranged transversely in said shaft and pervious to an aeriform agent, an exhaust pipe arranged below said support in said passageway and provided with an inlet, and a hollow cylinder provided with longitudinal slots in its periphery and extending across and adapted to rotate over the top of the shaft.

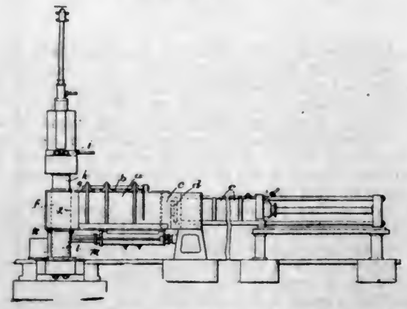
3. An apparatus for distributing pieces or scales of mica or other material, comprising a vertical shaft with closed walls, a car for entering said shaft and a door in a wall of the shaft for admitting said car, the top of the car consisting of a platform pervious to an aeriform agent, and an exhaust pipe carried by the car, and having an inlet opening.

4. An apparatus for distributing pieces or scales of mica or other material, comprising a vertical shaft with closed walls, a car for entering said shaft and a door in a wall of the shaft for admitting said car, the top of the car consisting of a platform pervious to an aeriform agent, and an exhaust pipe carried by the car, and having an inlet opening, and an extension for attachment to an exhaust apparatus.

5. An apparatus for distributing pieces or scales of mica or other material, comprising a vertical shaft with closed walls, a car for entering said shaft and a door in a wall of the shaft for admitting said car, the top of the car consisting of a platform pervious to an aeriform agent, an exhaust pipe carried by the car, and having an inlet opening, an inlet pipe of an exhaust apparatus and means for attaching the car pipe to said inlet pipe.

[Claims 6 to 14 not printed in the Gazette.]

1,026,987. APPARATUS FOR COMPRESSING SCRAP METAL INTO BLOCKS. EMANUEL KARDOS, Limehouse, London, England, assignor to The London Electron Works Company Limited, London, England. Filed Sept. 2, 1910. Serial No. 580,195. (Cl. 78—42.)



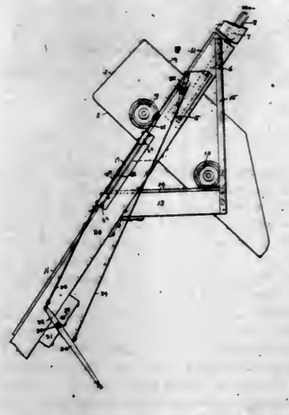
An apparatus for compressing scrap metal into blocks comprising a mold box, a press having a plunger adapted to reciprocate horizontally within the mold box, a second press having a plunger adapted to reciprocate vertically within the mold box at its forward end, said mold box having an opening in its top wall located intermediate the initial position of the horizontal plunger and the path of the vertical plunger, a closure for said opening adapted to be opened or closed at any time during the operation of the vertical plunger, said mold box having a second opening in its bottom wall in line with the vertical plunger, a horizontally movable member closing the opening in the bottom wall of the mold box and forming a support for the scrap metal block while the same is being acted upon by the vertical plunger, a base located below the mold box forming a support for said movable member, and means for actuating the movable member to uncover the opening in the bottom of the box.

1,026,988. UNLOADING DEVICE FOR MINE-SKIPS. CHARLES L. LAWTON, Hancock, Mich. Filed Mar. 16, 1912. Serial No. 684,191. (Cl. 214—3.)

1. In an unloading device for wheeled hoisting skips, the combination with inclined rails having gaps, of rail-plates slidable laterally to open or close the gaps as desired, of auxiliary, horizontal rails connecting to the main rails at the lower ends of said gap, and means to move the rail-plates inward to close said gap.

2. An unloading device for hoisting skips provided with front and rear wheels, and the tread of whose rear wheels is wider than that of the front wheels, the combination of inclined stringers and rails thereon upon which the wheels of the skip normally run, said stringers and rails formed with gaps through which the front wheels may pass, rail-plates slidable laterally from an inward position closing said gaps to an outward position where the plates act as tracks for the rear wheels but open the gaps to permit the front wheels to pass through, auxiliary rails connected to the main rails at the lower ends of said gaps to receive said front wheels, and means to shift said rail-plates.

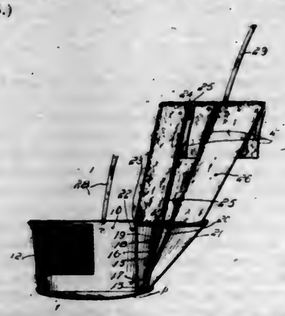
3. In an unloading device for wheeled hoisting skips, the combination of inclined rails having gaps, of rail-plates slidable laterally to open or close said gaps as desired, auxiliary rails connecting to the main rails at the lower ends of the gaps, means to support said auxiliary rails, pins projecting upward from said rail-plates, a slidable cam-plate for each rail-plate and having diagonal cam-slots to receive the pins on the rail-plate, guiding means for the cam-plates and rail-plates, and means to move the cam-plates longitudinally in either direction at will.



4. In an unloading device for wheeled hoisting skips, the combination of inclined rails having gaps, of laterally movable rail-plates to close and open the gaps, pins mounted on said rail-plates, cam-plates having diagonal slots to receive the pins, guides for the cam-plates and rail-plates; means to longitudinally slide the cam-plates comprising a shaft, levers thereon, and connectors between the levers and cam-plates; and auxiliary rails for the wheels of the skips which pass through the gaps, connecting to the main rails at the lower ends of the gaps.

5. A track for wheeled vehicles comprising rails having gaps, laterally movable plates normally closing said gaps, means to move said plates, and auxiliary tracks to support the vehicle wheels which pass through the gaps.

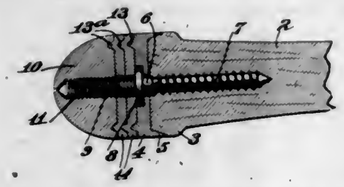
1,026,989. FEED-BAG. DANIEL C. MARTIN, Maplewood, Mo. Filed Apr. 20, 1909. Serial No. 491,109. (Cl. 119—65.)



In a feed bag, a manger including a rear wall, said wall being provided with an opening, a closure for the opening slidably mounted on said wall, a grain receptacle exteriorly arranged and supported by said rear wall, an inverted U-shaped supporting frame secured to and extending upwardly from said rear wall, a brace arranged intermediate the legs of the frame and connected at its ends to the bight of the frame and rear wall respectively,

a fabric attached to the legs, bight and brace of the frame and to the rear wall, and a fabric attached to the upper edge of the grain receptacle and to the legs of the supporting frame.

1,026,990. BAT. HARRISON MATSON, St. Louis, Mo. Filed Oct. 27, 1910. Serial No. 589,342. (Cl. 46—4.)



1. A bat having a fixed screw-threaded stud projecting axially from its handle end, an annular rib surrounding said screw-threaded stud on the end of the bat, and a detachable weighted metal knob having a screw-threaded axial bore fitted on said screw-threaded stud and impinged against the end of the bat, said knob having an annular groove in its inner face which is a counterpart of said annular rib on the end of the bat.

2. The combination with a bat, of a circular metal plate fitted against the handle end of the bat and having an annular ferrule portion on its inner side which is sleeved over the end portion of the bat, said plate having a central perforation therein, a metal stud having a screw-threaded inner portion which is inserted through the perforation in said metal plate into the end portion of the bat, said stud having an annular shoulder arranged and adapted to retain said metal plate in position and said stud also having its outer portion screw-threaded, and a weighted metal knob having a screw-threaded bore which is fitted on the screw-threaded outer portion of said metal stud.

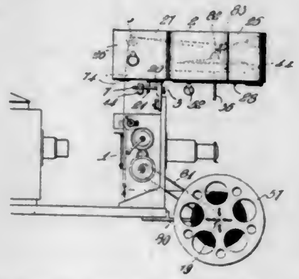
3. The combination with a bat, of a circular metal plate which is fitted to the handle end of the bat, said metal plate having a peripheral ferrule portion on its inner side which it fitted around the end portion of the bat and an annular rib on its outer face, and said plate also having a counterbored central perforation therein, a metal stud having its inner portion screw-threaded and inserted through the central perforation in said plate into the end portion of the bat, said stud having an annular shoulder which is seated in the counterbored portion of the perforation in said metal plate so as to retain the latter in place, and the outer portion of said stud being screw-threaded, and a weighted metal knob having a screw-threaded bore which is fitted on the screw-threaded outer portion of said stud, said knob having an annular groove in its inner face which is a counterpart of the annular rib on the outer face of said metal plate.

4. The combination with a bat, of a circular metal plate secured to the handle end of the bat and having an annular rib on its outer face, a screw-threaded stud extending axially from the outer face of said metal plate, and a weighted metal knob having an axial bore which is screw-threaded to fit said screw-threaded stud and having an annular groove in its inner face which is a counterpart of the annular rib on said plate.

5. The combination with a bat, of a circular metal plate secured to the handle end of the bat and having an annular rib on its outer face, a screw-threaded stud extending axially from the outer face of said metal plate, a weighted metal knob having a screw-threaded bore which is fitted to said screw-threaded stud, said knob having an annular groove in its inner face which is a counterpart of the annular rib on said metal plate, and detachable and interchangeable metal disks secured on said screw-threaded stud between said knob and said metal plate, the opposite faces of said metal disks having, respectively, annular grooves and ribs which are counterparts of the groove and rib on said knob and metal plate, respectively.

[Claims 6 to 12 not printed in the Gazette.]

1,026,991. MOVING-PICTURE MACHINE. LEWIS W. MERKEL, Allentown, Pa., assignor of one-fourth to John J. Hanlon and one-fourth to H. G. Schelden, Allentown, Pa. Filed July 21, 1910. Serial No. 573,056. (Cl. 88—17.)



1. In a moving picture machine, the combination of a reel supporting box, an adjustable supporting frame whereby said box is attached to the machine, means to pivotally connect said box with the frame whereby the box may be turned and supported by the frame either in a vertical or horizontal position, means in said box to operatively support a reel, and means in the box to operatively support a roll of film and permit the same to be unwound from its center.

2. In a moving picture machine, the combination of a reel supporting box, means whereby said box is supported on the machine in a vertical or a horizontal position, a reel supporting shaft slidably mounted in said box, a reel adapted to be engaged with said shaft, and means to operatively support a roll of film in said box and permit the same to unwind from its center.

3. In a moving picture machine, the combination of a reel supporting box, an adjustable supporting frame adapted to support said box in a vertical or horizontal position, doors arranged in said box whereby access may be had thereto, a shaft supporting spider slidably mounted in said box, a reel supporting shaft detachably connected with said spider, a reel supporting tray revolubly mounted on said spider, a reel holding cone carried by said tray, and pairs of guide rollers arranged in said box whereby the film is guided when unwound from said cone.

4. In a moving picture machine, the combination of a reel supporting box, a series of guide rods arranged therein, a spider slidably mounted on said rods, a reel supporting shaft detachably secured to said spider, a reel adapted to be revolubly mounted on said shaft, a film supporting tray revolubly mounted on said spider, said tray having a bottom inclined from its center toward its outer edges, a film holding cone carried by said tray, a pair of adjustably and yieldably mounted film guiding rollers adapted to be swung into and out of operative position to receive the film from said cone, and guide rollers revolubly mounted in said box whereby the film is guided therethrough when fed through the machine.

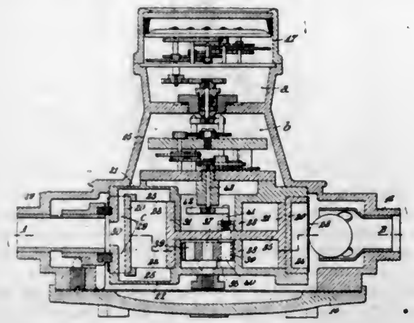
5. In a moving picture machine, the combination of a box, a supporting frame therefor, means to pivotally secure the box to said frame whereby the box may be supported in either a vertical or horizontal position, and means within the box to support a roll of film.

[Claims 6 to 18 not printed in the Gazette.]

1,026,992. WATER-METER WITH REVOLVING PISTON. ALFRED MONARD, Paris, France. Filed Mar. 14, 1910. Serial No. 549,197. (Cl. 73—28.)

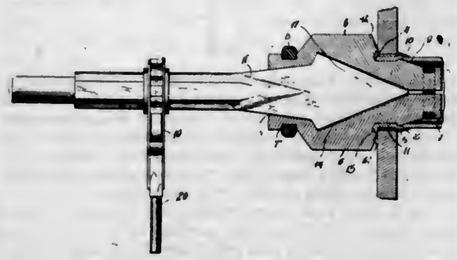
A water meter comprising in combination, a main casing provided with inlet and outlet ports, an annular piston casing within said main casing, a wall dividing said piston casing transversely, a piston, relatively smaller than and disposed within said piston casing, having a diaphragm dividing the same into upper and lower chambers and an aperture about the said wall and adapted to

permit movement of the said piston within said piston chamber in liquid tight engagement, the said inlet port of said main casing being in communication with said piston casing at one side of said wall and above and below the said diaphragm of said piston, and the said outlet port of said main casing being in communication with said piston casing at the opposite side of said wall from the said inlet, and above and below the said diaphragm of said piston, a movable member pivotally carried by said main cas-



ing concentric to the said annular piston casing and subjacent to said piston diaphragm, a second movable member pivotally carried by said main casing concentric to said annular piston casing superjacent to said diaphragm, and a pin carried concentrically by said piston diaphragm and operatively connected to said movable members to movably guide said piston within peripheral contact with said piston cylinder, and to impart movement to said movable members, substantially as and for the purpose set forth.

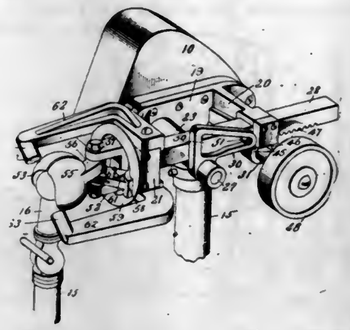
1,026,993. FLUE-WORKING TOOL. VINSON MOORE, Brinkley, Ark. Filed Dec. 8, 1910. Serial No. 596,298. (Cl. 153—80.)



In a flue expander, the combination with a stem having a wedge shaped head thereon, of a body made of a split cylinder elliptical in section transversely and adapted to inclose said head and having inner faces adapted to co-act with the faces of the wedge, said body being provided with an annular expansion shoulder intermediate its length, and a pair of oppositely disposed lugs extending outwardly over said extension from the prolate side portions of said body.

1,026,994. AUTOMATIC FIRE-HOSE VALVE. PHILIP MUELLER, Decatur, Ill., assignor to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Nov. 18, 1911. Serial No. 661,106. (Cl. 137—31.)

1. In a device of the character described, a valve casing having inlet and outlet openings, and a valve seat around the inlet, a valve adapted to be moved laterally out of line with said seat, a longitudinally movable member, mechanism actuated by said member to operate said valve, means on said movable member for gripping a hose nozzle, and means for disengaging said gripping means from the nozzle after the member has moved sufficiently far to fully open said valve.



2. In a device of the character described, a valve casing having inlet and outlet pipe connections and a valve seat encircling the inlet connection, a valve adapted to close said inlet, means for moving the valve axially of its seat, separate means for moving the valve transversely of its seat, a longitudinally movable member adapted to actuate both of said instrumentalities, means on one end of said movable member for gripping the nozzle of the hose attached at its other end to the outlet pipe connection, and means for automatically disengaging said nozzle from the gripping means when the aforesaid member has reached the end of its movement and after the inlet has been uncovered.

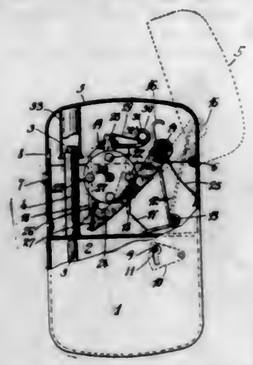
3. In a device of the character described, a valve casing having inlet and outlet pipe connections and a valve seat encircling the inlet connection, a valve adapted to close said inlet, a shaft extending into said casing in axial line with the inlet and adapted to rotate and move longitudinally, connecting means between said shaft and valve whereby said valve partakes of the longitudinal movement of the shaft, a rock shaft also extending into the casing, means on said rock shaft for supporting the valve and permitting it to move to and from its seat, said means also carrying said valve transversely of its seat when the rock shaft is operated, and means for turning both shafts.

4. In a device of the character described, a valve casing having inlet and outlet pipe connections and a valve seat encircling the inlet connection, a valve adapted to close said inlet, a grooved stem on said valve, a shaft extending into said casing in axial line with the inlet and adapted to rotate and move longitudinally, a non-rotatable sleeve on the inner end of said shaft carrying a guide in engagement with the groove in the valve stem and adapted to move longitudinally with the shaft, a rock shaft also extending into the casing, means on said rock shaft in which the valve stem is slidably mounted and by which the valve is transversely moved beyond its seat when the rock shaft is operated, and means for successively turning said shafts.

5. In a device of the character described, a valve casing having inlet and outlet pipe connections, and a valve seat encircling the inlet connection, a valve adapted to close said inlet, a shaft extending into said casing in axial line with the inlet and adapted to rotate, means on said shaft for moving it longitudinally as it rotates, a non-rotatable sleeve on the inner end of said shaft carrying a curved guide in engagement with the groove in said valve stem and adapted to move longitudinally with the shaft, a rock shaft also extending into the casing, an arm on said rock shaft in which the valve stem is slidably mounted and by which the valve is transversely moved beyond its seat when the rock shaft is operated, and means for successively turning the shafts.

[Claims 6 to 16 not printed in the Gazette.]

1,026,985. POCKET-LAMP. JOHN J. MULLANEY, New York, N. Y. Filed Feb. 9, 1911. Serial No. 607,718. (Cl. 67—8.)



1. In a spark producing device, the combination with supporting means, of a wheel carried thereby having actuating projections, a movable pawl for engaging said projections when moved in one direction to rotate the wheel, a pyrophorous alloy, bearing on said wheel, and means for moving said pawl to operate said wheel a predetermined distance, said pawl after a predetermined movement positively interlocking with said projections to stop the wheel.

2. In a spark producing device, the combination with spark producing means comprising a rotatable wheel and a pyrophorous alloy, of actuating means comprising a movable pawl engaging projections of said wheel when moved in one direction, means for moving said pawl, and means carried by said pawl for positively stopping the movement of said wheel at a predetermined point.

3. In a spark producing device, the combination with spark producing means comprising a rotatable wheel and a pyrophorous alloy, of lateral projections carried by said wheel, a pawl adapted to engage said projections to operate said wheel when moved in one direction, said pawl and projections coöperating after a predetermined throw of the wheel to positively stop further movement.

4. The combination with a box having a reservoir and a hinged lid, of a spring tending to open the lid, a latch holding the lid closed, a pawl carried by the lid, a bridge piece secured to the box above the reservoir and carrying a friction wheel, a pyrophorous alloy and means for resiliently pressing the alloy against the wheel, the pawl engaging and rotating said wheel only in one direction when the lid opens, and moving back to reëngage the wheel when the lid closes.

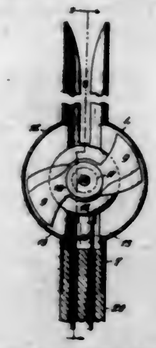
5. In a sparking device, the combination with a rotatable friction wheel and a pyrophorous alloy bearing thereon, of a pawl for intermittently engaging and rotating the wheel in one direction by a pulling stroke, said pawl positively interlocking with and stopping the wheel after a predetermined stroke, and moving backward without rotating the wheel.

[Claims 6 to 8 not printed in the Gazette.]

1,026,996. FRUIT-PICKER. ANDREW MURDOCH, Ancon, Canal Zone. Filed Feb. 15, 1909. Serial No. 477,959. (Cl. 56—99.)

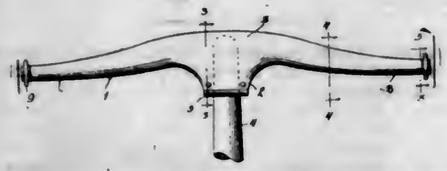
1. A fruit picker comprising a handle, a tube at the top of said handle having opposite narrow parallel sided slots to receive fruit stems, a peripherally weighted cutter revolubly mounted in said tube to pass the slots thereof, a motor mounted at one side of said cutter, a flanged pulley at the other side thereof, a single shaft supporting said motor, cutter and pulley and an enlargement of said tube forming a protective housing for the cutter, motor and pulley, said housing having apertures in the bottom thereof to permit the escape of leaves and twigs.

2. A fruit picker comprising a telescopic handle having sprung catches in its upper members positioned to engage apertures in its lower members, said lower members having finger slots to allow the release of the catches, a tube at the top of said handle having opposite narrow parallel sided slots to receive fruit stems, a peripherally weighted



cutter revolubly mounted in said tube, to pass the slots thereof, a motor mounted at one side of said cutter, a flanged pulley at the other side thereof, a single shaft supporting said motor, cutter and pulley and an enlargement of said tube forming a protective housing for the cutter, motor and pulley, said housing having apertures in the bottom thereof to permit the escape of leaves and twigs.

1,026,997. SAFETY NECK-YOKE. JOHN N. NOVOTNY, Badger, Minn. Filed Aug. 29, 1911. Serial No. 646,604. (Cl. 21—77.)

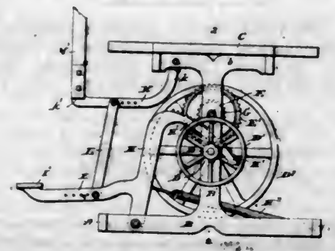


1. A hollow neck yoke formed from a single piece of sheet metal bent longitudinally to form a centrally positioned pole receiving member U-shaped in section, tubed rivets securing the free edges of said member in spaced relation, the end portions of said metal being gradually reduced and further bent to form tubed terminals, and standard securing means carried by said terminals.

2. A hollow neck yoke formed from a single piece of sheet metal the central side portions of which are provided with extensions, said metal being bent longitudinally to form a centrally positioned pole receiving member U-shaped in section, said extensions forming continuations of the sides of said member, means for securing said extensions in parallel spaced relation, the end portions of said metal being gradually reduced and further bent to form tubed terminals, and standard securing means carried by said terminals.

1,026,998. POWER-TRANSMITTING APPARATUS. ADOLPH PLAGMAN, Davenport, Iowa. Filed June 1, 1911, Serial No. 630,700. Renewed Apr. 15, 1912. Serial No. 691,004. (Cl. 74—53.)

1. In a device of the character described, a stand comprising a supporting base, standards extending upwardly therefrom, a power shaft journaled in such standards, a shaft mounted in said stand above said power shaft, a pinion on the power shaft, a pair of pinions on said other shaft, one of said pinions meshing with the pinion on the power shaft, clutch mechanism between said pair of pinions, an upwardly extending lever fulcrumed at its lower end to the supporting base of said stand and provided at its upper end with a curved rack bar meshing with the free pinion on the shaft above the power shaft, said lever being provided with an actuating arm extending laterally from the lower end thereof.



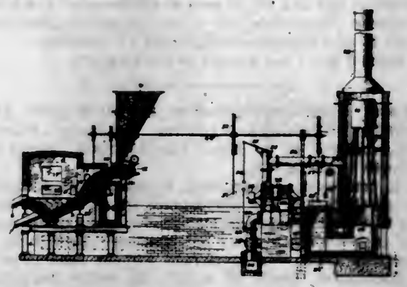
2. In a device of the character described, a stand comprising a supporting base, and a table supported thereby, a power transmitting shaft journaled in said stand, and means for transmitting power to said shaft including a pinion rotatably mounted in the stand, a lever pivotally connected at its lower end to the supporting base of said stand and provided at its upper end with a curved rack bar meshing with said pinion, a laterally extending arm rigidly connected to said lever and provided at its free end with a foot piece, a hand lever provided with a horizontally extending portion underlying the table and pivotally connected at its free end to the upper portion of said stand, and a link pivotally connecting the horizontally extending portion of said hand lever and the laterally extending arm of said first mentioned lever.

3. In a device of the character described, a stand comprising a supporting base, a table supported thereby, a power transmitting shaft journaled in said stand, and means for rotating said shaft including a pinion loosely mounted in said stand, a lever pivotally supported at its lower end to the supporting base of said stand and provided at its upper end with a rearwardly extending curved rack meshing with said pinion and at its lower end with a forwardly extending arm rigid therewith, a foot piece carried by said forwardly extending arm, a hand lever fulcrumed to the stand, and a connection between said hand lever and the forwardly extending arm of said first mentioned lever.

4. A device of the character described, a stand comprising a supporting base, a pair of uprights extending therefrom and a table supported by the upper end of said uprights, a power transmitting shaft journaled in the uprights of said stand, a shaft extending from one of the uprights of said stand and positioned above said power transmission shaft, a pinion loosely mounted on said shaft, gearing for actuating said power shaft when said pinion is rotated in one direction, a lever pivotally supported at its lower end to the supporting base of said stand and provided at its upper end with a rearwardly extending curved rack bar meshing with said pinion, and at its lower end with a forwardly extending arm rigid therewith, a foot piece carried by said forwardly extending arm, a hand lever provided at its lower end with a horizontally extending portion underlying the table, and provided at its free end with an upturned portion pivotally connected to the upper portion of the stand, and a link pivotally connecting the horizontally extending portion of said hand lever and the forwardly extending arm of said first mentioned lever.

1,026,999. PROCESS AND APPARATUS FOR RECOVERING METALS FROM THEIR ORES. JOHN A. POTTER, Los Angeles, Cal. Filed Aug. 19, 1909. Serial No. 513,608. (Cl. 75—17.)

1. In an apparatus of the character described, the combination of a furnace, a deoxidizing chamber opening into said furnace, a stack, two series of regenerative flues arranged to conduct waste gases from the furnace to the stack, a conduit leading from a flue of each series to said deoxidizing chamber to conduct gas thereto, a conduit for supplying combustible gas, an air supply conduit, and valves for each series, adapted to be arranged in one position to permit the waste gases to pass through said flues from the furnace to the stack and in another position to permit air and combustible gas to pass from said supply conduits to the furnace and deoxidizing chamber, substantially as described.



2. In an apparatus of the character described, the combination of a furnace, a deoxidizing chamber opening into said furnace, a twyer chamber adjacent to said deoxidizing chamber and having twyers leading therefrom into said deoxidizing chamber, means for charging ore into said deoxidizing chamber, a stack, two series of regenerative flues arranged to conduct waste gases from the furnace to the stack, a conduit leading from a flue of each series to said twyer chamber to conduct gas thereto, a conduit for supplying combustible gas, an air supply conduit, and valves for each series, adapted to be arranged in one position to permit the waste gases to pass through said flues from the furnace to the stack and in another position to permit air and combustible gas to pass from said supply conduits to the furnace and twyer chamber, substantially as described.

3. In an apparatus of the character described, the combination of a furnace, a deoxidizing chamber opening into said furnace, a twyer chamber adjacent said deoxidizing chamber and having twyers leading therefrom into said deoxidizing chamber, means for charging ore into said deoxidizing chamber, a stack, two series of regenerative flues arranged to conduct waste gases from the furnace to the stack, a conduit leading from a flue of each series to said twyer chamber to conduct gas thereto, a conduit for supplying combustible gas, an air supply conduit, and valves for each series adapted to be arranged in one position to permit the waste gases to pass through said flues from the furnace to the stack and in another position to permit combustible gas to pass to the deoxidizing chamber and combustible gas and air to pass to the furnace as described.

4. In an apparatus of the character described, the combination of a furnace, a deoxidizing chamber opening into said furnace, a twyer chamber adjacent said deoxidizing chamber and having twyers leading therefrom into said deoxidizing chamber, means for charging ore into said deoxidizing chamber, a stack, two series of regenerative flues arranged to conduct waste gases from the furnace to the stack, a conduit leading from a flue of each series to said twyer chamber to conduct gas thereto, a conduit for supplying combustible gas, an air supply conduit, valves for each series, adapted to be arranged in one position to permit the waste gases to pass through said flues from the furnace to the stack and in another position to permit air and combustible gas to pass from said supply conduits to the furnace and deoxidizing chamber, and a fan for forcing air and combustible gas along flues to said furnace, substantially as described.

5. In an apparatus of the character described, the combination of a furnace, a deoxidizing chamber opening into said furnace, a twyer chamber adjacent said deoxidizing chamber and having twyers leading therefrom into said deoxidizing chamber, means for charging ore into said de-

oxidizing chamber, a stack, two series of regenerative flues arranged to conduct waste gases from the furnace to the stack; a conduit leading from a flue of each series to said twyer chamber to conduct gas thereto, a conduit for supplying combustible gas, an air supply conduit, valves for each series, adapted to be arranged in one position to permit the waste gases to pass through said flues from the furnace to the stack and in another position to permit combustible gas to pass to the deoxidizing chamber and combustible gas and air to pass to the furnace, and a fan for forcing combustible gas to said deoxidizing chamber and air to said furnace, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,027,000. COMPOSITION FOR DISINFECTING AND OTHER PURPOSES. LUDWIG HEINRICH REUTER, Tompkinsville, N. Y. Filed Aug. 13, 1906. Serial No. 330,440. (Cl. 167—3.)

1. A composition comprising a solution of formaldehyde, alkali borate, and a substance which at sero centigrade is a semi-liquid, brownish-yellow, transparent mass, which is insoluble in water but miscible therewith in all proportions above zero centigrade without separation of the ingredients, which is soluble in water containing borax and formaldehyde, and which when macerated with warm water is split up into formaldehyde and abietic acid.

2. A composition comprising a solution of formaldehyde, alkali borate, soap, and a substance which at zero centigrade is a semi-liquid, brownish-yellow, transparent mass which is insoluble in water but miscible therewith in all proportions above zero centigrade without separation of the ingredients, which is soluble in water containing borax and formaldehyde, and which when macerated with warm water is split up into formaldehyde and abietic acid.

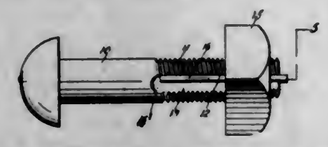
3. A composition comprising a solution of formaldehyde, alkali borate, potash soap, and a substance which at zero centigrade is a semi-liquid, brownish-yellow, transparent mass which is insoluble in water but miscible therewith in all proportions above zero centigrade without separation of the ingredients, which is soluble in water containing borax and formaldehyde, and which when macerated with warm water is split up into formaldehyde and abietic acid.

4. A combposition comprising a solution of formaldehyde, borax, and a substance formed from abietic acid and formaldehyde which at zero centigrade is a semi-liquid brownish-yellow mass which is insoluble in water but miscible therewith in all proportions above zero centigrade without separation of the ingredients, which is soluble in water containing borax and formaldehyde, and which when macerated with warm water is split up into formaldehyde and abietic acid.

5. A composition comprising a solution of formaldehyde, borax, potash soap, and a substance formed from abietic acid and formaldehyde which at zero centigrade is a semi-liquid, brownish-yellow mass which is insoluble in water but miscible therewith in all proportions above zero centigrade without separation of the ingredients, which is soluble in water containing borax and formaldehyde, and which when macerated with warm water is split up into formaldehyde and abietic acid.

[Claims 6 to 11 not printed in the Gazette.]

1,027,001. NUT-LOCK. LEANDER RICE, Kahlotus, Wash. Filed July 13, 1910. Serial No. 571,792. (Cl. 151—23.)



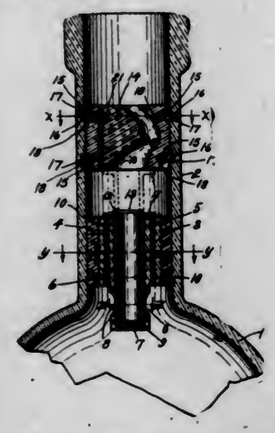
A nut lock comprising a threaded bolt, a nut on said bolt, said bolt having a longitudinal recess, said recess having side walls at about right angles to each other and terminating in an end wall which merges gradually into the surface of the bolt and forms a cam surface, a pin seated in said recess having a lateral play limited by said side walls, the inner end of said pin bearing upon said cam surface and being cammed thereby into binding contact with said nut.

1,027,002. DRIVING-CHAIN. REGINALD HERBERT RICHMOND, Birmingham, England, assignor of one-half to Brampton Brothers Limited, Birmingham, England. Filed Apr. 26, 1911. Serial No. 623,423. (Cl. 74—32.)



In a driving chain the combination of two series of alternately placed link elements each link element having a hole near each end thereof, each of said holes having a small expanding enlargement on the side adjacent to the respective link extremity, and a greater opening on the inner side; pintle pins passing through both series of link elements for the full width of the chain and pivotally uniting said link elements, said pintle pins having a longitudinal rib of outwardly expanding or dovetail shape corresponding with that of the smaller hole enlargement in one series of said link elements into which said rib fits in such manner that it is restrained against radial movement toward the major part of the hole, but caused to move angularly with the link elements; and a segmental bushing fitting within the smaller enlargement in the holes in the other series of link elements with which said bushing is caused to move, and passing through both series of link elements, and downward projections being provided on the link elements for engaging the sprocket-teeth; for the purpose specified and set forth.

1,027,003. NON-REFILLABLE BOTTLE. GEORGE W. RILEY, Chicago, Ill. Filed Aug. 7, 1911. Serial No. 642,703. (Cl. 215—68.)



1. In a non-refillable bottle, the combination of a bottle having a neck of substantially cylindrical interior conformation; a tubular plug sealed in said neck adjacent the lower end thereof, said plug having an open upper end and a closed lower end, there being laterally opening liquid exhaust openings provided adjacent the lower end of said plug communicating with the interior of said bottle; a gravity governed tube open at both ends slidably mounted in said plug and adapted when said bottle is in upright or substantially upright position to close said liquid exhaust openings and when said bottle is in inverted or substantially inverted position to uncover said openings, said plug having air vents extending longitudinally therethrough; a flange at the upper end of said tube adapted to close said vents when said tube is in closing position; and a plug locked in said neck outward of said first mentioned tubular plug having a liquid passage and an air vent extending therethrough, substantially as described.

2. In a non-refillable bottle, the combination of a bottle having a neck of substantially cylindrical interior conformation; a tubular plug sealed in said neck adjacent the lower end thereof, said plug having an open upper end and a closed lower end, there being laterally opening liquid exhaust openings provided adjacent the lower end of said plug communicating with the interior of said bottle; a gravity governed tube open at both ends slidably mounted in said plug and adapted when said bottle is in upright or substantially upright position to close said liquid exhaust openings and when said bottle is in inverted or substantially inverted position to uncover said openings, said plug having air vents extending longitudinally therethrough; a flange at the upper end of said tube adapted to close said vents when said tube is in closing position; a flap valve provided at the upper end of said tube adapted when the bottle is in upright or substantially upright position to close the passage through said tube; and a plug having a tortuous passage and air vents extending therethrough locked in said neck outward of said first mentioned tubular plug, substantially as described.

3. In a non-refillable bottle, the combination of a bottle having a neck of substantially cylindrical interior conformation; a tubular plug sealed in said neck adjacent the lower end thereof; said plug having an open upper end and a closed lower end, there being laterally opening liquid exhaust openings provided adjacent the lower end of said plug communicating with the interior of said bottle; a gravity governed tube open at both ends slidably mounted in said plug and adapted when said bottle is in upright or substantially upright position to close said liquid exhaust openings and when said bottle is in inverted or substantially inverted position to uncover said openings; a flap valve provided at the upper end of said tube adapted when the bottle is in upright or substantially upright position to close the passage through said tube; and a plug locked in said neck outward of said first mentioned plug and slightly spaced therefrom, said last mentioned plug bearing a tortuous liquid passage, the lower end of said passage being co-axial with said tube and enlarged to afford clearance for said flap valve in swinging to open position, substantially as described.

1,027,004. PROCESS OF MANUFACTURING POROUS BODIES. BOTHO SCHWEIN, Frankfort-on-the-Main, Germany. Filed Feb. 17, 1911. Serial No. 609,148. (Cl. 106—42.)

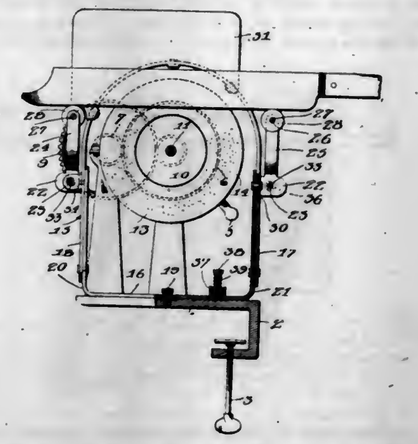
1. The herein described process of producing articles of carborundum, corundum, and similar refractory materials which comprises grinding the raw material, separating from the finely ground material the finest particles by elutriation, molding the same, and burning the molded article.

2. The herein described process of producing articles of carborundum, corundum, and similar refractory material, which comprises grinding the raw material, cleaning the same, separating from the finely ground and cleaned material the finest particles by elutriation, molding the same, and burning the molded article.

3. The herein described process of producing articles of carborundum, which comprises grinding the crude material, separating from the finely ground material the finest particles by elutriation, molding the same, and burning the molded article in a non-oxidizing atmosphere.

1,027,005. KNIFE-SHARPENER. JOSEPH A. SEYMOUR, Fabyan, N. H. Filed May 4, 1911. Serial No. 624,987. (Cl. 51—7.)

1. In a machine for sharpening knives, comprising a frame, a shaft rotatably mounted in said frame, spaced apart grinding disks carried by said shaft, a knife holding member mounted on said frame, said member being pivoted to swing in a horizontal plane, and means for rotating said shaft.



2. A machine for sharpening knives, comprising a frame, a shaft rotatably mounted on said frame, grinding disks carried by said shaft, a knife holding member swingingly mounted on said frame, spring pressed means for normally holding said member against swinging, and means for rotating said shaft.

3. A machine for sharpening knives, comprising a frame, a shaft rotatably mounted on said frame, spaced apart grinding disks carried by said shaft, a knife holding member swingingly mounted on said frame, said member comprising a base portion, jaw members pivotally mounted upon said base portion with their inner edges bearing against each other and spring controlled means for normally holding said jaws in engagement with each other, and means for rotating said shaft.

4. A machine for sharpening knives, comprising a frame, a shaft rotatably mounted on said frame, spaced apart grinding disks carried by said shaft, means for rotating said shaft, a knife holding member swingingly mounted on said frame, said member comprising a base portion having upwardly extending side members, jaw members pivotally mounted upon said base portion with their inner edges bearing against each other, U-shaped members secured to said side members and between the jaw members, said U-shaped members being provided with upwardly directed diverging arms, rollers carried by said arms against which the edge of the knife is adapted to bear, and means coacting between said U-shaped members and jaws for holding the jaws in engagement with each other.

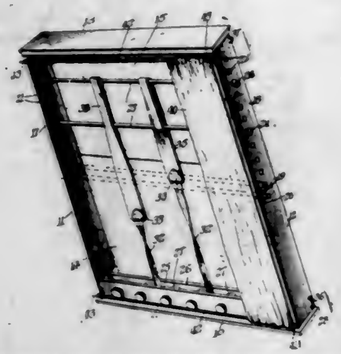
5. A machine for sharpening knives, comprising a frame, a shaft rotatably mounted on said frame, means for rotating said shaft, spaced grinding disks carried by said shaft and a knife holding member, said member comprising a base portion pivoted to the frame and beneath the grinding disks and adapted to swing in a plane parallel to the base of the frame, and knife holding jaws carried by said base portion.

1,027,006. NECKTIE-STRETCHER. ANTHONY R. SILVERSTON, Milwaukee, Wis. Filed Jan. 13, 1909. Serial No. 472,027. (Cl. 223—19.)

1. In a device of the character described, the combination with an inclosing casing having an opening, of a support within the casing and over which a necktie is adapted to be looped, means also within the casing and adapted to engage the tie beyond the support for exerting a tension upon the tie, and a closure for the opening in the casing.

2. In a device of the character described, the combination with a folding closing casing, of a support within and

separate from the casing and over which a tie is adapted to be looped, means for holding the casing in its unfolded position, means for holding the casing in its folded position and means adapted to be secured to the tie beyond the support for exerting a tension upon the tie when the casing is either folded or unfolded, the last said means permitting the casing to be folded and unfolded without releasing the tension on the tie.



3. In a device for the purpose described, the combination of an open casing including side walls, said walls being provided with a plurality of pairs of alined apertures, one or more supports removably passing through the alined apertures and over which a necktie is adapted to be looped, an elastic member, one portion of the member being secured to a fixed support remote from the first said support, and means for detachably securing another portion of the elastic member to the tie, said elastic member coöperating with the first said support to exert a tension on the tie.

4. In a device of the character described, the combination of an open casing including side walls, said walls being provided with alined apertures, a support removably passing through the alined apertures and over which a necktie is adapted to be looped, an elastic member, one portion of the member being secured to a fixed support remote from the first said support, means for detachably securing another portion of the elastic member to the tie, said elastic member coöperating with the first said support to exert a tension on the tie, and a closure for the casing.

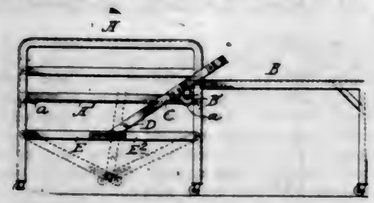
5. In a device for the purpose described, the combination of an open casing including side walls, said walls being provided with a plurality of pairs of alined apertures, one or more supports removably passing through alined apertures and adjustable with respect to the casing and over which a necktie is adapted to be looped, an elastic member, means for detachably connecting one portion of the elastic member to the tie, an adjustable member remote from the said support and mounted upon a fixed support, said elastic member being secured to the adjustable member whereby a tension will be exerted upon the tie when the said adjustable member is adjusted, and means for holding the last said member in its adjusted position.

[Claims 6 to 8 not printed in the Gazette.]

1,027,007. COUCH-BED. GEORGE F. SISBOWER, East Orange, N. J., assignor to New York Couch Bed Company, New York, N. Y., a Corporation of New York. Filed Sept. 6, 1911. Serial No. 647,809. (Cl. 5—46.)

1. The combination with two telescoping couch-sections, of an operating device therefor comprising a rock-shaft extending longitudinally beneath the couch, and an operating hand-lever connected to the rock-shaft said hand-lever being pivoted at or near its upper end to one couch-section and at its lower end to the other couch-section by a shifting pivotal joint.

2. The combination with two telescoping couch-sections, of an operating device therefor comprising a rock-shaft mounted beneath and extending longitudinally of the couch, and a hand-lever connected to said rock-shaft at the end of the couch and outside the frame thereof, the said lever having a pivotal connection with the inner section through the end of frame of the outer section and also a slotted pivotal connection with said outer section.



3. The combination with two telescoping couch-sections, of an operating device therefor comprising a rock-shaft mounted beneath and extending longitudinally of the couch, and a hand lever connected to said rock-shaft at the end of the couch and outside the frame thereof said lever having a jointed connection with the inner couch-section through the end-frame of the outer couch-section and a link connection with the said outer couch-section.

4. The combination with two telescoping couch sections, of a pair of links pivotally connected to the frame of one section and having their free ends slotted, an operating lever pivotally connected to the other section and having one end pivotally engaging the slotted portions of the links and a rock shaft to which the lever is connected.

5. A couch bed comprising a stationary section and a movable section that telescopes therewith, a guide rail carried by the stationary section and provided with depressions adjacent each end, a roller carried by the movable section and traveling on the rail and adapted to engage the depressions, and operating means for the movable sections.

1,027,008. IDENTIFICATION-SIGN. HENRY SJOVIK, Great Falls, Mont. Filed Nov. 4, 1910. Serial No. 590,712. (Cl. 40—10.)

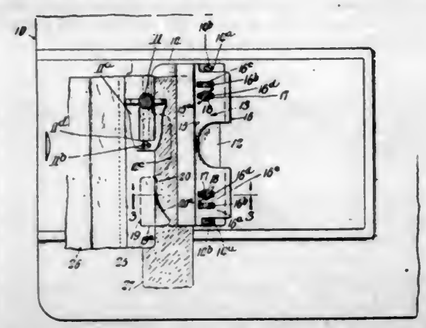


A sign including a one piece frame formed from a single blank of pliable material having a longitudinal opening, the longitudinal portions of said blank being bent backwardly and then inwardly to form sign receiving grooves, the end portions of said blank being bent to form straight legs which close the ends of said grooves and extend in the planes of said closed ends for a distance equal to approximately the shortest diameter of the closed ends whereby to space the frame from the support to which it may be applied, said legs being terminally bent outwardly to form securing lugs, and an identification element secured in said grooves and exposed through said longitudinal opening.

1,027,009. ATTACHMENT FOR SEWING-MACHINES. STEPHEN SMEJA, Chicago, Ill., assignor of one-third to John M. Nowicki, Chicago, Ill. Filed Dec. 26, 1911. Serial No. 667,603. (Cl. 112—9.)

1. An attachment for sewing machines comprising a base-plate provided at one side with a needle-opening, means providing an upright longitudinal shoulder rising from said base-plate and extending alongside of said needle-opening, means providing a second upright longitudinal shoulder laterally spaced from said first shoulder and terminating at or near said needle-opening, the second named shoulder having a flange overhanging the space between said shoulders, and means providing a third upright longitudinal shoulder rising from said overhanging flange and spaced intermediate the first two named shoulders.

2. An attachment for sewing machines comprising a base-plate provided at one side with a needle-opening, means providing an upright longitudinal shoulder rising from said base-plate and extending alongside of said needle-opening, means providing a second upright longitudinal shoulder laterally spaced from said first shoulder and terminating at or near said needle-opening, the second named shoulder having a flange overhanging the space between said shoulders, means providing a third upright longitudinal shoulder rising from said overhanging flange and spaced intermediate the first two named shoulders, and means for adjusting the distance between the first two named shoulders.



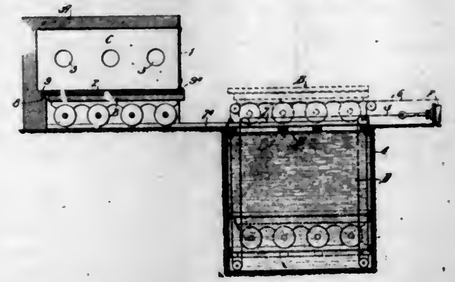
3. An attachment for sewing machines comprising a base-plate provided at one side with a needle-opening, means providing an upright longitudinal shoulder rising from said base-plate, said shoulder having an overhanging flange and extending alongside of said needle-opening, means providing a second upright longitudinal shoulder laterally spaced from said first shoulder and terminating at or near said needle-opening, the second named shoulder having a flange overhanging the space between said shoulders, and means providing a third upright longitudinal shoulder rising from said last-named overhanging flange and spaced intermediate the first two named shoulders.

4. An attachment for sewing machines comprising a base-plate provided at one side with a needle-opening, means providing an upright longitudinal shoulder rising from said base-plate, said shoulder having an overhanging flange and extending alongside of said needle-opening, means providing a second upright longitudinal shoulder laterally spaced from said first shoulder and terminating at or near said needle-opening, the second named shoulder having a flange overhanging the space between said shoulders, means providing a third upright longitudinal shoulder rising from said last-named overhanging flange and spaced intermediate the first two named shoulders, and means for adjusting the distance between the first two named shoulders.

5. An attachment for sewing machines comprising a base-plate provided at one side with a needle-opening and being bent upon itself to form at one margin a longitudinal upright shoulder provided with an overhanging flange and an upright longitudinal shoulder-extension of said flange spaced from the first named shoulder, said shoulders and flange terminating at the needle-opening, and a second plate having a part bearing upon the first plate and bent to form an upright longitudinal shoulder having an overhanging flange, and means for adjustably attaching the second plate to the first plate.

1,027,010. APPARATUS FOR TEMPERING METAL ARTICLES. EDWIN H. STEEDMAN and JAMES H. STEEDMAN, St. Louis, Mo., assignors to Curtis & Company Manufacturing Company, Wellston, Mo., a Corporation of Missouri. Filed Aug. 1, 1911. Serial No. 641,704. (Cl. 148—34.)

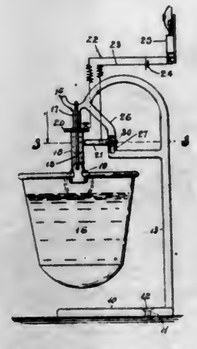
1. An apparatus for treating metal articles, comprising a heating furnace, a car that is adapted to be moved horizontally into and out of said furnace so as to form the bottom of the furnace chamber, the car being provided with a refractory floor on which the articles rest while they are being heated and quenched, a tank containing a quenching bath, and means for enabling the car with the articles thereon to be immersed in said bath after the car has been withdrawn from the furnace.



2. An apparatus for treating metal articles, comprising a heating furnace provided in one of its side walls with a door, a car that is adapted to be moved horizontally into and out of the furnace, a refractory floor on said car for supporting the articles and which forms the bottom of the furnace chamber when the car is arranged in the furnace, a tank that contains a quenching bath, said tank and bath being separate and distinct from the furnace and having no effect on the operation of the furnace, and means for enabling the car with the articles thereon to be immersed in said bath after the car has been withdrawn from the furnace.

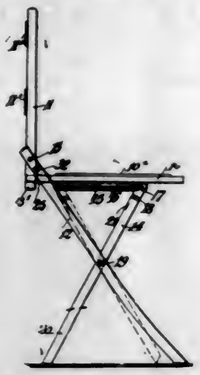
3. An apparatus for treating metal articles comprising a heating furnace, a tank located adjacent said furnace and containing a quenching bath, a track leading from said tank and extending into said furnace, a car on said track that forms the bottom of the chamber of said furnace and on which the articles are placed during the operation of heating them, and means for raising and lowering the car in said tank after it has been withdrawn from said furnace.

1,027,011. FIRE-BUCKET SUPPORT. MATTHEW A. STEWART, Newark, N. J. Filed Aug. 11, 1909. Serial No. 512,304. (Cl. 177—317.)



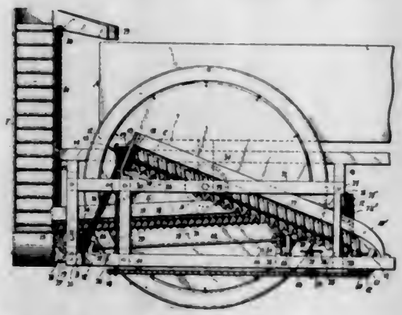
A support for fire buckets comprising a body portion having means for attachment to a wall or the like, said body portion having a hook to receive the bail of a bucket and a guide rod projecting downward therefrom, a float having a stem socketed from the top adapted to receive said guide rod and protect the same from evaporation from the bucket, electrical contacts adapted to be connected and disconnected by the lowering and rising of said float, circuit wires secured to said electric contacts, a source of electric energy, and an alarm adapted to be operated by the current passing through the circuit.

1,027,012. FOLDABLE CHAIR. NICHOLAS STOCK and JOHN N. CORDTS, Kingston, N. Y. Filed Sept. 12, 1911. Serial No. 648,927. (Cl. 155—8.)



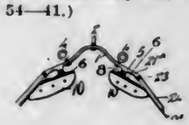
In a folding chair the combination of a set of connected outer legs, a set of connected inner legs pivoted to said outer legs on a fixed pivot, terminating below the plane of the outer legs and provided at their upper ends with a lateral rod, a seat provided with a horizontal slotted guideway and with notches at its rear edge, brackets secured to said seat consisting of flat attaching plates provided with notches corresponding with the notches in said seat, with upward flanges at their rear edges, with upward flanges at the inner edges of said notches, and with upward lips on said last named flanges adapted to engage the top of the seat and having side plates provided with slots engaging studs on said outer legs, and a back pivoted near its lower end to said outer legs above the connection of said seat and provided with a downward extension adapted to engage the notches in the latter for holding the back in open position, said seat and back swinging downward to fold the chair and the outer portions of said inner legs swinging from forward to rearward position relative to the outer legs in the folding operation.

1,027,013. MACHINE FOR GATHERING AND HUSKING CORN. TILTON C. STOWELL, Mishawaka, Ind. Filed May 11, 1911. Serial No. 626,494. (Cl. 56—113.)



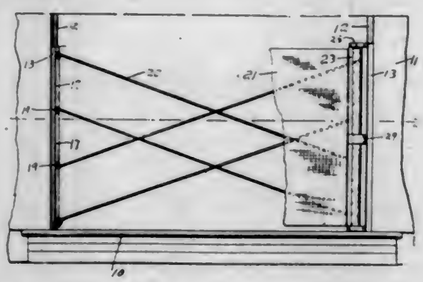
In a machine of the class described, the combination with a vehicle, of a frame detachably supported by said vehicle and having a portion thereof extending laterally of the vehicle, a snapping mechanism carried by the laterally extending portion of the frame, a drive shaft carried by the frame, connections between the drive shaft and one of the traction wheels of the vehicle for rotating said drive shaft, a second shaft operatively connected with said drive shaft, connections between the second shaft and the snapping mechanism, a husking mechanism also carried by the laterally extending portion of the frame and disposed adjacent the snapping mechanism for receiving material from the latter, said husking mechanism comprising a plurality of rolls arranged side by side, connections between said husking rolls whereby the rotation of one of said rolls will simultaneously rotate the remainder, a sprocket wheel fixed on a trunnion of one of said husking rolls, a shaft mounted longitudinally of the laterally extending portion of the frame, connections between said longitudinally disposed shaft and the second named shaft, a beveled gear fixed on the longitudinally disposed shaft, a stub shaft journaled in said frame, a beveled gear fixed on said stub shaft meshing with the beveled gear on the longitudinally disposed shaft, and connections between the stub shaft and the sprocket wheel on the trunnion of the husking roll whereby the rotation of said stub shaft will rotate said husking roll.

1,027,014. HARNESS-SADDLE. NELSON J. SUTTON, Cincinnati, Ohio. Filed July 26, 1909. Serial No. 509,628. (Cl. 54—41.)



A harness-saddle comprising a pair of corresponding hollow metal pads having ventilator-openings, corrugated reinforcing-strips within said pads, jockey-plates slidably attached to said pads and provided with upright bearings and a central coupling yoke or tree pivotally connected at its opposite ends to said upright bearings.

1,027,015. COMBINED DRAFTLESS WINDOW-VENTILATOR AND SHADE AND CURTAIN PROTECTOR. GEORGE VAN VEERST and MORTIMER A. SOOY, Holland, Mich. Filed Aug. 1, 1911. Serial No. 641,804. (Cl. 98—31.)



1. A device of the class described comprising strip members adapted for detachably mounting upon a window casing, means carried thereby for securing a screen member, and a lacing structure, the said screen member being independently removable.

2. A device of the class described comprising removable strip members adapted to be secured to a window structure, hook members carried thereby, and lacings suspended from said hook members.

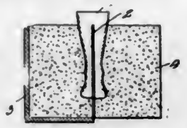
3. A device of the class described comprising removable strip members adapted to be securd to a window structure, hook members carried thereby, lacings suspended from said hook members, and a removable screen member slidably-mounted upon said hook members and in front of said lacings.

4. A device of the class described comprising strip members, wedge-shaped flanges carried upon one edge of each of said members and angularly disposed with respect thereto, a plurality of inwardly bent flanges carried by the other edges of said strip members, and lacings secured to said hook members.

5. A device of the class described comprising strip members, wedge-shaped flanges carried upon one edge of each of said members and angularly disposed with respect thereto, a plurality of inwardly bent flanges carried by the other edges of said strip members, lacings secured to said hook members, buckle members provided with longitudinal flanges adapted to engage said hook members, and a fabric suspended between said buckle members.

[Claims 6 to 9 not printed in the Gazette.]

1,027,016. MAKING MOLDS FOR SHOE-LASTS. GEORGE VOLNAGEL, Bremerton, Wash. Filed Nov. 28, 1911. Serial No. 662,811. (Cl. 22—115.)

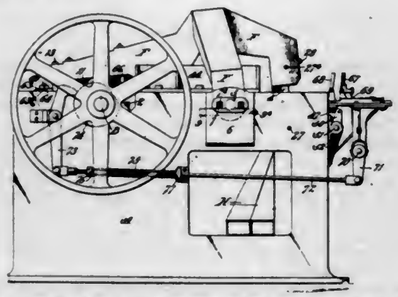


1. In a device of the character described, an elastic stocking to be received by a person's foot, a fin carried by said stocking said stocking and fin to be inserted into a molding substance for the purpose described.

2. In a device of the character described, an elastic stocking to be received by a person's foot, a fin carried by said stocking and extending from back and bottom thereof said fin and stocking to be inserted into a molding substance for the purpose described.

3. In a device of the character described, an elastic stocking having a fin secured thereto, the said fin extending from the front, back and bottom thereof, said stocking to receive a person's foot, said stocking to be inserted into a molding substance, said fin adapted to separate said substance into parts as described.

1,027,017. RIVET AND BOLT MAKING MACHINE. JOHN T. WALLACE, St. Louis, Mo. Filed Aug. 5, 1911. Serial No. 642,541. (Cl. 10—15.)



1. A rivet and bolt making machine comprising a bed-plate, a lower die mounted therein, a lever arranged above said bed-plate and provided with an upper die, mechanism for intermittently feeding a rod to said dies, a stationary device coöperating with the die on said lever to shear said rod into short lengths, a heading mechanism, and a cam coöperating with one end of said lever for positively moving said lever so as to close said dies:

2. A rivet and bolt making machine provided with a plurality of lower dies arranged side by side in the same horizontal plane, means for intermittently feeding a plurality of parallel arranged rods over said dies, upper dies, a lever which carries said upper dies, a cam which acts upon said lever and moves said lever so as to close said dies, stationary cutters across which said rods are fed, said cutters coöperating with one of said sets of dies to shear said rods into short sections, means for forming heads on said sections, and means for ejecting the articles from said dies.

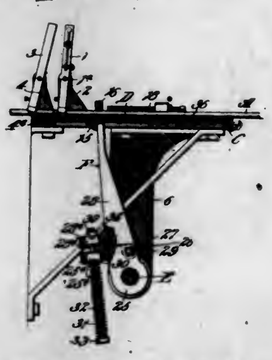
3. A rivet and bolt making machine comprising a pair of dies, means for feeding a rod into operative position with relation to said dies, means for severing the rod into short sections or lengths, means for forming heads on said short sections, an ejecting device for discharging the completed article from the dies, and an operating mechanism for one of said dies which separates the dies slightly and holds them in this position until after the article has been discharged therefrom, said mechanism thereafter causing the dies to be completely separated.

4. In a rivet and bolt making machine, dies which hold a rod while a head is being formed thereon, an ejecting device for engaging the article and discharging it from the dies after the head has been formed on the article, and an operating mechanism for one of said dies which prevents the dies from separating completely before said ejecting device operates.

5. In a rivet and bolt making machine, a pair of dies which are adapted to clamp a rod while a head is being formed thereon so as to produce an article, means for causing said dies to separate slightly after the head has been formed on said article, an ejecting device which thereafter operates to discharge the article from the dies, and means for thereafter separating the dies completely.

[Claims 6 to 30 not printed in the Gazette.]

1,027,018. FEEDING MECHANISM. JOHN T. WALLACE, St. Louis, Mo. Filed Aug. 5, 1911. Serial No. 642,542. (Cl. 140—130.)



1. A feeding mechanism comprising a reciprocating carriage provided with means for engaging a strip and feeding it forwardly when the carriage moves in one direction, means for holding the strip when the carriage moves in the opposite direction, an operating member for said carriage, and means for causing said operating member to exert yielding pressure on said carriage when it reaches the end of its stroke.

2. A feeding mechanism comprising a reciprocating carriage provided with means for engaging a strip and feeding it forwardly when the carriage moves in one direction, means for holding the strip when the carriage moves in the opposite direction, an operating member for said carriage, means for positively moving said operating member in one direction, yielding means for moving said member in the opposite direction, and independent means for causing said operating member to exert yielding pressure on said carriage when it reaches the end of its forward stroke.

3. A feeding mechanism comprising a reciprocating carriage provided with means for engaging a strip and feeding it forwardly when the carriage moves in one direction, means for holding the strip when the carriage moves in the opposite direction, an operating member for said carriage which comprises a plurality of parts, means for positively moving one of said parts, and a yielding connection between said parts which causes them to move as one until the carriage reaches the end of its stroke in one direction.

4. A feeding mechanism comprising a reciprocating carriage, a device on said carriage arranged to grip a strip

and feed it when the carriage moves forwardly and automatically release said strip on the return stroke of the carriage, an automatically operating device which grips the strip on the return stroke of the carriage and releases it on the forward stroke of the carriage, a rock arm for actuating said carriage comprising a plurality of parts or sections that are pivotally connected together, an operating shaft to which one of said parts is connected, and a yielding connection between said parts which causes them to move as one until the carriage reaches the end of its stroke in one direction.

5. A feeding mechanism comprising a reciprocating carriage, a device on said carriage arranged to grip a strip and feed it when the carriage moves forwardly and automatically release said strip on the return stroke of the carriage, an automatically operating device which grips the strip on the return stroke of the carriage and releases it on the forward stroke of the carriage, a rock arm for actuating said carriage comprising a plurality of parts or sections that are pivotally connected together, an operating shaft to which one of said parts is connected, cooperating portions on said sections which bear against each other and thus prevent said sections from moving relatively to each other, blocks rockably mounted in said portions, a rod passing through said blocks, and yielding means coöperating with said rod to hold said sections together.

[Claims 6 to 15 not printed in the Gazette.]

1,027,019. COFFEE-GRINDER. LEVI WARSTLER and PAUL F. LOICHOT, Louisville, Ohio. Filed Feb. 14, 1912. Serial No. 677,483. (Cl. 83—3.)



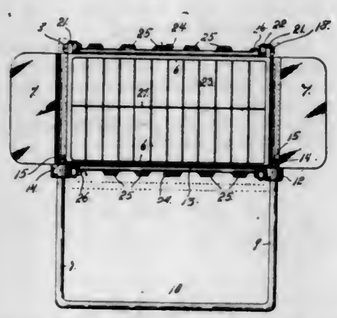
1. In a coffee mill, a pair of grinding disks, one a running disk and the other fixed, the running disk provided with a frustum and the fixed disk provided with a chamber adapted to receive the frustum portion of the running disk, said frustum portion of the running disk provided with curved drift grooves, flanges located adjacent the drift grooves, said flanges provided with stepped grinding teeth, the forward ends of said grinding teeth curved to correspond with the curvature of the drift grooves, the fixed disk provided with grinding teeth adapted to intermesh with the teeth upon the running disk and the forward ends of the said teeth curved, substantially as and for the purpose specified.

2. In a coffee mill, a pair of grinding disks, one a running disk and the other fixed, the running disk provided with a frustum and the fixed disk provided with a chamber adapted to receive the frustum portion of the running disk, said frustum portion of the running disk provided with curved drift grooves, flanges located adjacent the drift grooves, said flanges provided with stepped grinding teeth, the forward ends of said grinding teeth curved to correspond with the curvature of the drift grooves, the fixed disk provided with grinding teeth adapted to intermesh with the teeth upon the running disk and the forward ends of the said teeth curved, and pulverizing teeth located near the peripheries of the disk, substantially as and for the purpose specified.

3. In a coffee mill, a pair of grinding disks, one a running disk and the other fixed, the running disk provided upon its grinding face with a series of curved drift grooves, teeth located back of the drift grooves and adjacent thereto, the forward ends of said teeth curved to correspond with the curvature of the drift grooves, the fixed disk provided with channels upon its grinding face, a series of teeth located adjacent the channels, their forward ends curved, a concentric row of pulverizing teeth, some of said pulverizing teeth extending into said channels, said fixed disk provided with a smooth portion adjacent the pulverizing teeth, said smooth portion located upon the face of the fixed disk and the running disk provided with a series of pulverizing teeth adapted to be located adjacent the smooth portion of the fixed disk, substantially as and for the purpose specified.

4. In a coffee mill, a pair of grinding disks, one a running disk and the other fixed, the running disk provided upon its grinding face with a series of curved drift grooves, teeth located back of the drift grooves and adjacent thereto, the forward ends of said teeth curved to correspond with the curvature of the drift grooves, the fixed disk provided with channels upon its grinding face, a series of teeth located adjacent the channels, a concentric row of pulverizing teeth, said fixed disk provided with a smooth portion adjacent the pulverizing teeth, said non-toothed portion located upon the face of the fixed disk and the running disk provided with a series of pulverizing teeth located adjacent the smooth portion of the fixed disk, substantially as and for the purpose specified.

1,027,020. BUTTER-CUTTER. HARRY B. WATERS, Denver, Colo. Filed Aug. 16, 1911. Serial No. 644,462. (Cl. 31—65.)



1. A butter cutter comprising a rectangular frame open at the top and bottom, its opposite ends being equipped with flanges whose upper surfaces are flush with the upper edge of the frame, the said flanges being provided with grooves, the frame being equipped with perforated lugs arranged at the extremities of the respective grooves, and a U-shaped member whose parallel parts are arranged to travel in the perforations of said lugs and in the grooves of the said flanges, and a wire applied to the free extremities of the parallel parts of said member and coöperating with the other wires for butter cutting purposes, substantially as described.

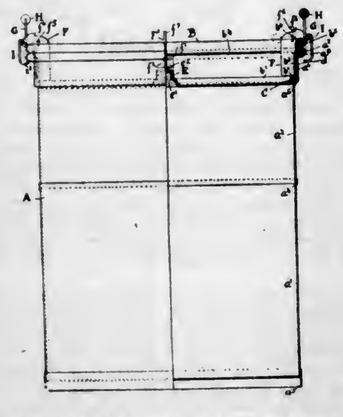
2. A butter cutter comprising a rectangular frame open at the top and bottom and having manipulating end flanges projecting from the upper part of the frame, butter cutting members extending across the lower opening of the frame, means for regulating the tension of the said members, and a U-shaped member slidably mounted on the upper part of the frame and carrying a coöperating butter cutting wire adapted to move across the top opening of the frame, the depth of the latter being less than the cake of butter to be cut, for the purpose set forth.

3. A butter cutter comprising a frame open at the top and bottom and having oppositely located end members for manipulating purposes, said members having grooves, gage plates detachably applied to the opposite sides of the frame, cutting wire members applied to the said gage plates, a U-shaped member arranged to travel in said grooves and a coöperating wire member mounted thereon to pass across the upper opening of the frame, for the purpose set forth.

4. A butter cutter comprising a frame open at the bottom and having wires extending across said opening for butter cutting purposes, screws projecting through the ends of the said frame, means adjustably applied to the frame and provided with members projecting upwardly and overlapping said screws and with which means the said wires are connected for the purpose of regulating their tension.

5. A butter cutter comprising a frame open at the top and bottom and having a depth equal substantially to one-half the thickness of the cake of butter to be cut, perforated lugs mounted on the frame, cutting wire members stretched across the lower opening of the frame, a U-shaped member adapted to pass through the said lugs, and a coöperating wire member mounted thereon to travel across the upper opening of the frame.

1,027,021. METAL CONTAINER. WILLIAM J. WERNER, Kiel, Wis. Filed Feb. 29, 1912. Serial No. 680,619. (Cl. 31—75.)



1. A vessel having a projection at its upper edge, a cover therefor, uprights on the inner sides of said cover with outwardly projecting portions overhanging the upper edge of the vessel, bell-crank levers mounted in said uprights in the projecting portions thereof, and a bail-shaped member having its ends mounted in journals formed in the short arms of said levers, the depending legs of said bail member being hooked to engage beneath said projection on the upper edge of said vessel.

2. A vessel, a cover therefor, uprights on the inner sides of said cover with outwardly projecting portions overhanging the upper edge of the vessel, bell-crank levers mounted in the projecting portions of said uprights and movable into a horizontal position over said cover, bail-shaped members mounted in said bell-crank levers and having hooked portions to engage under the upper edge of the vessel, and bosses integral with said uprights to engage the legs of the bell-crank levers to hold the clamping devices in clamping position.

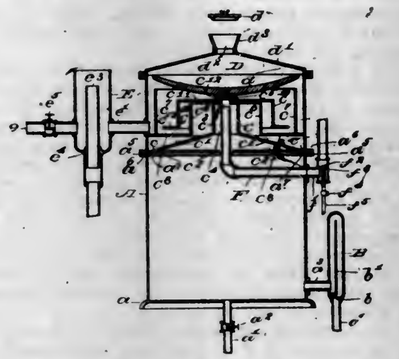
3. A vessel having an outward roll at its upper end, a cover therefor, uprights secured to opposite sides of said cover and having outwardly projecting perforated overhangs, bell-crank levers pivotally mounted in said overhangs and at their ends forming journal-bearings, a bail-shaped member having its ends received on said journal-bearings, said bail-shaped member being hooked to engage a roll on the vessel, the angles of the cranks of said levers being disposed so that when closed the pivots of said bail are carried slightly over the center whereby the reaction of the bail tends to hold said pivots in such position.

4. A vessel having an outward roll at its upper end, a cover therefor, uprights secured to opposite sides of said cover and having outwardly projecting perforated overhangs, bell-crank levers pivotally mounted in said overhangs at their outer ends forming journal-bearings, a bail-shaped member having its ends received in said journal-bearings, said bail-shaped member being hooked to engage a roll on the vessel, the angles of the cranks of said levers being disposed so that when closed the pivots of said bail are carried slightly over the center whereby the reaction of the bail tends to hold said pivots in such position, and the said vessel being provided with projections between which the legs of said levers are engaged when in clamping position.

5. A cylindrical vessel having an open upper end, a cup-shaped cover having an open top and upstanding sides and closed bottom, and a plurality of uprights mounted on said cover and extending above the upper edge of the sides, said uprights being adapted to act as supports for the bottom of a similar container set thereupon coaxially with the first, and said uprights having each a portion depressed below the other portion, forming a shoulder on each, which shoulders are adapted to form centering and abutment-means for the bottom of said second container.

[Claims 6 to 19 not printed in the Gazette.]

1,027,022. APPARATUS FOR ABSORBING GASES IN LIQUIDS. HOWARD L. WHITELEY, Lowell, Mass. Filed Apr. 18, 1906. Serial No. 312,332. (Cl. 23—13.)



1. The combination of a reservoir, an absorption-chamber superimposed on said reservoir, and a fuming-chamber superimposed on said absorption-chamber, each chamber communicating with the part next below and means for creating a partial vacuum in the top of said reservoir.

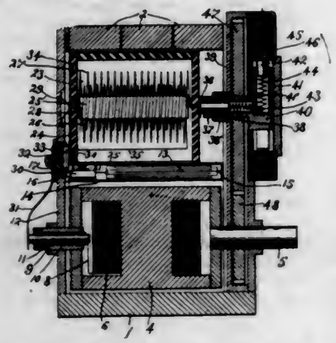
2. The combination of a fuming-chamber, an absorption-chamber, arranged below said fuming-chamber, a supply-tank for untreated liquid connected with said absorption-chamber, an overflow-pipe arranged in said tank, said overflow-pipe being adjustable in height, and draft-creating means.

3. The combination of a reservoir, an absorption-chamber and a fuming-chamber, said fuming-chamber having an air-inlet in the top thereof, and a hearth or bottom which forms the top of said absorption-chamber, said absorption-chamber having partitions which inclose concentric annular spaces, each of which spaces communicates with the next spaces immediately above and below, and having an inclined bottom which forms the top of said reservoir, a common casing for said chambers and said reservoir, outlets in the bottom of each chamber within said casing, means for creating a downward draft through said fuming and absorption-chambers and means for admitting a liquid to the outer space of said absorption-chamber.

1,027,023. MAGNETO. ERNEST C. WILCOX, Meriden, Conn., assignor to The Connecticut Telephone and Electric Company, Meriden, Conn., a Corporation of Connecticut. Filed Dec. 17, 1908. Serial No. 467,956. (Cl. 123—149.)

1. In a device of the character described, a combination with a magneto of an induction coil adapted to be mounted

thereon, a face plate, said coil and face plate having contact plates whereby electrical connections of said magneto and coil may be automatically effected by the placing of said coil and plate in position.



2. In a device of the character described, a combination with the magneto of a condenser, an induction coil arranged to be removably mounted thereon, and a face plate and means for automatically effecting electrical connection of said magneto, condenser and coil by assembling the same and said plate in position.

3. In a device of the character described, the combination with a magneto of an induction coil mounted within the bow of the field magnets thereof, a face plate, said coil and plate having contact plates whereby electrical connections of said magneto and coil may be automatically effected by the placing of said coil and plate in position.

4. In a device of the character described, the combination with a magneto of a condenser, a casing therefor, including a face plate, a vibrator mounted within said casing, an induction coil, said condenser, vibrator and coil being mounted in the bow of the field magnets of said magneto, and means for automatically effecting the electrical connections of said parts by assembling the same and said plate in position.

5. In a device of the character described, the combination in a magneto of a distributer, an induction coil mounted within the bow of the field magnets of said magneto, and electrical connections including a face plate so constructed and arranged as to automatically effect contact between said distributer and the winding of the magneto armature by the operation of placing said coil within the magnets and of placing said face plate in position when the distributer is in position.

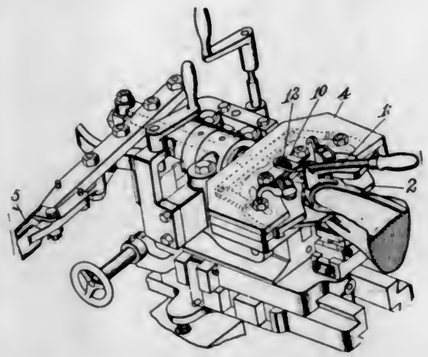
[Claims 6 to 13 not printed in the Gazette.]

1,027,024. END-LASTING MECHANISM. DAVID L. WINEBERG, Rockland, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 25, 1910. Serial No. 573,687. (Cl. 12—14.)

1. A retarder for bed lasting machines comprising a bar extending lengthwise of a shoe which occupies position to be lasted in the machine and pivotally supported in front of the shoe and having a handle on its rear end, said bar having a depending foot adapted to be held in clamping engagement with the marginal portion of the upper upon the lasting plates by pressure applied to the handle transversely of the length of the handle.

2. A retarder for bed lasting machines comprising a lever extending lengthwise of the shoe which occupies position to be lasted in the machine, said lever being fulcrumed in front of the shoe and having its operating end extended rearwardly over the shoe to form a handle, a depending stem on the lever between the pivot and the handle and a crescent-shaped foot on the stem and located to clamp the upper against the lasting plates.

3. A retarder for lasting machines comprising a support, a lever fulcrumed on the support in front of the shoe and having a handle extending rearwardly over the shoe, a crescent shaped clamping foot on the lever having its concave edge toward the last and adapted to extend down in front of the last below the plane of the last bottom, and connections permitting relative movement between the foot and the support in a direction longitudinal of the lever.

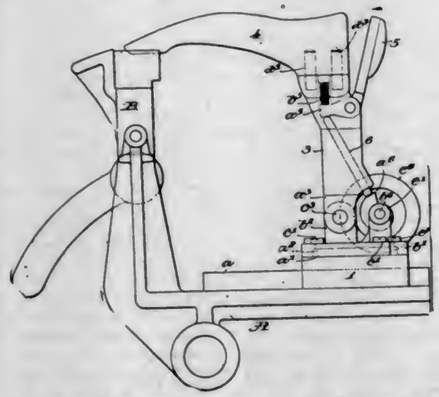


4. In an end lasting mechanism the combination with end embracing wipers and supporting and operating means therefor, of a retarder comprising a lever arranged longitudinally of the shoe and having a pin and slot pivotal connection with the wiper support and a rear end formed as a handle extending over the shoe, and a crescent-shaped foot depending from the lever to clamp the upper upon the wipers, said pin and slot connection permitting movement of the retarder lengthwise of the shoe with the wipers.

5. A retarder for bed lasting machines comprising a carrier extending lengthwise of a shoe which occupies position to be lasted in the machine, said carrier being movably supported in front of the shoe and provided with a handle on its rear end and having a depending foot shaped to clamp the upper at the two sides of the toe and having means by which to effect lateral manipulation for relatively varying the action of the retarder at the two sides of the toe.

[Claims 6 to 13 not printed in the Gazette.]

1,027,025. SHOE-SUPPORT FOR SOLE-LEVELING MACHINES. ERASTUS E. WINKLEY, Lynn, Mass. Filed Mar. 13, 1901. Serial No. 50,927. (Cl. 12—123.)



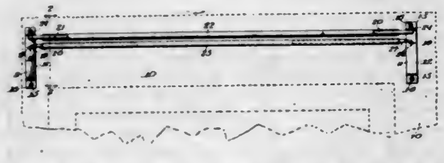
1. A shoe support for sole leveling machines, having, in combination, a follower, toe and heel supports therefor mounted to have a relative tipping movement to clamp the follower between them, a clamp on the heel support arranged to enter the shoe to clamp it on the follower, and means for relatively actuating the supports and clamp, substantially as described.

2. A shoe support for sole leveling machines, having, in combination, a follower, toe and heel supports therefor having a relative tipping movement to clamp the follower between them, a clamp on the heel support arranged to enter the shoe to clamp it on the follower, and a common actuating mechanism for relatively actuating the toe and heel supports and actuating said clamp, substantially as described.

3. A shoe support for sole leveling machines, having, in combination, a follower, heel and toe supports for the same relatively movable to clamp the follower, a clamp extending into the shoe with the follower, and means for relatively actuating the supports and clamp, substantially as described.

4. In a device of the character described, the combination of an interior expansible shoe support, an exterior toe support, means for locking said supports against relative movement and means to simultaneously contract said shoe support and unlock said supports to allow them to be separated, substantially as described.

1,027,026. ROD-HOLDER. LOUIS ARNT, Chicago, Ill. Filed July 27, 1911. Serial No. 640,733. (Cl. 156—24.)



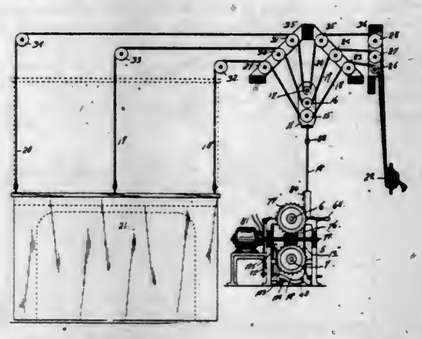
1. In a rod holder, the combination with a pair of brackets each having means to hold it at a distance from the support to which it is secured and each also having a pair of spaced apart projections, of a rod having at each of its ends downwardly turned prongs to stride the brackets edgewise and to project downwardly between the projections on the brackets.

2. In a rod holder, the combination with a pair of brackets each having means to hold it at a distance from the support to which it is secured and each also having in its upper portion a slot and an opening, each of said brackets also having a pair of spaced apart projections, of a rod having at each of its ends a lateral extension provided with an upward projection at its free end, said extensions located in the slots of the brackets and said projections adapted to engage the openings in said brackets, another rod having at each of its ends downwardly turned prongs to stride the brackets edgewise and to project downwardly between the projections on the brackets.

1,027,027. MECHANISM FOR HANDLING HANGING SCENERY IN THEATERS. SETH G. BAILEY, Denver, Colo., assignor of one-fourth to Martin Beck, New York, N. Y., and one-fourth to Andrew C. Carson, Denver, Colo. Filed Nov. 28, 1910. Serial No. 594,466. (Cl. 156—46.)

1. The combination with a movable scenic member or other load, of two coöperating shafts, drums normally loose on the respective shafts, a cable connecting one drum with the scenic member, a second cable connecting the two drums, and means for connecting either drum to rotate with its shaft while the other drum is loose on the other shaft, comprising clutch members mounted on the respective shafts, cams concentrically mounted with respect to the respective shafts, and means for simultaneously actuating the cams of the two shafts.

2. The combination with a movable scenic member or other load, of two coöperating shafts, drums normally loose on the respective shafts, a cable connecting one drum with the scenic member, a second cable connecting the two drums, and means for connecting either drum to rotate with its shaft while the other drum is loose on the other shaft, comprising clutch members mounted on the respective shafts, cams reversely arranged on the respective shafts and concentrically mounted with reference thereto, and means for simultaneously actuating the cams of the two shafts.



3. The combination with a load of two shafts, means for rotating the shafts in reverse directions, drums normally loose on the respective shafts, a cable connecting the load with one drum, another cable connecting the two drums, and means for connecting either drum to rotate with its shaft while the other drum is loose on its shaft, comprising clutch members mounted on the respective shafts, cams concentrically mounted with reference to the respective shafts, and means for simultaneously actuating the cams of the two shafts.

4. The combination with a load, of two shafts, means for rotating the said shafts in reverse directions, the direction of movement of each shaft being constantly uniform, drums normally loose on the respective shafts, a cable connecting the load with one drum, another cable connecting the two drums, and means for connecting either drum to rotate with its shaft while the other drum is loose on its shaft, comprising clutch members mounted on the respective shafts, cams concentrically mounted with reference to the respective shafts, and means for simultaneously actuating the cams of the two shafts.

5. The combination with a movable load, of two shafts, means for rotating the shafts in reverse directions, drums normally loose on the respective shafts for purposes of rotation, and freely slidable in a direction parallel with their axes, a cable connecting the load with one drum, another cable connecting the two drums, and means for connecting either drum to rotate with its shaft while the other drum in loose on its shaft, comprising clutch members fast on the respective shafts, cams concentrically mounted with respect to the respective shafts, and means for simultaneously actuating the cams whereby one drum is shifted into operative engagement with its adjacent clutch member.

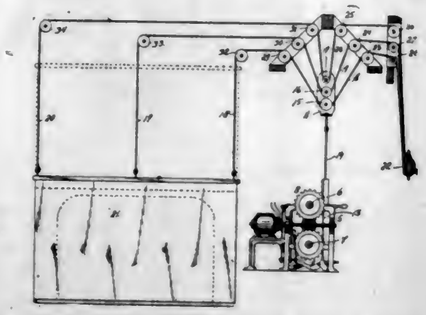
[Claims 6 to 11 not printed in the Gazette.]

1,027,028. MEANS FOR HANDLING HANGING SCENERY IN THEATERS. SETH G. BAILEY, Denver, Colo., assignor to The Bailey Theatre Fly Rail Machine Company, Denver, Colo., a Corporation of Colorado. Filed Jan. 25, 1911. Serial No. 604,681. (Cl. 156—46.)

1. The combination with a movable scenic member or other load, of an operating drum, a cable connected with the drum, a block connected with the cable and carrying a number of pulleys arranged one above another and diminishing in size from the bottom toward the top, ropes connected with the scenic member at one extremity and engaging the respective pulleys of the block in running relation, guide pulleys mounted on a stationary support and engaging the said ropes, and a pin-rail to which the opposite extremities of the ropes are detachably connected, the

pulley block being located intermediate the pin-rail and the scenic member.

2. The combination with a movable scenic member or other load, of an operating drum, a cable connected with the drum, a block connected with the cable and carrying a number of pulleys arranged one above another and varying in size from top to bottom, the uppermost pulley being smallest and all of the said pulleys lying between the same vertical planes, ropes connected with the scenic member at one extremity and engaging the respective pulleys of the block in running relation, guide pulleys mounted on a stationary support on opposite sides of the pulley block, and a pin-rail to which the opposite extremities of the ropes are detachably connected, the pulley block being located intermediate the pin-rail and the scenic member.



3. The combination with a movable scenic member, of an operating drum, a cable connected with the drum, a block connected with the cable and carrying a number of pulleys varying in size from top to bottom, the top pulley being smallest and all of the said pulleys lying between the same vertical planes, ropes connected with the scenic member at one extremity and engaging the respective pulleys of the block in running relation, guide pulleys mounted on a V-shaped stationary support and engaging the said ropes, and a pin-rail to which the opposite extremities of the ropes are detachably connected, the pulley block being located intermediate the pin-rail and the scenic member, substantially as described.

4. The combination with a movable scenic member or other load, of an operating drum, a cable connected with the drum, a block connected with the cable and carrying a number of pulleys all lying in the same vertical plane and varying in size from top to bottom, the uppermost pulley being smallest, ropes connected with the scenic member at one extremity and engaging the respective pulleys of the block in running relation, guide pulleys mounted on a stationary arch-shaped support and engaging the said ropes, the stationary pulleys, the pulleys of the block and the scenic member all lying between the same vertical planes, and a pin-rail to which the opposite extremities of the ropes are connected, the pulley block being interposed between the pin-rail and the scenic member, substantially as described.

5. The combination with a movable scenic member or other load, of an operating drum, a cable connected with the drum, a block connected with the cable above the drum and equipped with pulleys all lying between the same vertical planes and varying in size from top to bottom, the uppermost pulley being smallest, flexible devices connected with the scenic member and engaging the pulleys of the block in running relation, a stationary device with which the extremities of the flexible devices are detachably connected, and pulleys mounted on a stationary arch-shaped support for guiding the flexible devices connected with the scenic member, the space below the arch-shaped support being available for the vertical movement of the pulley block, which is interposed between the scenic member and the stationary device with which the flexible devices are connected.

[Claims 6 and 7 not printed in the Gazette.]

1,027,029. PERAMBULATOR OR GO-CART. SAMUEL BENSON, Menominee, Mich., assignor to Eugene C. Miller, Chicago, Ill. Filed Aug. 18, 1910. Serial No. 577,767. (Cl. 21—83.)



1. In a folding structure of the character set forth, the combination of a running-gear frame, a forwardly foldable handle, wheel-supports adapted to fold beneath said frame, side-members adapted to fold transversely above said frame, links connecting each pair of wheel-supports with the opposite side-member, and handle-actuated means serving to fold said wheel-supports and said side-members.

2. In a structure of the character set forth, the combination of a running-gear frame, a forwardly foldable handle, wheel-supports adapted to fold beneath said frame, side-members adapted to fold transversely above said frame, inclined brace-links connecting said wheel-supports and said side-members, and handle-actuated means serving to fold said wheel-supports and said side-members.

3. In a structure of the character set forth, the combination of a running-gear frame, a forwardly foldable handle, wheel-supports adapted to fold beneath said frame, side-members adapted to fold transversely above said frame, inclined brace-links connecting said wheel-supports and said side-members, handle-actuated means serving to fold said wheel-supports and said side-members, and means for locking the structure in the open condition.

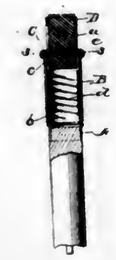
4. In a structure of the character set forth, the combination of a running-gear frame, a handle adapted to fold forwardly thereon, pairs of wheel-supports pivotally united to the sides of said frame, a body comprising a seat, folding back and folding side-pieces, links joining said side-pieces, each to the opposite pair of wheel-supports, and handle-actuated wheel-support actuating means.

5. In a structure of the character set forth, the combination of a running-gear frame, a handle adapted to fold forwardly thereon, pairs of wheel-supports pivotally united to the sides of said frame, a body comprising a seat, folding back and folding side-pieces, links joining said side-pieces, each to the opposite pair of wheel-supports, handle-actuated wheel-supports actuating means, and means for locking the structure in the open position.

[Claims 6 to 20 not printed in the Gazette.]

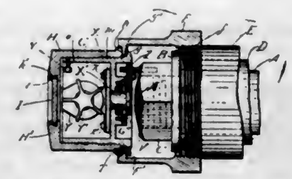
1,027,030. ERASER-TIP FOR LEAD-PENCILS, &c. CLAES W. BOMAN, New York, N. Y., assignor to Eagle Pencil Company, New York, N. Y. Filed Dec. 4, 1911. Serial No. 663,889. (Cl. 120—38.)

An eraser tip comprising a barrel longitudinally slotted on diametrically opposite sides, a block of erasive material contained, and movable, in said barrel, a pronged ring encircling and movable lengthwise of the barrel and provided with prongs which inwardly project through the slots in the barrel and engage from opposite sides the erasive block, and a sleeve mounted and rotatable upon, and having a screw thread engagement with, the barrel, and provided with an annular groove in which the pronged ring takes its bearing and is received and held so as to partake of the longitudinal movement only of the sleeve,



substantially as and for the purposes hereinbefore set forth.

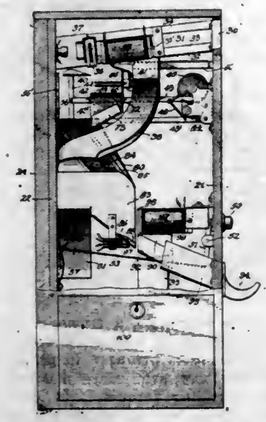
1,027,031. HUB-ODOMETER. HARRY P. C. BROWNE, New York, N. Y. Filed Oct. 19, 1910. Serial No. 587,977. (Cl. 235—95.)



1. In a hub odometer the combination with an axle, a hub and a hub-cap, said hub-cap being mounted over the end of said axle and hub, and having a wall inclosing the end of said axle and hub, the wall of said hub-cap having a hole substantially opposite the end of said axle; of a plug fitting within said hole from the inside of said hub-cap, a seat and flange upon said plug seating said plug in said hole, a spindle journaled in said plug, a cyclometer carried by said spindle, means for operating said cyclometer, said means being mounted upon an extension of said plug, means for restraining said spindle from free rotation relative to said axle, screw threads upon the periphery of said plug; a cap fitting over said plug from the outside of said hub-cap, screw threads at one end of said cap for engaging the said screw threads of said plug, a wall at the other end of said cap, said wall having a window closed by a transparent medium substantially opposite the end of said axle; and means applied from the inside of said hub-cap for locking said plug, said cap and said hub-cap together in place, substantially as described.

2. In a hub odometer the combination with an axle, a hub and a hub-cap, said hub-cap being mounted over the end of said axle and hub, and having a wall inclosing the end of said axle and hub, the wall of said hub-cap having a hole substantially opposite the end of said axle; of a plug fitting within said hole from the inside of said hub-cap, a seat and flange upon said plug seating said plug in said hole, screw threads upon the periphery of said plug; a cap fitting over said plug from the outside of said hub-cap, screw threads at one end of said cap for engaging the said screw threads of said plug, a wall at the other end of said cap, said wall having a window closed by a transparent medium substantially opposite the end of said axle; and means applied from the inside of said hub-cap for locking said plug, said cap and said hub-cap together in place, substantially as described.

1,027,032. COIN-TESTING APPLIANCE. EDWARD A. BUCKMAN, Green Bay, Wis., and HARRY L. FELIO, Chicago, Ill. Filed Aug. 2, 1907. Serial No. 386,776. (Cl. 194—97.)



1. In a coin detecting apparatus, means providing a path for a proper coin including a slideway at an angle to the horizontal down which the coin may slide upon one of its parallel faces under the influence of gravity, the true coin path down said slideway being at an angle to a direct gravitational path, and means, comprising yielding projections for engagement with one of said parallel faces of an object upon the slideway, for deflecting embossed objects from the direct gravitational path into the true coin path, and permitting the passage of smooth objects in the direct gravitational path and out of the coin path.

2. In a coin testing apparatus, means for separating smooth and embossed coins comprising a part affording a normal path for smooth objects and a deflecting agency comprising a large number of yielding projections arranged and adapted for coöperation with the embossed side face of a coin to deflect it from said path.

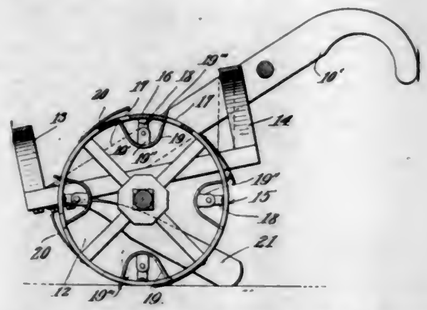
3. In a coin testing apparatus, means for separating smooth from embossed coins comprising a plurality of teeth projecting from an inclined slide, each arranged to yield downwardly and laterally, thereby laterally to deflect an embossed object by the yielding of said teeth under the engagement of the embossed surface of said object.

4. In a coin testing apparatus, a coin slideway terminating in two separated paths, said paths comprising a dischargeway for smooth objects, arranged with respect to the top of the slideway to receive any objects proceeding down it under the influence of gravity alone, and a receiver for embossed objects laterally removed from the said gravitational path, and a plurality of projections upon the surface of said slideway arranged to engage the embossed side face of a true coin, and under the influence of its weight to yield downwardly and laterally toward the last said receiver, thereby to deflect objects into said last said receiver and to permit the gravitational passage of smooth objects into the discharge way.

5. In a coin testing apparatus, means for separating smooth from embossed objects comprising a slideway having a single receiving area at its top and separated discharge passages at its bottom, one of said discharge passages being positioned to receive objects passing from said slideway under the influence of gravity alone, and the other discharge passage being out of such gravitational path, a surface of said slideway engaged by one of the parallel faces of the coin providing a series of projecting points arranged to oppose the passage of an object thereover and disposed to descend under the weight of an object thereover always in the direction tending to carry their points toward the passageway out of the gravitational path.

[Claim 6 not printed in the Gazette.]

1,027,033. COTTON-CHOPPER. JAMES COUNCIL CASSIDY, Patrick, S. C., assignor of one-half to Ichabud Merriman, Chesterfield, S. C. Filed May 11, 1911. Serial No. 626,508. (Cl. 97—49.)



1. In a cotton cultivator, a frame, a wheel supported by said frame, the rim of said wheel being provided with a plurality of apertures arranged in pairs, pivotally supported guard members, said guard members having their end portions extending through said apertures, and resilient means carried by said wheel for extending one of the ends of a member through one aperture, when said means contacts with the ground.

2. In a cotton cultivator, a frame, a wheel supported by said frame, said wheel being provided with a plurality of apertures arranged in pairs, a guard member arranged between each pair of apertures, and spring pressed members secured to said wheel, for forcing one end of said guard member through one of the apertures into contact with the ground.

3. In a cotton cultivator, a frame, a wheel supported by said frame, said wheel being provided with a plurality of apertures arranged in pairs, a member pivotally supported between each pair of apertures, said member being formed with end portions extending through said apertures, and a resilient member arranged for contact with one of said ends to hold said pivoted member against movement.

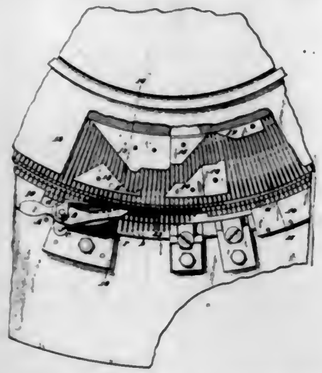
4. In a cotton cultivator, a frame, a wheel supported by said frame, the rim of said wheel being provided with a plurality of apertures arranged in pairs, a pivotally supported guard member, said guard member having its end portions extending through said apertures, and a resilient member arranged to contact with one of said ends to force the other end through one of said apertures.

1,027,034. KNITTING-MACHINE. JOHN S. CRANE, Laconia, N. H., assignor to Crane Manufacturing Company, Lakeport, N. H., a Corporation of New Hampshire. Filed June 16, 1904. Serial No. 212,817. (Cl. 66—22.)

1. A knitting machine having, in combination, main spring bearded needles, ribbing spring bearded needles in a plane substantially at right angles to that of the main needles, knitting-cams for said sets of needles respectively, and a yarn-feed which lays the yarn against the shanks of the main needles only below the points of their beards and above the plane of the ribbing needles and without looping it between said needles, the yarn being looped solely by the subsequent passage of the main needles between the ribbing needles.

2. A knitting machine having, in combination, main spring bearded needles and ribbing spring bearded needles in different planes substantially at right angles to each other, knitting-cams for said sets of needles respectively, and a yarn-feed having two inleading yarn eyes one above the other and both close to the shanks of the main needles whereby the yarns are both laid one above the other against the shanks of the main needles below the points of their beards, and are looped solely by the passage of the main needles through the spaces between the ribbing needles.

3. A knitting machine having, in combination, main spring bearded needles, ribbing spring bearded needles in a plane crossing that of the main needles, knitting-cams for said sets of needles respectively, and a yarn-feed which lays the yarn against the shanks of the main needles only below the points of their beards and above the plane of the ribbing needles and without looping it between said needles, the yarn being looped solely by the subsequent passage of the main needles between the ribbing needles.

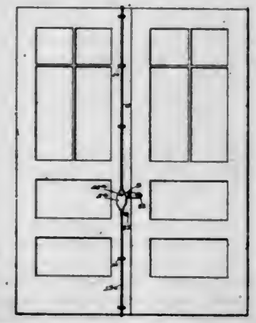


4. A knitting machine having, in combination, bearded needles, a carrier and knitting cams therefor, a stationary yarn-feed, a normally stationary presser beneath said yarn-feed, and a main needle support beneath said presser and in front of said main needles, said support holding said needles from movement away from said carrier.

5. A knitting machine having, in combination, main bearded needles, ribbing needles, carriers and knitting cams therefor, respectively, a yarn-feed, a presser and a main needle support in front of said main needles to support them during the advance of the ribbing needles and to hold them from movement away from their carrier.

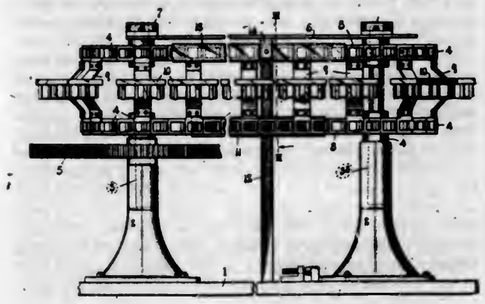
[Claims 6 to 10 not printed in the Gazette.]

1,027,035. BOLTS FOR DOORS. BRUCE L. DAVIDSON and ELIAS B. WELCH, Cleveland, Ohio. Filed July 28, 1910. Serial No. 574,298. (Cl. 16—61.)



A door with two staples thereon, an adjacent member with one staple thereon, a lock on the door including two endwise movable bolts and a lever geared to the bolts to operate them in opposite directions, the lever being arranged to engage one of the staples on the door to secure the bolts in one position, and being hinged and adapted to fold on itself to engage either the other staple on the door or the staple on the adjacent member to secure the bolts in another position.

1,027,036. CONVEYER. JOSEPH W. DAWSON, St. Louis, Mo., assignor to Barry-Wehmiller Machine Company, St. Louis, Mo., a Corporation. Filed May 12, 1910. Serial No. 560,770. (Cl. 193—2.)



In a device of the character described, the combination with sprockets arranged in pairs, on spaced vertical axes, of a pair of parallel endless chain belts carried by said sprockets, a pair of vertical supports disposed on opposite sides of the plane of said axes, a transverse member provided with deflected ends depending outside of the lateral run of said endless belts, guide rails for the upper belt secured to said deflected ends, angle bars carried by said supports intermediate of the lower sprockets, vertical connecting bars connecting corresponding links in said endless belts, and a laterally projecting carrier secured to each connecting bar.

1,027,037. CHECK-DAMPER. JOHN DEMAREST, Springfield, Mass. Original application filed July 18, 1910, Serial No. 572,426. Divided and this application filed July 13, 1911. Serial No. 638,245. (Cl. 126—293.)



1. In a heater, a smoke pipe, direct and indirect outlet flues opening thereinto for the escape of the products of combustion, said smoke pipe having an air inlet between the said outlet flues, an upturned tubular deflector within the smoke pipe and leading from the inlet, a damper for the latter pivotally mounted externally of the smoke pipe, a throttling damper to operate within the smoke pipe adjacent said deflector, and a rigid operating connection between said dampers.

2. In a heater having a heating dome, an indirect outlet flue leading therefrom for the escape of the products of combustion, a smoke pipe with which said flue communicates, said smoke pipe having an air inlet above the flue opening, an upturned deflector leading from said inlet within the smoke pipe, and connected means to govern the entrance of air at the inlet and throttle the products of combustion within the smoke pipe and outside said deflector.

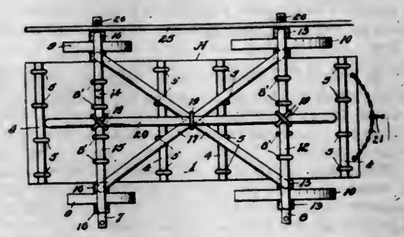
3. In a heater, a smoke pipe, an outlet flue opening thereinto for the escape of the products of combustion, said smoke pipe having an inlet above said outlet flue, an upturned tubular deflector within the smoke pipe and leading from the inlet, a damper for the latter pivotally mounted externally of the smoke pipe, a throttling damper to operate within the smoke pipe adjacent said deflector, and a rigid operating connection between said dampers.

4. In a heater, a smoke pipe, an outlet flue opening thereinto for the escape of the products of combustion, said smoke pipe having an air inlet above said outlet flue, an upturned tubular deflector within the smoke pipe and leading from the inlet, a damper for the latter pivotally mounted externally of the smoke pipe, a curved arm rigidly connected to the inlet damper and projecting up through the tubular deflector, a throttling damper mounted upon the end of said arm to operate within the smoke pipe adjacent said deflector.

5. In a heater, a smoke pipe, direct and indirect outlet flues opening therein for the escape of the products of combustion, said smoke pipe having an air inlet between said outlet flues, an upturned tubular deflector within the smoke pipe and leading from the inlet, a damper for the latter pivotally mounted externally of the smoke pipe, a throttling damper to operate within the smoke pipe adjacent said deflector, a rigid operating connection between said dampers, adjustable means mounted upon the smoke pipe externally thereof and projecting thereinto to limit the lowermost position of the throttling damper.

[Claims 6 to 8 not printed in the Gazette.]

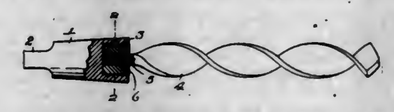
1,027,038. MACHINE FOR BURNING HARDHACK AND THE LIKE. THOMAS E. DOUBT, Chicago, Ill. Filed Dec. 2, 1909. Serial No. 531,091. (Cl. 110—20.)



1. In a device of the class described comprising a wheel supported inclined metallic body, consisting of a pair of metallic sheets suitably spaced apart to form an air-space therebetween, said metallic body being adapted to pass over and crowd the substance to be burned toward the ground, a plurality of tubular braces for strengthening said inclined metallic body, and means carried upon either side of said metallic body and extending downward therefrom to act as a wind shield.

2. A hard-hack burning machine comprising a wheel supported inclined body, consisting of a pair of metallic sheets spaced apart to provide an air-space therebetween, said body being adapted to pass over and bend downward the substance to be burned, tubular means for bracing and strengthening said metallic body, and a metallic sheet adapted to be removably secured to either side of said metallic body and extending downward therefrom.

1,027,039. DRILL. WILLIAM R. DOWN, Reading, Pa. Filed Feb. 17, 1912. Serial No. 678,314. (Cl. 77—71.)

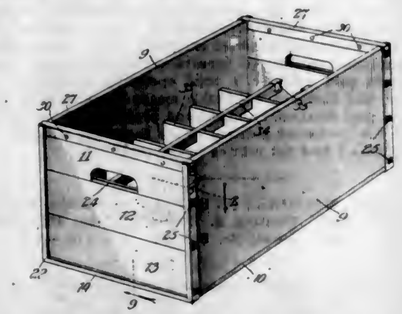


The combination of a twist drill having a flat, relatively short shank, said shank being screw-threaded on its narrower edges, with a socket formed with an internally screw-threaded opening and a flattened chuck engaging portion, and a pair of filling blocks adapted to screw into the socket together with the drill shank.

1,027,040. METAL-BOUND BOTTLE-BOX. ELLSWORTH E. FLORA, Chicago, Ill., assignor to Simplex Metal-Bound Box Company, Chicago, Ill., a Corporation of New Jersey. Filed May 11, 1911. Serial No. 626,438. (Cl. 217—12.)

1. In a metal-bound bottle-box, the combination of end-boards and side-boards, metal binding-strips having trough-

shaped sections, in which the end-portions of the side-boards are contained, and flanges, projecting from the inner edges of the said trough sections, engaging the end-members, and tie-rods extending transversely of the end-boards in the planes of the meeting surfaces thereof and through the side-boards and binding-strips, for the purpose set forth.

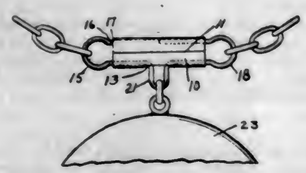


2. In a metal-bound bottle-box, the combination of side-boards, metal binding-strips having trough-shaped sections in which the end-portions of the side-boards are contained, and flanges projecting from the inner edges of said trough-sections, end-boards provided in their edges with recesses in which said flanges are contained, and tie-rods extending transversely of the end-boards and through the side-boards in the planes of the meeting surfaces thereof and binding-strips, for the purpose set forth.

3. In a metal-bound bottle-box, the combination of side-boards, metal binding-strips having trough-shaped sections, in which the end-portions of the side-boards are contained, and flanges projecting from the inner edges of said trough-sections, end-boards each comprising a plurality of parallel members provided in their end-edges with recesses in which said flanges are contained, and tie-rods extending at their ends through opposite side-boards and the binding-strips, in the planes of the meeting surfaces of the end-members, the end-board members being grooved for the passage of the tie-rods, substantially as and for the purpose set forth.

4. In a metal-bound bottle-box, the combination of side and bottom boards and end boards having recesses in their lower edges, metal binding-strips having trough-shaped sections engaging the side and bottom boards and flanges engaging the end-boards, rods extending in the said recesses of the end-boards and through openings in the opposite side-boards, and clips connecting said binding-strips and rods between the side-boards, for the purpose set forth.

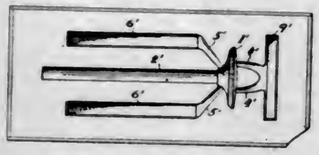
1,027,041. CONNECTOR FOR NECK-CHAINS. OVE L. GAMMELGAARD, Attleboro, Mass., assignor to Electric Chain Company, Attleboro, Mass., a Corporation of Maine. Filed Feb. 29, 1912. Serial No. 680,662. (Cl. 63—21.)



1. A neck chain connector comprising a housing open at each end and having an opening in one edge, a connector member of spring wire in said housing and extending beyond each end thereof, the same having a body portion with a hook whose end is bent back substantially against the housing whereby the end of the housing forms a closure for the mouth of the hook, the opposite end of said body portion being bent in a loop and returned within the housing, said body portion being bent outward between said ends into a loop extending through said opening on which a charm may be hung and by which the hook may be operated.

2. A neck chain connector comprising a housing open at each end and having an opening in one edge, a connector member of spring wire in said housing and extending beyond each end thereof, the same having a body portion with a hook at one end whose point is bent back substantially against the end of the housing whereby the end of the housing forms a closure for the mouth of the hook, the opposite end of said body portion being bent in a loop and returned a short distance within the housing, said body portion being bent outward into a loop extending through said opening on which a charm may be hung and which may be pressed inward to force the hook point clear of the housing and permitting a free entrance to the hook.

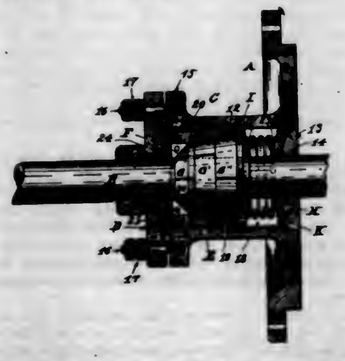
1,027,042. MOLD. GEORGE W. GOLDEN, Detroit, Mich. Filed Dec. 12, 1910. Serial No. 596,755. (Cl. 22—160.)



1. A mold for the purposes specified comprising a print for a bar, a pattern chamber at one end of the bar print, a gate adjacent the outer side of the chamber and in communication therewith through a pair of divergent gate runners, and a pair of overflow pockets connected with the chamber by overflow channels, the gate runners and overflow channels being adapted to direct metal entering the chamber in and around the end portion of a bar placed in the bar print until the pockets have been filled.

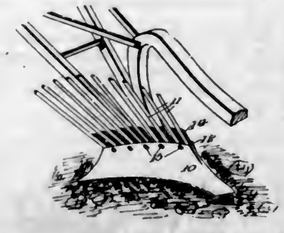
2. A mold for the purposes specified comprising a print for a bar, a pattern chamber at one end of the bar print, a gate adjacent the outer side of the chamber and in communication therewith through a pair of divergent gate runners, a pair of overflow pockets, and overflow channels connecting the chamber and pockets, the cross section of the pocket channels being least at their outlets into the pattern chamber.

1,027,043. METALLIC ROD-PACKING. ADOLF GOTTWALD, Chicago, Ill. Filed Dec. 27, 1910. Serial No. 599,239. (Cl. 121—109.)



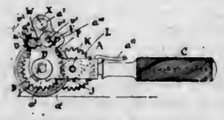
In combination with a cylinder head having a cylindrical shell, a gland secured to the outer end of the shell, said gland being formed on its inner face with a comparatively shallow central tapering bore having a bottom wall which is flat, the greatest diameter of which bore is approximately equal to the diameter of the inner circumference of the shell, a ring having a tapered periphery conformably received in said tapering bore and being of a thickness slightly less than the depth of said bore, so that the outer face of the ring is substantially flush with the inner face of the gland, the inner face of the ring being normally spaced from the bottom wall of said tapering bore, a tubular sleeve having its outer end closed and bearing against the outer face of said ring, packing rings in said sleeve, and a spring to force said packing rings in the sleeve and to force the closed end of the latter against the outer face of said ring.

1,027,044. OPEN MOLDBOARD FOR PLOWS. ADOLPH P. GUBRUD, Hudson, S. D. Filed Sept. 7, 1910. Serial No. 580,841. (Cl. 97—18.)



In combination with a share, a skeleton mold board composed of U-shaped rods each provided at both of its side portions with a shoulder, said rods being of uniform transverse sectional area throughout their lengths, the shoulders of all of the rods being seated upon the upper edge of the share, a bar having recesses which receive the rear side portions of the rods and which is spaced by the rods from the share and having a portion which lies over the shoulders of the rods, and draw bolts passing transversely through the share and bar and located one between the side portions of each rod and spaced from the side portions of the rods, whereby the rods are clamped in position between the share and the bar by the drawing action of the bolts.

1,027,045. HONING AND STROPPING DEVICE. ADOLF K. HANSON, Milwaukee, Wis., assignor, by direct and mesne assignments, to The Machinery & Specialty Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Aug. 30, 1911. Serial No. 646,795. (Cl. 51—16.)



1. In a sharpening-device for razor-blades, the combination of carrier-wheels adapted to support the device and roll upon a plane surface, a sharpening-wheel and means for holding a blade in proper sharpening relation thereto, and a multiplying-gearing connecting said sharpening-wheel with one of said carrier-wheels and adapted to drive said sharpening-wheel at a higher relative speed of rotation.

2. In a sharpening-device for razor-blades, the combination of carrier-wheels adapted to support the device and roll upon a plane surface, a sharpening-wheel mounted coaxially with one of said carrier-wheels, and a multiplying-gearing operatively connecting said last-named carrier-wheel with said sharpening-wheel and producing a relatively higher rate of rotation in the latter.

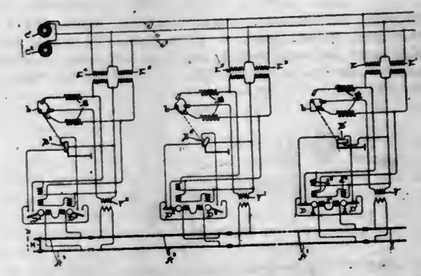
3. In a sharpening-device for razor-blades, the combination of a pair of coaxially mounted carrier-wheels one of which is a driving-wheel, a gear-wheel mounted coaxially therewith and driven thereby, a countershaft carrying a pinion meshing with said first-named gear-wheel and carrying also another gear-wheel, a second pinion mounted coaxially with said carrier-wheels and meshing with said last-named gear-wheel, and a sharpening-wheel mounted coaxially with said carrier-wheels and operatively connected with said last-named pinion.

4. In a sharpening-device for razor-blades, the combination of a fixed axle provided with a helical thread and with journals at its ends, a pair of carrier-wheels mounted and turning on said journals, one of said wheels acting as a driving-wheel, a sharpening-wheel turning on said axle and having an internal-thread engaging the thread thereof, a driving-hub turning on one of said journals and adapted to rotate said sharpening-wheel while permitting its axial movement, and a gearing operatively connecting said driving-wheel with said hub and adapted to rotate it at a higher relative rate of rotation.

5. In a sharpening-device for razor-blades, the combination of a three-sided frame having a central handle, a pair of carrier-wheels mounted on said frame and only one of which acts as a driving-wheel, a rotary sharpening-device operatively connected with said driving-wheel, and a thumb-rest on said frame at the same side of said handle as said driving-wheel.

[Claims 6 to 10 not printed in the Gazette.]

1,027,046. BLOCK-SIGNAL SYSTEM. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor, by mesne assignments, to Union Switch and Signal Company, a Corporation of Pennsylvania. Filed Oct. 2, 1909. Serial No. 520,651. (Cl. 246—30.)



1. In a block signal system, track circuits for the blocks, sources of current of different frequencies, supply connections for supplying currents from said sources to the track circuits, means controlled by train movements for varying said supply connections to vary the frequencies of the currents supplied to the track circuits, and a pair of track relays per block having track windings and coöperating windings supplied with current independently of the track circuits, one relay of each pair being responsive to current in the track circuit from the supply connections for that block regardless of the variations in said connections and the other relay being responsive to current with one arrangement only of said supply connections.

2. In a block signal system, track circuits for the blocks, signals for the blocks adapted to indicate danger, caution and clear, sources of current of different frequencies, supply connections for supplying current from said sources to the track circuits, means controlled by the movement of a signal from danger to caution for varying the supply connections of the preceding block to vary the frequency of the current delivered to the track circuit of said block, and a pair of track relays per block, controlling the signal indications, having track windings and coöperating windings supplied with current independently of the track circuits, one relay of each pair being responsive to current in the track circuit for that block regardless of the variations

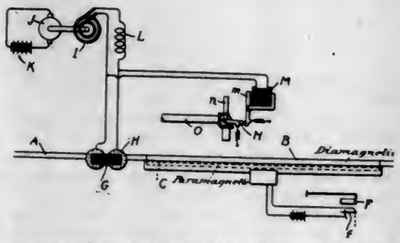
in the supply connections and the other relay being responsive to current with one arrangement only of said supply connections.

3. In a block signal system, track circuits for the blocks, means controlled by train movements for supplying to the track circuit of each block currents of either of two frequencies, and a pair of track relays per block having track windings and coöperating windings supplied with current independently of the track circuits, said coöperating windings being supplied with both frequencies in one relay of each pair and with only one frequency in the other relay of the pair.

4. In a block signal system, track circuits for the blocks, signals for the blocks adapted to indicate danger, caution and clear, sources of current of two different frequencies, supply connections for supplying current from said sources to the track circuits of the blocks, means controlled by the movement of a signal from danger to caution for shifting the supply connections of the preceding block from one frequency to the other, and a pair of track relays per block, controlling the signal indications, having track windings and coöperating windings supplied with current independently of the track circuits, said coöperating windings being supplied with both frequencies in one relay of each pair and with only one frequency in the other relay of the pair.

5. In a block signal system, track circuits for the blocks, means controlled by train movements for supplying to the track circuit of each block currents of different frequencies, and a pair of track relays per block having track windings and coöperating windings supplied with current independently of the track circuits, one relay of each pair being responsive to each current supplied to the track circuit of the block and the other relay being responsive to one of said currents only.

1,027,047. AUTOMATIC TRAIN-STOP. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor, by mesne assignments, to Union Switch and Signal Company, a Corporation of Pennsylvania. Filed July 26, 1910. Serial No. 573,908. (Cl. 246—25.)



1. In combination with the track rails of a railway, non-magnetic spaces in said rails, means for magnetically bridging the non-magnetic spaces, a magnetic core having an open magnetic circuit carried on a vehicle with its poles adjacent to the track rail, a coil on said core, means for supplying alternating current to said coil, and a device on said vehicle responsive to a decrease in the reactance of said coil.

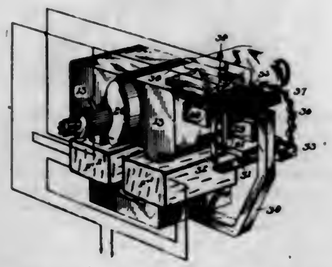
2. In combination with the track rails of a railway, non-magnetic spaces in said rails, means for magnetically bridging the non-magnetic spaces, a magnetic core having an open magnetic circuit carried on a vehicle with its poles adjacent to the track rail, a coil on said core, means for supplying alternating current to said coil, and a device on said vehicle responsive to a drop in the terminal voltage of said coil.

3. In combination with the track rails of a railway, non-magnetic spaces in said rails, means for magnetically bridging the non-magnetic spaces, a magnetic core having an open magnetic circuit carried on a vehicle with its poles adjacent to the track rail, a coil on said core, means for supplying alternating current to said coil, a device on said vehicle responsive to a decrease in the reactance of said coil, and speed-controlling means on said vehicle controlled by said device.

4. In combination with the track rails of a railway, non-magnetic spaces in said rails, means for magnetically bridging the non-magnetic spaces, a magnetic core having an open magnetic circuit carried on a vehicle with its poles adjacent to the track rail, a coil on said core, a source of alternating current on said vehicle connected to said coil, an impedance device in series with said coil, and a magnet winding in shunt to said coil.

5. In combination with the track rails of a railway, non-magnetic spaces in said rails, means for magnetically bridging the non-magnetic spaces, a magnetic core having an open magnetic circuit carried on a vehicle with its poles adjacent to the track rail, a coil on said core, a source of alternating current on said vehicle connected to said coil, an impedance device in series with said coil, a magnet winding, and connections for impressing on said magnet winding a voltage varying directly as the flux in said core.

1,027,048. ELECTRIC MOTOR. LAURENCE A. HAWKINS, Schenectady, N. Y., assignor, by mesne assignments, to Union Switch and Signal Company, a Corporation of Pennsylvania. Filed Nov. 8, 1911. Serial No. 659,127. (Cl. 172—152.)



1. In combination, an electric motor, and a braking device for the motor comprising a shunt field winding on the motor and a contact controlled by the magnetic flux in the motor field and arranged to control the said shunt field winding.

2. In combination, an electric motor; and a braking device for the motor comprising a shunt field winding on the motor, an auxiliary armature responsive to the presence and absence of magnetic flux in the field of the motor, and a contact operated by the auxiliary armature and arranged to control the shunt field winding.

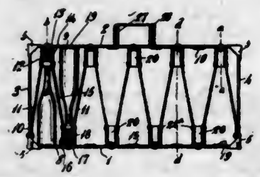
3. In combination, an electric motor, and a braking device for the motor comprising a shunt field winding on the motor, an auxiliary armature responsive to the presence and absence of magnetic flux in the motor field, and a contact operated by the auxiliary armature and arranged to control the said shunt field.

4. In combination, an electric motor, a source of current for the motor; and a braking device for stopping the movement of the motor when the source of current is cut off from the motor, comprising a shunt field winding on the motor, and a contact controlled by the magnetic flux in the motor field and arranged to control the said shunt field winding.

5. In combination, an electric motor, a source of current for the motor; and a braking device for stopping the movement of the motor when the source of current is cut off from the motor, comprising a shunt field winding for the motor, an auxiliary magnetic circuit for the motor adapted to be energized or deënergized according to whether or not the motor is supplied with current from the said source, an armature controlled by said auxiliary magnetic circuit, and a contact operated by the said armature and adapted to control the said shunt field winding.

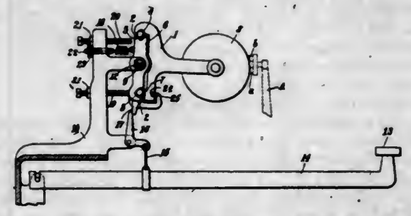
[Claims 6 to 9 not printed in the Gazette.]

1,027,049. BOTTLE CARRYING AND HOLDING CASE. LEVI P. HAZEN, Cincinnati, Ohio. Filed June 28, 1909. Serial No. 504,713. (Cl. 220—111.)



A compartment-box for holding and carrying bottles, comprising an open rectangular frame having reinforced corners, a strip of sheet-metal bent to form V-shape and inverted V-shape compartments along the interior of said open rectangular frame and attached at its opposite ends to the end walls of said frame, a spring-pressure cap mounted in the narrow portion of each compartment, a closure-frame or shield for said spring-pressure cap and inwardly-disposed projections provided in the top and bottom members of said open rectangular frame in the bottom of the broad parts of said V-shape and inverted V-shape compartments.

1,027,050. TYPE-WRITING MACHINE. FREDERIC W. HILLARD, Tottenville, N. Y. Filed Jan. 31, 1910. Serial No. 541,195. (Cl. 197—69.)



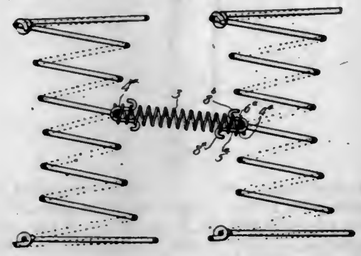
1. In a front strike typewriter, the combination with a laterally-movable platen carriage, of two sets of rollers on which the carriage runs, a vertically arranged race bar for the rollers, connected to the carriage and having a downwardly facing race-way at the top and a rearwardly facing race-way at the bottom, an operable vertically arranged shift frame for the rollers having an upwardly facing race-way at the top and a frontwardly facing race-way at the bottom, the upper race-ways and interposed rollers being arranged in a vertical plane, the lower ones arranged in a horizontal plane, and the pivotal axes of the shift frame and platen and the impact point at the front of the platen arranged in a horizontal plane at a level between the upper and lower race-ways.

2. In a front strike typewriter, the combination with a laterally movable platen carriage, of two non-opposing race-ways therein in the rear of the platen, a race bar having two race-ways, non-opposing with respect to each other but oppositely disposed with relation to the race-ways on the carriage, interposed rolling devices between said race-ways which entirely support the carriage and on which the carriage is adjusted to position by gravity, and a locking device arranged to prevent escape of the carriage and interposed rolling devices from the race-ways.

3. In a front strike typewriter, the combination with a laterally movable platen carriage, arranged and adapted to be held by gravity in one printing position, of two sets of rollers on which the carriage runs, a vertically arranged race-bar connected to the carriage and having a downwardly facing race-way at the top, and a rearwardly facing race-way at the bottom, an opposable vertically arranged shift frame having an upwardly facing race-way at the top and a frontwardly facing race-way at the bottom, said rollers being interposed in said race-ways, and a spring connecting the shift frame to the main frame and tending to lift the platen to another printing position.

4. In a front strike writing machine, the combination with the machine frame and a series of rearwardly striking types, of an oscillatory platen carriage, a race bar whereon said carriage runs, a pivotal support for the race bar, two race ways in the race bar on opposite sides of its pivotal support, corresponding race ways in the carriage and rolling devices in the race ways, and a spring connecting the race bar to the machine frame, and constantly tending to lift the carriage and to revolve one set of race ways in one direction and the other one in the opposite direction.

1,027,051. SPRING STRUCTURE. OZELLO R. HUNT, Chicago, Ill., assignor of one-half to William Van Middlesworth, Chicago, Ill. Filed Mar. 29, 1912. Serial No. 687,030. (Cl. 5—29.)



1. In a spring structure of the character set forth, the combination with upholstering springs provided with end rings, of connectors on said end rings having guide portions and hook portions, and small coil-springs having convolutions embracing said guide portions and engaging said hook portions and also engaging said end rings.

2. In a spring structure of the character set forth, the combination with upholstering springs, of connectors engaging the upholstering springs and extending away from the same, and small coil-springs having convolutions engaging said connectors and engaging the upholstering springs, said connectors having means for exerting tension on said coil-springs.

3. In a spring structure of the character set forth, the combination with upholstering springs, of clips having hooked engagement with the upholstering springs and extending away from the same and provided with hooks turned toward the springs, and small coil-springs having convolutions embracing said clips and engaging the upholstering springs and the hooks of said clips.

4. In a spring structure of the character set forth, the combination with upholstering springs, of U-form connectors having web portions engaging the upholstering springs and provided with convolution-engaging hooks, and small coil-springs having convolutions embracing the members of said U-shaped connectors and confined between the upholstering springs and said hooks.

5. In a spring structure of the character set forth, the combination with a pair of upholstering springs, of U-form wire clips having limbs separated by a space, a limb of each connector provided with a curved end affording a hook, and a small coil-spring having convolutions at each end portion embracing the limbs of the connector thereat and confined between the upholstering spring and the hook on said limb.

[Claim 6 not printed in the Gazette.]

1,027,052. PUMP-OPERATING MECHANISM. THOMAS J. JOHNSON, Norman, Okla. Filed Aug. 22, 1911. Serial No. 645,358. (Cl. 103—62.)

1. A pump comprising two cylinders mounted for reciprocation and having pistons slidably mounted therein, caps mounted upon the upper ends of the cylinders, wheels connected in pairs and journaled in the caps, one member of each pair being operatively connected with the piston in the same cylinder upon which the pair of wheels is sup-

ported, and means for rotating the other wheels of the pairs as the cylinders reciprocate.



2. In combination with two cylinders mounted for reciprocation with pistons slidably mounted therein, and an operating means located at the upper end of each cylinder and consisting of gear wheels of different diameter, the gear wheel of smaller diameter being operatively engaged with the piston rod and the gear wheel of larger diameter being operatively connected with the other cylinder.

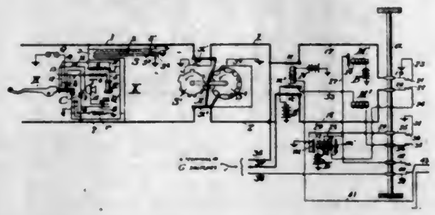
3. In combination with cylinders mounted for reciprocation and pistons slidably mounted therein, an operating means located at the upper end of each cylinder and consisting of gears wheels of different diameters, one of which is operatively engaged with the piston rod and the other of which is operatively connected with the other cylinder, a cable connected at one end with the upper end of each piston rod and at its other end with the cylinder in which the said rod is located, and a cable mounted for movement over a pulley located above both cylinders and carrying at its ends pulleys over which the first mentioned cables are trained.

4. In combination with cylinders mounted for reciprocation and pistons slidably mounted therein, an operating mechanism located at the upper end of each cylinder and consisting of gear wheels of different diameters, one of which operatively engages the piston rod and the other operatively engages the other cylinder, a pulley journaled above the cylinders, a cable trained over said pulley, pulleys carried at the ends of said cable, cables attached at one end to the upper ends of the piston rods and trained over the last mentioned pulleys and connected at their other ends with the upper portions of the cylinders in which the said piston rods are located, and means connected with one of the last mentioned cables to move the same longitudinally.

1,027,053. COMBINED AUTOMATIC TELEPHONE-EXCHANGE AND FIRE-ALARM SYSTEM. JACOB W. LATTIG and CHARLES LANE GOODRUM, Rochester, N. Y., assignors to American Automatic Telephone Company, Rochester, N. Y., a Corporation. Filed Mar. 17, 1906. Serial No. 306,659. (Cl. 179—5.)

1. In a combined telephone and special service system, subscribers' lines, automatic switches adapted to be controlled by said lines to effect inter-connection therebetween, signal apparatus associated with said switches and special calling devices at one or more subscribers' stations for effecting connection through the automatic switches with said signal apparatus and to automatically operate said signal apparatus when the connection therewith is established.

2. In a combined telephone and special service system, a plurality of subscribers' lines, automatic switching devices for interconnecting the same, signal apparatus associated with the automatic switching devices, and special means associated with one or more of said subscribers' lines for sending a series of pre-arranged impulses adapted to operate the switching devices, and by means thereof to connect with and actuate the said signal apparatus.



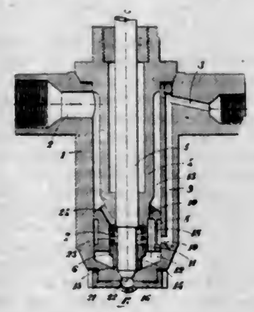
3. In a combined telephone and special service system, a plurality of subscribers' lines, automatic switching devices controllable over the lines for effecting inter-connection between the said lines, a special signal apparatus connected with said switch, and special signal sending means associated with one or more subscribers' lines and comprising mechanical circuit changers, movable to produce the predetermined signal necessary to select a signal apparatus at central and operate the same.

4. In a combined telephone and special service system, comprising a plurality of subscribers' lines, automatic switches controllable thereover to effect inter-connection therebetween, a special receiving apparatus associated with the switches and special sending devices associated with one or more of the subscribers' lines, adapted to send only the code number necessary to select the receiving apparatus and the number or code indication of its line for record by the receiving apparatus.

5. In a combined telephone and special service system, subscribers' lines and automatic telephone exchange apparatus for interconnecting the same, together with special signal receiving means accessible only through the telephone exchange apparatus, and signal wheels associated with one or more of the subscribers' lines, having teeth arranged to send code numbers over the lines to select the special receiving means, and to record thereon the line numbers calling.

[Claims 6 to 10 not printed in the Gazette.]

1,027,054. ATOMIZER FOR LIQUID-FUEL MOTORS. JOSEPH LEFLAIVE, St.-Étienne, France, assignor to The Societe des Moteurs Sabathé, St.-Étienne, France, a Corporation of France. Filed Aug. 14, 1911. Serial No. 644,024. (Cl. 137—80.)



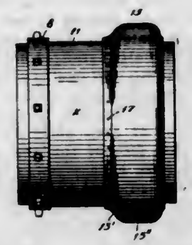
1. The combination in an atomizer provided with an inner and outer casing, an aperture in the outer casing and a needle to coöperate therewith, of passages in said casings adapted to conduct oil to the aperture, a second set of passages independent of the first set adapted to conduct compressed air to the aperture, and a passage

adapted to allow the compressed air to act on the oil to force it toward the aperture.

2. In an atomizer, an outer casing provided with an aperture, an inner casing, a needle to coöperate with said aperture carried by said inner casing, passages in the outer casing, passages in the inner casing coöperating with the first named passages to conduct the oil to the aperture, a second set of passages in the inner casing and a clearance between the casings to coöperate with said second set of passages to conduct compressed air to the said aperture, passages connecting the said clearance with the said oil passages to allow the compressed air to exert a pressure on the oil to force it toward the aperture.

3. In an atomizer, an outer casing provided with an aperture, an inner casing, a needle carried by said inner casing adapted to close said aperture, passages in said casings, an oil chamber between said casings adjacent the aperture, passages in said casings adapted to conduct oil to said chamber, passages substantially at right angles to the axis of the atomizer to conduct the oil from said chamber to the aperture, an air chamber in said inner casing, means to conduct compressed air to said chamber, passages substantially parallel to the longitudinal axis of the atomizer and adjacent the needle to conduct the air from said air chamber to the aperture, and means to exert a pressure on the oil in said oil chamber.

1,027,055. CONCRETE-MIXER. CHRISTOPHER W. LEVALLEY, Milwaukee, Wis. Original application filed Nov. 10, 1908, Serial No. 461,891. Divided and this application filed Jan. 6, 1912. Serial No. 669,841. (Cl. 83—73.)

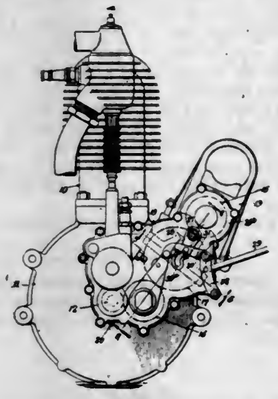


1. In a machine for mixing concrete, a rotatable drum having a substantially cylindrical portion into which the material is first delivered and where the preliminary mixing takes place, and a second section near the delivery end of the drum having curved circumferential bulging side walls and an end wall in which is an axially disposed discharge opening, the diameter of which opening is less than the interior diameter of any portion of the drum, the said second section of the drum being adapted to receive substantially an entire charge of the material and retain it during the final mixing thereof.

2. In a machine for mixing concrete, a rotatable mixing drum having axially disposed openings in its end walls, and comprising a cylindrical section where the material is first delivered and mixed, and another, circumferentially bulging, section near the delivery end of the drum for the final mixing of the material and formed with a substantially cylindrical part near its end wall and an outwardly curved part forming an inner concave surface over which the material being mixed passes, located between the said cylindrical part of the first mentioned section and the cylindrical part of the bulge section the axial opening at the discharge end of the drum being of less diameter than the interior diameter of any portion of the drum, and mixing and lifting flights carried by each of the sections of the drum.

3. In a machine for mixing concrete, a rotatable mixing drum having an axially disposed opening in its discharge end wall of a diameter less than the interior diameter of any portion of the drum, the portion of the drum adjacent to the discharge end being of circumferentially bulging construction and larger in diameter than the portions of the drum toward the feed end, whereby there is formed a collecting pocket or section in which an entire charge of mixed concrete may be retained before final discharge, in combination with adjustable discharge devices under the control of the operator, arranged to deliver the material from the drum or return it toward the front of the drum for further mixing, accordingly as such devices are set.

1,027,056. MEANS FOR ADVANCING OR RETARDING A MAGNETO-SHAFT RELATIVE TO A MOTOR-SHAFT. AXEL LEVEDAHL, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Aurora, Ill., a Corporation of Illinois. Filed Sept. 2, 1910. Serial No. 580,223. (Cl. 123—149.)



1. In an explosive engine, in combination with a gear casing, a motor shaft mounted in said casing, a magneto, a driving gear actuated by the motor shaft, a driven gear having driving connection with the magneto, and an idle gear intermediate to, and intermeshing with, the said driving and driven gears, said idle gear being so movably mounted as to afford movement of its central axis in a direction transverse to a straight line passing through the axes of the said driving and driven gears, in a path separate from, and intermediate to, the two circular paths in which said axis would travel if swung about the axes of said driving and driven gears, and means for shifting said idle gear relatively to the driving and driven gears.

2. In combination with a motor shaft, a magneto and magneto shaft, a driving gear actuated by the motor shaft, a gear on the magneto shaft, an idle gear intermediate to, and intermeshing with, said driving gear and said magneto gear, a sliding frame in which said idle gear is journaled, said frame being adapted to move in a direction transverse to a straight line connecting the central axes of the driving and magneto gears, and means for shifting said frame to move the central axis of said idle gear to one side or the other of said straight line.

3. In an explosive engine, in combination with a gear casing, a motor shaft mounted in said casing, a magneto and a magneto shaft, a driving gear actuated by the motor shaft, a gear on the magneto shaft, an idle gear intermediate to, and intermeshing with, said driving gear and said magneto gear, a sliding frame in which said idle gear is journaled, said frame being mounted in said casing and adapted for movement in a direction transverse to a straight line connecting the central axes of said driving and magneto gears, a rock shaft journaled in said casing, a rock arm on said shaft, means connecting said rock arm with said sliding frame and means for actuating said rock shaft to shift said frame for moving the central axis of the idle gear to one side or the other of said line.

4. In an explosive engine, in combination with a gear casing, a motor shaft mounted in said casing, a magneto

and a magneto shaft, a driving gear actuated by the motor shaft, a gear on the magneto shaft, an idle gear intermediate to, and intermeshing with, said driving gear and said magneto gear, a sliding frame in which said idle gear is journaled, said sliding frame being mounted in said casing and adapted for movement in a direction transverse to a straight line connecting the central axes of of said driving and driven gears, said frame being provided with laterally extending lugs, a rock shaft journaled in said casing, a rock arm on said shaft adapted to engage said lugs, and means for actuating said rock shaft to shift said frame for moving the central axis of the idle gear to one side or the other of said straight line.

5. In an explosive engine, in combination with a gear casing having front and rear walls, a motor shaft mounted in said casing, a magneto and a magneto shaft, a driving gear actuated by the motor shaft, a gear on the magneto shaft, an idle gear intermediate to, and intermeshing with, said driving gear and said magneto gear, a sliding frame in which said idle gear is journaled, said frame being mounted in a guide recess in the rear wall of said casing and adapted for movement in a direction transverse to a straight line connecting the central axes of said driving and driven gears, lugs on said sliding frame, a rock shaft journaled in said casing, a rock arm secured to said rock shaft and adapted to engage said lugs, and means for actuating said rock shaft to shift said frame for moving the central axis of the idle gear to one side or the other of said line.

[Claims 6 and 7 not printed in the Gazette.]

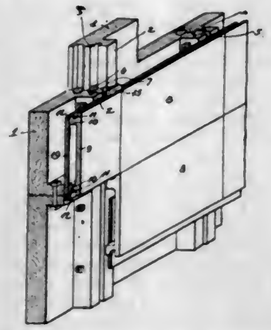
1,027,057. DEVICE FOR SMOOTHING HOLES IN RESETTING SHOE-BUTTONS. EDWARD H. MAGNUS, Toledo, Ohio. Filed Oct. 14, 1910. Serial No. 587,128. (Cl. 12—1.)



In a device of the class described, a support having a laterally extending integral arm, a shaft through the arm, a smoothing and pressing roller fixed upon one end of said shaft, an arm guided for vertical movement in the support, a shaft through the movable arm, a smoothing and pressing roller at the end of the last named shaft, intermeshing gears carried by the shafts, a spring operating to force the movable arm away from the integral arm, and a screw to adjust the movable arm relative to the integral arm.

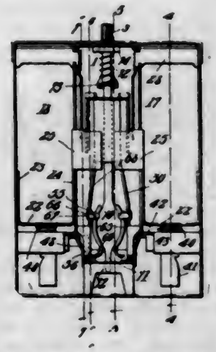
1,027,058. BUILDING STRUCTURE. MITCHELL F. MCCARTHY, New York, N. Y. Filed Mar. 31, 1910. Serial No. 552,713. (Cl. 72—37.)

1. In a building structure, the combination of structural blocks arranged edge to edge to form a main wall and each having a longitudinal groove in its engaging edge, said grooves registering to form a longitudinal channel, the edges of each block between the groove and a side face of the block being cut away to leave a gap, the gaps of adjacent units registering to form longitudinal entrance passageway from the adjacent faces of the blocks inwardly to the channel formed between the edges of the blocks, finish units applied to the adjacent faces of the main blocks and edge to edge to form an inner wall, the engaging edge of each finish unit having a longitudinal groove and the grooves of engaging edges registering to form a longitudinal channel, the section of the engaging edges between the adjacent faces of the main block and said finish unit channel being cut away to leave a gap and the gaps of adjacent finish units registering to form a passageway from the adjacent outer faces of the finish units to the channel, and keys having body parts and heads slidable in said gaps and channels respectively to lock the finish units in various positions to the main blocks.



2. In a building structure, the combination of main blocks of cementitious material arranged edge to edge to form a main outer wall, each block having in its engaging vertical edge a longitudinal groove and the grooves of adjacent blocks registering to form a longitudinal channel, each block between its groove and one of its sides being of reduced width whereby a passageway is formed between adjacent blocks leading to said channel formed between the blocks, said gap being narrower than said channel, inner finish units arranged edge to edge to form an inner wall, each finish unit having a longitudinal groove in its horizontal engaging edge registering with a similar groove in the adjacent unit to form a longitudinal channel, the section of each block between the groove therein and the side face of the unit being of reduced width whereby to form a passageway from said face to said channel between adjacent units, said passageway being narrower than said channel, and keys extending through said passageways and having heads engaging in said channels for locking the inner finish units to the outer blocks.

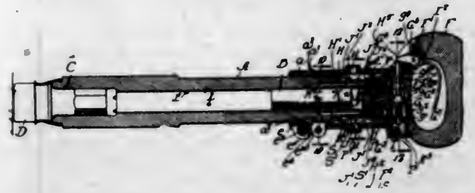
1,027,059. VENDING-MACHINE. NOAH N. NEHER, Los Angeles, Cal. Filed Dec. 22, 1910. Serial No. 598,769. (Cl. 211—8.)



1. A vending machine having a casing, a spring actuated package ejector mounted therein, a lid hingedly connected to the casing to be engaged by a package during the ejection thereof by the ejector, and a spring at the hinge of said lid exerting a tension to hold the lid closed and while the package is protruded to engage the package, whereby the package will retain the lid in open position and being itself retained in protruded position.

2. A vending machine of this character, having a casing, said casing being divided into two vertically disposed and parallel compartments, a lid hingedly connected to the upper end of the casing for controlling the upper end of its respective compartments, and a spring hinge to each lid and normally holding the lid in closed position, a spring actuated package ejector mounted in each compartment and normally exerting a tension upwardly and toward its respective lid, whereby the package carried by said ejector is projected against the lid to raise the same, the spring tension of the hinge upon the lid retaining the protruded package within the compartment but above the open end of the said compartment, and said package in turn retaining the lid in open position.

1,027,060. PNEUMATIC HAMMER. REINHOLD A. NORLING, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Aurora, Ill., a Corporation of Illinois. Filed Mar. 8, 1910. Serial No. 547,977. (Cl. 121—20.)



1. The combination with a cylinder and a plunger therein, of a live air actuated controlling valve and an auxiliary valve operated by air compressed in the inner end of the cylinder in the backward stroke of the plunger, for controlling the admission of live air for actuating said controlling valve, and means controlled by said auxiliary valve for admitting a small amount of air to the inner end of the cylinder simultaneously with the admission of air to actuate the controlling valve.

2. The combination with a cylinder and a reciprocating plunger therein, of a controlling valve for controlling the admission and exhaust of air into and from the cylinder, embracing a valve co-axial with said cylinder and having oppositely facing, differential pressure areas, means controlled by the plunger for admitting live air to the larger pressure area of said valve, an auxiliary valve controlling the admission of live air to the smaller pressure area of said main valve, said auxiliary valve being operated by pressure of air compressed in the inner end of the cylinder in the backward stroke of the plunger, and means controlled by said auxiliary valve for admitting a small amount of live air to the inner end of the cylinder simultaneously with the admission of live air to the smaller pressure area of said main valve.

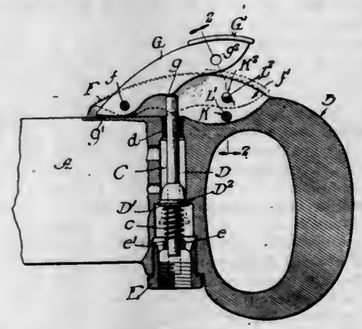
3. The combination with a cylinder and a reciprocating plunger therein, of a controlling valve for controlling the admission and exhaust of air into and from the cylinder, embracing a valve co-axial with said cylinder and having oppositely facing, differential pressure areas, means controlled by the plunger for admitting live air to the larger pressure area of said valve, and an auxiliary valve co-axial with said main valve controlling the admission of live air to the smaller pressure area of said main valve, said auxiliary valve being operated by pressure of air compressed in the inner end of the cylinder in the backward stroke of the plunger, and means controlled by said auxiliary valve for admitting a small amount of live air to the inner end of the cylinder simultaneously with the admission of live air to the smaller pressure area of said main valve.

4. The combination with a cylinder and a reciprocating plunger therein, of a controlling valve for controlling the admission and exhaust of air into and from the cylinder, embracing an annular valve co-axial with said cylinder having oppositely facing, differential pressure areas, means controlled by the plunger for admitting live air to the larger pressure area of said valve, an auxiliary valve co-axial with and located within said main valve adapted to control the admission of live air to the smaller pressure-area of said main valve, said auxiliary valve being operated by the pressure of air in the inner end of the cylinder in the backward stroke of the plunger and means controlled by said auxiliary valve for admitting a small amount of air to the inner end of the cylinder simultaneously with the admission of air to actuate the controlling valve.

5. The combination of a cylinder provided at its inner end with an auxiliary valve chamber opening into and forming an endwise extension of the bore of said cylinder, a reciprocating plunger in said cylinder, a main controlling valve having oppositely facing, differential pressure areas, means controlled by the plunger for admitting live air to the larger pressure area of said valve, and a valve piston arranged to slide in said auxiliary valve chamber for controlling the admission of live air to the smaller pressure area of said main controlling valve, said valve piston having a larger pressure area subject to the action of air compressed by the plunger in the inner end of the cylinder, and a smaller pressure area subject to constant live air pressure.

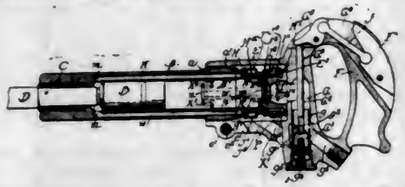
[Claims 6 to 18 not printed in the Gazette.]

1,027,061. AUTOMATIC THROTTLE-VALVE-LOCKING MECHANISM FOR PNEUMATIC TOOLS. REINHOLD A. NORLING, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Aurora, Ill., a Corporation of Illinois. Filed Mar. 8, 1910. Serial No. 547,978. (Cl. 136—11.)



In a pneumatic hammer, the combination with a barrel provided with a transversely arranged handle on the inner end thereof and with longitudinal, outwardly extending, parallel ribs located at one end of said handle, a normally closed throttle valve in said barrel for controlling the supply of pressure fluid thereto, said valve being located adjacent to said handle, a stem for said valve arranged transversely of the barrel and projecting outwardly therefrom into the space between said ribs, a hand-controlled lever pivotally mounted between said ribs and adapted to act on said stem to open said valve, said handle being provided with a hole extending transversely through the same and with a second hole extending through one of said ribs, parallel with and outside of the first-named hole, a catch member consisting of a U-shaped rod having rigidly connected long and short legs mounted and adapted to slide in said holes, the shorter leg being located in the outermost hole and being provided with a beveled end which normally projects into the path of said lever; said lever being provided with an opening adapted to be engaged by the beveled end of said shorter leg, and the said longer leg projecting laterally outside of the handle, and a spring adapted for yieldingly holding said catch member in position for engagement of its shorter leg with said lever.

1,027,062. PNEUMATIC HAMMER. REINHOLD A. NOBLING, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Aurora, Ill., a Corporation of Illinois. Filed Dec. 17, 1910. Serial No. 597,864. (Cl. 121—20.)



1. The combination with a cylinder and a reciprocating plunger therein, of a controlling valve for controlling the admission and exhaust of air into and from the cylinder embracing an annular valve having oppositely facing differential pressure areas, means controlled by the plunger for admitting live air to the larger pressure area of the valve, and means affording a continuous passageway for live air to the smaller pressure area of the valve, said means including a port opening into the cylinder and adapted to be closed by said plunger when the rear end of the cylinder is open to the exhaust.

2. The combination with a cylinder and a reciprocating plunger therein, of a controlling valve for controlling the admission and exhaust of air into and from the cylinder embracing a valve block provided with a live air chamber in its rear end, a valve ring having oppositely facing differential pressure areas, means controlled by the plunger for admitting live air to the larger pressure area of the valve, and means affording a continuous passageway from said live air chamber to the smaller pressure area of the valve, said means including a port opening into the cylinder near its rear end and adapted to be closed by the piston when it aproaches the end of its return stroke.

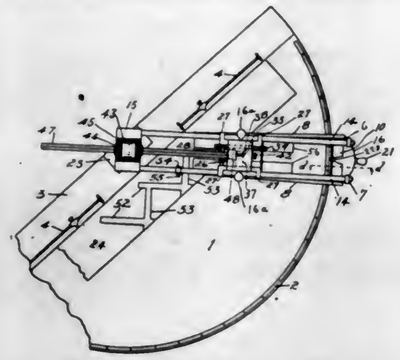
3. The combination with a cylinder and a reciprocating plunger, of a controlling valve for controlling the admission and exhaust of air into and from the cylinder embracing a valve block provided with a live air chamber at its rear end and a hollow valve having oppositely facing differential pressure areas adapted to move endwise on said valve block, said valve block having two longitudinally spaced sets of exhaust and supply ports near its opposite ends, the sets of admission ports being adjacent, a channel formed in said hollow valve adapted, in the endwise movement thereof, to communicate with each set of admission ports in alternation, means providing a constant supply of live air to said channel, means controlled by the piston for admitting live air to the larger pressure area of the valve, and means affording a continuous passageway from said live air chamber in the valve block to the smaller pressure area of said valve, said means including a port opening into the cylinder and adapted to be closed by the piston on its return stroke.

4. The combination with a cylinder and a reciprocating plunger, of a controlling valve for controlling the admission and exhaust of air into and from the cylinder embracing a valve block provided with a live air chamber at its rear end and a hollow valve having oppositely facing differential pressure areas adapted to move endwise on said valve block, said valve block having two longitudinally spaced sets of exhaust and admission ports near its opposite ends, the sets of admission ports being adjacent, a channel formed in said hollow valve adapted, in the endwise movement thereof, to communicate with each set of admission ports in alternation, supply ports in said valve block connecting said live air chamber with the channel in said hollow valve in all positions thereof, means controlled by the piston for admitting live air to the larger pressure area of the valve, and means affording a continuous passageway from said live air chamber in the valve block to the smaller pressure area of said valve, said means including a port opening into the cylinder and adapted to be closed by the piston on its return stroke.

5. The combination with a cylinder and a reciprocating plunger therein, of a controlling valve for controlling the admission and exhaust of air into and from the cylinder embracing an annular valve having oppositely facing differential pressure areas, means controlled by the plunger for admitting live air to the larger pressure area of the valve, a passageway open at its rear end to a constant supply of live air, a second passageway adapted to supply air to the smaller pressure area of said valve, and a slot opening into said cylinder and connecting the forward ends of said passageways, said slot being adapted to be closed by the piston on its return stroke.

[Claims 6 to 12 not printed in the Gazette.]

1,027,063. ROUTING-MACHINE. ALFRED G. OSMER, Lincoln, Nebr. Filed Jan. 20, 1912. Serial No. 672,406. (Cl. 144—133.)



1. A routing machine, comprising a work table, a jib pivoted thereto to swing horizontally over the table, a track similarly pivoted to the jib, a carriage traveling on the track, a rotary cutter head supported by the carriage, and means for driving the cutterhead.

2. A routing machine, comprising a work table, a jib pivoted thereto to swing horizontally over the table, a track similarly pivoted to the jib, a carriage movable on the track, a pulley mounted on the track, a shaft sliding in the pulley, gearing mounted in the carriage and driven by the shaft, and a rotary cutterhead driven by the gearing.

3. A machine of the specified class, comprising a work table, a carriage track, and a jib supporting the track; the jib being pivoted to swing laterally over the table, and the track being hinged to oscillate both laterally and vertically on the jib, in combination with means for fastening the jib rigidly to the table and to the track.

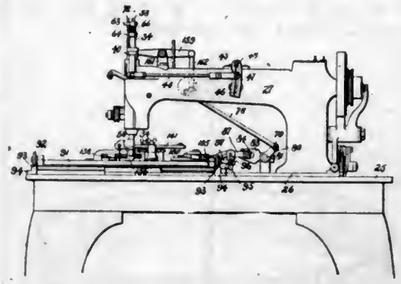
4. A routing machine, comprising a work table having a graduated scale, a pivoted jib swinging horizontally over the table and carrying a pointer along the graduated scale, a track pivoted to the jib, a carriage movable on the track, a pulley mounted on the track, gearing mounted in the carriage, an operative connection between the pulley and the gearing, and a cutter driven by the gearing.

5. A routing machine, comprising a work table, a jib terminally pivoted thereto swinging horizontally over the table and provided with a clamp for engaging the same, a track pivoted to oscillate sidewise on the jib, a carriage moving in the track, a pulley mounted on the track, gearing mounted in the carriage, a driving connection between the pulley and the gearing, and a cutter driven by the gearing.

[Claims 6 to 14 not printed in the Gazette.]

1,027,064. AUTOMATIC EMBROIDERY-MACHINE. WILLIAM N. PARKES, Brooklyn, N. Y., assignor to The Parkes Machine Company, New York, N. Y., a Corporation of New York. Filed Dec. 30, 1907. Serial No. 408,602. (Cl. 112—7.)

1. In a sewing machine, a stitch moving mechanism comprising a plurality of reciprocating needles adapted to be moved laterally, means for moving said needles laterally so as to make long lateral stitches and short lateral stitches along the edge of the path of said long stitches, means in combination therewith for automatically moving the work so as to dispose said stitches in embroidered or scalloped designs, a presser foot, and means for automatically moving said presser foot into and out of engagement with the work.



2. In combination in a sewing machine, a work moving mechanism comprising a circularly moving work holder, a stitch forming mechanism comprising a plurality of reciprocating needles, means for producing between said needles relative lateral movements of different extents, a presser foot, and means for automatically moving said presser foot into and out of engagement with the work.

3. In combination in a sewing machine, a revolving work holder, two reciprocating needles, means for automatically producing a relative lateral movement between one of said needles and the work holder of a predetermined extent, means for producing a relative lateral movement between the other of said needles and the work holder of a different predetermined extent, a presser foot, and means for automatically moving said presser foot into and out of engagement with the work.

4. In combination in a sewing machine, a revolving and reciprocating work holder, two reciprocating needles, means for moving said needles laterally, means for moving one of said needles laterally a greater extent than the other, means for guiding a filling material under the long lateral stitches, means for guiding a filling material under the short lateral stitches, a presser foot, and means for automatically moving said presser foot into and out of engagement with the work.

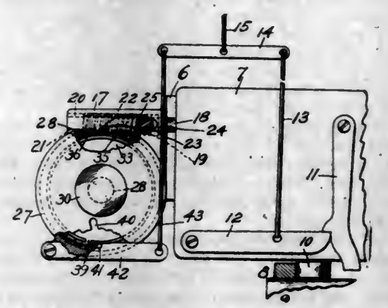
5. In combination in an automatic embroidery machine, a plurality of reciprocating needles, means for moving laterally one of said needles only, a work moving mechanism including means for moving the work forward and laterally adapted to coöperate with said needles, a presser foot, and means for automatically moving said presser foot into and out of engagement with the work.

[Claims 6 to 8 not printed in the Gazette.]

1,027,065. COUNTER. WALTER B. PEARSON, Chicago, Ill., and ERNEST R. SEWARD, Hartford, Conn.; said Seward assignor to The Hartford Machine Screw Company, Hartford, Conn., a Corporation of Connecticut. Filed Feb. 13, 1909. Serial No. 477,812. (Cl. 235—132.)

1. A plural number of disks each having a step by step movement and the disk of the highest power having one more movement than the other disks to complete its rotation, means on said disks for indicating the degree of movement of each, an actuator mounted to impart step by step movement to each of the disks at the end of a complete rotation of the preceding disk, and means for operating the actuator.

2. A plural number of disks each having means for indicating its degree of movement, and the disk of the highest power having an extra undesignated indicating means absent from the other disks, an actuator mounted to impart step by step movement to each of the disks at the end of a complete rotation of the preceding disk, and means for operating the actuator.



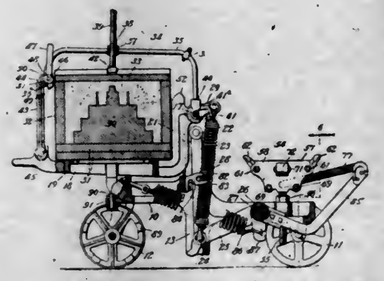
3. A plural number of disks each having characters consecutively arranged to indicate the degree of movement, and the disk of the highest power having an undesignated space between its highest and lowest character, an actuator mounted to impart step by step movement to each of the disks at the end of a complete rotation of a preceding disk, and means for operating the actuator.

4. A plural number of disks each having a tooth for engagement of an actuator and each provided with means for indicating its degree of movement, the disk of the highest power having one more tooth than the other disks, an actuator arranged to engage the teeth of said disks to impart step by step movement thereto at the end of a complete rotation of a preceding disk, and means for operating the actuator.

5. A plural number of disks each having teeth for engagement of an actuator and provided with means for indicating its degree of movement, the disk of the highest power having one more tooth than the other disks and each disk having indicating characters appurtenant to each tooth, the disk of the highest power having an undesignated space opposite said extra tooth, an actuator arranged to engage the teeth of said disks to impart step by step movement thereto at the end of a complete rotation of a preceding disk, and means for operating the actuator.

[Claims 6 to 18 not printed in the Gazette.]

1,027,066. MOLDING-MACHINE. EDWARD A. PRIDMORE, La Grange, Ill. Filed June 5, 1911. Serial No. 631,292. (Cl. 22—33.)



1. In a molding-machine, the combination of a frame, a support movable up and down on said frame, a pattern-carrier marginally hinged to said support, a flask-receiving support, and a device having releasable pivot support on said machine for releasably clamping the flask to said carrier, constructed and arranged when released at its pivot connection to permit said support and carrier to be raised independently of and relative to said device, for the purpose set forth.

2. In a molding machine, the combination of a frame, a support movable up and down on said frame, a pattern-carrier marginally hinged to said support, a flask-receiving support, and a clamp having releasable pivot support on the machine concentrically of the axis upon which said carrier swings for releasably clamping the flask to said carrier, said clamp being constructed and arranged when released at its pivotal connection to permit said support and carrier to be raised independently of and relative to said clamp, for the purpose set forth.

3. In a molding machine, the combination of a frame, a support movable up and down on said frame, a pattern-carrier marginally hinged to said support, a flask-receiving support, and a hook-equipped clamp releasably pivoted at its hook-portion on the machine for releasably clamping the flask to said carrier.

4. In a molding machine, the combination of a frame, a support movable up and down on said frame, a pattern-carrier marginally hinged to said support, a flask-receiving support, and a flask-clamp releasably pivoted on the machine and when in clamping position held against release and when moved from clamping position automatically disengaging at its pivotal connection with the machine for the purpose set forth.

5. In a molding machine, the combination of a frame, a support movable up and down on said frame, a pattern-carrier marginally-hinged to said support, a flask-receiving support, and a flask-clamp releasably pivoted on said support and when in clamping position held against release from said support and when moved from clamping position automatically disengaging from said support, for the purpose set forth.

[Claims 6 to 28 not printed in the Gazette.]

1,027,067. BOX-HANDLE OR THE LIKE. JOSEPH A. RAYMOND, Chicago, Ill., assignor to The F. H. Hill Co., Chicago, Ill., a Corporation of Illinois. Filed Oct. 26, 1910. Serial No. 589,146. (Cl. 16—10.)

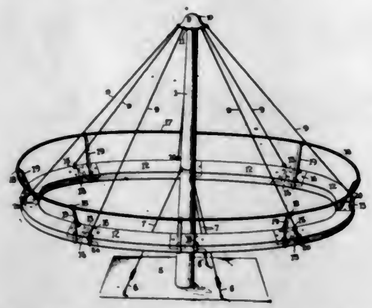


1. In a device of the character described, a base having an opening therethrough, the upper edge of which is offset relative to the lower edge thereof, and a handle provided with an end portion projecting through the opening of the base, said end portion being provided with means extending from the end thereof for pivotally engaging the wall of the base proximate the lower edge of the opening therein, and constituting the sole pivotal connection between the handle and base, and with portions arranged to contact with the upper and lower edges of said opening when the handle is in operative position.

2. As an article of manufacture, a handle comprising a base having openings therethrough with the upper edges of said openings offset relative to the lower edges and with a hole therethrough proximate to the lower edge of each opening, in combination with a handle having its ends positioned in said openings, the sides of said handle ends bent substantially parallel to each other and provided with a prong at the edge of one side of each handle end proximate to the end thereof, said prongs extending through said holes in said base and constituting the sole pivotal connection between the handle and the base.

3. As an article of manufacture, a handle comprising a base with a pair of openings therethrough, the upper edges of said openings parallel to and offset relative to the lower edges, said base provided with a hole proximate the lower edge of each of said openings, in combination with a handle bar having each of its ends bent to form a channel and provided with an extension on each end on one of the sides of said channel, said extensions extending through the holes in said base and bent substantially back upon themselves and constituting the sole pivotal connection between the handle and the base.

1,027,068. CIRCLE-SWING. DANIEL A. REED and ROLLIN W. SNOW, Dunkirk, N. Y. Filed June 25, 1910. Serial No. 568,825. (Cl. 46—27.)



1. In a device of the class described, a center post, and a supporting ring rockably suspended around said post; said supporting ring being composed of a series of separable segments wedge locked together at their ends.

2. In a device of the class described, a center post, and a supporting ring rockably suspended around said post; said supporting ring being composed of a series of separable segments, and each segment having a socket at one end and a projection at the opposite end, and the projections of the segments being adapted to seat in the sockets of the adjacent segments.

3. In a device of the class described, a center post, a supporting ring rockably suspended around said post, said supporting ring being composed of a series of separable segments and each segment having a tapering socket at one end and a correspondingly tapering projection at the opposite end, and the tapering projection of the segments being tapered to seat in the tapering sockets of the adjacent segments.

4. In a device of the class described, a center post, and a supporting ring rockably suspended around said post; said supporting ring being composed of a series of separable segments having interlocking sockets and projections.

5. In a device of the class described, a center post, and a supporting ring rockably suspended around said post and composed of a series of segments and means for detachably locking said segments together at their ends.

[Claims 6 to 9 not printed in the Gazette.]

1,027,069. AMUSEMENT CYCLE-GLOBE. HUBERT RICHMOND and CARL E. BARBER, Memphis, Tenn.; said Richmond assignor to said Barber. Filed Mar. 1, 1912. Serial No. 680,918. (Cl. 104—111.)

1. A reticulated amusement globe comprising a central annulus or loop, and sections hinged thereto and adapted to be swung outwardly.

2. A reticulated amusement globe comprising a central annulus or loop, and sections hinged thereto and adapted to be swung outwardly, said annulus having a plurality of circular frame members and intersecting cross ribs, formed of shaped beams.

3. A reticulated amusement globe comprising a central annulus or loop, sections hinged thereto and adapted to be swung outwardly, and locking devices adapted to secure said sections to said annulus.

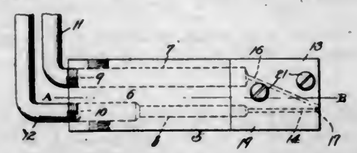
4. A reticulated amusement globe comprising a central annulus or loop, sections hinged thereto and adapted to be swung outwardly, locking devices adapted to secure said sections to said annulus, and means for simultaneously disconnecting said devices.



5. A reticulated amusement globe comprising a central annulus or loop section, swinging sections hinged thereto, supports secured to the lower angle or bottom of said sections, and means for bracing said sections.

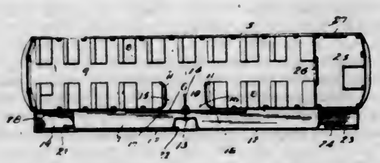
[Claims 6 and 7 not printed in the Gazette.]

1,027,070. LIQUID-FUEL BURNER. HUGH J. RUSSELL, Upland, Cal. Filed Sept. 2, 1911. Serial No. 647,336. (Cl. 158—75.)



An oil burner comprising a rectangular casting having an oil bore and a steam bore, a flat, wide diagonal slot and a flat, wide longitudinal slot communicating respectively with said bores, said slots converging toward each other, but each having a separate discharge outlet, removable side plates for closing the sides of said slots and means for supplying oil and steam to said burner.

1,027,071. RAILWAY-CAR. RYUJI SATO and YASOJI SAITO, Chicago, Ill. Filed Sept. 18, 1911. Serial No. 649,921. (Cl. 105—205.)



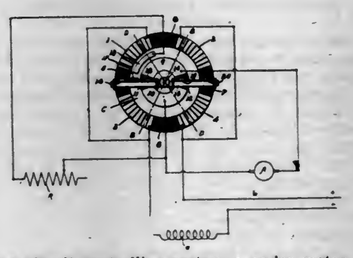
1. A car having an entrance and exit opening on one side intermediate its ends and a passageway from said opening into the car, a platform extending along said side of the car, one end of the platform having an entrance and the other end an exit, a barrier extending across the platform and through the aforesaid opening into the passageway to divide the latter into entrance and exit passages, and a conductor's station at the barrier.

2. A car having an entrance and exit opening on one side intermediate its ends and a passageway from said opening into the car, a platform extending along said side of the car, one end of the platform having an entrance and the other end an exit, a barrier extending across the platform and through the aforesaid opening into the passageway to divide the latter into entrance and exit passages, doors for said passages, and a conductor's station at the barrier.

3. A car having an entrance and exit opening on one side intermediate its ends, seats arranged crosswise in the car on the sides thereof to provide a center aisle, the row of seats on the aforesaid side of the car being interrupted to form a passageway which is in line with the aforesaid opening, a platform extending along that side of the car having the opening, one end of the platform having an entrance and the other end an exit, a barrier extending across the platform and through the aforesaid opening into the passageway to divide the latter into entrance and exit passages, and a conductor's station at the barrier.

4. A car having an entrance and exit opening on one side intermediate its ends and a passageway from said opening into the car, a platform extending along said side of the car, one end of the platform having a door controlled entrance, and the other end a door controlled exit, a barrier extending across the platform and through the aforesaid opening into the passageway to divide the latter into entrance and exit passages, and a conductor's station at the barrier.

1,027,072. ELECTRIC CONTROLLER. WILLIAM SCHWIEDER, Granite City, Ill., assignor to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed Mar. 27, 1911. Serial No. 617,091. (Cl. 172—179.)



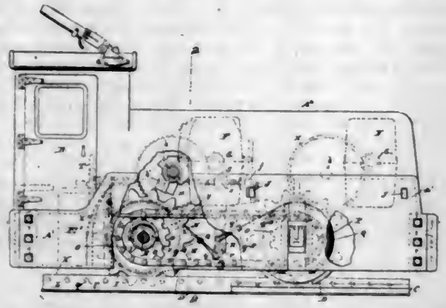
1. In a circuit controlling system, a series motor comprising an armature and field, a controller having two sets of segments, electrical connections between the armature and one set of segments, an additional contact segment, a variable resistance connected to said additional segment, and to one of the armature connections, and a contact arm for the controller, adapted to pass over and electrically connect the segments to reverse the current in the armature, and simultaneously throw in the variable resistance as a shunt on the armature.

2. The combination with a series motor comprising an armature and field, of a controller for the motor, which controller comprises two sets of segments, one arranged within the other, the inner set of segments being electrically connected to the armature of the motor, a contact segment between the inner and outer sets of segments, a variable resistance connected to said contact segment and also connected to one of the armature connections, an arm fulcrumed within the inner set of segments and adapted to swing over the faces of all of the segments and brushes carried by said arm adapted to contact with the various segments so as to reverse the current in the armature and simultaneously throw in the variable resistance as a shunt on the armature.

1,027,073. ELECTRIC LOCOMOTIVE. FRANK L. SESSIONS and FREDERICK C. COSEO, Columbus, Ohio, assignors, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Aug. 10, 1903. Serial No. 169,033. (Cl. 105—228.)

1. In an electric locomotive of the class described, the combination of the frame, the two axles, the track wheels, the toothed wheels loosely mounted on the axles adapted to engage the stationary rack, the chain connecting the toothed wheels and adapted to cause said toothed wheels to revolve simultaneously on their respective axles, the motors, and the gearing connecting the motors with the toothed wheels, substantially as set forth.

2. In an electric locomotive of the class described, the combination of the frame, the two axles, the track wheels, the toothed wheels loosely mounted on the axles adapted to engage the stationary rack, the chain connecting the toothed wheels and adapted to cause said toothed wheels to revolve simultaneously on their respective axles, the motors one or both of which are elevated above the horizontal plane of the chain, and the gearing connecting the motors with the toothed wheels, substantially as set forth.



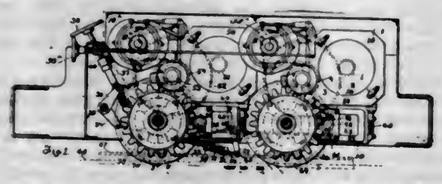
3. In an electric locomotive of the class described, the combination of the body frame, the two axles, the track wheels on the axles, the toothed wheels loose on the axles, the flexible power transmitting devices connecting the loose wheels and adapted to cause said toothed wheels to rotate simultaneously on their respective axles, the motors situated above said power transmitting devices, the framework connected to the axles and to the motors, and the shafting and gearing, other than said power transmitting devices flexibly connecting the loose wheels, interposed between the motors and the toothed wheels, substantially as set forth.

4. In an electric locomotive of the class described, the combination of the body frame, the two axles, the track wheels on the axles respectively, the sleeves on the axles respectively, the rack engaging wheels secured to the said sleeve respectively, means connecting the two sleeves together and adapted to cause said sleeves to revolve simultaneously on their respective axles, and power transmitting devices connected to one or both of the said sleeves, substantially as set forth.

5. In an electric locomotive of the class described, the combination of the body frame, the two axles, the track wheels on the axles respectively, the sleeves loosely mounted on the axles, two motors each geared to one of the said sleeves adapted to cause them to rotate simultaneously on their respective axles, means independent of the gearing between said motors and sleeves for flexibly connecting the two sleeves, and rack wheels respectively secured rigidly to the said sleeves, substantially as set forth.

[Claims 6 to 51 not printed in the Gazette.]

1,027,074. RACK-RAIL LOCOMOTIVE. FRANK L. SESSIONS, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Sept. 16, 1907. Serial No. 393,147. (Cl. 105—228.)



1. The combination with the car having the track wheels and the motor or engine, of the rack wheel mounted to rotate independently of the track wheels, and the change speed gearing interposed between the rack wheel and the track wheels.

2. The combination with the car having the track wheels, the axle rigidly secured to the track wheels, and the motor or engine, of the rack wheel mounted on the axle and adapted to rotate independently thereof, and a power transmission gearing interposed between the rack wheel and the axle, substantially as set forth.

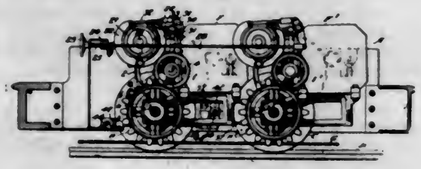
3. The combination with the car having the track wheels, an axle rigidly secured to the track wheels, and the motor or engine, of the rack wheel mounted on and adapted to rotate independently of the axle and power transmission gearing mounted on the axle and engaging with the rack wheel and having one of its elements adapted to be made stationary relative to the axle, substantially as set forth.

4. The combination with the car, having track wheels and the motor or engine, of a rack wheel adapted to engage with a stationary rack and mounted on the car to rotate independently of the track wheels, power transmitting devices interposed between the motor or engine and the rack wheel and frictionally controlled power transmitting mechanism interposed between the rack wheel and the track wheels, substantially as set forth.

5. The combination with the car having the track wheels, and the motor or engine, of the rack wheel mounted on the axis of the track wheels and loose in relation to said wheels and the change speed gearing mounted on the axle of the track wheels and adapted to connect the rack wheel with the track wheels, substantially as set forth.

[Claims 6 to 20 not printed in the Gazette.]

1,027,075. LOCOMOTIVE. FRANK L. SESSIONS, Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Jan. 9, 1905, Serial No. 240,342. Renewed Oct. 16, 1909. Serial No. 523,053. (Cl. 105—228.)



1. The combination of the frame, the axles, the track wheels on the axles, a rack wheel or sprocket wheel loosely supported on the axle, the motor, the motor gearing, a continuously rotating clutch element driven by the gearing and adapted to engage with the sprocket wheel, and the clutch element connected to the axle and adapted to have the driving clutch element connected therewith when it is disconnected from the sprocket wheel, substantially as set forth.

2. The combination of the frame, the axles, the track wheels on the axles, the sprocket wheel or rack wheel, the motor, the intermediate shaft, gearing connecting the motor to the intermediate shaft, the driving clutch element, the gearing connecting the intermediate shaft to the driving clutch element, the clutch element connected to the sprocket wheel or rack wheel and adapted to be engaged by the driving clutch element, and the clutch element connected with the axle and adapted to be engaged by the driving clutch element when out of engagement with the rack wheel or sprocket wheel, substantially as set forth.

3. The combination of the frame, the axles, the track wheels rigidly secured to the axles, a rack wheel or sprocket wheel mounted loosely to revolve independently of the axles, a clutch element connected with the sprocket wheel or rack wheel, a clutch element connected with the axle, and a driving clutch element adapted to engage with either of the aforesaid clutch elements, said parts being constructed and arranged substantially as set forth whereby the rack wheel or sprocket wheel is disconnected from the power device when the axle clutch is engaged therewith, and the axle clutch is disconnected from the power device when the rack wheel is connected therewith, substantially as set forth.

4. The combination of the axles, the track wheels rigidly secured to the axles, the sleeve loose upon the axle, the sleeve rigid with the axle, the frame having one bearing on the loose sleeve and one bearing on the fixed sleeve, the rack wheel or sprocket wheel having a clutch element and mounted on the loose sleeve, the clutch element rigid with the fixed sleeve, the driving clutch element, the motor, the gearing between the motor and the driving clutch element, and means for shifting the driving element into engagement with the rack wheel or sprocket wheel and out of engagement with the clutch element fixed on the axle or vice versa, substantially as set forth.

5. The combination of the axle, the track wheels rigid with the axle, the sleeve loose on the axle, the sleeve rigid with the axle, the frame having a bearing on the loose sleeve and a second bearing on the fixed sleeve, the power gearing connected to the loose sleeve at points outside of the frame bearing, the rack wheel or sprocket mounted on the loose sleeve at a point inside of the frame bearing, the driving clutch element, the clutch element connected with the sprocket wheel or rack wheel, the clutch element connected to the axle and means for shifting the driving clutch element from the rack wheel or sprocket wheel to the clutch element fixed to the axle, substantially as set forth.

[Claims 6 to 43 not printed in the Gazette.]

1,027,076. RACK-RAIL. FRANK L. SESSIONS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Oct. 29, 1909. Serial No. 525,357. (Cl. 239—19.)



1. In a rack rail, the combination of two parallel bars, a series of equally spaced pins extending transversely from one of the two bars to the other, rollers rotatable on the said pins, and means additional to the said bars for positively locking the said pins against rotation, substantially as set forth.

2. In a rack rail, the combination of two parallel angle bars having vertical flanges the said vertical flanges being adjacent one another, a series of equally spaced pins extending transversely through opposite apertures in the said flanges, and a plurality of keys, each engaging two pins to prevent their rotation, substantially as set forth.

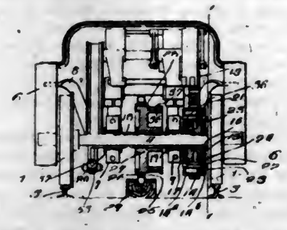
3. In a rack rail, the combination of two parallel bars, a series of equally spaced pins extending transversely from one of the bars to the other, rollers rotatable on the said pins, and a plurality of keys each engaging two pins to prevent their rotation, substantially as set forth.

4. In a rack rail, the combination of two parallel bars, a series of equally spaced pins extending transversely through suitable alined apertures in the bars, rollers rotatable on the pins, and means for preventing the rotation of the pins comprising a plurality of U-shaped keys, each end of each of which extends through a diametrical aperture in the end of the pin, substantially as set forth.

5. In a rack rail, the combination of two parallel bars, a series of equally spaced pins extending transversely through suitable apertures in the bars, rollers rotatable on the pins, and means locking the pins against rotation comprising an element which extends through suitable diametrical apertures near the ends of a plurality of pins, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,027,077. RACK-RAIL LOCOMOTIVE. FRANK L. SESSIONS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Nov. 3, 1910. Serial No. 590,483. (Cl. 105—228.)



1. In a locomotive, the combination of a frame, axles on which the frame is mounted, track wheels on the axles, a rack wheel rotatable independently of the track wheels, a motor, and transmission mechanism comprising a differential gear between the motor and the rack and track wheels, substantially as set forth.

2. In a locomotive, the combination of a frame, axles on which the frame is mounted, track wheels secured to the axles, a rack wheel in axial alinement with one of the axles and rotatable independently thereof, a differential gear between the rack wheel and the axle, a motor, and transmission gearing between the motor and the driving element of the differential gear, substantially as set forth.

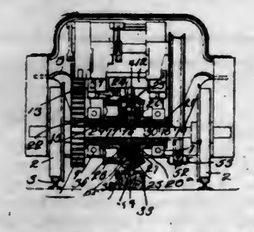
3. In a locomotive, the combination of track wheels and a rack wheel rotatable independently of the track wheels, differential gearing between the said rack and track wheels, and a motor connected to the driving element of the differential gearing, substantially as set forth.

4. In a locomotive, the combination of a frame, track wheels supporting the frame, a rack wheel rotatable independently of the track wheels and of smaller diameter, a differential gear connected to the rack wheel and to the track wheels, and a motor connected to the driving element of the differential gear.

5. In a locomotive, the combination of a main frame, axles on which the main frame is supported, track wheels secured to the axle, a driving frame rotatable on the axle, driving pinions loosely mounted on the driving frame, a gear secured to the axle and meshing with the pinions, a rack wheel rotatable on the axle, a gear connected to the rack wheel and also meshing with the pinions, a motor, and transmission gearing between the motor and the driving frame, substantially as set forth.

[Claims 6 to 20 not printed in the Gazette.]

1,027,078. RACK-RAIL LOCOMOTIVE. FRANK L. SESSIONS, Columbus, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Nov. 10, 1910. Serial No. 591,705. (Cl. 105—228.)



1. In a locomotive, the combination of a frame, axles and track wheels on which the frame is mounted, a spur gear rigidly connected to one axle, a driving element rotatable on the axle, spur pinions rotatably mounted on the driving element and meshing with said spur gear, a rack wheel rotatable on the axle, an internal annular gear connected to the rack wheel and meshing with the spur pinions on the driving element, a motor, and gearing be-

tween the motor and the driving element, substantially as set forth.

2. In a locomotive, the combination of a main frame, axles and track wheels on which the frame is mounted, a gear connected to one axle, a driving element rotatable on the axle, a pinion mounted on the driving element and meshing with the said gear, a rack wheel independently rotatable about the axle, a gear connected to the rack wheel and meshing with the pinion, said gear being of greater diameter than the gear connected to the axle, a motor, and gearing between the motor and the driving element, substantially as set forth.

3. In a locomotive, the combination of a frame, axles on which the frame is mounted, track wheels secured to the axles, a rack wheel mounted co-axially with one axle and rotatable independently thereof, an internal annular gear within said rack wheel, the teeth of the gear being in the same plane with the teeth of the wheel, a spur gear connected to the axle and located in the same plane with the annular gear, pinions between the said spur gear and the said annular gear, a driving element on which the said pinions are rotatably mounted, a motor and gearing between the motor and the said driving element, substantially as set forth.

4. In a locomotive, the combination of a frame, axles and track wheels on which the frame is mounted, two sleeves rotatably mounted on one axle, said sleeves being provided at their inner adjacent ends with radial flanges, pins extending between said flanges parallel to the axle, pinions rotatably mounted on said pins, a spur gear connected to the axle and meshing with the pinions, a hollow cylinder surrounding said spur gear, said flanges and said pinions, the said cylinder having bearings adapted to rotatably engage the said sleeves, a rack wheel connected to the said cylinder, an internal annular gear within said cylinder and meshing with the pinions, a motor, and gearing between the motor and one of the said sleeves, substantially as set forth.

5. In a locomotive, the combination of a frame, axles upon which the frame is mounted, track wheels connected to the axles, a driving element comprising two sleeves rotatably mounted on one axle and connected together at their adjacent ends, pinions rotatably mounted between the two sleeves, a spur gear connected to the axle and meshing with the pinions, a casing rotatably mounted on the driving element and having a bearing at each side of the pinions and spur gear, an internal gear within said casing meshing with the pinions, a rack wheel connected externally to the said casing and lying in the same plane with the pinions and the spur gear, a retarding element connected to the said casing, a motor, and power nections between the motor and the driving element, substantially as set forth.

1,027,079. COMBINATION STRAINER AND EGG-HOLDER. JOSEPHINE G. SHEPARD, Brooklyn, N. Y. Filed Aug. 2, 1911. Serial No. 641,981. (Cl. 53—3.)



1. A piece of sheet metal formed with enlarged ends provided with openings therein, and a strainer adapted to fit within one of said openings, substantially as described.

2. A piece of sheet metal, bent to form two arms with enlarged ends provided with circular openings therein, and a strainer adapted to fit within one of said openings and removably supported therein.

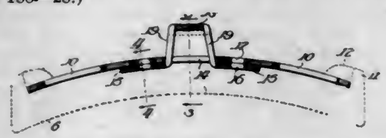
3. A piece of sheet metal, bent to form two resilient arms with enlarged ends provided with circular openings therein, the rim of the opening of one of said arms bent downwardly, and a removable strainer provided with a flange adapted to be supported by said downwardly bent rim, substantially as described.

1,027,080. BINDING-CLIP. NATHAN SIFF, New York, N. Y. Filed Aug. 10, 1910. Serial No. 576,598. (Cl. 241—14.)



A buckle band clip comprising a sheet metal member, said member provided with a mashed out sharpened edge projecting perpendicularly with respect to said member, prongs integrally-projecting from intermediate portions of said edge, and said member adapted to have portions thereof folded back upon itself for engaging said prongs and edge within opposite sides of said band.

1,027,081. BRAKE-SHOE. WILLIAM M. SIMPSON, Chicago, Ill. Filed Mar. 30, 1911. Serial No. 617,811. (Cl. 188—28.)



1. A brake shoe comprising a reinforcing plate provided with an aperture, an attaching lug positioned in said aperture with its ends disposed beneath the transverse walls of said aperture, and a body cast on said plate.

2. A brake shoe comprising a reinforcing plate provided with an aperture, an attaching lug positioned in said aperture and having its ends disposed beneath the transverse walls of said aperture and extending in opposite directions beneath the plate, and a body cast on said plate.

3. A brake shoe comprising a reinforcing plate provided with an aperture, an attaching lug positioned in said aperture and having its ends engaged with the underside of said plate between said aperture and the ends of the plate, and a body cast on said plate.

4. A brake shoe comprisihg a reinforcing plate provided with an aperture, an attaching lug formed of a bent metal strap positioned in said aperture and having its ends extending lengthwise of the shoe beneath the plate, and a body cast on said plate.

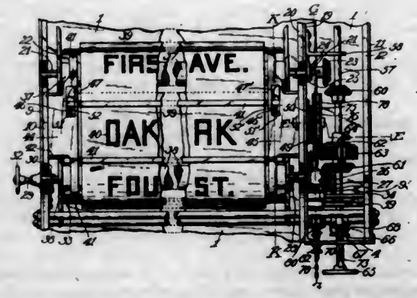
5. A brake shoe comprising a reinforcing plate provided with a centrally disposed aperture, an attaching lug formed of a metal strap positioned in said aperture, the ends of said lug extending longitudinally of the shoe beneath and adjacent to the underside of the plate, and a body cast on said plate.

[Claims 6 to 12 not printed in the Gazette.]

1,027,082. STATION-INDICATOR OR ADVERTISER. BURR R. SKINNER, Aberdeen, S. D. Filed Aug. 21, 1911. Serial No. 645,070. (Cl. 40—94.)

1. A station indicator or advertiser including two rotatably supported rollers, a ribbon connected to the rollers, a rotatably supported wheel, a supported spring, a supported dash-pot, a piston movable in the dash-pot, a movable device connected to the piston, a cable connected to the spring and extending about the wheel and having a button thereon for engaging the device, and means for connecting the wheel with either one of the rollers for moving the ribbon.

2. A station indicator or advertiser including a casing, two rollers rotatably mounted in the casing and provided each with a bevel gear wheel, a shaft rotatably mounted in the casing to move longitudinally and having two bevel gear wheels fixed thereon movable alternatively to engage the gear wheels of the rollers, a crown wheel rotatably mounted in the casing, a spur wheel rotatable on the shaft and meshing with the crown wheel, a pawl mounted on the spur wheel, a ratchet wheel secured to the shaft and engaged by the pawl, a coil spring connected to the casing, and a cable connected to the spring and also to the crown wheel.



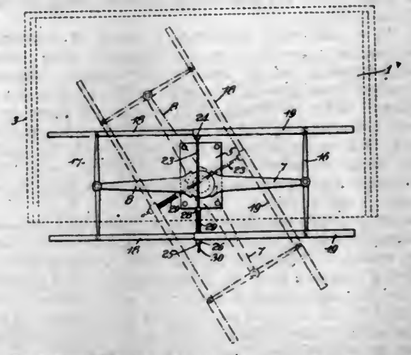
3. A station indicator or advertiser including a casing, two rollers rotatably mounted in the casing, two bevel gear wheels connected to the two rollers respectively, a ribbon connected to the rollers, a shaft rotatably mounted and movable longitudinally in the casing, two bevel gear wheels secured to the shaft in proximity to the two bevel wheels that are connected to the rollers, two ratchet wheels secured to the shaft, a spur wheel rotatably mounted on the shaft, a crown wheel rotatably mounted in the casing in mesh with the spur wheel, means for rotating the crown wheel to and fro, a pawl movably mounted on the spur wheel and engaging one of the two ratchet wheels, a gong supported on the casing in proximity to the shaft, and a pawl pivoted to the casing and engaging the other one of the ratchet wheels and having a hammer thereon that is adjacent the gong.

4. A station indicator or advertiser including a casing, two rollers rotatably mounted in the casing, a bevel gear wheel secured to one of the rollers, a shaft rotatably mounted in the casing, a bevel gear wheel secured to the shaft and meshing with the gear wheel that is secured to the roller, a ratchet wheel secured to the shaft, a spur wheel rotatable on the shaft, a pawl movably connected to the spur wheel and engaging the ratchet wheel, a crown wheel rotatably supported in the casing and meshing with the spur wheel, the crown wheel having a groove in its periphery, a coil spring connected to the casing, a cable connected to the spring and extending in said groove and through the casing, the cable being secured to the crown wheel, a ribbon connected to the two rollers, stop bars secured to the ribbon, an arm pivotally supported in the casing, a button secured to the cable for moving the arm in one direction, a rock shaft mounted in the casing and operatively connected with the arm, a spring supported in the casing for moving the arm in the opposite direction, and fingers movable by the rock shaft to or from the path of movement of the stop bars.

5. In a station indicator or advertiser, the combination with a casing, two rollers rotatably mounted in the casing and provided each with a gear-wheel, a ribbon connected to the rollers, and stop bars secured to the ribbon, of a rock-shaft mounted in the casing, two arms secured to the rock-shaft and having each a finger thereon normally projected into the path of movement of the stop bars, a shaft rotatably mounted and movable longitudinally in the casing, two gear-wheels secured to the shaft in proximity to the gear-wheels of the rollers respectively, a curved rack-bar pivotally supported in the casing, a toothed wheel rotatable on the shaft and meshing with the rack-bar, a pawl mounted on the toothed wheel, a ratchet wheel secured to the shaft and engaged by the pawl, a spring operatively connected with the casing and the rack-bar for moving the ribbon to carry the stop bars to the fingers, a cylinder supported in the casing, a piston movable in the cylinder, and means enabling the cylinder and the piston to cooperate with the rack-bar to resist the action of the spring when the stop bars are approaching the fingers.

[Claims 6 to 8 not printed in the Gazette.]

1,027,083. DISPLAY DEVICE. OSCAR L. SMITH, Grand Rapids, Mich. Filed May 27, 1911. Serial No. 629,860. (Cl. 211—16.)



1. In a store display device, the combination of a case, a rack for supporting goods movable to and from a position within the case, supporting means for the rack, and means acting simultaneously to expand the rack and move it bodily toward the front of the case.

2. In a store display device, the combination of a case, a rack for supporting goods and movable to and from a position within the case, means permitting the rack to be freely rotated when at the front of the case, and means for elongating the rack and moving it toward the front of the case.

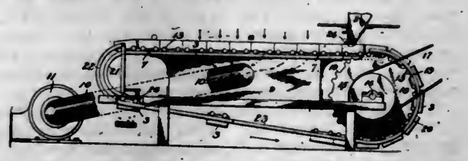
3. In a store display device, the combination of a case, rack supporting arms pivotally mounted in the case, a rack carried by said supporting arms, and means acting to turn said rack supporting arms on their pivotal mounting and move the rack to the front of the case.

4. In a store display device, the combination of a case, rack supporting arms pivotally mounted in the case, a rack carried by said supporting arms, means acting to turn said rack supporting arms on their pivotal mounting and move the rack to the front of the case, and a lock to control the action of said means.

5. In a store display device, the combination of a rotatable rack, a case, rack supporting arms pivotally mounted in the case and movable about their pivotal mounting to carry the rotatable rack bodily to and from a position within the case, and a spring device to turn said rack supporting arms on their pivotal mounting and cause the rack to be moved to the front of the case.

[Claims 6 to 12 not printed in the Gazette.]

1,027,084. APPARATUS FOR USE IN TREATING ORES. HENRY JOHN STEHLI, Montclair, N. J., assignor to Dwight Lloyd Metallurgical Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 13, 1910. Serial No. 561,116. (Cl. 193—7.)



1. In a conveying apparatus, a series of independent disconnected carrying elements arranged when brought into close engagement end to end to constitute a substantially continuous carrier adapted to convey loose material, a trackway along which the said elements travel, and a return for directing the carrying elements independently one of the other from the discharge end of the trackway to the feed end thereof, the said return being arranged below the trackway.

2. In a conveying apparatus, a series of independent disconnected carrying elements, a trackway along which

they travel, and a stationary inclined return for directing the carrying elements from the discharge end of the apparatus to the feed end arranged below the said trackway and along which the said elements travel under the influence of gravity.

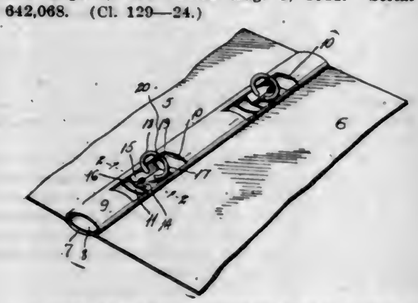
3. In a conveying apparatus, a series of independent disconnected carrying elements arranged when brought together end to end to form a substantially continuous carrier for loose material, a trackway along which the said elements travel, a return for directing the carrying elements independently one of the other from the discharge end of the trackway to the feed end thereof, the said return being arranged below the trackway, and lifting mechanism for taking the carrying elements from the said return to the trackway.

4. In a conveying apparatus, a series of independent disconnected carrying elements, a trackway along which they travel, a stationary inclined return for guiding the carrying elements from the discharge end of the apparatus to the feed end arranged below the said trackway, along which the said elements travel under the influence of gravity, and lifting mechanism for taking the carrying elements from the said inclined return to the trackway.

5. In a conveying apparatus, a series of independent disconnected carrying elements adapted when arranged in train to constitute a carrier for loose material, a trackway along which the said elements travel in train, return means for directing the elements individually from the feed to the head end of the apparatus, and means for lifting the said carrying elements individually from the return to the trackway and for also advancing the train of elements along the trackway.

[Claims 6 to 11 not printed in the Gazette.]

1,027,085. LOOSE-LEAF BINDER. SAMUEL H. STEIN, Los Angeles, Cal. Filed Aug. 3, 1911. Serial No. 642,068. (Cl. 129—24.)



1. A loose leaf binder comprising a back having guideways formed therein, and having elongated openings formed in its front wall for accommodating leaf engaging means, and adjustable leaf hinging means adapted to slide in said guide ways to different points in said openings, and having leaf securing arms projecting through said openings.

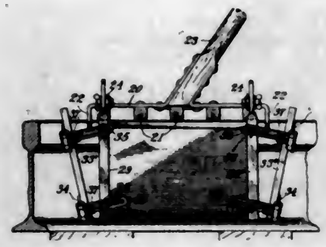
2. A loose leaf binder comprising a back having guideways formed therein and openings for accommodating hinging engaging means, and adjustable leaf hinging means adapted to slide in said guideways and having leaf engaging arms projecting through said openings and adapted to spread for receiving or releasing a leaf.

3. A loose leaf binder comprising a back, slides movable longitudinally thereof and having flanges forming edge grooves, plates adapted to be sprung back and forth opposite each other in said grooves, headed studs holding the meeting edges of said plates with respect to each other, and curved arms projecting from said plates adapted to form leaf holding rings when they are brought together.

1,027,086. TRACK-INSPECTING DEVICE. JOHN S. TYLER, Boone, Iowa. Filed June 20, 1911. Serial No. 634,302. (Cl. 88—14.)

1. In a track-inspecting device, a supporting element adapted to be moved along the rail and reflecting means arranged to show by reflection hidden portions of the rail.

2. In a track-inspecting device, a supporting element adapted to be moved along the rail and provided with one or more rollers to engage the rail, and carrying reflecting means arranged to show by reflection hidden portions of the rail.



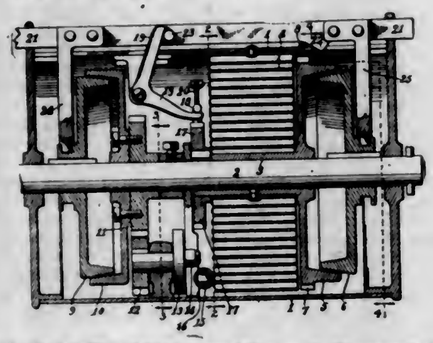
3. In a track-inspecting device, a supporting element adapted to rest upon and be moved along the top of the rail, and a mirror carried by the supporting element and arranged to occupy a position below the top of the rail to show adjacent side portions thereof by reflection.

4. In a track-inspecting device, a supporting element adapted to be moved along the rail, adjustable supporting means extending laterally from said element, and a mirror carried by said means to show by reflection hidden portions of the rail.

5. In a track-inspecting device, a supporting element adapted to be moved along the rail, an arm extending laterally from said element, and a mirror adjustably mounted on said arm.

[Claims 6 to 11 not printed in the Gazette.]

1,027,087. STARTER FOR INTERNAL-COMBUSTION ENGINES. CORNELIUS VAN TUBBERGAN and PAUL WESTRATE, Grand Rapids, Mich. Filed Feb. 17, 1912. Serial No. 678,380. (Cl. 185—41.)



1. An engine starter, comprising a shaft connected to the engine, a sleeve rotative on the shaft, a spring fixed at one end and connected to the sleeve at the other end, a clutch to connect the sleeve and shaft, a pawl and ratchet to hold the sleeve from rotating, means for rotating the sleeve to wind the spring, a clutch to connect said means with the shaft and means for alternately engaging said clutches.

2. An engine starter, comprising a shaft connected to the engine, a sleeve rotative on the shaft, a clutch to connect the sleeve and shaft, a spring fixed at one end and connected to the sleeve at the other end, a pawl and ratchet to hold the sleeve from rotating, means for rotating the sleeve to wind the spring, a clutch to connect said means with the shaft, a slidable bar connected to said clutches to alternately operate the same and means for disengaging the pawl from the ratchet operated by the bar when the bar is moved to connect the sleeve and shaft.

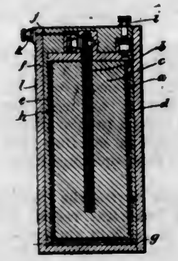
3. An engine starter, comprising a shaft connected to the engine and rotated thereby, a sleeve rotative on the shaft, a friction clutch member on the sleeve, a clutch member splined to the shaft to engage the member on the sleeve, a spring fixed at one end and attached at the other end to the sleeve to rotate the same, means for rotating the sleeve to wind the spring, a pawl and a ratchet wheel to hold the sleeve, a clutch to connect said means with the shaft, manually operated means for rotating the sleeve to wind the spring and means for alternately engaging the clutches adapted to detach the pawl from the ratchet wheel when the sleeve and shaft are connected by the first named clutch.

4. An engine starter, comprising a shaft attached to the engine, a sleeve rotative on the shaft, a spring fixed at one end and attached to the sleeve at the other end to rotate the sleeve, a clutch member fixed on one end of the sleeve, a clutch member splined to the shaft to engage said member, means for rotating the sleeve to wind the spring, a clutch member freely rotative on the shaft, a clutch member splined on the shaft to engage the last named clutch member, means for rotating the sleeve to wind the spring operated by the freely rotative clutch member, a pawl and ratchet wheel to hold the sleeve, means for alternately engaging the clutches adapted to detach the pawl from the ratchet wheel when the clutch connecting the sleeve and shaft is engaged.

5. An engine starter, comprising a shaft connected to the engine and rotated thereby, a sleeve rotative on the shaft, a spring fixed at one end and connected to the sleeve at the other end, a clutch to connect the sleeve and shaft, two ratchet wheels fixed on the sleeve, a pawl to engage one wheel to hold the spring from unwinding, a pivoted lever carrying a second pawl to engage the other wheel, means for oscillating the lever, a clutch to connect said means with the shaft and means for alternately engaging said clutches adapted to release said first named pawl when the sleeve is connected with the shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,027,088. WATERPROOF BATTERY AND METHOD OF MAKING SAME. RALPH V. VILLIERS, East Freetown, Mass. Filed May 11, 1910. Serial No. 560,679. (Cl. 204—53.)



1. The method of making a waterproof battery which consists in providing a dry cell with an envelop of paraffin or other sealing substance, and completely incasing the same in cement.

2. The method of making a waterproof battery which consists in providing a wooden box with a bottom layer of cement, providing a dry cell with a laccic coating and an exterior hermetically-sealing coating, setting said cell in said box and filling the latter with cement, and then applying a finishing laccic coating.

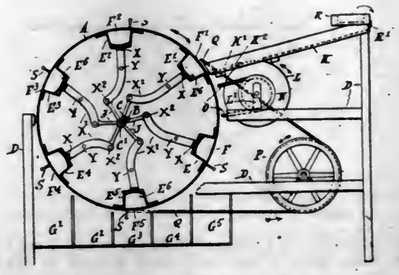
3. A waterproof battery comprising a box having a cement filling and a dry cell incased thereby and having a laccic coating and a coating of paraffin.

4. A battery having a laccic coating and a cementitious casing molded over said coating to completely envelop the battery.

5. A battery entirely incased in an integral envelop of cement.

[Claim 6 not printed in the Gazette.]

1,027,089. FRUIT AND OTHER GRADER. EDWARD ERNEST WAGG, Ranelagh, via Hobart, Tasmania, Australia. Filed Nov. 16, 1911. Serial No. 660,682. (Cl. 130—82.)



1. A fruit grading machine comprising in combination, a rotary cylinder shell provided with a plurality of openings, a guide delivering the fruit to the periphery of said cylinder abreast of said openings, pockets in said cylinder for receiving the fruit passing through said openings, and mechanism for adjusting the pockets during rotation of the cylinder and with respect to said openings to discharge the fruit at different points during rotation of said cylinder, substantially as described.

2. A fruit grading machine comprising in combination, a rotary cylinder provided with a plurality of openings, a guide delivering the fruit to the periphery of said cylinder abreast of said openings, pockets in said cylinder for receiving the fruit passing through said openings, and crank and lever mechanism for adjusting the pockets during rotation of the cylinder to discharge the fruit at different points during rotation of the cylinder, substantially as described.

3. A fruit grading machine comprising in combination, means for delivering the fruit, and rotary grading mechanism for receiving the fruit from said means during its upward travel and discharging the fruit during its downward travel whereby the weight of the fruit is utilized to assist in rotating the said mechanism, substantially as described.

4. A fruit grading machine comprising in combination, means for delivering the fruit, and a cylindrical rotating grading mechanism for receiving the fruit from said means during its upward travel and discharging the fruit during its downward travel whereby the weight of the fruit is utilized to assist in rotating said mechanism, substantially as described.

5. A fruit grading mechanism comprising in combination, means for delivering the fruit, a rotary grading mechanism for receiving the fruit from said means during its upward travel and discharging the fruit during its downward travel, and means for causing discharge of the fruit at different points during rotation of said mechanism, substantially as described.

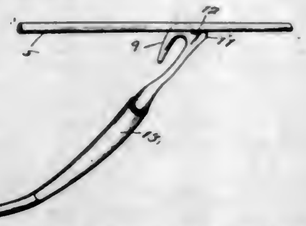
[Claim 6 not printed in the Gazette.]

1,027,090. CURRENT-COLLECTING MECHANISM. CARL J. EVALD WAXBOM, Westerville, Ohio, assignor to The Jeffrey Manufacturing Company, a Corporation of Ohio. Filed Feb. 20, 1909. Serial No. 479,072. (Cl. 191—12.)

1. A current collecting terminal for a reeled conductor cable comprising a conductor hook secured to the free end of the cable, the hook having a thumb projecting from its outside surface adapted to enable the hook to be pressed upward against a trolley wire without lateral displacement of the hook.

2. A current collecting terminal for a reeled conductor cable comprising a conductor hook secured to the free end of the cable, the hook being formed to present a concavity in its outer surface adapted to engage a trolley wire from below and prevent lateral displacement of the hook with respect to the trolley wire.

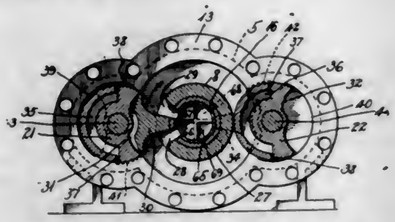
3. A current collecting terminal for a reeled conductor cable comprising a conductor hook secured to the free end of the cable, and a flexible cable stiffening reinforcement wrapped about the cable adjacent the hook and serving to support the hook.



4. A current collecting terminal for a reeled conductor cable, comprising a conductor hook secured to the free end of the cable, the hook being formed to present a concavity in its outer surface adapted to engage a trolley wire from below and prevent lateral displacement of the hook with respect to the trolley wire, and an insulating and stiffening hose encircling the cable adjacent said hook.

5. A manually operable, sliding-contact, current collecting terminal for a reeled conductor capable, comprising a conductor hook secured to the free end of the cable, and a flexible insulating and stiffening hose encircling the cable adjacent said hook and serving to support the hook.

1,027,091. ROTARY PUMP. WILLIAM H. WEDDINGTON, Lankershim, Cal. Filed Mar. 9, 1911. Serial No. 613,281. (Cl. 103—44.)



1. A pump comprising a hollow shaft, hollow pistons carried thereby, and having piston heads, the piston heads of alternate pistons extending diametrically in opposite directions with respect to each other, the said pistons having ports upon each side of the piston heads communicating with the interior of the hollow shaft and coöperating roller abutments adapted to have the pressure or suction of the pump equally distributed about them whereby friction in the parts of the pump is largely eliminated.

2. A rotary pump comprising a hollow shaft, a plurality of pistons revolving therewith, and having projecting piston heads, the said pistons having outlet and inlet ports upon each side of the said heads communicating with the interior of the said hollow shaft, roller abutments disposed at the sides of the pistons and adapted to roll upon the hubs thereof, the said roller abutments having depressions in their surfaces to permit the piston heads to pass them, and means within the shaft for directing the materials to the pistons successively.

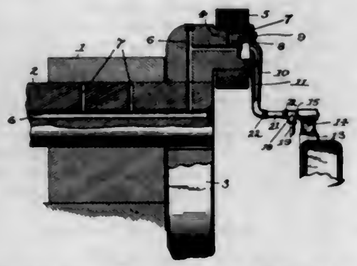
3. A rotary pump comprising a casing, a hollow rotary piston mounted in said casing and having a projecting piston head, the said piston having ports on each side of said head communicating with the interior of the piston, a tubular shaft carrying the piston and having inlet and outlet ports opposite to the ports of the piston, means for permitting of the inflow of materials pumped to said ports, and means for receiving the discharge of materials from the same.

4. A pump comprising a hollow shaft, a piston mounted thereon having a pumping piston head, other pistons mounted outside the said piston and provided with pumping heads, the combined capacity of the outer pistons being equal to the capacity of the inner pistons, and roller abutments coöperating with the pistons for facilitating their pumping materials through the said hollow shaft.

5. A rotary pump comprising a hollow shaft having inlet and outlet ports therein for directing the passage of the fluids pumped, pistons mounted upon the said shaft and having induction and eduction ports communicating with the inlet and outlet passages of the hollow shaft, roller abutments disposed at the sides of the pistons and having capacities corresponding to the capacities of the pistons opposite which they operate, and means for causing the said abutments to operate simultaneously with the pistons.

[Claims 6 to 14 not printed in the Gazette.]

1,027,092. LUBRICATING DEVICE. ARTHUR J. WEST, South Bethlehem, Pa. Filed July 12, 1911. Serial No. 638,131. (Cl. 184—7.)



1. In a lubricating device for crank shafts, the combination of a crank shaft having a duct extending therefrom and terminating in alinement with its axis; an oil feed pipe; a spring serving to urge said pipe toward the mouth of the duct; and a removable coupling or member interposed between the discharge end of the pipe and the mouth of the duct and forming a conduit for the lubricant.

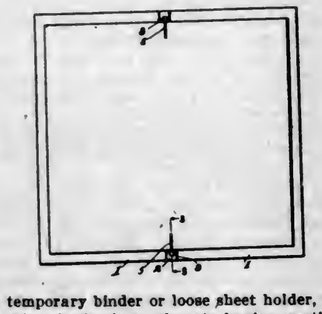
2. In a lubricating device for crank shafts, the combination of a crank shaft having a duct extending therefrom and terminating in alinement with its axis; an oil feed pipe; a spring serving to urge said pipe toward the mouth of the duct; and a tubular connection having spherical end bearing portions coacting with the discharge end of the pipe and the inlet openings of the duct to form tight joints.

3. In a lubricating device, the combination of a rotating element having a spherical recess located adjacent the axis of rotation and a duct communicating therewith; a fixed element; a plunger guided by the fixed element and having a spherical recess approximately coaxial with the rotating element and a duct communicating with the recess; a spring urging the plunger toward the rotating element; and a tubular connecting element communicating at its ends with the above-named ducts and formed at its ends with spherical bearings closely fitting in said recesses and retained therein by the pressure of the spring exerted through the plunger.

4. In a lubricating device, the combination of a shaft; a crank and crank pin carried thereby, the above enumerated parts being provided with suitable oil ducts; a crank pin cap formed with an inwardly extending arm having a duct communicating with the said oil ducts and merging into a spherical recess adjacent the axis of rotation of the shaft; a fixed member; a plunger guided by said member and provided with an oil duct merging into a spherical recess approximately on the axis of rotation of the shaft; a spring urging the plunger toward the arm; and a tubular member connecting the oil duct in the plunger with those in the shaft and crank, the said member having ends making close fits with the recesses and being held in position by the pressure of the spring.

5. In a lubricating device, the combination of a shaft; a crank and crank pin carried thereby, the above enumerated parts being provided with suitable oil ducts; an inwardly extending arm having a duct communicating with the said oil ducts and merging into a spherical recess adjacent the axis of rotation of the shaft; a fixed member; a plunger guided by said member and provided with an oil duct merging into a spherical recess approximately on the axis of rotation of the shaft; a spring urging the plunger toward the arm; and a tubular member connecting the oil duct in the plunger with those in the shaft and crank, the said member having ends making close fits with the recesses and being held in position by the pressure of the spring.

1,027,093. TEMPORARY BINDER OR LOOSE-SHEET HOLDER. GEORGE P. WIGGINTON and FRANK W. HODGES, Kalamazoo, Mich.; said Hodges assignor to said Wigginton. Filed Sept. 2, 1909. Serial No. 515,799. (Cl. 129—35.)



1. In a temporary binder or loose sheet holder, the combination with a back piece, of posts having vertical slots in their inner ends arranged on said back piece; clamp members arranged through said slots, said clamp members being provided with upwardly-projecting post-engaging members and laterally-projecting arm-like sheet-engaging members; and screws threaded into said posts to engage said clamp members.

2. In a temporary binder or loose sheet holder, the combination with a back piece, of posts having vertical slots in their inner ends arranged on said back piece; clamp members arranged through said slots, said clamp members being provided with laterally-projecting sheet-engaging members; and screws threaded into said posts to engage said clamp members.

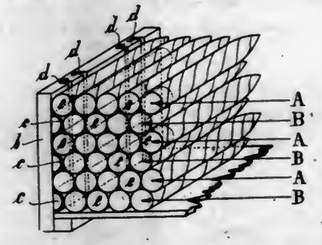
3. In a temporary binder or loose sheet holder, the combination with a back piece, of vertically slotted posts arranged on said back piece; sheet clamping members arranged through said slots; and screws threaded into said posts to engage said clamp members.

4. A temporary binder or loose sheet holder comprising an internally threaded longitudinally slotted post; a clamping member arranged through said slot and having portions engaging the sides of said post; and a screw threaded into the post to engage said clamping member.

1,027,094. CIGAR-PRESSING BOX. ROBERT WOERNER, Mannheim, Germany. Filed Feb. 1, 1911. Serial No. 605,894. (Cl. 131—18.)

1. The combination with a side part for cigar-pressing boxes, of plurality of independent insertions on said side part adapted to fill up the spaces between a succession of alternating layers of cigars having one cigar more than the other layers.

2. The combination with a side part for cigar pressing boxes, of movable insertions adapted to fill up the spaces between alternating layers of cigars having one cigar more than the other layers, and means for adjusting said movable insertions on said side part in a direction at right angles to the layers.



3. The combination with a side part for cigar-pressing boxes, of independent insertions of elastic material on said side part and adapted to fill up the spaces between alternating layers of cigars having one cigar more than the other layers.

4. The combination with a side part for cigar-pressing boxes, of movable insertions of elastic material adapted to fill up the spaces between alternating layers of cigars having one cigar more than the other layers, and means for adjusting said movable insertions on said side part in a direction at right angles to the layers.

5. The combination with a side part for cigar-pressing boxes provided with grooves at right angles to the layers of cigars, of independent insertions of rounding transverse sections adapted to fill up the spaces in alternating layers of cigars having one cigar less than the other layers and provided with projections guided in the grooves of said side part.

[Claim 6 not printed in the Gazette.]

1,027,095. SUCTION-TUBE FOR HYDRAULIC DREDGING-MACHINES. LOUIS J. BALTZ, Buffalo, N. Y. Filed Nov. 30, 1910. Serial No. 594,928. (Cl. 37—9.)



1. In an apparatus of the kind described, the combination of a suction tube having a main passage and a by-pass opening at opposite ends into said main passage, and a crusher in said main passage between the ends of said by-pass.

2. In an apparatus of the kind described, the combination of a suction tube having a main passage and a by-pass, a crusher in said main passage, and means for directing the material passing through said tube to said crusher or diverting the same through said by-pass.

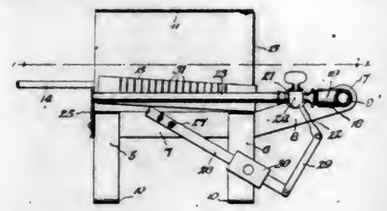
3. In an apparatus of the kind described, the combination of a suction tube having a main passage and a by-pass connected at opposite ends with said main passage, a pivoted gate at each end of said by-pass, and a crusher in the main passage between said gates.

4. In an apparatus of the kind described, a suction tube having a pair of Y-shaped sections, a distance section connecting two arms of the Y-shaped sections, and a crusher section provided with crushing mechanism and connecting the other arms of said Y-shaped sections.

5. In an apparatus of the kind described, a suction tube having two Y-shaped sections, a gate provided to the crotch of each Y-shaped section so as to open or close either thereof, a distance section connecting two arms of said Y-shaped sections, and a crusher section provided with crushing-mechanism connecting the other arms of said Y-shaped sections.

[Claims 6 to 9 not printed in the Gazette.]

1,027,096. SOLDERING-IRON STOVE. NICHOLAS G. BARKERS, Chicago, Ill. Filed Jan. 30, 1911. Serial No. 605,622. (Cl. 126—238.)



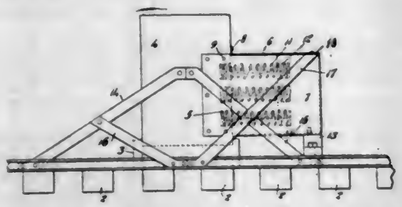
In a tool heater, the combination of a supporting frame, vertically rocking burner pipes carried by said frame, a service pipe carried by the supporting frame and extending across one end of the burner pipes in spaced relation therewith, fuel supply connections extending from said service pipe toward and in alinement with and free from the burner pipes, valves in said supply connections, said valves having actuating arms, and connections between each of the burner pipes and its respective valve, said connections comprising levers pivoted in the frame beneath the burner pipes and having one free end bearing loosely against said pipes, and links pivotally connecting the other end of said levers and the valve arms.

1,027,097. WIRE-TIE TOOL. FRANK E. BEAM, Toledo, Ohio, assignor to The Union Electric Welding Company, Toledo, Ohio, a Corporation of Ohio. Filed Feb. 1, 1912. Serial No. 674,818. (Cl. 140—119.)



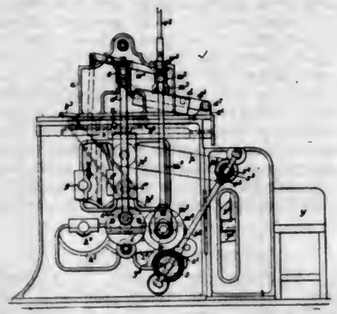
In a device of the described character, a spirally grooved shank, one end of the shank having a broadened portion turned at its extremity at an angle to the shank, said angularly turned portion having therein flaring narrow notches adapted to engage the enlarged ends of a wire, and a handle loose on the shank and engaged with the groove.

1,027,098. BUMPING-POST. ALONZO L. BELT, Cincinnati, Ohio. Filed Nov. 11, 1910. Serial No. 591,897. (Cl. 104—49.)



A bumping post comprising a base, a post, the upper surface of said base being recessed to engage said post, a casing mounted on said post, a buffer mounted in said casing, springs interposed between said buffer and said post and mounted in depressions in said buffer and post, a pair of opposed braces on each side of said post, fixedly securing the upper portion of said post to the rails at points in front of and behind said post, a connecting brace on each side of said post interposed between the outer side of the rail and the rear post brace, and a brace on each side of said post opposed to the connecting brace and interposed between the outer side of the rail, and the upper portion of the buffer rigidly to sustain the same.

1,027,099. PAPER CUTTING AND COLLECTING MACHINE. HORACE DRUMMOND BLACK, London, England. Filed Apr. 28, 1911. Serial No. 623,886. (Cl. 164—42.)



1. In a machine of the class described, the combination with a plurality of cutting devices, each device consisting of a fixed cutting blade and a movable cutting blade, of a pressure platen for each cutting device for clamping the work, said pivoted cutting blade and said pressure platen being movable and independently operated.

2. In a machine of the class described, the combination with a plurality of cutting devices, each consisting of a fixed cutting blade and a movable cutting blade, of a pressure platen for each cutting device, means for moving the said cutting blade and means separate therefrom to cause the said pressure platen to force the work down and hold it upon the fixed cutting blade.

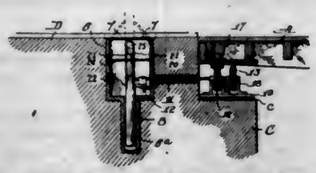
3. In a machine of the class described, the combination with a plurality of cutting devices, of an endless feeding device, said feeding device being provided with projections to engage and move the work and means for moving said projections backwardly away from the work when the latter is in cutting position and to move said projections forwardly and upwardly to engage the said work to begin feeding.

4. In a machine of the class described, the combination with a plurality of cutting devices, of feeding devices therefor, of supporting plates and depressing platens above the same, an endless carrier for carrying the materials after being cut, and means for causing the supporting plates and depressing platens to deliver the cut material to said endless carrier.

5. In a machine of the class described, the combination with a plurality of cutting devices, of a feeding mechanism, a clamping mechanism, supporting plates and depressed platens, a collecting platform, an endless carrier adapted to deliver to said collecting platform and means for causing said supporting plates and depressing platens to deliver the cut materials to said endless carrier.

[Claims 6 and 7 not printed in the Gazette.]

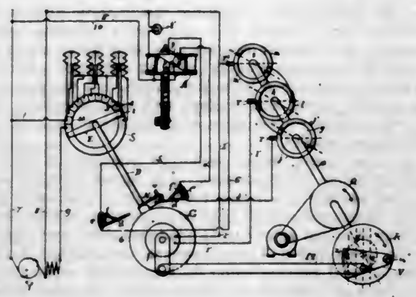
1,027,100. SIGNAL DEVICE FOR DRAWBRIDGES, &c. GEORGE R. BOCK, Port Washington, Wis., assignor of one-half to Herman Schreier and Alfred P. Steffen, Sheboygan, Wis. Filed May 26, 1911. Serial No. 629,566. (Cl. 116—22.)



1. In a signal device for draw bridges, the combination with a revolving draw turning in one direction only, of a vertically movable post constituting a warning-signal, a rack-bar on the post, a shaft and pinion for operating the rack-bar, a gearwheel on the shaft for turning it in one direction, a pinion on the shaft, a second gearwheel in mesh with the pinion for turning the shaft in the other direction, said gearwheels being in different planes, and a pair of rack-bars carried at each end of the draw to turn the gearwheels alternately, substantially as shown and described.

2. In a signal device for draw-bridges, the combination with a revolving draw turning in one direction, of a vertically moving post, a housing therefor, hinged doors in the path of the post so as to be opened and closed thereby as said post is raised and lowered, arms pivoted to the sides of the post so as to swing outward thereon, rods in the path of the arms to close them alongside the post, a rack-bar on the post, a shaft and pinion operating on the rack-bar, a gearwheel on the shaft for turning it in one direction, a pinion on the shaft at one side the gearwheel, and a gearwheel in mesh with the pinion for turning the shaft in the opposite direction; together with a pair of rack-bars at each end of the draw to engage and turn the gearwheels alternately as the draw is operated, substantially as shown and described.

1,027,101. REGULATOR FOR DYNAMOS. WILLIAM H. CHAPMAN, Portland, Me. Filed May 14, 1909. Serial No. 495,870. (Cl. 171—229.)



1. In a regulator for dynamo electric machines, the combination of a rheostat for governing the magnetic field and means for moving the rheostat arm with a series of steps, each step including a movement unequally in opposite directions.

2. In a regulator for dynamos the combination of a rheostat for governing the magnetic field and means for moving the arm of the rheostat with a series of steps each step including a forward movement and a retrograde movement of less extent than the forward movement.

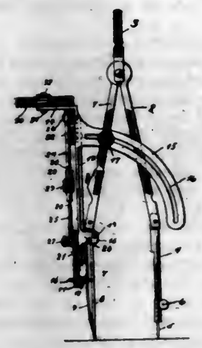
3. In a regulator for dynamos the combination of a relay having a low voltage contact and a high voltage contact, a rheostat actuating means for producing a general movement of the rheostat arm in opposite directions and connected with said contacts and for producing a vibratory movement of the rheostat arm during its general movement, each vibration including an unequal forward and retrograde movement.

4. In a regulator for dynamos, the combination of a rheostat, a rheostat arm, a magnetic clutch capable of positive engagement having one of its clutch members connected to said arm, a rotatable shaft and means operated by said shaft for oscillating the free member of said magnetic clutch to produce an oscillation of said arm, an electric circuit including said magnetic clutch and a commutator and commutator brush for intermittently closing said circuit.

5. In a regulator for dynamos, the combination of a rheostat, a rheostat arm, a magnetic clutch capable of positive engagement having one of its clutch members connected to said arm, a rotatable shaft and means operated by said shaft for oscillating the free member of said magnetic clutch to produce an oscillation of said arm, an electric circuit including said magnetic clutch and a commutator and commutator brush for intermittently closing said circuit, said commutator being rotated by said shaft.

[Claims 6 to 23 not printed in the Gazette.]

1,027,102. DRAFTING DEVICE FOR SHADING CIRCLES. VASILE CONSTANTINESCU, Nelson, British Columbia, Canada. Filed May 12, 1911. Serial No. 626,718. (Cl. 33—17.)



The combination with a compass, comprising pivoted arms, a leg pivoted to one arm, a pen pivoted to the other arm and including a stationary blade and a movable spring blade adapted when released to move away from said stationary blade, of a screw-threaded pin attached to said stationary blade and extending through an opening in the movable blade, a pinion having an opening formed therethrough for receiving said screw-threaded pin, an upright provided at its upper end with a curved plate having a slot formed therethrough, a clamping bolt connected with one of the arms and disposed in said slot, spaced ears rigidly connected with the lower end of the upright and receiving therebetween the upper end of said pen, a plurality of clamping screws connecting said ears and disposed upon opposite sides of said stationary blade whereby said pen is rigidly connected with the upright and may be swung on its pivot by said upright, a pinion rotatably mounted upon the lower end of the upright and engaging the first named pinion, a third pinion rotatably mounted upon the upper portion of said upright, a pitman connecting the second and third named pinions, a horizontal plate formed upon the upper end of the upright and having an opening formed therethrough to receive a portion of the third named pinion, a horizontal pinion disposed upon the upper face of the horizontal plate and engaging the third pinion, and means to turn said horizontal pinion.

1,027,103. TROLLEY-CONTACT. FRANK T. COPE, Alliance, Ohio. Filed Sept. 21, 1911. Serial No. 650,522. (Cl. 246—55.)



1. The combination with a trolley-wire, of a contacting device including a metallic rod having a longitudinally extending portion disposed in a plane lower than the trolley-wire, and a bodily movable and flexible contacting strip loosely connected at its lower edge with the rod in a horizontal plane below the trolley wire.

2. The combination with a trolley-wire, of a contacting device including a longitudinally extending insulating sup-

port, a pair of metallic rods each having a longitudinally extending portion disposed in a plane lower than the trolley-wire, a pair of bodily movable and flexible contact strips each respectively loosely connected at its lower edge with a rod in a horizontal plane below the trolley-wire.

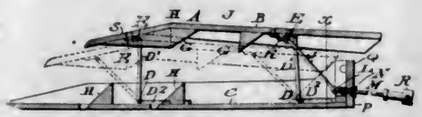
3. The combination with a trolley-wire, of a contacting device including a longitudinally extending insulating support, a pair of metallic rods each having a longitudinally extending portion disposed in a plane lower than the trolley-wire, and a pair of spring-controlled bodily movable and flexible contact strips each loosely connected with one of the rods in a horizontal plane below the trolley-wire.

4. The combination with a trolley-wire, of a contacting device including a longitudinally extending insulating support, a metallic rod secured at one end to the insulating support and having a longitudinally extending portion disposed in a plane lower than the trolley-wire, a bracket at the opposite end of the insulating support for supporting the opposite end of the longitudinally extending rod, and a bodily movable and flexible contacting strip loosely connected with the rod in a horizontal plane below the trolley-wire.

5. The combination with a trolley-wire, of a contacting device including a longitudinally extending insulating support, a pair of longitudinally extending metallic rods, a pair of bodily movable contact strips each pivotally secured at its lower edge to one of the rods, said strips inclined toward each other, and a member located between the upper free ends of the strips.

[Claim 6 not printed in the Gazette.]

1,027,104. ELEVATING OR SEPARATING JACK FOR ELECTRICAL CABLES OR WIRES. THOMAS J. COPE, Philadelphia, Pa. Filed June 5, 1911. Serial No. 631,428. (Cl. 57—15.)



1. In an elevating device of the character stated, stationary and movable jaws, and longitudinally movable swiveled screw means connected with said jaws adapted to impart longitudinal draft to the movable jaws.

2. In an elevating device of the character stated, stationary and movable jaws, independently operable longitudinally movable and radially operating means connected with said jaws and interposed between the same adapted to separate the movable jaw from the stationary jaw.

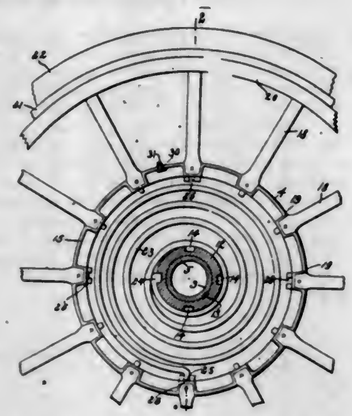
3. In an elevating device of the character stated, a wedge shaped body composed of a pair of jaws, and independently operable longitudinally movable and radially operating means interposed between the same adapted to separate one jaw from another first by draft on said jaw, and next by radial action of a lever which is connected with said jaws.

4. In an elevating device of the character stated, stationary and movable jaws, means connected with said jaws for imparting longitudinal draft to the movable jaw, means for primarily separating the movable jaw from the stationary jaw, and swiveled screw means for further separating said movable jaw to complete operative position.

5. In an elevating device of the character stated, stationary and movable jaws, means connected with said jaws for imparting longitudinal draft to the movable jaw, shoes with inclined faces on the jaws adapted for primarily separating the movable jaw, and a toggle lever having its limbs connected with the opposite jaws and adapted for further separating the movable jaw to complete operative position.

[Claim 6 not printed in the Gazette.]

1,027,105. SPRING-WHEEL. GEORGE CRAWFORD, New York, N. Y., and THOMAS VEITCH, Dumont, N. J.; said Veitch assignor to said Crawford. Filed Jan. 31, 1911. Serial No. 605,675. (Cl. 152—44.)



1. In a spring wheel hub, the combination with an axle carrying inner member, of a spoke carrying outer member capable of movement relatively to said inner member, a plurality of springs mounted side by side upon said inner member and attached to both members, and wedging rings for spacing apart said springs and keeping almost their entire smallest convolutions continuously in contact with said inner member.

2. In a spring wheel hub, the combination with an axle carrying inner member, of a spoke carrying outer member capable of movement relatively to said inner member, a sleeve secured to said inner member, a plurality of springs mounted side by side upon said sleeve and attached to the latter and said outer member, the smallest convolutions of said springs being of trapeziform cross section, and rings of trapeziform cross section arranged between said springs upon said sleeve, the inclined sides of said rings contacting throughout their length with the inclined sides of the smallest convolutions of said springs, whereby the latter are spaced apart and almost their entire smallest convolutions, constantly kept in contact with said sleeve.

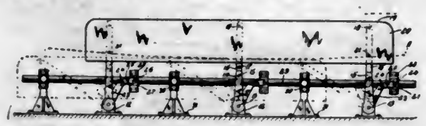
1,027,106. BURIAL-CASKET HARDWARE. MICHAEL F. DAVORAN, Cincinnati, Ohio, assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 4, 1912. Serial No. 669,340. (Cl. 27—2.)



A burial-casket name-plate or handle-lug having a grating or perforated part and a ribbon, tape or like textile fabric adapted to be placed back of or interlaced through said grating or perforated part.

1,027,107. STATION-PLATFORM FOR RAILWAYS. EMIL DE RYSS, New York, N. Y. Filed Mar. 21, 1912. Serial No. 685,373. (Cl. 104—17.)

1. The combination with the overhang of a station platform, of a plurality of arms oscillatably mounted below said overhang, a plate pivotally attached to said arms, said plate being normally held under said overhang, but being adapted to project beyond the same to bridge over the gap between the station platform and the platform of a car when said arms are held substantially at right angles to the tangents of the track, and means connected with said arms adapted to be actuated from the station for causing said arms to project beyond said overhang and said plate to move into its operative position.



2. The combination with the overhang of a station platform, of a plurality of arms oscillatably mounted below said overhang, a plate pivotally attached near to the outer ends of said arms, said plate being normally held under said overhang, but being adapted to project beyond the same to bridge over the gap between the station platform and the platform of a car when said arms are held substantially at right angles to the tangents of the track, and means connected with said arms adapted to be actuated from the station for causing said arms to project beyond said overhang and said plate to move into its operative position.

3. The combination with the overhang of a station platform, of a plurality of arms oscillatably mounted below said overhang, a plate pivotally attached to said arms, said plate being normally held under said overhang, but being adapted to project beyond the same to bridge over the gap between the station platform and the platform of a car when said arms are held substantially at right angles to the tangents of the track, a rod shiftably mounted under said overhang and operatively connected with all of said arms, and means connected with said rod adapted to be operated from the station for causing said rod to be shifted and thereby said arms to project beyond said overhang and said plate to move into its operative position.

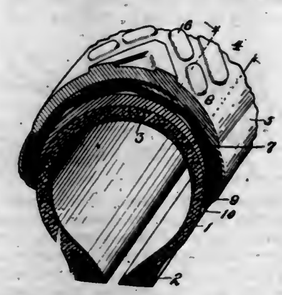
4. The combination with the overhang of a station platform, of a plurality of arms oscillatably mounted below said overhang, a plate pivotally attached near to the outer ends of said arms, said plate being normally held under said overhang, but being adapted to project beyond the same to bridge over the gap between the station platform and the platform of a car when said arms are held substantially at right angels to the tangents of the track, a rod shiftably mounted under said overhang and operatively connected with all of said arms, and means connected with said rod adapted to be operated from the station for causing said rod to be shifted and thereby said arms to project beyond said overhang and said plate to move into its operative position.

5. The combination with the overhang of a station platform, of a plurality of arms oscillatably mounted below said overhang, a plate pivotally attached to said arms, said plate being normally held under said overhang, but being adapted to project beyond the same to bridge over the gap between the station platform and the platform of a car when said arms are held substantially at right angles to the tangents of the track, and means connected with said arms adapted to be actuated from the station for causing said arms to project beyond said overhang and said plate to move into its operative position, said plate when being shifted into its operative position moving in a direction opposite to the motion of the train and being adapted to be restored to its normal position below said overhang by the outgoing train.

[Claims 6 to 8 not printed in the Gazette.]

1,027,108. TIRE-PROTECTOR. WILLIAM T. DORGAN, Akron, Ohio, assignor to The Standard Tire Protector Company, Akron, Ohio, a Corporation of Ohio. Filed Nov. 18, 1911. Serial No. 661,184. (Cl. 152—17.)

1. A tire-protector adapted to be mounted on a tire or tire-shoe and comprising an annularly-formed sheath having a general semi-circular form in cross-section with the inner face thereof polygonally-fashioned, the lateral edges of said sheath being provided with beads adapted to grip the lateral faces of said tire or tire-shoe to thereby retain said protector in position, the polygonally-formed inner faces of said protector engaging said tire or tire-shoe tangentially whereby the angular portions of the inner face of the protector will lie opposite to but out of contact with certain portions of the tire or tire-shoe which are subjected to the greatest flexion or vibration.



2. A tire-protector adapted to be mounted on a tire or tire-shoe and comprising an annularly-formed sheath of of material yieldable in unison with the tire or tire-shoe on which it is mounted, said tire-protector having a general semi-circular form in cross-section, the lateral edges thereof provided with beads adapted to grip the lateral faces of the tire or tire-shoe and to thereby retain the tire-protector in position, the inner face of said protector fashioned to form surfaces of conic frusta united by obtuse-angles to thereby form an approximately polygonal figure, the sides of which are adapted to engage the outer face of said tire or tire-shoe tangentially whereby the angular portions at the junction of the surfaces of the inner face of the protector will lie opposite to but out of contact with those portions of the tire or tire-shoe which are subjected to the greatest flexion or vibration.

1,027,109. WIRE-FENCE CLAMP. WALTER CLYDE DUNN, Manitou, Ky. Filed Aug. 14, 1911. Serial No. 643,960. (Cl. 39—53.)

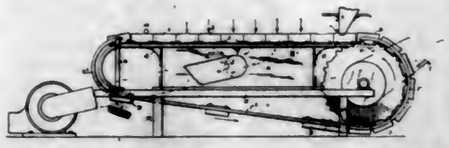


1. A clamp of the character described comprising two clamping members hingedly connected at one end, one of the said members having a longitudinal groove on its inner face, a tongue embedded in the inner face of the other member, set screws passing through the latter member and engaging the tongue to adjust the same, and means for clamping the two members together.

2. A clamp of the character described comprising two members hinged together at one end, a lever pivoted to the other end of one of the said members, a cam secured to the

corresponding end of the other member with which the said levers coöperate to clamp the ends of the members together, and a spring-pressed rod adapted to engage the said cam to hold the lever in position.

1,027,110. MECHANISM FOR TREATING ORE. ARTHUR S. DWIGHT, New York, N. Y., assignor, by mesne assignments, to Dwight & Lloyd Metallurgical Company, Jersey City, N. J., a Corporation of New Jersey. Filed Dec. 23, 1907, Serial No. 407,860. Renewed Feb. 17, 1910. Serial No. 544,507. (Cl. 75—134.)



1. In an apparatus for treating ore, a series of ore receptacles, movable successively through the region where the ore is treated, means for returning them independently of each other to their initial point of travel and means for delivering an ore-treating gaseous fluid to the ore while supported by the said receptacles, substantially as set forth.

2. In a mechanism for treating ore, the combination with a series of independent pallets or ore receptacles, of means for advancing them through the region where the ore is treated, means for delivering a gaseous fluid to the ore while being advanced through the said ore-treating region, a guide-way along which the said pallets or receptacles return toward the point where they initially commence to travel, and power devices for causing the pallets to be advanced along the return guideway, substantially as set forth.

3. In an apparatus for treating ore, the combination of a series of independent pallets or ore receptacles, a guideway along which they travel in one direction during the time the ore is being treated, a return guide-way along which they travel in the opposite direction, means for carrying them from one of the said guideways to the other, and means for delivering to the ore while the pallets are moving along the first mentioned guide-way a combustion-supporting gaseous fluid, substantially as set forth.

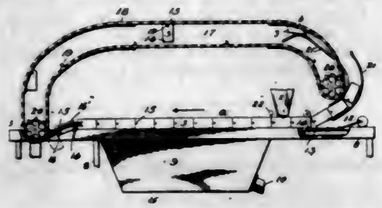
4. In an apparatus for treating ore, a series of independent pallets or ore receptacles, a device for controlling the movement of a current of air used in treating the ore, means for forming an air-tight closure for the pallets or receptacles as they travel through the region where the ore is treated, supporting mechanism for the pallets or ore receptacles adapted to permit them to be discharged while supported thereon after they have traveled through the region where the ore is treated, and means for returning them from the delivery end back to the initial end of the region where the ore is treated, substantially as set forth.

5. In an apparatus for treating ore, the combination of a series of mallets or ore receptacles, each independent of the others, air forcing mechanism, means for advancing a series of the said pallets or ore receptacles past the air-forcing mechanism, a support or guide-way for the pallets along which they successively move at a relatively high speed after separating from the said series, and means for restoring them from the said guide-way or support to the series passing the said air mechanism, substantially as set forth.

[Claims 6 to 14 not printed in the Gazette.]

1,027,111. CONVEYING APPARATUS. ARTHUR S. DWIGHT, New York, N. Y., assignor to Dwight & Lloyd Metallurgical Company, a Corporation of New Jersey. Filed Apr. 30, 1910. Serial No. 558,621. (Cl. 198—2.)

1. A conveying apparatus comprising a movable, open, trough-like carrier for loose material formed of a series of independent disconnected elements arranged to be brought together end to end, and means for taking the said elements one at a time from the discharge end of the said series and transporting them to the feed end thereof, substantially as set forth.



2. A conveying apparatus comprising a series of independent disconnected elements arranged to be brought together end to end to form an open substantially continuous carrier for loose material, and means for successively separating the leading element from, and without disturbing the rest of, the series to permit a discharge therefrom of the material being conveyed, and means for returning the said separated elements to the feed end of the apparatus.

3. In a conveying apparatus, a series of independent disconnected elements arranged to be brought together end to end to form a substantially continuous carrier adapted to receive loose material, a trackway along which the said elements are moved while in active operation, in close end to end arrangement, and return means for directing the said elements from the discharge to the feed end of the said trackway.

4. In a conveying apparatus, a series of independent disconnected elements arranged to be brought together end to end to form a substantially continuous carrier which is adapted to receive and convey loose material, a trackway along which the said elements, while in active operation, are moved, in close end to end arrangement to form said continuous carrier, means for moving the said continuous carrier at a relatively slow speed, and means for successively separating the elements one at a time from the discharge end of the continuous carrier and for transporting them to the feed end thereof at a speed greater than that at which they are moved when arranged in series as a carrier.

5. In a carrying apparatus, a series of independent disconnected carrying elements arranged to be brought together end to end to form a substantially continuous carrier adapted to receive loose material, a trackway along which they travel when in said end to end arrangement, and means for returning the carrying elements independently one of the other from the discharge end of the track to the feed end thereof, the said returning means being arranged above the trackway.

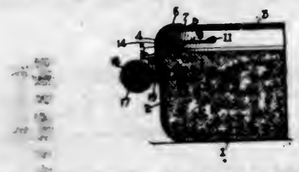
[Claims 6 to 17 not printed in the Gazette.]

1,027,112. BOTTLE-STOPPER. WILLIAM A. ECKERT, Buffalo, N. Y. Filed Sept. 15, 1910. Serial No. 582,141. (Cl. 65—45.)



A device of the class described consisting of a perforated top member having a downwardly extending vertical flange, a lower member having a tapering or bell shaped portion, a flanged top portion comprising an upwardly extending vertical flange inclosing the vertical flange on said top member and an inwardly projecting horizontal flange engaging said top member, an intermediate shoulder extending inwardly from the termination of the bell shaped portion and a lower reduced tubular portion depending from the inner termination of the intermediate shoulder, and a cork annulus fitted around the lower reduced tubular portion and having its upper annular edge against the intermediate shoulder.

1,027,113. CAN-COVER LOOSENER. OTTO E. ENELL, Buffalo, N. Y., assignor to Buffalo Specialty Company, Buffalo, N. Y., a Corporation of New York. Filed Mar. 17, 1910. Serial No. 550,028. (Cl. 220—6.)



1. In combination with a receptacle and a flanged cover for said receptacle of a loosening device for said cover consisting of an upper member and a lower member, said members having lower and outer ends, and a projecting knob-like member connected to and extending from the lower and outer ends of said upper end lower members; said upper and lower members being of angular form and extending approximately parallel with each other and being slightly separated to permit the interfitting of the lower member between the cover flange and the receptacle side and the fitting of the upper member against the outer surface of the cover flange and top.

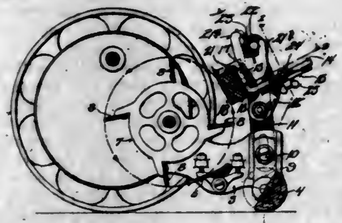
2. The combination with a receptacle and a flanged cover for said receptacle, of a cover loosening device consisting of an angular upper member having a vertical portion adapted to fit against the exterior of the flange of the cover and a horizontal portion extending from the upper end of the body of the cover, an angular lower member having an upper horizontal portion adapted to fit under the cover and a lower vertical portion extending downwardly from the upper horizontal portion and adapted to be interposed between the cover and receptacle, said upper and lower members having lower and outer ends and an outwardly projecting operating member connected to the lower and outer ends of the vertical portions of both the upper and lower members.

3. The combination with a receptacle and a flanged cover for said receptacle, of a loosening device having angular members extending approximately parallel and adapted to be detachably slipped on opposed sides of the flanged cover with the upper member extending on the exterior of the cover and the lower member fitting between the cover and receptacle, said upper and lower members having outer and lower projecting ends which when the loosening device is properly fitted in place extend in substantially the same horizontal plane as the lower edge of the flanged cover and a projecting operating member attached to the outer and lower ends of the angular members.

1,027,114. SHARPENER ATTACHMENT FOR MOWERS. JENNIE EWE and CHARLES H. EWE, Racine, Wis. Filed Jan. 24, 1910. Serial No. 539,766. (Cl. 56—19.)

1. In a lawn-mower having a frame, a rotatory reel mounted in the frame, blades carried by the reel, the gage-roller, journal-boxes for the gage-roller and bolts for securing the journal-boxes to the frame; the combination of a sharpener attachment comprising: arms adjustably supported by the journal-box bolts, a backing-strip secured to the arms and a bar of abrading material secured to the backing-strip, the bar being adjusted to engage the reel blades with each rotation thereof.

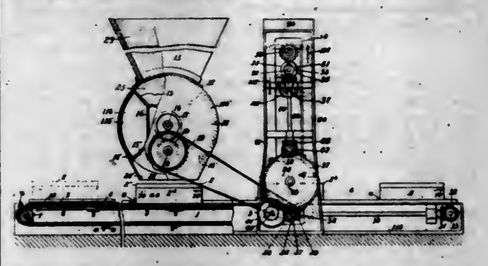
2. In a lawn-mower having a frame, a rotatory reel mounted in the frame, blades carried by the reel, the gage-roller, journal-boxes for the gage-roller, and bolts for securing the journal-boxes to the frame; the combination of a sharpener attachment comprising arms supported by the journal-box bolts, hangers carried by the arms, brackets adjustably secured to the hangers a backing-strip secured to the arms and a bar of abrading material secured to the backing-strip, the bar being adjusted to engage the reel blades with each rotation thereof.



3. In a lawn-mower having a frame, a rotatory reel mounted in the frame, blades carried by the reel, the gage-roller, journal boxes for the gage-roller, and bolts for securing the journal-boxes to the frame; the combination of a sharpener attachment comprising arms supported by the journal-box bolts, hangers pivoted to the arms, a teat extending from the upper end of each arm, a pair of fingers extending from the hangers upon opposite sides of the teats, a spring connection between the hanger, one of the hanger arms and teat, a bracket adjustably secured to each hanger, a backing-strip secured to the arms, and a bar of abrading material secured to the backing-strip, the bar being adjusted to engage the reel blades with each rotation thereof.

4. In a lawn-mower having a frame, a rotatory reel mounted in the frame, blades carried by the reel, the gage-roller, journal-boxes for the gage-roller, and bolts for securing the journal-boxes to the frame; the combination of a sharpener attachment comprising arms supported by the journal-box bolts, hangers pivotally mounted upon the arms, a yielding connection between the arms and hangers, feet extending from said hangers, brackets adjustably secured to the feet, and a bar of abrading material secured to the hangers.

1,027,115. MOLDING APPARATUS. DAVID M. FAHNESTOCK, Pittsburgh, Pa. Filed Feb. 25, 1911. Serial No. 610,857. (Cl. 22—26.)



1. In molding apparatus, the combination with an endless conveyer adapted to carry flasks and pouring means for inserting molding material in the flasks while in motion, and mechanism for simultaneously actuating said conveyer and said pouring means, of pattern inserting means in the path of the flasks on the conveyer, and means for successively actuating said conveyer, and said pattern inserting means, substantially as described.

2. In molding apparatus, the combination with a conveyer adapted to carry flasks and pouring means for inserting molding material in the flasks while in motion, and pattern inserting means adapted to insert a pattern in each of the flasks on the conveyer, driving connections for simultaneously actuating said conveyer and said pouring means, driving connections for actuating said pattern inserting means, and mechanism connecting said driving connections

to a source of power, and arranged to actuate the same alternately.

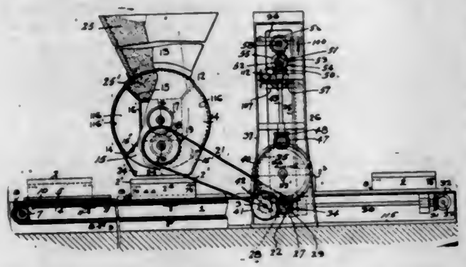
3. In molding apparatus, the combination with an endless conveyer adapted to carry flasks, and means for inserting molding material in each of the flasks, of a movably carried pattern, inserting means arranged to insert said pattern in each of said flasks successively and withdraw the same therefrom, and means for alternately actuating said conveyer and said pattern inserting means.

4. In molding apparatus, the combination with an endless conveyer adapted to carry flasks and pouring means for inserting molding material in the flasks while in motion and mechanism for simultaneously actuating said conveyer and said pouring means, of mold forming apparatus in the path of the flasks on the conveyer, and driving connections between said conveyer and the source of power, and a driving connection between said mold forming mechanism and the source of power, said driving connections being provided with means for alternately interrupting their respective drives, substantially as described.

5. In a molding apparatus, the combination of an endless conveyer, a shaft operatively connected thereto, mold forming apparatus and a shaft operatively connected thereto, gear wheels carried by said shafts respectively, a driving shaft connected to the source of power and two gear wheels carried thereby and each provided with gear teeth arranged to mesh with the aforesaid gear wheels respectively, and with delay faces whereby when the gear teeth of one of said last mentioned wheels are enmeshed those of the other are idle, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,027,116. METHOD OF MAKING MOLDS. DAVID M. FAHNESTOCK, Pittsburgh, Pa. Filed Feb. 25, 1911. Serial No. 610,858. (Cl. 22—20.)



1. The improvement in the art of making molds consisting in carrying a flask in a continuous course, and filling said flask while in motion by pouring a determined quantity of molding material into said flask from an outside source, and then forcing a pattern into the flask to form the mold.

2. The improvement in the art of making molds consisting in conveying a flask in a continuous course, inserting molding material in said flask while in motion, then interrupting the motion of the flask and forcing a pattern therein and forming a mold, and then resuming the motion of the flask, substantially as described.

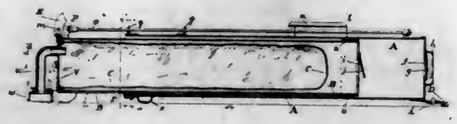
3. The improvement in the art of making molds consisting in carrying a series of flasks in a defined course in one direction, inserting a determined quantity of molding material in each of said flasks while in motion, interrupting the motion of each flask, and forming a mold in said molding material, and then resuming the motion of the flask, substantially as described.

4. The improvement in the art of making molds consisting in conveying a flask in continual course, inserting molding material in said flask while in motion, then arresting the motion and inserting a pattern in the molding material, then pressing the molding material about the pattern, and then resuming the motion of the flask containing the finished mold.

5. The improvement in the art of making molds consisting in conveying a multiplicity of flasks in continual course at regular intervals in their course, inserting molding material into each of the flasks while in motion, arresting the motion of the flasks and forming a mold in each flask successively, and then resuming the motion of the flasks to deliver the completed molds and resume the filling of the flasks in order.

[Claim 6 not printed in the Gazette.]

1,027,117. VACUUM-CLEANER. WILLIAM R. FOWLER, Baltimore, Md. Filed Oct. 26, 1911. Serial No. 656,920. (Cl. 15—60.)



1. In a vacuum cleaner the combination of an outer cylinder in a horizontal position having one end closed and provided with a valve; a foot-piece to rest on the floor and flexibly attached at the closed end of said outer cylinder; an interior cylinder fitting like a piston within the outer cylinder and reciprocable therein; a flexible bag-shaped dust collector in said interior cylinder; an inlet-nozzle carried at the outermost end of said interior cylinder and adapted to contact with the surface of the floor as said cylinder reciprocates; and an actuating rod-handle attached to the outermost end of said reciprocable cylinder.

2. In a vacuum cleaner the combination of an outer cylinder working in a horizontal position and having a closed end provided with a valve; a foot-piece that rests on the floor and is connected with the said outer cylinder by two joints one of which permits a sidewise movement and the other a vertical movement; a second cylinder fitting like a piston and also movable in said outer cylinder and provided at its outermost end with rollers that travel on the floor; a dust collector carried in the said movable cylinder; and an inlet nozzle carried at the outermost end of said movable cylinder and discharging into the dust-collector and contacting with the surface of the floor.

3. In a vacuum cleaner the combination of two cylinders one fitting like a piston within the other and to be operated in a horizontal position and one reciprocable relative to the other which remains stationary; a foot-piece attached to one of said cylinders and arranged to rest on the floor to enable the operator to hold it from movement by the pressure of his foot; an actuating rod-handle attached to the other cylinder and by means of which the same operator may impart thereto reciprocating movement; a flexible dust-collector attached to one cylinder, and an inlet nozzle to contact with the surface of the floor and carried by the reciprocable cylinder and discharging into the said dust-collector.

1,027,118. PROCESS FOR MAKING CEMENT COMPOUNDS. WALTER K. FREEMAN, Oscawana, N. Y. Filed Feb. 16, 1911. Serial No. 609,014. (Cl. 106—29.)

1. A magnesia-cement composition containing saponified fibrous vegetable matter.

2. A magnesia-cement composition containing lime and saponified fibrous vegetable matter, casein, and pulverized stony material.

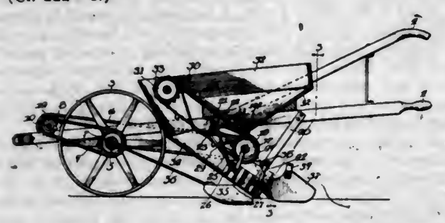
3. A magnesia-cement composition containing fibrous vegetable matter reacted upon by an oleaginous compound and caustic alkali.

4. A cement composition containing commercial magnesium oxid, magnesium chlorid, casein, pulverized stony material, and saponified fibrous vegetable matter.

5. A cement composition containing commercial magnesium oxid, magnesium chlorid, casein, pulverized stony material, and fibrous vegetable matter reacted upon by an oleaginous compound and caustic alkali.

[Claims 6 to 8 not printed in the Gazette.]

1,027,119. MACHINE FOR PLANTING GARLIC, SETONIONS, AND THE LIKE. JOHN A. FRITSCH, Shermerville, Ill. Filed May 9, 1911. Serial No. 625,939. (Cl. 111—8.)



1. In a seed planter in combination, a hopper, a conveyer passing through said hopper, a trough underlying said hopper and conveyer, seed feeding means positioned in said trough, and means to adjust said feeding means for objects of different sizes.

2. A seed planter comprising a substantially plane corrugated stationary plate and a substantially plane corrugated reciprocating plate moving over the face of said stationary plate.

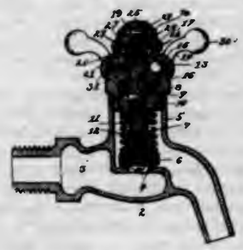
3. In a seed planter in combination, a hopper, a conveyer passing through said hopper, a trough into which said conveyer delivers, and feeding mechanism operated in synchronism with said conveyer, and means to adjust said feeding means for objects of different sizes.

4. A device of the class described comprising a frame, wheels having a shaft journaled in said frame, a shaft geared to said wheel shaft, a clutch carried on said second shaft, a conveyer shaft geared to said clutch shaft, a crank shaft geared to said conveyer shaft, links operated by said crank shaft, reciprocating plates driven by said links, stationary plates inclosing said reciprocating plates and links for supporting the weight of said reciprocating plates.

5. A seed planter comprising stationary corrugated plates, reciprocating plates positioned between said corrugated plates, pivoted links carrying the weight of said reciprocating plates and links for reciprocating said plates.

[Claims 6 to 21 not printed in the Gazette.]

1,027,120. SELF-CLOSING FAUCET. JOSEPH H. GLAUBER, Cleveland, Ohio. Filed Feb. 13, 1911. Serial No. 608,260. (Cl. 137—4.)



1. In a self-closing faucet, a valve having a stem, a rotatable handle and means to lift said stem having adjusting devices to definitely relate said parts and take up wear, a separate index button, and adjustable means to detachably fasten said index button upon said adjusting devices.

2. In a self-closing faucet, a valve stem, a rotatable handle, an adjustable nut to secure said handle upon said stem, a removable index button and a screw-ring adjustably engaged with said nut to secure said index button in place in any adjusted position of said nut.

3. In a self-closing faucet, a valve stem, a rotatable handle, a nut adjustably mounted upon said stem to secure the handle rotatably thereto, a locking screw for said nut adjustably engaged with said stem, an index member adapted to seat upon said screw, and a screw ring engaged with said nut to fix said index member in any adjusted position thereon.

4. In a self-closing faucet, a valve stem, a rotatable handle, a bearing member for said handle locked against rotation upon said stem, a nut to adjustably fix said member upon said stem, a screw engaged with said stem having a head engaged with said nut, an index button seated upon said screw-head, and a screw ring to lock said button removably upon said nut.

5. In a self-closing faucet, a valve stem, a rotatable handle having a vertical annular flange at its top, a bearing member for the handle on said stem, a nut to secure said member adjustably upon said stem, means to lock said nut in adjusted position, an index button at the top of said stem, and a screw-ring to removably fasten said button in place, said ring having a depending flange opposite the flange on the handle for the purposes described.

[Claims 6 to 9 not printed in the Gazette.]

1,027,121. INDURATED ALBUMINOID COMPOUND. BYRON B. GOLDSMITH, New York, N. Y. Original application filed Oct. 7, 1907, Serial No. 396,189. Divided and application filed Jan. 2, 1909, Serial No. 470,393. Divided and this application filed Apr. 27, 1910. Serial No. 558,033. (Cl. 106—46.)

1. The process of producing a thermoplastic compound which consists in first causing an indurating agent to act upon a vegetable albuminoid and then mixing a converting agent therewith, substantially as described.

2. The process of producing a thermoplastic compound which consists in first causing an indurating agent to act upon a vegetable albuminoid, then mixing a converting agent therewith, and heating and pressing the mass, substantially as described.

3. The process of producing a thermoplastic compound which consists in first mixing an indurating agent with a vegetable albuminoid, mixing a converting agent with the mass so produced, and heating and pressing the same, substantially as described.

4. The process of producing a thermoplastic compound which consists in first treating a vegetable albuminoid with formaldehyde, mixing the mass so produced with a converting agent, and heating and pressing the same, substantially as described.

5. The process of producing a thermoplastic compound which consists in first treating a vegetable albuminoid with an indurating agent, mixing the mass so produced with beta-naphthol or its equivalent, and heating and pressing the same, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,027,122. INDURATED CASEIN COMPOUND. BYRON B. GOLDSMITH, New York, N. Y. Original application filed Jan. 2, 1909, Serial No. 470,392. Divided and this application filed Apr. 27, 1910. Serial No. 558,034. (Cl. 106—46.)

1. The process of producing a thermoplastic compound which consists in first causing an indurating agent to act upon casein, then mixing a converting agent therewith, and heating and pressing the mass, substantially as described.

2. The process of producing a thermoplastic compound which consists in first mixing an indurating agent with casein, mixing a converting agent with the mass so produced, and heating and pressing the same, substantially as described.

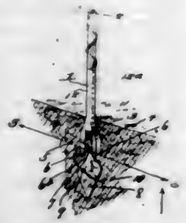
3. The process of producing a thermoplastic compound which consists in first treating casein with formaldehyde, mixing the mass so produced with a converting agent, and heating and pressing the same, substantially as described

4. The process of producing a thermoplastic compound which consists in first mixing a formaldehyde solution with casein, mixing the mass so produced with a converting agent, and heating and pressing the same, substantially as described.

5. The process of producing a thermoplastic compound which consists in first treating casein with an indurating agent, mixing the mass so produced with betanaphthol or its equivalent, and heating and pressing the same, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

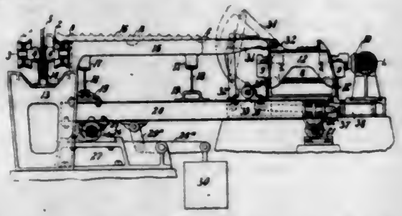
1,027,123. FENCE-ANCHOR. WILLIAM P. GRANNIS, Kendallville, Ind. Filed Jan. 27, 1912. Serial No. 673,908. (Cl. 189—92.)



1. In combination, a driving bar having a broadened flattened lower end provided with a vertical recess therein, the side walls of the recess terminating in outwardly extending undercut lower portions, adapted to receive a substantially diamond shaped anchor, and means for holding the anchor to the bar, the means also constituting means for holding a fence wire close to the ground.

2. In a combination, a fence anchor driving bar having a broadened flattened end provided with a vertical recess therein, the side walls of the recess terminating in outwardly extending lower portions adapted to receive a point of the fence anchor therebetween, and a wire connecting to the anchor and arranged against and parallel with the bar and connected thereto.

1,027,124. HOTBED. ASA W. GRIFFITH, Youngstown, Ohio. Filed Sept. 12, 1910. Serial No. 581,567. (Cl. 80—42.)



1. A creeping hot bed having stationary supports for the materials being handled, a series of movable lifting bars located at separated points in the length of the hot bed and forming movable supports for said materials, and means for actuating the movable bars to transfer the materials sidewise across the width of the hot bed, said actuating means being arranged to lift one end of the lifting bars while moving said bars lengthwise in transferring the materials sidewise across the hot bed.

2. A creeping hot bed having a series of stationary grids forming supports for the materials being handled, a series of movable bars located at separated points in the length of the hot bed and forming reciprocating supports for said materials, and means for actuating the movable bars to transfer materials sidewise across the width of the hot bed, one end of said movable bars being arranged to lift while reciprocating in transferring the materials across said hot bed.

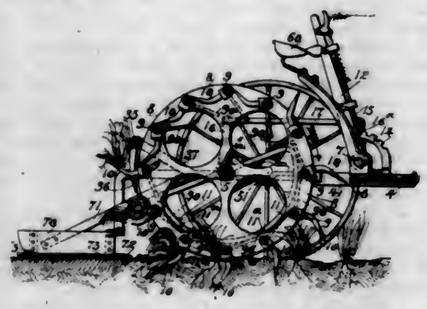
3. A creeping hot bed having a stationary flat surface for supporting the materials being handled, a horizontally moving frame having notched lifting bars for moving said materials across the width of said flat surface, the moving frame being supported at one side beyond the marginal edges of the stationary flat surface, the opposite side of said frame being lifted during the horizontal movement of the frame.

4. In a hot bed, a series of horizontally movable lifting bars, fixed supports alternating with said movable bars in supporting materials being handled, and means for actuating said lifting bars to transfer the materials sidewise from one side to the other of said hot bed, said means being arranged to lift one end of the lifting bars during the horizontal movement of said bars.

5. A hot bed having a series of grids forming stationary supports for the materials being handled, a series of longitudinally movable bars located at separated points in the length of the hot bed and forming movable supports for said materials, and means for actuating the movable bars to transfer materials sidewise across the width of the hot bed arranged to lift one end of the bars during the lengthwise movement thereof, said actuating means being arranged to move and hold the lifting bars below the level of the top surface of said grids.

[Claim 6 not printed in the Gazette.]

1,027,125. QUACK-GRASS DIGGER. LOUIS E. GUIDINGER, Rolling Stone, Minn. Filed Dec. 13, 1910. Serial No. 597,017. (Cl. 97—38.)



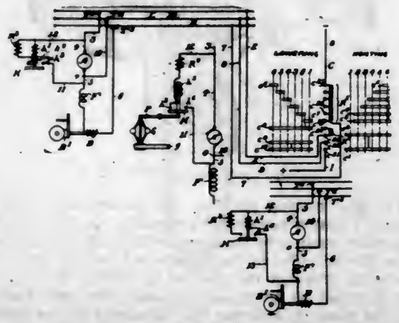
1. A shaft, tractor wheels on the ends thereof, a cylinder rotatable on the said shaft, said cylinder including cupped wheel-like end members, a set of tooth carrying rods mounted within the said ends, levers on the ends of the said rods within said cupped like end members, and cams within the said cupped like members fixedly mounted on the shaft to be engaged by said levers to rock the said tooth carrying rods, said cupped wheel-like member including rim portions that protectively surround the said levers and cams.

2. A shaft, tractor wheels on said shaft, a cylinder rotatable on said shaft, said cylinder including cupped wheel-like end members, a set of tooth carrying rods mounted in said end members, levers on said rods within said cupped wheel-like end members, cams within said end members, relatively fixed on said shaft to be engaged by said levers to rock said rods, a relatively fixed comb curved to conform to the curvature of said cylinder between which said rod teeth are projectable at times, substantially as shown and described.

3. A shaft, tractor wheels on said shaft, a cylinder rotatable on said shaft, said cylinder including wheel-like end members, a set of tooth carrying rods mounted in said end members, levers on said rods, cams relatively fixed on said shaft to be engaged by said levers to rock said rods, a relatively fixed comb curved to conform to the curvature of said cylinder between the teeth of which comb said rod teeth are projectable at times, and means for raising and lowering said cylinder to regulate the penetration of the teeth into the ground without disturbing the operative function of said comb.

4. A shaft, tractor wheels on said shaft, a rotatable cylinder on said shaft, digging teeth mounted on said cylinder, means for projecting and withdrawing the teeth through said cylinder as said cylinder turns, a relatively fixed comb curved to conform to the curvature of said cylinder, and between the teeth of which comb said cylinder carried teeth are projectable at times, together with means for raising and lowering said cylinder to regulate the penetration of the teeth into the ground without disturbing the continuous operative function of said comb.

1,027,126. SAFETY DEVICE FOR ELECTRIC HOISTS. JAY H. HALL, Cleveland, Ohio, assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 18, 1910. Serial No. 550,145. (Cl. 172—179.)



1. In a motor control system, a motor, a switch connecting the armature to a source of supply, a permanently closed shunt around the motor armature including a winding, an open shunt around the armature, and a switch acted upon by the winding to close the open shunt whenever the circuit through the armature is disconnected from the source of suply while the first-named switch remains closed.

2. In a motor control system, a motor, a switch connecting the armature to a source of supply, a permanently closed shunt around the motor armature including a winding, an open shunt including a resistance around the armature, and an automatic switch acted upon by the winding to close the open shunt whenever the circuit through the armature is disconnected from the source of supply while the first-named switch remains closed.

3. In a motor control system, an electric motor, a permanently closed shunt around the armature, a winding in the shunt, a second shunt around the armature having therein normally open switch contacts, and a movable switch contact controlled by the winding and arranged to engage the said open contacts whenever the current in the closed shunt rises above a predetermined value.

4. In a safety device for dynamo electric machines, a switch whose contacts are permanently connected in a shunt around the armature of the machine, a winding in the shunt adapted to hold the switch closed when its contacts are closed, and means for causing said contacts to be electrically connected when the speed of the machine is above a certain value.

5. In a motor control system, an electric motor, a permanently closed shunt around the armature, a winding in the shunt, a second shunt around the armature having therein a pair of normally open contacts, and means controlled by said winding for electrically connecting said contacts whenever the current in the closed shunt rises above a predetermined value.

1,027,127. SELF-FILLING FOUNTAIN-PEN. FRANK H. HARVEY, Dorrance, Kans. Filed May 18, 1911. Serial No. 627,900. (Cl. 120—47.)

A fountain pen formed with a tapering pen holding member, a tubular section detachably connected with said member, a second tubular section detachably connected to said tubular section and having a slot in its side, a groove extending longitudinally in the side of the adjacent ends of said tubular sections and in alinement with said slot, a strip slidably mounted in said groove, a piston and piston



rod located in the casing of said pen, and a detachable lateral projection at one end of said piston rod projecting through said slot and connected to said slidable strip.

1,027,128. PROCESS OF PRESERVING ANIMAL TISSUES AND THE PRODUCTS OBTAINED THEREBY. JAMES ROBINSON HATMAKER, Paris, France. Filed Feb. 28, 1906. Serial No. 303,550. (Cl. 99—5.)

1. The process which consists in finely dividing an animal substance, and exposing it in such form for an extremely short time to a medium heated sufficiently high to cause a substantially instantaneous evaporation of its contained moisture, said medium being at a temperature of over 212° Fahrenheit, whereby there is attained a dried, disintegrated substance containing less than 12 per cent. of water and whose components are substantially unchanged chemically from the corresponding components of the original substance.

2. The herein described process which consists in preparing a film of animal tissue and quickly drying said film at a temperature above 212° Fahrenheit, whereby substantially no chemical change occurs in said tissue.

3. An article, consisting of dried, fluffy, dust-like animal tissue which has been sterilized by exposing it in a thin film upon a surface heated to a temperature above 212° Fahrenheit, whose components contain less than 12 per cent. of water and are substantially the same chemically as the coresponding components of the original substance.

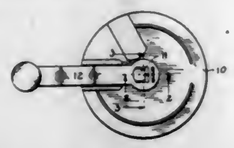
4. A dried, sterile, disintegrated animal substance containing less than 12 per cent. of water and having had the majority of its original water removed by a substantially instantaneous exposure to a very highly heated medium, the chemical composition of its components being substantially the same as that of the coresponding components of the original substance.

5. The hereinbefore described process of preserving animal tissue which consists in grinding such tissue with added water to a thin uniform pulp which can easily be spread out in a very thin film and in then spreading out such pulp, in a very thin film, upon a suitable drying surface heated in excess of 212° F. and allowing it to remain thereon until it contains less than 12% of water.

1,027,129. ELECTRIC-CONTROLLER CRANK. GEORGE E. HENRY, Vincennes, Ind. Filed Dec. 1, 1911. Serial No. 663,328. (Cl. 172—179.)

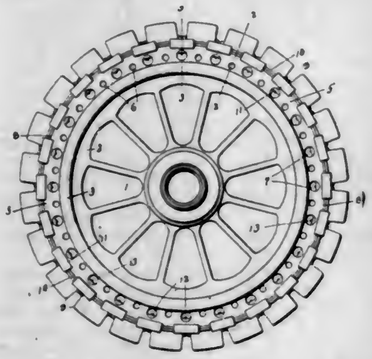
1. An electrical controller crank provided with a socket for the upper end of a controller shaft partially bridged at the top near one side thereof and with two opposite side

walls beveled to make the socket wider at the bottom than at the top, a vertical headed screw projecting through said bridge, a wedge lying against one side of the socket of the crank and below the bridge and into which said screw enters, said wedge increasing in thickness from top to bottom, and another wedge structure in the crank socket and engaging the two beveled side walls thereof and the portions of said wedge structure adjacent said beveled walls increasing in thickness from top to bottom and the other side portion of said wedge structure diminishing in thickness from top to bottom and engaging the first-mentioned wedge, substantially as set forth.



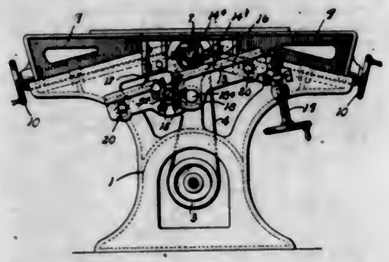
2. An electrical controller crank provided with a socket for the upper end of a controller shaft partially bridged at the top near one side thereof and with two opposite side walls beveled to make the socket wider at the bottom than at the top, a vertical headed screw projecting through said bridge, a wedge lying against one side of the socket of the crank and below the bridge and into which said screw enters, said wedge increasing in thickness from top to bottom, two other similarly formed wedges in said crank socket, each of said last-mentioned wedges having one portion engaging one of the beveled walls of the crank socket and increasing in thickness from top to bottom, and another portion at right-angles to said first-mentioned portion which diminishes in thickness from top to bottom and lies against the first-mentioned wedge, said two lateral wedges having horizontal holes in them registering with each other, and a pin in said holes for loosely connecting said two similar wedges.

1,027,130. CUSHION-TIRE FOR VEHICLES. WESLEY S. HOLMES, Ithaca, and WELCOME B. JOHNSON, New York, N. Y., assignors to August Zinsser, Jr., trustee, New York, N. Y. Filed Feb. 18, 1910. Serial No. 544,601. (Cl. 152—9.)



A vehicle tire comprising an annular cushion element periphery of which is a continuous cylindrical surface, a surrounding flexible distributing band of spring metal in continuous contact with said cushion element, an onter tread or shoe comprising a plurality of independent resilient blocks each having an encircling flange and bearing on said band, a clamping plate extending transversely between each pair of blocks and having lateral extensions on each end, said plates and their extensions bearing on the encircling flanges of said blocks, radial means for fastening said plates to the band and to the cushion element, and means for securing the cushion element to the wheel.

1,027,131. FILLET-MAKING MACHINE. ANDREW F. HOWE, Granite City, Ill., assignor to Commonwealth Steel Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 5, 1911. Serial No. 631,380. (Cl. 144—134.)



In a fillet making machine, the combination of an adjustable V-shaped trough for supporting the fillet blank to be operated upon, a cutter head fixedly mounted to one side of the pivotal point of the trough and located above said trough for grooving the face of the blank, and a cutter head mounted so as to operate upon the rear faces of the fillet blank to increase the angularity of the relation of said rear faces to each other.

1,027,132. AZO DYE. MYRTIL KAHN and ANTON OSSENBECK, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Jan. 4, 1912. Serial No. 669,425. (Cl. 8—1.)

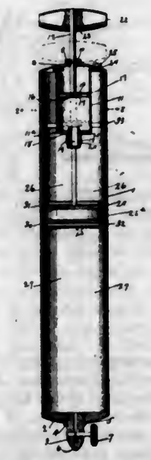
1. The herein described new azo dyestuffs which are after being dried and pulverized brown powders soluble in concentrated sulfuric acid generally with a red coloration; yielding upon reduction with stannous chlorid and hydrochloric acid an orthoaminophenol sulfonic acid and 2.4-5.4'-tetraaminodiphenyl; dyeing wool in brow shades which after being chromed are distinguished by their excellent fastness to potting, substantially as described.

2. The herein described new azo dyestuff which is after being dried and pulverized a brown powder soluble in concentrated sulfuric acid with a red coloration; yielding upon reduction with stannous chlorid and hydrochloric acid 2.6-diamino-1-phenol-4-sulfonic acid and 2.4.5.4'-tetraaminodiphenyl; dyeing wool in brown shades which are after being chromed distinguished by their excellent fastness to potting, substantially as described.

1,027,133. FIRE-EXTINGUISHER. ERNEST M. LAWRENCE, New York, N. Y., assignor, by mesne assignments, to The Electrene Company, a Corporation of New York. Filed Feb. 25, 1911. Serial No. 610,883. (Cl. 169—17.)

1. A device of the character specified, including in combination, an elongated casing, an air-compressor mounted at one end of said casing and including a compression-chamber within said casing, a piston working in said chamber, and valves communicating therewith, and a floating material-expelling member slidably disposed in said casing independently of said air-compressor and movable under the influence of the compressed medium produced by the said compressor.

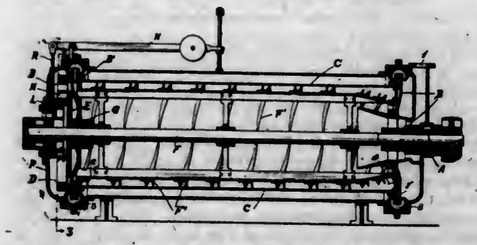
2. A device of the character specified, including in combination, an elongated casing, an air-compressor mounted at one end of said casing and including a compression-chamber within said casing, a piston working in said chamber, valves communicating therewith, a floating material-expelling member slidably disposed in said casing independently of said air-compressor and movable under the influence of the compressed medium produced by the said compressor, a nozzle at the discharge end of said casing, and a cut-off valve in said nozzle.



3. A device of the character specified, including in combination, an elongated casing, an air-compressor mounted at one end of said casing and including a compression-chamber within said casing, a piston working in said chamber, valves communicating therewith, a floating material-expelling member slidably disposed in said casing independently of said air-compressor and movable under the influence of the compressed medium produced by the said compressor, a nozzle at the discharge end of said casing, a cut-off valve in said nozzle, and means communicating with the interior of said casing for permitting escape therefrom of the compressed medium.

4. A device of the character specified including in combination, a casing, a floating material-expelling member movably supported within said casing and dividing the same into a material storage-chamber and a compression chamber, a cylinder mounted within the compression chamber, a piston working in said cylinder, valved-channels communicating with said compression-chamber and cylinder, and a discharge nozzle mounted on the end of said casing opposite to the compression chamber.

1,027,134. MECHANICAL MOVEMENT FOR PRODUCING A DIFFERENTIAL SPEED BETWEEN DRIVING AND DRIVEN MEMBERS. MEREDITH LEITCH, Springfield, Mass., assignor to Francis J. Arend, New York, N. Y., and John Bernstrom, Stockholm, Sweden. Filed Oct. 24, 1910, Serial No. 588,590. Renewed Oct. 23, 1911. Serial No. 656,081. (Cl. 127—3.)



1. As a mechanical movement, in combination, rotatable driving and driven members, one of said members carrying a ratchet, the other carrying a fulcrum support, one or more levers fulcrumed on said support, and an eccentric with reference to which said driving and driven members rotate, said levers provided with means for coaction with said ratchet and with means for coaction with said eccentric.

2. As a mechanical movement, in combination, rotatable driving and driven members, one of said members carrying a ratchet, the other carrying a fulcrum support, one or more levers fulcrumed on said support, an eccentric of variable throw and with reference to which said driving and driven members rotate, said levers provided with means for coaction with said ratchet and with means for coaction with said eccentric, and means acting on said eccentric tending to counteract the tendency of said levers to vary the throw of such eccentric.

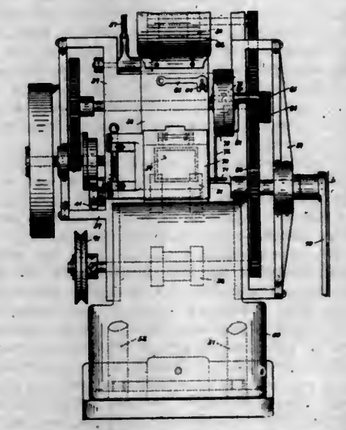
3. As a mechanical movement, in combination, rotatable driving and driven members, having a common axis of rotation, and power-transmitting mechanism for causing said driven member to rotate with reference to the driving member and comprising disengaging means, controlled by the resistance against which said driven member rotates with reference to the driving member, and arranged to check transmission of power through such mechanism from the driving to the driven member when such resistance becomes excessive.

4. As a mechanical movement, in combination, a rotating driving member carrying a ratchet, a driven member, carrying a fulcrum disk, levers fulcrumed on said disk, pawls carried by said levers coacting with said ratchet, shoes carried by said levers on the opposite side of said fulcrum, and a non-rotatable eccentric with which said shoes contact.

5. As a mechanical movement, in combination, a rotating driving member carrying a ratchet, a driven member, carrying a fulcrum disk, levers fulcrumed on said disk, pawls carried by said levers coacting with said ratchet, a non-rotatable eccentric with which the levers, on the side of the fulcrum opposite to that of the pawls, contact.

[Claims 6 to 11 not printed in the Gazette.]

1,027,135. KINETOSCOPE. JEAN A. LE ROY, New York, N. Y. Filed Mar. 12, 1908. Serial No. 420,623. (Cl. 88—18.)



1. In a kinetoscope: a frame, a film, and film moving mechanism movable as a whole relatively to said frame; a face plate, and a gate hinged thereto having registering apertures, said face plate being fixed to said frame; and means to vertically adjust the entire film moving mechanism to properly frame the picture of said film with respect to the aperture of said face plate and gate.

2. In a kinetoscope: a frame; a film, and film moving mechanism movable as a whole relatively to said frame; a face plate, and a gate hinged thereto having registering apertures, the said face plate being fixed to said frame; a rack fixed to said frame; and a segmental gear

pivoted to said film moving mechanism adapted to engage with said rack to vertically adjust said entire film moving mechanism to properly frame the picture of said film with respect to the apertures of said face plate and gate.

3. In a kinetoscope: a film and film moving mechanism; a frame; a take-up reel for said film; a driving pulley operated by said film moving mechanism and adjustable relatively to said reel; a driven pulley for said reel; a belt or the like connecting said former pulley with said reel pulley to transmit motion thereto; an arm attached to said kinetoscope frame; and two idlers carried by said arm upon its outer end and upon which are carried respectively the two branches of said belt or the like.

1,027,136. DISCHARGING-VALVE FOR FLUID-HOLDING RECEPTACLES. MAX MAURAN, Niagara Falls, N. Y. Filed Apr. 8, 1911. Serial No. 619,711. (Cl. 220—110.)

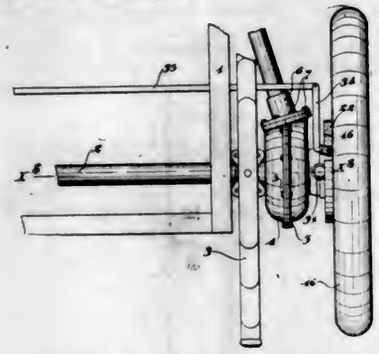


1 The combination of a vented pressure fluid holding receptacle with a deformable seal therefor and an apparatus for manipulating the latter, said apparatus comprising a casing adapted to be secured to said receptacle at the vent thereof, a seal receiving part having a recess therein in communication with said vent, the bottom of said recess forming a seat for the seal, said seal being of tenacious, ductile material and having a firm and close engagement with the lateral walls of said recess, and being securely held by such engagement against outward displacement by the pressure of the fluid in said receptacle, said apparatus further comprising a plunger movable in said casing and adapted to deform said seal and open said vent.

2. The combination of a vented pressure fluid holding receptacle with a deformable seal therefor and an apparatus for manipulating the latter, said apparatus comprising a casing adapted to be secured to said receptacle at the vent thereof, a seal receiving part having a recess therein in communication with said vent, the bottom of said recess forming a seat for the seal, said seal being of tenacious, ductile material and having a firm and close engagement with the lateral walls of said recess, and being securely held by such engagement against outward displacement by the pressure of the fluid in said receptacle, said apparatus further comprising a plunger movable in said casing and adapted to deform said seal and open said vent, said plunger having a portion thereof adapted for direct engagement with the so deformed seal to temporarily close said vent after the same has been unsealed.

1,027,137. KNUCKLE CONNECTION AND DRIVE FOR VEHICLE-WHEELS. LOUIS MAYER, Mankato, Minn. Filed May 5, 1910. Serial No. 559,544. (Cl. 21—90.)

1. In a vehicle running gear, the combination with pivotally connected knuckle boxes, one of which is secured to a fixed part of the vehicle frame and the other of which is provided with a wheel trunnion, of a wheel journaled on said trunnion, a driving hub extending into the relatively fixed knuckle box, a wheel hub extending into the relatively movable knuckle box, and a driving link extending across the axis of said pivotal connection and connecting the said two hubs on opposite sides of said axis but permitting pivotal movement of the said trunnion, substantially as described.



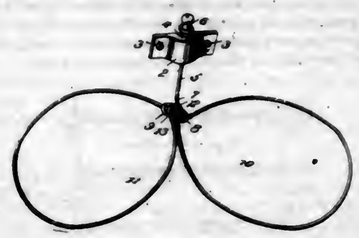
2. In a vehicle running gear, the combination with pivotally connected knuckle boxes, one of which is secured to a fixed part of the vehicle frame and the other of which is provided with a wheel trunnion, of a wheel journaled on said trunnion, a driving hub extending into the relatively fixed knuckle box, a wheel hub extending into the relatively movable knuckle box, and a driving link extending across the axis of said pivotal connection and having angular heads detachably seated in the opposite ends of said driving hub and said wheel hub and serving to transmit motion from the former to the latter while permitting pivotal movement of said trunnion, substantially as described.

3. In a vehicle running gear, the combination with a fixed axle and a gear case secured thereto, the end of said axle projecting into said gear case, a beveled gear in said gear case journaled on the said end of said axle and provided with a driving hub, said gear case having at one side a segmental knuckle box, a driving shaft extending into said gear case and provided with a pinion meshing with said gear, a tubular wheel trunnion provided with a segmental knuckle box pivotally connected to the knuckle box of said gear case by vertically alined and spaced pivot joints, a wheel journaled on said wheel trunnion and provided with a hub extending into the same, and a driving knuckle located within the pivotally connected knuckle boxes and having angular ends seated in the opposing ends of the driving hub of said gear and of the hub of said wheel, substantially as described.

4. In a vehicle running gear, the combination with a fixed axle and a gear case secured thereto, the end of said axle projecting into said gear case, a gear in said gear case, having a hub telescoped over the projecting end of said axle, and anti-friction devices interposed between the projecting end of said axle and the hub of said gear, substantially as described.

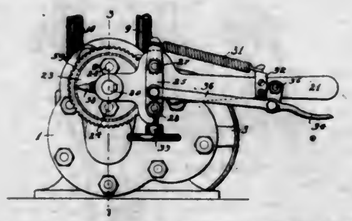
1,027,138. HAT-HOLDER. EDWIN H. MAYO, Richmond, Va. Filed Apr. 13, 1911. Serial No. 620,877. (Cl. 155—26.)

1. A hat holder of the character described, including a supporting plate adapted to be attached to a pew or bench, said plate having a thickened middle portion provided with a vertically disposed passage through it, and a plurality of supporting loops formed of a continuous piece of wire, the wire forming the loops being intertwisted at the bases of the loops and the wire being then extended at right angles to the plane of the loops to form a shank longer than the depth of the supporting plate and slidable and rotatable in the vertical passage of the supporting plate, the upper end of the shank being provided with a handle constituting a stop for limiting the downward movement of the shank with relation to the supporting plate.



2. A hat holder of the character described, comprising a supporting plate having a thickened middle portion formed with a vertical passage therethrough, a pair of loops formed of a continuous piece of wire, the wire forming said loops being bent to form a shank portion of greater length than the depth of the supporting plate whereby the shank may vertically slide, in the supporting plate said shank passing loosely through the passage in the plate, the end of the shank being bent at right angles, then bent upon itself to form a pair of eyes, one disposed in a plane at right angles to the other, the wire of one eye being passed through the other eye and bent into an approximate circle to form one hat supporting loop, then passed through the other eye and bent into an approximate circle to form the other hat supporting loop, the extremity of the wire being passed through one of said first named loops and engaging the wire at the point where it is bent to form the second hat supporting loop, the upper end of the shank being provided with a handle constituting a stop and limiting the downward movement of the shank relative to the supporting plate.

1,027,139. PUMP. JOHN MCGEORGE, Cleveland, Ohio. Filed Mar. 28, 1906. Serial No. 308,408. (Cl. 103—44.)



1. In a device of the character described, a casing, an inlet and an outlet port in said casing, a cylinder mounted within the casing between said ports, means for turning said cylinder, a piston mounted in said cylinder, a shaft passing through said cylinder and having a bearing portion upon which the piston is adapted to reciprocate, and means for varying the position of the shaft with respect to the axis of the cylinder whereby the extent of the throw of the piston into the cylinder is regulated.

2. In a device of the character described, a casing, an inlet and an outlet port in said casing, a cylinder mounted within the casing between said ports, means for turning said cylinder, a plurality of pistons mounted in said cylinder, a shaft passing through said cylinder and having a bearing portion upon which the pistons are adapted to reciprocate, and means for varying the position of the shaft with respect to the axis of the cylinder, whereby the throw of the pistons in the cylinder is regulated, said pistons being so arranged as to discharge successively and at regular intervals.

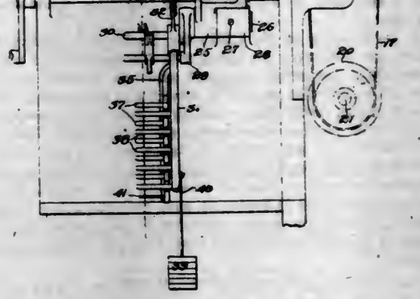
3. In a device of the character described, a casing, an inlet and an outlet port within the casing, a cylinder mounted within the casing between the ports, means for rotating the cylinder, a piston mounted to rotate with the cylinder and adapted to reciprocate therein, a shaft passing through the cylinder and the piston, said piston having a bearing upon the shaft, and means for moving the said shaft bodily to vary the position of the shaft with respect to the the piston, whereby the throw of the latter is regulated.

4. In a device of the character described, a casing, a pair of ports in said casing, a cylinder mounted to rotate between said ports, a piston mounted to reciprocate in said cylinder, a shaft passing through said cylinder and engaging the piston whereby the latter is caused to reciprocate as the cylinder rotates, and means for moving said shaft bodily so that it may occupy different positions relative to the axial line of said cylinder, whereby the piston may transfer fluid from one port to the other in variable quantities or may reverse the direction of the motion of said fluid.

5. In a device of the character described, a casing, a pair of ports in said casing, a cylinder mounted to rotate between said ports, a piston mounted to reciprocate in said cylinder, a shaft passing through said cylinder and engaging the piston whereby the latter is caused to reciprocate as the cylinder rotates, a rod having eccentrics, means for rotating said rod, and means connecting said rod with the shaft for moving said shaft so that it may occupy different positions relative to the axial line of said cylinder, whereby the piston may transfer fluid from one port to the other in variable quantities or may reverse the direction of the motion of said fluid.

[Claims 6 to 15 not printed in the Gazette.]

1,027,140. TENSION MECHANISM FOR WINDING-MACHINES. JOHN O. MCKEAN, Westfield, Mass. Filed Jan. 29, 1912. Serial No. 674,007. (Cl. 242—45.)



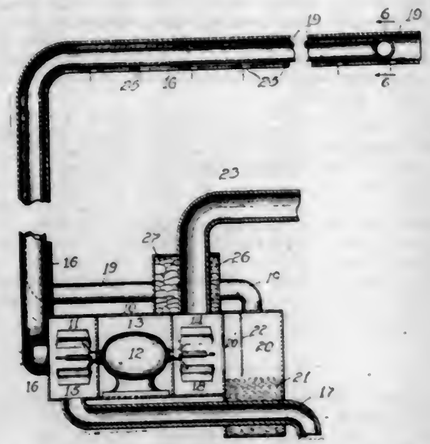
1. In a tension mechanism for winding machines, a tension weight, to force the tension device into its maximum tensioning position; a tension relieving spring, connected to a part of the machine moved by the growth of the cop so that its force progressively increases as the cop grows, the force of said spring being opposed to the force of the tension weight.

2. In a winding machine of the character described, in combination, a tension member; a weight for operating said member to produce the tension; a spring connected with said member so as to oppose said weight, and means through which the growth of the cop progressively increases the effect of the spring so as to progressively counterbalance the force of the weight as the speed of the thread increases.

3. A tension mechanism for winding machines, comprising a tension lever provided with a set of thread-engaging studs; a stationarily supported set of thread-engaging studs coöperating with the studs of the tension lever; a weight connected with the tension lever to hold the studs of the latter against the thread, a spring con-

nected with the tension lever in opposition to the weight, and means through which the growth of the cop, or the like, progressively increases the force of the spring as the cop grows.

1,027,141. AIR-TEMPERING DEVICE. FRANK P. MIER, Chicago, Ill. Filed May 16, 1910. Serial No. 561,618. (Cl. 98—36.)



1. In a device of the character described, a fan, for producing an air current, a casing and piping connections including an inlet and an exhaust portion through which said current is adapted to pass, said casing providing a water chamber into the top of which the air passes from said inlet portion, said exhaust portion passing through said water chamber below the water level therein, whereby said water may be warmed by the relatively warm escaping air.

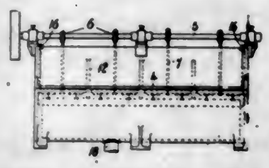
2. In a device of the character described, a fan, a fan wheel for producing an air current, a casing, and piping connections including an inlet and an exhaust portion through which said current is adapted to pass, one portion of said piping connections running within and encompassed by the other portion whereby the air between said coacting portions and the air within the inner portion may tend to become equal in temperature, said casing providing a water chamber into which the air from one said portion of the piping connections is drawn by said fan, the other portion passing through the water contained in said water chamber whereby the air therein may lend some of its heat to the water.

1,027,142. METHOD OF PRODUCING COLOR-TYPE ENGRAVINGS. FREDERICK D. MONTGOMERY, Chicago, Ill. Filed Jan. 11, 1909. Serial No. 471,674. (Cl. 101—205.)

The herein described method of producing colored pictures of multi-colored objects, which consists in producing a plurality of impression plates of the same object, each plate representing a primary color of the object, manually finishing each plate, producing an enlarged printing plate from each of the finished plates by a photographic transfer process, and printing a multi-color picture by means of the enlarged printing plates, substantially as described.

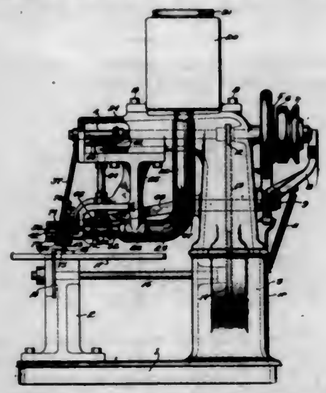
1,027,143. FLAT SCREEN. SVEN MELCHER MYRTIN, Stockholm, Sweden. Filed Aug. 24, 1910. Serial No. 578,751. (Cl. 92—31.)

1. In apparatus of the class described, in combination, a tank, said tank having an inlet chamber and an outlet chamber within said inlet chamber and communicating therewith, a screen positioned between said chambers, said inlet chamber being provided with an upwardly extending portion, a shaft, eccentrics carried thereby and pistons supported by said eccentrics and positioned within said upwardly extending portion, whereby rotation of said shaft will reciprocate said pistons in the direction of the length of said portion, said pistons being spaced from one another and from the walls of the tank to provide for play.



2. In apparatus of the class described, in combination, a tank, said tank having an inlet chamber and an outlet chamber within said inlet chamber and communicating therewith, a screen positioned between said chambers, a plurality of obliquely set ribs fixed adjacent the lower side of said screen, said inlet chamber being provided with an upwardly extending portion, a shaft, eccentrics carried thereby and pistons supported by said eccentrics and positioned within said upwardly extending portion, whereby rotation of said shaft will reciprocate said pistons in the direction of the length of said portion, said pistons being spaced from one another and from the walls of the tank to provide for play.

1,027,144. CEMENTING-MACHINE. WILLIAM A. NEELY, Lynn, Mass., assignor to Boston Machine Works Company, Lynn, Mass., a Corporation of Massachusetts. Filed Aug. 17, 1910. Serial No. 577,681. (Cl. 91—43.)



1. A cementing machine, comprising means for feeding the work, separate means for forcing cement directly upon the work having an applier to spread the same evenly over all portions of the work as it is fed along, and means for operating said elements in timed relation.

2. A cementing machine, comprising means for feeding the work, a separate positive force feed mechanism for cement having a delivery portion arranged to smear and spread the cement evenly in a continuous line over the work as it is fed, and a single power source arranged to operate said elements in timed relation.

3. A cementing machine, comprising means for feeding the work, a separate rotary cement pumping device arranged to receive cement from a suitable supply and force the same directly upon the work, means for spreading and smearing the cement evenly over the work as it is fed along, and means to operate said elements in timed relation.

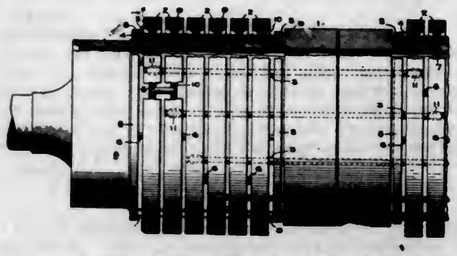
4. A cementing machine, comprising a cement holder, a force feeder for cement, closed connections between said holder and feeder, said feeder being arranged to deliver and spread the cement directly upon the work, yielding means

to hold said connections open when said feeder is operating, and other means arranged to come into action when said feeder is inactive to close said connections.

5. A cementing machine, comprising a cement holder, a force feeder for cement, and connections arranged to supply cement by gravity from said holder to said feeder, said connections including an element for applying power to said force feeder.

[Claims 6 to 14 not printed in the Gazette.]

1,027,145. DYNAMO-ELECTRIC MACHINE. JAKOB E. NOEGGERATH, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 21, 1910. Serial No. 556,657. (Cl. 171—212.)



1. In a dynamo-electric machine, a shell, a set of collector rings, conductors connected to said collector rings, means for preventing relative rotation between said shell and said collector rings comprising and insulated rod fitting in said collector rings, and means for suitably spacing said rings apart comprising insulating members.

2. In a dynamo-electric machine, a shell, a set of collector rings mounted on said shell, conductors connected to said collector rings, means for preventing relative rotation between said shell and said collector rings comprising a rod surrounded by insulation, bands fitting over said insulation, said collector rings fitting over said bands, means for fastening said rod to said shell, and means for suitably spacing said rings apart comprising insulating members.

3. In a dynamo-electric machine, a shell, a set of collector rings mounted on said shell, conductors connected to said collector rings, means for preventing relative rotation between said shell and said collector rings comprising an insulated rod fitting in said collector rings, and members fastened to said shell, said rods being fastened in said members, and means for suitably spacing said rings apart comprising insulating members.

4. An armature for unipolar machines having two sets of collector rings, and armature conductors between said sets of collector rings, each of said armature conductors being connected to a collector ring of each set, one of said connections being a sliding one so as to allow for expansion.

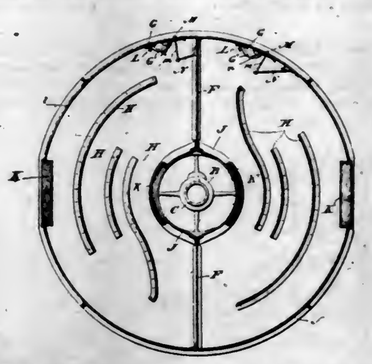
5. An armature for unipolar machines having two sets of collector rings, said rings having feet, armature conductors between said sets of collector rings, each of said armature conductors being connected to the foot of a collector ring of each set, one of said connections being a sliding one so as to allow for expansion.

[Claims 6 and 7 not printed in the Gazette.]

1,027,146. MACHINE FOR DRYING COFFEE AND THE LIKE. ROBERTO OKRASSA, Antigua, Guatemala. Filed Sept. 6, 1911. Serial No. 648,002. (Cl. 34—5.)

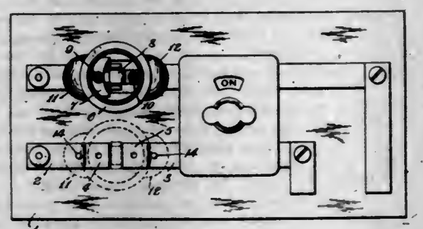
1. In a machine for drying coffee and the like, in combination, a drum having an air outlet, a hollow shaft coaxial with the drum to which the drum is fixed, partitions dividing the drum into compartments, and a central tube surrounding the shaft, said tube composed partly of perforated corrugated plates.

2. In a machine for drying coffee and the like, in combination, a drum having apertures in its walls, frames of perforated corrugated sheets fitted in said apertures, a hollow shaft coaxial with the drum to which the drum is fixed, partitions dividing the drum into compartments, and a perforated central tube surrounding the shaft.



3. In a machine for drying coffee and the like, in combination, a drum having an air outlet, and formed with doorways, inwardly opening doors fitted to said drum and adapted to close said doorways, devices tending to hold said doors normally in position to close said doorways, a hollow shaft coaxial with the drum to which the drum is fixed, partitions dividing the drum into compartments, and a perforated central tube surrounding the shaft.

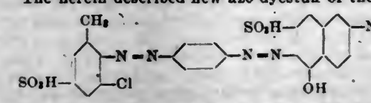
1,027,147. PANEL-BOARD. RAYMOND H. OLLEY, Syracuse, N. Y., assignor to Crouse-Hinds Company, Syracuse, N. Y., a Corporation of New York. Filed Feb. 4, 1911. Serial No. 606,461. (Cl. 175—274.)



In a panel board, a base, conducting bars mounted on the base and having their ends spaced apart, screws extending into the base and through the conducting bars near the ends thereof, a socket mounted on the base, and having terminals, and screws extending through the terminals respectively from the front side of the panel board through the bottom of the socket and into the ends of the conducting bars, and serving to electrically connect the bars and the terminals and also secure the socket in position on the base, the socket being also formed with bosses at its base for covering the first-mentioned screws, substantially as and for the purpose described.

1,027,148. RED AZO DYE. ANTON OSSENBECK, Elberfeld, and ARTHUR ZART, Vohwinkel, near Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Sept. 26, 1911. Serial No. 651,336. (Cl. 8—1).

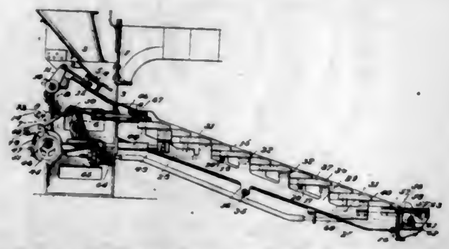
The herein described new azo dyestuff of the formula:



which is a red powder soluble in water with a red coloration; yielding upon reduction with stannous chlorid and

hydrochloric acid 5-chloro-2-toluidin-3-sulfonic acid, paraphenylenediamin and 2-benzoylamino-6-amino-5-naphthol-7-sulfonic acid; and dyeing cotton red fast to light, substantially as described.

1,027,149. MECHANICAL STOKER. HENRY MACNUTT PARSON, New York, N. Y., assignor to Parson Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Nov. 22, 1906. Serial No. 344,605. (Cl. 110—37.)



1. In a mechanical stoker, a fuel advancing grate, some of the bars of which have reciprocating movement with respect to the others, and a movable carriage on which the reciprocating bars are so mounted as to have lost motion with respect thereto.

2. In a mechanical stoker, a fuel advancing grate, some of the bars of which have reciprocating movement with respect to the others, and a movable carriage on which the reciprocating bars are so mounted as to have different degrees of lost motion with respect thereto.

3. In a mechanical stoker, a fuel advancing grate, some of the bars of which have reciprocating movement with respect to the others and a movable carriage on which the reciprocating bars are so mounted as to have a decreasing degree of lost motion with respect thereto, as the fuel advances over the grate, whereby the fuel is fed faster as it advances.

4. In a mechanical stoker, a stepped fuel advancing grate, the bars of which are alternately stationary and reciprocating, a movable carriage for actuating the reciprocating bars, and connections between the reciprocating bars and the carriage providing a lost motion between the same which decreases as the steps of the grate descend, whereby the fuel is fed faster as it advances.

5. In a mechanical stoker, a stepped fuel advancing grate, the bars of which are alternately stationary and reciprocating, a movable carriage for actuating the reciprocating bars, and connections between the reciprocating bars and the carriage providing different degrees of lost motion between the carriage and the several reciprocating bars.

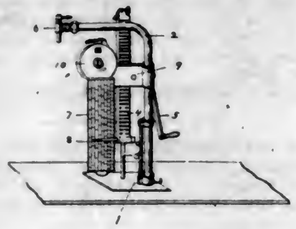
[Claims 6 to 22 not printed in the Gazette.]

1,027,150. LIFTING DEVICE FOR DUMPING-WAGONS. CHARLES PAY, Providence, R. I. Filed Mar. 2, 1911. Serial No. 611,850. (Cl. 21—20.)



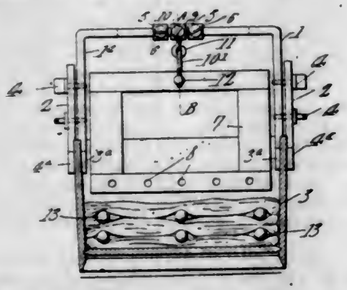
In combination with the operating shaft —c—, the plate —a^1— having ears —a^2— and walls extending parallel thereto, as at —a^3—; a bolt passing through the ears of said plate, the shaft-support —B— having an eye formed at its lower part to receive said bolt and having an extension, as —b^2—, in sliding contact upon the opposed faces of the walls of said plate, as shown and for the purpose specified.

1,027,151. REGISTER FOR PUMPS. WILLIAM C. PRITCHARD, Lancaster, Pa. Filed Feb. 13, 1911. Serial No. 608,267. (Cl. 235—132.)



In a device of the character described, the combination with a pump piston rod, a register adjacent thereto, a supporting frame therefor, a pawl pivoted upon said piston rod and adapted to operate said register at the finish of the discharging stroke of said piston rod, one end of said pivoted pawl adapted to contact with said frame upon the return stroke of said piston to release said means from said register.

1,027,152. WASHING-MACHINE. FREDERICK RADLOFF, Goldendale, Wash. Filed May 11, 1911. Serial No. 626,518. (Cl. 68—15.)



1. A washing machine, comprising an agitator for engaging the water contained therein, means for actuating said agitator, a yoke including sections of approximately an L-shape, set-screw-equipped couplings engaging the overlapping horizontal arms of said sections, an agitator suspending means for said agitator embracing a set-screw-equipped collar arranged upon said yoke, and a loosely jointed connection between said agitator and said set-screw-equipped collar.

2. A washing machine, including an agitator, means for actuating said agitator, a yoke comprising L-shaped members adapted to be attached to a receptacle and having horizontal lapping portions adjustable coupling sleeves receiving said horizontal lapping portions, a third adjustable coupling sleeve engaging said horizontal lapping portions, intermediate the aforesaid coupling sleeves, and suspending means for said agitator connected to said third coupling sleeve.

1,027,153. PROCESS OF MANUFACTURING STRONGLY-ABSORBENT COAL. FELIX RICHTER, Frankfort-on-the-Main, and LUDWIG VON ORTH, Charlottenburg, Germany. Filed Nov. 9, 1910. Serial No. 591,460. (Cl. 210—9.)

1. The process of manufacturing strongly absorbent carbon, which consists in subjecting a finely-divided mixture comprising mineral matter which contains ashes and carbonaceous materials to dry distillation at a temperature below the melting point of either component of the mixture.

2. The process of manufacturing strongly absorbent carbon, which consists in subjecting a finely-divided mixture substantially consisting of ashes and of carbonaceous materials to dry distillation at a temperature below the melting point of either component of the mixture.

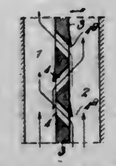
3. The process of manufacturing strongly absorbent carbon, which consists in mixing ashes with used up absorbent carbon and subjecting said mixture to dry distillation.

4. The process of manufacturing strongly absorbent carbon, which consists in mixing ashes with absorbent carbon containing organic matter and subjecting said mixture to dry distillation.

5. The process of manufacturing strongly absorbent carbon, which consists in subjecting a finely-divided mixture comprising carbonaceous material and mineral matter which contains ashes of used up absorbent carbon to dry distillation.

[Claims 6 to 13 not printed in the Gazette.]

1,027,154. GAS-GENERATING FURNACE. GEORG RICHTER, Stettin, Germany, assignor to Ofenbau-Gesellschaft M. B. H., Munich, Germany, a Corporation of Germany. Filed Aug. 8, 1911. Serial No. 642,989. (Cl. 48—113.)

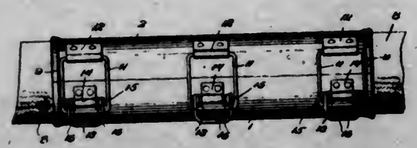


1. In gas-generating furnaces, the combination with a heating gas flue and a combustion air flue, of a partition separating said flues from each other and provided with transverse conduits alternately inclined in opposite directions and having at their mouths sharp edges projecting into said flues, said conduits forming connections between the gas flue and the air flue.

2. In a device for producing a uniform mixture of fluids, adjoining flues, a longitudinal partition separating such flues, said partition being formed with oblique transverse conduits connecting said flues at different points of their length and inclined alternately in opposite directions, the partition being also formed with projecting edges at the inlets of said conduits.

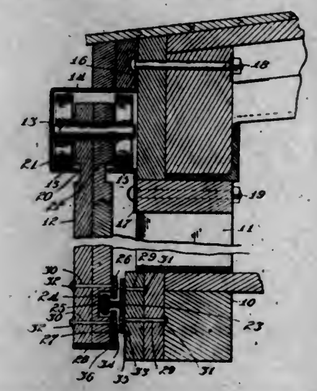
3. In a device for producing a uniform mixture of fluids, adjoining flues, a partition separating said flues and provided with oblique transverse conduits connecting said flues, said conduits being inclined alternately in opposite directions and having projecting edges at their inlets.

1,027,155. ATTACHMENT FOR HOSE. PETER R. ROBBINS, Philadelphia, Pa. Filed Sept. 5, 1911. Serial No. 647,576. (Cl. 137—33.)



A device of the character described, comprising two curved sheet metal sections of greater length than width hinged together, the free edge of one section adapted to underlie the free edge of the other section, the ends of said sections bent to form tubes, wires in said tubes, the wires in the tubes of one section projecting beyond the section and adapted to enter the tubes of the other section where said sections overlap, wire loops, metal straps securing said wire loops to one section, wire cam levers, metal straps securing said wire cam levers to the other section, and said cam levers adapted to receive the loops and clamp the sections together, substantially as described.

1,027,156. CAR-DOOR. JAMES W. RUMSEY, Chicago, Ill., assignor of one-half to Alvin W. Baker, Oakland, Cal. Original application filed Nov. 17, 1910, Serial No. 592,917. Divided and this application filed Feb. 2, 1911. Serial No. 606,274. (Cl. 20—22.)



1. In combination with a car body having a door opening in a vertical wall thereof, a door sliding over the opening in front of the plane of the said vertical wall of the car body, the door being larger than the opening and overlying the said vertical wall of the car below the opening, and continuous intercalating T slot and T rail members, one of such members extending horizontally across the inside face of the door for its entire width and the other of such members extending horizontally across the said vertical wall of the car below the door opening the T-slot member being countersunk in the face of the part across which it extends.

2. In combination with a car body having a door opening in a vertical wall thereof, a continuous T rail extending horizontally across the said vertical wall of the car body below the door opening, a door sliding over the opening in front of the plane of the said vertical wall of the car body, the door being larger than the opening and extending below, the same for its entire width, the said extended part of the door being provided with a continuous horizontally disposed T slot upon its inside face, said T slot being extended across the entire width of the door and being engaged with the said T rail, the throat of the T slot being of less width than the head of the T rail and embracing the web of the said T rail behind the head, and means covered by the door for securing the T rail to the said vertical wall of the car body.

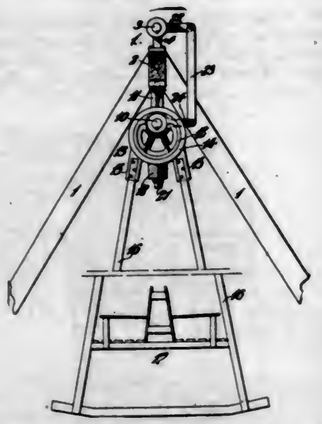
1,027,157. SWING. GEORGE W. SCHILLING, Philadelphia, Pa. Filed Sept. 23, 1911. Serial No. 650,962. (Cl. 155—35.)

1. In a device of the character stated, a rock-shaft, means for rocking the same, an eccentric disk upon said shaft, a swing having arms, and a strap around said eccentric disk and having the swing-arms secured to it.

2. In a device of the character stated, a rock-shaft, means for rocking the same, an eccentric disk upon said shaft, a swing having arms, a strap around said eccentric disk and having the swing-arms secured to it, and a spring-pressed brake in the strap and bearing against the disk.

3. In a device of the character stated, a rock-shaft, a clutch-collar loose to turn on said rock-shaft, means for rocking said collar, a rigid clutch-member, a clutch-sleeve slidable upon and rotatable with the rock-shaft between

said clutch-collar and clutch-member to engage either of them, means for sliding said sleeve, eccentric disks upon the rock-shaft, and swing-supporting straps upon said disks.

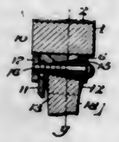


4. In a device of the character stated, a drive-shaft carrying a crank-pin, a rock-shaft provided with arms, a pitman pivotally connected to one of said arms and to the crank-pin, a swing-supporting rock-shaft, a clutch-collar loose to turn on said latter shaft and having an arm, a connecting rod pivotally connected to said arm and to an arm upon the first-recited rock-shaft, a rigid clutch-member, a clutch-sleeve slidable upon and rotatable with the swing-supporting shaft between the clutch-collar and the clutch-member, means for sliding said sleeve, eccentric disks upon the swing-supporting shaft, and swing-supporting straps around said disks.

5. In a device of the character stated, a rock-shaft, a clutch-collar loose to turn on said rock-shaft, means for rocking said collar, a rigid clutch-member, a clutch-sleeve slidable upon and rotatable with the rock-shaft between said clutch-collar and clutch-member to engage either of them, a spring connected to slide the clutch-sleeve against the rigid clutch-member, means for positively sliding the clutch-sleeve in the opposite direction, eccentric disks upon the rock-shaft, and swing-supporting straps upon said disks.

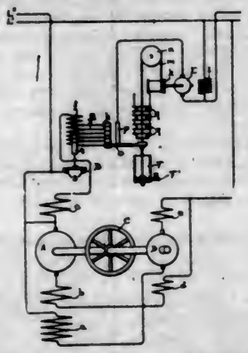
[Claim 6 not printed in the Gazette.]

1,027,158. WHEEL. CHARLES L. SCHWARZ, Philadelphia, Pa. Filed Apr. 4, 1911. Serial No. 618,835. (Cl. 21—69.)



In a device of the character stated, a felly, a block secured upon said felly and formed with a groove transverse to the felly and having an inclined bottom and dovetailed sides and also formed with an upright perforated lip at the shallow end of the groove, a spoke having an inclined end, a ferrule upon said end and having notches to form with said inclined end a groove having an inclined bottom and dovetailed sides, a wedge having dovetailed sides and fitting into said inclined and dovetailed grooves, and a screw-bolt passed through a longitudinal bore in the wedge and through the perforated lip and having a nut for drawing it and the wedge between the inclined grooves.

1,027,159. MOTOR-CONTROL SYSTEM. JOHN A. SEEDE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 27, 1908. Serial No. 459,675. (Cl. 171—225.)



1. In a system of motor-control, a motor coupled to a flywheel, adjustable means for automatically varying the field strength of said motor, and a device for automatically controlling said means to change its adjustment in proportion to the average value of the load upon the system.

2. In a system of motor control, a power circuit, a motor, an adjustable relay for automatically varying the field strength of said motor, and means responsive to current in said circuit for automatically controlling said relay to change its adjustment.

3. In a system of motor control, a motor coupled to a flywheel, an adjustable electrically operated device for automatically varying the field strength of said motor, and means for automatically controlling said device to change its adjustment in proportion to the average value of the load upon the system.

4. In a system of motor control, a power circuit, a motor coupled to a flywheel, an adjustable electrically operated device for automatically varying the field strength of said motor, and means responsive to the current in said circuit for automatically controlling said device to change its adjustment in proportion to the average value of the load upon the system.

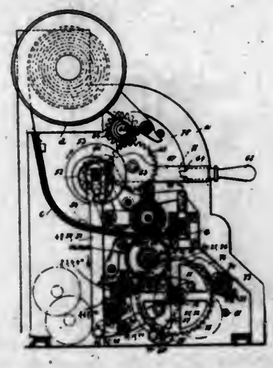
5. In a system of motor control, a power circuit, a motor coupled to a flywheel, an adjustable relay for automatically varying the field strength of said motor, and means responsive to current in said circuit for automatically controlling said relay to change its adjustment in proportion to the average value of the load upon said system.

[Claims 6 to 34 not printed in the Gazette.]

1,027,160. CASH-REGISTER. CARL TROG, Bielefeld, Germany, assignor to Ankerwerke A. G. vormals Hengstenberg & Co., Bielefeld, Germany. Filed Oct. 25, 1910. Serial No. 589,000. (Cl. 235—3.)

1. In a cash register, means for printing, counting and delivering coupons corresponding in number to the multiple which the purchase is of a predetermined amount, comprising in combination, a driven member operating the counting and printing mechanisms and moved over the desired distance by a driving member which moves over a constant distance at each actuation of the register, and means for coupling and uncoupling said driving and driven members during a period variable according to the amount of the purchase so as to deliver the corresponding number of coupons.

2. In a cash register, means for printing, counting and delivering coupons corresponding in number to the multiple which the purchase is of a predetermined amount, comprising in combination a driven member operating the counting and printing mechanisms, a driving pawl, means for moving the driving pawl over a constant distance at each actuation of the register, said pawl coacting with said driven member and means for coupling and uncoupling said driving pawl and driven member during a period variable according to the amount of the purchase so as to move said driven member over the required distance and deliver the corresponding number of coupons.



3. In a cash register, means for printing, counting and delivering coupons corresponding in number to the multiple which the purchase is of a predetermined amount, comprising in combination, a driving pawl, means for moving said pawl over a constant distance at each actuation of the register, a ratchet coacting with said pawl and operating the counting and printing mechanisms, and means for coupling and uncoupling said pawl and ratchet during a period variable according to the number of coupons to be issued, whereby said ratchet operates the printing and counting mechanisms to the desired extent.

4. In a cash register, means for printing, counting and delivering coupons corresponding in number to the multiple which the purchase is of a predetermined amount, comprising in combination a rotatable shaft whose position depends upon the amount registered, a cam plate, means for mechanically coupling said cam plate to said shaft to move proportionally to the same, a driven member, a driving member therefor and coacting with said cam plate to render the same operative to drive said driven member as required, means for moving said driving member through a fixed predetermined distance and printing, delivering and counting mechanism operatively connected to said driven member.

5. In a cash register having printing and adding mechanisms, means for printing, counting and delivering coupons corresponding in number to the multiple which the purchase is of a predetermined amount, comprising in combination a rotatable shaft whose position depends upon the amount registered, a cam plate, means for mechanically coupling said cam plate to said shaft to move proportionally to the same, a pawl, means for moving said pawl through a fixed predetermined distance, a pin on said pawl adapted to ride on said cam plate for a distance proportional to the setting of the same, a member driven by said pawl and printing, counting and delivering mechanism operatively connected to said driven member.

[Claims 6 to 8 not printed in the Gazette.]

1,027,161. GRIPPING DEVICE. ADOLF VIETOR, Schmalkalden, Germany. Filed Oct. 20, 1910. Serial No. 588,050. (Cl. 81—95.)

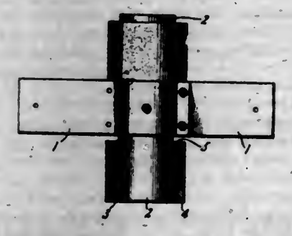
1. In combination with a gripping device having a fixed jaw, an extension thereon forming a handle, and a plurality of rotatable disks eccentrically mounted on said handle and forming the movable jaw; approximately V-shaped teeth cut in the periphery of said disks, said disks being secured together side by side in fixed relation with the teeth of one disk alternating with the teeth of the adjacent disk, so as to provide a movable jaw having approximately V-shaped teeth in staggered relation to each other.

2. In combination with a gripping device having a fixed jaw, an extension thereon forming a handle, and a plurality of circular disks eccentrically mounted on said handle and forming the movable jaw; approximately V-shaped teeth cut in the periphery of said disks and a cut-away part in the periphery of each disk, said disks being secured together side by side in fixed relation with the teeth of one disk, alternating with the teeth of the adjacent disk so as to provide a movable jaw having approximately V-shaped teeth in staggered relation to each other, and the cut-away parts in the peripheries of the disks coinciding with one another, so as to form a thumb rest for the purpose of facilitating the rotation of said disks.



3. In combination with a gripping device having a fixed jaw, an extension thereon forming a handle, and a plurality of circular disks eccentrically mounted on said handle and forming the movable jaw; approximately V-shaped teeth cut in the periphery of each disk, a cut away part in the periphery of each disk, said disks being secured together side by side in fixed relation with the teeth of one disk, alternating with the teeth of the adjacent disk so as to provide a movable jaw having approximately V-shaped teeth in staggered relation to each other, and the cut-away parts in the peripheries of the disks coinciding with one another, so as to form a thumb rest for the purpose of facilitating the rotation of said disks, and a spring tending to rotate said disks into closer relation with said fixed jaw, said spring being connected at one end to the handle and at the other end to the disks at a point diametrically opposite said thumb rest.

1,027,162. NON-CONSUMING ARC-LAMP ELECTRODE. EZECHIEL WEINTRAUB, Lynn, Mass., assignor to General Electric Company, a Corporation of New York. Filed June 16, 1910. Serial No. 567,120. (Cl. 176—121.)



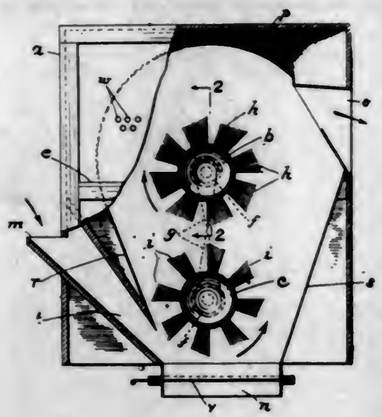
1. A non-consuming arc lamp anode provided with a freely surrounding non-conducting sheath, of oxid of magnesium, the ends of said sheath and said electrode being in substantially the same plane.

2. A non-consuming arc lamp anode provided with an annular support therearound, and a non-conducting mantle

resting upon said support and freely surrounding the anode.

3. A non-consuming arc lamp anode having an iron sleeve shrunk thereon, and a refractory oxid mantle resting upon the upper end of said sleeve and freely surrounding the anode.

1,027,163. MACHINE FOR SEPARATING ASBESTOS FROM THE ROCK. JESSE E. WERNER, Philadelphia, Pa. Filed July 12, 1911. Serial No. 638,076. (Cl. 83—11.)



1. In a machine for separating asbestos, the combination with a casing, of a drum within the casing, means to rotate the drum, and a series of cutters on said drum, each cutter being composed of a multitude of knives of different lengths, the longer knives being nearer the front longitudinal face of a cutter and the shorter knives being nearer its rear longitudinal face.

2. In a machine for separating asbestos, the combination with a casing, of two drums, one above the other, within the casing, means to rotate the drums, and cutters arranged in longitudinal rows on each drum, the thickness from front to rear of the longitudinal cutters on the upper drum exceeding the thickness similarly measured of the longitudinal cutters on the lower drum, there being an inlet in the casing adjacent to the lower drum.

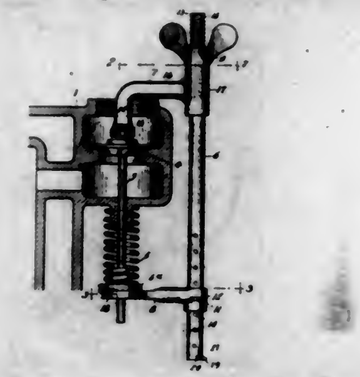
3. In a machine for separating asbestos, the combination with a casing, of two drums, one above the other, within the casing, means to rotate the drums, and cutters arranged in longitudinal rows on each drum, spaced apart to form pockets, the width of the pockets between adjacent longitudinally extending cutters being greater on the lower drum than the width of the similarly formed pockets on the upper drum, there being an inlet in the casing adjacent to the lower drum.

4. In a machine for separating asbestos, the combination with a closed casing, of a plurality of rotary cutter drums in the casing one above the other; said casing being provided with an inlet for the material to be treated below the axis of the lower drum, an outlet for the separated fiber above the axis of the upper drum, and an outlet for the residue at the bottom of the casing.

5. In a machine for separating asbestos, the combination with a closed casing having front and rear walls converging downwardly, a plurality of rotary cutter drums, one above the other, within the casing; said casing being provided with an inlet for the material to be treated in the lower part of the front of the casing, an outlet for the separated fiber in the upper part of the rear of the casing, and holes creating a suction of air through the casing between said holes and the outlet; and a gate in the bottom of the casing adapted to be opened to permit the discharge of the residue from the bottom of the casing.

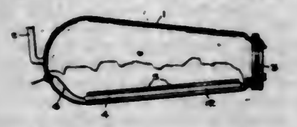
[Claims 6 to 8 not printed in the Gazette.]

1,027,164. VALVE-SPRING LIFTER FOR AUTOMOBILE AND OTHER ENGINES. CHRISTIAN J. WOLFF, Chicago, Ill. Filed Feb. 23, 1911. Serial No. 610,311. (Cl. 29—87.1.)



In a valve spring lifter, the combination with a lifter stem furnished with a screw thread at one end, of a lifter arm connected to the lifter stem at its other end and a valve holder having a horizontally extending arm furnished with a sleeve in which the lifter stem may slide, and an operating nut on the lifter stem, said lifter stem having a hinge dog at its lower end to prevent accidental removal of the lifter arm, substantially as specified.

1,027,165. METHOD OF TREATING FILAMENTS. HOWARD I. WOOD, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 9, 1907. Serial No. 356,559. (Cl. 176—132.)



1. As a step in the production of metal filaments, the process which consists in baking wire of cadmium-amalgam impregnated with tungsten to drive out mercury and leave a coherent conductor containing cadmium and tungsten.

2. As a step in the production of metal filaments, the process which consists in baking an unfinished filament rendered coherent by the presence of metallic material comprising mercury and more refractory metal *in vacuo* to drive mercury therefrom.

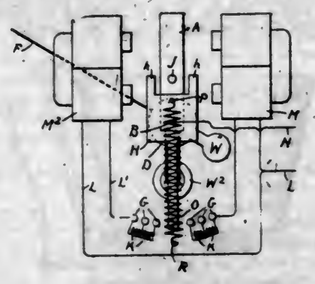
3. As a step in the production of metal filaments, the process which consists in baking a composite wire rendered coherent by the presence of vaporizable metal to drive an easily vaporizable portion of such metal therefrom, and then heating said wire with current to drive an additional portion of vaporizable metal therefrom and sinter the residue.

4. As a step in the production of lamp filaments from a mixture of refractory metal and metallic material comprising a plurality of low melting metals, the process which consists in baking the mixture to drive out a less refractory portion of said material and thus produce filament shaped conductors which may subsequently be treated to drive out the remainder of said material and yield filaments of pure tungsten.

5. The process which consists in baking wires comprising a refractory powder incorporated in an amalgam containing vaporizable material to drive mercury therefrom, and subsequently passing current through said wires to drive out any easily vaporizable material and sinter the residue into a coherent refractory conductor.

[Claims 6 to 8 not printed in the Gazette.]

1,027,166. PUNKA-FAN. JOSEPH DEVONPORT FINNEY ANDREWS, London, England. Filed Sept. 2, 1905, Serial No. 276,831. Renewed Sept. 23, 1907. Serial No. 394,202. (Cl. 172—126.)



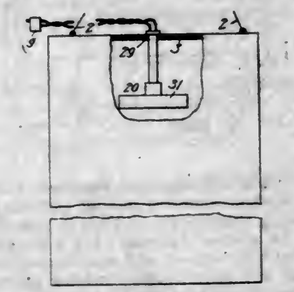
1. The combination of a fan, a pivoted armature to which said fan is attached, oppositely acting electromagnets for oscillating said armature, a pivoted switch member, contacts in the circuits of the electromagnets controlled by said switch member, a lost-motion connection between the armature and the switch member, and a biasing spring for reinforcing the movement of the switch member in either direction.

2. The combination of a fan, a pivoted armature to which said fan is attached, an electromagnet for oscillating said armature, and means for balancing said armature and fan.

3. The combination of a pivoted armature, means for balancing the armature, an electromagnet for oscillating the armature, a fan pivotally carried by the armature, means for adjusting the position of the fan angularly relatively thereto, and means for balancing the fan.

4. The combination of a fan, an armature to which said fan is attached, an electromagnet for oscillating the fan, a switch member actuated by the armature, contacts in the circuit of the electromagnet controlled by the switch member, and resistance interposed between the contacts.

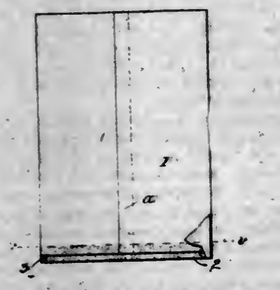
1,027,167. FLASH-LIGHT APPARATUS. WILLIAM T. BARNUM, Chicago, Ill. Filed July 13, 1911. Serial No. 638,291. (Cl. 67—31.)



1. A flashlight apparatus in which is combined an elongated body of insulating material adapted to be projected downwardly through the top of a flashlight closure, electric contact members inclosed within the lower end thereof, said members being connected through said body with a source of electric energy, a removable sleeve adapted to fit upon the lower end of said body, said sleeve having electrical contact members therein adapted, when said sleeve is in position, to engage those within said body, terminal elements connecting with said contact elements within said sleeve, said terminal elements being arranged to project beyond the lower end of said sleeve, a detachable fuse wire for connecting said terminals and a flashlight powder container adapted to be detachably connected with said removable sleeve, whereby said sleeve with its fuse-wire may be connected with said elongated body before connecting said powder container.

2. The combination in a flashlight apparatus of an elongated body of insulating material having a notch in its lower end, spring contact members therein upon opposite sides of said notch, said members being connected through said body with a source of electrical energy, a removable sleeve adapted to fit upon said body said sleeve having metallic members therein adapted to enter said notch to engage said spring contact members, terminal elements connecting with said contact elements within said sleeve, said terminal elements being arranged to project beyond the lower end of said sleeve, a detachable fuse-wire for connecting said terminals and a detachable powder container having an opening therein for the reception of said sleeve.

1,027,168. PAPER BAG. JULIA H. BARTLETT, Baltimore, Md. Filed Dec. 19, 1911. Serial No. 666,802. (Cl. 93—27.)



In a paper bag in a flat condition, and its outer side having the ears 3 formed as described, the method of producing a water-tight bottom in the bag, which consists in applying to the lower end of the bag and over the ears thereof, a strip of paste of such width as to extend above the ears, then folding the pasted portion upon the surface of the bag above it, then applying paste to the outer surface of the upturned flap and folding the bag on a line which is below the upper edge of the first flap, and then pressing the second flap closely in contact with the surface of the bag above it.

1,027,169. BATTERY-ZINC. JOHN BEATTIE, Leete Island, Conn. Filed June 17, 1911. Serial No. 633,749. (Cl. 204—49.)

1. A substantially homogeneous electro-positive element for batteries which comprises an amalgam of zinc, sodium and mercury.

2. A substantially homogeneous electro-positive element for batteries which comprises an amalgam of zinc, mercury and an alkali metal.

3. An electro-positive element for batteries, the surface and also the interior portions of which comprise an amalgam of zinc, mercury and a metal more highly electro-positive than magnesium.

1,027,170. SPRING-BED. ANTONI BELLEFEUILLE, Lowell, Mass. Filed Aug. 7, 1911. Serial No. 642,772. (Cl. 5—29.)



1. The combination, in a spring bottom, of two parallel side-rails, inverted channel-irons arranged parallel with each other and rigidly secured to said side-rails at right angles therewith, said channel-irons having transverse/

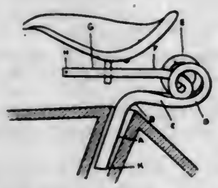
slits, and rings, each consisting of a spring wire having its end-portions arranged in one of said slits and twisted together within the corresponding channel.

2. The combination, in a spring bottom, of two parallel side-rails, inverted channel-irons arranged parallel with each other and rigidly secured to said side-rails at right angles therewith, said channel-irons having transverse slits, rings, each consisting of a spring wire having its end-portions arranged in one of said slits and twisted together within the corresponding channel, a continuous stretcher, spacing wires, each connecting all of the rings supported by the same channel-iron and having its ends secured to said stretcher at opposite sides of said bottom, and flexible connections between said stretcher and adjacent channel-irons.

3. The combination, in a spring bottom, of two parallel side-rails, inverted channel-irons arranged parallel with each other and rigidly secured to said side-rails at right angles therewith, said channel-irons having transverse slits, elastic rings or annular springs, each secured in one of said slits and the rings on one channel-iron overlapping the rings on one or more other channel-irons, a continuous stretcher arranged outside of all said rings, an alining wire, parallel with said channel-irons extending through the overlapping parts of all said rings and having its ends secured to said stretcher at opposite sides of said bottom and flexible connections between said stretcher and adjacent channel-irons.

4. The combination in a spring bottom, of two parallel side-rails, inverted channel-irons arranged parallel with each other and rigidly secured to said side-rails at right angles therewith, said channel-irons having transverse slits, rings, each consisting of a spring wire having its end portions arranged in one of said slits and twisted together within the corresponding channel, the rings on one channel-iron overlapping the rings on one or more other channel-irons, a continuous stretcher arranged outside of all said rings, an alining wire, parallel with said channel-irons extending through the overlapping parts of all said rings and having its ends secured to said stretcher at opposite sides of said bottom and flexible connections between said stretcher and adjacent channel-irons.

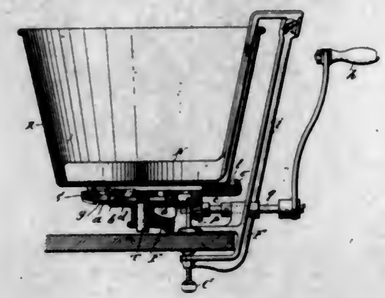
1,027,171. SPRING SEAT-SUPPORT. FREDERICK JAMES BEARY, London, England. Filed Mar. 22, 1911. Serial No. 616,115. (Cl. 208—100.)



A spring seat support, hereinbefore described, in the accompanying specification, and with reference to the drawings, consisting of a metal bar, bent at a suitable distance from one end to form a seat post of desired length, split for a portion of its length between this bend and its other end, the two parts thus formed rolled upon themselves to form parallel, vertical loops with the ends of the split portion projecting out from between these loops to form a supporting bar for the seat or weight to be carried.

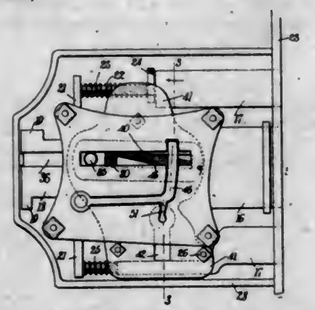
1,027,172. MACHINE FOR MIXING LIQUID AND POWDERED MATERIALS. SAMUEL A. BIGELOW, Boston, Mass., assignor to Sumner Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 29, 1911. Serial No. 646,753. (Cl. 107—33.)

1. In a machine for kneading or mixing liquid and powdered material, such as flour, a mixing receptacle having a plurality of exteriorly projecting lugs, a support for the receptacle provided with projecting ears having horizontally open slots which receive and engage the lugs on the receptacle when the support is given a rotary movement in relation to the receptacle, in a direction to effect the mixing and which release the lugs when the rotary movement is in the other direction, means to rotate said support, and a mixing blade supported independently of the receptacle and within it, near the bottom.



2. In a machine of the class described, means for securing the mixing receptacle on its rotatable support and releasing it therefrom, consisting of a plurality of lugs upon the receptacle and ears upon the support having horizontally open slots to receive the lugs, said lugs and ears being respectively coördinately located on said receptacle and support, and means to rotate the support, by which the said slots will engage the lugs when the support is rotated, in relation to the receptacle, in a direction to effect the mixing, and will disengage the lugs when the support is rotated in the other direction.

1,027,173. KEY-OPERATED LOCK. FRANCESCO BISESI, New York, N. Y. Filed Oct. 3, 1911. Serial No. 652,503. (Cl. 70—14.)



1. In a lock of the character described, a bolt to progressively assume successive locking positions; a plurality of engaging tumblers for said bolt to hold the said bolt in each of its assumed positions; and a plurality of keys to move said bolt, each of said keys having wards to release one of said tumblers from holding relation to said bolt, and one of said keys provided with wards to engage all of said tumblers to move the same in position to release said bolt.

2. In a lock of the character described, a bolt to progressively assume successive locking positions; a plurality of engaging tumblers for said bolt to hold the said bolt in each of its assumed positions; a plurality of keys to move said bolt, each of said keys having wards to release one of said tumblers from holding relation to said bolt, and one of said keys provided with wards to engage all of said tumblers to move the same in position to release said bolt; and a spring actuated latch independent of said tumblers to lock said bolt in one of said positions.

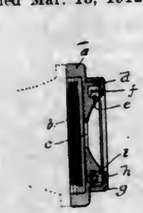
3. In a lock of the character described, a bolt to progressively assume successive locking positions; a plurality of engaging tumblers for said bolt to hold the said bolt in each of its assumed positions; a plurality of keys to move said bolt, each of said keys having wards to release one of said tumblers from holding relation to said bolt, and one of said keys provided with wards to engage all of said tumblers to move the same in position to release said bolt; a spring actuated latch independent of said tumblers to lock said bolt in one of said positions; and means carried by said key having the wards for all of said tumblers for releasing said latch.

4. In a lock of the character described, a bolt to progressively assume successive locking positions; a plurality of engaging tumblers for said bolt to hold the said bolt in each of its assumed positions; a plurality of keys to move said bolt, each of said keys having wards to release one of said tumblers from holding relation to said bolt, and one of said keys provided with wards to engage all of said tumblers to move the same in position to release said bolt; a spring actuated latch independent of said tumblers to lock said bolt in one of said positions; and a plunger pin reciprocatively mounted in the key having wards to release all of said tumblers, said pin arranged to release said latch when said key is in operative position in said lock.

5. A lock such as described, having a service bolt; a plurality of tumblers to hold said bolt in extended position; and a plurality of keys, each having wards, a portion of the wards of one of said keys being duplicates of all the wards on the other of said keys.

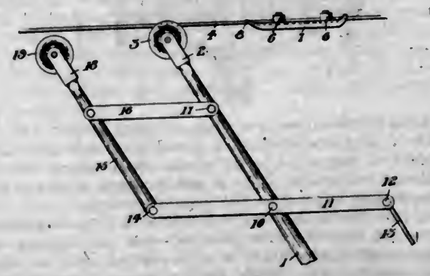
[Claims 6 and 7 not printed in the Gazette.]

1,027,174. EARPIECE-DISINFECTOR. LOUIS BLOCK, New York, N. Y., assignor to Leah Elizabeth Block, New York, N. Y. Filed Mar. 13, 1912. Serial No. 683,633. (Cl. 179—185.)



In the ear-piece of a receiver, a grooved collar for holding disinfectant, and a screw cap covering said collar and groove and leaving an adjustable opening for the passage of disinfectant.

1,027,175. TROLLEY. SIMON BRAUNER, Pittsburgh, Pa., assignor of one-third to John M. Shwartz, Pittsburgh, Pa. Filed Jan. 20, 1912. Serial No. 672,445. (Cl. 191—37.)

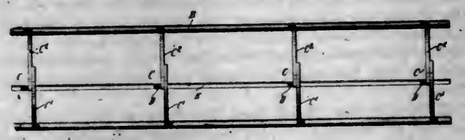


1. In a trolley, the combination with a trolley wire, a main pole, and a main trolley wheel carried by said pole and adapted to ride against said wire, of a tapering guide member connected to said wire for guiding said wheel on the latter when the wheel is displaced therefrom and further serving as a hanger, and an auxiliary trolley wheel of greater width than the first mentioned wheel and movably supported by said pole and adapted to engage said wire when the main trolley wheel is displaced and prior to the engagement of the main trolley wheel with said guide member.

2. In a trolley, the combination with a wire, a pole, and a revoluble trolley wheel carried thereby and adapted to travel against said wire, of a tapering guide member carried by said wire and adapted to guide said wheel onto said wire when displaced, and conducting means carried by said pole adapted to engage said wire when said wheel is displaced therefrom prior to the engaging of the wheel with said guide member, said means in connection with said wire limiting the movement of the pole when the wheel is displaced therefrom and from said guide member.

3. In a trolley, the combination with a trolley wire, a main trolley pole, a main trolley wheel carried by said pole and adapted to travel against said wire, of a guide member connected to said wire for guiding said wheel onto said wire, arms pivotally connected to said pole, an auxiliary trolley pole having the lower end thereof pivotally connected to the rear ends of said arms, links having the ends thereof pivotally connected to said poles, and an auxiliary trolley wheel revolubly supported by said auxiliary pole and of greater width than the main trolley wheel and adapted to engage said wire when the main trolley wheel is displaced therefrom and prior to the engaging of the main trolley wheel with said guide member, said auxiliary trolley wheel further constituting means for the limiting of the main trolley wheel when the main trolley wheel is displaced off the wire and out of engagement with the guide member.

1,027,176. COLLAPSIBLE FORM FOR CONCRETE CULVERTS. WILLIAM BURGNER, Carthage, Ill. Filed Sept. 28, 1911. Serial No. 651,739. (Cl. 25—32.)



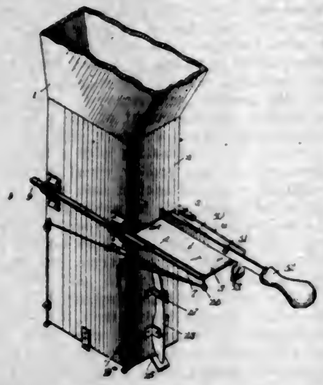
1. A skeleton frame constituting a collapsible frame for concrete culverts and comprising side bars, a plurality of arched ribs, each of said ribs being made in sections secured at their outer ends to the side bars and having their inner ends free to overlap one another, the said inner free ends being provided with registering apertures, locking pins adaptable for engagement through the registering apertures in order to lock the ribs, and a member carrying said locking pins in order that they may be simultaneously withdrawn, said member extending beneath the overlapped ends of the rib sections and receiving said ends directly thereon whereby to form a supplemental support for the same.

2. A skeleton frame constituting a collapsible frame for concrete culverts and comprising side bars, a plurality of arch ribs, each of said ribs being made in sections secured at their outer ends to the side bars and having their inner ends free to overlap one another, the said inner free ends being provided with registering apertures, a top bar extending beneath the overlapping ends of the plurality of ribs, and pins attached to the said top bar and adapted to simultaneously engage the registering apertures of the ribs, said pins being so spaced from said bar that the latter receives thereagainst, and forms a support for, the said ribs.

1,027,177. DISPENSING DEVICE. CHARLES V. CASE and CHARLES J. CASE, Bartow, and FINIS E. PARKER, Arcadia, Fla. Filed Sept. 2, 1911. Serial No. 647,431. (Cl. 73—133.)

1. In a device of the class described, a spout, a plate having an opening therein positioned intermediate the ends of the spout and movable therein, the portion of the

spout below the plate being divided into a plurality of compartments which normally communicate with the portion of the spout above the plate, together with means for moving the plate whereby the communication between one of the compartments and the said portion of the spout above the plate may be closed.



2. In a device of the class described, a spout, a plate having an opening therein positioned intermediate the ends of the spout and movable therein, the said opening being of substantially the same area as the cross section of the spout, a portion of the plate having the same area extending without the spout, the portion of the spout below the plate being divided into a plurality of compartments which normally communicate with the portion of the spout above the plate through the said opening, together with means for moving the plate whereby the portion thereof which is normally outside of the spout will be moved therein whereby the communication between one of the compartments and the said portion of the spout above the plate may be closed.

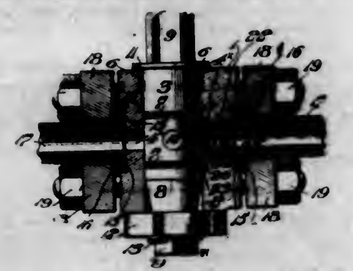
3. In a device of the class described, a spout, a plate having an opening therein positioned intermediate the ends of the spout and movable therein, the portion of the spout below the plate being divided into a plurality of compartments which normally communicate with the portion of the spout above the plate through the opening, movable covers at the bottom of the spout adjacent the compartments, means for holding the covers closed, means for moving the plate whereby the communication between one of the compartments and the said portion of the spout above the plate may be closed, together with other means actuated by the movement of the plate for releasing one of the said covers whereby when the plate is moved the cover may be opened.

4. In a device of the class described a spout, a plate having an opening therein positioned intermediate the ends of the spout and movable therein, the portion of the spout below the plate being divided into a plurality of compartments which normally communicate with the portion of the spout above the plate through the opening therein, a cover at the bottom of each compartment, independent means for keeping each cover closed, means for moving the plate whereby the communication between one of the compartments and the said portion of the spout above the plate may be closed, together with other means actuated by the plate whereby, when the plate is moved inwardly a certain distance, one of the covers may be opened and, when the plate is moved a further distance, communication between the other compartment and the portion of the spout above the plate may be closed, and the other cover opened.

5. In a device of the class described a spout, a plate having an opening therein positioned intermediate the ends of the spout and movable therein, the area of the opening being substantially equal to the cross sectional area of the spout, the plate nomally extending without the spout, the portion of the spout below the plate being provided with a partition whereby a plurality of compartments are formed which normally communicate with the portion above the plate through the said opening, means for moving the said plate whereby the portion normally without the spout may close the communication between one of or both compartments and the upper portion of the spout, a cover at the bottom of each compartment, means for holding each cover in closed position, together with other means actuated by the movement of the plate whereby, when the plate has been moved inwardly a certain distance, one of the covers will be opened and, when the plate has been moved the full distance, the second cover will be opened.

[Claims 6 to 11 not printed in the Gazette.]

1,027,178. PLUG-VALVE. SAMUEL S. CASKEY, Philadelphia, Pa., assignor to Caskey Valve Company, Philadelphia, Pa., a Corporation of New York. Filed Aug. 23, 1909. Serial No. 514,189. (Cl. 137—7.)



In a device of the character described, a casing having a bore therethrough, provided with a tapered portion and a plurality of conduits, a plug in said casing provided with an opening, packing between said plug and casing and on opposite sides of said conduits, a bushing in one of said conduits and having a ground face abutting said plug, packing in said casing encircling the ends of said conduits, a collar engaging each of said packings and adapted for attachment to a pipe line, a plate engaging each collar, and means to adjust said plate to compress said packings.

1,027,179. FISHING-REEL. PLINY CATUCCI, Newark, N. J., assignor to A. F. Meisselbach & Bro., Newark, N. J., a Corporation of New Jersey. Filed Mar. 7, 1910. Serial No. 547,924. (Cl. 43—15.)



1. In a fishing reel, the combination of a spool spindle, with a plurality of friction plates mounted upon said spindle to rotate therewith means for arresting the rotation of one of said plates in one direction, while permitting its free rotation in the opposite direction.

2. In a fishing reel, the combination of a spool spindle, a pair of friction plates mounted upon said spindle between yielding abutments, a third friction plate mounted upon said spindle between, and frictionally engaging, the first named plates, and means for arresting the free rotation of said third plate in one direction, said means permitting free opposite rotation.

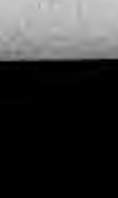
3. In a fishing reel, the combination of a spool spindle, a plurality of friction plates mounted upon said spindle, to rotate therewith, yielding abutments also mounted upon said spindle and bearing upon said friction plates, and means for arresting the rotation of one of said friction plates, whereby a friction drag is offered to the free rotation of said spindle.

4. In a fishing reel, the combination of a normally freely rotating spool spindle, two yielding abutments concentrically mounted upon said spindle to rotate therewith, a plurality of friction plates also concentrically mounted upon spindle between said abutments, to normally rotate therewith, and means for arresting the rotation of one of said plates in one direction.

5. In a fishing reel, the combination of a normally freely rotating spool spindle, two yielding abutments concentrically mounted upon the said spindle to rotate therewith, a plurality of friction plates also concentrically mounted upon said spindle between said abutments to normally rotate therewith and manually operated means for arresting the rotation of one of said plates in one direction, while freely permitting the free rotation of the spindle, abutments and plates in the opposite direction.

[Claims 6 and 7 not printed in the Gazette.]

1,027,180. NAIL-CLIPPER. PLINY CATUCCI, Newark, N. J., assignor to A. F. Meisselbach & Bro., Newark, N. J., a Corporation of New Jersey. Filed Mar. 7, 1910. Serial No. 547,926. (Cl. 30—23.)



1. In a nail clipper, the combination of a pair of rigid levers hinged adjacent to their forward ends, stops upon said forward ends to limit the opening of said levers, shearing cutters formed upon the side edges of said levers at the rear of the hinge, a spring for opening said levers and a keeper pivoted to one of said levers, whereby said keeper may be turned laterally to engage the other lever to hold both levers closed.

2. In a nail clipper, the combination of a lever provided with hinge lugs, and shearing cutters upon its side edges, a hinge plate provided with hinge lugs pivoted to the hinge lugs of said lever, a rigid lever rigidly secured to said plate, said lever having shearing cutters thereon to cooperate with the cutters upon the first named lever plate, a spring for normally holding the levers open and a pivoted keeper for normally holding said levers closed.

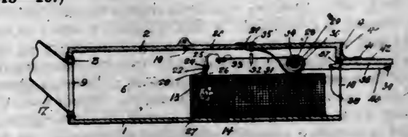
3. In a nail clipper, the combination of a pair of rigid levers pivoted together adjacent to their forward ends, a curved extension upon one of said levers forward of its pivot, a straight extension upon the other lever forward of its pivot, said extensions forming a stop to limit the opening of said levers, coöperating shearing cutters upon the side edges of said levers at the rear of their pivot, a spring for opening said levers and a keeper for holding said levers closed.

4. In a nail clipper, the combination of a pair of levers pivoted together adjacent to their extremities, a curved extension upon one of said levers to form a stop in connection with a corresponding straight extension upon the other lever, a spring for normally holding the levers open against said stop, a keeper pivotally connected with the opposite extremity of one of said levers to engage and hold the other lever closed, and co-acting shearing cutters located diagonally upon the edges of said levers adjacent to their pivot.

5. In a nail clipper, the combination of a lever having hinge lugs upon its edges adjacent to one end thereof a hinge plate having lugs thereon pivoted to the lugs upon said lever, a second lever rigidly secured to said hinge plate, shearing cutters arranged diagonally upon the edges of said levers to coöperate in pairs, a spring for normally holding said levers and cutters open and a keeper pivoted to one of said levers to coöperate with the other lever to hold them closed.

[Claims 6 to 8 not printed in the Gazette.]

1,027,181. TRAP. WALENTY CHOLEWINSKI, Oshkosh, Wis. Filed Sept. 22, 1911. Serial No. 650,711. (Cl. 43—19.)

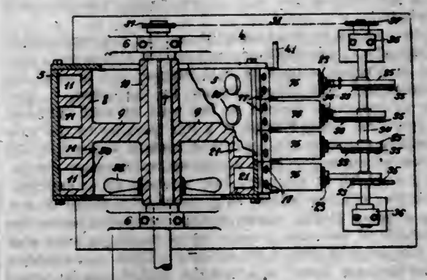


1. A trap comprising a box having converging passages formed therein, an exterminating tank in communication with the rear ends of said passages, spring pressed hinged doors arranged in the forward ends of said passages, means arranged in each passage and including a bait holder, spring actuated spools, and cables for closing the door to the passage when said bait holder is moved.

2. A trap comprising a box having converging longitudinal passages, spring pressed doors arranged at the forward ends of said passages, movable bait holders arranged in said passages, spools arranged in said passages, cables connecting said spools and said doors, cables connecting said spools and said bait holders, and means in connection with said spools and adapted to wind the first mentioned cables thereon when the last mentioned cables are released by said bait holders.

3. A trap comprising a box having longitudinal passages and a blind chamber between said passages, an exterminating tank in communication with the rear ends of said passages, spring pressed doors arranged in the forward end of said passages, movable bait holders arranged in said passages, spring actuated spools arranged in said passages, cables connecting said spools and said doors, cables connected to said spools and loosely connected to said bait holders, and means in said passages for limiting the movement of said bait holders in one direction.

1,027,182. ROTARY INTERNAL-EXPLOSION ENGINE. JENS C. CHRISTENSEN and RUDOLF A. F. L. ANDERBERG, New York, N. Y. Filed Oct. 31, 1910. Serial No. 590,020. (Cl. 123—14.)



1. In a rotary internal explosion engine the combination of a cylinder, a wheel within the same, a plurality of annular grooves formed in said wheel, a piston secured in each of the said grooves, movable abutments supported to coöperate with the said pistons to form explosion chambers, pumps supported on the said cylinder, one for each of the said pistons and comprising a casing, a pump piston movable within the same, a valve having a stem interposed between the cylinder and the pump, a recess formed in the pump piston for the reception of the valve stem when the pump piston is in position nearest the cylinder, means for operating said pump piston slowly away from

the cylinder to suck in a charge of explosive fuel, means for forcing the pump piston suddenly toward the said valve to cause the same to be opened by the compressed charge of fuel and to inject the said charge into the said cylinder between the cylinder piston and the abutment, means for closing said valve as soon as the charge has entered the cylinder, means for preventing the pump piston from hitting the said valve when the said piston moves toward the cylinder and means for supplying fuel to the said pump.

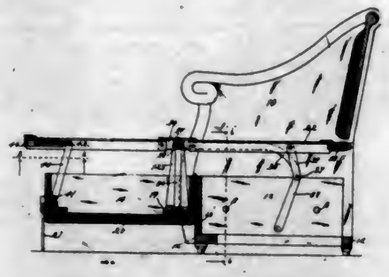
2. In a rotary internal explosion engine the combination of a cylinder, a drive shaft in said cylinder, a wheel on the shaft, said wheel being provided with a plurality of annular grooves whereby a plurality of annular channels are formed between said wheel and the said cylinder, a piston secured in each of said channels in sliding contact with the cylinder wall, said pistons being spaced circumferentially in said channels, a plurality of sliding abutments, one for each channel and adapted to enter the latter and project into the path of the cylinder pistons, a mechanism for injecting a charge of explosive mixture into the channel between the piston and the abutment, means for operating said mechanism from the aforesaid drive shaft, a valve for cutting off said mechanism after the charge has entered the channel, said valve being adapted to form part of the explosion chamber of the engine and means for supplying fuel to the said charge injecting mechanism.

3. In a rotary internal explosion engine, the combination of a base, a cylinder mounted thereon, a drive shaft, bearings for the latter, a wheel on said shaft and within said cylinder, pistons on said wheel spaced circumferentially and longitudinally within said cylinder, counterweights adjustably secured to said wheel to counterbalance said pistons, a plurality of apertures formed in the wall of said cylinder in a line parallel to the axis of the said driveshaft, a plurality of separate casings secured to the outside of said cylinder to cover said apertures, one casing for each of the said pistions, separate chambers formed in the said casing, an abutment mounted in the one chamber and adapted to project through the said aperture and into the cylinder in the path of a piston, a spring for normally forcing said abutment inwardly, means for adjusting said spring, a pump mechanism supported in the other of the said chambers and comprising a piston movably supported in the chamber, a spring for normally forcing said piston toward the cylinder, a valve seated in the chamber and adapted to open toward the said wheel through the said aperture, a spring for closing said valve, a countershaft supported on said base, and operating connections between said countershaft and the said piston for moving the latter slowly away from the cylinder, and means for driving the said countershaft from the said driveshaft.

4. In a rotary internal explosion engine, the combination of a cylinder, a rotatable support within the same, a plurality of pistons secured to said support and spaced circumferentially and longitudinally in the same, a plurality of apertures formed in the wall of said cylinder, said apertures being formed in a line parallel to the axis of the said support, a plurality of casings secured to the cylinder to cover the said apertures, mechanism for injecting a charge of explosive fuel between all of said pistons during one revolution, said mechanism comprising a pump, a pump piston, means for operating the latter the full length of the said pump, a valve having a stem and seated in the said pump adjacent said cylinder and adapted to open into the latter to admit the said charge, a recess formed in the said pump piston for the reception of the said valve stem when the said piston has completed its stroke toward the cylinder and means for supplying fuel to the said pump.

5. In a rotary internal explosion engine, the combination of a cylinder, a wheel within the same, a plurality of pistons secured to said wheel, abutments supported adjacent said cylinder and adapted to coöperate with the said pistons to form explosion chambers, mechanism for injecting a charge of explosive fuel, into the said chambers, said mechanism comprising a pump for each cylinder, a piston in the same, a valve interposed between the cylinder and the said pump piston, means for operating the latter to draw in a charge of explosive fuel, means for operating the said pump piston to compress the said charge between itself and the said valve, a spring for keeping the latter closed until the charge has been compressed to maximum pressure, when the said valve is adapted to open by said pressure to admit the charge to the said explosion chamber, and means for supplying fuel to the said pump.

1,027,183. SOFA-BED. MICHAEL CLUNE, Indianapolis, Ind. Filed June 8, 1911. Serial No. 631,895. (Cl. 5—51.)



1. A sofa bed including a main frame, a seat pivoted at its front edge, posts on the seat, a three section mattress frame with the intermediate section pivoted to said posts, pivotal means for supporting the outer section of the mattress frame on the seat, a pair of link bars pivoted together at their adjacent ends with the lower end of one bar pivoted to the main frame and the upper end of the other bar pivoted to the inner portion of the inner section of the mattress frame, and connecting bars extending from the pivots between said link bars to the ends of said posts.

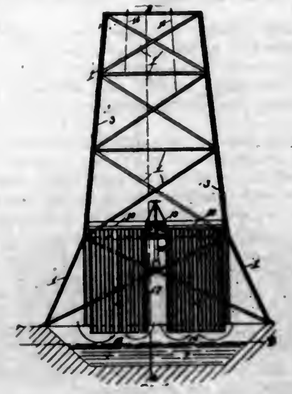
2. A sofa bed including a main frame, a seat pivoted at its front edge, posts on the seat, a three section mattress frame with the intermediate section pivoted to said posts, pivotal means for supporting the outer section of the mattress frame on the outer portion of the seat, a pair of link bars pivoted together at their adjacent ends, the lower end of one bar being pivoted to the main frame and the upper end of the other bar being pivoted to the inner portion of the inner section of the mattress frame, connecting bars extending from the pivots between said link bars to the ends of said posts, and springs extending between the sofa frame and the inner section of the mattress frame so that the tension thereof will be increased as the mattress frame section moves downward.

3. A sofa bed including a main frame, a seat pivoted at its front edge, posts on the seat, a three section mattress frame with the intermediate section having longitudinal slots, pivots extending through the posts and said slots, a pair of links pivoted together at their adjacent ends and the lower end of one link pivoted to the main frame and the opposite end of the other link pivoted to the inner portion of the inner section of the mattress frame, and connecting bars extending from the pivots between said links and the ends of said posts.

4. A sofa bed including a main frame, a seat pivoted at its front edge, posts on said seat near its pivoted edge, a three section mattress frame with the intermediate section mounted in the ends of said posts and the outer section pivoted to the intermediate section, said outer section of the mattress frame having slots with enlarged ends, supporting bars pivoted to the seat and at their upper ends having headed pins insertible in the enlarged portions of said slots and capable of entering the reduced portions of said slots, and releasable means for holding said bars with their pins in said reduced portions of the slots.

5. A sofa bed including a main frame, a seat pivoted at its front edge, posts on the seat adjacent its pivoted edge, a three section mattress frame with the intermediate section mounted in said posts and the outer section pivoted to the intermediate section, said outer section of the mattress frame having slots with enlarged ends, supporting bars pivoted to the seat and at their upper ends having headed pins insertible in the enlarged portions of said slot and capable of entering the reduced portions thereof, springs secured to the mattress frame for holding the bars with their pins in the reduced portions of the slots, and an L-shaped handle secured to each spring for moving it from its holding position and enable the outer section of the mattress frame to be detached from said supporting bars.

1,027,184. COOLING-TOWER. BARTON H. COFFEY, Elizabeth, N. J., assignor to Mitchell-Tappen Company, a Corporation of New York. Filed Feb. 24, 1910. Serial No. 545,762. (Cl. 62—2.)



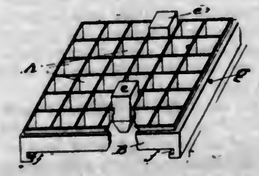
1. In a natural draft cooling-tower, open ended shells containing the cooling surfaces, arranged in pairs, whereby the shells form two walls of the distributing launder, substantially as described.

2. In a cooling device, a distributer having an open top gutter section of gradually decreasing depth and unbroken side walls.

3. In a cooling device, a distributer having an open top gutter section of gradually decreasing depth in combination with an inlet nozzle, registering with an opening at the end of the distributer, substantially as shown and described.

4. In a cooling-tower, a distributer having an open top gutter section of gradually decreasing area, in combination with a serrated drip-bar, substantially as described.

1,027,185. DIE-BOX. CHARLES A. CUENIN, New York, N. Y. Filed Nov. 4, 1910. Serial No. 590,663. (Cl. 101—149.)



1. The combination with a die-box, comprising a casing and a die-crate in the casing adapted to receive dies in approximately equidistant rows, of an ink-pad, adapted to be inserted into the casing to serve as the bottom for the die-crate, the said ink-pad consisting of a base, and of a series of sections of unequal width removably attached to the base, so as to permit their rearrangement relatively to each other and to the dies.

2. The combination with a die-box, comprising a casing, and a die-crate in the casing adapted to receive dies in approximately equidistant rows, of an ink-pad adapted to be inserted into the casing to serve as the bottom for the die-crate, the said ink-pad consisting of a base, and of a series of sections of unequal width slidably mounted upon the base, and so as to permit their rearrangement relatively to each other and to the dies.

1,027,186. SMOKE-BELL. MARGARET S. DAMBACH, Beaver Falls, Pa. Filed Dec. 4, 1911. Serial No. 663,869. (Cl. 240—120.)



1. A smoke bell comprising a flanged socket adapted to be secured in the lower section of a hollow ceiling, a hollow cylindrical stem extending into said socket, a hood integral with the lower end of said stem, and a resilient locking member arranged at the upper end of the stem and capable of engaging the flange of said socket for detachably suspending the stem from the lower section of said ceiling.

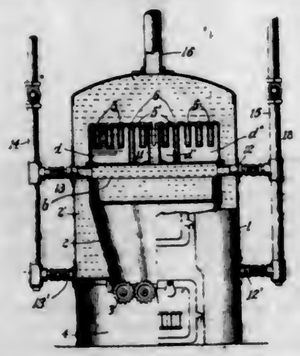
2. A smoke bell comprising a flanged socket adapted to be secured to the lower section of a hollow ceiling, a hollow cylindrical stem having its upper end extending into said socket, a hood integral with the lower end of the stem, a resilient member arranged within said stem and having its lower end fixedly secured to the stem and its upper end provided with a hook for engaging the flange of said socket for detachably suspending the stem, and means carried by the stem and capable of being shifted inwardly to engage said member for moving the latter from engagement with said socket thereby releasing the stem.

3. A smoke bell comprising a hollow cylindrical stem adapted to be suspended from the lower section of a hollow ceiling, a hood integral with the lower end of said stem, and a resilient member arranged within the upper portion of the stem and having its lower end fixed to the stem and its upper end provided with a hook for overlapping the upper face of said lower section of the ceiling thereby suspending the stem, and shiftable means carried by the upper portion of said stem and capable when actuated of shifting said member to release the stem.

1,027,187. FURNACE. ELWIN THEODORE DAVISON, Athenia, N. J. Filed Jan. 8, 1912. Serial No. 669,969. (Cl. 122—214.)

1. A furnace, comprising a fire-pot and a shell, an exterior fluid heating chamber intermediate the same, an interior fluid heating chamber positioned in the upper portion of said fire-pot and provided with depending fluid compartments, each compartment being separated from an adjacent compartment by an air chamber closed at the top and opened at the bottom and said compartments being of sufficient depth to increase the heating-surface area exposed to the products of combustion at least 150% in excess of the total horizontal cross-sectional area of said compartments and said air-chambers separating the same, and means for preventing the unimpeded escape of the products of combustion from said fire-pot prior to the passage of the same over the said chambered inferior surface of said heating chamber and for permitting of the substantially unimpeded escape of said products of combustion after passage over said surface.

2. A furnace, comprising a fire-pot and a shell, an exterior fluid heating chamber intermediate the same, an interior fluid heating chamber positioned in the upper portion of said fire-pot and provided with depending fluid compartments arranged to intersect the vertical plane including the axis of the outlet conduit from said fire-pot and the center point of said fire-pot, each compartment being separated from an adjacent compartment by an air chamber closed at the top and opened at the bottom and said compartments being of sufficient depth to increase the heating-surface area exposed to the products of combustion at least 150% in excess of the total horizontal cross-sectional area of said compartments and said air chambers separating the same, and means for preventing the unimpeded escape of the products of combustion from said fire-pot prior to the passage of the same over said chambered inferior surface of said heating chamber and for permitting of the substantially unimpeded escape of said products of combustion after passage over said surface.

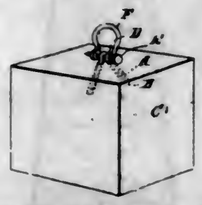


3. A furnace, comprising a fire-pot and a shell, an exterior fluid heating chamber intermediate the same, an interior fluid heating chamber positioned in the upper portion of said fire-pot and provided with depending fluid compartments arranged to intersect the vertical plane including the axis of the outlet conduit from said fire-pot and the center point of said fire-pot, each compartment being separated from an adjacent compartment by an air chamber closed at the top and opened at the bottom and said compartments being of sufficient depth to increase the heating-surface area exposed to the products of combustion at least 150% in excess of the total horizontal cross-sectional area of said compartments and said air chambers separating the same, and depending fluid heating compartments spaced from each other by air chambers arranged above said fluid heating chamber and extending in parallelism with the plane including the axis of the outlet conduit from said fire-pot and the center point of said fire-pot, said compartments being of sufficient depth to increase the heating-surface area exposed to the products of combustion at least 150% in excess of the total horizontal cross-sectional area of said compartments and said air chambers separating the same, and means affording communication between said exterior fluid heating chamber and the fluid compartments positioned within said fire-pot.

4. A furnace, comprising a fire-pot and a shell, an exterior fluid heating chamber intermediate the same, an interior fluid heating chamber positioned in the upper portion of said fire-pot and provided with depending fluid compartments, each compartment being separated from an adjacent compartment by an air chamber closed at the top and opened at the bottom and said compartments being of sufficient depth to increase the heating-surface area exposed to the products of combustion at least 350% in excess of the total horizontal cross-sectional area of said compartments and said air-chambers separating the same, and means for preventing the unimpeded escape of the products of combustion from said fire-pot prior to the passage of the same over the said chambered inferior surface of said heating chamber and for permitting of the substantially unimpeded escape of said products of combustion after passage over said surface.

5. A furnace comprising a fire-pot and a shell, an outlet pipe from said fire-pot, longitudinal hollow vertical compartments extending downwardly from the top of said fire-pot and forming in the upper portion of said fire-pot a plurality of channels adapted to receive a current of gaseous products of combustion flowing to said outlet pipe and sub-dividing said current into a plurality of currents, a horizontal partition adapted to substantially contact with the bottom of said longitudinal vertical compartments to prevent the direct passage of the products of combustion to said outlet pipe without passage through said plurality of channels formed by said longitudinal compartments.

1,027,188. DEVICE FOR SECURING SLABS OR BLOCKS. EMIL DIEBITSCH, Nutley, N. J. Filed Sept. 19, 1910. Serial No. 582,607. (Cl. 57—126.)



1. The combination with a block of stone or the like having holes therein at an angle with each other and forming rigid sockets converging toward the face of the block, of a device for securing said block to a support, said device comprising a pair of rods adapted to be introduced freely into said sockets and a connecting means between the outer portions of said rods, said connecting means holding said rods fast to each other so that neither can be withdrawn while they are so connected.

2. The combination with a block of stone or the like having a pair of holes therein at an angle with each other and forming rigid sockets converging toward the face of the block, of a pair of rods fitting freely in said sockets and having their outer ends approximately in line with each other beyond the face of the block and means for securing the outer portions of said rods together so as to prevent their withdrawal by reason of the angular directions in which they are guided by said rigid sockets.

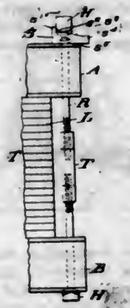
3. A device for securing to a support a block of stone or the like having holes therein at an angle with each other and forming rigid sockets converging toward the face of the block, said device comprising a pair of rods adapted to be introduced into said sockets and fitting said sockets loosely and a pin for holding together the outer portions of said rods after they have been so introduced, and thus preventing their withdrawal by reason of the angular directions in which they are guided by said rigid sockets.

4. The combination with a block of stone or the like having a pair of holes therein forming rigid sockets at an angle with each other, of a pair of separate rods fitting loosely in said sockets with their ends projecting from said sockets and means for fastening the projecting ends of said rods to each other so as to prevent their withdrawal by reason of the angular directions in which they are guided by said rigid sockets.

5. A device for securing to a support a block of stone or the like having holes therein at an angle with each other and forming rigid sockets converging toward the face of the block, said device comprising a pair of rods adapted to be introduced into said sockets and fitting said sockets loosely, said rods having looped outer ends, and a pin adapted to pass through said looped ends after the rods have been introduced into said sockets and to prevent the withdrawal of the rods by reason of the angular directions in which they are guided by said rigid sockets.

[Claims 6 to 8 not printed in the Gazette.]

1,027,189. RETAINING DEVICE FOR PRESSES. PHILIP EBERHARDT, Arlington, Mass. Filed Feb. 9, 1912. Serial No. 676,520. (Cl. 144—281.)



1. The combination with the holding members of a press, of a retainer rod comprising tightening devices, upper and lower heads, and a seat for one of the heads, immovably attached to a holding beam, and comprising a dwell, a head stop adjacent to the dwell, and a releasing incline.

2. The combination with the holding members of a press, of a retainer rod comprising tightening devices, upper and lower heads, and a seat for one of the heads, immovably attached to a holding beam, and comprising a dwell, a head stop adjacent to the dwell, a releasing incline, and a stop at the base of the incline.

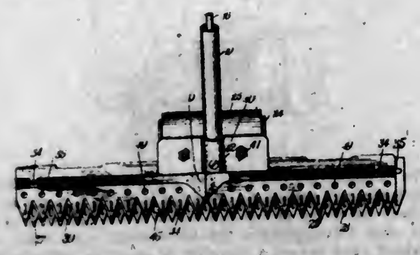
3. The combination with the holding members of a press, of a retainer rod, upper and lower heads into which the rod is threaded right and left handed, said heads being slotted to embrace the head seats, head seats immovably attached to the holding beams, one of said seats comprising a dwell, a head stop adjacent to the dwell, an outwardly sloping releasing incline, and a stop at the base of the incline.

4. The combination with the holding members of a press, of a retainer rod comprising tightening devices, upper and lower heads, and a seat for one of the heads, immovably attached to a holding beam, and comprising a dwell, a head stop adjacent to the dwell, and a releasing incline, the head which engages said seat being chamfered to a narrow bearing on the seat.

5. The combination with the holding members of a press, of a retainer rod comprising tightening devices, upper and lower heads, and a seat for one of the heads, immovably attached to a holding beam, and comprising a dwell, a releasing incline, the head which engages said seat being chamfered to a narrow bearing on the seat, and a stop at the base of the incline.

[Claim 6 not printed in the Gazette.]

1,027,190. MOWER. LARS OLSEN EKREM, Copper City, Mich. Filed June 21, 1911. Serial No. 634,416. (Cl. 56—19.)



1. In a mower, a cutter bar, a movable knife carrier, and a plurality of removable, interchangeable knives secured to said carrier, said cutter bar and said knife carrier having teeth, said knives being of tapered form corresponding to said teeth.

2. In a mower, a cutter bar, a movable knife carrier having offset points, and a plurality of removable, interchangeable knives secured to said carrier and each having a socket adapted to receive one of said offset points.

3. In a mower, a cutter bar having teeth, a movable knife carrier having teeth each having the point offset, and a plurality of removable, interchangeable knives of tapered form, each having an opening and an offset forming a socket adapted to receive one of said points of said carrier.

4. In a mower, a cutter bar having teeth, a movable knife carrier having teeth each having the point offset, a plurality of removable, interchangeable knives of tapered form, each having an opening and an offset forming a socket adapted to receive one of said points of said carrier, and a set-screw for securing each of said knives in position, said cutter bar and said carrier having strengthening ribs.

1,027,191. LUMBER-JACK. CHARLES E. EVANS, Weed, Cal. Filed Jan. 30, 1912. Serial No. 674,272. (Cl. 214—6.)



1. In a lumber jack, a yoke having horizontal bearings and pivoted on a vertical axis, means for engaging the lumber, journaled in the horizontal bearings, and a counter-weight for the said means.

2. In a lumber jack, a beam having a bearing, a yoke journaled in the bearing, and being provided with bearings, resilient means for turning the yoke relatively to the beam, and means for engaging the lumber, journaled in the bearings in the yoke.

3. In a lumber jack, a beam having a bearing, a yoke journaled in the bearing, and being provided with bearings, resilient means for turning the yoke relatively to the beam, means having teeth for engaging the lumber, and journaled in the bearings in the yoke, and a counter-weight for the said means.

4. In a lumber jack, plates having teeth and spaced apart, means for holding the plates relatively to each other, a counter-weight spaced from the teeth and secured to the plates, and a yoke to which the plates are pivoted.

5. In a lumber jack, a shaft, two plates having teeth and spaced apart on the shaft, a counter-weight spaced from the teeth and secured to the plates, additional plates spaced apart on the shaft between the first mentioned plates, the additional plates engaging the counter-weight.

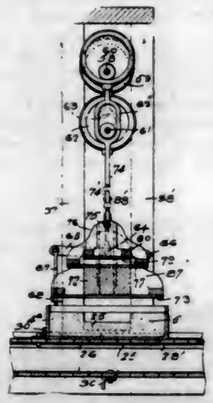
[Claims 6 to 10 not printed in the Gazette.]

1,027,192. MOLDING APPARATUS. DAVID M. FAHNESTOCK, Pittsburgh, Pa. Original application filed Feb. 25, 1911, Serial No. 610,857. Divided and this application filed May 25, 1911. Serial No. 629,366. (Cl. 22—28.)

1. In molding apparatus, the combination with a pattern comprising a plurality of mutually fitting and reciprocally movable sections, of a cross head carrying each of said sections, the cross head of one section being provided with a slot, a wrist pin journaled in the cross head of another section and reciprocally movable within said slot, connecting rods carrying said wrist pins, and means for actuating said connecting rods.

2. In molding apparatus, the combination with a pattern comprising a plurality of sections, of cross head

frames carrying said sections respectively and arranged one within the other, one of said cross head frames being provided with guides and the other with tongues reciprocally movable within said guides, one of said frames having a slot, a pin movable within said slot and journaled in another of said cross head frames, rods carrying said pins, and mechanism for lowering said rods and forcing said cross head frames and pattern sections successively into mold forming position.



3. In molding apparatus, the combination with a pattern, a cross head reciprocally carrying the same and arranged to insert the same in a flask, a connecting rod adapted to actuate said cross head, and an eccentric controlling said connecting rod, of a presser plate, a cross head carrying the same and reciprocally movable relative to aforesaid cross head, a connecting rod carrying said cross head and an eccentric controlling the same, and mechanism for successively actuating said eccentrics to insert and withdraw said pattern and presser plate, respectively.

4. In molding apparatus, the combination with a flask of a reciprocally movable pin adapted to engage the same, a reciprocally movable pattern, means for moving said pin and pattern including eccentrics and a shaft carrying the same, a movable presser plate and means for actuating the same including an eccentric, and a shaft carrying the same, and mechanism adapted to alternately actuate said shafts.

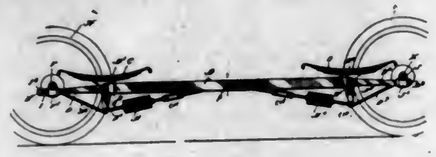
5. In molding apparatus, the combination with means for reciprocally moving a pattern into a flask and means for pressing the molding material about said pattern, of gear wheels operatively connected to said means respectively, a gear pinion having a delay face and teeth adapted to mesh with each of said gear wheels, and mechanism adapted to rotate said gear pinion and arrest the motion of the gear wheel disengaged by its gear teeth, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,027,193. VEHICLE-FRAME. OLIVER HAZARD FARVER, Orrville, Ohio. Filed Apr. 4, 1911. Serial No. 618,781. (Cl. 21—50.)

1. A vehicle frame, comprising side beams, transverse shafts on the ends of the said side beams, arms pivotally connected with the said shafts and having pivotal and sliding connections with the axles, the arms having depending members, springs connecting the said depending arm members with the said beams between the ends thereof, and vehicle body springs on the said shafts for supporting the vehicle body.

2. A vehicle frame, comprising side beams terminating at their ends in eyes, transverse shafts journaled in the said eyes, arms pivotally connected at their inner ends with the said shafts, the arms having depending members and terminating in pivot pins, sleeves on the axles and having bearings in which said pins are mounted so as to move longitudinally, compression springs and rods connecting the said compression springs with the said depending arm members and the said side beams and means to control the movement of said pivot pins.

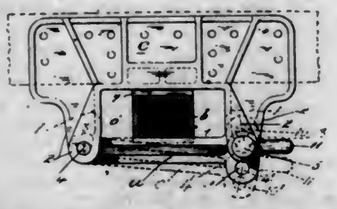


3. A vehicle frame, comprising side beams terminating at their ends in eyes, transverse shafts journaled in the said eyes, arms pivotally connected at their inner ends with the said shafts, the arms having depending members and terminating in pivot pins, sleeves on the axles and having bearings in which the said pins are longitudinally movable, the latter extending lengthwise of the frame and projecting beyond the said bearings, springs on the projecting ends of the said pivot pins, compression springs, and adjustable rods connecting the said depending arm members with the said side beams between the ends thereof.

4. The combination with wheeled axles, of bearing members on said axles said members having their bores in the form of two frustums of cones, side beams, arms pivotally connected to the end portions of said beams and having depending portions and end pins projected through said bearing members, springs compressed between the outer portions of said bearings and portions of said pins at their outer ends, connections between said depending arm portions and said beams, and springs interposed in said connections.

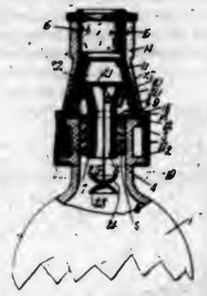
5. The combination with wheeled axles, of bearing members on said axles, side beams, transverse shafts journaled between the ends of said beams and forming a frame therewith, arms pivotally connected at their inner ends to said shafts adjacent the beams and having sliding connections at their opposite ends with said bearing members, means to control the sliding movement of said arms with respect to said bearing members, connections between portions of said arms and the beams, springs interposed in said connections, and a brace at each end of the frame pivotally mounted upon the respective transverse shaft and having divergent portions secured to said connecting members.

1,027,194. CAR-DRAW-BAR CARRY-IRON. BURTON P. FLORY, Middletown, N. Y., assignor to Flory Carry-Iron Company, St. Louis, Mo., a Corporation of Delaware. Filed Sept. 6, 1910. Serial No. 580,693. (Cl. 213—42.)



The combination with a car under-frame dead block having brackets depending from its ends, of a carry iron pivotally connected at one end to one of the brackets, said carry iron being provided at its opposite end with an elongated head having a plurality of openings radially arranged with respect to the pivotal point of said carry iron.

1,027,195. BOTTLE-STOPPER. WILLIAM FUHR, New York, N. Y. Filed Jan. 10, 1912. Serial No. 672,031. (Cl. 215—63.)

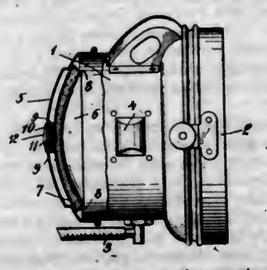


1. In a device of the character described, the combination with a bottle formed with a bead on the neck thereof, a discharge sleeve arranged in said neck, a lid pivotally mounted on said sleeve for normally closing said sleeve, a cup pivotally connected with said lid for normally holding the same closed, a protecting cap surrounding the upper end of said sleeve and said lid, a fragile cover surrounding said cap, and a locking member engaging said cover and the bead on said neck for positively locking said cover and associated parts to said neck.

2. In a device of the character described, a discharge sleeve arranged to project into the neck of a bottle, a lid pivotally mounted on said sleeve, a cup pivotally connected with said cover adapted to receive a part of the contents of said bottle either when the bottle is inverted or upright, whereby said cup will be caused to positively open and close said lid, a protecting cover for said lid and said sleeve, and means engaging said protecting cover and the neck of said bottle for positively locking said cover in position.

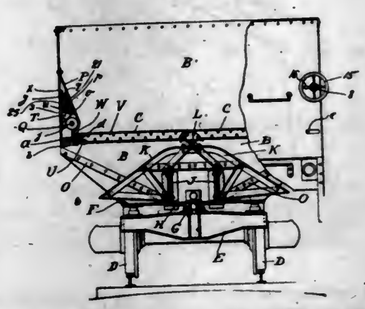
3. In a device of the character described, a discharge sleeve arranged to project into the neck of the bottle, a pivotally mounted lid adapted to normally close said discharge sleeve, a substantially arc-shaped projection extending through said lid and over part of said sleeve when the lid is closed, said arc-shaped projection being adapted to engage said sleeve when the lid is open for limiting the amount of opening of the lid, means continually tending to hold in a closed condition said lid, a protecting cap surrounding the upper part of said sleeve and rigidly secured thereto for positively holding the same in position, a cover substantially surrounding said protecting cap, and a double flanged locking member engaging said cover and a bead on the neck of said bottle for positively locking said cover in place.

1,027,196. LAMP. JOHN H. GEORGE, Bridgeport, Conn., assignor to Hawthorne Manufacturing Company, Incorporated, Bridgeport, Conn., a Corporation of Connecticut. Filed Mar. 16, 1911. Serial No. 614,783. (Cl. 240—111.)



In a lamp, the combination of a casing, a reflector therein, a backing for the reflector formed from a single piece of sheet-metal and having its edge turned over the edge of the reflector, integral projections on said backing near the center thereof, a threaded member secured to said projections, and a threaded member projecting through an opening in the back of the casing and secured to the casing, said threaded members being adapted for coaction in removably mounting the reflector upon the back of the casing, and said member secured to the back of the casing forming the sole support for the reflector, substantially as set forth.

1,027,197. DROP-DOOR-OPERATING MECHANISM FOR DUMPING-CARS. EDWARD W. GOODWIN, New York, N. Y., assignor to Goodwin Car Company, Chicago, Ill., a Corporation of Illinois. Filed June 23, 1910. Serial No. 568,429. (Cl. 105—14.)



1. In a dumping car, the combination with the car body, of a series of pairs of drop doors, means for separately operating said pairs of doors and independently actuated mechanism connected with said operating means for simultaneously operating said doors.

2. In a dumping car having compartments, the combination of means for separately discharging said compartments, and independently actuated mechanism connected with said discharging means for simultaneously discharging said compartments.

3. In a dumping car, the combination with the car body having compartments and drop doors therefor, of means for separately discharging said compartments, independently actuated mechanism connected with said discharging means for simultaneously discharging said compartments, and means for separately returning the doors of each compartment to closed position.

4. In a dumping car, the combination with the car body having compartments and drop doors therefor, of means for simultaneously discharging said compartments, and means for separately returning the doors of each compartment to closed position, without interference from the means for simultaneously discharging the compartments.

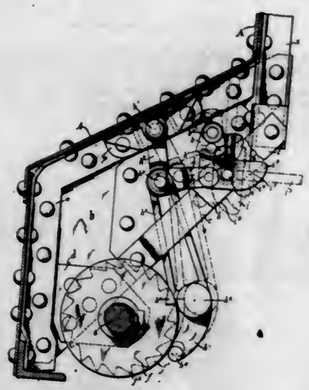
5. In a dumping car, the combination with the car body, of a series of pairs of drop doors, ratchet detent mechanisms for operating said doors, power multiplying devices controlling said ratchet detent mechanisms, means for separately actuating said power multiplying devices to open the pairs of doors, and means for actuating said devices simultaneously to open the doors.

[Claims 6 to 15 not printed in the Gazette.]

1,027,198. DUMPING-CAR-VALVE-OPERATING MECHANISM. JOHN M. GOODWIN, Spokane, Wash. Filed June 16, 1909. Serial No. 502,432. (Cl. 105—14.)

1. In combination with a hopper car an operating mechanism for the discharge doors of the car, comprising a door actuating shaft journaled on the body of the car, a ratchet wheel mounted on the shaft, a lever-pawl therefor, mounted to receive oscillatory movement from the teeth of the ratchet wheel, a fulcrum bearing for said lever-pawl and means for shifting the pawl about its fulcrum to disengage it from the teeth of the ratchet.

2. In combination with a hopper car an operating mechanism for the discharge doors of the car, comprising a door actuating shaft, journaled on the body of the car, a ratchet wheel mounted on the shaft and having a part forming a fulcrum abutment, a lever-pawl for engaging the teeth of the ratchet wheel, a pivot on which said lever is hung and means for shifting said pivot to move the pawl into engagement with the abutment and to disengage it from the ratchet teeth.



3. In combination with a hopper car an operating mechanism for the doors of the car, comprising a door operating shaft, journaled on the body of the car, a ratchet wheel, a second class lever movably supported by its power arm and having a detent tooth for engaging the wheel, a fulcrum bearing for said lever and means for swinging the power arm of the lever about the fulcrum bearing to disengage the tooth.

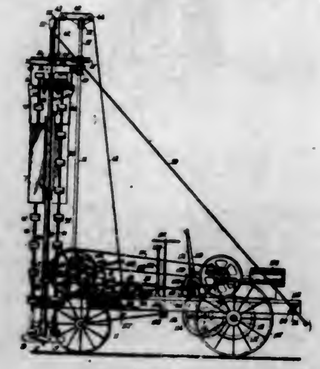
4. In combination with a hopper car, an operating mechanism for the discharge doors of the car, comprising a door actuating shaft journaled on the car body, a ratchet wheel mounted on the shaft, a lever pivotally supported by its power arm and having a detent tooth for engaging the ratchet wheel, the lever and the tooth being urged toward the wheel and being free to oscillate under the action of the ratchet teeth thereof, a fulcrum bearing for the lever, serving to limit its movement toward the wheel and means for shifting the power arm of said lever about the axis of said fulcrum bearing, to disengage the tooth from the wheel.

5. In combination with a hopper car, an operating mechanism for the discharge doors of the car, comprising a door actuating shaft journaled on the body of the car, a ratchet wheel mounted on the shaft, a lever having a detent tooth for ratchet engagement with the teeth of the wheel and having its power arm pivotally connected to a pivotally supported link, an abutment for engaging the lever in the movement of the tooth toward the wheel and serving as a fulcrum bearing for the lever in disengaging the tooth from the wheel.

[Claims 6 to 13 not printed in the Gazette.]

1,027,199. POST-HOLE DIGGER. WALDMAR OTIS GOODWIN, Salina, Kans. Filed July 21, 1910. Serial No. 573,041. (Cl. 166—13.)

1. A post hole digger, comprising an earth auger having a head embodying a plurality of cutting blades and an elongated shaft; a plurality of endless chain bucket elevators; a driving mechanism for said augers embodying a driving shaft disposed in parallel relation with said auger shaft; a transmission connection between said auger shaft and driving shaft embodying a gear wheel slidably mounted on said driving shaft; a flexible lifting cable connected with said auger shaft; a drum adapted to wind said cable to lift said auger shaft; guide pulleys for said cable; a bevel gear wheel fixedly attached to said auger shaft; a plurality of short shafts disposed in lateral extension adjacent to said auger shaft; a plurality of bevel gears mounted on said laterally disposed shafts in toothed engagement with the first mentioned bevel gear; and pulleys mounted on said laterally disposed shafts for driving said elevators.



2. A post hole digger, comprising an earth auger having a head embodying a plurality of cutting blades and an elongated shaft; a plurality of endless chain bucket elevators; a supporting guide frame for said auger and elevators pivotally mounted to swing in a vertical plane; a wheel carried vehicle having pivotal bearings for said frame formed thereon; a transmission shaft vertically supported on said frame in parallel disposition to said auger shaft; a driving mechanism embodying a shaft forming the pivot of said frame and operatively connected with said transmission shaft; and transmission gearing connecting said auger and transmission shafts, one of said gears being slidably mounted on said transmission shaft.

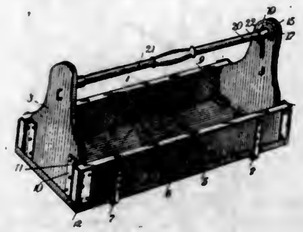
3. A post hole digger, comprising an earth auger having a head embodying a plurality of cutting blades and an elongated shaft; a plurality of endless chain bucket elevators; a supporting guide frame for said auger and elevators pivotally mounted to swing in a vertical plane; a wheel carried vehicle having pivotal bearings for said frame formed thereon; a transmission shaft polygonal in cross section; a driving mechanism embodying a shaft forming the pivot of said frame and operatively connected with said transmission shaft; and transmission gearing connecting said auger and transmission shafts, one of said gears being slidably mounted on said transmission shaft.

4. A post hole digger, comprising an earth auger having a head embodying a plurality of cutting blades and an elongated shaft; a plurality of endless chain bucket elevators; a supporting guide frame for said auger and elevators pivotally mounted to swing in a vertical plane; a wheel carried vehicle having pivotal bearings for said frame formed thereon; a transmission shaft vertically supported on said frame in parallel disposition to said auger shaft; a driving mechanism operatively connected with said shaft to rotate the same; and transmission gearing connecting said auger and transmission shafts, one of said gears being slidably mounted on said transmission shaft.

5. A post hole digger, comprising an earth auger having a head embodying a plurality of cutting blades and an elongated shaft; a plurality of endless chain bucket elevators; a supporting guide frame for said auger and elevators pivotally mounted to swing in a vertical plane; a wheel carried vehicle having pivotal bearings for said frame formed thereon; a transmission shaft vertically supported on said frame in parallel disposition to said auger shaft; a driving mechanism embodying a shaft forming the pivot of said frame and operatively connected with said transmission shaft; transmission gearing connecting said auger and transmission shafts, one of said gears being slidably mounted on said transmission shaft; a self-propelled power driven vehicle to support said frame and auger, the driving mechanism whereof is adapted to operate said auger and elevators; and manually operated means for interchanging the traction mechanism of said vehicle and the driving mechanism of said auger with the driving mechanism of said vehicle.

[Claims 6 to 13 not printed in the Gazette.]

1,027,200. FOLDING BOX. JOHN. C. GORDON, North Woodstock, N. H. Filed July 27, 1911. Serial No. 640,839. (Cl. 217—15.)



1. In a folding box a bottom member, two side members hinged to the bottom member, two end members hinged to the bottom member and provided with sockets on their inner faces, flanges extending outwardly from the end member and longitudinally of the box, plates on the side members extending around the flanges, and a handle having terminals normally disposed in the sockets in the end members for holding the end members away from each other.

2. In a folding box a bottom member, two side members normally resting on the top of the bottom member, and hinged to the bottom of the bottom member, two end members hinged to the top of the bottom member, flanges on the end members, plates on the side members for engaging the flanges, socket members engaging the end members, and a handle having terminals with flanges normally disposed in the sockets.

3. In a folding box a bottom member, two side members hinged to the bottom member, two end members hinged to the bottom member, and having sockets with undercut portions, flanges extending from the end members, plates on the side members extending around the flanges, and a handle having terminals with lateral flanges normally disposed in the under-cut portions of the sockets.

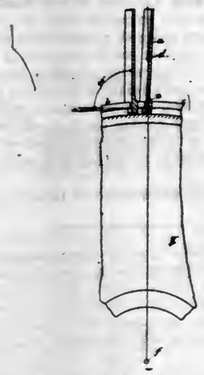
4. In a folding box a bottom member, two side members normally resting on the top of the bottom member and hinged to the bottom of the bottom member, two end members hinged to the top of the bottom member, and having sockets with under-cut portions, flanges on the end members, plates on the side members normally disposed around the flanges, and a handle having terminals with lateral flanges, normally disposed in the under-cut portions of the sockets.

1,027,201. TURBINE-BLADE. WILLIBALD GRUN, Frankfort-on-the-Main, Germany. Filed July 8, 1911. Serial No. 637,503. (Cl. 121—57.)

1. In a turbine, a rotor comprising a wheel and blades carried thereby, the impact-receiving surfaces of the blades forming obtuse angles with the respective tangents to the periphery of the wheel.

2. In a turbine, a rotor comprising a wheel and inclined blades carried thereby, the center of gravity of the root cross section of a blade and the center of gravity of the body of the same blade being located in the same radial region of the wheel.

3. In a turbine, a rotor comprising a wheel and inclined blades carried thereby, the center of gravity of the root cross section of a blade being in the rear of the radial line



drawn through the center of gravity of the body of the blade.

1,027,202. PROGRAM-CLOCK. CHARLES BALLARD HALE, Chicago, Ill., assignor to Hahl Automatic Clock Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 15, 1909. Serial No. 517,765. (Cl. 161—4.)

1. In a program clock, a revoluble timing device, a driving shaft, a stud carried by said device, a lever arm extending from said shaft and engaging with said stud, and means for adjusting said stud angularly of the said device.

2. In a program clock, a revoluble timing device, a driving shaft, said device having an elongated slot therein, a stud projecting through said slot, a shoulder on said device adjacent to said slot, a cam on said stud engaging with said shoulder, and a driving connection between said shaft and said stud.

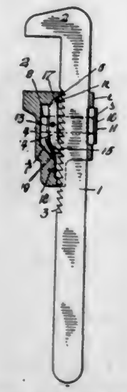
3. In a program clock, a revoluble timing device, a driving shaft, said device having an elongated slot therein, a stud projecting through said slot, a shoulder on said device adjacent to said slot, a cam on said stud engaging with said shoulder, and a spring for holding said cam against said shoulder.

4. In program clock, a revoluble timing device, a stud on said device, a driving shaft, an arm extending from said shaft and engaging with one side of said stud, and a spring finger on the arm engaging with the opposite side of the stud, said finger being so proportioned as to lock the stud and the arm together while permitting them to be released from each other when a slight pressure is applied tending to produce a relative movement of one away from the other.

5. In a program clock, a revoluble timing device, a stud on said device, a driving shaft, an arm extending from said shaft and engaging with one side of said stud, and a spring finger on the arm engaging with the opposite side of the stud, said finger being so proportioned as to lock the stud and the arm together while permitting them to be released from each other when a slight pressure is applied tending to produce a relative movement of one away from the other, said arm being yieldable in the direction axially of the stud and having an inclined under surface to permit the stud to be brought automatically in operative relation to said arm by pushing it against the arm from the rear.

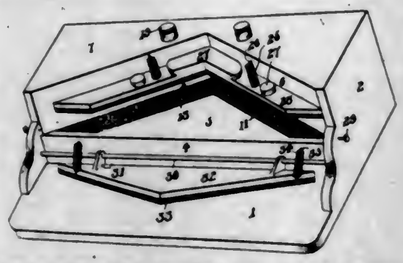
[Claims 6 to 25 not printed in the Gazette.]

1,027,203. WRENCH. LEROY HALVERSTADT, Leetonia, Ohio. Filed Jan. 24, 1912. Serial No. 673,122. (Cl. 81—130.)



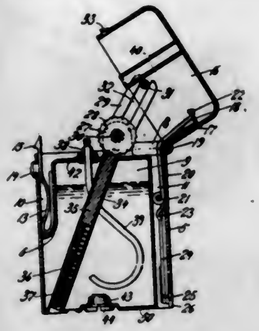
A wrench comprising a toothed shank having its outer end provided with a jaw, an adjustable jaw body slidably mounted upon the shank and provided with a recess, having the side walls thereof formed with transverse grooves, a yoke straddling the shank and having its arms slidably mounted in said grooves, a pin mounted in the free ends of the arms of the yoke, said jaw body having a pocket opening into said recess, toothed pawls of different lengths loosely mounted upon said pin and having their outer ends fulcruming upon one wall of said pocket, whereby, when the yoke is shifted inwardly, the toothed ends of the pawls will be moved out of engagement with the shank, and means arranged within said jaw body for holding said toothed pawls normally in engagement with the shank.

1,027,204. ENVELOP-MOISTENING DEVICE. JAMES HAMMOND, Moundsville, W. Va., assignor of one-third to Jake Williams, Moundsville, W. Va. Filed Oct. 27, 1911. Serial No. 657,092. (Cl. 120—75.)



A device of the type described comprising a platform, a reservoir supported thereby, a top plate closing said reservoir, an angle pad arranged in said platform, the walls of said reservoir having ports formed therein for conveying the contents of said reservoir to said pad, guides integral with the reservoir walls and communicating with said openings, a spring supported presser plate arranged above said pad, and spring controlled valve stems extending through said top plate and having angle-shaped lower ends projecting in said guides for controlling the outlet of the contents of said reservoir.

1,027,205. CIGAR-LIGHTER. ALFRED T. HOEVET, New York, N. Y., assignor, by mesne assignments, to Mount Vernon Specialty Company, a Corporation of New York. Filed Apr. 14, 1911, Serial No. 621,056. Renewed Mar. 16, 1912. Serial No. 684,225. (Cl. 67—8.)



1. In a cigar lighter the combination of a casing open at both ends, a partition member inserted within said casing to form a tank and separate spring chambers, a bottom secured to the casing and the said partition member, a hinge piece hinged to the said partition member, a cover secured to the said hinge piece which latter is provided with an aperture, an opening spring inserted in the one of the said spring chambers and passing through the said aperture to limit the opening movement of the cover, a wick within the said tank and projecting therefrom, a mechanism for producing sparks and means for operating the said spark mechanism from the said cover.

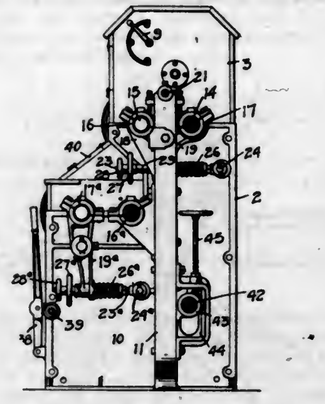
2. In a cigar lighter the combination of a casing, a partition member secured within the same, a ratchet wheel journaled on the said member, hinge ears formed integral with the latter, a hinge piece hinged to the said hinge ears, a cover secured to the said hinge piece, a spring secured between the casing and the said partition member for opening the cover, the said spring engaging the said hinge piece to limit the movement of the cover, spark metal, means for forcing the same into operative contact with the said ratchet wheel and means for operating the latter to produce sparks from the said metal.

1,027,206. FEED-MILL. ALEXANDER INGRAHAM, Minneapolis, Minn., assignor to Williford Manufacturing Company, Minneapolis, Minn., a Corporation of Minnesota. Filed Jan. 29, 1910. Serial No. 540,878. (Cl. 83—12.)

1. A feed mill comprising a casing having end plates provided with vertically arranged hollow ribs, said ribs projecting outwardly from said plates and having openings formed in their side faces, arms having eccentric bearings within said openings, a roll having bearings in said arms, a second roll having bearings on said ribs on the opposite side thereof from said openings, and means for oscillating said arms, for the purpose specified.

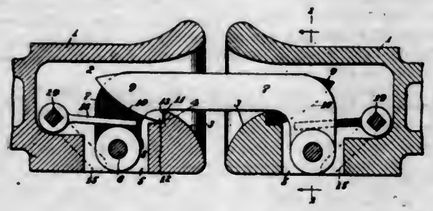
2. A feed mill comprising a casing having end plates and vertically arranged hollow ribs formed thereon, said ribs projecting outwardly from said plates and bracing and strengthening the same, said ribs having openings in

one of their side walls, arms journaled above said openings and depending therein, a roll having bearings in said arms, a second roll having bearings on said ribs on the



opposite side thereof from said first named roll, and means extending through said ribs and engaging the lower ends of said arms to oscillate the same.

1,027,207. CAR-COUPLING. MARTIN WILTON KIRKLAND, Abbeville, Ala. Filed July 1, 1909. Serial No. 505,348. (Cl. 213—44.)

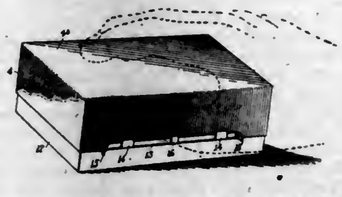


A car coupler comprising a head having a mouth provided with an inclined guide lip at the lower edge thereof and with a transverse rib at the inner edge of the guide lip, a link provided at one end with an angular portion having a bearing, a head having an opening at the rear of the guide lip for receiving the angular portion, said portion being of such length that when the link rests upon the guide lip, the said link will be in substantial horizontal position and in position for entering the mouth of the adjacent head, a pivot pin engaging the bearing and the head to hold the link in place, said link being at one side of the head, the head having an inwardly extending stop at the opposite side for retaining the bearing of the link in position, said link having a catch extending out of the mouth, and a dog normally resting on the stop and the bearing of the link for engaging the catch of the adjacent coupler to lift the same.

1,027,208. SOAP-HANDLE. SIGWARTH MANHEIM, New York, N. Y. Filed Sept. 7, 1911. Serial No. 648,096. (Cl. 68—11.)

1. The combination of a hollow handle provided with side extensions having slots, leaf springs mounted upon said side extensions, and blades mounted upon said leaf springs and extending into said slots for the purpose of penetrating a bar of soap.

2. The combination of a floating member provided with a surface for engaging a bar of soap, leaf springs carried by said floating member, and blades mounted upon said leaf springs, said blades being bent outwardly at their ends and being formed into thumb pieces.



3. As an article of manufacture, a soap handle comprising a hollow handle provided with extending portions having slots therein, leaf springs mounted upon said extending portions and bent outwardly to form thumb pieces, blades carried by said leaf springs and extending through said slots, and an anchoring plate secured to said box-like member and provided with anchors for engaging a bar of soap.

1,027,209. MOP-HOLDER. DAVID MARGOLIUS, Spartanburg, S. C. Filed Sept. 30, 1911. Serial No. 652,091. (Cl. 15—56.)



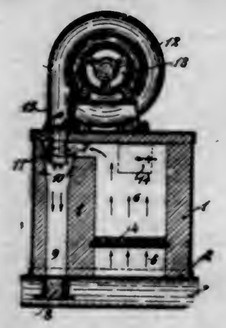
1. A support for mop material comprising a framework having a number of turns and having a member extending across the bottom thereof to prevent the mop material supported by said turns from slipping off the same.

2. A support for mop material, consisting of a framework comprising a number of turns to receive the mop material, said turns being connected together and being shaped to enable the mop material to be slipped on each one of said turns so that said mop material will be engaged and supported by each of said turns, and means projecting centrally at one end of said support to secure said support to a handle.

1,027,210. MOLD-DRYING STOVE. PAUL MONGEN, Mülheim-on-the-Rhine, Germany. Filed Aug. 13, 1910. Serial No. 577,077. (Cl. 34—18.)

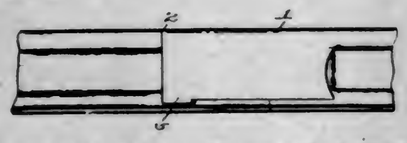
A mold drying apparatus comprising in combination, a combustion chamber provided with a grate and having an open air inlet to the grate from below, a vertically disposed air conduit having an enlarged upper end communicating with said chamber at a point above the grate, means connecting the discharge of said conduit with the runner of

the mold, and means projecting into the upper enlarged end of said conduit and forcing the air downwardly there-



through into the mold thereby inducing a mixture with such air of the products of combustion from said chamber.

1,027,211. RAIL-JOINT. ROBERT L. MOORE, near Byers, Colo. Filed Mar. 23, 1911. Serial No. 616,463. (Cl. 239—8.)



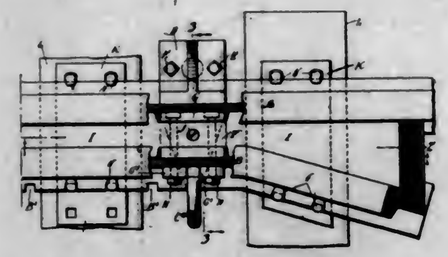
1. In a rail joint, the combination with abutting rails, one of said rails being formed with a pair of apertures therein, a hook projecting from the end of the web and the ball of the rail cut away as far back as said apertures, and the other of said rails being formed with a notch in the web portion for engaging said hook on said first mentioned rail, and a pair of hook members designed to fit into said apertures, said hook members being connected together at the top by the ball of the rail which fits over said first mentioned rail and acts as the ball of said first mentioned rail for the part that has been cut away.

2. In a rail joint, the combination with abutting rails, one of said rails being formed with a pair of hook members extending from the base to the ball and with a socket arranged in the web, and the other rail being formed with a projecting hook extending from the web of said last mentioned rail, and a pair of apertures arranged in the base, said apertures being positioned on opposite sides of the web, said apertures being adapted to receive said hook members.

3. In a rail joint, the combination with abutting ends of rails formed with interlocking members, one of said rails being formed with hook members merging into webs which are spaced apart and which merge into the web of the rail and which merge also into the ball of the rail, said rails being formed also with a socket between said webs in the ordinary web of the rail, and the other rail being formed with a hook shaped extension projecting into the socket in said web, and with a pair of sockets for accommodating said hook shaped members, said second mentioned rail being also formed with the ball thereof removed from the end back to a position opposite said apertures for permitting the ball of the first mentioned rail which merges into said hook members to act as a ball for said second mentioned rail.

1,027,212. GUARD-RAIL CLAMP. SWENEY MUNSON, Fowler, Colo. Filed June 7, 1911. Serial No. 631,727. (Cl. 239—18.)

1. In combination, a traffic rail, a guard rail, a guard rail clamp having a base for the said rails to rest on and a clamping arm engaging the outer side of the guard rail, a brace for engaging the outer side of the traffic rail, the said brace having a depending locking member extending through the clamp base, means for fastening the brace to the clamp base, a filler block fitting between the rails, and means for fastening the said filler block to the guard rail.



2. In combination, a traffic rail, a guard rail, a guard rail clamp having a base for the said rails to rest on and an integral clamping arm engaging the outer side of the guard rail, the said clamp base having a shoulder engaging the outer edge of the base of the traffic rail, a brace engaging the outer side of the traffic rail and having a depending locking pin extending through the clamp base, a key engaging the said pin and resting against the under surface of the clamp base, a filler block fitting between the rails, and transverse bolts for fastening the said filler block and the web of the guard rail together at opposite sides of the clamping arm of the guard rail clamp.

3. In combination, a traffic rail, a guard rail, a guard rail clamp having a base for the said rails to rest on and an integral clamping arm engaging the outer side of the guard rail, a brace engaging the outer side of the traffic rail and having a depending tapering pin engaging a corresponding aperture in the rail clamp, bolts for fastening the said brace to the said clamp, and a filler block between the said rails.

4. In combination, a traffic rail, a guard rail, a guard rail clamp having a base for the said rails to rest on and an integral clamping arm engaging the outer side of the guard rail, a brace engaging the outer side of the traffic rail and having a depending tapering pin engaging a corresponding aperture in the rail clamp, bolts for fastening the said brace to the said clamp, a filler block between the said rails, washers fitting the outside of the guard rail on opposite sides of the said clamping arm, and transverse bolts fastening the said filler block, the web of the guard rail and the said washers together.

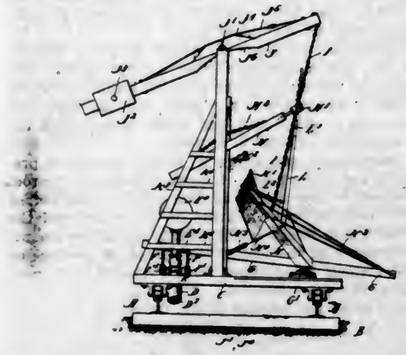
1,027,213. CURRENT-MOTOR. CARY A. NEYLAND, Spokane, Wash. Filed June 6, 1911. Serial No. 631,565. (Cl. 138—2.)

1. A current motor of the class described, comprising a sweep beam, a paddle arm pivotally connected with said sweep beam and carrying a paddle, a counterbalancing device for the said paddle arm, and an adjustable controlling device connected with the said paddle arm for controlling the dip of the paddle.

2. A current motor of the class described, comprising a sweep beam, a paddle arm pivotally connected with the said sweep beam and carrying a paddle, a counterbalancing device for the said paddle arm, a post on the said paddle arm intermediate the ends thereof, and a swing arm engaging the said post to govern the dip of the paddle.

3. A current motor of the class described, comprising a sweep beam, a paddle arm pivotally connected with the said sweep and carrying a paddle, a counterbalancing device for the said paddle arm, a post erected on the said paddle arm, and a swing arm pivotally connected with the said post and having an adjustable fulcrum to govern the dip of the paddle.

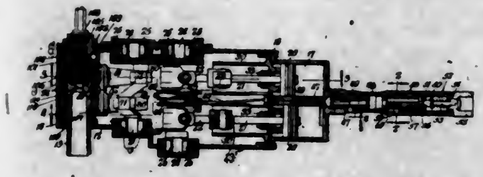
4. A current motor of the class described, comprising a sweep beam, a paddle arm pivotally connected with the said sweep beam and carrying a paddle, a counterbalancing device for the said paddle arm, a post erected on the said paddle intermediate the ends thereof and provided with a row of apertures, a swing arm having a loop through which extends the said post, a pin on the said loop and engaging one of the said post apertures, a chain attached at its ends to the said swing arm, and a fixed support engaged by one of the links of the said chain.



5. A current motor of the class described, comprising a sweep beam, a paddle arm pivotally connected with the said sweep beam and carrying a paddle, a counterbalancing device for the said paddle arm, an adjustable controlling device connected with the said paddle arm for controlling the dip of the paddle, and a pump having a conduit pipe terminating in an inclined hollow plunger, a pump cylinder mounted to slide on the said plunger and having a suction valve, and a connection between the said pump cylinder and the said sweep beam.

[Claims 6 to 8 not printed in the Gazette.]

1,027,214. MECHANICAL MOVEMENT. REINHOLD A. NORLING, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Aurora, Ill., a Corporation of Illinois. Original application filed May 7, 1907, Serial No. 372,407. Divided and this application filed Dec. 14, 1910. Serial No. 597,311. (Cl. 121—23.)



1. The combination with two prime movers having reciprocating motion through equal distances in opposite directions in parallel paths, and a driven shaft, of a primary crank shaft provided with two crank pins with which said prime movers are severally connected, two swinging actuating levers, means affording driving connection between each actuating lever and said driven shaft during each stroke of the actuating lever in one direction, and an intermediate or secondary crank shaft arranged parallel with said primary crank shaft and the driven shaft and provided with crank pins located at equal angular distances apart and severally acting on said swinging actuating levers, said crank pins and actuating levers being so arranged that the forward or driving stroke of each actuating lever is effected in the movement of the crank pin acting thereon through the part of its path remote from the driven shaft, and gearing connecting said primary crank shaft with said secondary crank shaft, said primary crank shaft having its crank pins arranged at less than 180° apart and so arranged with relation to the crank pins of the secondary crank shaft that power to turn said primary crank shaft is exerted on the latter by both prime movers during the time each actuating lever is making its power or driving stroke.

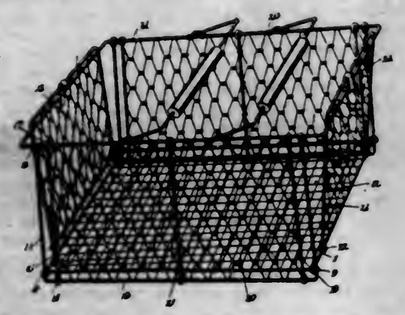
2. The combination with two prime movers having reciprocating motion through equal distances in opposite directions in parallel paths, and a driven shaft, of a primary crank shaft provided with two crank pins with which said prime movers are severally connected, two swinging actuating levers, means affording driving connection between each actuating lever and said driven shaft during each stroke of the actuating lever in one direction, and an intermediate or secondary crank shaft arranged parallel with said primary crank shaft and the driven shaft and provided with crank pins located at equal angular distances apart and severally acting on said swinging actuating levers, said crank pins and actuating levers being so arranged that the forward or driving stroke of each actuating lever is effected in the movement of the crank pin acting thereon through the part of its path remote from the driven shaft, and gearing connecting said primary crank shaft with said secondary crank shaft, the crank pins of said primary crank shaft being arranged at less than 180° apart and in such angular relation to each other that when one crank pin is on a dead center the other crank pin will be in driving position, and said crank pins of the primary crank shaft being arranged in such relation to the crank pins of the secondary crank shaft that power for turning said primary crank shaft is exerted on the latter by both prime movers when each actuating lever is making its power or driving stroke.

3. The combination with two prime movers having reciprocating motion through equal distances in opposite directions in parallel paths, and a driven shaft, of a primary crank shaft provided with two crank pins with which said prime movers are severally connected, two swinging actuating levers, means affording driving connection between each actuating lever and said driven shaft during each stroke of the actuating lever in one direction, and an intermediate or secondary crank shaft arranged parallel with said primary crank shaft and the driven shaft and provided with crank pins located at equal angular distances apart and severally acting on said swinging actuating levers, said crank pins and actuating levers being so arranged that the forward or driving stroke of each actuating lever is effected in the movement of the crank pin acting thereon through the part of its path remote from the driven shaft, and gearing connecting said primary crank shaft with said secondary crank shaft, the crank pins on said primary crank shaft being so arranged relatively to each other that when one crank pin is on its dead center the other crank pin will be in driving position, and the crank pins of said primary crank shaft being so arranged relatively to each other and to those of the secondary crank shaft that said crank pins of the primary crank shaft will come successively into driving position and the prime movers will act conjointly to exert power on the primary crank shaft during the time each actuating lever is making its power or driving stroke.

4. The combination with two prime movers having reciprocating motion through equal distances in opposite directions in parallel paths, and a driven shaft, of a primary crank shaft provided with two crank pins with which said prime movers are severally connected, two swinging actuating levers, means affording driving connection between each actuating lever and said driven shaft during each stroke of the actuating lever in one direction, and an intermediate or secondary crank shaft arranged parallel with said primary crank shaft and the driven shaft and provided with crank pins located at equal angular distances apart and severally acting on said swinging actuating levers, said crank pins and actuating levers being so arranged that the forward or driving stroke of each actuating lever is effected in the movement of the crank pin acting thereon through the part of its path remote from the driven shaft, and gearing connecting said primary crank shaft with said secondary crank shaft, said primary crank shaft having its two crank pins located at approximately 135° apart and arranged

in such relation to the crank pins on the secondary crank shaft that power is exerted by both of the prime movers on said primary crank shaft during the time each actuating lever is making its power or driving stroke.

1,027,215. COLLAPSIBLE WIRE BASKET. LILLIAN POPPERT, Portland, Oreg., assignor of one-half to Richard A. Kirk, Portland, Oreg. Filed Apr. 28, 1911. Serial No. 623,882. (Cl. 220—132.)

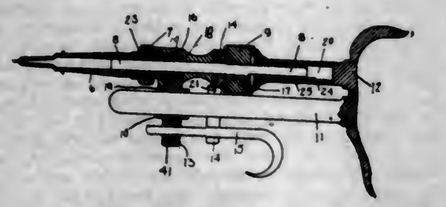


1. A collapsible basket, comprising an upper rectangle-shaped wire, a pair of U-shaped wires pivotally connected to said rectangle-shaped wire, a bottom section disposed in a plane parallel to the plane of said rectangular wire and slidable upwardly upon said U-shaped wires, end sections pivoted to said bottom section, and means connecting said end sections with said rectangle-shaped wire.

2. A collapsible basket, comprising an upper rectangle-shaped wire, a pair of U-shaped wires pivotally connected to said rectangle-shaped wire, a bottom section disposed in a plane parallel to the plane of said rectangular wire and slidable upwardly upon said U-shaped wires, means whereby said U-shaped wires may fold under said bottom section when in its raised position, end sections pivoted to said bottom section and adapted to fold inwardly on top of said bottom section, and a woven fabric covering each of said sections.

3. A collapsible basket, comprising an upper rectangle-shaped wire, a pair of U-shaped wires pivotally connected to said rectangle-shaped wire, a bottom section disposed in a plane parallel to the plane of said rectangular wire and slidable upwardly upon said U-shaped wires, means whereby said U-shaped wires may fold under said bottom section when in its raised position, end sections pivoted to said bottom section and adapted to fold inwardly on top of said bottom section, a woven fabric bridging the space formed between said U-shaped wires.

1,027,216. OBTUNDER. JULIUS B. SAPP, Cleveland, Ohio. Filed July 10, 1911. Serial No. 637,843. (Cl. 32—28.)



1. An instrument comprising a stock, a barrel fixed thereto, a handle having a projecting guide rod on which the stock is slidable, a latch between the stock and rod, to lock the parts against movement, and a plunger connected to the handle and working in the barrel.

2. An instrument comprising a handle having a projecting guide, a plunger connected to the handle, a barrel slidable on the guide and in which the plunger works, and means to lock the handle and barrel against relative movement.

3. An instrument comprising a stock, a barrel projecting therefrom, a finger piece connected to the stock, a handle having a guide on which the stock is slidable, and a plunger connected to the handle and working in the barrel, the handle and finger piece being arranged in position to be grasped for manipulation.

4. An instrument comprising a handle having a projecting guide rod and a socket, a stock slidable on the rod, a barrel fixed to the stock, in line with the socket, a plunger the rear end of which fits in the socket and the front end of which works in the barrel, and means mounted on the socket to adjust the plunger in or out.

5. An instrument comprising a handle having a projecting guide rod and a socket, a stock slidable on the rod, a barrel fixed to the stock, in line with the socket, a plunger the rear end of which fits in the socket and the front end of which works in the barrel, and a nut mounted on the plunger at the end of the socket, to advance or retract the former, the plunger being threaded for a part of its length, to receive the nut.

[Claims 6 to 10 not printed in the Gazette.]

1,027,217. FEATHERING PADDLE-WHEEL. FREDERICK JACOB SCHNEIDER, New York, N. Y. Filed July 20, 1911. Serial No. 639,585. (Cl. 115—56.)



1. A feathering blade paddle wheel having a plurality of sets of blades, means for rotating said paddle wheel, means operated by said first-named means to feather each set of said blades as the wheel rotates, and means for adjusting the feathering means for each set of blades, to cause the said blades to be feathered at different points in the circle of revolution of the paddle wheel, whereby one set of blades can be caused to exert a thrust in one direction and another set in another direction.

2. A feathering blade paddle wheel having a plurality of sets of blades, part of said blades being surrounded by the remainder of said blades, means for rotating said paddle wheel, means operated by said first-named means to feather each set of blades as the wheel revolves, and means for adjusting the feathering means for each set of blades, to cause the said blades to be feathered at different points in the circle of revolution of the paddle wheel, whereby one set can be caused to exert a thrust in one direction and the other blades in another direction.

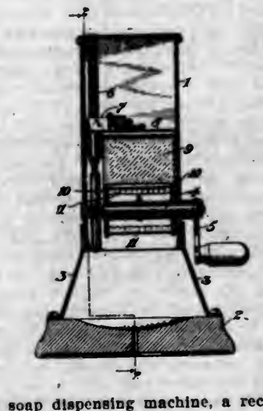
3. A feathering blade paddle wheel having two sets of blades, one set of blades being located within the other set, means for rotating said paddle wheel, means operated by said first-named means to feather each set of blades as the wheel revolves, and means for adjusting the feathering means for each set of blades independently, to cause the said sets to be feathered at different points in the circle of revolution of the wheel, whereby one set can be caused to exert a thrust in one direction and the other set in another direction.

4. A feathering blade paddle wheel having a plurality of blades, means for causing said wheel to revolve, means connected to part of said blades to feather the same as the wheel revolves, means for feathering the remainder of said blades as the wheel revolves, and means for adjusting said feathering means independently of each other, the said blades being so arranged as to form, when they are all adjusted to feather at the same point in the circle of revolution of the wheel, a plurality of air passages converging to a common point.

5. A feathering blade paddle wheel having a plurality of blades, part of said blades being surrounded by the remainder of said blades, means for causing said wheel to revolve, means for feathering part of said blades as the said wheel revolves, means for feathering the remainder of said blades as said wheel revolves, and means for adjusting the said feathering means independently of each other, said blades being so arranged as to form when they are adjusted to feather at the same point in the circle of revolution of the wheel, a plurality of air passages converging to a common point.

[Claims 6 to 9 not printed in the Gazette.]

1,027,218. SOAP-DISPENSING MACHINE. GEORGE F. SHAVER, New York, N. Y., assignor to Hygienic Soap Granulator Company, a Corporation of New Jersey. Filed Nov. 3, 1906. Serial No. 341,915. (Cl. 146—9.)



1. In a soap dispensing machine, a receptacle adapted to receive a cake of soap, a horizontal shaft mounted in said receptacle, a comminuting device mounted on said horizontal shaft, a vertical shaft mounted at one side of said receptacle, feeding means operated by said vertical shaft, and a worm and gear interposed between said shafts whereby one is operated by the other.

2. In a soap shaving machine, a horizontal shaft, a cutter on said shaft, a vertical screw threaded shaft, means whereby said vertical shaft is operated by said horizontal shaft, a follower comprising a plate having a projecting collar, received over said vertical shaft, a slide lock on said plate composed of a plate having one end engaging the threads of said vertical shaft, and means for operating said slide lock.

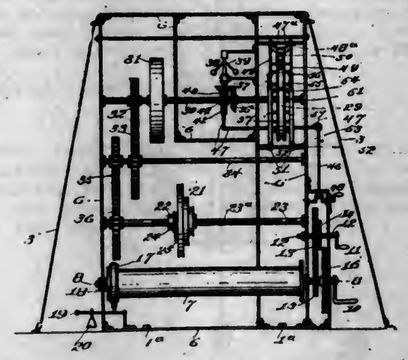
3. In a soap shaving machine, a horizontal shaft, a cutter on said shaft, a screw threaded shaft at right angles to the horizontal shaft, means whereby said screw threaded shaft is operated by said horizontal shaft, a follower comprising a plate having a collar received over said screw threaded shaft, a slide lock on said plate, composed of a plate having one end engaging the threads of said screw threaded shaft, and means for operating said slide lock.

4. A soap shaving machine embodying a casing, a horizontal shaft having a short screw threaded portion on one end in said casing, a cutter on said shaft arranged between said threaded portion thereof and one side of the casing, a screw threaded shaft at right angles to the horizontal shaft, a worm gear supported on one end of said screw threaded shaft, and meshing with said threaded portion of the horizontal shaft, and a follower received over said threaded portion on the screw threaded shaft and carrying means to engage said threads.

5. In a soap shaving machine, a horizontal shaft having a cutter thereon, a screw threaded portion on said shaft beyond one end of the cutter, a screw threaded shaft at right angles to the horizontal shaft, and having a worm gear engaging said screw threads of the horizontal shaft, a follower, and means to lock said follower to and release the same from said threads of the screw threaded shaft, to enable the follower to be removed.

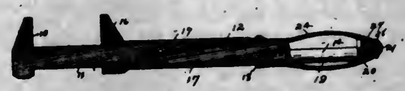
[Claims 6 and 7 not printed in the Gazette.]

1,027,219. STOP DEVICE FOR GRAVITY-MOTORS. ROBERT E. SPAINGLE, Camden, Ala. Filed Sept. 23, 1910. Serial No. 583,470. (Cl. 74—46.)



In a stop device, the combination with a driving pulley having a series of stop pins projecting from each side thereof, and a belt tightening rod, of a pair of arms depending from the tightening rod over the periphery of the pulley without engaging the pins, a pair of pin-engaging rods which straddle the pulley and engage the arms at an angle thereto for holding the pin-rods out of engagement with the pins, rods upon which the pin-rods are mounted, and springs for cushioning the pin-rods, said arms and rods adapted to be disengaged by the downward movement of the belt tightening rod for dropping the rods into engagement with the said pins.

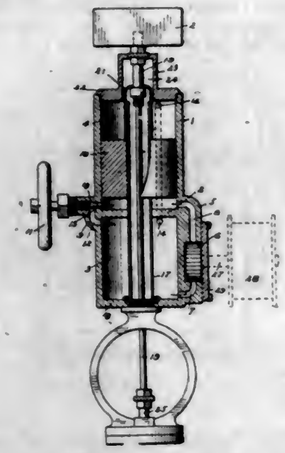
1,027,220. WRENCH. BERT A. STOCKING, Newton, Iowa. Filed June 1, 1909. Serial No. 499,512. (Cl. 81—100.)



An improved wrench, comprising an outer jaw, a shank therefor having screw threads on one edge near the rear end thereof, said screw threads being pointed at one end, a second jaw, a hollow shank therefor to receive the shank of the outer jaw, said hollow shank being provided with an annular shoulder and with an extension in the rear of the annular shoulder, said rear extension being open at one side adjacent to the screw threaded edge of the first mentioned shank, and being provided with two recesses on opposite sides of the opening, said extension being also provided at its rear end with an angular extension, said angular extension being provided with screw threads at the rear end thereof, a hollow handle rotatably mounted on said rear extension to engage said shoulder and provided on its interior near its forward end with screw threads pointed at one end and designed to engage the screw threads on the first mentioned shank, said screw threads being capable of lying wholly within the recess on one side of the rear extension when the handle member is at one limit of its movement and of extending partially into the recess on the other side of the rear extension when the handle is at the other limit of its movement, a washer on the angular extension to engage the rear end

of the handle member to limit its rearward movement, and a nut on said screw threaded end of the angular extension to engage said washer arranged and combined substantially in the manner set forth, and for the purposes stated.

1,027,221. GOVERNOR. WILLIAM THOMAS STRAIN, Hanlin Station, Pa. Filed Nov. 7, 1910. Serial No. 590,086. (Cl. 121—114.)



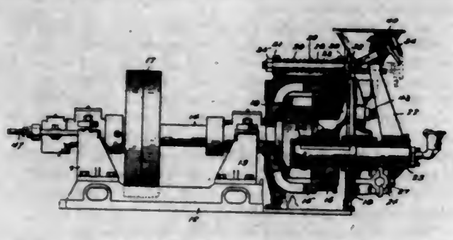
1. A governor comprising a casing divided into two vertically connected compartments, a fluid adapted to be circulated between said compartments, means for regulating the circulation of said fluid, a piston in one of said compartments, adapted to be floated by said fluid, a tube passing through said casing and valve, a valve stem passing through said tube, a weight on the upper end thereof, and a valve on the lower end thereof.

2. A governor comprising a casing divided into two vertically connected compartments, a fluid adapted to be circulated between said compartments, means for regulating the circulation of said fluid, a piston in one of said compartments, adapted to be floated by said fluid, a tube passing through said casing and valve, a valve stem passing through said tube, a weight on the upper end thereof, a valve on the lower end thereof, said piston having an opening through the center thereof for the passage of said tube.

3. A governor comprising a casing divided into two vertically connected compartments, a fluid adapted to be circulated between said compartments, means for regulating the circulation of said fluid, a piston in one of said compartments, adapted to be floated by said fluid, a tube passing through said casing and valve, a valve stem passing through said tube, a weight on the upper end thereof, a valve on the lower end thereof, and means for fixedly securing said piston to said valve stem so that when said piston is floated said stem will be raised thereby and said valve operated.

4. A governor comprising a vertical tubular casing having two chambers therein, a piston in the upper one of said chambers, one freely opened conduit leading from above said piston and another conduit from beneath the same to points near the top of the lower chamber, a fluid adapted to be circulated between said chambers, means within said last named conduit for regulating the circulation of said fluid, a passage between the lower portions of said chambers, a pump adapted for operation by a prime mover positioned within said passage, a tube passing through said casing and valve, a valve stem passing through said tube, and a valve upon the lower end of said stem and adapted for operation upon a change in speed of the said prime mover.

1,027,222. CRUSHING-MILL. THOMAS JOSEPH STURTEVANT, Wellesley, Mass., assignor to Sturtevant Mill Company, a Corporation of Maine. Filed Oct. 31, 1911. Serial No. 657,878. (Cl. 83—9.)



1. In a crushing mill, the combination with a fixed casing, of a rotating anvil ring within the said casing, a swinging end head, a lever pivotally mounted on said head, a crushing roll coöperating with said ring and supported from said lever, a spring or springs supported on said casing, and means whereby the stress of the said spring or springs may be communicated to the said lever.

2. In a crushing mill, the combination with a fixed casing, of a rotating anvil ring within the said casing, a swinging end head, a lever pivotally mounted on said head, a crushing roll coöperating with said ring and supported from said lever, a spring or springs supported on said casing, means whereby the stress of the said spring or springs may be communicated to the said lever, said means comprising a bolt supported on said casing, and a yoke or latch pivotally connected with the said bolt and adapted to embrace the free end of said lever so as to transmit the pressure of said spring or springs thereto.

3. In a crushing mill, the combination with a fixed casing, of a rotating anvil ring within the said casing, a swinging end head, a lever pivotally mounted on said head, a crushing roll coöperating with said ring and supported from said lever, a spring or springs supported on said casing, means whereby the stress of the said spring or springs may be communicated to the said lever, said means comprising a bolt supported on said casing, a yoke or latch pivotally connected with the said bolt and adapted to embrace the free end of said lever so as to transmit the pressure of said spring or springs thereto, and a screw mounted on said yoke or latch and arranged to engage said lever.

4. In a crushing mill, the combination with a fixed casing, of an anvil ring rotated within the said casing, a swinging head or door by which the end of said casing may be closed, a crushing roll coöperating with said ring, a spring or springs for forcing said crushing roll yieldingly toward the said anvil ring, swinging yokes or latches for securing the said end head in closed position, one of said yokes or latches serving as a means to transmit the stress of said spring or springs to the said crushing roll.

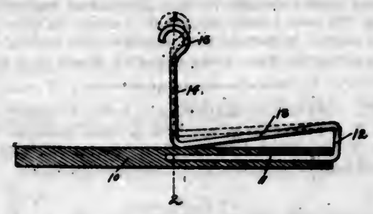
5. In a crushing mill, the combination with a fixed casing, of an anvil ring rotated within the said casing, a swinging head or door by which the end of said casing may be closed, a crushing roll coöperating with said ring, a lever mounted on said head and from which said crushing roll is supported, a spring or springs, acting through said lever, for forcing said crushing roll yieldingly toward the said anvil ring, swinging yokes or latches for securing the said end head in closed position, one of said yokes or latches serving as a means to transmit the stress of said spring or springs to the said lever and through the latter to said crushing roll.

[Claims 6 to 9 not printed in the Gazette.]

1,027,223. TROUSERS-HANGER. RICHARD SYBENGA, Pella, Iowa. Filed Mar. 16, 1910. Serial No. 549,731. (Cl. 211—13.)

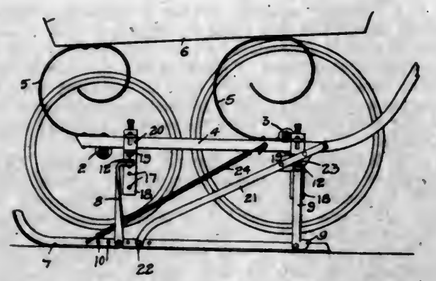
An improved trouser hanger, comprising a round bar, having a central longitudinal opening therein, and a spring metal rod having a straight end capable of being readily and easily inserted in and removed from said opening, so

that the rod and said bar may be removed for placing trousers thereon, said spring rod also being provided with a body portion shaped to yieldingly engage the central portion of the bar and also provided with a hook to form a support for the hanger, said parts being so arranged that



after trousers are placed on the bar and the spring rod is inserted in the bar, its central portion will yieldingly engage the trousers and press them against the bar to hold trousers to the bar and to hold the bar against both rotary and longitudinal movement relative to the rod.

1,027,224. RUNNER FOR GO-CARTS. GILFRED SYVERSON, Glenwood, Minn. Filed Feb. 4, 1911. Serial No. 606,622. (Cl. 21—96.)



1. The combination, with a go-cart having forward and rear axles and carrying wheels and longitudinal side rails whereon said axles are mounted, of runners and knees therefor, cross bars secured to said knees, brackets mounted on said cross bars and clamps having a horizontal jaw swiveled on said brackets and adapted to engage either said forward and rear axles or said side rails.

2. The combination, with the forward and rear axles and carrying wheels, and longitudinal side rails whereon said axles are mounted, of runners and knees pivotally connected thereto, cross bars secured to said knees, brackets carried by said cross bars and having horizontal extensions at their upper ends, and clamps having lower horizontal jaws provided with vertical pivots on said extensions and adapted to rotate thereon and engage either said forward and rear axles or said side rails.

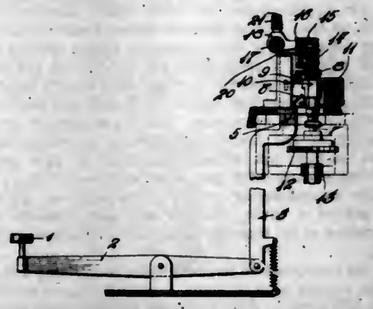
3. The combination, with a go-cart having forward and rear axles and longitudinal side rails whereon said axles are mounted, of runners, knees having their lower ends pivotally secured to said runners and provided with inwardly turned upper ends, bars having their outer ends secured to the inwardly turned upper portions of said knees, the inner ends of said bars lapping by one another, a clamp embracing the lapping ends of said bars and permitting endwise adjustment thereof to increase or decrease the distance between said runners, the outer ends of said bars projecting beyond said knees and axle engaging clamps carried by said projecting ends.

4. The combination, with a go-cart having forward and rear axles and longitudinal side rails whereon said axles are mounted, of runners and knees therefor, bars secured to the upper portions of said knees and having outwardly projecting ends, brackets having vertical portions provided with holes arranged one above another to receive the projecting ends of said bars, the upper portions of said brackets having horizontal extensions and clamps swiveled on said horizontal extensions and adapted to engage said axles or said side rails.

5. The combination, with a go-cart having forward and rear axles and longitudinal side rails whereon said axles are mounted, of runners and knees therefor, the lower portions of said knees being pivotally connected with said runners, transverse bars secured to the upper portions of said runners, clamps supported by said transverse bars and adapted to engage said axles, a bail pivotally connected to said runners and having notches therein adapted to receive said rear cross bars, forward endwise pressure on said bail operating to swing said runners downwardly to a working position, and springs connecting the forward portions of said runners with said rails and put under tension by the movement of said bail to its locking position.

[Claims 6 to 8 not printed in the Gazette.]

1,027,225. TABULATING MECHANISM FOR TYPE-WRITING MACHINES. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 23, 1910. Serial No. 583,433. (Cl. 197—176.)



1. In a tabulating mechanism, the combination of a rod having a flattened portion, column stops mounted to slide upon and oscillate about said rod, said stops comprising a projecting beveled faced member, and a handle member having a spring-pressed follower mounted therein, adapted to engage the flat portion of the shaft to retain the stops in position.

2. In a tabulating mechanism, the combination of a rod, a column stop rotatably and slidably mounted upon said rod, and a denominational stop, said column stop being provided with a stop face, a portion of said stop face lying intermediate said denominational stop and said rod.

3. In a tabulating mechanism, the combination of a carriage and a rack supported thereby, a rod extending along said rack, a column stop mounted upon said rod in such manner as to be capable of being oscillated around and slid upon said rod, said column stop being provided with a stop face, a machine frame upon which said carriage is mounted, and a stop carried by the machine frame, the construction and arrangement of parts being such that a portion of the stop face of the carriage stop is between a portion of said rod and said stop on the machine frame in such manner that pressure exerted on said column stop by means of said stop carried by the machine frame will be delivered directly upon said rod.

4. In a tabulating mechanism, the combination of a rod, a column stop rotatably and slidably mounted upon said rod, a key operated stop, a stop face upon said column stop, said stop face extending between said rod and said key operated stop and at right angles to the movement of said key operated stop.

5. In a tabulating mechanism, the combination of a rod, a column stop rotatably and slidably mounted upon said rod, a key operated stop, a stop face upon said column

stop, said stop face extending between said rod and said key operated stop, and a key for moving said key operated stop in a direction substantially at right angles to said stop face.

1,027,226. CHAIN. WALTER D. TUSTEN, New York, N. Y. Filed Jan. 3, 1912. Serial No. 669,295. (Cl. 59—79.)



1. An improvement in chain links, comprising a pair of extensible sections, one of said sections being substantially U-shaped, and the other of said sections being received between the arms of said U-shaped section, resilient means carried by said other section, a pin carried by the outer ends of the arms of the first-named section passing through said other section and engaging said resilient means to permit said sections to have relative movement, and means carried by one of the arms of said first section and extending into the second section in position to clear said resilient means, to prevent one of said sections from rotating around said pin as an axis, whereby the said sections will be maintained at all times in substantial alinement.

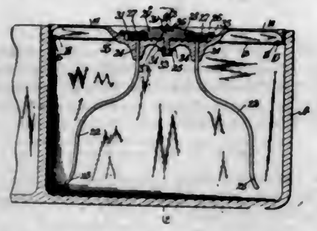
2. An improvement in chain links, comprising a U-shaped section having parallel arms, a second section received between said arms, resilient means carried by said second section, a transverse pin carried by the arms of the first section passing through said second section and engaging said resilient means to permit the said sections to have relative movement, and a pin carried by one of the arms of the first-named section extending into the second section, but terminating short of said spring to avoid interfering with the same, said second pin preventing the second-named section from rotating around the first pin as a pivot, whereby the said sections will be maintained at all times in substantial alinement with each other.

3. An improvement in chain links, comprising a U-shaped section having parallel arms, a second section received between the arms of said U-shaped section, said second section being hollow and carrying resilient means on the interior thereof, a stud or pin mounted in one end of the said second section to engage one end of said resilient means, a pin mounted in the arms of said U-shaped section and extending through said second section and engaging the other end of said resilient means, whereby said sections will be secured together but will have relative movement, and guiding means carried by one of the arms of said U-shaped section and extending into the first-named section at a point remote from the pin carried by the arms, said guiding means terminating short of said resilient means to avoid interfering therewith, whereby the second section will be prevented from tilting with respect to the U-shaped section around the pin carried thereby as an axis, so as to maintain the said sections at all times in substantial alinement with each other.

4. An improvement in chain links, comprising a U-shaped section having parallel arms, said hollow section having slots with closed ends in its opposite sides adjacent the outer extremity thereof, resilient means carried by said hollow section, said section having means to engage one end of said resilient means to hold the same against movement, a pin carried by the arms of said first section extending through the slots in the opposite sides of the second section and engaging the other end of said resilient means, whereby said sections will be secured together but will have relative movement, said hollow section having a third slot in one of its sides adjacent the inner end thereof, and guiding means carried by one of the arms of the first section and extending into said third slot, but terminating short of said resilient means to avoid interfering therewith, whereby the sections will be prevented from rotating with respect to each other around the said pin as an axis, and will be held at all times in substantial alinement with each other.

5. In a link of the kind described, the combination of a pair of extensible sections, means carried by one of said sections and engaging the other section, resilient means engaging the other section and said first-named section to permit said sections to have relative movement, and additional means carried by the first-named section and engaging the said second section in position to clear said resilient means, to prevent said second-named section from rotating about the first-named engaging means as a pivot.

1,027,227. WASHING-MACHINE. PAUL WERNER, New York, N. Y., assignor of one-half to Emil Spindler, New York, N. Y. Filed June 9, 1911. Serial No. 632,144. (Cl. 68—15.)



1. A washing machine, having a supporting frame; means mounted on said frame for adjusting same to wash tubs of various dimensions; a cross bar extended between the sides of said frame; a plurality of rotary beaters vertically mounted in said cross bar; an operating lever for rotating said beaters; and a transmission mechanism connecting said beaters to move the same in a similar rotary direction.

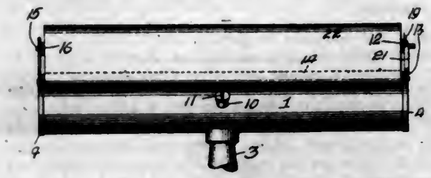
2. A washing machine, having a supporting frame adapted to adjustably engage wash tubs of various dimensions, in combination with a cross bar to removably engage said frame, said bar having formed therein bearings extended perpendicular to said bar; a plurality of bent rod beaters mounted in said bearings and having lateral extensions, the ends of said beaters being forwardly curved to form members to lift the clothes; an operating lever pivotally mounted on said cross bar intermediate the said beaters; a gear wheel mounted on said lever concentric with the bearing thereof; and a plurality of gear wheels each mounted fixedly on one of said beaters the teeth whereof are meshed with the gear wheel on said lever.

3. In a washing machine having a cross bar for supporting the same, a frame having formed in the sides thereof a plurality of sockets adapted to hold the ends of said cross bar to support the same, one of said sockets having a horizontal extension to hold the said cross bar in position perpendicular to the normal operating position.

4. In a washing machine, in combination with a plurality of bent rod beaters each having a vertical bearing extension and a gear wheel fixedly attached at the upper end thereof, a supporting cross bar having formed therein bearings for said beaters and a pocket to receive said gear wheels; a cover for said gear wheels removably secured to said cross bar and having a central opening therein; an intermediate gear wheel rotatably mounted in said cross bar and meshed with the first mentioned gear wheels, said intermediate gear wheel having a flange to extend over the edge of the central opening in said cover; means for securing said intermediate gear wheel in position; and an operating lever mounted upon said intermediate gear wheel.

5. In a washing machine, in combination with a plurality of bent rod beaters each having a vertical bearing extension and a gear wheel fixedly attached at the upper end thereof, a supporting cross bar having formed therein bearings for said beaters and a pocket to receive said gear wheels; a cover for said gear wheels removably secured to said cross bar and having a central opening therein; an intermediate gear wheel rotatively mounted in said cross bar and meshed with the first mentioned gear wheels, said intermediate gear wheel having a flange to extend over the edge of the central opening in said cover; means for securing said intermediate gear wheel in position; an operating lever slidably mounted in said intermediate gear wheel; and means for adjustably securing said lever in said gear wheel.

1,027,228. WALL-PAPERING DEVICE. JESSE G. WORK, Sharon, Pa., assignor of one-half to Bernard S. Young, Sharon, Pa. Filed Nov. 16, 1911. Serial No. 660,578. (Cl. 216—6.)



1. A device of the class described comprising a reservoir and having a slot for the passage of the web of a roll of paper as the latter unwinds, a handle carried thereby, a paste applying roller revolubly mounted in said reservoir and having circumferentially arranged openings formed therein intermediate the ends thereof and capable of applying paste to the web of paper as it passes through said reservoir, extensions carried by the ends of said reservoir and capable of supporting a roll of paper, lugs carried by the ends of said reservoir adjacent to said extensions, and rollers revolubly mounted between said lugs.

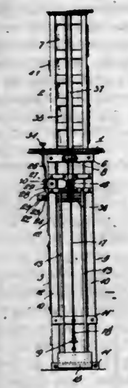
2. A device of the type described comprising a reservoir and having a slot for the passage of the web of a roll of paper as the latter unwinds from the roll, a handle carried thereby, a paste applying roller revolubly mounted in said reservoir and having circumferentially arranged openings formed therein intermediate the ends thereof and capable of applying paste to said web as it passes through said reservoir, extensions carried by the ends of said reservoir, lugs carried by the ends of said reservoir adjacent to said extensions, rollers revolubly mounted between said lugs, and means including a slide for detachably holding a roll of wall paper between said extensions.

3. A wall papering device comprising a cylindrical reservoir having a filling opening, a handle carried thereby, a hollow paste applying roller revolubly mounted in said reservoir and having openings formed therein, extensions carried by the ends of said reservoir, sets of lugs carried by the ends of said reservoir, rollers revolubly mounted between said lugs, and a slide carried by one of said extensions and adapted to detachably hold the roll of wall paper in engagement with said extensions.

1,027,229. COMBINED CUPBOARD AND DUMB-WAITER. CLYDE CHARLES YETTER, Bloomsburg, Pa. Filed Mar. 30, 1911. Serial No. 617,970. (Cl. 187—5.)

1. The combination of an elevator shaft frame, a spring projected bolt operable transversely through said frame and having a pin extending laterally therefrom, a spring retracted wedge shaped member slidably mounted on said frame between it and said pin, and means for forcing said wedge shaped member into engagement with said pin to retract it, in combination with a vertically movable cage mounted in said frame and having means for engagement by said bolt.

2. The combination of an elevator shaft frame having a laterally extending casing opening through one wall thereof and provided with a longitudinal slot, a bolt mounted to slide in said casing and having a laterally projecting actuating pin operable in the slot of said casing, a spring retracted rod mounted to slide on said frame in a plane at right angles to the path of movement of said bolt and having a head adapted to pass between said frame and pin when the rod is moved in one direction, thereby withdrawing the bolt, in combination with a vertically movable cage mounted in said frame and having means for engagement by said bolt.



1,027,230. RAILWAY SIGNAL APPARATUS. JOSEPH H. ALANDAR, Chicago, Ill. Filed Mar. 7, 1910. Serial No. 547,773. (Cl. 246—26.)



1. In railway signal apparatus, the combination with a track and a vehicle running on the track, of a contact on the track having a surface presented for electrical connection in either direction along the track, and a contact on the vehicle having a surface to make electrical connection with the track contact presented in one direction and having a surface to make insulated engagement with the track contact presented in the other direction.

2. In railway signal apparatus, the combination with a track having various contacts, and a vehicle running on the track, of contacts on said vehicle insulated from each other, to electrically connect with the respective track contacts when the vehicle runs in one direction, but having insulated means to engage with the respective track contacts when the vehicle runs in the other direction.

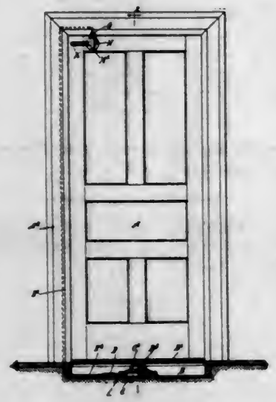
3. In railway signal apparatus, a bracket rigidly secured to a vehicle and insulated therefrom, a middle rib hinged to the bracket, an insulating base mounted on the rib, a contact plate mounted on the insulating base and electrically connected to the rib and to the bracket, and a spring secured in the bracket having a member engaging on one side of said rib and a member engaging on the other side thereof, whereby the contact is held in depending position but is allowed to yield and swing on its hinged connection with the bracket.

4. In railway signal apparatus, a bracket mounted on a foundation and insulated therefrom, a middle rib hinged to the bracket, an insulating base mounted on the rib, a contact plate mounted on the insulating base and electrically connected to the rib and to the bracket, and a spring secured in the bracket having a member engaging on one side of said rib and a member engaging on the other side thereof, whereby the contact is held in engaging position but is allowed to yield and swing on its hinged connection with said bracket, said contact plate being presented for engagement on one side of said contact, but said insulating base

only being presented for engagement on the other side of said contact.

5. In railway signal apparatus, a hinged middle rib and an insulating base mounted on said rib, covering both sides and the free end of the rib, and a contact plate mounted on said insulating base on one side of said rib, said insulating base being convex where it covers the end of the rib and said contact plate having an extension adjacent said convex part of the base substantially continuous therewith, said insulating base alone being exposed on the other side of said rib.

1,027,231. DOOR-OPERATING DEVICE. CHRISTIAN ALTER, New York, N. Y. Filed Oct. 11, 1911. Serial No. 654,015. (Cl. 39—95.)



1. A door opening device, comprising a movable platform, a pneumatic underneath the said platform and adapted to be closed by the same by the weight of a person stepping on the said platform, a cylinder provided with a piston having a piston rod, the said cylinder and piston rod being connected with the door casing and door, a pivot for the said cylinder to swing on and connected with the said pneumatic, and a valved connection between the said cylinder and the said pivot.

2. A door-opening device, comprising a pneumatic, a movable platform engaging the movable member of the said pneumatic for closing the pneumatic on a person stepping on the said platform, a controlling valve connected with the pneumatic, a cylinder, a pivot on the door casing and on which the said cylinder is mounted to swing, the said pivot having an inlet channel connected with the said controlling valve, a valved connection between the said pivot and the said cylinder, and a piston in the said cylinder and connected with the door to be opened.

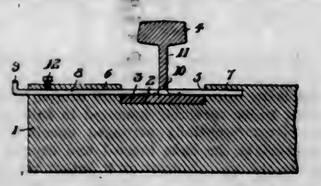
3. A door-opening device, comprising a pneumatic, a movable platform engaging the movable member of the said pneumatic for closing the pneumatic on a person stepping on the said platform, a pivot on the door casing and having an inlet channel connected with the said pneumatic, a valve chamber on the said cylinder for connecting the said inlet channel with the said cylinder, a piston valve in the said valve chamber for controlling the connection between the said channel and the said cylinder, and a piston in the said cylinder and connected with the door to be opened.

4. A door-opening device, comprising a pneumatic, a movable platform engaging the movable member of the said pneumatic for closing the pneumatic on a person stepping on the said platform, a pivot on the door casing and having an inlet channel connected with the said pneumatic, a valve chamber on the said cylinder for connecting the said inlet channel with the said cylinder, a piston valve in the said valve chamber for controlling the connection between the said channel and the said cylinder, a piston in the said cylinder and connected with the door to be opened, and an air escape valve connecting the said cylinder with the said valve chamber.

5. A door-operating device, comprising a pneumatic adapted to be closed by the weight of a person exerted on the movable member of the pneumatic, a cylinder on the door casing and containing a reciprocating piston having a piston rod, a valved connection between one end of the cylinder and the said pneumatic, a cushioned keeper on the door, and a link pivotally connecting the outer end of the said piston rod with the said keeper at one end thereof, the said link being adapted to be seated on the said cushion.

[Claims 6 to 11 not printed in the Gazette.]

1,027,232. TIE AND RAIL-FASTENER. THOMAS BAUGHMAN, Harrison City, Pa. Filed Mar. 6, 1912. Serial No. 681,988. (Cl. 238—[illegible])



In a metallic tie and rail fastener, the combination with rails having the webs thereof provided with openings adjacent to the base flanges of said rails, of an oblong tie body having the top thereof provided with transverse grooves to receive the base flanges of said rails, said tie body having longitudinal openings formed therein in communication with the transverse grooves thereof, and said openings alining with sockets formed in the inner walls of said grooves, flat fastener members arranged in said openings and extending through the openings of said rails into the sockets of said tie, and set screws mounted in the top of said tie and engaging the tops of said fastener members.

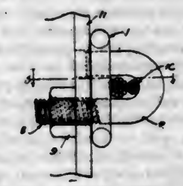
1,027,233. LOCKING SLIP-CLOSURE FOR VESSELS. GEORGE W. BEADLE, Montclair, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed Nov. 23, 1910. Serial No. 593,043. (Cl. 229—12.)



1. The combination of a vessel having flexible resilient walls; and a closure comprising a cover portion having a flanged rim adapted to tightly fit the outside of the wall of the vessel, and a dished disk portion secured to said cover portion adapted to fit the interior of said vessel, said flanged rim extending along the said outside wall below the point engaged by said disk, substantially as described.

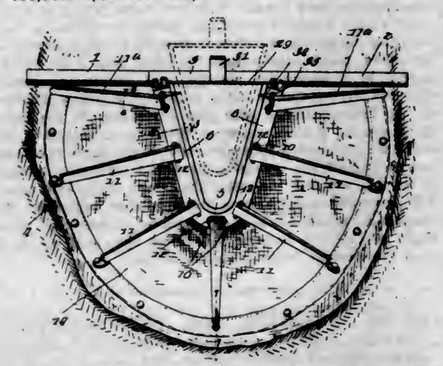
2. A vessel closure comprising a flanged cover portion having grooves therein and adapted to fit the outside of said vessel; a dished disk portion adapted to fit the inside of said vessel; and fastening means passing through said grooves and said disk portion, substantially as described.

1,027,234. WIRE-ROPE CLAMP. WALLACE E. BELCHER, Chicago, Ill. Filed May 29, 1911. Serial No. 630,059. (Cl. 24—135.)



A wire rope clamp comprising an elongated link formed of material circular in cross-section, providing rounded bearing surfaces for a cable and having a centrally disposed elongated slot, a U-shaped bolt formed of material substantially circular in cross-section to provide rounded bearing surfaces for a cable disposed between said bolt and the link, said bolt having one leg thereof longer than the other to engage with a support, and means for drawing the crown of said bolt toward the link to firmly clamp a cable between the rounded surfaces of said link and bolt.

1,027,235. PORTABLE DITCH-DAM. ALFRED CADWALLADER, Bushnell, Ill. Filed June 27, 1911. Serial No. 635,560. (Cl. 137—66.)



1. In a device of the character specified, a sectional cross bar, a substantially V-shaped frame comprising a body adapted to rest against the bottom of a ditch, and arms detachably connected at their respective inner ends with the cross bar, a wing of flexible material and of substantialy V-shape having its inner edge connected to the frame, and rigid bars hinged to the frame and radiating therefrom, said wing having its outer edge connected to the respective outer ends of the bars, each of the inner bars having a transverse opening at its outer end, the edges of the wing being doubled, a fastener for securing the wing to each inner bar, each fastener consisting of two sections, one section between the respective thicknesses of the doubled portion of the wing and the other section on the opposite side of the bar, and a threaded stem passing through the opening and engaging both sections, said frame and the outermost bars being tubular and having a longitudinal slot, the adjacent doubled portion of the wing being received in the slot, and a rod passing between the said portions in the frame and arms, a gate for closing the frame, said gate being vertically slidable, a cross bar between the arms of the frame, and a vertical bar on the gate having a notch for receiving the cross bar when the gate is closed.

2. In a device of the character specified, a sectional cross bar, a substantially V-shaped frame comprising a body adapted to rest against the bottom of a ditch, and arms detachably connected at their respective inner ends with the cross bar, a wing of flexible material and of substantially V-shape having its inner edge connected to the frame, and rigid bars hinged to the frame and radiating therefrom, said wing having its outer edge connected to the respective outer ends of the bars, each of the inner bars having a transverse opening at its outer end, the edges of the wing being doubled, a fastener for securing the wing to each inner bar, each fastener consisting of two sections, one section between the respective thicknesses of the doubled portion of the wing and the other section on the opposite side of the bar, and a threaded stem passing through the opening and engaging both sections, said frame and the outermost bars being tubular and having a longitudinal slot, the adjacent doubled portion of the wing being received in the slot, and a rod passing between the said portions in the frame and bars, a gate for closing the frame, and means for preventing the gate from fitting against the frame when out of register therewith.

3. In a device of the character specified, a cross bar, a substantially V-shaped frame comprising a body adapted to rest against the bottom of a ditch, and arms detachably connected at their respective inner ends with the cross bar, a wing of flexible material and of substantially V-shape having its inner edge connected to the frame, and rigid bars hinged to the frame and radiating therefrom, said wing having its outer edge connected to the respective outer ends of the bars, each of the inner bars having a transverse opening at its outer end, the edges of the wing being doubled, a fastener for securing the wing to each inner bar, each fastener consisting of two sections, one section between the respective thicknesses of the doubled portion of the wing and the other section on the opposite side of the bar, and a threaded stem passing through the opening and engaging both sections, said frame and the outermost bars being tubular and having a longitudinal slot, the adjacent doubled portion of the wing being received in the slot, and a rod passing between the said portions in the frame and bars, and a gate for closing the frame.

4. In a device of the character specified, a cross bar, a substantially V-shaped frame comprising a body adapted to rest against the bottom of a ditch, and arms detachably connected at their respective inner ends with the cross bar, a wing of flexible material and of substantially V-shape having its inner edge connected to the frame, and rigid bars hinged to the frame and radiating therefrom, said wing having its outer edge connected to the respective outer ends of the bars, each of the inner bars having a transverse opening at its outer end, the edges of the wing being doubled, a fastener for securing the wing to each inner bar, each fastener consisting of two sections, one section between the respective thicknesses of the doubled portion of the wing and the other section on the opposite side of the bar, and a threaded stem passing through the opening and engaging both sections, and a gate for closing the frame.

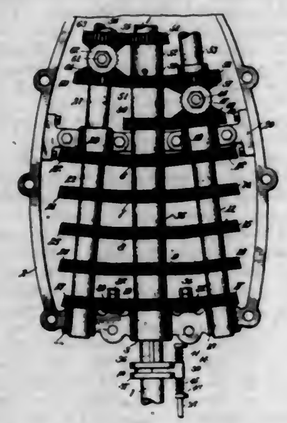
1,027,236. CHANGE-SPEED GEARING. HORACE M. CAREY, Washington, D. C. Filed Sept. 15, 1909. Serial No. 517,812. (Cl. 74—34.)

1. A change speed gearing comprising a driving shaft, gears loosely mounted on said driving shaft, driven shafts, gears on said driven shafts in mesh with the gears on said driving shaft, means including a differential mechanism operatively connecting both driven shafts and means for clutching any one of the gears on the driving shaft to said driving shaft, substantially as described.

2. A change speed gearing comprising a driving shaft, gears of varying sizes loosely mounted upon said driving shaft, driven shafts, gears on said driven shafts in constant mesh with the gears on the driving shaft, means including a differential mechanism operatively connecting said driven shafts and means for clutching the loosely mounted gears to the driving shaft, said means being adapted to clutch in the said loosely mounted gears in the order of their relative size.

3. A change speed transmission gearing comprising a driving shaft, gears of varying sizes loosely mounted on the driving shaft, driven shafts, gears of varying sizes rigidly

mounted upon the driven shafts, means for clutching the loosely mounted gears to the driving shaft, means including differential gear mechanism operatively connecting both driven shafts, road wheel shafts, and means for connecting said differential mechanism with the road wheel shafts.

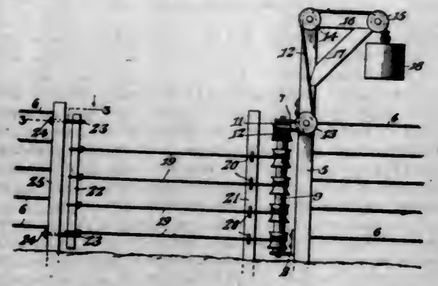


4. In an automobile transmission gearing, in combination, a driving shaft, driven shafts, one on each side of said driving shaft and lying at an angle thereto, a series of beveled gears of varying sizes loosely mounted upon said driving shaft, a series of beveled gears of varying sizes rigidly mounted upon said driven shafts and in mesh with the gears upon said driving shaft, and clutch means for connecting any one of the loosely mounted gears with the driving shaft, and means including differential gear mechanism operatively connecting both driven shafts, substantially as described.

5. In a transmission gearing in combination, a driving shaft, a gear on said driving shaft, driven shafts, gears on said driven shafts in mesh with the gear on said driving shaft, compound shafts operatively connected to said driven shafts, gears carried upon said compound shafts, and annular gears adapted to mesh with said gears, substantially as described.

[Claims 6 to 28 not printed in the Gazette.]

1,027,237. FRAMELESS GATE. ALLAN CAMPBELL, Brandon, Manitoba, Canada. Filed Feb. 19, 1912. Serial No. 678,467. (Cl. 39—101.)

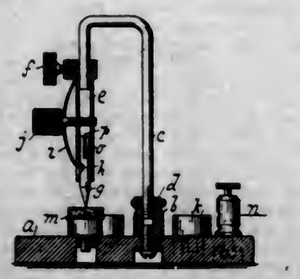


1. In a gate of the class described, the combination with the gate posts spaced apart to provide a passage between them, a vertically disposed roller shaft mounted contiguous to one of said gate posts, a plurality of spools mounted on said roller shaft, a series of wires individually connected to each of said spools, retaining means carried by the other gate post, a vertical standard connecting the free ends of the wires, an intermediate post carrying separate guides for the wires, and means for rotating said roller shaft to cause said spools to wind said wires thereon to open the passage between said gate posts.

2. In a gate of the class described, the combination with the gate posts spaced apart to provide a passage between them, of a roller shaft mounted to rotate in supports carried by one of the said gate posts, a plurality of spools mounted on said roller shaft, a series of wires connected to said spools and normally extending across the passage to the other gate post, a standard to which the free ends of said wires are connected, rigid hooks carried by the second-mentioned gate post, said standard being positioned in said hooks when said gate is in closed position, an intermediate post spaced from the roller shaft and having guides for the wires at spaced points thereon, and means for placing said roller shaft under tension whereby said standard will be firmly held against accidental release, but when said standard is released from said hooks, said roller shaft will revolve to wind said wires upon said spools to open the passage between said gate posts.

3. In a gate of the class described, the combination with the gate posts spaced apart to provide a passage between them, of a vertically-disposed roller shaft mounted to rotate in brackets carried by one of said gate posts, a plurality of spools rigidly mounted on said roller shaft and spaced apart thereon, a series of wires individually connected to all but the top one of said spools and normally extending across the passage to the other gate post, an intermediate post spaced from the roller shaft and provided with a series of individual guides for the wires leading from the spools, a standard connecting the free ends of the wires, hooks attached to the other gate post and arranged in a horizontal position and adapted to engage with the opposite ends of the standard, a pulley mounted on the first-mentioned gate post contiguous to the upper spool, spaced pulleys mounted upon an extension of the said gate post, and a rope connected to the upper spool and wound around the several pulleys and carrying a weight at its end, whereby the roller shaft with its several spools will be placed under tension and the wires kept taut, and when said standard is released from said hooks, said roller shaft will revolve to wind said wires upon said spools to open the passage between said gate posts.

1,027,238. RECEIVER FOR ELECTROMAGNETIC WAVES. EDWIN R. CARLSON, Brooklyn, N. Y., assignor of one-third to Morris Katsky, Brooklyn, N. Y. Filed Mar. 16, 1911. Serial No. 614,758. (Cl. 178—319.)



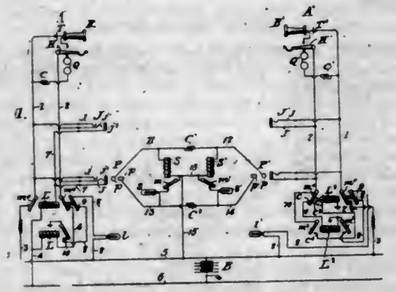
1. A receiver for electromagnetic waves, comprising a base provided with a plurality of electrolytic fluid and mineral substance containers, a bracket arm mounted on the base, a pin having a contact point at each end operatively carried by the arm, one end of the pin being for contact with the fluid containers while the other end is adapted for use with the substances.

2. A receiver for electromagnetic waves, comprising a base provided with a plurality of electrolytic fluid and mineral substance containers, a bracket arm mounted on the base, a pin having two contact points, one of the points being employed for contact with the fluid containers while the second point is adapted for use with the substances.

3. A receiver for electromagnetic waves, comprising a base provided with an electrolytic container, a bracket arm mounted on the base, a sleeve attached to the arm, a pin having a groove carried by the sleeve, a spring to engage the grooved portion of the pin, a device operatively connected to the sleeve and engaging the spring for tensioning and compressing the spring to move the pin vertically in the sleeve.

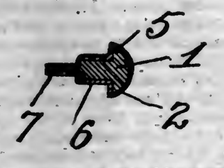
4. A receiver for electromagnetic waves, comprising a base provided with an electrolytic container, a bracket arm mounted on the base, a sleeve attached to the arm, a pin carried by the sleeve having a contact point consisting of a wire inserted into a split end of the pin, and a spring secured in the split part of the pin to frictionally hold the wire in place, a spring to engage the pin, and means operatively connected to the sleeve and engaging the spring for tensioning and compressing the spring to move the pin vertically in the sleeve.

1,027,239. TELEPHONE-EXCHANGE SYSTEM. EDWARD E. CLEMENT, Washington, D. C. Filed Jan. 28, 1905. Serial No. 243,114. (Cl. 179—58.)



In a telephone exchange system, line circuits, a line relay and a cut-off relay for each line, each line terminating on a pair of contacts in its cut-off relay, one of which is normally connected through a coöperating contact with one side of main battery, and the other through a corresponding coöperating contact with the windings of the line relay and thence to the other side of battery, a signal lamp having its circuit extended from one side of battery through normally closed contacts on the cut-off relay and normally open contacts on the associated line relay to the other side of battery, a jack for each line having three contacts, one connected to each side of line direct and the third to the cut-off relay and thence to one side of battery, a link circuit for interconnecting the lines having terminal plugs each provided with tip and sleeve contacts, the latter of sufficient length to bridge together the contacts connected to one side of line and to the cut-off relay respectively, a supervisory relay in the link having its circuit extended from one side of battery to the tip conductor, a lamp controlling relay having its circuit extending from battery through normally closed contacts in the supervisory relay to the sleeve conductor, and a supervisory signal lamp having its circuit extended from the battery through normally open contacts in the controlling relay to the other side of the battery, whereby when a subscriber calls, current will flow in his line through the line relay only, and when a plug is inserted, current will flow to the line through the cut-off relay only on one side and through the supervisory relay in the link on the other, the line relay, the line signal lamp, the controlling relay in the link, and the supervisory lamp in the link being all disconnected and deprived of current during conversation.

1,027,240. ELECTRICAL CONTACT. EDWARD E. CLEMENT, Washington, D. C. Filed Sept. 29, 1906. Serial No. 336,738. (Cl. 173—13.)



1. A rivet comprising a body of base metal, a coating of non-oxidizable metal, and a rivet extension formed of the latter metal.

2. A rivet comprising a head and a shank of base metal, a coating of non-oxidizable metal therefor, and a continuation of the shank formed of said latter metal.

3. In a contact point for circuit changing springs the combination with a shank and a head of base metal, of a covering of non-oxidizable metal for said head and shank and non-oxidizable means forming an extension of said shank, said means forming the flat mate contact and the pointed head.

4. The process of tipping electrical contact springs with precious metal which consists of welding a surface layer of said precious metal upon a body of baser metal, cutting said bimetallic body into cylinders tipped with said precious metal, inserting said cylinders into holes in the electrical contact springs and riveting said cylinders into close contact with said springs and with the precious metal exposed.

1,027,241. DUMP-CAR CONSTRUCTION. JAMES McCUTCHEON COLEMAN, Westmount, Quebec, Canada. Filed July 3, 1911. Serial No. 636,703. (Cl. 105—185.)



1. In dump car construction, a car body having a dump opening and double plate formation around said dump opening forming pockets and a door having a link hinge support from one end and double plate inwardly extending flanges forming pockets, said hinge being adapted to draw said flanges and pockets into register in the closing operation.

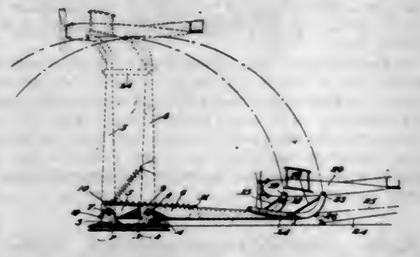
2. In dump car construction, a car body having a dump opening and double plate formation around said dump opening forming a continuous pocket and a swinging door having a loop hinge supporting it from one of the sides of the dump opening and double plate flange formation extending from an inside face and forming a continuous pocket, said door being adapted to swing freely from said opening and in closing, to draw into place, by means of said hinge connection, said flanges from the door entering the dump opening pocket and said flanges from around the edge of the dump opening entering the door pocket.

3. In dump car construction, a car body having a chute therebeneath and a dump opening in the end wall of said chute, said end wall and bottom and sides of the chute having double plate formations formed by outwardly extending flanges around said dump opening, a door, having around the outer edge thereof, parallel double flanges extending from the inside face forming a pocket, a hinge formed by a loop and brackets fastened to the upper por-

tion of the end wall of the chute and to the door respectively, and means for operating said door.

4. In dump car construction, a car body having a pair of substantially parallel chutes therebelow and dump openings in the end walls of said chutes, said chutes having a double plate formation formed by flanges around said dump opening, a pair of doors having double plate formations formed by flanges extending inwardly from the inside face and coacting with the aforesaid double plate formation, hinges securing said doors to the upper portion of the end walls of the chutes and formed with brackets and loops connecting the brackets, a cross beam rigidly secured to and connecting said doors, an arm pivotally secured to said beam at one end, and a worm and gear mechanism connected to the other end of said arm suitably operated.

1,027,242. MEANS FOR LAUNCHING FLYING-MACHINES. GLENN H. CURTISS, Hammondsport, N. Y. Filed Sept. 1, 1911. Serial No. 647,265. (Cl. 244—2.)



1. In an aeroplane launching apparatus, the combination of a suitable mount; an aeroplane supporting device pivotally mounted on said mount; and means for imparting, at a variable speed, an angular throw to said supporting device, substantially as described.

2. In an aeroplane launching apparatus, the combination of a suitable mount; aeroplane supporting arms pivotally mounted on said mount and operable to swing in parallel relation thereon; and means for swinging said arms at a variable speed to launch the aeroplane, substantially as described.

3. In an apparatus for launching flying machines, the combination of a suitable mount; and means comprising a plurality of independently pivoted spring controlled arms for supporting and imparting to the machine a rapidly increasing swinging movement, substantially as described.

4. In an apparatus for launching flying machines, the combination of a plurality of arms upon which said machine is supported; independent pivots for said arms; spring means for moving said arms; means for putting said spring under tension; and means for releasing said arms, substantially as described.

5. In an apparatus for launching a flying machine, the combination of a plurality of arms adapted to support said machine; separated pivots upon which said arms may turn; a spring means connecting said arms; and a link connecting said arms, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,027,243. MEANS FOR SECURING CAPS TO PROJECTILES. THOMAS DIXON, Washington, D. C., assignor to Washington Steel & Ordnance Company, Washington, D. C., a Corporation of West Virginia. Filed Mar. 25, 1912. Serial No. 686,047. (Cl. 102—28.)

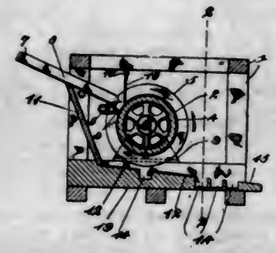
1. The combination of a projectile provided with a pocket whose axis extends toward the point of and is inclined to the longitudinal axis of said projectile; a cap provided with an orifice whose axis coincides with the axis of said pocket; and a fastening means adapted to hold said cap in tight contact with said projectile secured in said orifice and pocket, substantially as described.

2. The combination of a projectile provided with a forwardly inclined pocket; a cap provided with a screw-threaded orifice registering with said pocket; and a screw-threaded member fitting said orifice and pocket adapted to draw said cap toward said projectile and to firmly hold the same in tight contact therewith, substantially as described.



3. The combination of a projectile provided with a plurality of partially open, forwardly inclined pockets extending beneath its outer surface; a cap having a plurality of inclined screw-threaded orifices registering with said pockets; and screw-threaded plug members fitting said orifices and pockets adapted to draw and hold said cap in tight contact with said surface, substantially as described.

1,027,244. AMALGAMATOR. CHARLES C. ELLIS, Chattanooga, Tenn. Filed Nov. 20, 1911. Serial No. 661,263. (Cl. 83—68.)

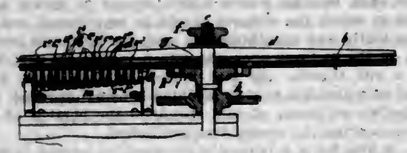


1. In an amalgamator, the combination of a frame, a rotatory amalgamating cylinder mounted therein, a feed trough adapted to deliver a free-falling stream of ore in proximity to the cylinder, and a pipe parallel to the cylinder in proximity to the path of the falling material, having outlets along the portion in proximity to the cylinder and adapted to deliver a current of fluid against the falling material toward the cylinder.

2. In an amalgamator, the combination of a frame, a rotatory amalgamating cylinder mounted therein, a feed trough discharging the pulp onto the cylinder along one side thereof, a pipe arranged immediately below and in advance of the trough discharge and having outlet openings directed toward the falling stream of pulp and cylinder, means to supply to said pipe a fluid under pressure, and a splash board suspended above the trough discharge on the opposite side from the pipe.

3. In an amalgamator, the combination of a frame, a rotary amalgamating cylinder mounted therein, a feed trough adapted to deliver a free-falling stream of ore in proximity to the cylinder, a pipe parallel to the cylinder in proximity to the path of the falling material, having outlets along the portion in proximity to the cylinder and adapted to deliver a current of fluid against the falling material toward the cylinder, a splash board on that side of the trough delivery opposite the pipe, a substantially horizontal amalgamating plate arranged beneath the cylinder, and an apron arranged beneath the pipe and trough discharge and extending at an inclination from a point at the rear of the pipe to the horizontal plate.

1,027,245. CHANGEABLE-PIN DISK FOR MECHANICAL MUSIC-BOXES. HEINRICH GRAF, Bielefeld, Germany. Filed May 10, 1911. Serial No. 626,242. (Cl. 84—163.)



1. In combination a casing, a disk mounted in said casing, said disk having a series of perforations, a plurality of pins removably inserted into and extending through and beyond said perforations, removable means for holding the pins in the perforations, a series of sound tongs mounted in the casing, and means with which the pins coöperate when the disk is revolved to operate on the sound tongs.

2. A changeable pin disk for mechanical music boxes comprising in combination a disk formed with a plurality of holes, a plurality of pins removably inserted into and extending through and beyond said holes of the disk, the rear ends of said pins extending beyond the disk, a cover plate engaging the rearwardly projecting ends of said pins, and means for removably holding the said cover plate in position on said disk, and means with which the pins coöperate for producing musical tones.

3. In combination, a case, a disk mounted in the case, said disk having a series of perforations, headed pins mounted in certain of the perforations, a plate fitting over the heads of the pins to retain them in the perforations, means for clamping the plate to the disk, a series of horizontally disposed toothed wheels below the disk, the teeth of said wheels being in the path of the pins, and a comb having teeth which contact with the toothed wheels, whereby the teeth of the comb will be vibrated, and means for revolving the disk.

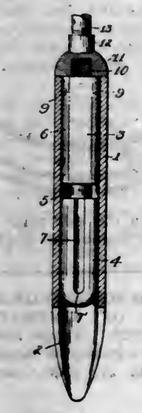
4. In combination, a case, a shaft mounted in the case, a frame slidably mounted in the case, anti-friction rolls mounted on the frame, a disk mounted on the shaft and adapted to be supported near its end on the anti-friction rollers, said disk having a series of perforations, a series of headed pins, in certain of the perforations, means engaging the heads of the pins for holding them in the perforations, a series of toothed wheels below the disk and in the path of movement of the pins, said pins contacting with the teeth of the wheels when the disk is rotated, a comb having teeth which contact with the toothed wheels when the latter are revolved by the pins, means for revolving the disk, and means for holding the frame in elevated position to remove the pins from the plane of the toothed wheels.

5. In combination, a case, a disk revolubly mounted in the case, said disk having a series of perforations arranged in circular form, detachable pins fitted in selected perforations in the disk, means for holding the pins in the perforations, a series of toothed wheels with which the pins coöperate, and a comb having teeth which contact with the toothed wheels, whereby when the disk is revolved and the pins contact with the toothed wheels the latter will vibrate the teeth of the comb.

1,027,246. IMPLEMENT FOR OBTAINING SAMPLES FROM PEAT BOGS AND OTHER PURPOSES. BERNARD GRANVILLE, New York, N. Y., assignor to National Fibre Products Company, a Corporation of Delaware. Filed Aug. 28, 1911. Serial No. 646,503. (Cl. 83—15.)

1. In combination in an implement of the class described, a casing, a plunger within the casing, means for locking the plunger at a point intermediate of its length within said casing, and means for rotating the plunger to lock or release the same, said plunger being movable, when released, either upwardly or downwardly in relation to the casing, substantially as described.

2. In combination, a casing, a plunger portion movable in respect to the casing and within the same, said plunger portion being capable also of rotary movement in relation to the casing and means for locking the plunger and the casing together to move as one body, and means whereby the plunger may be retracted in relation to the casing by first rotating the plunger to unlock the same from said casing, substantially as described.



3. In combination in an implement of the class described, a casing, a plunger portion movable within the same longitudinally and revolubly, a lug on the casing, a shoulder at an intermediate portion of the plunger to engage the said lug, and a groove in the plunger to register with the lug when the plunger has turned to allow said plunger to have retracting movement in respect to the casing, substantially as described.

4. In combination in an implement of the class described, a casing, a lug on the interior thereof, a plunger having upper and lower portions with a groove between them extending in a direction, circumferentially of the plunger and upper and lower grooves in the upper and lower portions respectively of the plunger, said grooves communicating with the circumferential groove and being out of alinement in respect to each other, substantially as described.

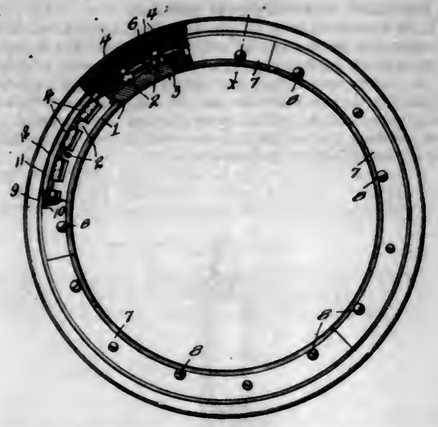
5. In combination the casing, the inner plunger, a hammer portion connected with the plunger to drive the casing, a rod connected to the hammer portion and means of connection between the casing and the inner plunger consisting of a lug, and longitudinal and circumferential slots in which the lug works, substantially as described.

[Claim 6 not printed in the Gazette.]

1,027,247. TIRE. GEORGE GRAY, Sisseton, S. D. Filed Oct. 28, 1911. Serial No. 657,221. (Cl. 152—8.)

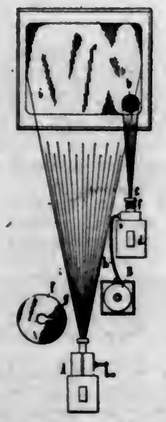
In a tire of the character described a rim provided at its edges with studs having their outer ends circumferentially grooved, rings seated within said grooves, transverse springs having hooked ends which engage the rings at points between the studs, end portions of the hooks being cut away to provide clearance for the studs, side rings secured to opposite edges of the rim and extending beyond the springs and having recesses in their inner faces opposite the hooked ends of the springs, a

yieldable tread mounted upon the springs and having edge portions overlapping the side rings, and fillers of yieldable



material mounted upon the side rings and underlapping the projecting edge portions of the tread.

1,027,248. FILM AND METHOD OF SYNCHRONIZING THE OPERATION OF KINEMATOGRAPHS AND TALKING-MACHINES. JULES GREENBAUM, Berlin, Germany, assignor to Raleigh & Robert, Paris, France, a Firm. Filed Jan. 27, 1909. Serial No. 474,474. (Cl. 88—16.)



1. The herein described method of synchronizing the operation of a kinematograph and talking machine consisting in projecting on to a screen a succession of pictures, each bearing marks to indicate the speed at which the pictures should be reproduced, and independently projecting upon said screen marks to indicate the speed at which the talking machine is being operated, and varying the relative speed of the two apparatus referred to, to preserve a uniform relative position of the marks referred to upon the screen.

2. The herein described method of synchronizing the operation of kinematographs and talking machines consisting in projecting on to a screen a succession of pictures each bearing marks which appear to rotate at the speed at which the pictures should be reproduced, and independently projecting upon said screen separate marks which appear to rotate at the speed at which the talking machine is being operated and varying the relative speeds of the two apparatus referred to to preserve a uniform relative position of the marks upon the screen.

3. The herein described method of synchronising the operation of kinematographs and talking machines consisting in projecting on to a screen a succession of pictures each bearing marks which appear to rotate at a speed at which the pictures should be reproduced, and independently and simultaneously with the aforesaid projection on the pictures upon the screen rotating a part having a slit therein, the last named rotation being at a speed at which the talking machine is being operated, and projecting an image of said slit upon the portion of the screen bearing the marks first mentioned.

4. A film for a moving picture machine having thereon marks or devices to indicate the speed at which the machine should be operated.

5. A film for a moving picture machine having thereon a series of progressive marks or devices adapted to be thrown on a screen to indicate the speed at which the machine should be operated.

[Claims 6 and 7 not printed in the Gazette.]

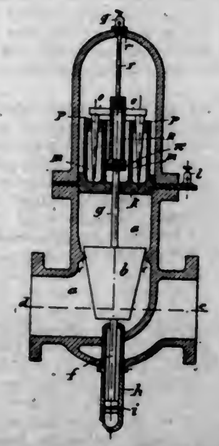
1,027,249. SLIPPER WITH REMOVABLE COUNTER. ARTHUR HALE, New York, N. Y. Filed Sept. 25, 1911. Serial No. 651,243. (Cl. 36—10.)



1. A foot covering provided with a counter portion having inner and outer walls secured together to form a pocket, and one of said walls providing an opening into said pocket through which a stiffening member may be readily inserted and withdrawn, substantially as described.

2. A foot covering provided with a counter portion having inner and outer walls secured together and forming an open mouth pocket; and a stiffening member located in said pocket, substantially as described.

1,027,250. DEVICE FOR MEASURING FLUID. CARL ADOLF HARTUNG, Berlin, Germany. Filed Dec. 4, 1911. Serial No. 663,926. (Cl. 73—167.)



1. In measuring devices for fluid, the combination with conveying means for fluid, of a vertically movable impact actuated valve member disposed in the path of movement of the fluid through said conveying means and actuated thereby, a receptacle containing mercury, a rod, dipping into the mercury in said receptacle, and operatively connected to said valve member to alter its position with respect to said mercury responsive to movement of the said valve member, and means electrically connecting said receptacle and rod, whereby a varying resistance is formed in the electric circuit, responsive to movement of the said valve member.

2. In measuring devices for fluid, the combination with conveying means for fluid, of a vertically movable impact actuated valve member disposed in the path of movement of the fluid through said conveying means and actuated thereby, a receptacle containing mercury, a plurality of rods symmetrically disposed with respect to the axis of movement of said valve member, dipping into said mercury in said receptacle, and operatively connected to said valve member to alter their position with respect to the said mercury responsive to movement of the said valve member, and means electrically connecting said receptacle and rods, whereby a varying resistance is formed in the electric circuit responsive to movement of the said valve member.

3. In measuring devices for fluid, the combination of a valve casing for conveying fluid, said valve casing having a horizontally disposed valve seat, an impact actuated valve member for said valve disposed in the path of movement of the fluid, means for guiding said valve member in substantially a vertical path of movement, a receptacle, containing mercury, carried by and disposed symmetrically with respect to the axis of movement of said valve member, said receptacle being insulated from said valve member, a rod dipping into the mercury in said receptacle, a resistant means operatively connected to said receptacle and actuated upon movement thereof, and means for electrically connecting said rod and resistance means whereby a varying resistance is formed in the electrical circuit, responsive to movement of said valve member.

1,027,251. MEAT-BOILER. MARK E. HILL, Washington, D. C., assignor of one-fourth Le Blond Burdett, Washington, D. C. Filed Dec. 1, 1910. Serial No. 595,112. (Cl. 53—1.)



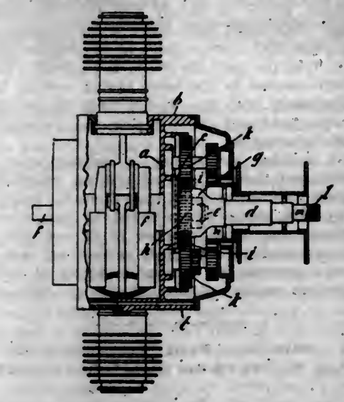
1. A meat cooker comprising in combination, a tube open at both ends, a closure therefor in close contact with one end of the tube to form a tight joint therewith, a cross-head, means for holding said cross-head normally in fixed relation to said closure, a follower between said cross-head and closure fitting the tube and sliding therein, and manually operable means for forcing the follower toward the closure, said parts being separable from said open-ended tube whereby it may be readily subjected to sanitary cleansing.

2. A meat cooker comprising in combination, a tube open at both ends, a closure therefor constituting the bottom of the tube and being in close contact with the lower end thereof to form a tight joint therewith, a cross-head supported from the other end of the tube and normally in fixed relation to the closure, means for removably securing said parts together, a follower between said cross-head and closure fitting the tube and sliding therein, and a screw working through said cross-head against the follower to force the follower toward the closure, said parts being separable from said open-ended tube whereby it may be readily subjected to sanitary cleansing.

3. A meat cooker comprising in combination, a tube open at both ends, a closure for one end of the tube, a cross-head receiving its support from the tube means for holding said cross head normally in fixed relation to the closure, a follower fitting the tube and sliding therein between the cross-head and closure, and means acting against the cross-head and follower but separable from both for forcing the follower toward the closure, said follower being separable from said tube and said cross-head and closure being removable from the respective ends of the tube.

4. A meat cooker comprising in combination, an upright tube open at both ends, a closure therefor constituting a supporting base for the tube and forming with the lower end thereof a tight joint, a cross-head supported by the upper end of the tube, means for removably securing said closure and cross-head to the tube, a follower having a cupped top to catch and hold juices, etc., compressed out of the meat and fitting and sliding in the tube, said parts being separable from each other, and means for forcing said follower toward said closure.

1,027,252. MOUNTING OF AERIAL PROPELLERS. RUPERT JOHN ISAACSON, Leeds, England. Filed Dec. 16, 1911. Serial No. 666,262. (Cl. 244—25.)



1. A motor, a crank casing for said motor, a tubular carrier fixed to said casing, and an aerial propeller driven by said motor and mounted to rotate on said carrier.

2. A motor, a crank casing for said motor, a tubular carrier fixed to said casing concentric with the crank shaft of said motor, and an aerial propeller driven by said motor and mounted to rotate on said carrier.

3. A motor, a crank casing for said motor, a tubular carrier fixed to said casing, an aerial propeller driven by said motor and mounted to rotate on said carrier, and means for taking end thrust of said propeller.

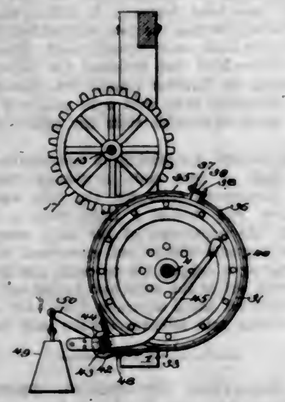
4. A motor, a crank casing for said motor, a tubular carrier fixed to said casing, an aerial propeller driven by said motor and mounted on said carrier and rotary bearings on said carrier surrounded by the hub of said propeller.

5. A motor, a crank casing for said motor, a tubular carrier fixed to said casing, an aerial propeller driven by said motor and the hub of which surrounds the said car-

rier, bearings for said propeller arranged in the space between the said carrier and the hub of said propeller, and means for closing the outer end of the said space.

[Claims 6 to 12 not printed in the Gazette.]

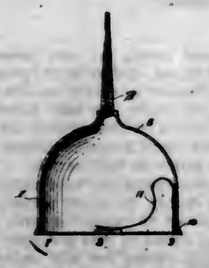
1,027,253. HOISTING-MACHINE. HORACE G. JOHNSTON, Corsicana, Tex., assignor to American Well & Prospecting Company, Inc., Corsicana, Tex., a Corporation of Texas. Filed Jan. 23, 1911. Serial No. 604,169. (Cl. 74—37.)



1. In a hoisting mechanism, a rotating hoisting drum, means to rotate the drum, brake bands encircling the drum in two places, a shaft journaled adjacent the periphery of the drum, means carried by said shaft for tightening the brake bands upon said drum, a disk carried by the shaft provided with ratchet teeth at its periphery, a lever having its fulcrum upon the shaft, and a block removably and rigidly secured to the lever having ratchet teeth in rigid engagement with the ratchet teeth of the disk and capable of adjustment by removing the plate from the lever and replacing it.

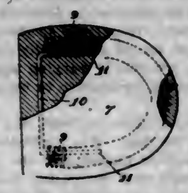
2. In a braking mechanism, a driving shaft, brake drums arranged thereon, a shaft spaced therefrom, fulcrum spools carried by said spaced shaft, brake bands carried by said spools and adapted to pass about said brake drums, one of the flanges of one of said spools having a serrated edge, a lever carried by said spaced shaft, and a serrated lug removably carried on said lever and adapted to engage the serrated edge of said spool.

1,027,254. OIL-CAN. FELIX KARPISEK, Wilber, Nebr. Filed Aug. 16, 1910. Serial No. 577,474. (Cl. 221—34.)



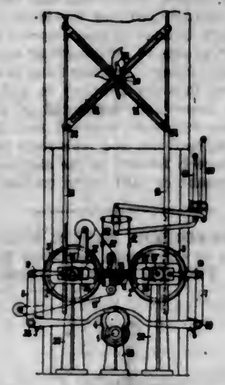
An oil can comprising a receptacle, a removable flexible bottom therefor having a recess therein, a wear plate formed on the bottom, and a U-shaped spring having a hooked end detachably seated in the recess and adapted to be engaged by the receptacle for holding it in position whereby its opposite end will be adapted to move freely over the wear plate.

1,027,255. HEEL FOR BOOTS AND SHOES. ELBAERE KEMPSHALL, Garden City, N. Y. Filed Mar. 13, 1911. Serial No. 613,982. (Cl. 36—35.)



In heels for boots or shoes, the combination of a spiral spring embedded in the heel with the material of the heel engaging in and filling the interstices between the convolutions of the spring, said spring being rounded at its rear and the ends being extended forwardly to form two subsantially parallel legs, and a rod extending across the front or breast end of the heel and embedded therein to connect the front ends of the legs of the springs.

1,027,256. MACHINE FOR CUTTING CARDS FOR AUTOMATIC EMBROIDERING-MACHINES. JOHANN JACOB KNECHT, Chemnitz, Germany. Filed Apr. 28, 1911. Serial No. 623,892. (Cl. 164—114.)



1. In a machine for punching cards for automatic embroidering machines, the combination with the pattern frame, of two revoluble, parallel, perforated drums mounted horizontally displaceable toward and away from one another, means driven by the frame for rotating the drums, two pairs of guide bars arranged between and parallel to the drums, punches guided in each pair of guide bars adapted to be driven by non-perforated parts of the appertaining drum, the punches in one of said pairs of guide bars being displaced relatively to the punches in the other pair of guide bars, and means for alternately moving the drums toward and away from the punches and thereby driving the punches.

2. In a machine for punching cards for automatic embroidering machines, the combination with the pattern frame, of two revoluble, parallel, perforated drums mounted horizontally displaceable toward and away from one another, means driven by the frame for rotating the drums, two pairs of guide bars arranged between and parallel to the drums, punches guided in each pair of guide bars adapted to be driven by non-perforated parts of the appertaining drum, the punches in one of said pairs of guide bars being displaced relatively to the punches in the other pair of guide bars, means for alternately moving the drums toward and away from the punches and thereby driving the punches, and means for returning the punches into their normal position.

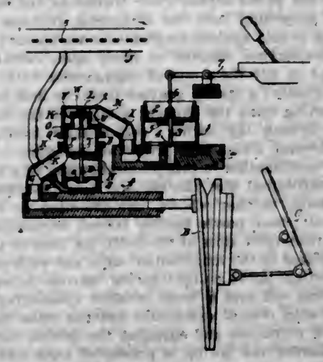
3. In a machine for punching cards for automatic embroidering machines, the combination with the pattern

frame, of two revoluble, parallel, perforated drums mounted horizontally displaceable toward and away from one another, means driven by the frame for rotating the drums, two pairs of guide bars arranged between and parallel to the drums, punches, each having a collar, guided in each pair of guide bars adapted to be driven by non-perforated parts of the appertaining drum, the punches in one of said pairs of guide bars being displaced relatively to the punches in the other pair of guide bars, means for alternately moving the drums toward and away from the punches and thereby driving the punches, and perforated guides traversed by the punches, connected with the drums and adapted to coact with the collars of the punches and return the punches into their normal position.

4. In a machine for punching cards for automatic embroidering machines, the combination with the pattern frame, of two revoluble, parallel, perforated drums mounted horizontally displaceable toward and away from one another, means driven by the frame for rotating the drums, two pairs of guide bars arranged between and parallel to the drums, punches guided in each pair of guide bars adapted to be driven by non-perforated parts of the appertaining drum, the punches in one of said pairs of guide bars being displaced relatively to the punches in the other pair of guide bars, a cover plate adapted to be placed between each drum and the appertaining punches, and means for alternately moving the drums toward and away from the punches and thereby driving the punches.

5. In a machine for punching cards for automatic embroidering machines, the combination with the pattern frame, of two revoluble, parallel, perforated drums mounted horizontally displaceable toward and away from one another, means driven by the frame for rotating the drums, two pairs of guide bars arranged between and parallel to the drums, punches guided in each pair of guide bars adapted to be driven by non-perforated parts of the appertaining drum, the punches in one of said pairs of guide bars being displaced relatively to the punches in the other pair of guide bars, means for alternately moving the drums toward and away from the punches and thereby driving the punches, and means connected with the drums for positively returning the punches into their normal position.

1,027,257. PNEUMATIC ACTION FOR SELF-PLAYING PIANOS. WALTER A. KRUCK, Camden, N. J. Filed Apr. 27, 1911. Serial No. 623,614. (Cl. 84—178.)



1. In a pneumatic action, the combination with upper and lower cup-shaped portions, said upper portion being inverted and having an opening in its bottom, of a coupling constructed to engage both of said portions adjustably, the said coupling having a nipple extending into said inverted portion and provided with a valve seat, pneumatic key-operating devices, tubular connections leading from said devices and opening into said inverted portion above said valve seat, a valve arranged to cover alternately said seat and the said opening in said inverted portion, a cup-shaped piston movably fitting said lower portion, a valve rod bearing said valve at one end, said rod being rigidly attached to and guided by said piston, a tracker, tubular connections leading from the tracker and opening into said lower portion below said piston, a suction chamber, and tubular connections leading from the suction chamber and opening into said lower portion above said piston.

2. In a pneumatic action, the combination with upper and lower cup-shaped portions, said upper portion being inverted and having an opening in its bottom, of a coupling constructed to adjustably engage both of said portions, the said coupling having a nipple extending into said inverted portion and provided with a valve seat, pneumatic key-operating devices, tubular connections leading from said devices and opening into said inverted portion above the valve seat, a valve arranged to cover alternately said seat and said opening in said inverted portion, a cup-shaped piston provided with an air duct and movably fitting said lower portion, a valve rod bearing said valve at one end, said rod being rigidly attached to and guided by said piston, a tracker, tubular connections leading from the tracker and opening into said lower portion below said piston, a suction chamber, and tubular connections leading from the suction chamber and opening into said lower portion above the said piston.

1,027,258. FLYING-MACHINE. JOHN KUBISH, Indian Orchard, Mass. Filed Aug. 29, 1911. Serial No. 646,597. (Cl. 244—25.)



1. In a flying machine, a propeller mechanism comprising a pair of separate and independent motors, a pair of separate and independent shafts, said shafts comprising a short hollow shaft journaled on the machine frame and a longer shaft extending through said hollow shaft and journaled at its rear end upon the frame, the forward end of the inner shaft being provided with a flange and an annular shoulder in rear thereof, and the adjacent end of the hollow shaft being expanded to form a gear casing closed at its forward end by said flange, an outer bearing ring arranged within said casing and engaging the inner wall of the chamber, a bearing washer engaging the flange, anti-friction balls between said bearing ring and bearing washer, an inner bearing ring disposed between the inner wall of the bearing chamber and the shoulder on the inner shaft, anti-friction balls disposed between the outer and inner bearing rings, means upon the inner shaft and coacting with the aforesaid flange to hold the shafts against relative endwise movement, gearing between the motors and the rear ends of said shafts, and propellers upon the forward ends of the shafts.

2. In a flying machine, the combination of a main frame, a chassis, separate and independent motors mounted on the chassis, bearing brackets mounted on the main frame, a hollow shaft mounted in certain of said bearing brackets, a second shaft extending through the outer or hollow shaft and journaled at its rear end in one of the brackets, said hollow shaft being provided at its forward end with an expanded portion forming a bearing chamber and the inner shaft being expanded at its forward end to form a flange and a shoulder respectively closing and projecting into said passage, a pair of spaced concentric bearing rings disposed in said chamber and resting against the inner wall thereof, the inner bearing ring also having engagement with said shoulder, bearing balls between said bearing rings, bearing balls between the flange and outer bearing ring, a collar secured to the inner shaft and en-

gaging the rear end of the outer shaft for coöperation with said flange to hold the inner shaft against endwise movement, gearing between the rear ends of said shafts and the motors, and propellers upon the forward ends of the shafts.

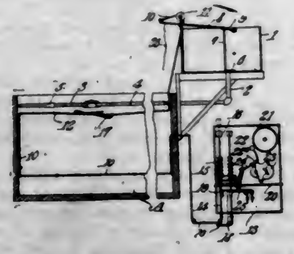
1,027,259. FAN ATTACHMENT FOR SEWING-MACHINES. ROBERT C. LANDERS, Lebanon, Kans. Filed Nov. 29, 1911. Serial No. 663,006. (Cl. 230—9.)



1. A fan attachment for sewing machines comprising a rim provided with radially arranged slots, a collar disposed in concentric relation with the rim, and adapted for engagement with the stop-motion screw of the hand wheel of a machine, blades connecting the collar with the rim, and means on the opposite peripheral edges of the collar adapted for clamping engagement with the opposite side faces of the screw so as to hold the wheel immovably mounted thereon.

2. A fan attachment for sewing machines comprising a rim provided with radially arranged slots, a collar disposed in concentric relation with the rim and adapted for engagement with the stop-motion screw of the hand wheel of a machine, blades connecting the collar to the rim, and tongues formed on the opposite peripheral edges of the collar and adapted to be bent into engagement with the opposite side faces of the screw to hold the fan immovably mounted thereon.

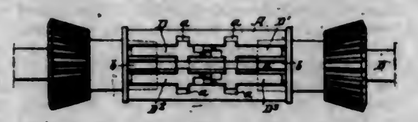
1,027,260. COMBINED FIRE EXTINGUISHING AND INDICATING APPARATUS. JOHN W. LAWHON, Trundles Cross Roads, Tenn. Filed Sept. 15, 1909. Serial No. 517,912. (Cl. 116—11.)



1. In apparatus of the class described a casing, a slide mounted to reciprocate therein, a normally taut element adapted to be parted when subjected to the action of heat for holding the slide normally in a predetermined position, a spring for shifting the slide to project one end portion thereof beyond the casing when said element is parted, a bail hung within the casing, a sounding element, a clapper, means for actuating the clapper, an arm movable with the clapper, a loop connected to the bail and engaging the arm, said bail normally holding the loop in position to restrain the arm and clapper, and a projection on the slide and movable against the bail to shift the bail and loop and release the arm and clapper.

2. In apparatus of the class described a casing, slides normally housed within the casing, normally taut elements adapted to be parted when subjected to the action of heat, said elements constituting means for holding the slides in normal position, springs mounted on and bearing against the slides to automatically project them beyond the casing when the elements connected thereto are parted, a bail hung within the casing, a bell, a clapper, spring actuated means for operating the clapper, an arm movable with the clapper, a loop pivotally connected to and movable with the bail, said loop loosely and detachably engaging the arm to hold the clapper out of contact with the bell and to hold the clapper actuating mechanism against movement, and a projection on each slide, any one of the projections being movable against the bail when its normally taut element is parted, to shift said bail and release the clapper arm.

1,027,261. RATCHET MECHANISM. GEORGE O. LEOPOLD, Philadelphia, Pa., assignor to North Bro's M'f'g Co., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 10, 1911. Serial No. 653,872. (Cl. 74—16.)

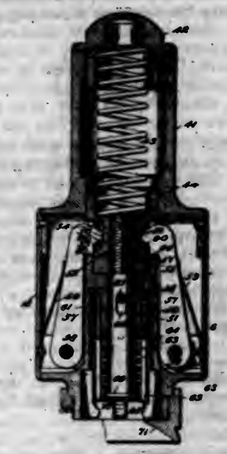


1. The combination in ratchet mechanism, of a barrel; ratchet wheels; pawls pivotally mounted on the barrel and arranged to engage the ratchet wheels; a single fixed spring bearing upon all of the pawls to force them into engagement with the ratchet wheels; a shifter for releasing some of the pawls; a spring bearing upon the shifter and of greater strength than the fixed spring and a shell inclosing the mechanism.

2. The combination in ratchet mechanism, of a barrel having a longitudinal recess and two transverse recesses; four pawls mounted in the longitudinal recess and having trunnions mounted in the transverse recesses; ratchet mechanism with which the pawls engage; a fixed spring having cross members at each end and a longitudinal member connecting the cross members; said cross members bearing upon the pawls beyond their trunnions and having extensions projecting into the transverse recesses whereby the spring is held against longitudinal movement; a shifter having projections adapted to press upon certain of the pawls and to lift them out of engagement with their respective wheels; a spring heavier than the first mentioned spring resting upon the shifter; a knob on the shifter extending through the spring; and a shell having a slot therein through which said projection extends.

3. The combination in ratchet mechanism, of a shell having a longitudinal slot therein and two transverse slots spaced apart, ratchet wheels, one mounted at each end of the shell; four pawls having lateral trunnions mounted in the transverse slots of the shell, the body of the pawls being mounted in the longitudinal slots and each pawl having projecting tails; a light spring having lateral extensions at one end and a cross member connecting the extensions; said lateral extensions bearing upon the pawls beyond the trunnions and engaging the lateral slots in the barrel, whereby the spring is prevented from moving longitudinally so that it always has a fixed relation in respect to the pawls; a shifter mounted above the spring and having a lateral extension arranged to bear upon the tails of the pawls to force them out of engagement with their ratchet wheels; a heavy spring mounted above the shifter and adapted to move therewith; a shell inclosing the mechanism and having a slot therein; a knob on the shifter extending through the heavy spring and through the slot.

1,027,262. BOTTLE-CAPPING MACHINE. THOMAS J. LEVEY, Baltimore, Md. Filed May 8, 1911. Serial No. 625,888. (Cl. 113—4.)



1. In a bottle capping machine, the combination of a capping housing, means for reciprocating said housing, crimping fingers slidably mounted in said housing, locking means for preventing sliding of said fingers, a capping plunger mounted for limited movement relative to said locked crimping fingers, and means actuated by said plunger for releasing said locking means to permit continued movement of said plunger relative to the housing.

2. In a bottle capping machine, the combination of a capping housing, means for reciprocating said housing, a sleeve slidably mounted in said housing, dogs for lockingly engaging said sleeve, a capping plunger slidably mounted in said sleeve, a spring confined between said plunger and sleeve, and a cam actuated by said plunger for releasing said dogs from locking engagement with said slidably-mounted sleeve upon continued movement of said plunger.

3. In a bottle capping machine, the combination of a capping housing, means for reciprocating said housing, a sleeve slidably mounted in said housing, dogs for lockingly engaging said sleeve, a capping plunger slidably mounted in said sleeve, a spring confined between said plunger and sleeve, a cam actuated by said plunger for releasing said dogs from locking engagement with said slidably-mounted sleeve upon continued movement of said plunger, and a spring for yieldingly resisting sliding of said sleeve upon such release.

4. In a bottle capping machine, the combination of a capping housing, means for reciprocating said housing, a sleeve slidably mounted in said housing, dogs for lockingly engaging said sleeve, spring fingers slidably supported on said sleeve, a spring-pressed capping plunger, and a cam actuated by said plunger for releasing said dogs from locking engagement with said sleeve upon continued movement of said plunger.

5. In a bottle capping machine provided with a reciprocating capping housing, the combination of a reciprocating capping plunger; a plurality of spring fingers surrounding said plunger; means for forcing said fingers to descend with said housing while permitting said plunger to remain stationary; and means for releasing said fingers after they have descended a predetermined distance, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

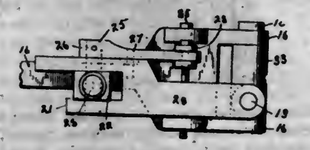
1,027,263. REINFORCED-CONCRETE RAILWAY-TIE. LOUIS T. LEWIS, Fletcher, Okla. Filed Oct. 6, 1911. Serial No. 653,159. (Cl. 238—3.)

1. The improved railway tie, comprising a cement body and a reinforcing metal frame which is embedded in the cement, the same being formed of slotted rectangular top and bottom plates, the latter having ends bent upward at a right angle, and an interposed brace consisting of a plate having a raised obtuse-angled central portion, and angular depressions near the ends which are secured between the top and bottom plates, all the plates being riveted together at their several points of contact and the top and bottom plates being provided with coincident holes for reception of rail bolts, substantially as described.



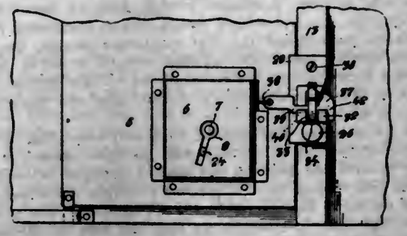
2. The improved reinforce for cement ties, consisting of a skeleton frame formed of top and bottom plates and an interposed plate serving as a truss and brace, the central portion of the latter being arched and riveted to the top plate and its end portions depressed and riveted to the bottom plate, its terminals being secured between the ends of the top plate and the bottom plate, as shown and described.

1,027,264. CULTIVATOR ATTACHMENT. CLARENCE LICKEY, Round Hill, Va. Filed Sept. 25, 1911. Serial No. 651,192. (Cl. 97—35.)



A cultivator having a draft frame, an arched axle fastened thereto, and having laterally projecting portions, a slotted plate fastened to the outer end of each laterally projecting end of the arched axle, a stub axle having a shank portion mounted in the slot of said plate, a pivotal pin passing through said bearing and shank portion, a bar fixed to said pivotal pin, a sleeve mounted upon each laterally extending end of the arched axle, a plow beam pivotally connected to said sleeve, and pivotal link connections between the plow beam and said bar which is secured to the pivotal pin, as shown and described.

1,027,265. CAR-DOOR LOCK. TERRANCE MCCARTHY, Jackson, Mich., assignor of one-half to William McCarthy, Jackson, Mich. Filed July 26, 1911. Serial No. 640,555. (Cl. 70—23.)

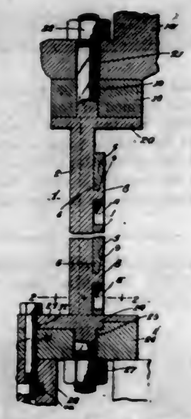


1. In a car door lock, a seal retaining device comprising an apertured plate arranged on the door frame and having a recess, a seal locking member insertible into the aperture of the plate and having a portion adapted to enter the recess and hold the seal therein, and a latch bar carried by the door and adapted to inter-lock with the locking member.

2. In a car door lock, the combination with a door frame having a lateral opening in one side thereof, a keeper secured to the door frame, a latch bar carried by the door and adapted to inter-lock with the keeper, and including

a plate secured to the side of the door frame and having an opening alining with the opening of the latter, a lock bolt insertible through said openings and adapted to interlock with the latch bar and said lock bolt being further adapted to coöperate with the plate to clamp a seal therebetween.

1,027,266. BUILDING CONSTRUCTION. CHARLES O. MCGAVIC, Denver, Colo. Filed May 5, 1911. Serial No. 625,368. (Cl. 20—2.)



1. In building construction, a column consisting of a section formed with lugs having each an upwardly and inwardly projecting bevel, and a section formed with openings to receive the lugs, one wall of each opening being inclined to seat against the beveled face of the respective lug, the sections having their side portions spaced.

2. In building construction, a column consisting of a section formed with a lug having a portion spaced from the said section, and a section having a wedge-portion removably fitted between the lug and the said first mentioned section, the sections having their side portions spaced.

3. In building construction, a column consisting of a section formed with a lug having an upwardly projecting wedge-shaped tongue spaced from the said section, and a section having an opening to receive the lug, one wall of the opening being inclined and arranged to seat between the said wedge-shaped tongue and the face of the first mentioned section, the sections having their side portions spaced.

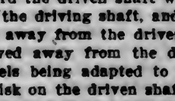
4. In building construction, a column consisting of a section formed with a lug having a portion spaced from the said section, a section formed with an opening receiving the lug and with a wedge-portion removably fitted between the lug and the first mentioned section, the sections having their side portions spaced, a sliding board fitting between the spaced portions of the section and formed with a groove, and a tongue upon one section fitting in said groove.

5. In building construction, a column consisting of separable sections having their side portions spaced, a sliding board fitted between the spaced portions of the sections and formed with a groove, a tongue upon one section fitting in the groove in the siding board, and a spur upon the other section biting into the side of the board opposite that in which the groove is formed.

[Claims 6 to 8 not printed in the Gazette.]

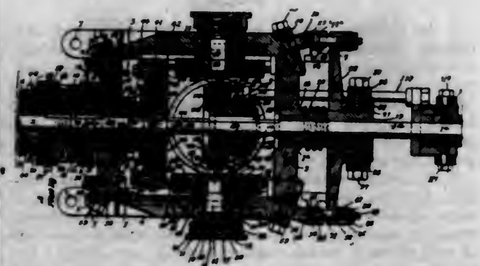
1,027,267. COUPLING. CARLO MENDEL, Triest, Austria-Hungary. Filed Feb. 6, 1911. Serial No. 606,905. (Cl. 74—17.)

1. In a coupling the combination with the parts to be coupled, of two similar helical coupling members, each having its outer end journaled to one of the parts to be coupled, a sleeve keyed on each of said coupling members, resilient means adapted to force the sleeves inward and mutually engaging ratchet teeth upon the inner ends of said sleeves, said ratchet teeth being adapted for engagement only when the coupling members are turned in the direction for uncoupling the same, as herein set forth.



2. In a coupling the combination with the parts to be coupled of two like-shaped helical coupling members, each having its outer end journaled to one of the parts to be coupled, a sleeve upon each of said coupling members adapted to slide along but not to turn around the same, springs adapted to urge the sleeves inward, and mutually engaging ratchet teeth upon the inner ends of the sleeves, the said ratchet teeth being adapted for engagement only when the coupling members are turned in the direction for uncoupling the same, substantially as and for the purpose described.

1,027,268. TRANSMISSION-GEARING. GEORGE WASHINGTON MEREDITH, Chicago, Ill. Filed Sept. 16, 1910. Serial No. 582,292. (Cl. 74—26.)



1. A device of the class described, comprising a driving shaft and a driven shaft in alinement with each other, a disk slidable on the inner end of the driving shaft and keyed thereto, a collar slidable on the inner end of the driven shaft and keyed thereto, a multiple disk clutch arranged between the disk and the collar, a spring normally pressing the disk toward the driven shaft, means for moving the said disk toward and from the driven shaft, a disk slidable on the dirven shaft and keyed thereto, means for moving the said disk, a plurality of bars arranged substantially parallel with the said shafts, and movable longitudinally thereof, a wheel journaled in each of said bars radially of the driven shaft, means for mounting said wheels to yield radially, means for constraining the said bars to move toward the driven shaft when the said bars are moved toward the driving shaft, and for constraining said bars to move away from the driven shaft when the said bars are moved away from the driving shaft, the faces of said wheels being adapted to contact with the periphery of the disk on the driven shaft and the peripheries of the said wheels being adapted to contact with the face of the disk on the driving shaft, the disk on the driven shaft having an annular flange on the face thereof for operating the multiple disk clutch to connect the driven shaft and the driving shaft when the said disk is at the limit of its movement toward the driving shaft, means for simultaneously moving the said bars, said means including a yielding connection, and a spring for returning the said moving means.

2. A device of the class described, comprising a driving shaft and a driven shaft in alinement with each other, a disk slidable on the inner end of the driving shaft and keyed thereto, a collar slidable on the inner end of the driven shaft and keyed thereto, a multiple disk clutch arranged between the disk and the collar, a spring normally pressing the disk toward the driven shaft, means for moving the said disk toward and from the driven shaft, a disk slidable on the driven shaft and keyed thereto, a plurality of bars arranged substantially parallel with the said shafts, and movable longitudinally thereof, a wheel journaled in each of said bars radially of the driven shaft, means for mounting said wheels to yield radially, means for constraining the said bars to move toward the driven shaft when the said bars are moved toward the driving shaft, and for constraining said bars to move away from the driven shaft when the said bars are moved away from the driving shaft, the faces of said wheels being adapted to contact with the periphery of the disk on the driven shaft and the peripheries of the said wheels being adapted to contact with the face of the disk on the driving shaft, the disk of the driven shaft having an annular flange on the face thereof for operating the multiple disk clutch to connect the driven shaft and the driving shaft when the said disk is at the limit of its movement toward the driving shaft, means for simultaneously moving the said bars and a spring for returning the said moving means.

3. A device of the class described, comprising a driving shaft and a driven shaft in alinement with each other, a disk slidable on the driving shaft and keyed thereto, a collar slidable on the driven shaft and keyed thereto, a multiple disk clutch arranged between the disk and the collar, a spring normally pressing the disk toward the driving shaft, means for moving the said disk toward and from the driven shaft, a disk slidable on the driven shaft and keyed thereto, means for moving the said disk, a plurality of wheels journaled radially of the said shafts and in spaced relation, means for mounting the said wheels to yield radially, means for simultaneously moving the said wheels longitudinally of the shaft, a yielding connection between the wheels and the moving means, means for constraining the wheels to move radially toward the driven shaft when they are moved toward the driving shaft and for constraining the said wheels to move radially away from the driven shaft when they are moved away from the driving shaft, the faces of the said wheels being adapted to contact with the periphery of the disk on the driven shaft, and the peripheries of the said wheels being adapted to contact with the face of the disk on the driving shaft, the disk of the driven shaft having means for operating the multiple disk clutch to connect the driven shaft and the driving shaft when the said disk is at the limit of its movement toward the driving shaft, and a spring for moving the wheels away from the driving shaft.

4. A device of the class described, comprising a driving shaft and a driven shaft in alinement with each other, a disk slidable on the driving shaft and keyed thereto, a collar slidable on the driven shaft and keyed thereto, a multiple disk clutch arranged between the disk and the collar a spring normally pressing the disk toward the driven shaft, means for moving the said disk toward and from the driven shaft, a disk slidable on the driven shaft and keyed thereto, means for moving the said disk, a plurality of wheels journaled radially of the said shafts and in spaced relation, means for mounting the said wheels to yield radially, means for simultaneously moving the said wheels longitudinally of the shaft, means for constraining the wheels to move radially toward the driven shaft when they are moved toward the driving shaft and for constraining the said wheels to move radially away from the driven shaft when they are moved away from the driving shaft, the faces of the said wheels being adapted to contact with the periphery of the disk on the driven shaft and the peripheries of the said wheels being adapted to contact with the face of the disk on the driving shaft, the disk of the driven shaft having means for operating the multiple disk clutch to connect the driven shaft and the driving shaft when the said disk is at the limit of its movement toward the driving shaft, and a spring for moving the wheels away from the driving shaft.

5. In a device of the class described, a driven shaft and a driving shaft in alinement with each other, a disk slidable on the driving shaft and keyed thereto, a disk slidable on the driven shaft and keyed thereto, a multiple disk clutch arranged between the shafts for connecting them together, a plurality of wheels journaled radially of the shafts and adapted to contact at their peripheries with the disk on the driving shaft and at their faces with the disk on the driven shaft, means including a yielding connection for simultaneously moving the said wheels longitudinally of the shafts, the disk on the driven shaft having means for operating the clutch at the end of its movement toward the driven shaft, means for constraining the wheels to move toward the driven shaft when they are moved toward the driving shaft and for constraining the said wheels to move away from the driven shaft when they are moved away from the driving shaft, and a spring for moving the said wheels away from the driving shaft.

[Claims 6 to 27 not printed in the Gazette.]

1,027,269. FISH-FORK. EMIL MIXA, Terryville, Conn. Filed Aug. 15, 1911. Serial No. 644,265. (Cl. 30—5.)



A table fork having a bolster and a tang therefor, the said bolster having its extremity bifurcated, the inner wall provided by the said bifurcation being beveled or inclined at opposite angles toward the center of the bolster, the said wall being centrally provided with a substantially U-shaped opening, a spring having a central U-shaped portion and oppositely arranged arms engaging within the opening, the arms of the said prongs projecting beyond the opening and adapted to exert pressure in opposite directions, prong members, said prong members having their extremities enlarged and their inner faces of a substantially V-shaped formation, a pivotal connection between the prongs and the bolster, the inclined ends of the prongs adapted each to bear against the oppositely arranged inclined shoulder of the bolster, and the arms of the spring adapted to bear against the inclined faces of the prongs to force the ends thereof against the inclined shoulders to sustain the prongs normally in a parallel position.

1,027,270. WINDOW-SHADE BRACKET. ARTHUR W. MONTGOMERY, Helena, Mont., assignor of one-third to F. A. Rivers and one-third to Ole Swanson, Helena, Mont. Filed June 23, 1908. Serial No. 439,980. (Cl. 156—24.)



In combination, an integral member of a uniform thickness formed near its rear end for the reception of a spring shade roller, a depending ear formed integrally in alinement with the rear edge of said member, an angular post projecting vertically from a point below the normal plane of the upper edge of said member, an inclined plane, in angular relation to the normal plane of the upper edge of said members forming a V-shaped recess with juncture of said inclined plane and the inner side of the post, and a curtain pole provided with a rectangular opening adapted to receive said post, the lower inner edge of said opening resting upon said inclined plane, the weight of said pole tending to force said lower inner edge of said opening into binding engagement with the walls of said V-shaped recess.

1,027,271. SIGHT FOR RIFLES AND MACHINE-GUNS. EMIL MÜLLER, Dusseldorf, Germany. Filed Feb. 9, 1911. Serial No. 607,624. (Cl. 42—82.)

1. In a sight for rifles, machine guns, and the like, the combination with a barrel, of a rear sight, a carrier there-

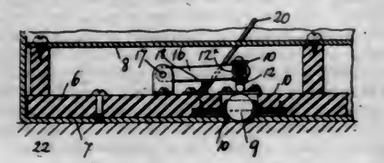
for having a rocking support on the barrel, a vertically adjustable sight-bar mounted on said sight carrier, a front sight longitudinally slidable on said barrel, and a link pivotally connecting said front sight and the sight-bar and adapted to shift the front sight longitudinally of the gun upon an angular displacement of the rear sight.



2. In a sight for rifles, machine guns, and the like, the combination with a barrel, a rear sight carrier having a longitudinally rocking support on the said barrel, a vertically adjustable sight bar mounted on said sight carrier, a front sight longitudinally slidable on said barrel, and a link connecting said front sight and the sight-bar and adapted to shift the front sight longitudinally of the gun upon an angular displacement of the rear sight, the edge of said rear sight being formed on the periphery of a sector the center of which coincides with the rear pivot of the said link and the radius of which is equal to the perpendicular distance of the point of the front sight from the longitudinal axis of the said link.

3. In a sight for rifles, machine guns, and the like, the combination with a barrel, of a rear sight carrier having a longitudinally rocking support on said barrel, a front sight movable longitudinally of the barrel, and a link forming a pivot connection between the two sights.

1,027,272. ALARM FOR BOXES AND OTHER RECEPTACLES. SAMUEL MUNDLER, London, England. Filed Oct. 23, 1911. Serial No. 656,129. (Cl. 177—316.)



1. In a burglar alarm, the combination with a cash box or other receptacle having a cavity through the bottom, of an electric bell circuit, and mechanism for closing said circuit, said mechanism comprising a spring member, a member freely depending from and controlling the latter, and a ball mounted with facility of rising falling and rolling movements in said cavity and so as to project below the bottom of the receptacle, said depending member being adapted to stand on the top of said ball, substantially as described.

2. In a burglar alarm, the combination with a cash box or other receptacle having a cavity through the bottom, of an electric bell circuit, and mechanism for closing said circuit, said mechanism comprising a spring switch, a member freely depending from and controlling the switch, upper and lower ring like flanges in said cavity, and a ball mounted between said flanges with facility of rising falling and rolling movements and so as to project below the bottom of the receptacle, said depending member being adapted to stand on the top of said ball, substantially as described.

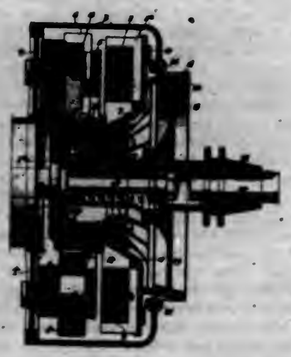
3. In a burglar alarm, the combination with a cash box or other receptacle having a cavity through the bottom, of an electric bell circuit, and mechanism for closing said circuit, said mechanism comprising a spring switch permanently connected to one terminal of the bell circuit and adapted to make contact with the other terminal of the bell circuit, a member freely depending from and controlling the switch, upper and lower ring like flanges in said cavity, and a ball mounted between said flanges with facility of rising falling and rolling movements and so as to project below the bottom of the receptacle, said depending member being adapted to stand on the top of said ball, substantially as described.

4. In a burglar alarm, the combination with a cash box or other receptacle having a cavity through the bottom, of an electric bell circuit, and mechanism for closing said circuit, said mechanism comprising a spring switch, a member freely depending from and controlling the switch and having a convex lower end, and a ball mounted with facility of rising falling and rolling movements in said cavity and so as to project below the bottom of the receptacle, said depending member being adapted to stand on the top of said ball, substantially as described.

5. In a burglar alarm, the combination with a cash box or other receptacle having a cavity through the bottom, of an electric bell circuit, and mechanism for closing said circuit, said mechanism comprising a spring switch, a member freely depending from and controlling the switch, a ball and socket joint connecting the depending member to the switch, and a ball mounted with facility of rising falling and rolling movements in said cavity and as to project below the bottom of the receptacle, said depending member being adapted to stand on the top of said ball, substantially as described.

[Claim 6 not printed in the Gazette.]

1,027,273. DYNAMO-ELECTRIC MACHINE. LEWIS W. NELSON, Philadelphia, Pa. Filed May 16, 1910. Serial No. 561,546. (Cl. 123—179.)

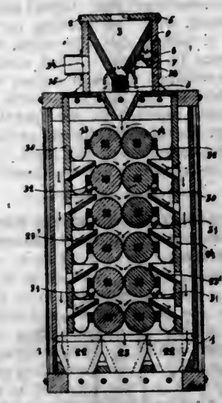


1. The combination of an internal combustion engine having a shaft provided with an abutment; a dynamo electric machine having a fixed member immediately adjacent said engine and concentric with the shaft; a rotating member immediately adjacent said fixed member and mounted on the shaft; a driven shaft; a friction clutch immediately adjacent the rotating member and having one of its elements provided by a portion of said member; the second element of said clutch being connected to the driven shaft and having a tubular extension projecting into the rotating member; with a spring acting between said extension and the abutment on the engine shaft.

2. The combination of an internal combustion engine having a shaft, with a dynamo electric machine having its rotatable element connected to said shaft; a clutch member connected to said rotatable element; a driven shaft having a second clutch element placed to coöperate with the first element; an extension from said second clutch element projecting within the body of the dynamo electric machine; and a spring confined between a portion of the engine shaft and the extension from said clutch member.

3. The combination of an internal combustion engine having a shaft provided with an abutment on its outer end; a hollow structure fixed to and overhanging the end portion of said shaft; a dynamo electric machine having one of its elements on the said structure and the other carried by the engine; a driven shaft; a structure rotatably fixed thereto but slidable thereon and co-acting with a part of the structure on the engine shaft to form a clutch; said structure on the driven shaft including a hollow portion extending into the structure on the engine shaft and providing a spring seat; with a spring mounted between said spring seat and the abutment on the engine shaft.

1,027,274. MACHINE FOR SEPARATING WEED-SEEDS FROM CORN-WASTE. NIKOLAI PAWLOWITSCH PICHULA, Rostof-on-the-Don, Russia. Filed Sept. 12, 1910. Serial No. 581,580. (Cl. 130—18.)



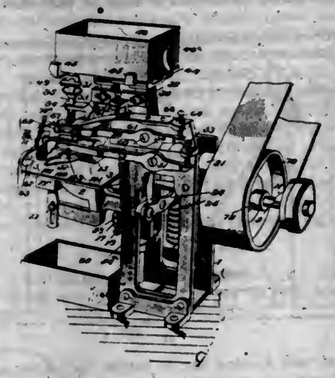
1. A machine of the class described, comprising a housing, a hopper mounted on the housing, two vertical series of horizontal rolls mounted in the housing below the hopper, the rolls of each series being adjacent to and coöperating with the other series of rolls, the upper roll of each series having a covering of rough coarse hairy material and the surfaces of the remaining rolls having a covering of well worked hairy material, the hair on the latter material being finer than the hair on the top rolls of the two series.

2. A machine of the class described, comprising a housing, a hopper mounted on the housing, two vertical series of horizontal rolls mounted in the housing below the hopper, the rolls of each series being adjacent to and coöperating with the other series of rolls, the upper roll of each series having a covering of rough, coarse hairy material, the surfaces of the remaining rolls having a covering of well worked hairy material, the hair on the latter material being finer than the hair on the top rolls of the two series and means for driving each series of rolls independently of the other.

1,027,275. DAMPENING-MACHINE. CHARLES JOHN FRANKARD, Jr., Troy, N. Y. Filed May 14, 1907. Serial No. 373,640. (Cl. 68—9.)

1. In a dampening machine, the combination with a support, of a lower shaft below the support, a dampening wheel on said lower shaft to dampen the seam line of a collar, means for dampening said wheel, a feed roll on said lower shaft and spaced from the dampening wheel, an upper shaft above the support, a feed roll mounted on the upper shaft adapted to coöperate with the lower feed roll and located to one side of the vertical plane of the dampening wheel and directly over the said lower feed roll, a tube located above the support, and the dampening wheel to dampen the upper side of the collar, and guides spaced from and independently of the feed rolls for guiding the seam of a collar between the dampening wheel and the tube.

2. In a dampening machine, the combination with a platform, a pair of shafts, one of said shafts being above the other, each of said shafts having a feed wheel revolving therewith, a milled dampening roller located on the outer end of the lower shaft and adjacent to and spaced from the feed wheel thereon, a tube located above said dampening roller, a spring for normally forcing the tube toward the dampening roller and means for guiding a collar between the milled dampening roller and the tube.



3. In a seam dampening machine, the combination with a fluid container, a conductor to conduct the fluid from the container to one side of the collar, a shaft, means revolved by the shaft to dampen the opposite side of the collar, a revolving feed roll spaced from the dampening means, a countershaft, a coöperating feed roll mounted on the countershaft, a side seam guide mounted to impinge one side of the seam of a collar, means for adjusting the said side seam guide toward and from the plane of damp, a side seam guide independent of the aforesaid guide, which impinges the opposite side of the seam of a collar, means for adjusting the latter side seam guide toward and from the plane of the line of damp, a platform, and adjustable means for spacing the side seam guides from or toward said platform.

4. In a seam dampening machine, the combination with a fluid container, a conductor to conduct the fluid from the container to one side of the collar, a shaft, means revolved by the shaft to dampen the opposite side of a collar, a revolving feed roll spaced from the dampening means, a countershaft, a coöperating feed roll mounted on the countershaft, side seam guides which impinge opposite sides of a seam of a collar, a platform, means for spacing the side seam guides from or toward said platform, and adjustable means to adjust the point of the fluid conductor toward or from the collar being dampened.

5. In a dampening machine, the combination with a platform dampening means, two side seam guides which bear against the opposite sides of the seam of a collar, a spring actuated guide bearing on the platform and carried by one of said side seam guides, and independent means for adjusting the tension of the spring actuated guide.

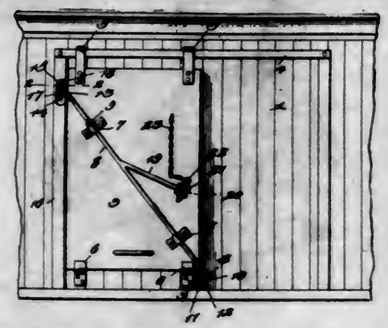
[Claims 6 to 29 not printed in the Gazette.]

1,027,276. CAR-DOOR LOCK. FRANK RALEY, Meridian, Miss. Filed Mar. 2, 1912. Serial No. 681,075. (Cl. 70—102.)

1. The combination with a car having an opening in one side thereof, and a sliding door therefor; of a rotatable locking bar extending diagonally across the front face of said door, the free ends of said door being bent to form hook portions, eyes secured to said door on opposite sides of the opening therein, the lower eye being disposed in a plane at an acute angle to the horizontal plane of the lower edge of said door, means to rotate said locking bar to dispose the hook portions thereof in engagement with the eyes, and means to retain said locking bar in its effective position.

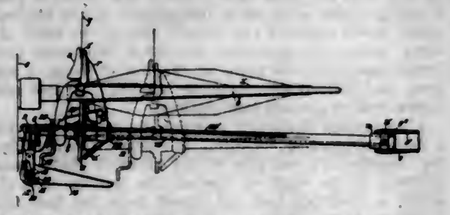
2. The combination with a car having an opening in one side thereof and a sliding door therein, of a locking bar rotatably mounted on the outer face of said door and extending diagonally thereacross, the end portions of said locking bar being bent to form hooks, one of said hooks

having the free end thereof slightly distorted, eyes secured to said car on opposite sides of the door therein, the lower eye being disposed in a plane at an acute angle to the horizontal plane of the lower edge of said door, an arm



formed on said locking bar to rotate the latter and cause the hook portions thereof to engage said eyes, and means adapted for engagement with said arm to secure said locking bar in its effective position.

1,027,277. WINDING-MACHINE. FESTUS S. RAND, Providence, R. I., assignor to Universal Winding Company, a Corporation of Maine. Filed Sept. 5, 1911. Serial No. 647,671. (Cl. 242—31.)



1. In a winding machine, the combination with a winding spindle and thread-guide, of means to cause a relative reciprocation between the guide and spindle, means engageable with the cop to feed the guide progressively along the spindle from beginning to end of the winding, said means being movable laterally away from the spindle to shape the base of the cop, a former for guiding said means in its movement away from the spindle, means to adjust said former in angular relation to the spindle to regulate the taper of the base of the cop, and means to normally lock said former to prevent such adjustment.

2. In a winding machine, the combination with a winding spindle and thread-guide, of means to cause a relative reciprocation between the guide and spindle, means adapted to bear on the winding to feed the guide progressively along the spindle, said means being movable laterally away from the spindle to shape the base of the cop, a former for guiding said means in its movement away from the spindle, means to adjust the former in angular relation to the spindle, and means reversible in position to either prevent or allow said adjustment of the former.

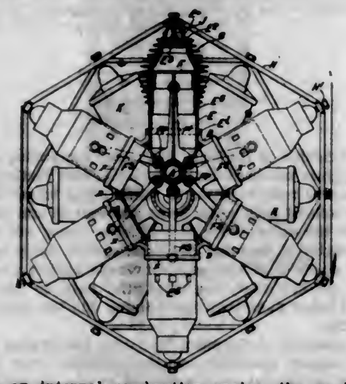
3. In a winding machine, the combination with a winding spindle and thread-guide, of means to cause a relative reciprocation between the guide and spindle, means adapted to bear on the winding to feed the guide progressively along the spindle, said means being movable laterally away from the spindle to shape the base of the cop, a former for guiding said means in its movement away from the spindle, said former adjustable laterally in relation to the spindle and also in angular relation thereto, and means to normally lock the former against angular adjustment while allowing lateral adjustment.

4. In a winding machine, the combination of a rotating spindle, a thread-guide, means to cause a relative reciprocation between the spindle and thread-guide, a progression wheel arranged to travel in a path inclined to the axis of the spindle, means operated by said wheel to cause a relative advance of the guide along the spindle, a former to guide the movement of the wheel, said former adapted to be adjusted laterally and angularly in relation to the spindle, and means to normally prevent angular adjustment of the former, said means shiftable to allow such adjustment.

5. In a winding machine, the combination with a winding-spindle, traverse-bar, and thread-guide, of means adapted to contact with the winding to feed the guide along the bar, a former for controlling the position of the contact means in relation to the winding spindle at the start of the winding, means to adjust said former laterally in relation to the spindle, means to adjust the former in angular relation to the spindle, and locking means to prevent angular adjustment of the former while allowing lateral adjustment of the same.

[Claims 6 to 18 not printed in the Gazette.]

1,027,278. INTERNAL-COMBUSTION ENGINE. HARRY RALPH RICARDO, London, England. Filed Nov. 11, 1910. Serial No. 591,810. (Cl. 123—44.)



1. In an internal combustion engine, the combination of a crank chamber having a plurality of peripheral apertures, a crank shaft within said chamber, a plurality of cylinders set into said apertures and having collars bearing upon the chamber, pistons within said cylinders, operative connections between the pistons and crank shaft, a shrouding ring surrounding the cylinders, and adjustable means between the outer ends of the cylinders and the shrouding ring for detachably holding the cylinders to the crank chamber.

2. In an internal combustion engine the combination of a crank chamber, a crank shaft within such chamber, a plurality of working cylinders mounted upon the crank chamber, a plurality of pump cylinders also mounted upon the crank chamber, pistons within the working and the pump cylinders, operative connections between the pistons and the crank shaft, removable heads to the working cylinders and to the pump cylinders, conduits connecting the heads of the working and pump cylinders and shrouding rings surrounding each set of cylinders and acting to hold them in position.

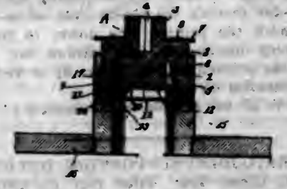
3. In an internal combustion engine, the combination of a crank chamber, a crank shaft within such chamber, a plurality of working cylinders mounted upon the crank chamber, a plurality of pump cylinders also mounted upon the crank chamber, pistons within the working and pump cylinders, operative connections between the pistons and the crank shaft, removable heads to the working cylinders, valves within such removable heads, removable heads to the pump cylinders each having inlet ports disposed around a central outlet port, a cap covering each of such outlet ports, conduits connecting the caps with the removable tops of the corresponding working cylinders and shrouding rings acting to hold the working cylinders and the pump cylinders in position.

1,027,279. ELECTRIC-LINE-TAPPING CONNECTOR. JOHN FRANKLIN RICHARDSON, Montreal, Quebec, Canada. Filed Jan. 15, 1909. Serial No. 472,486. (Cl. 173—273.)



In an electric line tapping connector of the kind having a loose hook and a fixed hook, a hollow non-conducting multiple-section pole having the fixed hook rigidly secured to the tip of the top section of said pole, a non-conducting rope having the loose hood at the outer end thereof and extending through said top section and out through a hole near the bottom of said top section, a pair of terminal plates secured to the exterior of said top section near the bottom thereof, a terminal plate secured to the exterior of said top section near the top thereof, a slack wire electrically connecting said loose hook and said top terminal plate, a wire electrically connecting said top terminal plate and one of said lower terminal plates, a wire electrically connecting said fixed hook and the other of said lower terminal plates, and a wire leading from each of said lower terminal plates to an electrical instrument.

1,027,280. PUMP-VALVE. JOHN N. ROBERTSON, Maricopa, Cal. Filed Dec. 19, 1911. Serial No. 666,654. (Cl. 103—66.)



1. In a valve, the combination of a valve body, a pair of concentric collars associated therewith for slidable movement, and a valve ring supported between portions of said collars that normally project below the valve body.

2. In a valve, the combination of a valve body, a pair of annular concentric collars connected therewith for slidable movement, said collars having circumferential grooves on their opposed faces, and a valve ring of yieldable material supported between the grooved portions of said collars which normally project below the valve body.

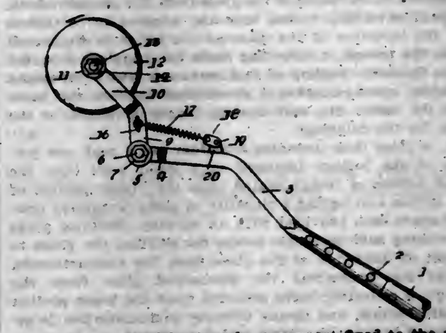
3. In a valve, the combination of a cylindrical valve body having an annular recess in its underside, a collar externally slidable upon the valve body, a second collar slidable in the annular recess and concentric with relation to the first collar, a flexible valve ring supported between portions of said collars which normally project below the valve body, and means for limiting the slidable movement of the collars with reference to the valve body.

4. In a valve, the combination of a cylindrical body having an external circumferential shoulder and provided with an annular recess in its underside, a collar externally slidable upon the valve body and having an internal shoulder, a washer secured on top of the valve body and overhanging the same to limit the upward movement of the external collar, a plate secured upon the underside of the valve body and overhanging the annular recess to engage the internal shoulder of the collar slidable in said recess, and a flexible valve ring supported between portions of the two collars that normally project below the valve body.

5. In a valve, the combination of a cylindrical body having an annular recess in its underside, a collar externally engaging the valve body and slidable thereon, a collar slidably mounted in the annular recess, said collar being externally beveled in an upward direction, a valve ring mounted between portions of the two collars which normally project below the valve body, and means for limiting slidable movement of the collars with reference to the valve body.

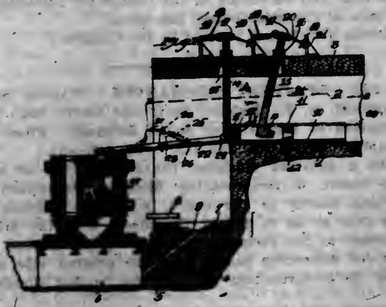
[Claims 6 to 10 not printed in the Gazette.]

1,027,281. TROLLEY. STANISLAW ROGOWSKI, Harmony, R. I. Filed May 10, 1911. Serial No. 626,800. (Cl. 191—39.)



A trolley comprising a pole, a support fixed to the pole having that portion projecting from the pole extending at two different inclinations, the farther end of said support being enlarged and bifurcated, a harp including a shank, the arms of said harp being disposed at an angle with respect to the shank, said shank pivotally connected to the bifurcated end of said support, a pair of lateral projecting brackets carried by said shank, said brackets extending in opposite directions with respect to each other and having their combined length greater than the width of the harp, a lug carried by the upper portion of said support, a pair of links pivotally connected to said lugs at each side thereof, and coiled retractile springs attached at their upper ends to the outer ends of the said brackets and at their other ends to the free ends of said links, and a trolley wheel revolubly mounted in the harp.

1,027,282. GLASS-TANK. CHARLES C. ROSS, New Kensington, Pa. Filed July 26, 1910. Serial No. 573,898. (Cl. 49—55.)



1. A glass tank including a bottom and a roof, one portion of the bottom arranged at a lower level than the

other portion, said roof provided with openings, a trough seated upon the higher portion of said bottom and having a plurality of glass containing compartments each provided with an outlet opening, shiftable plugs for closing said openings, means extending through the openings in the roof and engaging with the plugs for shifting them to permit of discharge of the glass from the compartments, a spout extending in the tank and adapted to be shifted for the reception of the glass as the latter is discharged from the trough, a collecting basin for drippings mounted upon the lower portion of said bottom, a waste pit, and means whereby communication is established between the basin and the waste pit.

2. A glass tank including a bottom and a roof, one portion of the bottom arranged at a lower level than the other portion, said roof provided with openings, a trough seated upon the higher portion of said bottom and having a plurality of glass containing compartments each provided with an outlet opening, shiftable plugs for closing said openings, means extending through the openings in the roof and engaging with the plugs for shifting them to permit of discharge of the glass from the compartments, a spout extending in the tank and adapted to be shifted for the reception of the glass as the latter is discharged from the trough, a collecting basin for drippings mounted upon the lower portion of said bottom, a waste pit, means whereby communication is established between the basin and the waste pit, and heating means arranged in the tank for the drippings.

3. A glass tank including a bottom and a roof, one portion of the bottom arranged at a lower level than the other portion, a trough seated upon the higher portion of the bottom and having a plurality of glass containing compartments each provided with an opening, shiftable plugs for closing said openings, means for shifting the plugs to permit of discharge of the glass from the compartments, means for conducting the discharged glass from the trough, a collecting basin mounted upon the lower portion of said bottom, and means whereby communication is established between the basin and a waste pit.

4. A glass tank including a bottom and a roof, a trough seated upon said bottom and provided with a plurality of glass containing compartments arranged one in advance of the other and each provided with an outlet opening, the rearmost compartment discharging into the forward one, shiftable plugs for closing said openings, means extending through the roof and engaging with the plugs for shifting them to cause a discharge of the glass from the compartments, and a spout extending in the tank for conducting the glass discharged from the trough.

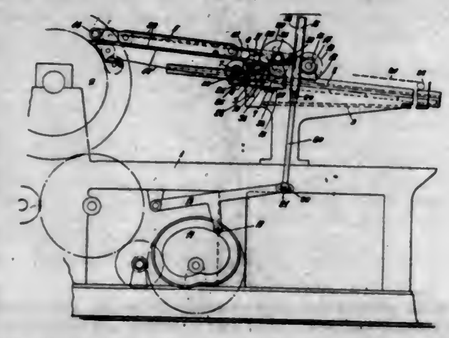
5. A glass tank including a bottom and a roof, a trough seated upon said bottom and provided with a plurality of glass containing compartments arranged one in advance of the other and each provided with an outlet opening, the rearmost compartment discharging into the forward one, shiftable plugs for closing said openings, means extending through the roof and engaging with the plugs for shifting them to cause a discharge of the glass from the compartments, a spout extending in the tank for conducting the glass discharged from the trough, and means within the tank and forwardly of the trough for collecting the drippings as the glass enters the spout.

[Claims 6 to 12 not printed in the Gazette.]

1,027,283. DELIVERY MECHANISM. WALTER SCOTT, Plainfield, N. J.; Isabella Scott and David John Scott executors of said Walter Scott, deceased. Filed Mar. 9, 1905. Serial No. 249,214. (Cl. 101—31.)

1. In a printing machine, the combination of a delivery board, a reciprocating delivery mechanism for delivering sheets to the board, a fly for turning the sheets over so as to deliver the sheets with the printed side down to the reciprocating delivery mechanism, and means for delivering sheets with the printed side up to the fly or reciprocating delivery mechanism direct, at will.

2. In a printing machine, the combination of a delivery board, a reciprocating delivery mechanism for delivering sheets to the board, means for delivering sheets with the printed side up or down at will to the said reciprocating delivery mechanism, means for operating the fly and reciprocating delivery mechanism in unison or the reciprocating delivery mechanism only at will.



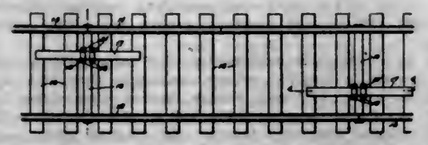
3. In a printing machine, the combination of a delivery board, a reciprocating delivery mechanism for delivering sheets to the board, a fly for turning the sheets over so as to deliver the sheets with the printed side down to the reciprocating delivery mechanism, means for delivering sheets with the printed side up to the fly or reciprocating delivery mechanism direct, at will, means for operating the fly and reciprocating delivery mechanism in unison or the reciprocating delivery mechanism only at will.

4. In a printing machine, the combination of a delivery board, a reciprocating delivery mechanism having a collapsible sheet support for delivering sheets to the board, and means for delivering sheets with the printed side up or down at will to the said reciprocating delivery mechanism.

5. In a printing machine, the combination of a delivery board, a reciprocating delivery mechanism having a collapsible sheet support for delivering sheets to the board, a fly for turning the sheets over so as to deliver the sheets with the printed side down, to the reciprocating delivery mechanism, and means for delivering sheets with the printed side up to the fly or reciprocating delivery mechanism direct, at will.

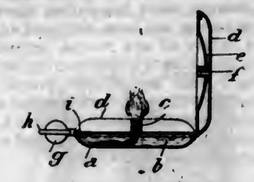
[Claims 6 to 27 not printed in the Gazette.]

1,027,284. RAIL-JOINT-SUPPORTING DEVICE. WALTER SCOTT, Larue, Tex. Filed July 15, 1911. Serial No. 638,642. (Cl. 239—12.)



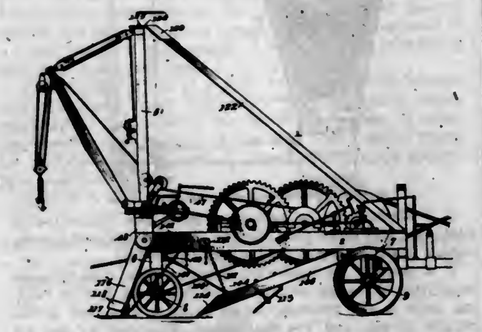
A rail joint supporting device comprising a rail bar provided with seats for the accommodation of rails, one of the seats being adapted to accommodate a plurality of connected rails at their point of connection and the other seat being adapted to accommodate a single rail, a supporting bar connected to the rail bar to one side of the center of the rail bar and nearer to the seat having the plurality of connected rails thereon, the ends of the supporting bar being adapted to repose upon railroad ties, hangers for rigidly connecting the supporting bar to the rail bar, plates extended transversely to the supporting bar to connect the ends of the hangers and means for retaining the plates in engagement with the hangers.

1,027,285. POCKET-LAMP. HANS SCHWAGER, Berlin, Germany. Filed July 5, 1911. Serial No. 636,944. (Cl. 240—11.)



A pocket lamp comprising a body portion containing a receptacle for fluid, a tube extending centrally from the receptacle and through which a wick passes, a cover hinged to the body portion, a reflector mounted in the cover, and a tube extending centrally through the reflector to register with and fit over the wick tube when the cover is closed on the latter.

1,027,286. SELF-ANCHORING STUMP PULLING AND HOISTING APPARATUS. ALEXANDER M. SEMRAN and KENNETH S. FORBES, Odessa, Minn. Filed Apr. 23, 1909. Serial No. 491,696. (Cl. 21—8.)



1. In a stump puller, a portable frame, a pivotally mounted main anchor beneath the frame, operating mechanism for moving the anchor to an elevated position, means for holding the anchor against pivotal movement in one direction, spuds pivotally supported by the frame and located in advance of the effective anchoring end of the main anchor, and a supplemental anchoring member pivotally supported by said main anchor and embodying a relatively wide plate extending transversely beneath the frame and disposed above the plane of the effective anchoring end of the main anchor.

2. In a stump puller, a portable frame, a pivotally mounted main anchor pivoted adjacent to the rear of the frame, and extending downwardly in the direction of the front of the frame, operating mechanism for moving the anchor to an elevated position, means for holding the anchor against pivotal movement in one direction, spuds pivotally supported by the frame and located in advance of the effective anchoring end of the main anchor, and a supplemental anchoring member pivotally supported by said main anchor and embodying a relatively wide plate extending transversely beneath the frame and disposed above the plane of the effective anchoring end of the main anchor.

3. In a stump puller, a portable frame including longitudinal side bars, companion main anchors pivoted at their rear ends beneath the side bars of the frame and extending downwardly in the direction of the front of the frame, operating mechanism for simultaneously moving the companion anchoring members to inoperative positions, a supplemental anchor connecting the companion main anchors with each other and pivotally mounted on the main anchors and disposed above the plane of the effective anchoring ends of the main anchors, and spuds pivotally supported upon the frame and located at points in advance of the main anchors.

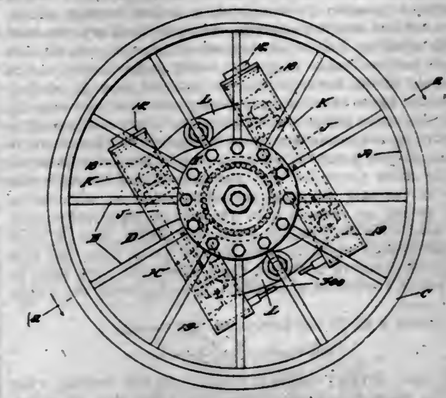
1,027,287. RULER. PARKE E. SHEE, Lancaster, Pa., assignor to Harvey B. Lutz, Lancaster, Pa. Filed Aug. 5, 1911. Serial No. 642,517. (Cl. 33—18.)



1. A ruler having at each end a pair of oppositely disposed clips and a series of intermediate clips arranged along the ruler, and a series of pads fitting in said clips along each edge of the ruler.

2. A ruler made of flexible material and having stamped out from the material at each end oppositely disposed clips and a series of intermediate clips arranged along the ruler, and a pair of blotting pads secured to the ruler by said clips.

1,027,288. CUSHIONING DEVICE FOR VEHICLES. JOHN C. SHERMAN, Brookline, Mass. Filed June 23, 1910. Serial No. 568,447. (Cl. 21—50.)



1. The improved cushioning device comprising a casing, a piston in said casing and dividing the space in said casing into two spaces, one above and one below said piston, said piston having an exhaust passage leading from the space below the piston, said casing having a port opening into the space below the piston and normally covered by the piston but open when the piston is in an extreme position, means to supply air under pressure to the space above the piston and through the said port in the said casing to the space below the piston, said casing also having an exhaust port which is in registration with the said exhaust passage when the piston is in a predetermined position.

2. The improved cushioning device comprising a casing, a piston in said casing and dividing the space in said casing into two spaces, one above and one below said piston, said piston having an exhaust passage leading through the stem of the piston from the space below the piston, said casing having a port opening into the space below the piston and normally covered by the piston but open when the piston is in an extreme position, means to supply air under pressure to the space above the piston and through the said port in the said casing to the space below the piston, said

casing also having an exhaust port in the portion thereof which is adjacent the stem of the piston, said exhaust port being in registration with the said exhaust passage when the piston is in a predetermined position.

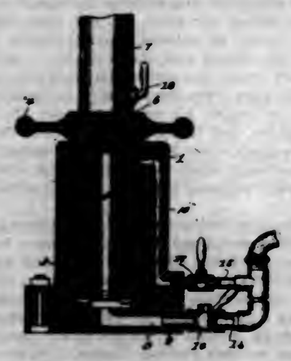
3. The improved cushioning device comprising a casing having chambers in each end, a double headed piston, the heads of which operate in the said chambers, one of said heads dividing one of said chambers into two spaces, one above and one below the said piston head, said piston having an exhaust passage leading from the space below the said piston, said casing having a port opening into the space below the piston and normally covered by the piston and open when the piston is in an extreme position, means to supply air under pressure to the space above the piston and through the said port in the said casing to the space below the piston, said casing also having an exhaust port which is in registration with the said exhaust passage when the piston is in a predetermined position.

4. The improved cushioning device comprising a casing having a chamber in each end, a double headed piston, the heads of which operate in the said chambers, the said heads dividing each of said chambers into two spaces, one above and one below each of the said piston heads, one of the said piston heads having an exhaust passage leading from the space below it, said casing having a port opening into the space below the lower piston head and normally covered by the said piston head but open when the piston is in an extreme position, means to supply air under pressure to the space above the said piston head and through said port in the said casing to the space below it, said casing also having an exhaust port which is in registration with the said exhaust passage when the piston head is in a predetermined position.

5. The improved cushioning device comprising a casing having a chamber in each end, a double headed piston, the heads of which operate in the said chambers, the said heads dividing each of said chambers into two spaces, one above and one below each of the said piston heads, one of the said piston heads having an exhaust passage leading from the space below it, said casing having a port opening into the space below the lower piston head and normally covered by the said piston head but open when the piston is in an extreme position, means to supply air under pressure to the space above the said piston head and through said port in the said casing to the space below it, said casing also having an exhaust port which is in registration with the said exhaust passage when the piston head is in a predetermined position, and leakage ports from the said upper chamber to maintain the pressure on both sides of the piston therein at atmospheric pressure when the piston is at rest.

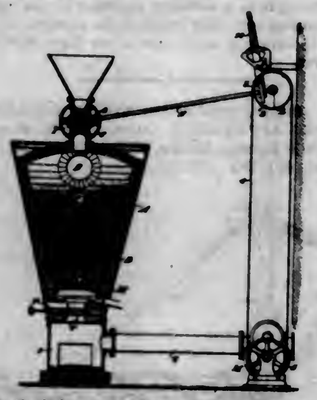
[Claims 6 to 14 not printed in the Gazette.]

1,027,289. RIVETING-MACHINE. EDWIN SMITH, Vian Ville, Montreal, Quebec, Canada. Filed Mar. 22, 1911. Serial No. 616,134. (Cl. 78—42.)



A pneumatic mount for a pneumatic riveting tool, the same comprising a cylinder having a passage formed in a side in communication with one end of the cylinder and having valved connection with the source of air supply, a head closing the opposite end of the cylinder and having a passage formed therein which has valved connection with the source of air supply, a piston arranged to operate in the cylinder and having an end portion projecting beyond an end of the cylinder, said piston having its inner end enlarged to form a head and further provided with an opening extending therethrough, the outer end of the opening being enlarged to admit of connection of a pneumatic tool with the projecting end of the piston, and a hand piece fitted to the projecting end of the piston.

1,027,290. METHOD OF MAKING PRODUCER-GAS. HARRY F. SMITH, Lexington, Ohio. Filed Dec. 9, 1909. Serial No. 532,273. (Cl. 48—203.)



1. A method for producing producer gas, consisting in supplying fuel of varying sizes to the producer and supplying air to the producer for supporting the fuel.

2. A method for producing producer gas, consisting in supplying air to the producer, and supplying fuel of varying sizes to the producer in an opposite direction to the supply of air, and the fuel being suspended by the air current.

3. A method for producing producer gas, consisting in continuously supplying air to the producer, and continuously delivering fuel of varying sizes to the producer which fuel is suspended by the air current.

4. A method for producing producer gas, consisting in supplying air to the producer, having varying velocities at different parts of the producer, and supplying fine fuel of varying sizes to the producer for separating the particles of fuel, and the fuel supported by the air current.

5. A method for producing producer gas, consisting in supplying an upwardly directed air current having varying velocities at different parts of the producer, and supplying fine fuel to the producer which is separated and suspended by the air current, causing the larger particles to be at the bottom, and the smaller at the top.

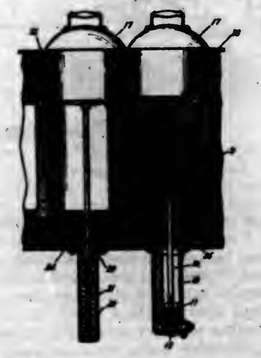
[Claims 6 to 9 not printed in the Gazette.]

1,027,291. ELECTRIC HEATER. WILLIAM STANLEY, Great Barrington, Mass., assignor to General Electric Company, a Corporation of New York. Filed Feb. 20, 1912. Serial No. 678,858. (Cl. 219—35.)

1. The combination of a receptacle, heat insulating means substantially surrounding the same, a support located outside the heat insulating means, and means composed of a metal having a high specific heat resistance connecting the said receptacle and support.

2. The combination of a receptacle, heat insulating means substantially surrounding the same and having an opening therethrough leading to the said receptacle, and a lining for said opening composed of a metal having high specific heat resistance.

3. The combination of a receptacle, heat insulating means substantially surrounding the same and having an opening therethrough leading to the said receptacle, and a cover for said opening composed substantially of metal having a high specific heat resistance.

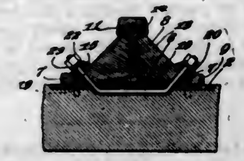


4. The combination of a body to be thermally isolated from the surrounding atmosphere, heat insulating means substantially surrounding the same, a support located outside the heat insulating means, and means composed of a metal having a high specific heat resistance connecting said body with said support.

5. The combination of a body to be thermally isolated from the surrounding atmosphere, heat insulating means substantially surrounding the same and having an opening therethrough leading to the said body, and a lining for said opening composed of a metal having high specific heat resistance.

[Claims 6 to 15 not printed in the Gazette.]

1,027,292. RAIL-CLAMP. SAMUEL D. STEEL, Woodlawn, Pa. Filed Dec. 16, 1911. Serial No. 666,119. (Cl. 238—4.)

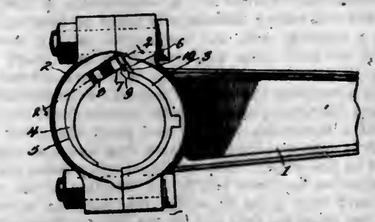


1. In combination with a tie, of clamping members for the tie, each of said clamping members comprising a body having its inner face undercut to correspond with the cross sectional contour of the base flange of the rail, each of said bodies being provided with rib, and centrally arranged integrally formed lugs for the body, said lugs engaging with the ball and web of the rail, a bolt carried by the tie, said bolt having oppositely disposed angular arms extending through the body of the clamp, wedge shaped locking blocks engaging the projecting portions of the bolt and adapted to contact with the ribs of the clamp, and nuts for the bolts.

2. In combination with a tie, of a rail upon the tie, a bolt member comprising a body and angular threaded ends, a clamp having angular openings and adapted to engage the angular portions of the bolt, said clamp having transversely arranged ribs, V-shaped locking blocks contacting the upper face of the tie, and the ribs, and a nut engaging the angular extensions of the bolt to compress the locking blocks against the ribs and against the clamp.

1,027,293. CONNECTING-ROD BEARING. ALFRED T. STURT, Flint, Mich. Filed Nov. 16, 1910. Serial No. 592,729. (Cl. 74—17.)

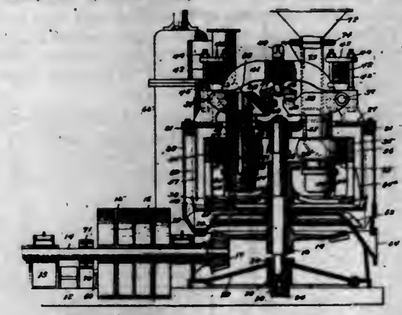
1. In combination, a connecting rod having an opening for the reception of a crank pin, said opening having a portion of its wall eccentrically formed to provide a seat, and having a shoulder at the end of the eccentric seat corresponding to the deepest part thereof, a bearing block having a portion formed on the arc of a circle and tapered in its length and fitted upon said eccentric seat, and means for adjusting said bearing block circumferentially upon its seat and interposed between the larger end of the bearing block and the shoulder formed at the deeper end of the seat.



2. In combination, a connecting rod having an opening and having a portion of the wall of said opening made eccentric, and formed with a shoulder, a two-part bearing fitted within said opening and having a part formed on the arc of a circle and tapered in its circumferential length and placed upon the eccentric portion of the wall of the opening and adjustable thereon, and a spring interposed between the adjustable part of the bearing and the shouldered part formed in the opening and normally tending to move the adjustable part of the bearing in the direction of its circumferential length to automatically take up wear between it and the part fitted within the bearing.

3. In combination, a connecting rod having an opening and having a portion of the opening made eccentric and having a shoulder at the deepest end of the eccentric portion, a bearing block fitted within the opening and comprising a part curved and tapered throughout its length, and a bow spring interposed between the larger end of the tapered part of the bearing block and the said shoulder and having projecting portions at its ends to engage the sides of the connecting rod to retain the said spring in place against lateral movement.

1,027,294. CRUSHING-MILL. THOMAS LEGGETT STURTEVANT, Quincy, and THOMAS JOSEPH STURTEVANT, Wellesley, Mass., assignors to Sturtevant Mill Company, a Corporation of Maine. Filed Nov. 9, 1910. Serial No. 591,497. (Cl. 83—45.)



1. In a crushing mill, the combination with an anvil ring arranged to rotate in a horizontal plane about a fixed axis, of a spoked or openwork carrier on which said ring is mounted so that the reduced material may be discharged from both sides of, or above and below said ring, one or more crushing hammer rolls coöperating with said ring, a mill casing inclosing said ring and provided with a discharge spout or opening, and scrapers or plows arranged beneath and moving with said carrier and serving to discharge the material which accumulates at the bottom of the mill casing through said spout or opening.

2. In a crushing mill, the combination with a concaved-faced anvil ring arranged to rotate in a horizontal plane about a fixed axis, of a spoked or open-work carrier on which said ring is mounted so that the reduced material may be discharged from both sides of, or above and below said ring, one or more crushing hammer rolls coöperating with said ring, a mill casing inclosing said ring and provided with a discharge spout or opening, and scrapers or plows arranged beneath and moving with said carrier and serving to discharge the material which accumulates at the bottom of the mill casing through said spout or opening.

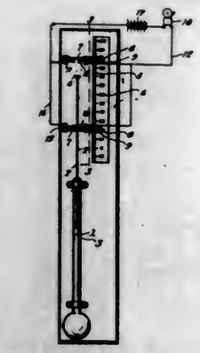
3. In a crushing mill, the combination with a vertical shaft, of an anvil ring supported from said shaft and rotating in a horizontal plane, an open-work carrier for said ring permitting the crushed material to be discharged downward therefrom, hammer rolls coöperating with said ring, and a stationary vertical feed spout the lower end of which is closely adjacent to said ring and also closely adjacent to one of said rolls, said feed spout being curved and inclined at its lower end in the direction of the rotation of said ring so as to deflect the incoming material against the crushing face and in the general direction of the rotation of said ring, and so that the material will be caught and momentarily held by the roll to which it is first delivered.

4. In a crushing mill, the combination with an anvil ring arranged to rotate in a horizontal plane and provided at its lower edge with an inwardly extending flange or shelf, of a series of hammer rolls coöperating with said flanged ring, an open-work carrier for said ring, permitting the downward discharge of material from said ring, and means for yieldingly forcing the said rolls outward toward said ring.

5. In a crushing mill, the combination with a mill casing, of an anvil ring rotating in a horizontal plane within said casing, a spoked or open-work carrier for said ring, and which carrier enables the reduced material to be discharged from both sides of said ring, means within said casing, outside and in the horizontal plane of said ring, for screening or separating the reduced material, and means, rotating with said ring, for discharging the reduced material from said casing.

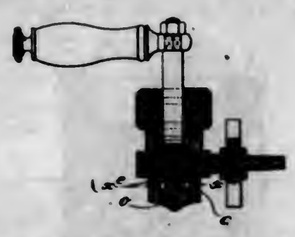
[Claims 6 to 19 not printed in the Gazette.]

1,027,295. SIGNAL DEVICE. WALTER THORSTEINSON, Winnipeg, Manitoba, Canada. Filed June 24, 1911. Serial No. 635,052. (Cl. 177—302.)



The combination with a thermometer having an open tube, of a plunger slidably mounted in said tube, a metallic head on said plunger, a support having an elongated slot therein arranged adjacent said tube, contact supporting arms adjustably secured in said slot, a pair of terminals carried by each of said arms and adapted to be bridged by said metallic head, a main circuit connected to the terminals carried by one of said arms, and a shunt circuit connected to the terminals carried by the other arm and to said main circuit.

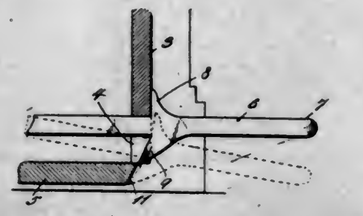
1,027,296. TAP FOR ACID-CONTAINERS. JOSEPH TOMBEUR, Brussels, Belgium. Filed July 1, 1911. Serial No. 636,393. (Cl. 220—110.)



1. A tap of the class described, comprising a casing formed with a threaded seat in the bottom of which is a raised portion, said casing having a small opening in its bottom located centrally of the raised portion, the casing having a threaded extension above the plane of the bottom of the seat and formed with a small lateral opening, the casing also having a hollow externally threaded extension on its top, a threaded valve having a stem, the threaded portion of the valve extending below the lateral opening to control the latter, said valve engaging the threaded seat and formed in its bottom with a recess, a block of packing located in the recess to coöperate with the raised portion in the bottom of the seat to form a seal therewith, a packing gland fitting in the hollow extension, and a threaded cap for retaining the packing gland in position.

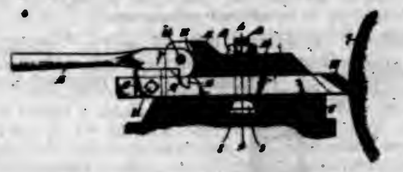
2. A tap of the class described, comprising a casing formed with a threaded seat in the bottom of which is a raised portion provided with annular grooves, said casing having a small opening in its bottom located centrally of the raised portion, the casing having a threaded extension above the plane of the bottom of the seat and formed with a small lateral opening, the casing also having a hollow externally threaded extension on its top, a threaded valve having a stem, the threaded portion of the valve extending below the lateral opening to control the latter, said valve engaging the threaded seat and formed in its bottom with a recess, a block of packing having a flat bottom located in the recess to coöperate with the raised portion and the grooves therein in the bottom of the seat to form a seal therewith, a packing gland fitting in the hollow extension, and a threaded cap for retaining the packing gland in position.

1,027,297. GUARD FOR PEDAL-OPENINGS OF PIANOS. HENRY BRUCE VANHOOK, Washington, N. C. Filed May 13, 1911. Serial No. 626,958. (Cl. 84—24.)



In combination with an upright piano case having a pedal opening, a pedal having integral upwardly and downwardly extending flanges, the said upwardly extending flange standing at approximately right angles to the pedal, the downwardly extending flange being inclined rearwardly and fitting in the pedal opening, and a piano base below the case, said base having its front edge extending to a point near the downwardly extending flange, said base being beveled rearwardly from its upper surface to its lower surface, the angle of the bevel being substantially equal to the inclination of the downwardly extending flange.

1,027,298. SCORING ATTACHMENT FOR VENEER-LATHES. JOHN VAN MILL, Jr., Gladstone, Mich. Filed July 29, 1911. Serial No. 641,190. (Cl. 144—212.)



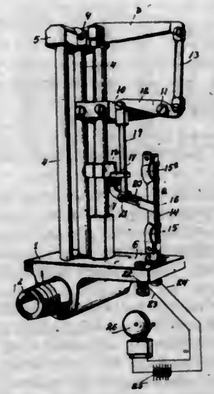
1. In a scoring device for veneer lathes, in combination with a bed plate, a stock adjustable thereon, and a scoring tool adjustable on the stock; of a lever pivoted to the stock and adapted to adjust the scoring tool and simultaneously lock the stock and scoring tool in their adjusted positions.

2. In a scoring device for veneer lathes, in combination with a stock, and a movable scoring tool carried thereby; of means for moving the scoring tool and including a head adjustably secured to the tool, and an operating lever adapted to engage the head and pivoted to the stock.

3. In a scoring device for veneer lathes, in combination with a stock, and a movable scoring tool carried thereby; of means for moving the scoring tool and including a head adjustably secured to the tool, and an operating lever pivoted to the stock and having a tooth interlocked with the head.

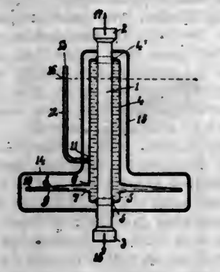
4. In a scoring device for veneer lathes, in combination with a stock, and a movable scoring tool carried thereby; of means for moving the scoring tool and including a head adjustably secured to the tool and an operating lever pivoted to the stock and having a tooth interlocked with the head and further having a cam adapted to bind on the tool when the lever is in one position, for the purpose described.

1,027,299. HIGH AND LOW WATER ALARM APPARATUS. AURA R. WALLS, Gypsy, W. Va. Filed May 11, 1910. Serial No. 560,735. (Cl. 177—317.)



An apparatus of the class described comprising a base support forming a coupling, a hollow expansible element mechanically connected with the support and communicating with the interior thereof to be subjected to the temperature of the fluid in the coupling, a contact device mounted on the base support for connection with an alarm circuit, means for connecting the support with the alarm circuit, and a structure directly mounted on the support between the said element and contact device for opening and closing the alarm circuit by the expansion and contraction of the said element, said structure comprising a standard fixed at its lower end on the said support, a lever fulcrumed on the upper end of the standard and connected with the said element, an arm mounted on the standard, a lever on the arm, a connection between the said levers, a swinging contact mounted on the standard to engage the contact device for opening and closing the alarm circuit, and a connection between the second-mentioned lever and swinging contact.

1,027,300. DYNAMOMETER FOR MEASURING FORCES. GEORG WAZAU, Greifthain, Germany. Filed July 6, 1911. Serial No. 637,226. (Cl. 73—15.)

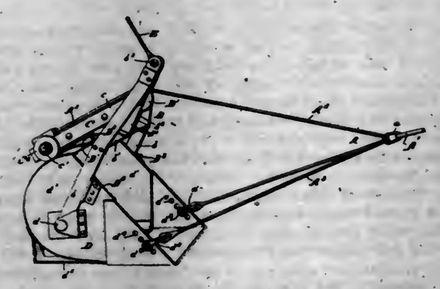


1. A dynamometer for measuring forces comprising a bar, couplings on the ends of said bar to connect the bar with other mechanism, a pipe 4 spaced around said bar with its ends tightly joined thereto, lateral disk-like extensions of the lower part of said pipe 4 and a gage pipe, extending upwardly and connected to said pipe 4, said pipes and extensions being provided with a liquid for the purposes specified.

2. A dynamometer for measuring forces, comprising a bar, means on the ends of said bar to connect the bar with other mechanism, a pipe 4 formed of two vertically spaced members having their outer ends secured to said bar, a horizontal hollow disk connecting the inner ends of the members of said pipe and opening thereinto, and a gage pipe connected laterally to said pipe 4 and bent upwardly, said pipes and extensions being provided with liquid for purposes specified.

3. A dynamometer for measuring forces, comprising a bar, means on the ends of said bar to connect the bar with other mechanism, a pipe 4 formed of two vertically spaced members having their outer ends secured to said bar, a horizontal, hollow disk connecting the inner ends of the members of said pipe and opening thereinto, the outer edges of said hollow disk being sealed, an upwardly bent gage pipe having a lateral connection with pipe 4, said pipes and extensions being adapted to hold a liquid under pressure, and a casing to protect the device from sudden changes of temperature.

1,027,301. DRAG-BUCKET. GURDON H. WILLIAMS, Cleveland, Ohio, assignor to The G. H. Williams Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 2, 1910. Serial No. 580,241. (Cl. 37—54.)



1. In a drag bucket, the combination of a frame; a scoop member oscillatorily mounted upon the latter; a

hoisting line secured to said frame; an oscillatory arm mounted upon said frame; and a drag line connected with said scoop member and engaging said oscillatory arm and frame, said drag line adapted to control the oscillation of said scoop member.

2. In a drag bucket, the combination of a frame; a scoop member oscillatorily mounted upon the latter; a hoisting line secured to said frame; a sheave mounted in the latter; an arm oscillatorily mounted upon said frame, and carrying a sheave at its free end; and a drag line passing over said two sheaves and having its free end secured to said scoop member.

3. In a drag bucket, the combination of a frame; a scoop member oscillatorily mounted upon the latter; a sheave mounted upon said frame; an arm oscillatorily mounted upon the latter and co-axially with said sheave, said arm carrying a sheave at its free end; and a drag line passing over said two sheaves and having its extremity secured to said scoop member.

4. In a drag bucket, the combination of a frame; a scoop member oscillatorily mounted upon the latter; a hoisting line secured to said frame; the axis of oscillation of said member being located so that it will normally assume a discharging position; a sheave mounted upon said frame; an arm oscillatorily mounted upon the latter, carrying a sheave at its free extremity; an auxiliary drag line member passing through said two sheaves and having its end secured to the scoop member at a point intermediate of the frame and said second named sheave when the scoop member is in its hoisting position; and a main drag line member connected with the forward or scooping end of said scoop member and also connected with said auxiliary drag line member.

5. In a drag bucket, the combination of a frame, a scoop member oscillatorily mounted upon the latter; a stop adapted to limit such oscillation, said stop being arranged so that when operative the scoop member will be in a raised or retaining position when suspended; a hoisting line secured to the frame for suspending the bucket; a rearwardly extending auxiliary frame oscillatorily mounted upon said first-named frame, provided with anti-friction rollers at its rear end adapted to engage the rear end of the bucket; a sheave in the free end of said auxiliary frame; a sheave mounted on said first-named frame; a line for controlling the oscillation of the scoop member, passing over said sheaves and having its one end secured to the rear end of said scoop member; a drag line connected with the front end of said scoop member, said auxiliary line being also connected with said drag line.

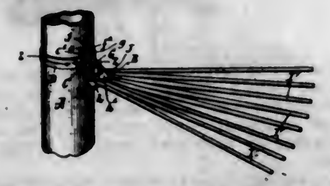
1,027,302. CUFF-PIN. WADE W. WILLIAMS, Providence, R. I. Filed Dec. 21, 1909. Serial No. 534,305. (Cl. 24—160.)



1. In a cuff pin or similar article, the combination of a base plate having a pin catch, a housing having two parallel side walls and an open top, and also having two opposite end walls, a tempered pin tongue comprising all in one piece a shaft having a pointed end, a presser at the opposite end and an intermediate spiral coil consisting of one full coil and one half coil, one of said side walls being extended farther from the base plate than the other and forming a shoulder adapted to overlie said coil, an ornamental front, between which and the base plate said presser has a bearing, said pin tongue being loosely mounted in said housing by its spiral coils, and the shaft of the pin tongue being capable of a longitudinal oscillation through said open top of the housing into engagement at its pointed end with the pin catch.

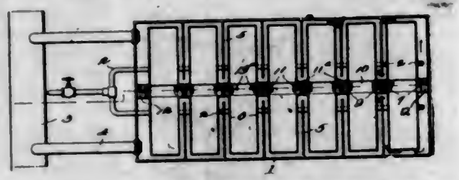
2. A hinge for cuff pins comprising a housing having two parallel side walls, two opposite end walls and an open top, one of said side walls being extended farther than the other and forming a side overlying shoulder at the top of the housing and bordering the opening therein.

1,027,303. CLOTHES-DRYING RACK. THOMAS G. AMSDEN, Buffalo, N. Y., assignor to John W. Totterdale, Stafford, N. Y. Filed Mar. 30, 1910. Serial No. 552,353. (Cl. 126—342.)



In a clothes drying-rack, the combination with a stove-pipe, of a securing-band encircling said stove-pipe and comprising a segmental plate having an opening near each end, two oppositely-curved band-members having one of their ends passed through said openings and recurved to lie against the inner face of said segmental plate and their opposite ends provided with outstanding lugs, a clamping-screw passed through said lugs, a vertically-disposed bar fastened to the outer face of said segmental plate and having an upstanding extension at its upper end and an upwardly-directed hook at its lower end, a vertically-disposed hanger having an opening near its upper end through which said narrow extension is passed and a notch at its lower end into which the bight of said upwardly-directed hook enters, a plurality of clothes supporting-arms arranged to swing on said hanger, and means to retain said arms in either vertical or horizontal position.

1,027,304. ICE-MAKING APPARATUS. WILLIAM E. ARMISTEAD, Sandersville, Ga. Filed Aug. 22, 1910. Serial No. 578,322. (Cl. 62—6.)



1. In an apparatus for manufacturing ice, an outer tank provided with opposed alining baffle plates having a substantial space between their opposed edges, in combination with a plurality of ice forming chambers the adjacent walls of which are spaced apart and straddle said baffle plates, and means for circulating a cooling medium in said outer tank, substantially as described.

2. In an apparatus for manufacturing ice, an ice forming receptacle provided on opposite walls with inwardly opening channels and on its bottom with an inwardly opening channel connecting said opposite wall channels, said channels being filled with insulating material for preventing the formation of ice across said channels, substantially as described.

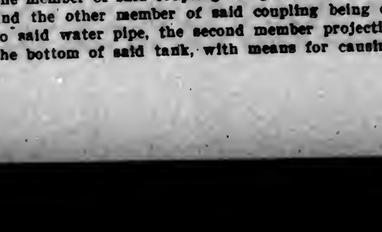
3. In an apparatus for manufacturing ice, the combination of a brine tank, a plurality of ice forming receptacles having their side walls spaced apart located in said brine tank, and means for injecting raw water into said ice forming receptacles in the line of a plane passing longitudinally of said receptacles, and means for conducting off said raw water at a predetermined level, substantially as described.

4. In an apparatus for manufacturing ice, the combination of an outer tank provided with opposed alining baffle plates having a substantial space between their edges, a plurality of ice forming receptacles having their side walls spaced apart and straddling said baffle plates, means for circulating a cooling medium in said brine tank, and means for injecting raw water into said ice forming receptacles in a plane passing between said baffle plates, and means for conducting off said raw water at a predetermined level, substantially as described.

5. In an apparatus for manufacturing ice, the combination of an outer tank provided with opposed alining baffle plates having a substantial space between their edges, a plurality of ice forming receptacles having their side walls spaced apart and straddling said baffle plates, means for circulating a cooling medium through said brine tank, and means for introducing raw water into said receptacles at a position between the space formed by the opposed edges of said baffle plates, and means for conducting off said raw water at a predetermined level, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,027,305. APPARATUS FOR MANUFACTURING ICE. WILLIAM E. ARMISTEAD, Sandersville, Ga. Filed Aug. 22, 1910. Serial No. 578,323. (Cl. 62—6.)



1. An ice making apparatus, comprising an outer tank separated by a series of perforated partitions into a number of chambers for the cans, a series of cans, one for each chamber, a water pipe leading below said cans, and a coupling between each can and said water pipe, consisting of two members, one member attached to the bottom of the can, and the second member connected to said water pipe, and projecting above the bottom of the chamber, whereby when the brine is drawn off from the tank, none can enter the second member of said coupling, substantially as described.

2. An ice making apparatus, comprising an outer tank separated by a series of perforated partitions into a number of chambers for the cans, a series of cans, one for each chamber, a water pipe leading below said cans, and a coupling consisting of a ball and socket joint connecting said water pipe with the interior of said can, one member of said coupling being connected to the can, and the other member of said coupling being connected to the water pipe, and the latter member having its top projecting above the bottom of the tank, substantially as described.

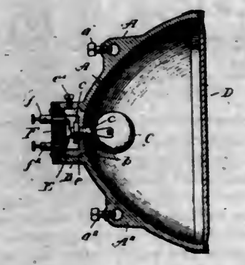
3. An ice making apparatus, comprising a brine chamber, a can mounted in said chamber, a water pipe located beneath said chamber, a perforated coupling consisting of two members connecting said water pipe with the interior of said can, one member of said coupling being connected to said can, and the other member of said coupling being connected to said water pipe, the second member projecting above the bottom of said tank, with means for causing a flow of raw water through said can, substantially as and for the purposes described.

4. An ice making apparatus, comprising a brine chamber, a can mounted in said chamber, a water pipe located beneath said chamber, a perforated coupling consisting of two members forming a ball and socket joint, connecting said water pipe with the interior of said can, one member of said coupling being connected to said can, and the other member of said coupling being connected to said water pipe, the second member projecting above the bottom of said tank, with means for causing a flow of raw water through said can, substantially as and for the purposes described.

5. In an ice making apparatus, the combination with a can and a water pipe, of a coupling connecting said water pipe with the interior of the can, consisting of a ball and socket joint, one member of which is connected to the can, and the other member connected to the water pipe, substantially as and for the purposes described.

[Claims 6 to 10 not printed in the Gazette.]

1,027,306. AUTOMOBILE-LAMP. PERCY C. AVERY, Milwaukee, Wis. Filed Feb. 4, 1911. Serial No. 606,594. (Cl. 240—41.)



1. In a lamp, the combination with a single cast metal inclosing casing having an interior reflecting surface, of a glass front tightly secured to said casing, a lug on the outer surface of said casing adapted to engage a bracket for supporting the lamp, said casing having an opening therethrough of a size to permit the insertion and removal of a light-giving element, and a block removably fitting tightly within said opening and supporting the light-giving element, whereby said light-giving element may be inserted and removed without opening the glass front and without detaching the lamp from its supporting bracket.

2. In a lamp, the combination with a single inclosing metal casing having a polished interior reflecting surface, of means on the outer surface of said casing for supporting the lamp, said casing having an opening therethrough of a size to permit the insertion and removal of a light giving element, and a block for supporting the light giving element fitting within and closing said opening, the inner surface of said block forming part of the reflecting surface of the lamp.

3. In a lamp, the combination with a cast metal inclosing casing having an interior reflecting surface and also having an opening therethrough of a size to permit the insertion and removal of the light-giving element, of a circular flange on the outer surface of said casing surrounding the opening therethrough, an annular shoulder formed within said flange by reducing the bore thereof, a block removably fitting within said circular flange and closing the opening through the casing, the inner surface of said block forming a part of the reflecting surface of the lamp, an annular shoulder formed on said block engaging the shoulder within said flange for locating the reflecting surface thereon flush with the reflecting surface of the casing, and means for supporting the light-giving element upon said block.

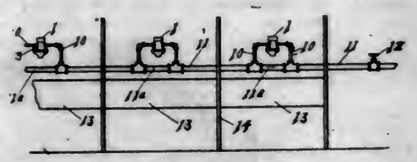
4. In a lamp, the combination with an inclosing casing having an interior reflecting surface and also having an opening therethrough of a size to permit the insertion and removal of the light-giving element, said casing comprising a glass front tightly and immovably secured thereto, of a block removably fitting within said opening and tightly closing the same, the inner surface of said block forming part of the reflecting surface of the lamp, and means for supporting the light-giving element on said block.

5. In an electric lamp for automobiles and the like, the combination with a cast metal inclosing casing having supporting lugs cast thereon and also having an open-

ing therethrough of a size to permit the insertion and removal of the incandescent bulb, of a circular flange cast integrally on the outer surface of said casing concentrically around the opening therethrough, a block removably fitting within said flange and closing the opening through the casing, and means for supporting the incandescent bulb upon said block.

[Claims 6 to 10 not printed in the Gazette.]

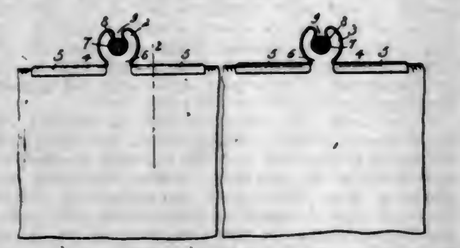
1,027,307. AUTOMATIC STOCK OR ANIMAL RELEASE. CHARLES A. BENBOW, Portland, Oreg. Filed Sept. 25, 1911. Serial No. 651,077. (Cl. 119—112.)



1. The herein described automatic animal releasing mechanism, consisting of a main supply pipe provided with perforations at suitable intervals, a series of three way couplings mounted upon the supply pipe, branch pipes leading vertically from the said couplings, a casing connected to each set of branch pipes and placed in communication with the supply pipe, the casing being provided with a sub-base portion having a recess therein, a tie ring arranged in said recess, and a piston head mounted in the casing and having a rod one portion of which is guided by the upper part of the casing and the lower portion of which is guided in the sub-base of the casing and normally retains the tie ring in place.

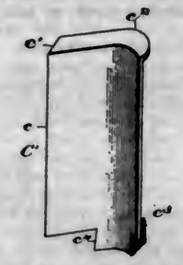
2. The combination with a vertically disposed cylinder having threaded offset flanges disposed at right-angles thereto, of a piston rod vertically slidable in the cylinder, a piston head carried thereby, a sub-base disposed directly beneath the cylinder, said sub-base having threaded offset flanges disposed at right-angles thereto, offset wing members provided with bolt openings for securing the device in operative position, a tie ring adjacent said offset wing members and inclosing the lower end of the piston rod directly beneath the piston head, a perforated supply pipe, a regulating valve therefor, pipe tees, a vertically extending branch pipe rising at right-angles to the supply pipe, a horizontally extending threaded delivery pipe secured between the threaded flanges of the cylinder and sub-base, and a threaded waste pipe secured between the said threaded flanges of the cylinder and base and arranged in oppositely disposed axial alinement with the delivery pipe.

1,027,308. FIRE-EXTINGUISHER. EPHRAIM M. BISHOP, Kingston, N. Y. Filed June 27, 1911. Serial No. 635,602. (Cl. 160—13.)



In a device of the class described, a fire proof blanket, and a mounting device therefor comprising an integral blank having oppositely extending blanket clamping arms, and an intermediate spring clip having a support engaging open loop.

1,027,309. TURBINE. ALFRED BONOM, Paterson, N. J. Filed Mar. 2, 1911. Serial No. 611,784. (Cl. 121—58.)



1. In a turbine, the combination, with a rotor provided with an annular dovetailed groove, a radial groove extending therefrom and means for filling said radial groove, of a blade having an uninterrupted curved jet surface and provided on its opposite side with end flanges having their edges curved to fit the curvature of the jet surface of the next blade in the set, one of said end flanges being beveled to fit in the dovetailed annular groove of the rotor.

2. In a turbine, the combination, with a rotor, of a blade having an uninterrupted curved jet surface and provided on its opposite side with end flanges having their edges curved to fit the curvature of the jet surface of the next blade in the set, and means for securing said blade to the rotor.

3. In a turbine, the combination, with sets of rotor and stator blades, each set forming a ring, each blade having an uninterrupted curved jet surface and being provided on its opposite side with end flanges having their edges curved to fit the curvature of the next blade of the set, of a rotor to which the rotor blades are secured, said rotor having annular grooves to receive the end flanges of the stator blades, and a stator to which the stator blades are secured, said stator having annular grooves to receive the end flanges of the rotor blades.

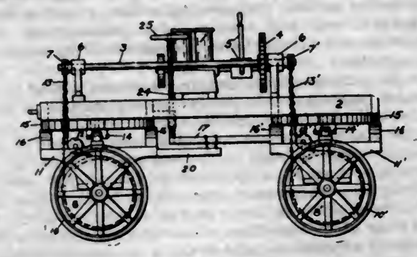
1,027,310. SIGN. WILLIAM EDWARD BOOKER, Baltimore, Md. Filed Sept. 30, 1911. Serial No. 652,146. (Cl. 40—133.)



A sign comprising a casing having an open side portion, a stencil plate slidably mounted across the open side of the casing, one of the walls of the casing having an opening therein through which the stencil plate is adapted to be drawn, a transparent member at one side of the plate, an illuminating device located in the casing and disposed behind the said transparent member, and a manipulating portion formed on the stencil plate and overhanging the said opening.

1,027,311. TRACTION-ENGINE. JOHN F. BOONE, Portland, Oreg. Filed Dec. 9, 1910. Serial No. 596,450. (Cl. 21—114.)

1. A traction engine including in combination, a main frame, a truck support pivoted at the end of said main frame, an axle journaled in said truck support, traction wheels carried by the axle, a driving shaft extending longitudinally of the main frame, and carried thereby, a motor operatively connected with said driving shaft, a sheave located on the end of the shaft adjacent the truck, a sheave mounted centrally on the axle, flexible driving means for connecting the sheave at the end of the shaft with the sheave on the axle, and a guiding sheave carried by the truck frame for engaging and directing the path of movement of the flexible driving means.



2. A traction engine including in combination, a main frame, a truck pivoted at each end of said main frame, an axle journaled in each truck frame, traction wheels carried by said axles, a driving shaft extending longitudinally of said main frame, and carried thereby, a motor operatively connected with said driving shaft, a sheave located at each end of the driving shaft, a sheave mounted centrally on each axle, a driving chain for connecting each of the sheaves at the end of the shaft with the sheaves on each axle, and a guiding sheave carried by each truck frame for engaging and directing the path of movement of the driving chain for the traction wheels on each truck frame.

3. A traction engine including in combination, a main frame, a truck pivoted at each end of said frame, an axle journaled in each truck frame, traction wheels carried by said axles, a driving shaft, extending longitudinally of said frame and carried thereby, a motor operatively connected with said driving shaft, a sheave mounted centrally of each axle, a driving chain for connecting each of the sheaves of the ends of the shaft with the sheaves on each axle, and a guiding sheave carried by each truck frame, for engaging and directing the path of movement of the driving chain for the traction wheels of each truck frame, and means for simultaneously turning the trucks about their pivotal connections to the main frame in opposite directions for steering the engine.

1,027,312. PRODUCTION OF NITRIDS. CARL BOSCH and ALWIN MITTASCH, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed June 20, 1910. Serial No. 567,927. (Cl. 23—13.)

1. The process of producing nitrids by heating alumina and carbon in the presence of nitrogen and an oxy compound of an element which is also capable of yielding a stable nitrid under the conditions of working while employing a temperature lying between 1400° and 2,000° C.

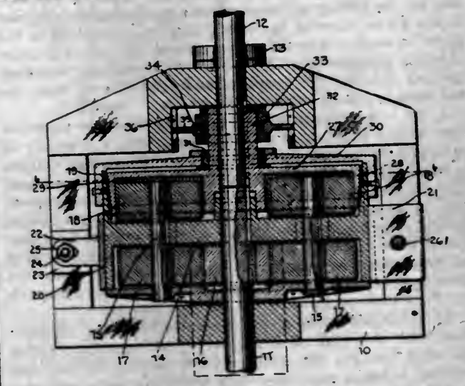
2. The process of producing nitrids by heating alumina and carbon in the presence of nitrogen and a small quantity of silica while employing a temperature lying between 1400° and 2,000° C.

3. The process of producing a mixture containing aluminum nitrid and silicon nitrid by heating bauxite containing silica with carbon in the presence of nitrogen while employing a temperature lying between 1400° and 2,000° C.

4. The process of producing nitrids by heating forty-eight parts of alumina and twenty-eight parts of carbon in the presence of nitrogen and of twenty-four parts of quartz, at a temperature of about 1500° C.

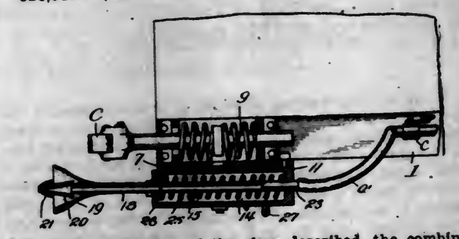
1,027,313. REVERSING-GEARING. FRANK D. BOZARTH, Williamsburg, Va. Filed Sept. 12, 1911. Serial No. 648,951. (Cl. 74—34.)

1. In a reversing mechanism, a shaft, a gear carrier rotatable on said shaft and provided with a clutch member, a stub shaft rotatably mounted on said carrier, a gear fixed to said stub shaft, a gear fixed on the first mentioned shaft and inesbing with the other gear, a second gear fixed on said stub shaft, a shaft alined with the first mentioned shaft, a clutch member splined on the last mentioned shaft and coöperating with the clutch member on the carrier, said last mentioned member being provided with an internal gear meshing with the second gear on the stub shaft, a brake for said carrier, and means to operate said brake and second clutch member.



2. In a reversing mechanism, a shaft, a gear carrier rotatable on said shaft, and provided with a clutch member, a stub shaft rotatably mounted on said carrier, a gear fixed to said stub shaft, a gear fixed to the first mentioned shaft, and meshing with the other gear, a second gear fixed on said stub shaft, a shaft alined with the first mentioned shaft, a clutch member splined to the last mentioned shaft and coöperating with the clutch member on the carrier, said last mentioned member being provided with an internal gear meshing with the second gear on the stub shaft, a band extending around said carrier and provided with outturned parallel extremities, a right and left hand screw passing through said extremities and provided with a lateral arm, a shipper ring fixedly mounted on the second clutch member, a shipper fork rotatable upon said ring, a cam lever pivoted adjacent said fork and provided with a cam slot, a pin passing through said slot and secured to said fork, and a link connecting said lever and arm.

1,027,314. AUTOMATIC AIR-COUPLING. JAMES BRANT, Dubuque, Iowa. Filed May 9, 1911. Serial No. 626,035. (Cl. 188—13.)



1. In a mechanism of the class described, the combination of the sills of a car, of a car coupling casing mounted between the sills, a base plate beneath the casing having a slot formed therein, of an air-pipe coupling casing comprising a plurality of cylinders beneath the base plate and provided with an upwardly extending projection adapted to work in the slot in the base plate, a coupling member formed with a widened mouth portion and a tubular shank portion, said shank extending entirely through one of the cylinders and connecting to an air pipe at its inner end, a second coupling member provided with an enlarged head portion, a cap portion at the end of the head portion, and

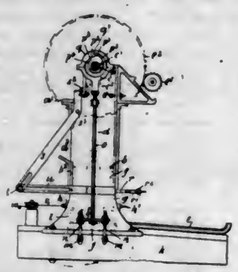
a tubular shank extending from the enlarged head portion through another of the cylinders, the inner end of the tubular shank being connected to a secondary pipe, and tension means surrounding the tubular shank portions within the cylinder.

2. The combination with the sills of a car, of a base plate connected to said sills, a casing comprising a plurality of cylinders arranged beneath the plate, spring tension connection between the casing and plate, a bolt carried by the casing and working in a segmental slot formed in the plate, whereby the casing may move relative to the plate to compensate for movement of the car, air brake coupling members provided with tubular shanks extending entirely through the cylinders and connected at their inner ends to the air pipes of the system.

3. In a mechanism of the class described the combination with a support, of a casing comprising a plurality of cylinders suspended therefrom, a coupling member having a relatively wide mouth portion, and a tubular shank portion adapted to extend in and through one of the cylinders, and to have an air pipe connected to its narrow end, a second coupling member having an enlarged head portion, and a tubular shank portion extending through the other cylinder and also adapted to have an air pipe connected thereto, tension springs within the cylinders and surrounding the shank portions of the member therein.

4. In a mechanism of the class described the combination with the sills of a car, of a car coupling casting mounted between the sills, a plate located beneath the casting, a casing suspended from said plate and comprising a plurality of cylinders, coupling members extending within and through the cylinders and adapted to have the air pipes of the system connected to the ends thereof, one of said members having a bell mouth, the other of said members having an enlarged head portion, and tension means within the cylinders and surrounding the portions of the member lying therein.

1,027,315. BRICK-MOLDING MACHINERY. WALTER ST. JOHN BRICE, Rochester, England. Filed May 20, 1911. Serial No. 628,424. (Cl. 25—46.)



1. In a brick-molding machine, a press-chamber, a die beneath said chamber, a plunger in said chamber, a shaft journaled above said chamber, a crank on said shaft connected with said plunger, a cam on said shaft having a step angularly opposite to said crank a portion of intermediate radius a second step and a portion of increasing radius, a toothed strap embracing said cam, a mold-platform beneath said die and means suspending said platform from said strap.

2. In a brick-molding machine, a press-chamber, a die beneath said chamber, a plunger in said chamber, a shaft journaled above said chamber, a crank on said shaft connected with said plunger, a cam on said shaft at opposite sides of said chamber having a step angularly opposite to said crank a portion of intermediate radius a second step and a portion of increasing radius, a toothed strap embracing each said cam, a mold-platform beneath said die and means suspending said platform from said straps.

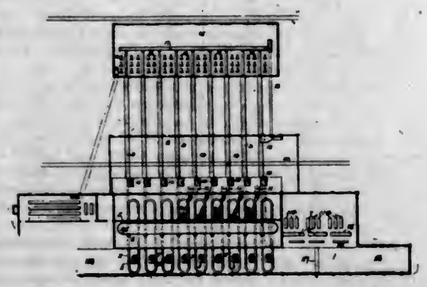
3. In a brick-molding machine, a press-chamber, a die beneath said chamber, a plunger in said chamber, a shaft journaled above said chamber, a crank on said shaft connected with said plunger, a cam on said shaft at opposite sides of said chamber having a step angularly opposite to said crank a portion of intermediate radius a second step and a portion of increasing radius, a toothed strap embracing each said cam, a rod depending from each said strap and a mold-platform beneath said die connected to said rods.

4. In a brick-molding machine, a press-chamber, a die beneath said chamber, a plunger in said chamber, a shaft journaled above said chamber, a crank on said shaft connected with said plunger, a lever pivoted adjacent to said chamber with one end in the ascending portion of the path of said crank, a spring connected to said lever, a cutter-frame horizontally displaceable beneath said die and connected to the other end of said lever, a cam on said shaft at opposite sides of said chamber having a step angularly opposite to said crank a portion of intermediate radius a second step and a portion of increasing radius, a toothed strap embracing each said cam, a rod depending from each said strap and a mold-platform beneath said die connected to said rods.

5. In a pair of interconnected brick-molding machines, a press-chamber of each machine, a die beneath each said chamber, a plunger in each said chamber, a shaft journaled above each said chamber, a crank on each said shaft connected with each said plunger, a coupling connecting said shafts with said cranks 180° apart, a cam on each said shaft at opposite sides of each said chamber having a step angularly opposite to the said crank of said shaft a portion of intermediate radius a second step and a portion of increasing radius, a toothed strap embracing each said cam, a rod depending from each strap, a mold-platform beneath each said die connected to said rods, rails on each said mold-platform, a wheeled mold-carriage running on said rails on each said platform, a guide-sheave behind each carriage and a cable led around said sheaves and connected at each end to one of said carriages.

[Claim 6 not printed in the Gazette.]

1,027,316. CASTING APPARATUS. JOHN WILSON BROWN, Jr., Philadelphia, Pa., assignor to The Enterprise Manufacturing Company of Pennsylvania, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Jan. 8, 1910. Serial No. 537,076. (Cl 22—20.)



1. The combination in a casting apparatus, of a series of horizontal conveyers made up of ring sections, a supporting conveyer mounted under the primary run of each ring conveyer, an endless chain of flask weights arranged to travel over the primary run of each ring conveyer and bear directly upon the sand in the flasks, a molding machine in the loop of each ring conveyer, a pouring ladle for each unit, a transverse overhead rail, a charging ladle arranged to travel on said rail and to fill any one of the pouring ladles, a separating screen below the end of each horizontal conveyer, means for knocking out the sand and casting from the flasks carried by said conveyers, means for receiving the castings and conveying them to the tumbling room, means for tempering the sand, and means for conveying the sand to the molding machine to be used again.

2. The combination in a casting apparatus, of a series of horizontal conveyers made up of ring sections, a supporting conveyer mounted under the primary run of each ring conveyer, an endless chain of flask weights arranged to travel over the primary run of each ring conveyer and bear directly upon the sand in the flasks, a molding machine in the loop of each ring conveyer, a pouring ladle for each unit, a transverse overhead rail, a charging ladle arranged to travel on said rail and to fill any one of the pouring ladles, a separating screen below the end of each horizontal conveyer, means for knocking out the sand and casting from each flask carried by said conveyers, a conveyer for receiving the castings and delivering them to the tumbling room, means for tempering the sand, means for conveying the sand to the molding machine to be used again, tumblers into which the perfect castings are placed from the conveyer carrying the castings, a transverse conveyer arranged in position to receive the imperfect castings and sprues from the several belts of the different units, a sprue mill, and a conveyer for carrying the said imperfect castings and sprues to said mill.

3. The combination in a casting apparatus, of a horizontal conveyer for the flasks, a supporting conveyer mounted under the primary run of the said horizontal conveyer, mechanically operated flask weights placed to bear directly upon the sand of the flasks, a molding machine adjacent to said horizontal conveyer, a pouring ladle, means for knocking out the sand and castings from the flasks carried by the said horizontal conveyer, means for tempering the sand, and means for conveying the sand back to the molding machine.

4. The combination in a casting plant, of a series of units placed side by side, each unit consisting of a molding machine, conveyers for the flasks, means for discharging the sand and castings from the flasks, means for separating the castings from the sand, means for conveying the castings away from the apparatus, means for carrying the sand back to the molding machine, means for treating the sand on its return so that it will be in condition to be used again, with a pouring ladle for each unit and one or more cupolas, a transverse track crossing the several units, a charging ladle adapted to travel on the track and carrying molten metal from one or more of the cupolas to the several pouring ladles.

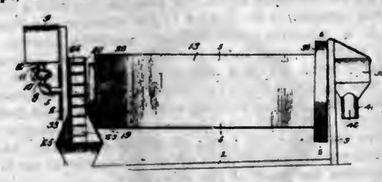
5. The combination in a casting plant, of an endless horizontal conveyer made up of a series of rings connected together, a vertical conveyer mounted under the primary run of the horizontal conveyer adapted to support the flasks mounted within the rings on said run, flask weights adapted to be located on the sand in the flasks as they travel on the primary run, means for pouring molten metal into the flasks, said parts being intermittently driven, means for lifting the flask weights off the flasks after passing the pouring point, pivoted bottom boards carried by the ring conveyer, means for releasing the bottom boards, means for forcing the sand and casting out of each flask, means for separating the sand from the casting, apparatus for tempering or moistening the sand after it leaves the flask, means for mixing the sand, a conveyer for returning the sand to the molding machine, and means for separating the metallic particles from the sand on its way from the flasks to the molding machine.

[Claims 6 and 7 not printed in the Gazette.]

1,027,317. SMUDGE MIXER AND SACKER. CHARLES H. BURFORD and FREDERICK H. NETT, Rialto, Cal. Filed June 27, 1911. Serial No. 635,646. (Cl. 91—52.)

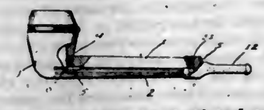
1. An apparatus of the character described comprising an inclined rotary feeding and agitating drum, means for delivering shavings and oil to be commingled at the higher end of the drum, for the feed thereof by gravity to the lower end of the drum, a receiver arranged adjacent the lower end of the drum, and a delivery apparatus at the lower end of the frame provided with agitating vanes and arranged to transfer the treated material therefrom to said receiver.

2. A device of the character described comprising an inclined feeding and agitating drum, an inclined pipe forming an axle on which the drum rotates, said pipe being provided at one end of the drum with perforations, an oil reservoir communicating with the perforated end of the pipe, a feeder arranged to discharge shavings into the



higher end of the pipe, a receiver supported above the center of the lower end of the drum, and a channeled delivery device of greater diameter than the drum and inclosing the lower end thereof, said device being provided with vanes to elevate the treated material and discharge the same into said receiver.

1,027,318. TOBACCO-PIPE. HARRY E. BUTTIMER, Rockford, Ill. Filed Aug. 30, 1910. Serial No. 579,652. (Cl. 131—12.)



A tobacco pipe comprising a bowl and a stem divided longitudinally to form two sections, the lower section of said stem being formed integral with the bowl and the upper section being removable and the outer end of the stem being provided with screw threads, the bowl being formed with a flat surface located adjacent the inner end of the integral stem section and with an opening disposed in parallelism to said stem section, the other section of the stem being formed with a longitudinal terminal pin adapted to snugly fit in the opening of the bowl and having its adjacent end face formed to snugly abut against the flat surface of said bowl and a mouth piece threaded on the outer end of said stem and adapted to hold said stem sections together, said pin being adapted to prevent lateral and vertical displacement of the removable stem section.

1,027,319. NON-REFILLABLE BOTTLE. JILDO CAPPIO, Boston, Mass., assignor of forty-nine one-hundredths to Joseph P. Spang, Boston, Mass. Filed Mar. 11, 1911. Serial No. 613,704. (Cl. 215—68.)



1. In a non-refillable bottle, the combination with a shell or casing adapted to be applied to the exterior of a bottle neck, of a plurality of valve seat members therein, a loosely arranged disk valve for each valve seat member,

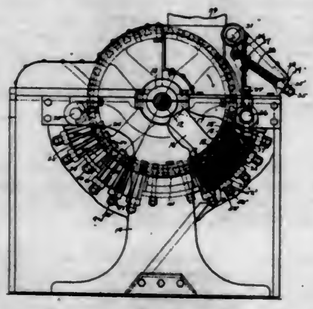
each valve being provided with a peripheral flange on its upper side and a weighted projection on its lower side, and the side of the casing above each valve seat member having inclined bearing surfaces which taper downwardly and outwardly and against which the flanges of the valve rest when the bottle is tipped on its side.

2. In a non-refillable bottle, the combination with a shell or casing adapted to be applied to the exterior of a bottle neck, of a plurality of valve seat members therein, a loosely arranged disk valve for each valve seat member, each valve being provided with a peripheral flange on its upper side and the sides of the casing above each valve seat member having inclined bearing surfaces which taper downwardly and outwardly and against which the flanges of the valve rest when the bottle is tipped on its side, each valve being weighted so as to bring the center of gravity thereof below the plane of the valve seat.

3. The combination with a bottle neck having a bead at its end, of a valve-containing casing exterior to the bottle neck and having means to engage said bead for securing said casing to the bottle neck, a frangible sealing device within the casing fitting tightly against the bottle neck, and a valve device within the casing above said sealing device.

4. In a non-refillable bottle, the combination with a bottle neck having a bead at its end, of a shell or casing provided with means to engage said bead for securing said casing to the bottle neck, of a plurality of valve seat members arranged within said casing, a partition provided with apertures near its periphery arranged in said casing between the valve seat members, a loosely arranged disk valve for each valve seat member, each valve being provided with a peripheral flange on its upper side and a weighted projection on its lower side, the sides of the casing above each valve seat member having inclined bearing surfaces which taper downwardly and outwardly and against which the flanges of the valves rest when the bottle is tipped on its side, substantially as and for the purpose set forth.

1,027,320. COTTON-SEED HULLER. CLARENCE A. CHANDLER, East Bridgewater, Mass. Filed May 29, 1909. Serial No. 499,175. (Cl. 83—14.)



1. A huller comprising a rotary cylinder, a fixed concave and means for permitting foreign bodies to be ejected, said means comprising a series of independent sections side by side and having upper and lower portions at an obtuse angle to each other, said sections being supported at their upper ends with the portions below the angles in close proximity to the path of movement of the operative portions of the cylinder, whereby contact of a rigid body with the obtuse angled portion of either section will cause its lower portion to open and provide an opening of a width exceeding the diameter of such body to permit the latter to be thrown out at a tangent by centrifugal force.

2. A huller comprising a rotary cylinder, a fixed concave and means for permitting foreign bodies to be ejected, said means comprising a series of independent sections side by side above the horizontal plane of the axis of the cylinder, and having upper portions in close proximity to the path of movement of the operative portions of the cylinder, said sections diverging from the cylinder both upwardly and downwardly from the point of close proximity to said cylinder, each section being adapted to be displaced outwardly to permit the centrifugal discharge of rigid bodies above the forward edge of the concave.

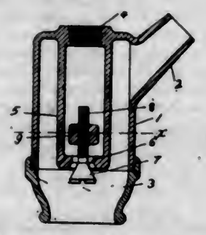
3. A huller comprising a rotary cylinder, a fixed concave, means for permitting foreign bodies to be ejected, said means comprising a series of independent sections side by side above the horizontal plane of the axis of the cylinder, and having upper portions in close proximity to the path of movement of the operative portions of the cylinder, said sections diverging from the cylinder both above and below the portions thereof that are in close proximity to the cylinder, and an independent spring and stop for each section.

4. In a huller, a horizontally mounted knife-carrying cylinder, a concave having radial knives coöperating with the knives of the cylinder, a screen interposed between adjacent radial knives, and bearing against the side surfaces thereof, and means for moving the screen radially to wedge it in position.

5. A hulling cylinder having a series of multiple knife bars, each composed of a plurality of wings forming two-edged knives, each wing having substantially parallel sides, the cylinder having seats formed to support said bars with either wing substantially radial to the axis of the cylinder, and means for detachably securing the bars.

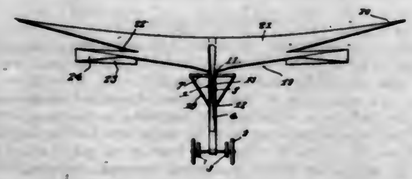
[Claims 6 to 9 not printed in the Gazette.]

1,027,321. HYDRAULIC AIR-EJECTOR. ERNEST E. CLEVELAND, Springfield, Mass. Filed June 7, 1911. Serial No. 631,754. (Cl. 230—13.)



A device of the character stated comprising concentric shells having connection at one end, said end having a threaded opening in line with the inner shell and the outer shell having a spud at the end connecting the two shells, the inner shell having its opposite end formed with a flared opening and provided near its extremity with a cross bar, a nozzle fitted to the delivery end of the outer shell, and a conical spreader having screwthread connection with the cross bar of the inner shell.

1,027,322. FLYING-MACHINE. DARRELL V. COLE, Los Angeles, Cal. Filed Dec. 19, 1911. Serial No. 666,679. (Cl. 244—12.)



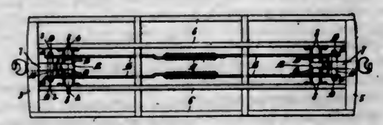
1. A flying machine including a frame structure, a substantially triangular supporting surface carried by said frame structure with its apex forwardly presented, substantially triangular wings projecting laterally from the side margins of said supporting surface, and depending flaps at the side and rear edges of said wings.

2. A flying machine including a frame structure, a substantially triangular supporting surface carried by said frame structure with its apex forwardly directed, substantially triangular wings projecting from the lateral margins of said supporting surface and having their rear edges inclined convergently in an inward and rearward direction, and flaps depending from the side and rear edges of said wings.

3. A flying machine including a frame structure, a substantially triangular supporting surface carried by said frame structure with its apex forwardly directed, said surface having its rear edge V-shaped to provide rear stabilizing wings, front triangular wings projecting from the lateral margins of the supporting surface and having their rear edges inclined convergently in an inward and rearward direction, and flaps depending from the side and rear edges of said front wings.

4. A flying machine including a frame extending longitudinally parallel with the line of flight and edgewise in a vertical direction, a substantially triangular supporting surface carried by said frame with its apex forwardly projecting, said surface having a V-shaped rear edge providing rear stabilizing wings, front triangular wings projecting from the lateral margins of said supporting surface with their rear edges convergently inclined inwardly and rearwardly, and flaps depending from the side and rear edges of said front wings.

1,027,323. DRAW-BAR. WILLIE DAVID DAMBINO, Handsboro, Miss. Filed July 15, 1911. Serial No. 638,732. (Cl. 213—41.)



1. The combination with draft sills of a car frame, of spaced inwardly extending projections on the said sills and provided with grooves in their free ends, bearing plates removably fitted in said grooves, a compression spring arranged between said plates, a draw bar arranged between the draft sills, a yoke fixed to the inner end of the draw bar and straddling said bearing plates, and draft means connected with the draft bar and slidably mounted in the projections.

2. The combination with draft sills of a car frame, of spaced inwardly extending projections on the said sills and provided with grooves in their free ends, bearing plates removably fitted in said grooves, a compression spring arranged between said plates, a draw bar arranged between the draft sills, a yoke fixed to the inner end of the draw bar and straddling said bearing plates, draft rods slidably fitted in the projections and having outer eye terminals, a cross key engaged in the draft bar and connected with the eye terminals of the draft rods, and flexible connections for uniting the draft rods arranged at opposite ends of the frame.

1,027,324. DOLL-HEAD. JOHN M. DICKSON, Indianapolis, Ind. Filed Feb. 12, 1912. Serial No. 677,097. (Cl. 46—40.)

1. A lay figure head provided with eye apertures, a rotatable eye carrying member disposed within the head, a plurality of pairs of imitation eyes carried by said member, and means for imparting a step-by-step movement to said member and successively alining a pair of said imitation eyes at a time with the eye apertures of the head.

2. A lay figure head provided with eye apertures, a rotatable eye carrying member disposed within the head, a plurality of pairs of imitation eyes carried by said member, a pendulum pivotally connected to said rotatable member, and means carried by said rotatable member and in coactive relation with said pendulum for imparting a step-by-step movement to said member due to the oscillation of the pendulum for presenting the pairs of imitation eyes, one pair at a time to the apertures of the head.



3. A lay-figure head provided with eye apertures, a shaft journaled transversely of the head, two eye carrying drums carried by and rotatable upon each shaft, a plurality of eyes carried by each drum and disposed in alined pairs upon presentation to the eye apertures of the head, a pendulum disposed between the drums and free to move without relation thereto, and means carried by the drum and disposed in coactive relation with the pendulum to be acted thereupon due to the oscillation of the pendulum to impart step-by-step rotation to the drums.

4. A lay-figure head provided with eye apertures, a shaft journaled transversely of the head, two eye carrying drums carried by and rotatable upon the shaft, a plurality of eyes carried by each drum and disposed in alined pairs upon presentation to the eye apertures of the head, a pendulum swingingly mounted between the drums and free to move with relation thereto, and a ratchet carried by one of said drums and disposed in the path to be engaged by said pendulum during the oscillation of the pendulum to have imparted thereto and the drum a step-by-step rotation.

5. A lay-figure head provided with eye apertures, a rotatable eye carrying member disposed within the head, a plurality of pairs of imitation eyes carried by said member, means for imparting a step-by-step movement to said member and successively alining a pair of said imitation eyes at a time with the eye apertures of the head, and coactive means carried by the rotatable member and the head of the figure to limit the movement of the member during the rotation thereof.

[Claims 6 and 7 not printed in the Gazette.]

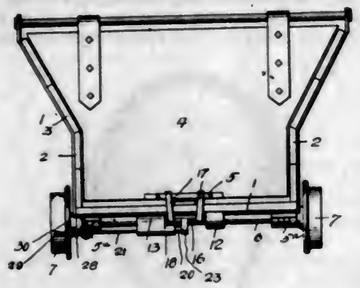
1,027,325. LOCK. ISTVAN DUCSAY, Canonsburg, Pa. Filed Sept. 28, 1911. Serial No. 651,687. (Cl. 105—15.)

1. In a lock for the lower edge of a door or gate, a rock shaft, arms carried thereby and adapted to lock the lower edge of the door or gate, a bolt adapted to be moved actuating said rock shaft, a lever adapted to move said bolt, means in the path of said lever and adapted to actuate said lever.

2. In a lock, the combination with a car having a door or gate, a rock shaft supported from the bottom of said car, arms carried thereby and adapted to lock the lower edge of the door or gate, means including a lever and a bolt adapted to actuate said rock shaft, and means within the path of said lever and adapted to actuate said lever.

3. In a lock, the combination with a car having a door or gate, of a rock shaft supported from the bottom of said car, arms carried thereby and adapted to lock the lower edge of the door or gate, a bolt normally locking said rock shaft and adapted to be shifted to release said

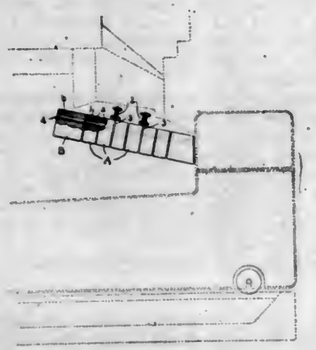
rock shaft and actuate the same, and means including a lever adapted to automatically shift said bolt.



4. In a lock, the combination with a car having a door or gate, of a rock shaft provided with arms adapted to lock the lower edge of the door or gate, and an automatically actuated bolt adapted to normally lock said rock shaft against said movement, and when actuated, to release said rock shaft and rock the same.

5. In a lock, the combination with a car having a door or gate, of a spirally grooved rock shaft supported from the bottom of said car and provided with arms adapted to normally lock the lower edge of a door or gate, a spring pressed bolt adjacent to said rock shaft and adapted to normally lock said shaft against movement, a pin carried by said bolt and extending into the groove of said rock shaft and adapted to rock said shaft when said bolt releases the same, and means including a lever adapted to automatically move said bolt.

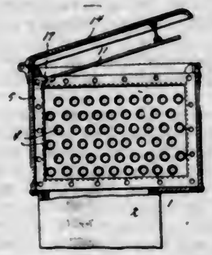
1,027,326. IGNITION-ARCH FOR FURNACES. WILLIAM MILLEN DUNCAN, Alton, Ill. Filed Aug. 18, 1911. Serial No. 644,733. (Cl. 110—95.)



1. An ignition arch comprising longitudinally arranged tubular main supporting rods located at the front end of the arch, heat radiating blocks mounted on said main supporting rods, longitudinally arranged auxiliary supporting rods having reduced ends and located at the rear end of the arch and having their reduced ends inserted in said main suppoting rods, and heat radiating blocks mounted on said auxiliary supporting rods.

2. An ignition arch comprising longitudinally arranged tubular main supporting rods located at the front end of the arch, heat radiating blocks mounted on said main supporting rods, longitudinally arranged tubular auxiliary supporting rods having reduced ends and located at the rear end of the arch and having their reduced ends inserted in said main supporting rods, and heat radiating blocks mounted on said auxiliary supporting rods.

1,027,327. WATER-HEATING FURNACE. HENRY C. ENGLISH, Wilmington, Del., assignor to John W. Carter, Jr., Wilmington, Del. Filed Oct. 9, 1911. Serial No. 653,656. (Cl. 126—344.)

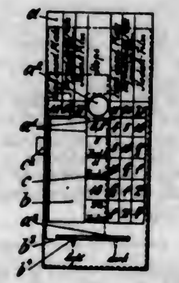


1. A water heater comprising a heating chamber, a removable top for said chamber pivotally secured to the heater at one side thereof, said top having an opening therethrough, a baffle plate spaced from and connected to the top at its outer side, and means comprising a trough carried by the heater below the connection of the top and upon which the opposite side of the plate is seated, whereby soot and other foreign matter rolling from the baffle plate may be collected as the top is raised.

2. A water heater comprising a heating chamber, a removable top for said chamber having an opening centrally therethrough, a baffle plate below and spaced from said top, said plate having a plurality of marginal openings therethrough, means detachably securing the plate at one side to the top aforesaid, and means secured at the opposite side of the chamber on which said plate is mounted for pivotal movement, said means being adapted to collect accumulations rolling from the baffle plate as the top is raised.

3. A water heater comprising a heating chamber, said chamber having upstanding flanges provided therein and also a trough carried adjacent to one side of said chamber, a baffle-plate normally resting on said trough and on said upstanding flanges, a removable top spaced from said baffle-plate, and hooks connecting one edge of said baffle-plate to aforesaid removable top, all for a purpose set forth.

1,027,328. PHOTOMETER. ALBRECHT ERHARDT, Munich, Germany. Filed Dec. 15, 1911. Serial No. 665,961. (Cl. 88—23.)

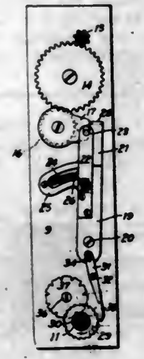


1. In a photometer, the combination of a stationary front plate provided with plate-speed indications and stop inscriptions and with a window, a slide provided with columns of exposure figures, and with a plurality of disks of graded translucence, and means for vertically reciprocating said slide, whereby said disks are successively made to register with the window in said stationary plate, substantially as and for the purpose set forth.

2. In a photometer, the combination of a stationary front plate provided with two sets of inscriptions denoting the character of the negative, with a stop column

down the center, with a window and with two cut-outs flanking said stop column, a slide having two cut-outs, and a colored translucent plate in one such cut-out, means for laterally reciprocating said slide, and means for indicating its respective end positions, a second slide, a series of colored disks of graded translucence down the center of this second slide, two sets of vertically disposed columns of exposure figures thereon, and means for vertically reciprocating said second slide back of said first slide, substantially as set forth.

1,027,329. ROLLER-BLIND SHUTTER. JOSEPH GODDARD and FARNUM F. DORSEY, Rochester, N. Y., assignors to Seneca Camera Manufacturing Company, Rochester, N. Y. Filed Mar. 13, 1912. Serial No. 683,638. (Cl. 95—57.)



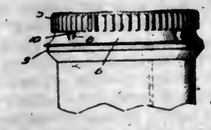
1. A photographic shutter having, in combination, a flexible curtain, a primary roller upon which the curtain is normally wound, a spring-actuated roller upon which the curtain is wound in producing an exposure, escapement-mechanism coöperating with the primary roller to release and arrest the latter at the beginning and the termination of an exposure movement, and a detent operating automatically to prevent return movement of the spring-actuated roller when arrested, by the tension of the curtain, at the termination of an exposure movement.

2. A photographic shutter having, in combination, a flexible curtain, a primary roller upon which the curtain is normally wound, a spring-actuated roller upon which the curtain is wound in producing an exposure, escapement-mechanism coöperating with the primary roller to release and arrest the latter at the beginning and the termination of an exposure movement, a detent operating automatically to prevent return movement of the spring-actuated roller when arrested, by the tension of the curtain, at the termination of an exposure movement, and means for holding the detent normally in inoperative position.

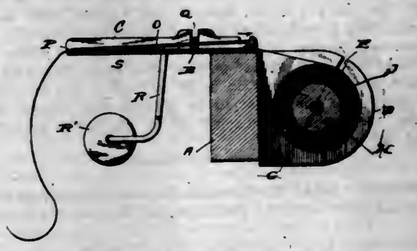
3. A photographic shutter having, in combination, a flexible curtain, a primary roller upon which the curtain is normally wound, a spring-actuated roller upon which the curtain is wound in producing an exposure, escapement-mechanism coöperating with the primary roller to release and arrest the latter at the beginning and the termination of an exposure movement, a detent operating automatically to prevent return movement of the spring-actuated roller when arrested, by the tension of the curtain, at the termination of an exposure movement, and connections between the escapement-mechanism and the detent for throwing the detent into operative position when the escapement-mechanism is moved to produce an exposure.

1,027,330. BOTTLE CAP OR SEAL. CHARLES HAMMER, Brooklyn, N. Y., assignor to American Metal Cap Company, Brooklyn, N. Y., a Corporation of New York. Filed Apr. 8, 1911. Serial No. 619,741. (Cl. 215—85.)

A sheet metal bottle cap having a circular crown portion, and a flange depending therefrom and having a cylindrical upper half provided with an annular series of closely related outstruck vertical corrugations extending the full depth thereof and having its lower half continuously flared outwardly and downwardly in pronounced bell-mouth form beyond the plane of said corrugations, said flared portion of the flange being provided with substantially semi-elliptical vertical instruck locking projections segmentally curved or bowed both longitudinally and transversely and having their major axes inclined at an angle to the normal perpendicular plane of the flange, the upper edges of said projections being separated from the flange and inclined to the horizontal plane thereof and projecting inwardly beyond the vertical plane of the cylindrical portion of the flange.



1,027,331. TICKET-CUTTER. HARRY WARREN HARGIS, Monroe, N. C., assignor of one-fifth to Charles R. Capps, one-fifth to Charles B. Ryan, one-fifth to William L. McMorris, and one-fifth to Edward D. Jordan, Portsmouth, Va. Filed Mar. 17, 1910, Serial No. 550,037. Renewed Mar. 23, 1911. Serial No. 616,488. (Cl. 211—37.)



1. In a ticket cutter the combination with a frame, of a spindle carried thereby, a ticket roll mounted on the spindle, an L-shaped blade carried by the frame under which the ticket passes, a handle member carried by the frame and adapted to bear down upon the blade to hold the same in position as the ticket is cut thereagainst, the blade being adapted to cut a coupon of less width than the roll therefrom, and an additional cutting edge formed on the blade for severing the strip remaining, the blade and frame having coinciding slots formed therein to permit of access to the ticket and facilitate the shifting thereof when the strip has been severed.

2. In a ticket cutter, the combination with an L-shaped frame having upstanding flanges at its sides, of a spindle engaged in the flanges of one leg of the L and adapted to receive a ticket roll, a cutter resting upon the other leg of the L and having engagement with the flanges thereof for securing it in position, and a handle member passing over the cutter and having a portion bearing thereagainst and adapted to be grasped to prevent movement of the cutter when a ticket is being cut from the roll.

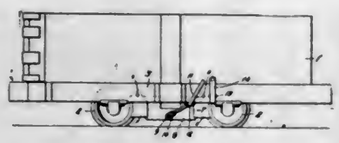
3. The ticket cutter herein shown and described, consisting of the vertically disposed roll carrying portion adapted to be rigidly secured to a support and having flanges provided with slots to receive the journals of the ticket roll, the integral platform arranged horizontally and formed with vertical flanges between which the tickets are secured and guided, the flanges being formed with bearings, the right-angled shaped cutter having journals fitting in the said bearings to pivotally connect the cutter, the rectangular shaped member mounted in slots in said flanges, the roller mounted on the lower portion of said

rectangular member and depending from the platform, and the vertical transverse flange at the outer end of the platform to form a stop and guide for the passenger stub and to insure the proper severing of said stub from the roll.

4. The ticket cutter herein shown and described, consisting of a roll carrying portion arranged in a vertical position and having upstanding flanges at its sides, said flanges having inclined slots to receive and retain the journals on the ticket roll, and said portion being rigidly secured to a support and a platform connected with said portion and arranged horizontally to receive the slip from the ticket roll, a cutter pivoted upon the platform having a cut out portion to remove the passenger slip from the roll and a portion to engage the roll and retain the audit slip, said cutter having slots coinciding with slots in the platform for permitting access to the ticket when the strip has been severed therefrom, a rectangular shaped member, a roller carried thereby upon the lower portion thereof to hold the blade against the tickets, the general form of the complete device being substantially right-angled in shape.

5. A ticket cutter, comprising a base, an L-shaped recessed plate secured thereto, upturned slotted flanges formed on the long leg of the L shaped plate, slotted flanges formed on the short leg of said plate, an axle having flattened ends mounted in said slots, a roll carried by said axle, a ticket roll mounted on said first named roll and extending downwardly over the face of said plate, an abutment mounted upon one of said upturned flanges of the plate adjacent to the recess in said plate, a beveled cutting blade having laterally projecting lugs engaged in slots in said upturned flanges, means for holding the cutting blade against the tickets, said means comprising a rectangular member mounted in slots in said upturned flanges, and a roller mounted in the lower portion of said rectangular member and depending from the plate, and means in said blade and plate for permitting a portion of the ticket to be grasped and drawn down upon the accidental tearing off of the lower projecting end thereof.

1,027,332. BRAKE. RICHARD HENLEY, Wilkes-Barre, Pa. Filed Oct. 28, 1911. Serial No. 657,225. (Cl. 188—24.)



1. In a device of the class described, the combination with a truck having a pair of wheels, of brake shoes pivoted to the truck and adapted to engage the wheels, a wedge-shaped weight operating between the shoes, means for raising said weight, and means for holding the weight in raised position.

2. In a device of the class described, the combination with a truck having a pair of wheels, of brake shoes pivoted to the truck and adapted to engage said wheels, said brake shoes having grooves with an inclined wall, a wedge-shaped weight operating in the grooves and against the inclined wall, means to raise said weight, and means to lock the weight in raised position.

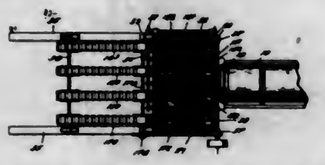
3. In a device of the class described, the combination with a truck having a pair of wheels, of brake shoes pivoted to the truck, and adapted to engage the wheels, said shoes having grooves with an inclined wall, of a wedge-shaped weight operating in the grooves and against the inclined wall, a lever pivoted to the truck and to the weight, for raising the same, a housing adapted to guide the free end of the lever, and a pendulum pawl pivoted in the housing and adapted to engage over the free end of the lever to lock the same when the weight is raised.

1,027,333. OXYGEN-GENERATING COMPOSITION. MORDKO HERSCHKOWITSCH, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed July 20, 1910. Serial No. 572,942. (Cl. 23—10.)

1. Composition generating oxygen when heated, consisting of a highly oxygenated salt, which when heated liberates free oxygen and a number of secondary ingredients suitable to continue the decomposition of the said salt, after this decomposition has been started by local heating, among the said secondary ingredients being at least one oxidable substance and a small quantity of a metallic salt, which decomposes, generating gas, when heated to near the temperature of fusion of the said oxygenated salt.

2. Composition generating oxygen when heated, consisting of a highly oxygenated salt, which when heated liberates free oxygen and a number of secondary ingredients suitable to continue the decomposition of the said salt, after this decomposition has been started by local heating, among the said secondary ingredients being at least one oxidable substance and a small quantity of an oxalate.

1,027,334. PAVING PLANT. FREDERICK A. HETHERINGTON, Indianapolis, Ind. Filed Aug. 14, 1908. Serial No. 448,564. (Cl. 94—9.)



1. In a paving plant, the combination of a drier provided with means for maintaining the general character of the mixture delivered thereto, a plurality of bins, a receiver supplied in common by said several bins and supplying the drier, positive continuous feeding means arranged in each of said bins for feeding material freely therefrom into said receiver, and means for feeding material into the several bins.

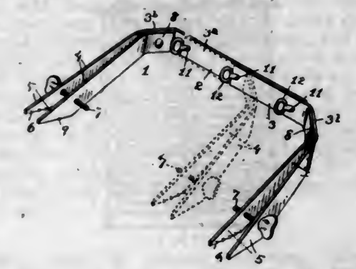
2. In a paving plant, the combination of a drier provided with means for maintaining the general character of the mixture delivered thereto, a plurality of bins, a receiver supplied in common by said several bins and supplying the drier, and positive continuous feeding means arranged in each of said bins for feeding material freely therefrom into said receiver.

3. In a paving plant the combination of a plurality of bins each having a delivery spout delivering to a common point into a drier provided with means for maintaining the general character of a mixture delivered thereto, the said drier, screw conveyers one mounted in each of said bins and arranged to deliver material freely from the bins to their discharging spouts, and means for driving said conveyers comprising readily changeable members whereby the relative speeds of the conveyers may be changed.

4. In a paving plant the combination of a plurality of bins each having a delivery spout delivering to a common point, a screw conveyer mounted in each of said bins and arranged to deliver material from the bins to their discharge spouts, and means for driving said conveyers comprising a readily removable sprocket wheel on each conveyer shaft, an idler between each pair of sprocket wheels, and a sprocket chain passed over said sprockets and idlers substantially as and for the purpose set forth.

5. In a paving plant, the combination of a drier provided with means for maintaining the general character of the mixture delivered thereto, a plurality of bins, a receiver supplied in common by said several bins and supplying the drier, positive continuous feeding means arranged in each of said bins for feeding material freely therefrom into said receiver, and means for driving said feeding means comprising readily changeable members whereby the relative speeds of such feeding means may be varied.

1,027,335. SUSPENSION DEVICE FOR USE IN SKINNING SMALL ANIMALS. ALBERT G. HEYERDAHL, Orfordville, Wis. Filed Jan. 24, 1911. Serial No. 604,457. (Cl. 17—30.)



A hanger, comprising a support adapted to abut against and be rigidly secured to a vertical wall, opposite pairs of forward extending planular normally divergent spring jaw members having rigid connection with said support, the divergence of said members beginning approximately at said support and increasing toward the outer ends of the members, said jaw members having tapered outer end portions of gradually decreasing width, having inward-projecting teeth, and means for closing the jaw members upon the work engaging the members in rear of the tapered ends and intermediately of the length of the members.

1,027,336. BEVERAGE. JOHANNES HÖLLDAMPF, Cassel, Germany. Filed Apr. 9, 1910. Serial No. 554,412. (Cl. 99—11.)

1. The process of making a carbonated beverage which comprises mixing together extract of hops, matured cider, apple extract and a sugar solution; filtering the resultant mixture, and mixing a carbonating agent with the filtered mixture.

2. The process of making a carbonated beverage which consists in preparing extract of hops, boiling and straining the extract; mixing the extract thus treated with matured cider, apple extract and a sugar solution; and mixing water and a carbonating agent with the resultant mixture.

3. A carbonated beverage composed of extract of hops mixed with matured cider, apple extract, a sugar solution, and a carbonating agent all in substantially the proportions specified.

1,027,337. ELECTRICAL HEATING DEVICE. FRANK J. HOLMES, Chicago, Ill., assignor to Vulcan Electric Heating Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 4, 1909. Serial No. 470,692. (Cl. 219—28.)



1. In a heating device of the class described, the combination of heat producing means, a highly conductive member associated with the heat producing means, a tip or heat applying member for receiving the heat from the conductive member, a threaded opening in said conductive member, an extension from the tip or heat applying member threaded to loosely fit the threads in the conductive member, and a tapered seat on the conductive member, said tip or heat applying member having a tapered edge for engaging the seat when the tip is screwed to the conductive member.

2. In a device of the class described, the combination of a copper core, an electrical heat producing winding surrounding said core, a threaded pocket in one end of said core, a tip having a threaded extension of less diameter than said threaded pocket for engaging with the threads of said pocket to secure the tip to the core, and a tapered seat at the edge of the pocket, said tip having a tapered edge for engaging said seat when the threaded extension is screwed into the pocket.

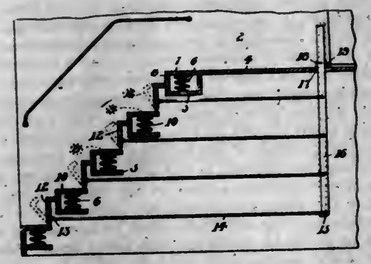
3. In a heating device of the class described, the combination of a tubular inclosing frame or shell forming a chamber at one end, a core in said chamber, a heat producing winding surrounding said core, a terminal member engaging the other end of said shell, conductors connecting the winding with said terminal member, said conductors passing through the shell and being insulated therefrom, means at the end of the core whereby a tip or heat applying member may be secured to the core to conductively receive heat therefrom, means for connecting the end of the core and shell together to seal said end of the shell, and sealing means at the other end of the shell, said shell being thereby hermetically sealed.

4. In a device of the class described, the combination of a metallic inclosing frame or shell, a core of highly conductive material in one end of said shell, a heat producing winding surrounding said core, a threaded opening in the end of said core for receiving the threaded end of a tip or heat applying member, a terminal member at the other end of the shell, conductors passing through the shell and connecting the winding terminals with the terminal member, the end of the conductive core and the metallic shell being brazed together to hermetically seal this end of the shell, and sealing wax applied to seal the other end of the shell.

5. In a heating device of the class described, the combination of a core of good heat conductive material, a heat producing winding surrounding said core, a metallic inclosing shell about said core and winding, a pocket in the end of said core, sealing material for connecting together the ends of the core and shell to hermetically seal said end of the chamber, the sealing material extending into said pocket and having a threaded opening for receiving the threaded extension of a tip or heat applying member, the terminals of said winding extending from the other end of the chamber, means for connecting said conductors with a source of electricity, and means for sealing the terminal end of said chamber.

[Claims 6 to 12 not printed in the Gazette.]

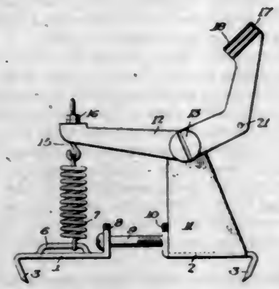
1,027,338. STEP. JOHN HUGYIK, Nokomis, Ill. Filed Jan. 20, 1912. Serial No. 672,270. (Cl. 105—85.)



1. In a railway coach, the combination with the end wall, platform and step frame of a coach, of tread supports connecting said end wall and said step frame, spring supported yieldable treads carried by said supports, ejectors pivotally mounted between said end wall and said step frame above the rear edges of said treads, a lever pivotally supported by said platform, and rods pivotally connected to said lever and to said ejectors whereby said ejectors can be operated by a movement of said lever.

2. The combination with a railway coach, having an end wall, a step frame, and a platform, of supports connecting said end wall and said step frame, yieldable treads mounted upon said supports and having risers, pins carried by the ends of said treads and extending into slots provided therefor in said end wall and said step frame, ejectors pivotally mounted between said end wall and said step frame above the rear edges of said treads and normally engaging the risers of said treads, a lever pivotally mounted upon said platform and extending below said platform, and rods connected to said lever and said ejectors whereby a movement of said lever will move said ejectors.

1,027,339. BRAKE ATTACHMENT FOR SEWING-MACHINES. CARL E. JOHNSON, Los Angeles, Cal., assignor to United States Electrical Manufacturing Company, Los Angeles, Cal., a Corporation of California. Filed Feb. 3, 1910. Serial No. 541,892. (Cl. 74—13.)



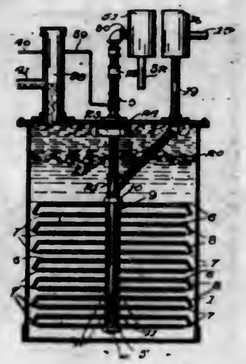
1. A brake attachment for sewing machines, comprising a pair of clamping members with hooks adapted to engage in the belt holes in the table of the sewing machine, a brake lever pivoted to one of said clamping members, a brake shoe on the brake lever adapted to bear against the fly wheel of the machine, and a spring between the brake lever and the other clamping member for normally holding the brake shoe against said fly wheel.

2. A brake attachment for sewing machines, comprising a pair of clamping members, each having a hook adapted to engage in a belt hole in the table of the machine, means for drawing said clamping members toward each other, a bracket on one of said members, a brake lever pivoted to said bracket, a brake shoe on said lever adapted to bear against the fly wheel of the machine, a loop formed on the other clamping member, a coil spring connected to said loop, and a hook adjustably secured to the brake lever and connected to the other end of said coil spring.

3. A brake attachment for sewing machines comprising a pair of clamping members, each having a hook adapted to engage in a belt hole in the table of the machine, means for drawing said clamping members toward each other, a bracket on one of said members, a brake lever pivoted to said bracket, a brake shoe on said lever adapted to bear against the fly wheel of the machine, a loop formed on the other clamping member, a coil spring connected to said loop, a hook adjustably secured to the brake lever and connected to the other end of said coil spring, and a connection extending from the brake lever to the treadle of the sewing machine for operating the brake lever when the treadle is operated.

4. A brake attachment for sewing machines, comprising a pair of clamping members, each having a hook adapted to engage in a belt hole in the table of the machine, means for drawing said clamping members toward each other, a bracket on one of said members, a brake lever pivoted to said bracket, a brake shoe on said lever adapted to bear against the fly wheel of the machine, and a coil spring having one end attached to the brake lever and the other end attached to the other clamp member.

1,027,340. CARBURETER. FRANCIS P. JOHNSTON, Oakland, Cal. Filed Mar. 30, 1911. Serial No. 617,913. (Cl. 48—166.)



1. In an apparatus of the kind described, a carbureter consisting of a closed casing, an air supply pipe extending to the bottom of said casing and having a lower open end, a number of disk shaped plates mounted on said pipe in spaced relation to each other, the alternating plates of said disk shaped plates each being formed with a downwardly inclined flanged edge and with apertures near the center, means for supplying air under pressure to the bottom of the casing and for regulating the pressure thereof, means for supplying oil to said casing, and means for maintaining the surface of said oil at a constant level.

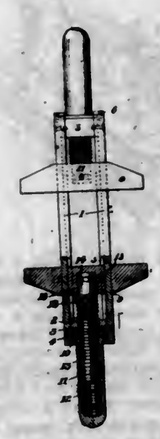
2. In an apparatus of the kind described, a carbureter consisting of a casing, an air supply pipe suspended in said casing, a pipe connected to the upper end and separated from said air supply pipe and projecting through the top of the casing and provided with outlet ports in its sides within the casing, an automatic valve located in said pipe, a float connected with said automatic valve, a number of disks mounted on the air supply pipe and spaced apart from each other, the alternate disks having perforations adjacent to the center thereof, means for supplying oil to said generator, and means for supplying air under pressure to said generator.

3. In an apparatus of the kind described, a carbureter consisting of a casing having an air supply pipe extending to a point near the bottom of said casing and having the lower open end, a number of disk shaped plates mounted on said pipe and spaced apart from each other, the alternate plates thereof each having a depending flange at its outer edge and apertures adjacent to the center, a pipe located in said casing and projecting out of the top thereof and having outlet ports in its sides, an automatic closing valve located in said pipe with a float located in said casing and connected with said valve, a vertical pipe mounted on the top of said casing and opening at its lower end into said casing and closed at its upper end, a casing having an automatic float valve, an oil supply tank having a pipe connected with said casing, pipes connecting said casing with said vertical pipe having a closed upper end, a pipe connecting said vertical pipe with the pipe projecting out of the casing, a casing connected with the latter pipe and containing a regulating valve, and a service pipe connected with said latter casing.

4. In an apparatus of the kind described, a carbureter consisting of a casing having an air supply pipe located in said casing with an open lower end adjacent to the bottom of said casing, a number of disks spaced apart from each other, and mounted on said air supply pipe, the alternate disks having apertures adjacent to the center, means for supplying air under pressure to said casing, a pipe projecting into said casing with apertures in its side and closed below and adjacent to said apertures, and an automatically closing valve, a float located in said casing connected with said valve, means for regulating the discharge of oil through said pipe, to a service pipe, means for supplying oil to said generator, and means for maintaining the oil at a constant level, and forcing it into the generator.

5. In an apparatus of the kind described, a casing having a vertical pipe projecting out of the top of the casing down through the casing and having apertures in its sides and closed below and adjacent to said apertures, a valve chamber in said pipe, an automatically closing valve in said chamber, a float slidably mounted on said pipe, a rod connecting said float with said valve, a pipe connected to the lower end of said pipe and extending down to a point adjacent to the bottom of the casing and having a lower open end, an air supply pipe connected to the upper end of said pipe and projecting out of the top of the casing, a number of disk shaped plates mounted upon the pipe in the lower part of the casing, each alternating disk plate having a depending flange at its outer edge and apertures adjacent to its center, means for supplying air under pressure to said pipe in the lower part of the casing, an oil supply tank, and means for maintaining a constant level of said oil.

1,027,341. WRENCH. GEORGE JUAKOVICH, Homer City, Pa. Filed Jan. 9, 1912. Serial No. 670,261. (Cl. 81—53.)

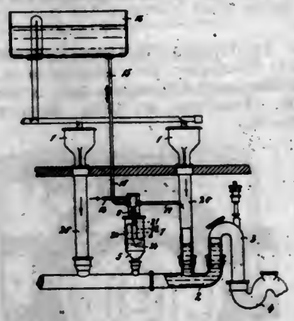


1. A wrench comprising parallel bars having flanged ends, blocks connecting the ends of said bars and provided with openings, said blocks spaced from the flanges of said bars jaws slidably mounted upon said bars, said jaws being oppositely disposed, a tubular handle revolubly supported upon the flanges of said bars, screws adjustably mounted in said handle and extending through the openings of said blocks and rigidly connected to said jaws, and coiled compression springs encircling said screws between said blocks and said jaws.

2. A wrench comprising parallel bars having flanged ends, blocks connecting the ends of said bars and provided with openings and further spaced from said flanges, oppositely disposed jaws slidably mounted upon said bars, oppositely disposed tubular handles revolubly supported upon the flanges of said bars, and oppositely disposed screws adjustably mounted in said handles and extending through the openings of said blocks and rigidly connected to said jaws.

3. A wrench of the type described comprising parallel bars having confronting faces thereof provided with grooves, said bars having flanged ends blocks arranged at the ends of said bars and connected thereto, said blocks having openings formed therein and spaced from said flanges, oppositely disposed jaws slidably mounted upon said bars and extending into the grooves thereof, oppositely disposed tubular handles revolubly supported by the flanges of the ends of said bars, and screws adjustably mounted in said tubular handles and extending through the openings of said blocks and having the ends thereof rigidly connected to said jaws.

1,027,342. APPARATUS FOR LAVATORY INSTALLATIONS. PAUL KIMMER, Elbing, Germany. Filed Feb. 3, 1912. Serial No. 675,355. (Cl. 4—23.)

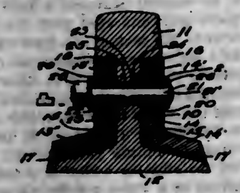


1. In a lavatory installation having a flush water regulating valve controlled by means of a hollow float in a receptacle in connection with the soil pipe, a hollow spindle connecting said float with said valve, and having apertures at a predetermined level for the admission of water to the interior of said hollow float, means for the exit from and admission of air to the interior of said hollow float, and a siphon tube for withdrawing the water from the interior of said float.

2. In a lavatory installation having a flush water regulating valve, controlled by means of a hollow float in a receptacle in connection with the soil pipe, a hollow spindle connecting said float with said valve, and having apertures at a predetermined level for the admission of water to the interior of said hollow float, means for the exit from and for the admission of air to the interior of said float, and a siphon tube, one end of which opens into the bottom of and into the interior of said float while the other end of said siphon tube opens below said hollow float into said receptacle, and the crown of said siphon tube extending to a height above said apertures in said hollow spindle.

3. In a lavatory installation having a flush water regulating valve controlled by means of a hollow float in a receptacle in connection with the soil pipe, a hollow spindle connecting said float with said valve, and having apertures at a predetermined level for the admission of water to the interior of said hollow float, an air tube opening at one end into said hollow float and at its other end above said receptacle, and a siphon tube for withdrawing the water from the interior of said float.

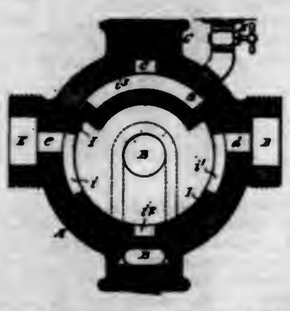
1,027,343. AUTOMATIC-BLOCK-SIGNAL JOINT. LLOYD H. KINNEY and WILLIAM MCGUIRE, Clifton, Pa. Original application filed July 9, 1910, Serial No. 571,181. Divided and this application filed June 2, 1911. Serial No. 630,896. (Cl. 238—5.)



An insulating device for railway rail joints comprising insulating strips disposed on opposite sides of a rail between the rail and the splice bars of the joint, tubular ex-

tensions on the said strips formed integrally therewith, and disposed through the bolt openings formed in the splice bars, said tubular portions registering with the bolt openings of the rail to form a continuous passage therethrough, for the reception of a bolt, beveled walls surrounding the openings in said strips, and tubular sleeves disposed within the bolt openings of the rail, and having their opposite ends circumferentially beveled to engage the said beveled edges of the openings in the strip.

1,027,344. VALVE FOR FIRE-EXTINGUISHERS. JOHN T. LALLY, Wilmington, Del., assignor to U. S. Fire Apparatus Company, Wilmington, Del., a Corporation of Delaware. Filed Dec. 27, 1910. Serial No. 599,400. (Cl. 137—26.)



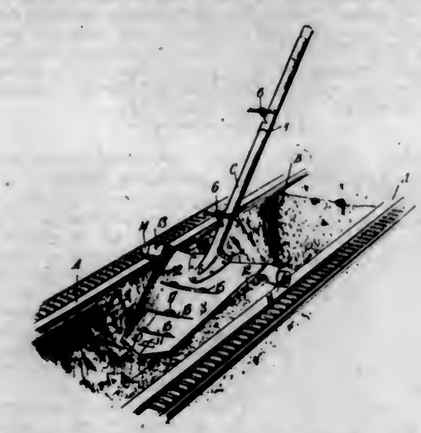
1. The combination in a valve for fire extinguishers, of a casing having a central inlet port for water, a port on each side adapted to be connected to respective pressure tanks, and a port located between the two last mentioned ports and arranged to be coupled to a nozzle, with a hollow valve mounted in the casing and having three ports extending through the shell thereof and a channel in its wall, said channel being of such a length that when the valve is turned in one position, it will form a communication between one side port and a nozzle port and when turned in the other position it will form a communication with the other side port and a nozzle port.

2. The combination in a valve for fire extinguishers, of a casing having a central inlet port for water, a port at each side, one of the side ports leading to one tank and the other side port leading to another tank, and a port centrally located between the two side ports and arranged to be connected to a hose or nozzle, with a hollow valve mounted in the casing and having three ports extending through the shell, and an elongated channel in its wall, the ports and channels of the valve being so arranged that when the valve is in one position the side ports will be cut off from the intermediate port, when in another position one side port will communicate with the intermediate port and when moved in still another position the other side port will communicate with the intermediate port and when the valve is moved to another position the three ports in the valve will form a communication with both ports leading to the tanks and the central port leading to the nozzle.

3. The combination in a valve for a fire extinguisher, of a casing having a central inlet port for water, side ports arranged to be coupled to tanks, a port intermediate of the two side ports and connected with the nozzle or exhaust, a cap secured to the casing, a hollow valve mounted in the casing, said valve having passages to allow the liquid to gain access to the space on both sides of the valve, with a spring mounted between the valve and the cap, the cap tending to hold the valve to its seat, the valve having a series of three ports and a channel in its wall, said valve having a stem extending through the cap, and a handle mounted on the stem by which it is turned.

4. The combination in a valve for fire extinguishers, of a casing having an inlet port communicating with the casing at the back, two side ports arranged to be coupled to tanks, an upper port intermediate of the two side ports and arranged to be attached to a hose or nozzle, a valve mounted in the casing and having a hollow center communicating at all times with the water inlet passage and having three ports in its shell and a channel in its outer surface, said valve having a stem, a handle on the stem, a latch carried by the handle, said handle having a pointer, and a ring secured to the valve casing and having notches to receive the latch of the handle and having indicating marks with which the pointer is arranged to aline.

1,027,345. TRENCH-DIGGING SHOVEL. JOHN LAPIN, New York, N. Y. Original application filed Jan. 12, 1911, Serial No. 602,143. Divided and this application filed June 29, 1911. Serial No. 635,926. (Cl. 55—147.)

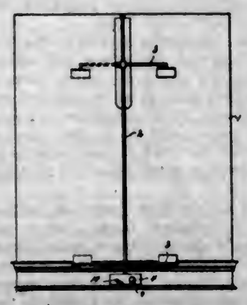


1. In a trenching shovel having a scoop, a series of ridges triangular in cross section disposed on the face of said scoop, to form upwardly facing ledges.

2. In a trenching shovel having a scoop, a series of ridges triangular in cross section disposed on the face of said scoop, to form upwardly facing ledges, said scoop having a series of apertures extending therethrough above and adjacent the upper edge of said ridges.

3. A trenching shovel having a scoop of general keystone shape in plan and slightly curved transversely, said scoop having disposed on the rear thereof a pair of longitudinally extending spaced apart ribs triangular in cross section at their lower ends and flattened toward the upper end of the scoop.

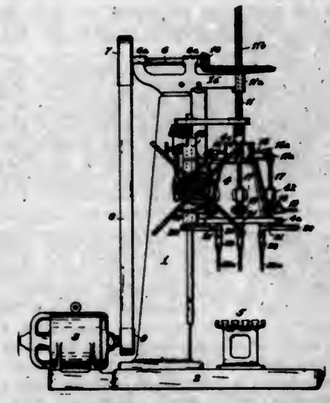
1,027,346. MUSIC-LEAF TURNER. THOMAS F. LARKINS, Sandusky, Ohio. Filed Dec. 18, 1911. Serial No. 666,496. (Cl. 84—17.)



1. In a sheet turning device, a casing, sheet carrying means movably mounted thereon, means for actuating the sheet carrying means, a catch pivoted to the casing and adapted to engage the actuating means for rendering the latter inoperative, a bar for engaging the catch to release the actuating means, a link pivotally connecting one end of the bar to the casing, and a rock shaft mounted in the casing and having an arm pivotally connected to the opposite end of the bar for actuating the latter to release the actuating means.

2. A sheet turning device comprising a casing, sheet carrying means mounted thereon, a pinion carried on the sheet carrying means, a rack member movably mounted on the casing and coöperating with the pinion for actuating the sheet carrying means, the rack member having a notch therein, a latch pivotally mounted on the casing and adapted to engage in the notch in the rack member to render the latter inoperative, a bar in the casing adapted to engage the catch to release the rack member, a link member pivotally connecting one end of the bar to the casing, and a rock shaft in the casing disposed parallel to the rack member, the rock shaft having an arm pivotally connected to the opposite end of the bar for actuating the latter to release the rack member.

1,027,347. MULTIPLE-SPINDLE DRILL. COLUMBUS K. LASSITER and FRANK E. BOCORSELSKI, Richmond, Va. Filed Nov. 23, 1910. Serial No. 593,777. (Cl. 77—24.)

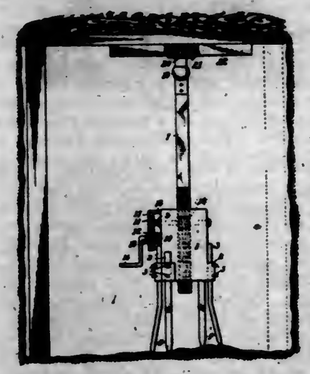


1. In a multiple spindle drill, the combination of a support, a spindle carrying head movable longitudinally thereon, a driving shaft journaled in said head, a supporting block pivoted adjustably to the outer portion of said head, a drill carrying arm fitted to slide in said block toward and from the driving shaft, a drill spindle mounted in said drill carrying arm and rotatable about an axis parallel with the axis of the driving shaft, a shaft journaled on the drill carrying arm at right angles to the drill spindle, bevel gears connecting said shaft with the drill spindle, a bevel gear fitted on said shaft, with the capacity of end movement through it of said shaft, a swing hanger in which said shaft is journaled, and which is itself journaled on a second shaft parallel with the driving shaft, a bevel gear on said second named shaft engaging with the bevel gear of the shaft on the drill carrying arm, a third shaft journaled on the head at right angles to the driving shaft, and pairs of bevel gears connecting said second and third named shafts, and said third named shaft and the driving shaft.

2. In a multiple drill, the combination with the standard, of a drill head carried thereby, guide blocks pivotally secured to the lower end of said head, drill-carrying arms slidably mounted in said blocks, a drill spindle journaled in each of said arms, a driving shaft centrally journaled in said head, and geared connections between said shaft and spindles, operative to drive the latter in all their positions of adjustment.

3. In a multiple drill, the combination with the standard, of an annular drill-head adjustable vertically thereon, a series of blocks pivoted to the base of said head, a drill-carrying arm slidably mounted in each of said blocks, a drill spindle journaled in each of said arms, a driving shaft journaled axially in said head, a horizontal shaft, geared to each drill-spindle, a journal bearing for each of said horizontal shafts pivotally mounted on the head so as to swing around a vertical axis, a second journal-bearing for each of said horizontal shafts carried by the corresponding drill-carrying arm horizontal shafts geared to said driving shaft and a vertical shaft geared to each pair of horizontal shafts.

1,027,348. JACK. MIKE LUTENBERGER, Blocton, Ala. Filed Apr. 5, 1911. Serial No. 619,035. (Cl. 57—102.)



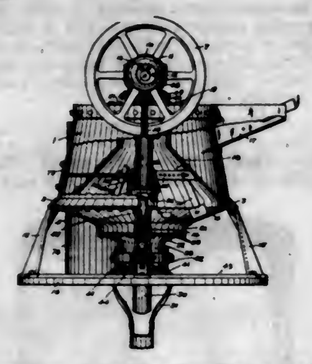
A jack comprising a vertically disposed rectangular block provided with a centrally arranged vertical opening extending entirely there-through, said block further having its top provided with a recess located at one side of and communicating with said opening, a vertically adjustable rack extending through said opening, supporting legs secured to the side of said block, a shaft journaled in the upper portion of said block at a point to extend through said recess and having one end projecting beyond one side of the block, a pinion carried by said shaft and positioned in said recess and meshing with said rack, a gear fixed to the extended end of said shaft, and a gravity pawl supported from one side of said block at the top thereof and capable of engaging said gear to secure the shaft against back rotation, the laterally extending bearing projecting from that side of the block carrying the pawl, a laterally projecting stub shaft journaled in said bearing and provided on its outer end with a crank, and a relatively large gear on said stub shaft and meshing with the first mentioned gear.

1,027,349. MINERAL-CONCENTRATOR. CHARLES O. MICHAELSEN, Omaha, Nebr. Filed Aug. 9, 1910. Serial No. 576,409. (Cl. 83—87.)

1. In a machine of the class described, a casing having a centrally inclined bottom, a drain pipe arranged centrally thereto, a vertical driving shaft, a feed chute, means for distributing materials from the feed chute around the outer edge of the inclined bottom, means carried by the vertical driving shaft for agitating the materials adjoining the inclined bottom, check-paddles arranged to retard whirling motion of the materials, a frame supported on the driving shaft and carrying said paddles, and means for holding said frame stationary.

2. In a machine of the class described, a casing having a centrally inclined bottom, a drain pipe arranged at the central part thereof, a vertical driving shaft, a feed chute, means for distributing materials from the feed chute around the outer edge of the inclined bottom, means carried by the vertical driving shaft for agitating the materials adjacent to the inclined bottom, a frame sup-

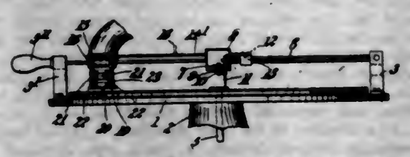
ported by the driving shaft, means for holding said frame stationary, arms adjustably connected with said frame, and paddles carried by said arms and adapted to retard whirling movements of the materials caused by the agitating means.



3. In a machine of the class described, a casing having a centrally inclined bottom, a drain pipe arranged at the central part thereof, a vertical driving shaft, means for feeding materials into the casing, means for distributing said materials around the outer edge of the inclined bottom, agitating devices carried by the vertical driving shaft and arranged to move adjacent to the inclined bottom, stationary adjustably supported check-paddles arranged to retard whirling motion of the materials, and skimming-cups carried by the vertical driving shaft adjoining and extending above the opening to the drain pipe so as to positively direct material toward said opening.

4. In a machine of the class described, a casing having a centrally inclined bottom, means for feeding materials into the upper part of the casing, a conical distributer onto which said materials impinge and which is adapted to spread the materials around the outer portion of the inclined bottom, means for varying the relation of said distributer and the bottom of the casing, a vertical tubular driving shaft, a drain pipe axially alined therewith, the driving shaft having ports therein above the level of the inclined bottom to form a passage from the main chamber to the drain pipe, agitating arms carried by the said driving shaft and moving adjacent to the inclined bottom, skimming-cups carried by the driving shaft and adapted to direct a portion of the materials into the ports, stationary adjustably supported check-paddles arranged to retard whirling motion of the materials, means forming a receiving chamber below the inclined bottom and communicating with the main chamber by means of an opening through the bottom plate thereof, a discharge valve controlling an outlet to said chamber, and adjustable means for intermittently opening the valve.

1,027,350. TALKING-MACHINE. HANS MIKOREY, Berlin, Germany, assignor to Lettrophones Limited, London, England. Filed Jan. 16, 1912. Serial No. 671,433. (Cl. 181—5.)



1. In a machine of the character described, the combination with a rotatable support for a record disk, and driving devices for rotating said support, of a guide for a sound box extending over the disk support and adapted to be bodily rocked about a horizontal axis, a sound box movable longitudinally of the guide and adapted to be adjusted to and from the disk support independently of any adjustment of the guide, means for adjusting the sound box and guide vertically in parallelism with the disk support, and means for connecting the sound box with the driving devices of the disk support to move the box longitudinally of its guide.

2. In a machine of the character described, the combination with a rotatable support for a record disk, and driving devices for rotating said support, of a guide for a sound box extending over the disk support and adapted to be bodily adjusted vertically in parallelism with the disk support and to be rocked about an axis parallel with its length, a sound box supported by the guide, and means for connecting the sound box with the driving devices of the disk support to move the box longitudinally of its guide.

3. In a machine of the character described, the combination with a rotatable support for a record disk, and driving devices for rotating said support, of a pair of relatively stationary standards, a guide for a sound box extending over the disk support and engaged with the standards by means permitting it to be adjusted bodily vertically, said guide being further adjustable about a longitudinal, horizontal axis, a sound box engaging the guide and adapted to be adjusted to and from the disk support independently of any movement of the guide, and means for connecting the sound box with the driving devices of the disk support to move the box longitudinally of the guide.

4. In a machine of the character described, the combination with a rotatable support for a record disk, and driving devices for rotating said support, of a pair of relatively stationary standards, a guide for a sound box extending over the disk support and having depending members telescopically connected with the standards, means for adjusting the guide bodily vertically, said guide being further adjustable about a longitudinal, horizontal axis, a sound box engaging the guide and adapted to be adjusted to and from the disk support independently of any movement of the guide, and means for connecting the sound box with the driving devices of the disk support to move the box longitudinally of the guide.

5. In a machine of the character described, the combination of a rotatable support for a record disk, a vertical driving shaft for the disk support having at its upper end a tubular head provided with a peripheral notch, a guide for a sound box extending over the disk support and adapted to be rocked about a horizontal axis, a feed screw carried by said guide, gearing for rotating the screw including a depending shaft having a radial projection adapted to enter the notch in the head on said vertical shaft, a sound box on the guide, and a nut connected with the sound box and engaging the feed screw.

[Claim 6 not printed in the Gazette.]

1,027,351. ELECTRIC SIGNAL-RECEIVING APPLIANCE. JAY G. MITCHELL, Cleveland, Ohio, assignor to The North Electric Company, Cleveland, Ohio, a Corporation of Ohio. Filed July 26, 1907. Serial No. 385,617. (Cl. 179—182.)

1. In a device of the class described, the combination with an electro-magnet, of a vibratory sound chamber comprising a main and a perforated diaphragm positioned closely adjacent to each other, a horn directly attached at the opening within the latter and supported in position freely to vibrate, a relatively massive anchorage annularly engaging the diaphragms, and means for securing the adjustment of the electro-magnet with relation to the sound chamber, substantially as set forth.

2. In an electro-magnetic receiver, the combination with permanent and electro-magnets, of a vibratory diaphragm positioned before the electro-magnet, a supplementary diaphragm, an interposed member forming a shallow sound chamber, and a horn or mouth piece directly engaging a wall of the sound chamber thus formed, substantially as set forth.

3. In a device of the class described, the combination with permanent and electro-magnets, of a vibratory diaphragm positioned before the electro-magnet, a supplementary diaphragm, having a central opening, a horn or mouth piece secured thereto at said opening, and an annular member interposed between the two diaphragms and thereby serving to form a shallow sound chamber, substantially as set forth.



4. The combination with a permanent magnet, of an associated electro-magnet, a threaded member between the poles thereof, a relatively heavy bell or cup into which the threaded member is screwed, a magnetic diaphragm, an annular spacing member, and a perforated supplemental diaphragm superposed, and resting upon the rim of the bell, an annulus securing said parts together, and a horn or mouth piece associated with the supplemental diaphragm and supported in position freely to vibrate, substantially as set forth.

1,027,352. DRIVE-CHAIN. FRANK L. MORSE, Trumansburg, N. Y., assignor to Morse Chain Company, Trumansburg, N. Y., a Corporation of New York. Filed Sept. 22, 1905. Serial No. 279,631. (Cl. 74—32.)



1. A drive chain having a pintle and links formed of two side plates provided with laterally thickened end portions surrounding the pintle and having downward extensions engaging the sprocket teeth.

2. A drive chain having links formed of two laterally bent side plates, said plates having thick ends meeting together and provided with downward extensions having surfaces for engaging the sprocket teeth, and a pintle passing through said thick ends of the plates.

3. A drive chain having links composed of two side plates each provided with a laterally thickened end and having a downward extension for engaging the sprocket teeth, and pintles formed in separate parts adapted to turn one upon another, one part being carried by the thin ends and the other by the thickened ends of said plates.

4. A drive chain having links composed of two side plates each provided with a laterally thickened end and having a downward extension for engaging the sprocket teeth, and two-part pintles comprising seat pin and rocker adapted to turn one upon the other, the seat pin being supported by the thin ends of the plates and the rocker being carried by the thick ends.

5. A drive chain consisting of links provided with downward extensions and hardened steel pintles and rivet pieces of soft metal for fastening the pintles in place in the links.

[Claims 6 to 10 not printed in the Gazette.]

1,027,353. COMMODITY-RECEPTACLE. DORRIS H. MOSTELLER, Chicago, Ill. Filed Apr. 4, 1911. Serial No. 618,822. (Cl. 211—8.)



1. In combination with the base of a commodity receptacle, upper opposed members adjustable upon the under side of said base and lower opposed retainers to which said upper opposed members are secured, and delivery members retained between the upper members and the lower retainers.

2. In combination with the base of a commodity receptacle, upper opposed members adjustable upon the under side of said base and lower opposed retainers to which said upper opposed members are secured, delivery members retained between the upper members and the lower retainers and means for horizontal adjustment of said members and retainers.

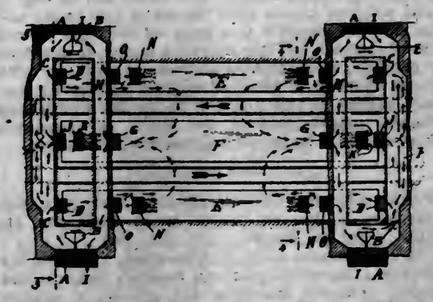
3. In combination with the base of a commodity receptacle, upper opposed members adjustable upon the under side of said base and lower opposed retainers to which said upper opposed members are secured, and delivery members retained between the upper members and the lower retainers, said delivery members being spaced apart from the adjacent walls and made resilient.

4. In combination with the base of a commodity receptacle, lower grooved retainers, upper opposed members secured to said retainers and horizontally adjustable on said base, said members having radially disposed portions, and adjusting means directly engaging such portions.

5. In combination with the base of a commodity receptacle, lower grooved retainers, upper opposed members secured to said retainers and horizontally adjustable on said base, said members having radially disposed portions, adjusting means directly engaging such portions, and resilient delivery means interposed between said members and retainers and adjustable therewith.

[Claim 6 not printed in the Gazette.]

1,027,354. RAILWAY SYSTEM. JAKOB EMIL NORDGRATH, New York, N. Y. Filed Mar. 27, 1912. Serial No. 686,472. (Cl. 104—62.)



1. In a railway system the combination with express and local tracks and cars having entrance doors on one side and exit doors upon the other side thereof, of an express station having a pathway for passengers leading to, through and from a car on one of said local tracks, a pathway leading to, through and from a car on one of said express tracks, a connecting pathway affording communication between said pathway from said local track and said pathway to said express track, and a second connecting pathway affording communication between said

pathway to said local track and said pathway from said express track, whereby streams of incoming and outgoing passengers may move, in one direction only, along said pathways and through said cars; substantially as described.

2. In a railway system the combination with express tracks for the movement of express trains in both directions and local tracks for the movement of local trains in both directions, of an express station having an incoming trunk pathway from the entrance of said station, an outgoing trunk pathway to the exit of said station, a branch pathway leading from said incoming trunk pathway to, through and from the cars of a train on either of said local tracks and thence to said outgoing trunk pathway, a branch pathway leading from said incoming trunk pathway to, through and from the cars of a train on either of said express tracks and thence to said outgoing trunk pathway, a connecting pathway between said branch pathway to said local tracks and said branch pathway from said express tracks, and a connecting pathway between said branch pathway to said express tracks and said branch pathway from said local tracks, whereby streams of incoming, outgoing and transferring passengers may move, in one direction only, along said pathway and through said cars; substantially as described.

3. In a railway system, the combination of two lower tracks and two superposed tracks, two of said tracks being utilized for the movement of cars in one direction and the remaining two for the movement of cars in the opposite direction, a central platform between the tracks upon each level, side platforms at the outer sides of each of said tracks, cars upon said tracks and having entrance doors upon their one side and exit doors upon their opposite side, a station entrance communicating with the central platform of one level and the side platforms of the other level, a station exit communicating with the remaining platforms and stairways connecting each lower platform with its corresponding superposed platform, whereby pasengers may pass to, from and between said cars in unopposing streams; substantially as described.

4. In a railway system, the combination of a plurality of tracks located upon one level, a plurality of tracks located upon another level, platforms adjacent each side of each of said tracks, transfer stairways between the outermost platforms on one level and the correspondoing platforms on the other level, and alternately arranged entrance and exit stairways leading to an intermediate platform on each of said levels to permit passengers to transfer directly across said platform and pass to and from the cars from and to said entrance and exit stairways in unopposing streams; substantially as described.

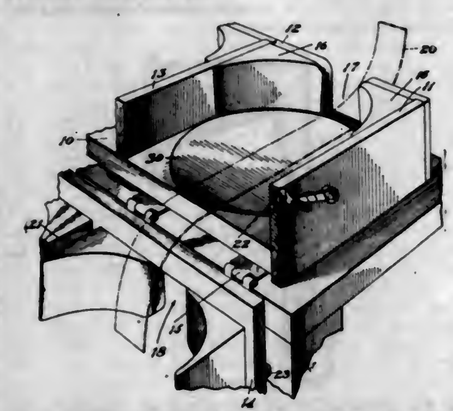
5. In a railway system, the combination with two tracks of a platform located between said tracks and serving as an exit platform from a train on one of said tracks and as an entrance platform to a train on the other of said tracks of entrance and exit stairways leading to and from said platform, said entrance stairways alternating with said exit stairway to admit of entering and leaving passengers passing to and from the trains and transferring passengers passing between the trains in unopposing streams upon said platform; substantially as described.

1,027,355. APPARATUS FOR ASSEMBLING COLLARS. FREDERICK H. NORRIS, Detroit, Mich. Filed Dec. 17, 1910. Serial No. 597,958. (Cl. 223—53.)

1. In an apparatus of the kind described, a forming box comprising a base-plate, confining members undercut and extending upwardly therefrom and forming a circular opening, a section of said members being movable to open the side of said box.

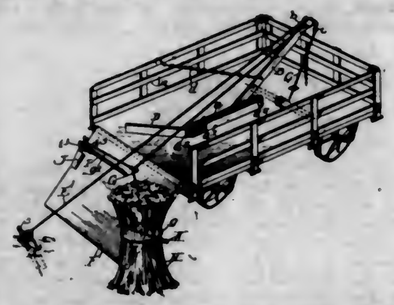
2. In an apparatus of the kind described, a forming box comprising a base-plate, undercut confining members extending upwardly therefrom and forming a circular opening, a section of said members being hinged to a front edge of said box, and means for holding said section in position to close the box.

3. In an apparatus of the kind described, the combination with a base-plate, a pair of end-walls, and front and rear walls extending upwardly therefrom, partition-walls extending between the front and rear walls and disposed at intervals to form a series of compartments, undercut fillets in the corners formed by said partitions, said front wall being movable to open the fronts of all of said compartments simultaneously.



4. In an apparatus of the kind described, the combination with a base-plate, a pair of end-walls and front and rear walls extending upwardly therefrom and having notches adapted to receive a binding-strip, partition-walls extending between the front and rear walls and disposed at intervals to form a series of compartments, said front wall being movable to open the fronts of all of said compartments simultaneously.

1,027,356. APPARATUS FOR LOADING CORN-SHOCKS. WILLIAM G. OSBORN, Gary, Ind. Filed Oct. 15, 1909. Serial No. 522,768. (Cl. 214—2.)



1. An apparatus for loading corn shocks, comprising a wagon with a longitudinal slot in the bottom thereof, a mast or support disposed in said slot, means below said slot for supporting the said mast or support for free back and forth swinging movement in the slot, a loading cable, means carried by said mast or support for engaging said cable, and means for holding said mast in different positions.

2. An apparatus for loading corn shocks, comprising a wagon having a longitudinal slot in the bottom thereof, cheeks or beams flanking the said slot and suitably secured to the bottom of the wagon, a mast or support mounted to swing back and forth in said slot, and between said cheeks or beams, a loading cable, means on said mast or support for engaging said cable, and means for holding the mast or support in different positions.

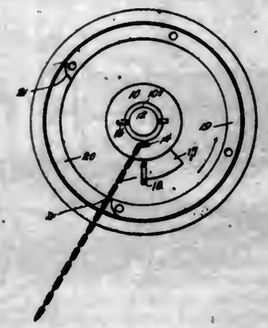
3. An apparatus for loading corn shocks, comprising a wagon provided with a longitudinal slot in the bottom thereof, cheeks or beams disposed at opposite sides of said slot, a deflector secured to the rear end of said cheeks or beams, a loading cable, a mast or support mounted to swing in said slot, means on said mast or support for engaging said cable, and means for holding said mast or support in different positions.

4. An apparatus for loading corn shocks, comprising a wagon, a tail-board or incline for the rear end of said wagon, a loading cable, a trigger or tripping device pivoted to said tail-board or incline, a catch secured to said tail-board, a short lever pivoted on said trigger or tripping device, adapted to engage said catch, a spring controlling said short lever, a device for engaging said cable, and means for connecting said device with the said short lever, as set forth.

5. An apparatus for loading corn shocks, comprising a tail-board, tripping mechanism on said board, operated by the shock, and an incline on said tail-board in front of said mechanism, as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,027,357. WIRE-DRAWING BLOCK. JUAN H. REECE, Joliet, Ill., assignor to Humphrey & Sons, Joliet, Ill., a Copartnership. Filed July 5, 1910. Serial No. 570,402. (Cl. 205—20.)



1. In a wire drawing block, the combination of a rotatable drum, a spindle upwardly extending from the drum, a plate having a collar surrounding said spindle and lying upon the upper surface of said drum, a cable attached to said plate, having grippers on the end thereof adapted to clamp the end of the wire, a member carried by the drum for engaging and rotating said plate whereby upon the initial movement of the drum the cable is wound about the collar, said engaging means serving to deflect the cable from its path of travel about the collared portion of the plate, to carry it to the outside of the drum, whereby the speed of winding of the cable is increased during the initial period of movement of the plate, tension means for placing a spring tension on the plate to cause the grippers to obtain an initial firm grip on the wire prior to the rotation of the drum, and means for deflecting the cable to place the grippers upon the outside of the drum, substantially as described.

2. In a wire drawing block, the combination of a rotatable drum, a spindle upwardly extending from the drum, a collared plate surrounding said spindle and lying upon the upper surface of said drum, a cable attached to said plate, having grippers on the end thereof adapted to clamp the end of the wire, a protuberance on said plate, a protuberance on said drum adapted to engage each other, the cable upon the initial movement of the drum being wound in a curve of small radius about said collar, said protuberance deflecting the cable from its path of travel about said collar to carry it to the outside of the drum, whereby the speed of winding of the cable is increased during the initial period of movement of the drum, substantially as described.

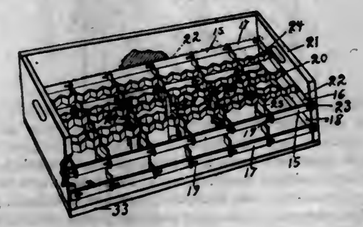
3. In a wire drawing block, the combination of a rotatable drum, a spindle upwardly extending from the drum, a collared plate surrounding said spindle, a cable attached to said plate, having grippers on the end thereof adapted to clamp the end of the wire, a protuberance on said plate, a protuberance on said drum adapted to engage each other, whereby said plate is rotated simultaneously with said drum, the cable upon the initial movement of the drum being wound about said collar, the protuberance on said drum contacting said cable when it crosses the line in which said cable is lying to deflect the cable away from its course around the collar and onto the periphery of the drum, whereby the speed of winding of the cable is increased during the initial period of movement of the drum, substantially as described.

4. In a wire drawing block, the combination of a rotatable drum, a spindle upwardly extending from the center of the drum, a plate having a collar surrounding said spindle and operatively connected to the drum, a cable attached to said plate, having grippers on the end thereof adapted to clamp the end of the wire, the initial rotation of the plate winding the cable about the collar, means for deflecting the cable from its path of travel about the collar, whereby the speed of winding of the cable is increased during the initial period of movement of the plate, and a loosely mounted ring on the drum at its periphery, having a portion thereof cut away to permit the cable to pass out and to provide a shoulder adapted to engage the cable and prevent the slipping of the cable over the top of the drum, substantially as described.

5. In a wire drawing block, the combination of a rotatable drum, a spindle upwardly extending from the center of the drum, a plate having a collar surrounding said spindle and operatively connected to the drum, a cable attached to said plate having grippers on the end thereof adapted to clamp the end of the wire, a protuberance on said plate, a protuberance on said drum adapted to engage each other, the cable upon the initial movement of the drum being wound about the collar, said drum protuberance deflecting the cable from its path of travel about the collar, whereby the speed of winding of the cable is increased, and a loosely mounted ring on the drum at its periphery having a portion thereof cut away to permit the cable to pass out and to provide a shoulder adapted to engage the cable and prevent the slipping of the cable over the top of the drum, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,027,358. METALLIC-WEAVE CONSTRUCTION FOR BOTTLE-HOLDERS AND OTHER FRAMES. JOSEPH F. SCHOEPPL, Baltimore, Md. Continuation of application Serial No. 509,277, filed July 24, 1909. This application filed May 28, 1910. Serial No. 563,948. (Cl. 217—31.)

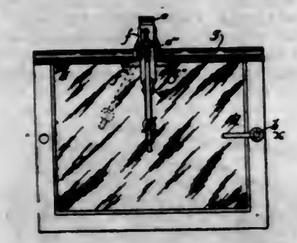


1. A holding frame for crates including flat intersecting longitudinal and transverse bars arranged on edge the outer longitudinal bars comprising the frame being provided with spaced longitudinal slots adapted to receive substantially T-shaped heads formed on the ends of the adjacent transverse bars, there being locking recesses formed in the upper and lower edges of the transverse and longitudinal bars and disposed at the intersection of said bars, said transverse bars being passed alternately over and under the longitudinal bars, whereby when the transverse bars are given a quarter turn, the recesses will interengage with the heads extending beyond the outer faces of the adjacent bars, thereby rigidly to lock all of said bars in a vertical plane.

2. The combination with a crate having a seating groove in the side and end walls thereof, of a holding frame supported within said groove and including rigid intersecting longitudinal and transverse bars arranged on edge, the outer longitudinal bars being of greater length than the intermediate longitudinal bars and the terminals of said outer bars interposed between the side and end walls of the crate at the junction thereof, said outer longitudinal bars being provided with key-hole slots, the enlarged ends of which constitute bearings, there being similar key-hole slots formed in the outer transverse bars, the intermediate transverse bars being extended alternately over and under the edges of the intermediate longitudinal bars and having locking recesses formed in their opposite edges and adapted to engage similar locking recesses formed in the opposite edges of the longitudinal bars, there being T-shaped heads formed on the terminals of the transverse bars and terminals of the intermediate longitudinal bars and adapted to pass through the adjacent key-hole slots, whereby when the bars are given a quarter turn, the recesses will interengage and the heads bear against the outer faces of the adjacent bars and lock all of said bars rigidly in a vertical plane.

3. A holding device for crates including superposed frames, each comprising flat intersecting longitudinal and transverse rigid bars arranged on edge and having locking recesses formed in their opposite longitudinal edges and registering at the points of intersection of said bars, the transverse bars of the frames being extended alternately over the upper edge of one longitudinal bar and under the under of the next adjacent longitudinal bar and having their opposite ends provided with substantially T-shaped heads adapted to enter slots formed in the outer longitudinal bars, whereby when the transverse bars are given a quarter turn, the recesses will interengage and the heads bear against the outer faces of the adjacent bars, and a brace forming a rigid connection between said frames.

1,027,359. WINDOW-GLASS-CLEANING DEVICE. EDWARD F. SCHORNDORFER, Cleveland, Ohio, assignor of one-fourth to W. E. Defenbacher, Canal Dover, Ohio, one-fourth to G. E. Bartholomew, Euclid, Ohio, and one-fourth to J. F. Defenbacher, Canal Dover, Ohio. Filed Mar. 14, 1911. Serial No. 614,361. (Cl. 15—59.)



1. In a window-cleaning device, the combination with a wiper or cleaning-member, of a rod forming a pivotal mounting therefor, an actuating-member adapted to be adjustably secured upon the extended end of said rod, and a bearing-roller provided upon the actuating-member for engaging the window glass opposite the wiper, substantially as set forth.

2. In a window-cleaning device, the combination with a wiper of an angularly-bent rod forming a pivotal mounting for said wiper, an actuating-member adjustably secured upon the extended angularly-bent end of the rod, means for holding it in adjusted position thereon, an adjustable roller mounting upon the actuating-member, and a roller or wheel for bearing upon the window glass opposite the wiper, substantially as set forth.

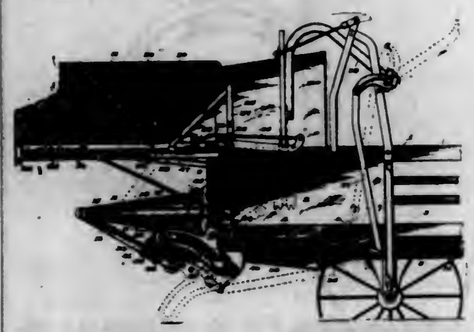
3. In a window-cleaning device, the combination with a wiper adapted to bear upon one side of the window of an actuating-member pivotally connected with said wiper and extending adjacent to the opposite surface of the glass, means for temporarily withholding the parts from pivotal movement, and adjustable roller bearings for mounting the device upon a rail of the window, substantially as set forth.

4. In apparatus of the class described, the combination with a U-shaped spring of a pivoted cleaning device connected therewith, comprising a wiper adapted to bear upon one side of the glass, and an actuating-member positioned adjacent to the other side thereof, a frame therefor and roller bearings adapted to travel upon a supporting rail, substantially as set forth.

5. In a window-cleaning device, the combination with separable metal parts affording a tubular slotted sleeve provided with depending edges, of a rubber strip engaged between said edges, a rod mounting the same for pivotal movement, a stud lying within the slot, an adjustable collar retaining the device in position upon the rod, and an actuating-member for imparting pivotal movement to said device, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

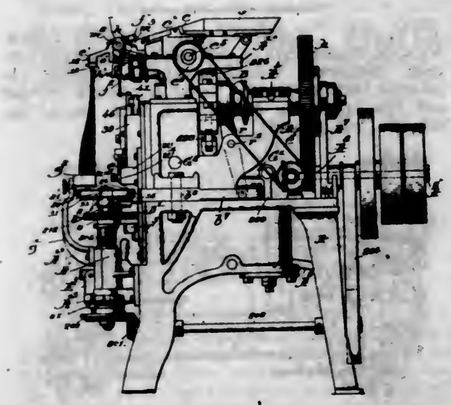
1,027,360. BALING-PRESS. JAMES A. SHARP and ROY B. JOHNSTON, Springfield, Ohio. Filed Feb. 8, 1912. Serial No. 676,243. (Cl. 100—22.)



1. A baling press having, in combination, a feed hopper, a compression chamber, a plunger head, a draw bar, means whereby said draw bar is operatively connected with said plunger head, said means including toggle bars pivotally connected with the frame of the machine, a condenser including a longitudinally arranged chamber communicating with said feed hopper, and a slidable head mounted in said chamber, means for actuating said head, said means including bracket members secured to said toggle bars, slotted cam levers pivotally connected with the frame of the machine upon opposite sides thereof, rollers carried by said bracket members and engaging with said slotted cam levers, arms having the lower ends thereof secured to said cam levers, the opposite ends of said arms being curved toward said compression chamber and connected with said slidable condenser head by means of pitmen.

2. A baling press having, in combination, a feed hopper, a compression chamber, a plunger head, a draw bar, means whereby said draw bar is operatively connected with said plunger head, said means including toggle bars pivotally connected with the frame of the machine, a condenser including a longitudinally arranged chamber communicating with said feed hopper, and a slidable head mounted in said chamber, means for actuating said head, said means including bracket members secured to said toggle bars, a self-feeder mechanism including bell crank levers pivotally mounted upon the frame of the machine upon opposite sides thereof, links pivotally connecting one arm of said bell crank levers with said bracket members, bracket members secured to said links adjacent the pivotal connection thereof with said first mentioned bracket members and having laterally projecting studs, rollers journaled upon said studs, slotted cam levers pivotally connected with the frame of the machine and receiving said rollers, arms secured to said cam levers and extending upward and forward, pitmen connecting said arms with said slidable condenser head, and longitudinally arranged guides secured to the condenser frame and engaging with said arms.

1,027,361. HEEL COMPRESSING AND LOADING APPARATUS. CHESTER C. SMALL, Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass., a Corporation of New Jersey. Filed Aug. 1, 1902. Serial No. 117,935. (Cl. 1—33.)



1. In a machine of the class described, the combination with tread surface engaging means comprising a portion constructed and arranged to mold upon a blank a central depressed area and a surrounding portion constructed and arranged to mold upon said blank an elevated surrounding area to receive fastenings, of means coöperating with said tread surface engaging means for applying molding pressure to said blank.

2. In a machine of the class described, the combination with means for engaging the tread face of a heel blank in compressing the same, said means comprising a portion formed to leave the stock that is to receive the fastenings projecting from the face of the blank, of means for engaging the opposite face of said blank, and mechanism for effecting relative approaching movement of said blank engaging means.

3. In a machine of the class described, a die for engaging the tread surface of a blank, the said die comprising a depressed U-shaped portion to mold upon said tread surface a nail or slug receiving portion elevated above the remainder of the surface.

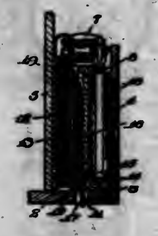
4. In a machine of the class described, a tread surface compressing die having the central portion of its face elevated for forming a central depressed area upon the tread surface of the blank, and having a surrounding U-shaped depressed portion for leaving a surrounding U-shaped elevation upon the tread surface of the blank to receive the slug nails.

5. In a machine of the class described, a templet to engage the top face of a heel in compressing the same, said templet having in its face a groove adapted to form a ridge on the compressed heel in the line in which the nails are to be driven.

[Claims 6 to 19 not printed in the Gazette.]

1,027,362. TOILET-CASE FOR VEHICLES. MARQUIS H. STRONG, Rochester, N. Y.; Samuel J. Strong, Decatur, Mich., and Helena A. Ensign, Rochester, N. Y., administrators of said Marquis H. Strong, deceased. Filed May 6, 1911. Serial No. 625,603. (Cl. 132—11.)

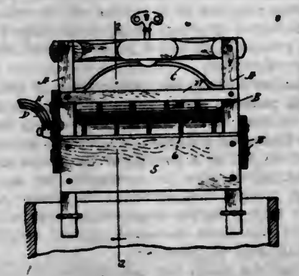
1. The combination with a toilet case having an opening in its front wall, of a partition arranged in the case in spaced relation to said opening, a receptacle adapted to be positioned between the opening and the partition and having its wall adjacent to the opening cut away, and frictionally engaging means carried by the partition for holding the receptacle in place.



2. The combination with a toilet case having an opening in its front wall, of a partition arranged in the case in spaced relation to said opening, a receptacle adapted to be positioned between the opening and the partition and having its wall adjacent to the opening cut away, and a locking device coöperating with the receptacle to hold the same in fixed relation to said opening and the partition.

3. The combination with a toilet case having an opening in its front wall, of a partition arranged in the case in spaced relation to said opening, a receptacle adapted to be positioned between the opening and the partition and having its wall adjacent to the opening cut away, and a locking device carried by the partition and arranged to engage a coöperating opening in the receptacle.

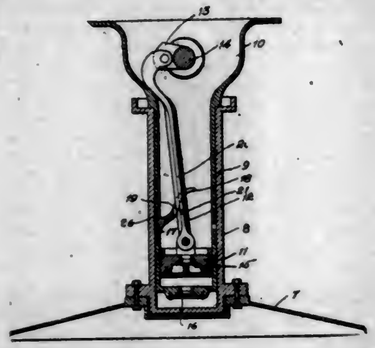
1,027,363. WRINGER. WILLIAM M. VALENTINE, Glen Cove, N. Y. Filed Mar. 28, 1911. Serial No. 617,383. (Cl. 68—32.)



1. In a clothes wringer, contacting rollers one disposed above the other and contacting along their entire length, each of said rollers having grooves disposed therein, each of the grooves in one roller offset from the next adjacent groove in the other roller, and guiding fingers disposed in said grooves, said guiding fingers constituting a means for taking the clothes off the rollers after they have passed the contact points between the rollers.

2. In a wringer, a pair of contacting rollers circumferentially grooved and one disposed above the other, the grooves in one roller being offset transversely from the grooves in the other roller, a pair of dash-boards positioned across the front of the rollers, one of said dash-boards disposed above and the other below the meeting edges of said rollers, and a series of U-shaped guiding fingers having one end fastened to said boards, each finger having its crotch disposed in one of the grooves in the rollers, and its free end extending away from the groove whereby clothing may be fed through said wringer without being wrapped about the rollers and will be guided away from the wringer by the free ends of said guiding fingers.

1,027,364. BARBER'S CHAIR. JOSEPH H. WERTZ and FRANK POMERNACKI, Chicago, Ill., assignors to Theo. A. Kochs Co., Chicago, Ill., a Corporation of Illinois. Filed Apr. 4, 1911. Serial No. 618,832. (Cl. 138—9.)



1. In a barber's chair, the combination of pump mechanism, a fluid pressure motor actuated by the pump mechanism for raising and lowering the chair, said pump mechanism including a pitman, a locking member for locking the chair against revolution, said locking member being carried by a portion of said motor mechanism and actuated by direct engagement with the pitman when said pitman is raised a predetermined degree whereby said locking member is thrown into oblique position and into biting engagement with a fixed surface, substantially as described.

2. In a barber's chair, the combination of pump mechanism, a fluid pressure motor actuated by the pump mechanism for raising and lowering the chair, said pump mechanism including a pitman, a rocking locking member for locking the chair against revolution, said locking member being mounted in a portion of the motor mechanism and actuated by direct engagement with the pitman when said pitman is raised a predetermined degree, substantially as described.

3. In a barber's chair, the combination of pump mechanism, a fluid pressure motor actuated by the pump mechanism for raising and lowering the chair, said pump mechanism including a pitman, a pivotally mounted locking member carried by a portion of the motor mechanism, a predetermined degree of movement of said pitman rocking said locking member about its pivotal center and throwing it into a biting engagement with a fixed surface whereby the chair is locked against rotative movement, substantially as described.

4. In a barber's chair, the combination of a cylinder, a piston within the cylinder, a locking member mounted within the wall of said piston to have a rocking movement, said wall having an opening through which said locking member projects, and means for canting the locking member to throw it into a biting engagement with the walls of the cylinder, substantially as described.

5. In a barber's chair, the combination of a cylinder, a piston within the cylinder, a locking member mounted within the wall of said piston to have a rocking movement, said wall having an opening through which said piston projects, and means for canting the locking member to throw it into a biting engagement with the walls of the cylinder, said locking member being held out of canted position by gravity, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

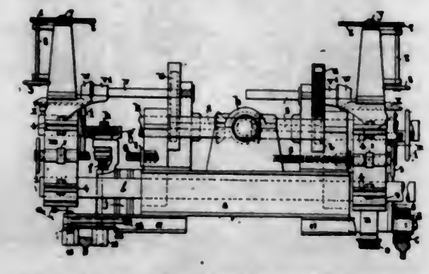
1,027,365. SHEET-METAL FISH-BACK FOR GRAIN-SEPARATORS. JOSEPH D. WEST, Des Moines, Iowa. Filed Sept. 2, 1910. Serial No. 580,186. (Cl. 130—24.)

In an elevating table for grain separators, a sifting and feeding bottom formed from inclined slats, sheet metal fish-backs extending longitudinally thereof and formed with toothed upper margins, lips on the lower



margins of said fish-backs and means for securing each of said lips to said slats.

1,027,366. MACHINE FOR DRESSING RAILS. MICHAEL WOODS, Carlton, and THOMAS JEFFERSON GILBERT, Brunswick, Victoria, Australia. Original application filed Jan. 17, 1910, Serial No. 538,519. Divided and this application filed Feb. 4, 1911. Serial No. 606,499. (Cl. 90—12.)



1. In rail dressing machines, a combined carriage and holder, means for removably and freely pivoting said combined carriage and holder to the machine about a central longitudinal axis thereof, cross bars carried by said combined carriage and holder, brackets supported by said cross bars, a vertical shaft supported by each bracket, a vertical milling tool carried by each shaft, and means for laterally adjusting each bracket upon the cross bars.

2. In rail dressing machines, a combined carriage and holder, vertical milling means carried thereby, means for removably and freely pivoting said combined carriage and holder to the machine about a central longitudinal axis thereof, additional means independent of the machine and of the dressing means for supporting said combined carriage and holder upon the rails being treated, and alining and steadying means carried by said combined carriage and holder.

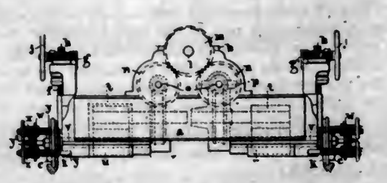
3. In rail dressing machines, a combined carriage and holder, means for removably and freely pivoting said combined carriage and holder to the machine about a central longitudinal axis thereof, cross bars carried by said combined carriage and holder, brackets supported by said cross bars, a vertical shaft supported by each bracket, a vertical milling tool carried on the lower end of said shaft, a collar upon the upper end of said shaft, a box surrounding said collar, a vertical shaft above said box, the lower end of which enters therein, a collar upon said lower end, a toothed wheel nut upon the upper end of said shaft, a toothed pinion engaging with said toothed wheel nut, a shaft carrying said toothed pinion, and a handwheel upon said shaft.

4. In rail dressing machines a combined carriage and holder, vertical milling tools carried thereby, means for removably and freely pivoting said combined carriage and holder to the machine about a central longitudinal axis thereof, cross bars carried by said combined carriage and holder, brackets supporting said milling tools and slidably mounted upon said cross bars, a nut within the framework and adjacent to each bracket, a screw rotating within said nut, a collar upon said screw engaging with the bracket, and a hand wheel operating said screw.

5. In rail dressing machines, a combined carriage and holder, vertical milling means carried thereby, means for removably and freely pivoting said combined carriage and holder to the machine about a central longitudinal axis thereof, and alining and steadying devices comprising brackets carried by said combined carriage and holder, an inner roller mounted upon said bracket, a bell crank lever pivoted to said bracket, an outer roller carried by one arm of said bell crank lever, and an adjusting screw carried by the other arm thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,027,367. MACHINE FOR DRESSING RAILS. MICHAEL WOODS, Carlton, and THOMAS JEFFERSON GILBERT, Brunswick, Victoria, Australia. Original application filed Jan. 17, 1910, Serial No. 538,519. Divided and this application filed Feb. 4, 1911. Serial No. 606,500. (Cl. 90—12.)



1. In rail dressing machines, a combined carriage and holder, horizontal cutting means carried thereby, means for removably and freely pivoting said combined carriage and holder to the machine about a central longitudinal axis thereof and additional means independent of the dressing means and of the machine for supporting said combined carriage and holder upon the rails being treated.

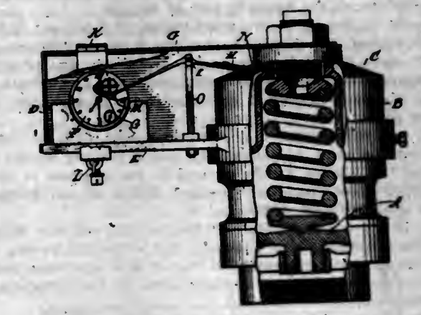
2. In rail dressing machines, a combined carriage and holder, horizontal cutting means carried thereby, means for removably and freely pivoting said combined carriage and holder to the machine about a central longitudinal axis thereof, additional means independent of the dressing means and of the machine for supporting the said combined carriage and holder upon the rails being treated, means for laterally adjusting said cutting means, and means for vertically adjusting said cutting means.

3. In rail dressing machines, a combined carriage and holder, horizontal cutting tools carried thereby, means for removably and freely pivoting said combined carriage and holder to the machine about a central longitudinal axis thereof, a shaft supporting each cutting tool, studs adjacent to said shaft, screwed sleeves loosely fitting upon said studs, a cross piece threaded upon said sleeves and supporting the outer end of said shaft, hand wheels operating said sleeves, a spring around each said stud and abutting at one end against said sleeves, and a stop upon each stud at the other end of each said spring.

4. In rail dressing machines, a combined carriage and holder, horizontal cutting tools carried thereby, means for removably and freely pivoting said combined carriage and holder to the machine about a central longitudinal axis thereof, flanged wheels supporting said combined carriage and holder upon the rails, a pin supporting each flanged wheel, a slide carrying said pin, a screw connected to said slide, a worm wheel nut upon said screw, a worm engaging said worm wheel nut and a rotatable shaft carrying said worm.

5. In rail dressing machines, a combined carriage and holder, horizontal cutting tools carried thereby, means for removably and freely pivoting said combined carriage and holder to the machine about a central longitudinal axis thereof a shaft carrying each cutting tool, a toothed drum mounted upon said shaft, a second toothed drum engaging therewith, a shaft carrying the said second toothed drum, a worm wheel upon said shaft, a worm engaging said worm wheel, a shaft carrying said worm, a toothed wheel upon said shaft, and a toothed wheel upon the main shaft engaging therewith.

1,027,368. WASTE-STEAM DETECTOR. FRANK J. ZEBBE, Bellefontaine, Ohio. Filed Jan. 20, 1911. Serial No. 603,752. (Cl. 161—15.)



1. In combination with the escape valve of a boiler, and a clock adjacent thereto, of a pivoted lever, one end of which is directly operated by the escaping steam from the escape valve, the other end governing the movements of the clock, as and for the purpose set forth.

2. The combination with the escape valve of a boiler, of a clock that registers the time that steam escapes, a clock-controlling lever pivoted between the two, and operated directly by escaping steam from the safety valve to affect the running of the clock, and an inclosing case, as and for the purpose set forth.

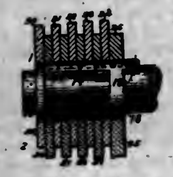
3. In combination with the escape valve of a steam boiler, and a registering device, of mechanism actuated directly by the full pressure of the escaping steam from the boiler, having operating connections through which it affects the running of the registering device, as and for the purpose set forth.

4. An escape-steam registering device for escape valves comprising a time register having actuating mechanism, stopping and releasing means controlling said time register, and a steam-impact member in operative relation to said stopping and releasing means, and adapted to lie in the path of the steam issuing from the escape valve.

5. An escape-steam registering device for escape valves comprising a time register having actuating mechanism, stopping and releasing means controlling said time register, and a steam-impact member in operative relation to said stopping and releasing means, and an attaching means for mounting the device upon the escape valve casing, and holding the steam-impact member in the path of the steam issuing from the escape valve.

[Claim 6 not printed in the Gazette.]

1,027,369. DRIVE-CHAIN. HENRY W. ALLINGHAM, London, England, assignor to The Morse Chain Company, Ithaca, N. Y., a Corporation of New York. Filed Apr. 3, 1911. Serial No. 618,658. (Cl. 74—32.)



1. A joint for drive chains comprising link members, a joint pin, and a bushing completely surrounding the pin at one point and rigidly secured in the aperture of a link member, said bushing being provided with a lateral projection upon one side of the pin for extending the bearing surface.

2. A joint for drive chains comprising link members, a joint pin, and a plurality of bushings, each completely surrounding the joint pin, some of the bushings being rigidly secured in the aperture of the link members of one

link and provided with lateral projections on one side of the pin, and others secured in the apertures of the link members of the other link and provided with lateral projections on the opposite side of the pin.

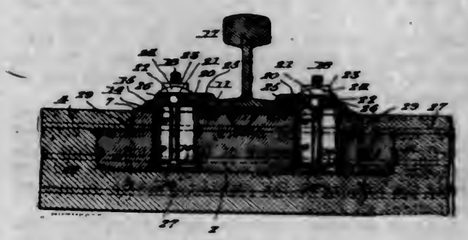
3. In a drive chain, the combination with adjacent links, each formed of a plurality of plates having apertures at their ends, of a joint pin, and a bushing in one of said apertures completely surrounding said pin and provided with a lateral projection extending through apertures in other plates.

4. In a drive chain, the combination with adjacent links having apertures, of a joint pin, and a bushing having a cylindrical portion rigidly secured in the aperture of one of the link members and provided with a lateral projection upon one side of the pin.

5. In a drive chain, the combination with adjacent links having apertures, of a joint pin, and a bushing having a cylindrical portion inserted in one of said apertures and lateral projections upon opposite sides of the cylindrical portion.

[Claims 6 and 7 not printed in the Gazette.]

1,027,370. RAIL TIE AND FASTENING. CHARLES BARCHLER, Kansas City, Kans. Filed Jan. 6, 1912. Serial No. 669,819. (Cl. 238—3.)



1. A railroad tie having a plastic body, a T-shaped casting embedded therein, the flanges thereof being provided with spaced pins, and a chair-plate resting upon said flanges having recesses therein in which said pins are adapted to seat.

2. A railroad tie having a plastic body, a T-shaped casting embedded therein, the flanges thereof being provided with spaced pins, a chair-plate resting upon said flanges having recesses therein in which said pins are adapted to seat, and means for securing a rail upon said chair-plate.

3. The combination with a tie, of a casting, the upper portion of said casting having transverse shoulders and spaced pins, and a chair-plate fitting between said shoulders and having recesses therein in which said pins seat.

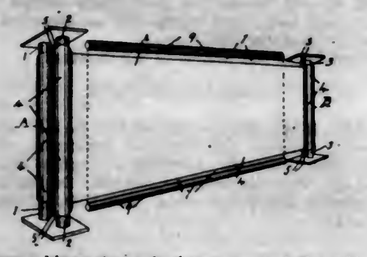
4. The combination with a plastic tie, of a T-shaped casting, the flanges of said casting having transverse shoulders, spaced pins upon the flanges of said casting, a chair-plate fitting between said shoulders and having recesses therein in which said pins seat, and means for securing a rail upon said chair-plate.

5. The combination with a plastic tie, of a T-shaped casting provided with recesses and chambers, the flanges of said casting having transverse shoulders, spaced pins upon said flanges, a chair-plate fitting between said shoulders and having recesses therein in which said pins seat, said chair-plate having elongated openings registering with the recesses in said casting, bolts passing through said openings and secured within said chambers, rail clips embracing said bolts to retain the heads thereof within said chambers, and means for binding the parts together.

[Claims 6 to 12 not printed in the Gazette.]

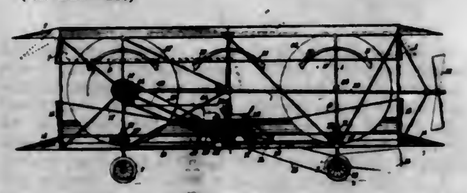
1,027,371. TARGET. BENJAMIN WILLIAM BATES and ALFRED THOMAS CORBYN HALE, Birmingham, England. Filed May 24, 1910. Serial No. 563,126. (Cl. 124—15.)

In a target of the type illuminated at the back and so arranged that, when pierced by a bullet, light will shine through said target, the combination of a supply reel on one edge of the target, a storage reel located at the same edge of the target, a guide roller on the opposite edge of the target, a band screen of flexible material passed from the supply reel across the front of the target where it



may carry a kinematograph picture, around the said guide roller, thence at the rear of the target face and thence to the storage reel, and guide rolls at each end of the screen for holding the two parts of the screen toward one another, for the purpose specified and substantially as set forth.

1,027,372. FLYING-MACHINE. MENZO M. BENSTER, Gettysburg, S. D. Filed Mar. 5, 1910. Serial No. 547,491. (Cl. 244—13.)



1. In a flying machine, the combination with a frame, of a supporting plane on said frame, a plurality of wings connected to said frame on each side thereof and having a supporting surface, means for operating said wings, and blades adjustably connected to said wings and independent of said supporting surface.

2. In a flying machine, the combination with a supporting frame, of a supporting plane on said frame, a plurality of wings connected to said frame on each side thereof and having a supporting surface, means for operating said wings, blades connected to said wings and independent of said supporting surface, and means for positively shifting said blades from a horizontal to a vertical position during the motion of said wings.

3. In a flying machine, the combination with a frame, of a motor on said frame, a pair of disks connected to said frame and operatively connected with said motor, a pair of disks operatively connected to said first-mentioned disks, and wings adjustably connected to said disks.

4. In a flying machine, the combination with a frame, of a shaft in said frame, a disk connected to said shaft, a sleeve shaft connected to said first-mentioned shaft, a disk connected to said sleeve shaft, wings connected to said disks and adapted to be operated thereby, and means for operating said shafts.

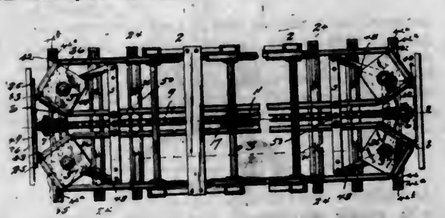
5. In a flying machine, the combination with a frame, of a shaft connected to said frame, a sleeve shaft connected to said first-mentioned shaft, a motor for driving said shafts, and means for independently connecting said shafts to said motor, disks connected to said shafts and adapted to be driven thereby, and wings connected to said disks and adapted to be operated thereby.

[Claims 6 to 10 not printed in the Gazette.]

1,027,373. TRACK-LAYING MACHINE. HJALMAR CARLSON, Duluth, Minn. Filed Feb. 28, 1909. Serial No. 479,536. (Cl. 21—114.)

1. The combination with a pair of jointed endless tracks and guide wheels therefor, of a series of cross ties connected to the joints of said track, a frame supporting the tracks, and propelling means, supported in said frame, for actuating the tracks to lay down the cross ties at the front of the machine and pick them up at the rear thereof.

2. The combination with a pair of sectional endless tracks, a series of cross ties attached thereto, and guiding means for said tracks, of a pair of wheeled trucks on the rails, a platform on the trucks, a frame suspended from the platform, and propelling means for actuating said tracks to lay the cross ties at the front of the machine and pick them up at the rear.



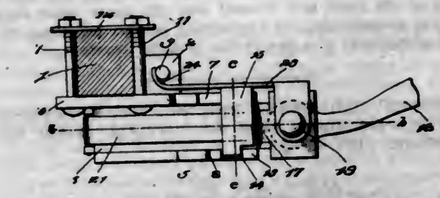
3. The combination with a pair of jointed endless tracks and means for guiding them, of a propelling medium, and sectional cross ties connected to said propelling medium and tracks.

4. The combination with a platform supported upon wheeled trucks, of a propelling chain suspended therefrom, cross ties rigidly attached to said chain, a pair of endless sectional trackways loosely connected to said cross ties, and means operated from one of the wheeled trucks for actuating said propelling chain.

5. The combination with a platform supported upon wheeled trucks, movable suspending frames on the platform and a propelling chain operatively supported in said frames, cross ties rigidly attached to said chain, a pair of jointed endless trackways loosely connected to said ties, and means operated from one of said trucks for actuating the propelling chain.

[Claims 6 to 15 not printed in the Gazette.]

1,027,374. HORSE-RELEASER. FRANK CHANDLER, Pampa, Wash. Filed Jan. 24, 1912. Serial No. 673,072. (Cl. 21—75.)



1. In combination with a vehicle axle, a sleeve attached thereto, a locking arm pivotally connected to the sleeve for angular movement in a vertical plane and adapted to close upon the sleeve, a coupling device having means for the connection of a tongue or thill iron and provided with a rearwardly extending arm to enter the sleeve, a locking arm pivotally connected to the rear end of the arm of the coupling member for angular movement in a horizontal plane, and to engage and close against one side of the sleeve and to be engaged by the first mentioned locking arm, a trigger and locking arm pivotally connected to the front portion of the coupling member, to close over the sleeve and bear upon the first named locking arm, and a locking device to engage the trigger and locking arm.

2. In combination with a vehicle axle, a sleeve attached thereto, a locking arm pivotally connected to the sleeve for angular movement in a vertical plane and adapted to close upon the sleeve, a coupling device having means for the connection of a tongue or thill iron and provided with a rearwardly extending arm to enter the sleeve, a locking arm pivotally connected to the rear end of the arm of the coupling member for angular movement in a horizontal plane, and to engage and close against one side of the sleeve and to be engaged by the first mentioned locking arm, a trigger and locking arm pivotally connected to the front portion of the coupling member, to close over the sleeve and bear upon the first named locking arm, and a spring-actuated bolt carried by the axle to engage and lock the said trigger and locking arm.

1,027,375. HAT-PIN. THOMAS M. DANIELS, Chicago, Ill. Filed Jan. 18, 1911. Serial No. 603,258. (Cl. 24—155.)

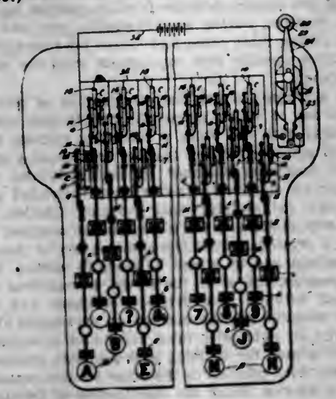


1. A hat pin having a head provided with a socket, and a hat pin guard having a tubular stem adapted to be passed within the socket and also to fit over the point of the pin and having outwardly and inwardly spring-pressed tongues, one of which is adapted to bind within the socket and the other on the pin.

2. A hat pin having a head provided with a socket, a hat pin guard having a tubular stem for engagement within the socket, the stem being also adapted to fit over the point of the pin, the said stem having a longitudinally extending spring tongue which is pressed inwardly within the said socket whereby when the stem is fitted over the point of the pin it will be held in position.

3. A hat pin having a head provided with a socket, a hat pin guard having a tubular stem for engagement within the socket and also adapted to fit over the point of the pin, the said stem being provided with spring tongues, one of which is pressed outwardly whereby when the stem is inserted in the socket of the said head it will be firmly held therein.

1,027,376. TELEGRAPH TRANSMITTING-MACHINE. FRANCISCO DE A. DEL VALLE ATILES, San Juan, Porto Rico. Filed Dec. 19, 1911. Serial No. 666,677. (Cl. 178—69.)

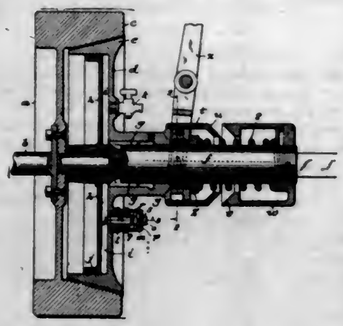


1. In a telegraph transmitting machine, the combination of an electrically operated transmitting key actuator, the same consisting of an electro-magnet and an armature, a plurality of mechanisms included in a circuit with said electro-magnet for producing impulses corresponding with the characters to be transmitted, a set screw carried by the armature of the aforesaid electro-magnet, and a pressure

piece of yieldable material connected with the set screw by means of a ball and socket joint and adapted to engage the telegraphic transmitting key.

2. In a machine of the character described, the combination of a character wheel, a ratchet wheel connected with the character wheel to turn therewith, a lever mounted in line with the ratchet wheel and character wheel and provided with a dog to engage the teeth of the ratchet wheel, a second lever having one of its arms connected with the arm of the first mentioned lever, a key lever, and a link connecting the key lever with the said second lever.

1,027,377. FRICTION-CLUTCH. WILLIAM DENNIS, Milwaukee, Wis., assignor, by mesne assignments, to Verges Manufacturing Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed May 15, 1911. Serial No. 627,179. (Cl. 192—8.)



1. In a friction clutch the combination of two friction members one movable axially relatively to the other, an axially fixed member forming with the movable friction member a closed air chamber, which is provided with a restricted vent and with an outwardly closing inlet valve, and means for forcing the movable friction member into engagement with the other friction member.

2. In a friction clutch the combination of two friction members one of which is movable axially into and out of engagement with the other, an axially fixed member forming with the axially movable friction member an expansible air chamber having an adjustable vent and an outwardly closing inlet valve, and means for forcing the movable friction member into engagement with the other friction member.

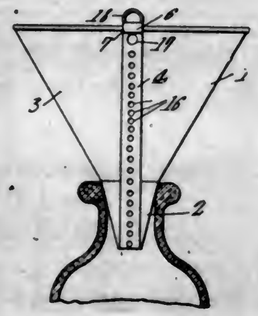
3. In a friction clutch the combination of two friction members one of which is movable axially into and out of engagement with the other, a retarding member rotatable with said movable friction member and forming therewith a closed expansion chamber which is provided with an automatic air inlet valve and with a restricted air vent, and means for shifting said movable friction member axially with relation to the other friction member.

4. In a friction clutch the combination of rotary friction members one of which is movable axially into and out of engagement with the other, a retarding member interposed between said friction members and forming with the movable friction member an expansible air chamber having an automatic inlet valve and a restricted air vent, and means for shifting said movable friction member axially with relation to the other friction member.

5. In a friction clutch the combination of friction members one of which is movable axially into and out of engagement with the other, a spring tending to shift said movable member into engagement with the other, means for shifting said movable member in the opposite direction, and a retarding member forming with the movable friction member a closed air chamber having a restricted vent and an automatic inlet valve.

[Claims 6 to 8 not printed in the Gazette.]

1,027,378. FUNNEL. EDWARD DOBARTZ and WILLIAM H. SIGLEY, Sylvan Grove, Kans.; said Dobartz assignor to Sigley. Filed June 6, 1911. Serial No. 631,510. (Cl. 226—33.)



1. A funnel including a body-member and a nozzle-member, said body and nozzle members having an air venting shaft extending from the lower end of said nozzle-member to the upper end of said body-member, said air-venting shaft having numerous closely arranged air-passages through its outer wall, said shaft being formed from an inwardly extending longitudinal portion of said body and nozzle members along an edge thereof and a like inwardly extending longitudinal portion along the opposed edge of said members, the latter longitudinal inwardly extending portion being formed with a pocket receiving the free-edge terminal of the former longitudinal portion, said pocket being received by a seat of said latter longitudinal portion and said pocket, with said free-edge terminal received thereby, being crimped into locked position, said latter longitudinal portion having its free-edge terminal also received by a seat of the former longitudinal portion.

2. A funnel including a body-member and a nozzle member, said body and nozzle members having an air-venting shaft extending from the lower end of said nozzle-member to the upper end of said body-member, said air venting shaft having numerous air-passages in its outer wall extending throughout its length from top to bottom, the inner wall of said shaft being imperforate throughout its length, with the upper end thereof overlapping the upper end of the shaft and crimped over the upper outer edge of the funnel-body, the overlapping portion providing for the attachment of a suspending member thereto.

1,027,379. CAR-BRAKE RIGGING. IRA S. DOWNING, Collinwood, Ohio. Filed Feb. 13, 1912. Serial No. 677,319. (Cl. 85—5.)



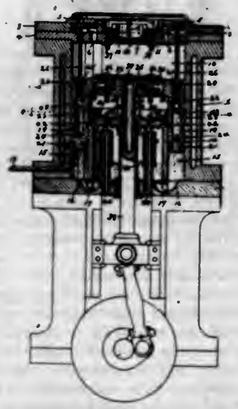
1. The combination with a member having a bolt opening, and a headless bolt in said opening, of a boss on said member closing one end of the bolt opening and provided with a drift opening, a slot on diametric sides of said bolt opening, and a key in said slot with its ends bent transverse of said slots.

2. The combination with a member having a bolt opening closed at one end, of lugs diametrically positioned with reference to the other end of said opening, grooves formed in said lugs and a key constructed to pass between said lugs with its edges in said grooves thereby closing the other end of the bolt opening, the ends of the key being bent transverse of the grooves and engaging the ends of the lugs whereby the key is securely locked between the lugs.

3. The combination with a member having a bolt opening closed at one end, and a headless bolt in said opening, of a groove on diametric opposite sides of the other end of said opening, and a key of greater length than said grooves and constructed to slide in said grooves thereby closing the other end of said opening and locking said bolt in said opening against accidental displacement, the ends of the key being bent transverse of the grooves whereby the key is locked in said grooves against accidental displacement.

4. The combination with a body having a bolt opening, of a boss on said body closing one end of said opening, said boss having a drift opening of less diameter than the bolt opening and communicating therewith, a slot formed transversely on said body at the other end of said bolt opening, and a key constructed to slide in said slot and close the said bolt opening.

1,027,380. METHOD OF OPERATING INTERNAL-COMBUSTION ENGINES. ROBERT M. FRYER, New York, N. Y., assignor of one-half to Frank B. Colman, Passaic, N. J. Filed July 5, 1910. Serial No. 570,379. (Cl. 123—36.)



1. The method of operating internal combustion engines which consists in applying and exploding an explosive charge on one side of a piston, applying a charge of vaporizable fluid on the opposite side and introducing the heat and products of the exploded charge into the opposite end of the cylinder and vaporizing the charge therein.

2. The method of operating internal combustion engines which consists in applying to opposite sides of a piston a charge of explosive material and a charge of vaporizable fluid, exploding said explosive charge and applying the heat generated thereby directly to said fluid charge to vaporize the same within the cylinder.

3. The method of operating internal combustion engines which consists in applying to opposite sides of a piston a charge of explosive material and a charge of fluid, exploding said explosive charge, passing the heated products of the exploded charge through the piston into contact with the fluid charge, and thereby vaporizing the same.

4. The method of operating internal combustion engines which consists in introducing into the cylinder an explosive charge on one side of the piston and a charge of vaporizable fluid on the opposite side, exploding the explosive charge and applying the resulting gases and heated products of combustion directly to the vaporizable charge within the cylinder.

5. The method of operating internal combustion engines which consists in introducing into the cylinder an explosive charge on one side of the piston and a charge of vaporizable fluid on the opposite side, exploding the explosive charge and vaporizing the fluid charge by direct application thereto, within the cylinder, of the heat of the exploded charge.

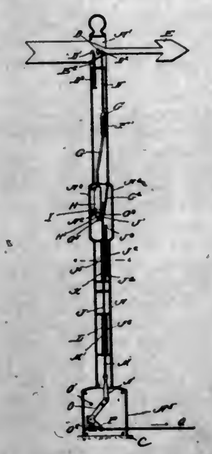
1,027,381. LEAD. CHARLES A. GAISER, Toledo, Ohio. Original application filed Apr. 14, 1910, Serial No. 555,384. Divided and this application filed Sept. 13, 1910. Serial No. 581,881. (Cl. 120—83.)



1. As a new article of manufacture, a lead for automatic pencils, the same being of an integral formation and provided with a single wrapping adhesively connected thereto and extending beyond the lead at the butt end thereof to form a tubular extension and a plug of uniform diameter throughout and of a diameter equal to the diameter of the lead, immovably and permanently held in said extension and completely filling the same.

2. As a new article of manufacture, a lead for automatic pencils provided with a fibrous wrapping adhesively connected thereto, and extending beyond the lead at the butt end thereof to form a tubular extension and a plug adhesively and permanently held in the tubular extension and of a diameter uniform from end to end and equal to the diameter of the lead, the extension and plug being formed at one point with an opening extending through the extension into the plug for the purpose specified.

1,027,382. RAILROAD-SIGNAL. LEMUEL EDWARD GARNETT, Chanute, Kans. Filed Aug. 23, 1909. Serial No. 514,160. (Cl. 246—22.)



1. In a device of the kind described, the combination with a semaphore, of a clock mechanism, a rod provided

with a rack portion for engaging said clock mechanism, a rod connected to the semaphore and slidably connected to said rod with the rack portion, a spring for raising the rod with the rack, a spring actuated rod for engaging the rod with the rack, a crank and a piston operated by said crank engaging said spring actuated rod.

2. In a device of the kind described, the combination with a hollow post, of a semaphore mounted in the upper end of said post, a clock mechanism arranged within said post, a rack bar for engaging said clock mechanism, a rod connected to the semaphore slidably connected to the rack bar, a spring for raising said rack bar, an operating rod for engaging the rack bar, a crank and a piston operated by said crank engaging said rod.

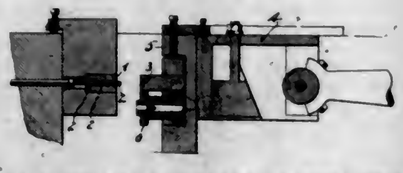
3. In a device of the kind described, the combination with a pivoted semaphore, of a clock mechanism, a rack bar for engaging the clock mechanism, a rod slidably connecting the rack bar to the semaphore, a spring for operating the rack bar, a spring actuated operating rod adapted to draw the rack bar downwardly, and means operated by the passage of a train over the track for raising said operating rod.

4. In a device of the kind described, the combination with a hollow post, of a spring actuated semaphore mounted in said post, a rod for operating said semaphore, a spring actuated rack bar slidably connected to said rod, a clock mechanism for engaging said rack bar, an operating rod for engaging said rack bar, a spring for drawing said operating rod down, and means operated by the passage of a train over the track for raising said operating rod.

5. In a device of the kind described, the combination with a semaphore, of a clock mechanism, a spring actuated rack bar for engaging said mechanism slidably connected to said semaphore and provided with a hook at its lower end, an operating rod provided with a hook for engaging the hook of the rack bar, a spring for actuating said operating rod, a crank, a piston operated by said crank engaging said rod, a rod connected to said crank, a crank connected to said rod, and a tripping lever operatively connected to the second mentioned crank and arranged along side of a track and springs for holding said tripping lever in a horizontal position, said tripping lever being provided with a bowed spring adapted to be engaged by the wheels of a train.

[Claims 6 to 10 not printed in the Gazette.]

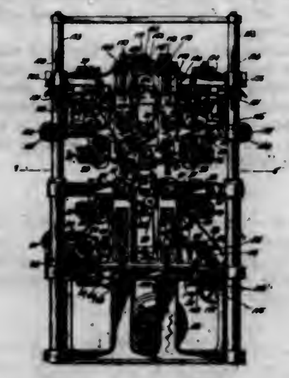
1,027,383. HEAD-SHAPING MACHINE. CHARLES GLOVER and CHARLES HOLT, New Britain, Conn., assignors, by mesne assignments, to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Original application filed Mar. 31, 1910, Serial No. 552,505. Divided and this application filed Feb. 5, 1912. Serial No. 675,519. (Cl. 10—12.)



1. In a machine for producing polygonal heads on rods, a shaping die comprising an external sleeve element and a plurality of internal shaping elements movable both radially and longitudinally within the outer sleeve element, and each of said internal elements having at its outer end an inner single flat shaping face, all of said internal elements coacting to produce said polygonal shape, and toggle connections between said inner elements and said outer sleeve element for producing the aforesaid radial movement.

2. In a machine for forming polygonal heads, an axially movable shaping die comprising at least three shaping jaws arranged concentrically around the die axis, springs for opening the jaws, and toggles for moving said jaws toward the axis of said dies whenever the axial movement of the die presses said jaws against a fixed object.

1,027,384. PRINTING-MACHINE. WARREN L. GREEN, New York, N. Y. Filed May 26, 1905. Serial No. 262,390. (Cl. 101—89.)



1. A multicolor printing machine comprising a fixed frame, and a movable frame, a cylinder having an elastic printing surface mounted in said fixed frame, a planographic form cylinder adapted to receive a design and transfer it to said cylinder, a cylinder having an elastic printing surface mounted in said movable frame, a planographic form cylinder adapted to receive and transfer a design to said last mentioned cylinder, also mounted in said movable frame, means rotating one of said printing cylinders relative to the other whereby the designs on both cylinders may be made to register, and means adjusting said movable frame relative to said fixed frame whereby the pressure of one printing cylinder upon the other may be regulated, and the printing cylinders may be adjusted without adjusting each planographic form cylinder relative to its associated printing cylinder.

2. A multi-color printing machine comprising two cylinders each provided with an elastic printing surface, between which surfaces a web may be fed, a plurality of planographic form cylinders each adapted to receive a planographic design and said form cylinders adapted to transfer their designs to their associated printing cylinder, whereby both sides of a web may be printed upon, one side in a plurality of colors, and means for causing the impression on both sides of the web to accurately register with relation to each other.

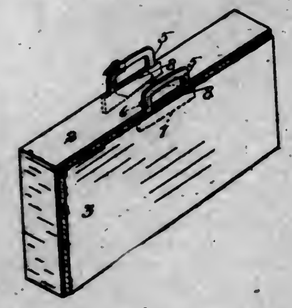
3. A multi-color printing machine comprising two cylinders each provided with an elastic printing surface, between which surfaces a web may be fed, a plurality of planographic form cylinders each adapted to receive a planographic design and said form cylinders adapted to transfer their designs to their associated printing cylinder, whereby both sides of a web may be printed upon, one side in a plurality of colors, and means for rotating one of said elastic printing cylinders with relation to the other so as to cause the impressions produced by the two cylinders to register one with the other.

4. A multi-color printing machine comprising two cylinders each provided with elastic printing surfaces, between which surfaces a web may be fed, a plurality of planographic form cylinders adapted to receive a planographic design and said form cylinders adapted to transfer their designs to their associated printing cylinder, whereby both sides of a web may be printed upon, one side in a plurality of colors, a handle, reducing gearing between the handle and one of said printing cylinders, whereby one of said elastic printing cylinders may be caused to rotate with relation to the other printing cylinder so as to cause the impressions produced by the two cylinders to register one with the other.

5. A multi-color printing machine comprising two cylinders each provided with an elastic printing surface, between which surfaces a web may be fed, a plurality of planographic form cylinders each adapted to receive a planographic design and said form cylinders adapted to transfer their designs to their associated printing cylinder, whereby both sides of a web may be printed upon, one side in a plurality of colors, a handle, planetary gearing between said handle and one of said printing cylinders may be rotated a minute distance with relation to the other so as to cause the impressions produced by the two cylinders to register one with the other.

[Claims 6 to 27 not printed in the Gazette.]

1,027,385. BOX-HANDLE. RAOUL J. GRUENBERG, San Francisco, Cal. Filed Dec. 27, 1909. Serial No. 535,199. (Cl. 220—52.)



1. In combination, a telescope box member having a slitted top, and a handle having a gripping portion passing through said slit, a portion in the plane of said grip secured to the inside surface of said box member, and a portion at right angles to the plane of said grip secured to the side surface of the top of said member.

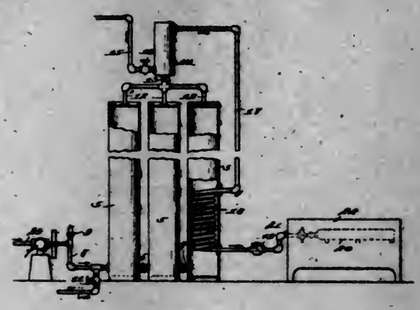
2. In combination, a telescope box member having a slitted top, and a handle having a gripping portion passing through said slit, a portion in the plane of said grip secured to the inside surface of said box member, having shoulders for engaging the top of the box member, and a portion at right angles to the plane of said grip secured to the inside surface of the top of said member.

1,027,386. HYDRAULIC FLUID-COMPRESSOR. ALDA F. HAWKINS, Dallas, Tex., assignor to The Searchlight Gas Company, Warren, Ohio, a Corporation of Ohio. Filed Oct. 11, 1910. Serial No. 586,513. (Cl. 230—16.)

1. In an apparatus for compressing fluids, the combination of a compressing tank; means for forcing a compressing liquid thereinto; means for supplying the fluid to be compressed to said tank; a storage tank; a coil arranged in the compressing tank and adapted to be coiled by the compressing liquid; a pipe connection between said compressing tank and said coil for suplying the fluid from the former to the latter; and a separate pipe connection between said coil and said storage tank.

2. In an apparatus for compressing fluids, the combination of a compressing tank; means for forcing a compressing liquid into the bottom of said tank; means for introducing the fluid to be compressed into the top of said tank; a coil arranged in the lower portion of said tank and adapted to be cooled by the ascending compressing liquid; an exteriorly-located pipe connection between the top of said tank and said coil for supplying the fluid from the former to the latter; a storage tank; and a pipe connection between said coil and said storage tank.

3. In an apparatus for compressing fluids, the combination of a compressing tank; means for forcing a compressing liquid thereinto; means for supplying the liquid to be compressed to said tank; a drier communicating with said tank; and a device communicating with said drier and arranged within said tank for cooling the gas after it leaves the drier, said device being adapted to be cooled by the compressing liquid.



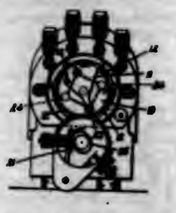
4. In an apparatus for compressing fluids, the combination of a compressing tank; means for forcing a compressing liquid thereinto; means for supplying the fluid to be compressed to said tank; a drier communicating with said tank; a cooling coil arranged in said tank and communicating with said drier; and a storage tank communicating with said coil.

1,027,387. BAG-FRAME. CHRISTIAN HIBBING and ALBERT FULLER, Newark, N. J., assignors to J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Original application filed Apr. 22, 1909, Serial No. 491,565. Divided and this application filed Oct. 26, 1910. Serial No. 589,125. (Cl. 150—29.)



In a device of the character described, two outside U-shaped bag frame members, an intermediate U-shaped bag frame member, and means for pivotally connecting the lower ends of the arms of said bag frame members, the outside bag frame members each comprising a main body portion and hinge members extending therefrom formed from an unbroken flat piece of sheet metal, and a continuous flange extending around the outer edge of said body portion and the hinge members, the flanges extending along the edges of the body portions of said outside frame members being of greater width than the flanges extending along the hinge members thereof, and adapted to abut when said outside frame members are in closed position, the intermediate frame member comprising an unbroken flat body portion having hinge members extending therefrom and provided with a continuous flange extending around the outer edge of said body portion and the hinge members, the flange extending along the body portion of said intermediate frame member being adapted to underlie the abutting flanges extending along the edges of the body portions of the outside frame members, and the flange extending along the edges of the hinge members of said intermediate frame member being adapted to lie within the space between the flanges extending from the hinge members of said outside frame members.

1,027,388. SHORT-CIRCUITER FOR REVERSED SPARK-GENERATORS. THOMAS E. MADDEN, Indianapolis, Ind., assignor to himself and Jesse C. Hancock, Indianapolis, Ind., a Copartnership. Filed Apr. 4, 1910. Serial No. 553,313. (Cl. 123—148.)



1. The combination with a generator, connected sparking terminals, and a circuit breaker designed to rotate normally in one direction, of short circuiting means associated therewith for short circuiting the sparking terminals on reverse movement of the circuit breaker at the time of circuit breaking action of the circuit breaker.

2. The combination of a low tension generator, a spark coil having its low tension coil connected to the generator, a circuit breaker operated by the generator and arranged in the low tension circuit, a circuit controller operated by the generator, a spark plug, connections between the circuit controller, spark plug and high tension coil of the spark coil, and means for short circuiting the high tension circuit away from the spark plug upon reverse movement of the generator at the time of circuit breaking action of the circuit breaker, said short circuiting means comprising a member controlled by the generator.

3. The combination of a generator, a spark coil, connections between the generator and low tension side of the spark coil, connections comprising a circuit breaker controlled by the generator, a circuit controller, a spark plug, connections between said circuit controller, spark plug and the high tension side of the spark coil, a short circuiting terminal carried by the controller, and a grounded terminal arranged adjacent the path of movement of said short circuiting terminal in position to short circuit the high tension circuit around the spark plug at the time of circuit breaking action of the circuit breaker upon reverse movement of the circuit controller.

4. The combination of a generator, and circuit breaker for normal rotation in one direction, a spark plug, a transformer, and electrical connections between the several parts, of a short-circuiter for the high tension side of the transformer, and operating connections between said short circuiter and circuit breaker for short circuiting the high tension circuit at the time of circuit breaking action of the circuit breaker on reverse rotation of the circuit breaker.

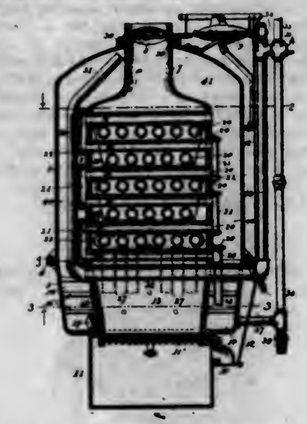
5. The combination with a spark plug, a current producer, a transformer, and a circuit breaker normally movable in one direction, of a short circuiter operated in synchronism with the circuit breaker to short circuit the spark plug on reverse movement of the circuit breaker.

[Claim 6 not printed in the Gazette.]

1,027,389. STEAM OR HOT-WATER HEATER. ANDREW MAUGER and JESSE L. HINDERER, Massillon, Ohio, assignors to Massillon Steam & Hot Water Heating Company, Massillon, Ohio, a Partnership. Filed July 20, 1911. Serial No. 639,597. (Cl. 122—14.)

1. A heater comprising a casing provided with alternately arranged groups of water tubes at an angle to each other, a water leg, drop tubes communicating with said leg and with said water tubes and headers connecting the water tubes in alternate groups, and an inclosing casing.

2. A heater comprising a casing having a water leg formed therein, groups of water tubes at an angle to each other and engaging the walls of said casing, headers communicating with the lower of each group of tubes and provided with drop tubes extending into said water-leg, and headers connecting the alternately arranged groups of tubes, and an inclosing casing.



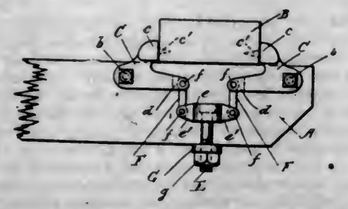
3. A heater comprising a casing having a water-leg therein, groups of water tubes at an angle to each other and supported in the walls of said casing, drop-tubes communicating with said water-leg and said tubes, headers connecting alternate groups of tubes, and a casing surrounding the tubes and the headers and in conjunction with the tube supporting-casing forming a water space.

4. A heater comprising a casing having a water-leg, a concentrically arranged fire pot and a combustion chamber above the fire-pot, water tubes in alternate groups arranged at an angle to each other within the combustion chamber and supported in the walls thereof, headers connecting said groups of water tubes, and an inclosing casing.

5. A heater comprising a casing having a water-leg, a concentrically arranged fire-pot, a combustion chamber above the fire-pot, groups of water tubes at an angle to each other and crossing the combustion chamber, headers connecting said groups of water tubes, and an inclosing casing connected to the outer wall of the water-leg.

[Claim 6 not printed in the Gazette.]

1,027,390. BRAKE-BLOCK HOLDER. EDWIN A. PECK, Denver, Colo., assignor of one-half to Albert R. Corn, Denver, Colo. Filed Aug. 8, 1911. Serial No. 643,024. (Cl. 21—82.)



1. The combination, with a brake beam, and a brake block; of bell-crank levers pivoted in pairs on opposite sides of the beam and provided with jaws at one end for engaging with the brake block, a plate arranged on the other side of the beam from the brake block, and clamping bolts provided with nuts and operatively connected with the said plate and the other ends of the said bell-crank levers.

2. The combination, with a brake beam, and a brake block; of bell-crank levers pivoted in pairs on opposite sides of the beam and provided with jaws at one end and double-eyes at the other end, a plate arranged on the other side of the beam from the brake block, clamping bolts provided with nuts and engaging with the said plate and provided also with crossheads having double-eyes at their ends, and links pivotally connecting the double-eyes of the crossheads with the double-eyes of the bell-crank levers.

1,027,391. PLATEN MECHANISM FOR TYPE-WRITING MACHINES. JOSEPH RABER, Poplar Bluff, Mo., assignor to Adding Typewriter Company, St. Louis, Mo., a Corporation of Missouri. Filed Feb. 19, 1909. Serial No. 478,970. (Cl. 197—114.)



1. The combination with a platen, a wheel rigid therewith having teeth on its periphery, arms arranged to engage with said ratchet wheel, friction devices, and a lever operable to release said arms from engagement with said ratchet wheel and to cause said friction devices to operate, substantially as specified.

2. The combination with a platen, a ratchet wheel rigid therewith, and a hub or collar rigid with said ratchet wheel and platen, of friction devices operable to engage with said hub or collar, arms arranged to engage with said ratchet wheel, and a lever operable to disengage said friction devices and cause said arms to engage with said ratchet wheel, substantially as specified.

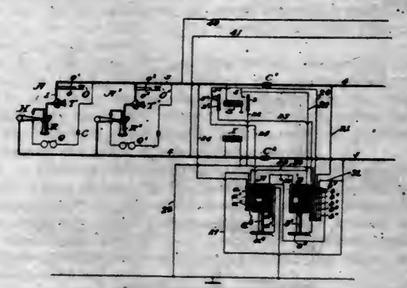
3. The combination with a platen, of a shaft or spindle, devices for holding the platen in exact position at each line space operation, a spring for actuating said devices to hold said platen, a friction device arranged to cooperate with the platen when said first-named devices are inoperative, a spring for actuating said friction device to coöperate with the platen, an element for operating said shaft or spindle effectively to actuate said first-named devices or said friction devices to different adjustments, and a latch engaging with said shaft or spindle, substantially as specified.

4. In a typewriting machine, a platen, a wheel rigid with said platen, a shaft, a detent pivoted on said shaft and arranged to engage with said wheel, a friction device pivoted on said shaft and arranged to coöperate with the platen when said detent is inoperative, a lever operable to disengage said detent from said wheel and to cause said friction device to move to position effective to restrain rotation of said platen, separate springs for actuating said detent and said friction device, and an element arranged to hold said friction device in the position aforesaid, substantially as specified.

5. In a typewriting machine, a platen, a wheel rigid with said platen, a detent arranged to engage with said wheel, a spring actuating said detent, a friction device, a separate spring actuating said friction device, a lever controlling said detent and said friction device, to move them in opposition to said springs at different times, and a latch holding said detent and said friction device in different adjustment, substantially as specified.

1,027,392. TELEPHONE-EXCHANGE SYSTEM. JOSEPH L. WRIGHT, Washington, D. C., assignor, by mesne assignments, to The North Electric Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 3, 1907. Serial No. 350,657. (Cl. 179—17.)

1. In a telephone exchange system a plurality of subscribers' lines and automatic switching apparatus for interconnecting them, means in the switching apparatus for testing a subscriber's line, and other means simultaneously operated to produce a balance of potentials on the first means in case the line tested is also the line calling, but not otherwise, substantially as described.



2. In a telephone exchange system a plurality of subscribers' lines and automatic switches for interconnecting them, an electromagnet brought into use when completing a connection, for the purpose of testing the line wanted to ascertain if it is busy, means to produce a difference in potential between the testing terminal of each line and the testing terminal of said magnet when the line becomes busy, and means associated with the switches for balancing said difference of potential in case the line calling is also the line called, but not otherwise, substantially as described.

3. In a telephone exchange system, a plurality of subscribers' lines and automatic switches for interconnecting them, answering and calling terminal connections for the lines, means for changing the potential condition on the calling terminal of a line when it becomes busy, a test relay associated with a connector switch, and means for changing the potential on the answering terminal connection of the calling line each time the test relay is energized, whereby a balance of potentials is produced across the terminals of said relay, when the line calling is also the line called, substantially as described.

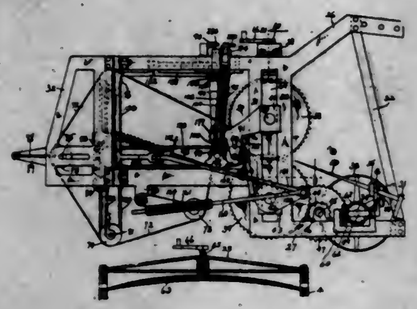
4. In a telephone exchange system a plurality of subscribers' lines and automatic switches for interconnecting them, answering and calling multiple terminal connections for each line, means for initiating a connection through the answering terminal connections and one or more automatic switches to the calling terminal of the line wanted, means for grounding a line terminal when the line becomes busy, a test relay associated with a connector switch and connected from a test terminal to battery, and means for simultaneously applying said relay to the calling terminal of the wanted line and at the same time connecting battery to the corresponding answering terminal of the calling line, whereby a balance of potentials is produced on the relay if the calling and called lines are the same, substantially as described.

5. Apparatus for testing telephone or signaling terminals comprising (1) means adapted when a terminal is idle to maintain a predetermined potential thereon; (2) means becoming active when the line of the terminal is calling or called, to change the potential thereon; (3) means acting when the line is both calling and called to neutralize or balance the change in potential; and (4) means adapted to be brought into conjunction with a line terminal for testing purposes, said means being responsive to the changed potential when the line is calling or called, but remaining irresponsive when the line is both calling and called.

1,027,393. BALER. BRASELTON T. BROWN, Indianapolis, Ind. Filed Oct. 13, 1910. Serial No. 586,846. (Cl. 100—1.)

1. A baler including compression rolls for forming material into a sheet, means for coiling the sheet into a bale

after it has left said rolls, and a roller provided with radially extending fingers adapted to be engaged by the bale when it becomes large, whereby the fingers will force some material from the outer layer at a plurality of points through an inner layer and thus knit the outer layers together.



2. A baler including compression rolls through which the material is adapted to be passed and whereby it is pressed into a sheet, means for forming the sheet after it leaves said rolls into bales, a series of fingers in front of the rolls and projecting toward the meeting point, and means for giving said fingers lateral and vertical movement for distributing the material as it approaches the rolls.

3. A baler including compression rolls through which the material is adapted to be passed and whereby it is pressed into a sheet, means for forming the sheet after it leaves said rolls into bales, a series of fingers in front of the rolls and projecting toward the meeting point, means in which the other ends of the fingers are loosely mounted, a bar in which the fingers are loosely mounted intermediate their ends, and means for giving said bar an upwardly curved rocking movement transversely of the device.

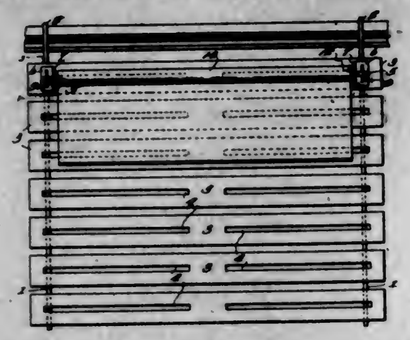
4. A baler including compression rolls through which the material is adapted to be passed and whereby it is pressed into a sheet, means for forming the sheet after it leaves said rolls into bales, a series of fingers in front of the rolls and projecting toward the meeting point, means in which the other ends of the fingers are loosely mounted, a bar in which the fingers are loosely mounted intermediate their ends, connecting bars pivoted at their upper ends to said cross bar and pivoted at their lower ends to the frame, and means for giving said cross bar reciprocatory movement transversely of the machine.

5. A baler including a pair of compression rolls one mounted above the other and between which the material is passed and whereby it is crushed into a sheet, a spring for forcing one of said rolls against the other, means for forming the sheet after it leaves the rolls into bales, and spreading fingers in front of the rolls and projecting at an upward inclination toward the meeting place of the rolls, and means for giving said spreading fingers lateral movement to and fro.

[Claims 6 to 22 not printed in the Gazette.]

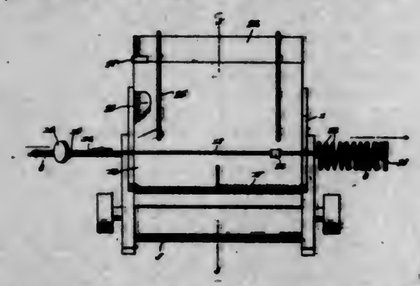
1,027,394. MAP-HOLDER. JAMES G. PATTERSON, Maywood, Ill. Filed Jan. 17, 1911. Serial No. 603,198. (Cl. 40—83.)

A device of the class described, comprising superimposed supporting members, suspending means for said members, said supporting members being formed with longitudinal slots, brackets secured to said supporting members and provided with slots aliining with the slots in the members, plates carried by said suspending means and adapted to engage the slots in the said supporting members and brackets, and wedge-shaped keys slidably mounted in said plates, said keys serving to secure the brackets



on the supporting members and the supporting members to the suspending means.

1,027,395. TYPE-WRITER ATTACHMENT. CALVIN P. SWANK, Camden, N. J. Filed Sept. 28, 1911. Serial No. 651,713. (Cl. 197—133.)



1. A typewriter attachment comprising a mounting frame, a paper roll holder carried thereby, a supporting table, means to clamp the paper thereon, means coacting with the table for severing the paper, and means coacting with the severing means for holding the clamping means in inoperative position when the severing means is in inoperative position.

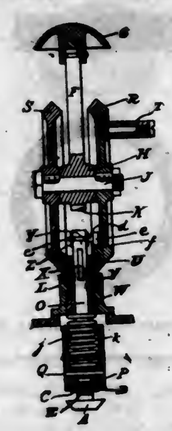
2. A typewriter attachment comprising a mounting frame, a paper roll holder carried thereby, a supporting table, a clamping plate pivoted to the supporting table, means for holding the clamping plate in engagement with the table, and means comprising in part one element of a paper severing device for holding the clamping plate in inoperative position.

3. A typewriter attachment comprising a mounting frame, a paper roll holder carried thereby, a supporting table, a spring pressed clamping plate pivoted upon the table and normally held in engagement therewith, a hook arm carried by the clamping plate, a severing blade carried by and coacting with the table to sever the paper, said blade adapted to engage the hook arm on the clamping plate, and means for normally holding the blade in inoperative position against the action between said blade holding means.

REISSUES.

13,421. MACHINE FOR RESEATING VALVES. ROBERT H. HAZELTINE, New York, N. Y. Filed Feb. 7, 1912. Serial No. 676,161. Original No. 913,049, dated Apr. 13, 1909, Serial No. 364,639. (Cl. 51—4.)

1. A valve reseating device comprising a rotary electromagnetic valve holder, and mechanism for rotating the valve holder in reverse directions by the continued movement of said driving mechanism in the same direction, and means brought into action by the driving mechanism for intermittingly elevating the valve holder.



2. A valve reseating device comprising a rotary electromagnetic valve holder, and driving means therefor including a pair of mutilated gears acting alternately to rotate the holder in reverse directions by continued movement of the gears in the same direction, and means brought into action by the rotation of one of the gears for intermittingly elevating the valve holder.

3. A machine for reseating valves comprising a rotary electromagnetic valve holder and driving means therefor including mechanism for rotating the valve through unequal arcs in reverse directions.

4. A hand operated reseating mechanism comprising a frame having a hand piece at one end, and a valve holding device rotatably mounted in its opposite end, a shaft journaled in the frame between the hand piece and rotary valve holder, a pinion mounted in the frame between the valve holder and shaft for rotating the valve holder, a gear mounted on the shaft and meshing with said pinion and provided with a hand piece whereby it may be rotated, and means actuated by the gear for elevating the valve holder once in each revolution of said gear.

5. A hand operated reseating mechanism comprising a frame having a hand piece at one end, and a valve holding device rotatably mounted in its opposite end, a shaft journaled in the frame between the hand piece and rotary valve holder, a pinion mounted in the frame between the valve holder and shaft for rotating the valve holder, a gear mounted on the shaft and meshing with said pinion and provided with a hand piece whereby it may be rotated, means actuated by the gear for elevating the valve holder once in each revolution of said gear, and a spring for depressing the valve holder after each elevation by said means.

6. In a hand operated valve reseating device, the combination of a frame having a hand piece at one end, an axially movable rotatable shaft journled in the opposite end of the frame, a tool holder secured to said shaft and movable axially therewith, a pinion journaled in said opposite end of the frame and feathered upon said shaft to permit the shaft to move axially therethrough, a driving shaft journaled in the frame between the pinion and hand piece, a gear secured to the shaft and meshing with said pinion to rotate the latter and also the first named shaft, means actuated by the gear for moving the shaft endwise in one direction at each revolution of the gear, and a spring for moving said first named shaft in the opposite direction when released by said means.

7. A hand operated valve reseating device comprising a frame having a hand piece at one end, a rotary tool holder journaled in the opposite end of the frame, a pinion for rotating said tool holder, a shaft journaled in the frame between the pinion and hand piece, and a pair of mutilated gears secured to said shaft and alternately engaging opposite sides of the pinion, one of said gears being provided with a hand piece by which the shaft and both gears may be rotated, means actuated by one of the gears for moving the tool holder axially in one direction, and a spring for moving the tool holder in the opposite direction when released by said means.

8. In a machine for reseating valves, comprising continuously acting positive means for reciprocating the valve, including positive means for rotating the valve periodically through a greater arc in one direction than in the other direction during rotation, thereby positively advancing the valve progressively on its seat.

9. A machine for reseating valves, comprising continuously acting positive means for imparting a reciprocating rotary motion to the valve, including positive means for advancing the valve periodically through a greater arc in one direction than in the opposite direction during reciprocation, thereby positively rotating the valve progressively on its seat.

10. A machine for reseating valves, comprising continuously acting positive means for alternately rotating the valve in opposite directions on its seat, including positive means for advancing the valve periodically in one direction during rotation, thereby positively changing the position of the valve progressively relatively to its seat.

13,422. REAMING-MACHINE. GEORGE MATHER, Coatesville, Pa. Filed Apr. 3, 1912. Serial No. 688,299. Original No. 1,000,764, dated Nov. 28, 1911, Serial No. 616,511. (Cl. 77—75.)

1. A bur-removing device comprising a member having inwardly spring-pressed bur-removing means arranged to engage the outside portion of the end of the tube, and a second member having outwardly spring-pressed bur-removing means for engaging the inside portion of the end of the tube.

2. A bur-removing device comprising a member having inwardly spring-pressed bur-removing means arranged to engage the outside portions of the end of the tube, means for limiting the inward movement, and a second member having outwardly spring-pressed bur-removing means for engaging the inside portion of the end of the tube.

3. A bur-removing device comprising a member having inwardly spring-pressed bur-removing means arranged to engage the outside portion of the end of a tube, and a stop for limiting the inward movement of said bur-removing means.

4. A bur-removing device comprising a member having inwardly spring-pressed bur-removing means arranged to engage the outside portion of the end of a tube, and a series of stops for limiting the inward movement of said bur-removing means.

5. A bur-removing machine comprising a shaft, a tool-holder mounted in a slot in said shaft, a sleeve surrounding said shaft, said sleeve carrying tool-holders, the tool-holders being constructed and arranged to hold tools for engaging the inner and outer surfaces of a pipe or tube.

6. A bur-removing machine comprising a shaft, a tool-holder resiliently mounted in a slot in said shaft, a sleeve

surrounding said shaft, said sleeve carrying tool-holders, the tool-holders being constructed and arranged to hold tools for engaging the inner and outer surfaces of a pipe or tube.

7. A bur-removing machine comprising a shaft, an outwardly spring-pressed tool mounted in said shaft, a sleeve surrounding said shaft, said sleeve carrying inwardly spring-pressed tools.

8. A bur-removing machine comprising a shaft, an outwardly spring-pressed tool mounted in said shaft, a sleeve surrounding said shaft, said sleeve carrying inwardly spring-pressed tools, said shaft having also means for limiting the inward movement of said last mentioned tools.

9. In a reaming machine, a shaft having a slot therein, a tool-holder in such slot, and springs located between the tool-holder and the bottom of the slot.

10. In a reaming machine, a member carrying a series of inwardly-directed tool-holders, tools in said holders, and compression-springs between the tools and the holders.

11. A bur-removing machine comprising a shaft having mounted therein a bur-removing tool arranged and adapted to remove burs from the interior of a tube and also mounted therein a tool arranged and adapted to remove burs from the end of the tube, and a carrier having a tool thereon adapted and arranged to remove burs from the exterior of the tube.

12. A bur-removing machine comprising a shaft having mounted therein a resiliently mounted bur-removing tool arranged and adapted to remove burs from the interior of a tube and also mounted therein a tool arranged and adapted to remove burs from the end of the tube, and a carrier having a resiliently mounted tool thereon adapted and arranged to remove burs from the exterior of the tube.

13. A bur-removing machine comprising a shaft having mounted therein an outwardly-directed bur-removing tool, a carrier having mounted thereon an inwardly-directed resiliently-mounted bur-removing tool, said shaft having a stepped portion for engagement with the end of said last-mentioned tool.

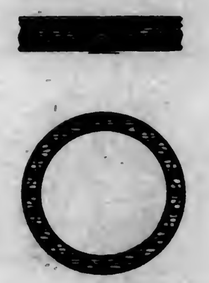
DESIGNS.

42,530. ENGAGEMENT-RING. JOHN A. ABEL and EDWARD C. ABEL, New York, N. Y. Filed Mar. 22, 1912. Serial No. 685,577. Term of patent 14 years.



The ornamental design for an engagement ring, as shown.

42,531. WEDDING-RING. JOHN A. ABEL and EDWARD C. ABEL, New York, N. Y. Filed Mar. 22, 1912. Serial No. 685,578. Term of patent 14 years.



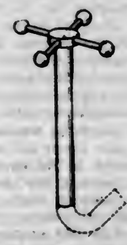
The ornamental design for a wedding ring, as shown.

42,532. BRACELET. SIDNEY O. BIGNEY, Attleboro, Mass. Filed Mar. 9, 1912. Serial No. 682,790. Term of patent 14 years.



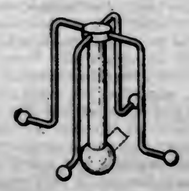
The ornamental design for a bracelet, as shown.

42,533. INVERTED-GLASS HOLDER. GEORGE E. CURTISS, New Britain, Conn. Filed Jan. 2, 1912. Serial No. 669,103. Term of patent 7 years.



The ornamental design for an inverted glass holder as shown.

42,534. INVERTED-GLASS HOLDER. GEORGE E. CURTISS, New Britain, Conn. Filed Jan. 2, 1912. Serial No. 669,104. Term of patent 7 years.



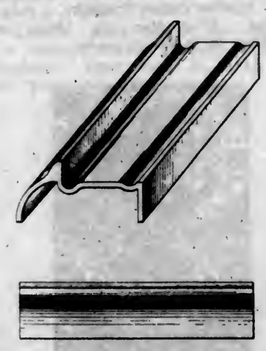
The ornamental design for an inverted glass holder as shown.

42,535. COIN-HOLDER. BETHUEL M. DAVIS, Chicago, Ill. Filed Dec. 6, 1911. Serial No. 664,690. Term of patent 3½ years.



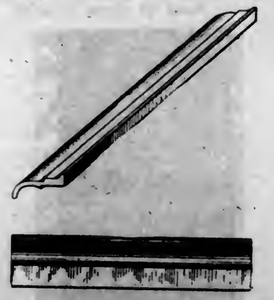
The ornamental design for a coin-holder, as shown.

42,536. PROFILED STRUCTURAL METAL BEAM. JOSEPH JAY, GUSTAVE JALLIFFIER, and AUGUSTIN BLANC, Grenoble, France. Filed Apr. 26, 1910. Serial No. 557,834. Term of patent 7 years.



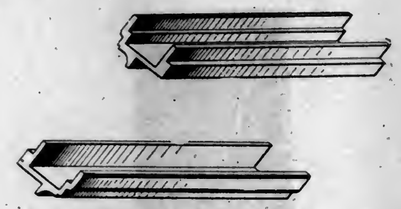
The ornamental design for a profiled structural metal beam, as shown.

42,537. PROFILED STRUCTURAL METAL BEAM. JOSEPH JAY, GUSTAVE JALLIFFIER, and AUGUSTIN BLANC, Grenoble, France. Filed Apr. 26, 1910. Serial No. 557,835. Term of patent 7 years.



The ornamental design for a profiled structural metal beam as shown.

42,538. PROFILED STRUCTURAL METAL BEAM. JOSEPH JAY, GUSTAVE JALLIFFIER, and AUGUSTIN BLANC, Grenoble, France. Filed Apr. 26, 1910. Serial No. 557,837. Term of patent 7 years.



The ornamental design for a profiled structural metal beam as shown.

42,539. CARPET. MILTON R. LOUDON, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,361. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

42,540. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,357. Term of patent 7 years.



The ornamental design for a rug, as shown.

42,541. CARPET. JOHN MURRAY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,358. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

42,542. CARPET. JOHN B. MOFFAT, Bronxville, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,363. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

42,543. LACING-HOOK. EDWARD L. PUPER, East Orange, N. J. Filed Dec. 29, 1911. Serial No. 668,526. Term of patent 14 years.



The ornamental design for a lacing hook as shown.

42,544. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,356. Term of patent 7 years.



The ornamental design for a rug, as shown.

42,545. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,365. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

42,546. CARPET. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,366. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

42,547. MIXING-TANK FOR CARBONATORS. HORACE M. SMITH, Chicago, Ill., assignor to The Liquid Carbonic Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 18, 1910. Serial No. 544,712. Term of patent 14 years.



The ornamental design for a mixing tank for carbonators as shown.

42,548. CARPET. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,349. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

42,549. CARPET. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,350. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

42,550. CARPET. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,351. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

42,551. CARPET. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,352. Term of patent 3½ years.



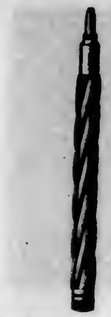
The ornamental design for a carpet, as shown.

42,552. RUG. JOHN SPRING, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,353. Term of patent 3½ years.



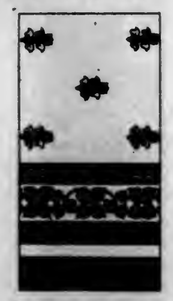
The ornamental design for a rug, as shown.

42,553. PENCIL-CASE OR SIMILAR ARTICLE. FREDERICK W. TOLFREE, Belleville, N. J., assignor to Joseph Dixon Crucible Company, Jersey City, N. J., a Corporation of New Jersey. Filed Jan. 25, 1912. Serial No. 673,456. Term of patent 14 years.



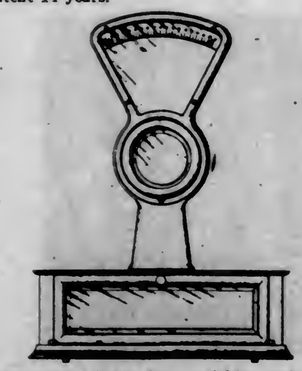
The ornamental design for a pencil case or similar article as shown.

42,554. CARPET. ERNEST W. TRIK, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,362. Term of patent 3½ years.



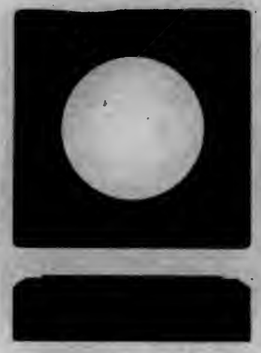
The ornamental design for a carpet, as shown.

42,555. WEIGHING-SCALE HOUSING. LEWIS CALVIN WETZEL, Toledo, Ohio, assignor to Toledo Computing Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Feb. 13, 1912. Serial No. 677,367. Term of patent 14 years.



The ornamental design for a weighing scale housing, as shown.

42,556. CLOCK-CASING. JOHN FRANKLIN WHITMAN, Elkins Park, Pa. Filed Feb. 16, 1911. Serial No. 609,073. Term of patent 14 years.



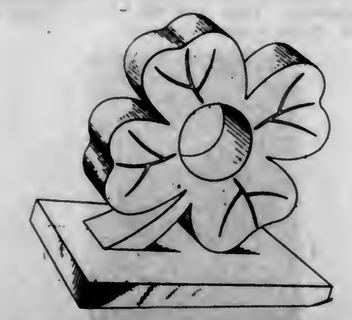
The ornamental design for a clock casing as shown and described.

42,557. CARPET. JOSEPH WISHART, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,364. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

42,558. CLOCK-CASE. ALVIN WRIGHT, Buffalo, N. Y. Filed Sept. 7, 1910. Serial No. 580,942. Term of patent 7 years.



The ornamental design for a clock case, as shown.

TRADE-MARKS

PUBLISHED MAY 21, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 24,897. (CLASS 15. OILS AND GREASES.) CROWN OIL & WAX CO. OF DELAWARE, Wilmington, Del., and Baltimore, Md. Filed Jan. 25, 1907.

SOLINE

Particular description of goods.—Illuminating-Oils.
Claims use since some time in the year 1903.

Ser. No. 40,618. (CLASS 20. LINOLEUM AND OILED CLOTH.) STANDARD OIL CLOTH CO., New York, N. Y. Filed Feb. 17, 1909.

SANITAS

Particular description of goods.—Oil-Cloth Wall-Covering.
Claims use since May 1, 1905.

Ser. No. 43,648. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE A-HEAL-A CO., Columbus, Ohio. Filed July 20, 1909.

A-HEAL-A

Particular description of goods.—Ointment, Balm, and Pills.
Claims use since Aug. 1, 1899.

Ser. No. 43,855. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GRIGGS, COOPER & CO., St. Paul, Minn. Filed July 28, 1909.

PRIMROSE

Particular description of goods.—Blended Coffee.
Claims use since Jan. 1, 1897.

Ser. No. 44,056. (CLASS 8. SMOKERS' ARTICLES, NOT INCLUDING TOBACCO PRODUCTS.) EUGÈNE BARDOU, Perpignan, France. Filed Aug. 10, 1909. Under ten-year proviso.

LE NIL CINQ CENTIMES

LE NIL

Particular description of goods.—Cigarette-Papers.
Claims use since May 13, 1887.

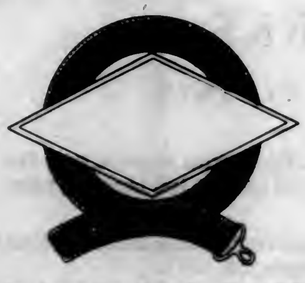
Ser. No. 45,241. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) M. GOTTESMAN & SON, New York, N. Y. Filed Oct. 11, 1909.

G

N.S.

Particular description of goods.—Wood-Pulp.
Claims use since Sept. 1, 1905.

Ser. No. 50,011. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) McINTYRE-BURRALL COMPANY, Green Bay, Wis. Filed May 31, 1910.



Particular description of goods.—Horse-Collars, Horse-Saddles, Horse-Blankets, and Fly-Nets.
Claims use since May, 1908.

Ser. No. 53,787. (CLASS 33. GLASSWARE.) AMERICAN BAR LOCK COMPANY, Philadelphia, Pa. Filed Jan. 9, 1911.

TENAX

Particular description of goods.—Illuminating-Prisms for Building Construction.
Claims use since Nov. 28, 1910.

Ser. No. 54,386. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) JOHN HARVEY AND SONS, LIMITED, Bristol, England. Filed Feb. 8, 1911.



Particular description of goods.—Scotch Whisky.
Claims use since Sept. 1, 1910.

Ser. No. 54,725. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) PAULINE LYON MARTIN, Dixon, Ill. Filed Feb. 24, 1911. Under ten-year proviso.

PRECIOUS

Particular description of goods.—An Ointment for Skin Diseases.
Claims use since November, 1883.

Ser. No. 54,897. (CLASS 37. PAPER AND STATIONERY.) IDEAL COATED PAPER COMPANY, Jersey City, N. J., and Brookfield, Mass. Filed Mar. 6, 1911.

LIGHTNING FLASH

Particular description of goods.—Enameled and Coated Paper.
Claims use since Jan. 1, 1911.

Ser. No. 55,005. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MAGIC REMEDY COMPANY, Sheboygan, Wis. Filed Mar. 11, 1911.

MRCo

Particular description of goods.—Remedies for Coughs, Colds, Bronchitis, Hoarseness, Loss of Voice, Irritability of the Larynx and Fauces, and other Inflamed Conditions of the Lungs and Air-Passages; Wounds, Sores, Bites, Cuts, Burns, Abrasions, Stings of Insects, Piles, Ulcers, Eczema, and All Skin Diseases, Rheumatism, Neuralgia, Earache, Pains in Back, Sides, and Breast, Diphtheria, Croup, Frost-Bites, Chilblains, Chapped Hands, Face, and Lips, Bruises, Stiff Joints, Liver, Bowel, and Kidney Complaints, Diarrhea, Dysentery, Cholera Morbus, Cold-Fever, Sore Throat, Headache, Catarrh, La Grippe, Toothache, Scalds, General Debility and Loss of Appetite, and Corn Remedy.
Claims use since Jan. 9, 1911.

Ser. No. 55,124. (CLASS 30. CROCKERY, EARTHENWARE, AND PORCELAIN.) GEO. F. BASSETT & CO., New York, N. Y. Filed Mar. 17, 1911.

BASSETT LIMOGES AUSTRIA

No claim being made to the exclusive use of the words "Bassett," "Limoges," and "Austria."
Particular description of goods.—China Cups, Saucers, Plates, Platters, Vegetable-Dishes, Bowls, and Pitchers.
Claims use since November, 1897.

Ser. No. 55,524. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CLARK & HOST CO., Milwaukee, Wis. Filed Apr. 4, 1911.



Which shows an old man holding a little girl, the picture being purely fanciful.
Particular description of goods.—Blended Coffee and Tea.
Claims use since Oct. 1, 1907.

Ser. No. 55,749. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE JOB'S OINTMENT COMPANY, Unionville, Pa. Filed Apr. 14, 1911.

Job's Ointment

No claim to the exclusive use of the word "Ointment" being made.
Particular description of goods.—An Ointment for Healing Cuts, Burns, or Old Sores of any Kind, Curing Piles, Drawing Boils, Breaking up a Cold in the Head or Breast.
Claims use since Jan. 1, 1911.

Ser. No. 55,999. (CLASS 32. FURNITURE AND UPHOLSTERY.) OREGON CHAIR CO., Portland, Oreg. Filed Apr. 27, 1911.



Particular description of goods.—Chairs.
Claims use since Oct. 15, 1910.

Ser. No. 56,019. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) SPENCER HEATER COMPANY, Scranton, Pa. Filed Apr. 28, 1911.

TRADE MARK

SPENCER $ SAVES

The name "Spencer" and the words "Trade-Mark" and the word "Saves" being disclaimed.
Particular description of goods.—Steam and Hot-Water Heaters and Parts Thereof.
Claims use since and during 1888.

Ser. No. 58,095. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) GEO. BRAY & CO. LTD., Leeds, England. Filed Aug. 9, 1911.

LUTA

Particular description of goods.—Gas-Burners of Ordinary Metal.
Claims use since Nov. 15, 1901.

Ser. No. 58,096. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) GEO. BRAY & CO. LTD., Leeds, England. Filed Aug. 9, 1911.

ELTA

Particular description of goods.—Gas-Burners of Ordinary Metal.
Claims use since Nov. 15, 1901.

Ser. No. 58,563. (CLASS 39. CLOTHING.) H. N. FRANK & CO., Philadelphia, Pa. Filed Sept. 7, 1911.

HNF&Co



The picture being fanciful.
Particular description of goods.—Outer Skirts and Blouses.
Claims use since May 1, 1911.

Ser. No. 58,564. (CLASS 39. CLOTHING.) H. N. FRANK & Co., Philadelphia, Pa. Filed Sept. 7, 1911.



The picture being fanciful.
Particular description of goods.—Outer Skirts and Blouses.
Claims use since May 1, 1911.

Ser. No. 58,825. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) DIAMOND ELECTRIC Co., Binghamton, N. Y. Filed Sept. 23, 1911.

DELCO

Particular description of goods.—Electrically-Heated Flat-Irons, Toasters, Disk Stoves, Ovens, Soldering-Pots, Cigar-Lighters, and Percolator-Heaters.
Claims use since July 23, 1909.

Ser. No. 58,888. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN B. SMITH, Point Pleasant, W. Va. Filed Sept. 27, 1911.

VIPER

Particular description of goods.—A Remedy for Rheumatism, Neuralgia, Sprains, Bruises, Burns, Fever Sores, Headaches, Sore Throats, Insect-Bites, Corns, Bunions, External Swelling, Diphtheria, Cracked Hoof, Galls, Ring-Bone, Scratches, Wind-Galls, Spavin, Splint and Stiff Joints, Sore Bags, Sore Teats, Hollow Tail, Cholera, and Roup.
Claims use since June 10, 1908.

Ser. No. 58,905. (CLASS 39. CLOTHING.) DETROIT GARMENT MANUFACTURING COMPANY, Detroit, Mich. Filed Sept. 28, 1911.



The picture being fanciful.
Particular description of goods.—Dresses.
Claims use since Dec. 1, 1910.

Ser. No. 59,096. (CLASS 33. GLASSWARE.) THE FOSTORIA GLASS SPECIALTY COMPANY, Fostoria, Ohio. Filed Oct. 11, 1911.



Particular description of goods.—Globes, Shades, and Reflectors for Illuminating Purposes; Glass Columns, Bases, and Supports for Illuminating Purposes, Bowls, Dishes, Cups, Bottles, Decanters, Carafes, Pitchers, Jugs, Goblets, Saucers, Vases, Trays; Rose-Bowls, Clock-Cases, and Pen-Trays.
Claims use since about Nov. 1, 1910.

Ser. No. 59,115. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) RATHBONE FIREPLACE MANUFACTURING Co., Grand Rapids, Mich. Filed Oct. 9, 1911.



The mark being red.
Particular description of goods.—Grates, Fire-Baskets, Gas-Grates.
Claims use since Feb. 1, 1911.

Ser. No. 59,301. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE CHAMPION SAFETY LOCK COMPANY, Geneva, Ohio. Filed Oct. 23, 1911.

CHAMPION

Particular description of goods.—Base-Knobs; Casement-Window Adjusters and Fasteners; Cellar-Window Fasteners; Chest-Handles; Coat and Hat Hooks; Door Checks, Guards, Holders, Pulls, and Stops; Drop-Handles; Drawer-Pulls; Kick-Plates; Push-Plates; Sash-Lifts; Spring-Hinges; and Letter-Box Plates.
Claims use since 1883.

Ser. No. 59,314. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WARNER'S SAFE REMEDIES Co., Rochester, N. Y. Filed Oct. 24, 1911. Under ten-year proviso.

WARNER'S
SAFE



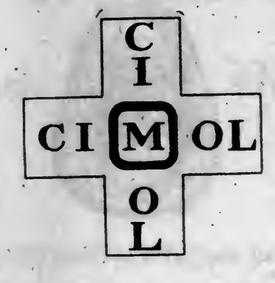
Particular description of goods.—Remedies for Kidney and Liver Troubles and Bright's Disease, Diabetes, Rheumatism, Asthma, Affections of the Nerves, and Pills for the Relief of Troubles of the Bowels.
Claims use since about 1879.

Ser. No. 59,337. (CLASS 48. MALT EXTRACTS AND LIQUORS.) JOS. SCHLITZ BREWING COMPANY, Milwaukee, Wis. Filed Oct. 25, 1911. Under ten-year proviso.



Particular description of goods.—Lager-Beer.
Claims use since May 15, 1894.

Ser. No. 59,342. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES W. IRWIN, Philadelphia, Pa. Filed Oct. 25, 1911.



Particular description of goods.—An Embalming Fluid.
Claims use since June 1, 1911.

Ser. No. 59,414. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH ZIENTEK, Chicago, Ill. Filed Oct. 28, 1911.

ARROW

Particular description of goods.—Remedies for Kidney Ailments.
Claims use since July 27, 1911.

Ser. No. 59,426. (CLASS 37. PAPER AND STATIONERY.) THE REYNOLDS & REYNOLDS COMPANY, Dayton, Ohio. Filed Oct. 30, 1911.



The ribbon being colored blue and the disk red.
Particular description of goods.—Paper Tablets and Note-Books.
Claims use since Sept. 30, 1911.

Ser. No. 59,466. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) WINFIELD S. SMITH, Kingman, Me. Filed Nov. 1, 1911. Under ten-year proviso.



The portrait being that of Ada Smith Scott, daughter of the applicant.

Particular description of goods.—Horse-Collars.

Claims use since Jan. 1, 1880.

Ser. No. 59,521. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) BONWIT, TELLER & CO., New York, N. Y. Filed Nov. 3, 1911.

"Bontell"

Particular description of goods.—Handkerchiefs, Vestings, Veilings, Silk Piece Goods, and Ribbons.

Claims use since about Aug. 1, 1911.

Ser. No. 59,555. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BLATTAY COMPANY, Philadelphia, Pa. Filed Nov. 4, 1911.

Blattay

Particular description of goods.—Crushed Dried Leaves of Rubus for Diarrhea.

Claims use since August, 1911.

Ser. No. 59,622. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) POLACK TYRE COMPANY, New York, N. Y. Filed Nov. 9, 1911.



No claim being made for the words appearing therein.

Particular description of goods.—Vehicle-Tires Made Wholly or in Part of Rubber.

Claims use since Nov. 10, 1910.

Ser. No. 59,723. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) ABRAHAM ROCKOWITZ, New York, N. Y. Filed Nov. 15, 1911.

MADXAME

Particular description of goods.—Abdominal Supporters.

Claims use since Feb. 1, 1911.

Ser. No. 59,749. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) GREEN RIVER LUMBER COMPANY, Memphis, Tenn. Filed Nov. 16, 1911.



Particular description of goods.—Hardwood Lumber and Logs.

Claims use since Sept. 1, 1911.

Ser. No. 59,750. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) GREEN RIVER LUMBER COMPANY, Memphis, Tenn. Filed Nov. 16, 1911.



Particular description of goods.—Hardwood Lumber and Logs.

Claims use since Sept. 1, 1911.

Ser. No. 59,819. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) DUNLAP MANUFACTURING COMPANY, Bloomington, Ill. Filed Nov. 20, 1911.



Consisting of a fanciful picture.

Particular description of goods.—Dust-Cloths for Furniture, Pianos, All Woodwork, Vehicles, and Enameled Surfaces.

Claims use since March, 1911.

Ser. No. 60,198. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. A. BROMUND COMPANY, New York, N. Y. Filed Dec. 13, 1911.



No claim being made to the words "Chemically Pure Beeswax" or to the word "Brand."

Particular description of goods.—Beeswax.

Claims use since Oct. 1, 1907.

Ser. No. 60,725. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK W. FISCHLEIN, New York, N. Y. Filed Jan. 11, 1912.

Carb-ex.

Particular description of goods.—A Carbon-Remover.

Claims use since Mar. 23, 1911.

Ser. No. 60,840. (CLASS 17. TOBACCO PRODUCTS.) IRVING A. SILBERMAN, New York, N. Y. Filed Jan. 16, 1912.

Silberman's Invited CIGARS INVITED Brand Cigars

No claim, however, being made by me to the words "Silberman's Cigars," "Fine Cigars," or the word "Brand."

Particular description of goods.—Cigars.

Claims use since Jan. 1, 1911.

Ser. No. 60,877. (CLASS 32. FURNITURE AND UPHOLSTERY.) CAPITOL CITY CHAIR CO., Atlanta, Ga. Filed Jan. 17, 1912.

PREST-O-BED

Particular description of goods.—Davenport-Beds.

Claims use since July, 1911.

Ser. No. 60,899. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHNSTON FRUIT CO. (INC.), Santa Barbara, Cal. Filed Jan. 18, 1912.

EXPOSITION

Particular description of goods.—Oranges and Lemons.

Claims use since Aug. 7, 1911.

Ser. No. 60,902. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) EDWARD FREDERIC RIDGWAY, Sheffield, England. Filed Jan. 19, 1912.



Particular description of goods.—Butchers' Knives and Butchers' Steels, Shoe-Knives, Farriers' Knives, Tanners' Knives, Bread, Butter, and Cheese Knives, Hunting-Knives, Putty, Pallete, and Glaziers' Knives, Saddlers' Knives, Rubber-Knives, Steel Table-Knives and Pocket-Knives, Cleavers, Choppers, Pig-Scrapers, Razors, Saws.

Claims use since 1766.

Ser. No. 60,922. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DR. PARTRIDGE MEDICINE CO., St. Paul, Minn. Filed Jan. 19, 1912.

P. Q.

Particular description of goods.—Headache-Powder, Catarrh-Snuff, Antidiarrhea-Pills, Nerve, Blood, and Liver Tablets, Herb-Tea Preparation for the Blood, Eye-Wash, Remedy for Dyspepsia and Indigestion, Remedy for Colic and Cholera Morbus, Castoria, Worm-Confections, Pile Remedy, Cough Remedy, External and Internal Remedy for Croup, Diphtheria, Rheumatism, Chills, and Fever.
Claims use since March, 1888.

Ser. No. 60,945. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ERNEST SPENARD, Biddeford, Me. Filed Jan. 20, 1912.

REVELATION
Hair Tonic

E. S. Co.

No claim being made to the exclusive use of the words "Hair Tonic."
Particular description of goods.—Hair-Tonic.
Claims use since Jan. 1, 1912.

Ser. No. 60,962. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE A. COLVIN, Chicago, Ill. Filed Jan. 22, 1912.

Cascathalen

Particular description of goods.—A Tonic Laxative.
Claims use since about Jan. 1, 1906.

Ser. No. 61,003. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CHARLES E. ISING, New York, N. Y. Filed Jan. 24, 1912.

Delpha

Particular description of goods.—Cold-Creams, Perfumes, Greaseless Face-Creams, Face-Powders, Bath-Crystals, Tooth-Cleansing Preparations in Liquid and Powder Form, Hair-Tonics, Nail Cleaning and Polishing Preparations, and Rouge in Liquid and Powder Form.
Claims use since about June 1, 1910.

Ser. No. 61,004. (CLASS 25. LOCKS AND SAFES.) NUTEY & COOK MANUFACTURING CO., New York, N. Y. Filed Jan. 24, 1912.



No claim being made to the words "Steel Safe."
Particular description of goods.—Safes.
Claims use since Dec. 2, 1911.

Ser. No. 61,044. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) INTERNATIONAL CHEWING GUM COMPANY, New York, N. Y. Filed Jan. 26, 1912.

MEXCOL

Particular description of goods.—A Plastic Base Used in the Manufacture of Chewing-Gum.
Claims use since Dec. 29, 1911.

Ser. No. 61,104. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WELLS & RICHARDSON COMPANY, Burlington, Vt. Filed Jan. 27, 1912. Under ten-year proviso.

PAINE'S CELERY



COMPOUND

Particular description of goods.—Tonic, Alterative, Laxative, and Diuretic Medicines.
Claims use since 1882.

Ser. No. 61,115. (CLASS 38. PRINTS AND PUBLICATIONS.) FARM & STOCK PUBLISHING COMPANY, St. Joseph, Mo. Filed Jan. 29, 1912.

Profitable Farming

Particular description of goods.—Magazines.
Claims use since Mar. 1, 1911.

Ser. No. 61,125. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE OXYPATHOR CO., Buffalo, N. Y. Filed Jan. 29, 1912.

OXYPATHY

Particular description of goods.—Toilet Soap and Shaving-Soap.
Claims use since Jan. 8, 1912.

Ser. No. 61,229. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH SIMEON, New York, N. Y. Filed Feb. 2, 1912.

SISONOL

Particular description of goods.—Insecticides.
Claims use since Jan. 25, 1912.

Ser. No. 61,233. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) IRELAND & KREPPEL, Norristown, Pa. Filed Feb. 3, 1912.

IRELAND'S PRIDE



Which includes a picture of the infant son of W. C. L. Ireland.
Particular description of goods.—Extract of Coffee.
Claims use since Dec. 14, 1911.

Ser. No. 61,308. (CLASS 39. CLOTHING.) CHAS. A. STEVENS & BROS., Chicago, Ill. Filed Feb. 6, 1912.

Rhea

Particular description of goods.—Corsets.
Claims use since Jan. 15, 1912.

Ser. No. 61,413. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES M. SNITZLER, Chicago, Ill. Filed Feb. 10, 1912.

MAY-A-TONE

Particular description of goods.—Dissoluble Powder for the Treatment of the Skin.
Claims use since January, 1909.

Ser. No. 61,457. (CLASS 39. CLOTHING.) MATTHIAS J. MULLEN, Pittsburgh, Pa. Filed Feb. 14, 1912.

CADET'S

Particular description of goods.—Leather Boots and Shoes.
Claims use since Nov. 1, 1895.

Ser. No. 61,469. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) HELLER & LONG, New York, N. Y. Filed Feb. 14, 1912.

VICTOR

Particular description of goods.—Handkerchiefs.
Claims use since Dec. 15, 1911.

Ser. No. 61,527. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HORACE B. TAYLOR, Philadelphia, Pa. Filed Feb. 15, 1912.



The seal being gold. The words "Hooper's" and "Pills" are disclaimed.
Particular description of goods.—Pills for Female Complaints.
Claims use since Mar. 1, 1911.

Ser. No. 61,543. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE C. B. WOODWORTH SONS CO., Rochester, N. Y. Filed Feb. 16, 1912.

FIANCÉE

Particular description of goods.—Perfumes, Toilet Waters, Talcum Powder, and Toilet Creams.
Claims use since Jan. 12, 1912.

Ser. No. 61,602. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) BURMONT SPECIALTY COMPANY, Fernwood, Pa. Filed Feb. 19, 1912.

VESUVIUS
SAFETY TORPEDO

The color of the upper band being red and the lower blue. No claim is made to the words "Safety Torpedo."
Particular description of goods.—Hand-Torpedoes.
Claims use since July, 1907.

Ser. No. 61,703. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALPHEUS ARMOR, Pittsburgh, Pa. Filed Feb. 24, 1912. Under ten-year proviso.

PEQUET'S



PANSY

Particular description of goods.—A Preparation for Chapped Hands, Face, and Lips, and Tan and Sunburn, and Any Roughness of the Skin.
Claims use since about Jan. 1, 1888.

Ser. No. 61,765. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) JOHN JAQUES & SON, LTD., London, England. Filed Feb. 27, 1912.

MINORU

Particular description of goods.—A Game.
Claims use since about November, 1909.

Ser. No. 61,796. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) FREDERICK J. LEA, San Diego, Cal. Filed Feb. 26, 1912.

PEDRARA

Particular description of goods.—Onyx.
Claims use since Oct. 1, 1911.

Ser. No. 61,808. (CLASS 10. FERTILIZERS.) AMERICAN AGRICULTURAL CHEMICAL COMPANY, New York, N. Y. Filed Feb. 29, 1912.

AA

Particular description of goods.—Fertilizers.
Claims use since November, 1911.

Ser. No. 61,937. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) SYROLIT LIMITED, London, England. Filed Mar. 5, 1912.

SYROLIT

Particular description of goods.—A Solid Plastic Material Composed Chiefly of Curdled Milk or Casein.
Claims use since about May, 1909.

Ser. No. 61,941. (CLASS 39. CLOTHING. W. TYLER SONS & Co., Leicester, England. Filed Mar. 5, 1912.



Particular description of goods.—Hose, Half-Hose, and Gloves.
Claims use since Jan. 14, 1907.

Ser. No. 61,953. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) ATLAS PRESERVATIVE CO. OF AMERICA, New York, N. Y. Filed Mar. 6, 1912.

RUSKILLA

Particular description of goods.—Ready-Mixed Paint.
Claims use since about July 1, 1911.

Ser. No. 61,986. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GILBERT AND HORNER, Chambersburg, Pa. Filed Mar. 7, 1912.

GIL-HORN

Particular description of goods.—Cold-Cream, Cold and Grippe Capsules, and Stomach Medicine.
Claims use since Sept. 1, 1908.

Ser. No. 62,011. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) C. A. COLMAN CO., New York, N. Y. Filed Mar. 7, 1912.

ETERNITY

Particular description of goods.—Cotton Piece Goods and Silk and Cotton Piece Goods.
Claims use since Jan. 2, 1912.

Ser. No. 62,053. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE NONOTUCK SILK COMPANY, Northampton, Mass. Filed Mar. 8, 1912.

DOLLY DIMPLE

Particular description of goods.—Ribbons of Silk, Cotton, and Silk and Cotton.
Claims use since about 1911.

Ser. No. 62,061. (CLASS 39. CLOTHING.) HENLEIN & GREENTREE, New York, N. Y. Filed Mar. 8, 1912.

Miladies

Particular description of goods.—Men's Outer Suits and Coats.
Claims use since Feb. 1, 1912.

Ser. No. 62,126. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) DENNISON PHARMACAL COMPANY, Chicago, Ill. Filed Mar. 13, 1912.

Bingo

Particular description of goods.—A Preparation Consisting of Six Per Cent. Alcohol, Ext. Cannabis Indica Eight Grains, and Twenty-Seven Per Cent. Ether Used as a Remedy for Corns, Callouses, Bunions, and Warts.
Claims use since Jan. 1, 1911.

Ser. No. 62,143. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MICHAEL CURTIS, Burlington, Vt. Filed Mar. 13, 1912.

SITRUC

Particular description of goods.—A Medicine for Rheumatism.
Claims use since Mar. 4, 1912.

Ser. No. 62,146. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) ITALIAN MUSICAL STRING CO., Newark, N. J., and New York, N. Y. Filed Mar. 13, 1912.



Particular description of goods.—Strings for Musical Instruments.
Claims use since the 1st of November, 1911.

Ser. No. 62,163. (CLASS 10. FERTILIZERS.) PLANTS PLANTOIDS LIMITED, London, England. Filed Mar. 14, 1912.



Particular description of goods.—Fertilizers.
Claims use since the 14th day of September, 1911.

Ser. No. 62,220. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MALONE & DISS, Columbus, Ohio. Filed Mar. 18, 1912.

MALDIS

Particular description of goods.—Pile Remedies.
Claims use since about Feb. 1, 1912.

Ser. No. 62,247. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNGERER & Co., New York, N. Y. Filed Mar. 18, 1912.

PETROFLOROL

Particular description of goods.—Perfumery Ingredients.
Claims use since May 11, 1909.

Ser. No. 62,255. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JAMES R. KEISER, INC., New York, N. Y. Filed Mar. 18, 1912.



No claim being made to the word "Handkerchiefs."
Particular description of goods.—Kerchiefs and Handkerchiefs.
Claims use since Feb. 5, 1912.

Ser. No. 62,261. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) QUAKER CITY CHOCOLATE AND CONFECTIONERY COMPANY, Philadelphia, Pa. Filed Mar. 19, 1912.

MY PET

Particular description of goods.—Candy.
Claims use since Feb. 8, 1912.

Ser. No. 62,269. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NELSON M. WIEGAND, Truxton, N. Y. Filed Mar. 19, 1912.

KUZ

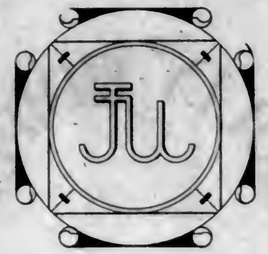
Particular description of goods.—Dyspepsia-Tablets.
Claims use since Mar. 3, 1912.

Ser. No. 62,281. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NEW YORK & LONDON DRUG CO., New York, N. Y. Filed Mar. 19, 1912.

NYLO

Particular description of goods.—Candies.
Claims use since Mar. 4, 1912.

Ser. No. 62,295. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH ULAGER, Cleveland, Ohio. Filed Mar. 20, 1912.



Particular description of goods.—Remedy for Skin Disease.
Claims use since Jan. 20, 1912.

Ser. No. 62,298. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HARRY P. DUKEHART, Baltimore, Md. Filed Mar. 20, 1912.

"X-ILRO"

Particular description of goods.—A Headache Remedy.
Claims use since Sept. 2, 1911.

Ser. No. 62,306. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE OWL DRUG COMPANY, San Francisco, Cal. Filed Mar. 20, 1912.



Particular description of goods.—Toilet Water, Tooth-Powder, Tooth-Wash, Tooth-Paste, Talcum Powder, Cold-Cream, Sachet-Powder, Perfumes, and Dry Rouges.
Claims use since Jan. 1, 1912.

Ser. No. 62,353. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) AUBURN SPECIALTIES COMPANY, Auburn, N. Y. Filed Mar. 22, 1912.



Particular description of goods.—Polishing-Cloths Impregnated with Polishing Material.
Claims use since Mar. 14, 1912.

Ser. No. 62,357. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) AMERICAN SUSPENDER CO., Aurora, Ill. Filed Mar. 23, 1912.

Mother's Delight

Particular description of goods.—Combined Suspender and Garment-Supporter.
Claims use since Oct. 25, 1911.

Ser. No. 62,377. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE MEIER DENTAL MANUFACTURING COMPANY, St. Louis, Mo. Filed Mar. 23, 1912.

DUPLEX

Particular description of goods.—Dental Foils for Use as Tooth-Fillings.
Claims use since Sept. 12, 1911.

Ser. No. 62,384. (CLASS 12. CONSTRUCTION MATERIALS.) THE ROEBUCK WEATHER STRIP AND WIRE SCREEN COMPANY, New York, N. Y. Filed Mar. 23, 1912.



Particular description of goods.—Wood and Metal Weather-Strip.
Claims use since Aug. 1, 1906.

Ser. No. 62,403. (CLASS 17. TOBACCO PRODUCTS.) H. TRAISER & COMPANY, INCORPORATED, Boston, Mass. Filed Mar. 25, 1912.

TRAICO

Particular description of goods.—Cigars.
Claims use since Dec. 5, 1910.

Ser. No. 62,424. (CLASS 17. TOBACCO PRODUCTS.) DUNKERSON & CO., INC., Louisville, Ky. Filed Mar. 26, 1912.

PAD

Particular description of goods.—Leaf-Tobacco.
Claims use since Apr. 4, 1908.

Ser. No. 62,431. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE GREAT WESTERN SUGAR COMPANY, Denver, Colo. Filed Mar. 26, 1912.

HONEY HAY

Particular description of goods.—Honey Hay.
Claims use since Jan. 4, 1912.

Ser. No. 62,449. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) IVORY CLASP & GARTER CO., New Orleans, La. Filed Mar. 27, 1912.

Ivory

Particular description of goods.—Garters.
Claims use since Dec. 1, 1910.

Ser. No. 62,496. (CLASS 39. CLOTHING.) HACKETT, CARHART & CO., INC. RETAIL, New York, N. Y. Filed Mar. 29, 1912.



Particular description of goods.—Men's and Boys' Coats, Vests, Trousers, Overcoats, Hats, Caps, Sweater-Jackets, Rain-Coats, Hosiery, Collars, Cuffs, Textile and Knitted Underwear.
Claims use since Apr. 1, 1911.

Ser. No. 62,497. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) H. C. WATTS, INCORPORATED, Syracuse, N. Y. Filed Mar. 29, 1912.

SUNTOR

Particular description of goods.—Eyeglasses and Spectacles.
Claims use since Feb. 1, 1911.

Ser. No. 62,547. (CLASS 39. CLOTHING.) HYGIENIC FIBRE COMPANY, New York, N. Y. Filed Mar. 30, 1912.

T.C.A.

Particular description of goods.—Plain Bird's-Eye Napkins, Baby-Diapers, Sanitary Napkins, and Washable Napkins.
Claims use since prior to September, 1908.

Ser. No. 62,548. (CLASS 39. CLOTHING.) HYGIENIC FIBRE COMPANY, New York, N. Y. Filed Mar. 30, 1912.



Particular description of goods.—Sanitary Napkins.
Claims use since prior to September, 1908.

Ser. No. 62,560. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOHN ENGLISH BAKING COMPANY, Troy, N. Y. Filed Apr. 1, 1912.

GE-KO

Particular description of goods.—Bread.
Claims use since Mar. 19, 1912.

Ser. No. 62,602. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NAUMKEAG STEAM COTTON CO., Salem, Mass. Filed Apr. 2, 1912.



No claim being made to the words "Torn and Hemmed," "Ready for Use," "Sheets and Pillow Cases."
Particular description of goods.—Sheets and Pillow-Cases.
Claims use since January, 1909.

Ser. No. 62,604. (CLASS 37. PAPER AND STATIONERY.) THE ESTERBROOK STEEL PEN MFG. CO., Camden, N. J. Filed Apr. 2, 1912.

R. Esterbrook & Co.

RELIEF No. 314

The name "R. Esterbrook & Co." being in the facsimile handwriting of R. Esterbrook.
Particular description of goods.—Gold and Fountain Pens.
Claims use since April, 1880.

Ser. No. 62,626. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FOSTER PACKING COMPANY, Chicago, Ill. Filed Apr. 3, 1912.

TARGET

Particular description of goods.—Condensed Skimmed Milk.
Claims use since Aug. 14, 1911.

Ser. No. 62,630. (CLASS 23. GLASSWARE.) GILL BROTHERS COMPANY, Steubenville, Ohio. Filed Apr. 3, 1912.

Gloria

Particular description of goods.—Glass Chimneys, Glass Lantern-Globes, Glass Shades, and Glass Reflectors; Glass Electric-Arc-Light Globes, Glass Globes for Incandescent Electric Lamps, and Glass Bulbs for Incandescent Electric Lamps.
Claims use since Feb. 20, 1912.

Ser. No. 62,645. (CLASS 37. PAPER AND STATIONERY.) LUDWIG STEINBERG, New York, N. Y. Filed Apr. 4, 1912.

MARVEL

Particular description of goods.—Fountain-Pens.
Claims use since Nov. 1, 1911.

Ser. No. 62,670. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DEAN LILLY COFFEE AND SPICE CO., Memphis, Tenn. Filed Apr. 5, 1912.

GOLD MINE

Particular description of goods.—Coffee.
Claims use since about May, 1905.

Ser. No. 62,678. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) DUNN EDGE TOOL COMPANY, Oakland, Me. Filed Apr. 5, 1912.

LIGHTNING

Particular description of goods.—Hay-Knives, Grass-Shears, Axes, Choppers, and Bread-Knives.
Claims use since May 21, 1872.

Ser. No. 62,681. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SUGAR LOAF ORANGE GROWERS ASSOCIATION, Highgrove, Cal. Filed Apr. 6, 1912.

INDUSTRY



The picture shown being fanciful.
Particular description of goods.—Oranges, Lemons, Pomelos, and Grape-Fruit.
Claims use since Jan. 30, 1912.

Ser. No. 62,691. (CLASS 2. RECEPTACLES.) CROWN COLUMBIA PAPER CO., San Francisco, Cal. Filed Apr. 6, 1912.

CRICKET

Particular description of goods.—Paper Bags.
Claims use since Feb. 20, 1912.

Ser. No. 62,699. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HECKER CEREAL COMPANY, New York, N. Y., and Milwaukee, Wis. Filed Apr. 6, 1912.

DAISY



Particular description of goods.—Rolled Oats.
Claims use since November, 1908.

Ser. No. 62,732. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GIFFEN-HOBBS CO., Fresno, Cal. Filed Apr. 8, 1912.

BROWN AND GOLD

Particular description of goods.—Dried Fruits and Raisins.
Claims use since 1904.

Ser. No. 62,752. (CLASS 39. CLOTHING.) JOSEPH SIEGEL, Detroit, Mich. Filed Apr. 8, 1912.

FROLASET

Particular description of goods.—Corsets.
Claims use since Mar. 1, 1912.

Ser. No. 62,758. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NEUSS, HESSLEIN & CO., New York, N. Y. Filed Apr. 9, 1912.

Nehesco

Particular description of goods.—Woven Cotton Plaids.
Claims use since Dec. 14, 1911.

Ser. No. 62,813. (CLASS 17. TOBACCO PRODUCTS.) STAMATIS D. STAMATOPOULOS, New York, N. Y. Filed Apr. 10, 1912.

"RADAMES"

Particular description of goods.—Cigars and Cigarettes.
Claims use since Mar. 1, 1909.

Ser. No. 62,837. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE DE VILBISS MANUFACTURING COMPANY, Toledo, Ohio. Filed Apr. 11, 1912.

PERFUMIZER

Particular description of goods.—Atomizers and Nebulizers.
Claims use since January, 1904.

Ser. No. 62,838. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE DE VILBISS MANUFACTURING COMPANY, Toledo, Ohio. Filed Apr. 11, 1912.

MEDICALIZER

Particular description of goods.—Atomizers and Nebulizers.
Claims use since January, 1904.

Ser. No. 62,876. (CLASS 39. CLOTHING.) MISSOURI SHOE COMPANY, St. Louis, Mo. Filed Apr. 13, 1912.

Sho-Me

Particular description of goods.—Leather Boots and Shoes.
Claims use since on or about Mar. 28, 1912.

Ser. No. 62,912. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) THE LOW-TAUSSIG-KARPELES CO., Providence, R. I. Filed Apr. 15, 1912.

LA TAUSCA

Particular description of goods.—Pearls and Imitation Pearls.
Claims use since Feb. 1, 1912.

Ser. No. 62,993. (CLASS 37. PAPER AND STATIONERY.) J. W. BUTLER PAPER CO., Chicago, Ill. Filed Apr. 19, 1912.

PIGSKIN BOND

No claim being made for the word "Bond."
Particular description of goods.—Writing-Paper.
Claims use since April, 1911.

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TRADE-MARKS

REGISTERED MAY 21, 1912.

86,565. CARBURETERS AND PARTS THEREOF. THE AIR FRICTION CARBURETOR COMPANY, Dayton, Ohio.
Filed September 21, 1911. Serial No. 58,782. PUBLISHED MARCH 19, 1912.

86,566. CERTAIN HARDWARE AND PLUMBING SUPPLIES. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed April 25, 1911. Serial No. 55,957. PUBLISHED MARCH 12, 1912.

86,567. LENS EXAMINING AND TESTING INSTRUMENTS. AMERICAN OPTICAL COMPANY, Southbridge, Mass.
Filed January 25, 1912. Serial No. 61,023. PUBLISHED MARCH 19, 1912.

86,568. CERTAIN RAW OR PARTLY-PREPARED MATERIALS. DANIEL F. BASH, Indianapolis, Ind.
Filed December 7, 1910. Serial No. 53,171. PUBLISHED MARCH 19, 1912.

86,569. METAL DRINKING-CUPS. BEHREND & ROTHSCHILD, New York, N. Y.
Filed October 19, 1911. Serial No. 59,227. PUBLISHED MARCH 12, 1912.

86,570. OZONIZED HYGIENIC WATER. BERRYMAN & SCHLEGELMILCH, Philadelphia, Pa.
Filed June 2, 1911. Serial No. 56,793. PUBLISHED MARCH 19, 1912.

86,571. GAS-PRESSURE REGULATORS. EDWARD J. BURNS, Chicago, Ill.
Filed November 4, 1911. Serial No. 59,546. PUBLISHED MARCH 12, 1912.

86,572. MITTENS AND GLOVES. THE CHADDOCK-KURZ REVERSIBLE GLOVE CO., Cleveland, Ohio.
Filed January 29, 1912. Serial No. 61,108. PUBLISHED MARCH 19, 1912.

86,573. VARNISH AND PAINT REMOVER. THE H. B. CHALMERS CO., Schenectady, N. Y.
Filed December 9, 1911. Serial No. 60,134. PUBLISHED MARCH 19, 1912.

86,574. TYPE-WRITERS AND PARTS THEREOF. THE COLUMBIA TYPEWRITER MANUFACTURING COMPANY, New York, N. Y.
Filed November 25, 1910. Serial No. 52,932. PUBLISHED MARCH 12, 1912.

86,575. PIANOS AND PLAYER-PIANOS. THE COLUMBUS PIANO CO., Columbus, Ohio.
Filed January 27, 1912. Serial No. 61,088. PUBLISHED MARCH 19, 1912.

86,576. NATURAL MINERAL WATERS. COMPAGNIE FERMIÈRE DE L'ÉTABLISSEMENT THERMAL DE VICHY, Paris, France.
Filed June 6, 1911. Serial No. 56,864. PUBLISHED MARCH 19, 1912.

86,577. CERTAIN HARDWARE SUPPLIES. COONLEY MANUFACTURING COMPANY, Clyde, Ill.
Filed October 17, 1911. Serial No. 59,198. PUBLISHED MARCH 12, 1912.

86,578. GRAPE AND CRANBERRY JUICES. THE CROWELL FRUIT JUICE CO., Belfast, N. Y.
Filed December 13, 1911. Serial No. 60,203. PUBLISHED MARCH 19, 1912.

86,579. PHOTOGRAPHIC CAMERAS. JESSE H. DOLBY, Elgin, Ill.
Filed November 22, 1911. Serial No. 59,854. PUBLISHED MARCH 12, 1912.

86,580. WOOD-POLISH. EDWARD DONAHUE, Kenosha, Wis.
Filed October 26, 1910. Serial No. 52,452. PUBLISHED MARCH 12, 1912.

86,581. ENAMELED METAL KITCHEN-WARE. THE ENTERPRISE ENAMEL CO., Bellaire, Ohio.
Filed October 18, 1911. Serial No. 59,217. PUBLISHED MARCH 12, 1912.

86,582. CERTAIN STATIONERY SUPPLIES. A. W. FABER, Stein, Germany.
Filed December 16, 1905. Serial No. 15,457. PUBLISHED DECEMBER 26, 1911.

86,583. LEAD-PENCILS, COLORED PENCILS, COPYING-PENCILS, AND INK-PENCILS. A. W. FABER, Stein, Germany.
Filed January 27, 1912. Serial No. 61,076. PUBLISHED MARCH 19, 1912.

86,584. GAS TRACTION-ENGINES. GAS TRACTION COMPANY, Minneapolis, Minn.
Filed October 9, 1911. Serial No. 59,084. PUBLISHED MARCH 12, 1912.

86,585. MUSICAL INSTRUMENTS AND SUPPLIES. WM. R. GRATZ IMPORT CO., New York, N. Y.
Filed January 24, 1912. Serial No. 61,001. PUBLISHED MARCH 19, 1912.

86,586. COTTON TEXTILE PIECE GOODS. WILLIAM A. GREER, Passaic, N. J.
Filed January 17, 1912. Serial No. 60,858. PUBLISHED MARCH 19, 1912.

86,587. WATCHMEN'S CLOCKS. HARDINGE BROTHERS, Chicago, Ill.
Filed February 5, 1912. Serial No. 61,262. PUBLISHED MARCH 19, 1912.

86,588. CUTLERY, MACHINERY, AND TOOLS AND PARTS THEREOF. THE A. J. HARWI HARDWARE COMPANY, Atchison, Kans.
Filed December 10, 1910. Serial No. 53,209. PUBLISHED MARCH 12, 1912.

86,589. CERTAIN HARDWARE SUPPLIES. THE A. J. HARWI HARDWARE COMPANY, Atchison, Kans.
Filed December 10, 1910. Serial No. 53,210. PUBLISHED MARCH 12, 1912.

86,590. VARNISHES AND STAINS. HATFIELD-BERNHARD CO. INC., Seattle, Wash.
Filed November 29, 1911. Serial No. 60,003. PUBLISHED MARCH 12, 1912.

86,591. PREPARATION FOR IMPROVING BODY AND TEXTURE OF ICE-CREAM. B. HELLER & CO., Chicago, Ill.
Filed January 15, 1912. Serial No. 60,803. PUBLISHED MARCH 19, 1912.

86,592. CERTAIN PHARMACEUTICAL PREPARATIONS. CATHERINE HILL, Camden, N. J.
Filed August 21, 1909. Serial No. 44,267. PUBLISHED MARCH 12, 1912.

86,593. SYRINGES. FRANK W. HOWARD, New York, N. Y.
Filed January 17, 1912. Serial No. 60,859. PUBLISHED MARCH 19, 1912.

86,594. CUTLERY, MACHINERY, AND TOOLS AND PARTS THEREOF. THE S. HOWES COMPANY, Silver Creek, N. Y.
Filed December 22, 1908. Serial No. 39,487. PUBLISHED MARCH 12, 1912.

86,595. COFFEE-BLEND COMPOSED OF COFFEE, CEREALS, AND CHICORY. HUMPHREYS, CANNON & Co., Memphis, Tenn.
Filed December 21, 1911. Serial No. 60,394. PUBLISHED MARCH 19, 1912.

86,596. CANDY. JOHNSON BISCUIT COMPANY, Sioux City, Iowa.
Filed December 8, 1911. Serial No. 60,125. PUBLISHED MARCH 12, 1912.

86,597. CANNED FRUITS. THE JOHNSON-LOCKE MERCANTILE CO., San Francisco, Cal.
Filed December 21, 1911. Serial No. 60,398. PUBLISHED MARCH 12, 1912.

86,598. WIRE, BARB-WIRE, AND WIRE-FENCE STRETCHERS. KEYSTONE STEEL & WIRE COMPANY, Peoria, Ill.
Filed October 7, 1911. Serial No. 59,038. PUBLISHED MARCH 19, 1912.

86,599. ENAMEL PAINT. KEYSTONE VARNISH CO., Brooklyn, N. Y.
Filed November 20, 1911. Serial No. 59,815. PUBLISHED MARCH 12, 1912.

86,600. CEMENT-FILLER. KEYSTONE VARNISH CO., Brooklyn, N. Y.
Filed December 11, 1911. Serial No. 60,168. PUBLISHED MARCH 19, 1912.

86,601. LAXATIVES. KOLBERGER ANSTALTEN FÜR EXTERIKULTUR WILLH. ANHALT G. M. B. H., Ostseebad Kolberg, Germany.
Filed July 11, 1911. Serial No. 57,582. PUBLISHED MARCH 12, 1912.

86,602. PRINTING OR DUPLICATING MACHINES. THE LETTERGRAPH COMPANY, Baltimore, Md.
Filed September 11, 1911. Serial No. 58,623. PUBLISHED MARCH 12, 1912.

86,603. JEWELRY AND PRECIOUS-METAL WARE. WILLIAM LINK COMPANY, Newark, N. J.
Filed October 17, 1911. Serial No. 59,201. PUBLISHED MARCH 19, 1912.

86,604. CYLINDER-OIL, CUP AND AXLE GREASES. MARSHALL OIL COMPANY OF IOWA, Marshalltown, Iowa.
Filed November 16, 1911. Serial No. 59,752. PUBLISHED MARCH 19, 1912.

86,605. EYEGLASS AND SPECTACLE LENSES. A. MARTIN, INC., New York, N. Y.
Filed February 12, 1912. Serial No. 61,416. PUBLISHED MARCH 19, 1912.

86,606. ELASTIC WEBS. T. MARTIN & BRO. MFG. CO., Chelsea, Mass.
Filed December 15, 1911. Serial No. 60,261. PUBLISHED MARCH 19, 1912.

86,607. NUTRITIVE NON-ALCOHOLIC BEVERAGE HAVING A FRUITY FLAVOR. MATIENZO-SAINZ COMPANY, Newburgh, N. Y.
Filed July 25, 1911. Serial No. 57,808. PUBLISHED SEPTEMEBER 19, 1911.

86,608. PLAYER-PIANOS. A. M. MCPHAIL PIANO CO., Boston, Mass.
Filed January 29, 1912. Serial No. 61,112. PUBLISHED MARCH 19, 1912.

86,609. CERTAIN KINDS OF CUTLERY. ARNOLD OTTO MEYER, Hamburg, Germany.
Filed July 28, 1911. Serial No. 57,914. PUBLISHED MARCH 12, 1912.

86,610. FOOD COMPOUND COMPOSED OF VARIOUS CEREALS. NEW ENGLAND CEREAL CO., South Norwalk, Conn.
Filed October 21, 1911. Serial No. 59,270. PUBLISHED MARCH 12, 1912.

86,611. PAINTS AND PAINTERS' MATERIALS. THE OHIO VARNISH COMPANY, Cleveland, Ohio.
Filed January 20, 1911. Serial No. 53,979. PUBLISHED MARCH 19, 1912.

86,612. ANTICORROSIVE PAINT. OXYMEL OIL & PAINT COY. LTD., Melbourne, Victoria, Australia.
Filed April 27, 1911. Serial No. 55,994. PUBLISHED MARCH 12, 1912.

86,613. METAL-POLISH. JOHN C. PAUL, Chicago, Ill.
Filed January 22, 1912. Serial No. 60,957. PUBLISHED MARCH 19, 1912.

86,614. SPRING BUTTON-FASTENERS FOR DRESSES AND GLOVES. PETZOLD & MÄSER, JULIUS AMBRONN, NACHF., Chemnitz, Germany.
Filed April 25, 1910. Serial No. 49,296. PUBLISHED MARCH 19, 1912.

86,615. LEATHER WELT-SHOES. THOMAS G. PLANT COMPANY, Montclair, N. J., and Boston, Mass.
Filed January 14, 1911. Serial No. 53,870. PUBLISHED MARCH 19, 1912.

86,616. HOG AND PIG RINGS AND RINGERS. WM. E. PRATT, Chicago, Ill.
Filed October 6, 1911. Serial No. 59,025. PUBLISHED MARCH 12, 1912.

86,617. GLASS TUBES FOR WATER-GAGES. RHEINISCHE GLASHÜTTEN-AKTIEN-GESELLSCHAFT, Cologne-Ehrenfeld, Germany.
Filed June 9, 1910. Serial No. 50,204. PUBLISHED MARCH 19, 1912.

86,618. CYLINDER-OIL. WM. C. ROBINSON & SON, Co., Baltimore, Md., and Coraopolis, Pa.
Filed December 1, 1911. Serial No. 60,019. PUBLISHED MARCH 19, 1912.

86,619. CERTAIN FOODS. ROSENBERG BROS. & Co., San Francisco, Cal.
Filed July 27, 1911. Serial No. 57,856. PUBLISHED MARCH 19, 1912.

86,620. CERTAIN HARDWARE SUPPLIES. ROTHSCHILD, MEYERS & Co., New York, N. Y.
Filed March 10, 1911. Serial No. 54,988. PUBLISHED MARCH 19, 1912.

86,621. STEELS OR BONES FOR CORSETS. ROYAL WORCESTER CORSET CO., Worcester, Mass.
Filed January 2, 1912. Serial No. 60,572. PUBLISHED MARCH 19, 1912.

86,622. MILK AND CREAM. THOMAS F. RYAN, Oak Ridge, Va.
Filed December 16, 1910. Serial No. 53,322. PUBLISHED MARCH 12, 1912.

86,623. FROZEN FISH. SANDWICH FREEZER CO., Sandwich, Mass.
Filed December 28, 1911. Serial No. 60,491. PUBLISHED MARCH 12, 1912.

86,624. RYE WHISKY. THE SELIGMAN DISTILLERY COMPANY, Cincinnati, Ohio.
Filed February 3, 1910. Serial No. 47,563. PUBLISHED MARCH 19, 1912.

86,625. WHEAT-FLOUR. SERV-US PURE FOOD CO., INC., Chicago, Ill.
Filed January 15, 1912. Serial No. 60,831. PUBLISHED MARCH 19, 1912.

86,626. MEN'S AND BOYS' OUTER SUITS AND OVERCOATS. SHEAHAN, KOHN & Co., Chicago, Ill.
Filed July 28, 1911. Serial No. 57,920. PUBLISHED MARCH 19, 1912.

86,627. INSULATED WIRE. THE SIMPLEX ELECTRICAL Co., Boston, Mass.
Filed February 5, 1912. Serial No. 61,270. PUBLISHED MARCH 19, 1912.

86,628. SHEET-METAL CHAINS. THE SMITH & EGGE MFG. Co., Bridgeport, Conn.
Filed February 5, 1912. Serial No. 61,271. PUBLISHED MARCH 12, 1912.

86,629. COOKING-PAPER. JAMES SPICER & SONS, LIMITED, London, England.
Filed June 9, 1911. Serial No. 56,930. PUBLISHED MARCH 19, 1912.

86,630. CIGARS. WM. A. STICKNEY CIGAR Co., St. Louis, Mo.
Filed November 22, 1911. Serial No. 59,862. PUBLISHED MARCH 19, 1912.

86,631. PLATFORM-SCALES. THE STIMPSON SCALE & ELECTRIC Co., Northville, Mich.
Filed February 10, 1912. Serial No. 61,401. PUBLISHED MARCH 19, 1912.

86,632. PLATFORM-SCALES. THE STIMPSON SCALE & ELECTRIC Co., Northville, Mich.
Filed February 10, 1912. Serial No. 61,402. PUBLISHED MARCH 19, 1912.

86,633. CHOCOLATES AND COCOA. STOLLWERCK BROTHERS, INC., Stamford, Conn, and New York, N. Y.
Filed July 21, 1911. Serial No. 57,770. PUBLISHED MARCH 12, 1912.

86,634. PERIODICALS IN THE FORM OF A JOURNAL PUBLISHED MONTHLY. SYMPHONY PUB. Co., Pittsburgh, Pa.
Filed January 15, 1912. Serial No. 60,814. PUBLISHED MARCH 19, 1912.

86,635. KEROSENE. THE TEXAS COMPANY, Houston and Port Arthur, Tex., and New York, N. Y.
Filed April 21, 1911. Serial No. 55,866. PUBLISHED MARCH 12, 1912.

86,636. KEROSENE. THE TEXAS COMPANY, Houston and Port Arthur, Tex., and New York, N. Y.
Filed April 21, 1911. Serial No. 55,867. PUBLISHED MARCH 12, 1912.

86,637. KEROSENE. THE TEXAS COMPANY, Houston and Port Arthur, Tex., and New York, N. Y.
Filed April 21, 1911. Serial No. 55,868. PUBLISHED MARCH 12, 1912.

86,638. WHEAT-FLOUR. THORNTON & CHESTER MILLING Co., Buffalo, N. Y.
Filed October 9, 1911. Serial No. 58,065. PUBLISHED MARCH 19, 1912.

86,639. LIQUID MEASURING AND DISPENSING MACHINES. THE TOKHEIM MANUFACTURING COMPANY, Cedar Rapids, Iowa, assignor to John J. Tokheim, Cedar Rapids, Iowa.
Filed April 28, 1910. Serial No. 49,373. PUBLISHED MARCH 12, 1912.

86,640. HAMES. U. S. HAME COMPANY, Buffalo, N. Y.
Filed January 19, 1912. Serial No. 60,914. PUBLISHED MARCH 19, 1912.

86,641. SELF-RISING FLOUR. UNION ROLLER MILLING Co., Pocahontas, Ill.
Filed January 15, 1912. Serial No. 60,811. PUBLISHED MARCH 19, 1912.

86,642. CERTAIN OPTICAL SUPPLIES. UNIVERSAL OPTICAL CORPORATION, Providence, R. I.
Filed July 13, 1911. Serial No. 57,614. PUBLISHED MARCH 12, 1912.

86,643. BELTING COMPOSED OF DUCK IMPREGNATED WITH GUM. VICTOR-BALATA & TEXTILE BELTING Co., Easton, Pa.; New York, N. Y., and Chicago, Ill.
Filed October 21, 1911. Serial No. 59,265. PUBLISHED MARCH 19, 1912.

86,644. LIQUEUR. ROBERTO VLAHOV, Zara, Austria-Hungary.
Filed November 25, 1911. Serial No. 59,915. PUBLISHED MARCH 19, 1912.

86,645. LIQUEUR. ROBERTO VLAHOV, Zara, Austria-Hungary.
Filed November 25, 1911. Serial No. 59,916. PUBLISHED MARCH 19, 1912.

86,646. JEWELRY FOR PERSONAL ADORNMENT. THE GEO. L. VOSE MFG. Co., Saco, Me., and Providence, R. I.
Filed February 3, 1912. Serial No. 61,235. PUBLISHED MARCH 19, 1912.

86,647. HIGH-EXPLOSIVE POWDER FOR BLASTING PURPOSES. WACLARK TITANITE EXPLOSIVE COMPANY, Corry, Pa.
Filed October 16, 1911. Serial No. 59,190. PUBLISHED MARCH 19, 1912.

86,648. SNAP-BUTTONS USED AS GARMENT-FASTENERS. WALDES & CIE., Prague-Wrschowitz, Austria-Hungary.
Filed November 26, 1910. Serial No. 52,959. PUBLISHED MARCH 19, 1912.

86,649. ALL KINDS OF PERFUMES, FACE-PAINTS, AND ROUGES. E. WERTHEIMER & CIE., Paris, France.
Filed December 22, 1911. Serial No. 60,416. PUBLISHED MARCH 12, 1912.

86,650. DEODORIZERS AND DISINFECTANTS. WEST DISINFECTING COMPANY, New York, N. Y.
Filed September 28, 1911. Serial No. 58,906. PUBLISHED MARCH 12, 1912.

86,651. CERTAIN OPTICAL SUPPLIES. WESTERN OPTICAL MANUFACTURING COMPANY, St. Louis, Mo.
Filed November 15, 1911. Serial No. 59,741. PUBLISHED MARCH 19, 1912.

86,652. ORANGES. A. F. YOUNG & Co., New York, N. Y.; Pittsburgh, Pa., and Boston, Mass.
Filed December 2, 1911. Serial No. 60,054. PUBLISHED MARCH 19, 1912.

86,653. CERTAIN PHARMACEUTICAL PREPARATION. EDWARD ZIEGLER, Jersey City, N. J.
Filed September 13, 1911. Serial No. 58,659. PUBLISHED MARCH 12, 1912.

86,654. LIQUID REMEDY FOR CORNS, BUNIONS, AND WARTS. EDWARD ZIEGLER, Jersey City, N. J.
Filed September 13, 1911. Serial No. 58,660. PUBLISHED MARCH 12, 1912.

86,655. CAKES. THE B. & C. BAKING Co., Dayton, Ohio.
Filed January 15, 1912. Serial No. 60,828. PUBLISHED MARCH 19, 1912.

86,656. WHOLE-MILK CHEESE. BABCOCK, HURD & Co., Cleveland, Ohio.
Filed November 13, 1911. Serial No. 59,682. PUBLISHED MARCH 12, 1912.

86,657. PREMIUM-STAMPS. MAX BERG, Philadelphia, Pa.
Filed January 16, 1912. Serial No. 60,839. PUBLISHED MARCH 19, 1912.

86,658. SEASONING SAUCE. ANTONIO DELLAMANO, Boston, Mass.
Filed December 28, 1911. Serial No. 60,478. PUBLISHED MARCH 12, 1912.

86,659. CANNED PEARS. DOOLEY, SMITH & COMPANY, New York, N. Y.
Filed January 2, 1912. Serial No. 60,535. PUBLISHED MARCH 12, 1912.

86,660. CANNED VEGETABLES. FOGG & HIBBS COMPANY, Salem, N. J.
Filed October 12, 1909. Serial No. 45,268. PUBLISHED MARCH 19, 1912.

86,661. SEEDED RAISINS AND HERMETICALLY-SEALED FRUITS. GRIFFIN & SKELLEY Co., San Francisco, Cal.
Filed April 24, 1905. Serial No. 2,820. PUBLISHED MARCH 12, 1912.

86,662. CERTAIN FOODS. FREDERICK WILLIAM HERTEL, Chicago, Ill.
Filed July 22, 1909. Serial No. 43,685. PUBLISHED MARCH 12, 1912.

86,663. FRESH PINEAPPLES. KOPF NURSERY & REALTY Co., INC., New Haven, Conn.
Filed September 27, 1911. Serial No. 58,880. PUBLISHED MARCH 19, 1912.

86,664. WHEAT-FLOUR. LEDEBOER & VAN DER HELD, Rotterdam, Netherlands.
Filed August 25, 1911. Serial No. 58,395. PUBLISHED MARCH 12, 1912.

86,665. FISHING-NETS. MASSACHUSETTS NET COMPANY, Boston, Mass.
Filed December 11, 1911. Serial No. 60,171. PUBLISHED MARCH 19, 1912.

86,666. MONTHLY MAGAZINE. MCBRIDE, NAST & Co., New York, N. Y.
Filed December 29, 1911. Serial No. 60,517. PUBLISHED MARCH 19, 1912.

86,667. ORANGES. MARION FITZHUGH MCDONALD, South Lake Weir, Fla.
Filed January 15, 1912. Serial No. 60,835. PUBLISHED MARCH 19, 1912.

86,668. COFFEE SUBSTITUTE. ENOS M. MORRISON, San Francisco, Cal.
Filed August 2, 1911. Serial No. 57,986. PUBLISHED MARCH 19, 1912.

86,669. CERTAIN RAW OR PARTLY-PREPARED MATERIALS. DAVID RAUH, Nuremberg, Germany, and New York, N. Y.
Filed November 2, 1911. Serial No. 59,505. PUBLISHED MARCH 19, 1912.

86,670. CERTAIN FOODS. ROSENBERG BROS. & Co., San Francisco, Cal.
Filed July 27, 1911. Serial No. 57,859. PUBLISHED MARCH 19, 1912.

86,671. CERTAIN FOODS. SAVILLE, SOMES & Co., Boston, Mass.
Filed August 14, 1909. Serial No. 44,144. PUBLISHED MARCH 19, 1912.

86,672. BROOMS. THE SOUTHWESTERN BROOM & WAREHOUSE Co., Wichita, Kans.
Filed January 11, 1912. Serial No. 60,732. PUBLISHED MARCH 19, 1912.

86,673. CERTAIN ABRASIVE, DETERGENT, AND POLISHING MATERIALS. STANDARD OIL LEATHER DRESSING COMPANY, Trenton, N. J.
Filed January 9, 1912. Serial No. 60,701. PUBLISHED MARCH 19, 1912.

86,674. SAUCE (SOY). GENBA TANAKA, Kaijogori, Chiba-Ken, Japan.
Filed September 28, 1911. Serial No. 58,904. PUBLISHED MARCH 12, 1912.

86,675. BOOK-PAPER. GEORGE A. WHITING PAPER COMPANY, Menasha, Wis.
Filed January 27, 1912. Serial No. 61,085. PUBLISHED MARCH 19, 1912.

86,676. ICE-CREAM. BREYER ICE CREAM Co., Philadelphia, Pa.
Filed January 19, 1912. Serial No. 60,925. PUBLISHED MARCH 19, 1912.

86,677. WHEAT-FLOUR. JOHN H. BROWER, New York, N. Y.
Filed July 26, 1911. Serial No. 57,824. PUBLISHED MARCH 19, 1912.

86,678. GAMES. SUMMERS BROWN, London, England.
Filed January 12, 1912. Serial No. 60,777. PUBLISHED MARCH 19, 1912.

86,679. DOMINICA LIMES. THE ARTHUR COURTIN COMPANY, New York, N. Y.
Filed January 22, 1912. Serial No. 60,968. PUBLISHED MARCH 19, 1912.

86,680. FRESH GRAPES, PEACHES, AND ORANGES. DICKEY & DICKEY, Dinuba, Cal.
Filed August 18, 1911. Serial No. 58,267. PUBLISHED MARCH 12, 1912.

TRADE-MARKS CANCELED.

77,435. COFFEE AND CHICORY COMPOUND AND BLENDED TEA. AMERICAN COFFEE CO. OF NEW ORLEANS LTD., New Orleans, La.
Registered April 12, 1910. Canceled April 30, 1912.

LABELS

REGISTERED MAY 21, 1912.

16,341.—*Title:* "OLD ROSSLYN RYE." (For Whisky.) CHARLES ABEY, Washington, D. C. Filed February 24, 1912.

16,342.—*Title:* "IMPERIAL-VALLEY POPPY BRAND." (For Melons.) CRUTCHFIELD & WOOLFOLK, Pittsburgh, Pa. Filed March 29, 1912.

16,343.—*Title:* "MOERLBACH BEER." (For Beer.) MOERLBACH BREWING Co., Gates, N. Y. Filed March 30, 1912.

16,344.—*Title:* "VELVA SYRUP." (For Sugar-Cane and Corn Syrup.) PENICK & FORD, LTD., New Orleans, La. Filed April 15, 1912.

16,345.—*Title:* "VELVA BREAKFAST SYRUP." (For Sugar-Cane Syrup.) PENICK & FORD, LTD., New Orleans, La. Filed April 26, 1912.

16,346.—*Title:* "VIOLETA." (For Cigars.) SCHMIDT & Co., New York, N. Y. Filed April 29, 1912.

16,347.—*Title:* "SCHULZE." (For Bread.) SCHULZE BAKING COMPANY, Chicago, Ill. Filed April 17, 1912.

PRINTS

REGISTERED MAY 21, 1912.

3,030.—*Title:* "VAN HOUTEN'S COCOA." (For Cocoa.) C. J. VAN HOUTEN & ZOON, New York, N. Y. Filed May 4, 1912.

3,031.—*Title:* "ARROW COLLARS AND SHIRTS." (For Arrow Collars and Shirts.) CLUETT, PEABODY & COMPANY, Troy, N. Y. Filed April 17, 1912.

3,032.—*Title:* "THE CHOCOLATE WIZARD." (For Cocoa and Chocolate.) H. O. WILBUR & SONS, INC., Philadelphia, Pa. Filed May 3, 1912.

3,033.—*Title:* "SEN-SEN CHEWING GUM." (For Chewing-Gum.) SEN SEN CHICLET COMPANY, New York, N. Y. Filed April 25, 1912.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE PATTERSON.

Decided May 4, 1911.

1. APPLICATION—PROSECUTION—ABANDONMENT.

The action of the Examiner in referring to a published decision of the Commissioner for his reasons for holding the claims unpatentable *Held* sufficiently definite and the action of the applicant *Held* insufficient to save the case from abandonment.

2. SAME—SAME—SAME.

Where an applicant is every instance waits until nearly the end of the year allowed by law before amending his case, he is not entitled to urge any leniency in the application of the rule that his actions should be responsive in order to save the case from abandonment.

ON PETITION.

DOUBLE VENDING-MACHINE.

Mr. Rudolph M. Hunter and *Mr. A. A. Thomas* for the applicant.

MOORE, *Commissioner:*

This is a petition from the holding of the Examiner that this case is abandoned for failure upon the part of the applicant to take proper action within the year following the rejection of January 8, 1910.

On that date the Examiner rejected claims 1, 2, 3, 4, and 6, newly presented in the preceding amendment, upon the references and reasons which had been cited against the claims they replaced, also upon the patent to Webster, No. 837,362, for similar reasons. For the reasons why the claims were unpatentable over each of the references cited the Examiner made reference to the decision in *ex parte Casler*, (90 O. G., 446.) In replying to the rejection of January 8, 1910, the applicant inserted seven new claims and submitted "remarks" covering about a page. In the remarks he dwelt at length upon what he considered the insufficiency of the Examiner's previous action; but he made no effort to point out wherein either the new or the old claims were patentable over the references cited.

Applicant's objection that the Office action did not state the reasons for rejection with sufficient fullness is not found to be well taken. The reasons for rejecting certain classes of claims to coin-controlled apparatus are more fully and carefully set forth in the decision cited by the Examiner than could be done in the average Office letter. While the applicant might have disagreed with the Examiner as to the applicability of the reasons, it is not apparent why there should have been any misunderstanding of the rejection.

Furthermore, if he did not understand the reasons he should have made a request for further explanation before the last day of the year allowed for amendment. In every instance applicant has waited until nearly the end of the year allowed by law before amending his case. Under such conditions he is not entitled to urge any leniency in the application of the rule that his action should be responsive in order to save the case from abandonment.

The amendment of January 23, 1911, is clearly unresponsive to the Examiner's action, and the case was properly held abandoned.

The petition is denied.

BRAKELEY *v.* THE SEARS & NICHOLS CO.

Decided September 30, 1911.

1. TRADE-MARKS—"EVERGREEN" FOR CANNED FRUITS AND VEGETABLES—DESCRIPTIVE.

The word "Evergreen" *Held* descriptive as applied to canned fruits and vegetables, since it would convey to the average purchaser the idea that the goods so marked are in as nearly a natural and fresh condition as it was possible to prepare them and that they would remain so.

2. SAME—OPPOSITION—CONTEMPORANEOUS USE DURING TEN-YEAR PERIOD.

The registration of the word "Evergreen" as applied to canned fruits and vegetables *Held* properly refused registration, since this mark is descriptive of the goods and the record shows that the opposer had also used this mark on the same goods during the ten-year period.

APPEAL from Examiner of Interferences.

TRADE-MARK FOR CANNED FRUITS, VEGETABLES, PORK AND BEANS, AND BAKED BEANS WITH TOMATO SAUCE.

Messrs. Howson & Howson for Brakeley.

Messrs. Taylor & Hulse and *Messrs. Steuart & Steuart* for The Sears & Nichols Company.

MOORE, *Commissioner:*

This is an appeal by The Sears & Nichols Company from a decision of the Examiner of Interferences sustaining an opposition filed by Brakeley and holding that The Sears & Nichols Company is not entitled to the registration for which it has made application.

The applicant seeks to register the word "Evergreen" as a trade-mark for canned fruits, vegetables, pork and beans, and baked beans with tomato sauce. The ground of the opposition is that the word "Evergreen" is descriptive of the goods to which it is applied, that the opposer had used this word as a trade-mark for canned peas during the ten years preceding the passage of the Trade-Mark Act of February 20, 1905, and that therefore The Sears & Nichols Company had not had exclusive use of the same.

It is well settled that if a mark is actually a technical trade-mark the allegation of ten years' exclusive use may be treated as surplusage. (*E. McIlhenny's Son* v. *The New Iberia Extract of Tabasco Pepper Co., Ltd.*, 153 O. G., 547; 34 App. D. C., 430.)

In the present case, however, it is believed that the word "Evergreen" as applied to canned fruits and vegetables is descriptive, since it would convey to the average purchaser the idea that the goods so marked were in as nearly a natural and fresh condition as it was possible to prepare them and that they would remain so. The mark being descriptive and the testimony on behalf of the opposer showing that he had actually used this mark on canned peas between 1897 and 1905, applicant is not entitled to the registration for which it has made application.

The decision of the Examiner of Interferences is affirmed.

EX PARTE BRYAN.

Decided April 12, 1912.

PATENTABILITY—ANTICIPATION—SUBSEQUENTLY-GRANTED PATENT.

The practice of citing as references patents which were granted subsequently to an applicant's filing date but on applications filed prior to that date *Held* proper.

ON PETITION.

CARBURETER.

Mr. Otto R. Barnett for the applicant.

MOORE, *Commissioner:*

This is a petition that the Examiner be instructed that it is improper practice to cite patents as references which were granted subsequently to the applicant's date of filing, although the applications on which the patents were granted were filed prior to that date.

It has long been the practice in this Office to cite such references, and the question here raised has been specifically considered both by the Commissioner and the Court of Appeals of the District of Columbia and decided adversely to the petitioner's contention in each instance. (*Ex parte Eddieblute*, 52 O. G., 751; *Millett & Reed* v. *Duell*, 96 O. G., 1241; 18 App. D. C., 186; *ex parte Guenther*, 92 MS. Dec., 290, decided November 9, 1908.)

Petitioner has cited several decisions of the Federal courts in patent cases which he alleges support his contention. In all these cases, however, it appears that the court was either specifically discussing the statutory defense of prior patenting or publication (sec. 4920 of the Revised Statutes) or failed to distinguish the defenses of prior patenting and prior invention, which are made separate defenses under the section of the statute above cited. Petitioner also fails in enumerating in his brief the statutory bars to the granting of a patent to include the first one mentioned in section 4886 of the Revised Statutes, in the following words:

> not known or used by others in this country, before his invention or discovery thereof,

which is the bar corresponding to the statutory defense of prior invention just referred to.

The filing of an allowable application in the Patent Office is evidence of constructive reduction to practice of the subject-matter therein disclosed, and when such application becomes a patent it has passed beyond the stage when it may lapse, by abandonment or otherwise, into a mere abandoned experiment and constitutes *prima facie* evidence that the subject-matter disclosed was known to others at least as early as the date of filing of the application upon which the patent was granted.

Where the subject-matter in question is merely shown and not claimed in the patent cited as a reference, it is only necessary for the applicant desiring to overcome the reference to file the affidavits provided for in Rule 75, showing that he made the invention prior to the date of filing of the references. His failure or refusal to present such affidavits raises a presumption that he is in fact not the original and first inventor thereof. Both upon principle and upon the authority of the cases above referred to, therefore, it is clear that the Examiner may properly cite references of the character mentioned.

The manner of applying these references to the claims in this case and their relevancy as anticipating references is a matter of merits, which will be considered on appeal and not upon a petition of this nature.

The petition is denied.

EX PARTE PALMER.

Decided March 2, 1912.

1. PATENTABILITY—REISSUE.

The delay in filing an application for reissue *Held* sufficiently accounted for and not unreasonable.

2. SAME—SAME.

Claim 2 *Held* unpatentable in view of the prior art and claims 1 and 5 *Held* unpatentable as covering an invention different from that disclosed in the original application.

APPEAL from Examiners-in-Chief.

HAMMOCK.

Messrs. Emery & Booth for the applicant.

BILLINGS, *First Assistant Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the Primary Examiner rejecting claims 1, 2, 5, 6, 7, and 8 in the above-entitled reissue application.

The Examiners-in-Chief agree with the Examiner in the refusal of the claims on the ground that—

> applicant is estopped by laches from the prosecution of this case for claims of broader scope than the original allowed claims—

and also on the ground that the appealed claims are anticipated by the British patent to Amesbury, No. 8,878 of 1890. The other grounds of rejection urged by the Primary Examiner were overruled by the Examiners-in-Chief.

The record shows that there has been a delay of a few days more than two years and two months from the date of the grant of the original patent to the date of the filing of this application for reissue.

It is admittedly the purpose of the patentee to obtain broader claims by means of a reissue patent than those originally granted to him. This fact so appears from a comparison of the claims now presented with those of the original patent, and it is also admitted by the applicant in his oath filed with this application, in which he states that—

> both of said claims, now appearing as the claims of the patent, are defective to cover the invention in that they are limited to a hinging of the side rails and spreaders to each other, which is not requisite and hence unduly restrict the scope of the patent.

In the case of *Mahn* v. *Harwood* (C. D., 1885, 144; 30 O. G., 657; 112 U. S., 354) Mr. Justice Bradley said in speaking of the delay in *Miller* v. *Brass Co.*, (C. D., 1882, 49; 21 O. G., 201; 104 U. S., 350:)

> We suggested that a delay of two years in applying for such correction should be construed equally favorable to the public. But this was a mere suggestion by the way, and was not intended to lay down any general rule. Nevertheless, the analogy is an apposite one, and we think that excuse for any longer delay than that should be made manifest by the special circumstances of the case.

In the case of *Topliff* v. *Topliff* (C. D., 1892, 402; 59 O. G., 1257; 145 U. S., 156) the Supreme Court of the United States said:

> In *Wollensak* v. *Reiher* (C. D., 1885, 310; 31 O. G., 1301; 115 U. S., 96) there was a delay of more than five years, Mr. Justice Matthews observing that "the settled rule of decision is, that if it appears, in cases where the claim is merely expanded, that the delay has been for two years, or more, it is adjudged to invalidate the reissue, unless the delay is accounted for and excused by special circumstances, which show it to have been not unreasonable."

It appears from the oath of the applicant filed with the present reissue that he had started to learn the scope of his patent before the expiration of the two years, but that his activities were delayed because of illness which required him to leave his business and to travel. It does not appear that there are any intervening rights existing or any proposed infringement suits which urged him into activity in filing a reissue. I am of the opinion that the short delay is sufficiently accounted for and excused and that it is shown not to have been unreasonable.

It remains to determine whether the claims submitted are anticipitated by the prior art. The only patent seriously considered as an anticipation is the British patent to Amesbury, No. 8,878 of 1899. There is no structure in either of the patents cited which shows fixed side rails which are normally held in the same plane and at an equal distance apart when the hammock is both in its open condition and when it is in its collapsed condition, and therefore claims 6, 7, and 8, each of which specify such a structure, are not anticipated by the prior art. Claim 2 does not cover the hammock in its collapsed condition, but does cover the structure when in its open condition. It reads directly upon the hammock of the English patent when that hammock is in its open condition, for that hammock when open is so constructed that there is provided a fixed spacing of the side rails.

Claims 1 and 5 cover an invention which is different from the invention of the original patent. These claims cover a hammock which in its collapsed condition is brought "into the plane of the normally positioned side rails." In this phrase the word "plane" modifies or defines the phrase "normally positioned side rails," so that the language used would include not only a structure in which the side rails are always in the same plane and at the same distance apart, which is the original invention, but also a structure in which the side rails are always in the same plane, but nearer to each other when the hammock is collapsed than they are when the hammock is open. This latter specified structure is different from that originally invented and disclosed in the patent, a reissue of which is sought. Claims cannot be granted in a reissue which are so worded as to cover a different invention from that disclosed in the original patent. If such be the facts, the reissue claims are invalid. Claims 1 and 5 are therefore unpatentable in the reissue application.

The decision of the Examiners-in-Chief is affirmed as to claims 1, 2, and 5 and is reversed as to claims 6, 7, and 8.

BAETZ *v.* KUKKUCK.

Decided July 22, 1911.

PRIORITY—REDUCTION TO PRACTICE—ABANDONED EXPERIMENT—CONCEALMENT.

Priority *Held* properly awarded to K. on the ground that certain machines built by B., who was the first to conceive the invention in issue, did not constitute a reduction to practice thereof and that B. was not diligent, or that, if these machines did constitute a reduction to practice of the invention, B. had lost his right thereto by concealment.

APPEAL from Examiners-in-Chief.

FEED MECHANISM FOR DRYING APPARATUS.

Mr. Henry Baetz pro se.

Messrs. Howson & Howson for Kukkuck.

TENNANT, *Assistant Commissioner:*

This is an appeal by Baetz from the decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority of invention to Kukkuck.

The issue is in ten counts, which are illustrated sufficiently by the following:

> 1. A feed mechanism comprising a pair of juxtaposed conveyers, and having transverse rib formations between which the articles may be confined, and means disposed along the length of the conveyers for keeping the adjacent laps of said conveyers spaced permanently apart, substantially as set forth.
>
> 4. A feed mechanism comprising a pair of juxtaposed conveyers having transverse ribs or bars spaced suitable distances apart, the material treated being inserted between the adjacent laps of the conveyers and confined between the aforesaid transverse formations, and means at opposite ends of the transverse formations for permanently keeping the adjacent laps of said conveyers spaced a suitable distance apart, substantially as set forth.
>
> 10. A feed mechanism comprising a pair of transversely slatted sections traveling conjointly and in juxtaposition and closed on the sides, the transverse formations of the respective sections being permanently spaced apart, substantially as set forth.

The invention relates to feeding mechanism for apparatus intended to dry veneer and the like. The

feeding mechanism, as shown in both applications, consists of two superposed endless carriers having a slatted construction, between which the veneer is placed while drying. The gist of the present invention is in the combination, with such conveyers, of spacing devices to hold the adjacent laps thereof slightly apart, the object being to prevent the weight of the upper conveyer from falling upon the veneer when thin veneer is being dried. This enables the veneer to contract in drying without cracking. Thicker veneer holds together sufficiently to dry without cracking, notwithstanding the weight of the upper conveyer.

Baetz in his preliminary statement alleges conception and disclosure in the spring of 1904, reduction to practice in May, 1904, and again in the spring of 1905. His application was filed November 22, 1907, and a patent issued thereon April 14, 1908. He gains no advantage by reason of his patent, however, because it was inadvertently issued on an application filed after that of his opponent.

Kukkuck alleges conception and disclosure in November, 1904, and reduction to practice in July, 1906. His application was filed September 13, 1906. The testimony of Kukkuck is believed to establish the allegations of his preliminary statement; but it is unnecessary to enter upon a discussion of it here, since it is admitted that Baetz was the first to conceive, (p. 10, Kukkuck's brief,) and Kukkuck's constructive reduction to practice by filing in September, 1906, will serve him as well as the actual reduction to practice claimed by him in the summer of 1906, under the circumstances of this case, as will hereinafter appear.

The decision turns upon the question whether certain devices made by Baetz in May, 1904, and April, 1905, constituted a reduction to practice of the invention in issue, and, if so, whether he has forfeited his rights thereto by reason of his subsequent conduct.

The device made by Baetz in May, 1904, is known in the record as the "gate conveyer." It appears from his own testimony that this was a purely experimental device which consisted of a pair or pairs of gratings formed by riveting iron bars to cross-pieces, between which the veneer to be dried was inserted, and the gratings themselves were in turn inserted between the adjacent runs of a rope conveyer with which Baetz had previously been experimenting.

The device made by him in April, 1905, is known as the "finger conveyer." This appears to have been a complete machine in which the feeding mechanism was formed by transverse slats of wood secured to endless bands of flat iron. On the end of some of the slats thin pieces of metal, referred to as "fingers," were attached, which it is claimed were intended to act as spacing members, such as called for by the present issue.

It is claimed by Baetz that both of these devices were successfully used to dry veneer. There are some statements to this effect made by other witnesses called on his behalf. The record is entirely silent, however, as to whether the spacing devices actually performed the function or whether the machines operated in the way presumed by Baetz. There is no statement as to the actual condition of the veneer, either before or after the operation, and no witness who is an expert in the art was called to corroborate Baetz's conclusion that the devices were successful.

It is believed that the testimony offered is wholly insufficient to show that either of these devices was a reduction to practice of the invention. If there were any doubt on the matter, however, it would have to be resolved adversely to Baetz in view of his subsequent conduct. The "gate conveyer" was immediately dismantled after the test and was never again used or reproduced. The "finger conveyer" was also dismantled, and while Baetz claims that it was on the strength of the results of this machine that he obtained an order from the St. Louis Basket and Box Company for a similar drier it is significant that the drier which he thereafter produced for them, the so-called "Basket and Box Company drier," did not contain the invention in issue. It lacked the spacing devices. The same is true of the next drier built by Baetz, known as the "1905 drier," which was completed about February, 1906. In July, 1906, Baetz filed an application for patent on a similar drier, which also failed wholly to mention the spacing devices. This application matured into Patent No. 835,843. The Basket and Box Company drier attempted to attain the results flowing from the use of the spacing devices by stretching the lower run of the upper conveyer to such a degree as to relieve the pressure on the veneer. Baetz testifies that this resulted in frequent breaking of the chains which held the slats. Notwithstanding his claim that the test of the spacing devices in the earlier machines proved their value to perform this function, he attempted to overcome the difficulty caused by the breaking of the chains in the "Basket and Box Company drier" by reducing the length of the conveyers from 100 to 28 feet, thereby sacrificing nearly three-quarters of the capacity of the machine. This was the construction of the "1905 drier" and the one which he thereafter attempted to put upon the market. He seems to have entirely forgotten the use of the spacing devices until his attention was called thereto by the emphasis laid on this feature in the testimony taken by Kukkuck in an infringement suit pending in the Federal court at St. Louis. This occurred in the fall of 1907, and very shortly thereafter Baetz's application for this invention was filed in the Office.

In the case of *Warner* v. *Smith* (84 O. G., 311; 13 App. D. C., 111) an apparent abandonment of the invention similar to that of Baetz in this case was held to warrant the Office in assuming that what was claimed to be a reduction to practice was in fact only an unsuccessful experiment, unless the contrary was proved beyond a reasonable doubt. In the present case there is this additional element adverse to Baetz—namely, that he was apparently stimulated into activity by his knowledge of Kukkuck's claim to the invention.

It must be held, therefore, that Baetz has wholly

failed to prove any actual reduction to practice. There is no contention by Baetz that he was exercising diligence in reducing the invention in issue to practice between the completion of the "finger conveyer" of 1905 and the filing of the application in November, 1907, during which time Kukkuck's application was filed. Kukkuck is therefore clearly entitled to an award of priority for the reasons stated.

But even if it were assumed that the "gate conveyer" and the "finger conveyer" made by Baetz constituted a reduction to practice of the invention he would still be unable to prevail, for the reasons set forth in *Mason* v. *Hepburn*, (84 O. G., 147; 13 App. D. C., 86;) *Thomson* v. *Weston*, (99 O. G., 684; 19 App. D. C., 373;) *Matthes* v. *Burt*, (144 O. G., 764; 24 App. D. C., 265,) and others. Baetz did not disclose the devices to any one skilled in the art so far as the record shows, and he very apparently abandoned the invention entirely until stimulated into activity by knowledge of Kukkuck's machine. The case therefore presents all the elements of estoppel by concealment set forth in the cases above referred to and would defeat Baetz's claim to priority.

The decision of the Examiners-in-Chief is affirmed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

WEINTRAUB *v.* HEWITT AND ROGERS.

Decided January 2, 1912.

1. INTERFERENCE—PRIORITY—CONCURRENT DECISIONS OF THE PATENT OFFICE—ENTITLED TO GREAT WEIGHT.

"Where the three tribunals of the Office have concurred in their decision of a question of this kind, it is the settled rule of this court not to disturb their conclusion unless manifest error can be found therein. (*Podlesak* v. *McInnerney*, 26 App. D. C., 399–405; *Newcomb Motor Co.* v. *Moore*, 30 App. D. C., 414.) And especially is this the case where the question is one relating to the operation of complicated apparatus, involving the application of scientific principles about which learned and highly-skilled electricians differ."

2. SAME—SAME—TESTIMONY—JOINT INVENTORSHIP.

Where W., who was under order to show cause why judgment should not be rendered against him on the record, obtained permission to take testimony to show that the senior parties could not make the claims and in addition to this testimony introduced testimony for the purpose of showing that the senior parties were not joint inventors, *Held* that the latter testimony was properly excluded. "The additional evidence sought to be introduced was not pertinent to this the sole issue in the case. The case of *Lemp* v. *Rendall*, (33 App. D. C., 430–432,) relied on by the appellant, is not in point. All that was decided in that case, was that on an issue requiring proof of conception of the invention, evidence was admissible to show that one only of the joint applicants was the actual inventor."

3. SAME—SAME.

Record and evidence considered and *Held* that the application of H. and R., the senior parties, discloses the invention in issue, and priority was therefore properly awarded to them.

Mr. W. K. Richardson, *Mr. A. D. Lasst*, *Mr. A. G. Davis*, and *Mr. Chas. McClair* for the appellant.

Mr. C. A. Terry for the appellees.

SHEPARD, *C. J.*:

This is an appeal from the decision of the Commissioner of Patents in an interference case involving priority in the matter of the invention of an improvement in gas or vapor electric-lighting apparatus.

Hewitt and Rogers filed their joint application March 28, 1901. Weintraub's application was filed February 26, 1902.

The issue contains twenty-five counts of which it is sufficient to set out numbers 1, 23 and 24, as follows:

1. In a gas or vapor apparatus, the combination of two working electrodes, a starting electrode, and means for connecting the starting electrode with and disconnecting it from, one only of the working electrodes.

23. The combination of an exhausted envelop, electrodes therefor, one at least of which is of vaporizable material, a source of current connected to said electrodes, and means for starting a flow of current from said source between said electrodes by first causing an independently existing arc to spring from said vaporizable electrode.

24. The combination of an exhausted envelop, electrodes therefor one at least of which is adapted to emit vapor, means for impressing electro-motive forces on said electrodes, and means for starting an arc between one pair of said electrodes including said vapor-emitting electrode, thereby starting an arc between said vapor-emitting electrode and another of said electrodes.

Some of the twenty-five counts were taken from the claims in the Hewitt and Rogers application; others from the claims of Weintraub's application.

The preliminary statement of Weintraub failing to overcome the filing date of his opponents, an order was made to him to show cause why decision of priority should not be entered against him. We do not find in the record the response of Weintraub to this order, or his motions to dissolve and to take testimony, but find their substance recited in the several decisions thereon. It appears therefrom that he moved to dissolve on the grounds of no interference in fact, and for non-patentability of certain of the counts. The Primary Examiner denied the motion to dissolve, but held certain counts to be unpatentable. On appeal to the Commissioner the decision that there was an interference in fact was affirmed. Weintraub then sought to take testimony to show that the construction and operation of the two devices were not the same. This was denied on the ground that it could be used only as a basis for dissolving the interference, (which had been denied,) and not on the question of priority. He then moved for leave to take testimony to show that Hewitt and Rogers have no right to make claims corresponding to counts 23 and 24 of the issue. This was granted. The decisions of the Examiner of Interferences on these motions were affirmed by the Commissioner on January 11, 1907. Under this leave Weintraub took the deposition of one witness, Professor Steinmetz, who is employed by the General Electric Company, the assignee of Weintraub. His opponents took the deposition of Percy H. Thomas, an expert in the employ of their assignee, The Cooper Hewitt Electric Co.

Hewitt was an earlier inventor of lamps of this general character, as shown by patents issued to him. In such apparatus there is a high initial resistance, which, once overcome, the flow of current can be maintained by the ordinary commercial potentials. These earlier lamps were first started by

means of a high-potential discharge ordinarily obtained from a static machine. Later, Hewitt employed a self-induction coil to produce the necessary high potential for starting the lamp. One of his patents shows a system in which an induction-coil is connected in shunt to the lamp, there being a switch in circuit with the inductance. Before starting the lamp, the switch is closed and current flows through the inductance. The sudden opening of the circuit through the inductance generates an impulse of high electromotive force which breaks down the resistance and initiates the flow of the current of ordinary working voltage. Both parties agree that there is a difficulty in overcoming the initial resistance of the cathode, after which the ordinary working current is sufficient. Hewitt and Rogers refer to this difficulty as negative-electrode reluctance, and their theory is that the surface of the mercury presents a barrier which must be pierced or overcome before the flow of current can be established. Weintraub's theory is that there must be ionized mercury-vapor, furnished by the negative electrode under excitement, which creates the vehicle for the transfer of the current. Whichever theory be the correct one, it is substantially agreed that when there is a current passing between the negative electrode and an anode, a current may be secured between it and another anode at ordinary working voltage without having recourse to the extra-high voltage heretofore employed for starting. The operation of the invention of the issue consists in starting the arc between the negative electrode or cathode and the working anode. There is no question but that Weintraub has the right to make the claims of the issue. In his lamp the supplementary anode is of mercury like the cathode. By mechanical means, or by tilting the lamp the pools of mercury constituting the cathode and supplementary anode are temporarily joined, and as they recede from each other the arc is created. The ordinary working current then creates and maintains the arc between the working, or main anode and cathode. Weintraub does not deny the operativeness of the Hewitt and Rogers apparatus, but contends that it will not operate as required by the terms of the issue, which operation is starting the arc between the supplemental anode and the cathode as a preliminary to starting the arc between the working or main anode and the cathode. His contention is that the apparatus of Hewitt and Rogers, as described in their application, is but a modification of the apparatus of Hewitt's former patent, and that it operates in the same way, namely, by means of a high-potential discharge produced by an inductance in the positive lead upon breaking, or opening the switch in the shunt-circuit. The lamp shown in Figure 1 of Hewitt and Rogers's application consists of a U-shaped glass tube having at the end of one of its branches a pocket containing mercury. The working anode is at the other end of the tube. Within the end of the tube containing the mercury-pool is pivoted a metallic conductor capable of dropping into the pool of mercury thereby forming the connection with the cathode. The working anode is connected through an inductance with one of the conductors supplying current and the cathode is connected directly with the other supply-conductor. The usual switch is in the conductors. Hewitt and Rogers say that when the switch is closed in the current-leads, the voltage is not sufficient to overcome the resistance of the path between the working anode and the cathode, but they contend that the shunt forms a path for the current which flows through the coil of the solenoid shown in the drawing, and that this attracts the swinging electrode, or supplementary anode causing it to recede slowly from the cathode, thereby establishing an arc between the two and reducing the resistance in the path between the working anode and the cathode to such an extent that the voltage of the circuit is sufficient to establish the flow of current between the two. They do not deny that their description contemplates an impulse due to increased voltage, but they contend that this is obtained not by breaking the current flowing between the supplementary anode and the cathode and destroying the arc, but to the generation of an impulse in the induction-coil when the flow of current is suddenly reduced by the drawing of the arc between the supplemental anode and the cathode. They contend that the current still flows maintaining the arc between the supplementary anode and the cathode and overcoming a portion of the reluctance of the latter, and that then the impulse due to the induction-coil assists in establishing the desired arc between the main anode and the cathode. In their application they say that this reactive device may be made small or even dispensed with in some instances.

As stated by the appellant the single question presented, is whether this operation of the appellee's apparatus, which is the invention of the issue, is disclosed in their application. His proposition is that a fair reading of that application, (especially as it would appear to any one who had no knowledge of the Weintraub invention) does not afford a clear disclosure, or any disclosure at all, of the mode of the operation in controversy. The Primary Examiner held that it does, and his view was affirmed in succession by each of the tribunals of the Office before whom it came in due course of procedure. The question was ably argued before them on behalf of the appellant, as it has been on this appeal. Each tribunal delivered an elaborate opinion, in which the description of the application is analyzed, and the evidence of the experts reviewed.

Where the three tribunals of the Office have concurred in their decision of a question of this kind, it is the settled rule of this court not to disturb their conclusion unless manifest error can be found therein. (*Podlesak* v. *McInnerney*, 26 App. D. C., 399–405; *Newcomb Motor Co.* v. *Moore*, 30 App. D. C., 414.) And especially is this the case where the question is one relating to the operation of complicated apparatus, involving the application of scientific principles about which learned and highly-skilled electricians differ. It is true that

the language of the Hewitt and Rogers application is vague and in some respects conflicting in respect of a matter that might have been clearly shown. Notwithstanding this prejudicial circumstance, we have not been convinced that the Patent Office tribunals committed error in holding that Hewitt and Rogers were entitled to make the controverted claims. Appellant, who had the burden of supporting his contention, contented himself with the introduction of one witness, an expert in the office of his assignee. While we are not to be understood as reflecting in the slightest degree upon this eminent expert, we cannot overlook the fact that his experiments were naturally directed mainly to an effort to demonstrate the inoperativeness of the apparatus in the way necessary to bring it within the issue. There seems to be no doubt that the temporary high potential, necessary to start the arc between the working anode and the cathode, could be obtained by means of the inductance-coil through the increased resistance caused by withdrawing the supplemental anode from contact with the cathode, but still maintaining the arc. If this starting-arc was not intended to be maintained for the purpose of aiding in overcoming the resistance or reluctance of the cathode so as to permit the flow of current between it and the working anode, it is difficult to perceive for what practical purpose the supplemental anode was introduced. If, as contended by the appellant, the circuit was broken between the supplemental anode and the cathode before the arc could be started between the latter and the main anode, the supplemental anode instead of becoming an auxiliary would be practically useless. The high potential then necessary to starting the arc between the main or working anode and the cathode would apparently have to be obtained by the old method; and the new lamp would be no substantial improvement upon the old one.

The application of the appellees has been so fully and carefully examined in the decisions of the several tribunals, set out in the record, that it would serve no useful purpose to consume time with an additional review.

One other question remains to be considered. Weintraub filed in evidence a deposition of one Lunt and copies of depositions of Hewitt and Rogers taken in another interference. The avowed purpose of this evidence was to show that Hewitt and Rogers were not joint inventors. On motion of appellees, the evidence was stricken out. A motion to set this order aside was subsequently made and overruled. On the final hearing the testimony was again offered and excluded, on the ground that the evidence in the case was limited by the motion of Weintraub to take evidence on the single question of the right of the appellees to make the claims in question under the disclosures of their application.

There was no error, we think, in the exclusion of the evidence. A *prima facie* case of joint invention was made by the allowed application. Weintraub's statement of his conception of the invention giving a date later than the filing date of his opponents, they were not required to take any testimony in support of their claim, but were entitled to a judgment on the record, unless it could be shown, as contended by Weintraub, that they were not entitled to make the claims, because there was nothing in their application furnishing a basis therefor. This being the sole issue presented, Weintraub applied for and obtained leave to take evidence thereon. The additional evidence sought to be introduced was not pertinent to this the sole issue in the case. The case of *Lemp* v. *Randall*, (33 App. D. C., 430–432,) relied on by the appellant, is not in point. All that was decided in that case, was that on an issue requiring proof of conception of the invention, evidence was admissible to show that one only of the joint applicants was the actual inventor. Having made an application alleging that they were joint inventors, they tendered that as one of the issues of the case. The case was distinguished from those where it had been held that evidence could not be offered to show that a third person, not a party to the proceeding, was the first to invent. The court said:

> Appellant did not seek to show that the right to the award of priority was in a third party, an alien to the proceeding, but that the senior parties to the proceeding were without standing, because it appeared that they were not joint inventors, and hence not entitled to make the application in interference.

We find no error in the decision appealed from, and it is affirmed, with direction to certify this decision to the Commissioner of Patents.

Affirmed.

Court of Appeals of the District of Columbia.

IN RE MOORE.

Decided February 5, 1912.

PATENTABILITY—PAD FOR ARTIFICIAL TEETH.

Claims for a pad of particular form to be worn between the gums and a plate for artificial teeth *Held* patentable over the prior art in view of affidavits of dentists of skill and long experience that this pad provides an effective remedy for the trouble arising from false teeth and tender gums and that they had constantly exercised their ingenuity and skill to find a remedy therefor, but without success.

Mr. E. W. Bradford for the appellant.

Mr. W. S. Ruckman for the Commissioner of Patents.

SHEPARD, *C. J.*:

This is an appeal from a decision (177 O. G., 772) rejecting an application for a patent having five claims, as follows:

1. A soft elastic pad or cushion of cotton to be worn between the gums and plates of artificial teeth.
2. The combination with a plate for artificial teeth of a pad or cushion of cotton interposed between said plate and gums.
3. A pad or cushion to be worn between the gums and lower plate of artificial teeth comprising a roll of cotton reduced in thickness at its middle portion to facilitate the bending of the roll into U shape to fit the contour of the plate.
4. As a pad or cushion to be worn between the gums and the lower plate of artificial teeth, a roll of cotton reduced in thickness at its middle portion to facilitate the bending of the roll into a U shape to fit the plate, the ends of said roll being also reduced in thickness.
5. A pad or cushion for artificial teeth comprising cotton formed into a roll and bent into a U shape to fit the plate for the teeth, the ends of said roll being reduced in diameter.

Claims 1 and 2 were rejected specifically on reference to a prior patent to Stapleton; the others generally as failing to show invention.

Appellant, admitting doubt as regards claims 1–2 and 5, has abandoned them. He, of course, does not deny that cotton rolls and pads have been used in dentistry as well as in other arts, but contends that there is utility in his method of preparing the roll and its use, and that its discovery is an exercise of the inventive faculty, and, therefore, patentable. During the proceedings in the Office applicant filed numerous affidavits in support of his claim of patentable novelty. Many of these were by dentists of skill and long experience. These were in substance, that their attention had been repeatedly called to the troubles with false teeth and tender gums for which applicant has provided an effective remedy; that they had constantly exercised their ingenuity and skill to find a remedy but without success; that the manner in which applicant's roll is prepared for use affords an effective remedy that has gone into wide use; that they regard it, by reason of the facts stated, as more than an exercise of mechanical skill. Some other affidavits by persons using the article attest the long search for relief without success, and the effectiveness of the applicant's prepared roll.

The difficulty is the constant one involved in the ascertainment of that elusive boundary between invention and mechanical skill. The "impalpable something" that distinguishes one from the other is not determinable by the simplicity of the alleged invention alone. It often occurs that when one has succeeded in devising a means to accomplish a long desired end, it may seem plain to any one that he could have done it as easily and as well had his attention been called to it. This has been the case with some inventions of great merit. In this instance the attention of men skilled in the art had long been called and directed to the end accomplished by the applicant, and their mechanical skill had been exerted in vain. The article devised by him has gone into use on its merits and proved its utility. Confessing some doubt, we have come to the conclusion that the patent ought to be granted. As said in the case of *in re Thomson*, (26 App. D. C., 419–425:)

> In case of ordinary doubt, the policy of the patent system, as customarily maintained in the Patent Office, has been to give the applicant the benefit thereof, because no absolute right of property is conferred by the grant of a patent.

This doubt was resolved in favor of Stapleton whose patent has been cited as a reference in this case. His device, of a different kind intended to relieve the pressure of the upper plate, shows no greater evidence of invention than does the applicant's. The case is quite different from that of *in re Faber*, (31 App. D. C., 531.)

The decision rejecting claims 1–2 and 5 will be affirmed, but as to claims 3 and 4 will be reversed. It is so ordered. The clerk will certify this decision to the Commissioner of Patents.

Affirmed in part. Reversed in part.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Armstrong and Woodbridge patent, No. 726,391, for an electrical translating device, *Held* valid and infringed. *Allis-Chalmers Co.* v. *General Electric Co.*, 194 Fed Rep., 414.

(U. S. C. C. A.) The Gillette patent, No. 775,134, for a safety-razor, *Held* valid and infringed. *Clark Blade & Razor Co.* v. *Gillette Safety Razor Co.*, 194 Fed. Rep., 421.

(U. S. C. C. A.) Claims 4 to 8, inclusive, of the Fredrik Ljungstrom patent, No. 892,990, for improvements in liners for centrifugal bowls for separating cream from milk, *Held* invalid in view of prior use. *De Laval Separator Co.* v. *Iowa Dairy Separator Co.*, 194 Fed. Rep., 423.

(U. S. C. C. A.) The Wright and Anlborg patent, No. 633,771, for a switch for electric circuits, *Held* void for lack of invention. *Westinghouse Electric & Mfg. Co.* v. *Condit Electrical Mfg. Co.*, 194 Fed. Rep., 427.

(U. S. C. C.) The Wurts patent, No. 570,416, for a circuit-interrupting means for systems of electrical distribution, claims 3 and 4 *Held* valid and infringed. *Westinghouse Electric & Mfg. Co.* v. *Condit Electrical Mfg. Co.*, 194 Fed. Rep., 430.

(U. S. D. C.) Preliminary injunction against infringement of Rashkin patent, No. 871,735, for an elevator-door, granted as against patentee, but denied as against second defendant. *Peelle Co.* v. *Rashkin*, 194 Fed. Rep., 440.

(U. S. D. C.) The Richardson and Langston patent, No. 669,489, for improvements in railroad-tickets, *Held* not infringed. *Exchange Scrip Book Co.* v. *Rand, McNally & Co.*, 194 Fed. Rep., 444.

(U. S. D. C.) The Parsons patent, No. 723,299, for a chain tire-grip, *Held* valid and infringed. *Weed Chain Grip Co.* v. *Atlas Chain Co.*, 194 Fed. Rep., 448.

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 2, 1912.

J. C. Ferguson & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Cleveland Provision Co., 8 Bolivar street, Cleveland, Ohio, for registration of a trade-mark and trade-mark registered March 28, 1882, No. 9,244, to J. C. Ferguson & Co., of Chicago, Ill., and a notice of such declaration sent by registered mail to said J. C. Ferguson & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. C. Ferguson & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

THE
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Trade-Marks	37—No.	86,631 to No. 86,767,	inclusive.
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Denmark	2	....	South Australia	....	....
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England	23	3	Sweden	....	....
Ecuador	....	....	Switzerland	3	....
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APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business May 25, 1912.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Apr. 1	Apr. 3	561
128	2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	Mar. 11	Apr. 24	465
176	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	Apr. 26	May 13	184
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	Apr. 10	Apr. 8	538
167	5. Bookbinding; Harvesters; Jewelry; Music.	Mar. 16	Apr. 2	496
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	Apr. 26	Apr. 26	339
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Feb. 5	Apr. 9	802
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Apr. 26	Apr. 25	450
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels.	Apr. 11	Apr. 18	395
235	10. Carriages and Wagons	Apr. 1	Apr. 11	719
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips, and Whip Apparatus.	Mar. 18	Mar. 29	457
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Apr. 6	Apr. 5	752
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Apr. 8	Apr. 16	478
307	14. Compound Tools; Cutting and Punching, Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Mar. 28	Apr. 25	468
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Mar. 1	Mar. 16	1065
109	16. Telegraphy; Telephony	Mar. 1	Apr. 8	239
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Apr. 22	Apr. 25	321
327	18. Injectors and Ejectors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Apr. 5	Apr. 11	286
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Mar. 23	Mar. 30	433
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Apr. 4	Apr. 8	239
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Apr. 1	Apr. 8	436

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Apr. 8	Apr. 24	295
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Apr. 3	Apr. 2	590
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Mar. 16	Apr. 11	555
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	Apr. 26	May 1	192
106	26. Electricity, Generation; Motive Power.	Jan. 2	Jan. 19	612
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Apr. 19	Apr. 20	418
65	28. Internal-Combustion Engines	Feb. 19	Mar. 2	827
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Mar. 25	Apr. 24	525
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 4	Apr. 4	470
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Mar. 28	Mar. 30	338
278	32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	Apr. 4	Apr. 23	336
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Mar. 7	Apr. 10	496
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Mar. 14	Apr. 2	537
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Mar. 14	Apr. 8	815
264	36. Drafting; Driers; Engraving; Measuring Instruments; Photography.	Apr. 18	Apr. 15	579
107	37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Apr. 1	Apr. 16	503
378	38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working.	Feb. 19	Apr. 15	673
321	39. Water Distribution	Feb. 19	Mar. 18	617
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	Apr. 27	May 8	381
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 14	Mar. 29	692
279	42. Electric Railways; Electric Signaling; Railway Signaling; Signals.	Mar. 22	Apr. 8	516
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	Apr. 25	Apr. 26	314

Oldest new case, Jan. 2; oldest amended, Jan. 19.

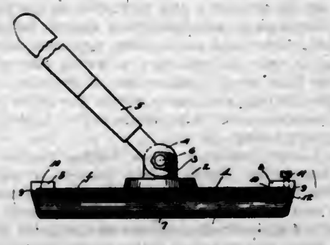
Total number of applications awaiting action..... 21,414

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Apr. 1	Apr. 6	1222
	Designs	Mar. 16	Mar. 11	317
	Labels and Prints	May 20	May 18	28

PATENTS

GRANTED MAY 28, 1912.

1,027,396. TROWEL ATTACHMENT. IRA M. ABRAM, Dugger, Ind. Filed Aug. 17, 1910. Serial No. 577,602. (Cl. 72—136.)



1. A finishing attachment for a troweling blade, comprising a body part having side finishing surfaces for cooperating with the finishing surface of the blade, extensions on said body part forming slots therewith for receiving the edges of the blade whereby said attachment may be slid into various positions on said blade, and set screw mechanism coöperating with said extensions and blade to lock the attachment in its adjusted position on said blade.

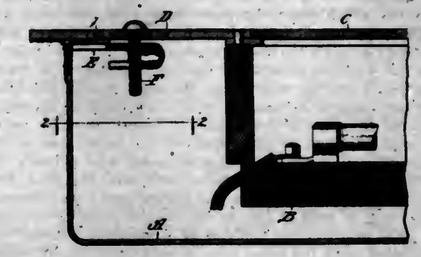
2. An attachment for a troweling blade, comprising a body part having side finishing surfaces for coöperating with the finishing surfaces of the blade, an extension over each end of said body part forming with said body part slots for receiving the edges of the blade whereby the attachment may be slid into various positions on said blade, and a screw passing through one of said extensions and having a tapered end for engaging the adjacent edge of said blade to thereby clamp the attachment in its adjusted position to said blade.

3. In combination, a troweling blade, a detachable finishing member having grooves for receiving the longitudinal edges of the blade whereby said member may be slid into various positions on said blade to have its finishing surface coöperate with the finishing surface of the blade, and means for locking the attachment readily in adjusted position.

4. In combination, a troweling blade, a plurality of finishing attachments each having grooves for receiving the longitudinal edges of the blade whereby said attachments may be slid into various positions on said blade, and means provided for each finishing member for locking said member rigidly in adjusted position to said blade.

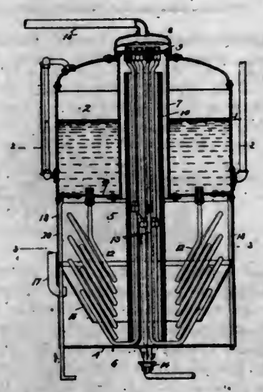
1,027,397. FASTENING DEVICE FOR PANEL-BOARD CABINETS. FREDRICK B. ADAM, St. Louis, Mo., assignor to Frank Adam Electric Company, St. Louis, Mo., a Corporation of Missouri. Filed July 19, 1911. Serial No. 639,401. (Cl. 70—8.)

A fastening device comprising spaced parallel portions, one of which is adapted to engage a stationary member, and a screw or bolt passing through the exposed face of the object with which the device is used and projecting into the screw-threaded openings in the parallel portions of the device, the screw-threads on said parallel portions



being distorted with relation to the screw-threads on said screw.

1,027,398. STEAM-GENERATOR. ALBERT L. AUSTIN, Lakewood, Ohio. Filed June 19, 1911. Serial No. 634,181. (Cl. 122—250.)



1. In a steam generator, the combination of a water chamber, a tube passing through the same having a closed upper end and an open lower end, an inner tube open at both ends and extending from a point within the outer tube near the upper closed end thereof downward to a point considerably below the lower end of said outer tube pipes connected with the water chamber and carried into and up through the inner tube, said pipes being connected at their upper ends with openings through the closed head of the outer tube, and a burner disposed beneath the lower open end of the inner tube.

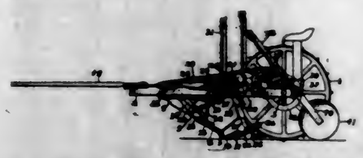
2. In a steam generator, the combination of a water chamber, a coil chamber below the same, a tube closed at its upper end extending up through the water chamber and communicating at tis lower end with the coil chamber,

a second tube extending down within the first tube from a point near the upper end thereof to a point adjacent to the burner, a burner disposed below the lower end of the said tube, and pipe coils connected with the water chamber and disposed within the coil chamber, pipes which are a continuation of these coils which enter the inner tube near the lower end thereof and extend up through the same and discharge through openings in the closed upper end of the outer tube.

3. In a steam generator, the combination of a water chamber, a coil chamber below the same, a tube which extends up through the water chamber and is closed at its upper end and is in communication at its lower end with the coil chamber, a second tube which is secured over a hole in the floor of the coil chamber and extends upward therefrom into the tube first named to a point near the upper closed end thereof, a burner disposed below the lower end of the inner of said tubes, pipe coils located within the coil chamber and communicating with the water chamber through the bottom thereof, said coils being continued as pipes which enter the inner tube near the lower end thereof and extend up through it and are connected with openings through the closed upper end of the outer tube.

4. In a steam generator, the combination of a water chamber, a coil chamber below the same, a tube extending through the water chamber which is closed at its upper end and open at its lower end, a burner chamber below the coil chamber, a tube open at its lower end which communicates with the burner chamber and extends upward through the coil chamber and into the tube first mentioned to a point near the closed upper end thereof, a plurality of coils of pipe located within the coil chamber, the coils whereof are inclined in a direction inward and downward from the outer wall of said chamber, the upper convolution of each coil being connected with the water chamber, and the lower convolution being extended into and upward through the closed top of the outer tube, a downwardly and inwardly inclined baffle plate fixed to the wall of the coil chamber, said coil chamber having below said baffle plate an opening for the discharge therefrom of the products of combustion.

1,027,399 BEET-TOPPER. FRANK BRIGGS, Leavenworth, Wash. Filed Nov. 4, 1910. Serial No. 590,760. (Cl. 55—107.)



1. In a beet topper, a main frame, traction bearing wheels supporting the rear end thereof, a guide plate depending from the forward end of the frame, a gage plate longitudinally adjustable on the guide plate having its lower end upturned and extending beyond the guide plate to trail on the ground, a disk journaled on the guide plate to rotate in a plane parallel to and slightly below the uptilted arm of the gage plate whose rear edge overlaps the disk slightly and conforms to the cutting edge of the latter, adjusting means for shifting the gage plate on the guide plate, and driving means operatively connecting the disk and the traction bearing wheels.

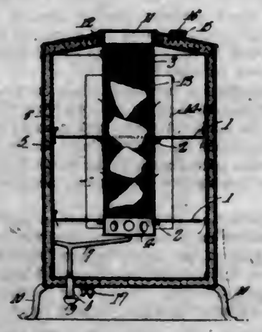
2. In a beet topper, a main frame, traction bearing wheels supporting the rear end thereof, a guide plate depending from the forward end of the frame, a gage plate longitudinally adjustable on the guide plate having its lower end upturned and extending beyond the guide plate to trail on the ground, a disk journaled on the guide plate to rotate in a plane parallel to and slightly below the uptilted arm of the gage plate whose rear edge overlaps the disk slightly and conforms to the cutting edge of the latter, springs adapted to hold the gage plate retracted, adjusting means for positively shifting the gage plate on the guide plate, and driving means operatively connecting the disk and the traction bearing wheels.

3. In a beet topper, a main frame, traction bearing wheels supporting the rear end thereof, a guide plate, longitudinally extending arms on the forward end thereof pivoted at their outer extremities on the main frame, a gage plate longitudinally movable on the guide plate, ears on the gage plate engaging the guide plate, the lower end of the gage plate being upturned and extending beyond the guide plate to trail on the ground, a disk journaled on the guide plate to rotate in a plane parallel to and slightly below the uptilted arm of the gage plate whose rear edge overlaps the disk slightly and conforms to the cutting edge of the latter, adjusting means for shifting the gage plate on the guide plate, and driving means operatively connecting the disk and the traction bearing wheels.

4. In a beet topper, a main frame, traction bearing wheels supporting the rear end thereof, a guide plate depending from the forward end of the frame, a gage plate longitudinally adjustable on the guide plate having its lower end upturned and extending beyond the guide plate to trail on the ground, a disk journaled on the guide plate to rotate in a plane parallel to and slightly below the uptilted arm of the gage plate whose rear edge overlaps the disk slightly and conforms to the cutting edge of the latter, projections on the upper face of the disk, adjusting means for shifting the gage plate on the guide plate, and driving means operatively connecting the disk and the traction bearing wheels.

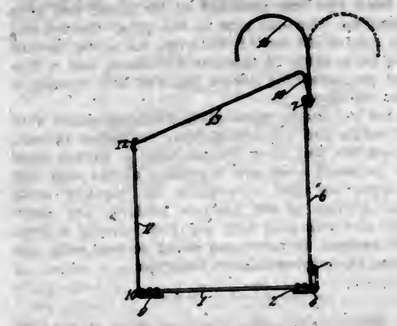
5. In a beet topper, a main frame, traction bearing wheels supporting the rear end thereof, a guide plate, longitudinally extending arms on the forward end thereof pivoted at their outer extremities on the main frame, a gage plate longitudinally movable on the guide plate, ears on the gage plate engaging the guide plate, the lower end of the gage plate being upturned and extending beyond the guide plate to trail on the ground, a disk journaled on the guide plate to rotate in a plane parallel to and slightly below the uptilted arm of the gage plate whose rear edge overlaps the disk slightly and conforms to the cutting edge of the latter, projections on the upper face of the disk, adjusting means for shifting the gage plate on the guide plate, and driving means operatively connecting the disk and the traction bearing wheels.

1,027,400. REFRIGERATOR. WILLIAM H. BURK, Fosteria, Ohio. Filed Sept. 8, 1911. Serial No. 648,298. (Cl. 62—10.)



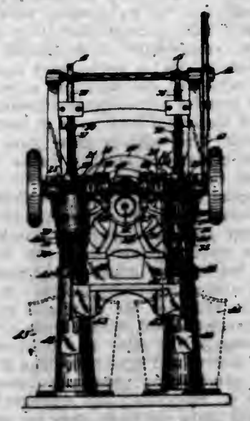
In a refrigerator, a cylindrical casing having a door-opening in its side, a cylindrical foraminous support depending therein, a cage arranged within the support and spaced from the sides thereof and adapted to contain the ice, a plurality of rings secured to the support, and a circular shelf arranged on each of the said rings and having its periphery spaced from the sides of the casing, whereby the cold air may circulate downwardly in the space between the cage and support and the air pass upwardly between the shelves and the casing to form a continuous circulation around the shelves.

1,027,401. WOOD-CARRIER. JOHN CHECK, Kokomo, Colo. Filed Apr. 5, 1911. Serial No. 619,120. (Cl. 224—25.)



In a wood carrier, a front portion formed of a single piece of material approximately inverted U-shaped in formation provided with a plurality of eyes in its upper portion, a transverse rod secured to the said front portion near its lower end, a base pivotally secured to the said transverse rod and disposed in a plane below the same; the said base being held against forward movement by the extremities of the front portion, a transverse rod secured to the base, a back portion inverted U-shaped in formation, provided with an eye in its upper portion, pivotally secured to the last named transverse rod and capable of rotation thereon upon the base, a roof adapted to engage the eyes to connect the back and front portions and a handle pivotally secured in the front portion.

1,027,402. VIBRATORY CHUCK. JOSEPH P. CLEAL, Dayton, Ohio, assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio, a Corporation of Ohio, (incorporated in 1906.) Filed May 22, 1905. Serial No. 261,692. (Cl. 91—60.)



1. In a machine of the character described, the combination with a work holder, of means for vibrating same about an axis, and means for rotating said vibratory axis.

2. In a machine of the character described, the combination with a chuck pivoted within a holder, of means for vibrating said chuck around its pivot, and means for rotating said holder and chuck.

3. In a machine of the character described, the combination with a pivoted work holder, of means for rotating said work holder about an axis, and means for vibrating said work holder around its pivot.

4. In a machine of the character described, the combination with a chuck mounted pivotally on a revoluble holder, of means for revolving said holder thereby revolving the chuck therewith; and a reciprocating rod having provisions for engaging said chuck during its evolving movement and rocking the same upon its pivot.

5. In a machine of the character described, the combination with a chuck mounted within a holder, of means for revolving said holder; and a reciprocating rod formed with an inclined extension engaging projections formed on said chuck for rocking said chuck about its pivotal point during its revolving movement.

[Claims 6 to 11 not printed in the Gazette.]

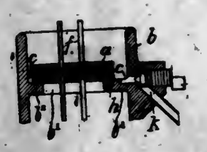
1,027,403. SYSTEM OF MOTOR-OPERATED TREE VIBRATION FOR SAVING BUDS AND BLOSSOMS FROM FROST. HERMAN L. DARLING, Delta, Colo. Filed May 15, 1911. Serial No. 627,822. (Cl. 47—37.)



1. A system for imparting a vibrating motion to fruit trees, comprising a vibratory motion electric motor, means including circuit wires operatively connected to said motor for supplying power and means for securing said motor in fruit trees in such a manner as to impart to the tree the vibratory motion of the motor.

2. A system for imparting a vibrating trembling motion to fruit trees, comprising a vibratory motion motor, means for connecting said motor to said fruit trees in such a manner that the vibratory motion generated by the motor is imparted to said fruit trees and a supply of power operatively connected to said motor.

1,027,404. TERMINAL INSULATOR IN JUNCTION-BOXES OR THE LIKE. ROBERT DEIBEL, Charlottenburg, Germany, assignor to Siemens & Halske Aktiengesellschaft, Berlin, Germany, a Corporation. Filed Apr. 29, 1909. Serial No. 492,949. (Cl. 247—12.)



1. In a junction box, of the character described, the combination of a receptacle having a portion of its bottom formed of insulating material hermetically attached to the remainder of the bottom and extending a suitable distance above said remaining bottom, to produce a channel between the receptacle walls and the material, said receptacle containing oil of specific weight less than that of water, and electrically conducting junction elements secured in and extending through said insulating material above the surface of the oil, said elements having their junction points located above the surface of the oil.

2. In a junction box, of the character described, the combination of a receptacle having a portion of its bottom formed of initially plastic insulating material hermetically attached to the remainder of the bottom and extending a suitable distance above said remaining bottom, to produce a channel between the receptacle walls and the material, said receptacle containing oil of specific weight less than that of water, and electrically conducting junction elements secured in and extending through said

insulating material above the surface of the oil, said elements having their junction points located above the surface of the oil.

3. In a junction box, of the character described, the combination of a receptacle having a portion of its bottom formed of initially plastic insulating material hermetically attached to the remainder of the bottom to overlap it above and below and extending a suitable distance above said remaining bottom, to produce a channel between the receptacle walls and the material, said receptacle containing oil of specific weight less than that of water, and electrically conducting junction elements secured in and extending through said insulating material above the surface of the oil, said elements having their junction points located above the surface of the oil.

4. In a junction box, of the character described, the combination of a receptacle having a portion of its bottom formed of initially plastic insulating material hermetically attached to the remainder of the bottom and extending a suitable distance above said remaining bottom, to produce a channel between the receptacle walls and the material, said receptacle containing oil of specific weight less than that of water, and electrically conducting junction elements secured in and extending through said insulating material above the surface of the oil, said elements having their junction points located above the surface of the oil, and means for draining moisture from the bottom of said channel.

5. In a device of the character described, the combination of a receptacle of suitable material having a bottom formed partly of a plate of insulating, initially plastic material, said plate overlapping the receptacle bottom above and below and of sufficient thickness to protrude into the receptacle and to form with the receptacle wall a channel surrounding said plate, said receptacle containing oil of specific weight less than that of water, and electrically conducting junction elements fixed in said plate and extending above the surface of the oil.

[Claims 6 to 11 not printed in the Gazette.]

1,027,405. TOP-ROLL-SADDLE MECHANISM. ISSACHAR W. DODG, Exeter, N. H. Filed June 28, 1909. Serial No. 504,666. (Cl. 118—22.)



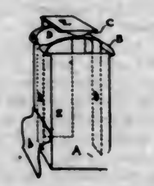
1. In a top roll saddle mechanism, the combination with a top roll saddle and a weighted lever connected thereto, of a fulcrum for the lever formed with a slotted upper portion, the wall on each side of the slot being provided near its upper end with a centrally-situated pin-receiving aperture, and a hardened steel pin received in said apertures and extending across the upper end of the slot thereby to form a bearing for the weighted lever and whereby the bearing point is situated in the vertical axial line of the fulcrum.

2. In a top roll saddle mechanism, the combination with a top roll saddle and a weighted lever connected thereto, of a roller beam, and a two-part fulcrum for the lever, one part having a shank screw-threaded into the roller beam and a head, the other part having a shank screw-threaded into said head and also provided at its upper end with a slot extending from one side to the other thereof and adapted to receive the end of the lever, the screw threads on the two parts being in opposite directions.

3. In a top roll saddle mechanism, the combination with a top roll saddle and a weighted lever connected thereto, of a roller beam, a two-part fulcrum for the lever, one part having a shank screw-threaded into the roller beam and a head, the other part having a shank screw-threaded into said head and also provided at its upper end with a slot extending from one side to the other thereof and adapted to receive the end of the lever, the screw threads on the two parts being in opposite directions, and a hardened steel pin extending across the slot and forming a bearing for the lever.

4. In a top roll saddle mechanism the combination with a top roll saddle and a weighted lever connected thereto, of a fulcrum for the lever formed with a slotted head portion, a hardened steel pin extending across said slot near its upper end and secured in the opposite walls thereof, the portion of the fulcrum bridging the upper part of the slot engaging said pin and forming a firm, substantial backing therefor and being formed with the tapered faces 13, substantially as described.

1,027,406. STENOGRAPHER'S ENVELOP AND STAMP MOISTENER. BLISS HAVELOCK DUNFIELD, St. John, New Brunswick, Canada. Filed Feb. 6, 1911. Serial No. 606,996. (Cl. 120—75.)



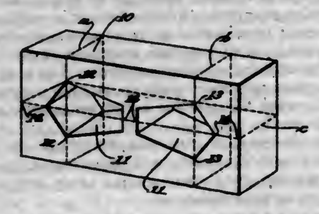
1. The envelop moistening typewriter attachment device, comprising a water retainer A, provided with a spring bracket for attaching it firmly to a typewriter; a sliding detachable cover arched from side to side and having attached thereto at the rear of the crown of the arch an inverted arched guide; also a porous wick passing through and over the cover, under the guide and down into the retainer; substantially as described.

2. The combination of an envelop moistener and a stamp moistener into a detachable cover device for a water retainer, comprising:—a detachable cover piece arched from side to side; a porous wick passing through and over the same and downward at convenient length therefrom; an inverted arched guide attached to the rear of the crown of the arched cover so as to touch lightly the said porous wick; a rectangular plane plate carried upon the top of the guide; and another porous wick passing over and under the plate and downwardly therefrom at convenient length; substantially as described.

3. The combination of an envelop moistener and a stamp moistener into a typewriter attachment device comprising:—a water retainer A; a stiff spring bracket for attaching the retainer firmly to a typewriter; a removable cover arched from side to side; a porous wick passing through and over the cover and down into the retainer; an inverted arched envelop guide attached to the rear of the crown of the cover in a position parallel to the crown of the cover and lightly touching the said wick; a rectangular plane stamp moistening plate carried on the top edges of the guide; and another porous wick passing over the plate and down into the receiver; substantially as described.

4. The envelop moistener cover device for a water retainer comprising:—an attachable cover piece arched from side to side and furnished with an inverted arched guide, the two being united at the rear of the crowns of the two arches in such a manner that the two arch crowns will be parallel and distant from each other only the thickness of a porous wick and the envelop paper; and a porous wick passing through and over the cover arch, under the guide and down at convenient length into any water retainer to which the device may be attached; substantially as described.

1,027,407. BRICK. GEORGE HYDE EMERY, Des Moines, Iowa, assignor to The Des Moines Clay Manufacturing Company, Des Moines, Iowa, a Corporation of Iowa. Filed Apr. 6, 1911. Serial No. 619,240. (Cl. 72—37.)



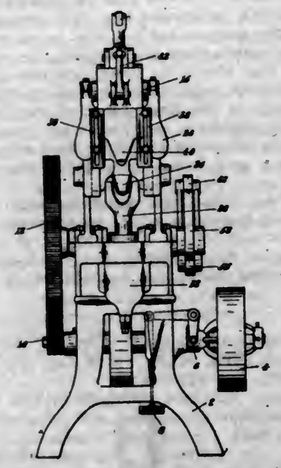
1. As a new article of manufacture, a brick rectangular in outline and having a plurality of polygonal openings symmetrically disposed therein, said openings forming three planes of least resistance through the brick, one of said planes passing through the center of said brick from end to end.

2. As a new article of manufacture a brick of rectangular outline having a polygonal opening therein near one end of the brick, said opening having one of its corners near the end of the brick at the center, said opening having other corners lying in a plane transverse to said brick and forming a transverse plane of least resistance so that the brick will break when struck opposite said corners.

3. As a new article of manufacture, a brick having a plurality of polygonal openings designed to provide three planes of least resistance, so that the brick will break evenly when struck at points in said planes.

4. As a new article of manufacture, a rectangular brick having cut away portions designed to provide three planes of least resistance so that the brick will break evenly when struck at points in said planes, one of said planes passing through the center of said brick from end to end.

1,027,408. MACHINE FOR FORMING UPPERS OF BOOTS AND SHOES. KARL ENGEL, Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 5, 1907. Serial No. 387,024. (Cl. 12—97.)



1. A machine of the class described, having, in combination, a flange turner arranged to engage and turn out a flange upon a portion of leather curved approximately in the plane of movement of said turner, and means for holding the leather in its curved condition for the action of said turner, said means being constructed to gather in the leather along the turning line to provide a fullness for the turning operation.

2. In a machine of the class described, the combination with a flange turner adapted to engage and turn out a portion of leather curved approximately in the plane of the path of the flange turner, of means for gathering in the leather along the turning line to provide a fullness for the turning operation constructed to determine positively the location of said turning line.

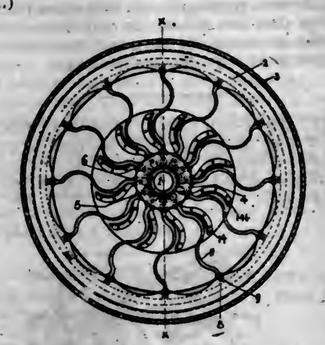
3. In a machine of the class described, the combination with a male mold curved in the plane of one of its faces and a coöperating female mold, said molds being shaped to gather in the material which is being molded at or near the curved line formed by their meeting edges to reduce the periphery of the molded material along this line, of means for turning out the material projecting beyond the said line.

4. In a machine of the class described, the combination with means for molding a counter blank into U shape, said means comprising means for gathering in the blank material along a flange line, of means moving in substantially the plane of said line for turning out the material beyond the flange line to form an outturned flange.

5. In a machine of the class described, the combination with a female mold and a male mold, said molds being adapted to shape and clamp a counter between them with a flange forming portion projecting, of a flange turner arranged to move over said male mold toward said female mold to turn out upon said female mold the part of the clamped blank projecting beyond the molds to form an outturned flange on said counter.

[Claims 6 to 12 not printed in the Gazette.]

1,027,409. VEHICLE-WHEEL. JOHN A. ETZOLD, Detroit, Mich. Filed Apr. 26, 1910. Serial No. 557,772. (Cl. 152—51.)



1. In a wheel, the combination with a hub and felly, of a brake drum fixed to the hub, of yielding spokes bent to an ogee curve, the ends of said spokes being rigidly secured to the hub and felly respectively, stops fixed to the face of the brake drum, said stops formed of angle bar and each having one of its flanges curved and adapted to engage the curved face of one of said spokes.

2. In a wheel, the combination with a hub and felly, of yielding spokes bent to an ogee curve, the ends of said spokes being rigidly secured to the hub and felly respectively, curved stops carried by the hub and normally out of contact with said spokes, the stops adapted to engage and unyieldingly support the back faces of the spokes when the spokes are flexed.

1,027,410. HORSESHOE. WILLIAM M. FLETCHER, Binghamton, N. Y. Filed Aug. 2, 1911. Serial No. 641,948. (Cl. 168—40.)

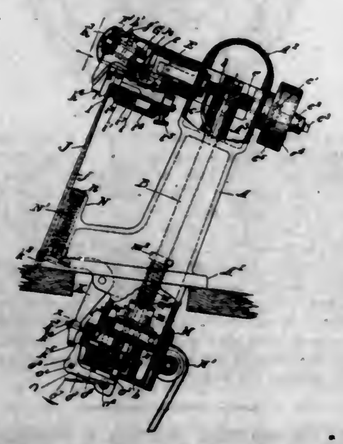
1. A horseshoe including a shoe body provided with a vertical perforation and with horizontal perforations opening into the vertical perforation; a calk having a shank to fit the vertical perforation, said shank having a per-

foration alining with the horizontal perforations when the shank is positioned in the aforesaid vertical perforation; a tubular pin passing through the alined openings in the shank stem and shoe body; and a retaining member passing through the tubular pin and around an adjoining part of the shoe body to hold the said tubular pin in place.



2. A horseshoe including a shoe body provided with a vertical perforation and with horizontal perforations opening into the vertical perforation; a calk having a shank to fit the vertical perforation, said shank having a perforation alining with the horizontal perforations when the shank is positioned in the aforesaid vertical perforation; a tubular pin passing through the alined openings in the shank stem and shoe body; and a retaining member passing through the tubular pin and around an adjoining part of the shoe body to hold the said tubular pin in place, there being grooves in the shoe body to receive the retaining member so as to protect it from injury.

1,027,411. SHOE-UPPER-BEADING MACHINE. LOUIS W. G. FLYNT, Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 14, 1908. Serial No. 467,437. (Cl. 12—53.)



1. In a machine of the class described, an anvil, in combination with a hammer having a curved face, and actuating means to cause the hammer to deliver a series of applications of pressure to the anvil on a line which progresses across the anvil.

2. In a machine of the class described, an anvil, in combination with a hammer and actuating means to cause the hammer to deliver a series of applications of pressure and to roll across the anvil.

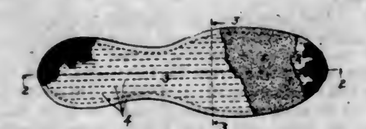
3. In a machine of the class described, a hammer and actuating means therefor arranged to impart to the work a series of applications of pressure and to roll across the work whereby to apply its pressure progressively thereto.

4. In a machine of the class described, an anvil, a hammer and means for causing successive areas of the face of the hammer to impart a series of applications of pressure to the work along a line which progresses across the face of the anvil.

5. In a machine of the class described, an anvil, in combination with a hammer and actuating means for the hammer to cause it to approach the anvil, roll across the same and to recede therefrom.

[Claims 6 to 53 not printed in the Gazette.]

1,027,412. COMPOSITION INSOLE. OLOF FRED FOGELSONG, Chicago, Ill. Filed Nov. 11, 1907. Serial No. 401,611. (Cl. 36—44.)



1. An insole of the kind described, comprising a top and a botom forming a cover, wood saw-dust and a plurality of thin diagonally extending wood strips arranged therebetween, the adjacent edges of said strips lapping upon each other, and means for securing the said covers together.

2. An insole of the kind described, comprising a top and a bottom forming a cover, wood saw-dust and a plurality of thin wooden strips extending diagonally across the insole arranged therebetween, the adjacent edges of said strips lapping upon each other, a stiffener arranged on said sole on one of the sides thereof, and means for securing the several parts together.

3. A moisture absorbing insole of the kind described, comprising a top and a bottom forming a cover, the top being of substantially porous material, a stiffening member resting upon the bottom, said stiffening member comprising a series of relatively thin flat strips arranged side by side, raw or commercial saw dust arranged between said stiffening member and top, and means for securing said top and bottom together, and preventing displacement of the saw dust within the cover, comprising a series of closely associated longitudinally extending stitches.

4. An insole of the kind described, comprising a top and a bottom forming a cover, wood saw dust and a plurality of thin diagonally extending wood strips arranged there between, and means for securing the said covers together.

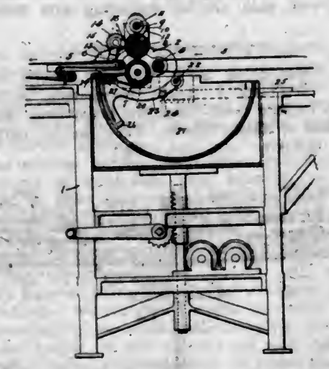
5. An insole of the kind described, comprising a top and a bottom forming a cover, an absorbent filling between the top and bottom, a plurality of thin diagonally extending wood strips resting upon the bottom and beneath said filling, and means for securing the covers together.

1,027,413. NON-REFILLABLE BOTTLE. NICOLAS JEAN FORTUNESCO, Paris, France. Filed Jan. 3, 1911. Serial No. 600,467. (Cl. 215—69.)



A non-refillable bottle valve comprising a disk having a centrally disposed opening therein forming a valve seat, a cylindrical member resting with its lower edge against the uper surface of said disk, a second disk provided with angularly shaped ports in its periphery resting upon said cylindrical portion, a projection on said second disk extending centrally from the same toward the valve seat but spaced therefrom, said projection being provided with a cavity extending upwardly into the body portion of the same, a valve formed of a conical portion adapted to rest in the valve seat, the upper portion of the valve having a stem adapted to loosely enter the said cavity, the body of the valve around its stem being cut away to form a depression into which the lower edge of the first mentioned projection is adapted to extend when the valve is in normal position, whereby the valve may freely move when liquid is to be poured from the bottle and its seating insured when the bottle is returned to upright position.

1,027,414. MACHINE FOR COATING. FREDERICK E. GOLDSMITH, Middletown, Ohio, assignor to The Ceramic Machinery Company, Hamilton, Ohio. Filed July 26, 1906. Serial No. 327,925. (Cl. 91—56.)



1. In a machine for coating, a coating roll, feed and delivery mechanism, a receptacle for coating material, and a scoop moving below said mechanism for supplying coating material to the roll.

2. In a machine for coating, a coating roll, a receptacle for coating material, a trough below the roll, and a scoop for carrying coating material from the receptacle and depositing it in the trough.

3. In a machine for coating, a coating roll, a receptacle for coating material, a scoop, means for moving said scoop into and out of the receptacle, and a plate coöperating with the scoop to supply said coating material to the roll.

4. In a machine for coating, a coating roll, a trough below the roll, a receptacle for coating material, a scoop arranged to oscillate in said receptacle, and a plate coöperating with the scoop to deposit coating material in the trough.

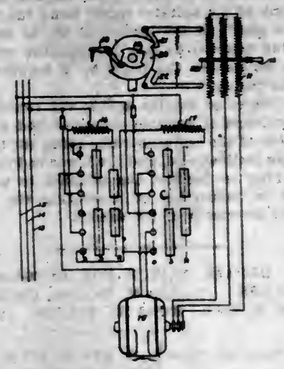
5. The combination of a coating roll, a tub, a frame mounted to oscillate in the tub, a trough beneath the coating roll, a scoop on the frame, a plate coöperating with the scoop to deposit coating material in the trough, and means for oscillating the frame.

[Claims 6 to 9 not printed in the Gazette.]

1,027,415. MOTOR-CONTROL SYSTEM. ALEXANDER M. GRAY, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Oct. 5, 1910. Serial No. 585,253. (Cl. 172—179.)

1. The method of starting an induction motor, which consists in impressing upon its primary conductors a high voltage while the resistance in the secondary circuit thereof is high, and reducing both the resistance of said secondary circuit and the voltage impressed on the primary conductors.

2. The method of starting an induction motor, which consists in impressing upon its primary winding a high voltage while the resistance of the secondary circuit thereof is high, reducing the resistance of the secondary circuit, and then reducing the voltage impressed on the motor.

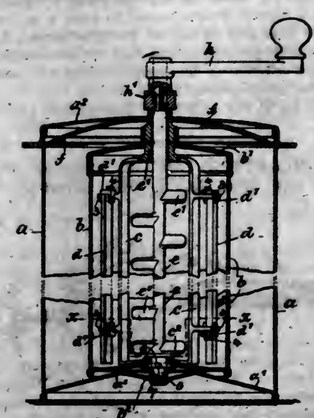


3. In combination, a wound rotor induction motor, a variable resistance for the secondary circuit thereof, means for varying said resistance, a supply circuit, a step-up transformer, and means for connecting said motor to the supply circuit either directly for obtaining the voltage of the supply circuit or through the transformer for obtaining a voltage higher than that of the supply circuit.

4. In combination, a wound rotor induction motor, a variable resistance for the secondary circuit thereof, a supply circuit, a step-up transformer, means for connecting said motor to the supply circuit either directly or through the transformer, and means for preventing the connection of the motor through said step-up transformer save when said variable resistance is at a maximum.

5. In combination, a wound rotor induction motor, a variable resistance for the secondary circuit thereof, a supply circuit, a step-up transformer, means for connecting said motor to the supply circuit either directly or through the transformer, and means for preventing the motor from being changed from the connection through the step-up transformer to the direct connection save when the variable resistance is at a minimum.

1,027,416. DASHER FOR FREEZERS, CHURNS, &c. HARRISON GRISWOLD, New York, N. Y. Filed June 13, 1911. Serial No. 632,946. (Cl. 62—4.)



1. In a freezer or similar device, the combination with an agitator frame of suitable character and a dasher, of

means for keeping the dasher down without tendency to rise and which means provides for a longitudinal and slight turning motion of the dasher for accomplishing the separation of the parts for thorough after cleaning.

2. In a freezer or similar device, the combination with an agitator-frame of suitable character and a dasher, the lower portion of the agitator-frame being cut through thus providing a slot, and the lower end of the dasher-spindle having a lug adapted to pass through the groove in connecting or separating the parts by a longitudinal movement of the dasher.

3. In a freezer or similar device, the combination with an agitator-frame of suitable character and a dasher, the lower portion of the agitator-frame being cut through thus providing an inclined slot, and the lower end of the dasher-spindle having an inclined lug adapted to pass through the groove in connecting or separating the parts by a longitudinal movement of the dasher.

1,027,417. REPAIR DEVICE FOR EYEGLASSES AND SPECTACLES. CHARLES M. HAYNES, Chillicothe, Ohio. Filed Dec. 9, 1911. Serial No. 664,738. (Cl. 88—47.)



1. A device for repairing spectacle and eyeglass lenses, comprising a member adapted to extend into a notch-shaped break in the lens, and a support for said member, constructed to span the break and adapted for attachment to the lens.

2. A device for repairing spectacle and eyeglass lenses, comprising a member adapted to extend into a notch-shaped break in the lens, and a support for said member, comprising a curved strip adapted to span the break in the lens, and means for securing the strip to the lens.

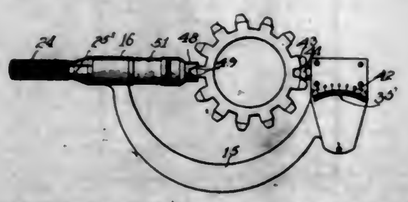
3. A device for repairing spectacle and eyeglass lenses, comprising a member adapted to extend into a notch-shaped break in the lens and having a recess at its inner end, and means for securing said member to the lens.

4. A device for repairing spectacle and eyeglass lenses, comprising a strip adapted to span a notch-shaped break in the lens and having at its ends members adapted to engage the edge-portion of the lens on opposite side of the break, and a member carried by the strip between its ends and adapted to extend into the notch-shaped break.

5. A device for repairing spectacle and eyeglass lenses, comprising a curved strip adapted to span a notch-shaped break in the lens and having at its ends arms adapted to embrace the edge-portion of the lens for securement thereto, and a lug carried by the strip between its ends to extend into the notch-shaped break.

[Claims 6 to 11 not printed in the Gazette.]

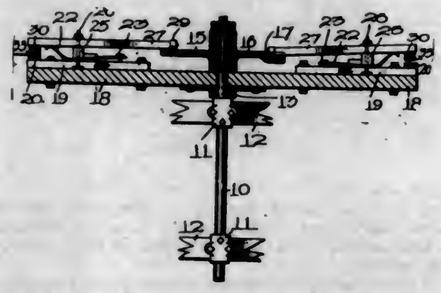
1,027,418. MEASURING DEVICE. CHRISTEN P. HEIDE, Kenosha, Wis. Filed July 5, 1910. Serial No. 570,255. (Cl. 73—77.)



1. In a device of the character described, a yoke, a housing at one end of said yoke, an indicating hand pivoted in the bottom of said housing, an operating lever pivoted in the top of the housing, a pin extending from one side of the indicating hand above the pivot point thereof, said operating lever extending downwardly to engage said pin to move the indicating hand, a nose above the pivot point of the operating lever, a slidable anvil above said nose, a round-headed pin extending from one side of the anvil to engage said nose and move the operating lever and through it the indicating hand when the anvil is slid backwardly, a spring yieldingly holding the anvil in forwardmost position, and a spring yieldingly holding the indicating hand and through it the operating lever in forwardmost position.

2. In a gage for measuring the pitch diameter of gears, a yoke, suitably shaped anvils upon opposite ends of said yoke, one thereof being stationary and the other slidable toward and from said stationary anvil, means for indicating the extent of the sliding movement of said slidable anvil, said anvil providing in its rear end a central bore, a spring in said bore normally maintaining said anvil in position nearest said stationary anvil, a pin projecting laterally from the anvil, a set screw in said central bore for maintaining said pin in position, and means associated with said pin for operating said indicating means.

1,027,419. MACHINE FOR MAKING HAIR ORNAMENTS. WILLIAM J. HINES, Leominster, Mass., assignor to Puritan Comb Company, Leominster, Mass., a Corporation of Massachusetts. Filed Jan. 11, 1911. Serial No. 602,007. (Cl. 144—280.)



1. In a device of the character described, the combination of a fixed vertical shaft, a circular table rotatable about the shaft, a series of pivoted levers radially mounted on said table, a relatively and freely movable jaw carried by the outer end of each lever, a fixed jaw on the table under each movable jaw, a fixed cam mounted at the center of the table on said shaft and having a substantially circular raised surface provided with a depression therein, said levers engaging the raised surface and adapted to enter the depression as the table rotates, and a spring for each lever constructed and adapted to swing the outer end of the lever upwardly to open the jaw thereon when the other end of the lever enters the depression.

2. In a machine for making hair ornaments, the combination of a fixed vertical shaft, upper and lower rigid supports therefor, a horizontal circular table resting at the center on the upper support and adapted to be rotated by hand about the shaft as a center, a cam fixed on said shaft above the table and having a flat horizontal circular surface with an offset therein, a series of levers pivoted on said table beyond said cam on horizontal axes, each having an inner end resting on said circular surface of the cam, and each provided with a jaw at the outer end, and a series of coöperating jaws fixed on the table near the circumference thereof.

3. In a machine for making hair ornaments, the combination of a fixed vertical shaft, upper and lower rigid supports therefor, a horizontal circular table resting at the center on the upper support and adapted to be rotated by hand about the shaft as a center, a cam fixed on said shaft above the table and having a flat horizontal circular surface with an offset therein, a series of levers pivoted on said table beyond said cam on horizontal axes, each having an inner end resting on said circular surface of the cam, said levers being radially arranged on the top of said table and each having a jaw pivoted to the bottom thereof at the end of the lever on a transverse horizontal axis, a series of springs for engaging the levers and normally holding said jaws up, and a series of coöperating jaws fixed on the table near the circumference thereof.

1,027,420. ANGULAR MIRROR. CHRISTIAN VON HOFE, Wilmersdorf, near Berlin, Germany, assignor to The Firm of Optische Anstalt C. P. Goerz Aktiengesellschaft, Friedenau, near Berlin, Germany. Filed Oct. 12, 1911. Serial No. 654,357. (Cl. 88—1.)



1. An angular mirror, comprising a support, consisting of a material whereof the thermic expansion coefficient is approximately zero, and reflectors of different expansion coefficient mounted on said support in such manner that they can move relatively to the support, parallel with their reflecting surfaces.

2. An angular mirror, comprising a yoke-shaped reflector support of nickel-steel alloy whereof the limbs are adjusted so that their lateral edges inclose the angle required for the angular mirror, and reflectors mounted on the lateral edges of said yoke limbs in such a manner that they can move relatively to their support parallel with their reflecting surfaces.

3. An angular mirror, comprising a support, consisting of a material whereof the thermic expansion coefficient is approximately zero, reflectors mounted thereon, three abutment points on said support for each reflector and pressure exerting means adapted to press the reflectors against the abutment points, the reflectors being free to move relatively to their support parallel with their reflecting surfaces.

4. An angular mirror, comprising a support, consisting of a material whereof the thermic expansion coefficient is approximately zero, reflectors mounted thereon, three abutment points on said support for each reflector and springs mounted on the reflector support adapted to press the reflectors against their abutment points, said pressure springs having their contacting points in line with the abutment points.

1,027,421. MILK-BOTTLE PITCHER ATTACHMENT. EDWARD H. JUNGCLAS, Cincinnati, Ohio. Filed Aug. 22, 1911. Serial No. 645,439. (Cl. 65—47.)

1. A bottle attachment of the character described, comprising a spout, depending springs integrally formed on said spout for removably securing the spout on the top of a bottle, a lid for said spout and a bottle-stopper remover mounted on said lid.

2. In a bottle attachment, the combination of a ring, means for attaching it to a bottle, a lid hinged to the ring, and a bottle-stopper remover consisting of a rod mounted reciprocally in the lid, and carrying at its lower end tangs for engaging the stopper.

3. In an attachment for bottles of the character described, the combination of, a pouring spout means for for removably mounting the spout on the bottle, a lid for closing the spout, and a bottle-stopper remover movably mounted on the lid.

4. A bottle attachment of the character described, comprising a ring, means for removably attaching the ring to the bottle, a lid hinged to the ring, and a bottle-stopper remover movably mounted on said lid.

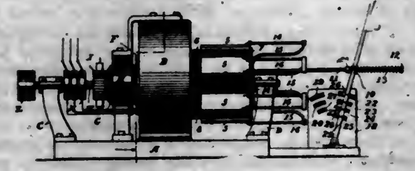
5. A bottle attachment of the character described, comprising a pouring spout, a lid hinged on said spout, and a bottle-stopper remover consisting of a rod, mounted



reciprocally in the lid, and carrying at its lower end tangs for engaging the stopper.

[Claim 6 not printed in the Gazette.]

1,027,422. INDUCTION SYNCHRONOUS MOTOR. CHARLES H. KICKLIGHTER, Newberry, S. C. Filed Sept. 10, 1908. Serial No. 452,433. (Cl. 172—280.)



1. In a dynamo electric machine, the combination with a field frame comprising a yoke and pole pieces projecting therefrom, of removable magnetic connectors extending between the pole pieces, an inducing member, said inducing member and field frame being relatively movable, a winding upon said inducing member adapted to be connected to a source of alternating current and to produce a rotating field when so connected, a direct current winding upon said field frame to excite said pole pieces and to produce field poles therein, and an induced winding upon said field frame in close proximity to said inducing member.

2. In a dynamo electric machine, the combination with a field frame comprising a yoke and pole pieces projecting therefrom, of removable magnetic connectors extending between the pole pieces, an inducing member, said inducing member and field frame being relatively movable, a winding upon said inducing member adapted to be connected to a source of alternating current and to produce a rotating field, direct current winding upon said field frame to excite said pole pieces and to produce fixed poles therein, and an induced winding distributed about said inducing member over the pole faces and magnetic connectors.

3. In a dynamo electric machine, the combination with a field frame comprising a yoke and pole pieces projecting therefrom, of movable magnetic connectors extending between the pole pieces, direct current winding upon said field frame to excite said pole pieces and to produce fixed poles therein, a member carrying a winding adapted to be connected to a source of alternating current, said member and field frame being relatively movable, and means for removing said magnetic connectors.

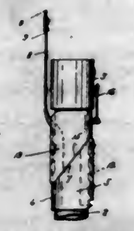
4. In a dynamo electric machine, the combination with a field frame comprising a yoke and pole pieces projecting therefrom, of movable magnetic connectors extending

between the pole pieces, direct current winding upon said field frame to excite said pole pieces and to produce fixed poles therein, a member carrying a winding adapted to be connected to a source of alternating current and to produce a rotating field, said member and field frame being relatively movable, and means for removing said magnetic connectors simultaneously.

5. In a dynamo electric machine, the combination with a field frame comprising a yoke and pole pieces projecting therefrom, of removable magnetic connectors extending between the pole pieces, a member carrying a winding adapted to be connected to a source of alternating current, direct current winding upon said field frame to excite said pole pieces and to produce fixed poles therein, said frame and member being relatively movable and means for opposing the passage of alternating magnetics through said pole pieces and yoke.

[Claims 6 to 27 not printed in the Gazette.]

1,027,423. TUBE-CLAMP. OSCAR KRAUSKOPF, Fredericksburg, Tex. Filed Nov. 22, 1911. Serial No. 661,807. (Cl. 166—7.)

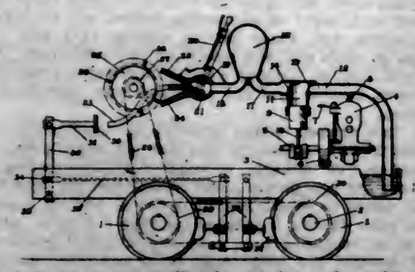


1. A tube clamp, comprising a lower clamp member formed of a channel-shaped plate having upwardly projecting inclined planes at its sides, an upper clamp member formed of a channel-shaped plate having projections which engage with the said inclined planes, and means for raising and lowering the said clamp members.

2. A tube clamp, comprising a lower clamp member formed of a channel-shaped plate having upwardly projecting inclined planes at its sides, said plate having also an offset tongue which extends upwardly from the middle part of its top edge, an upper clamp member formed of a channel-shaped plate having projections which engage with the said inclined planes, and means for raising and lowering the said clamp members.

3. A tube clamp, comprising a lower clamp member formed of a channel-shaped plate having upwardly projecting inclined planes at its sides, an upper clamp member formed of a channel-shaped plate having downwardly projecting inclined planes at its sides which engage with the aforesaid planes, and means for raising and lowering the said clamp members.

1,027,424. LOCOMOTIVE. REGINALD N. LOWRY, Sewickley, Pa. Filed Apr. 15, 1911. Serial No. 621,347. (Cl. 105—17.)



1. A locomotive propelled by an internal combustion engine, by means of a fluid transmission, the fluid operating a rotor by impacting against the rotor in a jet from any of a plurality of diverging nozzles.

2. A locomotive propelled by an internal combustion engine, by means of a fluid forced by said engine in a jet through any one or more of a plurality of diverging nozzles against a rotor and means for transmitting power from the rotor to the driving wheels.

3. In a locomotive propelled by an internal combustion engine, the combination of an internal combustion engine, a fluid forced by the engine, a plurality of diverging nozzles adapted to eject the fluid in a jet, and a means for directing the fluid to the different nozzles.

4. In a locomotive propelled by an internal combustion engine, a fluid forced by the engine, a plurality of nozzles adapted to eject the fluid in the same direction and at diverging angles and means for transmitting the power of the jets to the driving wheels.

5. In a locomotive propelled by an internal combustion engine, a fluid forced by the engine, a plurality of nozzles adapted to eject the fluid in jets in the same direction, a rotor in the path of the jets adapted to be rotated in either direction by the jets.

[Claims 6 to 9 not printed in the Gazette.]

1,027,425. CLIP FOR FIREPROOF CONSTRUCTION. JOHN F. MAKOWSKI, San Francisco, Cal., assignor to The Roebling Construction Company, San Francisco, Cal., a Corporation of New Jersey. Filed Feb. 14, 1908. Serial No. 415,899. (Cl. 189—35.)



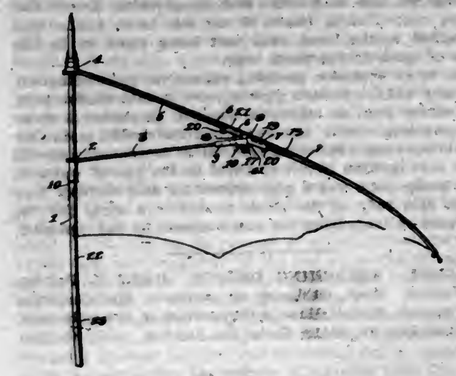
1. A studding element consisting of a pair of channel bars suitably spaced, the bars being in edgewise alinement, and an interlocking clip connecting the bars and composed of a plate engaging the flat side of the bars and having triangular-shaped terminal prongs bent to engage the outer flanges of the bars, and said plate having also intermediate triangular prongs or tangs bent to engage the inner flanges of said bars, and said inside prongs being struck from the portion of the plate between the bars.

2. A channel bar interlocking clip consisting of a plate having terminal triangular, bendable prongs and intermediate triangular prongs formed by punching out the central portion of the plate, and bendable toward their adjacent opposed terminal prongs.

3. A channel bar interlocking clip having triangular bendable prongs at each end, the prongs at one end corresponding in size and location widthwise of the clip to the spaces between the prongs at the opposite end whereby duplicate clips may be stamped from a single strip of metal without waste, and intermediate triangular prongs formed from the central portion of the clip.

1,027,426. FOLDABLE UMBRELLA. STEPHEN MCCLELLAN, Brooklyn, N. Y. Filed May 1, 1909, Serial No. 493,322. Renewed Oct. 24, 1911. Serial No. 656,525. (Cl. 135—25.)

1. A foldable umbrella comprising ribs formed in two sections, each of which ribs, in conjunction with its corresponding brace, forms a lock which locks the lower section thereof positively against movement in relation to the upper section thereof, said lock consisting of a plate, a bifurcated portion formed at the outer end of said brace, a bifurcated portion formed at the inner end of the lower section of said rib, each of said bifurcated portions straddling said plate and held in pivotal relation therewith, each prong of the second-mentioned bifurcated portion provided with similar right-angle bends, the ends of each of the prongs of the first-mentioned bifurcated portion being enlarged and adapted to be received by their corresponding right-angle bend in said first-mentioned prongs.



2. A foldable umbrella comprising ribs formed in two sections, braces, means to lock the lower section of each rib in place when said umbrella is in folded or open position, said means consisting of a plate, a bifurcated portion formed at the outer end of each brace, a bifurcated portion formed at the upper end of the lower section of each rib, each of said bifurcated portions straddling said plate and held in pivotal relation therewith, a small lug formed on one prong of said second-mentioned bifurcated portion, a large lug formed on the corresponding prong of the first-mentioned bifurcated portion, said lugs co-operating to lock said lower section in place when said umbrella is in closed position, said lugs co-acting in a reverse manner to lock said lower section in place when said umbrella is in folded position.

1,027,427. PIN-GUARD. CHARLES O. NILSSON, New York, N. Y. Filed Apr. 27, 1909. Serial No. 492,480. (Cl. 24—155.)



1. A pin guard having two swinging spring actuated arms adapted to engage with one side of a pin, and a loop connected to said arms and adapted to straddle and engage the other side of the pin.

2. A pin guard having two pivoted spring actuated arms, and a loop between said arms adapted to straddle the pin and draw the same against the arms.

3. A pin guard having two spring actuated arms having separable ends, a loop between said arms adapted to straddle the pin and draw the same against the arms, and means for holding the loop in alinement with the arms when the latter are separated.

4. A pin guard having two spring actuated arms with notched ends, a pivot pin connecting said arms, and a loop secured to said pivot pin and adapted to force a pin to which the guard is applied against the notched ends of said arms.

5. A pin guard having two arms, a pivot pin connecting the arms, a spring engaging the said arms adapted to hold the same in engagement with the pin to be guarded, and a loop secured to the pivot pin formed of sheet metal and twisted so as to engage the edge of the loop with the pin to be guarded.

[Claims 6 and 7 not printed in the Gazette.]

1,027,428. SAW SHARPENING AND GUMMING MACHINE. ROBERT V. PEARCE, Cambridge, Mass. Filed Mar. 30, 1910. Serial No. 552,350. (Cl. 76—42.)



1. In a device for grinding and gumming saws, the combination with a holder having a stem, of means embracing said stem and adapted to support the holder for turning movement about the stem, a saw rest sustained by the holder, a saw-centering device also sustained by the holder, and a stop on the supporting means to limit the turning movement of the holder.

2. In a device for grinding and gumming saws, the combination with a holder, of a saw rest sustained by the holder, a saw-centering member associated with said saw rest, said holder having a stem, a sleeve in which said stem is supported for turning movement about an axis which coincides with the center of the arc of curvature of that tooth of the saw which is in position to be ground, said sleeve and holder having coöperating stop shoulders to limit the turning movement of the holder after the point of said tooth has been carried past the grinding wheel whereby the saw can be adjusted about the centering member to bring a new tooth into position to be ground.

3. In a device for grinding and gumming saws, the combination with a holder, of a saw rest sustained by the holder, a saw-centering member associated with said saw rest, said holder having a stem, a sleeve in which said stem is supported for free turning movement about an axis which coincides with the center of the arc of curvature of that tooth of the saw which is in position to be ground, said sleeve and holder having coöperating stop shoulders to limit the turning movement of the holder after the point of said tooth has been carried past the grinding wheel whereby the saw can be adjusted about the centering member to bring a new tooth into position to be ground, and a second stop to limit the swinging movement of the holder in the opposite direction.

4. In a saw-grinding and gumming machine, the combination with a grinding element, of a saw rest, a saw-centering device, a support to sustain the saw rest and centering device for bodily turning movement about an axis which coincides with the center of the arc of curvature of the back side of that tooth of the saw which is in position to be ground whereby when the saw rest is thus turned, said tooth will be moved across the grinding element thereby causing said tooth to be properly ground and means to permit of adjusting said saw rest relative to its axis of motion in a radial direction whereby the teeth may be ground with a greater or less curvature.

5. In a machine of the class described, the combination with a holder mounted to turn about an axis, of a combined saw-rest and gage finger sustained by said holder for adjustment in a direction to move the gage finger to-

ward and from the axis of rotation, and a saw-centering member adjustably carried by the combined gage finger and saw-rest.

[Claims 6 to 10 not printed in the Gazette.]

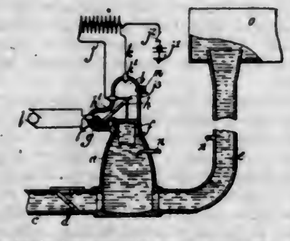
1,027,429. CLOSER FOR CANS AND THE LIKE. WILLIAM HUNTER PERKINS, Forth Worth, Tex. Filed Jan. 29, 1912. Serial No. 674,125. (Cl. 220—75.)



1. The combination of a can and a top therefor, said can having a horizontal bead and a bell shaped portion above said bead provided with grooves commencing at the upper edge of said bell-shaped portion and branching and curved downward and in opposite directions and terminating above said bead and said top having a rim provided with lugs above the lower edge thereof formed by inward indentures for engaging said grooves, the lower edge of said rim forming an air-tight closure by means of said bead and the part of said can just above said bead.

2. The combination of a can and a top therefor, said can having a horizontal bead and a bell shaped portion above said bead provided with grooves commencing with flared upper portions and branching and curved downwardly and in opposite directions and terminating above said bead and said top having a rim provided with lugs above the lower edge thereof formed by inward indentures for engaging said grooves, said rim being spaced from said bell-shaped portion at the upper part and the lower edge thereof forming an air-tight closure with said bell-shaped portion below said grooves and with said bead.

1,027,430. EXPLOSION APPARATUS FOR RAISING AND FORCING WATER. GRAYDON POORE and HERBERT A. HARVEY, London, England. Filed Jan. 26, 1912. Serial No. 673,555. (Cl. 160—0.)



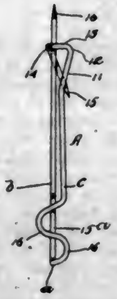
1. In an explosion pumping apparatus in combination, a pump body, a suction pipe, a valve in said suction pipe, a delivery pipe, an explosion chamber in said body, means for electrolytically decomposing a portion of the water let into said body for each explosion, means for firing the explosive charge produced by the decomposition of water, and means operated by the rise of water in the pump body for simultaneously controlling the electrolytic decomposition of water and the firing of the explosive charge, substantially as described.

2. In an explosion pumping apparatus, in combination, a pump body, a suction pipe, a valve in said suction pipe, a delivery pipe, an explosion chamber in said body, an electrical water-decomposing circuit, a cup-shaped receptacle for holding the water to be decomposed, and adapted to have sliding contact with terminal contacts of said decomposing circuit, an electric ignition circuit, and means for simultaneously controlling the water-decomposing circuit and the firing of the explosive charge.

3. In an explosion pumping apparatus, in combination, a pump body, a suction pipe, a valve in said suction pipe, a delivery pipe, an explosion chamber, an electrical water decomposing circuit, an ignition circuit, a pivoted lever supported within said explosive chamber controling said ignition circuit and having attached thereto a receptacle for holding for decomposition a portion of the water charge let into said body, said decomposing circuit also being controlled by means of the said lever, and a float attached to the lever, said float being acted on by the rise of water in the pump body.

4. In an explosion pumping apparatus, in combination, a pump body, a suction pipe, a valve in said suction pipe, a delivery pipe, an explosion chamber, an electrical water decomposing circuit, an electric ignition circuit, means for simultaneously controlling said water decomposing circuit and said ignition circuit operated by the rise of water in the pump body, and a pipe connecting said delivery pipe with said body of the pump to deliver a spray for the purpose of condensing the vapor formed by the explosion.

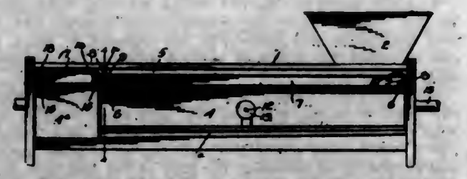
1,027,431. ATTACHING DEVICE. HARRY J. POTTER, Newton, Mass., assignor to Dennison Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Feb. 21, 1911. Serial No. 610,018. (Cl. 40—25.)



1. An attaching device comprising connected members lying first substantially parallel to one another, one of said members being provided with an entering point, and the other member being curved about its companion member in a plane substantially at right angles thereto and then extending in the opposite direction from the entering point, crossing the parallel portions of the members and diverging rearwardly from the plane of said members, it terminating in a locking point.

2. An attaching device comprising connected members lying first substantially parallel to one another and furnishing tag-holding means, one of said members being provided with an entering point, and the other member diverging from its companion and then being curved about the same, the curved portion and the juncture of the diverging and curved portions giving, respectively, a stop-shoulder and a releasing fulcrum, the curved member beyond the stop shoulder extending in a direction opposite to the entering point and crossing the parallel portions of the members and diverging rearwardly from the plane of said members, it terminating in a locking point.

1,027,432. FEED-REGULATOR. FAUSTIN PRINZ, Milwaukee, Wis. Filed Nov. 14, 1908. Serial No. 462,642. (Cl. 83—44.)



1. A feed regulator comprising a box having a discharge opening in its side, a conveyer for moving material longitudinally through the box, said conveyer terminating at a point back from the tail end of the box to form a receiving chamber between the end of the conveyer and the end of the box for tailings, and an automatically operating valve for controlling the passage of material through the side of the box from its head toward its tail end.

2. A feed regulator comprising a box having a discharge opening in its side, a conveyer for moving material longitudinally through the box, and an automatic operating valve for controlling the passage of material through the opening in the side of the box from its head toward its tail end, the working face of the conveyer along the side of the box next to said valve extending over the inner edge of the opening through which the material is discharged.

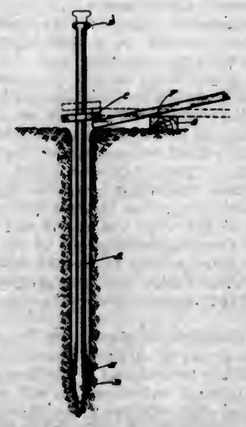
3. A feed regulator comprising a box having a discharge opening in its side, a conveyer for moving material longitudinally through the box, and an automatically operating valve for controlling the passage of material from the side of the box, the front wall of the box extending upwardly on the side next to the automatic valve and constituting the lower wall of the discharge opening.

4. A feed regulator comprising a box having a discharge opening in its side, a conveyer for moving material longitudinally through the box, and an automatically operating valve for controlling the passage of material from the side of the box, the front wall of the box extending upwardly on the side next to the automatic valve to constitute the lower wall of the discharge opening and having the upper portion thereof inclined outwardly and downwardly.

5. A feed regulator comprising a box having a discharge opening in its side, a conveyer for moving material through the box, and an automatically operating valve for controlling the passage of material from the side of the box, the discharge opening for the material increasing in depth from the head toward the tail end of the box, and the working face of the conveyer next to the valve lying over the inner edge of the discharge opening and normally in close proximity to the operating valve.

[Claims 6 to 10 not printed in the Gazette.]

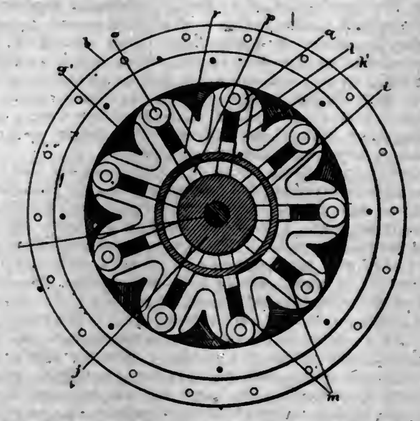
1,027,433. TOOL FOR PREPARING GROUND TO RECEIVE EXPLOSIVE CHARGES. SAMUEL RAND, Birmingham, Ala. Filed Jan. 15, 1912. Serial No. 671,887. (Cl. 55—67.)



1. A tool for the purposes described, formed of a steel bar of uniform cross-sectional contour except at its ends which are both enlarged, one of said enlarged ends being tapered to a sharp point, and a plate having an opening slightly larger in diameter than said bar and which is slipped onto the bar before both of its ends are enlarged and is freely adjustable lengthwise on the bar, said enlarged ends being adapted to prevent said plate becoming disengaged from said bar.

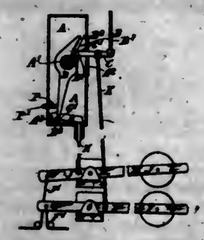
2. A tool for the purposes described, formed of a round steel bar of uniform diameter except at its ends which are both enlarged, one of said enlarged ends being tapered to a sharp point, and a plate having a case hardened circular opening slightly larger in diameter than said bar and which is slipped onto the bar before both of its ends are enlarged and is freely adjustable lengthwise on the bar, said enlarged ends being adapted to prevent said plate becoming disengaged from said bar.

1,027,434. VEHICLE-WHEEL. ABRAHAM GROVE REAMAN, Ringwood, Ontario, Canada. Filed Sept. 12, 1911. Serial No. 648,825. (Cl. 152—44.)



In a vehicle wheel, a hub having a central bore for the boxing, said hub comprising two side plates, the inner faces of which are provided with annular flanges in juxtaposition to the bore, and other annular flanges near their outer ends, a boxing of relatively smaller diameter than the bore of the hub, comprising a drum provided with radial slots, movable elements slidably contained in the outer ends of said slots and provided beyond the sides of the drum with rollers engaging the annular flanges near the outer ends of the side plates, and movable elements slidably contained in the inner ends of the radial slots and engaging with the annular flanges of the side plates in juxtaposition to the bore, and springs contained in the radial slots bearing against the movable elements.

1,027,435. CONTROLLING DEVICE FOR RAILWAY-SIGNALS AND THE LIKE. WILLIAM REID, Caulfield, Victoria, Australia. Filed May 11, 1911. Serial No. 626,608. (Cl. 246—13.)



1. A controlling device for railway-signals and the like, comprising a casing, a swinging pendulum-lever within said casing, said lever having a shouldered recess, a lever engaging said recess, a semaphore, a rod connecting the lever with said semaphore, a weighted operating lever, a rod connecting the operating lever with the semaphore operating lever at or about its center, a trigger engaging

the lower end of the pendulum-lever, and having a recess, a rod engaging said trigger, and a weighted auxiliary lever for actuating said trigger-rod.

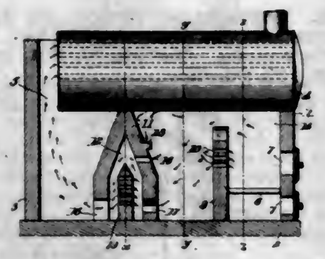
2. In a controlling device for railway-signals and the like, the combination of a casing, a swinging pendulum-lever within said casing, said lever having a shouldered recess, a lever projecting through a slot in the casing, a semaphore, a rod connecting the outer end of the lever with the semaphore, a weighted operating lever, a rod connecting the lever with the operating lever, a trigger having a recess engaging the lower end of the pendulum-lever, a rod operating said trigger, and means for actuating said trigger rod.

3. In a controlling device for railway-signals and the like, the combination of a casing, a swinging pendulum-lever in said casing having a shouldered recess, a lever engaging said recess, a semaphore, a rod connecting the outer end of said lever with the semaphore, a weighted operating lever, a rod connecting the semaphore-operating lever with the said weighted lever, a trigger having a recess engaging the lower end of the pendulum-lever, a rod acting upon said trigger and an independently operated weighted lever actuating said trigger-rod.

4. In a controlling device for railway-signals and the like, the combination of a casing, a swinging pendulum-lever in said casing, said lever being provided with a shouldered recess, a lever fulcrumed at its inner end in said shouldered recess, a semaphore, a rod pivoted at its lower end with said lever and at its upper end with the semaphore, a trigger having a recess engaging the lower end of the pendulum-lever, a rod for operating the trigger, and means for locking the pendulum-lever to the casing.

5. In a controlling device for railway-signals and the like, the combination of a casing, a swinging pendulum-lever in said casing, said lever having a shouldered recess, a lever fulcrumed at its inner end in said shouldered recess, a semaphore, an auxiliary semaphore, two weighted operating levers fulcrumed below said casing, a rod connecting the casing-lever with the auxiliary semaphore, a second rod connecting the second lever with the lower operating lever, a rod connecting the first or main-semaphore with the upper operating-lever, a trigger in said casing provided with a recess engaging the lower end of the pendulum-lever, and a rod engaging said trigger and connected at its lower end with the upper operating lever at the opposite side of its pivot-connection with the rod leading to the main-semaphore.

1,027,436. FURNACE. EARLEY W. RICE, Waxahachie, Tex. Filed Nov. 10, 1911. Serial No. 659,609. (Cl. 110—82.)



1. A furnace having a front wall and a heating chamber transversely arranged in the furnace, said wall and said heating chamber being adapted to support a boiler in the upper part of the furnace, a baffle wall within said furnace and forming with the front wall thereof a fire box and having perforations through the upper part thereof, said heating chamber being spaced from said baffle wall and having its front and rear walls perforated, and a baffle wall within said heating chamber and having perforations therethrough arranged in staggered relation to the perforations through the front and rear walls of the heating chamber, a passage being formed between the baffle wall and the front wall of the heating chamber and over the top of the baffle wall and down between the baffle wall and the rear wall of the heating chamber to the perforation through the rear wall.

2. A furnace having a front wall and a heating chamber transversely arranged in the furnace, said wall and said heating chamber being adapted to support a boiler in the upper part of the furnace, a baffle wall within said furnace and forming with the front wall thereof a fire box, grate bars in said fire box, said baffle wall being perforated at the upper part thereof and forming with said heating chamber, a heating zone within the furnace, said heating chamber having the front and rear walls thereof perforated and a series of scattering members projecting from the front wall thereof into said heating zone, a baffle wall within said heating chamber, a passage being formed between the baffle wall and the front wall thereof and over the top of the baffle wall and down between the baffle wall and the rear wall of the heating chamber to the perforation therethrough, and suitable doors for said furnace.

1,027,437. AMUSEMENT APPARATUS. HERBERT N. RIDGWAY, Boston, Mass., assignor to Ridgway Construction Company, Boston, Mass., a Corporation of Massachusetts. Filed Aug. 5, 1907. Serial No. 387,011. (Cl. 46—71.)



1. In an amusement apparatus, the combination with a chute arranged for persons to slide down, said chute having its lower end directed upwardly and being of sufficient length so that persons sliding down the chute will acquire enough momentum to carry them off the upturned end thereof, of a mat beneath the discharge end of the chute, means to sustain said mat for yielding movement in the direction of the length of the chute, and means acting on the mat near each end thereof to prevent vertical movement thereof at such points.

2. In an amusement apparatus, the combination with an inclined chute adapted for persons to slide down and having an upwardly-directed lower end, of a mat beneath the lower end of the chute, springs connected to each end of the mat to support the same for yielding movement longitudinally, and a rigid rest situated beneath the lower end of the chute and on which the mat rests loosely.

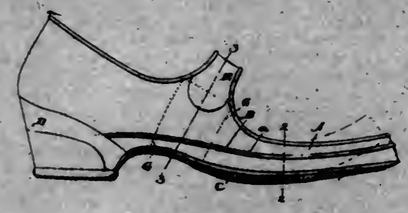
3. In an amusement apparatus, the combination with a chute having an upwardly-turned lower end, of a mat to receive persons discharged from the chute, means to yieldingly sustain the end of the mat adjacent the chute, fixed uprights at the other end of the mat, bolts carried thereby, a bar extending transversely of the mat and sustained by the bolts, springs interposed between said bar and the mat, and a flexible back stop secured at its upper edge to said fixed supports and at its lower edge to the mat.

4. In an amusement apparatus, the combination with an inclined chute having an upwardly-directed lower end, of a rest extending transversely to the chute and situated beneath the discharge end thereof, a mat extending over said rest, a fixed support beneath the chute, springs interposed between said mat and said fixed support, means to yieldingly sustain the opposite end of the mat, and a vertically-arranged pad 21 situated at the lower extremity of the chute between the latter and the portion of the mat which extends over the rest.

5. In an amusement apparatus, the combination with a chute having an upwardly-turned lower end, of a mat to receive persons discharged from the chute, springs connected to the ends of the mat, a bar extending transversely across the mat beneath the same underneath the discharge

end of the chute and on which the mat loosely rests, fixed supports at the ends of the mat, and a flexible back stop secured at its upper end to said supports and at its lower end to the mat.

1,027,438. RUBBER OVERSHOE. ALBERT E. ROBERTS, Norwalk, Ohio. Filed May 15, 1911. Serial No. 627,103. (Cl. 36—5.)



1. A sandal rubber, the upper part of which is low in front and high at the heel, combined with a cord applied externally and extending along the sides and around the toe of the low front part of said rubber, thereby leaving the inside of the low front part smooth, and said rubber having an elastic strap which is adapted to go over the instep.

2. A sandal rubber, the upper of which is low in front and high at the heel and which has a strap of variable length adapted to go over the instep of the shoe to which the rubber is applied,—the low front part of said upper having an external bead extending around the toe and along both sides thereof to points near the heel, said bead leaving the interior of the rubber smooth and being at such distance above the sole of the rubber that it will be well above the crease of the shoe on which the rubber is adapted to be worn,—there being a cord embedded in said external bead and being substantially coextensive therewith as to length.

3. A sandal overshoe having a sole and an upper high at the heel and low at the sides and toe, said upper comprising an outer layer of rubber and an inner fabric lining, an elastic strap adapted to pass over the instep of an inserted shoe and joining the outer rubber layer at each side of the upper, and a fabric strip arranged beneath the lining and united to the sole, to the upper, and to the end portions of the strap.

1,027,439. SANDPAPERING-MACHINE. FRIDOLIN SCHIMMEL, Faribault, Minn. Filed Oct. 7, 1910. Serial No. 585,813. (Cl. 51—13.)



1. In a machine of the kind described, the combination with a working belt and means for working the same, of means for pressing the said belt to its work comprising a rail, links supporting the said rail for movements toward and from the work, a presser head mounted to travel on said rail, and a common operating lever connected to said links for moving said presser head toward and from the belt and connected to said head for imparting traveling movements thereto, substantially as described.

2. In a machine of the kind described, the combination with a relatively fixed frame and a supplemental rocking frame pivotally connected thereto, of parallel links pivotally connected to said fixed frame, a rail pivotally connected to the free ends of said links, a presser head mounted to travel on said rail, a lever pivotally connected to said supplemental frame for rocking the same, and connections between said lever and said presser head for causing the latter to travel on said rail, substantially as described.

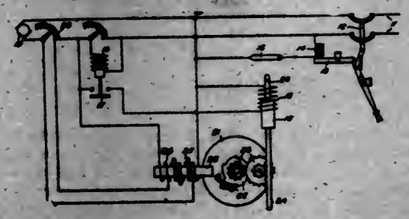
3. In a machine of the kind described, the combination with a relatively fixed frame and a supplemental rocking frame pivoted thereto, said fixed frame having vertically extended pedestals, of a rail having vertically extended pedestals, lower links connecting said rail to the lower portions of the frame pedestals, upper links connecting the upper ends of the rail and frame pedestals, a traveler mounted to travel on said rail and provided with a presser head, an operative lever pivoted to said supplemental frame for oscillating the same, and connections including a cable causing said lever to impart traveling movements to said traveler and its presser head, substantially as described.

4. In a machine of the kind described, the combination with a working belt and means for moving the same, of a relatively fixed frame, a rail extending parallel to the working portion of said belt, parallel links connecting said rail from said fixed frame and connected for movements with said supplemental frame, a traveler mounted to travel on said rail and provided with a presser head for action on said belt and a common operating lever pivotally connected to said supplemental frame and having connections to said traveler for imparting traveling movements thereto and to the said presser head along the working portion of said belt, substantially as described.

5. In a machine of the kind described, the combination with a working belt and means for moving the same, of a rail extended parallel to the working portion of said belt and supported for movements toward and from the same, a traveler mounted to travel on said rail and provided with a presser head for action on the working portion of said belt, and a common operating lever with connections to said rail for imparting movements thereto toward and from said belt, and having also, connections to said traveler for imparting traveling movements thereto, and to said presser head, along the working portion of said belt, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,027,440. TIME-ELEMENT DEVICE. GEORGE B. SCHLEY, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed July 28, 1911. Serial No. 641,144. (Cl. 175—270.)



1. In combination, a device to be protected, means for protecting such device upon the occurrence of an abnormal condition, and a time element device for retarding the operation of said protective device, said time element device comprising a metal member, a magnet for producing eddy currents in such member upon relative rotation between the member and magnet, and means for causing the flux of such magnet to be an inverse function of the extent of such abnormal condition.

2. In combination, a circuit to be protected, a circuit-breaker in such circuit, and a time element device controlling the operation of such circuit-breaker, said time element device comprising a metal member, a magnet be-

tween the poles of which such member rotates, and means for causing the flux produced by such magnet to vary in inverse sense to the current in such circuit.

3. In combination, an electric circuit, and a time element device controlling such circuit, said time element device comprising a metal disk, a magnet which induces eddy currents in said disk upon the rotation of the latter, and means for causing the flux produced by such magnet to be an inverse function of the current in such circuit.

4. In combination, an electric circuit, and a time element device controlling such circuit, said time element device comprising a rotatable metal disk, and an electromagnet the flux of which is an inverse function of the current in such circuit and induces eddy currents in said disk upon the rotation thereof.

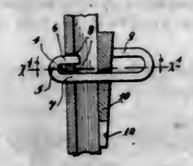
5. In combination, an electric circuit, and a time element device controlling said circuit, said time element device comprising a rotatable metal disk, a magnet which induces eddy currents in said disk upon the rotation thereof, and a coil which carries current proportional to that in said circuit and tends to cause the deënergization of such magnet.

1,027,441. ISOLATED ALKALI SALTS OF INDOXYL AND PROCESS OF MAKING SAME. ALBRECHT SCHMIDT, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Sept. 26, 1910. Serial No. 583,915. (Cl. 8—6.)

1. The process of separating alkali salts of indoxyl in a solid form from the alkaline melts of phenylglycin, compounds yielding indoxyl derivatives by alkaline melt, consisting in dissolving such a melt, preferably while cooling, in such a small quantity of water that the alkali salts of indoxyl separate in the form of crystals, and in then separating these salts from the highly-concentrated alkali lye, substantially as described.

2. As new products, the alkali salts of indoxyl in a solid form, being crystalline, yellowish laminæ, soluble in water and alcohol, in the latter to a reddish-brown solution, capable of being precipitated from the concentrated solution in water in the form of yellowish laminæ by means of an excess of alkali hydrate, and separating indigo by the action of air.

1,027,442. METALLIC FENCE-POST. BERNARD SCHULZ, Minneapolis, Minn. Filed June 5, 1911. Serial No. 631,346. (Cl. 39—12.)



1. The combination with a fence post having a lock shoulder, of a wire holding staple applied to said fence post in the vicinity of its lock shoulder, and means including a rotary wedge block for drawing a wire held by said staple on to said lock shoulder, under a varying pressure, substantially as described.

2. The combination with a fence post having a lock shoulder, of a wire holding staple having a long and a short prong, said long prong being mounted in the fence post for movement to carry said short prong toward and from the fence post, and a rotary wedge-block applied to said long prong for drawing a wire held by the staple on to said lock shoulder, substantially as described.

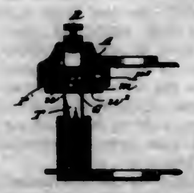
3. The combination of the fence post having a lock shoulder, of a wire holding staple, having a long and a short prong, mounted for endwise movement, in perforations formed in the fence post, said long prong having an off-set portion, and a rotary wedge-block, mounted on said long prong for action on its offset portion and reacting against the fence post as a base of resistance, for drawing a wire held by said staple on to the lock shoulder of said fence post, substantially as described.

4. The combination with a fence post having a lock shoulder, of a wire holding staple, having a long and a short prong, mounted for endwise movements in perforations formed in the fence post, said long prong having an offset portion, a rotary wedge-block mounted on said long prong for action on its offset portion and reacting against the fence post, as a base of resistance, for drawing a wire held by said staple on to the lock shoulder, said wedge-block having a notch adapted to be brought into registration with the offset portion of said long prong and through which notch, said offset portion is adapted to work to permit said short prong to be withdrawn from the fence post, substantially as described.

5. The combination with a fence post having its body portion constructed from angle iron, of a wire holding staple having a long and short prong, mounted for endwise movement in perforations formed in the vertex of the angle iron, forming said body portion, said long prong having a laterally offset portion, and a wedge-block rotatively mounted on said long prong for action on its offset portion and reacting against the fence post as a base of resistance, for drawing a wire held by the staple on to the vertex of said angle iron, substantially as described.

[Claim 6 not printed in the Gazette.]

1,027,443. HINGE-ARTICULATOR. HEINRICH SCHWEITZER, New York, N. Y. Filed June 22, 1911. Serial No. 634,788. (Cl. 32—1.)



1. In a dental articulator having an upper model holder, a lower model holder, and a hinge joint connecting the holders, the combination of bearings in the joint part of one holder and a journal attached in the joint part of the other model holder, said journal provided with centers conically shaped in the engaging ends, with a screw engaging said centers on one end and with means contributing to produce both, the projection of the ends of the journal centers toward the counter bearings of the opposing joint part by turning on of said screw and the removal of the ends of the journal centers from the counter bearings by unscrewing of said screw substantially as described and shown.

2. In a dental articulator an upper and a lower model holder projecting from only one side of the parts leading to the joint arm and provided with index fingers in the anterior median line substantially as described and shown.

1,027,444. HINGE. NELSON SHIELDS, Minneapolis, Minn. Filed Dec. 20, 1911. Serial No. 666,961. (Cl. 16—108.)



A hinge comprising a fixed leaf and a swinging leaf, a pair of spaced alined knuckles on the fixed leaf, a pintle arranged in said knuckles, a knuckle on said swinging leaf embracing said pintle and of less depth than the distance between the first said knuckle, and a guide formed on said fixed leaf and comprising a cylindrical member concentric with said pintle and spaced therefrom, the upper edge of said member being adapted to support said swinging leaf when in raised position and the end of said member abutting said swinging leaf when in lowermost position, substantially as described.

1,027,445. LEAD SEAL. CAMILLO SISMONDI, Turin, Italy, assignor to Societa per Brevetti Postali E. Ferroviari Con Sede in Torino, Turin, Italy. Filed May 20, 1908. Serial No. 433,914. (Cl. 70—98.)

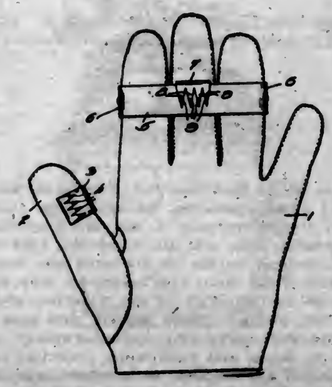


1. A metal seal having one end of a flexible member embedded therein and having in addition to the space occupied by said end two non-communicating passages separated from each other by a wall of metal and through which the bight and the other end respectively of said flexible member are passed whereby a double open loop may be formed in the flexible member, with the ends of each loop embedded in the seal.

2. A metal seal formed of one piece of metal, and a flexible member having one end embedded therein, said piece of metal having a passage through which the bight of said flexible member is passed, and a second passage entirely out of communication with the first and separated therefrom by a wall of metal and extending transversely of the first, said last named passage closely fitting the flexible member and having its outer end of enlarged diameter adapted to receive the knotted end of said flexible member, whereby an abutment is provided for said knotted end in the direction of the strain on said flexible member.

3. A metal seal formed of one piece of metal, and a flexible member having one end embedded therein, said piece of metal having a passage through which the bight of said flexible member is passed, and a second passage entirely out of communication with the first and separated therefrom by a wall of metal and extending transversely of the first, said last named passage closely fitting the flexible member and having its outer end of enlarged diameter adapted to receive the knotted end of said flexible member, whereby an abutment is provided for said knotted end in the direction of the strain on said flexible member, and metallic coils within the passages of said seal.

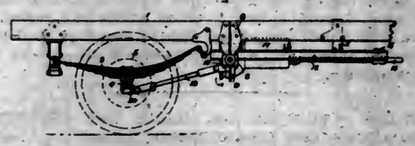
1,027,446. CORN-HUSKER. WILBER L. STALLARD, Brook, Ind. Filed Aug. 16, 1911. Serial No. 644,307. (Cl. 130—4.)



1. A husking device, comprising a plate adapted to extend across the front of a hand and having curved ends for fitting around the sides of the hand, said plate having a reversely bent tongue projecting from its upper edge and formed with downwardly projecting teeth, bosses formed on said teeth adjacent their pointed ends to prevent said teeth from biting into and tearing the corn during the husking operation.

2. The combination with a plate having curved ends to fit around the front and sides of the fingers, said plate having a reversely bent toothed tongue projecting from its upper edge, of a leather strip secured to the under side of the plate and forming a lining therefor, said strip having guide portions cut to project upward above the plane of its ends, a strap adjustably engaged in the said guides and secured to the ends of the plate, and wires engaging intermediate portions of the strap and passing through the strip and around the plate to hold the plate, strip and strap together and form the strap into finger engaging loops, and bosses formed upon the teeth of said tongue, as and for the purpose set forth.

1,027,447. SUSPENSION-FRAME FOR TRANSMISSION-GEAR. ERNST M. STERNBERG, Milwaukee, Wis. Filed Dec. 17, 1910. Serial No. 597,895. (Cl. 21—90.)



1. In a self propelled vehicle having a truck frame comprising longitudinal side bars; the combination of depending hangers rigidly secured to the side bars, a transverse bridge rigidly secured to the hangers, a transverse truss rigidly secured to the side bars positioned forwardly of and approximately parallel to the bridge, longitudinal beams connecting the bridge and truss, a gear casing secured to the beams adjacent to one end thereof, a cross-girder connecting the opposite ends of the beams, a longitudinal drive shaft journaled in the cross-girder and gear casing, and a driven shaft journaled in the hangers above the bridge.

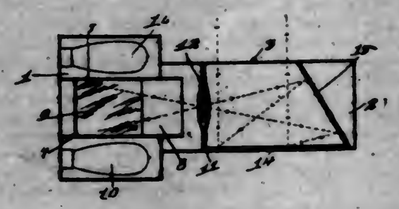
2. In a self propelled vehicle having a rear axle for the support of traction-wheels and a main truck frame comprising longitudinally disposed bars; the combination of a sub-frame comprising a transversely disposed bridge and a transversely disposed truss secured to the frame bars, longitudinally disposed parallel beams connecting said bridge and truss, a gear casing secured to the beams adjacent to one end thereof, a cross-girder connecting the opposite ends of said beams, a longitudinally disposed drive shaft journaled in the cross-girder and gear casing, a transverse driven shaft journaled upon the bridge, the driven shaft being arranged to have gear connection with said rear axle, traction-wheels and a tie-rod pivoted to the rear axle and bridge.

3. In a self propelled vehicle having a main truck frame comprising longitudinally disposed bars; the combination of hangers secured to the side bars, a bridge secured to the hangers, a truss secured to said side bars, parallel beams secured to the lower face of the truss and upper face of the bridge, a gear case secured to the upper faces of the beams, a cross-girder connected to the beams adjacent to one end, a drive shaft journaled in the cross-girder and gear-casing, and a driven shaft journaled in the hangers, the drive and driven shafts being upon the same horizontal plane.

1,027,448. PROJECTING DEVICE. ALTON J. STEVENS, Chicago, Ill. Filed July 11, 1910. Serial No. 571,357. (Cl. 88—26.)

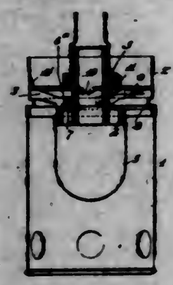
1. A projecting apparatus comprising a casing having object and projection openings, a lens in the casing between said openings, said lens having its optical axis at a right angle to the axis of the object opening, a reflector in the casing between the lens and the object opening and extending at an oblique angle thereto, to invert the image

and reflect the same through the lens, lights in the casing for illuminating the object, and a shade for screening the lights from the lens and reflector.



2. A projecting apparatus comprising a casing having object and projection openings, a box-like structure mounted in said casing below the object opening and having its top and front end open, a reflector mounted within said box-like structure in line with and at an oblique angle to the object opening, lights located within the casing below the top of the box-like structure and on opposite sides thereof, a lens mounted within the casing in front of the open end of the box-like structure, said lens having its optical axis at a right angle to the axis of the object opening.

1,027,449. CYLINDER OR GLOBE FOR INVERTED INCANDESCENT GAS-BURNERS. AARON P. STORRS, Owego, N. Y., assignor to Storrs Mica Company, Owego, N. Y., a Corporation of New York. Filed June 23, 1910. Serial No. 568,464. (Cl. 67—108.)



1. The combination of a burner tip, a mantle ring supported thereby and having arms, and a projecting device having an annular inwardly extending flange engaging with one side of said arms, and removable holding means engaging with said protective device and the other side of said arms.

2. The combination of a burner tip, a mantle ring supported thereby and having outwardly extending arms, and a protecting device having a band with an annular inwardly extending flange engaging with the bottom of said arms and having a plurality of inwardly extending ears above said flange, and a removable ring engaging with said ears and the upper side of said arms.

3. A cylinder with a flange, in combination with a mantle ring, said ring engaging with the flange, said cylinder having inwardly extending ears and flexible means engaging with the ears and holding the mantle ring in engagement with the flange.

4. A mantle cylinder with a flange and ears above the flange, and an elastic ring engaging with the ears, in combination with a mantle ring which engages between the flange and the ring.

5. A cylinder having a metal band at the top, said metal band having an annular inwardly extending flange and a plurality of ears above the flange, in combination with an elastic ring, said ring engaging with the band and abutting against the ears, and a mantle ring which engages between the flange and the ring.

[Claim 6 not printed in the Gazette.]

1,027,450. ANTISKID DEVICE. LANGDON S. THOMPSON, Jersey City, N. J. Filed Jan. 2, 1912. Serial No. 668,902. (Cl. 152—14.)



1. An anti-skid device for automobile tires and the like, comprising a series of multiple reversed loop bands arranged around the tire and connected together by intermediate links.

2. An anti-skid device for automobile tires comprising a series of bands adapted to transversely encircle the tire each band comprising a plurality of loops extending from side to side of the band alternately reversed in position.

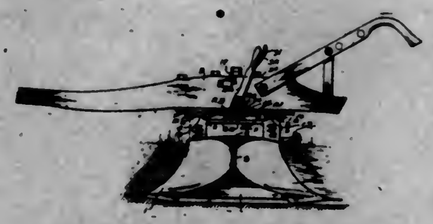
3. An anti-skid device for automobile tires and the like, comprising a series of multiple reversed loop bands arranged around the tire, each band terminating in a ring-like loop on each side, the successive bands being connected together by chain members engaging the loops.

4. An anti-skid device for automobile tires comprising a series of bands adapted to transversely encircle the tire each band comprising a plurality of loops extending from side to side of the band alternately reversed in position and each band terminating in a ring like loop, and links connecting the loops of adjacent bands.

5. A band for an anti-skid device comprising a series of multiple curved loops, each loop being reversed with respect to the one next to it, and the loops gradually decreasing in size from the middle toward each end of the band.

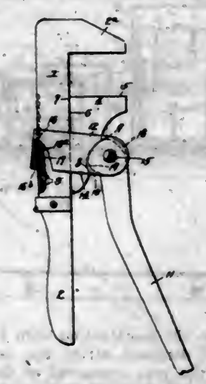
[Claims 6 to 9 not printed in the Gazette.]

1,027,451. REVERSIBLE PLOW. PORTER TRIMBLE, Eureka, Cal. Filed Mar. 6, 1911. Serial No. 612,542. (Cl. 97—27.)



In a plow of the kind described, a frame including uprights, and a bar connecting the upper ends thereof, a plow beam pivoted centrally of said bar, projections extending upwardly from said bar, an arcuate head on each of said projections having its concaved side concentric with the axis of the pivot, said heads each projecting entirely around the periphery of the respective projection from the bar, plates mounted beneath said plow beam, and provided with downwardly projecting spaced portions to receive the heads, said downwardly projecting portions having inturned lips extending beneath the heads whereby strain on the pivot is relieved, rack teeth formed on the concaved side of said heads, a pawl slidably mounted in one of the downwardly projecting portions and engageable with said rack teeth, means normally urging said pawl in engagement with the rack teeth, and means to retract said pawl.

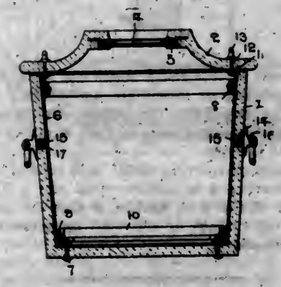
1,027,452. WRENCH. DAVID O. TUKE, Jacksonville, Ill., assignor of one-fourth to William E. Thomson, Jacksonville, Ill. Filed Mar. 18, 1911. Serial No. 615,107. (Cl. 81—143.)



1. A wrench comprising a stock having a fixed jaw, a strap slidably disposed upon said stock, said stock and said strap having projections and recesses normally in respective parallel relation, a movable jaw disposed between the sides of the strap and the front face of the stock, a lever, and coöperating cam faces on said movable jaw and said lever, to permit of said projections and recesses being moved to relative angular position with respect to each other, whereby the movable jaw may be adjusted slightly toward or from said stationary jaw without disengaging all of said projections from said recesses.

2. A wrench comprising a stock having a plurality of recesses in the rear face and a fixed jaw at one end, a strap slidably disposed upon said stock, a movable jaw disposed between the sides of the strap and the front face of the stock, a lever pivoted between the sides of said strap, projections on said strap adapted to seat in the recesses in the stock when the wrench is set, said projections being normally in parallel relationship with said recesses, and means on said lever coöperating with means on said movable jaw, whereby said projections may be tilted at an angle to said recesses to permit of the movable jaw being adjusted slightly toward or from said stationary jaw without disengaging all of said projections from said recesses.

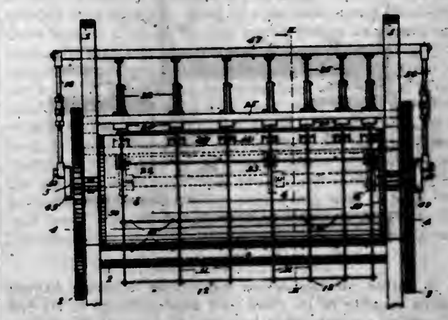
1,027,453. BURIAL-CASKET. CHARLIE H. WIBLE, East McKeesport, Pa. Filed Nov. 2, 1910. Serial No. 590,302. (Cl. 27—3.)



1. A burial casket of the character described, provided with a metallic framework on the inside thereof, comprising U-shaped members secured to the side and bottom walls, the fastenings for securing said members to the side walls comprising stems integral with the vertical members extending through the side walls flush with the outer surfaces thereof and having threaded sockets, and handles, comprising screws engaging in the threaded sockets, and plates integral with said screws bearing against the outer surface of said side walls.

2. A burial casket of the character described provided with an interior metal framework, comprising U-shaped transverse metal bars, the horizontal members thereof resting upon the bottom of the casket and belted thereto, and the vertical members resting against and secured to the side walls, and interiorly extending flanges at the upper ends of the vertical member having vertical threaded openings to receive screws passed through the lid.

1,027,454. WIRE-FABRIC MACHINE. FREDERICK E. WILLITS, Kansas City, Mo., assignor of one-fourth to William M. Roop, Kansas City, Mo. Filed June 5, 1909. Serial No. 500,456. (Cl. 140—11.)



1. In a wire fence machine, a stationary set of dies, a movable set of dies coöperating with the stationary set for grasping the intersecting portions of the wires forming the fence, means for forcing staples into said dies and around the intersecting portions of the wires and means for forcing said movable set of dies firmly into engagement with the staples before and after the same have been forced around the intersecting portions of the wires.

2. In a wire fence machine, a stationary set of dies, a movable set of dies coöperating with the stationary set for grasping the intersecting portions of the wires forming the fence, means for forcing staples into said dies and around the intersecting portions of the wires, and a cam for actuating the movable set of dies, said cam having means for forcing the movable set of dies firmly into engagement with the staples after the same have been forced around the intersecting portions of the wires.

3. In a wire fence machine, a stationary set of dies, a movable set of dies coöperating with the stationary set for grasping the intersecting portions of the wires forming the fence, both sets of dies having means for crimping the intersecting portions of the wires, means for forcing staples into said dies and around the intersecting portions of the wires, and a cam for actuating the movable set of dies, said cam having means for forcing the movable set of dies firmly against the stationary set before the staples are forced around the intersecting portions of the wires.

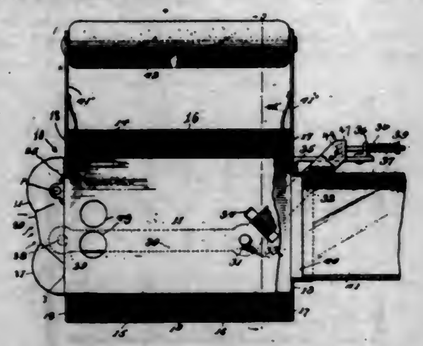
4. In a wire fence machine, a stationary set of dies, a movable set of dies coöperating with the stationary set for grasping the intersecting portions of the wires forming the fence, means for forcing staples into said dies and around the intersecting portions of the wires, a cam for actuating the movable set of dies, said cam having means for forcing the movable set of dies firmly into engagement with the staples after the same have been forced around the intersecting portions of the wires, and means for moving the fence forward one step after each operation of the movable set of dies.

5. In a wire fence machine, a stationary set of dies, a movable set of dies coöperating with the stationary set for grasping the intersectig portions of the wires forming the fence, both sets of dies having means for crimping the

intersecting portions of the wires, means for forming staples and forcing the same into the dies and around the intersecting portions of the wires, and means coacting with the movable set of dies to temporarily force them firmly into engagement with the intersecting portions of the fence wires to crimp the same before the staples are forced into the dies.

[Claims 6 and 7 not printed in the Gazette]

1,027,455. COTTON-PICKER. LEVI WILLMAN, Stillwater, Okla. Filed July 7, 1910. Serial No. 570,811. (Cl. 56—117.)



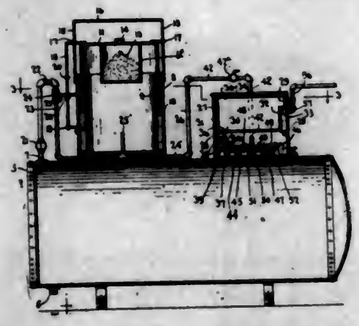
1. A cotton picking device comprising a casing having a mouth opening in its front and also openings in its top and bottom, screens fitted over the top and bottom openings, superposed rotatable corrugated rollers arranged within the casing adjacent the mouth opening, tension means acting upon one of said rollers to normally hold it in contact with the other roller, a suction tube communicating with the casing and a handle rising from the top of said casing.

2. In a cotton picker, a casing having a mouth opening, a roller journaled on one side of the mouth opening, a second roller contacting with the first roller in the casing, a lever connected at its forward end to the second roller and pivoted to the casing, said lever being formed with an offset portion and movable in a slot formed in the casing, a lateral arm on the rear end of the lever, and a spring rod pressing against said lateral arm.

3. In a cotton picker, a casing having a mouth opening in one end, suction means connected with the other end of the casing, a corrugated roller mounted on one side of the mouth opening in the casing, a corrugated roller mounted in the casing adjacent the other corrugated roller, a lever pivoted to the inner side of the casing and connected at its forward end to the second roller, said casing having a slot near its rear end, said lever having an offset portion movable in the slot and the rear end of the lever extending rearwardly of the end of the casing, and a spring rod mounted on the rear end of the casing adapted to bear against the rear end of the lever for holding the second roller in normal contact with the first roller.

4. In a cotton picker, a casing having a mouth opening at one end provided with bulged walls above and below the same, foraminous inclosures projecting from the top and bottom of the casing and closed upon their front and top and front and bottom walls respectively, corrugated rollers rotatably mounted adjacent to said opening, one of said rollers being disposed within the upper bulged portion and the remaining roller being disposed partly within the opening, a suction tube leading rearwardly from the casing, means for rotating the upper roller to simultaneously actuate the lower roller, arms pivotally connected to the casing and rotatably receiving the ends of the lower roller, a cross bar connecting the rear ends of the arms and disposed over the tube and resilient means acting upon the cross bar to hold the lower roller in contact with the upper roller.

1,027,456. CARBURETER. ROY E. WOOD, Syracuse, Nebr. Filed Feb. 6, 1911. Serial No. 606,826. (Cl. 48—166.)



In a carbureter, the combination with an air reservoir, of a tank, a bell disposed within the tank for vertical movement, an outlet pipe connected to the reservoir and communicating with the interior of the bell, a valve in said pipe for controlling the flow of air, a connection between the valve and the bell for operating the former upon movement of the latter, a carbureter tank, a gasolene tank supported therein and provided with an outlet opening, a float valve controlling said opening, a distributer disposed within the carbureter tank below the gasolene tank, said distributer consisting of spaced upper and lower plates, a wall connecting the outer edges of said plates and provided with a plurality of openings, and a partition wall also connecting said plates and provided with a plurality of openings of larger diameter than the first mentioned openings, a pipe connecting said air outlet pipe and the distributer, the end of the pipe connecting the distributer being disposed within the partition wall and provided with a plurality of openings, and a service pipe communicating with the carbureter tank below the gasolene tank.

1,027,457. PROCESS OF MAKING METAL CAPS. OSCAR ZERK, Cleveland, Ohio, assignor to The Zerk Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 26, 1910. Serial No. 589,120. (Cl. 90—33.)

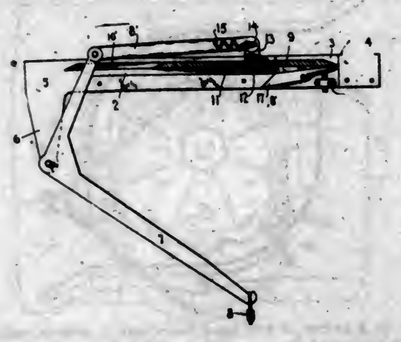


1. The process of treating a metal cap having a top and side wall consisting of broaching an exterior portion of the wall of the cap while the metal adjoining such portion is held under compression against a support and with pressure off of the top.

2. The process of treating metal caps consisting of holding a blank, having a cylindrical wall and a top portion, with the base of the wall against a support, and broaching the exterior surface of the wall by pressure directed toward said shoulder.

1,027,458. WEDGE-SPLITTER. JOHN AGY, Kingfisher, Okla. Filed Aug. 28, 1911. Serial No. 646,398. (Cl. 144—125.)

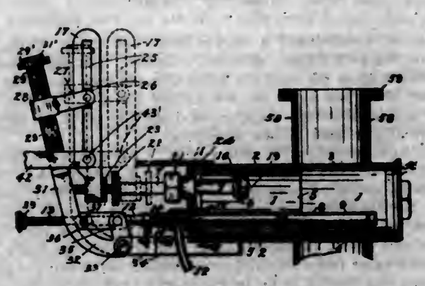
1. In a wedge splitting machine, a supporting frame, a splitting blade operatively mounted in said frame, a work holding plate pivotally mounted in one end of said frame and adapted to support the work in position to receive said cutting blade and to swing downwardly and discharge the wedge after the cutting blade has been retracted, a blade projecting lever, an operating rod to connect said lever with said blade whereby the latter may be projected, and a spring to retract said blade after being projected by said lever.



2. In a wedge splitting machine, the combination with a frame comprising two side sections spaced apart and having guides on their inner faces, a stop block connecting their front ends and leaving a recess between it and the front ends of said guides, a blade slidably mounted in the guides, and a work-holding plate pivotally mounted within said recess and having its rear end weighted whereby after the work is cut the plate tilts automatically and the finished product is discharged.

3. In a wedge splitting machine, the combination with a frame comprising two side sections spaced apart and having guides on their inner faces, a stop block connecting their front ends and leaving a recess between it and the front ends of said guides, a blade slidably mounted in the guides, a work-holding plate pivotally mounted within said recess and having its rear end weighted whereby after the work is cut the plate tilts automatically and the finished product is discharged, a lug in the frame, and a set screw passing upward through said lug beneath the lighter end of said plates.

1,027,459. CARBURETER. DAVIS BARNARD, Los Angeles, Cal. Filed Sept. 9, 1910. Serial No. 581,242. (Cl. 48—155.1.)

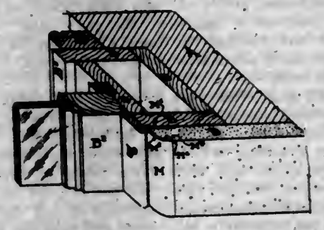


1. In a carbureter, a carbureting chamber or casing having an air opening through a wall thereof, said opening being of uniform width throughout its length, slidable closure means fitting over said opening, a rod to move said closure means to regulate the size of said opening, means adapted to be set to limit the closing movement of said rod, a pivoted lever, means connecting said lever and rod adjustably at different distances from the pivot of said lever, a fuel feed nozzle within said carbureting chamber, means movable lengthwise of said nozzle to open the same at a uniform rate, means operatively connecting said nozzle-opening means with said lever, and means adapted to be set to limit the closing movement of said nozzle-opening means with respect to said lever.

2. In a carbureter, a carbureting chamber having oppositely disposed air openings through the walls thereof, said air openings each being of a uniform width throughout its length, a piston sleeve fitting within said chamber, a rod to move said sleeve to simultaneously regulate the size of said openings, means adapted to be set to limit the closing movement of said sleeve, a pivoted lever, means connecting said lever and rod adjustably at different distances from the pivot of said lever, a fuel feed nozzle between the air openings of the carbureting chamber, a plunger within said nozzle adapted to open the same at a uniform rate per unit of movement of said plunger, means operatively connecting said plunger with said lever, and means adapted to be set to limit the closing movement of said plunger with respect to said lever.

3. In a carbureter, a carbureting chamber or casing having oppositely disposed air openings through the walls thereof, said openings being of a uniform width throughout their length, slidable closure means fitting over said openings, a rod to move said closure means to simultaneously regulate the size of said openings, means adapted to be set to limit the closing movement of said rod, a pivoted lever, means connecting said lever and rod adjustably at different distances from the pivot of said lever, a fuel feed nozzle between the air openings of the carbureting chamber, a plunger within said nozzle adapted to open the same at a uniform rate per unit of movement of said plunger, means operatively connecting said plunger with said lever, and means adapted to be set to limit the closing movement of said plunger with respect to said lever.

1,027,460. DOOR AND WINDOW OPENING. GEORGE A. BERLINGHOF and ELLERY L. DAVIS, Lincoln, Nebr. Filed Jan. 6, 1912. Serial No. 669,804. (Cl. 72—98.)



1. A wall having an opening; a frame in the opening; a molding having a base flange in juxtaposition to the frame and a projecting flange; and a plaster coat on the wall abutting against the molding, flush with its outer edge, which thus acts as a substitute for the casing, substantially as described.

2. A wall having an opening; a frame in the opening; a molding having a base flange in juxtaposition to the frame and a curved projecting flange; and a plaster coat on the wall abutting against the molding, flush with its outer edge, which thus acts as a substitute for the casing, substantially as described.

3. A wall having an opening; a frame in the opening; a molding having a base flange in juxtaposition to the frame, a projecting flange defining the thickness of the plaster and a reëntrant flange for locking the plaster; and a plaster coat on the wall abutting against the molding, flush with its outer edge, which thus acts as a substitute for the casing, substantially as described.

1,027,461. AIR-GAGE. JOSEPH A. BUTTRESS, Los Angeles, Cal., assignor of one-fourth to S. Herlinger, Los Angeles, Cal. Filed Apr. 8, 1911. Serial No. 619,698. (Cl. 73—109.)

1. An air gage comprising a bored scale having an indicator operatively connected therewith, a fluid pressure operating means for said indicator and a member in one

end of said scale for unseating a container valve to admit air to said scale, and cause a movement of said indicator on said scale, said member being operable when removed from the container to seal the air in the scale to hold the indicator in position of indication.



2. An air gage comprising a bored scale having an indicating member operatively connected with said scale, a fluid pressure controlled tube connecting said indicating member with said scale, a spring-pressed valve in said scale, having a projection operable on movement of said scale in one direction to unseat a tire valve and admit air to the interior of said scale, and automatically operable on movement of the scale in the reverse direction to seal the air in said scale to hold the indicating member in position of indication.

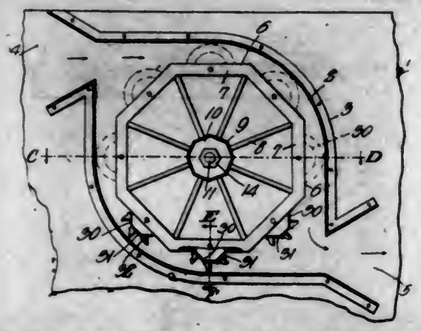
3. An air gage comprising a bored scale, having a tube expansible by fluid pressure, an indicator connected with said tube and scale, a valve in said bored scale having a stem, a means to hold said valve normally closed and the stem thereof projected, said stem being arranged to unseat a tire valve, and move the gage valve when the tire valve has reached the limit of its movement, said gage valve being automatically operable to seal the air in said bored scale.

4. An air gage comprising a bored scale having an indicating member operatively connected therewith, a fluid pressure controlling means for said member, a valve in said scale, a spring to hold said valve stationary to unseat a tire valve, said scale valve being movable in one direction when the tire valve has reached the limit of its movement, and automatically movable in the opposite direction to seal the air in said scale and hold the indicator in position of indication, when disconnected from the tire valve.

5. An air gage comprising a broad scale having an indicating member operatively connected therewith, expansible means connecting said member with said scale, a compressible seat at one end of said scale arranged to fit against the casing of a tire valve, a valve in said scale, means on said scale valve to unseat a tire valve, means to hold said scale valve stationary during such unseating, said scale valve being movable in one direction when the tire valve has reached the limit of its movement, to allow the air from the tire to enter the scale and operate the indicator, and movable in the opposite direction to seal the air in said scale to hold the indicator in position of indication, when disconnected from said tire valve.

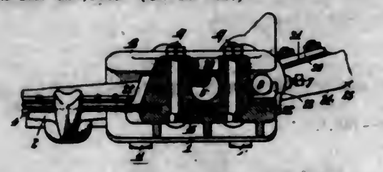
1,027,462. AIR-PROPELLED CAR-FAN. JOHN L. COUNCILL, JAMES E. THARPE, and THOMAS M. DALE, Statesville, N. C. Filed Oct. 30, 1911. Serial No. 657,568. (Cl. 98—18.)

1. In a device of the class described, a vehicle body; a shaft journaled for rotation in the vehicle body; a fan secured to the outer end of the shaft and having a polygonal periphery; polygonal lugs secured to the faces of the fan; blades extended across the faces of the lugs; a casing applied to the outer face of the vehicle body, the casing inclosing the fan, the casing being provided with an intake member, adapted to receive air when the vehicle is in motion, and to discharge the air against the polygonal periphery of the fan, against the faces of the lugs, and against the blades; and a second fan secured to the inner end of the shaft, within the vehicle.



2. In a device of the class described, a vehicle body; a shaft journaled for rotation in the vehicle body; a fan secured to the outer end of the shaft and provided with a polygonal periphery; polygonal lugs applied to the polygonal faces of the fan, the faces of the lugs extending transversely of the faces of the fan; blades applied to the faces of the lugs and extended transversely of the fan; a second fan secured to the inner end of the shaft and located within the vehicle body; a casing applied to the outer face of the vehicle body and inclosing the first named fan, the casing having an intake member adapted to receive air when the vehicle is in motion, and to discharge air against the polygonal periphery of the first mentioned fan, against the faces of the lugs, and against the blades; and means located within the vehicle for holding the shaft against rotation.

1,027,463. ATTACHMENT FOR MOWING-MACHINES. GEORGE M. CROWDER, Lebanon, Ill. Filed May 17, 1911. Serial No. 627,665. (Cl. 56—44.)

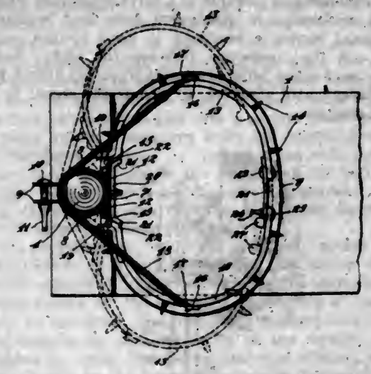


1. In combination, a mower shoe and finger blade, a cutter-head slidably mounted thereon, bearing blocks mounted upon the shoe for adjustably holding the head in place, a pitman shaft carried by the head, and means on one of the blocks for engaging said shaft to limit the movement of the head in one direction.

2. In combination, a mower shoe, a cutter-head slidably mounted thereon and having a flange, a bearing block adjustably mounted toward and away from the cutter-head and having a flange to overhang the flange on said cutter-head, a second bearing block adjustably mounted upon the shoe and acting in opposition to the first bearing block, a pitman shaft mounted in the cutter-head and having a projecting end, means lying in the path of the projecting end of the shaft for limiting the movement of the head in one direction, flange members overhanging the head and adjustably secured thereto, and shims arranged between the flange members in the bearing blocks.

1,027,464. BAG-HOLDER. ADOLPH DAHLSTROM, Amery, Wis. Filed Jan. 11, 1912. Serial No. 670,539. (Cl. 88—26.)

1. In a bag holder, the combination with a supporting head, of a pair of bag supporting arms, one of which has a hinged connection to said head, an abutment operative on said hinged arm, near its hinged connection, for stopping the same in its normal closing movement, in a predetermined position, said hinged arm capable of being further sprung beyond said predetermined position, and adjustable means for locking said hinged arm in positions closed beyond said predetermined position.



2. In a bag holder, the combination with a supporting head, of a pair of bag supporting arms having a hinged connection to said head, a spring tending to open said arms, means for stopping the normal closing movements of said arms in predetermined positions, said arms capable of being further sprung together beyond such predetermined positions, and means for locking said arms together, in and beyond said predetermined positions.

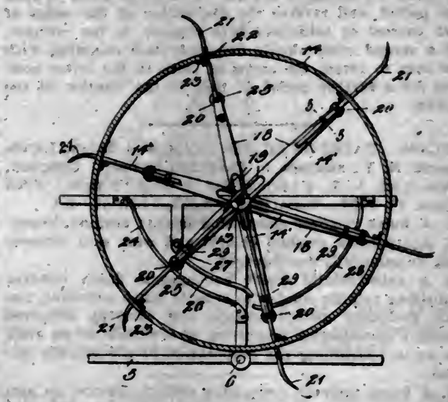
3. In a bag holder, the combination with a supporting head, of a pair of bag supporting arms having a hinged connection to said head and also having bag engaging elements, a spring tending to open said arms, means for limiting the opening movements of said arms means for stopping the normal closing movements of said arms in predetermined positions, said arms capable of being further sprung together beyond such predetermined positions, and means for locking said arms together, in and beyond said predetermined positions.

4. In a bag holder, the combination with a standard and a suitable base therefor, of a supporting head mounted on said standard for vertical adjustment, a pair of bag supporting arms having hinged connection to said head and also having bag engaging hooks, a spring tending to open said arms, a stop for limiting the opening movement of said arms, a clamping bolt secured to one of said arms, and a notched lock bar pivotally connected to the other of said arms and having interlocking engagement with said bolt for holding said arms in different closed positions.

5. In a bag holder, the combination with a supporting head, of a pair of bag supporting arms having hinged connection to said head and also having bag engaging elements, a spring tending to open said arms, means for limiting the opening movements of said arms, means for stopping the normal closing movements of said arms in predetermined positions, said arms capable of being further sprung together beyond such predetermined positions, a clamping bolt secured to one of said arms, and a notched lock bar pivotally connected to the other of said arms and having interlocking engagement with said bolt for locking said arms together in and beyond said predetermined positions.

1,027,465. HAY-LOADER. CHARLES O. DAVIS, Rupert, Idaho. Filed June 5, 1911. Serial No. 631,209. (Cl. 56—61.)

1. A loader of the character described comprising a revoluble cylinder including a cylinder shaft, a plurality of radially disposed bars movably mounted within each end of the cylinder upon said shaft, the ends of corresponding bars in opposite ends of the cylinder being connected by connecting bars, a plurality of teeth arranged in each of said connecting bars and movable through the annular wall of the cylinder, rollers mounted on the ends of said bars, means engaged by said rollers to successively move said bars and retract one of the series of teeth carried thereby and project the opposite series beyond the cylinder wall, said means retaining the teeth in such positions during a certain portion of the revolution of the cylinder, and means engaged by the rollers on one end of the bars and acted upon in the rotation of the cylinder to reverse the positions of the teeth series carried by said bars at the expiration of the aforementioned time period.



2. A loader of the character described comprising a revoluble cylinder including a cylinder shaft, a plurality of radially disposed bars movably mounted within each end of the cylinder upon said shaft, the ends of corresponding bars in opposite ends of the cylinder being connected by connecting bars, a plurality of teeth arranged in each of said connecting bars and movable through the annular wall of the cylinder, rollers mounted on the ends of said bars, means engaged by said rollers to successively move said bars and retract one of the series of teeth carried thereby and project the opposite series beyond the cylinder wall, said means retaining the teeth in such positions for a limited period of time, means engaged by the rollers on one end of the bars and acted upon in the rotation of the cylinder to reverse the positions of the teeth series carried by said bars at the expiration of the aforementioned time period, and additional means for retaining the opposed series of teeth in such latter positions for a further period in the rotation of the cylinder.

3. A loader of the character described comprising a revoluble cylinder including a shaft, a plurality of radially disposed movable bars arranged in each end of the cylinder, said bars having central longitudinal slots to receive the cylinder shaft, bars longitudinally disposed through the cylinder and connecting the extremities of corresponding radial bars in the ends thereof, a series of teeth fixed in each of the connecting bars and movable through the annular wall of the cylinder, rollers mounted on the ends of said radial bars, a stationary plate eccentrically disposed with relation to the cylinder to be engaged by said rollers, whereby the corresponding bars at opposite ends of the cylinder are radially moved upon the cylinder shaft to retract and project the opposite series of teeth through the cylinder wall and to maintain the teeth in such positions for a limited period of time in the rotation of the cylinder, a resilient element engaged by the rollers on said radial bars and acted upon thereby to reverse the positions of the opposed series of teeth with relation to the cylinder at the expiration of such time period, and a second eccentrically disposed plate to be engaged by the rollers of said bars whereby the series of teeth are retained in their latter positions for a further limited period in the rotation of the cylinder.

4. In a hay loader, a revoluble cylinder including a shaft, a plurality of radially movable bars arranged in each end of the cylinder, guides for said bars, bars con-

necting the ends of corresponding bars in opposite ends of the cylinder, a series of teeth fixed in each of the connecting bars and movable through the annular wall of the cylinder, a plate eccentrically disposed with relation to the cylinder, said bars co-acting with said plate in the rotation of the cylinder to radially move the bars and retract and project respectively the opposite series of teeth, said plate maintaining the teeth in such positions for a limited period of time in the rotation of the cylinder, a spring also co-acting with said bars and acting upon the same to reverse the radial movement of the bars at the expiration of such time period, and reverse the disposition of the series of teeth carried by said bars with relation to the cylinder, and a second eccentrically disposed plate co-acting with said bars to retain the series of teeth in the latter positions for a further period of time in the rotation of the cylinder.

1,027,466. PAINT-REMOVER. CARLETON ELLIS, Larchmont, N. Y., assignor to Chadeloid Chemical Company, New York, N. Y., a Corporation of West Virginia. Filed Sept. 18, 1907. Serial No. 393,535. (Cl. 87—5.)

1. A finish remover comprising methyl acetone, benzol, and incorporated calcium chlorid and wax, said remover being substantially non-aqueous.

2. A substantially fluent non-aqueous finish remover comprising volatile composite organic finish softening material including methyl acetone and carrying dissolved therein a considerable proportion of a chlorid of an alkaline earth restraining the evaporation of the volatile material.

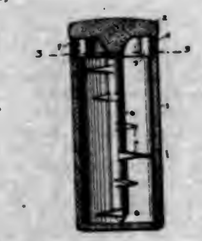
3. A finish remover comprising methyl acetone, an aromatic finish solvent and incorporated calcium chlorid evaporation-retarding material, said remover being substantially non-aqueous.

4. A substantially non-aqueous finish remover comprising volatile composite organic finish softening material including methyl acetone carrying dissolved therein a considerable proportion of a chlorid of an alkaline earth restraining the evaporation of said volatile finish softening material.

5. A substantially fluent non-aqueous finish remover comprising volatile composite organic finish softening material including an aromatic finish solvent and loosening finish solvent material and incorporated dissolved calcium chlorid evaporation retarding material restraining the evaporation of said volatile finish solvent material.

[Claims 6 and 7 not printed in the Gazette.]

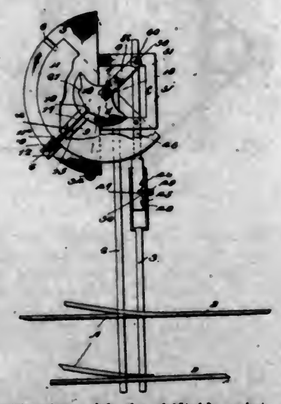
1,027,467. SALT-CELLAR. WILLIAM M. ENGLISH, Sausalito, Cal. Filed Apr. 25, 1911. Serial No. 623,246. (Cl. 65—57.)



A salt cellar having apertures for the discharge of the salt, and means, operatively connected so as to move always in unison, for covering and uncovering said apertures and for agitating the salt, substantially as described.

1,027,468. SWITCH MECHANISM. GEORGE W. FISHER and FRED HOYLAND, Jr., Jackson, Mich. Filed Nov. 27, 1909. Serial No. 530,166. (Cl. 246—41.)

1. The combination with the shiftable points of a railway switch, of actuating mechanism connected to the points for shifting the same in either direction, said actuating mechanism being yieldable when the points are moved independently thereof, a locking bar connected with the switch points to shift therewith, a locking mechanism engaging said bar when the switch points are thrown to the full limit of their movement in either direction by said actuating mechanism, a signal connected to the locking mechanism and movable to a certain position when the locking mechanism is disengaged from said locking bar, said signal having a tendency to move toward said position and the connection between the signal and the locking mechanism being breakable when the switch points are independently actuated, to permit the signal to move to said position.



2. The combination with the shiftable points of a railway switch, of a switch bar connected to the points, actuating mechanism connected to the bar for shifting the points in either direction but yieldable to permit a movement of the points and bar when the points are moved independently of the actuating mechanism, a locking bar connected to the switch points to shift therewith, a locking mechanism engaging the said bar when the switch points are thrown to the full limit of their movement in either direction by said actuating mechanism, a signal connected to the locking mechanism and movable to a certain predetermined position when the locking mechanism is disengaged from said locking bar, said signal having a tendency to move toward said position and the locking mechanism being breakable when the switch points are independently actuated to thus release the signal and permit it to move to said position.

3. The combination with the shiftable points of a railway switch, of a switch bar connected to the points, actuating mechanism connected to the bar for shifting the points in either direction, breakable connection between the actuating mechanism and the bar and points, breakable when the switch points are moved independently of the actuating mechanism, a locking bar connected to the switch points to shift therewith, said locking bar being composed of two sections, a yielding member holding said sections in an extended position but yielding to permit the sections to move upon each other when the switch points are independently actuated by the passage of a train, a locking mechanism engaging with the inner section of said bar when the switch points are thrown to the full limit of their movement in either direction by said actuating mechanism, a signal connected to the locking mechanism and movable thereby to a certain predetermined position when the locking mechanism is disengaged from said bar, said signal having a tendency to move toward said position and also movable by said locking mechanism to a certain other position when the locking mechanism is engaged with the locking bar, the connection between the signal and the locking mechanism being breakable to release the signal and permit it to move to said position when the switch points are independently actuated by the passage of a train.

4. The combination with the shiftable points of a railway switch, of a switch actuating rod and a locking bar, both connected to the switch points to shift therewith, an actuating means for the switch rod, an operating lever yieldingly engaged with the actuating means to operate the latter, means for locking the lever from a switch actuating movement, a locking bolt carried by the lever and movable therewith in one plane, said bolt being also independently movable in another plane into and out of locking engagement with the locking bar when the switch points are moved into either of their extreme positions by said actuating mechanism, a signal having connection with the locking bolt and movable into a certain position when the locking bolt is disengaged from the locking bar, said signal having a tendency to move toward said position, and the connection between the signal and the bolt being breakable, when the switch points are independently actuated by the passage of a train to release the signal and permit it to move to said position.

5. The combination with the shiftable points of a railway switch, of a switch-actuating rod and a locking bar, both connected to the points to shift therewith, an actuating means for the switch rod including a rotatable member, an operating lever yieldingly engaged with the rotatable member to turn the latter by the former, means for locking the lever from any rotative movement, a locking bolt carried by the lever and movable therewith in its rotative movement in one plane, said locking bolt being also movable in another plane into locking engagement with the locking bar when the switch points are moved into either of their extreme positions by said actuating mechanism, and a signal having a connection to the locking bolt and being also connected to the rotatable member, said signal being movable into or out of a certain position when the locking bolt is disengaged from the locking bar or engaged therewith and having a tendency to move toward said position, the connection between the signal and the bolt being breakable when the switch points are independently actuated by the passage of a train, thereby permitting the signal to move to said position.

[Claims 6 and 7 not printed in the Gazette.]

1,027,469. MUFFLER. SAMUEL W. FORNEY, Pulaski, Va. Filed Aug. 29, 1911. Serial No. 646,576. (Cl. 121—116.)

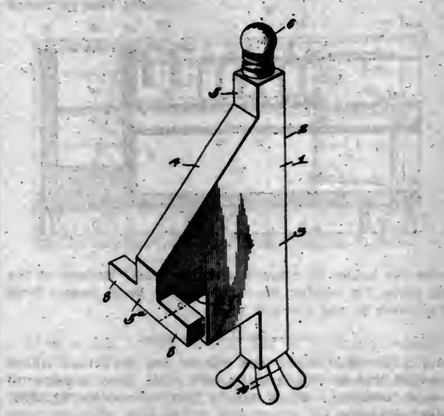


1. An automobile muffler comprising an outer casing having a flanged end, a pipe mounted in said casing and inclosed in a second casing, said casing and pipe being provided with perforations, branch pipes having their inner ends secured in the perforations of the pipe and their outer ends secured in the perforations of the casing, said pipes being extended forwardly and in the direction of the usual travel of the automobile, and an exhaust pipe leading to and extended into the casing.

2. In combination with an exhaust pipe, of a casing having a flanged end through which is extended a second casing mounted in said casing, a pipe mounted in the second casing, branch pipes connecting the pipe and second casing, said pipes being inclined toward the flanged end of the casing, a mixing chamber into which the exhaust empties, a conoid deflector mounted in advance of the mixing chamber, whereby the exhaust gases are broken up before entering the mixing chamber.

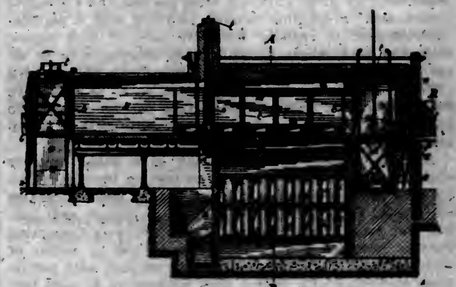
1,027,470. FENCE-POST. WALTER C. GAMBERL, Tabor, Ill. Filed Feb. 5, 1912. Serial No. 675,517. (Cl. 72—82.)

The herein described concrete fence post provided with a relatively vertical rear face, a front face embodying an intermediate sloping portion and upper and lower vertical end portions, the post being provided at the bottom of the lower end portion of the front face with laterally extending bracing members and being formed at its lower



edge with recesses arranged in stepped relation to each other and at the rear end of the bottom with downwardly and outwardly projecting anchoring members.

1,027,471. ANNEALING-FURNACE. HERMANN GIRTNER, Lintorf, near Dusseldorf, Germany. Filed Jan. 23, 1912. Serial No. 672,899. (Cl. 148—10.)



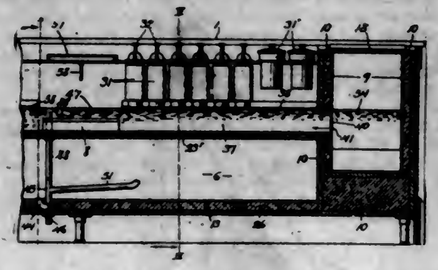
In an annealing furnace of the character described, an annealing chamber, an adjacent horizontally alined cooling chamber, a damper intermediate said chambers, elevator shafts communicating with the outer ends of said chambers and extending downwardly therefrom, elevators reciprocable within said shafts, and charge-receiving trucks adapted to travel through the annealing and cooling chambers, said trucks being provided with end walls that closely fit into the profile of the chambers, so as to separate the annealing chamber from the cooling chamber, while the damper is opened and while a truck is passed from the annealing chamber into the cooling chamber.

1,027,472. SODA-FOUNTAIN. EDMOND R. GLENN, Kansas City, Mo., assignor to Western Cabinet and Fixture Manufacturing Company, Kansas City, Mo., a Corporation of Missouri. Filed Apr. 4, 1910. Serial No. 553,360. (Cl. 225—29.)

1. A soda fountain comprising a salted ice holder, an apertured ice cream can packer located in the holder and spaced therefrom so as to provide a salted ice reservoir between the holder and the apertured packer and having spring clamping fingers for centering and spacing the ice cream can away from the apertured packer.

2. A soda fountain comprising a salted ice holder, a brine tank in communication with the holder, a top plate

for the tank providing a bottom plate for a jar supporting frame, and an overflow pipe having its top flush with the under surface of the top plate so as to cause the brine



from the holder to contact with the under surface of the top plate, for cooling the latter as the brine passes from the holder to the overflow pipe.

1,027,473. BUTTON. SOL GOGEL and MAXVILLE BERNSTEIN, Toronto, Ontario, Canada; said Gogel assignor to said Bernstein. Filed Mar. 3, 1911. Serial No. 612,151. (Cl. 24—105.)



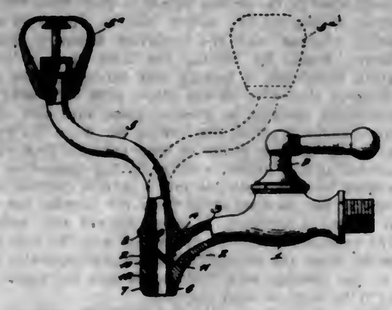
1. In a button, the combination of a shank member provided with an integral hollow stem portion and a concave button seat; a coupling member provided with a perforation adapted to register with the bore of said hollow stem and with means by which said member may be secured to the cloth through said stem; and a button back provided with a face portion adapted to fit said concave button seat, and having a projecting portion adapted to inter-lock with said coupling member, substantially as described.

2. In a button, the combination of a shank member comprising an integral hollow stem portion through which threads may pass and a concave button seat; a hollow cup-shaped coupling member adapted to rest on said button seat and having a locking member, also said coupling member provided with a perforated bottom by means of which it may be secured to the cloth through said hollow stem portion; and a button back adapted to fit said button seat and having a projecting portion provided with locking means adapted to engage said locking member with which said coupling member is provided, substantially as described.

1,027,474. COCK AND FAUCET. PORTER S. HAMBICK, Wausau, Wis. Filed Feb. 17, 1912. Serial No. 678,205. (Cl. 137—11.)

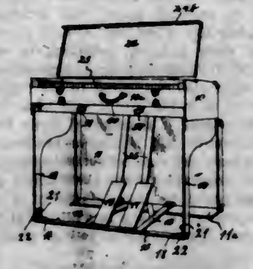
1. A combination fixture of the character described including a faucet provided with a spout having a longitudinal bore and a vertically disposed passage intersecting said bore, and a drinking fountain embodying a tubular arm mounted for a turning movement in said passage, and formed therein in registry with the outlet end of the bore, with an oblique partition, the arm being formed below the partition with a relatively large port and above the partition with a relatively small port, both of said ports being adapted to register alternately with the bore, the arm being open from the partition downward.

2. A combination fixture of the character described, including a faucet provided with a spout having a longitudinal bore and a vertical passage intersecting the bore at the discharge end of the latter, and a drinking fountain embodying a tubular arm mounted for a turning movement in said passage, the lower extremity of said arm protruding from the lower end of the passage and formed with exterior screw threads, and a nut screwed thereon and engaging the lower side of the spout, the arm being formed with a shoulder bearing upon the outer side of



the spout and within said passage with a partition and with ports on opposite sides of said partition.

1,027,475. FOLDING ORGAN. BARTIN N. HANSON, Chicago, Ill. Filed May 29, 1911. Serial No. 630,226. (Cl. 84—111.)



1. In a folding organ, a case inclosing the organ action, said case having certain of its walls hinged, one of said hinged walls serving as a supporting leg for the rear portion of the case when unfolded, legs hinged to the end walls of the case and foldable thereinto, said legs carrying at their lower ends a plate having slots in its edges, and a removable brace connecting the last-mentioned legs, said brace carrying bifurcated plates at its ends straddling the slotted portion of the aforesaid plates.

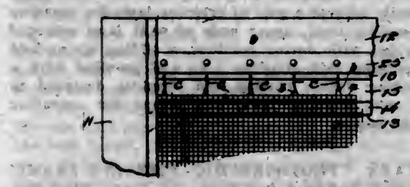
2. In a folding organ, a case inclosing the organ action, said case having certain of its walls hinged, one of said hinged walls serving as a supporting leg for the rear portion of the case when unfolded, legs hinged to the end walls of the case and foldable thereinto, said legs carrying at their lower ends a plate having slots in its edges, a removable brace connecting the last-mentioned legs, said brace carrying bifurcated plates at its ends straddling the slotted portion of the aforesaid plates, and a hook carried by the second-mentioned plate and engageable with the first-mentioned plate.

3. In a folding organ, a case inclosing the organ action, said case having certain of its walls hinged, one of said hinged walls serving as a supporting leg for the rear portion of the case when unfolded, legs hinged to the end walls of the case and foldable thereinto, cross bars hinged to the aforesaid hinged wall, and a brace carried by said cross bars and removably connected to the last-mentioned legs when unfolded.

1,027,476. SCREEN AND SCREEN FABRIC. WILLIAM E. HARBOTTLE, Sunbury, Ohio. Filed Aug. 5, 1909. Serial No. 511,334. (Cl. 156—14.)

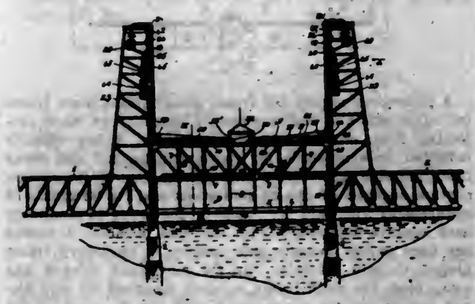
1. A screen fabric comprising woven parts having a space therebetween from which the weft wires have been omitted, alternate groups of the warp wires terminating at the weft wires at the opposite sides of said space, and

the other alternate groups of said warp wires extending across said space and being twisted therein.



2. A woven wire screen from which a group of weft wires have been omitted to form a transverse open space, pairs of the warp wires being twisted in the space left by the omitted weft wires, said pairs being arranged in alternating series with groups of the warp wires on the side of this space, said groups of the warp wires terminating at the weft wires at the edge of said space, whereby a plurality of exit openings are formed in the fabric of the screen.

1,027,477. LIFT-BRIDGE. JOHN LYLE HARRINGTON, Kansas City, Mo. Filed Oct. 14, 1910. Serial No. 587,050. (Cl. 14—42.)



1. In a lift bridge, a vertically movable lower deck, a vertically movable span located above the deck, and means for lifting the deck independently of the span.

2. In a lift bridge, a vertically movable upper span, a vertically movable lower deck supported by said upper span, and separate means for lifting the span and deck.

3. In a lift bridge, a vertically movable main span, means for raising and lowering same, a vertically movable lower deck supported by the main span, and means for raising and lowering said lower deck while the said main span is in traffic carrying position.

4. In a lift bridge, a vertically movable main span, means for raising and lowering same, a vertically movable lower deck supported by the main span, and means carried by said main span for raising and lowering said lower deck while the said main span is in traffic carrying position.

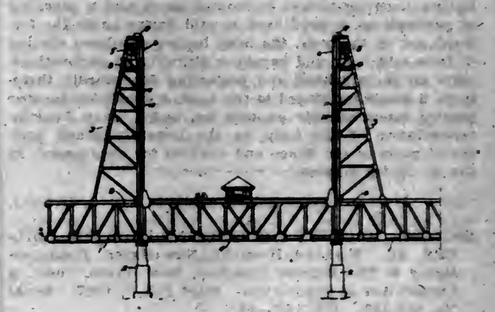
5. In a lift bridge, a vertically movable lower deck, and a vertically movable superposed span; the former being movable independently of said superposed span, and means for moving said deck independently of the span or for moving both simultaneously.

[Claims 6 to 9 not printed in the Gazette.]

1,027,478. LIFT-BRIDGE. JOHN LYLE HARRINGTON, Kansas City, Mo. Filed Nov. 7, 1910. Serial No. 591,108. (Cl. 14—42.)

1. In a lift bridge comprising towers and a vertically movable span, racks having linked pivotal mounting on the towers, to afford limited lateral movement thereof relative to the span, pinions on the span engaging said racks, and means for actuating said pinions.

2. A lift bridge comprising towers and a vertically movable span, racks arranged vertically on the towers and having linked connection therewith to afford limited lateral movement thereof, relative to the span, pinions carried by the span and engaging said racks, and means for actuating said pinions.



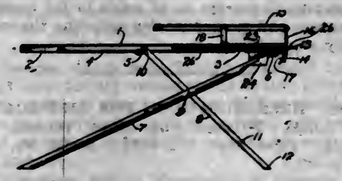
3. In a lift bridge, towers and a vertically movable span, frames carried by the towers and projecting into the span opening, links pivotally mounted on said frames, racks pivotally connected with said links, pinions on the span engaging said racks, and means for actuating said pinions.

4. In a lift bridge, towers and a vertically movable span, frames carried by said towers and comprising spaced members, diaphragms supported by said spaced members and separated to form a chamber, a pin carried by said diaphragms and extending through said chamber, links pivotally mounted on said pin, racks pivotally connected with said links, pinions carried by said span and engaging said racks, and means for actuating said pinions.

5. In a lift bridge, towers and a vertically movable span, flexible racks carried by the towers, pinions on the span engaging said racks, plates on the towers and on the racks, and pin and slot connection between said plates for permitting lateral movement of the racks, and means for actuating said pinions.

[Claims 6 to 9 not printed in the Gazette.]

1,027,479. IRONING-BOARD. FRED G. HOFFINE, Kansas City, Mo. Filed Feb. 18, 1911. Serial No. 609,524. (Cl. 68—10.)



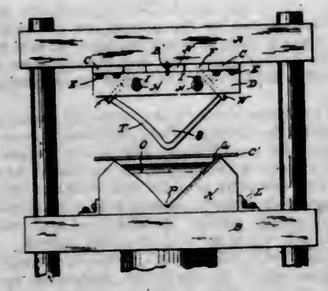
1. An ironing board comprising a body member formed of a single piece of sheet metal, having a downturned edge flange having a plurality of perforations, a head at one end of the body within the flange and having a flange abutting against the bottom of the body and spacing same therefrom, the head having a plurality of perforations, a hinge, having one leaf fixed to the head and having a loose leaf, a tube, having a flattened head fixed to said loose leaf, a tube bent to form a stop head and spaced leg members, the central portion of the leg members being inturned and pivoted on the single tube, and means on the board body for engagement by the stop head.

2. In an ironing board, the combination of a sheet-metal body having a downwardly-turned flange, the flange having inwardly-turned horizontal parts and a plurality of perforations, a head fixed to said flanges beneath the forward part of the body and having a plurality of perforations, a leg hinged to the head, a double-leg member pivoted to the hinged leg, and a strap fixed to the in-

wardly-turned horizontal parts of said flange to engage said double-leg member.

3. In an ironing board, a body having an unbroken upper surface and a downwardly-turned flange, the flange having inwardly-turned horizontal parts and a plurality of perforations, a head fixed to said flange under the forward end of the body, the head having shoulders spacing it from said body and having a plurality of perforations, bolts set in said head and projecting downwardly therefrom, a single leg hinged to the head, a double-leg member pivoted intermediately on said leg, and a strap fixed intermediately of the body on the inwardly-turned horizontal parts of the flange and adapted for engagement by the double-leg member.

1,027,480. MACHINE FOR FORMING LUGS FOR BOILERS, &c. WILLIAM HORSLEY, New Haven, Conn., assignor to The Bigelow Company, New Haven, Conn., a Corporation of Connecticut. Filed Feb. 7, 1907. Serial No. 356,236. (Cl. 153—48.)



1. In a machine for forming lugs and similar articles, the combination with coöperating forming members; of a shearing blade rigidly connected with a member and another shearing blade having a sliding connection therewith; and mechanism for operating the same, substantially as described.

2. In a machine for forming lugs and similar articles, the combination with coöperating forming members; of rigid shearing blades on the sides; shearing blades on the ends having a sliding connection with said member and being adapted to operate at an angle to the movement of said member; and mechanism for operating the same, substantially as described.

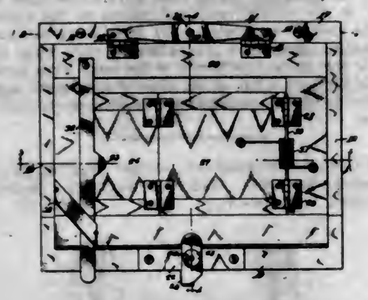
1,027,481. RELEASING-HOOK FOR LIFE-BOATS AND THE LIKE. WILLIAM JOHN HUFF, Toronto, Ontario, Canada. Filed Sept. 25, 1911. Serial No. 651,149. (Cl. 9—23.)



1. A releasing hook for life boats, comprising an eye member having a depending head at one end, a hook member having upwardly projecting lugs between which are pivotally mounted gripping jaws designed to engage said depending head, and a sliding spring-held sleeve inclosing said gripping jaws, with means for operating same, substantially as described.

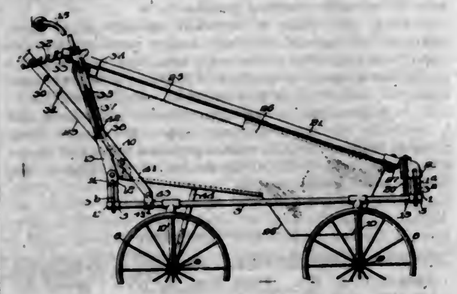
2. A releasing hook for life boats comprising an eye member having a depending head at one end, a hook member having two upwardly projecting lugs between which are pivotally secured a pair of gripping jaws for engaging said depending head, upper ends of said jaws enlarged and provided with flaring portions, a sliding spring-held sleeve inclosing said gripping jaws and provided with a corresponding flaring portion and shoulder designed to embrace said gripping jaws, and means for operating spring-held sleeve.

1,027,482. PHOTOGRAPHIC-PRINTING FRAME. CHARLES E. JOHNSON, Salt Lake City, Utah. Filed Feb. 1, 1911. Serial No. 605,931. (Cl. 95—77.)



A photographic printing frame comprising a main frame including side and end members, a plurality of studs projecting from one of said side members, a bar slidably mounted on said studs for movement toward and away from the side members, a bow spring having its central portion engaged by one of said studs and its terminals in engagement with said bar, whereby the latter is yieldingly held against movement from the side member, a second bar fixed to the opposite side member, a secondary frame hinged to said yieldable bar for movement toward and away from the main frame, a catch mounted on said second named bar for engagement with the free end of the secondary frame to lock same against movement away from the main frame, a hinged back carried by the secondary frame and received therein, and a catch on said secondary frame for locking said back therein.

1,027,483. COLLAPSIBLE VEHICLE. FREDRICK KAPLAN, Beloit, Wis. Filed July 1, 1908. Serial No. 441,275. (Cl. 21—83.)



1. In a collapsible vehicle, a base frame having grooved end bars and rocking side bars, projections on the side bars and positioned to enter the grooves in the end bars, and locking members on the end bars to retain said projections in the grooves.

2. In a collapsible vehicle, a base frame, and a body, a resilient pivotal connection between the body and the base at one end of the vehicle, and a pivoted handle at the opposite end of the vehicle having a spring hung body support.

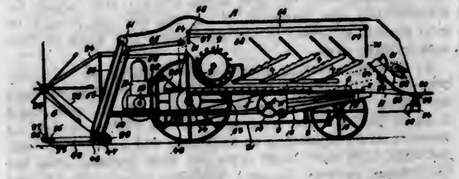
3. In a collapsible vehicle, a base frame, having rocking side bars provided with transverse pins, brackets on the frame having openings through which the pins may project, and locking members movable into positions between the pins and the brackets.

4. In a collapsible vehicle, a base frame having rocking side bars provided with transverse pins, brackets upon the base frame, and having slots through which the pins may project, and pivoted locking devices carried by the brackets and movable between the pins and the brackets to prevent movement of said side bars.

5. In a collapsible vehicle, a base frame having rocking side bars provided with transverse pins, brackets upon the base frame, and having slots through which the pins may project, and pivoted locking devices having wedge-shaped edges, carried by the brackets and movable between the pins and the brackets to prevent movement of said side bars.

[Claims 6 to 20 not printed in the Gazette.]

1,027,484. COMBINED THRESHING, HARVESTING, AND BUNDLING APPARATUS. MILES KEJR. Dorrance, Kans. Filed Apr. 15, 1911. Serial No. 621,314. (Cl. 56—33.)

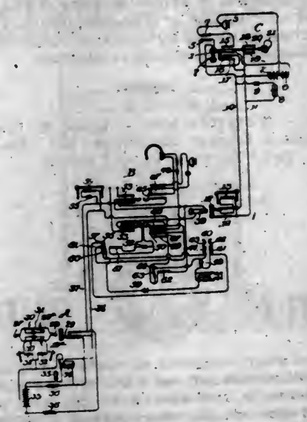


1. In an apparatus of the character described, the combination of a frame or casing having an inlet throat or passage at its forward end and outlets arranged respectively at its rear end and in its bottom adjacent thereto, a threshing mechanism including a cylinder and concave communicating with said throat, a gathering mechanism including a feeder for conveying the gathered material to said throat, a bundling mechanism at the rear of the casing between said outlets, and a conveyer adjustable to open or close said throat and arranged when in throat-closing position to convey the material from said feeder toward the bundling mechanism, said bundling mechanism and conveyer being relatively adjustable for the feed of the material either to the bundling mechanism or to the bottom outlet when the conveyer is in throat-closing position.

2. In an apparatus of the character described, the combination of a frame or casing having an inlet throat or passage at its forward end and outlets arranged respectively at its rear end and in its bottom adjacent thereto, a threshing mechanism including a cylinder and concave communicating with said throat, a gathering mechanism including a feeder for conveying the gathered material to said throat, a bundling mechanism at the rear of the casing between outlets and adjustable toward the respective outlets out of and into receiving position, and a conveyer adjustable to open or close said throat and when in throat-closing position to convey the material from said feeder to the bundling mechanism when the latter is in receiving position or to the bottom outlet when said bundling mechanism is out of receiving position.

3. In an apparatus of the character described, the combination of a frame or casing having an inlet throat or passage at its forward end and outlets arranged respectively at its rear end and in its bottom adjacent thereto, a threshing mechanism including a cylinder and concave communicating with said throat, a gathering mechanism including a feeder for conveying the gathered material to said throat, a bundling mechanism at the rear of the casing between said outlets and below the level of the cylinder and concave and above the level of the bottom outlet and adjustable toward the respective outlets out of and into receiving position, means for adjusting the same, a conveyer vertically adjustable in guides to different degrees at its front and rear ends to open or close said throat and when in throat-closing position to convey the material from said feeder to the bundling mechanism when the latter is in receiving position or to the bottom outlet when said bundling mechanism is out of receiving position, and means for adjusting said conveyer.

1,027,485. TELEPHONE SYSTEM. OSCAR M. LEICH, Genoa, Ill., assignor to Cracraft, Leich Electric Company, Genoa, Ill. Filed Mar. 27, 1911. Serial No. 617,135. (Cl. 179—42.)



1. A telephone system comprising a common battery exchange, line and clearing out signal receiving devices thereat, a local battery exchange, a trunk circuit between said exchanges, and a local battery telephone associated with said local battery exchange and having provision for controlling the said signal receiving devices aforesaid.

2. A telephone system comprising a common battery exchange, line and clearing out signal receiving devices thereat, a local battery exchange, a trunk circuit between said exchanges, and a local battery telephone associated with said local battery exchange and having provision for controlling the said signal receiving devices aforesaid over a continuous conducting circuit including said trunk circuit and extending from said telephone to said common battery exchange.

3. A telephone system comprising a common battery exchange, line and clearing out signal receiving devices thereat, a local battery exchange, line and clearing out signal receiving devices thereat, a trunk circuit between said exchanges, and a local battery telephone associated with said local battery exchange and having provision for controlling the said signal receiving devices aforesaid.

4. A telephone system comprising a common battery exchange, line and clearing out signal receiving devices thereat, a local battery exchange, line and clearing out signal receiving devices thereat, a trunk circuit between said exchanges, and a local battery telephone associated with said local battery exchange and having provision for controlling the said signal receiving devices aforesaid over a continuous conducting circuit including said trunk circuit and extending from said telephone to said common battery exchange.

5. A telephone system comprising a common battery exchange, line and clearing out signal receiving devices thereat, a local battery exchange, a trunk circuit between said exchanges, and a local battery telephone associated

with said local battery exchange and having provision for automatically controlling the said signal receiving devices aforesaid.

[Claims 6 to 18 not printed in the Gazette.]

1,027,486. SOLVENTS FOR ACETYL CELLULOSE. WILLIAM G. LINDSAY, New York, N. Y., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 10, 1911. Serial No. 643,375. (Cl. 134—78.)

1. A composition of matter consisting of acetyl cellulose dissolved in a mixture of acetodichlorhydrin and alcohol, substantially as described.

2. A composition of matter consisting of acetyl cellulose dissolved in a mixture of acetodichlorhydrin and alcohol in admixture with other solvents, substantially as described.

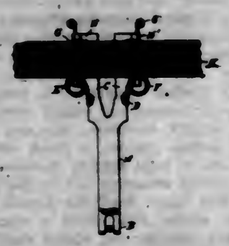
3. A composition of matter consisting of acetyl cellulose dissolved in a mixture of acetodichlorhydrin and alcohol in admixture with other solvents and coloring matters and inert substances, substantially as described.

1,027,487. WATCH-GUARD. GEORGE M. LINDSEY and WILLIAM A. LINDSEY, Los Angeles, Cal. Filed Apr. 24, 1911. Serial No. 623,078. (Cl. 63—24.)



A watch guard comprising an elastic disk of soft rubber formed with an enlarged rim, a hub having a stem opening and projecting on both sides of the disk so as to provide inner and outer spacing collars adapted to fit around the stem of a watch, between the body and the collar thereof, and a thin web between the middle portion of the hub and the enlarged rim.

1,027,488. TYPE-WRITER RIBBON-CARRIER. MARQUIS H. LOCKWOOD, New York, N. Y., assignor to Underwood Typewriter Company, New York, N. Y., a Corporation of Delaware. Filed Dec. 1, 1911. Serial No. 663,307. (Cl. 197—170.)



1. In a typewriting machine the combination of a ribbon carrier provided with a pair of rigid arms, a pair of movable arms adapted, in conjunction with said rigid arms, to form guiding eyes for the ribbon, springs connected to and acting to urge said movable arms in opposite directions and means for maintaining the movable arms, against the action of said springs, adjacent to the respective rigid arms to form said guiding eyes.

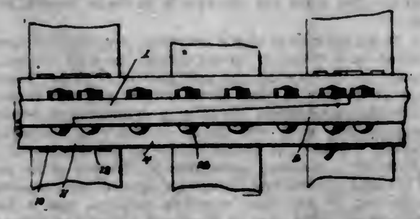
2. In a typewriting machine the combination of a ribbon carrier, bifurcated to form a pair of rigid arms, a pair of movable arms adapted, in conjunction with said rigid arms, to form guiding eyes for the ribbon, springs integrally connected to and acting to urge said movable arms in opposite directions until each assumes a position at an angle to its respective rigid arm, and means for maintaining the movable arms, against the action of said springs, adjacent to the respective rigid arms to form said guiding eyes.

3. In a typewriting machine the combination of a ribbon carrier bifurcated to form a pair of rigid arms, ears extending laterally from the lower ends of said rigid arms to position the lower edge of the ribbon, a pair of movable arms connected to said ears and adapted in conjunction with said rigid arms to form guiding eyes for the ribbon, springs connected to the lower ends of said movable arms and acting to urge the upper ends thereof in opposite directions until each assumes a position at an angle to its respective rigid arm, and means for maintaining the movable arms, against the action of said springs, adjacent to the respective rigid arms to form said guiding eyes.

4. In a typewriting machine the combination of a ribbon carrier bifurcated to form a pair of rigid arms, ears extending laterally from the lower ends of said rigid arms to position the lower edge of the ribbon, a pair of movable arms connected to said ears and adapted in conjunction with said rigid arms, to form guiding eyes for the ribbon, springs, integral with the lower ends of said movable arms and acting to urge the upper ends thereof in opposite directions until each arm assumes a position at an angle to its respective rigid arm, means for securing the ends of the respective springs to said lateral ears and thus connect said movable arms thereto and means for maintaining the movable arms, against the action of said springs adjacent to the respective rigid arms to form said guiding eyes.

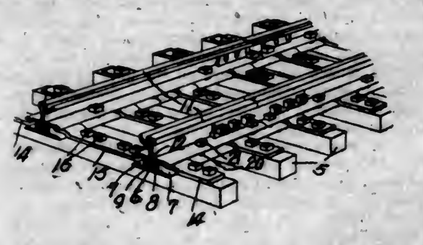
5. In a typewriting machine the combination of a ribbon carrier bifurcated to form a pair of rigid arms, ears extending laterally from the lower ends of said rigid arms to position the lower edge of the ribbon, a pair of movable arms connected to said ears and adapted in conjunction with said rigid arms, to form guiding eyes for the ribbon, springs, integral with the lower ends of said movable arms and acting to urge the upper ends thereof in opposite directions until each arm assumes a position at an angle to its respective rigid arm, means for securing the ends of the respective springs to said lower lateral ears and ears extending laterally from the upper ends of said rigid arms, bent forwardly and inwardly to form hooks for maintaining the movable arms, against the action of said springs, adjacent to the respective rigid arms to form said guiding eyes.

1,027,489. SPLICE RAIL-JOINT. WILLIS L. LYONS, Thomasville, Ga. Filed Dec. 10, 1910. Serial No. 596,622. (Cl. 238—8.)



A spliced joint comprising rail ends having enlarged web portion, and a combined ball and web portion extending outwardly from the said enlarged web portion, both of the said portions being formed to provide alining longitudinally extending recesses, joint plates connecting the rail ends with each other, said plates being adapted to be slidably fitted within the said recesses, so as to be made flush with the sides of the web, and to hold the rails against relative movement vertically, fastenings extending through the joint plates and through the said combined ball and web portions respectively.

1,027,490. RAILWAY-TRACK. JOSEPH P. MAROIS, Montreal, Quebec, Canada, assignor of one-fourth to Soll Simon, Montreal, Canada. Filed Nov. 6, 1911. Serial No. 658,631. (Cl. 238—16.)



A railway track comprising a plurality of ties, flanged rail chairs mounted thereon, each of said chairs having at one end a tongue and at the opposite end a recess for the reception of the tongue of the adjacent chair, clamps spacing said chairs and securing the same to the ties, rails mounted on said chairs, bolts passing through the chair and rail, flanges securing the rails in position and locking ribs on said chairs and rails to prevent lateral movement of the rails on the chairs.

1,027,491. UNIVERSAL SHEAVE SUSPENSION. VOLNEY W. MASON, Providence, R. I. Filed Apr. 24, 1911. Serial No. 623,020. (Cl. 57—34.)



1. A device of the class described comprising a sheave, a forked suspending member provided with means for rotatably supporting the sheave, a suitable beam extending between the sides of the said forked suspending member, and a ball carried adjacent the upper end of the said member and resting on the said beam.

2. A device of the class described comprising a sheave, a supporting member therefor, a beam adapted to support the supporting member, and a ball between the beam and the supporting member and in engagement with each whereby the supporting member may move relatively to the beam.

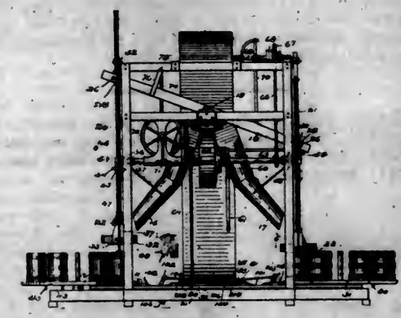
3. A device of the class described comprising a sheave, a supporting member therefor of forked construction, a beam extending between the arms of the said forked supporting member and spaced therefrom, a ball resting on the beam and in engagement with the closed end of the said forked supporting member whereby the said supporting member and sheave may freely swing about the point of contact of the said ball with the said beam, and means for limiting the travel of the said supporting member along the beam.

4. A device of the class described comprising a sheave, a supporting member therefor, the sheave being suitably supported in the open end of the said supporting member, the said supporting member being of forked construction, a beam extending between the sides of the said supporting member, a recessed block adjacent the upper end of the said supporting member, a steel ball carried in the said recess and resting in the top of the said beam whereby the said supporting member and sheave may freely swing from side to side of the said beam.

5. A device of the class described comprising a plurality of sheaves, a plurality of supporting members therefor, each of the supporting members being of forked construction, a suitable beam extending between the sides of each of the forked members, a recessed block carried adjacent the upper end of each of the said forked members, a ball seated in each of the said recesses and in engagement with the top of the said beam, together with a plurality of lugs carried by the said beam against which the said blocks are adapted to abut, thereby limiting the movement of the sheaves longitudinally of the beam, together with a link connecting the said supporting members whereby an articulated structure is produced.

[Claims 6 and 7 not printed in the Gazette.]

1,027,492. TILE-MAKING MACHINE. WILLIAM J. McCRACKEN, Sioux City, Iowa. Filed June 20, 1910. Serial No. 568,030. (Cl. 25—36.)



1. In a tile making machine, the combination with a frame and movable tables carried by said frame, of a main driving shaft, means connected therewith for forming tiles, a longitudinally slidable bar carried by said frame, means operable by said main driving shaft for moving said slidable bar, yielding connections between said means and said sliding bar, means connected with said sliding bar for moving said tables upon the movement of the bar, and a releasing means for each of said movable tables for releasing the tables previous to the movement thereof by said rod.

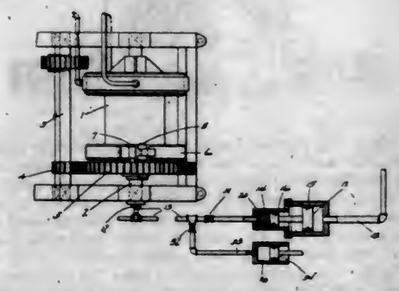
2. In a tile making machine, a frame, a pair of rotatable tables arranged to carry molds, a plunger arranged to operate successively in said mold, a main driving shaft mounted in said frame, means for connecting said main driving shaft with said plunger for operating the same, an auxiliary shaft operated by said main driving shaft, a worm connected with said auxiliary shaft, a worm gear meshing with said worm, a pin projecting from said worm gear, a pivotally mounted lever formed with a slot for accommodating said pin, said pivotally mounted lever being pivotally moved back and forth upon the rotation of said worm gear, a reciprocating rod, means for connecting said pivotally mounted lever with said reciprocating rod, means connected with said reciprocating rod engaging said tables for moving the same, and a releasing means operated by said lever for releasing each of said tables just previous to their movement by said reciprocating rod.

3. In a tile making machine, the combination with a frame and moving tables carried by said frame, of a main driving shaft, a spaced shaft thereto, connection between said shafts, a worm on said spaced shaft, a worm gear in mesh therewith, a wrist pin carried by said gear, a lever, pivoted to the frame of the machine and operated by said worm gear, a longitudinally slidable bar carried by said frame, yielding connections between said lever and sliding bar, and a releasing means comprising a trip, a yielding lever engaging therewith and connection

from said yielding lever and said heretofore mentioned lever, to release said tables.

4. In a tile making machine, a frame, a pair of rotatable tables arranged to carry molds, a plunger for each table arranged to operate successively in said molds, a main driving shaft mounted in said frame, means for connecting said main driving shaft with said plungers for operating the same, an auxiliary shaft operated by said main driving shaft, a pivotally mounted lever, means for connecting said pivotally mounted lever with said auxiliary shaft for causing said auxiliary shaft to move said lever back and forth, means operated by said pivotally mounted lever for moving said tables, and a releasing means for each of said tables connected with said pivotally mounted lever, each of said releasing means comprising a pivotally mounted catch engaging said respective tables, a spring connected with said catch for normally tending to disengage the same from said tables, a flexible stop engaging each of said catches for holding the same in engagement with said table, a spring for returning said flexible stop to its original position when moved therefrom, a lever connected with said flexible stop for moving the same out of engagement with said catch for permitting said first mentioned spring to move said catch out of engagement with said table, and a link for connecting said lever with said pivotally mounted lever.

1,027,493. FLUID-OPERATED CLUTCH. JOHN R. MCGIFFERT, Duluth, Minn., assignor to Clyde Iron Works, Duluth, Minn., a Corporation of Maine. Filed Mar. 30, 1911. Serial No. 617,815. (Cl. 192—18.)



1. In mechanism of the class described, the combination with driving and driven members and fluid-pressure actuated clutch-means adapted to operatively connect said members; of means for applying fluid-pressure to said clutch-means, said pressure-applying-means including a cylinder connected at one end with said clutch-means, the connections between said cylinder and clutch-means being filled with a relatively incompressible fluid; a piston in said cylinder; means normally retracting said piston to relieve the pressure on the fluid in such connections; external fluid-pressure supply connections to the other end of said cylinder; and a regulating valve for controlling said supply connections.

2. In mechanism of the class described, the combination with driving and driven members and fluid-pressure actuated clutch means adapted to operatively connect said members; of means for applying fluid-pressure to said clutch-means, said pressure-applying-means including a cylinder connected at one end with said clutch-means, the connections between said cylinder and clutch-means being filled with a relatively incompressible fluid; a piston in said cylinder; resilient means directly connected with said piston tending to retract the same and thereby relieve the pressure on the fluid in such connections; external fluid-pressure supply connections to the other end of said cylinder; and a regulating valve for controlling said supply connections.

3. In mechanism of the class described, the combination with driving and driven members and fluid-pressure actuated clutch-means adapted to operatively connect said members; of means for applying fluid-pressure to said clutch-means, said pressure-applying-means including a cylinder connected at one end with said clutch-means, the connections between said cylinder and clutch-means being filled with a relatively incompressible fluid; two spaced pistons in said cylinder, said pistons being connected to move in unison; resilient means directly connected with one of said pistons and tending to retract the same and thereby relieve the pressure on the fluid in such connections; external fluid-pressure supply connections to the other end of said cylinder; and a regulating valve for controlling said supply connections.

4. In mechanism of the class described, the combination with driving and driven members and fluid-pressure actuated clutch means adapted to operatively connect said members; of means for applying fluid-pressure to said clutch means, said pressure-applying means including a cylinder having two portions of unlike diameters, the portion of smaller diameter being connected with said clutch means and the connections between such portion and means being filled with a relatively incompressible fluid; two pistons in the respective portions of said cylinder, said pistons being connected to move in unison; external fluid-pressure supply connections to the larger end of said cylinder; and a regulating valve for controlling said supply connections.

5. In mechanism of the class described, the combination with driving and driven members and fluid-pressure actuated clutch means adapted to operatively connect said members; of means for applying fluid-pressure to said clutch means, said pressure-applying means including a cylinder having two portions of unlike diameters, the portion of smaller diameter being connected with said clutch means and the connections between such portion and means being filled with a relatively incompressible fluid; two pistons in the respective portions of said cylinder, said pistons being connected to move in unison; means normally retracting said pistons to relieve the pressure on the fluid in such connections; external fluid-pressure supply connections to the larger end of said cylinder; and a regulating valve for controlling said supply connections.

[Claims 6 to 10 not printed in the Gazette.]

1,027,494. TELEPHONE-RECEIVER. SAMUEL G. MCMEEN, San Francisco, Cal., assignor to McMeen & Miller, Chicago, Ill., a Copartnership. Filed Apr. 28, 1910. Serial No. 558,238. (Cl. 179—114.)



1. In a telephone receiver, a case of three parts; an internal annular rib upon the body part of said case; a condenser between said rib and the second of said parts, forming a cap upon one end of the receiver; and an electromagnetic system clamped between said receiver body and the third of said parts, forming a cap upon the other end of the receiver.

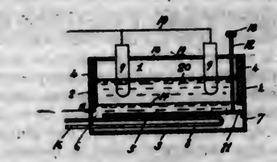
2. In a telephone receiver, a removable end cap; an internal abutment member; and a condenser within the receiver, and retained by said cap and said abutment member.

3. In a telephone receiver, a case; a tubular condenser within said case; an electromagnetic system within said case; and a flexible conducting cord passing through the middle of said condenser and connecting to said electromagnetic system and to said condenser.

4. In a telephone receiver, a case; a magnetic cup; a diaphragm closing the mouth of said cup; a helix within said cup; a condenser within said case, and connected electrically with said helix.

5. In a telephone receiver, a magnetic cup in the shape of two coaxial cylindrical chambers; a magnetic diaphragm closing the mouth of said cup; a magnetic core in the axis of said cup; and a washer upon said core, located at or near the division plane of said two coaxial cylindrical chambers.

1,027,495. ELECTROLYTIC PROCESS. ROBERT J. MCNITT, Niagara Falls, N. Y., assignor to Roessler & Hasslacher Chemical Company, New York, N. Y., a Corporation of New York. Filed Sept. 25, 1909. Serial No. 519,511. (Cl. 204—21.)



1. An improvement in electrolytic processes which consists in maintaining the temperature of the electrode substance at a point most favorable for electrolysis by causing said substance to circulate adjacent to a cooling surface.

2. An improvement in electrolytic processes which consists in maintaining the temperature of the electrode substance at a point most favorable for electroylsis by causing said substance to circulate over a cooling surface.

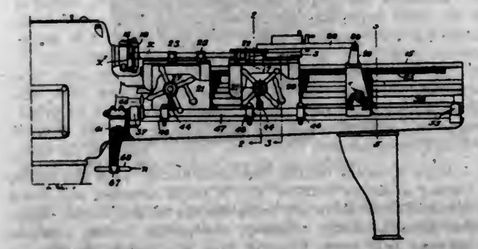
3. An improvement in electrolytic processes which consists in maintaining the temperature of the electrode substance at a point most favorable for electroylsis by causing said substance to circulate adjacent to a cooling surface supplied with a separate cooling agent from without the cell.

4. An improvement in electrolytic processes which consists in maintaining the temperature of the electrode substance at a point most favorable for electroylsis by causing said substance to circulate over a cooling surface supplied with a separate cooling agent from without the cell.

5. An improvement in electroytic processes which consists in maintaining one of the electrodes in a liquid condition and in maintaining the temperature of said liquid electrode substance at a point most favorable for electrolysis by bringing said substance and a cooling device into contact with each other.

[Claim 6 not printed in the Gazette.]

1,027,496. LATHE. EDWARD L. MILLS, Fitchburg, Mass., assignor to Fitchburg Machine Works, Fitchburg, Mass., a Corporation of Massachusetts. Filed July 22, 1911. Serial No. 639,992. (Cl. 82—21.)



1. In a metal-working machine, a tool carriage, feeding means for said carriage, an adjustable stop, a holder connected to said stop so as to be adjustable therewith, said holder having an index mark and a relatively movable index gage adapted to be positioned by engagement with the work to coöperate with said mark, and trip mechanism on said carriage adapted to be operated by engagement with said stop to render said feeding means inoperative.

2. In a metal-working machine, a tool carriage, feeding means for said carriage, an adjustable stop, a holder connected to said stop so as to be adjustable therewith, said holder having an index mark and an index gage pivoted to be positioned by engagement with the work to coöperate with said mark, the fulcrum of said index gage being nearer to the work-engaging portion than to the indicating portion, whereby the movement of the indicating portion is multiplied, and trip mechanism on said carriage adapted to be operated by engagement with said stop to render the feeding means inoperative.

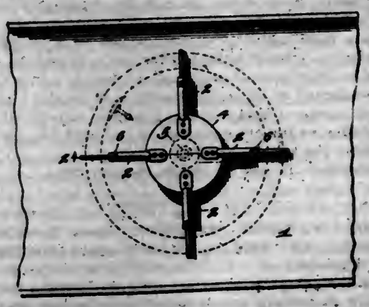
3. In a metal-working machine, a tool carriage, feeding means for said carriage, an adjustable stop, a holder connected to said stop so as to be adjustable therewith, said holder having an index mark and a relatively movable index gage adapted to register with said mark, said index gage being adapted to be operated by engagement with the work and to move in either direction from registering position, and trip mechanism on said carriage adapted to engage said stop and be operated thereby to render the feeding means inoperative.

4. In a metal-working machine, a tool carriage, feeding means for said carriage, an adjustable stop, a holder connected to said stop so as to be adjustable therewith, said holder having a relatively movable spring-pressed index gage adapted to be moved against the work by adjusting movement of said stop, said index gage being adapted to register with a portion of its holder to give a sight indication of the adjustment, and trip mechanism on said carriage adapted to engage and be operated by said stop to render the feeding means inoperative.

5. In a metal-working machine, a tool carriage, feeding means therefor, an adjustable stop rod, a stop adjustably mounted on said rod, a holder mounted so as to partake of adjusting movement of said rod, said holder having a relatively movable index gage adapted to partake of said adjusting movement to be thereby moved against the work, said holder and index gage having coöperative portions adapted to give a sight indication of the adjustment, and trip mechanism on said carriage adapted to be moved against said stop and thereby operated to render the feeding means inoperative.

[Claims 6 to 14 not printed in the Gazette.]

1,027,497. TIRE-TESTER. EDMUND H. NEU, Pana, Ill. Filed Feb. 5, 1912. Serial No. 675,404. (Cl. 73—51.)

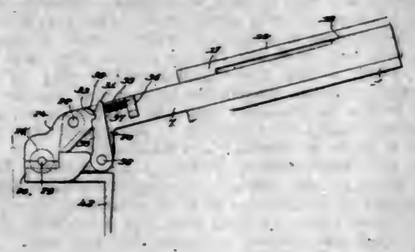


1. A device of the character described, including a tank adapted to contain water, a revoluble head mounted in the tank, and axially movable radially disposed arms carried by said head and formed with angular extremities, for the purpose specified.

2. A device of the character described, including a tank adapted to contain water, a revoluble head mounted in the

tank, and a plurality of longitudinally extensible and axially rotatable arms carried by said head and formed with outer angular ends, for the purpose specified.

1,027,498. LOOM-TEMPLE. JONAS NORTHROP, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Sept. 15, 1911. Serial No. 649,566. (Cl. 139—36.)



1. In a loom temple, the combination of a temple rod, a temple pod, a temple cap carrying a temple roll, said temple cap being mounted to swing upward from the temple pod to expose the temple roll, and having a locking shouldered portion and a pivoted locking device having a portion complemental of the locking shoulder to engage therewith to hold the temple cap and roll in operative relation with the temple pod.

2. In a loom temple, the combination of a temple rod, a temple pod, a temple cap carrying a temple roll and pivotally mounted to swing in a vertical plane extending longitudinally of the temple rod, said cap having a part provided with a locking shoulder, a locking member pivotally mounted and having a locking recess to engage the said locking shoulder, and means for automatically engaging said locking parts when the cap is moved into operative relation with the pod.

3. In a loom temple, the combination of a temple rod, a temple pod, a temple cap movable from the temple pod and having bearings, one at each side portion of the cap, a temple spindle supported by said bearings and carrying a temple roll, said spindle being movable longitudinally to and from operative position, and means accessible only when the temple cap is moved from the temple pod to unlock the spindle from said bearings.

4. In a loom temple, the combination of a temple rod, a temple cap jointed with relation to said rod to swing upward, a bearing at each end of the temple cap, a temple spindle supported by said bearings and carrying a temple roll, and a unitary device accessible only when the cap is swung away from the pod for detachably locking the spindle in supporting relation with said bearings.

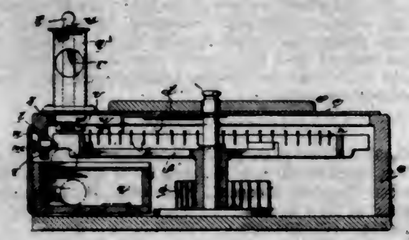
5. In a loom temple, the combination of a temple rod, a temple cap jointed with relation to said rod to swing upward, a bearing at each end of the temple cap, a temple spindle adapted to be engaged with said bearings by endwise movement of said spindle, a temple roll mounted on said spindle, and a pin engaging one of said cap bearings for holding the spindle in said bearings.

[Claims 6 to 12 not printed in the Gazette.]

1,027,499. VENDING-MACHINE. JOHN H. OSBORNE, Anderson, Ind. Filed June 2, 1911. Serial No. 630,949. (Cl. 194—69.)

1. In a vending machine, the combination of a movable magazine containing article receiving openings and also coin-receiving openings, a lock-pin engaging the coin-receiving opening, a plunger coöperating therewith, and means operated by the magazine for locking the plunger when the magazine has been emptied.

2. In a vending machine, the combination of a casing, a movable magazine therein, coin-operated means for releasing the magazine embodying a coin-receiving tube provided with a hole for the introduction of a coin, a plunger and operating rod working in said tube and normally closing said hole when in its inoperative position, and means operated by the magazine for locking said plunger in its normal inoperative position.

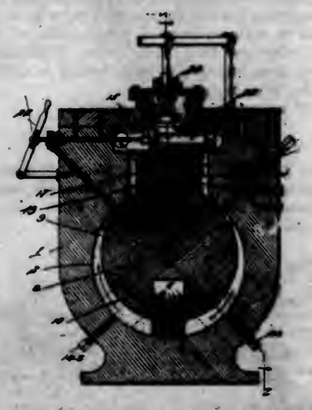


3. In combination, a casing, a wheel therein and means for normally rotating it in one direction, said wheel being provided with a series of alternating article holding slots and coin receiving slots, a lock-pin normally entering said coin slots in succession as the wheel rotates, the end of the pin and the walls of the slot it happens to be in for the time being serving to support the coin, and plunger means for forcing the coin through the slot to thereby force the pin out of engagement with the slot and permit the wheel to normally rotate one step.

4. In combination, a casing, a spring-actuated wheel therein provided with coin-receiving slots and article-holding means, coin-controlled means for operating said wheel embodying a plunger having a lock-lug, and a lock-hook on the wheel in position to engage said lock-lug when the magazine is emptied.

5. In combination, a casing, a movable magazine therein, coin-controlled means for actuating the magazine embodying a coin-pushing plunger, a coin-receiving tube provided with a coin-receiving hole, the plunger being gravitatingly mounted in said tube and normally lying at a point below the hole therein, and means for locking the plunger in its lowered or inoperative position when the magazine has been emptied.

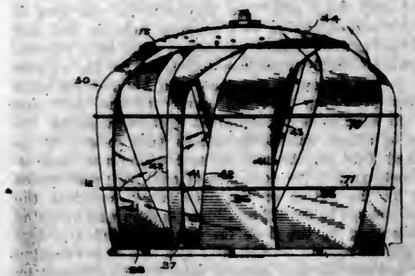
1,027,500. PACKING FOR ROTARY ENGINES. FRED A. PARSONS and JOHN HOWARD MYERS, Binghamton, N. Y. Filed Sept. 8, 1911. Serial No. 648,380. (Cl. 121—78.)



1. In a rotary engine, the combination with the casing having a piston chamber and a valve chamber and ports cored through its walls from the top of the piston chamber into the valve chamber, the casing having a recess between said ports opening into the piston chamber, a rotary piston within the latter, radially movably blades carried by said piston, and the valve mechanism; of a wear block disposed within said recess and having a longitudinally inclined outer face and a transversely curved inner face conforming with the curvature of the wall of said chamber, a wedge disposed within said recess behind the block and having its inner face inclined to complement that of the outer face of the block, the wedge being of less length than the recess, an expansive spring against the large end of the wedge, and a set screw against the opposite end of the spring.

2. In a rotary engine, the combination with the casing having a piston chamber with ports opening out its top, with annular channels in its end walls, and with a plurality of radial recesses in said walls opening into the channels, a rotary piston mounted in said chamber and having blades set into radial pockets in its body, and means for controlling the inlet and outlet; of two packing rings, one located in each of said channels and having its outer face beveled, a series of wedges one located in each of said recesses and having its inner face beveled to correspond with the bevel of the outer face of the ring which rests against it, a spring against the larger end of each wedge, and a set screw against the opposite end of the spring.

1,027,501. WIND-MOTOR. GEORGE D. PEARSON, Montreal, Quebec, Canada. Filed Apr. 8, 1911. Serial No. 619,769. (Cl. 170—1.)



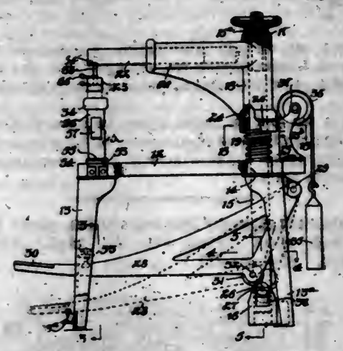
1. In a turbine the combination with a core of a series of tangential spiral vanes decreasing in width from base to crown and the bases of which extend in width from within close proximity of the circular boundary line of the turbine to within close proximity of the core, such vanes being upwardly diverging and spaced from the core between its ends and inwardly abruptly curved at their upper ends and means connecting the upper and lower ends of the vanes to the core.

2. In a wind motor the combination with a revoluble carrying member of a plurality of turbines rotatively connected to the said member and each comprising an inverted conical core and an annular series of tangentially arranged spiral vanes the bases of which extend in width from within close proximity of the circular boundary line of the turbine to within close proximity of the apex of the cone, and the upper ends thereof being curved abruptly inwardly to the base of the cone; and means securing the said vanes in place.

3. In a turbine the combination with a core of truncated inverted conical form having an encircling flange at its base and a circular spider at its truncated apex, of a series of tangential spiral vanes the bases of which extend in width from within close proximity of the circular boundary line of the turbines to within close proximity of the core, such vanes being upwardly diverging substantially in parallelism with the core and inwardly abruptly curved at their upper ends, means connecting the upper ends of the vanes to the flange, and means connecting the lower ends of the said vanes to the spider.

1,027,502. PRESSING-MACHINE. HARRY PRICE, Boston, Mass. Filed Dec. 5, 1911. Serial No. 664,120. (Cl. 68—9.)

1. A pressing machine comprising a supporting frame having a press bed and spindle-guiding means, an upright spindle movable vertically on said frame and having an antifriction roll at its lower portion, constituting a rider seat, an oscillatory iron-carrying arm carried by the spindle and projecting over the press bed, means for yieldingly elevating the spindle and arm, and a treadle lever fulcrumed on the frame at a point above the rider seat and at one side of the spindle and having an antifrictional roll constituting a rider bearing on the rider seat, the lever being normally supported by the rider seat with the treadle in a raised position and the rider being moved in a downwardly inclined path by the depression of the lever, and thus caused to depress the rider seat, spindle and arm.



2. A pressing machine comprising a supporting frame having a press bed and spindle-guiding means, an upright spindle movable vertically on said frame and having a rider seat at its lower portion, an oscillatory iron-carrying arm carried by the spindle and projecting over the press bed, means for yieldingly elevating the spindle and arm, and a treadle lever fulcrumed on the frame and having a rider bearing on the rider seat, the rider being movable by the depression of the lever into a locking engagement with the rider seat to hold the spindle and arm depressed.

3. A pressing machine comprising a supporting frame having a press bed and spindle-guiding means, an upright spindle movable vertically on the frame and having an adjustable stop nut at its upper end portion, a sleeve rotatable on the spindle below said stop nut, an iron-carrying arm supported by the sleeve and projecting over the press bed, means for yieldingly pressing the sleeve upwardly against said stop nut, and thereby yieldingly elevating the spindle and arm, means for limiting the elevation of the spindle and arm, the stop nut enabling the elevation of the arm to be adjusted independently, and means controlled by the operator for depressing the spindle and arm.

4. A pressing machine comprising a supporting frame having a press bed and spindle-guiding means, an upright spindle movable vertically on the frame and having an adjustable stop nut at its upper end portion, a sleeve rotatable on the spindle below said stop nut, an iron-carrying arm supported by the sleeve and projecting over the press bed, a collar surrounding the spindle below the sleeve and movable vertically on the spindle, ball bearings interposed between the collar and sleeve, means for yieldingly pressing the collar upwardly against the sleeve and the sleeve against the stop nut, said means acting to yieldingly elevate the spindle and arm, means for limiting the elevation of the spindle and arm, the stop nut enabling the elevation of the arm to be adjusted independently, and means controlled by the operator for depressing the spindle.

5. A pressing machine comprising a supporting frame having a press bed and spindle-guiding means, an upright spindle movable vertically on said frame and having a rider seat at its lower portion, an oscillatory iron-carrying arm carried by the spindle and projecting over the press bed, means for yieldingly elevating the spindle and arm, a treadle lever fulcrumed on the frame and having a rider bearing on the rider seat, the rider being movable by the depression of the lever into a locking engagement with

the rider seat to hold the spindle and arm depressed, and a supplemental lever adapted to press the treadle lever upwardly and move the rider out of locking engagement with the rider seat.

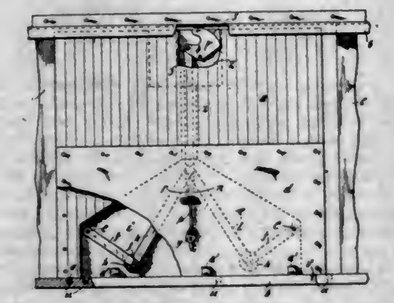
1,027,503. CAR-ROOF. HERMAN PRIES, Michigan City, Ind. Filed Mar. 20, 1911. Serial No. 615,732. (Cl. 108—5.)



1. In a car roof, in combination, a metal carline comprising an I-beam having its web apertured and its upper flange depressed into the aperture to form a seat for the purlin.

2. In a car roof, in combination, an integral I-beam carline having a plurality of apertures in its web portion and having its upper flange depressed into such apertures to form purlin seats.

1,027,504. RELEASING DOOR-HANGER. JOHN L. RIFER, Portland, Oreg. Filed Feb. 14, 1912. Serial No. 677,620. (Cl. 16—157.)



1. In a sliding door, the combination with a door-frame and means for guiding the door relative to said frame; of a plurality of anti-friction rollers pivotally mounted in a cavity of said door; manually operated means for independently actuating said rollers from either side of the door, whereby said rollers are depressed and caused to engage the sill of said door frame and whereby the door is simultaneously lifted clear of the door-sill; and means actuated by the lifting of the door for disengaging the door from the sill to permit of sliding motion and actuated by the lowering of the door for again locking the door against sliding motion on the sill.

2. In a sliding door, the combination with a door-frame and means for guiding the door relative to said frame; of a plurality of anti-friction rollers pivotally hung in a cavity of said door; manually operated means for independently actuating said rollers from either side of the door, whereby said rollers are depressed and caused to engage the sill of said door-frame and whereby the door is simultaneously lifted clear of the door-sill; means actuated by the lifting of the door for disengaging the door from the sill to permit of sliding motion and actuated by the lowering of the door for again locking the door against sliding motion on the sill; and means for locking the door against vertical motion, said means actuated by and cooperating with said manually operated means.

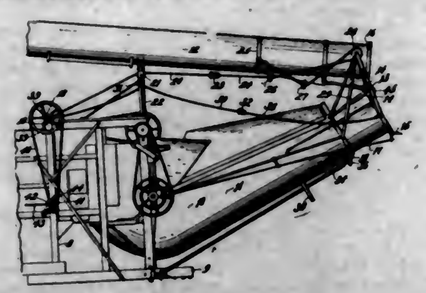
3. In a sliding door, the combination with a door-frame and means for guiding the door relative to said frame; of a plurality of anti-friction rollers pivotally mounted in a cavity of the door; manually operated means for independently actuating said rollers from either side of the door, whereby said rollers are depressed and caused to engage the sill of said door frame and whereby the door is simultaneously lifted clear of the door sill; a pair of spaced studs rigidly fixed in the door; and a series of pockets of the door sill, said pockets arranged in pairs, each pair spaced to correspond with said studs, said studs actuated by the lifting of the door to clear the pockets and by the lowering of the door to engage a pair of pockets, all for the purpose of locking the door in any required position.

4. In a sliding door, the combination with a door-frame and means for guiding the door relative to said frame; a pair of rollers hung in frames pivotally mounted in a cavity of said door, link bars journaled on the axis of said rollers and extending to a common fulcrum rod, and a pair of perforated frames suspended from said fulcrum rod; a pair of hand-levers, one journaled on the outside and one on the inside of the door, said hand-levers made with arms extending into the cavity of the door and adapted to engage said perforated frames, whereby the swinging of either hand-lever causes said rollers to approach and ride on the sill of said door-frame and simultaneously to lift the door free of said sill; and means actuated by the lifting of the door for disengaging the door from the sill to permit of sliding motion and actuated by the lowering of the door for again locking the door against sliding motion on the sill.

5. In a sliding door, the combination with a door-frame and means for guiding the door relative to said frame; a pair of rollers hung in frames pivotally mounted in a cavity of said door, link bars journaled on the axis of said rollers and extending to a common fulcrum rod, and a pair of perforated frames suspended from said fulcrum rod; a pair of hand-levers, one journaled on the outside and one on the inside of the door, said hand-levers made with arms extending into the cavity of the door and adapted to engage said perforated frames, whereby the swinging of either hand-lever causes said rollers to approach and ride on the sill of said door-frame and simultaneously to lift the door free of said sill; and means actuated by the lifting of the door for disengaging the door from the sill to permit of sliding motion and actuated by the lowering of the door for again locking the door against sliding motion on the sill; and means for locking the door against vertical motion, said means actuated by and coöperating with said manually operated means.

[Claim 6 not printed in the Gazette.]

1,027,505. FOLDABLE STACKER. AUGUST ROSENTHAL, West Allis, Wis. Original application filed June 12, 1909, Serial No. 501,757. Divided and this application filed July 16, 1910. Serial No. 572,253. (Cl. 193—15.)



1. An elevator and stacker, comprising a tube formed of an outer and an inner section hinged together, a support to which the tube is movably connected, a cable engaging means provided on the outer end portion of the inner tube section, a cable connected to the outer tube section and having a sliding connection with the cable engaging means of the inner tube section, said outer tube section adapted to be folded by exerting a pull on the cable for a portion of the movement of said section and paying out said cable to complete the movement and said outer tube section adapted to be unfolded by exerting a pull on the cable for a portion of the movement of said section and then permitting the whole tube to be swung downwardly a short distance and then paying out said cable to complete the movement.

2. An elevator and stacker, comprising a tube formed of an outer and an inner section hinged together, a support to which the tube is movably connected, a cable engaging means projecting upwardly from the outer end portion of the inner section, a cable connected to the outer tube section and having a sliding connection with the cable engaging means of the inner tube section, said outer tube section adapted to be folded by exerting a pull on the cable for a portion of the movement of said section and paying out said cable to complete the movement and said outer tube section adapted to be unfolded by exerting a pull on the cable for a portion of the movement of said section and then permitting the whole tube to be swung downwardly a short distance and then paying out said cable to complete the movement.

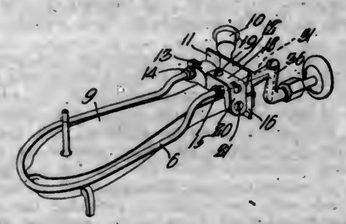
3. An elevator and stacker, comprising a tube formed of an outer and an inner section hinged together, a support to which the tube is movably connected, a pulley mounted on the inner tube section at a point above the hinge joint of the two sections, and a cable connected to the outer tube section and engaging said pulley, said outer tube section adapted to be folded by exerting a pull on the cable for a portion of the movement of said section and paying out said cable to complete the movement and said outer tube section adapted to be unfolded by exerting a pull on the cable for a portion of the movement of said section and then permitting the whole tube to be swung downwardly a short distance and then paying ont said cable to complete the movement.

4. An elevator and stacker, comprising a tube formed of and outer and inner section hinged together, pulleys mounted on the inner tube section at a point above the hinge joint of the two sections, a looped cable engaging said pulleys and having its ends connected to the outer tube section, and spacing members to both portions of the loop of said cable, said outer tube section adapted to be folded or unfolded by exerting a pull on the loop of the cable for a portion of the movement of the outer tube section and paying out said cable to complete the movement.

5. An elevator and stacker, comprising a tube formed of an outer and an inner section hinged together, pulleys mounted on the inner tube section at a point above the hinge joint of the two sections, a looped cable engaging said pulleys and having its ends connected to the outer tube section, spacing members connected to both portions of the loop of said cable, a windlass, and a cable connection between the windlass and the loop of the looped cable, said outer tube section adapted to be folded or unfolded by exerting a pull on the cable for a portion of the movement of the outer tube section and paying out said cable to complete the movement.

[Claims 6 and 7 not printed in the Gazette.]

1,027,506. LIQUID-FUEL BURNER. HENRY W. SCHOFF, River Forest, Ill. Filed July 21, 1911. Serial No. 639,814. (Cl. 158—53.)



1. In a liquid fuel burner, the combination with a burner body having a lug on one end thereof, the said lug having a duct therethrough and means at the ends of the duct for the attachment of a supply pipe and a vapor generating tube, of a removable section, said section having a duct therethrough and means for the attachment of a vapor generating tube at one end of the last mentioned duct, a vapor valve for the burner body carried by the said section and in communication with the other end of the last mentioned duct, means for securing the said section to the burner body adjacent the said lug, and a vapor generating tube coupled to the said lug and to the said removable section.

2. In a liquid fuel burner, the combination with a burner body having a lug on one end thereof, the said lug having a duct therethrough and means at the ends of the duct for the attachment of a supply pipe and a vapor generating tube, of a removable section having an ear depending over the side of the burner body, the said section having a duct therethrough and means for the attachment of a vapor generating tube at one end of the last mentioned duct, a vapor valve for the burner body carried by the said section and in communication with the other end of the last mentioned duct, the said section and ear being provided with apertures, bolts passed through the said apertures and engaged in the burner body, and a vapor generating tube coupled to the said lug and to the said removable section.

1,027,507. VEHICLE-WHEEL. AUGUST FERDINAND SCHULZ, Milwaukee, Wis. Filed Mar. 17, 1911. Serial No. 614,982. (Cl. 152—32.)



A vehicle wheel, comprising an inner rim rigidly connected to the spokes of a wheel and provided with peripheral flanges formed of angle irons extending circumferentially around the rim, an outer non-flexible rim extending around the inner rim and formed of pairs of angle irons fastened to an interposed band, the flanges of said angle irons positioned to extend outwardly and inwardly, a tread band placed between the outer flanges, S-shaped springs having eyes formed on their ends which are positioned between the inner flanges of the outer rim and the peripheral flanges of the inner rim, and bolts extending through the said flanges and the eyes of the springs.

1,027,508. LOCKING-CAP FOR TIRE-VALVES AND THE LIKE. MAXIMILIAN CHARLES SCHWEINERT, West Hoboken, N. J., and HENRY P. KRAFT, New York, N. Y. Filed Jan. 22, 1907. Serial No. 353,544. (Cl. 151—13.)



1. A nut having a recess, and a sheet metal disk in said recess, said disk being notched or corrugated.

2. The combination of a nut, a part swiveled thereto, said parts having a recess formed between them and a notched disk in said recess, and resilient engaging means interposed between said nut and swiveled part.

3. The combination of a nut, a part swiveled thereto, said parts having a recess formed between them and a

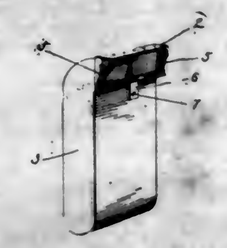
notched disk in said recess, said disk being adapted to engage one of said parts, and a spring adapted to be connected with the other of said parts and to engage said disk.

4. The combination of a nut, a washer, and a spring interposed between them, said nut and washer having opposing notched faces adapted to be engaged by said spring, said faces being formed on corrugated sheet metal disks.

5. A nut or the like having a recess, the walls of which are formed with a series of notches, and a corrugated disk within said recess having projections entering said notches, said disk being adapted to rotate with the nut and having an opening any diameter of which equals that of the bore of the nut.

[Claims 6 to 12 not printed in the Gazette.]

1,027,509. CARTRIDGE-BLANK RECEIVER. LEWIS R. SHIELEY, Bradéyville, Iowa. Filed Nov. 13, 1911. Serial No. 660,017. (Cl. 42—1.)



A cartridge blank receiver comprising a rectangular metal frame composed of four strips of metal, two of said strips having curved edges to fit against the side of the fire arm, the bottom strip of said frame having a lug depending therefrom, said lug having a threaded opening therein to receive a binding screw for attaching the frame to a fire arm, and a fabric sack or receiver riveted to said frame for receiving the ejected cartridges.

1,027,510. CUTTING DEVICE. EDWARD A. STIGGINS, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Mar. 21, 1901, Serial No. 52,231. Divided and this application filed Aug. 14, 1909. Serial No. 512,901. (Cl. 140—144.)



1. A device of the class described comprising two movably supported members provided with coöperating cutting blades, and means for connecting the members with each other, said members being so supported and confined for cutting movements as to stand normally with their blades in open or receiving position but being caused to close upon a strand of material and sever it by force derived from the pressure of such strand against the blades.

2. A device of the class described comprising two movably supported members provided with coöperating cutting blades, and means for connecting the members with each other, said members being so supported and confined for cutting movements as to stand normally with their blades in open or receiving position but being caused to close upon a strand of material to sever it by force derived from the pressure of such strand against the blades, and yielding means to maintain said blades in open position.

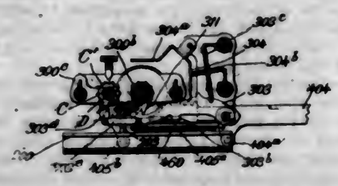
3. In a wire cutter, the combination with two members provided with coöperating shear blades, pivotal supports for the members each of which is independent of the other support and of the coöperating shear blade, said supports having a fixed relation to each other and so located as to permit bodily as well as angular movement of said members to cause the blades to close with a shearing action, and yielding means acting to hold said blades open.

4. A wire cutter, comprising two members supported independently of each other upon eccentrically located pivots and provided with coöperating shear blades, said members being normally sustained in a substantially vertical position from a fixed support, and yielding means acting on the members to maintain the blades in open relation.

5. A wire cutter comprising two freely movable vertically arranged members provided with shear blades, pivotal means for independently sustaining said members from a fixed support, and yielding means arranged to act upon said members in a direction transverse thereto to maintain the blades in open relation.

[Claims 6 to 10 not printed in the Gazette.]

1,027,511. ADDING AND SUBTRACTING MACHINE. JAMES G. VINCENT, Detroit, Mich., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Sept. 12, 1910. Serial No. 581,602. (Cl. 235—60.)



1. The combination with reciprocatory type carriers and wheel actuators; of wheels adapted to be directly turned thereby but capable of disconnection therefrom as to direct turning thereby; intermediate wheels for transmitting motion between said actuators and the first-mentioned wheels when the latter are so disconnected from the former; means for putting either set of wheels into direct operative relation with the actuators; means for reciprocating the latter; means for variously measuring excursions thereof; means for regulating the periods of engagement and disengagement between actuators and wheels with provision for reversing the order at will; and two sets of stops one for each set of wheels adapted to limit reverse rotation thereof.

2. The combination with reciprocatory type carriers and wheel-actuating racks; of two sets of gear wheels separately engageable with the racks and geared to each other; means for putting either set of wheels into direct operative relation with the racks; means for reciprocating the latter; means for variously measuring excursions thereof; means for regulating the periods of engagement and disengagement between racks and wheels with provisions for reversing the order at will; and two sets of stops one for each set of wheels adapted to limit reverse rotation thereof.

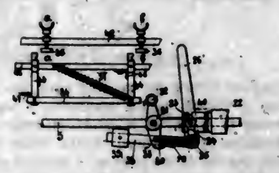
3. The combination with reciprocatory type carriers and wheel-actuating racks; of two sets of gear wheels laterally shiftable for separate engagement with the racks and geared to each other; means for putting either set of wheels into direct operative relation with the racks; means for reciprocating the latter; means for variously measuring excursions thereof; means for regulating the periods of engagement and disengagement between racks and wheels with provisions for reversing the order of will; and two sets of stops one for each set of wheels adapted to limit reverse rotation thereof.

4. The combination with reciprocating racks and means for variously measuring excursions thereof; of two sets of gear wheels out of alinement with each other and geared together; a support for said gear wheels laterally shiftable to bring either set in alinement with the racks; and means for engaging the alined set of gear wheels with and disengaging it from the racks.

5. The combination with reciprocating racks and means for variously measuring excursions thereof; of two sets of gear wheels out of alinement with each other and geared together; a support for said gear wheels laterally shiftable to bring either set in alinement with the racks and also movable to engage the alined set with and disengage it from the racks; and means for moving said support.

[Claims 6 to 9 not printed in the Gazette.]

1,027,512. MACHINE FOR WORKING FLAX AND THE LIKE. SAMUEL WALKER, Lille, France. Filed Jan. 18, 1905. Serial No. 241,575. (Cl. 118—17.)



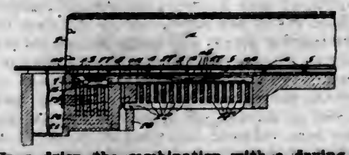
1. In a machine for working flax and the like, the combination with the driving shaft and a clutch for connecting the same with working parts of the machine, of a detent for holding the clutch in gear, means tending to throw the clutch out of gear, an automatic stop mechanism comprising a weighted guide lever over which a ribbon, sliver or thread of flax or other fiber passes, a reciprocating rod, a lever pivoted to said rod and adapted when said weighted lever is released by the breaking of the ribbon, sliver or thread, to be turned on its pivot into position to disengage said detent, and a retracting spring tending to hold the last mentioned lever out of operative position, substantially as described.

2. In a machine for working flax and the like, the combination of the driving shaft, a clutch for connecting the same with working parts of the machine, a detent for holding the clutch in gear, means tending to throw the clutch out of gear, and automatic stop mechanism, comprising weighted levers over which the ribbons or threads of flax or other fiber pass, a reciprocating rod, and a thrust bar pivotally connected with said rod by link levers and adapted when either of said weighted levers is released by the breaking of a ribbon or thread, to be thrown by the engagement of the released weighted lever with one of said link levers and by the movement of said rod against said detent and to disengage the same, substantially as described.

3. In a machine for working flax and the like, the combination with the driving shaft, a clutch for connecting the same with working parts of the machine, a weighted arm tending to throw the clutch out of gear, and a pivoted detent normally holding the clutch in gear, of automatic stop mechanism comprising weighted levers over which the ribbons or threads of flax or other fiber are guided, a reciprocating rod, a thrust bar pivotally linked to said rod by levers which extend at one end into range with said weighted levers when the latter are freed by the breaking of the ribbons or threads of flax or other fiber, and a spring normally holding said thrust bar out of range with said detent, said thrust bar being arranged to be thrown into engagement with said detent by said link levers whenever a weighted lever is released and drops into the path of one of said link levers, substantially as described.

1,027,513. DRIER. THOMAS M. WILSON, Philadelphia, Pa. Filed Aug. 28, 1911. Serial No. 646,299. (Cl. 34—46.)

1. In a drier, the combination with a furnace, of a tunnel located above the furnace and having a floor spaced above the furnace forming a passage, a radiator in said passage and means for directing air into said passage and from the same into the tunnel, substantially as described.



2. In a drier, the combination with a drying chamber, a furnace, said chamber having a perforated floor which is spaced above the furnace so as to form an air passage, and a metal radiator communicating with the furnace and projecting into said air passage, substantially as described.

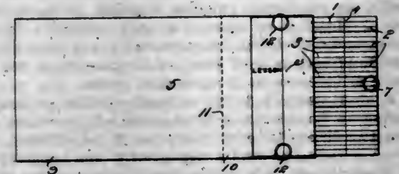
3. In a drier, the combination with a drying chamber, a furnace, said chamber having a perforated floor which is spaced above the furnace so as to form an air passage, and a metal radiator communicating with the crown of said furnace and projecting into the air passage, substantially as described.

4. In a drier, the combination with a drying chamber, a furnace below the drying chamber, a flue for smoke and gases extending below the drying chamber, said chamber having a floor which is spaced above the furnace and said flue whereby an air passage is formed between the floor and the roof of said furnace and said smoke flue, said air passage communicating with the drying chamber, and radiators communicating with the crown of furnace and the smoke flue and projecting into the said air passage, substantially as described.

5. In a drier, the combination with a tunnel and a furnace, of a metal radiator having an open top and interposed between the furnace and the tunnel, said radiator comprising a body, a depending flange around the body, a perforated tile forming a part of the drier structure and projecting into said flange, and a cover removably secured over the open top of said radiator, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,027,514. MEANS FOR TEACHING SHORTHAND. ROY STANLEY ASHTON, Washington, D. C. Filed Mar. 27, 1908. Serial No. 423,677. (Cl. 35—12.)

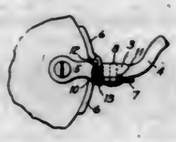


1. A device for the purpose described, comprising a box-like shield open at the end, a copy holder movably connected therewith to lie flat thereupon and to be folded away from the open end of the shield, clips on said copy holder, an exercise sheet removably contained within said shield and a backing for said sheet, and means for securing said sheet and back together.

2. A device for the purpose described, comprising a box-like shield open at the end, a copy holder movably connected therewith to lie flat thereupon and to be folded away from the open end of the shield, clips on said copy holder, an exercise sheet removably contained within said shield, a backing for said sheet, and a clip for securing the ends of said sheet and backing together.

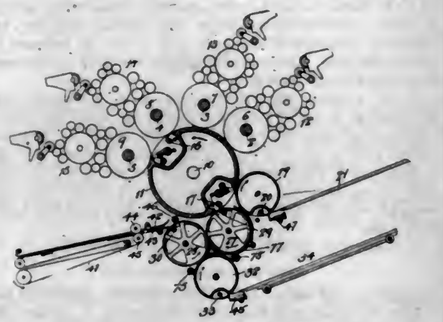
3. The device herein described, comprising an exercise sheet, a backing, means for detachably holding the sheet and backing together at one end, a shield of box-like form open at one end, a cover for said shield, a copy holder hinged at one edge to said cover and adapted to fold flat against the cover or flat against the exercise sheet, and clips on the sides of said copy holder, all as and for the purpose set forth.

1,027,515. EYEGLASS-MOUNTING. GUSTAV A. BADER, Rochester, N. Y. Filed Aug. 6, 1910. Serial No. 576,006. (Cl. 88—50.)



An eyeglass mounting having, in combination, lens-clips, a body-portion, a nose-clamp lever pivoted on the body-portion, a spring-support arranged close behind and substantially parallel with the pivotal axis of the nose-clamp lever, and a torsion spring having a portion coiled about the spring-support, an end extending rearwardly and engaging the nose-clamp lever and another end engaging the edge of one of the lens-clips so as to retain the spring on the spring-support.

1,027,516. SLIP-SHEET-FEEDING DEVICE FOR PRINTING-PRESSES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Filed July 29, 1910. Serial No. 574,486. (Cl. 101—112.)



1. A sheet delivery device, a sheet printing mechanism including an impression cylinder arranged to receive and deliver a plurality of sheets for each revolution of the cylinder, and a device arranged to feed a slip sheet to the underside of each printed sheet as it passes from the impression cylinder to the sheet delivery device.

2. A sheet delivery device, a sheet printing mechanism including an impression cylinder arranged to receive and deliver two sheets for each revolution of the cylinder, and a device arranged to feed a slip sheet to the underside of each printed sheet as it passes from the impression cylinder to the sheet delivery device.

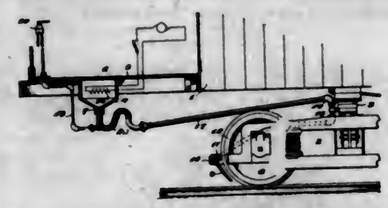
3. A sheet delivery device, a sheet printing mechanism including an impression cylinder arranged to receive and deliver a plurality of sheets for each revolution of the cylinder, a sheet transfer device interposed between the impression cylinder and the sheet delivery device and means arranged to feed a slip sheet into the sheet transfer device to be associated with each printed sheet as it passes from the impression cylinder to the sheet delivery device.

4. A sheet delivery device, a sheet printing mechanism including an impression cylinder arranged to receive and deliver two sheets for each revolution of the cylinder, a sheet transfer device interposed between the impression cylinder and the sheet delivery device and means arranged to feed a slip sheet into the sheet transfer device to be associated with each printed sheet as it passes from the impression cylinder to the sheet delivery device.

5. A sheet delivery device, a sheet printing mechanism including an impression cylinder arranged to receive and deliver a plurality of sheets for each revolution of the cylinder and a slip sheet feed cylinder arranged to feed a slip sheet every revolution into position to be combined with each printed sheet as it passes from the impression cylinder to the sheet delivery device.

[Claims 6 to 12 not printed in the Gazette.]

1,027,517. SANDING DEVICE. JOHN W. BARTH, Pittsburgh, Pa. Filed Nov. 12, 1910. Serial No. 591,969. (Cl. 105—263.)

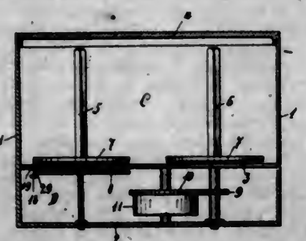


1. In a sanding device for railway cars, the combination of a car body provided with a platform, a bogie truck on which the same is mounted, a sand reservoir on the platform, a discharge pipe secured to the truck and moving laterally with the truck on curves, a flexible pipe connecting the discharge pipe with the discharge outlet in the reservoir, a fluid pressure nozzle projecting into the said discharge pipe, and a valve on the platform for establishing communication between a source of fluid pressure and said nozzle.

2. In a sanding device for railway cars, the combination of a car body, a bogie truck on which the same is mounted, a sand reservoir on the car, a discharge pipe secured to the truck and movable laterally with the latter on curves, a pipe connecting the discharge pipe with the discharge outlet of the reservoir and including vertical parts that swivel on each other and lying in proximity to the axis around which the truck swivels, and a fluid pressure pipe projecting into the outlet pipe.

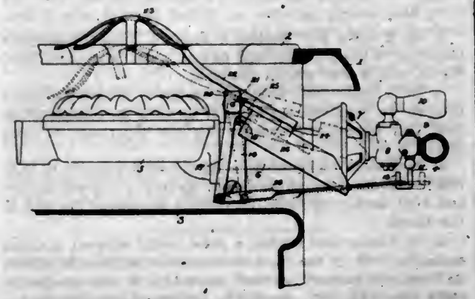
3. In a sanding device for railway cars provided with bogie trucks, the combination of a flanged truck frame end piece, pipes secured to the inner face of said end piece and having their ends curved downwardly in front of opposite truck wheels, a three armed connection to which the inner ends of said pipes are connected, a sand reservoir, a pipe connecting said sand reservoir with the third arm of said connection, a fluid pressure nozzle projecting into said connecting pipe, and a valve on the car platform for establishing communication between a supply of fluid pressure and said nozzle.

1,027,518. DATE-INDICATOR FOR CLOCKS. SEBASTIAN BAUMGARTNER-HARTMANN, Zollikon, Switzerland. Filed Oct. 25, 1911. Serial No. 656,750. (Cl. 58—6.)



A date indicator for clocks, comprising a casing having a detachable cover, a horizontal partition dividing said casing into two compartments, two spindles rotatably held in said partition and in the bottom of the casing so that their upper ends are left free in the upper compartment, disks connected to the spindles in said upper compartment for supporting thereon the reels of a paper strip bearing the date numbers, a spring barrel in the lower compartment acting on one of the spindles so as to move the strip, a disk mounted on the other spindle in the lower compartment, a pivoted lever having a pin normally in engagement with a notch in said disk so as to hold the strip stationary, a wheel connected to the clock so as to be rotated by the latter about its axis once in 24 hours, a double-armed spring-actuated lever having one end disposed at the edge of said wheel and the other end connected by a rod to said aforementioned lever, and a tooth on said wheel disposed so as to rock said levers once during a revolution and disengage said notched disk sufficiently for allowing it to revolve once and feed the paper strip by one date number, substantially as set forth.

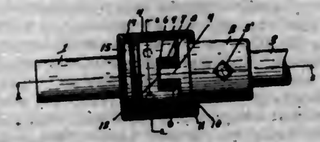
1,027,519. GAS-CONTROLLING MECHANISM FOR GAS-BURNERS. EDWIN O. BENTLEY, Baltimore, Md. Filed Feb. 6, 1912. Serial No. 675,729. (Cl. 126—52.)



1. In an automatic cut-off and controlling device for gas-burners of gas-stoves, the combination of a burner; an air-mixing pipe extending therefrom; a bracket secured upon said pipe; a lever fulcrumed upon said bracket, the outer end of said lever extending upwardly to a point above the burner; an elbow-lever likewise fulcrumed upon the bracket; a weight carried by the upper arm of said elbow-lever; connections between said arm and the first-named lever; a valve located between the gas-supply and the air-mixing pipe, said valve being provided with a stem having a crank-arm on the lower end thereof; a bar extending from said crank-arm to the lower end of the depending arm of the elbow-lever; and a pilot burner.

2. In an automatic cut-off and controlling device for gas-burners of gas-stoves, the combination of a main burner; an air-mixing pipe extending therefrom; a bracket adapted to be secured to said pipe, said bracket being provided with a pair of upstanding lugs and a hooked end; a lever fulcrumed between said lugs; a spider frame carried at the upper end of said lever over the burner; an elbow-lever fulcrumed in the hook-shaped end of the bracket; a weight carried by the upper arm of said elbow-lever; a laterally-extending arm carried by the lower portion of the first-named lever; connections between said arm and the upper arm of the elbow-lever; a controlling valve having a stem extending downwardly therefrom and provided with a crank carried at the lower end of said stem; a bar extending from said crank to the lower end of the elbow-lever; and a pilot burner.

1,027,520. FLOATING-REAMER SUPPORT. CLARENCE C. BLOOD, Kalamazoo, Mich. Filed July 26, 1911. Serial No. 640,594. (Cl. 77—55.1.)



1. In a floating tool holder, the combination of the driving and driven members, having tongue-like jaws thereon; a coupling member having two pairs of transversely disposed jaws receiving the jaws of said driving and driven members respectively; bearing balls for said jaws; ball holders loosely arranged in said coupling member jaws at each side of the driving and driven member jaws; a thrust pin having spherically curved bearings at its ends, said driving and driven members being provided with curved bearing seats therefor disposed centrally, said coupling member having a central opening through which said pin is arranged; and a shell having an inwardly projecting flange at its outer end threaded upon said driven member, said driven member having a shoulder coacting with said flange.

2. In a floating tool holder, the combination of the driving and driven members having tongue-like jaws thereon; a coupling member having two pairs of transversely disposed jaws receiving the jaws of said driving and driven members respectively; bearing balls for said jaws; ball holders loosely arranged in said coupling member jaws at each side of the driving and driven member jaws; a thrust pin having spherically curved bearings at its ends, said driving and driven members being provided with curved bearing seats therefor disposed centrally, said coupling member having a central opening through which said pin is arranged; and a shell mounted on said driven member.

3. In a floating tool holder, the combination of the driving and driven members, having jaws thereon; a coupling member having jaws disposed transversely of each other receiving the jaws of said driving and driven members; ball bearings arranged in said coupling member jaws at each side of the driving and driven member jaws; a thrust pin having curved bearings at its ends, said driving and driven members being provided with curved bearing seats therefor disposed centrally, said coupling member having a central opening through which said pin is arranged; and a shell having an inwardly projecting flange at its outer end threaded upon said driven member, said driven member having a shoulder coacting with said flange.

4. In a floating tool holder, the combination of the driving and driven members, having jaws thereon; a coupling member having jaws disposed transversely of each other receiving the jaws of said driving and driven members; ball bearings arranged in said coupling member jaws at each side of the driving and driven member jaws; a thrust pin having curved bearings at its ends, said driving and driven members being provided with curved bearing seats therefor disposed centrally, said coupling member having a central opening through which said pin is arranged; and a shell mounted on said driven member.

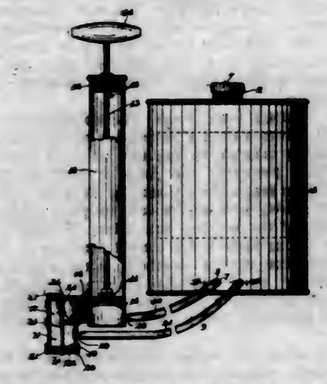
5. In a floating tool holder, the combination of the driving and driven members, having jaws thereon; a coupling member having jaws disposed transversely of each other and adapted to coact with the jaws of said driving and driven members; a thrust pin having curved bearings at its ends, said driving and driven members being provided with curved bearing seats therefor disposed centrally, said coupling member having a central opening through which said pin is arranged; and a shell having an inwardly projecting flange at its outer end threaded upon said driven member, said driven member having a shoulder coacting with said flange.

[Claims 6 to 8 not printed in the Gazette.]

1,027,521. SPRAYING DEVICE. HENRY E. BRANDT, Minneapolis, Minn. Filed Aug. 1, 1910. Serial No. 574,818. (Cl. 137—67.)

1. In a portable spraying device, the combination with a liquid containing tank having a receiving nipple and a discharge nipple, both opening into said tank at points near the bottom thereof, of a check valve in said receiving nipple, said receiving nipple being removable with said valve, from said tank, a hand operated pump that is portable in respect to said tank, a spraying head applied to said pump, a flexible air delivery tube connecting said pump to said valve equipped receiving nipple, and another flexible tube connecting said spraying head to the discharge nipple of said tank, substantially as described.

2. In a portable spraying device, the combination with a liquid containing tank having a receiving nipple and a discharge nipple, both opening into said tank at points near the bottom thereof, of a check valve located in the outwardly projecting portion of said receiving nipple where access may be had thereto from the exterior of the tank,



a hand operated pump that is portable in respect to said tank, a spraying head applied to said pump, a flexible air delivery tube connecting said pump to the said valve-equipped receiving nipple, and another flexible tube connecting said spraying head to the discharge nipple of said tank, substantially as described.

1,027,522. OIL-CUP. WILLIAM H. BRESSEL and ROBERT O'HARA, Pocatello, Idaho. Filed Aug. 15, 1911. Serial No. 644,181. (Cl. 184—48.)

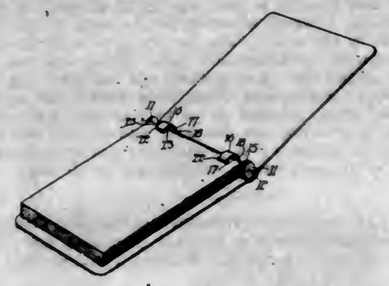


1. An oil cup including a screw plug for engagement therein, said plug having a longitudinal groove extending to within a distance of the inner end thereof, a resilient member on the cup, means on the resilient member for engagement in the groove, means on the resilient member for engagement with means on the cup to prevent the backward rotation of the resilient member, and a means on the resilient member for engagement with means on the cup to prevent longitudinal movement of the resilient member on the cup.

2. In an oil feeding device, a combination with an oil cup having an annular groove, ratchet teeth arranged adjacent the groove, and a screw plug for engagement in the cup having a longitudinal groove formed therein, of a spring ring engaged over said ratchet teeth, a lug on the ring for engagement in the groove of the plug, a bead on the ring for engagement in the groove of the cup, and a shoulder on said ring for engagement with said ratchet teeth, whereby said ring is prevented moving backwardly in the cup, or longitudinally therefrom.

1,027,523. LOOSE-LEAF BINDER. ELMER E. BUCHAN, Chicago, Ill. Filed Nov. 23, 1911. Serial No. 661,914. (Cl. 129—24.)

1. In a loose leaf binder, a support, a rotary shaft, a ring axially mounted thereon and having a slit for engaging loose leaves, and means engaging in the slit for locking the ring against rotation.



2. In a loose leaf binder, a support, a ring rotatively mounted in the support, and having a slit to receive loose leaves, and a web within the ring.

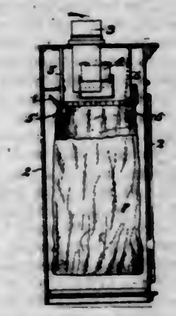
3. In a loose leaf binder, a support, a disk mounted thereon for rotation, an annular member surrounding the disk and having an opening for the insertion of loose leaves.

4. In a loose leaf binder, a sheet metal support, a disk rotatively mounted thereon and having a slotted flange, and a rib struck up from the support to engage the slot in the flange.

5. In a loose leaf binder, a sheet metal support adapted to be secured to the back thereof, end standards struck up from the support, a shaft journaled in the standards, disks mounted upon the shaft, annular flanges surrounding the disks and provided with openings for the insertion of loose leaves.

[Claims 6 to 10 not printed in the Gazette.]

1,027,524. MAIL-BAG AND BAG-SUPPORT. HOWARD T. COOK, Crafton, Pa. Filed Sept. 2, 1911. Serial No. 647,432. (Cl. 232—30.)



1. In a mail bag support, the combination with a mail bag having a mouth, of a frame secured about the mouth to the mail bag and adapted to be opened, and a pair of depending strap hangers projecting into the mouth of the bag and having out-turned extremities engaging beneath the side bars of the frame to support the bag, one of said hangers being rigid and the opposite hanger being adapted to be flexed inwardly to release said frame therefrom.

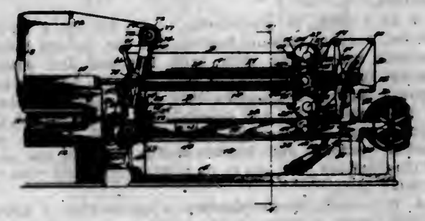
2. In a mail bag support, the combination with a mail bag having an open mouth, of a closing frame secured about the mouth of the mail bag and having enlargements extending inwardly from the sides thereof, a pair of depending hangers projecting into the frame and having out-turned extremities engaging beneath said enlargements to support the frame, one of said hangers being rigid and the other hanger being adapted for inward movement from the enlargement to release said frame and free the bag.

1,027,525. SCARF-PIN RETAINER. ROBERT CORN, New York, N. Y. Filed Nov. 20, 1911. Serial No. 661,402. (Cl. 24—155.)



A scarf pin retainer having a casing provided with slots extending longitudinally thereof, an inclined inner wall and an insertion aperture adjacent thereto, and an opposite end wall having an aperture formed therein to receive a scarf pin, a head having an annular groove, and gripping devices mounted in said head adapted to bear against a scarf pin and against the inclined wall of said casing, a spring within said casing to press said head against said inclined wall, and a yoke comprising arms extending longitudinally of said casing and a cross bar extending transversally of the end wall of said casing, the said cross bar being provided with an aperture in line with the aperture of the end wall of said casing, and the ends of said yoke being provided with projections to engage the groove of said head and the slots of the casing.

1,027,526. PRINTING-PRESS. PAUL F. COX, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 22, 1910. Serial No. 588,510. (Cl. 101—12.)



1. In a traveling-cylinder web-perfecting press, in combination, a carriage slidingly mounted in said press, means for reciprocating the same, a pair of eccentrics journaled in said carriage, an impression-cylinder journaled at each end in said eccentrics, means operated by the reciprocation of said carriage to partially rotate said eccentrics in their bearings and thereby raise and lower said cylinder, a second pair of eccentrics journaled in said carriage, a second impression-cylinder journaled at each end in said eccentrics, and a rocking member pivotally mounted at its center on said carriage between said eccentrics and geared at each end with the eccentrics in which said cylinders respectively are mounted and thereby adapted to cause the eccentrics in which said two cylinders are mounted to partially rotate simultaneously in the same direction.

2. In a traveling-cylinder web-perfecting press, in combination, a carriage mounted on said press and adapted to be reciprocated therein, means for reciprocating said carriage, eccentrics journaled in said carriage on each side of said press, a pair of impression-cylinders eccentrically journaled at each end in said eccentrics, rock-shafts, means for automatically rocking said rock-shafts near the end of the reciprocatory movement of said carriage, gearing between said rock-shafts and the eccentrics at each end of one of said cylinders and adapted by the rocking of said shafts to partially rotate said eccentrics, and gearing between said last-named eccentrics and the eccentrics on the other cylinder adapted, as said first-named eccentrics are partially rotated, to rotate the eccentrics in which said second cylinder is journaled whereby said cylinders are lowered for their impression movement and raised for their return movement.

3. In a traveling cylinder web-perfecting press, in combination, a sliding carriage mounted in said press, means for reciprocating the same, a pair of eccentrics journaled opposite each other on each side of the press on the lower portion of said carriage, an impression-cylinder journaled in said eccentrics, a pair of eccentrics journaled in the upper portion of said carriage one upon each side of the press, an upper impression-cylinder journaled in said upper eccentrics, rock-shafts journaled in said carriage, rock-arms mounted on said rock-shafts, fixed cams on said press adapted to engage said rock-arms near the end of each impression and each return movement of said carriage and thereby rock said rock-shafts, gearing between said rock-shafts and said first-named eccentrics adapted to partially rotate the same as said rock-arms rock, and gearing between said lower eccentrics and said upper eccentrics adapted as said lower eccentrics are rotated in one direction or the other to rotate the upper eccentrics in the same direction.

4. In a traveling-cylinder web-perfecting press, in combination a reciprocating carriage, means for reciprocating the same, eccentrics journaled in said carriage, an impression-cylinder journaled in said eccentrics, means operated by the reciprocation of said carriage to partially rotate said eccentrics first in one direction and then in the other to raise and lower said cylinder, a rocking member operated by said eccentrics, and a spring-seated rod pivotally connected at one end with the carriage and at the other end with said rocking member to one side of the center thereof and adapted to pass centers as said rocking member rocks and yieldingly hold said cylinder in raised or lowered position.

5. In a traveling-cylinder web-perfecting press, in combination, a carriage slidingly mounted in said press, means for reciprocating the same, a pair of eccentrics journaled in said carriage, an impression-cylinder journaled at each end in said eccentrics, means operated by the reciprocation of said carriage to partially rotate said eccentrics in their bearings and thereby raise and lower said cylinder, a second pair of eccentrics journaled in said carriage, a second impression-cylinder journaled at each end in said eccentrics, a rocking member mounted on said carriage and geared at each end with the eccentrics in which said cylinders respectively are mounted and thereby adapted to cause the eccentrics in which said two cylinders are mounted to partially rotate simultaneously in the same direction, and a spring-seated rod pivotally connected at one end to said carriage and at the other end to said rocking member to one side of the center thereof and adapted as said rocking member rocks to pass centers and yieldingly maintain said cylinders in their raised or lowered position until moved in the other position by the said reciprocation of the carriage.

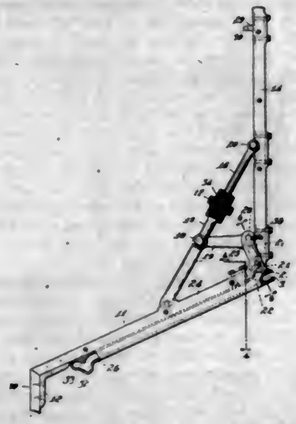
1,027,527. SHOULDER-BAG CLASP. CLAUDE B. DAVIS, Richmond, Va., assignor of one-sixth to W. Lawrence, one-sixth to Joseph Lichtenstein, and one-third to Frank A. Arnzen, Richmond, Va. Filed Dec. 2, 1911. Serial No. 663,528. (Cl. 224—5.)



A clasp including an elongated base plate, a securing pin hinged at one end on the underneath face of said base plate, a sheave arranged transversely upon the top face of said base plate, an arched keeper hinged at one end on the top face of said base plate and extending longi-

tudinally of said base plate, and straddling said sheave, and a spring on said base plate normally holding said keeper closed.

1,027,528. WIND-SHIELD. HARRY A. DOUGLAS, Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Nov. 22, 1909. Serial No. 529,317. (Cl. 21—81.)



1. In a wind shield for vehicles, in combination, an inclined lower section having adjacent each of its sides a channel having shoulders adjacent its ends, an upper section having a stud at each side and adjacent its lower edge slidingly engaging the corresponding channel, a pair of extensible arms pivotally connected to both sections and means for engaging with the lower section the upper edge of the upper section when in its lower position.

2. In a wind shield for vehicles, in combination, an inclined lower section having adjacent each of its sides a channel having shoulders adjacent its ends, an upper section having a stud at each side and adjacent its lower edge slidingly engaging the corresponding channel, a pair of extensible arms pivotally connected to both sections, the points of attachment of each of the arms to each section being intermediate of the upper and lower edges thereof and means for engaging with the lower section the upper edge of the upper section when in its lower position.

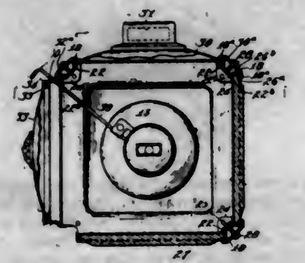
3. In a wind shield for vehicles, in combination, an inclined lower section having adjacent its sides a channel having shoulders adjacent its ends and having at each upper corner an upwardly-opening recess, an upper section having a stud adjacent each corner, the lower studs slidingly engaging the corresponding channel and the upper studs being engageable with the recesses, and a pair of extensible arms pivotally connected to both sections.

4. In a wind shield for vehicles, in combination, an inclined lower section having adjacent its sides a channel having shoulders adjacent its ends and having at each upper corner an upwardly-opening recess, an upper section having a stud adjacent each corner, the lower studs slidingly engaging a corresponding channel and the upper studs being engageable with the recesses, and a pair of extensible arms pivotally connected to both sections, the points of attachment of each of the arms to each section being intermediate of the upper and lower edges thereof.

5. In a wind shield for vehicles, in combination, an inclined lower section having adjacent each of its sides a channel having shoulders adjacent its ends, an upper section having studs adjacent its lower edge slidingly engaging the corresponding channels, a pair of arms each comprising two members united by a turn buckle and being pivotally connected with both sections and means for engaging with the lower section the upper edge of the upper section when in its lower position.

[Claims 6 to 11 not printed in the Gazette.]

1,027,529. LAMP. HARRY A. DOUGLAS, Chicago, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 14, 1910. Serial No. 538,138. (Cl. 240—14.)



1. In a lamp, in combination, a top section, a bottom section, a set of upright bars uniting the top and bottom sections and having their ends inturned and bearing against the adjacent faces of such sections, panels seated against such bars, clamping bars coöperating with the first-mentioned bars for securing the panels, and having their ends inturned and engaging the top and bottom sections and means for securing the two sets of bars to the top and bottom sections.

2. In a lamp, in combination, a top section, a bottom section, a set of upright bars uniting the top and bottom sections and having their ends inturned and bearing against the adjacent faces of such sections, panels seated against such bars, clamping bars for binding the panels to the first-mentioned bars and having their ends inturned and engaging the outer faces of the top and bottom sections, and means for securing the various bars to such sections.

3. In a lamp, in combination, a top section, a bottom section, a set of framing bars uniting the top and bottom sections and having their ends inturned and bearing against the adjacent faces of such sections, panels seated against such bars, clamping bars for binding the panels to the framing bars and having their ends inturned and slotted and engaging the outer faces of the top and bottom sections, and screws setting through the slots of the clamping bars and in threaded engagement with the framing bars.

4. In a lamp, in combination, a top section, a bottom section, a set of frame bars uniting the top and bottom sections and having their side portions angular in cross-section forming shoulders perpendicular to the planes of the side faces of the lamp, and panel-receiving seats parallel with such side faces, panel-frames angular in cross-section for inclosing the panels and engaging the shoulders of the bars, panels seated within the frames and clamping bars binding the panel-frames to the frame bars.

5. In a lamp, in combination, a top section, a bottom section, a set of frame bars uniting such sections and having their marginal portions bent to form panel seats and panel-engaging shoulders, a set of panels engaging such seats and having instanding flanges slidably engaging the upper shoulders and the margins of the top and bottom sections, and clamping bars binding the panel sections to their seats.

[Claims 6 to 8 not printed in the Gazette.]

1,027,530. PIPE. CHARLES ELKIN, New York, N. Y. Filed Apr. 27, 1911. Serial No. 623,718. (Cl. 131—12.)

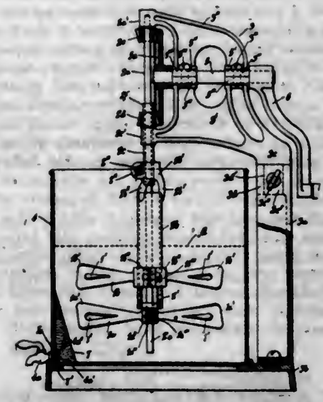


1. The herein described improvement in pipe stems, comprising a flattened spatulate mouth-piece part, oval in cross section and provided at its end with a broad, open-topped concave recess having upwardly curved edges, the said mouth piece having a central duct extending inward from the bottom of said recess.

2. The herein described improvement in pipe stems, comprising a flattened spatulate mouth-piece part, oval in cross section and provided at its end with a broad, open-topped concave recess having upwardly curved edges, said mouth-piece part being formed on a plug portion detachably secured to the body of the pipe stem and having a central duct extending inward from the bottom of said recess, and the said plug portion being provided with a tapering inner end fitting an enlarged chamber with which the tubular body of the pipe stem is provided.

3. The herein described improvement in pipe stems, comprising a flattened spatulate mouth-piece part, oval in cross section and provided at its end with a broad, open-topped, concave recess having upwardly curved edges, said mouth-piece part having a central duct extending inward from the bottom of said recess, and the exterior of said mouth piece being grooved or corrugated, both above and below, forward of said concave recess, to afford a proper hold for the teeth of the smoker.

1,027,531. AERATING BUTTER-SEPARATOR. ALPHEUS FAY, Louisville, Ky. Filed Feb. 14, 1912. Serial No. 677,640. (Cl. 31—43.)



1. In a device of the character described, two shafts, one of which surrounds the other and incloses a space thereabout and therealong forming substantial conducting means for air under atmospheric pressure, said surrounding shaft having openings from its exterior into said space at remote positions, an agitator mounted on each shaft to turn with it, one of said openings being in the vicinity of one of said agitators, and means for rotating said shafts and their respective agitators in opposite directions.

2. In a device of the character described, two shafts, one of which surrounds the other and incloses a space thereabout and therealong forming substantial conducting means for air under atmospheric pressure, said surrounding shaft having openings from its exterior into said space at remote positions, an agitator mounted on each shaft to turn with it, one of said openings being in the vicinity of one of said agitators, oppositely facing bevel pinions, one of said pinions being attached to each of said shafts, whereby the shaft rotates with it, and a bevel gear in mesh with said pinions.

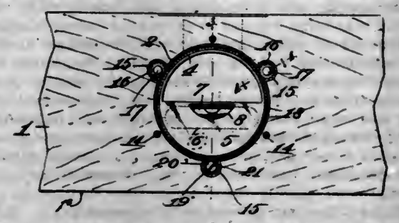
3. In a device of the character described, two shafts, one of which surrounds the other and incloses a space therearound and therealong forming substantial conducting means for air under atmospheric pressure, an agitator mounted on each shaft to rotate with it, said surrounding shaft having an opening in the vicinity of one of said agitators and having its end remote from said opening open to the atmosphere, another shaft surrounding the shaft surrounded as aforesaid, and having a substantially concentric bearing thereon, adjacent the open end of the first mentioned surrounding shaft, means for securing the two surrounding shafts to rotate together, a pinion on the surrounded shaft whereby said surrounded shaft rotates with the pinion, a pinion on the shaft that surrounds and bears on said shaft, and a gear meshing with the pinions to rotate the shafts in opposite directions.

4. In a device of the character described, three shafts, two of which surround the other, one of the surrounding shafts having a bearing on and the other surrounding shaft inclosing a space around and along the shaft which they surround, said inclosed space forming substantial conducting means for air under atmospheric pressure and said shaft that incloses said space having remotely positioned openings from its exterior to said space, an agitator on the surrounded shaft to rotate with it, an agitator on said shaft that incloses said space, to rotate with the shaft it is on, one of said openings being in the vicinity of one of said agitators, means attaching the two surrounding shafts together, a bevel pinion on the surrounded shaft, a bevel pinion on the shaft that bears on the surrounded shaft, said pinions facing oppositely, and a bevel gear in mesh with said pinions.

5. In a device of the character described, a vessel, concentric shafts substantially vertically disposed therein, one of the shafts inclosing a space around and along the other, forming substantial conducting means for air under atmospheric pressure, an agitator on each shaft to rotate with it, each agitator having oppositely disposed impelling means, and the agitators being adapted to be submerged in a substance held in the vessel, said shaft that incloses said space having openings, one of which communicates with said space from without the body of submerging substance and the other of which comunicates with said space from within the body of submerging substance, and means for rotating the shafts in opposite directions.

[Claim 6 not printed in the Gazette.]

1,027,532. SPIRIT-LEVEL. CLARENCE C. FINN, St. Louis, Mo., assignor of one-half to James L. Heath, St. Louis, Mo. Filed June 19, 1911. Serial No. 634,059. (Cl. 73—124.)



1. A spirit-level comprising a body-portion having a straight-leveling-edge and provided with a laterally-disposed opening extending therethrough, bearing-rings on said body-portion around said opening, a bubble-tube carrying-ring provided with gear teeth on its periphery arranged in said opening and journaled in said bearing-rings, said carrying-ring being adapted to be rotarily moved to adjust the position of said bubble-tube and the bubble therein relatively to said leveling-edge of said body-portion, a pinion journaled in said bearing-rings and meshing with said gear teeth and adapted to be rotated to rotarily move said carrying-ring, and a screw adapted to engage with one of said bearing-rings and with said pinion to lock said pinion and therewith said carrying-ring against rotary movement; substantially as described.

2. A spirit-level comprising a body-portion having a straight-leveling-edge and provided with a laterally-disposed opening extending therethrough, bearing-rings on said body-portion around said opening, a bubble-tube carrying-ring provided with gear teeth on its periphery arranged in said opening and journaled in said bearing-rings, said carrying-ring being adapted to be rotarily moved to adjust the position of said bubble-tube and the bubble therein relatively to said leveling-edge of said body-portion, an

adjusting pinion journaled in said bearing-rings and meshing with said gear teeth and adapted to be rotated to rotarily move said carrying-ring, bearing pinions also journaled in said bearing-rings and meshing with said gear teeth, and means adapted to lock said adjusting pinion and therewith said carrying-ring against rotary movement; substantially as described.

3. A spirit-level comprising a body-portion having a straight-leveling-edge and provided with a laterally-disposed opening extending therethrough, bearing-rings on said body-portion around said opening, a bubble-tube carrying-ring provided with gear teeth on its periphery arranged in said opening and journaled in said bearing-rings, said carrying-ring being adapted to be rotarily moved to adjust the position of said bubble-tube and the bubble therein relatively to said leveling-edge of said body-portion, an adjusting pinion journaled in said bearing-rings and meshing with said gear teeth and adapted to be rotated to rotarily move said body-portion, bearing-pinions also journaled in said bearing-rings and meshing with said gear teeth, and a screw adapted to engage with one of said bearing-rings and with said adjusting-pinion to lock said adjusting-pinion and therewith said carrying-ring against rotary movement; substantially as described.

4. A spirit-level comprising a body-portion having a straight-leveling-edge, a laterally-disposed opening extending therethrough, and a longitudinally-disposed slot extending therethrough from the top surface thereof to said opening, and a bubble-tube carrying-ring arranged in said opening and adapted to be rotarily moved to adjust the position of said bubble-tube and the bubble therein relatively to said leveling-edge of said body-portion and having a circumferentially-disposed slot in its upper portion in alinement with said longitudinally-disposed slot, whereby said bubble-tube and the bubble therein carried by said ring may be observed from the top surface of said body-portion; substantially as described.

5. A spirit-level comprising a body-portion having a straight-leveling-edge, a laterally-disposed opening extending therethrough, and a longitudinally-disposed slot extending therethrough from the top surface thereof to said opening, bearing-rings arranged on said body-portion around said opening, a bubble-tube carrying-ring arranged in said opening and journaled in said bearing-rings, said carrying-ring being adapted to be rotarily moved to adjust the position of said bubble-tube and the bubble therein relatively to said leveling-edge of said body-portion and being provided with a circumferentially-disposed slot in its upper portion in alinement with said longitudinally-disposed slot of said body-portion, whereby said bubble-tube and the bubble therein may be observed from the top surface of said body-portion, and means adapted to rotarily move said bubble-tube carrying ring; substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,027,533. SPIRIT-LEVEL. CLARENCE C. FINN, St. Louis, Mo., assignor of one-half to James L. Heath, St. Louis, Mo. Filed June 19, 1911. Serial No. 634,060. (Cl. 73—70.)

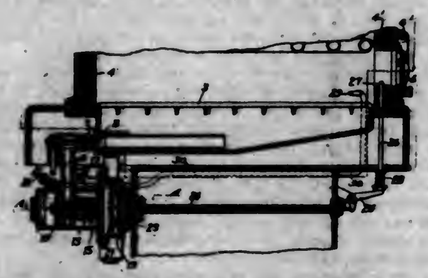


1. A spirit-level comprising a body-portion provided with a bubble-tube and a pocket adjacent one end thereof, an electric lamp carried by said body-portion adjacent said bubble-tube, a fixed battery-contact-member carried by said body-portion adjacent the inner end of said pocket, a pivotally-movable battery-contact-member carried by said body-portion adjacent the outer end of said pocket, said contact-members being electrically connected in a normally open circuit with said lamp, an electric battery removably fitting in said pocket, a plug threaded in said body-portion adapted to removably hold said pivoted contact-member in contact with said battery and also removably hold said battery in said pocket and in contact with said fixed contact-member, and means on said body-portion adapted to close the circuit between said lamp and said contact-members; substantially as described.

2. A spirit-level comprising a body-portion provided with a bubble-tube and a pocket adjacent one end thereof, an electric lamp carried by said body-portion adjacent said bubble-tube, a fixed battery-contact-member carried by said body-portion adjacent the inner end of said pocket, a pivotally-movable battery-contact-member carried by said body-portion adjacent the outer end of said pocket, said contact-members being electrically connected in a normally open circuit with said lamp, an electric battery removably fitting in said pocket, a plug removably threaded in said body-portion and having an inwardly-extending pin adapted to removably hold said pivoted contact-member in contact with said battery and also removably hold said battery in said pocket and in contact with said fixed contact-member, said pivoted contact-member being adapted to be pivotally swung into or out of contact with said battery, and a push-button on said body-portion adapted to close the circuit between said lamp and said contact-members; substantially as described.

3. A spirit-level comprising a body-portion provided with a plurality of bubble-tubes and with a pocket adjacent one end thereof, a plurality of electric lamps carried by said body-portion adjacent said bubble-tubes, a fixed battery-contact-member carried by said body-portion adjacent the inner end of said pocket, a pivotally-movable battery-contact-member carried by said body-portion adjacent the outer end of said pocket, said contact-members being electrically connected in a normally open circuit with each of said lamps, an electric battery removably fitting in said pocket, a plug removably threaded in said body-portion and having an inwardly-extending pin adapted to removably hold said pivoted contact-member in contact with said battery and also hold said battery in said pocket and in contact with said fixed contact-member, said pivoted contact-member being adapted to be pivotally swung into or out of contact with said battery, and a separate push-button on said body-portion for each of said lamps adapted to independently close the circuit between said contact-members and its respective lamp; substantially as described.

1,027,534. SAFETY DEVICE FOR GAS-BURNERS. LOUIS W. G. FLYNT, Rochester, N. Y., assignor to Domestic Appliances Company, Rochester, N. Y., a Corporation of New York. Original application filed Apr. 10, 1911, Serial No. 620,113. Divided and this application filed June 26, 1911. Serial No. 635,510. (Cl. 136—351.)



1. The combination of a combustion chamber, a gas burner therein, a gas valve for controlling the flow of gas through the burner, a movable part that when in one position bars access to the burner to light it, and when in another position gives access to the burner for that purpose, and unitary means for opening the gas valve and locking said part in the position first mentioned whereby its movement to give access to the burner is automatically prevented after the gas valve is open.

2. The combination of a combustion chamber, a gas burner therein, a gas valve controlling the flow of gas to the burner, a movable part that when in one position bars access to the burner to light it and when in another position gives access to the burner for that purpose, and automatic means adapted to operate with the opening of the gas valve to lock said movable part in the position first mentioned for preventing ignition of the burner.

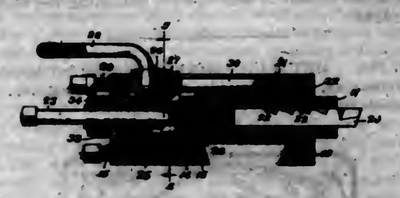
3. The combination of a combustion-chamber, a gas-burner therein, a gas-valve for controlling the flow of gas through the burner, a door affording access to the combustion-chamber to light the burner, and unitary means for opening the gas-valve and locking the door in closed position, whereby opening of the door is automatically prevented after the gas-valve has opened.

4. The combination of a combustion chamber, a gas burner therein, a gas valve controlling the admission of gas to the burner, a pilot light for lighting the burner, a movable part that when in one position bars access to the pilot-light to light it, and when in another position gives access to the pilot-light for that purpose, and automatic means adapted to operate with the opening of the gas valve to lock said part in the position first mentioned for preventing ignition of the pilot-light when the gas valve is open.

5. The combination of a combustion chamber, a gas burner therein, a gas valve controlling the flow of gas to the burner, a movable part that when in one position bars access to the burner to light it and when in another position gives access to the burner for that purpose, automatic means adapted to operate with the opening of the gas valve to lock said movable part in the position first mentioned for preventing ignition of the burner, and means for retarding the return of the lock to its unlocking position after the gas has been turned off.

[Claims 6 to 9 not printed in the Gazette.]

1,027,535. TOOL-CARRIER. GEORGE EDWARD FOGARTY, Fitchburg, Mass., assignor to Fitchburg Machine Works, Fitchburg, Mass., a Corporation of Massachusetts. Filed May 24, 1911. Serial No. 629,187. (Cl. 82—19.)



1. A tool carrier comprising a block, a tool holder carried by said block and adapted to move toward and from the work with relation to said block, yielding means for retracting the tool holder from the work, and two co-operative members, one for adjusting said holder to the desired working position and the other being manually movable for effecting movement of the holder to and from working position without disturbing said adjusting member, one of said members being mounted on the block and the other being carried by the tool holder.

2. A tool carrier comprising a block, a tool holder carried by said block and adapted to move toward and from the work with relation to the block, yielding means for retracting the tool holder from the work, and two co-operative members for positioning the tool holder, one of said members being mounted on the block, and the other carried by the tool holder, one of said members being an adjustable abutment and the other being manually movable for advancing the tool holder to working position, said movable member having a face for holding the tool holder in working position, and a cam portion for effecting the advance movement and for permitting receding movement of the tool holder.

3. The combination of a tool and holder therefor, said holder having a recess for insertion of the tool, a screw in threaded engagement with the holder and arranged to engage the side of the tool, said tool having a notch a face of which is adapted to coact with said screw to positively lock said tool against withdrawal from the holder, and a second screw in threaded engagement with said holder and arranged to abut against the inner end of the tool to hold the tool in coactive engagement with the screw first mentioned.

4. The combination of a tool and holder therefor, said holder having a recess for insertion of the tool, a screw in threaded engagement with said holder and arranged to engage a side of the tool, said tool having a series of notches, adapted to receive the end of said screw, each of said notches leaving an inclined face on the tool adapted to co-act with the end of said screw to prevent withdrawal of the tool from the holder and to keep the tool against one side of the recess, and a second screw in threaded engagement with the holder and arranged to abut against the inner end of the tool to keep the tool in coactive engagement with the screw first mentioned.

1,027,536. ABRADING-WHEEL. ROLAND GARDNER, Cleveland, Ohio. Filed Aug. 5, 1911. Serial No. 642,504. (Cl. 51—1.)



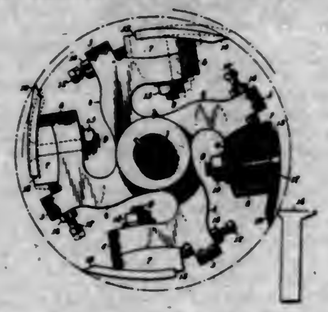
1. In an abrasive tool, a carrier plate, blocks of abrading material, certain of said blocks being disposed radially on said plate and certain others circumferentially thereon, and cementitious material for attaching said blocks to said plate.

2. In an abrasive tool, a carrier plate, blocks of abrading material of tapering form and having concavo-convex sides, certain of said blocks being disposed radially on said plate and certain others circumferentially thereon, means for attaching said blocks to said plate, and other means for protecting the inner ends of such radially disposed blocks.

3. In an abrasive tool, a carrier-plate, blocks of abrading material of tapering form and having concavo-convex sides, certain of said blocks being disposed radially on said plate and certain others, circumferentially thereon, such radially disposed blocks having the narrow ends near the center of the plate and diverging from the center to the circumference, means for attaching said blocks to said plate, comprising a cementitious material adapted partially to inclose the side walls of said blocks, and other cementitious material disposed around the narrow inner ends of said blocks, said other cementitious material being flush with the operative face of the inner ends of said blocks.

4. In an abrasive tool, a carrier-plate, blocks of abrading material, having concavo-convex sides, some of said blocks being disposed radially on said plate and others circumferentially thereon, such circumferentially disposed blocks having the convex side concentric with the periphery of said plate, said radial and circumferential blocks being disposed alternately around said plate, cementitious material on said plate adapted partially to inclose the side walls of said blocks and securely to retain the same, and other cementitious material disposed around the narrow inner ends of said blocks, said other cementitious material being flush with the operative side of the inner ends of said blocks.

1,027,537. FEED-CUTTER. CHARLES F. HALDEMAN, Salem, Ohio, assignor to The Silver Manufacturing Company, Salem, Ohio, a Corporation of Ohio. Filed Jan. 7, 1910. Serial No. 536,831. (Cl. 146—30.)



In a feed cutter a shaft, knife-carrying heads spaced from each other and secured to said shaft and rotated therewith, said heads consisting of hubs, spokes, said spokes provided with forward extended flanges, radial extensions located at the rear of the forward extending flanges and provided with screw threaded bolts, means for locking the screw threaded bolts against accidental rotation, knife holding heads provided with flanges and tapered apertures, knives secured to said knife holding heads and the flanges upon the heads adapted to abut against the backs of the knives and the screw threaded bolts adapted to abut against the backs of the knife-holding heads, screw threaded bolts carried by the extensions, said extensions provided with outer concaved faces and the knife holding block provided with convexed faces adapted to fit the concaved faces of the extensions, clamping bolts located through the knives and forward extending flanges and through the tapered apertures in the knife holding heads thereby providing means for a rocking movement of the knife holding heads, substantially as and for the purpose specified.

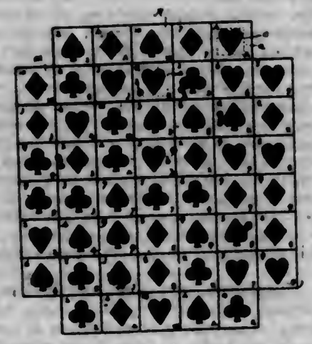
1,027,538. GREASE-CUP. JAMES B. HALL, Cleveland, Ohio. Filed Feb. 24, 1912. Serial No. 679,783. (Cl. 184—98.)



1. A feeder for grease cups for solid lubricant consisting of a plurality of wires secured together for a portion of their lengths to form a supporting stem and having their untwisted portions free and extending divergently from the upper end of the stem to conform to the outline of the grease cup and support the lubricant.

2. In a grease cup the combination with the outer casing, of a grease receptacle or basket comprising a plurality of wires secured together at one of their ends to form a supporting stem and having their free ends extending divergently therefrom, said basket being arranged in said casing with its diverging portions resting snugly against the interior wall of the casing, substantially as and for the purpose set forth.

1,027,539. GAME APPARATUS. VERNON W. HALL, Portland, Me. Filed Jan. 25, 1912. Serial No. 673,477. (Cl. 46—59.)



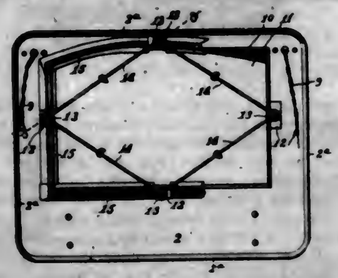
1. A game apparatus consisting of a target having a series of spaces each of which contains devices representing a playing card.

2. A game apparatus consisting of a target having a series of spaces of unequal size each space containing devices indicating a playing card, the smaller spaces representing the higher cards.

3. A game apparatus consisting of a target having a series of spaces each of which has in the center thereof one of the spots of a playing card with auxiliary characters indicating the value of the card.

4. A game apparatus consisting of a target divided up into square spaces and having in the center of each space a, one of the spots of a playing card with letters and figures in the corners of said squares indicating the value of the cards.

1,027,540. METALLIC MIRROR-PANEL. AUGUSTIN HENDRICKS, Grand Rapids, Mich. Filed Aug. 21, 1911. Serial No. 645,222. (Cl. 45—18.)



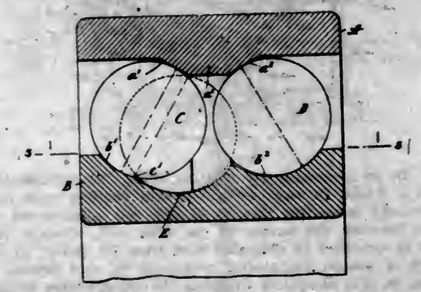
1. A mirror panel of stamped sheet metal having a front opening, rearwardly pressed margins to the panel to engage a wall and form a closed chamber behind the mirror, a mirror in said opening, a yieldable backing for the mirror, a metal plate behind the backing, resilient rods or wires engaging the plate and studs in the panel to which the rods or wires are detachably secured.

2. A mirror panel of stamped sheet metal having a front opening, a mirror in said opening, rearwardly pressed margins to the panel, studs fixed in the panel at the respective sides of said opening, blocks on said studs to engage the edge of the mirror to locate the same, a yieldable backing and a plate at the rear of said mirror, wires or rods bent to yieldably engage the plate at intervals and having

end eyes to receive the studs and removable nuts on the studs to engage the eyes.

3. In combination with a panel and a mirror therein, rearwardly projecting studs in the panel at the respective sides of the mirror, blocks on the studs to engage the respective edges of the mirror, a backing plate for the mirror, resilient rods or wires having eyes to receive the studs and laterally engaging the backing and removable nuts on the studs to engage the eyes and hold the wires against the backing.

1,027,541. ANTIFRICTION-BEARING. HENRY HESS, Wawa, Pa., assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa., a Corporation of Delaware. Filed Sept. 24, 1909. Serial No. 519,315. (Cl. 64—36.)



1. In an anti-friction bearing, the combination of casing members and rolling elements located therebetween, the said casing members being formed with a raceway for the rolling elements, and also with an interior recess of such size and so located as to receive a plurality of rolling elements at one time and to retain them out of effective engagement with the other parts, so that the normal rotational operation of the assembled bearing will not be impeded thereby.

2. In an anti-friction bearing, the combination of casing members and rolling elements located therebetween, the said casing members being formed with a raceway for the rolling elements and also with a groove extending entirely around the periphery of the bearing to afford a temporary lodgment for the rolling elements.

3. In an anti-friction bearing, the combination of casing members and rolling elements located therebetween, the said casing members being formed with a raceway wherein the rolling elements normally travel in assembled position, and also with an interior recess communicating with the raceway, so that the rolling elements may be transferred from one to the other, the said recess being of such size and so located as to receive a plurality of rolling elements at one time and to retain them out of effective engagement with the other parts, so that the normal rotational operation of the assembled bearing will not be impeded thereby.

4. In an anti-friction bearing, the combination of casing members and a plurality of series of rolling elements located therebetween, the said casing members being formed with a plurality of raceways for the respective series of rolling elements and also with an interior recess adjoining and communicating with one of the raceways, so that the rolling elements may be transferred from one to the other, the said recess being of such size and so located as to receive a plurality of rolling elements at one time and to retain them out of effective engagement with the other parts, so that the normal rotational operation of the assembled bearing will not be impeded thereby.

5. In an anti-friction bearing, the combination of casing members and rolling elements located therebetween, the said casing members being formed with a raceway for the rolling elements, and one of the casing members being formed with an interior recess of such size and so located as to receive a plurality of rolling elements at one time and to retain them out of effective engagement with the other parts, so that the normal rotational operation of the assembled bearing will not be impeded thereby.

1,027,542. ANTIFRICTION-BEARING. HENRY HESS, Wawa, Pa., assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa., a Corporation of Delaware. Filed Sept. 29, 1909. Serial No. 520,100. (Cl. 64—36.)



1. In an anti-friction bearing, the combination of casing members provided with a plurality of raceways and a corresponding plurality of series of rolling elements located therein, the said raceways being connected by a groove or passage, whereby the rolling elements may be transferred from one to the other, and the said groove or passage being so constricted as to necessitate distortion of the parts in the transfer of the rolling elements therethrough.

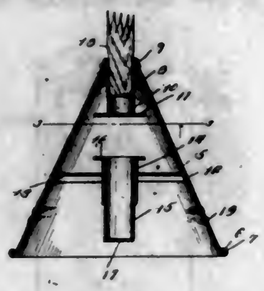
2. In an anti-friction bearing, the combination of casing members provided with a plurality of raceways and a corresponding plurality of series of rolling elements located therein, the contiguous raceways being separated by flanges or ribs, and being connected by a groove or passage formed in a flange or rib, whereby the rolling elements may be transferred from one to the other, and the said groove or passage being so constricted as to necessitate distortion of the parts in the transfer of the rolling elements therethrough.

3. In an anti-friction bearing, the combination of casing members provided with a plurality of raceways and a corresponding plurality of series of rolling elements located therein, the said raceways being connected by a groove or passage, whereby the rolling elements may be transferred from one to the other, and the said groove or passage being so constricted as to necessitate distortion of the parts in the transfer of the rolling elements therethrough, and one of the casing members being formed with a filling opening, whereby the rolling elements may be introduced into one of the raceways.

4. In an anti-friction bearing, the combination of casing members provided with a plurality of raceways and a corresponding plurality of series of rolling elements located therein, the said raceways communicating with each other by a constricted groove or passage so that the rolling elements may be transferred by distortion therethrough, and one of the casing members being formed with a filling opening leading to one of the raceways so that the rolling elements may be admitted thereto.

5. In an anti-friction bearing, the combination of casing members provided with a plurality of raceways and a corresponding plurality of series of rolling elements located therein, the contiguous raceways being separated by flanges or ribs, and being connected by a groove or passage formed in one of the flanges or ribs, whereby the rolling elements may be transferred from one to the other, and the said groove or passage being constricted in the direction of the opposing rib or flange so as to necessitate distortion of the parts in the transfer of the rolling elements therethrough.

1,027,543. CLOTHES-WASHER. CHARLES HENRY HYMAN, Denver, Colo. Filed Apr. 8, 1911. Serial No. 619,847. (Cl. 68—8.)



In a clothes pounder, the combination of an imperforate casing, a perforated diaphragm arranged in the casing, a guide connected to the diaphragm, and a bottomed piston open at its upper end and sliding in the guide and having a stop to abut the guide.

1,027,544. DRIPLESS POURING-BOTTLE SEAL. CLARENCE S. JACKSON, New York, N. Y., assignor to Pouring Cork Company, New York, N. Y. Filed Aug. 17, 1911. Serial No. 644,694. (Cl. 215—57.)



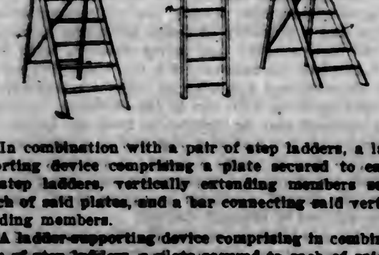
A dripless pouring bottle seal comprised of an apertured flared bushing and an adjustable stopper, an annular fluid passageway therebetween, said passageway being formed by the contiguous adjustable surfaces between said bushing and said stopper and being depressed at its central portion and leading upwardly and terminating in an annular double lipped pouring mouth, the said lips being substantially in the same vertical plane, the vertical width of said passageway being constricted at its central interior and terminating at a greater width at its outer diameter for the purpose of causing a capillary and gravitational withdrawal of fluid from the outer diameter of said passageway when the pressure of the contents of the bottle is removed.

1,027,545. APPARATUS FOR TREATING SKINS. GEORGE T. JEWITT, Philadelphia, Pa. Filed Sept. 27, 1911. Serial No. 651,478. (Cl. 91—40.)

1. In an apparatus for treating skins, the combination with two corrugated skin bending rolls, the outwardly projecting diagonally positioned flanges of one roll constructed to move between the diagonally positioned flanges of the other roll, whereby the skin is wrinkled in diagonal lines from its center to its edges, substantially as described.

2. In an apparatus for treating skins, the combination with two corrugated skin bending rolls, the outwardly projecting diagonally positioned flanges of one roll constructed to move between the diagonally positioned flanges of the other roll, whereby the skin is wrinkled in diagonal lines from its center to its edges, and means for supplying season to one of said rolls, substantially as described.

3. In an apparatus for treating skins, the combination with a frame, of two corrugated skin bending rolls, the outwardly projecting flanges of one roll constructed to move between the flanges of the other roll, whereby the skin is wrinkled in diagonal lines from its center to its edges, a season containing receptacle in said frame, and a brush in said receptacle touching the corrugations of one of said rolls, substantially as described.

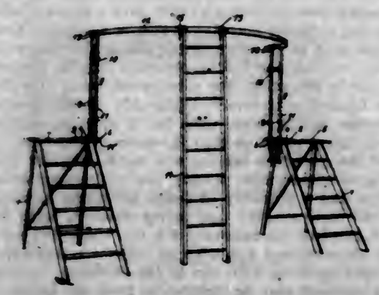


4. In an apparatus for treating skins, the combination with a frame, of two corrugated skin bending rolls, the outwardly projecting flanges of one roll constructed to move between the flanges of the other roll, whereby the skin is wrinkled in diagonal lines from its center to its edges, a season containing receptacle in said frame, a brush in said receptacle touching the corrugations of one of said rolls, and means for raising and lowering said brush, substantially as described.

5. In an apparatus for treating skins, the combination with a base, a frame on the base, of rolls supported on the base, and adapted to receive a skin between them, a season receptacle, a brush in said receptacle contacting with one of said rolls, a foot lever, and means connecting said foot lever with said brush, whereby the movement of the foot lever moves the brush toward and away from said roll with which it is normally in contact, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,027,546. LADDER-SUPPORT. JAMES W. JOHNSON, Detroit, Mich. Filed Sept. 19, 1911. Serial No. 650,181. (Cl. 227—15.)



1. In combination with a pair of step ladders, a ladder-supporting device comprising a plate secured to each of said step ladders, vertically extending members secured in each of said plates, and a bar connecting said vertically extending members.

2. A ladder-supporting device comprising in combination a pair of step ladders, a plate secured to each of said step ladders, said plate having a plurality of apertures, a vertically extending member carried by each of said step ladders and secured in the apertures of said plate, and a curved bar connecting the upper extremities of the vertically extending members.

3. A ladder-supporting device comprising in combination a pair of step ladders, a vertically extending member secured to each of said step ladders, and a curved bar connecting the upper extremities of the vertically extending members.

4. A ladder-supporting device comprising in combination, a pair of step ladders, vertically extending members adjustably secured to each of said step ladders, and means for connecting the upper extremities of the vertically extending members.

5. A ladder-supporting device comprising in combination a pair of step ladders, a plate secured to the upper step of each of said step ladders and provided with apertures, vertically extending members adjustably secured within the apertures of said plate, and means for connecting the upper extremities of the vertically extending members.

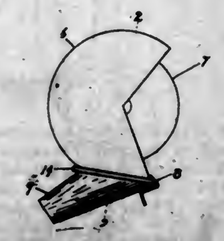
[Claims 6 not printed in the Gazette.]

1,027,547. SIGN. DANIEL KAHN, Cleveland, Ohio. Filed Aug. 11, 1911. Serial No. 643,621. (Cl. 40—125.)



A transparent sign comprising a sheet of embossed transparent paper having suitable characters on one side forming a sign, a coating of adhesive substance on said side and over the sign and a coating on the reverse side conforming to the design of the sign character on the front side and in register therewith.

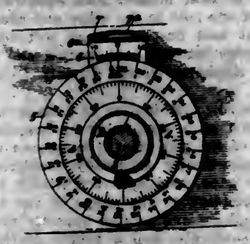
1,027,548. GUARD FOR POLISHING OR GRINDING WHEELS. FREDERICK W. KOHLMYER, Cleveland, Ohio. Filed Jan. 18, 1912. Serial No. 671,854. (Cl. 51—7.)



1. In a guard for a polishing wheel or the like, the combination with a suction pipe having opposite guides at the mouth thereof, of a hood provided with flanges at opposite sides slidable in said guides, whereby the hood may be removed, and a latch carried by the hood and engageable with the pipe, to hold the hood in position thereon.

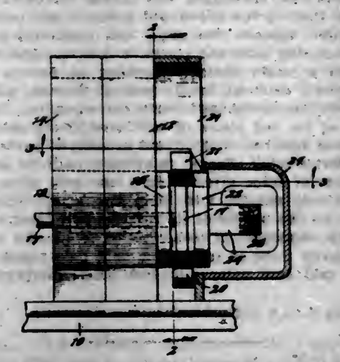
2. The combination of a suction pipe, a hood thereon, and a grating resting on the mouth of the suction pipe, the hood fitting around the edge of the grating, to hold the same in position.

1,027,549. MICROMETER-FEED MECHANISM. MAX KRONERT, Bozeman, Mont. Feb. 14, 1910. Serial No. 548,716. (Cl. 73—77.)



In a device of the character described, a micrometer screw, a micrometer member mounted on said screw and including a collar and a scale plate having two distinct concentric scale sections, one of said sections being of greater diameter than the other, a fixed vernier mounted adjacent to the scale plate section of greater diameter, a hinged member hinged to said vernier plate to swing over the same and over the larger section of said scale plate, said scale plate having an annular shoulder between the two sections on which the free edge of said hinged member rests, said hinged member having an opening to expose said vernier plate and the cooperating part of said scale plate, said hinged member having a zero mark to cooperate with said scale plate section of lesser diameter, one of said scale plate sections being graduated according to the English system, and the other of said scale plate sections being graduated according to the metric system.

1,027,550. INDUCTOR-MAGNETO. ROBERT C. LANPHIER, Springfield, Ill., assignor to Sangamo Electric Company, Springfield, Ill., a Corporation of Illinois. Filed Oct. 9, 1909. Serial No. 521,947. (Cl. 171—209.)



1. In a magneto, the combination of a magnet, a stationary soft-iron core magnetically separated therefrom by wide air gaps, a coil mounted on said stationary core, and a rotary device comprising a soft-iron part adapted to be rotated between said magnet and said core and adapted during a portion of the time only to effectually bridge said air gaps, and comprising also a soft-iron part located directly between the poles of said magnet and adapted, during the time that said first-mentioned soft-iron part is not serving to bridge between said magnet and said core, to complete the magnetic circuit directly from pole to pole.

2. In a magneto, the combination of a magnet, a stationary soft-iron core magnetically separated therefrom by wide air gaps, a coil mounted on said stationary core, and a rotary device comprising an axle journaled midway between the poles of said magnet, a soft-iron part mounted on said axle and adapted to be rotated between the

poles of said magnet and said core and adapted during a portion of the time only to effectually bridge said air gaps, and a soft-iron bar fixedly secured on said axle between the poles of said magnet and adapted to reach substantially from one pole to the other and adapted, during the time that said first-mentioned soft-iron part is not serving to bridge between said magnet and said core, to complete the magnetic circuit directly from pole to pole.

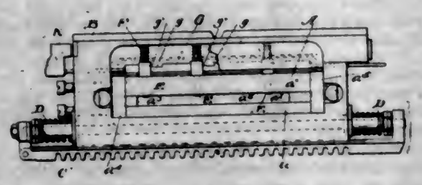
3. In a magneto, the combination of a magnet, soft-iron pole pieces therefor each comprising an arc-shaped part located alongside of one pole of said magnet, a stationary soft-iron core magnetically separated therefrom at its ends by wide air gaps, said core comprising arc-shaped end pieces corresponding to the shape of the arc-shaped parts of the pole pieces and located opposite the same, a coil mounted on said core, and a rotary device adapted to be rotated between said pole pieces and said core and adapted during a portion of each rotation to effectually bridge said air gaps.

4. In a magneto, the combination of a magnet, soft-iron pole pieces therefor each comprising an arc-shaped part located alongside of one pole of said magnet, a stationary soft-iron core magnetically separated therefrom at its ends by wide air gaps, said core comprising arc-shaped end pieces corresponding to the shape of the arc-shaped parts of the pole pieces and located opposite the same, a coil mounted on said core, and a rotary device comprising an axle, a bar of non-magnetic material fixedly secured thereon, and arc-shaped soft-iron parts corresponding in shape to that of the end pieces of said core and fixedly secured on the ends of said bar, the arc-shaped parts of said rotary device being adapted to effectually bridge said air gaps during a portion of each rotation of said rotary device.

5. In a magneto, the combination of a magnet, soft-iron pole pieces therefor each comprising an arc-shaped part located alongside of one of said magnet poles, a stationary soft-iron core magnetically separated therefrom at its ends by wide air gaps, said core comprising laminated soft-iron arc-shaped end pieces corresponding in shape to that of the arc-shaped parts of the pole pieces and located opposite the same, and laminated soft-iron bars connecting said end pieces, a coil mounted on said core, and a rotary device comprising an axle, a bar of non-magnetic material fixedly secured thereon, and laminated soft-iron arc-shaped parts corresponding in shape to that of the end pieces of said core fixedly secured on the ends of said bar, each of said arc-shaped parts of said rotary device being adapted to afford a path for the magnetic lines of force directly from one pole piece to the other of said magnet with only two small intervening air gaps at two phases of its rotation and being adapted during the remainder of each rotation to afford a path for the magnetic lines of force from said pole pieces to the ends of said core only, with four small intervening air gaps.

[Claims 6 to 8 not printed in the Gazette.]

1,027,551. LINOTYPE-MOLD. ARTHUR W. LE BOEUF, Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 23, 1900. Serial No. 491,831. (Cl. 199—13.)



1. The combination of a linotype mold capable of moving from the casting to the ejecting position and vice versa, of a plurality of pins movable through the mold wall and adapted to be projected into the mold slot, a movable cam bar for controlling the simultaneous movement of all of said pins inward or outward as the case may be, and means which act automatically to move said cam bar in one direction when the mold is near one end of its path and to move said cam bar in the other direction when the mold is near the other end of its path.

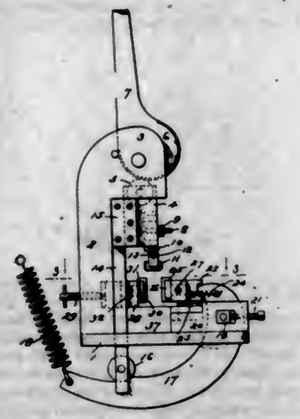
2. The combination of a linotype mold capable of movement from the casting to the ejecting position and vice versa, of a plurality of pins movable through the mold wall and adapted to be projected into the mold slot, of a bar suitably supported adjacent to the mold and to said pins, and having cam surfaces for engagement with said pins, means for moving said bar first in one direction and then in the other, relative to said mold, and springs acting to hold the pins against the operative edge of said bar.

3. The combination of a linotype mold capable of movement from the casting to the ejecting position and vice versa, of a plurality of pins movable through the mold wall and adapted to be projected into the mold slot, of a bar suitably supported adjacent to the mold and to said pins, and having cam surfaces for engagement with said pins, said bar having projecting ends by which it may be pushed first in one direction and then in the other, and springs acting to hold said pins against the operative edge of said bar.

4. The combination of a mold having a mold slot and a plurality of holes going through one side of the mold and connecting with said mold slot, a mold frame in which said mold is removably held, pins fitted in said holes having enlargements above the mold, springs compressed between said enlargements and an overhanging part of the mold frame, and a longitudinally movable bar having cam surfaces for engagement with overhanging fingers on said pins, said bars having their ends projected through and beyond the end members of the mold frame.

5. In a linotype mold, the combination of a mold, a mold frame in which the mold is removably held, a bar on which the mold frame is movably supported, and springs interposed between the ends of the mold frame and the ends of said bar, said bar having means to which power may be applied to move it, and stops interposed in the path of the mold frame.

1,027,552. PRESS FOR FINISHING LEATHER LOOPS. ALFRED L. LILLEY, Hartford, Conn., assignor to The Smith-Worthington Company, Hartford, Conn., a Corporation of Connecticut. Filed Aug. 17, 1911. Serial No. 644,660. (Cl. 69—8.)

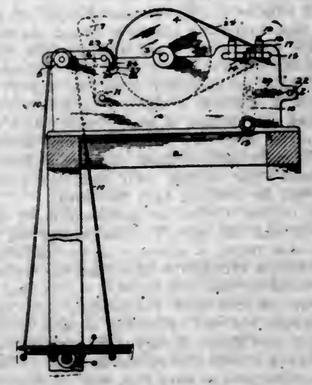


1. A press having a frame, a die-block stationary on the frame, a die-block movable horizontally on the frame toward and from the stationary die-block, a lever pivoted to the frame and connected with the horizontally movable die-block for moving the same, a die-block movable vertically on the frame, a cam for depressing the vertically movable die-block, and means connected with the vertically movable die-block and engaging the lever whereby the depression of said die-block causes the lever to force the horizontally movable die-block rearwardly toward the stationary die-block.

2. A press having a frame, a die-block vertically movable on the frame, a cam for depressing the vertically movable die-block, a die-block held stationary on the frame, a die-block movable horizontally on the frame toward and from the stationary die-block, a lever for forcing the horizontally movable die-block toward the stationary die-block, bars connected with the vertically movable die-block and arranged to cause said lever to move the horizontally movable die-block, and a spring arranged to lift said lever and cause the horizontally movable die-block to move away from the stationary die-block and the vertically movable die-block to be lifted when the cam is turned up.

3. A press having a frame, a die-block movable vertically on the frame, a die adjustably secured to said block, a roll carried by said block, a cam mounted on the frame and engaging said roll, a handle for turning said cam and causing it to depress the vertically movable block, a die-block adjustable horizontally on the frame, a stationary die carried thereby, a die-block movable horizontally on the frame toward and from the stationary die, a die carried by the horizontally movable die-block, a lever engaging said horizontally movable block, said lever being adjustably mounted on the frame, bars connected with the vertically movable die-block, a roll carried by said bars and engaging an arm of said lever, and a spring for holding said arm of the lever in engagement with the roll carried by the bars.

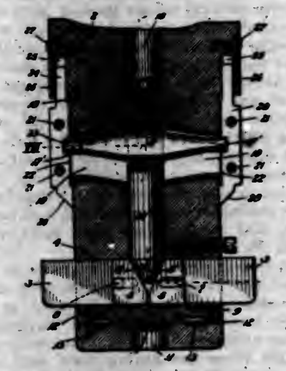
1,027,553. CIGAR-MACHINE. RALPH H. LOGAN, Allegheny, Pa. Filed Aug. 6, 1906. Serial No. 329,864. (Cl. 131—41.)



In a cigar machine, the combination of a rotary roll, a horizontally arranged rocking-frame in front of said roll, a second roll of smaller diameter than said first roll mounted in said rocking frame, a spring actuated swinging-frame in the rear of said first roll, a tension-roll mounted in said swinging-frame, guides within which said tension-roll moves, adjustable stops in said guides controlling the movement of said tension-roll, a belt engaging said rolls and adapted to form a pocket between said first and second rolls, a treadle, and rods extending from said treadle connected to opposite sides of the pivot of said rocking frame.

1,027,554. BORING-BAR. JOHN G. LUGENBILL, Pitcairn, Pa. Filed Mar. 4, 1911. Serial No. 612,431. (Cl. 77—76.)

1. A boring tool comprising a rotatable head having transversely arranged cutters, adjusting blocks therefor having sloping inner ends, a tapered spreader bearing thereagainst and having a transverse yoke, and a ring on said head, said ring having an inner circumferential groove engaging said yoke, substantially as set forth.



2. A boring tool comprising a rotatable head having transversely arranged cutters, adjusting blocks therefor having sloping inner ends, a tapered spreader bearing thereagainst, and means embodying a transverse yoke and a rotatable ring on said head, said ring having an inner circumferential groove for adjusting the spreader, substantially as set forth.

3. The combination with a rotatable head having a transverse cutter socket, of cutters therein, adjusting blocks having inner flat tapered faces, a tapered spreader bearing thereon provided with a laterally extending yoke, and a two part ring on said head, said ring having an inner circumferential groove, engaging the yoke, substantially as set forth.

4. The combination with a rotatable head having a transverse cutter socket, of cutters therein, adjusting blocks having inner flat tapered faces and longitudinal slots, retaining pins projecting into said slots, a tapered spreader bearing on said adjusting blocks provided with a laterally extending yoke, and a ring on said head, said ring having an inner circumferential groove, engaging the yoke, substantially as set forth.

5. The combination with a rotatable head having a transverse cutter socket, of cutters therein, adjusting blocks having inner flat tapered faces, a tapered spreader bearing thereon, and means embodying a ring on said head, said ring having an inner circumferential groove, and a set screw for adjusting and fixedly securing the spreader, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,027,555. SKEIN-REEL. GEORGE F. MACFARLANE and EDWARD MCGROARTY, Wilkes-Barre, Pa. Filed June 27, 1910. Serial No. 569,224. (Cl. 242—113.)



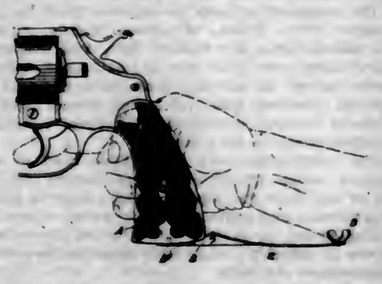
1. In a skein reel, the combination with a rotatable shaft, of a series of fixed collars thereon, each collar having an open-ended socket in which the shaft is centrally arranged, a series of radially movable arms carried by each of said collars and having their inner ends extending into the sockets, parallel bars connected with the outer ends of the corresponding arms of each series, conical expanders mounted on the shaft, one of said expanders being slidable into and out of the socket of each collar, means ex-

ternal to the shaft for connecting the expanders to cause them to move simultaneously, and toggle levers connected to said expanders and arranged to quickly withdraw the expanders and replace and lock the same in their sockets.

2. In a skein reel, the combination with a rotatable shaft, of a series of fixed collars thereon, each collar having an open-ended socket in which the shaft is centrally arranged, a series of radially movable arms carried by each of said collars and having their inner ends extending into the sockets, parallel bars adjustably connected with the outer ends of the corresponding arms of each series, conical expanders mounted on the shaft, one of said expanders being slidable into and out of the socket of each collar, means external to the shaft for connecting the expanders to cause them to move simultaneously, and toggle levers connected to said expanders and arranged to quickly withdraw the expanders and replace and lock the same in their sockets, said toggle levers being mounted on and rotatable with the shaft.

3. In a skein reel, the combination with a rotatable shaft, of a series of fixed collars thereon, each collar having an open-ended socket in which the shaft is centrally arranged, and outer and inner rings surrounding the socket, a series of radially movable arms carried by said outer and inner rings and having their ends extending into the sockets, parallel bars adjustably connected with the outer ends of the corresponding arms of each series, conical expanders mounted on the shaft, one of said expanders being slidable into and out of the socket of each collar, means external to the shaft for connecting the expanders to cause them to move simultaneously, and toggle levers connected to said expanders and arranged to quickly withdraw the expanders and replace and lock the same in their sockets.

1,027,556. ATTACHMENT FOR PISTOLS. JAMES AUBREY GARTH MARSHALL, London, England. Filed Sept. 22, 1910. Serial No. 583,248. (Cl. 42—72.)



1. In a pistol, the combination with the butt, of a member attached thereto, an arm hinged to such member, and a rest mounted on said arm and adapted to support the wrist or forearm of the user's hand when properly grasping the pistol to fire it.

2. In a pistol the combination with the butt, of a plate attached thereto, an arm hinged to such plate and skewed or set off for the purpose described, and a rest mounted on said arm and adapted to support the wrist or forearm of the firer, substantially as set forth.

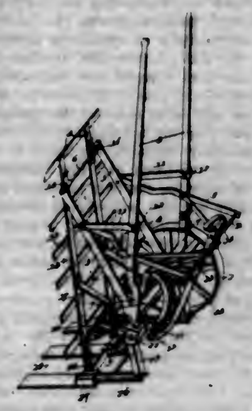
3. An attachment for a pistol comprising an arm provided at one end with means for attachment to a pistol butt and having at its other end a substantially horizontal member extending on opposite sides of the arm and adapted to serve as a support for the wrist or forearm of a person properly grasping the pistol to fire it.

4. The combination with a pistol, of an arm adapted to extend rearward from the lower end of the butt of the pistol, and having a lateral, substantially horizontal extension at its outer end adapted to engage with or support the wrist or forearm of the hand of a party properly grasping the weapon to fire it.

5. The combination with a pistol, of an arm connected by a hinge with the lower end of the pistol butt and adapted to fold against the rear face of the pistol butt or project rearwardly therefrom to support the wrist or forearm of the firer.

[Claim 6 not printed in the Gazette.]

1,027,557. TRUCK. WALTER J. MCCOY, South Omaha, Nebr. Filed July 12, 1911. Serial No. 638,082. (Cl. 21—116.)



1. In a tiltable truck, the combination of a wheeled frame, a load-supporting platform hinged thereto, a movable device coöperating with said platform for raising the load when the truck is tilted, a link connected to said device, a pair of swinging links to which the first-named link is pivoted, a support to which the second-named links are pivoted, and a lever connected to said first-named link for operating said device.

2. In a tiltable truck, the combination of a wheeled frame, a load-supporting platform hinged thereto, a movable device coöperating with said platform for raising the load when the truck is tilted, a link connected to said device, a pair of swinging links to which the first-named link is pivoted, a support to which the second-named links are pivoted, a lever connected to said first-named link for operating said device, and means carried by said support and adapted for engagement by said second-named links during their swinging movement in one direction, for limiting such movement.

3. In a tiltable truck, the combination of a wheeled frame including an axle, a load-supporting platform hinged to said frame, a movable device coöperating with said platform for raising the load when the truck is tilted, a link pivoted at one end to said device and provided intermediate its ends with a depending arm, an angular member having one end connected to said axle, and the other end to said frame, a curved member pivoted at one end to the apex of said angular member and at its opposite end to the other end of said link, and an operating lever for said device having one end pivoted to said arm.

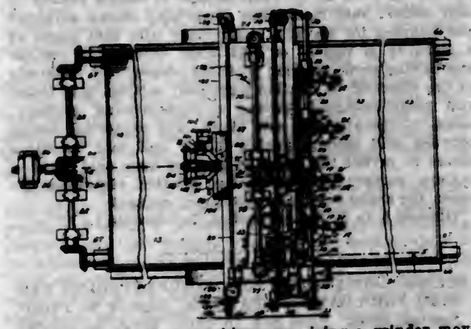
4. In a tiltable truck, the combination of a wheeled frame including an axle, a load-supporting platform hinged to said frame, a movable device coöperating with said platform for raising the load when the truck is tilted, a link pivoted at one end to said device and provided intermediate its ends with a depending arm, an angular member having one end connected to said axle, and the other end to said frame, a curved member pivoted at one end to the apex of said angular member and at its opposite end to the other end of said link, an operating member for swinging said curved member and shifting said device having one end pivoted to said arm, and means carried by said angular member and adapted for engagement by said curved member during the swinging movement of the latter in one direction, for limiting such movement.

5. In a tiltable truck, the combination of a wheeled frame including an axle, a load-supporting platform

hinged to said frame, a movable device coöperating with said platform for raising the load when the truck is tilted, said device being provided with a plurality of guides, a plurality of boxes attached to said axle, a separate tongue slidably engaged with each guide and connected with a box, and means for operating said device.

[Claims 6 to 9 not printed in the Gazette.]

1,027,558. STONEWORKING-MACHINE. WILLARD F. MEYERS, New York, N. Y. Filed Dec. 5, 1908. Serial No. 466,064. (Cl. 51—11.)



1. A stone working machine comprising a grinder movable to and from the work, a lever connected with the grinder and having arms extending at opposite sides of a vertical plane in which lies the axis of the lever's fulcrum, and a weight applicable to either arm of the lever and adjustable thereon to vary the pressure of the grinder on the work.

2. A stone working machine comprising a grinder movable to and from the work, a lever connected with the grinder to move the grinder to and from the work, and a cam acting on the lever to regulate the depth of cut of the grinder.

3. A stone working machine comprising a grinder movable to and from the work, a lever connected with the grinder to move the grinder to and from the work, a rock shaft connected with the lever to actuate the lever, and adjustable means for limiting the movement of the rock shaft to regulate the depth of cut of the grinder.

4. A stone working machine comprising a grinder movable to and from the work, a lever connected with the grinder to move the grinder to and from the work, a rock shaft connected with the lever to actuate the lever, and a handle carried by the rock shaft to move the grinder to and from the work.

5. A stone working machine comprising a grinder movable to and from the work, a lever connected with the grinder to move the grinder to and from the work, a rock shaft connected with the lever to actuate the lever, an arm carried by the rock shaft, and an adjustable stop in the path of the arm to regulate the depth of cut of the grinder.

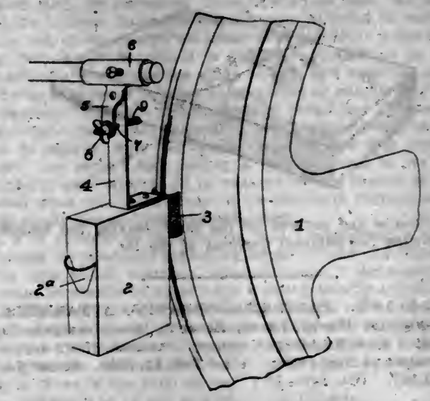
[Claims 6 to 14 not printed in the Gazette.]

1,027,559. WHEEL-FLANGE LUBRICATOR. JAMES H. MINER, Lumberton, Miss. Filed Oct. 12, 1911. Serial No. 654,322. (Cl. 184—3.)

1. A flange oiler comprising a lubricant applying device, a spring arm supporting said device, a supporting member to which the end of said spring arm is rigidly connected and means acting on said spring arm between the supporting member and the lubricant applying device for varying the position of the spring arm, substantially as described.

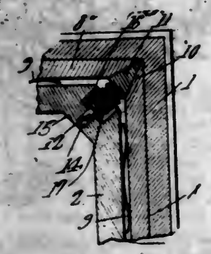
2. A flange oiler comprising an oil tank and pad, a spring arm extending from said tank, a supporting member to which the end of said arm is rigidly connected, said supporting member having an offset portion, and an adjustable connection between said offset portion and spring arm.

3. A flange oiler comprising an oil tank and pad, a spring arm extending from said tank, a supporting member to which the end of said arm is rigidly connected,



said supporting member having an offset portion, a bolt passing through the spring arm and offset portion and provided with a thumb nut, and a coiled spring encircling the bolt and bearing against the spring arm.

1,027,560. SLIDE-VALVE. JOHN F. MORAN, Pittsburg, Kans., assignor of one-half to John P. Ryder, Kansas City, Mo. Filed May 27, 1911. Serial No. 629,780. (Cl. 136—8.)



1. A slide valve comprising telescoped inner and outer members, the inner member being provided with a superficial groove; a packing located in the groove and comprising separate parts; a wedge entered between said parts and having a shank slidable in the inner member; and a spring surrounding the shank and bearing at one end against the wedge, and at the other end against the inner member.

2. A slide valve comprising telescoped inner and outer members, the inner member being provided with a superficial groove; a packing located in the groove, and comprising separate parts; the inner member being provided at one corner with primary and secondary recesses of different diameters; a wedge entered between the parts of the packing, and having a shank adapted to enter the secondary recess; and a spring bearing at one end against the wedge, and at the other end against the base of the primary recess.

1,027,561. BOX. ALBERT PARADIS, Philadelphia, Pa., assignor to Samuel Sternberger Company, a Corporation of Pennsylvania. Filed July 6, 1911. Serial No. 637,124. (Cl. 229—46.)

In a box, a plurality of openings in the sides thereof, and a pliable tongue integral with the lid thereof, and an endless loop of cord partly in the box, passed partly through said openings and partly outside of the box, the outside portions converging toward each other, said por-

ternal to the shaft for connecting the expanders to cause them to move simultaneously, and toggle levers connected to said expanders and arranged to quickly withdraw the expanders and replace and lock the same in their sockets.

2. In a skein reel, the combination with a rotatable shaft, of a series of fixed collars thereon, each collar having an open-ended socket in which the shaft is centrally arranged, a series of radially movable arms carried by each of said collars and having their inner ends extending into the sockets, parallel bars adjustably connected with the outer ends of the corresponding arms of each series, conical expanders mounted on the shaft, one of said expanders being slidable into and out of the socket of each collar, means external to the shaft for connecting the expanders to cause them to move simultaneously, and toggle levers connected to said expanders and arranged to quickly withdraw the expanders and replace and lock the same in their sockets, said toggle levers being mounted on and rotatable with the shaft.

3. In a skein reel, the combination with a rotatable shaft, of a series of fixed collars thereon, each collar having an open-ended socket in which the shaft is centrally arranged, and outer and inner rings surrounding the socket, a series of radially movable arms carried by said outer and inner rings and having their ends extending into the sockets, parallel bars adjustably connected with the outer ends of the corresponding arms of each series, conical expanders mounted on the shaft, one of said expanders being slidable into and out of the socket of each collar, means external to the shaft for connecting the expanders to cause them to move simultaneously, and toggle levers connected to said expanders and arranged to quickly withdraw the expanders and replace and lock the same in their sockets.

1,027,556. ATTACHMENT FOR PISTOLS. JAMES AUBREY GARTH MARSHALL, London, England. Filed Sept. 22, 1910. Serial No. 583,248. (Cl. 42—72.)



1. In a pistol, the combination with the butt, of a member attached thereto, an arm hinged to such member, and a rest mounted on said arm and adapted to support the wrist or forearm of the user's hand when properly grasping the pistol to fire it.

2. In a pistol the combination with the butt, of a plate attached thereto, an arm hinged to such plate and skewed or set off for the purpose described, and a rest mounted on said arm and adapted to support the wrist or forearm of the firer, substantially as set forth.

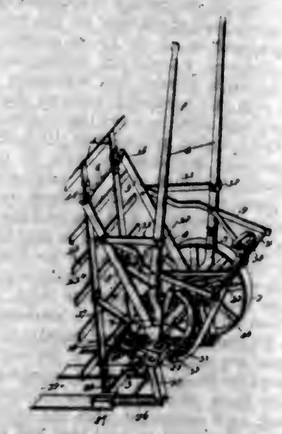
3. An attachment for a pistol comprising an arm provided at one end with means for attachment to a pistol butt and having at its other end a substantially horizontal member extending on opposite sides of the arm and adapted to serve as a support for the wrist or forearm of a person properly grasping the pistol to fire it.

4. The combination with a pistol, of an arm adapted to extend rearward from the lower end of the butt of the pistol, and having a lateral, substantially horizontal extension at its outer end adapted to engage with or support the wrist or forearm of the hand of a party properly grasping the weapon to fire it.

5. The combination with a pistol, of an arm connected by a hinge with the lower end of the pistol butt and adapted to fold against the rear face of the pistol butt or project rearwardly therefrom to support the wrist or forearm of the firer.

[Claim 6 not printed in the Gazette.]

1,027,557. TRUCK. WALTER J. MCCOY, South Omaha, Nebr. Filed July 12, 1911. Serial No. 638,082. (Cl. 21—116.)



1. In a tiltable truck, the combination of a wheeled frame, a load-supporting platform hinged thereto, a movable device coöperating with said platform for raising the load when the truck is tilted, a link connected to said device, a pair of swinging links to which the first-named link is pivoted, a support to which the second-named links are pivoted, and a lever connected to said first-named link for operating said device.

2. In a tiltable truck, the combination of a wheeled frame, a load-supporting platform hinged thereto, a movable device coöperating with said platform for raising the load when the truck is tilted, a link connected to said device, a pair of swinging links to which the first-named link is pivoted, a support to which the second-named links are pivoted, a lever connected to said first-named link for operating said device, and means carried by said support and adapted for engagement by said second-named links during their swinging movement in one direction, for limiting such movement.

3. In a tiltable truck, the combination of a wheeled frame including an axle, a load-supporting platform hinged to said frame, a movable device coöperating with said platform for raising the load when the truck is tilted, a link pivoted at one end to said device and provided intermediate its ends with a depending arm, an angular member having one end connected to said axle, and the other end to said frame, a curved member pivoted at one end to the apex of said angular member and at its opposite end to the other end of said link, and an operating lever for said device having one end pivoted to said arm.

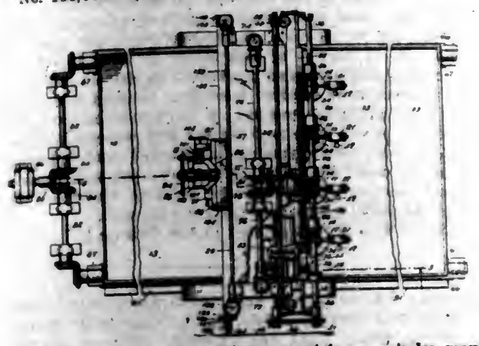
4. In a tiltable truck, the combination of a wheeled frame including an axle, a load-supporting platform hinged to said frame, a movable device coöperating with said platform for raising the load when the truck is tilted, a link pivoted at one end to said device and provided intermediate its ends with a depending arm, an angular member having one end connected to said axle, and the other end to said frame, a curved member pivoted at one end to the apex of said angular member and at its opposite end to the other end of said link, an operating member for swinging said curved member and shifting said device having one end pivoted to said arm, and means carried by said angular member and adapted for engagement by said curved member during the swinging movement of the latter in one direction, for limiting such movement.

5. In a tiltable truck, the combination of a wheeled frame including an axle, a load-supporting platform

hinged to said frame, a movable device coöperating with said platform for raising the load when the truck is tilted, said device being provided with a plurality of guides, a plurality of boxes attached to said axle, a separate tongue slidably engaged with each guide and connected with a box, and means for operating said device.

[Claims 6 to 9 not printed in the Gazette.]

1,027,558. STONEWORKING-MACHINE. WILLARD F. MEYERS, New York, N. Y. Filed Dec. 5, 1908. Serial No. 466,064. (Cl. 51—11.)



1. A stone working machine comprising a grinder movable to and from the work, a lever connected with the grinder and having arms extending at opposite sides of a vertical plane in which lies the axis of the lever's fulcrum, and a weight applicable to either arm of the lever and adjustable thereon to vary the pressure of the grinder on the work.

2. A stone working machine comprising a grinder movable to and from the work, a lever connected with the grinder to move the grinder to and from the work, and a cam acting on the lever to regulate the depth of cut of the grinder.

3. A stone working machine comprising a grinder movable to and from the work, a lever connected with the grinder to move the grinder to and from the work, a rock shaft connected with the lever to actuate the lever, and adjustable means for limiting the movement of the rock shaft to regulate the depth of cut of the grinder.

4. A stone working machine comprising a grinder movable to and from the work, a lever connected with the grinder to move the grinder to and from the work, a rock shaft connected with the lever to actuate the lever, and a handle carried by the rock shaft to move the grinder to and from the work.

5. A stone working machine comprising a grinder movable to and from the work, a lever connected with the grinder to move the grinder to and from the work, a rock shaft connected with the lever to actuate the lever, an arm carried by the rock shaft, and an adjustable stop in the path of the arm to regulate the depth of cut of the grinder.

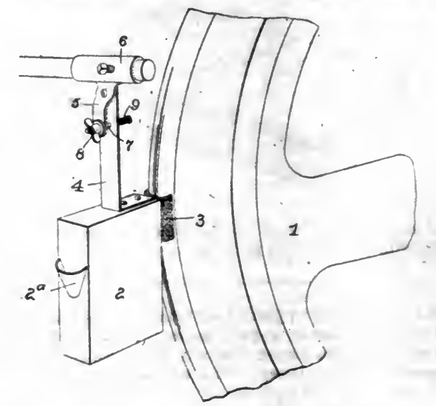
[Claims 6 to 14 not printed in the Gazette.]

1,027,559. WHEEL-FLANGE LUBRICATOR. JAMES H. MINER, Lumberton, Miss. Filed Oct. 12, 1911. Serial No. 654,322. (Cl. 184—3.)

1. A flange oiler comprising a lubricant applying device, a spring arm supporting said device, a supporting member to which the end of said spring arm is rigidly connected and means acting on said spring arm between the supporting member and the lubricant applying device for varying the position of the spring arm, substantially as described.

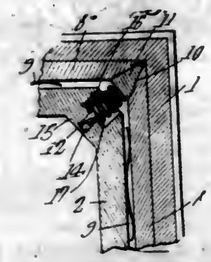
2. A flange oiler comprising an oil tank and pad, a spring arm extending from said tank, a supporting member to which the end of said arm is rigidly connected, said supporting member having an offset portion, and an adjustable connection between said offset portion and spring arm.

3. A flange oiler comprising an oil tank and pad, a spring arm extending from said tank, a supporting member to which the end of said arm is rigidly connected,



said supporting member having an offset portion, a bolt passing through the spring arm and offset portion and provided with a thumb nut, and a coiled spring encircling the bolt and bearing against the spring arm.

1,027,560. SLIDE-VALVE. JOHN F. MORAN, Pittsburg, Kans., assignor of one-half to John P. Ryder, Kansas City, Mo. Filed May 27, 1911. Serial No. 629,780. (Cl. 136—8.)



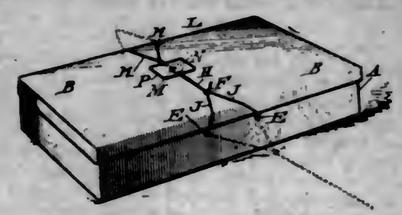
1. A slide valve comprising telescoped inner and outer members, the inner member being provided with a superficial groove; a packing located in the groove and comprising separate parts; a wedge entered between said parts and having a shank slidable in the inner member; and a spring surrounding the shank and bearing at one end against the wedge, and at the other end against the inner member.

2. A slide valve comprising telescoped inner and outer members, the inner member being provided with a superficial groove; a packing located in the groove, and comprising separate parts; the inner member being provided at one corner with primary and secondary recesses of different diameters; a wedge entered between the parts of the packing, and having a shank adapted to enter the secondary recess; and a spring bearing at one end against the wedge, and at the other end against the base of the primary recess.

1,027,561. BOX. ALBERT PARADIS, Philadelphia, Pa., assignor to Samuel Sternberger Company, a Corporation of Pennsylvania. Filed July 6, 1911. Serial No. 637,124. (Cl. 229—46.)

In a box, a plurality of openings in the sides thereof, and a pliable tongue integral with the lid thereof, and an endless loop of cord partly in the box, passed partly through said openings and partly outside of the box, the outside portions converging toward each other, said por-

tions being adapted to be drawn together and connected by a knot, the latter being adapted to be passed under



said tongue and covered by the same, leaving the tongue flush with the adjacent portions of the lid.

1,027,562. PATTERN-GENERATING APPARATUS. FREDERICK HENRY PERRY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 12, 1908. Serial No. 415,567. (Cl. 142—13.)



1. In a machine of the class described, a support for a pattern blank, means for operating upon said pattern blank, a gage and a follower arranged for movable engagement respectively with the same side of the model at regions thereof differing in contour and in substantially the same plane transversely of the direction of relative movement therebetween, and connecting mechanism whereby relative movement of said pattern blank and said operating means in correspondence with the relative variations in contour of said engaged model regions, is effected by relative movement of said gage and said follower.

2. In a machine of the class described, a support for a pattern blank, means to operate upon said blank, means arranged and adapted to movably engage in parallel lines with diversely irregular portions of a model, such as the upper and the sole edge of a shoe, and connecting mechanism between said model engaging means and said operating means to permit the latter to produce on said blank a pattern surface embodying the relative variations between the model portions engaged respectively.

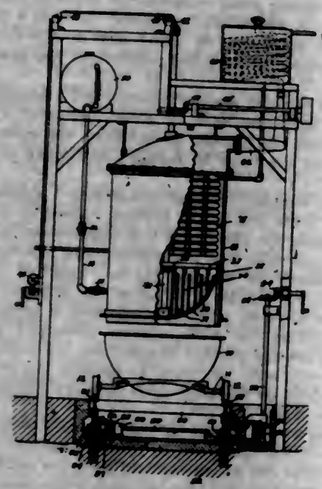
3. In a machine of the class described, a support for a pattern blank, means for operating upon said pattern blank, a feeding device for engaging the sole of a model shoe, a follower for engaging the upper of said model shoe, and connecting mechanism whereby relative movement of said pattern blank and said operating means is effected by relative movement of said feeding means and said follower.

4. In a machine of the class described, a support for a pattern blank, means for operating upon said blank, a gage having movable engagement with a portion of a model differing in shape from said pattern blank, a follower having movable engagement in a parallel plane with another and diversely shaped portion of said model, and means connecting said follower and said operating means for positioning said operating means to produce a pattern surface on said blank having a predetermined relation to the variation between the model portions engaged respectively by said gage and follower.

5. In a machine of the class described, mechanism for producing in a pattern of dissimilar general shape from the model, variations of contour capable of serving as pattern surfaces in the reproduction of shapes similar to said model; said mechanism comprising means arranged and adapted for movable engagement with said model at a plurality of regions of said model differing in contour and having predetermined positions respectively relatively to the direction of relative movement between said model and model-engaging means; a pattern-blank support; means to operate upon said blank; and connecting means between said model-engaging means and said operating means to permit the latter to produce upon said blank a pattern surface embodying the relative variations between the model portions respectively engaged.

[Claims 6 to 30 not printed in the Gazette.]

1,027,563. APPARATUS FOR MANUFACTURING VARNISH FOR COATING LEATHER. GEORGE W. PRIEST, Newton, Mass. Filed Aug. 18, 1911. Serial No. 644,807. (Cl. 134—81.)



1. In an apparatus of the kind described, a portable kettle, a stationary dome for closing the top of the kettle, means for moving the kettle into and out of engagement with the dome, a stirring-device arranged in the dome, comprising a revoluble element and a non-revoluble element, an axially movable revoluble shaft to which said revoluble element is secured, vertical guideways on the interior of the wall of the dome for the non-revoluble element, and means secured to said shaft and engaging said non-revoluble element to move said element when said shaft is moved axially, substantially as described.

2. In an apparatus of the kind described, a kettle, a dome for closing the top of the kettle, an axially movable revoluble shaft extended through the top of the dome, means for moving said shaft axially and means for revolving said shaft, both arranged outside of the dome, a stirring-device arranged in the dome comprising a revoluble element and a non-revoluble element, said revoluble element being secured to the shaft and said non-revoluble element being arranged on and movable axially with the shaft, and vertical guideways on the interior of the wall of the dome for said non-revoluble element which permits of vertical movement but prevents rotary movement thereof, substantially as described.

3. In an apparatus of the kind described, a kettle, a dome for closing the top of the kettle, an axially movable revoluble shaft extended through the top of the dome, means for moving said shaft axially and means for revolving it, both arranged outside of the dome, a bar secured to the lower end of said shaft having a plurality of upwardly extended arms, a cross-bar extended diametrically across the dome which is loosely connected with the shaft, having a plurality of downwardly extended arms, and vertical guideways arranged on the interior of the wall of the dome which receive the ends of said cross-bar and permit vertical movement but prevent rotary movement thereof, substantially as described.

4. In an apparatus of the kind described, the combination of a stationary dome, a stirring-device arranged within the dome, a portable kettle, a rising and falling platform arranged beneath the dome to receive upon it the kettle, and means to raise and lower said platform to move the kettle into and out of engagement with the dome, substantially as described.

5. In an apparatus of the kind described, the combination of a stationary dome, a stirring-device arranged within the dome, a portable kettle, a rising and falling platform arranged beneath the dome to receive upon it the kettle, and means including worm-gearing to raise and lower said platform to move the kettle into and out of engagement with the dome and to hold said kettle in any position it may occupy, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,027,564. PERMUTATION-LOCK. ELLSWORTH E. QUAINTANCE, Denver, Colo. Filed Aug. 22, 1911. Serial No. 645,428. (Cl. 70—19.)



1. A tumbler or permutation device including a shell, a disk adjustably mounted within the shell and having characters formed thereon for setting the combination, the said characters being concealed from view when the parts of the lock are assembled, and a second disk located within the shell and having a series of recesses corresponding in number and arrangement with the characters on the first-named disk.

2. A tumbler or permutation device including a cup-shaped shell, a disk rotatably adjustable in the shell and having a series of characters formed thereon for determining an element of the combination to be solved, the said disk having a single recess, and a second disk having a series of recesses, any one of which is adapted to register with the single recess of the first-named disk when the tumbler parts are assembled, the said recesses of the second disk corresponding in number and arrangement with the characters on the first-named disk.

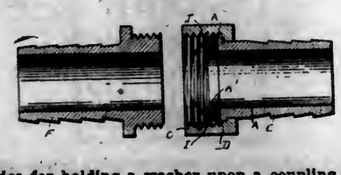
3. A tumbler or permutation device including a shell, and a disk therein having a single recess formed edgewise therein, and a series of characters formed on the face thereof and spaced equi-distantly for determining an element of the combination to be solved, the peripheral edge of the disk having a series of recesses in radial alinement with the respective characters on its face, the shell of the tumbler having a single tongue adapted to engage any one of the peripheral grooves of the disk, according to the character that it is desired to include as an element of the combination to be solved.

4. A tumbler or permutation device including a shell, and a disk therein having a single recess formed edgewise therein, and a series of characters formed on the face thereof and spaced equi-distantly for determining an element of the combination to be solved, the peripheral edge of the disk having a series of recesses in radial alinement with the respective characters on its face, the shell of the tumbler having a single tongue adapted to engage any one of the peripheral grooves of the shell, according to the character which it is desired to include as an element of the combination to be solved, and a second disk having a series of recesses harmonizing in number and arrangement with the characters and peripheral grooves of the first-named disk, any one of said recesses being adapted to register with the single recess of the first named disk, the second disk having a single groove in its peripheral edge adapted to be engaged by the tongue of the shell when one of its series of recesses is in register with the single recess of the character disk.

5. A tumbler or permutation device comprising a shell having an interiorly-projecting flange at one end thereof, the said flange having a series of radially arranged recesses formed in its inner edge, a disk rotatably adjustable in said shell, the said disk having a single recess adapted to register with one of the recesses of the said flange, and a second disk also located in the shell and having a series of recesses corresponding in number and arrangement with those of the shell flange.

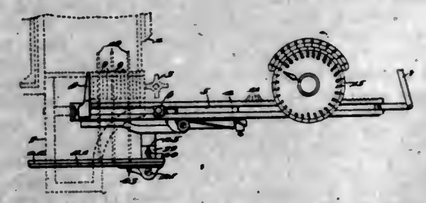
[Claims 6 to 14 not printed in the Gazette.]

1,027,565. GASKET-RETAINER. JONOTHAN WADE RAMAGE, El Paso, Tex. Filed July 11, 1911. Serial No. 637,941. (Cl. 137—28.)



A device for holding a washer upon a coupling member, comprising two coupler heads, resilient members fastened to the inner surface of one of said coupler heads, and having right angled portions designed to engage and hold a washer against the end of said coupler head when the coupler heads are disconnected, the free end of each of said resilient members being bent at an acute angle, and extending toward each other, and against which the other coupler head is adapted to bear to move the same from between the coupler heads as they are brought together, as set forth.

1,027,566. LINOTYPE-MACHINE. WILLIAM M. RAPP, Philadelphia, Pa., assignor to Rapp, Wagman Manufacturing Company, Philadelphia, Pa. Original application filed Aug. 17, 1910, Serial No. 577,640. Divided and this application filed Sept. 21, 1911. Serial No. 650,512. (Cl. 199—9.)



1. In combination with a linotype machine, and space bands having notches in their lower ends, a space band supporting bar of inverted T-shape in cross section, the upwardly projecting flange or member of said bar of appreciably less height than the depth of the notches in the space bands, whereby the space bands are supported at their ends only on the surface of said bar at the sides of said flange, substantially as described.

2. In combination with a linotype machine, and space bands therein having relatively thick outer portions and

relatively thin inner portions notched in their lower ends, a bracket fixed to the machine, a bar pivotally connected to said bracket and adapted to receive thereon the said space bands, means limiting the downward pivotal movement of said bar, whereby it is held normally in horizontal position, said bar of general inverted T-shape in cross section, providing a central guiding flange projecting into the notches in the space bands, said flange of an appreciably less height than the depth of the notches in the space bands, and supports at both sides of said flange for the thicker outside portions of said space bands at their base, substantially as described.

1,027,567. APPARATUS FOR MANUFACTURING GLASSWARE. JOHN SCHIES, Anderson, Ind. Filed May 5, 1909. Serial No. 494,128. (Cl. 49—35.)



1. In an apparatus for manufacturing hollow glassware, the combination with a plunger, press-mold, and means for causing approach between said plunger and press-mold, of elastic-fluid cushioning means operatively interposed between said plunger and press-mold and comprising two parts, namely, a piston and a cylinder having a fluid-compression space between them, the compression of said fluid being caused by relative movement between said two parts, one of said parts having connection with said plunger and the other of said parts having connection with said press-mold and both of said parts acted on by said means for causing approach between said plunger and press-mold for compressing the fluid in said cylinder, the said compressed fluid in said compression-space urging quick recession between said plunger and the pressed glass in said press-mold upon the retraction of said last named means, for the purpose described.

2. In an apparatus for manufacturing hollow glassware, the combination with a plunger, a press-mold, means for causing approach between said plunger and press-mold, and a presser-part, there being relative movement permitted between said plunger and presser-part, of elastic-fluid cushioning means comprising two parts, namely, a piston and a cylinder having a fluid compression space therebetween, arranged for resisting said last-named movement and thereby compressing the elastic-fluid in said space, one of said parts having connection with said plunger and the other of said parts having connection with said presser-part and constructed and arranged for urging recession, by the action of the elastic-fluid compressed in said space, between said plunger and the glass pressed in said press-mold with an explosive impulse, upon retraction of said means for causing approach between said plunger and press-mold, substantially for the purpose described.

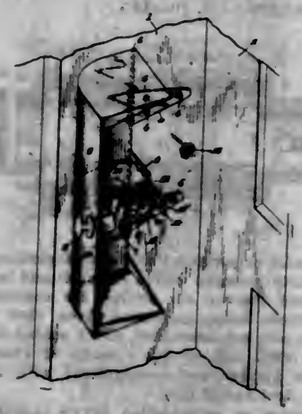
3. In an apparatus for manufacturing hollow glassware, the combination with a plunger, a press-mold, means for causing approach between said plunger and press-mold, and a presser-part, there being relative movement permitted between said plunger and presser-part, of elastic-fluid cushioning means comprising two parts, namely, a piston and a cylinder having a fluid-compression space therebetween, the compression of said fluid being caused by relative movement between said two parts, and arranged for resisting said last-named movement and thereby compressing the elastic-fluid in said space, one of said parts having connection with said plunger and the other of said parts having connection with said presser-part and constructed and arranged for urging recession, by the action of the elastic-fluid compressed in said space, between said plunger and the glass pressed in said press-mold, upon retraction of said means for causing approach between said plunger and press-mold, and means for adjusting the capacity of resistance of said elastic-fluid cushioning means, for the purpose described.

4. In an apparatus for manufacturing glassware, the combination with a plunger and press-mold, of a plunger-actuating piston and cylinder, and a fluid-compression plunger-cushioning piston and cylinder arranged in alinement and in different cross-sectional planes, for the purpose specified.

5. In combination, in an apparatus for manufacturing glassware embracing a plunger and presser-part, an elastic-fluid cushioning device comprising a piston and cylinder operatively interposed between said plunger and presser-part and forming a single elastic-fluid cushion acting upon said presser-part at a plurality of points, cross sectionally of the area of said presser-part substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,027,568. PACKAGE-RECEPTACLE. FRANK A. SELLE, Chicago, Ill. Filed Mar. 16, 1911. Serial No. 614,851. (Cl. 232—42.)



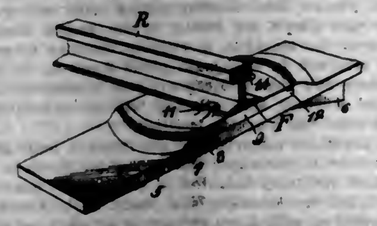
1. In a device of the character described, the combination with a door and a door frame, of a hollow body hinged to said frame adjacent the outer side of said door, adjacent sides of said body being disposed to fit snugly against the adjacent sides of said frame and door, the side of said body adjacent said door being open; a horizontal partition on said body dividing the same into upper and lower compartments; an eye secured to and projecting from said frame below said partition; and a catch lever rockingly mounted upon the under side of said partition having one end formed to engage said eye in order to lock said body with its open side adjacent said door, said lever being positioned by gravity normally in inoperative position, the opposite end of said lever being extended upwardly through said partition and terminating in a member adapted to be depressed by contact with the bottom of an upright bottle or to enter the neck of an inverted bottle, substantially as described.

2. In a device of the character described, the combination with a door and a door frame, of a hollow body hinged to said frame adjacent the outer side of said door, adjacent sides of said body being disposed to fit snugly against the adjacent sides of said frame and door, the side of said body

adjacent said door being open; a horizontal partition on said body dividing the same into upper and lower compartments; an eye secured to and projecting from said frame below said partition; a flange on said partition provided with an aperture adapted to pass over said eye; and a catch lever rockingly mounted upon the under side of said partition having one end formed to engage said eye in order to lock said body with its open side adjacent said door, said lever being positioned by gravity normally in inoperative position, the opposite end of said lever being extended upwardly through said partition and terminating in a member adapted to be depressed by contact with the bottom of an upright bottle or to enter the neck of an inverted bottle, substantially as described.

3. In a device of the character described, the combination with a door and frame, of a receptacle hinged to said frame and having an open side arranged to be closed and opened by said door; a bottle support in said receptacle; a catch lever having one end projecting above said support and adapted to be depressed by contact with an upright bottle or to enter the neck of an inverted bottle; and a catch on said frame arranged to engage said catch lever when said end is depressed to lock said receptacle in closed position; substantially as described.

1,027,569. RAIL-FASTENER. LEE SEXTON, Arjay, Ky. Filed July 1, 1911. Serial No. 636,409. (Cl. 238—4.)



1. The combination with a tie plate and a member to be secured thereon, of a substantially rectangular retaining plate pivotally mounted intermediate of its ends upon the tie plate, said member being seated on the retaining plate, said plate having means formed upon its surface for engagement with said member, the ends of said retaining plate being eccentrically disposed with relation to its pivot, and means arranged upon the tie plate to frictionally engage the ends of the retaining plate to maintain the same in its effective position.

2. The combination with a tie plate and a member to be secured thereon, of a substantially rectangular retaining plate pivotally mounted intermediate of its ends upon the tie plate, said retaining plate having means formed thereon for engagement with said member, means arranged on the tie plate to be engaged by said retaining plate whereby the same is frictionally held against pivotal movement, and additional means for positively locking said retaining plate upon the tie plate and causing a further frictional engagement of the retaining plate with the means on said tie plate.

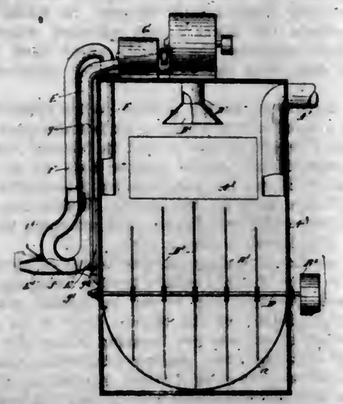
3. The combination with a tie plate and a rail to be secured thereon, of a retaining plate pivotally mounted on the tie plate and having rail engaging means, means arranged on the tie plate for frictionally holding the retaining plate in its effective position, and additional means extending through the retaining plate and the tie plate to cause a further frictional locking action between the retaining plate and the holding means on the tie plate.

4. The combination with a tie plate and a rail to be secured thereon, of a retaining plate movable upon the tie plate and having rail engaging means, means arranged upon the tie plate to hold the retaining plate against movement when the latter is in its effective position, and additional means for positively locking the retaining plate upon the tie plate and causing a further frictional engagement of the retaining plate with the holding means on the tie plate.

5. The combination with a tie plate and a rail to be secured thereon, of a retaining plate pivotally mounted on the tie plate, means arranged on the tie plate to engage said retaining plate and hold the same against pivotal movement, said tie plate and retaining plate having openings therein adapted to aline when the retaining plate is in its effective position, means for insertion through said openings to positively lock the retaining plate upon the tie plate, and additional means arranged in the opening in the tie plate acting upon said locking means to prevent its withdrawal.

[Claims 6 to 10 not printed in the Gazette.]

1,027,570. COMFORTER-FILLING MACHINE. JOHN R. SHELDON, Cambridge, Mass. Filed Feb. 9, 1911. Serial No. 607,723. (Cl. 100—57.)



1. In a comforter-filling machine, a receptacle adapted to contain a supply of material, an agitator located in said receptacle and comprising a series of rotating blades, an outlet in the upper part of said receptacle, a nozzle connected with said outlet, and a fan located between said outlet and said nozzle and serving to withdraw the agitated contents from said receptacle by suction and to force them outward through said nozzle.

2. In a machine for filling comforters, a receptacle, a fan connected to said receptacle to withdraw the contents therefrom, a nozzle connected to said fan to receive said contents from said fan and deliver them, a return pipe connecting said nozzle with said receptacle, and a gate located and adapted to close said nozzle or said return pipe as set forth.

3. In a machine for filling comforters, a receptacle, a nozzle, means for driving the contents of said receptacle through said nozzle, and auxiliary means comprising a fan and a pipe therefrom leading to said nozzle whereby an auxiliary blast may be availed of to clear said nozzle.

4. A filling apparatus comprising a nozzle, means for forcing the filling material through said nozzle, and means, leading to said nozzle, whereby an auxiliary blast may be availed of to clear said nozzle.

5. A filling apparatus comprising a nozzle to deliver the filling to the comforter, a source of supply of filling material, means connected to said nozzle and adapted to withdraw the filling from said source of supply and deliver it to said nozzle, a return pipe connecting said nozzle with said source of supply, and a gate located and adapted to close said nozzle or said return pipe, as set forth.

1,027,571. METHOD OF MANUFACTURE OF TUBULAR BODIES, SUCH AS PIPES, HOLLOW MASTS, OR THE LIKE. HANS SIEGWART, Lucerne, Switzerland. Filed Nov. 5, 1910. Serial No. 590,780. (Cl. 25—90.)

1. The method of making tubular bodies consisting in arranging fillets upon a flexible wrapping sheet, intro-

ducing between the fillets a soft adhesive which will harden, and wrapping the flexible sheet thus loaded around a core.



2. The method of making tubular bodies consisting in arranging fillets upon a flexible wrapping sheet, placing reinforcing rods longitudinally between the fillets, introducing between the fillets a soft adhesive which will harden, and wrapping the flexible sheet thus loaded around a core with the rods extending longitudinally thereof.

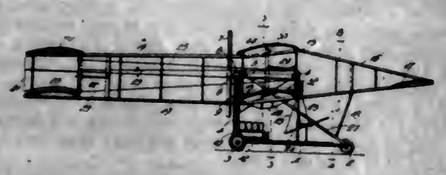
3. The method of making tubular bodies consisting in arranging a layer of fillets upon a flexible wrapping sheet and disposed thereupon end to end in parallel rows extending longitudinally of the tubular body to be made, with the fillets in any one row breaking joints with those in the next adjacent rows, introducing between the fillets a soft adhesive which will harden, and wrapping the flexible sheet thus loaded around a core.

4. The method of making tubular bodies consisting in arranging a layer of fillets upon a flexible wrapping sheet and disposed thereupon end to end in parallel rows extending longitudinally of the tubular body to be made, with the fillets in any one row breaking joints with those in the next adjacent rows, placing reinforcing rods longitudinally between the rows of fillets, introducing between the fillets a soft adhesive which will harden, and wrapping the flexible sheet thus loaded around a core with the rods extending longitudinally thereof.

5. The method of making tubular bodies consisting in arranging fillets upon a flexible wrapping sheet, introducing between the fillets a soft adhesive which will harden, wrapping the flexible sheet thus loaded around a core, and placing a winding of reinforcing wire around the whole.

[Claims 6 and 7 not printed in the Gazette.]

1,027,572. AEROPLANE. JESSE W. SILVER, South Tacoma, Wash., assignor of one-half to Charles P. Savage, Tacoma, Wash. Filed Aug. 8, 1910. Serial No. 576,164. (Cl. 244—14.)



1. An aeroplane comprising a car frame, a longitudinal sleeve secured in the upper end of the car frame, a propeller shaft revolubly mounted in said sleeve, means on the car frame for operating said shaft, a plane carrying frame pivoted on said sleeve and extending above and below the same, planes secured to the upper and lower sides of said frame, a head plane frame rigid with and projecting forwardly from the said plane carrying frame, a brace extending between the car frame and the head plane frame and loosely connected to the same, a tail plane projecting rearwardly from the main plane frame, steering planes mounted on the tail plane frame, operating levers, operating cords to connect said steering planes with said levers whereby said planes are swung in the desired direction for steering the machine, a suitably operated propeller, ailerons arranged in said main plane frame at the ends thereof, and means to connect said ailerons with the car frame for joint action.

2. An aeroplane comprising a wheeled car frame, a main plane frame pivotally mounted on said car frame, main planes arranged on said frame above and below the pivots thereof, a forwardly projecting head plane frame rigid with said main frame, a head plane arranged therein, a rearwardly projecting tail plane frame, upper and lower tail planes arranged therein, a vertical steering plane pivotally mounted between said tail planes, a horizontal steering plane, operating levers, operating cords to connect said steering planes with said levers whereby said planes are swung in the desired direction for steering the machine, a suitably operated propeller, ailerons pivoted at their forward edges between the ends of the frames, and a cord to connect the rear edges of said ailerons with the bottom of the car frame, said cord being connected at its ends to the bottom of the car frame and thence to and entirely across the main frame whereby said ailerons will be automatically operated when the machine is tilted.

3. An aeroplane comprising a wheeled car frame, a main plane frame pivotally mounted on said car frame, main planes arranged on said frame, a forwardly projecting head plane, a rearwardly projecting tail plane frame, upper and lower tail planes arranged therein, a vertical steering plane pivotally mounted between said tail planes, a horizontal steering plane, operating levers, operating cords to connect said steering planes with said levers, whereby said planes are swung in the desired direction for steering the machine, a suitably operated propeller, ailerons arranged in said main plane frame at the ends of the same, and means to connect said ailerons with the car frame whereby said ailerons will be automatically operated when the machine is tilted.

4. An aeroplane comprising a car frame, a longitudinal sleeve secured in the upper end of the car frame, a propeller shaft revolubly mounted in said sleeve, means on the car frame for operating said shaft, a plane carrying frame pivoted on said sleeve and extending above and below the same, planes secured to the upper and lower sides of said frame, a head plane frame rigid with and projecting forwardly frame the said plane carrying frame, a brace extending between the car frame and the head plane frame and loosely connected to the same, steering devices mounted on the plane carrying frame, and means on the car frame to operate said devices.

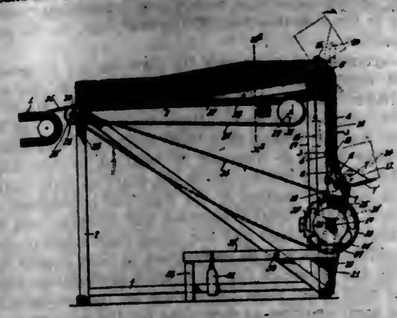
5. An aeroplane comprising a wheeled car frame, a main plane frame pivotally mounted on said car frame, main planes arranged on said frame, above and below the pivots thereof, a forwardly projecting head plane frame rigid with said main frame, a head plane arranged therein, a rearwardly projecting tail plane frame, upper and lower tail planes arranged therein, a vertical steering plane pivotally mounted between said tail planes, a horisontal steering plane, operating levers, operating cords to connect said steering planes with said levers whereby said planes are swung in the desired direction for steering the machine, a suitably operated propeller, ailerons arranged in said main plane frame at the ends of the same, and means to connect said ailerons with the car frame whereby said ailerons will be automatically operated when the machine is tilted.

[Claim 6 not printed in the Gazette.]

1,027,573. FRUIT-ELEVATOR. FRED STEBLER, Riverside, Cal. Filed Apr. 5, 1909. Serial No. 488,115. (Cl. 214—12.)

1. In a fruit elevator, vertically movable means, a box-carrier pivotally mounted on said vertically movable means to raise and lower therewith and to tip thereon, means for arresting the upward movement of the vertically movable means, and means for raising and lowering the box-carrier with the vertically movable means and for operating on the box-carrier, on the arrest of said vertically movable means, to tip the box-carrier when in elevated position.

2. A fruit elevator comprising a frame, a box carrier mounted to move up and down thereon, means for lifting the carrier, comprising a rotary member provided with a crank arm, a connection from said crank arm to the carrier, a rotary driving means, means for operatively disconnecting the rotary member from the said driving means to enable the carrier to descend by gravity, and brake means for arresting the movement of the rotary member.



3. A fruit elevator comprising a frame, a box carrier mounted to move up and down thereon, a rotary member, means for driving said rotary member, an arm mounted to rotate and connected to the box carrier to lift the same, means on said rotary member and on said arm to operatively connect the arm with the rotary member during a portion of the rotation of said member and to allow the arm to move relatively to the rotary member during another portion of such rotation of the rotary member to allow the box carrier to descend by gravity.

4. In a fruit elevator, a box carrier formed as an angle member open at top and front to receive a box and provided at its top with a lodge to retain the box when the carrier is in tipped position, and means for raising and lowering said carrier and for tipping said carrier to dump the fruit therefrom, comprising vertically movable operating means connected to the carrier, and a vertically extending track having an engaging connection with the carrier, to guide the carrier in its vertical movement, and having a horisontal extension to arrest the vertical movement of the connected part of the carrier and cause the carrier to move horisontally, the connection of the operating means to the carrier being out of the vertical line of the engaging conection with the track, so that when the motion of the carrier is arrested it will be tipped by the further movement of the operating means.

5. In a fruit elevator, track means provided with a stop portion, a box carrier having engaging connection with the track means to be guided thereby and to be arrested by the stop means, vertically movable means conected with the carrier at a point out of line with the connection to the track means whereby the carrier is raised by said vertically movable means until it is arrested by the stop on said track means and is then tipped by the further vertical movement of the operating means.

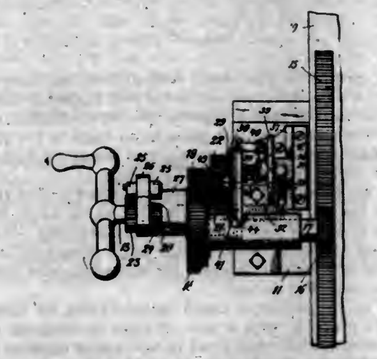
[Claims 6 to 14 not printed in the Gazette.]

1,027,574. WATCH-HOLDER. ALVIN HIGHT SUBLETT, Roanoke, Va., assignor of one-half to Howard Hampton Huffman, Roanoke, Va. Filed June 22, 1911. Serial No. 634,802. (Cl. 224—4.)



The herein described watch holder comprising an upright back plate bent over at its upper edge into a depending tongue of less width than the plate and having slots through its bend, barbs on the tongue projecting toward the back plate and upward toward the bend, curved parallel disposed leaf springs secured to the rear surface of the back plate with their bodies projecting freely through said slots and their upper ends deflected forward into gripping fingers spaced apart from each other for freely receiving the ring of the watch when the same is turned in contact with the watch and a T-shaped frame spaced from the front of said plate and standing parallel therewith, its three extremities being bent backward and secured to the plate.

1,027,575. STOP-MOTION FOR PLANERS AND THE LIKE. CHARLES H. USHER, Chicopee Falls, Mass., assignor of one-half to Frank D. Howard, Chicopee Falls, Mass. Filed Feb. 20, 1911. Serial No. 609,734. (Cl. 90—49.)



1. The combination with tool feed mechanism, of a stop motion including a rotatably mounted cam, means connecting the same in rotative relation with the tool feed mechanism, means for manually adjusting the said cam with relation to the tool feed mechanism, and means operated by the said cam at a predetermined point in its movement of rotation for stopping further tool feeding movements.

2. The combination with transverse tool feeding means, vertical tool feeding means, and common operating means therefor, of a stop motion including a rotatably mounted cam, means for connecting the same in rotative relation with the said transverse tool feeding means or with the said vertical tool feeding means, means for manually adjusting the said cam with relation to the tool feeding means with which it is connected, and means operated by the said cam at a predetermined point in its movement of rotation for stopping further tool feeding movements.

3. The combination with transverse tool feeding means, vertical tool feeding means, and common operating means therefor, of a stop motion including a rotatably mounted cam, means for connecting the same in rotative relation with the said transverse tool feeding means or with the said vertical tool feeding means, means for manually adjusting the said cam with relation to the tool feeding means with which it is connected, and means operated by the said cam at a predetermined point in its movement of rotation for disconnecting the tool feed mechanism from its said operating means.

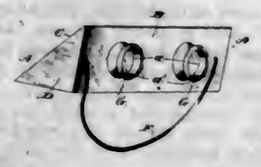
4. The combination with vertical and transverse tool feeding mechanism, of a stop motion comprising a reciprocatory rack and a pinion adapted to be moved axially into or out of engagement with said rack, and means automatically actuated at a predetermined point in the operation of said tool feeding mechanism for arresting further movements thereof, and means for connecting the said stop motion with either the vertical or the transverse tool feeding mechanism.

5. The combination with common operating means for transverse tool feeding mechanism and vertical tool feeding mechanism, of a stop motion for the feeding mechanism comprising a reciprocatory rack and a pinion adapted to

be moved axially into or out of engagement with said rack, and means for connecting the said stop motion with said transverse or vertical tool feeding mechanisms, the said stop motion comprising means automatically actuated at a predetermined point in the operation of the tool feeding mechanism for arresting further movements thereof.

[Claims 6 to 9 not printed in the Gazette.]

1,027,576. OPTICAL TOY. ALEXANDER F. VICTOR, Elmira, N. Y. Filed Apr. 11, 1908. Serial No. 426,535. (Cl. 88—1.)



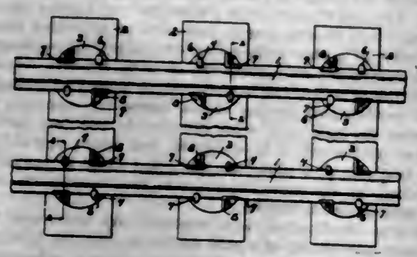
1. In an optical toy, a casing having its bottom open and provided with a sight opening in one side thereof, a mirror supported in said casing opposite the sight opening, said mirror being positioned in a plane at an angle to the plane of the sight opening in the casing, and means for supporting said casing upon the head of a person.

2. In an optical toy, a front wall provided with a sight opening therein, a rear wall extending at an angle from the upper edge of said front wall and provided with a mirror on its inner surface, side walls connecting said front and rear walls, and means for supporting said casing upon the head of a person.

3. In an optical toy, a closed casing having its bottom open and provided with a pair of sight openings in one side thereof, a mirror supported in said casing opposite the sight openings, said mirror being positioned in a plane at an angle to the plane of the sight openings in the casing, and an elastic band having its ends secured to the casing adjacent the ends thereof.

4. In an optical toy, a casing comprising a front wall provided with a pair of sight openings therein, tubular members surrounding said sight openings, a rear wall extending at an angle from the upper edge of said front wall and provided with a mirror on its inner surface, side walls connecting said front and rear walls, and means for supporting said casing upon the head of a person.

1,027,577. TIE-PLATE AND RAIL-FASTENING DEVICE. HENRY P. WHITE, Kalamazoo, Mich. Filed Mar. 14, 1912. Serial No. 683,767. (Cl. 238—2.)



1. In a railway tie plate fastening device, a symmetrical plate with diagonally disposed lugs having right angle faces with overhanging flanges coöperating with oppositely disposed spikes arranged in holes therein and wedges in suitable spaces back of the spikes for retaining the same, coacting for the purpose specified.

2. A symmetrical tie plate with diagonally disposed lugs with overhanging flanges disposed at right angles to each other, and perforations opposite the said lugs for receiving railway spikes, as specified.

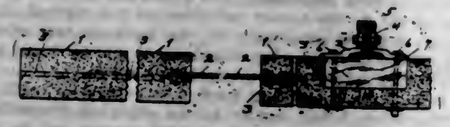
3. A symmetrical reversible tie plate having diagonally disposed right angle lugs with overhanging flanges and so positioned in relation to the tie plate that a straight line passing over the center of the tie plate would pass over the right angle of each of the lugs and intersect the outside of the plate at a point equally distant from the right angle surfaces of the lugs, and suitable perforations for receiving rail spikes equally distant from the right angle of each of the said lugs and directly opposite thereto, adapted to coact with either of the said lugs, for the purpose specified.

4. A symmetrical reversible tie plate having diagonally disposed right angle lugs with overhanging flanges and having their right angles pointing toward the center of the plate, and square perforations opposite said lugs for receiving railway spikes, said right angle lugs and square perforations being so disposed in relation to each other that lines crossing the center of the plate at right angles will pass over the centers of the lugs and perforations at an angle of 45° to their respective side surfaces, and the right angles of the lugs and the inner right angle of each of the perforations will be intersected by lines equally distant from the center of the plate, said perforations being provided with small slots for wedges on their sides opposite said lugs, coacting as described for the purpose specified.

5. A symmetrical reversible tie plate having diagonally disposed right angle lugs with overhanging flanges and having their right angles pointing toward the center of the plate, and square perforations opposite said lugs for receiving railway spikes, said right angle lugs and square perforations being so disposed in relation to each other that lines crossing the center of the plate at right angles will pass over the centers of the lugs and perforations at an angle of 45° to their respective side surfaces and the right angles of the lugs and the inner right angle of each of the perforations will be intersected by lines equally distant from the center of the plate, coacting as described for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,027,578. REINFORCED-CONCRETE CROSS-TIE. ALBERT F. WILSON, Montgomery, Ala. Filed Jan. 16, 1911. Serial No. 602,962. (Cl. 238—3.)



1. A concrete cross-tie including mating sections, and reinforcing members embedded in said sections and having their inner ends resiliently united and their outer ends extended beyond the top of the tie in position to engage the web of a rail.

2. A concrete cross-tie including mating sections, reinforcing means terminating above said sections and partly embedded in said sections and resiliently joined between said sections.

3. A concrete cross-tie embracing two mating sections, a reinforcing member embedded in each section and extended upward beyond the top of said section, and a resilient member connected to each of said reinforcing members between the ends of the tie, substantially as shown.

4. A concrete cross-tie embracing two like end sections, reinforcements embedded in each section and provided with ends adapted to engage a rail, and a resilient member connected to the reinforcement of each of said two sections, substantially as shown.

5. A reinforced concrete cross-tie, comprising two mated concrete sections, a reinforcement terminating in a rail engaging lug embedded in each of said sections, and a resilient member connected at each end to said reinforcements.

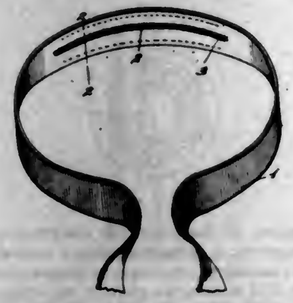
[Claim 6 not printed in the Gazette.]

1,027,579. COUPLING. CLARENCE E. WRIGHT, Apalachicola, Fla. Filed Oct. 7, 1911. Serial No. 653,303. (Cl. 137—28.)



The herein described coupling comprising male and female heads, said female head having lugs formed upon its periphery intermediate of its ends and at diametrically opposite points, the periphery of said head being further provided with longitudinal grooves extending from the base of the lugs to the end of the head and having their base walls longitudinally and convergently inclined, a pair of spring plates longitudinally disposed upon the male coupling head at diametrically opposite points and rigidly secured thereto at one of their ends, the free ends of said plates being outwardly bowed and having their extremities reversely curved for engagement with the inclined walls of the grooves in said female head, said extremities of the spring plates being guided by said grooves as the heads are brought together and directed against the lugs on the female head, said extremities of the spring plates being provided with openings to receive said lugs, and keys adapted for insertion through apertures in the lugs to retain the spring plates thereon.

1,027,580. SCARF. THEODORE ZIOCK, St. Louis, Mo. Filed July 6, 1909. Serial No. 506,084. (Cl. 2—11.)



A scarf made of the same kind of material throughout its length and provided with a long slot extending longitudinally in the neck encircling portion for receiving a collar button, and stiffening strips secured in said scarf extending from said slot to the edges of the scarf whereby said portions of the scarf are held flat and extended for the purpose of preventing said portions folding upon one another.

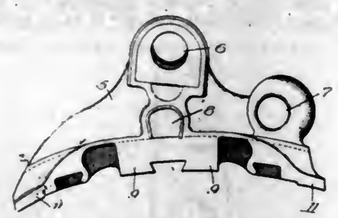
1,027,581. BRAKE-HEAD. CHARLES W. ARMBRUST, Crystal Lake, Ill., assignor of one-half to (Mrs.) Harriet W. Armbrust, North Crystal Lake, Ill. Filed May 29, 1911. Serial No. 630,147. (Cl. 188—28.)

1. A brake head comprising an attaching prong and a plurality of end prongs at each end of the head, said end prongs being provided with recesses to receive the locking lugs of a brake shoe.

2. A brake head comprising centrally disposed attaching prongs and end prongs spaced to receive the end guide lugs of a shoe, said end prongs being provided with transversely extending recesses adapted to receive and interlockingly engage with the locking lugs of a brake shoe.

3. A brake head comprising centrally disposed attaching prongs and end lugs spaced apart, said end lugs being provided with transversely extending recesses closed at one end, said recesses being adapted to receive and interlockingly engage with the locking lugs of a brake shoe.

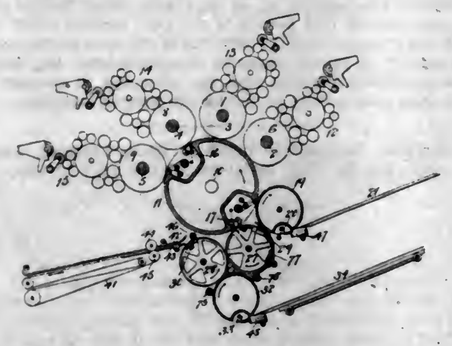
4. A brake head comprising attaching prongs and end prongs provided with locking recesses, and having a web integrally connecting the tops of said attaching prongs and end prongs, a space being provided between said end prongs beneath the web for the insertion of an attaching key.



5. A brake head comprising attaching prongs and a pair of end prongs at each end of the head, and a web extending over the back of the head and integrally connecting said attaching prongs and end prongs, the individual end prongs of each pair being spaced apart and provided with recesses to receive and interlockingly engage with the locking lugs of a brake shoe.

[Claims 6 to 15 not printed in the Gazette.]

1,027,582. SLIP-SHEET-FEEDING DEVICE FOR PRINTING-PRESSES. HOWARD M. BARBER, Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y., a Corporation of New Jersey. Original application filed July 29, 1910, Serial No. 574,486. Divided and this application filed Oct. 31, 1910. Serial No. 589,906. (Cl. 101—29.)



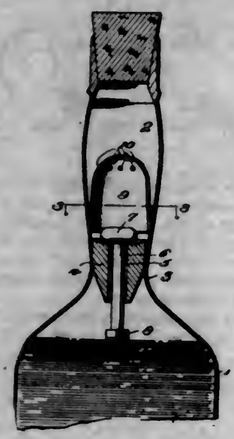
1. A sheet delivery device, a sheet printing mechanism including an impression cylinder arranged to receive and deliver a plurality of sheets for each revolution of the cylinder, a printed sheet transfer device comprising a pair of reels interposed between the impression cylinder and the sheet delivery device and arranged to feed the sheets printed side up to the sheet delivery device and a main sheet feed cylinder arranged to feed a sheet every revolution, to said impression cylinder.

2. A sheet delivery device, a sheet printing mechanism including an impression cylinder arranged to receive and deliver two sheets for each revolution of the cylinder, a printed sheet transfer device comprising a pair of reels interposed between the impression cylinder and the sheet delivery device and arranged to feed the sheets printed side up to the sheet delivery device and a main sheet feed cylinder arranged to feed a sheet every revolution, to said impression cylinder.

1,027,583. NON-REFILLABLE BOTTLE. JOSEPH C. BAYER, deceased, New York, N. Y., by Sarah A. M. Bayer, administratrix, New York, N. Y. Filed May 27, 1911. Serial No. 629,962. (Cl. 215—39.)

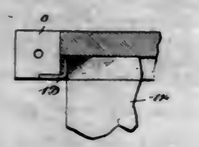
A bottle, provided in its neck with an interior valve seat, an outer valve section adapted to rest on said seat

and movable freely away from the valve seat upon the inversion of the bottle and formed with a longitudinal opening extending therethrough, a stem loosely working in said opening and of greater length than the same, and provided at its outer end with a head adapted to rest against the outer end of the opening to close the same, and a hollow baffle member tapering gradually to a diameter less than that of the outer end of the valve section and



held in the neck above the valve and adapted to receive the stem when the bottle is inverted, the baffle member being formed intermediate of its ends with outlet orifices at points beyond that portion of the baffle member which is of less diameter than the outer end of the valve section and which is of greater diameter than said head, the head being of less diameter than the outer end of the valve section, substantially as and for the purpose described.

1,027,584. WINDOW. ISENE A. BEAN, Lonepine, Ark. Filed Feb. 10, 1912. Serial No. 676,744. (Cl. 20—56.2.)

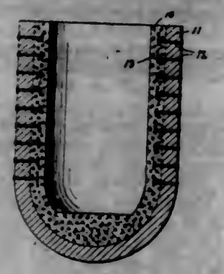


1. A window sash comprising upper and lower rails, side stiles and means for detachably securing the rails and stiles together at their ends, said stiles and rails having longitudinal grooves in their inner edges, and means secured to the upper and lower rails and projecting into the grooves thereof at their ends to engage a transparent pane arranged within said grooves of the stiles and rails to hold the same and prevent its movement in the grooves.

2. A window sash comprising upper and lower rails and side stiles, means to detachably secure the stiles and rails together at their ends, said stiles and rails being provided with longitudinal grooves in their inner edges to receive the edges of a glass pane, said glass loosely fitting into said grooves, and a plurality of yieldable holding members arranged in the grooves of the rails to bear against said glass and hold the same against rattling in said grooves.

3. A window sash comprising upper and lower rails, side stiles and means for detachably connecting the stiles and rails together, said stiles and rails being provided with longitudinal glass receiving grooves in their inner edges, and a leaf spring secured to each end of the upper and lower rails and disposed in the ends of the grooves in said rails to bear against the edges of the glass and yieldingly hold the same in position to prevent rattling thereof.

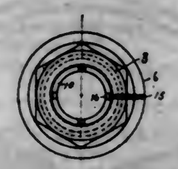
1,027,585. STEEL-MOLD. WILLIAM N. BENNETT, Belleville, N. J., assignor of one-tenth to William W. Lyons and Arnaud G. Heller, Newark, N. J. Filed Nov. 11, 1911. Serial No. 659,854. (Cl. 22—189.)



1. A mold comprising a body portion composed of a mixture of fire clay and asbestos, and a jacket surrounding the body portion.

2. An ingot mold comprising a body portion of material composed of a mixture of fire-clays and a fibrous refractory material, a jacket surrounding the body portion, and anchoring means supported in the jacket and engaging the body portion.

1,027,586. PIPE CONNECTION. LEWIS F. BREAKER, Houston, Tex. Filed Feb. 20, 1911. Serial No. 609,559. (Cl. 137—34.)



1. A coupling of the character described composed of two joint-members, a connecting sleeve secured upon each of said joint-members, overhanging flanges carried by the free ends of said sleeves, an annular rib carried by one of said flanges and coinciding with and fitting into a corresponding groove provided in the other of said flanges, a gasket surrounding said rib and resting in said grove, and an expanding ring surrounding said rib and resting against said gasket and holding the same in place in said groove.

2. A coupling of the character described composed of two joint-members, a connecting sleeve secured upon each of said joint-members, means for locking said sleeves on their respective joint members, overhanging flanges carried by the free ends of said sleeves, an annular rib carried by one of said flanges and coinciding with and fitting into a corresponding groove provided in the other of said flanges, a gasket surrounding said rib and resting in said groove, and an expanding ring surrounding said rib and resting against said gasket and holding the same in place in said grove.

3. A coupling of the character described composed of two joint-members, a connecting sleeve secured upon each of said joint members, a set screw locking each sleeve in engagement, with the joint-member, overhanging flanges carried by the free ends of said sleeves, an annular rib carried by one of said flanges and coinciding with and fitting into a corresponding groove provided in the other of said flanges, a gasket surrounding said rib and resting in said groove, and an expanding ring surrounding said rib and resting against said gasket and holding the same in place in said groove.

1,027,587. SELF-ACTING VALVE FOR PUMPS AND SIMILAR DEVICES. PAUL BRENNER and OTTO HOFFMANN, Duisburg, Germany. Filed Dec. 31, 1908. Serial No. 470,146. (Cl. 103—66.)



1. A device of the character described, comprising a casing having an axially disposed inlet port and an annular circumferential outlet port, said casing being provided with a beveled flange at said outlet port, a rigid annulus freely movable in an axial direction and adapted to engage said flange, and a spring encompassing the casing and made in a separate piece from said annulus, said spring engaging said casing and also said annulus, whereby said annulus is adapted to be projected across the outlet port and to recede therefrom without being subjected to bending strain.

2. A device of the character described, comprising a grooved valve casing having a discharge slit, a pair of annular lips projecting beyond said slit and movable substantially at right angles to the outflowing liquid current, and flexible rings seated in the casing-grooves and engaging the lips.

1,027,588. ATTACHMENT FOR FILLING GREASE-CUPS. MATTHIAS GEORGE BROWN, Gulfport, Miss. Filed June 14, 1910. Serial No. 566,872. (Cl. 184—38.)

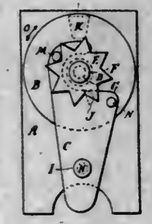


In a lubricating apparatus, the combination of a lubricant-receiving member mounted in fixed position on the article to be lubricated, a cover for said member detachably connected to and carried by the mouth thereof having a relatively small aperture therethrough and a coupling member formed integrally therewith, a removable lubricant-delivery member arranged in abutting relation to the lubricant-receiving member also having a relatively small aperture registering with the aperture in the cover and a complementary coupling member integral therewith coöperating with the coupling member on the cover to bind the two members together, and a tapered nipple and seat engagement between the two members surrounding the apertures thereof to seal the joint therebetween when the coupling members are engaged.

1,027,589. TOY. THEODORE BROWN, Brixton, London, England. Filed Aug. 27, 1910. Serial No. 579,311. (Cl. 46—47.)

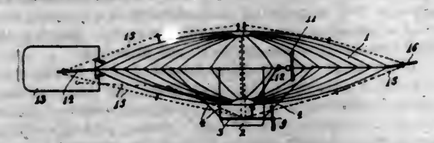
1. An amusement device comprising in combination a plate or card bearing on its front surface a scene, an aperture therein, a movable member bearing a series of representations adapted to give an animated or kinetoscopic effect when actuated, said member being located so as to expose the representations of the series successively through the said aperture, a star wheel and a vibrating lever adapted to impart intermittent motion thereto.

2. An amusement device comprising in combination a plate or card bearing on its front surface a scene, an aperture therein, a rotary member bearing a series of representations adapted to give an animated or kinetoscopic effect when actuated and so located as to expose the representations of the series successively through the said aperture, a star wheel and a vibrating lever adapted when vibrated to impart intermittent rotation to said star wheel and rotary member substantially as described.



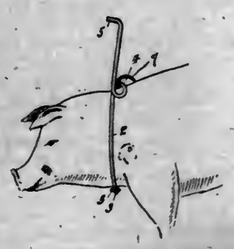
3. An amusement device comprising in combination a plate or card bearing on its front surface a scene, an aperture therein, a movable member bearing a series of representations adapted to give an animated or kinetoscopic effect when actuated, said member being located so as to expose the representations of the series successively through the said aperture, and a reciprocating handle, means connecting the handle to the movable member and whereby the successive reciprocatory movements of said handle are converted into an intermittent and regularly progressive motion in one direction of said movable member which bears the series of representations.

1,027,590. DIRIGIBLE AIRSHIP. ERNST BUCHER, Heidelberg, Germany. Filed June 3, 1910. Serial No. 564,810. (Cl. 244—6.)



An airship comprising in combination, a lens-shaped balloon plane terminating in a sharp outer edge extending completely around the balloon plane, propulsion devices alined with and at the side edges of said plane, a vertically movable steering plane on a line with the front edge of said balloon plane, a horizontally movable steering rudder at the rear of said balloon plane, and vertically movable steering planes at the rear of and on a line with the edge of said balloon plane, said planes being on opposite sides of said rear steering plane.

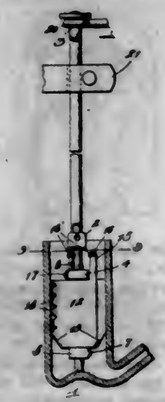
1,027,591. ANIMAL-YOKE. ELMER BURTON, Adrian, Mich. Filed Feb. 2, 1909. Serial No. 475,630. (Cl. 119—139.)



An animal yoke comprising two members, each member being formed of wire, the lower ends of said members

being curved to engage the under side of an animal's neck and provided with engaging loops, each of the members being further formed with loops spaced apart from the upper ends thereof, the upper ends of the members being formed with angular fence engaging ends, and a wire member connecting the loops last mentioned, said wire member having a curved neck engaging end forming a punishment member.

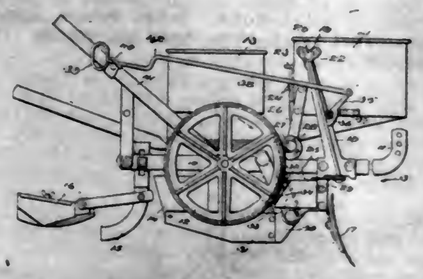
1,027,592. SCRAPER. JOHN W. CHAMPION, Pueblo, Colo. Filed Sept. 13, 1911. Serial No. 649,059. (Cl. 83—64.)



1. A scraper of the class described, comprising a shaft, upper and lower blocks secured to said shaft and arranged in spaced relation, plates having cutting edges, said plates being pivotally connected to said blocks, lugs secured to diagonally opposite corners of the upper block, said plates having vertical extensions on the upper edges, coil springs having their opposite terminals secured to the lugs and extensions respectively, whereby the cutting edges of the plates are held in yielding contact with the interior surface of a vessel or the like, and means for limiting the pivotal movement of the plates in one direction.

2. In a scraper of the class described, the combination of a shaft, a pair of blocks secured thereon and arranged in spaced relation, a pair of oppositely disposed plates pivotally connected between said blocks, having cutting edges formed thereon, stops adjustably secured to said blocks and engaging said plates, whereby said plates may be adjusted to permit the cutting edges to yieldingly contact with the inner wall of a vessel, and a handle pivotally connected to the upper end of said shaft, which when operated rotates said scraper.

1,027,593. FERTILIZER-DISTRIBUTER AND PLANTER. CYRIL B. CLARK, New Albany, Ind., assignor to B. F. Avery & Sons, Louisville, Ky., a Corporation of Kentucky. Filed Oct. 23, 1908. Serial No. 459,274. (Cl. 111—33.)



1. In a machine of the class described, a wheeled frame, a receptacle movably mounted upon the frame, and a journaled cam carried by the receptacle adapted to engage the periphery of the wheel.

2. In a machine of the class described, a frame, a wheel supporting the frame, a receptacle pivotally mounted upon the frame, and a cam journaled upon the receptacle, and adapted to engage the periphery of the wheel.

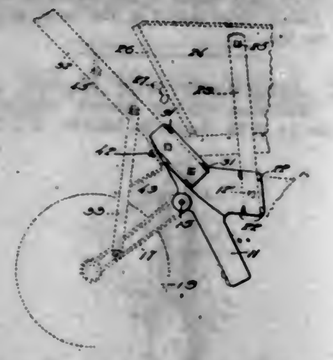
3. In a machine of the class described, a frame, a wheel supporting the frame, an upright carried by the frame, a receptacle pivotally mounted upon the upright, and a cam journaled upon the receptacle, and adapted to engage the periphery of the wheel.

4. In a machine of the class described, a frame, a wheel supporting the frame, a receptacle movably mounted upon the frame, and a pallet-shaped cam journaled upon the receptacle and adapted to engage the periphery of the wheel.

5. In a machine of the class described, a frame, a wheel supporting the frame, an upright extending upwardly from the frame, a receptacle pivotally carried by the upright, an arm carried by the receptacle, and a cam journaled upon the arm and adapted to engage the periphery of the wheel.

[Claims 6 to 24 not printed in the Gazette.]

1,027,594. FERTILIZER-DISTRIBUTER. CYRIL B. CLARK, New Albany, Ind., assignor to B. F. Avery & Sons, Louisville, Ky., a Corporation of Kentucky. Filed Oct. 23, 1908. Serial No. 459,275. (Cl. 111—33.)



1. In a machine of the character described, a metallic member composed of substantially similar interengaging sections adapted to receive the beam, the handles and the wheel supports, and to be held together by means serving at the same time to secure the beam, handles and wheel supports in position.

2. In a machine of the character described, a metallic member composed of substantially similar interengaging sections adapted to receive the beam, the handles and the wheel supports, and to serve as a discharge chute, said sections being held together by means serving at the same time to secure the beam, handles and wheel supports in position.

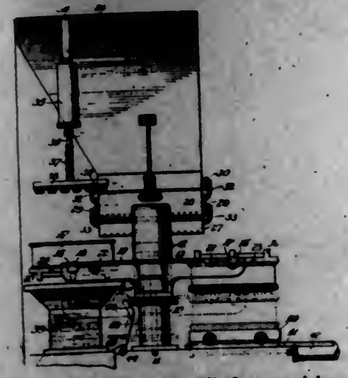
3. In a machine of the character described, a metallic member, composed of substantially similar interlocking sections provided with lugs adapted to receive the beam, handles and the wheel supports, and to be held together by bolts serving at the same time to secure the beam, handles and wheel supports in position.

4. In a machine of the character described, a metallic member composed of substantially similar interlocking sections provided with lugs adapted to receive the beam, handles and wheel supports, and to serve as a discharge chute, said sections being held together by means serving at the same time to secure the beam, handles and wheel supports in position.

5. In a machine of the class described, a metallic member comprising interlocking complementary parts, a pair of handles, one secured to each of the interlocking parts, a pair of wheel supports one secured to each of the interlocking parts, a pair of upright receptacle supports, one secured to each of the interlocking parts, a beam disposed between said parts, means inserted through said parts and the beam whereby the parts are held rigidly in engagement, and means adapted to discharge material into the metallic member.

[Claim 6 not printed in the Gazette.]

1,027,595. MACHINE FOR MOLDING. EDSON C. COVERT, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Sept. 11, 1911. Serial No. 648,790. (Cl. 22—45.)



1. A device of the class described, comprising, in combination, a rotatable and vertically movable carrier adapted for bodily vertical movement and rotation about a fixed axis, a plurality of pattern plates and flasks, each rotatably mounted on said carrier, means for supplying sand to said flasks, means for jolting said sand and means cooperating with said carrier for drawing the pattern, substantially as described.

2. A device of the class described comprising, in combination, a plunger, a carrier mounted on said plunger and adapted for vertical movement and rotation relative to said plunger, pattern plates and flasks mounted on said carrier, means for holding said pattern plates and flasks in horizontal position, means for supplying sand to said flasks, means for jolting the sand in said flasks and means for drawing the pattern, substantially as described.

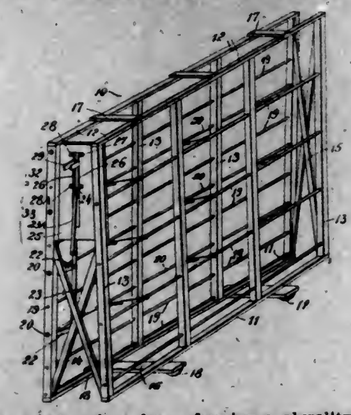
3. A molding machine comprising, in combination, a stationary plunger, a cylinder coöperating with said plunger, a plurality of carrier arms connected to said cylinder, pattern plates and flasks mounted on said carriers, means for holding said pattern plates and flasks in horizontal position, means for supplying sand to said flasks, means for jolting the sand and means for drawing the pattern, substantially as described.

4. A molding machine comprising, in combination, a stationary plunger, a cylinder coöperating with said plunger, a plurality of carrier arms connected to said cylinder, pattern plates and flasks mounted on said carriers, means for holding said pattern plates and flasks in horizontal position, means for supplying sand to said flasks, means for jolting the sand, automatic means for starting and stopping said jolter and means for drawing the pattern, substantially as described.

5. A molding machine comprising, in combination, a plunger, a cylinder mounted on said plunger and adapted for rotation and vertical movement with relation thereto, a plurality of pairs of carriers projecting radially from said cylinder, means on said carrier adapted to receive the trunnions of pattern plates, flasks carried by said pattern plates, means for supplying sand to said flasks, means for jolting said sand, automatic means for starting and stopping said jolter and means for drawing said pattern and removing said flask, substantially as described.

1,027,596. PORTABLE HAT-RACK. JOHN W. CRAFT, Yonkers, N. Y. Filed June 27, 1911. Serial No. 635,536. (Cl. 211—14.)

1. In a hat rack, a frame forming a plurality of compartments each adapted to receive a hat, a plurality of rods running across said compartments, holding pegs projecting from said rods within each compartment, and an actuating mechanism arranged to simultaneously rotate said rods to move the pegs into positions to hold the hats within the compartments; said actuating mechanism comprising a slidable block operatively connected to said rods, manual means for moving said block, and means for locking the block at the ends of its path of movement.



2. In a hat rack, a frame forming a plurality of compartments each adapted to receive a hat, a plurality of rods running across said compartments, holding pegs projecting from said rods within each compartment, and an actuating mechanism arranged to simultaneously rotate said rods to move the pegs into positions to hold the hats within the compartments; said actuating mechanism comprising a vertically slidable block operatively connected to said rods, a track therefor provided with notches, and a spring catch affixed to the block and arranged to engage with said notches.

3. In a hat rack, a frame forming a plurality of compartments open at the front of the frame each adapted to receive a hat, a plurality of rods running transversely across the back of said compartments, holding pegs projecting from said rods within each compartment, and an actuating mechanism arranged to simultaneously rotate said rods to move the pegs into positions inside of the hats within the compartments; said actuating mechanism comprising a vertically slidable block operatively connected to said rods, a track therefor provided with notches, a pair of springs affixed to the block and arranged to engage with said notches, and finger pieces projecting from said springs.

1,027,597. HYDRAULIC PRESS FOR PRODUCING HOLLOW EARTHENWARE BODIES. EMILE DOR-DELATTRE, Liege, Belgium. Filed Feb. 7, 1911. Serial No. 607,127. (Cl. 25—28.)

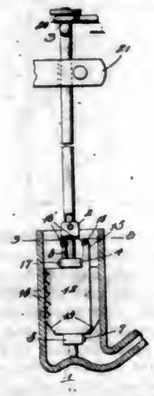
1. In a press for the purpose described, the combination of a vertically movable casing for the material to be pressed, a stationary draw-plate arranged to limit the upward movement of and form a top for said casing, a removable cover for the passage in the draw-plate, concentric plungers within the casing, and means for moving said plungers toward the stationary draw-plate and projecting one thereof into the passage in said plate.

2. In a press for the purpose described, the combination of a vertically movable casing for the material to be pressed, a stationary draw-plate arranged above and adapted to serve as a top for the casing, a hydraulic press arranged to lift the casing and maintain it in close contact with the draw-plate, a removable cover for the passage in the draw-plate, two concentric plungers within the casing, and hydraulic means for moving both plungers toward the stationary draw-plate and projecting the central plunger into the passage in said plate.

3. In a press for the purpose described, the combination of a vertically movable casing for the material to be

being curved to engage the under side of an animal's neck and provided with engaging loops, each of the members being further formed with loops spaced apart from the upper ends thereof, the upper ends of the members being formed with angular fence engaging ends, and a wire member connecting the loops last mentioned, said wire member having a curved neck engaging end forming a punishment member.

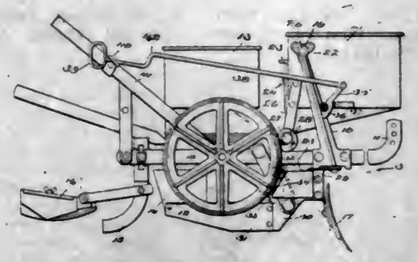
1,027,592. SCRAPER. JOHN W. CHAMPION, Pueblo, Colo. Filed Sept. 13, 1911. Serial No. 649,059. (Cl. 83—64.)



1. A scraper of the class described, comprising a shaft, upper and lower blocks secured to said shaft and arranged in spaced relation, plates having cutting edges, said plates being pivotally connected to said blocks, lugs secured to diagonally opposite corners of the upper block, said plates having vertical extensions on the upper edges, coil springs having their opposite terminals secured to the lugs and extensions respectively, whereby the cutting edges of the plates are held in yielding contact with the interior surface of a vessel or the like, and means for limiting the pivotal movement of the plates in one direction.

2. In a scraper of the class described, the combination of a shaft, a pair of blocks secured thereon and arranged in spaced relation, a pair of oppositely disposed plates pivotally connected between said blocks, having cutting edges formed thereon, stops adjustably secured to said blocks and engaging said plates, whereby said plates may be adjusted to permit the cutting edges to yieldingly contact with the inner wall of a vessel, and a handle pivotally connected to the upper end of said shaft, which when operated rotates said scraper.

1,027,593. FERTILIZER-DISTRIBUTER AND PLANTER. CYRIL B. CLARK, New Albany, Ind., assignor to B. F. Avery & Sons, Louisville, Ky., a Corporation of Kentucky. Filed Oct. 23, 1908. Serial No. 459,274. (Cl. 111—33.)



1. In a machine of the class described, a wheeled frame, a receptacle movably mounted upon the frame, and a journaled cam carried by the receptacle adapted to engage the periphery of the wheel.

2. In a machine of the class described, a frame, a wheel supporting the frame, a receptacle pivotally mounted upon the frame, and a cam journaled upon the receptacle, and adapted to engage the periphery of the wheel.

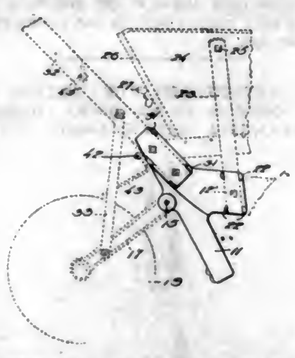
3. In a machine of the class described, a frame, a wheel supporting the frame, an upright carried by the frame, a receptacle pivotally mounted upon the upright, and a cam journaled upon the receptacle, and adapted to engage the periphery of the wheel.

4. In a machine of the class described, a frame, a wheel supporting the frame, a receptacle movably mounted upon the frame, and a pallet-shaped cam journaled upon the receptacle and adapted to engage the periphery of the wheel.

5. In a machine of the class described, a frame, a wheel supporting the frame, an upright extending upwardly from the frame, a receptacle pivotally carried by the upright, an arm carried by the receptacle, and a cam journaled upon the arm and adapted to engage the periphery of the wheel.

[Claims 6 to 24 not printed in the Gazette.]

1,027,594. FERTILIZER-DISTRIBUTER. CYRIL B. CLARK, New Albany, Ind., assignor to B. F. Avery & Sons, Louisville, Ky., a Corporation of Kentucky. Filed Oct. 23, 1908. Serial No. 459,275. (Cl. 111—33.)



1. In a machine of the character described, a metallic member composed of substantially similar interengaging sections adapted to receive the beam, the handles and the wheel supports, and to be held together by means serving at the same time to secure the beam, handles and wheel supports in position.

2. In a machine of the character described, a metallic member composed of substantially similar interengaging sections adapted to receive the beam, the handles and the wheel supports, and to serve as a discharge chute, said sections being held together by means serving at the same time to secure the beam, handles and wheel supports in position.

3. In a machine of the character described, a metallic member, composed of substantially similar interlocking sections provided with lugs adapted to receive the beam, handles and the wheel supports, and to be held together by bolts serving at the same time to secure the beam, handles and wheel supports in position.

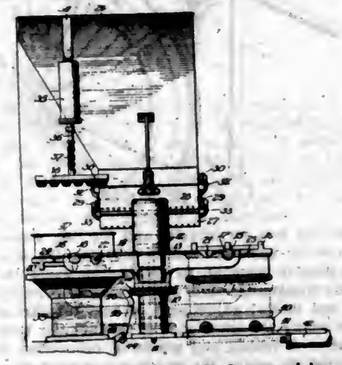
4. In a machine of the character described, a metallic member composed of substantially similar interlocking sections provided with lugs adapted to receive the beam, handles and wheel supports, and to serve as a discharge chute, said sections being held together by means serving at the same time to secure the beam, handles and wheel supports in position.

5. In a machine of the class described, a metallic member comprising interlocking complementary parts, a pair of handles, one secured to each of the interlocking parts, a pair of wheel supports one secured to each of the interlocking parts, a pair of upright receptacle supports, one secured to each of the interlocking parts, a beam disposed between said parts, means inserted through said parts and

the beam whereby the parts are held rigidly in engagement, and means adapted to discharge material into the metallic member.

[Claim 6 not printed in the Gazette.]

1,027,595. MACHINE FOR MOLDING. EDSON C. COVERT, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Sept. 11, 1911. Serial No. 648,700. (Cl. 22—45.)



1. A device of the class described, comprising, in combination, a rotatable and vertically movable carrier adapted for bodily vertical movement and rotation about a fixed axis, a plurality of pattern plates and flasks, each rotatably mounted on said carrier, means for supplying sand to said flasks, means for jolting said sand and means cooperating with said carrier for drawing the pattern, substantially as described.

2. A device of the class described comprising, in combination, a plunger, a carrier mounted on said plunger and adapted for vertical movement and rotation relative to said plunger, pattern plates and flasks mounted on said carrier, means for holding said pattern plates and flasks in horizontal position, means for supplying sand to said flasks, means for jolting the sand in said flasks and means for drawing the pattern, substantially as described.

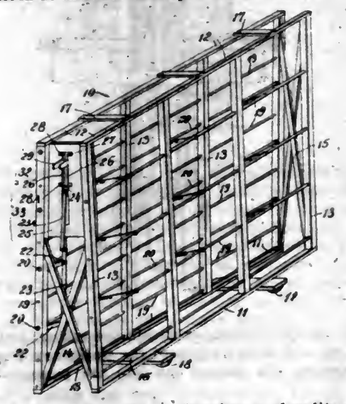
3. A molding machine comprising, in combination, a stationary plunger, a cylinder coöperating with said plunger, a plurality of carrier arms connected to said cylinder, pattern plates and flasks mounted on said carriers, means for holding said pattern plates and flasks in horizontal position, means for supplying sand to said flasks, means for jolting the sand and means for drawing the pattern, substantially as described.

4. A molding machine comprising, in combination, a stationary plunger, a cylinder coöperating with said plunger, a plurality of carrier arms connected to said cylinder, pattern plates and flasks mounted on said carriers, means for holding said pattern plates and flasks in horizontal position, means for supplying sand to said flasks, means for jolting the sand, automatic means for starting and stopping said jolter and means for drawing the pattern, substantially as described.

5. A molding machine comprising, in combination, a plunger, a cylinder mounted on said plunger and adapted for rotation and vertical movement with relation thereto, a plurality of pairs of carriers projecting radially from said cylinder, means on said carrier adapted to receive the trunnions of pattern plates, flasks carried by said pattern plates, means for supplying sand to said flasks, means for jolting said sand, automatic means for starting and stopping said jolter and means for drawing said pattern and removing said flask, substantially as described.

1,027,596. PORTABLE HAT-RACK. JOHN W. CRAFT, Yonkers, N. Y. Filed June 27, 1911. Serial No. 635,536. (Cl. 211—14.)

1. In a hat rack, a frame forming a plurality of compartments each adapted to receive a hat, a plurality of rods running across said compartments, holding pegs projecting from said rods within each compartment, and an actuating mechanism arranged to simultaneously rotate said rods to move the pegs into positions to hold the hats within the compartments; said actuating mechanism comprising a slidable block operatively connected to said rods, manual means for moving said block, and means for locking the block at the ends of its path of movement.



2. In a hat rack, a frame forming a plurality of compartments each adapted to receive a hat, a plurality of rods running across said compartments, holding pegs projecting from said rods within each compartment, and an actuating mechanism arranged to simultaneously rotate said rods to move the pegs into positions to hold the hats within the compartments; said actuating mechanism comprising a vertically slidable block operatively connected to said rods, a track therefor provided with notches, and a spring catch affixed to the block and arranged to engage with said notches.

3. In a hat rack, a frame forming a plurality of compartments open at the front of the frame each adapted to receive a hat, a plurality of rods running transversely across the back of said compartments, holding pegs projecting from said rods within each compartment, and an actuating mechanism arranged to simultaneously rotate said rods to move the pegs into positions inside of the hats within the compartments; said actuating mechanism comprising a vertically slidable block operatively connected to said rods, a track therefor provided with notches, a pair of springs affixed to the block and arranged to engage with said notches, and finger pieces projecting from said springs.

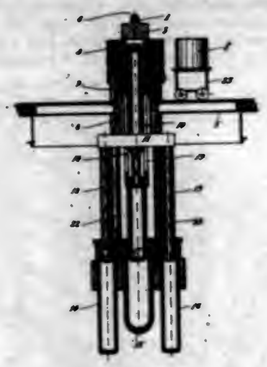
1,027,597. HYDRAULIC PRESS FOR PRODUCING HOLLOW EARTHENWARE BODIES. EMILE DOR-DELATTRE, Liege, Belgium. Filed Feb. 7, 1911. Serial No. 607,127. (Cl. 25—23.)

1. In a press for the purpose described, the combination of a vertically movable casing for the material to be pressed, a stationary draw-plate arranged to limit the upward movement of and form a top for said casing, a removable cover for the passage in the draw-plate, concentric plungers within the casing, and means for moving said plungers toward the stationary draw-plate and projecting one thereof into the passage in said plate.

2. In a press for the purpose described, the combination of a vertically movable casing for the material to be pressed, a stationary draw-plate arranged above and adapted to serve as a top for the casing, a hydraulic press arranged to lift the casing and maintain it in close contact with the draw-plate, a removable cover for the passage in the draw-plate, two concentric plungers within the casing, and hydraulic means for moving both plungers toward the stationary draw-plate and projecting the central plunger into the passage in said plate.

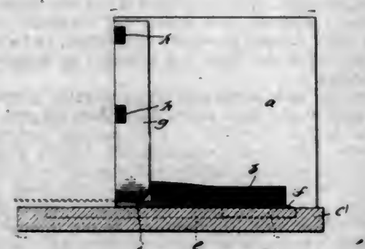
3. In a press for the purpose described, the combination of a vertically movable casing for the material to be

pressed, a stationary draw-plate arranged to limit the upward movement of and form a top for said casing, a removable cover for the passage in the draw-plate, a platform projecting laterally from and movable with the cas-



ing, two concentric plungers within the casing, and means for moving said plungers toward the stationary draw-plate and projecting the central one into the passage in said plate.

1,027,598. MEANS FOR FEEDING METAL SHEETS. OTTO DEMPEWOLF, Brunswick, Germany, assignor to Bremer & Brückmann, Brunswick, Germany. Filed Sept. 8, 1910. Serial No. 581,053. (Cl. 113—113.)



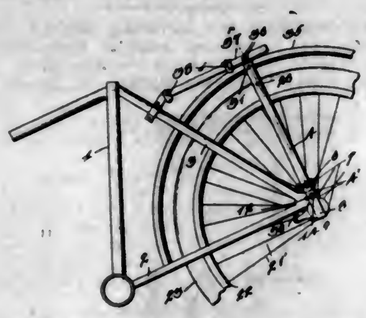
1. The combination with means for holding and feeding, one at a time, from the bottom of a pile of metal sheets, of a projection in the path of the moving sheet to flex the same during its movement, for the purpose specified, said projection tapering in two crossing directions to produce a plurality of flexures in the sheet.

2. The combination of means for holding a stack of sheets and means for advancing the sheets one at a time from the bottom of the stack said holding means having a projection upon its supporting surface and partly disposed beneath said stack so as to hold the bottom sheet flexed or bent transversely of the direction of movement of said sheets as they are fed from the stack.

3. The combination of means for holding a stack of metal sheets said means presenting a substantially flat supporting surface and a projection intermediate the side edges of said surface and curved transversely and normally disposed beneath an edge portion of the stack and means upon the opposite side of said projection for advancing the sheets one at a time from the bottom of the stack and over said projection.

1,027,599. SPRING-FORK FOR BICYCLES. OLOF A. ECKAN, Kindred, N. D. Filed Nov. 15, 1911. Serial No. 660,382. (Cl. 208—101.)

1. A spring fork for bicycles and the like, comprising a pair of tubular members, means to mount the lower ends of said tubular members on the frame of a vehicle, means to yieldingly mount a wheel hub between said tubular members, and means for the vertical and lateral adjustment of said tubular members.



2. A spring fork for bicycles and the like, comprising a pair of tubular members, means engaging the upper ends of said tubular member to retain the same in spaced horizontal alinement, said latter means permitting the vertical and lateral adjustment of said tubular members, means to secure the lower ends of said tubular members to the frame of a vehicle and means in connection with the last referred to means for yieldingly supporting a wheel hub between the tubular members.

3. The combination with the frame of a bicycle or the like; of a pair of tubular members, spring members disposed therewithin, means to mount the lower ends of said tubular members on the rear of the frame, means in connection with the last referred to means and coöperating with said spring members to yieldingly support a wheel hub between said tubular members, means for the lateral and vertical adjustment of said tubular members, and bracing means between said frame and said tubular members.

4. In a device of the class described, the combination with the frame of a bicycle or the like; of a pair of tubular members, spring members disposed therewithin, plunger members entered within said tubular members from the lower ends thereof, sockets secured to the lower ends of said tubular members and receiving portions of said plungers, means to mount said sockets on the frame, and bracing means between said frame and tubular members.

5. In a device of the class described, the combination with the frame of a bicycle or the like; of a pair of tubular members, spring members disposed therewithin, plunger members entered within said tubular members from the lower ends thereof, sockets secured to the lower ends of said tubular members and receiving portions of said plungers, means to mount said sockets on the frame, means for the vertical and lateral adjustment of said tubular members, and bracing means between said frame and said tubular members.

[Claims 6 to 10 not printed in the Gazette.]

1,027,600. IGNITING DEVICE. ARTHUR EHLERT, Wollin, Wollin Island, Germany. Filed Aug. 10, 1911. Serial No. 643,320. (Cl. 67—8.).

1. A pyrophorous igniting device comprising a body of pyrophorous material and a wick within said body.

2. A pyrophorous igniting device comprising a tube of pyrophorous material closed at one end and a wick within said tube and projecting partly through the open end of said tube.

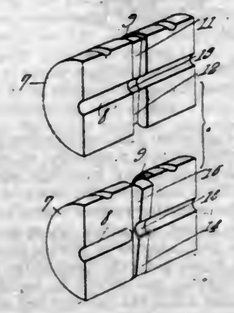
3. A pyrophorous igniting device comprising a body of pyrophorous material, a wick within said body, an adjustable clamping socket for said body, and an igniter holder having means whereby said socket can be adjustably clamped thereto.

4. A pyrophorous igniting device comprising a body of pyrophorous material, a wick within said body, a tube to which said body is fixed, and means for securing said tube to the casing of the igniter holder, substantially as described and for the purpose stated.



5. A pyrophorous igniting device comprising a body of pyrophorous material, a wick within said body, a tube to which said body is fixed, and means for securing said tube to the casing of the igniter holder, an adjustable clamping socket for said body, and an igniter holder having means whereby said socket can be adjustably clamped thereto, substantially as described.

1,027,601. INSULATOR AND SUPPORT. LAWRENCE F. GRESSETT, Ballinger, Tex. Filed Apr. 24, 1911. Serial No. 623,030. (Cl. 173—314.)



An insulator and support therefor, comprising an insulator made in two semi-cylindrical sections, one of said sections being provided with a transverse grooved portion centrally of the flat face thereof, said groove being deeper at one end than the other, the other section being provided with a projection adapted to register with said transverse groove to prevent longitudinal movement of the sections, the two said sections being provided with a concentric wire receptacle when assembled, the transverse projection of one of the sections being provided with a channel whose lower wall is above the respective wall of the concentric channel of the section, to receive the wire and make a bend therein when the sections are assembled, said sections being further provided with a circumferential groove disposed in line with the transverse slot thereof, and a support adapted to surround and fit within said circumferential groove to hold the sections in clamped position.

1,027,602. FLY-TRAP. WILLIAM J. HAMILTON, Alliance, Nebr. Filed Oct. 18, 1911. Serial No. 655,362. (Cl. 43—22.)

1. In a fly trap, an inner trap casing V-shaped in cross section, the trap casing having end pieces having their side edges stepped, sheets of mesh work bent upon themselves and spaced apart at the points where they are bent to form an opening and secured to the end pieces above the stepped portion, the inner portions of said mesh work being extended below the outer portion, while the outer portions thereof are bent slightly outward, areas of mesh work secured to the edges of the end pieces below the stepped portions and bent slightly over the stepped portions, the last mentioned areas of mesh work having their upper edges spaced apart between the inner and outer portions of the first mesh work and means for securing the sheets of mesh work to the end pieces.



2. The combination, an outer casing comprising a top and bottom and having mesh work sides between them, an inner casing open at the bottom supported from the bottom of the outer casing and extending inwardly thereof, the inner casing being V-shaped in cross section and having end pieces having their side edges stepped, sheets of mesh work bent upon themselves and spaced apart at the points where they are bent to form an opening and secured to the end pieces above the stepped portion, the inner portions of said mesh work being extended below the outer portion, while the outer portions thereof are bent slightly outward, areas of mesh work secured to the edges of the end pieces below the stepped portions and bent slightly over the stepped portions, the last mentioned areas of mesh work having their upper edges spaced apart between the inner and outer portions of the first mesh work and means for securing the sheets of mesh work to the end pieces, the end pieces having grooves, the inner portions of the first mesh work being extended below the upper edges of the first mesh work and secured in the groove at their ends.

1,027,603. COMBINED SHIRT AND COLLAR FASTENING DEVICE. HIRAM DE WITT HILDRETH, Hamilton, Ontario, Canada. Filed Jan. 23, 1911. Serial No. 604,242. (Cl. 24—80.)

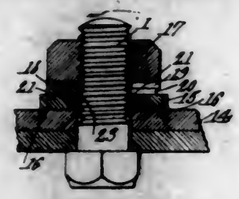


In a shirt and collar fastening device, the combination of a U-shaped piece of material, a similarly outlined piece of springy material fitted therein one leg of which is secured to one limb of the first named U-shaped piece, by means of a rivet the other leg of said piece being free to move toward the first named leg, a stud attachment fixed to the rear upper end of the same limb as the spring is secured said stud attachment being provided with an elongated head extending longitudinally of the U-shaped piece and having its shank extended through the limb and spring to constitute a pintle for engagement in a hole provided for its reception in the free end of the aforesaid spring, and a finger lever pivoted within a slot in the opposite limb of the U-shaped piece and provided with an inclined extension for coöperating with the free end of the aforesaid spring, substantially as shown for the purpose specified.

1,027,604. NUT-LOCK. ERASTUS A. HODGE, Spokane, Wash., assignor of one-fourth to Frank W. Oman, Spokane, Wash. Filed June 24, 1911. Serial No. 635,056. (Cl. 151—66.)

1. A nut-lock, including a bolt, a washer receiving said bolt, means for the retention of said washer against turning, and a resilient bifurcated key, said washer and nut

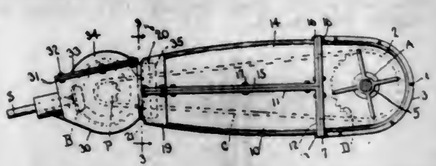
having complemental radial grooves to receive said key and said key having a lateral lug adapted to engage said washer at the edge of the bolt-receiving opening.



2. A nut-lock, including a bolt having a longitudinal groove in its thread, a washer receiving said bolt and having a radial tongue engaging said groove, and a resilient bifurcated key having a lateral lug at its inner end, said lug standing at a right angle to the body portion of said key and adapted to engage said washer, said nut and washer having complemental radial grooves bodily receiving said key, said washer having the edge or wall of its bolt-receiving orifice distant from the bolt, to receive said lug.

3. A nut-lock, including a bolt having a longitudinal groove in its threaded portion, a washer having a radial tongue engaging said groove, a nut also receiving said bolt, and a resilient furcated key having a lateral lug, said washer and nut having complemental radial grooves in their opposed surfaces bodily receiving said key, the grooves of said washer terminating distantly from the bolt-receiving orifice to provide for the reception of said lateral lug at that point.

1,027,605. SPROCKET-CHAIN HOUSING. ARNOLD P. HOFFMAN, WILLIAM E. HOFFMAN, and ELMER F. ALTMAN, Minneapolis, Minn. Filed July 24, 1911. Serial No. 640,049. (Cl. 74—56.)

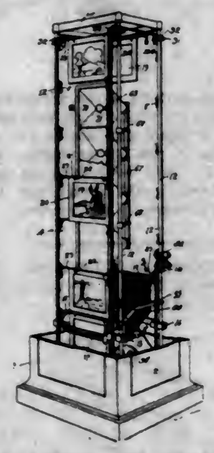


1. The herein described sprocket housing comprising two members, one having a tubular neck directed toward the other, and the latter having an enlarged end with a bell mouth loosely surrounding said neck and containing an internal groove, and packing in said groove around said neck to permit telescopic and flexible movements between the said members.

2. The herein described sprocket housing comprising an outer member having an open inner end with lateral flanges, an intermediate member made in two parts having lateral flanges at their outer ends adapted to contact with those mentioned and having side flanges along their meeting lines adapted to contact with each other, the inner ends of both parts having enlargements complementing each other and provided with internal groves meeting end to end so as to produce a bell mouth on this member, means for detachably connecting all said flanges where they meet, an inner member having a tubular neck projecting into said bell mouth, and packing within the groove around such neck.

3. The herein described sprocket housing comprising an outer member having an open front end with lateral flanges, an intermediate member made in two parts having lateral flanges at their rear ends adapted to contact with those mentioned and having side flanges along their meeting lines adapted to contact with each other, an inner member made in two parts having side flanges along their meeting lines adapted to contact with each other, means for detachably connecting all said flanges where they meet, and a telescopic connection between the two members last named.

1,027,606. DISPLAY APPARATUS. HARRY HOLDEN, Los Angeles, Cal., assignor to Emma Lang Investment Company, Los Angeles, Cal., a Corporation of California. Filed Mar. 6, 1911. Serial No. 613,932. (Cl. 40—36.)



1. In display apparatus, the combination of a frame, a magazine mounted thereon, a plurality of rods carrying display matter arranged in the magazine, mechanism to receive said rods from and carry the same to said magazine, said magazine including endless chains and pivotally mounted carriers placed oppositely on said chains and each comprising a part adapted to receive an end portion of said rods and a suspended weight connected to said part for continuously keeping the carrier in upright position, means on said frame above the delivery end of the magazine to cause said chains and consequently said rods to pass forwardly and downwardly to prevent any fouling of rods carrying display matter when they are being delivered to said magazine, and means for progressing said mechanism.

2. In display apparatus, the combination of a magazine, a plurality of rods carrying display matter arranged in the magazine, and mechanism for moving said rods from the magazine to place the display matter on view, said mechanism constructed and arranged to carry said rods to the magazine after the display matter carried thereby has been placed on view and including endless chains and pivotally mounted carriers placed oppositely on said chains and each comprising a part having inwardly extending and downwardly converging sides adapted to receive an end portion of said rods and a suspended weight connected to said part for continuously keeping the part in upright position, substantially as described.

3. In display apparatus, the combination of a magazine, a plurality of rods carrying display matter arranged in the magazine, and mechanism to receive said rods from and carry the same to said magazine, said mechanism including endless chains and pivotally mounted carriers placed oppositely on said chains and each comprising a part adapted to receive an end portion of said rods, and a suspended weight connected to said part for continuously keeping the carrier in upright position, substantially as described.

4. In display apparatus, the combination of a cabinet provided with a glass panel in the front thereof, a frame arranged on the interior of the cabinet, self-contained mechanism disposed in the cabinet for moving display matter past said panel, said mechanism including endless sprocket chains carried on said frame, a magazine arranged adjacent thereto, a plurality of rods carrying the display matter arranged in said magazine, pivotally mounted carriers arranged equidistant and oppositely on the sprocket chains and each comprising a part provided with a suspended weight to keep the part continuously in upright position, said part having inwardly extending and downwardly converging sides adapted to receive an end portion of said rods to carry the same to and from the magazine, and means for intermittently progressing said sprocket chains, substantially as described.

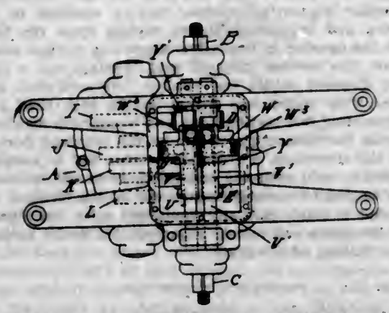
1,027,607. PERSONAL COOLER. MONROE E. HOSTETLER, Harper, Kans. Filed June 28, 1911. Serial No. 635,807. (Cl. 62—3.)



1. A personal cooler comprising in combination a casing, a grate disposed in said casing and near the bottom portion thereof and arranged to hold ice and permit the water thereof to flow therethrough, wire cloth disposed on said casing, and means for keeping said wire cloth away from the casing, so that an air space will be provided between the wire cloth and casing.

2. A personal cooler comprising in combination a casing adapted so as to be disposed on a bed and adjacent a person, a grate disposed in said casing, a cap for said casing for permitting ice to be inserted into the casing, a net work or the like disposed on said casing, and supporting means for keeping said net work away from the said casing so that there will be an air space between it and the casing.

1,027,608. TRANSMISSION-GEARING. ROSCOE B. JACKSON, Detroit, Mich., assignor to Hudson Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed May 7, 1909. Serial No. 494,672. (Cl. 74—89.)



1. In a transmission gearing, the combination with a case having alined bores in opposite walls thereof, of a guide rod insertible through one of said bores into engagement with the other, a shifter slidably engaging said rod, a detent on said shifter for engaging a series of recesses in said rod, a member of the transmission gearing with which said shifter is engaged having a plurality of positions for operation, and means for securing said rod in a position of adjustment in said alined bores where the points of engagement of said detent and recesses correspond with said positions of adjustment of said shiftable member.

2. In a transmission gearing, the combination with a pair of independently movable shifters, of parallelly-arranged guide rods with which said shifters are respectively slidably engaged, a case having alined bearings with which said rods are engaged by a longitudinal movement, a yoke extending between and engaging said rods forming stops for the respective shifters, a detent for each shifter engageable with recesses in its corresponding guide rod, and means for fixedly securing said yoke to said rods, and independent means for fixedly securing said rods in said bearings.

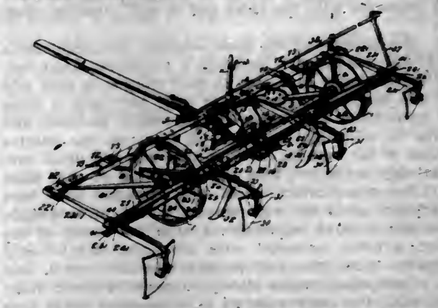
3. In a transmission gearing, the combination with a case, a guide rod engaging alined bores in the opposite walls of said case, a shifter sleeved upon said rod intermediate said walls, a detent on said shifter engageable with a series of recesses in said rod, a stop for said shifter sleeved on said rod, means for fixedly securing said stop on said rod in proper relation to the points of engagement of said detent and recesses, and means for fixedly securing said rod in its bearings in said case.

4. In a transmission gearing, the combination with a case, of a pair of parallelly-arranged guide rods engaging alined bearings in said case, independently movable shifters slidably engaging their respective rods, an actuating member for alternatively operating said shifters, and movable laterally from engagement with one into engagement with the other, and a yoke sleeved upon said rods having a guard plate projecting between said shifters.

5. In a transmission gearing, the combination with a case, of a pair of parallelly-arranged guide rods engaging alined bearings in said case, independently movable shifters slidably engaging their respective rods, an actuating member for alternatively engaging said shifters, a guard plate between said shifters for preventing change of engagement of said actuating member in all but one position of adjustment of said shifters, and means for locking either one of said shifters to said guard plate upon the adjustment of the opposite shifter from its neutral position.

[Claims 6 to 11 not printed in the Gazette.]

1,027,609. LAND-MARKER. WILLIAM H. JONES, FRANK K. METCALF, and JAMES S. WEAR, Delta, Colo.; said Metcalf assignor to said Jones and Wear. Filed Sept. 15, 1911. Serial No. 649,538. (Cl. 111—24.)



1. In a machine of the class described, the combination with the main wheels and axle, a tongue secured to the latter, and a draft bar extending across the tongue and connected with said axle; of beams loosely connected at their front ends with said bar and extending over the axle and turned down at their rear ends, implements detachably connected with said beams, a cross bar extending in rear of the tongue, means for connecting it with said beams so as to permit their lateral adjustment thereon, L-shaped rock levers pivoted at their angles to opposite sides of said tongue and slotted in their rear ends, lugs depending from said cross bar and connected by a bolt passing loosely through said slots, and a main lever for rocking said rock levers on their pivots.

2. In a machine of the class described, the combination with the main wheels and axle, a tongue secured to the latter, and a draft bar extending across the tongue and connected with said axle; of beams loosely connected at their front ends with said bar and extending over the axle and turned down at their rear ends, their bodies be-

ing longitudinally slotted, implements detachably connected with said beams, a cross bar extending in rear of the tongue and having a series of holes near each extremity, a bolt for each series removably engaging one of said holes and the slot in one beam, rock levers pivoted to opposite sides of said tongue and slotted in their rear ends, lugs depending from said cross bar and connected by a bolt passing loosely through said slots, and a main lever for rocking said rock levers on their pivots.

3. In a machine of the class described, the combination with the main wheels and axle, the tongue secured to the latter, and the draft bar extending across the tongue and connected with said axle; of beams loosely connected at their front ends with said bar and extending over the axle and turned down at their rear ends, implements detachably connected with said beams, a cross bar extending in rear of the tongue, means for connecting it with said beams so as to permit their lateral adjustment thereon, L-shaped rock levers pivoted at their angles to opposite sides of said tongue and slotted in their rear ends, lugs depending from said cross bar and connected by a bolt passing loosely through said slots, links pivotally connected with the front ends of said levers and passing astride said tongue, a main lever mounted on a pivot through the tongue and having a forked lower end pivotally connected with the front ends of said links, a toothed segment alongside which said lever moves, and a thumb lever and latch for engaging the same.

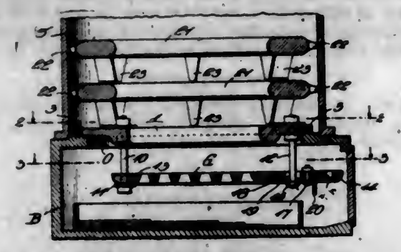
4. In a machine of the class described, the combination with the running gear including a transverse draft bar, two beams loosely connected at their front ends with said bar and carrying implements at their rear ends, a cross bar upon which said beams are adjustably mounted, and means for adjusting the height of the cross bar relative to that of the running gear; of an extension draft bar having a sleeve at its inner end removably engaging the outer end of said main draft bar, a brace connected at its front end with said extension draft bar and removably attached at its rear end to the running gear, an extension cross bar removably connected with the extremity of said main cross bar, and a supplemental beam loosely linked at its front end to said extension draft bar and connected with the outer end of said extension cross bar.

5. In a machine of the class described, the combination with the running gear including a transverse draft bar, two beams loosely connected at their front ends with said bar and carrying implements at their rear ends, a cross bar upon which said beams are adjustably mounted, and means for adjusting the height of the cross bar relative to that of the running gear; of two extension draft bars detachably connected with the extremities of said main draft bar and suitably braced, two extension cross bars detachably connected with the extremities of said main cross bar, a strut superimposed upon the center of the latter, a truss connected with the outer ends of said extension cross bars and passing over said strut, and two supplemental beams loosely connected at their front ends with the outer ends of said extension draft bars and having their bodies connected with the outer ends of said extension cross bars.

1,027,610. FIRE BOX AND GRATE. ZACHARIAH F. JONES, Scottsville, Va. Filed June 19, 1911. Serial No. 634,033. (Cl. 126—170.)

1. The combination with a ring-shaped supporting member, three bolts depending therefrom with the heads at their lower ends, and a cross bar connecting the two rearmost bolts; of a grate having a wide lip integral with its rear resting movably upon said cross bar and a shaker-arm projecting from its front and provided with a transverse slot loosely engaging the front bolt, and a latch loosely mounted beneath said arm and itself having a slot movably engaging said front bolt and crossing the other slot.

2. The combination with a ring-shaped supporting member, three bolts depending therefrom, and a cross bar connecting the two rearmost bolts; of a grate having a lip at its rear resting movably upon said cross bar and a shaker-arm projecting from its front and provided with a transverse slot loosely engaging the front bolt, a pivot through the arm forward of the slot therein, and a latch having a longitudinal opening in its body sliding beneath said arm and over the pivot and bolt.



3. The combination with a ring-shaped supporting member, three bolts depending therefrom with the heads at their lower ends, and a cross bar connecting the two rearmost bolts; of a grate having a lip at its rear resting movably upon said cross bar and a shaker-arm projecting from its front and provided with a transverse slot adapted to loosely engage the front bolt, a pivot through the arm forward of the slot therein, and a latch beneath said arm and having a key-hole opening in its body sliding over the pivot and the head of the bolt, and provided with a finger piece at its front end.

4. The combination with the base of a stove having an opening therein, and the shell superimposed upon said base; of an annular supporting member having radial fingers resting upon the base around said opening and certain of them provided with eyes, the scallops between said fingers producing air passages within said opening and shell, three depending devices mounted in said eyes and passing down through said opening, a cross bar connecting the two rearmost depending devices, and a grate whose rear end is movably supported upon said cross bar and whose front end is movably supported by the front depending device within the stove base.

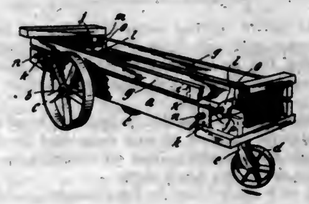
5. The combination with the base of a stove having an opening in its top, a shell superimposed upon said base, an annular supporting member having scallops in its periphery and interposed fingers resting upon the base around the opening in the latter, depending devices hanging from this member through said opening, and a ring member disposed within and smaller than said shell and provided with radial lugs fitting within such shell and with depending feet resting upon said supporting member; of a cross bar connecting certain of the rearmost devices within the stove-base, a grate whose rear end is movably supported by said cross-bar and whose front end is transversely slotted to movably engage one of the forward devices, and a latch pivotally connected with said front end of the grate and loosely engaging this device to permit the shaking of the grate.

1,027,611. DRAWING AND MUSIC CASE. JOHN JOBO, Hollywood, Cal. Filed Mar. 14, 1910, Serial No. 549,345. Renewed Jan. 29, 1912. Serial No. 674,385. (Cl. 224—47.)



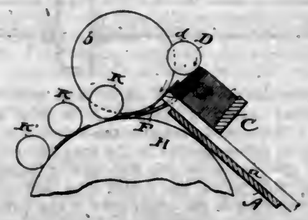
A case for holding drawings or the like, comprising a body member, a cover member sliding thereon, and a handle on said body member comprising two loop portions one of which is secured to the body member at each end and the other secured to the body member at the inner end, the outer end of said second loop portion being free and flexible and provided with a socket, and said cover member being provided with a projection for engaging with said socket and said second loop portion being exposed on its inner face for operation by the hand which is in engagement with the handle.

1,027,612. VEHICLE LOADING AND UNLOADING MEANS. FREDERICK A. KENNEY, Portland, Oreg. Filed Apr. 28, 1911. Serial No. 623,941. (Cl. 21—65.)



In a device of the character described in combination: a vehicle, a frame mounted on said vehicle, a series of dowel pins of said vehicle engaging said frame thereby retaining the frame in vertical alinement on the vehicle, a series of transverse camshafts journaled in said vehicle and provided at their ends with means for attaching an operating handle, a pair of eccentric cams rigid on each of said camshafts, a series of projections on the frame registering with said eccentric cams, a pair of lugs on each cam adapted to engage the edges of said frame projections to limit the motion of the cams, all substantially as set forth.

1,027,613. TICKET COUNTING AND INSPECTING MACHINE. ROBERT E. KIMBALL, Cleveland, Ohio, assignor to The Tickometer Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 14, 1907. Serial No. 362,384. (Cl. 101—39.)



1. In ticket separating mechanism, the combination of a rigid support for a package of tickets, a follower adapted to move along said support a package of tickets resting on edge thereon, a rotatable segregating roller which does not extend over said support but is arranged opposite the end of said support and at a distance therefrom slightly greater than the thickness of one ticket to be segregated and not so great as the thickness of two of such tickets, and a supplemental segregating roller rotating at less peripheral speed than the first mentioned roller which overhangs the end of said support and is located at such distance above the same that it will engage the front face of the front ticket resting on edge on said support near the upper edge of said ticket.

2. In ticket separating mechanism, the combination of a support which inclines slightly upward toward its delivery end, and which has at its delivery end a downwardly inclined top surface, a follower adapted to move a package of tickets resting on edge on said support toward the front end thereof, a rotatable segregating roller which lies close to the end of said support but does not extend over the same, the distance between said roller and the front end of said support being slightly greater than the thickness of one ticket and not so great as the thickness of two of said tickets, and a supplemental segregating roller which overhangs the front end of said support and is at such distance above the same that the front ticket resting on edge on said support will be engaged near its upper edge by said supplemental roller.

3. In ticket separating mechanism, the combination of a rotatable segregating roller, a support for a package of tickets, the front end of said support being close to said roller, a supplemental feed roller overhanging the front end of said support, a follower for moving the package of tickets along said support and pressing the front ticket against said supplemental roller, and means for turning said rollers at different surface speeds, viz., the supplemental roller slower than the other roller.

4. In ticket separating mechanism, the combination of a rotatable segregating roller, a ticket support comprising two bars arranged with their ends close to the surface of said roller, means for adjusting said bars toward and from said roller, a supplemental feed roller which overhangs said bars, and a follower for pressing the upper edge of a package of tickets resting upon said bars between itself and said supplemental roller.

5. In ticket separating mechanism, the combination of a rotatable segregating roller, a ticket support comprising two bars arranged with their front ends close to said segregating roller and having their top surface at said ends beveled downward, a supplemental feed roller which overhangs the beveled surface of said bars, and a follower for pressing the upper edges of a package of tickets resting upon said bars between itself and said supplemental roller.

[Claim 6 not printed in the Gazette.]

1,027,614. SOLVENT FOR ACETYL CELLULOSE. WILLIAM G. LINDSAY, New York, N. Y., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 10, 1911. Serial No. 643,372. (Cl. 134—79.)

1. A new composition of matter consisting of a solution of acetyl cellulose in ethylenechlorhydrin.

2. A new composition of matter consisting of a solution of acetyl cellulose in ethylenechlorhydrin in admixture with other substances either in liquid or solid form.

3. A new composition of matter consisting of a solution of acetyl cellulose in ethylenechlorhydrin in admixture with other substances with the accompaniment of inert matters to form solid or liquid compounds.

1,027,615. SOLVENT FOR ACETYL CELLULOSE. WILLIAM G. LINDSAY, New York, N. Y., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 10, 1911. Serial No. 643,373. (Cl. 134—79.)

1. A new composition of matter consisting of a solution of acetyl cellulose in ethyleneacetochlorhydrin.

2. A new composition of matter consisting of a solution of acetyl cellulose in ethyleneacetochlorhydrin in admixture with other substances either in liquid or solid form.

3. A new composition of matter consisting of a solution of acetyl cellulose in ethyleneacetochlorhydrin in admixture with other solvents and with the accompaniment of inert matters to form solid or liquid compounds.

1,027,616. SOLVENT FOR ACETYL CELLULOSE. WILLIAM G. LINDSAY, New York, N. Y., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 10, 1911. Serial No. 643,374. (Cl. 134—79.)

1. As a new composition of matter, a solution of acetyl cellulose in a mixture of ethylenechlorid and alcohol, substantially as described.

2. A new composition of matter consisting of a solution of acetyl cellulose in a mixture of ethylenechlorid and alcohol (ethyl or methyl), combined with other solvents, substantially as described.

3. A new composition of matter consisting of a solution of acetyl cellulose in a mixture of ethylenechlorid and alcohol (ethyl or methyl), combined with other solvents and inert or coloring matters and substances, substantially as described.

1,027,617. SOLVENT FOR NITROCELLULOSE. WILLIAM G. LINDSAY, New York, N. Y., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 11, 1911. Serial No. 643,482. (Cl. 134—79.)

1. A new composition of matter consisting of a solution of nitrocellulose in ethylenechlorhydrin.

2. A new composition of matter, consisting of a solution of nitrocellulose in ethylenechlorhydrin in admixture with other solvents, substantially as described.

3. A new composition of matter consisting of a solution of nitrocellulose in ethylenechlorhydrin in admixture with other solvents and solid matters such as coloring matters and inert material.

1,027,618. SOLVENT FOR NITROCELLULOSE. WILLIAM G. LINDSAY, New York, N. Y., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 11, 1911. Serial No. 643,483. (Cl. 134—79.)

1. A new composition of matter consisting of a solution of nitrocellulose in ethyleneacetochlorhydrin.

2. A new composition of matter consisting of a solution of nitrocellulose in ethyleneacetochlorhydrin in admixture with other solvents or diluents, substantially as described.

3. A new composition of matter consisting of a solution of nitrocellulose in ethyleneacetochlorhydrin in admixture with other solvents or diluents and solid matters such as coloring matters and inert material.

1,027,619. SOLVENT FOR ACETYL CELLULOSE. WILLIAM G. LINDSAY, New York, N. Y., assignor to The Celluloid Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 25, 1911. Serial No. 646,066. (Cl. 106—40.)

1. A composition of matter consisting of acetyl cellulose dissolved in a solvent of relatively high volatility to which benzylbenzoate has been added, substantially as described.

2. A composition of matter consisting of acetyl cellulose dissolved in acetone to which benzylbenzoate has been added, substantially as described.

1,027,620. COMPOSITION OF MATTER. JOSEPH R. C. MARSH, Cincinnati, Ohio, assignor to Marsh Steel Company, a Corporation of Ohio. Filed Aug. 3, 1911. Serial No. 642,138. (Cl. 75—1.)

1. The herein described composition of matter for treating metals, which consists of a chemical mixture containing titanium chromium, copper, boron, and arsenic.

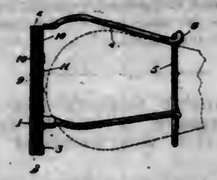
2. The herein described composition of matter for treating metals, which consists of a chemical mixture containing ferro titanium, chromium sesquioxid, metallic copper, boric acid, and arsenic oxid.

1,027,621. LIGHT-SHIELD. WILLIAM N. MCCOMB, New York, N. Y. Filed July 28, 1909. Serial No. 510,044. (Cl. 240—10.)

1. The combination with a support adapted for removable attachment to an incandescent lamp, of a light shield removably engaged in said support and comprising a series of transparent and translucent members.

2. A shield for incandescent lamps comprising a support adapted for removable attachment to the lamp, and a series of alternatively disposed transparent and translucent members engaged in said support.

3. A light shield for incandescent lamps comprising a frame adapted for attachment to the lamp, a sheet or sheets of shield material carried by said frame, and means for removably securing said shield material within the frame.

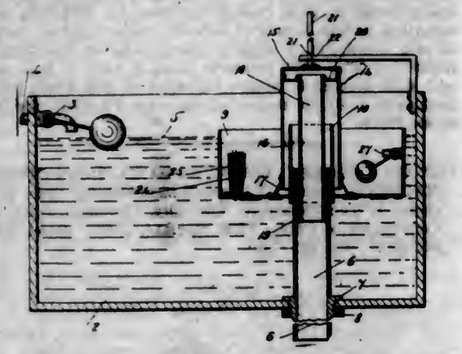


4. A light shield having outer transparent members, layers of translucent and light reflective materials interposed between the transparent members, and means for supporting said parts with the reflective material toward the lamps.

5. In combination, an annular supporting member, light shielding material inclosed in and supported by said annular member, and clamping arms on the annular member to engage the sides of a lamp globe.

[Claims 6 to 9 not printed in the Gazette.]

1,027,622. FLUSHING APPARATUS. ROBERT HARVY OLIVER MCDONOUGH, Washington, Pa. Filed Feb. 17, 1912. Serial No. 678,317. (Cl. 4—5.)

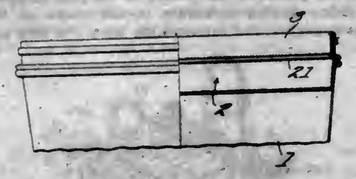


1. The combination, with a water tank, and an outlet pipe projecting upwardly therein; of a float pan provided with a tube which encircles the outlet pipe, an outlet chamber or bell connected to the float pan and having an inlet at the bottom of the float pan, a telescopic extension pipe slidable in the outlet pipe and having its upper end connected to the upper part of the outlet chamber, and a regulator for admitting water from the tank to the float pan in a small stream.

2. The combination, with a water tank, and an outlet pipe projecting upwardly therein; of a float pan provided with a tube which encircles the outlet pipe, an outlet chamber or bell connected to the float pan and having an inlet at the bottom of the float pan, a telescopic extension pipe slidable in the outlet pipe and having its upper end connected to the upper part of the outlet chamber, a regulator for admitting water from the tank to the float pan in a small stream, and a float valve carried by the float pan and operating to admit water freely to it from the tank when the float pan has been filled by the regulator to a prearranged extent.

3. The combination, with a water tank, and an outlet pipe projecting upwardly therein; of a float pan provided with a tube which encircles the outlet pipe, an outlet chamber or bell connected to the float pan and having an inlet at the bottom of the float pan, a telescopic extension pipe slidable in the outlet pipe and having its upper end connected to the upper part of the outlet chamber, and a conical regulator tube packed with pervious material and projecting upwardly from the bottom of the float pan and operating to admit water to it from the tank in a small stream.

1,027,623. STRAINER. MARK T. MOLLOY, Joplin, Mo. Filed Feb. 25, 1911. Serial No. 610,971. (Cl. 210—16.)

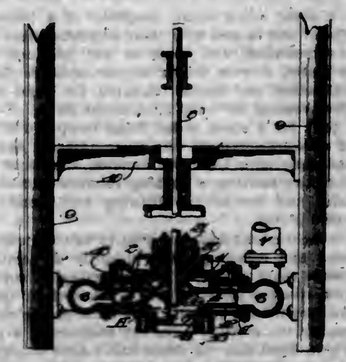


1. A device of the class described comprising a primary strainer and a secondary strainer fitted in the primary strainer, the strainers being provided, at their upper ends, with interengaging beads, limiting the downward movement of the secondary strainer in the primary strainer; and an auxiliary sieve extended across the bottom of the secondary strainer and bound between the side walls of the strainers, the free edge of the auxiliary sieve being engaged between the beads.

2. In a device of the class described, a primary strainer provided at its upper edge with an outstanding bead; a secondary strainer fitted within the primary strainer and having its upper and lower edges turned in opposite directions, to form a bead at the upper edge of the secondary strainer for engagement with the bead of the primary strainer, and to form a flange at the bottom of the secondary strainer, lying parallel to the wall of the secondary strainer, the lower edge of the secondary strainer being rounded, in the formation of the flange; a sieve secured to the upper edge of the flange; and an auxiliary sieve extended across the rounded lower edge of the secondary strainer, the auxiliary sieve being bound between the strainers, and being peripherally engaged between the beads.

3. In a device of the class described, a primary strainer, including a main ring having at its upper and lower edges, oppositely projecting upper and lower flanges, and a supplemental ring formed at its lower edge with a hook-shaped bead inclosing the upper flange, the hook-shaped bead and said upper flange constituting a shoulder adapted to engage the upper edge of a receptacle; a sieve mounted upon the lower flange; and a secondary strainer located within the supplemental ring, the secondary strainer and the supplemental ring being provided with interengaging beads, preventing a dropping of the secondary strainer within the primary strainer.

1,027,624. AUTOMATIC BALANCE FOR CENTRIFUGAL PUMPS. ALBERT C. PAULSMEIER, Alameda, Cal., assignor to Byron Jackson Iron Works, West Berkeley, Cal., a Corporation of California. Filed Sept. 18, 1911. Serial No. 649,895. (Cl. 103—43.)



1. An automatic, hydraulic counterbalance for a centrifugal pump, consisting in the combination of an incased runner, having a central suction inlet and a peripheral discharge; a case in which the runner is revoluble; the runner carrying on one side an annular flange normal to the runner axis; the case bearing a corresponding flange toward and from which the runner-flange is movable according to the shifting of the runner axial in the case; said flanges and the runner and casing inclosing a variable pressure chamber on the side opposite to the suction, and which chamber is in communication with the pump discharge between said flanges, said variable pressure chamber having a discharge back into the runner; and means controlled by the shifting of the runner to vary the discharge from the variable pressure chamber into the runner, and said last-named means constructed and arranged so that, as the flanges move closer together to shut off supply of water from the pump discharge into the variable pressure chamber, the discharge opening from the variable pressure chamber back into the runner is increased; and vice versa, when the flanges move apart to increase the water supply to the variable pressure chamber from the pump discharge, the discharge opening from the variable pressure chamber back into the runner is decreased.

2. In a centrifugal pump, the combination of a case having a central inlet and a peripheral discharge, a shaft, an impeller in the case on the shaft, means formed by the case and the side of the impeller opposite the suction to inclose a variable pressure chamber receiving leakage water under pressure from the discharge through the running joint between the impeller and case, said running joint consisting of two annular opposed coacting surfaces which are normal to the axis of the impeller, whereby thrust in one direction carries the two surfaces toward each other and vice versa thrust in the opposite direction carries them farther apart, said variable pressure chamber having a relief discharge back into the impeller, and means forming a variable throttle for said relief discharge, last named means adapted to automatically increase the available area of the relief discharge in response to the approach of said opposed surfaces, and to reduce the area of the relief discharge as the space between said surfaces increases.

3. In a centrifugal pump, the combination of a case having a central inlet and a peripheral discharge, a shaft, an impeller in the case on the shaft, means formed by the case and the side of the impeller opposite the suction to inclose a variable pressure chamber receiving leakage water under pressure from the discharge through the running joint between the impeller and case, said running joint consisting of two annular opposed coacting surfaces which are normal to the axis of the impeller, whereby thrust in one direction carries the two surfaces toward each other and vice versa thrust in the opposite direction carries them farther apart, said variable pressure chamber having a relief discharge back into the impeller, and means forming a variable throttle for said relief discharge, said last named means comprising a movable plug, said plug co-acting with the impeller to increase the available area of the relief discharge simultaneously with the approach of said opposed surfaces, and to reduce the area of the relief discharge in unison with the recession of said surfaces.

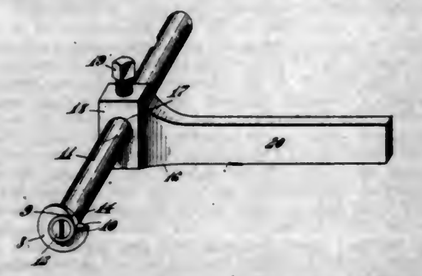
4. In a centrifugal pump, the combination of a case having a central inlet and a peripheral discharge, a shaft, an impeller in the case on the shaft, means formed by the case and the side of the impeller opposite the suction to inclose a variable pressure chamber receiving leakage water under pressure from the discharge through the running joint between the impeller and case, said running joint consisting of two annular opposed coacting surfaces which are normal to the axis of the impeller, whereby thrust in one direction carries the two surfaces toward each other and vice versa thrust in the opposite direction carries them farther apart, and said variable pressure chamber having a relief discharge back into the impeller, one of said surfaces comprising a ring on the impeller, and the other a complementary ring on the case, and means whereby one of said rings may be adjusted relatively to the other ring from a point outside the case.

5. In a centrifugal pump, the combination of a case having a central inlet and a peripheral discharge, a shaft, an impeller in the case on the shaft, means formed by the case and the side of the impeller opposite the suction to

inclose a variable pressure chamber receiving leakage water under pressure from the discharge through the running joint between the impeller and case, said running joint consisting of two annular opposed coacting surfaces which are normal to the axis of the impeller, whereby thrust in one direction carries the two surfaces toward each other and vice versa thrust in the opposite direction carries them farther apart, and said variable pressure chamber having a relief discharge back into the impeller, one of said surfaces comprising a ring on the impeller, and the other a complementary ring on the case, one of said rings adjustable from outside the case in the direction of the axis of the impeller.

[Claims 6 and 7 not printed in the Gazette.]

1,027,625. TOOL FOR CUTTING INTERIOR SCREW-THREADS. GEORGE A. PEDDLE, Philadelphia, Pa. Filed Dec. 13, 1910. Serial No. 597,092. (Cl. 29—96.)



1. A tool for cutting interior screw threads comprising a disk cutter element having its periphery of a contour in cross section complemental to the thread to be cut, said cutter element having a portion of its periphery cut away to form the cutting edges, a cylindrical rod or bar on the end of which said cutter element is secured, lugs on the inner faces of the cutter element and a complemental groove in the end of the rod engaged by said lugs, a screw engaging said cutter element and threaded in the end of said rod, and a holder having a transverse aperture in which said rod or bar is adjustably mounted.

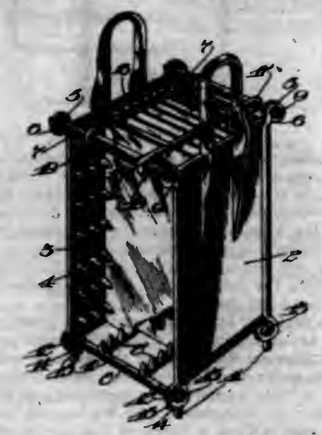
2. A tool for cutting interior screw threads comprising a disk cutter element having its periphery of a contour in cross section complemental to the thread to be cut, said cutter element having a portion of its periphery cut away to form the cutting edges, a cylindrical rod or bar on the end of which said cutter element is secured, lugs on the inner faces of the cutter element and a complemental groove in the end of the rod engaged by said lugs, a screw engaging said cutter element and threaded in the end of said rod, a holder having a transverse aperture in which said rod or bar is adjustably mounted, the rod or bar being of smaller diameter than the aperture in the holder, and a split sleeve mounted on said rod in said aperture.

1,027,626. PHOTOGRAPHIC-PROCESS BASKET. MYRON S. PELTON, Folsom, Cal. Filed Oct. 21, 1911. Serial No. 655,895. (Cl. 95—98.)

1. A photographic process basket, comprising spaced, parallel, readily detachable panels and transverse spacing bars extending therebetween, and readily detachable, said panels and bars being provided with a plurality of spaced, inwardly directed conical points.

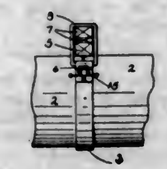
2. A photographic process basket comprising spaced, parallel side panels, having vertical and horizontal rows of inwardly directed conical points, between which may be inserted and evenly spaced sensitized photographic media, spreading bars at the upper ends of the side panels, and a bottom frame having upwardly turned, conical points in the planes of the points on the side panels.

3. A photographic process basket comprising spaced, parallel side panels, having vertical and horizontal rows of inwardly directed conical points, between which may be inserted and evenly spaced sensitised photographic media, spreading bars at the upper ends of the side panels, and a bottom frame having upwardly turned, conical points in the planes of the points on the side panels, said bottom frame having upwardly turned hooks on its extremities engaging and interlocking with the side panels.



4. A basket adapted to receive photographic media, and carry the same through photographic processes, said basket being composed of a flexible, chemical resisting material, said basket having vertical spaced side walls, the inner surfaces of which are provided with inwardly directed, conical points arranged in horisontal and vertical rows, a bottom frame separating the lower ends of the panels and having hooks engaging the same and tending to throw the upper ends of the panels toward each other, and spreading bars transversely supported in and separating the inwardly pressed ends of the panels.

1,027,627. FLUME. CHARLES H. RAMSDEN, San Francisco, Cal., assignor to Western Pipe and Steel Company of California, a Corporation of California. Filed Oct. 3, 1911. Serial No. 652,569. (Cl. 61—5.)



1. In a sheet metal flume composed of a plurality of plates placed end to end with their adjacent edges in line, a band surrounding the flume at the juncture of two adjacent plates, a cross timber supported above the flume at said juncture and means engaging the band and the timber for pressing the band against the flume.

2. A joint for a sheet metal flume composed of a plurality of sections arranged with their adjacent ends abutting, consisting of a band surrounding the flume at the juncture of two sections, a packing between said band and said plates and means for drawing said band tightly against said plates.

3. In a sheet metal flume adapted to be supported above the ground and composed of a plurality of sections arranged with their adjacent ends abutting, a supporting framework, a cross piece on said framework at the juncture of two sections, a metallic band surrounding the flume and engaging the sections adjacent their ends, a packing between said band and the flume and means engaging the band and the cross piece for drawing the flume toward the cross piece.

4. The combination with the flume sections abutting at their adjacent ends, of a clamping means consisting of an outer band surrounding the sections at the joint, a cross beam above the flume at the joint, means engaging the band and the beam for drawing the flume sections up against the cross beam, means for holding the upper edges of the sections in line on the cross beam and means for allowing only a limited longitudinal motion of the flume sections with respect to each other.

1,027,628. ELEVATOR. MARTIN C. SCHWAB, Chicago, Ill. Original application filed Apr. 27, 1909, Serial No. 492,587. Divided and this application filed Apr. 22, 1910. Serial No. 556,991. (Cl. 187—16.)



1. In an elevator apparatus, the combination with two cars movable both upward and downward in the same shaft, and means for independently operating them, of a device arranged between the cars and adapted to extend directly from one to the other when the cars are at a predetermined distance apart, and means operated by said device for stopping the upper car going down when the cars approach each other to within said predetermined distance apart, said means including a circuit having a switch adapted to be operated by said device, an electro-receptive device included in said circuit and means operated by said electro-receptive device for stopping the car.

2. In an elevator apparatus, the combination with two cars movable both upward and downward in the same shaft and means for independently operating them, of co-operating devices carried by the cars and adapted to engage each other when the cars are at a predetermined distance apart, and means operated by said devices when engaged for stopping the upper car going down and the lower car going up on their approach to within said predetermined distance apart, one of said devices being suspended from its car by a cable.

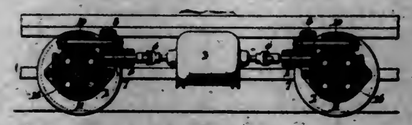
3. In an elevator apparatus, the combination with two cars movable both upward and downward in the same shaft and means for independently operating them, of co-operating devices carried by the cars and adapted to engage each other when the cars are at a predetermined distance apart, and means operated by said devices when engaged for stopping the upper car going down and the lower car going up upon their approach to within said predetermined distance apart, one of said devices being suspended from its car by a cable and differential mechanism for taking up the slack in the cable.

4. In an elevator apparatus, the combination with two cars movable both upward and downward in the same shaft and a means for independently operating them, of co-operating devices carried by the cars and adapted to engage each other when the cars are at a predetermined distance apart, and means including electric circuit switches in said circuits adapted to be closed by the engagement of said devices, electro-receptive devices in said circuits and means operated by said electro-receptive devices for stopping the upper car going down and the lower car going up upon their approach to within said predetermined distance apart.

5. In an elevator apparatus, the combination with two cars movable both upward and downward in the same shaft and means for independently operating them, of co-operating devices carried by the cars and adapted to engage each other when the cars are at a predetermined distance apart, and means including an electric circuit on each car, a switch in said circuit, adapted to be closed by the engagement of said devices, an electro-receptive device in said circuit and means operated by said electro-receptive device for stopping the upper car going down and the lower car coming up upon their approach to within said predetermined distance apart.

[Claims 6 to 36 not printed in the Gazette.]

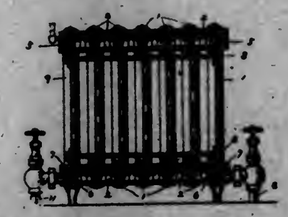
1,027,629. ELECTRIC-MOTOR-DRIVEN TRUCK. WALTER J. SPANGLER, Philadelphia, Pa., assignor of one-half to Richard M. Elliot, Bryn Mawr, Pa., and one-fourth to Russell Thayer, Philadelphia, Pa. Filed Sept. 14, 1911. Serial No. 649,353. (Cl. 105—17.)



1. In a motor truck, the combination of a central motor, with a longitudinal shaft lying in the median plane of the truck, and at a level whereby the height of the truck is not increased; countershafts in the median plane of the truck geared with interposition of a worm gear to each axle of the truck; and pinions in the median plane of the truck whereby the motor shaft is geared at either end to the counter-shafts.

2. In a motor truck, a motor and motor shaft in the median plane thereof; countershafts in the same plane at a higher level; pinions by which the motor shaft is geared to the countershafts; and worm-gears whereby the countershafts are geared to the axles.

1,027,630. COMBINED STEAM AND WATER RADIATOR. SAMUEL D. STAUFFER, Lancaster, Pa. Filed Mar. 12, 1910. Serial No. 548,778. (Cl. 237—18.)

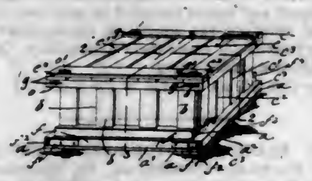


1. A radiator comprising a series of sections communicating with one another at the top and bottom, the end section being provided with a vertical partition dividing it into a steam chamber and a water chamber, said chambers having communication with each other above the communication between the sections at the top of the radiator, said steam chamber formed with a steam inlet whereby the water within the sections may be heated and circulated by admission of steam to the steam chamber.

2. A radiator comprising a series of sections communicating with one another at the top and bottom, the end section being provided with a vertical partition dividing

it into a steam chamber and a water chamber, said chambers having communication with each other above the communication between the sections at the top of the radiator, said steam chamber formed with a steam inlet whereby the water within the sections may be heated and circulated by admission of steam to the steam chamber, and a valve placed in said vertical partition on a level with the lower end thereof for the purpose of draining the water from said radiator.

1,027,631. CRATE. JOSEPH WAHL, New York, N. Y. Filed Feb. 1, 1912. Serial No. 674,795. (Cl. 217—15.)



1. A shipping crate comprising a bottom, a side wall having a hinge connection with said bottom, an adjacent side wall having a hinge connection with said bottom, a cover, and an angular fastener pivoted at its angle to one of said walls at one corner thereof and having a horizontal arm adapted to engage and lock the other wall and a vertical arm engaging the cover and adapted to lock thereover.

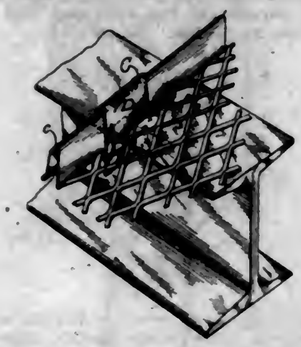
2. A shipping crate comprising a bottom, a side wall having a hinge connection with said bottom, an adjacent side wall having a hinge connection with said bottom, one of said side walls being provided with a slot, a cover provided with a slot, an angular fastener pivoted to one of said walls at one corner thereof and having an arm composed of flexible sheet metal adapted to engage said slotted side wall and being bendable over against the outer face thereof for locking said side wall in upright position, and a vertical arm adapted to engage the slot of said cover and composed of sheet metal bendable into contact with the outer face of said cover for locking the same.

3. A shipping crate comprising a bottom, a side wall having a hinge connection with said bottom, an adjacent side wall having a hinge connection with said bottom, one of said side walls being provided with a slot, a cover provided with a slot, an angular fastener pivoted to one of said side walls at one corner thereof and having a horizontal arm engaging the slotted side wall and composed of two layers of sheet metal bendable in opposite directions into contact with the outer face of said side wall for locking the same in vertical position and a vertical arm engaging said slotted cover and composed of two layers of sheet metal bendable in opposite directions into contact with the outer face of said cover for locking it in closed position.

4. A shipping crate, comprising a bottom, raised strips applied to the front and rear-edges of said bottom, side-walls hinged to opposite ends of said strips, and provided with slots in its upper corners, front and rear-walls also hinged to the front and rear strips of the bottom, a cover having slots in its corners, angular double fasteners fulcrumed to the upper corners of the side-walls and adapted to be passed through the slots in the upper corners of the front and rear-walls, and the slots in the corners of the cover, and folded over the same.

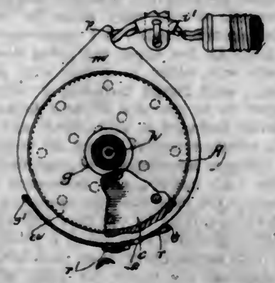
5. A shipping crate comprising a bottom, raised strips attached to the front and rear-edges of said bottom, extension-plates attached to the ends of the front-and rear-strips, side-walls pivoted to said extension-plates, extension-plates attached to the ends of the strips at right angles to the first set of extension-plates, front and rear-walls pivoted to said second set of extension-plates, said front and rear-walls being provided with transverse slots in their upper corners, a cover provided with slots in its corners, and angular double fasteners fulcrumed at their apices to the upper corners and inside of the side-walls, the arms of said fasteners being adapted to be passed through the slots of the front and rear-walls, and of the cover for locking the side, front and rear-walls and the cover together.

1,027,632. CLIP FOR ATTACHING METALLIC LATH. HERBERT E. WHITE, Youngstown, Ohio, assignor to The General Fireproofing Company, Youngstown, Ohio, a Corporation of Ohio. Filed Jan. 31, 1912. Serial No. 674,622. (Cl. 72—118.)



A clip for attaching metallic lath to a support, consisting of a strip of metal having a portion transversely bent to form a shoulder on one end adapted to engage the rib of a lath, an open slot in the body of the said strip forming an arm, and a key piece consisting of a strip of metal transversely bent to be sprung into position between the said arm and a supporting element, thus bringing the parts in locking engagement.

1,027,633. PORTABLE ELECTRIC-LIGHT FIXTURE. LEROY A. WILLIAMSON, Boston, Mass. Filed Oct. 13, 1910. Serial No. 586,886. (Cl. 240—88.)



1. In a device of the character described, the combination, with a suitable casing, of a hub mounted to revolve therein, an electric light socket in one end of said hub, a plate secured to the opposite end of said hub and provided with a recess in its periphery, a detent mounted to slide in said casing and adapted to engage and disengage said recess, a quantity of lamp cord wound upon said hub and connected at one end to said light socket, and an attaching plug connected to the other end of said cord.

2. In a device of the character described, the combination, with a suitable casing, of a hub mounted to revolve therein, an electric light socket in one end of said hub, a plate secured to the opposite end of said hub and provided with a series of tapered recesses in its periphery, a detent mounted to slide in said casing and adapted to engage and disengage said recesses, a quantity of lamp cord wound upon said hub and connected at one end to said light socket, and an attaching plug connected to the other end of said cord.

3. In a device of the character described, the combination, with a suitable casing, of a hub mounted to revolve therein, an electric light socket mounted in said hub, a quantity of lamp cord wound upon said hub and having one end connected to said socket, an attaching plug connected to the other end of said cord, means for locking said hub against revolution in one direction, and means operated by the revolution of the hub in the opposite direction to disengage said locking means.

4. In a device of the character described, the combination, with a suitable casing provided with a standard upon one side and an electric light socket upon the other, of a quantity of electric lamp cord within the casing having one end connected to the socket, an attaching plug connected to the other end of said cord, and means for winding the lamp cord and attaching plug into the casing.

5. In a device of the character described, the combination, with a suitable casing provided with a series of hinged standards upon one side and an electric light socket upon the other, of a quantity of lamp cord within the casing having one end connected to the socket, an attaching plug connected to the other end of said cord, and means for winding the lamp cord and attaching plug into the casing.

[Claims 6 to 8 not printed in the Gazette.]

1,027,634. PORTABLE ELECTRIC-LIGHT FIXTURE. LEROY A. WILLIAMSON, Boston, Mass. Filed Oct. 13, 1910. Serial No. 586,887. (Cl. 240—71.)

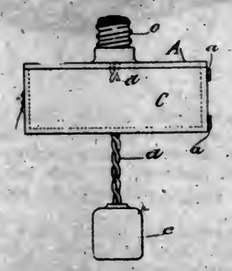


1. In a device of the character described, the combination, with a suitable casing, of an attaching plug upon the exterior thereof, a hub mounted to revolve upon the interior of said casing, a quantity of electric lamp cord wound on said hub, a lamp socket attached to one end of said cord, means connecting the other end of said cord to the attaching plug, spring-actuated means for revolving the hub in one direction, and means for locking the hub against revolution in one direction.

2. In a device of the character described, the combination, with a casing, of an attaching plug upon the exterior thereof, a hollow hub mounted to revolve within said casing, a spring arranged to revolve said hub in one direction, a series of ratchet-teeth on said hub, a ratchet-wheel adapted to normally engage said ratchet-teeth, means for moving said ratchet-wheel out of engagement with said ratchet-teeth, a quantity of lamp cord wound upon said hub, a lamp socket on one end of said cord, and means connecting the other end of said cord to the attaching plug.

3. In a device of the character described, the combination, with a casing, of an attaching plug upon the exterior thereof, a hollow hub mounted to revolve within said casing, a spring arranged to revolve said hub, a transverse partition upon the interior of said hub provided with a series of ratchet-teeth, a stationary stud extending through said hub, a ratchet-wheel mounted to slide on said stud and normally held in engagement with said ratchet-teeth by means of a spring surrounding said stud between said ratchet-wheel and the casing, a pin slidably mounted in said stud and having its inner end connected to said ratchet-wheel, two metal rings upon the exterior of said hub arranged to contact with two metal rings upon the interior of the casing, wires connecting the metal rings upon the casing with the attaching plug, and an electric light cord having one end connected to the metal rings upon the hub and the other end connected to a lamp socket, said cord being arranged and adapted to be wound upon the revolving hub.

1,027,635. PORTABLE ELECTRIC-LIGHT FIXTURE. LEROY A. WILLIAMSON, Boston, Mass. Filed Oct. 13, 1910. Serial No. 586,888. (Cl. 240—88.)



1. In a device of the character described, the combination, with a casing comprising a pocket portion and a cover for said pocket portion, of an electric attaching plug on the exterior of said casing, an electric light socket and a quantity of electric light cord within said casing having one end secured to said plug and the other end connected to said socket.

2. In a device of the character described, the combination, with a casing comprising a pocket portion and a cover therefor, of an electric attaching plug on the exterior of said casing, a quantity of electric light cord within said casing having one end attached to said plug and the other end attached to an electric light socket, and means formed in the wall of the casing for holding the light socket and a portion of the cord suspended upon the exterior of said casing.

3. In a device of the character described, the combination, with a casing comprising a pocket portion and a hinged cover therefor, of a diamond shaped recess formed partly in said pocket portion and partly in said cover, an electric attaching plug on the exterior of said casing, an electric light socket and a quantity of electric light cord having one end secured to said plug and the other end attached to said socket, the pocket portion of the casing being adapted to house said cord and socket.

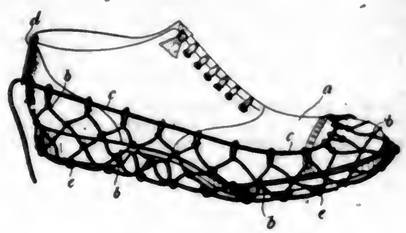
1,027,636. FOLDING VIOLIN-BOW. JOHN D. ADAMS, Phoenix, Ariz. Filed June 28, 1911. Serial No. 635,720. (Cl. 84—72.)



1. A violin bow divided adjacent to the frog into sections, a socket on the inner end of each of the said sections, a hinge connection between the adjacent ends of the sockets, a ferrule slidable over the sockets for locking the sections in alinement, said ferrule when in locked position being adjacent to the frog and acting as a grip.

2. A violin bow divided into sections at a point adjacent to the frog, a hinge connection between the adjacent ends of the sections, a ferrule slidable over the joint for locking the sections in alinement, said ferrule when in locking position being adjacent to the frog to act as a grip for the bow.

1,027,637. COVERING FOR TENNIS-SHOES AND THE LIKE. CHARLES G. ADAMSON, Athlone, Ireland. Filed Nov. 9, 1910. Serial No. 591,468. (Cl. 36—63.)



1. A tread covering for athletic shoes comprising in combination, a net shaped to conform to the bottom and sides of the shoe and composed of a plurality of lengths of cords of different diameters, the cords being knotted together to form the net, and means for securing the net to the shoe.

2. A tread covering for athletic shoes comprising in combination, a net shaped to conform to the bottom and sides of the shoe and composed of a plurality of strands of cords of different diameters, the cords being knotted to form the net, and a draw-string connected with the net to contract the same about the sides and the upper portions of the shoe.

3. A tread covering for athletic shoes comprising in combination, a net shaped to conform to the bottom and sides of the shoe and composed of a plurality of strands of non-metallic rope inter-knotted to form the net, the mesh of the net adjacent the sole being relatively close and the rest of the net above the sole being relatively open, and means for contracting the net about and upon the shoe.

4. A tread covering for athletic shoes comprising a net shaped to conform to the bottom and to embrace upper portions of the shoe to maintain the covering or net thereon, said net comprising a plurality of strands of non-metallic cord inter-knotted, substantially as and for the purpose set forth.

5. A tread covering for athletic shoes comprising a net to conform to the bottom and to embrace upper portions of the shoe to maintain the covering or net thereon, said net comprising a plurality of strands of flexible cord inter-knotted, substantially as and for the purpose set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,027,638. HEEL-SEAT-ROUNDING MACHINE. JOHN V. ALLEN, South Weymouth, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 24, 1908. Serial No. 450,042. (Cl. 12—86.)

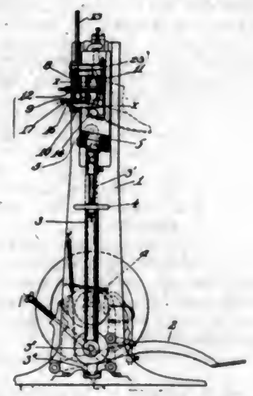
1. A sole rounding machine having, in combination, a die, means for causing relative movement of the die and work to effect the trimming operation, and shaping means for the die arranged for manual operation independently of the relative movement of the die and work.

2. A sole rounding machine having, in combination, a die, and actuating means therefor, and independent manually operated means for shaping the die to a shoe.

3. A sole rounding machine having, in combination, a die and actuating means therefor, and independent manually operated means for positively shaping the die to a shoe.

4. A sole rounding machine having, in combination, a U-shaped die, forked die shaping means arranged to act upon the sides of the die and movable to shape the die, and adjustable means for varying the effective width of the die shaping means.

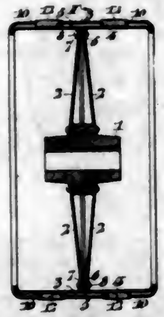
5. A sole rounding machine having, in combination, a flexible die, movable means for conforming the die to the counter of a shoe, said means acting positively to prevent releasing movement of the die during the cutting operation



and having provision for adjustment independently of its conforming movement.

[Claims 6 to 36 not printed in the Gazette.]

1,027,639. PULLEY. RUSSELL H. BOWEN, Palmyra, N. J., assignor to The American Pulley Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 19, 1910. Serial No. 572,680. (Cl. 64—45.)

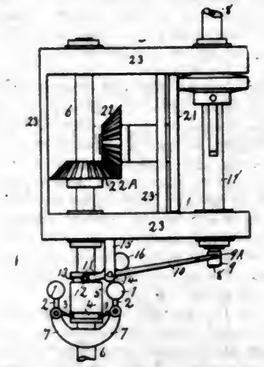


The combination of a hub; a plurality of spokes mounted thereon; a rim of sheet metal folded back upon itself to form an outer rim and an inner rim integral therewith, but separated therefrom by an interspace of substantial radial depth, the edges of the metal of said inner rim being provided with flanges extending radially inward adjacent to the median plane of the pulley, said flanges being attached to the outer ends of the spoke members; the outer rim being provided with a plurality of holes; and insets of material having a relatively high coefficient of friction, arranged within said holes, the inner ends of the insets resting upon the surface of the inner rim, substantially as set forth.

1,027,640. SPEED-REGULATOR. PERCIVAL L. BRADFORD, Chicago, Ill. Filed Oct. 8, 1910. Serial No. 585,941. (Cl. 74—26.)

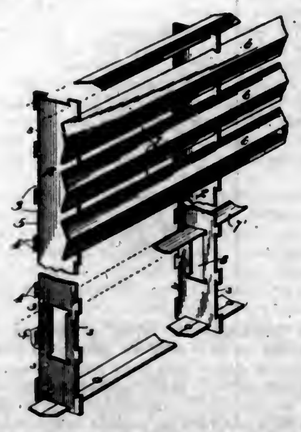
1. The combination of a variable speed shaft, a governor actuated thereby, a disk geared to said shaft, a friction gear wheel bearing on said disk, and means controlled by said governor for moving said wheel to and from the center of said disk according to the speed of said shaft.

2. The combination of a variable speed shaft, a governor yoke fastened thereto, a sleeve on said shaft and movable longitudinally thereon, and rotary therewith, and having an annular groove therein, bell cranks pivoted to said yoke, a governor ball on one arm of each bell crank, the other arms of the bell cranks being slidable in said grooves, said sleeve having a second annular groove, a pivoted lever, a yoke thereon, with pins sliding in said



second groove, a second shaft, a sleeve thereon, connected with said lever, by which the second shaft is moved longitudinally under the action of the governor, a hollow shaft on said second shaft, a friction gear wheel movable along said hollow shaft, but fastened to said second shaft, and gearing between said friction wheel and said first named shaft.

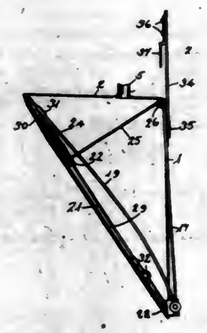
1,027,641. FIREPROOF BUILDING CONSTRUCTION. CORNELIUS COLLINS, Burlingame, Cal. Continuation of application Serial No. 596,060, filed Dec. 7, 1910. This application filed Mar. 25, 1911. Serial No. 616,830. (Cl. 189—36.)



1. A structural interlock, comprising a metal strip provided with a slot, the bottom of which slot is wider than its mouth, and a longitudinally-hipped, bendable strip having a width sufficient to pass through the smaller portion of the slot and to rest upon the bottom of the slot, and adapted to be expanded transversely in the plane of the bottom of the slot so as to bind against the side walls of the slot.

2. An interlocking structure, comprising a member having a perforation substantially in the outline of the letter I, and an interlocking strip having an endwise extending hump insertible into the perforation and adapted to have its lateral edges engaged with the lateral recessions in the I perforation when the interlocking strip is flattened.

1,027,642. FLOATING DEVICE FOR SWIMMERS. FRANK J. CULOMER, Chicago, Ill., assignor of one-half to John Rostar, Newark, N. J. Filed Sept. 6, 1911. Serial No. 647,906. (Cl. 9—17.)



1. In a floating device for swimmers, the combination of a frame having a base strip and U-shaped frame portions connected at their open ends to said base-strip and adapted to fold together, a flexible covering inclosing said frame and forming an air chamber, a valved air inlet for said air chamber, and means for securing said air chamber upon a swimmer with the said base strip at his waist and the said frame portions projecting upward and adapted to lie against his chest.

2. In a floating device for swimmers, the combination of a frame having a base strip and front and rear normally diverging frame portions hinged to said base strip longitudinally thereof, said frame portions projecting laterally from said base strip and adapted to fold together, a flexible covering inclosing said frame and forming an air chamber, a valved inlet for said air chamber, a catch upon the upper part of one frame portion outside said covering adapted to engage the other frame portion when the frame portions are closed together and hold them releasably against opening, and means for attachment to a swimmer with the said base strip at his waist and the frame portions projecting upward and adapted to lie against his chest.

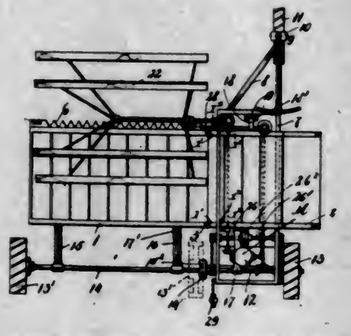
3. In a floating device for swimmers, the combination of a frame comprising a base strip, front and rear frame portions mounted on said base strip so as to fold together or open apart, a slide-way extending from the upper part of one frame portion to the middle of the base strip, a slide for said slideway, braces on the upper part of the other frame portion pivoted to said slide, a flexible covering inclosing said frame and forming an air chamber, and a valved inlet for said air chamber.

4. In a floating device for swimmers, the combination of a frame comprising a base strip, front and rear frame portions mounted on said base strip so as to fold together or open apart, a slide-way extending from the upper part of one frame portion to the middle of the base strip, a slide for said slide-way, braces on the upper part of the other frame portion pivoted to said slide, a coiled spring extending longitudinally of said slide-way fast at its opposite ends, with respect to the adjacent frame portion, and the slide respectively and tending to draw them together, a flexible covering inclosing said frame and forming an air chamber, and a valved inlet for said air chamber.

5. In a floating device for swimmers, the combination of a frame comprising a base strip, front and rear frame portions mounted on said base strip so as to fold together or open apart, a socket on the said base strip intermediate its ends, a piece of wire fast with respect to the upper part of one frame portion and extending telescopically into said socket, a slide on said wire, braces on the upper part of the other frame portion pivoted to said slide, a flexible covering inclosing said frame and forming an air chamber, and a valved inlet for said air chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,027,643. MOWING-MACHINE. OTTO CZARAN, Glendale, N. Y. Filed May 17, 1911. Serial No. 627,738. (Cl. 56—33.)

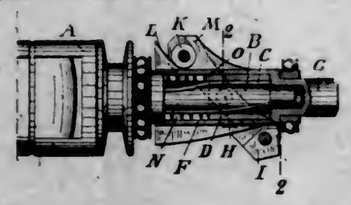


1. In a mowing machine, the combination with a truck, of an elevator frame, a knife mechanism carried by and arranged longitudinally of one side of said elevator frame, means at the opposite side of the latter for pivotally connecting the said elevator frame to the said truck, so as to allow the elevator frame of being tilted on a transverse axis to raise and lower the knife mechanism with respect to the ground, an adjustable guide member carried by the truck and a sector shaped guide member carried by the said elevator frame, both said members movably engaging with one another and serving to guide the said elevator frame in the said tilting movement.

2. In a mowing machine, the combination with a truck, of an elevator frame composed of two sections foldable upon one another, a knife mechanism carried by and arranged longitudinally of one side of one section, means at the opposite side of the said sectional frame for pivotally connecting the said elevator frame to the truck to allow the elevator frame of being tilted on a transverse axis to raise and lower the knife mechanism with respect to the ground and means for guiding the frame in the said tilting movement.

3. In a mowing machine, a foldable elevator frame, a truck supporting said frame and onto which the latter is to be folded, a shaft for the rear truck wheels, a removable extension for said shaft, means for connecting the said extension to the said shaft, means supporting said extension in the elevator frame, and a truck wheel capable of being interchangeably fixed to the said shaft and to the extension thereof respectively.

1,027,644. SHAFT-COUPLING. ANTON DIEMER, Stuttgart, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Sept. 21, 1911. Serial No. 650,643. (Cl. 123—117.)



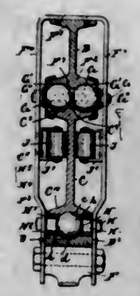
1. A coupling for driving and driven shafts comprising a shaped guide attached to one of said shafts, a weight supported in said guide and adapted to swing outwardly in response to centrifugal action, a movable member connected to said weight, a spring resisting the outward movement of the weight, and means coöperating with the movable member to adjust the relative angular position of the driving and driven shafts in accordance with the speed of rotation, the stress of the spring and the shape of the guide.

2. A coupling for driving and driven shafts, comprising a shaped guide attached to one of said shafts, a weight supported in said guide and adapted to swing outwardly in response to centrifugal action, a movable threaded member connected to said weight, and a spring resisting the outward movement of the weight, one of said shafts having threads adapted to engage the threads on said member to adjust the relative angular position of the driving and driven shafts in accordance with the speed of rotation, the stress of the spring and the shape of the guide.

3. A coupling for driving and driven shafts in axial alinement with each other comprising a shaped guide attached to the driving shaft, a weight supported in said guide and adapted to swing outwardly in response to centrifugal action, an axially movable threaded nut pivotally connected to the weight, and a spring resisting the movement of the nut upon increase of speed of rotation, the driven shaft having threads adapted to engage the threaded nut to adjust the angular position of the driven shaft relatively to the driving shaft in accordance with the speed of rotation, the stress of the spring and the shape of the guide.

4. A coupling for driving and driven shafts in axial alinement with each other comprising a sleeve attached to one of said shafts and embracing the other of said shafts, a shaped guide attached to said sleeve, a weight supported in said guide and adapted to swing outwardly in response to centrifugal action, an axially movable nut arranged within the sleeve and pivotally connected to the weight, a spring resisting the outward movement of the weight, and means coöperating with the nut to adjust the angular position of one of said shafts relatively to the other of said shafts in accordance with the speed of rotation, the stress of the spring and the shape of the guide.

1,027,645. DOOR-HANGER. FRANK W. S. ELSTROTH, New York, N. Y. Filed June 22, 1911. Serial No. 634,746. (Cl. 16—91.)



1. In a door-hanger, a track, a carriage above said track, a series of balls between said track and carriage, a plate on each side of said track and carriage and covering the space between them, and blocks extending from one plate to the other through said space disposed adjacent the balls and forming pockets and serving with said plates to retain said balls.

2. In a door-hanger, a track, a carriage above said track, a series of balls between said track and carriage and extending laterally beyond the outer lines thereof, a plate on each side of said track and carriage and covering the space between them, a recess in the inner face of each plate receiving the laterally extending overhanging portions of said balls, blocks extending from one plate to the other through such space disposed adjacent the balls and forming pockets and serving with said recesses to retain said balls.

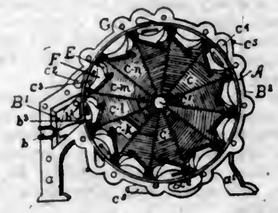
3. In a door-hanger, a track, a carriage above said track, straps on said carriage inclosing the latter and said track, a series of balls between said track and carriage, and an antifriction means carried by said straps and engaged with the lower portion of said track to prevent lateral oscillations of said carriage and straps relatively to said track.

4. In a door-hanger, a track having a groove in its under face, a carriage above said track, straps on said carriage inclosing the latter and said track, a series of balls between said track and carriage, and antifriction means carried by said straps and engaged in said groove whereby lateral oscillations of said carriage and straps relatively to said track are prevented.

5. In a door-hanger, a track, a carriage above said track, two series of balls arranged side-by-side between said track and carriage to support the latter, and blocks forming pockets for said balls.

[Claims 6 to 13 not printed in the Gazette.]

1,027,646. ROTARY ENGINE. CHESTER J. FELIO, Chicago, Ill. Filed July 16, 1910. Serial No. 572,409. (Cl. 121—56.)



1. In an engine of the nature described, the combination of a casing having a working chamber with inlet and exhaust ports, a closely fitting rotor operating in said chamber and having a peripheral force receiving cup, and a measurably pliant lining to said cup, the edges of which lining are forced outwardly against the opposing wall of the inclosing chamber by the pressure of the charge of motive fluid.

2. In an engine of the nature described, the combination of a casing having a working chamber with inlet and exhaust ports, a closely fitting rotor operating in said chamber and having a series of peripheral cups or cavities, and individual, measurably pliant linings to each cup, the edges of which linings are forced outwardly against the opposing wall of the inclosing chamber by the pressure of the charge of motive fluid, so as to cut off the escape of the charge in any direction until an intentional relief is reached.

3. In an engine of the class described the combination of a casing having an annular chamber circular in cross section, and further provided with an inlet and exhaust, a rotor in the casing having a piston head operating in the annular chamber thereof, said piston head having a peripheral force receiving cup, the said cup being provided with a measurably pliant lining the edges of which are forced outwardly against the opposing wall of the annular chamber by the pressure of the charge of motive fluid.

4. In an engine of the class described the combination of a casing having an annular chamber circular in cross section and provided with a removable lining, the said casing being also provided with inlet and exhaust ports for the said chamber, in combination with a rotor having peripheral piston heads operating in the chamber of the casing and each provided with a force receiving cup, opening into said chamber, each of the said cups being provided with a lining measurably pliant and the edges of which are forced outwardly against the opposing wall presented by the lining of the casing chamber, by the pressure of motive fluid.

5. In a turbine engine, the combination of a casing having a cylindriform annular chamber, and a steam chest, the chamber and chest being in communication with each other through spaced ports, one in advance of the other, a divider in the chest, forming tapered passages trending in the direction of rotation of the piston and leading to said ports, and a rotary ring piston conforming to the cylindriform chamber and fitting closely therein, and provided with cups or cavities to receive the steam from said ports.

[Claims 6 to 19 not printed in the Gazette.]

1,027,647. VEHICLE-WHEEL. LUCIEN R. GRUSS, Chico, Cal., assignor to Auto-Compressed-Air Wheel Company, Chico, Cal., a Corporation of California. Filed Aug. 8, 1910. Serial No. 576,231. (Cl. 152—47.)



1. In a cushioned vehicle wheel, the combination of a hub and a rim, spoke members made up of telescoping sections, one section of each spoke being pivoted to the rim, and all the other sections of the other spokes except one, being pivoted to the hub, and a double differential cushioning, floating piston in each of said spokes and disconnected therefrom, and also from the hub and rim, with one head of the piston working in one section and the other head of the piston working in another spoke section.

2. In a vehicle wheel, the combination of a hub and rim, spoke members made up of telescoping sections, one section of each spoke being pivoted to the rim, and all the other sections of the other spokes except one, being pivoted to the hub, and a double cushioning floating piston in each of said spokes and disconnected therefrom, with one head of the piston working in one section and the other head of the piston working in another section, the chambers in which said pistons work being closed on their adjacent ends, and means by which both of the heads for each piston normally are at the outer end of their stroke in their respective cylinders.

3. In a vehicle wheel, the combination of a hub and a rim and connecting spoke members between, each spoke consisting of a tubular section connected to the rim, and another tubular section connected to the hub, said sections telescoping one with the other, a double ended floating cushioning piston housed in each spoke and working in respective cylinders therein, and means by which the outer end of each of said pistons have a head normally abutting against the outer end of its chamber.

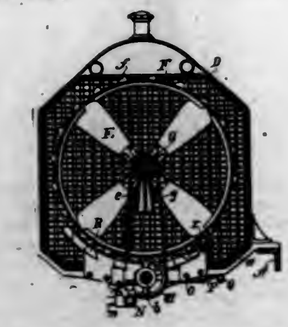
4. In a vehicle wheel, the combination of a hub and rim, spoke members made up of telescoping sections, one section of each spoke being pivoted to the rim, and all the other sections of the other spokes except one, being pivoted to the hub, and a double floating piston in each of said spokes and disconnected therefrom, with one head of the piston working in one section and the other head of the piston working in another section, the chambers in which said piston heads work being closed on their adjacent ends, means by which both of the heads for each piston normally are at the outer end of their stroke in their respective cylinders with the heads of each of said double pistons normally supported at the outer ends of their respective chambers, and means by which each piston head works on vacuum on one side and on compression on the other side.

5. In a vehicle wheel, the combination of a hub and rim, spoke members made up of telescoping sections, one section of each spoke being pivoted to the rim, and all the

other sections of the other spokes except one, being pivoted to the hub, and a double floating piston in each of said spokes and disconnected therefrom, with one head of the piston working in one section and the other head of the piston working in another section, the chambers in which said piston heads work being closed on their adjacent ends, means by which both of the heads for each piston normally are at the outer end of their stroke in their respective cylinders with the heads of each of said double pistons normally supported at the outer ends of their respective chambers, means by which each piston head works on vacuum on one side and on compression on the other side, and means by which air admitted on the vacuum side is delivered into the chamber on the compression side.

[Claims 6 to 34 not printed in the Gazette.]

1,027,648. ENGINE-STARTER. EDWIN GUTHRIE, Washington, D. C. Filed Mar. 1, 1912. Serial No. 680,913. (Cl. 123—179.)



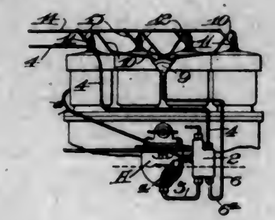
1. In an engine starter, the combination with an engine having an engine shaft, of a revoluble fan arranged to cause air to flow over the engine to cool the same, the said fan having a series of buckets, means constructed to transmit the movement of the engine shaft to the fan and the movement of the fan to the engine shaft, a fluid storage tank, a member having jet nozzles directed toward the buckets of the fan, and tubular connections including a cut-off valve and arranged between the tank and said member.

2. In an engine starter, the combination with an engine having an engine shaft, of a radiator, a revoluble fan arranged between the engine and radiator and constructed to cause air to flow over the engine and through the radiator to cool the same, the said fan having a series of buckets, means constructed to transmit the movement of the engine shaft to the fan and the movement of the fan to the engine shaft, a fluid storage tank, a member having jet nozzles directed toward the buckets of the fan, and tubular connections including a cut-off valve and arranged between the tank and said member.

3. In an engine starter, the combination with an engine having an engine shaft, of a revoluble fan arranged to cause air to flow over the engine to cool the same, means constructed to transmit the movement of the engine shaft to the fan and the movement of the fan to the engine shaft, a fluid storage tank, a member having jet nozzles directed toward the fan, the said fan being constructed to be revolved by impinging fluid jets from said member, and tubular connections including a cut-off valve and extending between the said storage tank and the said member.

1,027,649. GAS-ENGINE-STARTING DEVICE. WILLIAM A. HANSEN, San Francisco, Cal. Filed Dec. 13, 1910. Serial No. 597,025. (Cl. 123—180.)

1. In a starting device for gas engines, the combination of an auxiliary vaporizer, means to supply air thereto under pressure to start the engine, and a thermostat acted upon by the varying heat of the engine, for automatically varying the air supply in proportion to the supply of gasolene.



2. In a starting device for gas engines, an auxiliary vaporizer, means to supply air thereto under pressure to start the engine, and a means to automatically increase the air supply, said means incinding a thermostat and an auxiliary air inlet controlled thereby.

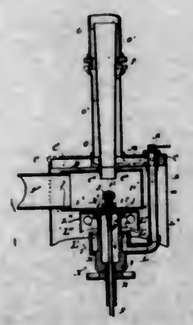
3. A starting appliance for gas engines, said appliance including an auxiliary vaporizer with a gasolene supply, an air pressure injector to deliver a mixture to the engine, an auxiliary air inlet connecting with the vaporizer, and a thermostat-actuated valve by which the auxiliary air is regulated.

4. In a starting device for gas engines, an auxiliary vaporizer, a supply of air thereto under pressure, and a means to automatically regulate the mixture for a cold or hot engine, said means including a thermostat-actuated valve which closes or opens the auxiliary air passage to the vaporizer, said valve being operated by the varying heat of the engine.

5. In a starting device for gas engines, an auxiliary vaporizer with an air nozzle, a transverse passage connecting with the gasolene and auxiliary air supply, and a discharge passage leading to the engine cylinder, and a means connected with the vaporizer for regulating the mixture for a cold or hot engine, said means including a thermostat and an auxiliary air inlet controlled thereby, said thermostat being acted upon by the varying heat of the engine.

[Claims 6 to 11 not printed in the Gazette.]

1,027,650. GASOLENE-GENERATOR. HANS C. HANSON, Albert Lea, Minn., assignor to American Gas Machine Company, Albert Lea, Minn., a Corporation of Minnesota. Filed June 26, 1911. Serial No. 635,429. (Cl. 158—58.)



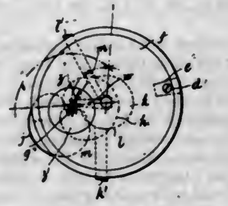
In a generator the combination of a top consisting of a casting provided with a central aperture, a horizontal passage way communicating therewith, and a discharge aperture, a valve to said discharge aperture, a pipe attached to said top and communicating with the horizontal passage way, a mixing chamber attached to said top, said chamber provided with apertures in the top, bottom and one of the side walls, a discharge pipe connected to said top and communicating at its upper end with the first named pipe and at its lower end with the mixing chamber, a vaporizer attached to the mixing chamber and communicating therewith, said vaporizer consisting of a casting provided with a central vaporizing chamber and an additional chamber concentric with the vaporizing chamber, a passage way communicating with the discharge side of the valve in the top and with the additional chamber in the casting and a shield attached to said top and means to introduce a vaporizable combustible fluid into said central chamber.

1,027,651. HAT AND VEIL PIN. ROSA J. HEAVENRICH, New York, N. Y. Filed Nov. 1, 1911. Serial No. 657,969. (Cl. 24—155.)



A device for attachment to the end of a hat pin, comprising a head and means extending therefrom for attachment to the end of the pin, a plurality of outwardly extending arms on said head arranged at right angles to said attaching means and provided with outwardly turned pin points for engagement with a veil as specified.

1,027,652. TIMING DEVICE. ALBERT HORSTMANN, GUSTAV OTTO HENRY HORSTMANN, ERNST HERMANN HORSTMANN, SIDNEY ADOLPH HORSTMANN, and WILLIAM THOMSON EDGAR, Bath, England. Filed Dec. 30, 1909. Serial No. 535,561. (Cl. 161—9.)



1. In a device of the class described, the combination of a rotary part, a shaft mounted upon the rotary part and arranged eccentrically thereto, a pair of cams rigid with said shaft, means actuated by the rotation of the rotary part for operating the shaft to vary the position of the cams, and a pair of discharge levers carried by the rotary part and having operative engagement with the cams whereby the position of the discharge levers is determined by the positions of the cams.

2. A device of the class described, the combination with an arbor, a single eccentrically arranged supporting element rotated with the arbor, a pair of cams rigidly carried by said element, and a pair of suitably supported discharging arms also rotated with the arbor and operatively related to the cams for automatic and simultaneous adjustment thereby, one of said cams being for lighting and the other for extinguishing purposes.

3. In a device of the class described, the combination of a support mounted to have a rotary movement, a pair of discharge levers carried by the support and arranged in different planes, a pair of rigidly connected cams actuated by the rotation of the support for varying the positions of said levers, and a discriminating device arranged in the path of the two discharge levers whereby one of such levers will always operate to open the switch while the other lever will always operate to close the switch.

4. In a device of the character described, the combination of a plate mounted to have a rotary movement, a shaft mounted upon the plate and arranged eccentrically thereon, a cam upon the shaft, means actuated by the rotation of the plate for turning the shaft to vary the position of the cam, a discharge lever pivoted upon the plate, a cam pin pivotally mounted upon the discharge lever and constructed to engage the periphery of the cam to determine the position of the discharge lever, the said cam pin being formed with worm teeth, and a worm mounted upon the discharge lever and meshing with the said worm teeth to admit of the cam pin being adjusted with respect to the discharge lever.

5. In a device of the character described, the combination of a pair of spaced plates rigid with each other and mounted to have a rotary movement, a shaft mounted upon the plates and arranged eccentrically with respect thereto, a pair of cams rigid with the shaft, means actuated by the rotation of the plates for turning the shaft to vary the position of the cams, a discharge lever mounted upon each plate, and cam pins carried by said levers and engaging the peripheries of the cams whereby the position of the discharge levers is determined by the position of the cams.

[Claims 6 and 7 not printed in the Gazette.]

1,027,653. GAS-CONTROLLER, ELECTRIC TIME-SWITCH, AND OTHER TIMING DEVICE. ALBERT HORSTMANN, GUSTAV OTTO HENRY HORSTMANN, ERNST HERMANN HORSTMANN, SIDNEY ADOLPH HORSTMANN, and WILLIAM THOMSON EDGAR, Bath, England. Filed Oct. 7, 1910. Serial No. 585,836. (Cl. 161—9.)



1. A switch actuating device including a dial plate provided upon one side thereof with an axially projecting sleeve adapted to frictionally engage a rotary member to support the dial plate in position, a discharging arm carried by the dial plate, a cam for locking the arm to the dial, and dial setting means carried by the cam.

2. A switch actuating device including a dial plate provided upon one side thereof with an axially projecting split sleeve adapted to frictionally engage a rotary member to support the dial plate in position, a discharging arm carried by the dial plate, a lever for locking the arm to the dial, and dial setting means carried by the lever.

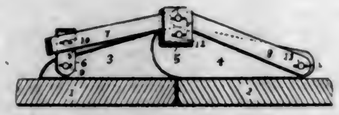
3. In a switch actuating device, the combination of a plate, an arbor extending through the plate, a rotary member mounted upon the arbor and formed with a boss which receives the arbor and also extends through the plate, a dial plate provided with an axially projecting sleeve adapted to frictionally engage the boss to hold the dial plate removably in position, a discharging arm carried by the dial plate, locking means for holding said arm in position, and hand grips carried by the locking means for setting the dial.

4. In a switch actuating device, the combination of a dial plate mounted to have a rotary movement and formed with an axial projection, a discharge arm mounted upon the dial plate, the outer end of the discharge arm projecting beyond the dial plate while the inner end thereof is formed with an opening receiving the projection, and a cam locking member pivotally mounted upon the projection and provided with means for engaging opposite portions of the discharging arm for holding the discharge arm in position.

5. In a switch actuating device, the combination of a dial plate mounted to have a rotary movement and formed with an axial projection, a discharge arm mounted upon the dial plate, the outer end of the discharge arm projecting beyond the dial plate while the inner end of the discharge arm is formed with an opening loosely receiving the projection, and a locking lever having a bifurcated end which is pivoted upon the projection, the arms of the bifurcation being formed with cams adapted to clamp the discharge arm against the dial plate.

[Claims 6 to 10 not printed in the Gazette.]

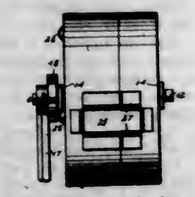
1,027,634. SPRING-HINGE. PERKINS E. HOWARD, Wichita, Kans. Filed Dec. 1, 1910. Serial No. 595,086. (Cl. 16—25.)



1. In a hinge comprising two sections, each section having perpendicular flanges pivotally connected, pins pivotally uniting said section, yokes pivotally mounted upon said pins, yokes embracing the flanges of one hinge section and pivotally connected thereto, links having lateral bends pivotally connected to the last named yokes, their other ends being embraced in the aforesaid yoke members and pivotally connected thereto, links pivotally connected to the other hinge section, their other ends pivotally connected to the pivots of the aforesaid yokes.

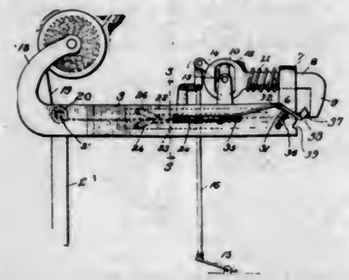
2. In a hinge comprising two sections, each section having perpendicular flanges pivotally connected, pins pivotally uniting said section, yokes pivotally mounted upon said pins, yokes embracing the flanges of one hinge section and pivotally connected thereto, links having lateral bends pivotally connected to the last named yokes their other ends being embraced in the aforesaid yoke members and pivotally connected thereto, links pivotally connected to the other hinge section, their other ends pivotally connected to the pivots of the aforesaid yokes, a plate having a perpendicular pierced lug, and a spring to close the door when opened less than 90 degress and to actuate the door when opened more than 90 degrees.

1,027,635. CLOTHES-LINE REEL AND STRETCHER. CORNELIUS JOHNSON, Des Moines, Iowa. Filed Oct. 9, 1911. Serial No. 653,589. (Cl. 242—101.)



An improved clothes line reel, comprising a cylindrical casing constructed of two parts, one of said members having its end contracted to fit within the end of the other member, each of said members being provided with an opening formed by cutting slits at corresponding positions in said members, and pressing the adjacent material outwardly and against the sides of the casing, the folded portion adjacent to the contracted end of the casing member being spaced apart from the main body of said casing to receive between the folded portion and main body portion the folded portion of the other casing member, thus forming a continuous smooth and even surface around said opening, a spool rotatably mounted within the casing designed to contain the clothes line, and means for connecting the reel to a post, for the purposes stated.

1,027,636. STRING-FASTENER FOR PACKAGES. ELMER H. JOHNSON, North Bennington, Vt. Filed Aug. 26, 1910. Serial No. 579,080. (Cl. 153—1.)



1. A twine fastener for bundles including jaws, one movable toward the other, manually actuated means for reciprocating said jaws, a device for intermittently feeding a metallic strip toward the jaws, means actuated by the feeding device for folding the strip between the jaws, and means for cutting off the folded end of the strip.

2. A twine fastener for bundles including jaws, one movable toward the other, a device for intermittently feeding a length of metallic strip toward the jaws, means actuated by the feeding means for crimping the strip between the jaws, manually operated means for reciprocating the movable jaw toward the fixed jaw to clamp the clip upon a twine, and means for cutting the clip from the metallic strip.

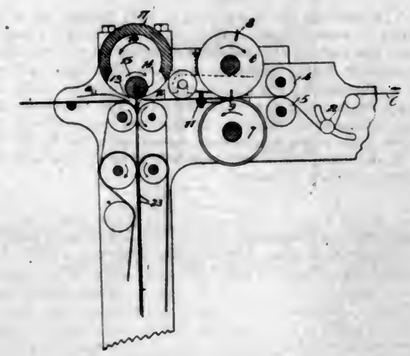
3. A twine fastener for bundles including a fixed head, a jaw movable toward and from said head, manually operated means for moving the jaw toward the head, means for moving the jaw away from the head when released by the manually operated means, a longitudinally movable strip-gripping device, means actuated upon an outward movement of the jaw for moving the gripping device toward the jaw and causing it to grip a metallic strip and feed it forward, and means also actuated upon an opening movement of the gripping device for folding the projecting end of the strip between the head and the inner face of the jaw.

4. A twine fastener for bundles including a fixed head, a reciprocating jaw movable toward and from said head, manually actuated means for moving the jaw toward the head, means for opening the jaw when released by the manually actuated means, a longitudinally movable strip-gripping device, means operatively connected to the movable jaw for causing a forward movement of the gripping device and causing it to grip a metallic strip and feed it forward upon an opening movement of the jaw, and means actuated upon the forward movement of the gripping device for folding the projecting end of the strip between the head and the inner face of the jaw.

5. A twine fastener for bundles including a fixed head, a jaw movable toward and from said head, manually operated means for moving the jaw toward the head, means for opening the jaw, a horizontally movable strip-gripping device comprising opposed dogs, means for moving the dogs toward each other to grip a metallic strip and toward the jaw upon an opening movement of the jaw, and a strip-bending lever having a terminal end adapted to fold the projecting end of the strip and actuated by the forward movement of the strip-gripping device.

[Claims 6 to 13 not printed in the Gazette.]

1,027,657. FOLDING MECHANISM. CLARENCE L. JOHNSTON, Emeryville, Cal. Filed Aug. 24, 1910. Serial No. 578,750. (Cl. 101—48.)



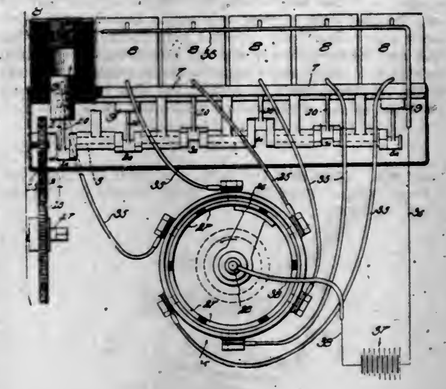
1. The combination in a paper folding machine, of a rotary cylinder longitudinally slotted in its periphery, shafts attached to the ends of said cylinder, removable bushings supporting said shafts, a change speed driving gear attached to one of said shafts, a fixed internal gear to which is secured one of said bushings, a shaft eccentrically journaled in the cylinder, a pinion secured on said last-named shaft and meshing with the fixed gear, a folding blade secured to the last named shaft and adapted to be projected through the cylinder, a throat plate disposed beneath the rotary cylinder, a paper feeding mechanism, and a device interposed between said rotary cylinder and the feeding mechanism for perforating and cutting the paper in suitable lengths.

2. The combination in a paper folding machine, of a rotary cylinder longitudinally slotted in its periphery, shafts attached to the ends of said cylinder, removable bushings supporting said shafts, a change speed driving gear attached to one of said shafts, a fixed internal gear to which is secured one of said bushings, a shaft eccentrically journaled in the cylinder, a pinion secured on said last-named shaft and meshing with the fixed gear, a folding blade secured to the last-named shaft and adapted to be projected through the cylinder, a throat plate disposed beneath the rotary cylinder, a paper feeding mechanism, and a device interposed between said rotary cylinder and the feeding mechanism for perforating and cutting the paper in suitable lengths, said device including a cylinder carrying a cutter and a perforator.

3. The combination in a paper folding machine, of a rotary cylinder longitudinally slotted in its periphery, shafts attached to the ends of said cylinder, removable bushings supporting said shafts, a change speed driving gear attached to one of said shafts, a fixed internal gear to which is secured one of said bushings, a shaft eccentrically journaled in the cylinder, a pinion secured on said last named shaft and meshing with the fixed gear, a folding blade secured to the last-named shaft and adapted to be projected through the cylinder, a throat plate disposed beneath the rotary cylinder, a paper feeding mechanism, and a device interposed between said rotary cylinder and the feeding mechanism for perforating and cutting the paper in suitable lengths, said device including a cylinder carrying a cutter and a perforator, the aforementioned throat plate extending close to the line of operative position of said cutter and designed to receive and guide the severed paper.

1,027,658. TALKING MOVING-PICTURE MECHANISM. ORLANDO E. KELLUM, Los Angeles, Cal. Filed June 28, 1911, Serial No. 635,763. Renewed Apr. 16, 1912. Serial No. 691,222. (Cl. 172—239.)

1. In combination with a sound reproducing mechanism and a kinetograph, an electric timer mechanically connected to the sound reproducing mechanism and adapted to transmit to a plurality of circuits regularly succeeding electrical impulses, an electric motor comprising a plurality of electro-magnets and armatures attractable by the magnets and operatively connected to the kinetograph to operate the same by virtue of their magnetically induced movements, a source of electrical energy, and circuits each including one of the electro-magnets, the timer and the source in series.



2. In combination with a sound reproducing mechanism and a kinetograph, an electric timer mechanically connected to the sound reproducing mechanism and adapted to transmit to a plurality of circuits regularly succeeding electrical impulses, an electric motor comprising a plurality of electro-magnets in the form of solenoids, an armature core for each solenoid, a crank shaft having cranks thereon spaced there-around, connecting rods between the cranks and the cores, and connecting means between the crank shaft and the kinetograph, a source of electrical energy, and circuits each including one of the electro-magnets, the timer and the source in series.

3. In combination with a sound reproducing mechanism and a kinetograph, a motor mechanism mechanically connected to one of the machines and comprising a plurality of electro-magnets, and armatures for the magnets and attractable thereby, an electric circuit for each of the electro-magnets, and means operatively connected to the other of the said machines to cause electrical impulses in said circuits in regular order.

1,027,659. APPAREL-SHOE HEEL. MINNIE LAGE, Gladbrook, Iowa. Filed Oct. 25, 1911. Serial No. 656,680. (Cl. 36—35.)

1. In a device of the class described, a metal plate designed to be secured to a shoe, lugs formed thereon by cut-

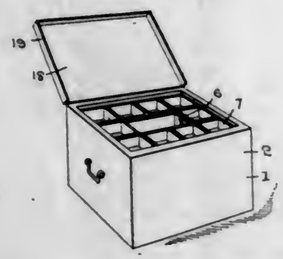
ting strips from said plate and bending said strips downwardly, a rubber body adjacent to said plate, a plate below said rubber body and contractible coil springs secured to said second plate and extending through said rubber body, and secured respectively to said lugs.



2. In a device of the class described, a plate designed to be secured to a shoe, a rubber body having its central portion removed, and having vertical openings extending through it, a second plate below said rubber body, contractible coil springs, each of which is secured to said second plate extending upwardly through one of the openings in said rubber body and is secured to said first named plate.

3. In a device of the class described, a metal plate designed to be secured to a shoe, lugs formed thereon by cutting strips in said plate and bending said strips downwardly, a rubber body having its central portion removed and provided with vertical openings, a second metal plate below said rubber body provided with upwardly extending lugs and contractible coil springs mounted in the vertical openings in said rubber body, each of which is secured at its respective ends to one of the lugs on said lower plate and to one of the lugs on said upper plate.

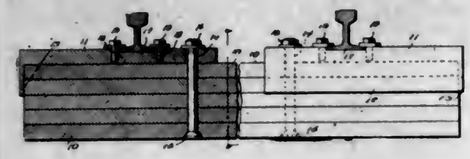
1,027,660. COOLING DEVICE. LAURENA E. LARRANCE, Delia, Kans. Filed Dec. 20, 1910. Serial No. 598,424. (Cl. 62—10.)



In a device of the class described, the combination with a box having a hinged cover, a removable central ice receptacle in the box, a plurality of smaller boxes arranged in tiers around the ice receptacle, horizontal partitions between said boxes having central openings to fit around the ice receptacle; of a cover for the boxes having a central opening to fit around the ice receptacle and an outer flange abutting the top edges of said boxes, and a separate cover for said ice receptacle having a depending flange engaging the inner surface of the side walls of said receptacle, the top surfaces of said covers being in the same plane to form a seal when the cover of said box is in closed position.

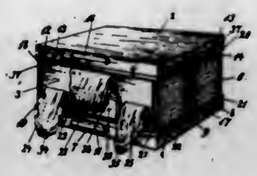
1,027,661. RAILWAY-TIE. GEORGE LESSIG, Reading, Pa. Filed Oct. 3, 1911. Serial No. 652,611. (Cl. 238—5.)

1. A railway tie comprising a body formed of a plurality of superimposed metal plates, rail supports bearing upon the body at the ends and provided with downwardly depending flanges engaging over the side edges and ends of a plurality of the plates, and means for connecting the body members together and likewise for connecting the rail supports to the body members.



2. A railway tie comprising a body formed of a plurality of superimposed metal plates, rail supports bearing upon the body at the ends and provided with downwardly depending flanges engaging over the side edges and ends of a plurality of the plates, said rail supports each having a transverse recess for receiving the tie flange of a rail, clamp bolts engaging in said rail supports and provided with heads adapted to extend over the flange of a rail, and clamping means operating through said rail supports and body members.

1,027,662. PORTABLE FOLDING DARK CHAMBER. WILHELM MACKE, Marienfelde, Germany. Filed Nov. 29, 1910. Serial No. 594,700. (Cl. 95—91.)



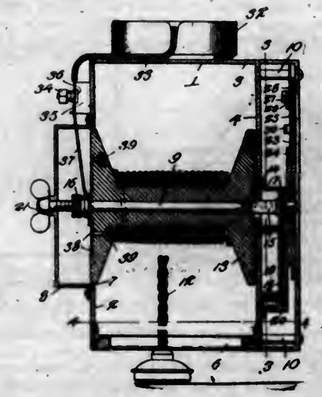
A portable folding dark chamber comprising three elements, a bottom (1), a lid (2) and a wall structure, the latter comprising members (3, 4, 5, 6,) rabbeted together at their meeting edges, said top and wall structure adapted to be connected by pins (13) and hooks (37) on the top and wall structure respectively and said wall structure and bottom adapted to be connected by pins (36) and hooks (8) on the wall structure and bottom respectively; there being positioning means provided comprising lid pins (15) for engagement with eyes (30) on the wall structure and pins (31) for engagement in corresponding bores (10) in the bottom, one of the wall structure members (3) being provided with an opening (23) fitted with a head-sleeve (27).

1,027,663. LAMP-CORD REEL. BENJAMIN F. MILLER, Ulysses, Idaho. Filed Sept. 14, 1910. Serial No. 582,040. (Cl. 242—109.)

1. In combination, a spring-operated reel shaft, a reel mounted thereon, a double face ratchet connected to the shaft, means engaging one face of the ratchet for locking it against movement by the spring, and means pivoted on said locking means and operated by the other face of the ratchet to hold the locking means in inoperative position.

2. In combination, a spring rotated shaft, a double face ratchet thereon, a slidably mounted locking pawl for holding the ratchet against rotation by the spring, and means pivoted on the pawl and engaged by one face of the ratchet to hold the pawl out of operative position together with a reel on the shaft.

3. In combination, a spring rotated shaft, a double ratchet carried by said shaft, a slidably mounted locking pawl adapted to engage one face of the ratchet to lock the shaft against rotation by the spring, and a tripping pawl pivoted to the locking pawl and adapted to engage the other face of the ratchet to raise and hold the locking pawl out of operative engagement with the ratchet together with a reel on the shaft.



4. In combination, a spring rotated shaft, a double face ratchet wheel thereon, a locking pawl to engage one face of the ratchet to hold the ratchet against rotation by the spring, and a beveled tripping pawl carried by the locking pawl and engaged by the other face of the ratchet wheel to trip the locking pawl out of engagement with the ratchet wheel, the beveled portion of the tripping pawl causing the same to be idly engaged by the other face of the ratchet wheel after being operated to raise the locking pawl together with a reel on the shaft.

1,027,664. [WITHDRAWN.]

1,027,665. SELF-CLEANING BALL-VALVE PUMP. CLARENCE L. PARKER, Los Angeles, Cal. Filed Oct. 14, 1910. Serial No. 587,055. (Cl. 103—80.)



1. In a pump, the combination of a barrel, a foot valve therein including a ball, a plunger, and a cleaning and unseating device for the ball in the path of and in position to be operated by the plunger during its working stroke.

2. In a pump, the combination of a barrel, a foot valve therein including a ball, a plunger, and a ball cleaning and unseating device disposed between the foot valve and plunger in the path of and in position to be moved into operation by the latter during its working stroke, said device including spring fingers for wiping and gripping the ball.

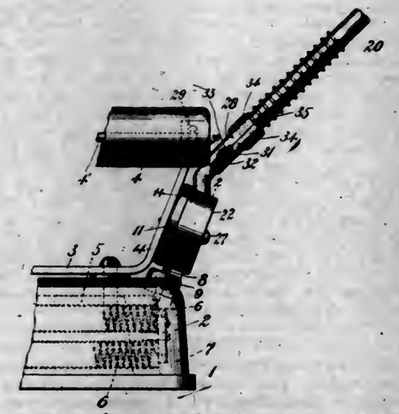
3. In a pump, the combination of a barrel, a foot valve mounted therein including a ball, a plunger above the foot valve and a gripping device movable into gripping relation to the ball by the plunger to unseat the ball during the upstroke of the plunger, said gripping device being in the path of the plunger and in position to be operated thereby during the working stroke of said plunger.

4. In a pump, the combination of a barrel, a foot valve mounted therein including a bodily movable element, a plunger mounted in the barrel, and means in the path of and in position to be automatically operated by the normal movement of the plunger for engaging the element to free the same from sand during the downward movement of the plunger and for raising the element during the upward movement of the plunger.

5. In a pump, the combination of a barrel, a foot valve therein including a bodily movable ball, a cage for holding the ball in coöperative relation with the seat, a plunger, and a ball-cleaning and unseating device between the cage and plunger and in the path of and in position to be set into operation by the latter within the range of its working stroke.

[Claims 6 to 40 not printed in the Gazette.]

1,027,666. ELECTRIC SAD-IRON AND TERMINAL BOX. LEON F. PARKHURST, Binghamton, N. Y., assignor to Diamond Electric Company, Binghamton, N. Y., a Corporation of New York. Filed Feb. 15, 1911, Serial No. 608,769. Renewed Apr. 1, 1912. Serial No. 687,775. (Cl. 219—25.)



1. In an electric sad iron, the combination with an iron body having heating units therein, of a terminal connector located outside of said body having the terminals of said units secured thereto, of a supply cable having circuit terminals leading into said connector and means for securing said cable to said iron independently of said terminal connections to preserve said terminal connections from pulling strains on said cable.

2. In an electric sad iron, the combination with an iron body having heating units therein, a handle for said iron, a terminal connector mounted on said handle outside of said iron body and removed from the heating effects thereof and having the unit terminals connected therewith, of a supply cable having its terminals connected with said connector and means for securing said cable to said handle independently of said connections with said connecter.

3. In an electric sad iron, the combination with an iron body having heating units therein, a handle for said body, a supply cable, a connector mounted on said handle to

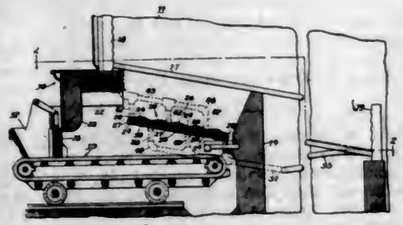
receive the terminals of said units and said cable, and a bracket for securing said cable to said handle independently of the connections with said connector.

4. In an electric sad iron, the combination with an iron body having heating units outside of said body and adapted to receive the terminals of said units and said cable and a clamp located beyond said connector for securing said cable to said iron independently of said connector.

5. In an electric sad iron, the combination with an iron body having heating units therein, a supply cable, a connector for the terminals of said units and said cable located outside of said iron and a clamping bracket for attaching said cable to said iron independently of the connection with said connector.

[Claims 6 to 9 not printed in the Gazette.]

1,027,667. STEAM-BOILER FURNACE. HERMAN A. POPPENHUSEN, Evanston, and JOSEPH HARRINGTON, Riverside, Ill. Filed Apr. 12, 1909. Serial No. 489,290. (Cl. 122—292.)



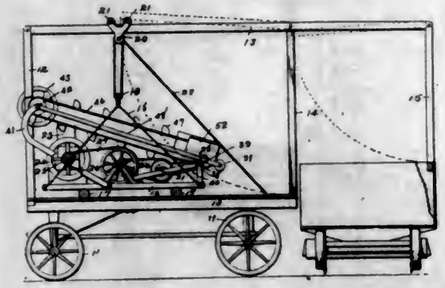
In a furnace, the combination with a combustion chamber and a grate, of a deflecting partition in said chamber embracing a plurality of horizontal, tubular, metal, water-cooled supporting members, extending transversely between and supported by the side walls of the furnace, headers by which said supporting members are connected in pairs, said headers being embedded in one side wall of the furnace and the ends of said supporting members being extended through the other side wall of the furnace, supply and return pipes located exterior to the last named side wall of the furnace, said supply and return pipes being located respectively below and above the ends of the supporting members and being inclined in a direction from the lower rear part of the furnace to the upper forward part of the same, and connecting pipes extending from one supporting member of each pair downwardly to the supply pipe and from the other supporting member of each pair upwardly to the return pipe.

1,027,668. BARRETTE. MALLE LITTLE PRITZKOW, Philadelphia, Pa., assignor to The Malle Little Grip Company, Philadelphia, Pa., a Corporation of Delaware. Filed Nov. 11, 1910. Serial No. 591,914. (Cl. 132—22.)



In a device of the character described, the combination with a bowed elastic body portion, of a U shaped comb like member secured to each end of said body portion, each of said comb members comprising a plurality of parallel teeth, the teeth of said comb members pointing toward each other, the outer faces of said teeth being concave from their base portions to their terminal portions, the teeth of each comb member being formed in that portion of the U shaped comb member farthest from the bowed body portion, the remaining member of the U shaped comb member lying against and being secured to said body portion.

1,027,669. CAR-UNLOADER. ELMO V. RICHARDS, Des Moines, Iowa. Filed Oct. 31, 1910. Serial No. 589,894. (Cl. 214—1.)



1. In a device of the class described, the combination of a frame, a prime mover carried by the frame, a conveyer frame supported upon said frame, a bucket conveyer carried by said conveyer frame, and wings fixed to the conveyer frame and extended outwardly and forwardly from it for gathering material toward the conveyer buckets.

2. In a device of the class described, the combination of a frame, a prime mover carried by the frame, a conveyer frame supported upon said frame, a bucket conveyer carried by said conveyer frame, wings fixed to the conveyer frame and extended outwardly and forwardly from it for gathering material toward the conveyer buckets, and means for advancing the frame so that said wings and the conveyer frame may be moved toward the material to be loaded.

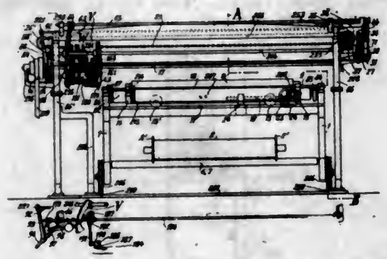
3. A device of the class described, comprising a frame, a prime mover carried by the frame, arms pivotally supported by the frame, a detachable conveyer frame mounted on said arms and capable of moving to a folded position over the frame, and also to a position for use in a substantially upright position at one end of the frame, two bucket conveyers carried by the conveyer frame, a side delivery chute carried by said arms to receive the discharge from the bucket conveyers, and means operated by the prime mover for moving the conveyer frame to its various positions of adjustment.

4. A device of the class described, comprising a frame, a prime mover carried by the frame, arms pivotally supported by the frame, a detachable conveyer frame mounted on said arms and capable of moving to a folded position over the frame, and also to a position for use in a substantially upright position at one end of the frame, two bucket conveyers carried by the conveyer frame, a side delivery chute carried by said arms to receive the discharge from the bucket conveyers, and means operated by the prime mover for moving the conveyer frame to its various positions of adjustment, and means operated by the prime mover for advancing the frame to move it toward the material to be loaded.

1,027,670. WARP-TWISTING-IN MACHINE. ADALBERT SCHUSTER, Glauchau, Germany, assignor to Gustav Hiller, Zittau, Germany. Filed Nov. 1, 1910. Serial No. 590,176. (Cl. 139—95.)

1. In a warp twisting-in machine of the class described, the combination with clamps for holding the warp ends of two superposed leases, of means for separating the two warp ends to be joined from the others, means for keeping down the separated warp ends at their crossing point, means for gripping the separated warp ends near said clamps, means for cutting the gripped warp ends off from said clamps, two friction disks, and means for raising the cut gripped warp ends and introducing them between said two friction disks which are adapted to twist them.

2. In a warp twisting-in machine of the class described, the combination with a frame, of a slide vertically guided in said frame and having two parallel pins at right angles to it, means for reciprocating said slide, two opposite two-armed levers mounted on said two pins to rock in a common vertical plane, two inclined guides fastened in said frame and adapted to so guide the upper arms of said two-armed levers as to move together their lower arms in the upper position and to move them apart in the lower position of said slide, two pairs of tongs on the lower arms of said two-armed levers, and means for operating said tongs.



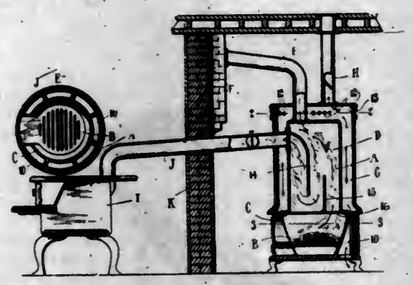
3. In a warp twisting-in machine of the class described, the combination with a frame, of a slide vertically guided in said frame and having two parallel pins at right angles to it, means for reciprocating said slide, two opposite two-armed levers mounted on said two pins to rock in a common vertical plane, two inclined guides fastened in said frame and adapted to so guide the upper arms of said two-armed levers as to move together their lower arms in the upper position and to move them apart in the lower position of said slide, two pairs of tongs on the lower arms of said two-armed levers and adapted to open and close in planes severally parallel to said two pins, springs for normally closing said tongs, two guiding levers on said frame adapted to open said tongs against the tension of said springs during the motion of said slide and to release them only in the lower position of the slide, and means for reciprocating said two guiding levers.

4. In a warp twisting-in machine of the class described, the combination with a frame, of a slide vertically guided in said frame and having two parallel pins at right angles to it, means for reciprocating said slide, two opposite two-armed levers mounted on said two pins to rock in a common vertical plane, two inclined guides fastened in said frame and adapted to so guide the upper arms of said two-armed levers as to move together their lower arms in the upper position and to move them apart in the lower position of said slide, two pairs of tongs and two blades on the lower arms of said two-armed levers, each blade forming with one member of the pair of tongs a pair of scissors, and means for operating said tongs and said blades.

5. In a warp twisting-in machine of the class described, the combination with a frame, of a slide vertically guided in said frame and having two parallel pins at right angles to it, means for reciprocating said slide, two opposite two-armed levers mounted on said two pins to rock in a common vertical plane, two inclined guides fastened in said frame and adapted to so guide the upper arms of said two-armed levers as to move together their lower arms in the upper position and to move them apart in the lower position of said slide, two pairs of tongs on the lower arms of said two-armed levers and adapted to open and close in planes severally parallel to said two pins, springs for normally closing said tongs, two blades on said two pairs of tongs and each forming with one member of the pair of tongs a pair of scissors, two guiding levers on said frame and adapted to open said tongs against the tension of said springs during the motion of said slide and to release them in the lower position of the slide while at the same time they are adapted to open in one position and to close in the other position said two pairs of scissors, and means for reciprocating said two guiding levers.

[Claims 6 to 18 not printed in the Gazette.]

1,027,671. HEATING-STOVE. JOHN SCHWAB, New York, N. Y. Filed Dec. 31, 1910 Serial No. 600,366. (Cl. 126—58.)



1. In combination a primary stove, a secondary stove, having a combustion chamber, fire pot and a flue leading to a chimney, an air-heating chamber around the secondary stove adapted to discharge air in to the room to be heated, a flue connecting the primary stove with the combustion chamber of the secondary stove and means adapted to direct the products of combustion from each stove parallel with each other and thus prevent interference between the products of combustion of the two stoves when the fires are burning simultaneously, said means comprising overlapping baffle plates.

2. The combination with a primary stove and a secondary stove having a fire pot, a combustion chamber above the same, having a bottom with an opening therethrough at one side and having a smoke outlet at the top, of a flue connecting the stoves and opening near the top of the combustion chamber of the secondary stove at the side remote from the opening into the fire pot, a baffle plate adjacent to the wall through which the flue opens and adapted to direct the products of combustion downwardly and a second baffle plate spaced from the first baffle plate located between the first baffle plate and the opening in the bottom of the combustion chamber communicating with the fire pot and extending upwardly from the bottom of the combustion chamber.

3. A device of the class described comprising in combination a primary stove, and a secondary stove having a fire pot and combustion chamber above the same, having a bottom with an opening into the fire pot at one side and a smoke outlet at the top, of an air heating chamber surrounding both the fire pot and combustion chamber and through which air is adapted to circulate, a flue connecting the two stoves and opening near the top of the combustion chamber of the secondary stove at the side remote from the opening into the fire pot, a baffle plate adjacent to the wall through which the flue opens and adapted to direct the products of combustion downwardly, and a second baffle plate spaced from the first baffle plate, located between the first baffle plate and the opening in the bottom of the combustion chamber communicating with the fire pot and extending upwardly from the bottom of the combustion chamber.

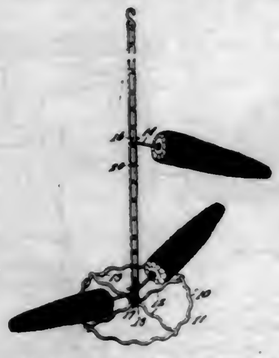
1,027,672. SEED-CORN DRIER. THOMAS C. SIME, Nevada, Iowa. Filed Dec. 18, 1911. Serial No. 666,471. (Cl. 34—26.)

1. A support for ears of corn consisting of an annular member, a plurality of transversely disposed members which intersect at their centers, said members being fluted, a securing device embracing and rigidly engaging said transverse members at their points of intersection, and a flexible hanger connected to said securing device.

2. In a support for ears of corn a fluted annular member, a plurality of transversely disposed fluted members extending transversely of said member and secured to the same, and a hanger secured to said transversely disposed members.

3. A support for ears of corn consisting of a fluted an-

nular member, a plurality of fluted members supported by said annular member, a hanger rigidly secured to said



second mentioned members, and a plurality of fluted ear supporting members loosely supported by said hanger.

1,027,673. CORE-CHAPLET. EUGENE W. SMITH, Chicago, Ill., assignor of one-half to Henry N. Hudson, Chicago, Ill. Filed Apr. 11, 1911, Serial No. 620,498. Renewed Apr. 11, 1912. Serial No. 690,045. (Cl. 22—184.)



1. A molder's chaplet, consisting of a narrow flattened spiral ribbon of sheet metal, having opposite oblique bearing portions connected at their ends by short strut bends, the whirls of the spiral being separated by a continuous interval.

2. A helical chaplet consisting of a series of flattened whirls having opposite oblique surface bearings connected by strut-like bends at their ends, and a spiral interval extending between said bearings and bends.

3. A molder's chaplet of flattened helical form, consisting of a narrow metal ribbon having flattened whirls in substantially parallel position.

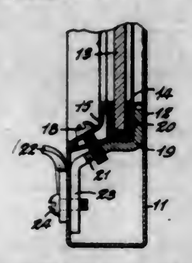
1,027,674. PEN-POINT RELEASER. ROBERT B. THOMPSON, Coalport, Pa. Filed Apr. 6, 1911. Serial No. 619,398. (Cl. 120—101.)



1. A pen holder comprising a handle, a tubular core mounted on one end of said handle and formed with resilient longitudinal members, a sleeve secured to said handle and surrounding said core and formed with a longitudinal opening in its top extending to its outer end, and a rotatable sleeve mounted on said fixed sleeve and having an opening extending to its outer end and coinciding with the opening in the fixed sleeve, the outer end of said fixed sleeve being bent over and forming a support for the outer end of the rotatable sleeve.

2. A pen holder comprising a handle, a tubular core mounted on one end of said handle and having a longitudinal slot in each side forming resilient members, a fixed sleeve secured to one end of the handle and extending over said core and of greater width at its outer end than the latter, the inner end of said fixed sleeve being formed with an annular rib, and its outer end formed with an outwardly flaring edge, said fixed sleeve having a longitudinal opening on its top extending to its outer end, and a sleeve rotatably mounted on said fixed sleeve and having an opening extending to its outer end and coinciding with the opening in the fixed sleeve, said rotatable sleeve bearing at one end against the rib on the fixed sleeve and at its other end against the flaring edge at the other end of said sleeve.

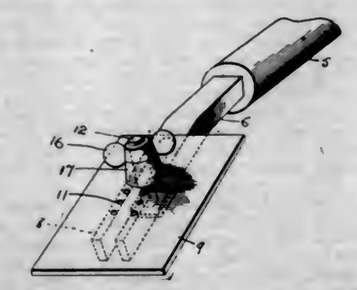
1,027,675. METAL WINDOW-SASH. ERNEST R. VIBERG, Montreal, Quebec, Canada. Filed July 22, 1909. Serial No. 509,072. (Cl. 189—76.)



1. A metallic sash for windows and the like comprising an approximately rectangular tubular section, a flange formed integral therewith, a filler strip, means for holding the filler strip and flange together, a bead strip, and means connecting the filler strip with the bead strip to hold same in tension, substantially as described.

2. A metallic sash for windows and the like comprising a series of seamless tubular sections, flanges formed integral therewith, means for joining said sections, a filler strip, means for holding the filler strip and flanges together, a bead strip, and means connecting the bead strip with the filler strip to maintain the parts in spring tension.

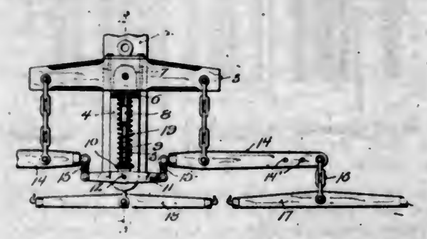
1,027,676. FLOOR-SCRAPER. FRANK J. VONDRACEK, Cedar Rapids, Iowa. Filed Sept. 11, 1911. Serial No. 648,677. (Cl. 145—47.)



1. A floor scraper comprising a tang member having a bent body-portion, terminal integral arms positioned thereon, a perpendicularly positioned cylindrical lug upon the upper face of each of said arms, a scraper plate provided with a large perforation and a row of smaller perforations upon opposite sides thereof arranged in parallelism with each other and the edges of said plate, a bolt adapted for reception within said larger perforation and between said arms, a head upon said bolt, a channel washer upon said bolt between said arms and head and embracing said arms and containing the lower faces thereof, a winged nut upon said bolt, and a washer between the same and said plate.

2. A floor scraper comprising a tang member, projecting lugs carried by said member, a scraper plate provided with a plurality of perforations therein and adapted to engage said lugs, a securing means engaging said tang and plate and adapted for retaining said lugs within said perforations, an auxiliary handle, a strap member embracing the same, bifurcated end members upon said strap member and adapted for engagement with the securing means.

1,027,677. DRAFT APPLIANCE. PAUL E. WALDVOGEL, Milwaukee, Wis., assignor to Mallery Manufacturing Company, South Milwaukee, Wis., a Corporation of Wisconsin. Filed Mar. 5, 1912. Serial No. 681,748. (Cl. 21—189.)



1. A draft rigging comprising a draft member, a double-tree secured thereto, a draft bracket secured to the double-tree having longitudinally slotted arms, a floating lever interposed between the bracket arms, a pivot-bolt for the floating lever in slidable engagement with the bracket slots, a spring in opposition to the floating lever for resisting load strain, a draft arm in link connection with each end of the double-tree, a link connection between the inner ends of the draft arms and ends of the floating lever, and a swingle-tree connected to the outer end of each draft arm.

2. A draft rigging comprising a draft member, a draft-bolt carried thereby, a double-tree mounted upon the draft-bolt, a draft bracket having ears overlapping the double-tree in pivotal engagement with the draft-bolt, slotted arms extending from the bracket ears, a head connecting the arms and bracket ears, a floating lever interposed between the bracket arms, a pivot-bolt for the floating lever in slidable engagement with the bracket-slots, a spring interposed between the floating lever and bracket head arranged to resist strain load, a draft arm in link connection with each end of the double-tree, links connecting the inner ends of the draft arms with the ends of the floating lever, and a swingle-tree connected to the outer end of each draft arm.

3. A draft rigging comprising a draft member, a double-tree secured thereto, a draft bracket secured to the double-tree, the draft bracket being provided with longitudinal slotted arms, a floating lever interposed between the bracket arms, a pivot-bolt for the floating lever in slidable engagement with the bracket-slot, a spring in opposition to the floating lever for resisting load strain, a draft arm in link connection with each end of the double-tree, links connecting the inner ends of the draft arms with the ends of the floating lever, a swingle-tree in connection with the floating lever pivot-bolt, and a swingle-tree in link connection with the outer end of each draft arm.

1,027,678. FAUCET, COCK, OR THE LIKE. CHARLIE EDWIN WEEKS, Sacramento, Cal., assignor of one-half to Frederick F. Krantz, Represa, Cal. Filed Aug. 2, 1911. Serial No. 641,978. (Cl. 137—7.)

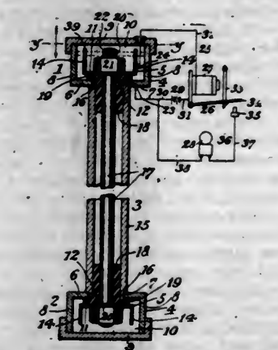


1. In a faucet comprising a casing having a turning plug mounted therein, the said plug having a recess formed in the upper end thereof, a leaf spring gradually tapering in width secured to said casing and the thickest end of said leaf spring adapted to rest in said recess substantially as described.

2. In a faucet comprising a casing having a turning plug mounted therein, the said turning plug having a recess therein, a lug extending from said plug adjacent said recess, a leaf spring, one end of which is secured to said casing, the opposite end adapted to rest against said lug to hold said turning plug in a closed position and to rest in said recess when said plug is in an open position.

3. In a faucet comprising a casing provided with inlet and outlet ports, a turning plug mounted in said casing, having an opening to register with said inlet and outlet ports, the upper end of said turning plug having a recess in the periphery thereof, a lug extending from the periphery of the said turning plug adjacent said recess, the upper end of said casing being enlarged and having a pocket formed therein, the said turning plug extending into said pocket, a leaf spring increasing in width, the thinner end of which is secured to the casing at one end of said pocket and the thicker end adapted to rest upon said lug formed on said turning plug, a cover for closing said pocket, having an opening formed therein to register with a recess formed in said turning plug and a key adapted to extend through said opening into said recess for operating said turning valve, substantially as and for the purpose set forth.

1,027,679. ELECTRICALLY-PROTECTED GRILLE-WORK OR GRATING. JOHN P. WILLIAMS and HERMANN HUHN, New York, N. Y., assignors to Electric Bank Protection Company, a Corporation of Delaware. Filed Dec. 8, 1910. Serial No. 596,267. (Cl. 177—202.)



1. An electrically-protected grille-work or grating, comprising an outer tubular bar, an inner bar revolubly mounted and extending therein and fixed against longitudinal movement, said inner and outer bars constituting electrical conductors and being normally spaced apart and having exposed surfaces substantially throughout their length, supporting means constituted by an outer bar in connection with said tubular bar and an inner member in connection with said inner bar, said outer and inner members of said supporting means constituting electrical conductors, contact means carried by said revoluble bar and operative to contact with said outer bar of said supporting means when said revoluble bar is rotated, and an electrical alarm circuit including said outer and inner members of said supporting means, whereby when said tubular bar or revoluble bar is bent or distorted to bring the exposed surfaces of said bars in contact or the inner revoluble bar is rotated the circuit will be closed to operate the alarm.

2. An electrically-protected grille-work or grating, comprising an outer tubular bar, an inner bar revolubly mounted and extending therein and fixed against longitudinal movement, said inner and outer bars constituting elec-

trical conductors and being normally spaced apart and having exposed surfaces substantially throughout their length, supporting means constituted by an outer bar in connection with said tubular bar and an inner bar in connection with said revoluble bar, said outer and inner bars of said supporting means constituting electrical conductors, an insulation between said outer and inner bars of said supporting means and between said tubular bar and revoluble bar at the end portion thereof, a lateral projecting member carried by said revoluble bar and operative to contact with said outer bar of the supporting means when said revoluble bar is rotated, and an electrical alarm circuit including said outer and inner bars of said supporting means, whereby when said spaced bars are bent or distorted to bring their exposed surfaces in contact or the inner revoluble bar is rotated the circuit will be operated to actuate the alarm.

3. An electrically-protected grille-work or grating, comprising an outer tubular bar, an inner bar revolubly mounted and extending therein and fixed against longitudinal movement, said inner and outer bars constituting electrical conductors and being normally spaced apart and having exposed surfaces, supporting means constituted by an outer bar in connection with said tubular bar and an inner bar in connection with said revoluble bar, said outer and inner bars of said supporting means constituting electrical conductors, an insulation extending between said outer and inner bars of said supporting means and between said tubular bar and revoluble bar at the end portion thereof, a lateral member carried by said revoluble bar and operative to contact with the outer bar of said supporting means when said revoluble bar is rotated, a bearing interposed between the inner bar of said supporting means and said revoluble bar, and an electrical alarm circuit including said inner and outer bars of said supporting means.

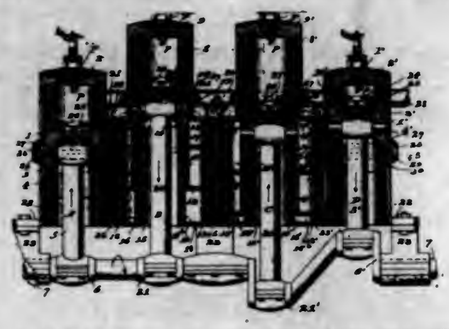
4. An electrically-protected grille-work or grating, comprising an outer tubular bar, an inner bar extending therein and fixed against longitudinal movement, said inner and outer bars constituting electrical conductors and being normally spaced apart and having exposed surfaces, supporting means constituting an outer member in connection with said tubular bar and an inner member in connection with said inner bar, an insulation extending between said outer and inner members of said supporting means and between said tubular bar and inner bar at the end portion thereof, a nut carried at the end of said inner bar and clamping the inner member of said supporting means and said insulation in operative position, and an electrical alarm circuit including both said spaced outer tubular bar and inner bar.

5. An electrically-protected grille-work or grating, comprising an outer tubular bar, an inner bar revolubly mounted and extending therein and fixed against longitudinal movement, said inner and outer bars constituting electrical conductors and being normally spaced apart and having exposed surfaces substantially throughout their length, contact means carried by said revoluble bar for closing the circuit connection thereof when said bar is rotated, supporting means inclosing the end of the inner revoluble bar and its contact means and constituted by an outer member in connection with said tubular bar and an inner member in connection with said revoluble bar, said outer and inner members of said supporting means constituting electrical conductors and being normally spaced apart and having exposed surfaces substantially throughout their length, and an electrical alarm circuit including said tubular bar and revoluble bar and said outer and inner members of said supporting means.

[Claim 6 not printed in the Gazette.]

1,027,680. INTERNAL-COMBUSTION ENGINE. MARTIN L. WILLIAMS, South Bend, Ind. Filed Dec. 20, 1909. Serial No. 534,154. (Cl. 123—59.)

1. In a gas engine, the combination of two main cylinders, a piston for each cylinder, an auxiliary cylinder concentric with one of said main cylinders, an inlet to the auxiliary cylinder for gas, connections between said auxiliary cylinder and the main cylinders, and a piston for said auxiliary cylinder carried bythe piston of the corresponding main cylinder and operable in the auxiliary cylinder to control the charging of gas from the auxiliary cylinder to both main cylinders.



2. In a gas engine, the combination of two main cylinders each provided with a piston, an annular auxiliary cylinder concentric with one of said main cylinders, an annular piston for said auxiliary cylinder forming part of the corresponding main cylinder piston, an inlet to said auxiliary cylinder for gas, and connections between said auxiliary cylinder and the main cylinders, said auxiliary cylinder and piston coöperating to alternately charge the gas from the auxiliary cylinder to the main cylinders.

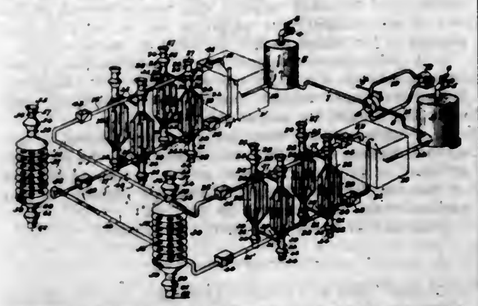
3. In a gas engine, the combination of two main cylinders each having a piston, an outer wall concentric with one of said main cylinders, an inner stationary wall, said outer wall forming the outer boundary of an auxiliary annular cylinder and said stationary inner frame forming part of the inner boundary of said auxiliary cylinder, the main piston of the corresponding main cylinder forming the remaining part of the inner boundary of said auxiliary cylinder, a wall extending between said main cylinders and the outer wall to form the upper boundary of said auxiliary cylinder, a wall extending from said inner stationary frame to said outer wall to form the lower boundary of said auxiliary cylinder, an auxiliary piston formed at the lower end of said main piston and adapted to reciprocate therewith and in said auxiliary cylinder, an inlet to said auxiliary cylinder for gas, and connections between said auxiliary cylinder and the main cylinders, said auxiliary piston coöperating with the auxiliary cylinder upon reciprocation of the corresponding main piston to in common control the charging of gas from the auxiliary cylinder to the main cylinders.

4. In a gas engine, the combination of a cylinder frame having an inner section of one diameter and an outer section of greater diameter, a piston for reciprocating in said inner section, an annular flange extending downwardly from the piston, an annular wall extending inwardly a distance from the outlet of said outer section and connected at its outer end with said outer section, said annular wall also extending into the piston flange, said outer cylinder section, said annular wall and said piston forming an annular auxiliary cylinder compartment, the outer end of said piston flange expanding to form a piston for said auxiliary cylinder compartment, an inlet to said auxiliary cylinder compartment for gas, and connections between said auxiliary cylinder compartment and the compartment within the inner cylinder section, said auxiliary cylinder compartment traveling with said main piston to control the charging of gas from said auxiliary cylinder compartment to the inner cylinder section compartment.

5. In a gas engine, the combination of a main cylinder and a piston therefor, an auxiliary cylinder and piston therefor, said main cylinder piston having an axial port and a passageway extending from said port and terminating at the periphery of said main cylinder, a passageway leading from said auxiliary cylinder and terminating at the inner surface of the main cylinder to be in register with the passageway leading from the axial port in the main piston when the main piston is in its out position whereby said axial inlet port will be out of connection with said auxiliary cylinder until said main piston reaches its out position, said auxiliary cylinder having a gas intake port positioned to be cleared by the auxiliary piston to feed gas into said auxiliary cylinder when the auxiliary piston is in its inner position, said pistons moving outwardly simultaneously whereby the fed-in gas compressed in the auxiliary cylinder by the outwardly moving auxiliary piston will be compressed and discharged into the main cylinder under heavy pressure when the main piston reaches its outer position, and exhaust outlet from said main cylinder positioned to be opened when the main piston reaches its out position, the charged gas flowing into the main cylinder in an axial column, the exhaust gases flowing along the sides of the main cylinder and through the exhaust outlet.

[Claims 6 to 8 not printed in the Gazette.]

1,027,681. MANUFACTURE OF GAS. WILLIAM H. WILLIAMS, East Liverpool, Ohio. Filed Oct. 30, 1901, Serial No. 80,525. Renewed Oct. 20, 1911. Serial No. 655,747. (Cl. 48—85.)



1. The herein described process of making gas, which consists in subjecting carbonaceous material to heat in a closed circuit to produce a gas containing carbon monoxid, causing said carbon monoxid to take up oxygen by subjecting it to the action of a heated metallic oxid in a closed circuit to form carbon dioxid, then reducing all of the carbon dioxid in the gas to carbon monoxid by subjecting the same to the action of heated carbonaceous material in the closed circuit and finally taking off the carbon monoxid, substantially as described.

2. A process of producing carbon monoxid gas, which consists in oxidising carbon monoxid in a closed circuit by forcing the carbon monoxid through the circuit in one direction over a heated metallic oxid, then reducing the gas thus produced by forcing the same in the same direction over heated carbonaceous material, periodically reversing the direction of flow of current, and finally withdrawing the carbon monoxid from the system, substantially as described.

3. A process of producing carbon monoxid, which consists in heating carbonaceous material in a retort to produce carbon monoxid, subjecting said carbon monoxid to the action of heated metallic oxid in another retort to produce carbon dioxid, then subjecting the carbon dioxid to heated carbonaceous material in another retort to produce carbon-monoxid, continuing the operation until the oxygen in the carbonaceous material of the first retort is substantially exhausted, then reversing the order of the steps, whereby the oxygen in the first-mentioned retort is restored by the oxygen from the metallic oxid, and taking off the excess monoxid, substantially as described.

4. The process of producing carbon monoxid which consists in heating carbonaceous material in a retort to produce carbon monoxid, subjecting said carbon monoxid to the action of heated metallic oxid in another retort to produce carbon dioxid, subjecting the carbon dioxid to heated carbonaceous material in another retort to produce carbond monoxid, then carrying the carbon monoxid to the first-mentioned retort, continuing the operation in the same order in a closed circuit, periodically reversing the flow of the gas, and taking off the excess carbon monoxid, substantially as described.

5. The herein described process which consists in heating carbonaceous material to produce carbon monoxid in a closed circuit, passing the gas thus produced around the circuit and into contact successively with heated metallic oxid and heated carbonaceous material and back to the starting point, continuing the flow of gas around the circuit, periodically reversing the direction of the flow of the gas and taking off the excess carbon monoxid, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,027,682. TRACK-JOINT. WILLIAM WISE, St. Joseph, Mo., assignor of one-third to Stanley C. Wise, Maysville, Mo. Filed Oct. 6, 1911. Serial No. 653,289. (Cl. 239—8.)



1. A track joint comprising the ends of two abutting rails, bases and a flanged plate therefor, the abutting end of one rail end provided with a groove, a lock receptacle at the inner end of said groove, sections of walls of differing height forming stops, the other rail abutting against the stops formed by said lower walls, its tread resting on said walls and engaging with the stop formed by the higher walls, the narrowed part of said rail beneath the tread housed in said groove, a narrowed extension of the interlocking rail fitting into the inner end of said groove, a locking receptacle at the end of said interlocking joint, a widened bossed lock end of said interlocking rail engaging with said receptacle, a block to retain said locking part when drawn back into seats for the bosses and a plug block and key to engage with slots in said higher walls and the interlocking rail joint.

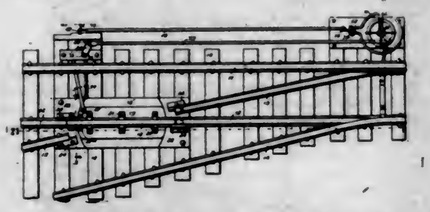
2. A track joint comprising a receiving rail provided with a groove between sections of opposite higher and lower walls the latter provided with corresponding slots, an interlocking rail having rabbeted sides, a base integral with each rail, the ends of the upper walls abutting and constituting a part of the track joint, the inner abutting ends of said lower walls of the receiving rail and the rabbeted sides of the interlocking rail constituting a second part of the track joint, the inner abutting end of the sides of the tread of the interlocking rail and the ends of the tops of said higher walls of the receiving rail constituting an additional division of said track joint, a lock receptacle at the end of said groove, reversed L shaped bosses on the sides of the inner end of the interlocking rail, seats in the sides of said receptacle, a loose block in said receptacle to assist in retaining said interlocking rail in its seated position and allow for expansion and contraction, and a plug and key to engage with said corresponding slots and serve as a lock complementary to said track joint divisions.

3. In a device of the kind described the combination with a receiving rail having a groove with a widened inner end forming a locking receptacle, and duplicate reverse L shaped bosses on the sides of the end of an interlocking rail adapted to engage with said recesses when the interlocking rail is drawn backward thereby locking the rails together, and a loose block inserted in said receptacle to prevent said bosses escaping from the same.

4. A track joint comprising a receiving rail having a central groove its outer wide end forming a locking receptacle with reversed L seats at the sides, an interlocking rail having bosses on the sides of its end to engage with said reverse L seats, sides of a section of the interlocking rail tread supported on said lower walls of the receiving

rail the ends of said sides abutting with the ends of the top of said higher walls forming a partial track joint, the stops formed by the end of the receiving rail abutting with rabbeted right angles in the sides of the interlocking rail forming a second part of the track joint, the contacting bases of said receiving and interlocking rails constituting a third division of said track joint.

1,027,683. RAILROAD-SWITCH. WILLIAM ADKINS, Kellogg, Iowa. Filed Sept. 5, 1911. Serial No. 647,621. (Cl. 104—23.)



1. In a device of the class described, a movable rail section designed in different positions of its movement to form part of a main track or a part of a switch track, a switch stand, a shaft rotatably mounted therein, a handle pivotally mounted on said shaft, a lever pivotally mounted near said switch stand, said handle being constructed with a longitudinal slot, a broken ring slidingly mounted in said slot, the ends of said ring being bent downwardly and then toward said lever, to which they are fixed, means whereby said movable rail section is moved to various positions of its movement by the movement of said handle in a direction to rotate said shaft, and means whereby the raising and lowering of said handle and the consequent movement of said lever unlocks or locks said movable rail section in position as a part of the main track or as a part of the switch track.

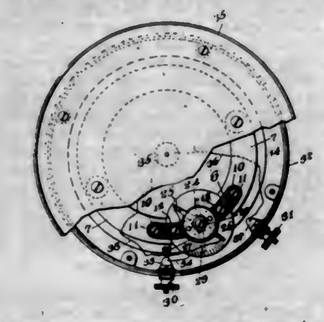
2. In a device of the class described, a plate, a bolt mounted therein provided with an upwardly extending head having the shape of an inverted truncated cone, a second plate provided with an opening designed to receive and fit said bolt head, said second plate being rotatably mounted above said first plate upon said bolt, a rail section secured to said second plate and capable in different positions of its movement to form a part of a main track or a switch track respectively, said first plate being constructed with a slot and said second plate being constructed with notches, a locking lever pivotally mounted below said plates and received in said slot and capable in one position of its movement of entering and engaging one or the other of the notches in said second plate depending upon the position of said second plate, means for moving said second plate and the rail section thereon, actuating means for controlling said locking lever, said first means and said second means being controlled by a single handle.

3. In a device of the class described, a switch stand, a handle pivotally secured thereto provided with a longitudinal slot, a lever pivotally mounted near said switch stand, a broken ring mounted in the slot in said handle, said handle being capable of moving freely on said ring, the ends of said ring being extended to and fixed to said lever, said parts being so arranged that the upward and downward movement of said handle operates said lever.

1,027,684. ELECTRICAL MEASURING INSTRUMENT. WALTER E. BEEDE, New York, N. Y. Filed Mar. 22, 1911. Serial No. 616,098. (Cl. 171—95.)

1. A galvanometer comprising, in combination, a field magnet, a rotative armature responsive to the magnetic influence of the field magnet, and means forming a magnetic shunt around the end of the armature to modify the influence of the magnetic field upon the armature.

2. A galvanometer comprising, in combination, a field magnet, a rotative armature responsive to the magnetic influence of the field magnet, and means located at the end of the armature for weakening the portion of the magnetic field occupied by the armature.



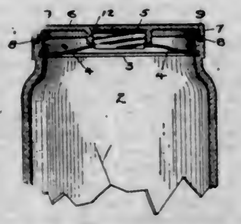
3. A galvanometer comprising, in combination, a field magnet, a rotative armature responsive to the magnetic influence of the field magnet, and means located at the end of the armature for adjusting the strength of that portion of the magnetic field occupied by the armature.

4. A galvanometer comprising, in combination, a permanent magnet, a rotative coil responsive to the magnetic influence of such magnet, and means for diverting magnetic flux around the end of the coil.

5. A galvanometer comprising, in combination, a permanent magnet, a rotative coil responsive to the magnetic influence of such magnet, and means located at the end of the coil for modifying the magnetic density of that portion of the field occupied by the coil.

[Claims 6 to 26 not printed in the Gazette.]

1,027,685. RECEPTACLE-CLOSURE. DAVID BLOOM, Berkeley, Cal. Filed Dec. 27, 1910. Serial No. 599,355. (Cl. 215—91.)



1. A closure for receptacles comprising a cover, a substantially horizontal resilient member located within the receptacle and arranged to hold the cover to its seat, and means for varying the tension in said member.

2. A closure for receptacles comprising a cover, a flat spring member within the receptacle engaging the cover and the receptacle and means in operative connection with said member for varying the tension thereof.

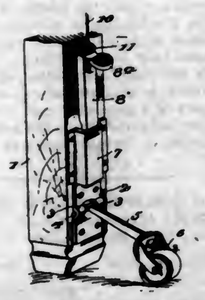
3. A closure for receptacles comprising a cover, a flat spring member engaging the bottom of the cover and the interior of the receptacle adjacent the mouth and means in operative connection with said member for varying the tension in said spring member.

4. The closure for receptacles comprising a cover, a resilient member engaging the inner face of the receptacle and the cover and means, comprising a screw thread, for varying the tension in said resilient member, adapted to be operated by the rotation of the cover.

5. A closure for receptacles comprising a receptacle having a groove therein on the inner face, a flat spring engaging in said groove, a screw threaded member secured to the spring, and a cover provided on its bottom face with an internally screw-threaded socket, adapted to engage said screw-threaded member, and vary the tension in the spring as the cover is rotated.

[Claims 6 to 9 not printed in the Gazette.]

1,027,686. ADJUSTABLE CASTER. HARRISON D. BOLLINGER, Great Falls, Mont. Filed Mar. 7, 1911, Serial No. 612,853. Renewed Nov. 13, 1911. Serial No. 660,117. (Cl. 16—165.)

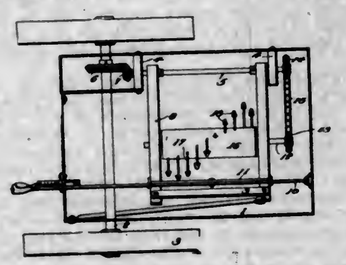


1. The combination with an article of furniture provided with a leg, of a caster embodying a shank pivotally connected to the leg, and a locking bolt slidingly mounted upon the leg and arranged to extend down over the shank to hold the latter rigidly against the adjoining side of the leg.

2. A caster of the character described, comprising a plate formed with ears, a shank formed with trunnions journaled in said ears, a casing and a locking bolt mounted for a longitudinal movement in said casing and designed to extend over the shank, the bolt being formed on its inner edge with a longitudinal groove designed to extend partially around the shank.

3. An adjustable caster comprising a shank formed with trunnions, a slotted plate formed on opposite sides of its slot with bearing ears in which the trunnions are journaled, a casing adapted to extend over the shank, and a locking bolt movable longitudinally in said casing.

1,027,687. COTTON-CHOPPER. LESLIE E. BOWSER, Los Angeles, Cal. Filed May 16, 1911. Serial No. 627,580. (Cl. 97—46.)



1. In a cotton chopper, a rotor having upon its periphery a single series of shanks arranged in a spiral row at equal distances apart, the space between the terminal shanks in a direction longitudinally of the rotor being greater than the space between the adjacent shanks in the same direction, and cutters carried by the shanks.

2. In a cotton chopper, a rotor comprising a shaft, a cylinder located thereon, a single series of shanks fixed to the cylinder and arranged in a spiral row at equal distances apart, the spaces between the terminal shanks in a direction longitudinally of the rotor being greater than the space between the adjacent shanks in the same direction, and cutters carried by the shanks.

1,027,688. REVERSIBLE GLOVE. JOHN L. CASLER, Mansfield, Ohio. Filed Jan. 28, 1911. Serial No. 605,315. (Cl. 2—0.)



1. A glove having separate thumbs and a pocket provided on the glove below the free end of each thumb, and which opens on the exterior of the glove toward the free end of each thumb to receive said thumb and retain the same folded against the outer side of the body portion of the glove.

2. A reversible glove having the body portion thereof cut out to provide integral thumb blanks, a piece set in said cut-out portion and having thumb blanks corresponding with and attached to the first-named blanks to form separate thumbs, and a thumb-receiving pocket provided on the said piece.

3. As a new article of manufacture, a glove having separate thumbs and a pocket blank stitched over the base portions of the thumbs and also stitched in a direction longitudinally of the glove between said thumbs, whereby to form two separate pockets, one below each thumb, said pockets opening toward the free ends of the thumbs, for the purpose specified.

4. As a new article of manufacture, a glove comprising a body blank, a wrist blank secured to the body blank and forming therewith separate thumbs, said wrist blank forming the outer faces of said thumbs, and a pocket blank stitched to the body blank over the base portions of said thumbs and opening toward the relatively free ends of said thumbs, whereby either of the thumbs may be folded upon itself and turned in between the pocket blank and the wrist blank, for the purpose specified.

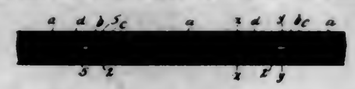
1,027,689. MANUFACTURE OF CELLULOSE PRODUCTS. ACHILLE CHAUMAT, Fresnoy-le-Grand, France, assignor to Compagnie Francaise des Applications de la Cellulose, Paris, France, a Corporation of France. Filed June 26, 1911. Serial No. 635,334. (Cl. 18—54.)

1. The process for obtaining coagulated cellulose products, consisting in passing a solution of cellulose and ammoniacal copper oxid through a bath containing arsenic as an element thereby causing all the copper of the said cellulose and ammoniacal copper oxid solution to pass into the coagulated products.

2. The process for obtaining coagulated cellulose, consisting in passing a solution of cellulose and ammoniacal copper oxid through a bath containing arsenious acid thereby causing all the copper of the said solution to pass in the coagulated products, to allow the said bath to remain clear.

3. The process for obtaining coagulated cellulose products consisting in passing a solution of cellulose and ammoniacal copper oxid through a bath containing arsenic as an element thereby causing all the copper of the said solution to pass into the coagulated products and then treating said products with sulfuric acid to decuperate the same.

1,027,690. BUTTON-COVERING FABRIC. GEORGE E. CLAUSS, Ansonia, Conn., assignor to The Ansonia O. & C. Company, Ansonia, Conn., a Corporation of Connecticut. Filed Oct. 28, 1911. Serial No. 657,348. (Cl. 139—9.)



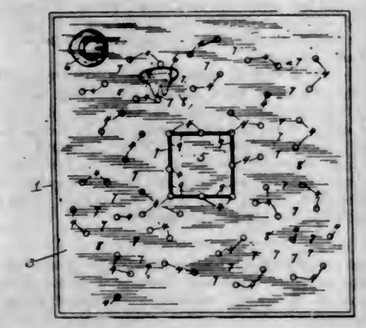
1. A running tape for hose supporters consisting of woven flat sections, and adjacent intermediate sections woven in double layers for the purpose of forming a covering pocket for a hose supporter button, one of which latter being woven to form a button hole disposed longitudinally and midway thereof, and the said intermediate sections being disposed at such intervals that the tape may be sheared into tab ends each of which has a button hole pocket adjacent to one extremity thereof.

2. A running tape for hose supporters consisting of sections woven solid, and adjacent intermediate sections woven in separated layers for the purpose of forming a covering pocket for a hose supporter button, of the outside layers having a button hole woven longitudinally and midway thereof, and the said intermediate sections being disposed at such predetermined intervals that the tape may be sheared into tab ends each of which has a button hole pocket adjacent to one extremity thereof.

3. A tab end for a hose supporter button having one extremity thereof woven to form a covering pocket for the button.

4. A tab end for hose supporter buttons having its button end woven into separate layers for the purpose of forming a covering pocket for a hose supporter button, one of the outside layers being provided with a button hole to enable said layer to embrace the shank of said button.

1,027,691. PUZZLE. HENRY BURDETT CLEVELAND, Albany, N. Y. Filed Mar. 27, 1912. Serial No. 686,566. (Cl. 46—41.)



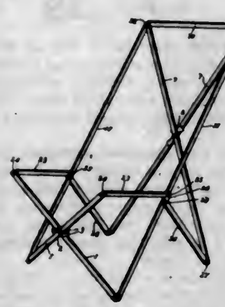
1. A puzzle comprising an inclosure having a bottom and a transparent top, and having an interior space surrounded by obstacles in fixed relation to said bottom separated by openings forming a tortuous passageway leading to said space, and a self-righting body movably supported upon the bottom of the inclosure, and of such shape and dimensions that it is adapted to pass through said openings only when at an abnormal angle to said bottom.

2. A puzzle comprising an inclosure having a bottom and a transparent top, and a plurality of posts erected from said bottom surrounding an interior space, certain of the openings between said posts forming a tortuous passageway leading to said space, and a self-righting body movably supported upon the bottom of the inclosure, and of such shape and dimensions that it is adapted to pass through said openings only when at an abnormal angle to said bottom.

3. A puzzle comprising an inclosure having a bottom and a transparent top, said top bearing a representation of a rope inclosing a prize-ring, a plurality of posts erected from said bottom surrounding said ring, certain of the openings between said posts forming a tortuous passageway leading to said ring and certain of said posts being arranged relatively to said representation of a rope similarly to the posts of a prize-ring, and a self-righting body in the form of a hat movably supported upon the bottom of the inclosure, and of such shape and dimensions that it is adapted to pass through said openings only when at an abnormal angle to said bottom.

4. A puzzle comprising an inclosure having a bottom and a transparent top, said top bearing a representation of a rope inclosing a prize-ring, a plurality of posts erected from said bottom surrounding said ring, certain of the openings between said posts forming a tortuous passageway leading to said ring, and certain of said posts being arranged relatively to said representation of a rope similarly to the posts of a prize-ring, and a body in the form of a hat movably supported upon the bottom of the inclosure, and adapted in certain positions to pass through said openings.

1,027,692. FOLDABLE FRAME FOR CHAIRS, TABLES, OR THE LIKE. ALEXANDER GRANT COLE, Ottawa, Ontario, Canada. Filed Nov. 9, 1909. Serial No. 527,077. (Cl. 155—8.)



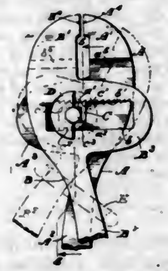
1. In a foldable frame for chairs, tables or the like having a plurality of pairs of crossed bars pivotally secured one to the other intermediate of their length at their point of juncture and hinged one to the other at their extremities, of a pair of plates interposed between said pairs of crossed bars at the juncture thereof and having lugs projecting therefrom at the side in contact with a bar and clamping the sides of said bars in pairs and stop lugs projecting therefrom toward the other side so that the stop lugs of one plate contact with the stop lugs of the other plate of a pair of bars when in their extended position.

2. In a foldable frame for chairs, tables or the like having a plurality of pairs of crossed bars pivotally secured one to the other intermediate of their length at their point of juncture and hinged one to the other at their extremities, of a plate of substantially S-shape on the inner side of a crossed bar at the pivotal point thereof and having a central orifice through which the pivot-pin of said cross bar extends and lugs extending from the body portion thereof in pairs to each side of said cross bar and clamping said plate to said cross bar and stop lugs projecting from said plate on the opposite side to the aforesaid lugs and at the extreme ends thereof and contacting with the stop lugs of the plate on the other bar of a pair.

1,027,693. COMBINED ADJUSTABLE PLIERS AND WRENCH. JOHN H. COLLISTER, Cleveland, Ohio. Filed Apr. 12, 1911. Serial No. 620,590. (Cl. 81—83.)

1. In a combined plier and wrench comprising two pivotally connected members each having a jaw and a handle on opposite sides of the pivot, the combination of said members with overlapping side extensions on each, a rectangular slot in the side extension of one member with

ratchet teeth formed along one of its long sides, a pivot lug on the other member having at one side a series of teeth adapted to engage those in one side of said slot while the opposite flat side of the lug bears against the opposite side of the slot, whereby the ratchet teeth of the lug and slot are held in engagement, with two diagonally opposite corners of the lug cut away to permit of the disengagement of said ratchet teeth and freeing the lug.



2. In a combined plier and wrench comprising two pivotally connected members each having a jaw and a handle on opposite sides of the pivot, the combination of said members with overlapping side extensions on each, a rectangular slot in the side extension of one member with ratchet teeth formed along one of its long sides, a pivot lug on the other member having at one side a series of teeth adapted to engage those in one side of said slot while the opposite flat side of the lug bears against the opposite side of the slot, whereby the ratchet teeth of the lug and slot are held in engagement, with two diagonally opposite corners of the lug cut away to permit of the disengagement of said ratchet teeth and freeing the lug, said slot lying at substantially a right angle to the length of the member and to the working face of its jaw, whereby the jaws of both members are parallel when closed in any position of pivotal adjustment along the slot.

3. In a combined plier and wrench comprising two pivotally connected members each having a jaw and a handle on opposite sides of the pivot, the combination of said members with overlapping side extensions on each, a rectangular slot in the side extension of one member with ratchet teeth formed along one of its long sides, a pivot lug on the other member having at one side a series of teeth adapted to engage those in one side of said slot while the opposite flat side of the lug bears against the opposite side of the slot, whereby the ratchet teeth of the lug and slot are held in engagement, with two diagonally opposite corners of the lug cut away to permit of the disengagement of said ratchet teeth and freeing the lug, said slot lying at substantially a right angle to the length of the member and to the working face of its jaw, that portion of the lug which bears upon the lower edge of the slot being upon the opposite side of the pivot axis from the jaw of its member, whereby it stops further closing movement of the jaws when they arrive at parallelism.

4. In a combined plier and wrench comprising two pivotally connected members each having a jaw and a handle on opposite sides of the pivot, the combination of said members one of which has a slot which lies substantially at a right angle to the length of the member and is provided at one side with a series of ratchet teeth, the other member having a rigid lug which is provided with ratchet teeth to engage those of the slot and is adapted, when the jaws are closed, to engage both sides of the slot, cut-away corners on the lug to permit the members to swing to open the jaws, with means which stop the closing movements of the members when the jaws arrive at parallelism.

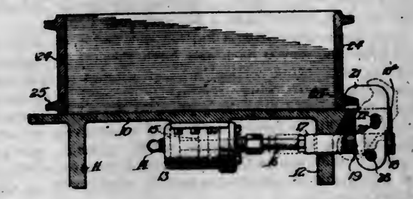
5. In a combined plier and wrench, the combination of two pivotally connected members each having a jaw and a handle on opposite sides of the pivot, a slot in one member lying at substantially a right angle to the length of the member and provided with ratchet teeth along one edge, a rigid pivot lug on the other member adapted to lie in and be adjusted along said slot, ratchet teeth on said lug to engage those of the slot, means to prevent the jaws from being closed past positions where their working faces are parallel, and means to lock the members against opening movements in any position of adjustment.

1,027,694. FLEXIBLE AIR OR STEAM JOINT. EDWARD J. CORBETT, Sacramento, Cal. Filed Aug. 15, 1910. Serial No. 577,331. (Cl. 137—28.)



A joint comprising a coupling member having a threaded portion, an arm cut from said threaded portion and being hinged thereto, said arm having a projecting lip, said threaded portion having a recess to receive said lip, there being a recess in said coupling member and in said arm and lip, said last named recess being of a greater diameter than the inner diameter of said coupling member, another coupling member having a collar adapted to fit in said last named recess and a nut mounted on said threaded portion, as described.

1,027,695. CLAMP FOR FLASKS. EDSON C. COVERT, Chicago, Ill., assignor to American Steel Foundries, New York, N. Y., a Corporation of New Jersey. Filed Sept. 11, 1911. Serial No. 648,789. (Cl. 22—109.)



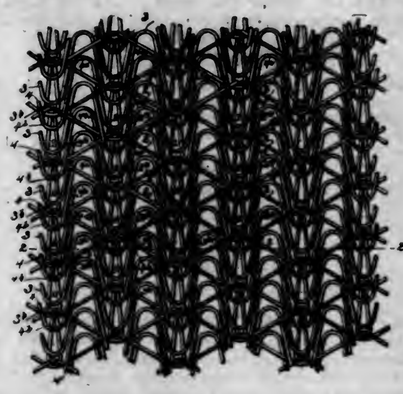
1. A clamp comprising, in combination, a support, a clamp member rotatably and slidably connected to said support, a reciprocating member arranged to act upon said clamping member, and fluid pressure means for actuating said reciprocating member, substantially as described.

2. A clamp comprising, in combination, a base, a clamping jaw rotatably and slidably connected to said base, a reciprocating member arranged to cause rotation of said clamping jaw when shifted in one direction and rotation and wedging when shifted in another direction, and means for actuating said reciprocating member, substantially as described.

3. A clamp comprising, in combination, a base having a pin, a clamping jaw provided with a slot, said pin being seated in said slot, a pin carried by said clamping jaw, a reciprocating member having a recess and an inclined approach to said recess, the pin on said clamping jaw cooperating with said recess and said inclined approach, and means for actuating said reciprocating member, substantially as described.

4. A clamp comprising, in combination, a support, a slotted lever having a clamping jaw associated with said support, a reciprocating member, and means associated with said reciprocating member and said lever and so arranged that on the motion of said reciprocating member in one direction said lever is simultaneously rotated and wedged downward, and means for shifting said reciprocating member, substantially as described.

1,027,696. KNITTED FABRIC. GEORGE W. CUMMINGS, Troy, N. Y. Filed Oct. 2, 1911. Serial No. 652,345. (Cl. 66—4.)

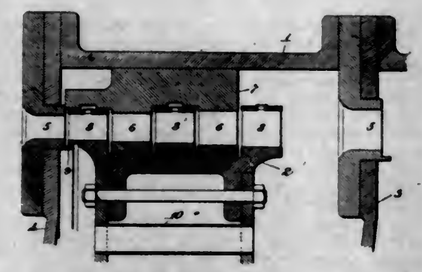


1. A fabric comprising a knitted web and filling-thread woven back and forth through the meshes between vertical rows of stitches in said web, and prominently exposed in the form of projecting loops upon both sides of the web, said loops upon one side of the web embracing the respective stitches in said vertical rows, and said loops upon the opposite side of said web embracing, respectively, floating threads which connect together stitches in one with stitches in another of said vertical rows.

2. A fabric comprising a knitted web and filling-thread interwoven therewith and exposed in prominent loops upon the surface of the fabric, said web having each of its floating threads which connect together stitches in different vertical rows, embraced by a filling-thread.

3. A fabric comprising a knitted web and a plurality of filling-threads, woven back and forth through the meshes between neighboring vertical rows of stitches in said web, said filling-threads being prominently exposed in the form of projecting loops upon the surface of the fabric, loops of one of said filling-threads embracing respectively certain, only, of the floating threads which connect together stitches in different vertical rows, and loops of another of said filling threads embracing certain other, only, of said floating threads.

1,027,697. ELASTIC-FLUID TURBINE. CHARLES G. CURTIS, New York, N. Y., assignor, by mesne assignments, to General Electric Company, a Corporation of New York. Filed Nov. 12, 1906. Serial No. 342,956. (Cl. 121—157.)

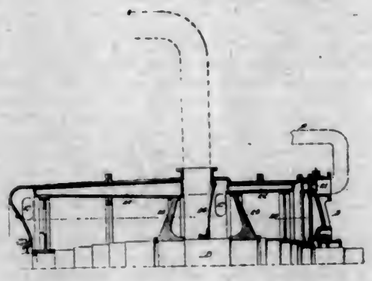


1. An elastic fluid turbine, having a stage composed of a plurality of rows of nozzles and rows of moving buckets alternately arranged, the nozzles extending around less than the whole periphery, and an annular lip for reducing leakage of motive fluid from the first nozzle into the shell, the remaining nozzles being so arranged as to leave no open space between themselves and the shell, and closely approaching the moving element of the turbine to reduce leakage over the ends of the nozzles.

2. An elastic fluid turbine having a stage in which a certain portion of the expansion takes place in the working passage beyond the nozzle, the said nozzle extending around less than the whole periphery, and means for confining the fluid at the clearances to restrict its escape into the shell until it has left the working passage.

3. An elastic fluid turbine having a shell, a nozzle at the beginning of a stage, so formed as to have a considerable end pressure, a certain portion of the expansion taking place in the working passage beyond the nozzle, the said nozzle extending around less than the whole periphery, and means for confining the fluid at the clearances so as to partially prevent its escape into the shell until it has left the working passage.

1,027,698. MARINE STEAM-TURBINE. CHARLES G. CURTIS, New York, N. Y. Filed May 15, 1911. Serial No. 627,113. (Cl. 121—58.)



1. In a marine steam turbine, the combination with two propeller shafts, of a prime mover and a low pressure turbine element on one shaft and an intermediate pressure turbine element on the other shaft, the latter having reversed drum stages, substantially as set forth.

2. In a marine steam turbine, the combination with two propeller shafts, of high and low pressure turbine elements on one shaft and an intermediate pressure turbine element on the other shaft, the latter having reversed drum stages, substantially as set forth.

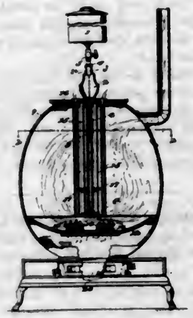
3. In a marine steam turbine, the combination with two propeller shafts, of a prime mover and a low pressure turbine element on one shaft and an intermediate pressure turbine element on the other shaft, the intermediate pressure turbine element having reversed drum stages and adapted to develop at full power substantially the same power as the combined power of the power elements on the first shaft, substantially as set forth.

4. In a marine steam turbine, the combination with two propeller shafts, of high and low pressure turbine elements on one shaft and an intermediate pressure turbine element on the other shaft, the latter having reversed drum stages and adapted to develop at full power substantially the same power as the combined power of the high and low pressure elements on the first shaft, substantially as set forth.

5. In a marine steam turbine, the combination with two propeller shafts, of high and low pressure turbine elements on one shaft, means for producing an axial steam thrust opposing the propeller thrust on the shaft, and an intermediate pressure turbine element on the second shaft having reversed drum stages producing a resultant thrust opposed to the propeller thrust on the second shaft, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,027,699. CRUDE-OIL BURNER. OLIVER B. DAWSON, El Paso, Tex. Filed Dec. 15, 1910. Serial No. 597,530. (Cl. 158—91.)



1. The combination with a closed fire-box having a chimney outlet, and an oil reservoir, of a vaporizing tube leading from the reservoir and depending into the closed fire-box, oil entering said tube being designed to be vaporized in its descent therethrough, a series of hot air tubes circularly arranged relatively to the lower end of the vaporizing tube, said hot air tubes opening at their upper ends toward the upper end of the fire-box, and an imperforate support for said hot air tubes for preventing air from passing into the fire box other than through said hot air tubes.

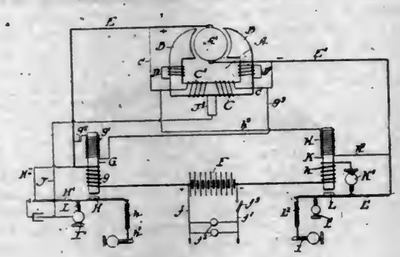
2. The combination with a closed fire-box having a chimney outlet, and an oil reservoir, of a vaporizing tube leading from the reservoir and depending into the closed fire-box, oil entering said tube being designed to be vaporized in its descent therethrough, a series of hot air tubes beneath the lower end of the vaporizing tube, said hot air tubes being upwardly and outwardly deflected at their upper ends to direct the flame at the lower end of the vaporizing tube upwardly in the fire-box, and an imperforate support for said hot air tubes.

3. The combination with a closed fire-box having a chimney outlet, and an oil reservoir, of a vaporizing tube leading from the reservoir and depending into the closed fire-box, oil entering said tube being designed to be vaporized in its descent therethrough, a series of hot air tubes beneath and surrounding the lower end of the vaporizing tube, an imperforate support for said hot air tubes, and a second series of hot air tubes surrounding said vaporizing tube and opening at their lower ends at or near the lower end of said vaporizing tube, said second series of hot air tubes being open to the atmosphere at their upper ends.

4. The combination with a stove having a closed fire-box and a chimney outlet, and an oil reservoir, of a vaporizing tube leading from the latter and depending into the closed fire-box, the oil entering said tube being designed to be vaporized in its descent therethrough, a deflector within said vaporizing tube at a point near the upper end thereof, a series of hot air tubes beneath the lower end of said vaporizing tube, said hot air tubes opening upwardly and outwardly at their upper ends, and an impeerforate support for said hot air tubes.

5. The combination with a stove, and an oil reservoir, of a vaporizing tube leading from the latter and depending into the upper portion of the fire box within said stove, a deflector within said vaporizing tube near the upper portion of the fire box, a series of hot air tubes beneath the lower end of said vaporizing tube, a support for said hot air tubes dividing the fire box into upper and lower portions, and a second series of hot air tubes surrounding said vaporizing tube and leading from the top of the fire box and opening at their lower ends around the lower end of the vaporizing tube.

1,027,700. ELECTRIC-LIGHTING SYSTEM FOR SELF-PROPELLED VEHICLES. JAMES KENDALL DELANO, Jr., Chicago, Ill. Filed May 19, 1910. Serial No. 562,120. (Cl. 171—313.)



1. In a system of electric lighting for self propelled vehicles, a shunt field dynamo, said shunt field including a differential winding, a circuit normally bridging said differential field winding, and an electromagnetic switch in said bridging circuit controlled by the current in the dynamo circuit and adapted to be opened when the current in said dynamo circuit exceeds a predetermined value.

2. In a system of electric lighting for self propelled vhicles, a shunt field dynamo, said shunt field including a differential winding, a circuit normally bridging said differential field winding, an electromagnetic switch in said bridging circuit controlled by the current in the dynamo circuit and adapted to be opened when the current in said dynamo circuit exceeds a predetermined value, and adjusting means connected with said switch for fixing said predetermined current value.

3. In a system of electric lighting for self propelled vehicles, a direct driven dynamo, main wires, including supply and return mains, a field winding directly connected to the return main, a second differential field winding connected to but opposing said first field winding, said differential winding being connected to the other main, a magnetic core, a core winding thereon in series with said supply main, a branch wire connecting both of said field windings to the supply main, and an automatic cut-out located in said branch wire controlled by said magnetic core.

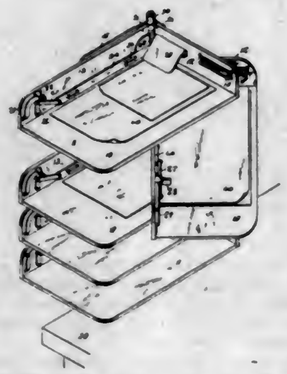
4. In a system of electric lighting for self propelled vehicles, a shunt field dynamo, said shunt field including a differential winding, a circuit normally bridging said differential winding, a normally closed switch in said bridging circuit, a magnetic core provided with a winding in series with said dynamo circuit, said magnetic core being adapted to open said switch when the current in said dynamo circuit has reached a predetermined value, and a second winding on said magnetic core in multiple with the armature circuit of the dynamo adapted to assist said series winding in opening said switch when the voltage of the dynamo reaches a predetermined value.

5. In a system of electric lighting for self propelled vehicles, a shunt field dynamo, said shunt field including a differential winding, a short circuited dampening coil in said dynamo field, a circuit normally bridging said differential field winding, and an electromagnetic switch in said bridging circuit controlled by the current in the dynamo circuit and adapted to be opened when the current in said dynamo circuit exceeds a predetermined value.

1,027,701. DOCUMENTARY DISTRIBUTING DEVICE. WILLIAM L. DEMING, Salem, Ohio. Filed June 14, 1911. Serial No. 633,184. (Cl. 45—95.)

1. The combination, with a standard, of a series of trays, a clamp at the corner of each tray for removably holding the same on the standard, finger mechanism near the front of the tray for operating the clamp, and a retaining clip on each tray.

2. The combination, with a standard, of a tray having a bottom, a back and a side, the front and other side being omitted, and means at the corner where the side and back meet for clamping the tray to the standard and allowing the removal of any tray independently of the others.



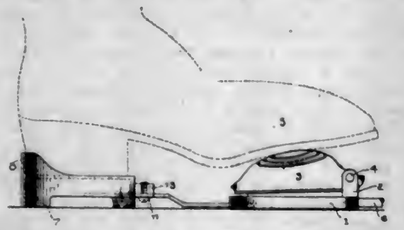
3. The combination of a standard, a series of trays, clips carried by the trays, means carried by the trays for clamping them to the standard, and a common operating device for both the clips and the clamping means.

4. The combination of a standard, a series of trays, spring clips carried by the trays, means carried by the trays for clamping the standard, and a common rod device for both the spring clips and the clamping means.

5. The combination of a vertical rod, a series of trays provided with clamps at one corner adapted to engage the rod, and mechanism for operating the clamps to release the hold on the rod.

[Claims 6 to 15 not printed in the Gazette.]

1,027,702. CONTROLLING DEVICE. NELSON C. DURAND, Newark, N. J., assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed July 16, 1910. Serial No. 572,290. (Cl. 230—27.)



1. In a controlling device, the combination of a stationary member, a movable member pivoted thereto at one side thereof, and a foot-positioning device secured to said stationary member on the opposite side thereof from the pivot of said movable member, substantially as described.

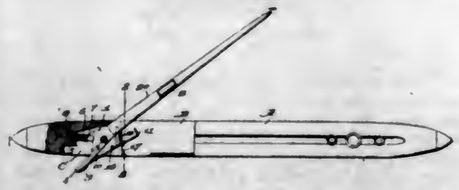
2. In a controlling device, the combination of a stationary base, a member pivoted thereto at one side thereof and adapted to be oscillated about its pivot by foot pressure, and a heel-support secured to said base on the opposite side thereof from the pivot of said member, substantially as described.

3. In a controlling device, the combination of a stationary base, a member pivoted thereto at one side thereof and adapted to be oscillated about its pviot by foot pressure, a heel-support, means connecting the same to said base on the opposite side thereof from the pivot of said member, the said means being adjustable for varying the distance from said base at which said support is positioned, substantially as described.

4. In a controlling device, the combination of a stationary base, a member pivoted thereto at one side thereof and adapted to be moved about its pivot by foot pressure, and a heel support secured to said base in fixed relation thereto and on the side thereof opposite to said pivot, substantially as described.

5. In a controlling device, the combination of a stationary base, a member pivoted thereto at one side thereof and adapted to be moved about its pivot by foot pressure, a stationary heel support, and means for adjustably connecting said support to said base on the side of said base opposite to the said pivot, substantially as described.

1,027,703. LOOM-SHUTTLE. GORDON J. DUSTIN, Fulton, N. Y., assignor to John F. Dustin, Fulton, N. Y. Filed Dec. 22, 1910. Serial No. 598,847. (Cl. 139—27.)



1. In a shuttle, a spindle pivotally mounted therein to swing into and out of operative position, and opposed substantially rigid cop locking abutments on and projecting inward from the sides of the shuttle body and presenting flat and upright, relatively fixed faces between which the spindle swings, to engage opposite sides of and lock the base of a cop tube upon the spindle when the same is swung into operative position between said relatively fixed cop engaging faces.

2. In a shuttle, a spindle pivotally mounted therein to swing into and out of operative position, opposite staple-like abutments connected at their lower and upper ends with the shuttle body having upright and substantially rigid portions between which the spindle swings, to engage opposite sides of the base in the cop tube and clamp the same upon the spindle when the said spindle is swung between such upright portions into operative position.

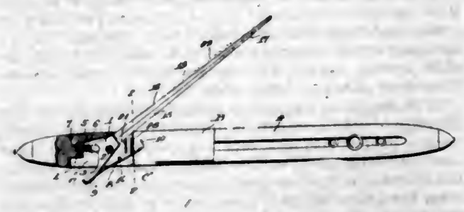
3. In a shutle, a spindle pivoted therein to swing into and out of operative position, opposite rigid abutments between which the spindle extends when operatively positioned, said abutments having opposed faces which at such time engage the base of a cop-tube on opposite sides of the spindle and clamp the cop-tube upon the spindle, and threaded means mounted in the shuttle body and engaging a part of one of said abutments, to move the latter toward the other abutment and thereby regulate and maintain adjusted the effective distance between the engaging faces of said abutments.

4. In a shuttle, a spindle pivoted therein to swing into and out of operative position, the shutle body having an upright recess between the opposite walls of which the spindle swings, and metallic, flat-faced, staple-like abutments mounted on the walls of the recess and extended toward each other at opposite sides of the spindle path, the flat faces of said abutments engaging at opposite sides the base of a cop-tube when the spindle is operatively positioned to compress and thereby clamp the tube upon the spindle.

1,027,704. LOOM-SHUTTLE. GORDON J. DUSTIN, Fulton, N. Y., assignor to John F. Dustin, Fulton, N. Y. Filed Jan. 31, 1911. Serial No. 605,684. (Cl. 139—27.)

1. In a shuttle, a laterally expansible spindle pivotally mounted therein to swing into and out of operative position, means on the shuttle to coöperate with and expand the spindle laterally when swung into operative position, to engage internally a cop-tube and lock the same from

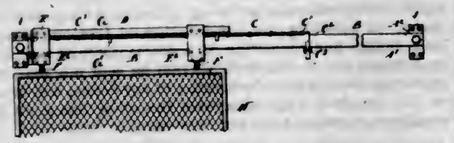
movement on the spindle, and separate means on the shuttle-body to engage opposite sides of the base of the cop-tube externally and compress and lock it upon the spindle.



2. In a shuttle, a two-part spindle pivotally mounted therein to swing into and out of operative position, said parts being substantially semi-circular in cross-section, with their flat faces superposed, one of the spindle parts being fulcrumed upon the other between its base and tip, the other part having a notch in its side near its base, and a staple-like expander fixed in the shuttle-body and adapted to enter the notch in one part of the spindle and engage the side of and move laterally the base of the other spindle part to effect relative lateral movement of the parts of the spindle when swung into operative position in the shuttle, to cause said parts to separate near the tip of the spindle and engage internally a cop or cop-tube and prevent movement thereof upon the spindle.

3. In a shuttle, a spindle pivotally mounted therein to swing into and out of operative position, said spindle having a laterally expansible tip, means mounted on the shuttle-body to engage externally the opposite sides of the base of a cop-tube to compress and lock it on the spindle when the latter is operatively positioned, and independent means to at such time effect lateral expansion of the tip of the spindle to engage internally and hold the cop-tube from movement relatively to the spindle, whereby the cop-tube is engaged adjacent each end thereof and held securely upon the spindle.

1,027,705. DOOR-HANGER. FRANK W. S. ELSTROTH, New York, N. Y. Filed Jan. 5, 1910. Serial No. 536,452. (Cl. 16—91.)



1. A track having a groove in its upper face, a carriage having a groove in its lower face, balls in said grooves and a ball carrier constructed to prevent upward displacement of the balls through said carrier, and means supporting said carrier in position to lessen the friction of the balls and embracing the upper edges of the track to prevent side movement of the carrier.

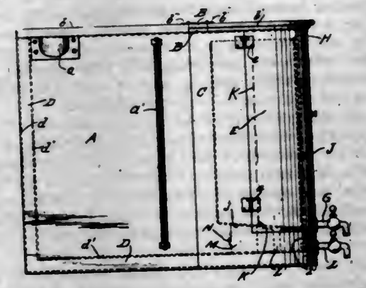
2. A track having a groove in its upper face, a carriage having a groove in its lower face, balls in said grooves and a ball carrier constructed to prevent upward displacement of the balls through said carrier, means supporting said carrier in position to lessen the friction of the balls and to prevent side movement of the carrier, said means comprising a reversed U-shaped guide on the under face of the carrier, the depending portions thereof engaging the track and embracing the upper edges thereof and slightly raising said carrier.

3. In a device of the character set forth, a track having a groove in its upper face, a carriage having a groove in its under face, a ball carrier interposed between the adjacent faces of said track and carriage balls therein, and a support for said carrier interposed between contiguous balls and having depending portions embracing the track.

4. In a device of the character set forth, a track having a groove in its upper face, a traveling-carriage above said track and having a groove in its lower face, a series of balls received in said grooves and supporting said carriage, a ball-carrier in the space between said track and carriage and having openings receiving said balls, and supports for said carrier beneath the latter, each consisting of a cross-bar constructed to ride upon the upper face of said track and support said carrier, and legs embracing both sides of said track to prevent lateral movements of said carrier relatively thereto.

5. In a device of the character set forth, a track having a groove in its upper face, a carriage having a groove in its under face, a ball carrier interposed between the adjacent faces of said track and carriage, balls therein and a support for said carrier interposed between the contiguous balls and having depending portions embracing the track and a transverse member engaging the lower edge of the track and connected with the end of the carrier.

1,027,706. COOLER FOR MILK, CREAM, AND WATER. JAMES P. EMERY and EDWARD H. ROSSNER, Blue Island, Ill. Filed Nov. 27, 1911. Serial No. 662,695. (Cl. 62—13.)



A combined water cooler, filter and refrigerator comprising within a single casing a water cooling reservoir, a filtered water chamber spaced apart from said reservoir by a removable filter, and refrigerating compartments, the front wall to said reservoir and the back walls to the compartments made of heat-conducting material and common to said reservoir and compartments, bottoms to said compartments and a top to said filtered water chamber, said bottom and top walls common and inclined from a horizontal plane, and a top to said removable filter, said top inclined to correspond with the incline of said last named partition.

1,027,707. DISINFECTING-SOAP. MAX ENGELMANN, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Nov. 1, 1910. Serial No. 590,144. (Cl. 87—5.)

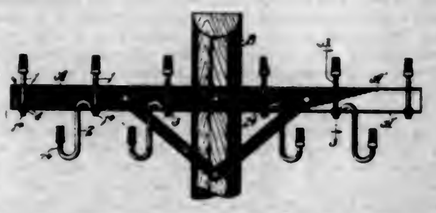
1. The herein described medicinal soaps comprising soap constituents and mercuric phenols, being substantially free from excess of alkali, non-irritant, and possessing valuable therapeutic and disinfecting properties, substantially as described.

2. The herein described medicinal soaps comprising soap constituents and mercuric phenols, being substantially free from excess of uncombined phenols, non-irritant, and possessing valuable therapeutic and disinfecting properties.

3. The herein described medicinal soaps comprising soap constituents and a mercuric derivative of an unsubstituted phenol, being substantially free from excess of uncombined phenol, non-irritant, and possessing valuable therapeutic and disinfecting properties.

4. The herein described medicinal soaps comprising soap constituents and ortho-phenylene mercuric oxid substances.

1,027,708. METALLIC CROSS-ARM FOR POLES. CHARLES G. ETTE, St. Louis, Mo., assignor to Ette Investment Company, St. Louis, Mo., a Corporation of Missouri. Filed May 25, 1911. Serial No. 629,349. (Cl. 173—321.)



1. An insulator-supporting means consisting of a member provided with horizontally disposed flanges, an insulator pin passing through said flanges and projecting from said member, a second insulator pin passing through one of the flanges at a point out of vertical alinement with the pin first referred to and projecting in an opposite direction from said member, and means for connecting said pins together.

2. An insulator-supporting means consisting of a member provided with horizontally disposed flanges, an insulator pin passing through said flanges and projecting from said member, a second insulator pin passing through one of the flanges and projecting in an opposite direction from said member, means for connecting said pins together, and an insulator-supporting arm on one of said pins that is arranged out of alinement with the other pin.

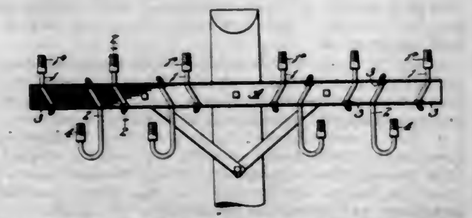
3. An insulator-supporting means consisting of a member provided with horizontally disposed flanges, an insulator pin mounted in said flanges and projecting in one direction from said member, a second insulator pin mounted in one of said flanges and arranged out of alinement with the insulator pin first referred to, and a laterally projecting extension on one of said pins that is connected to the other pin.

4. An insulator-supporting means consisting of a member provided with horizontally disposed flanges, an insulator pin mounted in said flanges and projecting in one direction from said member, a second insulator pin mounted in one of said flanges and arranged out of alinement with the insulator pin first referred to, and a laterally projecting extension on one of said pins that receives a screw-threaded portion on the other pin.

5. An insulator-supporting means consisting of a member provided with horizontally disposed flanges, an insulator pin mounted in said flanges and projecting in one direction from said member, a second insulator pin mounted in one of said flanges out of alinement with the pin first referred to and provided with a laterally projecting arm through which said first-mentioned pin passes, and an insulator-supporting arm on said second pin.

[Claims 6 to 8 not printed in the Gazette.]

1,027,709. POLE CROSS-ARM. CHARLES G. ETTE, St. Louis, Mo., assignor to Ette Investment Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 18, 1911. Serial No. 649,971. (Cl. 173—321.)



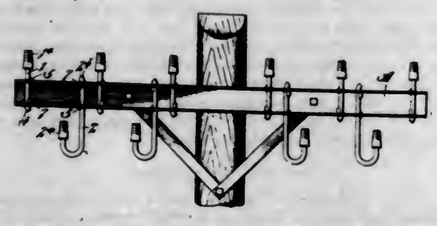
1. A pole cross-arm consisting of a member provided with horizontally disposed flanges having a pair of openings formed in its top and bottom flanges that are arranged out of alinement with each other, and an insulator-pin that passes through both of said openings.

2. A pole cross-arm consisting of a member provided with horizontally disposed flanges arranged one above the other, said flanges being provided with openings that are arranged out of alinement with each other, and insulator-pins passing through said flanges and provided intermediate their ends with offset portions.

3. An insulator supporting means consisting of a member provided with horizontally disposed top and bottom flanges having openings that are arranged out of alinement with each other, and an insulator-pin passing through the openings in both of said flanges and provided intermediate the points where it passes through said flanges with an offset portion.

4. An insulator-supporting means consisting of a member provided with horizontally disposed top and bottom flanges having openings that are arranged out of alinement with each other, an insulator-pin passing through both of said flanges and consisting of an iron rod that is bent intermediate its ends so as to form an offset portion, and independent means on said pin which coöperates with one of said flanges to prevent the pin from moving vertically relatively to said member.

1,027,710. POLE CROSS-ARM. CHARLES G. ETTE, St. Louis, Mo., assignor to Ette Investment Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 30, 1911. Serial No. 652,048. (Cl. 173—321.)



A pole cross-arm provided with laterally projecting flanges having alining openings formed therein, the opening in one of said flanges being provided with a notch or recess, an insulator pin passing through the openings in both flanges and consisting of a piece of round iron rod, an integral lug or displaced portion on said pin that projects into the notch in the opening in one flange, and means on the pin that coöperates with the other flange on the cross-arm to prevent the pin from moving vertically.

1,027,711. POLE CROSS-ARM. CHARLES G. ETTE, St. Louis, Mo., assignor to Ette Investment Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 22, 1911. Serial No. 661,769. (Cl. 173—313.)



1. A cross-arm member provided with laterally projecting flanges that have inclined surfaces, a vertically disposed insulator-pin passing through said flanges, a nut mounted on said pin and bearing upon the inclined face of one of said flanges, and means located on the other side of said flange for preventing the pin from moving vertically in one direction.

2. A cross-arm member provided with laterally projecting flanges that have inclined faces, an insulator-pin passing through said flanges and provided with a screw-threaded portion, and nuts mounted on said screw-threaded portion and arranged on opposite sides of one of said flanges, one of said nuts being adapted to bear upon the inclined face on said flange.

3. A cross-arm consisting of a substantially channel-shaped member provided with laterally projecting flanges whose inner faces are inclined, a vertically disposed insulator-pin passing through both of said flanges, and a nut arranged on said pin and provided with an inclined face that bears against the inclined face on one of said flanges.

1,027,712. INSULATOR-SUPPORTING DEVICE. CHARLES G. ETTE, St. Louis, Mo., assignor to Ette Investment Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 18, 1911. Serial No. 666,556. (Cl. 173—321.)



1. An insulator-supporting device provided with a portion that is adapted to embrace a flanged cross-arm, said portion comprising a movable part and a stationary part, and means on said movable part which is so disposed that one flange of the cross-arm will be clamped tightly between said parts when said movable part is closed.

2. An insulator-supporting device provided with a cross-arm-engaging portion that is adapted to embrace a flanged cross-arm, said cross-arm-engaging portion comprising a movable part that is provided with a member which is so disposed that it will be wedged tightly against a flange on the cross-arm when said movable part is closed.

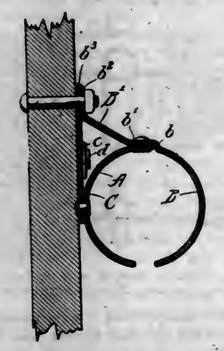
3. An insulator-supporting device that is adapted to be used with a flanged cross-arm, a stationary part on said device that partly surrounds the cross-arm, and a coöperating movable part provided with means that becomes wedged tightly against a flange on the cross-arm and thus draws said stationary part tightly against the cross-arm when said movable part is forced into its closed position.

4. An insulator-supporting device that is adapted to be used with a flanged cross-arm, a stationary part on said device which partly surrounds the cross-arm and bears upon the top face thereof, a movable part that holds said stationary part pressed tightly against the cross-arm, and means on said movable part disposed at an angle to the portion of said stationary part which bears upon the upper edge of the cross-arm and which is adapted to exert pressure on the under side of the top flange of the cross-arm when said movable part is closed.

5. An insulator-supporting device comprising a stationary part and a movable part which completely surrounds the cross-arm, said movable part having a portion which is so disposed that a flange on the cross-arm will be wedged tightly between said parts when the movable part is closed.

[Claims 6 to 11 not printed in the Gazette.]

1,027,713. DOOR-HANGER TRACK. HENRY L. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill., a Corporation of Illinois. Filed Nov. 29, 1909. Serial No. 530,415. (Cl. 16—7.)



1. A track section having a semi-cylindrical rear portion and a front portion, the lower part of which is semi-cylindrical, said semi-cylindrical portions facing each other to form a hollow and having their lower edges spaced apart to form a slot, the front portion having an integral extension running diagonally up and back over the rear portion to the wall of the building to shield and cover the rear portion and being riveted to the upper edge of the rear portion, and means connecting and bracing the center of the rear portion with the upper edge of the shield.

2. A track section comprising front and rear semi-cylindrical portions facing each other with their lower edges spaced apart to form a slot, said parts being riveted together at the top, and the front portion being extended backward and diagonally upward to form a shield.

3. A series of track sections each having a semi-cylindrical rear portion, and a front portion, the lower part of which is semicylindrical, said semicylindrical portions facing each other to form a cylindrical hollow track and having their lower edges spaced apart to form a slot, the front portion having an integral extension running diagonally up and back over the rear portion to the wall of the building to shield and cover the rear portion, and vertical members connecting the upper part of said extension with the center of the rear portion and notched ears on the vertical members at one end of each section and studs on the vertical members at the other ends thereof to engage said notched ears.

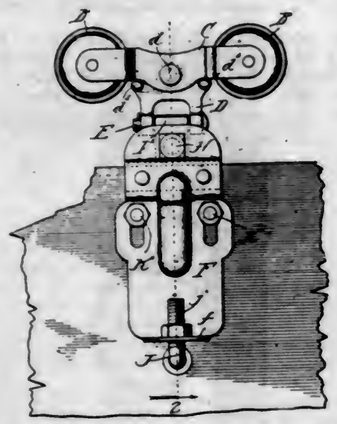
1,027,714. DOOR-HANGER. HENRY L. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill., a Corporation of Illinois. Filed Feb. 2, 1911. Serial No. 606,136. (Cl. 16—90.)

1. In combination a carriage adapted to run upon a track, a member attached to a door, a screw rotatable in the member, a block threaded on the screw, a clip having perforations passed over the screw and lying on opposite sides of the block, and a connection between the clip and carriage.

2. In combination, a frame, a stirrup connected therewith by a single pin, studs on the stirrup engaging the frame to prevent swinging of the stirrup on said pin, a door, a screw on the door, and a part carried by the stirrup and engaging the screw so as to pivot thereon in adjustable positions.

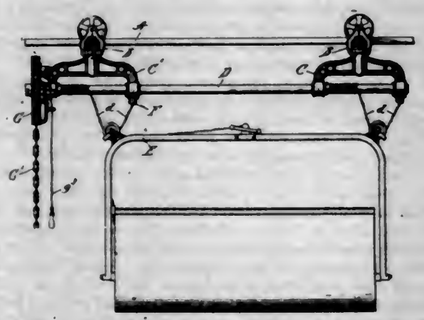
3. In combination, a door, a bolt extending therethrough and provided with an upturned threaded end, a nut on said end, a plate movable on the door and having an ear

passing over the end of said bolt beneath said nut, a second plate carried by the top of the door and having an upturned end, a bolt passed through the upper ends of said



two plates, a door-hanger and a part swung on the door-hanger and threaded on said second bolt for lateral adjustment thereon.

1,027,715. FEED AND LITTER CARRIER. HENRY L. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill., a Corporation of Illinois. Filed Mar. 8, 1911. Serial No. 613,115. (Cl. 214—4.)



1. In a feed and litter-carrier, members provided with rollers adapted to run upon a track, a shaft journaled between said members, anti-friction rollers interposed between the shaft and its journals, clips surrounding the shaft and lying on opposite sides of the journals, chains connected to the shaft and to said clips forming a bight therebetween, and a tub supported in the bights thus formed.

2. In combination, hangers, inverted forks carried by the hangers, a shaft journaled in the lower ends of the forks, anti-friction rollers interposed between the shaft and its journals, means for rotating the shaft, clips embracing certain of the journals to hold the roller bearings in place, chains, each attached at one end to the shaft and running downward to form bights and thence upward to the clips, and a tub-frame carried by the bights.

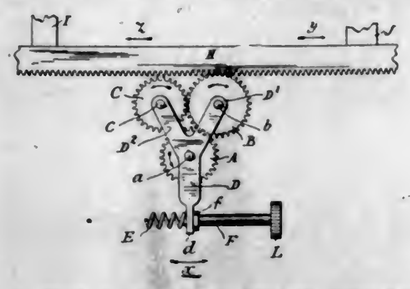
1,027,716. DOOR-HINGE. JAMES R. FLETCHER, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Dec. 23, 1910. Serial No. 598,995. (Cl. 16—107.)

A hinge embodying a plurality of knuckles, one of two adjacent knuckle ends having a recess therein, and a washer of fibrous material having a portion seated in said recess and having a flange extending therefrom and separating said adjacent knuckle ends, said washer forming



an anti-friction and sound-deadening bearing surface between adjacent knuckles.

1,027,717. TYPE-WRITING MACHINE. BERNHARD JOHN VALENTINE ADOLPH FLUGEL, London, England. Filed Dec. 22, 1909. Serial No. 534,517. (Cl. 197—68.)



1. A device of the character described, comprising a rocking-lever adapted to be pivotally mounted on the frame of a type-writing machine, a pair of intermeshing toothed wheels rotatably mounted on the rocking-lever, means operated by a motor for rotating said toothed wheels, a rack attached to the typewriter-carriage and adapted to be engaged by either of said toothed wheels, means for normally pressing the rocking lever in one direction to cause one of the toothed wheels to engage the rack, and means for moving at will the rocking lever in the opposite direction to cause the other toothed wheel to engage the rack.

2. A device of the character described, comprising a main-axle adapted to be mounted on the frame of a type-writing machine, a drive gear wheel rotatably mounted on said main axle and adapted to be driven by a suitable motor, a Y-shaped rocking-lever pivoted on said main axle, a large toothed wheel pivotally mounted at the end of one arm of the rocking-lever and intermeshing with the drive gear wheel, a smaller toothed wheel mounted at the end of the other arm and intermeshing with the larger toothed wheel, a rack adapted to be attached to the type-writer carriage and to be engaged by either of said toothed wheels, a spring pressing against the end of the main stem of the rocking-lever and causing one of said toothed wheels to normally engage said rack, and means for moving said main stem against the pressure of the spring to cause the other toothed wheel to engage the rack.

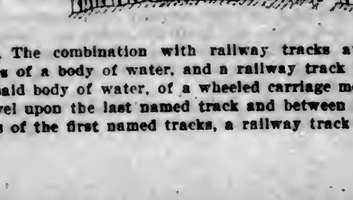
1,027,718. SKIN-TREATING DEVICE. JOHN C. FORD, Keokuk, Iowa. Filed Mar. 13, 1911. Serial No. 614,102. (Cl. 128—9.)

In a device of the character described, the combination with a main hollow body, an annular flange depending therefrom, and a handle connected to said body, of an implement for contact with the skin, comprising a base, an annular flange extending upward from said base constructed for frictional contact with the depending flange of the main body, a chamber depending from said base having a port through said base, and a series of tubes



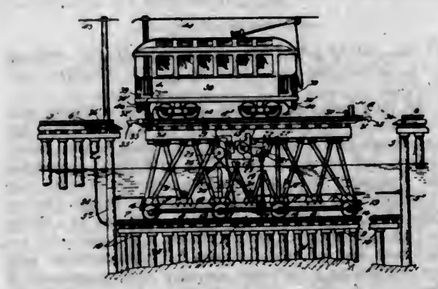
depending from and in communication with said chamber and having their ends serrated; the main body being constructed for connection with a suitable suction device.

1,027,719. BUTTER-DISH. ALEXANDER A. FORDON, Detroit, and GEORGE L. MORRISON, Hudson, Mich. Filed Dec. 23, 1911. Serial No. 667,494. (Cl. 229—31.)



A butter dish, comprising a blank having a central rectangular scoring and a pair of divergent scorings extending from each corner of the rectangular scoring to the edge of the blank, forming the sides and end pieces of the shape of a truncated triangle and separated from the sides by gussets of the shape of inverted triangles, the gussets being folded on the inside of the end pieces and the end portions of the sides being brought together over the gussets and on the inside of the end pieces, and means for fastening the end portions of the sides and the gussets to the end pieces, whereby in nesting the end pieces slide over the ledges formed by the folds of the end portions of the sides and the gussets and nesting is readily accomplished, substantially as described.

1,027,720. MARINE RAILWAY. ROBERT O. GALLINGER, Seattle, Wash. Filed Nov. 15, 1911. Serial No. 660,479. (Cl. 104—48.)



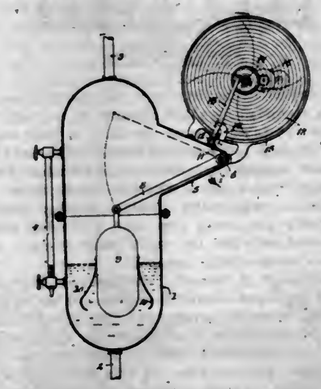
1. The combination with railway tracks at opposite sides of a body of water, and a railway track submerged in said body of water, of a wheeled carriage mounted for travel upon the last named track and between the terminals of the first named tracks, a railway track upon said carriage, power means for effecting the travel of the same between said terminals, and means for securing the carriage at the ends of its travel.

2. The combination with railway tracks at opposite sides of a body of water, and a railway track submerged in said body of water, of a wheeled carriage mounted for travel upon the last named track, a railway track upon said carriage, power means for effecting the travel of the same between the terminals of the first named tracks, means for automatically securing the carriage at the ends of its travel, and means operated from a car for disengaging the carriage securing means.

3. The combination with railway tracks at opposite sides of a body of water, and a railway track submerged in said body of water, of a wheeled carriage mounted for travel upon the last named track, a railway track upon said carriage, power means operable through the wheels of the carriage for effecting the travel of the same between the terminals of the first named tracks, and means for securing the carriage at the ends of its travel.

4. The combination with railway tracks at opposite sides of a body of water, a railway track submerged in such body of water, a wheeled carriage operable upon the submerged track, means for effecting the locomotion of the carriage, a railway track on the carriage, hooked levers provided at opposite ends of the carriage, and stationary socket devices in proximity to the ends of the first named tracks and disposed to be engaged by the hooks of the respective levers, of a car, and manually operated means provided upon the car for engaging said levers whereby the same are actuated to disengage the levers from said socket devices.

1,027,721. SAFETY-GAGE FOR LIQUIDS. FREDERICK GETTELMAN, Milwaukee, Wis. Filed Dec. 11, 1909. Serial No. 532,656. (Cl. 234—19.)



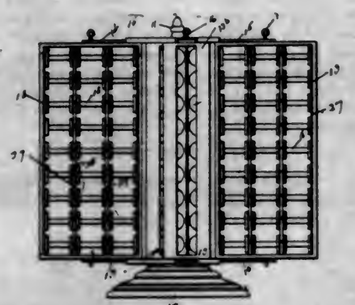
A safety gage for liquids having a steam-tight casing comprising a cylindrical well portion having a laterally disposed chamber extending therefrom at its upper end, water inlet and return pipe connections in the ends of the chambered portion of the casing, a spindle journaled within the walls of the laterally extended chamber portion of said casing, the spindle having one end extended therethrough, an oscillatory lever secured to the stem within the casing, a float disposed in the bottom well portion of the aforesaid casing, the float being pivotally connected to the free end of the oscillatory lever, radial spring guides secured to the body of the float having their free ends adapted to engage the walls of the casing well portion whereby the lateral play of said float with relation to the walls of the well is limited, an arm secured to the end of the spindle exterior of the aforesaid casing, a gage-casing secured to the exterior wall of the chamber extension, a motor-driven index card mounted in the gage-casing, and a stylus-lever for the index card connected to the arm.

1,027,722. LITHOGRAPHIC PRESS. GEORGE GUSTAVE GOEDIKE, Cincinnati, Ohio, assignor to U. S. Lithograph Company, Norwood, Ohio, a Corporation of New Jersey. Filed Feb. 5, 1912. Serial No. 675,482. (Cl. 101—71.)



A lithographic printing instrumentality of the nature disclosed, combining a traveling plate having a lithographing surface, an 'nking roll mounted to have a rolling contact with said surface, and peripherally faced with a leather-like surfacing, and a roll-surfacing and distributing roller having a knurl-like surface rotatively contacting with the inking surface of said roll.

1,027,723. DISPLAY-CABINET. CHARLES A. HAMILTON, Pana, Ill., assignor of one-half to Julius Broehl, Pana, Ill. Filed June 26, 1909. Serial No. 504,576. (Cl. 211—20.)



1. In an article of manufacture, the combination with a base, and a standard mounted thereon, of an upper and a lower frame rotatable around the axis of said standard, a plurality of arms projecting outwardly from said frames in a direction tangential to its axis of rotation, the arms on the upper frame being directly above those of the lower frame, a tangentially slidable member carried by each outwardly projecting arm, and a display tray pivotally mounted between the outer ends of each pair of vertically disposed sliding members.

2. In an article of manufacture, the combination of a base, and a standard mounted thereon, of an upper and a lower frame rotatable around the axis of said standard, a plurality of horizontal arms projecting outwardly from said frame, the respective arms of one frame being vertically disposed with relation to like arms of the other frame, a slidable member mounted in each arm, and a plurality of display trays mounted each on a pair of slidable members by a vertical pivot, whereby the trays may be moved inwardly and turned on their pivots to bring their sides into contact to form a cabinet, and each tray be independently drawn out and rotated about its pivot.

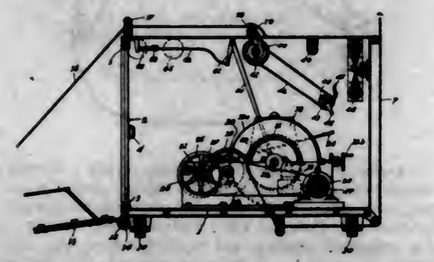
3. In an article of manufacture, the combination with a base, and a standard mounted thereon, of an upper and a lower frame rotatable around the axis of said standard, pairs of horizontal arms projecting outwardly from said frames in a direction tangentially to the axis of rotation and in vertical relation to each other, a longitudinally slidable means carried by each of said arms, and a display tray pivotally mounted between the outer ends of each pair of said sliding means whereby the trays may be moved inwardly and turned on their pivots at right angles to the sliding means to bring said trays into contact to form a closed rectangular cabinet, or be drawn out independently and the trays rotated about their pivots.

4. In an article of manufacture, the combination with a base and a standard, of a pair of spaced frames rotatable on said standard, hollow arms extending outwardly from each frame in a direction tangentially to the axis of rotation and in vertical disposition, a longitudinally slidable member in each arm, means within each arm for limiting the inward and outward movement of each sliding member, and a display tray pivotally mounted between the outer ends of each vertically disposed pair of sliding members adapted when drawn out to be rotated independently of the other trays, and when pushed in the tangential arrangement of the members permit the trays to be turned on their pivots and against one another to form a closed rectangular cabinet.

5. In a device of the kind described, a base, a standard, a pair of frames journaled to said standard and adapted to rotate thereabout independently of the base, secondary arms slidable in said frame, apertures in the outer extremity thereof, trays adapted to fit between said secondary arms, a pin passing through said aperture and centrally through said tray, and means out of contact with the tray for limiting the outward movement thereof.

[Claim 6 not printed in the Gazette.]

1,027,724. FIRE-ESCAPE. EDWIN HORICE HANEY, French Camp, Cal., assignor to Haney Fire Apparatus Co., Stockton, Cal., a Corporation. Filed June 7, 1910. Serial No. 565,632. (Cl. 227—11.)

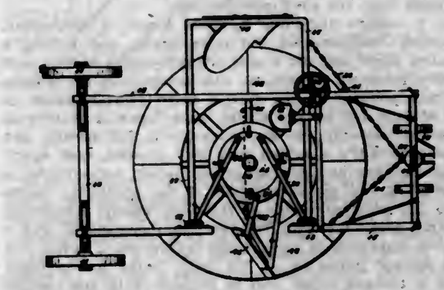


A device of the character described comprising the combination of a cage, means to raise or lower said cage, such cage being provided with a door, a rod extending along the bottom edge of said cage on the side in which said door is located, a ladder movable longitudinally on said rod, a driven shaft within said cage, drums slidably keyed to said shaft, a sleeve connecting said drums, cables secured to said drums and to the outer end of said ladder, a sprocket wheel on said shaft, another sprocket wheel mounted independently of said shaft within said cage, chains connecting said sprocket wheels, an operating handle on said last named sprocket wheel, a ratchet wheel in said last named sprocket wheel, a dog pivoted independently of said last named sprocket wheel and normally engaging said ratchet wheel as described.

1,027,725. ROAD-GRADER. AUGUST J. HANSEN, Walnut, Iowa. Filed Aug. 8, 1910. Serial No. 576,165. (Cl. 37—17.)

1. An improved road grader, comprising a frame, supporting wheels for the machine frame, a plow supporting frame pivoted to the machine frame, a plow carried thereby, means for vertically adjusting said plow supporting frame, a circular platform rotatably mounted beneath said machine frame, a scrape blade designed to engage the top surface of said platform and deliver material to a point beyond the periphery of said platform, and means for adjusting said scraper blade relative to said platform, said means comprising a rotatable annular ring mounted on a stationary disk above said platform, means for clamping said ring to the disk, and connecting pieces fixed to said annular ring and to the scraper blade, substantially as and for the purposes stated.

2. An improved road grader, comprising a frame, supporting wheels for the machine frame, a plow supporting frame pivoted to one side of the machine frame and extending beneath the opposite side of said frame, a plow secured to said frame, means for vertically adjusting said plow supporting frame, a rotary conveyer beneath said machine frame having one edge adjacent to the plow and in contact with the ground surface and the other edge apart from the ground, and means for pivotally supporting said conveyer, said means comprising supporting arms



pivoted to the same side of the machine frame as the plow supporting frame and at points in line with the pivotal points of said plow supporting frame, a stationary disk fixed to said supporting arms, a second disk rotatably mounted beneath said stationary disk, and radial spokes fixed to said rotatable disk and extending outwardly to serve as supports for said conveyer substantially as and for the purposes stated.

1,027,726. DETACHABLE GRIP-HANDLE. OLAF J. HANSON and LYMAN J. GILBERT, Sioux Falls, S. D. Filed Dec. 2, 1911. Serial No. 663,651. (Cl. 190—58.)



A handle for the purposes stated, itself having an end socket, a strap secured at one end within said socket, and having its other end folded over to form a loop member, a leaf spring locking member secured within said handle socket and having a locking aperture, a latch hook member secured to the free end of said strap, said free end of said strap being insertible between the fixed end of said strap and said leaf spring locking member in virtue of which said hook will enter said aperture, substantially as shown and for the purposes described.

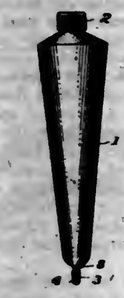
1,027,727. PROCESS FOR FORMING A VAPOR-PROOF MATERIAL. JERVIS R. HARBECK, Detroit, Mich., assignor, by mesne assignments, to Detroit Can Company, Detroit, Mich., a Corporation of New Jersey. Filed Oct. 15, 1908. Serial No. 457,861. (Cl. 154—2.)

1. The process of manufacturing a multiply fabric consisting in cementing plies of fabric together with a liquid cement embodying a volatile solvent and a fusible material, evaporating the volatile solvent and then heating to fuse the fusible material so that it shall fill the pores in the fabric through which the volatile solvent has escaped.

2. The process of manufacturing a multiply fabric consisting in cementing plies of fibrous material together by a liquid cement embodying a fusible gum and a volatile solvent, evaporating the volatile solvent and then heating to fuse the gum so that it shall fill the pores in the fibrous material through which the volatile solvent has escaped.

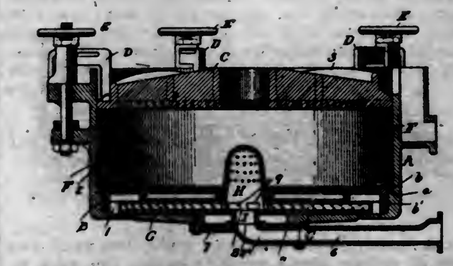
3. The process of manufacturing a multiply fabric, consisting in cementing plies together with a compound consisting of a cement, a volatile solvent for the same, and a fusible material, evaporating the solvent, and then heating the fabric to fuse the fusible material between the plies so that it shall fill the pores in the fabric through which the solvent has escaped.

1,027,728. COLLAPSIBLE TUBE. GEORGE D. HAZEN, Brockton, Mass., assignor to Hazen-Brown Company, Brockton, Mass., a Corporation of Massachusetts. Filed Feb. 21, 1910. Serial No. 544,982. (Cl. 221—60.)



As an article of manufacture, a collapsible tube having its closed end folded flat and smooth on one side and on the other side projecting laterally in compacted form, combined with a rigid securing clip in the form of a stiff plate embracing said flat end, said clip having substantially parallel side portions, one of which lies flat against said smooth side and the other side terminating in a portion bent sharply to embrace the end of the fold and with its free end extending in adjacent the other side portion whereby said clip is closely fitted around all parts of the fold and adapted to withstand pressures tending to unfold the same.

1,027,729. DYEING APPARATUS. DAVID M. HEY, Chattanooga, Tenn., assignor to Vacuum Dyeing Machine Company, Chattanooga, Tenn., a Corporation of Tennessee. Filed Apr. 24, 1911. Serial No. 622,903. (Cl. 8—19.)



1. A distributer for dyeing and analogous apparatus of the circulatory type, comprising a hollow head having a series of lateral branches which communicate with the interior thereof, said branches having longitudinally-disposed outlets, and a branch which extends from the head at an angle with the first mentioned branches and communicates with the interior of the head and has a series of outlets.

2. A distributer for dyeing and analogous apparatus of the circulatory type, comprising a hollow head having a series of lateral branches which communicate with the interior thereof, said branches having longitudinally-disposed outlets, and each branch having its outer end closed and being rotatably engaged with the head and provided

with a longitudinal imperforate wall, and a branch which extends from the head at an angle with the first mentioned branches and communicates with the interior of the head and has a series of outlets.

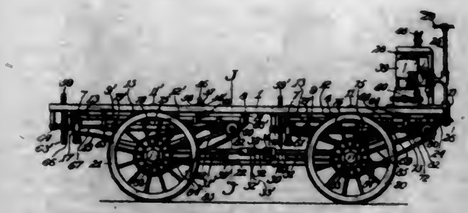
3. A distributer for dyeing and analogous apparatus of the circulatory type, having a hollow head provided with means for the supply of liquid thereto, said head being tapped near its bottom by a series of branches which extend radially therefrom and are formed with longitudinally-disposed outlet apertures, the head being also provided above said branches with outlet apertures arranged to direct the liquid upwardly and outwardly therefrom, at an angle with the direction of flow of the liquid from the apertures of the lateral branches.

4. A distributer for dyeing and analogous apparatus of the circulatory type, comprising a head having means for securing it to the bottom of a vat and means through which it has communication with a source of supply of liquid, said head also having a chamber provided with a series of apertures, a branch which rises from said chamber and is formed with a series of apertures and other branches which communicate with the chamber through the first mentioned apertures and have closed outer ends and longitudinally-disposed outlet apertures, the last mentioned branches being arranged at an angle to the first mentioned branch and the apertures thereof being arranged to discharge the liquid in planes which will intersect the planes of discharge of the liquid from the first mentioned branch.

5. In an apparatus of the class described, a vat, provided with a bottom plate and a compression plate, relatively arranged to provide a liquid receiving space, a material-receiving space and an overflow space within the vat, each of said plates being perforated throughout their areas, combined with a distributer having a head which extends into the liquor-receiving space and is provided within the latter with a series of branches having longitudinally-disposed discharge apertures beneath the perforated bottom plate, said head also having a branch which extends through the bottom plate and into the material-receiving space so as to be embedded in the material under treatment, the latter branch having its wall formed with apertures through which the liquor issues into the interior of the mass.

[Claims 6 and 7 not printed in the Gazette.]

1,027,730. MOTOR-VEHICLE. CLAUD HOADLEY, Gosport, Ind. Filed Feb. 11, 1911. Serial No. 607,924. (Cl. 21—90.)



1. A vehicle including a main frame, two axles, two pairs of driving wheels rotatable on the two axles respectively, two series of springs mounted on the two axles respectively, two truck frames mounted on the two series of springs respectively and pivoted to the main frame, each truck frame having a gear frame thereon that is movable longitudinally of the main frame and provided with equalising transmission gearing that is connected with a different one of the two pairs of driving wheels, each transmission gearing including an extensible or contractible and laterally flexible shaft that is journaled on the main frame, and two driving shafts mounted on the main frame and connected with the two extensible or contractible and flexible shafts respectively.

2. A vehicle including a frame having equalizing gearing mounted to move bodily thereon, a drive-wheel mounted on the frame, springs supporting the frame, an axle supporting the springs, wheels rotative on the axle and operatively connected with the equalizing gearing, radius-bars connected with the axle and also with the equalizing gearing for controlling the movement of the latter relatively to the frame, and an extensible or contractible shaft having one end rotatively supported on the frame and provided with a gear wheel meshing with the drive-wheel, the opposite end of the shaft being geared to and movable with the equalizing gearing.

3. A vehicle including a main frame, a drive-shaft mounted rotatively on the main frame and having a toothed wheel thereon, a pair of drive-wheels having each a sprocket-wheel thereon, an axle mounted in the wheels, springs mounted on the axle, a truck-frame mounted on the springs and pivoted to the main frame, a gear-frame mounted movably on the truck-frame and having two equalizing-shafts mounted rotatively thereon, each equalizing shaft having a sprocket-wheel thereon, sprocket-chains connecting the sprocket-wheels of the equalizing shafts with the sprocket-wheels of the drive-wheels, differential gearing connected with the two equalizing-shafts, and a flexible extensible or contractible counter-shaft having one end thereof journaled on the main frame and provided with a toothed wheel that is in mesh with the toothed wheel of the drive-shaft, the counter-shaft having its opposite end journaled on the gear-frame and provided with a gear wheel that is connected with the differential gearing.

4. In a motor vehicle, the combination of a main frame, two trucks, each comprising a truck-frame pivoted to the main frame, springs connected to the truck-frame, an axle connected to the springs, two wheels rotative on the axle and having each a sprocket-wheel thereon, a gear-frame mounted on the truck-frame and movable thereon toward or from the pivot of the truck-frame, two equalizing-shafts rotatively mounted on the gear-frame and geared to the sprocket-wheels, radius-bars pivotally connected to the equalizing-shafts and the axle, and differential gearing connecting the two equalizing shafts together, with driving mechanism mounted on the main frame, and two series of flexible gearing, each series connecting the differential gearing of a truck with the driving mechanism.

5. In a motor vehicle, the combination of a main frame, a main shaft rotatively mounted on the main frame, a gear-wheel secured to the main shaft, two main equalizing-shafts mounted rotatively in alinement on the main frame, equalising gearing connected with the two main equalising-shafts and also with the gear-wheel that is secured to the main shaft, and two counter-shafts mounted rotatively on the main frame and geared to the two main equalising shafts respectively, with two pairs of carrying wheels, two axles, each mounted in a pair of the carrying wheels, supporting connections between the axles and the main frame, separate series of gearing connected with the carrying wheels, a series for each wheel, and two series of transmission gearing, each series connected with a different one of the counter-shafts and a different one of the separate series of gearing.

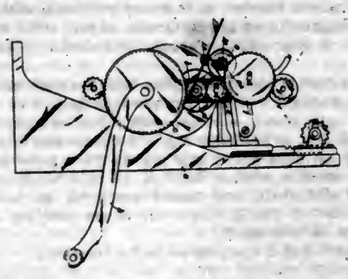
[Claims 6 to 8 not printed in the Gazette.]

1,027,731. KINETOSCOPE. EDWARD P. HOPKINS, New York, N. Y., assignor to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Aug. 24, 1911. Serial No. 645,807. (Cl. 88—17.)

1. In a kinetoscope provided with a projection aperture, a screen normally covering said aperture, and mechanism for operating the same comprising a planet gear and means for offering a substantial resistance to the rotation thereof, substantially as set forth.

2. In a kinetoscope provided with a projection aperture, a screen normally covering said aperture, and mechanism for operating the same comprising a planet gear and a fan for offering a substantial resistance to the rotation thereof, substantially as set forth.

3. In a kinetoscope provided with a projection aperture, a pivotal screen normally covering said aperture, and mechanism for operating the same comprising a sun gear concentric with the pivot of the screen, an arm connected to said screen and a planet gear mounted on said arm, substantially as set forth.

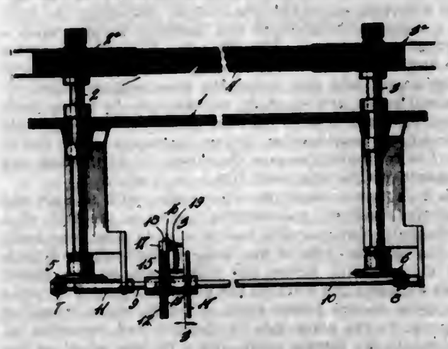


4. In a kinetoscope provided with a projection aperture, a pivotal screen normally covering said aperture, and mechanism for operating the same comprising a sun gear concentric with the pivot of the screen, an arm connected to said screen, a planet gear mounted on said arm, and means for offering a substantial resistance to the rotation of said planet gear, substantially as set forth.

5. In a kinetoscope provided with a projection aperture, a pivotal screen normally covering said aperture, and mechanism for operating the same comprising a sun gear concentric with the pivot of the screen, an arm connected to said screen, a planet gear mounted on said arm, and a fan for offering a substantial resistance to the rotation of said planet gear, substantially as set forth.

[Claims 6 to 14 not printed in the Gazette.]

1,027,732. RIBBON-REVERSE MECHANISM FOR TYPE-WRITERS AND THE LIKE. HUBERT HOPKINS, Maplewood, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Dec. 13, 1910. Serial No. 597,091. (Cl. 197—162.)



1. In a ribbon-reverse mechanism the combination of two spools, means for driving them in opposite directions, said means including two ratchet wheels, conjoint pawls for coöperating with said ratchet wheels, means for imparting to said pawls a step-by-step movement about said wheels, and means whereby, when tension is placed on the ribbon, said pawls are automatically shifted from one ratchet to the other.

2. In a ribbon-reverse mechanism the combination of two ribbon spools, means for driving them in opposite directions, said means including two ratchet wheels arranged side by side, a pair of double-pointed pawls connected together and having their major axes intersecting, and means for imparting to said pawls a step-by-step movement.

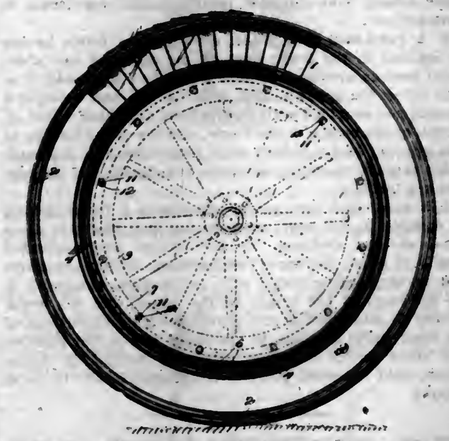
3. In a ribbon-reverse mechanism the combination of spool-driving mechanism including two ratchets arranged side by side, a pair of tumbling pawls for alternately coöperating with said ratchets, and means for driving said pawls step by step, in one direction about the periphery of the ratchets.

4. In a ribbon-reverse mechanism the combination of spool-driving mechanism including two ratchets arranged side by side, independent shafts operated by said ratchets, a pair of tumbling pawls for alternately coöperating with said ratchets, means for driving said pawls step by step, and means for holding said pawls yieldingly in coöperative relation to said ratchets.

5. In a ribbon-reverse mechanism the combination of a master wheel, a slotted arm carried thereby, a pair of tumbling pawls rotatively mounted in the slot of said arm, a spring connected therewith for holding said pawls in operative position, a pair of ratchets with which said pawls coöperate, and spools driven by said ratchets.

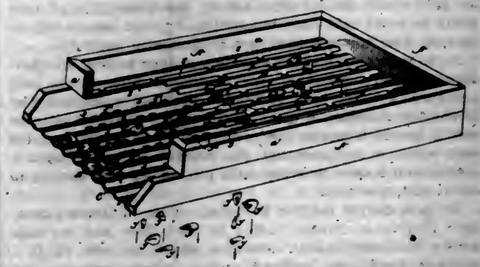
[Claim 6 not printed in the Gazette.]

1,027,733. TIRE. NEWTON H. HOANE, Kansas City, Mo. Filed July 19, 1911. Serial No. 639,385. (Cl. 152—8.)



A spring tire, consisting of a plurality of sets of radially superimposed transversely bowed springs, said springs having their ends disposed innermost, the springs of each set overlapping each other and the springs of one set breaking joint with the springs of an adjacent set, circumferentially extending spring tread bands secured in radial alinement with each other to the springs, and transversely bowed circumferentially extending rim bands secured in radial alinement with each other to the springs at the inner ends thereof, both ends of the springs being secured to said rim bands in bowed relation to each other.

1,027,734. SEED-CORN GRADER. CHARLES HUNNICUTT, Wilmington, Ohio, assignor to The Charles Hunnicutt Company, Clinton county, Ohio, a Corporation of Ohio. Filed Oct. 26, 1908. Serial No. 459,502. (Cl. 130—19.)



1. In a corn grader, the combination with upper and lower rectangular screens corrugated longitudinally and in

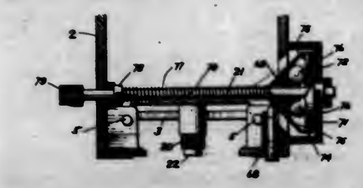
parallelism, and having differently sized perforations extending longitudinally in the valleys of the corrugations, the lower screen being continued beyond the upper screen at one end into a corrugated imperforate spout, of a frame surrounding the perforated area of the upper screen and rising above it to form a hopper, the lower portion of said frame engaging and supporting said lower screen at one end and both sides of said screen, the sides of said frame below said upper screen being extended to engage and support the corrugated imperforate spout.

2. A hand seed corn grader comprising a frame having an opening in the lower part of one end, and two sheet metal screens longitudinally corrugated and arranged in said frame and separated from each other, the upper located below its top and above said opening and provided with perforations in the valleys of said corrugations elongated in the direction of the length of the frame, and the lower leading to said opening and provided with perforations of the same width as those in the upper screen, but shorter, said lower screen extending outwardly beyond the upper screen, said extended portion being imperforate to form a spout.

3. A hand seed corn grader comprising a frame having an opening in the lower part of one end, and two sheet metal screens arranged in said frame and separated from each other, the upper located below its top and above said opening and provided with perforations elongated in the direction of the length of the frame, and the lower leading to said opening and provided with perforations of the same width as those in the upper screen but shorter, for the purpose set forth.

4. A hand seed corn grader comprising a frame having an opening in the lower part of one end, and two sheet metal screens arranged in said frame and separated from each other, the upper located below its top and above said opening and provided with perforations elongated in the direction of the length of the frame, and the lower leading to said opening and provided with perforations of the same width as those in the upper screen, but shorter, said lower screen extending outwardly beyond the upper screen, said extended portion being imperforate to form a spout.

1,027,735. MOVING-PICTURE MACHINE. JESSE B. JOHNSON, Philadelphia, Pa., assignor to Siegmund Lubin, Philadelphia, Pa. Filed Jan. 29, 1909. Serial No. 474,949. (Cl. 88—17.)



1. In a motion picture machine, a member having an aperture therein, a screen movable to open and close said aperture, a revoluble shaft, a cone movable longitudinally on said shaft, means operated by the revolution of said shaft to move said cone longitudinally, and means whereby said cone moves said screen to open said aperture.

2. In a motion picture machine, a door having an aperture therein, mechanism for feeding a film across said aperture, a shaft connected and revoluble with said film feeding mechanism, a cone longitudinally movable on said shaft, means whereby the revolution of said shaft moves said cone, a reciprocating pin movable by said cone, a screen and means whereby said pin moves said screen to open said aperture.

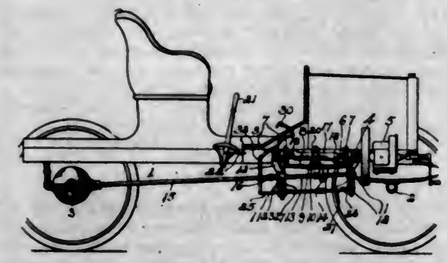
3. In a motion picture machine, a door having an aperture therein, a screen carried by said door and movable across said aperture, a revoluble shaft, on said shaft a member having an inclined surface, means whereby the revolution of said shaft moves said member, and means whereby said inclined surface moves said screen on the movement of said member.

4. In a motion picture machine, a movable screen, a revoluble shaft, a device having an inclined surface movable longitudinally on said shaft, a base fixed to said shaft, a means between said device and base, said means moving outwardly on the revolution of said shaft to move said device, and means whereby said device moves said screen.

5. In a motion picture machine, a hinged door having an aperture therein, a screen journaled on said door, a cam fixed to said screen, a reciprocating pin making contact with said cam, a revoluble shaft, a device movable longitudinally on said shaft, said device having an interior and an exterior surface inclined to said shaft, a base fixed to said shaft, and means supported by said base whereby said device is moved and moves said pin on the revolution of said shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,027,736. POWER-TRANSMITTING MECHANISM FOR MOTOR-VEHICLES. FRANK A. KIRBY, Detroit, Mich., assignor to Kirby Motorcar Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 13, 1910. Serial No. 597,044. (Cl. 74—26.)



1. In a motor vehicle, the combination with an axle and a driving shaft for transmitting motion to the axle, of a horizontally disposed disk mounted to turn upon a vertical axis, a power shaft extending diametrically across the disk above the same, a driven shaft extending diametrically across said disk below the same and connected at one end to the driving shaft, members on the power shaft engaging the disk near its edge at diametrically opposite points to transmit motion thereto, and means on the driven shaft to frictionally engage the other side of the disk and transmit motion from said disk to said shaft.

2. In a motor vehicle the combination with an axle and a driving shaft for transmitting motion to the axle, of a horizontally disposed disk having a plain side, gear teeth on the opposite side of the disk, a power shaft extending diametrically across the disk, gears on the power shaft engaging the teeth on the disk, clutches for securing the gears to the power shaft, a driven shaft extending adjacent to the plain side of the disk and connected at one end to the driving shaft, and a friction wheel on the driven shaft in engagement with the disk.

3. In a motor vehicle, the combination with an axle and a driving shaft for transmitting motion to the axle, of a horizontally disposed disk having a conical friction surface at its lower side, gear teeth on its upper side, a power shaft extending diametrically across the upper side of the disk, gears loosely mounted upon the power shaft in engagement with the teeth on the disk, clutch members for connecting the gears to the power shaft, means for operating the clutch members, a driven shaft extending diametrically across the lower side of the disk parallel with said conical surface at one side of the axis of the disk and connected at one end to the driving shaft, a friction wheel on the driven shaft in engagement with the conical surface of the disk, and means for moving the driven shaft laterally to bring the friction wheel into frictional contact with the disk.

4. In a motor vehicle, the combination with an axle and a driving shaft for transmitting motion to the axle, of a supporting frame, a disk mounted to turn upon said frame, a power shaft, means for transmitting motion from the power shaft to turn the disk, movable bearings on the frame at one side of the disk, a driven shaft mounted in said bearings, a friction wheel on the driven shaft to engage the disk, springs engaging the bearings to move the same and hold the friction wheel in contact with the disk, set screws for regulating the tension of the springs and manually operated lever mechanism for increasing the tension of the springs to increase the frictional contact of the wheel with the disk.

5. In a motor vehicle the combination with an axle and a driving shaft for transmitting motion to the axle, of a supporting frame, a friction disk mounted on said frame, means for transmitting motion to turn the disk, slotted brackets on the frame, bearings movable in the slots of the brackets, a driven shaft mounted in said bearings, a friction wheel on the driven shaft to engage the disk, springs in the slots of the brackets engaging the bearings, headed pins on the brackets engaging one end of the springs, pivoted levers engaging the pins to force the same inward against the action of the springs and move the bearings to increase the frictional contact of the friction wheel with the disk, and manually operated means for moving the levers.

[Claims 6 and 7 not printed in the Gazette.]

1,027,737. LAMP AND REFLECTORS FOR SAME. CHARLES HENRY KRÜGER, Bradford, and CLIFFORD WHITELEY COLLINSON, Baildon, England. Filed May 16, 1911. Serial No. 627,443. (Cl. 240—46.)



1. In combination, a spherical lamp provided with a plurality of ports positioned in different horizontal planes and means for projecting the rays of light from each port in the same direction, certain of said means being externally positioned with respect to said lamp.

2. In combination, a spherical lamp provided with a plurality of ports positioned in different horizontal planes and reflecting surfaces operatively associated with each port for projecting the rays of light in the same direction, certain of said reflecting surfaces being externally positioned with respect to said lamp.

3. In combination, a spherical lamp provided with a plurality of ports positioned in different horizontal planes, one only of said ports being positioned in the front wall of the lamp whereby the rays of light passing therethrough will be projected in a forward direction and means exterior to said lamp for projecting the rays of light from the others of said ports in a forward direction.

4. In combination, a spherical lamp provided with three ports, reflecting surfaces therein positioned opposite each of said ports and reflecting surfaces operatively associated with certain of said ports and positioned exteriorly of said lamp for projecting the rays of light in the same direction.

1,027,738. FURNACE CONSTRUCTION. JAMES B. LADD and DAVID BAKER, Philadelphia, Pa. Filed Mar. 29, 1911. Serial No. 617,604. (Cl. 75—116.)

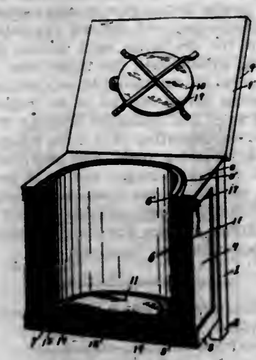
1. In a furnace and in combination with an inclosing shell, a wall situated within the same and comprising a plurality of superposed rings or sections consisting each of a series of upright water-cooled plates, said plates being supported at intervals, one above the other, by the inclosing shell.

2. In a furnace and in combination with an inclosing shell, a wall situated within the shell and comprising a plurality of superposed rings or sections, consisting each of upright plates provided with outwardly extending flanges, said flanges being supported from the shell.



3. In a furnace and in combination with an inclosing shell, a wall situated within the shell and spaced therefrom, and comprising a plurality of superposed rings or sections, each consisting of a series of upright water-cooled plates, and strengthening bands encircling said plates.

1,027,739. ELECTRIC OVEN OR COOKER. CALVIN A. LAUZON, Grand Rapids, Mich., assignor, by mesne assignments, to Wm. Heap & Co., Muskegon, Mich., a Copartnership. Filed Sept. 30, 1910. Serial No. 584,745. (Cl. 219—35.)



1. In an electric oven or cooker, the combination of the outer casing; an inner metallic shell; suitable insulating material packing between the same; a top plate connecting the said inner shell and outer casing, containing an annular curved depression, surrounding the upper edge of the said inner casing; a cover for the said cooker having a projecting cushion near its edge with a plate covering the same; a heater plate detachably secured within said heater; resistance within the said plate; electric circuits leading to the said plate; and slip pin connections between the electric resistance in the said plate and the said conductor, whereby the plate can be readily removed, all coacting substantially as described and for the purpose specified.

2. In an electric oven or cooker, the combination of the outer casing; an inner metallic shell; suitable insulating material packing between the same; a top plate connecting the said inner shell and outer casing, containing an annu-

lar curved depression, surrounding the upper edge of the said inner casing; a cover for the said cooker having a projecting cushion near its edge with a plate covering the same; and a heater plate detachably secured within said heater, all coacting substantially as described and for the purpose specified.

3. In an electric oven or cooker, the combination of the outer casing; an inner metallic shell; suitable insulating material packing between the same; a top plate connecting the said inner shell and outer casing, containing an annular curved depression, surrounding the upper edge of the said inner casing; and a cover for the said cooker having a projecting cushion near its edge with a plate covering the same, all coacting substantially as described and for the purpose specified.

4. In an electric oven or cooker, the combination of the outer casing; an inner metallic shell; suitable insulating material packing between the same; a cover for the said cooker; a heater plate detachably secured within said heater; resistance within the said plate; electric circuits leading to the said plate; electric connection sockets in said plates; and slip pin connections between the electric resistance in the said plate and the said conductor disposed within the receptacle, whereby the plate can be readily removed, all coacting substantially as described and for the purpose specified.

1,027,740. VENTILATING SYSTEM. HAROLD BENSON LEEMING, Salford, England. Filed Mar. 20, 1911. Serial No. 615,768. (Cl. 98—22.)



1. A ventilating device consisting of a tube composed of sections of similar tapering form, but progressively larger from the inlet to the discharge end, said sections being arranged with the larger end toward the intake and the smaller toward the discharge, said smaller end of each section entering axially into the larger end of the next section in advance, all substantially as described.

2. A ventilating device located in an inclosed chamber and having an inlet and discharge opening to the atmosphere, said device consisting of a tube composed of sections of similar tapering form, but progressively larger from the inlet to the discharge end, said sections being arranged with the larger end toward the intake and the smaller toward the discharge, said smaller end of each section entering axially into the larger end of the next section in advance, substantially as described.

1,027,741. SWIMMING APPARATUS. PHILIPP LENTZ, Gross-Lichterfelde, near Berlin, Germany. Filed Aug. 4, 1910. Serial No. 575,531. (Cl. 9—18.)



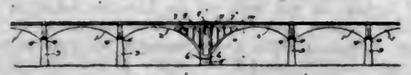
1. A swimming apparatus consisting of a concavely curved saddle-like strap having upwardly extending end portions, and buoys secured to the said end portions, said buoys being adapted to float upon the surface of the water, whereby the strap will be submerged.

2. A swimming apparatus consisting of a concavely curved saddle-like strap having upwardly extending end portions, a keel secured to the underside of said strap, and buoys secured to the said end portions, said buoys being adapted to float upon the surface of the water, whereby the strap will be submerged.

3. A swimming apparatus consisting of a downwardly extending saddle-like strap curved to conform to the position of a person swimming, and buoys secured to the ends of said strap and adapted to float upon the surface of the water, whereby the strap will be submerged.

4. A swimming apparatus consisting of a downwardly extending saddle-like strap curved to conform to the position of the person swimming, a breast plate carried thereby to support the upper part of the body of the swimmer, and buoys secured to the ends of said strap and adapted to float upon the surface of the water, whereby the strap will be submerged.

1,027,742. ARCH-VIADUCT. DANIEL B. LUTEN, Indianapolis, Ind. Filed Dec. 23, 1910. Serial No. 598,916. (Cl. 72—56.)



1. A series of earth-filled arches with elevated springings and balanced on slender piers, combined with an intermediate abutment-pier supporting the ends of two arches with depressed springings at the abutment-pier, and with the roadway over the arches adjacent the abutment-pier supported by columns resting upon the arches.

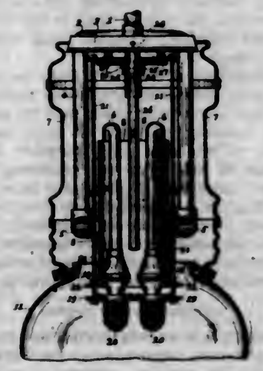
2. A series of arches with elevated springings on piers, combined with an intermediate abutment-pier supporting the depressed ends of two of the aforesaid arches, and with columnar supports resting on the arches adjacent the abutment-pier.

3. A series of arches with elevated springings on piers combined with an intermediate abutment-pier supporting the depressed ends of two of the aforesaid arches.

4. An abutment-pier supporting the depressed ends of a plurality of arches, combined with other adjacent piers supporting the opposite elevated ends of the aforesaid arches.

5. An abutment-pier supporting the depressed ends of a plurality of arches, and intermediate to other piers supporting the elevated ends of the arches.

1,027,743. GAS-LIGHT FIXTURE. JOSEPH MAAS, Kalamazoo, Mich., assignor to American Gas Light Company, Kalamazoo, Mich., a Corporation. Original application filed Nov. 10, 1910, Serial No. 591,736. Divided and this application filed Feb. 23, 1911. Serial No. 610,418. (Cl. 67—103.)



In a gas light fixture, gas burners having incandescent mantles, a mantle support for the mantles having upwardly-extending supporting rods, a transverse bar connecting the rods at their upper ends, a vertical supporting guide rod having a projecting pin, a sleeve rotatable and slidable on the guide rod and supporting the transverse bar at its middle and having a slot adapted in one rotary position of the sleeve to engage the pin and in another such position to release it.

1,027,744. MANUFACTURE OF DETERSIVE AGENTS. ROBERT MACPHERSON, Brondesbury, and WILLIAM EDWIN HEYS, Bushey, England. Filed Dec. 27, 1909. Serial No. 534,937. (Cl. 87—16.)

1. The process of producing a mass of a chemically combined alkali compound of finely divided protein containing substance by treating that substance with highly concentrated lye without the application of heat and substantially without the addition thereto of oils, fats or fatty acids, or water, as herein set forth.

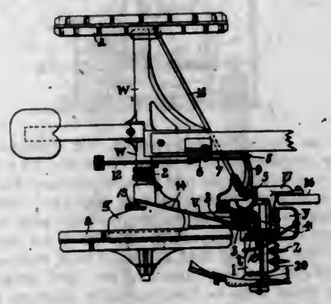
2. The process of producing a detersive agent which consists in over-alkalinating finely divided protein containing substance by means of highly concentrated lye substantially without the addition of water, oils, fats or fatty acids and without the application of heat and subsequently adding to the over-alkalinated compounds so produced sufficient oils, fats or fatty acids to combine with the excess of alkali substantially without splitting the said alkali compound, and any desired water, as herein set forth.

3. Protein matter chemically combined with alkali and which has been produced in a mass by treating finely divided protein containing substance with highly concentrated lye without the application of heat and substantially without the addition thereto of oils, fats or fatty acid or water, as herein set forth.

4. A detersive agent which has been produced by over alkalinating finely divided protein containing substance by means of highly concentrated lye substantially without the addition of water, oils, fats or fatty acids and without the application of heat and in then adding to the compound of protein matter and alkali thus produced sufficient oils, fats or fatty acids to combine with the excess of alkali substantially without splitting the said alkali protein compound, and any desired water, as herein set forth.

5. A detersive agent which has been produced by over-alkalinating finely divided vegetable material by means of highly concentrated lye substantially without the addition of water, oils, fats, or fatty acids and substantially without the application of heat, and in then adding to such alkalinated vegetable material sufficient oils, fats, or fatty acids to combine with the excess of alkali substantially without splitting the said alkilinated vegetable material, and any desired water as herein set forth.

1,027,745. MOWING-MACHINE. WILLIAM E. MARTIN, Stamford, England. Filed Oct. 29, 1909. Serial No. 525,361. (Cl. 56—74.)



1. In a mower, the combination of a main axle, a sleeve covering said axle and to which the main frame is attached, an internally toothed gear case mounted on one end of said sleeve, a forwardly and downwardly inclined shaft, means for rotating said shaft, a bearing for said rotating shaft, the upper end of which is supported by said sleeve, an eye mounted on the other end of said sleeve, a rod carried at its upper end by said eye and fixed at its lower end to the lower end of said bearing, and cutting mechanism driven by said rotating shaft, substantially as set forth.

2. In a mower, the combination of a main axle, a sleeve covering said axle and to which the main frame is attached, a forwardly and downwardly inclined shaft, means for rotating said shaft, a bearing for said shaft, the upper end of which is supported by said sleeve, an eye mounted on the other end of said sleeve, a rod carried at its upper end by said eye and fixed at its lower end to the lower end of said bearing, a bracket fixed direct to said bearing, a carrying wheel mounted on said bracket, a shoe pivoted to the lower end of said bearing, and cutting mechanism driven by said shaft, substantially as set forth.

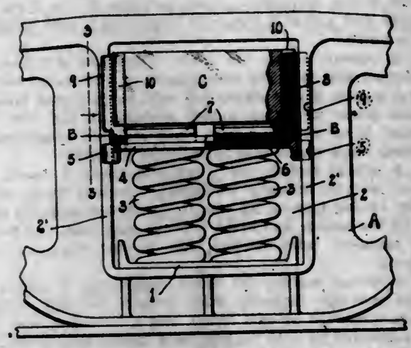
3. In a mower, the combination of a main axle, suitable gearing driven from said axle, a forwardly and downwardly inclined driven shaft, a bearing for said shaft, a sleeve surrounding said bearing, a slide box to the back of which said sleeve is fixed, guides in said slide box, a rod sliding in said guides, a knife bar moved by said rod, and a shoe pivotally mounted on said guides, substantially as set forth.

4. In a mower, the combination of a main axle, suitable gearing, a forwardly and downwardly inclined driven shaft, a bearing for said shaft, a crank pin on said inclined shaft, a block surrounding said crank pin, a slide in which said block moves, a sliding rod carrying said slide, a knife bar mounted to move around the sliding rod, and means for connecting the slide and knife bar, substantially as set forth.

5. In a mower, the combination of a main axle, suitable gearing, a sliding rod driven by said gearing, a knife bar mounted to move around the sliding rod, and a movable latch for connecting the slide and knife bar, said latch being carried by one of these last mentioned parts and engaging the other part, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,027,746. CAR-TRUCK. ALBERT J. MCCAULEY, St. Louis, Mo. Filed Aug. 17, 1911. Serial No. 644,546. (Cl. 105—105.)



1. A car truck having a bolster provided with a flat bottom face, and a rocker upon which said flat face is seated, said rocker being interlocked with the bolster.

2. A lateral motion car truck comprising a frame having a bolster receiving opening, rockable bolster supports, and a bolster resting on said rockable bolster supports, a portion of each of said rockable supports being interposed between the bolster and a side wall of said opening.

3. A lateral motion car truck comprising a frame, rockable bolster supports, and a bolster seated on said rockable supports, a portion of each of said supports being interposed between said frame and a side face of the bolster.

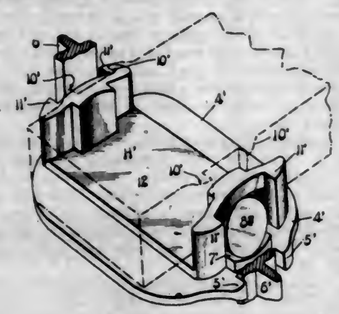
4. A lateral motion car truck comprising a frame, springs supported by said frame, a vertically movable plate supported by said springs, a rockable bolster sup-

port resting on said plate, and a bolster resting on said rockable support, said rockable bolster support being located partly below the bolster and partly between said frame and the side of the bolster.

5. A lateral motion car truck comprising a frame, springs supported by said frame, a vertically movable plate supported by said springs, a rockable bolster support resting on said plate, and a bolster resting on said rockable support, said rockable bolster support being provided with abutments adapted to engage said frame.

[Claims 6 to 11 not printed in the Gazette.]

1,027,747. CAR-TRUCK. ALBERT J. MCCAULEY, St. Louis, Mo. Filed Dec. 8, 1911. Serial No. 664,549. (Cl. 105—105.)



1. A lateral motion car truck comprising a frame, a bolster movable laterally with respect to said frame, and a lateral motion device supporting said bolster, said lateral motion device including bolster supports at the sides of the bolster, and rockable compression members upon which said bolster supports are mounted.

2. A lateral motion car truck comprising a frame, a bolster movable laterally with respect to said frame, and a lateral motion device supporting said bolster, said lateral motion device including bolster supports in the form of hangers and rockable members upon which said hangers are mounted.

3. A lateral motion car truck comprising a frame, a bolster movable laterally with respect to said frame, and a lateral motion device supporting said bolster, said lateral motion device including bolster supports in the form of hangers fitted to the bolster, and rockable compression members upon which said hangers are mounted.

4. A lateral motion car truck comprising a frame, a bolster movable laterally with respect to said frame, said bolster having lugs on its side faces, bolster supports carried by the bolster and fitted between said lugs, and rockable members upon which said bolster supports are mounted.

5. A lateral motion car truck comprising a frame, a bolster movable laterally with respect to said frame, springs supported by said frame, and a lateral motion device supported by said springs, said lateral motion device including bolster supports provided with abutments adapted to engage said frame, and rockable members upon which said bolster supports are mounted.

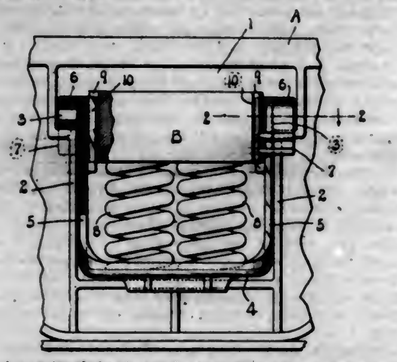
[Claims 6 to 12 not printed in the Gazette.]

1,027,748. CAR-TRUCK. ALBERT J. MCCAULEY, St. Louis, Mo. Filed Dec. 18, 1911. Serial No. 666,545. (Cl. 105—243.)

1. A car truck having a frame, rollers on said frame, and a spring seat having hangers which rest on said rollers.

2. A car truck having a frame, rollers on said frame, and a spring seat having hangers which overlap and rest on the top faces of said rollers.

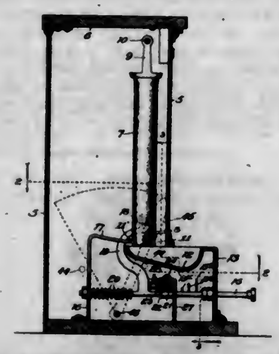
3. A car truck having a frame, movable spring seat supports on said frame, a spring seat provided with hangers which are carried by said movable spring seat supports, springs on said spring seat, and a bolster mounted on said springs, said bolster being fitted to said spring seat hangers.



4. A car truck having a frame, rollers on said frame, a spring seat provided with hangers which rest on said rollers, springs on said spring seat, and a bolster mounted on said springs, said bolster being fitted to said spring seat hangers.

5. A car truck having a frame, rollers on said frame, a spring seat provided with hangers which rest on said rollers, springs on said spring seat, and a bolster mounted on said springs, said bolster being interlocked with said spring seat hangers.

1,027,749. ANNUNCIATOR APPARATUS. MORTIMER B. MILLS, Chicago, Ill., assignor to H. S. Mills, Oak Park, Ill. Filed Feb. 17, 1912. Serial No. 678,414. (Cl. 133—4.)



1. In an annunciator-apparatus, the combination with a casing provided with a display-opening, of a bell-crank having a stop-head on one arm, a spring-actuated lever having a laterally-extending arm bearing a series of annunciating characters on its display-face, said lever being fulcrumed to the bell-crank to be turned for moving said arm, by the force of said spring, across said opening, a relatively-stiff spring connecting the lever with the bell-crank to cause them to turn normally together, means releasably engaging said head to normally lock the bell-crank against the force of said actuating spring, and means for restoring said bell-crank to normal position, for the purpose set forth.

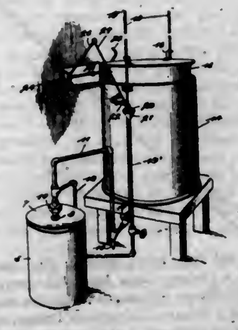
2. In an annunciator-apparatus, the combination with a casing provided with a display-opening, of a bell-crank having a stop-head and a tail-piece on opposite ends of one arm and a spring-actuated lever on its other arm provided with a laterally-extending arm bearing a series of annunciating characters on its display-face, a slotted bearing to which the bell-crank is fulcrumed to be turned by the force of said spring to move said lever-arm across said opening, a lever projecting at its free end through the slot in said bearing, a spring-retracted rock-shaft carrying an operating handle and a cam to coöperate with said last-named lever, and means releasably engaging said head to normally lock the bell-crank against the force of said actuating spring, for the purpose set forth.

3. In an annunciator-apparatus, the combination with a casing containing a display-opening, of a spring-actuated lever having an arm bearing a series of annunciating characters on its display-face, said lever being fulcrumed to be turned by the force of said spring to move said arm across said opening, a stop-head connected with said lever to turn therewith, a vertical series of spring-pressed levers extending at one end into the path of said head, and means for turning at will any number of said last-named levers out of said path, for the purpose set forth.

4. In an annunciator-apparatus, the combination with a casing containing a display-opening, of a spring-actuated lever having an arm bearing a series of annunciating characters on its display-face, said lever being fulcrumed to be turned by the force of said spring to move said arm across said opening, a stop-arm connected with said lever to turn therewith, a vertical series of spring-pressed levers extending at one end into the path of said head, a stationary stop in said path above said lever series, and means for turning at will any number of the levers of said series, for the purpose set forth.

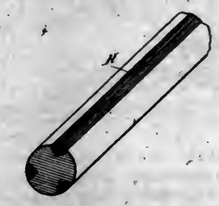
5. In an annunciator-apparatus, the combination with a casing containing a display-opening, of a spring-actuated lever having an arm bearing a series of annunciating characters on its display-face, said lever being fulcrumed to be turned by the force of said spring to move said arm across said opening, a stop-head connected with said lever to turn therewith, a vertical series of spring-pressed levers extending at one end into the path of said head, a series of push-rods, one for each lever in said series, and studs projecting from the push-rods across said levers for turning them out of said path by operating said rods, the stud on one rod being of a length to engage only the lowermost lever in said series, and the studs increasing in length on the other push-rods to adapt them to engage progressively-increasing numbers of said levers, for the purpose set forth.

1,027,750. ACETYLENE-GAS GENERATOR. PETER MINTER, WILLIAM MINTER, and IGNATIUS MINTER, Highland, Wis. Filed Jan. 27, 1912. Serial No. 673,940. (Cl. 48—15.)



In an acetylene gas generator, the combination with a generating vessel, a gasometer and a gas conducting pipe connecting said generator and gasometer, of a water feed pipe for the generator having a vertically disposed portion open at its upper end, said gasometer including an outer water containing shell and a bell movable therein, a rotatably mounted rod having one of its ends engaged with said bell, the other end of said rod being bent at right angles, and a flexible connection between said latter end of the rod and said supply pipe whereby said supply pipe is elevated upon the increase of gas pressure to cut off the water supply to the generator.

1,027,751. CORD FOR USE IN THE MANUFACTURE OF CHAIRS OR OTHER ARTICLES. HAROLD B. MORRIS, Michigan City, Ind. Filed Feb. 13, 1909. Serial No. 477,664. (Cl. 154—43.)

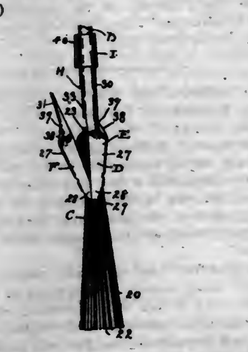


1. A cord for use in the manufacture of chairs or other articles, having one or more grooves or recesses formed in it filled with ornamental strengthening material which is relatively more durable and has better wearing properties than the body of the cord.

2. A cord for the manufacture of chairs or other articles made of fibrous material, bound together by adhesive material, having one or more recesses or grooves formed therein filled with adhesive material which is flexible and more durable than the fibrous material.

3. A cord for use in the manufacture of chairs or other articles formed from shredded fibrous material and a binding agent, and having one or more recesses or grooves formed therein filled with ornamenting strengthening material which is flexible and relatively more durable than the fibrous material.

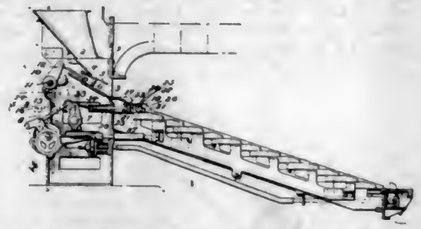
1,027,752. BROOM. LOUIS NAIR and FRANK NAIR, New Britain, Conn. Filed Aug. 17, 1911. Serial No. 644,499. (Cl. 15—19.)



In a device of the character described, the combination of a handle, two shell members pivotally connected at their lower ends, and adapted to inclose and clamp the head of a broom body, and provided with neck portions at their upper ends to engage said handle, one of said neck portions being rigidly connected to said handle, and means to detachably connect the other neck portion to said handle comprising a pin in the handle and a sleeve adapted to slip over said neck portions, the movable neck portion being provided with an aperture to receive said pin, and said sleeve being approximately cylindrical and having

a longitudinal hollow rib forming an inner groove extending from end to end of said sleeve adapted to pass over said pin, so that the sleeve may be turned to lock the parts in position.

1,027,753. MECHANICAL STOKER. HENRY MACNUTT PARSON, New York, N. Y., assignor to Parson Manufacturing Company, New York, N. Y., a Corporation of New York. Filed Nov. 22, 1906. Serial No. 344,606. (Cl. 110—37.)



1. In a mechanical stoker, a coking plate having a coking surface, a reciprocating coke breaking bar or plate beneath the coking plate normally substantially flush with the coking surface, the face of the reciprocating bar having a series of projections thereon to impede the passage of the fuel across the same.

2. In a mechanical stoker, a coking plate having a coking surface, a reciprocating coke breaking bar or plate beneath the coking plate normally substantially flush with the coking surface, the face of the reciprocating bar having a series of projections thereon to impede the passage of the fuel across the same, and air holes between said projections for cooling the same.

3. In a mechanical stoker, a coking plate having a coking surface, a coke-breaker co-acting therewith, the coke-breaker comprising a reciprocating bar and a movable transverse supporting bar with which the reciprocating bar is removably interlocked, the transaverse supporting bar having its surface normally substantially flush with the coking surface.

4. In a mechanical stoker, a coking plate, a coke-breaker co-acting therewith, the coke-breaker comprising a bar and a movable support with which the bar is loosely interlocked, the plate having on its coke-engaging surface a series of longitudinal ridges with air holes between the same for keeping them cool.

1,027,754. METHOD OF MAKING FILTERS. HERMANN PASSOW, Blankenese, Germany. Filed Mar. 31, 1911. Serial No. 618,145. (Cl. 210—9.)

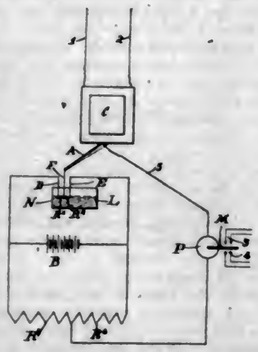
1. A method of making filters consisting in a hard filtering body being burned of a mixture of kieselguhr, clay and the like with a flux to a sintering point, whereupon a soft filtering layer consisting of the same ingredients is applied to the said hard filtering body and the whole is again burned at a temperature below the sintering point.

2. A method for making filters consisting in a hard filtering body being burned of a mixture of kieselguhr, clay and the like with a flux to a sintering point, whereupon a soft filtering layer consisting of the same ingredients is applied to and introduced into the said hard filtering body and the whole is again burned at a temperature below the sintering point.

1,027,755. AMPLIFIER. GREENLEAF WHITTIER PICKARD, Amesbury, Mass. Filed Aug. 7, 1907. Serial No. 387,389. (Cl. 178—45.)

1. Means for amplifying feeble electrical impulses, which comprises two variable resistance liquid conducting paths constituting one side of a Wheatstone bridge, and means operated by the feeble electrical impulses to vary said liquid resistances and thereby unbalance the bridge.

2. In an amplifier of feeble electrical impulses, the combination with a conducting liquid; of two conductors supported in position to include the liquid in circuit between them; a third conductor which is movable through the liquid between said conductors; a Wheatstone bridge including all said conductors and the included liquid; and means operated by the feeble impulses to move said third conductor through the liquid.



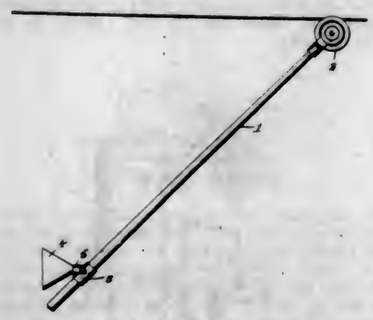
3. An amplifier of feeble electrical impulses, which comprises a Wheatstone bridge having a conducting liquid in one arm, and including an electromagnetic circuit closer; and means operated by the feeble impulses to vary the resistance-distribution of said liquid in the bridge arm.

4. In an amplifier of feeble electrical impulses, the combination with a Wheatstone bridge having fixed resistance in one side, and a normally-balanced variable liquid resistance in the other side; of means operated by the feeble impulses to unbalance said liquid resistance.

5. In an amplifier, the combination with an arm of a Wheatstone bridge including a conducting liquid; of a movable electrode in circuit with the bridge and said liquid; and means for moving said electrode in the liquid to unbalance the resistance thereof.

[Claim 6 not printed in the Gazette.]

1,027,756. COOLING DEVICE FOR TROLLEY-WHEELS. HENRY PRACK, Ottawa, Ill. Filed Aug. 26, 1911. Serial No. 646,256. (Cl. 191—39.)



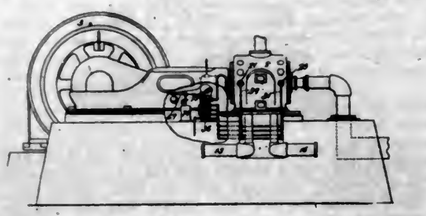
1. In a cooler for trolley wheels, the combination of a tubular pole; a trolley wheel mounted upon the upper end of said pole in direct alinement with the passage through said pole; and a forwardly opening funnel communicating at its contracted ends with said passage, substantially as described.

2. In a cooler for trolley wheels, the combination of a tubular pole; a trolley wheel mounted on the upper end of said pole in direct alinement with the passage through said pole; and a forwardly opening funnel mounted upon said pole and having its rearward, contracted end communicating with said passage, substantially as described.

3. In a cooler for trolley wheels, the combination of a tubular pole; a trolley wheel mounted on the upper end of said pole in direct alinement with the passage through said pole; and a forwardly opening funnel mounted upon said pole and having its rearward, contracted end threaded into said pole and in communication with said passage, substantially as described.

4. In a cooler for trolley wheels, the combination of a two-part pole, the upper part being tubular; a trolley wheel mounted upon the upper end of said pole in direct alinement with the passage through said upper pole part; a coupling connecting the adjacent ends of said pole parts; and a forwardly opening funnel having its rearward contracted end connected with said coupling in direct communication with the lower end of the passage through said upper pole part, substantially as described.

1,027,757. UNLOADER FOR FLUID-COMPRESSORS. WILLIAM PRELLWITZ, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 20, 1908. Serial No. 463,603. (Cl. 230—24.)



1. The combination with the cylinder of a fluid compersor, of auxiliary receivers, valves for opening and closing communication between the cylinder and the auxiliary receivers and a regulator connected to the backs of the valves for successively unloading them as different predetermined high pressures are reached, for unloading the compressor step by step.

2. The combination with the cylinders of a duplex single stage fluid compressor, of auxiliary receivers, valves for opening and closing communication between the cylinders and the auxiliary receivers and a regulator connected to the backs of the valves for successively unloading them as different predetermined high pressures are reached, for unloading the compressor step by step.

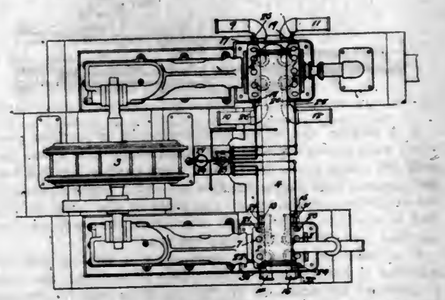
3. The combination with the cylinder of a fluid compressor, of auxiliary receivers, valves for opening and closing communication between the cylinder and the auxiliary receivers and a single fluid pressure governed regulator connected to the backs of the valves, for successively unloading them as different predetermined high pressures are reached, for unloading the compressor step by step.

4. The combination with the cylinders of a duplex single stage fluid compressor, of auxiliary receivers, valves for opening and closing communication between the cylinders and the auxiliary receivers and a single fluid pressure governed regulator connected to the backs of the valves for successively unloading them as different predetermined high pressures are reached, for unloading the compressor step by step.

5. The combination with the cylinder of a fluid compressor, of auxiliary receivers, valves for opening and closing communication between the cylinder and auxiliary receivers and a regulator for successively unloading the valves as the pressure rises to predetermined points and for successively loading the valves as the pressure falls to predetermined points, for automatically unloading and loading the compressor step by step.

[Claims 6 to 38 not printed in the Gazette.]

1,027,758. UNLOADER FOR COMPOUND FLUID-COMPRESSORS. WILLIAM PRELLWITZ, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 20, 1908. Serial No. 463,604. (Cl. 230—24.)



1. The combination with the high and low pressure cylinders of a compound fluid compressor, of auxiliary receivers for the low pressure cylinder, valves for opening and closing communication between the low pressure cylinder and the auxiliary receivers and a regulator connected to the backs of the valves for successively unloading them as different predetermined high pressures are reached.

2. The combination with the high and low pressure cylinders of a compound fluid compressor, of auxiliary receivers for the low pressure cylinder, valves for opening and closing communication between the low pressure cylinder and the auxiliary receivers and a fluid pressure governed regulator connected to the backs of the valves for successively unloading them as different predetermined pressures are reached.

3. The combination with the high and low pressure cylinders of a compound fluid compressor, of auxiliary receivers for the low pressure cylinder, valves for opening and closing communication between the low pressure cylinder and the auxiliary receivers and a regulator for successively unloading the valves as the pressure rises to predetermined points and for successively loading the valves as the pressure falls to predetermined points, for automatically unloading and loading the compressor step by step.

4. The combination with the cylinders of a compound fluid compressor, of auxiliary receivers therefor, valves for opening and closing communication between the cylinders and their auxiliary receivers and a regulator connected to the backs of the valves for successively unloading them as different predetermined high pressures are reached, for unloading the compressor step by step.

5. The combination with the cylinders of a compound fluid compressor, of auxiliary receivers therefor, valves for opening and closing communication between the cylinders and their auxiliary receivers and a fluid pressure governed regulator connected to the backs of the valves for successively unloading them as different predetermined high pressures are reached for unloading the compressor step by step.

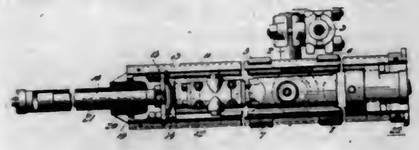
[Claims 6 to 28 not printed in the Gazette.]

1,027,759. SUPPORT FOR MINING TOOLS OR MACHINES. WILLIAM PRELLWITZ, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed June 15, 1909. Serial No. 502,253. (Cl. 125—10.)

1. A skeleton frame for supporting a mining tool or machine in sliding and non-rotatable adjustment, said frame comprising a bracket, angle iron ways secured to the bracket, a cross head connecting the ways at one end, an air feed cylinder fixed to the cross head and an air feed piston fixed to the tool or machine.

2. A mining tool or machine composed of sections, tie-rods for uniting the sections, a yoke connecting the tie-rods, an air feed piston fixed to the yoke, ways along which

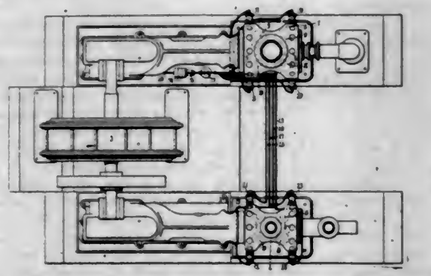
the tool or machine is fitted to slide, a cross head connecting the ways and an air feed cylinder fixed to the cross head.



3. A mining tool or machine composed of sections provided with guides oppositely disposed along their sides, tie-rods for uniting the sections, a yoke connecting the tie-rods, an air feed piston fixed to the yoke, angle-iron ways for receiving the guides at the sides of the body of the tool or machine, a cross head connecting the ways and an air feed cylinder fixed to the cross head.

4. A skeleton frame for supporting a mining tool or machine in sliding and non-rotatable adjustment, the tool or machine including an air feed cylinder and its piston, said frame comprising a bracket, angle-iron ways secured in the bracket, a cross head connecting the ways at one end and a yoke connecting the ways at the opposite end, the said cross-head being provided with a sleeve for the reception of the air feed cylinder and the said yoke extending out of a direct line between the ways.

1,027,760. UNLOADER FOR FLUID-COMPRESSORS. WILLIAM PRELLWITZ, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 8, 1911. Serial No. 613,037. (Cl. 230—24.)



1. The combination with the cylinder of a fluid compressor, of an auxiliary receiver, a valve connecting the cylinder and auxiliary receiver, pressure fluid operated means for closing said valve, means for positively opening said valve and means for connecting said pressure fluid operated means either to receiver pressure or to atmosphere.

2. The combination with the cylinder of a fluid compressor, of an auxiliary receiver, a valve connecting the cylinder and auxiliary receiver, pressure fluid operated means for closing said valve, means for positively opening said valve and fluid pressure controlled means for connecting said pressure fluid operated means either to receiver pressure or to atmosphere.

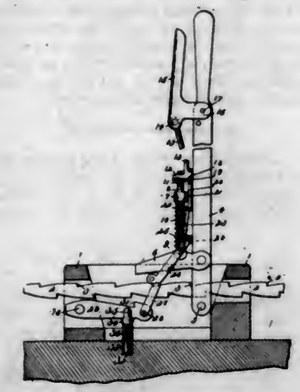
3. The combination with the cylinder of a fluid compressor, of an auxiliary receiver, a valve connecting the cylinder and auxiliary receiver, pressure fluid operated means for closing said valve, a spring for positively opening said valve and means for connecting said pressure fluid operated means either to receiver pressure or to atmosphere.

4. The combination with the cylinder of a fluid compressor, of an auxiliary receiver, a valve connecting the cylinder and auxiliary receiver, pressure fluid operated means for closing said valve, a spring for positively opening said valve and fluid pressure controlled means for connecting said pressure fluid operated means either to receiver pressure or to atmosphere.

5. The combination with the cylinder of a fluid compressor, of an auxiliary receiver, a valve connecting the cylinder and auxiliary receiver, said valve having a pressure fluid operated piston, means for positively opening the valve and means for connecting said piston either to receiver pressure or to atmosphere.

[Claims 6 to 21 not printed in the Gazette.]

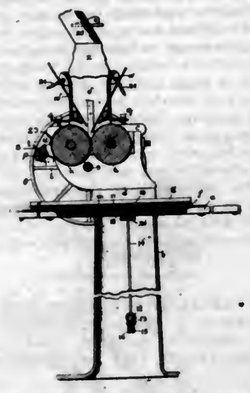
1,027,761. LEVER. CYRUS B. PURDY, Minatare, Nebr. Filed Sept. 13, 1911. Serial No. 649,058. (Cl. 74—54.)



1. In the mechanism for the purpose set forth and in combination with a slidable rack bar, of a pivoted lever, a pawl pivotally connected with the lever, means for normally forcing the pawl into contact with the rack bar, a holding pawl, means for normally forcing the said holding pawl into contact with the teeth upon the lower face of the lever, a toggle connection between the holding pawl and the lever, a resilient handle connected with the lever, and means provided between the toggle lever and the pawl pivotally connected with the lever for swinging the resilient handle toward the pawl to permit of a further movement of the pawl locking the toggle to sustain the pawl connected therewith out of engagement with the rack bar to lift the pawl pivoted to the lever also out of engagement with the rack bar, and said means also adapted to break the toggle to permit of the pawl connected therewith to return to engage the rack bar as well as to swing the pawl pivoted to the lever again into engagement with the said rack bar.

2. In a device for the purpose set forth, the combination with a casing and a rack bar having its opposite longitudinal edges provided with teeth, of a lever pivotally connected with the casing, a pawl pivotally connected with the lever and adapted to normally engage the teeth upon one of the edges of the rack bar, a rod connected with the pawl, a spring upon the rod and adapted to normally force the said pawl upon the rack bar, a holding pawl pivotally connected with the casing, a directing post for the holding pawl, spring means for normally forcing the post against the pawl to bring the latter into engagement with the lower tooth of the rack bar, toggle members pivotally connected with the holding pawl and with the lever, the said toggle members being connected through the medium of a rule joint, a link connected with one of the members of the toggle, a plate connected with the said link, said plate having its upper extremity formed with an opening, the rod connected with the lever pawl having its upper extremity also provided with an opening, a resilient handle pivotally connected with the lever, a handle rod for the handle, said rod having an off-set portion adapted to engage within the opening of the rod and having a stop adapted to play within the opening of the plate, all substantially as and for the purpose set forth.

1,027,762. GRAIN-SHREDDING MACHINE. FREDERICK REGNIER, Niagara Falls, N. Y., assignor to The Shredded Wheat Company, Niagara Falls, N. Y. Filed Mar. 14, 1906. Serial No. 306,058. (Cl. 83—12.)



1. In a grain shredding machine, the combination with a pair of crushing rolls, one of which is provided with a series of fine circumferential grooves, of a plurality of attenuated scrapers having wedge-form edge portions, and a clamp device having wedge-form grooves in engagement with the wedge-form edge portions of said scrapers.

2. In a grain shredding machine, the combination with a pair of crushing rolls, one of which is provided with fine circumferential grooves, of a plurality of attenuated scrapers having wedge-form edge portions, and a clamp device having wedge-form grooves in engagement with the wedge-form edge portions of intermediate portions of said scrapers.

3. In a grain shredding machine, the combination with a pair of crushing rolls, one of which is provided with fine circumferential grooves, of a plurality of normally straight spring metal attenuated scrapers having wedge-form edge portions, and a clamp device having bowed upper and lower faces provided with wedge-form grooves in engagement with the wedge-form edge portions of said scrapers.

4. In a grain shredding machine, the combination with a pair of crushing rolls, one of which is provided with fine circumferential grooves, of a plurality of attenuated scrapers and a warping clamp in which is secured the intermediate portion of each scraper, said scrapers having free rear extensions projecting beyond the clamp and being adapted for independent endwise adjustment by tapping the rear ends of said extensions.

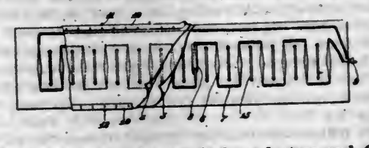
5. In a grain shredding machine, the combination with a pair of crushing rolls, one of which is provided with fine circumferential grooves, of a plurality of attenuated normally straight spring metal scrapers and a clamp having curved upper and lower faces adapted to secure said scrapers by a warping tension to assist in holding them in engagement with the grooves of the roll.

[Claims 6 to 9 not printed in the Gazette.]

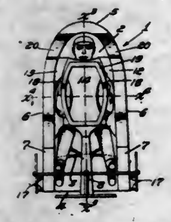
1,027,763. FLEXIBLE ELECTRIC HEATER. LUTHER C. RHEA, Columbus, Ohio. Filed Oct. 19, 1909. Serial No. 528,878. Renewed Oct. 12, 1911. Serial No. 654,463. (Cl. 219—46.)

1. A blanket or covering o fthe kind described, comprising, in combination, a plurality of separate uncoiled elongated resistance conductors arranged substantially parallel to each other and united at their ends in series by coiled conductors, said coiled conductors extending transversely to the direction of the resistance conductors, and flexible coverings for said resistances and conductors.

2. A blanket or covering of the kind described comprising, in combination, parallel separate uncoiled resistance conductors united by coiled conductors, elastic stiffening devices between the uncoiled conductors and flexible coverings for said parts, substantially as described.



1,027,764. AVIATOR-PROTECTOR. FRANÇOIS RILLEAU, Los Angeles, Cal. Filed Jan. 12, 1911. Serial No. 602,346. (Cl. 244—31.)



1. An aviator protector comprising a double walled body having a cavity to accommodate a person and a double-walled roof having a frame and forming a head protector.

2. An aviator protector comprising an inflated double walled body having a cavity to accommodate a person and a double-walled roof having a frame and forming a head protector.

3. An aviator protector comprising a double walled body having a cavity to accommodate a person; said cavity being open at the front and formed with a floor, back, side walls and roof; the floor of said cavity forming a seat and the roof of said cavity forming a head protector.

4. An aviator protector comprising an inflated double walled body having a cavity formed with a floor and roof to accommodate a person; the floor of said cavity forming a seat and the roof of said cavity forming a head protector.

5. An aviator protector comprising a double walled body having a cavity in one side to accommodate a person; said cavity being formed with a floor; said floor being adapted to form a seat for a person and a roof above said seat; said roof being provided with a frame and forming a head protector.

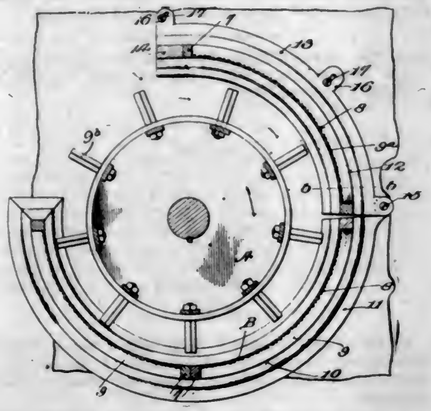
[Claims 6 to 12 not printed in the Gazette.]

1,027,765. HAY-GRINDING MACHINE. SHERMAN C. ROBERTS, Wichita, Kans. Filed Apr. 5, 1910. Serial No. 553,583. Renewed Oct. 10, 1911. Serial No. 653,966. (Cl. 83—11.)

1. In a grinding mill, the combination with a cylinder, of spaced stationary bars surrounding the lower portion of the cylinder and having segmental seating grooves formed therein and opening through the rear ends of said bars only, movable bars surrounding a portion of the top of the cylinder and having their rear ends pivotally connected with the stationary bars and their forward ends spaced from the forward ends of said stationary bars to form a feed opening at the front of the cylinder, said movable bars being provided with segmental seating grooves closed at their forward ends and communicating with the grooves of the stationary bars at their rear ends, removable screen sections seated in the grooves of the stationary and movable bars, and means for adjusting the movable bars laterally with respect to the cylinder.

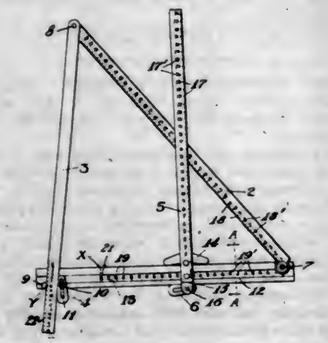
2. In a grinding mill, the combination with a cylinder, of spaced stationary bars surrounding the lower portion

of the cylinder and having segmental seating grooves formed therein and opening through the rear ends of said bars only, movable bars surrounding a portion of the top of the cylinder and having their rear ends pivotally connected with the stationary bars and their forward ends spaced from the forward ends of said stationary bars to form a feed opening at the front of the cylinder, said movable bars being provided with segmental seating grooves registering with the seating grooves of the stationary bars and having their outer walls provided with slotted ears, a baffle plate connecting the forward ends of the movable



bars and seated within and forming closures for the ends of the segmental grooves of said movable bars, removable screen sections seated in the grooves of the stationary bars, a removable screen section seated in the grooves of the movable bars and having one end thereof bearing against the baffle plate and its other end adapted to contact with the adjacent segmental screen section of the stationary bars, and fastening devices extending through the slots in said ears for holding the movable bars in different positions of adjustment with respect to the cylinder.

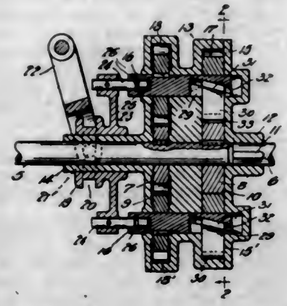
1,027,766. ROOF-RAFTER-CALCULATING DEVICE. DONALD ROBERTSON and JAMES A. ATKINSON, New Westminster, British Columbia, Canada. Filed May 22, 1911. Serial No. 628,731. (Cl. 73—80.)



1. In an instrument of the character described, a base-member, a bar provided with a scale and slidable longitudinally in said base member, an arm hingedly connected at one of its ends to an end of said base member, a second arm hingedly connected with the free end of the aforesaid arm, scales provided on the respective arms, means for securing the free end of the second named arm with the end of said base-member remote from the connection of the latter with the first named arm, a blade provided with a scale and shiftable lengthwise of the base member, and means for securing said blade to the base member in various adjusted positions and at right angles to such member.

2. In an instrument of the class described, a base member, a bar shiftable longitudinally therein and provided with a scale, a blade provided with a scale and slidably connected to said member, means for securing said blade in adjusted positions, an arm hingedly connected at one end to one end of said member and provided with a scale, another arm hingedly connected at one end to the free end of the aforesaid arm and provided with a scale for indicating the inclination of the first named arm from said member in terms of the ratio of the rise of a roof to half its span, and means for securing said second named arm to the base member at various adjusted positions.

1,027,767. VARIABLE-SPEED TRANSMISSION DEVICE. CHARLES J. ROBINSON, Bremerton, Wash., assignor of one-half to Ernest E. Creelman, Bremerton, Wash. Filed Feb. 23, 1911. Serial No. 610,357. (Cl. 74—34.)



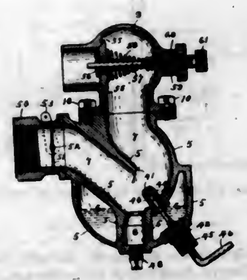
1. In a variable speed transmission device, the combination with a driving shaft, and a series of toothed gears driven from said shaft, of a series of elements rotated by said shaft and said gears, a casing provided with chambers for the respective elements, and means carried by and adjustable radially in one of said elements to coact with a liquid provided in the chamber of such element for causing the casing to be rotated by the shaft.

2. In a variable speed transmission device, a shaft, a casing, an element driven by said shaft and rotatable in a chamber provided in said casing, a second element rotatable in a second chamber of the casing, power driven means operated by said shaft tending to rotate said second element, and adjustable means carried by the second named element which is arranged to be influenced by a liquid contained in said second chamber whereby the casing is yieldingly coupled to the shaft.

3. In a variable speed transmission device, the combination with a power shaft, a toothed pinion, and an element having a gap in its periphery secured to the shaft, of a gear wheel in mesh with said pinion, a second element rotatable with said gear wheel, a blade carried by the second named element, means for adjusting the position of said blade radially of the element, a casing for said elements and provided with a chamber in which the first named element is fitted and also provided with another chamber of greater diameter than that of the second named element to afford space about the latter to accommodate a supply of liquid.

4. A variable speed transmission device, comprising a driving shaft, a toothed pinion mounted on said shaft, a cylindrical element mounted upon the shaft and provided with a gap in its periphery, a gear wheel in mesh with the pinion, an arbor carrying said wheel, a second element mounted on the arbor, a blade carried in said second element, a casing provided with chambers for the respective elements, the chamber for the second named element being of greater diameter than the diameter of the element, and means operating through the medium of the arbor whereby the blade is adjustable radially to and from the peripheral wall of the chamber of the second named element for the purpose described.

1,027,768. CARBURETER. WILLIAM E. ROBY, Indianapolis, Ind. Filed Apr. 28, 1911. Serial No. 623,896. (Cl. 48—154.1.)



1. A carbureter comprising a fuel chamber and a carbureting chamber, a manually controlled valve connecting said chambers, an inlet valve controlling the flow of fuel to said fuel chamber, and a diaphragm connected with said inlet valve, said diaphragm being located in said fuel chamber, but out of contact with the fuel therein, and being exposed to atmospheric pressure on one side and on the other side to the gaseous pressure in said fuel chamber.

2. A carbureter comprising a fuel chamber and a carbureting chamber, an inlet valve for said fuel chamber, a diaphragm connected with said valve to operate the same, said diaphragm being exposed on one side to atmospheric pressure, and on the other side to the pressure in said fuel chamber, and a second valve, wholly independent of said diaphragm, for controlling the flow of fuel from said fuel chamber to said carbureting chamber.

3. A carbureter comprising a body having its inner walls disposed to form fuel, carbureting and drip chambers, a manually controlled valve establishing communication between said fuel and carbureting chambers, a fuel valve in said fuel chamber, and a flexible diaphragm connected with said valve, said diaphragm being located in said fuel chamber above the liquid level therein, and capable of deflection in one direction to open said valve by suction from said chambers and to assume normal position when said suction ceases.

4. In a carbureter, the combination, with the fuel chamber thereof, embodying a screw-threaded extension at its upper end, of suction controlled means for regulating the supply of fuel in said chamber comprising a diaphragm seated in said extension, a valve communicating therewith and controlled thereby for regulating the fuel supply to said chamber, and a screw-threaded vent cap secured to said extension and inclosing said diaphragm.

5. A carbureter comprising an integrally formed body portion inclosing a carbureting chamber and a fuel chamber, a needle valve connecting said carbureting chamber with said fuel chamber, a valve-controlled passage in said fuel chamber to control the admission of fuel to said chamber, and a flexible diaphragm secured in the walls of said fuel chamber above the liquid level therein and operatively connected with said fuel valve in a manner to open and close said fuel valve by means of suction through said needle valve and the fuel in said fuel chamber.

[Claims 6 and 7 not printed in the Gazette.]

1,027,769. REFINING COPPER. WALTER S. ROCKEY and HILLIARY ELDRIDGE, New York, N. Y., assignors to Metallurgical Research Company, a Corporation of Arizona. Filed Jan. 28, 1911. Serial No. 605,282. (Cl. 75—62.)

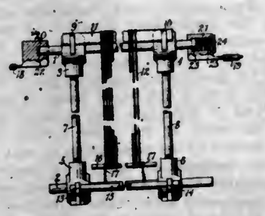
1. The process of refining copper, which consists in first fusing the copper by heat, then directing the fused copper through a bath of fused anhydrous boron trioxid (B_2O_3), and maintaining the heat of the copper until all occluded gases have been expelled and the oxids present dissolved by the boron trioxid.

2. The process of refining copper, which consists in first fusing the copper, then adding a reducing body to the fused copper to reduce a portion of the oxids present, then directing the fused and partially deoxidized copper through a bath of anhydrous boron trioxid (B_2O_3) and maintaining the heat of the copper until all occluded gases have been expelled and the oxids present dissolved by the boron trioxid.

3. The process of refining copper which consists in first fusing the copper by heat, then directing the fused copper through a bath of fused anhydrous boron trioxid and a reducing agent, and maintaining the heat of the copper until all occluded gases have been expelled and the oxids present dissolved.

4. The process of refining copper which consists in first fusing the copper by heat, then directing the fused copper through a bath of fused anhydrous boron trioxid and intermixed carbon, and maintaining the heat of the copper until all occluded gases have been expelled and the oxids present dissolved.

1,027,770. VARNISH-DRYING HOLDER FOR HEDDLES. EDWARD ROSENBERG, Regents Park, London, England, assignor to Standard Varnish Works, New York, N. Y., a Corporation of New York. Filed Oct. 19, 1909. Serial No. 523,503. (Cl. 34—12.)



1. A varnish drying holder for heddles comprising top and bottom horizontally arranged side bars, cross bars extending between the top side bars for hanging the heddles thereon and yielding means arranged above and carried by the bottom side bars for drawing the heddles taut to separate the individual heddle cords for permitting a more ready drying of the same.

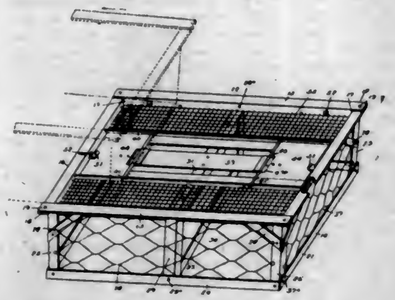
2. A varnish drying holder for heddles comprising top and bottom horizontally arranged side bars, cross bars removably supported by the top side bars for hanging the heddles thereon and yielding means arranged above and carried by the bottom side bars for drawing the heddles taut to separate the individual heddle cords for permitting a more ready drying of the same.

3. A varnish drying holder for heddles comprising top and bottom horizontally arranged side bars, cross bars removably supported by the top side bars for hanging the heddles thereon, cross rods carried by the bottom side bars, cross bars carried by the heddles and spring tension hooks carried by the bottom cross rods arranged to engage the bottom heddle cross bars for drawing the heddles taut to separate the individual heddle cords for permitting a more ready drying of the same.

4. A varnish drying holder for heddles comprising top and bottom cross rods having top and bottom horizontally arranged side bars, vertical rods connecting the top and bottom cross rods, cross bars removably supported by the

top side bars for hanging the heddles thereon and yielding means arranged above and carried by the bottom side bars for drawing the heddles taut to separate the individual heddle cords for permitting a more ready drying of the same.

1,027,771. POULTRY-CRATE. GEORGE D. ROSS, Princeton, Kans. Filed Apr. 11, 1911. Serial No. 620,503. (Cl. 220—111.)



1. A crate composed of upper and lower frames and standards connected with the lower frame and supporting the upper frame said lower frame being smaller in length and width than said upper frame, the upper frame being composed of angle plates the upper portion of the angle plates extending horizontally in an outward direction as respects the body of the crate and the inner portion of the angle plates in a downward direction, a transverse partition of less height than the angle plates composing the upper frame and a track comprising angle bars extending in the longitudinal direction of the crate supported by said partition and horizontally extended portions of the ends of said bars connected with the outer surfaces of the downwardly extended portions of the angle plates at the ends of the upper frame of said crate the upper surfaces of the angle bars forming said track being below the plane of the upper surface of the upper horizontal portion of the angle plates of said upper frame.

2. A crate composed of upper and lower frames and standards connected with the lower frame and supporting the upper frame, said lower frame being smaller in length and width than said upper frame, the said upper frame being composed of angle plates the upper portion of the angle plates extending horizontally in an outward direction as respects the body of the crate and the inner portion of the angle plates in a downward direction, a transverse partition of less height than that of the angle plates composing the upper frame, longitudinally extending track bars supported by said partition, connected with the said inner portions of the angle plates of the said upper frame whose upper surfaces are below the plane of the upper surfaces of the horizontal portions of said angle plates, said inner portions of the angle plates having inwardly punched portions adapted to form lugs the upper surfaces of which lugs and track bars being in the same horizontal plane.

1,027,772. TUBE. THORNTON F. SANBORN, Ensenada, Porto Rico. Filed July 24, 1911. Serial No. 640,351. (Cl. 127—9.)

1. A tube or pipe provided with an outwardly expanding part having an external screw-thread of greater diameter than the tube.

2. A tube or pipe provided with an outwardly expanding part having an external screw-thread of greater diameter than the tube, said tube being provided with tool engaging means.

3. A tube or pipe provided near one end with an outwardly expanding part having an external screw-thread of greater diameter than the tube and having its end, adjacent said screw-threaded part, provided with tool



engaging means whereby the tube may be readily screwed into position.

1,027,773. FIREARM. BASIL H. SAVAGE, Duarte, Cal., assignor to Sears, Roebuck & Co., Chicago, Ill., a Corporation. Filed June 6, 1910. Serial No. 565,221. (Cl. 42—17.)



1. In a magazine firearm, the combination with a vertically and longitudinally movable breech bolt; of an action bar, operative connections between the action bar and the breech bolt, a tubular magazine arranged beneath the barrel, means causing vertical and longitudinal movement of the breech bolt in the reciprocation of the action bar, and means upon the breech bolt for withdrawing cartridges from the magazine during longitudinal movement of the breech bolt.

2. In a magazine firearm, the combination with a longitudinally and vertically movable breech bolt provided at its forward end with spaced extensions arranged and adapted to engage a cartridge within the magazine; of the magazine, and means for longitudinally and vertically moving the breech bolt.

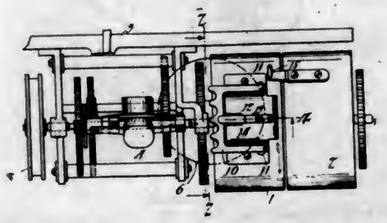
3. In a magazine firearm, the combination with a longitudinally and vertically movable breech bolt provided at its forward end with spaced extensions arranged and adapted to engage a cartridge within the magazine; of said magazine, a carrier, and a carrier dog mounted upon the breech bolt and actuating the carrier into position to act as a cartridge stop during movement of the breech bolt.

4. In a magazine firearm, the combination with a vertically and longitudinally movable breech bolt having at its forward end spaced extensions adapted and arranged to engage a cartridge within the magazine; of said magazine, a carrier pivoted adjacent to its rear end and adapted and arranged to elevate a cartridge between said extensions, and a carrier dog mounted upon the breech bolt and arranged to operate the carrier.

5. In a magazine firearm, the combination with a vertically and longitudinally movable breech bolt provided at its forward end with spaced extensions adapted and arranged to engage a cartridge within the magazine; of the magazine, a carrier, a carrier dog mounted upon the breech bolt and arranged to operate the carrier to elevate a cartridge between said extensions, and an action bar provided with a stud operatively connected with the breech bolt.

[Claims 6 to 17 not printed in the Gazette.]

1,027,774. PHONOGRAPH-MOTOR-SIGNALING DEVICE. CHARLES SCHIFFL, West Orange, N. J., assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed June 12, 1909. Serial No. 501,826. (Cl. 116—1.)



1. In a device of the character described, the combination with a rotatable spring barrel and a signaling device, of means carried by said barrel for sounding said signal at a predetermined point in the rotation of said barrel in one direction, and stationary means coacting with said sounding means in its rotation to force the latter into position to sound said signal at the said point, substantially as described.

2. In a device of the character described, the combination with a rotatable spring barrel and a stationary signaling device, of means carried by said barrel normally not in position to contact and actuate said signaling device, and means coacting with said first named means in its progression with the rotating barrel to move it gradually toward contacting position, and into such position at a predetermined point in the rotation of said barrel in one direction, substantially as described.

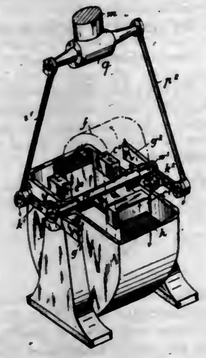
3. In a device of the character described, the combination with a rotatable spring barrel and a signaling device provided with a vibratory actuating member, of means for vibrating said member normally not in position to actuate the same, and means actuated by the rotation of the barrel in one direction to cause the said vibratory member and actuating means to be brought into coacting position at a predetermined point in the rotation of said barrel, to sound said signal, substantially as described.

4. In a device of the character described, the combination with a rotatable spring barrel and a stationary signaling device provided with a sounding member, of a pivoted member carried by said barrel having a portion adapted to coact with said sounding member, and means actuated at each rotation of the barrel in one direction to move said pivoted member about its pivot so that its said portion travels in a path approaching the locus of said sounding member and at a predetermined point intersecting the same, to actuate the signal, substantially as described.

5. In a device of the character described, the combination with a rotatable spring barrel and a stationary signaling device provided with a sounding member, of a pivoted member carried by said barrel having a portion adapted to coact with said sounding member, a rotatable member carried by said barrel and adapted in its rotation to coact with said pivoted member to force the latter into position to coact with said sounding member, and means coacting with said rotatable member at each rotation of the barrel in one direction to revolve the same and cause it to move toward its signal actuating position, substantially as described.

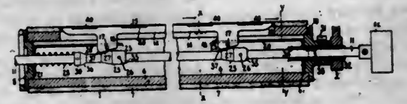
[Claim 6 not printed in the Gazette.]

1,027,775. BALANCING-TWO-CRANK ENGINES. FRANZ BERNHARD KARL SCHUBERT, Hamburg, Germany, assignor to Company of Desenisa & Jacobi Actiengesellschaft, Hamburg, Germany. Filed Aug. 5, 1911. Serial No. 642,577. (Cl. 121—45.)



In an engine, in combination with a single cylinder, of two pitmen and two cranks on two concentric independently and oppositely rotatable shafts adapted to be engaged by said pitman rods, a balance weight for each crank adapted to balance the rotating and reciprocating parts and arranged between the longitudinal axis of the cylinder and the central plane of rotation of that crank which it is to balance, said combined balance weights being so weighted and at such a distance from the longitudinal axis of the cylinder that the rolling moments produced by the said balance weights are equal to the rolling moments produced by the rotating parts.

1,027,776. TYPE-WRITING MACHINE. GEORGE A. SEIB, Ilion, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed May 6, 1910. Serial No. 559,820. (Cl. 197—136.)



1. In a typewriting machine, the combination of a platen having a slot therein, a plate or bar in said slot and having a flange bent off therefrom to come over the edge of a card, and said plate having a series of cutouts or slots therethrough under said flange for the insertion of the tabs of tab cards, said slots separated by solid parts of said plate connected to said flange, and means for pressing said flange toward said platen.

2. In a typewriting machine, the combination of a hollow platen having a slot therein and having platen heads, a gripper in said slot, and springs secured to said platen heads and acting on said gripper to press the card against the platen, said springs arranged to be connected with said gripper by the act of inserting the heads in the platen.

3. In a typewriting machine, the combination of a hollow platen having a slot therein and having platen heads, a gripper in said slot, and two plate springs, each secured to one of said platen heads and having an arm bent off to extend longitudinally of the platen, said spring arms acting on said gripper.

4. In a typewriting machine, the combination of a hollow platen having a slot therein and having a platen head, a gripper in said slot, and a spring mounted on said platen head and slotted at its inner end to embrace a part of said gripper.

5. In a typewriting machine, the combination of a platen having a slot therein, a gripper in said slot, springs acting on said gripper to hold it in gripping position, a platen shaft mounted so that it can be slid lengthwise and having tapering collars thereon for camming said gripper to releasing position, and means for causing said platen and platen shaft to turn together.

[Claims 6 to 8 not printed in the Gazette.]

1,027,777. PIN-TUMBLER LOCK HAVING INTERCHANGEABLE CYLINDER EXTENSIONS. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Co., New Haven, Conn., a Corporation. Filed Nov. 24, 1911. Serial No. 662,124. (Cl. 70—47.)



1. A pin-tumbler lock cylinder provided with a rotatable plug extending longitudinally through it, the cylinder being formed at its inner end with a positioning-shoulder provided to position any one of a series of interchangeable, externally threaded cylinder-extensions substantially corresponding to the cylinder in diameter and differentiated in length but alike at their respective ends.

2. As a new article of manufacture, a cylinder-extension for pin-tumbler locks, the said extension having circumferential threads and provided with a bit, and with a supplemental plug for being coupled with the plug of the cylinder lock.

3. In an extensible pin-tumbler lock, the combination with the cylinder thereof, of a rotatable plug mounted in the said cylinder, an externally threaded cylinder-extension substantially corresponding to the said cylinder in diameter and adapted to be removably attached to the inner end thereof, and a supplemental plug rotatably mounted in the cylinder-extension and adapted to be coupled with the rotatable plug mounted in the cylinder proper.

4. The combination with a pin-tumbler lock cylinder, of a cylinder-extension having external circumferential threads and provided with a bit and with a supplemental plug secured to the said bit and adapted to be coupled with the plug of the cylinder, and means for securing the said extension to the rear end of the cylinder.

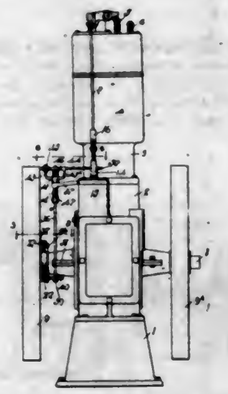
5. The combination with a pin-tumbler lock cylinder, of a cylinder-extension having the face of its inner end counterbored to fit over the projecting plug of the cylinder, a supplemental plug mounted in the cylinder-extension and adapted to be coupled with the rear end of the plug of the cylinder, and a bit secured to the supplemental plug.

[Claims 6 and 7 not printed in the Gazette.]

1,027,778. REGULATOR FOR EXPLOSION-ENGINES. CHARLES C. STEDMAN, Delaware, Ohio, assignor to The Cook Motor Company, Delaware, Ohio, a Corporation of Ohio. Filed Mar. 29, 1911. Serial No. 617,757. (Cl. 123—113.)

1. The combination, with the cylinder of an internal combustion engine, of a speed-operated governing member, a shaft, a pair of arms projecting from said shaft, one of said arms being arranged in operative relation to said governing member, means in operative relation to the other arm for controlling the supply of explosive mixture to the engine, and connections, extending in opposite directions, whereby the angular relation of said arms may be varied.

2. The combination, with a cylinder of an internal combustion engine, of a speed-operated governing member, a shaft, a pair of arms projecting from said shaft, one of said arms being arranged in operative relation to said governing member so as to rock said shaft upon changes in the position of said member, means operative upon a forward movement of the other arm for controlling the supply of explosive mixture to the engine cylinder, means for adjustably fixing the angle between said arms, and a spring yieldingly opposing the forward movement of the latter arm.



3. The combination, with the cylinder of an internal combustion engine, of a speed-operated governing member, a pair of arms movable about a common axis, one of said arms being arranged in operative relation to said governing member, means in operative relation to the other arm for controlling the supply of explosive mixture to the engine, and means, comprising two rotatable parts connected by a universal joint for varying the angle between said arms.

4. The combination, with the cylinder of an internal combustion engine, of a speed-operated governing member, a shaft, a pair of arms projecting from said shaft, one of said arms being arranged in operative relation to said governing member, means in operative relation to the other arm for controlling the supply of explosive mixture to the engine, a pair of projections mounted on said shaft, a spring tending to hold one of said projections and the last mentioned arm in engagement, and threaded means operatively engaging one of said projections for varying the angular relation between said arms.

5. The combination, with the cylinder of an internal combustion engine, of a speed-operated governing member, a shaft, a pair of arms projecting from said shaft, one of said arms being arranged in operative relation to said governing member, means in operative relation to the other arm for controlling the supply of explosive mixture to the engine, a yoke upon said shaft, a spring tending to hold said yoke and the last-mentioned arm in engagement, and a rod having a threaded connection with said arm and bearing against one branch of said yoke.

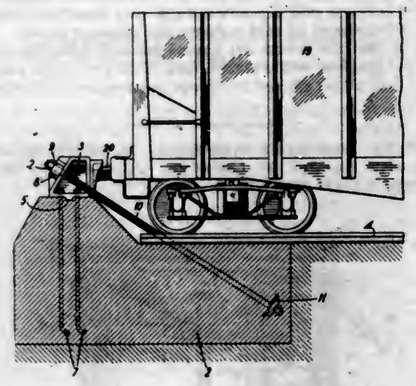
[Claims 6 to 14 not printed in the Gazette.]

1,027,779. BUMPING-BLOCK FOR RAILWAY-TRACKS. MAX M. SUPPES, Elyria, Ohio. Filed Mar. 19, 1912. Serial No. 684,906. (Cl. 104—49.)

1. A car bumper having a base and a bumping block mounted on said base, means for anchoring the block to the base, the bumping face of said block lying in a substantially vertical plane and having marginal ribs inclosing said face at its top and sides, said side ribs being downwardly and rearwardly inclined.

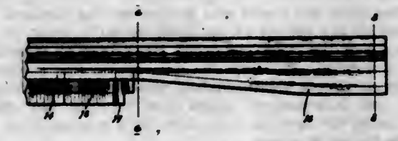
2. In a car bumper, the combination with a base, of a bumping block mounted thereon, and means for anchoring the block on said base, said bumping block having a recessed bumping face, the vertical ribs forming said recess extending downwardly and inwardly at an oblique angle.

3. In a car bumper, the combination with a base, of a bumping block mounted thereon, and means for anchoring the block on said base, said bumping block having a recessed bumping face, the vertical ribs forming said recess extending downwardly and inwardly at an oblique angle,



the engaging faces of the block and bumping face having a registering tongue and groove therein.

1,027,780. STREET-CAR ADVERTISING DEVICE. WELCOME F. SWEET, St. Louis, Mo. Filed Oct. 6, 1909. Serial No. 521,366. (Cl. 40—97.)

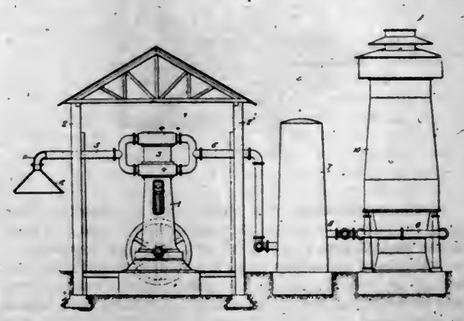


1. In an apparatus of the class described, a horizontally disposed support, an endless carrier arranged for operation thereon, a series of card carrying frames, the lower edges of which are pivotally connected at their centers to the carrier, and which frames are curved in cross section, a pair of rails positioned above, to one side of, and arranged at an angle relative to the horizontally disposed support for supporting the free upper portions of the frames, the inner one of which rails is wider and shorter than the other, guide plates on the ends of the shorter rail each of which plates comprises an inclined portion and a horizontally disposed portion for guiding the upper portion of the frames when the same are shifted from one row to the other at the ends of the apparatus, and the projecting ends of which longer rail are widened to support the upper portions of the frames when the same are shifted from one row to the other at the ends of the apparatus.

2. In an apparatus of the class described, a horizontally disposed support, an endless carrier operating thereon, a series of card carrying frames pivotally connected at their centers to the carrier, which frames are curved in cross section, a pair of inclined rails arranged above, to one side of, and at an angle relative to the horizontally disposed support for supporting the upper ends of the frames, the inner one of which rails is shorter and wider than the other, guide plates projecting from the ends of the shorter rail for directing the movements of the upper portions of the frames when the same are shifted from one row to the other at the ends of the apparatus, and the projecting ends of which longer rail are widened to serve as supports for the upper portions of the frames when the same are shifted from one row to the other at the ends of the apparatus.

3. In an apparatus of the class described, a horizontally disposed support having a pair of grooves formed in its top surface, an endless carrier operating in said grooves, a series of card carrying frames, the lower edges of which are pivotally connected at their centers to the endless carrier, and the upper edges of which frames are free and unattached, shoulders formed at the ends of the support against which the ends of the lower corners of the frames engage when said frames are brought to the ends of the support, a pair of inclined rails arranged above and to one side of the first mentioned support for supporting the free upper portions of the frames, the inner one of which rails is shorter and wider than the other, and the ends of the longer rail being widened to support the upper portions of the frames when the same are transferred from one row to the other at the ends of the apparatus.

1,027,781. APPARATUS FOR SUPPLYING AIR TO BLAST-FURNACES, CONVERTERS, AND THE LIKE. RALPH H. SWEETSER, Columbus, Ohio. Filed Oct. 5, 1910. Serial No. 585,392. (Cl. 98—27.)



1. The combination of a blowing engine for supplying air to blast furnaces and the like inclosed in a building, an intake pipe for said engine leading from a point outside of the building, and a down-turned intake hood connecting at its upper end with the outer end of said intake pipe and having an enlarged air inlet at its lower end, substantially as described.

2. The combination of a blowing engine for supplying air to blast furnaces and the like inclosed in a building, an intake pipe for said engine leading from a point outside of said building and having a down-turned elbow at its outer end and a downwardly flaring hood depending from said elbow, substantially as described.

1,027,782. METAL-PLATED ARTICLE. EDWARD L. WATROUS, Des Moines, Iowa, assignor to E. L. Watrous Galvanizing Company, a Corporation of South Dakota. Filed May 3, 1909. Serial No. 493,585. (Cl. 85—1.)



As a new article of manufacture, an iron body initially formed with screw threads and provided with a coating of zinc, the inner portion of said coating permeating the pores and crevices of the article and being homogeneous therewith and thereby resisting removal by scaling or flaking, this coating having been formed by immersion of the article in molten zinc and there heating until the pores open and the molten metal enters and becomes homogeneous with the surface metal of the article, said coated

5. In a typewriting machine, the combination of a platen having a slot therein, a gripper in said slot, springs acting on said gripper to hold it in gripping position, a platen shaft mounted so that it can be slid lengthwise and having tapering collars thereon for camming said gripper to releasing position, and means for causing said platen and platen shaft to turn together.

[Claims 6 to 8 not printed in the Gazette.]

1,027,777. PIN-TUMBLER LOCK HAVING INTERCHANGEABLE CYLINDER EXTENSIONS. JOHN H. SHAW, New Haven, Conn., assignor to Sargent & Co., New Haven, Conn., a Corporation. Filed Nov. 24, 1911. Serial No. 662,124. (Cl. 70—47.)



1. A pin-tumbler lock cylinder provided with a rotatable plug extending longitudinally through it, the cylinder being formed at its inner end with a positioning-shoulder provided to position any one of a series of interchangeable, externally threaded cylinder-extensions substantially corresponding to the cylinder in diameter and differentiated in length but alike at their respective ends.

2. As a new article of manufacture, a cylinder-extension for pin-tumbler locks, the said extension having circumferential threads and provided with a bit, and with a supplemental plug for being coupled with the plug of the cylinder lock.

3. In an extensible pin-tumbler lock, the combination with the cylinder thereof, of a rotatable plug mounted in the said cylinder, an externally threaded cylinder-extension substantially corresponding to the said cylinder in diameter and adapted to be removably attached to the inner end thereof, and a supplemental plug rotatably mounted in the cylinder-extension and adapted to be coupled with the rotatable plug mounted in the cylinder proper.

4. The combination with a pin-tumbler lock cylinder, of a cylinder-extension having external circumferential threads and provided with a bit and with a supplemental plug secured to the said bit and adapted to be coupled with the plug of the cylinder, and means for securing the said extension to the rear end of the cylinder.

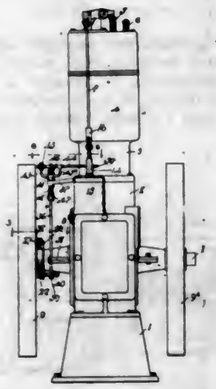
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1. The combination, with the cylinder of an internal combustion engine, of a speed-operated governing member, a shaft, a pair of arms projecting from said shaft, one of said arms being arranged in operative relation to said governing member, means in operative relation to the other arm for controlling the supply of explosive mixture to the engine, and connections, extending in opposite directions, whereby the angular relation of said arms may be varied.

2. The combination, with a cylinder of an internal combustion engine, of a speed-operated governing member, a shaft, a pair of arms projecting from said shaft, one of said arms being arranged in operative relation to said governing member so as to rock said shaft upon changes in the position of said member, means operative upon a forward movement of the other arm for controlling the supply of explosive mixture to the engine cylinder, means for adjustably fixing the angle between said arms, and a spring yieldingly opposing the forward movement of the latter arm.



3. The combination, with the cylinder of an internal combustion engine, of a speed-operated governing member, a pair of arms movable about a common axis, one of said arms being arranged in operative relation to said governing member, means in operative relation to the other arm for controlling the supply of explosive mixture to the engine, and means, comprising two rotatable parts connected by a universal joint for varying the angle between said arms.

4. The combination, with the cylinder of an internal combustion engine, of a speed-operated governing member, a shaft, a pair of arms projecting from said shaft, one of said arms being arranged in operative relation to said governing member, means in operative relation to the other arm for controlling the supply of explosive mixture to the engine, a pair of projections mounted on said shaft, a spring tending to hold one of said projections and the last mentioned arm in engagement, and threaded means operatively engaging one of said projections for varying the angular relation between said arms.

5. The combination, with the cylinder of an internal combustion engine, of a speed-operated governing member, a shaft, a pair of arms projecting from said shaft, one of said arms being arranged in operative relation to said governing member, means in operative relation to the other arm for controlling the supply of explosive mixture to the engine, a yoke upon said shaft, a spring tending to hold said yoke and the last-mentioned arm in engagement, and a rod having a threaded connection with said arm and bearing against one branch of said yoke.

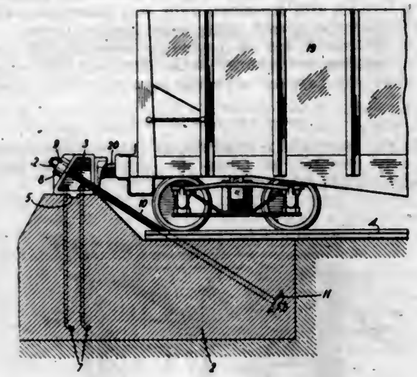
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1,027,779. BUMPING-BLOCK FOR RAILWAY-TRACKS. MAX M. SUPPES, Elyria, Ohio. Filed Mar. 19, 1912. Serial No. 684,906. (Cl. 104—49.)

1. A car bumper having a base and a bumping block mounted on said base, means for anchoring the block to the base, the bumping face of said block lying in a substantially vertical plane and having marginal ribs inclosing said face at its top and sides, said side ribs being downwardly and rearwardly inclined.

2. In a car bumper, the combination with a base, of a bumping block mounted thereon, and means for anchoring the block on said base, said bumping block having a recessed bumping face, the vertical ribs forming said recess extending downwardly and inwardly at an oblique angle.

3. In a car bumper, the combination with a base, of a bumping block mounted thereon, and means for anchoring the block on said base, said bumping block having a recessed bumping face, the vertical ribs forming said recess extending downwardly and inwardly at an oblique angle, the engaging faces of the block and bumping face having a registering tongue and groove therein.



1,027,780. STREET-CAR ADVERTISING DEVICE. WELCOME F. SWEET, St. Louis, Mo. Filed Oct. 6, 1909. Serial No. 521,366. (Cl. 40—97.)

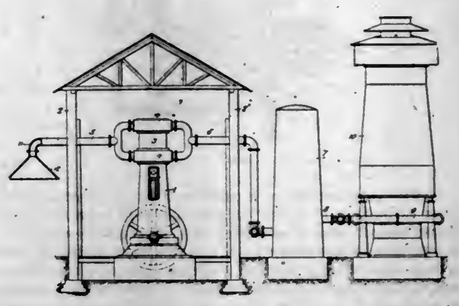


1. In an apparatus of the class described, a horizontally disposed support, an endless carrier arranged for operation thereon, a series of card carrying frames, the lower edges of which are pivotally connected at their centers to the carrier, and which frames are curved in cross section, a pair of rails positioned above, to one side of, and arranged at an angle relative to the horizontally disposed support for supporting the free upper portions of the frames, the inner one of which rails is wider and shorter than the other, guide plates on the ends of the shorter rail each of which plates comprises an inclined portion and a horizontally disposed portion for guiding the upper portion of the frames when the same are shifted from one row to the other at the ends of the apparatus, and the projecting ends of which longer rail are widened to support the upper portions of the frames when the same are shifted from one row to the other at the ends of the apparatus.

2. In an apparatus of the class described, a horizontally disposed support, an endless carrier operating thereon, a series of card carrying frames pivotally connected at their centers to the carrier, which frames are curved in cross section, a pair of inclined rails arranged above, to one side of, and at an angle relative to the horizontally disposed support for supporting the upper ends of the frames, the inner one of which rails is shorter and wider than the other, guide plates projecting from the ends of the shorter rail for directing the movements of the upper portions of the frames when the same are shifted from one row to the other at the ends of the apparatus, and the projecting ends of which longer rail are widened to serve as supports for the upper portions of the frames when the same are shifted from one row to the other at the ends of the apparatus.

3. In an apparatus of the class described, a horizontally disposed support having a pair of grooves formed in its top surface, an endless carrier operating in said grooves, a series of card carrying frames, the lower edges of which are pivotally connected at their centers to the endless carrier, and the upper edges of which frames are free and unattached, shoulders formed at the ends of the support against which the ends of the lower corners of the frames engage when said frames are brought to the ends of the support, a pair of inclined rails arranged above and to one side of the first mentioned support for supporting the free upper portions of the frames, the inner one of which rails is shorter and wider than the other, and the ends of the longer rail being widened to support the upper portions of the frames when the same are transferred from one row to the other at the ends of the apparatus.

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2. The combination of a blowing engine for supplying air to blast furnaces and the like inclosed in a building, an intake pipe for said engine leading from a point outside of said building and having a down-turned elbow at its outer end and a downwardly flaring hood depending from said elbow, substantially as described.

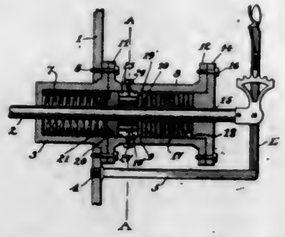
1,027,782. METAL-PLATED ARTICLE. EDWARD L. WATROUS, Des Moines, Iowa, assignor to E. L. Watrous Galvanizing Company, a Corporation of South Dakota. Filed May 3, 1909. Serial No. 493,585. (Cl. 85—1.)



As a new article of manufacture, an iron body initially formed with screw threads and provided with a coating of zinc, the inner portion of said coating permeating the pores and crevices of the article and being homogeneous therewith and thereby resisting removal by scaling or flaking, this coating having been formed by immersion of the article in molten zinc and there heating until the pores open and the molten metal enters and becomes homogeneous with the surface metal of the article, said coated

article being then removed and subjected while hot to rapid rotation, whereby centrifugal action removes all excess of the molten coating, leaving the outer surface of the plating material conforming substantially in shape and position with the surface of the article to which the plating was applied, said plating being rooted or blended with the underlying iron and characterized by a surface smoother than that produced by simple dipping, said plating being just as thick on one part of the threaded article as on another, whereby the fit of the plated screw-threads in another article will still be accurate.

1,027,783. THROTTLE-STEM GLAND. CLAYTON WEAVER, Phalanx, and GEORGE A. PRICE, Dillonvale, Ohio. Filed Aug. 9, 1911. Serial No. 643,808. (Cl. 121—109.)



1. The combination of a stuffing box; a throttle valve stem through it, a spring surrounding said stem and contained in said box; a secondary tube attached to said box; a wall in said secondary tube; a metal head seated in said spring and bearing against a gland diametrically halved and surrounding said stem; means for forcing said halves of said gland together; expansion rings surrounding said gland; packing on the side of said wall away from said gland and a removable head for closing said secondary tube, substantially as shown and described.

2. A gland for valve stems having a hole in its center corresponding in size to the valve stem, and divided into two equal parts by a cut on one side below the center line, and extending half way through the gland, a similar and parallel cut in the other side at a corresponding height above the center line, and a cut through the middle of the gland on a plane perpendicular to said cuts and connecting them so as to form halves whose interior straight surfaces overlap each other at equal distances above and below the center of said gland; and means for forcing said halves together, substantially as shown and described.

1,027,784. TENDER END SILL. CHARLES T. WESTLAKE, St. Louis, Mo., assignor to Locomotive Tender Frame Company, St. Louis, Mo., a Corporation of Delaware. Filed Dec. 16, 1911. Serial No. 666,154. (Cl. 105—260.)



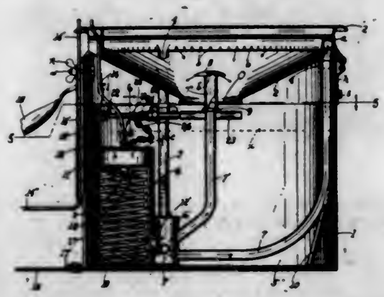
1. An end sill, having its end wall removed so that the bottom wall thereof will constitute a tread, said end sill having integral downward extensions at each end, said extensions being also provided with treads.

2. The combination with an end sill having open ends so that the end portions of its bottom wall constitute treads and removable tread plates positioned on the end portions of said bottom wall.

3. An end sill having its end wall removed so that the bottom wall thereof constitutes a step, tread plates applied to the end portions of the bottom wall, depending walls at the ends of said end sill, transversely disposed plates between said depending walls, and removable tread plates positioned on said transversely disposed plates.

4. A cast metal end sill having its ends open so that the end portions of the bottom wall of said sill form steps, and tread plates applied to the end portions of said bottom wall.

1,027,785. SANITARY CUSPIDOR. NEDIN WINSZE and MARTIN PLOCHER, St. Louis, Mo. Filed Jan. 15, 1912. Serial No. 671,377. (Cl. 4—40.)



1. In a cuspidor, an outer vessel, an inner liquid container, a piston-pump in the container, a bent piston-rod leading from the piston and having one leg disposed and guided on the outside of the outer vessel, a pedal on the free end of the outer piston-rod leg, a conical cover having a central discharge opening above the container, spring-controlled gates normally closing across said opening, and intermediate connections between the piston and gates for opening said gates by a movement of the piston in one direction.

2. In a cuspidor, an outer vessel or casing, a liquid container in the same, a conical hood or cover having a central opening above the container, an outer marginal perforated spray pipe or passage-way, a pump having a cylinder opening into the container, a spring-controlled reciprocating piston in said pump, a pedal extending from the piston on the outside of the casing, pipes leading from the cylinder from points below the piston and connecting with the marginal spray pipe, a pipe leading from the cylinder through and above the central opening of the cover and terminating in a deflector cap, the pipe being perforated below the cap, a pair of oscillating-spring-controlled gates closing against the last mentioned pipe, rock-shafts for said gates, suitable connections between the gates and piston, and a strainer on the piston for excluding solid matter from the cylinder, the parts operating substantially as set forth.

3. In a cuspidor, an outer vessel, an inner liquid container, a piston pump in the container, a bent piston-rod leading from the piston and having one leg disposed on the outside of the outer vessel, guide-ribs for the said leg, a slide coupled to the ribs, a pedal member on the free end of the piston-rod leg, a handle having a bottom swivel connection carried by the outer vessel, an upper terminal fork on the handle straddling the slide, and means for securing the fork members to the outer vessel for the purpose set forth.

1,027,786. RACKET CASE AND PRESS. IRVING C. WRIGHT, Dorchester, and DAVID P. CUMMINGS, Newton, Mass. Filed Nov. 14, 1911. Serial No. 660,226. (Cl. 46—24.)

1. In a racket-case, the combination of a case having a rigid backing, a press within the case, and means for operating the press to force the racket against the rigid backing.

2. In a racket-case, the combination of a cover, a screw passing through the cover, and a press-frame carried and operated by the screw within the case.



3. In a racket-case, the combination of a receptacle, a screw working through the cover of the case, a free frame composed of cross-pieces within the receptacle and suspended and operated by the screw.

4. In a racket-case, the combination of a cover, a screw passing through the cover, means for dividing the casing into receptacles for different rackets, and a press-frame carried and operated by the screw to apply pressure to all of the rackets.

5. In a racket-case, the combination of a hinged cover, a frame within the case, springs adapted to one end of the cover for exerting pressure upon the frame when the cover is closed, and means for applying additional pressure upon the whole frame.

[Claim 6 not printed in the Gazette.]

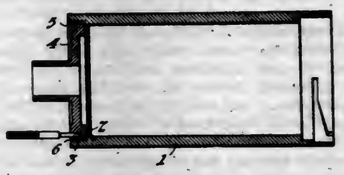
1,027,787. NON-REFILLABLE BOTTLE. JOHN WOLFINGER, New York, N. Y. Filed Feb. 10, 1912. Serial No. 676,843. (Cl. 215—65.)



A non-refillable bottle comprising a body having a discharge mouth and a valve seat surrounding said mouth, a flaring dome integral with said body adjacent to said valve seat, said dome having an expanded closed top and being provided in its side wall near its top with discharge openings and with inwardly inclined guard lips on the lower side of said openings, a ball valve disposed in said dome and adapted to close against said seat when the bottle is in normal position and to rest against said lips when the bottle is inverted, and a flaring neck surrounding said dome and provided with a contracted nozzle extending above the top thereof, said neck being integrally united with said body on a circuit outside the connection therewith of said dome and forming an annular chamber between the neck and dome, the expanded top of the dome being larger than the diameter of the discharge nozzle.

1,027,788. PHONOGRAPH-RECORD MOLD. ALBERT F. WURTH, Orange, N. J., assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Oct. 8, 1908. Serial No. 456,697. (Cl. 181—16.)

1. In phonograph molding apparatus, the combination with a cylindrical record mold provided with an internal flange near one end thereof and internally screw-threaded beyond the said flange, of a circular end piece having a screw threaded periphery adapted to be screwed into said mold into contact with said flange, said end piece having a recess extending inward from said periphery in a line forming an acute angle with the tangent to said periphery, a ball within said recess, and resilient means for exerting outward pressure upon said ball, substantially as described.

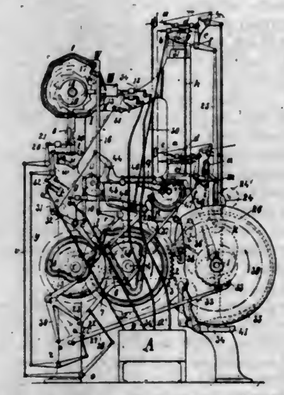


2. In phonograph molding apparatus, the combination with a cylindrical record mold screw threaded adjacent one end thereof, of an end piece screw threaded to engage the thread upon said mold, and having a recess extending from the circle of engagement of said screw threads in a line forming an acute angle with the tangent to said circle, a movable friction member within said recess and spring means within said recess exerting pressure upon said member to force it into contact with the thread on said mold, substantially as described.

3. In phonograph molding apparatus, the combination with a cylindrical record mold screw threaded adjacent one end thereof, of an end piece screw threaded to engage the thread upon said mold, and having a recess extending from the circle of engagement of said screw threads in a line forming an acute angle with the tangent to said circle, a movable friction member within said recess, and spring means within said recess exerting pressure upon said member to force it into contact with the thread on said mold, said end piece having a key hole adjacent said member, substantially as described.

4. As a new article of manufacture, a disk-shaped end piece for record molds having a screw threaded periphery and a recess extending inward from said periphery in a line forming an acute angle with the tangent to said periphery at the point thereon from which said recess starts, and a movable friction member within said recess, substantially as described.

1,027,789. AUTOMATIC EMBROIDERING-MACHINE. ROBERT ZAHN, Plauen, Germany. Filed Dec. 17, 1909. Serial No. 533,509. (Cl. 112—7.)



1. In an automatic embroidery machine, perforating means, embroidering means comprising needle operating devices and several auxiliary implements for the embroidering operation, and means operable during the transition from the embroidering to the perforating operations to throw out first only the needle operating devices and afterward the several auxiliary implements for the embroidering operation.

2. In an automatic embroidering machine, perforating means, embroidering means comprising needle operating devices and several auxiliary implements for the embroidering operation, and devices for changing from embroider-

ing to perforating and comprising means for first stopping the needles only and then throwing out of action the several auxiliary implements for the embroidering operation.

3. In an automatic embroidering machine, perforating means, embroidering means comprising needle operating devices and several auxiliary implements for the embroidering operation, devices for changing from embroidering to perforating and comprising means for first stopping the needles only and then throwing out of action the several auxiliary implements for the embroidering operation, and means whereby the reverse order or movement is produced in changing from embroidering to perforating.

4. In an automatic embroidering machine, means for perforating, means for embroidering comprising needle operating devices and several auxiliary implements for the embroidering operation, means for automatically regulating the desired perforating depth, means for changing from embroidering to perforating, and means for first throwing out of action the needles and then the several auxiliary implements for the embroidering operation.

5. In automatic embroidering machine, perforating mechanism, embroidering devices comprising needle operating devices and several auxiliary implements for the embroidering operation, jacquard mechanism, means operated thereby for regulating the perforating depth, means for changing from embroidering to perforating, and means operable during such change for rendering the embroidering needles inoperative and later throwing the several auxiliary implements for the embroidering operation out of action.

[Claims 6 and 7 not printed in the Gazette.]

1,027,790. PANCREAS PREPARATION SUITABLE FOR THE TREATMENT OF DIABETES. GEORG ZUELZER, Berlin, Germany, assignor to Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Filed May 6, 1908. Serial No. 431,226. (Specimens.) (Cl. 23—24.)

1. The herein described pancreas preparation having the property of antagonising a cause or condition which manifests itself by sugar in the urine, said preparation being, when in a dry state, a fine, gray, feebly smelling powder, easily soluble in water or dilute soda solution, free from ferments, and giving none of the known protein reactions, substantially as set forth.

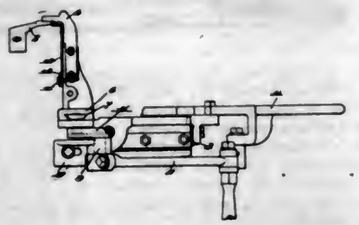
2. The herein described process of manufacturing a pancreas preparation having the property of antagonizing a cause or condition which manifests itself by sugar in the urine, which consists in removing the pancreas from suitable animals, mincing the same, extracting the liquid from the minced pancreas, precipitating the albuminous substances from said liquid and evaporating the filtrate, substantially as set forth.

3. The herein described process of manufacturing a pancreas preparation having the property of antagonizing a cause or condition which manifests itself by sugar in the urine, which consists in removing the pancreas from suitable animals, leaving the pancreas to self-digestion, extracting the liquid, precipitating the albuminous substances contained therein and evaporating the filtrate, substantially as set forth.

4. The herein described process of manufacturing a pancreas preparation having the property of antagonizing a cause or condition which manifests itself by sugar in the urine, which consists in enriching the pancreas in the animal by artificial stasis, then removing the pancreas from the animal, leaving the pancreas to self-digestion, extracting the liquid, precipitating the albuminous substances contained therein and evaporating the filtrate, substantially as set forth.

1,027,791. SHOE-SEWING MACHINE. JOHN V. ALLEN, South Weymouth, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 8, 1906, Serial No. 300,032. Renewed Mar. 7, 1912. Serial No. 682,092. (Cl. 112—20.)

1. A sole sewing machine, having, in combination, with the stitch forming devices, a work support, a channeling knife arranged to cut a stitch receiving channel in the surface of the welt, a pivotally mounted knife supporting arm having its free end engaging the work support, and a support for the arm movable with relation to the work support to project the knife.



2. A sole sewing machine, having, in combination, with the stitch forming devices, a work support, a channeling knife arranged to cut a stitch receiving channel in the surface of the welt, means for throwing the knife into and out of operation during the continued operation of the machine in automatically sewing a seam, and means for adjusting the knife to vary the depth of cut.

3. A sole sewing machine, having, in combination, with the stitch forming devices, a work support, a channeling knife arranged to cut a stitch receiving channel in the surface of the welt, a pivotally mounted knife supporting arm having its free end engaging the work support, and a slide supporting the arm movable parallel with the work engaging surface of the work support to project the knife.

4. A sole sewing machine, having, in combination, with the stitch forming devices, a work support arranged to engage the welt of a shoe, a channeling knife arranged to cut a stitch receiving channel in the surface of the welt, and a support for the knife mounted independently of the work support and movable with relation thereto during the continued operation of the machine in sewing a seam to project the knife from an inoperative to an operative position.

5. A sole sewing machine, having, in combination, a work support, a channeling knife arranged to cut a stitch receiving channel in the surface of the welt, a pivotally mounted knife supporting arm having its free end engaging the work support, a gage to determine the position of the seam on the welt, and a slide supporting the arm and gage movable parallel with the work engaging surface of the work support to vary the position of the seam on the welt and to project the knife.

1,027,792. SWITCH STRUCTURE. ELVEN ASH, Berkley, Va. Filed July 26, 1911. Serial No. 640,608. (Cl. 104—12.)

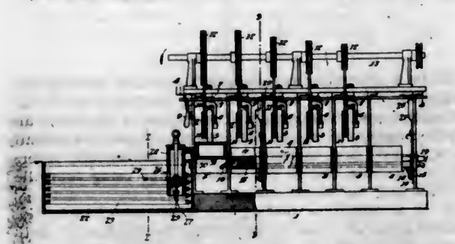


1. The combination, with a railway track, of a guard rail connected with each rail of the track, of rail chairs having double rail seats therein, one of which is elevated above the plane of the other for holding the guard rails below the plane of the track rails, ears projecting from the chairs with a slot between the ears and the seats for the inner flanges of the track rails and the guard rails, and means for securing the chairs.

2. The combination, with a railway track, of a guard rail connected with each rail of the track, of rail chairs having double rail seats therein, one of which is dropped below the plane of the other for holding the guard rails below the plane of the track rails, brace blocks fitting the adjacent sides of the track rails and the guard rails opposite said seats, and means for securing the blocks and the chairs together and to all of said rails.

3. The combination, with railway track rails, and guard rails for the switch sections of the track, of means for connecting the guard rails with the track rails so as to position the guard rails on a plane below the plane of the track rails, comprising rail chairs having a top face, a shoulder dividing the face into an upper and a lower rail seat, an ear extending inwardly from the face at the outer end of each seat with a slot between the ears and the respective seats, brace blocks having an angular bottom fitting the inner flange of the track rails and the inner flange of the guard rails, and a tie-bolt extending through the ears, the blocks and the webs of all of said rails.

1,027,793. APPARATUS FOR MAKING DUPLICATE PHONOGRAPH-RECORDS. JONAS W. AYLSWORTH, East Orange, N. J., assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Original application filed May 11, 1906, Serial No. 316,250. Divided and this application filed Mar. 12, 1907. Serial No. 361,957. (Cl. 181—16.)



1. In apparatus for making duplicate phonograph records, the combination of devices for rotating a plurality of molds at a high speed in a substantially continuous horizontal series, and for progressing the same throughout the series, and means for introducing a charge of molten material in each mold introduced at the forward end of the series, whereby the charge of material in each mold will be uniformly distributed therein by centrifugal force and will be permitted to cool and solidify as the molds are progressed longitudinally, substantially as set forth.

2. In apparatus for making duplicate phonograph records, the combination of devices for rotating a plurality of molds at a high speed in a substantially continuous horizontal series, and for progressing the same throughout the series, and a pump so arranged that its nozzle may enter each mold introduced at the forward end of the series, said pump being connected with a source of molten material whereby the charge of material introduced in each mold will be uniformly distributed therein by centrifugal force, and will be permitted to cool and solidify as the molds are progressed longitudinally, substantially as set forth.

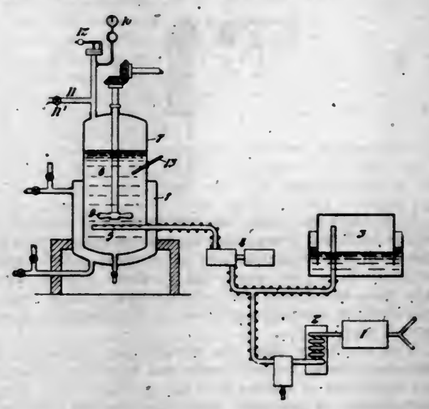
3. In apparatus for making duplicate phonograph records, the combination of devices for rotating a plurality of molds at high speed in a substantially continuous horizontal series, and for progressing the same throughout the series, a tank for containing the molten material and a pump mounted in said tank and whose nozzle is arranged to enter each mold introduced at the forward end of the series, whereby a charge of molten material may be introduced within each mold immediately after its addition to said series so as to be uniformly distributed therein by centrifugal force, and be permitted to cool and solidify as the molds are progressed longitudinally, substantially as set forth.

4. In apparatus for making duplicate phonograph records, the combination with means for rotating the mold at high speed, of a tank for containing molten material, and a pump pivotally mounted in said tank, and having a nozzle adapted to be swung into position to enter said mold, substantially as set forth.

5. In apparatus for making duplicate phonograph records, the combination of devices for rotating a plurality of molds at high speed in a substantially continuous horizontal series, and for progressing the same throughout the series, means for introducing a charge of molten material in each mold introduced at the forward end of the series, whereby the charge of material in each mold will be uniformly distributed therein by centrifugal force, and means for applying a cooling media to the successive molds so as to solidify the charges of material therein as the molds are progressed longitudinally, substantially as set forth.

[Claims 6 to 15 not printed in the Gazette.]

1,027,794. PROCESS OF FORMING FUSIBLE PHENOL-RESINS. JONAS W. AYLSWORTH, East Orange, N. J., assignor of one-half to Frank L. Dyer, Montclair, N. J. Original application filed May 14, 1909, Serial No. 496,060. Divided and this application filed Mar. 10, 1911. Serial No. 613,577. (Cl. 106—22.)



1. The process of forming a hard fusible phenol resin, consisting in causing a reaction to take place between a phenol and formaldehyde with a small proportion of a condensing agent, with application of heat, to form a final infusible condensation product, crushing the latter, heating to expel entrapped water and other vapors, mixing with a suitable amount of phenol or equivalent, and applying sufficient heat in a closed vessel to dissolve the condensation product therein, and maintaining the heat for a sufficient time to reduce the product to the desired fusible phenol resin, and distil off the free or unchanged phenol, substantially as described.

2. The process of forming a hard fusible phenol resin, consisting in forming a final infusible condensation product of a phenol and formaldehyde or equivalent thereof, and causing the said product to dissolve in an added amount of a phenol, causing the said product to break down to a fusible phenol resin by combination with some of the said added phenol and distilling off the excess phenol, substantially as described.

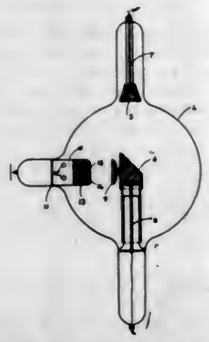
3. The process of forming a hard fusible phenol resin, consisting in forming a final infusible condensation product of a phenol and formaldehyde, causing the said product to dissolve in an added amount of a phenol, and causing the said product to break down to a fusible phenol resin by combination with some of the said added phenol, substantially as described.

4. The process of forming a hard fusible phenol resin, consisting in pulverizing an infusible final phenolic condensation product, mixing the same with a phenol in approximately the proportion of two parts of the final product to one part of the phenol, and heating the mixture sufficiently to cause the said final product to break down

to a fusible phenol resin by combination with some of the phenol, substantially as described.

5. The process of forming a hard fusible phenol resin, consisting in pulverizing an infusible final phenolic condensation product, mixing the same with a substance which may act as a solvent therefor at elevated temperatures, and which comprises a phenol, and heating the mixture to a temperature of over 450° F. in a closed vessel, until a phenol resin is formed by reaction between the said infusible condensation product and some of the said phenol, substantially as described.

1,027,795. VACUUM-REGULATOR FOR X-RAY TUBES. BURTON E. BAKER, Hartford, Conn. Filed June 9, 1911. Serial No. 632,283. (Cl. 175—314.)



1. In an X-ray tube, the combination of electric discharge terminals housed therein and operative under normal conditions of current flow as an anode and a cathode respectively, a gas producing medium housed within said tube, and means for concentrating cathode rays on said medium upon the reversal of the direction of said current flow.

2. In an X-ray tube, the combination of electric discharge terminals housed therein and operative under normal conditions of current flow as an anode and a cathode respectively, an auxiliary discharge terminal electrically connected with said terminal normally operative as an anode, a gas producing medium housed within said tube within the focal field of said auxiliary terminal, and means for causing the reversal of the direction of said current flow.

3. In an X-ray tube, the combination of electric discharge terminals housed therein and operative under normal conditions of current flow as an anode and a cathode respectively, an auxiliary discharge terminal electrically connected with said terminal normally operative as an anode, a cell in the focal field of said auxiliary terminal, a gas producing element within said cell, and means for causing the reversal of the direction of said current flow.

4. In an X-ray tube, the combination of a principal cathode and a principal anode, an auxiliary cathode mounted upon said principal anode, a cell in the focal field of said auxiliary cathode, and a gas producing element within said cell.

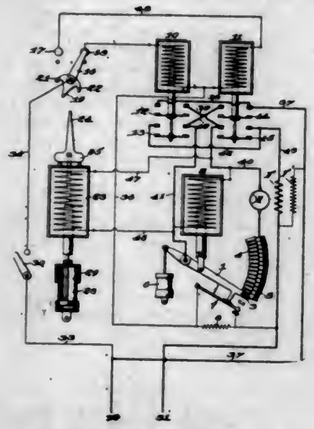
5. In an X-ray tube, the combination of a principal cathode and a principal anode, an auxiliary cathode mounted upon said principal anode, a cell in the focal field of said auxiliary cathode, a gas producing element within said cell, and means for causing an electric current to flow through said tube in either direction.

[Claims 6 and 7 not printed in the Gazette.]

1,027,796. MOTOR-CONTROLLER. THOMAS E. BARNUM, Milwaukee, Wis. Filed July 25, 1910. Serial No. 573,750. (Cl. 172—288.)

1. In a controller for electric motors in combination, means for starting the motor in either direction and means controlled by and controlling said first mentioned means to automatically cause periodical reversals of the motor.

2. In a controller for electric motors, in combination automatic means for controlling the continuity of the motor circuit and the direction of operation of the motor and electro responsive means arranged to respond periodically to cause said first mentioned means to periodically reverse the motor.



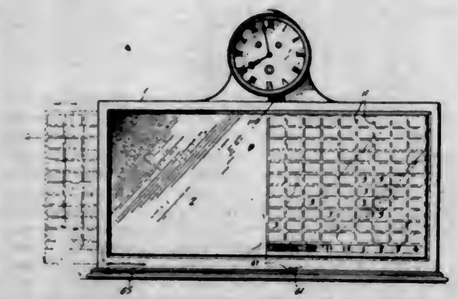
3. In a controller for electric motors, in combination, automatic means for controlling the continuity of the motor circuit and the direction of operation of the motor and electro responsive means arranged to respond periodically to cause said first mentioned means to periodically reverse the motor, said electro responsive means being controlled by said first mentioned means.

4. In a controller for electric motors, in combination, electro responsive means controlling the continuity of the motor circuit and the direction of operation of the motor and intermittently operating electro responsive means associated therewith for causing the motor to be periodically reversed.

5. In a controller for electric motors, in combination, electro responsive means for starting and stopping the motor and controlling the direction of operation thereof, intermittently operating electro responsive means associated therewith to cause the motor to be periodically reversed, and means insuring the motor being slowed down prior to each reversal thereof.

[Claims 6 to 11 not printed in the Gazette.]

1,027,797. TIME-CONTROLLED WORKMAN'S-CHECK-RECEIVING RECORDER. HARRY BATES, New York, N. Y. Filed June 12, 1911. Serial No. 632,622. (Cl. 234—42.)



1. In a workmen's check-receiving time-recorder, a series of check-receiving pockets, normally-open gates controlling inlet of checks to said pockets, and time-controlled mechanism governing the automatic closing of said gates, successively, to seal said receptacles against entrance thereinto of checks.

2. In a workmen's check-receiving time-recorder, a series of check-receiving pockets, normally-open gates controlling access to said pockets, and time-controlled mechanism, governing the automatic closing of said gates, successively, including levers carried by said gates and controlling the movement thereof.

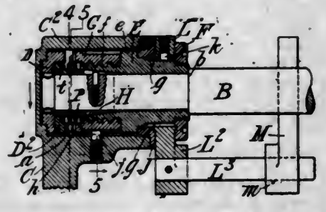
3. In a workmen's check-receiving time-recorder, a series of check-receiving pockets, normally-open, pivoted gates controlling access to said pockets, and time-controlled mechanism, governing the automatic closing of said gates, successively, including levers carried by said gates and controlling the movement thereof.

4. In a workmen's check-receiving time-recorder, a series of check-receiving pockets, normally open, pivoted gates controlling access to said pockets, and time-controlled mechanism, governing the automatic closing of said gates, successively, including: levers carried by said gates and controlling movement thereof and normally in elevated position, and trippable means for yieldingly holding said levers in elevated position.

5. In a workmen's check-receiving time-recorder, a series of check-receiving pockets, normally-open, pivoted gates controlling access to said pockets, and time-controlled mechanism, governing the automatic closing of said gates, successively, including weighted levers carried by said gates and controlling the movement thereof.

[Claims 6 to 26 not printed in the Gazette.]

1,027,798. SAFETY CRANKING DEVICE FOR EXPLOSIVE-ENGINES. JOHN L. BECK, Springfield, Mass., assignor to The Auto Safety Crank Company, Holyoke, Mass., a Corporation of Massachusetts. Filed Feb. 24, 1911. Serial No. 610,483. (Cl. 123—185.)



1. The combination with an engine shaft and a cranking shaft adapted to be engaged therewith, of a sleeve normally non-rotative relatively to the cranking shaft mounted on that shaft and frictionally engaged therewith, said sleeve being provided with screw threads, a clutch member fixed on said cranking shaft, a crank having a hub, an annular threaded clutch member located within said hub and connected with the same, said annular clutch member being normally non-rotative but axially movable relative to said hub, and being threaded upon said sleeve, and means operative to permit the rotation of said sleeve with the cranking shaft during the forward rotation of said shaft, but preventing the rotation of said sleeve with said shaft under a reversed back kick rotation thereof.

2. The combination with an engine shaft and a cranking shaft adapted to be engaged therewith, of a sleeve normally non-rotative relatively to the cranking shaft mounted on that shaft and frictionally engaged therewith, said sleeve being provided with external screw threads, a clutch member fixed upon one end of said cranking shaft, a crank having a hub incasing said sleeve, an annular threaded clutch member disposed within said hub, said annular clutch member being normally non-rotative but axially movable relatively to said hub, and being threaded on said sleeve, and means operative to permit said sleeve to rotate with said cranking shaft during the forward engine-starting rotation of that shaft, but preventing the rotation of said sleeve with said cranking shaft under a reversed rotation thereof.

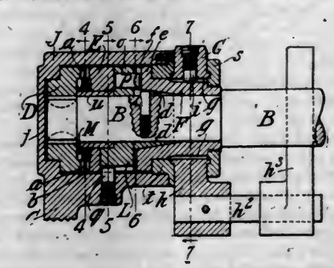
3. The combination with an engine shaft and a cranking shaft adapted to be engaged therewith, of a sleeve normally non-rotative relatively to the cranking shaft mounted on that shaft and frictionally engaged therewith, said sleeve being provided with external screw threads, a clutch member fixed upon one end of said cranking shaft, a crank provided with a hollow hub incasing said sleeve, an annular clutch member threaded on said sleeve and having external longitudinal ribs and grooves, members carried by the crank hub engaging said ribs and grooves to normally hold said annular clutch member against rotation but permitting axial movement of the same relative to said hub, and pawl-and-ratchet engaging means operative to permit rotation of said sleeve with the cranking shaft during the forward rotation of that shaft, but preventing the rotation of said sleeve with said cranking shaft under a reversed rotation thereof.

4. The combination with an engine shaft and a cranking shaft adapted to be engaged therewith, of a sleeve normally non-rotative relatively to the cranking shaft mounted on that shaft and frictionally engaged therewith, said sleeve being provided with external screw threads, a clutch member fixed on said cranking shaft, a hollow body encircling said sleeve and carrying within it an annular threaded clutch member which is normally non-rotative but axially movable relatively thereto, and which is screw engaged with said sleeve, a collar encircling said sleeve, pawl-and-ratchet devices coacting between the collar and sleeve, and means operative to prevent revoluble movement of the collar but permitting it to move bodily longitudinally with, and along the axis of, the cranking shaft and relatively to the engine shaft.

5. In a device of the character described, in combination, an engine shaft having a clutch member at its end, and a cranking shaft having adjacent the engine shaft a cooperative clutch member, and having at its forward end another clutch member, a sleeve encircling the cranking shaft and immovable axially relatively thereto, said sleeve having a flaring mouth at one end and having an externally screw threaded portion, a tapered friction shell encircling the cranking shaft, and engaging between said shaft and the flaring mouth of said sleeve to hold the latter normally non-rotative relatively to the cranking shaft, a member encircling said sleeve, an annular clutch member located within said encircling member and normally non-rotative but axially movable relatively to the same, said annular clutch member being internally threaded for engagement with said sleeve, and pawl-and-ratchet means operative to permit the rotation of the sleeve with said cranking shaft during the forward rotation of that shaft, but preventing the rotation of said sleeve with said cranking shaft under a reversed rotation of the latter.

[Claims 6 to 10 not printed in the Gazette.]

11,027,799. SAFETY CRANKING DEVICE FOR EXPLOSIVE-ENGINES. JOHN L. BECK, Springfield, Mass., assignor, to The Auto Safety Crank Company, Holyoke, Mass., a Corporation of Massachusetts. Filed Mar. 20, 1911. Serial No. 615,676. (Cl. 123—185.)



1. In combination, a cranking shaft having a clutch member fixed thereon, a companion clutch member rotatively free and also axially movable on the shaft, a sleeve frictionally engaged with the shaft for rotation with the same

in one direction, said sleeve having cam surfaces thereon, means for holding the sleeve against reversed rotative movement, an annular member freely rotative on said shaft but axially non-movable, said annular member being located between the sleeve and the axially movable clutch member and having an interlocking relation to the latter, dogs carried by said annular member and arranged for impingement on said cam surfaces, which dogs are operable by end thrust against the said movable clutch member to force it into engagement with the fixed clutch member when said annular member is forwardly rotated, and means for rotating the said annular member.

2. In combination, a cranking shaft having a clutch member fixed on its forward end, a companion clutch member rotatively free and also axially movable on the shaft and having rearwardly projecting shoulders, a sleeve frictionally engaged with the shaft for rotation with the same in one direction, said sleeve having cam surfaces on its forward end, means for holding the sleeve against reversed rotative movement, and a crank having a hollow hub carrying therewithin an annular member which is freely rotative on said shaft but axially non-movable, said annular member being located between the sleeve and the axially movable clutch member and having forwardly projecting shoulders arranged for a lost motion interlocking relation to the shoulders on said clutch member, and having dogs arranged for impingement on said cam surfaces and operable by end thrust against the said movable clutch member to force it into engagement with the fixed clutch member under a forward rotation of the crank.

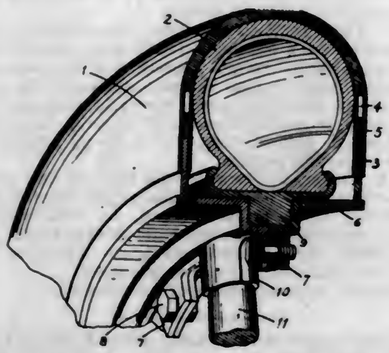
3. In combination, a cranking shaft having a clutch member affixed thereon, a companion clutch member rotatively free and also axially movable on the shaft, a sleeve frictionally engaged with the shaft for rotation therewith in one direction, said sleeve having cam surfaces on its end, means for holding the sleeve against reversed rotative movement, a crank having a hub carrying therewithin an annular member freely rotative but axially non-movable relatively to the shaft and located between the sleeve and the axially movable clutch member, said annular member having a lost motion interlocking relation to the latter and having dogs arranged for impingement on said cam surfaces and operable by end thrust against the said movable clutch member to force it into clutch under a forward rotation of the crank, and a spring exerting an axially rearward pressure upon the movable clutch member.

4. In combination, a cranking shaft having a clutch member affixed thereon, a companion clutch member rotatively free and also axially movable on the shaft and having at its rear face shoulders with separating spaces between them, a sleeve frictionally engaged with the shaft for rotation therewith in one direction, said sleeve having cam surfaces on its forward end, means for holding the sleeve against reversed rotative movement relatively to the shaft, a crank provided with a hollow hub having therein an annular member freely rotative but axially non-movable relatively to the shaft and located between the sleeve and the axially movable clutch member and having forwardly protruding shoulders with separating spaces, the spaces between the shoulders on one member being greater than the widths of the shoulders on the adjacent member, springs interposed between the interlocking shouldered portions, and a pin carried by said annular member longitudinally slidable relatively thereto and coacting between the cam on the sleeve and the movable clutch member.

5. In combination, a cranking shaft having a flange like member fixed on its forward end provided with rearwardly facing clutch teeth, a companion clutch member rotatively free and also axially movable on the shaft and having forwardly facing clutch teeth, a sleeve member frictionally engaged with the shaft for rotation therewith in one direction, said sleeve having cam surfaces on its forward end provided, peripherally with teeth, a collar held against rotative movement encircling the sleeve and having pawls in engagement with the teeth of the latter, a crank having a hub carrying therewithin an annular member freely rotative but axially non-movable relatively to the shaft and located between the sleeve and the movable clutch member, said annular member having an interlocking lost motion relation to such clutch member and carrying axially slidable pins arranged for coaction between the sleeve cams and the movable clutch member, and a spring for forcing the movable clutch member away from the fixed clutch member.

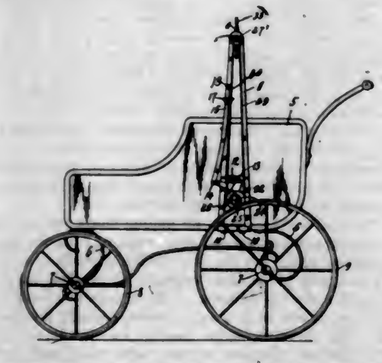
[Claims 6 to 9 not printed in the Gazette.]

1,027,800. PNEUMATIC-TIRE PROTECTOR. CUBA A. BELEW, San Diego, Cal. Filed Jan. 8, 1912. Serial No. 670,053. (Cl. 152—34.)



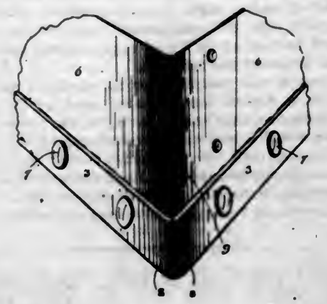
In a pneumatic tire protector, a tread member conforming to the exterior of the tire shoe, flanges on said member extending inwardly and having grooves therein, a retaining member adapted to be clamped to the wheel rim, tongues on said retaining member engaging with said grooves, extensions on said retaining member which incase the outer ends of the wheel spokes and assist in maintaining the rigid position of the retaining member, ears on said retaining member, and bolts passing through said ears for clamping the retaining member to the wheel, substantially as set forth.

1,027,801. FAN FOR BABY-CARRIAGES. JOHN BELLEY, Passaic, N. J., assignor of one-half to John Gerõ, Passaic, N. J. Filed July 15, 1911. Serial No. 638,701. (Cl. 230—7.)



The combination with the body and wheels of a baby carriage, of a substantially vertical standard fastened to said body extending a substantial distance above the upper edge thereof, a slotted bracket attached to said standard, an arm fulcrumed to said standard, a downwardly extending lug upon said arm, a roller mounted upon said lug and adapted to contact with the felly of one of said wheels, a pulley fastened to said roller, a bar pivoted to said arm projecting through said slot and provided with a recess adapted to be engaged by the edge of said slot, a spindle rotatably mounted in the upper free end of said standard, a pulley secured to said spindle, a belt running over said two pulleys, a fan blade attached to said spindle, and a spring fastened to said lug and to said standard for forcing said roller into contact with the felly of said wheel when the recess of said bar is disengaged from the edge of said slot, substantially as and for the purpose specified.

1,027,802. ICE-CAN. FRANK F. BENTLEY, Warren, Ohio. Filed Jan. 22, 1912. Serial No. 672,537. (Cl. 220—137.)



1. In a vessel, the combination of a body of rectangular cross section, and a rectangular sheet bottom portion, said sheet cut away at the corners, and the side portions intermediate thereof folded upon themselves to provide retaining means for the end wall of the vessel body, and providing a vessel supporting rim, and the edges of said cut away corners meeting when said side portions are folded, substantially as described.

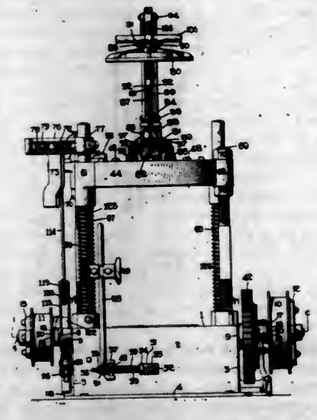
2. In a sheet metal vessel, the combination of a sheet metal body of rectangular cross section, and a rectangular sheet metal bottom portion, said bottom sheet cut away at the corners, and the side portions intermediate thereof folded along double parallel lines to provide inner and outer flanges, said flanges being folded and providing a channel to receive the end wall of the vessel body, and providing a vessel supporting rim, and the adjacent edges of said flanges meeting and forming a closed seam, substantially as described.

3. In a sheet metal vessel, the combination of a rectangular sheet metal body, and a rectangular sheet metal bottom portion, said bottom sheet cut away at the corners, and the side portions intermediate thereof folded along double parallel lines to provide inner and outer flanges, said outer flanges provided with integral tongues at the ends thereof, said flanges providing a channel to receive the end wall of the vessel body, and providing a vessel supporting rim, the adjacent edges of said inner flanges meeting on one side of the vessel body and the adjacent pairs of tongues of the outer flanges meeting on the outer side of said vessel body, substantially as described.

1,027,803. HEADING-UP MACHINE. EDWIN F. BEUGLER, Buffalo, N. Y., assignor to E. & B. Holmes Machinery Co., Buffalo, N. Y., a Corporation of New York. Filed Dec. 21, 1911. Serial No. 667,152. (Cl. 147—6.)

1. In a machine of the class described, a base, a stave compressing ring above the base and movable relatively to the said base, mechanism for moving said stave compressing ring relatively to said base, and hoop driving mechanism supported solely from the stave compressing ring.

2. In a machine of the class described, a base, a stave compressing ring above the base and movable relatively to the said base, mechanism for moving said stave compressing ring relatively to said base, and manually operated slammer plate hoop driving mechanism supported solely from the stave compressing ring.



3. In a machine of the class described, a base, a stave compressing ring above the base and movable relatively to the said base, mechanism for moving said stave compressing ring relatively to said base and manually operated slammer plate hoop driving mechanism supported solely from the stave compressing ring.

4. In a machine of the class described, a base, a stave compressing ring above the base and movable relatively to the said base, mechanism for moving said stave compressing ring relatively to said base, a stationary arm extending from the stave compressing ring, a plurality of movable arms pivoted at their rear ends to the stationary arm and a slammer hoop driving plate mounted at the front end of the said movable arms.

5. In a machine of the class described, a base, a stave compressing ring above the base and movable relatively to the said base, mechanism for moving said stave compressing ring relatively to the said base, a stationary arm extending up from the stave compressing ring and hoop driving mechanism pivotally supported from the said stationary arm.

[Claims 6 to 13 not printed in the Gazette.]

1,027,804. HORSESHOE. JASON A. BILLADO, Rutland, Vt., assignor of one-half to Wallace W. Nichols, Rutland, Vt. Filed Jan. 12, 1911. Serial No. 602,299. (Cl. 168—29.)



1. A horse shoe calk which in transverse section is arched toward the rear of the shoe, the extrados of the arched portion being fashioned from softer metal than is the intrados of the arched portion, whereby, when a rearward thrust is exerted by the animal, the extrados will afford maximum tensile strength, and the intrados will afford maximum compressive strength.

2. A horse shoe having a heel calk projecting therefrom, the heel calk being arched in transverse section, toward the rear of the shoe, the rear face of the calk being fashioned from softer metal than is the forward face of the calk, whereby, when a forward thrust is exerted against the calk, tending to bend the calk forwardly, the rear face of the calk will resist elongation, and the forward face of the calk will resist compression.

1,027,805. DRAG DEVICE FOR SPINNING-MACHINES. GEORGE BUCHAN BLACK, JR., Dundee, Scotland. Filed Sept. 9, 1910. Serial No. 581,232. (Cl. 118—27.)

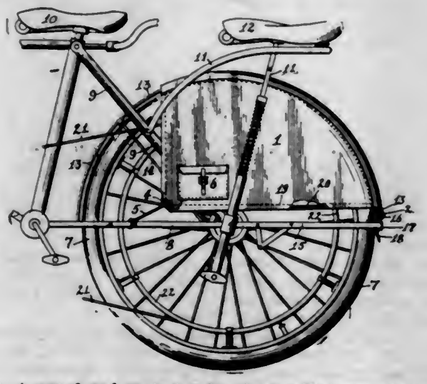


1. In spinning and twisting machinery the combination of a rotatory bobbin carrier with a non-rotatory cup which can traverse upwardly and downwardly and swinging weighted levers carried by the bobbin carrier which are acted upon by the increasing weight of the bobbin resting on them as such bobbin is being filled, all substantially as set forth.

2. In spinning and twisting machinery, the combination of a rotatory bobbin carrier with a non-rotatary cup which can traverse upwardly and downwardly and swinging weighted levers carried by the bobbin carrier and acted upon by the combined action of centrifugal force due to their unbalanced weights and under the increasing weight of the bobbin resting on them as such bobbin is being filled, as described.

3. In spinning and twisting machinery the combination of a rotatory bobbin carrier with a non-rotatory cup which can traverse upwardly and downwardly; swinging weighted levers carried by the bobbin carrier and acted upon by the combined action of centrifugal force due to their unbalanced weights and under the increasing weight of the bobbin resting on them as such bobbin is being filled and a closed or cup flier as described.

1,027,806. DETACHABLE MUD-GUARD AND DRESS-PROTECTOR FOR MOTOR-CYCLES. GEORGE HERBERT BLAKE, Alameda, Cal., assignor to W. A. Plummer Manufacturing Company, San Francisco, Cal., a Corporation of California. Filed Feb. 28, 1912. Serial No. 680,463. (Cl. 208—141.)



1. A guard and protector for the specified purpose consisting of a flexible sector-casing open at its radii and closed at its arc, said casing having at the outer extremity of its lower radial edges means for attaching it, and at its inner angles other attaching means.

2. A guard and protector for the specified purpose consisting of a flexible sector-casing open at its radii and closed at its arc, said casing having at the outer extremity of its lower radial edges a gromet for attaching it to the mud-guard catch of the stand-support, and having at its inner angles means for attaching it to the frame of the machine.

3. A guard and protector for the specified purpose consisting of a flexible sector-casing open at its radii and closed at its arc, said casing having at the outer extremity of its lower radial edges a gromet for attaching it to the mud-guard catch of the stand-support, and having at its inner angles eyelets and tapes therein for attaching it to the frame of the machine.

4. A guard and protector for the specified purpose consisting of a flexible sector-casing open at its radii and closed at its arc, said casing having at the outer extremity of its lower radial edges an extension-tab of its arc for engagement with the mud-guard catch of the stand-support, and having at its inner angles means for attaching it to the frame of the machine.

5. A guard and protector for the specified purpose consisting of a flexible sector-casing open at its radii and closed at its arc, said casing having at the outer extremity of its lower radial edges an extension-tab of its arc, with a gromet in said tab, for engagement with the mud-guard of the stand-support, and having at its inner angles means for attaching it to the frame of the machine.

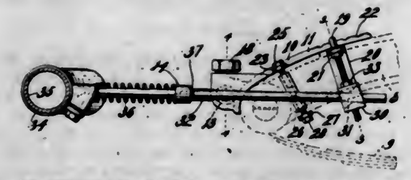
[Claims 6 and 7 not printed in the Gazette.]

1,027,807. VERTICAL ENGINE. LÉON BOLLÉE, Le Mans, France. Filed Nov. 14, 1907. Serial No. 402,190. (Cl. 123—195.)



In an explosion engine, cylinders and valve rod parts projecting therefrom, a staple *h*, on said cylinders, a casing or plate adapted to the shape of said cylinders for covering said parts, and means for securing said casing to said cylinders, said means comprising a spindle *c*, a handle *b*, at its outer end, a spring *d*, surrounding said spindle, a latch *f* at its inner end for engaging the staple *h* on the cylinders, a stop *x* affixed to the casing, and stops *e g* attached to said latch to limit the rotation of the latter to a quarter of a revolution by engaging the stop on the casing.

1,027,808. AUTOMOBILE-FENDER. JAYSON K. BOND, Milwaukee, Wis., assignor of one-half to Kenneth W. Jacobs, Milwaukee, Wis. Filed Mar. 2, 1911. Serial No. 611,763. (Cl. 105—33.)



1. An automobile fender, comprising connecting members provided with recessed forward enlargements, eyed brackets positioned therein and extending therefrom, guide blocks carried by the rearward portions of the connecting members and provided with openings, a buffer carried by plunger rods which extend through the eyes of the eyed brackets and through the openings of the guide blocks, and springs interposed between the buffer and the eyed brackets.

2. An automobile fender, comprising connecting members provided with recessed forward enlargements, eyed brackets positioned therein and extending therefrom, guide blocks carried by the rearward portions of the connecting members and provided with openings, a buffer carried by plunger rods which extend through the eyes of the eyed brackets and through the openings of the guide blocks, and coiled springs surrounding the plunger rods and interposed between the buffer and the eyed brackets.

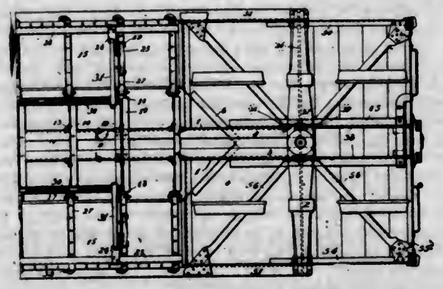
3. An automobile fender, comprising connecting members, eyed brackets adjustably connected thereto, guide blocks adjustably connected to the rearward portions of the connecting members, a buffer carried by a pair of plunger rods which extend loosely through the eyed brackets and through the openings of the guide blocks, coiled springs surrounding the plunger rods and interposed between the buffer and the eyed brackets, and stops for limiting the forward movement of the plunger rods.

4. An automobile fender, comprising connecting members provided with recessed forward enlargements, clip bolts looped over the connecting members, guide blocks adjustably connected to the clip bolts and provided with openings, eyed brackets adjustably positioned within the recesses of the enlargements and extending therefrom, a buffer carried by a pair of plunger rods which extend through the eyes of the eyed brackets and through the openings of the guide blocks, coiled springs surrounding the plunger rods and interposed between the buffer and the eyed brackets, and stops for limiting the forward movement of the plunger rods.

5. An automobile fender, comprising connecting members provided with recessed forward enlargements, said members being provided with laterally projecting eyed ears through which bolts extend, sleeves threaded on said bolts, clips extending transversely across and beneath the connecting members and provided with bolts which are also threaded into the sleeves, clip bolts looped over the connecting members, guide blocks adjustably connected to the clip bolts and provided with openings, eyed brackets adjustably positioned within the recesses of the enlargements and extending therefrom, a buffer carried by a pair of plunger rods which extend through the eyes of the eyed brackets and through the openings of the guide blocks, coiled springs surrounding the plunger rods and interposed between the buffer and the eyed brackets, and stops for limiting the forward movement of the plunger rods.

[Claim 6 not printed in the Gazette.]

1,027,809. DUMP-CAR. JOSEPH R. BOWLING, St. Louis, Mo., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo., a Corporation of West Virginia. Filed Apr. 9, 1906. Serial No. 310,603. (Cl. 105—14.)



1. In a dump car, the combination of a pair of through bolsters, each having a vertical web with tension and compression flanges and lateral webs, and a longitudinal central member including a pair of plates extending from one bolster to the other and projecting into the bolster but secured to such lateral webs, and a surmounting ridge secured to inwardly bent upper edges of said plates.

2. In a dump car, in combination, a beam including a pair of vertical plates bent inward at their upper ends to form an inverted V and a surmounting ridge and an angle tie bar extending beneath the vertical plates and connected at its ends with the ridge.

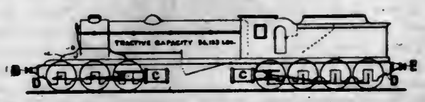
3. In a dump car, the combination of a beam including a pair of vertical plates with reinforcing angles along their lower edges and a surmounting ridge at the top, and tie bars consisting of angle irons arranged in pairs and extending beneath the plates and the reinforcing angles and connected at their ends with the ridge.

4. In a dump car, in combination, a beam including a pair of vertical plates and a surmounting ridge connected directly thereto, and a tie bar having webs at an angle to each other and extending beneath the vertical plates and connected at its ends with the ridge.

5. In a dump car, in combination, a beam including a pair of vertical plates and a surmounting ridge, a tie bar extending beneath the vertical plates and then inclining upwardly and connected at its ends with the ridge.

[Claims 6 to 49 not printed in the Gazette.]

1,027,810. RAILWAY-LOCOMOTIVE. THOMAS H. BRIGG, Godstone, England. Filed Apr. 18, 1912. Serial No. 691,566. (Cl. 105—17.)



1. In a locomotive a boiler, tender and interposed cab between them, connected to each other and to a supporting frame so as to form an unusually long rigid and infrangible structure providing a long flexible wheel base, having in combination therewith a plurality of pivotal driving and supporting trucks located at or near the extremities of said structure.

2. In a locomotive a boiler, tender and interposed cab between them, connected to each other and to a supporting frame so as to form a long rigid and infrangible structure providing an unusually long flexible wheel base, having in combination therewith a plurality of pivotal driving and supporting trucks located at or near the extremities of said structure.

3. In a locomotive a boiler, tender and interposed cab between them, connected to each other and to a supporting frame so as to form a long rigid and infrangible structure providing an unusually long flexible wheel base, having in combination therewith a plurality of pivotal supporting trucks located at or near the extremities of said structure, one of the said trucks provided with driving mechanism.

4. In a locomotive a boiler, tender and interposed cab between them, connected to each other and to a supporting frame so as to form an unusually long rigid and infrangible structure, having in combination therewith a plurality of supporting pivotal driving trucks fitted with side bumpers at one end of the said trucks.

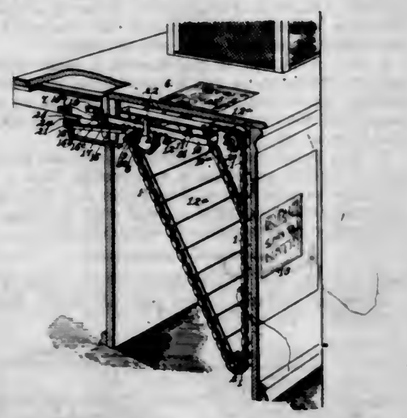
5. In a locomotive a boiler, tender and interposed cab between them, connected to each other and to a supporting frame so as to form an unusually long rigid and infrangible structure, having in combination therewith a plurality of supporting pivotal trucks, the rear one of said trucks fitted with driving mechanism while the leading truck is provided with free wheels, both of said trucks fitted with side bumpers.

[Claims 6 to 10 not printed in the Gazette.]

1,027,811. ADVERTISING DEVICE. FRANK W. BROCK, Chatham, Ill. Filed Jan. 29, 1912. Serial No. 673,982. (Cl. 40—28.)

1. In an advertising device, a support having at least one sight opening, an advertising carrier, a driving shaft

therefor, a reciprocating rack bar, a pinion on said driving shaft coöperating with said rack bar, ratchet and pawl connections coöperating with the said driving shaft to effect a uni-directional movement in said carrier, a drawer member coöperative connections between said drawer member and said rack bar for reciprocating said rack bar, said connections including a latch member for joining said drawer member to said rack bar, and means for tripping said latch member to release said connection after said drawer member has been moved a definite distance.



2. In an advertising device, a support having a sight opening, an advertising carrier mounted on said support and including a driving sprocket, a drawer member mounted on said support, a reciprocating device for operating said driving sprocket and releasable connections between said reciprocating device and said drawer member by virtue of which said drawer member will operate said reciprocating device during a portion of the movement of said drawer member, and means for locking the driving sprocket and the carrier in their shifted position as the drawer completes its movement.

3. In an advertising device, a support having a sight opening, an advertising carrier mounted on said support and including a driving sprocket, a drawer member mounted on said support, a reciprocating device for operating said driving sprocket and releasable connections between said reciprocating device and said drawer member by virtue of which said drawer member will operate said reciprocating device during a portion of the movement of said drawer member, means for locking the driving sprocket and the carrier in their shifted position as the drawer completes its movement, the said means being releasable by the return movement of the said drawer.

4. In an advertising device, a support having a sight opening, an advertising carrier mounted on said support and including a driving sprocket, a drawer member mounted on said support, a reciprocating device for operating said driving sprocket and releasable connections between said reciprocating device and said drawer member by virtue of which said drawer member will operate said reciprocating device during a portion of the movement of said drawer member, means for locking the driving sprocket and the carrier in their shifted position, as the drawer completes its movement, and said means comprising a spring-moved lever having a member that interlocks with the reciprocating bar when the same has been moved by the drawer member and devices on the said drawer member for releasing the said lever from the reciprocating bar during a return movement of the drawer.

1,027,812. SNAP-SEAL. EDWARD J. BROOKS, East Orange, N. J. Filed Mar. 16, 1912. Serial No. 684,147. (Cl. 70—99.)

1. A snap seal, having, in combination, a seal part composed of a top piece and a bulb piece permanently united by a circumferential joint, said top piece having a disk portion provided with an inlet slot, underlying portions, depending portions adjoining said underlying portions, and a bottom portion connecting said depending portions, provided with a catch slot, and adapted to serve as catch-engaging means, such means being thus located at a distance from said inlet slot and near the bottom of the seal part within the same, and a flexible shackle having a catch end constructed with resilient catches adapted to be inserted through said catch slot and to permanently interlock with said bottom portion beneath the same; the other end of said shackle being secured in any approved way.



2. A snap seal, having, in combination, a seal part composed of a top piece and a bulb piece permanently united by a circumferential joint, said top piece having a disk portion provided with an inlet slot, underlying portions, depending portions adjoining said underlying portions, and a bottom portion connecting said depending portions and provided with a catch slot, the lower corners of said depending portions and therewith the ends of said bottom portion being bent so as to deflect the ends of said catch slot from the plane of its middle portion, and a flexible shackle having a catch end constructed with resilient catches normally located in the plane of the body of the shackle and adapted to be bent out of said plane in passing through said catch slot and to interlock with said bottom portion beneath the same; the other end of said shackle being secured in any approved way.

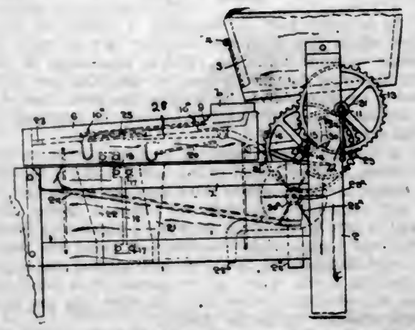
3. The combination, in a snap seal, of a seal part composed of a top piece and a bulb piece permanently united with each other by a circumferential joint, said top piece having a disk portion provided with an inlet slot, underlying portions, lip portions severed from said underlying portions except at one edge and projecting upward through said inlet slot, depending portions adjoining said underlying portions and alined with the sides of said inlet slot by said lips, and a bottom portion connecting said depending portions, provided with a catch slot, and adapted to serve as catch-engaging means and a flexible shackle having a catch end constructed with resilient catches adapted to be inserted through said catch slot and to permanently interlock with said bottom portion beneath the same; the other end of said shackle being secured in any approved way.

4. The combination, in a snap seal, of a seal part composed of a top piece and a bulb piece permanently united with each other by a circumferential joint, said top piece having a disk portion provided with an inlet slot, underlying portions, lip portions severed from said underlying portions except at one edge and projecting upward through said inlet slot, depending portions adjoining said underlying portions and alined with the sides of said inlet slot by said lips, and a bottom portion connecting said depending portions and provided with a catch slot, the lower corners of said depending portions and therewith the ends of said bottom portion being bent so as to deflect the ends of said catch slot from the plane of its middle portion, and a flexible shackle having a catch end constructed with resilient catches normally located in the plane of the body of the shackle and adapted to be bent out of said plane in passing through said catch slot and to interlock with said bottom portion beneath the same; the other end of said shackle being secured in any approved way.

5. The combination, in a snap seal, of a seal part composed of a top piece and a bulb piece permanently united with each other by a circumferential joint, said top piece having a disk portion provided with an inlet slot, underlying portions, lip portions severed from said underlying portions except at one edge and projecting upward through said inlet slot, depending portions adjoining said underlying portions and alined with the sides of said inlet slot by said lips, and a bottom portion connecting said depending portions, provided with a catch slot and adapted to serve as catch-engaging means and a flexible shackle having at each exteremity a catch end constructed with resilient catches adapted to be inserted through said catch slot and to permanently interlock with said bottom portion beneath the same.

[Claim 6 not printed in the Gazette.]

1,027,813. SEED-WHEAT CLEANER. JAMES S. BROYLES, Wikel, W. Va. Filed Sept. 9, 1911. Serial No. 648,443. (Cl. 130—18.)



1. In a seed wheat cleaner, a grain plate mounted within a frame on an incline, said plate being provided with varied openings for the elimination of foreign matter within the wheat as the same passes thereover, means to vibrate said frame, a crown plate mounted on said grain plate, and means carried by said grain plate for spacing the latter from said crown plate, whereby the wheat passing over said grain plate will be prevented from piling thereon.

2. In a seed wheat cleaner, a grain plate mounted within a frame on an incline, said plate being provided with openings for the elimination of the filth from the wheat, a crown plate mounted on said grain plate, means to regulate the pressure of said crown plate thereon, means to vibrate said frame, and a lever pivoted in said frame and having means coöperating with said vibrating means for cleaning a portion of said grain plate.

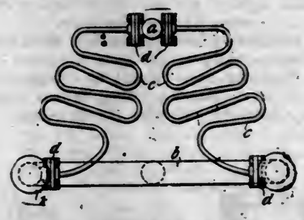
3. In a seed wheat cleaner, the combination with a grain plate provided with openings for the elimination of the filth from the wheat; of a lever pivotally mounted under said grain plate and carrying at one end thereof cleaning means for a portion of the grain plate, said cleaning means having projections thereon adapted for engagement within the openings in the grain plate, and means to intermittently trip the opposite end of said lever, whereby said plate cleaning means will be effectively operated.

1,027,814. PRIMING MIXTURE. WILLIAM H. BUELL, New Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Mar. 14, 1912. Serial No. 683,877. (Cl. 52—2.)

A non-fulminate priming mixture composed of antimony sulfid, lead sulfocyanid, potassium chlorate and trinitrotoluol.

1,027,815. SUPERHEATER FOR HEATING PURPOSES. FREDERICK OATLEY BYNOE, Acton, England, assignor to Balchin, Schuls & Company, Limited, London, England. Filed Dec. 8, 1910. Serial No. 596,313. (Cl. 122—460.)

1. A superheater comprising outlet headers arranged in spaced parallel relation in the bottom portion of a fire box, an inlet header parallel with and centrally disposed relative to the outlet headers and in a higher plane, and restricted tubes projecting laterally from opposite portions of the inlet header and connecting with the outlet headers said tubes having bends arranged in staggered relation.



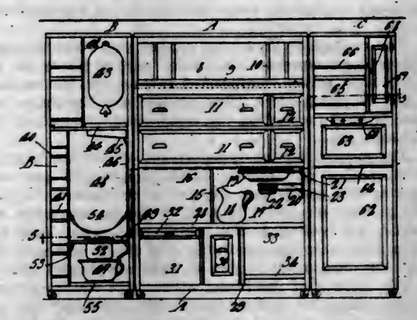
2. A superheater comprising an inlet header disposed in the cooler portion of a fire box, outlet headers of larger diameter than the inlet header disposed in the hottest portion of a fire box, and tube connections of less diameter than the inlet header and located between the inlet and outlet headers and being provided with bends adjacent the connection with the inlet header.

3. A superheater comprising an inlet header, outlet headers of greater area than the inlet header, and restricted tube connections between the inlet header and the outlet headers.

4. A superheater comprising an inlet header provided with oppositely disposed laterally projecting flanged outlets, a pair of spaced parallel outlet headers of larger diameter than the inlet header and located in a lower plane than the inlet header, said outlet headers being provided with confronting laterally projecting flanged inlets, and of less diameter than the inlet header and tubes having flanged ends that are detachably connected to the flanged inlets and outlets of the inlet and outlet headers.

5. An apparatus for superheating steam, the same comprising a heating chamber, and a circulating system for the steam exposed within the heating chamber, said circulating system including inlet and outlet members, the latter being of greater sectional area than the sectional area of the inlet member, restricted tube connections between the inlet and outlet members, and means for directing the flow of steam downward through the tube connections to permit the same to pass from the apparatus at approximately atmospheric pressure.

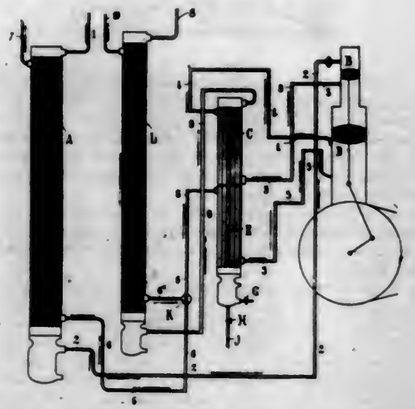
1,027,816. NURSERY-CABINET. ANNA V. CASSITY, Okmulgee, Okla. Filed June 16, 1911. Serial No. 633,543. (Cl. 45—16.)



A cabinet including a body open at the front, closures for the front, and hingedly connected to opposite sides of the body, each closure being provided with supporting wheels, there being a compartment within one of the closures and having an open face adapted to be closed by the body, when the closure is swung against the body, a seat hingedly mounted within said compartment, another compartment within said closure and above the seat con-

taining compartment, a drip pan constituting the bottom of the upper compartment, a vessel below and accessible through the seat, and a drain pipe extending downwardly from said pan and past the seat and discharging into the vessel.

1,027,817. LIQUEFACTION OF GASES. GEORGES CLAUDE, Paris, France, assignor to Société "L'Air Liquide" (Société Anonyme pour l'Etude et l'Exploitations des Procédés Georges Claude), Paris, France. Filed Dec. 28, 1906. Serial No. 349,922. (Cl. 62—18.)



1. The method of liquefying permanent gases which consists in subjecting a compressed and cooled permanent gas to the indirect cooling action of another expanded permanent gas with a lower critical temperature, the remaining cold of which after being utilized for liquefying purpose is used in cooling both compressed permanent gases the one to be liquefied and the other to be expanded.

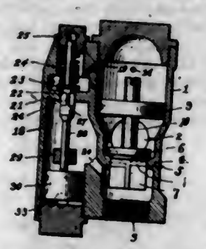
2. The method of liquefying permanent gases which consists in compressing and cooling the permanent gas to be liquefied and a refrigerating permanent gas whose critical temperature is lower than that of the gas to be liquefied, subjecting the compressed gas with the higher critical temperature to the indirect cooling action of the gas with the lower critical temperature which is itself cooled by successive expansions, the cooling action taking place after each expansion and the remaining cold of which after being utilized for liquefying purpose is used in cooling both compressed permanent gases the one to be liquefied and the other to be expanded.

3. The method of liquefying oxygen gas which consists in subjecting compressed and cooled oxygen gas to the indirect cooling action of expanded gaseous air, the remaining cold of which after being utilized for liquefying the oxygen is used for cooling the compressed oxygen and the compressed air.

4. The method of liquefying oxygen gas which consists in compressing and cooling apart oxygen gas and air, subjecting the compressed oxygen to the indirect action of the gaseous air which is itself cooled by successive expansions, the cooling action taking place after each expansion and using the remaining cold of the expanded air to cool the compressed oxygen and the compressed air.

5. The method of liquefying oxygen gas which consists in compressing and cooling apart oxygen gas and air, allowing the air to partially expand with production of external work, transmitting the cold of this partially expanded air to be the cooled compressed oxygen, further expanding the air with production of external work and subjecting the cooled compressed oxygen to the cooling action of this finally expanded air further utilizing the remaining cold of this expanded air to cool both the compressed oxygen gas and the compressed air, substantially as set forth.

1,027,818. FLUSHING-VALVE. GEORGE W. COLLIN, Mansfield, Ohio, assignor to The Collin Valve Company, Portland, Me., a Corporation of Maine. Filed Aug. 17, 1907. Serial No. 389,063. (Cl. 137—93.)



1. In a valve such as described, a trinity of valves proper operatively connected together two of which are pressure operated while the third is adapted to be positively moved, a detached piston for operating one of the pressure operated valves by striking the stem thereof to lift and open the same by water passing the positively operated valve.

2. A flushing valve comprising a casing having an inlet and outlet, a valve located in the casing between the inlet and outlet, an intermediate valve chamber within the casing and communicating with the outlet, a double valve located in said intermediate chamber, a piston also located in the said intermediate chamber and under the double valve and disconnected therefrom and adapted alternately to open the double valve and to permit it to close, and means for admitting water from the inlet into the intermediate chamber under the piston.

3. In a flushing valve such as described, a trinity of valves proper operatively connected together, two of which are pressure operated, while the third is adapted to be positively moved, a disconnected piston for operating one of the pressure operated valves and adapted to be lifted by water passing the positively operated valve, and a regulator for determining the rate of flow of water to be fed to the other pressure operated valve.

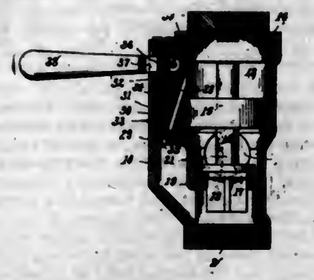
4. A flushing valve comprising a casing having an inlet and provided with a chamber above the inlet, a primary valve located in the casing between the inlet and outlet, a piston connected with the primary valve and operating in said chamber in the casing between the inlet and the outlet, a second valve chamber in the casing between the inlet and the outlet, a pressure-operated double-valve located in said second chamber adapted to allow a limited amount of water to flow therepast for each operation to thereby alternately open and close the primary valve, means for operating said double valve, a third chamber connected with the inlet and with the first said chamber, and a valve in said third chamber adapted to control said means.

5. A flushing valve comprising a casing having an inlet and outlet, a primary valve having a connected piston located in the casing between the inlet and outlet, a duct leading from the inlet to the piston chamber, an adjusting device for said duct to determine the rate of flow of water to be passed therethrough, an annular screen within the inlet to cover the duct, a double valve for controlling the aforesaid main valve, a detached piston adapted to be operated by the water pressure to open the said double valve and to permit the same to close.

[Claims 6 to 11 not printed in the Gazette.]

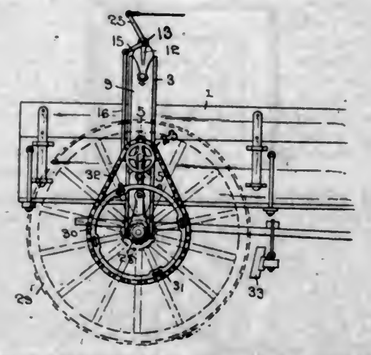
1,027,819. FLUSHER-VALVE. GEORGE W. COLLIN, Bridgeport, Conn., assignor to The Collin Valve Company, Portland, Me., a Corporation of Maine. Filed Sept. 23, 1908. Serial No. 454,423. (Cl. 137—93.)

1. The combination of a casing having an inlet and an outlet communicating through a port, a valve for opening and closing the port, a differential area piston connected with the valve for actuating the same, a cylinder within the casing in which the piston reciprocates, an inlet passage through which liquid passes from the inlet to the cylinder to exert a greater pressure on the side of the piston of larger area than does the inlet pressure exert on the side of smaller area to normally hold the valve seated, a drain passage leading from the cylinder to permit liquid to flow out of the latter faster than it enters through the inlet passage whereby the inlet pressure acting on the side of the piston of smaller area moves the piston and opens the valve, a chamber in the wall of the casing communicating with the drain passage and having an opening in its side, a handle extending into said opening and fulcrumed in the casing, and a drain valve in the chamber for opening and closing said passage, said drain valve having spaced annular shoulders between which the handle engages to impart movement to the valve and whereby the handle forms the sole retaining means therefor, said shoulders permitting the valve to be turned for grinding its seating portion.



2. In a device of the class described, the combination of a casing having a drain passage, a vertical chamber communicating with the passage, a seat at the juncture of the chamber and passage, a plug valve fitting slidably and movable vertically in the chamber and normally engaging the seat by gravity, said valve having circumferential liquid packing grooves and a conduit for conducting off liquid escaping past the grooves, spaced shoulders on the valve, and an operating handle having one end extending into and pivoted in the casing and disposed between the shoulders of the valve whereby the handle normally retains the valve in place and seated.

1,027,820. WAGON. JAMES KOOP COLLINS, Pawhuska, Okla. Filed Nov. 9, 1911. Serial No. 659,395. (Cl. 21—20.)



1. The combination with a wagon having channel bars positioned vertically upon its opposite sides, an axle carried by the lower ends of the channel bars beneath the wagon bottom, said channel bars projecting above the wagon body; of guide plates engaged in the channel bars and projecting above the latter, means for connecting the upper ends of the guide plates and bracing the same, said channel bars being adapted for movement vertically upon the guide plates to raise or lower the wagon body by which said channel bars are carried, means carried by the guide plates for supporting the wheels of the wagon, and means carried by the wheels of the wagon and the guide plates for moving the channel bars upon said guide plates to raise or lower the wagon bed.

2. The combination with a wagon bed, rear wheels, rear axle and separate spindles; of channel bars positioned upon the wagon bed near its rear end, the lower ends of the channel bars being secured to the opposite ends of the rear axle, guide plates within the channel bars and projecting above the latter, the separate spindles being secured to the lower ends of the guide plates, the rear wheels being positioned upon the spindles, the channel bars being adapted to move downwardly upon the guide plates to lower the rear end of the wagon and the rear axle between the separate rear spindles and rear wheels, and means carried by the rear wheels and the guide plates for returning the channel bars to their normal positions during forward movement of the vehicle.

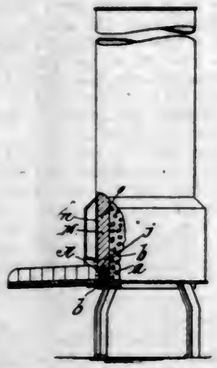
3. The combination with the rear portion of a wagon bed, rear axle, separate rear spindles, rear wheels upon the spindles, and the brake for the rear wheels; of guide plates having their lower ends secured to the separate spindles, guide channels carried by said rear portion of the wagon bed and positioned vertically upon opposite sides thereof, said guide channels being engaged over the vertical edges of the guide plate and adapted for movement upon the latter, the lower ends of the channel bars being secured to the opposite ends of the rear axle inwardly of the spindles, means for strengthening the guide plates and their connecting means at the upper ends of said guide plates, the channel bars being adapted to move downwardly upon the guide plates when the brake is in engagement with the rear wheels to prevent rotation of the latter, means carried by the guide plates for returning the channel bars to their normal positions during forward rotation of the rear wheels, and connections between the rear wheels and the channel bar returning means to operate the latter.

4. The combination with the rear portion of a wagon bed, rear axle, separate rear spindles, rear wheels upon the spindles, and the brake for the rear wheels; of guide plates having their lower ends secured to the separate spindles, guide channels carried by said rear portion of the wagon bed and positioned vertically upon opposite sides thereof, said guide channels being engaged over the vertical edges of the guide plates and adapted for movement upon the latter, the lower ends of the channel bars being secured to the opposite ends of the rear axle inwardly of the spindles, means for strengthening the guide plates and their connecting means at the upper ends of said guide plates, the channel bars being adapted to move downwardly upon the guide plates when the brake is in engagement with the rear wheels to prevent rotation of the latter, means carried by the guide plates for returning the channel bars to their normal positions during forward rotation of the rear wheels, connections between the rear wheel and the channel bar returning means to operate the latter, and means carried by the guide plate reinforcing means for controlling the operation of the channel bar returning means and for retarding downward movement of said channel bars on the guide plates.

5. The combination with the rear portion of a wagon bed, rear axle, separate rear spindles, rear wheels upon the spindles, and the brake for the rear wheels; of guide plates having their lower ends secured to the separate spindles, guide channels carried by said rear portion of the wagon bed and positioned vertically upon opposite sides thereof, said guide channels being engaged over the vertical edges of the guide plates and adapted for movement upon the latter, the lower ends of the channel bars being secured to the opposite ends of the rear axle inwardly of the spindles, means for strengthening the guide plates, the channel bars being adapted to move downwardly upon the guide plates when the brake is in engagement with the rear wheels to prevent rotation of the latter, means carried by the guide plates for returning the channel bars to their normal positions during forward

rotation of the rear wheels, connections between the rear wheels and the channel bar returning means to operate the latter, and means carried beneath the lower ends of the axle and adapted for engagement with the lower ends of the guide plates to lock the axle in alinement with the spindles and retain the channel bars in their normal positions.

1,027,821. BREAST-WALL BRICK FOR CUPOLAS. ROBERT P. CUNNINGHAM, Holyoke, Mas. Filed Aug. 11, 1910. Serial No. 576,743. (Cl. 75—192.)



1. A cupola breast wall brick having a hole extending therethrough, the mouth of which at its one end is flaring, and said brick having a recess around the sides thereof.

2. A cupola breast wall brick made of separable sections which have, within their faces to be adjoined, channels extending from the inner to the outer sides thereof, the walls at the inner and outer ends of the channels being respectively inwardly and outwardly inclined and flared, and the said sections having external binder recesses.

3. In combination with a metal melting furnace provided with a breast, an exteriorly recessed block provided with an opening extending horizontally therethrough, a plastic material forming a lining for the breast and closely packed about and interlocked with said exteriorly recessed brick.

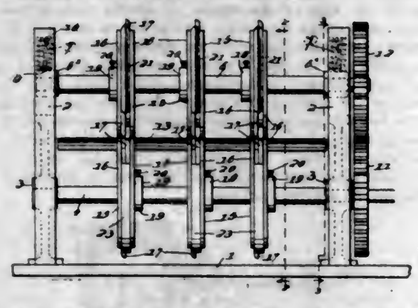
4. The combination with a melting furnace provided with a breast wall, a block, having an opening extending horizontally from its inner to its outer side, and provided with an exterior peripheral groove lying in a plane at right angles to the line of said hole through the block and a lining for the breast wall of packing material having a binding engagement about said block and interlocking in the exterior groove thereof.

5. In combination with a melting furnace provided with a breast, a block provided with an opening extending therethrough, a packing-material interposed between the block and breast and means for interlocking said block and packing material.

[Claim 6 not printed in the Gazette.]

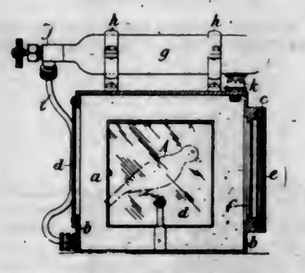
1,027,822. DEVICE FOR CUTTING AND SCORING PAPER-BOX BLANKS. MICHAEL P. DAVEN, St. Louis, Mo., assignor of one-third to Joseph Schultz and one-third to Charles H. Fesenfeldt, St. Louis, Mo. Filed July 27, 1911. Serial No. 640,784. (Cl. 93—58.)

1. A device for simultaneously cutting and scoring paper, including a pair of shafts, means for movably mounting one of the shafts so that same has movement toward and away from the other shaft, springs for normally forcing the first named shaft toward the second named shaft, a series of wheels on each shaft, circumferential spaced flanges carried by each wheel, the wheels of one shaft being in engagement with the wheels of the other shaft, arcual cutting blades having front cutting edges mounted in the space between the flanges of each wheel, the blades of opposed wheels having confronting shearing edges which engage one another, an arcual scoring blade having a sharp edge secured in the space between the flange of the wheels of one shaft, and an arcual plate having a flat peripheral surface secured in the space between the flange of the wheels of the other shaft.



2. In a device of the class specified, the combination, of a pair of opposed rotatable elements provided with confronting circumferential grooves, a pair of longitudinally spaced cutting blades mounted in the groove in each of said elements, the blades of each element coöperating with those of the other element, and coöperating scoring plates mounted in the grooves of said element in the spaces between the cutting blades therein and in line with the latter, the scoring plate of one element having a sharpened peripheral edge and the scoring plate of the other element having a flat peripheral edge against which the edge of the first-named plate presses the material to be acted upon, said coöperating blades and plates producing a single straight line in said material which is partly cut and partly scored, the scored part of such line being located between the cut end parts thereof.

1,027,823. APPARATUS FOR TESTING AIR. ROBERT HENRY DAVIS, London, England, assignor of one-half to Siebe Gorman and Company, Limited, London, England. Filed Mar. 27, 1911. Serial No. 617,248. (Cl. 73—51.)



1. An apparatus for testing air, comprising a compartment adapted to receive a living creature, the construction of said compartment providing means for the admission of said creature and for closing it, to retain the same, said compartment being also provided with means for the admission of exterior air, and a device for closing said air admitting means, to render the compartment airtight, and means for supplying the oxygen to the interior of said compartment.

2. An apparatus for testing air comprising an airtight compartment adapted to receive a living creature and provided with windows covered with transparent material, a door in said compartment for the admission of exterior air and means for supplying oxygen to the interior of said compartment when said door is closed.

3. An apparatus for testing air comprising an airtight compartment, the interior of which is visible from the exterior thereof, and including a door by which exterior air may enter said compartment, a sheet of perforated material disposed between said door and the interior of said compartment, and means for supplying oxygen to the interior of said compartment when said door is closed.

4. An apparatus for testing air comprising a compartment, a door in said compartment by means of which exterior air may be admitted thereto, clamps secured to said compartment adapted to hold an oxygen tank, and means for conducting the contents of said oxygen tank to the interior of said compartment.

5. An apparatus for testing air comprising a compartment, a door at one end of same by means of which exterior air may enter said compartment, an oxygen tank held by means of clamps secured to said compartment, said tank being adapted to furnish oxygen to the interior of said compartment and also act as a handle for the apparatus, and a relief valve in said compartment by means of which oxygen and poisonous gas may escape.

1,027,824. MACHINE FOR IMPRINTING ENVELOPS AND THE LIKE. ULYSSES C. DAVIS, Pittsfield, Mass., assignor to Eaton, Crane & Pike Company, Pittsfield, Mass., a Corporation of Maine. Filed Sept. 26, 1910. Serial No. 583,928. (Cl. 101—13.)

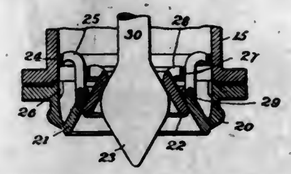


1. An imprinting machine of the character described comprising a plunger for effecting the pressure, a pivoted lever having one arm in coöperative relation to said plunger for depressing the same and on its other end a segment, means automatically acting against said lever to normally hold it turned from said plunger, a shaft having thereon a gear-wheel engaging said segment and also a ratchet, a swiveled arm having on its outer end a pawl in engagement with said ratchet, and means for alternately moving said pawl to rotate said ratchet and gear wheel to operate said lever and then releasing said pawl to permit the said lever to return to its initial position; substantially as set forth.

2. An imprinting machine of the character described comprising a plunger for effecting the pressure, a pivoted lever having one arm in coöperative relation to said plunger for depressing the same and on its other end a segment, means automatically acting against said lever to normally hold it turned from said plunger, a shaft having thereon a gear-wheel engaging said segment and also a ratchet, a swiveled arm having on its outer end a pawl in engagement with said ratchet, a power driven wheel 47 and a connection 49 at one end secured to said pawl and at its other end eccentrically fastened to said wheel, whereby said wheel is adapted for alternately moving said pawl to rotate said ratchet and gear wheel to operate said lever and then releasing said pawl to permit the said lever to return to its initial position; substantially as set forth.

3. An imprinting machine of the character described comprising a plunger for effecting the pressure, a pivoted lever having one arm in coöperative relation to said plunger for depressing the same and on its other end a segment, means automatically acting against said lever to normally hold it turned from said plunger, a shaft having thereon a gear-wheel engaging said segment, a balance wheel, a ratchet wheel and a swiveled arm carrying a pawl in engagement with said ratchet, and means for alternately moving said pawl to rotate said ratchet and gear wheel to operate said lever and then releasing said pawl to permit the said lever to return to its initial position; substantially as set forth.

1,027,825. HYDRAULIC NOZZLE. WILLIAM A. DOBLE, San Francisco, Cal., assignor to May E. Doble, San Francisco, Cal. Filed May 24, 1910. Serial No. 563,141. (Cl. 138—18.)



1. A hydraulic nozzle having a discharge end, a plurality of axially movable annular members constructed to form a plurality of concentric discharge ports, and a core or needle in said members.

2. A hydraulic nozzle having a discharge end, an axially movable ring within said discharge end constructed to form an annular port, a needle or core piece extending through said member and engaging said member, and stops on said nozzle body to limit the outward movement of said annular member.

3. A hydraulic nozzle having a discharge end, a plurality of axially movable nested conical rings constructed to form a plurality of annular ports, and means to adjust said rings.

4. A hydraulic nozzle having a discharge end, a plurality of axially movable nested conical rings constructed to form a plurality of annular ports, and a headed core or needle passing through said rings.

5. A hydraulic nozzle having a discharge end, a plurality of axially movable nested conical rings constructed to form a plurality of annular ports, and coöperating stops on said rings and nozzle body.

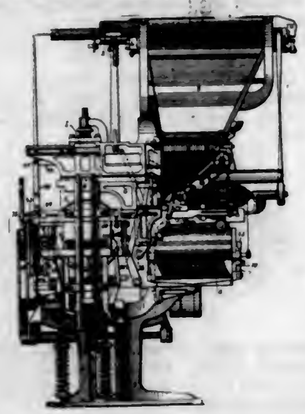
[Claim 6 not printed in the Gazette.]

1,027,826. LINE-CASTING MACHINE. HEINRICH DREWELL, Charlottenburg, Germany, assignor to Schnellsetzmaschinengesellschaft mit beschränkter Haftung, Berlin, Germany. Filed July 28, 1910. Serial No. 574,256. (Cl. 199—13.)

1. In a line-casting machine, the combination with a main shaft, of a mold-carrier carrying a plurality of molds, driving means driven by said shaft for driving said mold carrier and alternately bringing one of said molds into the casting and ejecting positions, additional driving means, driven by said shaft, adapted to drive said mold carrier and thereby automatically bring one of said molds from a non-ejecting position into the casting position, and controlling means for controlling the latter driving means.

2. In a line-casting machine, the combination, with a main shaft, a mold carrier carrying a plurality of molds, driving mechanism driven by said shaft for driving said mold carrier and alternately bringing one of said molds into the casting position and into the ejecting position, and line-transferring mechanism, of driving means driven by said shaft and adapted to drive said mold carrier and automatically bring one of said molds from a non-ejecting position into the casting position, controlling means for controlling the operation of said driving means, connecting means for connecting said controlling means with and disconnecting the same from said line-transferring mechanism, and means for operating said connecting means.

3. In a line-casting machine, the combination with a main shaft, and a wheel having toothed segments secured thereon, of a mold carrier carrying a plurality of molds, a plurality of driving mechanisms driven intermittently by said wheel and adapted to drive said mold carrier in different directions, and manually-controlled connecting means for operatively connecting said mold carrier with one of said driving mechanisms.

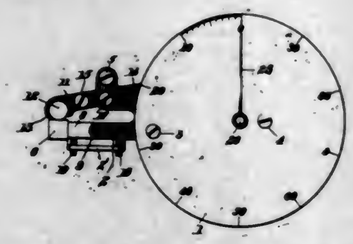


4. In a line-casting machine, the combination with a main shaft, and a wheel having toothed segments secured thereon, of a mold carrier carrying a plurality of molds, a plurality of driving mechanisms driven intermittently by said wheel and adapted to drive said mold carrier in different directions, connecting means normally connecting said mold carrier with one of said driving mechanisms, shifting means for shifting said connecting means for connecting another of said driving means to said mold carrier, manually controlled means for actuating said shifting means, and means for returning said shifting means to their normal position.

5. In a line-casting machine, the combination, with a main shaft, and a wheel having toothed segments secured thereon, of a mold carrier carrying a plurality of molds, driving mechanism, comprising automatic reversible gearing, driven intermittently by said wheel and driving said mold carrier, means normally holding said gearing non-reversed, manually-operated levers for actuating said means and reversing said gearing, and a cam on said shaft for returning said means and said gearing into their normal positions.

[Claims 6 to 10 not printed in the Gazette.]

1,027,827. MICROMETER-GAGE. HOWARD E. EDDY, Arlington, Md., and ERNEST B. CROCKER, Bridgeport, Conn. Filed May 11, 1911. Serial No. 626,506. (Cl. 73—105.)



1. In a micrometer gage, a frame, a pair of contact devices comprising a movable presser foot and a flat, non-rotary anvil, said anvil being adjustably supported on said frame by means of a pair of pivots having their axes substantially at right angles to each other.

2. In a micrometer gage, a frame, a pair of contact devices comprising a movable presser foot, and a flat, non-rotary anvil, a member to which said anvil is pivotally secured, and means for pivotally supporting said member on said frame, the axes of such pivots lying substantially at right angles to each other.

3. In a micrometer gage, a frame, a pair of contact devices comprising a movable presser foot, and an anvil, a member to which said anvil is pivotally secured, means for pivotally supporting said member on said frame and means for angularly adjusting said member and for maintaining the same in adjusted position.

4. In a micrometer gage, a frame, a pair of contact devices comprising a movable presser foot, and an anvil, a member to which said anvil is pivotally secured, means for pivotally supporting said member on said frame, and stop screws set into said frame and bearing against such member one on each side of its pivot, whereby the same may be adjusted.

5. In a micrometer gage, a pair of contact members having opposing, respectively flat and curved measuring surfaces, a support to which that member having the curved surface is rigidly secured, said member being mounted for movement toward and away from the other, and being extended axially in a direction at right angles to the line of such movement, and said flat member being pivoted for movement in a plane parallel with the axis of such curved surface.

[Claims 6 to 8 not printed in the Gazette.]

1,027,828. STATION-PLATFORM FOR RAILWAYS. EMIL ELEKTOROWICZ, (by judicial change of name now Emil De Ryss,) New York, N. Y. Filed Feb. 3, 1912. Serial No. 675,195. (Cl. 104—17.)



1. The combination with the overhang of a station platform, of a plurality of plates shiftably mounted below said overhang, said plates being normally held under said overhang, but being adapted to be shifted to bridge over the gaps between the station platform and the platforms of the cars, and means adapted to be actuated by an incoming train for causing said plates to move into their operative positions.

2. The combination with the overhang of a station platform, of a plurality of plates shiftably mounted below said overhang, said plates being normally held under said overhang, but being adapted to be shifted to bridge over the gaps between the station platform and the platforms of the cars, means adapted to be actuated by an incoming train for causing said plates to move into their operative positions, and means adapted to be operated by an outmoving train for causing said plates to move into their normal positions below said overhang.

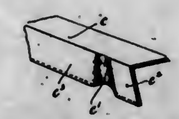
3. The combination with the overhang of a station platform, of a plurality of plates shiftably mounted below said overhang, said plates being normally held under said overhang, but being adapted to be shifted to bridge over the gaps between the station platform and the platforms of the cars, means adapted to be actuated by an incoming train for causing said plates to move into their operative positions, and means adapted to be operated by an outmoving train for causing said plates to move into their normal positions below said overhang and for restoring said first named means to its normal initial position.

4. The combination with the overhang of a station platform, of a plurality of arms oscillatably mounted below said overhang, a plate pivotally attached near to the outer edges of said arms, said plate being normally held under said overhang, but being adapted to project beyond the same to bridge over the gap between the station platform and the platform of a car when said arms are held substantially at right angles to the tangents of the track, and means connected with said arms and adapted to be actuated by an incoming train for causing said arms to project beyond said overhang and said plate to move into its operative position.

5. The combination with the overhang of a station platform, of a plurality of arms oscillatably mounted below said overhang, a plate pivotally attached near to the outer edges of said arms, said plate being normally held under said overhang, but being adapted to project beyond the same to bridge over the gap between the station platform and the platform of a car when said arms are held substantially at right angles to the tangents of the track, means connected with said arms and adapted to be actuated by an incoming train for causing said arms to project beyond said overhang and said plate to move into its operative position, and means connected with said first named means adapted to be operated by an outgoing train to restore said arms and said plate to their normal positions below said overhang.

[Claims 6 to 8 not printed in the Gazette.]

1,027,829. BEDSTEAD. EMIL FISCHBACH, Brooklyn, N. Y. Filed Apr. 13, 1912. Serial No. 690,598. (Cl. 5—55.)



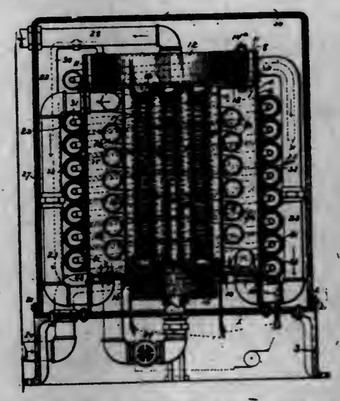
In a sectional metal bedstead means for joining the side and the cross bars to the head and the foot end sections thereof, comprising castings fixed to the head and the foot end sections and having U-shaped recesses and correspondingly shaped impressed portions in said bars to removably engage said recesses.

1,027,830. WRENCH. EVERETTE FOSTER, Wesson, Miss. Filed Nov. 4, 1911. Serial No. 658,544. (Cl. 81—134.)



A wrench comprising in combination a shank having its front portion provided with V-shaped teeth thereon, a plurality of plates rigidly secured to the outer portion of said shank, each of said plates having an outer corner portion projecting outwardly therefrom and provided with a hole therein, an inner jaw having an end portion disposed in said projecting portions, means for pivotally holding said jaw to said projecting portions, said jaw being provided with a hole therein, an outer jaw, a stem, integrally secured to said outer jaw and provided with a plurality of V-shaped teeth thereon arranged to engage with the teeth of said shank, said stem being arranged to actuate within the hole in said inner jaw and means rotatably held on said stem for locking said stem and shank together, so that the teeth thereof will be held into engagement with each other.

1,027,831. WATER-HEATER. WILLIAM H. FOX, Minneapolis, Minn. Filed Nov. 5, 1910. Serial No. 590,931. (Cl. 219—39.)



1. In a water heater, the combination with an annular boiler, a dome at one end of the boiler and a hollow head at the other end, of a tube connecting said hollow head with the dome, means for passing water around the boiler and subsequently to the boiler, means for conducting water from the boiler to said hollow head, means for heating the water during its passage through said tube to the dome, and a service pipe connected with said dome.

2. In a water heater, the combination with an annular boiler, a dome over the same and a hollow base head, of a tube surrounded by the boiler and connecting the base head with the dome, an electrical heating coil encircling said tube, means for conducting water around the boiler and then to the boiler, means for conducting water from the boiler to the base head, and a service pipe connected with the dome.

3. In a water heater, the combination with an annular boiler, a dome at one end thereof, and a hollow head at the other end of said boiler, of a plurality of tubes surrounded by the annular boiler and connecting the base head with the dome, electrical heating coils encircling said tubes, means for circulating water around the boiler and then conducting water to the boiler, means for conducting water from the boiler to the base head, and a service pipe connected with the dome.

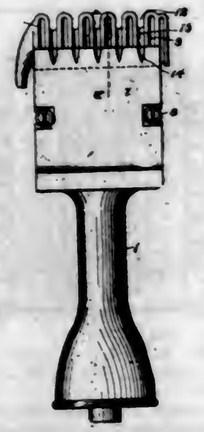
4. In a water heater, the combination with an annular boiler and chambered members at respective ends thereof, of a water heating tube connecting said chambered members, a coil located within the annular boiler, means for conducting water through said coil and to the annular boiler so as to submerge said coil, means for conducting water from the boiler to one of said chambered members, and a service pipe communicating with the other chambered member.

5. In a water heater, the combination with an annular boiler, water heating tubes surrounded by said boiler and chambered members connecting the ends of said tubes, of a casing coöperating with the boiler to form a heating chamber, a coil surrounding the boiler and located in said heating chamber, a coil located within the boiler, means for supplying water to the first mentioned coil, a pipe connecting the upper end of said first mentioned coil with the lower end of the coil within the boiler, a pipe connecting the upper end of the last mentioned coil with the

lower end of the boiler, a connection between the lower end of the boiler and one of said chambered members, and a service pipe communicating with the other chambered member.

[Claims 6 to 10 not printed in the Gazette.]

1,027,832. BURNER. REYNOLDS C. FRAMPTON, Pittsburgh, Pa., assignor to Pittsburg Water Heater Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 20, 1909, Serial No. 513,765. Renewed Nov. 4, 1911. Serial No. 658,616. (Cl. 158—112.)



1. In combination in a burner, a discharge chamber having closed ends, and open sides, perforate siding covering the sides, side plates secured over the perforate siding and spaced away therefrom, and a cap plate fitting between the upper edges of the side plates and provided on each side with a plurality of diagonal tapering passages decreasing in size from their inner to their outer ends.

2. In combination in a burner, a discharge chamber having closed ends, and open sides, perforate siding covering the sides, side plates secured over the perforate siding and spaced away therefrom, and a cap plate fitting between the upper edges of the side plates and provided on each side with a plurality of outlet passages, the outer side faces of the cap plate intermediate the passages and above the side plates being grooved.

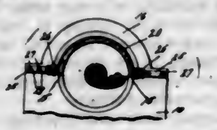
3. In combination in a burner, a discharge chamber having closed ends and open sides, perforate siding covering the sides, side plates secured over the perforate siding and spaced away therefrom, and a recessed cap plate fitting between the upper edges of the side plates and provided on each side with a plurality of outlet passages, the upper edges of the cap plate being notched transversely intermediate the upper ends of the passages.

4. In combination in a burner, a discharge chamber having closed ends and open sides, perforate siding covering the sides, side plates secured over the perforate siding and spaced away therefrom, and a recessed cap plate fitting between the upper edges of the side plates and provided on each side with a plurality of outlet passages, the outer side faces of the cap plate intermediate the passages and above the side plates being grooved.

5. In combination in a burner, a discharge chamber having closed ends and open sides, perforate siding covering the sides, side plates secured over the perforate siding and spaced away therefrom, and a recessed cap plate fitting between the upper edges of the side plates and provided on each side with a plurality of outlet passages, the upper edges of the cap plate being notched intermediate the upper ends of the passages, and the faces of the cap plate being provided with grooves extending downward from the ends of the notches.

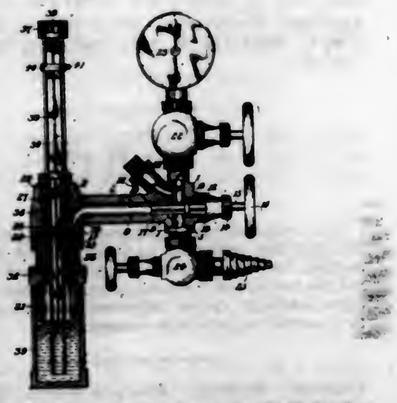
[Claims 6 to 10 not printed in the Gazette.]

1,027,833. SEMICYLINDRICAL-STEREOTYPE-PLATE TRIMMER. JOHN FREMONT FREY, Indianapolis, Ind. Filed May 19, 1911. Serial No. 628,330. (Cl. 90—26.)



The combination with a curved stereotype plate trimmer comprising a receiving saddle and a trimmer head adjacent the saddle and into which a stereotype plate is to be projected, of a pair of rollers separate from the trimming mechanism and arranged adjacent the saddle and receiving end of the trimmer box upon opposite sides of the saddle, each of said rollers having a yielding face arranged to act upon the type face of the plate as it enters the trimmer head to prevent spread of the edges of the plate without marring the type faces.

1,027,834. TESTING DEVICE. CHARLES G. FULMER, McKeesport, Pa. Filed Sept. 18, 1911. Serial No. 649,841. (Cl. 73—51.)



1. A testing device comprising a valve body having vertical ports formed therein, an extension carried by said valve body and having a longitudinal port formed therein, a valve carried by said valve body and adapted to close the longitudinal port of said extension, an angularly disposed extension carried by said valve body and in communication with the vertical ports thereof and adapted to be connected to a service line, a head carried by the longitudinal extension of said valve body, a mercury chamber supported by said head, a tube carried by said head and extending into said chamber, a gage carried by said valve body and in communication with the vertical ports thereof, and means to facilitate supplying air to said gage and to said mercury chamber for testing the pressure in the service line connected to the angularly disposed extension of said valve body.

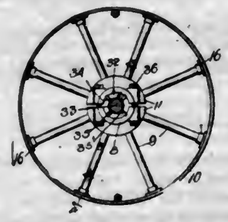
2. A testing device comprising a valve body having an angularly disposed extension for connection to a service line, a gage in communication with said valve body, a cut-off communicating with the valve body and having a stepped nipple for connection with a source of air supply, a tube containing a mercury column supported from said body and adapted to have mercury forced therein by a pressure of air through said body, a mercury well supported from the valve body and into which said column extends, and means whereby the gage can be used independently of said column.

3. A testing device comprising a valve body having means for connection to a service line, a gage supported from and in communication with said valve body, a cut off supported from and in communication with said valve body and capable of communicating with a source of air supply, a tube containing a mercury column supported from said body and adapted to have mercury forced therein by a pressure of air through said body, a mercury well supported from and communicating with said body and into which said column extends, and means carried by the valve body whereby said gage can be used independently of said column.

4. A testing device comprising a valve body having a longitudinally extending port and a valve seat therein, said body further provided with a transversely extending port, an inclined extension communicating with said transverse port and capable of being connected to a service line, a gage communicating with one end of said transverse port, a cut-off communicating with the other end of said port and capable of communicating with a source of air supply, a mercury well supported from said body and communicating with said longitudinal port, a tube containing a mercury column supported from said body and extending in said well, and a valve extending in said body and capable of engaging said seat whereby the gage can be used independently of the column.

5. A testing device comprising a valve body having a longitudinally extending port, a mercury well communicating with said port and supported by said body, a tube containing a mercury column supported by said body and extending in said well, a gage communicating with said port, a cut-off communicating with said port and capable of communicating with a source of air supply, means for establishing communication between said port, and a service line, and means operable within said body for closing independently of the column.

1,027,835. METAL PULLEY. HENRY P. GALE, Chicago, Ill. Filed May 14, 1909. Serial No. 496,011. (Cl. 64—17.)



1. A metal wheel comprising a hub provided with a hollow annular boss, a spoke located in said boss with one end thereof seated in a bore in the journal part of the hub, said spoke being provided with a shoulder engaging the edge of the journal part of the hub, and shoulders engaging the outer and inner edges of the boss, and a rim secured to the outer end of said spoke.

2. A metal pulley comprising a hub provided with a hollow annular boss bored to receive a spoke, a spoke engaged with said hub and having an enlarged portion providing shoulders for engagement with the journal part of the hub and the inner edge of the annular boss, and an enlarged portion extending beyond the boss and providing a shoulder for engagement with the outer edge of the boss.

3. A metal pulley comprising a hub having a hollow annular boss, said boss and the journal part of said hub being bored to receive a spoke, a spoke positioned in said bore and having an enlarged portion providing shoulders for engagement with the journal part of the hub and with the interior of the boss, and having an enlarged portion providing a shoulder for engagement with the exterior of the boss, and a rib and groove means to prevent the spoke from turning in the hub.

4. A metal pulley comprising a hub having a hollow annular boss, said boss and the journal part of said hub being bored to receive a plurality of spokes, spokes arranged in said bores, there being integral shoulders on the spokes for engagement with the journal part of the boss of the hub to prevent longitudinal movement of the spokes therein and ribs on the spokes to engage with the boss to prevent angular movement of the spokes relatively thereto, a plurality of plates fastened to said rim, each plate being provided with a socket and having an annular recess between the plate and the rim and an annular flange, there being a shoulder on each spoke adajted to engage with either end of the socket in the plate, whereby the rim is secured to the spokes.

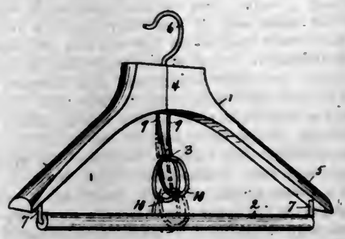
1,027,836. REDUCING INDIGO COLORING-MATTERS. WILHELM GAUS, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed June 9, 1910. Serial No. 565,987. (Cl. 8—1.)

1. The process of reducing indigo coloring matters by means of iron which consists in first pickling the iron with an acid and then heating the indigo coloring matter in the presence of alkali with the iron which has been thus treated, substantially as hereinbefore described.

2. The process of reducing indigo coloring matters by means of iron which consists in first pickling the iron with an acid and then heating the indigo coloring matter in the presence of caustic alkali with the iron which has been thus treated, substantially as hereinbefore described.

3. The process of reducing indigo coloring matters by means of iron which consists in first pickling the iron with an acid and then heating the indigo coloring matter in the presence of caustic alkali solution (which contains at least 6.5 per cent. of solid caustic alkali) with the iron which has been thus treated, substantially as hereinbefore described.

1,027,837. GARMENT-HANGER. MYRON A. GILMAN, Westfield, Mass. Filed Nov. 14, 1910. Serial No. 592,195. (Cl. 211—13.)



1. As an improved article of manufacture, a garment hanger comprising an upper supporting member, a lower supporting member, and an approximately vertical clamping member slidingly mounted relative to said upper member, in a plane approximately at right angles to said lower member, and having resilient separable gripping parts in operative relation to said lower member.

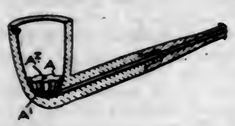
2. The combination, in a garment hanger, with a garment-supporting member, and a garment-supporting rail suspended from said member, of a clamping member having arms in sliding frictional engagement with said member and having a looped portion adapted to grip and release said rail when said clamping member is depressed and elevated.

1,027,838. BUTTON FOR TOBACCO-PIPES. WILLIAM GEORGE GLENN, Toronto, Ontario, Canada. Filed Mar. 30, 1911. Serial No. 618,009. (Cl. 131—12.)

1. As a new article of manufacture, a button for tobacco pipes comprising asbestos fiber and sodium silicate in solution stamped or formed up into button shape as and for the purpose specified.

2. As a new article of manufacture, a button for tobacco pipes comprising a suitable fiber and a binding medium stamped or formed up into button shape flat at the top and convex at the bottom ending with a flat portion to

form a chamber with the bottom of the bowl, and provided with unobstructed side grooves extending through



the top thereof to the bottom and chamber, and a central hole toward which the side grooves converge at the bottom.

1,027,839. AUTOMATIC VALVE. ELMER E. GRAHAM, Erie, Pa. Original application filed Dec. 14, 1909, Serial No. 533,059. Divided and this application filed May 22, 1911. Serial No. 628,714. (Cl. 126—351.)

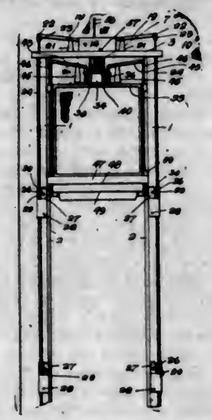


1. In a device of the character described, a valve shell, having a longitudinal valve stem-opening through the center thereof, a valve stem in said opening, a diaphragm closing the upper end of said valve shell, a cap on the upper end of said shell above and securing said diaphragm in place thereon, a valve on the lower end of said valve stem, spring mechanism within said shell adapted to press upward against said diaphragm, a removable plug in the lower end of said valve shell having a longitudinal opening therethrough, and a valve seat on the upper end of said plug surrounding said opening therethrough, upon which said valve may seat, substantially as set forth.

2. In a device of the character described, a valve-shell, a diaphragm on the upper end thereof, a screw-cap adapted to secure said diaphragm in place, a removable plug in the lower end of said valve-shell having an opening therethrough and an annular valve-seat on the upper end thereof surrounding said opening, an adjustable valve-stem guide in the intermediate portion of said valve-shell, a valve adapted to seat upon said valve-seat, a valve-stem secured thereto and extending upward through said guide, a head on the upper end of said valve-stem contacting against the underside of said diaphragm, and a spring between said valve-stem guide and said disk-head, substantially as set forth.

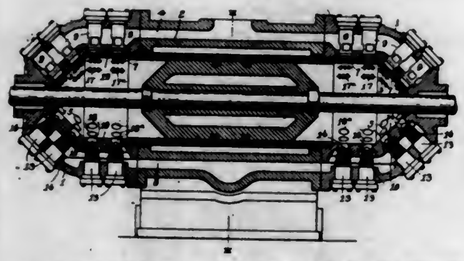
1,027,840. ELEVATOR SAFETY DEVICE. WILLIAM H. GRAHAM, Pittsburgh, Pa. Filed Dec. 29, 1911. Serial No. 668,542. (Cl. 187—73.)

In a safety device for elevators, the combination with guides, a beam carried by the upper ends thereof, a cage slidable between said guides, a hoisting cable for moving said cage, stop blocks carried by said guides and adapted to be shifted into the path of said cage, and gripping shoes carried by said cage and adapted to move simultaneously with said stop blocks and engage said guides, of a normally seated movable housing carried by said beam, a pulley journaled in said housing, a normally unseated housing carried by said cage, pulleys journaled in said housing and together with the pulley of the first mentioned housing receiving said hoisting cable, and means for unseating the first mentioned housing and seating the second mentioned housing when said cable is released whereby said stop



blocks and said shoes will be actuated to retard the movement of said cage.

1,027,841. FLUID-COMPRESSOR. HARRY D. HILDEBRAND, Pittsburgh, Pa. Filed Aug. 7, 1911. Serial No. 642,656. (Cl. 230—34.)



1. In an apparatus for compressing fluids, the combination of a cylinder, a piston and valve controlled ports located in the wall of the cylinder relative to the movement of the piston so as to be covered by the latter when at the end of its stroke and to be uncovered while the piston is intermediate the end of its stroke and point of maximum speed.

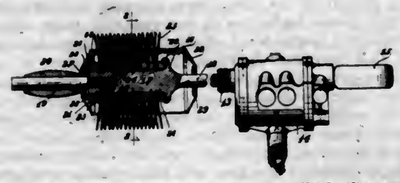
2. In an apparatus for compressing fluids, the combination of a cylinder, a piston and valve controlled ports located in the wall of the cylinder relative to the movement of the piston so as to be covered by the latter when at the end of its stroke and to be uncovered before the piston has attained maximum speed.

3. In an apparatus for the compression of fluids, the combination of a cylinder, a piston, and valve controlled ports, a portion of said ports being adapted to be opened on the initial movement of the piston and a portion subsequent to such initial movement and during the acceleration of the speed of the piston.

4. In an apparatus for the compression of fluids, the combination of a cylinder, a piston, valve controlled ports arranged in the head of the cylinder, and valve controlled ports arranged in the sides of the cylinder the latter being located at points relative to the movement of the piston that they will be covered by the piston when at the end of its stroke and uncovered prior to the piston attaining maximum speed.

5. In an apparatus for the compression of fluids, the combination of a cylinder, heads provided with cylindrical portions forming the ends of the cylinder, a piston and valve controlled ports arranged in the ends and cylindrical extensions of the head.

1,027,842. ABRADING OR CUTTING DEVICE. JAMES HILL, Sr., Camden, N. J. Filed July 13, 1911. Serial No. 638,409. (Cl. 114—222.)



1. In a device of the character described, the combination of a plurality of differently formed abrading elements for operating in different locations or at different angles, and a single rotatable arbor adapted to simultaneously support a plurality of said abrading elements, one upon the longitudinal extension of said arbor and another at the extreme end thereof.

2. In a device of the character described, the combination of a plurality of differently formed and interchangeable abrading elements, and a single rotatable arbor adapted to support said abrading elements, said arbor having a removable guard connected therewith and a removable handle, and means for securing an abrading element to the arbor in place of the handle.

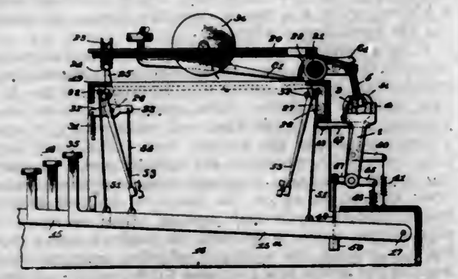
3. In a device of the character described, the combination of a plurality of differently formed abrading elements for operating in different locations or at different angles, a rotatable arbor adapted to simultaneously support a plurality of said abrading elements, a removable guard and a removable handle, said handle being interchangeable with an abrading element.

4. In a device of the character described, the combination of a plurality of differently formed abrading elements for operating in different locations or at different angles, and a rotatable arbor adapted to support said abrading elements either upon its longitudinal extension or at the extreme end thereof.

5. In a device of the class described, the combination of a rotatable mandrel, an arbor operatively connected therewith, a series of toother disks keyed thereto and adapted to rotate therewith, said disks being arranged with the teeth of adjacent disks in staggered relation, a removable handle, a guard partially surrounding said disks, a guard support, and means for rotating the mandrel and the arbor.

[Claims 6 to 12 not printed in the Gazette.]

1,027,843. TYPE-WRITING MACHINE. FREDERIC W. HILLARD, Tottenville, N. Y. Original application filed May 18, 1894, Serial No. 511,685. Divided and this application filed Oct. 16, 1900. Serial No. 33,264. (Cl. 197—82.)



1. In a writing machine, the combination with the keys, of a carriage, a rack movable both with and in respect to the carriage in the line of feed, an escapement rocker including a pivoted spring actuated dog which normally engages with the rack, carriage propelling power for feeding the carriage and the rack step by step, a part in the escapement having an inclined controlling face for retracing the rack by a blow on a key, and a power reducing mechanism connecting the carriage and the rack, and enabling the rack to be retracted by the application thereto of a force less powerful than the carriage propelling power, substantially as described.

2. In a writing machine, the combination with the keys, a spaced member and a spacing member, of a propelling power for advancing the spaced member when released by the spacing member upon a blow on the key, and a power reducing mechanism between the propelling power and the spaced member for retracting the spaced member by force applied to the key less than the opposing said propelling power, substantially as described.

3. In a writing machine, the combination with the keys, a rack and a pivoted spring actuated dog which normally engages the rack, of a propelling power for advancing the rack when released by the dog member upon a blow on a key, a power reducing mechanism between the propelling power and the rack, and an inclined controlling face in the escapement co-acting with said power reducing mechanism for retracting the rack by force applied to the key less than the opposing said propelling power, substantially as described.

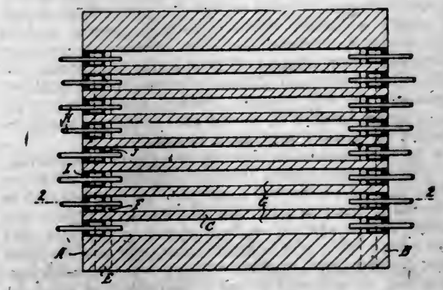
4. In a writing machine, the combination with a key, of a carriage propelling power, a carriage, an escapement therefor, comprising a rack movable with the carriage and relatively thereto in the line of feed, a pivoted spring actuated dog which normally engages the rack, and a rigid dog normally disengaged from the rack, a power reducing mechanism connecting the rack with the carriage and with the carriage propelling power, said power reducing gearing comprising a lever connected with the carriage at one end and with the rack at the other end and intermediately with the carriage propelling power, substantially as described.

1,027,844. PROCESS OF MAKING A SOLUBLE COMPOUND OF IRON-GLYCERO-PHOSPHATE COMBINED WITH MILK OR MILK-ALBUMIN. PAUL HOERING, Berlin, Germany. Filed July 7, 1911. Serial No. 637,243. (Cl. 23—24.)

1. The herein described process of making soluble compounds of milk and milk-albumin, which consists in mixing milk with iron-glycero-phosphate, and evaporating the solution thus obtained to a dry powder.

2. The herein described process of manufacturing soluble iron-milk preparations, which consists in mixing milk with a quantity of iron-glycero-phosphate equivalent to the percentage of albumin in the milk, and then evaporating the solution to a dry powder.

1,027,845. COKE-OVEN. EDMUND HOHMANN, Stettin, Germany, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier, Stettin, Germany, a Corporation of Germany. Filed Mar. 14, 1912. Serial No. 683,695. (Cl. 202—9.)

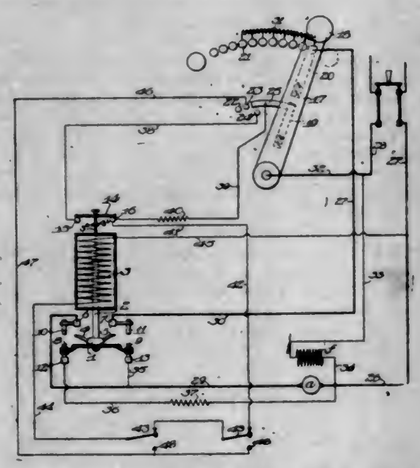


1. An oven having chambers provided with side walls and end walls, inlets for fuel and air, located adjacent to one of the end walls, off gas flues located adjacent to the other end wall, and heating flues extending in the side walls from the fuel and air inlets to the off gas flues at the opposite end of the oven.

2. An oven having chambers provided with side walls and end walls, inlets for fuel and ducts adapted to serve alternately as air-supply ducts and as outlets for the off gases, located adjacent to each of the end walls, flues located adjacent to each end of the oven and adapted to serve alternately as air-supply flues and as off gas flues respectively, and heating flues extending in the side walls from the first-named flues and ducts at one end of the oven to the flues and ducts at the other end.

3. An oven having chambers provided with side walls and end walls, inlets for fuel and air, arranged alternately at opposite ends of the oven, heating flues extending from said inlets to the other end of the oven, and off gas outlets connected with the farther ends of the heating flues.

1,027,846. SYSTEM OF CONTROL FOR ELECTRIC MOTORS. ALBERT J. HORTON, White Plains, N. Y., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis., a Corporation of Wisconsin. Filed Oct. 8, 1908. Serial No. 456,741. (Cl. 172—179.)



1. In a motor controller, in combination, an automatic main switch, a resistance varying element adapted to be moved to cause operation of said main switch, and auxiliary means for causing operation of said main switch when said element is in a predetermined position, said element, when in initial position, being adapted to render said auxiliary means ineffective to cause the operation of said main switch.

2. In a controller for electric motors, in combination, an electroresponsive main switch for controlling the motor circuit, a rheostat having a movable element adapted to be moved to energize said main switch, and auxiliary controlling means adapted to be operated to energize said main switch when said rheostat element is in a predetermined position, said rheostat element, when in initial position, being adapted to render said auxiliary means ineffective to energize said main switch.

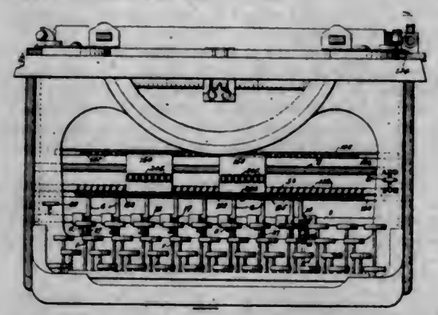
3. In a controller for electric motors, in combination, an electroresponsive main switch for controlling the motor circuit, a rheostat having a movable element adapted to be moved to energize said main switch, and auxiliary controlling means adapted to be operated to energize said main switch when said rheostat element is in a predetermined position, said rheostat element, when in initial position, and when moved beyond a predetermined point, being adapted to render said auxiliary means ineffective to energize said main switch.

4. In a controller for electric motors, in combination, an electroresponsive main switch, a rheostat having a movable element adapted to be operated, to cause said main switch to respond, and auxiliary means adapted to be operated, when said rheostat element is in a predetermined position to cause said main switch to respond, said rheostat element, when in initial position and when moved beyond a predetermined point, being adapted to render said auxiliary means ineffective to energize said main switch, said auxiliary means being adapted, at all times, to be operated to deënergize said main switch.

5. In a motor controller, in combination, an electroresponsive main switch, one or more controlling switches therefor, and a rheostat having a movable element adapted, when in one position, to establish circuit connections whereby any one of said controlling switches may be operated to energize said main switch, said rheostat element being movable to another position to energize said main switch without operation of said controlling switches and adapted, when in initial position, to render said controlling switches ineffective to energize said main switch.

[Claims 6 to 12 not printed in the Gazette.]

1,027,847. COMPUTING-MACHINE. JUSTIN T. HURLEY, Elizabeth, N. J. Filed Aug. 31, 1910. Serial No. 579,824. (Cl. 235—59.)



1. In a computing machine, the actuator or driving mechanism therefor, the combination with a typewriting machine and the key-bars thereof, of a slotted link pivoted to each numeral key-bar, a disk formed upon the upper end of each slotted link, upright guides arranged horizontally in a row, threaded arms thereon the arms secured to the links by adjustable nuts, a cylindrical cam attached to each upright guide, a transversely arranged transmission shaft rotatively mounted in the writing machine frame, radial arms secured to the transmission shaft adapted to be oscillated by the cylindrical cams, interlocked computing mechanism, means for transmitting cam movement to the computing mechanism, means operating to lock the cams when insufficiently actuated, a platen carrier and means controlled thereby for selecting the computing mechanism.

2. In a computing machine adapted to be detachably mounted in groups, the actuator mechanism therefor, the combination with a typewriting machine and the key-bars thereof, of slotted links pivoted to the numeral key-bars, a disk formed upon each slotted link, upright guides representing the numeral keys and disposed in a row horizontally, elbows on the upright guides terminating in a threaded arm, adjustable nuts upon the threaded arms adapted to secure the latter to the link disk, a cylindrical cam upon each upright guide, apertures in each upright guide, a transmission shaft extending horizontally through the apertures affording additional support for the guides and journaled in the writing machine frame, radial arms supplied to the transmission shaft, a pin secured in the free end of each radial arm at right angles thereto, sleeves upon the pins adapted to engage the peripheral surface of the cylindrical cams thereby imparting movement to the transmission shaft, a gear sector sleeved upon the transmission shaft and oscillated thereby, an arm secured to the transmission shaft, a spring connecting from the arm to the writing machine frame for the purpose of restoring the transmission shaft, means adapted upon incomplete key movement to lock the upright guides, interlocked computing mechanism, means for transmitting the gear sector movement to the computing mechanism, a platen carrier and means operated thereby for selecting the computing mechanism.

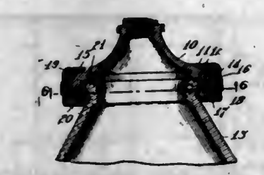
3. In a computing machine, the actuator mechanism therefor, the combination with a typewriting machine and the key-bars thereof, of slotted links pivoted thereon, a disk upon each link, threaded arms, adjusting nuts thereon adapted to secure the arms to the link disks, an elbow upon each threaded arm, an upright guide secured to each elbow and provided with an elongated opening, a transmission shaft extending through the upright guide openings transversely and journaled in the writing machine frame, radial arms secured to the transmission shaft, a pin secured in the free end of each radial arm at right angles thereto, sleeves upon the pins, cylindrical cams upon each upright guide adapted to operate the radial arms, one edge of the elongated opening merging at a tangent into the cam periphery affording suitable surface for operating the raidal arms, an arm secured to the transmission shaft, a spring connecting from the arm to the writing machine frame adapted to restore the transmission shaft, a shoulder upon the side of each upright guide, a chamber opening both front and rear formed in the shoulder, stop arms radially projecting from the transmission shaft and suspended one within each chamber adapted upon a key depression to prevent inertial overrunning of the transmission shaft, a gear sector mounted upon the transmission shaft and oscillated thereby but longitudinally movable thereon, interlocked computing mechanism, means for transmitting movement from the gear sector to the computing mechanism, a platen carrier and means connecting therewith for selecting the computing mechanism.

4. In a computing machine, the actuator mechanism therefor, the combination with a typewriting machine and the key-bars thereof, of a journaled transmission shaft, radial arms thereon, upright guides carrying cams for operating the radial arms, a lateral pin in each radial arm, means pivotally connecting with the key-bars for operating the upright guides, a shoulder upon each guide, an arc formed upon the lower extremity of the shoulder allowing the radial arm pin to swing beneath but adapted to be brought into contact with and be stopped by the said radial arm and pin if a key is irregularly depressed, a chamber in the shoulder having an opening both front and rear, stop arms secured to the transmission shaft and swinging freely one in each chamber but adapted upon depression of its associated guide to operate as a momentum stop for the transmission shaft, an arc formed upon the rearward or cam side of the shoulder acting as a guide for an adapted to prevent rebounding of the radial arm from the cam surface, a nose or extension formed upon the lower extremity of the shoulder representing numeral key 9 operating as a momentum check when key 8 has been depressed, a similar nose upon shoulder 8 operating as a momentum check for key 9, means adapted upon incomplete key movement to lock the upright guides, a gear sector sleeved upon the transmission shaft and oscillated thereby, means for laterally moving the gear sector, interlocked computing mechanism, means operated by the gear sector for transmitting movement to the computing mechanism, a platen carrier and means connecting therewith for selecting the computing mechanism.

5. In a computing machine, the actuator mechanism therefor, the combination with a typewriting machine and its key-bars, of upright guides, elongated openings therein, a transmission shaft extending through the openings, cylindrical cams, radial operating arms secured to the transmission shaft and operated by the cams, means pivotally connecting with the key-bars, means for preventing rebounding of the radial arms from the cam surface, means for preventing inertial overactuation of the transmission shaft, a serrated surface upon each upright guide, a locking shaft extending transversely and journaled in the writing machine frame, an arm attached to the locking shaft, a spring connecting from the arm to the writing machine frame adapted to restore the locking shaft, chisel toothed locking pins secured to the locking shaft one opposite each upright guide adapted to engage with the serrated surface and prevent restoration of the guide if not fully depressed, and also to prevent depression of the guide if not fully restored, a retracting lever pivoted to the writing machine frame, a spring connecting from the latter to the retracting lever adapted to return the lever to normal, a finger secured to the locking shaft adapted to be engaged by the retracting lever by which means the locking pins may be disengaged from the serrated surface, a gear sector sleeved upon the transmission shaft and adapted to be oscillated thereby but laterally movable thereon a limited distance, means for laterally moving the gear sector in advance of a restoring movement of the transmission shaft, interlocked computing mechanism, means for transmitting the gear sector oscillations to the computing mechanism, a platen carrier and means operated thereby for selecting the computing mechanism.

[Claims 6 to 63 not printed in the Gazette.]

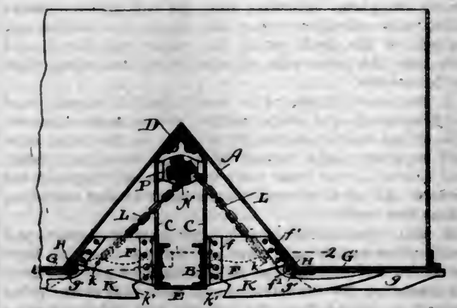
1,027,848. SHADE-HOLDER. PETER HUSTON, Chicago, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 25, 1912. Serial No. 686,023. (Cl. 240—115.)



1. In a shade holder, in combination, an externally threaded ring having a flat face, a nut engaging the ring and having an instanding flange, the inner face of the flange being inclined, an a helical annular spring seated between the face of the ring and the flange of the nut.

2. In a shade holder, in combination, an externally threaded ring having a flat face, a nut engaging the ring and having an instanding flange, the inner face of the flange being inclined, a helical annular spring seated between the face of the ring and the flange of the nut and means for limiting the retractive movement of the nut.

1,027,849. DUMP-CAR. FRANK S. INGOLDSBY, St. Louis, Mo., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo., a Corporation of West Virginia. Filed July 17, 1905. Serial No. 270,018, (Cl. 105—14.)



1. In a dump car, in combination, a beam having an upper chord in the form of a ridge, lower chord members, and longitudinal plates between the upper and lower chord members secured near their upper edges directly to the ridge.

2. A dump car having a beam in the form of a box girder comprising longitudinal members, and a ridge having inclined sides parallel with inwardly bent upper portions of said members, said sides being secured directly to such upper portions, and a bracing member having sides parallel to the sides of the ridge and secured thereto.

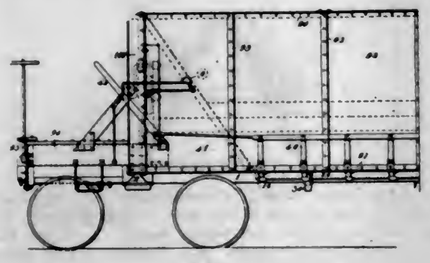
3. In a dump car, in combination, a member in the form of a box girder having a ridge along the top thereof engaging the girder plates throughout the length of the ridge, and dumping doors carried by such member.

4. In a dump car, a beam comprising two lower chord members, longitudinal vertical plates riveted thereto and an upper chord member in the form of an inverted V.

5. In a dump car, a structure comprising two lower chord members, longitudinal girder plates riveted thereto, and a sheet metal upper chord member in the form of an inverted V to which said plates are riveted.

[Claims 6 to 53 not printed in the Gazette.]

1,027,850. DUMP-CAR. FRANK S. INGOLDSBY, St. Louis, Mo., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo., a Corporation of West Virginia. Filed Apr. 19, 1906. Serial No. 312,535. (Cl. 105—185.)



1. In a dump car, the combination with a bolster, a draft plate on one side thereof and a center sill plate on the other, each of said plates being formed to enter the bolster and being riveted to webs thereof, and a connecting bar passing across the bolster and secured to the draft plate and the center sill plate.

2. The combination of a bolster having tension and compression flanges and a web between them, draft plates and center sill plates extending into the bolster on opposite sides between the flanges referred to, and members extending across the bolster and secured to the draft plates and center sill plates.

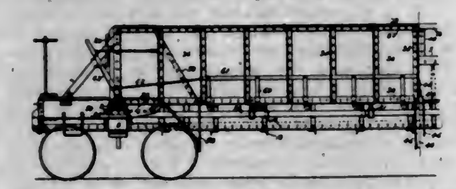
3. The combination of a bolster, draft plates and center sill plates extending into the bolster on opposite sides, bars extending across the top of the bolster and secured to the draft plates and center sill plates, and bars near the lower edge of such plates connecting them to the bolster.

4. The combination of a bolster having tension and compression flanges and a vertical web, a member on one side of the bolster and a sill member on the other side, said members being formed to extend into the bolster, said bolster having cross webs to which said members are secured, and a bar secured to said members and extending across the bolster.

5. The combination of a bolster having tension and compression flanges and a vertical web, of a pair of draft plates on one side of the web, a pair of alined center sill plates on the other side of said web, said plates being formed to extend into the bolster, said bolster having cross webs to which said plates are secured, and a pair of bars secured to the upper edge of each of the draft plates and extending across the top of the bolster and secured to the alined center sill plates.

[Claims 6 to 48 not printed in the Gazette.]

1,027,851. DUMP-CAR. FRANK S. INGOLDSBY and JOSEPH R. BOWLING, St. Louis, Mo., assignors to The Ingoldsby Automatic Car Company, St. Louis, Mo., a Corporation of West Virginia. Filed June 25, 1906. Serial No. 323,227. (Cl. 105—14.)



1. In a dump car, the combination, of the vertical plates inclined inwardly near their upper edges, cover plates secured to such inclined portions and having their upper edges adjacent, and an inverted V-shaped cap plate above the cover plates and secured to them.

2. The combination, of a pair of vertical plates with their upper edges inclined toward each other, a sheet metal ridge carried by such inclined portion, and a sheet metal brace plate between the inclined portions of the cover plate, the brace plate being flanged at its ends and riveted to such inclined portions and to the ridge.

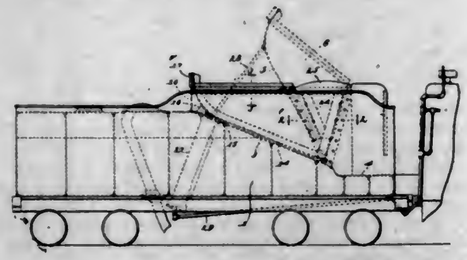
3. The combination, with the ridge, of vertical plates beneath the same and secured to it, and strut plates between the outer sides of the vertical plates and the ridge, said strut plates being flanged at their ends and secured by such flanges to the vertical plates and the ridge.

4. In a dump car, a beam composed of a pair of longitudinal plates with their upper edges inclining toward each other, a sheet metal ridge surmounting such longitudinal plates and riveted to the inclined portion thereof and extending below such inclined portion, flanged sheet metal plates on the outer sides of the longitudinal plates riveted to the longitudinal plates and to the ridge.

5. In a dump car, a beam composed of a pair of longitudinal plates, a sheet metal ridge surmounting such longitudinal plates and secured thereto, flanged sheet metal plates on the outer sides of the longitudinal plates riveted to the longitudinal plates and to the ridge, and a plate between the longitudinal plates flanged at its edges and riveted to the inner sides of such longitudinal plates.

[Claims 6 to 50 not printed in the Gazette.]

1,027,852. LOCOMOTIVE-TENDER. OSCAR JOHNSON, Chicago, Ill. Filed Nov. 11, 1911. Serial No. 659,680. (Cl. 105—260.)



1. A locomotive tender comprising a body having a coal-pit, a hopper pivoted in said coal-pit, said hopper having a rear wall and two side walls, guard means on the inner sides of the tender body, chafing boxes located on the inner sides of the tender-body close to the sides of the hopper, guard means on the sides of the hopper overlying the guard means on the tender body, and means for operating said hopper.

2. A locomotive tender comprising a body having a coal-pit, a hopper pivoted in said coal-pit, said hopper having a rear wall and two side walls, chafing boxes located on the inner sides of the tender body close to the sides of the

hopper and extending forwardly from the hopper when the latter is in its lower position, and means for operating said hopper.

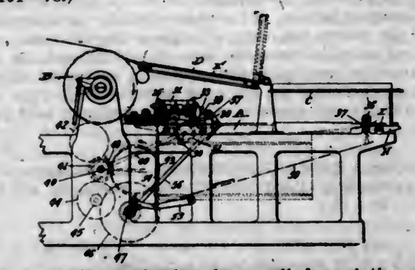
3. A locomotive tender comprising a body having a coal-pit, a hopper pivoted in said coal-pit, said hopper having a rear wall and two side walls, chafing boxes located on the inner sides of the tender body close to the sides of the hopper and extending forwardly from the hopper when the latter is in its lower position, guard means on the inner sides of the tender-body rearwardly of the chafing boxes, retaining flanges above the chafing boxes, said flanges being curved on the arc of a circle concentric with the axis of the hopper, a transverse guard means on the tender body at the rear of the coal-pit, guard means on the rear and side walls of the hopper arranged to overhang the several guard means and flanges on the tender body, and means for operating said hopper.

4. A locomotive tender comprising a body, a hopper pivoted to said body, said hopper having a rear wall and two side walls, a Z-bar fixed on the inner side of each side wall of the tender body, and a Z-bar on the outer side of each side wall of the hopper overhanging the Z-bars on the tender-body.

5. A locomotive tender comprising a body, a hopper pivoted to said body, said hopper having a rear wall and two side walls, chafing boxes located on the inner sides of the tender body close to the sides of the hopper and extending forwardly from the hopper when the latter is in its lower position, guard means on the inner sides of the tender-body rearwardly of the chafing boxes, retaining flanges above the chafing boxes, said flanges being curved on the arc of a circle concentric with the axis of the hopper, a Z-bar on each side wall of the hopper arranged to overhang the guard means and retaining flanges on the tender body, and means for operating said hopper.

[Claims 6 and 7 not printed in the Gazette.]

1,027,853. INKING APPARATUS FOR PRINTING-PRESSES. ROBERT T. JOHNSTON, Plainfield, N. J., assignor, by mesne assignments, to The Autoplate Company of America, Jersey City, N. J., a Corporation of New Jersey. Filed May 3, 1904, Serial No. 206,127. Renewed Oct. 4, 1911. Serial No. 652,846. (Cl. 101—78.)



1. An inking mechanism for a cylinder printing press having a reciprocating bed or form carrier, comprising form inking rollers arranged adjacent to the impression mechanism, an ink distributing device through which all the ink passes arranged adjacent to and supplying ink to the form inking rollers, an ink-supply arranged at the end of the press remote from the distributing device, and means for carrying ink from said ink-supply to said distributing device.

2. An inking mechanism for a cylinder printing press having a reciprocating bed or form carrier and a front delivery, comprising form inking rollers arranged in front of and adjacent to the impression mechanism, an ink distributing device through which all the ink passes arranged to supply ink to the form inking rollers, an ink-supply arranged at the front end of the press, and means for carrying ink from said ink-supply to said distributing device.

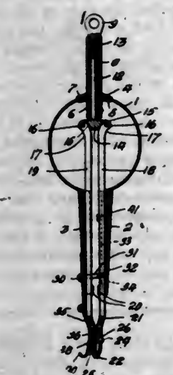
3. An inking mechanism for a cylinder printing press having a reciprocating bed or form carrier, comprising form inking rollers arranged adjacent to the impression mechanism, an ink distributing device arranged to supply ink to the form inking rollers, means for continuously rotating the elements of the distributing device, an ink-fountain and ductor arranged remote from the distributing device, and means for carrying ink from said ink fountain and ductor to said distributing device.

4. An inking mechanism for a cylinder printing press having a reciprocating bed or form carrier, comprising form inking rollers arranged adjacent to the impression mechanism, an ink distributing device arranged adjacent to and supplying ink to the form inking rollers, the elements of said distributing device being geared together, gearing for continuously rotating said elements while the press is in operation, an ink-supply arranged at the end of the press remote from the distributing device, and means for carrying ink from said ink-supply to said distributing device.

5. An inking mechanism for a cylinder printing press having a reciprocating bed or form carrier, comprising form inking rollers arranged adjacent to the impression mechanism, an ink distributing device through which all the ink passes arranged adjacent to and connected to said form inking rollers for a period to enable them to have a full charge of digested ink behind them for a full inking of the forms, an ink-supply arranged at the end of the press remote from the distributing device, and means for carrying ink from said ink-supply to said distributing device.

[Claims 6 to 20 not printed in the Gazette.]

1,027,854. ANIMAL-TRAP. MICHAEL KLOBUSIAK, Linwood, W. Va. Filed Dec. 4, 1911. Serial No. 663,856. (Cl. 43—31.)

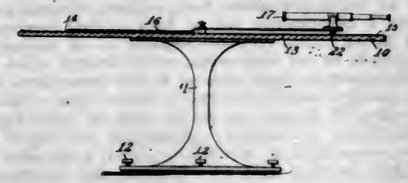


1. An animal trap comprising a band spring, channel arms carried thereby, bars movably arranged in said arms, double prongs carried by the outer ends of said bars, means carried by one of said arms for holding said arms together with said band spring under tension, a latch carried by one of said arms and engaging with one of said bars for holding said bars in a retracted position, a releasing element for said means carried by one of said bars, and means carried by one of said bars for releasing said latch to free the bars, and means for projecting said bars forwardly when released.

2. An animal trap comprising a band spring, arms carried thereby, spring actuated bars movably arranged in said arms, double prongs pivotally mounted in the outer ends of said bars, means carried by said arms for retaining said arms together with said band spring under tension, an arm carried by one of said bars and capable of engaging with said means for releasing it, a latch carried by one of said arms and engaging with one of said bars for maintaining the bars retracted, and a trigger carried by one of the bars and capable when shifted of engaging said latch to release the same thereby freeing the bars.

3. An animal trap comprising a band spring, arms carried thereby, spring actuated bars movably mounted in said arms, spring actuated double prongs carried by the outer ends of said bars, means including a yoke carried by said arms and adapted to retain said arms together with said band spring under tension, means including a latch carried by one of said arms for holding said bars in a retracted position, and a trigger carried by one of said bars and capable of engaging said latch for releasing it when the trigger is shifted in one direction thereby freeing the bars, and means carried by one of said bars for releasing said arms when said bars are shifted in said arms.

1,027,855. OUTLOOK-TABLE. FREDERICK B. KNAPP, Duxbury, Mass. Filed Dec. 19, 1911. Serial No. 666,821. (Cl. 88—2.)



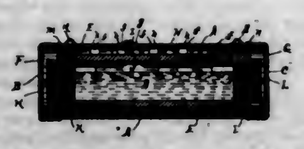
1. The combination with a table, of a map adapted to be located thereon and provided with a circular scale graduated in degrees, and an alidade having sighting means and mounted upon said map and movable at will into any radial position determined by aid of the sighting means.

2. The combination of a topographic map, a concentrically located circular scale graduated in degrees, a panoramic map, and means serving as an alidade to establish radial lines across both maps, for the purpose set forth.

3. The combination with a circular topographic map, of an azimuth scale, and a panoramic map showing the principal features of the topographic map and so located with relation to the topographic map that the corresponding features of the two maps will be in radial alinement.

4. The combination with a circular topographic map, of an azimuth scale, a panoramic map showing the principal features of the topographic map and so located with relation to the topographic map that the corresponding features of the two maps will be in radial alinement, and an alidade pivoted at the center of the azimuth scale and adapted to show the radial relation between the corresponding features of the two maps and to indicate their azimuth.

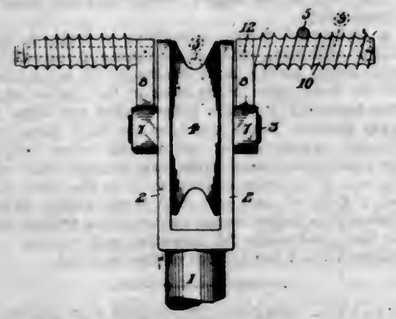
1,027,856. HUMIDIFIER AND DISINFECTOR. FRANK KOCHER, East Germantown, Ind. Filed Jan. 29, 1912. Serial No. 674,187. (Cl. 131—30.)



1. A humidifier and disinfector, comprising in combination a porous ceramic container for liquid, same being of tubular form, stoppers closing the ends of the container, a case for inclosing the container same being of greater length than is the container, caps for closing the ends of the case, a plurality of spring tongues secured on the inside and near the ends of said case and adapted to hold the container centrally of the case, means for suspending the case whereby it will hang in a horizontal position, there being a plurality of apertures formed through the upper side of the case, a damper mounted on the inside of the case and adapted to close said apertures in the case, and means for sliding said damper, all substantially as shown and described.

2. A humidifier and disinfector comprising in combination a porous earthenware container formed of a single length of material and formed tubular in form, corks for closing the ends of said container same being removable, a case of non-porous material adapted to surround and inclose said container, said case being larger both in length and diameter than the container, spring tongues adapted to retain the container central of said case, means located near each end of the case whereby it may be suspended horizontally, there being a plurality of apertures formed in the upper surface of the case, a sliding damper located on the inside of the case and adapted to be moved to open and close said apertures, there being inlet apertures formed through the underside of the case to allow air to enter, pass around the container, and escape through first named apertures, all substantially as set forth.

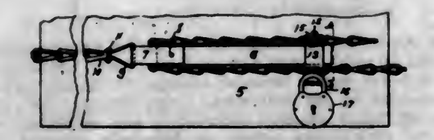
1,027,857. TROLLEY. IZYDOR KOCIAN, Junction City, Ill. Filed Mar. 22, 1912. Serial No. 685,640. (Cl. 191—37.)



1. In a trolley, the combination with a trolley harp having a journal pin, of arms having the inner ends thereof mounted upon the ends of said pin, outwardly extending pins carried by the outer ends of said arms, and spirally grooved rollers revolubly mounted upon said pins.

2. In a trolley, the combination with a harp, a journal pin mounted therein, and a wheel revolubly mounted upon said pin within said harp, of arms having the inner ends thereof mounted upon the ends of said journal pin and arranged in parallelism with said harp, outwardly extending pins mounted in the outer ends of said arms, and spirally grooved rollers revolubly mounted upon said pins.

1,027,858. PACKAGE-FASTENER. IRA D. KRESS, Los Angeles, Cal. Filed Sept. 25, 1911. Serial No. 651,122. (Cl. 24—19.)



1. A package fastener comprising a tensioning lever; a clevis pivotally mounted on said lever near one end thereof; a securing stud on the lever near the other end thereof; a chain secured to said clevis and adapted to pass around the package, through the clevis and to the other end of the lever when angularly disposed as to the plane of the clevis; and a securing slide having a port in one end, said slide adapted to be moved upon the chain and lever to fasten the chain upon the securing stud.

2. A package fastener comprising a tensioning lever; a clevis pivotally mounted on said lever near one end thereof; a securing stud on the lever near the other end thereof; a chain secured to said clevis and adapted to pass around the package, through the clevis and to the other end of the lever when angularly disposed as to the plane of the clevis; and a securing slide having a port in one end, said slide adapted to be moved upon the chain and lever to fasten the chain upon the securing stud; in combination with a locking means to fasten the slide upon the stud of the lever.

1,027,859. FAN ATTACHMENT FOR ROCKING-CHAIRS. AUGUST KUBING and GUSTAF HOFFMAN, Chicago, Ill. Filed Dec. 4, 1911. Serial No. 663,863. (Cl. 230—7.)



1. A fan attachment for rocking chairs, comprising a rail, means for attaching said rail to the rocker of a rocking chair, a tripod arranged at the side of said rail, radius links pivotally connected to the rail and tripod and adapted to permit independent rocking movement of said rail with relation to said tripod, a fan shaft mounted on the tripod in lateral relation to the said rail, spirally arranged fans on said shaft, and operative connections between the rail aforesaid and the fan shaft for imparting rotation to the shaft, substantially as set forth.

2. A fan attachment for rocking chairs, comprising a rail, means for attaching said rail to the rocker of a rocking chair, a tripod arranged at the side of said rail, radius links pivotally connected to the rail and tripod and adapted to permit independent rocking movement of said rail with relation to said tripod, a fan shaft mounted on the tripod in lateral relation to the said rail, spirally arranged fans on said shaft, a pair of reversed ratchet mechanisms mounted on said shaft, and individual pull cords operatively connected to said ratchet mechanisms and the respective ends of said rail, substantially as set forth.

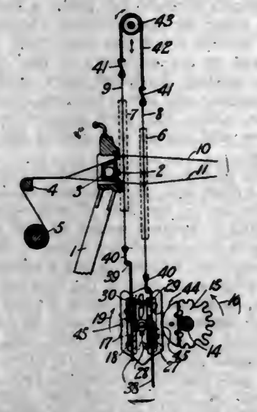
3. A fan attachment for rocking chairs, comprising a rail, a pair of screw clamps for attaching said rail to the rocker of a rocking chair, a tripod arranged at the side of said rail, radius links pivotally connected to the rail and tripod and adapted to permit independent rocking movement of said rail with relation to said tripod, a fan shaft mounted on the tripod in lateral relation to the said rail, spirally arranged fans on said shaft, and operative connections between the rail aforesaid and the fan shaft for imparting rotation to the shaft, substantially as set forth.

4. A fan attachment for rocking chairs, comprising a rail, means for attaching said rail to the rocker of a rocking chair, a tripod consisting of a pair of longitudinally arranged legs and a lateral prop leg pivotally connected to each other and adapted to fold together, radius links pivotally connected to the rail and tripod and adapted to permit independent rocking movement of said rail with relation to said tripod, a fan shaft mounted on said tripod in lateral relation to said rail, spirally arranged fans on said shaft, and operative connections between the rail aforesaid and the fan shaft for imparting rotation to the shaft, substantially as set forth.

5. A fan attachment for rocking chairs comprising a rail, means for attaching said rail to the rocker of the rocking chair, a tripod consisting of a pair of longitudinally arranged legs and a lateral prop leg suitably connected together, a pair of longitudinal radius links extending between the middle portions of the rail aforesaid and the longitudinally arranged tripod legs, a pair of lateral radius links extending from the outer ends of said rail to the lateral prop leg of the tripod, a fan shaft mounted on the tripod in lateral relation to said rail, spirally arranged fans on said shaft, and operative connections between the rail aforesaid and the fan shaft for imparting rotation to said shaft, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,027,860. SELVAGE-MOTION FOR LOOMS. CHARLES LAVALLEE, New Market, N. H. Filed Feb. 17, 1911. Serial No. 609,244. (Cl. 139—84.)



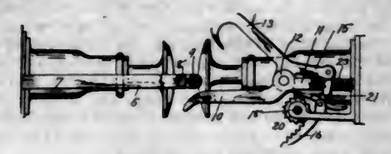
1. In a selvage motion for a loom, in combination, two sets of selvage heddles, a pair of reciprocatory members operatively connected with the respective sets of heddles, one thereof having cam engagement projections and lever engagement projections, and the other having lever engagement projections, a revoluble cam coacting with the said cam engagement projections and an intermediately pivoted rocking lever engaged and positively operated by one set of the lever engaging projections and in turn engaging the other set of lever engagement projections.

2. In a selvage motion for a loom, in combination, two sets of selvage heddles, a stationary frame having a pair of vertical guideways therein, a pair of members slidable in said guideways, operatively connected respectively with the two sets of heddles, one thereof having cam engagement projections and also lever engagement projections, and the other having lever engagement projections only, a gear wheel rotatively mounted adjacent said frame, having a cam member coacting with the aforesaid cam engagement projections, an intermediately pivoted rocking lever engaged by one set of the lever engagement projections and in turn engaging the other set of lever engagement projections, and a gear wheel for driving the first named gear, one of said gears having detachable segmental portions of different characters interchangeably used thereon for the purpose set forth.

1,027,861. COUPLING DEVICE. SYLVESTER FRANCIS LESLIE, Newcastle, New South Wales, Australia. Filed Dec. 22, 1910. Serial No. 598,816. (Cl. 213—45.)

1. In a coupling device, a draw bar having a rigid lower jaw member at the outer end thereof, an upper jaw member having a hooked outer end and pivoted at the other end to the lower jaw member adjacent to the inner end thereof, and having an upwardly inclined tail piece integral therewith, a segmental rack pivoted at its up

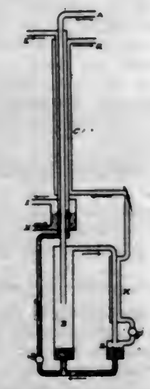
per end to the extremity of said tail piece, a toothed pinion coacting with said rack, means for turning said pinion thereby opening or closing said upper jaw member, and a link member adapted to engage between said jaw members.



2. In a device of the class described, a draw bar having a rigid lower jaw member at the outer end thereof and a vertical slot inward of said lower jaw member, a roller journaled within one end of said slot, an upper jaw member having a hooked outer end and pivoted at its inner end to said lower jaw member near the inner end thereof and having an upwardly inclined tail piece, a bowed member toothed on its inner surface extending through said slot with its plain surface contacting said roller and pivoted at its upper end to the extremity of said tail piece, a toothed pinion suitably journaled below said lower jaw member and engaging said bowed member, means for turning said pinion, and a rigid link adapted to extend between said jaws and engage said hooked end of the upper jaw member.

3. In a device of the class described, in combination, a pair of opposing draw bars, each having a squared end and a vertical guide-slot to the rear of said squared end, a rigid link having a squared socket at one end thereof adapted to receive the squared end of one of the said draw bars, a rigid lower jaw member having a squared socket at its inner end adapted to receive the squared end of the other draw bar, an upper jaw member pivoted near its inner end to said lower jaw member and having a hooked outer end adapted to engage said rigid link, means for swinging said upper jaw member on its pivot, said means comprising as part thereof a segmental rack member depending through a vertical guide-slot aforesaid, and means for locking said squared ends in engagement with said squared sockets, whereby the coupling members are made interchangeable on said draw bars.

1,027,862. APPARATUS FOR THE SEPARATION OF HYDROGEN FROM A GASEOUS MIXTURE. CARL VON LINDE, Munich, Germany. Original application filed Oct. 10, 1910, Serial No. 586,325. Divided and this application filed July 31, 1911. Serial No. 641,585. (Cl. 62—18.)



1. In apparatus for the separation of hydrogen from a gaseous mixture, the combination with a heat interchanger, a collecting vessel, means for conveying the gas mixture through the heat interchanger to the collecting vessel, and two expansion mechanisms in communication with the collecting vessel.

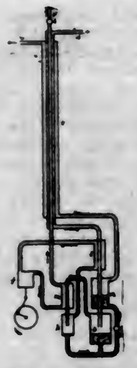
2. In apparatus for the separation of hydrogen from a gaseous mixture, the combination with a heat interchanger, a collecting vessel, means for conveying the gas mixture through the heat interchanger to the collecting vessel, two expansion mechanisms in communication with the collecting vessel, and a vessel connected with the heat interchanger and adapted to contain liquid air or nitrogen.

3. In apparatus for the separation of hydrogen from a gaseous mixture, the combination with a heat interchanger, a main collecting vessel, a second collecting vessel connected with said first collecting vessel by connection from the top and bottom of the latter, a heat interchanger coöperating with the connection leading from the top of the main collecting vessel to the second collecting vessel, an expansion mechanism in connection with each collecting vessel.

4. In apparatus for the separation of hydrogen from a gaseous mixture, the combination of a heat-interchanger, a collecting vessel, a vessel connected with the interchanger and adapted to contain liquid air or nitrogen under reduced pressure, and two expansion mechanisms connected and operating substantially as described.

5. In an apparatus for the production of hydrogen, the combination of heat interchanging means, liquid collecting means, expansion means, and liquid air temperature reducing means for fluid leaving the collecting means.

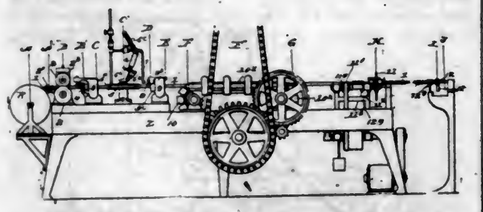
1,027,863. APPARATUS FOR THE SEPARATION OF HYDROGEN. CARL VON LINDE, Munich, Germany. Filed Oct. 23, 1911. Serial No. 656,093. (Cl. 62—18.)



In apparatus for the separation of hydrogen from a mixture of gases, the combination with heat interchanging means comprising an inlet pipe for a mixture of gases, an outlet pipe therein for hydrogen and an outlet pipe surrounding the said inlet pipe for escape of fluid other than hydrogen, liquid collecting means communicating with the inlet pipe of the heat interchanging means, expansion means between said collecting means and the outlet pipe of the heat interchanging means through which the hydrogen passes, expansion means between said collecting means and the outlet pipe of the heat interchanging means through which the other fluids pass and means for raising the temperature of said hydrogen before expansion.

1,027,864. CONTINUOUS PROCESS OF MANUFACTURING METAL TUBES. MARSHALL B. LLOYD, Menominee, Mich., assignor to Automatic Welding Company, Menominee, Mich., a Corporation of Michigan. Filed July 12, 1911. Serial No. 638,202. (Cl. 78—87.)

1. Setting a substantially continuous strip of flat metal stock in motion longitudinally and while it is in motion and without interrupting such motion performing upon it all of the acts necessary to progressively form the flat strip into initial tubing having a longitudinal seam, to then progressively weld said seam, to thereafter reduce the tubing from initial cross section to a specified cross section, and to sever and deliver successive reduced portions in the final form of separate tubes of respectively specified lengths.



2. Setting a substantially continuous strip of flat metal stock in motion longitudinally and while it is in motion and without interrupting such motion performing upon it all of the acts necessary to progressively form the flat strip into initial straight tubing having a straight longitudinal seam, to then progressively weld said seam, to thereafter remove the weld bur and circumferentially reduce the tubing from initial cross section to a specified cross section, and to finally sever and deliver successive reduced portions in the form of separate straight tubes of respectively specified lengths.

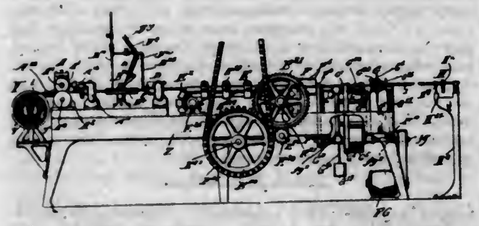
3. Setting a substantially continuous strip of flat metal stock in motion longitudinally and while it is in motion and without interrupting such motion performing upon it all of the acts necessary to progressively form the flat strip into initial tubing having a longitudinal seam, to reduce the tubing from initial cross section to a specified cross section, and to sever and deliver successive reduced portions in the final form of separate tubes of respective lengths.

4. Setting a substantially continuous strip of flat metal stock in motion longitudinally and while it is in motion and without interrupting such motion performing upon it all of the acts and imposing stresses necessary to form the flat strip progressively into tubing having a longitudinal seam and maintaining said stresses cross-sectionally uniform in the stock and thereby insuring straightness in the tubing, and severing and delivering successive portions in the final form of separate straight tubes of respectively specified lengths.

5. Setting a substantially continuous strip of flat metal stock in motion longitudinally and while it is in motion and without interrupting such motion performing upon it all of the acts necessary to form the flat strip progressively into tubing having a longitudinal closed seam, and to sever and deliver successive portions in the final form of separate tubes of respectively specified lengths.

[Claims 6 to 36 not printed in the Gazette.]

1,027,865. CONTINUOUS TUBE-MILL. MARSHALL B. LLOYD, Menominee, Mich., assignor to Automatic Welding Company, Menominee, Mich., a Corporation of Michigan. Filed July 12, 1911. Serial No. 638,203. (Cl. 78—87.)



1. A continuous tube mill adapted to convert substantially continuous flat strip metal stock into welded tubes of specified cross section and respectively specified lengths, comprising forming, positioning, welding, deburring, reducing, measuring, and cut-off mechanisms arranged in operative alinement and simultaneously coöperative to set and maintain the stock in motion longitudinally, and without interrupting such motion, progressively form the stock into initial tubing having a longitudinal seam, position said seam for welding, weld the same, remove the weld bur, reduce the tubing to specified cross section, measure successive resultant end portions of the tubing and finally sever such resultant end portions in the form of tubes of respectively measured lengths.

2. A continuous tube mill adapted to convert substantially continuous flat strip metal stock into welded tubes of definite cross section and lengths, comprising forming, positioning, welding, deburring, reducing and cutting mechanisms arranged in operative alinement and simultaneously coöperative to set and maintain the stock in motion longitudinally and without interrupting such motion, progressively form the stock into initial tubing having a longitudinal seam, position said seam for welding, weld the same, remove the weld bur, reduce the tubing to specified cross section, and finally sever resultant end portions in the form of separate tubes.

3. A continuous tube mill adapted to convert metal tube stock into welded tubes of specified cross section and respectively specified lengths, comprising positioning, welding, deburring, reducing, measuring and cut-off mechanisms arranged in operative alinement and simultaneously coöperative to set and maintain the stock in motion longitudinally, and without interrupting such motion, progressively position the seam for welding, weld the same, remove the weld bur, reduce the tubing to specified cross section, measure successive resultant end portions of the tubing and finally sever such resultant end portions in the form of tubes of respectively measured lengths.

4. A continuous tube mill adapted to convert substantially continuous flat strip metal stock into welded tubing of specified cross section, comprising forming, positioning, welding, deburring and reducing mechanisms arranged in operative alinement and simultaneously coöperative to set and maintain the stock in motion longitudinally, and without interrupting such motion, progressively form the stock into initial tubing having a longitudinal seam, position said seam for welding, weld the same, remove the weld bur and reduce the resultant tubing to specified cross section.

5. A continuous tube mill adapted to convert substantially continuous flat strip metal stock into welded tubes of definite cross section and respectively specified lengths, comprising forming, positioning, welding, deburring, measuring and cut-off mechanisms arranged in operative alinement and simultaneously coöperative to set and maintain the stock in motion longitudinally, and without interrupting such motion, progressively form the stock into tubing having a longitudinal seam, position said seam for welding, weld the same, remove the weld bur, measure successive end portions of the tubing and finally sever such end portions in the form of tubes of respectively measured lengths.

[Claims 6 to 84 not printed in the Gazette.]

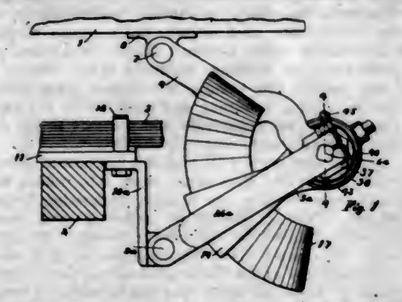
1,027,866. SHOCK-ABSORBER. ALLEN LOOMIS, Detroit, Mich., assignor, by mesne assignments, to The Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 4, 1908. Serial No. 465,924. (Cl. 21—105.)

1. The combination with a shock absorber having a given range of action, of means for automatically varying said range relative to one of the vehicle parts.

2. The combination with a shock absorber comprising two relatively movable elements capable of a given range of operation, and means for connecting said elements to the vehicle parts, of means for automatically shifting said range relative to one of said connecting means.

3. The combination with a shock absorber having a point of least resistance which is constant relative to one of the vehicle parts, of means for automatically varying

said point relative to the normal position of the other vehicle part.



4. The combination with a shock absorber having a point of least resistance, of means for automatically varying said point relative to the normal position of the vehicle parts, said means comprising a dash pot connected to the shock absorber.

5. In a shock absorber having three relatively movable parts, retarding means between two of said parts and a more sluggish retarding means between one of said two parts and the third part.

[Claims 6 to 22 not printed in the Gazette.]

1,027,867. PULLING-STAND FOR DRILL-CASINGS. ALBERT C. LUDLUM, New York, N. Y., assignor to New York Engineering Company, a Corporation of New York. Filed Aug. 31, 1910. Serial No. 579,877. (Cl. 57—43.)

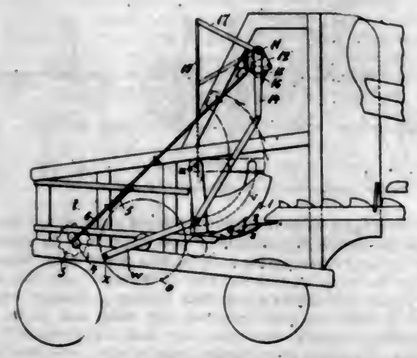


A knockdown stand having a vertically adjustable fulcrum for pulling drill casings, comprising a base plate having at the middle portion thereof separated parallel transverse bars, a pair of channeled uprights having a series of vertically arranged holes for a fulcrum pin said uprights being secured to said bars at the lower end and open at the top to admit insertion of a separable and independent operating lever, inclined braces detachably connecting the ends of said base plate and the uprights, and a fulcrum pin having its ends of such diameter as to pass through said perforations in the uprights and having at each end a shouldered groove, said grooves being spaced to interlock with the walls of the holes, whereby when the fulcrum pin is in position it braces the uprights against distortion.

1,027,868. STRAW-PRESS WITH AUTOMATIC BUNDLE-MEASURER AND NEEDLE-CONTROLLER. MADS OLUF MADSEN, Asnas, Denmark. Filed Dec. 12, 1910. Serial No. 596,960. (Cl. 100—20.)

1. In a straw-press the combination of a tunnel, in which the straw is pressed together, an oscillatory packer mounted in front of said tunnel, and adapted to carry the straw into and press it together in the tunnel, means which cause the packer during the working stroke to move from above down and forward, and inclined teeth pointing toward the tunnel and being arranged on the surface of said packer traveling along the bottom of the straw-press.

2. In a straw-press the combination of a tunnel, in which the straw is pressed together, an oscillatory packer mounted in front of said tunel, and adapted to carry the straw into and press it together in the tunnel, means which cause the packer during the working stroke to move from above down and forward, inclined teeth pointing toward the tunnel and being arranged on the surface of said packer traveling along the bottom of the straw-press, and inclined teeth also pointing toward the tunnel and being arranged on the bottom of the straw-press in front of the tunnel.



3. In a straw-press the combination of a tunnel, provided with an oscillatory packer, a toothed wheel projecting through the bottom of the tunnel, a cam fixed to said toothed wheel, a stop acted on by said cam, a locking pawl, a shaft, a sector fixed to said shaft and provided with a locking lever normally held in locking position by said pawl, a spring pressing against said locking lever and tending to bring it out from the locking position, an arm, loosely mounted upon said shaft, means for constantly oscillating said arm, means for oscillating said shaft from said arm when the locking lever is released from said locking pawl, a needle, means for reciprocating said needle from said shaft when oscillated, and means for returning the lever to its locking position after each full reciprocating movement of the needle.

1,027,869. PROCESS OF SOLDERING SINGLE LINKS OF SOLID WIRE CHAINS. FRITZ MAISENBACHER and THEODOR BÜRCK, Pforzheim, Germany. Filed Oct. 19, 1911. Serial No. 655,553. (Cl. 113—112.)



In a process of soldering single links of solid wire chains, cutting the two ends of the chain links, which form between them the joint to be soldered, in an uneven way, moistening both ends—while being cut—with a solder fluxing agent, inserting a centrally guided and correspondingly shaped thread of solder between said ends which are closed at their deepest edges and on both sides, then cutting the same off directly above the joint, pressing the cut solder into the joint, so that it is prevented from falling out, joining said wire ends in such a way that they inclose the piece of solder on three sides touching the following link, and finally heating the joint, thus preventing adjacent links from being soldered to each other, substantially as and for the purpose set forth.

1,027,870. WRENCH. LAWRENCE MANEK, Winipank, Conn. Filed Dec. 4, 1911. Serial No. 663,718. (Cl. 81—158.)

A wrench comprising a toothed shank, a yoke-shaped case slidably mounted thereon and having the sides thereof terminating inwardly with respect to the teeth of the shank, a laterally extending jaw integral with and projecting from the outer portion of the sides of the case, a narrow lateral extension projecting from the inner portion of the sides of the case and of less length than the length of said jaw, a rod extending through the free terminus of said extension and secured in the inner face of said jaw, a nut-holder arranged between said jaw and extension and pivotally mounted at one side of its center to provide a



recess and a pair of arms, a pin fixedly secured in the outer ends of the arms of the nut-holder, a spiral nut concentrically mounted upon said pin within said recess and capable of engaging the teeth of the shank when the nut-holder is swung inwardly thereby maintaining the case in an adjusted position, the inner arm of said nut-holder provided with a socket, and a spring controlled detent carried by said extension and projecting through the latter and capable of engaging in said socket for maintaining the nut-holder in closed position.

1,027,871. FINGER-EXERCISER. JAMES R. MANNERS, Manila, Philippine Islands. Filed Apr. 14, 1911. Serial No. 621,040. (Cl. 128—16.)



1. In a device of the class described, a base member provided with finger stalls into which the fingers are adapted to extend, the stalls being movable bodily of the base member.

2. In a device of the class described, a base member provided with members adapted to engage the fingers of a persons's hand, the said members being movable bodily and transversely of the base member.

3. A finger exerciser, comprising a base member, a plurality of finger stalls carried by the base member and movably mounted therein, and means for holding the finger stalls in the base member.

4. A finger exerciser, comprising a base member, and a plurality of members carried thereby and movable therein, the said members being provided with tapered openings, whereby any desired fingers of a person's hand may be engaged.

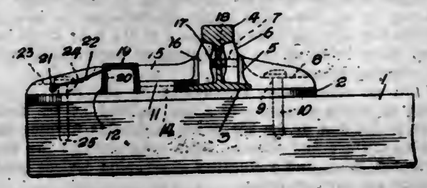
5. A finger exerciser comprising a base member, a number of finger stalls slidably supported thereon, the stalls extending in a radial direction, any one of the stalls being adapted to receive one of the fingers of a person's hand.

1,027,872. PROCESS OF MAKING SKITTLE-GROUNDS. OTTO KARL ALBERT MANTHE, Niederplanitz, near Zwickau, Germany. Filed Dec. 26, 1911. Serial No. 667,931. (Cl. 94—1.)

1. The herein described process of making smooth skittle-grounds and facings of floors and the like containing asphalt, which consists in coating a bed of cement concreate with a boiled mixture of asphalt, goudron and sand while hot, in rubbing quarts sand into the coating, in then rubbing Portland cement into the sanded coating, in thereupon coating the facing thus obtained with wax, and in subsequently polishing the waxed facing.

2. The herein described process of making smooth skittle-grounds and facings of floors and the like containing asphalt, which consists in coating a bed of cement concrete with a boiled mixture of asphalt, goudron and sand while hot, in rubbing quarts sand into the coating, in then rubbing Portland cement into the sanded coating, in thereupon coating the facing thus obtained with wax, in smoothing the waxed facing, in coating the smoothed facing with wax, and in subsequently polishing the waxed facing.

1,027,873. RAIL-JOINT. FRANK MARINICS, Expedit, Pa. Filed Mar. 6, 1912. Serial No. 681,905. (Cl. 239—6.)



In a rail joint, the combination with a tie and rails, of a chair mounted upon each end of said tie for supporting said rails, an inner rail fastener carried by the inner end of said chair and having an integral splice bar bracing the inner sides of said rails, the splice bar of said inner fastener having transverse openings formed therein, a longitudinal enlargement carried by the outer ends of said chair and provided with a transverse tapering key groove and a longitudinal dovetail groove in communication with said transverse groove, an outer fastener, a tongue carried by said fastener and engaging in said longitudinal groove, a splice bar carried by said outer fastener and engaging the outer sides of said rails, pins carried by said splice bars and extending through the webs of said rails into the opening of the splice bar of said inner fastener, the tapering key-mounted in the transverse groove of said enlargement, a resilient hook carried by the sides of said enlargement and engaging the inner end of said key to retain said key in engagement with said enlargement and the outer ends of said outer rail fastener, and means for holding said chair upon the end of said tie.

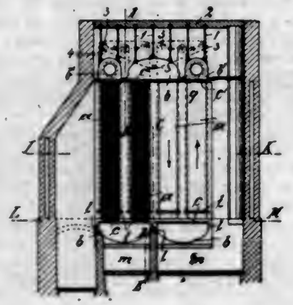
1,027,874. WINDOW-HOLDER FOR SLIDING SASHES. WILLIAM STEWART MASON and EDWARD JARVIS MASON, Leicester, England. Filed Mar. 1, 1912. Serial No. 680,916. (Cl. 16—54.)



1. The combination in a window sash holder, of a cylindrical hollow body having a longitudinal rib, with a cylindrical casing containing the ratchet controlled wheel or runner and a rib engaging in a recess in the rib of the hollow body, all substantially as set forth.

2. The combination in a window sash holder of the cylindrical body the casing pressed forward by the spring and containing the ratchet controlled wheel or runner within the roller, all substantially as set forth.

1,027,875. ECONOMIZER, REGENERATOR, AND THE LIKE. WALTHER MATHESIUS, Charlottenburg, Germany. Filed Oct. 16, 1911. Serial No. 655,003. (Cl. 75—95.)



1. In an economizer, regenerator or the like, a plurality of tubes arranged in rows inclined at an acute angle to the flow of the hot gases, said tubes forming the heating surface and offering little resistance to the flow of the hot gases while enabling the application of horizontally moving scraping devices.

2. In an economizer, regenerator or the like, a plurality of tubes arranged in rows inclined at an acute angle to the flow of the hot gases, said tubes forming the heating surface and offering little resistance to the flow of the hot gases, and a plurality of scraping devices intermediate the rows of tubes.

3. An economizer, regenerator or the like, comprising a chamber, inlet and outlet hot gas connections to said chamber, head boxes spaced apart in said chamber and having oppositely facing flat sides, a plurality of tubes between said head boxes and arranged in rows inclined at an acute angle to the flow of the hot gases, a plurality of scraping devices movable over the flat side of the lower head boxes and intermediate the rows of tubes, a dust chamber below said lower head boxes and air inlet and outlet connections to said head boxes.

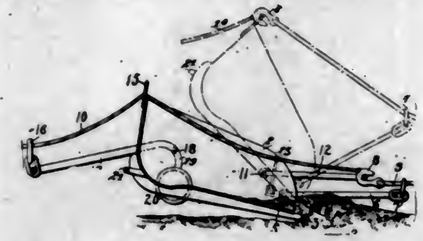
4. An economizer, regenerator or the like, comprising a chamber, inlet and outlet hot gas connections to said chamber, head boxes spaced apart in said chamber and having oppositely facing flat sides, a plurality of tubes between said head boxes and arranged in rows parallel to one another in a direction at right angles to the flow of the hot gases and parallel to one another in a direction inclined at an acute angle to the flow of the hot gases, a plurality of scraping devices movable over the flat side of the lower head boxes and intermediate the rows of tubes at right angles to the flow of the hot gases, a dust chamber below said lower head boxes, air inlet and outlet connections to said head boxes and scrapers movable vertically over said tubes.

5. In tubular economizers, regenerators or the like, scraping devices comprising a frame surrounding each group of tubes, cross-supports in said frame and intermediate the rows of tubes, and scrapers supported from said cross-supports and surrounding said tubes.

[Claims 6 and 7 not printed in the Gazette.]

1,027,876. EXCAVATING-SCOOP FOR WIRE-ROPE HAUL. ARCHIBALD MCGILLIS, Vancouver, British Columbia, Canada. Filed Feb. 6, 1912. Serial No. 675,707. (Cl. 37—19.)

1. An excavator bucket, comprising in combination a scoop having bottom, sides and back, a hauling ball pivotally connected to the sides of the scoop close to their front bottom corners said ball having a ring-like member in the middle line of the scoop, an excavating ball pivotally connected to the sides of the scoop above and behind the aforementioned hauling ball, an upsetting loop secured to the upper edge of the back of the scoop in the middle line, a haul back ball pivotally connected to the sides adjacent to the back and having an eye or ring in the middle line and coöperative therewith a hauling rope passed through the eye of the hauling ball and having a hook at the bend of which the haul back line is connected after passing through the eye or ring of the haul back ball.

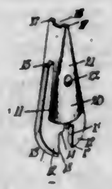


2. An excavator bucket, comprising the combination with a scoop having bottom, sides and back, of a forward hauling ball including a ring and connected to the front end and a backward hauling ball including a ring and connected to the back end a haul back line freely passed through said ring of the forward hauling ball and through said ring of the backward hauling ball and having a hook introduced between the two balls.

3. An excavator bucket, comprising the combination with a scoop having bottom, sides and back, of a forward hauling ball pivotally connected to the front bottom corners of each side, an excavating ball pivotally connected to the sides of the scoop above and behind the aforementioned hauling ball, means for limiting the upward movement of the excavating ball in relation to the front edge of the scoop, an upsetting loop secured to the upper edge of the back of the scoop in the middle line, a haul back ball pivotally connected to the sides of the scoop adjacent to the back, and coöperative therewith a hauling rope passed through an eye on the hauling ball and having a hook to the bend of which a haul back line is connected after passing through an eye or ring of the haul back ball.

4. An excavator bucket, comprising the combination with a scoop having bottom, sides and back, of a forward hauling ball pivotally connected to the front bottom corner of each side, an excavating ball pivotally connected to the sides of the scoop above and behind the aforementioned hauling ball, an upsetting loop secured to the upper edge of the back of the scoop in the middle line, a haul back ball pivotally connected to the sides of the scoop toward the back, and in combination therewith a hauling line passed through a ring on the forward hauling ball and a ring on the backward hauling ball with a hook introduced in the line between the two balls.

1,027,877. SCREW-DRIVER. ISAIAH L. MESSENGER, De Ruyter, N. Y., assignor to R. De Witt Burdick and Lee C. Saunders, Linckiaen Center, N. Y. Filed Aug. 11, 1911. Serial No. 643,520. (Cl. 145—52.)



1. A screw driver, comprising a body portion having a contracted blade end; and a plurality of movable blades extended from the opposite end of said body portion to form gripping jaws shaped for seating in the kerf of a screw and extending below the bottom thereof, said extending ends being sharpened to form a seat for a screw head.

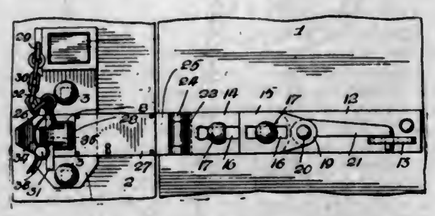
2. A screw driver, comprising a double ended tool arranged to be reversely installed in a chuck to present successively the opposite ends, one of said ends shaped to operatively fit the kerf of a screw and the other of said ends being shaped to seat within and to extend below the kerf of a screw to infold the sides of the shank of said screw, said tool being parted lengthwise adjacent the second mentioned end to permit the contraction of said second end upon the shank of the screw.

3. In a tool of the character described, the combination of a rigid body portion having formed at one end thereof a screw driving edge; with a resilient gripping member separated lengthwise to form contractible blades, said blades being shaped to form a square recess for seating within and to extend below the bottom of a screw kerf; and means for permanently uniting the said body portion and said gripping member.

4. In a tool of the character described, the combination of a rigid body portion having formed at one end thereof a screw driving edge; with a resilient gripping member separated lengthwise to form contractible blades, said blades being shaped to form a square recess for seating within and to extend below the bottom of a screw kerf, the lower ends of said blades being sharpened to form cutting members to extend below the head of a screw; and means for permanently uniting said body portion and said gripping member.

5. In a tool of the character described, the combination of a rigid body portion having formed at one end thereof a screw driving edge; with a resilient gripping member separated lengthwise to form contractible blades, said blades being shaped to form a square recess for seating within and to extend below the bottom of a screw kerf, the lower ends of said blades being shaped and sharpened to form cutting members extending below the head of a screw to form a shaped seat therefor; and means for permanently uniting said body portion and said gripping member.

1,027,878. HASP-LOCK. MARIAN MILEWSKI, Carmel, N. Y. Filed Mar. 22, 1912. Serial No. 685,463. (Cl. 70—23.)

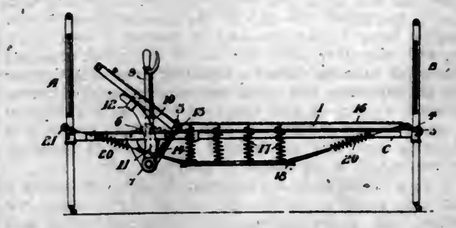


1. The combination with a door and a door frame, of a keeper plate carried by said door frame, a keeper carried by said plate and having a bolt opening and a sealing pin opening formed therein, a hasp member adjustably supported by said door and adapted to be swung into engagement with said keeper plate, a lock carried by said hasp member and having a bolt adapted to engage in the bolt opening of said keeper, a sealing pin loosely connected to said keeper plate and adapted to be placed in the sealing pin opening of said plate, and means for retaining said sealing pin in engagement with said keeper.

2. The combination with a door and a door frame, of a hasp plate carried by said door, a hasp adjustably mounted against said plate, an apertured lug carried by said hasp plate, a hook connected to said hasp and engaging in said lug, a hasp member carried by said hasp, a keeper carried by said door frame and adapted to extend through said hasp member, and means carried by said hasp member for locking said member relatively to said keeper.

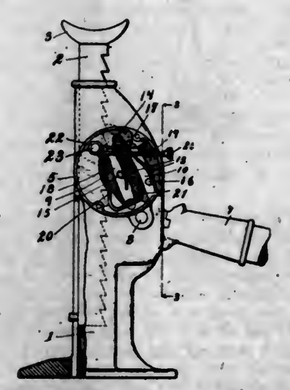
3. The combination with a door and a door frame, of a hasp plate carried by said door, a hasp adjustably mounted against said plate, an apertured lug carried by said hasp plate, a hook connected to said hasp and engaging in said lug, a hasp member carried by said hasp, a keeper carried by said door frame and adapted to extend through said hasp member, means carried by said hasp member for locking said member relatively to said keeper, and additional means including a sealing pin coöperating with the first mentioned means in retaining said hasp member in engagement with said keeper.

1,027,879. INVALID-BED. FRANK MILLER, St. James, Mich. Filed Mar. 13, 1912. Serial No. 683,612. (Cl. 5—43.)



In an invalid bed, the combination with a bed having head and foot pieces, and side rails connecting said head and foot pieces, of a stationary spring frame section having one end thereof supported by the foot piece of said bed, an adjustable spring frame section hinged to said stationary section, sector racks carried by the rails of said bed, a shaft journaled in the lower ends of said racks, operating levers mounted upon the ends of said shaft and adapted to be locked relatively to said racks, curved cam arms carried by said shaft and engaging said adjustable spring frame section whereby said section can be adjusted by moving said levers, springs connecting the hinged end of said spring frame section and said shaft, a wire frame suspended beneath said stationary spring frame section, and coiled compression springs interposed between said stationary spring frame section and said wire frame.

1,027,880. LIFTING-JACK. HUSON V. MILLER, Kalamazoo, Mich. Filed Nov. 10, 1909. Serial No. 527,203. (Cl. 57—99.)



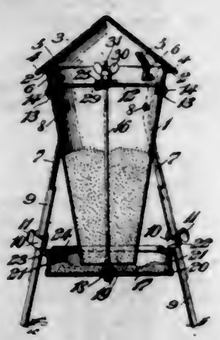
1. In a lifting jack, the combination with a frame, of a rack bar, a pair of alternately acting pawls having laterally-projecting pins thereon, means for holding said pawls yieldingly in engagement with said rack, an L-

shaped reversing member, the stem portion of said member being provided with a pivot loop at its upper end and being bent to provide a cam coacting with the pin on one of the pawls, the end of the arm portions of said member being turned upwardly to provide a cam coacting with the pin on the other pawl, one end of said pivot engaging loop being extended into an adjusting arm, said member and its adjusting arm being formed integrally of spring material, a pivot on said frame on which said pivot loop is engaged, and a catch on said frame with which said adjusting arm may be engaged whereby said engaging portion is held in its operative position.

2. In a lifting jack, the combination with a frame, of a rack bar, a pair of alternately acting pawls, means for holding said pawls yieldingly in engagement with said rack, an L-shaped reversing member, the stem portion of said member being provided with a pivot loop at its upper end and being bent to provide a cam coacting with one of the pawls, the end of the arm portions of said member being turned upwardly to provide a cam coacting with the other pawl, one end of said pivot engaging loop being extended into an adjusting arm, said member and its adjusting arm being formed integrally of spring material, a pivot on said frame on which said pivot loop is engaged, and a catch on said frame with which said adjusting arm may be engaged whereby said engaging portion is held in its operative position.

3. In a lifting jack, the combination with a frame, of a rack bar, a pair of alternately acting pawls, means for holding said pawls yieldingly in engagement with said rack, a reversing member formed of spring material bent to provide a pivot loop and to provide cams coacting alternately with the pawls, and being extended into an adjusting arm, a pivot on said frame on which said pivot loop is engaged, and a catch on said frame with which said adjusting arm may be engaged whereby said engaging portion is held in its operative position.

1,027,881. AUTOMATIC SELF-FEEDER FOR CHICKENS, PIGEONS, AND THE LIKE. ERNEST H. MILLS, Merchantville, N. J., assignor of one-half to Gerhard Loeling, Pensauken township, N. J. Filed Nov. 8, 1911. Serial No. 659,139. (Cl. 119—53.)



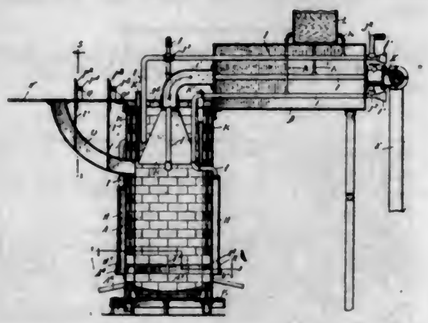
1. In an automatic self-feeder, an open ended conical casing, a bar extending across said casing and having an opening therein, a rod extending through said opening and fitting loosely therein so that such rod has a limited swinging movement relative to the casing, a feed pan carried at the lower end of said rod, an adjusting nut at the other end of said rod, and a locking device freely rotatable upon said rod and having cams on the bottom thereof coacting with said bar, said device being intermediate said adjusting nut and said bar whereby on the actuation of said locking device said feed pan will be raised and thereby stop the feed from said container.

2. In an automatic self-feeder, an open ended conical casing, a bar supported within said casing and having an opening, a rod extending through said opening, a feed pan supported at the lower end of said rod, an adjusting device carried by the upper end of said rod to vary the relative distance between the lower end of said casing and the bottom of the feed pan, and a rotatable locking device intermediate said adjusting device and said bar and having cam faces on its lower portion coöperating with said bar when said locking device is turned to raise said rod and thereby raise said pan against the bottom of said container, so as to close the latter and to prevent the feed from passing from said container into said feed pan.

3. In an automatic self-feeder, an open ended conical container, a bar within said container, a rod, a feed pan adjustably secured to the lower end of said rod, an adjusting nut at the upper end of said rod, a locking nut freely rotatable on said rod and having a face corresponding to a face of said bar and seated thereon, and located intermediate said adjusting nut and said bar, said locking nut having reversely inclined cam faces on opposite sides thereof adapted to engage said bar on the rotation of said locking nut to raise said rod and thereby said feed pan to prevent passage of food from said container into said feed pan, and a cover for the upper end of said container.

4. In an automatic feeder, a container, a bar secured transversely therein, a rod passing through said bar, a feed pan carried by said rod, an adjusting nut for the upper end of said rod, and a locking device 25, freely rotatable on said rod and located between said bar and nut, said device having grasping portions 26, a lower horizontal wall 27 adapted to contact with said bar and reversely inclined cam faces 28 and 29 on opposite sides of said wall 27, whereby when said locking device is turned, said rod and pan are elevated to close the mouth of said container.

1,027,882. SMELTER-FURNACE. WATSON MARSHALL NESBIT and EDWARD PIKE, Eureka, Utah. Filed July 7, 1911. Serial No. 637,801. (Cl. 75—57.)



1. A smelter furnace, comprising a stack provided in its wall below the smelting zone with inlets, a heating chamber communicating with the upper end of the stack, supply pipes passing through the said heating chamber and leading to the said inlets, means for producing a suction in the said heating chamber and in the upper portion of the said stack and ducts leading through the top of the stack and ranging downwardly along the stack walls to open into the stack above the charge.

2. A smelter furnace, comprising a stack provided in its wall below the smelting zone with inlets, a heating chamber connected with the upper end of the stack, supply pipes passing through the said heating chamber and leading to the said inlets, fluid fuel pipes connected with said supply pipes, hot gas pipes also connected with said supply pipes and means for producing a suction in the said heating chamber and in the upper portion of the said stack.

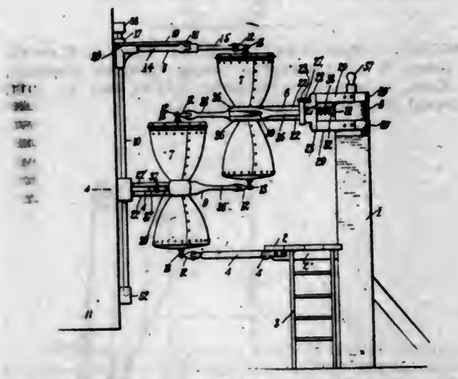
3. A smelter furnace, comprising a stack provided in its wall below the smelting zone with inlets, a heating chamber connected with the upper end of the stack, supply pipes passing through the said heating chamber and leading to the said inlets, fluid fuel pipes connected with said supply pipes at points between the heating chamber and the top of the stack, and means for producing a suction in the said heating chamber and in the upper portion of the said stack.

4. A smelter furnace, comprising a stack, means for producing a suction in the upper portion of the stack above the charge, and air supply ducts passing through the top of the stack downward and ranging along the inner faces of the stack walls to open into the stack above the charge.

5. A smelter furnace, comprising a stack, means for producing a suction in the upper portion of the stack above the charge, and air supply ducts extending through the top of the stack downward and ranging along the inner faces of the stack walls to open into the stack above the charge, the said supply ducts increasing in width from the top downward.

[Claims 6 to 8 not printed in the Gazette.]

1,027,883. MAIL-BAG-DELIVERY MECHANISM. BENJAMIN FRANKLIN NICOLL, New Orleans, La., assignor of fifteen one-hundredths to Joseph T. Sullivan, New Orleans, La. Filed Oct. 20, 1911. Serial No. 655,662. (Cl. 105—231.)



1. Mail delivery mechanism comprising a member mounted to swing around a pivot, said member having a pocket formed to receive a mail bag therein, and an arm pivoted in the outer end of said swinging member and having an extension, said mail bag and said swinging member being mounted to have relative motion with respect to each other, said arm being actuated by the impact of said mail bag upon the extension thereof, to move into position to close said pocket and retain said mail bag therein after said mail bag has been engaged by said swinging member.

2. Mail delivery mechanism comprising a member mounted to swing around a pivot and having means for catching a mail bag and retaining the same, said member and said mail bag being mounted for relative movement with respect to each other, and means adjacent the pivot of said swinging member for cushioning the said member against the impact of said mail bag.

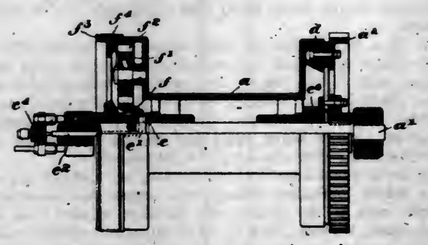
3. Mail delivery mechanism comprising a member mounted to swing on a pivot and having means for catching a mail bag, said bag and said member being mounted to have relative movement, a projection on said swinging member adjacent said pivot, and a spring mounted adjacent said pivot to contact with said projection and shaped to exert a braking action thereon, whereby the spring will cushion said member against the impact of the mail bag when the bag is caught by the same.

4. Mail delivery mechanism comprising a member mounted to swing on a pivot and having means for catching and holding a mail bag, said member having a projection adjacent said pivot, a block having a recess into which said projection extends, and a spring in said recess engaging said projection and shaped to exert a braking action thereon, whereby said member will be cushioned against the impact of said mail bag.

5. Mail delivery mechanism comprising a member mounted to swing on a pivot and having means for catching and holding a mail bag, said member having a projection adjacent said pivot, a block having a recess into which said projection extends, a spring in said recess engaging said projection and shaped to exert a braking action thereon, whereby said member will be cushioned against the impact of said mail bag, said block and said projection having interengaging means for catching and locking said member in inoperative position after the same has reached the limit of its movement caused by the impact of said mail bag thereon.

[Claims 6 to 22 not printed in the Gazette.]

1,027,884. HOISTING APPARATUS. ALMON E. NORRIS, Cambridge, Mass. Filed Jan. 14, 1905. Serial No. 241,071. (Cl. 57—83.)



1. A hoisting engine having a plurality of winding drums provided each with friction driving means, and also each with separate speed reduction driving means, and means for driving said drums through either of said driving means.

2. A hoisting engine having a pair of winding drums, driving means, friction members connected to be driven by said driving means, means for clutching said friction members to said drums, separate speed reduction gearing for each of said drums and also connected to be driven by said driving means, and means for rendering effective said speed reduction gearing.

3. A hoisting engine having a pair of parallelly arranged winding drums, driving means, friction members connected to be driven by said driving means, gearing connecting said friction members, means for clutching said friction members to said drums, speed reduction gearing also connected to be driven by said driving means, and means for rendering effective said speed reduction gearing.

4. A hoisting and conveying machine having a pair of drums, means for rotating the said drums at the same speed, and means for rotating them together at a different speed from said first speed and in a reverse relation one to the other.

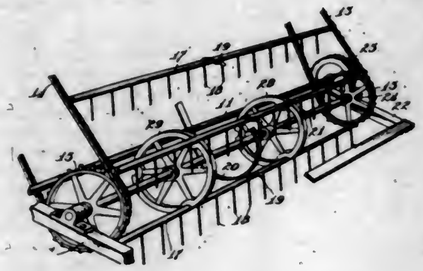
5. A hoisting and conveying machine having a pair of drums, means for driving the same to cause the rope to wind on one and unwind from the other at the same rate of speed, and means for driving them at a slower speed in reverse relation to cause the rope to wind on or unwind from each drum.

[Claims 6 to 25 not printed in the Gazette.]

1,027,885. HAY-LOADER. AUGUST OTTO, Jr., Sandwich, Ill. Filed July 29, 1909. Serial No. 510,233. (Cl. 56—61.)

1. In a hay loader, in combination, a frame, two pairs of sprocket wheels mounted at opposite sides of the frame, chains running one on each pair of the sprocket

wheels, a rake-head carried by the two chains, and a rotative abutment engageable by the head and located between corresponding sprocket wheels of each pair.



2. In a hay loader, in combination, an inclined frame, two shafts journaled respectively across the lower and upper ends of the frame, two sprocket wheels fixed on each shaft, a chain running on each pair of wheels, rake-heads carried by the two chains, an abutment fixedly mounted on the lower shaft and engageable by the rake-heads.

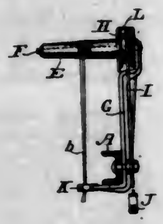
3. In a hay loader, in combination, an inclined frame, two shafts journaled, respectively, across the lower and upper ends of the frame, two sprocket wheels fixed on each shaft, a chain running on each pair of wheels, rake-heads carried by the two chains, an abutment fixedly mounted on the lower shaft and having notches in its peripheral face for engaging the rake-heads.

4. In a hay loader, in combination, an inclined frame, two shafts journaled, respectively, across the lower and upper ends of the frame, two sprocket wheels fixed on each shaft, a chain running on each pair of wheels, rake-heads carried by the two chains, an abutment fixedly mounted on the lower shaft and having notches with flaring throats in its peripheral face for engaging the rake-heads.

5. In a hay loader, in combination, a frame, two pairs of sprocket wheels mounted at opposite sides of the frame, chains running one on each pair of the sprocket wheels, a rake-head carried by the two chains, and a rotative abutment engageable by the head and located between corresponding sprocket wheels of each pair and spaced apart from the wheels to allow clearance for the raking teeth.

[Claim 6 not printed in the Gazette.]

1,027,886. LOOSE-WARP TAKE-UP. HERBERT W. OWEN, Dover, N. H., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed May 11, 1911. Serial No. 626,460. (Cl. 139—18.)



1. A loom having, in combination, harnesses; a warp-beam; a whip-roll; a fixed stud extending horizontally above the warp at right angles to the warp-beam and whip-roll; a loose warp rotary take-up drum turning on said stud; a pulley on the take-up drum; a loose warp guide above the warp and below said take-up drum which leads the loose warps from the whip roll to the take-up drum; and a slipping friction drive for rotating said take-up drum consisting of a band or cord attached to the rear harness of the loom and passing over said pulley and a weight on the free end of said band or cord.

2. A loom having, in combination, harnesses; a warp-beam; a whip-roll; a fixed stud extending horizontally above the warp at right angles to the warp-beam and whip-roll; a loose warp rotary take-up drum turning on said stud; a pulley on the take-up drum; a loose warp guide above the warp and below said take-up drum which leads the loose warps from the whip roll to the take-up drum; and a slipping friction drive for rotating said take-up drum consisting of a band or cord attached to a reciprocating part of the loom and passing over said pulley and a weight on the free end of said band or cord.

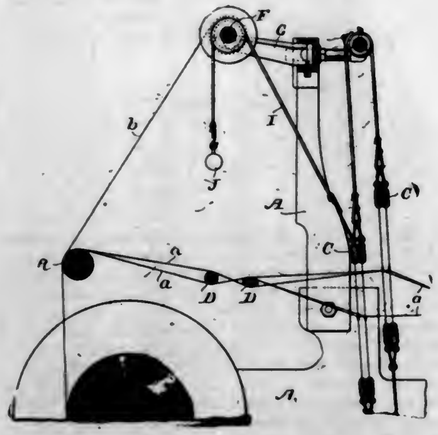
3. A loom having, in combination, harnesses; a warp-beam; a whip-roll; a fixed stud extending horizontally above the warp at right angles to the warp-beam and whip-roll; a loose warp rotary take-up drum turning on said stud; and means for rotating said take-up drum.

4. A loom having, in combination, a warp-beam; a loose warp rotary take-up drum turning on an axis at right angles to the warp-beam; a loose warp guide which leads the loose warps to the take-up drum; and means for rotating the take-up drum.

5. A loom having, in combination, a warp-beam; a loose warp rotary take-up drum with its axis at right angles to the warp-beam; and means for rotating said take-up.

[Claims 6 to 15 not printed in the Gazette.]

1,027,887. LOOSE-WARP TAKE-UP. HERBERT W. OWEN, Dover, N. H., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed May 11, 1911. Serial No. 626,461. (Cl. 139—18.)



1. A loom having, in combination, a warp-beam; an axle removably mounted on the loom above the warp and parallel with the warp-beam; a take-up drum for the surplus warp-threads on the warp-beam which do not enter into the fabric woven on the loom, said drum being independent of the cloth take-up, and being slidingly and rotatively mounted on said axle; and means for rotating said take-up drum.

2. A loom having, in combination, a warp-beam; an axle mounted on the loom parallel with the warp-beam; a take-up drum for the surplus warp-threads on the warp-beam which do not enter into the fabric woven on the loom, said drum being independent of the cloth take-up, and being slidingly and rotatively mounted on said axle; and means for rotating said take-up drum.

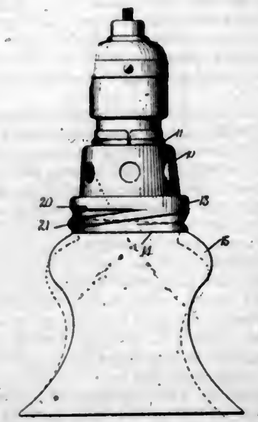
3. A loom having, in combination, a warp-beam; an axle removably mounted on the loom; a take-up drum for

the surplus warp-threads on the warp-beam which do not enter into the fabric woven on the loom, said drum being independent of the cloth take-up, and being slidingly and rotatively mounted on said axle; and means for rotating said take-up drum.

4. A loom having, in combination, a warp-beam; a take-up for the surplus warp-threads on the warp-beam which do not enter into the fabric woven on the loom, said take-up being independent of the cloth take-up, and being adjustable crosswise of the warp; and means for automatically moving said take-up.

5. A loom having a warp-beam and weaving instrumentalities, in combination with a take-up for the surplus warp-threads on the warp-beam which do not enter into the fabric woven on the loom, said take-up being independent of the cloth take-up, and being adjustable crosswise of the warp and means for moving said take-up.

1,027,888. SHADE-HOLDER FOR INCANDESCENT LAMPS. HERMAN H. PALMER, Charleston, S. C., assignor of one-half to Francis J. Seel, Charleston, S. C. Filed Mar. 19, 1912. Serial No. 684,713. (Cl. 240—114.)

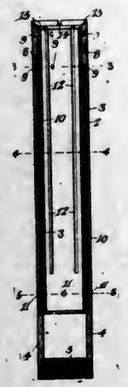


1. The combination with a shade having an attaching neck formed with an exterior annular overhanging portion at its upper end, of a shade-holder having a depending flange presenting an open mouth, the edge of the flange defining the mouth being flaring for a portion of said edge, a substantially horizontal shoulder on said flange at a point within the mouth and against which the overhanging member of the neck may seat with the shade coaxial with the holder, the said depending flange having a guide groove forming approximately one-half a convolution, the said groove extending at its upper end to and through the mentioned shoulder and vanishing at its lower end at the mouth of the flange, the said groove of the holder flange and the annular overhanging upper edge of the shade being so proportioned that the overhanging edge of the shade will engage at one side in the mentioned groove with the axis of the shade at an angle to the holder, and the shade and holder being capable of relative turning movement with the axes at an angle, the overhanging annular edge of the shade furthermore fitting the seat on the depending flange and the edge of the said flange coacting with the exterior surface of the shade when the overhanging edge is moved onto the horizontal seat of the holder.

2. A shade-holder having a depending flange formed at its mouth with an edge flaring for a portion of the circumference, a substantially horizontal shoulder within the mouth and against which the overhanging edge of a shade may seat itself with the shade and shoulder coaxial, the said depending flange of the holder having a guide groove for approximately one-half a convolution, and the said groove extending from the mouth of the flange to and through the mentioned shoulder.

3. A means for securing to a lamp socket a shade having an overhanging member disposed in a circular line, said means consisting of a shade-holder having an open-mouthed flange formed with a substantially horizontal interior shoulder inward from the mouth and against which the overhanging edge of a shade may seat, the said flange having an edge to contact tightly with the exterior surface of the shade, when the overhanging edge of the shade seats against said interior shoulder, the said flange furthermore having a guide groove making approximately one-half a convolution from the edge to the said shoulder and of a height to permit tilting and turning of the shade relatively to the holder.

1,027,889. EXPANSIVE PUMP-PLUNGER. CLARENCE L. PARKER, Los Angeles, Cal. Filed Oct. 25, 1911. Serial No. 656,606. (Cl. 103—63.)



1. In a pump, a pump barrel, and a plunger composed of two interfitting tubular members laterally expansible, the plunger being provided with a packing intermediate of the two tubular parts, and the inner-member and packing being provided with matching passages to provide for the action of the weight of liquid above the plunger directly on the outer member.

2. In a pump, a pump barrel and a plunger composed of an inner split member and an outer split member with an intermediate split packing all secured together near one end, the inner member and packing being constructed for the direct action of liquid above the plunger upon the outer member to expand the latter.

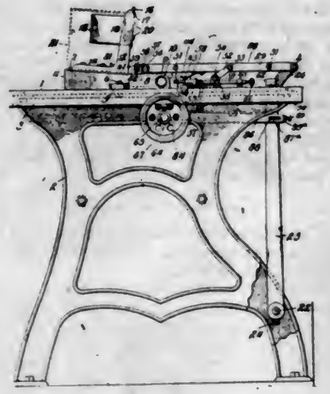
3. In a pump, a pump barrel, and a plunger composed of two interfitting tubular members having longitudinal slits for permitting the plunger to expand into engagement with the barrel, the plunger being provided with a packing for covering the slits in the outer one of the tubular members.

4. In a pump, a pump barrel, and a plunger composed of two interfitting tubular members having longitudinal slits for permitting the plunger to expand into engagement with the barrel, the slits of one member being staggered with respect to those of the other, said plunger having an elastic sleeve interposed between the members to expand therewith and cover the slits of the outer member.

5. In a pump, a pump barrel, and a plunger composed of two interfitting tubular members having longitudinal slits for permitting the plunger to expand into engagement with the barrel, the slits of one member being staggered with respect to those of the other, said plunger having an elastic sleeve interposed between the members to expand therewith and to cover the slits of the outer member, the sleeve being also provided with longitudinal slits matching those of the inner sleeve.

[Claims 6 to 11 not printed in the Gazette.]

1,027,890. MACHINE FOR APPLYING PASTE TO BOXES FOR FLIES. ARTHUR LOW PATTERSON, Albemarle, N. C. Filed Apr. 15, 1911. Serial No. 621,402. (Cl. 93—57.)



1. In a machine for applying adhesive material to the interior of boxes, a transfer blade for the adhesive, and means for moving the blade edgewise into engaging relation with the adhesive, and from thence into edge engagement with the interior of the box to which the adhesive is to be applied, said means comprising an arm at one end carrying the blade intermediately of the latter, a pivot support for the arm intermediate of the ends of said arm and in turn pivoted at a point spaced from its connection with the arm, and an actuating member for the arm connected thereto at the end of said arm remote from the blade and adapted to impart longitudinal movement to the arm.

2. In a machine for applying adhesive to the interior of boxes, an adhesive transfer blade, means for moving the blade from close relation to a body of adhesive to the interior of a box and into edge engagement with the inner wall thereof and then returning the blade again into close relation to the body of adhesive, and means yieldable to the momentum of the blade and parts carrying the same to permit the entrance of the edge of the blade into the adhesive, said last named means tending to support the blade in close relation to but out of the adhesive.

3. In a machine for applying adhesive to the interior of boxes, an adhesive transfer blade, and means for moving the blade from close relation to a body of adhesive to the interior of a box and into edge engagement with the inner wall thereof, the blade carrying parts having a normal tendency to remain out of engagement with the body of adhesive and moving into engagement therewith against such normal tendency and in response to the momentum of said blade carrying parts.

4. In a machine for applying adhesive to the interior of boxes, a longitudinally movable bar, an adhesive transfer blade carried by one end of said bar in traversing relation thereto, the lateral extent of the blade and the bar carrying the same being less than the portion of the box to be treated, a receptacle for an adhesive in position to have adhesive therein engaged by one edge of the blade at one limit of its movement, means intermediate of the ends of the bar for converting longitudinal movement of the bar at the end carrying the blade into a progressive rising and falling movement in both directions of travel of the bar, and an actuating means for the bar connected to the end thereof remote from the blade and imparting to said bar through the motion converting means a greater rising and falling movement at the blade end than at the actuated end of the bar.

5. In a machine for applying adhesive to the interior of boxes, a reciprocable bar carrying at one end an adhesive applying blade, a reservoir for adhesive in position to be entered by the blade at one limit of its travel, means acting on the bar at the end thereof remote from the blade for imparting reciprocatory movement thereto, and means for constraining the blade carrying end of the bar to move in a path in rising and falling relation to adhesive within the reservoir and in rising and falling relation to the interior of a box in the path of the blade, the path of movement of the blade end of the bar being of greater extent than the movement of the actuated end of the bar.

[Claims 6 to 26 not printed in the Gazette.]

1,027,891. REAR GUN-SIGHT. GEORGE W. PECK, Jr., and WILLARD M. FARROW, Sr., Washington, D. C. Filed Sept. 7, 1911. Serial No. 648,031. (Cl. 42—82.)



1. A gun barrel having a mortise and a transverse notch, a plate pivotally mounted in said mortise, a spring beneath said plate within said mortise and having one end received in said notch and a sight carried by the end of said plate and normally receivable within a transverse groove in the barrel.

2. A sight for fire arms embodying a pivotally mounted plate, a thumb screw near one end engaging the barrel and working through said plate for lowering it, a transversely adjustable sight at the other end of the plate, and a spring interposed between said sight and the pivot of the plate, said spring and plate being disposed within a mortise in the barrel of a gun.

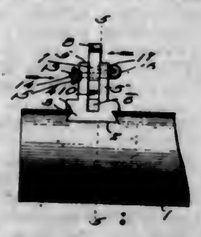
3. A sight for fire arms embodying a pivotally mounted plate, a thumb screw near one end engaging the barrel and working through said plate for lowering it, a transversely adjustable sight at the other end of the plate, a spring interposed between said sight and the pivot of the plate, said spring and plate being disposed within a mortise in the barrel of a gun, and means for moving said sight laterally with relation to the plate.

4. The combination with a gun barrel having a mortise and a transverse groove within said mortise, of a plate pivotally mounted in said mortise, a spring within the mortise beneath the plate having one end engaged in said groove, means for moving the plate on its pivot, and a sight carried by the end of the plate.

5. The combination with a gun barrel having a mortise and a transverse groove within said mortise, of a plate pivotally mounted in said mortise, a spring within the mortise beneath the plate having one end engaged in said groove, means for moving the plate on its pivot, a sight carried by the end of the plate, and means for adjusting said sight laterally.

[Claim 6 not printed in the Gazette.]

1,027,892. FRONT GUN-SIGHT. GEORGE W. PECK, Jr., and WILLARD M. FARROW, Sr., Washington, D. C. Filed Sept. 7, 1911. Serial No. 648,032. (Cl. 42—80.)



1. In a gun sight, a revoluble sight holder provided with a plurality of sights, a pivot for said holder endwise movable therethrough, a locking member integral with one end of said pivot and adapted to extend endwise into the holder in a plane parallel with the pivot, and a spring acting upon the other end of the pivot, said pivot and locking member being simultaneously movable endwise in the same direction.

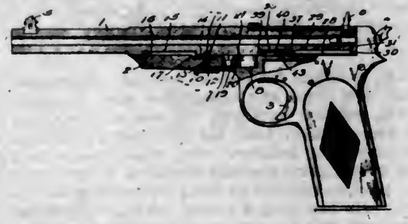
2. In a gun sight, a base, uprights rising therefrom, a revoluble sight holder disposed between said uprights, and a pivot pin passed through said uprights and centrally through the holder and having one end bent upon itself and working through an opening in one of the uprights and engageable with an opening in said holder.

3. In a gun sight, a base, uprights rising therefrom, a revoluble sight holder disposed between said uprights, a pivot pin passed through said uprights and centrally through the holder and having one end bent upon itself and working through an opening in one of the uprights and engageable with an opening in said holder, and a spring acting upon the other end of said pivot for normally holding said bent end of the pivot in engagement with the holder to lock it against rotation.

4. In a gun sight, a base, uprights rising therefrom, a sight holder disposed between said uprights and having a plurality of sights and a plurality of corresponding openings, a pivot pin passed centrally through said holder and through the uprights and having one end bent and returned upon itself to form a locking member, said locking member movable through one of the uprights and into an opening in the holder, and a spring acting upon the other end of said pivot.

5. In a gun sight, a base, uprights rising therefrom, a sight holder disposed between said uprights and having a plurality of sights and a plurality of corresponding openings, a pivot pin passed centrally through said holder and through the uprights and having one end bent and returned upon itself to form a locking member, said locking member movable through one of the uprights and into an opening in the holder, and a spring acting upon the other end of said pivot, said holder having a plurality of openings disposed radially with reference to said sights for the reception of said locking member.

1,027,893. FIREARM. GEORGE W. PECK, Jr., and WILLARD M. FARROW, Sr., Washington, D. C. Filed Sept. 7, 1911. Serial No. 648,033. (Cl. 42—12.)



1. In a fire arm, a laterally movable barrel, a spring confined between the barrel and the stock, with one end angularly disposed, the upper face of the stock having a curved slot with which said bent end engages.

2. In a fire arm, a laterally movable barrel, a spring confined between the barrel and the stock, with one end angularly disposed, the upper face of the stock having a curved slot with which said bent end engages, means permitting endwise separation of the barrel from the stock, and independent means for preventing such separation.

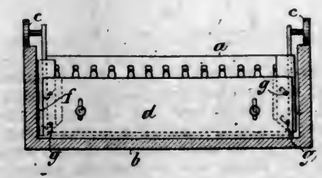
3. In a fire arm, a stock having a key hole slot, an inclined slot upon one side thereof and a curved slot upon the opposite side, a barrel, headed means carried by the barrel for engagement with the key hole slot, a spring interposed between the barrel and stock and having a member engaging in said curved slot, a slidably mounted extractor and an eccentric connected therewith and having depending means working in said inclined slot.

4. In a fire arm, a laterally movable barrel, an extractor slide mounted for endwise movement therein, and an eccentric having movable connection with the stock and pivotally connected with said slide.

5. In a fire arm, a laterally movable barrel, an extractor slide mounted for endwise movement therein, and an eccentric having movable connection with the stock and pivotally connected with said slide, said eccentric being mounted for bodily movement independent of the slide.

[Claims 6 to 12 not printed in the Gazette.]

1,027,894. PASTEURIZING APPARATUS. ANDERS ANDERSEN PINDSTOFTE, Copenhagen, Denmark. Filed Oct. 14, 1911. Serial No. 654,757. (Cl. 126—272.)

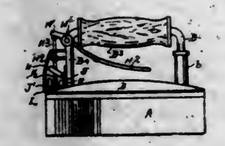


1. In a pasteurizing apparatus, the combination of a water-reservoir, bottle-baskets movable through said reservoir, closures shiftably mounted on said basket for preventing passage of water between the sides of said reservoir and baskets, said closures being automatically maintained in contact with the walls of said reservoir.

2. In a pasteurizing apparatus, the combination of a water-reservoir, bottle-baskets movable through said reservoir, closures shiftably mounted on the front walls of said baskets, and means for yieldingly maintaining said closures in contact with the walls of said reservoir.

3. In a pasteurizing apparatus, the combination of a water-reservoir, bottle-baskets movable through said reservoir, vertically movable front walls for said baskets, slides shiftably mounted at the ends of said front walls, and means for automatically shifting said slides into contact with the walls of said reservoir.

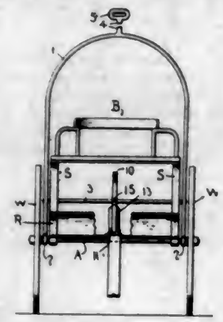
1,027,895. ELECTRICALLY-HEATED SAD-IRON. ERFINGHAM LAURENCE POLLARD, Dobbs Ferry, N. Y. Filed Nov. 22, 1910. Serial No. 593,700. (Cl. 219—25.)



1. In a sad iron the combination of a body, a plurality of heating units within said body, a cover hingedly connected to said body and having an operating handle and a switch arranged to serve with said body, means arranged between said cover and said body for deflecting the heat downward upon said body and away from said cover and said handle and a spring carried by said cover for retaining said deflecting means as specified.

2. In an electrically heated sad iron, a body, a cover, a handle therefor, a plurality of heating units in independent sections within said body, said units having their conducting material arranged transverse to the length of said body and each said unit provided with temporary connecting means allowing one unit to be removed without disturbing the whole as herein specified.

1,027,896. GO-CART. WILLIAM EDWARD PUGSLEY, Grand Rapids, Mich. Filed Jan. 25, 1912. Serial No. 673,394. (Cl. 21—12.)



1. In a go-cart, the combination with the axle mounted on wheels, the running gear carried thereby, arched springs on the running gear, and the body supported by said springs; of a handle including a yoke having eyes at the extremities of its arms mounted loosely on the axle just inside the wheels and a cross rod connecting said arms, an arched latch pivoted at its front end on said running gear and having notches in its body, and a spring holding its rear end normally elevated.

2. In a go-cart, the combination with the axle mounted on wheels, the running gear carried thereby, and a body supported by the running gear; of a handle including a yoke having eyes at the extremities of its arms mounted loosely on the axle and a cross rod connecting said arms, an arcuate latch struck on a center around said axle and having notches in its outer edge adapted to engage said cross rod, a pivot between its front end and the running gear, a handle projecting from its rear end radial to said pivot, a slotted tube on the running gear and through which said handle extends, and an expansive spring within said tube between the running gear and handle.

1,027,897. ANKLE-SUPPORTER. ARTHUR QUENZER, New York, N. Y. Filed July 2, 1909. Serial No. 505,597. (Cl. 128—52.)

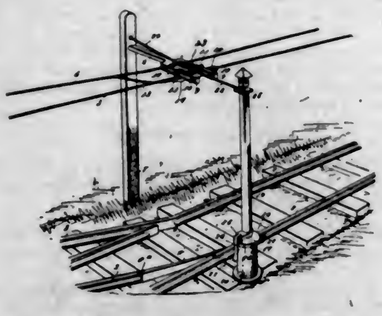


1. An improved ankle support and protector of the class described, comprising a flexible non-elastic front portion having rear and bottom edges and constituting the retaining means for carrying elastic members, a main body consisting of elastic fabric or webbing and extending from edge to edge of said front portion and connected at its ends with said rear edges of the non-elastic front portion and adapted to surround the ankle, and a bottom member consisting of elastic fabric or webbing and extending from edge to edge of said front portion at the bottom and having its ends connected to said bottom edges of said non-elastic front portion and adapted to pass under the instep.

2. An improved ankle support and protector of the class described, comprising a divided ankle-member having a front portion constituting the retaining means for carrying elastic members and consisting of flexible or pliable and non-elastic material and adapted to fit over the front portion of the instep and conform thereto and having its rear edges at each side extending on a line from top to bottom and its bottom edges at each side extending on a line from front to rear, and a main body-member consisting of a strip of elastic fabric or webbing and extending from edge to edge of said front portion and connected at its ends with said rear edges at each side of the front portion and adapted to surround the ankle, and an arch-supporting bottom member consisting of a strip of elastic fabric or webbing and extending from edge to edge of the sides of said non-elastic front portion and having its ends connected with said front to rear bottom edges of said non-elastic front portion and adapted to pass under the instep.

3. An improved ankle support and protector of the class described, comprising flexible non-elastic front strips constituting retaining members, a body consisting of a strip wholly of elastic fabric or webbing and extending from edge to edge of said front strips and connected at its ends with the rear edges of said front strips and adapted to surround the ankle, and a bottom member consisting of a strip wholly of elastic fabric or webbing and extending from edge to edge of said front strips at the bottom and having its ends connected with the bottom edges of said front strips and adapted to pass under the instep.

1,027,898. ELECTRIC-CAR SWITCH. LEE RADCLIFF, Danvers, and EDGAR E. KILBY, Mackinaw, Ill. Filed June 23, 1910. Serial No. 568,559. (Cl. 191—11.)



1. In a switch for trolley cars, the combination with a main feed wire and a branch feed wire, of parallel supporting members extending transversely over the main feed wire and upon which the main feed wire is supported, said supporting members being spaced apart, a trolley wheel switch point pivotally connected to the branch feed wire, the free end thereof being depressed below the level of the main feed wire, a hanger having a transversely extending rod movable upon said supporting members, said hanger extending down and between the supporting members to a point below the level of the main feed wire, the free end of the switch point being attached to said hanger and being thereby movable into or out of a position beneath the main feed wire.

2. In a switch for trolley cars, a main feed wire and a branch feed wire, a support extending transversely over the main feed wire and to which the main feed wire is attached, said support being formed with parallel guides extending transversely of the main feed wire, a trolley wheel switch point pivoted to the branch feed wire, the free end thereof extending beneath said support, a hanger having a transversely extending rod engaged in said guides and extending beneath the main feed wire and to which the switch point is attached, and means for shifting said hanger to bring the free end of the switch point into or out of alinement with the main feed wire.

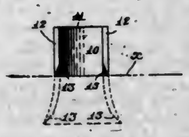
3. In a switch for trolley cars, a main feed wire, a branch feed wire, a standard, an arm extending out from the standard having a bifurcated end extending over the main feed wire, said bifurcated end of the arm being formed with longitudinally extending guide slots, means for engaging the main feed wire with said arm, said means being adjustable along the arm, a trolley wheel switch point pivoted to the branch feed wire at one end and having its free end extending beneath the bifurcated portion of the arm, a hanger attached to the free end of the switch point and extending up between the two parts of the bifurcated arm, a transversely extending rod resting in the guide slots of said bifurcated portion of the arm, and means for shifting said hanger to shift the switch point into or out of alinement with the main feed wire.

4. In a switch for trolley cars, a main feed wire, a branch feed wire, a standard, an arm extending out from the standard having oppositely disposed spaced guiding members extending over the main feed wire transversely thereto, clamping devices adjustable along said guides and engaging the main feed wire, a trolley wheel switch point pivoted to the branch feed wire at one end having its free end extending beneath the said guides, a hanger transversely shiftable upon the guides and attached to the free end of the trolley wheel switch point, and means for shifting said hanger to bring the point into or out of alinement with the main feed wire.

5. In a switch for trolley cars, a main feed wire, a branch feed wire, an arm extending over the main feed wire and having a bifurcated end, said bifurcated end of the arm being formed with longitudinally extending guide slots, clips engaging over said forks of the arm and attached to the main feed wire, said clips being adjustable along the forks of the arm and being provided with means whereby they may be held in their adjusted position, a trolley wheel switch point pivoted to the branch feed wire at one end and having its free end extending beneath the bifurcated portion of the arm, a hanger attached to the free end of the trolley switch point and extending up between the two parts of the bifurcated arm, a transversely extending rod resting in the slots of said arm and shiftable therein, and means for shifting the switch point to bring the free end of the point into or out of alinement with the main feed wire.

[Claim 6 not printed in the Gazette.]

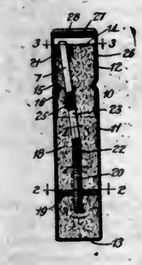
1,027,899. WEAR-RESISTING MEMBER. ANDREW RAICHE, Fairhaven, Mass., assignor to Atlas Tack Company, Fairhaven, Mass., a Corporation of New Jersey. Filed Aug. 3, 1911. Serial No. 642,096. (Cl. 36—75.)



A wear-resisting member consisting of a sheet of metal of uniform thickness having parallel top and bottom edges, and having a curve between its side edges whereby they are brought toward each other, said curve extending uniformly from the top edge to the bottom edge, the cross-sectional shape of the member being the same in all transverse planes except at the bottom edge, the extremities of the bottom edge having beveled faces for deflecting the extremities when the member is driven.

1,027,900. POCKET IGNITING DEVICE. RUFUS E. RAMSDELL, Newton, Mass. Filed Aug. 19, 1911. Serial No. 644,931. (Cl. 67—8.)

1. An igniter having, in combination, a casing consisting of two coaxially arranged parts mounted to turn one upon the other, said casing having an orifice, a spark-producing element mounted in said casing adjacent to said orifice, means operated by the relative rotation of said parts for adjusting said spark-producing element with respect to said orifice, and a mass of absorbent material in said casing.



2. An igniter having, in combination, a casing consisting of two coaxially arranged parts mounted to turn one upon the other, said casing having an orifice, a spark-producing element mounted in said casing adjacent to said orifice, a screw and nut operated by the relative rotation of said parts for adjusting said spark-producing element with respect to said orifice, and a mass of absorbent material in said casing.

3. An igniter having, in combination, a casing consisting of two coaxially arranged parts mounted to turn one upon the other, said casing having an orifice, a spark-producing element mounted to revolve with one of said parts about the axis of said parts, a screw and nut arranged coaxially with said parts, said nut being secured to the other of said parts, and said screw being connected to said spark-producing element whereby the relative rotation of said parts adjusts said spark-producing element longitudinally of said axis, and a mass of absorbent material in said casing.

4. An igniter having, in combination, a casing consisting of two coaxially arranged parts mounted to turn one upon the other, said casing having an orifice, a spark-producing element located at one side of the axis of said parts, a guide for said spark-producing element, said guide being secured to one of said parts, and a screw and nut arranged coaxially with said parts, said nut being secured to the other of said parts and said screw being connected to said spark-producing element whereby the relative rotation of said parts adjusts said spark-producing element longitudinally of said axis, and a mass of absorbent material in said casing.

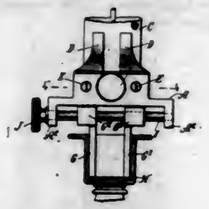
5. An igniter having, in combination, a casing consisting of two coaxially arranged parts mounted to turn one upon the other, said casing having an orifice, a spark-producing element located at one side of the axis of said parts and disposed in inclined position with respect to said axis, a screw and a nut arranged coaxially with said parts, said nut being secured to one of said parts, and the other of said parts being provided with means for revolving said spark-producing element about said axis and holding said element against rotation upon its own axis, a flexible angular driving connection between said screw and said spark-producing element, and a mass of absorbent material in said casing.

[Claim 6 not printed in the Gazette.]

1,027,901. CANDLE-HOLDER. JULIAN PETER RAOUX, Rhodelia, Ky. Filed Oct. 2, 1911. Serial No. 652,237. (Cl. 67—23.)

1. A candle holder, comprising a base provided at two opposite sides with upwardly projecting lugs, a rest plate supported upon the lugs, blocks each having upwardly projecting jaws and provided with three openings, the central one being threaded, the said blocks being slotted above the openings to receive the rest plate, guide rods mounted in the lugs of the base and upon which the blocks slide, and a screw mounted in the base end having

right and left hand screw threads engaging the threaded openings of the said blocks.

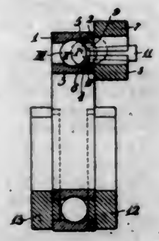


2. A candle holder, comprising a base, a rest plate on the said base for the candle to rest on, pairs of jaws having guided and sliding movement on the said rest plate for clamping a candle between them centrally on the rest plate, the jaws having nut portions extending underneath the said rest plate, guide rods on the said base underneath the said rest plate and engaged by the said nut portions, a screw rod screwing in the said nut portions and journaled in the said base, and a knob on one outer end of the screw rod for turning the latter.

3. In a candle holder, a base plate provided with pairs of lugs, one pair projecting upwardly and the other pair downwardly, a pair of guide rods mounted in each pair of lugs, a pair of jaws mounted to slide on each pair of guide rods, the jaws of each pair of jaws being each provided with a central threaded opening, and a rod journaled in each pair of lugs and having right and left hand screw-threads engaging the screw threaded openings of a pair of the jaws.

4. In a candle holder, a base having depending lugs and provided on its upper side with means for holding a candle, rods mounted in the depending lugs of the base, clamping arms mounted to slide on the rods and provided with nut portions, and a screw rod mounted in the base and having right and left hand screw threads engaging the nut portions of the clamping arms.

1,027,902. BALL-BEARING. AUGUST RIEBE, Weissensee, near Berlin, Germany. Filed Mar. 23, 1910. Serial No. 551,071. (Cl. 29—84.)

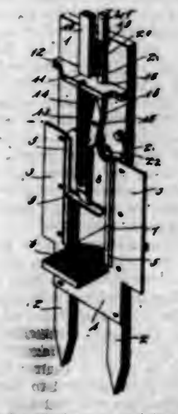


1. The assembling means for ball-bearings of the type described, the combination of two or more members having projections adapted to be located between the outer and inner rings of a ball-bearing, and means for forcing said members and thereby said rings apart and allowing balls to pass freely between the rings into the ball-races therein.

2. In assembling means for ball-bearings of the type described, the combination of two jaws having curved projections adapted to be located between the outer and inner rings of a ball-bearing, and means for forcing said members and thereby said rings apart and allowing balls to pass freely between the rings into the ball-races therein.

3. In an assembling means for ball bearings, members having slots in the adjacent faces thereof, projections thereon adapted to be located between and in engagement with the concentric rings of a ball bearing, wedges adapted to enter said slots and force the members apart, thereby spreading the rings of the ball race and allowing a free passage, for the balls yet to be inserted.

1,027,903. HEAD-GATE. ALBERT ROBERTSON, Fruitvale, Idaho, assignor of one-third to J. E. Glenn, Fruitvale, Idaho. Filed Oct. 12, 1911. Serial No. 654,427. (Cl. 137—66.)



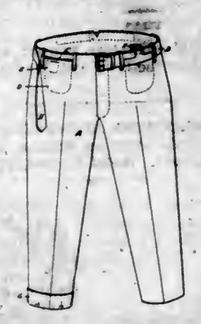
1. A head gate for ditches comprising a plate having an opening therein, a gate slidably mounted on said plate to close said opening and to regulate the size thereof, means for automatically opening said gate, an operating bar secured to said gate and provided with teeth, a pawl mounted to engage said teeth for holding the gate in adjusted position and a pawl releasing bar operable to disengage the pawl from the teeth of said gate operating bar.

2. A head gate for ditches comprising a plate having an opening therein, a gate slidably mounted on said plate to close said opening and to regulate the size thereof, means for automatically opening said gate, an operating bar secured to said gate and provided with teeth, a pawl mounted to engage said teeth and having a beveled upper end, a slidably mounted pawl releasing bar having a beveled lower end adapted when depressed to engage the beveled upper end of the pawl thereby rocking the pawl and disengaging it from the toothed gate operating bar, and means for holding said pawl releasing bar yieldably in retracted position.

3. In a head gate for ditches a board adapted to be secured in the ditch to form a dam, and having an opening to permit the flow of water through the same, a gate having a sliding engagement with the board and adapted to close said opening and also to regulate the size thereof, an operating bar secured to said gate, means to slidably support the upper end of said bar, a gate opening spring secured to the bar whereby the gate is retracted or drawn upwardly to an open position, a series of teeth formed on said bar, a pawl adapted to engage said teeth whereby the gate is held in its adjusted position, and a spring retracted pawl releasing bar adapted to disengage the pawl from the teeth of said gate operating bar thereby permitting the gate retracting spring to open the gate.

4. In a head gate for irrigating ditches, a board adapted to be engaged with the ditch and to form a dam across the same, means to support said board in position to form an opening below the same whereby water is permitted to flow therethrough, laterally projecting wings secured to said board and adapted to be embedded in the banks of the ditch, guides formed on the inner edges of said wings, a gate having a sliding engagement with said guides, a gate operating bar secured at its lower end to the gate, means to slidably support the upper end of the bar, a coiled gate retracting spring connected with said bar and adapted to raise and hold the gate in a raised position, a series of teeth formed on said bar, a pawl pivotally mounted on said board, said pawl having a beveled upper end and having on its lower end a tooth, a spring adapted to hold the toothed lower end of the pawl in operative engagement with a tooth on said gate operating bar, a slidably mounted pawl releasing bar having a beveled lower end adapted to be engaged with the beveled upper end of the pawl whereby when said releasing bar is forced downwardly the pawl will be rocked and the toothed lower end thereof thus disengaged from the teeth of the gate operating bar, and a spring adapted to retract and normally hold said pawl releasing bar in a retracted position.

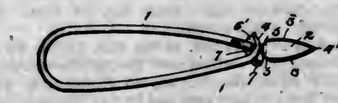
1,027,904. TROUSERS. HARRIS ROGERS, Albany, N. Y. Filed Sept. 19, 1911. Serial No. 650,234. (Cl. 2—122.)



1. An article of manufacture consisting of a pair of trousers a belt of the same material covering the band thereof and attached thereto at various points, pockets in the front of said trousers, openings to said pockets in the band of said trousers under the belt, one of said pockets having a flap consisting of an extension of the outside of the pocket and extending from the pocket to the opening thereof and over the top of the band of the trousers, and means for fastening said flap to the inside of the band next the body of the wearer.

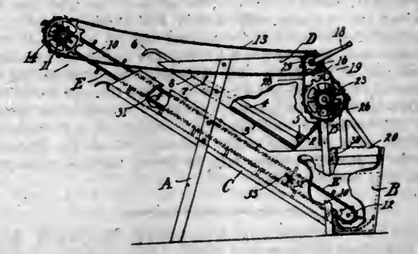
2. An article of manufacture consisting of a pair of trousers, a belt attached thereto, said belt being in two sections, one end of each section attached to the side of the trouser and the loose ends coming together in the front, pockets on the trousers in the front, openings to the pockets located in the band of the trousers where they will be concealed by the belt, one of said pockets having a flap consisting of a continuation of the outside of the pocket and extending from the pocket over the opening thereof and under the belt over the top of the band of the trousers and adapted to be fastened to the inner side of the band next to the body of the wearer.

1,027,905. CAN-OPENER. FRANK E. ROLLINS, Mattoon, Wis. Filed June 4, 1910, Serial No. 565,053. Renewed Oct. 9, 1911. Serial No. 653,726. (Cl. 30—3.)



A can opener comprising a single length of wire bent intermediate its ends to constitute a bight portion, one extremity of said wire being flattened to constitute a lance like cutting blade having both edges sharpened, the remaining extremity being bent around the wire adjacent the first extremity to closely engage said wire and prevent lateral movement of one extremity with respect to the other, said second extremity having the bent portion engaging the base of the blade and the portions of the wire between the bight and the extremities being substantially straight whereby displacement of one extremity along the other is prevented, said blade lying substantially in the plane of the bight whereby bending of the handle in use is resisted.

1,027,906. SMUT-MACHINE. GUSTAV O. RUND, Christine, N. D. Filed Sept. 3, 1910. Serial No. 580,345. (Cl. 193—8.)



In a smut machine, in combination, a feed hopper, a tank, a trunk extending upwardly and rearwardly from the tank, a carrier frame comprising side bars extending the entire length of the trunk and having slot and pin connection with the sides of the trunk, the slot being transverse to the longitudinal axis of the trunk whereby the frame can be adjusted toward or away from the deck of the trunk, and means for securing said frame in adjusted positions.

1,027,907. HOISTING-SLING. THOMAS JOHN SAMMON, New York, N. Y. Filed Jan. 20, 1912. Serial No. 672,275. (Cl. 57—11.)



1. In a hoisting sling, the combination of an upper bar and a lower bar, the said lower bar carrying sleeves on its opposite ends and having an aperture at each end, said sleeves having apertures in their upper sides to register with the apertures in the lower bar, pulley wheels mounted in said apertures in the lower bar, a rope or cable secured to each end of the upper bar and passing down around the pulley wheel carried in the adjacent end of the lower bar, said upper bar having apertures in its opposite ends through which said ropes or cables move after passing around the pulley wheels, and means for connecting said ropes or cables to a hoisting cable, the said bars constituting a pair of movable jaws to grip the load carried by the sling, between them and prevent displacement thereof.

2. A hoisting sling comprising an upper bar and a lower bar, guide pulleys carried in opposite ends of the lower bar, plates secured to the sides of the upper bar adjacent the opposite ends thereof and having eyelets projecting therefrom, a rope or cable secured to each of said eyelets

and passing down around the pulley in the adjacent end of the lower bar, said upper bar having an aperture for each of said ropes or cables, through which the same moves after passing around the pulley in the lower bar, and means for connecting said ropes or cables to a hoisting cable, said upper and lower bars constituting a pair of movable jaws for gripping the load carried by the sling, between them and preventing the displacement of the same.

3. A housing sling comprising an upper bar and a lower bar forming a pair of gripping jaws, the said lower bar carrying sleeves on its opposite ends and having apertures in its ends, said sleeves having apertures in their upper sides to register with the apertures in the lower bar, pulley wheels mounted in said apertures in the lower bar, plates secured to the sides of the upper bar adjacent the opposite ends thereof and having eyelets projecting therefrom, a rope or cable secured to each of said eyelets and passing down around the pulley in the adjacent end of the lower bar, said upper bar also having an aperture for each of said ropes or cables through which the same passes after passing around its respective pulley in the lower bar, and means for connecting said ropes or cables to a hoisting cable, whereby, when the hoisting cable is pulled, the bars will be drawn together to secure the rope between them.

1,027,908. CHLOR-ARALKYL-SULFO-CHLORIDS AND PROCESS OF MAKING THEM. OTTO SCHMIDT, Mannheim, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Mar. 23, 1911. Serial No. 616,449. (Cl. 23—24.)

1. The process of producing omega-chlor-aralkyl-sulfochlorids by treating aralkyl-sulfochlorids with chlorin while avoiding both an injurious excess of chlorin and such chlorin carrier as effects chlorination in the aromatic ring.

2. The process of producing benzyl-chlorid-para-sulfochlorid by treating para-toluene-sulfochlorid with chlorin while avoiding the presence both of an injurious excess of chlorin and a chlorin carrier such as effects chlorination in the aromatic ring.

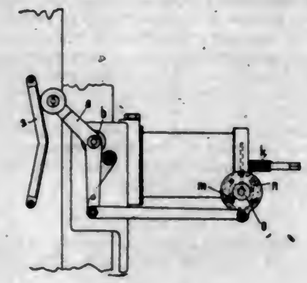
3. As new articles of manufacture omega-chlor-aralkyl-sulfochlorids which in the pure state are colorless, are capable of distillation without decomposition under reduced pressure, on treatment with ammonia yield omega-chlor-aralkyl-sulfamids and on treatment with mild saponifying agents yield omega-chlor-aralkyl-sulfonic acids.

4. As a new article of manufacture benzyl-chlorid-para-sulfochlorid which when pure is colorless, boils without decomposition at about one hundred and eighty-four degrees centigrade at a pressure of fifteen millimeters of mercury, is easily soluble in boiling ligroin, yields with ammonia benzyl-chlorid-para-sulfamid, and on treatment with mild saponifying agents gives rise to benzyl-chlorid-para-sulfonic acid.

1,027,909. LUBRICATOR FOR THE GUIDE-RAILS OF ELEVATORS. LUDWIG SCHULTHEIS, Frankfort-on-the Main, Germany, assignor to Otto Wetzel & Company, Heidelberg, Germany, a Firm. Filed Apr. 8, 1911. Serial No. 619,881. (Cl. 184—21.)

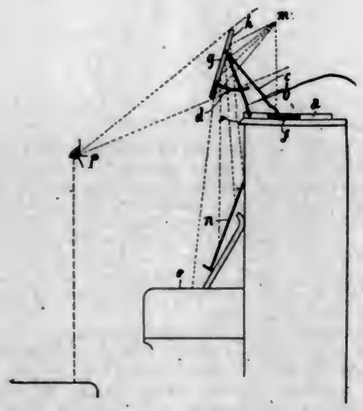
1. In a device for the purpose set forth, the combination with a track, of a lubricant container mounted to travel over the track, mechanism at the end of the container for effecting a discharge of lubricant including an oscillatory member, a lever mounted adjacent the track and traveling with the lubricant container, and operating in a plane parallel with the line of travel of the container, a connection between said lever and said oscillatory member, and a trip on the track in the path of the lever and lying in the same plane therewith.

2. In a device for the purpose set forth, the combination with a track, and a shoe traveling thereon, of a lubricant container mounted directly on said shoe, a piston in said container, mechanism at the end of the container for moving the piston toward the shoe including an oscillatory member, a lever mounted on the side of the shoe and operating in a plane parallel therewith, a connection between



said lever and said oscillatory member, and a trip on the track in the path of the lever and lying in the same plane therewith.

1,027,910. REFLECTING APPARATUS FOR ILLUMINATING MUSIC. AUGUST SCHULZ, Posen, Germany. Filed Aug. 17, 1911. Serial No. 644,717. (Cl. 45—97.)



In reflecting apparatus for illuminating music supported on musical instruments, the combination of a board to be placed on the instrument, two supports pivotally attached thereto, a frame carrying a mirror pivotally carried by said supports, a rack pivotally attached to said frame and adapted to engage one of said supports, a rack secured to said board, and a hooked rod pivotally attached to the pivot connecting one of said supports with said frame and adapted to engage the latter rack.

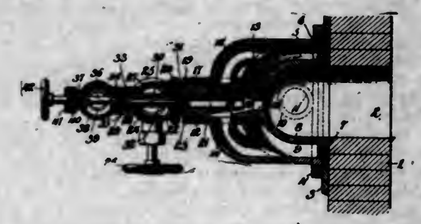
1,027,911. SERVICE OR VALVE BOX. GERARD SCHUMACHER, Anniston, Ala. Filed Jan. 25, 1910. Serial No. 540,093. (Cl. 94—7.)

1. A service or valve box, or the like, having an opening surrounded by a vertical wall having a cover-receiving seat slightly below the opening, in combination with a cover fitted down in said seat and having elongated means depending within and snugly fitting said wall to confine the cover against removal except by extensive vertical movement parallel with the axis of said opening, said cover formed with diametrically-opposite edge recesses adapted to receive only a special, removable cover-lifting implement, by which implement alone the cover can be lifted.



2. A service or valve box, or the like, having an opening surrounded by a vertical wall having a top-depressed cover-receiving seat slightly below the opening, in combination with a cover fitted down in said seat and having an elongated depending extension within and snugly fitting said wall to confine the cover against removal except by extensive vertical movement parallel with the axis of said opening, said cover formed with diametrically-opposite undercut edge depressions adapted to receive only a special key-constituting cover-lifting implement by which implement alone the cover can be lifted.

1,027,912. BURNER. EDWARD H. SCHWARTZ, Chicago, Ill., assignor to E. H. Schwartz & Son Co., Chicago, Ill., a Corporation of Illinois. Filed Mar. 25, 1911. Serial No. 616,929. (Cl. 158—74.)



1. A burner comprising two substantially concentric domes in spaced relation one to the other to form an air chamber between them, the inner dome being wholly housed in the outer dome and having one end open to be there placed in communication with the zone to be heated, the two domes being provided with intercommunicating axial necks with the neck of the inner dome entering the neck of the outer dome and there flaring toward said neck, and the neck of the outer dome being connected to the interior of the outer dome by constantly open ducts, and means for the introduction of fuel into the neck of the inner dome in the direction of the longitudinal axes of the necks and toward the interior of the inner dome.

2. A burner comprising two substantially concentric domes in spaced relation one to the other, the inner dome being contained within the outer dome and having its larger end open to be placed in communication with the zone to be heated, the two domes being provided with intercommunicating axial necks with the neck of the inner dome entering and supported by the neck of the outer dome and there having an internal passage flaring toward the neck of the outer dome, the said neck of the outer dome having ducts leading to the interior of the outer dome in free communication with both the neck and the dome and the said neck of the outer dome being in free communication with the flaring end of the neck of the inner dome, and means for the introduction of fuel into the neck of the inner dome in the direction of the longitudinal axes of the necks and toward the interior of the inner dome.

3. A burner comprising an outer and an inner dome in substantially concentric relation one to the other with the basic end of the inner dome provided with an opening designed to be placed in communication with the zone to be heated, the domes having axially arranged necks in line one with the other with the neck of the inner dome entering the inner end of the neck of the outer dome, and the walls of the domes defining an air chamber between them, the outer dome having passages leading from the said air chamber to the exterior of the said outer dome, and other passages leading from the air chamber to the interior of the neck of said outer dome, a nozzle in axial alinement with the two necks and entering the outer end of the neck of the inner dome, and another nozzle in alinement with the first named nozzle and having its discharge end entering the end of the first named nozzle remote from that entering the neck of the inner dome.

4. A burner comprising two concentrically disposed domes one within the other with their bases in substantially the same plane and the inner dome having an interior chamber open at the base and the space between the two domes defining an air chamber, both domes being provided with necks, with the neck of the inner dome entering the neck of the outer dome, the neck of the inner dome having a passage therethrough flaring toward the outer end and the outer dome having conduits leading from the air chamber to the interior of the neck of the outer dome and also having passages leading from the interior of the outer dome to the exterior thereof, a nozzle carried by the neck of the outer dome and having a tapering end entering the flaring end of the passage through the neck of the inner dome, a T carried by the end of the nozzle exterior to the neck of the outer dome and provided with a valve in the branch thereof at an angle to the one connected to the nozzle, another nozzle extending through the T and having its discharge end located within the first named nozzle at the end thereof remote from the end entering the neck of the inner dome, and a valve applied to the end of the second named nozzle remote from its discharge end and adapted to be connected to a supply of fuel.

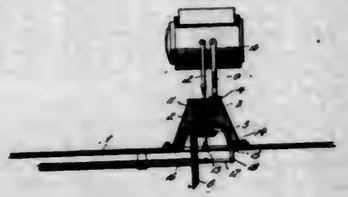
5. A burner comprising two concentrically disposed domes one within the other with their bases in substantially the same plane and the inner dome having an interior chamber open at the base and the space between the two domes defining an air chamber, both domes being provided with necks, with the neck of the inner dome entering the neck of the outer dome, the neck of the inner dome having a passage therethrough flaring toward the outer end and the outer dome having conduits leading from the air chamber to the interior of the neck of the outer dome and also having passages leading from the interior of the outer dome to the exterior thereof, a nozzle carried by the neck of the outer dome and having a tapering end entering the flaring end of the passage through the neck of the inner dome, a T carried by the end of the nozzle exterior to the neck of the outer dome and provided with a valve in the branch thereof at an angle to the one connected to the nozzle, another nozzle extending through the T and having its discharge end located within the first named nozzle at the end thereof remote from the end entering the neck of the inner dome, and a valve applied to the end of the second named nozzle remote from its discharge end and adapted to be connected to a supply of fuel, the first named nozzle having interior screw threads at the end remote from the discharge end and the second named nozzle having exterior screw threads adjacent to the discharge end adapted to fit the interior threads of the first named nozzle.

[Claims 6 and 7 not printed in the Gazette.]

1,027,913. MECHANICALLY-OPERATED SEARCH-LIGHT. MYRON L. SEVERSON, Passaic, N. J., assignor of one-half to William S. Spiegelberg, Passaic, N. J. Filed Sept. 12, 1911. Serial No. 648,857. (Cl. 240—61.)

1. In search light operating means, the combination of a lamp support mounted to turn about a vertical axis, a lamp mounted upon said support to turn therewith and

adapted to turn about a horizontal axis, a member mounted centrally within the lamp support and having connection with the lamp, a tube having an approximately horizontal arrangement, gearing between the tube and lamp support to admit of turning the latter to cause the rays of light from the lamp to sweep the horizon, a rod mounted within the tube and having screwthread connection therewith, and connecting means between said rod and the member mounted axially within the lamp support to move the lamp to elevate or lower the rays of light emanating therefrom.



2. Search light operating means comprising a stand, a sleeve mounted vertically within the stand, a lamp support mounted upon the sleeve, a lamp pivotally connected with the lamp support to turn about a horizontal axis, a tube having an approximately horizontal arrangement, gearing between said tube and the said vertical sleeve, a rod mounted in the vertical sleeve and having connection with the lamp to move the same about its horizontal axis, a second rod mounted in the tube and having screwthread connection therewith, and connecting means between the horizontal and vertical rods.

3. Search light operating means comprising a stand, a sleeve mounted vertically in the stand and having a cap at its upper end, a bevel gear secured to the lower end of the sleeve, a tube having an approximately horizontal arrangement, a bevel gear secured to the tube and in mesh with the bevel gear connected with the sleeve, means for imparting rotary movement to the tube, a lamp support mounted upon the sleeve, a lamp mounted upon the lamp support to turn about a horizontal axis, a rod mounted centrally within the said sleeve, a link connecting the upper end of said rod with the lamp, a bell crank mounted beneath the stand and having its horizontal member connected to the lower end of the rod mounted in the sleeve, a second rod mounted within the before mentioned tube and having screw-thread connection therewith, and a link connecting the vertical member of the bell crank with the rod threaded into the tube.

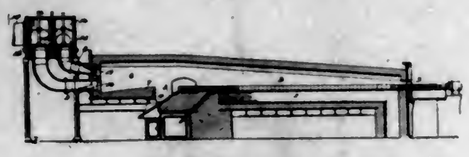
1,027,914. CARPET-STRETCHER. JAMES A. G. SEYBOLD, Harvard, Nebr. Filed July 18, 1911. Serial No. 639,108. (Cl. 45—89.)



In a carpet stretcher, adjustable stretching members, a head thereon having carpet engaging teeth, a plate adjustably secured to the under side of the head and overlapping the teeth to control the depth of engagement thereof, and a rack carried by the head and adjustably engaging the plate for holding it in adjusted position.

1,027,915. CONTINUOUS HEATING-FURNACE. GIBSON C. SHACKLEFORD and PETER J. GORDON, Youngstown, Ohio, and ALBERT K. MCMILLEN, Sheridan, Pa. Filed Feb. 3, 1912. Serial No. 675,297. (Cl. 75—40.)

1. In a continuous heating furnace having a charging inlet at one end and a discharge outlet at or near the other end, supports for ingots or billets extending through the heating chamber from the charging inlet to the discharge outlet, a mixing chamber in alinement with said heating chamber, means for admitting gaseous fuel into said mixing chamber in line with the heating chamber, and means for changing the plane of entrance of the gaseous fuel into said chambers.



2. In a continuous heating furnace having a charging inlet at one end and a discharge outlet at or near the other end, supports for ingots or billets extending through the heating chamber from the charging inlet to the discharge outlet, a mixing chamber in alinement with said heating chamber, means for admitting gas to said mixing chamber in line with the heating chamber, means for likewise admitting air to said mixing chamber, and means for regulating the plane of entrance of the air.

3. In a continuous heating furnace having a charging inlet at one end and a discharge outlet at or near the other end, supports for ingots or billets extending through the heating chamber from the charging inlet to the discharge outlet, a mixing chamber in alinement with said heating chamber, means for admitting gas to said mixing chamber in line with the heating chamber, means for likewise admitting air to said mixing chamber, and means for regulating the plane of entrance of the gas.

4. In a continuous heating furnace having a charging inlet at one end and a discharge outlet at or near the other end, supports for ingots or billets extending through the heating chamber from the charging inlet to the discharge outlet, a mixing chamber in alinement with said heating chamber, means for admitting gas to said mixing chamber in line with the heating chamber, means for likewise admitting air to said mixing chamber, and means for regulating the plane of admission of the air and gas to the heating chamber.

5. In a continuous heating furnace having a charging inlet at one end and a discharge outlet at or near the other end, supports for ingots or billets extending through the heating chamber from the charging inlet to the discharge outlet, a mixing chamber in alinement with said heating chamber, air inlets in said mixing chamber in line with said heating chamber, gas inlets in said mixing chamber also in line with said heating chamber, one series of inlets being above the other, separate deflectors for the air and gas inlets, and means for operating such deflectors to regulate the plane of entrance of the gaseous fuel into the mixing and heating chambers.

1,027,916. SMOKING-PIPE SHIELD. CHARLES SIEBENHAUSEN, Boston, Mass. Filed Nov. 30, 1910, Serial No. 594,884. Renewed Apr. 6, 1912. Serial No. 689,044. (Cl 131—12.)

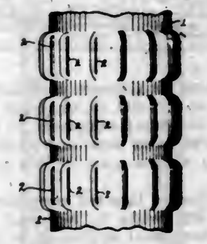


1. A pipe shield comprising a cap piece, a bottom piece having a central crown extending into the cap and provided with apertures extending around the crown, an attaching device disposed under the bottom piece for engaging the bowl of a pipe, and means for fastening the said parts together, said bottom piece having its peripheral portion spaced from the cap to provide an annular entrance for air.

2. A tobacco pipe shield comprising a cap piece, a bottom piece of substantially the same diameter as the cap piece and formed with a peripheral flange spaced from the

cap piece to provide an annular entrance and also formed with a central crown on which the cap bears, said crown having apertures around its side, and means rigidly secured to the bottom side of the bottom piece and including resilient bowl-engaging members, and a fastening passing through the said means and through the cap and bottom pieces for securing the parts together.

1,027,917. PROCESS FOR MAKING WELL-CASING. ANDREW SMITH, San Mateo, Cal., assignor to Smith Metal Perforating Company, San Mateo county, Cal. Continuation of application Serial No. 489,642, filed Apr. 13, 1909. This application filed June 2, 1911. Serial No. 630,887. (Cl. 29—148.)



1. The process of making plates for well casings comprising forming a plurality of slits in a plate by a shearing operation and laterally displacing the metal upon one side of each slit, thus causing the edges to project beyond the plane of the plate, and then upsetting the projecting edges.

2. The process of making plates for well casings comprising forming a plurality of slits in a plate by a shearing operation and laterally displacing the metal upon one side of each slit, thus causing the edges to project beyond the plane of the plate, then upsetting the projecting edges, and pressing the laterally displaced portions into the plane of the metal sheet.

3. In a process for the production of well casing, forming a series of projections in a metal plate by pressing adjacent portions thereof on opposite sides in opposite directions a distance slightly more than one-half the thickness of the metal plate, thus forming a slit between said portions, as set forth.

4. In a process for the production of well casing, forming a series of projections in a metal plate by pressing adjacent portions thereof on opposite sides in opposite directions a distance slightly more than one-half the thickness of the metal plate, thus forming a slot between said portions, and upsetting the edges of the projections thus formed, as set forth.

5. In a process for production of well casing, forming a series of projections in a metal plate by pressing portions thereof on opposite sides in opposite directions a distance slightly more than one-half the thickness of the metal plate, thus forming a slit between said portions, upsetting the edges thus formed, and then pressing the projections back into the general plane of the sheet, as set forth.

1,027,918. CABLE-CUTTING DEVICE. HERMAN C. SMITH, Whittier, Cal. Filed July 27, 1911. Serial No. 640,846. (Cl. 166—3.)

In a device of the class described, the combination of a tubular cutter head having a transverse passage therethrough, cutters mounted in said passage, a pair of parallel arms secured to one end of the cutter head and extending longitudinally of the latter, a ring connecting the outer ends of said arms, a stem slidably mounted in said ring and provided with a forked terminal adjacent the cutter head, said forked terminal having wedge shaped arms embracing the cutter head and engaging the outer edges of the cutters to drive the latter inwardly of the



cutter head during the longitudinal movement of said stem and forked terminals in one direction.

1,027,919. BARBER-CHAIR ATTACHMENT. WILLIAM H. SMITH, Lima, Ohio. Filed Mar. 21, 1911. Serial No. 616,037. (Cl. 137—4.)



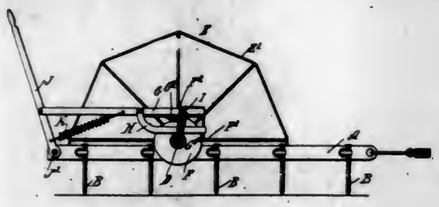
A barber chair attachment comprising a reservoir and means for attaching the same to the back of the chair, a hollow cylindrical valve casing attached directly to and opening into the bottom of said reservoir, the said casing being provided with an enlarged cylindrical chamber opening downward, a hollow valve stem open at its lower end and provided with inlet openings near its upper end and with an annular boss at its lower end, the said annular boss being slidably mounted in the cylindrical chamber in the valve casing, a coil spring under compression interposed between said annular boss and the upper wall of said chamber in the valve casing, and an annular washer above said inlet openings and projecting beyond the edges of the valve stem and secured to the head thereof and normally adapted to seat against said valve casing under the action of said spring, substantially as described.

1,027,920. CLEANING ATTACHMENT FOR HARROWS. HAROLD E. SMOCK, Matawan, N. J. Filed Feb. 24, 1912. Serial No. 679,556. (Cl. 55—34.)

1. In combination with a harrow, a transverse shaft journaled on the harrow, segmental raising wheels on the ends of the said shaft and normally off the ground, a cam on the said shaft, and a manually-controlled locking and actuating bar engaging the said cam and holding the same normally locked with the raising wheels in upper dormant position, the said bar being adapted to unlock and turn the said cam to engage the raising wheels with the ground.

2. In combination with a harrow, a transverse shaft journaled on the harrow, segmental raising wheels on the

ends of the said shaft and normally off the ground, a cam on the said shaft and provided on its peripheral face with a notch and with a shoulder, a locking and actuating bar mounted to slide forward and backward and having a locking lug adapted to engage the said cam notch, and an actuating lug adapted to engage the said cam shoulder, and a hand lever fulcrumed on the harrow and connected with the said bar to shift the latter forward or backward.



3. In combination with a harrow, a transverse shaft journaled on the harrow, segmental raising wheels on the ends of the said shaft and normally off the ground, a cam on the said shaft and provided on its peripheral face with a notch and a shoulder spaced from the notch, a locking and actuating bar having a locking lug and an actuating lug, of which the locking lug is adapted to engage the said cam notch and the said actuating lug is adapted to engage the said cam shoulder, a supporting arm on the said bar and resting on the said shaft, a spring presaing the said bar to hold the said arm in engagement with the said shaft, and a hand lever fulcrumed on the harrow and connected with the said bar.

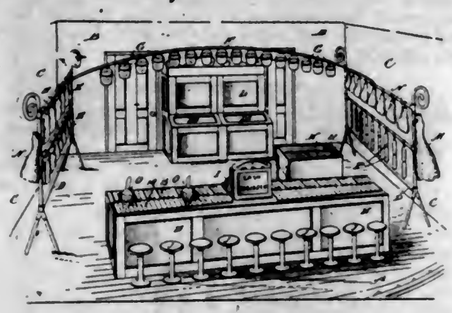
4. In combination with a harrow, a transverse shaft journaled on the harrow, segmental raising wheels on the ends of the said shaft and normally off the ground, the said raising wheels having each a semi-polygonal rim and the forward end of each rim having an angular projection, a cam on the said shaft, and a manually-controlled locking and actuating bar engaging the said cam and holding the same normally locked with the raising wheels in upper dormant position, the said bar being adapted to unlock and turn the said cam to engage the raising wheels with the ground.

1,027,921. COOLING-BOARD. MON SMYSOR, Columbus, Ohio. Filed Aug. 25, 1911. Serial No. 645,919. (Cl. 45—50.)



In a cooling board the combination of a pair of main sections hingedly connected together at adjacent ends, means for supporting said sections in elevation when disposed in longitudinal alinemept, a head member provided with a flooring and supported by one of said sections, a yielding connection between the inner end of the last named section and the inner end of the head member constantly tending to hold the inner end of said head member in engagement with the section, means for supporting the outer end of the head member in different elevations to said last named section, a flooring carried by the other section and a slidably supported joint floor member movable so as to be simultaneously disposed beneath the flooring of the head member and above the flooring of the section when the main sections are disposed in longitudinal alinement, whereby when the free end of the head member is elevated said joint floor member will be bound between said flooring to produce a liquid tight joint.

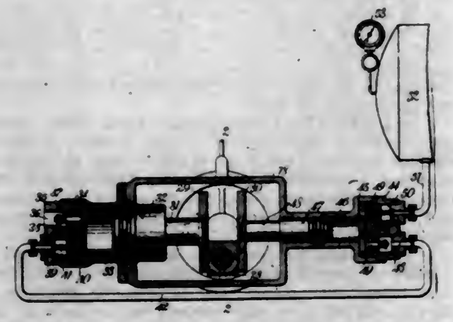
1,027,922. STAGE-SETTING FOR THEATERS. JOHN C. SPIKES, Trinidad, Colo. Filed Sept. 18, 1911. Serial No. 649,919. (Cl. 46—70.)



1. A stage setting for theaters, comprising a stage floor, with back and side walls to represent an open meat market and an orchestral equipment of musical instruments disposed within the same and masked in the representations of the various products and furnishings of a meat market.

2. A stage setting for theaters, comprising a stage floor, with back and side walls to represent an open meat market and an orchestral equipment of musical instruments disposed within the same and masked in the representations of the various products and furnishings of a meat market said musical instruments comprising organ chimes arranged within representations of sides of bacon, bells arranged in sausages, fowls and lard buckets, horns arranged in legs of meat, a piano arranged in an ice box, xylophones and marimbaphones arranged as counter and chopping block and rattles constructed as counter stools.

1,027,923. AIR-PUMP. GREGORY JOHN SPOHRER, Franklin, Pa. Filed June 16, 1911. Serial No. 633,462. (Cl. 230—32.)



1. A pump, comprising a hollow casing, a relatively small piston cylinder integral with one end of said casing, the outer end of said cylinder being enlarged, a cap in engagement with said enlarged end, said cap containing a plurality of valves, a relatively large piston cylinder in axial alinement with said small cylinder, extending partially into said casing, the outer end of said large cylinder being enlarged, a cap in engagement with said enlarged end, and valves in said cap.

2. A pump, comprising a hollow casing, a relatively small piston cylinder integral with one end of said casing, the outer end of said cylinder being enlarged, a cap in engagement with said enlarged end, said cap containing a plurality of valves, a relatively large piston cylinder in axial alinement with said small cylinder, extending partially into said casing, the outer end of said large cylinder being enlarged, a cap in engagement with said enlarged end, valves in said cap, a pair of independent piston rods, one in each piston cylinder and projecting toward each other into said casing and terminating in opposed broad bearing plates, and an actuating block in sliding engagement with said plates, to reciprocate said piston.

1,027,924. DOUBLE-WALLED VESSEL WITH METALLIC END CLOSURES. ALDEN B. STARR, New York, N. Y., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed June 21, 1911. Serial No. 634,601. (Cl. 62—23.)



1. In a vessel, the combination of an inner and outer wall concentrically arranged and providing a dead air space therebetween; a closure permanently secured to one end of said outer wall and dished to frictionally engage with and center the corresponding end of the inner wall; a ring permanently secured to the other end of said outer wall having an annular flange to frictionally engage with and center the corresponding end of the inner wall, said closure and ring adapted to close said dead air space; and a removable closure for the open end of the inner wall, substantially as described.

2. In a vessel comprising an inner and outer wall concentrically arranged and providing a dead air space therebetween, the combination of a metallic closure permanently secured to one end of the outer wall and having a centrally dished portion adapted to frictionally engage with and center the corresponding end of the inner wall, a metallic ring permanently secured to the other end of the outer wall having an upwardly inclined portion and provided with an annular flange adapted to fit within and frictionally engage with the corresponding end of the inner wall and center the same with respect to the outer wall; said fixed closure and ring adapted to close said dead air space; and a removable closure for the open end of the inner wall, substantially as described.

3. In a vessel comprising an inner and outer wall concentrically arranged and providing a dead air space therebetween, the combination of a metallic closure secured to one end of the outer wall and dished to provide a flat bottom and a surrounding inclined portion; an inner wall supported and centered on said bottom; a metallic ring secured to the other end of the outer wall and having an annular inclined portion and an annular flange; said inclined portion and annular flange frictionally engaging with the adjacent end of the inner wall and centering the same with respect to said outer wall; and a removable closure for the open end of the inner wall, substantially as described.

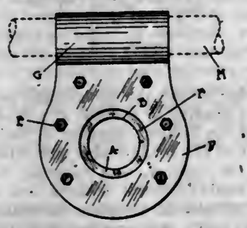
4. In a vessel, the combination of an inner and outer cylindrical wall concentrically arranged and providing a dead air space therebetween; a metallic closure crimped to the bottom edge of the outer wall, said closure having a flange tightly fitting within the outer wall, and having a dished portion providing a flat bottom and a surrounding inclined portion; said bottom supporting the inner wall and the inclined portion frictionally engaging and centering the same with respect to the outer wall; a metallic ring crimped to the upper edge of the outer wall and having a flange fitting tightly within the outer wall, and having an annular inclined portion and an annular flange; said inclinde portion and annular flange frictionally engaging with the adjacent end of the inner wall and centering the same with respect to said outer wall, and a removable closure for the open end of the inner wall, substantially as described.

1,027,925. MONKEY-WRENCH. WILLIAM LOUIS STEVENSON, Chester, W. Va. Filed Mar. 23, 1911. Serial No. 616,421. (Cl. 81—160.)



A wrench comprising a hollow handle, a head, a neck carried by said head and pivotally mounted in said handle, said neck having its inner end provided with a flange having a plurality of notches formed therein, said handle provided with an opening adapted to be brought into registry with a selected one of said notches, a spring tooth pivotally mounted upon said handle and adapted to hold said handle in an adjusted position, said tooth comprising a body portion, a pivot lug carried by said body portion and pivotally connected with said handle, an angular extension at one end of said body portion passing through the opening in said handle and adapted to engage said notches, an elongated spring tail leading from the opposite end of said body portion and bearing against said handle to normally hold said tooth in engagement with one of said notches, a second jaw, a shank leading from said second jaw through said first-mentioned jaw into said handle, and said handle and shank being provided with interrupted threads adapted to be brought into engagement.

1,027,926. CENTER-PIECE FOR BUGGY NECK-YOKES. HENRY W. STIMSON, Snyder, Tex., assignor to John G. Williams, Snyder, Tex. Filed May 8, 1911. Serial No. 625,748. (Cl. 21—77.)

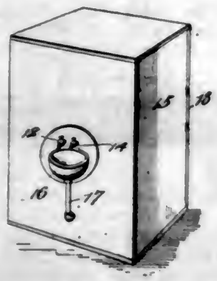


In a center piece for buggy neck-yokes, the combination with the tongue of a vehicle and a sleeve carrying a downwardly projecting lug, secured on the end of said tongue, of a disk provided with a central aperture adapted to receive the sleeve and to bear against said lug, an elongated metal plate forming a loop at its central portion to receive a neck yoke and having the centrally apertured disk secured between its ends, said plate being provided with apertures alining with and which are somewhat larger than the aperture in the disk, and a bracket formed by bending one end of the plate back upon itself, said bracket being slightly spaced from, and having its upper edge in alinement with the aperture in the disk, and being adapted to engage the lug on the sleeve on the end of the tongue.

1,027,927. RAZOR-SHARPENING COMPOUND. LOUIS STOCKER, Grahamton, Ky. Filed July 17, 1911. Serial No. 639,048. (Cl. 51—1.)

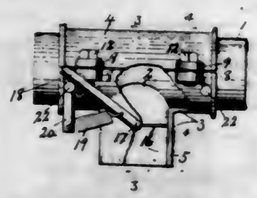
A block or stick for rubbing on the surface of razor-strops consisting of melted paraffin having fine graphite free from grit incorporated with it, substantially as described.

1,027,928. PORTABLE WATER SUPPLY AND HEATING SYSTEM. ERASTUS L. STOCKMAN, Adams, Nebr. Filed Aug. 4, 1910. Serial No. 575,572. (Cl. 4—1.)



A portable water supply apparatus comprising a cabinet with a basin secured to its outer face, tanks within the cabinet one being arranged at one side and below the other, a single pipe connected to both of the tanks having a valve and float in the lower tank, discharge pipes connected to the bottom of each of the tanks having their terminals provided with faucets arranged above the basin, and means also in the casing for heating one of the tanks.

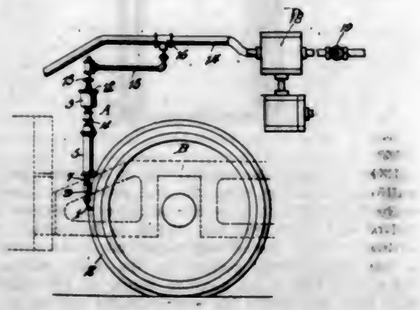
1,027,929. MUFFLER CUT-OUT. CHARLES WORRELL STRYKER, Syracuse, N. Y. Filed Oct. 20, 1910. Serial No. 588,065. (Cl. 137—7.)



1. In a muffler cutout, the combination with an exhaust pipe having an opening in one side of a diameter substantially equal to the interior diameter of the pipe, of a T-coupling fitted to the exhaust pipe and extending at both ends beyond the opening, said coupling formed in two substantially semi-cylindrical sections, one of which has a branch-pipe projecting therefrom centrally of its ends and registering with said opening, said branch-carrying section provided adjacent one edge of its open longitudinal side with recesses 13 terminating in shoulders 6 and at its opposite side with lugs 8 having threaded apertures, the other section provided at one side with ears having lugs 7 to fit in the recesses 13 and engage the shoulders 6 and at the other side with apertured lugs 9, clamping screws passed through said lugs 9 and engaging in the threaded apertures of the lugs 8, a rock-shaft journaled in the branch pipe of said coupling, a damper carried by the rock-shaft within the pipe and of a diameter corresponding to the interior diameter of said pipe, said rock-shaft having an angularly-extending arm, stops carried by the T-coupling for engagement by the arm to limit the throw of the latter in both directions, a stud carried by the T-coupling, and a spring connected at one end to the stud and at the other end to said arm for normally holding the damper in closed position.

2. In a muffler cut out, the combination with an exhaust pipe having an opening in one side of a diameter substantially equal to the interior diameter of the pipe, of a T-coupling divided longitudinally to form two substantially semi-cylindrical sections fitted upon the exhaust pipe and projecting at each end beyond the opening in said pipe, means for clamping said sections upon the pipe, a branch pipe carried by one of the sections intermediate its ends and registering with the opening in said pipe, a rock-shaft journaled in the branch pipe and provided at one end with an angularly extending arm, a damper carried by said rock-shaft within the branch pipe and of a diameter corresponding to the interior diameter of said pipe, stops carried by the T-coupling to limit the throw of the arm in both directions, a stud carried by the T-coupling, and a spring connected at one end to said stud and at its other end to said arm for normally holding the damper in closed position.

1,027,930. LUBRICATING DEVICE FOR WHEEL-FLANGES. CLARK LAWRENCE TANNER, Miles City, Mont. Filed Jan. 17, 1910. Serial No. 538,488. (Cl. 184—3.)



1. A lubricating means for wheel flanges comprising a conduit including a section of greater diameter than the main portion of the conduit and constituting a receptacle, fibrous material wholly inclosed in said receptacle, a nozzle connected to one end of the receptacle, and a steam pipe for conducting exhaust steam and waste lubricant to the receptacle, said steam pipe being connected to the receptacle at the end thereof remote from the nozzle, and said receptacle with the fibrous material therein constituting a condenser for the exhaust steam.

2. A lubricating apparatus for wheels comprising a lubricant-containing cup, a valve for controlling the discharge of lubricant from the cup, a receptacle in the path of lubricant discharging from the cup and connected to said cup, said receptacle containing a body of fibrous material which the lubricant must traverse in its passage to the receptacle, a flexible conduit connected with the receptacle at the end remote from that connected with the lubricant containing cup, a nozzle secured to the end of the flexible conduit remote from said receptacle, and a connection with the receptacle between the same and the lubricant containing cup for the free flow of exhaust fluids thereto.

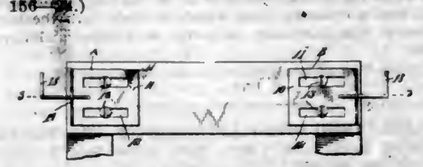
3. A lubricating apparatus for wheels comprising a conduit with a mass of fibrous material therein, a lubricant directing means at one end of the conduit, a lubricant cup at the other end of the conduit and provided with means for controlling the flow of lubricant therefrom into the conduit, and means for the introduction of exhaust steam into the conduit between the lubricant cup and the fibrous material.

4. A means for utilizing the exhaust steam and waste lubricant from the pump driving means of an air brake system for causing the lubrication of wheel flanges, comprising a conduit leading to a wheel flange and having an expanded portion adjacent the wheel flange and inclosing steam retarding and condensing means, and means at the discharge end of the conduit beyond the retarding means for directing fluids passing therethrough to the wheel flange to be lubricated.

5. A lubricating apparatus for wheels comprising a conduit terminating in a discharge nozzle for lubricant and provided with means for directing exhaust fluid into said conduit, retarding means for the exhaust fluid within the conduit between the point of entrance of the fluid and the nozzle, and a lubricant cup connected to the conduit at a point therein more remote from the nozzle than the point of entrance of the exhaust fluid.

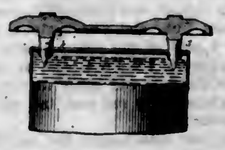
[Claims 6 to 13 not printed in the Gazette.]

1,027,931. COMBINED SHADE AND CURTAIN BRACKET. PAUL E. TARDIFF, Claremont, N. H., assignor of one-half to Edward A. Cudahey, Claremont, N. H. Filed Dec. 15, 1910. Serial No. 597,478. (Cl. 156—24.)



A shade and curtain bracket combining a pair of plates, having slots formed therein, fastening devices extending through said slots, shade supporting arms extending laterally from said plates, said supporting arms and plates being formed with openings, said openings being arranged in the same horizontal plane, supporting rods extending through the openings formed in the arms of each plate, said rods engaging the plates, and prongs formed upon the supporting rods and extending through the opening formed in the plates and projecting through said plates a distance therebeyond for engagement with a support whereby the said plates and arms will be held against displacement.

1,027,932. CAN OPENER AND SEALER. FREDERICK E. TEVES, Glen Cove, N. Y. Filed Sept. 30, 1910. Serial No. 584,674. (Cl. 220—67.)

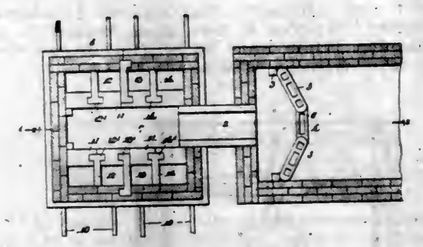


A can opener such as described, having a body portion provided with a pricking point having lengthwise sections of different diameters, said sections being eccentric each to the other, and the side wall of both sections coinciding at the outer side of said pricking point to form an extension or shoulder at the opposite or inner side of the pricking point whereby to limit the insertion of the pricking point.

1,027,933. GLASS-FURNACE. VICTOR THEWIS, Point Marion, Pa. Filed May 26, 1911. Serial No. 629,576. (Cl. 49—55.)

1. The combination with a main tank, of a housing arranged adjacent thereto, a roof for the housing, a movable tank arranged within the housing, a conduit leading from the main tank to the movable tank, and a plurality of glass compartments at each side of the movable tank and formed partially of vertically movable floating walls, said movable tank being movable relative to the roof to bring the compartments into position for drawing the glass therefrom.

2. In a glass furnace, the combination of a main tank, a movable tank, a conduit connecting the main tank and the movable tank, a roof designed to extend over the movable tank, a plurality of compartments formed at the sides of the movable tank, the compartments on the same side of said movable tank having a common movable wall, drawing apparatus arranged outside the roof, said movable tank being designed to be shifted from side to side of the roof to bring the compartments under the drawing apparatus at predetermined times.

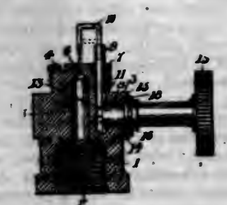


3. In a glass furnace, the combination with a main tank for the molten glass, of a movable tank arranged adjacent thereto, a conduit leading from the main tank to the movable tank, a plurality of partitions extending inward of the movable tank from the side walls thereof, floating walls at the inner ends of said partitions, said walls and partitions forming compartments for the glass at the sides of the movable tank, a roof extending over said movable tank, depending walls leading from said roof, shelves extending inward from the depending walls, glass drawing apparatus, and means whereby the movable tank may be moved from side to side to bring the compartments thereof beneath the drawing apparatus at predetermined times.

4. In a glass furnace, the combination of a main tank having a floating bridge therein, a movable tank, a conduit connecting the main tank and the movable tank, a plurality of compartments formed at the sides of the movable tank, the compartments on the same side of each movable tank having a common movable vertical wall, a roof extending over the movable tank, glass drawing apparatus adapted to take the glass from the compartments of the movable tank when the latter is moved to bring said compartments beneath the said glass drawing apparatus, and means for heating the glass in the movable tank.

5. In a glass furnace, the combination of a main tank, and a movable tank arranged adjacent thereto, a conduit leading from the main tank to the movable tank, said movable tank having a plurality of vertically arranged slots extending across the same in parallelism and spaced apart from the sides of the movable tank, whereby compartments are formed at opposite sides of said movable tank, the glass flowing from the conduit passing first to the space formed at the center of the movable tank and flowing thence into the compartments at the sides of said movable tank.

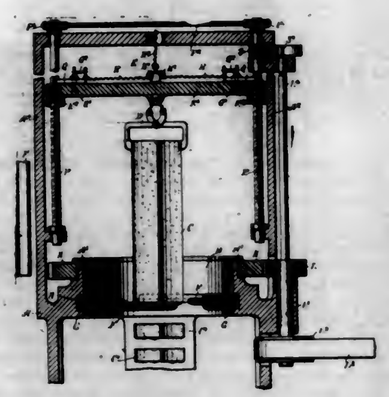
1,027,934. NEEDLE-VALVES FOR GAS-BURNERS. ALBERT G. THOMAS, Pittsburgh, Pa. Filed Jan. 15, 1912. Serial No. 671,178. (Cl. 158—120.)



A regulating valve for gas burners comprising a valve body capable of communicating at one end with a gas

supply pipe and having its other end formed with an outlet port, said valve body provided with a recess independent of said port, a vertically movable valve for controlling the passage of gas through said port, a vertically movable actuating member mounted in said recess and carrying said valve and capable of adjusting the latter, and means disposed at right angles with respect to said recess and extending into said member for vertically moving it to adjust the valve.

1,027,935. MACHINE FOR MAKING BUILDING-STONES. WILLIAM A. TODD, Point Pleasant, N. J. Filed Aug. 5, 1910, Serial No. 575,710. Renewed Oct. 20, 1911. Serial No. 655,748. (Cl. 125—6.)



1. A machine for severing building stones from blocks, comprising a frame, having a central opening for the passage of a block to be severed, a block carrier and feeder for supporting the block and feeding it intermittently in the said opening, plates having their pressure edges encircling the block in the same plane, slides carrying the said plates and mounted to slide in the said frame, and means for imparting a simultaneous inward movement to the said slides to cause the said pressure edges to exert pressure on all sides of the block to sever the same and leave the severed faces in a naturally broken condition.

2. A machine for severing building stones from blocks, comprising a frame, having a central opening for the passage of a block to be severed, a block carrier and feeder for supporting the block and feeding it intermittently in the said opening, plates having their pressure edges encircling the block in the same plane, slides carrying the said plates and mounted to slide in the said frame, the said slides being provided with guideways, bearings arranged in the guideways of the said slides, revoluble shafts provided with cams for engaging the bearings to move the said slides, pinions on the cam-shafts, and a gear wheel meshing with the pinions for simultaneously turning the said cams to impart simultaneous movement to the said slides and their plates.

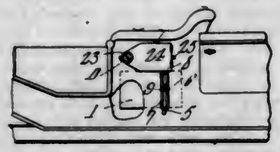
3. A machine for severing building stones from blocks, comprising a frame, having a central opening for the passage of a block to be severed, a block carrier and feeder for supporting the block and feeding it intermittently in the said opening, plates having their pressure edges encircling the block in the same plane, sides carrying the said plates and mounted to slide in the said frame, bearings in slidable engagement with the said slides, manually-controlled means for adjusting the bearings and slides one relative to the other, revoluble shafts provided with cams engaging the said bearings, pinions on the cam shafts and a gear wheel meshing with the pinions for simultaneously turning the said cam shafts.

4. A machine for severing building stones from blocks, comprising a frame, having a central opening for the passage of a block to be severed, a block carrier and feeder for supporting the block and feeding it intermittently in the said opening, plates having their pressure edges encircling the block in the same plane, slides carrying the said plates and mounted to slide in the said frame, bearings in slidable engagement with the said slides, a pair of screw rods mounted to turn in the slides and screwing in the said bearings, meshing gear wheels secured on the said screw rods, revoluble cams engaging the said bearings, pinions on the said cams, and a revoluble gear wheel in mesh with the said pinions.

5. A machine for severing building stones from blocks, comprising a frame having a central opening for the passage of a block to be severed, a block carrier and feeder for supporting the block and feeding it intermittently in the said opening, plates having their pressure edges encircling the block in the same plane, slides carrying the said plates and mounted to slide in the said frame, revoluble cams for moving the said slides, pinions on the said cams, and a revoluble gear wheel in mesh with the said pinions to simultaneously move the said slides and their plates.

[Claims 6 to 15 not printed in the Gazette.]

1,027,936. INDICATING ATTACHMENT FOR TANKS. JOSEPH B. TURNER, Cuero, Tex. Filed Dec. 4, 1911. Serial No. 663,684. (Cl. 73—82.)



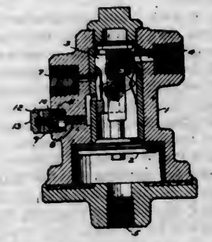
1. In an indicator attachment for liquid fuel tanks, a vertically disposed cylinder in communication at its lower end with the fuel tank, a float mounted for reciprocatory movement within the cylinder to be actuated by the rise and fall of the liquid fuel therein, an indicating device, a pivoted lever operably connected at one end to the indicating device, a link pivotally connected to the outer free end of said lever, a rod connected to the float and having its upper end pivotally connected to the lower end of said link, and two springs, each connected to the lever at a side of the link opposite that to which the other is connected, the lower end of said springs being connected to the float rod below its pivotal connection with the link, whereby the rod and link are normally held in vertical alinement.

2. In an indicator attachment for liquid fuel tanks, a vertically disposed cylinder in communication at its lower end with the fuel tank, a float mounted for reciprocatory movement within the cylinder to be actuated by the rise and fall of the liquid fuel therein, an indicating device, a pivoted lever operably connected at one end to the indicating device, a link pivotally connected to the outer free end of said lever, a rod connected to the float and having its upper end pivotally connected to the lower end of said link, an arm made fast to the extreme end of the lever, a spring connected to the free end of said arm and to the float rod below its pivotal connection to the link, and another spring connected to the rod at the point of connection of the first spring thereto and to the lever upon the side of its pivotal connection nearer the indicating device.

3. In an indicating attachment for liquid fuel tanks, the combination with a tank, and an outlet leading therefrom, of a conduit connected to said outlet and leading away from the tank, a cylinder vertically disposed and having its lower end in communication with said conduit, said cylinder being provided with a vertically disposed transparent portion the full length thereof, a casing connected to the upper end of said cylinder and supporting the same, a float disposed within said cylinder and actuated by the rise and fall of the liquid fuel therein, a rod connected to said float and extending upwardly within the casing, a link pivotally connected to the upper end of said rod, a lever pivoted within the casing and at right angles to the float rod, an indicating device operably connected to the inner end of said lever, the upper end of said link being pivotally connected to the said lever near the opposite end to the indicating device, and means connected to the lever on opposite sides of the link and to the float rod below its pivotal connection with the link, to retain the float rod and link in vertical alinement.

4. In an indicator attachment for liquid fuel tanks, the combination with a tank, and an outlet leading therefrom, of a conduit connected to said outlet and leading away from the tank, a cylinder vertically disposed and having its lower end in communication with said conduit, said cylinder being provided with a vertically disposed transparent portion the full length thereof, a casing connected to the upper end of said cylinder and supporting the same, a float disposed within said cylinder and actuated by the rise and fall of liquid fuel therein, a rod connected to said float and extending upwardly within the casing, a link pivotally connected to the upper end of said rod, a lever pivoted within the casing and at right angles to the float rod, an indicating device operably connected to the inner end of said lever, the upper end of said link being pivotally connected to said lever near the opposite end of the indicating device, and two springs having their lower ends connected to the float rod below its pivotal connection with the lower end of the link, and having their other ends disposed in opposite directions and connected to the lever upon opposite sides of the pivotal point thereof with the link.

1,027,937. EXHAUST-CONTROL VALVE FOR AIR-BRAKES. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed July 16, 1907. Serial No. 384,108. (Cl. 188—15.)

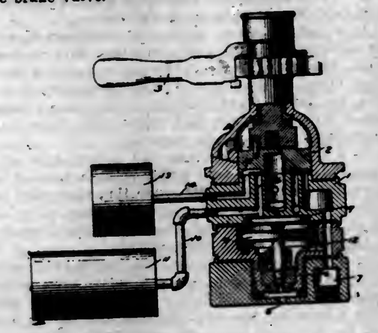


1. A valve device for retarding the release of the brakes comprising a valve piston provided with ports through which air is released from the brake cylinder and having a seated position for closing one or more of said ports, said valve piston being moved to its seated position by the brake cylinder pressure.

2. A valve device for retarding the release of the brakes comprising a valve piston provided with ports through which air is released from the brake cylinder and having a seated position for closing one or more of said ports and a spring for normally holding said valve piston away from its seat, said valve piston being moved to its seated position according to the degree of brake cylinder pressure.

1,027,938. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 2, 1909. Serial No. 525,871. (Cl. 188—7.)

1. In a brake valve, the combination with a valve mechanism governed by the opposing pressures of the train pipe and a chamber for controlling the release of fluid from the train pipe, of means for venting air from said chamber and directly from the train pipe in one position of the brake valve.



2. An engineer's brake valve device comprising a chamber, a valve mechanism subject to the opposing pressures of the train pipe and said chamber for controlling the release of fluid from the train pipe, and means for venting air from said chamber and from the train pipe in making a service application of the brakes.

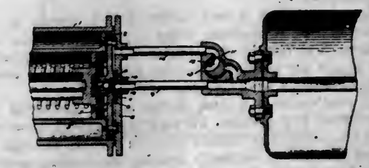
3. In a fluid pressure brake, the combination with a train pipe and a brake valve, of a valve for controlling the discharge of air from the train pipe, a movable abutment subject to the opposing pressures of the train pipe and a chamber or reservoir for operating said valve, and means controlled by said brake valve in making service applications of the brakes for venting air from said chamber and directly from the train pipe.

4. In a fluid pressure brake, the combination with a train pipe and a brake valve provided with an equalizing discharge valve mechanism operated by a reduction in pressure in a chamber or reservoir for releasing air from the train pipe, of a direct train pipe discharge port controlled by the brake valve for also releasing air from the train pipe in making a service application of the brakes.

5. In a fluid pressure brake, the combination with a train pipe and a brake valve provided with an equalizing discharge valve mechanism operated by reducing the pressure in a chamber or equalizing reservoir for discharging air from the train pipe, of a reducing reservoir into which air from the equalizing reservoir is vented for limiting the reduction in pressure therein, a direct train pipe discharge port for also releasing fluid from the train pipe and means for cutting off the flow of air through said direct discharge port upon equalization of the equalizing reservoir and reducing reservoir pressures.

[Claim 6 not printed in the Gazette.]

1,027,939. FLUID-PRESSURE BRAKE. WALTER V. TURNER, Edgewood, Pa., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Nov. 3, 1909. Serial No. 526,029. (Cl. 188—1.)



1. In a fluid pressure brake, the combination with two brake cylinders and a valve mechanism for cutting in one of said cylinders, of a restricted port for limiting the flow of fluid from one brake cylinder to the other brake cylinder.

2. In a fluid pressure brake, the combination with a brake cylinder communicating with a fluid pressure supply passage and another brake cylinder adapted to be connected to said passage, of means for restricting the back flow of fluid from the first brake cylinder.

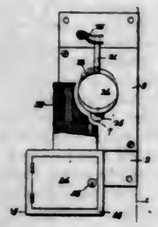
3. In a fluid pressure brake, the combination with a brake cylinder in open communication with a passage through which fluid under pressure is supplied thereto, another brake cylinder, and a valve mechanism for connecting the latter brake cylinder to the supply passage, of means for checking the back flow of fluid from the first brake cylinder to the supply passage.

4. In a fluid pressure brake, the combination with a brake cylinder having a fluid supply passage, another brake cylinder and valve means for connecting the latter brake cylinder to said supply passage, of a check valve interposed in the supply passage to restrict the flow of air from the first mentioned brake cylinder.

5. In a fluid pressure brake, the combination with a large brake cylinder and piston, a small brake cylinder and piston carried by the larger piston, the large piston forming a head for the small cylinder and having a port therein for supplying air to the small brake cylinder, of a check valve in said port.

[Claim 6 not printed in the Gazette.]

1,027,940. LOCK. ENOS O. VANN, Pueblo, Colo. Filed Aug. 9, 1911. Serial No. 643,102. (Cl. 194—321.)



1. In combination, a lock having a bolt, and a slotted key plunger, means for securing the key plunger against turning in a direction to project the bolt, means for holding a coin, and a key for throwing the securing means to inoperative position through the intermediary of a coin and for projecting the bolt said key directly engaging the coin.

2. In a device of the class described, a lock including a bolt, a key for projecting and retracting said bolt, means to secure the bolt against projection, and an operative connection between the key and the securing means including a coin directly engaged by the key whereby when the key is initially operated the securing means will be thrown to inoperative position and upon further movement of the key the bolt will be projected.

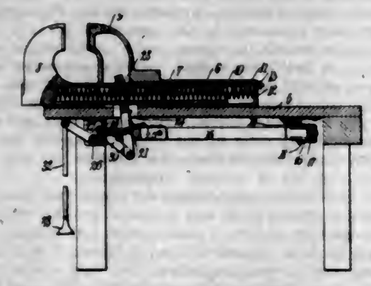
3. In combination, a lock having a bolt, means to lock the bolt against projection, a key for operating the lock and means for supporting a coin on the key and between the same and the locking means thereby producing an operating connection.

4. In combination, a lock having a bolt, means to lock the bolt against projection, a key for operating the lock, and means carried by the locking means for supporting a coin on the key between the same and the locking means, thereby producing an operating connection.

5. In combination, a lock having a key projected bolt and a slotted key plunger, an apertured casing surrounding the key plunger, a locking member passing through the aperture, means for normally holding the locking member in the slotted key plunger, a key for operating the lock, means to hold a coin on the key, said key supporting the coin and raising the same when operated to throw the bolt, and means actuated by the coin for raising the locking member out of the slot.

[Claim 6 not printed in the Gazette.]

1,027,941. VISE. LUIGI VIEZZI, Jersey City, N. J. Filed July 15, 1911. Serial No. 638,626. (Cl. 81—17.)



1. In a vise, a frame having a guideway, a jaw having an arm disposed for moving in the guideway, a beam movable relatively to the frame, a lever fulcrumed to the beam and having an opening through which the arm is disposed, a spring for holding the beam yieldingly in one direction, a spring for holding the lever at its opening against the arm, means for operating the lever, and means for moving the beam against the tension of the first-mentioned spring.

2. In a vise, a frame having a guideway, a jaw having an arm disposed for moving in the guideway, a beam movable relatively to the frame, a lever fulcrumed to the beam and having an opening through which the arm is disposed, a spring for holding the beam yieldingly in one direction, and a spring for holding the lever at its opening against the arm.

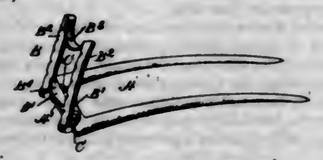
3. In a vise, a frame having a guideway, a jaw having an arm disposed for moving in the guideway, a lever having an opening through which the arm extends, resilient means for normally holding the lever at its opening against the arm, and a lever fulcrumed to the frame, one arm of which is articulated to the first-mentioned lever to move it so that the arm may move freely through the opening in the lever.

4. In a vise, a frame having a guideway, a jaw having an arm disposed for moving in the guideway, a beam movable relatively to the frame, means for holding the beam normally in a predetermined position relatively to the frame, a lever fulcrumed to the beam and having an opening through which the arm is disposed, resilient means for normally holding the lever at its opening against the arm, and means for operating the lever.

5. In a vise, a frame having a guideway, a jaw having an arm disposed for moving in the guideway, a beam movable relatively to the frame, a lever fulcrumed to the beam and having an opening through which the arm is disposed, and means for holding the beam in one direction.

[Claims 6 to 19 not printed in the Gazette.]

1,027,942. HAT-HOLDER. LUIGI VIEZZI, Jersey City, N. J. Filed Aug. 1, 1911. Serial No. 641,833. (Cl. 132—25.)

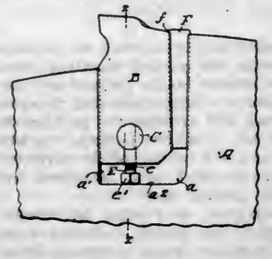


1. A hat holder, comprising a hairpin and a retaining device attached thereto, the retaining device having a hollow fixed arm, prongs normally concealed and folded in the said arm and adapted to be moved into extended position at angles to the said arm for engagement with a hat, and manually controlled means connected with the said prongs for moving the said prongs into folded or extended position.

2. A hat holder, comprising a base for attachment to a hair pin, a hollow arm rising from the said base and provided with openings, a manually-controlled slide in the said arm, and prongs pivoted on the said slide and having their pointed ends extending into the said openings, the prongs in one position of the slide being folded and concealed in the said arm, and in another position of the slide the prongs are projected through the openings to extend from the arm, the prongs being adapted when in extended position to engage the hat.

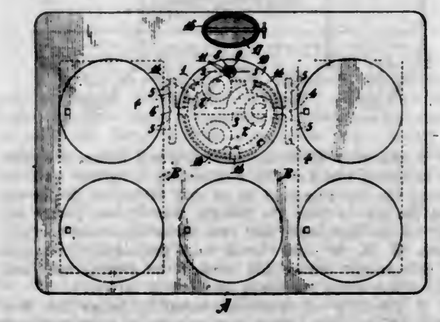
3. A hat holder, comprising a hairpin, a frame having a base attached to the said hairpin, hollow arms rising from the said base, the arms having their outer edges provided with spaced openings, slides in the said arms, a fingerpiece connecting the said slides with each other, and prongs pivoted on the said slides and having their pointed ends extending into the said openings and adapted to be projected through the openings and beyond the outer side edges of the arms, the said prongs being adapted, when in extended position, to engage the hat.

1,027,943. SAW-TOOTH. WILLIAM VOLLMER and AARON K. ANDREWS, Burnham, Pa. Filed Oct. 16, 1911. Serial No. 654,976. (Cl. 29—105.)



The combination of an integral tooth for metal saws made of hard metal and having a transverse opening extending from one side of the tooth to the other and having a longitudinal opening extending from said transverse opening to the bottom of the tooth; a plug of softer metal than the tooth inserted in the transverse opening and having a threaded hole in line with the longitudinal opening; with a set screw extending through the longitudinal opening and into the threaded hole in the plug, said set screw having a head by which it can be turned.

1,027,944. AIR-HEATING DEVICE FOR STOVES. GERRIT VON DAAM, Scranton, Pa. Filed Apr. 1, 1911. Serial No. 618,311. (Cl. 126—15.)



1. In an air heating and feeding device for stoves, a fire pot, a tube located above the plane of the fire pot and adjacent thereto and having an intake and a discharge end located above the plane of the fire pot and adjacent one side thereof, supporting feet for the tube, and a band extending around the feet and operating to hold the feet in embracing engagement with the tube.

2. An air heating and feeding device of the character described comprising a fire pot, a tube located above the plane of the fire pot and adjacent thereto and having an air intake portion and an air discharge portion located above the plane of the fire pot and adjacent one side thereof, grooved feet having their grooved portions fitted to the tube, and a band extending around the feet and connecting them with each other and operating to hold the feet operatively associated with the tube.

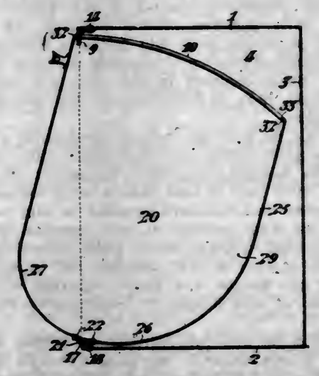
3. In an air heating and feeding device for stoves, a stove including a fire pot therefor, a coiled tube located above the plane of the fire pot at one side thereof and in the path of the products of combustion and provided at one end with an air intake portion, the opposite end of said tube terminating in a straight conveying tube located in a plane below the plane of the coil, the said conveying tube terminating in jet heads projecting laterally therefrom and located above the plane of the fire pot and adjacent one side thereof so that the air may be directed into the fire pot and across the path of the rising gaseous products.

4. In an air heating and feeding device for stoves, a stove including a fire pot therefor, a coiled tube located above the plane of the fire pot at one side thereof and in the path of the products of combustion and provided at one end with an air intake portion, the opposite end of said coiled tube terminating in a straight conveying tube, a jet head connected to said conveying tube and projecting laterally therefrom, said jet head being formed intermediate its ends to provide a deflector, said deflector being arranged in advance of the conveying tube so that the air may be evenly distributed throughout the jet head, and means for supporting the tube.

5. In an air heating and feeding device for stoves, a stove including a fire pot therefor, a coiled tube located above the plane of the fire pot and at one side thereof, said tube being formed to provide a plurality of loops intermediate its ends and provided at one end with an air intake portion, a conveying tube connected intermediate its ends to said coiled tube, jet heads arranged upon each end of said conveying tube and projecting laterally therefrom, and means for supporting the coiled tube.

[Claims 6 and 7 not printed in the Gazette.]

1,027,945. BIN. EDWIN J. WALKER, Philadelphia, Pa. Filed May 28, 1908. Serial No. 435,504. (Cl. 211—6.)



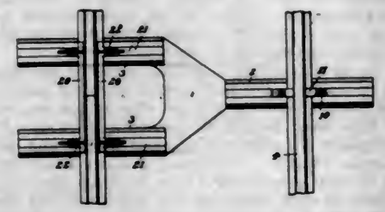
1. The combination with a bin casing having a pivotal member comprising an angular flange; of a bin mounted in said casing and removably supported upon the angular ridge of said flange; and a vertical flange plate opposite to said pivotal flange arranged to limit the tilting motion of said bin, having its upper region engaging the free edge

of the top wall of said casing, and having a bracing web formed by its lower margin extending obliquely within said casing in engagement with said top wall.

2. The combination with a metallic bin casing having a pivotal member comprising an angular flange; of a bin mounted in said casing and removably supported upon the angular ridge of said flange; and a vertical flange plate, opposite to said pivotal flange, engaging the edge of the top wall of said casing, arranged to limit the tilting motion of said bin, and formed of a strip of sheet metal having its opposite margins extending angularly to form webs which engage said top wall in oblique relation and brace said vertical plate.

3. A metallic bin having its front, bottom and rear walls formed of a single piece of sheet metal; opposite side walls formed of separate pieces of sheet metal connected with said other walls by lapped and folded joints; a reinforcing rod extending around the top edge of said bin, and wrapped in the free edges of said walls, forming a uniform upper perimeter; a casing having an opening for said bin and provided with a reinforcing angular flange in unitary relation therewith, and forming the bottom of said opening; and an angular pivotal channel plate on said bin secured to said single piece of metal detachably fitted to engage the edge of said angular flange, and arranged to embrace said flange between the opposed parallel ridges of said angular channel plate.

1,027,946. TIE AND RAIL-FASTENER. VERNON C. WASHABAUGH and JOHN S. PETERS, Scottdale, Pa. Filed Jan. 4, 1912. Serial No. 669,381. (Cl. 238—5.)

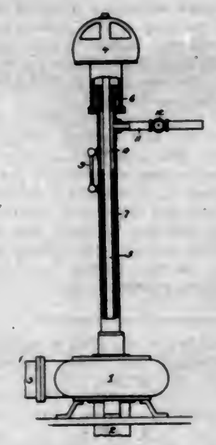


1. A metallic tie and rail fastener comprising a channel-shaped support having the longitudinal walls thereof formed with inwardly extending flanges at the top thereof, teeth formed on the under side of said flanges, depending brackets carried by said walls and flanges at the ends of the flanges and providing at each end of the support a slot, fasteners mounted in said supports and having the inner portions thereof engaging the rails, lateral teeth projecting from said fasteners intermediate the ends thereof and capable of engaging the teeth of said flanges, and blocks mounted in said slots and engaging under the outer ends of said fasteners for maintaining them in position.

2. A metallic tie and rail fastener comprising a channel-shaped support having the longitudinal walls thereof provided with inwardly extending flanges at the tops thereof, the lower face of said flanges being toothed, oppositely disposed rail fasteners mounted in said support and having the inner portions thereof engaging the rail mounted upon said support, lateral teeth projecting from opposite sides of each of said fasteners and engaging in the teeth of the flanges, and means engaging with the outer portions of said flanges for maintaining them in position.

3. A metallic tie and rail fastener comprising a support having a longitudinally extending slot and further provided with a pair of toothed racks arranged below the top edges of the support, fasteners arranged in said slots and having the inner ends thereof retaining a rail upon said support, teeth carried by said fasteners and engaging in said racks, and blocks arranged in the outer ends of said support and engaging under the outer ends of said fasteners for maintaining them in position.

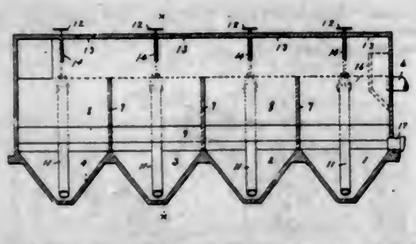
1,027,947. PUMP FOR CORROSIVE FLUIDS. UTLEY WEDGE, Ardmore, Pa. Filed Sept. 13, 1911. Serial No. 649,184. (Cl. 103—61.)



1. The combination, in a pump for corrosive fluid, of the pump casing, the packed operating member of the pump, and a tubular casing projecting from the pump casing, said tubular casing containing the operating member of the pump and carrying the packing therefor, and in communication with the pumping chamber whereby it may also contain a column of the corrosive fluid, and a body of non-corrosive fluid interposed between said column and the packing material.

2. The combination, in a pump for corrosive fluid, of the pump casing, the packed operating member of the pump, and a tubular casing projecting from the pump casing, said tubular casing containing the operating member of the pump and carrying the packing therefor, and in communication with the pumping chamber whereby it may also contain a column of the corrosive fluid, and a body of fluid lubricant interposed between said column and the packing material.

1,027,948. SEWAGE-DISPOSAL PLANT. ALBERT H. WEHR, Mount Washington, Md. Filed Mar. 12, 1912. Serial No. 683,398. (Cl. 210—5.)



1. A plurality of intercommunicating tanks, the first one of which has an inlet and outlet, a central wall extending the full length of all of said tanks and projecting from the top to near the bottom thereof and partly cut away in the last tank, and two walls extending the full length of all of said tanks and projecting from the top thereof and converging toward the central wall and terminating above the lower end of the latter.

2. A plurality of intercommunicating tanks the first one of which has an inlet and an outlet, a central wall extending the full length of all of said tanks and projecting from the top terminating in a flared lower end above the bottoms of said tanks, and partly cut away in the last tank, and two walls extending the full length of all of said tanks and projecting downwardly on a straight line to the top of the partition walls of said tanks and then converging toward and terminating above the flared lower end of the central wall.

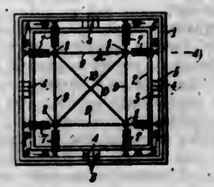
3. A plurality of intercommunicating tanks having an inlet and an outlet, the partition walls of said tanks terminating below the top thereof, a central wall extending the full length of all of said tanks and projecting from the top downwardly and terminating in a flared end above the bottoms of said tanks and partly cut away in the last tank, two walls extending the full length of all of said tanks and projecting downwardly on a straight line to the top of the partition walls of said tanks and then converging toward and terminating above the flared end of the central wall.

4. A plurality of intercommunicating tanks having the bottoms thereof sloping from each side toward the middle, and the partition walls of said tanks terminating below the top of the tanks, an inlet pipe connected to one of said tanks, an outlet pipe connected to the same one of said tanks, a central wall extending the full length of all of said tanks and projecting from the top downwardly and terminating in a flared end above the bottom of said tanks, and partly cut away in the last tank, two walls extending the full length of all of said tanks and projecting downwardly on a straight line to or about the top of the partition walls of said tanks and then converging toward and terminating above the flared end of the central wall.

5. A plurality of intercommunicating tanks having an inlet and an outlet, the partition walls of said tanks terminating below the top thereof, a central wall extending the full length of all of said tanks and projecting from the top downwardly and terminating in a flared end above the bottoms of said tanks, and partly cut away in the last tank, two walls extending the full length of all of said tanks and projecting downwardly on a straight line to the top of the partition walls of said tanks and then converging toward and terminating above the flared end of the central wall, and a pipe extending from near the bottom of each tank upwardly through the side wall near the top thereof.

[Claim 6 not printed in the Gazette.]

1,027,949. SPRING-FRAME FOR CUSHION-SEATS. ALBERT WEICKMAN, New York, N. Y. Filed Sept. 28, 1911. Serial No. 650,877. (Cl. 155—25.)



1. A spring frame of the kind described, comprising a pair of frames, means for resiliently connecting said frames together, said frames having interengaging means to guide the same in their movements with respect to each other, and a third frame supported by the interengaging means of one of said frames to receive the body of a cushion thereon.

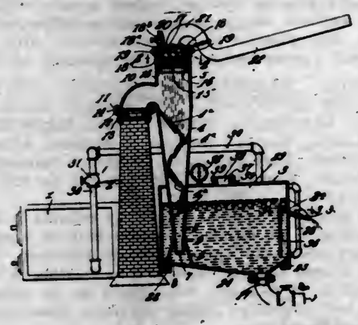
2. A spring frame of the kind described, comprising an outer frame, an inner frame inclosed thereby and resiliently connected thereto, supports secured to the outer faces of the sides of the inner frame and located between the same and the outer frame, guides secured to the inner sides of the outer frame and located on either side of the supports connected to the inner frame, and a third frame mounted upon the supports connected to the inner frame and carried above the same to receive the body of a cushion thereon.

1,027,950. CURTAIN-FIXTURE. JOSEPHINE WERNER, Baltimore, Md. Filed Feb. 15, 1912. Serial No. 677,662. (Cl. 156—13.)



The herein described curtain securing appliance comprising a suitable housing, a rib section rigidly secured to and carried by said housing, a movable member comprising a pair of parallel bars adapted to fit snugly on either side of said member, suitable means to pivotally connect said bars to the housing, and additional means to removably secure and release the opposite end of said bars.

1,027,951. SMOKE-NEUTRALIZER. FRANK WHITE, Angels Camp, Cal. Filed Oct. 19, 1910. Serial No. 587,916. (Cl. 75—30.)

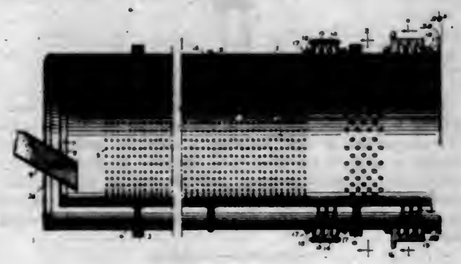


An apparatus for removing the solid particles from the products of combustion of a furnace, and for effecting an intermittent oxidization of the carbon monoxid therein, the apparatus comprising a furnace; a tank having a water outlet and a lower outlet for the slime; a pipe receiving the products of combustion from the furnace and entering the tank, the pipe having a discharge end located within the tank below the water outlet and above the slime outlet; means for supplying water to the pipe; a pipe entering the tank above the water outlet and communicating with the furnace to return the gaseous products of combustion thereto and to effect an oxidization of the carbon monoxid; a gage for indicating the back pressure in the tank; and a valve in the slime outlet adapted to be closed to maintain the water in the tank above the discharge end of the first specified pipe, and to be opened to drain the tank below said discharge end and below the water outlet, thereby to relieve the back pressure in the tank.

1,027,952. SEPARATOR AND AMALGAMATOR. JOHN WICK, Council, Alaska. Filed Apr. 11, 1911. Serial No. 620,312. (Cl. 83—67.)

1. Means for forming a concentrating pocket for an amalgamator, comprising a plurality of members each having a surface adapted to fit against the exterior of the amalgamator and a pair of surfaces intersecting said first-named surface, each of said members also having a longitudinal groove formed in one of said pair of surfaces and a longitudinal recess formed in the other of said pair of surfaces, said recess opening inward through said first-named surface, said members being fitted together to bring the groove in one member into registry with the recess in an adjacent member, to form a series of pockets.

2. Means for forming a concentrating pocket for an amalgamator, comprising a plurality of members each having a surface adapted to fit against the exterior of the amalgamator and a pair of surfaces intersecting said first-named surface, each of said members also having a longitudinal groove formed in one of said pair of surfaces and a longitudinal recess formed in the other of said pair



of surfaces, said recess opening inward through said first-named surface, said members being fitted together to bring the groove in one member into registry with the recess in the adjacent member, to form a series of pockets, said members also having transverse registering recesses in their adjacent faces communicating with said grooves and recesses to form outlet openings for said pockets.

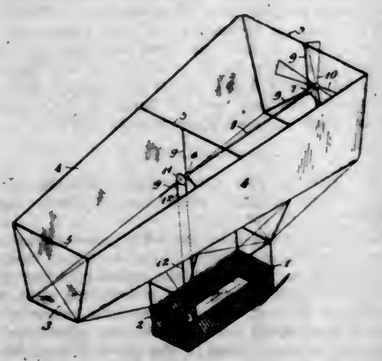
1,027,953. BLEACHING STRAW. PERCY EDGAR WICKHAM, London, England, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed May 20, 1911. Serial No. 628,502. (Cl. 8—2.)

1. The process of bleaching straw by treating it with a hydrosulfite in an alkaline bleaching bath at a raised temperature substantially as hereinbefore described.

2. The process of bleaching straw by treating it with a hydrosulfite at a raised temperature in an alkaline bleaching bath containing sodium phosphate, substantially as hereinbefore described.

3. The process of bleaching straw by treating it with a hydrosulfite at a temperature of from fifty-five to sixty-five degrees centigrade in an alkaline bleaching bath containing sodium phosphate substantially as hereinbefore described.

1,027,954. AEROPLANE. JOSEPH A. WILLIAMS, Cleveland, Ohio. Filed Nov. 1, 1909, Serial No. 525,657. Renewed Jan. 27, 1912. Serial No. 673,920. (Cl. 244—14.)



1. A plane for an air ship formed in the shape of an open-topped, open-ended trough that is narrowed at its front end.

2. A plane for an air ship formed in the shape of an open-topped, open-ended wedge-shaped trough.

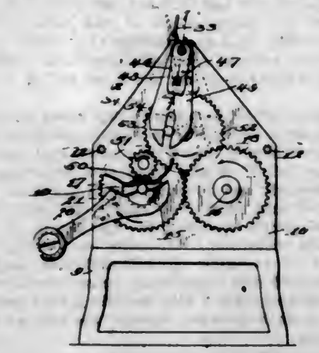
3. A plane for an air ship formed in the shape of an open-topped wedge-shaped trough, the depth and width of said trough increasing from the front toward the rear, said trough being open-ended.

4. In an air ship, the combination with a plane that is formed in the shape of an open-topped, open-ended trough that is narrowed at its front end, of a propeller at the rear end of said trough, and means for driving said propeller.

5. In an air ship, the combination with a plane that is formed in the shape of an open-topped wedge-shaped trough, of braces for holding the sides of said trough rigidly, a propeller at the rear of the trough, and means for driving said propeller.

[Claims 6 to 8 not printed in the Gazette.]

1,027,955. STROPPING DEVICE. THOMAS J. WILLIAMS, Hiteman, Iowa. Filed Jan. 26, 1912. Serial No. 673,664. (Cl. 51—16.)



1. In a stropping machine, the combination of a frame; a holder mounted therein; a pair of sharpening rolls mounted within said frame; means for rotating said rolls simultaneously in opposite directions; and connections between one of said rolls and said holder for oscillating the latter, to bring the edge of the blade into contact with said rolls alternately.

2. In a stropping machine, the combination of a frame; a holder mounted therein; a pair of sharpening rolls mounted within said frame; a rocker connected with said holder; means for rotating said rolls simultaneously in opposite directions; and connections between one of said rolls and said rocker for oscillating the latter and said holder.

3. In a stropping machine, the combination of a frame; a blade holder and a pair of sharpening rolls mounted therein; a slotted rocker connected with said holder; means for rotating said rolls simultaneously in opposite directions; a gear mounted upon said frame and provided with a crank pin projecting into the slot in said rocker; and connections between one of said rolls and said gear for rotating the latter, to oscillate said rocker and said holder.

4. In a stropping machine, the combination of a frame; a movable blade holder mounted therein and provided with a spring catch; a sharpening element; a member with which said catch is releasably engaged for operating said holder; and means for operating said member.

5. In a stropping machine, the combination of a frame; a blade holder and a pair of sharpening rolls mounted therein; said holder being provided with a spring catch; a rocker with which said catch is releasably engaged; means for rotating said rolls simultaneously in opposite directions; and connections between one of said rolls and said rocker for oscillating the latter and said holder.

[Claims 6 and 7 not printed in the Gazette.]

1,027,956. RAIL-JOINT. WILLIAM H. WILTSHIRE, Gillespieville, Ohio. Filed May 11, 1911. Serial No. 626,416. (Cl. 239—8.)



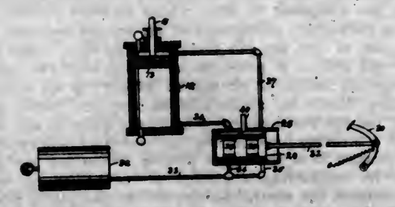
1. In a rail joint, the combination of a rail having a base, the end of which is cut on each side of the rail transversely, then longitudinally and then transversely for a short distance, the end of said base then being cut to form a vertical diagonal surface uniting said last-named cross-cut surfaces.

2. A rail joint comprising a pair of rails having thickened webs at the meeting ends thereof, said webs being rabbeted and having a plurality of perforations formed through their rabbeted portions, the perforations adjacent the extremities of said rabbeted portions being elongated, a pair of fish plates for each side of said rail joint, one of said fish plates on each side overlapping the meeting ends of said rabbeted portions, and fastening means passing through said fish plates and said perforations in said webs to hold the meeting ends of the rails with the fish plates thereon together, the said elongated openings and the arrangement of the fish plates permitting of relative movement of the rails, to provide for the expansion and contraction thereof.

3. In a rail joint, the combination of a rail having a thickened web portion at one end, said thickened web portion and the top of the rail being rabbeted, said rabbeted portion comprising transverse and longitudinal surfaces, the base of said rail also being rabbeted by being cut on each side thereof transversely, then longitudinally, then transversely for a short distance, and then cut to form a continuous diagonal surface uniting said last-named cross-cut surfaces, the said diagonal surface being so located that its upper edge will intersect with the lower edge of the longitudinal surface of the rabbeted portion of the web and top of the rail to form a supporting ledge adjacent the corner of the rabbeted extremity of the web and top of the rail.

4. A rail joint comprising a pair of rails having the webs thereof rabbeted, said webs each having a plurality of perforations formed through their rabbeted portions, the perforations adjacent the extremities of said rabbeted portions being elongated, a pair of fish plates for each side of said rail joint, one of said fish plates on each side overlapping the meeting ends of said rabbeted portions, and fastening means passing through said fish plates and said perforations in said webs to hold the meeting ends of the rails with the fish plates thereon together, the said elongated openings and the arrangement of the fish plates permitting relative movement of the rails, to provide for the expansion and contraction thereof.

1,027,957. AUTOMATIC CRANKING DEVICE. WILLIAM H. WITHERS and CLIFFORD T. HARRIS, Atlanta, Ga. Filed June 2, 1911. Serial No. 630,958. (Cl. 123—179.)



1. In a device of the class described, the combination of a driving shaft, a gear carried thereby, a cylinder and piston, means connecting the piston with the gear for operating the latter and the driving shaft, a second cylinder, pipes connecting opposite ends thereof with the cylinder first mentioned, inlet pipes for introducing fluid under pressure at the ends of the cylinder at the side opposite the aforesaid means for affording connection with the first cylinder, an exhaust located between the means for connecting the cylinder last mentioned with the cylinder first mentioned and a valve having annular channels in the outer walls thereof, said channels affording connection between one of the inlet pipes and one of the pipes leading to the cylinder first mentioned and between the other of said pipes connected with the first mentioned cylinder and the exhaust, a pedal, and means connecting the pedal and valve member and movable therewith in the direction of movement of said valve member.

2. In an engine starting device, a driving shaft, a gear carried thereby, a second shaft substantially parallel with the shaft first mentioned, a gear on the second shaft meshing with the gear first mentioned, a clutch on one of said shafts and permitting the independent rotation of the shafts, a cylinder substantially perpendicular to the second shaft, and intermediate of the ends thereof a piston within the cylinder, a piston rod, a segment connected therewith, a third gear mounted on the second shaft and arranged to mesh with the segment, a valve and valve casing, the latter having connection with the interior of the cylinder, a pedal, a rod connected with the pedal and valve and movable in the same direction as the valve, and means for supplying fluid to the valve casing.

1,027,958. TURPENTINE-GATHERER. JOHN HENRY WOMACK, Kentwood, La. Filed Oct. 26, 1911. Serial No. 656,826. (Cl. 47—40.)

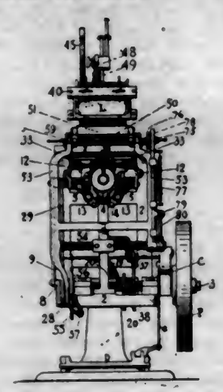


The combination with the spout having an opening in one side and a bayonet slot in the other, of a cup provided with catches which are bent inward toward each other, one of them being adapted to enter the opening and the other constructed with an enlarged head adapted for entrance into the enlarged portion of the slot and for detachable engagement with the shoulder at the small end of the same, substantially as described.

1,027,959. LABELING-MACHINE. FRANK O. WOODLAND, Worcester, Mass. Filed July 21, 1910. Serial No. 573,001. (Cl. 216—13.)

1. In a labeling machine, a package-supporting rest, an obliquely disposed label-supply holder overhanging said rest, an upwardly and downwardly swinging picker-carrier having its rear end fulcrumed upon the main frame by a horizontal hinging axle, and carrying the pickers at its front end; means for swinging said picker-carrier to carry the pickers to and from the label-holder, an upwardly and downwardly swinging wiper mechanism, comprising a supporting head mounted at its rear end upon a horizontal fulcrum axis in connection with the frame, a pair

of laterally oscillating wiper-carrier arms and wipers thereon, means for swinging said wiper mechanism up and down to carry the wipers past the package and rest, and means for controlling the oscillative action of said wiper-carrier arms, substantially as set forth.



2. In a labeling machine, the combination, of a stationary supporting rest, an upwardly and downwardly swinging picker mechanism, an upwardly and downwardly swinging wiper mechanism, each of said mechanisms mounted at its rear end upon a horizontal fulcrum axis, means for imparting up and down swinging movement to said picker mechanism and said wiper mechanism, means for delivering glue to the picker mechanism, an overhead bottom-delivering label-holder, a carrier for said label-holder connected to its supporting frame by horizontal hinge pivots, and means for retaining said label-holder carrier at normal position, and for swinging it to a limited degree upon its hinge pivots.

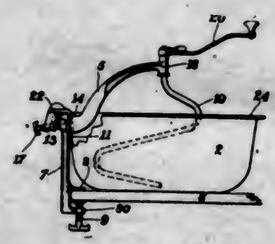
3. In a labeling machine, the combination substantially as described, of a stationary rest, a grip-device, a label-holder for supporting a pack of labels projecting over said rest, a horizontally fulcrumed swinging picker-carrier, glue-applying pickers attached to the fore end of said carrier, a swinging wiper mechanism comprising a horizontally fulcrumed supporting head, oscillatable wiper-carrying arms, wipers carried thereon, and wiper-controlling means, said picker-carrier and said wiper mechanism being conected with the supporting frame, at their rear ends, by a transverse axis member, a backwardly and forwardly swinging glue-supply reservoir, an operating shaft and means carried by said shaft for severally actuating said picker-carrier, wiper mechanism, glue-supply and grip-device with differential swinging movements.

4. In a labeling machine, in combination substantially as described, a bottom delivering label-holder, a picker-carrier mounted at its rear end upon a hinging axis, and carrying the glue-applying pickers at its front end; means for swinging said picker-carrier up and down, a label-holder-carrier provided with rearwardly extended members hingedly connected with the supporting frame by a horizontal pivot-axis, and an adjusting means for retaining said label-holder-carrier at upper and lower predetermined positions.

5. In a labeling machine of the class specified, a wiper mechanism comprising a swinging transversely fulcrumed wiper-supporting head having two forwardly projecting axis members, a pair of laterally oscillatable wiper-carrying arms respectively mounted on said axis-members, a guide-plate carried upon and swinging with said wiper-supporting head, a wiper-controlling slide mounted in said guide-plate, pivotally connected links joining the wiper-arms with said slide, the operating shaft, means connected therewith for swinging said wiper-supporting head and wiper-carrying arms up and down, and means for imparting an independent movement to said controlling-slide, substantially as set forth.

[Claims 6 to 15 not printed in the Gazette.]

1,027,960. DOUGH MIXER AND KNEADER. OLIVER D. WOODRUFF, Southington, Conn. Filed Dec. 6, 1911. Serial No. 664,178. (Cl. 107—38.)

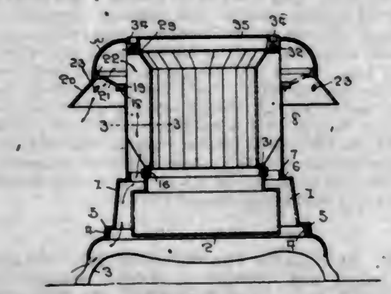


1. A mixer and kneader including in combination, a receptacle, an agitating member therein, an arm for supporting said agitating member, an upright having table engaging means at its lower end, said upright having at its upper end a receptacle engaging face and opposite thereto a clamp engaging face, said faces diverging upwardly from each other and means on said arm engaging one diverging face of said upright for clamping said receptacle and arm together against the other diverging face of said upright.

2. A mixer and kneader including in combination, a receptacle, a rotor therein, a supporting arm for the rotor, an upright having table engaging means at its lower end, a head on said upright having two opposite faces which diverge upwardly from each other and means on said arm for clamping said upright head with one of said faces against said receptacle.

3. A mixer and kneader including in combination, a receptacle, a rotor therein, a supporting arm for the rotor, an upright having table engaging means at its lower end, said upright having at its upper end a receptacle engaging face and opposite thereto a clamp engaging face, said faces diverging upwardly from each other, means on said arm for clamping said receptacle, upright and arm together and a stop on said upright for engagement with said clamping means.

1,027,961. STOVE. CHARLES HENRY WURST, Quincy, Ill. Filed Oct. 14, 1911. Serial No. 654,501. (Cl. 126—67.)



1. A stove construction comprising the combination of a fire pot composed of interlocking sections having air heating channels, a casing around the fire pot sections, the lower end of the fire pot sections being open while the upper end thereof is projected above and over the casing to allow the escape of air heated within the air heating channels, means for conducting air into the lower open end of the fire pot sections, means outwardly of and carried by the casing for directing the heated air downwardly as it escapes from the upper portion of the fire pot, and means for conducting a portion of the heated air to a point beneath the central portion of the fire pot to travel upwardly through said fire pot.

2. A stove construction including a base and an ash box within the base and space therefrom to allow the passage of air between the base and ash box, said ash box having an annular channel, a stove casing above the base, a sectional fire pot within the casing and having air heating channels in its sections, said sectional fire pot resting within the channel and projecting above the casing with its upper end open, a ring positioned at the upper end of the fire pot and projecting therefrom, said ring having openings for the escape of the air heated within the air heating channels of the sections of the fire pot, and a down draft throat for conducting a portion of the heated air into the ash box.

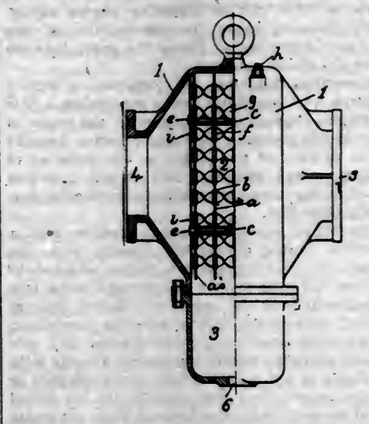
3. A stove construction comprising an ash box within and spaced from a stove base, said ash box being provided with an annular channel, said base having supporting legs, a sectional fire pot having air heating channels above the ash box with its lower edge within the annular channel, a casing around and spaced from the fire pot, said fire pot projecting above the casing, the portion of the fire pot above and over the casing being open, the air heating channels of the fire pot being in communication with the space between the ash box and base to allow air to pass upwardly between the spaced parts and into the air heating channels of the fire pot sections to be heated within said air heating channels, and a down draft throat carried by the casing for controlling the course of a portion of the heated air and conducting the same into the ash box beneath the fire pot.

4. A stove construction comprising a base, an ash box within the base and spaced from the same, said ash box having an annular channel, a fire pot formed of interlocking sections having air heating channels supported upon the ash box and resting within said annular channel, a stove casing supported upon the base and outwardly of the fire pot, the upper end of said fire pot extending above the casing, means for supporting the base above a floor to allow air to travel upwardly between the base and ash box and into the air heating channels of the interlocking fire pot sections to be heated, the upper end of said fire pot projected above and over the casing being open to allow the escape of the air after the same has been heated within the air heating channels, means for deflecting the heated air, and means for arresting a portion of the heated air and conducting the same into the ash box to travel upwardly through the stove grate.

5. A stove construction comprising a base, an ash box within the base and spaced from the same, said ash box having an annular channel, a fire pot formed of interlocking sections supported upon the ash box with its lower edge resting in the channel, said interlocking sections having air heating channels, a casing supported upon the base outwardly of the fire pot, means for supporting the base above a floor to allow air to travel upwardly between the base and ash box and into the air heating channels of the interlocking fire pot sections to be heated, the fire pot projecting above the casing and having its upper end open to allow the escape of the air over the upper edge of the casing after said air has been heated, means for deflecting the heated air, means for arresting a portion of the heated air and conducting the same into the ash box to travel upwardly through the stove grate and through the fire pot, and means resting upon the upper edge of the fire pot to hold the same in position.

1,027,962. APPARATUS FOR TREATING STEAM AND OTHER GASEOUS OR LIQUID BODIES. WILLIAM HENRY YARDLEY, Sheffield, England. Filed Apr. 7, 1911. Serial No. 619,544. (Cl. 83—90.)

1. Apparatus for removing impurities from steam and other gaseous bodies and liquid bodies, comprising a treating chamber open at opposite ends for the entrance and exit of the gaseous or liquid body, a series of vertical plates having holes therein and spaced apart and located within the treating chamber transversely between its ends with the holes in adjacent plates in alinement, horizontal flange-like projections around the holes and normal to the plates, twisted or screw-like strips passing through the holes and flange-like projections and extending from one end plate to the other end plate, but said flange-like projections being much shorter than the distance between adjacent plates, and an impurity collecting chamber in independent communication with the respective spaces between the plates, substantially as described.

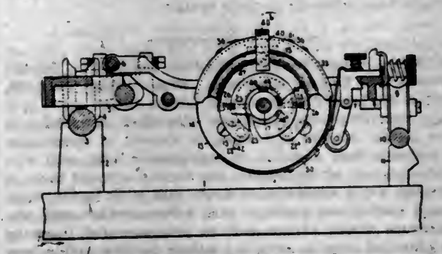


2. In apparatus for the purpose set forth, a casing having open ends, a series of vertical plates having holes therein and spaced apart and located within the casing transversely between its ends, the holes in adjacent plates being in alinement, horizontal ferrules inserted within the holes and projecting on each side of and normal to the plates, and twisted strips fitting and passing through the ferrules, substantially as described.

3. In apparatus for the purpose set forth, a casing having open ends, a series of vertical plates having holes therein and spaced apart and located within the casing transversely between its ends, the holes in adjacent plates being in alinement, horizontal flange-like projections around said holes and normal to the plates, and twisted strips passing through the holes and flange-like projections, one of said plates being forced slightly out of register in a transverse direction to locate the strips in position, substantially as described.

4. In apparatus for the purpose set forth, a casing having open ends which are flared or enlarged in diameter toward one another and in opposite directions, a series of vertical plates having holes therein and of approximately the same diameter as the largest part of said open ends and spaced apart and located between the latter, the holes in adjacent plates being in alinement, horizontal flange-like projections around said holes and normal to the plates, and twisted strips passing through the holes and flange-like projections, substantially as described.

1,027,963. TYPE-WRITING MACHINE. CLIO B. YAW, New York, N. Y., assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y., a Corporation of New York. Filed Dec. 20, 1906. Serial No. 348,745. (Cl. 197—136.)



1. In a typewriting machine, the combination with a platen, of a paper clamp comprising a member and a pair

of gripping fingers on said member, said fingers being relatively adjustable toward and away from each other, and means for securing said member at one end only of the platen.

2. In a typewriting machine, the combination with a cylindrical platen, of a pair of clamping fingers adjustable relatively to each other circumferentially of the platen, each finger operating to clamp the paper between said finger and the platen.

3. In a typewriting machine, the combination with a cylindrical platen, of a clamping device comprising a pair of clamping fingers engageable directly with the paper to clamp it against the platen, which fingers when brought down upon the surface of the platen or the material to be written upon spread laterally, said clamping fingers remaining in clamping engagement with said material during the printing operation.

4. In a typewriting machine, the combination with a pair of clamping fingers engageable directly with the paper to clamp it, of a cylindrical platen adapted to wedge the fingers apart when they are brought down into clamping engagement with the paper, said fingers remaining in clamping engagement during printing operations.

5. In a typewriting machine, the combination of a pair of spring pressed clamping fingers engageable directly with the paper to clamp it and a cylindrical platen adapted to spread the fingers apart when they contact with the platen or the material thereon under the force of their actuating spring, said fingers remaining in contact with said material during printing operations.

[Claims 6 to 33 not printed in the Gazette.]

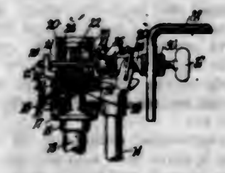
1,027,964. PROJECTILE. OTTO A. YINGLING, Washington, D. C. Filed Aug. 9, 1911. Serial No. 643,163. (Cl. 102—28.)



In a projectile, two members consisting of a body and a cap; the cap having interior recesses and the body having recesses in its exterior face to register therewith, and keys to fit the walls of the said recesses, the recesses in one of the members being slotted longitudinally to admit the keys longitudinally to their seats.

1,027,965. FLOAT-CONTROLLED VALVE. JULIUS FREDERICK YOUNG, Owatonna, Minn. Filed July 28, 1911. Serial No. 641,090. (Cl. 137—104.)

1. A device of the character described comprising a valve casing, a valve seat mounted therein, a valve member movable into and out of engagement with said seat for the purpose of controlling the flow of a liquid through said seat, a pin extending through said slots in the walls of said casing and through said valve member and provided with a ball at one end, an arm mounted to swing and provided with an enlarged hollow portion fitting over said ball, fixed means loosely engaged by the other end of said pin to permit the ball end of the pin to be swung so as to raise and lower the valve, when the said arm is swung, and float controlled mechanism for shifting the position of said arm.



2. In a float controlled valve, the combination of an inlet pipe, a valve casing connected therewith, a valve seat mounted within said valve casing, a valve member slidably mounted within said valve casing and provided with a portion for engaging and disengaging said valve seat in order to control the flow of a liquid through said valve seat, said valve member being provided with a core and with a hole through said core, said hole having greater diameters at its ends than at its middle, a pin extending through the casing and said hole, an eye mounted upon said valve casing and loosely engaging said pin at one end, a bead carried by said pin and adapted to engage said core in order to limit the travel of said pin in one of the general directions parallel to its own length, an arm disposed adjacent to said pin at the opposite end and substantially in alinement therewith, said arm and said pin being connected together by a universal joint, means for supporting said arm so as to allow said arm to swing to different angles, and a float connected with said arm for actuating the same.

3. A device of the character described, comprising a valve casing having oppositely disposed slots and provided with a valve seat, a valve member slidably mounted within said valve casing and provided at its lower end with a packing for engaging said seat, the said valve member having a transverse opening enlarged at its ends, a pin extending through the opening in said valve member and through the slots in said casing, means for loosely engaging one end of said pin, and a pivoted float controlled member connected with the other end of said pin.

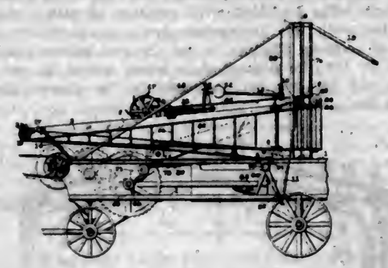
4. A device of the character described comprising a valve casing provided with a pair of oppositely disposed slots and with an eye in registry with said slots, a pin extending through said slots and through said eye, a movable valve member slidably mounted within said casing, and provided with a portion through which said pin extends so that angular movements of said pin may actuate said member, a valve seat disposed within said casing and adapted to be engaged and disengaged by said valve member, an arm pivotally connected with one end of said pin, said arm being journaled at a point adjacent to said casing, and a float connected with said arm for the purpose of turning the same to different angles as said float moves upward or downward.

5. In a device of the character described, a valve casing having an upwardly extending neck provided with oppositely arranged slots, a valve seat disposed within said casing, a sliding valve member mounted within said casing and provided at its lower end with a packing for engaging said valve seat, the said valve member having at its upper portion a flat core disposed within the neck of the casing and carrying disk like portions fitting within the said neck, the said core having a transverse opening, a pin extending through the opening in the core and through the slots in said casing, an eye on the casing engaging one end of said pin, an arm mounted to swing, a universal joint connection between the said arm and the other end of said pin, and a float connected with said arm.

[Claim 6 not printed in the Gazette.]

1,027,966. FEEDER FOR BALING-PRESSES. NORRIS W. YOUNG, Wilsonville, Oreg. Filed May 20, 1911. Serial No. 628,449. (Cl. 100—25.)

1. The combination with a baling press of a conveyer having side members which converge toward the feed opening,—carriers revolving on said side members,—and means actuated by the baling press for operating the carriers.



2. The combination with a baling press of a carrier for conveying material to the feed opening, consisting of a casing having a horizontal bottom member and side members which rise from a horizontal position at front to a vertical position at the rear,—shafts mounted to revolve therein,—conveyers mounted on the shafts,—and means actuated by the baling press for operating the shafts.

3. The combination with a baling press of an automatic feeder, consisting of a casing having a horizontal bottom member leading to the front of the feed opening, and a member at each side, the front end of which is positioned horizontally, the outer edges inclining upwardly to a vertical position, at the rear end of the bottom portion, whence they extend to the rear of the feed opening,—transverse shafts mounted at each end of said bottom and side members,—carriers mounted to revolve on said shafts,—and means actuated by the baling press for operating said shafts.

4. The combination with a baling press of an automatic feeder for carrying material to the feed opening, consisting of a casing, the side members of which incline from a horizontal position at the front end, to a vertical position at the rear,—shafts mounted at each end of the casing,—carriers revolving on said shafts,—means actuated by the baling press for operating said shafts,—and means for disconnecting the operative mechanism.

5. The combination with a baling press of a device for conveying material to the feed opening, consisting of a casing,—shafts mounted therein,—conveyers revolving on the shafts,—automatically adjustable means secured upon the casing for distributing the material therein,—and means actuated by the baling press for operating said shafts and distributing means.

[Claims 6 to 20 not printed in the Gazette.]

1,027,967. ART OF PREPARING IRON-ALBUMINOUS COMPOUNDS CONTAINING PHOSPHORUS. FRITZ ZUCKMAYER, Elberfeld, Germany, assignor to Dr. Walther Wolff and Company, G. M. B. H., Elberfeld, Germany. Filed June 30, 1910. Serial No. 569,703. (Cl. 23—24.)

1. The process of making iron-albuminous compounds containing phosphorus, which consists in causing a soluble iron compound and a compound containing the metaphosphoric acid radical to react on an albuminous compound.

2. The process of making iron-albuminous compounds containing phosphorus, which consists in causing a soluble iron compound and metaphosphoric acid to react on an albuminous compound.

3. The process of making iron-albuminous compounds containing phosphorus, which consists in causing a soluble iron compound and a compound containing the metaphosphoric acid radical to react on an albumin.

4. The process of making iron-albuminous compounds containing phosphorus, which consists in causing a soluble iron compound and metaphosphoric acid to react on an albumin.

5. The process of making iron-albuminous compounds containing phosphorus, which consists in causing a compound containing the metaphosphoric acid radical to react on an iron-albuminous compound.

[Claims 6 to 15 not printed in the Gazette.]

1,027,968. ART OF PREPARING IRON-ALBUMINOUS COMPOUNDS CONTAINING PHOSPHORUS. FRITZ ZUCKMAYER, Elberfeld, Germany, assignor to Dr. Walther Wolff and Company, Gesellschaft mit beschränkter Haftung, Elberfeld, Germany, a Company. Original application filed June 30, 1910, Serial No. 569,703. Divided and this application filed Apr. 15, 1911. Serial No. 621,234. (Cl. 23—24.)

1. The process of making iron-albuminous compounds containing phosphorus, which consists in causing a compound containing the metaphosphoric acid radical to react on an albuminous compound, and then causing an iron compound to react on the same.

2. The process of making iron-albuminous compounds containing phosphorus, which consists in causing metaphosphoric acid to react on an albuminous compound, and then causing an iron salt to react on the same.

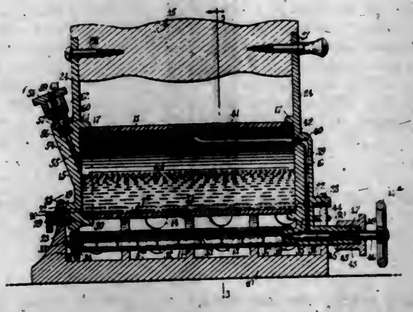
3. The process of making iron-albuminous compounds containing phosphorus, which consists in causing a compound containing the metaphosphoric acid radical to react on a halogenated albumin, and then causing an iron componnd to react on the resultant product.

4. The process of making iron-albuminous compounds containing phosphorus, which consists in causing a soluble iron compound and a compound containing the metaphosphoric acid radical to react on a halogen-albuminous compound.

5. The process of making iron-albuminous compounds containing phosphorus, which consists in causing a soluble iron compound and metaphosphoric acid to react on a halogen-albuminous compound.

[Claims 6 and 7 not printed in the Gazette.]

1,027,969. SAD-IRON. AMBROSE E. ABBOTT, Los Angeles, Cal., assignor of one-half to Fenton A. Weast, Modesto, Cal. Filed Mar. 28, 1911, Serial No. 617,328. Renewed Apr. 6, 1912. Serial No. 689,041. (Cl. 158—23.2.)



1. A sad iron, comprising a base, a burner mounted therein, a top upon said base and having an opening, ends carried by said top and having a reservoir secured to said ends and positioned therebetween, means for conducting fuel from said reservoir to said burner, and a handle secured between said ends above said reservoir, and spaced therefrom.

2. A sad iron, comprising a base, a burner removably located therein, a top removably mounted upon said base and having an opening over said burner, ends removably associated with said top, a reservoir removably secured to said ends between the same and partly projecting through said opening, said ends forming closures for the extremities of said reservoir, means for conducting fuel from said reservoir to said burner, a feed valve for regu-

lating the flow of fuel to said burner, and a handle secured between said ends.

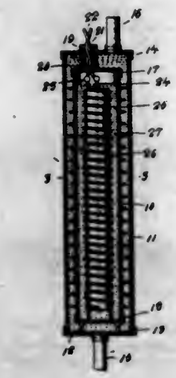
3. A sad iron, comprising a hollow base having openings in the wall thereof, and provided with transverse, spaced partitions, said partitions having recesses, a tubular, perforated burner member carried in said recesses, a top removably mounted upon said base, said top having an opening above said burner, ends removably associated with said top and said base, a reservoir carried between said ends and projecting partly through said opening, a connecting passage between said reservoir and said burner, a valve for regulating the flow of fuel into said burner, and a handle carried by said ends, above said reservoir.

4. A sad iron comprising a hollow base having openings in the wall thereof and provided with transverse, spaced partitions, said partitions having recesses, a perforated burner member located in said recesses, a top removably mounted upon said base, said top having an opening above said burner, ends removably associated with said top and extending into said base and having said burner secured thereto, a reservoir carried between said ends and projecting partly through said opening, said ends forming closures for the extremities of said reservoir, a connecting passage between said reservoir and said burner, a valve for regulating the flow of fuel into said burner, and a handle carried by said ends.

5. A sad iron comprising a hollow base, a burner therein, a top removably positioned upon said base and having an opening above said burner, ends having parts projecting into said base, and having flanges resting upon said top, means for removably securing said flanges and said top upon said base, and a fuel reservoir carried between said ends and communicating with said burner.

[Claims 6 and 7 not printed in the Gazette.]

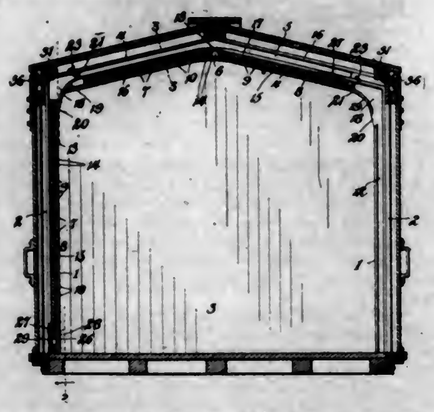
1,027,970. HEATING APPARATUS. BYRON C. ALLEN, Chicago, Ill. Filed Aug. 15, 1911. Serial No. 644,106. (Cl. 219—38.)



In a heater, the combination of a tubular casing, caps for threaded engagement with the ends of the said casing, an inlet pipe connected to one of the said caps, an outlet pipe connected to the other cap, standards mounted within the said casing on one of the said caps, a second casing mounted on the said standards and spaced from the first casing, a heat conducting fluid within the second casing and means in the second casing for heating the said fluid.

1,027,971. GRAIN-DOOR FOR CARS. WILLARD W. ALLEN, Pretty Prairie, Kans. Filed May 9, 1911. Serial No. 626,027. (Cl. 20—32.)

1. The combination with a freight car having opposite door openings, of channel guides consisting of vertical portions arranged at opposite sides of the door openings, and transverse top portions having inclined top walls, dogs operating within the transverse top portions and having horizontal pivots piercing the top walls thereof, said dogs being provided with exterior operating means connected with the horizontal pivots, grain doors composed of sections slidable in the channel guides and arranged to lift the pivoted dogs when moved in one direction and held against movement in the opposite direction by the said dogs.



2. The combination with a freight car having opposite door openings, of channel guides consisting of vertical portions arranged at opposite sides of the door openings, and transverse top portions, inclined dogs operating in the channel guides at the ends of the transverse top portions of the same and having exterior operating devices, grain doors composed of sections slidable in the channel guides and adapted to lift the pivoted dogs when moved in one direction and held against movement in the opposite direction by the said dogs, and supports mounted in the channel guides and arranged to hold the dogs in an elevated position to permit the grain door sections to slide in either direction.

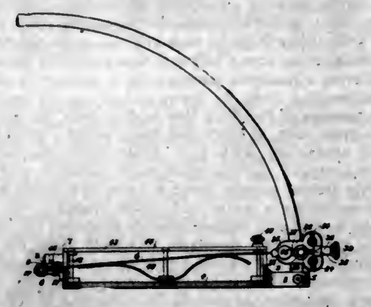
3. The combination with a freight car having a door opening, of dove-tailed channel guides composed of vertical portions located at opposite sides of the door opening and closed at their lower ends, and transverse top portions closed at one end, and enlarged portions connecting the other ends of the transverse portions with the upper ends of the vertical portions, the enlarged connecting portions having curved inner walls provided with narrow openings, and a grain door consisting of sections slidably interlocked with the dove-tailed channel guides, the said enlarged connecting portions of the channel guides forming sufficient space above and beyond the narrow openings to permit the door sections to be turned and moved edgewise through the said openings to enable them to be introduced into and removed from the channel guides, said sections when in their normal position in the guides presenting flat side faces to the openings and adapted to slide over the same.

4. The combination with a freight car having opposite door openings, of dove-tailed channel guides composed of vertical portions located at opposite sides of the door openings and closed at their lower ends, transverse top portions also closed at one end and enlarged connecting portions having angularly related outer walls and curved inner walls, the latter being provided with narrow openings, and grain doors composed of separate sections slidably interlocked with the channel guides, the angularly related outer walls of the connecting portions thereof forming sufficient space at the narrow openings to permit the door sections to be turned and passed edgewise through the openings in the inner walls, said door sections when in their normal position within the guides presenting their side faces to the openings and adapted to slide over the same.

5. The combination with a freight car having a door opening, of channel guides located at opposite sides of the door opening, and a grain door comprising separate sections slidable in the channel guides, each section consisting of a wooden body portion and a metallic casing constructed of sheet metal and composed of opposite sides and a connecting portion arranged at one of the longitudinal edges of the section and rounded to form a tongue, the opposite longitudinal edge of the body portion being provided with a groove, and the sides of the casing projecting from the body portion at opposite sides of the groove to receive the rounded portion of an adjacent section.

[Claims 6 and 7 not printed in the Gazette.]

1,027,972. APPLIANCE FOR CUTTING CHEESE, BUTTER, SOAP, LARD, AND OTHER ANALOGOUS SUBSTANCES. JOHN ASHTON, Hereford, England. Filed Feb. 6, 1912. Serial No. 675,743. (Cl. 31—65.)



1. An appliance of the type herein referred to for cutting cheese and similar substances, comprising a slotted cheese supporting base, a quadrant guide arm in the plane of the slot in the base and having an end fixed to the latter, the guide arm being resiliently yieldable in its plane, a runner operating on the guide arm, a cutting wire connected at one end to the runner, and means in line with the slot of the base for associating the other end of the wire with the base.

2. An appliance of the type herein referred to for cutting cheese, butter, soap, lard, and analogous substances, comprising a base, an angularly movable cutter, a runner to which the outer end of the cutter is attached, and a quadrant guide arm carried by the base and upon which the runner is mounted, the said guide arm being of a spring construction and having a free outer end which normally assumes a position that gives to the arm a less degree of curvature than that of a true arc of a circle, but which, when the runner is moved to the outer end of its travel, is depressed and the arm put in tension, so that the said free end tends to move outward and exerts a radial pull upon the cutter to keep same in a constant state of tension.

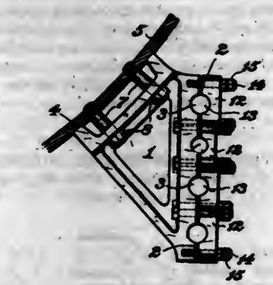
3. An appliance for cutting cheese, butter, soap, lard, and analogous substances, comprising a base, a quadrant arm of a spring construction carried thereby, an angularly movable cutter, a carriage having rollers which run upon the arm, a clamping device upon the carriage for attaching the outer end of the cutter to the latter, and laterally extending handles upon opposite sides of the frame of the carriage.

4. An appliance for cutting cheese, butter, soap, lard, and analogous substances, comprising a base, a quadrant arm of a spring construction fixed at one end to the base and having a free outer end provided with a recess in its upper edge, an angularly movable cutter, a carriage mounted on the arm, and a clamping fitting on the carriage for attaching the outer end of the cutter thereto, said carriage depressing the outer end of the arm so as to put the latter in tension when moved to the outer end of its travel, and running upon rollers one of which is adapted to engage with the recess in the end of the guide arm to hold the carriage in its raised position.

5. An appliance for cutting cheese, butter, soap, lard, and analogous substances, comprising a base, a quadrant arm of a spring construction carried thereby, an angularly movable cutter, a pivoted clamping fitting mounted upon a bracket on the base and to which the inner end of the cutter is attached, a carriage mounted on the quadrant arm, and a clamping fitting on the carriage for attaching the outer end of the cutter to the latter.

[Claims 6 to 8 not printed in the Gazette.]

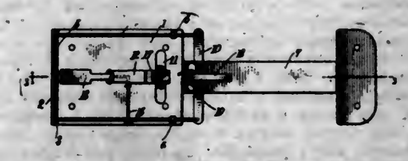
1,027,973. PIPE-SUPPORTING SYSTEM FOR LOCOMOTIVE-ENGINES. AUGUSTINE R. AYERS, Cleveland, Ohio. Filed Feb. 9, 1911. Serial No. 607,553. (Cl. 248—36.)



1. The combination, with a locomotive engine, of a plurality of supporting clamp bodies, disposed in different transverse planes, each of said clamp bodies being integral and having a bearing face on one side adapted to fit against a fixed part of the locomotive, and a plurality of substantially semi-cylindrical grooves on its opposite side for the reception, in predetermined relative locations, of a plurality of cylindrical members, and independently detachable caps, secured to said clamp bodies, for holding said members in normal relative positions.

2. In a pipe support for locomotive engines, the combination of an integral clamp body having a bearing face on one side adapted to fit against a support on the locomotive, and an opposite plane face having a plurality of substantially semi-cylindrical grooves for the reception of pipe lines, correspondingly grooved independently detachable caps fitting over each of the grooves of the body and alternated in position thereon so that their end lines overlap in the longitudinal direction thereof, and bolts securing said caps to the clamp body.

1,027,974. TRAP. LEE BARKER, Maricopa, Cal. Filed Oct. 25, 1911. Serial No. 656,717. (Cl. 43—21.)

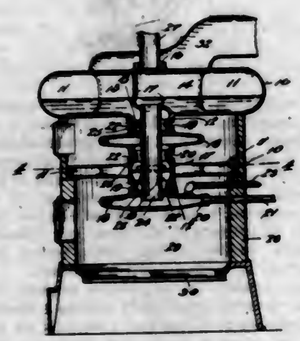


1. A device of the class described, comprising a fixed jaw, projections at opposite sides thereof, a horizontally movable jaw, guides in which the movable jaw operates, a cross arm as an element in the said movable jaw, a housing having slots therein, said cross arm reciprocating in the slots, a helical spring within the housing for maintaining the movable jaw adjacent the fixed jaw, a pivotally supported platform adjacent the fixed jaw, a shoulder on the platform, together with a detent for engagement with the shoulder and the movable jaw for hold-

ing it remote from the fixed jaw, the platform being maintained in elevated position, a downward movement of which releases the engagement between the said detent and the shoulder, thereby permitting the movable jaw to come adjacent the fixed jaw.

2. A device of the class described, comprising a supporting member, a fixed jaw at one end thereof, projections at opposite sides of the fixed jaw, a housing carried by the said member, the opposite sides of the housing being provided with slots, a horizontally movable jaw carried by the said member, guides on the supporting member in which the movable jaw operates, a cross arm connected to the movable jaw, the cross arm being positioned within the slots in the said housing, a helical spring within the housing for maintaining the movable jaw adjacent the fixed one, a pivotally supported platform on the said member, a shoulder on the platform, a detent pivotally supported on the housing, the detent being adapted for engagement with the shoulder and the movable jaw for holding it remote from the fixed jaw, the platform being maintained in an elevated position, a downward movement of the platform releasing the engagement between the detent and the shoulder, thereby permitting the movable jaw to come adjacent the fixed jaw.

1,027,975. WATER-HEATER OR STEAM-GENERATOR. PIERRE BARNES, Seattle, Wash. Filed Jan 21, 1909. Serial No. 473,501. (Cl. 122—215.)



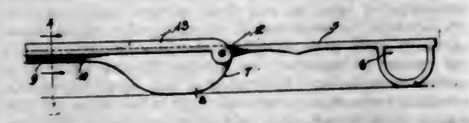
1. A heater comprising a series of superposed water-holding members having centrally arranged connections for the upflow of water between the successive members, the upper of said members being arranged to afford a horizontal circulation of water therein, and a connection disposed axially of the aforesaid connections and making an independent communication between the upper and lower members, so as to effect the return of the water to the latter after a circulation thereof has ensued in said upper member.

2. In a water heater of the character described, the combination, with a plurality of superposed horizontal water-circuating members, of a plurality of water-holding members arranged alternately of said circulating members, each of said circulating members comprising a continuous outer tubular shell, a centrally disposed boss, and two oppositely extending arms connecting said boss and shell, each boss having a partition therein with a passage at one side thereof leading from its lower end to one of said arms, and a passage at its other side leading from its upper end to the other arm, axially disposed tubular connections between said water-holding members and the bosses of said circulating members, said series of superposed members terminating at the bottom with a water-holding member and at the top with a circulating member, a pipe arranged concentrically of said connections and extending from the bottom member to the top member, the upper extremity of said pipe being fitted in an opening in the partition in the boss of the top member, all for the purposes specified, a water-supply pipe communicating with the bottom member, and a delivery pipe communicating with the top member.

3. In a heater of the character described, the combination, with a plurality of superposed water circulating members each having a central boss, of axially disposed tubular connections between said bosses, the highest member constituting a water and steam chamber and comprising a continuous outer tubular shell and two oppositely extending arms leading to its central boss, means for supplying water to the lowest member, a partition in the boss of the highest member separating the two arms and confining the delivery of the water which circulates upwardly from the lower members to one of said arms, a pipe arranged concentrically of the bosses and tubular connections between the several members, said pipe opening at its lower end in the lowest member and at its upper end in the highest member on the opposite side of the partition therein from that on which the upwardly circulating water is delivered, and means for drawing off steam from said highest member.

4. In a heater of the character described, the combination, with a series of superposed horizontal water-circulating members, each comprising a continuous outer tubular shell, a centrally disposed boss and two oppositely extending tubular arms connecting said boss and outer shell, each boss having a partition therein with a passage at one side thereof leading from its lower end to one of said arms and a passage at its other side leading from its upper end to the other arm, of lenticular water-holding members arranged alternately with said water circulating-members, axially arranged tubular connections between said members, the highest member being a water circulating-member and constituting a water and steam chamber, the partition the boss of said highest member confining the delivery of the water which circulates upwardly from the lower members to one of its arms, a pipe arranged concentrically of the bosses and tubular connections between the several members, said pipe opening at its lower end in the lowest member and at its upper end in the highest member on the opposite side of the partition therein from that on which the upwardly circulating water is delivered, means for supplying water to the lowest member, and means for drawing off steam from the highest member.

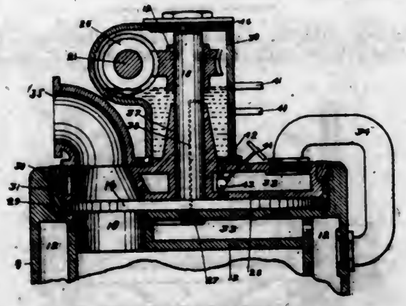
1,027,976. MEDICINE-SPOON. CHRISTOPHER C. BEAMER, Steubenville, Ohio. Filed Nov. 24, 1909. Serial No. 529,748. (Cl. 30—22.)



A medicine spoon comprising a hollow body having vertical sides disposed in parallel relation and having a concaved bottom forming a bowl, a narrow throat having a flat bottom wall and extending from the forward end of the bowl, said throat having vertical sides forming a continuation of the bowl, a handle projecting from the opposite end of the bowl and a rectilinear cover hinged to the rear end of the bowl upon opposite sides thereof and normally closing the same and throat, said cover having spaced parallel grooves extending longitudinally throughout the length of its undersurface to inclose the upper edges of the sides of the bowl, said cover being also provided with a concaved channel in its undersurface between the grooves to aline with the throat portion of the bowl.

1,027,977. VALVE MECHANISM. GEORGE C. BECK, Spokane, Wash., assignor of one-half to Eugene P. Batsel, Detroit, Mich. Filed Feb. 10, 1910. Serial No. 543,160. (Cl. 123—190.)

1. The combination with an engine cylinder having a recess provided with ports; of a valve mounted in the recess over the ports, said valve comprising a rotary disk having a port controlling the aforesaid ports, a false head mounted in the recess on the valve disk, said false head and valve disk having a diameter which is less than the diameter of the recess, an annular shoulder on the false head, and rings seating in the recess, said rings encircling the false head and the valve disk, and engaging the shoulder of the false head.

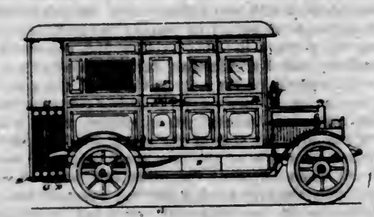


2. The combination with an engine cylinder having a recess provided with ports, of a valve mounted in the recess over the ports, said valve comprising a rotary disk having a port controlling the aforesaid ports, a false head mounted in the recess on the valve disk, said false head and valve disk having a diameter which is less than the diameter of the recess, an annular shoulder on the false head, and rings seating in the recess, said rings encircling the false head and the valve disk, and engaging the shoulder of the false head, the contiguous surfaces of the rings and shoulder being beveled.

3. The combination with an engine cylinder having a port, of a valve mounted over the port, said valve comprising a rotatable ported disk, an operating stem on the valve disk, said stem having an axial duct opening at one end through the bottom of the valve disk, and at its other end through the side of the stem, a retaining member for the valve disk, through which member the valve stem passes, and a lubricant container mounted on the retaining member, the last mentioned end of the aforesaid duct opening above the retaining member into the lubricant container.

4. The combination with an engine cylinder having a port, of a valve mounted over the port, said valve comprising a rotatable ported disk, a retaining member for the valve disk, a lubricant container mounted on the retaining member, and conduits extending from the container to opposite sides of the valve.

1,027,978. AUTOMOBILE BANK-VEHICLE. DAVID H. BELLAMORE, New York, N. Y. Filed Aug. 30, 1910. Serial No. 579,707. (Cl. 21—7.)



1. In a vehicle of the character described a burglar-proof body structure having a compartment formed therein arranged and equipped as a business office, and having a barred window for banking business with a person outside said compartment; an audible alarm mechanism mounted on said vehicle and operative by forcibly disarranging the walls of said compartment or the bars of said window; means for continuously operating said alarm; means for discontinuing the alarm operable only within said compartment; and means connected with said carrying wheels for actuating said alarm.

2. In a vehicle of the character described a burglar proof body structure having a compartment formed therein arranged and equipped as a business office, and having a barred window for banking business with a person outside said compartment; an audible alarm mechanism mounted on said vehicle and operative by forcibly disarranging the walls of said compartment; means for continuously operating said alarm; means for discontinuing said alarm operable only within said compartment; means connected with said carrying wheels for actuating said alarm; and means operable within said compartment only for preventing said alarm being actuated by said carrying wheels.

3. A vehicle such as described having a burglar-proof body structure provided with a cashier's window, and an audible alarm mechanism mounted upon said vehicle and operable by forcibly disarranging the walls of said structure, said alarm mechanism being mounted within the protective walls of said vehicle.

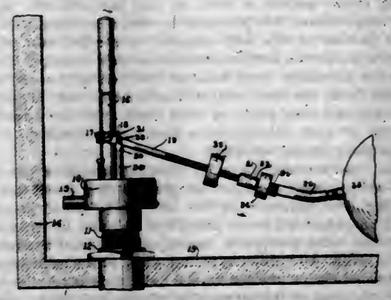
4. A vehicle such as described having a burglar-proof body structure provided with a cashier's window, and an audible alarm mechanism mounted on said vehicle and operable by forcibly disarranging the walls of said structure, means for continuously operating said alarm, and means for discontinuing the operation of said alarm operable only within said structure.

1,027,979. BUCKLE. ABRAHAM BIENENZUCHT, New York, N. Y. Filed Apr. 18, 1911. Serial No. 621,750. (Cl. 24—170.)



A belt buckle, comprising a casing open at its ends and having means whereby to attach one end of a belt thereto, a clamping member pivoted at its ends for eccentric movement in the casing, said member being triangular in cross section and having one of its sides constituting a working face, said member also having ends and triangular sections of its ends struck out therefrom and bent upon its sides adjacent the said working face, to form clasping tongues, and a layer of gripping material disposed upon said working face and having its edges extending upon the last-mentioned sides and beneath said clasping tongues.

1,027,980. FLOAT-VALVE. ELI A. BEILER and CHRISTOPHER C. BEILER, Livingston, Mont. Filed May 31, 1911. Serial No. 630,291. (Cl. 137—194.)

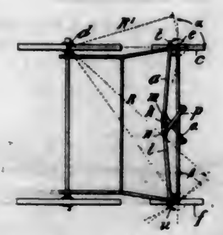


1. A valve of the class described, comprising a casing adapted to be mounted in a flush tank and connected with

the water supply, said casing being provided with a central bore of two different dimensions to provide a valve seat interiorly of the casing, a valve rod slidable in the smaller dimension in the bore and having a valve for engagement with the seat, a closed hollow tube rising from the casing and forming an air chamber and having direct communication with the bore in the larger dimension thereof, the said casing being further provided with an outlet opening through one side thereof and intersecting the smaller dimension in the bore, a collar slidable upon said hollow tube, a float arm, a pivot connecting the float arm to said collar and also locking the latter upon the tube, a pin connecting the valve rod with the float arm, a float having a break joint connection with said float arm, and a locking collar surrounding the said break joint and adapted to move onto and off of the same for unlocking and locking it.

2. A float valve comprising a valve casing communicating with a liquid supply and having an inlet and an outlet, a closed hollow tube rising from the casing and forming an air chamber communicating with the interior of the casing, a member mounted upon the tube, a float arm, and a pivot connecting the float arm to said member and also locking the latter upon the tube.

1,027,981. STEERING DEVICE. JAKOB BOTSCH and EMIL BOTSCH, Rappenau, Baden, Germany. Filed Oct. 19, 1911. Serial No. 655,607. (Cl. 21—93.)



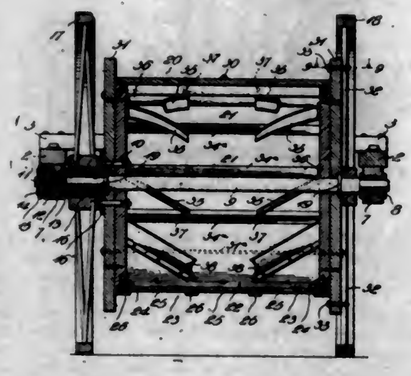
1. In a steering device for vehicles of the kind described the combination with the steering wheels, the steering swivels, the front axle, the steering rods and the actuating member of the steering device, of an intermediate member adapted to pivotally connect the said steering rods together, a pivot on said intermediate member and a longitudinal slot provided in the said actuating member and adapted to receive the pivot of said intermediate member and links pivoted to the ends of the intermediate member and the front axle, substantially as and for the purpose set forth.

2. In a steering device for vehicles of the kind described the combination with the front axle, the steering swivels, the steering wheels, the steering rods and the actuating member of the steering device of the vehicle, of an intermediate member adapted to pivotally connect the said steering rods together, a pivot on said intermediate member, a longitudinal slot provided in said actuating member of the steering device and adapted to receive said pivot of the intermediate member, two crosswise arranged links, means for pivotally conecting the front ends of said links with the front part of said axle and means for pivotally connecting the rear parts of said links with the connecting ends of said intermediate member, substantially as and for the purpose set forth.

3. In combination, an axle, steering knuckles pivoted to the axle, wheels mounted on the steering knuckles, an actuating lever pivoted to the axle and formed with a slot, an intermediate lever pivoted in the slot of the actuating lever, links pivoted to the opposite ends of the intermediate lever, said links crossing each other and having their opposite ends pivoted to the axle, rods pivotally connecting the ends of the intermediate lever and the knuckles and means for operating the actuating lever.

4. In combination, an axle, knuckles pivoted to the axle, wheels mounted on the steering knuckles, an actuating lever formed with a slot, an intermediate lever pivoted in the slot, rods connecting the ends of the intermediate lever with the knuckles, means including pivoted links secured at the pivotal points of the rods and the intermediate lever, whereby to cause the intermediate lever to turn on its pivot and move longitudinally when the actuating lever is operated and means for operating the actuating lever.

1,027,982. MIXER. JAMES H. BRODIE, Henderson, N. C. Filed Feb. 26, 1912. Serial No. 679,869. (Cl. 83—73.)

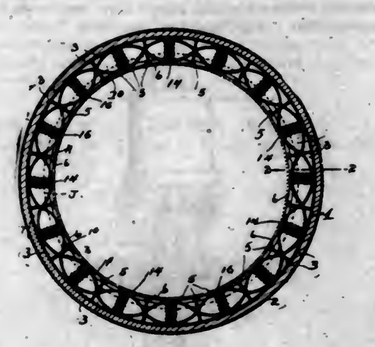


1. A mixer comprising a wheeled supporting frame, a mixing receptacle operatively mounted in said frame, whereby when the same is driven along the receptacle will be revolved, said receptacle having in one side discharge openings and in its opposite side a filling opening, a plurality of ribs secured to the inner sides of the receptacle between the heads thereof, a plurality of inwardly extending curved agitating blades secured to the ends of the receptacle and arranged to direct the material toward the center of the receptacle as the material is carried around by the rotary motion thereof, and deflecting plates secured to the inner sides of the receptacle and opposite sides of the discharge openings therein, whereby the material is directed toward the discharge openings when the receptacle is turned to a position for discharging the contents therefrom.

2. A device of the character set forth comprising a frame, an axle, two supporting wheels thereon, one being fixed to the axle and the other loose, a receptacle of irregular polygonal shape arranged on the axle to turn with it and said fixed wheel, said receptacle having a plurality of short sides and two long sides spaced apart to provide a discharge opening, a closure for the latter, ribs arranged longitudinally within the receptacle and over the abutting edges of adjacent sides to seal the joints between the latter, each of said ribs having inwardly projecting portions of V-shape in cross section and composed of a substantially radially extending face disposed at an acute angle with respect to the adjacent side of the receptacle, and also having a face converging toward said radially disposed face and disposed at an obtuse angle with respect to the adjacent side of the receptacle, the ribs adjacent to one long side of the receptacle being disposed oppositely to those adjacent the other long side of the receptacle, substantially as and for the purposes set forth.

3. A device of the character set forth comprising a frame, an axle, two supporting wheels thereon, one being fixed to the axle and the other loose, a receptacle of irregular polygonal shape arranged on the axle to turn with it and said fixed wheel, said receptacle having a plurality of short sides and two long sides spaced apart to provide a discharge opening, a closure for the latter, a V-shaped deflecting plate arranged on the inner surface of one long side of the receptacle and having its open end disposed in the direction of said discharge opening, and two oppositely inclined deflecting plates arranged on the inner face of the other long side of the receptacle, said plates extending from the end portions of the receptacle inwardly in converging relation to deflect material toward the center of the discharge opening, substantially as and for the purposes set forth.

1,027,983. TIRE. JAMES BROPSON, Cleveland, Ohio, assignor of one-half to John A. Mangan, Cleveland, Ohio. Filed May 16, 1910. Serial No. 561,665. (Cl. 152—8.)

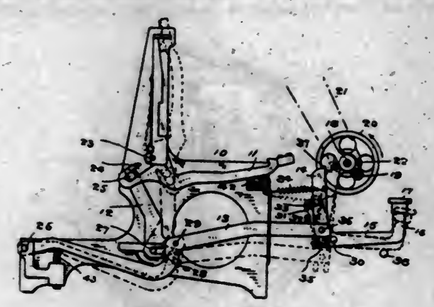


1. In a device of the character described the combination with a felly of a rim structure comprising a body portion having adjacent each edge upon its outer peripheral face a pair of outwardly inclined flanges, and a pair of casing retaining flanges coöperating with said body portion, a series of spaced, arched springs disposed transversely with relation to the rim and having their terminal ends disposed between the outwardly inclined flanges of said pairs of flanges, a plurality of bands of resilient material extending circumferentially of the rim and within said arched springs, said bands being alternately bowed in opposite directions and bearing at intervals against the rim and the arched springs, and an inclosing tire casing held in place by said casing retaining flanges.

2. In a device of the character described the combination with a felly of a rim structure comprising a body portion having adjacent each edge upon its outer peripheral face a pair of outwardly inclined flanges, and a pair of casing retaining flanges coöperating with said body portion, a series of spaced, arched springs disposed transversely with relation to the rim and having their terminal ends disposed between the outwardly inclined flanges of said pairs of flanges, a plurality of bands of resilient material extending circumferentially of the rim and within said arched springs, said bands being alternately bowed in opposite directions and bearing at intervals against the rim and the arched springs, an inclosing tire casing held in place by said casing retaining flanges, and resilient devices bearing between the bowed bands at spaced points and tending to keep said bands separated.

3. In a device of the character described the combination with a felly of a rim, casing retaining flanges located at the opposite edges of said felly, a rim body portion disposed between said flanges and having upon its outer face annular spring retaining flanges, a series of spaced arched springs, having their terminal portions engaged by the last named flanges, a tire casing surrounding said springs, a plurality of bands of resilient material and of sinuous formation, lugs projecting outwardly from the rim body portion, said bands being provided with apertures in which said lugs engage, springs disposed at intervals between said bands, one end of each of the last named springs engaging with one of the said lugs and means for spacing the arched springs apart.

1,027,984. ELECTRIC WRITING-MACHINE. IRA S. BROWN, Bridgeport, Conn. Filed May 4, 1910. Serial No. 559,312. (Cl. 197—17.)



1. In a typewriting machine, the combination of an operating bar, an impact member, a thrust bar pivotally connected to the operating bar, a key bar provided with a laterally projecting pin for engaging the thrust bar to place the same in the path of the impact member, and means for moving the thrust bar ont of the path of the impact member when disengaged from said pin.

2. In a typewriting machine, the combination with a frame, of an operating bar pivoted thereto, a key bar pivoted to said frame and provided with an end arm, an impact member, a thrust bar pivoted to the operating bar, and means carried by said arm for engaging the thrust bar to place the same in the path of movement of the impact member.

3. In a typewriting machine, the combination of an operating bar provided with an end pin, a thrust bar having an end slot engaging said pin, an impact member, and a key bar provided with means for placing the thrust bar in the path of the impact member.

4. In a typewriting machine, the combination of an operating bar, a thrust bar having a direct loose pivotal engagement therewith, an impact member, means for normally retaining the thrust bar out of the path of movement of the impact member, and a key bar provided with means for engaging the thrust bar to place the same into the path of the impact member.

5. In a mechanism of the character described, the combination with an operating bar having a pin extending therefrom, and a thrust bar having a slot to receive said pin, of a shaft carrying an impact member, a key bar by which the thrust bar is swung into the line of movement of the impact member and a spring for returning the thrust bar to its normal position.

[Claims 6 to 8 not printed in the Gazette.]

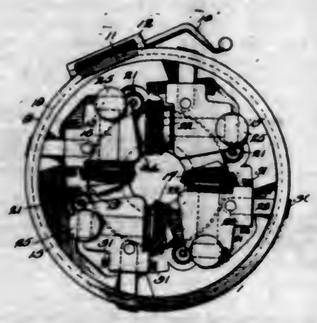
1,027,985. SCREW-CUTTER. CHESTER BLANE BURNS, Moline, Ill. Filed June 18, 1910. Serial No. 567,679. (Cl. 10—102.)

1. In a screw cutter, the combination of a centrally perforated supporting casing, a centrally perforated sleeve engaging therewith, a plurality of revoluble chasers, a loose gear ring secured between said sleeve and casing, and connections between said gear ring and said chasers, whereby the latter are caused to move in unison, substantially as described.

2. In a screw cutter, the combination of a centrally perforated casing, a centrally perforated sleeve having steps thereon, a floating gear ring held in position between the stepped sleeve and said casing, a plurality of revoluble chasers, and connections between said gear ring and chasers, whereby said chasers are caused to revolve in unison, substantially as described.

3. In a screw cutter, the combination of a centrally perforated casing, a centrally perforated sleeve having a series of steps on one end thereof and fitting against and into said casing, a floating gear ring confined between said

casing and said stepped sleeve, a plurality of revoluble chasers, a revoluble thread guide, and gearing connecting said floating gear ring with said chasers and thread guide, whereby they are all caused to revolve in unison, substantially as described.

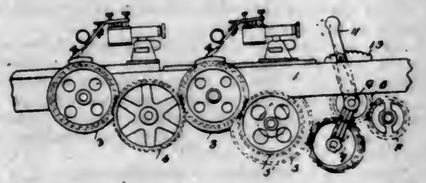


4. In a screw cutter, the combination of a centrally perforated casing, a series of revoluble chasers, a chaser block supporting said chasers, respectively, means for causing said chasers to revolve in unison, and means for simultaneously adjusting said chasers toward and away from each other, substantially as described.

5. In a screw cutter, the combination of a centrally perforated casing, a series of revoluble chasers mounted therein, a chaser block for each chaser and means for simultaneously adjusting said chaser blocks and chasers toward and away from each other, said means including a ring encircling said casing and provided with perforations, and a headed lever for each chaser block, having one end movably secured in said ring and the opposite end attached to the respective chaser block, and devices for moving said ring, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,027,986. RULING-MACHINE. CHARLES BURROWS, Weehawken, N. J. Filed Mar. 28, 1911. Serial No. 617,360. (Cl. 101—128.)

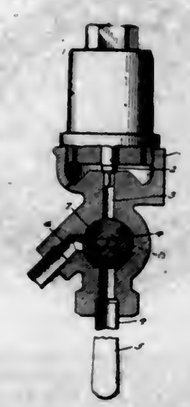


1. In combination, striker mechanism for ruling machines, means for operating said mechanism comprising a drive gear, gearing connecting the drive gear with the striker mechanism and including an axially movable gear meshing with the drive gear, an intermediate gear meshing with the axially movable gear, a shaft supporting the axially movable gear, and a locking device carried by the last mentioned gear and comprising a sliding bolt, said shaft having grooved portions adapted to be engaged by said bolt to hold the axially movable gear positively in an operative or an inoperative position with respect to the adjacent gears.

2. Striker mechanism for ruling machines comprising a supporting plate, striker cams, a shaft projecting laterally from the plate, an idler gear mounted thereon, a rocker lever also mounted on the shaft, a change gear mounted on the plate, an intermediate gear carried by the rocker lever and meshing with the change and idler gears, means on said shaft for holding the idler gear in or out of mesh with respect to the intermediate gear, and means on said plate for holding the rocker lever in position wherein the intermediate gear is in or out of mesh with respect to the change gear.

3. In a ruling machine, striker mechanism comprising striker cams, an idler gear, a lever mounted coaxially with respect to said gear, a change gear, an intermediate gear carried by the lever and adapted to mesh with the change and idler gears, means coöperating with the lever to hold the same in a position wherein the intermediate gear is in or out of mesh with the change gear, and means for moving the idler gear into and out of mesh with the intermediate gear without imparting rotation to said idler gear.

1,027,987. PRESSURE-RETAINING VALVE. THOMAS L. BURTON, Elizabeth, N. J., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 25, 1909. Serial No. 485,584. (Cl. 73—51.)



1. In a fluid pressure brake, the combination with a brake cylinder and triple valve device, of a retaining valve connected with the usual brake cylinder exhaust port of the triple valve device, an air pressure gage, and a cock having means for connecting said brake cylinder exhaust port with the retaining valve in one position, with the air pressure gage in another position, and with both the retaining valve and pressure gage in still another position.

2. In a fluid pressure brake, the combination with a brake cylinder and triple valve device, of a retaining valve connected with the usual brake cylinder exhaust port of the triple valve device, a cock having ports for connecting said brake cylinder exhaust port with the retaining valve in one position, to an atmospheric exhaust port in another position, and to both the retaining valve and the atmospheric port in still another position, and an air pressure gage adapted to be connected to said atmospheric port.

3. In a fluid pressure brake, the combination with a brake cylinder and triple valve device, of a retaining valve connected with the usual brake cylinder exhaust port of the triple valve device, an air pressure gage, and a cock for controlling communication from said brake cylinder exhaust port, to both the retaining valve and the pressure gage in one position and to said gage only, in another position.

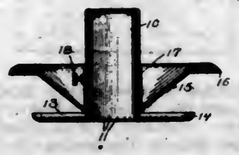
4. In a fluid pressure brake, the combination with a brake cylinder, a triple valve device, and a pressure retaining valve connected to the usual brake cylinder exhaust port of the triple valve device for retaining a predetermined degree of pressure in the brake cylinder, of an air pressure gage and a cock having a port adapted to connect the brake cylinder exhaust port with the retaining valve only, in one position, and having another port for connecting the brake cylinder exhaust port with the pressure gage only, in another position, said cock having a third position in which the brake cylinder exhaust port is connected both to the pressure gage and to the retaining valve.

1,027,988. DRAFT-EQUALIZER. WILLIAM J. CAMPBELL, Honey Grove, Pa. Filed Feb. 27, 1912. Serial No. 680,306. (Cl. 21—76.)



A device of the character described comprising an equalizer bar, a pivot element engaging said bar medially of its ends, an elongated U-shaped yoke pivotally mounted upon said pivot element, a ring engaging said yoke, a swingletree connected to said ring, swingletrees connected to each end of said equalizer bar, and a rod having eye terminals connecting said end swingletrees, said rod being adapted to prevent lateral movement of the first named swingletree.

1,027,989. ORCHARD-HEATER. EDWIN O. CARVER, Carters, Fla. Filed Aug. 5, 1911. Serial No. 642,449. (Cl. 126—59.5.)



1. In an orchard heater, a burner comprising a central receptacle, a concentric annular trough, troughs leading from the central receptacle to the said annular trough and an oil feeding reservoir adapted to be inverted in the central receptacle.

2. In an orchard heater, a central receptacle, an annular trough surrounding the central receptacle, conduits leading from the central receptacle to the annular trough and an oil feeding reservoir adapted to be inverted in the central receptacle.

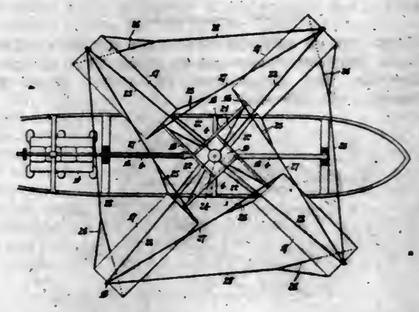
3. In an orchard heater, a central receptacle, an annular burner trough surrounding the central receptacle, troughs leading from the central receptacle to the annular trough, an oil feeding reservoir provided with apertures in its edges adapted to be inverted in the central receptacle and a deflector positioned above the annular trough.

4. In an orchard heater, a central receptacle, an annular burner trough concentrically surrounding the central receptacle, radial conduits leading from the central receptacle to the annular trough, an oil feeding reservoir adapted to be inverted in the central receptacle, a deflector carried by the oil feeding reservoir positioned above the burner and means to adjust the deflector vertically upon the oil feeding reservoir.

5. In an orchard heater, a central receptacle, radial troughs extending outwardly from the receptacle, an annular trough concentric with the receptacle and communicating with the radial troughs, an oil feeding reservoir having apertures formed in its edges proportioned to be inverted in the central receptacle, a conical deflector vertically slidable upon the oil feeding reservoir and a rolled periphery formed upon the deflector positioned above the annular trough.

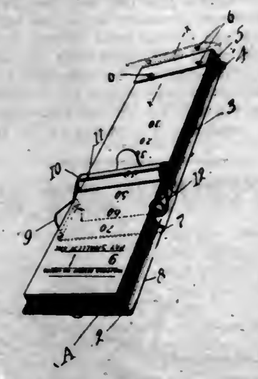
1,027,990. AIRSHIP. BARRETT C. COLE, Marshall, Wyo. Filed Sept. 19, 1911. Serial No. 650,231. (Cl. 244—19.)

1. An airship embodying a main frame, a car carried thereby, concentric vertical shafts journaled on the main frame, a head fixed to each shaft, collars upon each shaft above and below the head thereon, a series of radiating arms secured to the head and to each other, propeller blades carried by the arms, braces connecting the outer end of each arm with the respective collars, braces connecting the inner end of each arm with the lower collar, brace rods or wires connected with the outer end of the supporting arm of each blade, branches connecting the same with the inner and outer corner portions of the next adjacent blade, and gearing for simultaneously rotating the shafts in opposite directions.



2. An airship embodying a car or body, a main frame carrying the same and comprising superposed bearings and connecting superposed pairs of arms radiating therefrom and inclined outwardly and downwardly, forming V-shaped truss beams projecting fore and aft and laterally, a vertical shaft journaled in said bearings, a second vertical shaft journaled upon the first-named shaft and in the upper bearing, oppositely rotating propellers carried by said shaft, beveled gears upon the shafts between the bearings, a beveled drive gear meshing with the beveled gears upon the shafts, and means for driving said beveled drive gear.

1,027,991. MEMORANDUM-PAD HOLDER. JAMES COSTELLO, Hinckley, Minn., assignor to National Checking Company, a Corporation of Minnesota. Filed July 23, 1909. Serial No. 509,129. Renewed Oct. 25, 1911. Serial No. 656,731. (Cl. 211—37.)



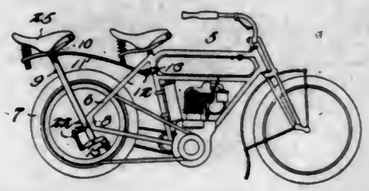
1. A device of the class described comprising a pad holding frame, a bracket slidably supported upon the sides of said frame; a spring secured to the ends of said bracket and formed with a cross bar extending across said holder, and a knife turnable upon said cross bar.

2. A device of the class described comprising a pad holding frame having upward flanged sides, a bracket slidably supported upon the flanged sides of said frame, a transverse knife and a spring support between the ends of said knife and the ends of said bracket.

3. A device of the class described comprising a pad holding frame, a bracket slidably over-lapping the sides of said frame, a knife extending traversely above said frame and a spring support between the opposite ends of said knife and said bracket.

4. A device of the class described comprising a pad holding frame, a bracket slidably over-lapping the sides of said frame, a knife extending traversely above said frame, a spring support between the opposite ends of said knife and said bracket and a spring bail secured to the back of said frame for the purpose set forth.

1,027,992. SEAT ATTACHMENT FOR MOTOR-CYCLES. FRANK RICHARD COVEY and CHARLES FRANCES HOAG, Riverside, Cal. Filed Jan. 17, 1911. Serial No. 603,116. (Cl. 208—24.)

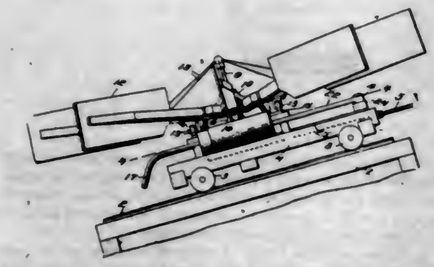


1. An attachment of the class described, comprising an inverted fork having a stem medially thereof, a resilient arm connected with the stem and with the seat post of a bicycle frame, lugs formed on the fork and adapted for engagement with the rear axle of said frame, pivotal stirrups carried at the free ends of the fork, and means for yieldingly holding the stirrups in position on their pivots.

2. An attachment of the class described, comprising a fork, means connecting it with the axle of a motor cycle, means connecting the fork with the frame of such motor cycle, stirrups pivotally connected with the free ends of the fork and having tread rollers, brackets fixed to the fork and projecting rearwardly therefrom, guide rods pivotally connected to the stirrups and working through the brackets, and springs coöperating with the guide rods for tensioning the stirrups.

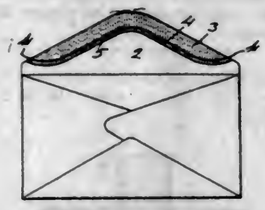
3. An attachment of the class described, comprising a fork, means connecting it with the axle of a motor cycle, means connecting the fork with the frame of such motor cycle, stirrups pivotally connected with the free ends of the fork and having tread rollers, brackets fixed to the fork and projecting rearwardly therefrom, guide rods pivotally connected to the stirrups and working through the brackets, springs carried by the guide rods and acting upon the stirrups for holding them under tension, and means for regulating the tension of the springs.

1,027,993. CURRENT-MOTOR. EDWARD COX, Oroville, Wash. Filed Jan. 7, 1911. Serial No. 601,304. (Cl. 138—3.)



A current motor comprising a sloping support, track rails on said support, a carriage provided with wheels to travel on said track rails, means for raising and lowering the carriage, pump cylinders arranged longitudinally at opposite sides of the carriage adjacent the lower end thereof and provided at their lower ends with suction and discharge pipes, a delivery pipe connected with said discharge pipes, a transversely arranged oscillating bar at the upper end of the carriage, links connecting the ends of said bar with the pump pistons, a slotted actuating bar connected with said oscillating bar, an annular track upon the carriage, a vertical shaft journaled on the carriage concentric with the track and extending above and below the same and provided at its lower end with a crank operating in the slot of the actuating bar, an inclined wheel mounted on the upper end of said shaft and provided with wheels or rollers to run upon said annular track, and an annular series of fixed blades supported by the wheel and inclined to the plane of travel thereof.

1,027,994. ENVELOP-OPENER. CARL H. CRAWFORD, Washington, D. C. Filed June 3, 1911. Serial No. 631,094. (Cl. 229—86.)



1. In combination with an envelop comprising a body and flap, of a cord-like opener attached to the flap by the gum or adhesive originally applied thereto and having one end exposed whereby the flap may be opened by disrupting the gum.

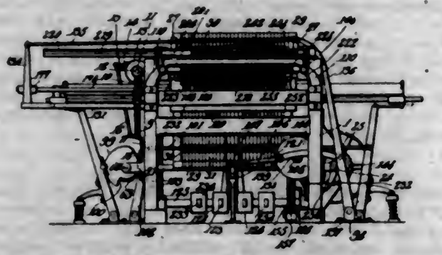
2. In combination with an envelop comprising a body and a flap sealed thereon, of a cord-like opener interposed between and attached by the gum or adhesive with which the flap is sealed and having one end exposed whereby the flap may be opened by disrupting the gum.

3. In combination with an envelop comprising a body and flap sealed thereon, of a cord-like opener attached by an adhesive substance between the flap and body whereby the flap may be opened by disrupting the gum.

4. In combination with an envelop comprising a body portion and a flap portion, and a cord-like opener gummed to one of said portions and so disposed as to lie beneath the flap when the same is sealed on the body portion whereby the flap may be opened by disrupting the gum.

5. An envelop having a flap sealed thereon and means disposed beneath the flap for disrupting the sealing substance without injuring the flap or envelop.

1,027,995. LOOM FOR WEAVING PILE FABRICS. ERNEST W. CRUIKSHANK and MILTON R. ELMORE, Baltimore, Md.; said Elmore assignor to Ella Cruikshank, Baltimore, Md. Filed Mar. 8, 1910. Serial No. 547,999. (Cl. 139—66.)



1. In a loom a series of hooks, means for imparting longitudinal movement to all of said hooks, means for moving each of said hooks transversely and a cutting mechanism arranged in the path of said hooks and actuated when the same are at the limit of their longitudinal movement.

2. In a loom, a series of loop-forming hooks active to a single strand, a beater, a plurality of spring pressed pins carried by said beater and co-acting with said hooks to form loops, said beater and hooks having an independent longitudinal movement.

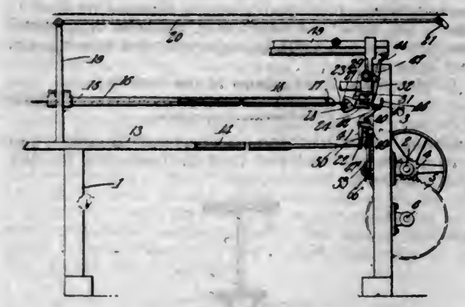
3. In a loom, a series of loop-forming hooks, means for imparting longitudinal movement to all of said hooks, and means for moving each of said hooks transversely to their line of travel as an entirety, a beater, a plurality of spring pressed pins carried by said beater, said pins co-acting with said hooks to form loops, said beater and loops being capable of independent longitudinal movement.

4. In a loom, a series of hooks active to a single strand, means for moving all of said hooks longitudinally, said hooks being capable of an independent transverse movement, a beater capable of longitudinal movement, a plurality of spring-pressed projections carried by said beater, said projections and said hooks interdigitating to loop said strand, said projections releasing said strand when the hook and beater are at the limit of their longitudinal movement.

5. In a loom, a series of loop-forming hooks, a frame pivotally supporting said hooks, a shaft supporting said frame, a beater mounted for longitudinal movement on said shaft, and means carried by said beater and co-acting with said hooks to loop a tuft strand.

[Claims 6 to 15 not printed in the Gazette.]

1,027,996. LOOM. ERNEST W. CRUIKSHANK and JOHN A. MCANULTY, Baltimore, Md.; said McAnulty assignor to Ella Cruikshank, Montclair, N. J. Filed Mar. 19, 1910. Serial No. 550,333. (Cl. 139—66.)



1. In a loom, a tuft strand actuating mechanism, a gripper for the tuft strand located in the path of the strand at the termination of its travel across the loom, and a throw-off or stop motion for the power side of the loom responsive to movement of the gripper in the active direction in the absence of a tuft strand in operative relation to said gripper.

2. In a loom, a tuft strand actuating mechanism, a gripper for the tuft strand located in the path of the strand at the termination of its travel across the loom, said gripper having a movement in the active direction in excess of the movement necessary to grasp the tuft strand, said excess movement occurring in the absence of a tuft strand in operative relation to said gripper, and a throw-off or stop motion for the power side of the loom responsive to excess active movement of the gripper.

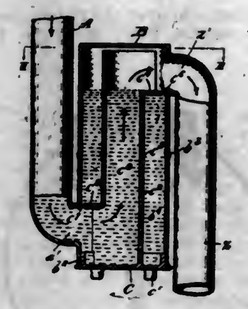
3. In a loom, a tuft strand actuating mechanism, a gripper for the tuft strand located in the path of the strand at the termination of its travel across the loom, said gripper having a movement in the active direction in excess of the movement necessary to grasp the tuft strand, said excess movement occurring in the absence of a tuft strand in operative relation to said gripper, a throw-off or stop motion for the power side of the loom responsive to excess active movement of the gripper, and an operating means for the gripper responsive to the active movement of the tuft strand actuating mechanism.

4. In a loom, a tuft strand actuating mechanism, a gripper for the tuft strand having a movement in the active direction in excess of the movement necessary to grasp the tuft strand, said movement occurring in the absence of a tuft strand in operative relation to said gripper, a throw-off or stop motion for the power side of the loom responsive to excess active movement of the gripper, and a yieldable operating means for the gripper responsive to the active movement of the tuft strand actuating mechanism.

5. In a loom, a tuft strand actuating mechanism, a gripper for the tuft strand located in the path of the strand at the termination of its travel across the loom, said gripper having a movement in the active direction in excess of the movement necessary to grasp the tuft strand, said excess movement occurring in the absence of a tuft strand in operative relation to said gripper, and a throw-off or stop motion for the power side of the loom responsive to excess active movement of the gripper, and an operating means for the gripper responsive to different extents of the active movement of the tuft strand actuating mechanism.

[Claims 6 to 13 not printed in the Gazette.]

1,027,997. SEWER-GAS TRAP. FRANK E. CUDELL, Cleveland, Ohio. Filed Jan. 19, 1912. Serial No. 672,057. (Cl. 182—12.)



1. A sewer gas trap comprising the combination of a pot provided with upper and lower openings, and an interiorly positioned duct communication with said openings and with said pot, said duct having flared portions adjacent said openings.

2. A sewer gas trap comprising the combination of a pot provided with upper and lower openings, a removable cover for said pot, a removable duct interiorly connecting said openings, said duct communicating with said pot adjacent each such opening.

3. A sewer gas trap comprising the combination of a pot provided with inlet and outlet openings, a cover removably secured thereto, and a duct attached to said cover and connecting said openings, said duct being non-contiguous with said pot.

4. A sewer gas trap comprising the combination of a pot, provided with inlet and outlet openings, a duct-forming member movably positioned within said pot, said duct itself provided with flared end openings communicating with said inlet and outlet openings and with said pot.

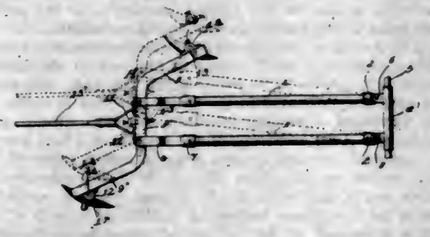
5. A sewer gas trap comprising the combination with a pot having inlet and outlet openings; and a partition forming an interior duct in direct communication with said openings, said duct having restricted communications with said pot adjacent said openings.

[Claims 6 and 7 not printed in the Gazette.]

1,027,998. CORN-PLOW. ADELBERT W. DANIELS, Morrison, Ill. Filed July 23, 1910. Serial No. 573,384. (Cl. 97—37.)

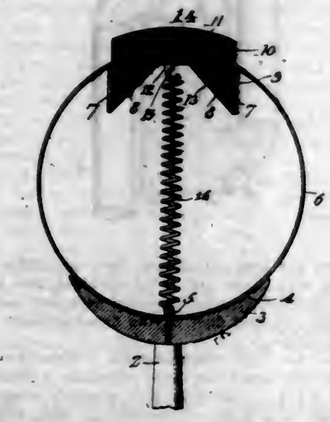
In a cultivator, an implement carrying frame having top and bottom members and vertically disposed end members connecting the same, said top and bottom members

being bent forwardly at one end and rearwardly at the other end and provided with bearings adjacent to the ends thereof, vertically disposed implement carrying shanks mounted rotatably and vertically adjustable in said bearings, means for securing the shanks in adjusted position,



parallel beams having vertically disposed yokes at their rear ends, the limbs of said yokes being pivotally connected, respectively, with the top and the bottom member of the implement carrying frame, and a draft member with which the front ends of the parallel beams are pivotally connected.

1,027,999. TIRE. SAMUEL A. DEATHERAGE, Richmond, Ky. Filed May 20, 1910. Serial No. 562,472. (Cl. 132—8.)

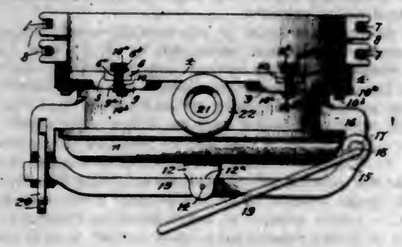


In a device of the class described, the combination with a felly having a tire channel, of a tire secured in the channel and comprising a resilient metallic tube having an open periphery, V-shaped flanges formed from the edges of said tube and extending into the same, a cushion tread surrounding the tire and bridging the opening in the tube, separated V-shaped legs formed on the tread and extending into the pockets, and springs directly connecting the tread and felly for holding the tread on the tire.

1,028,000. ATTACHMENT FOR GAS-RETORTS. SAMUEL EVENS DE FREse, Chattanooga, Tenn. Filed Oct. 14, 1911. Serial No. 654,667. (Cl. 48—126.)

1. In a gas retort, a retort collar, a mouth piece and a detachable supporting connection between the mouth piece and collar including an annular series of separated bosses on the face of one and an annular series of coöperating recessed portions on the opposed face of the other, and means for securing the mouth piece and collar together.

2. In a gas retort, a retort collar, a mouthpiece, an annular series of separated projections on one of the parts including the collar and mouth-piece, and a coöperating annular series of receiving pockets on the other, whereby one is accurately positioned on and sustained by the other, and releasable means for drawing the two into tight engagement.



3. In a retort, a collar connected thereto, a mouth-piece, means for detachably connecting the mouth-piece to the collar, said means being fitted in registering recesses in the said parts whereby it is bodily insertible and removable by a sliding movement and auxiliary interlocking connecting means between the collar and mouth-piece.

4. In a gas retort, a collar, a mouth-piece having a circumferential flange with a cut-out portion at its edge, a boss on the collar to engage said cut-out portion, a boss on the flange overlying said cut-out portion, the said bosses having registering slots, and bodily movable securing bolts positioned in said slots, and having means adjacent its ends to engage over one surface of said bosses.

5. In a gas retort, the combination of a collar and a mouth-piece, each having registering peripheral open ways, means for detachably connecting the collar to the retort and means for detachably connecting the collar and mouth-piece including bolts having means adjacent its ends to engage the collar and mouth-piece, the bolts being bodily insertible and removable by a sidewise movement through said open ways.

[Claims 6 and 7 not printed in the Gazette.]

1,028,001. PIPE-REAMER. JOSEPH R. DESJARDINS, Fall River, Mass. Filed Feb. 7, 1912. Serial No. 675,995. (Cl. 131—13.)



1. A pipe reamer provided with a main reamer for reaming the inner surface of the side wall of a pipe bowl, a separate auxiliary reamer for reaming the bottom of the bowl and the opening leading from the bowl to the stem of the pipe, said auxiliary reamer being located at one end of the main reamer and being movable laterally with respect thereto, and means whereby to support and lock the reamers together.

2. A pipe reamer, comprising a main reamer having a bore, a rod extending loosely through the bore, an auxiliary reamer fixed on the rod, and means on the rod for clamping the said main reamer on the rod.

3. A pipe reamer, comprising a main reamer having a bore, a rod extending loosely through the bore, an auxiliary reamer fixed on the rod at one end thereof, and a nut screwing on the said rod and adapted to engage the said main reamer to clamp the latter between the nut and the said auxiliary reamer.

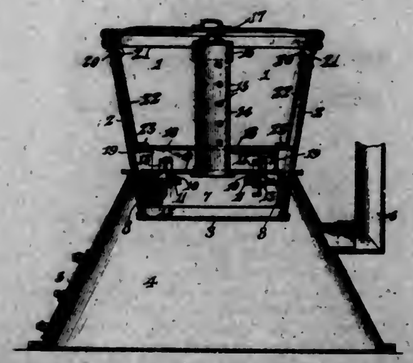
4. A pipe reamer, comprising a main reamer having a bore, a rod extending loosely through the bore, an auxiliary reamer fixed on the rod at one end thereof, and a nut screwing on the said rod and adapted to engage the said main reamer to clamp the latter between the nut and the said auxiliary reamer, the nut having a bearing for engagement with one end of the bore of the main reamer to hold the latter centrally on the rod.

1,028,002. CUE-TIP FASTENER. TRAVICE N. DE WITT, Baltimore, Md. Filed Jan. 29, 1912. Serial No. 674,031. (Cl. 46—9.)



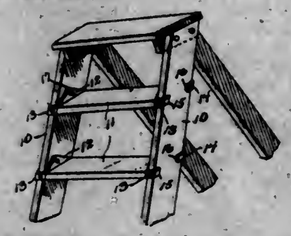
The herein described cue-tip fastener comprising a cue having a socket bored in its extremity, a tubular sleeve fitting closely within the same and having near its mouth outwardly projecting indentations punched through its body and into the wooden shell of the cue, a nut fast within the inner end of said sleeve, and a grapple having a screw at its inner end engaging said nut and a plurality of normally divergent fork-arms at its outer end provided with obliquely inturned tips; combined with the cue-tip proper including a leather face mounted on a fabric disk of a size to cover the end of the cue and rest on the extremity of its wall, the inner face of said disk being provided with slots converging toward the leather and disposed so as to receive the tips of said fork-arms, all as and for the purpose set forth.

1,028,003. WASHING-MACHINE. JOHN S. DICKEY, Collinsville, Tex. Filed Dec. 27, 1911. Serial No. 668,164. (Cl. 68—30.)



In a washer, the combination of an outer vessel open above and closed below, an inner vessel closed above and open below, the contiguous walls of the inner and outer vessels arranged at a downwardly converging inclination and of a relative size to support the inner vessel above the bottom of the outer vessel by a wedging co-action of the walls, a tube communicating axially with the interior of the inner vessel and rising above the same within the space inclosed by the outer walls, said tube having a closed upper end and perforate walls, the top of the inner vessel provided with openings, downwardly opening check valves arranged in said openings, a foraminous diaphragm disposed within the outer vessel in spaced relation to and above the top of the inner vessel, and links coupled to the outer walls of the outer vessel and bearing down upon the top of the inner vessel to force the same downward with its walls in wedged relation to the outer vessel.

1,028,004. LADDER. CHARLES E. DILLON and LEE SAVAGE, Springfield, Mo. Filed Mar. 7, 1911. Serial No. 612,802. (Cl. 226—15.)



A step ladder including side members and steps, and supporting devices each consisting of a vertically disposed body portion abutting against the end of a step and extending thereabove and provided with right angled portions extending over the opposite edges of the side member and bent around and engaging the outer face thereof, said body portion having a lateral flange extending underneath the step for engagement with the lower face thereof, the vertical body portion being formed above the step with an aperture to receive a fastening device and below the upper face of the step with corresponding apertures, whereby the fastening devices in said last named apertures will be covered by the end of the step and thereby prevented from coming out, fastening devices extending through the flange into the step, and other fastening devices extending through the right angled portions into the side members.

1,028,005. PROCESS OF MAKING A FOOD COMPOUND. CON DRISCOLL, Coalinga, Cal., assignor to Frank Prevost, Coalinga, Cal. Filed Aug. 5, 1911. Serial No. 642,512. (Cl. 99—11.)

1. The herein described process for preparing a food compound, consisting in first thoroughly beating the yolks of eggs, and adding as much sugar as said yolks will absorb; second thoroughly whipping the whites of eggs and adding as much sugar as said whites will absorb; third mixing the aforementioned ingredients together, adding whipped cream thereto and also as much sugar as will be absorbed thereby; then leaving the composition undisturbed until it has lost the froth due to whipping, and in thoroughly agitating and whipping the same, until the mass becomes dry.

2. The herein described process for preparing a food compound which is as follows: the yolk of egg is first thoroughly beaten or whipped, and placed in a receptacle used for the purpose; to this is added so much of the sugar as will be absorbed or taken up by the yoke of egg, and the whole thoroughly mingled; the well beaten white of egg is then beaten and mingled, together with so much of the sugar as may be absorbed or taken up by the added white of egg; to this is then added the whipped cream, and the whole mingled while the balance of sugar is being added; the composition is then set aside and left undisturbed until such time as it has receded, settled, and lost its appearance of fermentation when it is again thoroughly

agitated, and so on, until such time as it becomes thoroughly dry by evaporation, or the application of artificial heat when required to effect the dryness.

1,028,006. MANUFACTURE AND PRODUCTION OF FAST ORTHO-OXY-AZO DYESTUFFS. KARL ELBEL, Biebrich, Germany, assignor to The Firm of Kalle & Company, Aktiengesellschaft, Biebrich, Germany. Filed Sept. 18, 1911. Serial No. 649,957. (Cl. 8—1.)

1. The process of producing fast ortho-oxy-azo-dyestuffs which comprises treating naphthalene-1.2-diazo-oxid-4-sulfonic acid with chlorin, and combining the resulting chlorinated product with azo dyestuff components.

2. The process of producing fast ortho-oxy-azo-dyestuffs which comprises treating naphthalene-1.2-diazo-oxid-4-sulfonic acid with chlorin in the presence of a reagent facilitating the reaction, and combining the resulting chlorinated product with azo dyestuff components.

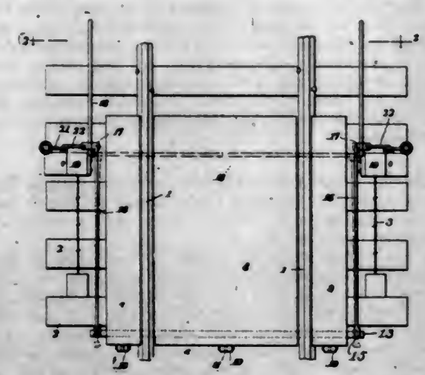
3. The process of producing fast ortho-oxy-azo-dyestuffs which comprises treating naphthalene-1.2-diazo-oxid-4-sulfonic acid with chlorin in the presence of a solvent which facilitates the reaction, and combining the resulting chlorinated product with azo dyestuff components.

4. The process of producing fast ortho-oxy-azo-dyestuffs which comprises treating naphthalene-1.2-diazo-oxid-4-sulfonic acid with chlorin in the presence of fuming sulfuric acid, and combining the resulting chlorinated product with azo dyestuff components.

5. The process of producing fast ortho-oxy-azo-dyestuffs which comprises treating napthalene-1.2-diazo-oxid-4-sulfonic acid with chlorin in the presence of chlorosulfonic acid, and combining the resulting chlorinated product with azo dyestuff components.

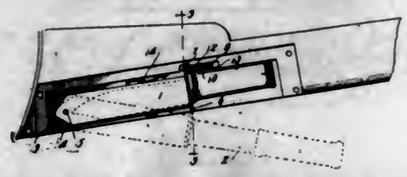
[Claims 6 to 14 not printed in the Gazette.]

1,028,007. CATTLE-GUARD. EDWARD ENGLE, Pittsburg, Kans. Filed Jan. 25, 1911. Serial No. 604,593. (Cl. 39—43.)



The combination with ties and track rails mounted thereon, of a bearing shaft carried by one of said ties, a platform pivotally mounted at one end upon said bearing shaft and arranged in sections between and on opposite sides of the rails, a crank shaft pivoted on one of the ties and having a plurality of crank arms pivotally connected to the opposite end of each section of the platform, cranks arranged at right angles to the platform crank arms, a pair of standards carried by one of the ties adjacent the pivotal end of the platform, gates pivoted upon said standards and adapted to swing horizontally across the tracks beyond the pivotal point of the platform sections, cross arms on said gates, links connecting said last named cranks and one end of said cross arms for operating the gates, weighted bell crank levers mounted upon the standards, and links interconnecting the opposite ends of the cross arms with the bell crank levers, whereby the gates will be automatically held in open position normally and the free end of the platform raised.

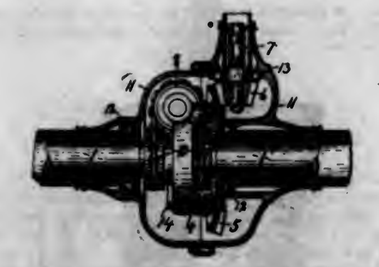
1,028,008. TOOL-HOUSING. ALBERT J. ESLICK, Jr., Golden, Colo. Filed July 13, 1911. Serial No. 638,312. (Cl. 7—1.)



1. A supporting structure having a pocket therein open at one side and provided with a stop near the edge of said open side, a member pivotally mounted ot one end in said pocket with its other end adapted to swing through said open side, a retaining element secured to the free end of said member and having a lateral extension for engaging said stop to limit the outward movement of said member and means for coaction with said element for holding said member housed within said pocket.

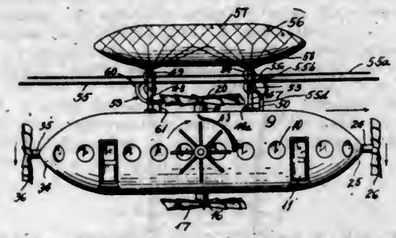
2. In a device of the class described, the combination with a supporting member having a pocket formed therein with the side walls of said pocket provided with transversely arranged segmental grooves terminating near the outer edges thereof, forming stop shoulders, a knife sheath pivotally mounted at its closed end in the side walls of said pocket and adapted to be swung into and out of said pocket, a U-shaped retaining member secured to the open free end of said sheath and having outwardly projecting lateral lugs on the free ends of its legs, said lugs having a sliding engagement with the segmental grooves in said pocket wall, whereby the outward movement of the sheath is limited by the engagement of said lugs with said stop shoulders, and a spring projected locking bolt mounted to engage one of the lugs of the retaining member to lock said sheath in retracted position within said pocket.

1,028,009. DIFFERENTIAL GEAR FOR AUTOMOBILES. ROSMAN I. FANCHER, Baldwinsville, N. Y., assignor of one-half to Frank L. Fuller, Syracuse, N. Y. Filed Apr. 20, 1910. Serial No. 556,581. (Cl. 74—34.)



A differential gear for automobiles comprising coaxial axle sections arranged end to end and having their adjacent ends angular in cross section, separate sprocket wheels mounted on an angular portions of their respective shaft sections to rotate therewith and having the adjacent ends of their hubs extended toward each other and cylindrical in cross section to form annular bearings, a cup-shape yoke having its base provided with a hub journaled on said bearings between the sprocket wheels, the open end of the yoke being provided with a bevel gear, a journal bearing on the yoke at right angles to and some distance to one side of the axis of the shaft section midway between the sprocket wheels and at the angle of the base with the sides of the yoke, an additional pair of sprocket wheels mounted on said journal bearing and of substantially the same diameters as the distance between the centers of the first named sprocket wheels, an endless chain passing around said sprocket wheels, and a driving shaft having a pinion meshing with the gear.

1,028,010. AERIAL TROLLEY. JOSEPH W. FAWKES and EMMA C. FAWKES, Burbank, Cal. Filed Aug. 9, 1910. Serial No. 576,325. (Cl. 104—154.)

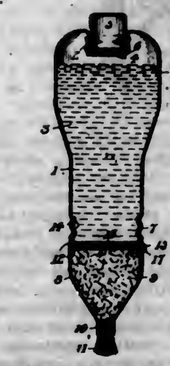


1. An aerial car having an elongated body, a longitudinally disposed shaft mounted therein, a propeller carried thereby adapted to advance the said body, a vertical shaft mounted in said body, a propeller carried thereby tending to raise said body against the force of gravity, hangers adapted to support said body from a trolley wire, and a gas bag connected with said hangers and tending to overcome the weight of said body.

2. An aerial trolley car comprising an elongated body, longitudinal shafts mounted within said body and projecting at the front and rear ends thereof, propellers carried by said shafts and adapted to advance said body, a vertical shaft passing vertically through said body, propellers carried thereby tending to lift said body, means for driving said shafts, hangers supporting said body and adapted to be guided on a trolley wire, and a buoyant body connected with said hangers partially overcoming the weight of said car body.

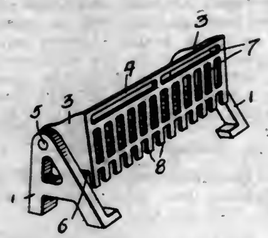
3. An aerial trolley car having an elongated body, longitudinally extending shafts projecting from the front and rear ends thereof, a propeller wheel carried by the said shaft adapted to advance said body, transverse horizontal shafts extending through the sides of said body, wheels carried by said last named shafts having substantially radial blades without pitch, guards mounted on said body over said side wheels, hangers adapted to support said body, and means for guiding said hangers on a trolley wire.

1,028,011. ENVELOP-MOISTENER. LAJOS FERENCZY, Easton, Pa. Filed Sept. 6, 1911. Serial No. 647,868. (Cl. 120—75.)



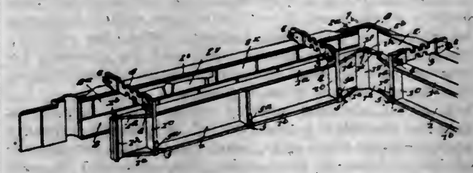
An envelop moistener comprising a receptacle constituting a water reservoir and a handle, a container provided at one end with an outlet and at its upper end with a top formed with a valve chamber, means projecting from the container and engaging with the lower end of said receptacle for connecting the container to the receptacle, the top of said container provided with openings for establishing communication between the reservoir and the interior of the container, said container adapted to hold an absorbent body, the top of said container constituting the bottom for said reservoir, a brush mounted in and projecting from the outlet to said container, and a valve arranged in said chamber for normally closing said openings and capable of being shifted to establish communication between the container and the reservoir.

1,028,012. GRATE. CLARENCE W. FOSTER, Donora, Pa. Filed Nov. 16, 1911. Serial No. 660,554. (Cl. 126—165.)



A fire grate comprising the combination with a pair of A frames, of a tray including a pair of imperforate end walls and an upwardly and outwardly inclined foraminous front wall integral with said end walls and a horizontally disposed foraminous bottom integral with the end walls and with the front wall at a point above the lower end of the latter, a trunnion projecting from each of said end walls in proximity to its upper inner corner and journaled in the apex of a frame, and inwardly extending lugs projecting from the inner faces of the front legs of said frames and capable of engaging the forward portion of said bottom for maintaining the tray in a horizontal position, that portion of the front wall which depends below said bottom and side walls slotted to provide prongs capable of being engaged to tilt the tray, said prongs further constituting means to prevent coals from passing outwardly from under the grate at the outer edge of the bottom plate.

1,028,013. CONCRETE-BUILDING APPARATUS. RICHARD W. FULLER, Webster township, Woodward county, Okla. Filed Sept. 15, 1911. Serial No. 649,483. (Cl. 25—131.)



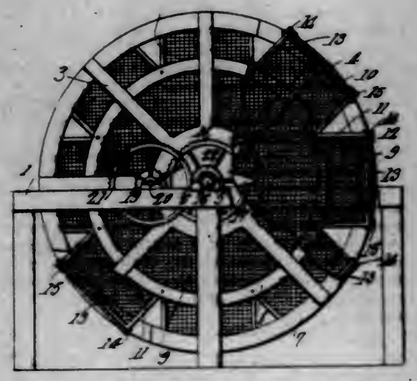
1. In a device for molding concrete walls, a pair of opposed mold members, each of said mold members being provided with lower and upper flanges, the flanges of one of said mold members tapering at the ends, an integral extension adjacent said tapered end provided with a tongue, a second pair of similar mold members disposed at right angles to the first-mentioned mold members, one of said second pair of mold members being provided with an extension having a groove arranged to receive said tongue, and a hook for securing said tongue and grooved members together.

2. In a device for molding concrete walls, a pair of opposed mold members, each of said mold members being

provided with lower and upper flanges, the flanges of one of said mold members tapering at the ends, an integral extension adjacent said tapered end provided with a tongue, a second pair of similar mold members disposed at right-angles to the first-mentioned mold members, one of said second pair of mold members being provided with an extension having a groove arranged to receive said tongue, a hook for securing said tongue and grooved members together, and abutting extensions on the other two mold members, said extensions being serrated on one side.

3. In a device for molding concrete walls, a pair of opposed mold members, each of said mold members being provided with lower and upper flanges, the flanges of one of said mold members tapering outwardly at the ends, an integral extension adjacent said tapered end and provided with a tongue extending at right angles to the direction of length of the mold member, a second pair of similar mold members disposed at right angles to the first mentioned mold members, one of said second pair of mold members being provided with an extension in the direction of its length having a groove arranged to receive the tongue of one of the first mentioned mold members, a hook carried by one of the first mentioned mold members for holding the grooved mold member in position, and means for spacing each pair of mold members apart.

1,028,014. BAG-CLEANING MACHINE. NORMAN E. GARDNER, Easton, Pa. Filed Aug. 30, 1910. Serial No. 579,639. (Cl. 15—8.)

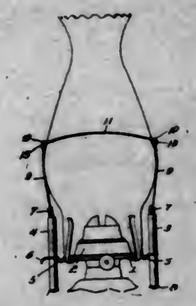


1. A bag cleaning machine comprising a foraminous cylinder including a plurality of peripherally arranged pockets whose inner ends communicate with the interior of the cylinder, a beater mounted within the cylinder, and connections between the beater and the cylinders for causing them to rotate simultaneously in the same direction but at different rates of speed.

2. A bag cleaning machine comprising a foraminous cylinder including a plurality of peripherally arranged pockets whose inner ends communicate with the interior of the cylinder, a door closing the outer end of each pocket, a beater mounted concentrically within the cylinder and having the outer extremities of its blades spaced from the inner ends of said pockets, and connections between the beater and cylinder for causing them to rotate simultaneously and in the same direction and the beater at a higher rate of speed.

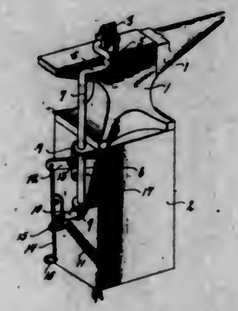
1,028,015. LAMP-GLOBE HOLDER. ROLAND LEE GLADDEN, Gadsden, Ala. Filed May 3, 1911. Serial No. 625,164. (Cl. 240—97.)

1. A lamp chimney holder including a pair of casings, each having an engaging hook, a helical spring within each of the casings, each of the said springs having its lower end connected with the casing, and the upper end of each of the springs extended to provide a loop, the looped portion of each of the springs being bent to provide an eye, and a pair of oppositely arranged substantially semi-cylindrical members having their ends loosely connected with the eyes of the loops.



2. A lamp chimney holder comprising a pair of cylindrical casings, hook members upon the casings, a finger hold upon one of the casings, a helical spring within each of the casings, each of said springs having its lower convolution off-set to contact with the casing and to prevent the removal of the springs from the casings in one direction, the opposite convolution of each of the casings being extended to provide a loop, each of said loops having its upper portion coiled to form an eye, and a pair of flexible elements having their extremities connected with the eyes of the loops, substantially as and for the purpose set forth.

1,028,016. HARDY ATTACHMENT FOR ANVILS. CHRISTOPHER C. GRAY and MIKE GRAY, Anderson, Ind. Filed Mar. 4, 1911. Serial No. 612,326. (Cl. 78—4.)



1. In combination, an anvil, a hardy attachment therefor comprising a support, a hardy carried by said support, means coacting with the support to normally hold the hardy in an inoperative position, and also tending to move said support to throw the hardy into an operative position, and an actuating device to elevate the support.

2. In combination, an anvil, a hardy attachment therefor comprising a hardy movable on and off the anvil, a vertical shaft supporting said hardy, means for moving said shaft vertically, and spring means coacting with the shaft to impart rotative movement thereto at a predetermined point in the vertical movement of the shaft to carry the hardy into an operative position on the anvil.

3. In combination, an anvil, a hardy attachment therefor comprising a hardy movable on and off the anvil, a vertical shaft attached to said hardy, means for moving said shaft vertically upward, and spring means coacting with the shaft to impart rotative movement thereto at a predetermined point in the upward movement of the shaft to carry the hardy into an operative position on the anvil, a support, and means connecting said spring means to the support so as normally tend to impart downward vertical movement to the shaft.

4. In combination, an anvil, a hardy, a support supporting said hardy, means for imparting sliding movement to said support to move the hardy toward an operative position on the anvil, and a spring connected with the support and normally tending to move the same into a position in which the hardy is inoperative.

5. In combination, an anvil, a hardy, a shaft mounted for vertical sliding movement with respect to the anvil and attached to the hardy, an arm extending from said shaft, a spring connected with said arm to impart downward sliding and rotative movement to the shaft for corresponding actuation of the hardy, and means for upwardly sliding the shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,028,017. DENTURE. LEO GREENBAUM, New York, N. Y. Filed Dec. 21, 1911. Serial No. 667,142. (Cl. 32—9.)



1. In artificial dentures, a denture with lateral cuts extending to the base of the tooth, and a socket for said denture comprising as essential elements thereof, a clip fitting over the base of the denture and having upstanding legs engaging said lateral cuts in the denture, a sheet of flexible material pressed into said cuts by the legs of said clip and solder uniting said clip and flexible material to form a rigid socket.

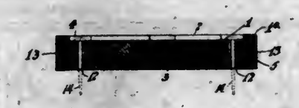
2. In artificial dentures, an attachable tooth with central well opening to the base of said tooth and having straight grooves cut in the opposite sides of said tooth, in combination with a socket or cup to receive the tooth, said socket comprising a clip having upstanding legs adapted to enter the lateral grooves in the tooth and a sheet of flexible material shaped to the tooth base and lateral recesses by said clip, and solder uniting said clip and flexible material into a substantially rigid cup or socket, together with a central anchor pin fast with said socket and entering the well in said tooth in assembled condition.

3. In artificial dentures, an attachable tooth with recesses in the opposite sides thereof and a central well opening into the base of said tooth, in combination with a socket or cup to receive the tooth, said socket comprising a clip having upstanding legs adapted to enter the lateral recesses in the tooth and a sheet of flexible material shaped to the tooth base and lateral recesses by said clip together with an independent pin piercing the base of said clip and the flexible material and entering said well in the tooth, and solder uniting said clip pin and flexible material into a substantially rigid cup or socket.

4. In artificial dentures, a denture with lateral grooves and central well, a socket therefor comprising as essential elements thereof, a clip having upstanding legs engaging said lateral grooves and an anchor pin passing through the base of the clip and entering said central well.

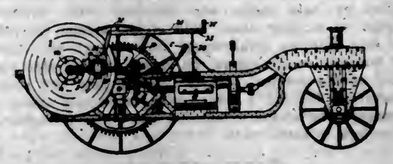
5. For use in artificial dentures, a socket clip comprising a strap member adapted to lie in the base of a socket, lateral upstanding legs to engage lateral abutments on the denture and a central anchor pin fast with said clip in a completed socket and out of alinement with said lateral legs.

1,028,018. INDIVIDUAL CONCRETE SIGN. LEO G. HAASE, Pasadena, Cal. Filed July 8, 1908. Serial No. 442,601. (Cl. 40—125.)



An individual reinforced concrete sign having letters on one face comprising a body of cement having a metallic reinforce embedded therein and a fastener-sleeve extending entirely through the sign and having a collar bearing against the metallic reinforce.

1,028,019. CHANGEABLE-SPEED FRICTION TRANSMISSION MECHANISM. ISAAC B. HAMMOND, Portland, Oreg. Filed Feb. 26, 1910, Serial No. 546,216. Renewed Apr. 6, 1912. Serial No. 689,045. (Cl. 74—26.)



1. In a friction transmission mechanism, a driven gear, a driving gear running on said driven gear and adapted to be inclined on its axis, and thus cause it to move inward or outward of the circumference of the driven gear; and means, including a notched rod and cross-bar, for tilting said driving gear at will, said means adapted to limit said movement of the driving gear within a predetermined degree, and thence permitting said driving gear to reassume its normal position, perpendicular to its axis.

2. In a friction transmission mechanism, a pair of driving gears and a driven gear interposed between them, each of said driving gears adapted to be inclined on its axis, and thus cause it to move inward or outward of the circumference of the driven gear; a yoke connecting said driving gears; and means for tilting said driving gears at will.

3. In a friction transmission mechanism, a pair of driving gears and a driven gear interposed between them, each of said driving gears adapted to be inclined on its axis, and thus cause it to move inward or outward of the circumference of the driven gear; a yoke connecting said driving gears; and means for tilting said driving gears at will, said means adapted to limit said movement of the driving gears within a predetermined degree, and thence permitting them to reassume their normal position, perpendicular to its axis.

4. In a friction transmission mechanism, a pair of driving gears and a driven gear interposed between them, each of said driving gears adapted to be inclined on its axis, and thus cause it to move inward or outward of the circumference of the driven gear; a yoke connecting said driving gears; and means, including a notched rod and cross-bar, for tilting said driving gears at will, said means adapted to limit said movement of the driving gears within a predetermined degree, and thence permitting them to reassume their normal position, perpendicular to its axis.

5. In a friction transmission mechanism, a driven disk, a driving shaft, a spherical member mounted thereon longitudinally movable, a friction gear movably mounted on said spherical member and driving said driven disk; means connecting the spherical member with the friction gear thereon mounted, said means permitting said driving gear to be inclined on its axis so as to cause it to move inward and outward of the circumference of said driven disk, and means for tilting said driving gear on said spherical member.

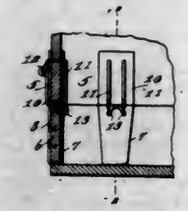
[Claims 6 to 8 not printed in the Gazette.]

1,028,020. SHIPPING-CASE. CHARLES HARTMAN, Bucyrus, Ohio. Filed Feb. 15, 1911. Serial No. 608,706. (Cl. 217—15.)



A shipping case comprising a body having a bottom, side and end strips fixed to said bottom and having their longitudinal edges beveled, side and end sections hingedly connected to said strips and having their meeting edges correspondingly beveled to the edges of said strips, hinged leaves comprising substantially triangular-shaped plates carried by said strips and provided with extensions adapted to be bent about said strips, straps carried by said side sections transversely and on each side thereof and hingedly connected to the leaves on said side strips, cleats having vertical sockets fixed to said end sections transversely thereof, a cover resting upon said cleats, and fastening ears having extensions engaging said cover and the sockets in said cleats.

1,028,021. HINGE. CHARLES HARTMAN, Bucyrus, Ohio. Filed Aug. 16, 1911. Serial No. 644,283. (Cl. 16—104.)



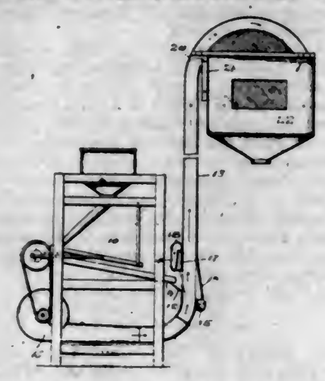
The combination with movable sections, of a hinge comprising a substantially triangular shaped plate having bendable extensions projecting from the wider end thereof and bent about one of said sections and provided with inturned extremities embedded in one of said sections, a substantially U-shaped reinforcing plate secured to the other section, and a wire loop passed through said reinforcing plate and provided with an eye loosely engaging said triangular shaped plate.

1,028,022. WINNOWING-MACHINE. AXEL T. HEDFELDT and HARRY HAGER, Chicago, Ill. Filed July 20, 1911. Serial No. 639,623. (Cl. 130—17.)

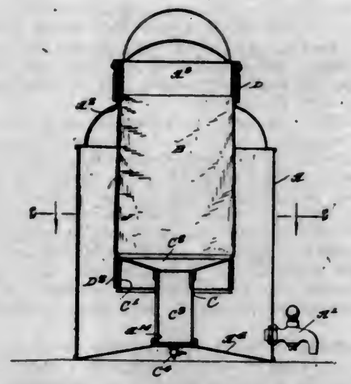
1. In a winnowing machine, a column having a bend and openings upon the opposite sides, the inlet opening being higher than the outlet opening, means to permit a passage of air upwardly through the column, means to project material into the inlet opening across the column and out of the outlet opening, a screened receptacle positioned above the inlet opening and provided with a bend to retain material forced upwardly by the current of air, a screened receptacle in the under side of the column positioned substantially at the bend, and a discharge pipe substantially at the bend between the column and the last mentioned screened receptacle.

2. In a winnowing machine, a column having openings upon opposite sides of the column, the inlet opening being higher than the outlet opening, means to permit a current of air upwardly through the column, means to project material into the inlet opening across the column and out of the outlet opening, a conduit positioned beside the column immediately above the inlet opening and a screened receptacle separated from said passage by the bend therein.

3. In a winnowing machine, a vertical column having openings formed upon opposite sides of the column, the inlet opening being higher than the outlet opening, means to produce a current of air upwardly through said column, means to project material into the inlet opening and across and out of the outlet opening, and a receiving member disposed upon the exterior of the column immediately above the inlet opening formed as a return bend having its open end deflected downwardly with a screen in the downwardly projecting closed portion adapted to prevent the passage of material but permitting the passage of air.



1,028,023. FILTERING-CAN AND THE LIKE. JOHN FRANKLIN HOCKER, Monroe, Ind. Filed Nov. 13, 1911. Serial No. 659,927. (Cl. 210—16.)

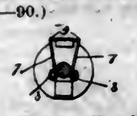


1. A filtering apparatus, substantially as herein described, comprising a body having a neck and a bottom, a cup supported on the bottom and projecting within the body, a sloping or conical portion at the upper end of said cup and discharging thereto and provided with a cylindrical flange, a tubular filter clamped at its lower end to said flange and extending thence up through the neck and down along the outer side thereof, a band clamping the filtering tube to the outer side of said neck and a top, substantially as and for the purposes set forth.

2. A filtering apparatus having a water cup and a depending cylindrical flange at its outer side combined with a tubular filter secured at its lower end to said cylindrical flange, and a support for the upper end of the filter substantially as set forth.

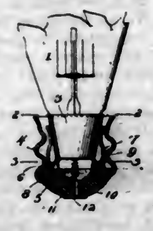
3. A filtering apparatus comprising a body, a filter proper placed vertically inside the body and a receiver at the bottom of said filter and having an outer flange to receive the filter proper and also having a cup and a sloping or conical portion leading thereto, substantially as set forth.

1,028,024. COLLAR-BUTTON RETAINER. HENRY HOFLANDER, Speed, Mo. Filed July 31, 1909. Serial No. 510,533. (Cl. 24—90.)



The combination with a collar button, of a retainer comprising a metallic strip extending diametrically across the back of the button base, said strip being provided with hooked terminals engaging the rim edge and face of the button base on opposite sides of the shank thereof, one of said hooked ends having its bight portion offset from said rim edge of the button base to form a keeper, and a ball-shaped locking device embodying a cross piece pivotally mounted within said keeper and having converging spring arms adapted to bear at their free ends against opposite sides of the button shank, said free ends of the arms being bent back upon themselves to provide reinforced bearing portions and finger pieces, and said cross piece and arms being connected by angularly bent portions or offsets engaging the opposite sides of the keeper to prevent sliding motion of the cross piece therein, said angularly bent ends further serving as supports to engage the rim edge of the button base to prevent the locking device from turning down beyond a position in line with said base.

1,028,025. INCANDESCENT-LAMP BASE. HOWARD S. HUNTER, East Boston, Mass. Filed Sept. 12, 1911. Serial No. 648,879. (Cl. 240—90.)



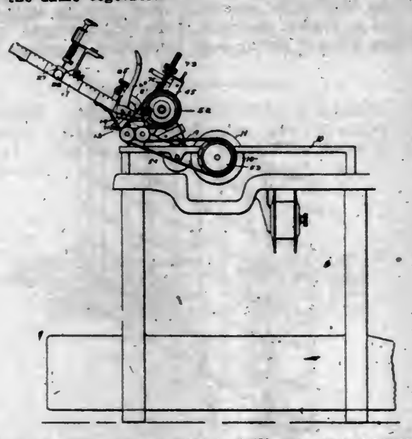
1. The combination with a lamp body having a stub provided with a terminal, and having lugs projecting from said terminal, of a screw shell provided with a non-conducting tip, lugs within the shell engaging the lugs upon the conducting terminal of the lamp body, spring fingers for flexibly supporting said lamp body within the shell, a conducting terminal carried by the non-conducting tip of the shell, and a flexible connection between the stem and the lamp body.

2. The combination with a lamp body provided with a conducting terminal, a screw shell, a non-conducting tip upon the shell, lugs formed upon the tip and engaging the lugs upon the conducting terminal of the lamp body, spring fingers in the electric connection with the shell adapted to bear upon said conducting terminal to flexibly support the body within the shell, a conducting terminal carried by the non-conducting connection between the stem and the lamp body.

3. The combination with a lamp body having a stub portion provided with a conducting terminal, of outwardly diverging lugs carried by said conducting terminal, a screw shell, a non-conducting tip carried by the shell and provided with lugs engaging the lugs on said conducting terminal, a ring secured to the shell and provided with curved spring fingers engaging the conducting terminal of the lamp body, a conducting member bearing upon the non-conducting tip, and a flexible conducting connection between the stem and the lamp body.

1,028,026. AUTOMATIC TYPE-WRITER FEED. SIDNEY W. JONES, Tucker, Utah. Filed Sept. 18, 1911. Serial No. 649,852. (Cl. 197—130.)

1. An automatic paper feed including a paper support, a feed roller at the lower end thereof, an adjustable pressure plate carried by said support and bearing against said feed roller, and a spring controlled pin carried by said support adapted to pierce material carried thereby and hold the same together.

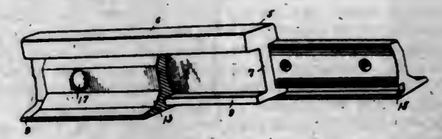


2. An automatic paper feed including a paper support, a feed roller thereon, a pressure plate pivotally secured to said support and frictionally engaging said feed roller, and a spring controlled pin adjustably mounted on said support and adapted to pierce the material thereon.

3. An automatic paper feed including a paper support, a feed roller thereon, adjustable stops for engaging the sides and ends of various sized blanks of paper carried by said support, a pressure plate pivoted on said support and frictionally engaging said feed roller, means for manually releasing the pressure plate so that the paper supply may be replenished, and a spring controlled pin adjustably mounted on said support adapted to pierce the paper thereon.

4. An automatic paper feed including a paper support, a roller thereon, means for rotating said roller, a spring controlled pivoted pressure plate on said support frictionally engaging said roller, manually releasable means for moving said pressure plate out of engagement with said roller, a bar extending transversely across said support, a bracket adjustably mounted on said bar, and a spring controlled pin carried by said bracket adapted to pierce the sheets of paper on said support.

1,028,027. RAIL-JOINT. CHARLES R. KECK, Springfield, Ill. Filed Sept. 20, 1911. Serial No. 650,363. (Cl. 239—6.)

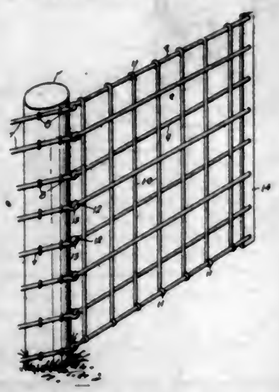


In a rail joint, the combination with a pair of adjacent rail sections, each section including a base, the adjacent ends of the bases of the sections being reduced to form consequent rectangular shoulders, the underside of the end of each base being recessed to form a consequent transverse shoulder, and fish-plates disposed on opposite sides of the sections between the shoulders thus formed and respectively having inwardly extending portions disposed within the recesses and between the transverse shoulders of said bases.

1,028,028. GATE. GEORGE W. KEMP, Lyon Station, Pa. Filed Apr. 22, 1910. Serial No. 557,044. (Cl. 39—101.)

The combination with a gate having a vertical bar at its free end; of a fastener for said gate, said fastener

comprising a stationary vertical bar supported at the closing point of said free end, a pair of links pivotally connected to the stationary bar, a movable bar pivotally connected to the free end of the links toward the free end and adapted for movement away from the stationary bar and to contact therewith, arms rigidly secured to the movable bar and having hook extremities to engage with



the vertical bar of the gate, a substantially triangular shaped plate pivotally connected to the stationary bar between the links, a third link pivoted to the movable bar and eccentrically pivoted to the plate and a lever fixed to the plate for shifting the latter upon its pivot to operate the movable bar and serving to hold said bar in either position by its weight.

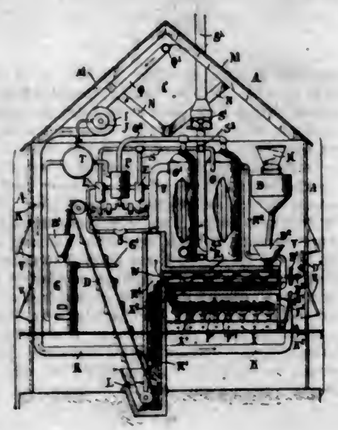
1,028,029. STYLUS. OSCAR D. KILLEBREW, Richmond, Va. Filed Nov. 27, 1911. Serial No. 662,767. (Cl. 101—183.)



1. A stylus comprising a tubular tip having a tapered end formed with an inturned flange, a spherical ball cooperative with said flange and having a portion projecting beyond said flange, and a rigid abutment formed separately from the tip and inserted therein behind the ball and having a hemispherical seat revolubly engaged by the ball.

2. A stylus comprising a tubular tip having an inturned retaining flange on its lower end, a spherical ball of hard material resting on said flange, and a stationary seat of relatively soft material cast in the tip above the ball and having a hemi-spherical cavity which is revolubly engaged by the ball, the tip having means to key said seat rigidly therein.

1,028,030. MEANS FOR ECONOMIZING HEAT. JOSEPH MOSES WARD KITCHEN, East Orange, N. J. Filed Feb. 14, 1908. Serial No. 415,983. (Cl. 110—56.)



1. The combination of (1) means for generating heat, said means radiating heat, (2) a structure comprising a habitable space, said means for generating heat being located in said space at a low level in said structure, the walls of said structure at the upper levels of said space being substantially impervious to gases and forming of the upper portion of said space a concavity for intercepting, concentrating and holding air heated by radiated waste heat, (3) means for admitting air for respiration and combustion in said space at a low level and for the exodus of vitiated air from the low level, whereby said air is maintained in healthful condition, and (4) means for drawing the heated air from the top of said concavity and for forcing said heated air to a place for use.

2. The combination of (1) an installation for the pursuit of an art, said installation comprising means for the generation of heat and comprising structure radiating waste heat and for the utilization of the radiated heat for purposes of combustion, (2) a building inclosing said installation, said building comprising a heat conducting and heat transmitting roof forming a concavity having an upwardly projected apical point beneath said roof for catching and holding heated air rising from said installation and for transmitting the heat of the sun to air beneath said roof, said combination comprising means for conveying said heated air from said apical point in said concavity to the means for the utilization of said heat for purposes of combustion, said building comprising means located at a low level in said building for ventilating the lower part of said building with fresh cool air.

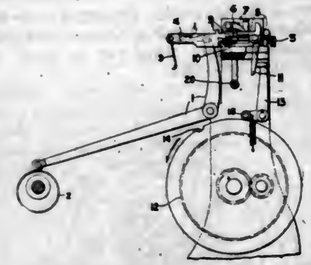
3. The combination of (1) a building comprising therein a substantially imperforately roofed and walled concavity of a high level of said building for intercepting and holding risen air heated by the waste heat of radiation, and (2) a heat generating and heat radiating installation located at a low level of said building, said building comprising means for securing proper ventilation with cool fresh air under atmospheric pressure in the zone of said building usually traversed and occupied by workers in said building, said installation comprising means for utilizing the intercepted heated air.

4. The combination with a protective building, of (1) a heat generating installation radiating heat, (2) means located at a level higher than said installation for intercepting and holding air that has been heated variously and progressively by the heat generated and radiated from said installation, said means comprising means for automatically preventing diffusion of the highest heat with air heated by the radiated heat, and (3) means comprising a mechanically actuated exhauster and blower for drawing the intercepted most highly heated air from the place of its interception and holding and for conveying said heated air to a place for the utilization of said air for combustion processes.

5. The combination of (1) means for burning fuel, said means radiating waste heat, (2) means for intercepting and holding air that is heated by said radiated waste heat, (3) means other than said means for generating heat for burning a mass of solid fuel, and (4) means for the mechanical forcing and conveyance of and the control of said intercepted and held air and for the accurate admixture of said air with said fuel mass and the gaseous products of combustion from said mass in desired amounts, both below and above said fuel, whereby a perfected combustion of said solid fuel and of the gases volatilized from said fuel is secured and said radiated heat is regeneratively economized.

[Claims 6 to 31 not printed in the Gazette.]

1,028,031. STOP-MOTION FOR LOOMS. ALBERT GEORG KOECHLIN, Basel, Switzerland, assignor to Spinnerei & Weberei Steinen Actien Gesellschaft, Steinen, Germany. Filed Aug. 28, 1911. Serial No. 646,336. (Cl. 139—54.)



1. In an automatic stop motion for looms with automatic shuttle bobbin exchange, the combination of a shuttle bobbin changing mechanism, a stop motion member for the loom, a feeler member for starting the operation of said changing mechanism when the weft thread fails or breaks, a movable carrier for said feeler member, a toothed spring controlled pusher slide for operating said stop motion member, a pawl on said carrier engaging the toothing of said slide for shifting the latter step by step when shuttle bobbin changes occur, a lock for locking said slide when having been shifted, releasing means for unlocking said slide and for disengaging said pawl, a fabric take up mechanism on the loom and interconnecting means between said take up mechanism and said releasing means, so arranged that they may allow of the return of said slide, when having been shifted, to an inoperative position or position of rest as long as any plurality of bobbin changes not immediately succeeding to each other does not exceed a given limit number for a given movement of said take up mechanism, substantially as and for the purpose described.

2. In an automatic stop motion for looms with automatic shuttle bobbin exchange, the combination of a shuttle bobbin changing mechanism, a stop motion member for the loom, a feeler member for starting the operation of said changing mechanism when the weft thread fails or breaks, a movable carrier for said feeler member, a toothed spring controlled pusher slide for operating said stop motion member, a pawl on said carrier engaging the toothing of said slide for shifting the latter step by step when shuttle bobbin changes occur, a locking lever for locking said slide when having been shifted and adapted also to disengage said pawl, a fabric take up mechanism on the loom, having a rotary ratchet wheel, a spring acted releasing lever engaging on the one hand with a part of said ratchet wheel and on the other hand with said locking lever, means on said ratchet wheel to allow of the operation of said releasing lever once for one revolution of said ratchet wheel for actuating said locking lever, so that the pusher slide may be caused to return, when having been shifted, to an inoperative position or position of rest as long as any plurality of bobbin changes not immediately succeeding to each other does not exceed a given limit number for one revolution of said ratchet wheel, substantially as and for the purpose described.

1,028,032. AUTOMATIC REPEATING FIREARM. OLE HERMAN JOHANNES KRAG, Ullern, near Christiania, Norway. Filed Aug. 18, 1911. Serial No. 644,848. (Cl. 42—3.)



1. In an automatic pistol, the combination with a housing, of a slide mounted to move longitudinally on said housing, and provided with a T-shaped groove, a barrel provided with T-shaped ribs slotted along a portion of their length, adapted to engage said T-shaped groove in the slide, and to be released from engagement therewith at a predetermined position when said slide is drawn rearward, with means controlled by said slide for normally locking the barrel on the housing, substantially as described.

2. In an automatic pistol, the combination with a housing, of a slide mounted to move longitudinally on said housing, and provided with a T-shaped groove, a barrel provided with T-shaped ribs slotted along a portion of their length, adapted to engage said T-shaped groove in the slide, and to be released from engagement therewith at a predetermined position when said slide is drawn rearward, a guard sliding in said housing in front of said slide, and provided with a T-shaped groove engaging the ribs of the barrel, and a return spring normally pressing said slide and said guard forward relative to said housing, substantially as described.

3. In an automatic pistol, the combination with a housing, of a barrel, a slide carrying the breech block, detachably connected with said housing, a sliding guard also detachably connected to said housing, and projecting in front of said slide, the said slide and guard normally locking said barrel in said housing, and means operable by moving said guard and slide longitudinally for releasing said barrel from engagement with said slide and guard, thereby permitting the tilting of the barrel and the withdrawal of the same, substantially as described.

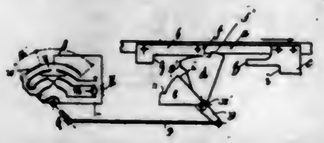
4. In an automatic pistol, the combination with a housing, of a slide mounted to move longitudinally on said housing, and provided with a T-shaped groove, a barrel having a limited longitudinal play in said housing, and provided with T-shaped ribs slotted along a portion of their length, adapted to engage said T-shaped groove in the slide, and to be released from engagement therewith at a predetermined position when said slide is drawn rearward, means for locking the slide and barrel together during the rearward movement of said barrel, and for detaching the slide from the barrel thereafter, and means controlled by said slide for normally locking the barrel in the housing, substantially as described.

5. In an automatic pistol, the combination with a housing, of a slide mounted to move longitudinally on said housing, and provided with a T-shaped groove, a barrel having a limited longitudinal play in said housing, and provided with T-shaped ribs slotted along a portion of

their length, adapted to engage said T-shaped groove in the slide, and to be released from engagement therewith at a predetermined position when said slide is drawn rearward, a guard sliding in said housing in front of said slide, and provided with a T-shaped groove engaging the ribs of the barrel, means for locking the slide and barrel together during the rearward movement of said barrel, and for detaching the slide from the barrel thereafter, and a return spring normally pressing said slide and said guard forward relative to said housing, substantially as described.

[Claims 6 to 28 not printed in the Gazette.]

1,028,033. APPARATUS FOR ELECTRICALLY CONTROLLING MACHINE-TOOLS. CHRISTIAN KRÄMER, Frankfort-on-the-Main, Germany, assignor to The Firm of Felten & Guilleaume-Lahmeyerwerke Actien Gesellschaft, Frankfort-on-the-Main, Germany. Filed Nov. 22, 1909. Serial No. 529,406. (Cl. 172—240.)



1. The combination with a reciprocating member and a motor for driving the same, of controlling means for varying the speed of and for reversing the motor, and a series of stops actuated from said reciprocating member for operating said first means in succession near each limit of movement of said member with a given time limit between the successive operations.

2. The combination with a reciprocating member and a motor for driving the same and provided with a field, of controlling means for reversing the motor and for increasing the field excitation prior to reversal, means for operating said controlling means in steps with a given time limit between the steps, and means for adjusting said operating means.

3. The combination with a reciprocating member and a motor for driving the same and having a field, of means for reversing the motor and for varying the field excitation a given time limit prior to reversal, and frictional means for controlling the excitation of the field.

4. The combination with a reciprocating member and a motor for driving the same and having a field, of means for reversing the motor, means for varying the field excitation a given time limit prior to reversal, said last means being restored back to normal position upon reversal of said member.

5. The combination with a reciprocating member and a motor for driving the same and having a field, of means for reversing the motor, and means having a frictional engagement with said reciprocating member for varying the field excitation a given time limit prior to reversal.

[Claims 6 to 9 not printed in the Gazette.]

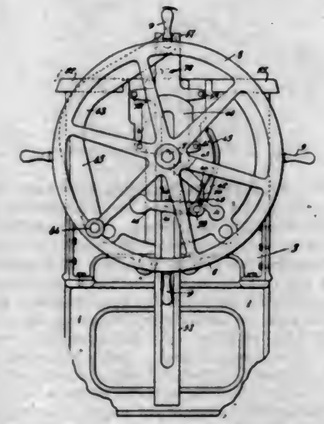
1,028,034. ERASER-HOLDER. TRAUGOTT PAUL KRUGER, New York, N. Y. Filed Apr. 13, 1910, Serial No. 555,167. Renewed Sept. 6, 1911. Serial No. 648,129. (Cl. 120—40.)

A device of the character specified, comprising a tubular holder provided with spaced substantially parallel longitudinal slots near one end, a ring encircling the holder at said end and passing transversely of the slots, the outer face of the holder being annularly grooved to receive the ring, a lever pivoted on the ring in each of the slots, each of the said levers having a plurality of teeth extending through the slots for the purpose specified, and a handle for each lever outside of the slots, the handles being connected with each other, the handle and the teeth of each lever being at substantially a right angle with respect to each other, so that when the teeth are in engagement



with the eraser the handles will lie flat on the outer face of the holder.

1,028,035. ICE-CREAM-CONE MACHINE. LEWIS H. LANIER, Newport, Ky., assignor of one-half to Ludwig L. Stricker, Cincinnati, Ohio. Filed Feb. 21, 1910. Serial No. 545,164. (Cl. 107—58.)



1. In a machine of the character specified a mold frame comprising a series of outer mold forms and a separable series of inner core forms, the outer mold forms being divided transversely into two separable parts forming an upper and a lower body portion for each mold form and means for separating the core and the upper portion of the outer mold forms from the lower portion, in succession.

2. In a machine of the character specified a mold frame comprising a series of outer mold forms and a separable series of inner core forms, the outer mold forms being divided transversely into two sparable parts forming an upper and a lower body portion for each mold form and a stripper plate with means for loosely suspending the same from the core plate and means for separating the core plate, the stripper plate and the upper portion of the outer mold forms from the lower portion, in succession.

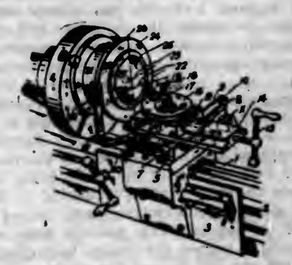
3. In a machine of the character specified, a rotatable mold frame carrying a series of molds radially disposed, with the upper portion of each set of molds separable from the body portion, in a plane at right angles to the axes of the molds, a shaft upon which the mold frame is loosely mounted, means for coupling the shaft to the mold frame for the rotation of the shaft in one direction, and means for locking the molds from rotation when the shaft is rotated in the opposite direction.

4. In a machine of the character specified, a rotatable mold frame carrying a series of molds radially disposed, with the upper portion of each set of molds separable from the body portion, in a plane at right angles to the axes of the molds, a shaft upon which the mold frame is loosely mounted, means for coupling the shaft to the mold frame for the rotation of the shaft in one direction, and vertically actuated devices for lifting the separable portion of the molds, and means for coupling the same to the shaft to separate the mold sections when the shaft is rotated in the opposite direction.

5. In a machine of the character specified, a rotatable mold frame carrying a series of molds radially disposed, with the upper portion of each set of molds separable from the body portion, in a plane at right angles to the axes of the molds, a shaft upon which the mold frame is loosely mounted, means for coupling the shaft to the mold frame for the rotation of the shaft in one direction, and vertically actuated devices for lifting the separable portion of the molds, and means for coupling the same to the shaft to separate the mold sections when the shaft is rotated in the opposite direction, and a lock for the mold frame to hold same rigid during the separation of the molds, and means for releasing the lock upon the rotation of the mold frame

[Claims 6 to 8 not printed in the Gazette.]

1,028,036. METHOD OF PRODUCING BARRELS OF OVATE SECTION FOR ROTARY ENGINES AND THE LIKE. HERBERT LEE, Kensington, near Sydney, New South Wales, Australia. Filed Jan. 17, 1911. Serial No. 603,111. (Cl. 29—148.)

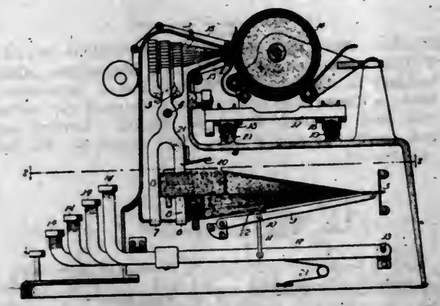


1. The method of producing an internal surface of ovate section in a barrel for a rotary engine, of the type herein described, which method consists in fixing said barrel on the chuck of a lathe so that the eccentric drum axis will coincide with the lathe axis; traversing the slide rest which carries the tool during the rotation of the barrel by applying to it the horizontal component of the eccentric motion of the barrel whereby an ovate gage collar is turned in the end of said barrel; and then turning the barrel interiorly by rotating it while the slide rest which carries the tool at lathe center level is traversed by means of a rocking shoe bearing against said ovate gage collar also at lathe center level, but on the opposite side thereof, which shoe is identical with the piston shoe and is pivotally carried on a bracket fixed on said slide; and maintaining pressure on such slide so as to hold said shoe in sliding contact with said gage collar.

2. The method of producing a symmetrical equimetrical ovate internal surface in a gage for traversing the lathe rest in the herein described operation of turning a barrel of ovate section for a rotary engine of the type described, which method consists in fixing said barrel or a ring of like diameter eccentrically in the chuck of a lathe so that the position of the eccentric drum axis will coincide with the lathe axis, and traversing the turning tool (which is set at lathe axis level) during the rotation of said barrel or blank by laterally reciprocating the slide rest of the lathe by mechanism which applies to it the horizontal component of the eccentric motion of the barrel.

3. The method of producing an internal surface of ovate section in a barrel for a rotary engine of the type described,—which method consists in fixing a circular templet eccentrically in the chuck of a lathe, firstly turning an ovate gage collar therein by rotating said chuck and traversing the slide rest by means of mechanism which applies to it the horizontal component of the eccentric motion of the barrel; subsequently turning in the templet a section conforming to the required ovate curve by rotating it while the slide rest is traversed by means of a shoe which is identical with the piston shoe and is articulated to a rocker which is fixed on the rear side of said slide, said shoe being made to bear against said gage collar; and finally, turning the required barrel in a profiling machine or copying lathe in which the said templet is used as a pattern.

1,028,037. CHARACTER-FORMING MACHINE. TIDEMAN M. LILLEBERG, Woodstock, Ill. Filed Apr. 26, 1911. Serial No. 623,517. (Cl. 197—25.)



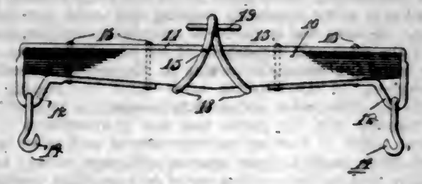
1. Apparatus of the class described including a plurality of character forming wires; individual pivoted levers connected with said wires and angularly related thereto so as to be adapted to thrust the wires when the levers are operated; selecting bars angularly related to the levers and individual to different groups of said levers; and keys individual to the selecting bars and serving to effect the operation of the selecting bars to cause them to operate the groups of levers to which they are individual whereby selected groups of wires are actuated to produce different characters.

2. Apparatus of the class described including a plurality of character forming wires; individual pivoted levers connected with said wires and angularly related thereto so as to be adapted to thrust the wires when the levers are operated; selecting bars angularly related to the levers and individual to the different groups of said levers; and keys individual to the selecting bars and serving to effect the operation of the selecting bars to cause them to operate the groups of levers to which they are individual whereby selected groups of wires are actuated to produce different characters, said levers having distinct branches between which the lever engaging portions of some of the selecting bars are received to engage certain of the lever branches, other actuating bars having their lever engaging portions without the spaces between the lever branches and adapted for engagement with lever branches companion to the lever branches engaged by the selecting bars that are received between the lever branches.

1,028,038. DOUBLETREE. HARRY E. LIVINGSTON, Smithville, Ga. Filed Dec. 11, 1911. Serial No. 665,020. (Cl. 21—78.)

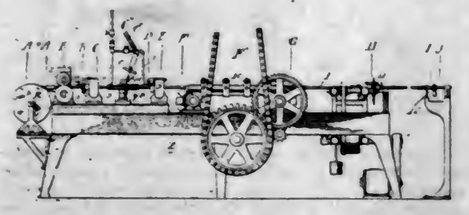
The combination with a doubletree having rearwardly inclined forward faces, of a clip for said doubletree comprising a metallic rod bent intermediate its length with its side portions extended in parallel spaced relation, said

side portions being then bent inwardly past each other and further bent rearwardly in such a manner that the end portion of one is positioned in parallel spaced relation to the side portion of the other, said end portions terminating one upon either side of the intermediate bent



portions and being secured thereto by welding, said clip being positioned upon the doubletree with the resultant spaced loops thus formed bearing against the inclined faces of the doubletree one upon either side of the center thereof and with its welded portion extending rearwardly beyond the doubletree.

1,028,039. PROCESS OF MANUFACTURING METAL TUBES. MARSHALL BURNS LLOYD, Menominee, Mich., assignor to Automatic Welding Company, Menominee, Mich., a Corporation of Michigan. Original application filed July 12, 1911, Serial No. 638,202. Divided and this application filed Mar. 9, 1912. Serial No. 682,704. (Cl. 78—87.)



1. The herein described process of manufacturing welded metal tubing that consists in longitudinally moving tubing having a longitudinal seam by pulling upon a progressive end portion of the tubing both positively positioning the seam edges of the tubing and chilling the remainder thereof at a point in advance of the place of the application of the pulling force and applying a welding flame to the seam edges at that point and thereby welding the seam edges together as the tubing is drawn forward.

2. The improvement in the art of manufacturing welded metal tubing that consists in continuously (at a substantially constant rate of speed) drawing an open seamed metal tube through a guide or die and thereby progressively maintaining the forward portion of the tubing in tension, positively positioning the seam of the tubing at one point in the tensioned portion thereof, holding the seam edges together at that point and applying a welding flame to said edges at that point, thereby progressively welding said edges and finally progressively relieving the tension upon the moving tube after said edges are thus welded.

3. The improvement in the art of manufacturing welded metal tubing that consists in longitudinally moving metal tubing having a longitudinal seam at a constant rate of speed, and progressively, at one point, positively positioning the seam and holding the tubing against lateral movement in any direction, pressing the seam edges together at that point and applying a welding flame to said edges at that point to weld the same, substantially as described.

4. The improvement in the art of manufacturing welded metal tubing that consists in longitudinally moving metal tubing having a longitudinal seam at a constant rate of speed, and progressively, at one point, positively positioning the seam and holding the tubing against lateral movement in any direction, pressing the seam edges together at that point, applying a welding gas flame to said edges at that point and confining the welding heat to said edges by chilling the remainder of the tubing at said point.

[Claims 6 to 9 not printed in the Gazette.]

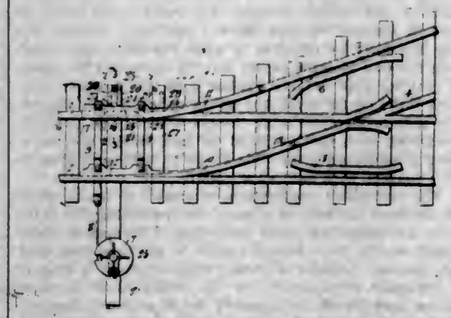
1,028,040. BOTTLE-CLOSURE. GUSTAV G. LOEHLER, Washington, D. C. Filed Sept. 12, 1911. Serial No. 648,937. (Cl. 215—14.)



1. A closure for a bottle consisting of a polygonal blank of a size whereby the greatest inscribable circle is substantially equal in area to the opening to be closed, the corners of the blank being folded over outward on lines tangential to said circle at the points of crossing of radaii bisecting the angles of the corners, whereby said corners may be used as tabs by which to remove the closure from the bottle and whereby parts are left beyond the circle which will be upset in forcing the closure into the neck of the bottle, increasing the thickness and strength of these parts and affording a greater frictional surface to bear against the bottle and resist the displacement of the closure.

2. A closure for a bottle consisting of a square blank of suitable flexible sheet material, the sides of which are of a length substantially equal to the diameter of the circular mouth of the bottle in which the closure is to be used, the four corners of the blank being folded over outward upon the body on lines tangential to the greatest inscribable circle at the intersection thereof with the diagonals of the square blank, whereby said corners may be used as tabs to remove the closure from the bottle, and whereby parts are left beyond the circle to be displaced and upset in forcing the closure into the neck of the bottle.

1,028,041. SWITCH. CRAWFORD D. LOGAN, Coal Hill, Ark., assignor of one-half to John H. Dunn, Coal Hill, Ark. Filed Dec. 9, 1911. Serial No. 664,831. (Cl. 104—12.)



1. In a switch, the combination with the main track, and the siding, of inner and outer switch points having

their upper faces elevated above the main rails to substantially the same extent and for a distance corresponding to the height of the wheel flange, and yielding means to normally hold the outer switch point above and out of contact with its main rail.

2. In a switch, the combination with the main track, and the siding, of inner and outer switch points having their upper faces elevated above the main rails for a distance corresponding to the height of a wheel flange, the outer switch point being normally arranged above and out of contact with its main rail, and fixed locking means arranged to engage with the outer switch point to hold the latter against outward movement when the said outer switch point is depressed.

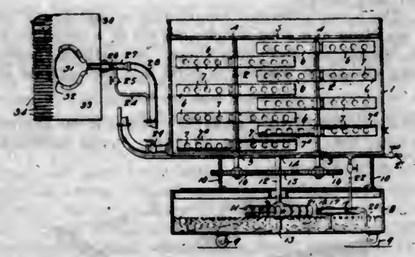
3. In a switch, the combination with the main track, and the siding, of inner and outer switch points having their upper faces elevated above the main rails to substantially the same extent and for a distance corresponding to the height of the wheel flange, the inner switch point lying closely alongside its main rail, and the outer switch point having a vertical web lying closely alongside its rail, and a laterally extending tread overlying the main rail.

4. In a switch, the combination with the main track, and the siding, of inner and outer switch points, the inner switch point lying closely alongside its main rail and its tread rising from its initial portion at the level of the main rail to a level in its medial portion above that of the main rail, and the outer switch point having a vertical web lying closely alongside its rail, and a laterally extending tread overlying the main rail at substantially the same elevation as the tread of the inner point.

5. In a switch, the combination with the main track, and the siding, of inner and outer switch points having their upper faces elevated above the main rails to substantially the same extent and for a distance corresponding to the height of the wheel flange, the inner switch point lying closely alongside its main rail, and the outer switch point having a vertical web lying closely alongside its rail, and a laterally extending tread overlying the main rail, and yielding means to normally hold the outer switch point above and out of contact with its main rail.

[Claims 6 to 9 not printed in the Gazette.]

1,028,042. MIXER AND DISTRIBUTER FOR LIQUID BODIES. HARRY LUCKENBACH, St. Louis, Mo., assignor, by mesne assignments, to Luckenbach Inventions Development Company, New York, N. Y., a Corporation of New York. Filed May 9, 1911. Serial No. 626,103. (Cl. 91—57.)

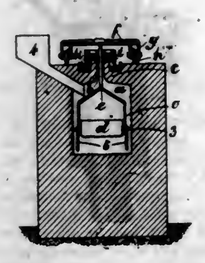


1. In a machine of the class described, a mixing tank, rotary stirrers within the tank, a motor casing for containing a supply of water, a water wheel mounted within said casing, and an ejector nozzle operated by an air blast, said ejector nozzle being arranged within the motor casing and disposed at one side of the water wheel for jetting a stream of water against the same.

2. In a machine of the class described, a mixing tank, rotary stirrers mounted within the tank, a separate motor casing for containing a supply of water, a water wheel mounted horizontally within said casing and having gear connections with the stirrers, and a horizontally arranged ejector nozzle located within the motor casing at one side of the water wheel and having a tube in communication with the water supply and an air blast nipple within the tube.

3. An apparatus of the class described comprising a portable motor including a water wheel, a mixing tank carried with the motor and having movable stirrers geared with the water wheel, a distributer, an ejector operatively connecting the distributer with the outlet of the tank, another ejector arranged to jet water against the water wheel, and an air-pressure supply pipe having separate connections respectively with the two ejectors.

1,028,043. CIRCULAR KILN OR OVEN. JOSEPH LUNT, Stoke-upon-Trent, and JOHN WILLIAM HARTLEY, Stone, England. Filed Mar. 6, 1911. Serial No. 612,571. (Cl. 25—142.)



1. In combination with the side walls and floor of a circular kiln, overhanging brickwork roof parts, said parts being spaced so as to leave between them an annular slot, and means for retaining said slot in circular form, an arm supported transversely to said slot, a suspending rod supported from said arm, and passing through said slot and supporting cages carried by said suspending rods.

2. In combination with the side walls and floor of a circular kiln, overhanging brickwork roof parts, said parts being spaced so as to leave between them an annular slot, means for retaining said slot in circular form, an arm supported transversely to said slot, a suspending rod supported from said arm, and passing through said slot, supporting cages carried by said suspending rods and a central pivot from which said arms radiate.

3. In combination with the side walls and floor of a circular kiln, overhanging brickwork roof parts, said parts being spaced so as to leave between them an annular slot, means for retaining said slot in circular form comprising a metal binding ring located on said roof radially within said slot, transverse bars supported above said annular slot, suspending rods carried by said transverse bars and passing through said slot and supporting cages carried by said suspending rods.

4. In combination with the side walls and floor of a circular kiln, overhanging brickwork roof parts, said parts being spaced so as to leave between them an annular slot, means for retaining said slot in circular form comprising a metal binding ring located on said roof radially within said slot, a central pivot, arms radiating from said pivot and extending above said annular slot, suspending rods supported from said arms and passing through said slot and supporting cages within said kiln and carried by said suspending rods.

5. In combination with the side walls and floor of a circular kiln, overhanging brickwork roof parts, said parts being spaced so as to leave between them an annular slot, means for retaining said slot in circular form comprising a metal binding ring located on said roof radially within said slot, a central pivot, arms radiating from said pivot and extending above said annular slot, suspending rods

supported from said arms and passing through said slot, supporting cages within said kiln and carried by said suspending rods, means for preventing egress of hot gases through said slot comprising sand channels in said overhanging roof parts on either side of said annular slot, tile plates carried by said suspending rods and movable over said slots and fence plates projecting from the ends of said tile plates and plowing in said sand channels.

[Claim 6 not printed in the Gazette.]

1,028,044. AUTOMATIC GAS CUT-OFF. RUDOLPH A. MACK, Gallipolis, Ohio. Filed Feb. 23, 1912. Serial No. 679,473. (Cl. 67—115.)



1. An automatic gas cut-off comprising a casing having an outlet leading therefrom, a closure for one end of the casing provided with a hollow extension projecting into the casing some distance, a valve freely movable in the casing and adapted to receive therein said hollow extension, a liquid contained in the casing and adapted to establish a liquid seal between the valve and said hollow extension, said casing being provided with a hollow extension projecting from one side of the same, a lever mounted in said hollow extension and having one end arranged to engage over the valve to lock the same from movement, said lever having an arm at its other end extending outwardly into the last mentioned hollow extension, a pressure pin carried by the last mentioned hollow extension and arranged to engage the arm aforesaid to release the valve from the lever, and means coöperating with the pin to hold the latter in a retracted position, permitting slight movement of the lever to assume a locking position in respect to the valve, said pin further constituting a stop to prevent a releasing movement of the lever in respect to the valve after the latter has once become locked.

2. An automatic gas cut-off, the same comprising a hollow casing, a closure at the lower end of said casing having a tubular extension projecting upwardly therefrom, a hollow valve mounted in the casing and adapted to receive said extension therein, said casing having an outlet above the valve and being formed at one side with a hollow extension projecting therefrom and of somewhat L-form in cross section, a locking lever pivoted in the last mentioned hollow extension, and having one end adapted to engage over the valve to lock the same from movement when the valve assumes an abnormal position, said lever having an arm projecting outwardly into the outermost portion of the last mentioned hollow extension, a pressure pin mounted on the hollow extension aforesaid with its inner end arranged to engage the arm to press the same upwardly and thus release the valve, and a spring coöperating to hold the pressure pin retracted at the outer limit of its movement and in a position permitting a slight movement of the locking lever to assume a locking position and to form a stop preventing movement of the locking lever after it has once lockingly engaged the valve.

1,028,045. GALLOCYANIN COMPOUNDS AND PROCESS OF MAKING THEM. HANS MANSFELD, Ludwigshafen-on-the-Rhine, Germany, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed May 20, 1911. Serial No. 628,510. (Cl. 8—1.)

1. The process of producing compounds of the gallocyanin series by reacting on a gallocyanin compound with dihydroxy-tartaric acid.

2. The process of producing a compound of the gallocyanin series by reacting on gallocyanin hydrochlorid with dihydroxy-tartaric acid.

3. As new articles of manufacture the compounds of the gallocyanin series which are obtainable by reacting on a gallocyanin compound with dihydroxy-tartaric acid which compounds are soluble in water and in sulfuric acid, yield dull greenish brown solutions in glacial acetic acid and in amyl alcohol and which yield on mordanted wool shades which are bluer and considerably stronger than the shades produced by the initial gallocyanins.

4. As an article of manufacture the compound which can be obtained by reacting on gallocyanin hydrochlorid with dihydroxy-tartaric acid which new compound is soluble in water and is also soluble in sulfuric acid yielding a solution which possesses little color, but which on the addition of an oxidising agent turns deep blue, which new compound is also soluble in glacial acetic acid and in amyl alcohol yielding dull greenish brown solutions, and which yields on mordanted wool shades which are bluer and considerably stronger than those obtainable from gallocyanin hydrochlorid.

1,028,046. COMPOSITION OF MATTER. JOSEPH RUSSELL CORNELL MARSH, Cincinnati, Ohio, assignor to Marsh Steel Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 15, 1911. Serial No. 665,972. (Cl. 75—49.)

1. The herein described composition of matter for treating cast iron and steel which consists in a chemical mixture containing titanium, chromium, copper and boron.

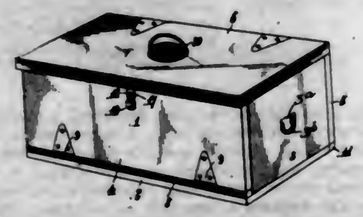
2. The herein described composition of matter for treating cast iron and steel which consists in a chemical mixture containing ferro-titanium, copper, sesquioxid of chromium and boric acid.

1,028,047. COMPOSITION OF MATTER. JOSEPH RUSSELL CORNELL MARSH, Cincinnati, Ohio, assignor to Marsh Steel Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Dec. 15, 1911. Serial No. 665,973. (Cl. 75—49.)

1. The herein described composition of matter for treating cast iron and steel which consists in a chemical mixture containing manganese, silicon, copper, chromium, boron, and arsenic.

2. The herein described composition of matter for treating cast iron and steel which consists in a chemical mixture containing ferro-manganese, ferro-silicon, metallic copper, chromium sesquioxid, boric acid and arsenic oxid.

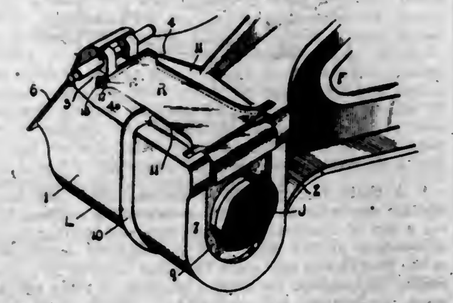
1,028,048. FOLDING CARRIER. JAMES H. MCALLISTER, O'Neill, Nebr. Filed Sept. 30, 1911. Serial No. 652,042. (Cl. 217—15.)



The herein described structure of folding carriers comprising a flattened rectangular base, a strip flush with and

extending the entire length of the base and projecting above the same and secured to one of the longitudinal edges of the base, a side member hingedly connected with the strip, the opposite longitudinal edge of the base being also provided with a strip which is hinged thereto and which lies flush with the upper face of the base, a side member hingedly connected with this strip, end members secured to the base and adapted to lie between the side members and flush with the vertical edges thereof, when the carrier is in its set-up position, hooks and eyes upon the sides and ends for sustaining the said sides and ends in their set-up position, a top hingedly connected with the side provided upon the strip which is arranged flush with the base, the longitudinal edge of the said top at its hinged connection with the said side being arranged flush with the inner face of the side and the said top being provided with a continuous flange which is adapted to engage with the opposite side and with the ends of the carrier, all substantially as and for the purpose set forth.

1,028,049. CAR-TRUCK. ALBERT J. MCCAULEY, St. Louis, Mo. Filed Mar. 28, 1912. Serial No. 686,860. (Cl. 105—242.)



1. A car truck having a frame provided with journal receiving openings, and removable sections closing said journal receiving openings, said frame being supported by and seated on said removable sections so as to produce a tight joint around each of the journal receiving openings.

2. A car truck having a frame provided with journal receiving openings, removable sections closing said journal receiving openings, said frame being supported by and seated on said removable sections so as to produce a tight joint around each of the journal receiving openings, and packing interposed between said frame and removable sections.

3. A car truck having side frames, means for connecting said side frames, each side frame being provided with journal receiving openings which extend from the inner face of the frame to a point near the outer edge thereof, said openings allowing the journals to be removed from the connected side frames, and removable sections closing said journal receiving openings, said frames being supported by and seated on said removable sections so as to produce a tight joint around each of the journal receiving openings.

4. A car truck having side frames connected to each other, each side frame being provided with lubricant receptacles having journal receiving openings, said openings allowing the journals to be removed from the connected side frames, and removable sections closing said journal receiving openings, said frames being supported by and seated on said removable sections so as to produce a tight joint around each of the journal receiving openings.

5. A car truck having side frames connected to each other, lubricant receptacles integral with said side frames, said lubricant receptacles being open at the top to receive journals and to allow the journals to be removed from the connected frames, and removable sections closing said journal receiving openings and constituting supports for said connected frames.

[Claims 6 to 16 not printed in the Gazette.]

1,028,050. ICE-SKATE CARRIER. ALFRED F. MCCOLLUM, Bloomsburg, Pa., assignor of three-fifths to James Magee, 2nd, Bloomsburg, Pa. Filed Sept. 6, 1911. Serial No. 647,925. (Cl. 46—51.)



1. A skate carrier having a hood adapted to be stretched over the skate.

2. A carrier for skates having hoods adapted to be stretched over the blades of the skates.

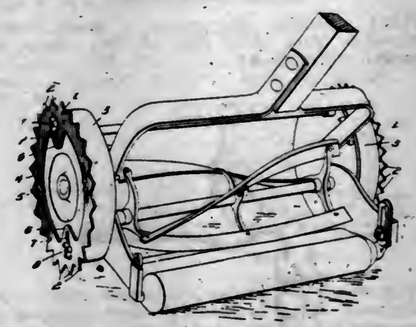
3. A carrier for skates having elastic hoods adapted to be stretched over certain portions of the skates, and suspension means attached to the hoods.

4. A carrier for skates comprising two hoods normally shorter than the length of the skate blades, said hoods being adapted to be stretched over the blades of the skates, and suspension means attached to the hoods.

5. A carrier for skates comprising two elastic hoods adapted to be stretched over the skates, and suspension means attached to the hoods.

[Claims 6 to 8 not printed in the Gazette.]

1,028,051. LAWN-MOWER ATTACHMENT. JOHN J. MCMILLEN, Corning, N. Y. Filed Nov. 16, 1910. Serial No. 592,730. (Cl. 21—64.)

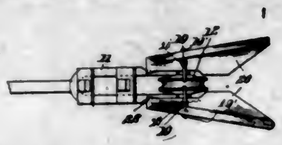


An attachment for the drive wheels of lawn mowers, the same comprising a disk having its outer portion toothed and having slots extending circumferentially and further provided with inwardly extending lugs and having radial slots in line with and partly entering said lugs, the several slots adapted to receive fastenings for connecting the disk to the drive wheel of the mower.

1,028,052. TROLLEY-GUARD. HOWARD H. MCNEIL, New Freedom, Pa. Filed May 29, 1911. Serial No. 630,250. (Cl. 191—37.)

A device of the character described comprising a yoke, a wheel mounted in the yoke, a pair of arms secured to

the journal of the wheel, spring connections between the free ends of the arms and the yoke and guide members carried by the arms, the springs cushioning the arms in one direction of their movement and the arms having stops



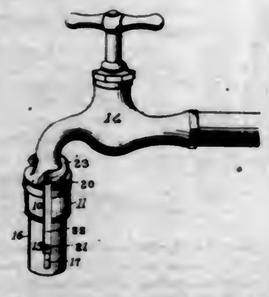
for engagement with the yoke to limit the movement of the arms in the opposite direction and a casing disposed over each arm and having a part thereof forming a projection for engagement with the yoke to reinforce the aforesaid stopping means.

1,028,053. CULTIVATOR. WILLIAM E. MIKESELL, Albany, Ill. Filed Apr. 8, 1911. Serial No. 619,745. (Cl. 97—10.)



In a device of the character described, a cultivator beam, a box comprising two members, means for securing said members together and to the cultivator beam, a segment rack associated with one of the box members, a blade carrying shank supported for oscillation in the box, and collars adjustably engaging the shank member to prevent longitudinal displacement thereof, one of said collars being equipped with a latch member adapted for engagement with the segment rack.

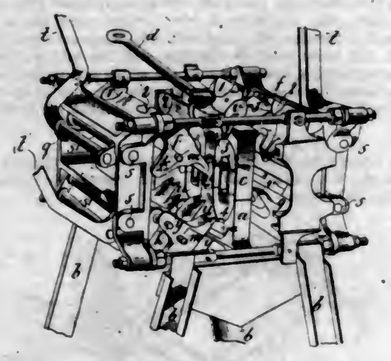
1,028,054. FILTER. MANDEVILLE A. MOORE, Newton Highlands, Mass. Filed Sept. 16, 1911. Serial No. 649,684. (Cl. 210—6.)



1. A filter holder comprising a cylindrical casing for engagement with the filter, a spring mounted within the said casing, a bar mounted to slide in slots in the said casing and adapted to operate against the action of the said spring, rods pivotally mounted on the said bar and a clamp having connection with the said rods and adapted for engagement with the stationary member to retain the said filter in engagement therewith.

2. A filter holder comprising a cylindrical casing for engagement with a filter body, an expansible spring mounted within the said casing and a hanger mounted to turn and to slide on the said casing and adapted to operate against the expansible action of the said spring to retain the said casing in engagement with the said filter.

1,028,055. MANUFACTURE OF CHAINS. FRANCIS SANDERS MORRIS and PERCY ST. GEORGE KIRKE, Westminster, England. Filed Aug. 4, 1911. Serial No. 642,269. (Cl. 22—137.)



1. A chain casting mold comprising outer and intermediate separable sections the intermediate sections having a set of impressions at one side and another set of impressions at the other side in staggered relationship to the first named set, while the outer sections have companion impressions, the several impressions being adapted when the sections are assembled, to permit links to be cast that occupy different parallel planes and overlap each other sidewise, for the purpose specified.

2. A chain casting mold comprising outer and intermediate separable sections formed with transverse gaps to embrace previously manufactured links, the intermediate sections having a set of impressions at one side and another set of impressions at the other side in staggered relationship to the first named set, while the outer sections have companion impressions, the several impressions being adapted, when the sections are assembled, to permit links to be cast that occupy different parallel planes and overlap each other so as to interlink the previously manufactured links.

3. A chain casting mold comprising a stationary bottom section having passages to enable links to be disposed transversely thereof, a removable section surmounting said bottom section, and a pair of movable sections disposed at each side of the bottom section and its companion, the said several sections being formed with impressions adapted, when assembled, to permit links to be cast that occupy different parallel planes and overlap each other so as to interlink the links placed in the mold.

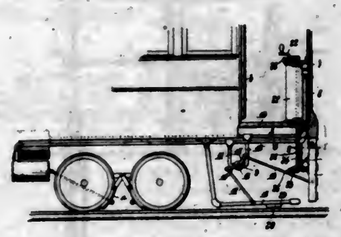
4. A chain casting machine comprising a stationary bottom mold section, a bodily removable upper mold section surmounting the former, a pair of movable sections disposed at each side of the bottom and upper sections and toggle locking means adapted to move the side sections toward and from the intermediate sections to close and open the mold.

5. A chain casting machine comprising a stationary bottom mold section, a bodily removable upper mold section surmounting the former, a pair of movable sections disposed at each side of the bottom and upper sections, toggle locking means adapted to move the side section toward and from the intermediate sections to close and open the mold and means associated with the side sections coöperating with stationary cam grooves

adapted to guide the said side sections in their correct path during such opening and closing of the mold.

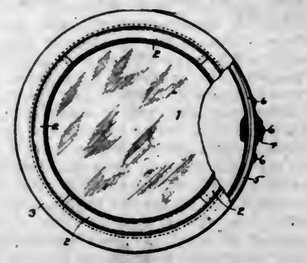
[Claims 6 to 11 not printed in the Gazette.]

1,028,056. FENDER. WILLIAM G. NAUGHTON, Philadelphia, Pa. Filed Sept. 30, 1911. Serial No. 652,182. (Cl. 105—250.)



In combination with a car, a fluid pressure brake system therefor including a controlling valve and reversing mechanism including a reversing lever; of a fender pivoted to the car, a movable buffer frame pivotally connected to the car and arranged in front of the fender, means connecting the controlling valve with the fender and buffer frame and serving to support the fender in spaced relation to the track and to operate the controlling valve upon movement of the fender or buffer frame, and a connection between the reversing lever and buffer frame, for the purpose set forth.

1,028,057. BARREL-COVER. AUGUSTINE F. NAYLOR, Fort Wayne, Ind., assignor to Perfection Biscuit Company, Fort Wayne, Ind., a Corporation. Filed Sept. 20, 1911. Serial No. 650,419. (Cl. 217—76.)

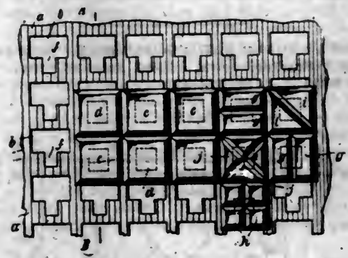


1. A cover comprising a central portion, a plurality of fabric segments stitched to the edge of the central portion, a hem stitched to the outer edges of the segments having its ends open and overlapping, a split hoop within the hem and means to secure the hem and hoop in any adjusted position.

2. A cover comprising a central celluloid portion, a plurality of fabric segments stitched to the edge of the central portion, a hem stitched to the outer edges of the segments having its ends open and overlapping, a split hoop within the hem and means to secure the hem and hoop in any adjusted position.

1,028,058. MOSAIC COVERING FOR WALLS, COLUMNS, AND THE LIKE. EDGAR BOLHÁR VON NORDENKAMPF, Vienna, Austria-Hungary. Filed May 14, 1910. Serial No. 561,407. (Cl. 72—23.)

1. In a concrete construction having a mosaic surface, the combination of a frame provided with a plurality of apertures; a plurality of blocks having undercut extensions passing through said apertures and projecting beyond said frame; and a filling of plastic material contacting with said frame and surrounding the projecting ends of said undercut extensions, substantially as described.

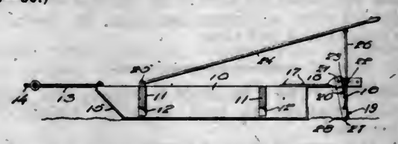


2. In a concrete construction having a mosaic surface, the combination of a frame provided with a plurality of apertures having locking extensions; a plurality of blocks having undercut extensions passing through said apertures interlocking with the extensions of said apertures and projecting beyond said frame; and a filling of plastic material contacting with said frame and surrounding the projecting ends of said undercut extensions, substantially as described.

3. In a concrete construction having a mosaic surface, the combination of a frame provided with a plurality of T-shaped apertures; a plurality of blocks having undercut T-shaped extensions passing through said apertures interlocking with the same and projecting beyond said frame; and a filling of plastic material contacting with said frame and surrounding the T-shaped projecting ends of said undercut extensions, substantially as described.

4. The method of producing a concrete construction having a mosaic surface, which consists in providing a frame with a plurality of apertures; passing the undercut extensions of a plurality of closely fitting blocks through said apertures and beyond said frame; and placing a plastic material in contact with said plate and around said undercut projecting extensions to hold said blocks in place, substantially as described.

1,028,059. WEEDER. ROMAINE OWEN, Jr., Gordon, Wash. Filed Oct. 30, 1911. Serial No. 657,639. (Cl. 55—60.)



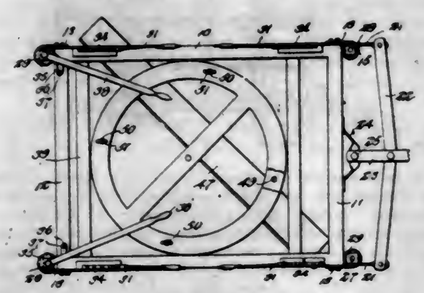
1. A weeder comprising a sled-like frame, arms projecting rearwardly from the frame and a knife blade having its end portions pivotally and vertically adjustable upon the arms.

2. A weeder comprising a sled having spaced longitudinal runner bars, draft means at the forward ends of the bars, arms secured to the rear ends of the bars and projecting rearwardly therefrom, a cutting member having a beveled forward edge and upwardly extended ends, means connecting said ends and the arms for vertical adjustment, means carried by the arms for limiting the rearward pivotal movement of the cutting member and means for raising the cutting member when the last named means are in operation.

3. A weeder comprising a sled frame having runner bars, arms carried by the rear ends of the runner bars and formed of strap iron with their rear ends twisted in a

vertical plane, a cutter blade having a flat bottom face and a downwardly beveled forward edge, the ends of the cutter blade being upwardly directed and provided with a series of perforations, means connecting said ends with the arms for vertical adjustment and blocks carried by the arms and adapted to be adjusted to hold said ends to vary the angle of slant of the cutter blade.

1,028,060. ROAD-GRADING MACHINE. OLIVA D. PARK, Mount Sterling, Iowa. Filed July 18, 1911. Serial No. 639,127. (Cl. 37—49.)



1. A road grading machine, comprising a frame, brackets fixed to the corners thereof and having vertical sleeves, collars rotatably mounted in the sleeves, wheel forks slidable in the collars, and rotatable therewith, ground wheels journaled in the forks, arms projecting forwardly from the wheel forks at the front of the frame, a tongue pivotally connected with the frame at the front thereof, a uniting bar pivoted to the tongue and to the forwardly projecting arms for turning the front forks in unison, and means for locking the forks at the rear end of the frame against turning movement.

2. A road grading machine, comprising a frame, brackets fixed to the corners thereof and having vertical sleeves, collars rotatably mounted in the sleeves, wheel forks slidable in the collars and rotatable therewith, ground wheels journaled in the forks, arms projecting forwardly from the wheel forks at the front of the frame, a tongue pivotally connected with the frame at the front thereof, a uniting bar pivoted to the tongue and to the forwardly projecting arms for turning the front forks in unison, means for locking the forks at the rear end of the frame against turning movement, and means for raising and lowering each of said forks.

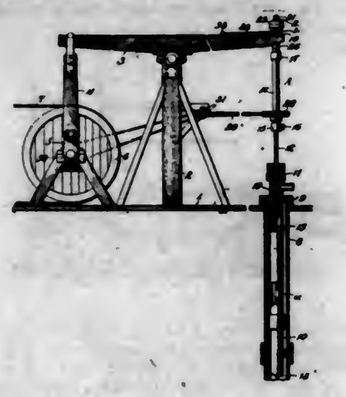
1,028,061. PUMP. CLARENCE L. PARKER, Los Angeles, Cal. Filed Oct. 14, 1910. Serial No. 587,056. (Cl. 103—80.)

1. In a pump of the class described, the combination of a plunger, means for reciprocating the same, a working valve, a foot valve, and means for continuously rotating the reciprocatory foot valve by the said plunger-actuating means.

2. In a pump, the combination of a plunger, a reciprocatory actuating rod connected with the plunger to reciprocate the same, a working valve for the plunger, a foot valve arranged to automatically open and close by the action of the fluid entering the pump, means for rotating the said rod, and means operatively connecting the rod with the foot valve for rotating the latter.

3. In a pump, the combination of a plunger, a rotary and reciprocatory rod for actuating the same, a working valve, a foot valve, and a connection between the foot valve and rod permitting relative independent movement between them while the rod rotates the foot valve.

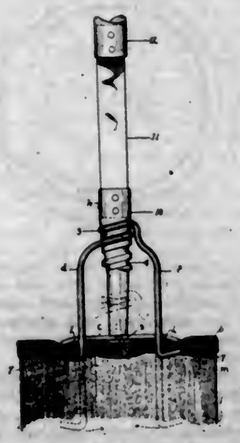
4. In a pump, the combination of a hollow plunger, a rod connected with the plunger for reciprocating the same, means for simultaneously reciprocating and rotating the rod, a foot valve, a member connected with and rising from the foot valve, and means for operatively connecting the member with the rod for permitting the valve to automatically open and close independently of the rod and to be rotated by the latter.



5. In a pump, the combination of a plunger, a rotary and reciprocatory rod operatively connected with the plunger for raising and lowering the same, a working valve automatically opened and closed, a foot valve, a member rigidly secured to the foot valve to move therewith, and a member to which the plunger is connected for rotating the foot valve by the rotation of the said rod.

[Claims 6 to 25 not printed in the Gazette.]

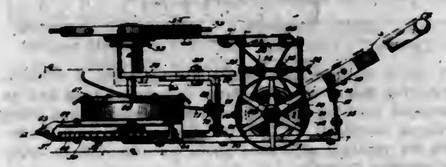
1,028,062. SANITARY MOP. JOHN J. PHARE and MARSHALL F. CLAY, Cleveland, Ohio, assignors to The No-Mar Manufacturing Company, Cleveland, Ohio, a Corporation. Filed Sept. 5, 1911. Serial No. 647,468. (Cl. 15—56.)



1. In mops, a mop having holes through the middle thereof and a carrying frame therefor having a handle, spring supporting arms mounted on said handle engaged with the mop through said holes and a cross-piece on the extremity of said handle slidable at its ends upon said arms.

2. A mop provided with holes, a frame having spring arms projected through said holes and provided with substantially right angled extremities bearing against the bottom of the mop, a handle on which said arms are adjustably mounted and a cross-piece on the end of the handle bearing on the top of the mop and in clamping relation with the extremities of said arms.

1,028,063. LAWN-MOWER. KARL RUCH, Akron, Ohio. Filed July 13, 1911. Serial No. 638,419. (Cl. 56—19.)



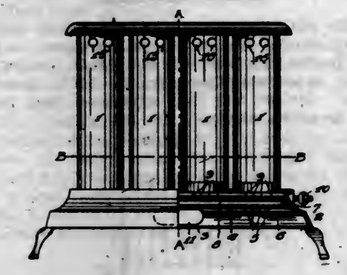
1. A lawn-mower comprising in combination a horizontally-rotatable axle, a pair of ground-wheels one of which is fixedly mounted thereon, a frame comprising a pair of horizontal parallel bars positioned below said axle, a pair of upright posts on each of said bars, a pair of horizontal cross bars extending between said upright posts and adjustably secured to the latter, said cross bars provided with alined apertures to receive said axle for adjustably supporting said frame, a rotatable vertical shaft mounted on said frame in front of said axle, a toothed circular knife carried by said shaft, a fixed toothed member mounted below said knife, the teeth of which coöperate with the teeth of said knife for producing a shearing action during the cutting operation, a bracket-forming member mounted on the frame and constituting a bearing for said shaft, a pulley mounted on said shaft, a pulley mounted on said axle, a belt extending between said pulleys for communicating motion from the latter to the former, and a hollow drum fixedly mounted on said shaft and provided with a plurality of radial fingers arranged to revolve above said knife for brushing aside the severed grass.

2. A lawn mower comprising in combination a horizontal rotatable axle, a pair of ground-wheels one of which is fixedly mounted on said axle, a frame embodying a pair of parallel bars positioned below said axle, a pair of horizontal cross bars suitably apertured and mounted on said axle, a pair of posts on each of said frame-forming bars and extending upwardly through suitable openings in said cross-bars, means for connecting said posts and cross-bars for permitting the vertical adjustment of said frame with respect to said axle, a vertical rotatable shaft mounted on said frame in advance of said axle, a toothed knife carried by said shaft, a fixed toothed member mounted adjacent to said knife, the teeth of which coöperate with the teeth of said knife for producing a shearing action during the cutting operation, a pulley on said shaft, a pulley on said axle, a belt extending between said pulleys for communicating motion from the latter to the former, a hollow drum mounted on said shaft immediately above said knife and provided with radial fingers to brush the severed grass laterally, and a wheel mounted at the upper end of said shaft and provided with a plurality of curved fingers and adapted to revolve in unison with said shaft.

3. A lawn-mower comprising in combination a horizontal rotatable axle, a pair of ground-wheels one of which is fixedly mounted on said axle, a frame embodying a pair of parallel bars positioned below said axle, a pair of horizontal cross bars suitably apertured and mounted on said axle, a pair of posts on each said frame-forming bars and extending upwardly through suitable openings in said cross bars, means for connecting said posts and cross bars for permitting the vertical adjustment of said frame with respect to said axle, a vertical rotatable shaft mounted on said frame in advance of said axle, a toothed knife carried by said shaft, a fixed toothed member mounted adjacent to said knife, the teeth of which coöperate with the teeth of said knife for producing a shearing action during the cutting operation, a tension device for imposing tension on said belt, a hollow drum mounted on said shaft immediately above said knife and provided with radial fingers to brush the severed grass laterally, and a wheel mounted at the upper end of said shaft and provided with a plurality of curved fingers and adapted to revolve in unison with said shaft.

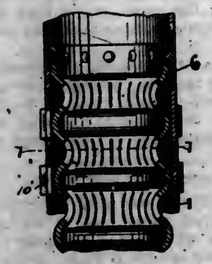
4. A lawn-mower comprising in combination a horizontal rotatable axle, a pair of ground-wheels one of which is fixedly mounted thereon, a frame comprising a pair of parallel bars positioned below said axle, means for connecting said frame-forming bars and axle to permit the vertical adjustment of the former with respect to the latter, an operating handle embodying a bifurcated member, means connecting said handle and said frame-forming bars for adjustably holding the former in a determined position, a rotatable vertical shaft mounted on said frame in advance of said axle, a toothed circular knife carried by said shaft, a fixed toothed member mounted below said knife the teeth of which coöperate with the teeth of said knife to produce a shearing action during the cutting operation, a belt for communicating motion from said axle to said vertical shaft, and a revolving member carried by said vertical shaft for brushing aside the severed grass.

1,028,064. AIR-HEATER. ADOLPH SCHLUETER, Oakland, Cal. Filed Sept. 8, 1910. Serial No. 581,061. (Cl. 126—91.)



A stove comprising a hollow base having an inlet formed in one side portion and having a plurality of openings in its upper face, collars leading from the openings in the upper face of said base, a bottom plate removably secured to said base, a perforated plate removably secured within said base and dividing said base into an upper and lower compartment, a heating pipe extending through said upper compartment, and a casing mounted upon said base and connected with said collars whereby heated air will pass from said upper compartment into said casing.

1,028,065. WELL-CASING. ANDREW SMITH, San Mateo, Cal., assignor to Smith Metal Perforating Company, San Mateo county, Cal. Filed Apr. 13, 1909. Serial No. 489,642. (Cl. 166—8.)



1. A drainage casing comprising a metal sheet having a series of smooth walled sheared slits therein of less width than the thickness of the sheet.

2. A drainage casing comprising a tubular metal member provided in its side walls with a series of smooth-walled sheared slits, substantially parallel and alined with each other, the strips of the metal between the slits being inclined with the edge of the metal upon one side of each slit lying in the plane of the walls and the edge of the adjacent metal upon the other side of the slit lying out of the plane of the walls, and with the inner corner of the last mentioned edge opposite the outer corner of said first-mentioned edge, whereby the size of the passages increases from the mouth or opening inwardly.

3. A tubular drainage casing comprising an outer casing having slots therein, and an inner slotted corrugated casing within the first casing and constituting a support for the outer casing.

4. A tubular drainage casing comprising a corrugated metal sheet having alternate portions provided with smooth walled sheared slits therein of less width than the thickness of the sheet.

5. A well casing comprising an outer casing having a series of slits therein of less width than the thickness of said casing, and an inner transversely corrugated casing within the first casing, having slits distant from the outer casing, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,028,066. PROCESS FOR MAKING WELL-CASING. ANDREW SMITH, San Mateo, Cal., assignor to Smith Metal Perforating Company, San Mateo county, Cal. Original application filed Apr. 13, 1909, Serial No. 489,642. Divided and this application filed June 2, 1911. Serial No. 630,886. (Cl. 164—125.)



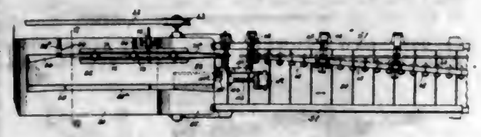
1. In a process of producing perforated metal plates, slitting the same to form openings, forcing the edges of the metal adjacent the slit outward to form projecting portions, and cutting the terminal portions therefrom, thereby forming open passages regardless of the position of the said edges.

2. In a process of producing perforated metal plates, slitting the same to form openings, forcing the edges of the metal adjacent the slit outward to form projecting portions, cutting the terminal portions therefrom, and bending the projecting portions backward toward the plane of the plate.

3. In a process of producing perforated metal plates, slitting the same to form openings, forcing the edges of the metal adjacent the slit outward to form projecting portions, cutting the terminal portions therefrom, and bending the projecting portions backward into the plane of the plate.

1,028,067. MACHINE FOR MANUFACTURING HOSE. ANDREW C. BOLTON, New York, N. Y., assignor to The Gutta Percha & Rubber Manufacturing Co., New York, N. Y., a Corporation of New York. Filed Nov. 29, 1910. Serial No. 594,631. (Cl. 154—6.)

1. In a machine for manufacturing hose, a common supporting means for an inflated foundation tube and an unapplied covering therefor, said supporting means being arranged exteriorly of said foundation tube, and mechanism for moving said tube to apply said covering thereto.



2. In a machine for manufacturing hose, a common supporting means for an inflated foundation tube and an unapplied covering therefor, said supporting means being arranged exteriorly of said foundation tube, and mechanism for rotating said tube about its own axis to apply the covering thereto.

3. In a machine for manufacturing hose, means for longitudinally feeding a foundation tube and an unapplied covering therefor, and means for moving said tube relatively to the feeding movement to apply said wrapper thereto.

4. In a machine for manufacturing hose, means for longitudinally feeding a foundation tube and an unapplied covering therefor, and means for rotating said tube about its own axis during its longitudinal feed to apply the covering thereto.

5. In a machine for manufacturing hose, a common supporting means for a foundation tube and an unapplied covering therefor, and means for moving said tube longitudinally and rotatably to spirally wrap said covering about said tube.

[Claims 6 to 19 not printed in the Gazette.]

1,028,068. TOY OR AMUSEMENT DEVICE. JOHN GREEN HAMLEY, London, England. Filed Mar. 7, 1911. Serial No. 612,771. (Cl. 46—40.)



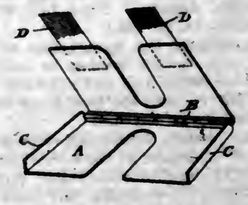
1. A toy or amusement device constructed in imitation of an animate object having lip simulating members flexible as well as relatively movable and provided with internal pockets, a wall of each pocket providing the surface for a lip whereby the thumb and finger of a hand may be introduced in position to fill out and give shape to the mouth members, and the mouth of the device may be modified in shape as well as opened and closed.

2. A toy or amusement device constructed in imitation of an animate object and having lip-simulating members flexible as well as relatively movable and provided with internal pockets to receive the thumb and finger of a hand, the surface of each lip being provided by one wall of a pocket whereby the thumb and finger are in position to fill out and give shape to the mouth members, so that the mouth of the device may be modified in appearance as well as opened and closed; said device being constructed to grip upon and hold to the hand in rear and independently of the mouth members.

3. A toy or amusement device constructed in simulation of the head of an animate object and having eyes with rigid rods carrying said eyes, mounted to rotate in and extending through the head and constructed at their rear ends for manipulation in rotary direction.

4. A toy or amusement device constructed in simulation of the head of an animate object and having eyes with rods upon which said eyes are mounted extending through the head and constructed at their rear ends for manipulation in rotary direction, said rods being converged at their rear ends to bring them together for simultaneous rotary manipulation.

1,028,069. CIGAR OR CIGARETTE CASE. SAMUEL CROSBY HIGNETT, Liverpool, England. Filed Sept. 26, 1911. Serial No. 651,475. (Cl. 206—28.)



As a new article of manufacture, a box for holding cigarettes or cigars, provided with a spring hinge for normally keeping it closed and having an opening across both the lid and the bottom nearly down to the back, and an adhesive strip upon each side of the opening on the front side of the box for sealing the box during transit, the front side of the box being entirely open, except for said strips.

1,028,070. PROCESS OF REFINING IRON OR STEEL. KARL ALBERT FREDRIK HIORTH, Christiania, Norway. Filed Oct. 25, 1911. Serial No. 656,710. (Cl. 75—27.)

1. The process of refining iron and steel, which comprises treating the iron to give off its phosphorus and other foreign substances to the slag, and then treating the slag separately to give off said substances to a charge specially destined for this purpose and treating with slag thus refined the iron from which the phosphorus has been removed.

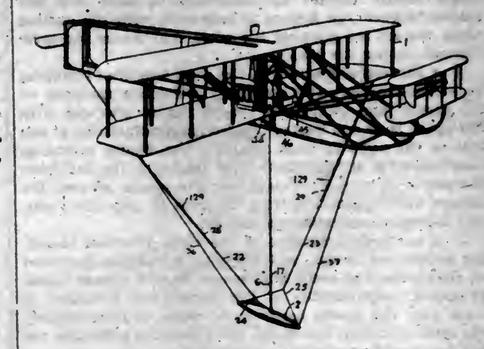
2. The process of refining iron and steel, which comprises treating the iron to give off its phosphorus and other foreign substances to the slag, pouring off a part of the iron, treating the slag to give off its content of phosphorus and other foreign substances to the remaining charge, pouring off this latter from the slag, and treating with the refined slag the iron from which the phosphorus has been removed.

3. The process of refining iron and steel, which comprises treating the iron to give off its phosphorus and other substances to the slag, subjecting the slag separately to successive treatments in order to give off to a charge specially destined for this purpose one after the other of said substances according to the facility with which combinations of said substances are reduced or oxidized, and treating with the slag thus purified the iron from which the phosphorus has been removed.

1,028,071. EQUIPOISER. GEORGE HITWOOD and PATRICK HOAN, New York, N. Y. Filed Dec. 14, 1910. Serial No. 597,204. (Cl. 244—31.)

1. The combination with a flying machine, of a weight adapted to be suspended at a considerable distance below said flying machine, a plurality of transversely-extending guys connecting said weight with said flying machine, a plurality of longitudinally-extending guys connecting said weight with said flying machine, means for varying the position of said weight, and spring drums for automatically taking up the slack on some of said guys.

2. The combination with a flying machine, of a weight adapted to be suspended from said flying machine, guys connecting said weight with said flying machine, guy-supporting lines adapted to take up the slack on said guys, and means for automatically taking up the slack in said guy-supporting lines.



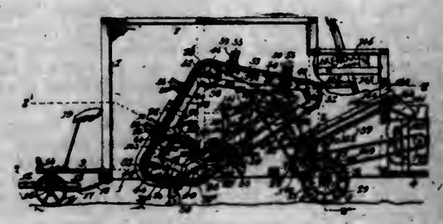
3. The combination with a flying machine, of a weight adapted to be suspended from said flying machine, guys connecting said weight with said flying machine, guy-supporting lines adapted to take up the slack on said guys, and a spring drum for taking up the slack in said guy-supporting lines.

4. The combination with a flying machine, of a weight adapted to control the equilibrium of said flying machine, guy lines connecting said weight with said flying machine, an automatic control for said guy lines, and a manual control for said guy lines.

5. The combination with a flying machine, of a weight for controlling the equilibrium of said flying machine, a plurality of flexible connections connecting said weight with said flying machine, automatic means for winding in some of said flexible connections, and manual means for winding in others of said flexible connections.

[Claim 6 not printed in the Gazette.]

1,028,072. PEA-HARVESTER. ERNEST O. HUTSELL, Athens, Tenn. Filed Feb. 20, 1911. Serial No. 609,682. (Cl. 56—1.)



1. A harvesting machine of the class described including an endless carrier, and stripping mechanism mounted on the carrier and comprising a series of spaced fingers projecting from the carrier and arranged to receive the vines between them, blades movably mounted on the fingers and extending longitudinally of and arranged to close over the spaces between the same for gripping the vines between them and the said fingers, and means for operating the blades to open and close the same.

2. A harvesting machine of the class described including an endless carrier and stripping mechanism mounted on the carrier and comprising a series of spaced fingers projecting from the carrier and arranged to receive the vines between them, blades hinged to the fingers and extending longitudinally thereof and arranged to close over the spaces between the fingers for gripping the vines between them and the said fingers, and means for opening and closing the blades.

3. A harvesting machine of the class described including an endless carrier, and stripping mechanism mounted

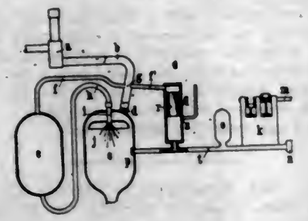
on the carrier and comprising spaced fingers provided with cutting edges, blades hinged to the fingers and extending longitudinally thereof and arranged to close over the spaces between the fingers to coöperate with the cutting edges thereof for gripping the vines, and means for opening and closing the blades.

4. A harvesting machine of the class described including an endless carrier, and stripping mechanism mounted on the carrier and comprising spaced fingers provided with flat upper faces and having tapered longitudinal ribs at one side of the same to form cutting edges, blades extending longitudinally of the fingers and hinged to the flat faces thereof and arranged to close over the spaces between the fingers and coöperating with the ribs to grip the vines, and means for operating the fingers.

5. A harvesting machine of the class described including an endless carrier, and stripping mechanism mounted on the carrier and comprising spaced fingers, hinged blades extending longitudinally of the fingers and arranged to close over the spaces between the same, a reciprocatory bar connected with the blades, and means for actuating the bar for opening and closing the blades.

[Claims 6 to 35 not printed in the Gazette.]

1,028,073. AIR-HEATING APPARATUS. ALBERT EDWARD JONES, Fiume, Austria-Hungary, assignor to Messrs. Whitehead and Company, Fiume, Austria-Hungary, a Corporation. Filed Oct. 14, 1910. Serial No. 587,026. (Cl. 60—31.)



1. The combination of a combustion chamber, means for supplying thereinto a liquid fuel, an air pipe communicating with said means for the purpose of moving said fuel into said combustion chamber, said air pipe also communicating directly with said combustion chamber to support combustion therein, means for forcing water into said combustion chamber, and a regulating device connected with said last-mentioned means and also connected to said air pipe and controllable by the joint pressure of the water being forced into the combustion chamber and of the air in said air pipe for the purpose of relieving excess of water pressure.

2. A device of the character described, comprising a combustion chamber, a fuel chamber for supplying liquid fuel thereinto, an air pipe communicating with said combustion chamber and with said fuel chamber, a water pipe connected with said combustion chamber for forcing water thereinto, and a regulating device connected with said water pipe and also with said air pipe, said regulating device comprising a cylinder provided with discharge openings and with a piston movable relatively to said openings and controllable by the joint pressure of water in said water pipe and air in said air pipe for the purpose of relieving excess of pressure in said water pipe.

3. A device of the character described, comprising a combustion chamber, a fuel chamber for supplying a liquid fuel thereinto, an air pipe communicating with said combustion chamber and with said fuel chamber, a water pipe discharging water into said combustion chamber, a pump connected with the water pipe, and means for discharging a portion of the water from said pipe when the pressure of the water therein exceeds the pressure of the air in the air pipe.

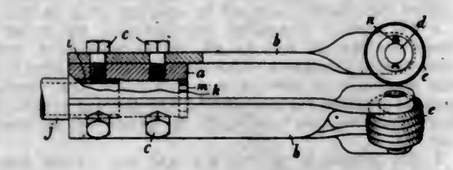
4. A device of the character described, comprising a combustion chamber, a fuel chamber for supplying liquid fuel to the combustion chamber, an air pipe communicating with the combustion and fuel chambers, a water pipe for injecting water into the combustion chamber, and means controlled by the air pressure in the air pipe for regulating the amount of water injected into the combustion chamber.

1,028,074. ORTHO-OXALIC-ACID ESTER OF META-CRESOL AND PROCESS FOR THE MANUFACTURE OF THE SAME. LEOPOLD KAHL, Niederau, near Dresden, Germany, assignor to Rutgerswerke-Actiengesellschaft, Berlin, Germany. Filed June 21, 1909. Serial No. 503,303. (Cl. 23—24.)

1. The process for the manufacture of a meta-cresol-ortho-oxalic ester, which consists in mixing meta-cresol with anhydrous oxalic acid and allowing the mixture to stand at 15–20° C., until the semi-liquid mass has become solid, substantially as described.

2. As a new product, meta-cresol-ortho-oxalic acid ester, containing two molecules of meta-cresol and one molecule of oxalic acid in chemical combination, melting at 51° C., while immediately decomposing into meta-cresol and oxalic acid, soluble in water and in the usual solvents, such as alcohol, ether and benzene, mostly with simultaneous decomposition, and being suitable as a disinfectant.

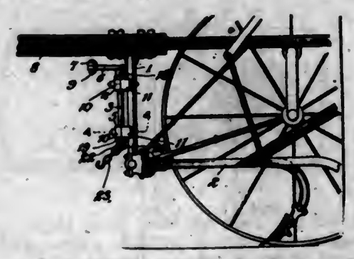
1,028,075. APPARATUS FOR SCALING AND CLEANING STEAM-BOILER, SUPERHEATER, AND LIKE TUBES. ARTHUR BARNHART KENDAL, Wellington, and JAMES ARTHUR COLLINSON, Hadley, England. Filed Feb. 8, 1912. Serial No. 676,346. (Cl. 83—64.)



1. Apparatus for scaling and cleaning steam boiler and like tubes, said apparatus comprising in combination a hollow hub having a perforated end wall through which water can be delivered, a tubular operating handle secured to said hub, a series of spring arms fixed to said hub, and each of which arms carries at its free end a pin and a roller revolubly mounted on said pin, each of said rollers being grooved around its periphery to provide a multiple number of cutting edges in planes perpendicular to the axis of the roller, said rollers being further arranged with their axes in the same plane, which is perpendicular to the axis of the operating handle, and with their annular grooves and cutting edges in planes that are parallel to the axis of the operating handle.

2. Apparatus for scaling and cleaning steam boiler and like tubes, said apparatus comprising in combination a hollow hub having a perforated end wall through which water can be delivered, a tubular operating handle secured to said hub, a series of spring arms fixed to said hub, and each of which arms carries at its free end a pin and a roller revolubly mounted on said pin, each of said rollers being grooved around its periphery to provide a multiple number of cutting edges in planes perpendicular to the axis of the roller, said rollers being further arranged with their axes in the same plane, which is perpendicular to the axis of the operating handle, and with their annular grooves and cutting edges in planes that are parallel to the axis of the operating handle, the said rollers having a barrel shaped outline so that all the cutting edges may bear against the curved wall of the tube to be cleaned.

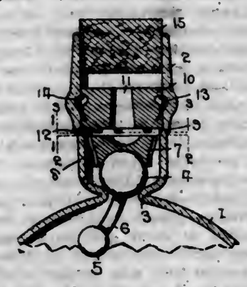
1,028,076. DRAFT-EQUALIZER FOR CULTIVATORS. CHARLES E. KING, Gray, Iowa. Filed Nov. 9, 1911. Serial No. 659,863. (Cl. 21—76.)



1. The combination with a cultivator including a tongue and an arch, of upper and lower bearings mounted on the sides of the arch and projecting forwardly therefrom, spaced upright rock shafts journaled in the said bearings and located in advance of the sides of the arch and provided at their upper ends with forwardly extending longitudinally disposed arms located below the plane of the tongue, said rock shafts being also provided at their lower ends with transversely disposed arms located above the plane of the terminal pivot portions of the arch, a transverse bar located below the tongue and extending across the space between and pivotally connected with the upper arms of the rock shafts to cause the latter to move in unison, and swingletrees connected with the lower transversely disposed arms.

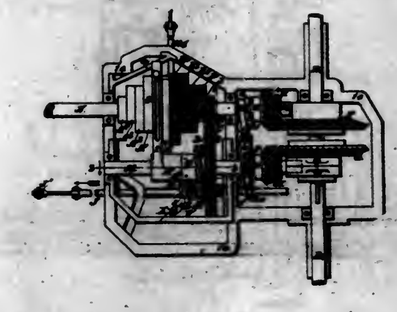
2. The combination with a plow or cultivator having an arch provided at opposite sides with sockets, of sectional bearings composed of front and rear blocks provided with bearing recesses, the rear block being also provided with a recess to receive the arch and having a stud to fit the socket of the same and interlocking the bearings with the sides of the arch, a U-shaped bolt connecting the front and rear blocks and embracing the arch and retaining the stud in the socket of the same, spaced upright rock shafts mounted in the bearing recesses of the sectional bearings and located in advance of the sides of the arch, means for connecting the rock shafts for causing the same to move in unison, and swingletrees connected with the rock shafts.

1,028,077. NON-REFILLABLE BOTTLE. JOHN B. MULLIN, Rome, N. Y., assignor of one-half to John F. Holzinger, New York, N. Y. Filed Nov. 9, 1911. Serial No. 659,402. (Cl. 215—62.)



A non-refillable bottle comprising a receptacle, an outlet therefor, a valve seat formed at the junction of the body of said receptacle and said outlet, a ball valve normally seated thereagainst and having a depending counterweight, a cap snugly fitted within said outlet, said cap having a central aperture and lugs upon the under face thereof, a cylindrical guard disk of greater diameter than said valve disposed between said cap and valve and having the top and bottom faces thereof concaved, the edges thereof being tapered from top to bottom and provided with ribs.

1,028,078. VARIABLE-SPEED TRANSMISSION-GEARING. HARRY BEAUREGARD ROSS, Denver, Colo., assignor of one-half to H. Byrd Northrop, Denver, Colo. Filed May 12, 1911. Serial No. 626,823. (Cl. 74—58.)



1. In a transmission gearing; a driving shaft and a driven shaft, gear connections between the same, said connections including a shiftable gear, means for locking the said gear to its shifted position, means for first applying force to one side of the said gear to tend to shift the same and for releasing the said gear to permit the said force to act.

2. In a transmission gearing, a driving shaft and a driven shaft power transmitting connections, including a shiftable gear carrying member, between the said shafts, a spring engaging one side of the said member, a holding device for retaining the said gear carrying member in its respective positions, and a means for first putting the said spring under tension and then releasing the said holding device to permit the said spring to shift the said shiftable gear carrying member.

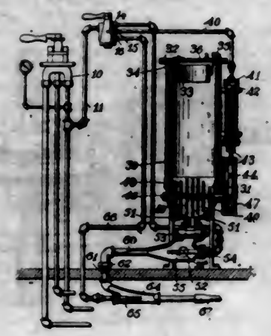
3. A power transmission mechanism comprising a driving shaft and a driven shaft, power transmitting connections between the said shafts, the said connections including a shiftable element, means for locking the said shiftable element in its positions, means for applying potential energy to the said shiftable element to tend to shift the same, and other means for releasing the said shiftable element locking means to permit the said element to move.

4. In a means for transmitting motion, a driving shaft, concentric gears and concentric disks thereon, eccentric gears interposed between the concentric gears, eccentric disks on the shaft interposed between the concentric disks, and in reverse order to the arrangement of the concentric and eccentric gears a sliding gear, a shaft on which said sliding gear is mounted, said sliding gear being adapted to mesh with the concentric and eccentric gears on said driving shaft, and a means for holding the said shiftable gear up and in engagement with the said driving shaft gears, said means including an arm mounted on the shiftable gear shaft and having a portion for engaging the peripheral edge of the concentric and eccentric disks, said disks having a diameter sufficient to cause said concentric and eccentric gears to mesh with said sliding gear.

5. In means for transmitting motion, the combination of a driving shaft, and a second shaft parallel to the driving shaft, a changeable speed gearing connection between the second shaft and the driving shaft, consisting of alternately arranged eccentric and concentric gears mounted on the driving shaft, with alternately arranged concentric and eccentric collar bearings arranged on the driving shaft in reverse order to the arrangement of the eccentric and concentric gears, a sliding gear on said second shaft in mesh with the concentric and eccentric gears on the driving shaft above mentioned, a yoke slidable on said second shaft and collared to the said sliding gear with which it slides in unison.

[Claims 6 to 14 not printed in the Gazette.]

1,028,079. AIR TRACK-SANDING APPARATUS. WILLIAM A. SAULT, Worcester, Mass. Filed Aug. 21, 1911. Serial No. 645,267. (Cl. 105—263.)



1. The combination with a car, of a sand hopper supported above the floor thereof and having a discharge outlet in the bottom, a horizontal ejector casing communicating at the top with said discharge outlet, a nozzle entering said casing for discharging air therethrough horizontally and drawing sand from said hopper, said casing having an outlet extending from the end thereof, and provided with a discharge conduit passing down through the floor of the car and being fixed to the floor, and means just above the floor for disconnecting the conduit.

2. The combination with a car, of a sand hopper supported above the floor thereof and having a discharge outlet in the bottom, a casing communicating at the top with said discharge outlet, a nozzle entering said casing for discharging air therethrough and drawing sand from said hopper, said casing having an outlet conduit passing through the floor of the car, a second casing just below the floor connected at its inlet end with said discharge conduit, and having a nozzle projecting into it, and a discharge pipe extending from the second casing.

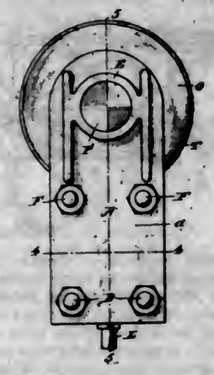
3. In a sanding apparatus, the combination of a casing, a nozzle projecting into the casing for discharging air through the casing, a discharge pipe, a second casing having an inlet communicating with said discharge pipe and provided with a discharge outlet, an air blast nozzle extending into the second casing toward its discharge end, and means for connecting the nozzle with a source of compressed air.

4. In a sanding apparatus, the combination of a casing, a nozzle projecting into the casing, a discharge pipe, a second casing having an inlet communicating with said discharge pipe and provided with a discharge pipe at the opposite end thereof, an air blast nozzle extending into the second casing toward its discharge end, a compressed air supply pipe, means for introducing air into the first named nozzle to discharge a current of air and sand through the whole system, and means whereby when this connection is closed, a momentary blast of air will be sent through the second nozzle to clean out the connections beyond it.

5. In a sanding apparatus, the combination of a casing, a nozzle projecting into the casing, a discharge pipe, a second casing having an inlet communicating with said discharge pipe, an air blast nozzle extending into the second casing, a supply pipe for compressed air, two branch pipes, one connecting each of said nozzles, and a valve having a passage for connecting the supply pipe with the first named nozzle, and a passage for connecting the supply pipe with the second nozzle when the first nozzle is about to be shut off from connection with the supply pipe.

[Claims 6 to 22 not printed in the Gazette.]

1,028,080. AIR-PUMP. CHARLES F. SNYDER, Allegheny, Pa. Filed July 12, 1910. Serial No. 571,571. (Cl. 230—27.)



1. An air-pump comprising a housing, a friction wheel rotatably mounted within said housing, a cylinder having a valve-controlled port and being confined within said housing, a piston reciprocable within said cylinder, and operative connection between said piston and said friction wheel.

2. An air-pump comprising a housing constituted by two flanged members providing a space therebetween, a valve block between said members having a valve-retaining chamber, a cylinder extending into said chamber and having a port providing communication between the interior thereof and said chamber, a valve within said valve-retaining chamber bearing against the cylinder to close said port, a tube-fitting entering said block, a piston reciprocable within said cylinder, and means for actuating said piston.

3. An air-pump comprising two coöperating housing members formed to provide a chamber therebetween, a valve-retaining block closing one end of said chamber and itself having a chamber formed centrally therein, a cylinder within said first-mentioned chamber having a port therein, a spring-controlled valve within the chamber of said valve-retaining block serving to close said port, a piston reciprocable within said cylinder, a rotatable friction-wheel journaled in one of said housing members, and a pitman eccentrically connected to said friction-wheel at one end and being pivotally connected to said piston at its other end.

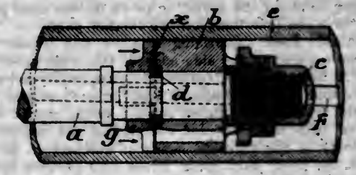
4. An air-pump comprising two coöperating housing members, each comprising a plate having inwardly-directed flanges abutting against the flanges of the coöperating plate, a cylinder situated between said housing members and inclosed thereby, said cylinder being closed at one end and having a port in said end, a spring-controlled valve normally held against said cylinder to close the port therein, a piston reciprocable within said cylinder, a rotatable friction element, and operative connection between said friction element and said piston.

5. An air-pump comprising a cylinder having a valve-controlled port, a piston reciprocable within said cylinder, a housing inclosing said parts, and a rotatable friction device partly inclosed by said housing and operatively connected with said piston.

[Claims 6 to 9 not printed in the Gazette.]

1,028,081. LIQUID RECOIL-BRAKE FOR GUNS. KARL VÖLLER, Duesseldorf, Germany, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Duesseldorf-Derendorf, Germany. Filed Jan. 11, 1906. Serial No. 410,415. (Cl. 89—43.)

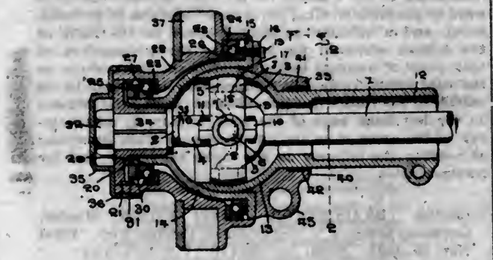
1. A liquid recoil brake for guns comprising a valve for controlling the flow of the brake liquid consisting of a rotatable and a non-rotatable part arranged to contact and means to hold said parts constantly out of contact.



2. In a liquid recoil brake for guns, the combination of a valve member mounted to slide but incapable of rotation, a valve member mounted to rotate but incapable of axial movement, and a spacing ring arranged to prevent contact between the said members.

3. The combination of the piston rod, a rotatable piston mounted on the piston rod, a slidable valve plate mounted on the piston rod adjacent the end of the piston, and a spacing ring seated in the piston rod and engaging the opposed faces of the piston and the valve plate to hold them out of contact.

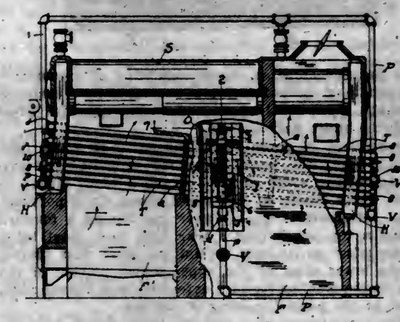
1,028,082. WHEEL CONSTRUCTION FOR AUTOMOBILES. OTTO ZACHOW, Clintonville, Wis., assignor to The Badger Four Wheel Drive Auto Company, Clintonville, Wis. Filed Aug. 6, 1909. Serial No. 511,657. (Cl. 21—90.)



In a vehicle wheel, the combination of a hub member comprising a cylindrical portion and series of spoke sockets, a disk having a peripheral friction surface seated within the cylindrical portion of the hub and having a central rectangular opening therethrough, an axle and a spindle connected by a universal joint, the spindle having a rectangular portion fitted into the opening of the disk, a thimble having a semi-globular portion surrounding the universal joint and having the hub rotatably mounted thereon and having a radially extending flange, a member comprising a sleeve which surrounds the shaft and a semi-globular shell interposing the universal joint and the thimble and movably fitted into the latter, and an annular member comprising a collar having a concaved surface fitted to the semi-globular inner member and having a radial flange secured to the flange on the thimble.

1,028,083. BOILER-CLEANER. LEO JNO. BAYER, St. Louis, Mo., assignor to Bayer Steam Soot Blower Company, St. Louis, Mo., a Corporation of Missouri. Filed Nov. 11, 1911. Serial No. 659,797. (Cl. 122—392.)

1. In combination with a boiler having a water-tube section composed of series of tubes disposed in superposed planes, and spaced apart, terminal headers communicating with said tubes, transverse baffles for the tubes, a series of nozzles disposed over the tube area at one end of the water-tubes for projecting a cleaning fluid longitudinally with the tubes into the spaces between the tubes, series of nozzles for projecting a cleaning fluid transversely across the boilers into the spaces between the tubes, the mingled fluids and the dirt dislodged thereby following the general direction of the draft whereby the same are expelled from the furnace of the boiler.



2. In combination with a boiler having a water-tube section composed of series of tubes disposed in superposed planes, and spaced apart, terminal headers communicating with said tubes, transverse baffles traversed by the tubes whereby the boiler is divided into inter-communicating sections, nozzles mounted over the tube area in one of the headers opposite the spaces between the tubes for projecting jets of cleaning fluid into said spaces in a direction lengthwise with the tubes, movable nozzles positioned opposite a section between two consecutive baffles for projecting a cleaning fluid into the spaces between the tubes in a direction transverse of the boiler, the intensity of the respective currents being regulated to cause the resultant current to follow the general direction of the draft and carry the dirt out of the furnace of the boiler.

3. In combination with a boiler having a water-tube section composed of series of tubes disposed in superposed planes, and spaced apart, terminal headers communicating with said tubes, transverse baffles traversed by the tubes whereby the boiler is divided into intercommunicating sections, nozzles mounted over the tube area in one of the headers opposite the spaces between the tubes for projecting jets of cleaning fluid into said spaces in a direction lengthwise with the tubes, nozzles oscillating about and disposed across a fixed axis positioned opposite a section between two consecutive baffles, a riser adapted to sweep about said axis and coupled to the nozzles, and means for supplying a cleaning fluid under pressure to said riser and nozzles.

4. In combination with a boiler having a water-tube section baffled transversely, whereby the same is divided into sections, means distributed over the tube area at the ends of the tubes for projecting a cleaning fluid longitudinally with the tubes into a portion of the sections and transversely into another portion of the sections.

5. In combination with a boiler having a water-tube section composed of series of tubes disposed in superposed planes and spaced apart, terminal headers communicating with said tubes, transverse baffles traversed by said tubes whereby the boiler is divided into intercommunicating sections, nozzles mounted over the tube area in one of the headers opposite the spaces between the tubes for projecting jets of cleaning fluid into said spaces in a direction lengthwise with the tubes, nozzles oscillating about and disposed across a fixed vertical axis positioned opposite a section between two consecutive baffles, a riser to which said nozzles are coupled, adapted to sweep in a circle concentric with said axis, and means for supplying cleaning fluid under pressure to said riser.

[Claims 6 to 10 not printed in the Gazette.]

1,028,084. PAPER TOWEL AND NAPKIN PACKAGE. WILLIAM H. BOND, Holyoke, Mass., assignor to Mt. Holyoke Tissue Mills, Holyoke, Mass., a Corporation of Massachusetts. Filed Apr. 14, 1911. Serial No. 621,087. (Cl. 206—57.)

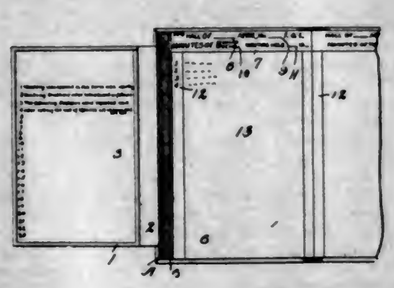


1. A package of paper sheets consisting of a container and a bundle of sheets folded into substantially a compacted S-shape, each sheet at its ends being edgewise offset beyond the sheet next thereto.

2. A package of paper sheets consisting of a box comprising bottom, side walls, and a top extending but partially across the width of the box and a cover hinged to the top, and a bundle of sheets comprising three portions, viz: an intermediate one, a lower one having a forward fold and a top one having a rear fold, each sheet being edgewise offset at its ends beyond the sheet next thereto with the lower sheet of the upper folded portion of the bundle in the greatest forward extension, with the top edges exposed at the partial opening of the box.

3. The combination of a pile of sheets placed with the side edges offset at the ends, the offset ends being doubled back upon the two opposite faces respectively of the middle part of the pile, the edge of the lowermost sheet of the upper doubled portion lying adjacent the bend of the upper portion and the other edges of the top portion extending across the top of the bundle in succession, the lowermost sheet in the middle portion being doubled upon itself in the said lower bent portion with the end lying under the middle part near the bend of the upper part, and the other bottom edges extending in succession across the bottom toward the other bend, whereby the lowermost sheet of the upper bend can be withdrawn successively without disturbing the arrangement of the other sheets and the thickness of the pile is substantially uniform and remains so as the sheets are withdrawn.

1,028,085. MINUTE-BOOK FOR DELIBERATIVE BODIES. HUGO DOEBLER, Delaware, Ohio, assignor of one-third to Frank D. King and one-third to John F. Gaynor, Delaware, Ohio. Filed May 11, 1909. Serial No. 495,299. (Cl. 11—20.)

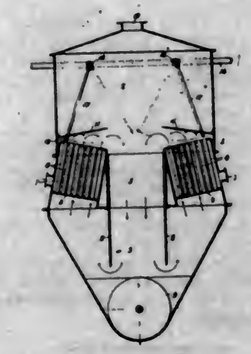


1. In a minute book, in combination with the leaves and cover an open frame secured to the outer edge of one of the leaves of the cover, a card in the frame having catch words and phrases on both sides thereof, and comprising the beginning of the record of the different heads in the order of business, said catch words and phrases being numerically arranged and numbered progressively, and the leaves of the book having each page provided with a suitably designated left hand column for entering the numeral corresponding to the numeral on the card for the order of business to be transacted, and a suitably designated space to the right of the column for inscribing the record beginning after the catch words on the card, said frame being adapted to lie outside of the cover, to fold against the inside of the cover, or to lie on the near page of the book when inscribing on the farther page.

2. A minute book comprising a cover and leaves, an open frame secured to the side edge of the front cover by means of a flexible hinge, plates of transparent material secured in said frame and spaced apart, a card secured between said transparent plates having catch words and phrases on both sides thereof comprising the beginning of the record of the different heads of business to be inscribed in the book, said catch words and phrases being arranged numerically and numbered progressively, and the leaves of the book having each page provided with a heading having suitably designated spaces for the title of the organization and date of meeting, the page below the heading having a suitably designated column at the left to enter the number of the order of business corresponding to the number opposite the catch words aforesaid, and a suitably designated space to the right of the column aforesaid for inscribing the record of the business beginning after the catch words or phrases on the card.

3. A minute book comprising a cover and leaves, an open rectangular frame secured to the side edge of the front cover by means of a flexible hinge, plates of transparent material secured in the frame and spaced apart, a card secured between said transparent plates and having catch words and phrases on both sides thereof comprising the beginning of the record of the different heads of business to be inscribed in the book, said catch words and phrases being numerically arranged and numbered progressively, the leaves of the book having each page provided with a suitably designated column for entering the numeral corresponding to the numeral on the card opposite the catch word or phrase indicating the order of business to be transacted, and a suitably designated space to the right of the column aforesaid for inscribing the transactions of each order of business beginning after the catch words on the card, said frame being adapted to be turned to lie outside of the book when inscribing or reading the minutes on the left hand page of the book, and to lie on the inside of the cover or on the left hand page when inscribing or reading the minutes on the right hand page and for transportation.

1,028,086. EVAPORATOR. OSCAR FALLER, Munich, Germany, assignor to George Stroh, Detroit, Mich. Filed Nov. 10, 1911. Serial No. 659,516. (Cl. 127—18.)



1. An evaporator for liquids containing solid substances, comprising in combination an upper chamber, a lower chamber, a conduit connecting said chambers, a heating element also connecting said chambers, and a spray pipe connected with a supply of water under pressure and provided with a discharge orifice so disposed as to direct water upon the upper end of said heating element.

2. An evaporator for liquids containing solid substances, comprising in combination an upper chamber, a lower chamber, a conduit connecting said chambers, a heating element comprising a casing and a plurality of tubes extending through said casing and connecting said chambers, and a spray pipe connected with a supply of water under pressure and provided with a plurality of discharge orifices so disposed as to direct water upon the upper end of said heating element.

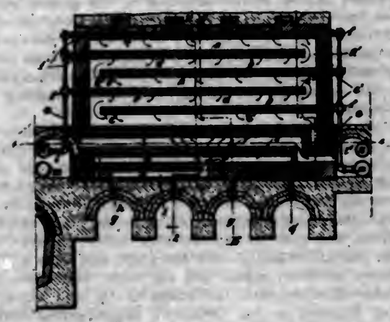
3. An evaporator for liquids containing solid substances, comprising in combination an upper chamber, a lower chamber, a conduit connecting said chambers, a plurality of heating tubes also connecting said chambers, an oscillatory pipe within said upper chamber and having a valved connection with a supply of water under pressure, a spray pipe connected with said oscillatory pipe and provided with a plurality of discharge orifices, whereby when said oscillatory pipe is operated, said spray pipe is caused to move in an arcuate path above the upper ends of said heating tubes, the discharge orifices of said spray pipe being so disposed as to direct water, during this movement, upon and in proximity to the upper ends of said heating tubes.

4. An evaporator for liquids containing solid substances comprising in combination, an upper chamber, a lower chamber, a conduit connecting said chambers, a heating element also connecting said chambers and a deflecting plate above said element and disposed at an angle to the direction of issuance of liquid from said element, such that the issued liquid is deflected substantially directed toward said conduit.

5. An evaporator for liquids containing solid substances, comprising in combination an upper chamber, a lower chamber, a conduit connecting said chambers, a heating element also connecting said chambers and a deflecting plate above said element, said plate being so disposed as to receive substantially all of the liquid issuing from said element and deflect it toward said conduit.

[Claims 6 and 7 not printed in the Gazette.]

1,028,087. COKE-OVEN. THEODOR VON BAUER, Berlin, Germany. Filed Feb. 24, 1910. Serial No. 545,649. (Cl. 202—9.)



1. In a horizontal flue coke-oven, heating chambers, tongue walls subdividing said heating chambers and forming a continuous heating flue in a serpentine line, said tongue walls having longitudinal ducts with outlets, and means for supplying air and gas through said longitudinal ducts in the tongue walls into said heating flue to increase the degree of heat in the said heating flue in a downward direction.

2. A coke oven having a plurality of oven chambers, heating chambers between the oven chambers, a plurality of horizontal tongue walls in each heating chamber, the adjacent tongue walls extending from opposite ends of the heating chamber, so as to provide a continuous serpentine heating flue, and means for supplying air and gas to the heating flue through longitudinal ducts in said tongue walls.

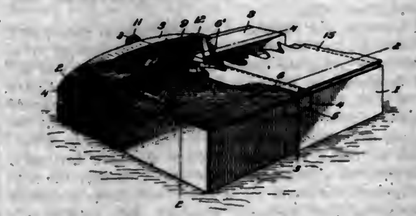
3. In a horizontal flue coke-oven, heating chambers, tongue walls subdividing said heating chambers and forming a continuous heating flue in a serpentine line, said tongue walls having longitudinal ducts with outlets, means for supplying air and gas through said longitudinal ducts in the tongue walls into said heating flue to increase the degree of heat in the said heating flue in a downward direction, and a vertical transverse partition dividing the said heating chambers into two continuous heating flues in serpentine lines, said partition wall being provided with passages for the supply of air and gas into the tongue walls meeting said partition wall on each side of it.

4. In a horizontal flue coke-oven, heating chambers, a vertical transverse partition dividing the heating chambers in two parts, horizontally superposed tongue walls meeting alternately the said vertical partition and the side walls of the heating chambers and subdividing said heating chambers to form two continuous heating flues in a serpentine line, said tongue walls having longitudinal ducts therein provided with outlets, and means for supplying air and gas to said ducts to increase the degree of heat in the heating flues in a downward direction.

5. A coke oven having a plurality of oven chambers, heating chambers between the oven chambers, a plurality of horizontal tongue walls in each heating chamber, the adjacent tongue walls extending from opposite ends of the heating chamber so as to provide a continuous serpentine heating flue and said tongue walls having longitudinal air and gas ducts extending therethrough, air and gas pipes on the exterior of the oven connected to said ducts, and regulating devices in said pipes.

[Claims 6 to 9 not printed in the Gazette.]

1,028,088. SAW-SETTING DEVICE. ALLEN STANLEY HARRIS, Rich Hill, Ohio. Filed June 6, 1911. Serial No. 631,521. (Cl. 76—70.)



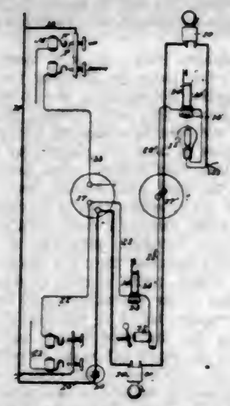
In a saw setting device, a saw supporting base member having a recess in the underside thereof and provided in its upper side with a longitudinal recess, an upstanding flange, and a transverse groove formed in and extending the entire width of the saw supporting portion of said base member, an anvil block seated in the transverse groove and having a beveled face portion extending into the longitudinal recess, a spring actuated punch member operating through the beveled face portion of the anvil block and having a beveled face portion opposed thereto, said punch member extending also through the base member and into the recess in the underside of said base member, a flat spring mounted in said recess and engaging the lower end of the punch member to force the latter in an upward direction, guide members connecting the base with the upstanding flange, a gage member movably supported upon the guide members, and an adjusting screw for the gage member operating through the upstanding flange.

1,028,089. ELECTRIC SIGNALING APPARATUS AND CIRCUITS. FELIX BENEDICT HERZOG, New York, N. Y.; Henrietta Herzog executrix of said Felix Benedict Herzog, deceased. Filed Nov. 6, 1893. Serial No. 490,105. (Cl. 177—336.)

1. At each of several floors of a building apparatus constructed and arranged both to control a signal in an elevator car and to be responsive to control from the ele-

vator car; and in the car a signal and means for affecting the responsive floor apparatus, substantially as described.

2. In an elevator signal system an up and a separate down call on a floor, and a separate answer back on each floor for each call, together with connections leading to a distant point through which connections the answer back is operated; a signal on the car responsive to the calls, and means for simultaneously terminating the signal and operating the answer-back from the car.



3. An annunciator comprising a group of indicators, each of which is separately controlled from a distance, together with means operated at the annunciator and adapted to control an answering signal to correspond with each of the indicators, and corresponding to each indicator an answer back device which acts to so respond, and simultaneously to restore the corresponding indicator and none other.

4. A multiple car elevator signaling system comprising a separate up and down device for giving signals from each floor, receiving devices constructed, located and arranged to specify to the operator of each of several cars which of the floor devices has been operated, separate wires from each of the floor devices to a common point for controlling said receiving devices, a common source of current and as many switching devices as there are cars, each constructed, arranged and operable to modify the normal reception of signals for another car, these elements so coöperating that normally any car may receive any signal but that such reception may be dependent upon the operation of the switch corresponding to another car.

5. A multiple car, elevator signal system comprising a floor call and means whereby it indicates in more than one car; an answer-back at the floor associated with one or more of the cars; means for operating the answer back or return signal, combined with means adapted to cause the operation of the answer back to affect the subsequent relation between the floor call and the indicators for the other cars.

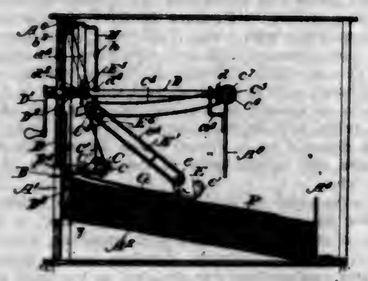
[Claims 6 to 97 not printed in the Gazette.]

1,028,090. DETACHABLE SPINDLE. CHARLES B. WILSON, Bartow, Fla., assignor to Jasper Sumerlin, Bartow, Fla. Filed June 17, 1911. Serial No. 633,776. (Cl. 21—5.)



In combination, an axle having circular grooves in the ends thereof, spindles connected to the axle, keys passing through the spindles and axle, rotatable bearings on the spindles having their inner ends extending into the said grooves and surrounding said keys, and nuts screwed onto the spindle having portions surrounding the outer ends of the bearings.

1,028,091. STATIONERY-CABINET. THOMAS A. MATTHEWS, Nashville, Tenn. Filed Nov. 27, 1911. Serial No. 662,617. (Cl. 211—8.)



1. A paper serving mechanism comprising a cabinet or receptacle having an opening across its front corresponding in height to the pile of paper, an inner vertically sliding panel having a paper discharge slot provided with an inwardly extending flange or lip to rest on top of the front edge of the paper, a paper lifting device mounted on the sliding panel to move the front edge of the top sheet from beneath said flange or lip and allow it to spring forward on top thereof, a paper-feeding device also mounted on the sliding panel, and an operating mechanism to positively actuate the paper lifter and the paper feeder.

2. A paper serving mechanism comprising a cabinet or receptacle having an opening across its front, an inner vertically sliding panel having a paper discharge slot provided with an inwardly extending flange or lip to rest on top of the front edge of the paper, a rearwardly rotating paper lifting device mounted on the sliding panel to move the front edge of the top sheet from beneath the said flange or lip and allow it to spring forwardly on top thereof, a forwardly rotating paper feeder to move the top sheet through said slot and opening, and operating means for actuating the lifting and feeding devices in proper order.

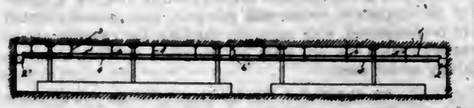
3. A paper serving mechanism comprising a cabinet or receptacle having an opening across its front, a vertically sliding inner panel having a horizontal discharge slot provided on its lower side with an inwardly extending flange or lip to rest on the forward edge of the pile of paper, a rearwardly rotating paper lifting arm provided at its free end with an anti-friction device to first engage the pile and slightly raise the panel and with a friction device to then engage the top sheet and move its front edge from beneath the flange or lip and allow it to spring forward on top thereof, a paper-feeding device to feed the sheet through the discharge slot, and an actuating mechanism for positively operating the lifting and feeding devices in proper order.

4. In a paper serving apparatus, a cabinet or receptacle having an opening across its front, a vertically sliding panel in rear thereof having a paper discharge slot provided at its lower side with an inwardly extending flange or lip to rest on the forward edge of the pile of paper, a rearwardly rotating panel raising and paper lifting arm mounted on the panel to first slightly raise the same, and then move the front edge of a sheet from beneath the flange or lip and allow it to spring forwardly on top thereof, a forwardly rotating curved paper-feeding arm also mounted on the sliding panel, and a main shaft geared to the paper lifting and feeding arms to operate them in proper order.

5. A paper serving apparatus comprising a cabinet or receptacle having an opening across its front, a vertically sliding panel in rear thereof having a paper discharge slot provided at its lower side with an inwardly extending flange or lip to rest on the forward edge of the pile of paper, an oblique shaft, a bearing therefor carried by the sliding panel, an arm projecting from the shaft to move the front edge of the top sheet from under the flange or lip and allow it to spring forward on the upper side of said flange, a swinging bar connected at its upper forward end to the sliding panel, a shaft mounted on the rear end of said arm, a paper feeder on said shaft, and a drive shaft geared to the shafts of the lifter and feeder arms.

[Claims 6 to 9 not printed in the Gazette.]

1,028,092. FIXTURE FOR VACUUM-TUBE LAMPS. DANIEL MCFARLAN MOORE, Newark, N. J., assignor to General Electric Company, a Corporation of New York. Filed Feb. 26, 1907. Serial No. 359,446. (Cl. 176—122.)



1. In a vacuum tube lighting system, the combination of a wire conduit sustained from a ceiling or other suitable support by hangers, a vacuum tube sustained at intervals from said conduit, a hollow hanger connected to the conduit and an insulating block secured to said hanger and having an attached ring through which the tube passes.

2. The combination with a vacuum tube, of a sustaining ring support therefor, a block of insulating material to the lower side of which the ring is fastened and a tubular hanger or support forming a socket for the block of insulation.

3. The combination with a vacuum tube, of a sustaining ring support therefor, a block of insulating material to the lower side of which the ring is fastened, a tubular hanger or support forming a socket for the block of insulation, and means for clamping the block in said hanger.

4. In a vacuum tube lighting system, a hollow conduit for a wire of the system having cross-shaped hollow couplings inserted at intervals therein, said couplings having, on the one hand, hangers coupled thereto and affording means for supporting the vacuum tube, and, on the other hand having connected hangers whereby the coupling itself may be supported from a ceiling or other suitable support.

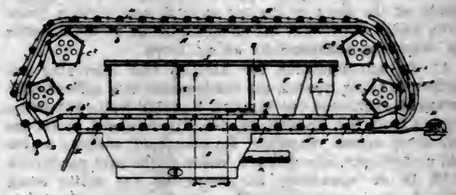
5. In a vacuum tube lighting system, the combination of a vacuum tube, supporting devices sustaining the tube at points intermediate of its ends, an automatic gas feed apparatus carried by said supporting devices and provided with a feed regulating magnet, a gas feed tube connecting the tube at the point of support with the gas feed apparatus at said point and connections leading from the feed regulating magnet at such points to the opposite terminal of the tube.

[Claims 6 to 16 not printed in the Gazette.]

REISSUES.

13,423. APPARATUS FOR ROASTING AND SINTERING ORES. ARTHUR S. DWIGHT, New York, N. Y., assignor, by direct and mesne assignments, to Dwight & Lloyd Metallurgical Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 8, 1910. Serial No. 571,102. Original application filed Dec. 14, 1906, Serial No. 347,872. Renewed Feb. 28, 1909, Serial No. 479,498. Original No. 916,391, dated Mar. 23, 1909. Division A. (Cl. 75—135.)

1. In an apparatus for treating ores, substantially as described, the combination with a movable ore support adapted to have streams of combustion-supporting gas pass through the ore mass en lines transverse to its line of travel, of a hood or reflector for the heat arranged above the upper surface of the ore mass as it is carried by the said support; substantially as set forth.



2. In an apparatus for treating ores, substantially as described, the combination with a movable ore support, of air inducing apparatus on one side of the ore support for causing currents of air to pass through the moving mass of ore on the said support, and a hood or reflector for the heat generated in the said ore mass, and arranged on the opposite side of the ore support; substantially as set forth.

3. In an apparatus for treating ores, substantially as described, the combination of a movable ore support, adapted to carry a bed or layer of ore, air inducing apparatus on one side of the ore support adapted to cause currents of air to pass through the ore mass, and a hood or reflector for the heat arranged adjacent to the ore mass and substantially parallel with the line of travel thereof and on the side of the ore support opposite the said air inducing apparatus; substantially as set forth.

4. In an apparatus for treating ores, substantially as described, the combination with a movable ore support, of means for feeding a stream or layer of ore thereto, and means for supplementally feeding a layer or stream of material to the support in contact with the layer or stream of ore, substantially as set forth.

5. In an apparatus for treating ores, the combination with the moving ore support, of means for supplying a stream or layer of relatively coarse material to the said ore support and supplemental means for supplying a stream or layer of relatively fine ore and depositing it upon the aforesaid stream or layer of relatively coarser material, substantially as set forth.

6. A supporting and carrying device for holding ore while being subjected to treatment having, in combination, an apertured bottom, and ring-like or tire-like supports detachably connected with the ore holder and adapted to be supported on rollers.

7. An apparatus for supporting and conveying ore while it is under treatment having, in combination, an apertured bottom or floor element concentrically arranged about a center or axis of rotation, flanges or projections extending inward toward the center, flanges or holders for the sides of the ore mass, and supplemental ring-like or tire-like supports secured to the inwardly projecting parts and adapted to rest upon anti-friction rollers, substantially as set forth.

8. In an apparatus for holding and conveying ore, the combination with an apertured support arranged substantially cylindrically, supporting devices for the apertured support extending inward therefrom, ring-like or tire-like carriers attached to the supporting devices and adapted to rest upon anti-friction rollers, and an air chamber in the interior of the apertured support.

9. In an apparatus for holding and conveying ore during treatment, the combination of a cylindrically arranged apertured ore support, ore retaining flanges or walls secured to and extending outward from the ore

support, holding devices for the ore support extending inward therefrom, ring-like or tire-like carriers for the holding devices detachably secured thereto and adapted to rest upon anti-friction rollers, and an air chamber in the interior of the apertured support, substantially as set forth.

10. In an apparatus for holding and conveying ore while it is being treated, the combination of a cylindrically arranged apertured ore support, a series of air chambers inside of the lines of the ore support and moving therewith, and a stationary air chamber inside of the movable air chambers, substantially as set forth.

11. In an apparatus for holding and conveying ore while it is being treated, the combination of a cylindrically arranged apertured ore support, annular walls extending inward from the ore support, radially arranged partitions extending across the space between said annular walls, and a stationary air chamber inside of the said partitions.

12. In an apparatus for conveying ore while being roasted, the combination of a rotatable, apertured ore support, a stationary air box in close proximity to which the ore support is moved, and air cutoffs at the front and rear edges of the air box, substantially as set forth.

13. In an apparatus for conveying ore while being roasted, the combination of a rotatable, apertured ore support, a stationary air box in close proximity to which the ore support is moved, air cut off plates arranged at the front and rear edges of the air box, and cross pieces carried by the ore support arranged to move across the surface of the said air cut off plates, substantially as set forth.

14. In an apparatus for treating ore, the combination of a supporting frame rotatable about an axis and carrying perforated grate-like supports for the ore, a series of air chambers arranged adjacent to the ore supports and rotatable therewith, and means for causing air to pass through the ore being treated to maintain active combustion therein, connected with the several air chambers, substantially as set forth.

15. In an apparatus for treating ore, the combination of perforated grate-like sections for supporting the ore arranged in a circular series about an axis, means for moving the grate sections around the axis, air chambers arranged respectively adjacent to the ore-supporting grate sections and movable therewith, and means for causing air to pass through the ore, the air chambers and the grate sections while these are in motion in order to maintain combustion in the ore being treated, substantially as set forth.

16. In an apparatus for treating ore, the combination of a series of air chambers, a series of grate sections located respectively above the said air chambers, means for retaining ore upon the grate sections, a rotary holder for the said grate sections and air chambers, and means for causing air to pass through the said air chambers and through the said grate sections, and through the ore, said means comprising air conduits situated inside the circles of rotation of the ore bodies, substantially as set forth.

17. In an apparatus for treating ore, the combination of perforated grate-like sections for supporting the ore while being treated arranged in a circular series, means for moving the grate sections in a circular path, means for feeding ore to the grate sections, means for igniting the combustible constituents of the ore after being placed on the grate sections, air chambers arranged respectively adjacent to the ore-supporting grate sections, and movable therewith, and means for causing air to pass through the ore, the air chambers and the grate sections while these are in motion, substantially as set forth.

18. In an apparatus for treating ore, the combination of perforated grate-like sections for supporting ore arranged in a circular series, means for moving the grate sections in a circular path, means for feeding ore to the grate sections, air chambers arranged respectively adjacent to the ore-supporting grate sections and movable therewith, means for causing air to pass through the ore, the air chamber and the grate sections while these are in motion to maintain combustion in the ore, and means for cutting off the air chambers from the said means for causing movement of the air, after the ore has been treated, substantially as set forth.

19. In an apparatus for treating ore, the combination of perforated grate-like sections for supporting ore arranged in circular series, means for moving the grate sections in a circular path, means for feeding ore to the grate sections, air chambers arranged respectively adjacent to the ore-supporting grate sections and movable therewith, means for causing air to pass through the ore, the air chambers and the grate sections while these are in motion to maintain combustion in the ore, means for cutting off the air chambers from the said means for causing movement of the air, after the ore has been treated, and means for removing the treated ore from the grate sections while cut off from the means for causing air movements.

20. In an apparatus for treating ore, the combination of a series of grate sections for supporting the ore, a series of air chambers under said sections, and means adapted to be connected with each air chamber for causing air to pass through the ore mass on the grate sections, substantially as set forth.

21. In an apparatus for treating ore, the combination of an endless ore support or carrier, a series of separate air chambers arranged under or adjacent to the ore support, and means for successively connecting the said air chambers with means for causing air to pass through the ore masses above the chambers, substantially as set forth.

22. In an apparatus for treating ore and transporting it while combustion is being caused within the ore mass, the combination of an endless movable ore support, and a series of air chambers communicating with the ore support and movable therewith, substantially as set forth.

23. In an apparatus for treating ore and transporting it while combustion is caused within the ore mass, the combination of an ore support, means for moving the support a series of air chambers communicating with the support, means for causing movement of air to support combustion in the ore mass and connected with the said air chambers, and means for putting the said air chambers in communication with and cutting them off from the said air-moving means, successively, substantially as set forth.

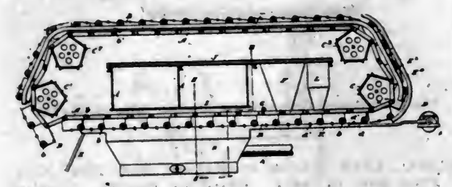
24. In an apparatus for treating ore, the combination of ore supporting grate sections arranged in a circular series about a center, a series of air chambers under the grate sections, means for turning the grate sections and air chambers together about the said center, and a means common to the said air chambers arranged to cause air to pass through the grate sections and the ore supported thereon, substantially as set forth.

25. In an apparatus for roasting and sintering ore, the combination of a movable support for the ore having a grate surface, a layer of pervious and relatively inert and refractory material above the said grate surface, means for feeding the ore to be treated upon the said layer of material, and means for causing a current of air to pass transversely through the ore mass while upon the support to maintain combustion in the mass, substantially as set forth.

26. In an apparatus for roasting and sintering ore, the combination of an endless support having a pervious bottom, means for feeding a layer of inert material to the said pervious surface of the ore support, means for feeding the ore to be treated upon the said layer of inert material, means for moving the support, and means for causing a current of air to pass transversely through the ore, the layer of inert material and the grate surface, substantially as set forth.

27. In an apparatus for treating ore, the combination of a support pervious to a supporter of combustion, means for feeding upon the said support a layer of ore, and means for supplementally feeding another layer of material to the support in contact with the said layer of ore, substantially as set forth.

13,424. PROCESS OF ROASTING AND SINTERING ORES AND PRODUCT RESULTING THEREFROM. ARTHUR S. DWIGHT, New York, N. Y., assignor, by direct and mesne assignments, to Dwight & Lloyd Metallurgical Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 8, 1910. Serial No. 571,103. Original application filed Dec. 14, 1906, Serial No. 347,872. Renewed Feb. 23, 1909, Serial No. 479,498. Original No. 916,391, dated Mar. 23, 1909. Division B. (Cl. 75—60.)



1. The improved method of treating metalliferous ores, consisting in placing upon a support, pervious to a supporter of combustion, a layer of stones or similar material, then placing upon said layer a body of said ore, then causing a supporter of combustion to pass through said body of ore, and during said passage of said supporter of combustion temporarily applying burning products to the combustible elements in the ore, whereby agglomeration or sintering of the ore will take place.

2. The improved method of treating metalliferous ores, containing combustible elements, consisting in placing upon a support pervious to a supporter of combustion, a layer of stones or similar material, then placing upon said layer a body of said ore, then causing a supporter of combustion to pass through said body of ore, and during said passage of said supporter of combustion passing burning products over the surface of the ore, whereby agglomeration or sintering of the ore will take place.

3. The improved method of treating metalliferous ores, consisting in placing upon a support pervious to a supporter of combustion a layer of stones or similar material, then placing upon said layer a body of said ore, then causing a supporter of combustion to pass through said body of ore, and during said passage of said supporter of combustion passing burning gas over the surface of the ore, whereby agglomeration or sintering of the ore will take place.

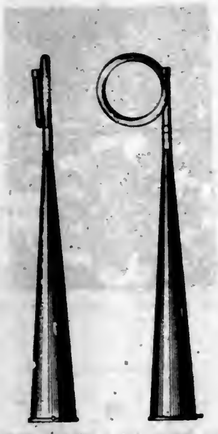
4. The improved method of treating metalliferous ores consisting in placing upon a support pervious to air, a layer of stone or similar material, then placing upon said layer a layer of ore, causing a supporter of combustion to pass through the said body of ore, and applying burning products to the exposed surface of the ore and causing a relative movement of the body of ore and said burning products whereby the entire surface of the ore mass is ignited.

5. The improved method of treating metalliferous ores, consisting in placing upon a support pervious to air a layer of stone or similar material, then placing upon said layer a body of said ore, the upper surface of which is exposed and approximately smooth, causing a supporter of combustion to pass through the body of ore while upon the support, temporarily applying burning products to the exposed surface of the ore, whereby sintering of the ore will take place, and finally removing the sintered product from the support.

6. The improved method of treating metalliferous ores, consisting in continuously placing upon a support pervious to air a layer of stone or similar material, then continuously placing upon said layer a body of ore, causing a supporter of combustion to pass through the body of ore so placed and temporarily applying burning products to the exposed surface of the ore, whereby sintering of the ore will take place.

DESIGNS.

42,559. AUTOMOBILE-HORN. WILLIAM W. DEAN, North Ridgeville, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed Sept. 15, 1911. Serial No. 649,576. Term of patent 7 years.



The ornamental design for an automobile horn as shown.

42,560. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,367. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

42,561. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,368. Term of patent 3½ years.



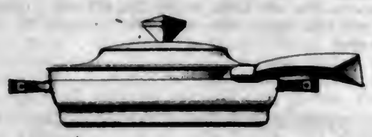
The ornamental design for a carpet, as shown.

42,562. CARPET. WILLIAM A. ELLIOT, Yonkers, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed Mar. 21, 1912. Serial No. 685,369. Term of patent 3½ years.



The ornamental design for a carpet, as shown.

42,563. CHAFING-DISH. EDWARD A. FARR, Meriden, Conn., assignor to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed Dec. 26,1911. Serial No. 668,903. Term of patent 7 years.



The ornamental design for a chafing dish, as shown.

42,564. LACE. JACOB G. HANDOL, New York, N. Y. Filed Nov. 14, 1911. Serial No. 660,285. Term of patent 3½ years.



The ornamental design for lace, as shown.

42,565. TEAPOT OR SIMILAR ARTICLE. HERMAN C. KUPPER, New York, N. Y. Filed Dec. 9, 1910. Serial No. 596,556. Term of patent 7 years.



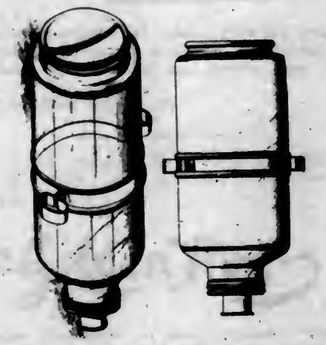
The ornamental design for a tea pot or similar article as shown.

42,566. APRON. SOLOMON C. SALZENSTEIN, Peoria, Ill. Filed Jan. 22, 1912. Serial No. 672,790. Term of patent 14 years.



The design for an apron as herein shown.

42,567. OIL-STOVE RESERVOIR. LOUIS STOCKSTROM, St. Louis, Mo. Filed Jan. 4, 1911. Serial No. 600,853. Term of patent 14 years.



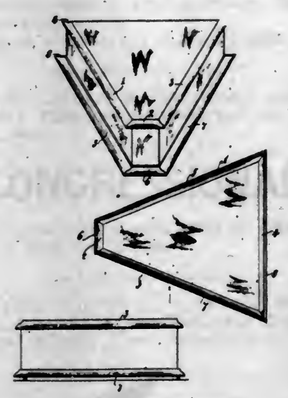
The ornamental design for an oil stove reservoir as shown.

42,568. SPOON, FORK, OR SIMILAR ARTICLE. EDWARD TODD, Jr., Brooklyn, N. Y. Filed Jan. 29, 1912. Serial No. 674,202. Term of patent 14 years.



The ornamental design for a spoon, fork, or similar article, as shown.

42,569. PHONOGRAPH-BOX OR SIMILAR ARTICLE. WILLIAM WUTHENOW, New York, N. Y. Filed Oct. 28, 1911. Serial No. 657,390. Term of patent 14 years.



The ornamental design for a phonograph box, or similar article, as shown and described.

TRADE-MARKS

PUBLISHED MAY 28, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 32,798. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BARCLAY & BARCLAY, New York, N. Y. Filed Feb. 13, 1908. Under ten-year proviso.



Particular description of goods.—Pills for the Relief of Constipation, Dyspepsia, Headache, Biliousness, Flatulency, Liver Disease, Dizziness, Nausea, and Similar Distress.

Claims use since July 1, 1890.

Ser. No. 33,176. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. H. MERRILL CO., Ottumwa, Iowa. Filed Mar. 5, 1908.



Particular description of goods.—Canned Vegetables, Canned Fruits, Dried Fruits, Mustard, Wheat-Flakes, Shredded Cocoanut, Compound of Corn-Syrup and Refined Syrup, Horse-Radish, Vinegar, Canned Oysters, Brick-Cheese, Tomato Catsup, Mince-Meat, Rolled Oats, Lemon-Peel, Pearl-Barley, Rice, Sugar, a Compound of Corn-Syrup and Sorghum-Syrup, Chilli Sauce, Tapioca, and Olives.

Claims use since about Jan. 1, 1900.

Ser. No. 33,855. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GRONEWEG & SCHOENTGEN CO., Council Bluffs, Iowa. Filed Apr. 4, 1908.

LUXOR BRAND

No claim being made to the word "Brand."

Particular description of goods.—Canned Vegetables, Tomato Catchup, Canned Salmon, Jellies, Dried Fruits, Cereal Breakfast Foods, Coffee, Spices, Flavoring Extracts, Canned Fruits.

Claims use since about the 1st of January, 1885.

Ser. No. 39,079. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) BYRON E. VAN AUKEN, Chicago, Ill. Filed Dec. 3, 1908. Under ten-year proviso.

VANAUKEN

Particular description of goods.—Pressure-Regulating Valves, Back-Pressure Valves, Oil-Separators, Steam-Traps, Settling-Chambers, Strainer-Fittings, Pipe-Hangers, and Lift-Fittings.

Claims use since the 1st day of January, 1892.

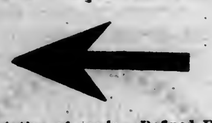
Ser. No. 43,637. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) PARK & TILFORD, New York, N. Y. Filed July 19, 1909.

CONGRESSIONAL

Particular description of goods.—Straight Corn Whisky.

Claims use since Oct. 1, 1908.

Ser. No. 44,655. (CLASS 15. OILS AND GREASES.) STANDARD OIL CO. OF NEW YORK, New York, N. Y. Filed Sept. 13, 1909. Under ten-year proviso.



Particular description of goods.—Refined Petroleum for Illuminating, Heating, and Power Purposes.

Claims use since Jan. 1, 1883.

Ser. No. 44,656. (CLASS 15. OILS AND GREASES.) STANDARD OIL CO. OF NEW YORK, New York, N. Y. Filed Sept. 13, 1909. Under ten-year proviso.



Particular description of goods.—Refined Petroleum for Illuminating, Heating, and Power Purposes.

Claims use since Jan. 1, 1883.

Ser. No. 47,048. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.). EL PASO GRAIN & MILLING CO., El Paso, Tex. Filed Jan. 10, 1910.

Mariposa



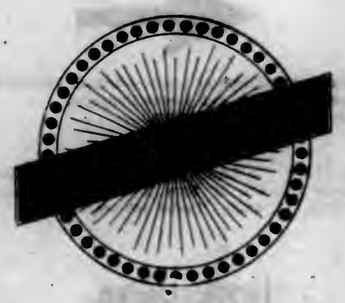
Particular description of goods.—Wheat-Flour.
Claims use since Jan. 1, 1899.

Ser. No. 47,707. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) AMERICAN LAVA CO., Chattanooga, Tenn. Filed Feb. 10, 1910.

DELUXE

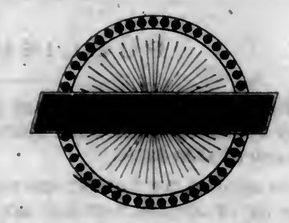
Particular description of goods.—Burners and Tips for Illuminating-Gas.
Claims use since January, 1908.

Ser. No. 48,807. (CLASS 12. CONSTRUCTION MATERIALS.) THE AMERICAN ASPHALTUM & RUBBER CO., Chicago, Ill. Filed Apr. 2, 1910.



Particular description of goods.—Roofing-Asphalt, Waterproofing-Asphalt, Asphaltic Paving-Cement, Asphalt Floor-Mastic, Filler-Asphalt for Brick Floors and Pavements, and Road-Asphalt.
Claims use since Feb. 14, 1910.

Ser. No. 48,810. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) THE AMERICAN ASPHALTUM & RUBBER CO., Chicago, Ill. Filed Apr. 2, 1910.



Particular description of goods.—Mineral Rubber, Asphaltic Lime-Rock, and Gilsonite.
Claims use since Mar. 29, 1910.

Ser. No. 50,555. (CLASS 15. OILS AND GREASES.) STANDARD OIL COMPANY OF NEW YORK, New York, N. Y. Filed June 24, 1910.

HOME

Particular description of goods.—Refined Petroleum for Illuminating, Heating, and Power Purposes.
Claims use since 1871.

Ser. No. 50,593. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) MINERVA MOTORS, Berchem, near Antwerp, Belgium. Filed June 27, 1910.



Particular description of goods.—Automobiles and Chassis for Automobiles, Bicycles, and Aeroplanes.
Claims use since 1897.

Ser. No. 51,848. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) LYCURGUS W. STROCK, Bethlehem, Pa. Filed Sept. 15, 1910.



Particular description of goods.—Wooden Handles.
Claims use since Dec. 10, 1903.

Ser. No. 54,398. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) SEARS-CROSS COMPANY, New York, N. Y. Filed Feb. 9, 1911.

S C

Particular description of goods.—Speed, Distance, and Revolution Indicators and Recorders.
Claims use since June 30, 1910.

Ser. No. 54,910. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SAMUEL ALBERT, New York, N. Y. Filed Mar. 7, 1911.

PEROXOTONE

Particular description of goods.—Dental Powder, Dental Cream, Face-Powder in Cake Form, Nail-Powder, Nail-Paste, and Antiseptic Powders.
Claims use since June 12, 1910.

Ser. No. 55,391. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) E. M. DICKINSON LTD., Sheffield, England. Filed Mar. 29, 1911. Under ten-year proviso.

THE INVICTA

Particular description of goods.—Steel Table Knives and Forks, Carving Sets and Steels, Butchers' Knives and Steels, Steel Bowie, Bread, Budding, Butter, Cake, Champagne, Cigar, Cooks', Dessert, Farriers', Hacking, Ham, Hunting, Leather or Mill, Putty, Palette, Pen, Pocket, Pruning, Picnic, Scraping, Stopping, Skinning, Sloyd, Spear-Point, and Shoe Knives, Machetes, Daggers, Tinsmiths' Shears, Razors, and Scissors.
Claims use since 1893.

Ser. No. 55,620. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. W. TAYLOR & CO., New York, N. Y. Filed Apr. 8, 1911.

COROLLAS

Particular description of goods.—Toilet Compounds for Treating Ailments of the Human Skin and Shampooing the Human Hair.
Claims use since Aug. 13, 1876.

Ser. No. 55,652 (CLASS 39. CLOTHING.) J. EMIL DAYFOOS, New York, N. Y. Filed Apr. 10, 1911.

ABS

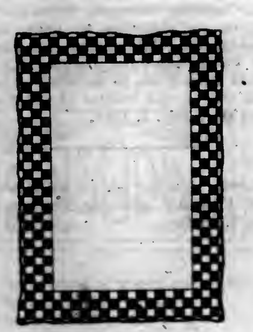
Particular description of goods.—Coats and Trousers, Hats, and Negligée Shirts.
Claims use since July 10, 1910.

Ser. No. 56,462. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) U. S. CARTRIDGE CO., Lowell, Mass. Filed May 19, 1911.

SCOUT

Particular description of goods.—Cartridges.
Claims use since Mar. 18, 1911.

Ser. No. 57,554. (CLASS 15. OILS AND GREASES.) GEORGE A. HAWS, New York, N. Y. Filed July 8, 1911.



Consisting of a checker design of contrasting-colored checks, as shown in the accompanying drawing, applied to the exterior surface of the receptacles containing the goods.
Particular description of goods.—Lubricating Oils and Greases.
Claims use since January, 1907.

Ser. No. 57,678. (CLASS 37. PAPER AND STATIONERY.) F. SOENNECKEN, Bonn, Germany. Filed July 17, 1911. Under ten-year proviso.

SOENNECKEN'S

Particular description of goods.—Paper and Pasteboard Letter-Files, Blotters, Pencils, Pencil-Holders, Paper-Weights, Letter-Paper, Letter-Holders, Letter-Openers, Letter-Racks, Colored Pencils, Envelops, Crayons, Penholders, Pen-Racks, Pen-Wipers, Slate-Pencils, Pens, Fountain-Pens, Account-Books, Copying-Presses, Press-Copying Paper in Sheets and in Rolls, Blotting-Paper, Rubber-Filled Cloth for Facilitating Press-Copying, Portfolios for Receiving Copying-Sheets, Letter-Books, Waterproof Sheets of Cardboard, Copying-Board of Cardboard Covered with Waterproof Material, Paper-Rulers, Pliable Erasers, Inkstands, Drawing-Paper, and Thumb-Tacks for Drawing-Paper.
Claims use since July 5, 1876.

Ser. No. 57,944. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE BARBER MEDICINE CO., Barre, Vt. Filed July 31, 1911.

Barber's

Consisting of the word "Barber's" in the handwriting of Charles N. Barber, a member of the firm.

Particular description of goods.—An Antiseptic Wash, Appetizing-Tonic, Blood-Purifier, Ointments, Heave-Powders, Physic-Capsules, Liniment, Worm-Eradicator, Abortion-Preventive, and Remedies for Colic, Distemper, Fistula, Lymphangitis, Ophthalmia, Pneumonia, Spavin, Diarrhea in Calves and Cows, Garget, Milk-Fever, to Remove Placenta from Cows, to Relieve Stoppage and Bloat in Cows and Calves, and Disease of the Kidneys.

Claims use since Mar. 1, 1911.

Ser. No. 57,980. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HERMAN RUDOLFF, Novato, Cal. Filed Aug. 2, 1911.

CIRCLE

Particular description of goods.—Cheese.

Claims use since Oct. 1, 1895.

Ser. No. 58,300. (CLASS 45 BEVERAGES, NON-ALCOHOLIC.) AMERICAN BEVERAGE COMPANY, St. Louis, Mo. Filed Aug. 21, 1911.

PINAPLEZ

Consisting of the fanciful word "Pinaplez."

Particular description of goods.—Carbonated Fruit Beverages, Concentrated Fruit Compounds for the Production of Beverages, and Soda-Fountain Syrups.

Claims use since about January, 1911.

Ser. No. 58,323. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SMITH & HEMENWAY COMPANY, New York, N. Y. Filed Aug. 22, 1911.



Particular description of goods.—Glass-Cutters, Putty-Knives, Scrapers, Nail-Pullers, Wrenches, Auger-Bits, Braces, Screw-Drivers, Tack-Claws, Staple-Pullers, Water-Motors, Miter-Boxes, Chisels, Tool-Handles, Saws, Saw-Frames, Levels, Axes, Hatchets, Drills, Razors, Files, Pliers, Climbers, Snips and Wire-Cutters, Wire-Stretchers.

Claims use since on or about Feb. 1, 1900.

Ser. No. 58,324. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SMITH & HEMENWAY COMPANY, New York, N. Y. Filed Aug. 22, 1911.



Particular description of goods.—Electrical Connectors and Spark-Plugs.

Claims use since on or about Feb. 1, 1900.

Ser. No. 58,448. (CLASS 39. CLOTHING.) BOSS MANUFACTURING CO., Kewanee, Ill. Filed Aug. 30, 1911.

THE BOSS

KE-WA-NEE

Applicant does not claim as its specific trade-mark the word "Ke-wa-nee" or the representation of a glove.

Particular description of goods.—Gloves and Mittens.

Claims use since Dec. 1, 1909.

Ser. No. 58,521. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JAMES ADAIR, Sewickley, Pa. Filed Sept. 2, 1911.

WHOAT

Particular description of goods.—Cereal Breakfast Food.

Claims use since Aug. 7, 1911.

Ser. No. 58,582. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE CRESCENT MACHINE CO., Leetonia, Ohio. Filed Sept. 8, 1911.



Particular description of goods.—Power-Driven Band-Saw Machines, Saw-Table Machines, Wood-Jointing Machines, Wood-Planing Machines, Wood-Shaping Machines, Swing Cut-Off Machines, Disk Grinders for Wood and Metal, and Boring-Machines

Claims use since about Aug. 28, 1911.

Ser. No. 58,622. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TREASURE STATE MILLING COMPANY, Manhattan, Mont. Filed Sept. 11, 1911.

GOLDEN TREASURE

Particular description of goods.—Wheat-Flour.

Claims use since Jan. 2, 1911.

Ser. No. 58,720. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) JAMES A. MILLER, Columbia, Mo. Filed Sept. 19, 1911.

UNIVERSITY-SHINE

The word "Shine" being disclaimed.

Particular description of goods.—A Polish for Furniture; Linoleum; Pantasote; All Woodwork with a Hard Finish.

Claims use since about Mar. 1, 1911.

Ser. No. 59,093. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH TETLOW, Philadelphia, Pa. Filed Oct. 10, 1911.



Consisting of the words "Blue Moon" and a pictorial representation of a blue moon.

Particular description of goods.—Perfume.

Claims use since about January, 1906.

Ser. No. 59,192. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) WILLIAM N. COLLIER, Gail, Tex. Filed Oct. 17, 1911.

CANSODINE

Particular description of goods.—Remedies for Cancer and Chronic Skin and Blood Diseases.

Claims use since June 25, 1911.

Ser. No. 59,222. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) JOSEPH HARRIS, New York, N. Y. Filed Oct. 18, 1911.



Particular description of goods.—Furniture-Polish.

Claims use since Aug. 13, 1911.

Ser. No. 59,430. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) M. G. STONEMAN & SON, Albany, N. Y. Filed Oct. 30, 1911.

Country Gentleman

Particular description of goods.—Dry and Mixed Paints, Paint-Oils, Varnishes, Stains, Fillers, Enamels, and Calcimines.

Claims use since Oct. 5, 1911.

Ser. No. 59,453. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) C. M. McCLUNG & Co., Knoxville, Tenn. Filed Nov. 1, 1911.



Particular description of goods.—Axes, Hammers, Shears, Gasolene-Engines, Chisels, Drawing-Knives, Handles, Augers, Boring-Machines, Screw-Drivers, Planes, Cream-Separators, Steel Table-Knives, Pocket-Knives, Plows, Cultivators, Scythes, Hatchets, Adzes, Mattocks, Picks, Tire-Benders, Screw-Plates, Wrenches, Files, Saws, Braces, Bits, Pliers, Razors, Whitewash-Sprays, Spray-Pumps, and Pumps.
Claims use since 1882.

Ser. No. 59,454. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) C. M. McCLUNG & Co., Knoxville, Tenn. Filed Nov. 1, 1911.



Particular description of goods.—Axes, Hammers, Gasolene-Engines, Augers, Boring-Machines, Planes, Tire-Benders, Screw-Plates, Wrenches, Files, Saws, Whitewash-Sprays, and Pumps.
Claims use since 1893.

Ser. No. 59,517. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) JUNO & SONS Co., New Orleans, La. Filed Oct. 30, 1911.

ALECTO

Particular description of goods.—Coal.
Claims use since January, 1897.

Ser. No. 59,680. (CLASS 12 CONSTRUCTION MATERIALS.) FARLEY & LOETSCHER MANUFACTURING CO., Dubuque, Iowa. Filed Nov. 13, 1911.



No claim is made to the word "Quality."
Particular description of goods.—Doors, Windows, Blinds, Moldings, Window and Door Frames, Stairs, Mantels, Grilles, and Columns.
Claims use since about January, 1898.

Ser. No. 59,722. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE SUMTER TELEPHONE MFG. CO., Sumter, S. C. Filed Nov. 14, 1911.

3-M

Particular description of goods.—Dynamos and Electric Ignition Apparatus.
Claims use since May 30, 1909.

Ser. No. 59,765. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TOMKINSON, KENYON & TOMKINSON Co., Honeoye Falls, N. Y. Filed Nov. 17, 1911.

PI-CA-KO

Particular description of goods.—Wheat-Flour.
Claims use since June 1, 1909.

Ser. No. 59,855. (CLASS 17. TOBACCO PRODUCTS.) THE WILENTZ COMPANY, Perth Amboy, N. J. Filed Nov. 22, 1911.



The portrait being that of a deceased general.
Particular description of goods.—Smoking-Tobacco.
Claims use since July 25, 1910.

Ser. No. 59,948. (CLASS 2. RECEPTACLES.) W. S. SHEPPARD TANK DEPT., Newark, N. J. Filed Nov. 27, 1911.



Particular description of goods.—Gasolene-Storage Tanks.
Claims use since November, 1909.

Ser. No. 60,064. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) SHEDD ELECTRIC COMPANY, INC., Roselle Park, N. J. Filed Dec. 5, 1911.



No claim being made to the name or word "Shedd."
Particular description of goods.—Electric Dynamos, Electric Motors, Electric Cut-Outs, Electric Signs, Electric Barber-Poles, Electric Heating Devices, Electric Ignition Apparatus, and Electric Motor-Driven Suction-Cleaners, Centrifuges, Fans, Dynamos, and Special Machines.
Claims use since May 1, 1909.

Ser. No. 60,156. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BISSELL CARPET SWEEPER COMPANY, Grand Rapids, Mich. Filed Dec. 11, 1911. Under ten-year proviso.

BISSELL'S

Particular description of goods.—Portable Carpet-Cleaning Machines.
Claims use since Feb. 12, 1883.

Ser. No. 60,160. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) SOCIÉTÉ ANONYME UTOCOLOR, La Garenne Colombes, Seine, France. Filed Dec. 11, 1911.

UTOCOLOR

Particular description of goods.—Papers for Photographs in Color and in General All Sensitive Papers for Photography.
Claims use since Sept. 28, 1911.

Ser. No. 60,285. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) GEO. BORGFELDT & Co., New York, N. Y. Filed Dec. 16, 1911.

BRILLIANT

Particular description of goods.—Dull-Finished Aluminum Cooking and Household Utensils.
Claims use since about the middle of November, 1911.

Ser. No. 60,374. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ERNEST W. GAUBE, Cleveland, Ohio. Filed Dec. 20, 1911.

PIN-ACUS

Particular description of goods.—An External Remedy for Pains and Aches, for Rheumatism, Neuralgia, Pain in Side, Chest, or Back, Lameness, Muscle-Strains, Sore Throat, and Bronchial Affections.
Claims use since Aug. 1, 1911.

Ser. No. 60,379. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Dec. 20, 1911.

American Beauty

Particular description of goods.—Biscuit.
Claims use since November, 1898.

Ser. No. 60,475. (CLASS 15. OILS AND GREASES.) STILES BROTHERS, Parkersburg, W. Va. Filed Dec. 27, 1911. Under ten-year proviso.



Particular description of goods.—Lubricating-Oils.
Claims use since about 1870.

Ser. No. 60,689. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ADOLPH SAUREL, Arbon, Switzerland. Filed Jan. 8, 1912.



Particular description of goods.—Embroidery-Machines, Lace-Machines, Weaving-Machines, and Parts Thereof.
Claims use since May 1, 1910.

Ser. No. 60,785. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAMES F. BALLARD, St. Louis, Mo. Filed Jan. 13, 1912. Under ten-year proviso.



Particular description of goods.—A Preparation for the Treatment of Affections of the Eye.
Claims use since Jan. 1, 1865.

Ser. No. 60,832. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) WILLIAM A. FORCE & COMPANY, INC., New York, N. Y. Filed Jan. 15, 1912.

"VICTOR"

Particular description of goods.—Numbering and Dating Machines.
Claims use since 1895.

Ser. No. 60,907. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) S. W. FLOWER & COMPANY, Toledo, Ohio. Filed Jan. 19, 1912.



Particular description of goods.—Clover, Alsike, Alfalfa, and Timothy Seeds.
Claims use since Nov. 21, 1885.

Ser. No. 61,007. (CLASS 15. OILS AND GREASES.) PELLUCIDINE COMPANY, Bellevue, Pa. Filed Jan. 24, 1912.

Pellucidine

Particular description of goods.—Oils and Greases, Being a Combination of Petroleum and Fish Oils Used for the Purpose of Transparentising Drawings, Prints, Tracings, and other Papers for Use in Blue-Printing Processes.
Claims use since Jan. 1, 1912.

Ser. No. 61,029. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WOODBURY T. MORRIS, Columbus, Ohio. Filed Jan. 25, 1912.

Nyp

Particular description of goods.—Coffee Compounds Comprising a Mixture of Coffee, Chicory, and Cereal Treated with Molasses.
Claims use since Dec. 15, 1911.

Ser. No. 61,079. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE NATIONAL SAW COMPANY, Newport, Ky. Filed Jan. 27, 1912.



Particular description of goods.—Saws.
Claims use since November, 1878.

Ser. No. 61,106. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) WILHELM SIMONSSON, New York, N. Y. Filed Jan. 27, 1912.



No claim being made for the word "Scale."
Particular description of goods.—Weighing-Scales.
Claims use since Apr. 29, 1908.

Ser. No. 61,231. (CLASS 39. CLOTHING.) ISAAC SCHEINMAN, New York, N. Y. Filed Feb. 3, 1912.



The words "Sewed," "Secured," "Strong," and "Is Iron" being disclaimed.
Particular description of goods.—Boys' and Men's Coats, Vests, Trousers, and Overcoats.
Claims use since May 23, 1895.

Ser. No. 61,241. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) THE PORCELIRON COMPANY, Beaver Falls, Pa. Filed Feb. 3, 1912.



Particular description of goods.—Enameled Metal Stoves and Ranges.
Claims use since Jan. 4, 1912.

Ser. No. 61,243. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PRASLEE GAULBERT COMPANY, Louisville, Ky. Filed Feb. 3, 1912.

Pee Gee

Particular description of goods.—Dry, Paste, and Ready-Mixed Paints, Stains, Varnishes, Dry and Ready-Mixed Wall-Finishes, Enamels, Japans, Linseed-Oil, Dry Colors, Fillers, Lampblack, Driers, Calcimine, Paint and Varnish Remover, Turpentine, Gold Sizing, and Putty.
Claims use since Jan. 1, 1909.

Ser. No. 61,256. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) ALBERTO CIMOROSI, Newfield, N. J. Filed Feb. 5, 1912.



The upper band being red and the lower band blue.
Particular description of goods.—Torpedoes.
Claims use since May 1, 1906.

Ser. No. 61,278. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL CARBON COMPANY, Cleveland, Ohio. Filed Feb. 5, 1912.



No claim being made to the words "Dry Cell."
Particular description of goods.—Dry Cells.
Claims use since Dec. 20, 1911.

Ser. No. 61,284. (CLASS 11. INKS AND INKING MATERIALS.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912.



Particular description of goods.—Black Ink, Red Ink, Green Ink, Purple Ink, Used for Writing Purposes, Machine-Ink, Stamp-Pad Ink, Carbon-Paper, Type-Writer Ribbons, and Stamp-Inking Pads.
Claims use since Mar. 1, 1908.

Ser. No. 61,299. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912. Under ten-year proviso.

Tower

Particular description of goods.—Steel Rulers.
Claims use since 1871.

Ser. No. 61,327. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Feb. 7, 1912.

RASTUS

Particular description of goods.—Biscuit.
Claims use since Jan. 20, 1912.

Ser. No. 61,381. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SIMON PICARD & BROTHERS, Juarez and Chihuahua, Mexico. Filed Feb. 9, 1912.



The words "Simon Picard y Hnos.," "Lefebvre," "Crême," "Chihuahua," and "Marque Déposée" being disclaimed.

Particular description of goods.—Face-Cream.
Claims use since Jan. 1, 1910.

Ser. No. 61,387. CLASS 25. LOCKS AND SAFES.) LANCASTER FOUNDRY COMPANY, Lancaster, Pa. Filed Feb. 9, 1912.



No claim being made for the words "Trade-Mark."

Particular description of goods.—Padlocks, Door-Locks, Rim-Locks, Night-Latches, and Window-Catches.
Claims use since about Jan. 1, 1912.

Ser. No. 61,388. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) AMERICAN METAL STAMPING COMPANY, Germantown, Pa. Filed Feb. 9, 1912.

KEYSTONE

Particular description of goods.—Metal Sluice-Pipes, Drain-Pipes, Culverts, and Gutters.
Claims use since about Dec. 1, 1911.

Ser. No. 61,450. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) CHARLES J. ALLEN, Moorestown, N. J. Filed Feb. 13, 1912.



Particular description of goods.—Coal-Meters.
Claims use since Jan. 11, 1912.

Ser. No. 61,459. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE LEWIS WARNCKE & Co., Cannon Station, Conn. Filed Feb. 14, 1912.



Particular description of goods.—Cutworm-Exterminator.
Claims use since Mar. 1, 1911.

Ser. No. 61,503. (CLASS 11. INKS AND INKING MATERIALS.) THE AMERICAN PRINTING INK CO., Cincinnati, Ohio. Filed Feb. 15, 1912.

Worknturn

Particular description of goods.—Printing-Ink.
Claims use since October, 1911.

Ser. No. 61,561. (CLASS 39. CLOTHING.) HEIRLOOM SILK GARMENT CO., Pottstown, Pa. Filed Feb. 17, 1912.

Smartfet

Particular description of goods.—Underskirts.
Claims use since December, 1904.

Ser. No. 61,606. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) CASTIGLIONI COMPANY, Providence, R. I. Filed Feb. 19, 1912.

C.CO.

Particular description of goods.—Bracelets and Lockets.
Claims use since Dec. 14, 1908.

Ser. No. 61,638. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) WADSWORTH, HOWLAND & Co., INCORPORATED, Boston, Mass. Filed Feb. 20, 1912.



Particular description of goods.—Ready-Mixed Paints and Varnishes.
Claims use since Nov. 25, 1911.

Ser. No. 61,731. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. N. ADAM & Co., Buffalo, N. Y. Filed Feb. 26, 1912.



Particular description of goods.—Wheat-Flour.
Claims use since Jan. 10, 1912.

Ser. No. 61,742. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) WIZARD PRODUCTS Co., Chicago, Ill. Filed Feb. 26, 1912.

WIZARD

Particular description of goods.—Sweeping Compounds.
Claims use since about June 1, 1906.

Ser. No. 61,754. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL CARBON COMPANY, Cleveland, Ohio. Filed Feb. 26, 1912.

RAILROAD SPECIAL

No claim being made to the word "Special."

Particular description of goods.—Dry Cells.
Claims use since Jan. 20, 1912.

Ser. No. 61,774. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE GREIST MANUFACTURING COMPANY, New Haven, Conn. Filed Feb. 27, 1912. Under ten-year proviso.

GREIST

Particular description of goods.—Attachments for Sewing-Machines—to wit, Attachment-Holders, Binders, Braiders, Buttonhole Attachments, Corders, Embroidering and Darning Attachments, Guides, Hemmers, Plaiters, Quilters, Rufflers, and Tuck-Creasers or Tuckers.
Claims use since some time during the year 1888.

Ser. No. 61,785. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) H. BRONNLEY & Co. LIMITED, London, England. Filed Feb. 28, 1912.

OMAR KHAYYAM

Particular description of goods.—Scents.
Claims use since Jan. 16, 1912.

Ser. No. 61,807. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) EUGENE COLWELL, Jr., Greensboro, N. C. Filed Feb. 29, 1912.

TAXI-

Particular description of goods.—Type-Writers and Type-Writer Parts.
Claims use since Jan. 6, 1912.

Ser. No. 61,826. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) JOSEPH T. RYERSON & SON, Chicago, Ill. Filed Feb. 29, 1912.

FIRNTREAD

Particular description of goods.—Steel Plates.
Claims use since Feb. 1, 1912.

Ser. No. 61,860. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE A. WILHELM COMPANY, Reading, Pa. Filed Mar. 2, 1912.



Particular description of goods.—Calcimine.
Claims use since Nov. 13, 1911.

Ser. No. 61,895. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) INGERSOLL-RAND Co., Phillipsburg, N. J., and New York, N. Y. Filed Mar. 2, 1912.

HEART-BEAT

Particular description of goods.—Oiling Devices for Fluid-Operated Tools.
Claims use since Feb. 1, 1911.

Ser. No. 61,976. (CLASS 37. PAPER AND STATIONERY.) BIRMINGHAM PAPER Co., Birmingham, Ala. Filed Mar. 6, 1912.

A-LE-DA

Particular description of goods.—Writing-Tablets, Writing-Paper, Wrapping-Paper, Toilet-Paper, Envelops, Composition-Books, Paper Trays, Shipping Tags or Tickets, Pen-Staffs, Pens, and Pencils.
Claims use since Feb. 26, 1912.

Ser. No. 62,040. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) SCHÜHLE'S PURE GRAPE JUICE CO., Highland, N. Y. Filed Mar. 8, 1912.



Particular description of goods.—Grape-Juice.
Claims use since Jan. 1, 1902.

Ser. No. 62,108. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RECKITT & SONS LD., Hull, England. Filed Mar. 11, 1912.



Particular description of goods.—Bluing for Laundry Purposes.
Claims use since the commencement of 1901.

Ser. No. 62,123. (CLASS 15. OILS AND GREASES.) WEST INDIA OIL COMPANY, Bayonne, N. J. Filed Mar. 12, 1912.

EL CAPITAN



Particular description of goods.—Gasolene, Benzin, Naphtha, and Refined Oil for Illuminating, Heating, and Power Purposes.
Claims use since Feb. 9, 1912.

Ser. No. 62,127. (CLASS 43. THREAD AND YARN.) INDUSTRIAL THROWN SILK CO., New York, N. Y. Filed Mar. 13, 1912.

ITSCO

Particular description of goods.—Silk.
Claims use since about Jan. 5, 1912.

Ser. No. 62,138. (CLASS 15. OILS AND GREASES.) HOWE & FRENCH, Boston, Mass. Filed Mar. 13, 1912.

Colonial Candles

No claim being made to the word "Candles."
Particular description of goods.—Candles.
Claims use since Mar. 2, 1912.

Ser. No. 62,150. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) MENLEY & JAMES, LIMITED, New York, London, England, and New York, N. Y. Filed Mar. 13, 1912.

VETIOD

Particular description of goods.—An Ointment.
Claims use since Oct. 1, 1911.

Ser. No. 62,162. (CLASS 10. FERTILIZERS.) PLANTS PLANTOIDS LIMITED, London, England. Filed Mar. 14, 1912.

PLANTOIDS

Particular description of goods.—Fertilizers.
Claims use since Sept. 14, 1911.

Ser. No. 62,235. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) BALTIMORE BARGAIN HOUSE, Baltimore, Md. Filed Mar. 18, 1912.

WEDGEWELD



The words "Trade Mark" being disclaimed.
Particular description of goods.—Neck-Chains, Lorgnette-Chains, Bracelets, Lockets, Watch-Fobs, and Vest-Chains, All of Precious or Plated Metal.
Claims use since about Jan. 1, 1912.

Ser. No. 62,268. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) JOSEPH MATHIEU LAFON, Paris, France Filed Mar. 19, 1912.

"CRESSINTHE"

Particular description of goods.—An Aperitive Liqueur.
Claims use since Nov. 4, 1911.

Ser. No. 62,279. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) SPEIGHTS LIMITED, Dewsbury, England. Filed Mar. 19, 1912.

RO-CLO

Particular description of goods.—Hair, Wool, Mohair, Wool Tops, and Mohair Tops, All Being Goods Partly Prepared for Use in the Manufacture of Crape Hair, Curly Mohair, and All other Materials Used as Imitation Human Hair and Doll's Hair.
Claims use since Nov. 7, 1911.

Ser. No. 62,319. (CLASS 37. PAPER AND STATIONERY.) NATIONAL BLANK BOOK COMPANY, Holyoke, Mass. Filed Mar. 21, 1912. Under ten-year proviso.

NATIONAL

Particular description of goods.—Loose-Leaf Binders.
Claims use since July, 1881.

Ser. No. 62,442. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) GOODYEAR RUBBER HOSE & PACKING COMPANY, Philadelphia, Pa. Filed Mar. 27, 1912.

Steerease

Particular description of goods.—Coverings for Hand-Wheels.
Claims use since June 23, 1911.

Ser. No. 62,457. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) NASHUA MANUFACTURING COMPANY, Nashua, N. H. Filed Mar. 27, 1912. Under ten-year proviso.

NASHUA

Particular description of goods.—Cotton Piece Goods and Blankets.
Claims use since Jan. 1, 1890.

Ser. No. 62,632. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) ISAAC A. ULLMANN, Brooklyn, N. Y. Filed Apr. 3, 1912.

ALLOC

Particular description of goods.—Devices for Attaching Collars to Shirts.
Claims use since Dec. 15, 1911.

Ser. No. 62,644. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) HYGIENIC FIBRE COMPANY, New York, N. Y. Filed Apr. 4, 1912.

Absorbent Cotton

No claim is made to the words "Absorbent Cotton" as a trade-mark.
Particular description of goods.—Absorbent Cotton.
Claims use since during the year 1908.

Ser. No. 62,772. (CLASS 38. PRINTS AND PUBLICATIONS.) ALFRED L. SOMMERS, Tacoma, Wash. Filed Apr. 9, 1912.

SEE AMERICA FIRST

Particular description of goods.—A Periodically-Issued Magazine.
Claims use since Feb. 14, 1912.

Ser. No. 62,775. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) EMIL WEISSBROD & SONS, INC., Greenfield, Mass. Filed Apr. 9, 1912.

Easymoney

Particular description of goods.—Card-Cases and Bill-Folds.
Claims use since Dec. 28, 1911.

Ser. No. 62,812. (CLASS 37. PAPER AND STATIONERY.) WARREN MANUFACTURING COMPANY, New York, N. Y. Filed Apr. 10, 1912.



Particular description of goods.—Rope and Jute Paper.
Claims use since October, 1911.

Ser. No. 62,829. (CLASS 12. CONSTRUCTION MATERIALS.) UNITED ROOFING AND MANUFACTURING CO., Philadelphia, Pa. Filed Apr. 11, 1912.

EBONITE

Particular description of goods.—Waterproof Building and Sheathing Papers.
Claims use since Mar. 1, 1912.

Ser. No. 62,830. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SAN ANTONIO MACARONI FACTORY, San Antonio, Tex. Filed Apr. 11, 1912.

Chilimac

Particular description of goods.—Macaroni Food Preparations.
Claims use since Apr. 1, 1902.

Ser. No. 62,883. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) BELA & ODON SCHRANK, Esztergom, Hungary. Filed Apr. 11, 1912.



Particular description of goods.—Cordials.
Claims use since July 4, 1911.

Ser. No. 62,842. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FEDERAL MILLING COMPANY, Lockport, N. Y. Filed Apr. 11, 1912.

LIVELY

Particular description of goods.—Wheat-Flour.
Claims use since Nov. 19, 1907.

Ser. No. 62,895. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BERWIND FUEL COMPANY, Minneapolis, Minn. Filed Apr. 15, 1912.

BRIQUETS

No claim being made to the word "Briquets."
Particular description of goods.—Briquets.
Claims use since Jan. 20, 1912.

Ser. No. 62,896. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) BERWIND FUEL COMPANY, Minneapolis, Minn. Filed Apr. 15, 1912.

B

Particular description of goods.—Briquets.
Claims use since Jan. 20, 1912.

Ser. No. 62,899. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HUNT, HATCH & CO., Oakland, Cal. Filed Apr. 15, 1912.

LOTTA

Particular description of goods.—Oranges and Lemons.
Claims use since Mar. 1, 1911.

Ser. No. 62,903. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HUNT, HATCH & CO., Oakland, Cal. Filed Apr. 15, 1912.

La Romana

Particular description of goods.—Oranges and Lemons.
Claims use since Mar. 1, 1911.

Ser. No. 62,929. (CLASS 26. MEASURING AND SCIENTIFIC APPIANCES.) MERRY OPTICAL COMPANY, Kansas City, Mo. Filed Apr. 16, 1912.

VI-LT-RA

Particular description of goods.—Spectacle and Eyeglass Lenses.
Claims use since about Mar. 1, 1911.

Ser. No. 62,966. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) F. ROSENSTERN & CO., New York, N. Y. Filed Apr. 18, 1912.

Bijou

Particular description of goods.—Pianos and Piano-Players.
Claims use since Nov. 1, 1911.

Ser. No. 62,989. (CLASS 17. TOBACCO PRODUCTS.) WALTER E. OLSEN & COMPANY, Manila, Philippine Islands, and New York, N. Y. Filed Apr. 19, 1912.

LA ATHENA



The picture of the woman shown being fanciful.
Particular description of goods.—Cigars.
Claims use since Oct. 19, 1911.

Ser. No. 63,046. (CLASS 17. TOBACCO PRODUCTS.) FELBEL, SPEYER COMPANY, New York, N. Y. Filed Apr. 22, 1912.

Effessco

Particular description of goods.—Tobacco Cigarettes.
Claims use since Dec. 20, 1910.

Ser. No. 63,059. (CLASS 7. CORDAGE.) THE EDWIN H. FITLER CO., Philadelphia, Pa. Filed Apr. 22, 1912.



Particular description of goods.—Cordage.
Claims use since May 7, 1877.

Ser. No. 63,075. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE COPAL VARNISH COMPANY, LIMITED, London, England. Filed Apr. 23, 1912.

PARIPAN

Particular description of goods.—Varnishes and Paints.
Claims use since February, 1912.

Ser. No. 63,091. (CLASS 2. RECEPTACLES.) CORDLEY & HAYES, New York, N. Y. Filed Apr. 24, 1912.

XXTH CENTURY

Particular description of goods.—Paper Cups.
Claims use since November, 1910.

Ser. No. 63,146. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) SUFFERN & COMPANY, New York, N. Y. Filed Apr. 26, 1912.



Particular description of goods.—Cotton Piece Goods, Sheetings, Shirtings, and Drills.
Claims use since Jan. 1, 1912.

TRADE-MARKS

REGISTERED MAY 28, 1912.

86,681. TILES, AND MORE PARTICULARLY MOSAIC TILES. AMERICAN ENCAUSTIC TILING CO. LTD., New York, N. Y., and Zanesville, Ohio.
Filed December 14, 1911. Serial No. 60,218. PUBLISHED MARCH 19, 1912.

86,682. STRUCTURAL FORGINGS, BAR-IRON, AND BAR-STEEL. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 6, 1911. Serial No. 60,098. PUBLISHED MARCH 26, 1912.

86,683. CERTAIN HARDWARE. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 15, 1911. Serial No. 60,235. PUBLISHED MARCH 26, 1912.

86,684. CERTAIN HARDWARE. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 16, 1911. Serial No. 60,281. PUBLISHED MARCH 26, 1912.

86,685. CERTAIN HARDWARE. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 19, 1911. Serial No. 60,343. PUBLISHED MARCH 26, 1912.

86,686. CERTAIN HARDWARE. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 19, 1911. Serial No. 60,344. PUBLISHED MARCH 26, 1912.

86,687. CERTAIN HARDWARE. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 20, 1911. Serial No. 60,365. PUBLISHED MARCH 26, 1912.

86,688. CERTAIN HARDWARE. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 21, 1911. Serial No. 60,386. PUBLISHED MARCH 26, 1912.

86,689. SALES-BOOKS. AMERICAN SALES BOOK COMPANY, LIMITED, Toronto, Canada, and Niagara Falls, Elmira, and Glendale, N. Y.
Filed November 28, 1911. Serial No. 59,975. PUBLISHED MARCH 26, 1912.

86,690. BRAIDS, SHOE-LACES, GALLOONS, AND CORSET-LACES. BARTHELS MFG. CO., New York, N. Y.
Filed January 25, 1912. Serial No. 61,025. PUBLISHED MARCH 26, 1912.

86,691. PRINTERS' ROLLERS. HERBERT M. BINGHAM, New York, N. Y.
Filed December 29, 1911. Serial No. 60,502. PUBLISHED MARCH 26, 1912.

86,692. PRINTERS' ROLLERS. HERBERT M. BINGHAM, New York, N. Y.
Filed December 29, 1911. Serial No. 60,503. PUBLISHED MARCH 26, 1912.

86,693. HOUSE-SLIPPERS. BLUM SHOE MFG. CO., Danville, N. Y.
Filed November 2, 1911. Serial No. 59,510. PUBLISHED MARCH 26, 1912.

86,694. ASBESTOS PLATE ADAPTED FOR USE AS MACHINERY PACKING. FEODOR BURGMANN, Dresden-Laubegast, Germany, and New York, N. Y.
Filed September 18, 1911. Serial No. 58,707. PUBLISHED MARCH 26, 1912.

86,695. FURNITURE, AUTOMOBILE, LINOLEUM, AND FLOOR POLISHES. CARBON PRODUCTS COMPANY, Charleston, W. Va.
Filed February 15, 1912. Serial No. 61,519. PUBLISHED MARCH 26, 1912.

86,696. WATER-CLOSETS, CLOSET-SEATS, FLUSHING-TANKS, AND CLOSET-BOWLS. CLIMAX SANITARY COMPANY, Detroit, Mich.
Filed December 11, 1911. Serial No. 60,164. PUBLISHED MARCH 26, 1912.

86,697. OILS FOR LUBRICATING OR BURNING. P. MOIR CRANE & CO., LTD., Manchester, England.
Filed December 14, 1911. Serial No. 60,221. PUBLISHED MARCH 26, 1912.

86,698. CERTAIN KINDS OF MACHINERY. CROSSLEY & DAVENPORT, London, England.
Filed December 13, 1910. Serial No. 53,252. PUBLISHED MARCH 26, 1912.

86,699. METAL-POLISH. THE CUDAHY PACKING COMPANY, Chicago, Ill.
Filed January 31, 1912. Serial No. 61,145. PUBLISHED MARCH 26, 1912.

86,700. FORCE-CUPS, PLUMBERS' FRIEND, AND TOILET-PLUNGER. CHARLES A. DANIEL, Philadelphia, Pa.
Filed February 12, 1912. Serial No. 61,438. PUBLISHED MARCH 26, 1912.

86,701. ELECTRIC SIGNALING-HORNS. THE DEAN ELECTRIC COMPANY, Elyria, Ohio.
Filed December 21, 1911. Serial No. 60,388. PUBLISHED MARCH 26, 1912.

86,702. CERTAIN FANCY GOODS AND NOTIONS. DIECKERHOFF, RAFFLOER & CO., New York, N. Y.
Filed October 9, 1911. Serial No. 59,080. PUBLISHED MARCH 26, 1912.

86,703. LINEN, COTTON, WOOLEN, AND SILK PIECE GOODS. D. W. C. ELLIS & CO., INC., Philadelphia, Pa.
Filed May 19, 1911. Serial No. 56,461. PUBLISHED OCTOBER 17, 1911.

86,704. LINEN, COTTON, WOOLEN, AND SILK PIECE GOODS. D. W. C. ELLIS & CO., INC., Philadelphia, Pa.
Filed June 12, 1911. Serial No. 56,968. PUBLISHED OCTOBER 17, 1911.

86,705. BRUSHES FOR DYNAMO-ELECTRIC MACHINES. GENERAL ELECTRIC COMPANY, Schenectady, N. Y.
Filed December 23, 1910. Serial No. 53,456. PUBLISHED MARCH 26, 1912.

86,706. BORING-MACHINE FOR BORING JOIST FOR ELECTRIC-LIGHT WIRING. JOHN G. HENDERSON, Charlottesville, Va.
Filed December 9, 1911. Serial No. 60,139. PUBLISHED MARCH 26, 1912.

86,707. WASHING COMPOUNDS. HOFFMAN & HOFFMAN, San Francisco, Cal.
Filed November 9, 1910. Serial No. 52,679. PUBLISHED MARCH 26, 1912.

86,708. BEER. JOHN HOHENADEL, Philadelphia, Pa.
Filed July 30, 1910. Serial No. 51,193. PUBLISHED MARCH 26, 1912.

86,709. RUBBER BOOTS, SHOES, OVERSHOES, AND RUBBER-SOLED TENNIS-SHOES. HOOD RUBBER Co., Boston, Mass.
Filed December 2, 1911. Serial No. 60,058. PUBLISHED MARCH 26, 1912.

86,710. CARBURETERS. INTERNATIONAL ACCESSORIES MANUFACTURING COMPANY, New York, N. Y.
Filed December 20, 1911. Serial No. 60,376. PUBLISHED MARCH 26, 1912.

86,711. HATS AND CAPS OF CERTAIN MATERIALS. IRVING HAT Co., New York, N. Y.
Filed September 2, 1911. Serial No. 58,517. PUBLISHED MARCH 26, 1912.

86,712. CERTAIN RUBBER GOODS. EDWARD Z. JEFFERSON, Pittsburgh, Pa.
Filed January 12, 1912. Serial No. 60,764. PUBLISHED MARCH 26, 1912.

86,713. STRAWBERRY-PLANTS. R. M. KELLOGG COMPANY, Three Rivers, Mich.
Filed October 19, 1911. Serial No. 59,239. PUBLISHED MARCH 26, 1912.

86,714. METAL GATES. KEYSTONE STEEL & WIRE COMPANY, Peoria, Ill.
Filed October 7, 1911. Serial No. 59,036. PUBLISHED JANUARY 23, 1912.

86,715. METAL GATES. KEYSTONE STEEL & WIRE COMPANY, Peoria, Ill.
Filed October 7, 1911. Serial No. 59,039. PUBLISHED JANUARY 23, 1912.

86,716. WATCHES, WATCHCASES, AND WATCH-MOVEMENTS. THE KEYSTONE WATCH CASE COMPANY, Philadelphia, Pa.
Filed June 15, 1911. Serial No. 57,071. PUBLISHED JANUARY 2, 1912.

86,717. TANNERS' OIL FOR STUFFING LEATHER. EDGAR LEVINSTEIN, Boston, Mass.
Filed December 7, 1909. Serial No. 46,322. PUBLISHED MARCH 26, 1912.

86,718. JEWELRY AND PRECIOUS-METAL WARE. WILLIAM LINK COMPANY, Newark, N. J.
Filed October 4, 1911. Serial No. 58,991. PUBLISHED MARCH 26, 1912.

86,719. PREPARATION FOR MAKING ORANGEADE. LOS ANGELES PURE FRUIT Co., Batavia, N. Y.
Filed May 17, 1911. Serial No. 56,415. PUBLISHED MARCH 26, 1912.

86,720. PREPARATION FOR MAKING LEMONADE. LOS ANGELES PURE FRUIT Co., Batavia, N. Y.
Filed May 17, 1911. Serial No. 56,416. PUBLISHED MARCH 26, 1912.

86,721. BROOMS AND CERTAIN BRUSHES. C. M. MCCLUNG & Co., Knoxville, Tenn.
Filed November 1, 1911. Serial No. 59,458. PUBLISHED MARCH 5, 1912.

86,722. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES. C. M. MCCLUNG & Co., Knoxville, Tenn.
Filed November 7, 1911. Serial No. 59,598. PUBLISHED MARCH 26, 1912.

86,723. WOVEN COTTON BAGS. HARMONY MILLS, Cohoes, N. Y., and Boston, Mass.
Filed January 22, 1912. Serial No. 60,971. PUBLISHED MARCH 26, 1912.

86,724. SASH-CHAINS AND SASH-BALANCES. THOMAS MORTON, New York, N. Y.
Filed July 19, 1911. Serial No. 57,705. PUBLISHED OCTOBER 10, 1911.

86,725. CALCIMINE. THE MURALO COMPANY, New York, N. Y.
Filed February 20, 1909. Serial No. 40,720. PUBLISHED MAY 11, 1909.

86,726. CARPET-SWEEPERS. NATIONAL SWEEPER COMPANY, Newark, N. J.
Filed March 22, 1911. Serial No. 55,238. PUBLISHED MARCH 26, 1912.

86,727. AIR-PUMPS AND PARTS THEREOF. THE NEW YORK AIR BRAKE COMPANY, New York, N. Y.
Filed December 22, 1911. Serial No. 60,410. PUBLISHED MARCH 26, 1912.

86,728. OXIDIZING LIQUID COATINGS FOR METAL ARTICLES. THE NORTH & JUDD MANUFACTURING COMPANY, New Britain, Conn.
Filed July 28, 1911. Serial No. 57,908. PUBLISHED JANUARY 23, 1912.

86,729. CERTAIN CONSTRUCTION MATERIALS. PATENT VULCANITE ROOFING Co., Chicago, Ill.
Filed December 4, 1911. Serial No. 60,063. PUBLISHED MARCH 26, 1912.

86,730. BATHING-SUITS. JACOB PFRENGER, New York, N. Y.
Filed December 28, 1911. Serial No. 60,488. PUBLISHED MARCH 26, 1912.

86,731. COLD-WATER PAINT. F. O. PIERCE Co., New York, N. Y.
Filed January 6, 1912. Serial No. 60,672. PUBLISHED MARCH 26, 1912.

86,732. MERCERIZED COTTON FLOSS. RICHARDSON SILK Co., Chicago, Ill.
Filed February 1, 1912. Serial No. 61,182. PUBLISHED MARCH 26, 1912.

86,733. OIL, COAL, AND GAS FURNACES AND PARTS THEREOF. ROCKWELL FURNACE COMPANY, New York, N. Y.
Filed November 26, 1910. Serial No. 52,971. PUBLISHED MARCH 26, 1912.

86,734. HORSE-NAILS. THE ROWE RING-POINT COMPANY, Hartford, Conn.
Filed February 16, 1912. Serial No. 61,553. PUBLISHED MARCH 26, 1912.

86,735. METALS AND METAL CASTINGS AND FORGINGS. SANDERSON BROTHERS & NEWBOULD LIMITED, Sheffield, England.
Filed September 25, 1911. Serial No. 58,835. PUBLISHED MARCH 26, 1912.

86,736. WAFER-CAPSULE-CLOSING APPARATUS. JOHANN SCHMIDT, Nuremberg, Germany.
Filed December 6, 1910. Serial No. 53,143. PUBLISHED MARCH 26, 1912.

86,737. REFINED OIL FOR LIGHTING, HEATING, AND POWER PURPOSES. STANDARD OIL COMPANY OF BRAZIL, New York, N. Y.
Filed February 15, 1912. Serial No. 61,513. PUBLISHED MARCH 26, 1912.

86,738. CERTAIN DENTAL, MEDICAL, AND SURGICAL APPLIANCES. THE STAR RUBBER Co., Akron, Ohio.
Filed December 18, 1911. Serial No. 60,325. PUBLISHED MARCH 26, 1912.

86,739. CERTAIN DENTAL, MEDICAL, AND SURGICAL APPLIANCES. THE STAR RUBBER Co., Akron, Ohio.
Filed December 18, 1911. Serial No. 60,327. PUBLISHED MARCH 26, 1912.

86,740. CERTAIN DENTAL, MEDICAL, AND SURGICAL APPLIANCES. THE STAR RUBBER Co., Akron, Ohio.
Filed December 18, 1911. Serial No. 60,329. PUBLISHED MARCH 26, 1912.

86,741. CERTAIN DENTAL, MEDICAL, AND SURGICAL APPLIANCES. THE STAR RUBBER Co., Akron, Ohio.
Filed December 18, 1911. Serial No. 60,331. PUBLISHED MARCH 26, 1912.

86,742. GAS-SUPPLY-STARTING DEVICES FOR INTERNAL-COMBUSTION ENGINES. THE START-O COMPANY, Cleveland, Ohio.
Filed December 30, 1911. Serial No. 60,528. PUBLISHED MARCH 26, 1912.

86,743. COTTON PIECE GOODS. CHARLES A. STEWART, Somersworth, N. H.
Filed February 9, 1912. Serial No. 61,392. PUBLISHED MARCH 26, 1912.

86,744. CERTAIN KINDS OF MACHINERY. B. F. STURTEVANT COMPANY, Boston, Mass.
Filed October 14, 1911. Serial No. 59,161. PUBLISHED MARCH 12, 1912.

86,745. STOVE-POLISH. CHARLES V. STURTEVANT, San Francisco, Cal.
Filed February 5, 1912. Serial No. 61,272. PUBLISHED MARCH 26, 1912.

86,746. SAFETY-RAZORS AND SAFETY-RAZOR BLADES. UNITED SAFETY RAZOR COMPANY, New York, N. Y.
Filed November 24, 1911. Serial No. 59,802. PUBLISHED MARCH 26, 1912.

86,747. CERTAIN MEASURING AND SCIENTIFIC APPLIANCES. UNITED STATES GAUGE Co., Sellersville, Pa., and New York, N. Y.
Filed June 30, 1911. Serial No. 57,389. PUBLISHED MARCH 26, 1912.

86,748. INCANDESCENT BURNERS AND MANTLES. JACQUES VISSEAUX, Lyon, France.
Filed November 25, 1911. Serial No. 59,921. PUBLISHED MARCH 26, 1912.

86,749. CERTAIN DENTAL, MEDICAL, AND SURGICAL APPLIANCES. THE STAR RUBBER Co., Akron, Ohio.
Filed December 18, 1911. Serial No. 60,332. PUBLISHED MARCH 26, 1912.

86,750. BLEND WHISKY. JOHN E. WALSH, Washington, D. C.
Filed July 6, 1911. Serial No. 57,506. PUBLISHED MARCH 26, 1912.

86,751. SPINNING AND TWISTER RINGS. WHITINSVILLE SPINNING RING COMPANY, Whitinsville, Mass.
Filed January 15, 1912. Serial No. 60,833. PUBLISHED MARCH 26, 1912.

86,752. INTERNAL-COMBUSTION ENGINES AND CLUTCHES. WOLVERINE MOTOR WORKS, Bridgeport, Conn.
Filed November 27, 1911. Serial No. 59,965. PUBLISHED MARCH 26, 1912.

86,753. INTERNAL-COMBUSTION ENGINES AND CLUTCHES. WOLVERINE MOTOR WORKS, Bridgeport, Conn.
Filed December 1, 1911. Serial No. 60,037. PUBLISHED MARCH 26, 1912.

86,754. COATS, VESTS, TROUSERS, OVERCOATS, AND RAIN-COATS. JACOB YETTER, Jacksonville, Fla.
Filed December 9, 1911. Serial No. 60,155. PUBLISHED MARCH 26, 1912.

86,755. MANILA AND SISAL ROPE AND CORDAGE. COLUMBIAN ROPE COMPANY, Auburn, N. Y.
Filed February 15, 1912. Serial No. 61,533. PUBLISHED MARCH 26, 1912.

86,756. BREAD. FEDERAL MILLING COMPANY, Lockport, N. Y.
Filed July 14, 1910. Serial No. 50,834. PUBLISHED MAY 9, 1911.

86,757. COMPOUND OF BEEF-FAT AND COTTON-SEED OIL. GALBAN & Co. INC., New York, N. Y.
Filed May 3, 1910. Serial No. 49,480. PUBLISHED MARCH 26, 1912.

86,758. RIVETS. HOOPES & TOWNSEND Co., Philadelphia, Pa.
Filed August 10, 1911. Serial No. 58,126. PUBLISHED OCTOBER 17, 1911.

86,759. CANDIES. M. M. JOHANNSEN CANDY Co., Dubuque, Iowa.
Filed April 14, 1910. Serial No. 49,089. PUBLISHED AUGUST 15, 1911.

86,760. WHEAT-FLOUR. MAMMOTH SPRING MILLING COMPANY, Mammoth Spring, Ark.
Filed January 23, 1911. Serial No. 54,023. PUBLISHED AUGUST 15, 1911.

86,761. CERTAIN FOODS. PLUNKETT-JARRELL GROCER Co., Little Rock, Ark.
Filed January 15, 1910. Serial No. 47,143. PUBLISHED MARCH 26, 1912.

86,762. COFFEE. STONE ORDEAN WELLS COMPANY, Duluth, Minn.
Filed September 29, 1911. Serial No. 58,926. PUBLISHED DECEMBER 26, 1911.

86,763. CERTAIN CONSTRUCTION MATERIALS. VULCANITE, LIMITED, Laganvale, Belfast, Ireland, and London, England.
Filed May 26, 1911. Serial No. 56,596. PUBLISHED NOVEMBER 21, 1911.

86,764. CANNED FRUITS AND CANNED VEGETABLES. W. F. ASSAU CANNING Co., Baltimore, Md.
Filed April 24, 1911. Serial No. 55,926. PUBLISHED AUGUST 22, 1911.

86,765. BLOOD REMEDY. CHARLES E. GALLAGHER, St. Louis, Mo.; Ernest A. Gallagher executor of said Charles E. Gallagher, deceased.
Filed August 1, 1910. Serial No. 51,210. PUBLISHED MAY 16, 1911.

86,766. RICE, TEA, AND COFFEE. ROBERT L. GERHART, Lancaster, Pa.
Filed November 14, 1911. Serial No. 59,714. PUBLISHED MARCH 26, 1912.

86,767. RICE, TEA, AND COFFEE. ROBERT L. GERHART, Lancaster, Pa.
Filed November 14, 1911. Serial No. 59,713. PUBLISHED MARCH 26, 1912.

LABELS

REGISTERED MAY 28, 1912.

16,348.—*Title:* "DEER BRAND FANCY SUGAR CURED HAM." (For Prepared Ham.) A. SILZ, INC., New York, N. Y. Filed January 20, 1912.

16,349.—*Title:* "DEER BRAND FANCY SUGAR CURED BACON." (For Prepared Bacon.) A. SILZ, INC., New York, N. Y. Filed January 20, 1912.

16,350.—*Title:* "NO-STICK." (For Ironing-Wax.) COLUMBIA WAX WORKS, New York, N. Y. Filed April 24, 1912.

16,351.—*Title:* "NO-STICK." (For Ironing-Wax.) COLUMBIA WAX WORKS, New York, N. Y. Filed April 24, 1912.

16,352.—*Title:* "DR. E. H. COWAN'S OUNCE OF PREVENTION POWDERS SUCCESSFULLY USED WITH DR. E. H. COWAN'S HYGIENIC OUTFIT." (For Prevention-Powders.) E. H. COWAN, Crowell, Tex. Filed April 17, 1912.

16,353.—*Title:* "ORIENTAL OINTMENT." (For Ointment.) GEORGE E. P. DALTON, West Lynn, Mass. Filed April 25, 1912.

16,354.—*Title:* "TIZ FOR TENDER FEET." (For Foot-Bath Tablets.) WALTER LUTHER DODGE, Chicago, Ill. Filed April 6, 1912.

16,355.—*Title:* "FORBES' QUALITY." (For Coffee.) JAS. H. FORBES TEA & COFFEE CO., St. Louis, Mo. Filed March 18, 1912.

16,356.—*Title:* "FORBES' QUALITY." (For Extracts.) JAS. H. FORBES TEA & COFFEE CO., St. Louis, Mo. Filed March 18, 1912.

16,357.—*Title:* "FORBES' QUALITY." (For Tea.) JAS. H. FORBES TEA & COFFEE CO., St. Louis, Mo. Filed March 18, 1912.

16,358.—*Title:* "GLEAMO." (For a Polishing Compound.) ERNEST M. HUNT, Lowell, Mass. Filed April 15, 1912.

16,359.—*Title:* "SILK TAPE." For Type-Writer Ribbons.) L. & M. ALEXANDER & CO., San Francisco, Cal. Filed April 19, 1912.

16,360.—*Title:* "TRI-RADIANT." (For Acetylene-Gas Burners.) LENHART MANUFACTURING COMPANY, Philadelphia, Pa. Filed April 19, 1912.

16,361.—*Title:* "JAPANESE TOILET PAPER." (For Toilet-Paper.) PHOENIX TOILET & PAPER MANUFACTURING COMPANY, Phoenix, N. Y. Filed March 20, 1912.

16,362.—*Title:* "PEPSIN AND IRON TABLETS." (For Tablets.) H. M. STRAIGHT, Pierre, S. D. Filed December 5, 1911.

16,363.—*Title:* "TUBERCLECIDE." (For a Remedy.) THE TUBERCLECIDE CO. OF ARIZONA, Phoenix, Ariz. Filed March 16, 1912.

16,364.—*Title:* "SIMPLEX THREE HAND BRIDGE." (For Score-Card and Bridge-Cloth.) HORACE WYNDHAM, New York, N. Y. Filed April 1, 1912.

PRINTS

REGISTERED MAY 28, 1912.

3,034.—*Title:* "MAKE FUN OF THE SUN IN EASY-BREEZY B. V. D." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed April 25, 1912.

3,035.—*Title:* "THE FANLESS MAN WEARS B. V. D." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed April 25, 1912.

3,036.—*Title:* "'GO-AWAYS' AND 'STAY-AT-HOMES.'" (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed April 25, 1912.

3,037.—*Title:* "'BANK ON' B. V. D." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed April 25, 1912.

3,038.—*Title:* "AFLOAT OR ASHORE IN TOWN OR OUT WEAR B. V. D." (For Athletic Underwear.) THE B. V. D. COMPANY, New York, N. Y. Filed April 25, 1912.

3,039.—*Title:* "MADE-WEL." (For Hosiery.) C. H. BACON, Loudon, Tenn. Filed October 26, 1911.

3,040.—*Title:* "THE 'LADY JEFFERSON' GIRL." (For Shoes.) BURROW, JONES & DYER SHOE CO., St. Louis, Mo. Filed April 25, 1912.

3,041.—*Title:* "KLEINERTS DRESS SHIELDS." (For Dress-Shields.) I. B. KLEINERT RUBBER COMPANY, New York, N. Y. Filed May 11, 1912.

3,042.—*Title:* "THE NUJET." (For Water-Closets.) RONALDS & JOHNSON CO., Brooklyn, Long Island City, and New York, N. Y.; Philadelphia, Pa., and Camden and Haines port, N. J. Filed April 12, 1912.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE THADDEUS DAVIDS CO.

Decided March 1, 1912.

TRADE-MARKS—SIMILARITY—"CORO"—"COROLLA."

The word "Coro" *Held* to so nearly resemble the word "Corolla" that their simultaneous use upon goods of the same descriptive properties would be likely to cause confusion.

ON APPEAL.

TRADE-MARK FOR INKS.

Mr. W. P. Preble, Jr., for the applicant.

MOORE, *Commissioner:*

This is an appeal from the decision of the Examiner of Trade-Marks refusing to register the word "Coro," printed in script type, as a trade-mark for ink.

The registration was refused in view of the registered mark "Corolla," No. 7,945, on the ground that the two were so similar as to be likely to cause confusion. In support of his holding the Examiner cites cases in which "Rex" and "Rexall," "Carmen" and "Carmencita," "Purock" and "Pureoxia," respectively, have been held so similar as to be apt to cause confusion in the trade. He also cites other cases in which the similarity to the present case is not so marked.

Applicant's argument upon this appeal deals entirely with the difference in sound in the two words when pronounced and a possible difference in significance. Even as to these features it is believed that the similarity is too close to justify registering applicant's mark; but one of the greatest similarities between the two lies in the appearance which the words present to the eye. If there were any doubt as to the propriety of registering a mark, it is believed that the cases cited by the Examiner are so closely analogous as to be controlling in this instance.

The decision of the Examiner of Trade-Marks is affirmed.

EX PARTE JENNINGS.

Decided April 6, 1912.

1. APPLICATION—PROSECUTION—MATTERS OF MERIT NOT REVIEWABLE ON PETITION.

The ruling of the Examiner that an element should not be cited more than once in a claim and that the claim is objectionably functional relates to matters of merit and will not be reviewed on petition.

2. SAME—SAME—INOPERATIVENESS—GROUND OF REJECTION.

If the Examiner believes the device as shown and described to be inoperative, he should make this one of the grounds of rejection. If he believes that an operative device is disclosed, but intends to hold merely that the illustration in the drawing is inconsistent with such disclosure in the specification, the requirement should be worded accordingly.

ON PETITION.

RAILWAY-SIGNAL.

Messrs. Parker & Burton for the applicant.

MOORE, *Commissioner:*

This is a petition that the Examiner be instructed—

1st: that the Examiner in charge of this application be advised that he has no right to dogmatically assert the inoperativeness of a device of this character; 2nd, that it is proper to cite one element more than once in case it has more than one function; 3rd, that the Examiner be instructed that the reference to the storage battery S (insertion line 25, page 4) is not necessarily required to be in both circuits, is proper and need neither be struck out or illustrated; 4th, that the Examiner be instructed that the claims are not objectionably functional; 5th, that the Examiner be instructed that the claims are not incoherent; 6th, that the Examiner be instructed that the claims are in proper form, and to proceed with the examination of the case upon the merits; 7th, that the Examiner be cautioned about too numerous and too frequent objections as being often hypercritical and captious and tending rather to confuse the prosecution of the case than to result in good where they are too frequently and freely made.

The second and fourth prayers of the petition state grounds upon which claims in the case stand rejected. As they relate to matters of merit, therefore, they will not be reviewed upon petition.

The first prayer of the petition does not seek a holding that the device as shown is operative, but only that the Examiner could not hold that it is inoperative without citing his authority. I do not find that the Examiner's holding upon this point needs any further explanation than that given by him. Whether he is right in the holding is a matter of merits which will not be decided upon a petition of this nature. If the Examiner believes the device as shown and described to be inoperative, he should make this one of the grounds of rejection. If he believes that an operative device is disclosed, but intends to hold merely that the illustration in the drawing is inconsistent with such disclosure in the specification, the requirement should be worded accordingly.

The Examiner's requirement that the insertion

at line 25, page 4, should be illustrated or canceled is believed to be a strained application of the rule laid down in *ex parte* Edgerton, (101 O. G., 1131.) The clause referred to appears to be little more than a statement that certain of the electrical relations shown in the drawing are not absolutely essential to the invention. General statements of this character are constantly made by applicants and considered admissible.

The Examiner's criticism that the claims are incoherent is found to be unwarranted. The clauses to which he refers seem to be quite intelligible whether considered in the light of their form prior to amendment or not.

The sixth prayer of the petition is merely a repetition of the other in general form and need not be separately considered.

The request that the Examiner be cautioned against too numerous and too frequent objections is not such a one as will be considered upon a petition of this character. If the applicant believes he has grounds for complaint against the Examiner, they should be presented in a separate paper not entitled in the application.

The petition is denied as to prayers 1 and 6, is granted as to prayers 3 and 5, and dismissed as to 2, 4, and 7.

EX PARTE WELSBACH.

Decided August 9, 1911.

PATENTABILITY—FILAMENT FOR ELECTRIC LAMPS.

Claims for a filament for electric lamps *Held* unpatentable in view of the prior art.

APPEAL from Examiners-in-Chief.

MANUFACTURE OF ELECTRIC FILAMENTS.

Messrs. Pennie & Goldsborough for the applicant.

BILLINGS, *First Assistant Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the rejection by the Primary Examiner of the following claims:

1. An incandescent filament for electric lamps, comprising a stable electrically conducting mixture of osmium and one of the described oxids.
2. An incandescent filament for electric lamps, comprising a stable electrically conducting mixture of osmium and a rare earth.
3. An incandescent filament for electric lamps, comprising a stable electrically conducting mixture of osmium and thoroxid.
4. An incandescent filament for electric lamps, comprising an electrically conducting mixture of a metal which is stable at a temperature above the incandescing temperature of the filament, and rare earth.
5. An incandescent filament for electric lamps comprising an electrically conducting mixture of a metal which is stable at a temperature above the incandescing temperature of the filament and a plurality of the oxids described.
6. An incandescent filament for electric lamps, comprising a stable electrically conducting mixture of a metal of the platinum group and thoroxid.

The references relied upon are as follows: Edison, September 16, 1879, No. 219,623; Reynier, June 14, 1881, No. 242,984; Thowless, December 20, 1898, No. 616,276. British patents: Langhaus, No. 2,438 of 1888; Nernst, No. 6,135 of 1898.

The nature of appellant's invention is concisely given in the statement of the Examiner as follows:

Applicant makes a filament by mixing pure osmium and oxid of thorium with a binder, squirting the mixture through a die and then burning out the binder, so that the finished filament consists of the metal osmium and the oxid of thorium. Applicant states, beginning in line 5, page 2, that the osmium may be replaced by ruthenium or rhodium and the thoria (oxid of thorium) may be replaced by zirconia (oxid of zirconium).

The passage in appellant's specification (page 2, line 5) referred to by the Examiner reads as follows:

However ruthenium or rhodium or their suitable salts either in whole or part may be used in place of the osmium and the thoria may be replaced in whole or part by zirconia—hereafter to be understood as included within the term "rare earths"—or the yttrite earths.

A claim for a filament composed of a—

mixture of a metal of the platinum group, a metal oxid and yttrite earth—

was allowed by the Primary Examiner. Claims covering the process of making appellant's filaments also stand allowed.

It is noted that the invention defined in the appealed claims is a composite incandescent filament for electric lamps. Claim 4, probably the broadest in scope, states that the filament is composed of (1) "an electrical conducting mixture of a metal which is stable at a temperature above the incandescing temperature of the filament" and (2) "rare earth." Claim 3, the most specific of the group, states that the filament consists (1) "of a suitable electrical conducting mixture of osmium" and (2) "thoroxid."

The patent to Edison is the reference mainly relied upon by the lower tribunals. The specification of the Edison patent states:

The object of this invention is to produce a candle or light-giving body by the incandescence of a conductor of electricity in the form of a cylinder, prism, or other mass of a size adapted to yield the required volume of light.

The invention consists in an electric-light-giving body formed of a conductor, such as finely-divided platinum, iridium, ruthenium, or other metal difficult of fusion, incorporated with non-conducting material.

The nature of the non-conducting material is given in another passage of the specification as follows:

I mix with such finely divided conductors infusible materials—such as oxid of magnesium or zirconium—in different proportions, so as to obtain any degrees of conductivity required.

In the patent to Reynier it is stated that the incandescent conductor may consist of refractory metal, like iridium, osmium, ruthenium, etc., thus showing that osmium and ruthenium are disclosed by this patent to be equivalent metals. The patent to Thowless and British Patents Nos. 2,438 of 1888 and 6,135 of 1898 show that the oxids of thorium and zirconium are equivalent refractory earths so far as incandescent electric lighting is concerned.

As noted above, appellant acknowledges in his specification that ruthenium and the oxid of zirconium are the equivalents, respectively, of osmium and the oxid of thorium and may be used in place thereof. The position of the lower tribunals is that no invention was involved in appellant's substitution in place of Edison's mixture of ruthenium and the oxid of zirconium of a mixture of osmium and thoroxid, their well-known and admitted equivalents. I agree with this conclusion reached by the said tribunals. Furthermore, there is no invention in appellant's using in his mixture a plurality of the oxids mentioned by him, as called for in claim 5.

It is true that the term "filament" is not used by Edison in his specification, and apparently at the date of his patent the word was not commonly used

in this art. Edison, however, states that the light-giving body may be in the—

form of a cylinder, prism, or other mass of a size adapted to yield the required volume of light.

It is also true that Edison in his patent did not contemplate inclosing the light-emitting body in a vacuum. But the placing of the light-emitting body or filament in a vacuum-bulb was old in the prior art, as shown by the patents to Reynier and Thowless. To the contention that appellant was the first to invent a successful commercial process of manufacturing said filaments it is a sufficient answer to state that appellant has been allowed in this application claims covering his process.

The further rejection by the Examiner of claims 2 and 4 upon the ground that the term "rare earth" is misdescriptive is well taken.

The decision of the Examiners-in-Chief is affirmed.

EX PARTE THE AMERICAN SUGAR REFINING CO.

Decided April 24, 1912.

1. TRADE-MARKS—"CRYSTAL DOMINO," FOR SUGAR.

The words "Crystal Domino," for sugar, *Held* properly refused registration in view of the prior registration by the same applicant of the word "Domino" for the same goods, the specimens filed being substantially the same as those forming part of the application upon which the prior registration was based, (citing *Planten v. Canton Pharmacy Co.*, 143 O. G., 1113; 33 App. D. C., 268.)

2. SAME—SAME—DESCRIPTIVE.

The words "Crystal Domino" *Held* not registrable as a trade-mark for sugar, since the word "Crystal" is descriptive of such goods.

ON APPEAL.

TRADE-MARK FOR HARD SUGAR.

Messrs. Betts, Sheffield, Bentley & Betts for the applicant.

TENNANT, *Assistant Commissioner:*

This is an appeal from a decision of the Examiner of Trade-Marks refusing to register the words "Crystal Domino" as a trade-mark for sugar.

Registration was refused because of a prior registration by the same party of the word "Domino" for goods of the same descriptive properties.

It is urged upon appeal that the mark sought to be registered is not the same as the mark previously registered, that the word "Domino" has been used by the applicant and its predecessor in business for a much longer period than have the words "Crystal Domino," and that all the applicant is now seeking to do is to register another valid trade-mark which has been extensively used in its business.

In my opinion registration of this mark was properly refused. The record of the prior registration, No. 73,099, shows that the specimens forming part of the application upon which that registration was based are substantially identical with those which are a part of the present application. In each case the label shows the words "Crystal Domino Sugar," together with other features, which are also identical. In the previous registration it was asserted that the trade-mark sought to be registered—to wit, "Domino" alone—had been used in business by the corporation since August, 1900. The present application for registration also asserts that the—

trade-mark has been continuously used in business by said corporation since August, 1900.

In the decision of the Court of Appeals of the District of Columbia in *Planten v. Canton Pharmacy Co.* (143 O. G., 1113; 33 App. D. C., 268) it was held that although an applicant for registration has a right to determine the features of his label which constitute the trade-mark he after having registered one thing could not when the exigencies of the situation demanded limit his claim to a particular feature of the original mark. In passing upon this question the court said:

By the passage of the Trade-Mark Act Congress did not intend to confer upon any dealer the right to register fictitious marks for the purpose of limiting and restricting the field of registration of others. When, therefore, the Commissioner is satisfied that the applicant is attempting to register a particular feature of a registered mark, he should require evidence that the mark of the application has actually been used as a trade-mark. Not having limited his claims in his original application, the applicant cannot prove statutory use of the mark of the second application by showing such use of the registered mark. In other words, proof of the use of the words "Planten's C & C or Black Capsules," in a case where those words have been registered as a trade-mark, does not establish the use of the words "Black Capsules" as a trade-mark, for the words eliminated from the registered mark, are, under the prior application part of that mark.

It is seen from the statement above quoted that where an applicant has registered a composite mark he cannot thereafter be permitted to register certain individual features of the mark without showing statutory use of such features standing by themselves as separate trade-marks. For similar reasons it is believed that an applicant having registered an individual feature, which he swears in a declaration accompanying his application is his trade-mark, should not thereafter be given registration of another mark which includes the same subject-matter, together with other features, where the specimens filed by him are identical or substantially identical with the labels upon which the previous registration was based. In the present case not only are the specimens the same, but the period of use alleged is the same and the registered mark is merely qualified by the single word "Crystal."

There is a further reason why, in my opinion, this registration should be refused—that is, upon the ground that the word "Crystal" is descriptive of the merchandise upon which the alleged trade-mark is used. Although the record shows that upon argument by the applicant the Examiner withdrew his objection to the registration of the word "Crystal," upon the ground that the word "Crystal" qualified the word "Domino" rather than "Sugar," I am of the opinion that this word as used upon the specimens shown is of a descriptive rather than an arbitrary nature. The letters of the word "Crystal" and "Sugar" are of the same size, whereas the word "Domino" in each instance is of a considerably larger size, and in each case the label reads "Crystal Domino Sugar." "Crystal" is obviously descriptive of sugar and does not lose its descriptive significance when printed in the manner shown in the specimens.

The decision of the Examiner of Trade-Marks is affirmed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

BREWER *v.* WHITNEY.

Decided February 5, 1912.

INTERFERENCE—PRIORITY.

Priority *Held* properly awarded to W., the senior party. (For Commissioner's decision see 177 O. G., 1296.)

Mr. Wallace Greene for the appellant.

Mr. G. C. Gill and *Mr. W. G. Henderson* for the appellee.

VAN ORSDEL, *J.:*

This is an appeal from a decision of the Commissioner of Patents in an interference proceeding, (177 O. G., 1296.) The invention in issue relates to a manifold sales-book designed especially for use in restaurants and hotels.

Appellant is here with forty-two assignments of error, all relating to questions of fact pertinent to this case. To discuss these assignments in detail would involve great labor, with no precedent of value to the profession established. We have carefully reviewed the evidence, and have arrived at the conclusion that the Commissioner is right and should be affirmed, which is accordingly ordered. The clerk is directed to certify these proceedings as by law required.

Affirmed.

Supreme Court of the United States.

CROZIER *v.* FRIED. KRUPP AKTIENGESELLSCHAFT.

Decided April 8, 1912.

1. PATENTS—ACT OF JUNE 25, 1910—EMINENT DOMAIN.

"In substance, therefore, in this case, in view of the public nature of the subjects with which the patents in question are concerned and the undoubted authority of the United States as to such subjects to exert the power of eminent domain, the statute, looking at the substance of things, provides for the appropriation of a license to use the inventions, the appropriation thus made being sanctioned by the means of compensation for which the statute provides."

2. SAME—SAME—SAME—INJUNCTION AGAINST USE OF PATENTED DEVICE.

A decree of the Court of Appeals of the District of Columbia granting a writ enjoining the Chief of the Ordnance of the United States Army from making, using, or causing to be used any guns or gun-carriages containing certain patented devices reversed in view of the act of June 25, 1910.

The Attorney-General and *Mr. Stuart McNamara* for the petitioner.

Mr. William A. Jenner for the respondent.

Mr. Chief Justice WHITE delivered the opinion of the Court.

The defendant, a corporation organized under the laws of the German Empire, commenced this suit on June 8, 1907, in the Supreme Court of the District of Columbia. Relief was sought because of alleged infringements of three described Letters Patent of the United States, originally issued in the name of Fried. Krupp and assigned to the corporation. Two of the patents, numbered 722,724 and 722,725, were granted in 1903, and the third, issued in 1905, was numbered 791,847. The patents related to improvements in guns and gun-carriages. The petitioner here, William Crozier, was named as sole defendant in the bill.

After full averments as to the issue of the patents and the assignments by which the plaintiff had become the owner thereof, it was charged that the defendant Crozier well knowing of the existence of the patents—

> in violation and infringement of said Letters Patent and of the exclusive rights granted and secured under said Letters Patent * * * since the 17th day of March, 1903, and within the period of six (6) years prior to the filing of this bill of complaint, in the city of Bridgeport, State of Connecticut, and in the Watervliet Arsenal in the State of New York, and in the Rock Island Arsenal in the State of Illinois, * * * and elsewhere in the United States,

has—

> made and used, or caused to be made and used, is now making and causing to be made and used and threatens and intends to continue to make or cause to be made and to use and cause to be used—

guns and recoil-brake apparatus and guns and gun-carriages embodying the inventions owned by the complainant, in violation of the rights secured by the patents.

The prayer was for a preliminary and a permanent writ enjoining the defendant—

> his agents and employees, from making or using or causing to be made or used any guns or gun carriages or other devices which shall contain or employ the inventions or any of the inventions covered and secured by said Letters Patent or any of said Letters Patent.

There was also a prayer that the defendant—

> may be compelled to account for and pay over to your orator all the profits which the defendant has or had derived from any making or using of any gun or any specimen or device covered and secured by said Letters Patent or any of said Letters Patent, and that also the defendant be decreed to pay all damages which your orator has incurred or shall incur upon account of defendant's infringement of any of said Letters Patent, with such increase thereof as shall be meet. * * *

A stipulation was filed in the cause, in which, while expressly reserving the right of the defendant "to demur or otherwise plead to the bill of complaint, because of lack of jurisdiction on any ground," it was agreed as follows:

> The complainant stipulates that no pecuniary benefit has accrued to the defendant, William Crozier, by reason of the acts set forth in the bill, and complainant waives any claim against said defendant for an accounting of the profits or for damages, if any, arising out of or suffered by the complainant by reason of the acts and things set forth in the bill. Defendant stipulates and agrees that the Government of the United States of America and the Ordnance Department of said Government have manufactured, are now manufacturing, and intend to continue the manufacture and use, or to cause to be manufactured for their use, field guns and carriages made after the so-called "model of 1902" referred to in the bill of complaint, the claim or claims of complainant being in no wise admitted; that the defendant, William Crozier, sued in this suit is an officer in the United States Army and Chief of the Ordnance of the United States Army, and is the officer in the service of the United States who directs and is in charge of such manufacture of said field guns and carriages for the United States. The complainant concedes that the defendant, William Crozier, is such officer. The defendant further stipulates and agrees that the complainant is a corporation organised and existing under the laws of the Empire of Germany and a citizen of said Empire and a subject of the Emperor of Germany.
>
> Further, complainant desires to amend its bill in certain particulars, and the defendant desires to consent thereto. It is therefore stipulated that the bill of complaint herein be amended to read as follows: In paragraph XXXII of said bill shall be eliminated and expunged the words "a preliminary and also," and also the words "or using" and the words "or used," so that the said 32nd paragraph of said bill of complaint shall, when so amended, read as follows:
>
> "And your orator therefore prays your honors to grant unto your orator a permanent writ of injunction issuing out of and under the seal of this honorable court directed to the said defendant, William Crozier, and strictly enjoining him, his agents and employees, from making or causing to be made any guns or gun carriages or other devices which shall contain or employ the inventions or any of the inventions covered and secured by said Letters Patent or any of said Letters Patent."
>
> Paragraph XXXIII of said bill of complaint shall be amended so as to eliminate and expunge from said paragraph the following words: "By a decree of this court may be compelled to account for and pay over to your orator all the profits which the defendant has or had derived from any making or using of any gun or any specimen or device covered and secured by said Letters Patent or any of said Letters Patent, and that also the defendant be decreed to pay all damages which your orator has incurred or shall incur upon account of defendant's infringement of any of such Letters Patent, with such increase thereof as shall seem meet, and that also the defendant," so that the paragraph marked XXXIII when so amended shall read as follows: "And your orator further prays that the defendant be decreed to pay the costs of this suit and that your orator may have such other and further relief as the equity of the cause or the statutes of the United States may require and to this Court may seem just."

The defendant demurred to the amended bill on various grounds, all of which, in substance, challenged the jurisdiction of the court over the cause on the ground that the suit was really against the United States.

The demurrer was sustained and the bill dismissed. The court of appeals reversed and remanded the cause for further proceedings not inconsistent with its opinion. (32 App. D. C., 1.)

The court held that there was a broad distinction between interfering by injunction with the use by the United States of its property and the granting of a writ of injunction for the purpose of preventing the wrongful taking of private property, even although the individual who was enjoined from such taking was an officer of the Government, and although the purpose of the proposed taking was to appropriate the private property when taken to a governmental purpose. The cases of *Belknap* v. *Schild* (161 U. S., 10) and *International Postal Supply Company* v. *Bruce* (194 U. S., 601) were analyzed and held to be apposite solely to the first proposition, that is the want of authority to interfere with the property of the United States used for a governmental purpose.

The court said:

> It will thus be seen that in the Belknap and Bruce cases the subject-matter involved was property of the United States, and that, therefore, the United States was necessarily a party. In the present case it is not sought to disturb the United States in the possession and use of the guns already manufactured. The court is not asked to deal with property of the United States. The plaintiff simply asks that an officer of the United States be restrained from invading rights granted by the Government itself. The acts complained of are not only not sanctioned by any law, but are inconsistent with the patent laws of the United States.

A writ of certiorari was thereupon allowed.

The arguments at bar ultimately considered but affirm on the one hand and deny on the other the ground of distinction upon which the court below placed its ruling and by which the decisions in *Belknap* v. *Schild* and *International Postal Supply Company* v. *Bruce* were held to be distinguishable from the case in hand, and therefore not to be controlling. Thus the Government insists that although under the stipulation and the bill as amended, it resulted that no damages were sought in respect to use by the Government of the patented inventions, and no interference of any kind was asked with property belonging to the Government, nevertheless the suit was against the United States, because the defendant was conceded to be an officer of the army of the United States, engaged in the duty of making or causing to be made guns or gun carriages for the army of the United States. This, it is contended, is demonstrated to be the case by considering that the right to enjoin the officer of the United States, which the court below upheld, virtually asserts the existence of a judicial power to close every arsenal of the United States. On the other hand, the plaintiff insists that the act of the officer in wrongfully attempting to take its property cannot be assumed to be a governmental act, but must be treated as an individual wrong which the courts have the authority to prevent. The exertion of the power to enjoin a wrong of that nature in order to prevent the illegal conversion of private property is, it is urged, a manifestly different thing from using the process of injunction to interfere with property in the possession of the Government and which is being used for a public purpose. But we do not think, under the conditions which presently exist, we are called upon to consider the correctness of the theory upon which the court of appeals placed its decision or the soundness of the contentions at bar by which that theory is supported on the one hand or assailed on the other. We reach this conclusion because since October 7, 1908, when the decision of the court of appeals was rendered, the subject to which the controversy relates was dealt with by Congress by a law enacted on June 25, 1910, (36 Stat., c. 423, p. 851,) as follows:

> An act to provide additional protection for owners of patents of the United States and for other purposes.
>
> *Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,* That whenever an invention described in and covered by a patent of the United States shall hereafter be used by the United States without license of the owner thereof or lawful right to use the same, such owner may recover reasonable compensation for such use by suit in the Court of Claims: *Provided, however,* That said Court of Claims shall not entertain a suit or award compensation under the provisions of this act where the claim for compensation is based on the use by the United States of any article heretofore owned, leased, used by, or in possession of the United States: *Provided further,* That in any such suit the United States may avail itself of any and all defenses, general or special, which might be pleaded by a defendant in an action for infringement, as set forth in title sixty of the Revised Statutes or otherwise: *And provided further,* That the benefits of this act, shall not inure to any patentee, who, when he makes such claim is in the employment or service of the Government of the United States; or the assignee of any such patentee; nor shall this act apply to any device discovered or invented by such employee during the time of his employment or service.

The text of this statute leaves no room to doubt that it was adopted in contemplation of the contingency of the assertion by a patentee that rights secured to him by a patent had been invaded for the benefit of the United States by one of its officers, that is, that such officer under the conditions stated had infringed a patent.

The enactment of the statute, we think, grew out of the operation of the prior statute law concerning the right to sue the United States for the act of an officer in infringing a patent as interpreted by repeated decisions of this Court. (*United States* v. *Palmer*, 128 U. S., 62; *Schillinger* v. *United States*, 155 U. S., 163; *United States* v. *Berdan Fire-Arms Mfg. Co.*, 156 U. S., 552; *Russell* v. *United States*, 182 U. S., 516; *Harley* v. *United States*, 198 U. S., 229.) The effect of the statute was thus pointed out in the last cited case, (198 U. S., 234:)

> We held in *Russell* v. *United States* (182 U. S., 516, 530) that in order to give the Court of Claims jurisdic-

tion, under the act of March 3, 1887, (24 Stat., 505, c. 359,) defining claims of which the Court of Claims had jurisdiction, the demand sued on must be founded on "a convention between the parties—a coming together of minds." And we excluded, as not meeting this condition, those contracts or obligations that the law is said to imply from a tort. (*Schillinger* v. *United States*, 155 U. S., 163; *United States* v. *Berdan Fire-Arms Mfg. Co.*, 156 U. S., 552.)

In other words, the situation prior to the passage of the act of 1910 was this. Where it was asserted that an officer of the Government had infringed a patent right belonging to another—in other words, had taken his property for the benefit of the Government—the power to sue the United States for redress did not obtain unless from the proof it was established that a contract to pay could be implied—that is to say, that no right of action existed against the United States for a mere act of wrongdoing by its officers. Evidently inspired by the injustice of this rule as applied to rights of the character of those embraced by patents, because of the frequent possibility of their infringement by the acts of officers under circumstances which would not justify the implication of a contract, the intention of the statute to create a remedy for this condition is illustrated by the declaration in the title that the statute was enacted "to provide additional protection for owners of patents." To secure this end, in comprehensive terms the statute provides that whenever an invention described in and covered by a patent of the United States—

> shall hereafter be used by the United States without license of the owner thereof or lawful right to use the same, such owner may recover reasonable compensation for such use by suit in the Court of Claims.

That is to say, it adds to the right to sue the United States in the Court of Claims already conferred when contract relations exist the right to sue even although no element of contract is present. And to render the power thus conferred efficacious the statute endows any owner of a patent with the right to establish contradictorily with the United States the truth of his belief that his rights have been in whole or in part appropriated by an officer of the United States, and if he does so establish such appropriation that the United States shall be considered as having ratified the act of the officer and be treated as responsible pecuniarily for the consequences. These results of the statute are the obvious consequences of the power which it confers upon the patentee to seek redress in the Court of Claims for any injury which he asserts may have been inflicted upon him by the unwarranted use of his patented invention and the nature and character of the defenses which the statute prescribes may be made by the United States to such an action when brought. The adoption by the United States of the wrongful act of an officer is of course an adoption of the act when and as committed, and causes such act of the officer to be, in virtue of the statute, a rightful appropriation by the Government, for which compensation is provided. In substance, therefore, in this case, in view of the public nature of the subjects with which the patents in question are concerned and the undoubted authority of the United States as to such subjects to exert the power of eminent domain, the statute, looking at the substance of things, provides for the appropriation of a license to use the inventions, the appropriation thus made being sanctioned by the means of compensation for which the statute provides.

This being the substantial result of the statute, it remains only to determine whether its provisions are adequate to sustain and justify giving effect to its plain and beneficent purpose to furnish additional protection to owners of patents when their rights are infringed by the officers of the Government in the discharge of their public duties. This inquiry may be solved, under the conditions here involved, by taking the most exacting aspect of the well established and indeed elementary requirements in favor of property rights essential to be afforded in order to justify the taking by government of private property for public use.* Indisputably the duty to make compensation does not inflexibly, in the absence of constitutional provisions requiring it, exact, first, that compensation should be made previous to the taking—that is, that the amount should be ascertained and paid in advance of the appropriation—it being sufficient, having relation to the nature and character of the property taken, that adequate means be provided for a reasonably just and prompt ascertainment and payment of the compensation; second, that, again always having reference to the nature and character of the property taken, its value and the surrounding circumstances, the duty to provide for payment of compensation may be adequately fulfilled by an assumption on the part of government of the duty to make prompt payment of the ascertained compensation—that is, by the pledge, either expressly or by necessary implication, of the public good faith to that end.

Coming to apply these principles and confining ourselves in their application, as we have done in their statement, strictly to the conditions here before us, that is, the intangible nature—patent rights—of the property taken, the great possibilities in the essential operations of government that such rights may be invaded by incorporating them into property of a public character, of the vital public interest involved in the subject-matter of the patents in question and the grave detriment to the very existence of government which might result from interference with the right of the Government to make and use instrumentalities of the character of those which the patents in question are concerned, of the purpose which the statute manifests to add additional protection and sanction to private rights, and the pledge of the good faith of the Government which the statute plainly implies to appropriate for and pay the compensation when ascertained as provided in the statute, we think there is no room for doubt that the statute makes full and adequate provision for the exercise of the power of eminent domain for which considered in its final analyses it was the purpose of

* *United States* v. *Russell*, (13 Wall., 623;) *Cherokee Nation* v. *Southern Kan. Ry. Co.*, (135 U. S., 641;) *Sweet* v. *Rechel*, (159 U. S., 380;) see *Lewis' Eminent Domain* (3d ed., vol. 2, secs. 675, 679) and *Cooley Cons. Lim.*, (7th ed., p. 813.)

the statute to provide. Indeed, the desire to confine ourselves to the particular case before us has led us to state and limit the doctrine which we here apply, when it was possibly unnecessary to do so. We say this because no contention was made in argument by counsel for the corporation that the statute of 1910 does not provide methods of compensation adequate to the exercise of the power of taking for which the statute provides. Thus, in the argument, it is said:

> If the officers of the United States have since the act * * * used or shall hereafter use complainant's patented design, it is possible or probable that complainant may receive reasonable compensation under the act in the Court of Claims,

this statement being followed by an insistance that even although this be the case the statute is not controlling because it was enacted after the bill was filed and did not therefore retroactively deprive the court below of the power to afford relief under the conditions existing when the suit was commenced. The conclusion of the argument on this subject was thus stated:

> The general rule is that where jurisdiction in equity has been established a subsequent statute, creating a remedy at law or removing the obstacle at law upon which the existence of the equity jurisdiction was originally founded does not oust equity of that jurisdiction unless the statute affirmatively discloses the legislative intent to make the legal remedy exclusive. * * * We cannot discover in the act of June 25, 1910, any evidence of an intent to oust equity when its jurisdiction had attached, because there is no expression and the act is not retroactive.

But this contention is either an afterthought or is occasioned by overlooking the amendment to the pleadings operated by the stipulation to which we have hitherto referred. By that stipulation every conceivable claim based on the prior use of infringing devices was withdrawn. The prayer for a preliminary restraint was waived and all right to an accounting was likewise withdrawn. As a result the case was confined solely to obtaining at the end of the suit a permanent injunction forbidding the making of, or causing to be made by the defendant, guns or gun carriages embodying the inventions owned by complainant.

Upon the hypothesis that the decree of the court below remanding the case for further proceedings not inconsistent with its opinion was correct under the conditions existing when it was rendered, clearly under the circumstances now existing, that is, the acquiring by the Government under the right of eminent domain, as the result of the statute of 1910, of a license to use the patented inventions in question, there could be no possible right to award at the end of a trial the permanent injunction to which the issue in the case was confined. Moreover, taking a broader view and supposing that a final decree granting a permanent injunction had been entered below, in view of the subject-matter of the controversy and the right of the United States to exert the power of eminent domain as to that subject, at most and in any event the injunction could rightfully only have been made to operate until the United States had appropriated the right to use the patented inventions, and as that event has happened the injunction, if granted, would no longer have operative force. It follows that the decree of the court of appeals must be reversed with directions to that court to affirm the decree of the Supreme Court of the District of Columbia dismissing the bill, without prejudice however to the right of the defendant here, who was the complainant below, to proceed in the Court of Claims in accordance with the provisions of the act of 1910.

Reversed and remanded.

Citation of Decisions.

Citation of decisions of the Court of Appeals of the District of Columbia rendered from March 15, 1911, to December 4, 1911, published in the OFFICIAL GAZETTE of the United States Patent Office and in volume 37 of *Appeal Cases, District of Columbia:*

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ADJUDICATED PATENTS.

The Eberhardt patent, No. 541,475, for a crank-planer, *Held* void for lack of invention. *Gould & Eberhardt* v. *Cincinnati Shaper Co.*, (C. C. A.,) 194 Fed. Rep., 680.

The D'Arcy patent, No. 726,817, for a spring-cushion structure, claim 3 *Held* void for anticipation and lack of invention. *Sheffield Car Co.* v. *D'Arcy*, (C. C. A.,) 194 Fed. Rep., 686.

The Jansson patent, No. 777,635, for mechanism for operating automatic valves on elevators, *Held*

not infringed. *Plunger Elevator Co.* v. *Park*, (C. C. A.,) 194 Fed. Rep., 695.

The Mead design patent, No. 39,347, for a design for a neckscarf, *Held* void for lack of invention and novelty. *Phoenix Knitting Works* v. *Hygienic Fleeced Underwear Co.*, (C. C. A.,) 194 Fed. Rep., 696.

The Mead design patent, No. 39,347, for a design for a neckscarf, *Held* valid and infringed on motion for preliminary injunction. *Pheonix Knitting Works* v. *Louer Bros.*, (C. C.,) 194 Fed. Rep., 700.

The Mead design patent, No. 39,347, for a design for a neckscarf, *Held* valid and infringed on motion for preliminary injunction. *Phoenix Knitting Works* v. *Hygienic Fleeced Underwear Co.*, (C. C.,) 194 Fed. Rep., 702.

The Mead design patent, No. 39,347, for a design for a neckscarf, *Held* void for anticipation. *Phoenix Knitting Works* v. *Hygienic Fleeced Underwear Co.*, (C. C.,) 194 Fed. Rep., 703.

The Mead design patent, No. 39,347, for a design for a neckscarf, *Held* void for anticipation; also, not infringed if valid. *Phoenix Knitting Works* v. *Rich*, (C. C.,) 194 Fed. Rep., 708.

The Mead patent, No. 963,235, for an improvement in mufflers, *Held* not anticipated, valid, and infringed. *Phoenix Knitting Works* v. *Hygienic Fleeced Underwear Co.*, (C. C.,) 194 Fed. Rep., 717.

The Mead patent, No. 963,235, for a neckscarf, *Held* void for anticipation. *Phoenix Knitting Works* v. *Rich*, (C. C.,) 194 Fed. Rep., 721.

The Starr patents, Nos. 533,095, 683,809, and 766,158, for ellipsographs, *Held* not anticipated, valid, and infringed. *Starr* v. *Houser*, (C. C.,) 194 Fed. Rep., 730.

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1. APPLICATION—PROSECUTION.
The fact that an amendment filed at the end of the year and presenting new claims did not point out wherein those claims avoided the references did not justify the Examiner in holding the case abandoned for lack of sufficient prosecution where it appeared that the new claims were drawn along the line of an allowed claim. [*Ex parte* Beard, 319.

2. SAME—SAME.
The action of the Examiner in referring to a published decision of the Commissioner for his reasons for holding the claims unpatentable *Held* sufficiently definite and the action of the applicant *Held* insufficient to save the case from abandonment. [*Ex parte* Patterson, 885.

3. SAME—SAME.
Where an applicant in every instance waits until nearly the end of the year allowed by law before amending his case, he is not entitled to urge any leniency in the application of the rule that his actions should be responsive in order to save the case from abandonment. [Id.

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[**Crozier *v.* Fried. Krupp Aktiengesellschaft, 1154.

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BURDEN OF PROOF.

The burden of proof is upon the junior party to an interference, and where such junior party consists of joint applicants the burden is upon them to establish that they jointly conceived the invention at or about the time alleged in their preliminary statement. [*Mills and Conn *v.* Darlington. Mills and Conn *v.* Elliott and Darlington, 321.

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IRRELEVANT TESTIMONY.

See Testimony.

JOINT APPLICANTS.

See Interference; Testimony.

JUDGMENT ON THE RECORD.

See Testimony.

JURISDICTION OF THE COURT OF CLAIMS.

IMPLIED CONTRACT.

Record considered and *Held* to sustain the finding of the Court of Claims that there was an implied contract on the part of the Government to pay for the use of the patented invention and that therefore the Court of Claims had jurisdiction. [**The United States *v.* Société Anonyme Des Anciens Etablissements Cail. Société Anonyme Des Anciens Etablissements Cail *v.* The United States, 591.

MACHINE.

See Priority of Invention, 2; Reduction to Practice.

MERITS OF THE CASE.

See Prosecution of Applications, 1.

MOTION TO AMEND PRELIMINARY STATEMENT.

DISCRETION OF EXAMINER OF INTERFERENCES.

When the Examiner of Interferences postpones consideration of a motion to amend a preliminary statement until the final hearing, his action will not be disturbed unless it is apparent that in so ruling he has abused his discretion. [Gammeter *v.* Thropp, 320.

NEW CLAIMS.

See Abandonment of Applications, 1.

OPERATIVENESS.

See Prosecution of Applications, 2.

OPPOSITION TO REGISTRATION.

See Trade-Marks, 2.

PARTICULAR PATENTS.

DE BANGE—No. 301,220—GAS-CHECK.

The De Bange patent, for a gas-check, *Held* not anticipated, valid, and infringed. [**The United States *v.* Société Anonyme Des Anciens Etablissements Cail. Société Anonyme Des Etablissements Cail *v.* The United States, 591.

PATENTABILITY.

See Abandonment of Application, 2; Reissue.

1. INVENTION—PAD FOR ARTIFICIAL TEETH.

Claims for a pad of particular form to be worn between the gums and a plate for artificial teeth *Held* patentable over the prior art in view of affidavits of dentists of skill and long experience that this pad provides an effective remedy for the trouble arising from false teeth and tender gums and that they had constantly exercised their ingenuity and skill to find a remedy therefor, but without success. [*In re* Moore, 891.

2. SAME—FILAMENT FOR ELECTRIC LAMPS.

Claims for a filament for electric lamps *Held* unpatentable in view of the prior art. [*Ex parte* Welsbach, 1152.

PETITION TO THE COMMISSIONER OF PATENTS.

See Prosecution of Applications, 1.

PRACTICE IN THE COURTS.

See Priority of Invention, 3.

PRELIMINARY STATEMENT.

See Interference; Motion to Amend Preliminary Statement.

PRIOR APPLICATIONS.

See Anticipation.

PRIORITY OF INVENTION.

1. AWARD—EVIDENCE.

Evidence considered and priority *Held* properly awarded to D., the senior party. [*Mills and Conn *v.* Darlington. Mills and Conn *v.* Elliott and Darlington, 321.

2. REDUCTION TO PRACTICE—ABANDONED EXPERIMENT—CONCEALMENT.

Priority *Held* properly awarded to K. on the ground that certain machines built by B., who was the first to conceive the invention in issue, did not constitute a reduction to practice thereof and that B. was not diligent, or that, if these machines did constitute a reduction to practice of the invention, B. had lost his right thereto by concealment. [Baetz *v.* Kukkuck, 887.

3. CONCURRENT DECISIONS OF THE PATENT OFFICE—ENTITLED TO GREAT WEIGHT.

"Where the three tribunals of the Office have concurred in their decision of a question of this kind, it is the settled rule of this court not to disturb their conclusion unless manifest error can be found therein. (*Podlesak* v. *McInnerney*, 26 App. D. C., 339–405; *Newcomb Motor Co.* v. *Moore*, 30 App. D. C., 414.) And especially is this the case where the question is one relating to the operation of complicated apparatus, involving the application of scientific principles about which learned and highly-skilled electricians differ." [*Weintraub *v.* Hewitt and Rogers, 889.

4. AWARD—EVIDENCE.

Record and evidence considered and *Held* that the application of H. and R., the senior parties, discloses the invention in issue, and priority was therefore properly awarded to them. [*Id.

5. SAME.

Priority *Held* properly awarded to W., the senior party. (For Commissioner's decision see 177 O. G., 1296.) [*Brewer *v.* Whitney, 1154.

PROSECUTION OF APPLICATIONS.

See Abandonment of Applications.

1. MATTERS OF MERIT NOT REVIEWABLE ON PETITION.

The ruling of the Examiner that an element should not be cited more than once in a claim and that the claim is objectionably functional relates to matters of merit and will not be reviewed on petition. [*Ex parte* Jennings, 1151.

2. INOPERATIVENESS—GROUND OF REJECTION.

If the Examiner believes the device as shown and described to be inoperative, he should make this one of the grounds of rejection. If he believes than an operative device is disclosed, but intends to hold merely that the illustration in the drawing is inconsistent with such disclosure in the specification, the requirement should be worded accordingly. [Id.

REBUTTAL TESTIMONY.

See Reduction to Practice.

REDUCTION TO PRACTICE.

See Priority of Invention, 2.

INTERFERENCE—TESTIMONY—SURREBUTTAL.

Where G. introduced in evidence as proof of reduction to practice of the invention in issue certain machines and in rebuttal D. introduced testimony to show that these machines would not operate in the manner alleged, *Held* that G. was not entitled to take surrebuttal testimony. [Dietze and Dietze *v.* Gussman, 319.

REFERENCES.

See Abandonment of Applications, 1, 3; Anticipation.

REGISTRABILITY.

See Trade-Marks, 2, 4, 5.

REISSUE.

1. PATENTABILITY.

The delay in filing an application for reissue *Held* sufficiently accounted for and not unreasonable. [*Ex parte* Palmer, 886.

2. SAME.

Claim 2 *Held* unpatentable in view of the prior art and claims 1 and 5 *Held* unpatentable as covering an invention different from that disclosed in the original application. [Id.

REJECTION OF CLAIMS.

See Prosecution of Applications, 2.

RESPONSIVE ACTION BY THE APPLICANT.

See Abandonment of Applications; Prosecution of Applications.

SIMILARITY OF MARKS.

See Trade-Marks, 1, 2, 5.

SPECIFICATIONS.

See Prosecution of Applications, 2.

STATE OF THE ART.

See Patentability; Reissue, 2.

SUBSEQUENT PATENTS.

See Anticipation.

SURREBUTTAL TESTIMONY.

See Reduction to Practice.

TESTIMONY.

See Reduction to Practice.

JOINT INVENTORSHIP.

Where W., who was under order to show cause why judgment should not be rendered against him on the record, obtained permission to take testimony to show that the senior parties could not make the claims and in addition to this testimony introduced testimony for the purpose of showing that the senior parties were not joint inventors, *Held* that the latter testimony was properly excluded. "The additional evidence sought to be introduced was not pertinent to this the sole issue in the case. The case of *Lemp* v. *Randall* (33 App. D. C., 430-432) relied on by the appellant, is not in point. All that was decided in that case was that on an issue requiring proof of conception of the invention, evidence was admissible to show that one only of the joint applicants was the actual inventor."

[*Weintraub v. Hewitt and Rogers, 889.

TRADE-MARKS.

1. "EVERGREEN" FOR CANNED FRUITS AND VEGETABLES—DESCRIPTIVE.

The word "Evergreen" *Held* descriptive as applied to canned fruits and vegetables, since it would convey to the average purchaser the idea that the goods so marked are in as nearly a natural and fresh condition as it was possible to prepare them and that they would remain so.

[Brakeley v. The Sears & Nichols Co., 885.

2. OPPOSITION—CONTEMPORANEOUS USE DURING TEN-YEAR PERIOD.

The registration of the word "Evergreen" as applied to canned fruits and vegetables *Held* properly refused registration, since this mark is descriptive of the goods and the record shows that the opposer had also used this mark on the same goods during the ten-year period. [Id.

3. SIMILARITY—"CORO"—"COROLLA."

The word "Coro" *Held* to so nearly resemble the word "Corolla" that their simultaneous use upon goods of the same descriptive properties would be likely to cause confusion.

[*Ex parte* Thaddeus Davids Co., 1151.

4. "CRYSTAL DOMINO," FOR SUGAR.

The words "Crystal Domino," for sugar, *Held* properly refused registration in view of the prior registration by the same applicant of the word "Domino" for the same goods, the specimens filed being substantially the same as those forming part of the application upon which the prior registration was based (citing *Planten* v. *Canton Pharmacy Co.*, 143 O. G., 1113; 33 App. D. C., 268). [*Ex parte* American Sugar Refining Co., 1153.

5. SAME—DESCRIPTIVE.

The words "Crystal Domino" *Held* not registrable as a trade-mark for sugar, since the word "Crystal" is descriptive of such goods. [Id.

TRIBUNALS OF THE PATENT OFFICE.

See Priority of Invention, 3.

USE OF PATENTED ARTICLES BY THE GOVERNMENT.

See Construction of Statutes; Jurisdiction of the Court of Claims.

PATENTS—ACT OF JUNE 25, 1910—EMINENT DOMAIN—INJUNCTION AGAINST USE OF PATENTED DEVICE.

A decree of the Court of Appeals of the District of Columbia granting a writ enjoining the Chief of the Ordnance of the United States Army from making, using, or causing to be used any guns or gun-carriages containing certain patented devices reversed in view of the act of June 25, 1910.

[**Crozier v. Fried. Krupp Aktiengesellschaft, 1154.

VALID PATENTS.

See Particular Patents.

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ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF MAY, 1912.

[Abbreviations: "Sp."=Monthly Volume of Specifications; "Gaz."=Official Gazette.]

A. F. Meisselbach & Bro. (See Catucci, Pliny, assignor.)
A. & J. Manufacturing Co., The. (See Johnson, Edward H., assignor.)
Abbott, Ambrose E., Los Angeles, assignor of one-half to F. A. Weast, Modesto, Cal. Sad-iron. No. 1,027,969; May 28; Sp. p. 6326; Gaz. vol. 178; p. 1085.
Abbott, Augustus, assignor to Abbott Coin Counter Company, New York, N. Y. Coin-packaging device. No. 1,025,228; May 7; Sp. p. 261; Gaz. vol. 178; p. 43.
Abbott Coin Counter Company. (See Abbott, Augustus, assignor.)
Abercrombie, Charles M., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Overedge sewing and cutting machine. No. 1,025,441; May 7; Sp. p. 749; Gaz. vol. 178; p. 116.
Abrahams, Louis, Washington, D. C. Machine for applying clips to collapsible tubes. No. 1,026,234; May 14; Sp. p. 2528; Gaz. vol. 178; p. 423.
Abrahamson, Nils S. (See Master, James W., assignor.)
Abram, Ira M., Dugger, Ind. Trowel attachment. No. 1,027,396; May 28; Sp. p. 5099; Gaz. vol. 178; p. 895.
Ackerman, Maurice, and A. Bleicher, Washington, D. C. Garment-hanger. No. 1,025,775; May 7; Sp. p. 1461; Gaz. vol. 178; p. 230.
Adair Machine Company. (See Adair, Montague, assignor.)
Adair Machine Company. (See Adair, Cameron, and Ainsworth, assignors.)
Adair, Montague, New York, assignor to Adair Machine Company, Brooklyn, N. Y. Machine for stitching handkerchiefs or the like. No. 1,026,546; May 14; Sp. p. 3188; Gaz. vol. 178; p. 527.
Adair, Montague, J. A. Cameron, and F. Ainsworth, New York, assignors to Adair Machine Company, Brooklyn, N. Y. Handkerchief-machine. No. 1,026,547; May 14; Sp. p. 3192; Gaz. vol. 178; p. 528.
Adam, Fredrick B., assignor to Frank Adam Electric Company, St. Louis, Mo. Fastening device for panel-board cabinets. No. 1,027,397; May 28; Sp. p. 5101; Gaz. vol. 178; p. 895.
Adams, Earl T., Portsmouth, Ohio. Buttonhole-marker for shoes. No. 1,026,484; May 14; Sp. p. 3077; Gaz. vol. 178; p. 507.
Adams, John D., Phoenix, Ariz. Folding violin-bow. No. 1,027,636; May 28; Sp. p. 5568; Gaz. vol. 178; p. 973.
Adams & Westlake Company, The. (See Douglas, Harry A., assignor.)
Adams & Westlake Company, The. (See Hamm and Schuetz, assignors.)
Adams & Westlake Company, The. (See Huston, Peter, assignor.)
Adams & Westlake Company, The. (See Jansen, William, assignor.)
Adams & Westlake Company, The. (See Newpher, Alfred H., assignor.)
Adamson, Charles E., Buffalo, N. Y. Self-heating sad-iron. No. 1,025,502; May 7; Sp. p. 884; Gaz. vol. 178; p. 138.
Adamson, Charles G., Athlone, Ireland. Covering for tennis-shoes and the like. No. 1,027,637; May 28; Sp. p. 5569; Gaz. vol. 178; p. 974.
Adding Typewriter Company. (See Raber, Joseph, assignor.)
Addressograph Company. (See Duncan, Joseph S., assignor.)
Adix, Francis, Boone, Iowa. Guard for cultivator-wheels. No. 1,026,293; May 14; Sp. p. 2649; Gaz. vol. 178; p. 443.
Adkins, William, Kellogg, Iowa. Railway-switch. No. 1,027,683; May 28; Sp. p. 5679; Gaz. vol. 178; p. 990.
Adolph, Paul P., New York, N. Y. Match-box. No. 1,026,235; May 14; Sp. p. 2532; Gaz. vol. 178; p. 424.
Adrian Novelty Co., The. (See Beal and Crandell, assignors.)
Aeolian Company, The. (See Meahl, Philip J., assignor.)
Agbay, Samuel J., Worcester, Mass. Hose-supporter. No. 1,025,229; May 7; Sp. p. 262; Gaz. vol. 178; p. 44.
Agy, John, Kingfisher, Okla. Wedge-splitter. No. 1,027,458; May 28; Sp. p. 5214; Gaz. vol. 178; p. 914.
Ahrens, Hermann, Posen, Germany. Hot-water heating system. No. 1,026,236; May 14; Sp. p. 2535; Gaz. vol. 178; p. 424.
Aikman, Burton S., Chicago, Ill., assignor to National Brake & Electric Co., Milwaukee, Wis. Automatic valve. No. 1,026,620; May 14; Sp. p. 3347; Gaz. vol. 178; p. 552.
Ainsworth, Franklin. (See Adair, Cameron, and Ainsworth.)
Aktiengesellschaft Hahn für Optik und Mechanik. (See Gasser, Max, assignor.)
Alandar, Joseph H., Chicago, Ill. Railway signal apparatus. No. 1,027,230; May 21; Sp. p. 4752; Gaz. vol. 178; p. 799.
Albaugh-Dover Co. (See Hedderich, Leander J., assignor.)
Albert and J. M. Anderson Manufacturing Company. (See Andersen, Johan M., assignor.)
Aldrich, Roscoe H., Allentown, Pa. Valve. No. 1,025,732; May 7; Sp. p. 1384; Gaz. vol. 178; p. 216.
Alger, Harley C., Chicago Heights, Ill. Liquid-meter. No. 1,025,358; May 7; Sp. p. 558; Gaz. vol. 178; p. 87.
Allard, Herman, Geertruidenberg, Netherlands. Arrangement for removing the moist air from drying-chambers. No. 1,026,603; May 7; Sp. p. 1109; Gaz. vol. 178; p. 172.
Allen, Arthur M., New Brighton, N. Y. Elastic variable gearing. No. 1,026,237; May 14; Sp. p. 2536; Gaz. vol. 178; p. 425.
Allen, Byron C., Chicago, Ill. Heating apparatus. No. 1,027,970; May 28; Sp. p. 6328; Gaz. vol. 178; p. 1086.
Allen, Charles, Winifrede, W. Va. Horseshoe. No. 1,026,842; May 21; Sp. p. 3857; Gaz. vol. 178; p. 666.
Allen, Charles A., Linwood, assignor to The Whitin Machine Works, Whitinsville, Mass. Metallic creel. No. 1,026,646; May 21; Sp. p. 3429; Gaz. vol. 178; p. 599.
Allen, John V. (See Hadaway and Allen.)
Allen, John V., South Weymouth, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-seat-rounding machine. No. 1,027,638; May 28; Sp. p. 5570; Gaz. vol. 178; p. 974.
Allen, John V., South Weymouth, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-sewing machine. No. 1,027,791; May 28; Sp. p. 5886; Gaz. vol. 178; p. 1024.
Allen, Willard W., Pretty Prairie, Kans. Grain-door for cars. No. 1,027,971; May 28; Sp. p. 6329; Gaz. vol. 178; p. 1086.
Allien, Leon F., Morgans Point, near La Porte, Tex. Device for stripping wheels from shafts. No. 1,026,548; May 14; Sp. p. 3197; Gaz. vol. 178; p. 528.
Allingham, Henry W., London, England, assignor to The Morse Chain Company, Ithaca, N. Y. Drive-chain. No. 1,027,369; May 21; Sp. p. 5029; Gaz. vol. 178; p. 847.
Allington, William E., Saginaw, Mich. Centrifugal fan-wheel. No. 1,025,667; May 7; Sp. p. 1250; Gaz. vol. 178; p. 193.
Allis-Chalmers Company. (See Gray, Alexander M., assignor.)
Allis-Chalmers Company. (See Schley, George B., assignor.)
Almond, James W., Ruckersville, Va. Paper-file. No. 1,026,549; May 14; Sp. p. 3199; Gaz. vol. 178; p. 528.
Alston, David J., Keokuk, Iowa. Currycomb. No. 1,026,843; May 21; Sp. p. 3858; Gaz. vol. 178; p. 666.
Alter, Christian, New York, N. Y. Door-operating device. No. 1,027,231; May 21; Sp. p. 4754; Gaz. vol. 178; p. 800.
Altman, Elmer F. (See Hoffman and Altman.)
Altmann, Fritz, Berlin, Germany. Inverted burner for liquid combustibles. No. 1,025,851; May 7; Sp. p. 1622; Gaz. vol. 178; p. 257.
Ambler, George A., Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Mechanism for actuating stock-supports. No. 1,026,139; May 14; Sp. p. 2313; Gaz. vol. 178; p. 391.
American Art Works. (See Spery, Charles F., assignor.)
American Automatic Telephone Company. (See Lattig and Goodrum, assignors.)
American Bank Note Company. (See Sturtevant, Charles A., assignor.)

American Bank Note Company. (See Voorhees, William H., assignor.)
American Bottle Cap Company. (See Schmitt, Edward D., assignor.)
American Car & Foundry Company. (See Frame, Robert E., assignor.)
American Car and Foundry Company. (See Ostrander, Allen E., assignor.)
American Electrical Heater Company. (See Kuhn, Frank, assignor.)
American Gas Light Company. (See Maas, Joseph, assignor.)
American Gas Machine Company. (See Hanson, Hans C., assignor.)
American Graphophone Company. (See Emerson, Victor H., assignor.)
American Hardware Corporation, The. (See Fletcher, James R., assignor.)
American Hardware Corporation, The. (See Glover and Holt, assignors.)
American Hardware Corporation, The. (See Voight, Henry G., assignor.)
American Locomotive Company. (See Mellin, Carl J., assignor.)
American Mechanical Calculator Company, The. (See Webner, Frank E., assignor.)
American Metal Cap Company. (See Hammer, Charles, assignor.)
American Pin Company. (See Crist, George B., assignor.)
American Pulley Company, The. (See Bowen, Russell H., assignor.)
American Pulley Company, The. (See Morris, Albert W., assignor.)
American Rotary Valve Company. (See Moorhead, Albert E., assignor.)
American Seating Company. (See Bahnsen, John, assignor.)
American Standard Manufacturing Company. (See Lawlor, Simeon C., assignor.)
American Steel Foundries. (See Covert, Edson C., assignor.)
American Steel Foundries. (See Floyd, George G., assignor.)
American Steel Foundries. (See Murray, Charles F., assignor.)
American Stopper Company. (See Corey, Harry R., assignor.)
American Tire & Rubber Company, The. (See Selzer, Michel J., assignor.)
American Type Founders Company, The. (See Remington, Charles F., assignor.)
American Valve & Meter Company, The. (See Anderson, Frank C., assignor.)
American Water Supply of New England. (See Hussey, Alfred R., assignor.)
American Well & Prospecting Company. (See Johnston, Horace G., assignor.)
Amsden, Thomas G., Buffalo, assignor to J. W. Totterdale, Stafford, N. Y. Clothes-drying rack. No. 1,027,303; May 21; Sp. p. 4899; Gaz. vol. 178; p. 824.
Anderberg, Rudolf A. F. L. (See Christensen and Anderberg.)
Andersen, Johan M., assignor to Albert and J. M. Anderson Manufacturing Company, Boston, Mass. Electrical connection. No. 1,026,238; May 14; Sp. p. 2537; Gaz. vol. 178; p. 425.
Andersen, Lauritz W., assignor to The Plume & Atwood Manufacturing Company, Waterbury, Conn. Shadeholder for electric fixtures or electroliers. No. 1,026,422; May 14; Sp. p. 2941; Gaz. vol. 178; p. 487.
Anderson, Albert F., and C. W. Armstrong, Tacoma, Wash. Electric-light bracket. No. 1,025,442; May 7; Sp. p. 751; Gaz. vol. 178; p. 116.
Anderson, Claus J., Newburyport, Mass. Button-fastener. No. 1,026,017; May 14; Sp. p. 2014; Gaz. vol. 178; p. 348.
Anderson, Edward, *et al.* (See Moss, Robert S., assignor.)
Anderson, Ernst G. K., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Lamp-socket. No. 1,025,230; May 7; Sp. p. 263; Gaz. vol. 178; p. 44.
Anderson, Frank C., assignor to The American Valve & Meter Company, Cincinnati, Ohio. Interlocking mechanism. No. 1,026,730; May 21; Sp. p. 3613; Gaz. vol. 178; p. 627.
Anderson, Frederick L., Beverly, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Eyelet-stay-joining machine. (Reissue.) No. 13,416; May 14; Sp. p. 3413; Gaz. vol. 178; p. 561.
Anderson, Gustaf A., assignor to The Geiser Manufacturing Company, Waynesboro, Pa. Steering mechanism. No. 1,025,604; May 7; Sp. p. 1110; Gaz. vol. 178; p. 172.
Anderson, Gustaf A., assignor to The Geiser Manufacturing Company, Waynesboro, Pa. Oscillating-cylinder engine. No. 1,025,605; May 7; Sp. p. 1112; Gaz. vol. 178; p. 173.
Anderson, Henry A., Missoula, Mont. Curtain-pole. No. 1,026,647; May 21; Sp. p. 3430; Gaz. vol. 178; p. 599.
Anderson, John S., St. Louis, Mo., assignor to North and Judd Manufacturing Company, New Britain, Conn. Face-drop. No. 1,025,557; May 7; Sp. p. 1016; Gaz. vol. 178; p. 157.
Anderson, Peter, assignor to J. Lucas, Spokane, Wash. Motor. No. 1,025,776; May 7; Sp. p. 1462; Gaz. vol. 178; p. 230.
Anderson, William C., San Jose, Cal. Apparatus for separating substances of different specific gravities. No. 1,025,231; May 7; Sp. p. 265; Gaz. vol. 178; p. 44.
Andres, J. Frank, assignor to United States Safety Gas Machine Company, St. Louis, Mo. Measuring device. No. 1,026,294; May 14; Sp. p. 2650; Gaz. vol. 178; p. 444.
Andrews, Aaron K. (See Vollmer and Andrews.)
Andrews, Frederick, Mercer, New Zealand. Marking device for attachment to the ears of animals. No. 1,026,423; May 14; Sp. p. 2943; Gaz. vol. 178; p. 487.
Andrews, Joseph D. F., London, England. Punka-fan. No. 1,027,166; May 21; Sp. p. 4626; Gaz. vol. 178; p. 777.
Andrews, William S., Schenectady, N. Y., assignor to General Electric Company. Automatic cut-out for electric heaters. No. 1,025,852; May 7; Sp. p. 1623; Gaz. vol. 178; p. 257.
Angier, Edward H., Quincy, Mass. Corrugated sheet. No. 1,025,443; May 7; Sp. p. 752; Gaz. vol. 178; p. 117.
Angier, Edward H., Quincy, Mass. Carton. No. 1,025,444; May 7; Sp. p. 754; Gaz. vol. 178; p. 117.
Ankerwerke A. G. vormals Hengstenberg & Co. (See Trog, Carl, assignor.)
Ansonia O. & C. Company, The. (See Clauss, George E., assignor.)
Apple, Vincent G., Dayton, Ohio. Spark-plug for internal-combustion engines. No. 1,025,232; May 7; Sp. p. 268; Gaz. vol. 178; p. 45.
Archer, William J., Washingtonville, assignor of one-third to F. F. De Bolt, East Liverpool, Ohio. Game-board. No. 1,025,940; May 7; Sp. p. 1856; Gaz. vol. 178; p. 286.
Arend, Francis J., *et al.* (See Leitch, Meredith, assignor.)
Argo, Horace. (See Williners, John, assignor.)
Arkinstall, Joseph. (See Drew, Arkinstall, Dean, and Howarth.)
Armbrust, Charles W., Crystal Lake, assignor of one-half to H. W. Armbrust, North Crystal Lake, Ill. Brakehead. No. 1,027,581; May 28; Sp. p. 5472; Gaz. vol. 178; p. 957.
Armbrust, Harriet W. (See Armbrust, Charles W., assignor.)
Armistead, William E., Sandersville, Ga. Ice-making apparatus. No. 1,027,304; May 21; Sp. p. 4900; Gaz. vol. 178; p. 824.
Armistead, William E., Sandersville, Ga. Apparatus for manufacturing ice. No. 1,027,305; May 21; Sp. p. 4903; Gaz. vol. 178; p. 825.
Armstrong, Charles W. (See Anderson and Armstrong.)
Arndt, George C., Portland, and G. N. Jack, Willamina, Oreg. Mining-machine bar. No. 1,026,295; May 14; Sp. p. 2652; Gaz. vol. 178; p. 444.
Arnold, Fred E. (See Williams, Charles O., assignor.)
Arnoux, René, Paris, France. Aeroplane. No. 1,025,941; May 7; Sp. p. 1858; Gaz. vol. 178; p. 286.
Arnt, Louis, Chicago, Ill. Rod-holder. No. 1,027,026; May 21; Sp. p. 4295; Gaz. vol. 178; p. 731.
Arnzen, Frank A., *et al.* (See Davis, Claude B., assignor.)
Artista Piano Player Company. (See Bennett, Robert J., assignor.)
Asbeck, Julius, Krantscheid-Westerwald, Germany. Obtaining refined lead. No. 1,025,956; May 14; Sp. p. 1899; Gaz. vol. 178; p. 327.
Ash, Elven, Berkley, Va. Switch structure. No. 1,027,792; May 28; Sp. p. 5888; Gaz. vol. 178; p. 1024.
Ashby, Theodore J., Perryville, Ark., assignor of one-fourth to J. E. Bell, Gordon, Ga. Engine. No. 1,026,424; May 14; Sp. p. 2944; Gaz. vol. 178; p. 488.
Asheim, Leonard, Bridgeport, Conn. Ink-bottle stand and holder. No. 1,026,780; May 21; Sp. p. 3724; Gaz. vol. 178; p. 645.
Ashton, John, Hereford, England. Appliance for cutting cheese, butter, soap, lard, and other analogous substances. No. 1,027,972; May 28; Sp. p. 6332; Gaz. vol. 178; p. 1087.
Ashton, Miller C., Doty, Wash. Cross-head for logging pulley-blocks. No. 1,025,668; May 7; Sp. p. 1251; Gaz. vol. 178; p. 193.
Ashton, Orrell, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Stop mechanism. No. 1,026,067; May 14; Sp. p. 2165; Gaz. vol. 178; p. 365.
Ashton, Orrell, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Assembling-machine. No. 1,026,940; May 21; Sp. p. 4110; Gaz. vol. 178; p. 701.
Ashton, Roy S., Washington, D. C. Means for teaching shorthand. No. 1,027,514; May 28; Sp. p. 5330; Gaz. vol. 178; p. 933.
Astor Trust Company, trustee. (See Lundin, Andreas P., assignor.)
Atkins, William, Auburn, N. Y. Dump-wagon. No. 1,025,359; May 7; Sp. p. 563; Gaz. vol. 178; p. 88.
Atkinson, James A. (See Robertson and Atkinson.)
Atlas Tack Company. (See Raiche, Andrew, assignor.)
Atwood Machine Co., The. (See Baldwin, William T., assignor.)
Aurora Automatic Machinery Company. (See Levedahl, Axel, assignor.)
Aurora Automatic Machinery Company. (See Norling, Reinhold A., assignor.)
Austin, Albert L., Lakewood, Ohio. Steam-generator. No. 1,027,398; May 28; Sp. p. 5102; Gaz. vol. 178; p. 895.

Austin, Herbert, Barnt Green, near Birmingham, England. Spring for vehicles. No. 1,025,233; May 7; Sp. p. 270; Gaz. vol. 178; p. 45.
Auter, Abram T., Denver, Colo. Weed-extracting tool. No. 1,025,360; May 7; Sp. p. 566; Gaz. vol. 178; p. 88.
Auto-Compressed-Air Wheel Company. (See Gruss, Lucien R., assignor.)
Auto Safety Crank Company, The. (See Beck, John L., assignor.)
Automatic Fire Protection Company *et al.* (See Nolen, James G., assignor.)
Automatic Packing & Labeling Company. (See Lee, George A., assignor.)
Automatic Press Feeder Company. (See Kirkman, Karl F., assignor.)
Automatic Welding Company. (See Lloyd, Marshall B., assignor.)
Autoplate Company of America, The. (See Johnston, Robert T., assignor.)
Avery Company. (See Hansen, Frederico, assignor.)
Avery, Percy C., Milwaukee, Wis. Automobile-lamp. No. 1,027,306; May 21; Sp. p. 4905; Gaz. vol. 178; p. 825.
Axt, Harry J. (See Nelson and Axt.)
Ayers, Augustine R., Cleveland, Ohio. Pipe-supporting system for locomotive-engines. No. 1,027,973; May 28; Sp. p. 6335; Gaz. vol. 178; p. 1087.
Aylsworth, Jonas W., East Orange, assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J. Apparatus for making duplicate phonograph-records. No. 1,027,793; May 28; Sp. p. 5889; Gaz. vol. 178; p. 1025.
Aylsworth, Jonas W., East Orange, assignor of one-half to F. L. Dyer, Montclair, N. J. Forming fusible phenol resins. No. 1,027,794; May 28; Sp. p. 5894; Gaz. vol. 178; p. 1025.
B. F. Avery & Sons. (See Clark, Cyril B., assignor.)
Badeau, Charles C., assignor to S. B. Condit, Jr., Boston, Mass. Auxiliary carbon-contact circuit-breaker. No. 1,026,296; May 14; Sp. p. 2653; Gaz. vol. 178; p. 444.
Bader, Gustav A., Rochester, N. Y. Eyeglass-mounting. No. 1,027,515; May 28; Sp. p. 5332; Gaz. vol. 178; p. 934.
Badger Four Wheel Drive Auto Company, The. (See Zachow, Otto, assignor.)
Badische Anilin & Soda Fabrik. (See Bally, Oscar, assignor.)
Badische Anilin & Soda Fabrik. (See Boner and Bally, assignors.)
Badische Anilin & Soda Fabrik. (See Bosch and Mittasch, assignors.)
Badische Anilin & Soda Fabrik. (See Gaus, Wilhelm, assignor.)
Badische Anilin & Soda Fabrik. (See Isler, Max H., assignor.)
Badische Anilin & Soda Fabric. (See Mansfeld, Hans, assignor.)
Badische Anilin & Soda Fabrik. (See Schmidt, Otto, assignor.)
Badische Anilin & Soda Fabrik. (See Webel, Franz, assignor.)
Badische Anilin & Soda Fabrik. (See Wickham, Percy E., assignor.)
Baechler, Charles, Kansas City, Kans. Rail tie and fastening. No. 1,027,370; May 21; Sp. p. 5032; Gaz. vol. 178; p. 848.
Bahnsen, John, Chicago, Ill., assignor to American Seating Company. Friction-hinge. No. 1,026,781; May 21; Sp. p. 3725; Gaz. vol. 178; p. 645.
Bailey, Clark, assignor to L. J. Small, Utica, N. Y. Signal attachment for letter-boxes. No. 1,026,338; May 14; Sp. p. 2757; Gaz. vol. 178; p. 460.
Bailey, Seth G., Denver, Colo., assignor of one-fourth to M. Beck, New York, N. Y., and one-fourth to A. C. Carson, Denver, Colo. Mechanism for handling hanging scenery in theaters. No. 1,027,027; May 21; Sp. p. 4297; Gaz. vol. 178; p. 731.
Bailey, Seth G., assignor to The Bailey Theatre Fly Rail Machine Company, Denver, Colo. Means for handling hanging scenery in theaters. No. 1,027,028; May 21; Sp. p. 4304; Gaz. vol. 178; p. 731.
Bailey Theatre Fly Rail Machine Company, The. (See Bailey, Seth G., assignor.)
Bailey, William. (See McCausland and Bailey.)
Bain, Benjamin L. (See Bain, Joseph S. and B. L.)
Bain, Joseph S., Luverne, Iowa, and B. L. Bain, Chicago, Ill. Seed-corn-drying device or utensil. No. 1,026,550; May 14; Sp. p. 3200; Gaz. vol. 178; p. 529.
Baker, Alvin W. (See Rumsey, James W., assignor.)
Baker, Burton E., Hartford, Conn. Vacuum-regulator for X-ray tubes. No. 1,027,795; May 28; Sp. p. 5897; Gaz. vol. 178; p. 1026.
Baker, David. (See Ladd and Baker.)
Baker, Fred I., Orange, Mass. Pneumatic cushion for vehicles. No. 1,026,893; May 21; Sp. p. 3978; Gaz. vol. 178; p. 684.
Baker, Marie K., Houston, Tex. Doll. No. 1,025,234; May 7; Sp. p. 272; Gaz. vol. 178; p. 45.
Baker, Rolah A., Rice, La. Grading-machine. No. 1,026,018; May 14; Sp. p. 2015; Gaz. vol. 178; p. 348.
Baker, Thomas T., Cricklewood, England. Phototelegraphy. No. 1,026,297; May 14; Sp. p. 2656; Gaz. vol. 178; p. 445.
Baker, William H., Bridgeport, Conn. Warp stop-motion. No. 1,026,941; May 21; Sp. p. 4116; Gaz. vol. 178; p. 701.
Balchin Schulz & Company. (See Bynoe, Frederick O., assignor.)
Baldwin Locomotive Works, The. (See Henderson, George R., assignor.)
Baldwin, William T., Troy, N. Y., assignor to The Atwood Machine Co., Stonington, Conn. Spool cut-out for spooling-machines. No. 1,025,558; May 7; Sp. p. 1017; Gaz. vol. 178; p. 157.
Ball, Charles W. (See Moodie and Ball.)
Ballard, Harry E., Holyoke, assignor to Coburn Trolley Track Manufacturing Company, Willimansett, Mass. Switch for I-beam trolley-tracks. No. 1,026,239; May 14; Sp. p. 2539; Gaz. vol. 178; p. 425.
Bally, Oscar. (See Boner and Bally.)
Bally, Oscar, Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Halogenated vat dyes and making same. No. 1,026,621; May 14; Sp. p. 3354; Gaz. vol. 178; p. 553.
Baltz, Louis J., Buffalo, N. Y. Suction-tube for hydraulic dredging-machines. No. 1,027,095; May 21; Sp. p. 4478; Gaz. vol. 178; p. 755.
Banahan, James T. (See Pangratz, George C., assignor.)
Banister, Charles, Waco, Tex. Apparatus for solidifying cotton-batting preparatory for pressing and baling. No. 1,025,503; May 7; Sp. p. 885; Gaz. vol. 178; p. 138.
Banker, John R. (See Van Sant and Banker.)
Banks, William I. (See Hoaker and Banks.)
Barber, Carl E. (See Richmond and Barber.)
Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Slip-sheet-feeding device for printing-presses. No. 1,027,516; May 28; Sp. p. 5332; Gaz. vol. 178; p. 934.
Barber, Howard M., Stonington, Conn., assignor to C. B. Cottrell & Sons Company, New York, N. Y. Slip-sheet-feeding device for printing-presses. No. 1,027,582; May 28; Sp. p. 5474; Gaz. vol. 178; p. 957.
Barker, Lee, Maricopa, Cal. Trap. No. 1,027,974; May 28; Sp. p. 6336; Gaz. vol. 178; p. 1087.
Barkers, Nicholas G., Chicago, Ill. Soldering-iron stove. No. 1,027,096; May 21; Sp. p. 4481; Gaz. vol. 178; p. 756.
Barnard, Davis, Los Angeles, Cal. Carbureter. No. 1,027,459; May 28; Sp. p. 5216; Gaz. vol. 178; p. 915.
Barnes, John A. (See Hammond and Barnes.)
Barnes, Pierre, Seattle, Wash. Water-heater or steam-generator. No. 1,027,975; May 28; Sp. p. 6338; Gaz. vol. 178; p. 1088.
Barney, Edwin E., assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,025,669; May 7; Sp. p. 1252; Gaz. vol. 178; p. 193.
Barnum, Thomas E., Milwaukee, Wis. Motor-controller. No. 1,027,796; May 28; Sp. p. 5898; Gaz. vol. 178; p. 1026.
Barnum, William T., Chicago, Ill. Flash-light apparatus. No. 1,027,167; May 21; Sp. p. 4627; Gaz. vol. 178; p. 777.
Barr, Charles D., assignor of one-half to W. C. Katzenstein, Omaha, Nebr. Egg-tray. No. 1,026,551; May 14; Sp. p. 3201; Gaz. vol. 178; p. 529.
Barr, George, Hamilton, Ontario, Canada. Spike-machine. No. 1,025,670; May 7; Sp. p. 1254; Gaz. vol. 178; p. 194.
Barr, George F., New York, N. Y. Safety-holder for bottles, jars, and other receptacles. No. 1,026,485; May 14; Sp. p. 3078; Gaz. vol. 178; p. 507.
Barrett, Clinton H., New York, N. Y. Commode. No. 1,025,114; May 7; Sp. p. 1; Gaz. vol. 178; p. 3.
Barrett Manufacturing Company. (See Cowdery, Arthur B., assignor.)
Barringer, Lawrence E., Schenectady, N. Y., assignor to General Electric Company. Resistance unit. No. 1,026,377; May 14; Sp. p. 2853; Gaz. vol. 178; p. 472.
Barry-Wehmiller Machine Company. (See Dawson, Joseph W., assignor.)
Bartelt, William, *et al.* (See Robinson, Clark, assignor.)
Barth, John W., Pittsburgh, Pa. Sanding device. No. 1,027,517; May 28; Sp. p. 5335; Gaz. vol. 178; p. 934.
Barthel, Frederick, assignor to F. E. Wadsworth, Detroit, Mich. Carbureter. No. 1,026,425; May 14; Sp. p. 2945; Gaz. vol. 178; p. 488.
Bartholomew, G. E., *et al.* (See Schorndorfer, Edward F., assignor.)
Bartholomew, William, assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill. Dry-room hanger. No. 1,026,853; May 7; Sp. p. 1625; Gaz. vol. 178; p. 257.
Bartlett, Julia H., Baltimore, Md. Paper bag. No. 1,027,168; May 21; Sp. p. 4629; Gaz. vol. 178; p. 777.
Batchelder, Asa F., Schenectady, N. Y., assignor to General Electric Company. Locomotive. No. 1,026,552; May 14; Sp. p. 3202; Gaz. vol. 178; p. 529.
Batchelder, Frank R., Worcester, Mass. Cartridge-belt. No. 1,026,068; May 14; Sp. p. 2166; Gaz. vol. 178; p. 366.
Bates, Benjamin W., and A. T. C. Hale, Birmingham, England. Target. No. 1,027,371; May 21; Sp. p. 5034; Gaz. vol. 178; p. 848.
Bates, Harry, New York, N. Y. Time-controlled workman's-check-receiving recorder. No. 1,027,797; May 28; Sp. p. 5901; Gaz. vol. 178; p. 1026.
Batzel, Eugene P. (See Beck, George C., assignor.)
Bauer & Black. (See Schulz, Otto C., assignor.)
Bauer, John G., and F. Gardner, Warsaw, N. Y. Seat for pianos, sewing-machines, &c. No. 1,026,140; May 14; Sp. p. 2318; Gaz. vol. 178; p. 391.

Bauer, Theodor von, Berlin, Germany. Coke-oven. No. 1,026,894; May 21; Sp. p. 3980; Gaz. vol. 178; p. 685.
Bauer, Theodor von, Berlin, Germany. Coke-oven. No. 1,027,087; May 28; Sp. p. 6582; Gaz. vol. 178; p. 1123.
Baueris, William A. (See Johnson, Baueris, Jensen, and Lawshe.)
Baughan, George A., Seattle, Wash. Valve. No. 1,026,195; May 14; Sp. p. 2443; Gaz. vol. 178; p. 409.
Baughman, Thomas, Harrison City, Pa. Tie and rail-fastener. No. 1,027,232; May 21; Sp. p. 4758; Gaz. vol. 178; p. 800.
Baumgartner-Hartmann, Sebastian, Zollikon, Switzerland. Date-indicator for clocks. No. 1,027,518; May 28; Sp. p. 5337; Gaz. vol. 178; p. 934.
Baxter, Lonnie A., Cincinnati, Ohio. Vacuum-cleaner. No. 1,026,553; May 14; Sp. p. 3204; Gaz. vol. 178; p. 529.
Bayer, August V., assignor to Bayer Steam Soot Blower Company, St. Louis, Mo. Boiler-cleaner. No. 1,026,141; May 14; Sp. p. 2319; Gaz. vol. 178; p. 392.
Bayer, Joseph C., deceased; S. A. M. Bayer, administratrix, New York, N. Y. Non-refillable bottle. No. 1,027,583; May 28; Sp. p. 5476; Gaz. vol. 178; p. 957.
Bayer, Leo J., assignor to Bayer Steam Soot Blower Company, St. Louis, Mo. Boiler-cleaner. No. 1,028,083; May 28; Sp. p. 6373; Gaz. vol. 178; p. 1121.
Bayer, Sarah A. M., administratrix. (See Bayer, Joseph C.)
Bayer Steam Soot Blower Company. (See Bayer, August V., assignor.)
Bayer Steam Soot Blower Company. (See Bayer, Leo J., assignor.)
Bayless, Patrick A., Oklahoma, and H. D. Henry, El Reno, Okla. Collapsible drinking-cup. No. 1,025,606; May 7; Sp. p. 1114; Gaz. vol. 178; p. 173.
Bayley, William, Springfield, Ohio. Lantern-windows and their operating mechanism. No. 1,025,957; May 14; Sp. p. 1809; Gaz. vol. 178; p. 327.
Bayne, Eugene D. C., and L. A. Subers, Cleveland, Ohio. Tubular-fabric-forming device. No. 1,026,648; May 21; Sp. p. 3431; Gaz. vol. 178; p. 599.
Beach, Albert G., *et al.* (See Gipple, Roy E., assignor.)
Beadle, George W., Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Labeling attachment for carton-crimping machines. No. 1,026,554; May 14; Sp. p. 3205; Gaz. vol. 178; p. 530.
Beadle, George W., Montclair, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Locking slip-closure for vessels. No. 1,027,233; May 21; Sp. p. 4758; Gaz. vol. 178; p. 800.
Beal, Samuel R., and J. D. Crandell, assignors to The Adrian Novelty Co., Adrian, Mich. Vending-machine. No. 1,025,235; May 7; Sp. p. 273; Gaz. vol. 178; p. 46.
Beam, Frank E., assignor to The Union Electric Welding Company, Toledo, Ohio. Wire-tie tool. No. 1,027,097; May 21; Sp. p. 4482; Gaz. vol. 178; p. 756.
Beam, Jacob B., Punxsutawney, Pa. Radiator. No. 1,026,895; May 21; Sp. p. 3981; Gaz. vol. 178; p. 685.
Beam, Jacob B., Punxsutawney, Pa. Radiator. No. 1,026,896; May 21; Sp. p. 3983; Gaz. vol. 178; p. 685.
Beamer, Christopher C., Steubenville, Ohio. Medicine-spoon. No. 1,027,976; May 28; Sp. p. 6340; Gaz. vol. 178; p. 1088.
Bean, Irene A., Lonepine, Ark. Window. No. 1,027,584; May 28; Sp. p. 5478; Gaz. vol. 178; p. 958.
Beardsley, Sylvester C., Kirksville, Mo. Cow-tail holder. No. 1,026,378; May 14; Sp. p. 2854; Gaz. vol. 178; p. 473.
Beattie, John, Leete Island, Conn. Battery-zinc. No. 1,027,169; May 21; Sp. p. 4630; Gaz. vol. 178; p. 777.
Beaumont, Leon C., Hudson Falls, N. Y. Automobile-tire. No. 1,025,854; May 7; Sp. p. 1628; Gaz. vol. 178; p. 258.
Beausejour, Reme A., assignor to Standard Varnish Works, New York, N. Y. Holder for liquid-coating machines. No. 1,025,671; May 7; Sp. p. 1256; Gaz. vol. 178; p. 194.
Beck, Frédéric, Neuilly-sur-Seine, France. Rotary explosion-motor. No. 1,025,361; May 7; Sp. p. 569; Gaz. vol. 178; p. 89.
Beck, George C., Spokane, Wash., assignor of one-half to E. P. Batzel, Detroit, Mich. Valve mechanism. No. 1,027,977; May 28; Sp. p. 6341; Gaz. vol. 178; p. 1088.
Beck, John L., Springfield, assignor to The Auto Safety Crank Company, Holyoke, Mass. Safety cranking device for explosive-engines. No. 1,027,798; May 28; Sp. p. 5911; Gaz. vol. 178; p. 1027.
Beck, John L., Springfield, assignor to The Auto Safety Crank Company, Holyoke, Mass. Safety cranking device for explosive-engines. No. 1,027,799; May 28; Sp. p. 5914; Gaz. vol. 178; p. 1027.
Beck, Lavergne. (See Beck, William and L.)
Beck, Martin, *et al.* (See Bailey, Seth G., assignor.)
Beck, William and L., Etna, Pa. Tie and rail-fastener. No. 1,025,672; May 7; Sp. p. 1260; Gaz. vol. 178; p. 195.
Beck, William O., Weehawken, N. J., assignor to Western Electric Company, New York, N. Y. Watchcase-receiver. No. 1,026,196; May 14; Sp. p. 2444; Gaz. vol. 178; p. 410.
Bedford, Fred, and C. E. Williams, Sleaford, England. Conversion of unsaturated fatty acids, their glycerids, and other esters into the corresponding saturated compounds. No. 1,026,339; May 14; Sp. p. 2759; Gaz. vol. 178; p. 461.
Beebe, John D., assignor, by mesne assignments, to Briscoe Manufacturing Company, Detroit, Mich. Radiator-assembling machine. No. 1,025,897; May 7; Sp. p. 1770; Gaz. vol. 178; p. 272.
Beebe, John D., assignor, by mesne assignments, to Briscoe Manufacturing Company, Detroit, Mich. Assembling radiators. No. 1,025,898; May 7; Sp. p. 1773; Gaz. vol. 178; p. 272.
Beech-Nut Packing Company *et al.* (See Merritt, Joseph, assignor.)
Beede, Walter E., New York, N. Y. Electrical measuring instrument. No. 1,027,684; May 28; Sp. p. 5681; Gaz. vol. 178; p. 990.
Beers, Charles F., Newark, N. J. Lock-washer. No. 1,025,958; May 14; Sp. p. 1902; Gaz. vol. 178; p. 327.
Behm, Henry, Jersey City, N. J. Vibrator. No. 1,025,236; May 7; Sp. p. 279; Gaz. vol. 178; p. 46.
Behr, Hans C., Johannesburg, Transvaal. Pneumatic percussive apparatus. No. 1,026,555; May 14; Sp. p. 3208; Gaz. vol. 178; p. 530.
Belcher, George E. (See Leighton, Arthur M., assignor.)
Belcher, Wallace E., Chicago, Ill. Wire-rope clamp. No. 1,027,234; May 21; Sp. p. 4759; Gaz. vol. 178; p. 801.
Beler, Adolf, assignor to Beler Water Heater Co., Pittsburgh, Pa. Instantaneous gas hot-water heater. No. 1,025,777; May 7; Sp. p. 1465; Gaz. vol. 178; p. 231.
Beler Water Heater Co. (See Beler, Adolf, assignor.)
Belew, Cuba A., San Diego, Cal. Pneumatic-tire protector. No. 1,027,800; May 28; Sp. p. 5918; Gaz. vol. 178; p. 1028.
Belk, Baley P., *et al.* (See Thomas, Martin E., assignor.)
Bell, Frederick J. T., Accrington, England. Sewing-machine. No. 1,026,897; May 21; Sp. p. 3985; Gaz. vol. 178; p. 686.
Bell, J. E. (See Ashby, Theodore J., assignor.)
Bellamore, David H., New York, N. Y. Automobile bank-vehicle. No. 1,027,978; May 28; Sp. p. 6343; Gaz. vol. 178; p. 1089.
Bellamy, John B., assignor to Hazel-Atlas Glass Company, Wheeling, W. Va. Cover for hermetically closing jars or vessels. No. 1,025,942; May 7; Sp. p. 1859; Gaz. vol. 178; p. 287.
Bellefeuille, Antoni, Lowell, Mass. Spring-bed. No. 1,027,170; May 21; Sp. p. 4631; Gaz. vol. 178; p. 777.
Belley, John, assignor of one-half to J. Gerõ, Passaic, N. J. Fan for baby-carriages. No. 1,027,801; May 28; Sp. p. 5920; Gaz. vol. 178; p. 1028.
Belt, Alonzo L., Cincinnati, Ohio. Bumping-post. No. 1,027,098; May 21; Sp. p. 4483; Gaz. vol. 178; p. 756.
Belz, Louis C., Philadelphia, Pa. Hair-pin. No. 1,026,142; May 14; Sp. p. 2322; Gaz. vol. 178; p. 392.
Benbow, Charles A., Portland, Oreg. Automatic stock or animal release. No. 1,027,307; May 21; Sp. p. 4908; Gaz. vol. 178; p. 826.
Bendelari, Frederico N., Cleveland, Ohio. Bowling-ball. No. 1,026,069; May 14; Sp. p. 2168; Gaz. vol. 178; p. 366.
Benjamin Electric Manufacturing Company. (See Anderson, Ernst G. K., assignor.)
Benjamin Electric Manufacturing Company. (See Benjamin, Reuben B., assignor.)
Benjamin, George H., New York, N. Y. Metallurgical furnace. No. 1,026,197; May 14; Sp. p. 2445; Gaz. vol. 178; p. 410.
Benjamin, Reuben B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Switch-socket for electric lamps. No. 1,025,237; May 7; Sp. p. 281; Gaz. vol. 178; p. 46.
Benjamin, Reuben B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Weatherproof electric-lamp socket. No. 1,025,238; May 7; Sp. p. 284; Gaz. vol. 178; p. 47.
Benjamin, Reuben B., assignor to Benjamin Electric Manufacturing Company, Chicago, Ill. Electric-lamp socket. No. 1,025,239; May 7; Sp. p. 287; Gaz. vol. 178; p. 47.
Bennet, Philip G. H. (See Bostwick, Seymour A., assignor.)
Bennett, Orlando S., Moulton, Iowa. Spark-arrester. No. 1,026,143; May 14; Sp. p. 2324; Gaz. vol. 178; p. 392.
Bennett, Robert J., Moline, assignor to Artista Piano Player Company, Milan, Ill. Controlling device for self-playing pianos. No. 1,025,959; May 14; Sp. p. 1903; Gaz. vol. 178; p. 327.
Bennett, William N., Belleville, assignor of one-tenth to W. W. Lyons and A. G. Heller, Newark, N. J. Steel-mold. No. 1,027,585; May 28; Sp. p. 5479; Gaz. vol. 178; p. 958.
Benson, Ira C., Hulett, Wyo. Reel attachment for mowing-machines and harvesters. No. 1,026,486; May 14; Sp. p. 3080; Gaz. vol. 178; p. 508.
Benson, John E., Minneapolis, Minn. Back-rest for canoes. No. 1,026,898; May 21; Sp. p. 3987; Gaz. vol. 178; p. 686.
Benson, Samuel, Menominee, Mich., assignor to E. C. Miller, Chicago, Ill. Perambulator or go-cart. No. 1,027,029; May 21; Sp. p. 4306; Gaz. vol. 178; p. 732.
Benster, Menzo M., Gettysburg, S. D. Flying-machine. No. 1,027,372; May 21; Sp. p. 5036; Gaz. vol. 178; p. 848.
Bentley, Edwin O., Baltimore, Md. Gas-controlling mechanism for gas-burners. No. 1,027,519; May 28; Sp. p. 5338; Gaz. vol. 178; p. 935.
Bentley, Frank F., Warren, Ohio. Ice-can. No. 1,027,802; May 28; Sp. p. 5921; Gaz. vol. 178; p. 1029.
Berger Manufacturing Company, The. (See Caldwell, William L., assignor.)
Bergeron, Jay P. (See Patton, Elias J., assignor.)
Berggren, Arthur M. (See Hitchcock and Berggren.)
Berggren, Fred M. (See Hitchcock and Berggren.)

Berggren, Tell J., Battle Creek, Mich. Osteopathic-treatment chair. No. 1,026,782; May 21; Sp. p. 3726; Gaz. vol. 178; p. 645.
Berliner, Rudolph, D. D. Swem, and H. F. Moore, Chicago, Ill. Motor-vehicle speed-alarm. No. 1,025,607; May 7; Sp. p. 1115; Gaz. vol. 178; p. 174.
Berlinghof, George A., and E. L. Davis, Lincoln, Nebr. Door and window opening. No. 1,027,460; May 28; Sp. p. 5219; Gaz. vol. 178; p. 915.
Bernhard, Richard, and A. Niedermeyer, Milwaukee, Wis., assignors to Power & Mining Machinery Company. Blast connection for converters. No. 1,026,556; May 14; Sp. p. 3212; Gaz. vol. 178; p. 531.
Bernstein, Maxville. (See Gogel and Bernstein.)
Bernstrom, John, *et al.* (See Leitch, Meredith, assignor.)
Berry, Austin, Ottawa, Ontario, Canada. Car journal-box. No. 1,026,487; May 14; Sp. p. 3081; Gaz. vol. 178; p. 508.
Berry, Frederick J., London, England. Spring-seat support. No. 1,027,171; May 21; Sp. p. 4632; Gaz. vol. 178; p. 778.
Berry, Seneca L., Sunnyvale, Cal. Regulating-gate for water-wheels. No. 1,025,240; May 7; Sp. p. 289; Gaz. vol. 178; p. 48.
Bertram, Henry W., assignor to McDougall Company, Frankfort, Ind. Hinge. No. 1,026,844; May 21; Sp. p. 3859; Gaz. vol. 178; p. 666.
Beshore, Hiram, Marion, Ind. Safe. No. 1,026,649; May 21; Sp. p. 3438; Gaz. vol. 178; p. 600.
Best, Edwin J., Ensley, assignor of one-half to F. Kestler, Birmingham, Ala. Cinder-leveler. No. 1,026,426; May 14; Sp. p. 2947; Gaz. vol. 178; p. 488.
Bethard, Albert G., Decatur, Ala. Double-cylinder engine. No. 1,026,198; May 14; Sp. p. 2449; Gaz. vol. 178; p. 411.
Bettendorf Axle Company. (See Clasen, Claus J. W., assignor.)
Bettendorf Axle Company. (See Taylor, Ralph G., assignor.)
Bettendorf, J. W., administrator. (See Bettendorf, William P.)
Bettendorf, Joseph W., administrator. (See Bettendorf, William P.)
Bettendorf, William P., deceased, Davenport, Iowa; J. W. Bettendorf, administrator. Draft-rigging. No. 1,025,445; May 7; Sp. p. 756; Gaz. vol. 178; p. 117.
Bettendorf, William P., deceased, Bettendorf; J. W. Bettendorf, administrator, Davenport, Iowa. Guard-cleat for railway-car doors. No. 1,025,446; May 7; Sp. p. 760; Gaz. vol. 178; p. 117.
Bettendorf, William P., deceased, Bettendorf; J. W. Bettendorf, administrator, Davenport, Iowa. Roof for cars. No. 1,026,899; May 21; Sp. p. 3988; Gaz. vol. 178; p. 686.
Betts, Lewis F., New York, assignor to A. A. Low, Horseshoe, M. J. Wohl, and H. Hertzberg, Brooklyn, N. Y., trustees. Gas-heater. No. 1,026,427; May 14; Sp. p. 2951; Gaz. vol. 178; p. 489.
Beugler, Edwin F., assignor to E. & B. Holmes Machinery Co., Buffalo, N. Y. Heading-up machine. No. 1,027,803; May 28; Sp. p. 5922; Gaz. vol. 178; p. 1029.
Beuoy, George, Cedar Vale, Kans. Tool attachment. No. 1,025,362; May 7; Sp. p. 570; Gaz. vol. 178; p. 89.
Beuoy, George, Cedar Vale, Kans. Caponizing instrument. No. 1,025,363; May 7; Sp. p. 572; Gaz. vol. 178; p. 89.
Beutner, Amanda, New York, N. Y. Hat or bonnet pin protector. No. 1,026,942; May 21; Sp. p. 4119; Gaz. vol. 178; p. 701.
Biechele, Edward A., Canton, Ohio. Furnace. No. 1,025,673; May 7; Sp. p. 1262; Gaz. vol. 178; p. 195.
Bienenzucht, Abraham, New York, N. Y. Buckle. No. 1,027,979; May 28; Sp. p. 6346; Gaz. vol. 178; p. 1089.
Bigelow Company, The. (See Horsley, William, assignor.)
Bigelow, Frank B., assignor to Murphy Iron Works, Detroit, Mich. Arch-plate. No. 1,026,645; May 14; Sp. p. 3410; Gaz. vol. 178; p. 561.
Bigelow, Samuel A., assignor to Sumner Manufacturing Company, Boston, Mass. Machine for mixing liquid and powdered materials. No. 1,027,172; May 21; Sp. p. 4633; Gaz. vol. 178; p. 778.
Bignell, Edward, Lincoln, Nebr. Concrete piling. No. 1,026,144; May 14; Sp. p. 2326; Gaz. vol. 178; p. 393.
Billado, Jason A., assignor of one-half to W. W. Nichols, Rutland, Vt. Horseshoe. No. 1,027,804; May 28; Sp. p. 5927; Gaz. vol. 178; p. 1029.
Birrell, James and W., assignors to Birrell Vacuum Vibrator Company, Seattle, Wash. Combined vibrator and vacuum-apparatus. No. 1,025,504; May 7; Sp. p. 887; Gaz. vol. 178; p. 138.
Birrell Vacuum Vibrator Company. (See Birrell, James and W., assignors.)
Birrell, William. (See Birrell, James and W.)
Bisesi, Francesco, New York, N. Y. Key-operated lock. No. 1,027,173; May 21; Sp. p. 4634; Gaz. vol. 178; p. 778.
Bishop, Ephraim M., Kingston, N. Y. Fire-extinguisher. No. 1,027,308; May 21; Sp. p. 4909; Gaz. vol. 178; p. 826.
Bishop, James T., Saltillo, Miss. Brake mechanism. No. 1,025,115; May 7; Sp. p. 2; Gaz. vol. 178; p. 3.
Bishop, William, Saxonburg, Pa. Derrick connection. No. 1,026,845; May 21; Sp. p. 3860; Gaz. vol. 178; p. 667.
Bittner, John, Newcastle, Ind. Tongs. No. 1,026,488; May 14; Sp. p. 3082; Gaz. vol. 178; p. 508.
Black, George B., Jr., Dundee, Scotland. Drag device for spinning-machines. No. 1,027,805; May 28; Sp. p. 5928; Gaz. vol. 178; p. 1030.
Black, Horace D., London, England. Paper cutting and collecting machine. No. 1,027,099; May 21; Sp. p. 4484; Gaz. vol. 178; p. 756.
Black, Raleigh A., Hobart, Tasmania, Australia. Non-refillable bottle. No. 1,025,855; May 7; Sp. p. 1629; Gaz. vol. 178; p. 258.
Black, Walter, Mendota, Ill. Wheel. No. 1,026,783; May 21; Sp. p. 3728; Gaz. vol. 178; p. 646.
Blackburn, James M., Baltimore, Md. Gas-governor. No. 1,025,505; May 7; Sp. p. 890; Gaz. vol. 178; p. 139.
Blackman, Philo M., and W. Marshall, Elgin, Ill. Filling apparatus for liquid-receptacles. No. 1,026,145; May 14; Sp. p. 2329; Gaz. vol. 178; p. 393.
Blaeker, Joseph, New York, N. Y. Turbine. No. 1,025,241; May 7; Sp. p. 290; Gaz. vol. 178; p. 48.
Blair, Robert S., South Orange, N. J. Evaporation-controlling apparatus. No. 1,026,846; May 21; Sp. p. 3862; Gaz. vol. 178; p. 667.
Blaisdell, James L., *et al.* (See Blake, Albert E., assignor.)
Blake, Albert E., assignor of one-third to J. L. Blaisdell and one-third to F. H. Blake, Rochester, N. H. Sash-lock. No. 1,026,489; May 14; Sp. p. 3083; Gaz. vol. 178; p. 508.
Blake, Frank H., *et al.* (See Blake, Albert E., assignor.)
Blake, George H., Alameda, assignor to W. A. Plummer Manufacturing Company, San Francisco, Cal. Detachable mud-guard and dress-protector for motor-cycles. No. 1,027,806; May 28; Sp. p. 5930; Gaz. vol. 178; p. 1030.
Blake and Johnson Company, The. (See Duston, Ernest W., assignor.)
Blanchard, Daniel, Lowell, Mass. Tension device for shuttles. No. 1,026,298; May 14; Sp. p. 2659; Gaz. vol. 178; p. 445.
Blanchard, Kirk S., Brooklyn, N. Y. Ventilator for water-closets. No. 1,025,364; May 7; Sp. p. 574; Gaz. vol. 178; p. 89.
Bland, Samuel J., Uvalda, Ga. Supporting and ventilating device for hay-stacks. No. 1,025,778; May 7; Sp. p. 1467; Gaz. vol. 178; p. 232.
Blandy, Graham F. (See Blandy, John B., assignor.)
Blandy, John B., Funchal, Madeira, assignor to G. F. Blandy, New York, N. Y. Insect-screen. No. 1,025,674; May 7; Sp. p. 1263; Gaz. vol. 178; p. 195.
Bleicher, Abraham. (See Ackerman and Bleicher.)
Biller, Christopher C. (See Biller, Eli A. and C. C.)
Biller, Eli A. and C. C., Livingston, Mont. Float-valve. No. 1,027,080; May 28; Sp. p. 6348; Gaz. vol. 178; p. 1089.
Bliss, Edward W., Rochester, N. Y. Steering mechanism for vehicles. No. 1,026,146; May 14; Sp. p. 2331; Gaz. vol. 178; p. 394.
Bliss, Harry L., Reynoldsville, Pa. Siphon. No. 1,025,608; May 7; Sp. p. 1116; Gaz. vol. 178; p. 174.
Bliss, William L., Milwaukee, Wis., assignor to The United States Light & Heating Company, New York, N. Y. Driving mechanism for generators. No. 1,025,506; May 7; Sp. p. 892; Gaz. vol. 178; p. 139.
Bliss, William L., Brooklyn, assignor, by mesne assignments, to The United States Light and Heating Company, New York, N. Y. Automatic electric regulator. No. 1,025,559; May 7; Sp. p. 1019; Gaz. vol. 178; p. 157.
Bloch, Joseph. (See Marcus, Herman, assignor.)
Block, Leah E. (See Block, Louis, assignor.)
Block, Louis, assignor to L. E. Block, New York, N. Y. Earpiece-disinfector. No. 1,027,174; May 21; Sp. p. 4637; Gaz. vol. 178; p. 779.
Blood, Clarence C., Kalamazoo, Mich. Floating-reamer support. No. 1,027,520; May 28; Sp. p. 5340; Gaz. vol. 178; p. 935.
Bloom, David, Berkeley, Cal. Receptacle-closure. No. 1,027,685; May 28; Sp. p. 5685; Gaz. vol. 178; p. 990.
Bloom, Moses E., New York, N. Y. Elevator. No. 1,026,650; May 21; Sp. p. 3439; Gaz. vol. 178; p. 600.
Blount, Nelson, New York, N. Y. Miner's lamp. No. 1,026,622; May 14; Sp. p. 3355; Gaz. vol. 178; p. 553.
Blume, Frank, Chicago, Ill. Article of jewelry. No. 1,025,447; May 7; Sp. p. 762; Gaz. vol. 178; p. 118.
Bock, George R., Port Washington, assignor of one-half to H. Schreier and A. P. Steffen, Sheboygan, Wis. Signal device for drawbridges, &c. No. 1,027,100; May 21; Sp. p. 4487; Gaz. vol. 178; p. 756.
Bocorselski, Frank E. (See Lassiter and Bocorselski.)
Bodmer, Christian, assignor to The Stanley Rule & Level Company, New Britain, Conn. Plane. No. 1,026,636; May 14; Sp. p. 3384; Gaz. vol. 178; p. 558.
Boetting, Charles, *et al.* (See Lake, Albert D., assignor.)
Bogley, Emery H., *et al.* (See Rohr, Marshall J., assignor.)
Bogley, John W., *et al.* (See Rohr, Marshall J., assignor.)
Bohan, William J., St. Paul, Minn. Berth-lamp. No. 1,025,675; May 7; Sp. p. 1264; Gaz. vol. 178; p. 196.
Bohatka, Joseph S., Chicago, Ill. Swing. No. 1,026,784; May 21; Sp. p. 3731; Gaz. vol. 178; p. 646.
Bolduc, George J., Seattle, Wash. Oil-burner. No. 1,026,240; May 14; Sp. p. 2540; Gaz. vol. 178; p. 426.
Bole, William A., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Blade-mounting. No. 1,026,651; May 21; Sp. p. 3441; Gaz. vol. 178; p. 600.

Bollée, Léon, Le Mans, France. Vertical engine. No. 1,027,807; May 28; Sp. p. 5931; Gaz. vol. 178; p. 1030.
Bollinger, Harrison D., Great Falls, Mont. Adjustable caster. No. 1,027,686; May 28; Sp. p. 5687; Gaz. vol. 178; p. 991.
Bolton, Andrew C., assignor to The Gutta Percha & Rubber Manufacturing Co., New York, N. Y. Machine for manufacturing hose. No. 1,028,067; May 28; Sp. p. 6528; Gaz. vol. 178; p. 1116.
Boman, Cises W., assignor to Eagle Pencil Company, New York, N. Y. Eraser-tip for lead-pencils, &c. No. 1,027,030; May 21; Sp. p. 4312; Gaz. vol. 178; p. 732.
Bond, Jayson K., assignor of one-half to K. W. Jacobs, Milwaukee, Wis. Automobile-fender. No. 1,027,808; May 28; Sp. p. 5932; Gaz. vol. 178; p. 1030.
Bond, William H., assignor to Mt. Holyoke Tissue Mills, Holyoke, Mass. Paper towel and napkin package. No. 1,028,084; May 28; Sp. p. 6577; Gaz. vol. 178; p. 1122.
Boner, Johann H., Ludwigshafen-on-the-Rhine, and O. Bally, Mannheim, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Anthracene compound and making same. No. 1,026,557; May 14; Sp. p. 3214; Gaz. vol. 178; p. 531.
Bonine, Charles E., Elizabeth, assignor to Electro-Dynamic Company, Bayonne, N. J. Apparatus for regulating dynamo-electric machines. No. 1,026,900; May 21; Sp. p. 3990; Gaz. vol. 178; p. 686.
Bonom, Alfred, Paterson, N. J. Turbine. No. 1,027,300; May 21; Sp. p. 4909; Gaz. vol. 178; p. 826.
Booker, William E., Baltimore, Md. Sign. No. 1,026,310; May 21; Sp. p. 4911; Gaz. vol. 178; p. 826.
Boomhower, Frederick K., and W. A. Eberman, Chicago, Ill. Register. No. 1,026,070; May 14; Sp. p. 2170; Gaz. vol. 178; p. 367.
Boone, John F., Portland, Oreg. Traction-engine. No. 1,027,311; May 21; Sp. p. 4912; Gaz. vol. 178; p. 826.
Booty, Emily R. (See Lofthouse and Booty.)
Borchardt, Hugo, Charlottenburg, Germany. Small-arm. No. 1,025,733; May 7; Sp. p. 1385; Gaz. vol. 178; p. 216.
Borg, Charles W., Rock Island, Ill. Column cap and base shaping machine. No. 1,026,071; May 14; Sp. p. 2171; Gaz. vol. 178; p. 367.
Bosch, Carl, and A. Mittasch, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Production of nitrids. No. 1,027,312; May 21; Sp. p. 4914; Gaz. vol. 178; p. 827.
Bosch, Firm of Robert. (See Diemer, Anton, assignor.)
Bosquett, John F., Jersey City, N. J. Vehicle-tire. No. 1,025,734; May 7; Sp. p. 1387; Gaz. vol. 178; p. 217.
Bosredon, Jean de, Paris, France. Making tools. No. 1,025,735; May 7; Sp. p. 1388; Gaz. vol. 178; p. 217.
Boss, John C., Elkhart, Ind. Apparatus for drying bricks. No. 1,026,558; May 14; Sp. p. 3216; Gaz. vol. 178; p. 531.
Boston Machine Works Company. (See Neely, William A., assignor.)
Boston Talking Machine Company.)(See Pumphrey, Walter H., assignor.)
Bostwick, Seymour A., Roxbury, assignor to P. G. H. Bennet, Boston, Mass. Cutting and punching machine. No. 1,026,072; May 14; Sp. p. 2173; Gaz. vol. 178; p. 367.
Bosworth, William O., Northbridge, Mass. Thread-guide for spinning-frames. No. 1,025,365; May 7; Sp. p. 577; Gaz. vol. 178; p. 90.
Botsch, Emil. (See Botsch, Jakob and E.)
Botsch, Jakob and E., Rappenau, Baden, Germany. Steering device. No. 1,027,081; May 28; Sp. p. 6349; Gaz. vol. 178; p. 1090.
Botsford, Eugene N., Platteville, Wis. Combined step and extension ladder. No. 1,026,147; May 14; Sp. p. 2333; Gaz. vol. 178; p. 394.
Bounds, George T., Hampton, Ark. Agricultural implement. No. 1,026,731; May 21; Sp. p. 3614; Gaz. vol. 178; p. 628.
Bouska, Joseph. (See Marchand, Alexis, assignor.)
Boutell-Manufacturing Co. (See Boutell, William H., assignor.)
Boutell, William H., assignor to Boutell Manufacturing Co., Rochester, N. Y. Fruit-handling machine. No. 1,026,299; May 14; Sp. p. 2660; Gaz. vol. 178; p. 446.
Bowen, Russell H., Palmyra, N. J., assignor to The American Pulley Company, Philadelphia, Pa. Pulley. No. 1,027,639; May 28; Sp. p. 5575; Gaz. vol. 178; p. 974.
Bower, Béla, and H. Spero, Chicago, Ill. Curtain-fixture. No. 1,025,116; May 7; Sp. p. 3; Gaz. vol. 178; p. 3.
Bowling, Joseph R. (See Ingoldsby and Bowling.)
Bowling, Joseph R., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo. Dump-car. No. 1,026,785; May 21; Sp. p. 3732; Gaz. vol. 178; p. 646.
Bowling, Joseph R., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo. Dump-car. No. 1,027,809; May 28; Sp. p. 5935; Gaz. vol. 178; p. 1031.
Bowser, Leslie E., Los Angeles, Cal. Cotton-chopper. No. 1,027,687; May 28; Sp. p. 5688; Gaz. vol. 178; p. 991.
Boyer, Oram A., Milwaukee, Wis. Rotary internal-combustion engine. No. 1,025,117; May 7; Sp. p. 5; Gaz. vol. 178; p. 3.
Boyrie, Harry E. (See Tracy and Boyrie.)
Bozarth, Frank D., Williamsburg, Va. Reversing-gearing. No. 1,027,313; May 21; Sp. p. 4915; Gaz. vol. 178; p. 827.
Bradford, Percival L., Chicago, Ill. Speed-regulator. No. 1,027,640; May 28; Sp. p. 5576; Gaz. vol. 178; p. 974.
Bradley, William, assignor of one-half to T. Schofield, Pittsburgh, Pa. Curtain-fixture. No. 1,026,652; May 21; Sp. p. 3443; Gaz. vol. 178; p. 601.
Bradshaw, Frank F., assignor of one-half to F. G. Thomas, Topeka, Kans. Collapsible packing-case. No. 1,026,379; May 14; Sp. p. 2856; Gaz. vol. 178; p. 473.
Brahn, John N. (See Champagne and Brahn.)
Braine, Bancroft G., assignor to The Rail Joint Company, New York, N. Y. Rail-joint. No. 1,026,300; May 14; Sp. p. 2664; Gaz. vol. 178; p. 446.
Brakenridge, William H., assignor to Waterbury Mfg. Co., Waterbury, Conn. Manufacturing metal boxes. No. 1,026,340; May 14; Sp. p. 2760; Gaz. vol. 178; p. 461.
Brampton Brothers Limited. (See Richmond, Reginald H., assignor.)
Brand, James C., St. Joseph, Mo. Combined harrow and shield. No. 1,025,118; May 7; Sp. p. 7; Gaz. vol. 178; p. 4.
Brandenburg, John M., Elgin, Ill. Corn-planter. No. 1,026,786; May 21; Sp. p. 3736; Gaz. vol. 178; p. 647.
Brandt, Henry E., Minneapolis, Minn. Spraying device. No. 1,027,521; May 28; Sp. p. 5342; Gaz. vol. 178; p. 935.
Brandt, Maurice L., Brooklyn, N. Y. Razor-stropping machine. No. 1,025,119; May 7; Sp. p. 8; Gaz. vol. 178; p. 4.
Brandt, Maurice L., Brooklyn, N. Y. Razor-stropping machine. No. 1,025,120; May 7; Sp. p. 9; Gaz. vol. 178; p. 4.
Brant, James, Dubuque, Iowa. Automatic air-coupling. No. 1,027,314; May 21; Sp. p. 4917; Gaz. vol. 178; p. 827.
Brauer, Kurt A. B., Mittweida, Germany. Employing gases having a low boiling temperature in heat-engines. No. 1,025,856; May 7; Sp. p. 1630; Gaz. vol. 178; p. 258.
Brauner, Simon, assignor of one-third to J. M. Shwartz, Pittsburgh, Pa. Trolley. No. 1,027,175; May 21; Sp. p. 4638; Gaz. vol. 178; p. 779.
Breaker, Lewis F., Houston, Tex. Pipe connection. No. 1,027,586; May 28; Sp. p. 5480; Gaz. vol. 178; p. 958.
Breeden, James C., Oronoga, Mo. Gate for jigs. No. 1,025,242; May 7; Sp. p. 295; Gaz. vol. 178; p. 48.
Bremer & Bruckmann. (See Dempewolf, Otto, assignor.)
Bremer, Russell H., Reading, assignor of one-fourth to F. W. Maurer, one-fourth to J. Kistler, Lansford, and one-fourth to O. F. Thiry, Reading, Pa. Printing-roll. No. 1,025,779; May 7; Sp. p. 1469; Gaz. vol. 178; p. 232.
Brendel, Paul A., assignor to The Bryant Electric Company, Bridgeport, Conn. Fuse-plug. No. 1,025,857; May 7; Sp. p. 1631; Gaz. vol. 178; p. 258.
Brenner, Paul, and O. Hoffmann, Duisburg, Germany. Self-acting valve for pumps and similar devices. No. 1,027,587; May 28; Sp. p. 5482; Gaz. vol. 178; p. 959.
Bressel, William H., and R. O'Hara, Pocatello, Idaho. Oil-cup. No. 1,027,522; May 28; Sp. p. 5343; Gaz. vol. 178; p. 936.
Breton, Aimé L., San Francisco, Cal. Street and station indicator. No. 1,025,560; May 7; Sp. p. 1022; Gaz. vol. 178; p. 158.
Breuer, Vladimir, New York, N. Y. Aeroplane. No. 1,026,490; May 14; Sp. p. 3086; Gaz. vol. 178; p. 509.
Brewer, Horatio J., New York, N. Y. Cover for electric batteries. No. 1,026,847; May 21; Sp. p. 3865; Gaz. vol. 178; p. 667.
Brewer, Thomas M., parish of St. Marys, New Brunswick, assignor of one-half to P. A. Logan, St. John, Canada. Nut-lock. No. 1,025,676; May 7; Sp. p. 1265; Gaz. vol. 178; p. 196.
Brewster, William A., Winnipeg, Manitoba, Canada. Heating-drum. No. 1,025,736; May 7; Sp. p. 1390; Gaz. vol. 178; p. 217.
Brice, Walter S., Rochester, England. Brick-molding machinery. No. 1,027,315; May 21; Sp. p. 4919; Gaz. vol. 178; p. 828.
Brigg, Thomas H., Godstone, England. Railway-locomotive. No. 1,027,810; May 28; Sp. p. 5939; Gaz. vol. 178; p. 1031.
Briggs, Frank, Leavenworth, Wash. Beet-topper. No. 1,027,399; May 28; Sp. p. 5104; Gaz. vol. 178; p. 896.
Briggs, Judge B., and V. P. Hall, Labette, Kans. Telephone equipment. No. 1,025,366; May 7; Sp. p. 578; Gaz. vol. 178; p. 90.
Bright, Robert, Jr., Aberdeen, Scotland, and J. M. W. Wright, Sunderland, England. Projecting-lantern. No. 1,026,019; May 14; Sp. p. 2017; Gaz. vol. 178; p. 348.
Brion, Harry O., Gates, N. Y. Street-indicator for cars. No. 1,025,780; May 7; Sp. p. 1470; Gaz. vol. 178; p. 232.
Briscoe Manufacturing Company. (See Beebe, John D., assignor.)
Britt, George B., *et al.* (See Bryant, William A., assignor.)
Brock, Frank W., Chatham, Ill. Advertising device. No. 1,027,811; May 28; Sp. p. 5943; Gaz. vol. 178; p. 1031.
Brodie, James H., Henderson, N. C. Mixer. No. 1,027,982; May 28; Sp. p. 6351; Gaz. vol. 178; p. 1090.
Broehl, Julius. (See Hamliton, Charles A., assignor.)
Brooks, Byron A., New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,025,943; May 7; Sp. p. 1860; Gaz. vol. 178; p. 287.
Brooks, Edward J., East Orange, N. J. Snap-seal. No. 1,026,943; May 21; Sp. p. 4120; Gaz. vol. 178; p. 702.

Brooks, Edward J., East Orange, N. J. Snap-seal. No. 1,027,812; May 28; Sp. p. 5945; Gaz. vol. 178; p. 1032.
Brooks, George L., Seattle, Wash. Insulated platform. No. 1,026,380; May 14; Sp p. 2858; Gaz. vol. 178; p. 474.
Bropson, James, assignor of one-half to J. A. Mangan, Cleveland, Ohio. Tire. No. 1,027,983; May 28; Sp. p. 6354; Gaz. vol. 178; p. 1091.
Broussard, James, Loureauville, La. Bag-filling machine. No. 1,025,781; May 7; Sp. p. 1474; Gaz. vol. 178; p. 233.
Brown, Alexander M. (See McCloy and Brown.)
Brown & Bailey Company. (See Brown, Robert P., assignor.)
Brown, Braselton T., Indianapolis, Ind. Baler. No. 1,027,393; May 21; Sp. p. 5085; Gaz. vol. 178; p. 855.
Brown, Edmund E., Bloomington, Ill., assignor, by mesne assignments, to Southern Iron and Steel Company. Wire-fence machine. No. 1,025,858; May 7; Sp. p. 1632; Gaz. vol. 178; p. 259.
Brown, Eugene, assignor to Colfax Manufacturing Company, Colfax, Wash. Hoisting apparatus. No. 1,026,901; May 21; Sp. p. 3999; Gaz. vol. 178; p. 687.
Brown, Ira S., Bridgeport, Conn. Electric writing-machine. No. 1,027,984; May 28; Sp. p. 6355; Gaz. vol. 178; p. 1091.
Brown, John W., Jr., assignor to The Enterprise Manufacturing Company of Pennsylvania, Philadelphia, Pa. Molding-machine. No. 1,025,737; May 7; Sp. p. 1392; Gaz. vol. 178; p. 217.
Brown, John W., Jr., assignor to The Enterprise Manufacturing Company of Pennsylvania, Philadelphia, Pa. Casting apparatus. No. 1,027,316; May 21; Sp. p. 4922; Gaz. vol. 178; p. 828.
Brown, Matthias G., Gulfport, Miss. Attachment for filling grease-cups. No. 1,027,588; May 28; Sp. p. 5483; Gaz. vol. 178; p. 959.
Brown, Robert P., assignor to Brown & Bailey Company, Philadelphia, Pa. Barrel-partition. No. 1,025,507; May 7; Sp. p. 894; Gaz. vol. 178; p. 139.
Brown, Stewart, Chicago, Ill. Electric lighter for gas-burners. No. 1,026,848; May 21; Sp. p. 3867; Gaz. vol. 178; p. 668.
Brown, Theodore, Brixton, London, England. Toy. No. 1,027,589; May 28; Sp. p. 5485; Gaz. vol. 178; p. 959.
Brown, Walter F., Peoria, Ill. Wing-carrier. No. 1,025,367; May 7; Sp. p. 586; Gaz. vol. 178; p. 91.
Brownback, Henry L., Norristown, Pa. Carbureter. No. 1,025,782; May 7; Sp. p. 1477; Gaz. vol. 178; p. 233.
Browne, Harry P. C., New York, N. Y. Hub-odometer. No. 1,027,031; May 21; Sp. p. 4313; Gaz. vol. 178; p. 733.
Browning, William H., Rye, N. Y. Carbureter. No. 1,026,491; May 14; Sp. p. 3088; Gaz. vol. 178; p. 509.
Broyles, James S., Wikel, W. Va. Seed-wheat cleaner. No. 1,027,813; May 28; Sp. p. 5948; Gaz. vol. 178; p. 1033.
Brückmann, Franz, Jr. (See Sharp, Lee C., assignor.)
Bruhn, Fred and R., Vicksburg, Miss. Plant setting and fertilizing machine. No. 1,026,492; May 14; Sp. p. 3091; Gaz. vol. 178; p. 510.
Bruhn, Robert. (See Bruhn, Fred and R.)
Brundidge, Sarah L., Savannah, Ga. Waist foundation. No. 1,026,559; May 14; Sp. p. 3218; Gaz. vol. 178; p. 532.
Brunet, Peter, Toronto, Ontario, Canada. Making glass-faced tiles. No. 1,025,677; May 7; Sp. p. 1267; Gaz. vol. 178; p. 196.
Bruns, Hans T., Nuremberg, Germany. Apparatus for distributing fuel in internal-combustion engines. No. 1,026,732; May 21; Sp. p. 3616; Gaz. vol. 178; p. 628.
Brunt, William C., Boston, Mass. Combination spark-plug. No. 1,026,653; May 21; Sp. p. 3444; Gaz. vol. 178; p. 601.
Bryant Electric Company, The. (See Brendel, Paul A., assignor.)
Bryant Electric Company, The. (See Goodridge, Gilbert W., assignor.)
Bryant Heater and Manufacturing Company, The. (See Fox, Otto, assignor.)
Bryant, William A., Wetumpka, Ala., assignor of one-third to M. D. Still and one-third to G. B. Britt. Button and drawers support. No. 1,025,783; May 7; Sp. p. 1478; Gaz. vol. 178; p. 233.
Buchan, Elmer E., Chicago, Ill. Loose-leaf binder. No. 1,027,523; May 28; Sp. p. 5344; Gaz. vol. 178; p. 936.
Bucher, Ernst, Heidelberg, Germany. Dirigible airship. No. 1,027,590; May 28; Sp. p. 6486; Gaz. vol. 178; p. 959.
Bucherer, Hans, assignor to Kalle & Company, Aktiengesellschaft, Biebrich, Germany. Manufacture of azo coloring-matter. No. 1,026,902; May 21; Sp. p. 4003; Gaz. vol. 178; p. 687.
Buckeye Manufacturing Company, The. (See Lambert, John W., assignor.)
Buckham, George T. (See Dawson and Buckham.)
Buckingham, Benjamin J., assignor, by mesne assignments, to Buckingham-Rae Company, Chicago, Ill. Display-rack. No. 1,026,241; May 14; Sp. p. 2542; Gaz. vol. 178; p. 426.
Buckingham-Rae Company. (See Buckingham, Benjamin J., assignor.)
Buckman, Edward A., Green Bay, Wis., and H. L. Fellio, Chicago, Ill. Coin-testing appliance. No. 1,027,032; May 21; Sp. p. 4315; Gaz. vol. 178; p. 733.
Buell, William H., assignor to Winchester Repeating Arms Co., New Haven, Conn. Priming mixture. No. 1,027,814; May 28; Sp. p. 5951; Gaz. vol. 178; p. 1033.
Buffalo Forge Company. (See Van Deventer, John H., assignor.)
Buffalo Leather Co. (See Smith, William R., assignor.)
Buffalo Shoe Co. (See Coupal, Peter A., assignor.)
Buffalo Specialty Company. (See Enell, Otto E., assignor.)
Buick Motor Co. (See Sturt, Alfred T., assignor.)
Buigné, Franz de, Magdeburg, Germany. Casting metals. No. 1,026,733; May 21; Sp. p. 3617; Gaz. vol. 178; p. 628.
Bullard, Albert H., New Rochelle, N. Y. Coffee preparation. No. 1,026,971; May 21; Sp. p. 4170; Gaz. vol. 178; p. 712.
Bullard, Albert M., deceased; M. R. Bullard, administratrix, assignor to Western Electric Company, New York, N. Y. Revertive-call-indicating means for telephone-exchange systems. No. 1,026,199; May 14; Sp. p. 2449; Gaz. vol. 178; p. 411.
Bullard, Marion R., administratrix. (See Bullard, Albert M.)
Bulley, George W., assignor to Holsman Equipment Company, Chicago, Ill. Transmission-gearing. No. 1,026,073; May 14; Sp. p. 2176; Gaz. vol. 178; p. 368.
Burch Plow Works Co., The. (See Hill, Thomas A., assignor.)
Burch, William J. J., Chicago, Ill. Rotatable game-table. No. 1,025,678; May 7; Sp. p. 1268; Gaz. vol. 178; p. 196.
Burch, Willie, Lowell, Mich. Rail-support and rail. No. 1,026,341; May 14; Sp. p. 2761; Gaz. vol. 178; p. 461.
Burchardi, Bernhard T. (See Wahlstrom, Verner J., assignor.)
Bürck, Theodor. (See Maisenbacher and Bürck.)
Burdett, Le Blond. (See Hill, Mark E., assignor.)
Burdick, R. De Witt, *et al.* (See Messenger, Isaiah L., assignor.)
Burdy, Louis, and E. F. Moine, Eureka, Cal. Resilient wheel. No. 1,026,903; May 21; Sp. p. 4005; Gaz. vol. 178; p. 688.
Burford, Charles H., and F. H. Nett, Rialto, Cal. Smudge mixer and sacker. No. 1,027,317; May 21; Sp. p. 4927; Gaz. vol. 178; p. 829.
Burgess, Yorke, Chicago, Ill., assignor, by mesne assignments, to International Automatic Signal Company, Kansas City, Mo. Railway block-signaling system. No. 1,026,200; May 14; Sp. p. 2454; Gaz. vol. 178; p. 411.
Burgner, William, Carthage, Ill. Collapsible form for concrete culverts. No. 1,027,176; May 21; Sp. p. 4639; Gaz. vol. 178; p. 779.
Burk, William H., Fostoria, Ohio. Refrigerator. No. 1,027,400; May 28; Sp. p. 5106; Gaz. vol. 178; p. 896.
Burke Electric Company. (See Burke, James, assignor.)
Burke, James, Ellsworth, Minn. Lantern-support. No. 1,026,493; May 14; Sp. p. 3095; Gaz. vol. 178; p. 510.
Burke, James, Erie, Pa., assignor to Burke Electric Company. Electric motor. No. 1,026,904; May 21; Sp. p. 4006; Gaz. vol. 178; p. 688.
Burke, Louis, New York, N. Y. Ellipsograph. No. 1,026,560; May 14; Sp. p. 3219; Gaz. vol. 178; p. 532.
Burkhart, Louis H., Warren, Pa. Transformer-case. No. 1,025,679; May 7; Sp. p. 1269; Gaz. vol. 178; p. 197.
Burnet, Alexander, and H. Temple, London, England. Lady's toilet device. No. 1,025,448; May 7; Sp. p. 764; Gaz. vol. 178; p. 118.
Burns, Chester B., Moline, Ill. Screw-cutter. No. 1,027,985; May 28; Sp. p. 6357; Gaz. vol. 178; p. 1091.
Burns, P. C. (See Goodrum, Charles L., assignor.)
Burroughs Adding Machine Company. (See Vincent, Jesse G., assignor.)
Burrows, Charles, Weehawken, N. J. Ruling-machine. No. 1,027,986; May 28; Sp. p. 6360; Gaz. vol. 178; p. 1092.
Burson, George, Winamac, Ind. Spring-tire. No. 1,026,201; May 14; Sp. p. 2459; Gaz. vol. 178; p. 412.
Burson, Wilson W., Rockford, Ill. Knitting-machine. No. 1,025,182; May 7; Sp. p. 160; Gaz. vol. 178; p. 27.
Burton, Elmer, Adrian, Mich. Animal-yoke. No. 1,027,591; May 28; Sp. p. 5487; Gaz. vol. 178; p. 959.
Burton, James L., Plainville, Conn., assignor of one-half to F. A. Champlin, East Long Meadow, Mass. Box. No. 1,025,899; May 7; Sp. p. 1776; Gaz. vol. 178; p. 272.
Burton, Thomas L., Elizabeth, N. J., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Pressure-retaining valve. No. 1,027,987; May 28; Sp. p. 6362; Gaz. vol. 178; p. 1092.
Butler, John. (See Clary and Butler.)
Buttimer, Harry E., Rockford, Ill. Tobacco-pipe. No. 1,027,318; May 21; Sp. p. 4929; Gaz. vol. 178; p. 829.
Buttress, Joseph A., assignor of one-fourth to S. Herlinger, Los Angeles, Cal. Air-gage. No. 1,027,461; May 28; Sp. p. 5221; Gaz. vol. 178; p. 915.
Byerly, William A., Bridgewater, Va., assignor to Champion Ice Machine Company, Springfield, Ill. Treating refrigerating-machines. No. 1,025,561; May 7; Sp. p. 1025; Gaz. vol. 178; p. 158.
Bynoe, Frederick O., Acton, assignor to Balchin, Schuls & Company, Limited, London, England. Superheater for heating purposes. No. 1,027,815; May 28; Sp. p. 5952; Gaz. vol. 178; p. 1033.
Byrd, Britton E., and W. M. Fallon, Durham, N. C. Packing and storing vessel. No. 1,025,449; May 7; Sp. p. 764; Gaz. vol. 178; p. 118.

Byrd, Ralph C. (See Stier and Byrd.)
Byron Jackson Iron Works. (See Paulsmeier, Albert C., assignor.)
C. B. Cottrell & Sons Company. (See Barber, Howard M., assignor.)
C. F. Splitdorf. (See Hart, William J., assignor.)
C. G. Sargent's Sons Corporation. (See Sargent, Allan C., assignor.)
C. W. Hunt Company. (See Hunt, William F., assignor.)
Cadwallader, Alfred, Bushnell, Ill. Portable ditch-dam. No. 1,027,235; May 21; Sp. p. 4761; Gaz. vol. 178; p. 801.
Cain, Casper J., Stockbridge, Mich. Chair. No. 1,026,074; May 14; Sp. p. 2180; Gaz. vol. 178; p. 368.
Cake, Horace M., Washington, D. C. Change-speed gearing. No. 1,027,236; May 21; Sp. p. 4763; Gaz. vol. 178; p. 801.
Calahan, Delona L., assignor of one-half to C. A. Scales, Centralia, Wash. Column-polishing machine. No. 1,025,859; May 7; Sp. p. 1648; Gaz. vol. 178; p. 250.
Calderwood, Ralph. (See Lang, John W., assignor.)
Caldwell, Jackson N., Manhattan, Kans. Apparatus for making reinforced fence-posts of plastic material. No. 1,025,508; May 7; Sp. p. 895; Gaz. vol. 178; p. 140.
Caldwell, William L., assignor to The Berger Manufacturing Company, Canton, Ohio. Metallic furring-plate. No. 1,026,301; May 14; Sp. p. 2666; Gaz. vol. 178; p. 446.
California Likfresh Company. (See Simms, Claude C., assignor.)
Camel Company. (See Posson, Edward, assignor.)
Cameron, James A. (See Adair, Cameron, and Ainsworth.)
Campbell, Allan, Brandon, Manitoba, Canada. Frameless gate. No. 1,027,237; May 21; Sp. p. 4768; Gaz. vol. 178; p. 802.
Campbell, John, assignor of fifty-one one-hundredths to T. E. McDermott, Minneapolis, Minn. Oar-lock. No. 1,026,654; May 21; Sp. p. 3447; Gaz. vol. 178; p. 601.
Campbell, Sterling H., St. Louis, Mo. Brake-rod jaw. No. 1,025,960; May 14; Sp. p. 1905; Gaz. vol. 178; p. 328.
Campbell, Thomas B., Sr., Pittsburgh, Pa. Rotary glass-pot. No. 1,025,680; May 7; Sp. p. 1270; Gaz. vol. 178; p. 197.
Campbell, William J., Honey Grove, Pa. Draft-equalizer. No. 1,027,988; May 28; Sp. p. 6363; Gaz. vol. 178; p. 1093.
Candland, Arthur C., Provo, Utah. Railway-tie and fastener. No. 1,025,450; May 7; Sp. p. 766; Gaz. vol. 178; p. 119.
Candland, Arthur C., Provo, Utah. Railway-tie and fastener. No. 1,025,451; May 7; Sp. p. 767; Gaz. vol. 178; p. 119.
Candland, Arthur C., Provo, Utah. Railway-tie. No. 1,025,452; May 7; Sp. p. 770; Gaz. vol. 178; p. 120.
Candland, Arthur C., Provo, Utah. Railway-rail fastener. No. 1,025,453; May 7; Sp. p. 771; Gaz. vol. 178; p. 120.
Cannan, Robert, and J. A. Misland, Brooklyn, N. Y. Double-throw switch. No. 1,025,454; May 7; Sp. p. 773; Gaz. vol. 178; p. 121.
Cantara, George T., Biddeford, Me. Adjustable shoe-repairing jack. No. 1,025,681; May 7; Sp. p. 1273; Gaz. vol. 178; p. 198.
Cappio, Jildo, assignor of forty-nine one-hundredths to J. P. Spang, Boston, Mass. Non-refillable bottle. No. 1,027,310; May 21; Sp. p. 4930; Gaz. vol. 178; p. 829.
Capps, Charles R., *et al.* (See Hargis, Harry W., assignor.)
Cardinal, Delia L., Springfield, Mass. Buttonhole attachment. No. 1,025,682; May 7; Sp. p. 1274; Gaz. vol. 178; p. 198.
Carl, Rudolf, Schmargendorf, near Berlin, assignor to Siemens & Halske, A. G., Berlin, Germany. Means for causing mercury to circulate while electrolyzing aqueous solutions of metallic salts. No. 1,025,509; May 7; Sp. p. 896; Gaz. vol. 178; p. 140.
Carlson, Edwin R., assignor of one-third to M. Katsky, Brooklyn, N. Y. Receiver for electromagnetic waves. No. 1,027,238; May 21; Sp. p. 4770; Gaz. vol. 178; p. 802.
Carlson, Emil. (See Horton and Carlson.)
Carlson, Hjalmar, Duluth, Minn. Track-laying machine. No. 1,027,373; May 21; Sp. p. 5039; Gaz. vol. 178; p. 848.
Carpenter, Lewis A., and R. Middleton, Revere, Mass. Pipe-hanger. No. 1,025,243; May 7; Sp. p. 296; Gaz. vol. 178; p. 48.
Carr, Uhel U. (See Watkins, Thomas, assignor.)
Carson, Andrew C., *et al.* (See Bailey, Seth G., assignor.)
Carter, John W., Jr. (See English, Henry C., assignor.)
Carter, Walter T., Los Angeles, Cal. Coaster-brake. No. 1,026,972; May 21; Sp. p. 4171; Gaz. vol. 178; p. 712.
Caruso, Santi, Ardmore, Pa. Coin-operated hat, coat, and umbrella rack. No. 1,025,860; May 7; Sp. p. 1651; Gaz. vol. 178; p. 259.
Carver, Edwin O., Carters, Fla. Orchard-heater. No. 1,027,989; May 28; Sp. p. 6364; Gaz. vol. 178; p. 1093.
Case, Charles J. (See Case and Parker.)
Case, Charles V. and C. J., Bartow, and F. E. Parker, Arcadia, Fla. Dispensing device. No. 1,027,177; May 21; Sp. p. 4641; Gaz. vol. 178; p. 779.
Case, Elmer E., *et al.* (See Thompson, William R., assignor.)
Case, John M., Osawatomie, Kans. Train-order holder. No. 1,025,861; May 7; Sp. p. 1653; Gaz. vol. 178; p. 260.
Caskey, Samuel S., assignor to Caskey Valve Company, Philadelphia, Pa. Plug-valve. No. 1,027,178; May 21; Sp. p. 4645; Gaz. vol. 178; p. 780.
Caskey Valve Company. (See Caskey, Samuel S., assignor.)
Casler, John L., Mansfield, Ohio. Reversible glove. No. 1,027,688; May 28; Sp. p. 5689; Gaz. vol. 178; p. 991.
Cassidy, James C., Patrick, assignor of one-half to I. Merriman, Chesterfield, S. C. Cotton-chopper. No. 1,027,033; May 21; Sp. p. 4320; Gaz. vol. 178; p. 734.
Cassirer, Alfred, Charlottenburg, Germany. Drying-chamber for electric cables. No. 1,025,121; May 7; Sp. p. 12; Gaz. vol. 178; p. 5.
Cassirer, Hugo, Charlottenburg, Germany. Machine for making dress-shields of india-rubber. No. 1,025,122; May 7; Sp. p. 15; Gaz. vol. 178; p. 5.
Cassity, Anna V., Okmulgee, Okla. Nursery-cabinet. No. 1,027,816; May 28; Sp. p. 5054; Gaz. vol. 178; p. 1033.
Caswell, Harry P., Evanston, Ill. Tool-sharpening machine. No. 1,026,623; May 14; Sp. p. 3356; Gaz. vol. 178; p. 553.
Cates, Franklin O. (See Cates, Lorwin N. and F. O.)
Cates, Lorwin N. and F. O., St. Louis, Mo. Garment-supporter. No. 1,026,302; May 14; Sp. p. 2669; Gaz. vol. 178; p. 447.
Catucci, Pliny, assignor to A. F. Meisselbach & Bro., Newark, N. J. Fishing-reel. No. 1,027,179; May 21; Sp. p. 4646; Gaz. vol. 178; p. 780.
Catucci, Pliny, assignor to A. F. Meisselbach & Bro., Newark, N. J. Nail-clipper. No. 1,027,180; May 21; Sp. p. 4648; Gaz. vol. 178; p. 781.
Cauble, Franklin P., High Point, N. C. Clock-operated electric switch. No. 1,026,905; May 21; Sp. p. 4008; Gaz. vol. 178; p. 688.
Caul, Louis. (See Prosser, Joseph F., assignor.)
Cavanagh, James, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tacking mechanism. No. 1,026,944; May 21; Sp. p. 4123; Gaz. vol. 178; p. 702.
Cedar Rapids Foundry & Machine Company. (See Strite, Charles P., assignor.)
Cefalo, Ciriaco, and R. C. H. Reid, Bangor, Me. Fender. No. 1,026,655; May 21; Sp. p. 3448; Gaz. vol. 178; p. 601.
Celluloid Company, The. (See Lindsay, William G., assignor.)
Ceramic Machinery Company, The. (See Goldsmith, Frederick E., assignor.)
Chadeloid Chemical Company. (See Ellis, Carleton, assignor.)
Chalmers Motor Company. (See Coffin, Howard E., assignor.)
Chamberlin, John H., Kalamazoo, Mich. Window-screen. No. 1,025,244; May 7; Sp. p. 297; Gaz. vol. 178; p. 49.
Chambers, John W., Newark, Del. Dead-plate for boilers. No. 1,025,368; May 7; Sp. p. 588; Gaz. vol. 178; p. 91.
Chambers, Ralph H., New York, N. Y., assignor to The Foundation Company. Caisson. No. 1,026,656; May 21; Sp. p. 3451; Gaz. vol 178; p. 602.
Chamness, Frank, Huntington, Ind. Railway-switch. No. 1,025,369; May 7; Sp. p. 589; Gaz. vol. 178; p. 91.
Champagne, Alphonse C., and J. N. Brahn, Jersey City, N. J. Carborundum-dresser. No. 1,026,494; May 14; Sp. p. 3096; Gaz. vol. 178; p. 511.
Champion Ice Machine Company. (See Byerly, William A., assignor.)
Champion Ignition Company. (See Schmidt, Albert, assignor.)
Champion, John W., Pueblo, Colo. Scraper. No. 1,027,592; May 28; Sp. p. 5488; Gaz. vol. 178; p. 960.
Champion Shoe Machinery Company. (See Corcoran, Edward M., assignor.)
Champion Shoe Machinery Company. (See Dobyne, Stephen A., assignor.)
Champion Shoe Machinery Company, The. (See Flint, John B., assignor.)
Champlin, Frank A. (See Burton, James L., assignor.)
Chance, Henry M. and T. M., Philadelphia, Pa. Pumping liquids. No. 1,026,637; May 14; Sp. p. 3385; Gaz. vol. 178; p. 558.
Chance, Henry M. and T. M., Philadelphia, Pa. Operating reciprocating pumps. No. 1,026,638; May 14; Sp. p. 3390; Gaz. vol. 178; p. 559.
Chance, Henry M. and T. M., Philadelphia, Pa. Operating internal-combustion pumps. No. 1,026,639; May 14; Sp. p. 3392; Gaz. vol. 178; p. 559.
Chance, Thomas M. (See Chance, Henry M. and T. M.)
Chandler, Clarence A., East Bridgewater, Mass. Cotton-seed huller. No. 1,027,320; May 21; Sp. p. 4933; Gaz. vol. 178; p. 830.
Chandler, Frank, Pampa, Wash. Horse-releaser. No. 1,027,374; May 21; Sp. p. 5043; Gaz. vol. 178; p. 849.
Chapman, Evan B., Chicago, Ill. Electric car-signal. No. 1,026,906; May 21; Sp. p. 4008; Gaz. vol. 178; p. 688.
Chapman, George W. C., Huntsville, Ala. Stop-motion for looms. No. 1,026,342; May 14; Sp. p. 2764; Gaz. vol. 178; p. 462.
Chapman, William H., Portland, Me. Regulator for dynamos. No. 1,027,101; May 21; Sp. p. 4489; Gaz. vol. 178; p. 757.
Charles Hunnicutt Company, The. (See Hunnicutt, Charles, assignor.)
Charlet, William A., Kewanee, Ill. Lace-curtain-display case. No. 1,026,561; May 14; Sp. p. 3221; Gaz. vol. 178; p. 532.

Charmois, Dennis C., Canton, Ohio. Supply and waste for bath-tubs. No. 1,025,683; May 7; Sp. p. 1275; Gaz. vol. 178; p. 198.
Chaumat, Achille, Fresnoy-le-Grand, assignor to Compagnie Francaise des Applications de la Cellulose, Paris, France. Manufacture of cellulose products. No. 1,027,689; May 28; Sp. p. 5691; Gaz. vol. 178; p. 991.
Check, John, Kokomo, Colo. Wood-carrier. No. 1,027,401; May 28; Sp. p. 5107; Gaz. vol. 178; p. 897.
Chelton Electric Company. (See Machen, Charles H., assignor.)
Chemische Fabrik auf Actien (vorm. E. Schering). (See Zuelzer, Georg, assignor.)
Chemische Fabriken vorm. Weiler-ter Meer. (See Reinhardt and Hoerlin, assignors.)
Cherry-Driscoll Company. (See Cherry, William A., Jr., assignor.)
Cherry, William A., Jr., White Plains, assignor to Cherry-Driscoll Company, New York, N. Y. Anchor for safety-belts. No. 1,026,562; May 14; Sp. p. 3222; Gaz. vol. 178; p. 532.
Chester, Carolyn O., New York, N. Y. Paper doll. No. 1,026,624; May 14; Sp. p. 3359; Gaz. vol. 178; p. 554.
Chila, Mike, Whiting, Ind. Tie and rail-fastener. No. 1,026,657; May 21; Sp. p. 3454; Gaz. vol. 178; p. 602.
Childs, Clarence N., Lowell, Mass. Yarn-clearer. No. 1,026,907; May 21; Sp. p. 4010; Gaz. vol. 178; p. 689.
Cholewinski, Walenty, Oshkosh, Wis. Trap. No. 1,027,181; May 21; Sp. p. 4650; Gaz. vol. 178; p. 781.
Christensen, Andrew, Tillamook, Oreg. Agitator for cheese-making. No. 1,026,073; May 21; Sp. p. 4172; Gaz. vol. 178; p. 712.
Christensen, Andrew B., and F. Vondrasek, assignors to The Thistle Manufacturing Company, Chicago, Ill. Gearing for laundry machinery. No. 1,025,684; May 7; Sp. p. 1278; Gaz. vol. 178; p. 198.
Christensen, Andrew B., and F. Vondrasek, assignors to The Thistle Manufacturing Company, Chicago, Ill. Gearing for laundry machinery. No. 1,025,685; May 7; Sp. p. 1283; Gaz. vol. 178; p. 199.
Christensen, Andrew C., Des Moines, Iowa. Reaping attachment for mowing-machines. No. 1,025,862; May 7; Sp. p. 1655; Gaz. vol. 178; p. 260.
Christensen, Jens C., and R. A. F. L. Anderberg, New York, N. Y. Rotary internal-explosion engine. No. 1,027,182; May 21; Sp. p. 4652; Gaz. vol. 178; p. 781.
Chryst, William A. (See Kettering and Chryst.)
Cirigliano, Giovanni B., Turin, Italy. Music recorder. No. 1,026,908; May 21; Sp. p. 4011; Gaz. vol. 178; p. 689.
Clarinda Lawn Mower Company. (See Hudson, Fred A., assignor.)
Clark, Arnold, Latty, Ohio. Beet-blocking cultivator. No. 1,025,961; May 14; Sp. p. 1906; Gaz. vol. 178; p. 328.
Clark, Charles E. (See Cooper and Clark.)
Clark, Cyril B., New Albany, Ind., assignor to B. F. Avery & Sons, Louisville, Ky. Fertilizer-distributer and planter. No. 1,027,593; May 28; Sp. p. 5489; Gaz. vol. 178; p. 960.
Clark, Cyril B., New Albany, Ind., assignor to B. F. Avery & Sons, Louisville, Ky. Fertilizer-distributer. No. 1,027,594; May 28; Sp. p. 5493; Gaz. vol. 178; p. 960.
Clark, John T., Provo, Utah. Railway-tie and fastener. No. 1,026,020; May 14; Sp. p. 2018; Gaz. vol. 178; p. 348.
Clark, William E., Boise, Idaho. Lathe-chuck. No. 1,025,784; May 7; Sp. p. 1479; Gaz. vol. 178; p. 234.
Clary, Simon, Carnegie, Pa., and J. Butler, Steubenville, Ohio. Tie and rail-fastener. No. 1,025,686; May 7; Sp. p. 1286; Gaz. vol. 178; p. 199.
Clasen, Claus J. W., Davenport, assignor to Bettendorf Axle Company, Bettendorf, Iowa. Convertible car. No. 1,025,609; May 7; Sp. p. 1117; Gaz. vol. 178; p. 174.
Claude, Georges, assignor to Société l'Air Liquide, Société Anonyme pour l'Etude et l'Exploitation des Procédés Georges Claude, Paris, France. Extracting rare gases from the air. No. 1,025,962; May 14; Sp. p. 1909; Gaz. vol. 178; p. 329.
Claude, Georges, assignor to Société "L'Air Liquide" (Société Anonyme pour l'Etude et l'Exploitations des Procédés Georges Claude), Paris, France. Liquefaction of gases. No. 1,027,817; May 28; Sp. p. 5956; Gaz. vol. 178; p. 1034.
Clausen, Claus, Christiania, Norway. Combined oil-skimmer and feed-water heater. No. 1,025,863; May 7; Sp. p. 1657; Gaz. vol. 178; p. 260.
Clauss, George E., assignor to The Ansonia O. & C. Company, Ansonia, Conn. Button-covering fabric. No. 1,027,690; May 28; Sp. p. 5692; Gaz. vol. 178; p. 992.
Clawson, Hiram, Hamilton, Ohio. Metallic shingle. No. 1,026,202; May 14; Sp. p. 2460; Gaz. vol. 178; p. 412.
Clay, Marshall F. (See Phare and Clay.)
Cleal, Joseph P., assignor, by mesne assignments, to The National Cash Register Company, Dayton, Ohio. Vibratory chuck. No. 1,027,402; May 28; Sp. p. 5108; Gaz. vol. 178; p. 897.
Clement, Edward E., Washington, D. C. Telephone-exchange system. No. 1,027,239; May 21; Sp. p. 4771; Gaz. vol. 178; p. 803.
Clement, Edward E., Washington, D. C. Electrical contact. No. 1,027,240; May 21; Sp. p. 4774; Gaz. vol. 178; p. 803.
Clements Co., The. (See Kennedy, Joseph, assignor.)
Clerc, François, Geneva, assignor to The Firm Kustner Frères, Vollandes-Geneva, Switzerland. Machine for slicing foodstuffs. No. 1,026,495; May 14; Sp. p. 3098; Gaz. vol. 178; p. 511.
Cleveland, Ernest E., Springfield, Mass. Hydraulic air-ejector. No. 1,027,321; May 21; Sp. p. 4937; Gaz. vol. 178; p. 830.
Cleveland, Francis D., Winchester, Mass. Apparatus for cleaning cans. No. 1,026,381; May 14; Sp. p. 2859; Gaz. vol. 178; p. 474.
Cleveland, Henry B., Albany, N. Y. Puzzle. No. 1,027,691; May 28; Sp. p. 5694; Gaz. vol. 178; p. 992.
Close, George E. (See Hamblin, Stephen M. and G. N., assignors.)
Clow, William E., Chicago, Ill. System of apparatus for casting pipe and other hollow articles. No. 1,025,123; May 7; Sp. p. 21; Gaz. vol. 178; p. 5.
Clune, Michael, Indianapolis, Ind. Sofa-bed. No. 1,027,183; May 21; Sp. p. 4655; Gaz. vol. 178; p. 782.
Clyde Iron Works. (See McGiffert, John R., assignor.)
Coburn Trolley Track Manufacturing Company. (See Ballard, Harry E., assignor.)
Cockburn, David, and D. MacNicoll, Cardonald, Glasgow, Scotland. Safety-valve. No. 1,026,734; May 21; Sp. p. 3619; Gaz. vol. 178; p. 629.
Coe, John W., Jr., Yonkers, N. Y. Electric alarm for mail-boxes. No. 1,025,738; May 7; Sp. p. 1395; Gaz. vol. 178; p. 218.
Coffey, Barton H., Elizabeth, N. J., assignor to Mitchell-Tappen Company. Cooling-tower. No. 1,027,184; May 21; Sp. p. 4657; Gaz. vol. 178; p. 783.
Coffin, Howard E. (See Taylor and Coffin.)
Coffin, Howard E., assignor to Chalmers Motor Company, Detroit, Mich. Bearing. No. 1,026,849; May 21; Sp. p. 3868; Gaz. vol. 178; p. 668.
Coffin, Walter E., assignor to The National Malleable Castings Company, Cleveland, Ohio. Engine-coupling. No. 1,025,785; May 7; Sp. p. 1481; Gaz. vol. 178; p. 234.
Coffin, Walter E., assignor to The National Malleable Castings Company, Cleveland, Ohio. Bracket for uncoupling-rods of car-couplings. No. 1,026,658; May 21; Sp. p. 3455; Gaz. vol. 178; p. 603.
Cogdill, Dallas J., Spokane, Wash. Vacuum-cleaner. No. 1,025,864; May 7; Sp. p. 1658; Gaz. vol. 178; p. 261.
Cokel Company, The. (See Cooke, Ernest W., assignor.)
Cole, Alexander G., Ottawa, Ontario, Canada. Foldable frame for chairs, tables, or the like. No. 1,027,692; May 28; Sp. p. 5695; Gaz. vol. 178; p. 992.
Cole, Barrett C., Marshall, Wyo. Airship. No. 1,027,990; May 28; Sp. p. 6365; Gaz. vol. 178; p. 1093.
Cole, C. E. (See Willes, Charles, assignor.)
Cole, Darrell V., Los Angeles, Cal. Flying-machine. No. 1,027,322; May 21; Sp. p. 4938; Gaz. vol. 178; p. 830.
Cole, Elisha W., Richmond, Va. Razor and blade stropper. No. 1,025,963; May 14; Sp. p. 1912; Gaz. vol. 178; p. 329.
Cole, Robert C., West Hartford, assignor to The Johns-Pratt Company, Hartford, Conn. Combined fuse contact-clip and terminal holder. No. 1,025,245; May 7; Sp. p. 299; Gaz. vol. 178; p. 49.
Cole, Robert C., West Hartford, assignor to The Johns-Pratt Company, Hartford, Conn. Fuse-block clip. No. 1,025,246; May 7; Sp. p. 300; Gaz. vol. 178; p. 49.
Cole, Robert C., West Hartford, assignor to The Johns-Pratt Company, Hartford, Conn. Inclosed fuse. No. 1,025,247; May 7; Sp. p. 302; Gaz. vol. 178; p. 50.
Coleman, Christian, Reedy, W. Va. Gate. No. 1,025,370; May 7; Sp. p. 590; Gaz. vol. 178; p. 91.
Coleman, Clyde J., New York, N. Y., assignor to The Hall Signal Company. Traffic-controlling system for railways. No. 1,025,371; May 7; Sp. p. 592; Gaz. vol. 178; p. 92.
Coleman, James M., Westmount, Quebec, Canada. Car construction. No. 1,026,945; May 21; Sp. p. 4125; Gaz. vol. 178; p. 703.
Coleman, James M., Westmount, Quebec, Canada. Dump-car construction. No. 1,027,241; May 21; Sp. p. 4775; Gaz. vol. 178; p. 803.
Coles, David H., Brooklyn, N. Y., assignor, by mesne assignments, to Requa Motor Company. Internal-combustion engine. No. 1,026,563; May 14; Sp. p. 3224; Gaz. vol. 178; p. 533.
Colfax Manufacturing Company. (See Brown, Eugene, assignor.)
Collette, Arthur, Brockton, Mass. Vehicle-spring. No. 1,026,496; May 14; Sp. p. 3100; Gaz. vol. 178; p. 512.
Collier, David R., assignor to Collier-Keyworth Company, Gardner, Mass. Perambulator. No. 1,026,735; May 21; Sp. p. 3621; Gaz. vol. 178; p. 629.
Collier-Keyworth Company. (See Collier, David R., assignor.)
Collin, George W., Mansfield, Ohio, assignor to The Collin Valve Company, Portland, Me. Flushing-valve. No. 1,027,818; May 28; Sp. p. 5958; Gaz. vol. 178; p. 1034.
Collin, George W., Bridgeport, Conn., assignor to The Collin Valve Company, Portland, Me. Flusher-valve. No. 1,027,819; May 28; Sp. p. 5962; Gaz. vol. 178; p. 1034.
Collin Valve Company, The. (See Collin, George W., assignor.)
Collins, Cornelius, Burlingame, Cal. Fireproof building construction. No. 1,027,641; May 28; Sp. p. 5577; Gaz. vol. 178; p. 975.

Collins, Herbert G., assignor to Sargent & Company, New Haven, Conn. Knob. No. 1,026,148; May 14; Sp. p. 2334; Gaz. vol. 178; p. 394.
Collins, James K., Pawhuska, Okla. Wagon. No. 1,027,820; May 28; Sp. p. 5964; Gaz. vol. 178; p. 1035.
Collinson, Clifford W. (See Krüger and Collinson.)
Collinson, James A. (See Kendal and Collinson.)
Collis, Henry J., Taunton, Mass. Bill-fold. No. 1,026,787; May 21; Sp. p. 3737; Gaz. vol. 178; p. 647.
Collister, John H., Cleveland, Ohio. Combined adjustable pliers and wrench. No. 1,027,693; May 28; Sp. p. 5697; Gaz. vol. 178; p. 992.
Colman, Frank B. (See Fryer, Robert M., assignor.)
Colonial Trust Company, The, trustee. (See Bole, William A., assignor.)
Colonial Trust Company, The, trustee. (See Flanders, Warren B., assignor.)
Colonial Trust Company, The, trustee. (See Kasley, Alexander T., assignor.)
Colonial Trust Company, The, trustee. (See Sweet, Charles E., assignor.)
Comins, Frank B., Sharon, Mass. Humidifier. No. 1,026,946; May 21; Sp. p. 4127; Gaz. vol. 178; p. 703.
Commonwealth Steel Company. (See Howe, Andrew F., assignor.)
Commonwealth Steel Company. (See Schwieder, William, assignor.)
Compagnie Francaise des Applications de la Cellulose. (See Chaumat, Achille, assignor.)
Condit, Sears B., Jr. (See Badeau, Charles C., assignor.)
Connecticut Telephone & Electric Company, The. (See Cuno, Charles, assignor.)
Connecticut Telephone and Electric Company, The. (See Wilcox, Ernest C., assignor.)
Conrad, Hugh V., Pittsburgh, Pa. Eyeglass-case. No. 1,025,372; May 7; Sp. p. 594; Gaz. vol. 178; p. 92.
Constantinescu, Vasile, Nelson, British Columbia, Canada. Drafting device for shading circles. No. 1,027,102; May 21; Sp. p. 4495; Gaz. vol. 178; p. 757.
Continuous Rail Company. (See Noll, John, assignor.)
Cook, Frank B., *et al.* (See Nolen, James G., assignor.)
Cook, George W. (See Sobacki and Cook.)
Cook, Howard T., Crafton, Pa. Mail-bag and bag-support. No. 1,027,524; May 28; Sp. p. 5346; Gaz. vol. 178; p. 936.
Cook Motor Company, The. (See Stedman, Charles C., assignor.)
Cooke, Ernest W., New York, N. Y., assignor, by mesne assignments, to The Cokel Company. Dehydrated potatoes and preparing the same. No. 1,025,373; May 7; Sp. p. 595; Gaz. vol. 178; p. 92.
Cooke, Ernest W., New York, N. Y., assignor, by mesne assignments, to The Cokel Company. Dehydrating animal and vegetable substances. No. 1,025,374; May 7; Sp. p. 597; Gaz. vol. 178; p. 93.
Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Manufacture of refractory conductors. No. 1,026,343; May 14; Sp. p. 2703; Gaz. vol. 178; p. 462.
Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Binder for the manufacture of refractory conductors. No. 1,026,344; May 14; Sp. p. 2771; Gaz. vol. 178; p. 462.
Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Apparatus for treating filaments. No. 1,026,345; May 14; Sp. p. 2772; Gaz. vol. 178; p. 462.
Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Metal filament. No. 1,026,382; May 14; Sp. p. 2861; Gaz. vol. 178; p. 474.
Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Metal filament. No. 1,026,383; May 14; Sp. p. 2862; Gaz. vol. 178; p. 474.
Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Metal filament. No. 1,026,384; May 14; Sp. p. 2863; Gaz. vol. 178; p. 474.
Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Tungsten purification. No. 1,026,428; May 14; Sp. p. 2953; Gaz. vol. 178; p. 489.
Coolidge, William D., Schenectady, N. Y., assignor to General Electric Company. Refractory conductor. No. 1,026,429; May 14; Sp. p. 2954; Gaz. vol. 178; p. 489.
Coombs, Frank E., Brookfield, Vt. Centrifugal machine. No. 1,026,075; May 14; Sp. p. 2181; Gaz. vol. 178; p. 368.
Cooper, Edwin, East Hartford, and C. E. Clark, Hartford, Conn. Sectional brace. No. 1,026,650; May 21; Sp. p. 3456; Gaz. vol. 178; p. 603.
Cooper Hewitt Electric Company. (See Hewitt, Peter C., assignor.)
Cope, Frank T., Alliance, Ohio. Trolley-contact. No. 1,027,103; May 21; Sp. p. 4498; Gaz. vol. 178; p. 757.
Cope, John W., Cumberland, Md. Bottle-carrier. No. 1,026,788; May 21; Sp. p. 3739; Gaz. vol. 178; p. 647.
Cope, Thomas J., Philadelphia, Pa. Elevating or separating jack for electrical cables or wires. No. 1,027,104; May 21; Sp. p. 4499; Gaz. vol. 178; p. 758.
Corbett, Edward J., Sacramento, Cal. Flexible air or steam joint. No. 1,027,694; May 28; Sp. p. 5700; Gaz. vol. 178; p. 993.
Corbett, Harry A., New York, N. Y. Eye-protector. No. 1,025,124; May 7; Sp. p. 28; Gaz. vol. 178; p. 6.
Corcoran, Edward M., assignor to Champion Shoe Machinery Company, St. Louis, Mo. Nailing-machine. No. 1,026,021; May 14; Sp. p. 2019; Gaz. vol. 178; p. 349.
Cordts, John N. (See Stock and Cordts.)
Corey, Harry R., New York, assignor to American Stopper Company, Brooklyn, N. Y. Bottle or jar closure. No. 1,025,375; May 7; Sp. p. 602; Gaz. vol. 178; p. 93.
Corey, Varian S., assignor to The Hampden Watch Company, Canton, Ohio. Balance staff and roller for watches. No. 1,025,865; May 7; Sp. p. 1659; Gaz. vol. 178; p. 261.
Corn, Albert R. (See Peck, Edwin A., assignor.)
Corn, Robert, New York, N. Y. Scarf-pin retainer. No. 1,027,525; May 28; Sp. p. 5347; Gaz. vol. 178; p. 937.
Coseo, Frederick C. (See Sessions and Coseo.)
Costello, James, Hinckley, Minn., assignor to National Checking Company. Memorandum-pad holder. No. 1,027,991; May 28; Sp. p. 6366; Gaz. vol. 178; p. 1093.
Costello, Loretto A., Philadelphia, Pa., assignor, by mesne assignments, to Scott & Williams, Incorporated, Camden, N. J. Knitted web and stocking made therefrom. No. 1,025,125; May 7; Sp. p. 30; Gaz. vol. 178; p. 6.
Costuma, Jacob A., New York, N. Y. Picture-hook. No. 1,025,964; May 14; Sp. p. 1914; Gaz. vol. 178; p. 330.
Coulter & Sons, William. (See Hazard, Frederick J. H., assignor.)
Councill, John L., J. E. Tharpe, and T. M. Dale, Statesville, N. C. Air-propelled car-fan. No. 1,027,462; May 28; Sp. p. 5223; Gaz. vol. 178; p. 916.
Coupal, Peter A., South Boston, Mass., assignor to Buffalo Shoe Co., Buffalo, N. Y. Machine for making and driving staples. No. 1,025,248; May 7; Sp. p. 303; Gaz. vol. 178; p. 50.
Couper, William D., Chicago, Ill. Polishing or dressing machine. No. 1,026,076; May 14; Sp. p. 2185; Gaz. vol. 178; p. 369.
Covert, Edson C., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Machine for molding. No. 1,027,595; May 28; Sp. p. 5495; Gaz. vol. 178; p. 961.
Covert, Edson C., Chicago, Ill., assignor to American Steel Foundries, New York, N. Y. Clamp for flasks. No. 1,027,695; May 28; Sp. p. 5701; Gaz. vol. 178; p. 993.
Covey, Frank R., and C. F. Hoag, Riverside, Cal. Seat attachment for motor-cycles. No. 1,027,992; May 28; Sp. p. 6367; Gaz. vol. 178; p. 1094.
Cowdery, Arthur B., Boston, Mass., assignor to Barrett Manufacturing Company, New York, N. Y. Heater for gravel, &c. No. 1,025,687; May 7; Sp. p. 1288; Gaz. vol. 178; p. 200.
Cowlyn, John A. (See Morris and Cowlyn.)
Cox and Brother, George S. (See Cox, George S., assignor.)
Cox, Edward, Oroville, Wash. Current-motor. No. 1,027,993; May 28; Sp. p. 6368; Gaz. vol. 178; p. 1094.
Cox, George S., Edge Hill, assignor to G. S. Cox and Brother, Philadelphia, Pa. Haircloth-loom. No. 1,026,430; May 14; Sp. p. 2957; Gaz. vol. 178; p. 490.
Cox, Paul F., assignor to The Goss Printing Press Company, Chicago, Ill. Printing-press. No. 1,027,526; May 28; Sp. p. 5349; Gaz. vol. 178; p. 937.
Coyle, William, Sr. (See Dorman, Bert E., assignor.)
Cracraft, Leich Electric Company. (See Leich, Oscar M., assignor.)
Craft, John W., Yonkers, N. Y. Portable hat-rack. No. 1,027,596; May 28; Sp. p. 5497; Gaz. vol. 178; p. 961.
Craig Engineering Company. (See Craig, William S., assignor.)
Craig, William S., assignor to Craig Engineering Company, Monroe, Mich. Gearing for glue-spreaders. No. 1,025,376; May 7; Sp. p. 604; Gaz. vol. 178; p. 94.
Craig, William S., assignor to Craig Engineering Company, Monroe, Mich. Veneer-press. No. 1,025,377; May 7; Sp. p. 605; Gaz. vol. 178; p. 94.
Cramer, James H. (See McHill, William R., assignor.)
Crandell, James D. (See Beal and Crandell.)
Crane & Breed Manufacturing Company, The. (See Davoran, Michael F., assignor.)
Crane, Frank H., Cleveland, Ohio. Bed attachment. No. 1,026,149; May 14; Sp. p. 2335; Gaz. vol. 178; p. 395.
Crane, George W. (See Glaser and Olsen, assignors.)
Crane, John S., Laconia, assignor to Crane Manufacturing Company, Lakeport, N. H. Knitting-machine. No. 1,027,034; May 21; Sp. p. 4321; Gaz. vol. 178; p. 734.
Crane Manufacturing Company. (See Crane, John S., assignor.)
Craven Engineering Company. (See Craven, James F., assignor.)
Craven, James F., assignor to Craven Engineering Company, Pittsburgh, Pa. Lubricating bearings. No. 1,025,510; May 7; Sp. p. 897; Gaz. vol. 178; p. 140.
Craven, James F., assignor to Craven Engineering Company, Pittsburgh, Pa. Receptacle for containing and discharging semisolid and pasty substances. No. 1,025,511; May 7; Sp. p. 899; Gaz. vol. 178; p. 140.
Craven, James F., assignor to Craven Engineering Company, Pittsburgh, Pa. Receptacle for containing and discharging semisolid and pasty substances. No. 1,025,512; May 7; Sp. p. 901; Gaz. vol. 178; p. 141.
Craven, James F., assignor to Craven Engineering Company, Pittsburgh, Pa. Receptacle for containing and discharging solid and semisolid substances. No. 1,025,513; May 7; Sp. p. 902; Gaz. vol. 178; p. 141.
Crawford, Carl H., Washington, D. C. Envelop-opener. No. 1,027,994; May 28; Sp. p. 6370; Gaz. vol. 178; p. 1094.

Crawford, George, New York, N. Y., and T. Veitch, Dumont, N. J.; said Veitch assignor to said Crawford. Spring-wheel. No. 1,027,105; May 21; Sp. p. 4501; Gaz. vol. 178; p. 758.
Crawford, Harry M., Lima, Ohio. Electric water-heating syringe. No. 1,026,564; May 14; Sp. p. 3227; Gaz. vol. 178; p. 533.
Creelman, Ernest E. (See Robinson, Charles J., assignor.)
Cremean, William F., Logan, Ohio. Grinding-machine. No. 1,026,022; May 14; Sp. p. 2021; Gaz. vol. 178; p. 349.
Creveling, John L., New York, N. Y., assignor to Safety Car Heating and Lighting Company. Electric regulation. No. 1,025,455; May 7; Sp. p. 775; Gaz. vol. 178; p. 121.
Crichton, Arthur M., Quincy, Ill. Telephone-service meter. No. 1,025,378; May 7; Sp. p. 607; Gaz. vol. 178; p. 94.
Crippen, Walter R., Newton, assignor to Vose & Sons Piano Company, Boston, Mass. Mechanism for actuating music-rolls in pneumatic players. No. 1,025,126; May 7; Sp. p. 33; Gaz. vol. 178; p. 7.
Crippen, Walter R., Newton, assignor to Vose & Sons Piano Company, Boston, Mass. Tracker-bar for pneumatic players. No. 1,025,127; May 7; Sp. p. 34; Gaz. vol. 178; p. 7.
Crippen, Walter R., Newton, assignor to Vose & Sons Piano Company, Boston, Mass. Action-bracket and wind-box for player-pianos. No. 1,025,183; May 7; Sp. p. 163; Gaz. vol. 178; p. 27.
Crippen, Walter R., Newton, assignor to Vose & Sons Piano Company, Boston, Mass. Music-sheet guide. No. 1,025,184; May 7; Sp. p. 165; Gaz. vol. 178; p. 28.
Crist, George B., Mohawk, N. Y., assignor, by mesne assignments, to American Pin Company, Waterbury, Conn. Float. No. 1,026,203; May 14; Sp. p. 2461; Gaz. vol. 178; p. 412.
Crittall, Francis H., Braintree, England. Manufacture of metal casements. No. 1,025,688; May 7; Sp. p. 1290; Gaz. vol. 178; p. 200.
Crocker, Ernest B. (See Eddy and Crocker.)
Crom, Lennie R., Bladen, Nebr. Draft-equalizer. No. 1,026,909; May 21; Sp. p. 4015; Gaz. vol. 178; p. 689.
Crosthwaite, Walter G., Leeds, England, assignor to D. B. Street, Washington, D. C. Fire-bar for furnaces. No. 1,025,128; May 7; Sp. p. 35; Gaz. vol. 178; p. 7.
Crouch, Thomas E., assignor to The Yale & Towne Manufacturing Company. Stamford, Conn. Means for securing knob-shanks to spindles. No. 1,026,497; May 14; Sp. p. 3102; Gaz. vol. 178; p. 512.
Crouse-Hinds Company. (See Olley, Raymond H., assignor.)
Crowder, George M., Lebanon, Ill. Attachment for mowing-machines. No. 1,027,463; May 28; Sp. p. 5224; Gaz. vol. 178; p. 916.
Crozier, Charles, Honolulu, Hawaii. Apparatus for conveying and loading sugar-cane and the like. No. 1,025,379; May 7; Sp. p. 614; Gaz. vol. 178; p. 95.
Cruikshank, Ella. (See Cruikshank and Elmore, assignors.)
Cruikshank, Ella. (See Cruikshank and McAnulty, assignors.)
Cruikshank, Ernest W., and M. R. Elmore; said Elmore assignor to E. Cruikshank, Baltimore, Md. Loom for weaving pile fabrics. No. 1,027,995; May 28; Sp. p. 6371; Gaz. vol. 178; p. 1094.
Cruikshank, Ernest W., and J. A. McAnulty, Baltimore, Md.; said McAnulty assignor to E. Cruikshank, Montclair, N. J. Loom. No. 1,027,996; May 28; Sp. p. 6380; Gaz. vol. 178; p. 1095.
Cubitt, Archibald S., Schenectady, N. Y., assignor to General Electric Company. Relay. No. 1,025,786; May 7; Sp. p. 1482; Gaz. vol. 178; p. 234.
Cudahey, Edward A. (See Tardiff, Paul E., assignor.)
Cudell, Frank E., Cleveland, Ohio. Sewer-gas trap. No. 1,027,997; May 28; Sp. p. 6384; Gaz. vol. 178; p. 1095.
Cuenin, Charles A., New York, N. Y. Die-box. No. 1,027,185; May 21; Sp. p. 4659; Gaz. vol. 178; p. 783.
Culomer, Frank J., Chicago, Ill., assignor of one-half to J. Rostar, Newark, N. J. Floating device for swimmers. No. 1,027,642; May 28; Sp. p. 5579; Gaz. vol. 178; p. 975.
Cummings, David P. (See Wright and Cummings.)
Cummings, George W., Troy, N. Y. Knitted fabric. No. 1,027,696; May 28; Sp. p. 5702; Gaz. vol. 178; p. 994.
Cummings, John S., assignor to Eastman Kodak Company, Rochester, N. Y. Photographic-printing machine. No. 1,025,249; May 7; Sp. p. 313; Gaz. vol. 178; p. 50.
Cunningham, Richard H., New York, N. Y. Combined ignition system. No. 1,026,565; May 14; Sp. p. 3229; Gaz. vol. 178; p. 534.
Cunningham, Robert P., Holyoke, Mass. Breast-wall brick for cupolas. No. 1,027,821; May 28; Sp. p. 5967; Gaz. vol. 178; p. 1036.
Cuno, Charles, assignor to The Connecticut Telephone & Electric Company, Incorporated, Meriden, Conn. Dual ignition system. No. 1,026,077; May 14; Sp. p. 2190; Gaz. vol. 178; p. 369.
Cuntz, John H., Hoboken, N. J. Electric-wave transmission. No. 1,026,150; May 14; Sp. p. 2338; Gaz. vol. 178; p. 395.
Cuppy, Hazlitt A. (See Schmidt, Godfrey P., assignor.)
Curlew Novelty Company. (See Curtis, Samuel, assignor.)
Curran, Harry L., assignor of one-half to E. F. Kellogg and one-half to H. L. Gillespie, New York, N. Y. Amusement device for exhibiting automobiles. No. 1,025,456; May 7; Sp. p. 778; Gaz. vol. 178; p. 122.
Currier, Hiram D., Chicago, Ill., and G. Wolf, New York, N. Y., assignors to Western Electric Company, Chicago, Ill. Service-meter circuits. No. 1,026,151; May 14; Sp. p. 2341; Gaz. vol. 178; p. 395.
Curtis, Charles G., New York, N. Y. Marine steam-turbine. No. 1,027,698; May 28; Sp. p. 5705; Gaz. vol. 178; p. 994.
Curtis, Charles G., New York, N. Y., assignor, by mesne assignments, to General Electric Company. Elastic-fluid turbine. No. 1,027,697; May 28; Sp. p. 5703; Gaz. vol. 178; p. 994.
Curtis & Company Manufacturing Company. (See Steedman, Edwin H. and J. H., assignors.)
Curtis, Samuel, assignor to Curlew Novelty Company, St. Louis, Mo. Collapsible drinking-cup. No. 1,025,380; May 7; Sp. p. 617; Gaz. vol. 178; p. 95.
Curtis, William H., Denver, Colo. Combination deep-water-vessel-carrying barge. No. 1,025,514; May 7; Sp. p. 904; Gaz. vol. 178; p. 142.
Curtiss, Glenn H., Hammondsport, N. Y. Means for launching flying-machines. No. 1,027,242; May 21; Sp. p. 4776; Gaz. vol. 178; p. 804.
Cushion-Corner Bed Spring Co. (See Grotenhuis, William J., assignor.)
Custer, John S., assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Pressure-retaining valve. No. 1,025,381; May 7; Sp. p. 618; Gaz. vol. 178; p. 96.
Cutler-Hammer Mfg. Co., The. (See Horton, Albert J., assignor.)
Cutler, Isabel M. (See Cutler and Leonard, assignors.)
Cutler, Isabel M. (See Leonard and Cutler, assignors.)
Cutler, Jerry N., Tacoma, Wash. Elastic connecting device. No. 1,026,566; May 14; Sp. p. 3234; Gaz. vol. 178; p. 534.
Cutler, Judson N., Myrtle Creek, Oreg. Safety-snap. No. 1,025,787; May 7; Sp. p. 1484; Gaz. vol. 178; p. 235.
Cutler, William C. (See Leonard and Cutler.)
Cutler, William C., and G. I. Leonard, Los Angeles, assignors to I. M. Cutler, Sawtelle, Cal. Advertising device. No. 1,026,242; May 14; Sp. p. 2544; Gaz. vol. 178; p. 426.
Czaran, Otto, Glendale, N. Y. Mowing-machine. No. 1,027,643; May 28; Sp. p. 5581; Gaz. vol. 178; p. 976.
D. & S. Airless Tire Company. (See Doty and Show, assignors.) (Reissue.)
Dagnall, Walter, Fairfield, Hampton Wick, England. Polishing-cloth. No. 1,025,382; May 7; Sp. p. 619; Gaz. vol. 178; p. 96.
Dahlstrom, Adolph, Amery, Wis. Bag-holder. No. 1,027,464; May 28; Sp. p. 5226; Gaz. vol. 178; p. 916.
Dairy Machinery and Construction Company. (See Willmann, Joseph, assignor.)
Dale, Thomas M. (See Councill, Tharpe, and Dale.)
Dambach, Margaret S., Beaver Falls, Pa. Smoke-bell. No. 1,027,186; May 21; Sp. p. 4660; Gaz. vol. 178; p. 783.
Dambino, Willie D., Handsboro, Miss. Draw-bar. No. 1,027,323; May 21; Sp. p. 4939; Gaz. vol. 178; p. 831.
Daniel, Charles A. (See Neff, Frank R., assignor.)
Daniels, Adelbert W., Morrison, Ill. Corn-plow. No. 1,027,998; May 28; Sp. p. 6387; Gaz. vol. 178; p. 1095.
Daniels, Thomas M., Chicago, Ill. Hat-pin. No. 1,027,375; May 21; Sp. p. 5044; Gaz. vol. 178; p. 849.
Daniels, Walter A. (See Palmer, El Ray G., assignor.)
Darby, Clifford T., Detroit, Mich., assignor to S. A. Griggs, trustee, Walkerville, Canada. Gearing. No. 1,026,736; May 21; Sp. p. 3622; Gaz. vol. 178; p. 629.
Darling, Herman L., Delta, Colo. System of motor-operated tree vibration for saving buds and blossoms from frost. No. 1,027,403; May 28; Sp. p. 5110; Gaz. vol. 178; p. 897.
Darlinton, George W., Los Angeles, Cal. Machine for securing wire to frames. No. 1,026,789; May 21; Sp. p. 3740; Gaz. vol. 178; p. 647.
Daunt, Joseph H., *et al.* (See Walsh, James, assignor.)
Dauphin, Henry S., Sheldon, Vt. Toy. No. 1,025,689; May 7; Sp. p. 1291; Gaz. vol. 178; p. 200.
Daven, Michael P., assignor of one-third to J. Schultz and one-third to C. H. Fesenfeldt, St. Louis, Mo. Device for cutting and scoring paper-box blanks. No. 1,027,822; May 28; Sp. p. 5968; Gaz. vol. 178; p. 1036.
Davidson, Andrew. (See Robeson and Davidson.)
Davidson, Bruce L., and E. B. Welch, Cleveland, Ohio. Bolts for doors. No. 1,027,035; May 21; Sp. p. 4329; Gaz. vol. 178; p. 734.
Davies, Jenkin P., Cincinnati, Ohio. Mechanical stoker. No. 1,025,788; May 7; Sp. p. 1485; Gaz. vol. 178; p. 235.
Davies, John W., Reading, assignor to Manton-Gaulin Manufacturing Company, Boston, Mass. Machine for treating liquids. No. 1,026,947; May 21; Sp. p. 4128; Gaz. vol. 178; p. 703.
Davis, Arthur M. and B. F., Jackson, Ohio. Mold-forming machine. No. 1,025,789; May 7; Sp. p. 1492; Gaz. vol. 178; p. 236.
Davis, Burt F. (See Davis, Arthur M. and B. F.)
Davis, Charles H. A., San Rafael, Cal. Holding-vise attachment. No. 1,025,739; May 7; Sp. p. 1397; Gaz. vol. 178; p. 218.
Davis, Charles O., Rupert, Idaho. Hay-loader. No. 1,027,465; May 28; Sp. p. 5228; Gaz. vol. 178; p. 917.
Davis, Claude B., assignor of one-sixth to W. Lawrence, one-sixth to J. Lichtenstein, and one-third to F. A. Arnzen, Richmond, Va. Shoulder-bag clasp. No. 1,027,527; May 28; Sp. p. 5352; Gaz. vol. 178; p. 937.

Davis, Elias V., assignor of one-half to J. T. Foody, Hornell, N. Y. Mail-box. No. 1,026,078; May 14; Sp. p. 2195; Gaz. vol. 178; p. 370.

Davis, Ellery L. (See Berlinghof and Davis.)

Davis, Frank C., Tucson, Ariz. Broom and mop holder. No. 1,025,562; May 7; Sp. p. 1028; Gaz. vol. 178; p. 159.

Davis, Fred M., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Telephone trunking system. No. 1,026,850; May 21; Sp. p. 3870; Gaz. vol. 178; p. 668.

Davis, George W., Westmount, Quebec, Canada. Typewriter. No. 1,025,129; May 7; Sp. p. 37; Gaz. vol. 178; p. 7.

Davis, James W. (See Stone, Alonzo, assignor.)

Davis, Merrill, assignor to J. B. Wise, Watertown, N. Y. Portable furnace. No. 1,025,515; May 7; Sp. p. 907; Gaz. vol. 178; p. 142.

Davis, Merrill, assignor to J. B. Wise, Watertown, N. Y. Hoist. No. 1,025,516; May 7; Sp. p. 913; Gaz. vol. 178; p. 142.

Davis, Merrill, assignor to J. B. Wise, Watertown, N. Y. Valve. No. 1,025,517; May 7; Sp. p. 919; Gaz. vol. 178; p. 143.

Davis, Merrill, assignor to J. B. Wise, Watertown, N. Y. Portable furnace. No. 1,025,563; May 7; Sp. p. 1029; Gaz. vol. 178; p. 159.

Davis, Robert H., assignor of one-half to Siebe Gorman and Company, Limited, London, England. Apparatus for testing air. No. 1,027,823; May 28; Sp. p. 5970; Gaz. vol. 178; p. 1036.

Davis, Ulysses C., assignor to Eaton, Crane & Pike Company, Pittsfield, Mass. Machine for imprinting envelops and the like. No. 1,027,824; May 28; Sp. p. 5971; Gaz. vol. 178; p. 1037.

Davison, Elwin T., Athenia, N. J. Furnace. No. 1,027,187; May 21; Sp. p. 4661; Gaz. vol. 178; p. 783.

Davoran, Michael F., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio. Burial-casket hardware. No. 1,027,106; May 21; Sp. p. 4502; Gaz. vol. 178; p. 758.

Dawson, Arthur T., and G. T. Buckham, assignors, by mesne assignments, to Vickers, Limited, Westminster, London, England. Sighting apparatus for ordnance. No. 1,026,660; May 21; Sp. p. 3458; Gaz. vol. 178; p. 603.

Dawson, Joseph W., assignor to Barry-Wehmiller Machine Company, St. Louis, Mo. Conveyer. No. 1,027,036; May 21; Sp. p. 4330; Gaz. vol. 178; p. 725.

Dawson, Oliver B., El Paso, Tex. Crude-oil burner. No. 1,027,699; May 28; Sp. p. 5708; Gaz. vol. 178; p. 995.

De Bolt, F. F. (See Archer, William J., assignor.)

De Forest, Edward L., Westhampton, N. Y. Score-card. No. 1,026,433; May 14; Sp. p. 2966; Gaz. vol. 178; p. 491.

De Forest, Lee, New York, N. Y., assignor to De Forest Radio Telephone Co. Transmission of music by electromagnetic waves. No. 1,025,908; May 7; Sp. p. 1791; Gaz. vol. 178; p. 275.

De Forest Radio Telephone Co. (See De Forest, Lee, assignor.)

De Frese, Samuel E., Chattanooga, Tenn. Attachment for gas-retorts. No. 1,028,000; May 28; Sp. p. 6389; Gaz. vol. 178; p. 1096.

De Pew, Isaiah M., Palma Sola, Fla. Wheel. No. 1,025,900; May 7; Sp. p. 1778; Gaz. vol. 178; p. 273.

De Ryss, Emil. (See Elektorowicz, Emil.)

De Ryss, Emil, New York, N. Y. Station-platform for railways. No. 1,027,107; May 21; Sp. p. 4503; Gaz. vol. 178; p. 758.

De Voe, Albert H., Elizabeth, N. J., assignor to The Singer Manufacturing Company. Overseaming sewing-machine. No. 1,026,910; May 21; Sp. p. 4016; Gaz. vol. 178; p. 689.

De Witt, Travice N., Baltimore, Md. Cue-tip fastener. No. 1,028,002; May 28; Sp. p. 6393; Gaz. vol. 178; p. 1097.

Deal, Daniel K. (See Hogarth and Deal.)

Deal, Enan M., assignor to E. A. Schneider, Philadelphia, Pa. Wheel. No. 1,025,790; May 7; Sp. p. 1494; Gaz. vol. 178; p. 236.

Dean Electric Company, The. (See Dean, William W., assignor.)

Dean Electric Company. (See Manson, Ray H., assignor.)

Dean, William. (See Drew, Arkinstall, Dean, and Howarth.)

Dean, William W., assignor to The Dean Electric Company, Elyria, Ohio. Dynamo-electric machine. No. 1,026,737; May 21; Sp. p. 3624; Gaz. vol. 178; p. 630.

Dearing, David M., Jackson, Mich. Running-gear for motor-vehicles. No. 1,026,851; May 21; Sp. p. 3875; Gaz. vol. 178; p. 669.

Deatherage, Samuel A., Richmond, Ky. Tire. No. 1,027,999; May 28; Sp. p. 6389; Gaz. vol. 178; p. 1096.

Dee, Daniel, assignor of one-half to E. C. Stratford, Pocatello, Idaho. Grate. No. 1,026,152; May 14; Sp. p. 2344; Gaz. vol. 178; p. 396.

Deeks, Annie E., *et al.* (See Deeks, Catharine M., assignor.)

Deeks, Catharine M., assignor to M. C. L., F. A., and A. E. Deeks, Toronto, Ontario, Canada. Weed-root cutter. No. 1,025,965; May 14; Sp. p. 1915; Gaz. vol. 178; p. 330.

Deeks, Florence A., *et al.* (See Deeks, Catharine M., assignor.)

Deeks, Mabel C. L., *et al.* (See Deeks, Catharine M., assignor.)

Defenbacher, J. F., *et al.* (See Schorndorfer, Edward E., assignor.)

Defenbacher, W. E., *et al.* (See Schorndorfer, Edward E., assignor.)

Degner, Herman C., Jr., Los Angeles, Cal. Collar-button. No. 1,026,153; May 14; Sp. p. 2345; Gaz. vol. 178; p. 396.

Dehlinger, Alexander H. A., Rosholt, Wis. Wire-tightener. No. 1,026,974; May 21; Sp. p. 4174; Gaz. vol. 178; p. 712.

Delbel, Robert, Charlottenburg, assignor to Siemens & Halske Aktiengesellschaft, Berlin, Germany. Terminal insulator in junction-boxes or the like. No. 1,027,404; May 28; Sp. p. 5112; Gaz. vol. 178; p. 897.

Deldrick, Joseph W. (See Vargyas and Deldrick.)

Del Valle Atiles, Francisco de A., San Juan, Porto Rico. Telegraph transmitting-machine. No. 1,027,376; May 21; Sp. p. 5045; Gaz. vol. 178; p. 849.

Delano, James K., Jr., Chicago, Ill. Electric-lighting system for self-propelled vehicles. No. 1,027,700; May 28; Sp. p. 5710; Gaz. vol. 178; p. 995.

Delaunay-Belleville, Louis M. G., assignor to The Société Anonyme des Automobiles Delaunay-Belleville, St.-Denis, France. Power-transmission mechanism. No. 1,026,498; May 14; Sp. p. 3104; Gaz. vol. 178; p. 512.

Delihanty, John P., Pueblo, Colo. Wire-nail feeder. No. 1,026,567; May 14; Sp. p. 3235; Gaz. vol. 178; p. 535.

Demarest, David C. (See Gruss and Demarest.)

Demarest, John, Springfield, Mass. Check-damper. No. 1,027,037; May 21; Sp. p. 4331; Gaz. vol. 178; p. 735.

Demers, Joseph A., St. Romuald, Quebec, Canada. Automatic train stop and signal. No. 1,026,852; May 21; Sp. p. 3876; Gaz. vol. 178; p. 669.

Demery, Thomas R., assignor to Max Zeitler Engraving & Supply Co., Philadelphia, Pa. Printing from engraved plates. No. 1,025,250; May 7; Sp. p. 318; Gaz. vol. 178; p. 51.

Deming, William L., Salem, Ohio. Documentary distributing device. No. 1,027,701; May 28; Sp. p. 5712; Gaz. vol. 178; p. 995.

Dempewolf, Otto, assignor to Bremer & Brückmann, Brunswick, Germany. Means for feeding metal sheets. No. 1,027,598; May 28; Sp. p. 5501; Gaz. vol. 178; p. 962.

Dennis, William, assignor, by mesne assignments, to Verges Manufacturing Co., Milwaukee, Wis. Friction-clutch. No. 1,027,377; May 21; Sp. p. 5047; Gaz. vol. 178; p. 850.

Dennison Manufacturing Company. (See Potter, Harry J., assignor.)

Des Moines Clay Manufacturing Company, The. (See Emery, George H., assignor.)

Deseniss & Jacobi Actiengesellschaft. (See Schubert, Franz B. K., assignor.)

Desjardins, Joseph R., Fall River, Mass. Pipe-reamer. No. 1,028,001; May 28; Sp. p. 6392; Gaz. vol. 178; p. 1096.

Desmond, John, assignor to W. S. Potwin, Chicago, Ill. Engine-cooling device. No. 1,025,251; May 7; Sp. p. 319; Gaz. vol. 178; p. 51.

Desselle, Peter J. (See Phillippar and Desselle.)

Desson, Georges, Paris, France. Pneumatic tire for vehicle-wheels. No. 1,025,610; May 7; Sp. p. 1120; Gaz. vol. 178; p. 175.

Detroit Can Company. (See Harbeck, Jervis R., assignor.)

Deurloo, Anthony C. M., and C. Vanderweel, Lodi, N. J. Street-railway switch. No. 1,026,431; May 14; Sp. p. 2962; Gaz. vol. 178; p. 490.

Deutsche Gasglühlicht Aktiengesellschaft (Auergesellschaft). (See Süssmann, Heinrich, assignor.)

Deutsche Waffen & Munitionsfabriken. (See Kapper, Herman, assignor.)

Devero, Charles A., Keokuk, Iowa, assignor to Keokuk Hydraulic Tire Setter Company. Tire-setting machine. No. 1,026,975; May 21; Sp. p. 4174; Gaz. vol. 178; p. 712.

Dey, Charles V., assignor of one-half to J. Hirsch, Chicago, Ill. Pneumatic feather-cleaning apparatus. No. 1,026,432; May 14; Sp. p. 2963; Gaz. vol. 178; p. 490.

Diamond Block Machine Company. (See Lowe, Luke T., assignor.)

Diamond Electric Company. (See Parkhurst, Leon F., assignor.)

Diamond Power Specialty Co. (See Sprenger, Louis, assignor.)

Dickerson, S. K., *et al.* (See Foster, Oliver M., assignor.)

Dickey, Arthur V., assignor of one-half to W. M. Sheffield, Seattle, Wash. Repeating air-rifle. No. 1,026,303; May 14; Sp. p. 2670; Gaz. vol. 178; p. 447.

Dickey, John S., Collinsville, Tex. Washing-machine. No. 1,028,003; May 28; Sp. p. 6395; Gaz. vol. 178; p. 1097.

Dickson, Frank H., Oswego, N. Y. Wrench. No. 1,026,661; May 21; Sp. p. 3450; Gaz. vol. 178; p. 603.

Dickson, John M., Indianapolis, Ind. Doll-head. No. 1,027,324; May 21; Sp. p. 4940; Gaz. vol. 178; p. 831.

Diebitsch, Emil, Nutley, N. J. Device for securing slabs or blocks. No. 1,027,188; May 21; Sp. p. 4664; Gaz. vol. 178; p. 784.

Diemer, Anton, assignor to Firm of R. Bosch, Stuttgart, Germany. Shaft-coupling. No. 1,027,644; May 28; Sp. p. 5583; Gaz. vol. 178; p. 976.

Diener, Magdalena, and C. F. Urban, Milwaukee, Wis. Sleigh. No. 1,026,023; May 14; Sp. p. 2025; Gaz. vol. 178; p. 350.

Dierdorff, Andrew F., Los Angeles, Cal. Stabilizing lifting-plane for flying-machines. No. 1,026,079; May 14; Sp. p. 2196; Gaz. vol. 178; p. 370.

Dillon, Charles E., and L. Savage, Springfield, Mo. Ladder. No. 1,028,004; May 28; Sp. p. 6396; Gaz. vol. 178; p. 1097.

Dingwell, Ruel, assignor of one-half to A. A. Thompson, Boston, Mass. Match-box. No. 1,026,976; May 21; Sp. p. 4177; Gaz. vol. 178; p. 713.

Dinsmoor, John L., New York, N. Y. Arc-lamp. No. 1,025,130; May 7; Sp. p. 40; Gaz. vol. 178; p. 8.

Dixon, Robert M. (See Erb, Edmund M., assignor.)

Dixon, Robert M., East Orange, N. J., assignor to The Safety Car Heating & Lighting Company. Radiator. No. 1,025,518; May 7; Sp. p. 922; Gaz. vol. 178; p. 143.

Dixon, Thomas, assignor to Washington Steel & Ordnance Company, Washington, D. C. Means for securing caps to projectiles. No. 1,027,243; May 21; Sp. p. 4777; Gaz. vol. 178; p. 804.

Dobartz, Edward, and W. H. Sigley, Sylvan Grove, Kans.; said Dobartz assignor to Sigley. Funnel. No. 1,027,378; May 21; Sp. p. 5050; Gaz. vol. 178; p. 850.

Doble, May E. (See Doble, William A., assignor.)

Doble, William A., assignor to M. E. Doble, San Francisco, Cal. Nozzle for hydraulic motors. No. 1,025,252; May 7; Sp. p. 320; Gaz. vol. 178; p. 51.

Doble, William A., assignor to M. E. Doble, San Francisco, Cal. Means for controlling the discharge from hydraulic motors. No. 1,025,611; May 7; Sp. p. 1120; Gaz. vol. 178; p. 175.

Doble, William A., assignor to M. E. Doble, San Francisco, Cal. Hydraulic nozzle. No. 1,027,825; May 28; Sp. p. 5975; Gaz. vol. 178; p. 1037.

Dobyne, Stephen A., assignor to Champion Shoe Machinery Company, St. Louis, Mo. Loose-nailing machine. No. 1,026,024; May 14; Sp. p. 2027; Gaz. vol. 178; p. 350.

Dobyne, Stephen A., assignor to Champion Shoe Machinery Company, St. Louis, Mo. Fastener-inserting machine. No. 1,026,025; May 14; Sp. p. 2032; Gaz. vol. 178; p. 350.

Doctor, Benno. (See Schwieger and Doctor.)

Dodson, Charles M., assignor of one-half to H. W. Parker, Des Moines, Iowa. Apparel-shoe quarter-closure. No. 1,025,901; May 7; Sp. p. 1779; Gaz. vol. 178; p. 273.

Doebler, Hugo, assignor of one-third to F. D. King and one-third to J. F. Gaynor, Delaware, Ohio. Minute-book for deliberative bodies. No. 1,028,085; May 28; Sp. p. 6578; Gaz. vol. 178; p. 1122.

Doebriner, Frederick. (See Engebritson, Yuha, and Doebriner.)

Doeg, Issachar W., Exeter, N. H. Top-roll-saddle mechanism. No. 1,027,405; May 28; Sp. p. 5115; Gaz. vol. 178; p. 898.

Doering, Charles, Jr., Oak Park, Ill. Ice-cream dispenser. No. 1,026,080; May 14; Sp. p. 2198; Gaz. vol. 178; p. 371.

Dolan, Edward J., Philadelphia, Pa. Fuel. No. 1,025,902; May 7; Sp. p. 1780; Gaz. vol. 178; p. 273.

Domestic Appliances Company. (See Flynt, Louis W. G., assignor.)

Don Jian, Dickran M., Washington, D. C. Device for removing and curing corns. No. 1,025,903; May 7; Sp. p. 1781; Gaz. vol. 178; p. 273.

Donat, Joseph L., Chicago, Ill. Telephone attachment. No. 1,025,600; May 7; Sp. p. 1292; Gaz. vol. 178; p. 201.

Donges, Jacob, Drayton, Queensland, Australia. Screening mechanism. No. 1,025,791; May 7; Sp. p. 1496; Gaz. vol. 178; p. 236.

Donnell, James W., Evanston, Ill. Alloy. No. 1,025,131; May 7; Sp. p. 44; Gaz. vol. 178; p. 9.

Donnelly, John, Branford, Conn. Lineman's climber. No. 1,026,853; May 21; Sp. p. 3878; Gaz. vol. 178; p. 669.

Donovan, Timothy J., Syracuse, N. Y. Bathing-machine. No. 1,025,612; May 7; Sp. p. 1127; Gaz. vol. 178; p. 175.

Doolan, Henry J., Norfolk, Va. Packing. No. 1,025,792; May 7; Sp. p. 1498; Gaz. vol. 178; p. 237.

Dor-Delattre, Emile, Liege, Belgium. Hydraulic press for producing hollow earthenware bodies. No. 1,027,597; May 28; Sp. p. 5499; Gaz. vol. 178; p. 961.

Dorais, Louis P., Eureka, Cal. Waste-cotton container. No. 1,026,081; May 14; Sp. p. 2200; Gaz. vol. 178; p. 371.

Dorgan, William T., assignor to The Standard Tire Protector Company, Akron, Ohio. Tire-protector. No. 1,027,108; May 21; Sp. p. 4506; Gaz. vol. 178; p. 759.

Dorman, Bert E., assignor of one-half to W. Coyle, Sr., Moline, Ill. Closet and urinal flusher. No. 1,025,740; May 7; Sp. p. 1398; Gaz. vol. 178; p. 218.

Dormandy, Garry J., assignor of one-half to United Shirt and Collar Company, Troy, N. Y. Electric-lamp bracket. No. 1,025,519; May 7; Sp. p. 924; Gaz. vol. 178; p. 144.

Dorsey, Farnum F. (See Goddard and Dorsey.)

Doty, Giles S., and J. D. Show, Philadelphia, Pa., assignors to D. & S. Airless Tire Company. Elastic tire. (Reissue.) No. 13,419; May 14; Sp. p. 3423; Gaz. vol. 178; p. 564.

Doubt, Thomas E., Chicago, Ill. Machine for burning hardback and the like. No. 1,027,038; May 21; Sp. p. 4334; Gaz. vol. 178; p. 735.

Doughty, Howard W., Amherst, Mass. Humidor. No. 1,026,154; May 14; Sp. p. 2347; Gaz. vol. 178; p. 396.

Douglas, Harry A., assignor of one-half to The Adams & Westlake Company, Chicago, Ill. Lamp. No. 1,027,528; May 28; Sp. p. 5353; Gaz. vol. 178; p. 938.

Douglas, Harry A., assignor to The Adams & Westlake Company, Chicago, Ill. Lamp. No. 1,027,529; May 28; Sp. p. 5356; Gaz. vol. 178; p. 938.

Douglas, William M., Galveston, Tex. Automatic gun or rifle. No. 1,025,132; May 7; Sp. p. 46; Gaz. vol. 178; p. 9.

Douglass, Harry J., Bellingham, Wash. Receptacle-closure-marking machine. No. 1,026,790; May 21; Sp. p. 3745; Gaz. vol. 178; p. 648.

Douglass, Winfield S., Glen Jean, W. Va. Identification-belt. No. 1,025,520; May 7; Sp. p. 925; Gaz. vol. 178; p. 144.

Down, William R., Reading, Pa. Drill. No. 1,027,039; May 21; Sp. p. 4335; Gaz. vol. 178; p. 735.

Downing, Ira S., Collinwood, Ohio. Car-brake rigging. No. 1,027,379; May 21; Sp. p. 5051; Gaz. vol. 178; p. 850.

Drake, Augustus W. (See Ravert, William I., assignor.)

Drake, William T. (See Turner, Drake, and Little.)

Draper Company. (See Northrop, Jonas, assignor.)

Draper Company. (See Owen, Herbert W., assignor.)

Draper Company. (See Owen and Welcome, assignors.)

Draper Company. (See Rhoades, Alonzo E., assignor.)

Draper, Louis W., Chicago, Ill. Box. No. 1,025,253; May 7; Sp. p. 322; Gaz. vol. 178; p. 52.

Dreger, Karl von, Berlin, assignor to Gesellschaft für Verwertung Technischer Patente mit beschränker Haftung, Bremen, Germany. Electric-arc lamp. No. 1,026,568; May 14; Sp. p. 3237; Gaz. vol. 178; p. 535.

Dreger, Karl von, Berlin, assignor to Gesellschaft für Verwertung Technischer Patente mit beschränkter Haftung, Bremen, Germany. Electric-arc lamp. No. 1,026,569; May 14; Sp. p. 3238; Gaz. vol. 178; p. 535.

Dressel, Charles P., assignor of two-thirds to A. Morgan and I. W. Mendelsohn, Wilkes-Barre, Pa. Gas cut-off. No. 1,026,570; May 14; Sp. p. 3239; Gaz. vol. 178; p. 535.

Drew, Albert E., J. Arkinstall, W. Dean, and J. H. Howarth, Bolton, England. Spinning and doubling frame. No. 1,025,254; May 7; Sp. p. 323; Gaz. vol. 178; p. 52.

Drewell, Heinrich, Charlottenberg, assignor to Schnellsetz-Maschinengesellschaft mit beschränkter Haftung, Berlin, Germany. Type-setting device. No. 1,026,243; May 14; Sp. p. 2547; Gaz. vol. 178; p. 427.

Drewell, Heinrich, Charlottenburg, assignor to Schnellsetzmaschinengesellschaft mit beschränkter Haftung, Berlin, Germany. Line-casting machine. No. 1,027,826; May 28; Sp. p. 5976; Gaz. vol. 178; p. 1037.

Driscoll, Con, assignor to F. Prevost, Coalinga, Cal. Making a food compound. No. 1,028,005; May 28; Sp. p. 6397; Gaz. vol. 178; p. 1097.

Driver, Charles H., Racine, Wis. Combined tool rack and gage. No. 1,025,255; May 7; Sp. p. 324; Gaz. vol. 178; p. 52.

Dubinski, Benjamin, assignor to Standard Lighters Manufacturing Co., New York, N. Y. Pocket-lighter. No. 1,026,571; May 14; Sp. p. 3241; Gaz. vol. 178; p. 536.

Ducsay, Istvan, Canonsburg, Pa. Lock. No. 1,027,325; May 21; Sp. p. 4942; Gaz. vol. 178; p. 831.

Duffy, Patrick S., Barre, Vt. Spoke-socket. No. 1,026,572; May 14; Sp. p. 3243; Gaz. vol. 178; p. 536.

Duggan, William, Jr., Dunedin, New Zealand. Door-closing apparatus. No. 1,026,155; May 14; Sp. p. 2348; Gaz. vol. 178; p. 396.

Dull, Raymond W., Aurora, Ill., assignor to Stephens-Adamson Manufacturing Company. Conveyer-bucket. No. 1,026,385; May 14; Sp. p. 2866; Gaz. vol. 178; p. 475.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,244; May 14; Sp. p. 2554; Gaz. vol. 178; p. 427.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,245; May 14; Sp. p. 2557; Gaz. vol. 178; p. 428.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,246; May 14; Sp. p. 2558; Gaz. vol. 178; p. 428.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,247; May 14; Sp. p. 2560; Gaz. vol. 178; p. 428.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,248; May 14; Sp. p. 2561; Gaz. vol. 178; p. 429.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,249; May 14; Sp. p. 2563; Gaz. vol. 178; p. 429.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,250; May 14; Sp. p. 2563; Gaz. vol. 178; p. 429.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,251; May 14; Sp. p. 2565; Gaz. vol. 178; p. 429.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,252; May 14; Sp. p. 2568; Gaz. vol. 178; p. 430.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,253; May 14; Sp. p. 2569; Gaz. vol. 178; p. 430.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,254; May 14; Sp. p. 2571; Gaz. vol. 178; p. 430.

Duncan, Joseph S., assignor to Addressograph Company, Chicago, Ill. Printing device. No. 1,026,255; May 14; Sp. p. 2573; Gaz. vol. 178; p. 431.

Duncan, William M., Alton, Ill. Ignition-arch for furnaces. No. 1,027,326; May 21; Sp. p. 4944; Gaz. vol. 178; p. 832.

Dunfee, Jesse, Coshocton, Ohio. Wrapper. No. 1,025,457; May 7; Sp. p. 779; Gaz. vol. 178; p. 122.

Dunfield, Bliss H., St. John, New Brunswick, Canada. Stenographer's envelop and stamp moistener. No. 1,027,406; May 28; Sp. p. 5117; Gaz. vol. 178; p. 898.

Dunlap, William C., Eupora, Miss. Cultivator attachment. No. 1,025,458; May 7; Sp. p. 780; Gaz. vol. 178; p. 122.

Dunn, John H. (See Logan, Crawford D., assignor.)

Dunn, Walter C., Manitou, Ky. Wire-fence clamp. No. 1,027,109; May 21; Sp. p. 4508; Gaz. vol. 178; p. 759.

Dunnebacke, Fred A., and E. A. Harris; said Fred A. Dunnebacke assignor to H. J. Dunnebacke, Lansing, Mich. Faucet. No. 1,026,854; May 21; Sp. p. 3879; Gaz. vol. 178; p. 670.

Dunnebacke, Henry J. (See Dunnebacke and Harris, assignors.)

Dunning, James A., Aulander, N. C. Brickmaking-machine. No. 1,025,133; May 7; Sp. p. 49; Gaz. vol. 178; p. 9.

Dupré, Wilfred, Worcester, Mass. Combined mop holder and wringer. No. 1,026,625; May 14; Sp. p. 3362; Gaz. vol. 178; p. 554.

Durand, Nelson C., Newark, assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J. Controlling device. No. 1,027,702; May 28; Sp. p. 5715; Gaz. vol. 178; p. 996.

Durbin, James F. and V. S., Fort Scott, Kans. Railway-car coupling. No. 1,025,521; May 7; Sp. p. 926; Gaz. vol. 178; p. 144.

Durbin, Votaw S. (See Durbin, James F. and V. S.)

Dustin, Gordon J., assignor to J. F. Dustin, Fulton, N. Y. Loom-shuttle. No. 1,027,703; May 28; Sp. p. 5716; Gaz. vol. 178; p. 996.

Dustin, Gordon J., assignor to J. F. Dustin, Fulton, N. Y. Loom-shuttle. No. 1,027,704; May 28; Sp. p. 5718; Gaz. vol. 178; p. 996.

Dustin, John F. (See Dustin, Gordon J., assignor.)

Duston, Ernest W., assignor to The Blake and Johnson Company, Waterbury, Conn. Heading mechanism. No. 1,026,082; May 14; Sp. p. 2201; Gaz. vol. 178; p. 371.

Duston, Ernest W., assignor to The Blake and Johnson Company, Waterbury, Conn. Machine for feeding headed blanks. No. 1,026,083; May 14; Sp. p. 2204; Gaz. vol. 178; p. 372.

Dwight, Arthur S., New York, N. Y., assignor, by mesne assignments, to Dwight & Lloyd Metallurgical Company, Jersey City, N. J. Mechanism for treating ore. No. 1,027,110; May 21; Sp. p. 4509; Gaz. vol. 178; p. 760.

Dwight, Arthur S., New York, N. Y., assignor to Dwight & Lloyd Metallurgical Company. Conveying apparatus. No. 1,027,111; May 21; Sp. p. 4513; Gaz. vol. 178; p. 760.

Dwight, Arthur S., New York, N. Y., assignor to Dwight & Lloyd Metallurgical Company, Jersey City, N. J. Apparatus for roasting and sintering ores. (Reissue.) No. 13,423; May 28; Sp. p. 6608; Gaz. vol. 178; p. 1125.

Dwight, Arthur S., New York, N. Y., assignor to Dwight & Lloyd Metallurgical Company, Jersey City, N. J. Roasting and sintering ores and product resulting therefrom. (Reissue.) No. 13,424; May 28; Sp. p. 6616; Gaz. vol. 178; p. 1127.

Dwight & Lloyd Metallurgical Company. (See Dwight, Arthur S., assignor.)

Dwight Lloyd Metallurgical Company. (See Stehli, Henry J., assignor.)

Dyer, Frank L. (See Aylsworth, Jonas W., assignor.)

E. & B. Holmes Machinery Co. (See Beugler, Edwin F., assignor.)

E. H. Schwartz & Son Co. (See Schwartz, Edward H., assignor.)

E. L. Watrous Galvanizing Company. (See Watrous, Edward L., assignor.)

E. W. Bliss Company. (See Orton, Frederick, assignor.)

E. W. Bliss Company. (See Page, Frank C. B., assignor.)

Eagle Lock Co. (See Roche, James, assignor.)

Eagle Pencil Company. (See Boman, Claes W., assignor.)

Earhart, Edwin S., Des Moines, Iowa. Flagstaff. No. 1,025,904; May 7; Sp. p. 1783; Gaz. vol. 178; p. 274.

Earle, Reginald W., assignor to N. Goodyear, New York, N. Y. Buoy. No. 1,026,977; May 21; Sp. p. 4178; Gaz. vol. 178; p. 713.

East, John H. (See Swern, Ernest V., assignor.)

Eastes, James B., Konawa, Okla. Revolving lamp-support for autos. No. 1,025,966; May 14; Sp. p. 1916; Gaz. vol. 178; p. 330.

Eastham, William A., Nashville, Tenn. Can-labeler. No. 1,025,613; May 7; Sp. p. 1128; Gaz. vol. 178; p. 175.

Eastman Kodak Co. (See Linder, John, assignor.)

Eastman Kodak Company. (See Cummings, John S., assignor.)

Eaton, Crane & Pike Company. (See Davis, Ulysses C., assignor.)

Eberhardt, Philip, Arlington, Mass. Retaining device for presses. No. 1,027,189; May 21; Sp. p. 4666; Gaz. vol. 178; p. 785.

Eberman, William A. (See Boomhower and Eberman.)

Eckardt, August H., St. Paul, Minn. Attachment for mowing-machines. No. 1,026,738; May 21; Sp. p. 3626; Gaz. vol. 178; p. 630.

Eckert, William A., Buffalo, N. Y. Bottle-stopper. No. 1,027,112; May 21; Sp. p. 4517; Gaz. vol. 178; p. 760.

Eckre, Olof A., Kindred, N. D. Spring-fork for bicycles. No. 1,027,599; May 28; Sp. p. 5502; Gaz. vol. 178; p. 962.

Eddy, Howard E., Arlington, Md., and E. B. Crocker, Bridgeport, Conn. Micrometer-gage. No. 1,027,827; May 28; Sp. p. 5983; Gaz. vol. 178; p. 1038.

Edgar, Charles E., Kansas City, Mo. Can-filler. No. 1,025,383; May 7; Sp. p. 620; Gaz. vol. 178; p. 96.

Edgar, William T. (See Horstmann and Edgar.)

Edgington, William F., assignor of one-half to A. Murray, Springfield, Ohio. Jack for tightening antiskid-chains. No. 1,026,490; May 14; Sp. p. 3105; Gaz. vol. 178; p. 513.

Edison, Thomas A. (See Aylsworth, Jonas W., assignor.)

Edison, Thomas A. (See Durand, Nelson C., assignor.)

Edison, Thomas A. (See Hopkins, Edward P., assignor.)

Edison, Thomas A. (See Schiff, Charles, assignor.)

Edison, Thomas A. (See Wurth, Albert F., assignor.)

Edmunds, John, Shamokin, Pa. Lawn-mower. No. 1,026,204; May 14; Sp. p. 2463; Gaz. vol. 178; p. 413.

Edqvist, Olof F., Denver, Colo. Rotary explosive-engine. No. 1,026,911; May 21; Sp. p. 4019; Gaz. vol. 178; p. 690.

Edwards, Bruce. (See Morrow, John W., assignor.)

Edwards, Oliver C., Jr., Troy, N. Y. Caisson. No. 1,025,614; May 7; Sp. p. 1131; Gaz. vol. 178; p. 176.

Egan, Patrick. (See Hipwood and Egan.)

Egli, Arnold, assignor to Vogtländische Maschinen-Fabrik (vormals J. C. & H. Dietrich) Actiengesellschaft, Plauen, Germany. Matrix for stereotype-plate molds. No. 1,026,739; May 21; Sp. p. 3627; Gaz. vol. 178; p. 630.

Eglin, William C. L. (See Rice, Horace E., assignor.)

Ehlert, Arthur, Wollin, Wollin Island, Germany. Igniting device. No. 1,027,600; May 28; Sp. p. 5505; Gaz. vol. 178; p. 962.

Ehrman, Charles C., Winthrop, assignor to Ehrman Manufacturing Company, Boston, Mass. Sounding-disk. No. 1,026,256; May 14; Sp. p. 2575; Gaz. vol. 178; p. 431.

Ehrman Manufacturing Company. (See Ehrman, Charles C., assignor.)

Einfeldt, Emil, assignor, by mesne assignments, to G. W. and N. French and J. L. Hecht, Davenport, Iowa. Riveting-machine. No. 1,025,384; May 7; Sp. p. 622; Gaz. vol. 178; p. 96.

Eisenmann, Carl W., Chicago, Ill., assignor to The Perkins Electric Switch Manufacturing Company, Bridgeport, Conn. Switch-handle. No. 1,025,691; May 7; Sp. p. 1294; Gaz. vol. 178; p. 201.

Eisner, Felix A., Rochester, N. Y. Control of vehicle driving-wheels. No. 1,026,662; May 21; Sp. p. 3460; Gaz. vol. 178; p. 604.

Ekman, Einar P., Chicago, Ill. Hydroaeroplane. No. 1,026,304; May 14; Sp. p. 2673; Gaz. vol. 178; p. 447.

Ekrem, Lars O., Copper City, Mich. Mower. No. 1,027,190; May 21; Sp. p. 4668; Gaz. vol. 178; p. 785.

Elbel, Karl, assignor to Kalle & Co., Aktiengesellschaft, Biebrich, Germany. Manufacture of pyrazolone-azo dye. No. 1,026,257; May 14; Sp. p. 2576; Gaz. vol. 178; p. 431.

Elbel, Karl, assignor to Kalle & Company, Aktiengesellschaft, Biebrich, Germany. Manufacture and production of fast ortho-oxy-azo dyestuffs. No. 1,028,006; May 28; Sp. p. 6398; Gaz. vol. 178; p. 1098.

Eldridge, Herbert M. (See Eldridge, Reuben C. and H. M.)

Eldridge, Hilliary. (See Rockey and Eldridge.)

Eldridge, Reuben C., Niagara Falls, Ontario, Canada, and J. Willers, Niagara Falls, N. Y.; said Willers assignor to said Eldridge. Animal-trap. No. 1,025,564; May 7; Sp. p. 1033; Gaz. vol. 178; p. 150.

Eldridge, Reuben C. and H. M., Niagara Falls, Ontario, Canada; said H. M. Eldridge assignor to said Reuben C. Eldridge. Animal-trap. No. 1,026,305; May 14; Sp. p. 2678; Gaz. vol. 178; p. 448.

Electrene Company, The. (See Lawrence, Ernest M., assignor.)

Electric Bank Protection Company. (See Williams and Hubn, assignors.)

Electric Chain Company. (See Gammelgaard, Ove L., assignor.)

Electric Compositor Company. (See Le Boeuf, Arthur W., assignor.)

Electric Controller and Manufacturing Company, The. (See Hall, Jay H., assignor.)

Electric Export-Werke G. m. b. H. (See Gottschalck, Emil, assignor.)

Electric Meat Curing Company, The. (See James, Frank P., assignor.)

Electro-Dynamic Company. (See Bonine, Charles E., assignor.)

Elektorowicz, Emil, (by judicial change of name now E. De Ryss,) New York, N. Y. Station-platform for railways. No. 1,027,828; May 28; Sp. p. 5985; Gaz. vol. 178; p. 1038.

Elger, Franz, Basel, Switzerland, assignor to Hoffmann-La Roche Chemical Works, New York, N. Y. Separating meta- and para-cresols. No. 1,025,615; May 7; Sp. p. 1148; Gaz. vol. 178; p. 176.

Elger, Franz, Basel, Switzerland, assignor to Hoffmann-La Roche Chemical Works, New York, N. Y. Meta-cresol and making the same. No. 1,025,616; May 7; Sp. p. 1151; Gaz. vol. 178; p. 176.

Ella, Giovanni E., Paris, France, assignor to Vickers Limited, Westminister, London, England. Automatic firing device for submarine mines. No. 1,025,905; May 7; Sp. p. 1785; Gaz. vol. 178; p. 274.

Elkin, Charles, New York, N. Y. Pipe. No. 1,027,530; May 28; Sp. p. 5358; Gaz. vol. 178; p. 938.

Elledge, William N., Beeville, Tex. Syrup-percolator. No. 1,026,500; May 14; Sp. p. 3106; Gaz. vol. 178; p. 513.

Ellingen, Wilhelm, Cologne-Lindenthal, Germany. Automatic grab for material in large pieces. No. 1,026,573; May 14; Sp. p. 3244; Gaz. vol. 178; p. 536.

Elliot, Richard M., *et al.* (See Spangler, Walter J., assignor.)

Elliott, Charles B., U. S. Army. Collapsible or falling target. No. 1,025,944; May 7; Sp. p. 1872; Gaz. vol. 178; p. 287.

Elliott, George W., Mohall, N. D. Plow attachment. No. 1,026,258; May 14; Sp. p. 2577; Gaz. vol. 178; p. 431.

Elliott, Percy M., Chicago, Ill. Door-hanger. No. 1,025,617; May 7; Sp. p. 1154; Gaz. vol. 178; p. 177.

Elliott, Sterling, Newton, Mass. Addressing-machine. No. 1,025,459; May 7; Sp. p. 781; Gaz. vol. 178; p. 123.

Ellis, Carleton, Montclair, N. J., assignor to New Jersey Testing Laboratories. Hydrogenating fatty materials. No. 1,026,156; May 14; Sp. p. 2351; Gaz. vol. 178; p. 397.

Ellis, Carleton, Larchmont, N. Y., assignor to Ellis-Foster Company. Roofing material. No. 1,026,855; May 21; Sp. p. 3881; Gaz. vol. 178; p. 670.

Ellis, Carleton, Larchmont, assignor to Chadeloid Chemical Company, New York, N. Y. Paint-remover. No. 1,027,466; May 28; Sp. p. 5231; Gaz. vol. 178; p. 918.

Ellis, Charles C., Chattanooga, Tenn. Amalgamator. No. 1,027,244; May 21; Sp. p. 4779; Gaz. vol. 178; p. 804.

Ellis-Foster Company. (See Ellis, Carleton, assignor.)

Elmore, Milton R. (See Cruikshank and Elmore.)

Elmquist, Gotfrid S. (See Osterlind and Elmquist.)

Elstroth, Frank W. S., New York, N. Y. Door-hanger. No. 1,027,645; May 28; Sp. p. 5584; Gaz. vol. 178; p. 976.

Elstroth, Frank W. S., New York, N. Y. Door-hanger. No. 1,027,705; May 26; Sp. p. 5720; Gaz. vol. 178; p. 997.

Elwell, Albert T., Seattle, Wash. Filing device. No. 1,026,346; May 14; Sp. p. 2775; Gaz. vol. 178; p. 463.

Embossing Process Company. (See Smith, Hazor J., assignor.)

Emerson-Brantingham Company. (See Waterman, Lewis E., assignor.)

Emerson Typewriter Co., The. (See Pfau, Max, assignor.)

Emerson, Victor H., New York, N. Y., assignor to American Graphophone Company, Bridgeport, Conn. Reproducer for graphophones. No. 1,026,084; May 14; Sp. p. 2208; Gaz. vol. 178; p. 372.

Emery, George H., assignor to The Des Moines Clay Manufacturing Company, Des Moines, Iowa. Brick. No. 1,027,407; May 28; Sp. p. 5119; Gaz. vol. 178; p. 899.

Emery, James P., and E. H. Rossner, Blue Island, Ill. Cooler for milk, cream, and water. No. 1,027,706; May 28; Sp. p. 5722; Gaz. vol. 178; p. 997.

Emma Lang Investment Company. (See Holden, Harry, assignor.)

Emmerich, Frederick. (See Lowry and Emmerich.)

Emrick, Frank C., and P. G. Safford, St. Louis, Mo.; said Emrick assignor to said Safford. Sad-iron. No. 1,025,906; May 7; Sp. p. 1787; Gaz. vol. 178; p. 275.

Endsley, Horace F., Texarkana, Tex. Currycomb and brush. No. 1,025,793; May 7; Sp. p. 1499; Gaz. vol. 178; p. 237.

Enell, Otto E., assignor to Buffalo Specialty Company, Buffalo, N. Y. Can-cover loosener. No. 1,027,113; May 21; Sp. p. 4518; Gaz. vol. 178; p. 761.

Engebritson, Edward, F. Yuha, and F. Doebriner, Crosby, N. D. Device for burning weeds on beds of railway-tracks. No. 1,026,026; May 14; Sp. p. 2038; Gaz. vol. 178; p. 351.

Engel, Karl, Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for forming uppers of boots and shoes. No. 1,027,408; May 28; Sp. p. 5119; Gaz. vol. 178; p. 899.

Engelmann, Max, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Disinfecting-soap. No. 1,027,707; May 28; Sp. p. 5724; Gaz. vol. 178; p. 997.

Engi, Gadient, and J. Fröhlich, assignors to Society of Chemical Industry in Basle, Basel, Switzerland. Dyeing and the product thereof. No. 1,026,574; May 14; Sp. p. 3245; Gaz. vol. 178; p. 537.

Engle, Edward, Pittsburg, Kans. Cattle-guard. No. 1,028,007; May 28; Sp. p. 6400; Gaz. vol. 178; p. 1098.

English, Henry C., assignor to J. W. Carter, Jr., Wilmington, Del. Water-heating furnace. No. 1,027,327; May 21; Sp. p. 4945; Gaz. vol. 178; p. 832.

English & Mersick Co., The. (See Pfeghar, Frank P., assignor.)

English, William, Sumner, Ill. Steam-engine. No. 1,025,385; May 7; Sp. p. 624; Gaz. vol. 178; p. 97.

English, William M., Sausalito, Cal. Salt-cellar. No. 1,027,467; May 28; Sp. p. 5232; Gaz. vol. 178; p. 918.

Ensign, Helena A., *et al.*, administrators. (See Strong, Marquis H.)

Enselin, Adolf, North Attleboro, Mass. Safety device. No. 1,025,886; May 7; Sp. p. 625; Gaz. vol. 178; p. 97.

Enterprise Manufacturing Company of Pennsylvania, The. (See Brown, John W., Jr., assignor.)

Eppler, Andrew, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for preparing welts. No. 1,026,306; May 14; Sp. p. 2681; Gaz. vol. 178; p. 448.

Erb, Edmund M., Jersey City, assignor to R. M. Dixon, East Orange, N. J. Sash-locking device. No. 1,025,134; May 7; Sp. p. 51; Gaz. vol. 178; p. 10.

Erbe, Henry C., Java, S. D. Grain or hay deliverer. No. 1,025,794; May 7; Sp. p. 1500; Gaz. vol. 178; p. 237.

Erhardt, Albrecht, Munich, Germany. Photometer. No. 1,027,328; May 21; Sp. p. 4946; Gaz. vol. 178; p. 832.

Erickson, Peter, Chicago, Ill. Shaper-guard. No. 1,025,866; May 7; Sp. p. 1661; Gaz. vol. 178; p. 261.

Eslick, Albert J., Jr., Golden, Colo. Tool-housing. No. 1,028,008; May 28; Sp. p. 6401; Gaz. vol. 178; p. 1098.

Essick, William W., Reading, Pa. Eyeglasses. No. 1,026,386; May 14; Sp. p. 2866; Gaz. vol. 178; p. 475.

Estel, Gottfried A., Jacob, Ill. Well-auger point. No. 1,025,067; May 14; Sp. p. 1917; Gaz. vol. 178; p. 330.

Ette, Charles G., assignor to Ette Investment Company, St. Louis, Mo. Metallic cross-arm for poles. No. 1,027,708; May 28; Sp. p. 5725; Gaz. vol. 178; p. 998.

Ette, Charles G., assignor to Ette Investment Company, St. Louis, Mo. Pole cross-arm. No. 1,027,709; May 28; Sp. p. 5727; Gaz. vol. 178; p. 998.

Ette, Charles G., assignor to Ette Investment Company, St. Louis, Mo. Pole cross-arm. No. 1,027,710; May 28; Sp. p. 5729; Gaz. vol. 178; p. 998.

Ette, Charles G., assignor to Ette Investment Company, St. Louis, Mo. Pole cross-arm. No. 1,027,711; May 28; Sp. p. 5730; Gaz. vol. 178; p. 998.

Ette, Charles G., assignor to Ette Investment Company, St. Louis, Mo. Insulator-supporting device. No. 1,027,712; May 28; Sp. p. 5732; Gaz. vol. 178; p. 999.

Ette Investment Company. (See Ette, Charles G., assignor.)

Etter, William H., Marietta, Ohio. Window-screen. No. 1,026,501; May 14; Sp. p. 3108; Gaz. vol. 178; p. 513.

Etzold, John A., Detroit, Mich. Vehicle-wheel. No. 1,027,409; May 28; Sp. p. 5123; Gaz. vol. 178; p. 899.

Euler, Otto, Jackson, Mich. Automobile-controller. No. 1,025,387; May 7; Sp. p. 627; Gaz. vol. 178; p. 98.

Eureka Amusement Co., The. (See Van Sant and Banker, assignors.)

Evans, Charles E., Weed, Cal. Lumber-jack. No. 1,027,191; May 21; Sp. p. 4670; Gaz. vol. 178; p. 785.

Evans, Frank G., trustee. (See Raymond, George A., assignor.)

Evans, Humphrey, assignor to Holeproof Hosiery Co., Milwaukee, Wis. Trimming-machine. No. 1,025,968; May 14; Sp. p. 1918; Gaz. vol. 178; p. 331.

Ewe, Charles H. (See Ewe, Jennie and C. H.)

Ewe, Jennie and C. H., Racine, Wis. Sharpener attachment for mowers. No. 1,027,114; May 21; Sp. p. 4520; Gaz. vol. 178; p. 761.

Ezard, Jacob H., Hocking, Iowa. Boltless rail-joint. No. 1,026,791; May 21; Sp. p. 3747; Gaz. vol. 178; p. 648.

F. H. Hill Co., The. (See Raymond, Joseph A., assignor.)

Faber, Henry A., Cincinnati, Ohio. Window-screen. No. 1,025,256; May 7; Sp. p. 326; Gaz. vol. 178; p. 53.

Fachs, Henry, New York, N. Y. Cutting-machine. No. 1,025,741; May 7; Sp. p. 1399; Gaz. vol. 178; p. 219.

Fahnestock, David M., Pittsburgh, Pa. Molding apparatus. No. 1,027,115; May 21; Sp. p. 4522; Gaz. vol. 178; p. 761.

Fahnestock, David M., Pittsburgh, Pa. Making molds. No. 1,027,116; May 21; Sp. p. 4527; Gaz. vol. 178; p. 762.

Fahnestock, David M., Pittsburgh, Pa. Molding apparatus. No. 1,027,192; May 21; Sp. p. 4672; Gaz. vol. 178; p. 785.

Fairchild, Oren J., Binghamton, assignor of one-half to W. J. Payne, Candor, N. Y. Expression mechanism for self-playing musical instruments. No. 1,025,795; May 7; Sp. p. 1504; Gaz. vol. 178; p. 238.

Fales, Lewis F., Walpole, Mass. Driving mechanism for pulp-screens. No. 1,026,948; May 21; Sp. p. 4130; Gaz. vol. 178; p. 704.

Faller, Oscar, Munich, Germany, assignor to G. Stroh, Detroit, Mich. Evaporator. No. 1,028,086; May 28; Sp. p. 6579; Gaz. vol. 178; p. 1122.

Fallon, William M. (See Byrd and Fallon.)

Fallows, Edward H. (See Sargent, Fitz William, assignor.)

Fallows, Edward H. (See Thompson, James S., assignor.)

Fancher, Rosman I., Baldwinsville, assignor of one-half to F. L. Fuller, Syracuse, N. Y. Differential gear for automobiles. No. 1,028,009; May 28; Sp. p. 6403; Gaz. vol. 178; p. 1098.

Farbenfabriken vorm. Friedr. Bayer & Co. (See Engelmann, Max, assignor.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Hausdörfer and Heidenreich, assignors.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Heidenreich, Carl, assignor.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Hiemenz and Kropp, assignors.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Hoerlein, Heinrich, assignor.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Kahn and Ossenbeck, assignors.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Merling and Köhler, assignors.)

Farbenfabriken vorm. Friedr. Bayer & Co. (See Ossenbeck and Zart, assignors.)

Farbwerke vorm. Meister Lucius & Brüning. (See Hoffa, Erwin, assignor.)
Farbwerke vorm. Meister Lucius & Brüning. (See Kahn, Robert, assignor.)
Farbwerke vorm. Meister Lucius & Brüning. (See Kränzlein, Georg, assignor.)
Farbwerke vorm. Meister Lucius & Brüning. (See Maag, Rudolf, assignor.)
Farbwerke vorm. Meister Lucius & Brüning. (See Schmidt, Albrecht, assignor.)
Farbwerke vorm. Meister Lucius & Brüning. (See Welde and Homolka, assignors.)
Farley, Cyrus H., Portland, Me. Device for handling plate-glass. No. 1,025,692; May 7; Sp. p. 1295; Gaz. vol. 178; p. 201.
Farr, Jonathan D., Middleton, Ga. Fire-extinguisher. No. 1,026,856; May 21; Sp. p. 3883; Gaz. vol. 178; p. 670.
Farrow, Willard M., Sr. (See Peck and Farrow.)
Farver, Oliver H., Orrville, Ohio. Vehicle-frame. No. 1,027,193; May 21; Sp. p. 4676; Gaz. vol. 178; p. 786.
Faupel, Archibald N., Johnstown, Pa. Eaves-trough. No. 1,026,085; May 14; Sp. p. 2209; Gaz. vol. 178; p. 372.
Fawkes, Emma C. (See Fawkes, Joseph W. and E. C.)
Fawkes, Joseph W. and E. C., Burbank, Cal. Aerial trolley. No. 1,028,010; May 28; Sp. p. 6405; Gaz. vol. 178; p. 1099.
Fay, Alpheus, Louisville, Ky. Aerating butter-separator. No. 1,027,531; May 28; Sp. p. 5359; Gaz. vol. 178; p. 939.
Fee, Louis F., Kokomo, Ind. Filing-cabinet. No. 1,026,792; May 21; Sp. p. 3749; Gaz. vol. 178; p. 648.
Feidt, Joseph, Lunéville, France. System of mechanical transmission. No. 1,025,796; May 7; Sp. p. 1512; Gaz. vol. 178; p. 238.
Feibel, Jacob, New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,026,640; May 14; Sp. p. 3394; Gaz. vol. 178; p. 559.
Fello, Chester J., Chicago, Ill. Rotary engine. No. 1,027,646; May 28; Sp. p. 5587; Gaz. vol. 178; p. 977.
Fello, Harry L. (See Buckman and Fello.)
Fellows, Harry H., Macleay, Oreg. Food-mixer. No. 1,026,259; May 14; Sp. p. 2578; Gaz. vol. 178; p. 432.
Felten & Guilleaume-Lahmeyerwerke Actien Gesellschaft. (See Krämer, Christian, assignor.)
Fenton, Arthello L., Richfield, N. Y. Dough-raiser. No. 1,026,978; May 21; Sp. p. 4180; Gaz. vol. 178; p. 714.
Ferenczy, Lajos, Easton, Pa. Envelop-moistener. No. 1,028,011; May 28; Sp. p. 6407; Gaz. vol. 178; p. 1099.
Ferris, Henry L., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill. Door-hanger track. No. 1,027,713; May 28; Sp. p. 5735; Gaz. vol. 178; p. 999.
Ferris, Henry L., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill. Door-hanger. No. 1,027,714; May 28; Sp. p. 5736; Gaz. vol. 178; p. 999.
Ferris, Henry L., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill. Feed and litter carrier. No. 1,027,715; May 28; Sp. p. 5738; Gaz. vol. 178; p. 1000.
Fesenfeldt, Charles H., *et al.* (See Daven, Michael P., assignor.)
Fesler, Milton A., San Francisco, Cal. Centrifugal oil-burner. No. 1,026,663; May 21; Sp. p. 3464; Gaz. vol. 178; p. 604.
Fesler, Milton A., San Francisco, Cal. Oil-burner. No. 1,026,664; May 21; Sp. p. 3466; Gaz. vol. 178; p. 605.
Fiala, Ludger. (See Lamarre and Fiala.)
Filler, Henry G., Oshawa township, Nicollet county, Minn. Railway-tie. No. 1,025,867; May 7; Sp. p. 1662; Gaz. vol. 178; p. 262.
Finch, John S., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Cloth-presser for sewing-machines. No. 1,025,460; May 7; Sp. p. 790; Gaz. vol. 178; p. 123.
Findig, Albert, *et al.* (See Kenner, William E., assignor.)
Finn, Clarence C., assignor of one-half to J. L. Heath, St. Louis, Mo. Spirit-level. No. 1,027,532; May 28; Sp. p. 5364; Gaz. vol. 178; p. 939.
Finn, Clarence C., assignor of one-half to J. L. Heath, St. Louis, Mo. Spirit-level. No. 1,027,533; May 28; Sp. p. 5367; Gaz. vol. 178; p. 940.
Finnell, Highland T., and E. Schernikow, New York, N. Y. Shock-absorber for vehicles. No. 1,025,388; May 7; Sp. p. 631; Gaz. vol. 178; p. 98.
Fireman, Peter, Washington, D. C., assignor to Magnetic Pigment Company, New York, N. Y. Polishing. No. 1,025,945; May 7; Sp. p. 1873; Gaz. vol. 178; p. 288.
Fireman, Peter, Washington, D. C., assignor to Magnetic Pigment Company, New York, N. Y. Polishing compound. No. 1,025,946; May 7; Sp. p. 1875; Gaz. vol. 178; p. 288.
Firm, Joseph L., Berwyn, assignor to The Goss Printing Press Company, Chicago, Ill. Printing-press. No. 1,025,257; May 7; Sp. p. 328; Gaz. vol. 178; p. 53.
Firm, Joseph L., Berwyn, assignor to The Goss Printing Press Company, Chicago, Ill. Printing-press. No. 1,025,258; May 7; Sp. p. 331; Gaz. vol. 178; p. 54.
Fischbach, Emil, Brooklyn, N. Y. Bedstead. No. 1,027,829; May 28; Sp. p. 5989; Gaz. vol. 178; p. 1039.
Fischer, Joseph L., Appleton, Wis. Priming device. No. 1,026,740; May 21; Sp. p. 3628; Gaz. vol. 178; p. 631.
Fischer, Theodor, Würzburg, Germany. Swing. No. 1,025,797; May 7; Sp. p. 1514; Gaz. vol. 178; p. 239.
Fish, Leander E., Los Angeles, Cal. Fluid-motor. No. 1,025,618; May 7; Sp. p. 1155; Gaz. vol. 178; p. 177.
Fisher, George W., and F. Hoyland, Jr., Jackson, Mich. Switch mechanism. No. 1,027,468; May 28; Sp. p. 5233; Gaz. vol. 178; p. 918.
Fisher, Henry N., Waltham, Mass. Speed-indicator for centrifugal machines. No. 1,025,250; May 7; Sp. p. 334; Gaz. vol. 178; p. 54.
Fisk, Otis H., Cincinnati, Ohio. Adjustable miter-box. No. 1,026,086; May 14; Sp. p. 2210; Gaz. vol. 178; p. 373.
Fitch, Charles G., Indianapolis, Ind. Fluid-beater. No. 1,025,798; May 7; Sp. p. 1514; Gaz. vol. 178; p. 239.
Fitchburg Machine Works. (See Fogarty, George E., assignor.)
Fitchburg Machine Works. (See Mills, Edward L., assignor.)
Fixen, Laura G., Chicago, Ill. Electrolytic apparatus. No. 1,026,857; May 21; Sp. p. 3885; Gaz. vol. 178; p. 670.
Flanders, Warren B., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Means for securing blades. No. 1,026,087; May 14; Sp. p. 2213; Gaz. vol. 178; p. 373.
Flanigan, John V. (See Lord, Lindberg, and Flanigan.)
Flax, Charles. (See Oswald and Flax.)
Flegel, Frederick W., assignor to E. J. Schowalter, Racine, Wis. Toy. No. 1,025,969; May 14; Sp. p. 1920; Gaz. vol. 178; p. 331.
Fletcher, George W., Lima, Ill. Automatic hog and stock watering device. No. 1,025,461; May 7; Sp. p. 791; Gaz. vol. 178; p. 123.
Fletcher, James R., assiguor to The American Hardware Corporation, New Britain, Conn. Door-hinge. No. 1,027,716; May 28; Sp. p. 5739; Gaz. vol. 178; p. 1000.
Fletcher, William M., Binghamton, N. Y. Horseshoe. No. 1,027,410; May 28; Sp. p. 5124; Gaz. vol. 178; p. 899.
Flint, John B., St. Joseph, assignor to The Champion Shoe Machinery Company, St. Louis, Mo. Loose-nailing machine. No. 1,026,027; May 14; Sp. p. 2041; Gaz. vol. 178; p. 351.
Flint, John B., St. Joseph, assignor to The Champion Shoe Machinery Company, St. Louis, Mo. String-nailing machine. No. 1,026,028; May 14; Sp. p. 2047; Gaz. vol. 178; p. 352.
Flodin, Nels P., Marquette, assignor of one-half to J. P. Hodgson, Ishpeming, Mich. Ore-loader. No. 1,026,502; May 14; Sp. p. 3111; Gaz. vol. 178; p. 514.
Flora, Ellsworth E., assignor to Simplex Metal-Bound Box Company, Chicago, Ill. Metal-bound bottle-box. No. 1,027,040; May 21; Sp. p. 4336; Gaz. vol. 178; p. 735.
Flory, Burton P., Middletown, N. Y., assignor to Flory Carry-Iron Company, St. Louis, Mo. Car-draw-bar carry-iron. No. 1,027,194; May 21; Sp. p. 4678; Gaz. vol. 178; p. 786.
Flory Carry-Iron Company. (See Flory, Burton P., assignor.)
Floyd, George S., Granite City, Ill., assignor to American Steel Foundries, New York, N. Y. Car-truck journal-box and oil-cellar. No. 1,026,979; May 21; Sp. p. 4181; Gaz. vol. 178; p. 714.
Flugel, Bernhard J. V. A., London, England. Type-writing machine. No. 1,027,717; May 28; Sp. p. 5739; Gaz. vol. 178; p. 1000.
Flynn, Daniel W. (See Magoon, Edwin C., assignor.)
Flynt, Louis W. G., Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-upper-beading machine. No. 1,027,411; May 28; Sp. p. 5125; Gaz. vol. 178; p. 900.
Flynt, Louis W. G., assignor to Domestic Appliances Company, Rochester, N. Y. Safety device for gas-burners. No. 1,027,534; May 28; Sp. p. 5370; Gaz. vol. 178; p. 940.
Focke, Georg G., Dresden, Germany. Machine for making artificial foliage. No. 1,026,387; May 14; Sp. p. 2868; Gaz. vol. 178; p. 475.
Fogarty, George E., assignor to Fitchburg Machine Works, Fitchburg, Mass. Tool-carrier. No. 1,027,535; May 28; Sp. p. 5373; Gaz. vol. 178; p. 941.
Fogelsong, Olof F., Chicago, Ill. Composition insole. No. 1,027,412; May 28; Sp. p. 5133; Gaz. vol. 178; p. 900.
Fonda, Roy D. (See Waddill and Fonda.)
Foody, James T. (See Davis, Elias V., assignor.)
Foor, Frank E., Indianapolis, Ind. Combination-tool. No. 1,026,347; May 14; Sp. p. 2770; Gaz. vol. 178; p. 463.
Foote, Chester T., assignor to Foote Manufacturing Company, Nunda, N. Y. Mixing-machine. No. 1,025,462; May 7; Sp. p. 792; Gaz. vol. 178; p. 124.
Foote, Chester T., assignor to Foote Manufacturing Company, Nunda, N. Y. Mixing-machine. No. 1,025,907; May 7; Sp. p. 1789; Gaz. vol. 178; p. 275.
Foote Manufacturing Company. (See Foote, Chester T., assignor.)
Foote, Mark A., *et al.* (See Kincaid, Ira, assignor.)
Forbes, Kenneth S. (See Semran and Forbes.)
Ford, John C., Keokuk, Iowa. Skin-treating device. No. 1,027,718; May 28; Sp. p. 5740; Gaz. vol. 178; p. 1000.
Ford, William C., Lawrence, Mass. Key-ring. No. 1,026,348; May 14; Sp. p. 2778; Gaz. vol. 178; p. 463.
Fordon, Alexander A., Detroit, and G. L. Morrison, Hudson, Mich. Butter-dish. No. 1,027,719; May 28; Sp. p. 5741; Gaz. vol. 178; p. 1001.
Forney, Samuel W., Pulaski, Va. Muffler. No. 1,027,469; May 28; Sp. p. 5237; Gaz. vol. 178; p. 919.
Forster Manufacturing Company. (See Forster, Maurice W., assignor.)

Forster, Maurice W., assignor to Forster Manufacturing Company, Dixfield, Me. Packing-machine for toothpicks and the like. No. 1,026,665; May 21; Sp. p. 3467; Gaz. vol. 178; p. 605.
Forsyth, George H., Chicago, Ill. Draw-bar mechanism. No. 1,025,522; May 7; Sp. p. 928; Gaz. vol. 178; p. 144.
Forsyth, James B., assignor to Stone & Forsyth, Boston, Mass. Holder for individual drinking-cups. No. 1,025,909; May 7; Sp. p. 1793; Gaz. vol. 178; p. 276.
Fortunesco, Nicolas J., Paris, France. Non-refillable bottle. No. 1,027,413; May 28; Sp. p. 5134; Gaz. vol. 178; p. 900.
Foss, Oscar F. (See Sperberg, Edward H., assignor.)
Foster, Bertram G., Washington, D. C. Curtain-shade-adjusting means. No. 1,025,565; May 7; Sp. p. 1035; Gaz. vol. 178; p. 160.
Foster, Clarence W., Donora, Pa. Grate. No. 1,028,012; May 28; Sp. p. 6408; Gaz. vol. 178; p. 1099.
Foster, Everette, Wesson, Miss. Wrench. No. 1,027,830; May 28; Sp. p. 5980; Gaz. vol. 178; p. 1039.
Foster, Henry D. (See Whittle and Foster.)
Foster, James F., assignor to The Republic Metalware Company, Buffalo, N. Y. Cover-knob. No. 1,026,307; May 14; Sp. p. 2684; Gaz. vol. 178; p. 449.
Foster, Oliver M., Elkhart, Ind., assignor, by mesne assignments, of one-fifth to S. K. Dickerson, one-fifth to D. R. MacBain, one-fifth to D. C. Moore, Cleveland, Ohio, and one-fifth to C. E. Schaff, Chicago, Ill. Gas or smoke washer. No. 1,026,666; May 21; Sp. p. 3469; Gaz. vol. 178; p. 605.
Foster, Royal L., Fort Riley, Kans. Tire-inflation mechanism. No. 1,026,667; May 21; Sp. p. 3471; Gaz. vol. 178; p. 606.
Foundation Company, The. (See Chambers, Ralph H., assignor.)
Fowler, William R., Baltimore, Md. Vacuum-cleaner. No. 1,027,117; May 21; Sp. p. 4532; Gaz. vol. 178; p. 762.
Fox, Otto, assignor to The Bryant Heater and Manufacturing Company, Cleveland, Ohio. Water-heater. No. 1,025,389; May 7; Sp. p. 632; Gaz. vol. 178; p. 98.
Fox, Thomas A., Newark, N. J., assignor to The Steffens-Amberg Co. Draft-eye for hames. No. 1,025,970; May 14; Sp. p. 1921; Gaz. vol. 178; p. 331.
Fox, William H., Minneapolis, Minn. Water-heater. No. 1,027,831; May 28; Sp. p. 5991; Gaz. vol. 178; p. 1039.
Fraaz, Joseph M. (See Sholes and Fraaz.)
Frame, Robert E., assignor to American Car & Foundry Company, St. Louis, Mo. Tandem-spring draft-rigging. No. 1,026,741; May 21; Sp. p. 3630; Gaz. vol. 178; p. 631.
Frampton, Reynolds C., assignor to Pittsburg Water Heater Company, Pittsburgh, Pa. Burner. No. 1,027,832; May 28; Sp. p. 5995; Gaz. vol. 178; p. 1040.
Frank Adam Electric Company. (See Adam, Fredrick B., assignor.)
Frank, Charles. (See Johnson and Frank.)
Franke, August, Cuero, Tex. Extension burial-casket. No. 1,026,434; May 14; Sp. p. 2968; Gaz. vol. 178; p. 491.
Franklin, Charles W., Leipsic, Ohio. Beet-topping machine. No. 1,025,693; May 7; Sp. p. 1297; Gaz. vol. 178; p. 202.
Frantz, Abram E. (See Frantz, Caroline R., assignor.)
Frantz, Caroline R., assignor to A. E. Frantz, Wilmington, Del. Attaching wall-paper. No. 1,026,793; May 21; Sp. p. 3751; Gaz. vol. 178; p. 649.
Frascoia, Antonio D., El Reno, Okla. Sole-edge trimming and finishing tool. No. 1,025,390; May 7; Sp. p. 636; Gaz. vol. 178; p. 99.
Frazer, Benjamin F., Lafayette, Ala. Plow. No. 1,026,575; May 14; Sp. p. 3247; Gaz. vol. 178; p. 537.
Freborg, Charles, Kankakee, Ill., assignor to Schaeffer Piano Mfg. Company. Pneumatic piano-player. No. 1,025,135; May 7; Sp. p. 54; Gaz. vol. 178; p. 10.
Freeman, Walter K., Oscawana, N. Y. Making cement compounds. No. 1,027,118; May 21; Sp. p. 4534; Gaz. vol. 178; p. 762.
French, Francis J., assignor of one-fourth to W. Towle, one-fourth to J. H. McConkey, and one-eighth to F. B. Kennedy, Cleveland, Ohio. Combination hose-nozzle and sprayer. No. 1,026,742; May 21; Sp. p. 3631; Gaz. vol. 178; p. 631.
French, G. Watson, *et al.* (See Einfeldt, Emil, assignor.)
French, Nathaniel, *et al.* (See Einfeldt, Emil, assignor.)
Frey, John F., Indianapolis, Ind. Semicylindrical stereotype-plate trimmer. No. 1,027,833; May 28; Sp. p. 5996; Gaz. vol. 178; p. 1040.
Frey, Simon, Zurich, Switzerland. Thread-cutting apparatus. No. 1,026,205; May 14; Sp. p. 2464; Gaz. vol. 178; p. 413.
Fricke, Otto, New York, N. Y. Mast for wireless telegraphy. No. 1,026,388; May 14; Sp. p. 2869; Gaz. vol. 178; p. 475.
Frickey, Edward H. (See Williams and Frickey.)
Fried. Krupp Aktiengesellschaft. (See Schilling, Franz W., assignor.)
Fried. Krupp Aktiengesellschaft. (See Wieser and Schwartz, assignors.)
Frieling, August, Langenfeld, Germany. Horticultural forcing-house. No. 1,026,576; May 14; Sp. p. 3248; Gaz. vol. 178; p. 537.
Fritsch, John A., Shermerville, Ill. Machine for planting garlic, set-onions, and the like. No. 1,027,119; May 21; Sp. p. 4536; Gaz. vol. 178; p. 763.
Fröhlich, Jaroslav. (See Engl and Fröhlich.)
Frost, Lorenzo S., Cambridge, Mass. Pipe threading and reaming device. No. 1,026,668; May 21; Sp. p. 3472; Gaz. vol. 178; p. 606.
Frumkin, Srol B., Minsk, Russia. Converter. No. 1,025,260; May 7; Sp. p. 335; Gaz. vol. 178; p. 54.
Fryer, Robert M., New York, N. Y., assignor of one-half to F. B. Colman, Passaic, N. J. Operating internal-combustion engines. No. 1,027,380; May 21; Sp. p. 5053; Gaz. vol. 178; p. 851.
Fuhr, William, New York, N. Y. Bottle-stopper. No. 1,027,195; May 21; Sp. p. 4680; Gaz. vol. 178; p. 787.
Fulde, Charles, New York, N. Y. Baker's drip-pan. No. 1,025,971; May 14; Sp. p. 1923; Gaz. vol. 178; p. 331.
Fulenwider, Vance P., Jonesboro, Ark. Railway-spike. No. 1,025,799; May 7; Sp. p. 1515; Gaz. vol. 178; p. 239.
Fuller, Albert. (See Hiering and Fuller.)
Fuller, Claude V., Newark, N. J. Sanitary telephone-mouthpiece. No. 1,026,503; May 14; Sp. p. 3113; Gaz. vol. 178; p. 514.
Fuller, Frank L. (See Fancher, Rosman I., assignor.)
Fuller, Richard W., Webster township, Woodward county, Okla. Concrete-building apparatus. No. 1,028,013; May 28; Sp. p. 6409; Gaz. vol. 178; p. 1099.
Fuller, Russell B., Evansville, Ind. Box-hinge. No. 1,025,261; May 7; Sp. p. 339; Gaz. vol. 178; p. 55.
Fuller, Willard B., Catasauqua, Pa. Mop. No. 1,025,800; May 7; Sp. p. 1516; Gaz. vol. 178; p. 239.
Fulmer, Charles G., McKeesport, Pa. Testing device. No. 1,027,834; May 28; Sp. p. 5997; Gaz. vol. 178; p. 1040.
Fulmer, James R., Springfield, S. C. Mower. No. 1,025,262; May 7; Sp. p. 340; Gaz. vol. 178; p. 55.
Fulton, Willard A., Sparta, Wis. Separator. No. 1,025,694; May 7; Sp. p. 1299; Gaz. vol. 178; p. 202.
Furber, Frederick M., Revere, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Blacking-machine. No. 1,025,523; May 7; Sp. p. 932; Gaz. vol. 178; p. 145.
G. H. Williams Company, The. (See Williams, Gurdon H., assignor.)
Gaffney, Charles E. (See Pettiford, John R., assignor.)
Gaiser, Charles A., Toledo, Ohio. Lend. No. 1,027,381; May 21; Sp. p. 5055; Gaz. vol. 178; p. 851.
Gale, Henry P., Chicago, Ill. Metal pulley. No. 1,027,835; May 28; Sp. p. 5999; Gaz. vol. 178; p. 1041.
Gallagher, George F. (See Peddy and Gallagher.)
Gallinger, Robert O., Seattle, Wash. Marine railway. No. 1,027,720; May 28; Sp. p. 5742; Gaz. vol. 178; p. 1001.
Gambrel, Walter C., Tabor, Ill. Fence-post. No. 1,027,470; May 28; Sp. p. 5238; Gaz. vol. 178; p. 919.
Gammelgnard, Ove L., assignor to Electric Chain Company, Attleboro, Mass. Connector for neck-chains. No. 1,027,041; May 21; Sp. p. 4338; Gaz. vol. 178; p. 736.
Ganzley, John, Taintor, Iowa. Gate. No. 1,025,910; May 7; Sp. p. 1794; Gaz. vol. 178; p. 276.
Garchey, Louis A., Paris, France. Pneumatic tire for vehicle-wheels. No. 1,026,858; May 21; Sp. p. 3886; Gaz. vol. 178; p. 671.
Gardner, Fred. (See Bauer and Gardner.)
Gardner, Howard S., East Orange, N. J. Chute-closure. No. 1,026,641; May 14; Sp. p. 3398; Gaz. vol. 178; p. 559.
Gardner, Jesse B., Charleston, S. C. Air-brake. No. 1,025,801; May 7; Sp. p. 1518; Gaz. vol. 178; p. 240.
Gardner, Joseph M., Los Angeles, Cal. Draw-bed. No. 1,025,391; May 7; Sp. p. 637; Gaz. vol. 178; p. 99.
Gardner, Norman E., Easton, Pa. Bag-cleaning machine. No. 1,028,014; May 28; Sp. p. 6412; Gaz. vol. 178; p. 1100.
Gardner, Roland, Cleveland, Ohio. Abrading-wheel. No. 1,027,536; May 28; Sp. p. 5375; Gaz. vol. 178; p. 941.
Gaidner, W. H. (See Williams, Ora W., assignor.)
Garner, Ernest P., Drapersville, Va. Plumb-bob. No. 1,026,669; May 21; Sp. p. 3473; Gaz. vol. 178; p. 606.
Garnett, Lemuel E., Chanute, Kans. Railway-signal. No. 1,027,382; May 21; Sp. p. 5057; Gaz. vol. 178; p. 851.
Garrison, Theodore, Hazleton, Pa. Poultry-feeder. No. 1,026,859; May 21; Sp. p. 3888; Gaz. vol. 178; p. 671.
Garrity, George F., Scranton, Pa. Steering-head for vehicles. No. 1,026,504; May 14; Sp. p. 3115; Gaz. vol. 178; p. 514.
Gärtner, Hermann, Lintorf, near Dusseldorf, Germany. Annealing-furnace. No. 1,027,471; May 28; Sp. p. 5239; Gaz. vol. 178; p. 919.
Garvin, George K., and E. J. McClellan, New York, N. Y., assignors to The Garvin Machine Company. Hole-grinding machine. No. 1,026,389; May 14; Sp. p. 2870; Gaz. vol. 178; p. 476.
Garvin Machine Company, The. (See Garvin and McClellan, assignors.)
Garvin Machine Company. (See Seddon, Frederick E., assignor.)
Gasser, Max, Darmstadt, assignor to Aktiengesellschaft Hahn für Optik und Mechanik, Ihringshausen, near Cassel, Germany. Surveying instrument. No. 1,025,911; May 7; Sp. p. 1796; Gaz. vol. 178; p. 276.
Gaus, Wilhelm, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Reducing indigo coloring-matters. No. 1,027,836; May 28; Sp. p. 6000; Gaz. vol. 178; p. 1041.
Gaylor, Charles A., Winchester, Ind. Feed-trough. No. 1,025,392; May 7; Sp. p. 639; Gaz. vol. 178; p. 100.
Gaynor, John F., *et al.* (See Doebler, Hugo, assignor.)

Gebbie, Frank. (See Phelps, Walter J., assignor.)
Geisel, Cristoph J., Mansfield, Ohio. Portable fire-escape. No. 1,025,972; May 14; Sp. p. 1924; Gaz. vol. 178; p. 332.
Gelser Manufacturing Company, The. (See Anderson, Gustaf A., assignor.)
General Electric Company. (See Andrews, William S., assignor.)
General Electric Company. (See Barringer, Lawrence E., assignor.)
General Electric Company. (See Batchelder, Asa F., assignor.)
General Electric Company. (See Coolidge, William D., assignor.)
General Electric Company. (See Cubitt, Archibald S., assignor.)
General Electric Company. (See Curtis, Charles G., assignor.
General Electric Company. (See Hanna, Max R., assignor.)
General Electric Company. (See Hansen, Charles A., assignor.)
General Electric Company. (See Hunter, Matthew A., assignor.)
General Electric Company. (See Kieser, Walter, assignor.)
General Electric Company. (See Krause, Edmund, assignor.)
General Electric Company. (See Lemp, Hermann, assignor.)
General Electric Company. (See Moore, Daniel M., assignor.)
General Electric Company. (See Noeggerath, Jakob E., assignor.)
General Electric Company. (See Parkhurst, Leon F., assignor.)
General Electric Company. (See Pauly, Karl A., assignor.)
General Electric Company. (See Sahlin, Henning G., assignor.)
General Electric Company. (See Seede, John A., assignor.)
General Electric Company. (See Stanley, William, assignor.)
General Electric Company. (See Steinmetz, Charles P., assignor.)
General Electric Company. (See Troy, Matthew O., assignor.)
General Electric Company. (See Vogel, Frederick M., assignor.)
General Electric Company. (See Weintraub, Ezechiel, assignor.)
General Electric Company. See White, Harold E., assignor.)
General Electric Company. (See Whitney, Willis R., assignor.)
General Electric Company. (See Wood, Howard I., assignor.)
General Fireproofing Company, The. (See White, Herbert E., assignor.)
George, James H., New York, N. Y., assignor to National Steel Barrel Company. Metallic barrel. (Reissue.) No. 13,414; May 7; Sp. p. 1895; Gaz. vol. 178; p. 291.
George, John H., assignor to Hawthorne Manufacturing Company, Incorporated, Bridgeport, Conn. Lamp. No. 1,027,196; May 21; Sp. p. 4681; Gaz. vol. 178; p. 787.
George W. Payne Company. (See Gridley, Benjamin, assignor.)
Gerö, John. (See Belley, John, assignor.)
Gerson, Max A., Jersey City, N. J. Safety-clasp for jewelry. No. 1,025,973; May 14; Sp. p. 1926; Gaz. vol. 178; p. 332.
Gesellschaft für Verwertung Technischer Patente mit beschränkter Haftung. (See Dreger, Karl von, assignor.)
Gettelman, Frederick, Milwaukee, Wis. Safety-gage for liquids. No. 1,027,721; May 28; Sp. p. 5744; Gaz. vol. 178; p. 1001.
Gibbs, Angelica, administratrix. (See Gibbs, Lucius T.)
Gibbs, Lucius T., deceased, Hempstead; A. Gibbs, Flushing, N. Y., administratrix, assignor to The Westinghouse Air Brake Company. Pittsburgh, Pa. Car-heating system. No. 1,026,349; May 14; Sp. p. 2779; Gaz. vol. 178; p. 463.
Gibson, Adelbert R., Los Angeles, Cal. Live-bait holder. No. 1,025,695; May 7; Sp. p. 1300; Gaz. vol. 178; p. 202.
Giese, Feliz, Zoppot, and W. Wolters, Ildehausen, Germany. Manufacturing phosphoric-acid compounds. No. 1,025,619; May 7; Sp. p. 1158; Gaz. vol. 178; p. 177.
Gieseke, Otto. (See Rowohlt and Gieseke.)
Giesler, Franklin B., Milwaukee, Wis. Apparatus for treating grain and other materials. No. 1,025,263; May 7; Sp. p. 341; Gaz. vol. 178; p. 55.
Gilbert, Alfred, Birmingham, England. Manifolding device. No. 1,026,308; May 14; Sp. p. 2685; Gaz. vol. 178; p. 449.
Gilbert, Curtis, Anaheim, Cal. Roller towel-rack. No. 1,026,794; May 21; Sp. p. 3752; Gaz. vol. 178; p. 649.
Gilbert, Henry J., Saginaw, Mich. Pulley. No. 1,025,264; May 7; Sp. p. 344; Gaz. vol. 178; p. 56.
Gilbert, Henry J., Saginaw, Mich. Pulley. No. 1,026,795; May 21; Sp. p. 3753; Gaz. vol. 178; p. 649.
Gilbert, Henry J., Saginaw, Mich. Pulley. No. 1,026,796; May 21; Sp. p. 3755; Gaz. vol. 178; p. 650.
Gilbert, Henry J., Saginaw, Mich. Pulley. No. 1,026,797; May 21; Sp. p. 3758; Gaz. vol. 178; p. 650.
Gilbert, Lyman J. (See Hanson and Gilbert.)
Gilbert, Thomas J. (See Woods and Gilbert.)
Gilbertson, Adolph, Hixton, Wis. Manure-carrier. No. 1,026,157; May 14; Sp. p. 2354; Gaz. vol. 178; p. 397.
Gilchrist, Scott. (See Spencer, Francis E., assignor.)
Gill, Edwin R., Yonkers, N. Y. Variable-resistance means. No. 1,026,798; May 21; Sp. p. 3761; Gaz. vol. 178; p. 650.
Gillespie, George W., Seattle, Wash. Combination ice-skate and lawn-mower sharpener. No. 1,025,393; May 7; Sp. p. 640; Gaz. vol. 178; p. 100.
Gillespie, Henry L., *et al.* (See Curran, Harry L., assignor.)
Gilman, Myron A., Westfield, Mass. Garment-hanger. No. 1,027,837; May 28; Sp. p. 6001; Gaz. vol. 178; p. 1041.
Gilowitz, Benjamin, Greenport, N. Y. Non-refillable bottle. No. 1,025,802; May 7; Sp. p. 1520; Gaz. vol. 178; p. 240.
Gipple, Roy E., assignor of one-third to A. A. Klein and one-third to A. G. Beach, Williamsville, N. Y. Bag-holder. No. 1,025,974; May 14; Sp. p. 1927; Gaz. vol. 178; p. 332.
Gisholt Machine Company. (See Schmelzkopf, Edward C., assignor.)
Gladden, Roland L., Gadsden, Ala. Lamp-globe holder. No. 1,028,015; May 28; Sp. p. 6413; Gaz. vol. 178; p. 1100.
Glaser, Adam F., Jersey City, and J. Olsen, Whippany, assignors of one-third to G. W. Crane, Rahway, N. J. Resilient wheel. No. 1,026,505; May 14; Sp. p. 3118; Gaz. vol. 178; p. 515.
Glauber, Joseph H., Cleveland, Ohio. Self-closing faucet. No. 1,027,120; May 21; Sp. p. 4538; Gaz. vol. 178; p. 763.
Glenn, Edmond R., assignor to Western Cabinet and Fixture Manufacturing Company, Kansas City, Mo. Soda-fountain. No. 1,027,472; May 28; Sp. p. 5241; Gaz. vol. 178; p. 919.
Glenn, J. E. (See Robertson, Albert, assignor.)
Glenn, William G., Toronto, Ontario, Canada. Button for tobacco-pipes. No. 1,027,838; May 28; Sp. p. 6002; Gaz. vol. 178; p. 1041.
Glover, Charles and C. Holt, assignors, by mesne assignments, to The American Hardware Corporation, New Britain, Conn. Head-shaping machine. No. 1,027,383; May 21; Sp. p. 5060; Gaz. vol. 178; p. 852.
Goddard, Joseph, and F. F. Dorsey, assignors to Seneca Camera Manufacturing Company, Rochester, N. Y. Roller-blind shutter. No. 1,027,329; May 21; Sp. p. 4948; Gaz. vol. 178; p. 833.
Goebel, Jean, Darmstadt, Germany. Manufacturing perforated tear-off paper and like blocks. No. 1,025,620; May 7; Sp. p. 1159; Gaz. vol. 178; p. 177.
Goebel, Julius C. (See Horst and Goebel.)
Goedike, George G., Cincinnati, assignor to U. S. Lithograph Company, Norwood, Ohio. Lithographic press. No. 1,027,722; May 28; Sp. p. 5745; Gaz. vol. 178; p. 1002.
Goelitz, Gustav A., Kansas City, Mo. Top trim for candy-pails. No. 1,026,435; May 14; Sp. p. 2969; Gaz. vol. 178; p. 491.
Goetzinger, Charles P., assignor of one-half to J. H. Milam and one-fourth to J. W. Thomas, Guthrie, Okla. Rail-joint. No. 1,026,088; May 14; Sp. p. 2214; Gaz. vol. 178; p. 373.
Goff, Samuel B., Camden, N. J. Steamer. No. 1,026,300; May 14; Sp. p. 2873; Gaz. vol. 178; p. 476.
Gogel, Sol, and M. Bernstein, Toronto, Ontario, Canada; said Gogel assignor to said Bernstein. Button. No. 1,027,473; May 28; Sp. p. 5243; Gaz. vol. 178; p. 920.
Golden, George W., Detroit, Mich. Mold. No. 1,027,042; May 21; Sp. p. 4339; Gaz. vol. 178; p. 736.
Goldsmith, Byron B., New York, N. Y. Indurated albuminoid compound. No. 1,027,121; May 21; Sp. 4541; Gaz. vol. 178; p. 763.
Goldsmith, Byron B., New York, N. Y. Indurated casein compound. No. 1,027,122; May 21; Sp. p. 4543; Gaz. vol. 178; p. 763.
Goldsmith, Frederick E., Middletown, assignor to The Ceramic Machinery Company, Hamilton, Ohio. Machine for coating. No. 1,027,414; May 28; Sp. p. 5135; Gaz. vol. 178; p. 901.
Goodman, William T. (See Nelson, Bror A., assignor.)
Goodnow, Russell J., Boston, Mass. Fruit and nut squeezer. No. 1,026,670; May 21; Sp. p. 3476; Gaz. vol. 178; p. 607.
Goodridge, Gilbert W., assignor to The Bryant Electric Company, Bridgeport, Conn. Pendent electric-lamp socket, &c. No. 1,025,742; May 7; Sp. p. 1403; Gaz. vol. 178; p. 210.
Goodrum, Charles L. (See Lattig and Goodrum.)
Goodrum, Charles L., Philadelphia, Pa., assignor, by mesne assignments, to P. C. Burns, Chicago, Ill. Selective electrical signaling system. No. 1,026,029; May 14; Sp. p. 2055; Gaz. vol. 178; p. 352.
Goodspeed, Leland F., Milwaukee, Wis., assignor of one-half to H. H. Westinghouse, New York, N. Y. Fluid-pressure control device. (Reissue.) No. 13,417; May 14; Sp. p. 3418; Gaz. vol. 178; p. 563.
Goodwin Car Company. (See Goodwin, Edward W., assignor.)
Goodwin, Edward W., New York, N. Y., assignor to Goodwin Car Company, Chicago, Ill. Drop-door-operating mechanism for dumping-cars. No. 1,027,197; May 21; Sp. p. 4682; Gaz. vol. 178; p. 787.

Goodwin, John M., Spokane, Wash. Dumping-car-valve-operating mechanism. No. 1,027,198; May 21; Sp. p. 4686; Gaz. vol. 178; p. 787.
Goodwin, Waldmar O., Salina, Kans. Post-hole digger. No. 1,027,199; May 21; Sp. p. 4688; Gaz. vol. 178; p. 788.
Goodyear, Nelson. (See Earle, Reginald W., assignor.)
Gordon, John C., North Woodstock, N. H. Folding box. No. 1,027,200; May 21; Sp. p. 4694; Gaz. vol. 178; p. 789.
Gordon, Peter J. (See Shackleford, Gordon, and McMillen.)
Goreau, Nelson G., New Orleans, La. Water-heater. No. 1,026,030; May 14; Sp. p. 2059; Gaz. vol. 178; p. 353.
Goss Printing Press Company, The. (See Cox, Paul F., assignor.)
Goss Printing Press Company, The. (See Firm, Joseph L., assignor.)
Goss Printing Press Company, The. (See Schroeder, Hans C., assignor.)
Goss Printing Press Company. (See Seymour, Ralph C., assignor.)
Gottschalck, Emil, assignor to Electric Export-Werke, G. m. b. H., Berlin, Germany. Portable electric lamp. No. 1,025,394; May 7; Sp. p. 642; Gaz. vol. 178; p. 100.
Gottwald, Adolf, Chicago, Ill. Metallic rod-packing. No. 1,027,043; May 21; Sp. p. 4340; Gaz. vol. 178; p. 736.
Gougeon, Joseph, Baltic, Mich. Rotary engine. No. 1,025,975; May 14; Sp. p. 1928; Gaz. vol. 178; p. 332.
Grady, Bart E., Philadelphia, Pa. Refrigerator. No. 1,026,790; May 21; Sp. p. 3764; Gaz. vol. 178; p. 651.
Graf, Heinrich, Bielefeld, Germany. Changeable-pin disk for mechanical music-boxes. No. 1,027,245; May 21; Sp. p. 4780; Gaz. vol. 178; p. 805.
Graham, Elmer E., Erie, Pa. Automatic valve. No. 1,027,839; May 28; Sp. p. 6003; Gaz. vol. 178; p. 1042.
Graham, William H., Pittsburgh, Pa. Elevator safety device. No. 1,027,840; May 28; Sp. p. 6005; Gaz. vol. 178; p. 1042.
Granger, Amédée, New Orleans, La. X-ray finder. No. 1,026,158; May 14; Sp. p. 2355; Gaz. vol. 178; p. 398.
Grannis, William P., Kendallville, Ind. Fence-anchor. No. 1,027,123; May 21; Sp. p. 4545; Gaz. vol. 178; p. 764.
Granville, Bernard, New York, N. Y., assignor to National Fibre Products Company. Implement for obtaining samples from peat-bogs and other purposes. No. 1,027,246; May 21; Sp. p. 4782; Gaz. vol. 178; p. 805.
Graves, Fred B., *et al.* (See Kay, Samuel P., assignor.)
Gray, Alexander M., Milwaukee, Wis., assignor to Allis-Chalmers Company. Motor-control system. No. 1,027,415; May 28; Sp. p. 5136; Gaz. vol. 178; p. 901.
Gray, Charles F., Sierra Madre, Cal., assignor to The Singer Manufacturing Company. Stay-guide for sewing-machines. No. 1,025,463; May 7; Sp. p. 796; Gaz. vol. 178; p. 124.
Gray, Christopher C. and M., Anderson, Ind. Hardy attachment for anvils. No. 1,028,016; May 28; Sp. p. 6414; Gaz. vol. 178; p. 1100.
Gray, George, Sleeton, S. D. Tire. No. 1,027,247; May 21; Sp. p. 4784; Gaz. vol. 178; p. 805.
Gray, Mike. (See Gray, Christopher C. and M.)
Green, Warren L., New York, N. Y. Printing-machine. No. 1,027,384; May 21; Sp. p. 5061; Gaz. vol. 178; p. 852.
Green, William F., Modesto, Cal. Gas-separator. No. 1,025,696; May 7; Sp. p. 1303; Gaz. vol. 178; p. 203.
Greenbaum, Jules, Berlin, Germany, assignor to Raleigh & Robert, Paris, France. Film and method of synchronizing the operation of kinematographs and talking-machines. No. 1,027,248; May 21; Sp. p. 4785; Gaz. vol. 178; p. 806.
Greenbaum, Leo, New York, N. Y. Denture. No. 1,028,017; May 28; Sp. p. 6415; Gaz. vol. 178; p. 1101.
Greene, Augustine E., Hartford, Conn. Machine for grinding balls. No. 1,026,350; May 14; Sp. p. 2782; Gaz. vol. 178; p. 464.
Greene, Augustine E., Hartford, Conn. Grinding balls. No. 1,026,351; May 14; Sp. p. 2792; Gaz. vol. 178; p. 464.
Greene, Frank C. (See Greene, Oscar V., assignor.)
Greene, Oscar V., assignor to F. C. Greene, Cleveland, Ohio. Retarding device. No. 1,026,626; May 14; Sp. p. 3364; Gaz. vol. 178; p. 554.
Gregg, Norris B., St. Louis, Mo. Device for preparing surfaces to be painted. No. 1,026,436; May 14; Sp. p. 2971; Gaz. vol. 178; p. 492.
Gressett, Lawrence F., Ballinger, Tex. Insulator and support. No. 1,027,601; May 28; Sp. p. 5506; Gaz. vol. 178; p. 963.
Gridley, Benjamin, assignor to G. W. Payne Company, Pawtucket, R. I. Belt-gearing for winding-machines. No. 1,025,868; May 7; Sp. p. 1664; Gaz. vol. 178; p. 262.
Griessmann, Franz A., Berlin, Germany, assignor to T. P. Kingsford and V. K. Higgins, Oswego, N. Y. Automatic balancing device for centrifugal pumps, turbines, and the like. No. 1,025,621; May 7; Sp. p. 1160; Gaz. vol. 178; p. 178.
Griffin, Joseph. (See McKeel and Griffin.)
Griffith, Asa W., Youngstown, Ohio. Hotbed. No. 1,027,124; May 21; Sp. p. 4546; Gaz. vol. 178; p. 764.
Griffith, Watkin M. (See McIntyre, John, assignor.)
Griggs, Stephen A., trustee. (See Darby, Clifford T., assignor.)
Grigsby, Rosa W., *et al.*, heirs-at-law. (See Webb, Samuel J.)
Grindle, Emanuel M., Holton, Kans. Cheek-distender. No. 1,025,265; May 7; Sp. p. 346; Gaz. vol. 178; p. 56.
Griswold, Harrison, New York, N. Y. Dasher for freezers, churns, &c. No. 1,027,416; May 28; Sp. p. 5138; Gaz. vol. 178; p. 901.
Grossmann, Jacob, Manchester, England. Treatment of sewage-sludge. No. 1,025,622; May 7; Sp. p. 1163; Gaz. vol. 178; p. 179.
Grotenhuis, William J., assignor to Cushion-Corner Bed Spring Co., Chicago, Ill. Bed-bottom support. No. 1,026,031; May 14; Sp. p. 2061; Gaz. vol. 178; p. 353.
Gruenberg, Raoul J., San Francisco, Cal. Box-handle. No. 1,027,385; May 21; Sp. p. 5072; Gaz. vol. 178; p. 853.
Grumman, Victor W., Zanesville, Ohio. Molding-machine. No. 1,025,136; May 7; Sp. p. 56; Gaz. vol. 178; p. 10.
Grun, Willibald, Frankfort-on-the-Main, Germany. Turbine-blade. No. 1,027,201; May 21; Sp. p. 4605; Gaz. vol. 178; p. 789.
Gruss, Lucien R., assignor to Auto-Compressed-Air Wheel Company, Chico, Cal. Vehicle-wheel. No. 1,027,647; May 28; Sp. p. 5592; Gaz. vol. 178; p. 977.
Gruss, William J., and D. C. Demarest, San Francisco, Cal. Regrinder. No. 1,025,185; May 7; Sp. p. 169; Gaz. vol. 178; p. 28.
Guay, Felix, Michigamme, Mich. Boiler. No. 1,026,800; May 21; Sp. p. 3765; Gaz. vol. 178; p. 651.
Gubrud, Adolph P., Hudson, S. D. Open moldboard for plows. No. 1,027,044; May 21; Sp. p. 4342; Gaz. vol. 178; p. 737.
Guldinger, Louis E., Rolling Stone, Minn. Quack-grass digger. No. 1,027,125; May 21; Sp. p. 4549; Gaz. vol. 178; p. 764.
Gulbrantson, Peder M., assignor of one-fourth to K. Haglund and one-fourth to A. Haglund, Rockford, Ill. Street-indicator for cars. No. 1,026,980; May 21; Sp. p. 4184; Gaz. vol. 178; p. 714.
Gulliford, Roy T., West Nottingham, Ohio. Variable-throw mechanism for automatic machines. No. 1,025,976; May 14; Sp. p. 1931; Gaz. vol. 178; p. 333.
Gustafson, John, New York, N. Y. Clutch. No. 1,026,437; May 14; Sp. p. 2971; Gaz. vol. 178; p. 492.
Guthman, Ell A., New York, N. Y. Shoe-buckle. No. 1,025,743; May 7; Sp. p. 1404; Gaz. vol. 178; p. 220.
Guthrie, Edwin, Washington, D. C. Engine-starter. No. 1,027,648; May 28; Sp. p. 5599; Gaz. vol. 178; p. 978.
Guthrie, Eugene P., Oklahoma, Okla. Telephone-bracket. No. 1,026,260; May 14; Sp. p. 2580; Gaz. vol. 178; p. 432.
Gutta Percha & Rubber Manufacturing Co., The. (See Bolton, Andrew C., assignor.)
Gyorffy, Louis, Alliance, Ohio. Elevator safety device. No. 1,026,159; May 14; Sp. p. 2357; Gaz. vol. 178; p. 398.
H. Mueller Manufacturing Co. (See Mueller, Philip, assignor.)
H. L. Judd Company. (See Lathrop and Spokes, assignors.)
Haag, Robert H., Louisville, Ky. Monoplane. No. 1,025,912; May 7; Sp. p. 1799; Gaz. vol. 178; p. 277.
Haase, Leo G., Pasadena, Cal. Concrete lamp-post. No. 1,026,801; May 21; Sp. p. 3766; Gaz. vol. 178; p. 652.
Haase, Leo G., Pasadena, Cal. Individual concrete sign. No. 1,028,018; May 28; Sp. p. 6417; Gaz. vol. 178; p. 1101.
Hackett, James, Port Costa, Cal. Water-gage. No. 1,026,309; May 14; Sp. p. 2686; Gaz. vol. 178; p. 449.
Hadaway, John B., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating on the sole edges of boots and shoes. No. 1,026,032; May 14; Sp. p. 2062; Gaz. vol. 178; p. 353.
Hadaway, John B., Swampscott, and J. V. Allen, South Weymouth, Mass., assignors to United Shoe Machinery Company, Paterson, N. J. Machine for operating on the sole edges of boots and shoes. No. 1,026,033; May 14; Sp. p. 2064; Gaz. vol. 178; p. 354.
Haddow, William, Ossining, N. Y. Soap cake. No. 1,026,438; May 14; Sp. p. 2973; Gaz. vol. 178; p. 492.
Haddow, William, Ossining, N. Y. Soap-dispensing machine. No. 1,026,644; May 14; Sp. p. 3409; Gaz. vol. 178; p. 561.
Hadka, Joseph, Chicago, Ill. Automobile-fender. No. 1,026,981; May 21; Sp. p. 4186; Gaz. vol. 178; p. 715.
Hager, Harry. (See Hedfeldt and Hager.)
Hager, John E., and R. H. Porteous, New York, N. Y. Pencil-sharpener. No. 1,026,671; May 21; Sp. p. 3477; Gaz. vol. 178; p. 607.
Haggard, Robert A. (See Hampton, William F. and C. W., assignors.)
Haglund, Anton, *et al.* (See Gulbrantson, Peder M., assignor.)
Haglund, Karl, *et al.* (See Gulbrantson, Peder M., assignor.)
Hagmann, John G., assignor of one-half to G. M. Heath, La Crosse, Wis. Wheat-heater. No. 1,026,743; May 21; Sp. p. 3632; Gaz. vol. 178; p. 631.
Hahl Automatic Clock Company. (See Hale, Charles B., assignor.)
Hähnle, Carl K., Reutlingen, Germany. Producing paper-pulp from old paper. No. 1,026,577; May 14; Sp. p. 3249; Gaz. vol. 178; p. 537.

Haines, Lewis A., Columbus, Ohio. Thermodynamic motor. No. 1,025,869; May 7; Sp. p. 1666; Gaz. vol. 178; p. 262.

Haldeman, Charles F., assignor to The Silver Manufacturing Company, Salem, Ohio. Feed-cutter. No. 1,027,537; May 28; Sp. p. 5377; Gaz. vol. 178; p. 942.

Hale, Alfred T. C. (See Bates and Hale.)

Hale, Arthur, New York, N. Y. Slipper with removable counter. No. 1,027,249; May 21; Sp. p. 4786; Gaz. vol. 178; p. 806.

Hale, Charles B., assignor to Hahl Automatic Clock Company, Chicago, Ill. Program-clock. No. 1,027,202; May 21; Sp. p. 4696; Gaz. vol. 178; p. 789.

Hall, Frank, Fairbury, assignor to King & Hamilton Company, Ottawa, Ill. Cleaning apparatus for corn-shellers, &c. (Reissue.) No. 13,418; May 14; Sp. p. 3421; Gaz. vol. 178; p. 564.

Hall, James B., Cleveland, Ohio. Grease-cup. No. 1,027,538; May 28; Sp. p. 5378; Gaz. vol. 178; p. 942.

Hall, Jay H., assignor to The Electric Controller and Manufacturing Company, Cleveland, Ohio. Safety device for electric hoists. No. 1,027,126; May 21; Sp. p. 4551; Gaz. vol. 178; p. 765.

Hall, Oliver W., San Jose, Cal. Pipe-wrench. No. 1,026,802; May 21; Sp. p. 3768; Gaz. vol. 178; p. 652.

Hall Printing Press Company. (See White, Joseph, assignor.)

Hall Signal Company, The. (See Coleman, Clyde J., assignor.)

Hall, Vernon P. (See Briggs and Hall.)

Hall, Vernon W., Portland, Me. Game apparatus. No. 1,027,539; May 28; Sp. p. 5379; Gaz. vol. 178; p. 942.

Hallen, Ludwig, Evanston, Ill. Infant's posing-chair. No. 1,025,953; May 7; Sp. p. 1887; Gaz. vol. 178; p. 290.

Hallsted, John A., Cincinnati, Ohio. Seal. No. 1,025,870; May 7; Sp. p. 1683; Gaz. vol. 178; p. 263.

Halverstadt, Leroy, Leetonia, Ohio. Wrench. No. 1,027,203; May 21; Sp. p. 4704; Gaz. vol. 178; p. 790.

Hamblin, George N. (See Hamblin, Stephen M. and G. N.)

Hamblin, Stephen M. and G. N., Canton; said G. N. Hamblin assignor of one-half of his right to G. E. Close, Cambridge, Mass. Candy-wrapping machine. No. 1,025,524; May 7; Sp. p. 939; Gaz. vol. 178; p. 145.

Hamel, Louis C., assignor of one-half to W. H. Killen, Appleton, Wis. Windmill-coupling. No. 1,026,352; May 14; Sp. p. 2798; Gaz. vol. 178; p. 464.

Hamill, George W., Baltimore, Md. Pipe. No. 1,025,623; May 7; Sp. p. 1166; Gaz. vol. 178; p. 179.

Hamilton, Abram S., Nanaimo, British Columbia, Canada. Portable detonator-magazine. No. 1,026,860; May 21; Sp. p. 3889; Gaz. vol. 178; p. 671.

Hamilton, Charles A., assignor of one-half to J. Broehl, Pana, Ill. Display-cabinet. No. 1,027,723; May 28; Sp. p. 5748; Gaz. vol. 178; p. 1002.

Hamilton, David, Greensburg, Pa. Burner. No. 1,026,982; May 21; Sp. p. 4189; Gaz. vol. 178; p. 715.

Hamilton, Ezra M., Willow Springs, Cal. Wave-motor. No. 1,025,395; May 7; Sp. p. 643; Gaz. vol. 178; p. 100.

Hamilton, Ezra M., Willow Springs, Cal. Automobile-tire. No. 1,026,803; May 21; Sp. p. 3769; Gaz. vol. 178; p. 652.

Hamilton, John R., Yonkers, N. Y., assignor to Venturi Alarm Company, Dover, N. J. Sprinkler-alarm apparatus. No. 1,026,439; May 14; Sp. p. 2974; Gaz. vol. 178; p. 492.

Hamilton, Lee, Le Claire, Iowa. Elevator safety device. No. 1,025,871; May 7; Sp. p. 1684; Gaz. vol. 178; p. 263.

Hamilton, William J., Alliance, Nebr. Fly-trap. No. 1,027,602; May 28; Sp. p. 5507; Gaz. vol. 178; p. 963.

Hamley, John G., London, England. Toy or amusement device. No. 1,028,068; May 28; Sp. p. 6536; Gaz. vol. 178; p. 1116.

Hamm, William S., Hubbard Woods, and F. A. Schuetz, assignors to The Adams & Westlake Company, Chicago, Ill. Lantern. No. 1,025,624; May 7; Sp. p. 1167; Gaz. vol. 178; p. 179.

Hamm, William S., Hubbard Woods, and F. A. Schuetz, assignors to The Adams & Westlake Company, Chicago, Ill. Lantern. No. 1,025,625; May 7; Sp. p. 1168; Gaz. vol. 178; p. 179.

Hammer, Charles, assignor to American Metal Cap Company, Brooklyn, N. Y. Bottle cap or seal. No. 1,027,330; May 21; Sp. p. 4950; Gaz. vol. 178; p. 833.

Hammond, Ernest S., Valley Junction, Iowa. Cooler for hot boxes for railway-cars. No. 1,025,947; May 7; Sp. p. 1876; Gaz. vol. 178; p. 288.

Hammond, George O., Watertown, N. Y., assignor to The New York Air Brake Company. Pressure-retaining valve. No. 1,026,311; May 14; Sp. p. 2689; Gaz. vol. 178; p. 450.

Hammond, George O., and J. A. Barnes, Watertown, N. Y., assignors to The New York Air Brake Company. Pressure-retaining device. No. 1,026,310; May 14; Sp. p. 2687; Gaz. vol. 178; p. 449.

Hammond Iron Works. (See Hammond, William, assignor.)

Hammond, Isaac B., Portland, Oreg. Changeable-speed friction transmission mechanism. No. 1,028,019; May 28; Sp. p. 6418; Gaz. vol. 178; p. 1101.

Hammond, James, assignor of one-third to J. Williams, Moundsville, W. Va. Envelop-moistening device. No. 1,027,204; May 21; Sp. p. 4705; Gaz. vol. 178; p. 790.

Hammond, William, assignor to Hammond Iron Works, Warren, Pa. Pulp-agitator. No. 1,026,578; May 14; Sp. p. 3250; Gaz. vol. 178; p. 537.

Hampden Watch Company, The. (See Corey, Varian S., assignor.)

Hampton, Charles W. (See Hampton, William F. and C. W.)

Hampton, William F. and C. W., assignors of one-third to R. A. Haggard, Waynesboro, Tenn. Rail. No. 1,025,913; May 7; Sp. p. 1801; Gaz. vol. 178; p. 277.

Hamrick, Porter S., Wausau, Wis. Cock and faucet. No. 1,027,474; May 28; Sp. p. 5244; Gaz. vol. 178; p. 920.

Hancock, Jesse C. (See Madden, Thomas E., assignor.)

Hanel, Frank A., Los Angeles, Cal. Baker's peel. No. 1,026,034; May 14; Sp. p. 2069; Gaz. vol. 178; p. 354.

Haney, Edwin H., French Camp, assignor to Haney Fire Apparatus Co., Stockton, Cal. Fire-escape. No. 1,027,724; May 28; Sp. p. 5750; Gaz. vol. 178; p. 1002.

Haney Fire Apparatus Co. (See Haney, Edwin H., assignor.)

Hanlon, John J., *et al.* (See Merkel, Lewis W., assignor.)

Hanna, Max R., Schenectady, N. Y., assignor to General Electric Company. Voltage transformation. No. 1,026,391; May 14; Sp. p. 2876; Gaz. vol. 178; p. 477.

Hannibal, Arnt C., Chicago, Ill. Fusible link for automatic sprinklers. No. 1,026,440; May 14; Sp. p. 2970; Gaz. vol. 178; p. 493.

Hansen, August J., Walnut, Iowa. Road-grader. No. 1,027,725; May 28; Sp. p. 5752; Gaz. vol. 178; p. 1002.

Hansen, Charles A., Schenectady, N. Y., assignor to General Electric Company. Incandescent-lamp filament. No. 1,026,392; May 14; Sp. p. 2878; Gaz. vol. 178; p. 477.

Hansen, Frederico, Buenos Aires, Argentina, assignor, by mesne assignments, to Avery Company. Feeding mechanism for threshing-machines. No. 1,026,261; May 14; Sp. p. 2581; Gaz. vol. 178; p. 432.

Hansen, William A., San Francisco, Cal. Gas-engine-starting device. No. 1,027,649; May 28; Sp. p. 5600; Gaz. vol. 178; p. 978.

Hansmann Manufacturing Company. (See Hansmann, Paul, assignor.)

Hansmann, Paul, assignor to Hansmann Manufacturing Company, Long Prairie, Minn. Adjustable steering mechanism. No. 1,026,312; May 14; Sp. p. 2691; Gaz. vol. 178; p. 450.

Hanson, Adolf K., assignor to The Machinery & Specialty Company, Milwaukee, Wis. Honing and stropping device. No. 1,027,045; May 21; Sp. p. 4343; Gaz. vol. 178; p. 737.

Hanson, Albertus E., Mason City, Iowa. Ditching-machine and tile-distributer. No. 1,026,672; May 21; Sp. p. 3478; Gaz. vol. 178; p. 607.

Hanson, Bartin N., Chicago, Ill. Folding organ. No. 1,027,475; May 28; Sp. p. 5245; Gaz. vol. 178; p. 920.

Hanson, Hans C., assignor to American Gas Machine Company. Albert Lea, Minn. Gasolene-generator. No. 1,027,650; May 28; Sp. p. 5602; Gaz. vol. 178; p. 978.

Hanson, Olaf J., and L. J. Gilbert, Sioux Falls, S. D. Detachable grip-handle. No. 1,027,726; May 28; Sp. p. 5755; Gaz. vol. 178; p. 1003.

Harbeck, Jervis R., assignor, by mesne assignments, to Detroit Can Company, Detroit, Mich. Forming a vapor-proof material. No. 1,027,727; May 28; Sp. p. 5756; Gaz. vol. 178; p. 1003.

Harbottle, William E., Sunbury, Ohio. Screen and screen fabric. No. 1,027,476; May 28; Sp. p. 5247; Gaz. vol. 178; p. 920.

Hard, Charles T., East Liverpool, Ohio. Adjustable support for books, papers, &c. No. 1,026,506; May 14; Sp. p. 3120; Gaz. vol. 178; p. 515.

Hardt, Tyson T., Bluemont, Va. Reversible harrow. No. 1,026,912; May 21; Sp. p. 4025; Gaz. vol. 178; p. 690.

Hare, Sidney J., Kansas City, Mo. Synchronical indicator or index for books, card systems, and records. No. 1,026,804; May 21; Sp. p. 3770; Gaz. vol. 178; p. 652.

Hargis, Harry W., Monroe, N. C., assignor of one-fifth to C. R. Capps, one-fifth to C. B. Ryan, one-fifth to W. L. McMorris, and one-fifth to E. D. Jordan, Portsmouth, Va. Ticket-cutter. No. 1,027,331; May 21; Sp. p. 4952; Gaz. vol. 178; p. 833.

Harkness, William E., East Orange, N. J., assignor to Western Electric Company, Chicago, Ill. Indicating ringing-key. No. 1,026,160; May 14; Sp. p. 2358; Gaz. vol. 178; p. 398.

Harman, Daniel M., Philadelphia, Pa. Chair. No. 1,025,266; May 7; Sp. p. 347; Gaz. vol. 178; p. 56.

Harmer, Harry E., and W. M. Wyllie, Calgary, Alberta, Canada. Tool for bending pipe. No. 1,026,353; May 14; Sp. p. 2800; Gaz. vol. 178; p. 465.

Harrington, John L., Kansas City, Mo. Lift-bridge. No. 1,027,477; May 28; Sp. p. 5248; Gaz. vol. 178; p. 921.

Harrington, John L., Kansas City, Mo. Lift-bridge. No. 1,027,478; May 28; Sp. p. 5251; Gaz. vol. 178; p. 921.

Harrington, Joseph. (See Poppenhusen and Harrington.)

Harris, Allen S., Rich Hill, Ohio. Saw-setting device. No. 1,028,088; May 28; Sp. p. 6585; Gaz. vol. 178; p. 1123.

Harris, Clifford T. (See Withers and Harris.)

Harris, Edward A. (See Dunnebacke and Harris.)

Hart, Harry S., assignor to Wolff Truck Frame Company, Chicago, Ill. Truck-frame. No. 1,026,744; May 21; Sp. p. 3634; Gaz. vol. 178; p. 632.

Hart, Stacy B., Peoria, Ill. Broadcast seeder. No. 1,026,313; May 14; Sp. p. 2693; Gaz. vol. 178; p. 451.

Hart, William J., Mount Vernon, assignor to C. F. Splitdorf, New York, N. Y. Breaker-box for ignition systems. No. 1,025,566; May 7; Sp. p. 1037; Gaz. vol. 178; p. 160.

Hartford Machine Screw Company, The. (See Pearson and Seward, assignors.)

Hartley, James, Philadelphia, Pa. Burglar and fire alarm. No. 1,026,393; May 14; Sp. p. 2879; Gaz. vol. 178; p. 477.

Hartley, John W. (See Lunt and Hartley.)

Hartman, Charles, Bucyrus, Ohio. Shipping-case. No. 1,028,020; May 28; Sp. p. 6421; Gaz. vol. 178; p. 1102.

Hartman, Charles, Bucyrus, Ohio. Hinge. No. 1,028,021; May 28; Sp. p. 6423; Gaz. vol. 178; p. 1102.

Hartman Trunk Company, The. (See Wheary, George H., assignor.)

Hartmann, William C., assignor to Milwaukee Separator Company, Milwaukee, Wis. Starting device for explosive-engines. No. 1,026,314; May 14; Sp. p. 2698; Gaz. vol. 178; p. 451.

Hartung, Carl A., Berlin, Germany. Device for measuring fluid. No. 1,027,250; May 21; Sp. p. 4787; Gaz. vol. 178; p. 806.

Harvey, Frank H., Dorrance, Kans. Self-filling fountain-pen. No. 1,027,127; May 21; Sp. p. 4554; Gaz. vol. 178; p. 765.

Harvey, Herbert A. (See Poore and Harvey.)

Hartzell, Walter V. (See Morgan and Hartzell.)

Hasburg, John W., Chicago, Ill. Paint-mixing apparatus. No. 1,025,396; May 7; Sp. p. 644; Gaz. vol. 178; p. 101.

Haskell, Henry L., Ludington, Mich. Figure toy. No. 1,026,861; May 21; Sp. p. 3891; Gaz. vol. 178; p. 672.

Haskell, Luther D., Essex, assignor to A. R. MacKusick, Boston, Mass. Bowling-alley. No. 1,026,949; May 21; Sp. p. 4131; Gaz. vol. 178; p. 704.

Hasty, Charles E., assignor to Hasty Manufacturing Company, Elgin, Ill. Automatically-operable pressure-regulating valve and mechanism therefor. No. 1,026,262; May 14; Sp. p. 2583; Gaz. vol. 178; p. 433.

Hasty Manufacturing Company. (See Hasty, Charles E., assignor.)

Hatch, Chauncy R. (See Hoffmann, Otto C., assignor.)

Hatmaker, James R., Paris, France. Preserving animal tissues and the products obtained thereby. No. 1,027,128; May 21; Sp. p. 4555; Gaz. vol. 178; p. 765.

Hatsel, George L., *et al.* (See Henning, John, assignor.)

Hauke, Charles R., Rossfork, Idaho. Engineer's slope-rod. No. 1,026,579; May 14; Sp. p. 3255; Gaz. vol. 178; p. 538.

Hausdörfer, Arthur, Elberfeld, and C. Heidenreich, Leverkusen, near Cologne, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Dye of the triphenylmethane series. No. 1,026,089; May 14; Sp. p. 2215; Gaz. vol. 178; p. 374.

Hausler, Simon, San Francisco, Cal. Music-leaf turner. No. 1,026,950; May 21; Sp. p. 4133; Gaz. vol. 178; p. 704.

Hausmann, Bernard, San Francisco, Cal. Casement-window. No. 1,026,161; May 14; Sp. p. 2361; Gaz. vol. 178; p. 399.

Hawkins, Alda F., Dallas, Tex., assignor to The Searchlight Gas Company, Warren, Ohio. Hydraulic fluid-compressor. No. 1,027,386; May 21; Sp. p. 5072; Gaz. vol. 178; p. 853.

Hawkins, Laurence A., Schenectady, N. Y., assignor, by mesne assignments, to Union Switch and Signal Company. Block-signal system. No. 1,027,046; May 21; Sp. p. 4346; Gaz. vol. 178; p. 737.

Hawkins, Laurence A., Schenectady, N. Y., assignor, by mesne assignments, to Union Switch and Signal Company. Automatic train-stop. No. 1,027,047; May 21; Sp. p. 4348; Gaz. vol. 178; p. 738.

Hawkins, Laurence A., Schenectady, N. Y., assignor, by mesne assignments, to Union Switch and Signal Company. Electric motor. No. 1,027,048; May 21; Sp. p. 4350; Gaz. vol. 178; p. 738.

Hawthorne Manufacturing Company. (See George, John H., assignor.)

Hay, John, Junction City, Kans. Turbine water-wheel. No. 1,026,580; May 14; Sp. p. 3257; Gaz. vol. 178; p. 538.

Hayes, Robert D., New Haven, assignor to W. B. McCarthy, Milford, Conn. Head for polo-clubs. No. 1,026,581; May 14; Sp. p. 3260; Gaz. vol. 178; p. 539.

Haynes, Charles M., Chillicothe, Ohio. Repair device for eyeglasses and spectacles. No. 1,027,417; May 28; Sp. p. 5140; Gaz. vol. 178; p. 902.

Haynie, Amzi F. (See Lance, Andrew M., assignor.)

Hays, Athol B., assignor of one-half to F. A. Hays, Wolf Butte, N. D. Lever-harrow. No. 1,026,394; May 14; Sp. p. 2881; Gaz. vol. 178; p. 478.

Hays, Frank A. (See Hays, Athol B., assignor.)

Hays, James T. and T. C., Emmitsburg, Md. Acetylene-gas generator. No. 1,026,507; May 14; Sp. p. 3121; Gaz. vol. 178; p. 515.

Hays, Thomas C. (See Hays, James T. and T. C.)

Hazard, Frederick J. H., assignor of one-half to William Coulter & Sons, Toronto, Ontario, Canada. Pneumatic-despatch system. No. 1,025,803; May 7; Sp. p. 1521; Gaz. vol. 178; p. 240.

Hazel-Atlas Glass Company. (See Bellamy, John B., assignor.)

Hazelrigg, Ross, Oakland, Cal., assignor to Vaco Manufacturing Co. Vacuum supporting device. No. 1,026,263; May 14; Sp. p. 2586; Gaz. vol. 178; p. 433.

Hazeltine, Robert H., New York, N. Y. Machine for re-seating valves. (Reissue.) No. 13,421; May 21; Sp. p. 5094; Gaz. vol. 178; p. 856.

Hazen-Brown Company. (See Hazen, George D., assignor.)

Hazen, George D., assignor to Hazen-Brown Company, Brockton, Mass. Collapsible tube. No. 1,027,728; May 28; Sp. p. 5757; Gaz. vol. 178; p. 1003.

Hazen, Levi P., Cincinnati, Ohio. Bottle carrying and holding case. No. 1,027,049; May 21; Sp. p. 4352; Gaz. vol. 178; p. 739.

Heap & Co., Wm. (See Lauzon, Calvin A., assignor.)

Hearest, Joshua G., assignor of three-tenths to S. P. Livingston, Jacksonville, Fla. Curtain-hanger. No. 1,026,951; May 21; Sp. p. 4136; Gaz. vol. 178; p. 705.

Heath, George M. (See Hagmann, John G., assignor.)

Heath, James L. (See Finn, Clarence C., assignor.)

Heavenrich, Rosa J., New York, N. Y. Hat and veil pin. No. 1,027,651; May 28; Sp. p. 5604; Gaz. vol. 178; p. 979.

Heberling, Frederick A., Centralia, Ill. Well-drilling machine. No. 1,026,508; May 14; Sp. p. 3124; Gaz. vol. 178; p. 516.

Hecht, Joseph L., *et al.* (See Einfeldt, Emil, assignor.)

Hedden, Harry, Evansville, Ind. Nut and bolt lock. No. 1,026,035; May 14; Sp. p. 2070; Gaz. vol. 178; p. 354.

Hedderich, Leander J., Mulberry, Ind., assignor to Albaugh-Dover Co., Chicago, Ill. Liner for centrifugal liquid-separators. No. 1,025,567; May 7; Sp. p. 1038; Gaz. vol. 178; p. 160.

Hedfeldt, Axel T., and H. Hager, Chicago, Ill. Winnowing-machine. No. 1,028,022; May 28; Sp. p. 6424; Gaz. vol. 178; p. 1102.

Heichert, Herman S., Ford City, assignor to Pittsburgh Plate Glass Company, Pittsburgh, Pa. Drier for wall-boards. No. 1,026,162; May 14; Sp. p. 2362; Gaz. vol. 178; p. 399.

Heide, Christen P., Kenosha, Wis. Measuring device. No. 1,027,418; May 28; Sp. p. 5142; Gaz. vol. 178; p. 902.

Heidenreich, Carl. (See Hausdörfer and Heidenreich.)

Heidenreich, Carl, Leverkusen, near Cologne, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Blue wool-dye. No. 1,025,267; May 7; Sp. p. 348; Gaz. vol. 178; p. 57.

Heinen, Frank C., Chicago, Ill. Magnetic separator. No. 1,026,673; May 21; Sp. p. 3480; Gaz. vol. 178; p. 608.

Heinzelman, Reginald, Belleville, Ill. Door-securing device. No. 1,026,745; May 21; Sp. p. 3635; Gaz. vol. 178; p. 632.

Heller, Arnaud G., *et al.* (See Bennett, William N., assignor.)

Hemming, Emile, Passaic, assignor to Hemming Manufacturing Company, Garfield, N. J. Insulating compound and making the same. No. 1,025,268; May 7; Sp. p. 349; Gaz. vol. 178; p. 57.

Hemming Manufacturing Company. (See Hemming, Emile, assignor.)

Henderson, Andrew J., Saratoga, Tex. Standing-valve. No. 1,025,977; May 14; Sp. p. 1933; Gaz. vol. 178; p. 334.

Henderson, George R., assignor to The Baldwin Locomotive Works, Philadelphia, Pa. Section for boilers and other containers. No. 1,025,697; May 7; Sp. p. 1304; Gaz. vol. 178; p. 203.

Hendricks, Augustin, Grand Rapids, Mich. Metallic mirror-panel. No. 1,027,540; May 28; Sp. p. 5380; Gaz. vol. 178; p. 942.

Hengell, Edward M., San Francisco, Cal. Electric water-heater. No. 1,026,862; May 21; Sp. p. 3892; Gaz. vol. 178; p. 672.

Henley, Richard, Wilkes-Barre, Pa. Brake. No. 1,027,332; May 21; Sp. p. 4954; Gaz. vol. 178; p. 834.

Hennig, Gustav K., Wahren, near Leipzig, assignor to Ludwig Hupfeld Aktiengesellschaft, Leipzig, Germany. Expression device for mechanically-operated violins. No. 1,025,397; May 7; Sp. p. 646; Gaz. vol. 178; p. 101.

Henning, John, assignor of one-fourth to M. D. Schindler and one-fourth to G. L. Hatsel, Augusta, Ga. Self-oiling device. No. 1,026,052; May 21; Sp. p. 4137; Gaz. vol. 178; p. 705.

Henrich, Henry, New York, N. Y. Machine for rolling finger-rings. No. 1,026,983; May 21; Sp. p. 4190; Gaz. vol. 178; p. 715.

Henry, Frank R., assignor to Majestic Manufacturing Company, St. Louis, Mo. Riveted structure. No. 1,026,674; May 21; Sp. p. 3483; Gaz. vol. 178; p. 608.

Henry, George E., Vincennes, Ind. Electric-controller crank. No. 1,027,129; May 21; Sp. p. 4557; Gaz. vol. 178; p. 765.

Henry, Howard D. (See Bayless and Henry.)

Henry, Robert, Blue Lake, Cal. Cuspidor-lifter. No. 1,026,354; May 14; Sp. p. 2801; Gaz. vol. 178; p. 465.

Henszey, Harold L., Philadelphia, Pa. Locomotive-superheater. No. 1,026,863; May 21; Sp. p. 3893; Gaz. vol. 178; p. 672.

Herlinger, S. (See Buttress, Joseph A., assignor.)

Herman, Willie H., Wesson, Miss. Bottle-vending machine. No. 1,025,978; May 14; Sp. p. 1934; Gaz. vol. 178; p. 334.

Herschkowitsch, Mordko, assignor to Firm of C. Zeiss, Jena, Germany. Oxygen-generating composition. No. 1,027,333; May 21; Sp. p. 4954; Gaz. vol. 178; p. 834.

Hertenstein, Chauncey A., and W. F. Probst, Chillicothe, Ohio. Dispensing-can. No. 1,026,582; May 14; Sp. p. 3261; Gaz. vol. 178; p. 539.

Hertzberg, Harry, *et al.*, trustees. (See Betts, Lewis F., assignor.)

Herzog, Eduard, Eriach, Austria-Hungary. Bleaching apparatus. No. 1,026,583; May 14; Sp. p. 3263; Gaz. vol. 178; p. 539.

Herzog, Felix B., deceased, New York, N. Y.; H. Herzog, executrix. Electric signaling apparatus and circuits. No. 1,026,089; May 28; Sp. p. 6587; Gaz. vol. 178; p. 1123.

Herzog, Henriette, executrix. (See Herzog, Felix B.)

Herzog, John, Saginaw, Mich. Making bulge-panels for furniture. No. 1,026,395; May 14; Sp. p. 2882; Gaz. vol. 178; p. 478.

Hess-Bright Manufacturing Company, The. (See Hess, Henry, assignor.)

Hess, Henry, Wawa, assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa. Antifriction-bearing. No. 1,027,541; May 28; Sp. p. 5381; Gaz. vol. 178; p. 943.

Hess, Henry, Wawa, assignor to The Hess-Bright Manufacturing Company, Philadelphia, Pa. Antifriction-bearing. No. 1,027,542; May 28; Sp. p. 5383; Gaz. vol. 178; p. 943.

Hesson, William W., Toronto, Ontario, Canada. Device for printing on wrapping-paper. No. 1,025,137; May 7; Sp. p. 58; Gaz. vol. 178; p. 11.

Hester, Willis W., *et al.* (See Thomas, Martin E., assignor.)

Hetherington, Frederick A., Indianapolis, Ind. Paving plant. No. 1,027,334; May 21; Sp. p. 4955; Gaz. vol. 178; p. 834.

Hewitt, Darrell G., Pittsburgh, Pa. Combination vise and pipe-wrench. No. 1,026,036; May 14; Sp. p. 2071; Gaz. vol. 178; p. 354.

Hewitt, Peter C., Ringwood Manor, N. J., assignor to Cooper Hewitt Electric Company, New York, N. Y. Vapor electric apparatus. No. 1,025,464; May 7; Sp. p. 797; Gaz. vol. 178; p. 124.

Hext, William. (See Macleod and Hext.)

Hey, David M., assignor to Vacuum Dyeing Machine Company, Chattanooga, Tenn. Dyeing apparatus. No. 1,027,729; May 28; Sp. p. 5758; Gaz. vol. 178; p. 1003.

Hey, Johann F., Strassburg, Germany. Pressure-regulator for boilers. No. 1,025,954; May 7; Sp. p. 1890; Gaz. vol. 178; p. 290.

Heyerdahl, Albert G., Orfordville, Wis. Suspension device for use in skinning small animals. No. 1,027,335; May 21; Sp. p. 4957; Gaz. vol. 178; p. 835.

Heyn, Friedrich H. C., Hamburg, Germany. Bathometer. No. 1,026,441; May 14; Sp. p. 2980; Gaz. vol. 178; p. 493.

Heys, William E. (See Macpherson and Heys.)

Hickey, John, assignor to National Pipe Bending Company, New Haven, Conn. Separator. No. 1,026,675; May 21; Sp. p. 3484; Gaz. vol. 178; p. 608.

Hicks, George J., Saginaw, Mich., assignor to R. & O. Werner, Cannstatt, Germany. Proofing-machine. No. 1,025,914; May 7; Sp. p. 1809; Gaz. vol. 178; p. 278.

Hiemenz, Wilhelm, and W. Kropp, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Pharmaceutical product. No. 1,026,913; May 21; Sp. p. 4028; Gaz. vol. 178; p. 691.

Hiemenz, Wilhelm, and W. Kropp, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Pharmaceutical product. No. 1,026,914; May 21; Sp. p. 4029; Gaz. vol. 178; p. 691.

Hiering, Christian, and A. Fuller, assignors to J. E. Mergott Company, Newark, N. J. Bag-frame. No. 1,027,387; May 21; Sp. p. 5074; Gaz. vol. 178; p. 853.

Higgin, Henry, assignor to The Higgin Manufacturing Company, Newport, Ky. Holding tubes during the operation of drawing them. No. 1,025,568; May 7; Sp. p. 1039; Gaz. vol. 178; p. 161.

Higgin Manufacturing Company, The. (See Higgin, Henry, assignor.)

Higgins, Frank A. (See Hummel, Franklin P., assignor.)

Higgins, Virginia K., *et al.* (See Griessmann, Franz A., assignor.)

Higley, Eben N., assignor to M. Higley, Somersworth, N. H. Pruning implement. No. 1,025,626; May 7; Sp. p. 1169; Gaz. vol. 178; p. 180.

Higley, Maude. (See Higley, Eben N., assignor.)

Hignett, Samuel C., Liverpool, England. Cigar or cigarette case. No. 1,028,069; May 28; Sp. p. 6537; Gaz. vol. 178; p. 1117.

Hildebrand, Harry D., Pittsburgh, Pa. Fluid-compressor. No. 1,027,841; May 28; Sp. p. 6007; Gaz. vol. 178; p. 1042.

Hildreth, Hiram D., Hamilton, Ontario, Canada. Combined shirt and collar fastening device. No. 1,027,603; May 28; Sp. p. 5509; Gaz. vol. 178; p. 963.

Hill, Albert D. (See Pearsall and Hill.)

Hill, Alexander B., Hoboken, N. J. Game apparatus. No. 1,025,465; May 7; Sp. p. 800; Gaz. vol. 178; p. 125.

Hill, James, Sr., Camden, N. J. Abrading or cutting device. No. 1,027,842; May 28; Sp. p. 6008; Gaz. vol. 178; p. 1043.

Hill, John R. (See Smith, Burgess W., assignor.)

Hill, Mark E., assignor of one-fourth to L. Burdett, Washington, D. C. Meat-boiler. No. 1,027,251; May 21; Sp. p. 4789; Gaz. vol. 178; p. 807.

Hill, Thomas A., Brooklyn, N. Y., assignor to The Burch Plow Works Co., Crestline, Ohio. Culvert. No. 1,025,186; May 7; Sp. p. 171; Gaz. vol. 178; p. 29.

Hillard, Frederic W., Tottenville, N. Y. Type-writing machine. No. 1,026,642; May 14; Sp. p. 3399; Gaz. vol. 178; p. 560.

Hillard, Frederic W., Tottenville, N. Y. Type-writing machine. No. 1,027,050; May 21; Sp. p. 4354; Gaz. vol. 178; p. 739.

Hillard, Frederic, W., Tottenville, N. Y. Type-writing machine. No. 1,027,843; May 28; Sp. p. 6011; Gaz. vol. 178; p. 1043.

Hiller, Gustav. (See Schuster, Adalbert, assignor.)

Hinde & Dauch Paper Company. (See Klotz, Peter G., assignor.)

Hinderer, Jesse L. (See Mauger and Hinderer.)

Hines, Jessie J., Houston, Tex. Gate structure. No. 1,026,163; May 14; Sp. p. 2364; Gaz. vol. 178; p. 399.

Hines, William J., assignor to Puritan Comb Company, Leominster, Mass. Machine for making hair ornaments. No. 1,027,419; May 28; Sp. p. 5145; Gaz. vol. 178; p. 902.

Hiney, Alfred W., Philadelphia, Pa. Window-screen. No. 1,026,804; May 21; Sp. p. 3895; Gaz. vol. 178; p. 673.

Hinze, William E., Hamburg, Iowa. Wagon end-gate. No. 1,025,979; May 14; Sp. p. 1939; Gaz. vol. 178; p. 334.

Hiorth, Karl A. F., Christiania, Norway. Refining iron or steel. No. 1,028,070; May 28; Sp. p. 6538; Gaz. vol. 178; p. 1117.

Hipwood, George, and P. Egan, New York, N. Y. Equipoiser. No. 1,028,071; May 28; Sp. p. 6539; Gaz. vol. 178; p. 1117.

Hirai, Shuichiro. (See Koike, Kihei, assignor.)

Hirner, Emil A., Allentown, Pa. Knitting-machine. No. 1,026,206; May 14; Sp. p. 2466; Gaz. vol. 178; p. 414.

Hirsch, Joseph. (See Dey, Charles V., assignor.)

Hirth, Albert, assignor to Norma Compagnie G. m. b. H., Cannstadt-Stuttgart, Germany. Roller-bearing cage. No. 1,026,584; May 14; Sp. p. 3265; Gaz. vol. 178; p. 540.

Hitaka, Yeizaburo. (See Yamamoto, Takejiro, assignor.)

Hitchcock, Orion B., A. M. and F. M. Berggren, Morganville, Kans. Automobile transmission mechanism. No. 1,025,804; May 7; Sp. p. 1525; Gaz. vol. 178; p. 241.

Hixson, Harry E., Akron, Ohio. Bottle-retainer. No. 1,026,984; May 21; Sp. p. 4194; Gaz. vol. 178; p. 716.

Hoadley, Claud, Gosport, Ind. Motor-vehicle. No. 1,027,730; May 28; Sp. p. 5761; Gaz. vol. 178; p. 1004.

Hoag, Charles F. (See Covey and Hoag.)

Hoagland, Frank O., assignor to The Union Metallic Cartridge Company, Bridgeport, Conn. Tubular carrier. No. 1,025,525; May 7; Sp. p. 944; Gaz. vol. 178; p. 146.

Hoaker, John, and W. I. Banks, San Antonio, Tex. Automobile-indicator. No. 1,025,398; May 7; Sp. p. 649; Gaz. vol. 178; p. 101.

Hobbs, Elbert R., Buhl, Idaho. Telephone system. No. 1,025,269; May 7; Sp. p. 350; Gaz. vol. 178; p. 57.

Hocker, John F., Monroe, Ind. Filtering-can and the like. No. 1,028,023; May 28; Sp. p. 6425; Gaz. vol. 178; p. 1102.

Hodge, Erastus A., assignor of one-fourth to F. W. Oman, Spokane, Wash. Nut-lock. No. 1,027,604; May 28; Sp. p. 5510; Gaz. vol. 178; p. 963.

Hodges, Frank W. (See Wigginton and Hodges.)

Hodgkinson, William, Waterbury, Conn. Necktie-fastener. No. 1,026,315; May 14; Sp. p. 2699; Gaz. vol. 178; p. 451.

Hodgson, Joseph P. (See Flodin, Nels P., assignor.)

Hoering, Paul, Berlin, Germany. Making a soluble compound of iron-glycero-phosphate combined with milk or milk-albumin. No. 1,027,844; May 28; Sp. p. 6020; Gaz. vol. 178; p. 1043.

Hoering, Paul, Berlin, and O. Kippe, Osnabrück, Germany. Producing iron albuminates of organomineral acids. No. 1,025,466; May 7; Sp. p. 801; Gaz. vol. 178; p. 125.

Hoerlein, Heinrich, Vohwinkel, near Elberfeld, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Arylalkylbarbituric acid. No. 1,025,526; May 7; Sp. p. 945; Gaz. vol. 178; p. 146.

Hoerlein, Heinrich, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Phenylethylbarbituric acid. No. 1,025,872; May 7; Sp. p. 1686; Gaz. vol. 178; p. 263.

Hoerlin, Julius. (See Reinhardt and Hoerlin.)

Hoevet, Alfred T., New York, N. Y., assignor, by mesne assignments, to Mount Vernon Specialty Company. Cigar-lighter. No. 1,027,205; May 21; Sp. p. 4707; Gaz. vol. 178; p. 790.

Hofe, Christian von, Wilmersdorf, near Berlin, assignor to Optische Anstalt C. P. Goerz Aktiengesellshaft, Friedenau, near Berlin, Germany. Angular mirror. No. 1,027,420; May 28; Sp. p. 5146; Gaz. vol. 178; p. 903.

Hofer, Joshua S., Bridgewater, and J. P. Stahl, Huron, S. D.; said Stahl assignor to said Hofer. Husking device. No. 1,026,585; May 14; Sp. p. 3265; Gaz. vol. 178; p. 540.

Hoff, Edward J., Berkeley, Cal. Chair. No. 1,025,915; May 7; Sp. p. 1805; Gaz. vol. 178; p. 278.

Hoffa, Erwin, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Violet-blue vat dyestuffs. No. 1,025,138; May 7; Sp. p. 59; Gaz. vol. 178; p. 11.

Hoffine, Fred G., Kansas City, Mo. Ironing-board. No. 1,027,479; May 28; Sp. p. 5253; Gaz. vol. 178; p. 921.

Hoffman, Arnold P. and W. E., and E. F. Altman, Minneapolis, Minn. Sprocket-chain housing. No. 1,027,605; May 28; Sp. p. 5511; Gaz. vol. 178; p. 964.

Hoffman, Gustaf. (See Kurlug and Hoffman.)

Hoffman, William E. (See Hoffman and Altman.)

Hoffmann-La Roche Chemical Works. (See Elger, Franz, assignor.)

Hoffmann, Otto. (See Brenner and Hoffmann.)

Hoffmann, Otto C., assignor to C. R. Hatch, Buffalo, N. Y. Switch or junction box. No. 1,026,164; May 14; Sp. p. 2365; Gaz. vol. 178; p. 399.

Hofiander, Henry, Speed, Mo. Collar-button retainer. No. 1,028,024; May 28; Sp. p. 6426; Gaz. vol. 178; p. 1103.

Hogarth, William T., and D. K. Deal, Williamsport, Pa. Tool for cleaning boiler-head cap-seats. No. 1,026,442; May 14; Sp. p. 2981; Gaz. vol. 178; p. 494.

Hohmann, Edmund, assignor to Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier, Stettin, Germany. Coke-oven. No. 1,027,845; May 28; Sp. p. 6022; Gaz. vol. 178; p. 1043.

Hokanson, Andrew S., Rumford, R. I. Portable tool-chest. No. 1,026,264; May 14; Sp. p. 2587; Gaz. vol. 178; p. 433.

Holden, Eugene A., Athol, Mass. Ticket-holder. No. 1,025,805; May 7; Sp. p. 1526; Gaz. vol. 178; p. 241.

Holden, Harry, assignor to Emma Lang Investment Company, Los Angeles, Cal. Display apparatus. No. 1,027,606; May 28; Sp. p. 5513; Gaz. vol. 178; p. 964.

Holdsworth, Fred D., assignor to Sullivan Machinery Company, Claremont, N. H. Pulsating apparatus. No. 1,025,467; May 7; Sp. p. 803; Gaz. vol. 178; p. 125.

Holeproof Hosiery Co. (See Evans, Humphrey, assignor.)

Holland, Henry T., Winfield, N. Y. Curtain-pole holder. No. 1,026,953; May 21; Sp. p. 4139; Gaz. vol. 178; p. 706.

Holldampf, Johannes, Cassel, Germany. Beverage. No. 1,027,336; May 21; Sp. p. 4958; Gaz. vol. 178; p. 835.

Hollenbeck, Elijah A., assignor to The Hollenbeck Manufacturing Co., Holdrege, Nebr. Road-grading and excavating machine. No. 1,025,569; May 7; Sp. p. 1041; Gaz. vol. 178; p. 161.

Hollenbeck Manufacturing Co., The. (See Hollenbeck, Elijah A., assignor.)

Holmes, Frank J., assignor to Vulcan Electric Heating Company, Chicago, Ill. Electrical heating device. No. 1,027,337; May 21; Sp. p. 4959; Gaz. vol. 178; p. 835.

Holmes, Nathan L., assignor to G. C. Petersen & Son, Racine, Wis. Bolster-spring for wagons. No. 1,026,746; May 21; Sp. p. 3637; Gaz. vol. 178; p. 632.

Holmes, Wesley S., Ithaca, and W. B. Johnson, assignors to A. Zinsser, Jr., trustee, New York, N. Y. Cushion-tire for vehicles. No. 1,027,130; May 21; Sp. p. 4559; Gaz. vol. 178; p. 766.

Holsman Equipment Company. (See Bulley, George W., assignor.)

Holström, Axel, Paris, France. Propeller. No. 1,025,399; May 7; Sp. p. 651; Gaz. vol. 178; p. 102.

Holt, Benjamin, Stockton, Cal. Traction-engine. No. 1,026,037; May 14; Sp. p. 2073; Gaz. vol. 178; p. 355.

Holt, Benjamin, Stockton, Cal. Traction-engine. No. 1,026,090; May 14; Sp. p. 2217; Gaz. vol. 178; p. 374.

Holt, Benjamin, Stockton, Cal. Traction-engine. No. 1,026,091; May 14; Sp. p. 2221; Gaz. vol. 178; p. 375.

Holt, Charles. (See Glover and Holt.)

Holz, Herman A. (See Strafer, Aaron F., assignor.)

Holzinger, John F. (See Mullin, John E., assignor.)

Homolka, Benno. (See Welde and Homolka.)

Honiss, William H., *et al.* (See Merritt, Joseph, assignor.)

Hopewell, Charles F., Newton, Mass. Spare-tire case. No. 1,026,316; May 14; Sp. p. 2701; Gaz vol. 178; p. 452.

Hopkins, Edward P., New York, N. Y., assignor to Thomas A. Edison, Incorporated, West Orange, N. J. Kinetoscope. No. 1,027,731; May 28; Sp. p. 5766; Gaz. vol. 178; p. 1004.

Hopkins, Hubert, assignor to The Moon-Hopkins Billing Machine Company, St. Louis, Mo. Motor-drive for calculating-machines. No. 1,025,698; May 7; Sp. p. 1305; Gaz. vol. 178; p. 203.

Hopkins, Hubert, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Calculating-machine. No. 1,026,443; May 14; Sp. p. 2983; Gaz. vol. 178; p. 404.

Hopkins, Hubert, Maplewood, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Ribbon-reverse mechanism for type-writers and the like. No. 1,027,732; May 28; Sp. p. 5768; Gaz. vol. 178; p. 1005.

Hopper, James F., assignor of one-half to H. C. Smith, Sherman, Tex. Internal-combustion engine. No. 1,026,317; May 14; Sp. p. 2703; Gaz. vol. 178; p. 452.

Horling, Bertus G., Coopersville, Mich. Tool for extracting well-points. No. 1,026,509; May 14; Sp. p. 3127; Gaz. vol. 178; p. 516.

Horn, Jacob E. (See Koehler and Horn.)

Horne, Newton H., Kansas City, Mo. Tire. No. 1,027,733; May 28; Sp. p. 5770; Gaz. vol. 178; p. 1005.

Horovich, Max, assignor of one-half to S. Lieberman, New York, N. Y. Clothes-line support. No. 1,026,865; May 21; Sp. p. 3899; Gaz. vol. 178; p. 673.

Horsley, William, Jersey City, N. J. Manufacturing nozzles. No. 1,025,570; May 7; Sp. p. 1044; Gaz. vol. 178; p. 161.

Horsley, William, assignor to The Bigelow Company, New Haven, Conn. Machine for forming lugs for boilers, &c. No. 1,027,480; May 28; Sp. p. 5255; Gaz. vol. 178; p. 922.

Horst, Richard A., and J. C. Goebel, assignors to Paris Lamp & Manufacturing Company, St. Louis, Mo. Vapor-generator. No. 1,026,318; May 14; Sp. p. 2704; Gaz. vol. 178; p. 452.

Horstmann, Albert, G. O. H., E. H., and S. A., and W. T. Edgar, Bath, England. Timing device. No. 1,027,652; May 28; Sp. p. 5605; Gaz. vol. 178; p. 979.

Horstmann, Albert, G. O. H., E. H., and S. A., and W. T. Edgar, Bath, England. Gas-controller, electric time-switch, and other timing device. No. 1,027,653; May 28; Sp. p. 5609; Gaz. vol. 178; p. 979.

Horstmann, Ernst H. (See Horstmann and Edgar.)

Horstmann, Gustav O. H. (See Horstmann and Edgar.)

Horstmann, Sidney A. (See Horstmann and Edgar.)

Horton, Albert J., White Plains, N. Y., assignor to The Cutler-Hammer Mfg. Co., Milwaukee, Wis. System of control for electric motors. No. 1,027,846; May 28; Sp. p. 6024; Gaz. vol. 178; p. 1044.

Horton, Jacob N., and E. Carlson, Benson, Nebr. Siding-marker. No. 1,026,866; May 21; Sp. p. 3900; Gaz. vol. 178; p. 673.

Hoshizaki, Kingiro. (See Jinbo and Hoshizaki.)

Hostetler, Monroe E., Harper, Kans. Personal cooler. No. 1,027,607; May 28; Sp. p. 5517; Gaz. vol. 178; p. 965.

Houghton, George F. C., New York, N. Y., assignor of one-half to J. Wilding, Fort Wayne, Ind. Holder for assembled sheets. No. 1,025,744; May 7; Sp. p. 1405; Gaz. vol. 178; p. 220.

Houseman, Harry A., assignor to Standard Machine Co., Philadelphia, Pa. Knitting-machine. No. 1,025,980; May 14; Sp. p. 1940; Gaz. vol. 178; p. 335.

Housh, Frank E., Winthrop, Mass. Loose-leaf book. No. 1,025,468; May 7; Sp. p. 810; Gaz. vol. 178; p. 126.

Houston, Fred, assignor to Houston Manufacturing Company, Rockford, Ill. Brush. No. 1,026,676; May 21; Sp. p. 3487; Gaz. vol. 178; p. 609.

Houston Manufacturing Company. (See Houston, Fred, assignor.)

Howard, Benjamin F., assignor of one-half to J. W. Staub, Indianapolis, Ind. Lubricator. No. 1,026,867; May 21; Sp. p. 3901; Gaz. vol. 178; p. 674.

Howard, Frank D. (See Usher, Charles H., assignor.)

Howard, Perkins E., Wichita, Kans. Spring-hinge. No. 1,027,654; May 28; Sp. p. 5612; Gaz. vol. 178; p. 980.

Howarth, John H. (See Drew, Arkinstall, Dean, and Howarth.)

Howe, Andrew F., Granite City, Ill., assignor to Commonwealth Steel Company, St. Louis, Mo. Fillet-making machine. No. 1,027,131; May 21; Sp. p. 4560; Gaz. vol. 178; p. 766.

Howe, Charles A., Chicago, Ill. Foot-support. No. 1,025,571; May 7; Sp. p. 1048; Gaz. vol. 178; p. 162.

Howe, George S., Richmond, Va. Tire. No. 1,026,038; May 14; Sp. p. 2076; Gaz. vol. 178; p. 355.

Howlett, Henry M., and A. Laessele, Sandusky, Ohio. Machine for making toe-calks. No. 1,025,270; May 7; Sp. p. 353; Gaz. vol. 178; p. 57.

Howlin, William, Newtown, near Sydney, New South Wales, Australia. Apparatus for automatically opening and closing cocks, valves, switches, and the like. No. 1,026,586; May 14; Sp. p. 3268; Gaz. vol. 178; p. 540.

Hoyland, Fred, Jr. (See Fisher and Hoyland.)

Hudson, Benjamin F. (See Smith and Hudson.)

Hudson, Fred A., assignor to Clarinda Lawn Mower Company, Clarinda, Iowa. Attachment for lawn-mowers. No. 1,025,271; May 7; Sp. p. 354; Gaz. vol. 178; p. 58.

Hudson, Henry B., Fargo, N. D. Hammer attachment. No. 1,026,915; May 21; Sp. p. 4029; Gaz. vol. 178; p. 691.

Hudson, Henry N. (See Smith, Eugene W., assignor.)

Hudson, Laura E., Lancaster, S. C., assignor to North Pole Ice Cream Freezer Company, Charlotte, N. C. Ice-cream freezer. No. 1,026,510; May 14; Sp. p. 3128; Gaz. vol. 178; p. 516.

Hudson, Mahalah T., Enid, Okla. Combined cake-mixer and egg-beater. No. 1,026,355; May 14; Sp. p. 2802; Gaz. vol. 178; p. 465.

Hudson Motor Car Company. (See Jackson, Roscoe B., assignor.)

Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,025,187; May 7; Sp. p. 171; Gaz. vol. 178; p. 29.

Huff, William J., Toronto, Ontario, Canada. Releasing-hook for life-boats and the like. No. 1,027,481; May 28; Sp. p. 5257; Gaz. vol. 178; p. 922.

Huffman, Howard H. (See Sublett, Alvin H., assignor.)

Huffman, John O., and E. J. Lauffer, assignors to The White Sewing Machine Company, Cleveland, Ohio. Feeding mechanism for sewing-machines. No. 1,025,139; May 7; Sp. p. 60; Gaz. vol. 178; p. 11.

Hughs, William D., Atlanta, Ga. Gearing for motor-vehicles. No. 1,025,188; May 7; Sp. p. 173; Gaz. vol. 178; p. 29.

Hugon, Henry G., Calais, France. Resilient antiskidding wheel. No. 1,025,400; May 7; Sp. p. 653; Gaz. vol. 178; p. 102.

Hugyik, John, Nokomis, Ill. Step. No. 1,027,338; May 21; Sp. p. 4964; Gaz. vol. 178; p. 835.

Huhn, Hermann. (See Williams and Huhn.)

Hull, Oakley E., Cleveland, Ohio, assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,025,627; May 7; Sp. p. 1172; Gaz. vol. 178; p. 180.

Hummel, Franklin P., assignor of one-third to F. A. Higgins, Bellevue, Ohio. Rotary engine. No. 1,026,165; May 14; Sp. p. 2367; Gaz. vol. 178; p. 399.

Humphrey, Alfred H., New York, N. Y. Gas-cock-operating device. No. 1,026,039; May 14; Sp. p. 2077; Gaz. vol. 178; p. 355.

Humphrey & Sons. (See Reece, Juan H., assignor.)

Hunnicutt, Charles, Wilmington, assignor to The Charles Hunnicutt Company, Clinton county, Ohio. Seed-corn grader. No. 1,026,265; May 14; Sp. p. 2589; Gaz. vol. 178; p. 434.

Hunnicutt, Charles, Wilmington, assignor to The Charles Hunnicutt Company, Clinton county, Ohio. Seed-corn grader. No. 1,027,734; May 28; Sp. p. 5771; Gaz. vol. 178; p. 1005.

Hunt, Elzo B., assignor to Hunt, Helm, Ferris & Company, Harvard, Ill. Hanger for litter-carriers. No. 1,025,327; May 7; Sp. p. 946; Gaz. vol. 178; p. 146.

Hunt, Harry A., Wilmington, Del. Crusher-head for grinding-mills. No. 1,026,319; May 14; Sp. p. 2706; Gaz. vol. 178; p. 453.

Hunt, Helm, Ferris & Company. (See Ferris, Henry L., assignor.)

Hunt, Helm, Ferris & Company. (See Hunt, Elzo B., assignor.)

Hunt, Ozello R., assignor of one-half to W. Van Middlesworth, Chicago, Ill. Spring structure. No. 1,027,051; May 21; Sp. p. 4357; Gaz. vol. 178; p. 739.

Hunt, William F., New Brighton, assignor to C. W. Hunt Company, West New Brighton, N. Y. Storage of coal, ores, &c. No. 1,026,444; May 14; Sp. p. 2998; Gaz. vol. 178; p. 494.

Hunter, Howard S., East Boston, Mass. Incandescent-lamp base. No. 1,028,025; May 28; Sp. p. 6428; Gaz. vol. 178; p. 1103.

Hunter, Matthew A., Schenectady, N. Y., assignor to General Electric Company. Tubular metalized filament. No. 1,025,469; May 7; Sp. p. 811; Gaz. vol. 178; p. 126.

Hurley, Justin T., Elizabeth, N. J. Computing-machine. No. 1,027,847; May 28; Sp. p. 6027; Gaz. vol. 178; p. 1044.

Huson, Martha B., New York, N. Y. Street-cleaning machine. No. 1,026,445; May 14; Sp. p. 2999; Gaz. vol. 178; p. 495.

Hussey, Alfred R., Harvard, assignor to American Water Supply of New England, Boston, Mass. Vending-machine. No. 1,026,166; May 14; Sp. p. 2371; Gaz. vol. 178; p. 400.

Huston, Peter, assignor to The Adams & Westlake Company, Chicago, Ill. Shade-holder. No. 1,027,848; May 28; Sp. p. 6053; Gaz. vol. 178; p. 1045.

Hutchison, Robert W., assignor to J. S. Jones, Sixlakes, Mich. Lock. No. 1,026,320; May 14; Sp. p. 2708; Gaz. vol. 178; p. 453.

Hutsell, Ernest O., Athens, Tenn. Pea-harvester. No. 1,028,072; May 28; Sp. p. 6543; Gaz. vol. 178; p. 1117.

Hutton, Amos, Chicopee Falls, Mass. Oil-can holder. No. 1,026,396; May 14; Sp. p. 2883; Gaz. vol. 178; p. 478.

Hvizdos, Alojs, Morrisdale Mines, Pa. Rail-fastener. No. 1,025,700; May 7; Sp. p. 1314; Gaz. vol. 178; p. 204.

Hygienic Soap Granulator Company. (See Shaver, George F., assignor.)

Hyle, William A., assignor to Macdonald and Sons, Limited, Toronto, Ontario, Canada. Pipe-wrench. No. 1,026,040; May 14; Sp. p. 2078; Gaz. vol. 178; p. 356.

Hyman, Charles H., Denver, Colo. Clothes-washer. No. 1,027,543; May 28; Sp. p. 5385; Gaz. vol. 178; p. 944.

Hynek, Max, Riesa-on-the-Elbe, Germany. Automatic door-operating appliance. No. 1,026,805; May 21; Sp. p. 3773; Gaz. vol. 178; p. 653.

Iblings, John I., Cedar Falls, Iowa. Snow-fence. No. 1,026,806; May 21; Sp. p. 3773; Gaz. vol. 178; p. 653.

Ide, Francis P., assignor to A. L. Ide & Sons, Springfield, Ill. Steam-engine of the Corliss type. No. 1,026,643; May 14; Sp. p. 3404; Gaz. vol. 178; p. 560.

Ide & Sons, A. L. (See Ide, Francis P., assignor.)

Ihlder, John D., New York, N. Y., assignor to Otis Elevator Company, East Orange, N. J. Potential switch. No. 1,025,140; May 7; Sp. p. 61; Gaz. vol. 178; p. 11.

Illingworth, John W., Dorsey, Md. Treating wood. No. 1,025,628; May 7; Sp. p. 1173; Gaz. vol. 178; p. 180.

Illinois Engineering Company. (See Nistle, George W., assignor.)

Ingalls, Willis A., Cleveland, Ohio. Knitting-machine. No. 1,025,470; May 7; Sp. p. 812; Gaz. vol. 178; p. 126.

Ingersoll-Rand Company. (See Prellwitz, William, assignor.)

Ingoldsby Automatic Car Company, The. (See Bowling, Joseph R., assignor.)

Ingoldsby Automatic Car Company, The. (See Ingoldsby, Frank S., assignor.)

Ingoldsby Automatic Car Company, The. (See Ingoldsby and Bowling, assignors.)

Ingoldsby, Frank S., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo. Dump-car. No. 1,026,397; May 14; Sp. p. 2885; Gaz. vol. 178; p. 479.

Ingoldsby, Frank S., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo. Dump-car. No. 1,027,849; May 28; Sp. p. 6054; Gaz. vol. 178; p. 1045.

Ingoldsby, Frank S., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo. Dump-car. No. 1,027,850; May 28; Sp. p. 6059; Gaz. vol. 178; p. 1046.

Ingoldsby, Frank S., and J. R. Bowling, assignors to The Ingoldsby Automatic Car Company, St. Louis, Mo. Dump-car. No. 1,027,851; May 28; Sp. p. 6065; Gaz. vol. 178; p. 1046.

Ingraham, Alexander, assignor to Williford Manufacturing Company, Minneapolis, Minn. Feed-mill. No. 1,027,206; May 21; Sp. p. 4708; Gaz. vol. 178; p. 790.

International Automatic Signal Company. (See Burgess, Yorke, assignor.)

International Harvester Company. (See Pearson, Charles, assignor.)

International Harvester Company. (See Schutt, Duny A., assignor.)

International Harvester Company. (See Willis, George W., assignor.)

International Wasserstoff Aktiengesellschaft. (See Lane, Howard, assignor.)

Ion, Thomas, Westmount, Quebec, Canada. Material-spreader. No. 1,026,092; May 14; Sp. p. 2223; Gaz. vol. 178; p. 375.

Irwin, Harold, Tikokino, New Zealand. Grass-cutter for cutting edges of lawns and the like. No. 1,026,985; May 21; Sp. p. 4196; Gaz. vol. 178; p. 716.

Isaacson, Rupert J., Leeds, England. Mounting of aerial propellers. No. 1,027,252; May 21; Sp. p. 4791; Gaz. vol. 178; p. 807.

Isberg, Jacob W., West Allis, Wis. Rope-clamp. No. 1,026,587; May 14; Sp. p. 3270; Gaz. vol. 178; p. 540.

Isler, Max H., Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Anthracene dyes and making same. No. 1,026,588; May 14; Sp. p. 3271; Gaz. vol. 178; p. 541.

Isley, George H. (See Jefferies and Isley.)

Iveson, Edward H., Cohoes, N. Y. Ticket-holder. No. 1,025,272; May 7; Sp. p. 356; Gaz. vol. 178; p. 58.

J. Geo. Leyner Engineering Works Company, The. (See Leyner, John G., assignor.)

J. E. Mergott Company. (See Hiering and Fuller, assignors.)

J. G. Brill Company, The. (See Kohler, George B., assignor.)

J. I. Case Plow Works. (See Michael, Clement W., assignor.)

Jack, Gilbert N. (See Arndt and Jack.)

Jackson, Clarence S., assignor to Pouring Cork Company, New York, N. Y. Dripless pouring-bottle seal. No. 1,027,544; May 28; Sp. p. 5387; Gaz. vol. 178; p. 944.

Jackson, Joseph R., Memphis, Tenn. Disinfectant-holder. No. 1,025,189; May 7; Sp. p. 176; Gaz. vol. 178; p. 30.

Jackson, Roscoe B., assignor to Hudson Motor Car Company, Detroit, Mich. Transmission-gearing. No. 1,027,608; May 28; Sp. p. 5517; Gaz. vol. 178; p. 965.

Jackson, Surn, Stockton, Cal. Well boring and casing machine for wells. No. 1,026,589; May 14; Sp. p. 3273; Gaz. vol. 178; p. 541.

Jackson, Walter, and H. N. Pochin, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Finishing-machine for boots and shoes. No. 1,026,954; May 21; Sp. p. 4140; Gaz. vol. 178; p. 706.

Jacobs, Kenneth W. (See Bond, Jayson K., assignor.)

Jacobs, Simon, New York, N. Y. Safety breech-block lock for guns. No. 1,026,590; May 14; Sp. p. 3275; Gaz. vol. 178; p. 541.

Jacobson, Axel E., Minneapolis, Minn. Friction-clutch. No. 1,025,190; May 7; Sp. p. 177; Gaz. vol. 178; p. 30.

James, Frank P., Nashville, Tenn., assignor to The Electric Meat Curing Company, Cleveland, Ohio. Curing hides. No. 1,025,401; May 7; Sp. p. 654; Gaz. vol. 178; p. 102.

Jansen, William, assignor to The Adams & Westlake Company, Chicago, Ill. Sash lock and lift. No. 1,026,747; May 21; Sp. p. 3641; Gaz. vol. 178; p. 633.

Jarvis, Judge L., Unity, Wis. Gambrel. No. 1,025,806; May 7; Sp. p. 1528; Gaz. vol. 178; p. 241.

Jaubert, George F., Paris, France. Cartridge for the preparation of oxygen. No. 1,025,191; May 7; Sp. p. 179; Gaz. vol. 178; p. 30.

Jeffcott, Lewis B., New York, N. Y. Convertible couch and bed. No. 1,025,745; May 7; Sp. p. 1408; Gaz. vol. 178; p. 220.

Jefferies, Ebenezer A. W., and G. H. Isley, assignors to Morgan Construction Company, Worcester, Mass. Gas-producer. No. 1,025,192; May 7; Sp. p. 180; Gaz. vol. 178; p. 31.

Jefferson, Charles W., Schenectady, assignor to Mica Insulator Company, New York, N. Y. Apparatus for distributing and leveling pieces or scales of mica or other material. No. 1,026,986; May 21; Sp. p. 4197; Gaz. vol. 178; p. 716.

Jefferson, Michael, Monroe, La. Folding steps. No. 1,026,167; May 14; Sp. p. 2373; Gaz. vol. 178; p. 400.

Jeffery, Charles T., *et al.*, executors. (See Jeffery, Thomas B.)

Jeffery, Harold W., *et al.*, executors. (See Jeffery, Thomas B.)

Jeffery, Kate E., *et al.*, executors. (See Jeffery, Thomas B.)

Jeffery, Richard E., Piedmont, Cal. Demountable rim. No. 1,025,528; May 7; Sp. p. 947; Gaz. vol. 178; p. 146.

Jeffery, Thomas B., deceased, Kenosha, Wis.; K. E., C. T., and H. W. Jeffery, executors. Safety attachment for automobiles. No. 1,026,168; May 14; Sp. p. 2375; Gaz. vol. 178; p. 400.

Jeffrey Manufacturing Company, The. (See Sessions, Frank L., assignor.)

Jeffrey Manufacturing Company, The. (See Sessions and Coseo, assignors.)

Jeffrey Manufacturing Company, The. (See Waxbom, Carl J. E., assignor.)

Jensen, Peter J. (See Johnson, Baueris, Jensen, and Lawshe.)

Jeschke, Otto C. H., Maywood, Ill. Twisting device for making rope. No. 1,026,511; May 14; Sp. p. 3129; Gaz. vol. 178; p. 517.

Jessup, George W., Jr., Newton, Mass. Compound gas-engine. No. 1,026,512; May 14; Sp. p. 3131; Gaz. vol. 178; p. 517.

Jewitt, George T., Philadelphia, Pa. Apparatus for treating skins. No. 1,027,545; May 28; Sp. p. 5388; Gaz. vol. 178; p. 944.

Jinbo, Masataro, and K. Hoshizaki, Kansas City, Mo. Making table sauces. No. 1,025,402; May 7; Sp. p. 655; Gaz. vol. 178; p. 103.

John, Frederick H., Middleport, Pa. Spring-wheel. No. 1,025,981; May 14; Sp. p. 1943; Gaz. vol. 178; p. 335.

John Hetherington and Sons Limited. (See Tomlinson, Albert, assignor.)

Johns-Pratt Company, The. (See Cole, Robert C., assignor.)

Johnson, Albert F., McKeesport, Pa. Computing-scale. No. 1,026,266; May 14; Sp. p. 2590; Gaz. vol. 178; p. 434.

Johnson-Bradford Safe Company. (See Johnson, Pierce X., assignor.)

Johnson, Carl E., assignor to United States Electrical Manufacturing Company, Los Angeles, Cal. Brake attachment for sewing-machines. No. 1,027,339; May 21; Sp. p. 4965; Gaz. vol. 178; p. 836.

Johnson, Charles, Auburn, and C. Frank, Seneca Falls, N. Y. Manure-spreader. No. 1,025,403; May 7; Sp. p. 657; Gaz. vol. 178; p. 103.

Johnson, Charles, and A. Sahlen, Chicago, Ill. Elevator device. No. 1,025,873; May 7; Sp. p. 1687; Gaz. vol. 178; p. 263.

Johnson, Charles E., Salt Lake City, Utah. Photographic-printing frame. No. 1,027,482; May 28; Sp. p. 5258; Gaz. vol. 178; p. 922.

Johnson, Cornelius, Des Moines, Iowa. Clothes-line reel and stretcher. No. 1,027,655; May 28; Sp. p. 5613; Gaz. vol. 178; p. 980.

Johnson, Edward H. (See Lang, Johan G. V., assignor.)

Johnson, Edward H., assignor to The A. & J. Manufacturing Co., Binghamton, N. Y. Implement for beating eggs, whipping cream, or for mixing ingredients. No. 1,025,962; May 14; Sp. p. 1944; Gaz. vol. 178; p. 336.

Johnson, Elmer H., North Bennington, Vt. String-fastener for packages. No. 1,027,656; May 28; Sp. p. 5614; Gaz. vol. 178; p. 980.

Johnson, James S., Le Roy, Kans. Acetylene-gas generator. No. 1,025,404; May 7; Sp. p. 658; Gaz. vol. 178; p. 103.

Johnson, James W., Detroit, Mich. Ladder-support. No. 1,027,546; May 28; Sp. p. 5392; Gaz. vol. 178; p. 944.

Johnson, Jesse B., assignor to S. Lubin, Philadelphia, Pa. Moving-picture machine. No. 1,027,735; May 28; Sp. p. 5773; Gaz. vol. 178; p. 1006.

Johnson, John E., Brainerd, Minn. Screen-door attachment. No. 1,025,746; May 7; Sp. p. 1410; Gaz. vol. 178; p. 221.

Johnson, John W., W. A. Baueris, P. J. Jensen, and W. D. Lawshe, Seattle, Wash. Bending appliance. No. 1,026,916; May 21; Sp. p. 4030; Gaz. vol. 178; p. 691.

Johnson, Oscar, Chicago, Ill. Locomotive-tender. No. 1,027,852; May 28; Sp. p. 6069; Gaz. vol. 178; p. 1046.

Johnson, Pierce X., Denver, Colo., assignor to Johnson-Bradford Safe Company. Burglar-proof safe. No. 1,026,207; May 14; Sp. p. 2479; Gaz. vol. 178; p. 414.

Johnson, Pierce X., Denver, Colo., assignor to Johnson-Bradford Safe Company. Marine safe. No. 1,026,208; May 14; Sp. p. 2480; Gaz. vol. 178; p. 415.

Johnson, Thomas C., assignor to Winchester Repeating Arms Co., New Haven, Conn. Butt-stock for shoulder-arms. No. 1,025,529; May 7; Sp. p. 949; Gaz. vol. 178; p. 147.

Johnson, Thomas J., Norman, Okla. Pump-operating mechanism. No. 1,027,052; May 21; Sp. p. 4359; Gaz. vol. 178; p. 739.

Johnson, Walfred, Milwaukee, Wis. Bail for pots and kettles. No. 1,026,093; May 14; Sp. p. 2225; Gaz. vol. 178; p. 375.

Johnson, Welcome B. (See Holmes and Johnson.)

Johnston, Clarence L., Emeryville, Cal. Folding mechanism. No. 1,027,657; May 28; Sp. p. 5618; Gaz. vol. 178; p. 981.

Johnston, Francis P., Oakland, Cal. Carbureter. No. 1,027,340; May 21; Sp. p. 4966; Gaz. vol. 178; p. 836.

Johnston, Horace G., assignor to American Well & Prospecting Company, Inc., Corsicana, Tex. Hoisting-machine. No. 1,027,253; May 21; Sp. p. 4793; Gaz. vol. 178; p. 808.

Johnston, Robert T., Plainfield, assignor, by mesne assignments, to The Autoplate Company of America, Jersey City, N. J. Inking apparatus for printing-presses. No. 1,027,853; May 28; Sp. p. 6072; Gaz. vol. 178; p. 1047.

Johnston, Roy B. (See Sharp and Johnston.)

Jones, Albert E., assignor to Whitehead and Company, Fiume, Austria-Hungary. Gyroscope for automobile torpedoes. No. 1,025,747; May 7; Sp. p. 1412; Gaz. vol. 178; p. 221.

Jones, Albert E., assignor to Whitehead and Company, Fiume, Austria-Hungary. Air-heating apparatus. No. 1,028,073; May 28; Sp. p. 6552; Gaz. vol. 178; p. 1118.

Jones, Jasper, Newark, Ohio. Metallic coffin-case. No. 1,026,513; May 14; Sp. p. 3141; Gaz. vol. 178; p. 518.

Jones, John S. (See Hutchison, Robert W., assignor.)

Jones, Joseph R., Detroit, Mich. Telegraph-transmitter. No. 1,025,471; May 7; Sp. p. 815; Gaz. vol. 178; p. 127.

Jones, Ralph W., Lincoln, Nebr. Base-ball curver. No. 1,025,748; May 7; Sp. p. 1413; Gaz. vol. 178; p. 221.

Jones, Sidney W., Tucker, Utah. Automatic type-writer feed. No. 1,028,026; May 28; Sp. p. 6429; Gaz. vol. 178; p. 1103.

Jones, William H., F. K. Metcalf, and J. S. Wear, Delta, Colo.; said Metcalf assignor to said Jones and Wear. Land-marker. No. 1,027,609; May 28; Sp. p. 5520; Gaz. vol. 178; p. 965.

Jones, Zachariah F., Scottsville, Va. Fire box and grate. No. 1,027,610; May 28; Sp. p. 5523; Gaz. vol. 178; p. 966.

Jordan, Edward D., *et al.* (See Hargis, Harry W., assignor.)

Jorg, John, Hollywood, Cal. Drawing and music case. No. 1,027,611; May 28; Sp. p. 5525; Gaz. vol. 178; p. 966.

Joyal, Stephen W., Cavendish, Vt. Rail-brace. No. 1,026,807; May 21; Sp. p. 3774; Gaz. vol. 178; p. 653.

Joyce, William, *et al.* (See Simon, Henry, assignor.)

Judelson, Louis, New York, N. Y. Mechanical movement. No. 1,026,514; May 14; Sp. p. 3143; Gaz. vol. 178; p. 518.

Judge, Hugh, Johnstown, N. Y. Knockdown stand or table. No. 1,026,748; May 21; Sp. p. 3642; Gaz. vol. 178; p. 633.

Jungclas, Edward H., Cincinnati, Ohio. Milk-bottle pitcher attachment. No. 1,027,421; May 28; Sp. p. 5147; Gaz. vol. 178; p. 903.

Jurkovich, George, Homer City, Pa. Wrench. No. 1,027,341; May 21; Sp. p. 4969; Gaz. vol. 178; p. 837.

Kaber, Daniel, Cleveland, Ohio. Sign character. No. 1,026,868; May 21; Sp. p. 3902; Gaz. vol. 178; p. 674.

Kaber, Daniel, Cleveland, Ohio. Sign. No. 1,027,547; May 28; Sp. p. 5393; Gaz. vol. 178; p. 945.

Kahl, Leopold, Niederau, near Dresden, assignor to Rutgerswerke-Actiengesellschaft, Berlin, Germany. Orthooxalic-acid ester of meta-cresol and manufacture of the same. No. 1,028,074; May 28; Sp. p. 6553; Gaz. vol. 178; p. 1118.

Kahn, Myrtil, and A. Ossenbeck, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Dye-bath and dyeing. No. 1,025,273; May 7; Sp. p. 357; Gaz. vol. 178; p. 58.

Kahn, Myrtil, and A. Ossenbeck, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Azo dye. No. 1,025,983; May 14; Sp. p. 1945; Gaz. vol. 178; p. 336.

Kahn, Myrtil, and A. Ossenbeck, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Brown azo dye. No. 1,025,984; May 14; Sp. p. 1946; Gaz. vol. 178; p. 336.

Kahn, Myrtil, and A. Ossenbeck, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Azo dye. No. 1,027,132; May 21; Sp. p. 4562; Gaz. vol. 178; p. 766.

Kahn, Robert, Frankfort-on-the-Main, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Arseno compounds and making same. No. 1,026,094; May 14; Sp. p. 2227; Gaz. vol. 178; p. 376.

Kaiser, Eduard. (See Sensenschmidt and Kaiser.)

Kalle & Company, Aktiengesellschaft. (See Bucherer, Hans, assignor.)

Kalle & Co., Aktiengesellschaft. (See Elbel, Karl, assignor.)

Kämmer, Paul, Elbing, Germany. Apparatus for lavatory installations. No. 1,027,342; May 21; Sp. p. 4970; Gaz. vol. 178; p. 837.

Kaplan, Fredrick, Beloit, Wis. Collapsible vehicle. No. 1,027,483; May 28; Sp. p. 5260; Gaz. vol. 178; p. 922.

Kapper, Herman, Treptow, near Berlin, assignor to Deutsche Waffen & Munitionsfabriken, Berlin, Germany. Ball-cage for ball-bearings. No. 1,026,749; May 21; Sp. p. 3644; Gaz. vol. 178; p. 634.

Kardos, Emanuel, Limehouse, London, assignor to The London Electron Works Company Limited, London, England. Apparatus for compressing scrap metal into blocks. No. 1,026,987; May 21; Sp. p. 4200; Gaz. vol. 178; p. 717.

Karpisek, Felix, Wilber, Nebr. Oil-can. No. 1,027,254; May 21; Sp. p. 4795; Gaz. vol. 178; p. 808.

Kasley, Alexander T., Swissvale, assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Means for conserving heat. No. 1,025,274; May 7; Sp. p. 357; Gaz. vol. 178; p. 58.

Katsky, Morris. (See Carlson, Edwin R., assignor.)

Katzenstein, William C. (See Barr, Charles D., assignor.)

Kauffmann, Julius, Berlin, Germany. Renovating cotton-waste. No. 1,026,267; May 14; Sp. p. 2594; Gaz. vol. 178; p. 434.

Kaufman, Joseph, New York, N. Y. Stropping-machine. No. 1,025,572; May 7; Sp. p. 1049; Gaz. vol. 178; p. 162.

Kay, Arethusa, *et al.* (See Kay, Samuel P., assignor.)

Kay, Samuel P., assignor of one-third to G. F. Roth, one-third to F. B. Graves, Rochester, N. Y., and one-sixth to A. Kay. Trolley-retriever. No. 1,026,955; May 21; Sp. p. 4144; Gaz. vol. 178; p. 706.

Kaylor, William, assignor of one-half to S. R. Taylor, Muscogee, Okla. Railway-switch joint. No. 1,026,515; May 14; Sp. p. 3145; Gaz. vol. 178; p. 518.

Keck, Charles R., Springfield, Ill. Rail-joint. No. 1,028,027; May 28; Sp. p. 6432; Gaz. vol. 178; p. 1103.

Keel, Charles E., Indianapolis, Ind. Variable-speed gearing. No. 1,025,807; May 7; Sp. p. 1529; Gaz. vol. 178; p. 241.

Keenan, Joseph P., Waterbury, Conn. Bowling-alley. No. 1,025,808; May 7; Sp. p. 1532; Gaz. vol. 178; p. 242.
Kees, Frederick, Minneapolis, Minn. Time-check holder. No. 1,026,268; May 14; Sp. p. 2595; Gaz. vol. 178; p. 434.
Keirle, Albert, Bunker Hill, Ill. Silo. No. 1,026,516; May 14; Sp. p. 3147; Gaz. vol. 178; p. 519.
Kejr, Miles, Dorrance, Kans. Combined threshing, harvesting, and bundling apparatus. No. 1,027,484; May 28; Sp. p. 5263; Gaz. vol. 178; p. 923.
Keller, David L., *et al.* (See Kenner, William E., assignor.)
Keller, Vernet H., Hatfield, Mass. Terminal clip. No. 1,025,573; May 7; Sp. p. 1051; Gaz. vol. 178; p. 162.
Kelley, Eugene E., Greensburg, Pa. Noiseless pivot-hinge. No. 1,026,750; May 21; Sp. p. 3645; Gaz. vol. 178; p. 634.
Kellogg, Edwin F., *et al.* (See Curran, Harry L., assignor.)
Kellogg Switchboard and Supply Company. (See Davis, Fred M., assignor.)
Kellogg Switchboard and Supply Company. (See Webster, Harry G., assignor.)
Kellum, Orlando E., Los Angeles, Cal. Talking moving-picture mechanism. No. 1,027,658; May 28; Sp. p. 5620; Gaz. vol. 178; p. 981.
Kemp, George W., Lyon Station, Pa. Gate. No. 1,028,028; May 28; Sp. p. 6433; Gaz. vol. 178; p. 1104.
Kempshall, Eleazer, Garden City, N. Y. Heel for boots and shoes. No. 1,027,255; May 21; Sp. p. 4795; Gaz. vol. 178; p. 808.
Kendal, Arthur B., Wellington, and J. A. Collinson, Hadley, England. Apparatus for scaling and cleaning steam-boiler, superheater, and like tubes. No. 1,028,075; May 28; Sp. p. 6555; Gaz. vol. 178; p. 1118.
Kenefick, James, Chicago, Ill. Safety device for aeroplanes. No. 1,025,629; May 7; Sp. p. 1174; Gaz. vol. 178; p. 181.
Kennedy, Frank B., *et al.* (See French, Francis J., assignor.)
Kennedy, Frank M., Utica, assignor of one-half to Maxwell Manufacturing Company, New Hartford, N. Y. Cording attachment for buttonhole-sewing machines. No. 1,025,574; May 7; Sp. p. 1054; Gaz. vol. 178; p. 163.
Kennedy, John C., Boston, and W. S. Kinsley, Reading, Mass. Gummed-strip applier. No. 1,026,446; May 14; Sp. p. 3001; Gaz. vol. 178; p. 495.
Kennedy, Joseph, New York, N. Y., assignor to The Clements Co. Bolt-anchor. No. 1,025,275; May 7; Sp. p. 359; Gaz. vol. 178; p. 59.
Kennedy, Kenneth B. (See Kennedy, Oliver J., and K. B.)
Kennedy, Oliver J. and K. B., San Antonio, Tex. Foldable holder for writing-pads. No. 1,025,193; May 7; Sp. p. 182; Gaz. vol. 178; p. 31.
Kenner, William E., assignor of one-sixth to E. H. Mason, one-sixth to D. L. Keller, and one-sixth to A. Findig, Brunswick, Ga. Turpentine-gathering apparatus. No. 1,025,985; May 14; Sp. p. 1947; Gaz. vol. 178; p. 336.
Kenney, Frederick A., Portland, Oreg. Vehicle loading and unloading means. No. 1,027,612; May 28; Sp. p. 5520; Gaz. vol. 178; p. 967.
Keokuk Hydraulic Tire Setter Company. (See Devero, Charles A., assignor.)
Keppel, Jesse E., Jr. (See Keppel, Thomas H., R. F., and J. E., Jr.)
Keppel, Richard J., Philadelphia, Pa. Lock. No. 1,026,209; May 14; Sp. p. 2482; Gaz. vol. 178; p. 415.
Keppel, Robert F. (See Keppel, Thomas H., R. F., and J. E., Jr.)
Keppel, Thomas H. and R. F., St. Louis, Mo., and J. E. Keppel, Jr., Indianapolis, Ind. Aeroplane. No. 1,026,677; May 21; Sp. p. 3488; Gaz. vol. 178; p. 609.
Kershaw, James E., Vancouver, Wash. Harness. No. 1,026,751; May 21; Sp. p. 3646; Gaz. vol. 178; p. 634.
Kessler, Edward E., assignor of one-half to J. M. Rinker, Anderson, Ind. Switch mechanism. No. 1,025,276; May 7; Sp. p. 361; Gaz. vol. 178; p. 59.
Kestler, Fred. (See Best, Edwin J., assignor.)
Kestner, Paul, Lille, France. Apparatus for raising liquids by compressed air. No. 1,025,699; May 7; Sp. p. 1313; Gaz. vol. 178; p. 204.
Kettering, Charles F., and W. A. Chryst, assignors to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,025,277; May 7; Sp. p. 362; Gaz. vol. 178; p. 59.
Kicklighter, Charles H., Newberry, S. C. Induction synchronous motor. No. 1,027,422; May 28; Sp. p. 5148; Gaz. vol. 178; p. 903.
Kienast, Arnold, Leipzig, Germany. Turbine. No. 1,025,141; May 7; Sp. p. 65; Gaz. vol. 178; p. 12.
Kier, Albert J., Copenhagen, Denmark. Apparatus for the filling of tubes. No. 1,026,956; May 21; Sp. p. 4146; Gaz. vol. 178; p. 707.
Kier, Harry E., Colorado Springs, Colo. Filtering apparatus. No. 1,026,917; May 21; Sp. p. 4031; Gaz. vol. 178; p. 692.
Kieser, Walter, Berlin, Germany, assignor to General Electric Company. Fluid-flow measuring or regulating device. No. 1,025,809; May 7; Sp. p. 1534; Gaz. vol. 178; p. 242.
Kieweg, Engelbert, H. Moeller, and F. Wagner, Milwaukee, Wis. Mixing-valve. No. 1,025,575; May 7; Sp. p. 1060; Gaz. vol. 178; p. 163.
Kilby, Edgar E. (See Radcliff and Kilby.)
Kile, Joseph R., Neodesha, Kans. Safety-catch. No. 1,026,210; May 14; Sp. p. 2484; Gaz. vol. 178; p. 416.
Killebrew, Oscar D., Richmond, Va. Stylus. No. 1,028,029; May 28; Sp. p. 6434; Gaz. vol. 178; p. 1104.
Killeen, Thomas J., Portland, Oreg. Car-fender. No. 1,026,678; May 21; Sp. p. 3494; Gaz. vol. 178; p. 610.
Killen, William H. (See Hamel, Louis C., assignor.)
Kimball, James L., Haverhill, Mass. Guiding mechanism for sewing-machines. No. 1,026,095; May 14; Sp. p. 2228; Gaz. vol. 178; p. 376.
Kimball, James L., assignor to Locke Regulator Company, Salem, Mass. Engine-stop. No. 1,026,041; May 14; Sp. p. 2079; Gaz. vol. 178; p. 350.
Kimball, Robert E., assignor to The Tickometer Company, Cleveland, Ohio. Ticket counting and inspecting machine. No. 1,027,613; May 28; Sp. p. 5527; Gaz. vol. 178; p. 967.
Kimmel, Edward C. (See Weaver and Kimmel.)
Kincaid, Floy D., Long Creek, Oreg. Churn and dasher. No. 1,026,517; May 14; Sp. p. 3148; Gaz. vol. 178; p. 519.
Kincaid, Ira, assignor of one-third to W. H. Neureither and one-third to M. A. Foote, Chicago, Ill. Brake-shoe for railway-cars. No. 1,025,916; May 7; Sp. p. 1809; Gaz. vol. 178; p. 278.
King, Alfred S., Norwich, England. Nailing-machine. No. 1,026,679; May 21; Sp. p. 3496; Gaz. vol. 178; p. 610.
King, Charles E., Gray, Iowa. Draft-equalizer for cultivators. No. 1,028,076; May 28; Sp. p. 6556; Gaz. vol. 178; p. 1119.
King, Frank D., *et al.* (See Doebler, Hugo, assignor.)
King & Hamilton Company. (See Hall, Frank, assignor.) (Reissue.)
King, James M., North Vernon, Ind. Nutcracking-machine. No. 1,025,405; May 7; Sp. p. 659; Gaz. vol. 178; p. 103.
Kingsford, Thomas P., *et al.* (See Griessmann, Franz A., assignor.)
Kinney, Charles A., Seneca, Pa. Internal-combustion-engine starter. No. 1,025,810; May 7; Sp. p. 1536; Gaz. vol. 178; p. 243.
Kinney, Lloyd H., and W. McGuire, Clifton, Pa. Automatic-block-signal joint. No. 1,027,343; May 21; Sp. p. 4972; Gaz. vol. 178; p. 837.
Kinsley, William S. (See Kennedy and Kinsley.)
Kippe, Otto. (See Hoering and Kippe.)
Kirby, Frank A., assignor to Kirby Motorcar Company, Detroit, Mich. Power-transmitting mechanism for motor-vehicles. No. 1,027,736; May 28; Sp. p. 5775; Gaz. vol. 178; p. 1006.
Kirby Motorcar Company. (See Kirby, Frank A., assignor.)
Kirby, Walter S., Georgetown, S. C., assignor to The Lidgerwood Manufacturing Company. Log connection for hauling-lines. No. 1,025,472; May 7; Sp. p. 817; Gaz. vol. 178; p. 127.
Kirchhoff, William G., St. Louis, Mo. Wedge-key. No. 1,025,278; May 7; Sp. p. 372; Gaz. vol. 178; p. 60.
Kirchner, Henry W., assignor to River & Rail Transportation Company, St. Louis, Mo. Removable and interchangeable unit for freight-cars. No. 1,026,752; May 21; Sp. p. 3647; Gaz. vol. 178; p. 634.
Kirk, Richard A. (See Poppert, Lillian, assignor.)
Kirke, Percy S. (See Morris and Kirke.)
Kirkhuff, Marshall N., assignor to Oliver Chilled Plow Works, South Bend, Ind. Cultivator. No. 1,025,749; May 7; Sp. p. 1414; Gaz. vol. 178; p. 222.
Kirkhuff, Marshall N., assignor to Oliver Chilled Plow Works, South Bend, Ind. Cultivator. No. 1,025,874; May 7; Sp. p. 1689; Gaz. vol. 178; p. 264.
Kirkland, Martin W., Abbeville, Ala. Car-coupling. No. 1,027,207; May 21; Sp. p. 4709; Gaz. vol. 178; p. 791.
Kirkman, Karl F., Erie, Pa., assignor to Automatic Press Feeder Company, Chicago, Ill. Printing-press. No. 1,025,194; May 7; Sp. p. 184; Gaz. vol. 178; p. 32.
Kirkwood, James C. P., assignor to H. D. Vickery, Wellington, New Zealand. Means for regulating the temperature of electrical heating and cooking apparatus. No. 1,025,576; May 7; Sp. p. 1063; Gaz. vol. 178; p. 164.
Kirkwood, William H., Vandergrift Heights, Pa. Switch. No. 1,026,680; May 21; Sp. p. 3500; Gaz. vol. 178; p. 611.
Kissinger, George B., Aspinwall, Pa. Pipe-coupling. No. 1,026,211; May 14; Sp. p. 2485; Gaz. vol. 178; p. 416.
Kistler, Jonathan, *et al.* (See Bremer, Russell H., assignor.)
Kitchen, Joseph M. W., East Orange, N. J. Making and preserving butter. No. 1,026,918; May 21; Sp. p. 4034; Gaz. vol. 178; p. 692.
Kitchen, Joseph M. W., East Orange, N. J. Means for economizing heat. No. 1,028,030; May 28; Sp. p. 6435; Gaz. vol. 178; p. 1104.
Klein, Alvin A., *et al.* (See Gipple, Roy E., assignor.)
Klein, Charles M., Millerville, Minn. Fly-poison cage. No. 1,026,681; May 21; Sp. p. 3501; Gaz. vol. 178; p. 611.
Klesa, Albert H., Wilkinsburg, Pa. Porch-swing and the like. No. 1,025,212; May 14; Sp. p. 2488; Gaz. vol. 178; p. 416.
Klingler, George H. and W. H., Emlenton, Pa., assignors of one-half to Wright Wire Company, Worcester, Mass. Splice between Manila and wire cables. No. 1,026,869; May 21; Sp. p. 3903; Gaz. vol. 178; p. 674.
Klingler, William H. (See Klingler, George H. and W. H.)

Klobusiak, Michael, Linwood, W. Va. Animal-trap. No. 1,027,854; May 28; Sp. p. 6077; Gaz. vol. 178; p. 1047.
Klotz, Peter G., assignor to Hinde & Dauch Paper Company, Sandusky, Ohio. Machine for manufacturing paper-board. No. 1,026,870; May 21; Sp. p. 3905; Gaz. vol. 178; p. 675.
Knapp, Frederick B., Duxbury, Mass. Outlook-table. No. 1,027,855; May 28; Sp. p. 6079; Gaz. vol. 178; p. 1048.
Knauff, George C., Chicago, Ill. Attachment-plug. No. 1,026,269; May 14; Sp. p. 2596; Gaz. vol. 178; p. 435.
Knecht, Johann J., Chemnitz, Germany. Machine for cutting cards for automatic embroidering-machines. No. 1,027,256; May 21; Sp. p. 4796; Gaz. vol. 178; p. 808.
Knight, Percy J., Liverpool, assignor of one-fourth to F. Smith, Liscard, Wallasey, England. Bottle-stoppering. No. 1,025,811; May 7; Sp. p. 1537; Gaz. vol. 178; p. 243.
Knobloch, William J., Washington, D. C. Electric alarm. No. 1,026,518; May 14; Sp. p. 3149; Gaz. vol. 178; p. 519.
Knoph, William C., New Orleans, La. Float for bathers. No. 1,026,519; May 14; Sp. p. 3150; Gaz. vol. 178; p. 520.
Knoth, Conrad, and F. Whitecar, Newark, N. J. Smoking-pipe cleaner. No. 1,025,142; May 7; Sp. p. 63; Gaz. vol. 178; p. 12.
Knox, Herbert, Warehouse Point, Conn. Balance window-sash. No. 1,026,398; May 14; Sp. p. 2887; Gaz. vol. 178; p. 479.
Kocher, Frank, East Germantown, Ind. Humidifier and disinfector. No. 1,027,856; May 28; Sp. p. 6081; Gaz. vol. 178; p. 1048.
Kocian, Izydor, Junction City, Ill. Trolley. No. 1,027,857; May 28; Sp. p. 6083; Gaz. vol. 178; p. 1048.
Koechlin, Albert G., Basel, Switzerland, assignor to Spinnerei & Weberei Steinen Actien Gesellschaft, Steinen, Germany. Stop-motion for looms. No. 1,028,031; May 28; Sp. p. 6444; Gaz. vol. 178; p. 1105.
Koehler, George H., and J. E. Horn, Pittsburgh, Pa. Anti-refillable bottle. No. 1,025,577; May 7; Sp. p. 1065; Gaz. vol. 178; p. 154.
Koehler, Firm of Julius. (See Koehler, Max, assignor.)
Koehler, Max, assignor to Firm of J. Koehler, Limbach, Germany. Looping-machine. No. 1,026,808; May 21; Sp. p. 3776; Gaz. vol. 178; p. 654.
Koeller, Alfred H. (See Schimper, Frederick, assignor.)
Koenig, William H., Beloit, Wis. Building-block. No. 1,025,406; May 7; Sp. p. 661; Gaz. vol. 178; p. 104.
Koerting, Ernst, Pegli, near Genoa, Italy, assignor to Schutte & Koerting Company, Philadelphia, Pa. Injector. No. 1,026,390; May 14; Sp. p. 2889; Gaz. vol. 178; p. 479.
Kohler, George B., assignor to The J. G. Brill Company, Philadelphia, Pa. Lock. No. 1,026,591; May 14; Sp. p. 3280; Gaz. vol. 178; p. 542.
Köhler, Hugo. (See Merling and Köhler.)
Kohlmyer, Frederick W., Cleveland, Ohio. Guard for polishing or grinding wheels. No. 1,027,548; May 28; Sp. p. 5394; Gaz. vol. 178; p. 945.
Kohn, Joseph, Philadelphia, Pa. Artificial tooth and crown. No. 1,026,213; May 14; Sp. p. 2489; Gaz. vol. 178; p. 417.
Kohnle, Frederick, Dayton, Ohio, assignor to The Ohio Safe Deposit & Trust Company, trustee. Ratchet locking mechanism. No. 1,025,530; May 7; Sp. p. 951; Gaz. vol. 178; p. 147.
Koike, Kiliel, assignor to S. Hirai, Seattle, Wash. Display apparatus. No. 1,026,214; May 14; Sp. p. 2491; Gaz. vol. 178; p. 417.
Komarek, Gustav, St. Louis, Mo., assignor to St. Louis Briquette Machine Company. Briquet-machine. No. 1,026,682; May 21; Sp. p. 3502; Gaz. vol. 178; p. 611.
Koppers, Heinrich, Essen-on-the-Ruhr, Germany. Retort-oven for producing gas and coke. No. 1,026,169; May 14; Sp. p. 2376; Gaz. vol. 178; p. 401.
Körner, Eduard, Lützel, near Koblenz, Germany. Apparatus for controlling the lighting of gas from a distance. No. 1,025,750; May 7; Sp. p. 1415; Gaz. vol. 178; p. 222.
Korth, John C., New York, N. Y. Grip dumb-bell. No. 1,026,215; May 14; Sp. p. 2492; Gaz. vol. 178; p. 417.
Kotkovský, Benjamen, Paris, France. Machine for cutting key-bits. No. 1,025,917; May 7; Sp. p. 1810; Gaz. vol. 178; p. 279.
Kraft, Henry P. (See Schweinert and Kraft.)
Krag, Ole H. J., Ullern, near Christiania, Norway. Automatic repeating firearm. No. 1,028,032; May 28; Sp. p. 6445; Gaz. vol. 178; p. 1105.
Krämer, Christian, assignor to Felten & Guilleaume-Lahmeyerwerke Actien Gesellschaft, Frankfort-on-the-Main, Germany. Apparatus for electrically controlling machine-tools. No. 1,028,033; May 28; Sp. p. 6453; Gaz. vol. 178; p. 1106.
Krantz, Frederick F. (See Weeks, Charlie E., assignor.)
Kränzlein, Georg, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Salmon-colored vat dyestuff and making same. No. 1,025,195; May 7; Sp. p. 187; Gaz. vol. 178; p. 32.
Kraus, Edward L., Slatington, Pa. Blackboard. No. 1,026,809; May 21; Sp. p. 3780; Gaz. vol. 178; p. 654.
Krause, Edmund, Waldmannslust, Germany, assignor to General Electric Company. System of motor control. No. 1,025,812; May 7; Sp. p. 1539; Gaz. vol. 178; p. 244.
Krauskopf, Oscar, Fredericksburg, Tex. Tube-clamp. No. 1,027,423; May 28; Sp. p. 5156; Gaz. vol. 178; p. 904.
Kress, Ira D., Los Angeles, Cal. Package-fastener. No. 1,027,858; May 28; Sp. p. 6084; Gaz. vol. 178; p. 1048.
Kretzer, Nicholas, Indianapolis, Ind. Coin-controlled lock. No. 1,025,143; May 7; Sp. p. 67; Gaz. vol. 178; p. 12.
Kretzschmar, August O., Endicott, N.Y. Tooth-brush. No. 1,025,751; May 7; Sp. p. 1417; Gaz. vol. 178; p. 222.
Krogoll, Gustav R. von, Seattle, Wash. Fry-cake and doughnut cooker. No. 1,025,630; May 7; Sp. p. 1177; Gaz. vol. 178; p. 181.
Kronert, Max, Bozeman, Mont. Micrometer-feed mechanism. No. 1,027,549; May 28; Sp. p. 5394; Gaz. vol. 178; p. 945.
Kropp, Walter. (See Hiemenz and Kropp.)
Kruck, Walter A., Camden, N. J. Pneumatic action for self-playing pianos. No. 1,027,257; May 21; Sp. p. 4798; Gaz. vol. 178; p. 809.
Krueger, Emil, Milwaukee, Wis. Coin-holding pocket for covers. No. 1,025,631; May 7; Sp. p. 1178; Gaz. vol. 178; p. 181.
Krüger, Charles H., Bradford, and C. W. Collinson, Baildon, England. Lamp and reflectors for same. No. 1,027,737; May 28; Sp. p. 5777; Gaz. vol. 178; p. 1007.
Kruger, Traugott P., New York, N. Y. Eraser-holder. No. 1,028,034; May 28; Sp. p. 6456; Gaz. vol. 178; p. 1106.
Kubish, John, Indian Orchard, Mass. Flying-machine. No. 1,027,258; May 21; Sp. p. 4800; Gaz. vol. 178; p. 809.
Kuehl, Joseph, and J. Stefanowski, Detroit, Mich. Spring-wheel. No. 1,026,810; May 21; Sp. p. 3782; Gaz. vol. 178; p. 654.
Kuhn, Frank, assignor to American Electrical Heater Company, Detroit, Mich. Electric foot-warmer. No. 1,025,144; May 7; Sp. p. 71; Gaz. vol. 178; p. 13.
Kundtz, Theodor, Lakewood, and A. Schuster, Cleveland, Ohio; said Schuster assignor to said Kundtz. Sewing-machine table. No. 1,026,400; May 14; Sp. p. 2893; Gaz. vol. 178; p. 480.
Kunicki, Henry F., and M. Swiecicki, Philadelphia, Pa. Telephone and telegraph contact for movable bodies. No. 1,025,701; May 7; Sp. p. 1315; Gaz. vol. 178; p. 204.
Kuring, August, and G. Hoffman, Chicago, Ill. Fan attachment for rocking-chairs. No. 1,027,859; May 28; Sp. p. 6085; Gaz. vol. 178; p. 1049.
Kursheedt Manufacturing Company, The. (See Rink, Fredrick, assignor.)
Kursheedt Manufacturing Company, The. (See Taylor, George H., assignor.)
Kustner Frères. (See Clerc, François, assignor.)
L. E. Schlotterback Manufacturing Co. (See Schlotterback, Lewis E., assignor.)
La Due, Edward J., Pontiac, Ill. Scale. No. 1,025,145; May 7; Sp. p. 71; Gaz. vol. 178; p. 13.
La Hodny, William, Buffalo, N. Y. Polishing-machine. No. 1,026,321; May 14; Sp. p. 2711; Gaz. vol. 178; p. 454.
Lacey, Francis H., Richland, Mo. Resilient wheel. No. 1,025,473; May 7; Sp. p. 819; Gaz. vol. 178; p. 128.
Ladd, James B., and D. Baker, Philadelphia, Pa. Furnace construction. No. 1,027,738; May 28; Sp. p. 5780; Gaz. vol. 178; p. 1007.
Ladoff, Isador, Cleveland, Ohio, assignor of thirty one-hundredths to P. C. Peck, New York, N. Y. Arc-light electrode. No. 1,025,407; May 7; Sp. p. 663; Gaz. vol. 178; p. 104.
Laessele, Albert. (See Howlett and Laessele.)
Lafeuille, Fernand, Charmes, France. Drying apparatus. No. 1,026,683; May 21; Sp. p. 3505; Gaz. vol. 178; p. 612.
Lage, Minnie, Gladbrook, Iowa. Apparel-shoe heel. No. 1,027,659; May 28; Sp. p. 5622; Gaz. vol. 178; p. 981.
Laing, Andrew, Newcastle-upon-Tyne, England. Liquid-fuel furnace. No. 1,025,279; May 7; Sp. p. 374; Gaz. vol. 178; p. 60.
Lake, Albert D., assignor of one-fourth to C. Boetting and one-fourth to L. Schnuettgen, Cripple Creek, Colo. Door-operating mechanism. No. 1,026,170; May 14; Sp. p. 2377; Gaz. vol. 178; p. 401.
Lake, Simon, Milford, Conn. Internal-combustion engine. No. 1,026,871; May 21; Sp. p. 3906; Gaz. vol. 178; p. 675.
Lally, John T., assignor to U. S. Fire Apparatus Company, Wilmington, Del. Valve for fire-extinguishers. No. 1,027,344; May 21; Sp. p. 4973; Gaz. vol. 178; p. 838.
Lamarre, Arthur, and L. Fiala, Fall River, Mass. Washing-machine. No. 1,026,811; May 21; Sp. p. 3783; Gaz. vol. 178; p. 654.
Lamb, Charles C., Joliet, assignor of forty-nine one-hundredths to W. M. McEwen, Chicago, Ill. Rail-joint. No. 1,025,408; May 7; Sp. p. 664; Gaz. vol. 178; p. 104.
Lambert, John W., assignor to The Buckeye Manufacturing Company, Anderson, Ind. Power-transmission mechanism. No. 1,025,875; May 7; Sp. p. 1690; Gaz. vol. 178; p. 264.
Lancaster, George W., Richmond, Va. Telephone-cabinet. No. 1,025,813; May 7; Sp. p. 1542; Gaz. vol. 178; p. 244.
Lance, Andrew M., assignor of one-half to A. F. Haynie, Batson, Tex. Nut-lock. No. 1,026,812; May 21; Sp. p. 3784; Gaz. vol. 178; p. 655.

Landers, Robert C., Lebanon, Kans. Fan attachment for sewing-machines. No. 1,027,259; May 21; Sp. p. 4802; Gaz. vol. 178; p. 810.

Landine, Peter N., assignor to The Rostand Manufacturing Company, Milford, Conn. Hinge-joint for wind-shields. No. 1,026,813; May 21; Sp. p. 3785; Gaz. vol. 178; p. 655.

Landsiedel, John, Peoria, Ill. Lighting system. No. 1,025,196; May 7; Sp. p. 188; Gaz. vol. 178; p. 32.

Lane, Howard, Birmingham, England, assignor to Internationale Wasserstoff Aktiengesellschaft, Frankfort-on-the-Main, Germany. Gas-purifying plant. No. 1,025,918; May 7; Sp. p. 1812; Gaz. vol. 178; p. 279.

Lang, Johan G. V., Southall, assignor of one-half to E. H. Johnson, London, England. Control of electric motors. No. 1,025,876; May 7; Sp. p. 1691; Gaz. vol. 178; p. 264.

Lang, Johan G. V., Davenport, Iowa, assignor of one-half to E. H. Johnson, New York, N. Y. Regulating electric motors. No. 1,025,877; May 7; Sp. p. 1694; Gaz. vol. 178; p. 265.

Lang, John W., assignor of one-half to R. Calderwood, Portersville, Cal. Pipe attachment. No. 1,025,578; May 7; Sp. p. 1067; Gaz. vol. 178; p. 164.

Langendorfer, John W., Philadelphia, Pa. Gas-fixture. No. 1,026,447; May 14; Sp. p. 3006; Gaz. vol. 178; p. 495.

Lanier, Lewis H., Newport, Ky., assignor of one-half to L. L. Stricker, Cincinnati, Ohio. Ice-cream-cone machine. No. 1,028,035; May 28; Sp. p. 6457; Gaz. vol. 178; p. 1106.

Lanphier, Robert C., assignor to Sangamo Electric Company, Springfield, Ill. Inductor-magneto. No. 1,027,550; May 28; Sp. p. 5396; Gaz. vol. 178; p. 945.

Lapin, John, New York, N. Y. Trench-digging shovel. No. 1,027,345; May 21; Sp. p. 4975; Gaz. vol. 178; p. 838.

Larkin, Clifford J., *et al.* (See Nelson, Albert H., assignor.)

Larkins, Thomas F., Sandusky, Ohio. Music-leaf turner. No. 1,027,346; May 21; Sp. p. 4976; Gaz. vol. 178; p. 838.

Larrad, John L., Bexhill, England. Lock-nut. No. 1,025,702; May 7; Sp. p. 1316; Gaz. vol. 178; p. 205.

Larrance, Laurena E., Delia, Kans. Cooling device. No. 1,027,660; May 28; Sp. p. 5623; Gaz. vol. 178; p. 982.

Larsen, Robert, Chicago, Ill. Lubricating device. No. 1,026,322; May 14; Sp. p. 2716; Gaz. vol. 178; p. 454.

Lassiter, Columbus K., and F. E. Bocorselski, Richmond, Va. Multiple-spindle drill. No. 1,027,347; May 21; Sp. p. 4977; Gaz. vol. 178; p. 839.

Latham, Harry H., and W. Osterholm, assignors to Latham Machinery Company, Chicago, Ill. Cutting mechanism for wire-stitching machines. No. 1,026,216; May 14; Sp. p. 2493; Gaz. vol. 178; p. 418.

Latham Machinery Company. (See Latham and Osterholm, assignors.)

Lathrop, Frank L., and G. T. S. Spokes, assignors to H. L. Judd Company, Wallingford, Conn. Curtain-rod and attachment. No. 1,026,042; May 14; Sp. p. 2081; Gaz. vol. 178; p. 356.

Latta, Emmit G., Syracuse, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,025,752; May 7; Sp. p. 1419; Gaz. vol. 178; p. 223.

Lattig, Jacob W., and C. L. Goodrum, assignors to American Automatic Telephone Company, Rochester, N. Y. Combined automatic telephone-exchange and fire-alarm system. No. 1,027,053; May 21; Sp. p. 4361; Gaz. vol. 178; p. 740.

Lauer, Emil A., Brooklyn, N. Y. Lamp. No. 1,026,684; May 21; Sp. p. 3509; Gaz. vol. 178; p. 612.

Lauffer, Emil J. (See Huffman and Lauffer.)

Lauzon, Calvin A., Grand Rapids, assignor, by mesne assignments, to Wm. Heap & Co., Muskegon, Mich. Electric oven or cooker. No. 1,027,739; May 28; Sp. p. 5781; Gaz. vol. 178; p. 1007.

Lavallee, Charles, New Market, N. H. Selvage-motion for looms. No. 1,027,860; May 28; Sp. p. 6087; Gaz. vol. 178; p. 1049.

Lawhon, John W., Trundles Cross Roads, Tenn. Combined fire extinguishing and indicating apparatus. No. 1,027,260; May 21; Sp. p. 4803; Gaz. vol. 178; p. 810.

Lawlor, Simeon C., assignor to American Standard Manufacturing Company, Chicago, Ill. Implement-clamp. No. 1,025,280; May 7; Sp. p. 376; Gaz. vol. 178; p. 61.

Lawrence, Ernest M., New York, N. Y., assignor, by mesne assignments, to The Electrene Company. Fire-extinguisher. No. 1,027,133; May 21; Sp. p. 4562; Gaz. vol. 178; p. 766.

Lawrence, Phebe A., St. Paul, Minn. Retainer for receptacle-covers. No. 1,026,096; May 14; Sp. p. 2229; Gaz. vol. 178; p. 376.

Lawrence, W., *et al.* (See Davis, Claude B., assignor.)

Lawrie, Harry, Omaha, Nebr. Water-heating attachment for furnaces. No. 1,026,753; May 21; Sp. p. 3649; Gaz. vol. 178; p. 635.

Lawshe, Walter D. (See Johnson, Baueris, Jensen, and Lawshe.)

Lawson, James R., Dallas, assignor of one-third to W. H. Yoakum, Fort Worth, and one-third to C. W. White, Waco, Tex. Electric heater for liquids. No. 1,025,281; May 7; Sp. p. 377; Gaz. vol. 178; p. 61.

Lawton, Charles L., Hancock, Mich. Unloading device for mine-skips. No. 1,026,988; May 21; Sp. p. 4201; Gaz. vol. 178; p. 717.

Le Boeuf, Arthur W., Woonsocket, R. I., assignor to Electric Compositor Company, New York, N. Y. Linotype-mold. No. 1,027,551; May 28; Sp. p. 5390; Gaz. vol. 178; p. 946.

Le Roy, Jean A., New York, N. Y. Kinetoscope. No. 1,027,135; May 21; Sp. p. 4566; Gaz. vol. 178; p. 767.

Learned, Frank K., Royal Oak, Mich. Base-heater. No. 1,026,323; May 14; Sp. p. 2722; Gaz. vol. 178; p. 455.

Learned, John R., *et al.* (See Nelson, Albert H., assignor.)

Ledoux, John W., Swarthmore, Pa. Fluid-meter. No. 1,026,324; May 14; Sp. p. 2723; Gaz. vol. 178; p. 455.

Leduc, Alfred D., Rouen, France. Means for replacing twyers in air-blast furnaces. No. 1,025,531; May 7; Sp. p. 953; Gaz. vol. 178; p. 148.

Lee, Clarence H., assignor, by mesne assignments, to J. R. Townsend, Los Angeles, Cal. Voting-machine. No. 1,025,632; May 7; Sp. p. 1179; Gaz. vol. 178; p. 181.

Lee, George A., Yonkers, N. Y., assignor to Automatic Packing & Labeling Company, Durham, N. C. Machine for packaging loose substances. No. 1,026,356; May 14; Sp. p. 2803; Gaz. vol. 178; p. 465.

Lee, Herbert, Kensington, near Sydney, New South Wales, Australia. Producing barrels of ovate section for rotary engines and the like. No. 1,028,036; May 28; Sp. p. 6461; Gaz. vol. 178; p. 1107.

Leemann, Theodor and W., Zurich, Switzerland. Vending-machine. No. 1,026,919; May 21; Sp. p. 4038; Gaz. vol. 178; p. 693.

Leemann, Walter. (See Leemann, Theodor and W.)

Leeming, Harold B., Salford, England. Ventilating system. No. 1,027,740; May 28; Sp. p. 5783; Gaz. vol. 178; p. 1008.

Lefaivre, Joseph, assignor to The Societe des Moteurs Sabathé, St.-Étienne, France. Atomizer for liquid-fuel motors. No. 1,027,054; May 21; Sp. p. 4366; Gaz. vol. 178; p. 740.

Leich, Oscar M., assignor to Cracraft, Leich Electric Company, Genoa, Ill. Stable hydrogen-peroxid solution. No. 1,027,485; May 28; Sp. p. 5266; Gaz. vol. 178; p. 923.

Leighton, Arthur M., Charlestown, assignor of one-half to G. E. Belcher, Stoughton, Mass. Two-part last. No. 1,025,197; May 7; Sp. p. 193; Gaz. vol. 178; p. 33.

Leineweber, Charles C., Firth, Nebr. Grain-dividing attachment for harvesters. No. 1,025,753; May 7; Sp. p. 1424; Gaz. vol. 178; p. 223.

Leitch, Meredith, Springfield, Mass., assignor to F. J. Arend, New York, N. Y., and J. Bernstrom, Stockholm, Sweden. Mechanical movement for producing a differential speed between driving and driven members. No. 1,027,134; May 21; Sp. p. 4564; Gaz. vol. 178; p. 767.

Lemp, Hermann, Lynn, Mass., assignor to General Electric Company. Fuel-supply system for explosive-engines. No. 1,025,814; May 7; Sp. p. 1546; Gaz. vol. 178; p. 244.

Lennon, William, Manitou, Colo. Trough or open flume. No. 1,026,957; May 21; Sp. p. 4148; Gaz. vol. 178; p. 707.

Lentz, Philipp, Gross-Lichterfelde, near Berlin, Germany. Swimming apparatus. No. 1,027,741; May 28; Sp. p. 5785; Gaz. vol. 178; p. 1008.

Leonard, George I. (See Cutler and Leonard.)

Leonard, George I., and W. C. Cutler, Los Angeles, assignors to I. M. Cutler, Sawtelle, Cal. Platform-operated machine. No. 1,026,325; May 14; Sp. p. 2725; Gaz. vol. 178; p. 456.

Leonard, Wilber W., Hinckley, Minn. Pipe-wrench. No. 1,026,270; May 14; Sp. p. 2598; Gaz. vol. 178; p. 435.

Leopold, George O., assignor to North Bro's Mf'g Co., Philadelphia, Pa. Ratchet mechanism. No. 1,027,261; May 21; Sp. p. 4805; Gaz. vol. 178; p. 810.

Lepley, Daniel F., Connellsville, Pa. Coke-discharging apparatus. No. 1,025,815; May 7; Sp. p. 1548; Gaz. vol. 178; p. 245.

Leporin, Henry F., New York, N. Y. Breast-supporting corset. No. 1,026,326; May 14; Sp. p. 2727; Gaz. vol. 178; p. 456.

Leppenat, Gustave. (See Meyer and Leppenat.)

Lesher, George M., Newark, N. J. Centrifugal separator. No. 1,026,271; May 14; Sp. p. 2599; Gaz. vol. 178; p. 436.

Leslie, Sylvester F., Newcastle, New South Wales, Australia. Coupling device. No. 1,027,861; May 28; Sp. p. 6089; Gaz. vol. 178; p. 1049.

Lesquerre, Juan B., Buenos Aires, Argentina. Ox-collar. No. 1,025,409; May 7; Sp. p. 666; Gaz. vol. 178; p. 105.

Lessig, George, Reading, Pa. Railway-tie. No. 1,027,601; May 28; Sp. p. 5624; Gaz. vol. 178; p. 982.

Lester, Howard W., assignor to The Post & Lester Company, Hartford, Conn. Bulb. No. 1,025,986; May 14; Sp. p. 1949; Gaz. vol. 178; p. 337.

Lettrophones Limited. (See Mikorey, Hans, assignor.)

Leuchter, August, New York, N. Y. Electrodeposition of metals. No. 1,026,627; May 14; Sp. p. 3368; Gaz. vol. 178; p. 555.

Leuchter, August, New York, N. Y. Electroplating. No. 1,026,628; May 14; Sp. p. 3370; Gaz. vol. 178; p. 555.

Ley, Frank W., New York, N. Y. Feeding mechanism. No. 1,025,282; May 7; Sp. p. 379; Gaz. vol. 178; p. 61.

Levalley, Christopher W., Milwaukee, Wis. Concrete-mixing apparatus. No. 1,026,958; May 21; Sp. p. 4150; Gaz. vol. 178; p. 708.

Levalley, Christopher W., Milwaukee, Wis. Concrete-mixer. No. 1,027,055; May 21; Sp. p. 4368; Gaz. vol. 178; p. 741.

Levedahl, Axel, assignor to Aurora Automatic Machinery Company, Aurora, Ill. Means for advancing or retarding a magneto-shaft relative to a motor-shaft. No. 1,027,056; May 21; Sp. p. 4370; Gaz. vol. 178; p. 741.

Leveque, Cyrille, Montreal, Quebec, Canada. Eyeglasses. No. 1,026,272; May 14; Sp. p. 2602; Gaz. vol. 178; p. 436.

Levey, Thomas J., Baltimore, Md. Bottle-capping machine. No. 1,027,262; May 21; Sp. p. 4806; Gaz. vol. 178; p. 811.

Levy, Firm of Henry. (See Tscherne, Alois, assignor.)

Lewis, Jackson G., New Windsor, Colo. Adjustable and collapsible shingling-stool. No. 1,026,097; May 14; Sp. p. 2231; Gaz. vol. 178; p. 376.

Lewis, Louie T., Fletcher, Okla. Reinforced-concrete railway-tie. No. 1,027,263; May 21; Sp. p. 4810; Gaz. vol. 178; p. 811.

Lewis, Turner A., Winchester, Va. Grain threshing and separating machine. No. 1,026,685; May 21; Sp. p. 3511; Gaz. vol. 178; p. 612.

Leyner, John G., Denver, assignor to The J. Geo. Leyner Engineering Works Company, Littleton, Colo. Fluid-controlled drill-steel-forming and drill-bit-sharpening machine. No. 1,026,872; May 21; Sp. p. 3916; Gaz. vol. 178; p. 676.

Lichtenstein, Joseph, *et al.* (See Davis, Claude B., assignor.)

Lickey, Clarence, Round Hill, Va. Cultivator attachment. No. 1,027,264; May 21; Sp. p. 4811; Gaz. vol. 178; p. 811.

Lidgerwood Manufacturing Company, The. (See Kirby, Walter S., assignor.)

Liebau, Richard, Watervliet, N. Y., Spring-vehicle. No. 1,026,098; May 14; Sp. p. 2232; Gaz. vol. 178; p. 377.

Lieberman, Samuel. (See Horovich, Max, assignor.)

Liebknecht, Otto, Frankfort-on-the-Main, Germany, assignor to Roessler and Hasslacher Chemical Co., New York, N. Y. Stable hydrogen-peroxid solution. No. 1,025,948; May 7; Sp. p. 1878; Gaz. vol. 178; p. 288.

Lilleberg, Tideman M., Woodstock, Ill. Character-forming machine. No. 1,028,037; May 28; Sp. p. 6468; Gaz. vol. 178; p. 1107.

Lilley, Alfred L., assignor to The Smith-Worthington Company, Hartford, Conn. Press for finishing leather loops. No. 1,027,552; May 28; Sp. p. 5401; Gaz. vol. 178; p. 946.

Lindberg, Charles A. (See Lord, Lindberg, and Flanigan.)

Linde, Carl von, Munich, Germany. Apparatus for the separation of hydrogen from a gaseous mixture. No. 1,027,862; May 28; Sp. p. 6090; Gaz. vol. 178; p. 1050.

Linde, Carl von, Munich, Germany. Apparatus for the separation of hydrogen. No. 1,027,863; May 28; Sp. p. 6092; Gaz. vol. 178; p. 1050.

Linder, John, Deer Park, Wash., assignor to Eastman Kodak Co., Rochester, N. Y. Photographic shutter. No. 1,026,043; May 14; Sp. p. 2082; Gaz. vol. 178; p. 357.

Lindley, Andrew K., assignor of one-half to M. E. Sharp, Los Angeles, Cal. Gas-furnace. No. 1,026,814; May 21; Sp. p. 3787; Gaz. vol. 178; p. 656.

Lindner, Rudolf, Erie, Pa. Sprinkler. No. 1,025,410; May 7; Sp. p. 667; Gaz. vol. 178; p. 105.

Lindsay, William G., assignor to The Celluloid Company, New York, N. Y. Solvents for acetyl cellulose. No. 1,027,486; May 28; Sp. p. 5271; Gaz. vol. 178; p. 924.

Lindsay, William G., assignor to The Celluloid Company, New York, N. Y. Solvent for acetyl cellulose. No. 1,027,614; May 28; Sp. p. 5529; Gaz. vol. 178; p. 967.

Lindsay, William G., assignor to The Celluloid Company, New York, N. Y. Solvent for acetyl cellulose. No. 1,027,615; May 28; Sp. p. 5530; Gaz. vol. 178; p. 967.

Lindsay, William G., assignor to The Celluloid Company, New York, N. Y. Solvent for acetyl cellulose. No. 1,027,616; May 28; Sp. p. 5531; Gaz. vol. 178; p. 967.

Lindsay, William G., assignor to The Celluloid Company, New York, N. Y. Solvent for nitrocellulose. No. 1,027,617; May 28; Sp. p. 5532; Gaz. vol. 178; p. 968.

Lindsay, William G., assignor to The Celluloid Company, New York, N. Y. Solvent for nitrocellulose. No. 1,027,618; May 28; Sp. p. 5533; Gaz. vol. 178; p. 968.

Lindsay, William G., assignor to The Celluloid Company, New York, N. Y. Solvent for acetyl cellulose. No. 1,027,619; May 28; Sp. p. 5534; Gaz. vol. 178; p. 968.

Lindsey, George M. and W. A., Los Angeles, Cal. Watch-guard. No. 1,027,487; May 28; Sp. p. 5271; Gaz. vol. 178; p. 924.

Lindsey, William A. (See Lindsey, George M. and W. A.)

Link-Belt Company. (See Rapp, Axel G. J., assignor.)

Linograph Manufacturing Company, The. (See Petersen, Hans, assignor.)

Liquid Carbonic Company, The. (See Smith, Horace M., assignor.)

Lishman, John J. (See Whidbourne and Lishman.)

Littauer, Lucius N. (See Weis, John P., assignor.)

Little, James E. (See Turner, Drake, and Little.)

Little, John, Camberwell, Victoria, assignor to Woods-Gilbert Rail Planer Company Limited, Melbourne, Australia. Machine for planing rails upon their tracks. No. 1,025,754; May 7; Sp. p. 1425; Gaz. vol. 178; p. 223.

Little, Luur E. (See Little, Minnie P. and L. E.)

Little, Minnie P. and L. E., Columbia, Mo. Burial-casket. No. 1,026,044; May 14; Sp. p. 2086; Gaz. vol. 178; p. 357.

Livingston, Harry E., Smithville, Ga. Doubletree. No. 1,028,038; May 28; Sp. p. 6471; Gaz. vol. 178; p. 1107.

Livingston, S. P. (See Hearest, Joshua G., assignor.)

Lloyd-Jones, Horatio O., Winnipeg, Manitoba, Canada. Pipe-line coupling. No. 1,026,686; May 21; Sp. p. 3514; Gaz. vol. 178; p. 612.

Lloyd, Marshall B., assignor to Automatic Welding Company, Menominee, Mich. Continuous process of manufacturing metal tubes. No. 1,027,864; May 28; Sp. p. 6093; Gaz. vol. 178; p. 1050.

Lloyd, Marshall B., assignor to Automatic Welding Company, Menominee, Mich. Continuous tube-mill. No. 1,027,865; May 28; Sp. p. 6106; Gaz. vol. 178; p. 1051.

Lloyd, Marshall B., assignor to Automatic Welding Company, Menominee, Mich. Manufacturing metal tubes. No. 1,028,039; May 28; Sp. p. 6472; Gaz. vol. 178; p. 1108.

Locke Regulator Company. (See Kimball, James L., assignor.)

Locke, William S., Los Angeles, Cal. Plunger. No. 1,026,873; May 21; Sp. p. 3923; Gaz. vol. 178; p. 676.

Lockwood, Marquis H., assignor to Underwood Typewriter Company, New York, N. Y. Type-writer ribbon-carrier. No. 1,027,488; May 28; Sp. p. 5272; Gaz. vol. 178; p. 924.

Locomotive Tender Frame Company. (See Westlake, Charles T., assignor.)

Loe, James T. W., Marshall, Tex. Grain-doors for railway-cars. No. 1,025,283; May 7; Sp. p. 381; Gaz. vol. 178; p. 62.

Loehler, Gustav G., Washington, D. C. Bottle-closure. No. 1,028,040; May 28; Sp. p. 6478; Gaz. vol. 178; p. 1108.

Loeling, Gerhard. (See Mills, Ernest H., assignor.)

Löfquist, Hjalmar, Stockholm, Sweden. Electric water-heating device. No. 1,026,217; May 14; Sp. p. 2499; Gaz. vol. 178; p. 418.

Lofthouse, Jacob M., and E. R. Booty, Perth, Western Australia, Australia. Carbureter. No. 1,025,816; May 7; Sp. p. 1551; Gaz. vol. 178; p. 245.

Logan, Crawford D., assignor of one-half to J. H. Dunn, Coal Hill, Ark. Switch. No. 1,028,041; May 28; Sp. p. 6480; Gaz. vol. 178; p. 1108.

Logan, Philip A. (See Brewer, Thomas M., assignor.)

Logan, Ralph H., Allegheny, Pa. Cigar-machine. No. 1,027,553; May 28; Sp. p. 5402; Gaz. vol. 178; p. 947.

Lohse, Richard, Breslau, Germany. Fluid-meter. No. 1,025,633; May 7; Sp. p. 1186; Gaz. vol. 178; p. 182.

Loichot, Paul F. (See Warstler and Loichot.)

London Electron Works Company Limited, The. (See Kardos, Emanuel, assignor.)

Long, A. L. (See Strawser, George A., assignor.)

Long, Adam A., Rochester, N. Y. Tire-tool. No. 1,025,987; May 14; Sp. p. 1950; Gaz. vol. 178; p. 337.

Long, Eugene M., New York, N. Y. Automatic sprinkler-head. No. 1,026,687; May 21; Sp. p. 3516; Gaz. vol. 178; p. 613.

Long, George, London, England. Alarm-governor. No. 1,026,090; May 14; Sp. p. 2237; Gaz. vol. 178; p. 377.

Long, John T., Encanto, Cal. Airship. No. 1,026,950; May 21; Sp. p. 4154; Gaz. vol. 178; p. 708.

Longino, Carrie W., *et al.*, heirs-at-law. (See Webb, Samuel J.)

Loomis, Allen, assignor, by mesne assignments, to The Packard Motor Car Company, Detroit, Mich. Shock-absorber. No. 1,027,866; May 28; Sp. p. 6124; Gaz. vol. 178; p. 1051.

Lord, Allen P., C. A. Lindberg, and J. V. Flanigan, Bradford, Pa.; said Lord and Lindberg assignors to said Flanigan. Overhead trolley. No. 1,026,874; May 21; Sp. p. 3924; Gaz. vol. 178; p. 677.

Lorenz, William A., *et al.* (See Merritt, Joseph, assignor.)

Lory, Raoul, St. Benoit-sur-Loire, France. Gearing. No. 1,026,100; May 14; Sp. p. 2239; Gaz. vol. 178; p. 377.

Lotter, Franklin, Elkton, Mich. Beet-topper. No. 1,025,755; May 7; Sp. p. 1429; Gaz. vol. 178; p. 224.

Low, Abbot A., *et al.*, trustees. (See Betts, Lewis F., assignor.)

Lowe, Luke T., Bristol, Tenn., assignor to Diamond Block Machine Company, Incorporated, Bristol, Va. Molding-machine. No 1,025,570; May 7; Sp. p. 1067; Gaz. vol. 178; p. 165.

Lowry, Reginald N., Sewickley, Pa. Locomotive. No. 1,027,424; May 28; Sp. p. 5157; Gaz. vol. 178; p. 904.

Lowry, Robert C., New York, and F. Emmerich, Brooklyn, N. Y. Bundling-machine. No. 1,026,754; May 21; Sp. p. 3651; Gaz. vol. 178; p. 635.

Lowy, William, and J. Milch, New York, N. Y. Perforating means for cylinder-presses. No. 1,026,218; May 14; Sp. p. 2501; Gaz. vol. 178; p. 418.

Lubin, Siegmund. (See Johnson, Jesse B., assignor.)

Lublintz, Rudolph, New York, N. Y. Combined strap and drinking-cup holder. No. 1,026,960; May 21; Sp. p. 4156; Gaz. vol. 178; p. 709.

Lucas, Joseph. (See Anderson, Peter, assignor.)

Luckenbach, Harry, Chicago, Ill., assignor, by mesne assignments, to Luckenbach Inventions Development Company, New York, N. Y. Making structures for superheating and other purposes. No. 1,025,817; May 7; Sp. p. 1553; Gaz. vol. 178; p. 246.

Luckenbach, Harry, Chicago, Ill., assignor, by mesne assignments, to Luckenbach Inventions Development Company, New York, N. Y. Structure for heating or superheating purposes. No. 1,025,949; May 7; Sp. p. 1878; Gaz. vol. 178; p. 288.

Luckenbach, Harry, St. Louis, Mo., assignor, by mesne assignments, to Luckenbach Inventions Development Company, New York, N. Y. Mixer and distributer for liquid bodies. No. 1,028,042; May 28; Sp. p. 6482; Gaz. vol. 178; p. 1109.

Luckenbach Inventions Development Company. (See Luckenbach, Harry, assignor.)

Ludium, Albert C., New York, N. Y., assignor to New York Engineering Company. Pulling-stand for drill-casings. No. 1,027,867; May 28; Sp. p. 6128; Gaz. vol. 178; p. 1052.

Ludwig, Bernhard, assignor to Ofenbau-Gesellschaft mit beschränkter Haftung, Munich, Germany. Latch mechanism. No. 1,025,756; May 7; Sp. p. 1432; Gaz. vol. 178; p. 224.

Ludwig Hupfeld Aktiengesellschaft. (See Hennig, Gustav K., assignor.)

Lugenbill, John G., Pitcairn, Pa. Boring-bar. No. 1,027,554; May 28; Sp. p. 5404; Gaz. vol. 178; p. 947.

Lummis, George M., Fort Myers, Fla. Sanitary structure and appliance for use in cow-milking. No. 1,025,955; May 7; Sp. p. 1893; Gaz. vol. 178; p. 290.

Lundin, Andreas P., New York, N. Y., assignor, by mesne assignments, to Astor Trust Company, trustee. Device for hoisting and lowering life-boats. No. 1,025,818; May 7; Sp. p. 1555; Gaz. vol. 178; p. 246.

Lundin, Birger, Skultuna, Sweden. Coin-counting apparatus. No. 1,026,755; May 21; Sp. p. 3656; Gaz. vol. 178; p. 635.

Lunken, Edmund H., assignor to The Lunkenheimer Company, Cincinnati, Ohio. Fireproof window construction. No. 1,026,520; May 14; Sp. p. 3151; Gaz. vol. 178; p. 520.

Lunkenheimer Company, The. (See Lunken, Edmund H., assignor.)

Lunt, Joseph, Stoke-upon-Trent, and J. W. Hartley, Stone, England. Circular kiln or oven. No. 1,028,043; May 28; Sp. p. 6484; Gaz. vol. 178; p. 1109.

Luten, Daniel B., Indianapolis, Ind. Arch-viaduct. No. 1,027,742; May 28; Sp. p. 5786; Gaz. vol. 178; p. 1008.

Lutenberger, Mike, Blocton, Ala. Jack. No. 1,027,348; May 21; Sp. p. 4979; Gaz. vol. 178; p. 839.

Lutz, Harvey B. (See Shee, Parke E., assignor.)

Lybeck, Julius M., Everett, Wash. Lock attachment. No. 1,025,284; May 7; Sp. p. 383; Gaz. vol. 178; p. 62.

Lynehan, John E., New York, N. Y. Snare strainer and muffler for snare-drums. No. 1,025,146; May 7; Sp. p. 74; Gaz. vol. 178; p. 14.

Lyon, Howard, Gloucester City, N. J., assignor to Welsbach Light Company. Conductive filament. No. 1,026,401; May 14; Sp. p. 2900; Gaz. vol. 178; p. 480.

Lyons, William W., *et al.* (See Bennett, William N., assignor.)

Lyons, Willis L., Thomasville, Ga. Splice rail-joint. No. 1,027,489; May 28; Sp. p. 5274; Gaz. vol. 178; p. 924.

Lysinger, Thomas K., Wilkinsburg, Pa. Heat-controlling device for radiators. No. 1,025,919; May 7; Sp. p. 1813; Gaz. vol. 178; p. 279.

Maag, Rudolf, Sindlingen, near Höchst-on-the-Main, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Vat dyestuff and making same. No. 1,025,147; May 7; Sp. p. 76; Gaz. vol. 178; p. 14.

Maas, Joseph, assignor to American Gas Light Company, Kalamazoo, Mich. Gas-light fixture. No. 1,027,743; May 28; Sp. p. 5787; Gaz. vol. 178; p. 1008.

MacBain, D. R., *et al.* (See Foster, Oliver M., assignor.)

MacDowney, Silas C., Chicago, Ill. Receding awning. No. 1,026,045; May 14; Sp. p. 2087; Gaz. vol. 178; p. 357.

MacIndoe, John F., Philadelphia, Pa. Lubricator. No. 1,026,961; May 21; Sp. p. 4157; Gaz. vol. 178; p. 709.

MacKusick, Albert R. (See Haskell, Luther D., assignor.)

MacNicoll, Donald. (See Cockburn and MacNicoll.)

Macalpine, John H., Pittsburgh, Pa. Reduction-gearing. No. 1,026,629; May 14; Sp. p. 3370; Gaz. vol. 178; p. 555.

Macdonald and Sons. (See Hyle, William A., assignor.)

Macfarlane, George F., and E. McGroarty, Wilkes-Barre, Pa. Skein-reel. No. 1,027,555; May 28; Sp. p. 5407; Gaz. vol. 178; p. 947.

Machen, Charles H., assignor to Chelten Electric Company, Philadelphia, Pa. Terminal and contact for snap-switches. No. 1,025,634; May 7; Sp. p. 1186; Gaz. vol. 178; p. 182.

Machinery & Specialty Company, The. (See Hanson, Adolf K., assignor.)

Machlett, Robert H., New York, N. Y. Gas-regulator for X-ray tubes. No. 1,025,635; May 7; Sp. p. 1187; Gaz. vol. 178; p. 182.

Mack, Rudolph A., Gallipolis, Ohio. Automatic gas cut-off. No. 1,028,044; May 28; Sp. p. 6487; Gaz. vol. 178; p. 1110.

Mackay, Robert, Walthamstow, England. Apparatus for boiling water. No. 1,026,592; May 14; Sp. p. 3280; Gaz. vol. 178; p. 542.

Macke, Wilhelm, Marienfelde, Germany. Portable folding dark chamber. No. 1,027,662; May 28; Sp. p. 5625; Gaz. vol. 178; p. 982.

Mackie, William, Sidney Mines, Cape Breton, Nova Scotia, Canada. Wrench. No. 1,025,703; May 7; Sp. p. 1317; Gaz. vol. 178; p. 205.

Mackneer, Roy W., Moorefield, W. Va. Swing. No. 1,025,819; May 7; Sp. p. 1558; Gaz. vol. 178; p. 246.

Macleod, Walter, Fort Thomas, Ky., and W. Hext, Cincinnati, Ohio. Sand-blast device. No. 1,026,688; May 21; Sp. p. 3517; Gaz. vol. 178; p. 613.

Macpherson, Robert, Brondesbury, and W. E. Heys, Bushey, England. Manufacture of detersive agents. No. 1,027,744; May 28; Sp. p. 5788; Gaz. vol. 178; p. 1009.

Madden, Thomas E., assignor to himself and J. C. Hancock, Indianapolis, Ind. Short-circuiter for reversed spark-generators. No. 1,027,388; May 21; Sp. p. 5076; Gaz. vol. 178; p. 854.

Maddox, Charlie H., Canton, Mo. Tire-armor. No. 1,025,286; May 7; Sp. p. 383; Gaz. vol. 178; p. 62.

Madison, H. Flood. (See Smith, William M., assignor.)

Madsen, Mads O., Asnas, Denmark. Straw-press with automatic bundle-measurer and needle-controller. No. 1,027,868; May 28; Sp. p. 6129; Gaz. vol. 178; p. 1052.

Magee, James, 2nd. (See McCollum, Alfred F., assignor.)

Magnetic Pigment Company. (See Fireman, Peter, assignor.)

Magnus, Edward H., Toledo, Ohio. Device for smoothing holes in resetting shoe-buttons. No. 1,027,057; May 21; Sp. p. 4372; Gaz. vol. 178; p. 742.

Magoon, Edwin C., assignor of one-half to D. W. Flynn, Galesburg, Ill. Ladder-foot. No. 1,025,474; May 7; Sp. p. 820; Gaz. vol. 178; p. 126.

Mahoney, John R., Washington, D. C. Display-rack. No. 1,026,593; May 14; Sp. p. 3283; Gaz. vol. 178; p. 543.

Maisenbacher, Fritz, and T. Bürck, Pforzheim, Germany. Soldering single links of solid wire chains. No. 1,027,869; May 28; Sp. p. 6131; Gaz. vol. 178; p. 1052.

Majestic Manufacturing Company. (See Henry, Frank R., assignor.)

Makowski, John F., assignor to The Roebling Construction Company, San Francisco, Cal. Clip for fireproof construction. No. 1,027,425; May 28; Sp. p. 5160; Gaz. vol. 178; p. 904.

Malcolm, George W., Davenham, and F. T. Munton, Winsford, assignors to The Salt Union, Limited, Liverpool, England. Treatment of brine. No. 1,025,411; May 7; Sp. p. 668; Gaz. vol. 178; p. 105.

Malle Little Grip Company, The. (See Pritzkow, Malle L., assignor.)

Mallery Manufacturing Company. (See Waldvogel, Paul E., assignor.)

Mallett, Raymond A. (See Shermund and Mallett.)

Mallette, Emmor M., Chicago, Ill. Sharpening device. No. 1,025,412; May 7; Sp. p. 670; Gaz. vol. 178; p. 105.

Malmsten, Nils K. E., and K. T. Thorssell, Malmö, Sweden. Crumbling device for superphosphate and other materials. No. 1,026,273; May 14; Sp. p. 2603; Gaz. vol. 178; p. 436.

Maly, Charles, Braceville, Ill. Metallic tie and rail-fastener. No. 1,025,704; May 7; Sp. p. 1319; Gaz. vol. 178; p. 205.

Manek, Lawrence, Winipank, Conn. Wrench. No. 1,027,870; May 28; Sp. p. 6132; Gaz. vol. 178; p. 1052.

Mangan, John A. (See Bropson, James, assignor.)

Manheim, Sigwarth, New York, N. Y. Soap-handle. No. 1,027,208; May 21; Sp. p. 4710; Gaz. vol. 178; p. 791.

Manners, James R., Manila, Philippine Islands. Finger-exerciser. No. 1,027,871; May 28; Sp. p. 6133; Gaz. vol. 178; p. 1053.

Manning Bowman & Company. (See Savage and Wilkinson, assignors.)

Mansfeld, Hans, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Gallocyanin compounds and making them. No. 1,028,045; May 28; Sp. p. 6488; Gaz. vol. 178; p. 1110.

Manson, Ray H., assignor to Dean Electric Company, Elyria, Ohio. Protective device for electrical apparatus. No. 1,025,532; May 7; Sp. p. 954; Gaz. vol. 178; p. 148.

Manthe, Otto K. A., Niederplanitz, near Zwickau, Germany. Making skittle-grounds. No. 1,027,872; May 28; Sp. p. 6135; Gaz. vol. 178; p. 1053.

Manton-Gaulin Manufacturing Company. (See Davies, John W., assignor.)

Marchand, Alexis, assignor to J. Bouska, Bridgeport, Wash. Chair-brace. No. 1,025,580; May 7; Sp. p. 1071; Gaz. vol. 178; p. 165.

Marcou, André H., Versailles, France. Air-compressor. No. 1,026,521; May 14; Sp. p. 3153; Gaz. vol. 178; p. 520.

Marcus, Herman, assignor of one-half to J. Bloch, New York, N. Y. Non-refillable bottle. No. 1,025,757; May 7; Sp. p. 1434; Gaz. vol. 178; p. 225.

Marean, Marrett F., Joplin, Mo. Folding umbrella. No. 1,026,357; May 14; Sp. p. 2813; Gaz. vol. 178; p. 466.

Margolius, David, Spartanburg, S. C. Mop-holder. No. 1,027,209; May 21; Sp. p. 4711; Gaz. vol. 178; p. 791.

Marinics, Frank, Expedit, Pa. Rail-joint. No. 1,027,873; May 28; Sp. p. 6136; Gaz. vol. 178; p. 1053.

Marley, Samuel S., *et al.* (See Ostergren, Oscar P., assignor.)

Marlow, William, New York, N. Y., assignor to Standard Knitting Mills Company. Winding-machine. No. 1,025,988; May 14; Sp. p. 1954; Gaz. vol. 178; p. 337.

Marois, Joseph P., assignor of one-fourth to S. Simon, Montreal, Quebec, Canada. Railway-track. No. 1,027,490; May 28; Sp. p. 5275; Gaz. vol. 178; p. 925.

Marsh, Elon A., Detroit, Mich. Centrifugal pump. No. 1,026,101; May 14; Sp. p. 2239; Gaz. vol. 178; p. 378.

Marsh, Joseph R. C., Cincinnati, Ohio, assignor to Marsh Steel Company. Composition of matter. No. 1,027,620; May 28; Sp. p. 5534; Gaz. vol. 178; p. 968.

Marsh, Joseph R. C., assignor to Marsh Steel Company, Cincinnati, Ohio. Composition of matter. No. 1,028,046; May 29; Sp. p. 6490; Gaz. vol. 178; p. 1110.

Marsh, Joseph R. C., assignor to Marsh Steel Company, Cincinnati, Ohio. Composition of matter. No. 1,028,047; May 28; Sp. p. 6490; Gaz. vol. 178; p. 1110.

Marsh Steel Company. (See Marsh, Joseph R. C., assignor.)

Marshall, George, Fremont, Nebr. Machine for making shocks. No. 1,025,705; May 7; Sp. p. 1320; Gaz. vol. 178; p. 205.

Marshall, George, East Ely, Nev. Safety switch-lock. No. 1,026,875; May 21; Sp. p. 3925; Gaz. vol. 178; p. 677.

Marshall, Harry E., San Antonio, Tex. Vending-machine. No. 1,025,286; May 7; Sp. p. 384; Gaz. vol. 178; p. 63.

Marshall, James A. G., London, England. Attachment for pistols. No. 1,027,556; May 28; Sp. p. 5408; Gaz. vol. 178; p. 948.

Marshall, William. (See Blackman and Marshall.)

Marshall, William, and N. Simison, Des Moines, Iowa. Anchor. No. 1,026,402; May 14; Sp. p. 2901; Gaz. vol. 178; p. 481.

Marston, George W., Dexter, Iowa. Transmission-gearing. No. 1,026,448; May 14; Sp. p. 3007; Gaz. vol. 178; p. 496.

Martin, Arthur T., Sac City, Iowa. Seed-grader. No. 1,026,327; May 14; Sp. p. 2728; Gaz. vol. 178; p. 456.

Martin, Daniel C., Maplewood, Mo. Feed-bag. No. 1,026,989; May 21; Sp. p. 4203; Gaz. vol. 178; p. 717.

Martin, T., Missouri City, Tex. Whiffletree. No. 1,026,522; May 14; Sp. p. 3154; Gaz. vol. 178; p. 521.

Martin, Thomas B., Texico, N. Mex. Pump. No. 1,025,878; May 7; Sp. p. 1699; Gaz. vol. 178; p. 265.

Martin, William E., Stamford, England. Mowing-machine. No. 1,027,745; May 28; Sp. p. 5790; Gaz. vol. 178; p. 1009.

Martini, Carl, assignor to Martini & Hüneke Maschinenbau-Aktien-Gesellschaft, Berlin, Germany. Device for safely storing inflammable liquids. No. 1,025,758; May 7; Sp. p. 1436; Gaz. vol. 178; p. 225.

Martini & Hüneke Maschinenbau-Aktien-Gesellschaft. (See Martini, Carl, assignor.)

Maschinenfabrik Schnarr & Schmitt. (See Schmitt, Rudolf, assignor.)

Mason, Edward H., *et al.* (See Kenner, William E., assignor.)

Mason, Edward J. (See Mason, William S. and E. J.)

Mason, Volney W., Providence, R. I. Universal sheave suspension. No. 1,027,491; May 28; Sp. p. 5276; Gaz. vol. 178; p. 925.

Mason, William S. and E. J., Leicester, England. Window-holder for sliding sashes. No. 1,027,874; May 28; Sp. p. 6137; Gaz. vol. 178; p. 1053.

Massillon Steam & Hot Water Heating Company. (See Mauger and Hinderer, assignors.)

Master, James W., assignor of one-third to N. S. Abrahamson, San Diego, Cal. Life-preserver. No. 1,025,989; May 14; Sp. p. 1956; Gaz. vol. 178; p. 338.

Mateer, George, Conteaville, Pa. Reaming-machine. (Reissue.) No. 13,422; May 21; Sp. p. 5096; Gaz. vol. 178; p. 857.

Mather, Samuel W., Cleveland, Ohio. Vehicle-step. No. 1,026,102; May 14; Sp. p. 2245; Gaz. vol. 178; p. 378.

Mathesius, Walther, Charlottenburg, Germany. Economizer, regenerator, and the like. No. 1,027,875; May 28; Sp. p. 6138; Gaz. vol. 178; p. 1054.

Mathiesen, Marius, San Antonio, Tex. Automatically-balancing aeroplane. No. 1,026,219; May 14; Sp. p. 2502; Gaz. vol. 178; p. 419.

Matlack, Albert F., Philadelphia, Pa. Gas-producer. No. 1,025,148; May 7; Sp. p. 77; Gaz. vol. 178; p. 14.

Matlack, Albert F., Philadelphia, Pa. Gas-producer. No. 1,025,198; May 7; Sp. p. 195; Gaz. vol. 178; p. 33.

Matson, Harrison, St. Louis, Mo. Bat. No. 1,026,990; May 21; Sp. p. 4204; Gaz. vol. 178; p. 718.

Mattern, Joel D. (See Mattern, William F. and J. D.)

Mattern, William F. and J. D., Shamokin, Pa. Cutterhead. No. 1,025,149; May 7; Sp. p. 81; Gaz. vol. 178; p. 15.

Matteson, Vernie, assignor of one-half to R. B. Tolsma, Seattle, Wash. Oil-burner. No. 1,026,815; May 21; Sp. p. 3789; Gaz. vol. 178; p. 656.

Matthews, Thomas A., Nashville, Tenn. Stationery-cabinet. No. 1,028,091; May 28; Sp. p. 6603; Gaz. vol. 178; p. 1124.

Mattson, Charles, Bremerton, Wash. Means for loading and unloading trucks. No. 1,025,287; May 7; Sp. p. 387; Gaz. vol. 178; p. 63.

Mattson, John E. (See Moore, William, assignor.)

Mauger, Andrew, and J. L. Hinderer, assignors to Massillon Steam & Hot Water Heating Company, Massillon, Ohio. Steam or hot-water heater. No. 1,027,389; May 21; Sp. p. 5077; Gaz. vol. 178; p. 854.

Mauran, Max, Niagara Falls, N. Y. Discharging-valve for fluid-holding receptacles. No. 1,027,136; May 21; Sp. p. 4569; Gaz. vol. 178; p. 768.

Maurer, Frederick W., *et al.* (See Bremer, Russell H., assignor.)

Max Zeitler Engraving & Supply Co. (See Demery, Thomas R., assignor.)

Maxey, Robert E. L., Hot Springs, Ark. Railway-tie and fastener. No. 1,026,816; May 21; Sp. p. 3790; Gaz. vol. 178; p. 656.

Maxwell, John J., Washington, D. C. Hammock. No. 1,026,524; May 14; Sp. p. 3156; Gaz. vol. 178; p. 521.

Maxwell, John S., Anadarko, Okla. Book-holder. No. 1,026,523; May 14; Sp. p. 3155; Gaz. vol. 178; p. 521.

Maxwell Manufacturing Company. (See Kennedy, Frank M., assignor.)

May, William M., assignor of one-half to S. F. Shannon, Philadelphia, Pa. Car-fender. No. 1,025,533; May 7; Sp. p. 957; Gaz. vol. 178; p. 149.

Mayer, Louis, Mankato, Minn. Knuckle connection and drive for vehicle-wheels. No. 1,027,137; May 21; Sp. p. 4571; Gaz. vol. 178; p. 768.

Mayo, Edwin H., Richmond, Va. Hat-holder. No. 1,027,138; May 21; Sp. p. 4572; Gaz. vol. 178; p. 768.

Mayo, Thomas H., Melrose Highlands, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for making heels. No. 1,025,534; May 7; Sp. p. 958; Gaz. vol. 178; p. 149.

Mays, P. C., *et al.* (See Shropshire, Jesse C., assignor.)

McAllister, James H., O'Neill, Nebr. Folding carrier. No. 1,028,048; May 28; Sp. p. 6491; Gaz. vol. 178; p. 1110.

McAllister, John E., *et al.* (See Simon, Henry, assignor.)

McAnulty, John A. (See Cruikshank and McAnulty.)

McBride, Albert P., Independence, Kans. Underreamer. No. 1,025,413; May 7; Sp. p. 671; Gaz. vol. 178; p. 106.

McCallister, Oscar N., Mount Vernon, Ind. Detachable limousine-top for automobiles. No. 1,026,358; May 14; Sp. p. 2814; Gaz. vol. 178; p. 466.

McCarthy, Mitchell F., New York, N. Y. Building structure. No. 1,027,058; May 21; Sp. p. 4373; Gaz. vol. 178; p. 742.

McCarthy, Terrance, assignor of one-half to W. McCarthy, Jackson, Mich. Car-door lock. No. 1,027,265; May 21; Sp. p. 4812; Gaz. vol. 178; p. 811.

McCarthy, William. (See McCarthy, Terrance, assignor.)

McCarthy, William B. (See Hayes, Robert D., assignor.)

McCauley, Albert J., St. Louis, Mo. Car-truck. No. 1,027,746; May 28; Sp. p. 5793; Gaz. vol. 178; p. 1009.

McCauley, Albert J., St. Louis, Mo. Car-truck. No. 1,027,747; May 28; Sp. p. 5795; Gaz. vol. 178; p. 1010.

McCauley, Albert J., St. Louis, Mo. Car-truck. No. 1,027,748; May 28; Sp. p. 5797; Gaz. vol. 178; p. 1010.

McCauley, Albert J., St. Louis, Mo. Car-truck. No. 1,028,049; May 28; Sp. p. 6493; Gaz. vol. 178; p. 1111.

McCausland, James, and W. Bailey, Edmonton, Alberta, Canada. Window sash and frame. No. 1,025,414; May 7; Sp. p. 675; Gaz. vol. 178; p. 106.

McClellan, Edward J. (See Garvin and McClellan.)

McClellan, Stephen, Brooklyn, N. Y. Foldable umbrella. No. 1,027,426; May 28; Sp. p. 5162; Gaz. vol. 178; p. 904.

McCloskey, Louis J. (See Phillips and McCloskey.)

McCloy, John H., Gradatim, and A. M. Brown, Oakmont, Pa. Stay-bolt construction for steam-boilers. No. 1,025,706; May 7; Sp. p. 1322; Gaz. vol. 178; p. 206.

McCluskey, Frank, New York, N. Y. Joint for tubular piling. No. 1,025,759; May 7; Sp. p. 1437; Gaz. vol. 178; p. 225.

McCollum, Alfred F., assignor of three-fifths to J. Magee, 2nd, Bloomsburg, Pa. Ice-skate carrier. No. 1,028,050; May 28; Sp. p. 6496; Gaz. vol. 178; p. 1111.

McComb, William N., New York, N. Y. Light-shield. No. 1,027,621; May 28; Sp. p. 5535; Gaz. vol. 178; p. 968.

McConathy, Herbert. (See Sparks, Mirabeau E., assignor.)

McConkey, James H., *et al.* (See French, Francis J., assignor.)

McCoy, Josiah R., Marshalltown, Iowa. Earth-chipping machine. No. 1,025,475; May 7; Sp. p. 823; Gaz. vol. 178; p. 128.

McCoy, Walter J., South Omaha, Nebr. Truck. No. 1,027,557; May 28; Sp. p. 5410; Gaz. vol. 178; p. 948.

McCracken, William J., Sioux City, Iowa. Tile-making machine. No. 1,027,492; May 28; Sp. p. 5278; Gaz. vol. 178; p. 925.

McCrone, Patrick F., Scranton, Pa. Hame-fastener. No. 1,026,817; May 21; Sp. p. 3792; Gaz. vol. 178; p. 657.

McCulloch, Harry G., assignor to The Stover Manufacturing Company, Freeport, Ill. Grinding-bur. No. 1,026,818; May 21; Sp. p. 3793; Gaz. vol. 178; p. 657.

McCullough, Peter A., Pittsburgh, Pa. Trolley-harp. No. 1,026,689; May 21; Sp. p. 3518; Gaz. vol. 178; p. 613.

McDermott, Thomas E. (See Campbell, John, assignor.)

McDonald, Charles B., assignor to McDonald Machine Company, Chicago, Ill. Can-testing machine. No. 1,025,199; May 7; Sp. p. 198; Gaz. vol. 178; p. 33.

McDonald Machine Company. (See McDonald, Charles B., assignor.)

McDonough, Robert H. O., Washington, Pa. Flushing apparatus. No. 1,027,622; May 28; Sp. p. 5538; Gaz. vol. 178; p. 968.

McDougall Company. (See Bertram, Henry W., assignor.)

McElhone, Francis J., Jersey City, N. J. Electroplating. No. 1,025,760; May 7; Sp. p. 1438; Gaz. vol. 178; p. 226.

McEwen, Willard M. (See Lamb, Charles C., assignor.)

McGavic, Charles O., Denver, Colo. Building construction. No. 1,027,266; May 21; Sp. p. 4813; Gaz. vol. 178; p. 812.

McGavin, James, Springfield, Ill. Cord-adjuster for electric lamps. No. 1,026,690; May 21; Sp. p. 3519; Gaz. vol. 178; p. 613.

McGeorge, John, Cleveland, Ohio. Pump. No. 1,027,139; May 21; Sp. p. 4574; Gaz. vol. 178; p. 769.

McGiffert, John R., assignor to Clyde Iron Works, Duluth, Minn. Brake mechanism. No. 1,026,274; May 14; Sp. p. 2605; Gaz. vol. 178; p. 437.

McGiffert, John R., assignor to Clyde Iron Works, Duluth, Minn. Fluid-operated clutch. No. 1,027,493; May 28; Sp. p. 5282; Gaz. vol. 178; p. 926.

McGillis, Archibald, Vancouver, British Columbia, Canada. Excavating-scoop for wire-rope hauls. No. 1,027,876; May 28; Sp. p. 6140; Gaz. vol. 178; p. 1054.
McGlocklin, Francis M., Grand Rapids, Mich. Railway-track support and fastener. No. 1,025,820; May 7; Sp. p. 1559; Gaz. vol. 178; p. 247.
McGraw, Walter E., Malden, assignor to C. H. Pearson, Brookline, Mass. Device for improving the tone of cathedral-gongs for clocks. No. 1,025,821; May 7; Sp. p. 1561; Gaz. vol. 178; p. 247.
McGroarty, Edward. (See Macfarlane and McGroarty.)
McGuire, Willard L. (See Shields and McGuire.)
McGuire, William. (See Kinney and McGuire.)
McHill, William R., assignor of one-third to J. H. Cramer, Moran, Kans. Liquid-fuel burner. No. 1,025,636; May 7; Sp. p. 1190; Gaz. vol. 178; p. 183.
McIntyre, John, Jersey City, N. J., assignor, by mesne assignments, to W. M. Griffith, Freeport, Long Island, N. Y. Treating milk. No. 1,026,756; May 21; Sp. p. 3660; Gaz. vol. 178; p. 636.
McIntyre, John, Jersey City, N. J., assignor, by mesne assignments, to W. M. Griffith, Freeport, Long Island, N. Y. Apparatus for drying milk. No. 1,026,757; May 21; Sp. p. 3664; Gaz. vol. 178; p. 636.
McIntyre, Lowell N., Carthage, N. Y. Paper-stock refining and distributing system. No. 1,026,819; May 21; Sp. p. 3795; Gaz. vol. 178; p. 657.
McKam, Lawrence G., assignor to Standard Saw and Manufacturing Co., Detroit, Mich. Saw-set. No. 1,025,950; May 7; Sp. p. 1881; Gaz. vol. 178; p. 288.
McKay, Donald, Collingwood, Ontario, Canada. Truss. No. 1,026,758; May 21; Sp. p. 3670; Gaz. vol. 178; p. 637.
McKean, John O., Westfield, Mass. Tension mechanism for winding-machines. No. 1,027,140; May 21; Sp. p. 4578; Gaz. vol. 178; p. 769.
McKee, Robert, Philadelphia, Pa. Explosive-engine. No. 1,026,403; May 14; Sp. p. 2904; Gaz. vol. 178; p. 481.
McKeel, Holden C., Newbern, N. C., and J. Griffin, Little River, S. C. Flue-cleaner. No. 1,026,525; May 14; Sp. p. 3158; Gaz. vol. 178; p. 521.
McKiernan-Terry Drill Company. (See Terry, Coleman A., assignor.)
McKnight, George M. (See Wheeler, Thomas J., assignor.)
McLain, A. B., *et al.* (See Shropshire, Jesse C., assignor.)
McLearn, Herman C., Yarmouth, Me. Press. No. 1,026,876; May 21; Sp. p. 3929; Gaz. vol. 178; p. 678.
McMeen & Miller. (See McMeen, Samuel G., assignor.)
McMeen, Samuel G., San Francisco, Cal., assignor to McMeen & Miller, Chicago, Ill. Telephone-receiver. No. 1,027,494; May 28; Sp. p. 5285; Gaz. vol. 178; p. 926.
McMillan, John W., El Dorado, Ark. Cotton chopper and cultivator. No. 1,025,761; May 7; Sp. p. 1439; Gaz. vol. 178; p. 226.
McMillen, Albert K. (See Shackleford, Gordon, and McMillen.)
McMillen, John J., Corning, N. Y. Lawn-mower attachment. No. 1,028,051; May 28; Sp. p. 6497; Gaz. vol. 178; p. 1111.
McMorris, William L., *et al.* (See Hargis, Harry W., assignor.)
McNeil, Howard H., New Freedom, Pa. Trolley-guard. No. 1,028,052; May 28; Sp. p. 6498; Gaz. vol. 178; p. 1111.
McNitt, Robert J., Niagara Falls, assignor to Roessler & Hasslacher Chemical Company, New York, N. Y. Electrolytic process. No. 1,027,495; May 28; Sp. p. 5287; Gaz. vol. 178; p. 927.
McQuillan, Mary A., Greeley, Kans. Book-remover. No. 1,025,415; May 7; Sp. p. 677; Gaz. vol. 178; p. 107.
Meahl, Philip J., Bayonne, N. J., assignor to The Aeolian Company, New York, N. Y. Combined player-piano and phonograph. No. 1,025,200; May 7; Sp. p. 200; Gaz. vol. 178; p. 34.
Mechin, Gus V. R. (See Tabler, Frank C., assignor.)
Medwedeff, Arthur. (See Poole, Walter L., assignor.)
Meek, Harry S., Wichita, Kans. Curtain-fixture. No. 1,025,920; May 7; Sp. p. 1814; Gaz. vol. 178; p. 280.
Meeker, Albert A., New York, N. Y. Folding stool. No. 1,026,759; May 21; Sp. p. 3671; Gaz. vol. 178; p. 637.
Meier, Albert J., Glendale, Mo. Heading-machine for steel packages. No. 1,025,637; May 7; Sp. p. 1193; Gaz. vol. 178; p. 183.
Meigs, Stanley V., Pueblo, Colo. Railway motor-car. No. 1,025,201; May 7; Sp. p. 203; Gaz. vol. 178; p. 34.
Mellen, Joseph F., Providence, R. I. Arm-rest for glove-fitting. No. 1,025,476; May 7; Sp. p. 825; Gaz. vol. 178; p. 129.
Mellin, Carl J., Schenectady, assignor to American Locomotive Company, New York, N. Y. Compound engine. No. 1,025,638; May 7; Sp. p. 1196; Gaz. vol. 178; p. 184.
Menapace, J. M. (See Sims, John H., assignor.)
Mendel, Carlo, Triest, Austria-Hungary. Coupling. No. 1,027,267; May 21; Sp. p. 4815; Gaz. vol. 178; p. 812.
Mendelsohn, I. W., *et al.* (See Dressel, Charles P., assignor.)
Meredith, George W., Chicago, Ill. Transmission-gearing. No. 1,027,268; May 21; Sp. p. 4817; Gaz. vol. 178; p. 812.
Merkel, Lewis W., assignor of one-fourth to J. J. Hanlon and one-fourth to H. G. Scheiden, Allentown, Pa. Moving-picture machine. No. 1,026,091; May 21; Sp. p. 4207; Gaz. vol. 178; p. 718.
Merling, Georg, and H. Köhler, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing isoprene. No. 1,026,691; May 21; Sp. p. 3521; Gaz. vol. 178; p. 614.
Merling, Georg, and H. Köhler, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing isoprene. No. 1,026,692; May 21; Sp. p. 3521; Gaz. vol. 178; p. 614.
Merriman, Ichabud. (See Cassidy, James C., assignor.)
Merritt, Joseph, Hartford, Conn., assignor, by mesne assignments, of one-half to Beech-Nut Packing Company, Canajoharie, N. Y., one-fourth to W. A. Lorenz, and one-fourth to W. H. Honiss, Hartford, Conn. Hermetic-sealing apparatus. No. 1,026,404; May 14; Sp. p. 2909; Gaz. vol. 178; p. 482.
Messenger, Isaiah L., De Ruyter, assignor to R. D. Burdick and L. C. Saunders, Lincklaen Center, N. Y. Screw-driver. No. 1,027,877; May 28; Sp. p. 6142; Gaz. vol. 178; p. 1054.
Messimer, Charles W. (See Olmstead and Messimer.)
Metallurgical Research Company. (See Rockey and Eldridge.)
Metcalf, Frank K. (See Jones, Metcalf, and Wear.)
Metropolitan Sewing Machine Company. (See Weis, John P., assignor.)
Meyer, Adolph E., Webster Groves, and F. Wetteroth, St. Louis, Mo. Handle. No. 1,025,416; May 7; Sp. p. 678; Gaz. vol. 178; p. 107.
Meyer, Joseph F., and G. Leppenat, Pittsburgh, Pa. Leveling device for billiard and pool tables. No. 1,025,707; May 7; Sp. p. 1324; Gaz. vol. 178; p. 206.
Meyers, Willard F., New York, N. Y. Stoneworking-machine. No. 1,027,558; May 28; Sp. p. 5412; Gaz. vol. 178; p. 949.
Mica Insulator Company. (See Jefferson, Charles W., assignor.)
Michael, Clement W., assignor to J. I. Case Plow Works, Racine, Wis. Disk harrow. No. 1,026,760; May 21; Sp. p. 3673; Gaz. vol. 178; p. 637.
Michaelsen, Charles O., Omaha, Nebr. Mineral-concentrator. No. 1,027,349; May 21; Sp. p. 4980; Gaz. vol. 178; p. 839.
Middleton, Richard. (See Carpenter and Middleton.)
Miehle, Robert, Chicago, Ill. Fuel and water regulator for steam-generators. No. 1,026,693; May 21; Sp. p. 3522; Gaz. vol. 178; p. 614.
Miehle, Robert, Chicago, Ill. Fuel and water regulator for steam-boilers. No. 1,026,761; May 21; Sp. p. 3675; Gaz. vol. 178; p. 638.
Mies, Frank P., Chicago, Ill. Air-tempering device. No. 1,027,141; May 21; Sp. p. 4580; Gaz. vol. 178; p. 770.
Mikesell, William E., Albany, Ill. Cultivator. No. 1,028,053; May 28; Sp. p. 6499; Gaz. vol. 178; p. 1112.
Mikorey, Hans, Berlin, Germany, assignor to Lettrophones Limited, London, England. Talking-machine. No. 1,027,350; May 21; Sp. p. 4984; Gaz. vol. 178; p. 840.
Milam, John H., *et al.* (See Goetzinger, Charles P., assignor.)
Milch, Jacob. (See Lowy and Milch.)
Milewski, Marian, Carmel, N. Y. Hasp-lock. No. 1,027,878; May 28; Sp. p. 6143; Gaz. vol. 178; p. 1055.
Miller, Anna W., *et al.*, heirs-at-law. (See Webb, Samuel J.)
Miller, Benjamin F., Ulysses, Idaho. Lamp-cord reel. No. 1,027,663; May 28; Sp. p. 5627; Gaz. vol. 178; p. 982.
Miller, Edwin, assignor to Miller Lighting Company, Inc., Detroit, Mich. Carbid-feeder. No. 1,026,594; May 14; Sp. p. 3284; Gaz. vol. 178; p. 543.
Miller, Eugene C. (See Benson, Samuel, assignor.)
Miller, Frank, St. James, Mich. Invalid-bed. No. 1,027,879; May 28; Sp. p. 6145; Gaz. vol. 178; p. 1055.
Miller, Frank C., Salt Lake City, Utah, assignor to Underwood Typewriter Company, New York, N. Y. Typewriting machine. No. 1,026,171; May 14; Sp. p. 2379; Gaz. vol. 178; p. 401.
Miller, Granville J., Fort Defiance, Va. Coin-holder for rural mail-boxes. No. 1,025,150; May 7; Sp. p. 82; Gaz. vol. 178; p. 15.
Miller, Henry, Washington, Pa. Umbrella. No. 1,026,820; May 21; Sp. p. 3801; Gaz. vol. 178; p. 658.
Miller, Huson V., Kalamazoo, Mich. Lifting-jack. No. 1,027,880; May 28; Sp. p. 6146; Gaz. vol. 178; p. 1055.
Miller, Jerome J., Omaha, Nebr. Egg-saving packer. No. 1,026,359; May 14; Sp. p. 2816; Gaz. vol. 178; p. 466.
Miller, Jesse. (See Miller, William I. and J.)
Miller Lighting Company. (See Miller, Edwin, assignor.)
Miller, Nicholas C., Dodgeville, Wis. Hay-distributer. No. 1,025,708; May 7; Sp. p. 1325; Gaz. vol. 178; p. 207.
Miller, Raymond E., New Brighton, Pa. Wrench. No. 1,025,709; May 7; Sp. p. 1330; Gaz. vol. 178; p. 207.
Miller, William F., Fond du Lac, Wis. Grinding and polishing machine. No. 1,025,417; May 7; Sp. p. 679; Gaz. vol. 178; p. 107.
Miller, William I. and J., Red Wing, Minn. Horseshoe-calk. No. 1,026,449; May 14; Sp. p. 3009; Gaz. vol. 178; p. 496.
Mills, Edward L., assignor to Fitchburg Machine Works, Fitchburg, Mass. Lathe. No. 1,027,496; May 28; Sp. p. 5289; Gaz. vol. 178; p. 927.
Mills, Ernest H., Merchantville, assignor of one-half to G. Loeling, Pensauken township, N. J. Automatic self-feeder for chickens, pigeons, and the like. No. 1,027,881; May 28; Sp. p. 6148; Gaz. vol. 178; p. 1056.
Mills, H. S. (See Mills, Mortimer B., assignor.)
Mills, Love W., *et al.*, heirs-at-law. (See Webb, Samuel J.)

Mills, Mortimer B., Chicago, assignor to H. S. Mills, Oak Park, Ill. Annunciator apparatus. No. 1,027,749; May 28; Sp. p. 5798; Gaz. vol. 178; p. 1010.
Millspaugh, William H., Sandusky, Ohio. Paper-making machine. No. 1,025,822; May 7; Sp. p. 1563; Gaz. vol. 178; p. 247.
Milne, John, New York, N. Y. Superheater. No. 1,025,151; May 7; Sp. p. 83; Gaz. vol. 178; p. 15.
Milne, Robert, assignor to Rockford Drilling Machine Co., Rockford, Ill. Feeding attachment for drill-spindles. No. 1,026,595; May 14; Sp. p. 3285; Gaz. vol. 178; p. 543.
Milwaukee Separator Company. (See Hartmann, William C., assignor.)
Miner, James H., Lumberton, Miss. Wheel-flange lubricator. No. 1,027,550; May 28; Sp. p. 5419; Gaz. vol. 178; p. 949.
Miner, William H. (See O'Connor, John F., assignor.)
Minter, Ignatius. (See Minter, Peter, W., and I.)
Minter, Peter, W., and I., Highland, Wis. Acetylene-gas generator. No. 1,027,750; May 28; Sp. p. 5801; Gaz. vol. 178; p. 1011.
Minter, William. (See Minter, Peter, W., and I.)
Mintz, Harry, Passaic, N. J. Safe. No. 1,026,630; May 14; Sp. p. 3372; Gaz. vol. 178; p. 555.
Misland, Joseph A. (See Cannan and Misland.)
Mitchell, Jay G., assignor to The North Electric Company, Cleveland, Ohio. Telephone system. No. 1,025,477; May 7; Sp. p. 827; Gaz. vol. 178; p. 129.
Mitchell, Jay G., assignor to The North Electric Company, Cleveland, Ohio. Electric signal-receiving appliance. No. 1,027,351; May 21; Sp. p. 4986; Gaz. vol. 178; p. 840.
Mitchell-Tappen Company. (See Coffey, Barton H., assignor.)
Mittasch, Alwin. (See Bosch and Mittasch.)
Mitts, Philip S., Saginaw, Mich. Oil-groove-cutting attachment for key-seating machines. No. 1,025,152; May 7; Sp. p. 85; Gaz. vol. 178; p. 16.
Mixa, Emil, Terryville, Conn. Fish-fork. No. 1,027,269; May 21; Sp. p. 4825; Gaz. vol. 178; p. 813.
Mlitz, August, assignor to Vacuum-Adhesine-Gesellschaft m. b. H., Charlottenburg, Germany. Lubricator. No. 1,025,581; May 7; Sp. p. 1072; Gaz. vol. 178; p. 165.
Moebes, August, Jr., and A. H. W. Weber, San Francisco, Cal. Box-lid holder. No. 1,025,582; May 7; Sp. p. 1073; Gaz. vol. 178; p. 166.
Moeller, Henry. (See Kieweg, Moeller, and Wagner.)
Moine, Emile F. (See Burdy and Moine.)
Molloy, Mark T., Joplin, Mo. Strainer. No. 1,027,623; May 28; Sp. p. 5539; Gaz. vol. 178; p. 969.
Monarch Typewriter Company, The. (See Barney, Edwin E., assignor.)
Monarch Typewriter Company, The. (See Hull, Oakley, E., assignor.)
Monarch Typewriter Company, The. (See Purdy, John, assignor.)
Monarch Typewriter Company, The. (See Seib, George A., assignor.)
Monarch Typewriter Company, The. (See Steele, Herbert H., assignor.)
Monard, Alfred, Paris, France. Water-meter with revolving piston. No. 1,026,992; May 21; Sp. p. 4212; Gaz. vol. 178; p. 718.
Mongen, Paul, Mülheim-on-the-Rhine, Germany. Mold-drying stove. No. 1,027,210; May 21; Sp. p. 4713; Gaz. vol. 178; p. 791.
Montelius, Ernst E. L., *et al.* (See Nilsson, Otto, assignor.)
Montgomery, Arthur W., assignor of one-third to F. A. Rivers and one-third to O. Swanson, Helena, Mont. Window-shade bracket. No. 1,027,270; May 21; Sp. p. 4826; Gaz. vol. 178; p. 813.
Montgomery, Frederick D., Chicago, Ill. Producing color-type engravings. No. 1,027,142; May 21; Sp. p. 4581; Gaz. vol. 178; p. 770.
Moodie, Robert P., and C. W. Ball, Ottawa, Ontario, Canada. Stand for electric heaters and irons. No. 1,026,596; May 14; Sp. p. 3290; Gaz. vol. 178; p. 544.
Moon-Hopkins Billing Machine Company. (See Hopkins, Hubert, assignor.)
Moon-Hopkins Billing Machine Company. (See Thieme, Otto, assignor.)
Moon, John W. (See Moon, Wesley J. and J. W.)
Moon, Wesley J. and J. W., Hayden Hill, Old Hill, England. Manufacturing metal tubes. No. 1,026,103; May 14; Sp. p. 2246; Gaz. vol. 178; p. 378.
Moon, Wesley J., Economy, and J. W. Moon, Conshohocken, Pa. Apparatus for manufacturing metal tubes. No. 1,026,275; May 14; Sp. p. 2606; Gaz. vol. 178; p. 437.
Mooney, Lawrence C., Montgomery, Ala. Locomotive front end. No. 1,026,920; May 21; Sp. p. 4040; Gaz. vol. 178; p. 693.
Moore, Daniel M., Newark, N. J., assignor to General Electric Company. Fixture for vacuum-tube lamps. No. 1,028,092; May 28; Sp. p. 6605; Gaz. vol. 178; p. 1125.
Moore, De Witt C., *et al.* (See Foster, Oliver M., assignor.)
Moore, Henry F. (See Berliner, Swem, and Moore.)
Moore, Mandeville A., Newton Highlands, Mass. Filter. No. 1,028,054; May 28; Sp. p. 6500; Gaz. vol. 178; p. 1112.
Moore, Robert L., near Byers, Colo. Rail-joint. No. 1,027,211; May 21; Sp. p. 4714; Gaz. vol. 178; p. 792.
Moore, Vinson, Brinkley, Ark. Flue-working tool. No. 1,026,993; May 21; Sp. p. 4214; Gaz. vol. 178; p. 719.
Moore and White Company, The. (See White, Joseph A., assignor.)
Moore, William, Duluth, assignor of fifty-one one-hundredths to J. E. Mattson, Deer Wood, Minn. Twine-cutter. No. 1,026,631; May 14; Sp. p. 3373; Gaz. vol. 178; p. 555.
Moorhead, Albert E., San Francisco, Cal., assignor to American Rotary Valve Company, Chicago, Ill. Pneumatic scrubbing appliance. No. 1,026,104; May 14; Sp. p. 2249; Gaz. vol. 178; p. 379.
Moran, John F., Pittsburg, Kans., assignor of one-half to J. P. Ryder, Kansas City, Mo. Slide-valve. No. 1,027,560; May 28; Sp. p. 5420; Gaz. vol. 178; p. 949.
Morehouse, David, Delphos, Ohio. Steam-engine lubricator. No. 1,026,526; May 14; Sp. p. 3159; Gaz. vol. 178; p. 522.
Morey, William, Quincy, Ill. Sanitary cuspidor. No. 1,025,288; May 7; Sp. p. 389; Gaz. vol. 178; p. 64.
Morgan, Arthur, *et al.* (See Dressel, Charles P., assignor.)
Morgan Construction Company. (See Jefferies and Isley, assignors.)
Morgan, Ernest W., Oakland, Cal., assignor of one-half to N. Oster, Kinsley, Kans. Envelop. No. 1,025,583; May 7; Sp. p. 1075; Gaz. vol. 178; p. 166.
Morgan, William H., Alliance, Ohio. Railway-tie and means for securing rails to the same. No. 1,026,108; May 14; Sp. p. 2255; Gaz. vol. 178; p. 380.
Morgan, William H., and W. V. Hartzell, Alliance, Ohio; said Hartzell assignor to said Morgan. Clamp for securing railway-rails to metal ties. No. 1,026,105; May 14; Sp. p. 2250; Gaz. vol. 178; p. 379.
Morgan, William H., and W. V. Hartzell, Alliance, Ohio; said Hartzell assignor to said Morgan. Metal ties for railways. No. 1,026,106; May 14; Sp. p. 2252; Gaz. vol. 178; p. 379.
Morgan, William H., and W. V. Hartzell, Alliance, Ohio; said Hartzell assignor to said Morgan. Means for securing rails to metal ties. No. 1,026,107; May 14; Sp. p. 2253; Gaz. vol. 178; p. 380.
Moritz, Gustave, St. Louis, Mo. Eye-shield for spectacles, eyeglasses, and the like. No. 1,025,202; May 7; Sp. p. 204; Gaz. vol. 178; p. 34.
Morrin, Thomas, San Francisco, Cal. Centrifugal oil-burner. No. 1,025,153; May 7; Sp. p. 87; Gaz. vol. 178; p. 16.
Morris, Albert W., assignor to The American Pulley Company, Philadelphia, Pa. Shaft-hanger. No. 1,025,289; May 7; Sp. p. 391; Gaz. vol. 178; p. 64.
Morris, Francis S., and P. S. Kirke, Westminster, England. Manufacture of chains. No. 1,028,055; May 28; Sp. p. 6501; Gaz. vol. 178; p. 1112.
Morris, Harold B., Michigan City, Ind. Cord for use in the manufacture of chairs or other articles. No. 1,027,751; May 28; Sp. p. 5802; Gaz. vol. 178; p. 1011.
Morris, Harry J., and J. A. Cowlyn, Kansas City, Mo. Artificial limb. No. 1,026,109; May 14; Sp. p. 2258; Gaz. vol. 178; p. 380.
Morris, Robert T., New York, N. Y. Smoker's pipe. No. 1,025,639; May 7; Sp. p. 1198; Gaz. vol. 178; p. 184.
Morris S. Wright Company. (See Wright, Morris S., assignor.)
Morrison, George L. (See Fordon and Morrison.)
Morrison, Lewis E., assignor to himself and M. Plum, Newark, N. J. Delivery mechanism for platen-presses. No. 1,025,418; May 7; Sp. p. 681; Gaz. vol. 178; p. 108.
Morrison, William, Des Moines, Iowa. Electrode for reversible galvanic batteries. (Reissue.) No. 13,420; May 14; Sp. p. 3425; Gaz. vol. 178; p. 565.
Morrison, William C., Pittsburgh, Pa., assignor of one-half to W. Richardson, St. Louis, Mo. Hand-hole plate. No. 1,025,710; May 7; Sp. p. 1331; Gaz. vol. 178; p. 207.
Morrow, John W., Murrayville, Victoria, assignor of one-third to B. Edwards, Pinnaroo, Australia. Fence, telegraph, and other post. No. 1,025,823; May 7; Sp. p. 1568; Gaz. vol. 178; p. 248.
Morse Chain Company, The. (See Allingham, Henry W., assignor.)
Morse Chain Company. (See Morse, Frank L., assignor.)
Morse, Frank L., assignor to Morse Chain Company, Trumansburg, N. Y. Drive-chain. No. 1,027,352; May 21; Sp. p. 4988; Gaz. vol. 178; p. 841.
Moskowits, Rudolph, Indianapolis, Ind. Convertible chair. No. 1,026,276; May 14; Sp. p. 2609; Gaz. vol. 178; p. 437.
Moss, Robert S., Chicago, assignor of one-fourth to A. Roberts, Evanston, and one-fourth to E. Anderson, Chicago, Ill. Coke-oven. No. 1,025,419; May 7; Sp. p. 684; Gaz. vol. 178; p. 108.
Mosteller, Dosier H., Chicago, Ill. Commodity-receptacle. No. 1,027,353; May 21; Sp. p. 4990; Gaz. vol. 178; p. 841.
Mount Vernon Specialty Company. (See Hoevet, Alfred T., assignor.)
Mt. Holyoke Tissue Mills. (See Bond, William H., assignor.)
Mudd, Joseph A., Chicago, Ill. Temporary binder. No. 1,026,277; May 14; Sp. p. 2611; Gaz. vol. 178; p. 438.
Mueller, Helena. (See Szabados, Antony, assignor.)
Mueller, Philip, assignor to H. Mueller Manufacturing Co., Decatur, Ill. Bath or basin fitting. No. 1,026,632; May 14; Sp. p. 3375; Gaz. vol. 178; p. 556.

Mueller, Philip, assignor to H. Mueller Manufacturing Company, Decatur, Ill. Automatic fire-hose valve. No. 1,026,994; May 21; Sp. p. 4216; Gaz. vol. 178; p. 719.
Mullaney, John J., New York, N. Y. Pocket-lamp. No. 1,026,995; May 21; Sp. p. 4220; Gaz. vol. 178; p. 720.
Müller, Emil, Dusseldorf, Germany. Sight for rifles and machine-guns. No. 1,027,271; May 21; Sp. p. 4827; Gaz. vol. 178; p. 813.
Müller, Emil, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Firing device for guns with differential recoils. No. 1,026,597; May 14; Sp. p. 3291; Gaz. vol. 178; p. 544.
Muller, Richard O., Washington, D. C. Elastic-fluid turbine. No. 1,025,921; May 7; Sp. p. 1815; Gaz. vol. 178; p. 280.
Muller, Richard O., Washington, D. C. Turbine-rotor. No. 1,026,821; May 21; Sp. p. 3802; Gaz. vol. 178; p. 658.
Mullin, John R., Rome, assignor of one-half to J. F. Holzinger, New York, N. Y. Non-refillable bottle. No. 1,028,077; May 28; Sp. p. 6557; Gaz. vol. 178; p. 1119.
Mumm & Co., G. H. (See Robinet, Georges, assignor.)
Mundler, Samuel, London, England. Alarm for boxes and other receptacles. No. 1,027,272; May 21; Sp. p. 4829; Gaz. vol. 178; p. 814.
Munson, Allan G., and M. N. Webster, St. Paul, Minn. Arc-lamp hanger and automatic cut-out. No. 1,026,360; May 14; Sp. p. 2817; Gaz. vol. 178; p. 466.
Munson, Hugh H., Truro, Iowa. Revolving clod-fender. No. 1,025,420; May 7; Sp. p. 687; Gaz. vol. 178; p. 108.
Munson, Sweney, Fowler, Colo. Guard-rail clamp. No. 1,027,212; May 21; Sp. p. 4716; Gaz. vol. 178; p. 792.
Munton, Frederick T. (See Malcolm and Munton.)
Murdoch, Andrew, Ancon, Canal Zone. Fruit-picker. No. 1,026,996; May 21; Sp. p. 4222; Gaz. vol. 178; p. 720.
Murphy Iron Works. (See Bigelow, Frank B., assignor.)
Murphy, James A., Holyoke, Mass. Base-ball bat. No. 1,025,478; May 7; Sp. p. 830; Gaz. vol. 178; p. 130.
Murphy, Peter F., Milwaukee, Wis. Waste connection. No. 1,025,584; May 7; Sp. p. 1075; Gaz. vol. 178; p. 166.
Murray, Alexander. (See Edgington, William F., assignor.)
Murray, Charles F., assignor to American Steel Foundries, Chicago, Ill. Knuckle-pin retainer for car-couplings. No. 1,026,278; May 14; Sp. p. 2613; Gaz. vol. 178; p. 438.
Murray, James E., McKeesport, Pa. Vehicle wheel and axle. No. 1,026,220; May 14; Sp. p. 2503; Gaz. vol. 178; p. 419.
Muzzy, William H., assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,025,990; May 14; Sp. p. 1958; Gaz. vol. 178; p. 338.
Muzzy, William H., assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,026,762; May 21; Sp. p. 3680; Gaz. vol. 178; p. 638.
Muzzy, William H., assignor to The National Cash Register Company, Dayton, Ohio. Cash-register. No. 1,026,763; May 21; Sp. p. 3686; Gaz. vol. 178; p. 639.
Myers, Benjamin, Spokane, Wash. Safety-stirrup. No. 1,025,824; May 7; Sp. p. 1569; Gaz. vol. 178; p. 248.
Myers, Harry T., Chicago, Ill. Combined bumper and fender. No. 1,026,279; May 14; Sp. p. 2613; Gaz. vol. 178; p. 438.
Myers, John H. (See Parsons and Myers.)
Myers, Lewis A., Jr., Newark, N. J. Belt-buckle. No. 1,025,991; May 14; Sp. p. 1961; Gaz. vol. 178; p. 338.
Myrtin, Sven M., Stockholm, Sweden. Flat screen. No. 1,027,143; May 21; Sp. p. 4582; Gaz. vol. 178; p. 770.
Nair, Frank. (See Nair, Louis and F.)
Nair, Louis and F., New Britain, Conn. Broom. No. 1,027,752; May 28; Sp. p. 5804; Gaz. vol. 178; p. 1011.
National Brake & Electric Co. (See Aikman, Burton S., assignor.)
National Cash Register Company, The. (See Cleal, Joseph P., assignor.)
National Cash Register Company, The. (See Kettering and Chryst, assignors.)
National Cash Register Company, The. (See Muzzy, William H., assignor.)
National Checking Company. (See Costello, James, assignor.)
National Fibre Box Company. (See Walter, Harrison B., assignor.)
National Fibre Products Company. (See Granville, Bernard, assignor.)
National Malleable Castings Company, The. (See Coffin, Walter E., assignor.)
National Malleable Castings Company, The. (See Schmidt, Ernest H., assignor.)
National Malleable Castings Company, The. (See Stephenson, John W., assignor.)
National Pipe Bending Company. (See Hickey, John, assignor.)
National Steel Barrel Company. (See George, James H., assignor.) (Reissue.)
Naughton, William G., Philadelphia, Pa. Fender. No. 1,028,056; May 28; Sp. p. 6504; Gaz. vol. 178; p. 1113.
Naylor, Augustine F., assignor to Perfection Biscuit Company, Fort Wayne, Ind. Barrel-cover. No. 1,028,057; May 28; Sp. p. 6505; Gaz. vol. 178; p. 1113.
Naylor, Erasmus H., London, England. Process to regenerate and improve the structure of lead electrodes of secondary batteries. No. 1,026,527; May 14; Sp. p. 3161; Gaz. vol. 178; p. 522.
Neal, John W., Kealia, Hawaii. Wave-motor. No. 1,026,450; May 14; Sp. p. 3010; Gaz. vol. 178; p. 496.
Nebbia, Pietro, Milan, Italy. Machine for planking felt hat-bodies. No. 1,025,711; May 7; Sp. p. 1332; Gaz. vol. 178; p. 207.
Neely, William A., assignor to Boston Machine Works Company, Lynn, Mass. Cementing-machine. No. 1,027,144; May 21; Sp. p. 4584; Gaz. vol. 178; p. 770.
Neff, Frank R., assignor to C. A. Daniel, Philadelphia, Pa. Hose. No. 1,026,598; May 14; Sp. p. 3292; Gaz. vol. 178; p. 544.
Neher, Noah N., Los Angeles, Cal. Vending-machine. No. 1,027,059; May 21; Sp. p. 4374; Gaz. vol. 178; p. 742.
Neighbour, William W., Denison, Tex., assignor to Suspension Ball Bearing Manufacturing Company, New York, N. Y. Trolley wheel and harp. No. 1,025,479; May 7; Sp. p. 831; Gaz. vol. 178; p. 130.
Nelkirk, John O., Morgan Park, Ill., assignor to Rodger Ballast Car Company. Dump-car. No. 1,026,694; May 21; Sp. p. 3527; Gaz. vol. 178; p. 615.
Nelke, Herbert L., Philadelphia, Pa. Form for shaping and finishing garments. No. 1,026,451; May 14; Sp. p. 3012; Gaz. vol. 178; p. 497.
Nelson, Albert H., assignor, by mesne assignments, of one-third to J. R. Learned, Newton, one-third to C. J. Larkin, Everett, and one-third to L. C. Nelson, Faneuil, Mass. Lighter. No. 1,026,695; May 21; Sp. p. 3530; Gaz. vol. 178; p. 615.
Nelson, Bror A., assignor of one-half to W. T. Goodman, Dixon, Mo. Switch-box. No. 1,025,585; May 7; Sp. p. 1077; Gaz. vol. 178; p. 166.
Nelson, Charles, New York, N. Y., and H. J. Axt, Newark, N. J., assignors to S. Sternau & Co., Brooklyn, N. Y. Coffee-machine. No. 1,026,405; May 14; Sp. p. 2912; Gaz. vol. 178; p. 482.
Nelson, Irving C., Winnipeg, Manitoba, Canada. Gang and sulky riding-plow. No. 1,025,712; May 7; Sp. p. 1333; Gaz. vol. 178; p. 208.
Nelson, Leiland C., *et al.* (See Nelson, Albert H., assignor.)
Nelson, Lewis W., Philadelphia, Pa. Dynamo-electric machine. No. 1,027,273; May 21; Sp. p. 4831; Gaz. vol. 178; p. 814.
Nelson, Victor F., Spokane, Wash. Snap-hook. No. 1,026,452; May 14; Sp. p. 3014; Gaz. vol. 178; p. 497.
Nemes, Mike, Fort Dodge, Iowa. Squeezing and pressing device. No. 1,026,696; May 21; Sp. p. 3532; Gaz. vol. 178; p. 616.
Nernst Lamp Company. (See Roffy, Joseph T., assignor.)
Nesbit, Watson M., and E. Pike, Eureka, Utah. Smelter-furnace. No. 1,027,882; May 28; Sp. p. 6150; Gaz. vol. 178; p. 1056.
Nett, Frederick H. (See Rurford and Nett.)
Neu, Edmund H., Pana, Ill. Tire-tester. No. 1,027,497; May 28; Sp. p. 5295; Gaz. vol. 178; p. 927.
Neumann, Friedrich E. F., Wandsbek, near Hamburg, Germany. Apparatus for refining chocolate masses and the like. No. 1,026,110; May 14; Sp. p. 2260; Gaz. vol. 178; p. 381.
Neureither, Warren H., *et al.* (See Kincaid, Ira, assignor.)
New, Edward, Hamilton, Ontario, Canada. Screen for screening or sifting sand, gravel, stone, and other matters. No. 1,025,290; May 7; Sp. p. 394; Gaz. vol. 178; p. 65.
New Hartford Cotton Manufacturing Company. (See Steber, Bernard T., assignor.)
New Jersey Testing Laboratories. (See Ellis, Carleton, assignor.)
New York Air Brake Company, The. (See Hammond, George O., assignor.)
New York Air Brake Company, The. (See Hammond and Barnes, assignors.)
New York Couch Bed Company. (See Sisbower, George F., assignor.)
New York Engineering Company. (See Ludlum, Albert C., assignor.)
Newell, Wilmon, College Station, Tex. Insecticide. No. 1,026,361; May 14; Sp. p. 2821; Gaz. vol. 178; p. 467.
Newell, Wilmon, College Station, Tex. Destroying cotton-boll weevils. No. 1,026,599; May 14; Sp. p. 3293; Gaz. vol. 178; p. 544.
Newpher, Alfred H., assignor to The Adams & Westlake Company, Chicago, Ill. Car-window. No. 1,025,640; May 7; Sp. p. 1200; Gaz. vol. 178; p. 184.
Neyland, Cary A., Spokane, Wash. Current-motor. No. 1,027,213; May 21; Sp. p. 4717; Gaz. vol. 178; p. 792.
Nicholas, William F., Chicago, Ill. Combined scale and writing instrument. No. 1,025,586; May 7; Sp. p. 1078; Gaz. vol. 178; p. 167.
Nichols, Aaron S., New York, N. Y. Holder for disk records. No. 1,026,111; May 14; Sp. p. 2262; Gaz. vol. 178; p. 381.
Nichols, Charles W., Rahway, N. J. Arrangement for inclosing vacuum conduit systems. No. 1,026,406; May 14; Sp. p. 2914; Gaz. vol. 178; p. 482.
Nichols, Wallace W. (See Billado, Jason A., assignor.)
Nicoll, Benjamin F., assignor of fifteen one-hundredths to J. T. Sullivan, New Orleans, La. Mail-bag-delivery mechanism. No. 1,027,883; May 28; Sp. p. 6152; Gaz. vol. 178; p. 1057.
Niederlander, Nicholas F., assignor to Westinghouse Automatic Air & Steam Coupler Company, St. Louis, Mo. Automatic train-pipe coupling. No. 1,025,291; May 7; Sp. p. 396; Gaz. vol. 178; p. 65.
Niedermeyer, Arthur. (See Bernhard and Niedermeyer.)

Nilsson, Charles O., New York, N. Y. Pin-guard. No. 1,027,427; May 28; Sp. p. 5164; Gaz. vol. 178; p. 905.
Nilsson, Otto, assignor of one-third to E. E. L. Montellius and one-third to V. Nilsson, New York, N. Y. Folding go-cart. No. 1,025,292; May 7; Sp. p. 397; Gaz. vol. 178; p. 65.
Nilsson, Vigo, *et al.* (See Nilsson, Otto, assignor.)
Nistle, George W., Muskegon, Mich., assignor to Illinois Engineering Company, Chicago, Ill. Steam-trap. No. 1,025,293; May 7; Sp. p. 399; Gaz. vol. 178; p. 66.
No-Mar Manufacturing Company, The. (See Phare and Clay, assignors.)
Noeggerath, Jakob E., New York, N. Y. Railway system. No. 1,027,354; May 21; Sp. p. 4991; Gaz. vol. 178; p. 841.
Noeggerath, Jakob E., Schenectady, N. Y., assignor to General Electric Company. Dynamo-electric machine. No. 1,027,145; May 21; Sp. p. 4588; Gaz. vol. 178; p. 771.
Nolan, Julian S., Highland Park, Ill. Tile construction for concrete floors. No. 1,025,536; May 7; Sp. p. 966; Gaz. vol. 178; p. 149.
Nolen, James G., assignor of one-half to F. B. Cook, Chicago, Ill., and one-half to Automatic Fire Protection Company. Call-box. No. 1,025,713; May 7; Sp. p. 1335; Gaz. vol. 178; p. 208.
Noll, John, assignor to Continuous Rail Company, New York, N. Y. Track construction and rail-clip. No. 1,026,877; May 21; Sp. p. 3931; Gaz. vol. 178; p. 678.
Nordenkampf, Edgar B. von, Vienna, Austria-Hungary. Mosaic covering for walls, columns, and the like. No. 1,028,058; May 28; Sp. p. 6505; Gaz. vol. 178; p. 1113.
Norling, Reinhold A., assignor to Aurora Automatic Machinery Company, Aurora, Ill. Pneumatic hammer. No. 1,027,060; May 21; Sp. p. 4378; Gaz. vol. 178; p. 743.
Norling, Reinhold A., assignor to Aurora Automatic Machinery Company, Aurora, Ill. Automatic throttle-valve-locking mechanism for pneumatic tools. No. 1,027,061; May 21; Sp. p. 4386; Gaz. vol. 178; p. 743.
Norling, Reinhold A., assignor to Aurora Automatic Machinery Company, Aurora, Ill. Pneumatic hammer. No. 1,027,062; May 21; Sp. p. 4387; Gaz. vol. 178; p. 744.
Norling, Reinhold A., assignor to Aurora Automatic Machinery Company, Aurora, Ill. Mechanical movement. No. 1,027,214; May 21; Sp. p. 4720; Gaz. vol. 178; p. 793.
Norma Compagnie G. m. b. H. (See Hirth, Albert, assignor.)
Norman, Joseph T., Wilkes-Barre, assignor to The Norman Picker Co., Nanticoke, Pa. Coal and slate separator. No. 1,025,587; May 7; Sp. p. 1080; Gaz. vol. 178; p. 167.
Norman Picker Co., The. (See Norman, Joseph T., assignor.)
Norris, Almon E., Cambridge, Mass. Hoisting apparatus. No. 1,027,884; May 28; Sp. p. 6159; Gaz. vol. 178; p. 1057.
Norris, Frederick H., Detroit, Mich. Apparatus for assembling collars. No. 1,027,355; May 21; Sp. p. 4995; Gaz. vol. 178; p. 842.
North Bro's M'f'g Co. (See Leopold, George O., assignor.)
North Electric Company, The. (See Mitchell, Jay G., assignor.)
North Electric Company, The. (See Wright, Joseph L., assignor.)
North and Judd Manufacturing Company. (See Anderson, John S., assignor.)
North Pole Ice Cream Freezer Company. (See Hudson, Laura E., assignor.)
Northrop, H. Byrd. (See Ross, Harry B., assignor.)
Northrop, Jonas, assignor to Draper Company, Hopedale, Mass. Loom-temple. No. 1,027,498; May 28; Sp. p. 5296; Gaz. vol. 178; p. 928.
Novotny, John N., Badger, Minn. Safety neck-yoke. No. 1,026,997; May 21; Sp. p. 4223; Gaz. vol. 178; p. 720.
Nowicki, John M. (See Smeja, Stephen, assignor.)
Nuss, William W., Towanda, Pa. Machine for painting, varnishing, filling, or otherwise coating boards or other pieces of material. No. 1,026,921; May 21; Sp. p. 4042; Gaz. vol. 178; p. 693.
Nutting, Perley G., Washington, D. C. Colorimeter. No. 1,026,878; May 21; Sp. p. 3933; Gaz. vol. 178; p. 679.
Nye, Robert, Grass Valley, Cal. Rat-trap. No. 1,026,362; May 14; Sp. p. 2823; Gaz. vol. 178; p. 467.
Nystrom, Martin, Chicago, Ill. Piano-agraffe. No. 1,026,922; May 21; Sp. p. 4045; Gaz. vol. 178; p. 694.
O'Brien, Arthur P., Mount Vernon, N. Y. Spinning-top. No. 1,026,112; May 14; Sp. p. 2264; Gaz. vol. 178; p. 382.
O'Brien, John A., Seattle, Wash. Life-preserver. No. 1,026,172; May 14; Sp. p. 2380; Gaz. vol. 178; p. 401.
O'Connor, John F., assignor, by mesne assignments, to W. H. Miner, Chicago, Ill. Friction draft-rigging. No. 1,026,113; May 14; Sp. p. 2266; Gaz. vol. 178; p. 382.
O'Connor, John F., Chicago, Ill., assignor to C. W. Sherman, Buffalo, N. Y. Tie-plate. No. 1,026,114; May 14; Sp. p. 2267; Gaz. vol. 178; p. 383.
O'Donnell, John H., and W. D. Pierson, assignors, by mesne assignments, to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Wire-drawing machine. No. 1,025,421; May 7; Sp. p. 688; Gaz. vol. 178; p. 109.
O'Donnell, John H., and W. D. Pierson, assignors, by mesne assignments, to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Wire-drawing machine. No. 1,025,588; May 7; Sp. p. 1083; Gaz. vol. 178; p. 167.
O'Hara, Robert. (See Bressel and O'Hara.)
Ocain, George E., Oak Park, Ill. Auto or gas engine starter and indicator. No. 1,025,762; May 7; Sp. p. 1443; Gaz. vol. 178; p. 226.
Oden, James R., Blue Ridge, Tex. Lock-nut. No. 1,025,825; May 7; Sp. p. 1570; Gaz. vol. 178; p. 248.
Ofenbau-Gesellschaft mit beschränkter Haftung. (See Ludwig, Bernhard, assignor.)
Ofenbau-Gesellschaft m. b. H. (See Richter, Georg, assignor.)
Ohio Safe Deposit & Trust Company, The. (See Kohnle, Frederick, assignor.)
Okrassa, Roberto, Antigua, Guatemala. Machine for drying coffee and the like. No. 1,027,146; May 21; Sp. p. 4589; Gaz. vol. 178; p. 771.
Oldham, Frederick C., Brooklyn, N. Y. Resilient wheel. No. 1,026,822; May 21; Sp. p. 3804; Gaz. vol. 178; p. 659.
Oliver Chilled Plow Works. (See Kirkhuff, Marshall N., assignor.)
Oliver Chilled Plow Works. (See Paul, William L., assignor.)
Olley, Raymond H., assignor to Crouse-Hinds Company, Syracuse, N. Y. Panel-board. No. 1,027,147; May 21; Sp. p. 4590; Gaz. vol. 178; p. 771.
Olmstead, Levi W., and C. W. Messimer, Jersey Shore, Pa. Bracket. No. 1,026,221; May 14; Sp. p. 2505; Gaz. vol. 178; p. 419.
Olsen, John. (See Glaser and Olsen.)
Olson, Anton, Viroqua, Wis. Egg-case. No. 1,025,294; May 7; Sp. p. 401; Gaz. vol. 178; p. 66.
Oman, Frank W. (See Hodge, Erastus A., assignor.)
Optische Anstalt C. P. Goerz Aktiengesellschaft. (See Hofe, Christian von, assignor.)
Orth, Ludwig von. (See Richter and Orth.)
Orton, Frederick, Glendale, assignor to E. W. Bliss Company, Brooklyn, N. Y. Drawing-press. No. 1,025,154; May 7; Sp. p. 89; Gaz. vol. 178; p. 16.
Osborn, William G., Gary, Ind. Apparatus for loading corn-shocks. No. 1,027,356; May 21; Sp. p. 4997; Gaz. vol. 178; p. 842.
Osborne, John H., Anderson, Ind. Vending-machine. No. 1,027,499; May 28; Sp. p. 5299; Gaz. vol. 178; p. 928.
Osmer, Alfred G., Lincoln, Nebr. Routing-machine. No. 1,027,063; May 21; Sp. p. 4394; Gaz. vol. 178; p. 744.
Ossenbeck, Anton. (See Kahn and Ossenbeck.)
Ossenbeck, Anton, Elberfeld, and A. Zart, Vohwinkel, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Red azo dye. No. 1,027,148; May 21; Sp. p. 4591; Gaz. vol. 178; p. 771.
Oster, Nick. (See Morgan, Ernest W., assignor.)
Ostergren, Oscar P., Brooklyn, N. Y., assignor of one-half to H. Reis and one-half to S. S. Marley, Wilmington, Del. Starting mechanism for internal-combustion engines. No. 1,025,295; May 7; Sp. p. 401; Gaz. vol. 178; p. 66.
Osterholm, William. (See Latham and Osterholm.)
Osterlind, August F., and G. S. Elmquist, St. Paul, Minn. Printer's chase-rack. No. 1,025,296; May 7; Sp. p. 405; Gaz. vol. 178; p. 67.
Ostrander, Allen E., Ridgewood, N. J., assignor to American Car and Foundry Company, St. Louis, Mo. Truck-bolster. No. 1,026,823; May 21; Sp. p. 3806; Gaz. vol. 178; p. 659.
Oswald, Karl, Newark, N. J., and C. Flax, New York, N. Y. Bag-catch. No. 1,026,173; May 14; Sp. p. 2381; Gaz. vol. 178; p. 402.
Otis Elevator Company. (See Ihlder, John D., assignor.)
Otis Elevator Company. (See Seeberger, Charles D., assignor.)
Otis Elevator Company. (See Sundh, August, assignor.)
Ott, Harvey N., assignor to Spencer Lens Company, Buffalo, N. Y. Microtome. No. 1,026,280; May 14; Sp. p. 2617; Gaz. vol. 178; p. 438.
Otto, August, Jr., Sandwich, Ill. Hay-loader. No. 1,027,885; May 28; Sp. p. 6163; Gaz. vol. 178; p. 1057.
Overstrom Concentrator Company. (See Overstrom, Gustave A., assignor.)
Overstrom, Gustave A., Chicago, Ill., assignor to Overstrom Concentrator Company, Butte, Mont. Concentrating-table. No. 1,026,764; May 21; Sp. p. 3691; Gaz. vol. 178; p. 639.
Owen, Herbert W., Dover, N. H., assignor to Draper Company, Hopedale, Mass. Loose-warp take-up. No. 1,027,886; May 28; Sp. p. 6164; Gaz. vol. 178; p. 1058.
Owen, Herbert W., Dover, N. H., assignor to Draper Company, Hopedale, Mass. Loose-warp take-up. No. 1,027,887; May 28; Sp. p. 6167; Gaz. vol. 178; p. 1058.
Owen, Herbert W., and R. N. Welcome, Dover, N. H., assignors to Draper Company, Hopedale, Mass. Warper. No. 1,026,600; May 14; Sp. p. 3295; Gaz. vol. 178; p. 544.
Owen, Romaine, Jr., Gordon, Wash. Weeder. No. 1,028,059; May 28; Sp. p. 6507; Gaz. vol. 178; p. 1113.
Owens Bottle Machine Company, The. (See Owens, Michael J., assignor.)
Owens, Michael J., assignor to The Owens Bottle Machine Company, Toledo, Ohio. Valve for bottom-dump cars. No. 1,026,824; May 21; Sp. p. 3807; Gaz. vol. 178; p. 659.

Ownby, Albert W., Denison, Tex. Fan for sewing-machines. No. 1,026,923; May 21; Sp. p. 4046; Gaz. vol. 178; p. 694.
P. C. Murphy Trunk Company. (See Perry, Henry T. V., assignor.)
Pack, Rufus F., Cedar Vale, Kans. Mill for shredding alfalfa. No. 1,025,480; May 7; Sp. p. 833; Gaz. vol. 178; p. 130.
Packard Motor Car Company. (See Huff, Russell, assignor.)
Packard Motor Car Company, The. (See Loomis, Allen, assignor.)
Page, Frank C. B., New York, assignor to E. W. Bliss Company, Brooklyn, N. Y. Metal-working machine. No. 1,026,825; May 21; Sp. p. 3809; Gaz. vol. 178; p. 660.
Paine, William E., New York, N. Y. Traction-vehicle. No. 1,025,714; May 7; Sp. p. 1336; Gaz. vol. 178; p. 208.
Palin, Frank E. and R. A., San Mateo, Cal. Motor-cycle rear-seat spring. No. 1,026,115; May 14; Sp. p. 2269; Gaz. vol. 178; p. 383.
Palin, Ronald A. (See Palin, Frank E. and R. A.)
Palmer, El Ray G., assignor to W. A. Daniels, Chicago, Ill. Coating-machine. No. 1,026,765; May 21; Sp. p. 3697; Gaz. vol. 178; p. 639.
Palmer, Harry B., assignor, by mesne assignments, to G. E. Sly, New York, N. Y. Employee's time-recorder. No. 1,025,879; May 7; Sp. p. 1700; Gaz. vol. 178; p. 266.
Palmer, Herman H., assignor of one-half to F. J. Seel, Charleston, S. C. Shade-holder for incandescent lamps. No. 1,027,888; May 28; Sp. p. 6168; Gaz. vol. 178; p. 1059.
Pangratz, George C., assignor of one-half to J. T. Banahan, Athens, Ohio. Wrench. No. 1,026,174; May 14; Sp. p. 2383; Gaz. vol. 178; p. 402.
Pape, Herman G., Buffalo, N. Y. Transmitter for telephonic or audiphonic systems. No. 1,025,992; May 14; Sp. p. 1962; Gaz. vol. 178; p. 339.
Paradis, Albert, Philadelphia, Pa., assignor to Samuel Sternberger Company. Box. No. 1,027,561; May 28; Sp. p. 5421; Gaz. vol. 178; p. 949.
Paris Lamp & Manufacturing Company. (See Horst and Goebel, assignors.)
Park, Orva D., Mount Sterling, Iowa. Road-grading machine. No. 1,028,060; May 28; Sp. p. 6508; Gaz. vol. 178; p. 1114.
Parke, Robert A., Parke Mines, Ontario, Canada, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Light and load brake apparatus. No. 1,025,297; May 7; Sp. p. 406; Gaz. vol. 178; p. 67.
Parker, Clarence L., Los Angeles, Cal. Self-cleaning ball-valve pump. No. 1,027,665; May 28; Sp. p. 5630; Gaz. vol. 178; p. 983.
Parker, Clarence L., Los Angeles, Cal. Expansive pump-plunger. No. 1,027,880; May 28; Sp. p. 6170; Gaz. vol. 178; p. 1059.
Parker, Clarence L., Los Angeles, Cal. Pump. No. 1,028,061; May 28; Sp. p. 6510; Gaz. vol. 178; p. 1114.
Parker, Finis E. (See Case and Parker.)
Parker, Frederick R., Chicago, Ill. Telephone system. No. 1,026,328; May 14; Sp. p. 2730; Gaz. vol. 178; p. 456.
Parker, H. W. (See Dodson, Charles M., assignor.)
Parker, Joseph N., Kingfield, Me. Fruit-picker. No. 1,025,826; May 7; Sp. p. 1571; Gaz. vol. 178; p. 249.
Parker, Robert, Jr., Sterling, Colo. Hat-nesting display-rack. No. 1,026,116; May 14; Sp. p. 2271; Gaz. vol. 178; p. 383.
Parkes Machine Company, The. (See Parkes, William N., assignor.)
Parkes, William N., Brooklyn, assignor to The Parkes Machine Company, New York, N. Y. Automatic embroidery-machine. No. 1,027,064; May 21; Sp. p. 4397; Gaz. vol. 178; p. 744.
Parkhill, John, Rochester, Minn. Trowel. No. 1,026,117; May 14; Sp. p. 2274; Gaz. vol. 178; p. 384.
Parkhurst, Leon F., Pittsfield, Mass., assignor to General Electric Company. Electrically-heated tool. No. 1,026,363; May 14; Sp. p. 2824; Gaz. vol. 178; p. 467.
Parkhurst, Leon F., assignor to Diamond Electric Company, Binghamton, N. Y. Electric sad-iron and terminal box. No. 1,027,666; May 28; Sp. p. 5637; Gaz. vol. 178; p. 983.
Parkinson, William L., Ashland, Ohio. Valve. No. 1,025,827; May 7; Sp. p. 1573; Gaz. vol. 178; p. 249.
Parks, Fred B., Grand Rapids, Mich. Tire-plug inserter. No. 1,025,203; May 7; Sp. p. 207; Gaz. vol. 178; p. 35.
Parrigin, Frank S., St. Augustine, Fla. Base-plate. No. 1,026,962; May 21; Sp. p. 4159; Gaz. vol. 178; p. 709.
Parson, Henry M., assignor to Parson Manufacturing Company, New York, N. Y. Mechanical stoker. No. 1,027,149; May 21; Sp. p. 4592; Gaz. vol. 178; p. 772.
Parson, Henry M., assignor to Parson Manufacturing Company, New York, N. Y. Mechanical stoker. No. 1,027,753; May 28; Sp. p. 5805; Gaz. vol. 178; p. 1012.
Parson Manufacturing Company. (See Parson, Henry M., assignor.)
Parsons, Fred A., and J. H. Myers, Binghamton, N. Y. Packing for rotary engines. No. 1,027,500; May 28; Sp. p. 5301; Gaz. vol. 178; p. 928.
Partridge, Allen R., assignor to Partridge Smelting and Refining Company, Denver, Colo. Smelter. No. 1,025,922; May 7; Sp. p. 1818; Gaz. vol. 178; p. 281.
Partridge Smelting and Refining Company. (See Partridge, Allen R., assignor.)
Passow, Hermann, Blankenese, Germany. Making filters. No. 1,027,754; May 28; Sp. p. 5807; Gaz. vol. 178; p. 1012.
Patents Purchasing Company, The. (See Reid, James H., assignor.)
Patterson, Arthur L., Albemarle, N. C. Machine for applying paste to boxes for files. No. 1,027,890; May 28; Sp. p. 6173; Gaz. vol. 178; p. 1060.
Patterson, James G., Maywood, Ill. Map-holder. No. 1,027,394; May 21; Sp. p. 5092; Gaz. vol. 178; p. 856.
Patton, Elias J., assignor of one-half to J. P. Bergeron, Michigan City, Ind. Starting-crank for hydrocarbon-engines. No. 1,026,528; May 14; Sp. p. 3162; Gaz. vol. 178; p. 522.
Patton, Frank E., Jackson, Tenn. Air-brake system. No. 1,025,298; May 7; Sp. p. 411; Gaz. vol. 178; p. 67.
Patton, Victor V., Tollarburg, Colo. Electrical safety-lamp for miners. No. 1,026,924; May 21; Sp. p. 4047; Gaz. vol. 178; p. 694.
Paul, John, Cleveland, Ohio. Plumb-bob. No. 1,025,828; May 7; Sp. p. 1575; Gaz. vol. 178; p. 249.
Paul Shniedewend and Company. (See Shniedewend, Paul J., Jr., assignor.)
Paul, William L., assignor to Oliver Chilled Plow Works, South Bend, Ind. Plow. No. 1,025,829; May 7; Sp. p. 1576; Gaz. vol. 178; p. 250.
Paul, William L., assignor to Oliver Chilled Plow Works, South Bend, Ind. Plow. No. 1,025,830; May 7; Sp. p. 1578; Gaz. vol. 178; p. 250.
Paulsmeier, Albert C., Alameda, assignor to Byron Jackson Iron Works, West Berkeley, Cal. Automatic balance for centrifugal pumps. No. 1,027,624; May 28; Sp. p. 5540; Gaz. vol. 178; p. 969.
Paulson, Charles J., Brooklyn, N. Y., assignor, by mesne assignments, to Sterling Typewriter Company. Typewriter. No. 1,025,204; May 7; Sp. p. 209; Gaz. vol. 178; p. 35.
Pauly, Karl A., Schenectady, N. Y., assignor to General Electric Company. System of control. No. 1,026,364; May 14; Sp. p. 2825; Gaz. vol. 178; p. 468.
Pax, John W. (See Raymond, Conness T., assignor.)
Pay, Charles, Providence, R. I. Lifting device for dumping-wagons. No. 1,027,150; May 21; Sp. p. 4597; Gaz. vol. 178; p. 772.
Payne, William J. (See Fairchild, Oren J., assignor.)
Peach, John A., Gloversville, N. Y. Base-ball glove. No. 1,026,925; May 21; Sp. p. 4048; Gaz. vol. 178; p. 695.
Peake, Wilfrid S., Cambridge, England, assignor to Taylor Instrument Companies, Rochester, N. Y. Thermo-electric pyrometer. No. 1,025,715; May 7; Sp. p. 1342; Gaz. vol. 178; p. 209.
Pearce, Frank, Millers Falls, Mass. Hat and coat hanger. No. 1,025,831; May 7; Sp. p. 1579; Gaz. vol. 178; p. 250.
Pearce, Robert V., Cambridge, Mass. Saw sharpening and gumming machine. No. 1,027,428; May 28; Sp. p. 5166; Gaz. vol. 178; p. 905.
Pearl, Eugene, Passaic, N. J. Hedge-pruner. No. 1,025,641; May 7; Sp. p. 1201; Gaz. vol. 178; p. 184.
Pearsall, James R., and A. D. Hill, assignors of one-third to R. Wadsworth, Rochester, N. Y. Spinning-top. No. 1,025,299; May 7; Sp. p. 416; Gaz. vol. 178; p. 68.
Pearson, Charles, Chicago, Ill., assignor to International Harvester Company. Pitman connection. No. 1,026,826; May 21; Sp. p. 3817; Gaz. vol. 178; p. 660.
Pearson, Charles H. (See McGraw, Walter E., assignor.)
Pearson, Charles O., New York, N. Y. Hoisting apparatus. No. 1,026,118; May 14; Sp. p. 2275; Gaz. vol. 178; p. 384.
Pearson, George D., Montreal, Quebec, Canada. Wind-motor. No. 1,027,501; May 28; Sp. p. 5302; Gaz. vol. 178; p. 929.
Pearson, Walter B., Chicago, Ill., and E. B. Seward; said Seward assignor to The Hartford Machine Screw Company, Hartford, Conn. Counter. No. 1,027,065; May 21; Sp. p. 4401; Gaz. vol. 178; p. 745.
Peck, Edwin A., assignor of one-half to A. R. Corn, Denver, Colo. Brake-block holder. No. 1,027,390; May 21; Sp. p. 5079; Gaz. vol. 178; p. 854.
Peck, George W., Jr., and W. M. Farrow, Sr., Washington, D. C. Rear gun-sight. No. 1,027,891; May 28; Sp. p. 6182; Gaz. vol. 178; p. 1060.
Peck, George W., Jr., and W. M. Farrow, Sr., Washington, D. C. Front gun-sight. No. 1,027,892; May 28; Sp. p. 6184; Gaz. vol. 178; p. 1060.
Peck, George W., Jr., and W. M. Farrow, Sr., Washington, D. C. Firearm. No. 1,027,893; May 28; Sp. p. 6186; Gaz. vol. 178; p. 1061.
Peck, Philip C. (See Ladoff, Isador, assignor.)
Peddle, George A., Philadelphia, Pa. Tool for cutting interior screw-threads. No. 1,027,625; May 28; Sp. p. 5544; Gaz. vol. 178; p. 970.
Peddy, Thomas T., Bienville, La., and G. F. Gallagher, Rochester, N. Y. Combined deflector and ventilator. No. 1,025,832; May 7; Sp. p. 1580; Gaz. vol. 178; p. 251.
Pelton, Myron S., Folsom, Cal. Photographic-process basket. No. 1,027,626; May 28; Sp. p. 5545; Gaz. vol. 178; p. 970.
Pender, James. (See Pender, John F., assignor.)
Pender, John F., assignor of one-half to J. Pender, St. John, New Brunswick, Canada. Wire-drawing machine. No. 1,026,119; May 14; Sp. p. 2279; Gaz. vol. 178; p. 384.

Pendergast, Frederick W., Cambridge, Mass. Broom. No. 1,025,300; May 7; Sp. p. 418; Gaz. vol. 178; p. 68.
Pendergraft, Elbert W., Seligman, Mo. Popcorn-popper. No. 1,025,716; May 7; Sp. p. 1344; Gaz. vol. 178; p. 209.
Penfield, Raymond C., New York, N. Y. Hoisting mechanism for brick-setters and the like. No. 1,025,155; May 7; Sp. p. 94; Gaz. vol. 178; p. 17.
Penfield, Raymond C., New York, N. Y. Brick-hacking apparatus. No. 1,026,046; May 14; Sp. p. 2091; Gaz. vol. 178; p. 358.
Pennock, John D. (See Trump and Pennock.)
Perfection Biscuit Company. (See Naylor, Augustine F., assignor.)
Perkins Electric Switch Manufacturing Company, The. (See Eisenmann, Carl W., assignor.)
Perkins, Fred. (See Sherman and Perkins.)
Perkins, Walter H., assignor to J. B. Wise, Watertown, N. Y. L. No. 1,025,642; May 7; Sp. p. 1202; Gaz. vol. 178; p. 185.
Perkins, William H., Fort Worth, Tex. Closer for cans and the like. No. 1,027,429; May 28; Sp. p. 5168; Gaz. vol. 178; p. 906.
Perky, Henry D., deceased, Glencoe, Md.; L. Sparks, administrator, assignor, by mesne assignments, to The Shredded Wheat Company, Niagara Falls, N. Y. Food from grain and making the same. No. 1,026,047; May 14; Sp. p. 2106; Gaz. vol. 178; p. 358.
Perry, Frederick H., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Pattern-generating apparatus. No. 1,027,562; May 28; Sp. p. 5422; Gaz. vol. 178; p. 950.
Perry, Henry T. V., assignor to P. C. Murphy Trunk Company, St. Louis, Mo. Trunk-fastener. No. 1,025,923; May 7; Sp. p. 1821; Gaz. vol. 178; p. 281.
Persson, Jess P., Jersey City, N. J. Freight-car door. No. 1,025,301; May 7; Sp. p. 419; Gaz. vol. 178; p. 68.
Peters, Frank M., Chicago, Ill. Machine for setting up cartons and the like. No. 1,025,880; May 7; Sp. p. 1714; Gaz. vol. 178; p. 266.
Peters, Jeremiah L., Allentown, Pa. Hobby-horse and high chair. No. 1,025,422; May 7; Sp. p. 690; Gaz. vol. 178; p. 109.
Peters, John S. (See Washabaugh and Peters.)
Petersen, Hans, assignor to The Linograph Manufacturing Company, Minneapolis, Minn. Ejector-blade for linotype-machines. No. 1,025,993; May 14; Sp. p. 1971; Gaz. vol. 178; p. 339.
Petersen & Son, G. C. (See Holmes, Nathan L., assignor.)
Peterson, Alfred, Independence, Mo. Rotary motor. No. 1,026,120; May 14; Sp. p. 2281; Gaz. vol. 178; p. 385.
Peterson, Nels, Canton, S. D. Coal-dumping device. No. 1,025,833; May 7; Sp. p. 1582; Gaz. vol. 178; p. 251.
Pettiford, John R., assignor to C. E. Gaffney, St. Louis, Mo. Vacuum cleaning system. No. 1,025,994; May 14; Sp. p. 1973; Gaz. vol. 178; p. 340.
Pfau, Max, assignor to The Emerson Typewriter Co., Woodstock, Ill. Type-writer centering mechanism. No. 1,026,601; May 14; Sp. p. 3297; Gaz. vol. 178; p. 545.
Pfleghar, Frank P., assignor to The English & Mersick Co., New Haven, Conn. Wind-shield holder. No. 1,026,365; May 14; Sp. p. 2827; Gaz. vol. 178; p. 468.
Phare, John J., and M. F. Clay, assignors to The No-Mar Manufacturing Company, Cleveland, Ohio. Sanitary mop. No. 1,028,062; May 28; Sp. p. 6516; Gaz. vol. 178; p. 1114.
Phelps, Walter J., Baltimore, Md., assignor of one-half to F. Gebbie, Rochester, N. Y. Can-filling apparatus. No. 1,025,717; May 7; Sp. p. 1346; Gaz. vol. 178; p. 209.
Phillippar, Fernan N., and P. J. Desselle, Weir, Kans. Container. No. 1,026,453; May 14; Sp. p. 3015; Gaz. vol. 178; p. 497.
Phillips, Frank R., Pittsburgh, Pa. Brake-handle. No. 1,025,718; May 7; Sp. p. 1351; Gaz. vol. 178; p. 210.
Phillips, Lewis O. (See Stevenson and Phillips.)
Phillips Mine and Mill Supply Co. (See Phillips and McCloskey, assignors.)
Phillips, Robert F., and L. J. McCloskey, Carrick borough, assignors to Phillips Mine and Mill Supply Co., Pittsburgh, Pa. Mine-car wheel. No. 1,026,454; May 14; Sp. p. 3016; Gaz. vol. 178; p. 497.
Piché, Jean B. (See Piché, Siméon and J. B.)
Piché, Siméon and J. B., Montreal, Quebec, Canada. Spark-arrester. No. 1,026,633; May 14; Sp. p. 3377; Gaz. vol. 178; p. 557.
Pichula, Nikolai P., Rostof-on-the-Don, Russia. Machine for separating weed-seeds from corn-waste. No. 1,027,274; May 21; Sp. p. 4834; Gaz. vol. 178; p. 815.
Pickard, Greenleaf W., Amesbury, Mass. Amplifier. No. 1,027,755; May 28; Sp. p. 5808; Gaz. vol. 178; p. 1012.
Pictet, Raoul P., assignor to Sauerstoff-Industrie Aktiengesellschaft, Berlin, Germany. Increasing the intensity of incandescent light. No. 1,026,121; May 14; Sp. p. 2283; Gaz. vol. 178; p. 385.
Pieper, Henri, Liege, Belgium. Propulsion of motor-vehicles. No. 1,026,827; May 21; Sp. p. 3818; Gaz. vol. 178; p. 660.
Pierce, George L., Brooklyn, N. Y. Shoe. No. 1,025,423; May 7; Sp. p. 693; Gaz. vol. 178; p. 110.
Pierce, Willis F., Seattle, Wash. Receptacle for liquids. No. 1,025,834; May 7; Sp. p. 1584; Gaz. vol. 178; p. 251.
Pierce, Willis F., Seattle, Wash. Dispensing-can. No. 1,026,828; May 21; Sp. p. 3821; Gaz. vol. 178; p. 661.
Pierce, Zachariah L., and D. Warren, Hanna City; said Warren assignor to S. A. Stewart, Tivoli, Ill. Switch-throwing device. No. 1,026,602; May 14; Sp. p. 3299; Gaz. vol. 178; p. 545.
Pierson, William D. (See O'Donnell and Pierson.)
Pigeon, Albert M., Philadelphia, Pa. Yarn-feeding device for knitting-machines. No. 1,026,175; May 14; Sp. p. 2384; Gaz. vol. 178; p. 402.
Pigeon, Albert M., Philadelphia, Pa. Yarn-feed device for knitting-machines. No. 1,026,176; May 14; Sp. p. 2387; Gaz. vol. 178; p. 403.
Pike, Edward. (See Nesbit and Pike.)
Pike, Willis, Fresno, Cal. Powder-receptacle. No. 1,025,924; May 7; Sp. p. 1822; Gaz. vol. 178; p. 281.
Pindstofte, Anders A., Copenhagen, Denmark. Pasteurizing apparatus. No. 1,027,894; May 28; Sp. p. 6189; Gaz. vol. 178; p. 1061.
Pindtershofen, Victor P. v., Wiener-Neustadt, Austria-Hungary. Making insulating-tubes. No. 1,025,763; May 7; Sp. p. 1444; Gaz. vol. 178; p. 227.
Plogran Sales Company, The. (See White, Carl H., assignor.)
Pitel, Conrad M., Meriden, Conn. Gas or electric light extension-fixture. No. 1,025,537; May 7; Sp. p. 969; Gaz. vol. 178; p. 150.
Pittsburg Water Heater Company. (See Frampton, Reynolds C., assignor.)
Pittsburgh Plate Glass Company. (See Helchert, Herman S., assignor.)
Plagman, Adolph, Davenport, Iowa. Power-transmitting apparatus. No. 1,026,998; May 21; Sp. p. 4224; Gaz. vol. 178; p. 720.
Plant, Thomas G., assignor to United Shoe Machinery Company, Boston, Mass. Sole-edge protector for boots or shoes. No. 1,025,048; May 14; Sp. p. 2108; Gaz. vol. 178; p. 358.
Plocher, Martin. (See Winsze and Plocher.)
Plum, Matthias. (See Morrison, Lewis E., assignor.)
Plume & Atwood Manufacturing Company, The. (See Andersen, Lauritz W., assignor.)
Pochin, Harold N. (See Jackson and Pochin.)
Poisson, Joseph, Fall River, Mass. Hand-threading shuttle. No. 1,025,881; May 7; Sp. p. 1724; Gaz. vol. 178; p. 266.
Polhuis, Leendert P., Amsterdam, Netherlands, assignor by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,026,879; May 21; Sp. p. 3937; Gaz. vol. 178; p. 679.
Pollard, Effingham L., Dobbs Ferry, N. Y. Electrically-heated sad-iron. No. 1,027,895; May 28; Sp. p. 6190; Gaz. vol. 178; p. 1061.
Polley, Clarence W., Skaneateles, N. Y. Vacuum eraser-cleaner. No. 1,026,607; May 21; Sp. p. 3533; Gaz. vol. 178; p. 616.
Pomernacki, Frank. (See Wertz and Pomernacki.)
Pomeroy, Silas H., New Rochelle, N. Y. Fireproof window. No. 1,025,995; May 14; Sp. p. 1975; Gaz. vol. 178; p. 340.
Poole, Walter L., Covington, Va., assignor of one-half to A. Medwedeff, Baltimore, Md. Automatic safety appliance for railway-cars. No. 1,026,766; May 21; Sp. p. 3699; Gaz. vol. 178; p. 640.
Poore, Graydon, and H. A. Harvey, London, England. Explosion apparatus for raising and forcing water. No. 1,027,430; May 28; Sp. p. 5170; Gaz. vol. 178; p. 906.
Poppenhusen, Herman A., Evanston, and J. Harrington, Riverside, Ill. Steam-boiler furnace. No. 1,027,667; May 28; Sp. p. 5639; Gaz. vol. 178; p. 984.
Poppert, Lillian, assignor of one-half to R. A. Kirk, Portland, Oreg. Collapsible wire basket. No. 1,027,215; May 21; Sp. p. 4725; Gaz. vol. 178; p. 794.
Porteous, Robert H. (See Hager and Porteous.)
Porter, James S., Buffalo, N. Y. Bottle-stopper. No. 1,026,963; May 21; Sp. p. 4160; Gaz. vol. 178; p. 709.
Posey, William S., Frettin, assignor of one-half to T. S. Pryse, Dawson, N. D. Rotary plow. No. 1,025,764; May 7; Sp. p. 1447; Gaz. vol. 178; p. 227.
Posson, Edward, assignor to Camel Company, Chicago, Ill. Roof-frame for cars. No. 1,025,996; May 14; Sp. p. 1978; Gaz. vol. 178; p. 341.
Posson, Edward, assignor to Camel Company, Chicago, Ill. Car-roof construction. No. 1,026,698; May 21; Sp. p. 3536; Gaz. vol. 178; p. 616.
Post & Lester Company, The. (See Lester, Howard W., assignor.)
Potter, Harry J., Newton, assignor to Dennison Manufacturing Company, Boston, Mass. Attaching device. No. 1,027,431; May 28; Sp. p. 5171; Gaz. vol. 178; p. 906.
Potter, James C., Providence, assignor to Potter & Johnston Machine Company, Pawtucket, R. I. Piston-ring-turning attachment for turret-lathes. No. 1,026,455; May 14; Sp. p. 3017; Gaz. vol. 178; p. 497.
Potter, John A., Los Angeles, Cal. Process and apparatus for recovering metals from their ores. No. 1,026,999; May 21; Sp. p. 4226; Gaz. vol. 178; p. 721.
Potter & Johnston Machine Company. (See Potter, James C., assignor.)
Potter, Ruth L., Chicago, Ill. Dressing-comb. No. 1,025,156; May 7; Sp. p. 96; Gaz. vol. 178; p. 17.
Potwin, William S. (See Desmond, John, assignor.)
Pouring Cork Company. (See Jackson, Clarence S., assignor.)
Power, Michael J., Nekoosa, Wis. Wrapping-machine. No. 1,026,049; May 14; Sp. p. 2110; Gaz. vol. 178; p. 358.

Power & Mining Machinery Company. (See Bernhard and Niedermeyer, assignors.)
Prack, Henry, Ottawa, Ill. Cooling device for trolley-wheels. No. 1,027,756; May 28; Sp. p. 5809; Gaz. vol. 178; p. 1012.
Prahar, Robert L., Massapequa, N. Y. Bag-jaw fastener. No. 1,025,157; May 7; Sp. p. 97; Gaz. vol. 178; p. 18.
Prankard, Charles J., Jr., Troy, N. Y. Dampening-machine. No. 1,027,275; May 21; Sp. p. 4835; Gaz. vol. 178; p. 815.
Prather, Joseph L., Fresno, Cal. Steering-wheel. No. 1,026,122; May 14; Sp. p. 2285; Gaz. vol. 178; p. 385.
Prellwitz, William, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Unloader for fluid-compressors. No. 1,027,757; May 28; Sp. p. 5811; Gaz. vol. 178; p. 1013.
Prellwitz, William, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Unloader for compound fluid-compressors. No. 1,027,758; May 28; Sp. p. 5816; Gaz. vol. 178; p. 1013.
Prellwitz, William, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Support for mining tools or machines. No. 1,027,759; May 28; Sp. p. 5821; Gaz. vol. 178; p. 1013.
Prellwitz, William, Easton, Pa., assignor to Ingersoll-Rand Company, New York, N. Y. Unloader for fluid-compressors. No. 1,027,760; May 28; Sp. p. 5822; Gaz. vol. 178; p. 1014.
Presmont, Arthur N., Shamokin, Pa. Stocking. No. 1,025,643; May 7; Sp. p. 1204; Gaz. vol. 178; p. 185.
Presto Electrical Manufacturing Company, The. (See Shoenberg, Milton H., assignor.)
Prevost, Frank. (See Driscoll, Con, assignor.)
Price, George A. (See Weaver and Price.)
Price, Harry, Boston, Mass. Pressing-machine. No. 1,027,502; May 28; Sp. p. 5304; Gaz. vol. 178; p. 929.
Priddle, Arthur, San Francisco, Cal. Corner-protector. No. 1,025,424; May 7; Sp. p. 694; Gaz. vol. 178; p. 110.
Pridmore, Edward A., La Grange, Ill. Molding-machine. No. 1,027,066; May 21; Sp. p. 4406; Gaz. vol. 178; p. 745.
Pries, Herman, Michigan City, Ind. Car-roof. No. 1,027,503; May 28; Sp. p. 5307; Gaz. vol. 178; p. 930.
Priest, George W., Newton, Mass. Apparatus for manufacturing varnish for coating leather. No. 1,027,563; May 28; Sp. p. 5432; Gaz. vol. 178; p. 950.
Priester, Charles J., Hackensack, N. J., assignor of one-third to H. L. Rosenthal, New York, N. Y. Machine for piling textile fabrics. No. 1,025,719; May 7; Sp. p. 1352; Gaz. vol. 178; p. 210.
Prinz, Faustin, Milwaukee, Wis. Feed-regulator. No. 1,027,432; May 28; Sp. p. 5173; Gaz. vol. 178; p. 906.
Pritchard, Albert R., Rochester, N. Y. Tubular lantern. No. 1,026,699; May 21; Sp. p. 3539; Gaz. vol. 178; p. 617.
Pritchard, William C., Lancaster, Pa. Register for pumps. No. 1,027,151; May 21; Sp. p. 4598; Gaz. vol. 178; p. 772.
Pritzkow, Malle L., assignor to The Malle Little Grip Company, Philadelphia, Pa. Barrette. No. 1,027,668; May 28; Sp. p. 5642; Gaz. vol. 178; p. 984.
Probst, William F. (See Hartenstein and Probst.)
Proctor, John H., Minneapolis, Minn. Marking and grooving tool. No. 1,025,302; May 7; Sp. p. 421; Gaz. vol. 178; p. 68.
Prosser, Joseph F., assignor of one-half to L. Caul, Cleveland, Ohio. Hydraulic motor. No. 1,026,177; May 14; Sp. p. 2392; Gaz. vol. 178; p. 403.
Providence Silk Hosiery Company. (See Staton, William, assignor.)
Pryse, Thomas S. (See Posey, William S., assignor.)
Pugsley, William E., Grand Rapids, Mich. Go-cart. No. 1,027,896; May 28; Sp. p. 6192; Gaz. vol. 178; p. 1062.
Pulliam, William T., Tuscola, Ill. Wind-motor. No. 1,025,720; May 7; Sp. p. 1358; Gaz. vol. 178; p. 211.
Pumphrey, Walter H., New York, N. Y., assignor to Boston Talking Machine Company. Talking-machine. No. 1,026,178; May 14; Sp. p. 2395; Gaz. vol. 178; p. 403.
Purdy, Cyrus B., Minatare, Nebr. Lever. No. 1,027,761; May 28; Sp. p. 5827; Gaz. vol. 178; p. 1014.
Purdy, John, New York, assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,025,644; May 7; Sp. p. 1204; Gaz. vol. 178; p. 185.
Pure Food Process Company, The. (See Schmitt, Edward D., assignor.)
Puritan Comb Company. (See Hines, William J., assignor.)
Putnam, Edward H., Moline, Ill. Snap-mold jacket. No. 1,026,700; May 21; Sp. p. 3540; Gaz. vol. 178; p. 617.
Qualntance, Ellsworth E., Denver, Colo. Permutation-lock. No. 1,027,564; May 28; Sp. p. 5434; Gaz. vol. 178; p. 951.
Quenzer, Arthur, New York, N. Y. Ankle-supporter. No. 1,027,897; May 28; Sp. p. 6194; Gaz. vol. 178; p. 1062.
Quesada, Joaquin G. de, Barcelona, Spain. Refrigerating apparatus. No. 1,025,765; May 7; Sp. p. 1440; Gaz. vol. 178; p. 227.
Quiggan, John P., Brooklyn, N. Y. Printing appliance. No. 1,026,767; May 21; Sp. p. 3700; Gaz. vol. 178; p. 640.
Raber, Joseph, Poplar Bluff, assignor to Adding Typewriter Company, St. Louis, Mo. Platen mechanism for type-writing machines. No. 1,027,391; May 21; Sp. p. 5079; Gaz. vol. 178; p. 855.
Radcliff, Lee, Danvers, and E. E. Kilby, Mackinaw, Ill. Electric-car switch. No. 1,027,898; May 28; Sp. p. 6195; Gaz. vol. 178; p. 1062.
Radloff, Frederick, Goldendale, Wash. Washing-machine. No. 1,027,152; May 21; Sp. p. 4600; Gaz. vol. 178; p. 772.
Rae, Avis F., Chicago, Ill. Housekeeper's reminder. No. 1,026,768; May 21; Sp. p. 3702; Gaz. vol. 178; p. 641.
Raiche, Andrew, assignor to Atlas Tack Company, Fairhaven, Mass. Wear-resisting member. No. 1,027,899; May 28; Sp. p. 6197; Gaz. vol. 178; p. 1063.
Rail Joint Company, The. (See Braine, Bancroft G., assignor.)
Rainforth, Henry S., Lincoln, England. Riddling apparatus for separating straw, cavings, chaff, and the like from grain or seeds. No. 1,026,529; May 14; Sp. p. 3164; Gaz. vol. 178; p. 523.
Rainsford, Thomas F., Cleveland, Ohio. Fluid-clutch. No. 1,025,481; May 7; Sp. p. 833; Gaz. vol. 178; p. 130.
Raleigh & Robert. (See Greenbaum, Jules, assignor.)
Raley, Frank, Meridian, Miss. Car-door lock. No. 1,027,276; May 21; Sp. p. 4841; Gaz. vol. 178; p. 815.
Ramage, Jonothan W., El Paso, Tex. Gasket-retainer. No. 1,027,565; May 28; Sp. p. 5440; Gaz. vol. 178; p. 951.
Rambaud, George G., New York, N. Y. Machine for sealing the ends of metallic tubes. No. 1,026,456; May 14; Sp. p. 3019; Gaz. vol. 178; p. 498.
Ramsdell, Rufus E., Newton, Mass. Pocket igniting device. No. 1,027,900; May 28; Sp. p. 6198; Gaz. vol. 178; p. 1063.
Ramsden, Charles H., San Francisco, Cal., assignor to Western Pipe and Steel Company of California. Flume. No. 1,027,627; May 28; Sp. p. 5547; Gaz. vol. 178; p. 970.
Ramstead, Olaf K., San Quentin, Cal. Anti-rail-creeper. No. 1,025,303; May 7; Sp. p. 422; Gaz. vol. 178; p. 69.
Rand, Festus S., Providence, R. I., assignor to Universal Winding Company, Portland, Me. Stop-motion for warping-machines. No. 1,025,158; May 7; Sp. p. 99; Gaz. vol. 178; p. 18.
Rand, Festus S., Providence, R. I., assignor to Universal Winding Company. Winding-machine. No. 1,027,277; May 21; Sp. p. 4843; Gaz. vol. 178; p. 816.
Rand, James H., Newton, Mass. Adjustable index. No. 1,025,907; May 14; Sp. p. 1980; Gaz. vol. 178; p. 341.
Rand, Samuel, Birmingham, Ala. Tool for preparing ground to receive explosive charges. No. 1,027,433; May 28; Sp. p. 5175; Gaz. vol. 178; p. 907.
Raney, Thomas H., Chapel Hill, N. C. Window-screen. No. 1,025,721; May 7; Sp. p. 1361; Gaz. vol. 178; p. 211.
Raoux, Julian P., Rhodelia, Ky. Candle-holder. No. 1,027,901; May 28; Sp. p. 6201; Gaz. vol. 178; p. 1063.
Rapp, Axel G. J., assignor to Link-Belt Company, Chicago, Ill. Ball-and-socket bearing. No. 1,025,304; May 7; Sp. p. 423; Gaz. vol. 178; p. 69.
Rapp, Wagman Manufacturing Company. (See Rapp, William M., assignor.)
Rapp, William M., assignor to Rapp, Wagman Manufacturing Company, Philadelphia, Pa. Linotype-machine. No. 1,027,506; May 28; Sp. p. 5441; Gaz. vol. 178; p. 951.
Rasmussen, Andrew, Racine Junction, Wis. Feeding means for power hacksaw-machines. No. 1,025,305; May 7; Sp. p. 424; Gaz. vol. 178; p. 69.
Ravert, William I., assignor to A. W. Drake, Lattimer Mines, Pa. Water and shot feed coupling. No. 1,026,880; May 21; Sp. p. 3945; Gaz. vol. 178; p. 679.
Rawle, John. (See Rawle, Randolph R. and J.)
Rawle, Randolph R. and J., Chicago, Ill. Apparatus for aerial navigation. No. 1,025,306; May 7; Sp. p. 429; Gaz. vol. 178; p. 70.
Raymond, Colis, Windsor, Conn. Fire-signal device. No. 1,026,769; May 21; Sp. p. 3703; Gaz. vol. 178; p. 641.
Raymond, Conness T., assignor of one-half to J. W. Pax, Chicago, Ill. Chain-guard for vehicle-wheels. No. 1,025,159; May 7; Sp. p. 103; Gaz. vol. 178; p. 18.
Raymond, George A., Midland, assignor to F. G. Evans, trustee, Battle Creek, Mich. Wire-fence machine. No. 1,025,307; May 7; Sp. p. 436; Gaz. vol. 178; p. 70.
Raymond, Joseph A., assignor to The F. H. Hill Co., Chicago, Ill. Box-handle or the like. No. 1,027,067; May 21; Sp. p. 4412; Gaz. vol. 178; p. 746.
Read, Knut A., Oskaloosa, Iowa. Vehicle-wheel. No. 1,026,829; May 21; Sp. p. 3822; Gaz. vol. 178; p. 661.
Reaman, Abraham G., Ringwood, Ontario, Canada. Vehicle-wheel. No. 1,027,434; May 28; Sp. p. 5177; Gaz. vol. 178; p. 907.
Reber, John G., deceased, Chicago, Ill.; O. S. Reber, administratrix, assignor to The Sefton Manufacturing Company, Anderson, Ind. Staple. No. 1,026,050; May 14; Sp. p. 2116; Gaz. vol. 178; p. 359.
Reber, Olive S., administratrix. (See Reber, John G.)
Redington, William H., Evanston, Ill. Stopper. No. 1,026,830; May 21; Sp. p. 3823; Gaz. vol. 178; p. 661.
Reece, Juan H., assignor to Humphrey & Sons, Joliet, Ill. Wire-drawing block. No. 1,027,357; May 21; Sp. p. 4999; Gaz. vol. 178; p. 843.
Reed, Daniel A., and R. W. Snow, Dunkirk, N. Y. Circle-swing. No. 1,027,068; May 21; Sp. p. 4413; Gaz. vol. 178; p. 746.
Reed International Manufacturing Company, The. (See Reed, James W., assignor.)

Reed, James W., assignor to The Reed International Manufacturing Company, Denver, Colo. Portable geared rotary tool. No. 1,026,831; May 21; Sp. p. 3824; Gaz. vol. 178; p. 662.
Regan, Patrick H., Nashville, Tenn. Swing. No. 1,026,179; May 14; Sp. p. 2397; Gaz. vol. 178; p. 404.
Regnier, Frederick, assignor to The Shredded Wheat Company, Niagara Falls, N. Y. Grain-shredding machine. No. 1,027,762; May 28; Sp. p. 5829; Gaz. vol. 178; p. 1015.
Reid, Burt, U. S. Navy. Flying-machine. No. 1,025,482; May 7; Sp. p. 835; Gaz. vol. 178; p. 131.
Reid, George E., Meridian, Miss. Locking device for engine-trucks. No. 1,026,366; May 14; Sp. p. 2828; Gaz. vol. 178; p. 468.
Reid, George H., Mecca, Cal. Seal. No. 1,026,701; May 21; Sp. p. 3541; Gaz. vol. 178; p. 617.
Reid, James H., Newark, N. J., assignor, by mesne assignments, to The Patents Purchasing Company, Appleton, Wis. Electric refining-crucible. No. 1,026,281; May 14; Sp. p. 2623; Gaz. vol. 178; p. 439.
Reid, Robert C. H. (See Cefalo and Reid.)
Reid, William, Caulfield, Victoria, Australia. Controlling device for railway-signals and the like. No. 1,027,435; May 28; Sp. p. 5178; Gaz. vol. 178; p. 907.
Reinhardt, Otto, and J. Hoerlin, assignors to Chemische Fabriken vorm. Weiler-ter Meer, Uerdingen-on-the-Rhine, Germany. Manufacturing black sulfurized coloring-matters. No. 1,026,881; May 21; Sp. p. 3948; Gaz. vol. 178; p. 680.
Reis, Harry, *et al.* (See Ostergren, Oscar P., assignor.)
Reissner, Hans, Aix-la-Chapelle, Germany. Coupling of screw-propellers, screw-ventilators, fly-wheels, and other rotating machinery. No. 1,025,589; May 7; Sp. p. 1086; Gaz. vol. 178; p. 168.
Remaly, Fred, Roscoe, Iowa. Fruit-picker. No. 1,026,770; May 21; Sp. p. 3706; Gaz. vol. 178; p. 642.
Remington, Charles F., Chicago, Ill., assignor to The American Type Founders Company, Jersey City, N. J. Means for trimming burs from the cut ends of printers' rules. No. 1,025,308; May 7; Sp. p. 441; Gaz. vol. 178; p. 71.
Republic Metalware Company, The. (See Foster, James F., assignor.)
Requa Motor Company. (See Coles, David H., assignor.)
Reuter, Ludwig H., Tompkinsville, N. Y. Composition for disinfecting and other purposes. No. 1,027,000; May 21; Sp. p. 4233; Gaz. vol. 178; p. 722.
Reynolds, Charles H., Rochester, N. Y. Packing-ring. No. 1,026,457; May 14; Sp. p. 3021; Gaz. vol. 178; p. 498.
Rhea, Luther C., Columbus, Ohio. Flexible electric heater. No. 1,027,763; May 28; Sp. p. 5831; Gaz. vol. 178; p. 1015.
Rheinische Metallwaaren- und Maschinenfabrik. (See Müller, Emil, assignor.)
Rheinische Metallwaaren- und Maschinenfabrik. (See Völler, Karl, assignor.)
Rhoades, Alonzo E., assignor to Draper Company, Hopedale, Mass. Bobbin-holder. No. 1,026,603; May 14; Sp. p. 3302; Gaz. vol. 178; p. 546.
Rhoades, Alonzo E., assignor to Draper Company, Hopedale, Mass. Spooler. No. 1,026,604; May 14; Sp. p. 3303; Gaz. vol. 178; p. 546.
Rhodus, Thomas, Chicago, Ill. Vehicle-wheel. No. 1,025,483; May 7; Sp. p. 838; Gaz. vol. 178; p. 131.
Ricardo, Harry R., London, England. Internal-combustion engine. No. 1,027,278; May 21; Sp. p. 4848; Gaz. vol. 178; p. 816.
Rice, Earley W., Waxahachie, Tex. Furnace. No. 1,027,436; May 28; Sp. p. 5180; Gaz. vol. 178; p. 908.
Rice, Frank H., Oak Park, Ill. Main valve for dry-pipe automatic fire-extinguishing systems. No. 1,026,882; May 21; Sp. p. 3950; Gaz. vol. 178; p. 680.
Rice, Horace E., assignor to W. C. L. Eglin, Philadelphia, Pa. Reverse-phase relay. No. 1,025,590; May 7; Sp. p. 1087; Gaz. vol. 178; p. 168.
Rice, Leander, Kahlotus, Wash. Nut-lock. No. 1,027,001; May 21; Sp. p. 4237; Gaz. vol. 178; p. 722.
Rice, Wendell, Caldwell, Idaho. Calculator. No. 1,026,123; May 14; Sp. p. 2286; Gaz. vol. 178; p. 386.
Richards, Elmo V., Des Moines, Iowa. Car-unloader. No. 1,027,669; May 28; Sp. p. 5643; Gaz. vol. 178; p. 984.
Richards, Hubert P., assignor to The Stanley Rule and Level Company, New Britain, Conn. Zigzag-rule joint. No. 1,026,367; May 14; Sp. p. 2831; Gaz. vol. 178; p. 468.
Richards, William M., New York, assignor to The Standard Optical Company, Geneva, N. Y. Instrument for centering, marking, and testing lenses. No. 1,026,124; May 14; Sp. p. 2288; Gaz. vol. 178; p. 386.
Richardson, Jerome L., Red Oak, Iowa. Acetylene-generator. No. 1,025,160; May 7; Sp. p. 104; Gaz. vol. 178; p. 19.
Richardson, John F., Montreal, Quebec, Canada. Electric-line-tapping connector. No. 1,027,279; May 21; Sp. p. 4851; Gaz. vol. 178; p. 817.
Richardson, William. (See Morrison, William C., assignor.)
Richmond, Hubert, and C. E. Barber, Memphis, Tenn.; said Richmond assignor to said Barber. Amusement cycle-globe. No. 1,027,069; May 21; Sp. p. 4415; Gaz. vol. 178; p. 746.
Richmond, Reginald H., assignor of one-half to Brampton Brothers Limited, Birmingham, England. Driving-chain. No. 1,027,002; May 21; Sp. p. 4238; Gaz. vol. 178; p. 722.
Richter, Felix, Frankfort-on-the-Main, and L. von Orth, Charlottenburg, Germany. Manufacturing strongly-absorbent coal. No. 1,027,153; May 21; Sp. p. 4601; Gaz. vol. 178; p. 772.
Richter, Georg, Stettin, assignor to Ofenbau-Gesellschaft m. b. H., Munich, Germany. Gas-generating furnace. No. 1,027,154; May 21; Sp. p. 4603; Gaz. vol. 178; p. 773.
Rickert, Roy M., assignor of one-half to F. D. Sandy, Denver, Colo. Amusement-ticket machine. No. 1,026,605; May 14; Sp. p. 3307; Gaz. vol. 178; p. 546.
Ridd, Ambrose, Newport, Ky. Metal-polish. No. 1,026,883; May 21; Sp. p. 3954; Gaz. vol. 178; p. 681.
Ridgway Construction Company. (See Ridgway, Herbert N., assignor.)
Ridgway, Herbert N., assignor to Ridgway Construction Company, Boston, Mass. Amusement apparatus. No. 1,027,437; May 28; Sp. p. 5181; Gaz. vol. 178; p. 908.
Riebe, August, Weissensee, near Berlin, Germany. Ball-bearing. No. 1,027,902; May 28; Sp. p. 6203; Gaz. vol. 178; p. 1064.
Riederer, Andrew H., Rozel, Kans. Display-rack. No. 1,026,771; May 21; Sp. p. 3707; Gaz. vol. 178; p. 642.
Ries, Harry W., Collingswood, N. J. Sign or card clamp. No. 1,026,772; May 21; Sp. p. 3708; Gaz. vol. 178; p. 642.
Rifer, John L., Portland, Oreg. Releasing door-hanger. No. 1,027,504; May 28; Sp. p. 5308; Gaz. vol. 178; p. 930.
Rigney, George W., Battle Creek, Mich. Door stop and holder. No. 1,026,702; May 21; Sp. p. 3543; Gaz. vol. 178; p. 618.
Rigsby, James V., and W. H. Royal, Macomb, Mo. Fly-trap. No. 1,026,222; May 14; Sp. p. 2506; Gaz. vol. 178; p. 420.
Riley, George W., Chicago, Ill. Non-refillable bottle. No. 1,027,003; May 21; Sp. p. 4239; Gaz. vol. 178; p. 722.
Rilleau, François, Los Angeles, Cal. Aviator-protector. No. 1,027,764; May 28; Sp. p. 5832; Gaz. vol. 178; p. 1015.
Rilling, John E., Milwaukee, Wis. Chair. No. 1,025,645; May 7; Sp. p. 1207; Gaz. vol. 178; p. 186.
Ringe, John C., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Bobbin-case for sewing-machines. No. 1,026,926; May 21; Sp. p. 4049; Gaz. vol. 178; p. 695.
Rink, Fredrick, assignor to The Kursheedt Manufacturing Company, New York, N. Y. Decorated fabric. No. 1,026,125; May 14; Sp. p. 2291; Gaz. vol. 178; p. 386.
Rinker, James M. (See Kessler, Edward E., assignor.)
Ritchie, Alexander, Detroit, Mich. Vehicle-top. No. 1,026,368; May 14; Sp. p. 2832; Gaz. vol. 178; p. 469.
River & Rail Transportation Company. (See Kirchner, Henry W., assignor.)
Rivers, F. A., *et al.* (See Montgomery, Arthur W., assignor.)
Rivers, John A., Monongah, W. Va. Mine-car-door lock. No. 1,026,964; May 21; Sp. p. 4161; Gaz. vol. 178; p. 710.
Rixson, Oscar C., New York, N. Y. Door-closing mechanism. No. 1,025,309; May 7; Sp. p. 447; Gaz. vol. 178; p. 71.
Robb, Edwin G., Minneapolis, Minn. Attachment for printing-presses. No. 1,026,606; May 14; Sp. p. 3313; Gaz. vol. 178; p. 547.
Robbins, Peter R., Philadelphia, Pa. Attachment for hose. No. 1,027,155; May 21; Sp. p. 4605; Gaz. vol. 178; p. 773.
Roberts, Albert E., Norwalk, Ohio. Rubber overshoe. No. 1,027,438; May 28; Sp. p. 5183; Gaz. vol. 178; p. 909.
Roberts, Arthur, *et al.* (See Moss, Robert S., assignor.)
Roberts, Edward W., Los Angeles, Cal. Hat-pin protector. No. 1,025,722; May 7; Sp. p. 1363; Gaz. vol. 178; p. 212.
Roberts, Henry P., Boston, Mass. Apparatus for sanding roads. No. 1,025,646; May 7; Sp. p. 1209; Gaz. vol. 178; p. 186.
Roberts, Sherman C., Wichita, Kans. Hay-grinding machine. No. 1,027,765; May 28; Sp. p. 5834; Gaz. vol. 178; p. 1015.
Robertson, Albert, assignor of one-third to J. E. Glenn, Fruitvale, Idaho. Head-gate. No. 1,027,903; May 28; Sp. p. 6204; Gaz. vol. 178; p. 1064.
Robertson, Donald, and J. A. Atkinson, New Westminster, British Columbia, Canada. Roof-rafter-calculating device. No. 1,027,766; May 28; Sp. p. 5835; Gaz. vol. 178; p. 1017.
Robertson, John N., Maricopa, Cal. Pump-valve. No. 1,027,280; May 21; Sp. p. 4852; Gaz. vol. 178; p. 817.
Robeson, Anthony M., and A. Davidson, Johannesburg, Transvaal. Centrifugal pump. No. 1,025,425; May 7; Sp. p. 695; Gaz. vol. 178; p. 110.
Robeson, Edna G., Atlanta, Ga. Device for changing rolls of paper. No. 1,026,369; May 14; Sp. p. 2834; Gaz. vol. 178; p. 469.
Robillot, Louis, Besançon, France. Automatic air-current-actuated alarm. No. 1,025,310; May 7; Sp. p. 453; Gaz. vol. 178; p. 71.
Robinet, Georges, assignor to G. H. Mumm & Co., Rheims, France. Tin-foil cap for champagne and other bottles. No. 1,025,647; May 7; Sp. p. 1210; Gaz. vol. 178; p. 186.
Robinson, Charles J., assignor of one-half to E. E. Creelman, Bremerton, Wash. Variable-speed-transmission device. No. 1,027,767; May 28; Sp. p. 5837; Gaz. vol. 178; p. 1016.

Robinson, Clark, assignor to C. G. Taylor and W. Bartelt, Spokane, Wash. Lock-ferrule. No. 1,026,223; May 14; Sp. p. 2507; Gaz. vol. 178; p. 420.
Robinson, Harry K. (See Stinger and Robinson.)
Roby, William E., Indianapolis, Ind. Carbureter. No. 1,027,768; May 28; Sp. p. 5839; Gaz. vol. 178; p. 1017.
Roche, James, assignor to Eagle Lock Co., Terryville, Conn. Permutation-lock. No. 1,025,538; May 7; Sp. p. 970; Gaz. vol. 178; p. 150.
Rockey, Walter S., and H. Eldridge, New York, N. Y., assignors to Metallurgical Research Company. Refining copper. No. 1,027,769; May 28; Sp. p. 5842; Gaz. vol. 178; p. 1017.
Rockford Drilling Machine Co. (See Milne, Robert, assignor.)
Rodatt, August C., Cleveland, Ohio. Sash lock or fastener. No. 1,026,051; May 14; Sp. p. 2118; Gaz. vol. 178; p. 350.
Rodger Ballast Car Company. (See Neikirk, John O., assignor.)
Roebling Construction Company, The. (See Makowski, John F., assignor.)
Roessler and Hasslacher Chemical Co. (See Liebknecht, Otto, assignor.)
Roessler & Hasslacher Chemical Company. (See McNitt, Robert J., assignor.)
Roffy, Joseph T., Chicago, Ill., assignor, by mesne assignments, to Nernst Lamp Company. Advertisement-displaying apparatus. No. 1,026,126; May 14; Sp. p. 2293; Gaz. vol. 178; p. 387.
Rogers, Frederick A. (See Wheeling and Rogers.)
Rogers, Harris, Albany, N. Y. Trousers. No. 1,027,904; May 28; Sp. p. 6206; Gaz. vol. 178; p. 1065.
Rogler, Max, Dusseldorf, Germany. Cask and barrel stand. No. 1,026,127; May 14; Sp. p. 2297; Gaz. vol. 178; p. 387.
Rogowski, Stanislaw, Harmony, R. I. Trolley. No. 1,027,281; May 21; Sp. p. 4855; Gaz. vol. 178; p. 817.
Rohr, Marshall J., assignor of one-fourth to E. H. Bogley and one-fourth to J. W. Bogley, Washington, D. C. Antiskidding device for vehicles. No. 1,026,224; May 14; Sp. p. 2508; Gaz. vol. 178; p. 420.
Rollins, Frank E., Mattoon, Wis. Can-opener. No. 1,027,905; May 28; Sp. p. 6207; Gaz. vol. 178; p. 1065.
Rollins, George L., Bridgewater, assignor to W. H. McElwain Company, Boston, Mass. Reinforced insole. No. 1,026,225; May 14; Sp. p. 2510; Gaz. vol. 178; p. 420.
Roop, William M. (See Willets, Frederick E., assignor.)
Rosbory, Frank, Chicago, Ill. Airship or the like. No. 1,025,539; May 7; Sp. p. 972; Gaz. vol. 178; p. 151.
Rose, Henry, Gainsborough, England, assignor to R. H. Wright, Durham, N. C. Packaging-machine. No. 1,025,882; May 7; Sp. p. 1725; Gaz. vol. 178; p. 267.
Rosenberg, Edward, Regents Park, London, England, assignor to Standard Varnish Works, New York, N. Y. Varnish-drying holder for heddles. No. 1,027,770; May 28; Sp. p. 5842; Gaz. vol. 178; p. 1017.
Rosenbluth, Edwin M., Philadelphia, Pa. Acetylene-gas generator. No. 1,025,648; May 7; Sp. p. 1212; Gaz. vol. 178; p. 186.
Rosenthal, August, West Allis, Wis. Foldable stacker. No. 1,027,505; May 28; Sp. p. 5310; Gaz. vol. 178; p. 930.
Rosenthal, Harris L. (See Priester, Charles J., assignor.)
Rosofsky, Solomon, Brooklyn, N. Y. Diaphragm horn or alarm. No. 1,025,998; May 14; Sp. p. 1982; Gaz. vol. 178; p. 341.
Ross, Charles B., Greenleaf, Kans. Vehicle-wheel. No. 1,025,591; May 7; Sp. p. 1090; Gaz. vol. 178; p. 169.
Ross, Charles C., New Kensington, Pa. Glass-tank. No. 1,027,282; May 21; Sp. p. 4855; Gaz. vol. 178; p. 817.
Ross, George D., Princeton, Kans. Poultry-crate. No. 1,027,771; May 28; Sp. p. 5843; Gaz. vol. 178; p. 1018.
Ross, Harry B., assignor of one-half to H. B. Northrop, Denver, Colo. Variable-speed-transmission gearing. No. 1,028,078; May 28; Sp. p. 6558; Gaz. vol. 178; p. 1119.
Ross, Louis S., Newtonville, Mass. Time-burning railway signal-fusee. No. 1,025,203; May 7; Sp. p. 210; Gaz. vol. 178; p. 36.
Ross, Louis S., Newtonville, Mass. Railway time-burning signal-fusee. No. 1,025,883; May 7; Sp. p. 1735; Gaz. vol. 178; p. 267.
Rossi, Auguste J., Niagara Falls, assignor to The Titanium Alloy Manufacturing Company, New York, N. Y. Article composed essentially of titanium and silver and producing the same. No. 1,025,426; May 7; Sp. p. 697; Gaz. vol. 178; p. 111.
Rossiter, William M., Sunbury, Pa. Textile roll. No. 1,026,226; May 14; Sp. p. 2511; Gaz. vol. 178; p. 420.
Rossner, Edward H. (See Emery and Rossner.)
Rostand Manufacturing Company, The. (See Landine, Peter N., assignor.)
Rostar, John. (See Culomer, Frank J., assignor.)
Roth, Anthony, assignor of one-half to H. Selfried, Yonkers, N. Y. Smoked meat. No. 1,025,925; May 7; Sp. p. 1823; Gaz. vol. 178; p. 281.
Roth, George F., *et al.* (See Kay, Samuel P., assignor.)
Roth, Samuel, New York, assignor to P. Treffers, Brooklyn, N. Y. Submarine rescuing apparatus. No. 1,026,458; May 14; Sp. p. 3022; Gaz. vol. 178; p. 498.
Rotherham, James A., Revere, Mass. Corn-popping machine. No. 1,026,052; May 14; Sp. p. 2120; Gaz. vol. 178; p. 360.
Rounds, Washington G., Woodstock, Ontario, Canada. Device for washing prints and the like. No. 1,025,206; May 7; Sp. p. 214; Gaz. vol. 178; p. 36.
Roussel, Remy A., Lafourche Crossing, La. Stubble-shaver. No. 1,025,161; May 7; Sp. p. 106; Gaz. vol. 178; p. 19.
Rowell, John C., Terra Ceia, Fla. Tree or plant support. No. 1,025,311; May 7; Sp. p. 455; Gaz. vol. 178; p. 72.
Rowlette, Oliver B., Grand Rapids, Mich. Knockdown sectional case. No. 1,026,180; May 14; Sp. p. 2398; Gaz. vol. 178; p. 404.
Rowohlt, George, and O. Giescke, Jersey City, N. J. Bottle-filling machine. No. 1,025,640; May 7; Sp. p. 1215; Gaz. vol. 178; p. 187.
Royal, William H. (See Rigsby and Royal.)
Ruch, Karl, Akron, Ohio. Lawn-mower. No. 1,028,063; May 28; Sp. p. 6518; Gaz. vol. 178; p. 1115.
Rumsey, James W., Chicago, Ill., assignor of one-half to A. W. Baker, Oakland, Cal. Car-door. No. 1,027,156; May 21; Sp. p. 4606; Gaz. vol. 178; p. 773.
Rund, Gustav O., Christine, N. D. Smut-machine. No. 1,027,906; May 28; Sp. p. 6207; Gaz. vol. 178; p. 1065.
Runyan, Clay M., Lakewood, Ohio. Combined printing and addressing machine. No. 1,025,926; May 7; Sp. p. 1824; Gaz. vol. 178; p. 282.
Rush, George A., Kansas City, Kans. Oscillating valve. No. 1,026,459; May 14; Sp. p. 3027; Gaz. vol. 178; p. 499.
Rusk, Mary L., New York, N. Y. Water-bottle for infants. No. 1,026,460; May 14; Sp. p. 3029; Gaz. vol. 178; p. 499.
Russell, Hugh J., Upland, Cal. Liquid-fuel burner. No. 1,027,070; May 21; Sp. p. 4417; Gaz. vol. 178; p. 747.
Russell, William L., Wellsboro, Pa. Headlight-curtain. No. 1,026,703; May 21; Sp. p. 3545; Gaz. vol. 178; p. 618.
Rutgerswerke-Actiengesellschaft. (See Kahl, Leopold, assignor.)
Rutherford, Frank H., Chicago, Ill. Automatic train-pipe coupling. No. 1,025,540; May 7; Sp. p. 974; Gaz. vol. 178; p. 151.
Ruthstein, Nathan M., assignor to Steel Shoe Company, Racine, Wis. Footwear. No. 1,026,407; May 14; Sp. p. 2916; Gaz. vol. 178; p. 483.
Ryan, Charles B., *et al.* (See Hargis, Harry W., assignor.)
Ryder, John P. (See Moran, John F., assignor.)
Rydquist, Adolph, Rochester, N. Y. Paper-dispensing apparatus. No. 1,025,312; May 7; Sp. p. 455; Gaz. vol. 178; p. 72.
Rydquist, Adolph, Rochester, N. Y. Paper-dispensing apparatus. No. 1,026,128; May 14; Sp. p. 2298; Gaz. vol. 178; p. 387.
Rydquist, Adolph, Rochester, N. Y. Vending-machine. No. 1,026,927; May 21; Sp. p. 4050; Gaz. vol. 178; p. 695.
S. Sternau & Co. (See Nelson and Axt, assignors.)
Safety Car Heating and Lighting Company. (See Creveling, John L., assignor.)
Safety Car Heating & Lighting Company, The. (See Dixon, Robert M., assignor.)
Safety Car Heating & Lighting Company, The. (See Schepmoes, Lindsley, assignor.)
Safety Car Heating & Lighting Company. (See Thomson and Thompson, assignors.)
Safford, Philip G. (See Emrick and Safford.)
Sahlen, Albert. (See Johnson and Sahlen.)
Sahlin, Henning G., Maplewood, Mass., assignor to General Electric Company. Coil-winding machine. No. 1,025,835; May 7; Sp. p. 1585; Gaz. vol. 178; p. 252.
Saito, Yasoji. (See Sato and Saito.)
Salmen, Rudolf, Chicago, Ill. Flying-machine. No. 1,025,999; May 14; Sp. p. 1985; Gaz. vol. 178; p. 342.
Salmon, Royal, Kansas City, Mo. Fluid shut-off. No. 1,026,884; May 21; Sp. p. 3955; Gaz. vol. 178; p. 681.
Salt Union, The. (See Malcolm and Munton, assignors.)
Sammon, Thomas J., New York, N. Y. Hoisting-sling. No. 1,027,907; May 28; Sp. p. 6209; Gaz. vol. 178; p. 1065.
Samuel Sternberger Company. (See Paradis, Albert, assignor.)
Sanandres, Antonio, New York, N. Y. Acoustic optical telegraph. No. 1,025,427; May 7; Sp. p. 699; Gaz. vol. 178; p. 111.
Sanborn, Thornton F., Ensenada, Porto Rico, Tube. No. 1,027,772; May 28; Sp. p. 5846; Gaz. vol. 178; p. 1018.
Sandy, Frank D. (See Rickert, Roy M., assignor.)
Saner, Thomas B., Clifton, Ariz., assignor to The Stanley Rule & Level Company, New Britain, Conn. Router-plane cutter. No. 1,026,053; May 14; Sp. p. 2123; Gaz. vol. 178; p. 360.
Sanford, Henry W., Washington, D. C. Surgical kit. No. 1,025,207; May 7; Sp. p. 216; Gaz. vol. 178; p. 36.
Sangamo Electric Company. (See Lanphier, Robert C., assignor.)
Sapp, Julius B., Cleveland, Ohio. Obtunder. No. 1,027,216; May 21; Sp. p. 4727; Gaz. vol. 178; p. 794.
Sargent, Allan C., Westford, assignor to C. G. Sargent's Sons Corporation, Graniteville, Mass. Vat-heater. No. 1,026,704; May 21; Sp. p. 3547; Gaz. vol. 178; p. 619.
Sargent & Co. (See Shaw, John H., assignor.)
Sargent & Company. (See Collins, Herbert G., assignor.)
Sargent, Fitz William, Mahwah, N. J., assignor to E. H. Fallows, New York, N. Y. Brake-shoe. No. 1,026,928; May 21; Sp. p. 4056; Gaz. vol. 178; p. 695.

Sargent, Fitz William, Mahwah, N. J., assignor to E. H. Fallows, New York, N. Y. Brake-shoe. No. 1,026,929; May 21; Sp. p. 4058; Gaz. vol. 178; p. 696.
Sato, Ryuji, and Y. Saito, Chicago, Ill. Railway-car. No. 1,027,071; May 21; Sp. p. 4418; Gaz. vol. 178; p. 747.
Sauerstoff-Industrie Aktiengesellschaft. (See Pictet, Raoul P., assignor.)
Sault, William A., Worcester, Mass. Air track-sanding apparatus. No. 1,028,079; May 28; Sp. p. 6563; Gaz. vol. 178; p. 1120.
Saunders, Lee C., *et al.* (See Messenger, Isaiah L., assignor.)
Savage, Basil H., Duarte, Cal., assignor to Sears, Roebuck & Co., Chicago, Ill. Firearm. No. 1,027,773; May 28; Sp. p. 5847; Gaz. vol. 178; p. 1018.
Savage, Charles P. (See Silver, Jesse W., assignor.)
Savage, George E., and L. H. Wilkinson, assignors to Manning, Bowman & Company, Meriden, Conn. Percolating device. No. 1,026,930; May 21; Sp. p. 4060; Gaz. vol. 178; p. 696.
Savage, Lee. (See Dillon and Savage.)
Scales, Clyde A. (See Calahan, Delona L., assignor.)
Schaeffer, Louis J., West New York, N. J., assignor to G. B. Smith, Brooklyn, N. Y. Stop mechanism for buttonhole-sewing machines. No. 1,025,650; May 7; Sp. p. 1218; Gaz. vol. 178; p. 187.
Schaeffer Piano Mfg. Company. (See Freborg, Charles, assignor.)
Schaff, Charles E., *et al.* (See Foster, Oliver M., assignor.)
Schatz, Adam E., Mount Vernon, N. Y. Furniture-caster. No. 1,026,773; May 21; Sp. p. 3710; Gaz. vol. 178; p. 643.
Scheiden, H. G., *et al.* (See Merkel, Lewis W., assignor.)
Schepmoes, Lindsley, Hasbrouck Heights, N. J., assignor to The Safety Car Heating & Lighting Company. Electric fixture. No. 1,025,208; May 7; Sp. p. 217; Gaz. vol. 178; p. 36.
Scherer, Albert G., Chicago, Ill. Connection for sections of hot-air pipe. No. 1,026,607; May 14; Sp. p. 3316; Gaz. vol. 178; p. 548.
Schernikow, Ernest. (See Finnell and Schernikow.)
Schiele, Anna M., Philadelphia, Pa. Clothes-pin bag. No. 1,025,651; May 7; Sp. p. 1221; Gaz. vol. 178; p. 188.
Schles, John, Anderson, Ind. Apparatus for manufacturing glassware. No. 1,027,567; May 28; Sp. p. 5442; Gaz. vol. 178; p. 952.
Schiff, Charles, assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J. Phonograph-motor-signaling device. No. 1,027,774; May 28; Sp. p. 5855; Gaz. vol. 178; p. 1019.
Schilling, Franz W., assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Safe or steel-vault wall. No. 1,026,461; May 14; Sp. p. 3029; Gaz. vol. 178; p. 500.
Schilling, George W., Philadelphia, Pa. Swing. No. 1,027,157; May 21; Sp. p. 4607; Gaz. vol. 178; p. 773.
Schimmel, Fridolin, Faribault, Minn. Sandpapering-machine. No. 1,025,836; May 7; Sp. p. 1591; Gaz. vol. 178; p. 252.
Schimmel, Fridolin, Faribault, Minn. Sandpapering-machine. No. 1,027,489; May 28; Sp. p. 5184; Gaz. vol. 178; p. 909.
Schimper, Frederick, Union, assignor of one-half to A. H. Koeller, Ridgefield Park, N. J. Wind-shield. No. 1,026,408; May 14; Sp. p. 2917; Gaz. vol. 178; p. 483.
Schimper, Frederick, Union, assignor of one-half to A. H. Koeller, Ridgefield Park, N. J. Shoe-cleaner. No. 1,026,774; May 21; Sp. p. 3712; Gaz. vol. 178; p. 643.
Schindheim, Clara K., Cincinnati, Ohio. Mold. No. 1,026,832; May 21; Sp. p. 3826; Gaz. vol. 178; p. 662.
Schindler, M. D., *et al.* (See Henning, John, assignor.)
Schleit, Willis A., Syracuse, N. Y. Draft-regulator for hot-water heaters. No. 1,026,965; May 21; Sp. p. 4162; Gaz. vol. 178; p. 710.
Schley, George B., Milwaukee, Wis., assignor to Allis-Chalmers Company. Time-element device. No. 1,027,440; May 28; Sp. p. 5187; Gaz. vol. 178; p. 909.
Schloss, Newton L., New York, N. Y. Lighting-fixture. No. 1,025,313; May 7; Sp. p. 457; Gaz. vol. 178; p. 72.
Schlotterback, Lewis E., East Orange, N. J., assignor to L. E. Schlotterback Manufacturing Co. Transmission mechanism. No. 1,026,462; May 14; Sp. p. 3030; Gaz. vol. 178; p. 500.
Schlueter, Adolph, Oakland, Cal. Air-heater. No. 1,028,064; May 28; Sp. p. 6521; Gaz. vol. 178; p. 1115.
Schmelzkopf, Edward C., assignor to Gisholt Machine Company, Madison, Wis. Chuck. No. 1,025,162; May 7; Sp. p. 108; Gaz. vol. 178; p. 20.
Schmidt, Albert, assignor to Champion Ignition Company, Flint, Mich. Magneto. No. 1,026,054; May 14; Sp. p. 2124; Gaz. vol. 178; p. 361.
Schmidt, Albrecht, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Isolated alkali salts of indoxyl and making same. No. 1,027,441; May 28; Sp. p. 5189; Gaz. vol. 178; p. 910.
Schmidt, Ernest H., assignor to The National Malleable Castings Company, Cleveland, Ohio. Uncoupling mechanism for car-couplings. No. 1,026,705; May 21; Sp. p. 3548; Gaz. vol. 178; p. 619.
Schmidt, Godfrey P., assignor to H. A. Cuppy, New York, N. Y. Cutting machinery. No. 1,025,927; May 7; Sp. p. 1828; Gaz. vol. 178; p. 282.
Schmidt, Otto, Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Chlor-aralkyl-sulfonic acids and making such compounds. No. 1,025,652; May 7; Sp. p. 1223; Gaz. vol. 178; p. 188.
Schmidt, Otto, Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Chlor-aralkyl-sulfo-chlorids and making them. No. 1,027,908; May 28; Sp. p. 6210; Gaz. vol. 178; p. 1066.
Schmidt, Paul, Hanover, Germany. Gas-furnace for heating, scaling, and hardening purposes. No. 1,026,885; May 21; Sp. p. 3957; Gaz. vol. 178; p. 681.
Schmidt, Peter G., Olympia, Wash. Treating gases. No. 1,026,227; May 14; Sp. p. 2514; Gaz. vol. 178; p. 421.
Schmitt, Edward D., assignor to The Pure Food Process Company, Baltimore, Md. Jar cap or closure. No. 1,025,314; May 7; Sp. p. 459; Gaz. vol. 178; p. 73.
Schmitt, Edward D., assignor to American Bottle Cap Company, Baltimore, Md. Cap or closure for milk and other bottles. No. 1,026,282; May 14; Sp. p. 2624; Gaz. vol. 178; p. 439.
Schmitt, John O., Cleveland, Ohio. Combined stuffing-box and shaft-bearing. No. 1,025,884; May 7; Sp. p. 1738; Gaz. vol. 178; p. 268.
Schmitt, Rudolf, assignor to Maschinenfabrik Schnarr & Schmitt, Frankfort-on-the-Main, Germany. Cigar-making machine. No. 1,025,885; May 7; Sp. p. 1740; Gaz. vol. 178; p. 268.
Schneider, Edward A. (See Deal, Enan M., assignor.)
Schneider, Frederick J., New York, N. Y. Feathering paddle-wheel. No. 1,027,217; May 21; Sp. p. 4728; Gaz. vol. 178; p. 794.
Schneider, Stefan, Chicago, Ill. Ball-bearing. No. 1,026,463; May 14; Sp. p. 3035; Gaz. vol. 178; p. 500.
Schnelle, Friedrich O., Frankfort-on-the-Main, Germany. Electrically charging electrostatic separating devices. No. 1,026,464; May 14; Sp. p. 3036; Gaz. vol. 178; p. 501.
Schnellsetzmaschinengesellschaft mit beschränkter Haftung. (See Drewell, Heinrich, assignor.)
Schnorr, Frederick J., Two Rivers, Wis. Envelop. No. 1,025,837; May 7; Sp. p. 1592; Gaz. vol. 178; p. 252.
Schnuettgen, Louis, *et al.* (See Lake, Albert D., assignor.)
Schnurrenberger, Emil, assignor to Weidmann Silk Dyeing Co., Paterson, N. J. Degumming silk. No. 1,026,000; May 14; Sp. p. 1986; Gaz. vol. 178; p. 342.
Schoeneck, Conrad C., Syracuse, N. Y. Casing for incandescent-electric-lamp sockets. No. 1,025,928; May 7; Sp. p. 1829; Gaz. vol. 178; p. 282.
Schoening, William A., Chicago, Ill. Scaffold-bracket. No. 1,025,886; May 7; Sp. p. 1742; Gaz. vol. 178; p. 269.
Schoeppl, Joseph F., Baltimore, Md. Metallic-weave construction for bottle-holders and other frames. No. 1,027,358; May 21; Sp. p. 5002; Gaz. vol. 178; p. 843.
Schoff, Henry W., River Forest, Ill. Liquid-fuel burner. No. 1,027,506; May 28; Sp. p. 5313; Gaz. vol. 178; p. 931.
Schofield, Thomas. (See Bradley, William, assignor.)
Scholz, Leopold F., New York, N. Y. Refuse-wagon. No. 1,026,465; May 14; Sp. p. 3038; Gaz. vol. 178; p. 501.
Schorn, Wilhelm, Neuss-on-the-Rhine, Germany. Controlling-valve for water-carts. No. 1,026,608; May 14; Sp. p. 3318; Gaz. vol. 178; p. 548.
Schorndorfer, Edward F., Cleveland, assignor of one-fourth to W. E. Defenbacher, Canal Dover, one-fourth to G. E. Bartholomew, Euclid, and one-fourth to J. F. Defenbacher, Canal Dover, Ohio. Window-glass-cleaning device. No. 1,027,359; May 21; Sp. p. 5006; Gaz. vol. 178; p. 844.
Schowalter, Edward J. (See Flegel, Frederick W., assignor.)
Schreidt, Frank, Mansfield, Ohio. Testing apparatus. No. 1,025,163; May 7; Sp. p. 110; Gaz. vol. 178; p. 20.
Schreidt, Frank, Mansfield, Ohio. Fluid-spring for vehicles. No. 1,025,315; May 7; Sp. p. 460; Gaz. vol. 178; p. 73.
Schreier, Herman, *et al.* (See Bock, George R., assignor.)
Schroeder, Hans C., assignor to The Goss Printing Press Company, Chicago, Ill. Folding-machine. No. 1,025,541; May 7; Sp. p. 977; Gaz. vol. 178; p. 151.
Schubert, Franz B. K., assignor to Desseniss & Jacobi Actiengesellschaft, Hamburg, Germany. Balancing two-crank engines. No. 1,027,775; May 28; Sp. p. 5856; Gaz. vol. 178; p. 1019.
Schuetz, Frank A. (See Hamm and Schuetz.)
Schulte, Edward D. N., Troy, N. Y., assignor to W. & L. E. Gurley. Die-stamp. No. 1,025,592; May 7; Sp. p. 1091; Gaz. vol. 178; p. 169.
Schultheis, Ludwig, Frankfort-on-the-Main, assignor to O. Wetzel & Company, Heidelberg, Germany. Lubricator for the guide-rails of elevators. No. 1,027,909; May 28; Sp. p. 6212; Gaz. vol. 178; p. 1066.
Schultz, Joseph, *et al.* (See Daven, Michael P., assignor.)
Schulz, August, Posen, Germany. Reflecting apparatus for illuminating music. No. 1,027,910; May 28; Sp. p. 6213; Gaz. vol. 178; p. 1066.
Schulz, August F., Milwaukee, Wis. Vehicle-wheel. No. 1,027,507; May 28; Sp. p. 5315; Gaz. vol. 178; p. 931.
Schulz, Bernard, Minneapolis, Minn. Metallic fence-post. No. 1,027,442; May 28; Sp. p. 5190; Gaz. vol. 178; p. 910.
Schulz, Otto C., assignor to Bauer & Black, Chicago, Ill. Machine for making surgical bandages. No. 1,026,283; May 14; Sp. p. 2627; Gaz. vol. 178; p. 439.

Schumacher, Gerard, Anniston, Ala. Service or valve box. No. 1,027,911; May 28; Sp. p. 6213; Gaz. vol. 178; p. 1066.
Schuster, Adalbert, Glauchau, assignor to G. Hiller, Zittau, Germany. Warp-twisting-in machine. No. 1,027,670; May 28; Sp. p. 5645; Gaz. vol. 178; p. 984.
Schuster, Albert. (See Kundtz and Schuster.)
Schuster, Carl J., Milwaukee, Wis. Fluid-receptacle. No. 1,025,952; May 7; Sp. p. 1886; Gaz. vol. 178; p. 289.
Schutt, Duny A., Chicago, Ill., assignor to International Harvester Company. Grain-drill. No. 1,026,409; May 14; Sp. p. 2918; Gaz. vol. 178; p. 483.
Schutt, Duny A., Chicago, Ill., assignor to International Harvester Company. Grain-drill. No. 1,026,410; May 14; Sp. p. 2919; Gaz. vol. 178; p. 484.
Schutte & Koerting Company. (See Koerting, Ernst, assignor.)
Schwab, John, New York, N. Y. Heating-stove. No. 1,027,671; May 28; Sp. p. 5656; Gaz. vol. 178; p. 985.
Schwab, Martin C., Chicago, Ill. Elevator. No. 1,027,628; May 28; Sp. p. 5548; Gaz. vol. 178; p. 971.
Schwager, Hans, Berlin, Germany. Pocket-lamp. No. 1,027,285; May 21; Sp. p. 4863; Gaz. vol. 178; p. 819.
Schwamb, Warren C., assignor to J. Wanamaker, Philadelphia, Pa. Metal piano-brace. No. 1,026,466; May 14; Sp. p. 3040; Gaz. vol. 178; p. 501.
Schwartz, Edward H., assignor to E. H. Schwartz & Son Co., Chicago, Ill. Burner. No. 1,027,912; May 28; Sp. p. 6215; Gaz. vol. 178; p. 1067.
Schwartz, Wilhelm. (See Wieser and Schwartz.)
Schwarz, Charles L., Philadelphia, Pa. Wheel. No. 1,027,158; May 21; Sp. p. 4609; Gaz. vol. 178; p. 774.
Schwarzlose, Andreas W., Charlottenburg, Germany. Automatic firearm with fixed barrel and locked breech. No. 1,026,609; May 14; Sp. p. 3319; Gaz. vol. 178; p. 548.
Schweinert, Maximilian C., West Hoboken, N. J., and H. P. Kraft, New York, N. Y. Locking-cap for tire-valves and the like. No. 1,027,508; May 28; Sp. p. 5315; Gaz. vol. 178; p. 931.
Schweitzer, Heinrich, New York, N. Y. Hinge-articulator. No. 1,027,443; May 28; Sp. p. 5192; Gaz. vol. 178; p. 910.
Schwerin, Botho, Frankfort-on-the-Main, Germany. Manufacturing porous bodies. No. 1,027,004; May 21; Sp. p. 4241; Gaz. vol. 178; p. 723.
Schwieder, William, Granite City, Ill., assignor to Commonwealth Steel Company, St. Louis, Mo. Electric controller. No. 1,027,072; May 21; Sp. p. 4419; Gaz. vol. 178; p. 747.
Schwieger, Adolf, Hanover, Germany. Combined cigar-cutter and fastener for cigar-receptacles. No. 1,025,484; May 7; Sp. p. 840; Gaz. vol. 178; p. 131.
Schwieger, Adolf, and B. Doctor, Hanover, Germany. Cigar-cutter. No. 1,025,542; May 7; Sp. p. 982; Gaz. vol. 178; p. 152.
Sclater, William, Westmount, Quebec, assignor of one-half to A. W. Stevenson, Montreal, Canada. Smoke-jack for engine-houses. No. 1,026,931; May 21; Sp. p. 4062; Gaz. vol. 178; p. 696.
Scott, Alfred A., Bradford, England. Grinding and like machine. No. 1,026,610; May 14; Sp. p. 3323; Gaz. vol. 178; p. 549.
Scott, David J., *et al.*, executors. (See Scott, Walter.)
Scott, Edward D. (See Scott, George E. and E. D.)
Scott, George E. and E. D., assignors, by mesne assignments, to Timewell Sack Filling and Sewing Machine Company, Chicago, Ill. Filled-sack-sewing machine. No. 1,026,833; May 21; Sp. p. 3829; Gaz. vol. 178; p. 662.
Scott, Isabella, *et al.*, executors. (See Scott, Walter.)
Scott, Walter, Larue, Tex. Rail-joint-supporting device. No. 1,027,284; May 21; Sp. p. 4862; Gaz. vol. 178; p. 818.
Scott, Walter, deceased, Plainfield, N. J.; I. and D. J. Scott, executors. Delivery mechanism. No. 1,027,283; May 21; Sp. p. 4858; Gaz. vol. 178; p. 818.
Scott & Williams. (See Costello, Loretto A., assignor.)
Scott & Williams. (See Swinglehurst, Harry, assignor.)
Scott & Williams. (See Williams, Louis N. D., assignor.)
Searchlight Gas Company, The. (See Hawkins, Alda F., assignor.)
Sears, Frank I., Oakland, Cal. Elastic vehicle-wheel. No. 1,025,209; May 7; Sp. p. 220; Gaz. vol. 178; p. 37.
Sears, James A. W., assignor of one-half to W. F. and M. A. Stephens, Chattanooga, Tenn. Chair. No. 1,026,706; May 21; Sp. p. 3549; Gaz. vol. 178; p. 619.
Sears, Roebuck & Co. (See Savage, Basil H., assignor.)
Seddon, Frederick E., Hoboken, N. J., assignor to Garvin Machine Company. Universal angle-plate. No. 1,026,932; May 21; Sp. p. 4063; Gaz. vol. 178; p. 697.
See, William T., Meadville, Pa. Train-order-delivering device. No. 1,026,467; May 14; Sp. p. 3041; Gaz. vol. 178; p. 502.
Seeberger, Charles D., New York, N. Y., assignor to Otis Elevator Company. Conveyer. No. 1,025,316; May 7; Sp. p. 462; Gaz. vol. 178; p. 73.
Seede, John A., Schenectady, N. Y., assignor to General Electric Company. Motor-control system. No. 1,027,159; May 21; Sp. p. 4610; Gaz. vol. 178; p. 774.
Seel, Francis J. (See Palmer, Herman H., assignor.)
Seely, Charles H., Noroton, Conn. Golf-club. No. 1,026,181; May 14; Sp. p. 2400; Gaz. vol. 178; p. 404.
Sefton Manufacturing Company, The. (See Reber, John G., assignor.)
Seib, George A., Ilion, assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,027,776; May 28; Sp. p. 5858; Gaz. vol. 178; p. 1019.
Seifried, Henry. (See Roth, Anthony, assignor.)
Seiter & Kappes Lithographing Co. (See Stranders, Julien, assignor.)
Selden, Arthur R., Rochester, N. Y. Centrifugal drier. No. 1,025,485; May 7; Sp. p. 841; Gaz. vol. 178; p. 132.
Selle, Frank A., Chicago, Ill. Package-receptacle. No. 1,027,568; May 28; Sp. p. 5447; Gaz. vol. 178; p. 952.
Selzer, Michel J., assignor to The American Tire & Rubber Company, Akron, Ohio. Cushion-tire for vehicle-wheels. No. 1,026,468; May 14; Sp. p. 3042; Gaz. vol. 178; p. 502.
Semran, Alexander M., and K. S. Forbes, Odessa, Minn. Self-anchoring stump pulling and hoisting apparatus. No. 1,027,286; May 21; Sp. p. 4864; Gaz. vol. 178; p. 819.
Senacol, David, Greenwood, British Columbia, Canada. Life-boat-releasing appliance. No. 1,026,469; May 14; Sp. p. 3043; Gaz. vol. 178; p. 502.
Seneca Camera Manufacturing Company. (See Goddard and Dorsey, assignors.)
Sensenschmidt, Max, and E. Kaiser, Frankfort-on-the-Main, Germany. Control device for ticket-stamping machines. No. 1,025,317; May 7; Sp. p. 478; Gaz. vol. 178; p. 74.
Sessions, Frank L., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company, Rack-rail locomotive. No. 1,027,074; May 21; Sp. p. 4428; Gaz. vol. 178; p. 748.
Sessions, Frank L., Columbus, Ohio, assignor, by mesne assignments, to The Jeffrey Manufacturing Company. Locomotive. No. 1,027,075; May 21; Sp. p. 4432; Gaz. vol. 178; p. 748.
Sessions, Frank L., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Rack-rail. No. 1,027,076; May 21; Sp. p. 4438; Gaz. vol. 178; p. 749.
Sessions, Frank L., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Rack-rail locomotive. No. 1,027,077; May 21; Sp. p. 4439; Gaz. vol. 178; p. 749.
Sessions, Frank L., Columbus, Ohio, assignor to The Jeffrey Manufacturing Company. Rack-rail locomotive. No. 1,027,078; May 21; Sp. p. 4443; Gaz. vol. 178; p. 749.
Sessions, Frank L., and F. C. Coseo, Columbus, Ohio, assignors, by mesne assignments, to The Jeffrey Manufacturing Company. Electric locomotive. No. 1,027,073; May 21; Sp. p. 4421; Gaz. vol. 178; p. 747.
Severson, Myron L., assignor of one-half to W. S. Spiegelberg, Passaic, N. J. Mechanically-operated search-light. No. 1,027,913; May 28; Sp. p. 6219; Gaz. vol. 178; p. 1067.
Severy, Melvin L., Arlington Heights, and G. B. Sinclair, Medford, Mass. Tuning device for pianos. No. 1,026,228; May 14; Sp. p. 2519; Gaz. vol. 178; p. 421.
Seward, Ernest R. (See Pearson and Seward.)
Sewell, Herbert J., Detroit, Mich. Vehicle-wheel. No. 1,026,370; May 14; Sp. p. 2836; Gaz. vol. 178; p. 469.
Sexton, Lee, Arjay, Ky. Rail-fastener. No. 1,027,569; May 28; Sp. p. 5449; Gaz. vol. 178; p. 953.
Seybold, James A. G., Harvard, Nebr. Carpet-stretcher. No. 1,027,914; May 28; Sp. p. 6221; Gaz. vol. 178; p. 1068.
Seymour, Joseph A., Fabyan, N. H. Knife-sharpener. No. 1,027,005; May 21; Sp. p. 4243; Gaz. vol. 178; p. 723.
Seymour, Ralph C., Larchmont, N. Y., assignor to Goss Printing Press Company, Chicago, Ill. Folding-machine. No. 1,025,486; May 7; Sp. p. 846; Gaz. vol. 178; p. 132.
Seymour, Ralph C., Larchmont, N. Y., assignor to Goss Printing Press Company, Chicago, Ill. Binding and folding machine. No. 1,025,487; May 7; Sp. p. 854; Gaz. vol. 178; p. 133.
Seymour, Walter I., Chicago, Ill., assignor, by mesne assignments, to United Bifocal Company, New York, N. Y. Making lens-blanks. No. 1,026,182; May 14; Sp. p. 2401; Gaz. vol. 178; p. 405.
Shackleford, Gibbon C., P. J. Gordon, Youngstown, Ohio, and A. K. McMillen, Sheridan, Pa. Continuous heating-furnace. No. 1,027,915; May 28; Sp. p. 6222; Gaz. vol. 178; p. 1068.
Shafer, Charles E., Lewistown, Md. Combined hoe and potato-digger. No. 1,026,470; May 14; Sp. p. 3047; Gaz. vol. 178; p. 503.
Shafer, Clinton, Upper Sandusky, Ohio. Acetylene-gas generator. No. 1,025,723; May 7; Sp. p. 1364; Gaz. vol. 178; p. 212.
Shank, Simon H., Chicago, Ill. Lock. No. 1,026,001; May 14; Sp. p. 1988; Gaz. vol. 178; p. 342.
Shankle, Grover C., Ennis, Tex. Section-harrow. No. 1,026,411; May 14; Sp. p. 2921; Gaz. vol. 178; p. 484.
Shannon, Samuel F. (See May, William M., assignor.)
Shapiro, Benjamin, Washington, D. C. Skirt-marker. No. 1,025,951; May 7; Sp. p. 1883; Gaz. vol. 178; p. 289.
Sharp, James A., and R. B. Johnston, Springfield, Ohio. Baling-press. No. 1,027,360; May 21; Sp. p. 5008; Gaz. vol. 178; p. 844.
Sharp, Lee C., Plattsmouth, Nebr., assignor to F. Brückmann, Jr., Brunswick, Germany. Mandrel for sheet-metal working. No. 1,025,318; May 7; Sp. p. 480; Gaz. vol. 178; p. 74.
Sharp, Mabel E. (See Lindley, Andrew K., assignor.)

Shaver, George F., New York, N. Y., assignor to Hygienic Soap Granulator Company. Soap-dispensing machine. No. 1,027,218; May 21; Sp. p. 4731; Gaz. vol. 178; p. 795.
Shaw, John H., assignor to Sargent & Co., New Haven, Conn. Pin-tumbler lock having interchangeable cylinder extensions. No. 1,027,777; May 28; Sp. p. 5861; Gaz. vol. 178; p. 1020.
Shaw, Louis E., New York, N. Y. Speed-indicator. No. 1,025,164; May 7; Sp. p. 113; Gaz. vol. 178; p. 20.
Shean, Frank W., San Francisco, Cal. Street-railway transfer-ticket. No. 1,026,707; May 21; Sp. p. 3551; Gaz. vol. 178; p. 620.
Shearer, Theodore M., Oakland City, Ind. Steam-hammer. No. 1,026,002; May 14; Sp. p. 1991; Gaz. vol. 178; p. 343.
Shedd Electric Company. (See Waite, Charles C., assignor.)
Shee, Parke E., assignor to H. B. Lutz, Lancaster, Pa. Ruler. No. 1,027,287; May 21; Sp. p. 4865; Gaz. vol. 178; p. 819.
Sheetz, E. R. (See Wiggins, Richard M., assignor.)
Shefield, Wm. M. (See Dickey, Arthur V., assignor.)
Sheldon, John R., Cambridge, Mass. Comforter-filling machine. No. 1,027,570; May 28; Sp. p. 5452; Gaz. vol. 178; p. 953.
Shepard, Josephine G., Brooklyn, N. Y. Combination strainer and egg-holder. No. 1,027,079; May 21; Sp. p. 4445; Gaz. vol. 178; p. 750.
Sherbondy, William H., Fort Wayne, Ind. Current-regulator. No. 1,026,775; May 21; Sp. p. 3712; Gaz. vol. 178; p. 643.
Sheriff, James E., Provo, Utah. Airship. No. 1,025,210; May 7; Sp. p. 221; Gaz. vol. 178; p. 37.
Sherman, Clifton W. (See O'Connor, John F., assignor.)
Sherman, Erwin C., assignor to The William B. Pollock Company, Youngstown, Ohio. Ladle-car. No. 1,026,708; May 21; Sp. p. 3554; Gaz. vol. 178; p. 620.
Sherman, Howard B., Battle Creek, Mich., and F. Perkins, Warren, Mass.; said Perkins assignor to said Sherman. Grease-cup. No. 1,025,319; May 7; Sp. p. 481; Gaz. vol. 178; p. 74.
Sherman, John C., Brookline, Mass. Cushioning device for vehicles. No. 1,027,288; May 21; Sp. p. 4866; Gaz. vol. 178; p. 819.
Shermund, Conrad, and R. A. Mallett, Sacramento, Cal. Automobile-headlight. No. 1,026,709; May 21; Sp. p. 3555; Gaz. vol. 178; p. 620.
Shields, Edgar B. (See Shields and McGuire.)
Shields, Marion T. and E. B., and W. L. McGuire, Osborne, Kans. Overthrow hay-retainer. No. 1,025,320; May 7; Sp. p. 483; Gaz. vol. 178; p. 75.
Shields, Nelson, Minneapolis, Minn. Hinge. No. 1,027,444; May 28; Sp. p. 5193; Gaz. vol. 178; p. 910.
Shimer, Elmer S., assignor to S. J. Shimer & Sons, Milton, Pa. Cutter-head. No. 1,025,838; May 7; Sp. p. 1593; Gaz. vol. 178; p. 252.
Shimer, Elmer S., assignor to S. J. Shimer and Sons, Milton, Pa. Cutter-head. No. 1,025,839; May 7; Sp. p. 1594; Gaz. vol. 178; p. 253.
Shimer & Sons, Samuel J. (See Shimer, Elmer S., assignor.)
Shipp, Harry, Ida Grove, Iowa. Pipe-coupling. No. 1,026,966; May 21; Sp. p. 4164; Gaz. vol. 178; p. 710.
Shirley, John H., assignor to The A. M. Todd Co., Limited, Kalamazoo, Mich. Onion or vegetable topping machine. No. 1,026,776; May 21; Sp. p. 3714; Gaz. vol. 178; p. 643.
Shniedewend, Paul J., Jr., assignor to Paul Shniedewend and Company, Chicago, Ill. Hand-proof-press tympan. No. 1,026,055; May 14; Sp. p. 2125; Gaz. vol. 178; p. 361.
Shoemaker, Charles A., Chicago, Ill. Tank-car. No. 1,026,710; May 21; Sp. p. 3556; Gaz. vol. 178; p. 621.
Shoenberg, Milton H., assignor to The Presto Electrical Manufacturing Company, San Francisco, Cal. Electrically-heated syringe. No. 1,026,611; May 14; Sp. p. 3328; Gaz. vol. 178; p. 549.
Sholes, Zalmon G., and J. M. Fraaz, New York, N. Y., assignors, by mesne assignments, to Zalmon G. Sholes Typewriter Company. Type-writer. No. 1,026,056; May 14; Sp. p. 2126; Gaz. vol. 178; p. 361.
Shover, Barton R., Youngstown, Ohio. Sheet-metal insulator-pin. No. 1,026,711; May 21; Sp. p. 3559; Gaz. vol. 178; p. 621.
Show, John D. (See Doty and Show.) (Reissue.)
Shredded Wheat Company, The. (See Perky, Henry D., assignor.)
Shredded Wheat Company, The. (See Regnier, Frederick, assignor.)
Shreeve, Herbert E., Wyoming, N. J., assignor to Western Electric Company, New York, N. Y. Microphone. No. 1,026,057; May 14; Sp. p. 2128; Gaz. vol. 178; p. 362.
Shreeve, Herbert E., Milburn, N. J., assignor to Western Electric Company, New York, N. Y. Circuit-controlling key. No. 1,026,183; May 14; Sp. p. 2403; Gaz. vol. 178; p. 405.
Shreve, Ephraim G., Atlantic City, N. J. Envelop. No. 1,026,933; May 21; Sp. p. 4065; Gaz. vol. 178; p. 697.
Shropshire, Jesse C., Anice, assignor of one-half to P. C. Mays, Vista, and one-fourth to A. B. McLain, Branch, Ark. Gin-saw cleaner. No. 1,026,129; May 14; Sp. p. 2299; Gaz. vol. 178; p. 388.
Shwartz, John M. (See Brauner, Simon, assignor.)
Siebe Gorman and Company. (See Davis, Robert H., assignor.)
Siebenhausen, Charles, Boston, Mass. Smoking-pipe shield. No. 1,027,916; May 28; Sp. p. 6224; Gaz. vol. 178; p. 1068.
Siebert, Elmer C., Belleville, Ill. Grass-catcher for lawn-mowers. No. 1,025,593; May 7; Sp. p. 1092; Gaz. vol. 178; p. 169.
Siefken, George R., New York, N. Y. Ventilator. No. 1,026,471; May 14; Sp. p. 3047; Gaz. vol. 178; p. 503.
Siegwart, Hans, Lucerne, Switzerland. Manufacture of tubular bodies such as pipes, hollow masts, or the like. No. 1,027,571; May 28; Sp. p. 5453; Gaz. vol. 178; p. 953.
Siemens & Halske, A. G. (See Carl, Rudolf, assignor.)
Siemens & Halske Aktiengesellschaft. (See Deibel, Robert, assignor.)
Siewers, Walter L., Winston Salem, N. C. Buttonless union garment. No. 1,025,840; May 7; Sp. p. 1596; Gaz. vol. 178; p. 253.
Siff, Nathan, New York, N. Y. Binding-clip. No. 1,027,080; May 21; Sp. p. 4446; Gaz. vol. 178; p. 750.
Sigley, William H. (See Dobarts and Sigley.)
Silver, Jesse W., South Tacoma, assignor of one-half to C. P. Savage, Tacoma, Wash. Aeroplane. No. 1,027,572; May 28; Sp. p. 5455; Gaz. vol. 178; p. 954.
Silver Manufacturing Company, The. (See Haldeman, Charles F., assignor.)
Silverston, Anthony R., Milwaukee, Wis. Necktie-stretcher. No. 1,027,006; May 21; Sp. p. 4245; Gaz. vol. 178; p. 723.
Sime, Thomas C., Nevada, Iowa. Seed-corn drier. No. 1,027,672; May 28; Sp. p. 5658; Gaz. vol. 178; p. 985.
Simison, Newton. (See Marshall and Simison.)
Simms, Claude C., Berkeley, Cal., assignor to California Likfresh Company. Fruit-drier. No. 1,025,212; May 7; Sp. p. 226; Gaz. vol. 178; p. 37.
Simon, Henry, assignor of one-fourth to E. E. Wright, one-fourth to W. Joyce, and one-fourth to J. E. McAllister, Philadelphia, Pa. Roller-skate. No. 1,026,712; May 21; Sp. p. 3561; Gaz. vol. 178; p. 621.
Simon, Soil. (See Marois, Joseph P., assignor.)
Simplex Metal-Bound Box Company. (See Flora, Ellsworth E., assignor.)
Simpson, William M., Chicago, Ill. Brake-shoe. No. 1,027,081; May 21; Sp. p. 4447; Gaz. vol. 178; p. 750.
Sims, Charles C., Milwaukee, Wis. Duplex pouring vessel. No. 1,025,653; May 7; Sp. p. 1224; Gaz. vol. 178; p. 188.
Sims, John H., assignor of one-half to J. M. Menapace, Cimarron, N. Mex. Pump. No. 1,025,211; May 7; Sp. p. 225; Gaz. vol. 178; p. 37.
Sinclair, George B. (See Severy and Sinclair.)
Singer Manufacturing Company, The. (See Abercrombie, Charles M., assignor.)
Singer Manufacturing Company, The. (See De Voe, Albert H., assignor.)
Singer Manufacturing Company, The. (See Finch, John S., assignor.)
Singer Manufacturing Company, The. (See Gray, Charles F., assignor.)
Singer Manufacturing Company, The. (See Ringe, John C., assignor.)
Single Service Package Corporation of America. (See Beadle, George W., assignor.)
Single Service Package Corporation of America. (See Starr, Alden B., assignor.)
Sisbower, George F., East Orange, N. J., assignor to New York Couch Bed Company, New York, N. Y. Couch-bed. No. 1,027,007; May 21; Sp. p. 4248; Gaz. vol. 178; p. 724.
Sismondi, Camillo, assignor to Societa per Brevetti Postali E. Ferroviari Con Sede in Torino, Turin, Italy. Lead seal. No. 1,027,445; May 28; Sp. p. 5194; Gaz. vol. 178; p. 911.
Siverson, William C., Buffalo, N. Y. Apparatus for impregnating fabric with rubber. No. 1,025,321; May 7; Sp. p. 484; Gaz. vol. 178; p. 75.
Sjovik, Henry, Great Falls, Mont. Identification-sign. No. 1,027,008; May 21; Sp. p. 4249; Gaz. vol. 178; p. 724.
Skinner, Burr R., Aberdeen, S. D. Station-indicator or advertiser. No. 1,027,082; May 21; Sp. p. 4450; Gaz. vol. 178; p. 750.
Slater, Frank, Escanaba, Mich. Spark-arrester. No. 1,026,634; May 21; Sp. p. 3837; Gaz. vol. 178; p. 663.
Sly, George E. (See Palmer, Harry B., assignor.)
Small, Chester C., Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass. Heel compressing and loading apparatus. No. 1,027,361; May 21; Sp. p. 5010; Gaz. vol. 178; p. 845.
Small, Lewis J. (See Bailey, Clark, assignor.)
Smeja, Stephen, assignor of one-third to J. M. Nowicki, Chicago, Ill. Attachment for sewing-machines. No. 1,027,009; May 21; Sp. p. 4250; Gaz. vol. 178; p. 724.
Smiley, Lewis R., Braddyville, Iowa. Cartridge-blank receiver. No. 1,027,509; May 28; Sp. p. 5317; Gaz. vol. 178; p. 932.
Smith, Andrew, San Mateo, assignor to Smith Metal Perforating Company, San Mateo county, Cal. Making well-casing. No. 1,027,917; May 28; Sp. p. 6225; Gaz. vol. 178; p. 1069.

Smith, Andrew, San Mateo, assignor to Smith Metal Perforating Company, San Mateo county, Cal. Well-casing. No. 1,028,065; May 28; Sp. p. 6522; Gaz. vol. 178; p. 1115.

Smith, Andrew, San Mateo, assignor to Smith Metal Perforating Company, San Mateo county, Cal. Making well-casing. No. 1,028,066; May 28; Sp. p. 6526; Gaz. vol. 178; p. 1116.

Smith, Burgess W., assignor to J. R. Hill, Washington, D. C. Transfer-press. No. 1,025,165; May 7; Sp. p. 118; Gaz. vol. 178; p. 21.

Smith, Charles W., Annapolis, Ill. Valve-lift spacer. No. 1,026,472; May 14; Sp. p. 3050; Gaz. vol. 178; p. 503.

Smith, Edward W., Philadelphia, Pa. Hydrometer for storage batteries. No. 1,025,543; May 7; Sp. p. 983; Gaz. vol. 178; p. 152.

Smith, Edwin, Viau Ville, Montreal, Quebec, Canada. Riveting-machine. No. 1,027,280; May 21; Sp. p. 4872; Gaz. vol. 178; p. 820.

Smith & Egge Manufacturing Co., The. (See Wheeler, Charles A., assignor.)

Smith, Eugene W., assignor of one-half to H. N. Hudson, Chicago, Ill. Core-chaplet. No. 1,027,673; May 28; Sp. p. 5668; Gaz. vol. 178; p. 986.

Smith, Francis. (See Knight, Percy J., assignor.)

Smith, George E., and B. F. Hudson, assignors of one-fourth to J. B. Smith and one-fourth to W. V. Smith, Jacksonville, Oreg. Gravity-pump. No. 1,026,713; May 21; Sp. p. 3563; Gaz. vol. 178; p. 622.

Smith, George H., Broughton, Ohio. Beet-harvester. No. 1,026,714; May 21; Sp. p. 3565; Gaz. vol. 178; p. 622.

Smith, George H., Broughton, Ohio. Beet-harvester. No. 1,026,835; May 21; Sp. p. 3840; Gaz. vol. 178; p. 663.

Smith, George H., Nutley, assignor to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,025,213; May 7; Sp. p. 228; Gaz. vol. 178; p. 38.

Smith, Gilman B. (See Schaeffer, Louis J., assignor.)

Smith, Hamlet C. (See Hopper, James F., assignor.)

Smith, Harry F., Lexington, Ohio. Making producer-gas. No. 1,027,290; May 21; Sp. p. 4873; Gaz. vol. 178; p. 820.

Smith, Hazor J., assignor to Embossing Process Company, Chicago, Ill. Apparatus for melting and drying embossed printing. No. 1,025,594; May 7; Sp. p. 1094; Gaz. vol. 178; p. 170.

Smith, Henry A., Elgin, assignor to Star Manufacturing Company, Carpentersville, Ill. Rake-tooth point. No. 1,025,322; May 7; Sp. p. 485; Gaz. vol. 178; p. 75.

Smith, Herman C., Whittier, Cal. Cable-cutting device. No. 1,027,918; May 28; Sp. p. 6227; Gaz. vol. 178; p. 1069.

Smith, Horace M., assignor to The Liquid Carbonic Company, Chicago, Ill. Carbonating apparatus. No. 1,026,715; May 21; Sp. p. 3570; Gaz. vol. 178; p. 622.

Smith, James, Worcester, Mass. Circular combing-machine. No. 1,026,058; May 14; Sp. p. 2129; Gaz. vol. 178; p. 362.

Smith, James B., *et al.* (See Smith and Hudson, assignors.)

Smith, Jay A., Chicago, Ill. Flash-light apparatus. No. 1,026,329; May 14; Sp. p. 2739; Gaz. vol. 178; p. 457.

Smith, Lloyd E., Charleston, W. Va. Water filtration and supply system. No. 1,026,612; May 14; Sp. p. 3330; Gaz. vol. 178; p. 550.

Smith Metal Perforating Company. (See Smith, Andrew, assignor.)

Smith, Oscar L., Grand Rapids, Mich. Display device. No. 1,027,083; May 21; Sp. p. 4454; Gaz. vol. 178; p. 751.

Smith, Robert T., Jr., Warrington, England. Manufacture of wheels. No. 1,026,613; May 14; Sp. p. 3331; Gaz. vol. 178; p. 550.

Smith, Walter F., Baltimore, Md. Fuel-feeding mechanism. No. 1,025,841; May 7; Sp. p. 1597; Gaz. vol. 178; p. 253.

Smith, Walter T., Jackson, Mich. Vacuum-cleaner. No. 1,026,371; May 14; Sp. p. 2838; Gaz. vol. 178; p. 470.

Smith, Washington S., Parkersburg, W. Va. Tool-box. No. 1,026,059; May 14; Sp. p. 2131; Gaz. vol. 178; p. 362.

Smith, William H., Lima, Ohio. Barber-chair attachment. No. 1,027,919; May 28; Sp. p. 6228; Gaz. vol. 178; p. 1069.

Smith, William M., assignor of one-third to H. F. Madison, Bastrop, La. Coupling. No. 1,026,716; May 21; Sp. p. 3574; Gaz. vol. 178; p. 623.

Smith, William R., assignor to Buffalo Leather Co., Buffalo, N. Y. Dyeing fibrous materials. No. 1,025,323; May 7; Sp. p. 486; Gaz. vol. 178; p. 75.

Smith, William R., assignor to Buffalo Leather Co., Buffalo, N. Y. Treating leather and product thereof. No. 1,025,324; May 7; Sp. p. 488; Gaz. vol. 178; p. 76.

Smith, William V., *et al.* (See Smith and Hudson, assignors.)

Smith-Worthington Company, The. (See Lilley, Alfred L., assignor.)

Smock, Harold E., Matawan, N. J. Cleaning attachment for harrows. No. 1,027,920; May 28; Sp. p. 6229; Gaz. vol. 178; p. 1069.

Smysor, Mon, Columbus, Ohio. Cooling-board. No. 1,027,921; May 28; Sp. p. 6231; Gaz. vol. 178; p. 1070.

Snook, Henry J., Santa Monica, Cal. Wave-motor. No. 1,025,929; May 7; Sp. p. 1830; Gaz. vol. 178; p. 283.

Snow, Rollin W. (See Reed and Snow.)

Snyder, Charles F., Allegheny, Pa. Air-pump. No. 1,028,080; May 28; Sp. p. 6567; Gaz. vol. 178; p. 1120.

Snyder, Harry A., deceased, (M. C. Snyder, administratrix,) and J. E. Snyder, Watonga, Okla. Oil-burner. No. 1,025,325; May 7; Sp. p. 490; Gaz. vol. 178; p. 76.

Snyder, Harry D., assignor to William Mann Company, Philadelphia, Pa. Book-lock. No. 1,025,724; May 7; Sp. p. 1368; Gaz. vol. 178; p. 213.

Snyder, John E. (See Snyder, Harry A. and J. E.)

Snyder, Joseph C., McIlhaney, Pa. Wrench. No. 1,025,842; May 7; Sp. p. 1599; Gaz. vol. 178; p. 254.

Snyder, Mary C., administratrix. (See Snyder, Harry A. and J. E.)

Societa per Brevetti Postali E. Ferroviari Con Sede in Torino. (See Sismondi, Camillo, assignor.)

Société Anonyme des Automobiles Delaunay-Belleville. (See Delaunay-Belleville, Louis M. G., assignor.)

Societe des Moteurs Sabathé, The. (See Lefaivre, Joseph, assignor.)

Société l'Air Liquide, Société Anonyme pour l'Etude et l'Exploitation des Procédés Georges Claude. (See Claude, Georges, assignor.)

Société "L'Air Liquide" (Société Anonyme pour l'Etude et l'Exploitations des Procédés Georges Claude). (See Claude, Georges, assignor.)

Society of Chemical Industry in Basle. (See Engl and Fröhlich, assignors.)

Sobacki, John, and G. W. Cook, Larksville, Pa. Drill-bit. No. 1,026,530; May 14; Sp. p. 3165; Gaz. vol. 178; p. 523.

Solvay Process Company, The. (See Trump and Pennock, assignors.)

Sooy, Mortimer A. (See Van Verst and Sooy.)

Souther, Benjamin F., Seattle, Wash. Door-opener. No. 1,026,284; May 14; Sp. p. 2629; Gaz. vol. 178; p. 440.

Southern Iron and Steel Company. (See Brown, Edmund E., assignor.)

Spang, Joseph P. (See Cappio, Jildo, assignor.)

Spangler, Walter J., Philadelphia, assignor of one-half to R. M. Elliot, Bryn Mawr, and one-fourth to R. Thayer, Philadelphia, Pa. Electric-motor-driven truck. No. 1,027,629; May 28; Sp. p. 5559; Gaz. vol. 178; p. 971.

Sparks, Laban, administrator. (See Perky, Henry D.)

Sparks, Mirabeau E., assignor of two-tenths to H. McConathy, Louisville, Ky. Mileage-book. No. 1,025,595; May 7; Sp. p. 1096; Gaz. vol. 178; p. 170.

Sparling, Christian S., Moline, Ill. Flushing apparatus. No. 1,025,166; May 7; Sp. p. 123; Gaz. vol. 178; p. 21.

Speck, William F., Evansville, Ind. Manufacturing candy and candy produced thereby. No. 1,025,326; May 7; Sp. p. 492; Gaz. vol. 178; p. 76.

Spencer, Byron J., Fort Stevens, Oreg. Vessel-raising device. No. 1,025,930; May 7; Sp. p. 1832; Gaz. vol. 178; p. 283.

Spencer, Francis E., Dover, assignor of one-half to S. Gilchrist, Kiel, Okla. Draft-equalizer. No. 1,026,130; May 14; Sp. p. 2301; Gaz. vol. 178; p. 388.

Spencer Lens Company. (See Ott, Harvey N., assignor.)

Sperberg, Edward H., assignor to O. F. Foss, Chicago, Ill. Moving-picture machine. No. 1,025,887; May 7; Sp. p. 1744; Gaz. vol. 178; p. 269.

Spero, Harry. (See Bower and Spero.)

Spery, Charles F., Chicago, Ill., assignor to American Art Works, Coshocton, Ohio. Advertising display-sign. No. 1,026,531; May 14; Sp. p. 3166; Gaz. vol. 178; p. 523.

Spiegelberg, William S. (See Severson, Myron L., assignor.)

Spikes, John C., Trinidad, Colo. Stage-setting for theaters. No. 1,027,922; May 28; Sp. p. 6233; Gaz. vol. 178; p. 1070.

Spindler, Emil. (See Werner, Paul, assignor.)

Spinnerei & Weberei Steinen Actien Gesellschaft. (See Koechlin, Albert G., assignor.)

Spohrer, Gregory J., Franklin, Pa. Air-pump. No. 1,027,923; May 28; Sp. p. 6235; Gaz. vol. 178; p. 1070.

Spokes, George T. S. (See Lathrop and Spokes.)

Sprenger, Louis, assignor to Diamond Power Specialty Co., Detroit, Mich. Blower for boilers. No. 1,026,060; May 14; Sp. p. 2132; Gaz. vol. 178; p. 362.

Springle, Robert E., Camden, Ala. Stop device for gravity-motors. No. 1,027,219; May 21; Sp. p. 4733; Gaz. vol. 178; p. 795.

St. Louis Briquette Machine Company. (See Komarek, Gustav, assignor.)

Stafford, Nelson, New York, N. Y. Calculating-machine. No. 1,026,473; May 14; Sp. p. 3052; Gaz. vol. 178; p. 503.

Stahl, Jacob P. (See Hofer and Stahl.)

Stallard, Wilber L., Brook, Ind. Corn-husker. No. 1,027,446; May 28; Sp. p. 5195; Gaz. vol. 178; p. 911.

Standard Knitting Mills Company. (See Marlow, William, assignor.)

Standard Lighters Manufacturing Co. (See Dubinski, Benjamin, assignor.)

Standard Machine Co. (See Houseman, Harry A., assignor.)

Standard Manufacturing Company. (See Voorhees, Walter K., assignor.)

Standard Optical Company, The. (See Richards, William M., assignor.)

Standard Optical Company. (See Van Tassel, John R., assignor.)

Standard Saw and Manufacturing Co. (See McKam, Lawrence G., assignor.)

Standard Tire Protector Company, The. (See Dorgan, William T., assignor.)

Standard Varnish Works. (See Beausejour, Reme A., assignor.)

Standard Varnish Works. (See Rosenberg, Edward, assignor.)

Standley, Henry I., Hope, N. D. Culvert. No. 1,025,327; May 7; Sp. p. 492; Gaz. vol. 178; p. 76.

Stanhope, Philip R., Denver, Colo. Ore-crushing stamp-mill. No. 1,026,717; May 21; Sp. p. 3577; Gaz. vol. 178; p. 623.

Stanley Rule & Level Company, The. (See Bodmer, Christian, assignor.)

Stanley Rule and Level Company, The. (See Richards, Hubert P., assignor.)

Stanley Rule & Level Company, The. (See Saner, Thomas B., assignor.)

Stanley, William, Great Barrington, Mass., assignor to General Electric Company. Storage-stove. No. 1,025,843; May 7; Sp. p. 1600; Gaz. vol. 178; p. 254.

Stanley, William, Great Barrington, Mass., assignor to General Electric Company. Electric heater. No. 1,027,291; May 21; Sp. p. 4876; Gaz. vol. 178; p. 820.

Stanschus, Michael, New York, N. Y. Wind-motor. No. 1,025,428; May 7; Sp. p. 701; Gaz. vol. 178; p. 111.

Stanton, William M., Milwaukee, Wis. Meat chopper and tenderer. No. 1,025,654; May 7; Sp. p. 1226; Gaz. vol. 178; p. 189.

Staples, Albert F., assignor to Superior Register Company, Canisteo, N. Y. Account-register. No. 1,026,614; May 14; Sp. p. 3332; Gaz. vol. 178; p. 550.

Staples, Albert F., assignor to Superior Register Company, Canisteo, N. Y. Account-register. No. 1,026,615; May 14; Sp. p. 3335; Gaz. vol. 178; p. 550.

Star Manufacturing Company. (See Smith, Henry A., assignor.)

Starr, Alden B., assignor to Single Service Package Corporation of America, New York, N. Y. Double-walled vessel with metallic end closures. No. 1,027,924; May 28; Sp. p. 6236; Gaz. vol. 178; p. 1071.

Starr, Harry D., Lodi, Cal. Fruit-picker. No. 1,025,214; May 7; Sp. p. 231; Gaz. vol. 178; p. 38.

Staton, William, assignor to Providence Silk Hosiery Company, Providence, R. I. Stocking. No. 1,025,328; May 7; Sp. p. 494; Gaz. vol. 178; p. 77.

Staub, John W. (See Howard, Benjamin F., assignor.)

Stauffer, Samuel D., Lancaster, Pa. Combined steam and water radiator. No. 1,027,630; May 28; Sp. p. 5560; Gaz. vol. 178; p. 971.

Steber, Bernard T., Utica, assignor to New Hartford Cotton Manufacturing Company, New Hartford, N. Y. Machine for slitting cloth. No. 1,025,931; May 7; Sp. p. 1833; Gaz. vol. 178; p. 283.

Stebler, Fred, Riverside, Cal. Fruit-elevator. No. 1,027,573; May 28; Sp. p. 5457; Gaz. vol. 178; p. 954.

Stecker, Alfred J., Detroit, Mich. Circuit opening and closing switch for charging-circuits. No. 1,026,003; May 14; Sp. p. 1992; Gaz. vol. 178; p. 343.

Stedman, Charles C., assignor to The Cook Motor Company, Delaware, Ohio. Regulator for explosion-engines. No. 1,027,778; May 28; Sp. p. 5863; Gaz. vol. 178; p. 1020.

Steedman, Edwin H. and J. H., St. Louis, assignors to Curtis & Company Manufacturing Company, Wellston, Mo. Apparatus for tempering metal articles. No. 1,027,010; May 21; Sp. p. 4252; Gaz. vol. 178; p. 725.

Steedman, James H. (See Steedman, Edwin H. and J. H.)

Steel, Samuel D., Woodlawn, Pa. Rail-clamp. No. 1,027,292; May 21; Sp. p. 4880; Gaz. vol. 178; p. 821.

Steel Shoe Company. (See Ruthstein, Nathan M., assignor.)

Steele, Herbert H., Marcellus, assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,025,544; May 7; Sp. p. 983; Gaz. vol. 178; p. 152.

Steele, Herbert H., assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,026,372; May 14; Sp. p. 2840; Gaz. vol. 178; p. 470.

Stefanowski, Joseph. (See Kuehl and Stefanowski.)

Steffen, Alfred P., *et al.* (See Bock, George R., assignor.)

Steffens-Amberg Co., The. (See Fox, Thomas A., assignor.)

Stehli, Henry J., Montclair, assignor to Dwight Lloyd Metallurgical Company, Jersey City, N. J. Apparatus for use in treating ores. No. 1,027,084; May 21; Sp. p. 4457; Gaz. vol. 178; p. 751.

Stein, Samuel H., Los Angeles, Cal. Loose-leaf binder. No. 1,027,085; May 21; Sp. p. 4460; Gaz. vol. 178; p. 752.

Steinberg, Samuel, Laporte, Ind. Watch-bow. No. 1,026,061; May 14; Sp. p. 2134; Gaz. vol. 178; p. 363.

Steinmetz, Charles P., Schenectady, N. Y., assignor to General Electric Company. Means for producing light. No. 1,025,932; May 7; Sp. p. 1837; Gaz. vol. 178; p. 284.

Steinmüller, Lebrecht, Gummersbach, Germany. Water-tube boiler. No. 1,026,532; May 14; Sp. p. 3170; Gaz. vol. 178; p. 524.

Stenz, John, Brooklyn, N. Y. Gearing. No. 1,026,184; May 14; Sp. p. 2406; Gaz. vol. 178; p. 405.

Stephan, John, Milwaukee, Wis. Fire-escape. No. 1,026,285; May 14; Sp. p. 2631; Gaz. vol. 178; p. 440.

Stephens-Adamson Manufacturing Company. (See Dull, Raymond W., assignor.)

Stephens, Mary A., *et al.* (See Sears, James A. W., assignor.)

Stephens, W. F., *et al.* (See Sears, James A. W., assignor.)

Stephenson, John W., Toledo, assignor to The National Malleable Castings Company, Cleveland, Ohio. Journal-box. No. 1,025,888; May 7; Sp. p. 1750; Gaz. vol. 178; p. 269.

Sterling, Charles A., East Orange, N. J. Curtain-fixture. No. 1,026,286; May 14; Sp. p. 2633; Gaz. vol. 178; p. 441.

Sterling Typewriter Company. (See Paulson, Charles J., assignor.)

Sternberg, Ernst M., Milwaukee, Wis. Suspension-frame for transmission-gears. No. 1,027,447; May 28; Sp. p. 5190; Gaz. vol. 178; p. 911.

Stettiner Chamotte-Fabrik Actien-Gesellschaft vorm. Didier. (See Hohmann, Edmund, assignor.)

Stevens, Alton J., Chicago, Ill. Projecting device. No. 1,027,448; May 28; Sp. p. 5198; Gaz. vol. 178; p. 911.

Stevenson, Archibald W. (See Sclater, William, assignor.)

Stevenson, James A., and L. O. Phillips, New Castle, Pa. Water-closet. No. 1,025,655; May 7; Sp. p. 1228; Gaz. vol. 178; p. 189.

Stevenson, William L., Chester, W. Va. Monkey-wrench. No. 1,027,925; May 28; Sp. p. 6238; Gaz. vol. 178; p. 1071.

Stewart, Alfred C., Los Angeles, Cal. Auxiliary air-valve for carbureters. No. 1,026,533; May 14; Sp. p. 3171; Gaz. vol. 178; p. 524.

Stewart, Charles, Pittsburgh, Pa. Rail-joint. No. 1,026,718; May 21; Sp. p. 3579; Gaz. vol. 178; p. 623.

Stewart, Matthew A., Newark, N. J. Fire-bucket support. No. 1,027,011; May 21; Sp. p. 4254; Gaz. vol. 178; p. 725.

Stewart, Samuel A. (See Pierce and Warren, assignors.)

Stier, Eugene A., and R. C. Byrd, Dayton, Ohio. Portable steam-vulcanizer. No. 1,026,229; May 14; Sp. p. 2520; Gaz. vol. 178; p. 422.

Stiggins, Edward A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cutting device. No. 1,027,510; May 28; Sp. p. 5318; Gaz. vol. 178; p. 932.

Stilke, August, Buffalo, N. Y. Rail-tie fastener. No. 1,026,373; May 14; Sp. p. 2843; Gaz. vol. 178; p. 471.

Still, Marcus D., *et al.* (See Bryant, William A., assignor.)

Stimson, Henry W., assignor to J. G. Williams, Snyder, Tex. Center-piece for buggy neck-yokes. No. 1,027,926; May 28; Sp. p. 6239; Gaz. vol. 178; p. 1071.

Stinger, Samuel K., Jr., and H. K. Robinson, Philadelphia, Pa. Means to electrically control street-switches. No. 1,025,545; May 7; Sp. p. 989; Gaz. vol. 178; p. 153.

Stock, Nicholas, and J. N. Cordts, Kingston, N. Y. Foldable chair. No. 1,027,012; May 21; Sp. p. 4255; Gaz. vol. 178; p. 726.

Stocker, Louis, Grahamton, Ky. Razor-sharpening compound. No. 1,027,927; May 28; Sp. p. 6240; Gaz. vol. 178; p. 1072.

Stockling, Bert A., Newton, Iowa. Wrench. No. 1,027,220; May 21; Sp. p. 4734; Gaz. vol. 178; p. 795.

Stockman, Erastus L., Adams, Nebr. Portable water supply and heating system. No. 1,027,928; May 28; Sp. p. 6240; Gaz. vol. 178; p. 1072.

Stokes, Jeremiah, Jr., East Mill Creek, Utah. Sand-band for vehicles. No. 1,025,329; May 7; Sp. p. 495; Gaz. vol. 178; p. 77.

Stone, Alonzo, assignor of one-half to J. W. Davis, Coalgate, Okla. Rotary engine. No. 1,026,474; May 14; Sp. p. 3060; Gaz. vol. 178; p. 504.

Stone & Forsyth. (See Forsyth, James B., assignor.)

Stone, Henry B., Providence, R. I. Telephone repeater system. No. 1,025,167; May 7; Sp. p. 125; Gaz. vol. 178; p. 22.

Stone, Richard T., Deming, N. Mex. Tunneling-machine. No. 1,026,412; May 14; Sp. p. 2922; Gaz. vol. 178; p. 484.

Storrs, Aaron P., assignor to Storrs Mica Company, Owego, N. Y. Cylinder or globe for inverted incandescent gas-burners. No. 1,027,449; May 28; Sp. p. 5199; Gaz. vol. 178; p. 912.

Storrs Mica Company. (See Storrs, Aaron P., assignor.)

Stover Manufacturing Company, The. (See McCulloch, Harry G., assignor.)

Stowell, Tilton C., Mishawaka, Ind. Machine for gathering and husking corn. No. 1,027,013; May 21; Sp. p. 4256; Gaz. vol. 178; p. 726.

Stowell, William G., assignor to The W. G. Stowell Company, Dayton, Ohio. Semirotary motor. No. 1,025,933; May 7; Sp. p. 1844; Gaz. vol. 178; p. 284.

Strafer, Aaron F., assignor to H. A. Holz, Cincinnati, Ohio. Grooving-tool. No. 1,026,004; May 14; Sp. p. 1994; Gaz. vol. 178; p. 344.

Strain, William T., Hanlin Station, Pa. Governor. No. 1,027,221; May 21; Sp. p. 4736; Gaz. vol. 178; p. 796.

Stranders, Julien, assignor to Seiter & Kappes Lithographing Co., New York, N. Y. Display device. No. 1,026,634; May 14; Sp. p. 3379; Gaz. vol. 178; p. 557.

Stratford, Egbert C. (See Dee, Daniel, assignor.)

Stratton, Eliphalet P., College Point, N. Y. Embankment. No. 1,026,616; May 14; Sp. p. 3337; Gaz. vol. 178; p. 551.

Straub, Clarence E., Middleburg, Pa. Wrench. No. 1,026,005; May 14; Sp. p. 1996; Gaz. vol. 178; p. 344.

Straubel, Rudolf, assignor to Firm of C. Zeiss, Jena, Germany. Photographic objective. No. 1,025,766; May 7; Sp. p. 1450; Gaz. vol. 178; p. 228.

Straus, Joseph H., Jr., assignor of one-half to R. H. Williams, Baltimore, Md. Wire clip for concrete construction. No. 1,025,330; May 7; Sp. p. 496; Gaz. vol. 178; p. 77.

Strawser, George A., Pfouts Valley, assignor of one-half to A. L. Long, Millerstown, Pa. Spike. No. 1,025,596; May 7; Sp. p. 1099; Gaz. vol. 178; p. 170.

Street, Daniel B. (See Crosthwaite, Walter G., assignor.)

Street, Victor H., Berkeley, Cal. Engine-room return-signal. No. 1,025,488; May 7; Sp. p. 860; Gaz. vol. 178; p. 133.

Stricker, Ludwig L. (See Lanier, Lewis H., assignor.)

Strite, Charles P., assignor to Cedar Rapids Foundry & Machine Company, Cedar Rapids, Iowa. Governor pulley device. No. 1,026,330; May 14; Sp. p. 2741; Gaz. vol. 178; p. 457.

Stroh, George. (See Faller, Oscar, assignor.)

Strong, Marquis H., deceased, Rochester, N. Y.; S. J. Strong, Decatur, Mich., and H. A. Ensign, Rochester, N. Y., administrators. Toilet-case for vehicles. No. 1,027,362; May 21; Sp. p. 5017; Gaz. vol. 178; p. 845.

Strong, Samuel J., *et al.*, administrators. (See Strong, Marquis H.)

Stryker, Charles W., Syracuse, N. Y. Muffler cut-out. No. 1,027,929; May 28; Sp. p. 6241; Gaz. vol. 178; p. 1072.

Stubblefield, John H., Scotts Hill, Tenn. Spacing attachment for cultivators or plows. No. 1,025,546; May 7; Sp. p. 990; Gaz. vol. 178; p. 153.

Stull, Jacob H., Fremont, Ohio. Universal-jointed automobile steering-rod. No. 1,025,215; May 7; Sp. p. 232; Gaz. vol. 178; p. 39.

Sturt, Alfred T., Flint, Mich. Connecting-rod bearing. No. 1,027,293; May 21; Sp. p. 4881; Gaz. vol. 178; p. 821.

Sturt, Alfred T., assignor to Buick Motor Co., Flint, Mich. Lever control for motor-vehicles. No. 1,025,216; May 7; Sp. p. 234; Gaz. vol. 178; p. 39.

Sturtevant, Charles A., Plainfield, N. J., assignor to American Bank Note Company. Printing-press. No. 1,026,934; May 21; Sp. p. 4067; Gaz. vol. 178; p. 698.

Sturtevant, Charles A., Plainfield, N. J., assignor to American Bank Note Company. Printing-press. No. 1,026,935; May 21; Sp. p. 4079; Gaz. vol. 178; p. 698.

Sturtevant, Charles A., Plainfield, N. J., assignor to American Bank Note Company. Printing-machine. No. 1,026,936; May 21; Sp. p. 4085; Gaz. vol. 178; p. 699.

Sturtevant Mill Company. (See Sturtevant, Thomas J., assignor.)

Sturtevant Mill Company. (See Sturtevant, Thomas L. and T. J., assignors.)

Sturtevant, Thomas J. (See Sturtevant, Thomas L. and T. J.)

Sturtevant, Thomas J., Wellesley, Mass., assignor to Sturtevant Mill Company. Crushing-mill. No. 1,027,222; May 21; Sp. p. 4737; Gaz. vol. 178; p. 796.

Sturtevant, Thomas L., Quincy, and T. J. Sturtevant, Wellesley, Mass., assignors to Sturtevant Mill Company. Crushing-mill. No. 1,027,294; May 21; Sp. p. 4883; Gaz. vol. 178; p. 821.

Subers, Lawrence A. (See Bayne and Subers.)

Subers, Lawrence A., Cleveland, Ohio. Pneumatic-tire fabric having annular elastic zones. No. 1,026,836; May 21; Sp. p. 3843; Gaz. vol. 178; p. 664.

Sublett, Alvin H., assignor of one-half to H. H. Huffman, Roanoke, Va. Watch-holder. No. 1,027,574; May 28; Sp. p. 5461; Gaz. vol. 178; p. 955.

Sullivan, Joseph T. (See Nicoll, Benjamin F., assignor.)

Sullivan Machinery Company. (See Holdsworth, Fred D., assignor.)

Sullivan, Willard A., Brooklyn, N. Y. Printing-press. No. 1,025,429; May 7; Sp. p. 703; Gaz. vol. 178; p. 112.

Sullivan, William M., Middletown, Ohio. Latrine. No. 1,026,413; May 14; Sp. p. 2928; Gaz. vol. 178; p. 485.

Sulzberger, Nathan, New York, N. Y. Chloral derivatives containing the radical of a fatty acid. No. 1,025,889; May 7; Sp. p. 1751; Gaz. vol. 178; p. 269.

Sumerlin, Jasper. (See Wilson, Charles B., assignor.)

Sumner Manufacturing Company. (See Bigelow, Samuel A., assignor.)

Sundee, John R., assignor, by mesne assignments, to Warner Jewelry Case Company, Buffalo, N. Y. Jewelry-box fastener. No. 1,025,430; May 7; Sp. p. 705; Gaz. vol. 178; p. 112.

Sundh, August, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Sidewalk endless ash-conveyer. No. 1,025,168; May 7; Sp. p. 128; Gaz. vol. 178; p. 22.

Sundh, August, Hastings-on-Hudson, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Magnetically-controlled friction-gearing. No. 1,025,547; May 7; Sp. p. 991; Gaz. vol. 178; p. 153.

Superior Register Company. (See Staples, Albert F., assignor.)

Suppes, Max M., Elyria, Ohio. Bumping-block for railway-tracks. No. 1,027,779; May 28; Sp. p. 5867; Gaz. vol. 178; p. 1020.

Suspension Ball Bearing Manufacturing Company. (See Neighbour, William W., assignor.)

Süssmann, Heinrich, assignor to Deutsche Gasglühlicht Aktiengesellschaft (Auergesellschaft), Berlin, Germany. Burner for upright incandescent gas-lamps. No. 1,025,656; May 7; Sp. p. 1231; Gaz. vol. 178; p. 189.

Sutton, Nelson J., Cincinnati, Ohio. Harness-saddle. No. 1,027,014; May 21; Sp. p. 4259; Gaz. vol. 178; p. 726.

Swank, Calvin P., Camden, N. J. Type-writer attachment. No. 1,027,395; May 21; Sp. p. 5093; Gaz. vol. 178; p. 856.

Swanson, Ole, *et al.* (See Montgomery, Arthur W., assignor.)

Sweet, Charles E., Wilkinsburg, assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Blade-tie. No. 1,026,719; May 21; Sp. p. 3580; Gaz. vol. 178; p. 624.

Sweet, Welcome F., St. Louis, Mo. Street-car advertising device. No. 1,027,780; May 28; Sp. p. 5868; Gaz. vol. 178; p. 1021.

Sweetser, Ralph H., Columbus, Ohio. Apparatus for supplying air to blast-furnaces, converters, and the like. No. 1,027,781; May 28; Sp. p. 5871; Gaz. vol. 178; p. 1021.

Swem, Daniel D. (See Berliner, Swem, and Moore.)

Swern, Ernest V., assignor of one-fourth to J. H. East, Denver, Colo. Starting device for explosive-engines. No. 1,026,374; May 14; Sp. p. 2845; Gaz. vol. 178; p. 471.

Swett, William H., assignor of one-half to W. A. Wann, Berkeley, Cal. Hot-air furnace. No. 1,026,777; May 21; Sp. p. 3715; Gaz. vol. 178; p. 644.

Swick, Cleveland W., Glenwood Springs, Colo. Combined level and pitch gage. No. 1,026,967; May 21; Sp. p. 4165; Gaz. vol. 178; p. 710.

Swiecicki, Michael. (See Kunicki and Swiecicki.)

Swinglehurst, Harry, Philadelphia, Pa., assignor, by mesne assignments, to Scott & Williams, Incorporated, Camden, N. J. Dial for knitting-machines. No. 1,025,169; May 7; Sp. p. 130; Gaz. vol. 178; p. 23.

Sybenga, Richard, Pella, Iowa. Trousers-hanger. No. 1,027,223; May 21; Sp. p. 4740; Gaz. vol. 178; p. 796.

Syverson, Gilfred, Gleuwood, Minn. Runner for go-carts. No. 1,027,224; May 21; Sp. p. 4741; Gaz. vol. 178; p. 797.

Szabados, Antony, assignor of one-half to H. Mueller, New Michel, British Columbia, Canada. Wrench. No. 1,025,431; May 7; Sp. p. 707; Gaz. vol. 178; p. 112.

Szathmáry, Paul, Clarence, N. Y. Feed-bag. No. 1,026,720; May 21; Sp. p. 3582; Gaz. vol. 178; p. 624.

Tabler, Frank C., assignor of fifty-one one-hundredths to G. V. R. Mechin, St. Louis, Mo. Antiseptic mouthpiece for telephones. No. 1,026,414; May 14; Sp. p. 2929; Gaz. vol. 178; p. 485.

Tanner, Clark L., Miles City, Mont. Lubricating device for wheel-flanges. No. 1,027,030; May 28; Sp. p. 6243; Gaz. vol. 178; p. 1072.

Tarbuck, Walter, Philadelphia, Pa. Clamp. No. 1,026,475; May 14; Sp. p. 3064; Gaz. vol. 178; p. 504.

Tardiff, Paul E., assignor of one-half to E. A. Cudahey, Claremont, N. H. Combined shade and curtain bracket. No. 1,027,931; May 28; Sp. p. 6246; Gaz. vol. 178; p. 1073.

Taylor, Cecil H., and H. E. Coffin, Detroit, Mich. Lubricating system for explosion-engines. No. 1,026,287; May 14; Sp. p. 2637; Gaz. vol. 178; p. 441.

Taylor, Charles G., *et al.* (See Robinson, Clark, assignor.)

Taylor, Clarence W., Chicago, Ill. Power-transmission mechanism. No. 1,025,331; May 7; Sp. p. 498; Gaz. vol. 178; p. 77.

Taylor, Clarence W., Chicago, Ill. Power-transmission mechanism. No. 1,025,332; May 7; Sp. p. 499; Gaz. vol. 178; p. 78.

Taylor, Edwin, Farmingdale, assignor to Union Clay Products Company, New York, N. Y. Composition containing vulcanized oil and manufacture. No. 1,025,217; May 7; Sp. p. 237; Gaz. vol. 178; p. 40.

Taylor, George H., assignor to The Kursheedt Manufacturing Company, New York, N. Y. Decorated fabric. No. 1,026,131; May 14; Sp. p. 2302; Gaz. vol. 178; p. 388.

Taylor Instrument Companies. (See Peake, Wilfrid S., assignor.)

Taylor, Ralph G., Davenport, assignor to Bettendorf Axle Company, Bettendorf, Iowa. Operating mechanism for car-doors. No. 1,026,280; May 14; Sp. p. 2522; Gaz. vol. 178; p. 422.

Taylor, S. R. (See Kaylor, William, assignor.)

Taylor, Samuel M. (See Watkins and Taylor.)

Taylor, William J., Canastota, N. Y. Wheelbarrow. No. 1,026,937; May 21; Sp. p. 4101; Gaz. vol. 178; p. 700.

Temple, Herbert. (See Burnet and Temple.)

Templeton, Walter B., Chicago, Ill. Lifting-jack. No. 1,025,218; May 7; Sp. p. 238; Gaz. vol. 178; p. 40.

Ten Eyck, John C., Yonkers, N. Y. Automatic aeroplane-equilibrator. No. 1,025,548; May 7; Sp. p. 993; Gaz. vol. 178; p. 154.

Terry, Claude L., Elyria, Ohio. Ignition for internal-combustion engines. No. 1,025,844; May 7; Sp. p. 1607; Gaz. vol. 178; p. 254.

Terry, Coleman A., deceased, New York, N. Y.: E. J. Terry, administratrix, assignor, by mesne assignments, to McKiernan-Terry Drill Company. Core-drilling machinery. No. 1,025,333; May 7; Sp. p. 501; Gaz. vol. 178; p. 78.

Terry, Emma J., administratrix. (See Terry, Coleman A.)

Teves, Frederick E., Glen Cove, N. Y. Can opener and sealer. No. 1,027,932; May 28; Sp. p. 6247; Gaz. vol. 178; p. 1073.

Tharpe, James E. (See Councill, Tharpe, and Dale.)

Thayer, Russell, *et al.* (See Spangler, Walter J., assignor.)

Theerman, Albert, Dike, Iowa. Steering mechanism. No. 1,025,432; May 7; Sp. p. 708; Gaz. vol. 178; p. 113.

Thenis, Victor, Point Marion, Pa. Glass-furnace. No. 1,027,933; May 28; Sp. p. 6248; Gaz. vol. 178; p. 1073.

Theo. A. Kochs Co. (See Wertz and Pomernacki, assignors.)

Thiberge, Harry A., New Orleans, La. Trap. No. 1,025,845; May 7; Sp. p. 1609; Gaz. vol. 178; p. 255.

Thiem, Charles, Sandusky, Ohio. Device for binding paper sheets. No. 1,026,006; May 14; Sp. p. 1997; Gaz. vol. 178; p. 344.

Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Tabulating mechanism for type-writing machines. No. 1,027,225; May 21; Sp. p. 4743; Gaz. vol. 178; p. 797.

Thiry, Oden F., *et al.* (See Bremer, Russell H., assignor.)

Thistle Manufacturing Company, The. (See Christensen and Vondrasek, assignors.)

Thomas, Albert G., Pittsburgh, Pa. Needle-valves for gas-burners. No. 1,027,934; May 28; Sp. p. 6250; Gaz. vol. 178; p. 1073.

Thomas, Carl C., Madison, Wis. Spring-wheel. No. 1,025,433; May 7; Sp. p. 708; Gaz. vol. 178; p. 113.

Thomas, F. G. (See Bradshaw, Frank F., assignor.)

Thomas, Henry, East Ham, London, England, assignor to U. S. Slicing Machine Company, Chicago, Ill. Meat-holder. No. 1,026,721; May 21; Sp. p. 3583; Gaz. vol. 178; p. 624.

Thomas, John W., *et al.* (See Goetzinger, Charles P., assignor.)

Thomas, Martin E., assignor of three-fourths to W. W. Hester and B. P. Belk, Bowling Green, Ky. Rock-drill. No. 1,026,886; May 21; Sp. p. 3958; Gaz. vol. 178; p. 682.

Thompson, Alan C., Toronto, Ontario, Canada. Filling-spring for mattresses and the like. No. 1,025,489; May 7; Sp. p. 862; Gaz. vol. 178; p. 133.

Thompson, Albert A. (See Dingwell, Ruel, assignor.)

Thompson, Augustus F., Huntington, W. Va. Gas-burner. No. 1,026,476; May 14; Sp. p. 3065; Gaz. vol. 178; p. 505.

Thompson, Emma E. (See Thompson, William E. and E. E.)

Thompson, Harrison G. (See Thomson and Thompson.)

Thompson, James S., Chicago, Ill., assignor to E. H. Fallows, New York, N. Y. Brake shoe. No. 1,025,219; May 7; Sp. p. 241; Gaz. vol. 178; p. 40.

Thompson, John S., Chicago, Ill. Type-casting machine. No. 1,026,185; May 14; Sp. p. 2407; Gaz. vol. 178; p. 406.

Thompson, Langdon S., Jersey City, N. J. Antiskid device. No. 1,027,450; May 28; Sp. p. 5201; Gaz. vol. 178; p. 912.

Thompson, Robert B., Coalport, Pa. Pen-point releaser. No. 1,027,674; May 28; Sp. p. 5660; Gaz. vol. 178; p. 986.

Thompson, Robert M., Tacoma, Wash. Automatic steering device for flying-machines. No. 1,026,415; May 14; Sp. p. 2932; Gaz. vol. 178; p. 485.

Thompson, William E. and E. E., Ranger Lake, N. Mex. Calculator. No. 1,025,334; May 7; Sp. p. 504; Gaz. vol. 178; p. 79.

Thompson, William R., South Norwalk, Conn., assignor of one-half to J. Tiebout, Brooklyn, N. Y., and one-fourth to E. E. Case, South Norwalk, Conn. Air-compressor. No. 1,026,132; May 14; Sp. p. 2304; Gaz. vol. 178; p. 389.

Thomson, Robert W., Lynn, Mass., assignor to United-Xpedite Finishing Company, Berwick, Me. Finishing-machine. No. 1,025,549; May 7; Sp. p. 995; Gaz. vol. 178; p. 154.

Thomson, William E. (See Tuke, David O., assignor.)

Thomson, William I., Newark, and H. G. Thompson, Glen Ridge, N. J., assignors to Safety Car Heating & Lighting Company. Heating. No. 1,026,722; May 21; Sp. p. 3588; Gaz. vol. 178; p. 625.

Thorssell, Karl T. (See Malmsten and Thorssell.)

Thorsteinson, Walter, Winnipeg, Manitoba, Canada. Signal device. No. 1,027,295; May 21; Sp. p. 4888; Gaz. vol. 178; p. 822.

Thurston, Charles M., San Francisco, Cal. Adjustable curtain-support. No. 1,025,335; May 7; Sp. p. 507; Gaz. vol. 178; p. 79.

Tibbles, Judson R., Macedonia, Iowa. Driving-gear for vehicles. No. 1,026,375; May 14; Sp. p. 2848; Gaz. vol. 178; p. 471.

Tickometer Company, The. (See Kimball, Robert E., assignor.)

Tiebout, John, *et al.* (See Thompson, William R., assignor.)

Tieche, Ceaser A., Seattle, Wash. Rail-joint. No. 1,026,288; May 14; Sp. p. 2639; Gaz. vol. 178; p. 441.

Tilton, Walter H., assignor to Winchester Repeating Arms Company, New Haven, Conn. Butt-stock for shoulder-arms. No. 1,025,550; May 7; Sp. p. 997; Gaz. vol. 178; p. 154.

Timewell Sack Filling and Sewing Machine Company. (See Scott, George E. and E. D., assignors.)

Tinsman, Samuel H., Morris, Ill. Cultivator. No. 1,025,220; May 7; Sp. p. 244; Gaz. vol. 178; p. 41.

Tippett, John, Mogollon, N. Mex. Trap. No. 1,026,477; May 14; Sp. p. 3066; Gaz. vol. 178; p. 505.

Titanium Alloy Manufacturing Company, The. (See Rossi, Auguste J., assignor.)

Titus, William N., Jr., Watertown, Mass. Spring compressing and assembling device. No. 1,026,837; May 21; Sp. p. 3846; Gaz. vol. 178; p. 664.

Todd Co., A. M., The. (See Shirley, John H., assignor.)

Todd, William A., Point Pleasant, N. J. Machine for making building-stones. No. 1,027,935; May 28; Sp. p. 6251; Gaz. vol. 178; p. 1074.

Toles, Justin K., Berkeley, Cal. Combined container and cutter. No. 1,026,778; May 21; Sp. p. 3718; Gaz. vol. 178; p. 644.

Tolsma, Reinder B. (See Matteson, Vernie, assignor.)

Tombeur, Joseph, Brussels, Belgium. Tap for acid-containers. No. 1,027,296; May 21; Sp. p. 4889; Gaz. vol. 178; p. 822.

Tomlinson, Albert, assignor to John Hetherington and Sons Limited, Manchester, England. Combing-machine. No. 1,025,934; May 7; Sp. p. 1846; Gaz. vol. 178; p. 284.

Tomlinson, Charles E., Syracuse, N. Y. Beverage-dispensing machine. No. 1,026,635; May 21; Sp. p. 3381; Gaz. vol. 178; p. 557.

Tompkins, Harry J., Berkeley, Cal. Device for planting seedlings. No. 1,026,331; May 14; Sp. p. 2743; Gaz. vol. 178; p. 458.

Tonti, Michael, Pittsburgh, Pa. Window-shade fixture. No. 1,025,597; May 7; Sp. p. 1100; Gaz. vol. 178; p. 170.

Toohey-Doolittle Company, The. (See Toohey, Patrick W., assignor.)

Toohey, Patrick W., assignor to The Toohey-Doolittle Company, Colorado Springs, Colo. Coaster-brake. No. 1,025,598; May 7; Sp. p. 1101; Gaz. vol. 178; p. 171.

Tothill, Alexander T. D., Davey, Nebr. Gate. No. 1,025,725; May 7; Sp. p. 1369; Gaz. vol. 178; p. 213.

Totterdale, John W. (See Amsden, Thomas G., assignor.)

Tous, Gabriel, Montevideo, Uruguay. Barber's cabinet. No. 1,026,478; May 14; Sp. p. 3067; Gaz. vol. 178; p. 505.

Toward, Ralph, Russellton, Pa. Harness. No. 1,026,723; May 21; Sp. p. 3597; Gaz. vol. 178; p. 625.

Towell, Arthur H. (See Towell, Jesse C., assignor.)

Towell, Jesse C., assignor of one-half to A. H. Towell, Muncie, Ind. Cotton-chopper. No. 1,025,935; May 7; Sp. p. 1848; Gaz. vol. 178; p. 284.

Towle, Wilkin, *et al.* (See French, Francis J., assignor.)

Towne, John, Springfield, Mass. Fish-rod holder. No. 1,025,657; May 7; Sp. p. 1231; Gaz. vol. 178; p. 190.

Townsend, James R. (See Lee, Clarence H., assignor.)

Townson, Thomas, Philadelphia, Pa. Automatic spark-timing mechanism for internal-combustion engines. No. 1,025,336; May 7; Sp. p. 509; Gaz. vol. 178; p. 80.

Tracy, Hayden H., Berkeley, and H. E. Boyrie, San Francisco, Cal. Manufacture of steam-boilers. No. 1,025,337; May 7; Sp. p. 510; Gaz. vol. 178; p. 80.

Treffers, Pieter. (See Roth, Samuel, assignor.)

Trenaman Dental Manufacturing Company. (See Trenaman, John V., assignor.)

Trenaman, John V., assignor to Trenaman Dental Manufacturing Company, New York, N. Y. Cord or cable supporting bracket. No. 1,026,186; May 14; Sp. p. 2415; Gaz. vol. 178; p. 406.

Trimble, Porter, Eureka, Cal. Reversible plow. No. 1,027,451; May 28; Sp. p. 5202; Gaz. vol. 178; p. 912.

Tripp, Eliphalet A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-building machine. No. 1,025,551; May 7; Sp. p. 999; Gaz. vol. 178; p. 154.

Trog, Carl, assignor to Ankerwerke A. G. vormals Hengstenberg & Co., Bielefeld, Germany. Cash-register. No. 1,027,160; May 21; Sp. p. 4615; Gaz. vol. 178; p. 774.

Troy, Daniel W., Montgomery, Ala. Method and apparatus for theatrical purposes. No. 1,025,338; May 7; Sp. p. 511; Gaz. vol. 178; p. 80.

Troy Laundry Machinery Company. (See Bartholomew, William, assignor.)

Troy, Matthew O., Schenectady, N. Y., assignor to General Electric Company. Protection for electrical systems. No. 1,025,846; May 7; Sp. p. 1610; Gaz. vol. 178; p. 255.

Trump, Edward N., Syracuse, and J. D. Pennock, Solvay, assignors to The Solvay Process Company, Syracuse, N. Y. Porous granular hygroscopic material. No. 1,026,724; May 21; Sp. p. 3598; Gaz. vol. 178; p. 625.

Trussell, Clarence D., assignor to Trussell Manufacturing Company, Poughkeepsie, N. Y. Loose-leaf binder. No. 1,025,170; May 7; Sp. p. 131; Gaz. vol. 178; p. 23.

Trussell Manufacturing Company. (See Trussell, Clarence D., assignor.)

Tscherne, Alois, assignor to Firm of H. Levy, Rorschach, Switzerland. Machine for cutting embroideries. No. 1,025,490; May 7; Sp. p. 863; Gaz. vol. 178; p. 134.

Tscherne, Alois, assignor to Firm of H. Levy, Rorschach, Switzerland. Machine for cutting embroideries. No. 1,025,491; May 7; Sp. p. 865; Gaz. vol. 178; p. 134.

Tscherne, Alois, assignor to Firm of H. Levy, Rorschach, Switzerland. Machine for cutting embroidery-background. No. 1,025,492; May 7; Sp. p. 868; Gaz. vol. 178; p. 135.

Tuck, William W., Richmond Hill, N. Y., assignor to Velox Manufacturing Company. Addressing-machine. No. 1,026,416; May 14; Sp. p. 2933; Gaz. vol. 178; p. 486.

Tucker, Frederick E., Taft, Cal. Well-boring tool. No. 1,025,339; May 7; Sp. p. 514; Gaz. vol. 178; p. 80.

Tuke, David O., assignor of one-fourth to W. E. Thomson, Jacksonville, Ill. Wrench. No. 1,027,452; May 28; Sp. p. 5204; Gaz. vol. 178; p. 913.

Turnbull, Walter J., New Orleans, La. Conveyer. No. 1,026,617; May 14; Sp. p. 3338; Gaz. vol. 178; p. 551.

Turner, Charles P., W. T. Drake, Harrisburg, and J. E. Little, Steelton, Pa. Door-operating mechanism. No. 1,025,890; May 7; Sp. p. 1752; Gaz. vol. 178; p. 278.
Turner, Elizabeth, Knoxville, Tenn. Cap. No. 1,026,479; May 14; Sp. p. 3069; Gaz. vol. 178; p. 506.
Turner, Joseph B., Cuero, Tex. Indicating attachment for tanks. No. 1,027,930; May 28; Sp. p. 6255; Gaz. vol. 178; p. 1074.
Turner, Shonbel C., Parkersburg, W. Va. Railway-tie. No. 1,026,968; May 21; Sp. p. 4166; Gaz. vol. 178; p. 711.
Turner, Vaughn and Taylor Company, The. (See Wheeler, Harry E., assignor.)
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure-control apparatus. No. 1,025,340; May 7; Sp. p. 516; Gaz. vol. 178; p. 81.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Retaining-valve device. No. 1,025,341; May 7; Sp. p. 519; Gaz. vol. 178; p. 81.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Exhaust-control valve for air-brakes. No. 1,027,937; May 28; Sp. p. 6257; Gaz. vol. 178; p. 1075.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake. No. 1,027,938; May 28; Sp. p. 6258; Gaz. vol. 178; p. 1075.
Turner, Walter V., Edgewood, assignor to The Westinghouse Air Brake Company, Pittsburgh, Pa. Fluid-pressure brake. No. 1,027,939; May 28; Sp. p. 6260; Gaz. vol. 178; p. 1075.
Tusten, Walter D., New York, N. Y. Chain. No. 1,027,226; May 21; Sp. p. 4744; Gaz. vol. 178; p. 798.
Tygert, Laura E., Albany, N. Y. Flower-stemming device. No. 1,026,969; May 21; Sp. p. 4168; Gaz. vol. 178; p. 711.
Tyler, John S., Boone, Iowa. Track-inspecting device. No. 1,027,086; May 21; Sp. p. 4462; Gaz. vol. 178; p. 752.
U. S. Fire Apparatus Company. (See Lally, John T., assignor.)
U. S. Lithograph Company. (See Goedike, George G., assignor.)
U. S. Slicing Machine Company. (See Thomas, Henry, assignor.)
Ulmer, Frank M., Philadelphia, Pa. Lock-faucet. No. 1,026,725; May 21; Sp. p. 3599; Gaz. vol. 178; p. 625.
Ulrich, Frederick W., Rock Falls, Ill. Garden-tool. No. 1,026,133; May 14; Sp. p. 2305; Gaz. vol. 178; p. 389.
Underwood Typewriter Company. (See Lockwood, Marquis H., assignor.)
Underwood Typewriter Company. (See Miller, Frank C., assignor.)
Union Clay Products Company. (See Taylor, Edwin, assignor.)
Union Electric Welding Company, The. (See Beam, Frank E., assignor.)
Union Metallic Cartridge Company, The. (See Hoagland, Frank O., assignor.)
Union Special Machine Company. (See Van Horn, Vandiver J., assignor.)
Union Switch and Signal Company. (See Hawkins, Laurence A., assignor.)
Union Typewriter Company (See Brooks, Byron A., assignor.)
Union Typewriter Company. (See Feibel, Jacob, assignor.)
Union Typewriter Company. (See Latta, Emmit G., assignor.)
Union Typewriter Company. (See Polhuis, Leendert P., assignor.)
Union Typewriter Company. (See Smith, George H., assignor.)
Union Typewriter Company. (See Waldheim, John, assignor.)
United Bifocal Company. (See Seymour, Walter I., assignor.)
United Shirt and Collar Company. (See Dormandy, Garry J., assignor.)
United Shoe Machinery Company. (See Allen, John V., assignor.)
United Shoe Machinery Company. (See Ambler, George A., assignor.)
United Shoe Machinery Company. (See Anderson, Frederick L., assignor.) (Reissue.)
United Shoe Machinery Company. (See Ashton, Orrell, assignor.)
United Shoe Machinery Company. (See Cavanagh, James, assignor.)
United Shoe Machinery Company. (See Engel, Karl, assignor.)
United Shoe Machinery Company. (See Eppler, Andrew, assignor.)
United Shoe Machinery Company. (See Flynt, Louis W. G., assignor.)
United Shoe Machinery Company. (See Furber, Frederick M., assignor.)
United Shoe Machinery Company. (See Hadaway, John B., assignor.)
United Shoe Machinery Company. (See Hadaway and Allen, assignors.)
United Shoe Machinery Company. (See Jackson and Pochin, assignors.)
United Shoe Machinery Company. (See Mayo, Thomas H., assignor.)
United Shoe Machinery Company. (See Perry, Frederick H., assignor.)
United Shoe Machinery Company. (See Plant, Thomas G., assignor.)
United Shoe Machinery Company. (See Small, Chester C., assignor.)
United Shoe Machinery Company. (See Stiggins, Edward A., assignor.)
United Shoe Machinery Company. (See Tripp, Eliphalet A., assignor.)
United Shoe Machinery Company. (See Wineberg, David L., assignor.)
United Shoe Machinery Company. (See Winter, Henry W., assignor.)
United States Electrical Manufacturing Company. (See Johnson, Carl E., assignor.)
United States Light & Heating Company, The. (See Bliss, William L., assignor.)
United States Safety Gas Machine Company. (See Andres, J. Frank, assignor.)
United-Xpedite Finishing Company. (See Thomson, Robert W., assignor.)
Universal Winding Company. (See Rand, Festus S., assignor.)
Upson, Maxwell M., Englewood, N. J. Concrete piling and piling units. No. 1,025,434; May 7; Sp. p. 711; Gaz. vol. 178; p. 113.
Urban, Charles F. (See Diener and Urban.)
Usher, Charles H., assignor of one-half to F. D. Howard, Chicopee Falls, Mass. Stop-motion for planers and the like. No. 1,027,575; May 28; Sp. p. 5463; Gaz. vol. 178; p. 955.
Vaco Manufacturing Co. (See Hazelrigg, Ross, assignor.)
Vacuum-Adhesine-Gesellschaft m. b. H. (See Militz, August, assignor.)
Vacuum Dyeing Machine Company. (See Hey, David M., assignor.)
Valentine, Warren R., Ford City, Pa. Annealing-leer for glass articles. No. 1,025,936; May 7; Sp. p. 1849; Gaz. vol. 178; p. 285.
Valentine, William M., Glen Cove, N. Y. Wringer. No. 1,027,363; May 21; Sp. p. 5019; Gaz. vol. 178; p. 845.
Van Deventer, John H., assignor to Buffalo Forge Company, Buffalo, N. Y. Rotary engine. No. 1,026,887; May 21; Sp. p. 3960; Gaz. vol. 178; p. 682.
Van Horn, Vandiver J., assignor to Union Special Machine Company, Chicago, Ill. Seam for sewed articles. No. 1,026,332; May 14; Sp. p. 2745; Gaz. vol. 178; p. 458.
Van Middlesworth, William. (See Hunt, Ozello R., assignor.)
Van Mill, John, Jr., Gladstone, Mich. Scoring attachment for veneer-lathes. No. 1,027,298; May 21; Sp. p. 4891; Gaz. vol. 178; p. 823.
Van Sant, William S., and J. R. Banker, assignors to The Eureka Amusement Co., Oakland, Cal. Amusement apparatus. No. 1,026,333; May 14; Sp. p. 2746; Gaz. vol. 178; p. 459.
Van Tassel, John R., assignor to Standard Optical Company, Geneva, N. Y. Eyeglass-mounting. No. 1,025,847; May 7; Sp. p. 1612; Gaz. vol. 178; p. 255.
Van Tubbergan, Cornelius, and P. Westrate, Grand Rapids, Mich. Starter for internal-combustion engines. No. 1,027,087; May 21; Sp. p. 4463; Gaz. vol. 178; p. 752.
Van Verst, George, and M. A. Sooy, Holland, Mich. Combined draftless window-ventilator and shade and curtain protector. No. 1,027,015; May 21; Sp. p. 4260; Gaz. vol. 178; p. 726.
Vanderweel, Cornelius. (See Deurloo and Vanderweel.)
Vanhook, Henry B., Washington, N. C. Guard for pedal-openings of pianos. No. 1,027,297; May 21; Sp. p. 4890; Gaz. vol. 178; p. 822.
Vann, Enos O., Pueblo, Colo. Lock. No. 1,027,940; May 28; Sp. p. 6262; Gaz. vol. 178; p. 1076.
Vargyas, Eugene Von, and J. W. Deidrick, Pittsburgh, Pa. Collapsible receptacle. No. 1,025,659; May 7; Sp. p. 1234; Gaz. vol. 178; p. 190.
Vargyas, Eugene Von, and J. W. Deidrick, Pittsburgh, Pa. Collapsible drinking-receptacle. No. 1,025,660; May 7; Sp. p. 1235; Gaz. vol. 178; p. 191.
Vargyas, Eugene Von, and J. W. Deidrick, Pittsburgh, Pa. Collapsible drinking-cup. No. 1,025,937; May 7; Sp. p. 1852; Gaz. vol. 178; p. 285.
Veeder, Curtis H., assignor to The Veeder Manufacturing Company, Hartford, Conn. Tachometer. No. 1,025,342; May 7; Sp. p. 520; Gaz. vol. 178; p. 82.
Veeder Manufacturing Company, The. (See Veeder, Curtis H., assignor.)
Veitch, Thomas. (See Crawford and Veitch.)
Velder, John, Petersburg, Nebr. Spring mechanism for corn-shellers. No. 1,026,134; May 14; Sp. p. 2306; Gaz. vol. 178; p. 389.
Velox Manufacturing Company. (See Tuck, William W., assignor.)
Venturi Alarm Company. (See Hamilton, John R., assignor.)
Verges Manufacturing Co. (See Dennis, William, assignor.)
Vessey, Ralph B., Flint, Mich. Cooking apparatus. No. 1,026,334; May 14; Sp. p. 2748; Gaz. vol. 178; p. 459.

Viberg, Ernest R., Montreal, Quebec, Canada. Metal window-sash. No. 1,027,675; May 28; Sp. p. 5661; Gaz. vol. 178; p. 986.
Vickers, Limited. (See Dawson and Buckham, assignors.)
Vickers Limited. (See Elia, Giovanni E., assignor.)
Vickery, Herbert D. (See Kirkwood, James C. P., assignor.)
Victor, Alexander F., Elmira, N. Y. Optical toy. No. 1,027,576; May 28; Sp. p. 5466; Gaz. vol. 178; p. 956.
Vietor, Adolf, Schmalkalden, Germany. Gripping device. No. 1,027,161; May 21; Sp. p. 4618; Gaz. vol. 178; p. 775.
Viezzi, Luigi, Jersey City, N. J. Vise. No. 1,027,941; May 28; Sp. p. 6264; Gaz. vol. 178; p. 1076.
Viezzi, Luigi, Jersey City, N. J. Hat-holder. No. 1,027,942; May 28; Sp. p. 6267; Gaz. vol. 178; p. 1076.
Villethiou, André J. M. de, Paris, France. Screw-propeller with open center. No. 1,025,658; May 7; Sp. p. 1233; Gaz. vol. 178; p. 190.
Villiers, Ralph V., East Freetown, Mass. Waterproof battery and making same. No. 1,027,088; May 21; Sp. p. 4466; Gaz. vol. 178; p. 753.
Villiers-Stuart, Horace, Louisville, Ky. Spring-wheel. No. 1,025,343; May 7; Sp. p. 522; Gaz. vol. 178; p. 82.
Vincent, Jesse G., assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding and subtracting machine. No. 1,027,511; May 28; Sp. p. 5320; Gaz. vol. 178; p. 932.
Virtue, Frank C., Toronto, Ontario, Canada. Hand-operated air-pump. No. 1,025,221; May 7; Sp. p. 245; Gaz. vol. 178; p. 41.
Vles, Abraham. (See Zubli and Vles.)
Vogel, Frederick M., Lynn, Mass., assignor to General Electric Company. Flat-iron stand. No. 1,025,493; May 7; Sp. p. 869; Gaz. vol. 178; p. 135.
Vogtlandische Maschinen-Fabrik (vormals J. C. & H. Dietrich) Actiengesellschaft. (See Egli, Arnold, assignor.)
Voight, Henry G., assignor to The American Hardware Corporation, New Britain, Conn. Emergency-door lock No. 1,026,888; May 21; Sp. p. 3966; Gaz. vol. 178; p. 683.
Völler, Karl, Dusseldorf, assignor to Rheinische Metallwaaren- und Maschinenfabrik, Dusseldorf-Derendorf, Germany. Liquid recoil-brake for guns. No. 1,028,081; May 28; Sp. p. 6570; Gaz. vol. 178; p. 1120.
Vollmer, William, and A. K. Andrews, Burnham, Pa. Sawtooth. No. 1,027,943; May 28; Sp. p. 6268; Gaz. vol. 178; p. 1077.
Volnagel, George, Bremerton, Wash. Making molds for shoe-lasts. No. 1,027,016; May 21; Sp. p. 4262; Gaz vol. 178; p. 727.
Von Daam, Gerrit, Scranton, Pa. Air-heating device for stoves. No. 1,027,044; May 28; Sp. p. 6269; Gaz. vol. 178; p. 1077.
Vondrasek, Frank. (See Christensen and Vondrasek.)
Vondracek, Frank J., Cedar Rapids, Iowa. Floor-scraper. No. 1,027,676; May 28; Sp. p. 5662; Gaz. vol. 178; p. 986.
Voorhees, Walter K., assignor to Standard Manufacturing Company, Cedar Falls, Iowa. Latch for flexible gates. No. 1,025,494; May 7; Sp. p. 870; Gaz. vol. 178; p. 135.
Voorhees, William H., New York, N. Y., assignor to American Bank Note Company. Paper-feed attachment for under-surface printing-presses. No. 1,026,938; May 21; Sp. p. 4103; Gaz. vol. 178; p. 700.
Vose & Sons Piano Company. (See Crippen, Walter R., assignor.)
Voss, Samuel, Nieder-Schönhausen, near Berlin, Germany. Device for conveying brick. No. 1,025,661; May 7; Sp. p. 1236; Gaz. vol. 178; p. 191.
Vulcan Electric Heating Company. (See Holmes, Frank J., assignor.)
W. A. Plummer Manufacturing Company. (See Blake, George H., assignor.)
W. G. Stowell Company, The. (See Stowell, William G., assignor.)
W. H. McElwain Company. (See Rollins, George L., assignor.)
W. & L. E. Gurley. (See Schulte, Edward D. N., assignor.)
Waddill, Fletcher H., and R. D. Fonda, Dexter, N. Mex. Auto cranking device. No. 1,026,534; May 14; Sp. p. 3173; Gaz. vol. 178; p. 524.
Wadsworth, Frederick E. (See Barthel, Frederick, assignor.)
Wadsworth, Robert. (See Pearsall and Hill, assignors.)
Wagg, Edward E., Ranelagh, via Hobart, Tasmania, Australia. Fruit and other grader. No. 1,027,089; May 21; Sp. p. 4467; Gaz. vol. 178; p. 753.
Wagner, Frank. (See Kleweg, Moeller, and Wagner.)
Wagner, William G., London, England. Production of films or thin sheets of metals. No. 1,025,848; May 7; Sp. p. 1613; Gaz. vol. 178; p. 256.
Wahl, Joseph, New York, N. Y. Crate. No. 1,027,631; May 28; Sp. p. 5561; Gaz. vol. 178; p. 972.
Wahlstrom, Verner J., assignor of one-half to B. T. Burchardi, Brooklyn, N. Y. Chuck. No. 1,026,187; May 14; Sp. p. 2416; Gaz. vol. 178; p. 406.
Waite, Charles C., assignor to Shedd Electric Company, Roselle Park, N. J. Oscillating motor-driven fan. No. 1,026,062; May 14; Sp. p. 2135; Gaz. vol. 178; p. 363.
Waldheim, John, Newark, assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Typewriting machine. No. 1,025,171; May 7; Sp. p. 134; Gaz. vol. 178; p. 28.
Waldvogel, Paul E., Milwaukee, assignor to Mallery Manufacturing Company, South Milwaukee, Wis. Draft appliance. No. 1,027,677; May 28; Sp. p. 5663; Gaz. vol. 178; p. 987.
Walker, Edwin J., Philadelphia, Pa. Bin. No. 1,027,945; May 28; Sp. p. 6271; Gaz. vol. 178; p. 1077.
Walker, Frank H., Lincoln, Nebr. Carbureter for starting internal-combustion engines. No. 1,026,889; May 21; Sp. p. 3968; Gaz. vol. 178; p. 683.
Walker, James A., Rockford, Ill. Starting device for engines. No. 1,025,344; May 7; Sp. p. 527; Gaz. vol. 178; p. 82.
Walker, Samuel, Lille, France. Machine for working flax and the like. No. 1,027,512; May 28; Sp. p. 5324; Gaz. vol. 178; p. 933.
Walker, Thomas C., Morristown, Ohio. Heater attachment for grates and stoves. No. 1,026,007; May 14; Sp. p. 1999; Gaz. vol. 178; p. 344.
Wallace, John T., St. Louis, Mo. Rivet and bolt making machine. No. 1,027,017; May 21; Sp. p. 4263; Gaz vol. 178; p. 727.
Wallace, John T., St. Louis, Mo. Feeding mechanism. No. 1,027,018; May 21; Sp. p. 4271; Gaz. vol. 178; p. 727.
Wallace, Joseph D., Champaign, Ill. Liquid-pressure regulator. No. 1,025,222; May 7; Sp. p. 247; Gaz. vol. 178; p. 41.
Waller, Frederick, Jr., Lynbrook, N. Y. Automatic timer. No. 1,025,726; May 7; Sp. p. 1371; Gaz. vol. 178; p. 213.
Wallis, Philip R., Elizabethville, Pa. Miter-box. No. 1,026,535; May 14; Sp. p. 3174; Gaz. vol. 178; p. 525.
Walls, Aura R., Gypsy, W. Va. High and low water alarm apparatus. No. 1,027,299; May 21; Sp. p. 4892; Gaz. vol. 178; p. 823.
Walsh, James, Northfield, assignor to J. H. Daunt, Minneapolis, and J. A. Walsh, Northfield, Minn. Flying-machine. No. 1,025,891; May 7; Sp. p. 1753; Gaz. vol. 178; p. 270.
Walsh, John A., *et al.* (See Walsh, James, assignor.)
Walter, Harrison B., assignor to National Fibre Box Company, Danville, Ill. Fastening the ends of the binding strip or band which passes around a box. No. 1,026,417; May 14; Sp. p. 2937; Gaz. vol. 178; p. 486.
Walther, Adolph F., Oakland, Cal. Tunneling-machine. No. 1,026,335; May 14; Sp. p. 2750; Gaz. vol. 178; p. 459.
Walther, Rudolph J., Davenport, Iowa. Gas-mixer. No. 1,026,135; May 14; Sp. p. 2308; Gaz. vol. 178; p. 390.
Walton, Harry H., and A. H. Yingst, Harrisburg, Pa. Rail-joint. No. 1,025,599; May 7; Sp. p. 1104; Gaz. vol. 178; p. 171.
Walton, John, Erie, Pa. Locomotive-truck. No. 1,025,600; May 7; Sp. p. 1106; Gaz. vol. 178; p. 171.
Wanamaker, John. (See Schwamb, Warren C., assignor.)
Wann, William A. (See Swett, William H., assignor.)
Ward, Julius A., New York, N. Y. Means for mechanically massaging the human body. No. 1,026,480; May 14; Sp. p. 3070; Gaz. vol. 178; p. 506.
Ward, Julius A., New York, N. Y. Undulator. No. 1,026,481; May 14; Sp. p. 3072; Gaz. vol. 178; p. 506.
Ward, Warren W., New York, N. Y. Quickly-detachable hinged clincher-ring. No. 1,025,345; May 7; Sp. p. 528; Gaz. vol. 178; p. 83.
Wardwell, Simon W., Providence, R. I. Braiding-machine carrier. No. 1,025,172; May 7; Sp. p. 138; Gaz. vol. 178; p. 24.
Warner, Frank O., Baltimore, Md. Clock mechanism for signals. No. 1,026,008; May 14; Sp. p. 2000; Gaz. vol. 178; p. 345.
Warner Jewelry Case Company. (See Sundee, John R., assignor.)
Warren, David. (See Pierce and Warren.)
Warstler, Levi, and P. F. Loichot, Louisville, Ohio. Coffee-grinder. No. 1,027,019; May 21; Sp. p. 4276; Gaz. vol. 178; p. 728.
Washabaugh, Vernon C., and J. S. Peters, Scottdale, Pa. Tie and rail-fastener. No. 1,027,946; May 28; Sp. p. 6272; Gaz. vol. 178; p. 1078.
Washburn, James M., Chicago, Ill. Support for cards, pictures, and the like. No. 1,025,346; May 7; Sp. p. 530; Gaz. vol. 178; p. 83.
Washington Steel & Ordnance Company. (See Dixon, Thomas, assignor.)
Watanabe, Tetsusaburo, New York, N. Y. Fountain paint-brush. No. 1,026,009; May 14; Sp. p. 2003; Gaz. vol. 178; p. 345.
Watanabe, Tetsusaburo, New York, N. Y. Fountain paint-brush. No. 1,026,010; May 14; Sp. p. 2004; Gaz. vol. 178; p. 346.
Watanabe, Tetsusaburo, New York, N. Y. Reservoir attachment for pens. No. 1,026,011; May 14; Sp. p. 2005; Gaz. vol. 178; p. 346.
Watanabe, Tetsusaburo, New York, N. Y. Device for stopping runaway horses. No. 1,026,012; May 14; Sp. p. 2006; Gaz. vol. 178; p. 346.
Waterbury Farrel Foundry and Machine Company, The. (See O'Donnell and Pierson, assignors.)
Waterbury Mfg. Co. (See Brakenridge, William H., assignor.)

Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Wheel-support for harrows. No. 1,025,767; May 7; Sp. p. 1451; Gaz. vol. 178; p. 228.

Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Wheeled plow. No. 1,025,768; May 7; Sp. p. 1452; Gaz. vol. 178; p. 228.

Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Corn-planter. No. 1,025,769; May 7; Sp. p. 1453; Gaz. vol. 178; p. 228.

Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Cultivator-frame. No. 1,025,770; May 7; Sp. p. 1455; Gaz. vol. 178; p. 229.

Waterman, Lewis E., assignor to Emerson-Brantingham Company, Rockford, Ill. Cultivator-shovel support. No. 1,025,771; May 7; Sp. p. 1456; Gaz. vol. 178; p. 229.

Waters, Harry B., Denver, Colo. Butter-cutter. No. 1,027,020; May 21; Sp. p. 4278; Gaz. vol. 178; p. 728.

Watkins, Arthur O., London, England. Printing. No. 1,025,495; May 7; Sp. p. 872; Gaz. vol. 178; p. 136.

Watkins, Grant, and S. M. Taylor, Truckee, Cal. Gage for cutter-heads. No. 1,026,136; May 14; Sp. p. 2309; Gaz. vol. 178; p. 390.

Watkins, Thomas, Wilson, Pa., assignor of one-half to U. U. Carr, Pittsburgh, Pa. Car-buffer construction. No. 1,026,063; May 14; Sp. p. 2137; Gaz. vol. 178; p. 364.

Watrous, Edward L., Des Moines, Iowa, assignor to E. L. Watrous Galvanizing Company. Metal-plated article. No. 1,027,782; May 28; Sp. p. 5871; Gaz. vol. 178; p. 1021.

Watson, Frank L., Womer, Kans. Device for lifting tubes, tiles, and the like. No. 1,026,536; May 14; Sp. p. 3176; Gaz. vol. 178; p. 525.

Watts, Charles, Newark, N. J. Game apparatus. No. 1,026,188; May 14; Sp. p. 2419; Gaz. vol. 178; p. 407.

Waxbom, Carl J. E., Westerville, Ohio, assignor to The Jeffrey Manufacturing Company. Current-collecting mechanism. No. 1,027,090; May 21; Sp. p. 4469; Gaz. vol. 178; p. 753.

Waxler, Abraham M., Philadelphia, Pa. Dirigible balloon. No. 1,025,662; May 7; Sp. p. 1237; Gaz. vol. 178; p. 191.

Wazau, Georg, Geithain, Germany. Dynamometer for measuring forces. No. 1,027,300; May 21; Sp. p. 4893; Gaz. vol. 178; p. 823.

Wear, James S. (See Jones, Metcalf, and Wear.)

Weast, Fenton A. (See Abbott, Ambrose E., assignor.)

Weaver, Clayton, Phalanx, and G. A. Price, Dillonvale, Ohio. Throttle-stem gland. No. 1,027,783; May 28; Sp. p. 5873; Gaz. vol. 178; p. 1022.

Weaver, Edgar L., and E. C. Kimmel, Saltillo, Pa. Starting mechanism for automobile-engines. No. 1,025,496; May 7; Sp. p. 873; Gaz. vol. 178; p. 136.

Weaver, John D., Mifflinburg, Pa. Hydraulic ram. No. 1,026,890; May 21; Sp. p. 3960; Gaz. vol. 178; p. 683.

Weaver, Mary A., Dalhart, Tex. Draining attachment for sinks. No. 1,026,537; May 14; Sp. p. 3178; Gaz. vol. 178; p. 526.

Webb, Robert D., *et al.*, heirs-at-law. (See Webb, Samuel J.)

Webb, Samuel J., deceased, Minden, La.; A. W. Miller, L. W. Mills, C. W. Longino, R. D. Webb, and R. W. Grigsby, heirs-at-law. Compress. No. 1,025,849; May 7; Sp. p. 1614; Gaz. vol. 178; p. 256.

Webel, Franz, Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing diolefins. No. 1,026,418; May 14; Sp. p. 2937; Gaz. vol. 178; p. 486.

Webel, Franz, Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing diolefins. No. 1,026,419; May 14; Sp. p. 2938; Gaz. vol. 178; p. 486.

Webel, Franz, Mannheim, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Producing diolefins. No. 1,026,420; May 14; Sp. p. 2939; Gaz. vol. 178; p. 486.

Weber, Albert H. W. (See Moebes and Weber.)

Webner, Frank E., Norwood, assignor to The American Mechanical Calculator Company, Cincinnati, Ohio. Mechanical calculator. No. 1,026,064; May 14; Sp. p. 2138; Gaz. vol. 178; p. 364.

Webster, Harry G., Chicago, Ill., assignor, by mesne assignments, to Kellogg Switchboard and Supply Company. Combined telephone and alarm system. No. 1,025,347; May 7; Sp. p. 531; Gaz. vol. 178; p. 83.

Webster, John B., San Jose, Cal. Devotional chair. No. 1,025,348; May 7; Sp. p. 538; Gaz. vol. 178; p. 84.

Webster, Merton N. (See Munson and Webster.)

Weddell, Oliver S. McKeesport, Pa. Switch-throwing device. No. 1,026,726; May 21; Sp. p. 3600; Gaz. vol. 178; p. 625.

Weddington, William H., Lankershim, Cal. Rotary pump. No. 1,027,091; May 21; Sp. p. 4470; Gaz. vol. 178; p. 754.

Wedge, Utley, Ardmore, Pa. Pump for corrosive fluids. No. 1,027,947; May 28; Sp. p. 6274; Gaz. vol. 178; p. 1078.

Weeks, Charlie E., Sacramento, assignor of one-half to F. F. Krantz, Represa, Cal. Faucet, cock, or the like. 1,027,678; May 28; Sp. p. 5664; Gaz. vol. 178; p. 987.

Weeks, William H., New York, N. Y. Electric sign. No. 1,025,892; May 7; Sp. p. 1760; Gaz. vol. 178; p. 270.

Wegener, Franz, Halle, Germany. Hand-rammer. No. 1,026,891; May 21; Sp. p. 3971; Gaz. vol. 178; p. 683.

Wegner, Fred, Fairport, N. Y. Can-heading machine. No. 1,025,173; May 7; Sp. p. 141; Gaz. vol. 178; p. 24.

Wehr, Albert H., Mount Washington, Md. Sewage-disposal plant. No. 1,027,948; May 28; Sp. p. 6275; Gaz. vol. 178; p. 1078.

Weiberg, Conrad L., Detroit, Mich. Extracting vegetable fiber. No. 1,025,435; May 7; Sp. p. 718; Gaz. vol. 178; p. 114.

Weickman, Albert, New York, N. Y. Spring-frame for cushion-seats. No. 1,027,949; May 28; Sp. p. 6276; Gaz. vol. 178; p. 1079.

Weidmann Silk Dyeing Co. (See Schnurrenberger, Emil, assignor.)

Weil, Julius E., Chicago, Ill. Waterproof garment. No. 1,025,893; May 7; Sp. p. 1761; Gaz. vol. 178; p. 270.

Weintraub, Ezechiel, Lynn, Mass., assignor to General Electric Company. Non-consuming arc-lamp electrode. No. 1,027,162; May 21; Sp. p. 4619; Gaz. vol. 178; p. 775.

Weis, Andrew L., assignor to The Weis Manufacturing Company, Monroe, Mich. Frame. No. 1,026,838; May 21; Sp. p. 3848; Gaz. vol. 178; p. 665.

Weis, John P., assignor to Metropolitan Sewing Machine Company, Nyack, N. Y. Trimming mechanism for sewing-machines. No. 1,025,552; May 7; Sp. p. 1001; Gaz. vol. 178; p. 155.

Weis, John P., Nyack, assignor to L. N. Littauer, Gloversville, N. Y. Sewing-machine. No. 1,026,839; May 21; Sp. p. 3849; Gaz. vol. 178; p. 665.

Weis Manufacturing Company, The. (See Weis, Andrew L., assignor.)

Weisberger, Samuel, Barberton, Ohio. Display-fixture. No. 1,025,349; May 7; Sp. p. 539; Gaz. vol. 178; p. 84.

Weisenborn, George P. A., Houston, Tex. Plant-blocker. No. 1,025,223; May 7; Sp. p. 250; Gaz. vol. 178; p. 42.

Weiss, George F., Springfield, Ill. Switch throwing and locking mechanism. No. 1,026,618; May 14; Sp. p. 3339; Gaz. vol. 178; p. 551.

Welch, Elias B. (See Davidson and Welch.)

Welch, Lyman W., Grand Rapids, Mich. Door structure in display-cabinets. No. 1,025,350; May 7; Sp. p. 541; Gaz. vol. 178; p. 84.

Welcome, Ralph N. (See Owen and Welcome.)

Welde, Robert, Höchst-on-the-Main, and B. Homolka, Frankfort-on-the-Main, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Blue vat dyestuff and making same. No. 1,025,174; May 7; Sp. p. 145; Gaz. vol. 178; p. 25.

Welling, Greenwaldt S., Sioux City, Iowa. Gravity-motor. No. 1,026,727; May 21; Sp. p. 3602; Gaz. vol. 178; p. 626.

Wells, Arthur C., Amityville, N. Y. Water and sewage ejector. No. 1,025,727; May 7; Sp. p. 1374; Gaz. vol. 178; p. 214.

Welsbach Light Company. (See Lyon, Howard, assignor.)

Wensley, Charles J., Huntington, N. Y. Life-saving device. No. 1,025,497; May 7; Sp. p. 875; Gaz. vol. 178; p. 136.

Werner, Jesse E., Philadelphia, Pa. Machine for separating asbestos from the rock. No. 1,027,163; May 21; Sp. p. 4620; Gaz. vol. 178; p. 776.

Werner, Josephine, Baltimore, Md. Curtain-fixture. No. 1,027,950; May 28; Sp. p. 6277; Gaz. vol. 178; p. 1079.

Werner, Paul, assignor of one-half to E. Spindler, New York, N. Y. Washing-machine. No. 1,027,227; May 21; Sp. p. 4746; Gaz. vol. 178; p. 798.

Werner, Richard & Otto. (See Hicks, George J., assignor.)

Werner, William J., Kiel, Wis. Metal container. No. 1,027,021; May 21; Sp. p. 4281; Gaz. vol. 178; p. 729.

Wert, Cyrus S., Kendallville, Ind. Tile-machine. No. 1,025,663; May 7; Sp. p. 1239; Gaz. vol. 178; p. 191.

Wertz, Joseph H., and F. Pomernacki, assignors to Theo. A. Kochs Co., Chicago, Ill. Barber's chair. No. 1,027,364; May 21; Sp. p. 5020; Gaz. vol. 178; p. 846.

West, Arthur J., South Bethlehem, Pa. Lubricating device. No. 1,027,092; May 21; Sp. p. 4475; Gaz. vol. 178; p. 754.

West, Joseph D., Des Moines, Iowa. Sheet-metal fish-back for grain-separators. No. 1,027,365; May 21; Sp. p. 5023; Gaz. vol. 178; p. 846.

West, Thomas D., Cleveland, Ohio. Making metal castings. No. 1,025,436; May 7; Sp. p. 720; Gaz. vol. 178; p. 114.

West, Thomas D., Cleveland, Ohio. Mold for making metal castings. No. 1,025,437; May 7; Sp. p. 725; Gaz. vol. 178; p. 114.

West, Thomas D., Cleveland, Ohio. Mold for casting circular objects. No. 1,025,438; May 7; Sp. p. 736; Gaz. vol. 178; p. 115.

Western Cabinet and Fixture Manufacturing Company. (See Glenn, Edmond R., assignor.)

Western Electric Company. (See Beck, William O., assignor.)

Western Electric Company. (See Bullard, Albert M., assignor.)

Western Electric Company. (See Currier and Wolf, assignors.)

Western Electric Company. (See Harkness, William E., assignor.)

Western Electric Company. (See Shreeve, Herbert E., assignor.)

Western Pipe and Steel Company of California. (See Ramsden, Charles H., assignor.)

Westinghouse Air Brake Company, The. (See Burton, Thomas L., assignor.)

Westinghouse Air Brake Company, The. (See Custer, John S., assignor.)

Westinghouse Air Brake Company, The. (See Gibbs, Lucius T., assignor.)

Westinghouse Air Brake Company, The. (See Parke, Robert A., assignor.)

Westinghouse Air Brake Company, The. (See Turner, Walter V., assignor.)

Westinghouse Automatic Air & Steam Coupler Company. (See Niederlander, Nicholas F., assignor.)

Westinghouse, Henry H. (See Goodspeed, Leland F., assignor.) (Reissue.)

Westlake, Charles T., assignor to Locomotive Tender Frame Company, St. Louis, Mo. Tender end sill. No. 1,027,784; May 28; Sp. p. 5874; Gaz. vol. 178; p. 1022.

Westrate, Paul. (See Van Tubbergan and Westrate.)

Wetteroth, Frank. (See Meyer and Wetteroth.)

Wetzel & Company, Otto. (See Schulthels, Ludwig, assignor.)

Wheary, George H., assignor to The Hartmann Trunk Company, Racine, Wis. Wardrobe grip or tray. No. 1,025,351; May 7; Sp. p. 543; Gaz. vol. 178; p. 85.

Wheeler, Charles A., assignor of one-half to The Smith & Egge Manufacturing Co., Bridgeport, Conn. Locking device for automobile-cranks. No. 1,026,189; May 14; Sp. p. 2420; Gaz. vol. 178; p. 407.

Wheeler, Harry E., assignor to The Turner, Vaughn and Taylor Company, Cuyahoga Falls, Ohio. Mechanism for drawing wire. No. 1,026,840; May 21; Sp. p. 3854; Gaz. vol. 178; p. 665.

Wheeler, Thomas J., assignor of one-half to G. M. McKnight, Lewisville, Ark. Combined harrow and drag. No. 1,026,539; May 14; Sp. p. 3179; Gaz. vol. 178; p. 526.

Wheeling, Frank L., and F. A. Rogers, Los Angeles, Cal. Centering device. No. 1,025,728; May 7; Sp. p. 1376; Gaz. vol. 178; p. 214.

Wheelock, Frank H., Washington, D. C. Heating device. No. 1,026,013; May 14; Sp. p. 2007; Gaz. vol. 178; p. 346.

Whidbourne, Harry, Plymouth, and J. J. Lishman, Salcombe, England. Internal-combustion engine. No. 1,025,439; May 7; Sp. p. 747; Gaz. vol. 178; p. 115.

White, C. W., *et al.* (See Lawson, James R., assignor.)

White, Carl H., assignor to The Plogran Sales Company, Denver, Colo. Take-down pocket-knife. No. 1,026,065; May 14; Sp. p. 2161; Gaz. vol. 178; p. 365.

White, Francis H., Maghull, Liverpool, assignor of one-half to O. H. White, Liverpool, England. Acetylene-gas generator. No. 1,025,352; May 7; Sp. p. 546; Gaz. vol. 178; p. 85.

White, Frank, Angels Camp, Cal. Smoke-neutralizer. No. 1,027,951; May 28; Sp. p. 6278; Gaz. vol. 178; p. 1079.

White, Harold E., Schenectady, N. Y., assignor to General Electric Company. Control of electrically-operated switches. No. 1,025,498; May 7; Sp. p. 876; Gaz. vol. 178; p. 136.

White, Henry P., Kalamazoo, Mich. Tie-plate and rail-fastening device. No. 1,027,577; May 28; Sp. p. 5467; Gaz. vol. 178; p. 956.

White, Herbert E., assignor to The General Fireproofing Company, Youngstown, Ohio. Clip for attaching metallic lath. No. 1,027,632; May 28; Sp. p. 5563; Gaz. vol. 178; p. 972.

White, James H. (See White, Matthew and J. H.)

White, Joseph, Beechwood Heights, assignor to Hall Printing Press Company, Dunellen, N. J. Printing-press. No. 1,025,894; May 7; Sp. p. 1762; Gaz. vol. 178; p. 271.

White, Joseph A., assignor to Tue Moore and White Company, Philadelphia, Pa. Paper-slitting machine. No. 1,026,482; May 14; Sp. p. 3073; Gaz. vol. 178; p. 506.

White, Matthew and J. H., Luton, England. Apparatus for washing and scrubbing gases. No. 1,025,729; May 7; Sp. p. 1379; Gaz. vol. 178; p. 215.

White, Oliver H. (See White, Francis H., assignor.)

White, Robert H., Everett, Wash. Logging-hook. No. 1,025,353; May 7; Sp. p. 548; Gaz. vol. 178; p. 86.

White Sewing Machine Company, The. (See Huffman and Lauffer, assignors.)

White, William, Chicago, Ill. Boiler-compound-feeding mechanism. No. 1,025,224; May 7; Sp. p. 255; Gaz. vol. 178; p. 42.

Whitecar, Frank. (See Knoth and Whitecar.)

Whitehead and Company. (See Jones, Albert E., assignor.)

Whiteley, Howard L., Lowell, Mass. Apparatus for absorbing gases in liquids. No. 1,027,022; May 21; Sp. p. 4286; Gaz. vol. 178; p. 729.

Whiteman, George W., Philadelphia, Pa. Tie and rail-securing means. No. 1,025,664; May 7; Sp. p. 1243; Gaz. vol. 178; p. 192.

Whitin Machine Works, The. (See Allen, Charles A., assignor.)

Whitney, Ben W., Dale, N. D. Bob-sled. No. 1,026,014; May 14; Sp. p. 2009; Gaz. vol. 178; p. 347.

Whitney Duplicating Check Company. (See Whitney, Linwood G., assignor.)

Whitney, Linwood G., assignor to Whitney Duplicating Check Company, New York, N. Y. Manifold sales-book. No. 1,026,289; May 14; Sp. p. 2640; Gaz. vol. 178; p. 442.

Whitney, Willis R., Schenectady, N. Y., assignor to General Electric Company. Making incandescent lamps. No. 1,025,499; May 7; Sp. p. 880; Gaz. vol. 178; p. 137.

Whittle, John F., Point Richmond, and H. D. Foster, Berkeley, Cal. Machine for forming jackets on piles. No. 1,026,939; May 21; Sp. p. 4108; Gaz. vol. 178; p. 700.

Wible, Charlie H., East McKeesport, Pa. Burial-casket. No. 1,027,453; May 28; Sp. p. 5205; Gaz. vol. 178; p. 913.

Wick, John, Council, Alaska. Separator and amalgamator. No. 1,027,952; May 28; Sp. p. 6280; Gaz. vol. 178; p. 1079.

Wickey, Andrew, East Chicago, Ind. Baling-press. No. 1,025,665; May 7; Sp. p. 1245; Gaz. vol. 178; p. 192.

Wickham, Percy E., London, England, assignor to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Bleaching straw. No. 1,027,953; May 28; Sp. p. 6283; Gaz. vol. 178; p. 1080.

Wickman, Albin E., Peoria, Ill. Attachment for lifeboats. No. 1,026,137; May 14; Sp. p. 2311; Gaz. vol. 178; p. 390.

Wieser, Karl, and W. Schwartz, Bredeney, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Projectile for firing at airships. No. 1,025,500; May 7; Sp. p. 882; Gaz. vol. 178; p. 137.

Wiggins, Oscar W., Pomona, Kans. Grain-guard for wagons. No. 1,025,601; May 7; Sp. p. 1107; Gaz. vol. 178; p. 172.

Wiggins, Richard M., assignor of one-half to E. R. Sheets, Trenton, Mo. Lead-controller for valve-gear. No. 1,025,175; May 7; Sp. p. 146; Gaz. vol. 178; p. 25.

Wigginton, George P., and F. W. Hodges, Kalamazoo, Mich.; said Hodges assignor to said Wigginton. Temporary binder or loose-sheet holder. No. 1,027,093; May 21; Sp. p. 4476; Gaz. vol. 178; p. 755.

Wilbraham, Thomas G., Alloway, N. J. Dirigible automobile-lamp. No. 1,025,602; May 7; Sp. p. 1108; Gaz. vol. 178; p. 172.

Wilcox, Ernest C., assignor to The Connecticut Telephone and Electric Company, Meriden, Conn. Magneto. No. 1,027,023; May 21; Sp. p. 4288; Gaz. vol. 178; p. 729.

Wilding, John. (See Houghton, George F. C., assignor.)

Wilkinson, Louis H. (See Savage and Wilkinson.)

Willard, Will W., Saginaw, Mich. Shim for railway-ties. No. 1,026,376; May 14; Sp. p. 2851; Gaz. vol. 178; p. 472.

Willers, Julius. (See Eldridge and Willers.)

Willes, Charles, assignor of one-half to C. E. Cole, East Auburn, Cal. Washing-machine. No. 1,026,540; May 14; Sp. p. 3180; Gaz. vol. 178; p. 526.

Williford Manufacturing Company. (See Ingraham, Alexander, assignor.)

William B. Pollock Company, The. (See Sherman, Erwin C., assignor.)

William Mann Company. (See Snyder, Harry D., assignor.)

Williams, Arthur V., San Francisco, Cal. Boiler-gage connection. No. 1,025,354; May 7; Sp. p. 551; Gaz. vol. 178; p. 86.

Williams, Charles E. (See Bedford and Williams.)

Williams, Charles E., Chicago, Ill. Audiphone-transmitter. No. 1,026,231; May 14; Sp. p. 2524; Gaz. vol. 178; p. 422.

Williams, Charles O., St. Louis, Mo., assignor to F. E. Arnold, Ionia, Mich. Carbureter. No. 1,025,553; May 7; Sp. p. 1006; Gaz. vol. 178; p. 155.

Williams, Forest, Hobart, Okla. Oil-burner. No. 1,026,015; May 14; Sp. p. 2010; Gaz. vol. 178; p. 347.

Williams, George F., St. Louis, Mo. Switch-operating device. No. 1,025,355; May 7; Sp. p. 552; Gaz. vol. 178; p. 86.

Williams, Gurdon H., assignor to The G. H. Williams Company, Cleveland, Ohio. Drag-bucket. No. 1,027,301; May 21; Sp. p. 4895; Gaz. vol. 178; p. 823.

Williams, Jake. (See Hammond, James, assignor.)

Williams, James, Olney, England. Pump. No. 1,025,554; May 7; Sp. p. 1007; Gaz. vol. 178; p. 155.

Williams, John G. (See Stimson, Henry W., assignor.)

Williams, John P., and H. Huhn, New York, N. Y., assignors to Electric Bank Protection Company. Electrically-protected grille-work or grating. No. 1,027,879; May 28; Sp. p. 5666; Gaz. vol. 178; p. 987.

Williams, Joseph A., Cleveland, Ohio. Aeroplane. No. 1,027,954; May 28; Sp. p. 6284; Gaz. vol. 178; p. 1080.

Williams, Louis N. D., Ogontz, Pa., assignor to Scott & Williams, Incorporated, Camden, N. J. Machine for bordering fabrics. No. 1,025,176; May 7; Sp. p. 148; Gaz. vol. 178; p. 25.

Williams, Margaret E. B., Westernport, Md. Threading means for sewing-machines. No. 1,026,483; May 14; Sp. p. 3075; Gaz. vol. 178; p. 507.

Williams, Martin L., South Bend, Ind. Steering mechanism. No. 1,026,728; May 21; Sp. p. 3606; Gaz. vol. 178; p. 626.

Williams, Martin L., South Bend, Ind. Internal-combustion engine. No. 1,027,680; May 28; Sp. p. 5669; Gaz. vol. 178; p. 988.

Williams, Milton F., and E. H. Frickey, assignors to Williams Patent Crusher and Pulverizer Company, St. Louis, Mo. Slot-guard. No. 1,025,177; May 7; Sp. p. 151; Gaz. vol. 178; p. 25.

Williams, Ora W., assignor of one-half to W. H. Gardner, Minneapolis, Minn. Wheel. No. 1,025,555; May 7; Sp. p. 1008; Gaz. vol. 178; p. 156.

Williams Patent Crusher and Pulverizer Company. (See Williams and Frickey, assignors.)

Williams, Raymond H. (See Straus, Joseph H., Jr., assignor.)
Williams, Thomas J., Hiteman, Iowa. Stropping device. No. 1,027,955; May 28; Sp. p. 6286; Gaz. vol. 178; p. 1080.
Williams, Wade W., Providence, R. I. Cuff-pin. No. 1,027,302; May 21; Sp. p. 4897; Gaz. vol. 178; p. 824.
Williams, William H., Statesboro, Ga. Lifting device. No. 1,026,232; May 14; Sp. p. 2525; Gaz. vol. 178; p. 423.
Williams, William H., Statesboro, Ga. Boat. No. 1,026,336; May 14; Sp. p. 2754; Gaz. vol. 178; p. 460.
Williams, William H., East Liverpool, Ohio. Manufacture of gas. No. 1,027,681; May 28; Sp. p. 5673; Gaz. vol. 178; p. 989.
Williamson, Bailey F., Gainesville, Fla. Converting wood into paper-making stock and by-products. No. 1,025,356; May 7; Sp. p. 554; Gaz. vol. 178; p. 87.
Williamson, Leroy A., Boston, Mass. Portable electric-light fixture. No. 1,027,633; May 28; Sp. p. 5564; Gaz. vol. 178; p. 972.
Williamson, Leroy A., Boston, Mass. Portable electric-light fixture. No. 1,027,634; May 28; Sp. p. 5566; Gaz. vol. 178; p. 973.
Williamson, Leroy A., Boston, Mass. Portable electric-light fixture. No. 1,027,635; May 28; Sp. p. 5567; Gaz. vol. 178; p. 973.
Willis, George W., Auburn, N. Y., assignor to International Harvester Company. Grain-binder. No. 1,026,841; May 21; Sp. p. 3856; Gaz. vol. 178; p. 666.
Willits, Frederick E., assignor of one-fourth to W. M. Roop, Kansas City, Mo. Wire-fabric machine. No. 1,027,454; May 28; Sp. p. 5207; Gaz. vol. 178; p. 913.
Willman, Levi, Stillwater, Okla. Cotton-picker. No. 1,027,455; May 28; Sp. p. 5209; Gaz. vol. 178; p. 914.
Willmann, Joseph, assignor to Dairy Machinery and Construction Company, Incorporated, Derby, Conn. Manufacturing artificially-soured milk. No. 1,025,772; May 7; Sp. p. 1457; Gaz. vol. 178; p. 229.
Williners, John, Chicago Heights, assignor of fifty-one one-hundredths to H. Argo, Chicago, Ill. Crushing-machine. No. 1,025,805; May 7; Sp. p. 1765; Gaz. vol. 178; p. 271.
Wilson, Albert F., Montgomery, Ala. Reinforced-concrete cross-tie. No. 1,027,578; May 28; Sp. p. 5469; Gaz. vol. 178; p. 956.
Wilson, Charles B., assignor to J. Sumerlin, Bartow, Fla. Detachable spindle. No. 1,028,090; May 28; Sp. p. 6601; Gaz. vol. 178; p. 1124.
Wilson, John A., Columbus, Kans. Bedstead. No. 1,026,016; May 14; Sp. p. 2012; Gaz. vol. 178; p. 347.
Wilson, Thomas M., Philadelphia, Pa. Drier. No. 1,027,513; May 28; Sp. p. 5328; Gaz. vol. 178; p. 933.
Wilson, Winfred C., Sunset, Tex. Poultry feeding and watering device. No. 1,025,225; May 7; Sp. p. 257; Gaz. vol. 178; p. 43.
Wiltshire, William H., Gillespieville, Ohio. Rail-joint. No. 1,027,956; May 28; Sp. p. 6288; Gaz. vol. 178; p. 1081.
Wilzin, Arthur, St.-Ouen, Seine, France. Manufacture of metal forks and spoons. No. 1,026,421; May 14; Sp. p. 2940; Gaz. vol. 178; p. 487.
Winchester Repeating Arms Co. (See Buell, William H., assignor.)
Winchester Repeating Arms Co. (See Johnson, Thomas C., assignor.)
Winchester Repeating Arms Company. (See Tilton, Walter H., assignor.)
Wineberg, David L., Rockland, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. End-lasting mechanism. No. 1,027,024; May 21; Sp. p. 4291; Gaz. vol. 178; p. 730.
Wingender, George, New York, N. Y. Drip-tray for dishes. No. 1,025,178; May 7; Sp. p. 153; Gaz. vol. 178; p. 26.
Winkley, Erastus E., Lynn, Mass. Shoe-support for sole-leveling machines. No. 1,027,025; May 21; Sp. p. 4293; Gaz. vol. 178; p. 730.
Winsze, Nedin, and M. Plocher, St. Louis, Mo. Sanitary cuspidor. No. 1,027,785; May 28; Sp. p. 5875; Gaz. vol. 178; p. 1022.
Winter, Henry W., Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Leather-skiving machine. No. 1,025,556; May 7; Sp. p. 1010; Gaz. vol. 178; p. 156.
Winterhalder, Robert, Kamloops, British Columbia, Canada. Automatic electric cut-out switch. No. 1,025,357; May 7; Sp. p. 556; Gaz. vol. 178; p. 87.
Wise, James B. (See Davis, Merrill, assignor.)
Wise, James B. (See Perkins, Walter H., assignor.)
Wise, John D., Jackson, Tenn. Medicine-dropper. No. 1,026,541; May 14; Sp. p. 3182; Gaz. vol. 178; p. 526.
Wise, Stanley C. (See Wise, William, assignor.)
Wise, William, St. Joseph, assignor of one-third to S. C. Wise, Maysville, Mo. Track-joint. No. 1,027,682; May 28; Sp. p. 5677; Gaz. vol. 178; p. 989.
Wissner, Franz, Mainz, Germany. Book type-writer. No. 1,026,619; May 14; Sp. p. 3342; Gaz. vol. 178; p. 552.
Withers, William H., and C. T. Harris, Atlanta, Ga. Automatic cranking device. No. 1,027,057; May 28; Sp. p. 6289; Gaz. vol. 178; p. 1081.
Wittenberg, Max., Manchester, England. Mouthpiece for tobacco-pipes and cigarette-holders. No. 1,025,440; May 7; Sp. p. 749; Gaz. vol. 178; p. 116.
Woerner, Robert, Mannheim, Germany. Cigar-pressing box. No. 1,027,094; May 21; Sp. p. 4477; Gaz. vol. 178; p. 755.
Wohl, Maurice J., *et al.*, trustees. (See Betts, Lewis F., assignor.)
Wolf, Augustus, Chambersburg, Pa. Dust-separator. No. 1,025,730; May 7; Sp. p. 1380; Gaz. vol. 178; p. 215.
Wolf, George. (See Currier and Wolf.)
Wolf, Linus, Boston, Mass. Connection for pressure-tanks. No. 1,026,066; May 14; Sp. p. 2163; Gaz. vol. 178; p. 365.
Wolfe, Lenard, Mattoon, Wis. Wood-sawing machine. No. 1,025,773; May 7; Sp. p. 1459; Gaz. vol. 178; p. 230.
Wolff, Christian J., Chicago, Ill. Valve-spring lifter for automobile and other engines. No. 1,027,164; May 21; Sp. p. 4623; Gaz. vol. 178; p. 776.
Wolff and Company, Walther, G. m. b. H. (See Zuckmayer, Fritz, assignor.)
Wolff Truck Frame Company. (See Hart, Harry S., assignor.)
Wolfinger, John, New York, N. Y. Non-refillable bottle. No. 1,027,787; May 28; Sp. p. 5878; Gaz. vol. 178; p. 1023.
Wolfson, John, New Haven, Conn. Car lifting and replacing device. No. 1,026,337; May 14; Sp. p. 2756; Gaz. vol. 178; p. 460.
Wolters, Wilhelm. (See Giese and Wolters.)
Womack, John H., Kentwood, La. Turpentine-gatherer. No. 1,027,958; May 28; Sp. p. 6291; Gaz. vol. 178; p. 1081.
Womelsdorf, George H., Philadelphia, Pa. Sealing-ring for jar-closures. No. 1,026,542; May 14; Sp. p. 3183; Gaz. vol. 178; p. 527.
Wood, Charles L., Woburn, Mass. Game apparatus. No. 1,025,226; May 7; Sp. p. 258; Gaz. vol. 178; p. 43.
Wood, Hezekiah M., Canadian, Tex. Wrench. No. 1,025,179; May 7; Sp. p. 154; Gaz. vol. 178; p. 26.
Wood, Howard I., Schenectady, N. Y., assignor to General Electric Company. Treating filaments. No. 1,027,165; May 21; Sp. p. 4624; Gaz. vol. 178; p. 776.
Wood, Roy E., Syracuse, Nebr. Carbureter. No. 1,027,456; May 28; Sp. p. 5211; Gaz. vol. 178; p. 914.
Woodard, Rubbin J., Danville, Ill. Dinner-pail. No. 1,026,543; May 14; Sp. p. 3184; Gaz. vol. 178; p. 527.
Woodland, Frank O., Worcester, Mass. Labeling-machine. No. 1,027,959; May 28; Sp. p. 6292; Gaz. vol. 178; p. 1081.
Woodruff, Oliver D., Southington, Conn. Dough mixer and kneader. No. 1,027,960; May 28; Sp. p. 6298; Gaz. vol. 178; p. 1082.
Woodruff, Willard S., New York, N. Y. Annunciator or indicator. No. 1,026,779; May 21; Sp. p. 3719; Gaz. vol. 178; p. 644.
Woodruff, Willis B., Cadiz, Ky. Churn. No. 1,026,970; May 21; Sp. p. 4169; Gaz. vol. 178; p. 711.
Woods-Gilbert Rail Planer Company Limited. (See Little, John, assignor.)
Woods, Michael, Carlton, and T. J. Gilbert, Brunswick, Victoria, Australia. Machine for dressing rails. No. 1,027,366; May 21; Sp. p. 5024; Gaz. vol. 178; p. 846.
Woods, Michael, Carlton, and T. J. Gilbert, Brunswick, Victoria, Australia. Machine for dressing rails. No. 1,027,367; May 21; Sp. p. 5026; Gaz. vol. 178; p. 847.
Woodson, Robert E., St. Louis, Mo. Nut-lock. No. 1,026,138; May 14; Sp. p. 2312; Gaz. vol. 178; p. 390.
Work, Jesse G., assignor of one-half to B. S. Young, Sharon, Pa. Wall-papering device. No. 1,027,228; May 21; Sp. p. 4749; Gaz. vol. 178; p. 799.
Worthington, Charles C., Dunnfield, N. J. Boiler-regulator. No. 1,026,190; May 14; Sp. p. 2421; Gaz. vol. 178; p. 407.
Worthington, Charles C., Dunnfield, N. J. Feeder for steam boilers or generators. No. 1,026,191; May 14; Sp. p. 2426; Gaz. vol. 178; p. 408.
Worthington, Charles C., Dunnfield, N. J. Feeder for steam boilers and generators. No. 1,026,192; May 14; Sp. p. 2433; Gaz. vol. 178; p. 408.
Wreford, William B., Detroit, Mich. Lever-locking device. No. 1,025,180; May 7; Sp. p. 156; Gaz. vol. 178; p. 26.
Wrenn, John L., Washington, D. C. Alternating-current program system. No. 1,026,290; May 14; Sp. p. 2643; Gaz. vol. 178; p. 442.
Wright, Arthur, New York, N. Y. Safety-pin. (Reissue.) No. 13,415; May 7; Sp. p. 1897; Gaz. vol. 178; p. 292.
Wright, Clarence E., Apalachicola, Fla. Coupling. No. 1,027,579; May 28; Sp. p. 5470; Gaz. vol. 178; p. 957.
Wright, Edward E., *et al.* (See Simon, Henry, assignor.)
Wright, Irving C., Dorchester, and D. P. Cummings, Newton, Mass. Racket case and press. No. 1,027,786; May 28; Sp. p. 5877; Gaz. vol. 178; p. 1022.
Wright, James G. (See Wylie and Wright.)
Wright, John M. W. (See Bright and Wright.)
Wright, Joseph L., Washington, D. C., assignor, by mesne assignments, to The North Electric Company, Cleveland, Ohio. Telephone-exchange system. No. 1,027,392; May 21; Sp. p. 5081; Gaz. vol. 178; p. 855.
Wright, Morris S., assignor to Morris S. Wright Company, Worcester, Mass. Relief-valve for pneumatic cleaning systems. No. 1,026,193; May 14; Sp. p. 2439; Gaz. vol. 178; p. 409.
Wright, Richard H. (See Rose, Henry, assignor.)
Wright, Wilbur L., Washington, D. C. Capping-machine. No. 1,026,892; May 21; Sp. p. 3972; Gaz. vol. 178; p. 684.
Wright Wire Company. (See Klingler, George H. and W. H., assignors.)

Wurst, Charles H., Quincy, Ill. Stove. No. 1,027,961; May 28; Sp. p. 6299; Gaz. vol. 178; p. 1082.
Wurth, Albert F., Orange, assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J. Phonograph-record mold. No. 1,027,788; May 28; Sp. p. 5879; Gaz. vol. 178; p. 1023.
Wyckoff, Seamans & Benedict. (See Yaw, Clio B., assignor.)
Wylie, Alfred R., and J. G. Wright, Big Spring, Tex. Vehicle-wheel. No. 1,026,291; May 14; Sp. p. 2645; Gaz. vol. 178; p. 443.
Wylie, Alfred R., and J. G. Wright, Big Spring, Tex. Vehicle-wheel. No. 1,026,292; May 14; Sp. p. 2647; Gaz. vol. 178; p. 443.
Wylie, Thomas B., Haysville, Pa. Apparatus for measuring volume of flowing water, &c. No. 1,025,227; May 7; Sp. p. 260; Gaz. vol. 178; p. 43.
Wylie, William M. (See Harmer and Wylie.)
Yale & Towne Manufacturing Company, The. (See Crouch, Thomas E., assignor.)
Yamamoto, Takejiro, assignor to Y. Hitaka, Tokyo, Japan. Interlocked netting. No. 1,026,544; May 14; Sp. p. 3186; Gaz. vol. 178; p. 527.
Yardley, William H., Sheffield, England. Apparatus for treating steam and other gaseous or liquid bodies. No. 1,027,962; May 28; Sp. p. 6302; Gaz. vol. 178; p. 1083.
Yaw, Clio B., New York, assignor to Wyckoff, Seamans & Benedict, Ilion, N. Y. Type-writing machine. No. 1,027,963; May 28; Sp. p. 6304; Gaz. vol. 178; p. 1083.
Yeagle, Walter R., Eddington, Pa. Snap-hook. No. 1,025,666; May 7; Sp. p. 1249; Gaz. vol. 178; p. 193.
Yetter, Clyde C., Bloomsburg, Pa. Combined cupboard and dumb-waiter. No. 1,027,229; May 21; Sp. p. 4750; Gaz. vol. 178; p. 799.
Yingling, Otto A., Washington, D. C. Projectile. No. 1,027,964; May 28; Sp. p. 6310; Gaz. vol. 178; p. 1084.
Yingst, Allan H. (See Walton and Yingst.)
Yoakum, John L., Fowler, Ind. Toy vehicle. No. 1,026,545; May 14; Sp. p. 3187; Gaz. vol. 178; p. 527.
Yoakum, William H., *et al.* (See Lawson, James R., assignor.)
Young, Bernard S. (See Work, Jesse G., assignor.)
Young, George, Jr. (See Young, Joseph A. and G., Jr.)
Young, John J., Denver, Colo. Die-starter. No. 1,026,194; May 14; Sp. p. 2442; Gaz. vol. 178; p. 409.
Young, Joseph A. and G., Jr., Bellevue, Iowa. Glass lens. No. 1,025,774; May 7; Sp. p. 1460; Gaz. vol. 178; p. 230.
Young, Julius F., Owatonna, Minn. Float-controlled valve. No. 1,027,965; May 28; Sp. p. 6311; Gaz. vol. 178; p. 1084.
Young, Norris W., Wilsonville, Oreg. Feeder for baling-presses. No. 1,027,966; May 28; Sp. p. 6314; Gaz. vol. 178; p. 1084.
Young, William H. F., Muncie, Ind. Combined lock and latch. No. 1,025,850; May 7; Sp. p. 1618; Gaz. vol. 178; p. 256.
Young, William H. F., Muncie, Ind. Combined lock and escutcheon-plates. No. 1,025,938; May 7; Sp. p. 1853; Gaz. vol. 178; p. 285.
Yuha, Frank. (See Engebritson, Yuha, and Doebriner.)
Zachow, Otto, assignor to The Badger Four Wheel Drive Auto Company, Clintonville, Wis. Wheel construction for automobiles. No. 1,028,082; May 28; Sp. p. 6571; Gaz. vol. 178; p. 1121.
Zacsek, Stefan, Los Angeles, Cal. Door-latch. No. 1,026,233; May 14; Sp. p. 2526; Gaz. vol. 178; p. 423.
Zahn, Robert, Plauen, Germany. Automatic embroidering-machine. No. 1,027,789; May 28; Sp. p. 5881; Gaz. vol. 178; p. 1023.
Zalmon G. Sholes Typewriter Company. (See Sholes and Fraaz, assignors.)
Zart, Arthur. (See Ossenbeck and Zart.)
Zbornik, Joseph, Fort Atkinson, Iowa. Hay-rack. No. 1,025,939; May 7; Sp. p. 1855; Gaz. vol. 178; p. 286.
Zeigler, Lyman H., Redkey, Ind. Ferrule for rake-handles. No. 1,025,501; May 7; Sp. p. 883; Gaz. vol. 178; p. 137.
Zeiss, Firm of Carl. (See Herschkowitsch, Mordko, assignor.)
Zeiss, Firm of Carl. (See Straubel, Rudolf, assignor.)
Zerbee, Frank J., Bellefontaine, Ohio. Waste-steam detector. No. 1,027,368; May 21; Sp. p. 5027; Gaz. vol. 178; p. 847.
Zerk Manufacturing Company, The. (See Zerk, Oscar, assignor.)
Zerk, Oscar, assignor to The Zerk Manufacturing Company, Cleveland, Ohio. Making metal caps. No. 1,027,457; May 28; Sp. p. 5213; Gaz. vol. 178; p. 914.
Zimmer, Arthur A. A., London, England. Waterproofing linen or other textile articles and giving them a permanent glazed washable surface. No. 1,025,731; May 7; Sp. p. 1382; Gaz. vol. 178; p. 215.
Zimmer, Cyrus W., New York, N. Y. Combined incubator and brooder. No. 1,025,181; May 7; Sp. p. 157; Gaz. vol. 178; p. 26.
Zinsser, August, Jr., trustee. (See Holmes and Johnson, assignors.)
Zlock, Theodore, St. Louis, Mo. Scarf. No. 1,027,580; May 28; Sp. p. 5472; Gaz. vol. 178; p. 957.
Zubli, Justus C., and A. Vles, Seattle, Wash. Attachment for electric lights. No. 1,025,896; May 7; Sp. p. 1769; Gaz. vol. 178; p. 271.
Zuckmayer, Fritz, assignor to Walther Wolff and Company, G. m. b. H., Elberfeld, Germany. Preparing iron-albuminous compounds containing phosphorus. No. 1,027,967; May 28; Sp. p. 6318; Gaz. vol. 178; p. 1085.
Zuckmayer, Fritz, assignor to Walther Wolff and Company, Gesellschaft mit beschränkter Haftung, Elberfeld, Germany. Preparing iron-albuminous compounds containing phosphorus. No. 1,027,968; May 28; Sp. p. 6322; Gaz. vol. 178; p. 1085.
Zuelzer, Georg, assignor to Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Pancreas preparation suitable for the treatment of diabetes. No. 1,027,790; May 28; Sp. p. 5884; Gaz. vol. 178; p. 1024.
Zunner, John H. G., Chicago, Ill. Pitching-machine. No. 1,026,729; May 21; Sp. p. 3608; Gaz. vol. 178; p. 627.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

Abel, Edward C. (See Abel, John A. and E. C.)
Abel, John A. and E. C., New York, N. Y. Engagement-ring. No. 42,530; May 21; Gaz. vol. 178; p. 858.
Abel, John A. and E. C., New York, N. Y. Wedding-ring. No. 42,531; May 21; Gaz. vol. 178; p. 858.
Armstrong Cork Company. (See Humphreys, Charles F., assignor.)
Beckwith, Arthur K., assignor to Estate of P. D. Beckwith, Incorporated, Dowagiac, Mich. Stove or range leg-base. No. 42,450; May 7; Gaz. vol. 178; p. 292.
Berkof, Jacob W., New York, N. Y. Toy Angora poodle-dog. No. 42,497; May 14; Gaz. vol. 178; p. 565.
Berkof, Jacob W., New York, N. Y. Toy poodle-dog. No. 42,498; May 14; Gaz. vol. 178; p. 566.
Bigelow Carpet Company. (See Elliot, William A., assignor.)
Bigelow Carpet Company. (See Louden, Milton R., assignor.)
Bigelow Carpet Company. (See Merry, John, assignor.)
Bigelow Carpet Company. (See Moffat, John B., assignor.)
Bigelow Carpet Company. (See Riddell, Robert F., assignor.)
Bigelow Carpet Company. (See Sauer, Emil G., assignor.)
Bigelow Carpet Company. (See Spring, John, assignor.)
Bigelow Carpet Company. (See Trik, Ernest W., assignor.)
Bigelow Carpet Company. (See Wishart, Joseph, assignor.)
Bigney, Sidney O., Attleboro, Mass. Bracelet. No. 42,532; May 21; Gaz. vol. 178; p. 858.
Birkin, Charles W., Nottingham, England. Levers lace. Nos. 42,451–3; May 7; Gaz. vol. 178; pp. 292–3.
Blanc, Augustin. (See Jay, Jalliffier, and Blanc.)
Blesch, Charles, Newport, Ky., assignor to The Crane & Breed Manufacturing Company, Cincinnati, Ohio. Burial-casket handle. Nos. 42,520–1; May 14; Gaz. vol. 178; p. 570.
Bliss, Herbert C., Attleboro, Mass. Locket. No. 42,454; May 7; Gaz. vol. 178; p. 293.
Boderman, Joseph, New York, N. Y. Hanging lamp. No. 42,455; May 7; Gaz. vol. 178; p. 293.
Bromley & Sons, John. (See Petzold, Adolph, assignor.)
Brunswick Balke Collender Co., The. (See Hine, Cicero, assignor.)
Brunswick Balke Collender Co., The. (See Hine and Schank, assignors.)
Burgess, Frank A., Geneva, Ill. Sad-iron stand. No. 42,522; May 14; Gaz. vol. 178; p. 570.
Caldwell, Edward F., Larchmont, N. Y. Portfolio-cover. No. 42,456; May 7; Gaz. vol. 178; p. 293.
Campbell, John A., assignor to Trenton Potteries Company, Trenton, N. J. Lavatory. No. 42,457; May 7; Gaz. vol. 178; p. 293.
Carroll, William H., Closter, N. J. Lemon-squeezer. No. 42,499; May 14; Gaz. vol. 178; p. 566.
Chance Brothers and Co. (See Chance, Edward F., assignor.)
Chance, Edward F., Martin, assignor to Chance Brothers and Co., Limited, Glass Works, near Birmingham, England. Plate-glass. No. 42,523; May 14; Gaz. vol. 178; p. 571.
Claus, Emil A. (See Claussen and Claus.)
Claussen, Edward E., and E. A. Claus, Hartford, Conn., assignors to Public Service Cup Company, New York, N. Y. Paper cup. No. 42,500; May 14; Gaz. vol. 178; p. 566.
Crane & Breed Manufacturing Company, The. (See Blesch, Charles, assignor.)
Crowell, Gilbert L., Jr., Arlington, N. J., assignor to Dominick & Haff, New York, N. Y. Spoon, fork, or similar article. No. 42,458; May 7; Gaz. vol. 178; p. 293.
Curtiss, George E., New Britain, Conn. Inverted-glass holder. Nos. 42,533–4; May 21; Gaz. vol. 178; p. 858.
Davis, Bethuel M., Chicago, Ill. Coin-holder. No. 42,535; May 21; Gaz. vol. 178; p. 859.
Dean Electric Company. (See Dean, William W., assignor.)
Dean, William W., North Ridgeville, assignor to The Dean Electric Company, Elyria, Ohio. Automobile-horn. No. 42,559; May 28; Gaz. vol. 178; p. 1127.
Dominick & Haff. (See Crowell, Gilbert L., Jr., assignor.)
Ebbinghaus, Ernst, New York, N. Y. Flying and gliding device. No. 42,501; May 14; Gaz. vol. 178; p. 566.
Elliot, William A., Yonkers, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 42,560–2; May 28; Gaz. vol. 178; pp. 1127–8.
Farr, Edward A., assignor to Manning, Bowman & Company, Meriden, Conn. Bath-room fixture. No. 42,459; May 7; Gaz. vol. 178; p. 294.
Farr, Edward A., assignor to Manning, Bowman & Company, Meriden, Conn. Chafing-dish handle. No. 42,502; May 14; Gaz. vol. 178; p. 566.
Farr, Edward A., assignor to Manning, Bowman & Company, Meriden, Conn. Chafing-dish. No. 42,563; May 28; Gaz. vol. 178; p. 1128.
Fedorina, Michael, Cleveland, Ohio. Wicker or rustic chair. No. 42,524; May 14; Gaz. vol. 178; p. 571.
Fessenden and Company. (See Lohrmann, Ernst H., assignor.)
Follmer, Charles J., New York, N. Y. Parasol. No. 42,503; May 14; Gaz. vol. 178; p. 566.
Gardner, Leslie A. D., Oakland, Cal. Collapsible-tube cap. No. 42,504; May 14; Gaz. vol. 178; p. 567.
General Electric Company. (See Thoré, Wendell P., assignor.)
Handol, Jacob G., New York, N. Y. Lace. No. 42,564; May 28; Gaz. vol. 178; p. 1128.
Hansen, Angle L., Chicago, Ill. Acetylene-lamp. No. 42,460; May 7; Gaz. vol. 178; p. 294.
Harden, James, Jr., New York, N. Y. Display-case. No. 42,461; May 7; Gaz. vol. 178; p. 294.
Heath, Alfred C., Newark, N. J. Cigar-lighter. No. 42,462; May 7; Gaz. vol. 178; p. 294.
Hine, Cicero, assignor to The Brunswick Balke Collender Co., Chicago, Ill. Game-table. Nos. 42,464–70; May 7; Gaz. vol. 178; pp. 294–5.
Hine, Cicero, and J. C. Schank, assignors to The Brunswick Balke Collender Co., Chicago, Ill. Game-table. No. 42,463; May 7; Gaz. vol. 178; p. 294.
Humphreys, Charles F., assignor to Armstrong Cork Company, Lancaster, Pa. Linoleum, oil-cloth, or other printed or inlaid floor-covering. Nos. 42,505–13; May 14; Gaz. vol. 178; pp. 567–9.
Jalliffier, Gustave. (See Jay, Jalliffier, and Blanc.)
Jay, Joseph, G. Jalliffier, and A. Blanc, Grenoble, France. Profiled structural metal beam. Nos. 42,536–8; May 21; Gaz. vol. 178; p. 859.
Jenks, Barton P., assignor to William B. Durgin Co., Concord, N. H. Handle for spoons, forks, or similar articles. No. 42,471; May 7; Gaz. vol. 178; p. 295.
Joseph Dixon Crucible Company. (See Tolfree, Frederick W., assignor.)
Kupper, Herman C., New York, N. Y. Teapot or similar article. No. 42,565; May 28; Gaz. vol. 178; p. 1128.
Lawton, Thomas L., Philadelphia, Pa., assignor to Trorlicht Duncker Carpet Co., St. Louis, Mo. Rug. Nos. 42,472–84; May 7; Gaz. vol. 178; pp. 295–8.
Leone, Pascal, New York, N. Y. Charm or similar article. No. 42,485; May 7; Gaz. vol. 178; p. 298.
Liquid Carbonic Company, The. (See Smith, Horace M., assignor.)
Lohrmann, Ernst H., assignor to Fessenden and Company, Inc., Providence, R. I. Handle for spoons, forks, or similar articles. No. 42,486; May 7; Gaz. vol. 178; p. 298.
Loudon, Milton R., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 42,539; May 21; Gaz. vol. 178; p. 859.
Mallory, Frederick B., Portland, Oreg. Block side. No. 42,487; May 7; Gaz. vol. 178; p. 299.
Manning, Bowman & Company. (See Farr, Edward A., assignor.)
McArthur, Warren, Jr., Chicago, Ill. Tubular lantern. No. 42,488; May 7; Gaz. vol. 178; p. 299.
Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 42,540; May 21; Gaz. vol. 178; p. 859.
Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 42,541; May 21; Gaz. vol. 178; p. 860.
Meyers, Harry H., New York, N. Y. Gem-setting. No. 42,514; May 14; Gaz. vol. 178; p. 569.
Moberg, Oscar, New Britain, Conn. Display-stand. No. 42,525; May 14; Gaz. vol. 178; p. 571.
Moffat, John B., Bronxville, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 42,542; May 21; Gaz. vol. 178; p. 860.
Monier, Frederick C., assignor to North & Judd Manufacturing Company, New Britain, Conn. Spur-body. No. 42,489; May 7; Gaz. vol. 178; p. 299.
North & Judd Manufacturing Company. (See Monier, Frederick C., assignor.)
P. D. Beckwith, Estate of. (See Beckwith, Arthur K., assignor.)
Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Padlock. No. 42,515; May 14; Gaz. vol. 178; p. 569.
Palmer, Eddy, assignor to Solon Palmer, Inc., New York, N. Y. Bottle or similar receptacle. No. 42,516; May 14; Gaz. vol. 178; p. 569.

Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug. Nos. 42,490–3; May 7; Gaz. vol. 178; pp. 299–300.
Pratt, Philip W., Boston, Mass. Elastic tire. No. 42,526; May 14; Gaz. vol. 178; p. 571.
Public Service Cup Company. (See Claussen and Claus, assignors.)
Pupke, Eberhard L., East Orange, N. J. Lacing-hook. No. 42,543; May 21; Gaz. vol. 178; p. 860.
Riddell, Robert F., Flushing, N. Y., assignor to Bigelow Carpet Company. Rug. No. 42,544; May 21; Gaz. vol. 178; p. 860.
Royal Metal Manufacturing Company. (See Travers, Charles J., assignor.)
Rutherford Comb Company. (See Spill, Frank, assignor.)
Salzenstein, Solomon C., Peoria, Ill. Apron. No. 42,566; May 28; Gaz. vol. 178; p. 1129.
Sargent & Company. (See Page, Albert A., assignor.)
Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 42,545–6; May 21; Gaz. vol. 178; p. 860.
Schank, John C. (See Hine and Schank.)
Scott, William H., Jr., assignor to Susquehanna Silk Mills, New York, N. Y. Scarf. No. 42,517; May 14; Gaz. vol. 178; p. 569.
Simons, Elmer O., Los Angeles, Cal. Vase. No. 42,494; May 7; Gaz. vol. 178; p. 300.
Smith, Horace M., assignor to The Liquid Carbonic Company, Chicago, Ill. Mixing-tank for carbonators. No. 42,547; May 21; Gaz. vol. 178; p. 861.
Solon Palmer, Inc. (See Palmer, Eddy, assignor.)
Spill, Frank, Rutherford, assignor to Rutherford Comb Company, East Rutherford, N. J. Barrette. No. 42,527; May 14; Gaz. vol. 178; p. 571.
Spring, John, New York, N. Y., assignor to Bigelow Carpet Company. Carpet. Nos. 42,548–51; May 21; Gaz. vol. 178; p. 861.
Spring, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. No. 42,552; May 21; Gaz. vol. 178; p. 861.
Steiger, Howard W., Lakewood, Ohio. Emblem. No. 42,495; May 7; Gaz. vol. 178; p. 300.
Stockstrom, Louis, St. Louis, Mo. Oil-stove reservoir. No. 42,567; May 28; Gaz. vol. 178; p. 1129.
Susquehanna Silk Mills. (See Scott, William H., Jr., assignor.)
Thoré, Wendell P., Boston, Mass., assignor to General Electric Company. Light-fixture. No. 42,528; May 14; Gaz. vol. 178; p. 572.
Todd, Edward, Jr., Brooklyn, N. Y. Spoon, fork, or similar article. No. 42,568; May 28; Gaz. vol. 178; p. 1129.
Toledo Computing Scale Company. (See Wetzel, Lewis C., assignor.)
Tolfree, Frederick W., Belleville, N. J., assignor to Joseph Dixon Crucible Company, Jersey City, N. J. Pencil-case or similar article. No. 42,553; May 21; Gaz. vol. 178; p. 862.
Travers, Charles J., assignor to Royal Metal Manufacturing Company, Chicago, Ill. Wire chair. No. 42,529; May 14; Gaz. vol. 178; p. 572.
Trenton Potteries Company. (See Campbell, John A., assignor.)
Trik, Ernest W., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 42,554; May 21; Gaz. vol. 178; p. 862.
Trorlicht Duncker Carpet Co. (See Lawton, Thomas L., assignor.)
Ungrich, Martin L., Brooklyn, N. Y. Soap-dish. No. 42,518; May 14; Gaz. vol. 178; p. 570.
Victor, Alexander F., Davenport, Iowa. Picture-display-machine body. No. 42,496; May 7; Gaz. vol. 178; p. 300.
Weis, Andrew L., Monroe, Mich., assignor to Weis-Van Wormer Company. Paper closure or stopper for paper vessels. No. 42,519; May 14; Gaz. vol. 178; p. 570.
Weis-Van Wormer Company. (See Weis, Andrew L., assignor.)
Wetzel, Lewis C., assignor to Toledo Computing Scale Company, Toledo, Ohio. Weighing-scale housing. No. 42,555; May 21; Gaz. vol. 178; p. 862.
Whitman, John F., Elkins Park, Pa. Clock-casing. No. 42,556; May 21; Gaz. vol. 178; p. 862.
William B. Durgin Co. (See Jenks, Barton P., assignor.)
Wishart, Joseph, Brooklyn, N. Y., assignor to Bigelow Carpet Company. Carpet. No. 42,557; May 21; Gaz. vol. 178; p. 862.
Wright, Alvin, Buffalo, N. Y. Clock-case. No. 42,558; May 21; Gaz. vol. 178; p. 862.
Wuthenow, William, New York, N. Y. Phonograph-box or similar article. No. 42,569; May 28; Gaz. vol. 178; p. 1129.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. Martin, Inc., New York, N. Y. Eyeglass and spectacle lenses. No. 86,605; May 21; Gaz. vol. 178; p. 880.
A. F. Young & Co., New York, N. Y.; Pittsburgh, Pa., and Boston, Mass. Oranges. No. 86,652; May 21; Gaz. vol. 178; p. 881.
A. G. Spalding & Bros., Jersey City, N. J., and New York, N. Y. Golf-balls. No. 86,559; May 14; Gaz. vol. 178; p. 588.
A. J. Harwi Hardware Company, Atchison, Kans. Cutlery, machinery, and tools, and parts thereof. No. 86,588; May 21; Gaz. vol. 178; p. 879.
A. J. Harwi Hardware Company, Atchison, Kans. Certain hardware supplies. No. 86,589; May 21; Gaz. vol. 178; p. 879.
A. M. McPhail Piano Co., Boston, Mass. Player-pianos. No. 86,608; May 21; Gaz. vol. 178; p. 880.
A/S. Hurum Fabriker, Jelöen, Norway. Wood-pulp. No. 86,500; May 14; Gaz. vol. 178; p. 587.
Adesa & Co., London, England. Certain abrasive, detergent, and polishing materials. No. 86,501; May 14; Gaz. vol. 178; p. 587.
Air Friction Carburetor Company, The, Dayton, Ohio. Carbureters and parts thereof. No. 86,565; May 21; Gaz. vol. 178; p. 879.
American Anti-Cigarette Company, Roanoke, Va., and New York, N. Y. Receptacles for cigarette-holders. No. 86,502; May 14; Gaz. vol. 178; p. 587.
American Encaustic Tiling Co. Ltd., New York, N. Y., and Janesville, Ohio. Tiles. No. 86,681; May 28; Gaz. vol. 178; p. 1147.
American Iron and Steel Manufacturing Company, Lebanon and Reading, Pa. Turnbuckles. Nos 86,358–63; May 7; Gaz. vol. 178; p. 313.
American Iron and Steel Manufacturing Company, Lebanon and Reading, Pa. Certain hardware and plumbing supplies. No. 86,566; May 21; Gaz. vol. 178; p. 879.
American Iron and Steel Manufacturing Company, Lebanon and Reading, Pa. Structural forgings, bar-iron, and bar-steel. No. 86,682; May 28; Gaz. vol. 178; p. 1147.
American Iron and Steel Manufacturing Company, Lebanon and Reading, Pa. Certain hardware. Nos. 86,683–8; May 28; Gaz. vol. 178; p. 1147.
American Lady Corset Company, Detroit, Mich. Corsets. No. 86,364; May 7; Gaz. vol. 178; p. 313.
American Optical Company, Southbridge, Mass. Lens examining and testing instruments. No. 86,567; May 21; Gaz. vol. 178; p. 879.
American Sales Book Company, Limited, Toronto, Canada, and Niagara Falls, Elmira, and Glendale, N. Y. Salesbooks. No. 86,689; May 28; Gaz. vol. 178; p. 1147.
Ames Shovel and Tool Company, Jersey City, N. J., and Boston, Mass. Shovels, spades, and scoops. No. 86,365; May 7; Gaz. vol. 178; p. 313.
Amory, Charles W., *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)
Amory, William, *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)
Amoskeag Manufacturing Company, Manchester, N. H., assignor to C. W. Amory, Boston, T. Parsons, Mattapoisett, Mass., F. P. Carpenter, Manchester, N. H., F. C. Dumaine Concord, T. J. Coolidge, T. J. Coolidge, Jr., Manchester, G. Wigglesworth, Milton, W. Amory, P. Dexter, Boston, G. L. Stone, Brookline, G. von L. Meyer, Hamilton, and G. A. Gardner, Boston, Mass., trustees. Cotton piece goods. Nos. 86,366–8; May 7; Gaz. vol. 178; p. 313.
Anheuser & Fehrs, Kreuznach, Germany. Wines. No. 86,360; May 7; Gaz. vol. 178; p. 313.
Armstrong Cork Company, Pittsburgh, Pa. Heat-insulating materials. No. 86,503; May 14; Gaz. vol. 178; p. 587.
Arthur Courtin Company, The, New York, N. Y. Limes. No. 86,679; May 21; Gaz. vol. 178; p. 882.
Atlantic Macaroni Co., The, Long Island City, N. Y. Macaroni. No. 86,370; May 7; Gaz. vol. 178; p. 313.
B. & C. Baking Co., Dayton, Ohio. Cakes. No. 86,655; May 21; Gaz. vol. 178; p. 881.
B. D. Rising Paper Company, Housatonic, Mass. Writing-paper. No. 86,504; May 14; Gaz. vol. 178; p. 587.
B. F. Sturtevant Company, Boston, Mass. Certain kinds of machinery. No. 86,744; May 28; Gaz. vol. 178; p. 1149.
Babcock, Hurd & Co., Cleveland, Ohio. Cheese. No. 86,656; May 21; Gaz. vol. 178; p. 881.
Baker, Walter D., Indianapolis, Ind. Dyes. No. 86,371; May 7; Gaz. vol. 178; p. 313.
Baltimore Bargain House, Baltimore, Md. Hosiery. Nos. 86,505–6; May 14; Gaz. vol. 178; p. 587.
Barthels Mfg. Co., New York, N. Y. Braids, shoe and corset laces, and galloons. No. 86,690; May 28; Gaz. vol. 178; p. 1147.
Bash, Daniel F., Indianapolis, Ind. Certain raw or partly-prepared materials. No. 86,568; May 21; Gaz. vol. 178; p. 879.
Baumgardt, Franz, Spandau, near Berlin, Germany. Disinfecting devices. No. 86,372; May 7; Gaz. vol. 178; p. 313.
Behrend & Rothschild, New York, N. Y. Rubber toys. No. 86,373; May 7; Gaz. vol. 178; p. 313.
Behrend & Rothschild, New York, N. Y. Metal drinking-cups. No. 86,569; May 21; Gaz. vol. 178; p. 879.
Berg, Max, Philadelphia, Pa. Premium-stamps. No. 86,657; May 21; Gaz. vol. 178; p. 881.
Berryman and Schlegelmilch, Philadelphia, Pa. Ozonized water. No. 86,570; May 21; Gaz. vol. 178; p. 879.
Bertha Mfg. Co., South Norfolk, Va. Nurses' uniforms. No. 86,495; May 7; Gaz. vol. 178; p. 317.
Bien, Adolphe, Paris, France. Watches. No. 86,507; May 14; Gaz. vol. 178; p. 587.
Bingham, Herbert M., New York, N. Y. Printers' rollers. Nos. 86,691–2; May 28; Gaz. vol. 178; p. 1147.
Birdsey-Somers Co., New York, N. Y. Corsets. No. 86,508; May 14; Gaz. vol. 178; p. 587.
Bloch & Company, Abe, Cincinnati, Ohio. Men's outer suits. No. 86,510; May 14; Gaz. vol. 178; p. 587.
Bloch, Moses L., Philadelphia, Pa. Go-carts and baby-carriages. No. 86,511; May 14; Gaz. vol. 178; p. 587.
Blum Shoe Mfg. Co., Dansville, N. Y. House-slippers. No. 86,693; May 28; Gaz. vol. 178; p. 1147.
Bowker Fertilizer Company, New York, N. Y. Fertilizers. No. 86,496; May 7; Gaz. vol. 178; p. 317.
Brackett, Frederick, Washington, D. C. Lotion for skin diseases. No. 86,375; May 7; Gaz. vol. 178; p. 313.
Brewster & Magner, New Orleans, La. Salve. No. 86,376; May 7; Gaz. vol. 178; p. 313.
Breyer Ice Cream Co., Philadelphia, Pa. Ice-cream. No. 86,676; May 21; Gaz. vol. 178; p. 882.
Brower, John H., New York, N. Y. Wheat-flour. No. 86,677; May 21; Gaz. vol. 178; p. 882.
Brown, Summers, London, England. Games. No. 86,678; May 21; Gaz. vol. 178; p. 882.
Brun, Bernard L., Baltimore, Md. Hair-tonic and pomatum. No. 86,377; May 7; Gaz. vol. 178; p. 313.
Buchstahl & Lewis, New York, N. Y. Hats and caps. No. 86,378; May 7; Gaz. vol. 178; p. 313.
Burdwise, Aaron, Baltimore, Md. Medicinal preparation for stomach troubles. No. 86,379; May 7; Gaz. vol. 178; p. 313.
Burgmann, Feodor, Dresden-Laubegast, Germany, and New York, N. Y. Asbestos machinery packing. No. 86,694; May 28; Gaz. vol. 178; p. 1147.
Burns, Edward J., Chicago, Ill. Gas-pressure regulators. No. 86,571; May 21; Gaz. vol. 178; p. 879.
C. F. Simmons Medicine Company, Incorporated, St. Louis, Mo. Certain medicinal preparations. No. 86,465; May 7; Gaz. vol. 178; p. 316.
C. L. Sheppard Sanitorium and Remedy Co., Findlay, Ohio. Certain medicines. No. 86,463; May 7; Gaz. vol. 178; p. 316.
C. M. McClung & Co., Knoxville, Tenn. Pistols, revolvers, shotguns, and rifles. Nos. 86,425–6; May 7; Gaz. vol. 178; p. 315.
C. M. McClung & Co., Knoxville, Tenn. Asphalt and composition roofing. No. 86,427; May 7; Gaz. vol. 178; p. 315.
C. M. McClung & Co., Knoxville, Tenn. Brooms and certain brushes. No. 86,721; May 28; Gaz. vol. 178; p. 1148.
C. M. McClung & Co., Knoxville, Tenn. Hardware and plumbing and steam-fitting supplies. No. 86,722; May 28; Gaz. vol. 178; p. 1148.
Carbon Products Company, Charleston, W. Va. Stove, shoe, and metal polishes. No. 86,512; May 14; Gaz. vol. 178; p. 587.
Carbon Products Company, Charleston, W. Va. Polishes. No. 86,695; May 28; Gaz. vol. 178; p. 1147.
Carpenter, Frank P., *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)
Carr & Co., M. W., Somerville, Mass. Photograph-frames. No. 86,381; May 7; Gaz. vol. 178; p. 314.
Chaddock-Kurz Reversible Glove Co., The, Cleveland, Ohio. Mittens and gloves. No. 86,572; May 21; Gaz. vol. 178; p. 879.
Chase & Company, Jacksonville, Fla. Oranges and grapefruit. No. 86,382; May 7; Gaz. vol. 178; p. 314.
Childs, Charles A., New York, N. Y. White lead. No. 86,383; May 7; Gaz. vol. 178; p. 314.
Climax Sanitary Company, Detroit, Mich. Water-closets, closet seats and bowls, and flushing-tanks. No. 86,696; May 28; Gaz. vol. 178; p. 1147.
Coates, Lydia T., Kalamazoo, Mich. Certain medicines. No. 86,384; May 7; Gaz. vol. 178; p. 314.

Colonial Leather Company, Chicago, Ill. Leather belting. No. 86,385; May 7; Gaz. vol. 178; p. 314.
Colonial Leather Company, Chicago, Ill. Leather belting. No. 86,513; May 14; Gaz. vol. 178; p. 587.
Columbia Typewriter Manufacturing Company, The, New York, N. Y. Type-writers and parts thereof. No. 86,574; May 21; Gaz. vol. 178; p. 879.
Columbian Rope Company, Auburn, N. Y. Manila and sisal rope and cordage. No. 86,755; May 28; Gaz. vol. 178; p. 1149.
Columbus Piano Co., The, Columbus, Ohio. Pianos and player-pianos. No. 86,575; May 21; Gaz. vol. 178; p. 879.
Compagnie Fermière de l'Établissement Thermal de Vichy, Paris, France. Natural mineral waters. No. 86,576; May 21; Gaz. vol. 178; p. 879.
Conduit & Cable Manufacturing Company, The, Chelsea, Mass. Conduits for electric wirings. No. 86,386; May 7; Gaz. vol. 178; p. 314.
Consolidated Cotton Duck Company, Baltimore, Md. Certain knitted, netted, and textile fabrics. No. 86,514; May 14; Gaz. vol. 178; p. 587.
Convey, James J., New York, N. Y. Liniment. No. 86,387; May 7; Gaz. vol. 178; p. 314.
Coolidge, T. Jefferson, *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)
Coolidge, T. Jefferson, Jr., *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)
Coonley Manufacturing Company, Clyde, Ill. Certain hardware supplies. No. 86,577; May 21; Gaz. vol. 178; p. 879.
Crossley & Davenport, London, England. Certain kinds of machinery. No. 86,698; May 28; Gaz. vol. 178; p. 1147.
Crowell Fruit Juice Co., The, Belfast, N. Y. Grape and cranberry juices. No. 86,578; May 21; Gaz. vol. 178; p. 879.
Cudahy Packing Company, The, Chicago, Ill. Metal-polish. No. 86,699; May 28; Gaz. vol. 178; p. 1147.
Cyprez Remedy Co. (See Durant, Annie C., assignor.)
D. W. C. Ellis & Co., Inc., Philadelphia, Pa. Linen, cotton, woolen, and silk piece goods. Nos. 86,703–4; May 28; Gaz. vol. 178; p. 1147.
Dana Manufacturing Company, Norwood, Ohio. Ice-cream freezers. No. 86,515; May 14; Gaz. vol. 178; p. 587.
Daniel, Charles A., Philadelphia, Pa. Rubber, hose, belting, packing, &c. No. 86,516; May 14; Gaz. vol. 178; p. 587.
Daniel, Charles A., Philadelphia, Pa. Force-cups, plumbers' friend, and toilet-plunger. No. 86,700; May 28; Gaz. vol. 178; p. 1147.
Dean Electric Company, The, Elyria, Ohio. Electric signaling-horns. No. 86,701; May 28; Gaz. vol. 178; p. 1147.
Dellamano, Antonio, Boston, Mass. Seasoning sauce. No. 86,658; May 21; Gaz. vol. 178; p. 881.
Deming, William L., Salem, Ohio. Toilet-cases. No. 86,389; May 7; Gaz. vol. 178; p. 314.
Dempster & Place Company, The, Gloversville, N. Y. Gloves and mittens. No. 86,517; May 14; Gaz. vol. 178; p. 587.
Dexter, Philip, *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)
Dickey & Dickey, Dinuba, Cal. Fresh grapes, peaches, and oranges. No. 86,680; May 21; Gaz. vol. 178; p. 882.
Dieckerhoff, Raffloer & Co., New York, N. Y. Elastic lisle webbing. No. 86,518; May 14; Gaz. vol. 178; p. 587.
Dieckerhoff, Raffloer & Co., New York, N. Y. Certain fancy goods and notions. No. 86,702; May 28; Gaz. vol. 178; p. 1147.
Dobrowsky, Frank R., Redding, Cal. Jewelry goods for personal wear. No. 86,519; May 14; Gaz. vol. 178; p. 587.
Dolby, Jesse H., Elgin, Ill. Photographic cameras. No. 86,579; May 21; Gaz. vol. 178; p. 879.
Donahue, Edward, Kenosha, Wis. Wood-polish. No. 86,580; May 21; Gaz. vol. 178; p. 879.
Dooley, Smith & Company, New York, N. Y. Canned pears. No. 86,659; May 21; Gaz. vol. 178; p. 881.
Douglas Candy Co., St. Joseph, Mo. Chocolate creams. No. 86,390; May 7; Gaz. vol. 178; p. 314.
Duck, Charles E., Baltimore, Md. Preparation for the skin. No. 86,391; May 7; Gaz. vol. 178; p. 314.
Dumaine, Frederic C., *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)
Durant, Annie C., Cumberland, Me., assignor to Cyprez Remedy Co., New York, N. Y. Remedy for hay-fever and asthma. No. 86,392; May 7; Gaz. vol. 178; p. 314.
Eastman Kodak Company, Rochester, N. Y. Chemical for treating photographs. No. 86,393; May 7; Gaz. vol. 178; p. 314.
Ed Planté, Sucesores Francisco Sabio y Cia., Habana, Cuba. Toilet powders. No. 86,448; May 7; Gaz. vol. 178; p. 315.
Ely & Walker Dry Goods Co., St. Louis, Mo. Work shirts and trousers. No. 86,520; May 14; Gaz. vol. 178; p. 587.
Enterprise Enamel Co., The, Bellaire, Ohio. Enameled metal kitchen-ware. No. 86,581; May 21; Gaz. vol. 178; p. 879.
Eureka Water Heater Co., Chicago, Ill. Hot-water heaters and gas-burners for heating purposes. No. 86,521; May 14; Gaz. vol. 178; p. 587.
Excello Feed Milling Company, St. Joseph, Mo. Stock food. No. 86,394; May 7; Gaz. vol. 178; p. 314.
F. M. Hoyt Shoe Company, Manchester, N. H. Leather boots and shoes. No. 86,532; May 14; Gaz. vol. 178; p. 588.
F. O. Pierce Co., New York, N. Y. Cold-water paint. No. 86,731; May 28; Gaz. vol. 178; p. 1148.
Faber, Firm of A. W., Stein, Germany. Stationery supplies. Nos. 86,522–3; May 14; Gaz. vol. 178; p. 587.
Faber, Firm of A. W., Stein, Germany. Certain stationery supplies. No. 86,582; May 21; Gaz. vol. 178; p. 879.
Faber, Firm of A. W., Stein, Germany. Pencils. No. 86,583; May 21; Gaz. vol. 178; p. 879.
Farbenfabriken of Elberfeld Company, New York, N. Y. Sedative. No. 86,395; May 7; Gaz. vol. 178; p. 314.
Federal Milling Company, Lockport, N. Y. Bread. No. 86,756; May 28; Gaz. vol. 178; p. 1149.
Filsinger-Boette Shoe Co., St. Louis, Mo. Shoes and slippers. No. 86,396; May 7; Gaz. vol. 178; p. 314.
Foerster, Otto H., Milwaukee, Wis. Soaps and cleansing-powders. No. 86,524; May 14; Gaz. vol. 178; p. 587.
Fogg & Hires Company, Salem, N. J. Canned vegetables. No. 86,660; May 21; Gaz. vol. 178; p. 881.
French & Heald Co., Milford, N. H. Dressers, chiffonniers, commodes, &c. No. 86,525; May 14; Gaz. vol. 178; p. 587.
Fresno Home Packing Company, Fresno, Cal. Dried fruits and raisins. No. 86,397; May 7; Gaz. vol. 178; p. 314.
Frieling, Henry von, New York, N. Y. Salves. No. 86,497; May 7; Gaz. vol. 178; p. 317.
Froehlich, Theodore H., New York, N. Y. Toilet powders. No. 86,398; May 7; Gaz. vol. 178; p. 314.
Fuld, Isaac, Baltimore, Md. Toy pool-tables. No. 86,526; May 14; Gaz. vol. 178; p. 587.
G. W. Sammet & Son Co., Boston, Mass. Mattresses and feather pillows. No. 86,461; May 7; Gaz. vol. 178; p. 316.
Galban & Co., Inc., New York, N. Y. Compound of beef-fat and cotton-seed oil. No. 86,757; May 28; Gaz. vol. 178; p. 1149.
Gallagher, Charles E., deceased, St. Louis, Mo.; E. A. Gallagher, executor. Blood remedy. No. 86,765; May 28; Gaz. vol. 178; p. 1149.
Gallagher, Ernest A., executor. (See Gallagher, Charles E.)
Gardner Broom Company, Amsterdam, N. Y. Brooms. No. 86,399; May 7; Gaz. vol. 178; p. 314.
Gardner, George A., *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)
Gas Traction Company, Minneapolis, Minn. Gas traction-engines. No. 86,584; May 21; Gaz. vol. 178; p. 879.
General Electric Company, Schenectady, N. Y. Brushes for dynamo-electric machines. No. 86,705; May 28; Gaz. vol. 178; p. 1147.
General Fireproofing Co., The, Youngstown, Ohio. Filing-cabinets. No. 86,527; May 14; Gaz. vol. 178; p. 587.
Geo. B. Carpenter & Co., Chicago, Ill. Cotton duck. No. 86,380; May 7; Gaz. vol. 178; p. 313.
Geo. L. Vose Mfg. Co., The, Saco, Me., and Providence, R. I. Jewelry. No. 86,646; May 21; Gaz. vol. 178; p. 881.
George A. Whiting Paper Company, Menasha, Wis. Book-paper. No. 86,675; May 21; Gaz. vol. 178; p. 882.
Gerhart, Robert L., Lancaster, Pa. Rice, tea, and coffee. Nos. 86,766–7; May 28; Gaz. vol. 178; p. 1149.
Globe Ear-Phone Company, Boston, Mass. Audiphones. No. 86,400; May 7; Gaz. vol. 178; p. 314.
Golden West Brewing Company, Inc., Oakland, Cal. Beer. No. 86,401; May 7; Gaz. vol. 178; p. 314.
Greer, William A., Passaic, N. J. Cotton piece goods. No. 86,586; May 21; Gaz. vol. 178; p. 879.
Greif Bros. Co., The, Cleveland, Ohio. Casks and barrels. Nos. 86,528–30; May 14; Gaz. vol. 178; p. 587.
Griffin & Skelley Co., San Francisco, Cal. Seeded raisins and sealed fruits. No. 86,661; May 21; Gaz. vol. 178; p. 881.
Grossman, Wm., Milwaukee, Wis. Laundry starch. No. 86,402; May 7; Gaz. vol. 178; p. 314.
H. B. Chalmers Co., Schenectady, N. Y. Varnish and paint removers. No. 86,573; May 21; Gaz. vol. 178; p. 879.
H. W. Johns-Manville Company, New York, N. Y. Piston-packing. No. 86,538; May 14; Gaz. vol. 178; p. 588.
Hammer Lumber Company, Philadelphia, Pa., and Newbern, N. C. Wooden shingles, flooring, and siding-boards. No. 86,403; May 7; Gaz. vol. 178; p. 314.
Hardinge Brothers, Chicago, Ill. Watchmen's clocks. No. 86,587; May 21; Gaz. vol. 178; p. 879.
Hargreaves Merc. Co., Lincoln, Nebr. Certain food. No. 86,404; May 7; Gaz. vol. 178; p. 314.
Harmony Mills, Cohoes, N. Y., and Boston, Mass. Woven cotton bags. No. 86,723; May 28; Gaz. vol. 178; p. 1148.
Hatfield-Bernhard Co. Inc., Seattle, Wash. Varnishes and stains. No. 86,590; May 21; Gaz. vol. 178; p. 879.
Heather Company, New York, N. Y. Certain toilet preparations. No. 86,405; May 7; Gaz. vol. 178; p. 314.
Heller & Co., B., Chicago, Ill. Preparation for improving ice-cream. No. 86,591; May 21; Gaz. vol. 178; p. 879.
Henderson, John G., Charlottesville, Va. Boring-machine for electric-light wiring. No. 86,706; May 28; Gaz. vol. 178; p. 1147.
Hertel, Frederick W., Chicago, Ill. Certain foods. No. 86,662; May 21; Gaz. vol. 178; p. 881.
Herz, Levi, St. Paul, Minn. Self-heating sad-irons. No. 86,406; May 7; Gaz. vol. 178; p. 314.

Hill, Catherine, Camden, N. J. Certain pharmaceutical preparations. No. 86,592; May 21; Gaz. vol. 178; p. 879.
Hires Turner Glass Co., Philadelphia, Pa. Window-glass. No. 86,407; May 7; Gaz. vol. 178; p. 314.
Hoffman & Hoffman, San Francisco, Cal. Washing compounds. No. 86,707; May 28; Gaz. vol. 178; p. 1147.
Hohenadel, John, Philadelphia, Pa. Beer. No. 86,708; May 28; Gaz. vol. 178; p. 1148.
Holzapfels Limited, Newcastle-upon-Tyne, England. Certain kinds of paints. No. 86,408; May 7; Gaz. vol. 178; p. 314.
Hood Rubber Co., Boston, Mass. Rubber boots, shoes, overshoes, &c. No. 86,709; May 28; Gaz. vol. 178; p. 1148.
Hoopes & Townsend Co., Philadelphia, Pa. Rivets. No. 86,758; May 28; Gaz. vol. 178; p. 1149.
Howard, Frank W., New York, N. Y. Syringes. No. 86,593; May 21; Gaz. vol. 178; p. 879.
Humphreys, Cannon & Co., Memphis, Tenn. Coffee-blend. No. 86,595; May 21; Gaz. vol. 178; p. 880.
I. B. Kleinert Rubber Company, New York, N. Y. Dress-shields. No. 86,540; May 14; Gaz. vol. 178; p. 588.
Indian Refining Company, Inc., Augusta, Me., and Cincinnati, Ohio. Lubricating-oils. No. 86,409; May 7; Gaz. vol. 178; p. 314.
Ingenohl, Carl, Antwerp, Belgium, and Manila, Philippine Islands. Cigars and cigarettes. Nos. 86,533–5; May 14; Gaz. vol. 178; p. 588.
International Accessories Manufacturing Company, New York, N. Y. Carbureters. No. 86,710; May 28; Gaz. vol. 178; p. 1148.
Irving Hat Co., New York, N. Y. Hats and caps. No. 86,711; May 28; Gaz. vol. 178; p. 1148.
Isleworth Grove Company, Jacksonville, Fla. Oranges, grape-fruit, and tangerines. No. 86,410; May 7; Gaz. vol. 178; p. 314.
J. C. Blair Company, Huntingdon, Pa. Paper and stationery. No. 86,599; May 14; Gaz. vol. 178; p. 587.
James Spicer & Sons, Limited, London, England. Cooking-paper. No. 86,629; May 21; Gaz. vol. 178; p. 880.
Jefferson, Edward Z., Sewickley, Pa. Certain rubber goods. No. 86,712; May 28; Gaz. vol. 178; p. 1148.
Jenkins Rubber Co., Elizabeth, N. J. Rubber packing, gaskets, disks, &c. No. 86,536; May 14; Gaz. vol. 178; p. 588.
Joachim, Hermann B. G., Paris, France. Gas-lighting apparatus. No. 86,537; May 14; Gaz. vol. 178; p. 588.
John F. Jelke Company, Chicago, Ill. Oleomargarin. No. 86,411; May 7; Gaz. vol. 178; p. 314.
John Hofman Co., Rochester, N. Y. Show-cases, wardrobes, window-backs, &c. No. 86,531; May 14; Gaz. vol. 178; p. 588.
John Rugheimer Sons, Charleston, S. C. Overcoats, coats, waistcoats, and trousers. No. 86,450; May 7; Gaz. vol. 178; p. 316.
Johnson Biscuit Company, Sioux City, Iowa. Candy. No. 86,596; May 21; Gaz. vol. 178; p. 880.
Johnson-Locke Mercantile Co., The, San Francisco, Cal. Canned fruits. No. 86,597; May 21; Gaz. vol. 178; p. 880.
Keystone Steel & Wire Company, Peoria, Ill. Wire, barb-wire, and fence-stretchers. No. 86,598; May 21; Gaz. vol. 178; p. 880.
Keystone Steel & Wire Company, Peoria, Ill. Gates. Nos. 86,714–15; May 28; Gaz. vol. 178; p. 1148.
Keystone Varnish Co., Brooklyn, N. Y. Enamel paint. No. 86,590; May 21; Gaz. vol. 178; p. 880.
Keystone Varnish Co., New York, N. Y. Cement-filler. No. 86,600; May 21; Gaz. vol. 178; p. 880.
Keystone Watch Case Company, Philadelphia, Pa. Watches, watch movements and cases, and parts thereof. No. 86,412; May 7; Gaz. vol. 178; p. 314.
Keystone Watch Case Company, Philadelphia, Pa. Watches, watch cases and movements. No. 86,716; May 28; Gaz. vol. 178; p. 1148.
Klein Manufacturing Company, The, Cleveland, Ohio. Certain construction materials. No. 86,539; May 14; Gaz. vol. 178; p. 588.
Kolberger Anstalten für Exterikultur Wilh. Anhalt G. m. b. H., Ostseebad Kolberg, Germany. Laxatives. No. 86,601; May 21; Gaz. vol. 178; p. 880.
Kopf Nursery & Realty Co., Inc., New Haven, Conn. Fresh pineapples. No. 86,663; May 21; Gaz. vol. 178; p. 881.
Lamb, Thomas, New York, N. Y. Tonic and antipyretic in malarial affections. No. 86,413; May 7; Gaz. vol. 178; p. 314.
Lancaster Mills, Clinton, Mass. Cotton piece and dress goods. No. 86,414; May 7; Gaz. vol. 178; p. 314.
Lanman & Kemp, New York, N. Y. Liniments. No. 86,498; May 7; Gaz. vol. 178; p. 317.
Ledeboer & Van Der Heid, Rotterdam, Netherlands. Wheat-flour. No. 86,664; May 21; Gaz. vol. 178; p. 881.
Lenz, Albert E., Perth Amboy, N. J. Games. No. 86,415; May 7; Gaz. vol. 178; p. 314.
Lester, Francis E., Mesilla Park, N. Mex. Hair-tonic and shampoo preparations. No. 86,416; May 7; Gaz. vol. 178; p. 315.
Lettergraph Company, The, Baltimore, Md. Printing or duplicating machines. No. 86,602; May 21; Gaz. vol. 178; p. 880.
Levinstein, Edgar, Boston, Mass. Oil for stuffing leather. No. 86,717; May 28; Gaz. vol. 178; p. 1148.
Lewis A. Crossett, Inc., Portland, Me., and Boston, Mass. Leather boots and shoes. No. 86,388; May 7; Gaz. vol. 178; p. 314.
Lewis Bear Drug Company, The, Pensacola, Fla. Certain pharmaceutical preparations. No. 86,417; May 7; Gaz. vol. 178; p. 315.
Los Angeles Pure Fruit Co., Batavia, N. Y. Preparation for making orangeade. No. 86,719; May 28; Gaz. vol. 178; p. 1148.
Los Angeles Pure Fruit Co., Batavia, N. Y. Preparation for making lemonade. No. 86,720; May 28; Gaz. vol. 178; p. 1148.
Lynch, Thos. H., near Fresno, Cal. Fresh grapes. No. 86,418; May 7; Gaz. vol. 178; p. 315.
M. M. Johannsen Candy Co., Dubuque, Iowa. Candies. No. 86,759; May 28; Gaz. vol. 178; p. 1149.
Magic Chemical Company, Jersey City, N. J. Insect-destroyer. No. 86,419; May 7; Gaz. vol. 178; p. 315.
Mammoth Spring Milling Company, Mammoth Spring, Ark. Wheat-flour. No. 86,760; May 28; Gaz. vol. 178; p. 1149.
Manoogian, Margos, Philadelphia, Pa. Tooth-powder. No. 86,420; May 7; Gaz. vol. 178; p. 315.
Marechal, Ruchon & Co. Ltd., London, England, and Paris, France. Tobacco-pipes, cigar and cigarette holders. No. 86,421; May 7; Gaz. vol. 178; p. 315.
Marshall & Company, Kearney, N. J. Twine. No. 86,422; May 7; Gaz. vol. 178; p. 315.
Marshall Oil Company of Iowa, Marshalltown, Iowa. Cylinder-oil, cup and axle greases. No. 86,604; May 21; Gaz. vol. 178; p. 880.
Marshalltown Motor Material Mfg. Co., The, Marshalltown, Iowa. Spark-plugs. No. 86,423; May 7; Gaz. vol. 178; p. 315.
Massachusetts Net Company, Boston, Mass. Fishing-nets. No. 86,665; May 21; Gaz. vol. 178; p. 882.
Mathers Brothers, Greenville, Pa. Wheat-flour. No. 86,424; May 7; Gaz. vol. 178; p. 315.
Matienzo-Sainz Company, Newburgh, N. Y. Beverage having a fruity flavor. No. 86,607; May 21; Gaz. vol. 178; p. 880.
McBride, Nast & Co., New York, N. Y. Monthly magazine. No. 86,666; May 21; Gaz. vol. 178; p. 882.
McCusker and Barnes, Annapolis, Md. Indigestion remedy. No. 86,428; May 7; Gaz. vol. 178; p. 315.
McDonald, Marion F., South Lake Weir, Fla. Oranges. No. 86,667; May 21; Gaz. vol. 178; p. 882.
Metropolitan Tobacco Co., New York, N. Y. Tobacco-pipes. No. 86,429; May 7; Gaz. vol. 178; p. 315.
Meyer, Arnold O., Hamburg, Germany. Certain knitted, netted, and textile fabrics. No. 85,541; May 14; Gaz. vol. 178; p. 588.
Meyer, Arnold O., Hamburg, Germany. Certain kinds of cutlery. No. 86,609; May 21; Gaz. vol. 178; p. 880.
Meyer, George von L., *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)
Michelin Tire Company, Clermont-Ferrand, France, and Milltown, N. J. Pneumatic tires for automobiles. No. 86,430; May 7; Gaz. vol. 178; p. 315.
Millers Falls Company, Montague and Millers Falls, Mass. Chucks for holding removable tools. No. 86,431; May 7; Gaz. vol. 178; p. 315.
Monyback Mfg. Company, Incorporated, Hartford, Conn. Carbolized soap paste and hand-soap. No. 86,432; May 7; Gaz. vol. 178; p. 315.
Morrison, Enos M., San Francisco, Cal. Coffee substitute. No. 86,668; May 21; Gaz. vol. 178; p. 881.
Morton, Thomas, New York, N. Y. Sash chains and balances. No. 86,724; May 28; Gaz. vol. 178; p. 1148.
Muralo Company, The, New York, N. Y. Calcimine. No. 86,725; May 28; Gaz. vol. 178; p. 1148.
Mustard & Company, New York, N. Y., and Shanghai, China. Cotton piece goods. No. 86,433; May 7; Gaz. vol. 178; p. 315.
N. Palmer & Co., Bridgeport, Conn. Leather belting. No. 86,547; May 14; Gaz. vol. 178; p. 588.
Naamlooze Vennootschap Lym-En Gelatinefabriek "Delft," Delft, Netherlands. Food gelatin. No. 86,434; May 7; Gaz. vol. 178; p. 315.
National Candy Company, The, Jersey City, N. J., and St. Louis, Mo. Candy. No. 86,435; May 7; Gaz. vol. 178; p. 315.
National Committee of The Confederated Supply Associations, New York, N. Y. Range-boilers. No. 86,542; May 14; Gaz. vol. 178; p. 588.
National Fire Proofing Company, Pittsburgh, Pa. Terra-cotta and clay blocks, bricks, and tiles. No. 86,436; May 7; Gaz. vol. 178; p. 315.
National Sweeper Company, Newark, N. J. Carpet-sweepers. No. 86,726; May 28; Gaz. vol. 178; p. 1148.
National Warehouse and Storage Company, East St. Louis, Ill. Horse feed. No. 86,437; May 7; Gaz. vol. 178; p. 315.
Neel-Armstrong Company, Akron, Ohio. Certain medical appliances. No. 86,438; May 7; Gaz. vol. 178; p. 315.
New Castle Leather Co., New York, N. Y. Kid-leather. No. 86,439; May 7; Gaz. vol. 178; p. 315.
New England Cereal Co., South Norwalk, Conn. Cereal food compound. No. 86,610; May 21; Gaz. vol. 178; p. 880.
New York Air Brake Company, New York, N. Y. Air-brakes and parts thereof. No. 86,543; May 14; Gaz. vol. 178; p. 588.
New York Air Brake Company, New York, N. Y. Air-pumps and parts thereof. No. 86,727; May 28; Gaz. vol. 178; p. 1148.
Newskin Company, Brooklyn, N. Y. Substitute for court-plaster. No. 86,440; May 7; Gaz. vol. 178; p. 315.

Newton Line Company, Homer, N. Y. Certain sporting goods. No. 86,441; May 7; Gaz. vol. 178; p. 315.
North & Judd Manufacturing Company, The, New Britain, Conn. Oxidizing liquid coatings for metal articles. No. 86,728; May 28; Gaz. vol. 178; p. 1148.
Norvell-Shapleigh Hardware Company, St. Louis, Mo. Certain cutlery and tools. No. 86,499; May 7; Gaz. vol. 178; p. 317.
Ogburn, Hill & Co., Winston Salem, N. C. Chewing-tobacco. No. 86,544; May 14; Gaz. vol. 178; p. 588.
Ohio Varnish Company, Cleveland, Ohio. Paints and painters' materials. No. 86,611; May 21; Gaz. vol. 178; p. 880.
Oneida Community, Limited, Oneida, N. Y. Steel traps. No. 86,545; May 14; Gaz. vol. 178; p. 588.
Oppenheimer & Trebitsch Company, New York, N. Y. Magazine. No. 86,546; May 14; Gaz. vol. 178; p. 588.
Oxymel Oil & Paint Coy. Ltd., Melbourne, Victoria, Australia. Anticorrosive paint. No. 86,612; May 21; Gaz. vol. 178; p. 880.
P. Moir Crane & Co., Ltd., Manchester, England. Oils for lubricating or burning. No. 86,697; May 28; Gaz. vol. 178; p. 1147.
Pacific Specialty Company, Portland, Oreg. Washing, cleaning, and scouring preparations. No. 86,442; May 7; Gaz. vol. 178; p. 315.
Parker, Stearns & Company, New York and Brooklyn, N. Y. Rubber bathing-caps. Nos. 86,443–4; May 7; Gaz. vol. 178; p. 315.
Parsons, Theophilus, *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)
Patent Vulcanite Roofing Co., Chicago, Ill. Certain construction materials. No. 86,729; May 28; Gaz. vol. 178; p. 1148.
Paul F. Beich Company, Bloomington, Ill. Chocolate candies. No. 86,374; May 7; Gaz. vol. 178; p. 313.
Paul, John C., Chicago, Ill. Metal-polish. No. 86,613; May 21; Gaz. vol. 178; p. 880.
Paul Rieger & Co., San Francisco, Cal. Perfumes, toilet water, face-cream, &c. No. 86,455; May 7; Gaz. vol. 178; p. 316.
Peerless Rubber Manufacturing Company, New York, N. Y. Rubber or rubber and fabric belting. No. 86,548; May 14; Gaz. vol. 178; p. 588.
Pennsylvania Soap Company, The, Lancaster, Pa. Soap. No. 86,549; May 14; Gaz. vol. 178; p. 588.
Petzold & Mäser, Julius Ambronn, Nachf, Chemnitz, Germany. Button-fasteners for dresses and gloves. No. 86,614; May 21; Gaz. vol. 178; p. 880.
Pfrenger, Jacob, New York, N. Y. Bathing-suits. No. 86,730; May 28; Gaz. vol. 178; p. 1148.
Phoenix-American Pipe Works, Washington, Mo. Tobacco-pipes. No. 86,445; May 7; Gaz. vol. 178; p. 315.
Pinko-Laxin Medicine Co., St. Louis, Mo. Remedy for constipation. No. 86,446; May 7; Gaz. vol. 178; p. 315.
Pittsburgh Manufacturers Sales Co., Pittsburgh, Pa. Polishing-cloths. No. 86,447; May 7; Gaz. vol. 178; p. 315.
Plunkett-Jarrell Grocer Co., Little Rock, Ark. Certain foods. No. 86,761; May 28; Gaz. vol. 178; p. 1149.
Pratt, Wm. E., Chicago, Ill. Hog and pig rings and ringers. No. 86,616; May 21; Gaz. vol. 178; p. 880.
Pyle, Walter L., Philadelphia, Pa. Printed advertising devices. No. 86,550; May 14; Gaz. vol. 178; p. 588.
R. J. Reynolds Tobacco Company, Winston Salem, N. C. Tobacco, cigars, cigarettes, and snuff. No. 86,452; May 7; Gaz. vol. 178; p. 316.
R. M. Kellogg Company, Three Rivers, Mich. Strawberry-plants. No. 86,713; May 28; Gaz. vol. 178; p. 1148.
Rauh, Firm of David, Nuremberg, Germany, and New York, N. Y. Certain raw or partly-prepared materials. No. 86,669; May 21; Gaz. vol. 178; p. 881.
Reckitt & Sons, Ltd., Hull, England. Laundry bluing. No. 86,449; May 7; Gaz. vol. 178; p. 315.
Republic Metalware Company, Buffalo, N. Y. Bread-boxes. No. 86,450; May 7; Gaz. vol. 178; p. 316.
Residori, Albino, Carbon Hill, Ill. Hair-tonic. No. 86,451; May 7; Gaz. vol. 178; p. 316.
Revere Rubber Company, Chelsea, Mass. Belting, hose, machinery packing, and tires. No. 86,551; May 14; Gaz. vol. 178; p. 588.
Rheinische Glashütten - Aktien - Gesellschaft, Cologne-Ehrenfeld, Germany. Glass tubes for water-gages. No. 86,617; May 21; Gaz. vol. 178; p. 880.
Rice Bros. Packing Co., Apalachicola, Fla. Canned oysters. No. 86,453; May 7; Gaz. vol. 178; p. 316.
Richardson Silk Co., Chicago, Ill. Mercerized cotton floss. No. 86,732; May 28; Gaz. vol. 178; p. 1148.
Richmond Lace Works, Portland, Me., and Alton, R. I. Cotton, silk, linen, and mercerized laces. No. 86,454; May 7; Gaz. vol. 178; p. 316.
Robinson Bros. & Company, Incorporated, Portland, Me., and Malden, Mass. Perfumes. No. 86,456; May 7; Gaz. vol. 178; p. 316.
Robinson & Davis, San Antonio, Tex. Medical compound. No. 86,457; May 7; Gaz. vol. 178; p. 316.
Rockwell Furnace Company, New York, N. Y. Oil, coal, and gas furnaces and parts thereof. No. 86,733; May 28; Gaz. vol. 178; p. 1148.
Rolls-Royce Limited, Osmaston, Derby, England. Motor-cars and chassis. No. 86,458; May 7; Gaz. vol. 178; p. 316.
Rowe Ring-Point Company, The, Hartford, Conn. Horse-nails. No. 86,734; May 28; Gaz. vol. 178; p. 1148.
Rose Manufacturing Co., Philadelphia, Pa. Oil and gas lamps, gas generators and burners. No. 86,552; May 14; Gaz. vol. 178; p. 588.
Rosenberg Bros. & Co., San Francisco, Cal. Certain foods. No. 86,619; May 21; Gaz. vol. 178; p. 880.
Rosenberg Bros. & Co., San Francisco, Cal. Certain foods. No. 86,670; May 21; Gaz. vol. 178; p. 882.
Rothschild, Meyers & Co., New York, N. Y. Certain hardware supplies. No. 86,620; May 21; Gaz. vol. 178; p. 880.
Royal Worcester Corset Co., Worcester, Mass. Corset steels or bones. No. 86,621; May 21; Gaz. vol. 178; p. 880.
Rudolph Wurlitzer Co., The, Cincinnati, Ohio. Pianos. No. 86,553; May 14; Gaz. vol. 178; p. 588.
Russell & Proell, Keene, N. H. Insect-catcher. No. 86,554; May 14; Gaz. vol. 178; p. 588.
Rustico, Wheeling, W. Va. Games. No. 86,555; May 14; Gaz. vol. 178; p. 588.
Ruud Manufacturing Company, Pittsburgh, Pa. Water-heaters. No. 86,556; May 14; Gaz. vol. 178; p. 588.
Ryan, Thomas F., Oak Ridge, Va. Milk and cream. No. 86,622; May 21; Gaz. vol. 178; p. 880.
S. Howes Company, The, Silver Creek, N. Y. Cutlery, machinery, and tools, and parts thereof. No. 86,594; May 21; Gaz. vol. 178; p. 879.
Salafia Permanent Embalming Method Co., New York, N. Y. Embalming fluid. No. 86,460; May 7; Gaz. vol. 178; p. 361.
Sanchez & Haya Co., Tampa, Fla. Cigars. Nos. 86,557–8; May 14; Gaz. vol. 178; p. 588.
Sanderson Brothers & Newbould Limited, Sheffield, England. Metals and metal castings and forgings. No. 86,735; May 28; Gaz. vol. 178; p. 1148.
Sandwich Freezer Co., Sandwich, Mass. Frozen fish. No. 86,623; May 21; Gaz. vol. 178; p. 880.
Sass, Stephen K., Chicago, Ill. Salves and balms. No. 86,462; May 7; Gaz. vol. 178; p. 316.
Saville, Somes & Co., Boston, Mass. Certain foods. No. 86,671; May 21; Gaz. vol. 178; p. 882.
Schmidt, Johann, Nuremberg, Germany. Wafer-capsule-closing apparatus. No. 86,736; May 28; Gaz. vol. 178; p. 1148.
Seligman Distillery Company, The, Cincinnati, Ohio. Whisky. No. 86,624; May 21; Gaz. vol. 178; p. 880.
Serv-Us Pure Food Co., Inc., Chicago, Ill. Wheat-flour. No. 86,625; May 21; Gaz. vol. 178; p. 880.
Sheahan, Kohn & Co., Chicago, Ill. Suits and overcoats. No. 86,626; May 21; Gaz. vol. 178; p. 880.
Sherman, George W., Akron, Ohio. Vegetable gums for the manufacture of chewing-gum. No. 86,464; May 7; Gaz. vol. 178; p. 316.
Simplex Electrical Co., The, Boston, Mass. Insulated wire. No. 86,627; May 21; Gaz. vol. 178; p. 880.
Skinner, Lee B., Dunedin, Fla. Oranges, lemons, grapefruit, tangerines, and limes. Nos. 86,466–8; May 7; Gaz. vol. 178; p. 316.
Smith & Egge Mfg. Co., The, Bridgeport, Conn. Sheet-metal chains. No. 86,628; May 21; Gaz. vol. 178; p. 880.
Société Anonyme La Maya Bulgare, Paris, France. Bulgarian curdled milk. No. 86,470; May 7; Gaz. vol 178; p. 316.
Société par actions pour le commerce de thé К и С Popoff Frères Moscou, Moscow, Russia. Tea. No. 86,471; May 7; Gaz. vol. 178; p. 316.
Somers, Harold, Brooklyn, N. Y. Chemical preparation and devices for killing flies. No. 86,472; May 7; Gaz. vol. 178; p. 316.
Southwestern Broom & Warehouse Co., The, Wichita, Kans. Brooms. No. 86,672; May 21; Gaz. vol. 178; p. 882.
Spirella Company, Meadville, Pa. Surgical bandages, surgical, sanitary, and abdominal belts. No. 86,560; May 14; Gaz. vol. 178; p. 588.
St. Paul Show Case Manufacturing Co., St. Paul, Minn. Refrigerators. No. 86,473; May 7; Gaz. vol. 178; p. 316.
Standard Oil Leather Dressing Company, Trenton, N. J. Certain abrasive, detergent, and polishing materials. No. 86,673; May 21; Gaz. vol. 178; p. 882.
Standard Oil Company of Brazil, New York, N. Y. Refined oil. No. 86,737; May 28; Gaz. vol. 178; p. 1148.
Star Rubber Co., The, Akron, Ohio. Certain dental, medical, and surgical appliances. Nos. 86,738–41; May 28; Gaz. vol. 178; p. 1148.
Star Rubber Co., The, Akron, Ohio. Certain dental, medical, and surgical appliances. No. 86,749; May 28; Gaz. vol. 178; p. 1149.
Start-O Company, The, Cleveland, Ohio. Engine-starting device. No. 86,742; May 28; Gaz. vol. 178; p. 1149.
Stewart, Charles A., Somersworth, N. H. Cotton piece goods. No. 86,743; May 28; Gaz. vol. 178; p. 1149.
Stewart & Holmes Drug Company, Seattle, Wash. Tanks for chemical fluids. No. 86,474; May 7; Gaz. vol. 178; p. 316.
Stimpson Scale & Electric Co., The, Northville, Mich. Platform-scales. Nos. 86,631–2; May 21; Gaz. vol. 178; p. 881.
Stoll, Corus D., Kansas City, Mo. Refrigerators. No. 86,561; May 14; Gaz. vol. 178; p. 588.
Stollwerck Brothers, Inc., Stamford, Conn., and New York, N. Y. Chocolates and cocoa. No. 86,633; May 21; Gaz. vol. 178; p. 881.
Stone, Galen L., *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)

Stone Ordean Wells Company, Duluth, Minn. Coffee. No. 86,762; May 28; Gaz. vol. 178; p. 1149.
Sturtevant, Charles V., San Francisco, Cal. Stove-polish. No. 86,745; May 28; Gaz. vol. 178; p. 1149.
Swartley, Harry M., Savannah, Ga. Remedy for kidney and bladder diseases. No. 86,475; May 7; Gaz. vol. 178; p. 316.
Symphony Pub. Co., Pittsburgh, Pa. Monthly periodical. No. 86,634; May 21; Gaz. vol. 178; p. 881.
T. Martin & Bro. Mfg. Co., Chelsea, Mass. Elastic webs. No. 86,606; May 21; Gaz. vol. 178; p. 880.
Tanaka, Genba, Kaijogori, Chiba-Ken, Japan. Sauce (soy). No. 86,674; May 21; Gaz. vol. 178; p. 882.
Texas Company, The, Houston, and Port Arthur, Tex., and New York, N. Y. Kerosene. Nos. 86,635–7; May 21; Gaz. vol. 178; p. 881.
Thomas, Frank G., Mankato, Minn. Medicated plasters. No. 86,476; May 7; Gaz. vol. 178; p. 316.
Thomas G. Plant Company, Montclair, N. J., and Boston, Mass. Shoes. No. 86,615; May 21; Gaz. vol. 178; p. 880.
Thompson, Edwin, Liverpool, England. Electrical massaging appliance. No. 86,477; May 7; Gaz. vol. 178; p. 316.
Thornton & Chester Milling Co., Buffalo, N. Y. Flour. Nos. 86,478–81; May 7; Gaz. vol. 178; p. 316.
Thornton & Chester Milling Co., Buffalo, N. Y. Wheat-flour. No. 86,638; May 21; Gaz. vol. 178; p. 881.
Tidewater Portland Cement Company, The, Union Bridge, Md., and New York, N. Y. Lime and cement. No. 86,562; May 14; Gaz. vol. 178; p. 588.
Tokheim, John J. (See Tokheim Manufacturing Company, assignor.)
Tokheim Manufacturing Company, The, assignor to J. J. Tokheim, Cedar Rapids, Iowa. Liquid measuring and dispensing machines. No. 86,639; May 21; Gaz. vol. 178; p. 881.
Trentman, John W., Cleveland, Ohio. Baking-powder. No. 86,482; May 7; Gaz. vol. 178; p. 316.
Trevaskis, Ella R., St. Louis, Mo. Talcum powder, toilet water, and rouge. No. 86,483; May 7; Gaz. vol. 178; p. 316.
Trommsdorff, Firm of H., Erfurt and Aix-la-Chapelle, Germany. Certain medicinal preparations. No. 86,484; May 7; Gaz. vol. 178; p. 317.
Tubular Woven Fabric Co., Pawtucket, R. I. Electrical conductor-tubes. No. 86,485; May 7; Gaz. vol. 178; p. 317.
U. S. Hame Company, Buffalo, N. Y. Hames. No. 86,640; May 21; Gaz. vol. 178; p. 881.
Union News Company, New York, N. Y. Skin-lotions. No. 86,486; May 7; Gaz. vol. 178; p. 317.
Union Roller Milling Co., Pocahontas, Mo. Self-rising flour. No. 86,641; May 21; Gaz. vol. 178; p. 881.
United Cigar Manufacturers Company, New York, N. Y. Cigars. No. 86,487; May 7; Gaz. vol. 178; p. 317.
United News & Stationery Co., The, Rochester, N. Y. Pens, pencils, writing paper and tablets. No. 86,563; May 14; Gaz. vol. 178; p. 588.
United Safety Razor Company, New York, N. Y. Razors and razor-blades. No. 86,746; May 28; Gaz. vol. 178; p. 1149.
United States Gauge Co., Sellersville, Pa., and New York, N. Y. Certain measuring and scientific appliances. No. 86,747; May 28; Gaz. vol. 178; p. 1149.
Universal Optical Corporation, Providence, R. I. Certain optical supplies. No. 86,642; May 21; Gaz. vol. 178; p. 881.
Van Raalte, E. & Z., New York, N. Y. Veilings. No. 86,488; May 7; Gaz. vol. 178; p. 317.
Vève, Aristide, Paris, France. Dentifrice. No. 86,489; May 7; Gaz. vol. 178; p. 317.
Victor-Balata & Textile Belting Co., Easton, Pa.; New York, N. Y., and Chicago, Ill. Belting composed of duck impregnated with gum. No. 86,643; May 21; Gaz. vol. 178; p. 881.
Visseaux, Jacques, Lyon, France. Incandescent burners and mantles. No. 86,748; May 28; Gaz. vol. 178; p. 1149.
Vlahov, Roberto, Zara, Austria-Hungary. Liqueur. Nos. 86,644–5; May 21; Gaz. vol. 178; p. 881.
Vulcanite, Limited, Laganvale, Belfast, Ireland, and London, England. Certain construction materials. No. 86,763; May 28; Gaz. vol. 178; p. 1149.
W. F. Assau Canning Co., Baltimore, Md. Canned fruits and vegetables. No. 86,764; May 28; Gaz. vol. 178; p. 1149.
W. & J. Sloane, New York, N. Y. Woven grass rugs. No. 86,469; May 7; Gaz. vol. 178; p. 316.
Waclark Titanite Explosive Company, Corry, Pa. Blasting-powder. No. 86,647; May 21; Gaz. vol. 178; p. 881.
Waldes & Cie., Prague - Wrschowitz, Austria - Hungary. Snap-buttons used as garment-fasteners. No. 86,648; May 21; Gaz. vol. 178; p. 881.
Waldman, David P., New York, N. Y. Antiseptics. No. 86,490; May 7; Gaz. vol. 178; p. 317.
Walsh, John E., Washington, D. C. Whisky. No. 86,750; May 28; Gaz. vol. 178; p. 1149.
Welsbach Company, Gloucester City, N. J. Incandescent gas-lamps. No. 86,564; May 14; Gaz. vol. 178; p. 588.
Wertheimer & Cie., E., Paris, France. Perfumes, face paints, and rouges. No. 86,649; May 21; Gaz. vol. 178; p. 881.
West Disinfecting Company, New York, N. Y. Deodorizers and disinfectants. No. 86,650; May 21; Gaz. vol 178; p. 881.
Western Optical Manufacturing Company, St. Louis, Mo. Certain optical supplies. No. 86,651; May 21; Gaz. vol. 178; p. 881.
Wheeling Gum Company, Wheeling, W. Va. Chewing-gum. No. 86,491; May 7; Gaz. vol. 178; p. 317.
Whitinsville Spinning Ring Company, Whitinsville, Mass. Spinning and twister rings. No. 86,751; May 28; Gaz. vol. 178; p. 1149.
Wigglesworth, George, *et al.*, trustees. (See Amoskeag Manufacturing Company, assignor.)
Wile, Sons & Co., Julius, New York, N. Y. Sherry-wine. No. 86,492; May 7; Gaz. vol. 178; p. 317.
Willett, Walter M., San Francisco, Cal. Certain pharmaceutical preparations. No. 86,493; May 7; Gaz. vol. 178; p. 317.
William Link Company, Newark, N. J. Jewelry and precious-metal ware. No. 86,603; May 21; Gaz. vol. 178; p. 880.
William Link Company, Newark, N. J. Jewelry and precious-metal ware. No. 86,718; May 28; Gaz. vol. 178; p. 1148.
Wm. A. Stickney Cigar Co., St. Louis, Mo. Cigars. No. 86,630; May 21; Gaz. vol. 178; p. 881.
Wm. C. Robinson & Son, Co., Baltimore, Md., and Corapolis, Pa. Cylinder-oil. No. 86,618; May 21; Gaz. vol. 178; p. 880.
Wm. R. Gratz Import Co., New York, N. Y. Musical instruments and supplies. No. 86,585; May 21; Gaz. vol. 178; p. 879.
Wolverine Motor Works, Bridgeport, Conn. Internal-combustion engines and clutches. Nos. 86,752–3; May 28; Gaz. vol. 178; p. 1149.
Wood, Dorithy D., Kansas City, Mo. Hair-tonic. No. 86,494; May 7; Gaz. vol. 178; p. 317.
Yetter, Jacob, Jacksonville, Fla. Coats, vests, trousers, &c. No. 86,754; May 28; Gaz. vol. 178; p. 1149.
Ziegler, Edward, Jersey City, N. J. Certain pharmaceutical preparations. No. 86,653; May 21; Gaz. vol. 178; p. 881.
Ziegler, Edward, Jersey City, N. J. Remedies for corns, bunions, and warts. No. 86,654; May 21; Gaz. vol. 178; p. 881.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

A. Silz, Inc., New York, N. Y. "Deer Brand Fancy Sugar Cured Ham." (For Prepared Ham.) No. 16,348; May 28; Gaz. vol. 178; p. 1150.

A. Silz, Inc., New York, N. Y. "Deer Brand Fancy Sugar Cured Bacon." (For Prepared Bacon.) No. 16,349; May 28; Gaz. vol. 178; p. 1150.

Alexander & Co., L. & M., San Francisco, Cal. "Silk Tape." (For Type-Writer Ribbons.) No. 16,359; May 28; Gaz. vol. 178; p. 1150.

Alvarez, Luisa M. I. de, Puerto de Santa Maria, Spain. "Serafin Alvarez." (For Wine.) No. 16,326; May 7; Gaz. vol. 178; p. 318.

Angelus Company, The, Pasadena, Cal. "Aloa Brand." (For Fresh Fruit Flavors.) No. 16,336; May 14; Gaz. vol. 178; p. 589.

Arey, Charles, Washington, D. C. "Old Rosslyn Rye." (For Whisky.) No. 16,341; May 21; Gaz. vol. 178; p. 883.

Cashion, Edward M., Schenectady, N. Y. "Kil-Bug." (For Insect-Powder.) No. 16,321; May 7; Gaz. vol. 178; p. 318.

Columbia Wax Works, New York, N. Y. "No-Stick." (For Ironing-Wax.) Nos. 16,350–1; May 28; Gaz. vol. 178; p. 1150.

Cowan, E. H., Crowell, Tex. "Dr. E. H. Cowan's Ounce of Prevention Powders Successfully used with Dr. E. H. Cowan's Hygienic Outfit." (For Prevention-Powders.) No. 16,352; May 28; Gaz. vol. 178; p. 1150.

Crutchfield & Woolfolk, Pittsburgh, Pa. "Imperial Valley Poppy Brand." (For Melons.) No. 16,342; May 21; Gaz. vol. 178; p. 883.

Dalton, George E. P., West Lynn, Mass. "Oriental Ointment." (For Ointment.) No. 16,353; May 28; Gaz. vol. 178; p. 1150.

Dodge, Walter L., Chicago, Ill. "Tiz For Tender Feet." (For Foot-Bath Tablets.) No. 16,354; May 28; Gaz. vol. 178; p. 1150.

Elkton Lithia Bottling Co., Elkton, Va. "Elk-Lithia Ginger Ale." (For Ginger-Ale.) No. 16,337; May 14; Gaz. vol. 178; p. 589.

Gottmann & Kretchmer, Chicago, Ill. "Surinam Chocolate." (For Chocolate.) No. 16,322; May 7; Gaz. vol. 178; p. 318.

Horse Shoe Grist Mill, Horseshoe, N. Y. "Horse Shoe Grist Mill Cereal Staff of Life." (For Cereal.) No. 16,323; May 7; Gaz. vol. 178; p. 318.

Hunt, Ernest M., Lowell, Mass. "Gleamo." (For Polishing Compound.) No. 16,358; May 28; Gaz. vol. 178; p. 1150.

Jas. H. Forbes Tea & Coffee Co., St. Louis, Mo. "Forbes' Quality." (For Coffee.) No. 16,355; May 28; Gaz. vol. 178; p. 1150.

Jas. H. Forbes Tea & Coffee Co., St. Louis, Mo. "Forbes' Quality." (For Extracts.) No. 16,356; May 28; Gaz. vol. 178; p. 1150.

Jas. H. Forbes Tea & Coffee Co., St. Louis, Mo. "Forbes' Quality." (For Tea.) No. 16,357; May 28; Gaz. vol. 178; p. 1150.

Krolik, Day, Detroit, Mich. "Flag Brand Make Winner Shirt." (For Work-Shirts.) No. 16,324; May 7; Gaz. vol. 178; p. 318.

Krolik, Day, Detroit, Mich. "Flag Brand Make Mascot Shirt." (For Work-Shirts.) No. 16,325; May 7; Gaz. vol. 178; p. 318.

Lenhart Manufacturing Company, Philadelphia, Pa. "Tri-Radiant." (For Acetylene-Gas Burners.) No. 16,360; May 28; Gaz. vol. 178; p. 1150.

Max Glick Co., The, Cleveland, Ohio. "Crispy Fluffs The Shredded Candy." (For Candy.) No. 16,327; May 7; Gaz. vol. 178; p. 318.

Moehle Lithographic Company, The, New York, N. Y. "Havana Style." (For Cigars.) No. 16,328; May 7; Gaz. vol. 178; p. 318.

Moerlbach Brewing Co., Gates, N. Y. "Moerlbach Beer." (For Beer.) No. 16,343; May 21; Gaz. vol. 178; p. 883.

New Orleans Coffee Co., Ltd., New Orleans, La. "French Market." (For Roasted Coffee and Chicory.) No. 16,329; May 7; Gaz. vol. 178; p. 318.

Osborn Paper Company, Marion, Ind. "Golden Rod." (For Tablets.) No. 16,330; May 7; Gaz. vol. 178; p. 318.

Penick & Ford, Ltd., New Orleans, La. "Velva Syrup." (For Sugar-Cane and Corn Syrup.) No. 16,344; May 21; Gaz. vol. 178; p. 883.

Penick & Ford, Ltd., New Orleans, La. "Velva Breakfast Syrup." (For Sugar-Cane Syrup.) No. 16,345; May 21; Gaz. vol. 178; p. 883.

Phoenix Toilet & Paper Manufacturing Company, Phoenix, N. Y. "Japanese Toilet Paper." (For Toilet-Paper.) No. 16,361; May 28; Gaz. vol. 178; p. 1150.

Schmidt & Co., New York, N. Y. "Violeta." (For Cigars.) No. 16,346; May 21; Gaz. vol. 178; p. 883.

Schulze Baking Company, Chicago, Ill. "Schulze." (For Bread.) No. 16,347; May 21; Gaz. vol. 178; p. 883.

Smith-Yingling Co., Westminster, Md. "Mother's Delight." (For Canned Corn.) No. 16,331; May 7; Gaz. vol. 178; p. 318.

Sofferman, Harry, Bangor, Pa. "Bangoria." (For Pockets of Shirts.) No. 16,332; May 7; Gaz. vol. 178; p. 318.

Straight, H. M., Pierre, S. D. "Pepsin and Iron Tablets." (For Tablets.) No. 16,362; May 28; Gaz. vol. 178; p. 1150.

Taylor Provision Co., The, Trenton, N. J. "Taylor's Pork Goodies." (For Pork Product.) No. 16,338; May 14; Gaz. vol. 178; p. 589.

Tuberciecide Co. of Arizona, The, Phoenix, Ariz. "Tuberciecide." (For a Remedy.) No. 16,363; May 28; Gaz. vol. 178; p. 1150.

Ulrici, Charles J., New York, N. Y. "Ulrici's Morrhualta Compound Elixir." (For Pharmaceutical Preparation.) No. 16,333; May 7; Gaz. vol. 178; p. 318.

Van-Thomas Co., The, Los Angeles, Cal. "Van's Pure California Honey." (For Honey.) No. 16,334; May 7; Gaz. vol. 178; p. 318.

Vege-Lene Co., Inc., The, Warsaw, N. Y. "Vege-Lene Brand." (For Vanilla Flavor.) No. 16,339; May 14; Gaz. vol. 178; p. 589.

Watkins, John T., Lansing, Mich. "Coffee Ranch." (For Coffee.) No. 16,335; May 7; Gaz. vol. 178; p. 318.

White Star Chemical Company, Paterson, N. J. "Perfection Leather Dressing." (For Perfection Leather-Dressing.) No. 16,340; May 14; Gaz. vol. 178; p. 589.

Wyndham, Horace, New York, N. Y. "Simplex Three Hand Bridge." (For Score-Card and Bridge-Cloth.) No. 16,364; May 28; Gaz. vol. 178; p. 1150.

PRINTS.

Alabama Georgia Syrup Co., Montgomery, Ala. "Alaga Brand." (For Cane-Syrup.) No. 3,025; May 14; Gaz. vol. 178; p. 589.

Aseptic Products Company, Long Island City, N. Y. "Joy-Walk." (For Corn-Plasters.) No. 3,021; May 7; Gaz. vol. 178; p. 318.

B. V. D. Company, The, New York, N. Y. "Make Fun of the Sun in Easy-Breezy B. V. D." (For Athletic Underwear.) No. 3,034; May 28; Gaz. vol. 178; p. 1150.

B. V. D. Company, The, New York, N. Y. "The Fanless Man Wears B. V. D." (For Athletic Underwear.) No. 3,035; May 28; Gaz. vol. 178; p. 1150.

B. V. D. Company, The, New York, N. Y. "'Go-Aways' and 'Stay-At-Homes.'" (For Athletic Underwear.) No. 3,036; May 28; Gaz. vol. 178; p. 1150.

B. V. D. Company, The, New York, N. Y. "'Bank on' B. V. D." (For Athletic Underwear.) No. 3,037; May 28; Gaz. vol. 178; p. 1150.

B. V. D. Company, The, New York, N. Y. "Afloat or Ashore In Town or Out Wear B. V. D." (For Athletic Underwear.) No. 3,038; May 28; Gaz. vol. 178; p. 1150.

Bacon, C. H., Loudon, Tenn. "Made-wel." (For Hosiery.) No. 3,039; May 28; Gaz. vol. 178; p. 1150.

Burrow, Jones & Dyer Shoe Co., St. Louis, Mo. "The 'Lady Jefferson' Girl." (For Shoes.) No. 3,040; May 28; Gaz. vol. 178; p. 1150.

Cluett, Peabody & Company, Troy, N. Y. "Arrow Collars and Shirts." (For Arrow Collars and Shirts.) No. 3,031; May 21; Gaz. vol. 178; p. 883.

Consolidated Rubber Tire Company, New York, N. Y. "Winners 'Made To Make Good.'" (For Rubber Tires.) No. 3,026; May 14; Gaz. vol. 178; p. 589.

Cream of Wheat Co., Minneapolis, Minn. "Stingy! Stingy! Want It All Do You?" (For Wheat Breakfast Food.) No. 3,027; May 14; Gaz. vol. 178; p. 589.

Fred Wolferman "Good Things to Eat" Co., Kansas City, Mo. "Tiffin Room Coffee." (For Coffee.) No. 3,022; May 7; Gaz. vol. 178; p. 318.

Genseke, Herman, Streator, Ill. "Galaxy." (For Soap.) No. 3,023; May 7; Gaz. vol. 178; p. 318.

H. O. Wilbur & Sons, Inc., Philadelphia, Pa. "The Chocolate Wizard." (For Cocoa and Chocolate.) No. 3,032; May 21; Gaz. vol. 178; p. 883.

I. B. Kleinert Rubber Company, New York, N. Y. "Kleinerts Dress Shields." (For Dress-Shields.) No. 3,041; May 28; Gaz. vol. 178; p. 1150.

Leighton, Joseph, Los Angeles, Cal. "Nonpareil Hair Tonic de Luxe." (For a Hair-Tonic.) No. 3,028; May 14; Gaz. vol. 178; p. 589.

Omaha Sugar Cone Co., Inc., Omaha, Nebr. "Sugaco Pure Food Good to Eat." (For Ice-Cream Cones.) No. 3,029; May 14; Gaz. vol. 178; p. 589.

Pittsburgh-Hickson Company, East Butler, Pa. "Brass Beds Make This Test." (For Brass Beds.) No. 3,024; May 7; Gaz. vol. 178; p. 318.

Ronalds & Johnson Co., Brooklyn, Long Island City, and New York, N. Y.; Philadelphia, Pa.; Camden and Hainesport, N. J. "The Nujet." (For Water-Closets.) No. 3,042; May 28; Gaz. vol. 178; p. 1150.

Sen Sen Chiclet Company, New York, N. Y. "Sen-Sen Chewing Gum." (For Chewing-Gum.) No. 3,033; May 21; Gaz. vol. 178; p. 883.

Van Houten & Zoon, C. J., New York, N. Y. "Van Houten's Cocoa." (For Cocoa.) No. 3,030; May 21; Gaz. vol. 178; p. 883.

DISCLAIMERS.

Hughes, William B., Cleveland, Ohio; disclaimer filed by assignee, Rose Manufacturing Company. Number-plate support for vehicles. No. 962,220; disclaimer filed May 11, 1912; Gaz. vol. 178; p. 597.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF MAY, 1912.

[Abbreviations: "Sp."—Monthly Volume of Specifications; "Gaz."—Official Gazette.]

Abrading or cutting device. J. Hill, Sr. No. 1,027,842; May 28; Sp. p. 6008; Gaz. vol. 178; p. 1043.

Abrading-wheel. R. Gardner. No. 1,027,536; May 28; Sp. p. 5375; Gaz. vol. 178; p. 941.

Account-register. A. F. Staples. No. 1,026,614; May 14; Sp. p. 3332; Gaz. vol. 178; p. 550.

Account-register. A. F. Staples. No. 1,026,615; May 14; Sp. p. 3335; Gaz. vol. 178; p. 550.

Acetylene-generator. J. L. Richardson. No. 1,025,160; May 7; Sp. p. 104; Gaz. vol. 178; p. 19.

Acid, Arylalkylbarbituric. H. Hoerlein. No. 1,025,526; May 7; Sp. p. 945; Gaz. vol. 178; p. 146.

Acid compounds, Manufacturing phosphoric-. F. Giese and W. Wolters. No. 1,025,619; May 7; Sp. p. 1158; Gaz. vol. 178; p. 177.

Acid ester of meta-cresol and manufacture of same, Orthooxalic-. L. Kahl. No. 1,028,074; May 28; Sp. p. 6553; Gaz. vol. 178; p. 1118.

Acid, Phenylethylbarbituric. H. Hoerlein. No. 1,025,872; May 7; Sp. p. 1686; Gaz. vol. 178; p. 263.

Acids and making the same, Chlor-aralkyl-sulfonic. O. Schmidt. No. 1,025,652; May 7; Sp. p. 1223; Gaz. vol. 178; p. 188.

Acids, Producing iron albuminates of organomineral. P. Hoering and O. Kippe. No. 1,025,466; May 7; Sp. p. 801; Gaz. vol. 178; p. 125.

Acids, their glycerids, and other esters into the corresponding saturated compounds, Conversion of unsaturated fatty. F. Bedford and C. E. Williams. No. 1,026,339; May 14; Sp. p. 2759; Gaz. vol. 178; p. 461.

Adding and subtracting machine. J. G. Vincent. No. 1,027,511; May 28; Sp. p. 5320; Gaz. vol. 178; p. 932.

Addressing-machine. S. Elliott. No. 1,025,459; May 7; Sp. p. 781; Gaz. vol. 178; p. 123.

Addressing-machine. W. W. Tuck. No. 1,026,416; May 14; Sp. p. 2933; Gaz. vol. 178; p. 486.

Advertisement-displaying apparatus. J. T. Roffy. No. 1,026,126; May 14; Sp. p. 2293; Gaz. vol. 178; p. 387.

Advertising device. W. C. Cutler and G. I. Leonard. No. 1,026,242; May 14; Sp. p. 2544; Gaz. vol. 178; p. 426.

Advertising device. F. W. Brock. No. 1,027,811; May 28; Sp. p. 5943; Gaz. vol. 178; p. 1031.

Advertising device, Street-car. W. F. Sweet. No. 1,027,780; May 28; Sp. p. 5868; Gaz. vol. 178; p. 1021.

Aerial-navigation apparatus. R. R. and J. Rawle. No. 1,025,306; May 7; Sp. p. 429; Gaz. vol. 178; p. 70.

Aerial propellers, Mounting of. R. J. Isaacson. No. 1,027,252; May 21; Sp. p. 4791; Gaz. vol. 178; p. 807.

Aerial trolley. J. W. and E. C. Fawkes. No. 1,028,010; May 28; Sp. p. 6405; Gaz. vol. 178; p. 1099.

Aeroplane. R. Arnoux. No. 1,025,941; May 7; Sp. p. 1858; Gaz. vol. 178; p. 286.

Aeroplane. V. Breuer. No. 1,026,490; May 14; Sp. p. 3086; Gaz. vol. 178; p. 509.

Aeroplane. T. H., R. F., and J. E. Keppel, Jr. No. 1,026,677; May 21; Sp. p. 3488; Gaz. vol. 178; p. 609.

Aeroplane. J. W. Silver. No. 1,027,572; May 28; Sp. p. 5455; Gaz. vol. 178; p. 954.

Aeroplane. J. A. Williams. No. 1,027,954; May 28; Sp. p. 6284; Gaz. vol. 178; p. 1080.

Aeroplane, Automatically-balancing. M. Mathiesen. No. 1,026,219; May 14; Sp. p. 2502; Gaz. vol. 178; p. 419.

Aeroplane-equilibrator, Automatic. J. C. Ten Eyck. No. 1,025,548; May 7; Sp. p. 993; Gaz. vol. 178; p. 154.

Aeroplane safety device. J. Kenefick. No. 1,025,629; May 7; Sp. p. 1174; Gaz. vol. 178; p. 181.

Agricultural implement. G. T. Bounds. No. 1,026,731; May 21; Sp. p. 3614; Gaz. vol. 178; p. 628.

Air-brake. J. B. Gardner. No. 1,025,801; May 7; Sp. p. 1518; Gaz. vol. 178; p. 240.

Air-brake system. F. E. Patton. No. 1,025,298; May 7; Sp. p. 411; Gaz. vol. 178; p. 67.

Air-compressor. W. R. Thompson. No. 1,026,132; May 14; Sp. p. 2304; Gaz. vol. 178; p. 389.

Air-compressor. A. H. Marcou. No. 1,026,521; May 14; Sp. p. 3153; Gaz. vol. 178; p. 520.

Air-coupling, Automatic. J. Brant. No. 1,027,314; May 21; Sp. p. 4917; Gaz. vol. 178; p. 827.

Air-current-actuated alarm, Automatic. L. Robillot. No. 1,025,310; May 7; Sp. p. 453; Gaz. vol. 178; p. 71.

Air-ejector, Hydraulic. E. E. Cleveland. No. 1,027,321; May 21; Sp. p. 4937; Gaz. vol. 178; p. 830.

Air-gage. J. A. Buttress. No. 1,027,461; May 28; Sp. p. 5221; Gaz. vol. 178; p. 915.

Air-heater. A. Schlueter. No. 1,028,064; May 28; Sp. p. 6521; Gaz. vol. 178; p. 1115.

Air-heating apparatus. A. E. Jones. No. 1,028,073; May 28; Sp. p. 6552; Gaz. vol. 178; p. 1118.

Air or steam joint, Flexible. E. J. Corbett. No. 1,027,694; May 28; Sp. p. 5700; Gaz. vol. 178; p. 993.

Air-tempering device. F. P. Mies. No. 1,027,141; May 21; Sp. p. 4580; Gaz. vol. 178; p. 770.

Air-testing apparatus. R. H. Davis. No. 1,027,823; May 28; Sp. p. 5970; Gaz. vol. 178; p. 1036.

Airship. J. E. Sheriff. No. 1,025,210; May 7; Sp. p. 221; Gaz. vol. 178; p. 37.

Airship. J. T. Long. No. 1,026,959; May 21; Sp. p. 4154; Gaz. vol. 178; p. 708.

Airship. B. C. Cole. No. 1,027,990; May 28; Sp. p. 6365; Gaz. vol. 178; p. 1093.

Airship, Dirigible. E. Bucher. No. 1,027,590; May 28; Sp. p. 5486; Gaz. vol. 178; p. 959.

Airship or the like. F. Rosbory. No. 1,025,539; May 7; Sp. p. 972; Gaz. vol. 178; p. 151.

Alarm: *See* Air-current-actuated alarm; Burglar and fire alarm; Electric alarm; Mail-box electric alarm; Speed-alarm.

Alarm apparatus, High and low water. A. R. Walls. No. 1,027,299; May 21; Sp. p. 4892; Gaz. vol. 178; p. 823.

Alarm for boxes and other receptacles. S. Mundler. No. 1,027,272; May 21; Sp. p. 4829; Gaz. vol. 178; p. 814.

Albuminoid compound, Indurated. B. B. Goldsmith. No. 1,027,121; May 21; Sp. p. 4541; Gaz. vol. 178; p. 763.

Alfalfa-shredding mill. R. F. Pack. No. 1,025,480; May 7; Sp. p. 833; Gaz. vol. 178; p. 130.

Alloy. J. W. Donnell. No. 1,025,131; May 7; Sp. p. 44; Gaz. vol. 178; p. 9.

Amalgamator. C. C. Ellis. No. 1,027,244; May 21; Sp. p. 4779; Gaz. vol. 178; p. 804.

Amplifier. G. W. Pickard. No. 1,027,755; May 28; Sp. p. 5808; Gaz. vol. 178; p. 1012.

Amusement apparatus. W. S. Van Sant and J. R. Banker. No. 1,026,333; May 14; Sp. p. 2746; Gaz. vol. 178; p. 459.

Amusement apparatus. H. N. Ridgway. No. 1,027,437; May 28; Sp. p. 5181; Gaz. vol. 178; p. 908.

Anchor. W. Marshall and N. Simison. No. 1,026,402; May 14; Sp. p. 2901; Gaz. vol. 178; p. 481.

Angle-plate, Universal. F. E. Seddon. No. 1,026,932; May 21; Sp. p. 4063; Gaz. vol. 178; p. 697.

Animal-trap. R. C. Eldridge and J. Willers. No. 1,025,564; May 7; Sp. p. 1033; Gaz. vol. 178; p. 159.

Animal-trap. R. C. and H. M. Eldridge. No. 1,026,305; May 14; Sp. p. 2678; Gaz. vol. 178; p. 448.

Animal-trap. M. Klobusiak. No. 1,027,854; May 28; Sp. p. 6077; Gaz. vol. 178; p. 1047.

Ankle-supporter. A. Quenzer. No. 1,027,897; May 28; Sp. p. 6194; Gaz. vol. 178; p. 1062.

Annealing-furnace. H. Gürtner. No. 1,027,471; May 28; Sp. p. 5239; Gaz. vol. 178; p. 919.

Annunciator apparatus. M. B. Mills. No. 1,027,749; May 28; Sp. p. 5798; Gaz. vol. 178; p. 1010.

Annunciator or indicator. W. S. Woodruff. No. 1,026,779; May 21; Sp. p. 3719; Gaz. vol. 178; p. 644.

Anthracene compounds and making same. J. H. Boner and O. Bally. No. 1,026,557; May 14; Sp. p. 3214; Gaz. vol. 178; p. 531.

Anti-rail-creeper. O. K. Ramstead. No. 1,025,303; May 7; Sp. p. 422; Gaz. vol. 178; p. 69.

Antiskid device. L. S. Thompson. No. 1,027,450; May 28; Sp. p. 5201; Gaz. vol. 178; p. 912.

Antiskidding device for vehicles. M. J. Rohr. No. 1,026,224; May 14; Sp. p. 2508; Gaz. vol. 178; p. 420.

Anvils, Hardy attachment for. C. C. and M. Gray. No. 1,028,016; May 28; Sp. p. 6414; Gaz. vol. 178; p. 1100.

Arch-plate. F. B. Bigelow. No. 1,026,645; May 14; Sp. p. 3410; Gaz. vol. 178; p. 561.

Arseno compounds and making same. R. Kahn. No. 1,026,094; May 14; Sp. p. 2227; Gaz. vol. 178; p. 376.

Asbestos from the rock, Machine for separating. J. E. Werner. No. 1,027,163; May 21; Sp. p. 4620; Gaz. vol. 178; p. 776.

Ash-conveyer, Sidewalk endless. A. Sundh. No. 1,025,168; May 7; Sp. p. 128; Gaz. vol. 178; p. 22.
Assembling-machine. O. Ashton. No. 1,026,940; May 21; Sp. p. 4110; Gaz. vol. 178; p. 701.
Atomizer for liquid-fuel motors. J. Lefnaive. No. 1,027,054; May 21; Sp. p. 4366; Gaz. vol. 178; p. 740.
Attaching device. H. J. Potter. No. 1,027,431; May 28; Sp. p. 5171; Gaz. vol. 178; p. 906.
Audiphone-transmitter. C. E. Williams. No. 1,026,231; May 14; Sp. p. 2524; Gaz. vol. 178; p. 422.
Auger point, Well-. G. A. Estel. No. 1,025,967; May 14; Sp. p. 1917; Gaz. vol. 178; p. 330.
Auto cranking device. F. H. Waddill and R. D. Fonda. No. 1,026,534; May 14; Sp. p. 3173; Gaz. vol. 178; p. 524.
Auto or gas engine starter and indicator. G. E. Ocain. No. 1,025,762; May 7; Sp. p. 1443; Gaz. vol. 178; p. 226.
Autos, Revolving lamp-support for. J. B. Eastes. No. 1,025,966; May 14; Sp. p. 1916; Gaz. vol. 178; p. 330.
Automobile-controller. O. Euler. No. 1,025,387; May 7; Sp. p. 627; Gaz. vol. 178; p. 98.
Automobile-cranks, Locking device for. C. A. Wheeler. No. 1,026,189; May 14; Sp. p. 2420; Gaz. vol. 178; p. 407.
Automobile-engine-starting mechanism. E. L. Weaver and E. C. Kimmel. No. 1,025,496; May 7; Sp. p. 873; Gaz. vol. 178; p. 136.
Automobile-fender. J. Hadka. No. 1,026,981; May 21; Sp. p. 4186; Gaz. vol. 178; p. 715.
Automobile-fender. J. K. Bond. No. 1,027,808; May 28; Sp. p. 5932; Gaz. vol. 178; p. 1030.
Automobile-indicator. J. Hoaker and W. I. Banks. No. 1,025,398; May 7; Sp. p. 649; Gaz. vol. 178; p. 101.
Automobile safety attachment. T. B. Jeffery. No. 1,026,168; May 14; Sp. p. 2375; Gaz. vol. 178; p. 400.
Automobile steering-rod, Universal-jointed. J. H. Stull. No. 1,025,215; May 7; Sp. p. 232; Gaz. vol. 178; p. 39.
Automobile transmission mechanism. O. B. Hitchcock, A. M. and F. M. Berggren. No. 1,025,804; May 7; Sp. p. 1525; Gaz. vol. 178; p. 241.
Automobile wheel construction. O. Zachow. No. 1,028,082; May 28; Sp. p. 6571; Gaz. vol. 178; p. 1121.
Automobiles, Amusement device for exhibiting. H. L. Curran. No. 1,025,456; May 7; Sp. p. 778; Gaz. vol. 178; p. 122.
Automobiles, Detachable limousine-top for. O. N. McCallister. No. 1,026,358; May 14; Sp. p. 2814; Gaz. vol. 178; p. 466.
Automobiles, Differential gear for. R. I. Fancher. No. 1,028,009; May 28; Sp. p. 6403; Gaz. vol. 178; p. 1098.
Aviator-protector. F. Rilleau. No. 1,027,764; May 28; Sp. p. 5832; Gaz. vol. 178; p. 1015.
Awning, Receding. S. C. MacDowney. No. 1,026,045; May 14; Sp. p. 2087; Gaz. vol. 178; p. 357.
Bag: *See* Clothes-pin bag; Feed-bag; Mail-bag; Paper bag.
Bag-catch. K. Oswald and C. Flax. No. 1,026,173; May 14; Sp. p. 2381; Gaz. vol. 178; p. 402.
Bag clasp, Shoulder-. C. B. Davis. No. 1,027,527; May 28; Sp. p. 5352; Gaz. vol. 178; p. 937.
Bag-cleaning machine. N. E. Gardner. No. 1,028,014; May 28; Sp. p. 6412; Gaz. vol. 178; p. 1100.
Bag-filling machine. J. Broussard. No. 1,025,781; May 7; Sp. p. 1474; Gaz. vol. 178; p. 233.
Bag-frame. C. Hlering and A. Fuller. No. 1,027,387; May 21; Sp. p. 5074; Gaz. vol. 178; p. 853.
Bag-holder. R. E. Gipple. No. 1,025,974; May 14; Sp. p. 1927; Gaz. vol. 178; p. 332.
Bag-holder. A. Dahlstrom. No. 1,027,464; May 28; Sp. p. 5226; Gaz. vol. 178; p. 916.
Bag-jaw fastener. R. L. Prahar. No. 1,025,157; May 7; Sp. p. 97; Gaz. vol. 178; p. 18.
Bail, Pot and kettle. W. Johnson. No. 1,026,093; May 14; Sp. p. 2225; Gaz. vol. 178; p. 373.
Bait holder, Live-. A. R. Gibson. No. 1,025,695; May 7; Sp. p. 1300; Gaz. vol. 178; p. 202.
Baker's drip-pan. C. Fulde. No. 1,025,971; May 14; Sp. p. 1923; Gaz. vol. 178; p. 331.
Baker's peel. F. A. Hanel. No. 1,026,034; May 14; Sp. p. 2069; Gaz. vol. 178; p. 354.
Baler. B. T. Brown. No. 1,027,393; May 21; Sp. p. 5085; Gaz. vol. 178; p. 855.
Baling-press. A. Wickey. No. 1,025,665; May 7; Sp. p. 1245; Gaz. vol. 178; p. 192.
Baling-press. J. A. Sharp and R. B. Johnston. No. 1,027,360; May 21; Sp. p. 5008; Gaz. vol. 178; p. 844.
Baling-presses, Feeder for. N. W. Young. No. 1,027,966; May 28; Sp. p. 6314; Gaz. vol. 178; p. 1084.
Ball: *See* Bowling-ball.
Ball curver, Base-. R. W. Jones. No. 1,025,748; May 7; Sp. p. 1413; Gaz. vol. 178; p. 221.
Balloon, Dirigible. A. M. Waxler. No. 1,025,662; May 7; Sp. p. 1237; Gaz. vol. 178; p. 191.
Bar: *See* Boring-bar; Draw-bar; Furnace fire-bar; Mining-machine bar; Pneumatic-player tracker-bar.
Barber's chair. J. H. Wertz and F. Pomernacki. No. 1,027,364; May 21; Sp. p. 5020; Gaz. vol. 178; p. 846.
Barge, Combination deep-water-vessel-carrying. W. H. Curtis. No. 1,025,514; May 7; Sp. p. 904; Gaz. vol. 178; p. 142.
Barrel-cover. A. F. Naylor. No. 1,028,057; May 28; Sp. p. 6505; Gaz. vol. 178; p. 1113.
Barrel, Metallic. J. H. George. (Reissue.) No. 13,414; May 7; Sp. p. 1895; Gaz. vol. 178; p. 291.
Barrel-partition. R. P. Brown. No. 1,025,507; May 7; Sp. p. 894; Gaz. vol. 178; p. 139.
Barrette. M. L. Pritzkow. No. 1,027,668; May 28; Sp. p. 5642; Gaz. vol. 178; p. 984.
Base-heater. F. K. Learned. No. 1,026,323; May 14; Sp. p. 2722; Gaz. vol. 178; p. 455.
Base-plate. F. S. Parrigin. No. 1,026,962; May 21; Sp. p. 4159; Gaz. vol. 178; p. 709.
Basket, Collapsible wire. L. Poppert. No. 1,027,215; May 21; Sp. p. 4725; Gaz. vol. 178; p. 794.
Bat. H. Matson. No. 1,026,990; May 21; Sp. p. 4204; Gaz. vol. 178; p. 718.
Bat, Base-ball. J. A. Murphy. No. 1,025,478; May 7; Sp. p. 830; Gaz. vol. 178; p. 130.
Bath or basin fitting. P. Mueller. No. 1,026,632; May 14; Sp. p. 3375; Gaz. vol. 178; p. 556.
Bath-tub supply and waste. D. C. Charmois. No. 1,025,683; May 7; Sp. p. 1276; Gaz. vol. 178; p. 198.
Bathing-machine. T. J. Donovan. No. 1,025,612; May 7; Sp. p. 1127; Gaz. vol. 178; p. 175.
Bathometer. F. H. C. Heyn. No. 1,026,441; May 14; Sp. p. 2980; Gaz. vol. 178; p. 493.
Batteries, Hydrometer for storage. E. W. Smith. No. 1,025,543; May 7; Sp. p. 983; Gaz. vol. 178; p. 152.
Battery: *See* Waterproof battery.
Battery cover, Electric-. H. J. Brewer. No. 1,026,847; May 21; Sp. p. 3865; Gaz. vol. 178; p. 667.
Bearing. H. E. Coffin. No. 1,026,849; May 21; Sp. p. 3868; Gaz. vol. 178; p. 668.
Bearing, Antifriction-. H. Hess. No. 1,027,541; May 28; Sp. p. 5381; Gaz. vol. 178; p. 943.
Bearing, Antifriction-. H. Hess. No. 1,027,542; May 28; Sp. p. 5383; Gaz. vol. 178; p. 943.
Bearing, Ball-. S. Schenider. No. 1,026,463; May 14; Sp. p. 3035; Gaz. vol. 178; p. 500.
Bearing, Ball-. A. Riebe. No. 1,027,902; May 28; Sp. p. 6203; Gaz. vol. 178; p. 1064.
Bearing, Ball-and-socket. A. G. J. Rapp. No. 1,025,304; May 7; Sp. p. 423; Gaz. vol. 178; p. 69.
Bearing cage, Roller-. A. Hirth. No. 1,026,584; May 14; Sp. p. 3265; Gaz. vol. 178; p. 540.
Bearing, Connecting-rod. A. T. Sturt. No. 1,027,293; May 21; Sp. p. 4881; Gaz. vol. 178; p. 821.
Bearings, Ball-cage for ball-. H. Kapper. No. 1,026,749; May 21; Sp. p. 3644; Gaz. vol. 178; p. 634.
Bed attachment. F. H. Crane. No. 1,026,149; May 14; Sp. p. 2335; Gaz. vol. 178; p. 395.
Bed-bottom support. W. J. Grotenhuis. No. 1,026,031; May 14; Sp. p. 2061; Gaz. vol. 178; p. 353.
Bed, Couch-. G. F. Sisbower. No. 1,027,007; May 21; Sp. p. 4248; Gaz. vol. 178; p. 724.
Bed, Invalid-. F. Miller. No. 1,027,879; May 28; Sp. p. 6145; Gaz. vol. 178; p. 1055.
Bed, Sofa-. M. Clune. No. 1,027,183; May 21; Sp. p. 4655; Gaz. vol. 178; p. 782.
Bed, Spring-. A. Bellefeuille. No. 1,027,170; May 21; Sp. p. 4631; Gaz. vol. 178; p. 777.
Bedstead. J. A. Wilson. No. 1,026,016; May 14; Sp. p. 2012; Gaz. vol. 178; p. 347.
Bedstead. E. Fischbach. No. 1,027,829; May 28; Sp. p. 5989; Gaz. vol. 178; p. 1039.
Beet-topper. F. Lotter. No. 1,025,755; May 7; Sp. p. 1429; Gaz. vol. 178; p. 224.
Beet-topper. F. Briggs. No. 1,027,399; May 28; Sp. p. 5104; Gaz. vol. 178; p. 896.
Beet-topping machine. C. W. Franklin. No. 1,025,693; May 7; Sp. p. 1297; Gaz. vol. 178; p. 202.
Belt, Identification-. W. S. Douglass. No. 1,025,520; May 7; Sp. p. 925; Gaz. vol. 178; p. 144.
Belts, Anchor for safety-. W. A. Cherry, Jr. No. 1,026,562; May 14; Sp. p. 3222; Gaz. vol. 178; p. 532.
Bending appliance. J. W. Johnson, W. A. Baueris, P. J. Jensen, and W. D. Lawshe. No. 1,026,916; May 21; Sp. p. 4030; Gaz. vol. 178; p. 691.
Beverage. J. Hölldampf. No. 1,027,336; May 21; Sp. p. 4958; Gaz. vol. 178; p. 835.
Beverage-dispensing machine. C. E. Tomlinson. No. 1,026,635; May 14; Sp. p. 3381; Gaz. vol. 178; p. 557.
Bicycle spring-fork. O. A. Eckre. No. 1,027,599; May 28; Sp. p. 5502; Gaz. vol. 178; p. 962.
Bill-fold. H. J. Collis. No. 1,026,787; May 21; Sp. p. 3737; Gaz. vol. 178; p. 647.
Billiard and pool table leveling device. J. F. Meyer and G. Leppenat. No. 1,025,707; May 7; Sp. p. 1324; Gaz. vol. 178; p. 206.
Bin. E. J. Walker. No. 1,027,945; May 28; Sp. p. 6271; Gaz. vol. 178; p. 1077.
Binder, Loose-leaf. C. D. Trussell. No. 1,025,170; May 7; Sp. p. 131; Gaz. vol. 178; p. 23.
Binder, Loose-leaf. S. H. Stein. No. 1,027,085; May 21; Sp. p. 4460; Gaz. vol. 178; p. 752.
Binder, Loose-leaf. E. E. Buchan. No. 1,027,523; May 28; Sp. p. 5344; Gaz. vol. 178; p. 936.
Binder or loose-sheet holder, Temporary. G. P. Wigginton and F. W. Hodges. No. 1,027,093; May 21; Sp. p. 4476; Gaz. vol. 178; p. 755.
Binder, Temporary. J. A. Mudd. No. 1,026,277; May 14; Sp. p. 2611; Gaz. vol. 178; p. 438.
Binding and folding machine. R. C. Seymour. No. 1,026,487; May 7; Sp. p. 854; Gaz. vol. 178; p. 133.
Binding-clip. N. Sitt. No. 1,027,080; May 21; Sp. p. 4446; Gaz. vol. 178; p. 750.
Binding device, Paper-sheet-. C. Thiem. No. 1,026,006; May 14; Sp. p. 1997; Gaz. vol. 178; p. 344.
Bit: *See* Drill-bit.

Blackboard. E. L. Kraus. No. 1,026,809; May 21; Sp. p. 3780; Gaz. vol. 178; p. 654.
Blacking-machine. F. M. Furber. No. 1,025,523; May 7; Sp. p. 932; Gaz. vol. 178; p. 145.
Blade-mounting. W. A. Bole. No. 1,026,651; May 21; Sp. p. 3441; Gaz. vol. 178; p. 600.
Blade-securing means. W. B. Flanders. No. 1,026,087; May 14; Sp. p. 2213; Gaz. vol. 178; p. 373.
Blade-tie. C. E. Sweet. No. 1,026,719; May 21; Sp. p. 3580; Gaz. vol. 178; p. 624.
Bleaching apparatus. E. Herzog. No. 1,026,583; May 14; Sp. p. 3263; Gaz. vol. 178; p. 539.
Bleaching straw. P. E. Wickham. No. 1,027,953; May 28; Sp. p. 6283; Gaz. vol. 178; p. 1080.
Block: *See* Building-block; Wire-drawing block.
Block-signal system. L. A. Hawkins. No. 1,027,046; May 21; Sp. p. 4346; Gaz. vol. 178; p. 787.
Blower, Boiler-. L. Sprenger. No. 1,026,060; May 14; Sp. p. 2132; Gaz. vol. 178; p. 362.
Board: *See* Cooling-board; Game-board; Ironing-board; Panel-board.
Boat. W. H. Williams. No. 1,026,336; May 14; Sp. p. 2754; Gaz. vol. 178; p. 460.
Boat attachment, Life-. A. E. Wickman. No. 1,026,137; May 14; Sp. p. 2311; Gaz. vol. 178; p. 390.
Boat hoisting and lowering device, Life-. A. P. Lundin. No. 1,025,818; May 7; Sp. p. 1555; Gaz. vol. 178; p. 246.
Boat-releasing appliance, Life-. D. Senacol. No. 1,026,469; May 14; Sp. p. 3043; Gaz. vol. 178; p. 502.
Bobbin-holder. A. E. Rhoades. No. 1,026,603; May 14; Sp. p. 3302; Gaz. vol. 178; p. 546.
Boiler: *See* Meat-boiler; Water-tube boiler.
Boiler. F. Guay. No. 1,026,800; May 21; Sp. p. 3765; Gaz. vol. 178; p. 651.
Boiler-cleaner. A. V. Bayer. No. 1,026,141; May 14; Sp. p. 2319; Gaz. vol. 178; p. 392.
Boiler-cleaner. L. J. Bayer. No. 1,028,083; May 28; Sp. p. 6573; Gaz. vol. 178; p. 1121.
Boiler fuel and water regulator, Steam-. R. Miehle. No. 1,026,761; May 21; Sp. p. 3675; Gaz. vol. 178; p. 638.
Boiler furnace, Steam-. H. A. Poppenhusen and J. Harrington. No. 1,027,667; May 28; Sp. p. 5639; Gaz. vol. 178; p. 984.
Boiler-gage connection. A. V. Williams. No. 1,025,354; May 7; Sp. p. 551; Gaz. vol. 178; p. 86.
Boiler-head cap-seats, Tool for cleaning. W. T. Hogarth and D. K. Deal. No. 1,026,442; May 14; Sp. p. 2981; Gaz. vol. 178; p. 494.
Boiler-regulator. C. C. Worthington. No. 1,026,190; May 14; Sp. p. 2421; Gaz. vol. 178; p. 407.
Boiler stay-bolt construction, Steam-. J. H. McCloy and A. M. Brown. No. 1,025,706; May 7; Sp. p. 1322; Gaz. vol. 178; p. 206.
Boiler, superheater, and like tubes, Apparatus for sealing and cleaning steam-. A. B. Kendal and J. A. Collinson. No. 1,028,075; May 28; Sp. p. 6555; Gaz. vol. 178; p. 1118.
Boilers and other containers, Section for. G. R. Henderson. No. 1,025,697; May 7; Sp. p. 1304; Gaz. vol. 178; p. 203.
Boilers, Dead-plate for. J. W. Chambers. No. 1,025,368; May 7; Sp. p. 588; Gaz. vol. 178; p. 91.
Boilers, &c., Machine for forming lugs for. W. Horsley. No. 1,027,480; May 28; Sp. p. 5255; Gaz. vol. 178; p. 922.
Boilers, Manufacture of steam-. H. H. Tracy and H. E. Boyrie. No. 1,025,337; May 7; Sp. p. 510; Gaz. vol. 178; p. 80.
Boilers, Pressure-regulator for. J. F. Hey. No. 1,025,954; May 7; Sp. p. 1890; Gaz. vol. 178; p. 290.
Boiling apparatus, Water-. R. Mackay. No. 1,026,592; May 14; Sp. p. 3280; Gaz vol. 178; p. 542.
Bolt: *See* Door-bolt.
Bolt-anchor. J. Kennedy. No. 1,025,275; May 7; Sp. p. 359; Gaz. vol. 178; p. 59.
Book for deliberative bodies, Minute-. H. Doebler. No. 1,028,085; May 28; Sp. p. 6578; Gaz. vol. 178; p. 1122.
Book-holder. J. S. Maxwell. No. 1,026,523; May 14; Sp. p. 3155; Gaz. vol. 178; p. 521.
Book-lock. H. D. Snyder. No. 1,025,724; May 7; Sp. p. 1368; Gaz. vol. 178; p. 213.
Book, Loose-leaf. F. E. Housh. No. 1,025,468; May 7; Sp. p. 810; Gaz. vol. 178; p. 126.
Book, Manifold sales-. L. G. Whitney. No. 1,026,289; May 14; Sp. p. 2640; Gaz. vol. 178; p. 442.
Book, Mileage-. M. E. Sparks. No. 1,025,595; May 7; Sp. p. 1096; Gaz. vol. 178; p. 170.
Book-remover. M. A. McQuillan. No. 1,025,415; May 7; Sp. p. 677; Gaz. vol. 178; p. 107.
Books, papers, &c., Adjustable support for. C. T. Hard. No. 1,026,506; May 14; Sp. p. 3120; Gaz. vol. 178; p. 515.
Boot and shoe finishing machine. W. Jackson and H. N. Pochin. No. 1,026,954; May 21; Sp. p. 4140; Gaz. vol. 178; p. 706.
Boot and shoe sole edges, Machine for operating on. J. B. Hadaway. No. 1,026,032; May 14; Sp. p. 2062; Gaz. vol. 178; p. 353.
Boot and shoe sole edges, Machine for operating on. J. B. Hadaway and J. V. Allen. No. 1,026,033; May 14; Sp. p. 2064; Gaz. vol. 178; p. 354.
Boot and shoe uppers, Machine for forming. K. Engel. No. 1,027,408; May 28; Sp. p. 5119; Gaz. vol. 178; p. 899.
Boot or shoe sole-edge protector. T. G. Plant. No. 1,026,048; May 14; Sp. p. 2108; Gaz. vol. 178; p. 358.
Boring-bar. J. G. Lugenbill. No. 1,027,554; May 28; Sp. p. 5404; Gaz. vol. 178; p. 947.
Bottle, Antirefillable. G. H. Koehler and J. E. Horn. No. 1,025,577; May 7; Sp. p. 1065; Gaz. vol. 178; p. 164.
Bottle-box, Metal-bound. E. E. Flora. No. 1,027,040; May 21; Sp. p. 4336; Gaz. vol. 178; p. 735.
Bottle cap or closure, Milk and other. E. D. Schmitt. No. 1,026,282; May 14; Sp. p. 2624; Gaz. vol. 178; p. 439.
Bottle cap or seal. C. Hammer. No. 1,027,330; May 21; Sp. p. 4950; Gaz. vol. 178; p. 838.
Bottle-capping machine. T. J. Levey. No. 1,027,263; May 21; Sp. p. 4806; Gaz. vol. 178; p. 811.
Bottle-carrier. J. W. Cope. No. 1,026,788; May 21; Sp. p. 3739; Gaz. vol. 178; p. 647.
Bottle carrying and holding case. L. P. Hasen. No. 1,027,049; May 21; Sp. p. 4352; Gaz. vol. 178; p. 739.
Bottle-closure. G. G. Loehler. No. 1,028,040; May 28; Sp. p. 6478; Gaz. vol. 178; p. 1108.
Bottle-filling machine. G. Rowohlt and O. Gieseke. No. 1,025,649; May 7; Sp. p. 1215; Gaz. vol. 178; p. 187.
Bottle for infants, Water-. M. L. Rusk. No. 1,026,460; May 14; Sp. p. 3029; Gaz. vol. 178; p. 499.
Bottle-holders and other frames, Metallic-weave construction for. J. F. Schoeppl. No. 1,027,358; May 21; Sp. p. 5002; Gaz. vol. 178; p. 843.
Bottle, jar, &c., holder, Safety. G. F. Barr. No. 1,026,485; May 14; Sp. p. 3078; Gaz. vol. 178; p. 507.
Bottle, Non-refillable. H. Marcus. No. 1,025,757; May 7; Sp. p. 1434; Gaz. vol. 178; p. 225.
Bottle, Non-refillable. B. Gilowitz. No. 1,025,802; May 7; Sp. p. 1520; Gaz. vol. 178; p. 240.
Bottle, Non-refillable. R. A. Black. No. 1,025,855; May 7; Sp. p. 1629; Gaz. vol. 178; p. 258.
Bottle, Non-refillable. G. W. Riley. No. 1,027,003; May 21; Sp. p. 4239; Gaz. vol. 178; p. 722.
Bottle, Non-refillable. J. Cappio. No. 1,027,319; May 21; Sp. p. 4930; Gaz. vol. 178; p. 828.
Bottle, Non-refillable. N. J. Fortunesco. No. 1,027,413; May 28; Sp. p. 5134; Gaz. vol. 178; p. 900.
Bottle, Non-refillable. J. C. Bayer. No. 1,027,583; May 28; Sp. p. 5476; Gaz. vol. 178; p. 957.
Bottle, Non-refillable. J. Wolfinger. No. 1,027,787; May 28; Sp. p. 5878; Gaz. vol. 178; p. 1023.
Bottle, Non-refillable. J. R. Mullin. No. 1,028,077; May 28; Sp. p. 6557; Gaz. vol. 178; p. 1119.
Bottle or jar closure. H. R. Corey. No. 1,025,375; May 7; Sp. p. 602; Gaz. vol. 178; p. 93.
Bottle pitcher attachment, Milk-. E. H. Jungclas. No. 1,027,421; May 28; Sp. p. 5147; Gaz. vol. 178; p. 903.
Bottle-retainer. H. E. Hilzson. No. 1,026,984; May 21; Sp. p. 4194; Gaz. vol. 178; p. 716.
Bottle-stopper. J. S. Porter. No. 1,026,963; May 21; Sp. p. 4160; Gaz. vol. 178; p. 709.
Bottle-stopper. W. A. Eckert. No. 1,027,112; May 21; Sp. p. 4517; Gaz. vol. 178; p. 760.
Bottle-stopper. W. Fuhr. No. 1,027,195; May 21; Sp. p. 4680; Gaz. vol. 178; p. 787.
Bottle-stoppering. P. J. Knight. No. 1,025,811; May 7; Sp. p. 1537; Gaz. vol. 178; p. 243.
Bottles, Tin-foil cap for champagne and other. G. Robinet. No. 1,025,647; May 7; Sp. p. 1210; Gaz. vol. 178; p. 186.
Bowling-alley. J. P. Keenan. No. 1,025,808; May 7; Sp. p. 1532; Gaz. vol. 178; p. 242.
Bowling-alley. L. D. Haskell. No. 1,026,949; May 21; Sp. p. 4131; Gaz. vol. 178; p. 704.
Bowling-ball. F. N. Bendelari. No. 1,026,069; May 14; Sp. p. 2168; Gaz. vol. 178; p. 366.
Box: *See* Bottle-box; Call-box; Car-journal box; Cigar-pressing box; Die-box; Fire-box; Folding box; Mail-box; Match-box; Miter-box; Service or valve box; Stuffing-box; Switch or junction box; Tool-box.
Box. L. W. Draper. No. 1,025,253; May 7; Sp. p. 322; Gaz. vol. 178; p. 52.
Box. J. L. Burton. No. 1,025,899; May 7; Sp. p. 1776; Gaz. vol. 178; p. 272.
Box. A. Paradis. No. 1,027,561; May 28; Sp. p. 5421; Gaz. vol. 178; p. 949.
Box-binding-strip ends, Fastening. H. B. Walter. No. 1,026,417; May 14; Sp. p. 2937; Gaz. vol. 178; p. 486.
Box-handle. R. J. Gruenberg. No. 1,027,385; May 21; Sp. p. 5072; Gaz. vol. 178; p. 853.
Box-handle or the like. J. A. Raymond. No. 1,027,067; May 21; Sp. p. 4412; Gaz. vol. 178; p. 746.
Box-lid holder. A. Moebes, Jr., and A. H. W. Weber. No. 1,025,582; May 7; Sp. p. 1073; Gaz. vol. 178; p. 166.
Boxes for files, Machine for applying paste to. A. L. Patterson. No. 1,027,890; May 28; Sp. p. 6173; Gaz. vol. 178; p. 1060.
Brace: *See* Chair-brace; Piano-brace; Rail-brace; Sectional brace.
Bracket: *See* Cord or cable support bracket; Electric-light bracket; Lamp-bracket; Scaffold-bracket; Shade-bracket; Telephone-bracket.
Bracket. L. W. Olmstead and C. W. Messimer. No. 1,026,221; May 14; Sp. p. 2505; Gaz. vol. 178; p. 419.
Braiding-machine carrier. S. W. Wardwell. No. 1,025,172; May 7; Sp. p. 138; Gaz. vol. 178; p. 24.
Brake: *See* Air-brake; Car-brake; Coaster-brake; Fluid-pressure brake.
Brake. R. Henley. No. 1,027,332; May 21; Sp. p. 4954; Gaz. vol. 178; p. 834.

Brake-block holder. E. A. Peck. No. 1,027,390; May 21; Sp. p. 5079; Gaz. vol. 178; p. 854.
Brake-handle. F. R. Phillips. No. 1,025,718; May 7; Sp. p. 1351; Gaz. vol. 178; p. 210.
Brake-head. C. W. Armbrust. No. 1,027,581; May 28; Sp. p. 5472; Gaz. vol. 178; p. 957.
Brake mechanism. J. T. Bishop. No. 1,025,115; May 7; Sp. p. 2; Gaz. vol. 178; p. 3.
Brake mechanism. J. R. McGiffert. No. 1,026,274; May 14; Sp. p. 2605; Gaz. vol. 178; p. 437.
Brake-rod jaw. S. H. Campbell. No. 1,025,960; May 14; Sp. p. 1905; Gaz. vol. 178; p. 328.
Brake-shoe. J. S. Thompson. No. 1,025,219; May 7; Sp. p. 241; Gaz. vol. 178; p. 40.
Brake-shoe. F. Sargent. No. 1,026,928; May 21; Sp. p. 4056; Gaz. vol. 178; p. 695.
Brake-shoe. F. Sargent. No. 1,026,929; May 21; Sp. p. 4058; Gaz. vol. 178; p. 696.
Brake-shoe. W. M. Simpson. No. 1,027,081; May 21; Sp. p. 4447; Gaz. vol. 178; p. 750.
Brick. G. H. Emery. No. 1,027,407; May 28; Sp. p. 5119; Gaz. vol. 178; p. 899.
Brick-conveying device. S. Voss. No. 1,025,661; May 7; Sp. p. 1236; Gaz. vol. 178; p. 191.
Brick-drying apparatus. J. C. Boss. No. 1,026,558; May 14; Sp. p. 3216; Gaz. vol. 178; p. 531.
Brick for cupolas, Breast-wall. R. P. Cunningham. No. 1,027,821; May 28; Sp. p. 5067; Gaz. vol. 178; p. 1036.
Brick-hacking apparatus. R. O. Penfield. No. 1,026,046; May 14; Sp. p. 2091; Gaz. vol. 178; p. 358.
Brick-molding machinery. W. S. Brice. No. 1,027,315; May 21; Sp. p. 4919; Gaz. vol. 178; p. 828.
Brickmaking-machine. J. A. Dunning. No. 1,025,133; May 7; Sp. p. 49; Gaz. vol. 178; p. 9.
Bridge, Lift-. J. L. Harrington. No. 1,027,477; May 28; Sp. p. 5248; Gaz. vol. 178; p. 921.
Bridge, Lift-. J. L. Harrington. No. 1,027,478; May 28; Sp. p. 5251; Gaz. vol. 178; p. 921.
Brine, Treatment of. G. W. Malcolm and F. T. Munton. No. 1,025,411; May 7; Sp. p. 668; Gaz. vol. 178; p. 105.
Briquet-machine. G. Komarek. No. 1,026,682; May 21; Sp. p. 3502; Gaz. vol. 178; p. 611.
Broom. F. W. Pendergast. No. 1,025,300; May 7; Sp. p. 418; Gaz. vol. 178; p. 68.
Broom. L. and F. Nair. No. 1,027,752; May 28; Sp. p. 5804; Gaz. vol. 178; p. 1011.
Broom and mop holder. F. C. Davis. No. 1,025,562; May 7; Sp. p. 1028; Gaz. vol. 178; p. 159.
Brush. F. Houston. No. 1,026,676; May 21; Sp. p. 3487; Gaz. vol. 178; p. 609.
Brush, Fountain paint-. T. Watanabe. No. 1,026,009; May 14; Sp. p. 2003; Gaz. vol. 178; p. 345.
Brush, Fountain paint-. T. Watanabe. No. 1,026,010; May 14; Sp. p. 2004; Gaz. vol. 178; p. 346.
Brush, Tooth-. A. O. Kretzschmar. No. 1,025,751; May 7; Sp. p. 1417; Gaz. vol. 178; p. 222.
Bucket, Drag-. G. H. Williams. No. 1,027,301; May 21; Sp. p. 4895; Gaz. vol. 178; p. 823.
Buckle. A. Bienenzucht. No. 1,027,979; May 28; Sp. p. 6346; Gaz. vol. 178; p. 1089.
Buckle, Belt-. L. A. Myers, Jr. No. 1,025,991; May 14; Sp. p. 1961; Gaz. vol. 178; p. 338.
Buckle, Shoe-. E. A. Guthman. No. 1,025,743; May 7; Sp. p. 1404; Gaz. vol. 178; p. 220.
Building-block. W. H. Koenig. No. 1,025,406; May 7; Sp. p. 661; Gaz. vol. 178; p. 104.
Building construction. C. O. McGavic. No. 1,027,266; May 21; Sp. p. 4813; Gaz. vol. 178; p. 812.
Building-stones, Machine for making. W. A. Todd. No. 1,027,935; May 28; Sp. p. 6251; Gaz. vol. 178; p. 1074.
Building structure. M. F. McCarthy. No. 1,027,058; May 21; Sp. p. 4373; Gaz. vol. 178; p. 742.
Bulb. H. W. Lester. No. 1,025,986; May 14; Sp. p. 1949; Gaz. vol. 178; p. 337.
Bumper and fender, Combined. H. T. Myers. No. 1,026,279; May 14; Sp. p. 2613; Gaz. vol. 178; p. 438.
Bumping-post. A. L. Belt. No. 1,027,098; May 21; Sp. p. 4483; Gaz. vol. 178; p. 756.
Bundling-machine. R. C. Lowry and F. Emmerich. No. 1,026,754; May 21; Sp. p. 3651; Gaz. vol. 178; p. 635.
Buoy. R. W. Earle. No. 1,026,977; May 21; Sp. p. 4178; Gaz. vol. 178; p. 713.
Burglar and fire alarm. J. Hartley. No. 1,026,393; May 14; Sp. p. 2879; Gaz. vol. 178; p. 477.
Burner: *See* Gas-burner; Inverted burner; Lamp-burner; Liquid-fuel burner; Oil-burner.
Burner. D. Hamilton. No. 1,026,982; May 21; Sp. p. 4189; Gaz. vol. 178; p. 715.
Burner. R. C. Frampton. No. 1,027,832; May 28; Sp. p. 5993; Gaz. vol. 178; p. 1040.
Burner. E. H. Schwartz. No. 1,027,912; May 28; Sp. p. 6215; Gaz. vol. 178; p. 1067.
Butt-stock for shoulder-arms. T. C. Johnson. No. 1,025,529; May 7; Sp. p. 949; Gaz. vol. 178; p. 147.
Butt-stock for shoulder-arms. W. H. Tilton. No. 1,025,550; May 7; Sp. p. 997; Gaz. vol. 178; p. 154.
Butter-cutter. H. B. Waters. No. 1,027,020; May 21; Sp. p. 4278; Gaz. vol. 178; p. 728.
Butter, Making and preserving. J. M. W. Kitchen. No. 1,026,918; May 21; Sp. p. 4034; Gaz. vol. 178; p. 692.
Butter-separator, Aerating. A. Fay. No. 1,027,531; May 28; Sp. p. 5359; Gaz. vol. 178; p. 939.
Button. S. Gogel and M. Bernstein. No. 1,027,473; May 28; Sp. p. 5243; Gaz. vol. 178; p. 920.
Button and drawers support. W. A. Bryant. No. 1,025,783; May 7; Sp. p. 1478; Gaz. vol. 178; p. 233.
Button, Collar-. H. C. Degner, Jr. No. 1,026,153; May 14; Sp. p. 2345; Gaz. vol. 178; p. 396.
Button-covering fabric. G. E. Clauss. No. 1,027,690; May 28; Sp. p. 5692; Gaz. vol. 178; p. 992.
Button-fastener. C. J. Anderson. No. 1,026,017; May 14; Sp. p. 2014; Gaz. vol. 178; p. 348.
Button retainer, Collar-. H. Hollander. No. 1,028,024; May 28; Sp. p. 6426; Gaz. vol. 178; p. 1103.
Buttonhole attachment. D. L. Cardinal. No. 1,025,682; May 7; Sp. p. 1274; Gaz. vol. 178; p. 198.
Cabinet, Barber's. G. Tous. No. 1,026,478; May 14; Sp. p. 3067; Gaz. vol. 178; p. 505.
Cabinet, Nursery-. A. V. Cassity. No. 1,027,816; May 28; Sp. p. 5954; Gaz. vol. 178; p. 1033.
Cabinet, Stationery-. T. A. Matthews. No. 1,028,091; May 28; Sp. p. 6603; Gaz. vol. 178; p. 1124.
Cabinets, Fastening device for panel-board. F. B. Adam. No. 1,027,397; May 28; Sp. p. 5101; Gaz. vol. 178; p. 895.
Cable-cutting device. H. C. Smith. No. 1,027,918; May 28; Sp. p. 6227; Gaz. vol. 178; p. 1069.
Cables, Splice between Manilla and wire. G. H. and W. H. Klingler. No. 1,026,869; May 21; Sp. p. 3903; Gaz. vol. 178; p. 674.
Caisson. O. C. Edwards, Jr. No. 1,025,614; May 7; Sp. p. 1131; Gaz. vol. 178; p. 176.
Caisson. R. H. Chambers. No. 1,026,656; May 21; Sp. p. 3451; Gaz. vol. 178; p. 602.
Cake-mixer and egg-beater, Combined. M. T. Hudson. No. 1,026,355; May 14; Sp. p. 2802; Gaz. vol. 178; p. 465.
Calculating device, Roof-rafter-. D. Robertson and J. A. Atkinson. No. 1,027,766; May 28; Sp. p. 5835; Gaz. vol. 178; p. 1016.
Calculating-machine. H. Hopkins. No. 1,026,443; May 14; Sp. p. 2983; Gaz. vol. 178; p. 494.
Calculating-machine. N. Stafford. No. 1,026,473; May 14; Sp. p. 3052; Gaz. vol. 178; p. 503.
Calculating-machine motor-drive. H. Hopkins. No. 1,025,698; May 7; Sp. p. 1305; Gaz. vol. 178; p. 203.
Calculator. W. E. and E. E. Thompson. No. 1,025,334; May 7; Sp. p. 504; Gaz. vol. 178; p. 79.
Calculator. W. Rice. No. 1,026,123; May 14; Sp. p. 2286; Gaz. vol. 178; p. 386.
Calculator, Mechanical. F. E. Webner. No. 1,026,064; May 14; Sp. p. 2138; Gaz. vol. 178; p. 364.
Call-box. J. G. Nolen. No. 1,025,713; May 7; Sp. p. 1335; Gaz. vol. 178; p. 208.
Can: *See* Dispensing-can; Filtering-can; Ice-can; Oil-can.
Can-cleaning apparatus. F. D. Cleveland. No. 1,026,381; May 14; Sp. p. 2859; Gaz. vol. 178; p. 474.
Can-cover loosener. O. E. Enell. No. 1,027,113; May 21; Sp. p. 4518; Gaz. vol. 178; p. 761.
Can-filler. C. E. Edgar. No. 1,025,383; May 7; Sp. p. 620; Gaz. vol. 178; p. 96.
Can-filling apparatus. W. J. Phelps. No. 1,025,717; May 7; Sp. p. 1346; Gaz. vol. 178; p. 209.
Can-heading machine. F. Wegner. No. 1,025,173; May 7; Sp. p. 141; Gaz. vol. 178; p. 24.
Can holder, Oil-. A. Hutton. No. 1,026,396; May 14; Sp. p. 2883; Gaz. vol. 178; p. 478.
Can-opener. F. E. Rollins. No. 1,027,905; May 28; Sp. p. 6207; Gaz. vol. 178; p. 1065.
Can opener and sealer. F. E. Teves. No. 1,027,932; May 28; Sp. p. 6247; Gaz. vol. 178; p. 1073.
Can-testing machine. C. B. McDonald. No. 1,025,199; May 7; Sp. p. 198; Gaz. vol. 178; p. 33.
Cans and the like, Closer for. W. H. Perkins. No. 1,027,429; May 28; Sp. p. 5168; Gaz. vol. 178; p. 906.
Candle-holder. J. P. Raoux. No. 1,027,901; May 28; Sp. p. 6201; Gaz. vol. 178; p. 1063.
Candy and candy produced thereby, Manufacturing. W. F. Speck. No. 1,025,326; May 7; Sp. p. 492; Gaz. vol. 178; p. 76.
Candy-pail top trim. G. A. Goelitz. No. 1,026,435; May 14; Sp. p. 2969; Gaz. vol. 178; p. 491.
Candy-wrapping machine. S. M. and G. N. Hamblin. No. 1,025,524; May 7; Sp. p. 939; Gaz. vol. 178; p. 145.
Cane and the like, Apparatus for conveying and loading sugar-. C. Crozier. No. 1,025,379; May 7; Sp. p. 614; Gaz. vol. 178; p. 95.
Canoes, Back-rest for. J. E. Benson. No. 1,026,898; May 21; Sp. p. 3987; Gaz. vol. 178; p. 686.
Cap. E. Turner. No. 1,026,479; May 14; Sp. p. 3069; Gaz. vol. 178; p. 506.
Caps, Making metal. O. Zerk. No. 1,027,457; May 28; Sp. p. 5213; Gaz. vol. 178; p. 914.
Capping-machine. W. L. Wright. No. 1,026,892; May 21; Sp. p. 3972; Gaz. vol. 178; p. 684.
Caponizing instrument. G. Benoy. No. 1,025,363; May 7; Sp. p. 572; Gaz. vol. 178; p. 89.
Car automatic safety appliance, Railway-. W. L. Poole. No. 1,026,766; May 21; Sp. p. 3699; Gaz. vol. 178; p. 640.
Car-brake rigging. I. S. Downing. No. 1,027,379; May 21; Sp. p. 5051; Gaz. vol. 178; p. 850.
Car brake-shoe, Railway-. I. Kincaid. No. 1,025,916; May 7; Sp. p. 1809; Gaz. vol. 178; p. 278.
Car-buffer construction. T. Watkins. No. 1,026,063; May 14; Sp. p. 2137; Gaz. vol. 178; p. 364.
Car construction. J. M. Coleman. No. 1,026,945; May 21; Sp. p. 4125; Gaz. vol. 178; p. 703.
Car construction, Dump-. J. M. Coleman. No. 1,027,241; May 21; Sp. p. 4775; Gaz. vol. 178; p. 803.

Car, Convertible. C. J. W. Clasen. No. 1,025,609; May 7; Sp. p. 1117; Gaz. vol. 178; p. 174.
Car-coupling. M. W. Kirkland. No. 1,027,207; May 21; Sp. p. 4709; Gaz. vol. 178; p. 791.
Car coupling, Railway-. J. F. and V. S. Durbin. No. 1,025,521; May 7; Sp. p. 926; Gaz. vol. 178; p. 144.
Car-coupling uncoupling mechanism. E. H. Schmidt. No. 1,026,705; May 21; Sp. p. 3548; Gaz. vol. 178; p. 619.
Car-couplings, Bracket for uncoupling-rods of. W. E. Coffin. No. 1,026,658; May 21; Sp. p. 3455; Gaz. vol. 178; p. 603.
Car-couplings, Knuckle-pin retainer for. C. F. Murray. No. 1,026,278; May 14; Sp. p. 2613; Gaz. vol. 178; p. 438.
Car-door. J. W. Rumsey. No. 1,027,156; May 21; Sp. p. 4606; Gaz. vol. 178; p. 773.
Car door, Freight-. J. F. Persson. No. 1,025,301; May 7; Sp. p. 419; Gaz. vol. 178; p. 68.
Car-door lock. T. McCarthy. No. 1,027,265; May 21; Sp. p. 4812; Gaz. vol. 178; p. 811.
Car-door lock. F. Raley. No. 1,027,276; May 21; Sp. p. 4841; Gaz. vol. 178; p. 815.
Car-door lock, Mine-. J. A. Rivers. No. 1,026,964; May 21; Sp. p. 4161; Gaz. vol. 178; p. 710.
Car-door-operating mechanism. R. G. Taylor. No. 1,026,230; May 14; Sp. p. 2522; Gaz. vol. 178; p. 422.
Car doors, Guard-cleat for railway-. W. P. Bettendorf. No. 1,025,446; May 7; Sp. p. 760; Gaz. vol. 178; p. 117.
Car-draw-bar carry-iron. B. P. Flory. No. 1,027,194; May 21; Sp. p. 4678; Gaz. vol. 178; p. 786.
Car drop-door-operating mechanism, Dumping-. E. W. Goodwin. No. 1,027,197; May 21; Sp. p. 4682; Gaz. vol. 178; p. 787.
Car, Dump-. F. S. Ingoldsby. No. 1,026,897; May 14; Sp. p. 2885; Gaz. vol. 178; p. 479.
Car, Dump-. J. O. Nelkirk. No. 1,026,694; May 21; Sp. p. 3527; Gaz. vol. 178; p. 615.
Car, Dump-. J. R. Bowling. No. 1,026,785; May 21; Sp. p. 3732; Gaz. vol. 178; p. 646.
Car, Dump-. J. R. Bowling. No. 1,027,809; May 28; Sp. p. 5935; Gaz. vol. 178; p. 1031.
Car, Dump-. F. S. Ingoldsby. No. 1,027,849; May 28; Sp. p. 6054; Gaz. vol. 178; p. 1045.
Car, Dump-. F. S. Ingoldsby. No. 1,027,850; May 28; Sp. p. 6059; Gaz. vol. 178; p. 1046.
Car, Dump-. F. S. Ingoldsby and J. R. Bowling. No. 1,027,851; May 28; Sp. p. 6065; Gaz. vol. 178; p. 1046.
Car-fender. W. M. May. No. 1,025,533; May 7; Sp. p. 957; Gaz. vol. 178; p. 149.
Car-fender. T. J. Killeen. No. 1,026,678; May 21; Sp. p. 3494; Gaz. vol. 178; p. 610.
Car grain-door. W. W. Allen. No. 1,027,971; May 28; Sp. p. 6329; Gaz. vol. 178; p. 1086.
Car grain-door, Railway-. J. T. W. Loe. No. 1,025,283; May 7; Sp. p. 381; Gaz. vol. 178; p. 62.
Car-heating system. L. T. Gibbs. No. 1,026,349; May 14; Sp. p. 2779; Gaz. vol. 178; p. 463.
Car journal-box. A. Berry. No. 1,026,487; May 14; Sp. p. 3081; Gaz. vol. 178; p. 508.
Car, Ladle-. E. C. Sherman. No. 1,026,708; May 21; Sp. p. 3554; Gaz. vol. 178; p. 620.
Car lifting and replacing device. J. Wolfson. No. 1,026,337; May 14; Sp. p. 2756; Gaz. vol. 178; p. 460.
Car, Railway-. B. Sato and Y. Saito. No. 1,027,071; May 21; Sp. p. 4418; Gaz. vol. 178; p. 747.
Car, Railway motor-. S. V. Meigs. No. 1,025,201; May 7; Sp. p. 203; Gaz. vol. 178; p. 34.
Car-roof. W. P. Bettendorf. No. 1,026,899; May 21; Sp. p. 3988; Gaz. vol. 178; p. 686.
Car-roof. H. Pries. No. 1,027,503; May 28; Sp. p. 5307; Gaz. vol. 178; p. 930.
Car-roof construction. E. Posson. No. 1,026,698; May 21; Sp. p. 3536; Gaz. vol. 178; p. 616.
Car-roof frame. E. Posson. No. 1,025,996; May 14; Sp. p. 1978; Gaz. vol. 178; p. 341.
Car-signal, Electric. E. B. Chapman. No. 1,026,906; May 21; Sp. p. 4008; Gaz. vol. 178; p. 688.
Car street-indicator. H. O. Brion. No. 1,025,780; May 7; Sp. p. 1470; Gaz. vol. 178; p. 232.
Car street-indicator. P. M. Gulbrantson. No. 1,026,980; May 21; Sp. p. 4184; Gaz. vol. 178; p. 714.
Car switch, Electric-. L. Radcliff and E. E. Kilby. No. 1,027,898; May 28; Sp. p. 6195; Gaz. vol. 178; p. 1062.
Car, Tank-. C. A. Shoemaker. No. 1,026,710; May 21; Sp. p. 3556; Gaz. vol. 178; p. 621.
Car-unloader. E. V. Richards. No. 1,027,669; May 28; Sp. p. 5643; Gaz. vol. 178; p. 984.
Car valve-operating mechanism, Dumping-. J. M. Goodwin. No. 1,027,198; May 21; Sp. p. 4686; Gaz. vol. 178; p. 787.
Car wheel, Mine-. R. F. Phillips and L. J. McCloskey. No. 1,026,454; May 14; Sp. p. 3016; Gaz. vol. 178; p. 497.
Car-window. A. H. Newpher. No. 1,025,640; May 7; Sp. p. 1200; Gaz. vol. 178; p. 184.
Cars, Cooler for hot boxes for railway-. E. S. Hammond. No. 1,025,947; May 7; Sp. p. 1876; Gaz. vol. 178; p. 288.
Cars, Removable and interchangeable unit for freight-. H. W. Kirchner. No. 1,026,752; May 21; Sp. p. 3647; Gaz. vol. 178; p. 634.
Cars, Valve for bottom-dump. M. J. Owens. No. 1,026,824; May 21; Sp. p. 3807; Gaz. vol. 178; p. 659.
Carbid-feeder. E. Miller. No. 1,026,594; May 14; Sp. p. 3284; Gaz. vol. 178; p. 543.
Carbonating apparatus. H. M. Smith. No. 1,026,715; May 21; Sp. p. 2570; Gaz. vol. 178; p. 622.
Carborundum-dresser. A. C. Champagne and J. N. Brahn. No. 1,026,494; May 14; Sp. p. 3096; Gaz. vol. 178; p. 511.
Carbureter. C. O. Williams. No. 1,025,533; May 7; Sp. p. 1006; Gaz. vol. 178; p. 155.
Carbureter. H. L. Brownback. No. 1,025,782; May 7; Sp. p. 1477; Gaz. vol. 178; p. 233.
Carbureter. J. M. Lofthouse and E. R. Booty. No. 1,025,816; May 7; Sp. p. 1551; Gaz. vol. 178; p. 245.
Carbureter. F. Barthel. No. 1,026,425; May 14; Sp. p. 2945; Gaz. vol. 178; p. 488.
Carbureter. W. H. Browning. No. 1,026,491; May 14; Sp. p. 3088; Gaz. vol. 178; p. 509.
Carbureter. F. P. Johnston. No. 1,027,340; May 21; Sp. p. 4966; Gaz. vol. 178; p. 836.
Carbureter. R. E. Wood. No. 1,027,456; May 28; Sp. p. 5211; Gaz. vol. 178; p. 914.
Carbureter. D. Barnard. No. 1,027,459; May 28; Sp. p. 5216; Gaz. vol. 178; p. 915.
Carbureter. W. E. Roby. No. 1,027,768; May 28; Sp. p. 5839; Gaz. vol. 178; p. 1017.
Carbureter for starting internal-combustion engines. F. H. Walker. No. 1,026,889; May 21; Sp. p. 3968; Gaz. vol. 178; p. 683.
Cards, pictures, &c., Support for. J. M. Washburn. No. 1,025,346; May 7; Sp. p. 530; Gaz. vol. 178; p. 83.
Carpet-stretcher. J. A. G. Seybold. No. 1,027,914; May 28; Sp. p. 6221; Gaz. vol. 178; p. 1068.
Carrier: *See* Bottle-carrier; Braiding-machine carrier; Feed and litter carrier; Folding carrier; Manure-carrier; Skate-carrier; Tool-carrier; Tubular carrier; Typewriter ribbon-carrier; Wing-carrier; Wood-carrier.
Carton. E. H. Angier. No. 1,025,444; May 7; Sp. p. 754; Gaz. vol. 178; p. 117.
Cartons and the like, Machine for setting up. F. M. Peters. No. 1,025,880; May 7; Sp. p. 1714; Gaz. vol. 178; p. 266.
Cartridge-belt. F. R. Batchelder. No. 1,026,068; May 14; Sp. p. 2166; Gaz. vol. 178; p. 306.
Cartridge-blank receiver. L. R. Smiley. No. 1,027,509; May 28; Sp. p. 5317; Gaz. vol. 178; p. 932.
Case: *See* Cigar or cigarette case; Coffin-case; Display-case; Drawing and music case; Egg-case; Eyeglass-case; Packing-case; Racket-case; Sectional case; Shipping-case; Tire-case; Toilet-case; Transformer-case.
Casein compound, Indurated. B. B. Goldsmith. No. 1,027,122; May 21; Sp. p. 4543; Gaz. vol. 178; p. 763.
Cash-register. C. F. Kettering and W. A. Chryst. No. 1,025,277; May 7; Sp. p. 362; Gaz. vol. 178; p. 59.
Cash-register. W. H. Muzzy. No. 1,025,990; May 14; Sp. p. 1958; Gaz. vol. 178; p. 338.
Cash-register. W. H. Muzzy. No. 1,026,762; May 21; Sp. p. 3680; Gaz. vol. 178; p. 638.
Cash-register. W. H. Muzzy. No. 1,026,763; May 21; Sp. p. 3686; Gaz. vol. 178; p. 639.
Cash-register. C. Trog. No. 1,027,160; May 21; Sp. p. 4615; Gaz. vol. 178; p. 774.
Cask and barrel stand. M. Rogler. No. 1,026,127; May 14; Sp. p. 2297; Gaz. vol. 178; p. 387.
Casket, Burial-. M. P. and L. E. Little. No. 1,026,044; May 14; Sp. p. 2086; Gaz. vol. 178; p. 357.
Casket, Burial-. C. H. Wible. No. 1,027,453; May 28; Sp. p. 5205; Gaz. vol. 178; p. 913.
Casket, Extension burial-. A. Franke. No. 1,026,434; May 14; Sp. p. 2968; Gaz. vol. 178; p. 491.
Casket hardware, Burial-. M. F. Davoran. No. 1,027,106; May 21; Sp. p. 4502; Gaz. vol. 178; p. 758.
Caster, Adjustable. H. D. Bollinger. No. 1,027,686; May 28; Sp. p. 5687; Gaz. vol. 178; p. 991.
Caster, Furniture-. A. E. Schatz. No. 1,026,778; May 21; Sp. p. 3710; Gaz. vol. 178; p. 643.
Casting apparatus. J. W. Brown, Jr. No. 1,027,316; May 21; Sp. p. 4922; Gaz. vol. 178; p. 828.
Casting circular objects, Mold for. T. D. West. No. 1,025,438; May 7; Sp. p. 736; Gaz. vol. 178; p. 115.
Casting metals. F. de Bulgné. No. 1,026,733; May 21; Sp. p. 3617; Gaz. vol. 178; p. 628.
Casting pipe and other hollow articles, System of apparatus for. W. E. Clow. No. 1,025,123; May 7; Sp. p. 21; Gaz. vol. 178; p. 5.
Castings, Making metal. T. D. West. No. 1,025,436; May 7; Sp. p. 720; Gaz. vol. 178; p. 114.
Castings, Mold for making metal. T. D. West. No. 1,025,437; May 7; Sp. p. 725; Gaz. vol. 178; p. 114.
Catch, Safety-. J. R. Kile. No. 1,026,210; May 14; Sp. p. 2484; Gaz. vol. 178; p. 416.
Cattle-guard. E. Engle. No. 1,028,007; May 28; Sp. p. 6400; Gaz. vol. 178; p. 1098.
Cellulose products, Manufacture of. A. Chaumat. No. 1,027,689; May 28; Sp. p. 5691; Gaz. vol. 178; p. 991.
Cellulose, Solvent for acetyl. W. G. Lindsay. No. 1,027,614; May 28; Sp. p. 5529; Gaz. vol. 178; p. 967.
Cellulose, Solvent for acetyl. W. G. Lindsay. No. 1,027,615; May 28; Sp. p. 5530; Gaz. vol. 178; p. 967.
Cellulose, Solvent for acetyl. W. G. Lindsay. No. 1,027,616; May 28; Sp. p. 5531; Gaz. vol. 178; p. 967.
Cellulose, Solvent for acetyl. W. G. Lindsay. No. 1,027,619; May 28; Sp. p. 5534; Gaz. vol. 178; p. 968.
Cellulose, Solvents for acetyl. W. G. Lindsay. No. 1,027,486; May 28; Sp. p. 5271; Gaz. vol. 178; p. 924.

Cement compounds, Making. W. K. Freeman. No. 1,027,118; May 21; Sp. p. 4534; Gaz. vol. 178; p. 762.
Cementing-machine. W. A. Neely. No. 1,027,144; May 21; Sp. p. 4584; Gaz. vol. 178; p. 770.
Centering device. F. L. Wheeling and F. A. Rogers. No. 1,025,728; May 7; Sp. p. 1376; Gaz. vol. 178; p. 214.
Centrifugal drier. A. R. Selden. No. 1,025,485; May 7; Sp. p. 841; Gaz. vol. 178; p. 132.
Centrifugal machine. F. E. Coombs. No. 1,026,075; May 14; Sp. p. 2181; Gaz. vol. 178; p. 368.
Centrifugal separator. G. M. Lesher. No. 1,026,271; May 14; Sp. p. 2599; Gaz. vol. 178; p. 436.
Centrifugal separators, Liner for. L. J. Hedderich. No. 1,025,567; May 7; Sp. p. 1038; Gaz. vol. 178; p. 160.
Chain. W. D. Tusten. No. 1,027,226; May 21; Sp. p. 4744; Gaz. vol. 178; p. 798.
Chain connector, Neck-. O. L. Gammelgaard. No. 1,027,041; May 21; Sp. p. 4338; Gaz. vol. 178; p. 736.
Chain, Drive-. F. L. Morse. No. 1,027,352; May 21; Sp. p. 4988; Gaz. vol. 178; p. 841.
Chain, Drive-. H. W. Allingham. No. 1,027,369; May 21; Sp. p. 5029; Gaz. vol. 178; p. 847.
Chain, Driving-. R. H. Richmond. No. 1,027,002; May 21; Sp. p. 4238; Gaz. vol. 178; p. 722.
Chain housing, Sprocket-. A. P. and W. E. Hoffman and E. F. Altman. No. 1,027,605; May 28; Sp. p. 5511; Gaz. vol. 178; p. 964.
Chains, Jack for tightening antiskid-. W. F. Edgington. No. 1,026,499; May 14; Sp. p. 3105; Gaz. vol. 178; p. 513.
Chains, Manufacture of. F. S. Morris and P. S. Kirke. No. 1,028,055; May 28; Sp. p. 6501; Gaz. vol. 178; p. 1112.
Chair: *See* Barber's chair; Convertible chair; Devotional chair; Foldable chair; Infant's posing-chair; Osteopathic-treatment chair.
Chair. D. M. Harman. No. 1,025,266; May 7; Sp. p. 347; Gaz. vol. 178; p. 56.
Chair. J. E. Rilling. No. 1,025,645; May 7; Sp. p. 1207; Gaz. vol. 178; p. 186.
Chair. E. J. Hoff. No. 1,025,915; May 7; Sp. p. 1805; Gaz. vol. 178; p. 278.
Chair. C. J. Cain. No. 1,026,074; May 14; Sp. p. 2180; Gaz. vol. 178; p. 368.
Chair. J. A. W. Sears. No. 1,026,706; May 21; Sp. p. 3549; Gaz. vol. 178; p. 619.
Chair attachment, Barber-. W. H. Smith. No. 1,027,919; May 28; Sp. p. 6228; Gaz. vol. 178; p. 1009.
Chair-brace. A. Marchand. No. 1,025,580; May 7; Sp. p. 1071; Gaz. vol. 178; p. 165.
Chair fan attachment, Rocking-. A. Kuring and G. Hoffman. No. 1,027,859; May 28; Sp. p. 6085; Gaz. vol. 178; p. 1049.
Chairs, tables, or the like, Foldable frame for. A. G. Cole. No. 1,027,602; May 28; Sp. p. 5695; Gaz. vol. 178; p. 992.
Character-forming machine. T. M. Lilleberg. No. 1,028,037; May 28; Sp. p. 6468; Gaz. vol. 178; p. 1107.
Check holder, Time-. F. Kees. No. 1,026,268; May 14; Sp. p. 2595; Gaz. vol. 178; p. 434.
Check-receiving recorder, Time-controlled workman's-. H. Bates. No. 1,027,797; May 28; Sp. p. 5901; Gaz. vol. 178; p. 1026.
Cheek-distender. E. M. Grindle. No. 1,025,265; May 7; Sp. p. 346; Gaz. vol. 178; p. 56.
Cheese, butter, soap, lard, &c., Appliance for cutting. J. Ashton. No. 1,027,972; May 28; Sp. p. 6332; Gaz. vol. 178; p. 1087.
Cheese-making, Agitator for. A. Christensen. No. 1,026,973; May 21; Sp. p. 4172; Gaz. vol. 178; p. 712.
Chlor-aralkyl-sulfo-chlorids and making them. O. Schmidt. No. 1,027,908; May 28; Sp. p. 6210; Gaz. vol. 178; p. 1066.
Chloral derivatives containing the radical of a fatty acid. N. Sulzberger. No. 1,025,889; May 7; Sp. p. 1751; Gaz. vol. 178; p. 269.
Chocolate masses, &c., Apparatus for refining. F. E. F. Neumann. No. 1,026,110; May 14; Sp. p. 2260; Gaz. vol. 178; p. 381.
Chopper: *See* Cotton-chopper; Meat-chopper.
Chuck. E. C. Schmelzkopf. No. 1,025,162; May 7; Sp. p. 108; Gaz. vol. 178; p. 20.
Chuck. V. J. Wahlstrom. No. 1,026,187; May 14; Sp. p. 2416; Gaz. vol. 178; p. 406.
Chuck, Lathe-. W. E. Clark. No. 1,025,784; May 7; Sp. p. 1479; Gaz. vol. 178; p. 234.
Chuck, Vibratory. J. P. Cleal. No. 1,027,402; May 28; Sp. p. 5108; Gaz. vol. 178; p. 897.
Churn. W. B. Woodruff. No. 1,026,970; May 21; Sp. p. 4169; Gaz. vol. 178; p. 711.
Churn and dasher. F. D. Kincaid. No. 1,026,517; May 14; Sp. p. 3148; Gaz. vol. 178; p. 519.
Chute-closure. H. S. Gardner. No. 1,026,641; May 14; Sp. p. 3398; Gaz. vol. 178; p. 550.
Cigar-cutter. A. Schwieger and B. Doctor. No. 1,025,542; May 7; Sp. p. 982; Gaz. vol. 178; p. 152.
Cigar-cutter and fastener for cigar-receptacles, Combined. A. Schwieger. No. 1,025,484; May 7; Sp. p. 840; Gaz. vol. 178; p. 131.
Cigar-lighter. A. T. Hoevet. No. 1,027,205; May 21; Sp. p. 4707; Gaz. vol. 178; p. 790.
Cigar-machine. R. H. Logan. No. 1,027,553; May 28; Sp. p. 5402; Gaz. vol. 178; p. 947.
Cigar-making machine. R. Schmitt. No. 1,025,885; May 7; Sp. p. 1740; Gaz. vol. 178; p. 268.
Cigar or cigarette case. S. C. Hignett. No. 1,028,069; May 28; Sp. p. 6537; Gaz. vol. 178; p. 1117.
Cigar-pressing box. R. Woerner. No. 1,027,094; May 21; Sp. p. 4477; Gaz. vol. 178; p. 755.
Circuit-breaker, Auxiliary carbon-contact. C. C. Badeau. No. 1,026,296; May 14; Sp. p. 2653; Gaz. vol. 178; p. 444.
Circuit-controlling key. H. E. Shreeve. No. 1,026,183; May 14; Sp. p. 2403; Gaz. vol. 178; p. 405.
Circuit opening and closing switch for charging-circuits. A. J. Stecker. No. 1,026,003; May 14; Sp. p. 1992; Gaz. vol. 178; p. 343.
Circular kiln or oven. J. Lunt and J. W. Hartley. No. 1,028,043; May 28; Sp. p. 6484; Gaz. vol. 178; p. 1109.
Clamp: *See* Fence-clamp; Flask-clamp; Implement-clamp; Rail-clamp; Rope-clamp; Sign or card clamp; Tube-clamp; Wire-rope clamp.
Clamp. W. Tarbuck. No. 1,026,475; May 14; Sp. p. 3064; Gaz. vol. 178; p. 504.
Clasp: *See* Bag-clasp; Jewelry safety-clasp.
Cleaner: *See* Boiler-cleaner; Eraser-cleaner; Flue-cleaner; Gin-saw cleaner; Seed-wheat cleaner; Shoe-cleaner; Smoking-pipe cleaner; Vacuum-cleaner.
Cleaning system, Vacuum. J. R. Pettiford. No. 1,025,994; May 14; Sp. p. 1973; Gaz. vol. 178; p. 340.
Clincher-ring, Quickly-detachable hinged. W. W. Ward. No. 1,025,345; May 7; Sp. p. 528; Gaz. vol. 178; p. 83.
Clip: *See* Binding-clip; Fireproof-construction clip; Fuse-block clip; Terminal clip.
Clock mechanism, Signal. F. O. Warner. No. 1,026,008; May 14; Sp. p. 2000; Gaz. vol. 178; p. 345.
Clock, Program-. C. B. Hale. No. 1,027,202; May 21; Sp. p. 4696; Gaz. vol. 178; p. 789.
Clocks, Date-indicator for. S. Baumgartner-Hartmann. No. 1,027,518; May 28; Sp. p. 5337; Gaz. vol. 178; p. 934.
Clocks, Device for improving the tone of cathedral-gongs for. W. E. McGraw. No. 1,025,821; May 7; Sp. p. 1561; Gaz. vol. 178; p. 247.
Clod-fender, Revolving. H. H. Munson. No. 1,025,420; May 7; Sp. p. 687; Gaz. vol. 178; p. 108.
Closet: *See* Water-closet.
Cloth-slitting machine. B. T. Steber. No. 1,025,931; May 7; Sp. p. 1833; Gaz. vol. 178; p. 283.
Clothes-drying rack. T. G. Amaden. No. 1,027,303; May 21; Sp. p. 4899; Gaz. vol. 178; p. 824.
Clothes-line reel and stretcher. C. Johnson. No. 1,027,655; May 28; Sp. p. 5613; Gaz. vol. 178; p. 980.
Clothes-line support. M. Horovich. No. 1,026,865; May 21; Sp. p. 3899; Gaz. vol. 178; p. 673.
Clothes-pin bag. A. M. Schiele. No. 1,025,651; May 7; Sp. p. 1221; Gaz. vol. 178; p. 188.
Clothes-washer. C. H. Hyman. No. 1,027,543; May 28; Sp. p. 5385; Gaz. vol. 178; p. 944.
Clutch. J. Gustafson. No. 1,026,437; May 14; Sp. p. 2971; Gaz. vol. 178; p. 492.
Clutch, Fluid-. T. F. Rainsford. No. 1,025,481; May 7; Sp. p. 833; Gaz. vol. 178; p. 130.
Clutch, Fluid-operated. J. R. McGiffert. No. 1,027,493; May 28; Sp. p. 5282; Gaz. vol. 178; p. 926.
Clutch, Friction-. A. E. Jacobson. No. 1,025,190; May 7; Sp. p. 177; Gaz. vol. 178; p. 30.
Clutch, Friction-. W. Dennis. No. 1,027,377; May 21; Sp. p. 5047; Gaz. vol. 178; p. 850.
Coal and slate separator. J. T. Norman. No. 1,025,587; May 7; Sp. p. 1080; Gaz. vol. 178; p. 167.
Coal-dumping device. N. Peterson. No. 1,025,833; May 7; Sp. p. 1582; Gaz. vol. 178; p. 251.
Coal, Manufacturing strongly-absorbent. F. Richter and L. von Orth. No. 1,027,153; May 21; Sp. p. 4601; Gaz. vol. 178; p. 772.
Coal, ores, &c., Storage of. W. F. Hunt. No. 1,026,444; May 14; Sp. p. 2998; Gaz. vol. 178; p. 494.
Coaster-brake. P. W. Toohey. No. 1,025,598; May 7; Sp. p. 1101; Gaz. vol. 178; p. 171.
Coaster-brake. W. T. Carter. No. 1,026,972; May 21; Sp. p. 4171; Gaz. vol. 178; p. 712.
Coating-machine. E. G. Palmer. No. 1,026,765; May 21; Sp. p. 3697; Gaz. vol. 178; p. 639.
Coating-machine. F. E. Goldsmith. No. 1,027,414; May 28; Sp. p. 5135; Gaz. vol. 178; p. 901.
Coating-machine holder, Liquid-. R. A. Beausejour. No. 1,025,671; May 7; Sp. p. 1256; Gaz. vol. 178; p. 194.
Cock and faucet. P. S. Hamrick. No. 1,027,474; May 28; Sp. p. 5244; Gaz. vol. 178; p. 920.
Cock-operating device, Gas-. A. H. Humphrey. No. 1,026,039; May 14; Sp. p. 2077; Gaz. vol. 178; p. 355.
Cocks, valves, switches, and the like, Apparatus for automatically opening and closing. W. Howlin. No. 1,026,586; May 14; Sp. p. 3268; Gaz. vol. 178; p. 540.
Coffee and the like, Machine for drying. R. Okrassa. No. 1,027,146; May 21; Sp. p. 4589; Gaz. vol. 178; p. 771.
Coffee-grinder. L. Warstler and P. F. Loichot. No. 1,027,019; May 21; Sp. p. 4276; Gaz. vol. 178; p. 728.
Coffee-machine. C. Nelson and H. J. Axt. No. 1,026,405; May 14; Sp. p. 2912; Gaz. vol. 178; p. 482.
Coffee preparation. A. H. Bullard. No. 1,026,971; May 21; Sp. p. 4170; Gaz. vol. 178; p. 712.
Coffin-case, Metallic. J. Jones. No. 1,026,513; May 14; Sp. p. 3141; Gaz. vol. 178; p. 518.
Coil-winding machine. H. G. Sahlin. No. 1,025,835; May 7; Sp. p. 1585; Gaz. vol. 178; p. 252.
Coin-controlled lock. N. Kretzer. No. 1,025,143; May 7; Sp. p. 67; Gaz. vol. 178; p. 12.

Coin-counting apparatus. B. Lundin. No. 1,026,755; May 21; Sp. p. 3656; Gaz. vol. 178; p. 635.
Coin-holding pocket for covers. E. Krueger. No. 1,025,631; May 7; Sp. p. 1178; Gaz. vol. 178; p. 181.
Coin-packaging device. A. Abbott. No. 1,025,228; May 7; Sp. p. 261; Gaz. vol. 178; p. 43.
Coin-testing appliance. E. A. Buckman and H. L. Fello. No. 1,027,032; May 21; Sp. p. 4315; Gaz. vol. 178; p. 733.
Coke-discharging apparatus. D. F. Lepley. No. 1,025,815; May 7; Sp. p. 1548; Gaz. vol. 178; p. 245.
Coke-oven. R. S. Moss. No. 1,025,419; May 7; Sp. p. 684; Gaz. vol. 178; p. 108.
Coke-oven. T. von Bauer. No. 1,026,894; May 21; Sp. p. 3980; Gaz. vol. 178; p. 685.
Coke-oven. E. Hohmann. No. 1,027,845; May 28; Sp. p. 6022; Gaz. vol. 178; p. 1043.
Coke-oven. T. von Bauer. No. 1,028,087; May 28; Sp. p. 6582; Gaz. vol. 178; p. 1123.
Collapsible tube. G. D. Hazen. No. 1,027,728; May 28; Sp. p. 5757; Gaz. vol. 178; p. 1003.
Collar-assembling apparatus. F. H. Norris. No. 1,027,355; May 21; Sp. p. 4905; Gaz. vol. 178; p. 842.
Collar, Ox-. J. B. Lesguerre. No. 1,025,409; May 7; Sp. p. 666; Gaz. vol. 178; p. 105.
Colorimeter. P. G. Nutting. No. 1,026,878; May 21; Sp. p. 3933; Gaz. vol. 178; p. 679.
Coloring-matter, Manufacture of azo. H. Bucherer. No. 1,026,902; May 21; Sp. p. 4003; Gaz. vol. 178; p. 687.
Coloring-matters, Manufacturing black sulfurized. O. Reinhardt and J. Hoerlin. No. 1,026,881; May 21; Sp. p. 3948; Gaz. vol. 178; p. 680.
Column cap and base shaping machine. C. W. Borg. No. 1,026,071; May 14; Sp. p. 2171; Gaz. vol. 178; p. 367.
Column-polishing machine. D. L. Calahan. No. 1,025,859; May 7; Sp. p. 1648; Gaz. vol. 178; p. 259.
Comb: *See* Currycomb; Dressing-comb.
Combing-machine. A. Tomlinson. No. 1,025,934; May 7; Sp. p. 1846; Gaz. vol. 178; p. 284.
Combing-machine, Circular. J. Smith. No. 1,026,058; May 14; Sp. p. 2129; Gaz. vol. 178; p. 362.
Comforter-filling machine. J. R. Sheldon. No. 1,027,570; May 28; Sp. p. 5452; Gaz. vol. 178; p. 953.
Commode. C. H. Barrett. No. 1,025,114; May 7; Sp. p. 1; Gaz. vol. 178; p. 3.
Composition containing vulcanized oil and manufacture. E. Taylor. No. 1,025,217; May 7; Sp. p. 237; Gaz. vol. 178; p. 40.
Composition of matter. J. R. C. Marsh. No. 1,027,620; May 28; Sp. p. 5534; Gaz. vol. 178; p. 968.
Composition of matter. J. R. C. Marsh. No. 1,028,046; May 28; Sp. p. 6490; Gaz. vol. 178; p. 1110.
Composition of matter. J. R. C. Marsh. No. 1,028,047; May 28; Sp. p. 6490; Gaz. vol. 178; p. 1110.
Compound engine. C. J. Mellin. No. 1,025,638; May 7; Sp. p. 1196; Gaz. vol. 178; p. 184.
Compress. S. J. Webb. No. 1,025,849; May 7; Sp. p. 1614; Gaz. vol. 178; p. 256.
Computing-machine. J. T. Hurley. No. 1,027,847; May 28; Sp. p. 6027; Gaz. vol. 178; p. 1044.
Concentrating-table. G. A. Overstrom. No. 1,026,764; May 21; Sp. p. 3691; Gaz. vol. 178; p. 639.
Concrete-building apparatus. R. W. Fuller. No. 1,028,013; May 28; Sp. p. 6409; Gaz. vol. 178; p. 1099.
Concrete construction, Wire clip for. J. H. Straus, Jr. No. 1,025,330; May 7; Sp. p. 496; Gaz. vol. 178; p. 77.
Concrete cross-tie, Reinforced-. A. F. Wilson. No. 1,027,578; May 28; Sp. p. 5469; Gaz. vol. 178; p. 956.
Concrete culverts, Collapsible form for. W. Burgner. No. 1,027,176; May 21; Sp. p. 4639; Gaz. vol. 178; p. 779.
Concrete floors, Tile construction for. J. S. Nolan. No. 1,025,536; May 7; Sp. p. 966; Gaz. vol. 178; p. 149.
Concrete lamp-post. L. G. Haase. No. 1,026,801; May 21; Sp. p. 3766; Gaz. vol. 178; p. 652.
Concrete-mixer. C. W. Levalley. No. 1,027,055; May 21; Sp. p. 4368; Gaz. vol. 178; p. 741.
Concrete-mixing apparatus. C. W. Levalley. No. 1,026,958; May 21; Sp. p. 4150; Gaz. vol. 178; p. 708.
Concrete piling. E. Bignell. No. 1,026,144; May 14; Sp. p. 2326; Gaz. vol. 178; p. 393.
Concrete piling and piling units. M. M. Upson. No. 1,025,434; May 7; Sp. p. 711; Gaz. vol. 178; p. 113.
Concrete sign, Individual. L. G. Haase. No. 1,028,018; May 28; Sp. p. 6417; Gaz. vol. 178; p. 1101.
Connecting device, Elastic. J. N. Cutler. No. 1,026,566; May 14; Sp. p. 3234; Gaz. vol. 178; p. 534.
Container. F. N. Philippar and P. J. Desselle. No. 1,026,453; May 14; Sp. p. 3015; Gaz. vol. 178; p. 497.
Container and cutter, Combined. J. K. Toles. No. 1,026,778; May 21; Sp. p. 3718; Gaz. vol. 178; p. 644.
Control system. K. A. Pauly. No. 1,026,364; May 14; Sp. p. 2825; Gaz. vol. 178; p. 468.
Controlling device. N. C. Durand. No. 1,027,702; May 28; Sp. p. 5715; Gaz. vol. 178; p. 996.
Converter. S. B. Frumkin. No. 1,025,260; May 7; Sp. p. 335; Gaz. vol. 178; p. 54.
Converters, Blast connection for. R. Bernhard and A. Niedermeyer. No. 1,026,556; May 14; Sp. p. 3212; Gaz. vol. 178; p. 531.
Convertible chair. R. Moskowits. No. 1,026,276; May 14; Sp. p. 2609; Gaz. vol. 178; p. 437.
Conveyer. C. D. Seeberger. No. 1,025,316; May 7; Sp. p. 462; Gaz. vol. 178; p. 73.
Conveyer. W. J. Turnbull. No. 1,026,617; May 14; Sp. p. 3338; Gaz. vol. 178; p. 561.
Conveyer. J. W. Dawson. No. 1,027,036; May 21; Sp. p. 4330; Gaz. vol. 178; p. 735.
Conveyer-bucket. R. W. Dull. No. 1,026,385; May 14; Sp. p. 2866; Gaz. vol. 178; p. 475.
Conveying apparatus. A. S. Dwight. No. 1,027,111; May 21; Sp. p. 4513; Gaz. vol. 178; p. 760.
Cooker, Fry-cake and doughnut. G. R. von Krogoll. No. 1,025,630; May 7; Sp. p. 1177; Gaz. vol. 178; p. 181.
Cooking apparatus. R. B. Vessey. No. 1,026,334; May 14; Sp. p. 2748; Gaz. vol. 178; p. 459.
Cooler: *See* Milk, cream, and water cooler; Personal cooler.
Cooling-board. M. Smysor. No. 1,027,921; May 28; Sp. p. 6231; Gaz. vol. 178; p. 1070.
Cooling device. L. E. Larrance. No. 1,027,660; May 28; Sp. p. 5623; Gaz. vol. 178; p. 982.
Cooling-tower. B. H. Coffey. No. 1,027,184; May 21; Sp. p. 4657; Gaz. vol. 178; p. 783.
Copper, Refining. W. S. Rockey and H. Eldridge. No. 1,027,769; May 28; Sp. p. 5842; Gaz. vol. 178; p. 1017.
Cord for use in the manufacture of chairs or other articles. H. B. Morris. No. 1,027,751; May 28; Sp. p. 5802; Gaz. vol. 178; p. 1011.
Cord or cable supporting bracket. J. V. Trenaman. No. 1,026,186; May 14; Sp. p. 2415; Gaz. vol. 178; p. 406.
Core-chaplet. E. W. Smith. No. 1,027,673; May 28; Sp. p. 5658; Gaz. vol. 178; p. 986.
Core-drilling machinery. C. A. Terry. No. 1,025,333; May 7; Sp. p. 501; Gaz. vol. 178; p. 78.
Corn drier, Seed-. T. C. Sime. No. 1,027,672; May 28; Sp. p. 5658; Gaz. vol. 178; p. 985.
Corn-drying device or utensil, Seed-. J. S. and B. L. Bain. No. 1,026,550; May 14; Sp. p. 3200; Gaz. vol. 178; p. 529.
Corn gathering and husking machine. T. C. Stowell. No. 1,027,013; May 21; Sp. p. 4256; Gaz. vol. 178; p. 726.
Corn grader, Seed-. C. Hunnicutt. No. 1,026,265; May 14; Sp. p. 2580; Gaz. vol. 178; p. 434.
Corn grader, Seed-. C. Hunnicutt. No. 1,027,734; May 28; Sp. p. 5771; Gaz. vol. 178; p. 1005.
Corn-husker. W. L. Stallard. No. 1,027,446; May 28; Sp. p. 5195; Gaz. vol. 178; p. 911.
Corn-planter. J. M. Brandenburg. No. 1,026,786; May 21; Sp. p. 3736; Gaz. vol. 178; p. 647.
Corn-popping machine. J. A. Botherham. No. 1,026,052; May 14; Sp. p. 2120; Gaz. vol. 178; p. 360.
Corn removing and curing device. D. M. Don Jian. No. 1,025,903; May 7; Sp. p. 1781; Gaz. vol. 178; p. 273.
Corn-sheller spring mechanism. J. Velder. No. 1,026,134; May 14; Sp. p. 2306; Gaz. vol. 178; p. 389.
Corn-shellers, &c., Cleaning apparatus for. F. Hall. (Reissue.) No. 13,418; May 14; Sp. p. 3421; Gaz. vol. 178; p. 564.
Corn-shock-loading apparatus. W. G. Osborn. No. 1,027,356; May 21; Sp. p. 4997; Gaz. vol. 178; p. 842.
Corner-protector. A. Priddle. No. 1,025,424; May 7; Sp. p. 694; Gaz. vol. 178; p. 110.
Corrugated sheet. E. H. Angier. No. 1,025,443; May 7; Sp. p. 752; Gaz. vol. 178; p. 117.
Corset, Breast-supporting. H. F. Leporin. No. 1,026,326; May 14; Sp. p. 2727; Gaz. vol. 178; p. 456.
Cotton-batting preparatory for pressing and baling, Apparatus for solidifying. C. Banister. No. 1,025,503; May 7; Sp. p. 885; Gaz. vol. 178; p. 138.
Cotton-chopper. J. C. Towell. No. 1,025,935; May 7; Sp. p. 1848; Gaz. vol. 178; p. 284.
Cotton-chopper. J. C. Cassidy. No. 1,027,033; May 21; Sp. p. 4320; Gaz. vol. 178; p. 734.
Cotton-chopper. L. E. Bowser. No. 1,027,687; May 28; Sp. p. 5688; Gaz. vol. 178; p. 991.
Cotton chopper and cultivator. J. W. McMillan. No. 1,025,761; May 7; Sp. p. 1439; Gaz. vol. 178; p. 226.
Cotton container, Waste-. L. P. Dorais. No. 1,026,081; May 14; Sp. p. 2200; Gaz. vol. 178; p. 371.
Cotton-picker. L. Willman. No. 1,027,455; May 28; Sp. p. 5209; Gaz. vol. 178; p. 914.
Cotton-waste, Renovating. J. Kauffmann. No. 1,026,267; May 14; Sp. p. 2594; Gaz. vol. 178; p. 434.
Couch and bed, Convertible. L. B. Jeffcott. No. 1,025,745; May 7; Sp. p. 1408; Gaz. vol. 178; p. 220.
Counter. W. B. Pearson and E. R. Seward. No. 1,027,065; May 21; Sp. p. 4401; Gaz. vol. 178; p. 745.
Coupling: *See* Air-coupling; Car-coupling; Engine-coupling; Pipe-coupling; Pipe-line coupling; Shaft-coupling; Water and shot feed coupling; Windmill-coupling.
Coupling. W. M. Smith. No. 1,026,716; May 21; Sp. p. 3574; Gaz. vol. 178; p. 623.
Coupling. C. Mendel. No. 1,027,267; May 21; Sp. p. 4815; Gaz. vol. 178; p. 812.
Coupling. C. E. Wright. No. 1,027,579; May 28; Sp. p. 5470; Gaz. vol. 178; p. 957.
Coupling device. S. F. Leslie. No. 1,027,861; May 28; Sp. p. 6089; Gaz. vol. 178; p. 1049.
Coupling of screw-propellers, screw-ventilators, fly-wheels, &c. H. Reissner. No. 1,025,589; May 7; Sp. p. 1086; Gaz. vol. 178; p. 168.
Cover retainer, Receptacle-. P. A. Lawrence. No. 1,026,096; May 14; Sp. p. 2229; Gaz. vol. 178; p. 376.
Cow-tail holder. S. C. Beardsley. No. 1,026,378; May 14; Sp. p. 2854; Gaz. vol. 178; p. 473.
Cranking device, Automatic. W. H. Withers and C. T. Harris. No. 1,027,957; May 28; Sp. p. 6289; Gaz. vol. 178; p. 1081.
Crate. J. Wahl. No. 1,027,631; May 28; Sp. p. 5561; Gaz. vol. 178; p. 972.

Crate, Poultry-. G. D. Ross. No. 1,027,771; May 28; Sp. p. 5843; Gaz. vol. 178; p. 1018.
Creel, Metallic. C. A. Allen. No. 1,026,646; May 21; Sp. p. 3429; Gaz. vol. 178; p. 599.
Crumbling device for superphosphate and other materials. N. K. E. Malmsten and K. T. Thorssell. No. 1,026,273; May 14; Sp. p. 2603; Gaz. vol. 178; p. 436.
Crushing-machine. J. Willners. No. 1,025,895; May 7; Sp. p. 1765; Gaz. vol. 178; p. 271.
Crushing-mill. T. J. Sturtevant. No. 1,027,222; May 21; Sp. p. 4737; Gaz. vol. 178; p. 796.
Crushing-mill. T. L. and T. J. Sturtevant. No. 1,027,294; May 21; Sp. p. 4883; Gaz. vol. 178; p. 821.
Cue-tip fastener. T. N. De Witt. No. 1,028,002; May 28; Sp. p. 6393; Gaz. vol. 178; p. 1097.
Cuff-pin. W. W. Williams. No. 1,027,302; May 21; Sp. p. 4897; Gaz. vol. 178; p. 824.
Cultivator. S. H. Tinsman. No. 1,025,220; May 7; Sp. p. 244; Gaz. vol. 178; p. 41.
Cultivator. M. N. Kirkhuff. No. 1,025,749; May 7; Sp. p. 1414; Gaz. vol. 178; p. 222.
Cultivator. M. N. Kirkhuff. No. 1,025,874; May 7; Sp. p. 1689; Gaz. vol. 178; p. 264.
Cultivator. W. E. Mikesell. No. 1,028,053; May 28; Sp. p. 6499; Gaz. vol. 178; p. 1112.
Cultivator attachment. W. C. Dunlap. No. 1,025,458; May 7; Sp. p. 780; Gaz. vol. 178; p. 122.
Cultivator attachment. C. Lickey. No. 1,027,264; May 21; Sp. p. 4811; Gaz. vol. 178; p. 811.
Cultivator, Beet-blocking. A. Clark. No. 1,025,961; May 14; Sp. p. 1906; Gaz. vol. 178; p. 328.
Cultivator draft-equalizer. C. E. King. No. 1,028,076; May 28; Sp. p. 6556; Gaz. vol. 178; p. 1119.
Cultivator-frame. L. E. Waterman. No. 1,025,770; May 7; Sp. p. 1455; Gaz. vol. 178; p. 229.
Cultivator-shovel support. L. E. Waterman. No. 1,025,771; May 7; Sp. p. 1456; Gaz. vol. 178; p. 229.
Cultivator-wheel guard. F. Adix. No. 1,026,293; May 14; Sp. p. 2649; Gaz. vol. 178; p. 443.
Cultivators or plows, Spacing attachment for. J. H. Stubblefield. No. 1,025,546; May 7; Sp. p. 990; Gaz. vol. 178; p. 153.
Culvert. T. A. Hill. No. 1,025,186; May 7; Sp. p. 171; Gaz. vol. 178; p. 29.
Culvert. H. I. Standley. No. 1,025,327; May 7; Sp. p. 492; Gaz. vol. 178; p. 76.
Cup: *See* Drinking-cup; Grease-cup; Oil-cup.
Cupboard and dumb-waiter, Combined. C. C. Yetter. No. 1,027,229; May 21; Sp. p. 4750; Gaz. vol. 178; p. 799.
Current-collecting mechanism. C. J. E. Waxbom. No. 1,027,090; May 21; Sp. p. 4469; Gaz. vol. 178; p. 753.
Current-motor. C. A. Neyland. No. 1,027,213; May 21; Sp. p. 4717; Gaz. vol. 178; p. 792.
Current-motor. E. Cox. No. 1,027,993; May 28; Sp. p. 6368; Gaz. vol. 178; p. 1094.
Current program system, Alternating-. J. L. Wrenn. No. 1,026,290; May 14; Sp. p. 2643; Gaz. vol. 178; p. 442.
Current-regulator. W. H. Sherbondy. No. 1,026,775; May 21; Sp. p. 3712; Gaz. vol. 178; p. 643.
Currycomb. D. J. Alston. No. 1,026,843; May 21; Sp. p. 3858; Gaz. vol. 178; p. 666.
Currycomb and brush. H. F. Endsley. No. 1,025,793; May 7; Sp. p. 1490; Gaz. vol. 178; p. 237.
Curtain-fixture. B. Bower and H. Spero. No. 1,025,116; May 7; Sp. p. 3; Gaz. vol. 178; p. 3.
Curtain-fixture. H. S. Meek. No. 1,025,920; May 7; Sp. p. 1814; Gaz. vol. 178; p. 280.
Curtain-fixture. C. A. Sterling. No. 1,026,286; May 14; Sp. p. 2633; Gaz. vol. 178; p. 441.
Curtain-fixture. W. Bradley. No. 1,026,652; May 21; Sp. p. 3443; Gaz. vol. 178; p. 601.
Curtain-fixture. J. Werner. No. 1,027,950; May 28; Sp. p. 6277; Gaz. vol. 178; p. 1079.
Curtain-hanger. J. G. Hearest. No. 1,026,951; May 21; Sp. p. 4136; Gaz. vol. 178; p. 705.
Curtain-pole. H. A. Anderson. No. 1,026,647; May 21; Sp. p. 3430; Gaz. vol. 178; p. 599.
Curtain-pole holder. H. T. Holland. No. 1,026,953; May 21; Sp. p. 4139; Gaz. vol. 178; p. 706.
Curtain-rod and attachment. F. L. Lathrop and G. T. S. Spokes. No. 1,026,042; May 14; Sp. p. 2081; Gaz. vol. 178; p. 356.
Curtain-support, Adjustable. C. M. Thurston. No. 1,025,335; May 7; Sp. p. 507; Gaz. vol. 178; p. 79.
Cushion: *See* Pneumatic cushion.
Cuspidor-lifter. R. Henry. No. 1,026,354; May 14; Sp. p. 2801; Gaz. vol. 178; p. 465.
Cuspidor, Sanitary. W. Morey. No. 1,025,288; May 7; Sp. p. 389; Gaz. vol. 178; p. 64.
Cuspidor, Sanitary. N. Winsse and M. Plocher. No. 1,027,785; May 28; Sp. p. 5875; Gaz. vol. 178; p. 1022.
Cutter: *See* Butter-cutter; Cigar-cutter; Feed-cutter; Grass-cutter; Plane-cutter; Root-cutter; Screw-cutter; Ticket-cutter; Twine-cutter.
Cutter-head. W. F. and J. D. Mattern. No. 1,025,149; May 7; Sp. p. 81; Gaz. vol. 178; p. 15.
Cutter-head. E. S. Shimer. No. 1,025,838; May 7; Sp. p. 1593; Gaz. vol. 178; p. 252.
Cutter-head. E. S. Shimer. No. 1,025,839; May 7; Sp. p. 1594; Gaz. vol. 178; p. 253.
Cutter-head gage. G. Watkins and S. M. Taylor. No. 1,026,136; May 14; Sp. p. 2309; Gaz. vol. 178; p. 390.
Cutting and punching machine. S. A. Bostwick. No. 1,026,072; May 14; Sp. p. 2173; Gaz. vol. 178; p. 367.
Cutting device. E. A. Stiggins. No. 1,027,510; May 28; Sp. p. 5318; Gaz. vol. 178; p. 932.
Cutting-machine. H. Fachs. No. 1,025,741; May 7; Sp. p. 1399; Gaz. vol. 178; p. 219.
Cutting machinery. G. P. Schmidt. No. 1,025,927; May 7; Sp. p. 1828; Gaz. vol. 178; p. 282.
Cycle-globe, Amusement. H. Richmond and C. E. Barber. No. 1,027,069; May 21; Sp. p. 4415; Gaz. vol. 178; p. 746.
Cycle rear-seat spring, Motor-. F. E. and R. A. Palin. No. 1,026,115; May 14; Sp. p. 2269; Gaz. vol. 178; p. 383.
Cycle seat attachment, Motor-. F. R. Covey and C. F. Hoag. No. 1,027,992; May 28; Sp. p. 6367; Gaz. vol. 178; p. 1094.
Cycles, Detachable mud-guard and dress-protector for motor-. G. H. Blake. No. 1,027,806; May 28; Sp. p. 5930; Gaz. vol. 178; p. 1030.
Dam, Portable ditch-. A. Cadwallader. No. 1,027,235; May 21; Sp. p. 4761; Gaz. vol. 178; p. 801.
Dampening-machine. C. J. Prankard, Jr. No. 1,027,275; May 21; Sp. p. 4835; Gaz. vol. 178; p. 815.
Damper, Check-. J. Demarest. No. 1,027,037; May 21; Sp. p. 4331; Gaz. vol. 178; p. 735.
Dark chamber, Portable folding. W. Macke. No. 1,027,662; May 28; Sp. p. 5625; Gaz. vol. 178; p. 982.
Decorated fabric. F. Rink. No. 1,026,125; May 14; Sp. p. 2291; Gaz. vol. 178; p. 386.
Decorated fabric. G. H. Taylor. No. 1,026,131; May 14; Sp. p. 2302; Gaz. vol. 178; p. 388.
Deflector and ventilator, Combined. T. T. Peddy and G. F. Gallagher. No. 1,025,832; May 7; Sp. p. 1580; Gaz. vol. 178; p. 251.
Dehydrated potatoes and preparing the same. E. W. Cooke. No. 1,025,373; May 7; Sp. p. 595; Gaz. vol. 178; p. 92.
Dehydrating animal and vegetable substances. E. W. Cooke. No. 1,025,374; May 7; Sp. p. 597; Gaz. vol. 178; p. 93.
Delivery mechanism. W. Scott. No. 1,027,283; May 21, Sp. p. 4858; Gaz. vol. 178; p. 818.
Denture. L. Greenbaum. No. 1,028,017; May 28; Sp. p. 6415; Gaz. vol. 178; p. 1101.
Derrick connection. W. Bishop. No. 1,026,845; May 21; Sp. p. 3860; Gaz. vol. 178; p. 667.
Detachable spindle. C. B. Wilson. No. 1,028,090; May 28; Sp. p. 6601; Gaz. vol. 178; p. 1124.
Detersive agents, Manufacture of. R. Macpherson and W. E. Heys. No. 1,027,744; May 28; Sp. p. 5788; Gaz. vol. 178; p. 1009.
Detonator-magazine, Portable. A. S. Hamilton. No. 1,026,860; May 21; Sp. p. 3889; Gaz. vol. 178; p. 671.
Devotional chair. J. B. Webster. No. 1,025,348; May 7; Sp. p. 538; Gaz. vol. 178; p. 84.
Die-box. C. A. Cuenin. No. 1,027,185; May 21; Sp. p. 4650; Gaz. vol. 178; p. 783.
Die-stamp. E. D. N. Schulte. No. 1,025,592; May 7; Sp. p. 1091; Gaz. vol. 178; p. 169.
Die-starter. J. J. Young. No. 1,026,194; May 14; Sp. p. 2442; Gaz. vol. 178; p. 409.
Digger: *See* Grass-digger; Post-hole digger.
Digging shovel. Trench-. J. Lapin. No. 1,027,345; May 21; Sp. p. 4975; Gaz. vol. 178; p. 838.
Dioleïns, Producing. F. Webel. No. 1,026,418; May 14; Sp. p. 2937; Gaz. vol. 178; p. 486.
Dioleïns, Producing. F. Webel. No. 1,026,419; May 14; Sp. p. 2938; Gaz. vol. 178; p. 486.
Dioleïns, Producing. F. Webel. No. 1,026,420; May 14; Sp. p. 2939; Gaz. vol. 178; p. 486.
Dish, Butter-. A. A. Fordon and G. L. Morrison. No. 1,027,719; May 28; Sp. p. 5741; Gaz. vol. 178; p. 1001.
Dish drip-tray. G. Wingender. No. 1,025,178; May 7; Sp. p. 153; Gaz. vol. 178; p. 26.
Disinfectant-holder. J. R. Jackson. No. 1,025,189; May 7; Sp. p. 176; Gaz. vol. 178; p. 30.
Disinfecting and other purposes, Composition for. L. H. Reuter. No. 1,027,000; May 21; Sp. p. 4233; Gaz. vol. 178; p. 722.
Disk-record holder. A. S. Nichols. No. 1,026,111; May 14; Sp. p. 2262; Gaz. vol. 178; p. 381.
Dispensing-can. C. A. Hertenstein and W. F. Probst. No. 1,026,552; May 14; Sp. p. 3261; Gaz. vol. 178; p. 539.
Dispensing-can. W. F. Pierce. No. 1,026,828; May 21; Sp. p. 3821; Gaz. vol. 178; p. 661.
Dispensing device. C. V. and C. J. Case and F. E. Parker. No. 1,027,177; May 21; Sp. p. 4641; Gaz. vol. 178; p. 779.
Display apparatus. K. Kolke. No. 1,026,214; May 14; Sp. p. 2401; Gaz. vol. 178; p. 417.
Display apparatus. H. Holden. No. 1,027,606; May 28; Sp. p. 5513; Gaz. vol. 178; p. 964.
Display-cabinet. C. A. Hamilton. No. 1,027,723; May 28; Sp. p. 5748; Gaz. vol. 178; p. 1002.
Display-cabinet door structure. L. W. Welch. No. 1,025,350; May 7; Sp. p. 541; Gaz. vol. 178; p. 84.
Display case, Lace-curtain. W. A. Charlet. No. 1,026,561; May 14; Sp. p. 3221; Gaz. vol. 178; p. 532.
Display device. J. Stranders. No. 1,026,634; May 14; Sp. p. 3379; Gaz. vol. 178; p. 557.
Display device. O. L. Smith. No. 1,027,083; May 21; Sp. p. 4454; Gaz. vol. 178; p. 751.
Display-fixture. S. Weisberger. No. 1,025,349; May 7; Sp. p. 539; Gaz. vol. 178; p. 84.
Display-rack. B. J. Buckingham. No. 1,026,241; May 14; Sp. p. 2542; Gaz. vol. 178; p. 426.
Display-rack. J. R. Mahoney. No. 1,026,593; May 14; Sp. p. 3283; Gaz. vol. 178; p. 548.

Display-rack. A. H. Riederer. No. 1,026,771; May 21; Sp. p. 3707; Gaz. vol. 178; p. 642.
Display-rack, Hat-nesting. R. Parker, Jr. No. 1,026,116; May 14; Sp. p. 2271; Gaz. vol. 178; p. 383.
Ditching-machine and tile-distributer. A. E. Hanson. No. 1,026,672; May 21; Sp. p. 3478; Gaz. vol. 178; p. 607.
Documentary distributing device. W. L. Deming. No. 1,027,701; May 28; Sp. p. 5712; Gaz. vol. 178; p. 995.
Doll. M. K. Baker. No. 1,025,234; May 7; Sp. p. 272; Gaz. vol. 178; p. 45.
Doll-head. J. M. Dickson. No. 1,027,324; May 21; Sp. p. 4940; Gaz. vol. 178; p. 831.
Door and window opening. G. A. Berlinghof and E. L. Davis. No. 1,027,460; May 28; Sp. p. 5219; Gaz. vol. 178; p. 915.
Door attachment, Screen-. J. E. Johnson. No. 1,025,746; May 7; Sp. p. 1410; Gaz. vol. 178; p. 221.
Door-bolt. B. L. Davidson and E. B. Welch. No. 1,027,035; May 21; Sp. p. 4329; Gaz. vol. 178; p. 734.
Door-closing apparatus. W. Duggan, Jr. No. 1,026,155; May 14; Sp. p. 2348; Gaz. vol. 178; p. 396.
Door-closing mechanism. O. C. Rixson. No. 1,025,309; May 7; Sp. p. 447; Gaz. vol. 178; p. 71.
Door-hanger. P. M. Elliott. No. 1,025,617; May 7; Sp. p. 1154; Gaz. vol. 178; p. 177.
Door-hanger. F. W. S. Elstroth. No. 1,027,645; May 28; Sp. p. 5584; Gaz. vol. 178; p. 976.
Door-hanger. F. W. S. Elstroth. No. 1,027,705; May 28; Sp. p 5720; Gaz. vol. 178; p. 997.
Door-hanger. H. L. Ferris. No. 1,027,714; May 28; Sp. p. 5736; Gaz. vol. 178; p. 999.
Door-hanger, Releasing. J. L. Rifer. No. 1,027,504; May 28; Sp. p. 5308; Gaz. vol. 178; p. 930.
Door-hanger track. H. L. Ferris. No. 1,027,713; May 28; Sp. p. 5735; Gaz. vol. 178; p. 999.
Door-lock, Emergency. H. G. Voight. No. 1,026,888; May 21; Sp. p. 3966; Gaz. vol. 178; p. 683.
Door-opener. B. F. Souther. No. 1,026,284; May 14; Sp. p. 2629; Gaz. vol. 178; p. 440.
Door-operating appliance, Automatic. M. Hynek. No. 1,026,805; May 21; Sp. p. 3773; Gaz. vol. 178; p. 653.
Door-operating device. C. Alter. No. 1,027,231; May 21; Sp. p. 4754; Gaz. vol. 178; p. 800.
Door-operating mechanism. C. P. Turner, W. T. Drake, and J. E. Little. No. 1,025,890; May 7; Sp. p. 1752; Gaz. vol. 178; p. 270.
Door-operating mechanism. A. D. Lake. No. 1,026,170; May 14; Sp. p. 2377; Gaz. vol. 178; p. 401.
Door-securing device. R. Heinzelman. No. 1,026,745; May 21; Sp. p. 3635; Gaz. vol. 178; p. 632.
Door stop and holder. G. W. Rigney. No. 1,026,702; May 21; Sp. p. 3543; Gaz. vol. 178; p. 618.
Double-cylinder engine. A. G. Bethard. No. 1,026,198; May 14; Sp. p. 2449; Gaz. vol. 178; p. 411.
Double-throw switch. R. Cannan and J. A. Misland. No. 1,025,454; May 7; Sp. p. 773; Gaz. vol. 178; p. 121.
Doubletree. H. E. Livingston. No. 1,028,038; May 28; Sp. p. 6471; Gaz. vol. 178; p. 1107.
Dough mixer and kneader. O. D. Woodruff. No. 1,027,960; May 28; Sp. p. 6298; Gaz. vol. 178; p. 1082.
Dough-raiser. A. L. Fenton. No. 1,026,978; May 21; Sp. p. 4180; Gaz. vol. 178; p. 714.
Draft appliance. P. E. Waldvogel. No. 1,027,677; May 28; Sp. p. 5663; Gaz. vol. 178; p. 987.
Draft-equalizer. F. E. Spencer. No. 1,026,130; May 14; Sp. p. 2301; Gaz. vol. 178; p. 388.
Draft-equalizer. L. R. Cron. No. 1,026,909; May 21; Sp. p. 4015; Gaz. vol. 178; p. 689.
Draft-equalizer. W. J. Campbell. No. 1,027,988; May 28; Sp. p. 6363; Gaz. vol. 178; p. 1093.
Draft-regulator for hot-water heaters. W. A. Schleit. No. 1,026,965; May 21; Sp. p. 4162; Gaz. vol. 178; p. 710.
Draft-rigging. W. P. Bettendorf. No. 1,025,445; May 7; Sp. p. 756; Gaz. vol. 178; p. 117.
Draft-rigging, Friction. J. F. O'Connor. No. 1,026,113; May 14; Sp. p. 2266; Gaz. vol. 178; p. 382.
Draft-rigging, Tandem-spring. R. E. Frame. No. 1,026,741; May 21; Sp. p. 3630; Gaz. vol. 178; p. 631.
Drafting device for shading circles. V. Constantinescu. No. 1,027,102; May 21; Sp. p. 4495; Gaz. vol. 178; p. 757.
Draw-bar. W. D. Dambino. No. 1,027,323; May 21; Sp. p. 4939; Gaz. vol. 178; p. 831.
Draw-bar mechanism. G. H. Forsyth. No. 1,025,522; May 7; Sp. p. 928; Gaz. vol. 178; p. 144.
Draw-bed. J. M. Gardner. No. 1,025,391; May 7; Sp. p. 637; Gaz. vol. 178; p. 99.
Drawing and music case. J. Jorg. No. 1,027,611; May 28; Sp. p. 5525; Gaz. vol. 178; p. 960.
Drawing-press. F. Orton. No. 1,025,154; May 7; Sp. p. 89; Gaz. vol. 178; p. 16.
Dredging-machines, Suction-tube for hydraulic. L. J. Baltz. No. 1,027,095; May 21; Sp. p. 4478; Gaz. vol. 178; p. 755.
Dressing-comb. R. L. Potter. No. 1,025,156; May 7; Sp. p. 96; Gaz. vol. 178; p. 17.
Drier: *See* Centrifugal drier; Corn-drier; Fruit-drier; Wall-board drier.
Drier. T. M. Wilson. No. 1,027,513; May 28; Sp. p. 5326; Gaz. vol. 178; p. 933.
Dry-room hanger. W. Bartholomew. No. 1,025,853; May 7; Sp. p. 1625; Gaz. vol. 178; p. 257.
Drying apparatus. F. Lafeuille. No. 1,026,683; May 21; Sp. p. 3505; Gaz. vol. 178; p. 612.
Drying-chambers, Arrangement for removing the moist air from. H. Allard. No. 1,025,603; May 7; Sp. p. 1109; Gaz. vol. 178; p. 172.
Drill: *See* Grain-drill; Multiple-spindle drill; Rock-drill.
Drill. W. R. Down. No. 1,027,039; May 21; Sp. p. 4335; Gaz. vol. 178; p. 735.
Drill-bit. J. Sobacki and G. W. Cook. No. 1,026,530; May 14; Sp. p. 3165; Gaz. vol. 178; p. 523.
Drill-casing pulling-stand. A. C. Ludlum. No. 1,027,867; May 28; Sp. p. 6128; Gaz. vol. 178; p. 1052.
Drill-spindles, Feeding attachment for. R. Milne. No. 1,026,595; May 14; Sp. p. 3285; Gaz. vol. 178; p. 542.
Drill-steel-forming and drill-bit-sharpening machine, Fluid-controlled. J. G. Leyner. No. 1,026,872; May 21; Sp. p. 3916; Gaz. vol. 178; p. 676.
Drinking-cup, Collapsible. S. Curtis. No. 1,025,380; May 7; Sp. p. 617; Gaz. vol. 178; p. 95.
Drinking-cup, Collapsible. P. A. Baylese and H. D. Henry. No. 1,025,606; May 7; Sp. p. 1114; Gaz. vol. 178; p. 173.
Drinking-cup, Collapsible. E. Von Vargyas and J. W. Deidrick. No. 1,025,937; May 7; Sp. p. 1852; Gaz. vol. 178; p. 285.
Drinking-cup holder, Individual-. J. B. Forsyth. No. 1,025,909; May 7; Sp. p. 1793; Gaz. vol. 178; p. 276.
Drinking-receptacle, Collapsible. E. Von Vargyas and J. W. Deidrick. No. 1,025,660; May 7; Sp. p. 1235; Gaz. vol. 178; p. 191.
Dropper: *See* Medicine-dropper.
Drum, Heating-. W. A. Brewster. No. 1,025,736; May 7; Sp. p. 1390; Gaz. vol. 178; p. 217.
Drum snare strainer and muffer. J. E. Lyneban. No. 1,025,146; May 7; Sp. p. 74; Gaz. vol. 178; p. 14.
Dumb-bell, Grip. J. C. Korth. No. 1,026,215; May 14; Sp. p. 2492; Gaz. vol. 178; p. 417.
Dust-separator. A. Wolf. No. 1,025,780; May 7; Sp. p. 1380; Gaz. vol. 178; p. 215.
Dye, Azo. M. Kahn and A. Ossenbeck. No. 1,025,983; May 14; Sp. p. 1945; Gaz. vol. 178; p. 836.
Dye, Azo. M. Kahn and A. Ossenbeck. No. 1,027,132; May 21; Sp. p. 4562; Gaz. vol. 178; p. 766.
Dye-bath and dyeing. M. Kahn and A. Ossenbeck. No. 1,025,273; May 7; Sp. p. 357; Gaz. vol. 178; p. 58.
Dye, Blue wool-. C. Heidenreich. No. 1,025,267; May 7; Sp. p. 348; Gaz. vol. 178; p. 57.
Dye, Brown azo. M. Kahn and A. Ossenbeck. No. 1,025,984; May 14; Sp. p. 1946; Gaz. vol. 178; p. 836.
Dye, Manufacture of pyrazolone-azo. K. Elbel. No. 1,026,257; May 14; Sp. p. 2576; Gaz. vol. 178; p. 431.
Dye of the triphenylmethane series. A. Hansdörfer and C. Heidenreich. No. 1,026,089; May 14; Sp. p. 2215; Gaz. vol. 178; p. 374.
Dye, Red azo. A. Ossenbeck and A. Zart. No. 1,027,148; May 21; Sp. p. 4591; Gaz. vol. 178; p. 771.
Dyes and making same, Anthracene. M. H. Isler. No. 1,026,588; May 14; Sp. p. 3271; Gaz. vol. 178; p. 541.
Dyes and making same, Halogenated vat. O. Bally. No. 1,026,621; May 14; Sp. p. 3354; Gaz. vol. 178; p. 553.
Dyeing and the product thereof. G. Engi and J. Fröhlich. No. 1,026,574; May 14; Sp. p. 3245; Gaz. vol. 178; p. 537.
Dyeing apparatus. D. M. Hey. No. 1,027,729; May 28; Sp. p. 5758; Gaz. vol. 178; p. 1003.
Dyeing fibrous materials. W. R. Smith. No. 1,025,323; May 7; Sp. p. 486; Gaz. vol. 178; p. 75.
Dyestuff and making same, Blue vat. R. Welde and B. Homolka. No. 1,025,174; May 7; Sp. p. 145; Gaz. vol. 178; p. 25.
Dyestuff and making same, Salmon-colored vat. G. Kränslein. No. 1,025,195; May 7; Sp. p. 187; Gaz. vol. 178; p. 32.
Dyestuff and making same, Vat. R. Maag. No. 1,025,147; May 7; Sp. p. 76; Gaz. vol. 178; p. 14.
Dyestuffs, Manufacture and production of fast ortho-oxy-azo. K. Elbel. No. 1,028,006; May 28; Sp. p. 6398; Gaz. vol. 178; p. 1098.
Dyestuffs, Violet-blue vat. E. Hoffa. No. 1,025,138; May 7; Sp. p. 59; Gaz. vol. 178; p. 11.
Dynamo-regulator. W. H. Chapman. No. 1,027,101; May 21; Sp. p. 4489; Gaz. vol. 178; p. 757.
Dynamometer for measuring forces. G. Wazau. No. 1,027,300; May 21; Sp. p. 4893; Gaz. vol. 178; p. 823.
Earpiece-disinfector. L. Block. No. 1,027,174; May 21; Sp. p. 4637; Gaz. vol. 178; p. 779.
Earth-chipping machine. J. R. McCoy. No. 1,025,475; May 7; Sp. p. 823; Gaz. vol. 178; p. 128.
Eaves-trough. A. N. Faupel. No. 1,026,085; May 14; Sp. p. 2209; Gaz. vol. 178; p. 372.
Economizer, regenerator, and the like. W. Matheslus. No. 1,027,875; May 28; Sp. p. 6138; Gaz. vol. 178; p. 1054.
Egg-beating, cream-whipping, &c., implement. E. H. Johnson. No. 1,025,982; May 14; Sp. p. 1944; Gaz. vol. 178; p. 336.
Egg-case. A. Olson. No. 1,025,294; May 7; Sp. p. 401; Gaz. vol. 178; p. 66.
Egg-saving packer. J. J. Miller. No. 1,026,359; May 14; Sp. p. 2816; Gaz. vol. 178; p. 466.
Egg-tray. C. D. Barr. No. 1,026,551; May 14; Sp. p. 3201; Gaz. vol. 178; p. 529.
Electric alarm. W. J. Knobloch. No. 1,026,518; May 14; Sp. p. 3149; Gaz. vol. 178; p. 519.
Electric apparatus, Vapor. P. C. Hewitt. No. 1,025,464; May 7; Sp. p. 797; Gaz. vol. 178; p. 124.
Electric-cable-drying chamber. A. Cassirer. No. 1,025,121; May 7; Sp. p. 12; Gaz. vol. 178; p. 5.

Electric controller. W. Schwieder. No. 1,027,072; May 21; Sp. p. 4419; Gaz. vol. 178; p. 747.
Electric-controller crank. G. E. Henry. No. 1,027,129; May 21; Sp. p. 4557; Gaz. vol. 178; p. 765.
Electric cut-out switch, Automatic. R. Winterhalder. No. 1,025,357; May 7; Sp. p. 556; Gaz. vol. 178; p. 87.
Electric fixture. L. Schepmoes. No. 1,025,208; May 7; Sp. p. 217; Gaz. vol. 178; p. 36.
Electric fixtures or electrollers, Shade-holder for. L. W. Andersen. No. 1,026,422; May 14; Sp. p. 2941; Gaz. vol. 178; p. 487.
Electric heater. W. Stanley. No. 1,027,291; May 21; Sp. p. 4876; Gaz. vol. 178; p. 820.
Electric heater, Flexible. L. C. Rhea. No. 1,027,763; May 28; Sp. p. 5831; Gaz. vol. 178; p. 1015.
Electric heaters and irons, Stand for. R. P. Moodie and C. W. Ball. No. 1,026,596; May 14; Sp. p. 3290; Gaz. vol. 178; p. 544.
Electric heaters, Automatic cut-out for. W. S. Andrews. No. 1,025,852; May 7; Sp. p. 1623; Gaz. vol. 178; p. 257.
Electric hoists, Safety device for. J. H. Hall. No. 1,027,126; May 21; Sp. p. 4551; Gaz. vol. 178; p. 765.
Electric-light attachment. J. C. Zubli and A. Vles. No. 1,025,896; May 7; Sp. p. 1769; Gaz. vol. 178; p. 271.
Electric-light bracket. A. F. Anderson and C. W. Armstrong. No. 1,025,442; May 7; Sp. p. 751; Gaz. vol. 178; p. 116.
Electric-light fixture, Portable. L. A. Williamson. No. 1,027,633; May 28; Sp. p. 5564; Gaz. vol. 178; p. 972.
Electric-light fixture, Portable. L. A. Williamson. No. 1,027,634; May 28; Sp. p. 566; Gaz. vol. 178; p. 973.
Electric-light fixture, Portable. L. A. Williamson. No. 1,027,635; May 28; Sp. p. 5567; Gaz. vol. 178; p. 973.
Electric lighter for gas-burners. S. Brown. No. 1,026,848; May 21; Sp. p. 3867; Gaz. vol. 178; p. 668.
Electric line-tapping connector. J. F. Richardson. No. 1,027,279; May 21; Sp. p. 4851; Gaz. vol. 178; p. 817.
Electric machine, Dynamo-. W. W. Dean. No. 1,026,737; May 21; Sp. p. 3624; Gaz. vol. 178; p. 630.
Electric machine, Dynamo-. J. E. Noeggerath. No. 1,027,145; May 21; Sp. p. 4588; Gaz. vol. 178; p. 771.
Electric machine, Dynamo-. L. W. Nelson. No. 1,027,273; May 21; Sp. p. 4831; Gaz. vol. 178; p. 814.
Electric-machine regulating apparatus, Dynamo-. C. E. Bonine. No. 1,026,900; May 21; Sp. p. 3990; Gaz. vol. 178; p. 686.
Electric motor. J. Burke. No. 1,026,904; May 21; Sp. p. 4006; Gaz. vol. 178; p. 688.
Electric motor. L. A. Hawkins. No. 1,027,048; May 21; Sp. p. 4350; Gaz. vol. 178; p. 738.
Electric pyrometer, Thermo-. W. S. Peake. No. 1,025,715; May 7; Sp. p. 1342; Gaz. vol. 178; p. 209.
Electric refining-crucible. J. H. Reid. No. 1,026,281; May 14; Sp. p. 2623; Gaz. vol. 178; p. 439.
Electric regulation. J. L. Creveling. No. 1,025,455; May 7; Sp. p. 775; Gaz. vol. 178; p. 121.
Electric regulator, Automatic. W. L. Bliss. No. 1,025,559; May 7; Sp. p. 1019; Gaz. vol. 178; p. 157.
Electric switch, Clock-operated. F. P. Cauble. No. 1,026,905; May 21; Sp. p. 4008; Gaz. vol. 178; p. 688.
Electric-wave transmission. J. H. Cuntz. No. 1,026,150; May 14; Sp. p. 2338; Gaz. vol. 178; p. 395.
Electrical apparatus, Protective device for. R. H. Manson. No. 1,025,532; May 7; Sp. p. 954; Gaz. vol. 178; p. 148.
Electrical cables or wires, Elevating or separating jack for. T. J. Cope. No. 1,027,104; May 21; Sp. p. 4499; Gaz. vol. 178; p. 758.
Electrical connection. J. M. Andersen. No. 1,026,238; May 14; Sp. p. 2537; Gaz. vol. 178; p. 425.
Electrical contact. E. E. Clement. No. 1,027,240; May 21; Sp. p. 4774; Gaz. vol. 178; p. 803.
Electrical systems, Protection for. M. O. Troy. No. 1,025,846; May 7; Sp. p. 1610; Gaz. vol. 178; p. 255.
Electrode, Arc-light. I. Ladoff. No. 1,025,407; May 7; Sp. p. 663; Gaz. vol. 178; p. 104.
Electrode for reversible galvanic batteries. W. Morrison. (Reissue.) No. 13,420; May 14; Sp. p. 3425; Gaz. vol. 178; p. 565.
Electrode, Non-consuming arc-lamp. E. Weintraub. No. 1,027,162; May 21; Sp. p. 4619; Gaz. vol. 178; p. 775.
Electrodes of secondary batteries, Process to regenerate and improve the structure of lead. E. H. Naylor. No. 1,026,527; May 14; Sp. p. 3161; Gaz. vol. 178; p. 522.
Electrolytic apparatus. L. G. Fixen. No. 1,026,857; May 21; Sp. p. 3885; Gaz. vol. 178; p. 670.
Electrolytic process. R. J. McNitt. No. 1,027,495; May 28; Sp. p. 5287; Gaz. vol. 178; p. 927.
Electromagnetic-wave receiver. E. R. Carlson. No. 1,027,238; May 21; Sp. p. 4770; Gaz. vol. 178; p. 802.
Electroplating. F. J. McElhone. No. 1,025,760; May 7; Sp. p. 1438; Gaz. vol. 178; p. 226.
Electroplating. A. Leuchter. No. 1,026,628; May 14; Sp. p. 3370; Gaz. vol. 178; p. 555.
Elevator: *See* Fruit-elevator.
Elevator. M. E. Bloom. No. 1,026,650; May 21; Sp. p. 3439; Gaz. vol. 178; p. 600.
Elevator. M. C. Schwab. No. 1,027,628; May 28; Sp. p. 5548; Gaz. vol. 178; p. 971.
Elevator device. C. Johnson and A. Sahlen. No. 1,025,873; May 7; Sp. p. 1687; Gaz. vol. 178; p. 263.
Elevator-guide-rail lubricator. L. Schultheis. No. 1,027,909; May 28; Sp. p. 6212; Gaz. vol. 178; p. 1066.
Elevator safety device. L. Hamilton. No. 1,025,871; May 7; Sp. p. 1684; Gaz. vol. 178; p. 263.
Elevator safety device. L. Gyorffy. No. 1,026,159; May 14; Sp. p. 2357; Gaz. vol. 178; p. 398.
Elevator safety device. W. H. Graham. No. 1,027,840; May 28; Sp. p. 6005; Gaz. vol. 178; p. 1042.
Ellipsograph. L. Burke. No. 1,026,560; May 14; Sp. p. 3219; Gaz. vol. 178; p. 532.
Embankment. E. P. Stratton. No. 1,026,616; May 14; Sp. p. 3337; Gaz. vol. 178; p. 551.
Embroideries, Machine for cutting. A. Tscherne. No. 1,025,490; May 7; Sp. p. 863; Gaz. vol. 178; p. 134.
Embroideries, Machine for cutting. A. Tscherne. No. 1,025,491; May 7; Sp. p. 865; Gaz. vol. 178; p. 134.
Embroidering-machine, Automatic. R. Zahn. No. 1,027,789; May 28; Sp. p. 5881; Gaz. vol. 178; p. 1023.
Embroidering-machines, Machine for cutting cards for automatic. J. J. Knecht. No. 1,027,256; May 21; Sp. p. 4796; Gaz. vol. 178; p. 808.
Embroidery-background, Machine for cutting. A. Tscherne. No. 1,025,492; May 7; Sp. p. 868; Gaz. vol. 178; p. 135.
Embroidery-machine. W. N. Parkes. No. 1,027,064; May 21; Sp. p. 4307; Gaz. vol. 178; p. 744.
End-gate, Wagon. W. E. Hinze. No. 1,025,979; May 14; Sp. p. 1939; Gaz. vol. 178; p. 334.
Engine: *See* Compound engine; Double-cylinder engine; Explosive-engine; Gas-engine; Internal-combustion engine; Oscillating-cylinder engine; Rotary engine; Rotary explosive-engine; Rotary internal-explosion engine; Steam-engine; Traction-engine; Vertical engine.
Engine. T. J. Ashby. No. 1,026,424; May 14; Sp. p. 2944; Gaz. vol. 178; p. 488.
Engine-cooling device. J. Desmond. No. 1,025,251; May 7; Sp. p. 319; Gaz. vol. 178; p. 51.
Engine-coupling. R. E. Comin. No. 1,025,785; May 7; Sp. p. 1481; Gaz. vol. 178; p. 234.
Engine-lubricating system, Explosion-. C. H. Taylor and H. E. Comin. No. 1,026,287; May 14; Sp. p. 2637; Gaz. vol. 178; p. 441.
Engine lubricator, Steam-. D. Morehouse. No. 1,026,526; May 14; Sp. p. 3159; Gaz. vol. 178; p. 522.
Engine regulator, Explosion-. C. C. Stedman. No. 1,027,778; May 28; Sp. p. 5863; Gaz. vol. 178; p. 1020.
Engine-room return-signal. V. H. Street. No. 1,025,488; May 7; Sp. p. 860; Gaz. vol. 178; p. 133.
Engine safety cranking device, Explosive-. J. L. Beck. No. 1,027,798; May 28; Sp. p. 5911; Gaz. vol. 178; p. 1027.
Engine safety cranking device, Explosive-. J. L. Beck. No. 1,027,799; May 28; Sp. p. 5914; Gaz. vol. 178; p. 1027.
Engine spark-plug, Internal-combustion-. V. G. Apple. No. 1,025,232; May 7; Sp. p. 268; Gaz. vol. 178; p. 45.
Engine-starter. E. Guthrie. No. 1,027,648; May 28; Sp. p. 5599; Gaz. vol. 178; p. 978.
Engine starter, Internal-combustion-. C. A. Kinney. No. 1,025,810; May 7; Sp. p. 1536; Gaz. vol. 178; p. 243.
Engine starter, Internal-combustion-. C. Van Tubbergan and P. Westrate. No. 1,027,087; May 21; Sp. p. 4463; Gaz. vol. 178; p. 752.
Engine-starting crank, Hydrocarbon-. E. J. Patton. No. 1,026,528; May 14; Sp. p. 3162; Gaz. vol. 178; p. 522.
Engine-starting device. J. A. Walker. No. 1,025,344; May 7; Sp. p. 527; Gaz. vol. 178; p. 82.
Engine-starting device, Explosive-. W. C. Hartmann. No. 1,026,314; May 14; Sp. p. 2698; Gaz. vol. 178; p. 451.
Engine-starting device, Explosive-. E. V. Swern. No. 1,026,374; May 14; Sp. p. 2845; Gaz. vol. 178; p. 471.
Engine-starting device, Gas-. W. A. Hansen. No. 1,027,649; May 28; Sp. p. 5600; Gaz. vol. 178; p. 978.
Engine-starting mechanism, Internal-combustion-. O. P. Ostergren. No. 1,025,295; May 7; Sp. p. 401; Gaz. vol. 178; p. 66.
Engine-stop. J. L. Kimball. No. 1,026,041; May 14; Sp. p. 2079; Gaz. vol. 178; p. 356.
Engines and the like, Producing barrels of ovate section for rotary. H. Lee. No. 1,028,036; May 28; Sp. p. 6461; Gaz. vol. 178; p. 1107.
Engines, Apparatus for distributing fuel to internal-combustion. H. T. Bruns. No. 1,026,732; May 21; Sp. p. 3616; Gaz. vol. 178; p. 628.
Engines, Automatic spark-timing mechanism for internal-combustion. T. Townson. No. 1,025,336; May 7; Sp. p. 509; Gaz. vol. 178; p. 80.
Engines, Balancing two-crank. F. B. K. Schubert. No. 1,027,775; May 28; Sp. p. 5856; Gaz. vol. 178; p. 1019.
Engines, Fuel-supply system for explosive-. H. Lemp. No. 1,025,814; May 7; Sp. p. 1546; Gaz. vol. 178; p. 244.
Engines, Ignition for internal-combustion. C. L. Terry. No. 1,025,844; May 7; Sp. p. 1607; Gaz. vol. 178; p. 254.
Engines, Operating internal-combustion. R. M. Fryer. No. 1,027,380; May 21; Sp. p. 5053; Gaz. vol. 178; p. 851.
Engines, Pipe-supporting system for locomotive-. A. R. Ayers. No. 1,027,973; May 28; Sp. p. 6335; Gaz. vol. 178; p. 1087.
Engineer's slope-rod. C. R. Hauke. No. 1,026,579; May 14; Sp. p. 3255; Gaz. vol. 178; p. 538.
Engravings, Producing color-type. F. D. Montgomery. No. 1,027,142; May 21; Sp. p. 4581; Gaz. vol. 178; p. 770.
Envelop. E. W. Morgan. No. 1,025,583; May 7; Sp. p. 1075; Gaz. vol. 178; p. 166.
Envelop. F. J. Schnorr. No. 1,025,837; May 7; Sp. p. 1592; Gaz. vol. 178; p. 252.

Envelop. E. G. Shreve. No. 1,026,933; May 21; Sp. p. 4065; Gaz. vol. 178; p. 697.
Envelop-opener. C. H. Crawford. No. 1,027,994; May 28; Sp. p. 6370; Gaz. vol. 178; p. 1094.
Equipoiser. G. Hipwood and P. Egan. No. 1,028,071; May 28; Sp. p. 6530; Gaz. vol. 178; p. 1117.
Eraser-cleaner, Vacuum. C. W. Polley. No. 1,026,697; May 21; Sp. p. 3533; Gaz. vol. 178; p. 616.
Eraser-holder. T. P. Kruger. No. 1,028,034; May 28; Sp. p. 6456; Gaz. vol. 178; p. 1103.
Evaporation-controlling apparatus. R. S. Blair. No. 1,026,846; May 21; Sp. p. 3862; Gaz. vol. 178; p. 667.
Evaporator. O. Faller. No. 1,028,086; May 28; Sp. p. 6579; Gaz. vol. 178; p. 1122.
Excavating-scoop for wire-rope haul. A. McGillis. No. 1,027,876; May 28; Sp. p. 6140; Gaz. vol. 178; p. 1054.
Explosion-motor, Rotary. F. Beck. No. 1,025,361; May 7; Sp. p. 569; Gaz. vol. 178; p. 89.
Explosive charges, Tool for preparing ground to receive. S. Rand. No. 1,027,433; May 28; Sp. p. 5175; Gaz. vol. 178; p. 907.
Explosive-engine. R. McKee. No. 1,026,403; May 14; Sp. p. 2904; Gaz. vol. 178; p. 481.
Eye-protector. H. A. Corbett. No. 1,025,124; May 7; Sp. p. 28; Gaz. vol. 178; p. 6.
Eyeglass-case. H. V. Conrad. No. 1,025,372; May 7; Sp. p. 594; Gaz. vol. 178; p. 92.
Eyeglass-mounting. J. R. Van Tassel. No. 1,025,847; May 7; Sp. p. 1612; Gaz. vol. 178; p. 255.
Eyeglass-mounting. G. A. Bader. No. 1,027,515; May 28; Sp. p. 5332; Gaz. vol. 178; p. 934.
Eyeglasses. C. Leveque. No. 1,026,272; May 14; Sp. p. 2602; Gaz. vol. 178; p. 436.
Eyeglasses. W. W. Essick. No. 1,026,386; May 14; Sp. p. 2866; Gaz. vol. 178; p. 475.
Eyeglasses and spectacles, Repair device for. C. M. Haynes. No. 1,027,417; May 28; Sp. p. 5140; Gaz. vol. 178; p. 902.
Eyelet-stay-joining machine. F. L. Anderson. (Reissue.) No. 13,416; May 14; Sp. p. 3413; Gaz. vol. 178; p. 561.
Fabric: *See* Button-covering fabric; Decorated fabric; Knitted fabric; Tire fabric.
Fabric-bordering machine. L. N. D. Williams. No. 1,025,176; May 7; Sp. p. 148; Gaz. vol. 178; p. 25.
Fabric-forming device, Tubular-. E. D. C. Bayne and L. A. Subers. No. 1,026,648; May 21; Sp. p. 3431; Gaz. vol. 178; p. 599.
Fabric with rubber, Apparatus for impregnating. W. C. Siverson. No. 1,025,321; May 7; Sp. p. 484; Gaz. vol. 178; p. 75.
Fabrics, Machine for piling textile. C. J. Priester. No. 1,025,719; May 7; Sp. p. 1352; Gaz. vol. 178; p. 210.
Face-drop. J. S. Anderson. No. 1,025,557; May 7; Sp. p. 1016; Gaz. vol. 178; p. 157.
Fan, Air-propelled car-. J. L. Councill, J. E. Tharpe, and T. M. Dale. No. 1,027,462; May 28; Sp. p. 5223; Gaz. vol. 178; p. 916.
Fan for baby-carriages. J. Belley. No. 1,027,801; May 28; Sp. p. 5920; Gaz. vol. 178; p. 1028.
Fan for sewing-machines. A. W. Ownby. No. 1,026,923; May 21; Sp. p. 4046; Gaz. vol. 178; p. 694.
Fan, Oscillating motor-driven. C. C. Waite. No. 1,026,062; May 14; Sp. p. 2135; Gaz. vol. 178; p. 363.
Fan, Punka-. J. D. F. Andrews. No. 1,027,166; May 21; Sp. p. 4626; Gaz. vol. 178; p. 777.
Fan-wheel, Centrifugal. W. E. Allington. No. 1,025,667; May 7; Sp. p. 1250; Gaz. vol. 178; p. 193.
Fastener-inserting machine. S. A. Dobyne. No. 1,026,025; May 14; Sp. p. 2032; Gaz. vol. 178; p. 350.
Fatty materials, Hydrogenating C. Ellis. No. 1,026,156; May 14; Sp. p. 2351; Gaz. vol. 178; p. 397.
Faucet. F. A. Dunnebacke and E. A. Harris. No. 1,026,854; May 21; Sp. p. 3879; Gaz. vol. 178; p. 670.
Faucet, cock, or the like. C. E. Weeks. No. 1,027,678; May 28; Sp. p. 5664; Gaz. vol. 178; p. 987.
Faucet, Lock-. F. M. Ulmer. No. 1,026,725; May 21; Sp. p. 3599; Gaz. vol. 178; p. 625.
Faucet, Self-closing. J. H. Glauber. No. 1,027,120; May 21; Sp. p. 4538; Gaz. vol. 178; p. 763.
Feather-cleaning apparatus, Pneumatic. C. V. Dey. No. 1,026,432; May 14; Sp. p. 2963; Gaz. vol. 178; p. 490.
Feed and litter carrier. H. L. Ferris. No. 1,027,715; May 28; Sp. p. 5738; Gaz. vol. 178; p. 1000.
Feed-bag. P. Szathmary. No. 1,026,720; May 21; Sp. p. 3582; Gaz. vol. 178; p. 624.
Feed-bag. D. C. Martin. No. 1,026,989; May 21; Sp. p. 4203; Gaz. vol. 178; p. 717.
Feed-cutter. C. F. Haldeman. No. 1,027,537; May 28; Sp. p. 5377; Gaz. vol. 178; p. 942.
Feed-mill. A. Ingraham. No. 1,027,206; May 21; Sp. p. 4708; Gaz. vol. 178; p. 790.
Feed-regulator. F. Prinz. No. 1,027,432; May 28; Sp. p. 5173; Gaz. vol. 178; p. 906.
Feed-trough. C. A. Gaylor. No. 1,025,392; May 7; Sp. p. 639; Gaz. vol. 178; p. 100.
Feeder for chickens, pigeons, and the like, Automatic self-. E. H. Mills. No. 1,027,881; May 28; Sp. p. 6148; Gaz. vol. 178; p. 1056.
Feeder for steam boilers and generators. C. C. Worthington. No. 1,026,192; May 14; Sp. p. 2433; Gaz. vol. 178; p. 408.
Feeder for steam boilers or generators. C. C. Worthington. No. 1,026,191; May 14; Sp. p. 2426; Gaz. vol. 178; p. 408.
Feeder, Poultry-. T. Garrison. No. 1,026,859; May 21; Sp. p. 3888; Gaz. vol. 178; p. 671.
Feeding and watering device, Poultry. W. C. Wilson. No. 1,025,225; May 7; Sp. p. 257; Gaz. vol. 178; p. 43.
Feeding mechanism. F. W. Lev. No. 1,025,282; May 7; Sp. p. 379; Gaz. vol. 178; p. 61.
Feeding mechanism. J. T. Wallace. No. 1,027,018; May 21; Sp. p. 4271; Gaz. vol. 178; p. 727.
Feeding mechanism, Boiler-compound-. W. White. No. 1,025,224; May 7; Sp. p. 255; Gaz. vol. 178; p. 42.
Fence-anchor. W. P. Grannis. No. 1,027,123; May 21; Sp. p. 4545; Gaz. vol. 178; p. 764.
Fence clamp, Wire-. W. C. Dunn. No. 1,027,109; May 21; Sp. p. 4508; Gaz. vol. 178; p. 759.
Fence machine, Wire-. G. A. Raymond. No. 1,025,307; May 7; Sp. p. 436; Gaz. vol. 178; p. 70.
Fence machine, Wire-. E. E. Brown. No. 1,025,858; May 7; Sp. p. 1632; Gaz. vol. 178; p. 259.
Fence-post. W. C. Gambrel. No. 1,027,470; May 28; Sp. p. 5238; Gaz. vol. 178; p. 919.
Fence-post, Metallic. B. Schulz. No. 1,027,442; May 28; Sp. p. 5190; Gaz. vol. 178; p. 910.
Fence-posts of plastic material, Apparatus for making reinforced. J. N. Caldwell. No. 1,025,508; May 7; Sp. p. 895; Gaz. vol. 178; p. 140.
Fence, Snow-. J. I. Iblings. No. 1,026,806; May 21; Sp. p. 3773; Gaz. vol. 178; p. 653.
Fence, telegraph, and other post. J. W. Morrow. No. 1,025,823; May 7; Sp. p. 1568; Gaz. vol. 178; p. 248.
Fender: *See* Automobile-fender; Car-fender; Clod-fender.
Fender. C. Cefalo and R. C. H. Reid. No. 1,026,655; May 21; Sp. p. 3448; Gaz. vol. 178; p. 601.
Fender. W. G. Naughton. No. 1,028,056; May 28; Sp. p. 6504; Gaz. vol. 178; p. 1113.
Ferrule for rake-handles. L. H. Zeigler. No. 1,025,501; May 7; Sp. p. 883; Gaz. vol. 178; p. 137.
Fertilizer-distributer. C. B. Clark. No. 1,027,594; May 28; Sp. p. 5493; Gaz. vol. 178; p. 960.
Fertilizer-distributer and planter. C. B. Clark. No. 1,027,593; May 28; Sp. p. 5489; Gaz. vol. 178; p. 960.
Fiber, Extracting vegetable. C. L. Weiberg. No. 1,026,435; May 7; Sp. p. 718; Gaz. vol. 178; p. 114.
Filament, Conductive. H. Lyon. No. 1,026,401; May 14; Sp. p. 2900; Gaz. vol. 178; p. 480.
Filament, Incandescent-lamp. C. A. Hansen. No. 1,026,392; May 14; Sp. p. 2878; Gaz. vol. 178; p. 477.
Filament, Metal. W. D. Coolidge. No. 1,026,382; May 14; Sp. p. 2861; Gaz. vol. 178; p. 474.
Filament, Metal. W. D. Coolidge. No. 1,026,383; May 14; Sp. p. 2862; Gaz. vol. 178; p. 474.
Filament, Metal. W. D. Coolidge. No. 1,026,384; May 14; Sp. p. 2863; Gaz. vol. 178; p. 474.
Filament-treating apparatus. W. D. Coolidge. No. 1,026,345; May 14; Sp. p. 2772; Gaz. vol. 178; p. 462.
Filament, Tubular metalized. M. A. Hunter. No. 1,025,469; May 7; Sp. p. 811; Gaz. vol. 178; p. 126.
Filaments, Treating. H. I. Wood. No. 1,027,165; May 21; Sp. p. 4624; Gaz. vol. 178; p. 776.
File, Paper-. J. W. Almond. No. 1,026,549; May 14; Sp. p. 3199; Gaz. vol. 178; p. 528.
Filing-cabinet. L. F. Fee. No. 1,026,792; May 21; Sp. p. 3749; Gaz. vol. 178; p. 648.
Filing device. A. T. Elwell. No. 1,026,346; May 14; Sp. p. 2775; Gaz. vol. 178; p. 463.
Fillet-making machine. A. F. Howe. No. 1,027,131; May 21; Sp. p. 4560; Gaz. vol. 178; p. 766.
Filter. M. A. Moore. No. 1,028,054; May 28; Sp. p. 6500; Gaz. vol. 178; p. 1112.
Filters, Making. H. Passow. No. 1,027,754; May 28; Sp. p. 5807; Gaz. vol. 178; p. 1012.
Filtering apparatus. H. E. Kier. No. 1,026,917; May 21; Sp. p. 4031; Gaz. vol. 178; p. 692.
Filtering-can and the like. J. F. Hocker. No. 1,028,023; May 28; Sp. p. 6425; Gaz. vol. 178; p. 1102.
Filtration and supply system, Water. L. E. Smith. No. 1,026,612; May 14; Sp. p. 3330; Gaz. vol. 178; p. 550.
Finger-exerciser. J. R. Manners. No. 1,027,871; May 28; Sp. p. 6133; Gaz. vol. 178; p. 1053.
Finishing-machine. R. W. Thomson. No. 1,025,549; May 7; Sp. p. 995; Gaz. vol. 178; p. 154.
Fire box and grate. Z. F. Jones. No. 1,027,610; May 28; Sp. p. 5523; Gaz. vol. 178; p. 966.
Fire-bucket support. M. A. Stewart. No. 1,027,011; May 21; Sp. p. 4254; Gaz. vol. 178; p. 725.
Fire-escape. J. Stephan. No. 1,026,285; May 14; Sp. p. 2631; Gaz. vol. 178; p. 440.
Fire-escape. E. H. Haney. No. 1,027,724; May 28; Sp. p. 5750; Gaz. vol. 178; p. 1002.
Fire-escape, Portable. C. J. Geisel. No. 1,025,972; May 14; Sp. p. 1924; Gaz. vol. 178; p. 332.
Fire-extinguisher. J. D. Farr. No. 1,026,856; May 21; Sp. p. 3883; Gaz. vol. 178; p. 670.
Fire-extinguisher. E. M. Lawrence. No. 1,027,133; May 21; Sp. p. 4562; Gaz. vol. 178; p. 766.
Fire-extinguisher. E. M. Bishop. No. 1,027,308; May 21; Sp. p. 4909; Gaz. vol. 178; p. 826.
Fire-extinguisher valve. J. T. Lally. No. 1,027,344; May 21; Sp. p. 4973; Gaz. vol. 178; p. 838.
Fire extinguishing and indicating apparatus, Combined. J. W. Lawhon. No. 1,027,260; May 21; Sp. p. 4803; Gaz. vol. 178; p. 810.
Fire-extinguishing systems, Main valve for dry-pipe automatic. F. H. Rice. No. 1,026,882; May 21; Sp. p. 3950; Gaz. vol. 178; p. 680.
Fire-hose valve, Automatic. P. Mueller. No. 1,026,994; May 21; Sp. p. 4216; Gaz. vol. 178; p. 719.
Fire-signal device. C. Raymond. No. 1,026,769; May 21; Sp. p. 3703; Gaz. vol. 178; p. 641.

Firearm. B. H. Savage. No. 1,027,773; May 28; Sp. p. 5847; Gaz. vol. 178; p. 1018.
Firearm. G. W. Peck, Jr., and W. M. Farrow, Sr. No. 1,027,893; May 28; Sp. p. 6186; Gaz. vol. 178; p. 1061.
Firearm, Automatic repeating. O. H. J. Krag. No. 1,028,032; May 28; Sp. p. 6445; Gaz. vol. 178; p. 1105.
Firearm with fixed barrel and locked breech, Automatic. A. W. Schwarzlose. No. 1,026,609; May 14; Sp. p. 3319; Gaz. vol. 178; p. 548.
Fireproof building construction. C. Collins. No. 1,027,641; May 28; Sp. p. 5577; Gaz. vol. 178; p. 975.
Fireproof-construction clip. J. F. Makowski. No. 1,027,425; May 28; Sp. p. 5160; Gaz. vol. 178; p. 904.
Fireproof window. S. H. Pomeroy. No. 1,025,995; May 14; Sp. p. 1975; Gaz. vol. 178; p. 340.
Fireproof window construction. E. H. Lunken. No. 1,026,520; May 14; Sp. p. 3151; Gaz. vol. 178; p. 520.
Fish-fork. E. Mixa. No. 1,027,269; May 21; Sp. p. 4825; Gaz. vol. 178; p. 813.
Fish-rod holder. J. Towne. No. 1,025,657; May 7; Sp. p. 1231; Gaz. vol. 178; p. 190.
Fishing-reel. P. Catucci. No. 1,027,179; May 21; Sp. p. 4646; Gaz. vol. 178; p. 780.
Flagstaff. E. S. Earhart. No. 1,025,904; May 7; Sp. p. 1783; Gaz. vol. 178; p. 274.
Flash-light apparatus. J. A. Smith. No. 1,026,329; May 14; Sp. p. 2730; Gaz. vol. 178; p. 457.
Flash-light apparatus. W. T. Barnum. No. 1,027,167; May 21; Sp. p. 4627; Gaz. vol. 178; p. 777.
Flask-clamp. E. C. Covert. No. 1,027,695; May 28; Sp. p. 5701; Gaz. vol. 178; p. 993.
Flat-iron stand. F. M. Vogel. No. 1,025,493; May 7; Sp. p. 869; Gaz. vol. 178; p. 135.
Flat screen. S. M. Myrtin. No. 1,027,143; May 21; Sp. p. 4582; Gaz. vol. 178; p. 770.
Flax and the like, Machine for working. S. Walker. No. 1,027,512; May 28; Sp. p. 5324; Gaz. vol. 178; p. 933.
Float. G. B. Crist. No. 1,026,203; May 14; Sp. p. 2461; Gaz. vol. 178; p. 412.
Float for bathers. W. C. Knoph. No. 1,026,519; May 14; Sp. p. 3150; Gaz. vol. 178; p. 520.
Floor-scraper. F. J. Vondracek. No. 1,027,676; May 28; Sp. p. 5662; Gaz. vol. 178; p. 986.
Flower-stemming device. L. E. Tygert. No. 1,026,969; May 21; Sp. p. 4168; Gaz. vol. 178; p. 711.
Flue-cleaner. H. C. McKeel and J. Grimn. No. 1,026,525; May 14; Sp. p. 3158; Gaz. vol. 178; p. 521.
Flue-working tool. V. Moore. No. 1,026,993; May 21; Sp. p. 4214; Gaz. vol. 178; p. 719.
Fluid-compressor. H. D. Hildebrand. No. 1,027,841; May 28; Sp. p. 6007; Gaz. vol. 178; p. 1042.
Fluid-compressor, Hydraulic. A. F. Hawkins. No. 1,027,386; May 21; Sp. p. 5072; Gaz. vol. 178; p. 853.
Fluid-compressors, Unloader for. W. Prellwitz. No. 1,027,757; May 28; Sp. p. 5811; Gaz. vol. 178; p. 1013.
Fluid-compressors, Unloader for. W. Prellwitz. No. 1,027,760; May 28; Sp. p. 5822; Gaz. vol. 178; p. 1014.
Fluid-compressor, Unloader for compound. W. Prellwitz. No. 1,027,758; May 28; Sp. p. 5816; Gaz. vol. 178; p. 1013.
Fluid-heater. C. G. Fitch. No. 1,025,798; May 7; Sp. p. 1514; Gaz. vol. 178; p. 239.
Fluid-meter. R. Lohse. No. 1,025,633; May 7; Sp. p. 1186; Gaz. vol. 178; p. 182.
Fluid-meter. J. W. Ledoux. No. 1,026,324; May 14; Sp. p. 2723; Gaz. vol. 178; p. 455.
Fluid-motor. L. E. Fish. No. 1,025,618; May 7; Sp. p. 1155; Gaz. vol. 178; p. 177.
Fluid-pressure brake. W. V. Turner. No. 1,027,938; May 28; Sp. p. 6258; Gaz. vol. 178; p. 1075.
Fluid-pressure brake. W. V. Turner. No. 1,027,930; May 28; Sp. p. 6260; Gaz. vol. 178; p. 1075.
Fluid-pressure-control apparatus. W. V. Turner. No. 1,025,340; May 7; Sp. p. 516; Gaz. vol. 178; p. 81.
Fluid-pressure control device. L. F. Goodspeed. (Reissue.) No. 13,417; May 14; Sp. p. 3418; Gaz. vol. 178; p. 563.
Fluid shut-off. R. Salmon. No. 1,026,884; May 21; Sp. p. 3955; Gaz. vol. 178; p. 681.
Flume. C. H. Ramsden. No. 1,027,627; May 28; Sp. p. 5547; Gaz. vol. 178; p. 970.
Flusher, Closet and urinal. B. E. Dorman. No. 1,025,740; May 7; Sp. p. 1398; Gaz. vol. 178; p. 218.
Flushing apparatus. C. S. Sparling. No. 1,025,166; May 7; Sp. p. 123; Gaz. vol. 178; p. 21.
Flushing apparatus. R. H. O. McDonough. No. 1,027,622; May 28; Sp. p. 5538; Gaz. vol. 178; p. 968.
Fly-poison cage. C. M. Klein. No. 1,026,681; May 21; Sp. p. 3501; Gaz. vol. 178; p. 611.
Fly-trap. J. V. Rigsby and W. H. Royal. No. 1,026,222; May 14; Sp. p. 2506; Gaz. vol. 178; p. 420.
Fly-trap. W. J. Hamilton. No. 1,027,602; May 28; Sp. p. 5507; Gaz. vol. 178; p. 963.
Flying-machine. B. Reid. No. 1,025,482; May 7; Sp. p. 835; Gaz. vol. 178; p. 131.
Flying-machine. J. Walsh. No. 1,025,891; May 7; Sp. p. 1753; Gaz. vol. 178; p. 270.
Flying-machine. R. Salmen. No. 1,025,999; May 14; Sp. p. 1985; Gaz. vol. 178; p. 342.
Flying-machine. J. Kubish. No. 1,027,258; May 21; Sp. p. 4800; Gaz. vol. 178; p. 808.
Flying-machine. D. V. Cole. No. 1,027,322; May 21; Sp. p. 4938; Gaz. vol. 178; p. 830.
Flying-machine. M. M. Benster. No. 1,027,372; May 21; Sp. p. 5036; Gaz. vol. 178; p. 848.
Flying-machine automatic steering device. R. M. Thompson. No. 1,026,415; May 14; Sp. p. 2932; Gaz. vol. 178; p. 485.
Flying-machine launching means. G. H. Curtiss. No. 1,027,242; May 21; Sp. p. 4776; Gaz. vol. 178; p. 804.
Flying-machine stabilizing lifting-plane. A. F. Dierdorff. No. 1,026,079; May 14; Sp. p. 2196; Gaz. vol. 178; p. 370.
Foldable chair. N. Stock and J. N. Cordts. No. 1,027,012; May 21; Sp. p. 4255; Gaz. vol. 178; p. 726.
Folding box. J. C. Gordon. No. 1,027,200; May 21; Sp. p. 4694; Gaz. vol. 178; p. 789.
Folding carrier. J. H. McAllister. No. 1,028,048; May 28; Sp. p. 6491; Gaz. vol. 178; p. 1110.
Folding-machine. R. C. Seymour. No. 1,025,486; May 7; Sp. p. 846; Gaz. vol. 178; p. 132.
Folding-machine. H. C. Schroeder. No. 1,025,541; May 7; Sp. p. 977; Gaz. vol. 178; p. 151.
Folding mechanism. C. L. Johnston. No. 1,027,657; May 28; Sp. p. 5618; Gaz. vol. 178; p. 981.
Foliage, Machine for making artificial. G. G. Locke. No. 1,026,387; May 14; Sp. p. 2868; Gaz. vol. 178; p. 475.
Food compound, Making a. C. Driscoll. No. 1,028,005; May 28; Sp. p. 6307; Gaz. vol. 178; p. 1097.
Food from grain and making the same. H. D. Perky. No. 1,026,047; May 14; Sp. p. 2106; Gaz. vol. 178; p. 358.
Food-mixer. H. H. Fellows. No. 1,026,259; May 14; Sp. p. 2578; Gaz. vol. 178; p. 432.
Foot-support. C. A. Howe. No. 1,025,571; May 7; Sp. p. 1048; Gaz. vol. 178; p. 162.
Foot-warmer, Electric. F. Kuhn. No. 1,025,144; May 7; Sp. p. 71; Gaz. vol. 178; p. 13.
Footwear. N. M. Ruthstein. No. 1,026,407; May 14; Sp. p. 2916; Gaz. vol. 178; p. 483.
Fork: *See* Bicycle spring-fork; Fish-fork.
Forks and spoons, Manufacture of metal. A. Wilzin. No. 1,026,421; May 14; Sp. p. 2940; Gaz. vol. 178; p. 487.
Form for shaping and finishing garments. H. L. Nelke. No. 1,026,451; May 14; Sp. p. 3012; Gaz. vol. 178; p. 497.
Fountain: *See* Soda-fountain.
Frame: *See* Bag-frame; Car-roof frame; Cultivator-frame; Photographic-printing frame; Spinning and doubling frame; Spring-frame; Truck-frame; Vehicle-frame.
Frame. A. L. Weis. No. 1,026,838; May 21; Sp. p. 3848; Gaz. vol. 178; p. 665.
Frameless gate. A. Campbell. No. 1,027,237; May 21; Sp. p. 4768; Gaz. vol. 178; p. 802.
Freezers, churns, &c., Dasher for. H. Griswold. No. 1,027,416; May 28; Sp. p. 5138; Gaz. vol. 178; p. 901.
Friction transmission mechanism, Changeable-speed. I. B. Hammond. No. 1,028,019; May 28; Sp. p. 6418; Gaz. vol. 178; p. 1101.
Fruit and nut squeezer. R. J. Goodnow. No. 1,026,670; May 21; Sp. p. 3476; Gaz. vol. 178; p. 607.
Fruit and other grader. E. E. Wagg. No. 1,027,089; May 21; Sp. p. 4467; Gaz. vol. 178; p. 753.
Fruit-drier. C. C. Simms. No. 1,025,212; May 7; Sp. p. 226; Gaz. vol. 178; p. 37.
Fruit-elevator. F. Stebler. No. 1,027,573; May 28; Sp. p. 5457; Gaz. vol. 178; p. 954.
Fruit-handling machine. W. H. Boutell. No. 1,026,290; May 14; Sp. p. 2660; Gaz. vol. 178; p. 446.
Fruit-picker. H. D. Starr. No. 1,025,214; May 7; Sp. p. 231; Gaz. vol. 178; p. 38.
Fruit-picker. J. N. Parker. No. 1,025,826; May 7; Sp. p. 1571; Gaz. vol. 178; p. 249.
Fruit-picker. F. Remaly. No. 1,026,770; May 21; Sp. p. 3706; Gaz. vol. 178; p. 642.
Fruit-picker. A. Murdoch. No. 1,026,996; May 21; Sp. p. 4222; Gaz. vol. 178; p. 720.
Fuel. E. J. Dolan. No. 1,025,902; May 7; Sp. p. 1780; Gaz. vol. 178; p. 273.
Fuel-feeding mechanism. W. F. Smith. No. 1,025,841; May 7; Sp. p. 1597; Gaz. vol. 178; p. 253.
Funnel. E. Dobartz and W. H. Sigley. No. 1,027,378; May 21; Sp. p. 5050; Gaz. vol. 178; p. 850.
Furnace: *See* Annealing-furnace; Boiler-furnace; Gas-furnace; Gas-generating furnace; Glass-furnace; Heating-furnace; Hot-air furnace; Liquid-fuel furnace; Metallurgical furnace; Portable furnace; Smelter-furnace; Water-heating furnace.
Furnace. E. A. Biechele. No. 1,025,673; May 7; Sp. p. 1262; Gaz. vol. 178; p. 195.
Furnace. E. T. Davison. No. 1,027,187; May 21; Sp. p. 4661; Gaz. vol. 178; p. 783.
Furnace. E. W. Rice. No. 1,027,436; May 28; Sp. p. 5180; Gaz. vol. 178; p. 908.
Furnace construction. J. B. Ladd and D. Baker. No. 1,027,738; May 28; Sp. p. 5780; Gaz. vol. 178; p. 1007.
Furnace fire-bar. W. G. Crosthwaite. No. 1,025,128; May 7; Sp. p. 35; Gaz. vol. 178; p. 7.
Furnace ignition-arch. W. M. Duncan. No. 1,027,326; May 21; Sp. p. 4944; Gaz. vol. 178; p. 832.
Furnaces, converters, &c., Apparatus for supplying air to blast-. R. H. Sweetser. No. 1,027,781; May 28; Sp. p. 5871; Gaz. vol. 178; p. 1021.
Furnaces, Means for replacing twyers in air-blast. A. D. Leduc. No. 1,025,531; May 7; Sp. p. 953; Gaz. vol. 178; p. 148.
Furnaces, Water-heating attachment for. H. Lawrie. No. 1,026,753; May 21; Sp. p. 3649; Gaz. vol. 178; p. 635.
Furniture-panels, Making bulge. J. Hersog. No. 1,026,395; May 14; Sp. p. 2882; Gaz. vol. 178; p. 478.

Furring-plate, Metallic. W. L. Caldwell. No. 1,026,301; May 14; Sp. p. 2666; Gaz. vol. 178; p. 446.
Fuse-block clip. R. C. Cole. No. 1,025,246; May 7; Sp. p. 300; Gaz. vol. 178; p. 49.
Fuse contact-clip and terminal holder, Combined. R. C. Cole. No. 1,025,245; May 7; Sp. p. 299; Gaz. vol. 178; p. 49.
Fuse, Inclosed. R. C. Cole. No. 1,025,247; May 7; Sp. p. 302; Gaz. vol. 178; p. 50.
Fuse-plug. P. A. Brendel. No. 1,025,857; May 7; Sp. p. 1631; Gaz. vol. 178; p. 258.
Fusee, Railway time-burning signal-. L. S. Ross. No. 1,025,883; May 7; Sp. p. 1735; Gaz. vol. 178; p. 267.
Fusee, Time-burning railway signal-. L. S. Ross. No. 1,025,205; May 7; Sp. p. 210; Gaz. vol. 178; p. 36.
Gage: *See* Air-gage; Cutter-head gage; Liquid safety-gage; Micrometer-gage; Water-gage.
Gallocyanin compounds and making them. H. Mansfeld. No. 1,028,045; May 28; Sp. p. 6488; Gaz. vol. 178; p. 1110.
Gambrel. J. L. Jarvis. No. 1,025,806; May 7; Sp. p. 1528; Gaz. vol. 178; p. 241.
Game apparatus. C. L. Wood. No. 1,025,226; May 7; Sp. p. 258; Gaz. vol. 178; p. 43.
Game apparatus. A. B. Hill. No. 1,025,465; May 7; Sp. p. 800; Gaz. vol. 178; p. 125.
Game apparatus. C. Watts. No. 1,026,188; May 14; Sp. p. 2419; Gaz. vol. 178; p. 407.
Game apparatus. V. W. Hall. No. 1,027,539; May 28; Sp. p. 5379; Gaz. vol. 178; p. 942.
Game-board. W. J. Archer. No. 1,025,940; May 7; Sp. p. 1856; Gaz. vol. 178; p. 286.
Game-table, Rotatable. W. J. J. Burch. No. 1,025,678; May 7; Sp. p. 1268; Gaz. vol. 178; p. 196.
Garden-tool. F. W. Ulrich. No. 1,026,133; May 14; Sp. p. 2305; Gaz. vol. 178; p. 389.
Garment, Buttonless union. W. L. Siewers. No. 1,025,840; May 7; Sp. p. 1596; Gaz. vol. 178; p. 253.
Garment-hanger. M. Ackerman and A. Bleicher. No. 1,025,775; May 7; Sp. p. 1461; Gaz. vol. 178; p. 230.
Garment-hanger. M. A. Gilman. No. 1,027,837; May 28; Sp. p. 6001; Gaz. vol. 178; p. 1041.
Garment-supporter. L. N. and F. O. Cates. No. 1,026,302; May 14; Sp. p. 2669; Gaz. vol. 178; p. 447.
Gas and coke, Retort-oven for producing. H. Koppers. No. 1,026,169; May 14; Sp. p. 2376; Gaz. vol. 178; p. 401.
Gas-burner. A. F. Thompson. No. 1,026,476; May 14; Sp. p. 3065; Gaz. vol. 178; p. 505.
Gas-burner safety device. L. W. G. Flynt. No. 1,027,534; May 28; Sp. p. 5370; Gaz. vol. 178; p. 940.
Gas-burners, Cylinder or globe for inverted incandescent. A. P. Storrs. No. 1,027,449; May 28; Sp. p. 5199; Gaz. vol. 178; p. 912.
Gas-burners, Gas-controlling mechanism for. E. O. Bentley. No. 1,027,519; May 28; Sp. p. 5338; Gaz. vol. 178; p. 935.
Gas-burners, Needle-valves for. A. G. Thomas. No. 1,027,934; May 28; Sp. p. 6250; Gaz. vol. 178; p. 1073.
Gas-controller, electric time-switch, and other timing device. A., G. O. H., E. H., and S. A. Horstmann and W. T. Edgar. No. 1,027,653; May 28; Sp. p. 5600; Gaz. vol. 178; p. 979.
Gas cut-off. C. P. Dressel. No. 1,026,570; May 14; Sp. p. 3239; Gaz. vol. 178; p. 535.
Gas cut-off, Automatic. R. A. Mack. No. 1,028,044; May 28; Sp. p. 6487; Gaz. vol. 178; p. 1110.
Gas-engine, Compound. G. W. Jessup, Jr. No. 1,026,512; May 14; Sp. p. 3131; Gaz. vol. 178; p. 517.
Gas-fixture. J. W. Langendorfer. No. 1,026,447; May 14; Sp. p. 3006; Gaz. vol. 178; p. 495.
Gas from a distance, Apparatus for controlling the lighting of. E. Körner. No. 1,025,750; May 7; Sp. p. 1415; Gaz. vol. 178; p. 222.
Gas-furnace. A. K. Lindley. No. 1,026,814; May 21; Sp. p. 3787; Gaz. vol. 178; p. 656.
Gas-furnace for heating, scaling, and hardening purposes. P. Schmidt. No. 1,026,885; May 21; Sp. p. 3957; Gaz. vol. 178; p. 681.
Gas-generating furnace. G. Richter. No. 1,027,154; May 21; Sp. p. 4603; Gaz. vol. 178; p. 773.
Gas generator, Acetylene-. F. H. White. No. 1,025,352; May 7; Sp. p. 546; Gaz. vol. 178; p. 85.
Gas generator, Acetylene-. J. S. Johnson. No. 1,025,404; May 7; Sp. p. 658; Gaz. vol. 178; p. 103.
Gas generator, Acetylene-. E. M. Rosenbluth. No. 1,025,648; May 7; Sp. p. 1212; Gaz. vol. 178; p. 186.
Gas generator, Acetylene-. C. Shafer. No. 1,025,723; May 7; Sp. p. 1364; Gaz. vol. 178; p. 212.
Gas generator, Acetylene-. J. T. and T. C. Hays. No. 1,026,507; May 14; Sp. p. 3121; Gaz. vol. 178; p. 515.
Gas generator, Acetylene-. P. W. and I. Minter. No. 1,027,750; May 28; Sp. p. 5801; Gaz. vol. 178; p. 1011.
Gas-governor. J. M. Blackburn. No. 1,025,505; May 7; Sp. p. 890; Gaz. vol. 178; p. 139.
Gas-heater. L. F. Betts. No. 1,025,427; May 14; Sp. p. 2951; Gaz. vol. 178; p. 489.
Gas-light fixture. J. Maas. No. 1,027,743; May 28; Sp. p. 5787; Gaz. vol. 178; p. 1008.
Gas, Making producer-. H. F. Smith. No. 1,027,290; May 21; Sp. p. 4873; Gaz. vol. 178; p. 820.
Gas, Manufacture of. W. H. Williams. No. 1,027,681; May 28; Sp. p. 5673; Gaz. vol. 178; p. 989.
Gas-mixer. R. J. Walther. No. 1,026,185; May 14; Sp. p. 2308; Gaz. vol. 178; p. 390.
Gas or electric light extension-fixture. C. M. Pitel. No. 1,025,537; May 7; Sp. p. 909; Gaz. vol. 178; p. 150.
Gas or smoke washer. O. M. Foster. No. 1,026,666; May 21; Sp. p. 3469; Gaz. vol. 178; p. 605.
Gas-producer. A. F. Matlack. No. 1,025,148; May 7; Sp. p. 77; Gaz. vol. 178; p. 14.
Gas-producer. E. A. W. Jefferies and G. H. Isley. No. 1,025,192; May 7; Sp. p. 180; Gaz. vol. 178; p. 31.
Gas-producer. A. F. Matlack. No. 1,025,198; May 7; Sp. p. 195; Gaz. vol. 178; p. 33.
Gas-purifying plant. H. Lane. No. 1,025,918; May 7; Sp. p. 1812; Gaz. vol. 178; p. 279.
Gas-retort attachment. S. E. De Frese. No. 1,028,000; May 28; Sp. p. 6389; Gaz. vol. 178; p. 1096.
Gas-separator. W. F. Green. No. 1,025,806; May 7; Sp. p. 1303; Gaz. vol. 178; p. 203.
Gas trap, Sewer-. F. E. Cudell. No. 1,027,997; May 28; Sp. p. 6384; Gaz. vol. 178; p. 1095.
Gases, Apparatus or washing and scrubbing. M. and J. H. White. No. 1,025,729; May 7; Sp. p. 1379; Gaz. vol. 178; p. 215.
Gases from the air, Extracting rare. G. Claude. No. 1,025,962; May 14; Sp. p. 1909; Gaz. vol. 178; p. 329.
Gases having a low boiling temperature in heat-engines, Employing. K. A. B. Bräuer. No. 1,025,856; May 7; Sp. p. 1630; Gaz. vol. 178; p. 258.
Gases in liquids, Apparatus for absorbing. H. L. Whiteley. No. 1,027,022; May 21; Sp. p. 4286; Gaz. vol. 178; p. 729.
Gases, Liquefaction of. G. Claude. No. 1,027,817; May 28; Sp. p. 5956; Gaz. vol. 178; p. 1034.
Gases, Treating. P. G. Schmidt. No. 1,026,227; May 14; Sp. p. 2514; Gaz. vol. 178; p. 421.
Gasket-retainer. J. W. Ramage. No. 1,027,565; May 28; Sp. p. 5440; Gaz. vol. 178; p. 951.
Gasolene-generator. H. C. Hanson. No. 1,027,650; May 28; Sp. p. 5602; Gaz. vol. 178; p. 978.
Gate: *See* End-gate; Frameless gate; Head-gate; Jig-gate.
Gate. C. Coleman. No. 1,025,370; May 7; Sp. p. 590; Gaz. vol. 178; p. 91.
Gate. A. T. D. Tothill. No. 1,025,725; May 7; Sp. p. 1369; Gaz. vol. 178; p. 213.
Gate. J. Ganzley. No. 1,025,910; May 7; Sp. p. 1794; Gaz. vol. 178; p. 276.
Gate. G. W. Kemp. No. 1,028,028; May 28; Sp. p. 6433; Gaz. vol. 178; p. 1104.
Gate structure. J. J. Hines. No. 1,026,163; May 14; Sp. p. 2364; Gaz. vol. 178; p. 399.
Gearing. R. Lory. No. 1,026,100; May 14; Sp. p. 2239; Gaz. vol. 178; p. 377.
Gearing. J. Stenz. No. 1,026,184; May 14; Sp. p. 2406; Gaz. vol. 178; p. 405.
Gearing. C. T. Darby. No. 1,026,736; May 21; Sp. p. 3622; Gaz. vol. 178; p. 629.
Gearing, Change-speed. H. M. Cake. No. 1,027,236; May 21; Sp. p. 4763; Gaz. vol. 178; p. 801.
Gearing, Elastic variable. A. M. Allen. No. 1,026,237; May 14; Sp. p. 2536; Gaz. vol. 178; p. 425.
Gearing, Magnetically-controlled friction-. A. Sundh. No. 1,025,547; May 7; Sp. p. 991; Gaz. vol. 178; p. 153.
Gearing, Reduction-. J. H. Macalpine. No. 1,026,629; May 14; Sp. p. 3370; Gaz. vol. 178; p. 555.
Gearing, Reversing-. F. D. Bozarth. No. 1,027,313; May 21; Sp. p. 4915; Gaz. vol. 178; p. 827.
Gearing, Transmission-. G. W. Bulley. No. 1,026,073; May 14; Sp. p. 2176; Gaz. vol. 178; p. 368.
Gearing, Transmission-. G. W. Marston. No. 1,026,448; May 14; Sp. p. 3007; Gaz. vol. 178; p. 496.
Gearing, Transmission-. G. W. Meredith. No. 1,027,268; May 21; Sp. p. 4817; Gaz. vol. 178; p. 812.
Gearing, Transmission-. R. B. Jackson. No. 1,027,608; May 28; Sp. p. 5517; Gaz. vol. 178; p. 965.
Gearing, Variable-speed. C. E. Keel. No. 1,025,807; May 7; Sp. p. 1529; Gaz. vol. 178; p. 241.
Gearing, Variable-speed-transmission. H. B. Ross. No. 1,028,078; May 28; Sp. p. 6558; Gaz. vol. 178; p. 1119.
Gears, Suspension-frame for transmission-. E. M. Sternberg. No. 1,027,447; May 28; Sp. p. 5196; Gaz. vol. 178; p. 911.
Generator: *See* Acetylene-generator; Gas-generator; Gasolene-generator; Steam-generator; Vapor-generator.
Generator-driving mechanism. W. L. Bliss. No. 1,025,506; May 7; Sp. p. 892; Gaz. vol. 178; p. 139.
Gin-saw cleaner. J. C. Shropshire. No. 1,026,129; May 14; Sp. p. 2299; Gaz. vol. 178; p. 388.
Glass articles, Annealing-leer for. W. R. Valentine. No. 1,025,936; May 7; Sp. p. 1849; Gaz. vol. 178; p. 285.
Glass-cleaning device, Window-. E. F. Schorndorfer. No. 1,027,359; May 21; Sp. p. 5006; Gaz. vol. 178; p. 844.
Glass-faced tiles, Making. P. Brunet. No. 1,025,677; May 7; Sp. p. 1267; Gaz. vol. 178; p. 196.
Glass-furnace. V. Thenis. No. 1,027,933; May 28; Sp. p. 6248; Gaz. vol. 178; p. 1073.
Glass-handling device, Plate-. C. H. Farley. No. 1,025,692; May 7; Sp. p. 1295; Gaz. vol. 178; p. 201.
Glass-pot, Rotary. T. B. Campbell, Sr. No. 1,025,680; May 7; Sp. p. 1270; Gaz. vol. 178; p. 197.
Glass-tank. C. C. Ross. No. 1,027,282; May 21; Sp. p. 4855; Gaz. vol. 178; p. 817.

Glassware-manufacturing apparatus. J. Schiea. No. 1,027,567; May 28; Sp. p. 5442; Gaz. vol. 178; p. 952.
Glove, Base-ball. J. A. Peach. No. 1,026,925; May 21; Sp. p. 4048; Gaz. vol. 178; p. 695.
Glove-fitting, Arm-rest for. J. F. Mellen. No. 1,025,476; May 7; Sp. p. 825; Gaz. vol. 178; p. 129.
Glove, Reversible. J. L. Casler. No. 1,027,688; May 28; Sp. p. 5689; Gaz. vol. 178; p. 991.
Glue-spreaders, Gearing for. W. S. Craig. No. 1,025,376; May 7; Sp. p. 604; Gaz. vol. 178; p. 94.
Go-cart. W. E. Pugsley. No. 1,027,896; May 28; Sp. p. 6192; Gaz. vol. 178; p. 1062.
Go-cart, Folding. O. Nilsson. No. 1,025,292; May 7; Sp. p. 397; Gaz. vol. 178; p. 65.
Go-cart runner. G. Syverson. No. 1,027,224; May 21; Sp. p. 4741; Gaz. vol. 178; p. 797.
Golf-club. C. H. Seely. No. 1,026,181; May 14; Sp. p. 2400; Gaz. vol. 178; p. 404.
Governor. W. T. Strain. No. 1,027,221; May 21; Sp. p. 4736; Gaz. vol. 178; p. 796.
Governor, Alarm-. G. Long. No. 1,026,099; May 14; Sp. p. 2237; Gaz. vol. 178; p. 377.
Grab for material in large pieces, Automatic. W. Ellingen. No. 1,026,573; May 14; Sp. p. 3244; Gaz. vol. 178; p. 536.
Grader, Road-. A. J. Hansen. No. 1,027,725; May 28; Sp. p. 5752; Gaz. vol. 178; p. 1002.
Grading and excavating machine. Road-. E. A. Hollenbeck. No. 1,025,569; May 7; Sp. p. 1041; Gaz. vol. 178; p. 161.
Grading-machine. R. A. Baker. No. 1,026,018; May 14; Sp. p. 2015; Gaz. vol. 178; p. 348.
Grading machine, Road-. O. D. Park. No. 1,028,060; May 28; Sp. p. 6508; Gaz. vol. 178; p. 1114.
Grain and other materials, Apparatus for treating. F. B. Giesler. No. 1,025,263; May 7; Sp. p. 341; Gaz. vol. 178; p. 55.
Grain-binder. G. W. Willis. No. 1,026,841; May 21; Sp. p. 3856; Gaz. vol. 178; p. 666.
Grain-drill. D. A. Schutt. No. 1,026,409; May 14; Sp. p. 2918; Gaz. vol. 178; p. 483.
Grain-drill. D. A. Schutt. No. 1,026,410; May 14; Sp. p. 2919; Gaz. vol. 178; p. 484.
Grain or hay deliverer. H. C. Erbe. No. 1,025,794; May 7; Sp. p. 1500; Gaz. vol. 178; p. 237.
Grain-separators, Sheet-metal fish-back for. J. D. West. No. 1,027,365; May 21; Sp. p. 5023; Gaz. vol. 178; p. 846.
Grain-shredding machine. F. Regnier. No. 1,027,762; May 28; Sp. p. 5829; Gaz. vol. 178; p. 1015.
Graphophone-reproducer. V. H. Emerson. No. 1,026,084; May 14; Sp. p. 2208; Gaz. vol. 178; p. 372.
Grass-cutter for cutting edges of lawns and the like. H. Irwin. No. 1,026,985; May 21; Sp. p. 4196; Gaz. vol. 178; p. 716.
Grass digger, Quack-. L. E. Guldinger. No. 1,027,125; May 21; Sp. p. 4549; Gaz. vol. 178; p. 764.
Grate. D. Dee. No. 1,026,152; May 14; Sp. p. 2344; Gaz. vol. 178; p. 396.
Grate. C. W. Foster. No. 1,028,012; May 28; Sp. p. 6408; Gaz. vol. 178; p. 1099.
Grate and stove heater attachment. T. C. Walker. No. 1,026,007; May 14; Sp. p. 1999; Gaz. vol. 178; p. 344.
Gravity-motor. G. S. Welling. No. 1,026,727; May 21; Sp. p. 3602; Gaz. vol. 178; p. 626.
Grease-cup. H. B. Sherman and F. Perkins. No. 1,025,319; May 7; Sp. p. 481; Gaz. vol. 178; p. 74.
Grease-cup. J. B. Hall. No. 1,027,538; May 28; Sp. p. 5378; Gaz. vol. 178; p. 942.
Grease-cup-filling attachment. M. G. Brown. No. 1,027,588; May 28; Sp. p. 5483; Gaz. vol. 178; p. 959.
Grille-work or grating, Electrically-protected. J. P. Williams and H. Huhn. No. 1,027,679; May 28; Sp. p. 5666; Gaz. vol. 178; p. 987.
Grinding and like machine. A. A. Scott. No. 1,026,610; May 14; Sp. p. 3323; Gaz. vol. 178; p. 549.
Grinding and polishing machine. W. F. Miller. No. 1,025,417; May 7; Sp. p. 679; Gaz. vol. 178; p. 107.
Grinding balls. A. E. Greene. No. 1,026,351; May 14; Sp. p. 2792; Gaz. vol. 178; p. 464.
Grinding-bur. H. G. McCulloch. No. 1,026,818; May 21; Sp. p. 3793; Gaz. vol. 178; p. 657.
Grinding-machine. W. F. Cremean. No. 1,026,022; May 14; Sp. p. 2021; Gaz. vol. 178; p. 349.
Grinding machine, Ball-. A. E. Greene. No. 1,026,350; May 14; Sp. p. 2782; Gaz. vol. 178; p. 464.
Grinding machine, Hole-. G. K. Garvin and E. J. McClellan. No. 1,026,389; May 14; Sp. p. 2870; Gaz. vol. 178; p. 476.
Grinding-mill crusher-head. H. A. Hunt. No. 1,026,319; May 14; Sp. p. 2706; Gaz. vol. 178; p. 453.
Grip-handle, Detachable. O. J. Hanson and L. J. Gilbert. No. 1,027,726; May 28; Sp. p. 5755; Gaz. vol. 178; p. 1003.
Gripping device. A. Victor. No. 1,027,161; May 21; Sp. p. 4618; Gaz. vol. 178; p. 775.
Groove-cutting attachment for key-seating machines, Oil-. P. S. Mitts. No. 1,025,152; May 7; Sp. p. 85; Gaz. vol. 178; p. 16.
Grooving-tool. A. F. Strafer. No. 1,026,004; May 14; Sp. p. 1994; Gaz. vol. 178; p. 344.
Gummed-strip applier. J. C. Kennedy and W. S. Kinsley. No. 1,026,446; May 14; Sp. p. 3001; Gaz. vol. 178; p. 495.
Gun or rifle, Automatic. W. M. Douglas. No. 1,025,132; May 7; Sp. p. 46; Gaz. vol. 178; p. 9.
Gun-sight, Front. G. W. Peck, Jr., and W. M. Farrow, Sr. No. 1,027,892; May 28; Sp. p. 6184; Gaz. vol. 178; p. 1060.
Gun-sight, Rear. G. W. Peck, Jr., and W. M. Farrow, Sr. No. 1,027,891; May 28; Sp. p. 6182; Gaz. vol. 178; p. 1060.
Gun sight, Rifle and machine-. E. Müller. No. 1,027,271; May 21; Sp. p. 4827; Gaz. vol. 178; p. 813.
Guns, Liquid recoil-brake for. E. Völler. No. 1,028,081; May 28; Sp. p. 6570; Gaz. vol. 178; p. 1120.
Guns, Safety breech-block lock for. S. Jacobs. No. 1,026,590; May 14; Sp. p. 3275; Gaz. vol. 178; p. 541.
Guns with differential recoils, Firing device for. E. Müller. No. 1,026,597; May 14; Sp. p. 3291; Gaz. vol. 178; p. 544.
Hacksaw-machines, Feeding means for power. A. Rasmussen. No. 1,025,305; May 7; Sp. p. 424; Gaz. vol. 178; p. 69.
Hair ornaments, Machine for making. W. J. Hines. No. 1,027,419; May 28; Sp. p. 5145; Gaz. vol. 178; p. 902.
Hair-pin. L. C. Belz. No. 1,026,142; May 14; Sp. p. 2322; Gaz. vol. 178; p. 392.
Hame draft-eye. T. A. Fog. No. 1,025,970; May 14; Sp. p. 1921; Gaz. vol. 178; p. 331.
Hame-fastener. P. F. McCrone. No. 1,026,817; May 21; Sp. p. 3792; Gaz. vol. 178; p. 657.
Hammer attachment. H. B. Hudson. No. 1,026,915; May 21; Sp. p. 4029; Gaz. vol. 178; p. 691.
Hammer, Pneumatic. R. A. Norling. No. 1,027,060; May 21; Sp. p. 4378; Gaz. vol. 178; p. 743.
Hammer, Pneumatic. R. A. Norling. No. 1,027,062; May 21; Sp. p. 4387; Gaz. vol. 178; p. 744.
Hammer, Steam-. T. M. Shearer. No. 1,026,002; May 14; Sp. p. 1991; Gaz. vol. 178; p. 343.
Hammock. J. J. Maxwell. No. 1,026,524; May 14; Sp. p. 3156; Gaz. vol. 178; p. 521.
Hand-hole plate. W. C. Morrison. No. 1,025,710; May 7; Sp. p. 1331; Gaz. vol. 178; p. 207.
Handkerchief-machine. M. Adair, J. A. Cameron, and F. Ainsworth. No. 1,026,547; May 14; Sp. p. 3192; Gaz. vol. 178; p. 528.
Handle: *See* Box-handle; Brake-handle; Grip-handle; Soap-handle; Switch-handle.
Handle A. E. Meyer and F. Wetteroth. No. 1,025,416; May 7; Sp. p. 678; Gaz. vol. 178; p. 107.
Hanger: *See* Curtain-hanger; Door-hanger; Dry-room hanger; Garment-hanger; Hat and coat hanger; Lamp-hanger; Letter-carrier hanger; Pipe-hanger; Shaft-hanger; Trousers-hanger.
Hardback and the like, Machine for burning. T. E. Doubt. No. 1,027,038; May 21; Sp. p. 4334; Gaz. vol. 178; p. 735.
Harness. R. Toward. No. 1,026,723; May 21; Sp. p. 3597; Gaz. vol. 178; p. 625.
Harness. J. E. Kershaw. No. 1,026,751; May 21; Sp. p. 3646; Gaz. vol. 178; p. 634.
Harrow and drag, Combined. T. J. Wheeler. No. 1,026,539; May 14; Sp. p. 3179; Gaz. vol. 178; p. 526.
Harrow and shield, Combined. J. C. Brand. No. 1,025,118; May 7; Sp. p. 7; Gaz. vol. 178; p. 4.
Harrow-cleaning attachment. H. E. Smock. No. 1,027,920; May 28; Sp. p. 6229; Gaz. vol. 178; p. 1069.
Harrow, Disk. C. W. Michael. No. 1,026,760; May 21; Sp. p. 3673; Gaz. vol. 178; p. 637.
Harrow, Lever-. A. B. Hays. No. 1,026,394; May 14; Sp. p. 2881; Gaz. vol. 178; p. 478.
Harrow, Reversible. T. T. Hardt. No. 1,026,912; May 21; Sp. p. 4025; Gaz. vol. 178; p. 690.
Harrow, Section-. G. C. Shankle. No. 1,026,411; May 14; Sp. p. 2921; Gaz. vol. 178; p. 484.
Harrow wheel-support. L. E. Waterman. No. 1,025,767; May 7; Sp. p. 1451; Gaz. vol. 178; p. 228.
Harvester, Beet-. G. H. Smith. No. 1,026,714; May 21; Sp. p. 3565; Gaz. vol. 178; p. 622.
Harvester, Beet-. G. H. Smith. No. 1,026,835; May 21; Sp. p. 3840; Gaz. vol. 178; p. 663.
Harvesters, Grain-dividing attachment for. C. C. Leineweber. No. 1,025,753; May 7; Sp. p. 1424; Gaz. vol. 178; p. 223.
Harvester, Pea-. E. O. Hutsell. No. 1,028,072; May 28; Sp. p. 6543; Gaz. vol. 178; p. 1117.
Hasp-lock. M. Milewski. No. 1,027,878; May 28; Sp. p. 6143; Gaz. vol. 178; p. 1055.
Hat and coat hanger. F. Pearce. No. 1,025,831; May 7; Sp. p. 1579; Gaz. vol. 178; p. 250.
Hat and veil pin. R. J. Heavenrich. No. 1,027,651; May 28; Sp. p. 5604; Gaz. vol. 178; p. 979.
Hat-bodies, Machine for planking felt. P. Nebbia. No. 1,025,711; May 7; Sp. p. 1332; Gaz. vol. 178; p. 207.
Hat, coat, and umbrella rack, Coin-operated. C. Caruso. No. 1,025,860; May 7; Sp. p. 1651; Gaz. vol. 178; p. 259.
Hat-holder. E. H. Mayo. No. 1,027,138; May 21; Sp. p. 4572; Gaz. vol. 178; p. 768.
Hat-holder. L. Viezzi. No. 1,027,942; May 28; Sp. p. 6267; Gaz. vol. 178; p. 1076.
Hat or bonnet pin protector. A. Beutner. No. 1,026,942; May 21; Sp. p. 4119; Gaz. vol. 178; p. 701.
Hat-pin. T. M. Daniels. No. 1,027,375; May 21; Sp. p. 5044; Gaz. vol. 178; p. 849.
Hat-pin protector. E. W. Roberts. No. 1,025,722; May 7; Sp. p. 1363; Gaz. vol. 178; p. 212.
Hat-rack, Portable. J. W. Craft. No. 1,027,596; May 28; Sp. p. 5497; Gaz. vol. 178; p. 961.

Hay-distributer. N. C. Miller. No. 1,025,708; May 7; Sp. p. 1325; Gaz. vol. 178; p. 207.
Hay-grinding machine. S. C. Roberts. No. 1,027,765; May 28; Sp. p. 5834; Gaz. vol. 178; p. 1015.
Hay-loader. C. O. Davis. No. 1,027,465; May 28; Sp. p. 5228; Gaz. vol. 178; p. 917.
Hay-loader. A. Otto, Jr. No. 1,027,885; May 28; Sp. p. 6163; Gaz. vol. 178; p. 1057.
Hay-rack. J. Zbornik. No. 1,025,939; May 7; Sp. p. 1855; Gaz. vol. 178; p. 286.
Hay-retainer, Overthrow. M. T. and E. B. Shields and W. L. McGuire. No. 1,025,320; May 7; Sp. p. 483; Gaz. vol. 178; p. 75.
Head-gate. A. Robertson. No. 1,027,903; May 28; Sp. p. 6204; Gaz. vol. 178; p. 1064.
Head-shaping machine. C. Glover and C. Holt. No. 1,027,383; May 21; Sp. p. 5060; Gaz. vol. 178; p. 852.
Headed-blank-feeding machine. E. W. Duston. No. 1,026,083; May 14; Sp. p. 2204; Gaz. vol. 178; p. 372.
Heading mechanism. E. W. Duston. No. 1,026,082; May 14; Sp. p. 2201; Gaz. vol. 178; p. 371.
Heading-up machine. E. F. Bengler. No. 1,027,803; May 28; Sp. p. 5922; Gaz. vol. 178; p. 1029.
Headlight, Automobile-. C. Shermund and R. A. Mallett. No. 1,026,709; May 21; Sp. p. 3555; Gaz. vol. 178; p. 620.
Headlight-curtain. W. L. Russell. No. 1,026,703; May 21; Sp. p. 3545; Gaz. vol. 178; p. 618.
Heat-conserving means. A. T. Kasley. No. 1,025,274; May 7; Sp. p. 357; Gaz. vol. 178; p. 58.
Heat-economizing means. J. M. W. Kitchen. No. 1,028,030; May 28; Sp. p. 6435; Gaz. vol. 178; p. 1104.
Heater: *See* Air-heater; Base-heater; Electric heater; Fluid-heater; Gas-heater; Hot-water heater; Liquid-heater; Orchard-heater; Steam or hot-water heater; Vat-heater; Water-heater; Wheat-heater.
Heater for gravel, &c. A. B. Cowdery. No. 1,025,687; May 7; Sp. p. 1288; Gaz. vol. 178; p. 200.
Heating. W. I. Thomson and H. G. Thompson. No. 1,026,722; May 21; Sp. p. 3588; Gaz. vol. 178; p. 625.
Heating and cooking apparatus, Means for regulating the temperature of electrical. J. C. P. Kirkwood. No. 1,025,576; May 7; Sp. p. 1063; Gaz. vol. 178; p. 164.
Heating apparatus. B. C. Allen. No. 1,027,970; May 28; Sp. p. 6328; Gaz. vol. 178; p. 1086.
Heating device. F. H. Wheelock. No. 1,026,013; May 14; Sp. p. 2007; Gaz. vol. 178; p. 346.
Heating device, Electrical. F. J. Holmes. No. 1,027,337; May 21; Sp. p. 4959; Gaz. vol. 178; p. 835.
Heating-furnace, Continuous. G. C. Shackleford, P. J. Gordon, and A. K. McMillen. No. 1,027,915; May 28; Sp. p. 6222; Gaz. vol. 178; p. 1068.
Heating or superheating purposes, Structure for. H. Luckenbach. No. 1,025,949; May 7; Sp. p. 1878; Gaz. vol. 178; p. 288.
Heating system, Hot-water. H. Abrens. No. 1,026,236; May 14; Sp. p. 2535; Gaz. vol. 178; p. 424.
Heel, Apparel-shoe. M. Lage. No. 1,027,659; May 28; Sp. p. 5622; Gaz. vol. 178; p. 981.
Heel, Boot and shoe. E. Kempshall. No. 1,027,255; May 21; Sp. p. 4795; Gaz. vol. 178; p. 808.
Heel-building machine. E. A. Tripp. No. 1,025,551; May 7; Sp. p. 999; Gaz. vol. 178; p. 154.
Heel compressing and loading apparatus. C. C. Small. No. 1,027,361; May 21; Sp. p. 5010; Gaz. vol. 178; p. 845.
Heel-making machine. T. H. Mayo. No. 1,025,534; May 7; Sp. p. 958; Gaz. vol. 178; p. 149.
Heel-seat-rounding machine. J. V. Allen. No. 1,027,638; May 28; Sp. p. 5570; Gaz. vol. 178; p. 974.
Hides, Curing. F. P. James. No. 1,025,401; May 7; Sp. p. 654; Gaz. vol. 178; p. 102.
Hinge. H. W. Bertram. No. 1,026,844; May 21; Sp. p. 3859; Gaz. vol. 178; p. 666.
Hinge. N. Shields. No. 1,027,444; May 28; Sp. p. 5193; Gaz. vol. 178; p. 910.
Hinge. C. Hartman. No. 1,028,021; May 28; Sp. p. 6423; Gaz. vol. 178; p. 1102.
Hinge-articulator. H. Schweitzer. No. 1,027,443; May 28; Sp. p. 5192; Gaz. vol. 178; p. 910.
Hinge, Box-. R. B. Fuller. No. 1,025,261; May 7; Sp. p. 339; Gaz. vol. 178; p. 55.
Hinge, Door-. J. R. Fletcher. No. 1,027,716; May 28; Sp. p. 5739; Gaz. vol. 178; p. 1000.
Hinge, Friction-. J. Bahnsen. No. 1,026,781; May 21; Sp. p. 3725; Gaz. vol. 178; p. 645.
Hinge-joint for wind-shields. P. N. Landine. No. 1,026,813; May 21; Sp. p. 3785; Gaz. vol. 178; p. 655.
Hinge, Noiseless pivot-. E. E. Kelley. No. 1,026,750; May 21; Sp. p. 3645; Gaz. vol. 178; p. 634.
Hinge, Spring-. P. E. Howard. No. 1,027,654; May 28; Sp. p. 5612; Gaz. vol. 178; p. 980.
Hobby-horse and high chair. J. L. Peters. No. 1,025,422; May 7; Sp. p. 600; Gaz. vol. 178; p. 109.
Hoe and potato-digger, Combined. C. E. Shafer. No. 1,026,470; May 14; Sp. p. 3047; Gaz. vol. 178; p. 503.
Hoist. M. Davis. No. 1,025,516; May 7; Sp. p. 913; Gaz. vol. 178; p. 142.
Hoisting apparatus. C. O. Pearson. No. 1,026,118; May 14; Sp. p. 2275; Gaz. vol. 178; p. 384.
Hoisting apparatus. E. Brown. No. 1,026,901; May 21; Sp. p. 3999; Gaz. vol. 178; p. 687.
Hoisting apparatus. A. E. Norris. No. 1,027,884; May 28; Sp. p. 6159; Gaz. vol. 178; p. 1057.
Hoisting-machine. H. G. Johnston. No. 1,027,253; May 21; Sp. p. 4793; Gaz. vol. 178; p. 808.
Hoisting mechanism for brick-setters, &c. R. C. Penfield. No. 1,025,155; May 7; Sp. p. 94; Gaz. vol. 178; p. 17.
Hoisting-sling. T. J. Sammon. No. 1,027,907; May 28; Sp. p. 6209; Gaz. vol. 178; p. 1065.
Honing and stropping device. A. K. Hanson. No. 1,027,045; May 21; Sp. p. 4343; Gaz. vol. 178; p. 737.
Hook: *See.* Logging-hook; Picture-hook; Releasing-hook; Snap-hook.
Horn or alarm, Diaphragm. S. Rosofsky. No. 1,025,998; May 14; Sp. p. 1982; Gaz. vol. 178; p. 341.
Horse-releaser. F. Chandler. No. 1,027,374; May 21; Sp. p. 5043; Gaz. vol. 178; p. 849.
Horses, Device for stopping runaway. T. Watanabe. No. 1,026,012; May 14; Sp. p. 2006; Gaz. vol. 178; p. 346.
Horseshoe. C. Allen. No. 1,026,842; May 21; Sp. p. 3857; Gaz. vol. 178; p. 666.
Horseshoe. W. M. Fletcher. No. 1,027,410; May 28; Sp. p. 5124; Gaz. vol. 178; p. 899.
Horseshoe. J. A. Billado. No. 1,027,804; May 28; Sp. p. 5927; Gaz. vol. 178; p. 1029.
Horseshoe-calk. W. I. and J. Miller. No. 1,026,449; May 14; Sp. p. 3009; Gaz. vol. 178; p. 496.
Horticultural forcing-house. A. Frieling. No. 1,026,576; May 14; Sp. p. 3248; Gaz. vol. 178; p. 537.
Hose. F. R. Neff. No. 1,026,598; May 14; Sp. p. 3292; Gaz. vol. 178; p. 544.
Hose attachment. P. R. Robbins. No. 1,027,155; May 21; Sp. p. 4605; Gaz. vol. 178; p. 773.
Hose, Machine for manufacturing. A. C. Bolton. No. 1,028,067; May 28; Sp. p. 6528; Gaz. vol. 178; p. 1116.
Hose nozzle and sprayer, Combination. F. J. French. No. 1,026,742; May 21; Sp. p. 3631; Gaz. vol. 178; p. 631.
Hose-supporter. S. J. Agbay. No. 1,025,229; May 7; Sp. p. 262; Gaz. vol. 178; p. 44.
Hot-air furnace. W. H. Swett. No. 1,026,777; May 21; Sp. p. 3715; Gaz. vol. 178; p. 644.
Hot-water heater, Instantaneous gas. A. Beler. No. 1,025,777; May 7; Sp. p. 1465; Gaz. vol. 178; p. 231.
Hotbed. A. W. Griffith. No. 1,027,124; May 21; Sp. p. 4546; Gaz. vol. 178; p. 764.
House: *See* Horticultural forcing-house.
Housekeeper's reminder. A. F. Rae. No. 1,026,768; May 21; Sp. p. 3702; Gaz. vol. 178; p. 641.
Hub-odometer. H. P. C. Browne. No. 1,027,031; May 21; Sp. p. 4313; Gaz. vol. 178; p. 733.
Huller: *See* Seed-huller.
Humidifier. F. B. Comins. No. 1,026,946; May 21; Sp. p. 4127; Gaz. vol. 178; p. 703.
Humidifier and disinfector. F. Kocher. No. 1,027,856; May 28; Sp. p. 6081; Gaz. vol. 178; p. 1048.
Humidor. H. W. Doughty. No. 1,026,154; May 14; Sp. p. 2347; Gaz. vol. 178; p. 396.
Husking device. J. S. Hofer and J. P. Stahl. No. 1,026,585; May 14; Sp. p. 3265; Gaz. vol. 178; p. 540.
Hydraulic motor. J. F. Prosser. No. 1,026,177; May 14; Sp. p. 2392; Gaz. vol. 178; p. 403.
Hydraulic press for producing hollow earthenware bodies. E. Dor-Delattre. No. 1,027,597; May 28; Sp. p. 5499; Gaz. vol. 178; p. 961.
Hydroaeroplane. E. P. Ekman. No. 1,026,304; May 14; Sp. p. 2673; Gaz. vol. 178; p. 447.
Hydrogen, Apparatus for the separation of. C. Von Linde. No. 1,027,863; May 28; Sp. p. 6092; Gaz. vol. 178; p. 1050.
Hydrogen from a gaseous mixture, Apparatus for the separation of. C. Von Linde. No. 1,027,862; May 28; Sp. p. 6090; Gaz. vol. 178; p. 1050.
Hydrogen-peroxid solution, Stable. O. Liebknecht. No. 1,025,948; May 7; Sp. p. 1878; Gaz. vol. 178; p. 288.
Ice-can. F. F. Bentley. No. 1,027,802; May 28; Sp. p. 5921; Gaz. vol. 178; p. 1029.
Ice-cream-cone machine. L. H. Lanier. No. 1,028,035; May 28; Sp. p. 6457; Gaz. vol. 178; p. 1106.
Ice-cream dispenser. C. Doering, Jr. No. 1,026,080; May 14; Sp. p. 2198; Gaz. vol. 178; p. 371.
Ice-cream freezer. L. E. Hudson. No. 1,026,510; May 14; Sp. p. 3128; Gaz. vol. 178; p. 516.
Ice-making apparatus. W. E. Armistead. No. 1,027,304; May 21; Sp. p. 4900; Gaz. vol. 178; p. 824.
Ice-manufacturing apparatus. W. E. Armistead. No. 1,027,305; May 21; Sp. p. 4903; Gaz. vol. 178; p. 825.
Igniting device. A. Ehlert. No. 1,027,600; May 28; Sp. p. 5505; Gaz. vol. 178; p. 962.
Igniting device, Pocket. R. E. Ramsdell. No. 1,027,900; May 28; Sp. p. 6198; Gaz. vol. 178; p. 1063.
Ignition system, Combined. R. H. Cunningham. No. 1,026,565; May 14; Sp. p. 3229; Gaz. vol. 178; p. 534.
Ignition system, Dual. C. Cuno. No. 1,026,077; May 14; Sp. p. 2190; Gaz. vol. 178; p. 369.
Ignition systems, Breaker-box for. W. J. Hart. No. 1,025,566; May 7; Sp. p. 1037; Gaz. vol. 178; p. 160.
Implement-clamp. S. C. Lawlor. No. 1,025,280; May 7; Sp. p. 376; Gaz. vol. 178; p. 61.
Imprinting envelops, &c., Machine for. U. C. Davis. No. 1,027,824; May 28; Sp. p. 5971; Gaz. vol. 178; p. 1037.
Incandescent light, Increasing the intensity of. R. P. Pictet. No. 1,026,121; May 14; Sp. p. 2283; Gaz. vol. 178; p. 385.
Incubator and brooder, Combined. C. W. Zimmer. No. 1,025,181; May 7; Sp. p. 157; Gaz. vol. 178; p. 26.
Index, Adjustable. J. H. Rand. No. 1,025,997; May 14; Sp. p. 1980; Gaz. vol. 178; p. 341.

Indicator: *See* Automobile-indicator; Car street-indicator; Speed-indicator; Station-indicator; Synchronical indicator.
Indigo coloring-matters, Reducing. W. Gans. No. 1,027,836; May 28; Sp. p. 6000; Gaz. vol. 178; p. 1041.
Induction synchronous motor. C. H. Kicklighter. No. 1,027,422; May 28; Sp. p. 5148; Gaz. vol. 178; p. 903.
Infant's posing-chair. L. Hallen. No. 1,025,953; May 7; Sp. p. 1887; Gaz. vol. 178; p. 290.
Inflammable liquids, Device for safely storing. C. Martini. No. 1,025,758; May 7; Sp. p. 1436; Gaz. vol. 178; p. 225.
Injector. E. Koerting. No. 1,026,390; May 14; Sp. p. 2889; Gaz. vol. 178; p. 479.
Ink-bottle stand and holder. L. Asheim. No. 1,026,780; May 21; Sp. p. 3724; Gaz. vol. 178; p. 645.
Insect-screen. J. B. Blandy. No. 1,025,674; May 7; Sp. p. 1263; Gaz. vol. 178; p. 195.
Insecticide. W. Newell. No. 1,026,361; May 14; Sp. p. 2821; Gaz. vol. 178; p. 467.
Insole, Composition. O. F. Fogelsong. No. 1,027,412; May 28; Sp. p. 5133; Gaz. vol. 178; p. 900.
Insole, Reinforced. G. L. Rollins. No. 1,026,225; May 14; Sp. p. 2510; Gaz. vol. 178; p. 420.
Insulated platform. G. L. Brooks. No. 1,026,380; May 14; Sp. p. 2858; Gaz. vol. 178; p. 474.
Insulating compound and making the same. E. Hemming. No. 1,025,268; May 7; Sp. p. 349; Gaz. vol. 178; p. 57.
Insulating-tubes, Making. V. P. v. Pindtershofen. No. 1,025,763; May 7; Sp. p. 1444; Gaz. vol. 178; p. 227.
Insulator and support. L. F. Gressett. No. 1,027,601; May 28; Sp. p. 5506; Gaz. vol. 178; p. 963.
Insulator in junction-boxes or the like, Terminal. R. Delbel. No. 1,027,404; May 28; Sp. p. 5112; Gaz. vol. 178; p. 897.
Insulator-pin, Sheet-metal. B. R. Shover. No. 1,026,711; May 21; Sp. p. 3559; Gaz. vol. 178; p. 621.
Insulator-supporting device. C. G. Ette. No. 1,027,712; May 28; Sp. p. 5732; Gaz. vol. 178; p. 999.
Interlocking mechanism. F. C. Anderson. No. 1,026,730; May 21; Sp. p. 3613; Gaz. vol. 178; p. 627.
Internal-combustion engine. H. Whidbourne and J. J. Lishman. No. 1,025,439; May 7; Sp. p. 747; Gaz. vol. 178; p. 115.
Internal-combustion engine. J. F. Hopper. No. 1,026,317; May 14; Sp. p. 2703; Gaz. vol. 178; p. 452.
Internal-combustion engine. D. H. Coles. No. 1,026,563; May 14; Sp. p. 3224; Gaz. vol. 178; p. 533.
Internal-combustion engine. S. Lake. No. 1,026,871; May 21; Sp. p. 3906; Gaz. vol. 178; p. 675.
Internal-combustion engine. H. R. Ricardo. No. 1,027,278; May 21; Sp. p. 4848; Gaz. vol. 178; p. 816.
Internal-combustion engine. M. L. Williams. No. 1,027,680; May 28; Sp. p. 5669; Gaz. vol. 178; p. 988.
Inverted burner for liquid combustibles. F. Altmann. No. 1,025,851; May 7; Sp. p. 1622; Gaz. vol. 178; p. 257.
Iron: *See* Sad-iron.
Iron albuminous compounds containing phosphorus, Preparing. F. Zuckmayer. No. 1,027,967; May 28; Sp. p. 6318; Gaz. vol. 178; p. 1085.
Iron albuminous compounds containing phosphorus, Preparing. F. Zuckmayer. No. 1,027,968; May 28; Sp. p. 6322; Gaz. vol. 178; p. 1085.
Iron-glycero-phosphate combined with milk or milk-albumin, Making a soluble compound of. P. Hoering. No. 1,027,844; May 28; Sp. p. 6020; Gaz. vol. 178; p. 1043.
Iron or steel, Refining. K. A. F. Hiorth. No. 1,028,070; May 28; Sp. p. 6538; Gaz. vol. 178; p. 1117.
Ironing-board. F. G. Hofme. No. 1,027,479; May 28; Sp. p. 5253; Gaz. vol. 178; p. 921.
Isolated alkali salts of indoxyl and making same. A. Schmidt. No. 1,027,441; May 28; Sp. p. 5189; Gaz. vol. 178; p. 910.
Isoprene, Producing. G. Merling and H. Köhler. No. 1,026,601; May 21; Sp. p. 3521; Gaz. vol. 178; p. 614.
Isoprene, Producing. G. Merling and H. Köhler. No. 1,026,602; May 21; Sp. p. 3521; Gaz. vol. 178; p. 614.
Jack: *See* Lifting-jack; Lumber-jack; Shoe-repairing jack; Smoke-jack.
Jack. M. Lutenberger. No. 1,027,348; May 21; Sp. p. 4979; Gaz. vol. 178; p. 839.
Jar cap or closure. E. D. Schmitt. No. 1,025,314; May 7; Sp. p. 459; Gaz. vol. 178; p. 73.
Jars or vessels, Cover for hermetically closing. J. B. Bellamy. No. 1,025,942; May 7; Sp. p. 1859; Gaz. vol. 178; p. 287.
Jewelry, Article of. F. Blume. No. 1,025,447; May 7; Sp. p. 762; Gaz. vol. 178; p. 118.
Jewelry-box fastener. J. R. Sundee. No. 1,025,430; May 7; Sp. p. 705; Gaz. vol. 178; p. 112.
Jewelry safety-clasp. M. A. Gerson. No. 1,025,973; May 14; Sp. p. 1926; Gaz. vol. 178; p. 332.
Jig-gate. J. C. Breeden. No. 1,025,242; May 7; Sp. p. 295; Gaz. vol. 178; p. 48.
Joint: *See* Air or steam joint; Hinge-joint; Piling-joint; Rail-joint; Railway-switch joint; Rule-joint; Signal-joint; Track-joint.
Journal-box. J. W. Stephenson. No. 1,025,888; May 7; Sp. p. 1750; Gaz. vol. 178; p. 269.
Journal-box and oil-cellar, Car-truck. G. G. Floyd. No. 1,026,979; May 21; Sp. p. 4181; Gaz. vol. 178; p. 714.
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Key-bits, Machine for cutting. B. Kotkovsky. No. 1,025,917; May 7; Sp. p. 1810; Gaz. vol. 178; p. 279.
Key-operated lock. F. Bisesi. No. 1,027,173; May 21; Sp. p. 4634; Gaz. vol. 178; p. 778.
Key-ring. W. C. Ford. No. 1,026,348; May 14; Sp. p. 2778; Gaz. vol. 178; p. 463.
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Kinematographs and talking-machines, Film and method of synchronizing the operation of. J. Greenbaum. No. 1,027,248; May 21; Sp. p. 4785; Gaz. vol. 178; p. 806.
Kinetoscope. J. A. Le Roy. No. 1,027,135; May 21; Sp. p. 4566; Gaz. vol. 178; p. 767.
Kinetoscope. E. P. Hopkins. No. 1,027,731; May 28; Sp. p. 5766; Gaz. vol. 178; p. 1004.
Knife: *See* Pocket-knife.
Knitted fabric. G. W. Cummings. No. 1,027,696; May 28; Sp. p. 5702; Gaz. vol. 178; p. 994.
Knitted web and stocking made therefrom. L. A. Costello. No. 1,025,125; May 7; Sp. p. 30; Gaz. vol. 178; p. 6.
Knitting-machine. W. W. Burson. No. 1,025,182; May 7; Sp. p. 160; Gaz. vol. 178; p. 27.
Knitting-machine. W. A. Ingalls. No. 1,025,470; May 7; Sp. p. 812; Gaz. vol. 178; p. 126.
Knitting-machine. H. A. Houseman. No. 1,025,980; May 14; Sp. p. 1940; Gaz. vol. 178; p. 335.
Knitting-machine. E. A. Hirner. No. 1,026,206; May 14; Sp. p. 2466; Gaz. vol. 178; p 414.
Knitting-machine. J. S. Crane. No. 1,027,034; May 21; Sp. p. 4321; Gaz. vol. 178; p. 734.
Knitting-machine dial. H. Swinglehurst. No. 1,025,169; May 7; Sp. p. 130; Gaz. vol. 178; p. 23.
Knitting-machine yarn-feed device. A. M. Pigeon. No. 1,026,176; May 14; Sp. p. 2387; Gaz. vol. 178; p. 403.
Knitting-machine yarn-feeding device. A. M. Pigeon. No. 1,026,175; May 14; Sp. p. 2384; Gaz. vol. 178; p. 402.
Knob. H. G. Collins. No. 1,026,148; May 14; Sp. p. 2334; Gaz. vol. 178; p. 394.
Knob, Cover-. J. F. Foster. No. 1,026,307; May 14; Sp. p. 2684; Gaz. vol. 178; p. 449.
Knob-shanks to spindles, Means for securing. T. E. Crouch. No. 1,026,497; May 14; Sp. p. 3102; Gaz. vol. 178; p. 512.
Knockdown stand or table. H. Judge. No. 1,026,748; May 21; Sp. p. 3642; Gaz. vol. 178; p. 633.
L. W. H. Perkins. No. 1,025,642; May 7; Sp. p. 1202; Gaz. vol. 178; p. 185.
Labeler, Can-. W. A. Eastham. No. 1,025,613; May 7; Sp. p. 1128; Gaz. vol. 178; p. 175.
Labeling attachment for carton-crimping machines. G. W. Beadle. No. 1,026,554; May 14; Sp. p. 3205; Gaz. vol. 178; p. 530.
Labeling-machine. F. O. Woodland. No. 1,027,959; May 28; Sp. p. 6292; Gaz. vol. 178; p. 1081.
Ladder. C. E. Dilion and L. Savage. No. 1,028,004; May 28; Sp. p. 6306; Gaz. vol. 178; p. 1097.
Ladder, Combined step and extension. E. N. Botsford. No. 1,026,147; May 14; Sp. p. 2333; Gaz. vol. 178; p. 394.
Ladder-foot. E. C. Magoon. No. 1,025,474; May 7; Sp. p. 820; Gaz. vol. 178; p. 128.
Ladder-support. J. W. Johnson. No. 1,027,546; May 28; Sp. p. 5392; Gaz. vol. 178; p. 944.
Lamp. E. A. Lauer. No. 1,026,684; May 21; Sp. p. 3509; Gaz. vol. 178; p. 612.
Lamp. J. H. George. No. 1,027,196; May 21; Sp. p. 4681; Gaz. vol. 178; p. 787.
Lamp. H. A. Douglas. No. 1,027,529; May 28; Sp. p. 5356; Gaz. vol. 178; p. 938.
Lamp and reflectors for same. C. H. Krüger and C. W. Collinson. No. 1,027,737; May 28; Sp. p. 5777; Gaz. vol. 178; p. 1007.
Lamp, Arc-. J. L. Dinsmoor. No. 1,025,130; May 7; Sp. p. 40; Gaz. vol. 178; p. 8.
Lamp, Automobile-. P. C. Avery. No. 1,027,306; May 21; Sp. p. 4905; Gaz. vol. 178; p. 825.
Lamp base, Incandescent-. H. S. Hunter. No. 1,028,025; May 28; Sp. p. 6428; Gaz. vol. 178; p. 1103.
Lamp, Berth-. W. J. Bohan. No. 1,025,675; May 7; Sp. p. 1264; Gaz. vol. 178; p. 196.
Lamp bracket, Electric-. G. J. Dormandy. No. 1,025,519; May 7; Sp. p. 924; Gaz. vol. 178; p. 144.
Lamp burner, Upright-incandescent-gas-. H. Sussmann. No. 1,025,656; May 7; Sp. p. 1231; Gaz. vol. 178; p. 189.
Lamp-cord reel. B. F. Miller. No. 1,027,663; May 28; Sp. p. 5627; Gaz. vol. 178; p. 982.
Lamp, Dirigible automobile-. T. G. Wilbraham. No. 1,025,602; May 7; Sp. p. 1108; Gaz. vol. 178; p. 172.
Lamp, Electric-arc. K. von Dreger. No. 1,026,568; May 14; Sp. p. 3237; Gaz. vol. 178; p. 535.
Lamp, Electric-arc. K. von Dreger. No. 1,026,569; May 14; Sp. p. 3238; Gaz. vol. 178; p. 535.
Lamp for miners, Electrical safety-. V. V. Patton. No. 1,026,924; May 21; Sp. p. 4047; Gaz. vol. 178; p. 694.
Lamp-globe holder. R. L. Gladden. No. 1,028,015; May 28; Sp. p. 6413; Gaz. vol. 178; p. 1100.
Lamp hanger and automatic cut-out, Arc-. A. G. Munson and M. N. Webster. No. 1,026,360; May 14; Sp. p. 2817; Gaz. vol. 178; p. 466.
Lamp, Miner's. N. Blount. No. 1,026,622; May 14; Sp. p. 3355; Gaz. vol. 178; p. 553.
Lamp, Pocket-. J. J. Mullaney. No. 1,026,995; May 21; Sp. p. 4220; Gaz. vol. 178; p. 720.
Lamp, Pocket-. H. Schwager. No. 1,027,285; May 21; Sp. p. 4863; Gaz. vol. 178; p. 819.
Lamp, Portable electric. E. Gottschalck. No. 1,025,394; May 7; Sp. p. 642; Gaz. vol. 178; p. 100.

Lamp-shade holder, Incandescent-. H. H. Palmer. No. 1,027,888; May 28; Sp. p. 6168; Gaz. vol. 178; p. 1059.
Lamp-socket. E. G. K. Anderson. No. 1,025,230; May 7; Sp. p. 263; Gaz. vol. 178; p. 44.
Lamp socket, Electric-. R. B. Benjamin. No. 1,025,239; May 7; Sp. p. 287; Gaz. vol. 178; p. 47.
Lamp socket, &c., Pendent electric-. G. W. Goodridge. No. 1,025,742; May 7; Sp. p. 1403; Gaz. vol. 178; p. 219.
Lamp socket, Weatherproof electric-. R. B. Benjamin. No. 1,025,238; May 7; Sp. p. 284; Gaz. vol. 178; p. 47.
Lamp sockets, Casing for incandescent-electric-. C. C. Schoeneck. No. 1,025,928; May 7; Sp. p. 1829; Gaz. vol. 178; p. 282.
Lamp switch-socket, Electric-. R. B. Benjamin. No. 1,025,237; May 7; Sp. p. 281; Gaz. vol. 178; p. 46.
Lamps, Cord-adjuster for electric. J. McGavin. No. 1,026,690; May 21; Sp. p. 3519; Gaz. vol. 178; p. 613.
Lamps, Fixture for vacuum-tube. D. M. Moore. No. 1,028,092; May 28; Sp. p. 6605; Gaz. vol. 178; p. 1125.
Lamps, Making incandescent. W. R. Whitney. No. 1,025,499; May 7; Sp. p. 880; Gaz. vol. 178; p. 137.
Lantern. W. S. Hamm and F. A. Schuetz. No. 1,025,624; May 7; Sp. p. 1167; Gaz. vol. 178; p. 179.
Lantern. W. S. Hamm and F. A. Schuetz. No. 1,025,625; May 7; Sp. p. 1168; Gaz. vol. 178; p. 179.
Lantern, Projecting-. R. Bright, Jr., and J. M. W. Wright. No. 1,026,019; May 14; Sp. p. 2017; Gaz. vol. 178; p. 348.
Lantern-support. J. Burke. No. 1,026,493; May 14; Sp. p. 3095; Gaz. vol. 178; p. 510.
Lantern, Tubular. A. R. Pritchard. No. 1,026,699; May 21; Sp. p. 3539; Gaz. vol. 178; p. 617.
Lantern-windows and their operating mechanism. W. Bayley. No. 1,025,957; May 14; Sp. p. 1890; Gaz. vol. 178; p. 327.
Last, Two-part. A. M. Leighton. No. 1,025,197; May 7; Sp. p. 193; Gaz. vol. 178; p. 33.
Lasts, Making molds for shoe-. G. Voinagel. No. 1,027,016; May 21; Sp. p. 4262; Gaz. vol. 178; p. 727.
Lasting mechanism, End-. D. L. Wineberg. No. 1,027,024; May 21; Sp. p. 4291; Gaz. vol. 178; p. 730.
Latch, Door-. S. Zacsek. No. 1,026,233; May 14; Sp. p. 2526; Gaz. vol. 178; p. 423.
Latch for flexible gates. W. K. Voorhees. No. 1,025,494; May 7; Sp. p. 870; Gaz. vol. 178; p. 135.
Latch mechanism. B. Ludwig. No. 1,025,756; May 7; Sp. p. 1432; Gaz. vol. 178; p. 224.
Lath, Clip for attaching metallic. H. E. White. No. 1,027,632; May 28; Sp. p. 5563; Gaz. vol. 178; p. 972.
Lathe. E. L. Mills. No. 1,027,496; May 28; Sp. p. 5289; Gaz. vol. 178; p. 927.
Lathe scoring attachment, Veneer-. J. Van Mill, Jr. No. 1,027,298; May 21; Sp. p. 4891; Gaz. vol. 178; p. 823.
Lathes, Piston-ring-turning attachment for turret-. J. C. Potter. No. 1,026,455; May 14; Sp. p. 3017; Gaz. vol. 178; p. 497.
Latrine. W. M. Sullivan. No. 1,026,413; May 14; Sp. p. 2928; Gaz. vol. 178; p. 485.
Laundry-machinery gearing. A. B. Christensen and F. Vondrasek. No. 1,025,684; May 7; Sp. p. 1278; Gaz. vol. 178; p. 198.
Laundry-machinery gearing. A. B. Christensen and F. Vondrasek. No. 1,025,685; May 7; Sp. p. 1283; Gaz. vol. 178; p. 199.
Lavatory installations, Apparatus for. P. Kämmer. No. 1,027,342; May 21; Sp. p. 4970; Gaz. vol. 178; p. 837.
Lead. C. A. Gaiser. No. 1,027,381; May 21; Sp. p. 5055; Gaz. vol. 178; p. 851.
Lead, Obtaining refined. J. Asbeck. No. 1,025,956; May 14; Sp. p. 1899; Gaz. vol. 178; p. 327.
Leather and product thereof, Treating. W. R. Smith. No. 1,025,324; May 7; Sp. p. 488; Gaz. vol. 178; p. 76.
Leather-loop-finishing press. A. L. Lilley. No. 1,027,552; May 28; Sp. p. 5401; Gaz. vol. 178; p. 946.
Leather-skiving machine. H. W. Winter. No. 1,025,556; May 7; Sp. p. 1010; Gaz. vol. 178; p. 156.
Lens-Blanks, Making. W. I. Seymour. No. 1,026,182; May 14; Sp. p. 2401; Gaz. vol. 178; p. 405.
Lens, Glass. J. A. and G. Young, Jr. No. 1,025,774; May 7; Sp. p. 1460; Gaz. vol. 178; p. 230.
Lenses, Instrument for centering, marking, and testing. W. M. Richards. No. 1,026,124; May 14; Sp. p. 2288; Gaz. vol. 178; p. 386.
Letter-box signal attachment. C. Bailey. No. 1,026,338; May 14; Sp. p. 2757; Gaz. vol. 178; p. 460.
Level and pitch gage, Combined. C. W. Swick. No. 1,026,967; May 21; Sp. p. 4165; Gaz. vol. 178; p. 710.
Level, Spirit-. C. C. Finn. No. 1,027,532; May 28; Sp. p. 5364; Gaz. vol. 178; p. 939.
Level, Spirit-. C. C. Finn. No. 1,027,533; May 28; Sp. p. 5367; Gaz. vol. 178; p. 940.
Leveler, Cinder-. E. J. Best. No. 1,026,426; May 14; Sp. p. 2947; Gaz. vol. 178; p. 488.
Lever. C. B. Purdy. No. 1,027,761; May 28; Sp. p. 5827; Gaz. vol. 178; p. 1014.
Lever-locking device. W. B. Wreford. No. 1,025,180; May 7; Sp. p. 156; Gaz. vol. 178; p. 26.
Life-preserver. J. W. Master. No. 1,025,989; May 14; Sp. p. 1956; Gaz. vol. 178; p. 338.
Life-preserver. J. A. O'Brien. No. 1,026,172; May 14; Sp. p. 2380; Gaz. vol. 178; p. 401.
Life-saving device. C. J. Wensley. No. 1,025,497; May 7; Sp. p. 875; Gaz. vol. 178; p. 136.
Lifter: *See* Cuspidor-lifter.
Lifting device. W. H. Williams. No. 1,026,232; May 14; Sp. p. 2525; Gaz. vol. 178; p. 423.
Lifting-jack. W. B. Templeton. No. 1,025,218; May 7; Sp. p. 238; Gaz. vol. 178; p. 40.
Lifting-jack. H. V. Miller. No. 1,027,880; May 28; Sp. p. 6146; Gaz. vol. 178; p. 1055.
Light: *See* Search-light.
Light and load brake apparatus. R. A. Parke. No. 1,025,297; May 7; Sp. p. 406; Gaz. vol. 178; p. 67.
Light-producing means. C. P. Steinmetz. No. 1,025,932; May 7; Sp. p. 1837; Gaz. vol. 178; p. 284.
Light-shield. W. N. McComb. No. 1,027,621; May 28; Sp. p. 5535; Gaz. vol. 178; p. 968.
Lighter. A. H. Nelson. No. 1,026,695; May 21; Sp. p. 3530; Gaz. vol. 178; p. 615.
Lighter, Pocket-. B. Dubinski. No. 1,026,571; May 14; Sp. p. 3241; Gaz. vol. 178; p. 536.
Lighting-fixture. N. L. Schloss. No. 1,025,313; May 7; Sp. p. 457; Gaz. vol. 178; p. 72.
Lighting system. J. Landsiedel. No. 1,025,196; May 7; Sp. p. 188; Gaz. vol. 178; p. 32.
Limb, Artificial. H. J. Morris and J. A. Cowlyn. No. 1,026,109; May 14; Sp. p. 2258; Gaz. vol. 178; p. 380.
Line-casting machine. H. Drewell. No. 1,027,826; May 28; Sp. p. 5976; Gaz. vol. 178; p. 1037.
Lineman's climber. J. Donnelly. No. 1,026,853; May 21; Sp. p. 3878; Gaz. vol. 178; p. 669.
Linotype-machine. W. M. Rapp. No. 1,027,566; May 28; Sp. p. 5441; Gaz. vol. 178; p. 951.
Linotype-machine ejector-blade. H. Petersen. No. 1,025,993; May 14; Sp. p. 1971; Gaz. vol. 178; p. 339.
Linotype-mold. A. W. Le Boeuf. No. 1,027,551; May 28; Sp. p. 5399; Gaz. vol. 178; p. 946.
Liquid-fuel burner. W. R. McHill. No. 1,025,636; May 7; Sp. p. 1190; Gaz. vol. 178; p. 183.
Liquid-fuel burner. H. J. Russell. No. 1,027,070; May 21; Sp. p. 4417; Gaz. vol. 178; p. 747.
Liquid-fuel burner. H. W. Schoff. No. 1,027,506; May 28; Sp. p. 5313; Gaz. vol. 178; p. 931.
Liquid-fuel furnace. A. Laing. No. 1,025,279; May 7; Sp. p. 374; Gaz. vol. 178; p. 60.
Liquid-heater, Electric. J. R. Lawson. No. 1,025,281; May 7; Sp. p. 377; Gaz. vol. 178; p. 61.
Liquid-meter. H. C. Alger. No. 1,025,358; May 7; Sp. p. 558; Gaz. vol. 178; p. 87.
Liquid mixer and distributer. H. Luckenbach. No. 1,028,042; May 28; Sp. p. 6482; Gaz. vol. 178; p. 1109.
Liquid-pressure regulator. J. D. Wallace. No. 1,025,222; May 7; Sp. p. 247; Gaz. vol. 178; p. 41.
Liquid safety-gage. F. Getteiman. No. 1,027,721; May 28; Sp. p. 5744; Gaz. vol. 178; p. 1001.
Liquid-treating machine. J. W. Davies. No. 1,026,947; May 21; Sp. p. 4128; Gaz. vol. 178; p. 703.
Liquids by compressed air, Apparatus for raising. P. Kestner. No. 1,025,699; May 7; Sp. p. 1313; Gaz. vol. 178; p. 204.
Lithographic press. G. G. Goedike. No. 1,027,722; May 28; Sp. p. 5745; Gaz. vol. 178; p. 1002.
Litter-carrier hanger. E. B. Hunt. No. 1,025,527; May 7; Sp. p. 946; Gaz. vol. 178; p. 146.
Loader, Ore-. N. P. Flodin. No. 1,026,502; May 14; Sp. p. 3111; Gaz. vol. 178; p. 514.
Loading and unloading means, Vehicle. F. A. Kenney. No. 1,027,612; May 28; Sp. p. 5526; Gaz. vol. 178; p. 967.
Loading and unloading trucks, Means for. C. Mattson. No. 1,025,287; May 7; Sp. p. 387; Gaz. vol. 178; p. 63.
Lock: *See* Book-lock; Car-door lock; Coin-controlled lock; Door-lock; Hasp-lock; Key-operated lock; Nut-lock; Nut and bolt lock; Oar-lock; Permutation-lock; Pin-tumbler lock; Sash-lock; Switch-lock.
Lock. S. H. Shank. No. 1,026,001; May 14; Sp. p. 1988; Gaz. vol. 178; p. 342.
Lock. R. J. Keppel. No. 1,026,209; May 14; Sp. p. 2482; Gaz. vol. 178; p. 415.
Lock. R. W. Hutchison. No. 1,026,320; May 14; Sp. p. 2708; Gaz. vol. 178; p. 453.
Lock. G. B. Kohler. No. 1,026,591; May 14; Sp. p. 3280; Gaz. vol. 178; p. 542.
Lock. I. Ducsay. No. 1,027,325; May 21; Sp. p. 4942; Gaz. vol. 178; p. 831.
Lock. E. O. Vann. No. 1,027,940; May 28; Sp. p. 6262; Gaz. vol. 178; p. 1076.
Lock and escutcheon-plates, Combined. W. H. F. Young. No. 1,025,938; May 7; Sp. p. 1853; Gaz. vol. 178; p. 285.
Lock and latch, Combined. W. H. F. Young. No. 1,025,850; May 7; Sp. p. 1618; Gaz. vol. 178; p. 256.
Lock attachment. J. M. Lybeck. No. 1,025,284; May 7; Sp. p. 383; Gaz. vol. 178; p. 62.
Lock-ferrule. C. Robinson. No. 1,026,223; May 14; Sp. p. 2507; Gaz. vol. 178; p. 420.
Lock-washer. C. F. Beers. No. 1,025,958; May 14; Sp. p. 1902; Gaz. vol. 178; p. 327.
Locomotive. A. F. Batcheider. No. 1,026,552; May 14; Sp. p. 3202; Gaz. vol. 178; p. 529.
Locomotive. F. L. Sessions. No. 1,027,075; May 21; Sp. p. 4432; Gaz. vol. 178; p. 748.
Locomotive. R. N. Lowry. No. 1,027,424; May 28; Sp. p. 5157; Gaz. vol. 178; p. 904.
Locomotive, Electric. F. L. Sessions and F. C. Coseo. No. 1,027,073; May 21; Sp. p. 4421; Gaz. vol. 178; p. 747.
Locomotive front end. L. C. Mooney. No. 1,026,920; May 21; Sp. p. 4040; Gaz. vol. 178; p. 693.

Locomotive, Rack-rail. F. L. Sessions. No. 1,027,074; May 21; Sp. p. 4428; Gaz. vol. 178; p. 748.
Locomotive, Rack-rail. F. L. Sessions. No. 1,027,077; May 21; Sp. p. 4439; Gaz. vol. 178; p. 749.
Locomotive, Rack-rail. F. L. Sessions. No. 1,027,078; May 21; Sp. p. 4443; Gaz. vol. 178; p. 749.
Locomotive, Railway-. T. H. Brigg. No. 1,027,810; May 28; Sp. p. 5939; Gaz. vol. 178; p. 1031.
Locomotive-superheater. H. L. Henszey. No. 1,026,863; May 21; Sp. p. 3803; Gaz. vol. 178; p. 672.
Locomotive-tender. O. Johnson. No. 1,027,852; May 28; Sp. p. 6069; Gaz. vol. 178; p. 1046.
Log connection for hauling-lines. W. S. Kirby. No. 1,025,472; May 7; Sp. p. 817; Gaz. vol. 178; p. 127.
Logging-hook. R. H. White. No. 1,025,353; May 7; Sp. p. 548; Gaz. vol. 178; p. 86.
Loom. E. W. Cruikshank and J. A. McAnulty. No. 1,027,996; May 28; Sp. p. 6380; Gaz. vol. 178; p. 1095.
Loom for weaving pile fabrics. E. W. Cruikshank and M. R. Elmore. No. 1,027,995; May 28; Sp. p. 6371; Gaz. vol. 178; p. 1094.
Loom, Haircloth-. G. S. Cox. No. 1,026,430; May 14; Sp. p. 2967; Gaz. vol. 178; p. 490.
Loom selvage-motion. C. Lavallee. No. 1,027,860; May 28; Sp. p. 6087; Gaz. vol. 178; p. 1049.
Loom-shuttle. G. J. Dustin. No. 1,027,703; May 28; Sp. p. 5716; Gaz. vol. 178; p. 996.
Loom-shuttle. G. J. Dustin. No. 1,027,704; May 28; Sp. p. 5718; Gaz. vol. 178; p. 996.
Loom stop-motion. G. W. C. Chapman. No. 1,026,342; May 14; Sp. p. 2764; Gaz. vol. 178; p. 462.
Loom stop-motion. A. G. Koechlin. No. 1,028,031; May 28; Sp. p. 6444; Gaz. vol. 178; p. 1105.
Loom-temple. J. Northrop. No. 1,027,498; May 28; Sp. p. 5296; Gaz. vol. 178; p. 928.
Looping-machine. M. Koehler. No. 1,026,808; May 21; Sp. p. 3776; Gaz. vol. 178; p. 654.
Lubricating bearings. J. F. Craven. No. 1,025,510; May 7; Sp. p. 897; Gaz. vol. 178; p. 140.
Lubricating device. I. Larsen. No. 1,026,322; May 14; Sp. p. 2716; Gaz. vol. 178; p. 454.
Lubricating device. A. J. West. No. 1,027,092; May 21; Sp. p. 4475; Gaz. vol. 178; p. 754.
Lubricating device for wheel-flanges. C. L. Tanner. No. 1,027,930; May 28; Sp. p. 6243; Gaz. vol. 178; p. 1072.
Lubricator: *See* Elevator-guide-rail lubricator; Engine-lubricator; Wheel-flange lubricator.
Lubricator. A. Militz. No. 1,025,581; May 7; Sp. p. 1072; Gaz. vol. 178; p. 165.
Lubricator. B. F. Howard. No. 1,026,867; May 21; Sp. p. 3901; Gaz. vol. 178; p. 674.
Lubricator. J. F. MacIndoe. No. 1,026,961; May 21; Sp. p. 4157; Gaz. vol. 178; p. 709.
Lumber-jack. C. E. Evans. No. 1,027,191; May 21; Sp. p. 4670; Gaz. vol. 178; p. 785.
Machine-tools, Apparatus for electrically controlling. C. Krämer. No. 1,028,033; May 28; Sp. p. 6453; Gaz. vol. 178; p. 1106.
Magnetic separator. F. C. Heinen. No. 1,026,673; May 21; Sp. p. 3480; Gaz. vol. 178; p. 608.
Magneto. A. Schmidt. No. 1,026,054; May 14; Sp. p. 2124; Gaz. vol. 178; p. 361.
Magneto. E. C. Wilcox. No. 1,027,023; May 21; Sp. p. 4288; Gaz. vol. 178; p. 729.
Magneto, Inductor-. R. C. Lanphier. No. 1,027,550; May 28; Sp. p. 5396; Gaz. vol. 178; p. 945.
Magneto-shaft relative to a motor-shaft, Means for advancing or retarding a. A. Levedahl. No. 1,027,056; May 21; Sp. p. 4370; Gaz. vol. 178; p. 741.
Mail-bag and bag-support. H. T. Cook. No. 1,027,524; May 28; Sp. p. 5346; Gaz. vol. 178; p. 936.
Mail-bag-delivery mechanism. B. F. Nicoll. No. 1,027,883; May 28; Sp. p. 6152; Gaz. vol. 178; p. 1057.
Mail-box. E. V. Davis. No. 1,026,078; May 14; Sp. p. 2195; Gaz. vol. 178; p. 370.
Mail-box coin-holder, Rural-. G. J. Miller. No. 1,025,150; May 7; Sp. p. 82; Gaz. vol. 178; p. 15.
Mail-box electric alarm. J. W. Coe. Jr. No. 1,025,738; May 7; Sp. p. 1395; Gaz. vol. 178; p. 218.
Mandrel for sheet-metal working. L. C. Sharp. No. 1,025,318; May 7; Sp. p. 480; Gaz. vol. 178; p. 74.
Manifolding device. A. Gilbert. No. 1,026,308; May 14; Sp. p. 2685; Gaz. vol. 178; p. 449.
Manure-carrier. A. Gilbertson. No. 1,026,157; May 14; Sp. p. 2354; Gaz. vol. 178; p. 397.
Manure-spreader. C. Johnson and C. Frank. No. 1,025,403; May 7; Sp. p. 657; Gaz. vol. 178; p. 103.
Map-holder. J. G. Patterson. No. 1,027,394; May 21; Sp. p. 5092; Gaz. vol. 178; p. 856.
Marker, Land-. W. H. Jones, F. K. Metcalf, and J. S. Wear. No. 1,027,609; May 28; Sp. p. 5520; Gaz. vol. 178; p. 965.
Marker, Siding-. J. N. Horton and E. Carlson. No. 1,026,866; May 21; Sp. p. 3900; Gaz. vol. 178; p. 673.
Marking and grooving tool. J. H. Proctor. No. 1,025,302; May 7; Sp. p. 421; Gaz. vol. 178; p. 68.
Marking device for attachment to the ears of animals. F. Andrews. No. 1,026,423; May 14; Sp. p. 2943; Gaz. vol. 178; p. 487.
Massaging the human body, Means for mechanically. J. A. Ward. No. 1,026,480; May 14; Sp. p. 3070; Gaz. vol. 178; p. 506.
Match-box. P. P. Adolph. No. 1,026,235; May 14; Sp. p. 2532; Gaz. vol. 178; p. 424.
Match-box. R. Dingwell. No. 1,026,976; May 21; Sp. p. 4177; Gaz. vol. 178; p. 713.
Mattresses and the like, Filling-spring for. A. C. Thompson. No. 1,025,489; May 7; Sp. p. 862; Gaz. vol. 178; p. 133.
Measuring device. J. F. Andres. No. 1,026,294; May 14; Sp. p. 2650; Gaz. vol. 178; p. 444.
Measuring device. C. F. Heide. No. 1,027,418; May 28; Sp. p. 5142; Gaz. vol. 178; p. 902.
Measuring device, Fluid-. C. A. Hartung. No. 1,027,250; May 21; Sp. p. 4787; Gaz. vol. 178; p. 806.
Measuring instrument, Electrical. W. E. Beede. No. 1,027,684; May 28; Sp. p. 5681; Gaz. vol. 178; p. 990.
Measuring or regulating device, Fluid-flow. T. Kieser. No. 1,025,809; May 7; Sp. p. 1534; Gaz. vol. 178; p. 242.
Measuring volume of flowing water, &c., Apparatus for. T. B. Wylie. No. 1,025,227; May 7; Sp. p. 260; Gaz. vol. 178; p. 43.
Meat-boiler. M. E. Hill. No. 1,027,251; May 21; Sp. p. 4789; Gaz. vol. 178; p. 807.
Meat chopper and tenderer. W. M. Stanton. No. 1,025,654; May 7; Sp. p. 1226; Gaz. vol. 178; p. 189.
Meat-holder. H. Thomas. No. 1,026,721; May 21; Sp. p. 3583; Gaz. vol. 178; p. 624.
Meat, Smoked. A. Roth. No. 1,025,925; May 7; Sp. p. 1823; Gaz. vol. 178; p. 281.
Mechanical movement. L. Judelson. No. 1,026,514; May 14; Sp. p. 3143; Gaz. vol. 178; p. 518.
Mechanical movement. R. A. Norling. No. 1,027,214; May 21; Sp. p. 4720; Gaz. vol. 178; p. 793.
Medicine-dropper. J. D. Wise. No. 1,026,541; May 14; Sp. p. 3182; Gaz. vol. 178; p. 526.
Memorandum-pad holder. J. Costello. No. 1,027,991; May 28; Sp. p. 6366; Gaz. vol. 178; p. 1093.
Mercury to circulate while electrolyzing aqueous solutions of metallic salts, Means for causing. R. Carl. No. 1,025,509; May 7; Sp. p. 896; Gaz. vol. 178; p. 140.
Meta- and para-cresols, Separating. F. Elger. No. 1,025,615; May 7; Sp. p. 1148; Gaz. vol. 178; p. 176.
Meta-cresol and making the same. F. Elger. No. 1,025,616; May 7; Sp. p. 1151; Gaz. vol. 178; p. 176.
Metal articles, Apparatus for tempering. E. H. and J. H. Steedman. No. 1,027,010; May 21; Sp. p. 4252; Gaz. vol. 178; p. 725.
Metal boxes, Manufacturing. W. H. Brakenridge. No. 1,026,340; May 14; Sp. p. 2760; Gaz. vol. 178; p. 461.
Metal casements, Manufacture of. F. H. Crittall. No. 1,025,688; May 7; Sp. p. 1290; Gaz. vol. 178; p. 200.
Metal container. W. J. Werner. No. 1,027,021; May 21; Sp. p. 4281; Gaz. vol. 178; p. 729.
Metal into blocks, Apparatus for compressing scrap. E. Kardos. No. 1,026,987; May 21; Sp. p. 4200; Gaz. vol. 178; p. 717.
Metal-plated article. E. L. Watrous. No. 1,027,782; May 28; Sp. p. 5871; Gaz. vol. 178; p. 1021.
Metal-polish. A. Ridd. No. 1,026,883; May 21; Sp. p. 3954; Gaz. vol. 178; p. 681.
Metal sheets, Means for feeding. O. Dempewolf. No. 1,027,598; May 28; Sp. p. 5501; Gaz. vol. 178; p. 962.
Metal tubes, Continuous process of manufacturing. M. B. Lloyd. No. 1,027,864; May 28; Sp. p. 6093; Gaz. vol. 178; p. 1050.
Metal tubes, Manufacturing. W. J. and J. W. Moon. No. 1,026,103; May 14; Sp. p. 2246; Gaz. vol. 178; p. 378.
Metal tubes, Manufacturing. M. B. Lloyd. No. 1,028,039; May 28; Sp. p. 6472; Gaz. vol. 178; p. 1108.
Metal-working machine. F. C. B. Page. No. 1,026,825; May 21; Sp. p. 3809; Gaz. vol. 178; p. 660.
Metals, Electrodeposition of. A. Leuchter. No. 1,026,627; May 14; Sp. p. 3368; Gaz. vol. 178; p. 555.
Metals from their ores, Process and apparatus for recovering. J. A. Potter. No. 1,026,999; May 21; Sp. p. 4226; Gaz. vol. 178; p. 721.
Metals, Production of films or thin sheets of. W. G. Wagner. No. 1,025,848; May 7; Sp. p. 1613; Gaz. vol. 178; p. 256.
Metallic tie and rail-fastener. C. Maly. No. 1,025,704; May 7; Sp. p. 1319; Gaz. vol. 178; p. 205.
Metallurgical furnace. G. H. Benjamin. No. 1,026,197; May 14; Sp. p. 2445; Gaz. vol. 178; p. 410.
Meter: *See* Fluid-meter; Liquid-meter; Telephone-service meter; Water-meter.
Meter circuits, Service-. H. D. Currier and G. Wolf. No. 1,026,151; May 14; Sp. p. 2341; Gaz. vol. 178; p. 395.
Mica or other material, Apparatus for distributing and leveling pieces or scales of. C. W. Jefferson. No. 1,026,986; May 21; Sp. p. 4197; Gaz. vol. 178; p. 716.
Micrometer-feed mechanism. M. Kronert. No. 1,027,549; May 28; Sp. p. 5394; Gaz. vol. 178; p. 945.
Micrometer-gage. H. E. Eddy and E. B. Crocker. No. 1,027,827; May 28; Sp. p. 5983; Gaz. vol. 178; p. 1038.
Microphone. H. E. Shreeve. No. 1,026,057; May 14; Sp. p. 2128; Gaz. vol. 178; p. 362.
Microtome. H. N. Ott. No. 1,026,280; May 14; Sp. p. 2617; Gaz. vol. 178; p. 438.
Milk, cream, and water cooler. J. P. Emery and E. H. Rossner. No. 1,027,706; May 28; Sp. p. 5722; Gaz. vol. 178; p. 997.
Milk-drying apparatus. J. McIntyre. No. 1,026,757; May 21; Sp. p. 3664; Gaz. vol. 178; p. 636.
Milk, Manufacturing artificially-soured. J. Willmann. No. 1,025,772; May 7; Sp. p. 1457; Gaz. vol. 178; p. 229.
Milk, Treating. J. McIntyre. No. 1,026,756; May 21; Sp. p. 3660; Gaz. vol. 178; p. 636.

Milking, Sanitary structure and appliance for use in cow-. G. M. Lummis. No. 1,025,955; May 7; Sp. p. 1893; Gaz. vol. 178; p. 290.
Mill: *See* Alfalfa-shredding mill; Crushing-mill; Feed-mill; Stamp-mill; Tube-mill.
Mine-skip-unloading device. C. L. Lawton. No. 1,026,988; May 21; Sp. p. 4201; Gaz. vol. 178; p. 717.
Mines, Automatic firing device for submarine. G. E. Ellis. No. 1,025,905; May 7; Sp. p. 1785; Gaz. vol. 178; p. 274.
Mining-machine bar. G. C. Arndt and G. N. Jack. No. 1,026,295; May 14; Sp. p. 2652; Gaz. vol. 178; p. 444.
Mining tools or machines, Support for. W. Prellwitz. No. 1,027,759; May 28; Sp. p. 5821; Gaz. vol. 178; p. 1013.
Mineral-concentrator. C. O. Michaelsen. No. 1,027,349; May 21; Sp. p. 4980; Gaz. vol. 178; p. 839.
Mirror, Angular. C. von Hofe. No. 1,027,420; May 28; Sp. p. 5146; Gaz. vol. 178; p. 903.
Mirror-panel, Metallic. A. Hendricks. No. 1,027,540; May 28; Sp. p. 5380; Gaz. vol. 178; p. 942.
Miter-box. P. R. Wallis. No. 1,026,535; May 14; Sp. p. 3174; Gaz. vol. 178; p. 525.
Miter-box, Adjustable. O. H. Fisk. No. 1,026,086; May 14; Sp. p. 2210; Gaz. vol. 178; p. 373.
Mixer: *See* Cake-mixer; Concrete-mixer; Dough-mixer; Food-mixer; Gas-mixer; Liquid-mixer; Smudge-mixer.
Mixer. J. H. Brodie. No. 1,027,982; May 28; Sp. p. 6351; Gaz. vol. 178; p. 1090.
Mixing liquid and powdered materials, Machine for. S. A. Bigelow. No. 1,027,172; May 21; Sp. p. 4633; Gaz. vol. 178; p. 778.
Mixing-machine. C. T. Foote. No. 1,025,462; May 7; Sp. p. 702; Gaz. vol. 178; p. 124.
Mixing-machine. C. T. Foote. No. 1,025,907; May 7; Sp. p. 1789; Gaz. vol. 178; p. 275.
Moistener, Envelop-. L. Ferenczy. No. 1,028,011; May 28; Sp. p. 6407; Gaz. vol. 178; p. 1099.
Moistener, Stenographer's envelop and stamp. B. H. Dunfield. No. 1,027,406; May 28; Sp. p. 5117; Gaz. vol. 178; p. 898.
Moistening device, Envelop-. J. Hammond. No. 1,027,204; May 21; Sp. p. 4705; Gaz. vol. 178; p. 790.
Mold: *See* Linotype-mold; Phonograph-record mold; Steel-mold.
Mold. C. K. Schindhelm. No. 1,026,832; May 21; Sp. p. 3826; Gaz. vol. 178; p. 662.
Mold. G. W. Golden. No. 1,027,042; May 21; Sp. p. 4339; Gaz. vol. 178; p. 736.
Mold-forming machine. A. M. and B. F. Davis. No. 1,025,789; May 7; Sp. p. 1492; Gaz. vol. 178; p. 236.
Molds, Making. D. M. Fahnestock. No. 1,027,116; May 21; Sp. p. 4527; Gaz. vol. 178; p. 762.
Molding apparatus. D. M. Fahnestock. No. 1,027,115; May 21; Sp. p. 4522; Gaz. vol. 178; p. 761.
Molding apparatus. D. M. Fahnestock. No. 1,027,192; May 21; Sp. p. 4672; Gaz. vol. 178; p. 785.
Molding-machine. V. W. Grumman. No. 1,025,136; May 7; Sp. p. 56; Gaz. vol. 178; p. 10.
Molding-machine. L. T. Lowe. No. 1,025,579; May 7; Sp. p. 1067; Gaz. vol. 178; p. 165.
Molding-machine. J. W. Brown, Jr. No. 1,025,737; May 7; Sp. p. 1392; Gaz. vol. 178; p. 217.
Molding-machine. E. A. Pridmore. No. 1,027,066; May 21; Sp. p. 4406; Gaz. vol. 178; p. 745.
Molding-machine. E. C. Covert. No. 1,027,595; May 28; Sp. p. 5495; Gaz. vol. 178; p. 961.
Monkey-wrench. W. L. Stevenson. No. 1,027,925; May 28; Sp. p. 6238; Gaz. vol. 178; p. 1071.
Monoplane. R. H. Haag. No. 1,025,912; May 7; Sp. p. 1799; Gaz. vol. 178; p. 277.
Mop. W. B. Fuller. No. 1,025,800; May 7; Sp. p. 1516; Gaz. vol. 178; p. 239.
Mop-holder. D. Margolius. No. 1,027,209; May 21; Sp. p. 4711; Gaz. vol. 178; p. 791.
Mop holder and wringer, Combined. W. Dupré. No. 1,026,625; May 14; Sp. p. 3362; Gaz. vol. 178; p. 554.
Mop, Sanitary. J. J. Phare and M. F. Clay. No. 1,028,062; May 28; Sp. p. 6516; Gaz. vol. 178; p. 1114.
Motor: *See* Current-motor; Electric motor; Explosion-motor; Fluid-motor; Gravity-motor; Hydraulic motor; Rotary motor; Semirotary motor; Thermodynamic motor; Wave-motor; Wind-motor.
Motor. P. Anderson. No. 1,025,776; May 7; Sp. p. 1462; Gaz. vol. 178; p. 230.
Motor control, Electric-. J. G. V. Lang. No. 1,025,876; May 7; Sp. p. 1691; Gaz. vol. 178; p. 264.
Motor-control system. E. Krause. No. 1,025,812; May 7; Sp. p. 1539; Gaz. vol. 178; p. 244.
Motor-control system. J. A. Seede. No. 1,027,159; May 21; Sp. p. 4610; Gaz. vol. 178; p. 774.
Motor-control system. A. M. Gray. No. 1,027,415; May 28; Sp. p. 5136; Gaz. vol. 178; p. 901.
Motor-control system, Electric-. A. J. Horton. No. 1,027,846; May 28; Sp. p. 6024; Gaz. vol. 178; p. 1044.
Motor-controller. T. E. Barnum. No. 1,027,796; May 28; Sp. p. 5898; Gaz. vol. 178; p. 1026.
Motor stop device, Gravity-. R. E. Springle. No. 1,027,219; May 21; Sp. p. 4733; Gaz. vol. 178; p. 795.
Motors, Means for controlling the discharge from hydraulic. W. A. Doble. No. 1,025,611; May 7; Sp. p. 1120; Gaz. vol. 178; p. 175.
Motors, Nozzle for hydraulic. W. A. Doble. No. 1,025,252; May 7; Sp. p. 320; Gaz. vol. 178; p. 51.
Motors, Regulating electric. J. G. V. Lang. No. 1,025,877; May 7; Sp. p. 1694; Gaz. vol. 178; p. 265.
Mower. J. R. Fulmer. No. 1,025,262; May 7; Sp. p. 340; Gaz. vol. 178; p. 55.
Mower. L. O. Ekrem. No. 1,027,190; May 21; Sp. p. 4668; Gaz. vol. 178; p. 785.
Mower attachment, Lawn-. F. A. Hudson. No. 1,025,271; May 7; Sp. p. 354; Gaz. vol. 178; p. 58.
Mower attachment, Lawn-. J. J. McMillen. No. 1,028,051; May 28; Sp. p. 6497; Gaz. vol. 178; p. 1111.
Mower grass-catcher, Lawn-. E. C. Siebert. No. 1,025,593; May 7; Sp. p. 1092; Gaz. vol. 178; p. 169.
Mower, Lawn-. J. Edmunds. No. 1,026,204; May 14; Sp. p. 2463; Gaz. vol. 178; p. 413.
Mower, Lawn-. K. Ruch. No. 1,028,063; May 28; Sp. p. 6518; Gaz. vol. 178; p. 1115.
Mowing-machine. O. Czaran. No. 1,027,643; May 28; Sp. p. 5581; Gaz. vol. 178; p. 976.
Mowing-machine. W. E. Martin. No. 1,027,745; May 28; Sp. p. 5790; Gaz. vol. 178; p. 1009.
Mowing-machine and harvester reel attachment. I. C. Benson. No. 1,026,486; May 14; Sp. p. 3080; Gaz. vol. 178; p. 508.
Mowing-machine attachment. A. H. Eckardt. No. 1,026,738; May 21; Sp. p. 3626; Gaz. vol. 178; p. 630.
Mowing-machine attachment. G. M. Crowder. No. 1,027,463; May 28; Sp. p. 5224; Gaz. vol. 178; p. 916.
Mowing-machine reaping attachment. A. C. Christensen. No. 1,025,862; May 7; Sp. p. 1655; Gaz. vol. 178; p. 260.
Muffler. S. W. Forney. No. 1,027,469; May 28; Sp. p. 5237; Gaz. vol. 178; p. 919.
Muffler cut-out. C. W. Stryker. No. 1,027,929; May 28; Sp. p. 6241; Gaz. vol. 178; p. 1072.
Multiple-spindle drill. C. K. Lassiter and F. E. Bocorselski. No. 1,027,347; May 21; Sp. p. 4977; Gaz. vol. 178; p. 839.
Music-boxes, Changeable-pin disk for mechanical. H. Graf. No. 1,027,245; May 21; Sp. p. 4780; Gaz. vol. 178; p. 805.
Music by electromagnetic waves, Transmission of. L. De Forest. No. 1,025,908; May 7; Sp. p. 1791; Gaz. vol. 178; p. 275.
Music-leaf turner. S. Hausler. No. 1,026,950; May 21; Sp. p. 4133; Gaz. vol. 178; p. 704.
Music-leaf turner. T. F. Larkins. No. 1,027,346; May 21; Sp. p. 4976; Gaz. vol. 178; p. 838.
Music-recorder. G. B. Cirigliano. No. 1,026,908; May 21; Sp. p. 4011; Gaz. vol. 178; p. 689.
Music-rolls in pneumatic players, Mechanism for actuating. W. R. Crippen. No. 1,025,126; May 7; Sp. p. 33; Gaz. vol. 178; p. 7.
Music-sheet guide. W. R. Crippen. No. 1,025,184; May 7; Sp. p. 165; Gaz. vol. 178; p. 28.
Musical instruments, Expression mechanism for self-playing. O. J. Fairchild. No. 1,025,795; May 7; Sp. p. 1504; Gaz. vol. 178; p. 238.
Nail-clipper. P. Catucci. No. 1,027,180; May 21; Sp. p. 4648; Gaz. vol. 178; p. 781.
Nail feeder, Wire-. J. P. Delihanty. No. 1,026,567; May 14; Sp. p. 3235; Gaz. vol. 178; p. 535.
Nailing-machine. E. M. Corcoran. No. 1,026,021; May 14; Sp. p. 2019; Gaz. vol. 178; p. 349.
Nailing-machine. A. S. King. No. 1,026,679; May 21; Sp. p. 3496; Gaz. vol. 178; p. 610.
Nailing machine, Loose-. S. A. Dobyne. No. 1,026,024; May 14; Sp. p. 2027; Gaz. vol. 178; p. 350.
Nailing machine, Loose-. J. B. Flint. No. 1,026,027; May 14; Sp. p. 2041; Gaz. vol. 178; p. 351.
Nailing machine, String-. J. B. Flint. No. 1,026,028; May 14; Sp. p. 2047; Gaz. vol. 178; p. 352.
Necktie-fastener. W. Hodgkinson. No. 1,026,315; May 14; Sp. p. 2699; Gaz. vol. 178; p. 451.
Necktie-stretcher. A. R. Silverston. No. 1,027,006; May 21; Sp. p. 4245; Gaz. vol. 178; p. 723.
Netting, Interlocked. T. Yamamoto. No. 1,026,544; May 14; Sp. p. 3186; Gaz. vol. 178; p. 527.
Nitrids, Production of. C. Bosch and A. Mittasch. No. 1,027,312; May 21; Sp. p. 4914; Gaz. vol. 178; p. 827.
Nitrocellulose, Solvent for. W. G. Lindsay. No. 1,027,617; May 28; Sp. p. 5532; Gaz. vol. 178; p. 968.
Nitrocellulose, Solvent for. W. G. Lindsay. No. 1,027,618; May 28; Sp. p. 5533; Gaz. vol. 178; p. 968.
Nozzle, Hydraulic. W. A. Doble. No. 1,027,825; May 28; Sp. p. 5975; Gaz. vol. 178; p. 1037.
Nozzles, Manufacturing. W. Horsley. No. 1,025,570; May 7; Sp. p. 1044; Gaz. vol. 178; p. 161.
Nut and bolt lock. H. Hedden. No. 1,026,035; May 14; Sp. p. 2070; Gaz. vol. 178; p. 354.
Nut-lock. T. M. Brewer. No. 1,025,676; May 7; Sp. p. 1265; Gaz. vol. 178; p. 196.
Nut-lock. R. E. Woodson. No. 1,026,138; May 14; Sp. p. 2312; Gaz. vol. 178; p. 390.
Nut-lock. A. M. Lance. No. 1,026,812; May 21; Sp. p. 3784; Gaz. vol. 178; p. 655.
Nut-lock. L. Rice. No. 1,027,001; May 21; Sp. p. 4237; Gaz. vol. 178; p. 722.
Nut-lock. E. A. Hodge. No. 1,027,604; May 28; Sp. p. 5510; Gaz. vol. 178; p. 963.
Nut, Lock-. J. L. Larrad. No. 1,025,702; May 7; Sp. p. 1316; Gaz. vol. 178; p. 205.
Nut, Lock-. J. R. Oden. No. 1,025,825; May 7; Sp. p. 1570; Gaz. vol. 178; p. 248.
Nutcracking-machine. J. M. King. No. 1,025,405; May 7; Sp. p. 659; Gaz. vol. 178; p. 103.

Oar-lock. J. Campbell. No. 1,026,654; May 21; Sp. p. 3447; Gaz. vol. 178; p. 601.
Obtunder. J. B. Sapp. No. 1,027,216; May 21; Sp. p. 4727; Gaz. vol. 178; p. 794.
Oil-burner. H. A. and J. E. Snyder. No. 1,025,325; May 7; Sp. p. 490; Gaz. vol. 178; p. 76.
Oil-burner. F. Williams. No. 1,026,015; May 14; Sp. p. 2010; Gaz. vol. 178; p. 347.
Oil-burner. G. J. Bolduc. No. 1,026,240; May 14; Sp. p. 2540; Gaz. vol. 178; p. 426.
Oil-burner. M. A. Fesler. No. 1,026,664; May 21; Sp. p. 3466; Gaz. vol. 178; p. 605.
Oil-burner. V. Matteson. No. 1,026,815; May 21; Sp. p. 3789; Gaz. vol. 178; p. 656.
Oil-burner, Centrifugal. T. Morrin. No. 1,025,153; May 7; Sp. p. 87; Gaz. vol. 178; p. 16.
Oil-burner, Centrifugal. M. A. Fesler. No. 1,026,663; May 21; Sp. p. 3464; Gaz. vol. 178; p. 604.
Oil burner, Crude-. O. B. Dawson. No. 1,027,699; May 28; Sp. p. 5708; Gaz. vol. 178; p. 995.
Oil-can. F. Karpisek. No. 1,027,254; May 21; Sp. p. 4795; Gaz. vol. 178; p. 808.
Oil-cup. W. H. Bressel and R. O'Hara. No. 1,027,522; May 28; Sp. p. 5343; Gaz. vol. 178; p. 936.
Onion or vegetable topping machine. J. H. Shirley. No. 1,026,776; May 21; Sp. p. 3714; Gaz. vol. 178; p. 643.
Orchard-heater. E. O. Carver. No. 1,027,989; May 28; Sp. p. 6364; Gaz. vol. 178; p. 1093.
Ordnance, Sighting apparatus for. A. T. Dawson and G. T. Buckham. No. 1,026,660; May 21; Sp. p. 3458; Gaz. vol. 178; p. 603.
Ore roasting and sintering apparatus. A. S. Dwight. (Reissue.) No. 13,423; May 28; Sp. p. 6608; Gaz. vol. 178; p. 1125.
Ore-treating apparatus. H. J. Stehli. No. 1,027,084; May 21; Sp. p. 4457; Gaz. vol. 178; p. 751.
Ore-treating mechanism. A. S. Dwight. No. 1,027,110; May 21; Sp. p. 4509; Gaz. vol. 178; p. 760.
Ores and product resulting therefrom, Roasting and sintering. A. S. Dwight. (Reissue.) No. 13,424; May 28; Sp. p. 6616; Gaz. vol. 178; p. 1127.
Organ, Folding. B. N. Hanson. No. 1,027,475; May 28; Sp. p. 5245; Gaz. vol. 178; p. 920.
Oscillating-cylinder engine. G. A. Anderson. No. 1,025,605; May 7; Sp. p. 1112; Gaz. vol. 178; p. 173.
Osteopathic-treatment chair. T. J. Berggren. No. 1,026,782; May 21; Sp. p. 3726; Gaz. vol. 178; p. 645.
Outlook-table. F. B. Knapp. No. 1,027,855; May 28; Sp. p. 6079; Gaz. vol. 178; p. 1048.
Oven or cooker, Electric. C. A. Lauzon. No. 1,027,739; May 28; Sp. p. 5781; Gaz. vol. 178; p. 1007.
Oxygen, Cartridge for the preparation of. G. F. Jaubert. No. 1,025,191; May 7; Sp. p. 179; Gaz. vol. 178; p. 30.
Oxygen-generating composition. M. Herschkowitsch. No. 1,027,333; May 21; Sp. p. 4954; Gaz. vol. 178; p. 834.
Package-fastener. I. D. Kress. No. 1,027,858; May 28; Sp. p. 6084; Gaz. vol. 178; p. 1048.
Package-heading machine, Steel-. A. J. Meier. No. 1,025,637; May 7; Sp. p. 1193; Gaz. vol. 178; p. 183.
Package-receptacle. F. A. Selle. No. 1,027,508; May 28; Sp. p. 5447; Gaz. vol. 178; p. 952.
Packages, String-fastener for. E. H. Johnson. No. 1,027,656; May 28; Sp. p. 5614; Gaz. vol. 178; p. 980.
Packaging loose substances, Machine for. G. A. Lee. No. 1,026,356; May 14; Sp. p. 2803; Gaz. vol. 178; p. 465.
Packaging-machine. H. Rose. No. 1,025,882; May 7; Sp. p. 1725; Gaz. vol. 178; p. 267.
Packing. H. J. Doolan. No. 1,025,792; May 7; Sp. p. 1498; Gaz. vol. 178; p. 237.
Packing and storing vessel. B. E. Byrd and W. M. Fallon. No. 1,025,449; May 7; Sp. p. 704; Gaz. vol. 178; p. 118.
Packing-case, Collapsible. F. F. Bradshaw. No. 1,026,379; May 14; Sp. p. 2856; Gaz. vol. 178; p. 473.
Packing for rotary engines. F. A. Parsons and J. H. Myers. No. 1,027,500; May 28; Sp. p. 5301; Gaz. vol. 178; p. 928.
Packing, Metallic rod-. A. Gottwald. No. 1,027,043; May 21; Sp. p. 4340; Gaz. vol. 178; p. 736.
Packing-ring. C. H. Reynolds. No. 1,026,457; May 14; Sp. p. 3021; Gaz. vol. 178; p. 498.
Paddle-wheel, Feathering. F. J. Schneider. No. 1,027,217 May 21; Sp. p. 4728; Gaz. vol. 178; p. 794.
Pail, Dinner-. R. J. Woodard. No. 1,026,543; May 14; Sp. p. 3184; Gaz. vol. 178; p. 527.
Paint-mixing apparatus. J. W. Hasburg. No. 1,025,396; May 7; Sp. p. 644; Gaz. vol. 178; p. 101.
Paint-remover. C. Ellis. No. 1,027,466; May 28; Sp. p. 5231; Gaz. vol. 178; p. 918.
Painted, Device for preparing surfaces to be. N. B. Gregg. No. 1,026,436; May 14; Sp. p. 2971; Gaz. vol. 178; p. 492.
Painting, varnishing, filling, or otherwise coating boards or other pieces of material, Machine for. W. W. Nuss. No. 1,026,921; May 21; Sp. p. 4042; Gaz. vol. 178; p. 693.
Pan: *See* Baker's drip-pan.
Pancreas preparation suitable for the treatment of diabetes. G. Zuelzer. No. 1,027,790; May 28; Sp. p. 5884; Gaz. vol. 178; p. 1024.
Panel-board, R. H. Olley. No. 1,027,147; May 21; Sp. p. 4590; Gaz. vol. 178; p. 771.
Paper and like blocks, Manufacturing perforated tear-off. J. Goebel. No. 1,025,620; May 7; Sp. p. 1159; Gaz. vol. 178; p. 177.
Paper, Attaching wall-. C. R. Frantz. No. 1,026,793; May 21; Sp. p. 3751; Gaz. vol. 178; p. 649.
Paper bag. J. H. Bartlett. No. 1,027,168; May 21; Sp. p. 4629; Gaz. vol. 178; p. 777.
Paper-board manufacturing machine. P. G. Klotz. No. 1,026,870; May 21; Sp. p. 3905; Gaz. vol. 178; p. 675.
Paper-box blanks, Device for cutting and scoring. M. P. Daven. No. 1,027,822; May 28; Sp. p. 5968; Gaz. vol. 178; p. 1036.
Paper cutting and collecting machine. H. D. Black. No. 1,027,099; May 21; Sp. p. 4484; Gaz. vol. 178; p. 756.
Paper-dispensing apparatus. A. Rydquist. No. 1,025,312; May 7; Sp. p. 455; Gaz. vol. 178; p. 72.
Paper-dispensing apparatus. A. Rydquist. No. 1,026,128; May 14; Sp. p. 2298; Gaz. vol. 178; p. 387.
Paper doll. C. O. Chester. No. 1,026,624; May 14; Sp. p. 3359; Gaz. vol. 178; p. 554.
Paper-making machine. W. H. Millspaugh. No. 1,025,822; May 7; Sp. p. 1563; Gaz. vol. 178; p. 247.
Paper-making stock and by-products, Converting wood into. B. F. Williamson. No. 1,025,356; May 7; Sp. p. 554; Gaz. vol. 178; p. 87.
Paper-pulp from old paper, Producing. C. K. Hähnle. No. 1,026,577; May 14; Sp. p. 3249; Gaz. vol. 178; p. 537.
Paper-roll-changing device. E. G. Robeson. No. 1,026,369; May 14; Sp. p. 2834; Gaz. vol. 178; p. 469.
Paper-slitting machine. J. A. White. No. 1,026,482; May 14; Sp. p. 3073; Gaz. vol. 178; p. 506.
Paper-stock refining and distributing system. L. N. McIntyre. No. 1,026,819; May 21; Sp. p. 3795; Gaz. vol. 178; p. 657.
Paper towel and napkin package. W. H. Bond. No. 1,028,084; May 28; Sp. p. 6577; Gaz. vol. 178; p. 1122.
Papering device, Wall-. J. G. Work. No. 1,027,228; May 21; Sp. p. 4749; Gaz. vol. 178; p. 799.
Pasteurizing apparatus. A. A. Pindstofte. No. 1,027,894; May 28; Sp. p. 6189; Gaz. vol. 178; p. 1061.
Pattern-generating apparatus. F. H. Perry. No. 1,027,562; May 28; Sp. p. 5422; Gaz. vol. 178; p. 950.
Paving plant. F. A. Hetherington. No. 1,027,334; May 21; Sp. p. 4955; Gaz. vol. 178; p. 834.
Peat bogs, &c., Implements for obtaining samples from. B. Granville. No. 1,027,246; May 21; Sp. p. 4782; Gaz. vol. 178; p. 805.
Pen-point releaser. R. B. Thompson. No. 1,027,674; May 28; Sp. p. 5660; Gaz. vol. 178; p. 986.
Pen reservoir attachment. T. Watanabe. No. 1,026,011; May 14; Sp. p. 2005; Gaz. vol. 178; p. 346.
Pen, Self-filling fountain-. F. H. Harvey. No. 1,027,127; May 21; Sp. p. 4554; Gaz. vol. 178; p. 765.
Pencil-sharpener. J. E. Hager and R. H. Porteous. No. 1,026,671; May 21; Sp. p. 3477; Gaz. vol. 178; p. 607.
Pencils, &c., Eraser-tip for lead-. C. W. Boman. No. 1,027,030; May 21; Sp. p. 4312; Gaz. vol. 178; p. 732.
Perambulator. D. R. Collier. No. 1,026,735; May 21; Sp. p. 3621; Gaz. vol. 178; p. 629.
Perambulator or go-cart. S. Benson. No. 1,027,029; May 21; Sp. p. 4306; Gaz. vol. 178; p. 732.
Percolating device. G. E. Savage and L. H. Wilkinson. No. 1,026,930; May 21; Sp. p. 4060; Gaz. vol. 178; p. 696.
Percolator, Syrup-. W. N. Elledge. No. 1,026,500; May 14; Sp. p. 3108; Gaz. vol. 178; p. 513.
Permutation-lock. J. Roche. No. 1,025,538; May 7; Sp. p. 970; Gaz. vol. 178; p. 150.
Permutation-lock. E. E. Quaintance. No. 1,027,564; May 28; Sp. p. 5434; Gaz. vol. 178; p. 951.
Personal cooler. M. E. Hostetler. No. 1,027,607; May 28; Sp. p. 5517; Gaz. vol. 178; p. 965.
Pharmaceutical product. W. Hiemenz and W. Kropp. No. 1,026,913; May 21; Sp. p. 4028; Gaz. vol. 178; p. 691.
Pharmaceutical product. W. Hiemenz and W. Kropp. No. 1,026,914; May 21; Sp. p. 4029; Gaz. vol. 178; p. 691.
Phonograph-motor-signaling device. C. Schiffl. No. 1,027,774; May 28; Sp. p. 5855; Gaz. vol. 178; p. 1019.
Phonograph-record mold. A. F. Wurth. No. 1,027,788; May 28; Sp. p. 5879; Gaz. vol. 178; p. 1023.
Phonograph-records, Apparatus for making duplicate. J. W. Aylsworth. No. 1,027,793; May 28; Sp. p. 5889; Gaz. vol. 178; p. 1025.
Photographic objective. R. Straubel. No. 1,025,766; May 7; Sp. p. 1450; Gaz. vol. 178; p. 228.
Photographic-printing machine. J. S. Cummings. No. 1,025,249; May 7; Sp. p. 313; Gaz. vol. 178; p. 50.
Photographic-printing frame. C. E. Johnson. No. 1,027,482; May 28; Sp. p. 5258; Gaz. vol. 178; p. 922.
Photographic-process basket. M. S. Pelton. No. 1,027,626; May 28; Sp. p. 5545; Gaz. vol. 178; p. 970.
Photographic shutter. J. Linder. No. 1,026,043; May 14; Sp. p. 2082; Gaz. vol. 178; p. 357.
Photometer. A. Erhardt. No. 1,027,328; May 21; Sp. p. 4946; Gaz. vol. 178; p. 832.
Phototelegraphy. T. T. Baker. No. 1,026,297; May 14; Sp. p. 2658; Gaz. vol. 178; p. 445.
Piano-agraffe. M. Nystrom. No. 1,026,922; May 21; Sp. p. 4045; Gaz. vol. 178; p. 694.
Piano and phonograph, Combined player-. P. J. Meahl. No. 1,025,200; May 7; Sp. p. 200; Gaz. vol. 178; p. 34.
Piano-brace, Metal. W. C. Schwamb. No. 1,026,466; May 14; Sp. p. 3040; Gaz. vol. 178; p. 501.
Piano-pedal-opening guard. H. B. Vanhook. No. 1,027,297; May 21; Sp. p. 4890; Gaz. vol. 178; p. 822.
Piano-player, Pneumatic. C. Freborg. No. 1,025,135; May 7; Sp. p. 54; Gaz. vol. 178; p. 10.

Piano-tuning device. M. L. Severy and G. B. Sinclair. No. 1,026,228; May 14; Sp. p. 2519; Gaz. vol. 178; p. 421.
Pianos, Action-bracket and wind-box for player-. W. R. Crippen. No. 1,025,183; May 7; Sp. p. 163; Gaz. vol. 178; p. 27.
Pianos, Controlling device for self-playing. R. J. Bennett. No. 1,025,959; May 14; Sp. p. 1903; Gaz. vol. 178; p. 327.
Pianos, Pneumatic action for self-playing. W. A. Kruck. No. 1,027,257; May 21; Sp. p. 4798; Gaz. vol. 178; p. 808.
Picker: *See* Cotton-picker; Fruit-picker.
Picture-hook. J. A. Costuma. No. 1,025,964; May 14; Sp. p. 1914; Gaz. vol. 178; p. 330.
Picture machine, Moving-. E. H. Sperberg. No. 1,025,887; May 7; Sp. p. 1744; Gaz. vol. 178; p. 269.
Picture machine, Moving-. L. W. Merkel. No. 1,026,991; May 21; Sp. p. 4207; Gaz. vol. 178; p. 718.
Picture machine, Moving-. J. B. Johnson. No. 1,027,735; May 28; Sp. p. 5773; Gaz. vol. 178; p. 1006.
Picture mechanism, Talking moving-. O. E. Kellum. No. 1,027,658; May 28; Sp. p. 5620; Gaz. vol. 178; p. 981.
Piles, Machine for forming jackets on. J. F. Whittle and H. D. Foster. No. 1,026,939; May 21; Sp. p. 4108; Gaz. vol. 178; p. 700.
Piling joint, Tubular-. F. McCluskey. No. 1,025,759; May 7; Sp. p. 1437; Gaz. vol. 178; p. 225.
Pin: *See* Cuff-pin; Hair-pin; Hat-pin; Hat and veil pin; Insulator pin; Safety-pin.
Pin-guard. C. O. Nilsson. No. 1,027,427; May 28; Sp. p. 5164; Gaz. vol. 178; p. 905.
Pin-tumbler lock having interchangeable cylinder extensions. J. H. Shaw. No. 1,027,777; May 28; Sp. p. 5861; Gaz. vol. 178; p. 1020.
Pipe: *See* Smoker's pipe; Tobacco-pipe.
Pipe. G. W. Hamill. No. 1,025,623; May 7; Sp. p. 1166; Gaz. vol. 178; p. 179.
Pipe. C. Elkin. No. 1,027,530; May 28; Sp. p. 5358; Gaz. vol. 178; p. 938.
Pipe attachment. J. W. Lang. No. 1,025,578; May 7; Sp. p. 1067; Gaz. vol. 178; p. 164.
Pipe-bending tool. H. E. Harmer and W. M. Wyllie. No. 1,026,353; May 14; Sp. p. 2800; Gaz. vol. 178; p. 465.
Pipe connection. L. F. Breaker. No. 1,027,586; May 28; Sp. p. 5480; Gaz. vol. 178; p. 958.
Pipe, Connection for sections of hot-air. A. G. Scherer. No. 1,026,607; May 14; Sp. p. 3316; Gaz. vol. 178; p. 548.
Pipe-coupling. G. B. Kissinger. No. 1,026,211; May 14; Sp. p. 2485; Gaz. vol. 178; p. 416.
Pipe-coupling. H. Shipp. No. 1,026,966; May 21; Sp. p. 4164; Gaz. vol. 178; p. 710.
Pipe coupling, Automatic train-. N. F. Niederlander. No. 1,025,291; May 7; Sp. p. 396; Gaz. vol. 178; p. 65.
Pipe coupling, Automatic train-. T. H. Rutherford. No. 1,025,540; May 7; Sp. p. 974; Gaz. vol. 178; p. 151.
Pipe-hanger. L. A. Carpenter and R. Middleton. No. 1,025,243; May 7; Sp. p. 296; Gaz. vol. 178; p. 48.
Pipe-line coupling. H. O. Lloyd-Jones. No. 1,026,886; May 21; Sp. p. 3514; Gaz. vol. 178; p. 612.
Pipe-reamer. J. R. Desjardins. No. 1,028,001; May 28; Sp. p. 6392; Gaz. vol. 178; p. 1096.
Pipe threading and reaming device. L. S. Frost. No. 1,026,668; May 21; Sp. p. 3472; Gaz. vol. 178; p. 606.
Pipe-wrench. W. A. Hyle. No. 1,026,040; May 14; Sp. p. 2078; Gaz. vol. 178; p. 356.
Pipe-wrench. W. W. Leonard. No. 1,026,270; May 14; Sp. p. 2598; Gaz. vol. 178; p. 435.
Pipe-wrench. O. W. Hall. No. 1,026,802; May 21; Sp. p. 3768; Gaz. vol. 178; p. 652.
Pipes and cigarette-holders, Mouthpiece for tobacco-. M. Wittenberg. No. 1,025,440; May 7; Sp. p. 749; Gaz. vol. 178; p. 116.
Pistol attachment. J. A. G. Marshall. No. 1,027,556; May 28; Sp. p. 5408; Gaz. vol. 178; p. 948.
Pitching-machine. J. H. G. Zunner. No. 1,026,729; May 21; Sp. p. 3608; Gaz. vol. 178; p. 627.
Pitman connection. C. Pearson. No. 1,026,826; May 21; Sp. p. 3817; Gaz. vol. 178; p. 660.
Plane. C. Bodmer. No. 1,026,636; May 14; Sp. p. 3384; Gaz. vol. 178; p. 558.
Plane cutter, Router-. T. B. Saner. No. 1,026,053; May 14; Sp. p. 2123; Gaz. vol. 178; p. 360.
Plant-blocker. G. P. A. Weisenborn. No. 1,025,223; May 7; Sp. p. 250; Gaz. vol. 178; p. 42.
Plant setting and fertilizing machine. F. and R. Bruhn. No. 1,026,492; May 14; Sp. p. 3091; Gaz. vol. 178; p. 510.
Planter, Corn-. L. E. Waterman. No. 1,025,769; May 7; Sp. p. 1453; Gaz. vol. 178; p. 228.
Planting device, Seedling-. H. J. Tompkins. No. 1,026,331; May 14; Sp. p. 2743; Gaz. vol. 178; p. 458.
Planting garlic, set-onions, and the like, Machine for. J. A. Fritsch. No. 1,027,119; May 21; Sp. p. 4536; Gaz. vol. 178; p. 763.
Platform-operated machine. G. I. Leonard and W. C. Cutler. No. 1,026,325; May 14; Sp. p. 2725; Gaz. vol. 178; p. 456.
Pliers and wrench, Combined adjustable. J. H. Collister. No. 1,027,693; May 28; Sp. p. 5697; Gaz. vol. 178; p. 992.
Plow. W. L. Paul. No. 1,025,829; May 7; Sp. p. 1576; Gaz. vol. 178; p. 250.
Plow. W. L. Paul. No. 1,025,830; May 7; Sp. p. 1578; Gaz. vol. 178; p. 250.
Plow. B. F. Frazer. No. 1,026,575; May 14; Sp. p. 3247; Gaz. vol. 178; p. 537.
Plow attachment. G. W. Elliott. No. 1,026,258; May 14; Sp. p. 2577; Gaz. vol. 178; p. 431.
Plow, Corn-. A. W. Daniels. No. 1,027,998; May 28; Sp. p. 6387; Gaz. vol. 178; p. 1095.
Plow, Gang and sulky riding-. I. C. Nelson. No. 1,025,712; May 7; Sp. p. 1333; Gaz. vol. 178; p. 208.
Plow, Reversible. P. Trimble. No. 1,027,451; May 28; Sp. p. 5202; Gaz. vol. 178; p. 912.
Plow, Rotary. W. S. Posey. No. 1,025,764; May 7; Sp. p. 1447; Gaz. vol. 178; p. 227.
Plow, Wheeled. L. E. Waterman. No. 1,025,768; May 7; Sp. p. 1452; Gaz. vol. 178; p. 228.
Plows, Open moldboard for A. P. Gubrud. No. 1,027,044; May 21; Sp. p. 4342; Gaz. vol. 178; p. 737.
Plug, Attachment-. G. C. Knauff. No. 1,026,269; May 14; Sp. p. 2596; Gaz. vol. 178; p. 435.
Plumb-bob. J. Paul. No. 1,025,828; May 7; Sp. p. 1575; Gaz. vol. 178; p. 249.
Plumb-bob. E. P. Garner. No. 1,026,669; May 21; Sp. p. 3473; Gaz. vol. 178; p. 606.
Plunger. W. S. Locke. No. 1,026,873; May 21; Sp. p. 3923; Gaz. vol. 178; p. 676.
Pneumatic cushion for vehicles. F. I. Baker. No. 1,026,893; May 21; Sp. p. 3978; Gaz. vol. 178; p. 684.
Pneumatic-despatch system. F. J. H. Hazard. No. 1,025,803; May 7; Sp. p. 1521; Gaz. vol. 178; p. 240.
Pneumatic percussive apparatus. H. C. Behr. No. 1,026,555; May 14; Sp. p. 3208; Gaz. vol. 178; p. 530.
Pneumatic-player tracker-bar. W. R. Crippen. No. 1,025,127; May 7; Sp. p. 34; Gaz. vol. 178; p. 7.
Pocket-knife, Take-down. C. H. White. No. 1,026,065; May 14; Sp. p. 2161; Gaz. vol. 178; p. 365.
Pole cross-arm. C. G. Ette. No. 1,027,709; May 28; Sp. p. 5727; Gaz. vol. 178; p. 998.
Pole cross-arm. C. G. Ette. No. 1,027,710; May 28; Sp. p. 5729; Gaz. vol. 178; p. 998.
Pole cross-arm. C. G. Ette. No. 1,027,711; May 28; Sp. p. 5730; Gaz. vol. 178; p. 998.
Poles, Metallic cross-arm for. C. G. Ette. No. 1,027,708; May 28; Sp. p. 5725; Gaz. vol. 178; p. 998.
Polishing. P. Fireman. No. 1,025,945; May 7; Sp. p. 1873; Gaz. vol. 178; p. 288.
Polishing-cloth. W. Dagnall. No. 1,025,382; May 7; Sp. p. 619; Gaz. vol. 178; p. 96.
Polishing compound. P. Fireman. No. 1,025,946; May 7; Sp. p. 1875; Gaz. vol. 178; p. 288.
Polishing-machine. W. La Hodny. No. 1,026,321; May 14; Sp. p. 2711; Gaz. vol. 178; p. 454.
Polishing or dressing machine. W. D. Couper. No. 1,026,076; May 14; Sp. p. 2185; Gaz. vol. 178; p. 369.
Polishing or grinding wheel guard. F. W. Kohlmyer. No. 1,027,548; May 28; Sp. p. 5394; Gaz. vol. 178; p. 945.
Polo-club head. R. D. Hayes. No. 1,026,581; May 14; Sp. p. 3260; Gaz. vol. 178; p. 539.
Popcorn-popper. E. W. Pendergraft. No. 1,025,716; May 7; Sp. p. 1344; Gaz. vol. 178; p. 209.
Porous bodies, Manufacturing. B. Schwerin. No. 1,027,004; May 21; Sp. p. 4241; Gaz. vol. 178; p. 723.
Porous granular hygroscopic material. E. N. Trump and J. D. Pennock. No. 1,026,724; May 21; Sp. p. 3598; Gaz. vol. 178; p. 625.
Portable furnace. M. Davis. No. 1,025,515; May 7; Sp. p. 907; Gaz. vol. 178; p. 142.
Portable furnace. M. Davis. No. 1,025,563; May 7; Sp. p. 1029; Gaz. vol. 178; p. 159.
Post: *See* Bumping-post; Concrete lamp-post; Fence-post; Fence, telegraph, and other post.
Post-hole digger. W. O. Goodwin. No. 1,027,199; May 21; Sp. p. 4688; Gaz. vol. 178; p. 788.
Pot: *See* Glass-pot.
Potential switch. J. D. Ihlder. No. 1,025,140; May 7; Sp. p. 61; Gaz. vol. 178; p. 11.
Pouring vessel, Duplex. C. G. Sims. No. 1,025,653; May 7; Sp. p. 1224; Gaz. vol. 178; p. 188.
Powder-receptacle. W. Pike. No. 1,025,924; May 7; Sp. p. 1822; Gaz. vol. 178; p. 281.
Power-transmission mechanism. C. W. Taylor. No. 1,025,331; May 7; Sp. p. 498; Gaz. vol. 178; p. 77.
Power-transmission mechanism. C. W. Taylor. No. 1,025,332; May 7; Sp. p. 499; Gaz. vol. 178; p. 78.
Power-transmission mechanism. J. W. Lambert. No. 1,025,875; May 7; Sp. p. 1690; Gaz. vol. 178; p. 264.
Power-transmission mechanism. L. M. G. Delaunay-Belleville. No. 1,026,498; May 14; Sp. p. 3104; Gaz. vol. 178; p. 512.
Power-transmitting apparatus. A. Plagman. No. 1,026,998; May 21; Sp. p. 4224; Gaz. vol. 178; p. 720.
Power-transmitting mechanism for motor-vehicles. F. A. Kirby. No. 1,027,736; May 28; Sp. p. 5775; Gaz. vol. 178; p. 1006.
Preserving animal tissues and the products obtained thereby. J. R. Hatmaker. No. 1,027,128; May 21; Sp. p. 4555; Gaz. vol. 178; p. 765.
Press: *See* Baling-press; Drawing-press; Hydraulic press; Leather-loop-finishing press; Lithographic press; Printing-press; Straw-press; Transfer-press; Vencer-press.
Press. H. C. McLearn. No. 1,026,876; May 21; Sp. p. 3929; Gaz. vol. 178; p. 678.
Press tympan, Hand-proof-. P. J. Shniedewend, Jr. No. 1,026,055; May 14; Sp. p. 2125; Gaz. vol. 178; p. 361.

Presses, Delivery mechanism for platen-. L. E. Morrison. No. 1,025,418; May 7; Sp. p. 681; Gaz. vol. 178; p. 108.
Presses, Perforating means for cylinder-. W. Lowy and J. Milich. No. 1,026,218; May 14; Sp. p. 2501; Gaz. vol. 178; p. 418.
Presses, Retaining device for. P. Eberhardt. No. 1,027,189; May 21; Sp. p. 4666; Gaz. vol. 178; p. 785.
Pressing-machine. H. Price. No. 1,027,502; May 28; Sp. p. 5304; Gaz. vol. 178; p. 929.
Pressure-retaining device. G. O. Hammond and J. A. Barnes. No. 1,026,310; May 14; Sp. p. 2687; Gaz. vol. 178; p. 449.
Pressure-tank connection. L. Wolf. No. 1,026,066; May 14; Sp. p. 2163; Gaz. vol. 178; p. 365.
Priming device. J. L. Fischer. No. 1,026,740; May 21; Sp. p. 3628; Gaz. vol. 178; p. 631.
Priming mixture. W. H. Buell. No. 1,027,814; May 28; Sp. p. 5951; Gaz. vol. 178; p. 1033.
Printer's chase-rack. A. F. Osterlind and G. S. Elmquist. No. 1,025,296; May 7; Sp. p. 405; Gaz. vol. 178; p. 67.
Printers' rules, Means for trimming burs from the cut ends of. C. F. Remington. No. 1,025,308; May 7; Sp. p. 441; Gaz. vol. 178; p. 71.
Printing. A. O. Watkins. No. 1,025,495; May 7; Sp. p. 872; Gaz. vol. 178; p. 136.
Printing and addressing machine, Combined. C. M. Runyan. No. 1,025,926; May 7; Sp. p. 1824; Gaz. vol. 178; p. 282.
Printing, Apparatus for melting and drying embossed. E. J. Smith. No. 1,025,594; May 7; Sp. p. 1094; Gaz. vol. 178; p. 170.
Printing appliance. J. P. Quiggan. No. 1,026,767; May 21; Sp. p. 3700; Gaz. vol. 178; p. 640.
Printing device. J. S. Duncan. No. 1,026,244; May 14; Sp. p. 2554; Gaz. vol. 178; p. 427.
Printing device. J. S. Duncan. No 1,026,245; May 14; Sp. p. 2557; Gaz. vol. 178; p. 428.
Printing device. J. S. Duncan. No. 1,026,246; May 14; Sp. p. 2558; Gaz. vol. 178; p. 428.
Printing device. J. S. Duncan. No. 1,026,247; May 14; Sp. p. 2560; Gaz. vol. 178; p. 428.
Printing device. J. S. Duncan. No. 1,026,248; May 14; Sp. p. 2561; Gaz. vol. 178; p. 429.
Printing device. J. S. Duncan. No. 1,026,249; May 14; Sp. p. 2563; Gaz. vol. 178; p. 429.
Printing device. J. S. Duncan. No. 1,026,250; May 14; Sp. p. 2563; Gaz. vol. 178; p. 429.
Printing device. J. S. Duncan. No. 1,026,251; May 14; Sp. p. 2565; Gaz. vol. 178; p. 429.
Printing device. J. S. Duncan. No. 1,026,252; May 14; Sp. p. 2568; Gaz. vol. 178; p. 430.
Printing device. J. S. Duncan. No. 1,026,253; May 14; Sp. p. 2569; Gaz. vol. 178; p. 430.
Printing device. J. S. Duncan. No. 1,026,254; May 14; Sp. p. 2571; Gaz. vol. 178; p. 430.
Printing device. J. S. Duncan. No. 1,026,255; May 14; Sp. p. 2573; Gaz. vol. 178; p. 431.
Printing from engraved plates. T. R. Demery. No. 1,025,250; May 7; Sp. p. 318; Gaz. vol. 178; p. 51.
Printing-machine. C. A. Sturtevant. No. 1,026,936; May 21; Sp. p. 4085; Gaz. vol. 178; p. 699.
Printing-machine. W. L. Green. No. 1,027,384; May 21; Sp. p. 5061; Gaz. vol. 178; p. 852.
Printing on wrapping-paper, Device for. W. W. Hesson. No. 1,025,137; May 7; Sp. p. 58; Gaz. vol. 178; p. 11.
Printing-press. K. F. Kirkman. No. 1,025,194; May 7; Sp. p. 184; Gaz. vol. 178; p. 32.
Printing-press. J. L. Firm. No. 1,025,257; May 7; Sp. p. 328; Gaz. vol. 178; p. 53.
Printing-press. J. L. Firm. No. 1,025,258; May 7; Sp. p. 331; Gaz. vol. 178; p. 54.
Printing-press. W. A. Sullivan. No. 1,025,420; May 7; Sp. p. 703; Gaz. vol. 178; p. 112.
Printing-press. J. White. No. 1,025,894; May 7; Sp. p. 1762; Gaz. vol. 178; p. 271.
Printing-press. C. A. Sturtevant. No. 1,026,934; May 21; Sp. p. 4067; Gaz. vol. 178; p. 698.
Printing-press. C. A. Sturtevant. No. 1,026,935; May 21; Sp. p. 4079; Gaz. vol. 178; p. 698.
Printing-press. P. F. Cox. No. 1,027,526; May 28; Sp. p. 5349; Gaz. vol. 178; p. 937.
Printing-press attachment. E. G. Robb. No. 1,026,606; May 14; Sp. p. 3313; Gaz. vol. 178; p. 547.
Printing-press inking apparatus. R. T. Johnston. No. 1,027,853; May 28; Sp. p. 6072; Gaz. vol. 178; p. 1047.
Printing-press slip-sheet-feeding device. H. M. Barber. No. 1,027,516; May 28; Sp. p. 5332; Gaz. vol. 178; p. 934.
Printing-press slip-sheet-feeding device. H. M. Barber. No. 1,027,582; May 28; Sp. p. 5474; Gaz. vol. 178; p. 957.
Printing-presses, Paper-feed attachment for under-surface. W. H. Voorhees. No. 1,026,938; May 21; Sp. p. 4103; Gaz. vol. 178; p. 700.
Printing-roll. R. H. Bremer. No. 1,025,779; May 7; Sp. p. 1469; Gaz. vol. 178; p. 232.
Prints, &c., Device for washing. W. G. Rounds. No. 1,025,206; May 7; Sp. p. 214; Gaz. vol. 178; p. 36.
Projectile. O. A. Yingling. No. 1,027,964; May 28; Sp. p. 6310; Gaz. vol. 178; p. 1084.
Projectile-caps, Means for securing. T. Dixon. No. 1,027,243; May 21; Sp. p. 4777; Gaz. vol. 178; p. 804.
Projectile for firing at airships. K. Wieser and W. Schwartz. No. 1,025,500; May 7; Sp. p. 882; Gaz. vol. 178; p. 137.
Projecting device. A. J. Stevens. No. 1,027,448; May 28; Sp. p. 5198; Gaz. vol. 178; p. 911.
Proofing-machine. G. J. Hicks. No. 1,025,914; May 7; Sp. p. 1802; Gaz. vol. 178; p. 278.
Propeller. A. Holmström. No. 1,025,399; May 7; Sp. p. 651; Gaz. vol. 178; p. 102.
Propeller with open center, Screw-. A. J. M. de Villethiou. No. 1,025,658; May 7; Sp. p. 1233; Gaz. vol. 178; p. 190.
Pruner, Hedge-. E. Pearl. No. 1,025,641; May 7; Sp. p. 1201; Gaz. vol. 178; p. 184.
Pruning implement. E. N. Higley. No. 1,025,626; May 7; Sp. p. 1169; Gaz. vol. 178; p. 180.
Pulley. H. J. Gilbert. No. 1,025,264; May 7; Sp. p. 344; Gaz. vol. 178; p. 56.
Pulley. H. J. Gilbert. No. 1,026,795; May 21; Sp. p. 3753; Gaz. vol. 178; p. 649.
Pulley. H. J. Gilbert. No. 1,026,796; May 21; Sp. p. 3755; Gaz. vol. 178; p. 650.
Pulley. H. J. Gilbert. No. 1,026,797; May 21; Sp. p. 3758; Gaz. vol. 178; p. 650.
Pulley. R. H. Bowen. No. 1,027,639; May 28; Sp. p. 5575; Gaz. vol. 178; p. 974.
Pulley-block cross-head, Logging-. M. C. Ashton. No. 1,025,668; May 7; Sp. p. 1251; Gaz. vol. 178; p. 193.
Pulley device, Governor. C. P. Strite. No. 1,026,330; May 14; Sp. p. 2741; Gaz. vol. 178; p. 457.
Pulley, Metal. H. P. Gale. No. 1,027,835; May 28; Sp. p. 5999; Gaz. vol. 178; p. 1041.
Pulp-agitator. W. Hammond. No. 1,026,578; May 14; Sp. p. 3250; Gaz. vol. 178; p. 537.
Pulp-screen-driving mechanism. L. F. Fales. No. 1,026,948; May 21; Sp. p. 4130; Gaz. vol. 178; p. 704.
Pulsating apparatus. F. D. Holdsworth. No. 1,025,467; May 7; Sp. p. 803; Gaz. vol. 178; p. 125.
Pump. J. H. Sims. No. 1,025,211; May 7; Sp. p. 225; Gaz. vol. 178; p. 37.
Pump. J. Williams. No. 1,025,554; May 7; Sp. p. 1007; Gaz. vol. 178; p. 155.
Pump. T. B. Martin. No. 1,025,878; May 7; Sp. p. 1699; Gaz. vol. 178; p. 265.
Pump. J. McGeorge. No. 1,027,139; May 21; Sp. p. 4574; Gaz. vol. 178; p. 769.
Pump. C. L. Parker. No. 1,028,061; May 28; Sp. p. 6510; Gaz. vol. 178; p. 1114.
Pump, Air-. G. J. Spohrer. No. 1,027,923; May 28; Sp. p. 6235; Gaz. vol. 178; p. 1070.
Pump, Air-. C. F. Snyder. No. 1,028,080; May 28; Sp. p. 6567; Gaz. vol. 178; p. 1120.
Pump, Centrifugal. A. M. Robeson and A. Davidson. No. 1,025,425; May 7; Sp. p. 695; Gaz. vol. 178; p. 110.
Pump, Centrifugal. E. A. Marsh. No. 1,026,101; May 14; Sp. p. 2239; Gaz. vol. 178; p. 378.
Pump for corrosive fluids. U. Wedge. No. 1,027,947; May 28; Sp. p. 6274; Gaz. vol. 178; p. 1078.
Pump, Gravity-. G. E. Smith and B. F. Hudson. No. 1,026,713; May 21; Sp. p. 3563; Gaz. vol. 178; p. 622.
Pump, Hand-operated air-. F. C. Virtue. No. 1,025,221; May 7; Sp. p. 245; Gaz. vol. 178; p. 41.
Pump-operating mechanism. T. J. Johnson. No. 1,027,052; May 21; Sp. p. 4359; Gaz. vol. 178; p. 739.
Pump-plunger, Expansive. C. L. Parker. No. 1,027,889; May 28; Sp. p. 6170; Gaz. vol. 178; p. 1059.
Pump-register. W. C. Pritchard. No. 1,027,151; May 21; Sp. p. 4598; Gaz. vol. 178; p. 772.
Pump, Rotary. W. H. Weddington. No. 1,027,091; May 21; Sp. p. 4470; Gaz. vol. 178; p. 754.
Pump, Self-cleaning ball-valve. C. L. Parker. No. 1,027,665; May 28; Sp. p. 5630; Gaz. vol. 178; p. 983.
Pump-valve. J. N. Robertson. No. 1,027,280; May 21; Sp. p. 4852; Gaz. vol. 178; p. 817.
Pumps and similar devices, Self-acting valve for. P. Brenner and O. Hoffmann. No. 1,027,587; May 28; Sp. p. 5482; Gaz. vol. 178; p. 959.
Pumps, Automatic balance for centrifugal. A. C. Paulsmeier. No. 1,027,624; May 28; Sp. p. 5540; Gaz. vol. 178; p. 969.
Pumps, Operating internal-combustion. H. M. and T. M. Chance. No. 1,026,639; May 14; Sp. p. 3392; Gaz. vol. 178; p. 559.
Pumps, Operating reciprocating. H. M. and T. M. Chance. No. 1,026,638; May 14; Sp. p. 3390; Gaz. vol. 178; p. 559.
Pumps, turbines, &c., Automatic balancing device for centrifugal. F. A. Griessmann. No. 1,025,621; May 7; Sp. p. 1160; Gaz. vol. 178; p. 178.
Pumping liquids. H. M. and T. M. Chance. No. 1,026,637; May 14; Sp. p. 3385; Gaz. vol. 178; p. 558.
Puzzle. H. B. Cleveland. No. 1,027,691; May 28; Sp. p. 5694; Gaz. vol. 178; p. 992.
Rack: *See* Clothes-drying rack; Display-rack; Hat-rack; Hat, coat, and umbrella rack; Hay-rack; Printer's chase-rack; Tool-rack; Towel-rack.
Racket case and press. I. C. Wright and D. P. Cummings. No. 1,027,786; May 28; Sp. p. 5877; Gaz. vol. 178; p. 1022.
Radiator. R. M. Dixon. No. 1,025,518; May 7; Sp. p. 922; Gaz. vol. 178; p. 143.
Radiator. J. B. Beam. No. 1,026,895; May 21; Sp. p. 3981; Gaz. vol. 178; p. 685.
Radiator. J. B. Beam. No. 1,026,896; May 21; Sp. p. 3983; Gaz. vol. 178; p. 685.

Radiator-assembling machine. J. D. Beebe. No. 1,025,897; May 7; Sp. p. 1770; Gaz. vol. 178; p. 272.
Radiator, Combined steam and water. S. D. Stauffer. No. 1,027,630; May 28; Sp. p. 5560; Gaz. vol. 178; p. 971.
Radiators, Assembling. J. D. Beebe. No. 1,025,898; May 7; Sp. p. 1773; Gaz. vol. 178; p. 272.
Radiators, Heat-controlling device for. T. K. Lysinger. No. 1,025,919; May 7; Sp. p. 1813; Gaz. vol. 178; p. 279.
Rail. W. F. and C. W. Hampton. No. 1,025,913; May 7; Sp. p. 1801; Gaz. vol. 178; p. 277.
Rail-brace. S. W. Joyal. No. 1,026,807; May 21; Sp. p. 3774; Gaz. vol. 178; p. 653.
Rail-clamp. S. D. Steel. No. 1,027,292; May 21; Sp. p. 4880; Gaz. vol. 178; p. 821.
Rail clamp, Guard-. S. Munson. No. 1,027,212; May 21; Sp. p. 4716; Gaz. vol. 178; p. 792.
Rail-dressing machine. M. Woods and T. J. Gilbert. No. 1,027,366; May 21; Sp. p. 5024; Gaz. vol. 178; p. 846.
Rail-dressing machine. M. Woods and T. J. Gilbert. No. 1,027,367; May 21; Sp. p. 5026; Gaz. vol. 178; p. 847.
Rail-fastener. A. Hvizdos. No. 1,025,700; May 7; Sp. p. 1314; Gaz. vol. 178; p. 204.
Rail-fastener. L. Sexton. No. 1,027,569; May 28; Sp. p. 5449; Gaz. vol. 178; p. 953.
Rail-joint. C. C. Lamb. No. 1,025,408; May 7; Sp. p. 664; Gaz. vol. 178; p. 104.
Rail-joint. H. H. Walton and A. H. Yingst. No. 1,025,599; May 7; Sp. p. 1104; Gaz. vol. 178; p. 171.
Rail-joint. C. P. Goetzinger. No. 1,026,088; May 14; Sp. p. 2214; Gaz. vol. 178; p. 373.
Rail-joint. C. A. Tieche. No. 1,026,288; May 14; Sp. p. 2639; Gaz. vol. 178; p. 441.
Rail-joint. B. G. Braine. No. 1,026,300; May 14; Sp. p. 2664; Gaz. vol. 178; p. 446.
Rail-joint. C. Stewart. No. 1,026,718; May 21; Sp. p. 3579; Gaz. vol. 178; p. 623.
Rail-joint. R. L. Moore. No. 1,027,211; May 21; Sp. p. 4714; Gaz. vol. 178; p. 792.
Rail-joint. F. Marinics. No. 1,027,873; May 28; Sp. p. 6136; Gaz. vol. 178; p. 1053.
Rail-joint. W. H. Wiltshire. No. 1,027,956; May 28; Sp. p. 6288; Gaz. vol. 178; p. 1081.
Rail-joint. C. R. Keck. No. 1,028,027; May 28; Sp. p. 6432; Gaz. vol. 178; p. 1103.
Rail-joint, Boltless. J. H. Ezard. No. 1,026,791; May 21; Sp. p. 3747; Gaz. vol. 178; p. 648.
Rail-joint, Splice. W. L. Lyons. No. 1,027,489; May 28; Sp. p. 5274; Gaz. vol. 178; p. 924.
Rail-joint-supporting device. W. Scott. No. 1,027,284; May 21; Sp. p. 4862; Gaz. vol. 178; p. 818.
Rail, Rack-. F. L. Sessions. No. 1,027,076; May 21; Sp. p. 4438; Gaz. vol. 178; p. 749.
Rail-support and rail. W. Burch. No. 1,026,341; May 14; Sp. p. 2761; Gaz. vol. 178; p. 461.
Rail-tie and fastening. C. Baechler. No. 1,027,370; May 21; Sp. p. 5032; Gaz. vol. 178; p. 848.
Rail-tie fastener. A. Stilke. No. 1,026,373; May 14; Sp. p. 2843; Gaz. vol. 178; p. 471.
Rails to metal ties, Means for securing. W. H. Morgan and W. V. Hartzell. No. 1,026,107; May 14; Sp. p. 2253; Gaz. vol. 178; p. 380.
Rails upon their tracks, Machine for planing. J. Little. No. 1,025,754; May 7; Sp. p. 1425; Gaz. vol. 178; p. 223.
Railway block-signaling system. V. Burgess. No. 1,026,200; May 14; Sp. p. 2454; Gaz. vol. 178; p. 411.
Railway, Marine. R. O. Gallinger. No. 1,027,720; May 28; Sp. p. 5742; Gaz. vol. 178; p. 1001.
Railway-rail fastener. A. C. Candland. No. 1,025,453; May 7; Sp. p. 771; Gaz. vol. 178; p. 120.
Railway-rails to metal ties, Clamp for securing. W. H. Morgan and W. V. Hartzell. No. 1,026,105; May 14; Sp. p. 2250; Gaz. vol. 178; p. 379.
Railway-signal. L. E. Garnett. No. 1,027,382; May 21; Sp. p. 5057; Gaz. vol. 178; p. 851.
Railway signal apparatus. J. H. Alandar. No. 1,027,230; May 21; Sp. p. 4752; Gaz. vol. 178; p. 799.
Railway-signals and the like, Controlling device for. W. Reid. No. 1,027,435; May 28; Sp. p. 5178; Gaz. vol. 178; p. 907.
Railway-spike. V. P. Fulenwider. No. 1,025,799; May 7; Sp. p. 1515; Gaz. vol. 178; p. 239.
Railway-station platform. E. De Ryss. No. 1,027,107; May 21; Sp. p. 4503; Gaz. vol. 178; p. 758.
Railway station-platform. E. Elektorowicz (by change of name now E. De Ryss). No. 1,027,828; May 28; Sp. p. 5985; Gaz. vol. 178; p. 1038.
Railway-switch. F. Chamness. No. 1,025,369; May 7; Sp. p. 589; Gaz. vol. 178; p. 91.
Railway-switch. W. Adkins. No. 1,027,683; May 28; Sp. p. 5679; Gaz. vol. 178; p. 990.
Railway-switch joint. W. Kaylor. No. 1,026,515; May 14; Sp. p. 3145; Gaz. vol. 178; p. 518.
Railway switch, Street-. A. C. M. Deurloo and C. Vanderweel. No. 1,026,431; May 14; Sp. p. 2962; Gaz. vol. 178; p. 490.
Railway system. J. E. Noeggerath. No. 1,027,354; May 21; Sp. p. 4991; Gaz. vol. 178; p. 841.
Railway-tie. A. C. Candland. No. 1,025,452; May 7; Sp. p. 770; Gaz. vol. 178; p. 120.
Railway-tie. H. G. Filler. No. 1,025,867; May 7; Sp. p. 1662; Gaz. vol. 178; p. 262.
Railway-tie. S. C. Turner. No. 1,026,968; May 21; Sp. p. 4166; Gaz. vol. 178; p. 711.
Railway-tie. G. Lessig. No. 1,027,061; May 28; Sp. p. 5624; Gaz. vol. 178; p. 982.
Railway-tie and fastener. A. C. Candland. No. 1,025,450; May 7; Sp. p. 766; Gaz. vol. 178; p. 119.
Railway-tie and fastener. A. C. Candland. No. 1,025,451; May 7; Sp. p. 767; Gaz. vol. 178; p. 119.
Railway-tie and fastener. J. T. Clark. No. 1,026,020; May 14; Sp. p. 2018; Gaz. vol. 178; p. 348.
Railway-tie and fastener. R. E. L. Maxey. No. 1,026,816; May 21; Sp. p. 3790; Gaz. vol. 178; p. 656.
Railway-tie and means for securing rails to the same. W. H. Morgan. No. 1,026,108; May 14; Sp. p. 2255; Gaz. vol. 178; p. 380.
Railway-tie, Metal. W. H. Morgan and W. V. Hartzell. No. 1,026,106; May 14; Sp. p. 2252; Gaz. vol. 178; p. 379.
Railway-tie, Reinforced-concrete. L. T. Lewis. No. 1,027,263; May 21; Sp. p. 4810; Gaz. vol. 178; p. 811.
Railway-tie shim. W. W. Willard. No. 1,026,376; May 14; Sp. p. 2851; Gaz. vol. 178; p. 472.
Railway-track. J. P. Marois. No. 1,027,490; May 28; Sp. p. 5275; Gaz. vol. 178; p. 925.
Railway-track beds, Device for burning weeds on. E. Engebritson, F. Yuha, and F. Doebriner. No. 1,026,026; May 14; Sp. p. 2038; Gaz. vol. 178; p. 351.
Railway-track support and fastener. F. M. McGlocklin. No. 1,025,820; May 7; Sp. p. 1559; Gaz. vol. 178; p. 247.
Railway-tracks, Bumping-block for. M. M. Suppes. No. 1,027,770; May 28; Sp. p. 5867; Gaz. vol. 178; p. 1020.
Railways, Traffic-controlling system for. C. J. Coleman. No. 1,025,371; May 7; Sp. p. 592; Gaz. vol. 178; p. 92.
Rake-tooth point. H. A. Smith. No. 1,025,322; May 7; Sp. p. 485; Gaz. vol. 178; p. 75.
Ram, Hydraulic. J. D. Weaver. No. 1,026,890; May 21; Sp. p. 3969; Gaz. vol. 178; p. 683.
Rammer, Hand-. F. Wegener. No. 1,026,891; May 21; Sp. p. 3971; Gaz. vol. 178; p. 683.
Rat-trap. R. Nye. No. 1,026,362; May 14; Sp. p. 2823; Gaz. vol. 178; p. 467.
Ratchet locking mechanism. F. Kohnle. No. 1,025,530; May 7; Sp. p. 951; Gaz. vol. 178; p. 147.
Ratchet mechanism. G. O. Leopold. No. 1,027,261; May 21; Sp. p. 4805; Gaz. vol. 178; p. 810.
Razor and blade stropper. E. W. Cole. No. 1,025,963; May 14; Sp. p. 1912; Gaz. vol. 178; p. 329.
Razor-stropping machine. M. L. Brandt. No. 1,025,119; May 7; Sp. p. 8; Gaz. vol. 178; p. 4.
Razor-stropping machine. M. L. Brandt. No. 1,025,120; May 7; Sp. p. 9; Gaz. vol. 178; p. 4.
Reamer support, Floating-. C. C. Blood. No. 1,027,520; May 28; Sp. p. 5340; Gaz. vol. 178; p. 935.
Reaming-machine. G. Mateer. (Reissue.) No. 13,422; May 21; Sp. p. 5096; Gaz. vol. 178; p. 857.
Receptacle-closure. D. Bloom. No. 1,027,685; May 28; Sp. p. 5685; Gaz. vol. 178; p. 990.
Receptacle-closure-marking machine. H. J. Douglass. No. 1,026,790; May 21; Sp. p. 3745; Gaz. vol. 178; p. 648.
Receptacle, Collapsible. E. Von Vargyas and J. W. Deidrick. No. 1,025,659; May 7; Sp. p. 1234; Gaz. vol. 178; p. 190.
Receptacle, Commodity-. D. H. Mosteller. No. 1,027,353; May 21; Sp. p. 4990; Gaz. vol. 178; p. 841.
Receptacle-filling apparatus, Liquid-. P. M. Blackman and W. Marshall. No. 1,026,145; May 14; Sp. p. 2329; Gaz. vol. 178; p. 393.
Receptacle, Fluid-. C. J. Schuster. No. 1,025,952; May 7; Sp. p. 1886; Gaz. vol. 178; p. 289.
Receptacle for containing and discharging semisolid and pasty substances. J. F. Craven. No. 1,025,511; May 7; Sp. p. 899; Gaz. vol. 178; p. 140.
Receptacle for containing and discharging semisolid and pasty substances. J. F. Craven. No. 1,025,512; May 7; Sp. p. 901; Gaz. vol. 178; p. 141.
Receptacle for containing and discharging solid and semisolid substances. J. F. Craven. No. 1,025,513; May 7; Sp. p. 902; Gaz. vol. 178; p. 141.
Receptacle, Liquid-. W. F. Pierce. No. 1,025,834; May 7; Sp. p. 1584; Gaz. vol. 178; p. 251.
Recorder: *See* Music-recorder; Time-recorder.
Reel: *See* Clothes-line reel; Fishing-reel; Lamp-cord reel; Skein-reel.
Reflecting apparatus for illuminating music. A. Schuls. No. 1,027,910; May 28; Sp. p. 6213; Gaz. vol. 178; p. 1066.
Refractory conductor. W. D. Coolidge. No. 1,026,420; May 14; Sp. p. 2954; Gaz. vol. 178; p. 489.
Refractory conductors, Binder for the manufacture of. W. D. Coolidge. No. 1,026,344; May 14; Sp. p. 2771; Gaz. vol. 178; p. 462.
Refractory conductors, Manufacture of. W. D. Coolidge. No. 1,026,343; May 14; Sp. p. 2768; Gaz. vol. 178; p. 462.
Refrigerating apparatus. J. G. de Quesada. No. 1,025,765; May 7; Sp. p. 1449; Gaz. vol. 178; p. 227.
Refrigerating-machines, Treating. W. A. Byerly. No. 1,025,561; May 7; Sp. p. 1025; Gaz. vol. 178; p. 158.
Refrigerator. B. E. Grady. No. 1,026,799; May 21; Sp. p. 3764; Gaz. vol. 178; p. 651.
Refrigerator. W. H. Burk. No. 1,027,400; May 28; Sp. p. 5106; Gaz. vol. 178; p. 896.
Register: *See* Account-register; Cash-register; Pump-register.
Register. F. K. Boomhower and W. A. Eberman. No. 1,026,070; May 14; Sp. p. 2170; Gaz. vol. 178; p. 367.

Regrinder. W. J. Gruss and D. C. Demarest. No. 1,025,185; May 7; Sp. p. 169; Gaz. vol. 178; p. 28.
Regulator: *See* Boiler-regulator; Current-regulator; Draft-regulator; Dynamo-regulator; Electric regulator; Engine-regulator; Feed-regulator; Speed-regulator.
Relay. A. S. Cubitt. No. 1,025,786; May 7; Sp. p. 1482; Gaz. vol. 178; p. 234.
Relay, Reverse-phase. H. E. Rice. No. 1,025,590; May 7; Sp. p. 1087; Gaz. vol. 178; p. 168.
Releasing-hook for life-boats and the like. W. J. Huff. No. 1,027,481; May 28; Sp. p. 5257; Gaz. vol. 178; p. 922.
Resilient antiskidding wheel. H. G. Hugon. No. 1,025,400; May 7; Sp. p. 653; Gaz. vol. 178; p. 102.
Resilient wheel. F. H. Lacey. No. 1,025,473; May 7; Sp. p. 819; Gaz. vol. 178; p. 128.
Resilient wheel. A. F. Glaser and J. Olsen. No. 1,026,505; May 14; Sp. p. 3118; Gaz. vol. 178; p. 515.
Resilient wheel. F. C. Oldham. No. 1,026,822; May 21; Sp. p. 3804; Gaz. vol. 178; p. 659.
Resilient wheel. L. Burdy and E. F. Moine. No. 1,026,903; May 21; Sp. p. 4005; Gaz. vol. 178; p. 688.
Resins, Forming fusible phenol. J. W. Aylsworth. No. 1,027,794; May 28; Sp. p. 5894; Gaz. vol. 178; p. 1025.
Resistance means, Variable-. E. R. Gill. No. 1,026,798; May 21; Sp. p. 3761; Gaz. vol. 178; p. 650.
Resistance unit. L. E. Barringer. No. 1,026,377; May 14; Sp. p. 2853; Gaz. vol. 178; p. 472.
Retarding device. O. V. Greene. No. 1,026,626; May 14; Sp. p. 3364; Gaz. vol. 178; p. 554.
Riddling apparatus for separating straw, cavings, chaff, &c., from grain or seeds. H. S. Rainforth. No. 1,026,520; May 14; Sp. p. 3164; Gaz. vol. 178; p. 523.
Rifle, Repeating air-. A. V. Dickey. No. 1,026,303; May 14; Sp. p. 2670; Gaz. vol. 178; p. 447.
Rim, Demountable. R. E. Jeffery. No. 1,025,528; May 7; Sp. p. 947; Gaz. vol. 178; p. 146.
Ring: *See* Clincher-ring; Key-ring; Packing-ring; Sealing-ring.
Rings, Machine for rolling finger-. H. Henrich. No. 1,026,983; May 21; Sp. p. 4190; Gaz. vol. 178; p. 715.
Ringing-key, Indicating. W. E. Harkness. No. 1,026,160; May 14; Sp. p. 2358; Gaz. vol. 178; p. 398.
Rivet and bolt making machine. J. T. Wallace. No. 1,027,017; May 21; Sp. p. 4263; Gaz. vol. 178; p. 727.
Riveted structure. F. R. Henry. No. 1,026,674; May 21; Sp. p. 3483; Gaz. vol. 178; p. 608.
Riveting-machine. E. Elnfeldt. No. 1,025,384; May 7; Sp. p. 622; Gaz. vol. 178; p. 96.
Riveting-machine. E. Smith. No. 1,027,289; May 21; Sp. p. 4872; Gaz. vol. 178; p. 820.
Road-sanding apparatus. H. P. Roberts. No. 1,025,046; May 7; Sp. p. 1209; Gaz. vol. 178; p. 186.
Rock-drill. M. E. Thomas. No. 1,026,886; May 21; Sp. p. 3958; Gaz. vol. 178; p. 682.
Rod: *See* Automobile steering-rod; Curtain-rod; Engineer's slope-rod.
Rod-holder. L. Arnt. No. 1,027,026; May 21; Sp. p. 4295; Gaz. vol. 178; p. 731.
Roofing material. C. Ellis. No. 1,026,855; May 21; Sp. p. 3881; Gaz. vol. 178; p. 670.
Root cutter. Weed-. C. M. Deeks. No. 1,025,965; May 14; Sp. p. 1915; Gaz. vol. 178; p. 330.
Rope-clamp. J. W. Isberg. No. 1,026,587; May 14; Sp. p. 3270; Gaz. vol. 178; p. 540.
Rope, Twisting device for making. O. C. H. Jeschke. No. 1,026,511; May 14; Sp. p. 3129; Gaz. vol. 178; p. 517.
Rotary engine. J. Gougeon. No. 1,025,975; May 14; Sp. p. 1928; Gaz. vol. 178; p. 332.
Rotary engine. F. P. Hummel. No. 1,026,165; May 14; Sp. p. 2367; Gaz. vol. 178; p. 399.
Rotary engine. A. Stone. No. 1,026,474; May 14; Sp. p. 3060; Gaz. vol. 178; p. 504.
Rotary engine. J. H. Van Deventer. No. 1,026,887; May 21; Sp. p. 3960; Gaz. vol. 178; p. 682.
Rotary engine. C. J. Fello. No. 1,027,646; May 28; Sp. p. 5587; Gaz. vol. 178; p. 977.
Rotary explosive-engine. O. F. Edqvist. No. 1,026,911; May 21; Sp. p. 4019; Gaz. vol. 178; p. 690.
Rotary internal-combustion engine. O. A. Boyer. No. 1,025,117; May 7; Sp. p. 5; Gaz. vol. 178; p. 3.
Rotary internal-explosion engine. J. C. Christensen and R. A. F. L. Anderberg. No. 1,027,182; May 21; Sp. p. 4652; Gaz. vol. 178; p. 781.
Rotary motor. A. Peterson. No. 1,026,120; May 14; Sp. p. 2281; Gaz. vol. 178; p. 385.
Routing-machine. A. G. Osmer. No. 1,027,063; May 21; Sp. p. 4394; Gaz. vol. 178; p. 744.
Rubber dress-shields, Machine for making. H. Cassirer. No. 1,025,122; May 7; Sp. p. 15; Gaz. vol. 178; p. 5.
Rubber overshoe. A. E. Roberts. No. 1,027,438; May 28; Sp. p. 5183; Gaz. vol. 178; p. 909.
Rule joint, Zigzag-. H. P. Richards. No. 1,026,367; May 14; Sp. p. 2831; Gaz. vol. 178; p. 468.
Ruler. F. E. Shee. No. 1,027,287; May 21; Sp. p. 4865; Gaz. vol. 178; p. 819.
Ruling-machine. C. Burrows. No. 1,027,986; May 28; Sp. p. 6360; Gaz. vol. 178; p. 1092.
Sad-iron. F. C. Emrick and P. G. Safford. No. 1,025,906; May 7; Sp. p. 1787; Gaz. vol. 178; p. 275.
Sad-iron. A. E. Abbott. No. 1,027,960; May 28; Sp. p. 6326; Gaz. vol. 178; p. 1085.
Sad-iron and terminal box, Electric. L. F. Parkhurst. No. 1,027,666; May 28; Sp. p. 5637; Gaz. vol. 178; p. 983.
Sad-iron, Electrically-heated. E. L. Pollard. No. 1,027,895; May 28; Sp. p. 6190; Gaz. vol. 178; p. 1061.
Sad-iron, Self-heating. C. E. Adamson. No. 1,025,502; May 7; Sp. p. 884; Gaz. vol. 178; p. 138.
Saddle, Harness-. N. J. Sutton. No. 1,027,014; May 21; Sp. p. 4259; Gaz. vol. 178; p. 726.
Saddle mechanism, Top-roll-. I. W. Doeg. No. 1,027,405; May 28; Sp. p. 5115; Gaz. vol. 178; p. 898.
Safe. H. Mintz. No. 1,026,630; May 14; Sp. p. 3372; Gaz. vol. 178; p. 555.
Safe. H. Beshore. No. 1,026,649; May 21; Sp. p. 3438; Gaz. vol. 178; p. 600.
Safe, Burglar-proof. P. X. Johnson. No. 1,026,207; May 14; Sp. p. 2479; Gaz. vol. 178; p. 414.
Safe, Marine. P. X. Johnson. No. 1,026,208; May 14; Sp. p. 2480; Gaz. vol. 178; p. 415.
Safe or steel-vault wall. F. W. Schilling. No. 1,026,461; May 14; Sp. p. 3029; Gaz. vol. 178; p. 500.
Safety device. A. Ensslin. No. 1,025,386; May 7; Sp. p. 625; Gaz. vol. 178; p. 97.
Safety-pin. A. Wright. (Reissue.) No. 13,415; May 7; Sp. p. 1897; Gaz. vol. 178; p. 292.
Salt-cellar. W. M. English. No. 1,027,467; May 28; Sp. p. 5232; Gaz. vol. 178; p. 918.
Sand-blast device. W. Macleod and W. Hext. No. 1,026,688; May 21; Sp. p. 3517; Gaz. vol. 178; p. 613.
Sanding device. J. W. Barth. No. 1,027,517; May 28; Sp. p. 5335; Gaz. vol. 178; p. 934.
Sandpapering-machine. F. Schimmel. No. 1,025,836; May 7; Sp. p. 1591; Gaz. vol. 178; p. 252.
Sandpapering-machine. F. Schimmel. No. 1,027,439; May 28; Sp. p. 5184; Gaz. vol. 178; p. 909.
Sash and frame, Window. J. McCausland and W. Bailey. No. 1,025,414; May 7; Sp. p. 675; Gaz. vol. 178; p. 106.
Sash, Balance window-. H. Knox. No. 1,026,398; May 14; Sp. p. 2887; Gaz. vol. 178; p. 479.
Sash-lock. A. E. Blake. No. 1,026,480; May 14; Sp. p. 3083; Gaz. vol. 178; p. 508.
Sash lock and lift. W. Jansen. No. 1,026,747; May 21; Sp. p. 3641; Gaz. vol. 178; p. 633.
Sash lock or fastener. A. C. Rodatt. No. 1,026,051; May 14; Sp. p. 2118; Gaz. vol. 178; p. 359.
Sash-locking device. E. M. Erb. No. 1,025,134; May 7; Sp. p. 51; Gaz. vol. 178; p. 10.
Sash, Metal window-. E. R. Viberg. No. 1,027,675; May 28; Sp. p. 5661; Gaz. vol. 178; p. 986.
Sashes, Window-holder for sliding. W. S. and E. J. Mason. No. 1,027,874; May 28; Sp. p. 6137; Gaz. vol. 178; p. 1053.
Sauces, Making table. M. Jinbo and K. Hoshizaki. No. 1,025,402; May 7; Sp. p. 655; Gaz. vol. 178; p. 103.
Saw-set. L. G. McKim. No. 1,025,950; May 7; Sp. p. 1881; Gaz. vol. 178; p. 288.
Saw-setting device. A. S. Harris. No. 1,028,088; May 28; Sp. p. 6585; Gaz. vol. 178; p. 1123.
Saw-tooth. W. Vollmer and A. K. Andrews. No. 1,027,943; May 28; Sp. p. 6268; Gaz. vol. 178; p. 1077.
Sawing machine, Wood-. L. Wolfe. No. 1,025,773; May 7; Sp. p. 1459; Gaz. vol. 178; p. 230.
Scaffold-bracket. W. A. Schoening. No. 1,025,886; May 7; Sp. p. 1742; Gaz. vol. 178; p. 269.
Scale. E. J. La Due. No. 1,025,145; May 7; Sp. p. 71; Gaz. vol. 178; p. 13.
Scale and writing instrument, Combined. W. F. Nicholas. No. 1,025,586; May 7; Sp. p. 1078; Gaz. vol. 178; p. 167.
Scale, Computing-. A. F. Johnson. No. 1,026,266; May 14; Sp. p. 2590; Gaz. vol. 178; p. 434.
Scarf. T. Zlock. No. 1,027,580; May 28; Sp. p. 5472; Gaz. vol. 178; p. 957.
Scarf-pin retainer. R. Corn. No. 1,027,525; May 28; Sp. p. 5347; Gaz. vol. 178; p. 937.
Score-card. E. L. De Forest. No. 1,026,433; May 14; Sp. p. 2966; Gaz. vol. 178; p. 491.
Scraper. J. W. Champion. No. 1,027,592; May 28; Sp. p. 5483; Gaz. vol. 178; p. 960.
Screen: *See* Flat screen; Insect-screen; Window-screen.
Screen and screen fabric. W. E. Harbottle. No. 1,027,476; May 28; Sp. p. 5247; Gaz. vol. 178; p. 920.
Screen for screening or sifting sand, gravel, stone, &c. E. New. No. 1,025,290; May 7; Sp. p. 394; Gaz. vol. 178; p. 65.
Screening mechanism. J. Donges. No. 1,025,791; May 7; Sp. p. 1496; Gaz. vol. 178; p. 236.
Screw-cutter. C. B. Burns. No. 1,027,985; May 28; Sp. p. 6357; Gaz. vol. 178; p. 1091.
Screw-driver. I. L. Messenger. No. 1,027,877; May 28; Sp. p. 6142; Gaz. vol. 178; p. 1054.
Screw-threads, Tool for cutting interior. G. A. Peddle. No. 1,027,625; May 28; Sp. p. 5544; Gaz. vol. 178; p. 970.
Scrubbing appliance, Pneumatic. A. E. Moorhead. No. 1,026,104; May 14; Sp. p. 2249; Gaz. vol. 178; p. 379.
Seal. J. A. Hallsted. No. 1,025,870; May 7; Sp. p. 1683; Gaz. vol. 178; p. 263.
Seal. G. H. Reid. No. 1,026,701; May 21; Sp. p. 3541; Gaz. vol. 178; p. 617.
Seal, Dripless pouring-bottle. C. S. Jackson. No. 1,027,544; May 28; Sp. p. 5387; Gaz. vol. 178; p. 944.
Seal, Lead. C. Sismondi. No. 1,027,445; May 28; Sp. p. 5194; Gaz. vol. 178; p. 911.
Seal, Snap-. E. J. Brooks. No. 1,026,943; May 21; Sp. p. 4120; Gaz. vol. 178; p. 702.
Seal, Snap-. E. J. Brooks. No. 1,027,812; May 28; Sp. p. 5945; Gaz. vol. 178; p. 1032.

Sealing apparatus, Hermetic-. J. Merritt. No. 1,026,404; May 14; Sp. p. 2909; Gaz. vol. 178; p. 482.
Sealing-ring for jar-closures. G. H. Womelsdorf. No. 1,026,542; May 14; Sp. p. 3183; Gaz. vol. 178; p. 527.
Sealing the ends of metallic tubes, Machine for. G. G. Rambaud. No. 1,026,456; May 14; Sp. p. 3019; Gaz. vol. 178; p. 498.
Search-light, Mechanically-operated. M. L. Severson. No. 1,027,913; May 28; Sp. p. 6219; Gaz. vol. 178; p. 1067.
Seat for pianos, sewing-machines, &c. J. G. Bauer and F. Gardner. No. 1,026,140; May 14; Sp. p. 2318; Gaz. vol. 178; p. 391.
Seat-support, Spring. F. J. Berry. No. 1,027,171; May 21; Sp. p. 4632; Gaz. vol. 178; p. 778.
Sectional brace. E. Cooper and C. E. Clark. No. 1,026,650; May 21; Sp. p. 3456; Gaz. vol. 178; p. 603.
Sectional case, Knockdown. O. B. Rowlette. No. 1,026,180; May 14; Sp. p. 2398; Gaz. vol. 178; p. 404.
Seed-grader. A. T. Martin. No. 1,026,327; May 14; Sp. p. 2728; Gaz. vol. 178; p. 456.
Seed huller, Cotton-. C. A. Chandler. No. 1,027,320; May 21; Sp. p. 4933; Gaz. vol. 178; p. 830.
Seed-wheat cleaner. J. S. Broyles. No. 1,027,813; May 28; Sp. p. 5948; Gaz. vol. 178; p. 1033.
Seeds from corn-waste, Machine for separating weed-. N. P. Pichula. No. 1,027,274; May 21; Sp. p. 4834; Gaz. vol. 178; p. 815.
Seeder, Broadcast. S. B. Hart. No. 1,026,313; May 14; Sp. p. 2693; Gaz. vol. 178; p. 451.
Self-oiling device. J. Henning. No. 1,026,952; May 21; Sp. p. 4137; Gaz. vol. 178; p. 705.
Semirotary motor. W. G. Stowell. No. 1,025,933; May 7; Sp. p. 1844; Gaz. vol. 178; p. 284.
Separating devices, Electrically charging electrostatic. F. O. Schnelle. No. 1,026,464; May 14; Sp. p. 3036; Gaz. vol. 178; p. 501.
Separating substances of different specific gravities, Apparatus for. W. C. Anderson. No. 1,025,231; May 7; Sp. p. 265; Gaz. vol. 178; p. 44.
Separator: *See* Butter-separator; Centrifugal separator; Coal and slate separator; Dust-separator; Gas-separator; Magnetic separator.
Separator. W. A. Fulton. No. 1,025,694; May 7; Sp. p. 1299; Gaz. vol. 178; p. 202.
Separator. J. Hickey. No. 1,026,675; May 21; Sp. p. 3484; Gaz. vol. 178; p. 608.
Separator and amalgamator. J. Wick. No. 1,027,952; May 28; Sp. p. 6280; Gaz. vol. 178; p. 1079.
Service or valve box. G. Schumacher. No. 1,027,011; May 28; Sp. p. 6213; Gaz. vol. 178; p. 1066.
Sewage-disposal plant. A. H. Wehr. No. 1,027,948; May 28; Sp. p. 6275; Gaz. vol. 178; p. 1078.
Sewage-sludge, Treatment of. J. Grossmann. No. 1,025,622; May 7; Sp. p. 1163; Gaz. vol. 178; p. 179.
Sewed articles, Seam for. V. J. Van Horn. No. 1,026,332; May 14; Sp. p. 2745; Gaz. vol. 178; p. 458.
Sewing and cutting machine, Overedge. C. M. Abercrombie. No. 1,025,441; May 7; Sp. p. 749; Gaz. vol. 178; p. 116.
Sewing-machine. J. P. Weis. No. 1,026,830; May 21; Sp. p. 3849; Gaz. vol. 178; p. 665.
Sewing-machine. F. J. T. Bell. No. 1,026,897; May 21; Sp. p. 3985; Gaz. vol. 178; p. 686.
Sewing-machine attachment. S. Smeja. No. 1,027,009; May 21; Sp. p. 4250; Gaz. vol. 178; p. 724.
Sewing-machine bobbin-case. J. C. Ringe. No. 1,026,926; May 21; Sp. p. 4049; Gaz. vol. 178; p. 695.
Sewing-machine brake attachment. C. E. Johnson. No. 1,027,330; May 21; Sp. p. 4965; Gaz. vol. 178; p. 836.
Sewing-machine cloth-presser. J. S. Finch. No. 1,025,460; May 7; Sp. p. 790; Gaz. vol. 178; p. 123.
Sewing-machine cording attachment, Buttonhole-. F. M. Kennedy. No. 1,025,574; May 7; Sp. p. 1054; Gaz. vol. 178; p. 163.
Sewing-machine fan attachment. R. C. Landers. No. 1,027,259; May 21; Sp. p. 4802; Gaz. vol. 178; p. 810.
Sewing-machine feeding mechanism. J. O. Huffman and E. J. Lauffer. No. 1,025,139; May 7; Sp. p. 60; Gaz. vol. 178; p. 11.
Sewing machine, Filled-sack-. G. E. and E. D. Scott. No. 1,026,833; May 21; Sp. p. 3829; Gaz. vol. 178; p. 662.
Sewing-machine, Overseaming. A. H. De Voe. No. 1,026,910; May 21; Sp. p. 4016; Gaz. vol. 178; p. 689.
Sewing machine, Shoe-. J. V. Allen. No. 1,027,791; May 28; Sp. p. 5886; Gaz. vol. 178; p. 1024.
Sewing-machine stay-guide. C. F. Gray. No. 1,025,463; May 7; Sp. p. 796; Gaz. vol. 178; p. 124.
Sewing-machine stop mechanism, Buttonhole-. L. J. Schaeffer. No. 1,025,650; May 7; Sp. p. 1218; Gaz. vol. 178; p. 187.
Sewing-machine table. T. Kunditz and A. Schuster. No. 1,026,400; May 14; Sp. p. 2893; Gaz. vol. 178; p. 480.
Sewing-machine threading means. M. E. B. Williams. No. 1,026,483; May 14; Sp. p. 3075; Gaz. vol. 178; p. 507.
Sewing-machine trimming mechanism. J. P. Weis. No. 1,025,552; May 7; Sp. p. 1001; Gaz. vol. 178; p. 155.
Sewing-machines, Guiding mechanism for. J. L. Kimball. No. 1,026,095; May 14; Sp. p. 2228; Gaz. vol. 178; p. 376.
Shade-adjusting means, Curtain-. B. G. Foster. No. 1,025,565; May 7; Sp. p. 1035; Gaz. vol. 178; p. 160.
Shade and curtain bracket, Combined. P. E. Tardiff. No. 1,027,931; May 28; Sp. p. 6246; Gaz. vol. 178; p. 1073.
Shade bracket, Window-. A. W. Montgomery. No. 1,027,270; May 21; Sp. p. 4826; Gaz. vol. 178; p. 813.
Shade fixture, Window-. M. Tonti. No. 1,025,597; May 7; Sp. p. 1100; Gaz. vol. 178; p. 170.
Shade-holder. P. Huston. No. 1,027,848; May 28; Sp. p. 6053; Gaz. vol. 178; p. 1045.
Shaft-coupling. A. Diemer. No. 1,027,644; May 28; Sp. p. 5583; Gaz. vol. 178; p. 976.
Shaft-hanger. A. W. Morris. No. 1,025,289; May 7; Sp. p. 391; Gaz. vol. 178; p. 64.
Shaper-guard. P. Erickson. No. 1,025,866; May 7; Sp. p. 1661; Gaz. vol. 178; p. 261.
Sharpener attachment for mowers. J. and C. H. Ewe. No. 1,027,114; May 21; Sp. p. 4520; Gaz. vol. 178; p. 761.
Sharpener, Combination ice-skate and lawn-mower. G. W. Gillespie. No. 1,025,393; May 7; Sp. p. 640; Gaz. vol. 178; p. 100.
Sharpener, Knife-. J. A. Seymour. No. 1,027,005; May 21; Sp. p. 4243; Gaz. vol. 178; p. 723.
Sharpening and gumming machine, Saw. R. V. Pearce. No. 1,027,428; May 28; Sp. p. 5166; Gaz. vol. 178; p. 905.
Sharpening compound, Razor-. L. Stocker. No. 1,027,927; May 28; Sp. p. 6240; Gaz. vol. 178; p. 1072.
Sharpening device. E. M. Mallette. No. 1,025,412; May 7; Sp. p. 670; Gaz. vol. 178; p. 105.
Sharpening machine, Tool-. H. P. Caswell. No. 1,026,623; May 14; Sp. p. 3356; Gaz. vol. 178; p. 553.
Sheave suspension, Universal. V. W. Mason. No. 1,027,491; May 28; Sp. p. 5276; Gaz. vol. 178; p. 925.
Sheets, Holder for assembled. G. F. C. Houghton. No. 1,025,744; May 7; Sp. p. 1405; Gaz. vol. 178; p. 220.
Shingle, Metallic. H. Clawson. No. 1,026,202; May 14; Sp. p. 2460; Gaz. vol. 178; p. 412.
Shingling-tool, Adjustable and collapsible. J. G. Lewis. No. 1,026,097; May 14; Sp. p. 2231; Gaz. vol. 178; p. 376.
Shipping-case. C. Hartman. No. 1,028,020; May 28; Sp. p. 6421; Gaz. vol. 178; p. 1102.
Shirt and collar fastening device, Combined. H. D. Hildreth. No. 1,027,603; May 28; Sp. p. 5509; Gaz. vol. 178; p. 963.
Shock-absorber. A. Loomis. No. 1,027,866; May 28; Sp. p. 6124; Gaz. vol. 178; p. 1051.
Shock-making machine. G. Marshall. No. 1,025,705; May 7; Sp. p. 1320; Gaz. vol. 178; p. 205.
Shoe. G. L. Pierce. No. 1,025,423; May 7; Sp. p. 693; Gaz. vol. 178; p. 110.
Shoe buttonhole-marker. E. T. Adams. No. 1,026,484; May 14; Sp. p. 3077; Gaz. vol. 178; p. 507.
Shoe-buttons, Device for smoothing holes in resetting. E. H. Magnus. No. 1,027,057; May 21; Sp. p. 4372; Gaz. vol. 178; p. 742.
Shoe-cleaner. F. Schimper. No. 1,026,774; May 21; Sp. p. 3712; Gaz. vol. 178; p. 643.
Shoe quarter-closure, Apparel-. C. M. Dodson. No. 1,025,901; May 7; Sp. p. 1779; Gaz. vol. 178; p. 273.
Shoe-repairing jack, Adjustable. G. T. Cantara. No. 1,025,681; May 7; Sp. p. 1273; Gaz. vol. 178; p. 198.
Shoe-upper-beading machine. L. W. G. Flynt. No. 1,027,411; May 28; Sp. p. 5125; Gaz. vol. 178; p. 900.
Shoes and the like, Covering for tennis-. C. G. Adamson. No. 1,027,637; May 28; Sp. p. 5569; Gaz. vol. 178; p. 974.
Shovel: *See* Digging-shovel.
Shutter, Roller-blind. J. Goddard and F. F. Dorsey. No. 1,027,329; May 21; Sp. p. 4948; Gaz. vol. 178; p. 833.
Shuttle, Hand-threading. J. Poisson. No. 1,025,881; May 7; Sp. p. 1724; Gaz. vol. 178; p. 266.
Shuttles, Tension device for. D. Blanchard. No. 1,026,298; May 14; Sp. p. 2659; Gaz. vol. 178; p. 445.
Sign. W. E. Booker. No. 1,027,310; May 21; Sp. p. 4911; Gaz. vol. 178; p. 826.
Sign. D. Kaber. No. 1,027,547; May 28; Sp. p. 5393; Gaz. vol. 178; p. 945.
Sign, Advertising display-. C. F. Spery. No. 1,026,531; May 14; Sp. p. 3166; Gaz. vol. 178; p. 523.
Sign character. D. Kaber. No. 1,026,868; May 21; Sp. p. 3902; Gaz. vol. 178; p. 674.
Sign, Electric. W. H. Weeks. No. 1,025,892; May 7; Sp. p. 1760; Gaz. vol. 178; p. 270.
Sign, Identification-. H. Sjovik. No. 1,027,008; May 21; Sp. p. 4249; Gaz. vol. 178; p. 724.
Sign or card clamp. H. W. Ries. No. 1,026,772; May 21; Sp. p. 3708; Gaz. vol. 178; p. 642.
Signal: *See* Car-signal; Engine-room return-signal; Railway-signal.
Signal device. W. Thorsteinson. No. 1,027,295; May 21; Sp. p. 4888; Gaz. vol. 178; p. 822.
Signal device for drawbridges, &c. G. R. Bock. No. 1,027,100; May 21; Sp. p. 4487; Gaz. vol. 178; p. 756.
Signal joint, Automatic block-. L. H. Kinney and W. McGuire. No. 1,027,343; May 21; Sp. p. 4972; Gaz. vol. 178; p. 837.
Signal-receiving appliance, Electric. J. G. Mitchell. No. 1,027,351; May 21; Sp. p. 4986; Gaz. vol. 178; p. 840.
Signaling apparatus and circuits, Electric. F. B. Herzog. No. 1,028,089; May 28; Sp. p. 6587; Gaz. vol. 178; p. 1123.
Signaling system, Selective electrical. C. L. Goodrum. No. 1,026,029; May 14; Sp. p. 2055; Gaz. vol. 178; p. 352.
Silk, Degumming. E. Schnurrenberger. No. 1,026,000; May 14; Sp. p. 1986; Gaz. vol. 178; p. 342.
Silo. A. Keirle. No. 1,026,510; May 14; Sp. p. 3147; Gaz. vol. 178; p. 519.

Sink-draining attachment. M. A. Weaver. No. 1,026,537; May 14; Sp. p. 3178; Gaz. vol. 178; p. 526.
Siphon. H. L. Bliss. No. 1,025,608; May 7; Sp. p. 1116; Gaz. vol. 178; p. 174.
Skate carrier, Ice-. A. F. McCollum. No. 1,028,050; May 28; Sp. p. 6496; Gaz. vol. 178; p. 1111.
Skate, Roller-. H. Simon. No. 1,026,712; May 21; Sp. p. 3561; Gaz. vol. 178; p. 621.
Skein-reel. G. F. Macfarlane and E. McGroarty. No. 1,027,555; May 28; Sp. p. 5407; Gaz. vol. 178; p. 947.
Skimmer and feed-water heater, Combined oil-. C. Clausen. No. 1,025,863; May 7; Sp. p. 1657; Gaz. vol. 178; p. 260.
Skin-treating apparatus. G. T. Jewitt. No. 1,027,545; May 28; Sp. p. 5388; Gaz. vol. 178; p. 944.
Skin-treating device. J. C. Ford. No. 1,027,718; May 28; Sp. p. 5740; Gaz. vol. 178; p. 1000.
Skinning small animals, Suspension device for use in. A. G. Heyerdahl. No. 1,027,335; May 21; Sp. p. 4957; Gaz. vol. 178; p. 835.
Skirt-marker. B. Shapiro. No. 1,025,951; May 7; Sp. p. 1883; Gaz. vol. 178; p. 289.
Skittle-grounds, Making. O. K. A. Manthe. No. 1,027,872; May 28; Sp. p. 6135; Gaz. vol. 178; p. 1053.
Slabs or blocks, Device for securing. E. Diebitsch. No. 1,027,188; May 21; Sp. p. 4664; Gaz. vol. 178; p. 784.
Sled, Bob-. B. W. Whitney. No. 1,026,014; May 14; Sp. p. 2009; Gaz. vol. 178; p. 347.
Sleigh. M. Diener and C. F. Urban. No. 1,026,023; May 14; Sp. p. 2025; Gaz. vol. 178; p. 350.
Slicing machine, Foodstuff-. F. Clerc. No. 1,026,495; May 14; Sp. p. 3098; Gaz. vol. 178; p. 511.
Slipper with removable counter. A. Hale. No. 1,027,240; May 21; Sp. p. 4786; Gaz. vol. 178; p. 806.
Slot-guard. M. F. Williams and E. H. Frickey. No. 1,025,177; May 7; Sp. p. 151; Gaz. vol. 178; p. 25.
Small-arm. H. Borchardt. No. 1,025,733; May 7; Sp. p. 1385; Gaz. vol. 178; p. 216.
Smelter. A. R. Partridge. No. 1,025,922; May 7; Sp. p. 1818; Gaz. vol. 178; p. 281.
Smelter-furnace. W. M. Nesbit and E. Pike. No. 1,027,882; May 28; Sp. p. 6150; Gaz. vol. 178; p. 1056.
Smoke-bell. M. S. Dambach. No. 1,027,186; May 21; Sp. p. 4660; Gaz. vol. 178; p. 783.
Smoke-jack for engine-houses. W. Sclater. No. 1,026,931; May 21; Sp. p. 4062; Gaz. vol. 178; p. 696.
Smoke-neutralizer. F. White. No. 1,027,951; May 28; Sp. p. 6278; Gaz. vol. 178; p. 1079.
Smoker's pipe. R. T. Morris. No. 1,025,639; May 7; Sp. p. 1198; Gaz. vol. 178; p. 184.
Smoking-pipe cleaner. C. Knoth and F. Whitecar. No. 1,025,142; May 7; Sp. p. 66; Gaz. vol. 178; p. 12.
Smoking-pipe shield. C. Siebenhausen. No. 1,027,916; May 28; Sp. p. 6224; Gaz. vol. 178; p. 1068.
Smudge mixer and sacker. C. H. Burford and F. H. Nett. No. 1,027,317; May 21; Sp. p. 4927; Gaz. vol. 178; p. 829.
Smut-machine. G. O. Rund. No. 1,027,906; May 28; Sp. p. 6207; Gaz. vol. 178; p. 1065.
Snap-hook. W. R. Yeagle. No. 1,025,666; May 7; Sp. p. 1249; Gaz. vol. 178; p. 193.
Snap-hook. V. F. Nelson. No. 1,026,452; May 14; Sp. p. 3014; Gaz. vol. 178; p. 497.
Snap-mold jacket. E. H. Putnam. No. 1,026,700; May 21; Sp. p. 3540; Gaz. vol. 178; p. 617.
Snap, Safety-. J. N. Cutler. No. 1,025,787; May 7; Sp. p. 1484; Gaz. vol. 178; p. 235.
Soap cake. W. Haddow. No. 1,026,438; May 14; Sp. p. 2973; Gaz. vol. 178; p. 492.
Soap, Disinfecting-. M. Engelmann. No. 1,027,707; May 28; Sp. p. 5724; Gaz. vol. 178; p. 997.
Soap-dispensing machine. W. Haddow. No. 1,026,644; May 14; Sp. p. 3409; Gaz. vol. 178; p. 561.
Soap-dispensing machine. G. F. Shaver. No. 1,027,218; May 21; Sp. p. 4731; Gaz. vol. 178; p. 795.
Soap-handle. S. Manheim. No. 1,027,208; May 21; Sp. p. 4710; Gaz. vol. 178; p. 791.
Soda-fountain. E. R. Glenn. No. 1,027,472; May 28; Sp. p. 5241; Gaz. vol. 178; p. 919.
Soldering-iron stove. N. G. Barkers. No. 1,027,096; May 21; Sp. p. 4481; Gaz. vol. 178; p. 756.
Soldering single links of solid wire chains. F. Maisenbacher and T. Bürck. No. 1,027,869; May 28; Sp. p. 6131; Gaz. vol. 178; p. 1052.
Sole-edge trimming and finishing tool. A. D. Frascola. No. 1,025,390; May 7; Sp. p. 636; Gaz. vol. 178; p. 99.
Sole-leveling machines, Shoe-support for. E. E. Winkley. No. 1,027,025; May 21; Sp. p. 4293; Gaz. vol. 178; p. 730.
Sounding-disk. C. C. Ehrman. No. 1,026,256; May 14; Sp. p. 2575; Gaz. vol. 178; p. 431.
Spark-arrester. O. S. Bennett. No. 1,026,143; May 14; Sp. p. 2324; Gaz. vol. 178; p. 392.
Spark-arrester. S. and J. B. Piché. No. 1,026,633; May 14; Sp. p. 3377; Gaz. vol. 178; p. 557.
Spark-arrester. F. Slater. No. 1,026,834; May 21; Sp. p. 3837; Gaz. vol. 178; p. 663.
Spark-generators, Short-circuiter for reversed. T. E. Madden. No. 1,027,388; May 21; Sp. p. 5076; Gaz. vol. 178; p. 854.
Spark-plug, Combination. W. C. Brunt. No. 1,026,653; May 21; Sp. p. 3444; Gaz. vol. 178; p. 601.
Spectacles, eyeglasses, &c., Eye-shield for. G. Moritz. No. 1,025,202; May 7; Sp. p. 204; Gaz. vol. 178; p. 34.
Speed-alarm, Motor-vehicle. R. Berliner, D. D. Swem, and H. F. Moore. No. 1,025,607; May 7; Sp. p. 1115; Gaz. vol. 178; p. 174.
Speed between driving and driven members, Mechanical movement for producing a differential. M. Leitch. No. 1,027,134; May 21; Sp. p. 4564; Gaz. vol. 178; p. 767.
Speed-indicator. L. E. Shaw. No. 1,025,164; May 7; Sp. p. 113; Gaz. vol. 178; p. 20.
Speed-indicator for centrifugal machines. H. N. Fisher. No. 1,025,259; May 7; Sp. p. 334; Gaz. vol. 178; p. 54.
Speed-regulator. P. L. Bradford. No. 1,027,640; May 28; Sp. p. 5576; Gaz. vol. 178; p. 974.
Speed-transmission device, Variable-. C. J. Robinson. No. 1,027,767; May 28; Sp. p. 5837; Gaz. vol. 178; p. 1016.
Spike. G. A. Strawser. No. 1,025,596; May 7; Sp. p. 1099; Gaz. vol. 178; p. 170.
Spike-machine. G. Barr. No. 1,025,670; May 7; Sp. p. 1254; Gaz. vol. 178; p. 194.
Spindle: *See* Detachable spindle.
Spinning and doubling frame. A. E. Drew, J. Arkinstall, W. Dean, and J. H. Howarth. No. 1,025,254; May 7; Sp. p. 323; Gaz. vol. 178; p. 52.
Spinning-frame thread-guide. W. O. Bosworth. No. 1,025,365; May 7; Sp. p. 577; Gaz. vol. 178; p. 90.
Spinning-machine drag device. G. B. Black, Jr. No. 1,027,805; May 28; Sp. p. 5928; Gaz. vol. 178; p. 1030.
Spoke-socket. P. S. Duffy. No. 1,026,572; May 14; Sp. p. 3243; Gaz. vol. 178; p. 536.
Spooler. A. E. Rhoades. No. 1,026,604; May 14; Sp. p. 3303; Gaz. vol. 178; p. 546.
Spooling-machines, Spool cut-out for. W. T. Baldwin. No. 1,025,558; May 7; Sp. p. 1017; Gaz. vol. 178; p. 157.
Spoon, Medicine-. C. C. Beamer. No. 1,027,976; May 28; Sp. p. 6340; Gaz. vol. 178; p. 1088.
Spraying device. H. E. Brandt. No. 1,027,521; May 28; Sp. p. 5342; Gaz. vol. 178; p. 935.
Spreader, Material-. T. Ion. No. 1,026,092; May 14; Sp. p. 2223; Gaz. vol. 178; p. 373.
Spring: *See* Cycle rear-seat spring; Vehicle-spring; Vehicle fluid-spring; Wagon bolster-spring.
Spring compressing and assembling device. W. N. Titus, Jr. No. 1,026,837; May 21; Sp. p. 3846; Gaz. vol. 178; p. 664.
Spring-frame for cushion-seats. A. Weickman. No. 1,027,949; May 28; Sp. p. 6276; Gaz. vol. 178; p. 1079.
Spring structure. O. R. Hunt. No. 1,027,051; May 21; Sp. p. 4357; Gaz. vol. 178; p. 739.
Spring-wheel. H. Villiers-Stuart. No. 1,025,343; May 7; Sp. p. 522; Gaz. vol. 178; p. 82.
Spring-wheel. C. C. Thomas. No. 1,025,433; May 7; Sp. p. 708; Gaz. vol. 178; p. 113.
Spring-wheel. F. H. John. No. 1,025,981; May 14; Sp. p. 1943; Gaz. vol. 178; p. 335.
Spring-wheel. J. Kuehl and J. Stefanowski. No. 1,026,810; May 21; Sp. p. 3782; Gaz. vol. 178; p. 654.
Spring-wheel. G. Crawford and T. Veitch. No. 1,027,105; May 21; Sp. p. 4501; Gaz. vol. 178; p. 758.
Sprinkler. R. Lindner. No. 1,025,410; May 7; Sp. p. 667; Gaz. vol. 178; p. 105.
Sprinkler-alarm apparatus. J. R. Hamilton. No. 1,026,339; May 14; Sp. p. 2974; Gaz. vol. 178; p. 492.
Sprinkler-head, Automatic. E. M. Long. No. 1,026,687; May 21; Sp. p. 3516; Gaz. vol. 178; p. 613.
Sprinklers, Fusible link for automatic. A. C. Hannibal. No. 1,026,440; May 14; Sp. p. 2979; Gaz. vol. 178; p. 493.
Squeezing and pressing device. M. Nemes. No. 1,026,696; May 21; Sp. p. 3532; Gaz. vol. 178; p. 616.
Stack supporting and ventilating device, Hay-. S. J. Bland. No. 1,025,778; May 7; Sp. p. 1467; Gaz. vol. 178; p. 232.
Stacker, Foldable. A. Rosenthal. No. 1,027,505; May 28; Sp. p. 5310; Gaz. vol. 178; p. 930.
Stamp-mill, Ore-crushing. P. R. Stanhope. No. 1,026,717; May 21; Sp. p. 3577; Gaz. vol. 178; p. 623.
Stamping-machine control device, Ticket-. M. Sensenschmidt and E. Kaiser. No. 1,025,317; May 7; Sp. p. 478; Gaz. vol. 178; p. 74.
Stand: *See* Cask and barrel stand; Drill-casing pulling-stand; Flat-iron stand; Ink-bottle stand; Knockdown stand.
Staple. J. G. Reber. No. 1,026,050; May 14; Sp. p. 2116; Gaz. vol. 178; p. 350.
Staple making and driving machine. P. A. Coupal. No. 1,025,248; May 7; Sp. p. 303; Gaz. vol. 178; p. 50.
Station indicator or advertiser. B. R. Skinner. No. 1,027,082; May 21; Sp. p. 4450; Gaz. vol. 178; p. 750.
Steam and other gaseous or liquid bodies, Apparatus for treating. W. H. Yardley. No. 1,027,962; May 28; Sp. p. 6302; Gaz. vol. 178; p. 1083.
Steam detector, Waste-. F. J. Zerbee. No. 1,027,368; May 21; Sp. p. 5027; Gaz. vol. 178; p. 847.
Steam-engine. W. English. No. 1,025,385; May 7; Sp. p. 624; Gaz. vol. 178; p. 97.
Steam-engine of the Corliss type. F. P. Ide. No. 1,026,643; May 14; Sp. p. 3404; Gaz. vol. 178; p. 560.
Steam-generator. A. L. Austin. No. 1,027,398; May 28; Sp. p. 5102; Gaz. vol. 178; p. 895.
Steam-generators, Fuel and water regulator for. R. Miehle. No. 1,026,693; May 21; Sp. p. 3522; Gaz. vol. 178; p. 614.

Steam or hot-water heater. A. Mauger and J. L. Hinderer. No. 1,027,389; May 21; Sp. p. 5077; Gaz. vol. 178; p. 854.
Steam-trap. G. W. Nistle. No. 1,025,293; May 7; Sp. p. 399; Gaz. vol. 178; p. 66.
Steamer. S. B. Goff. No. 1,026,390; May 14; Sp. p. 2873; Gaz. vol. 178; p. 476.
Steel-mold. W. N. Bennett. No. 1,027,585; May 28; Sp. p. 5479; Gaz. vol. 178; p. 958.
Steering device. J. and E. Botsch. No. 1,027,981; May 28; Sp. p. 6349; Gaz. vol. 178; p. 1090.
Steering mechanism. A. Thurman. No. 1,025,432; May 7; Sp. p. 708; Gaz. vol. 178; p. 113.
Steering mechanism. G. A. Anderson. No. 1,025,604; May 7; Sp. p. 1110; Gaz. vol. 178; p. 172.
Steering mechanism. M. L. Williams. No. 1,026,728; May 21; Sp. p. 3606; Gaz. vol. 178; p. 626.
Steering mechanism, Adjustable. P. Hansmann. No. 1,026,312; May 14; Sp. p. 2691; Gaz. vol. 178; p. 450.
Steering-wheel. J. L. Prather. No. 1,026,122; May 14; Sp. p. 2285; Gaz. vol. 178; p. 385.
Step. J. Hugyik. No. 1,027,338; May 21; Sp. p. 4964; Gaz. vol. 178; p. 835.
Steps, Folding. M. Jefferson. No. 1,026,167; May 14; Sp. p. 2373; Gaz. vol. 178; p. 400.
Stereotype-plate molds, Matrix for. A. Egli. No. 1,026,739; May 21; Sp. p. 3627; Gaz. vol. 178; p. 630.
Stereotype-plate trimmer, Semicylindrical-. J. F. Frey. No. 1,027,833; May 28; Sp. p. 5996; Gaz. vol. 178; p. 1040.
Stirrup, Safety-. B. Myers. No. 1,025,824; May 7; Sp. p. 1569; Gaz. vol. 178; p. 248.
Stitching handkerchiefs or the like, Machine for. M. Adair. No. 1,026,546; May 14; Sp. p. 3188; Gaz. vol. 178; p. 528.
Stitching machines, Cutting mechanism for wire-. H. H. Latham and W. Osterholm. No. 1,026,216; May 14; Sp. p. 2493; Gaz. vol. 178; p. 418.
Stock or animal release, Automatic. C. A. Benbow. No. 1,027,307; May 21; Sp. p. 4908; Gaz. vol. 178; p. 826.
Stock-supports, Mechanism for actuating. G. A. Ambler. No. 1,026,139; May 14; Sp. p. 2313; Gaz. vol. 178; p. 391.
Stocking. W. Staton. No. 1,025,328; May 7; Sp. p. 494; Gaz. vol. 178; p. 77.
Stocking. A. N. Presmont. No. 1,025,643; May 7; Sp. p. 1204; Gaz. vol. 178; p. 185.
Stoker, Mechanical. J. P. Davies. No. 1,025,788; May 7; Sp. p. 1485; Gaz. vol. 178; p. 235.
Stoker, Mechanical. H. M. Parson. No. 1,027,149; May 21; Sp. p. 4592; Gaz. vol. 178; p. 772.
Stoker, Mechanical. H. Parson. No. 1,027,753; May 28; Sp. p. 5805; Gaz. vol. 178; p. 1012.
Stoneworking-machine. W. F. Meyers. No. 1,027,558; May 28; Sp. p. 5412; Gaz. vol. 178; p. 949.
Stool, Folding. A. A. Meeker. No. 1,026,759; May 21; Sp. p. 3671; Gaz. vol. 178; p. 637.
Stop mechanism. O. Ashton. No. 1,026,067; May 14; Sp. p. 2165; Gaz. vol. 178; p. 365.
Stop-motion for planers and the like. C. H. Usher. No. 1,027,575; May 28; Sp. p. 5463; Gaz. vol. 178; p. 955.
Stopper: *See* Bottle-stopper.
Stopper. W. H. Redington. No. 1,026,830; May 21; Sp. p. 3823; Gaz. vol. 178; p. 661.
Stove. C. H. Wurst. No. 1,027,961; May 28; Sp. p. 6299; Gaz. vol. 178; p. 1082.
Stove, Heating-. J. Schwab. No. 1,027,671; May 28; Sp. p. 5656; Gaz. vol. 178; p. 985.
Stove, Mold-drying. P. Mongen. No. 1,027,210; May 21; Sp. p. 4713; Gaz. vol. 178; p. 791.
Stove, Storage-. W. Stanley. No. 1,025,843; May 7; Sp. p. 1600; Gaz. vol. 178; p. 254.
Stoves, Air-heating device for. G. von Daam. No. 1,027,944; May 28; Sp. p. 6260; Gaz. vol. 178; p. 1077.
Strainer. M. T. Molloy. No. 1,027,623; May 28; Sp. p. 5539; Gaz. vol. 178; p. 969.
Strainer and egg-holder, Combination. J. G. Shepard. No. 1,027,079; May 21; Sp. p. 4445; Gaz. vol. 178; p. 750.
Strap and drinking-cup holder, Combined. R. Lublintz. No. 1,026,960; May 21; Sp. p. 4156; Gaz. vol. 178; p. 709.
Straw-press with automatic bundle-measurer and needle-controller. M. O. Madsen. No. 1,027,868; May 28; Sp. p. 6129; Gaz. vol. 178; p. 1052.
Street and station indicator. A. L. Breton. No. 1,025,560; May 7; Sp. p. 1022; Gaz. vol. 178; p. 158.
Street-cleaning machine. M. B. Huson. No. 1,026,445; May 14; Sp. p. 2999; Gaz. vol. 178; p. 495.
Stropping device. T. J. Williams. No. 1,027,955; May 28; Sp. p. 6286; Gaz. vol. 178; p. 1080.
Stropping-machine. J. Kaufman. No. 1,025,572; May 7; Sp. p. 1049; Gaz. vol. 178; p. 162.
Stubble-shaver. R. A. Roussel. No. 1,025,161; May 7; Sp. p. 106; Gaz. vol. 178; p. 19.
Stuffing-box and shaft-bearing, Combined. J. O. Schmitt. No. 1,025,884; May 7; Sp. p. 1738; Gaz. vol. 178; p. 268.
Stump pulling and hoisting apparatus, Self-anchoring. A. M. Semran and K. S. Forbes. No. 1,027,286; May 21; Sp. p. 4864; Gaz. vol. 178; p. 819.
Stylus. O. D. Killebrew. No. 1,028,029; May 28; Sp. p. 6434; Gaz. vol. 178; p. 1104.
Submarine rescuing apparatus. S. Roth. No. 1,026,458; May 14; Sp. p. 3022; Gaz. vol. 178; p. 498.
Superheater. J. Milne. No. 1,025,151; May 7; Sp. p. 83; Gaz. vol. 178; p. 15.
Superheater for heating purposes. F. O. Bynoe. No. 1,027,815; May 28; Sp. p. 5952; Gaz. vol. 178; p. 1033.
Superheating and other purposes, Making structures for. H. Luckenbach. No. 1,025,817; May 7; Sp. p. 1553; Gaz. vol. 178; p. 246.
Surgical bandages, Machine for making. O. C. Schulz. No. 1,026,283; May 14; Sp. p. 2627; Gaz. vol. 178; p. 439.
Surgical kit. H. W. Sanford. No. 1,025,207; May 7; Sp. p. 216; Gaz. vol. 178; p. 36.
Surveying instrument. M. Gasser. No. 1,025,911; May 7; Sp. p. 1796; Gaz. vol. 178; p. 276.
Swimmers, Floating device for. F. J. Culomer. No. 1,027,642; May 28; Sp. p. 5579; Gaz. vol. 178; p. 975.
Swimming apparatus. P. Lentz. No. 1,027,741; May 28; Sp. p. 5785; Gaz. vol. 178; p. 1008.
Swing. T. Fischer. No. 1,025,797; May 7; Sp. p. 1514; Gaz. vol. 178; p. 239.
Swing. R. W. Mackneer. No. 1,025,819; May 7; Sp. p. 1558; Gaz. vol. 178; p. 246.
Swing. P. H. Regan. No. 1,026,179; May 14; Sp. p. 2397; Gaz. vol. 178; p. 404.
Swing. J. S. Bohatka. No. 1,026,784; May 21; Sp. p. 3731; Gaz. vol. 178; p. 646.
Swing. G. W. Schilling. No. 1,027,157; May 21; Sp. p. 4607; Gaz. vol. 178; p. 773.
Swing and the like, Porch-. A. H. Klesa. No. 1,026,212; May 14; Sp. p. 2488; Gaz. vol. 178; p. 416.
Swing, Circle-. D. A. Reed and R. W. Snow. No. 1,027,068; May 21; Sp. p. 4413; Gaz. vol. 178; p. 746.
Switch: *See* Car-switch; Double-throw switch; Electric switch; Electric cut-out switch; Railway-switch.
Switch. W. H. Kirkwood. No. 1,026,680; May 21; Sp. p. 3500; Gaz. vol. 178; p. 611.
Switch. C. D. Logan. No. 1,028,041; May 28; Sp. p. 6480; Gaz. vol. 178; p. 1108.
Switch-box. B. A. Nelson. No. 1,025,585; May 7; Sp. p. 1077; Gaz. vol. 178; p. 166.
Switch-handle. C. W. Eisenmann. No. 1,025,691; May 7; Sp. p. 1294; Gaz. vol. 178; p. 201.
Switch-lock, Safety. G. Marshall. No. 1,026,875; May 21; Sp. p. 3925; Gaz. vol. 178; p. 677.
Switch mechanism. E. E. Kessler. No. 1,025,276; May 7; Sp. p. 361; Gaz. vol. 178; p. 59.
Switch mechanism. G. W. Fisher and F. Hoyland, Jr. No. 1,027,468; May 28; Sp. p. 5233; Gaz. vol. 178; p. 918.
Switch-operating device. G. F. Williams. No. 1,025,355; May 7; Sp. p. 552; Gaz. vol. 178; p. 86.
Switch or junction box. O. C. Hoffmann. No. 1,026,164; May 14; Sp. p. 2365; Gaz. vol. 178; p. 399.
Switch structure. E. Ash. No. 1,027,792; May 28; Sp. p. 5888; Gaz. vol. 178; p. 1024.
Switch terminal and contact, Snap-. C. N. Machen. No. 1,025,634; May 7; Sp. p. 1186; Gaz. vol. 178; p. 182.
Switch throwing and locking mechanism. G. F. Weiss. No. 1,026,618; May 14; Sp. p. 3339; Gaz. vol. 178; p. 551.
Switch-throwing device. Z. L. Pierce and D. Warren. No. 1,026,602; May 14; Sp. p. 3299; Gaz. vol. 178; p. 545.
Switch-throwing device. O. S. Weddell. No. 1,026,726; May 21; Sp. p. 3600; Gaz. vol. 178; p. 625.
Switches, Control of electrically-operated. H. E. White. No. 1,025,498; May 7; Sp. p. 876; Gaz. vol. 178; p. 136.
Switches, Means to electrically control street-. S. K. Stinger, Jr., and H. K. Robinson. No. 1,025,545; May 7; Sp. p. 989; Gaz. vol. 178; p. 153.
Synchronical indicator or index for books, card systems, and records. S. J. Hare. No. 1,026,804; May 21; Sp. p. 3770; Gaz. vol. 178; p. 652.
Syringe, Electric water-heating. H. M. Crawford. No. 1,026,564; May 14; Sp. p. 3227; Gaz. vol. 178; p. 533.
Syringe, Electrically-heated. M. H. Shoenberg. No. 1,026,611; May 14; Sp. p. 3328; Gaz. vol. 178; p. 549.
Table: *See* Concentrating-table; Game-table; Outlook-table; Sewing-machine table.
Tachometer. C. H. Veeder. No. 1,025,342; May 7; Sp. p. 520; Gaz. vol. 178; p. 82.
Tacking mechanism. J. Cavanagh. No. 1,026,944; May 21; Sp. p. 4123; Gaz. vol. 178; p. 702.
Talking-machine. W. H. Pumphrey. No. 1,026,178; May 14; Sp. p. 2395; Gaz. vol. 178; p. 403.
Talking-machine. H. Mikorey. No. 1,027,350; May 21; Sp. p. 4984; Gaz. vol. 178; p. 840.
Tank: *See* Glass-tank.
Tanks, Indicating attachment for. J. B. Turner. No. 1,027,936; May 28; Sp. p. 6255; Gaz. vol. 178; p. 1074.
Tap for acid-containers. J. Tombeur. No. 1,027,296; May 21; Sp. p. 4889; Gaz. vol. 178; p. 822.
Target. B. W. Bates and A. T. C. Hale. No. 1,027,371; May 21; Sp. p. 5034; Gaz. vol. 178; p. 848.
Target, Collapsible or falling. C. B. Elliott. No. 1,025,944; May 7; Sp. p. 1872; Gaz. vol. 178; p. 287.
Teaching shorthand, Means for. R. S. Ashton. No. 1,027,514; May 28; Sp. p. 5330; Gaz. vol. 178; p. 933.
Telegraph, Acoustic optical. A. Sanandres. No. 1,025,427; May 7; Sp. p. 699; Gaz. vol. 178; p. 111.
Telegraph-transmitter. J. R. Jones. No. 1,025,471; May 7; Sp. p. 815; Gaz. vol. 178; p. 127.
Telegraph transmitting-machine. F. D. Del Valle Atiles. No. 1,027,376; May 21; Sp. p. 5045; Gaz. vol. 178; p. 849.

Telegraphy, Mast for wireless. O. Fricke. No. 1,026,388; May 14; Sp. p. 2869; Gaz. vol. 178; p. 475.
Telephone and alarm system, Combined. H. G. Webster. No. 1,025,347; May 7; Sp. p. 531; Gaz. vol. 178; p. 83.
Telephone and telegraph contact for movable bodies. H. F. Kunicki and M. Swiecicki. No. 1,025,701; May 7; Sp. p. 1315; Gaz. vol. 178; p. 204.
Telephone attachment. J. L. Donat. No. 1,025,690; May 7; Sp. p. 1292; Gaz. vol. 178; p. 201.
Telephone-bracket. E. P. Guthrie. No. 1,026,260; May 14; Sp. p. 2580; Gaz. vol. 178; p. 432.
Telephone-cabinet. G. W. Lancaster. No. 1,025,813; May 7; Sp. p. 1542; Gaz. vol. 178; p. 244.
Telephone equipment. J. B. Briggs and V. P. Hall. No. 1,025,366; May 7; Sp. p. 578; Gaz. vol. 178; p. 90.
Telephone-exchange and fire-alarm system, Combined automatic. J. W. Lattig and C. L. Goodrum. No. 1,027,053; May 21; Sp. p. 4361; Gaz. vol. 178; p. 740.
Telephone-exchange system. E. E. Clement. No. 1,027,239; May 21; Sp. p. 4771; Gaz. vol. 178; p. 803.
Telephone-exchange system. J. L. Wright. No. 1,027,392; May 21; Sp. p. 5081; Gaz. vol. 178; p. 855.
Telephone-exchange systems, Revertive-call-indicating means for. A. M. Bullard. No. 1,026,199; May 14; Sp. p. 2449; Gaz. vol. 178; p. 411.
Telephone-mouthpiece, Antiseptic. F. C. Tabler. No. 1,026,414; May 14; Sp. p. 2929; Gaz. vol. 178; p. 485.
Telephone-mouthpiece, Sanitary. C. V. Fuller. No. 1,026,503; May 14; Sp. p. 3113; Gaz. vol. 178; p. 514.
Telephone-receiver. S. G. McMeen. No. 1,027,494; May 28; Sp. p. 5285; Gaz. vol. 178; p. 926.
Telephone repeater system. H. B. Stone. No. 1,025,167; May 7; Sp. p. 125; Gaz. vol. 178; p. 22.
Telephone-service meter. A. M. Crichton. No. 1,025,378; May 7; Sp. p. 607; Gaz. vol. 178; p. 94.
Telephone system. E. R. Hobbs. No. 1,025,269; May 7; Sp. p. 350; Gaz. vol. 178; p. 57.
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Telephone trunking system. F. M. Davis. No. 1,026,850; May 21; Sp. p. 3870; Gaz. vol. 178; p. 668.
Telephonic or audiphonic systems, Transmitter for. H. G. Pape. No. 1,025,992; May 14; Sp. p. 1962; Gaz. vol. 178; p. 339.
Tender end sill. C. T. Westlake. No. 1,027,784; May 28; Sp. p. 5874; Gaz. vol. 178; p. 1022.
Terminal clip. V. H. Keller. No. 1,025,573; May 7; Sp. p. 1051; Gaz. vol. 178; p. 162.
Testing apparatus. F. Schreidt. No. 1,025,163; May 7; Sp. p. 110; Gaz. vol. 178; p. 20.
Testing device. C. G. Fulmer. No. 1,027,834; May 28; Sp. p. 5997; Gaz. vol. 178; p. 1040.
Textile roll. W. M. Rossiter. No. 1,026,226; May 14; Sp. p. 2511; Gaz. vol. 178; p. 420.
Theaters, Means for handling hanging scenery in. S. G. Bailey. No. 1,027,028; May 21; Sp. p. 4304; Gaz. vol. 178; p. 731.
Theaters, Mechanism for handling hanging scenery in. S. G. Bailey. No. 1,027,027; May 21; Sp. p. 4297; Gaz. vol. 178; p. 731.
Theaters, Stage-setting for. J. C. Spikes. No. 1,027,922; May 28; Sp. p. 6233; Gaz. vol. 178; p. 1070.
Theatrical purposes, Method and apparatus for. D. W. Troy. No. 1,025,338; May 7; Sp. p. 511; Gaz. vol. 178; p. 80.
Thermodynamic motor. L. A. Haines. No. 1,025,869; May 7; Sp. p. 1666; Gaz. vol. 178; p. 262.
Thread-cutting apparatus. S. Frey. No. 1,026,205; May 14; Sp. p. 2464; Gaz. vol. 178; p. 413.
Threshing and separating machine, Grain. T. A. Lewis. No. 1,026,685; May 21; Sp. p. 3511; Gaz. vol. 178; p. 612.
Threshing, harvesting, and bundling apparatus, Combined. M. Kejr. No. 1,027,484; May 28; Sp. p. 5263; Gaz. vol. 178; p. 923.
Threshing-machine feeding mechanism. F. Hansen. No. 1,026,261; May 14; Sp. p. 2581; Gaz. vol. 178; p. 432.
Throttle-stem gland. C. Weaver and G. A. Price. No. 1,027,783; May 28; Sp. p. 5873; Gaz. vol. 178; p. 1022.
Throw mechanism for automatic machines, Variable-. R. T. Gulliford. No. 1,025,976; May 14; Sp. p. 1931; Gaz. vol. 178; p. 333.
Ticket counting and inspecting machine. R. E. Kimball. No. 1,027,613; May 28; Sp. p. 5527; Gaz. vol. 178; p. 967.
Ticket-cutter. H. W. Hargis. No. 1,027,331; May 21; Sp. p. 4952; Gaz. vol. 178; p. 833.
Ticket-holder. E. H. Iveson. No. 1,025,272; May 7; Sp. p. 356; Gaz. vol. 178; p. 58.
Ticket-holder. E. A. Holden. No. 1,025,805; May 7; Sp. p. 1526; Gaz. vol. 178; p. 241.
Ticket machine, Amusement-. R. M. Rickert. No. 1,026,605; May 14; Sp. p. 3307; Gaz. vol. 178; p. 546.
Ticket, Street-railway transfer-. F. W. Shean. No. 1,026,707; May 21; Sp. p. 3551; Gaz. vol. 178; p. 620.
Tie: *See* Blade-tie; Concrete cross-tie; Rail-tie; Railway-tie.
Tie and rail-fastener. W. and L. Beck. No. 1,025,672; May 7; Sp. p. 1260; Gaz. vol. 178; p. 195.
Tie and rail-fastener. S. Clary and J. Butler. No. 1,025,686; May 7; Sp. p. 1286; Gaz. vol. 178; p. 199.
Tie and rail-fastener. M. Chila. No. 1,026,657; May 21; Sp. p. 3454; Gaz. vol. 178; p. 602.
Tie and rail-fastener. T. Baughman. No. 1,027,232; May 21; Sp. p. 4758; Gaz. vol. 178; p. 800.
Tie and rail-fastener. V. C. Washabaugh and J. S. Peters. No. 1,027,946; May 28; Sp. p. 6272; Gaz. vol. 178; p. 1078.
Tie and rail-securing means. G. W. Whiteman. No. 1,025,664; May 7; Sp. p. 1243; Gaz. vol. 178; p. 192.
Tie-plate. J. F. O'Connor. No. 1,026,114; May 14; Sp. p. 2267; Gaz. vol. 178; p. 383.
Tie-plate and rail-fastening device. H. P. White. No. 1,027,577; May 28; Sp. p. 5467; Gaz. vol. 178; p. 956.
Tile-machine. C. S. Wert. No. 1,025,663; May 7; Sp. p. 1239; Gaz. vol. 178; p. 191.
Tile-making machine. W. J. McCracken. No. 1,027,402; May 28; Sp. p. 5278; Gaz. vol. 178; p. 925.
Time-element device. G. B. Schley. No. 1,027,440; May 28; Sp. p. 5187; Gaz. vol. 178; p. 909.
Time-recorder, Employee's. H. B. Palmer. No. 1,025,879; May 7; Sp. p. 1700; Gaz. vol. 178; p. 266.
Timer, Automatic. F. Waller, Jr. No. 1,025,726; May 7; Sp. p. 1371; Gaz. vol. 178; p. 213.
Timing device. A., G. O. H., E. H., and S. A. Horstmann and W. T. Edgar. No. 1,027,652; May 28; Sp. p. 5605; Gaz. vol. 178; p. 979.
Tire. G. S. Howe. No. 1,026,038; May 14; Sp. p. 2076; Gaz. vol. 178; p. 355.
Tire. G. Gray. No. 1,027,247; May 21; Sp. p. 4784; Gaz. vol. 178; p. 805.
Tire. N. H. Horne. No. 1,027,733; May 28; Sp. p. 5770; Gaz. vol. 178; p. 1005.
Tire. J. Bropson. No. 1,027,983; May 28; Sp. p. 6354; Gaz. vol. 178; p. 1091.
Tire. S. A. Deatherage. No. 1,027,999; May 28; Sp. p. 6389; Gaz. vol. 178; p. 1096.
Tire-armor. C. H. Maddox. No. 1,025,285; May 7; Sp. p. 383; Gaz. vol. 178; p. 62.
Tire, Automobile-. L. C. Beaumont. No. 1,025,854; May 7; Sp. p. 1628; Gaz. vol. 178; p. 258.
Tire, Automobile-. E. M. Hamilton. No. 1,026,803; May 21; Sp. p. 3769; Gaz. vol. 178; p. 652.
Tire case, Spare-. C. F. Hopewell. No. 1,026,316; May 14; Sp. p. 2701; Gaz. vol. 178; p. 452.
Tire, Elastic. G. S. Doty and J. D. Show. (Reissue.) No. 13,419; May 14; Sp. p. 3423; Gaz. vol. 178; p. 564.
Tire fabric having annular elastic zones, Pneumatic-. L. A. Subers. No. 1,026,836; May 21; Sp. p. 3843; Gaz. vol. 178; p. 664.
Tire for vehicle-wheels, Pneumatic. G. Desson. No. 1,025,610; May 7; Sp. p. 1120; Gaz. vol. 178; p. 175.
Tire for vehicle-wheels, Pneumatic. L. A. Garchey. No. 1,026,858; May 21; Sp. p. 3886; Gaz. vol. 178; p. 671.
Tire for vehicles, Cushion-. W. S. Holmes and W. B. Johnson. No. 1,027,130; May 21; Sp. p. 4559; Gaz. vol. 178; p. 766.
Tire-inflation mechanism. R. L. Foster. No. 1,026,667; May 21; Sp. p. 3471; Gaz. vol. 178; p. 606.
Tire-plug inserter. F. B. Parks. No. 1,025,203; May 7; Sp. p. 207; Gaz. vol. 178; p. 35.
Tire-protector. W. T. Dorgan. No. 1,027,108; May 21; Sp. p. 4506; Gaz. vol. 178; p. 759.
Tire protector, Pneumatic-. C. A. Belew. No. 1,027,800; May 28; Sp. p. 5918; Gaz. vol. 178; p. 1028.
Tire-setting machine. C. A. Devero. No. 1,026,975; May 21; Sp. p. 4174; Gaz. vol. 178; p. 712.
Tire, Spring-. G. Burson. No. 1,026,201; May 14; Sp. p. 2459; Gaz. vol. 178; p. 412.
Tire-tester. E. H. Neu. No. 1,027,497; May 28; Sp. p. 5295; Gaz. vol. 178; p. 927.
Tire-tool. A. A. Long. No. 1,025,987; May 14; Sp. p. 1950; Gaz. vol. 178; p. 337.
Tire-valves and the like, Locking-cap for. M. C. Schweinert and H. P. Kraft. No. 1,027,508; May 28; Sp. p. 5315; Gaz. vol. 178; p. 931.
Tire, Vehicle-. J. F. Bosquett. No. 1,025,734; May 7; Sp. p. 1387; Gaz. vol. 178; p. 217.
Tire, Vehicle-wheel cushion-. M. J. Selzer. No. 1,026,468; May 14; Sp. p. 3042; Gaz. vol. 178; p. 502.
Titanium and silver and producing the same, Article composed essentially of. A. J. Rossi. No. 1,025,426; May 7; Sp. p. 697; Gaz. vol. 178; p. 111.
Tobacco-pipe. H. E. Buttimer. No. 1,027,318; May 21; Sp. p. 4929; Gaz. vol. 178; p. 829.
Tobacco-pipe button. W. G. Glenn. No. 1,027,838; May 28; Sp. p. 6002; Gaz. vol. 178; p. 1041.
Toe-calk-making machine. H. M. Howlett and A. Laessele. No. 1,025,270; May 7; Sp. p. 353; Gaz. vol. 178; p. 57.
Toilet-case for vehicles. M. H. Strong. No. 1,027,362; May 21; Sp. p. 5017; Gaz. vol. 178; p. 845.
Toilet device, Lady's. A. Burnet and H. Temple. No. 1,025,448; May 7; Sp. p. 764; Gaz. vol. 178; p. 118.
Tongs. J. Bittner. No. 1,026,488; May 14; Sp. p. 3082; Gaz. vol. 178; p. 508.
Tool attachment. G. Beuoy. No. 1,025,362; May 7; Sp. p. 570; Gaz. vol. 178; p. 89.
Tool-box. W. S. Smith. No. 1,026,059; May 14; Sp. p. 2131; Gaz. vol. 178; p. 362.
Tool-carrier. G. E. Fogarty. No. 1,027,535; May 28; Sp. p. 5373; Gaz. vol. 178; p. 941.
Tool-chest, Portable. A. S. Hokanson. No. 1,026,264; May 14; Sp. p. 2587; Gaz. vol. 178; p. 433.
Tool, Combination-. F. E. Foor. No. 1,026,347; May 14; Sp. p. 2776; Gaz. vol. 178; p. 463.

Tool, Electrically-heated. L. F. Parkhurst. No. 1,026,363; May 14; Sp. p. 2824; Gaz. vol. 178; p. 467.
Tool-housing. A. J. Eslick, Jr. No. 1,028,008; May 28; Sp. p. 6401; Gaz. vol. 178; p. 1098.
Tool, Portable geared rotary. J. W. Reed. No. 1,026,831; May 21; Sp. p. 3824; Gaz. vol. 178; p. 662.
Tool rack and gage, Combined. C. H. Driver. No. 1,025,255; May 7; Sp. p. 324; Gaz. vol. 178; p. 52.
Tools, Making. J. de Bosredon. No. 1,025,735; May 7; Sp. p. 1388; Gaz. vol. 178; p. 217.
Tooth and crown, Artificial. J. Kohn. No. 1,026,213; May 14; Sp. p. 2489; Gaz. vol. 178; p. 417.
Toothpicks, &c., Packing-machine for. M. W. Forster. No. 1,026,665; May 21; Sp. p. 3467; Gaz. vol. 178; p. 605.
Top, Spinning-. J. R. Pearsall and A. D. Hill. No. 1,025,299; May 7; Sp. p. 416; Gaz. vol. 178; p. 68.
Top, Spinning-. A. P. O'Brien. No. 1,026,112; May 14; Sp. p. 2264; Gaz. vol. 178; p. 382.
Torpedoes, Gyroscope for automobile. A. E. Jones. No. 1,025,747; May 7; Sp. p. 1412; Gaz. vol. 178; p. 221.
Towel-rack, Roller. C. Gilbert. No. 1,026,794; May 21; Sp. p. 3752; Gaz. vol. 178; p. 649.
Toy. H. S. Dauphin. No. 1,025,689; May 7; Sp. p. 1291; Gaz. vol. 178; p. 200.
Toy. F. W. Fiegel. No. 1,025,969; May 14; Sp. p. 1920; Gaz. vol. 178; p. 331.
Toy. T. Brown. No. 1,027,589; May 28; Sp. p. 5485; Gaz. vol. 178; p. 959.
Toy, Figure. H. L. Haskell. No. 1,026,861; May 21; Sp. p. 3891; Gaz. vol. 178; p. 672.
Toy, Optical. A. F. Victor. No. 1,027,576; May 28; Sp. p. 5466; Gaz. vol. 178; p. 956.
Toy or amusement device. J. G. Hamley. No. 1,028,068; May 28; Sp. p. 6536; Gaz. vol. 178; p. 1116.
Toy vehicle. J. L. Yoakum. No. 1,026,545; May 14; Sp. p. 3187; Gaz. vol. 178; p. 527.
Track construction and rail-clip. J. Noll. No. 1,026,877; May 21; Sp. p. 3931; Gaz. vol. 178; p. 678.
Track-inspecting device. J. S. Tyler. No. 1,027,086; May 21; Sp. p. 4462; Gaz. vol. 178; p. 752.
Track-joint. W. Wise. No. 1,027,682; May 28; Sp. p. 5677; Gaz. vol. 178; p. 989.
Track-laying machine. H. Carlson. No. 1,027,373; May 21; Sp. p. 5039; Gaz. vol. 178; p. 848.
Track-sanding apparatus, Air. W. A. Sault. No. 1,028,079; May 28; Sp. p. 6563; Gaz. vol. 178; p. 1120.
Traction-engine. B. Holt. No. 1,026,037; May 14; Sp. p. 2073; Gaz. vol. 178; p. 355.
Traction-engine. B. Holt. No. 1,026,090; May 14; Sp. p. 2217; Gaz. vol. 178; p. 374.
Traction-engine. B. Holt. No. 1,026,091; May 14; Sp. p. 2221; Gaz. vol. 178; p. 375.
Traction-engine. J. F. Boone. No. 1,027,311; May 21; Sp. p. 4912; Gaz. vol. 178; p. 826.
Train-order-delivering device. W. T. See. No. 1,026,467; May 14; Sp. p. 3041; Gaz. vol. 178; p. 502.
Train-order holder. J. M. Case. No. 1,025,861; May 7; Sp. p. 1653; Gaz. vol. 178; p. 260.
Train stop and signal, Automatic. J. A. Demers. No. 1,026,852; May 21; Sp. p. 3876; Gaz. vol. 178; p. 669.
Train-stop, Automatic. L. A. Hawkins. No. 1,027,047; May 21; Sp. p. 4348; Gaz. vol. 178; p. 738.
Transfer-press. B. W. Smith. No. 1,025,165; May 7; Sp. p. 118; Gaz. vol. 178; p. 21.
Transformer-case. L. H. Burkhart. No. 1,025,679; May 7; Sp. p. 1269; Gaz. vol. 178; p. 197.
Transmission mechanism. L. E. Schlotterback. No. 1,026,462; May 14; Sp. p. 3030; Gaz. vol. 178; p. 500.
Transmission system, Mechanical. J. Feidt. No. 1,025,796; May 7; Sp. p. 1512; Gaz. vol. 178; p. 238.
Trap: *See* Animal-trap; Fly-trap; Gas-trap; Rat-trap; Steam-trap.
Trap. H. A. Thiberge. No. 1,025,845; May 7; Sp. p. 1609; Gaz. vol. 178; p. 255.
Trap. J. Tippett. No. 1,026,477; May 14; Sp. p. 3066; Gaz. vol. 178; p. 505.
Trap. W. Cholewinski. No. 1,027,181; May 21; Sp. p. 4650; Gaz. vol. 178; p. 781.
Trap. L. Barker. No. 1,027,974; May 28; Sp. p. 6336; Gaz. vol. 178; p. 1087.
Tree or plant support. J. C. Rowell. No. 1,025,311; May 7; Sp. p. 455; Gaz. vol. 178; p. 72.
Tree vibration for saving buds and blossoms from frost, System of motor-operated. H. L. Darling. No. 1,027,403; May 28; Sp. p. 5110; Gaz. vol. 178; p. 897.
Trimmer: *See* Stereotype-plate trimmer.
Trimming-machine. H. Evans. No. 1,025,968; May 14; Sp. p. 1918; Gaz. vol. 178; p. 331.
Trolley. S. Brauner. No. 1,027,175; May 21; Sp. p. 4638; Gaz. vol. 178; p. 779.
Trolley. S. Rogowski. No. 1,027,281; May 21; Sp. p. 4855; Gaz. vol. 178; p. 817.
Trolley. I. Kocian. No. 1,027,857; May 28; Sp. p. 6083; Gaz. vol. 178; p. 1048.
Trolley-contact. F. T. Cope. No. 1,027,103; May 21; Sp. p. 4498; Gaz. vol. 178; p. 757.
Trolley-guard. H. H. McNeil. No. 1,028,052; May 28; Sp. p. 6498; Gaz. vol. 178; p. 1111.
Trolley-harp. P. A. McCullough. No. 1,026,689; May 21; Sp. p. 3518; Gaz. vol. 178; p. 613.
Trolley, Overhead. A. P. Lord, C. A. Lindberg, and J. V. Flanigan. No. 1,026,874; May 21; Sp. p. 3924; Gaz. vol. 178; p. 677.
Trolley-retriever. S. P. Kay. No. 1,026,955; May 21; Sp. p. 4144; Gaz. vol. 178; p. 706.
Trolley-tracks, Switch for I-beam. H. E. Ballard. No. 1,026,239; May 14; Sp. p. 2539; Gaz. vol. 178; p. 425.
Trolley wheel and harp. W. W. Neighbour. No. 1,025,479; May 7; Sp. p. 831; Gaz. vol. 178; p. 130.
Trolley-wheels, Cooling device for. H. Prack. No. 1,027,756; May 28; Sp. p. 5809; Gaz. vol. 178; p. 1012.
Trough: *See* Eaves-trough; Feed-trough.
Trough or open flume. W. Lennon. No. 1,026,957; May 21; Sp. p. 4148; Gaz. vol. 178; p. 707.
Trousers. H. Rogers. No. 1,027,904; May 28; Sp. p. 6206; Gaz. vol. 178; p. 1065.
Trousers-hanger. R. Sybenga. No. 1,027,223; May 21; Sp. p. 4740; Gaz. vol. 178; p. 796.
Trowel. J. Parkhill. No. 1,026,117; May 14; Sp. p. 2274; Gaz. vol. 178; p. 384.
Trowel attachment. I. M. Abram. No. 1,027,396; May 28; Sp. p. 5099; Gaz. vol. 178; p. 895.
Truck. W. J. McCoy. No. 1,027,557; May 28; Sp. p. 5410; Gaz. vol. 178; p. 948.
Truck-bolster. A. E. Ostrander. No. 1,026,823; May 21; Sp. p. 3806; Gaz. vol. 178; p. 659.
Truck, Car-. A. J. McCauley. No. 1,027,746; May 28; Sp. p. 5793; Gaz. vol. 178; p. 1009.
Truck, Car-. A. J. McCauley. No. 1,027,747; May 28; Sp. p. 5795; Gaz. vol. 178; p. 1010.
Truck, Car-. A. J. McCauley. No. 1,027,748; May 28; Sp. p. 5797; Gaz. vol. 178; p. 1010.
Truck, Car-. A. J. McCauley. No. 1,028,049; May 28; Sp. p. 6493; Gaz. vol. 178; p. 1111.
Truck, Electric-motor-driven. W. J. Spangler. No. 1,027,629; May 28; Sp. p. 5559; Gaz. vol. 178; p. 971.
Truck-frame. H. S. Hart. No. 1,026,744; May 21; Sp. p. 3634; Gaz. vol. 178; p. 632.
Truck-locking device, Engine-. G. E. Reid. No. 1,026,366; May 14; Sp. p. 2828; Gaz. vol. 178; p. 468.
Truck, Locomotive-. J. Walton. No. 1,025,600; May 7; Sp. p. 1106; Gaz. vol. 178; p. 171.
Trunk-fastener. H. T. V. Perry. No. 1,025,923; May 7; Sp. p. 1821; Gaz. vol. 178; p. 281.
Truss. D. McKay. No. 1,026,758; May 21; Sp. p. 3670; Gaz. vol. 178; p. 637.
Tube: *See* Collapsible tube.
Tube. T. F. Sanborn. No. 1,027,772; May 28; Sp. p. 5846; Gaz. vol. 178; p. 1018.
Tube-clamp. O. Krauskopf. No. 1,027,423; May 28; Sp. p. 5156; Gaz. vol. 178; p. 904.
Tube-filling apparatus. A. J. Kier. No. 1,026,956; May 21; Sp. p. 4146; Gaz. vol. 178; p. 707.
Tube-mill, Continuous. M. B. Lloyd. No. 1,027,865; May 28; Sp. p. 6106; Gaz. vol. 178; p. 1051.
Tubes, Apparatus for manufacturing metal. W. J. and J. W. Moon. No. 1,026,275; May 14; Sp. p. 2606; Gaz. vol. 178; p. 437.
Tubes during the operation of drawing them, Holding. H. Higgin. No. 1,025,568; May 7; Sp. p. 1039; Gaz. vol. 178; p. 161.
Tubes, Machine for applying clips to collapsible. L. Abrahams. No. 1,026,234; May 14; Sp. p. 2528; Gaz. vol. 178; p. 423.
Tubes, tiles, and the like, Device for lifting. F. L. Watson. No. 1,026,536; May 14; Sp. p. 3176; Gaz. vol. 178; p. 525.
Tubular bodies, such as pipes, hollow masts, &c., Manufacture of. H. Siegwart. No. 1,027,571; May 28; Sp. p. 5453; Gaz. vol. 178; p. 953.
Tubular carrier. F. O. Hoagland. No. 1,025,525; May 7; Sp. p. 944; Gaz. vol. 178; p. 146.
Tungsten purification. W. D. Coolidge. No. 1,026,428; May 14; Sp. p. 2953; Gaz. vol. 178; p. 489.
Tunneling-machine. A. F. Walther. No. 1,026,335; May 14; Sp. p. 2750; Gaz. vol. 178; p. 459.
Tunneling-machine. R. T. Stone. No. 1,026,412; May 14; Sp. p. 2922; Gaz. vol. 178; p. 484.
Turbine. A. Kienast. No. 1,025,141; May 7; Sp. p. 65; Gaz. vol. 178; p. 12.
Turbine. J. Blaeker. No. 1,025,241; May 7; Sp. p. 290; Gaz. vol. 178; p. 48.
Turbine. A. Bonom. No. 1,027,309; May 21; Sp. p. 4909; Gaz. vol. 178; p. 826.
Turbine-blade. W. Grun. No. 1,027,201; May 21; Sp. p. 4695; Gaz. vol. 178; p. 789.
Turbine, Elastic-fluid. R. O. Muller. No. 1,025,921; May 7; Sp. p. 1815; Gaz. vol. 178; p. 280.
Turbine, Elastic-fluid. C. G. Curtis. No. 1,027,697; May 28; Sp. p. 5703; Gaz. vol. 178; p. 994.
Turbine, Marine steam-. C. G. Curtis. No. 1,027,698; May 28; Sp. p. 5705; Gaz. vol. 178; p. 994.
Turbine-rotor. R. O. Muller. No. 1,026,821; May 21; Sp. p. 3802; Gaz. vol. 178; p. 658.
Turpentine-gatherer. J. H. Womack. No. 1,027,958; May 28; Sp. p. 6291; Gaz. vol. 178; p. 1081.
Turpentine-gathering apparatus. W. E. Kenner. No. 1,025,985; May 14; Sp. p. 1947; Gaz. vol. 178; p. 336.
Twine-cutter. W. Moore. No. 1,026,631; May 14; Sp. p. 3373; Gaz. vol. 178; p. 555.
Type-casting machine. J. S. Thompson. No. 1,026,185; May 14; Sp. p. 2407; Gaz. vol. 178; p. 406.
Type-setting device. H. Drewell. No. 1,026,243; May 14; Sp. p. 2547; Gaz. vol. 178; p. 427.
Type-writer. G. W. Davis. No. 1,025,129; May 7; Sp. p. 37; Gaz. vol. 178; p. 7.
Type-writer. C. J. Panlson. No. 1,025,204; May 7; Sp. p. 209; Gaz. vol. 178; p. 35.

Type-writer. Z. G. Sholes and J. M. Fraaz. No. 1,026,056; May 14; Sp. p. 2126; Gaz. vol. 178; p. 361.
Type-writer attachment. C. P. Swank. No. 1,027,395; May 21; Sp. p. 5093; Gaz. vol. 178; p. 856.
Type-writer, Book. F. Wissner. No. 1,026,619; May 14; Sp. p. 3342; Gaz. vol. 178; p. 552.
Type-writer centering mechanism. M. Pfau. No. 1,026,601; May 14; Sp. p. 3297; Gaz. vol. 178; p. 545.
Type-writer feed, Automatic. S. W. Jones. No. 1,028,026; May 28; Sp. p. 6429; Gaz. vol. 178; p. 1103.
Type-writer ribbon-carrier. M. H. Lockwood. No. 1,027,488; May 28; Sp. p. 5272; Gaz. vol. 178; p. 924.
Type-writers and the like, Ribbon-reverse mechanism for. H. Hopkins. No. 1,027,732; May 28; Sp. p. 5768; Gaz. vol. 178; p. 1005.
Type-writing machine. J. Waldheim. No. 1,025,171; May 7; Sp. p. 134; Gaz. vol. 178; p. 23.
Type-writing machine. G. H. Smith. No. 1,025,213; May 7; Sp. p. 228; Gaz. vol. 178; p. 38.
Type-writing machine. H. H. Steele. No. 1,025,544; May 7; Sp. p. 983; Gaz. vol. 178; p. 152.
Type-writing machine. O. E. Hull. No. 1,025,627; May 7; Sp. p. 1172; Gaz. vol. 178; p. 180.
Type-writing machine. J. Purdy. No. 1,025,644; May 7; Sp. p. 1204; Gaz. vol. 178; p. 185.
Type-writing machine. E. E. Barney. No. 1,025,669; May 7; Sp. p. 1252; Gaz. vol. 178; p. 193.
Type-writing machine. E. G. Latta. No. 1,025,752; May 7; Sp. p. 1419; Gaz. vol. 178; p. 223.
Type-writing machine. B. A. Brooks. No. 1,025,943; May 7; Sp. p. 1860; Gaz. vol. 178; p. 287.
Type-writing machine. F. C. Miller. No. 1,026,171; May 14; Sp. p. 2379; Gaz. vol. 178; p. 401.
Type-writing machine. H. H. Steele. No. 1,026,372; May 14; Sp. p. 2840; Gaz. vol. 178; p. 470.
Type-writing machine. J. Felbel. No. 1,026,640; May 14; Sp. p. 3304; Gaz. vol. 178; p. 550.
Type-writing machine. F. W. Hillard. No. 1,026,642; May 14; Sp. p. 3399; Gaz. vol. 178; p. 560.
Typewriting machine. L. P. Polhuis. No. 1,026,879; May 21; Sp. p. 3937; Gaz. vol. 178; p. 679.
Type-writing machine. F. W. Hillard. No. 1,027,050; May 21; Sp. p. 4354; Gaz. vol. 178; p. 739.
Type-writing machine. B. J. V. A. Flugel. No. 1,027,717; May 28; Sp. p. 5739; Gaz. vol. 178; p. 1000.
Type-writing machine. G. A. Seib. No. 1,027,776; May 28; Sp. p. 5858; Gaz. vol. 178; p. 1019.
Type-writing machine. F. W. Hillard. No. 1,027,843; May 28; Sp. p. 6011; Gaz. vol. 178; p. 1043.
Type-writing machine. C. B. Yaw. No. 1,027,963; May 28; Sp. p. 6304; Gaz. vol. 178; p. 1083.
Type-writing-machine tabulating mechanism. O. Thieme. No. 1,027,225; May 21; Sp. p. 4743; Gaz. vol. 178; p. 797.
Type-writing machines, Platen mechanism for. J. Raber. No. 1,027,391; May 21; Sp. p. 5079; Gaz. vol. 178; p. 855.
Umbrella. H. Miller. No. 1,026,820; May 21; Sp. p. 3801; Gaz. vol. 178; p. 658.
Umbrella, Foldable. S. McClellan. No. 1,027,426; May 28; Sp. p. 5162; Gaz. vol. 178; p. 904.
Umbrella, Folding. M. F. Marean. No. 1,026,357; May 14; Sp. p. 2813; Gaz. vol. 178; p. 466.
Underreamer. A. P. McBride. No. 1,025,413; May 7; Sp. p. 671; Gaz. vol. 178; p. 106.
Undulator. J. A. Ward. No. 1,026,481; May 14; Sp. p. 3072; Gaz. vol. 178; p. 506.
Vacuum-cleaner. D. J. Cogdill. No. 1,025,864; May 7; Sp. p. 1658; Gaz. vol. 178; p. 261.
Vacuum-cleaner. W. T. Smith. No. 1,026,371; May 14; Sp. p. 2838; Gaz. vol. 178; p. 470.
Vacuum-cleaner. L. A. Baxter. No. 1,026,553; May 14; Sp. p. 3204; Gaz. vol. 178; p. 529.
Vacuum-cleaner. W. R. Fowler. No. 1,027,117; May 21; Sp. p. 4532; Gaz. vol. 178; p. 762.
Vacuum conduit systems, Arrangement for inclosing. C. W. Nichols. No. 1,026,406; May 14; Sp. p. 2914; Gaz. vol. 178; p. 482.
Vacuum supporting device. R. Hazelrigg. No. 1,026,263; May 14; Sp. p. 2586; Gaz. vol. 178; p. 433.
Valve. M. Davis. No. 1,025,517; May 7; Sp. p. 919; Gaz. vol. 178; p. 143.
Valve. R. H. Aldrich. No. 1,025,732; May 7; Sp. p. 1384; Gaz. vol. 178; p. 216.
Valve. W. L. Parkinson. No. 1,025,827; May 7; Sp. p. 1573; Gaz. vol. 178; p. 249.
Valve. G. A. Baughan. No. 1,026,195; May 14; Sp. p. 2443; Gaz. vol. 178; p. 409.
Valve and mechanism therefor, Automatically-operable pressure-regulating. C. E. Hasty. No. 1,026,202; May 14; Sp. p. 2583; Gaz. vol. 178; p. 433.
Valve, Automatic. B. S. Alkman. No. 1,026,620; May 14; Sp. p. 3347; Gaz. vol. 178; p. 552.
Valve, Automatic. E. E. Graham. No. 1,027,839; May 28; Sp. p. 6003; Gaz. vol. 178; p. 1042.
Valve device, Retaining-. M. V. Turner. No. 1,025,341; May 7; Sp. p. 519; Gaz. vol. 178; p. 81.
Valve, Float-. E. A. and C. C. Biller. No. 1,027,980; May 28; Sp. p. 6348; Gaz. vol. 178; p. 1089.
Valve, Float-controlled. J. F. Young. No. 1,027,965; May 28; Sp. p. 6311; Gaz. vol. 178; p. 1084.
Valve, Flusher-. G. W. Collin. No. 1,027,819; May 28; Sp. p. 5962; Gaz. vol. 178; p. 1034.
Valve, Flushing-. G. W. Collin. No. 1,027,818; May 28; Sp. p. 5958; Gaz. vol. 178; p. 1034.
Valve for air-brakes, Exhaust-control. W. V. Turner. No. 1,027,937; May 28; Sp. p. 6257; Gaz. vol. 178; p. 1075.
Valve for carbureters, Auxiliary air-. A. C. Stewart. No. 1,026,533; May 14; Sp. p. 3171; Gaz. vol. 178; p. 524.
Valve for fluid-holding receptacles, Discharging-. M. Mauran. No. 1,027,136; May 21; Sp. p. 4569; Gaz. vol. 178; p. 768.
Valve for pneumatic cleaning systems, Relief-. M. S. Wright. No. 1,026,193; May 14; Sp. p. 2439; Gaz. vol. 178; p. 409.
Valve for water-carts, Controlling-. W. Schorn. No. 1,026,608; May 14; Sp. p. 3318; Gaz. vol. 178; p. 548.
Valve-gear lead-controller. R. M. Wiggins. No. 1,025,175; May 7; Sp. p. 146; Gaz. vol. 178; p. 25.
Valve-lift spacer. C. W. Smith. No. 1,026,472; May 14; Sp. p. 3050; Gaz. vol. 178; p. 503.
Valve-locking mechanism for pneumatic tools, Automatic throttle-. R. A. Norling. No. 1,027,061; May 21; Sp. p. 4386; Gaz. vol. 178; p. 743.
Valve mechanism. G. C. Beck. No. 1,027,977; May 28; Sp. p. 6341; Gaz. vol. 178; p. 1088.
Valve, Mixing-. E. Kleweg, H. Moeller, and F. Wagner. No. 1,025,575; May 7; Sp. p. 1060; Gaz. vol. 178; p. 163.
Valve, Oscillating. G. A. Rush. No. 1,026,459; May 14; Sp. p. 3027; Gaz. vol. 178; p. 499.
Valve, Plug-. S. S. Caskey. No. 1,027,178; May 21; Sp. p. 4645; Gaz. vol. 178; p. 780.
Valve, Pressure-retaining. J. S. Custer. No. 1,025,381; May 7; Sp. p. 618; Gaz. vol. 178; p. 96.
Valve, Pressure-retaining. G. O. Hammond. No. 1,026,311; May 14; Sp. p. 2680; Gaz. vol. 178; p. 450.
Valve, Pressure-retaining. T. L. Burton. No. 1,027,987; May 28; Sp. p. 6362; Gaz. vol. 178; p. 1092.
Valve-reseating machine. R. H. Hazeltine. (Reissue.) No. 13,421; May 21; Sp. p. 5094; Gaz. vol. 178; p. 856.
Valve, Safety-. D. Cockburn and D. MacNicoll. No. 1,026,734; May 21; Sp. p. 3619; Gaz. vol. 178; p. 629.
Valve, Slide-. J. F. Moran. No. 1,027,560; May 28; Sp. p. 5420; Gaz. vol. 178; p. 949.
Valve-spring lifter for automobile and other engines. C. J. Wolff. No. 1,027,164; May 21; Sp. p. 4623; Gaz. vol. 178; p. 776.
Valve, Standing-. A. J. Henderson. No. 1,025,977; May 14; Sp. p. 1933; Gaz. vol. 178; p. 334.
Vapor-generator. R. A. Horst and J. C. Goebel. No. 1,026,318; May 14; Sp. p. 2704; Gaz. vol. 178; p. 452.
Vapor-proof material, Forming a. J. R. Harbeck. No. 1,027,727; May 28; Sp. p. 5756; Gaz. vol. 178; p. 1003.
Varnish-drying holder for heddles. E. Rosenberg. No. 1,027,770; May 28; Sp. p. 5842; Gaz. vol. 178; p. 1017.
Varnish for coating leather, Apparatus for manufacturing. G. W. Priest. No. 1,027,563; May 28; Sp. p. 5432; Gaz. vol. 178; p. 950.
Vat-heater. A. C. Sargent. No. 1,026,704; May 21; Sp. p. 3647; Gaz. vol. 178; p. 619.
Vehicle, Automobile bank-. D. H. Bellamore. No. 1,027,978; May 28; Sp. p. 6343; Gaz. vol. 178; p. 1089.
Vehicle, Collapsible. F. Kaplan. No. 1,027,483; May 28; Sp. p. 5260; Gaz. vol. 178; p. 922.
Vehicle cushioning device. J. C. Sherman. No. 1,027,288; May 21; Sp. p. 4806; Gaz. vol. 178; p. 819.
Vehicle driving-gear. J. R. Tibbles. No. 1,026,375; May 14; Sp. p. 2848; Gaz. vol. 178; p. 471.
Vehicle fluid-spring. F. Schreidt. No. 1,025,315; May 7; Sp. p. 460; Gaz. vol. 178; p. 73.
Vehicle-frame. O. H. Farver. No. 1,027,193; May 21; Sp. p. 4676; Gaz. vol. 178; p. 786.
Vehicle gearing, Motor-. W. D. Hughs. No. 1,025,188; May 7; Sp. p. 173; Gaz. vol. 178; p. 29.
Vehicle lever control, Motor-. A. T. Sturt. No. 1,025,216; May 7; Sp. p. 234; Gaz. vol. 178; p. 39.
Vehicle, Motor-. R. Huff. No. 1,025,187; May 7; Sp. p. 171; Gaz. vol. 178; p. 29.
Vehicle, Motor-. C. Hoadley. No. 1,027,730; May 28; Sp. p. 5761; Gaz. vol. 178; p. 1004.
Vehicle running-gear, Motor-. D. M. Dearing. No. 1,026,851; May 21; Sp. p. 3875; Gaz. vol. 178; p. 669.
Vehicle sand-band. J. Stokes, Jr. No. 1,025,329; May 7; Sp. p. 495; Gaz. vol. 178; p. 77.
Vehicle shock-absorber. H. T. Finnell and E. Schernikow. No. 1,025,388; May 7; Sp. p. 631; Gaz. vol. 178; p. 98.
Vehicle-spring. H. Austin. No. 1,025,233; May 7; Sp. p. 270; Gaz. vol. 178; p. 45.
Vehicle-spring. A. Collette. No. 1,026,496; May 14; Sp. p. 3100; Gaz. vol. 178; p. 512.
Vehicle, Spring-. R. Liebau. No. 1,026,098; May 14; Sp. p. 2232; Gaz. vol. 178; p. 377.
Vehicle steering-head. G. F. Garrity. No. 1,026,504; May 14; Sp. p. 3115; Gaz. vol. 178; p. 514.
Vehicle steering mechanism. E. W. Bliss. No. 1,026,146; May 14; Sp. p. 2331; Gaz. vol. 178; p. 394.
Vehicle-step. S. W. Mather. No. 1,026,102; May 14; Sp. p. 2245; Gaz. vol. 178; p. 378.
Vehicle-top. A. Ritchie. No. 1,026,368; May 14; Sp. p. 2832; Gaz. vol. 178; p. 469.
Vehicle, Traction-. W. E. Paine. No. 1,025,714; May 7; Sp. p. 1336; Gaz. vol. 178; p. 208.
Vehicle-wheel. T. Rhodus. No. 1,025,483; May 7; Sp. p. 838; Gaz. vol. 178; p. 131.
Vehicle-wheel. C. B. Roes. No. 1,025,591; May 7; Sp. p. 1090; Gaz. vol. 178; p. 169.
Vehicle-wheel. A. R. Wylie and J. G. Wright. No. 1,026,291; May 14; Sp. p. 2645; Gaz. vol. 178; p. 443

Vehicle-wheel. A. R. Wylie and J. G. Wright. No. 1,026,292; May 14; Sp. p. 2647; Gaz. vol. 178; p. 443.
Vehicle-wheel. H. J. Sewell. No. 1,026,370; May 14; Sp. p. 2836; Gaz. vol. 178; p. 469.
Vehicle-wheel. K. A. Read. No. 1,026,829; May 21; Sp. p. 3822; Gaz. vol. 178; p. 661.
Vehicle-wheel. J. A. Etzold. No. 1,027,409; May 28; Sp. p. 5123; Gaz. vol. 178; p. 890.
Vehicle-wheel. A. G. Reaman. No. 1,027,434; May 28; Sp. p. 5177; Gaz. vol. 178; p. 907.
Vehicle-wheel. A. F. Schulz. No. 1,027,507; May 28; Sp. p. 5315; Gaz. vol. 178; p. 931.
Vehicle-wheel. L. R. Gruss. No. 1,027,647; May 28; Sp. p. 5592; Gaz. vol. 178; p. 977.
Vehicle wheel and axle. J. E. Murray. No. 1,026,220; May 14; Sp. p. 2503; Gaz. vol. 178; p. 419.
Vehicle wheel-chain guard. C. T. Raymond. No. 1,025,159; May 7; Sp. p. 103; Gaz. vol. 178; p. 18.
Vehicle-wheel, Elastic. F. I. Sears. No. 1,025,209; May 7; Sp. p. 220; Gaz. vol. 178; p. 37.
Vehicles, Electric-lighting system for self-propelled. J. K. Delano, Jr. No. 1,027,700; May 28; Sp. p. 5710; Gaz. vol. 178; p. 995.
Vehicles, Propulsion of motor-. H. Pieper. No. 1,026,827; May 21; Sp. p. 3818; Gaz. vol. 178; p. 660.
Vending-machine. S. R. Beal and J. D. Crandell. No. 1,025,235; May 7; Sp. p. 273; Gaz. vol. 178; p. 46.
Vending-machine. H. E. Marshall. No. 1,025,286; May 7; Sp. p. 384; Gaz. vol. 178; p. 63.
Vending-machine. A. R. Hussey. No. 1,026,166; May 14; Sp. p. 2371; Gaz. vol. 178; p. 400.
Vending-machine. T. and W. Leemann. No. 1,026,919; May 21; Sp. p. 4038; Gaz. vol. 178; p. 693.
Vending-machine. A. Rydquist. No. 1,026,927; May 21; Sp. p. 4050; Gaz. vol. 178; p. 695.
Vending-machine. N. N. Neher. No. 1,027,059; May 21; Sp. p. 4374; Gaz. vol. 178; p. 742.
Vending-machine. J. H. Osborne. No. 1,027,499; May 28; Sp. p. 5299; Gaz. vol. 178; p. 928.
Vending machine, Bottle-. W. H. Herman. No. 1,025,978; May 14; Sp. p. 1934; Gaz. vol. 178; p. 334.
Veneer-press. W. S. Craig. No. 1,025,377; May 7; Sp. p. 605; Gaz. vol. 178; p. 94.
Ventilating system. H. B. Leeming. No. 1,027,740; May 28; Sp. p. 5783; Gaz. vol. 178; p. 1008.
Ventilator: *See* Water-closet ventilator; Window-ventilator.
Ventilator. G. R. Siefken. No. 1,026,471; May 14; Sp. p. 3047; Gaz. vol. 178; p. 503.
Vertical engine. L. Rollée. No. 1,027,807; May 28; Sp. p. 5931; Gaz. vol. 178; p. 1030.
Vessel-raising device. B. J. Spencer. No. 1,025,930; May 7; Sp. p. 1832; Gaz. vol. 178; p. 283.
Vessel with metallic end closures, Double-walled. A. B. Starr. No. 1,027,924; May 28; Sp. p. 6236; Gaz. vol. 178; p. 1071.
Vessels, Locking slip-closure for. G. W. Beadle. No. 1,027,233; May 21; Sp. p. 4758; Gaz. vol. 178; p. 800.
Viaduct, Arch-. D. B. Luten. No. 1,027,742; May 28; Sp. p. 5786; Gaz. vol. 178; p. 1008.
Vibrator. H. Behm. No. 1,025,236; May 7; Sp. p. 279; Gaz. vol. 178; p. 46.
Vibrator and vacuum apparatus, Combined. J. and W. Birrell. No. 1,025,504; May 7; Sp. p. 887; Gaz. vol. 178; p. 138.
Violin-bow, Folding. J. D. Adams. No. 1,027,636; May 28; Sp. p. 5568; Gaz. vol. 178; p. 973.
Violins, Expression device for mechanically-operated. G. K. Hennig. No. 1,025,397; May 7; Sp. p. 646; Gaz. vol. 178; p. 101.
Vise. L. Viezzi. No. 1,027,941; May 28; Sp. p. 6264; Gaz. vol. 178; p. 1076.
Vise and pipe-wrench, Combination. D. G. Hewitt. No 1,026,036; May 14; Sp. p. 2071; Gaz. vol. 178; p. 354.
Vise attachment, Holding-. C. H. A. Davis. No. 1,025,739; May 7; Sp. p. 1397; Gaz. vol. 178; p. 218.
Voltage transformation. M. R. Hanna. No. 1,026,391; May 14; Sp. p. 2876; Gaz. vol. 178; p. 477.
Voting-machine. C. H. Lee. No. 1,025,632; May 7; Sp. p. 1179; Gaz. vol. 178; p. 181.
Vulcanizer, Portable steam-. E. A. Stier and R. C. Byrd. No. 1,026,229; May 14; Sp. p. 2526; Gaz. vol. 178; p. 422.
Wagon. J. K. Collins. No. 1,027,820; May 28; Sp. p. 5664; Gaz. vol. 178; p. 1035.
Wagon bolster-spring. N. L. Holmes. No. 1,026,746; May 21; Sp. p. 3637; Gaz. vol. 178; p. 632.
Wagon, Dump-. W. Atkins. No. 1,025,359; May 7; Sp. p. 563; Gaz. vol. 178; p. 88.
Wagon grain-guard. O. W. Wiggins. No. 1,025,601; May 7; Sp. p. 1107; Gaz. vol. 178; p. 172.
Wagon lifting device, Dumping-. C. Pay. No. 1,027,150; May 21; Sp. p. 4597; Gaz. vol. 178; p. 772.
Wagon, Refuse-. L. F. Scholz. No. 1,026,465; May 14; Sp. p. 3038; Gaz. vol. 178; p. 501.
Waist foundation. S. L. Brundidge. No. 1,026,559; May 14; Sp. p. 3218; Gaz. vol. 178; p. 532.
Wall-board drier. H. S. Heichert. No. 1,026,162; May 14; Sp. p. 2362; Gaz. vol. 178; p. 399.
Walls, columns, and the like, Mosaic covering for. E. B. von Nordenkampf. No. 1,028,058; May 28; Sp. p. 6505; Gaz. vol. 178; p. 1113.
Wardrobe grip or tray. G. H. Wheary. No. 1,025,351; May 7; Sp. p. 543; Gaz. vol. 178; p. 85.
Warp stop-motion. W. H. Baker. No. 1,026,941; May 21; Sp. p. 4116; Gaz. vol. 178; p. 701.
Warp take-up, Loose-. H. W. Owen. No. 1,027,886; May 28; Sp. p. 6164; Gaz. vol. 178; p. 1058.
Warp take-up, Loose-. H. W. Owen. No. 1,027,887; May 28; Sp. p. 6167; Gaz. vol. 178; p. 1058.
Warp-twisting-in machine. A. Schuster. No. 1,027,670; May 28; Sp. p. 5645; Gaz. vol. 178; p. 984.
Warper. H. W. Owen and R. N. Welcome. No. 1,026,600; May 14; Sp. p. 3295; Gaz. vol. 178; p. 544.
Warping-machine stop-motion. F. S. Rand. No. 1,025,158; May 7; Sp. p. 99; Gaz. vol. 178; p. 18.
Washer: *See* Clothes-washer; Gas or smoke washer; Lock-washer.
Washing-machine. C. Willes. No. 1,026,540; May 14; Sp. p. 3180; Gaz. vol. 178; p. 526.
Washing-machine. A. Lamarre and L. Fiala. No. 1,026,811; May 21; Sp. p. 3783; Gaz. vol. 178; p. 654.
Washing-machine. F. Radloff. No. 1,027,152; May 21; Sp. p. 4600; Gaz. vol. 178; p. 772.
Washing-machine. P. Werner. No. 1,027,227; May 21; Sp. p. 4746; Gaz. vol. 178; p. 798.
Washing-machine. J. S. Dickey. No. 1,028,003; May 28; Sp. p. 6395; Gaz. vol. 178; p. 1097.
Waste connection. P. F. Murphy. No. 1,025,584; May 7; Sp. p. 1075; Gaz. vol. 178; p. 166.
Watch-bow. S. Steinberg. No. 1,026,061; May 14; Sp. p. 2134; Gaz. vol. 178; p. 363.
Watch-guard. G. M. and W. A. Lindsey. No. 1,027,487; May 28; Sp. p. 5271; Gaz. vol. 178; p. 924.
Watch-holder. A. H. Sublett. No. 1,027,574; May 28; Sp. p. 5461; Gaz. vol. 178; p. 955.
Watches, Balance staff and roller for. V. S. Corey. No. 1,025,865; May 7; Sp. p. 1659; Gaz. vol. 178; p. 261.
Watchcase-receiver. W. O. Beck. No. 1,026,196; May 14; Sp. p. 2444; Gaz. vol. 178; p. 410.
Water and sewage ejector. A. C. Wells. No. 1,025,727; May 7; Sp. p. 1374; Gaz. vol. 178; p. 214.
Water and shot feed coupling. W. I. Ravert. No. 1,026,880; May 21; Sp. p. 3945; Gaz. vol. 178; p. 679.
Water-closet. J. A. Stevenson and L. O. Phillips. No. 1,025,655; May 7; Sp. p. 1228; Gaz. vol. 178; p. 189.
Water-closet ventilator. K. S. Blanchard. No. 1,025,364; May 7; Sp. p. 574; Gaz. vol. 178; p. 89.
Water-gage. J. Hackett. No. 1,026,309; May 14; Sp. p. 2686; Gaz. vol. 178; p. 449.
Water-heater. O. Fox. No. 1,025,389; May 7; Sp. p. 632; Gaz vol. 178; p. 98.
Water-heater. N. G. Goreau. No. 1,026,030; May 14; Sp. p. 2059; Gaz. vol. 178; p. 353.
Water-heater. W. H. Fox. No. 1,027,831; May 28; Sp. p. 5991; Gaz. vol. 178; p. 1039.
Water-heater, Electric. E. M. Hengell. No. 1,026,862; May 21; Sp. p. 3892; Gaz. vol. 178; p. 672.
Water-heater or steam-generator. P. Barnes. No. 1,027,975; May 28; Sp. p. 6338; Gaz. vol. 178; p. 1088.
Water-heating device, Electric. H. Löfquist. No. 1,026,217; May 14; Sp. p. 2499; Gaz. vol. 178; p. 418.
Water-heating furnace. H. C. English. No. 1,027,327; May 21; Sp. p. 4945; Gaz. vol. 178; p. 832.
Water-meter with revolving piston. A. Monard. No. 1,026,902; May 21; Sp. p. 4212; Gaz. vol. 178; p. 718.
Water raising and forcing apparatus, Explosion. G. Poore and H. A. Harvey. No. 1,027,430; May 28; Sp. p. 5170; Gaz. vol. 178; p. 906.
Water supply and heating system, Portable. E. L. Stockman. No. 1,027,928; May 28; Sp. p. 6240; Gaz. vol. 178; p. 1072.
Water-tube boiler. L. Steinmüller. No. 1,026,532; May 14; Sp. p. 3170; Gaz. vol. 178; p. 524.
Water-wheel, Turbine. J. Hay. No. 1,026,580; May 14; Sp. p. 3257; Gaz. vol. 178; p. 538.
Water-wheels, Regulating-gate for. S. L. Berry. No. 1,025,240; May 7; Sp. p. 289; Gaz. vol. 178; p. 48.
Watering device, Automatic hog and stock. G. W. Fletcher. No. 1,025,461; May 7; Sp. p. 791; Gaz. vol. 178; p. 123.
Waterproof battery and making same. R. V. Villiers. No. 1,027,088; May 21; Sp. p. 4466; Gaz. vol. 178; p. 753.
Waterproof garment. J. E. Weil. No. 1,025,893; May 7; Sp. p. 1761; Gaz. vol. 178; p. 270.
Waterproofing linen or other textile articles and giving them a permanent glazed washable surface. A. A. A. Zimmer. No. 1,025,731; May 7; Sp. p. 1382; Gaz. vol. 178; p. 215.
Wave-motor. E. M. Hamilton. No. 1,025,395; May 7; Sp. p. 643; Gaz. vol. 178; p. 100.
Wave-motor. H. J. Snook. No. 1,025,929; May 7; Sp. p. 1830; Gaz. vol. 178; p. 283.
Wave-motor. J. W. Neal. No. 1,026,450; May 14; Sp. p. 3010; Gaz. vol. 178; p. 496.
Wear-resisting member. A. Raiche. No. 1,027,899; May 28; Sp. p. 6197; Gaz. vol. 178; p. 1063.
Wedge-key. W. G. Kirchhoff. No. 1,025,278; May 7; Sp. p. 372; Gaz. vol. 178; p. 60.
Wedge-splitter. J. Agy. No. 1,027,458; May 28; Sp. p. 5214; Gaz. vol. 178; p. 914.
Weed-extracting tool. A. T. Auter. No. 1,025,360; May 7; Sp. p. 566; Gaz. vol. 178; p. 88.
Weeder. L. Owen, Jr. No. 1,028,059; May 28; Sp. p. 6507; Gaz. vol. 178; p. 1113.
Weevils, Destroying cotton-boll. W. Newell. No. 1,026,599; May 14; Sp. p. 3293; Gaz. vol. 178; p. 544.

Well boring and casing machine. S. Jackson. No. 1,026,589; May 14; Sp. p. 3273; Gaz. vol. 178; p. 541.
Well-boring tool. F. E. Tucker. No. 1,025,339; May 7; Sp. p. 514; Gaz. vol. 178; p. 80.
Well-casing. A. Smith. No. 1,028,065; May 28; Sp. p. 6522; Gaz. vol. 178; p. 1115.
Well-casing, Making. A. Smith. No. 1,027,917; May 28; Sp. p. 6225; Gaz. vol. 178; p. 1069.
Well-casing, Making. A. Smith. No. 1,028,066; May 28; Sp. p. 6526; Gaz. vol. 178; p. 1116.
Well-drilling machine. F. A. Heberling. No. 1,026,508; May 14; Sp. p. 3124; Gaz. vol. 178; p. 516.
Well-points, Tool for extracting. B. G. Horling. No. 1,026,509; May 14; Sp. p. 3127; Gaz. vol. 178; p. 516.
Welt-preparing machine. A. Eppler. No. 1,026,306; May 14; Sp. p. 2681; Gaz. vol. 178; p. 448.
Wheat-heater. J. G. Hagmann. No. 1,026,743; May 21; Sp. p. 3632; Gaz. vol. 178; p. 631.
Wheel: *See* Abrading-wheel; Car-wheel; Fan-wheel; Paddle-wheel; Resilient wheel; Spring-wheel; Steering-wheel; Trolley-wheel; Vehicle-wheel; Water-wheel.
Wheel. O. W. Williams. No. 1,025,555; May 7; Sp. p. 1008; Gaz. vol. 178; p. 156.
Wheel. E. M. Deal. No. 1,025,790; May 7; Sp. p. 1494; Gaz. vol. 178; p. 236.
Wheel. I. M. De Pew. No. 1,025,900; May 7; Sp. p. 1778; Gaz. vol. 178; p. 273.
Wheel. W. Black. No. 1,026,783; May 21; Sp. p. 3728; Gaz. vol. 178; p. 646.
Wheel. C. L. Schwarz. No. 1,027,158; May 21; Sp. p. 4609; Gaz. vol. 178; p. 774.
Wheel-flange lubricator. J. H. Miner. No. 1,027,559; May 28; Sp. p. 5419; Gaz. vol. 178; p. 949.
Wheels, Control of vehicle driving-. F. A. Eisner. No. 1,026,662; May 21; Sp. p. 3460; Gaz. vol. 178; p. 604.
Wheels from shafts, Device for stripping. L. F. Allen. No. 1,026,548; May 14; Sp. p. 3197; Gaz. vol. 178; p. 528.
Wheels, Knuckle connection and drive for vehicle-. L. Mayer. No. 1,027,137; May 21; Sp. p. 4571; Gaz. vol. 178; p. 768.
Wheels, Manufacture of. R. T. Smith, Jr. No. 1,026,613; May 14; Sp. p. 3331; Gaz. vol. 178; p. 550.
Wheelbarrow. W. J. Taylor. No. 1,026,937; May 21; Sp. p. 4101; Gaz. vol. 178; p. 700.
Whiffletree. T. Martin. No. 1,026,522; May 14; Sp. p. 3154; Gaz. vol. 178; p. 521.
Wind-motor. M. Stanschus. No. 1,025,428; May 7; Sp. p. 701; Gaz. vol. 178; p. 111.
Wind-motor. W. T. Pulliam. No. 1,025,720; May 7; Sp. p. 1358; Gaz. vol. 178; p. 211.
Wind-motor. G. D. Pearson. No. 1,027,501; May 28; Sp. p. 5302; Gaz. vol. 178; p. 929.
Wind-shield. F. Schimper. No. 1,026,408; May 14; Sp. p. 2917; Gaz. vol. 178; p. 483.
Wind-shield. H. A. Douglas. No. 1,027,528; May 28; Sp. p. 5353; Gaz. vol. 178; p. 938.
Wind-shield holder. F. P. Pfleghar. No. 1,026,365; May 14; Sp. p. 2827; Gaz. vol. 178; p. 468.
Windmill-coupling. L. C. Hamel. No. 1,026,352; May 14; Sp. p. 2798; Gaz. vol. 178; p. 464.
Winding-machine. W. Marlow. No. 1,025,988; May 14; Sp. p. 1954; Gaz. vol. 178; p. 337.
Winding-machine. F. S. Rand. No. 1,027,277; May 21; Sp. p. 4843; Gaz. vol. 178; p. 810.
Winding-machines, Belt-gearing for. B. Gridley. No. 1,025,868; May 7; Sp. p. 1664; Gaz. vol. 178; p. 262.
Winding-machines, Tension mechanism for. J. O. McKean. No. 1,027,140; May 21; Sp. p. 4578; Gaz. vol. 178; p. 769.
Window. I. A. Bean. No. 1,027,584; May 28; Sp. p. 5478; Gaz. vol. 178; p. 958.
Window, Casement-. B. Hausmann. No. 1,026,161; May 14; Sp. p. 2361; Gaz. vol. 178; p. 399.
Window-screen. J. H. Chamberlin. No. 1,025,244; May 7; Sp. p. 297; Gaz. vol. 178; p. 40.
Window-screen. H. A. Faber. No. 1,025,256; May 7; Sp. p. 326; Gaz. vol. 178; p. 53.
Window-screen. T. H. Raney. No. 1,025,721; May 7; Sp. p. 1361; Gaz. vol. 178; p. 211.
Window-screen. W. H. Etter. No. 1,026,501; May 14; Sp. p. 3108; Gaz. vol. 178; p. 513.
Window-screen. A. W. Hiney. No. 1,026,864; May 21; Sp. p. 3895; Gaz. vol. 178; p. 673.
Window-ventilator and shade and curtain protector, Combined draftless. G. Van Verst and M. A. Sooy. No. 1,027,015; May 21; Sp. p. 4260; Gaz. vol. 178; p. 726.
Wing-carrier. W. F. Brown. No. 1,025,367; May 7; Sp. p. 586; Gaz. vol. 178; p. 91.
Winnowing-machine. A. T. Hedfeldt and H. Hager. No. 1,028,022; May 28; Sp. p. 6424; Gaz. vol. 178; p. 1102.
Wire-drawing block. J. H. Reece. No. 1,027,357; May 21; Sp. p. 4999; Gaz. vol. 178; p. 843.
Wire-drawing machine. J. H. O'Donnell and W. D. Pierson. No. 1,025,421; May 7; Sp. p. 688; Gaz. vol. 178; p. 109.
Wire-drawing machine. J. H. O'Donnell and W. D. Pierson. No. 1,025,588; May 7; Sp. p. 1083; Gaz. vol. 178; p. 167.
Wire-drawing machine. J. F. Pender. No. 1,026,119; May 14; Sp. p. 2279; Gaz. vol. 178; p. 384.
Wire-drawing mechanism. H. E. Wheeler. No. 1,026,840; May 21; Sp. p. 3854; Gaz. vol. 178; p. 665.
Wire-fabric machine. F. E. Willets. No. 1,027,454; May 28; Sp. p. 5207; Gaz. vol. 178; p. 913.
Wire-rope clamp. W. E. Belcher. No. 1,027,234; May 21; Sp. p. 4759; Gaz. vol. 178; p. 801.
Wire-tie tool. F. E. Beam. No. 1,027,097; May 21; Sp. p. 4482; Gaz. vol. 178; p. 756.
Wire-tightener. A. H. A. Dehlinger. No. 1,026,974; May 21; Sp. p. 4174; Gaz. vol. 178; p. 712.
Wire to frames, Machine for securing. G. W. Darlington. No. 1,026,789; May 21; Sp. p. 3740; Gaz. vol. 178; p. 647.
Wood-carrier. J. Check. No. 1,027,401; May 28; Sp. p. 5107; Gaz. vol. 178; p. 897.
Wood. Treating. J. W. Illingworth. No. 1,025,628; May 7; Sp. p. 1173; Gaz. vol. 178; p. 180.
Wrapper. J. Dunfee. No. 1,025,457; May 7; Sp. p. 779; Gaz. vol. 178; p. 122.
Wrapping-machine. M. J. Power. No. 1,026,049; May 14; Sp. p. 2110; Gaz. vol. 178; p. 358.
Wrench: *See* Monkey-wrench; Pipe-wrench.
Wrench. H. M. Wood. No. 1,025,179; May 7; Sp. p. 154; Gaz. vol. 178; p. 26.
Wrench. A. Szabados. No. 1,025,431; May 7; Sp. p. 707; Gaz. vol. 178; p. 112.
Wrench. W. Mackie. No. 1,025,703; May 7; Sp. p. 1317; Gaz. vol. 178; p. 205.
Wrench. R. E. Miller. No. 1,025,709; May 7; Sp. p. 1330; Gaz. vol. 178; p. 207.
Wrench. J. C. Snyder. No. 1,025,842; May 7; Sp. p. 1599; Gaz. vol. 178; p. 254.
Wrench. C. E. Straub. No. 1,026,005; May 14; Sp. p. 1996; Gaz. vol. 178; p. 344.
Wrench. G. C. Pangratz. No. 1,026,174; May 14; Sp. p. 2383; Gaz. vol. 178; p. 402.
Wrench. F. H. Dickson. No. 1,026,661; May 21; Sp. p. 3459; Gaz. vol. 178; p. 603.
Wrench. L. Halverstadt. No. 1,027,203; May 21; Sp. p. 4704; Gaz. vol. 178; p. 790.
Wrench. B. A. Stocking. No. 1,027,220; May 21; Sp. p. 4734; Gaz. vol. 178; p. 795.
Wrench. G. Jurkovich. No. 1,027,341; May 21; Sp. p. 4969; Gaz. vol. 178; p. 837.
Wrench. D. O. Tuke. No. 1,027,452; May 28; Sp. p. 5204; Gaz. vol. 178; p. 913.
Wrench. E. Foster. No. 1,027,830; May 28; Sp. p. 5989; Gaz. vol. 178; p. 1030.
Wrench. L. Manek. No. 1,027,870; May 28; Sp. p. 6132; Gaz. vol. 178; p. 1052.
Wringer. W. M. Valentine. No. 1,027,363; May 21; Sp. p. 5019; Gaz. vol. 178; p. 845.
Writing-machine, Electric. I. S. Brown. No. 1,027,984; May 28; Sp. p. 6355; Gaz. vol. 178; p. 1091.
Writing-pad foldable holder. O. J. and K. B. Kennedy. No. 1,025,193; May 7; Sp. p. 182; Gaz. vol. 178; p. 31.
X-ray finder. A. Granger. No. 1,026,158; May 14; Sp. p. 2355; Gaz. vol. 178; p. 398.
X-ray tubes, Gas-regulator for. R. H. Machlett. No. 1,025,035; May 7; Sp. p. 1187; Gaz. vol. 178; p. 182.
X-ray tubes, Vacuum-regulator for. B. E. Baker. No. 1,027,795; May 28; Sp. p. 5897; Gaz. vol. 178; p. 1026.
Yarn-clearer. C. N. Childs. No. 1,026,907; May 21; Sp. p. 4010; Gaz. vol. 178; p. 689.
Yoke, Animal-. E. Burton. No. 1,027,501; May 28; Sp. p. 5487; Gaz. vol. 178; p. 959.
Yoke, Safety neck-. J. N. Novotny. No. 1,026,997; May 21; Sp. p. 4223; Gaz. vol. 178; p. 720.
Yokes, Center-piece for buggy neck-. H. W. Stimson. No. 1,027,926; May 28; Sp. p. 6239; Gaz. vol. 178; p. 1071.
Zinc, Battery-. J. Beattie. No. 1,027,169; May 21; Sp. p. 4630; Gaz. vol. 178; p. 777.

ALPHABETICAL LIST OF DESIGNS.

Apron. S. C. Salzenstein. No. 42,566; May 28; Gaz. vol. 178; p. 1129.
Automobile-horn. W. W. Dean. No. 42,559; May 28; Gaz. vol. 178; p. 1127.
Barrette. F. Spill. No. 42,527; May 14; Gaz. vol. 178; p. 571.
Bath-room fixture. E. A. Farr. No. 42,450; May 7; Gaz. vol. 178; p. 294.
Block side. F. B. Mallory. No. 42,487; May 7; Gaz. vol. 178; p. 290.
Bottle or similar receptacle. E. Palmer. No. 42,516; May 14; Gaz. vol. 178; p. 569.
Bracelet. S. O. Bigney. No. 42,532; May 21; Gaz. vol. 178; p. 858.
Carbonators, Mixing-tank for. H. M. Smith. No. 42,547; May 21; Gaz. vol. 178; p. 861.
Carpet. M. R. Loudon. No. 42,539; May 21; Gaz. vol. 178; p. 859.
Carpet. J. Merry. No. 42,541; May 21; Gaz. vol. 178; p. 860.
Carpet. J. B. Moffat. No. 42,542; May 21; Gaz. vol. 178; p. 860.
Carpet. E. G. Sauer. Nos. 42,545–6; May 21; Gaz. vol. 178; p. 860.
Carpet. J. Spring. Nos. 42,548–51; May 21; Gaz. vol. 178; p. 861.
Carpet. E. W. Trik. No. 42,554; May 21; Gaz. vol. 178; p. 862.
Carpet. J. Wishart. No. 42,557; May 21; Gaz. vol. 178; p. 862.
Carpet. W. A. Elliot. Nos. 42,560–2; May 28; Gaz. vol. 178; pp. 1127–8.
Casket handle, Burial-. C. Biesch. Nos. 42,520–1; May 14; Gaz. vol. 178; p. 570.
Chafing-dish. E. A. Farr. No. 42,563; May 28; Gaz. vol. 178; p. 1128.
Chafing-dish handle. E. A. Farr. No. 42,502; May 14; Gaz. vol. 178; p. 566.
Chair, Wicker or rustic. M. Fedorina. No. 42,524; May 14; Gaz. vol. 178; p. 571.
Chair, Wire. C. J. Travers. No. 42,529; May 14; Gaz. vol. 178; p. 572.
Charm or similar article. P. Leone. No. 42,485; May 7; Gaz. vol. 178; p. 298.
Cigar-lighter. A. C. Heath. No. 42,462; May 7; Gaz. vol. 178; p. 294.
Clock-case. A. Wright. No. 42,558; May 21; Gaz. vol. 178; p. 862.
Clock-casing. J. F. Whitman. No. 42,556; May 21; Gaz. vol. 178; p. 862.
Coin-holder. B. M. Davis. No. 42,535; May 21; Gaz. vol. 178; p. 859.
Display-case. J. Harden, Jr. No. 42,461; May 7; Gaz. vol. 178; p. 294.
Display-stand. O. Moberg. No. 42,525; May 14; Gaz. vol. 178; p. 571.
Emblem. H. W. Steiger. No. 42,495; May 7; Gaz. vol. 178; p. 300.
Flying and gliding device. E. Ebbinghaus. No. 42,501; May 14; Gaz. vol. 178; p. 566.
Game-table. C. Hine and J. C. Schank. No. 42,463; May 7; Gaz. vol. 178; p. 294.
Game-table. C. Hine. Nos. 42,464–70; May 7; Gaz. vol. 178; pp. 294–5.
Gem-setting. H. H. Meyers. No. 42,514; May 14; Gaz. vol. 178; p. 569.
Glass holder, Inverted-. G. E. Curtiss. Nos. 42,533–4; May 21; Gaz. vol. 178; p. 858.
Glass, Plate-. E. F. Chance. No. 42,523; May 14; Gaz. vol. 178; p. 571.
Lace. J. G. Handol. No. 42,504; May 28; Gaz. vol. 178; p. 1128.
Lace, Levers. C. W. Birkin. Nos. 42,451–3; May 7; Gaz. vol. 178; pp. 292–3.
Lacing-hook. E. L. Pupke. No. 42,543; May 21; Gaz. vol. 178; p. 860.
Lamp, Acetylene-. A. L. Hansen. No. 42,460; May 7; Gaz. vol. 178; p. 294.
Lamp, Hanging. J. Boderman. No. 42,455; May 7; Gaz. vol. 178; p. 293.
Lantern, Tubular. W. McArthur, Jr. No. 42,488; May 7; Gaz. vol. 178; p. 299.
Lavatory. J. A. Campbell. No. 42,457; May 7; Gaz. vol. 178; p. 293.
Lemon-squeezer. W. H. Carroll. No. 42,499; May 14; Gaz. vol. 178; p. 566.
Light-fixture. W. P. Thoré. No. 42,528; May 14; Gaz. vol. 178; p. 572.
Linoleum, oil-cloth, or other printed or inlaid floor-covering. C. F. Humphreys. Nos. 42,505–13; May 14; Gaz. vol. 178; pp. 567–9.
Locket. H. C. Bliss. No. 42,454; May 7; Gaz. vol. 178; p. 293.
Metal beam, Profiled structural. J. Jay, G. Jallifier, and A. Blanc. Nos. 42,536–8; May 21; Gaz. vol. 178; p. 859.
Padlock. A. A. Page. No. 42,515; May 14; Gaz. vol. 178; p. 569.
Paper closure or stopper for paper vessels. A. L. Weis. No. 42,519; May 14; Gaz. vol. 178; p. 570.
Paper cup. E. E. Claussen and E. A. Claus. No. 42,500; May 14; Gaz. vol. 178; p. 566.
Parasol. C. J. Follmer. No. 42,503; May 14; Gaz. vol. 178; p. 566.
Pencil-case or similar article. F. W. Tolfree. No. 42,553; May 21; Gaz. vol. 178; p. 862.
Picture-display-machine body. A. F. Victor. No. 42,496; May 7; Gaz. vol. 178; p. 300.
Phonograph-box or similar article. W. Wuthenow. No. 42,569; May 28; Gaz. vol. 178; p. 1129.
Portfolio-cover. E. F. Caldwell. No. 42,456; May 7; Gaz. vol. 178; p. 293.
Ring, Engagement-. J. A. and E. C. Abel. No. 42,530; May 21; Gaz. vol. 178; p. 858.
Ring, Wedding-. J. A. and E. C. Abel. No. 42,531; May 21; Gaz. vol. 178; p. 858.
Rug. T. L. Lawton. Nos. 42,472–84; May 7; Gaz. vol. 178; pp. 295–8.
Rug. A. Petzold. Nos. 42,490–3; May 7; Gaz. vol. 178; pp. 299–300.
Rug. J. Merry. No. 42,540; May 21; Gaz. vol. 178; p. 859.
Rug. R. F. Riddell. No. 42,544; May 21; Gaz. vol. 178; p. 860.
Rug. J. Spring. No. 42,552; May 21; Gaz. vol. 178; p. 861.
Sad-iron stand. F. A. Burgess. No. 42,522; May 14; Gaz. vol. 178; p. 570.
Scale housing, Weighing-. L. C. Wetzel. No. 42,555; May 21; Gaz. vol. 178; p. 862.
Scarf. W. H. Scott, Jr. No. 42,517; May 14; Gaz. vol. 178; p. 569.
Soap-dish. M. L. Ungrich. No. 42,518; May 14; Gaz. vol. 178; p. 570.
Spoon, fork, or similar article. G. L. Crowell, Jr. No. 42,458; May 7; Gaz. vol. 178; p. 293.
Spoon, fork, or similar article. E. Todd, Jr. No. 42,568; May 28; Gaz. vol. 178; p. 1129.
Spoons, forks, or similar articles, Handle for. B. P. Jenks. No. 42,471; May 7; Gaz. vol. 178; p. 295.
Spoons, forks, or similar articles, Handle for. E. H. Lohrmann. No. 42,486; May 7; Gaz. vol. 178; p. 298.
Spur-body. F. C. Monier. No. 42,480; May 7; Gaz. vol. 178; p. 290.
Stove or range leg-base. A. K. Beckwith. No. 42,460; May 7; Gaz. vol. 178; p. 292.
Stove, Reservoir-. L. Stockstrom. No. 42,567; May 28; Gaz. vol. 178; p. 1129.
Teapot or similar article. H. C. Kupper. No. 42,565; May 28; Gaz. vol. 178; p. 1128.
Tire, Elastic. P. W. Pratt. No. 42,526; May 14; Gaz. vol. 178; p. 571.
Toy Angora poodle-dog. J. W. Berkof. No. 42,497; May 14; Gaz. vol. 178; p. 565.
Toy poodle-dog. J. W. Berkof. No. 42,498; May 14; Gaz. vol. 178; p. 566.
Tube cap, Collapsible-. L. A. D. Gardner. No. 42,504; May 14; Gaz. vol. 178; p. 567.
Vase. E. O. Simons. No. 42,494; May 7; Gaz. vol. 178; p. 300.

ALPHABETICAL LIST OF TRADE-MARKS.

Abrasive, detergent, and polishing materials. Certain. Adesa & Co. No. 86,501; May 14; Gaz. vol. 178; p. 587.
Abrasive, detergent, and polishing materials, Certain. Standard Oil Leather Dressing Company. No. 86,673; May 21; Gaz. vol. 178; p. 882.
Advertising devices, Printed. W. L. Pyle. No. 86,550; May 14; Gaz. vol. 178; p. 588.
Air-brakes and parts thereof. The New York Air Brake Company. No. 86,543; May 14; Gaz. vol. 178; p. 588.
Antiseptics. D. P. Waldman. No. 86,490; May 7; Gaz. vol. 178; p. 317.
Audiphones. Globe Ear-Phone Company. No. 86,400; May 7; Gaz. vol. 178; p. 314.
Bags, Woven cotton. Harmony Mills. No. 86,723; May 28; Gaz. vol. 178; p. 1148.
Baking-powder. J. W. Trentman. No. 86,482; May 7; Gaz. vol. 178; p. 316.
Balls, Golf-. A. G. Spalding & Bros. No. 86,559; May 14; Gaz. vol. 178; p. 588.
Beef-fat and cotton-seed oil. Galban & Co. No. 86,757; May 28; Gaz. vol. 178; p. 1149.
Beer. Golden West Brewing Company. No. 86,401; May 7; Gaz. vol. 178; p. 314.
Beer. J. Hohenadel. No. 86,708; May 28; Gaz. vol. 178; p. 1148.
Belting. Victor-Balata & Textile Belting Co. No. 86,643; May 21; Gaz. vol. 178; p. 881.
Belting, hose, machinery packing, &c. C. A. Daniel. No. 86,516; May 14; Gaz. vol. 178; p. 587.
Belting, hose, machinery packing, and tires. Revere Rubber Company. No. 86,551; May 14; Gaz. vol. 178; p. 588.
Belting, Leather. Colonial Leather Company. No. 86,385; May 7; Gaz. vol. 178; p. 314.
Belting, Leather. Colonial Leather Company. No. 86,513; May 14; Gaz. vol. 178; p. 587.
Belting, Leather. N. Palmer & Co. No. 86,547; May 14; Gaz. vol. 178; p. 588.
Beverage having a fruity flavor. Matienzo-Sainz Company. No. 86,607; May 21; Gaz. vol. 178; p. 880.
Bluing, Laundry. Reckitt & Sons. No. 86,449; May 7; Gaz. vol. 178; p. 315.
Boilers, Range-. National Committee of the Confederated Supply Associations. No. 86,542; May 14; Gaz. vol. 178; p. 588.
Books, Sales-. American Sales Book Company. No. 86,689; May 28; Gaz. vol. 178; p. 1147.
Boots and shoes, Leather. Lewis A. Crossett, Inc. No. 86,388; May 7; Gaz. vol. 178; p. 314.
Boots and shoes, Leather. F. M. Hoyt Shoe Company. No. 86,532; May 14; Gaz. vol. 178; p. 588.
Boring-machine for electric-light wiring. J. G. Henderson. No. 86,706; May 28; Gaz. vol. 178; p. 1147.
Boxes, Bread-. The Republic Metalware Company. No. 86,450; May 7; Gaz. vol. 178; p. 316.
Braids, shoe and corset laces, and galloons. Barthels Mfg. Co. No. 86,690; May 28; Gaz. vol. 178; p. 1147.
Bread. Federal Milling Company. No. 86,756; May 28; Gaz. vol. 178; p. 1149.
Brooms. Gardner Broom Company. No. 86,399; May 7; Gaz. vol. 178; p. 314.
Brooms. The Southwestern Broom and Warehouse Co. No. 86,672; May 21; Gaz. vol. 178; p. 882.
Brooms and brushes. C. M. McClung & Co. No. 86,721; May 28; Gaz. vol. 178; p. 1148.
Button-fasteners for dresses and gloves, Spring. Petzold & Mäser, Julius Ambronn, Nachf. No. 86,614; May 21; Gaz. vol. 178; p. 880.
Buttons used as garment-fasteners, Snap-. Waldes & Cie. No. 86,648; May 21; Gaz. vol. 178; p. 881.
Cakes. The B. & C. Baking Co. No. 86,655; May 21; Gaz. vol. 178; p. 881.
Calcimine. The Muralo Company. No. 86,725; May 28; Gaz. vol. 178; p. 1148.
Candies. M. M. Johannsen Candy Co. No. 86,759; May 28; Gaz. vol. 178; p. 1149.
Candies, Chocolate. Paul F. Beich Company. No. 86,374; May 7; Gaz. vol. 178; p. 313.
Candy. The National Candy Company. No. 86,435; May 7; Gaz. vol. 178; p. 315.
Candy. Johnson Biscuit Company. No. 86,596; May 21; Gaz. vol. 178; p. 880.
Canned fruits. The Johnson-Locke Mercantile Co. No. 86,597; May 21; Gaz. vol. 178; p. 880.
Canned fruits and vegetables. W. F. Assau Canning Co. No. 86,764; May 28; Gaz. vol. 178; p. 1149.
Canned oysters. Rice Bros. Packing Co. No. 86,453; May 7; Gaz. vol. 178; p. 316.
Canned pears. Dooley, Smith & Company. No. 86,659; May 21; Gaz. vol. 178; p. 881.
Canned vegetables. Fogg & Hires Company. No. 86,660; May 21; Gaz. vol. 178; p. 881.
Carbureters. International Accessories Manufacturing Company. No. 86,710; May 28; Gaz. vol. 178; p. 1148.
Carbureters and parts thereof. The Air Friction Carburetor Company. No. 86,565; May 21; Gaz. vol. 178; p. 879.
Carpet-sweepers. National Sweeper Company. No. 86,726; May 28; Gaz. vol. 178; p. 1148.
Cars and chassis, Motor-. Rolls-Royce. No. 86,458; May 7; Gaz. vol. 178; p. 316.
Casks and barrels. The Greif Bros. Co. Nos. 86,528–30; May 14; Gaz. vol. 178; p. 587.
Cement-filler. Keystone Varnish Co. No. 86,600; May 21; Gaz. vol. 178; p. 880.
Chains, Sheet-metal. The Smith & Egge Mfg. Co. No. 86,628; May 21; Gaz. vol. 178; p. 880.
Cheese. Babcock, Hurd & Co. No. 86,656; May 21; Gaz. vol. 178; p. 881.
Chocolate creams. Douglas Candy Co. No. 86,390; May 7; Gaz. vol. 178; p. 314.
Chocolates and cocoa. Stollwerck Brothers. No. 86,633; May 21; Gaz. vol. 178; p. 881.
Chucks for holding removable tools. Millers Falls Company. No. 86,431; May 7; Gaz. vol. 178; p. 315.
Cigarette-holders, Receptacles for. American Anti-Cigarette Company. No. 86,502; May 14; Gaz. vol. 178; p. 587.
Cigars. United Cigar Manufacturers Company. No. 86,487; May 7; Gaz. vol. 178; p. 317.
Cigars. Sanchez & Haya Co. Nos. 86,557–8; May 14; Gaz. vol. 178; p. 588.
Cigars. Wm. Stickney Cigar Co. No. 86,630; May 21; Gaz. vol. 178; p. 881.
Cigars and cigarettes. C. Ingenohl. Nos. 86,533–5; May 14; Gaz. vol. 178; p. 588.
Clocks, Watchmen's. Hardinge Brothers. No. 86,587; May 21; Gaz. vol. 178; p. 879.
Coats, vests, trousers, &c. J. Yetter. No. 86,754; May 28; Gaz. vol. 178; p. 1149.
Coffee. Stone Ordean Wells Company. No. 86,762; May 28; Gaz. vol. 178; p. 1149.
Coffee blend. Humphreys, Cannon & Co. No. 86,595; May 21; Gaz. vol. 178; p. 880.
Coffee substitute. E. M. Morrison. No. 86,668; May 21; Gaz. vol. 178; p. 882.
Construction materials, Certain. The Klein Manufacturing Company. No. 86,539; May 14; Gaz. vol. 178; p. 588.
Construction materials, Certain. Patent Vulcanite Roofing Co. No. 86,729; May 28; Gaz. vol. 178; p. 1148.
Construction materials, Certain. Vulcanite, Limited. No. 86,763; May 28; Gaz. vol. 178; p. 1149.
Corset steels or bones. Royal Worcester Corset Co. No. 86,621; May 21; Gaz. vol. 178; p. 880.
Corsets. American Lady Corset Company. No. 86,364; May 7; Gaz. vol. 178; p. 313.
Corsets. Birdsey-Somers Co. No. 86,508; May 14; Gaz. vol. 178; p. 587.
Cotton duck. Geo. B. Carpenter & Co. No. 86,380; May 7; Gaz. vol. 178; p. 313.
Cotton piece and dress goods. Lancaster Mills. No. 86,414; May 7; Gaz. vol. 178; p. 314.
Cotton piece goods. Amoskeag Manufacturing Company. Nos. 86,366–8; May 7; Gaz. vol. 178; p. 313.
Cotton piece goods. Mustard & Company. No. 86,433; May 7; Gaz. vol. 178; p. 315.
Cotton piece goods. W. A. Greer. No. 86,586; May 21; Gaz. vol. 178; p. 879.
Cotton piece goods. C. A. Stewart. No. 86,743; May 28; Gaz. vol. 178; p. 1149.
Court-plaster substitute. Newskin Company. No. 86,440; May 7; Gaz. vol. 178; p. 315.
Cutlery and tools, Certain. Norvell-Shapleigh Hardware Company. No. 86,490; May 7; Gaz. vol. 178; p. 317.
Cutlery, Certain kinds of. A. O. Meyer. No. 86,609; May 21; Gaz. vol. 178; p. 880.
Cutlery, machinery, and tools, and parts thereof. The A. J. Harwi Hardware Company. No. 86,588; May 21; Gaz. vol. 178; p. 879.
Cutlery, machinery, and tools, and parts thereof. The S. Howes Company. No. 86,594; May 21; Gaz. vol. 178; p. 879.
Dental, medical, and surgical appliances, Certain. The Star Rubber Co Nos. 86,738–41; May 28; Gaz. vol. 178; p. 1148.
Dental, medical, and surgical appliances, Certain. The Star Rubber Co. No. 86,749; May 28; Gaz. vol. 178; p. 1149.
Dentifrice. A. Vève. No. 86,489; May 7; Gaz. vol. 178; p. 317.

Deodorizers and disinfectants. West Disinfecting Company. No. 86,650; May 21; Gaz. vol. 178; p. 881.
Disinfecting devices. F. Baumgardt. No. 86,372; May 7; Gaz. vol. 178; p. 313.
Dress-shields. I. B. Kleinert Rubber Company. No. 86,540; May 14; Gaz. vol. 178; p. 588.
Dressers, chiffonniers, commodes, &c. French & Heald Co. No. 86,525; May 14; Gaz. vol. 178; p. 587.
Drinking-cups, Metal. Behrend & Rothschild. No. 86,569; May 21; Gaz. vol. 178; p. 879.
Dyes. W. D. Baker. No. 86,371; May 7; Gaz. vol. 178; p. 313.
Elastic lisle webbing. Dieckerhoff, Raffloer & Co. No. 86,518; May 14; Gaz. vol. 178; p. 587.
Elastic webs. T. Martin & Bro. Mfg. Co. No. 86,606; May 21; Gaz. vol. 178; p. 880.
Electric-machine brushes, Dynamo-. General Electric Company. No. 86,705; May 28; Gaz. vol. 178; p. 1147.
Electric wirings, Conduits for. The Conduit & Cable Manufacturing Company. No. 86,386; May 7; Gaz. vol. 178; p. 314.
Electrical-conductor tubes. Tubular Woven Fabric Co. No. 86,485; May 7; Gaz. vol. 178; p. 317.
Embalming fluid. Salafia Permanent Embalming Method Co. No. 86,460; May 7; Gaz. vol. 178; p. 316.
Engine-starting devices. The Start-O Company. No. 86,742; May 28; Gaz. vol. 178; p. 1149.
Engines and clutches, Internal-combustion. Wolverine Motor Works. Nos. 86,752–3; May 28; Gaz. vol. 178; p. 1149.
Engines, Gas traction-. Gas Traction Company. No. 86,584; May 21; Gaz. vol. 178; p. 879.
Eyeglass and spectacle lenses. A. Martin, Inc. No. 86,605; May 21; Gaz. vol. 178; p. 880.
Fancy goods and notions, Certain. Dieckerhoff, Raffloer & Co. No. 86,702; May 28; Gaz. vol. 178; p. 1147.
Feed, Horse. National Warehouse and Storage Company. No. 86,437; May 7; Gaz. vol. 178; p. 315.
Fertilizers. Bowker Fertilizer Company. No. 86,496; May 7; Gaz. vol. 178; p. 317.
Filing-cabinets. The General Fireproofing Co. No. 86,527; May 14; Gaz. vol. 178; p. 587.
Fish, Frozen. Sandwich Freezer Co. No. 86,623; May 21; Gaz. vol. 178; p. 880.
Fishing-nets. Massachusetts Net Company. No. 86,665; May 21; Gaz. vol. 178; p. 882.
Flies, Preparation and devices for killing. H. Somers, No. 86,472; May 7; Gaz. vol. 178; p. 316.
Floss, Mercerized cotton. Richardson Silk Co. No. 86,732; May 28; Gaz. vol. 178; p. 1148.
Flour. Thornton & Chester Milling Co. Nos. 86,478–81; May 7; Gaz. vol. 178; p. 316.
Flour, Self-rising. Union Roller Milling Co. No. 86,641; May 21; Gaz. vol. 178; p. 881.
Flour, Wheat-. Mathers Brothers. No. 86,424; May 7; Gaz. vol. 178; p. 315.
Flour, Wheat-. Serv-Us Pure Food Co. No. 86,625; May 21; Gaz. vol. 178; p. 880.
Flour, Wheat-. Thornton & Chester Milling Co. No. 86,638; May 21; Gaz. vol. 178; p. 881.
Flour, Wheat-. Ledeboer & Van Der Held. No. 86,664; May 21; Gaz. vol. 178; p. 881.
Flour, Wheat-. J. H. Brower. No. 86,677; May 21; Gaz. vol. 178; p. 882.
Flour, Wheat-. Mammoth Spring Milling Company. No. 86,760; May 28; Gaz. vol. 178; p. 1149.
Food compound composed of various cereals. New England Cereal Co. No. 86,610; May 21; Gaz. vol. 178; p. 880.
Food, Stock. Excello Feed Milling Company. No. 86,394; May 7; Gaz. vol. 178; p. 314.
Foods, Certain. Hargreaves Merc. Co. No. 86,404; May 7; Gaz. vol. 178; p. 314.
Foods, Certain. Rosenberg Bros. & Co. No. 86,619; May 21; Gaz. vol. 178; p. 880.
Foods, Certain. F. W. Hertel. No. 86,662; May 21; Gaz. vol. 178; p. 881.
Foods, Certain. Rosenberg Bros. & Co. No. 86,670; May 21; Gaz. vol. 178; p. 882.
Foods, Certain. Saville, Somes & Co. No. 86,671; May 21; Gaz. vol. 178; p. 882.
Foods, Certain. Plunkett-Jarrell Grocer Co. No. 86,761; May 28; Gaz. vol. 178; p. 1149.
Force-cups, plumbers' friend, and toilet-plunger. C. A. Daniel. No. 86,700; May 28; Gaz. vol. 178; p. 1147.
Forgings, bar iron and steel, Structural. American Iron and Steel Manufacturing Company. No. 86,682; May 28; Gaz. vol. 178; p. 1147.
Fruits and raisins, Dried. Fresno Home Packing Company. No. 86,397; May 7; Gaz. vol. 178; p. 314.
Furnaces and parts thereof, Oil, coal, and gas. Rockwell Furnace Company. No. 86,733; May 28; Gaz. vol. 178; p. 1148.
Games. A. E. Lenz. No. 86,415; May 7; Gaz. vol. 178; p. 314.
Games. Rustico. No. 86,555; May 14; Gaz. vol. 178; p. 588.
Games. S. Brown. No. 86,678; May 21; Gaz. vol. 178; p. 882.
Gas-pressure regulators. E. J. Burns. No. 86,571; May 21; Gaz. vol. 178; p. 879.
Gates, Metal. Keystone Steel & Wire Company. Nos. 86,714–15; May 28; Gaz. vol. 178; p. 1148.
Gelatin, Food-. Naamlooze Vennootschap Lym-En Gelatinefabriek "Delft." No. 86,434; May 7; Gaz. vol. 178; p. 315.
Glass, Window-. Hires Turner Glass Co. No. 86,407; May 7; Gaz. vol. 178; p. 314.
Gloves and mittens. The Dempster & Place Company. No. 86,517; May 14; Gaz. vol. 178; p. 587.
Go-carts and baby-carriages. M. L. Bloch. No. 86,511; May 14; Gaz. vol. 178; p. 587.
Grape and cranberry juices. Crowell Fruit Juice Co. No. 86,578; May 21; Gaz. vol. 178; p. 879.
Grapes, Fresh. T. H. Lynch. No. 86,418; May 7; Gaz. vol. 178; p. 315.
Grapes, peaches, and oranges, Fresh. Dickey & Dickey. No. 86,680; May 21; Gaz. vol. 178; p. 882.
Gum, Chewing-. Wheeling Gum Company. No. 86,491; May 7; Gaz. vol. 178; p. 317.
Gum, Vegetable gums for the manufacture of chewing-. G. W. Sherman. No. 86,464; May 7; Gaz. vol. 178; p. 316.
Hair-tonic. A. Residori. No. 86,451; May 7; Gaz. vol. 178; p. 316.
Hair-tonic. D. D. Wood. No. 86,494; May 7; Gaz. vol. 178; p. 317.
Hair-tonic and pomatum. B. L. Brun. No. 86,377; May 7; Gaz. vol. 178; p. 313.
Hair-tonic and shampoo preparations. F. E. Lester. No. 86,416; May 7; Gaz. vol. 178; p. 315.
Hames. U. S. Hame Company. No. 86,640; May 21; Gaz. vol. 178; p. 881.
Hardware and plumbing and steam-fitting supplies. C. M. McClung & Co. No. 86,722; May 28; Gaz. vol. 178; p. 1148.
Hardware and plumbing supplies, Certain. American Iron and Steel Manufacturing Company. No. 86,566; May 21; Gaz. vol. 178; p. 879.
Hardware, Certain. American Iron and Steel Manufacturing Company. Nos. 86,683–8; May 28; Gaz. vol. 178; p. 1147.
Hardware supplies, Certain. Coonley Manufacturing Company. No. 86,577; May 21; Gaz. vol. 178; p. 879.
Hardware supplies, Certain. The A. J. Harwi Hardware Company. No. 86,589; May 21; Gaz. vol. 178; p. 879.
Hardware supplies, Certain. Rothschild, Meyers & Co. No. 86,620; May 21; Gaz. vol. 178; p. 880.
Hats and caps. Buchstahl & Lewis. No. 86,378; May 7; Gaz. vol. 178; p. 313.
Hats and caps. Irving Hat Co. No. 86,711; May 28; Gaz. vol. 178; p. 1148.
Heat-insulating materials. Armstrong Cork Company. No. 86,503; May 14; Gaz. vol. 178; p. 587.
Heaters and gas-burners for heating purposes, Hot-water. Eureka Water Heater Co. No. 86,521; May 14; Gaz. vol. 178; p. 587.
Heaters, Water-. Ruud Manufacturing Company. No. 86,556; May 14; Gaz. vol. 178; p. 588.
Hog and pig rings and ringers. W. E. Pratt. No. 86,616; May 21; Gaz. vol. 178; p. 880.
Horns, Electric signaling-. The Dean Electric Company. No. 86,701; May 28; Gaz. vol. 178; p. 1147.
Hosiery. Baltimore Bargain House. Nos. 86,505–6; May 14; Gaz. vol. 178; p. 587.
Ice-cream. Breyer Ice Cream Co. No. 86,676; May 21; Gaz. vol. 178; p. 882.
Ice-cream freezers. The Dana Manufacturing Company. No. 86,515; May 14; Gaz. vol. 178; p. 587.
Ice-cream, Preparation for improving. B. Heller & Co. No. 86,591; May 21; Gaz. vol. 178; p. 879.
Insect-catcher. Russell & Proell. No. 86,554; May 14; Gaz. vol. 178; p. 588.
Insect-destroyer. Magic Chemical Company. No. 86,419; May 7; Gaz. vol. 178; p. 315.
Incandescent burners and mantles. J. Visseaux. No. 86,748; May 28; Gaz. vol. 178; p. 1149.
Insulated wire. The Simplex Electrical Co. No. 86,627; May 21; Gaz. vol. 178; p. 880.
Jewelry. F. R. Dobrowsky. No. 86,519; May 14; Gaz. vol. 178; p. 587.
Jewelry. The Geo. L. Vose Mfg. Co. No. 86,646; May 21; Gaz. vol. 178; p. 881.
Jewelry and precious-metal ware. William Link Company. No. 86,603; May 21; Gaz. vol. 178; p. 880.
Jewelry and precious-metal ware. William Link Company. No. 86,718; May 28; Gaz. vol. 178; p. 1148.
Kerosene. The Texas Company. Nos. 86,635–7; May 21; Gaz. vol. 178; p. 881.
Kitchen-ware, Enameled metal. Enterprise Enamel Co. No. 86,581; May 21; Gaz. vol. 178; p. 879.
Knitted, netted, and textile fabrics, Certain. Consolidated Cotton Duck Company. No. 86,514; May 14; Gaz. vol. 178; p. 587.
Knitted, netted, and textile fabrics, Certain. A. O. Meyer. No. 86,541; May 14; Gaz. vol. 178; p. 588.
Laces, Cotton, silk, linen, and mercerized. Richmond Lace Works. No. 86,454; May 7; Gaz. vol. 178; p. 316.
Lamp-lighting apparatus, Gas-. H. B. J. Joachim. No. 86,537; May 14; Gaz. vol. 178; p. 588.
Lamps and parts thereof, Incandescent gas-. Welsbach Company. No. 86,564; May 14; Gaz. vol. 178; p. 588.
Lamps, gas generators and burners, Oil and gas. Rose Manufacturing Co. No. 86,552; May 14; Gaz. vol. 178; p. 588.
Laxatives. Kolberger Anstalten für Exterikultur Willh. Ambalt G. m. b. H. No. 86,601; May 21; Gaz. vol. 178; p. 880.
Lead, White. C. A. Childs. No. 86,383; May 7; Gaz. vol. 178; p. 314.
Leather, Kid-. New Castle Leather Co. No. 86,439; May 7; Gaz. vol. 178; p. 315.

Lemonade preparation. Los Angeles Pure Fruit Co. No. 86,720; May 28; Gaz. vol. 178; p. 1148.
Lens examining and testing instruments. American Optical Company. No. 86,567; May 21; Gaz. vol. 178; p. 879.
Lime and cement. Tidewater Portland Cement Company. No. 86,562; May 14; Gaz. vol. 178; p. 588.
Limes. The Arthur Courtin Company. No. 86,679; May 21; Gaz. vol. 178; p. 882.
Linen, cotton, woolen, and silk piece goods. D. W. C. Ellis & Co. Nos. 86,703–4; May 28; Gaz. vol. 178; p. 1147.
Liniment. J. J. Convey. No. 86,387; May 7; Gaz. vol. 178; p. 314.
Liniments. Lanman & Kemp. No. 86,498; May 7; Gaz. vol. 178; p. 317.
Liqueur. R. Viahov. Nos. 86,644–5; May 21; Gaz. vol. 178; p. 881.
Lotion for skin diseases. F. Brackett. No. 86,375; May 7; Gaz. vol. 178; p. 313.
Lotion, Skin-. The Union News Company. No. 86,486; May 7; Gaz vol. 178; p. 317.
Macaroni. The Atlantic Macaroni Co. No. 86,370; May 7; Gaz. vol. 178; p. 313.
Machinery, Certain kinds of. Crossley & Davenport. No. 86,698; May 28; Gaz. vol. 178; p. 1147.
Machinery, Certain kinds of. B. F. Sturtevant Company. No. 86,744; May 28; Gaz. vol. 178; p. 1149.
Magazine. Oppenheimer & Trebitsch Company. No. 86,546; May 14; Gaz. vol. 178; p. 588.
Magazine, Monthly. McBride, Nast & Co. No. 86,666; May 21; Gaz. vol. 178; p. 882.
Massaging appliance, Electrical. E. Thompson. No. 86,477; May 7; Gaz. vol. 178; p. 316.
Mattresses and feather-pillows. G. W. Sammet & Son Co. No. 86,461; May 7; Gaz. vol. 178; p. 316.
Measuring and dispensing machines, Liquid. The Tokheim Manufacturing Company. No. 86,639; May 21; Gaz. vol. 178; p. 881.
Measuring and scientific appliances, Certain. United States Gauge Co. No. 86,747; May 28; Gaz. vol. 178; p. 1149.
Medical appliances, Certain. Neel-Armstrong Company. No. 86,438; May 7; Gaz. vol. 178; p. 315.
Medical compound. Robinson & Dav.. No. 86,457; May 7; Gaz. vol. 178; p. 316.
Medicated plasters. F. J. Thomas. No. 86,476; May 7; Gaz. vol. 178; p. 316.
Medicinal preparation for stomach trouble. A. Burdwise. No. 86,379; May 7; Gaz. vol. 178; p. 313.
Medicinal preparations, Certain. C. F. Simmons Medicine Company. No. 86,465; May 7; Gaz. vol. 178; p. 316.
Medicinal preparations, Certain. H. Trommsdorff. No. 86,484; May 7; Gaz. vol. 178; p. 317.
Medicines, Certain. L. T. Coates. No. 86,384; May 7; Gaz. vol. 178; p. 314.
Medicines, Certain. The C. L. Sheppard Sanitorium and Remedy Co. No. 86,463; May 7; Gaz. vol. 178; p. 316.
Metal articles, Coatings for. The North & Judd Manufacturing Company. No. 86,728; May 28; Gaz. vol. 178; p. 1148.
Metal-polish. J. C. Paul. No. 86,613; May 21; Gaz. vol. 178; p. 880.
Metal-polish. The Cudahy Packing Company. No. 86,690; May 28; Gaz. vol. 178; p. 1147.
Metals and metal castings and forgings. Sanderson Brothers & Newbould. No. 86,735; May 28; Gaz. vol. 178; p. 1148.
Milk and cream. T. F. Ryan. No. 86,622; May 21; Gaz. vol. 178; p. 880.
Milk, Bulgarian curdled. Société Anonyme La Maya Bulgare. No. 86,470; May 7; Gaz. vol. 178; p. 316.
Mittens and gloves. The Chaddock-Kurz Reversible Glove Co. No. 86,572; May 21; Gaz. vol. 178; p. 879.
Musical instruments and supplies. Wm. R. Gratz Import Co. No. 86,585; May 21; Gaz. vol. 178; p. 879.
Nails, Horse-. The Rowe Ring-Point Company. No. 86,734; May 28; Gaz. vol. 178; p. 1148.
Oil, cup and axle greases, Cylinder-. Marshall Oil Company of Iowa. No. 86,604; May 21; Gaz. vol. 178; p. 880.
Oil, Cylinder-. Wm. C. Robinson & Son, Co. No. 86,618; May 21; Gaz. vol. 178; p. 880.
Oil for stuffing leather. E. Levinstein. No. 86,717; May 28; Gaz. vol. 178; p. 1148.
Oil, Refined. Standard Oil Company of Brazil. No. 86,737; May 28; Gaz. vol. 178; p. 1148.
Oils for lubricating or burning. P. Moir Crane & Co. No. 86,697; May 28; Gaz. vol. 178; p. 1147.
Oils, Lubricating-. Indian Refining Company. No. 86,409; May 7; Gaz. vol. 178; p. 314.
Oleomargarin. John F. Jelke Company. No. 86,411; May 7; Gaz. vol. 178; p. 314.
Optical supplies, Certain. Universal Optical Corporation. No. 86,642; May 21; Gaz. vol. 178; p. 881.
Optical supplies, Certain. Western Optical Manufacturing Company. No. 86,651; May 21; Gaz. vol. 178; p. 881.
Orangeade preparation. Los Angeles Pure Fruit Co. No. 86,719; May 28; Gaz. vol. 178; p. 1148.
Oranges. A. F. Young & Co. No. 86,652; May 21; Gaz. vol. 178; p. 881.
Oranges. M. F. McDonald. No. 86,667; May 21; Gaz. vol. 178; p. 882.
Oranges and grape-fruit. Chase & Company. No. 86,382; May 7; Gaz. vol. 178; p. 314.
Oranges, grape-fruit, and tangerines. Isleworth Grove Company. No. 86,410; May 7; Gaz. vol. 178; p. 314.
Oranges, lemons, grape-fruit, tangerines, and limes. L. B. Skinner. Nos. 86,366–8; May 7; Gaz. vol. 178; p. 313.
Overcoats, coats, waistcoats, and trousers. John Rugheimer Sons. No. 86,459; May 7; Gaz. vol. 178; p. 316.
Packing, Asbestos machinery. F. Burgmann. No. 86,694; May 28; Gaz. vol. 178; p. 1147.
Packing, Piston-. H. W. Johns-Manville Company. No. 86,538; May 14; Gaz. vol. 178; p. 588.
Paint, Anticorrosive. Oxymel Oil & Paint Coy. No. 86,612; May 21; Gaz. vol. 178; p. 880.
Paint, Cold-water. F. O. Pierce Co. No. 86,731; May 28; Gaz. vol. 178; p. 1148.
Paint, Enamel. Keystone Varnish Co. No. 86,599; May 21; Gaz. vol. 178; p. 880.
Paints. Holzapfels Limited. No. 86,408; May 7; Gaz. vol. 178; p. 314.
Paints and painters' materials. The Ohio Varnish Company. No. 86,611; May 21; Gaz. vol. 178; p. 880.
Paper and stationery. J. C. Blair Company. No. 86,509; May 14; Gaz. vol. 178; p. 587.
Paper, Book-. George A. Whiting Paper Company. No. 86,675; May 21; Gaz. vol. 178; p. 882.
Paper, Cooking-. James Spicer & Sons. No. 86,629; May 21; Gaz. vol. 178; p. 880.
Paper, Writing-. B. D. Rising Paper Company. No. 86,504; May 14; Gaz. vol. 178; p. 587.
Pencils. A. W. Faber. No. 86,583; May 21; Gaz. vol. 178; p. 879.
Pens, pencils, writing paper and tablets. The United News & Stationery Co. No. 86,563; May 14; Gaz. vol. 178; p. 588.
Perfumes. Robinson Bros. & Company. No. 86,456; May 7; Gaz. vol. 178; p. 316.
Perfumes, face-paints, and rouges. E. Wertheimer & Cie. No. 86,649; May 21; Gaz. vol. 178; p. 881.
Perfumes, toilet water, face-cream, &c. Paul Rieger & Co. No. 86,455; May 7; Gaz. vol. 178; p. 316.
Periodicals, Monthly. Symphony Pub. Co. No. 86,634; May 21; Gaz. vol. 178; p. 881.
Pharmaceutical preparation, Certain. E. Ziegler. No. 86,653; May 21; Gaz. vol. 178; p. 881.
Pharmaceutical preparations, Certain. The Lewis Bear Drug Company. No. 86,417; May 7; Gaz. vol. 178; p. 315.
Pharmaceutical preparations, Certain. W. M. Willett. No. 86,493; May 7; Gaz. vol. 178; p. 317.
Pharmaceutical preparations, Certain. C. Hill. No. 86,592; May 21; Gaz. vol. 178; p. 879.
Photograph-frames. M. W. Carr & Co. No. 86,381; May 7; Gaz. vol. 178; p. 314.
Photographs, Chemicals for treating. Eastman Kodak Company. No. 86,393; May 7; Gaz. vol. 178; p. 314.
Photographic cameras. J. H. Dolby. No. 86,579; May 21; Gaz. vol. 178; p. 879.
Pianos. The Rudolph Wurlitzer Co. No. 86,553; May 14; Gaz. vol. 178; p. 588.
Pianos and piano-players. The Columbus Piano Co. No. 86,575; May 21; Gaz. vol. 178; p. 879.
Pianos, Player-. A. M. McPhail Piano Co. No. 86,608; May 21; Gaz. vol. 178; p. 880.
Pineapples, Fresh. Kopf Nursery & Realty Co. No. 86,663; May 21; Gaz. vol. 178; p. 881.
Pipes, cigar and cigarette holders, Tobacco-. Marechal, Ruchon & Co. No. 86,421; May 7; Gaz. vol. 178; p. 315.
Pipes, Tobacco-. Metropolitan Tobacco Co. No. 86,429; May 7; Gaz. vol. 178; p. 315.
Pipes, Tobacco-. Phoenix-American Pipe Works. No. 86,445; May 7; Gaz. vol. 178; p. 315.
Pistols, revolvers, shotguns, and rifles. C. M. McClung & Co. Nos. 86,425–6; May 7; Gaz. vol. 178; p. 315.
Plants, Strawberry-. R. M. Kellogg Company. No. 86,713; May 28; Gaz. vol. 178; p. 1148.
Polishes. Carbon Products Company. No. 86,695; May 28; Gaz. vol. 178; p. 1147.
Polishes, Stove, shoe, and metal. Carbon Products Company. No. 86,512; May 14; Gaz. vol. 178; p. 587.
Polishing-cloths. Pittsburgh Manufacturers Sales Co. No. 86,447; May 7; Gaz. vol. 178; p. 315.
Powder, Blasting-. Waclark Titanite Explosive Company. No. 86,647; May 21; Gaz. vol. 178; p. 881.
Powder, toilet water, and rouge, Talcum. E. R. Trevaskis. No. 86,483; May 7; Gaz. vol. 178; p. 316.
Powder, Tooth-. M. Manoogian. No. 86,420; May 7; Gaz. vol. 178; p. 315.
Powders, Toilet. T. H. Froehlich. No. 86,398; May 7; Gaz. vol. 178; p. 314.
Powders, Toilet. Ed Planté, sucesores Francisco Sabio y Cia. No. 86,448; May 7; Gaz. vol. 178; p. 315.
Preparation for the skin. C. E. Duck. No. 86,391; May 7; Gaz. vol. 178; p. 314.
Printers' rollers. H. M. Bingham. Nos. 86,691–2; May 28; Gaz. vol. 178; p. 1147.
Printing or duplicating machines. The Lettergraph Company. No. 86,602; May 21; Gaz. vol. 178; p. 880.
Pulp manufactured by special process, Wood-. A/S. Hurum Fabriker. No. 86,500; May 14; Gaz. vol. 178; p. 587.
Pumps and parts thereof, Air-. The New York Air Brake Company. No. 86,727; May 28; Gaz. vol. 178; p. 1148.
Raisins and sealed fruits, Seeded. Griffin & Skelley Co. No. 86,661; May 21; Gaz. vol. 178; p. 881.
Raw and partly-prepared materials, Certain. D. F. Bash. No. 86,568; May 21; Gaz. vol. 178; p. 879.

Raw or partly-prepared materials, Certain. D. Rauh. No. 86,669; May 21; Gaz. vol. 178; p. 882.
Razors and razor-blades. United Safety Razor Company. No. 86,746; May 28; Gaz. vol. 178; p. 1149.
Refrigerators. St. Paul Show Case Manufacturing Co. No. 86,473; May 7; Gaz. vol. 178; p. 316.
Refrigerators. C. D. Stoll. No. 86,561; May 14; Gaz. vol. 178; p. 588.
Remedy, Blood. C. E. Gallagher. No. 86,765; May 28; Gaz. vol. 178; p. 1149.
Remedy for constipation. Pinko-Laxin Medicine Co. No. 86,446; May 7; Gaz. vol. 178; p. 315.
Remedy for corns, bunions, and warts. E. Zeigler. No. 86,654; May 21; Gaz. vol. 178; p. 881.
Remedy for hay-fever and asthma. A. C. Durant. No. 86,392; May 7; Gaz. vol. 178; p. 314.
Remedy for kidney and bladder diseases. H. M. Swartley. No. 86,475; May 7; Gaz. vol. 178; p. 316.
Remedy, Indigestion. McCusker and Barnes. No. 86,428; May 7; Gaz. vol. 178; p. 315.
Rice, tea, and coffee. R. L. Gerbart. Nos. 86,766–7; May 28; Gaz. vol. 178; p. 1149.
Rivets. Hoopes & Townsend Co. No. 86,758; May 28; Gaz. vol. 178; p. 1149.
Roofing, Asphalt and composition. C. M. McClung & Co. No. 86,427; May 7; Gaz. vol. 178; p. 315.
Rope and cordage, Manila and sisal. Columbian Rope Company. No. 86,755; May 28; Gaz. vol. 178; p. 1149.
Rubber bathing-caps. Parker, Stearns & Company. Nos. 86,443–4; May 7; Gaz. vol. 178; p. 315.
Rubber boots, shoes, overshoes, &c. Hood Rubber Co. No. 86,709; May 28; Gaz. vol. 178; p. 1148.
Rubber goods, Certain. E. Z. Jefferson. No. 86,712; May 28; Gaz. vol. 178; p. 1148.
Rubber or rubber and fabric belting. Peerless Rubber Manufacturing Company. No. 86,548; May 14; Gaz. vol. 178; p. 588.
Rubber packing, gaskets, disks, &c. Jenkins Rubber Co. No. 86,536; May 14; Gaz. vol. 178; p. 588.
Rubber toys. Behrend & Rothschild. No. 86,373; May 7; Gaz. vol. 178; p. 313.
Rugs, Woven grass. W. & J. Sloane. No. 86,469; May 7; Gaz. vol. 178; p. 316.
Sad-irons, Self-heating. L. Herz. No. 86,406; May 7; Gaz. vol. 178; p. 314.
Salve. Brewster & Magner. No. 86,376; May 7; Gaz. vol. 178; p. 313.
Salves. H. von Frieling. No. 86,497; May 7; Gaz. vol. 178; p. 317.
Salves and balms. S. K. Sass. No. 86,462; May 7; Gaz. vol. 178; p. 316.
Sash chains and balances. T. Morton. No. 86,724; May 28; Gaz. vol. 178; p. 1148.
Sauce, Seasoning. A. Dellamano. No. 86,658; May 21; Gaz vol. 178; p. 881.
Sauce, (Soy). G. Tanaka. No. 86,674; May 21; Gaz. vol. 178; p. 882.
Scales, Platform-. The Stimpson Scale & Electric Co. Nos. 86,631–2; May 21; Gaz. vol. 178; p. 881.
Sedative. Farbenfabriken of Elberfeld Company. No. 86,395; May 7; Gaz. vol. 178; p. 314.
Shingles, flooring, and siding-boards, Wooden. Hammer Lumber Company. No. 86,403; May 7; Gaz. vol. 178; p. 314.
Shirt-waists, skirts, aprons, and caps, Nurses'. Bertha Mfg. Co. No. 86,495; May 7; Gaz. vol. 178; p. 317.
Shirts and trousers, Work. Ely & Walker Dry Goods Co. No. 86,520; May 14; Gaz. vol. 178; p. 587.
Shoes. Thomas G. Plant Company. No. 86,615; May 21; Gaz. vol. 178; p. 880.
Shoes and slippers. Filsinger-Boette Shoe Co. No. 86,396; May 7; Gaz. vol. 178; p. 314.
Shovels, spades, and scoops. Ames Shovel and Tool Company. No. 86,365; May 7; Gaz. vol. 178; p. 313.
Show-cases, wardrobes, window-backs, &c. John Hofman Co. No. 86,531; May 14; Gaz. vol. 178; p. 588.
Slippers, House-. Blum Shoe Mfg. Co. No. 86,693; May 28; Gaz. vol. 178; p. 1147.
Soap. The Pennsylvania Soap Company. No. 86,549; May 14; Gaz. vol. 178; p. 588.
Soap paste and hand-soap, Carbolized. Monybak Mfg. Company. No. 86,432; May 7; Gaz. vol. 178; p. 315.
Soaps and cleansing-powders. O. H. Foerster. No. 86,524; May 14; Gaz. vol. 178; p. 587.
Spark-plugs. The Marshalltown Motor Material Mfg. Co. No. 86,423; May 7; Gaz. vol. 178; p. 315.
Spinning and twister rings. Whitinsville Spinning Ring Company. No. 86,751; May 28; Gaz. vol. 178; p. 1149.
Sporting goods, Certain. Newton Line Company. No. 86,441; May 7; Gaz. vol. 178; p. 315.
Stamps, Premium-. M. Berg. No. 86,657; May 21; Gaz. vol. 178; p. 881.
Starch, Laundry. W. Grossman. No. 86,402; May 7; Gaz. vol. 178; p. 314.
Stationery supplies. A. W. Faber. Nos. 86,522–3; May 14; Gaz. vol. 178; p. 587.
Stationery supplies, Certain. A. W. Faber. No. 86,582; May 21; Gaz. vol. 178; p. 879.
Stove-polish. C. V. Sturtevant. No. 86,745; May 28; Gaz. vol. 178; p. 1149.
Suits and overcoats. Sheahan, Kohn & Co. No. 86,626; May 21; Gaz. vol. 178; p. 880.
Suits, Bathing-. J. Pfrenger. No. 86,730; May 28; Gaz. vol. 178; p. 1148.
Suits, Men's outer. A. Bloch & Company. No. 86,510; May 14; Gaz. vol. 178; p. 587.
Surgical bandages, surgical, sanitary, and abdominal belts. Spirella Company. No. 86,560; May 14; Gaz. vol. 178; p. 588.
Syringes. F. W. Howard. No. 86,593; May 21; Gaz. vol. 178; p. 879.
Tanks for chemical fluids. Stewart & Holmes Drug Company. No. 86,474; May 7; Gaz. vol. 178; p. 316.
Tea. Société par actions pour le commerce de thé K n C Popoff Frères Moscou. No. 86,471; May 7; Gaz. vol. 178; p. 316.
Terra-cotta and clay blocks, bricks, and tiles. National Fire Proofing Company. No. 86,436; May 7; Gaz. vol. 178; p. 315.
Tiles. American Encaustic Tiling Co. No. 86,681; May 28; Gaz. vol. 178; p. 1147.
Tires for automobiles, Pneumatic. Michelin Tire Company. No. 86,430; May 7; Gaz. vol. 178; p. 315.
Tobacco, Chewing-. Ogburn, Hill & Co. No. 86,544; May 14; Gaz. vol. 178; p. 588.
Tobacco, cigars, cigarettes, and snuff. R. J. Reynolds Tobacco Company. No. 86,452; May 7; Gaz. vol. 178; p. 316.
Toilet-cases. W. L. Deming. No. 86,389; May 7; Gaz. vol. 178; p. 314.
Toilet preparations, Certain. Heather Company. No. 86,405; May 7; Gaz. vol. 178; p. 314.
Tonic and antipyretic in malarial affections. T. Lamb. No. 86,413; May 7; Gaz. vol. 178; p. 314.
Toy pool-tables. I. Fuld. No. 86,526; May 14; Gaz. vol. 178; p. 587.
Traps, Steel. Oneida Community. No. 86,545; May 14; Gaz. vol. 178; p. 588.
Turnbuckles. American Iron and Steel Manufacturing Company. Nos. 86,358–63; May 7; Gaz. vol. 178; p. 313.
Twine. Marshall & Company. No. 86,422; May 7; Gaz. vol. 178; p. 315.
Type-writers and parts thereof. The Columbia Typewriter Manufacturing Company. No. 86,574; May 21; Gaz. vol. 178; p. 879.
Varnish and paint remover. The H. B. Chalmers Co. No. 86,573; May 21; Gaz. vol. 178; p. 879.
Varnishes and stains. Hatfield-Bernhard Co. No. 86,590; May 21; Gaz. vol. 178; p. 879.
Veilings. E. & Z. Van Raalte. No. 86,488; May 7; Gaz. vol. 178; p. 317.
Wafer-capsule-closing apparatus. J. Schmidt. No. 86,736; May 28; Gaz. vol. 178; p. 1148.
Washing, cleaning, and scouring preparations. Pacific Specialty Company. No. 86,442; May 7; Gaz. vol. 178; p. 315.
Washing compounds. Hoffman & Hoffman. No. 86,707; May 28; Gaz. vol. 178; p. 1147.
Watches. A. Blen. No. 86,507; May 14; Gaz. vol. 178; p. 587.
Watches, watch cases and movements. The Keystone Watch Case Company. No. 86,716; May 28; Gaz. vol. 178; p. 1148.
Watches, watch movements and cases, and parts thereof. The Keystone Watch Case Company. No. 86,412; May 7; Gaz. vol. 178; p. 314.
Water-closets, closet-seats, bowls, and flushing-tanks. Climax Sanitary Company. No. 86,696; May 28; Gaz. vol. 178; p. 1147.
Water-gage tubes, Glass. Rheinische Glashütten-Aktien-Gesellschaft. No. 86,617; May 21; Gaz. vol. 178; p. 880.
Water, Ozonized hygienic. Berryman and Schlegelmilch. No. 86,570; May 21; Gaz. vol. 178; p. 879.
Waters, Natural mineral. Compagnie Fermière de l'Établissement Thermal de Vichy. No. 86,576; May 21; Gaz. vol. 178; p. 879.
Whisky. J. E. Walsh. No. 86,750; May 28; Gaz. vol. 178; p. 1149.
Whisky, Rye. The Seligman Distillery Company. No. 86,624; May 21; Gaz. vol. 178; p. 880.
Wine, Sherry-. Julius Wile, Sons & Co. No. 86,492; May 7; Gaz. vol. 178; p. 317.
Wines. Anheuser & Fehrs. No. 86,369; May 7; Gaz. vol. 178; p. 313.
Wire, barb-wire, and fence stretchers. Keystone Steel & Wire Company. No. 86,598; May 21; Gaz. vol. 178; p. 880.
Wood-polish. E. Donahue. No. 86,580; May 21; Gaz. vol. 178; p. 879.

ALPHABETICAL LIST OF LABELS.

"Aloa Brand." (For Fresh Fruit Flavors.) The Angelus Company. No. 16,336; May 14; Gaz. vol. 178; p. 589.
"Bangoria." (For Pockets of Shirts.) H. Sofferman. No. 16,332; May 7; Gaz. vol. 178; p. 318.
"Coffee Ranch." (For Coffee.) J. T. Watkins. No. 16,335; May 7; Gaz. vol. 178; p. 318.
"Crispy Fluffs The Shredded Candy." (For Candy.) The Max Glick Co. No. 16,327; May 7; Gaz. vol. 178; p. 318.
"Deer Brand Fancy Sugar Cured Bacon." (For Prepared Bacon.) A. Silz, Inc. No. 16,349; May 28; Gaz. vol. 178; p. 1150.
"Deer Brand Fancy Sugar Cured Ham." (For Prepared Ham.) A. Silz, Inc. No. 16,348; May 28; Gaz. vol. 178; p. 1150.
"Dr. E. H. Cowan's Ounce of Prevention Powders Successfully used with Dr. E. H. Cowan's Hygienic Outfit." (For Prevention-Powders.) E. H. Cowan. No. 16,352; May 28; Gaz. vol. 178; p. 1150.
"Elk-Lithia Ginger Ale." (For Ginger-Ale.) Elkton Lithia Bottling Co. No. 16,337; May 14; Gaz. vol. 178; p. 589.
"Flag Brand Make Mascot Shirt." (For Work-Shirts.) D. Krolik. No. 16,325; May 7; Gaz. vol. 178; p. 318.
"Flag Brand Make Winner Shirt." (For Work-Shirts.) D. Krolik. No. 16,324; May 7; Gaz. vol. 178; p. 318.
"Forbes' Quality." (For Coffee.) Jas. H. Forbes Tea & Coffee Co. No. 16,355; May 28; Gaz. vol. 178; p. 1150.
"Forbes' Quality." (For Extracts.) Jas. H. Forbes Tea & Coffee Co. No. 16,356; May 28; Gaz. vol. 178; p. 1150.
"Forbes' Quality." (For Tea.) Jas. H. Forbes Tea & Coffee Co. No. 16,357; May 28; Gaz. vol. 178; p. 1150.
"French Market." (For Roasted Coffee and Chicory.) New Orleans Coffee Co. No. 16,329; May 7; Gaz. vol. 178; p. 318.
"Gleamo." (For a Polishing Compound.) E. M. Hunt. No. 16,358; May 28; Gaz. vol. 178; p. 1150.
"Golden Rod." (For Tablets.) Osborn Paper Company. No. 16,330; May 7; Gaz. vol. 178; p. 318.
"Havana Style." (For Cigars.) The Moehle Lithographic Company. No. 16,328; May 7; Gaz. vol. 178; p. 318.
"Horse Shoe Grist Mill Cereal Staff of Life." (For Cereal.) Horse Shoe Grist Mill. No. 16,323; May 7; Gaz. vol. 178; p. 318.
"Imperial Valley Poppy Brand." (For Melons.) Crutchfield & Woolfolk. No. 16,342; May 21; Gaz. vol. 178; p. 883.
"Japanese Toilet Paper." (For Toilet-Paper.) Phoenix Toilet & Paper Manufacturing Company. No. 16,361; May 28; Gaz. vol. 178; p. 1150.
"Kil-Bug." (For Insect-Powder.) E. M. Cashion. No. 16,321; May 7; Gaz. vol. 178; p. 318.
"Moerlbach Beer." (For Beer.) Moerlbach Brewing Co. No. 16,343; May 21; Gaz. vol. 178; p. 883.
"Mother's Delight." (For Canned Corn.) Smith-Yingling Co. No. 16,331; May 7; Gaz. vol. 178; p. 318.
"No-Stick." (For Ironing-Wax.) Columbia Wax Works. Nos. 16,350–1; May 28; Gaz. vol. 178; p. 1150.
"Old Rosslyn Rye." (For Whisky.) C. Arey. No. 16,341; May 21; Gaz. vol. 178; p. 883.
"Oriental Ointment." (For Ointment.) G. E. P. Dalton. No. 16,353; May 28; Gaz. vol. 178; p. 1150.
"Pepsin and Iron Tablets." (For Tablets.) H. M. Straight. No. 16,362; May 28; Gaz. vol. 178; p. 1150.
"Perfection Leather Dressing." (For Perfection Leather-Dressing.) White Star Chemical Company. No. 16,340; May 14; Gaz. vol. 178; p. 589.
"Schulze." (For Bread.) Schulze Baking Company. No. 16,347; May 21; Gaz. vol. 178; p. 883.
"Serafin Alvarez." (For Wine.) L. M. I. de Alvarez. No. 16,326; May 7; Gaz. vol. 178; p. 318.
"Silk Tape." (For Type-Writer Ribbons.) L. & M. Alexander & Co. No. 16,359; May 28; Gaz. vol. 178; p. 1150.
"Simplex Three Hand Bridge." (For Score-Card and Bridge-Cloth.) H. Wyndham. No. 16,364; May 28; Gaz. vol. 178; p. 1150.
"Surinam Chocolate." (For Chocolate.) Gottmann & Kretchmer. No. 16,322; May 7; Gaz. vol. 178; p. 318.
"Taylor's Pork Goodies." (For Pork Product.) The Taylor Provision Co. No. 16,338; May 14; Gaz. vol. 178; p. 589.
"Tiz For Tender Feet." (For Foot-Bath Tablets.) W. L. Dodge. No. 16,354; May 28; Gaz. vol. 178; p. 1150.
"Tri-Radiant." (For Acetylene-Gas Burners.) Lenhart Manufacturing Company. No. 16,360; May 28; Gaz. vol. 178; p. 1150.
"Tuberclecide." (For a Remedy.) The Tuberclecide Co. of Arizona. No. 16,363; May 28; Gaz. vol. 178; p. 1150.
"Ulrici's Morrhualta Compound Elixir." (For Pharmaceutical Preparation.) C. J. Ulrici. No. 16,333; May 7; Gaz. vol. 178; p. 318.
"Van's Pure California Honey." (For Honey.) The Van-Thomas Co. No. 16,334; May 7; Gaz. vol. 178; p. 318.
"Vege-Lene Brand." (For Vanilla Flavor.) The Vege-Lene Co. No. 16,339; May 14; Gaz. vol. 178; p. 589.
"Velva Breakfast Syrup." (For Sugar-Cane Syrup.) Penick & Ford. No. 16,345; May 21; Gaz. vol. 178; p. 883.
"Velva Syrup." (For Sugar-Cane and Corn Syrup.) Penick & Ford. No. 16,344; May 21; Gaz. vol. 178; p. 883.
"Violeta." (For Cigars.) Schmidt & Co. No. 16,346; May 21; Gaz. vol. 178; p. 883.

PRINTS.

"Afloat or Ashore In Town or Out Wear B. V. D." (For Athletic Underwear.) The B. V. D. Company. No. 3,038; May 28; Gaz. vol. 178; p. 1150.

"Alaga Brand." (For Cane-Syrup.) Alabama Georgia Syrup Co. No. 3,025; May 14; Gaz. vol. 178; p. 589.

"Arrow Collars and Shirts." (For Arrow Collars and Shirts.) Cluett, Peabody & Company. No. 3,031; May 21; Gaz. vol. 178; p. 883.

"'Bank on' B. V. D." (For Athletic Underwear.) The B. V. D. Company. No. 3,037; May 28; Gaz. vol. 178; p. 1150.

"Brass Beds Make This Test." (For Brass Beds.) Pittsburgh-Hickson Company. No. 3,024; May 7; Gaz. vol. 178; p. 318.

"Galaxy." (For Soap.) H. Genseke. No. 3,023; May 7; Gaz. vol. 178; p. 318.

"'Go-Aways' and 'Stay-At-Homes.'" (For Athletic Underwear.) The B. V. D. Company. No. 3,036; May 28; Gaz. vol. 178; p. 1150.

"Joy-Walk." (For Corn-Plasters.) Aseptic Products Company. No. 3,021; May 7; Gaz. vol. 178; p. 318.

"Kleinerts Dress Shields." (For Dress-Shields.) I. B. Kleinert Rubber Company. No. 3,041; May 28; Gaz. vol. 178; p. 1150.

"Made-wel." (For Hosiery.) C. H. Bacon. No. 3,039; May 28; Gaz. vol. 178; p. 1150.

"Make Fun of the Sun in Easy-Breezy B. V. D." (For Athletic Underwear.) The B. V. D. Company. No. 3,034; May 28; Gaz. vol. 178; p. 1150.

"Nonpareil Hair Tonic de Luxe." (For a Hair-Tonic.) J. Leighton. No. 3,028; May 14; Gaz. vol. 178; p. 589.

"Sen Sen Chewing Gum." (For Chewing-Gum.) Sen Sen Chiclet Company. No. 3,033; May 21; Gaz. vol. 178; p. 883.

"Stingy! Stingy! Want It All Do You?" (For Wheat Breakfast Food.) Cream of Wheat Co. No. 3,027; May 14; Gaz. vol. 178; p. 589.

"Sugaco Pure Food Good to Eat." (For Ice-Cream Cones.) Omaha Sugar Cone Co. No. 3,029; May 14; Gaz. vol. 178; p. 589.

"The Chocolate Wizard." (For Cocoa and Chocolate.) H. O. Wilbur & Sons. No. 3,032; May 21; Gaz. vol. 178; p. 883.

"The Fanless Man Wears B. V. D." (For Athletic Underwear.) The B. V. D. Company. No. 3,035; May 28; Gaz. vol. 178; p. 1150.

"The 'Lady Jefferson' Girl." (For Shoes.) Burrow, Jones & Dyer Shoe Co. No. 3,040; May 28; Gaz. vol. 178; p. 1150.

"The Nujet." (For Water-Closets.) Ronalds & Johnson Co. No. 3,042; May 28; Gaz. vol. 178; p. 1150.

"Tiffin Room Coffee." (For Coffee.) Fred Wolferman "Good Things to Eat" Co. No. 3,022; May 7; Gaz. vol. 178; p. 318.

"Van Houten's Cocoa." (For Cocoa.) C. J. Van Houten & Zoon. No. 3,030; May 21; Gaz. vol. 178; p. 883.

"Winners 'Made To Make Good.'" (For Rubber Tires.) Consolidated Rubber Tire Company. No. 3,026; May 14; Gaz. vol. 178; p. 589.

DISCLAIMERS.

Vehicle number-plate support. W. B. Hughes. No. 962,220; date of patent June 21, 1910; disclaimer filed May 11, 1912; Gaz. vol. 178; p. 597.

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ERRATA.

1,628,482, page 143, in heading, name of patentee, for Friedrich Rünkel read *Friedrich Runkel*.

1,629,201, page 418, in heading, after residence of patentee insert *assignor to Societe Anonyme pour l'Exploitation des Procedes Westinghouse-Leblanc, Paris, France.*

1,629,218, page 423, fourth claim, line 6, for the word "positions" read *portions.*

1,629,227, page 426, in heading, date of renewal, for "Renewed Jan. 2, 1908," read *Renewed Jan. 2, 1909.*

1,629,544, page 535, in heading, assignment, after residence of the assignee insert the words *a Corporation of Illinois.*

1,629,552, page 539, strike out all after number—heading, drawing, and claims—and insert the word WITHDRAWN.

1,629,920, page 704, second claim, line 1, after the word "shoe" insert the word *sewing.*

1,630,591, page 976, in heading, assignment, name of assignee, for "Antoine Vadebonceur" read *Antoine F. Vadebonceur.*

1,630,784, page 1047, second claim, line 6, for the word "faces" read *face.*

12,429 (Reissue,) page 823, in heading, date of filing application, for "May 14, 1911," read *March 14, 1911.*

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ISSUE OF JUNE 4, 1912.

Patents	755—No. 1,028,093 to No. 1,028,847, inclusive.	
Designs	29—No. 42,570 to No. 42,598, inclusive.	
Trade-Marks	93—No. 86,758 to No. 86,850, inclusive.	
Labels	8—No. 16,365 to No. 16,372, inclusive.	
Prints	4—No. 3,043 to No. 3,046, inclusive.	
Reissues	None.	
Total	889	

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	....	North Carolina	5	....
Arizona	1	....	North Dakota	7	....
Arkansas	3	....	Ohio	58	6
California	30	5	Oklahoma	6	....
Colorado	6	....	Oregon	6	....
Connecticut	21	1	Pennsylvania	56	7
Delaware	1	1	Rhode Island	8	....
Florida	1	....	South Carolina	....	....
Georgia	5	....	South Dakota	2	....
Idaho	5	....	Tennessee	4	1
Illinois	65	9	Texas	9	1
Indiana	18	1	Utah	6	....
Iowa	23	1	Vermont	4	....
Kansas	10	....	Virginia	6	4
Kentucky	7	....	Washington	6	....
Louisiana	4	....	West Virginia	5	....
Maine	1	....	Wisconsin	17	5
Maryland	8	2	Wyoming	....	....
Massachusetts	41	9			
Michigan	22	2	Alaska, District of	....	....
Minnesota	9	....	Canal Zone	....	....
Mississippi	1	....	District of Columbia	2	....
Missouri	26	3	Hawaii Territory	1	....
Montana	2	....	Philippine Islands	....	....
Nebraska	7	....	Porto Rico	1	....
Nevada	....	....	U. S. Army	....	....
New Hampshire	....	....	U. S. Navy	....	....
New Jersey	20	4			
New Mexico	1	....	Total to citizens of the United States	670	91
New York	111	29			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	2	....	Mexico	1	....
Austria-Hungary	2	....	Netherlands	1	....
Belgium	1	....	Newfoundland	....	....
Bermuda	....	....	New South Wales	....	....
Brazil	....	....	New Zealand	1	....
British West Indies	....	....	Norway	2	....
Canada	12	....	Peru	1	....
Cape Colony	....	....	Roumania	....	....
Chile	....	....	Russia	1	....
China	....	....	Scotland	2	....
Costa Rica	....	....	Spain	....	....
Cuba	....	....	Sweden	1	....
Denmark	....	....	Switzerland	2	....
Ecuador	....	....	Tasmania	....	....
England	22	3	Transvaal, South Africa	....	....
France	11	1	Victoria	....	....
Germany	47	7	Western Australia	1	....
Gibraltar	1	....			
Ireland	....	1	Total to citizens of foreign countries	114	13
Italy	3	1			
Japan	....	....			

Interference Notice.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 29, 1912.

Henry Denny & Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Louis Pfaelzer & Sons, 3927–43 South Halsted street, Chicago, Ill., for registration of a trade-mark and trade-mark registered May 30, 1882, No. 9,420, to Henry Denny & Sons, Chicago, Ill., and a notice of such declaration sent by registered mail to said Henry Denny & Sons at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Henry Denny & Sons, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

Manual of Classification of Subjects of Invention.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 31, 1912.

Manual of Classification of Subjects of Invention of the United States Patent Office, revised to January 1, 1912, has been published. Copies thereof may be obtained from the Commissioner of Patents for ten cents each.

Remittances to the Patent Office.

Checks should be certified. Cash should be registered; if by ordinary mail at risk of sender. Postage stamps not receivable.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business June 1, 1912.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Apr. 4	Apr. 10	581
128	2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	Mar. 14	Apr. 24	476
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	May 3	May 20	176
232	4. Bridges: Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	Apr. 19	Apr. 18	555
167	5. Bookbinding; Harvesters; Jewelry; Music.	Mar. 16	Apr. 10	488
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	May 3	May 1	278
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Feb. 12	Apr. 11	805
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Apr. 29	Apr. 25	547
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels.	Apr. 11	Apr. 19	396
235	10. Carriages and Wagons.....	Apr. 2	Apr. 12	741
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Mar. 18	Apr. 1	452
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Apr. 12	Apr. 9	779
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Apr. 15	Apr. 23	485
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Apr. 1	May 2	463
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Mar. 1	Mar. 26	1083
109	16. Telegraphy; Telephony	Apr. 9	Apr. 11	249
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	Apr. 24	May 1	315
327	18. Injectors and Ejectors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Apr. 5	Apr. 6	256
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Mar. 23	Mar. 20	465
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Apr. 8	Apr. 6	231
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 1	Apr. 13	443

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	Apr. 12	May 1	287
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Apr. 3	Apr. 8	560
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Apr. 8	Apr. 12	587
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	May 3	May 6	201
106	26. Electricity, Generation; Motive Power.	Jan. 19	Jan. 22	632
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	Apr. 19	Apr. 22	439
65	28. Internal-Combustion Engines..	Feb. 23	Mar. 6	787
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Apr. 1	May 1	545
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 8	Apr. 16	485
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Apr. 3	Apr. 8	367
278	32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	Apr. 11	Apr. 23	369
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Mar. 7	Apr. 15	523
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Mar. 16	Apr. 2	567
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Mar. 18	Apr. 19	882
264	36. Drafting; Driers; Engraving; Measuring Instruments; Photography.	Apr. 24	Apr. 17	581
107	37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Apr. 1	Apr. 26	503
378	38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working.	Mar. 19	Apr. 25	699
321	39. Water Distribution.....	Feb. 27	Feb. 24	650
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 1	May 15	423
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Mar. 27	Apr. 4	638
279	42. Electric Railways; Electric Signaling; Railway Signaling; Signals.	Apr. 2	Apr. 8	511
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	May 2	May 1	314

Oldest new case, Jan. 19; oldest amended, Jan. 22.

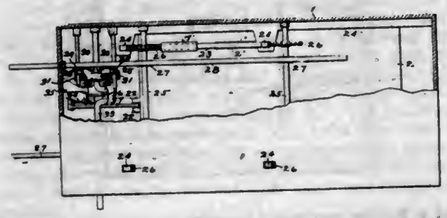
Total number of applications awaiting action..... 21,814

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Apr. 1	Apr. 26	1241
	Designs.....	Mar. 16	Apr. 25	334
	Labels and Prints.....	May 25	May 28	25

PATENTS

GRANTED JUNE 4, 1912.

1,028,093. PROPELLER MECHANISM. AUGUST AHLBRECHT, Pittsburgh, Pa. Filed Aug. 3, 1911. Serial No. 642,087. (Cl. 244—25.)



1. The combination of a collapsible umbrella-like propeller connected at its closed end with a cord to a reciprocating member and at its open end by a plurality of cords to said member, means for reciprocating said member, and means carried by said member to automatically adjust said cords to open said propeller during the movement of said reciprocating member in one direction and close the same during the movement of said member in the opposite direction.

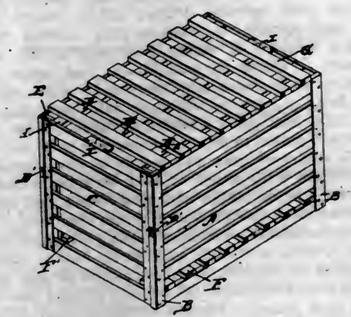
2. The combination of a collapsible umbrella-like propeller connected at its closed end by a cord to a reciprocating member and at its opposite end by a plurality of cords to said member, means for reciprocating said member, and means to automatically adjust said cords to open said propeller during the movement thereof with the said reciprocating member in one direction and close the same during its movement with said member in the opposite direction.

3. The combination of a collapsible umbrella-like propeller connected at its closed end with a cord to a horizontally disposed reciprocating member and at its open end by a plurality of cords to said member, means for reciprocating said member, and vertically reciprocating members carried by said horizontally disposed reciprocating member to automatically adjust said cords to open said propeller during its movement with the said horizontally disposed reciprocating member in one direction and close the same during their movements in the opposite direction.

1,028,094. KNOCKDOWN CRATE. ANDREW V. BAUMEISTER, Rockwood, Mich. Filed Aug. 29, 1910. Serial No. 579,516. (Cl. 217—43.)

1. A knockdown crate having a bottom, sides and end walls, angular corner posts secured to the ends of the side walls and provided with return bend portions, the return bend portions being provided with openings, metallic strips secured to the ends of each end wall, each strip having a return bend portion interlocking with the return bend portion of an angular corner post, spring tongues carried by the return bend portions of each metallic strip for engagement with the openings in the angular corner posts, a grated cover composed of bars and battens secured together, the ends of said bars resting upon the top of the side walls when the crate is assembled, and metallic locking plates secured to the end walls at the top thereof and projecting over the ends of one of the cover battens, the battens of the cover terminating short of the end walls.

2. In a knockdown crate, grated sides and end walls, sheet metal end posts formed in two parts, one part having a return bend portion interlocking with a return bend portion of the other part, the return bend portion of the said other part being provided with openings, and the return bend portion of one part of each end post having a spring tongue engaging in an opening in the other part of the said end post, spring locking plates secured to the tops of each end wall, and a cover composed of cross bars and battens secured in spaced relation, the ends of the cross bars resting upon the tops of the side walls with the ends of the battens sprung under the metal plates of the end walls.



3. In a knockdown crate, a bottom, side and end walls, locking means between the ends of the end walls and the ends of the side walls, spring plates secured to the end walls and a cover composed of bars and battens secured together, the ends of the bars resting upon the top of the side walls and the ends of one of the battens sprung under the spring plates of the end walls.

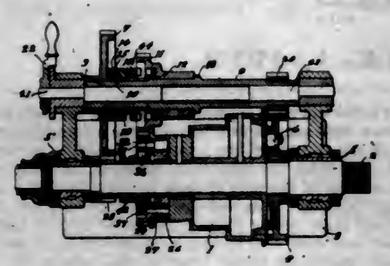
4. In a knockdown crate, a bottom, side and end walls, locking means between the ends of the end walls and the ends of the side walls, locking plates secured to the end walls at the top thereof, and a cover resting upon the side walls and sprung under the locking plates, whereby an upward pressure is exerted upon the end walls.

5. In a knockdown crate, a bottom, side and end walls, metallic strips provided with openings secured to the side walls, metallic strips secured to the end walls and provided with locking tongues for engagement with the openings in the metallic strips carried by the side walls, spring plates secured to the end walls at the top thereof, and a cover resting upon the side walls and sprung under the spring plates whereby a yielding and upward pressure is exerted on the end walls and the locking tongues thrown into locking relation with the openings in the metallic plates carried by the side walls.

1,028,095. GEARING. EDWARD W. BLUM, Cincinnati, Ohio, assignor to The Bradford Machine Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Jan. 17, 1912. Serial No. 671,685. (Cl. 74—59.)

1. In lathe head driving mechanism, a spindle, a face gear in driving connection with said spindle, a pulley on said spindle, driving gears loosely mounted on said spindle, a friction clutch carried by said gears and adapted to engage said pulley, a back gear shaft, back gears loosely

mounted thereon and adapted to mesh with said driving gears, a positive clutch adapted to engage either of said back gears, a pinion in driving connection with said shaft and with said face gear, and means to first engage said positive clutch with either of said back gears and then to engage said friction clutch with said pulley, substantially as set forth and for the purposes specified.



2. In lathe head driving mechanism, a spindle, a face gear in driving connection with said spindle, a cone pulley on said spindle, driving gears loosely mounted on said spindle, a friction ring carried by said gears and adapted to clutch said cone pulley, a back gear shaft, a sleeve on said shaft, back gears loosely mounted on said sleeve and adapted to mesh with said driving gears, a positive clutch on said back gear sleeve between said back gears adapted to engage either of said back gears, a pinion in driving connection with said sleeve and with said face gear and means to first engage said positive clutch with either of said back gears and then engage said friction clutch with said cone pulley, substantially as set forth and for the purposes specified.

3. In lathe head driving mechanism, back gears suitably mounted, a positive clutch adapted to engage said back gears, a spindle, a pulley loosely mounted on said spindle, driving gears loosely mounted on said spindle and engaging said back gears, a friction clutch adapted to engage said pulley and said driving gears, said clutches acting in sequence, the positive clutch action preceding the engaging action of the friction clutch.

4. In lathe head driving mechanism, back gears suitably mounted, a positive clutch adapted to engage either of said back gears, driving means, a friction clutch adapted to frictionally engage said driving means, driving gears adapted to engage said back gears, a connection between said positive clutch and said friction clutch and a common actuating means for said clutches whereby they are operated in sequence.

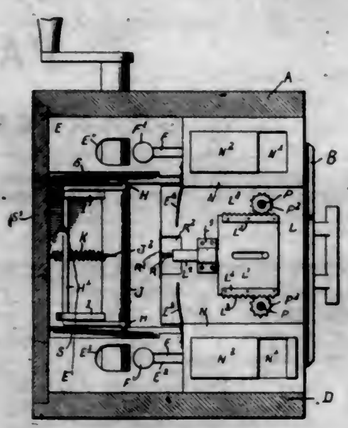
5. In lathe head driving mechanism, back gears suitably mounted, a positive clutch adapted to alternately engage said back gears, driving means, a friction clutch adapted to frictionally engage said driving means, driving gears engaging said back gears, a clutch actuating bar adapted to operate said clutches in sequence, a link pivotally connected to said bar, and an operating handle to which said link is pivoted, substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,028,096. VENDING-MACHINE. HENRY W. BOWMAN, Barbourville, Ky. Filed July 10, 1911. Serial No. 637,695. (Cl. 211—8.)

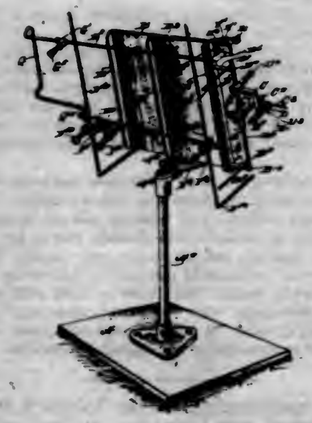
1. In a vending machine, the combination with a casing, a slide movable within the casing, means for moving the slide, a plate having serrations thereon, pinion wheels journaled within the casing and in mesh with said serrations, visual display figures actuated by said pinion wheels, and means actuated by the slide for causing the plate to move in one direction, as set forth.

2. In a vending machine, the combination with a casing, a slide movable within the casing, means for moving the slide, a plate having serrations thereon, pinion wheels journaled within the casing and engaging said serrations, visual display figures actuated by said pinion wheels, arms fixed to said plate and positions within the paths of said slide, and designed, as the latter contacts with the arms,



and a further movement imparted to the slide, to cause the plate to move and actuate the visual display figures, as set forth.

1,028,097. COPY-HOLDER. IVAR H. P. COLLEEN, Stuart, Iowa. Filed Feb. 5, 1910, Serial No. 542,210. Renewed Oct. 26, 1911. Serial No. 657,012. (Cl. 120—33.)



1. A copy holder for typewriters, comprising a copy-holding plate, a support therefor, lugs projecting from one edge of the plate and adapted to limit the movement of the copy in one direction, a spring-pressed clip catch mounted upon the plate and adapted to hold the copy upon the latter, apertured posts projecting from said plate, pins adjustably held in the apertures of said posts, a rod fixed to said pins, and a liner adjustably mounted upon said rod.

2. A copy holder for typewriters, comprising a copy-holding plate, a support therefor, lugs projecting from one edge of the plate and adapted to limit the movement of the copy in one direction, a spring-pressed clip catch mounted upon the plate and adapted to hold the copy upon the latter, apertured posts projecting from said plate, pins adjustably held in the apertures of said posts, a rod fixed to said pins, a liner adjustably mounted upon said rod, and means movable with said liner, and cooperating with said rod, for holding the liner in an adjustable position.

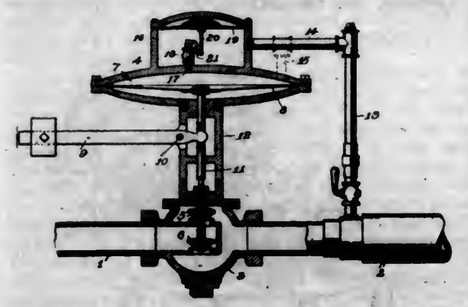
3. A copy holder for typewriters, comprising a copy-holding plate, a support therefor, lugs projecting from one edge of the plate and adapted to limit the movement of the copy in one direction, a spring-pressed clip catch mounted upon the plate and adapted to hold the copy upon the latter, apertured posts projecting from said plate, pins adjustably held in the apertures of said posts, a rod fixed to said pins, a liner adjustably mounted upon said rod, a yoke adjustably mounted upon said rod, and a spring-pressed pin carried by said yoke and adapted to hold the liner against the copyholding plate.

4. A copy holder for typewriters, comprising a copy-holding plate, a support therefor, lugs projecting from one edge of the plate and adapted to limit the movement of the copy in one direction, a spring-pressed clip catch mounted upon the plate and adapted to hold the copy upon the latter, the jaw end of the clip catch being bent at an angle to allow a copy clamped thereby against the plate to be turned over the top of the plate, apertured posts projecting from said plate, pins adjustably held in the apertures of said posts, a rod fixed to said pins, a collar adjustably held upon said rod, a liner fixed to said collar, and means for holding said collar in an adjusted position.

5. A copy holder for typewriters comprising a plate having its opposite ends bent to form flanges parallel to each other and apertured, a standard fixed to said copy holder, apertured posts projecting from one flange of the copy holder, pins adjustably mounted in said posts, a rod fastened to said pins, a collar upon said rod, a liner fixed to the latter and a spring-actuated pin fixed to said collar adapted to keep the liner in adjusted positions against the copy-holder plate, and means for supporting a copy.

[Claims 6 and 7 not printed in the Gazette.]

1,028,098. PRESSURE-REGULATING VALVE. JOSEPH P. DELANEY, Pittsburgh, Pa., assignor to Municipal Supplies Company, Pittsburgh, Pa. Filed Dec. 6, 1911. Serial No. 664,248. (Cl. 50—10.)

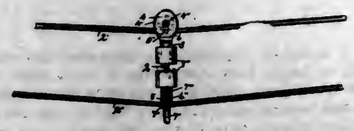


1. In a gas-valve regulator, the combination with high and low-pressure pipes, a valve controlling communication between the said pipe, and a gas-tight chamber provided with a movable member having operative connection to said valve, of an auxiliary gas-chamber having communication with said gas-tight chamber and said low-pressure pipe, a valve controlling the communication between said gas-chambers, and means operated by gas from the said low-pressure pipe for maintaining said last named valve in open position, said means rendered ineffective when the low pressure gas falls to or below a predetermined amount.

2. In a gas-valve regulator, the combination with high and low pressure pipes, a valve controlling communication between said pipes, a gas-tight chamber, a movable diaphragm in said chamber, a rod connecting said valve and said diaphragm, and a weighted arm operatively connected to said rod, of an auxiliary gas-chamber having communication with said low-pressure pipe and said gas-tight chamber, a valve in said auxiliary chamber controlling the communication between the said gas-chambers, a weighted diaphragm in said auxiliary chamber and operative connection between said last named valve and said weighted diaphragm.

3. In a gas valve regulator, a valve chamber having a valve arranged to control the communication between the high and low pressure pipes, a gas-tight chamber independent of and closed off from the valve chamber and provided with a movable member having operative connection with the valve, and an auxiliary gas chamber communicating with said gas-tight chamber and also arranged to be connected to the low-pressure pipe, a valve controlling the communication between the gas chambers, and connections controlled by the gas from the low-pressure pipe for maintaining the last named valve in open position when the low-pressure gas exceeds a certain amount.

1,028,099. CLOTHES-LINE CONTROLLER. TIMOTHY B. DEVINE, Waterbury, Conn. Filed Jan. 25, 1912. Serial No. 673,385. (Cl. 68—3.)



1. A controller for a so-called pulley clothes-line, comprising a staff having, at its upper end, a sheave-socket provided with a mouth and supporting a sheave, and at its lower end, a line-engaging medium adapted to more or less firmly engage the lower run of said clothes-line, said sheave being movably mounted in said socket and adapted to close said mouth when casually disengaged from the upper run of the clothes-line.

2. A controller for a so-called pulley clothes-line, comprising a staff having, at its upper end, a sheave-socket provided with a lateral mouth, and a sheave, the latter rotatably mounted within said socket, and shiftable by its own gravity in opposite directions for closing and opening said mouth, said staff being provided, at its lower end, with a line-engaging medium adapted to more or less firmly engage the lower run of said clothes-line.

3. In a clothes-line controller, a line-engaging medium consisting of a shank, suitably-spaced, parallel frame-members, one of which rises from said shank, both being connected at their ends most distant from said shank, by a crown, and one thereof, in its projection from said crown, terminating short of said shank, thereby forming a mouth; slot-like openings formed, one in each of said frame-members, in line with said shank; an arbor working in said openings, and a sheave on said arbor, said sheave, under the shifting movements of said arbor, within the slot-like openings aforenamed, being adapted to automatically control said mouth.

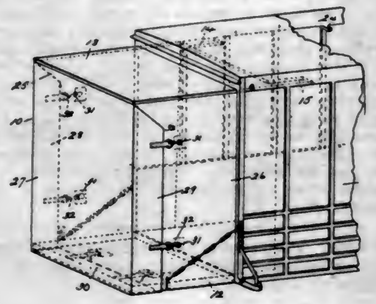
4. A controller for a so-called pulley clothes-line, comprising a staff having line-engaging mediums at its opposite ends, and a sleeve rotatably mounted thereon.

5. A clothes-line controller comprising, duly supported line-engaging mediums and an elongated member rotatably disposed intermediate thereof.

1,028,100. WAGON-BODY EXTENSION. CHARLES H. DE WOLFE, New York, N. Y. Filed Apr. 18, 1911. Serial No. 621,778. (Cl. 21—7.)

1. In a device of the character described, the combination with a wagon body having a floor, sides, and a top, and a tail piece hinged to the rear of said floor, of a solid plate slidable within said wagon body, an arm on the inner edge of said plate extending from each corner thereof, a projection extending from each side of the wagon body in the path of said arms and adapted to be engaged thereby whereby the movement of said plate within the wagon

body may be limited, and a flange projecting upwardly from the rear edge of said plate between said arms whereby withdrawal of the plate from the wagon body may be prevented.



2. In a device of the character described, the combination with a wagon body comprising a floor, sides, and a top, and a tail piece hinged on the rear of said floor, of guides, each secured upon the inner face of one side of the wagon body in proximity to the top, angle irons secured upon the under side of the guides by their upright legs, the upright legs thereof lying close against the sides of the body whereby a groove is provided between the horizontal arms of said angle irons and the guides, a solid plate slidably mounted in the grooves, L-shaped bars provided upon the underside of the solid plate at the opposed side edges thereof whereby a groove is formed between the plate and horizontal arms of the L-shaped bars for the reception of the horizontal arms of said angle irons, an arm projecting from each corner of the inner end of the plate, a flange on the inner end of said plate between the arms, and curtains inclosing the area provided between said plate and tail piece when extended.

3. In a device of the character described, the combination with a wagon body comprising a floor, sides, and a top, and a tail piece hinged on the rear of said floor, of guides, each secured upon the inner face of one side of the wagon body in proximity to the top, angle irons secured upon the under side of the guides by their upright legs, the upright legs thereof lying close against the sides of the body whereby a groove is provided between the horizontal arms of said angle irons and the guides, a solid plate slidably mounted in the groove, L-shaped bars provided upon the underside of the solid plate at the opposed side edges thereof whereby a groove is formed between the plate and horizontal arms of the L-shaped bars for the reception of the horizontal arms of said angle irons, an arm on the inner edge of said plate extending from each corner thereof, a projection extending from each side of the wagon body in the path of said arms and adapted to be engaged thereby whereby the movement of the plate within the wagon body may be limited, a flange projecting upwardly from the rear edge of said plate between said arms whereby withdrawal of the plate from the wagon body may be prevented, and curtains inclosing the area provided between said plate and tail-piece when extended.

4. In a wagon body extension, the combination with a wagon having a body and tail-piece, of a solid plate slidably mounted in the upper portion of the body, two side curtains, each fastened to one of the opposite side edges of the solid plate, a curtain fastened upon the end of the solid plate at the rear end of the body, means provided upon the solid plate and adapted to hold each of the curtains when rolled, means provided upon the curtains and adapted to hold said curtains together when lowered from the solid plate, and means provided upon the tail-piece of the wagon and adapted to hold the curtains thereto.

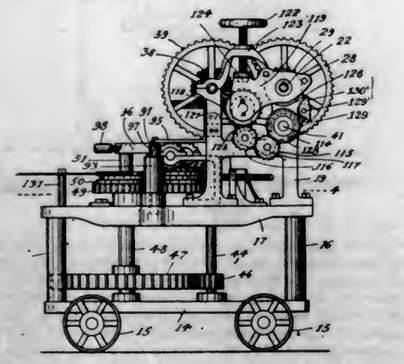
5. In a wagon body extension, the combination with a wagon having a body and tail-piece, of a solid plate slidably mounted in the upper portion of the body, two side curtains, each fastened to one of the opposed side edges of the solid plate, a curtain fastened upon the end of the solid plate, two flaps, each formed upon the vertical edges of the rear curtain, a flap formed upon the lower edge of the rear curtain, a ring provided upon each of the side curtains, a hook provided upon each of the flaps of the rear curtain and adapted to engage the ring upon each of the side curtains whereby the curtains may be held together when lowered from the solid plate, and means provided upon the tail-piece of the wagon and adapted to hold the flap at the lower end of the rear curtain thereto.

1,028,101. ARSENO COMPOUND. PAUL EHRLICH and LUDWIG BENDA, Frankfort-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Aug. 7, 1911. Serial No. 642,866. Cl. (23—24.)

1. As new products, the diamino derivatives of the 3-oxy-aryl-arseno-3-oxyaryls, being yellowish powders, scarcely soluble in water but readily soluble in alkalis and diluted hydrochloric acid, and melting with decomposition; said products yielding with nitrite and hydrochloric acid yellow diazo compounds, and their hydrochlorid solution with addition of sulfuric acid a difficultly-soluble sulfate; being split up when treated with zinc and hydrochloric acid, forming then 4-amino-3-oxyarylarsins.

2. As a new product, the symmetrical 4.4-diamino-3.3-dioxyarsenobenzene, being a yellowish powder, scarcely soluble in water but readily soluble in alkalis and also in diluted hydrochloric acid, and melting with decomposition; said product yielding with nitrite and hydrochloric acid a yellow diazo compound, and its hydrochlorid solution with addition of sulfuric acid a difficultly-soluble sulfate, being split up when treated with zinc and hydrochloric acid, forming then 4-amino-3-oxyphenylarsin.

1,028,102. BENDING-MACHINE. JOHN E. ERICKSON, St. Paul, Minn. Filed Feb. 20, 1911. Serial No. 609,668. (Cl. 153—54.)



1. A bending machine having a frame comprising an upper platform, a vertical shaft mounted in the platform, a unitary gear and feeding roller on the shaft above the platform, a yoke bearing-member mounted on the platform, a feeding roller coöperating with said first named feeding roller mounted in said bearing-member, a gear fast on said last named feeding roller in mesh with the first named gear, a bending roller also mounted in the yoke-member and operatively connected with the feeding roller therein, and means to drive the shaft and the feeding and bending rollers.

2. A bending machine having a frame comprising an upper platform, a vertical shaft mounted in the platform, a unitary gear and feeding roller on the shaft above the platform, a yoke bearing-member movably mounted on the platform, a feeding roller coöperating with said first named feeding roller mounted in said bearing-member, a gear fast on said last named feeding roller in mesh with the first named gear, a bending roller also mounted in the yoke-member and operatively connected with the feeding roller therein, means to drive the shaft and the feeding and bending rollers, and means to adjust the yoke-member so as to vary the distance between the feeding rollers.

3. A bending machine having a frame comprising an upper platform, a vertical shaft mounted in the platform, a unitary gear and feeding roller on the shaft above the platform, a yoke bearing-member movably mounted on the platform, a feeding roller coöperating with said first named feeding roller mounted in said bearing-member, a gear fast on said last named feeding roller in mesh with the first named gear, a bending roller also mounted in the yoke-member and operatively connected with the feeding roller therein, means to drive the shaft and the feeding and bending rollers, and means to swing the yoke-member about the axial center of the feeding roller and gear thereon so as to vary the position of the bending roller relatively to the feeding rollers while maintaining the operative connection between said bending roller and feeding rollers.

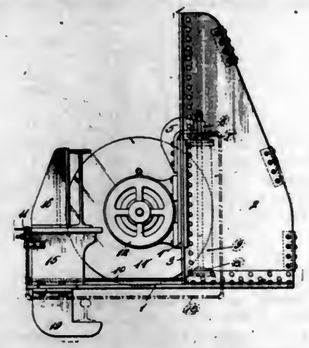
4. A bending machine having a frame comprising an upper platform, a vertical shaft mounted in the platform, a unitary gear and feeding roller on the shaft above the platform, a yoke-bearing-member mounted on the platform, a feeding roller coöperating with said first named feeding roller mounted in said bearing-member, a gear fast on said last named feeding roller in mesh with the first named gear, a bending roller also mounted in the yoke-member and operatively connected with the feeding roller therein, means to drive the shaft and the feeding and bending rollers, means to adjust the yoke members so as to vary the distance between the feeding rollers, and means to swing the yoke-member about the axial center of the feeding roller and gear therein so as to vary the position of the bending roller relatively to the feeding rollers while maintaining the operative connection between said bending roller and feeding rollers.

5. A bending machine having a frame comprising an upper platform, a vertical shaft mounted in the platform, a unitary gear and feeding roller on the shaft above the platform, a yoke bearing-member mounted on the platform, a feeding roller coöperating with said first named feeding roller mounted in said bearing-member, a gear fast on said last named feeding roller in mesh with the first named gear, a bending roller also mounted in the yoke-member, an operative connection between the rollers carried by the yoke member comprising a shaft mounted thereon having bevel gears at each end thereof meshing with a bevel gear on each of said rollers, respectively, and means to drive the first named shaft and the feeding and bending rollers.

[Claims 6 and 7 not printed in the Gazette.]

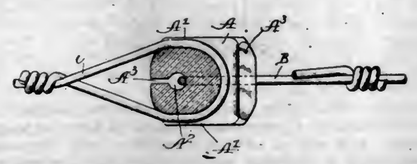
1,028,103. VERTICAL FRICTION-SAW. HENRY A. FERGUSSON, St. Louis, Mo.; Ella M. Fergusson, Webster Groves, Mo., executrix of said Henry A. Fergusson, deceased. Filed Aug. 20, 1910. Serial No. 578,186. (Cl. 29—69.)

A device of the class described comprising a base plate, a pair of vertical guideways disposed adjacently on said base plate, said guideways being provided with outwardly disposed flat bearing faces, a fluid motor disposed on said base plate between said guideways, a carriage secured on said vertical guideways for vertical movement on said bearing faces, a yoke operating between said guideways connecting said carriage to an actuated member of said fluid motor, a motor and cutting disk mounted on the carriage, and an adjustable work



support mounted on said base plate in such a position as to be intersected by the forward edge of the cutter.

1,028,104. STRAIN-INSULATOR. OLIVE L. FLETCHER, Peru, Ind., assignor to Peru Electric Company, Peru, Ind., a Corporation of Indiana. Filed Aug. 16, 1911. Serial No. 644,432. (Cl. 173—366.)



1. A strain insulator comprising a body of insulating material having a groove formed in its surface and adapted to receive a wire looped around the insulator, the bottom portion of said groove being wider than the wire which it is intended to receive, and the top or opening portion of the groove being narrower than such wire.

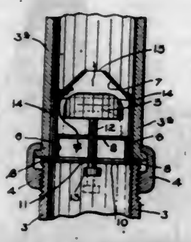
2. A strain insulator comprising a body of insulating material provided with two parallel grooves formed in opposite sides of the body and connected by a transverse groove at one end, said transverse groove being wider toward the bottom than the strain wire which it is designed to accommodate and being narrower than such wire in its upper or opening portion.

3. A strain insulator comprising a body of insulating material provided with two grooves formed in the surface of said body and lying in directly transverse planes, respectively, a portion of each groove being wider at the bottom than the wire which it is designed to accommodate, and narrower than said wire near the top of the groove.

1,028,105. GAS-SAVING DEVICE. FRANK W. FORD, Minneapolis, Minn., assignor of one-third to Robert B. McFerran and one-third to Blair S. Hoar, Minneapolis, Minn. Filed July 14, 1911. Serial No. 638,555. (Cl. 73—1.)

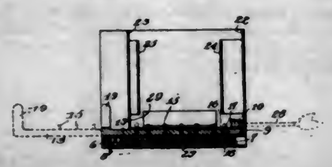
1. The combination with a gas meter having inlet and outlet pipes, of a valve casing inserted within one of the said pipes, and a normally closed check valve controlling the passage of gas through said casing and adapted to be opened to permit a flow of gas from the supply to the service side of the said meter, the said casing having a delivery passage adapted to be restricted or partly closed by the said valve, when the latter is moved into an extreme position by high pressure of gas.

2. The combination with a gas meter having inlet and outlet pipes, of a valve seat having spring prongs frictionally holding the same in said service pipe, a valve normally closing the passage through said valve seat, and



a casing having one end inserted between the body and spring prong of said valve seat and having its other end contracted and formed with a discharge passage, substantially as described.

1,028,106. MATCH-BOX. LOUIS NITHSDALE FORSYTH, New Iberia, La. Filed Apr. 19, 1910. Serial No. 556,300. (Cl. 206—26.)



1. In a device of the character specified, the combination with a container for matches having in its bottom a longitudinal bore and a slot communicating with the bore and having a discharge opening above the slot and at one end thereof, of an ejecting device comprising a slide bar in the bore, an ejecting lug on the bar and extending through the slot, a plurality of pins arranged in spaced relation longitudinally of the bar and in line with the ejecting lug for preventing the entrance of matches into position behind the lug, and a spring normally holding the bar in outward position.

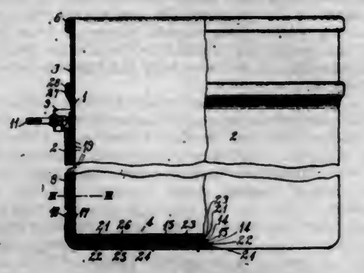
2. In a device of the character specified, an ejecting device comprising a bar provided at one end with an ejecting lug, a container for the matches in which the bar is slidable, said container having deflectors for deflecting a single match into position in front of the lug and having a discharge opening at one end between the deflectors, and a plurality of pins arranged behind the lug and in alinement therewith for preventing the entrance of matches behind the lug.

1,028,107. ELECTRICALLY-HEATED CULINARY APPARATUS. WILLIAM S. HADAWAY, Jr., East Orange, N. J., and EDWARD E. ROSE, Pittsburgh, Pa., assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Oct. 8, 1910. Serial No. 586,081. (Cl. 219—44.)

1. The combination with an inner receptacle of relatively thin heat-conducting material, a two part outer shell of substantially the same form and adapted to surround said receptacle, of a suitable heater unit and insulation therefor disposed between said receptacle and said shell, the adjacent edges of the parts of said outer shell being folded together to exert pressure upon the heater unit.

2. The combination with two relatively thin heat-conducting shells, the one fitted within the other, an insulated heater unit assembled between the bottom walls of said shells, and means for maintaining a pressure on said heater unit, of rigid pressure-plates or disks disposed on the respective sides of said heater unit to reinforce the relatively flexible bottom walls of said shells.

3. A vessel comprising outer and inner shells having their edges folded together and a heater element disposed between the walls of said shells, the side wall of the outer shell comprising two parts that are seamed together in such manner as to exert a pressure on the heater element.

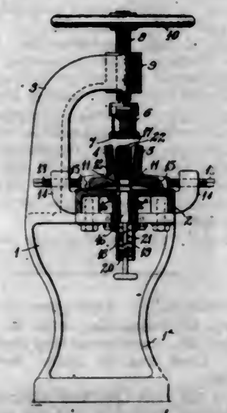


4. The combination with two similarly shaped receptacles, the one fitted within the other, of heater elements in the form of insulated flattened helices disposed between the bottom walls of said receptacles and maintained under pressure by a double seam which draws and secures said receptacles together.

5. A vessel comprising two shells or receptacles of substantially the same form, fitted the one within the other and secured together by a seam, and a heater unit or resistance ribbon in the form of an insulated flattened helix maintained under pressure between the bottom walls of said shells, a narrow space or recess being provided between the side walls of said shells in which the heater connections are disposed and the outer shell being provided with suitable circuit terminals.

[Claims 6 to 9 not printed in the Gazette.]

1,028,108. FORMING-PRESS. EMIL HAEFELY, Basel, Switzerland, assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 10, 1909. Serial No. 507,001. (Cl. 18—16.)

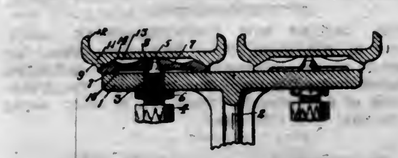


1. A forming press comprising vertically movable bottom and top pressure plates and laterally movable side plates that are interlocked with the bottom plate, and means for moving the top plate to engage the upper edges of the side plates and move them toward each other to compress an interposed object between them.

2. A forming press comprising a base plate, a pair of angle plates having substantially parallel upwardly projecting sides and lateral projections on their adjacent vertical faces, a bottom plate located between the angle plates and resting on said projections, a top plate adjustably supported above the side plates and parallel to the base plate, adjustable means for limiting the lateral displacement of the angle plates, and yielding means acting upwardly upon the lateral projections of the angle plates.

3. A forming press comprising a base plate having projecting lugs, a pair of angle plates disposed between the lugs on the base plate, adjusting screws threaded through the lugs and engaging the outer edges of the angle plates, a bottom plate disposed between the angle plates and resting on lateral projections thereof, a pressure plate adjustably supported above the angle plates and having its bottom surface parallel to the base plate, and spring-actuated rods which project through the base plate and are adapted to lift the adjacent corners of the angle plates from the base plate when the downward pressure of the top plate is removed.

1,028,109. VEHICLE WHEEL-RIM. JAMES ELLIS HALE, Akron, Ohio, assignor to The Goodyear Tire and Rubber Company, Akron, Ohio, a Corporation of Ohio. Filed Nov. 10, 1911. Serial No. 659,575. (Cl. 152—21.)

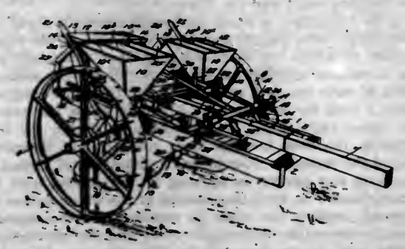


1. The combination with a vehicle wheel-rim provided with a series of radial openings arranged circumferentially of said rim, a pair of split expansible rings mounted on said rim, the outer lateral faces of which are inclined and with their opposing faces outwardly converging to provide a circumferentially-extending frusto-conically shaped recess between them, radially movable means mounted in the openings in said rim and projecting into said recess for forcing said rings laterally away from each other, and a tire-carrying rim provided in its inner face with a shallow frusto-conically-formed groove adapted to be mounted on said rings and to be held securely on said rim when said rings are laterally forced away from each other to bring their inclined portions into engagement with the inclined edges of the groove in said tire-carrying rim.

2. The combination with a vehicle wheel rim of a pair of laterally-shiftable split expansible rings mounted thereon and spaced from each other to provide between them a circumferentially-extending recess, radially-movable wedging means carried by said rim and adapted to project into said recess for forcing said rings laterally away from each other, an endless tire-carrying rim inclosing said rings and provided in its inner face with inclined portions complementary to the lateral faces of said rings and adapted to be engaged thereby when the latter are forced apart to lock said tire-carrying rim detachably in place and simultaneously contract said rings on the outer face of said wheel-rim.

1,028,110. CORN-PLANTER. ALLEN H. HALSTEAD, Skidmore, Kans. Filed Nov. 25, 1911. Serial No. 662,305. (Cl. 111—6.)

1. In a planter, a wheel supported frame, a grain box comprising three compartments at each side of the frame, a plate on which the boxes are supported, said plate having a common opening for the outer and central compartment of each box and an opening for the inner compartment, a hose for each opening, a runner below the hose of the outer and central compartments to which the hose delivers, the hose for the inner compartment delivering behind the runner, a slide for each compartment sliding on the plate and having an opening for registering with the compartments or with the opening of the plate, a spring normally holding the slides in rearward position and in register with the compartments, a tripping shaft journaled transversely of the frame, a sleeve on the tripping shaft, radial arms on the sleeve and on the tripping shaft, a link connecting the arm of the shaft with the outer and intermediate slides, a link connecting the arm of the sleeve to the inner slide, a driving shaft below the first-named shaft, a driving connection between the shaft and the axle, a cam wheel on the driving shaft, said wheel having angularly spaced oppositely extending lateral pins, an arm on the end of the tripping shaft for engagement by one of the pins, an arm on the end of the sleeve for engagement by the other pin, and means for lifting the tripping shaft out of engaging position with the operating shaft.



2. In a planter, a wheel supported frame, a grain box comprising three compartments at each side of the frame, a plate on which the boxes are supported, said plate having a common opening for the outer and central compartment of each box and an opening for the inner compartment, a hose for each opening, a runner below the hose of the outer and central compartments to which the hose delivers, the hose for the inner compartment delivering behind the runner, a slide for each compartment sliding on the plate and having an opening for registering with the compartments or with the opening of the plate, a spring normally holding the slides in rearward position and in register with the compartments, a tripping shaft journaled transversely of the frame, a sleeve on the tripping shaft, radial arms on the sleeves and on the tripping shaft, a link connecting the arm of the shaft to the outer and intermediate slides, a link connecting the arm of the sleeve to the inner slide, a driving shaft below the first-named shaft, a driving connection between the shaft and the axle, a cam wheel on the driving shaft, said wheel having angularly spaced oppositely extending lateral pins, an arm on the end of the tripping shaft for engagement by one of the pins, and an arm on the end of the sleeve for engagement by the other pin.

3. In a planter, a wheel supported frame, a grain box comprising three compartments at each side of the frame, a plate on which the boxes are supported, said plate having a common opening for the outer and central compartment of each box and an opening for the inner compartment, a hose for each opening, a runner below the hose of the outer and central compartments to which the hose delivers, the hose for the inner compartment delivering behind the runner, a slide for each compartment sliding on the plate and having an opening for registering with the compartments or with the opening of the plate, a spring normally holding the slides in rearward position and in register with the compartments, a tripping shaft journaled transversely of the frame, a sleeve on the tripping shaft, radial arms on the sleeves and on the tripping shaft, a link connecting the arm of the shaft to the outer and intermediate slides, a link connecting the arm of the sleeve to the inner slide, a driving shaft below the first-named shaft, a driving connection between the shaft and the axle, and a connection between the driving shaft, the tripping shaft and the sleeve for alternately oscillating the tripping shaft and the sleeve.

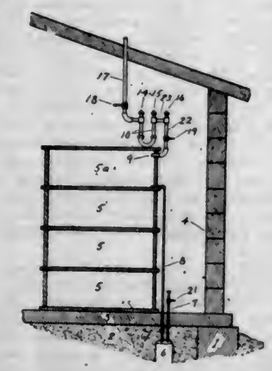
4. In a planter, a wheel supported frame, a grain box comprising three compartments at each side of the frame.

a plate on which the boxes are supported, said plate having a common opening for the outer and central compartment of each box and an opening for the inner compartment, a hose for each opening, a runner below the hose of the outer and central compartments to which the hose delivers, the hose for the inner compartment delivering behind the runner, a slide for each compartment sliding on the plate and having an opening for registering with the compartments or with the opening of the plate, a spring normally holding the slides in rearward position and in register with the compartments, a tripping shaft journaled transversely of the frame, a sleeve on the tripping shaft, a connection between the tripping shaft and the outer and intermediate slides for moving said slides when the shaft is oscillated, a connection between the sleeve and the inner slide for moving the slide when the sleeve is oscillated, and means operated by the axle for alternately oscillating the tripping shaft and the sleeve.

5. In a planter, a wheel supported frame, a grain box comprising three compartments at each side of the frame, a plate on which the boxes are supported, said plate having a common opening for the outer and central compartment of each box and an opening for the inner compartment, a hose for each opening, a runner below the hose of the outer and central compartments to which the hose delivers, the hose for the inner compartment delivering behind the runner, a slide for each compartment sliding on the plate and having an opening for registering with the compartments or with the opening of the plate, means for normally holding the slides in register with the compartment, a connection between the outer and the intermediate slides, and means operated by the axle for alternately moving the connected slides and the inner slides.

[Claims 6 and 7 not printed in the Gazette.]

1,028,111. MAUSOLEUM INTERMENT-CRYPT. EDMUND N. HATCHER, Zanesville, Ohio. Filed Dec. 7, 1911. Serial No. 664,462. (Cl. 72—7.)



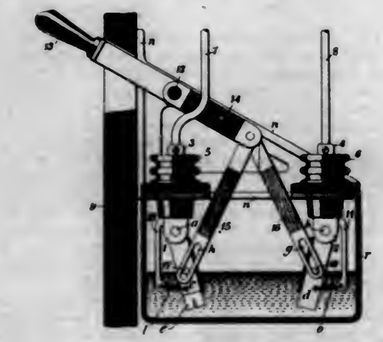
1. In a mausoleum interment crypt the combination of a crypt having as a connection and a part thereof a discharge moisture pipe leading from the inner side of the bottom wall or floor of said crypt downward to and connecting with a moisture disinfecting receptacle fitted with an independent U shaped or trapped flush-pipe: a gas-exit pipe leading from the inner top wall of said crypt into a disinfector having air, liquid and disinfecting storage chambers, and an exit pipe leading from said disinfector into the outer air, substantially as set forth.

2. In a mausoleum interment crypt the combination of a crypt having as a connection and a part thereof a discharge moisture pipe leading from the inner side of the bottom wall or floor of said crypt downward to and connecting with a moisture disinfecting receptacle fitted with an independent U shaped or trapped flush-pipe: a gas-exit pipe leading from the inner top wall of said crypt into a disinfector having air, liquid and disinfecting storage chambers therein, with outer access to the inner part of said chambers by the removal of screw threaded metal plugs, and an exit pipe leading from said disinfector into the outer air, substantially as set forth.

3. In a mausoleum interment crypt the combination of a crypt having as a connection and a part thereof a discharge moisture pipe leading from the inner side of the bottom wall or floor of said crypt downward to and connecting with a moisture disinfecting receptacle fitted with an independent U shaped or trapped flush-pipe: a gas-exit pipe leading from the inner top wall of said crypt into a stop-cock and from thence into a disinfector having connected air, liquid and storage chambers therein with outer access to the inner part of said chambers given by the removal of screw threaded metal plugs, and a stop-cock a part of the exit pipe leading from said disinfector into the outer air, substantially as set forth.

4. In a mausoleum having vaults therein, a gas-exit pipe leading from each vault, a U-shaped disinfector and a vent-pipe, said gas-exit pipe, disinfector and vent-pipe being arranged in series, a moisture-pipe for disposing of the liquids of decomposition within the vault, said gas exit-pipe having a removable cap whereby the vault may be flushed, said moisture-pipe also furnishing means for the disposal of the flushing liquid.

1,028,112. MEANS FOR COUNTERACTING ARCS. RUDOLF E. HELLMUND, Great Barrington, Mass., assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Feb. 3, 1905. Serial No. 244,053. (Cl. 175—288.)



1. A switch comprising terminals, switch members pivoted thereto and adapted for end-to-end engagement in substantial alinement with each other, an operating lever, and links interposed between said switch members and one end of said lever and having lost motion connections to said members.

2. A switch comprising terminals, switch members pivoted thereto and adapted for end-to-end engagement in substantial alinement with each other, an operating lever, links interposed between one end of said lever and said switch members and having slot and pin connections to the latter, and a liquid-containing receptacle in which said members are located.

3. A switch comprising terminals, switch members pivoted thereto and adapted for end-to-end engagement in substantial alinement with each other, an operating lever, links pivotally connected to the lever and having slot and pin connections to the switch members, and springs tending to move the switch members to their open-circuit positions.

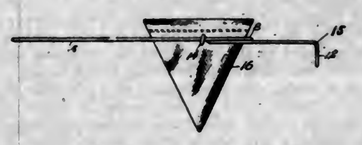
4. A switch comprising terminals, switch members pivoted thereto and adapted for end-to-end engagement in substantial alinement with each other, an operating lever, and links interposed between the switch members and the lever and embodying lost-motion connections, and resilient means tending to maintain the switch members out of engagement.

1,028,113. COAT. ISAAC HERSHBERG, Rochester, N. Y. Filed Jan. 28, 1910. Serial No. 540,685. (Cl. 2—62.)



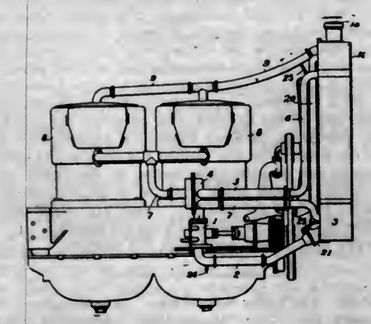
A collar comprising a stand and a leaf separated by a break-line, said leaf having a relatively stiff outer portion and a relatively flexible inner portion whereby a line of demarcation is produced, along the inner edge of the relatively stiff portion, along which line said leaf is adapted to fold back upon itself to transform the collar from a normal collar into a military collar having a stiff outer fold and a relatively flexible inner fold.

1,028,114. STRAINER. ABBY T. HOLTON, Concord, Vt. Filed May 20, 1911. Serial No. 628,366. (Cl. 210—16.)



In a strainer, a support comprising a continuous strip of metal, bent to form an elongated loop, a coil portion intermediate the length of said loop, said coil portion having a free end, a straining member having its upper portion folded upon itself and sewed to form a pocket, the said pocket adapted to receive the free end of said coil portion.

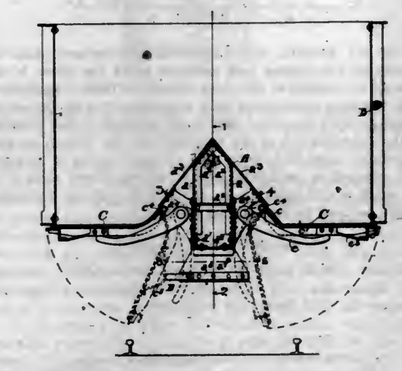
1,028,115. WATER-COOLING SYSTEM FOR HYDRO-CARBON-ENGINES. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed May 20, 1907. Serial No. 374,664. (Cl. 123—174.)



1. The combination with the water jacket of an engine of the class described, of two tanks arranged one above the other, a radiator between said tanks, a pump, a conduit leading from the lower tank to the pump, a conduit leading from the pump to the radiator, a conduit leading from the radiator to the water jacket, a conduit leading from the water jacket to the upper reservoir, and a conduit leading from the upper reservoir to the lower reservoir, for the purpose set forth.

2. The combination of a water jacket surrounding the cylinder of a motor vehicle engine, a tank, a conduit connecting the cylinder jacket and tank, an overflow pipe communicating with the upper portion of the tank, and a baffle arranged in the tank opposite the discharge opening of said conduit, for assisting in condensing the steam contained in the water entering the tank from the cylinder jacket.

1,028,116. DUMP-CAR. FRANK S. INGOLDSBY, St. Louis, Mo., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo., a Corporation of West Virginia. Filed Mar. 3, 1906, Serial No. 303,985. Renewed Oct. 17, 1910. Serial No. 587,511. (Cl. 105—14.)



1. In a dump car, a central longitudinal beam, doors pivoted thereto and adapted to close against the car sides, said doors being formed with bends in them.

2. In a dump car, the combination of a central longitudinal beam, dump doors hinged to the edges thereof and adapted to close against the car sides, there being bends in the load-supporting surface of such doors.

3. In a dump car, in combination with the car side of a door formed to alone support a portion of the load and having a bend in its surface, and a pivoted floor beam to which said door is secured, said door near the free end of said floor beam being adapted to abut the under edge of the car side.

4. In a dump car, the combination of a central longitudinal beam, bent floor beams pivoted thereto, and bent doors mounted thereon and adapted to close against the car sides.

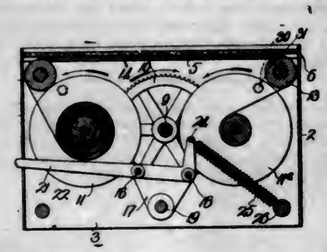
5. In a dump car, the combination of a central longitudinal beam, doors pivoted at opposite edges thereof and adapted when closed to extend downward and then to bend and extend outward substantially horizontally.

[Claims 6 to 16 not printed in the Gazette.]

1,028,117. TELEPHONE-DIRECTORY. ARTHUR O. JOHNSON, Liberty, and JOHN A. EBY, Excelsior Springs, Mo. Filed July 27, 1910. Serial No. 574,151. (Cl. 40—93.)

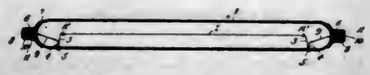
A telephone directory, comprising a suitable casing, a pair of reels journaled therein, pinions rotatable with said reels, a pair of guide rolls, a web extending over the guide rolls and thence to said reels, a cross bolt 19 vertically below the center of the space between said reels,

plates 17 journaled on said bolt, a cross shaft 9 journaled in the upper ends of said plates, a gear 10 journaled on said shaft in the vertical plane of said pinions, a pair of cross rods connecting the plates 17 between the bolt 19 and shaft 9 and at opposite sides of the plane of said bolt and shaft, a lever secured to said cross rods, and projecting through one of the end walls of the casing and provided at its opposite end with an upwardly projecting arm, a retractile spring 25 connecting the upper end of said arm with a point fixed with relation to the casing and tending to hold the gear wheel 10 in engagement with



one of the pinions, and a downwardly-disposed shoulder formed on the casing and adapted when the lever is depressed to withdraw the gear wheel 10 from engagement with the said pinion and into engagement with the other pinion to hold the lever depressed, slidable boxes forming journals for shaft 9 in the side walls of the casing, an arm projecting upwardly from one of said boxes, a gravity pawl pivoted to said arm, and a ratchet wheel rigid with the shaft 9 and engaged by said pawl, and an actuating handle secured to one end of shaft 9.

1,028,118. TUBULAR INCANDESCENT LAMP. EDWARD R. KNOWLES, New York, N. Y. Filed Jan. 12, 1910. Serial No. 537,708. (Cl. 176—29.)



1. In an incandescent lamp, a filament anchor forming a current conductor comprising two members having free extremities, the portion of the anchor adjacent the point of union between the members being anchored on the bulb of the lamp, a filament connected with the free extremity of one member, and a leading-in wire connected with the extremity of the other member.

2. In an incandescent electric lamp, a filament anchor consisting of a current conductor anchored at a point intermediate its ends on the bulb of the lamp to form a pair of free members, a filament connected with one member, and a leading in wire connected with the other member.

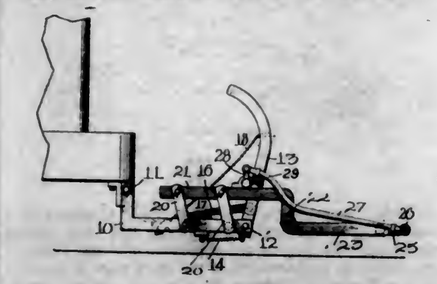
3. In an incandescent electric lamp, a filament anchor consisting of a current conductor bent at a point intermediate its ends in the form of a V and having its bend anchored on the wall of the bulb of the lamp, a filament connected with one free extremity of the anchor and extending in one direction therefrom, and a leading-in wire connected with the other free extremity of the anchor and extending oppositely to the filament.

4. In an incandescent electric lamp, a filament anchor forming a current conductor comprising two members having free extremities, one member constituting a spring, the portion of the anchor adjacent to the point of union between the members being anchored on the bulb of the lamp, a filament connected with the free extremity of the spring member and a leading-in wire connected with the extremity of the other member.

5. In an incandescent electric lamp, a filament anchor consisting of a current conductor anchored at a point intermediate its ends on the bulb of the lamp to form a pair of free members, one member thereof constituting a spring, a filament connected with the spring member and a leading-in wire connected with the other member.

[Claims 6 to 8 not printed in the Gazette.]

1,028,119. FENDER. WILLIAM HEINIG, Fitchburg, Mass., assignor to Wilhelmine Heinig, Fitchburg, Mass. Filed May 18, 1911. Serial No. 627,981. (Cl. 105—130.)



1. As an article of manufacture, a fender comprising a horizontal support, a horizontal fender frame proper carried by said support and having pairs of parallel links connecting it therewith, said fender frame being adapted to rest on said support, and having a front part extending downwardly therefrom.

2. In a fender, the combination of a pivotally mounted support, a fender frame carried thereby in horizontal position, parallel motion connections between the support and fender frame, a trip device on the fender frame, means for holding the fender frame in elevated position, and means operated by the trip device for detaching said holding means and permitting the fender frame to drop.

3. In a fender, the combination of a pivotally mounted support, a fender frame carried thereby in horizontal position, parallel motion connections between the support and fender frame, a trip device on the fender frame, a buffer frame extending upwardly from the support, means on the fender frame adapted to engage the buffer frame for holding the fender frame in elevated position, and means operated by the trip device for detaching said holding means and permitting the fender frame to drop.

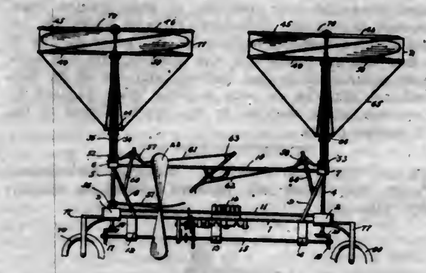
4. In a fender, the combination of a support mounted to swing on a horizontal axis, a buffer frame pivoted at the forward end of the support and normally extending upwardly therefrom, resilient means for drawing the lower end of the buffer frame in toward the body of the support, means for limiting this motion of the buffer frame, said limiting means being adapted to be thrown out of operation, whereby the resilient means will tend to swing the buffer frame into position parallel with the support, and a fender frame supported on the support and adapted to be held in elevated position by the buffer frame when the buffer frame is upright, whereby when the holding means is disconnected the whole device can be swung about said horizontal axis into a substantially vertical position.

5. In a fender, the combination of a support mounted to swing on a horizontal axis, a buffer frame pivoted at the forward end of the support and normally extending upwardly therefrom, resilient means for drawing the lower end of the buffer frame in toward the body of the support, and means for limiting this motion of the buffer frame, said limiting means being adapted to be thrown out of operation, whereby the resilient means will swing the buffer frame into position parallel with the support.

[Claims 6 to 10 not printed in the Gazette.]

1,028,120. FLYING-MACHINE. LEOPOLD A. LEECH, Carnegie, Pa. Filed Feb. 28, 1911. Serial No. 611,357. (Cl. 244—19.)

1. In a flying machine, vertically mounted propellers, comprising four semi-circular blades, means for rotating same, said blades being angularly disposed, a frame consisting of upper and lower sets of rods for supporting said blades, said upper rods being connected to said lower rods by connecting rods, means for collapsing said blades, to form a horizontal plane.



2. In a flying machine, vertically mounted propellers, comprising four semi-circular blades, means for rotating same, said blades being angularly disposed, a frame consisting of upper and lower sets of rods for supporting said blades, said upper rods being connected to said lower rods by means of connecting rods, means for collapsing said blades to form a horizontal plane, said means consisting of a device for raising said lower set of rods to said upper set of rods.

3. In a flying machine, vertically mounted propellers, comprising four semi-circular blades, means for rotating same, said blades being angularly disposed, a frame consisting of upper and lower sets of rods for supporting said blades, said upper rods being connected to said lower rods by means of connecting rods, means for collapsing said blades to form a horizontal plane, said means consisting of a device for raising said lower set of rods to said upper set of rods, and means for rotating said lower set of rods as they are raised.

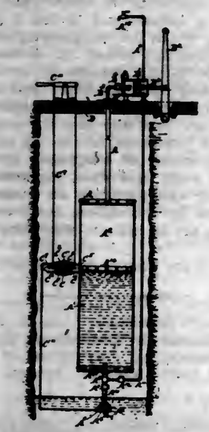
4. In a flying machine, vertically mounted propellers, comprising four semi-circular blades, means for rotating same, said blades being angularly disposed, a frame consisting of upper and lower sets of rods for supporting said blades, said upper rods being connected to said lower rods by means of connecting rods, means for collapsing said blades to form a horizontal plane, said means consisting of a device for raising said lower set of rods to said upper set of rods, means for bracing said sets of rods.

5. In a flying machine, vertically mounted propellers, comprising four semi-circular blades, means for rotating same, said blades being angularly disposed, a frame consisting of upper and lower sets of rods for supporting said blades, said upper rods being connected to said lower rods by means of connecting rods, means for collapsing said blades to form a horizontal plane, said means consisting of a device for raising said lower set of rods to said upper set of rods, means for bracing said sets of rods, a pair of transversely mounted propellers for horizontally steering said machine.

[Claims 6 to 11 not printed in the Gazette.]

1,028,121. PNEUMATIC WATER SYSTEM FOR DOMESTIC PURPOSES. HERBERT M. LOFTON, Atlanta, Ga., assignor of one-half to James W. Conway, Charlotte, N. C. Filed Apr. 23, 1908. Serial No. 428,829. (Cl. 103—8.)

1. In a system of water supply, the combination of a water tank arranged above a body of water, a feed pipe extending from the water into the bottom of the tank, a continuous pipe for delivering the water from the bottom of the tank to a distance and provided with a faucet, an air chamber for air alone and independent of the water pipe, means for charging the air chamber with compressed air, means for delivering the compressed air from the air chamber into the water tank, means for delivering compressed air from the air chamber to the feed pipe for raising the water into the tank, and hand controlled devices for shutting off the supply of compressed air to the feed pipe when delivering it to the water tank and vice versa.



2. In a system of water supply, the combination of a water tank arranged above a body of water, a feed pipe extending from the water into the bottom of the tank, a continuous pipe for delivering the water from the bottom of the tank to a distance and provided with a faucet, an air chamber for air alone and independent of the water pipe, means for charging the air chamber with compressed air, means for delivering the compressed air from the air chamber into the water tank, means for delivering compressed air from the air chamber to the feed pipe for raising the water into the tank, hand controlled devices for shutting off the supply of compressed air to the feed pipe when delivering it to the water tank and vice versa, and a whistle device operated by the escaping air from the water tank during the filling of the tank with water and until it has become filled.

3. In a system of water supply, the combination of a water tank arranged above a body of water, a feed pipe extending from the water into the bottom of the tank, a continuous pipe for delivering the water from the bottom of the tank to a distance and provided with a faucet, an air chamber for air alone and independent of the water pipe, means for charging the air chamber with compressed air, means for delivering the compressed air from the air chamber into the water tank, means for delivering compressed air from the air chamber to the feed pipe for raising the water into the tank, and hand controlled devices for shutting off the supply of compressed air to the feed pipe when delivering it to the water tank and vice versa, consisting of a valve device comprising four ports or outlets respectively in communication with the feed pipe air chamber water tank and atmosphere and a plug thefefor having two opposite circumferential channels adapted to connect the ports or outlets in pairs.

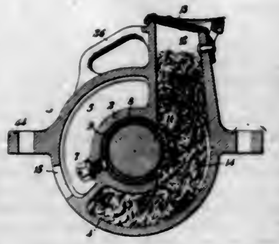
4. In a system of water supply from a body of water in a well, the combination of a water tank suspended above the body of water in the well, a continuous pipe for delivering the water from the lower part of the tank to a distance and having a faucet thereon, an air chamber for air alone and independent of the water pipe, means for compressing air and storing it in the air chamber, means for delivering the compressed air from the air chamber to the water tank, a feed pipe extending from the water tank into the water of the well, means operated by compressed air to force water through said feed pipe into the water tank, and hand controlled means for shutting off the supply of compressed air from the

air chamber to the water tank when the tank is being supplied with water and providing an escape of air from the water tank to the atmosphere.

5. In a system of water supply, the combination of a water tank suspended above the body of water in the well, a pipe for delivering the water from the lower part of the tank to a distance and having a faucet thereon, an air chamber, means for compressing air and storing it in the air chamber, means for delivering the compressed air from the air chamber to the water tank, a feed pipe extending from the water tank into the water of the well, means operated by compressed air to force water through said feed pipe into the water tank, hand controlled means extending to the top of the well for shutting off the supply of compressed air from the air chamber to the water tank when the tank is being supplied with water and providing an escape of air from the water tank to the atmosphere, and a whistle operated by the escaping air to indicate when the water tank is full of water.

[Claims 6 to 8 not printed in the Gazette.]

1,028,122. SHAFT-BEARING. ASA M. MATTICE, Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed Apr. 14, 1904. Serial No. 203,223. (Cl. 64—24.)



1. A shaft bearing comprising a collar surrounding the shaft and having an opening in one side which exposes a relatively large portion of the shaft, and a one-piece housing comprising concentric shells of materially different diameters, the inner shell being provided with a side opening and with means for locking the collar in position to register said openings and the outer shell having a chamber which contains a lubricant and means for applying the lubricant to the shaft through said openings.

2. A shaft bearing comprising a collar surrounding the shaft and having an opening in one side which exposes the shaft and a housing comprising approximately concentric, cylindrical shells, the inner one being provided with a side opening and with means for securing the said collar in position to register said openings and the outer one having cylindrical surfaces and lugs for securing the housing in position.

3. A shaft bearing comprising a collar surrounding the shaft and having an opening in one side which exposes the shaft and a housing comprising approximately concentric, cylindrical shells, the inner one being provided with a side opening and with means for securing the said collar in position to register said openings and the outer one having cylindrical surfaces and lugs for securing the housing in position, and a chamber partially surrounding the inner shell and communicating with the said opening in the collar and having a hand-hole at the top.

4. A shaft bearing comprising a collar surrounding the shaft and having an opening in one side which exposes the shaft and a housing comprising approximately concentric, cylindrical shells, the inner one being provided with a side opening and with means for securing the said collar in position to register said openings and the outer one having cylindrical surfaces and lugs for securing the housing in position, a chamber partially surrounding the inner shell and communicating with the said opening in the collar and having a hand-hole at the top, and a second chamber provided to collect waste lubricant.

5. In an electric motor, the combination with a field magnet frame in two portions, of shaft-bearing housings each having two cylindrical surfaces which are engaged by corresponding surfaces in the lower portion of the field magnet frame and lugs integral with the housing for securing it to that portion, only one of the said cylindrical surfaces on each housing being engaged by the corresponding surfaces in the upper portion of the field magnet frame.

1,028,123. DRIVEN WRENCH. JOHN A. MCGREEVEY, Delphi, Ind. Filed Nov. 13, 1911. Serial No. 660,141. (Cl. 189—92.)



A driven-wrench of the class described comprised of a driver-rod grooved in its sharp end, said groove adapted to carry between its jaws and against its base, wire cables designed to be driven into the ground and twisted therein, said driver-rod provided with a loosely fitting handle as especial means of eliminating the effects of severe vibrations, said driver-rod having a portion at its top end flattened and a further top portion bent to fit downwardly rigidly against itself forming a head upon which the driven-wrench is driven substantially as described and for the purposes set forth.

1,028,124. PNEUMATIC HAMMER. EDWARD C. MEISSNER, St. Louis, Mo., assignor to Chicago Pneumatic Tool Company, Chicago, Ill., a Corporation of New Jersey. Original application filed Nov. 12, 1900, Serial No. 36,212. Divided and this application filed May 28, 1906. Serial No. 319,098. (Cl. 121—20.)



1. A pneumatic hammer having a cylinder with ports and passages for the admission and exhaust of pressure to and from its opposite ends, and a permanently open supplemental exhaust port communicating with the cylinder intermediate its length and extending laterally through the cylinder wall directly to the atmosphere, said exhaust port being in position to be uncovered by the piston shortly after the initiation of its return movement and before the completion of such movement.

2. In a pneumatic hammer having a cylinder, a piston therein and valve for controlling the admission and exhaust of pressure to and from opposite ends of the cylinder, means for exhausting the cylinder on opposite sides of the piston comprising an exhaust port extending through the wall of the cylinder directly to the atmosphere at a point intermediate the length of such cylinder.

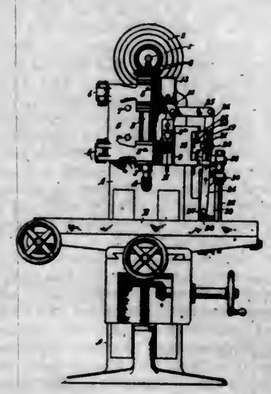
3. In a pneumatic hammer having a cylinder, a piston therein and valve for controlling the admission and exhaust of pressure to and from opposite ends of the cylinder, means for exhausting the cylinder on opposite sides of the piston comprising an exhaust port extending through the wall of the cylinder directly to the atmosphere at a point intermediate the length of such cylinder, said exhaust port being supplemental to and independent of the main or regular exhaust controlled by said valve and being controlled by the piston in its movements.

4. In a pneumatic hammer, the combination of a cylinder, a piston therein, and a valve for controlling the admission and exhaust of pressure to and from opposite ends of the cylinder, said cylinder having a supplemental exhaust consisting of a port extending laterally through the wall of the cylinder to the atmosphere at such a position intermediate the length thereof as to be uncovered by the piston in both the forward and rearward strokes thereof.

5. In a pneumatic hammer, the combination of a cylinder having a piston chamber, a piston therein, a valve chamber having a circumferential groove in constant communication with the live air when the hammer is in operation, a valve in said chamber for controlling the admission and exhaust of the air to and from opposite ends of the cylinder and for controlling the admission of air from the groove to the rear end of the piston chamber, and means for constantly supplying live air in restricted amount to the rear end of the piston chamber consisting of a restricted passageway leading from said groove directly to the piston chamber independently of the valve.

[Claims 6 to 11 not printed in the Gazette.]

1,028,125. COMBINED ROUTER AND DIE-SINKER. HERMAN MELLING, Jackson, Mich., assignor of one-third to Leroy Northrup and one-third to George Melling, Jackson, Mich. Filed June 29, 1911. Serial No. 635,960. (Cl. 90—11.)



1. In combination, a vertically and horizontally movable housing, a tool holder reciprocable in the housing, a cutting tool carried by the holder adapted to cut both vertically and horizontally, means for reciprocating the holder and means for simultaneously reciprocating the housing both vertically and horizontally whereby the tool is engaged with the work both horizontally and vertically on its cutting or forward movement and disengaged therefrom on its return movement.

2. The combination of a frame, a slide vertically reciprocable on the frame, a housing horizontally reciprocable on the slide at right angles to the movement thereof, a tool holder reciprocable in the housing, a cutting tool carried by the holder, means for reciprocating the holder in the housing and means for simultaneously reciprocating the housing on the slide and reciprocating the slide on the frame.

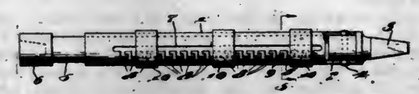
3. The combination of a die sinking tool, a holder for the same, a housing in which the holder oscillates in a segmental path, means for reciprocating the housing vertically, and means for oscillating the holder in the housing.

4. The combination of a die sinking tool, a holder for the same, a housing in which the holder oscillates in a segmental path, means for oscillating the holder in the housing, and means for reciprocating the housing horizontally.

5. The combination of a die sinking tool, a holder for the same, a housing in which the holder oscillates in a segmental path and means for reciprocating the housing, both vertically and horizontally.

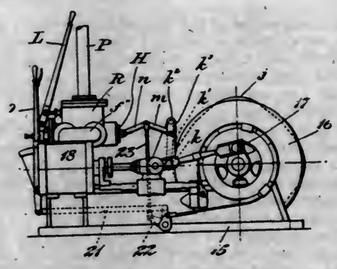
[Claims 6 to 17 not printed in the Gazette.]

1,028,126. ADJUSTABLE EXTENSION DRILL-SOCKET. SAMUEL W. MEREDITH, Philadelphia, Pa. Filed Mar. 30, 1910. Serial No. 552,436. (Cl. 77—59.)



An adjustable extension drill socket, comprising a cylindrical tube, and a rod mounted to turn and move longitudinally in the tube, said tube and said rod constructed to turn together in operating as a drill socket, said rod projecting at one end beyond the open end of the tube, a cutting tool receiving socket in the end of the rod, a drilling machine engaging shank on the end of the tube, said tube having a longitudinal slot therein, and a longitudinal series of lateral L-shaped notches of the same width as the groove communicating with one wall of said slot, a projection fixed to the rod movable in the slot, and into any of the notches, whereby a quick adjustment may be had between the drilling tool and the drilling machine without a disconnection from either, and endless bands shrunk on said tube extending across said slot, and said projection extending beyond the rod a distance approximating the thickness of the tube, whereby it may pass under said bands, substantially as described.

1,028,127. ENGINE. THOMAS SPENCER MILLER, South Orange, N. J. Filed Sept. 10, 1907. Serial No. 392,115. (Cl. 115—10.)



1. The combination of a multiple cylinder fluid operated engine, pistons in the cylinders, cranks operated by the pistons of said engine, said cranks being set at an angle to one another, valve mechanism for varying the pressure of the fluid in the cylinders of said engine, and means whereby

the valve is operated to cause the fluid pressure to increase when the cranks are in their least effective position and to reduce the pressure in the cylinders when said cranks are in their most effective position.

2. In a double cylinder fluid-operated engine, pistons in the cylinders, cranks operated by said pistons and set at an angle to one another, valve mechanism for varying the pressure of the fluid in the cylinder of said engine, and means for automatically operating the valve mechanism, whereby the pressure will be maximum when the cranks are at their least efficient position, and minimum when the cranks are at their most efficient position.

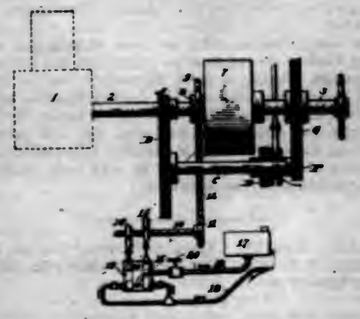
3. The combination of a multiple cylinder fluid operated engine, pistons in the cylinders, cranks driven by said pistons, valve mechanism for varying the pressure of the fluid in the cylinders of said engine, and means for operating the valve mechanism to increase the fluid pressure four times, and to decrease it four times during one complete revolution of the cranks.

4. The combination of a multiple cylinder fluid operated engine, pistons in the cylinders, cranks operated by the pistons, valve mechanism for varying the pressure of the fluid in the cylinders of said engine, and means controlled by the position of the cranks for operating the valve mechanism to increase the fluid pressure four times, and to decrease it four times during one complete revolution of the cranks.

5. In an engine, the combination of a fluid pressure cylinder, a piston therein, a crank mechanism actuated by the piston, fluid supply means for the pressure cylinder, and means wholly self-contained within the engine structure for actuating the fluid supply means whereby uniform torque is produced on the crank driving mechanism.

[Claims 6 to 19 not printed in the Gazette.]

1,028,128. POWER-TRANSMISSION MECHANISM. ROBERT C. MITCHELL, Mount Vernon, N. Y. Filed Dec. 20, 1901. Serial No. 86,646. (Cl. 74—34.)



1. In an apparatus of the character described, a driving shaft, a driven shaft, a planetary wheel connection, a carrier therefor, and a fluid controlled means with external circulating pipes whereby the movement of the carrier may be varied and maintained with substantial uniformity at any desired speed.

2. In an apparatus of the character described, driving and driven shafts, a planetary gear connection between said shafts, a carrier therefor, a fluid controller for said carrier with external circulating pipes whereby the movement of said carrier may be stopped or varied and maintained at any desired speed with substantial uniformity.

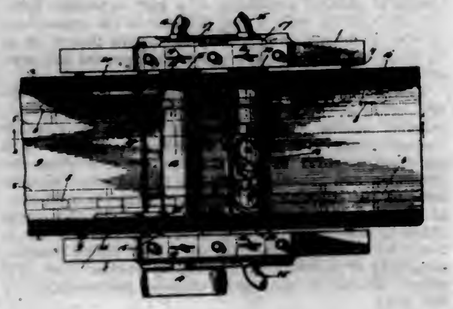
3. In an apparatus of the character described, driving and driven shafts, a planetary gear connection between the same, a pump operatively connected therewith, and circulating pipes with means for resisting the speed of operation of said pump and thereby controlling and maintaining the speed transmitted to the driven shaft to qualify it to the desired speed relatively to the driving shaft.

4. In an apparatus of the character described, a driving and a driven shaft, a planetary gear connection, a revoluble gear carrier, means to variably control and maintain at the desired speed of rotation the movement of said carrier, said means including a pump and external circulating pipes, and means to variably yet definitely resist the freedom of flow of the fluid in communication with said pump.

5. In apparatus of the character described, a train of differential gears including a planetary gear, a carrier for said planetary gear and a fluid resistance with external pipes to control the movement of said carrier whereby the speed on one side of the train may be varied to any desired degree and maintained with substantial uniformity so long as desired relatively to the speed on the other side of the train.

[Claims 6 to 26 not printed in the Gazette.]

1,028,129. METHOD AND APPARATUS FOR SHAPING GLASS. DAVID LOUIS NEUHAUSER, Chicago, Ill. Filed Sept. 1, 1910. Serial No. 580,070. (Cl. 49—6.)



1. A method of shaping glass into ornamental figures, consisting in reducing molten glass from the bulk into a predetermined form, immediately forming and subdividing individual figures therein during the original heat, and directly annealing while said heat continues without reheating.

2. A method of shaping glass into ornamental figures, consisting in reducing hot glass from the bulk into a predetermined form, immediately forming and subdividing the individual figures therein during the original heat, detaching the subdivided figures and forming them into a modified shape during said continuing heat, and directly annealing while said heat continues, without reheating.

3. A machine for shaping glass into ornamental figures, comprising in combination, means for supporting molten glass in bulk, means coöperating therewith for reducing the bulk to a sheet, and means for forming and subdividing the predetermined figures in said sheet, so arranged as to act while the glass retains its original heat, and to permit the immediate delivery of the subdivided figures to the annealing oven as soon as formed.

4. A machine for shaping glass into ornamental figures, comprising, in combination, a movable bed-plate for supporting molten glass in bulk, a roller under which said bed-plate is passed, acting to reduce the bulk to a sheet, a second roller of equal diameter provided with means for subdividing the predetermined figures in said sheet as the bed-plate brings it beneath, the space beyond said latter roller, above the bed-plate, being open and unobstructed, and means for driving said rollers and bed-plate synchronously and coördinately.

5. A machine for shaping glass into ornamental figures, comprising, in combination, a movable bed-plate for supporting molten glass in bulk, a driven roller geared to advance the bed-plate coördinately with its own peripheral motion and acting to reduce the bulk to a sheet, a second roller, of like diameter with the foregoing, geared to said bed-plate and driven thereby, synchronously and coördinately with the motion of the first roller, and means carried by said second roller for forming and subdividing the predetermined figures in the sheet as it is carried past this latter roller, the bed-plate being open and unobstructed.

[Claim 6 not printed in the Gazette.]

1,028,130. BOOK. PETER S. H. NEWELL, Leonia, N. J. Filed Apr. 17, 1909. Serial No. 490,629. (Cl. 11—17.)



1. A book comprising a series of sheets each of which has a design thereon and is provided with a perforation which forms a part of the said design, the perforations of the various sheets being of substantially the same size and registering with each other when the book is closed.

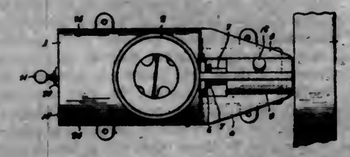
2. A book comprising a series of sheets each of which has a design thereon and is provided with a perforation which forms a part of the said design, the perforations of the various sheets being substantially the same size and registering with each other when the book is closed, and a sheet arranged beneath said series of sheets so as to extend across the perforations therein, the said sheet having a design thereon.

3. A display device comprising a series of superposed sheets each of which has a design thereon, the different sheets having different numbers of perforations therein and the corresponding perforations in the different sheets being in alinement with each other so that the portions of the designs upon the underlying sheets showing through the perforations in any one of the sheets will form a part of the design on the said sheet.

4. A display device comprising a number of superposed sheets each of which has a design thereon, all of the said sheets except the bottom sheet having a perforation therein and each succeeding sheet from the bottom having one more perforation than the sheet below, the corresponding perforations in the various sheets being in registry with each other so that the portions of the designs upon the underlying sheets showing through the perforations in any one of the sheets will form a part of the design on the said sheet.

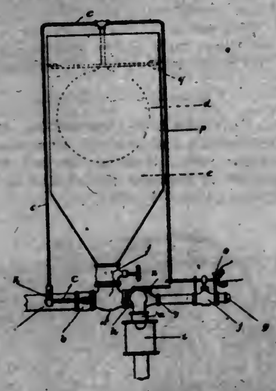
5. As a new article of manufacture, a book comprising a series of leaves, each having an independent design or delineation, and a perforation forming part of said design, said perforations being substantially of the same shape and nearly equal size, and registering with each other when the book is closed, substantially as described.

1,028,131. SEPARATING APPARATUS. WILLIAM MANNING O'BRIEN, Salt Lake City, Utah. Filed Apr. 13, 1911. Serial No. 620,796. (Cl. 18—2.)



A separating apparatus consisting of a cylinder having an integral hopper and an internal concentric shoulder formed in one end thereof, said cylinder having a closed end, a separating worm mounted for rotation in the cylinder and having a shaft on one end extending through the closed end of the cylinder and a cylindrical portion on the other end, a perforated disk disposed against the concentric shoulder of the cylinder and provided with lugs, screws threaded through the wall of said cylinder and having un-threaded inner ends engaging the edge of said disk, a perforated disk keyed to the outer portion of the worm and contacting with the outer face of the first disk, the cylindrical portion of said worm being formed with a longitudinal oil passage terminating in a lateral outlet at its inner end, and an oil cup having communication with said passage.

1,028,132. MACHINE FOR AUTOMATICALLY REGULATING THE FLOW OF LIQUIDS. CHARLES T. PARKER, Alton, Ill. Filed Aug. 11, 1910. Serial No. 576,762. (Cl. 137—78.)



1. In an apparatus of the class described, a fluid conveying chamber; a valve controlling the inlet to said chamber; means for automatically operating said valve, consisting of a tank in communication with said chamber, a float in said tank, a lever connected with said float, and a handle connecting said lever and valve; means for permitting the efflux of fluid from said chamber in regulable quantities; and an observation glass tube forming the outlet from said chamber, all substantially as described.

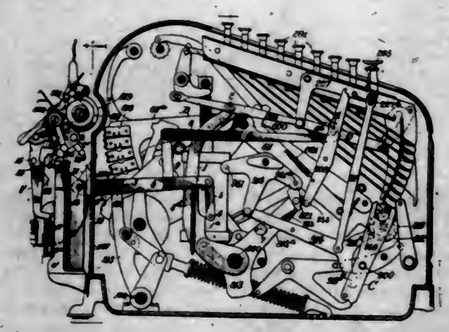
2. In an apparatus of the class described, a fluid conveying chamber a valve controlling the inlet to said chamber; means for automatically operating said valve, consisting of a tank in communication with said chamber, a float in said tank, a lever connected with said float, and a handle connecting said lever and valve; means for permitting the efflux of fluid from said chamber in regulable quantities consisting of a valve controlling the outlet of said chamber, a handle opening or closing same, a graduated dial over which the handle passes, and an observation glass tube forming the outlet from said chamber; all substantially as described.

3. In an apparatus of the class described, a fluid conveying chamber; a valve controlling the inlet to said chamber, means for automatically operating said valve, consisting of a tank communicating through a valve with said chamber, a float in said tank, a lever connected with said float, and a handle connecting said lever and said first named valve; means for permitting the efflux of fluid from said chamber in regulable quantities, consisting of a valve controlling the outlet of said chamber, a handle opening or closing said valve, a graduated dial over which the handle passes, and an observation glass tube forming the outlet from said chamber; and means for cleansing said chamber and parts in communication therewith, consisting of a pressure water pipe in communication with said chamber, and a valve controlling the inlet from said pressure pipe into said chamber; all substantially as described.

4. In an apparatus of the class described, a fluid conveying chamber, a valve controlling the inlet to said chamber; means for automatically operating said valve consisting of a tank communicating through a valve with said chamber, a float in said tank, a lever connected with said float, and a handle connecting said lever and said

first named valve; means for permitting the efflux of fluid from said chamber in regulable quantities, consisting of a valve controlling the outlet of said chamber, a handle opening or closing said valve, a graduated dial over which the handle passes, and an observation glass tube forming the outlet from said chamber; means for cleansing said chamber and parts in communication therewith, consisting of a pressure water pipe in communication with said chamber, and a valve controlling the inlet from said pressure pipe into said chamber; means for maintaining a flow of fluid to the suction engine when the regular flow of fluid through said chamber is impeded or stopped, comprising a second valve controlling a second inlet from said pressure water pipe to said chamber, means for automatically operating said second valve, comprising a lever connected with said float and a handle connecting said lever and said last mentioned valve, and an automatic alarm sounded by said last mentioned valve; all substantially as described.

1,028,133. CALCULATING-MACHINE. HEBER C. PETERS, Indianapolis, Ind., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed May 12, 1904. Serial No. 207,631. (Cl. 235—60.)



1. In an adding machine, the combination with adding mechanism and mechanism adapted to print a plurality of figures at one operation, of a movable paper carriage cooperating with the printing mechanism, and means controlled by such carriage for throwing the adding mechanism of the machine out of action; substantially as described.

2. In an adding machine, the combination with adding mechanism and mechanism adapted to print a plurality of figures at one operation, of a movable paper carriage coöperating with the printing mechanism, and means controlled by the movements of such carriage for throwing the adding mechanism of the machine out of action; substantially as described.

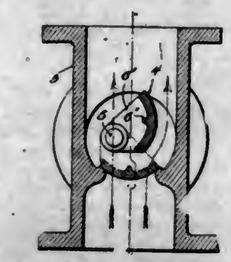
3. In an adding machine, the combination with adding mechanism and mechanism adapted to print a plurality of figures at one operation, of a movable paper carriage cooperating with the printing mechanism, and means controlled by such carriage for throwing the adding mechanism of the machine out of action without interfering with the printing mechanism thereof; substantially as described.

4. In an adding machine, the combination with adding mechanism and mechanism adapted to print a plurality of figures at a single operation, of a laterally movable paper carriage coöperating with the printing mechanism, a device operating to eliminate the function of the adding mechanism of the machine, and means controlling said device and determining whether it shall be operative or inoperative as determined by the particular position of the paper carriage; substantially as described.

5. In an adding machine, the combination with adding mechanism and mechanism adapted to print a plurality of figures at one operation, and with a laterally movable paper carriage, of a device adapted to eliminate the adding function of the machine during the printing of numbers not to be added, and means controlled by the paper carriage for shifting said device into operative and inoperative relation with the machine; substantially as described.

[Claims 6 to 193 not printed in the Gazette.]

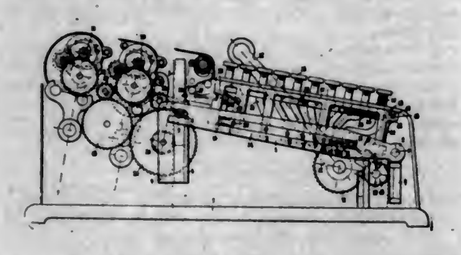
1,028,134. VALVE. JAMES H. RAYMAKER, Sheboygan, Wis. Filed May 20, 1911. Serial No. 628,389. (Cl. 137—4.)



1. A valve consisting of a plate curvilinear in cross-section and having end wings integral therewith and at right-angles thereto, a stem rigid with one of the valve-wings and eccentric to the valve-face, a journal lug projecting from the other of the valve-wings in line with the stem, and a valve-casing provided with bearings for said stem and lug.

2. A valve consisting of a plate curvilinear in cross-section and having end wings integral therewith and at right-angles thereto, a stem rigid with one of the valve-wings and eccentric to the valve-face, a journal lug projecting from the other of the valve-wings in line with the stem, and a valve-casing having detachable heads provided with bearings for said stem and lug.

1,028,135. CALCULATING-MACHINE. ROBERT REIN, Berlin, Germany. Filed Mar. 27, 1911. Serial No. 617,126. (Cl. 235—61.)



1. A calculating machine comprising in combination with a frame, counter mechanism, levers operating said counter mechanism and a multiplicator lever, gearing operated by said multiplicator lever, toothed racks connected with the forward ends of said levers and actuated by said gearing, toothed racks connected to the rear ends of said levers and operating the counter mechanism a plurality of openings in said levers, a plurality of pins corresponding in position to these openings, a key corresponding to and connected with each of these pins, each key being adapted on depression to move its pin into the corresponding opening in the lever, as and for the purpose set forth.

2. A calculating machine comprising in combination with a frame counter mechanism levers operating said counter mechanism and a multiplicator lever, gearing operated by said multiplicator lever toothed racks connected with the forward ends of said levers and actuated by said gearing, toothed racks connected to the rear ends of said

levers and operating the counter mechanism, a plurality of openings in said levers, a plurality of pins corresponding in position to these openings, a key corresponding to and connected with each of these pins, each key being adapted on depression to move its pin into the corresponding opening in the lever, recessed portions in the counter mechanism actuating racks, locking pins movably arranged in the path of said racks, zero keys and lugs formed thereon, said lugs adapted to move said locking pins into said openings, as and for the purpose set forth.

3. A calculating machine comprising in combination with a frame counter mechanism levers operating said counter mechanism and a multiplicator lever, gearing operated by said multiplicator lever toothed racks connected with the forward ends of said levers and operated by said gearing, toothed racks connected to the rear ends of said levers and operating the counter mechanism, a plurality of openings in said levers, a plurality of pins corresponding in position to these openings, a key corresponding to and connected with each of these pins, each key being adapted on depression to move its pin into the corresponding opening in the lever, recessed portions in the counter mechanism actuating racks, locking pins movably arranged in the path of said racks, zero keys and lugs formed thereon, said lugs adapted to move said locking pins into said openings, and means permitting the depression of a key in the initial position of the multiplicator lever, as and for the purpose set forth.

4. A calculating machine comprising in combination with a frame counter mechanism levers operating said counter mechanism and a multiplicator lever, gearing operated by said multiplicator lever toothed racks connected to said gearing operated by said toothed racks connected with the forward ends of said levers and operated by said gearing, toothed racks connected to the rear ends of said levers and operating the counter mechanism a plurality of openings in said levers, a plurality of pins corresponding in position to these openings, a key corresponding to each of these pins, each key being adapted on depression to move its pin into the opening in the lever recessed portions in the counter mechanism actuating racks, locking pins movably arranged in the path of said racks, zero keys and lugs formed thereon, said lugs adapted to move said locking pins into said openings, means permitting the depression of a key in the initial position of the multiplicator lever, means actuating the multiplicator lever for bringing the counter mechanism into gear, and means permitting relative movement of the said lever and said actuating means, as and for the purpose set forth.

1,028,136. MOTOR DEVICE FOR BOILER-TUBE CLEANERS. FRANK H. RIEHEMANN and HENRY BOEHNING, St. Louis, Mo. Filed Nov. 3, 1909. Serial No. 526,151. (Cl. 138—7.)

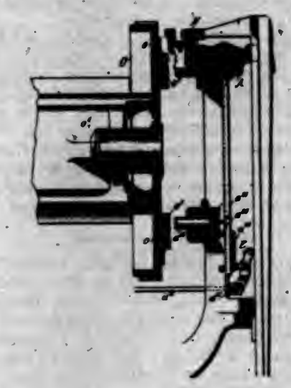


1. A motor device for boiler tube cleaners comprising a head having a rear chamber and a front recess, said head also having a central bore and a plurality of ports surrounding the bore and communicating with the chamber and the recess, said bore having an enlarged and internally threaded rear portion, means for delivering motive fluid to the chamber, a sleeve located within the bore and provided with an enlarged rear end which has threaded engagement with the enlarged portion of the said bore, a shaft journaled in the sleeve and having its rear end threaded and projecting beyond the same, a rotary motor wheel carried by the front end of the shaft and arranged within the recess, a bearing nut arranged on the rear end of the shaft and engaging the sleeve, and a flue cleaner coupling connected to the wheel.

2. A motor device for boiler tube cleaners comprising a head having a central bore formed with an enlarged and internally threaded rear portion, a sleeve fitted within the bore and having a threaded member engaging said threaded rear portion thereof, a shaft journaled in the sleeve and carrying at its front end a motor wheel and at its rear end a bearing element engaging the sleeve, flue cleaning coupling means connected with the motor wheel, means for supplying the motive fluid through said head to the wheel, and a combined lubricant-holding and covering cap provided with a detachable plug and removably threaded into said threaded rear portion of the bore, said cap being arranged over the rear end of the shaft and the bearing element carried thereby.

3. A motor device for boiler tube cleaners comprising a head having a central bore formed with an enlarged and internally threaded rear portion, a sleeve fitted within the bore and held in position by means engaging the said threaded rear portion thereof, a shaft journaled in the sleeve and carrying in front thereof a motor wheel and at its rear end a bearing portion engaging the sleeve, means for connecting flue cleaning means with the motor wheel, and means for supplying the motive fluid through said head to the wheel.

1,028,137. LINE-CASTING MACHINE. JOHN R. ROGERS, Brooklyn, N. Y., assignor to Mergenthaler Linotype Company, a Corporation of New York. Filed Apr. 2, 1910. Serial No. 553,124. (Cl. 199—7.)



1. In a machine of the class described, the combination of a slotted mold and a movable carrier for bringing the matrix line to the mold level, said parts arranged to contact in order to limit the said movement of the carrier.

2. In a machine of the class described, the slotted mold, and the first elevator arranged to present the line of matrices thereto, in combination with a stop in fixed relation to the mold, to limit the descent of the elevator.

3. In a machine of the class described, the slotted mold, provided with a keeper, o^2, and a stop, C, secured to said keeper, in combination with the first elevator, N, having a member arranged to contact with the arm C, to limit the descent of the elevator.

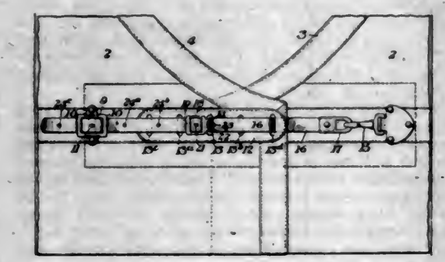
4. In a machine of the class described, the mold, the first elevator for presenting matrices thereto, and a clutch controlling member, a^{28}, in combination with means carried by the first elevator to control the action of the member a^{28}, and a part in fixed relation to the mold, to actuate said controlling means.

5. In a machine of the class described, the combination of a mold, a first elevator for presenting matrices thereto, a clutch controlling member, a^{28}, mounted in the main frame, a member, C, in fixed relation to the mold, and de-

vices carried by the first elevator, and actuated by the member C, to control the member a^{23}.

[Claims 6 to 13 not printed in the Gazette.]

1,028,138. BLANKET-FASTENER. WILLIAM A. SCHLEICHER, Cleveland, Ohio. Filed Aug. 31, 1911. Serial No. 647,056. (Cl. 54—79.)



1. A blanket fastening device comprising a loop on one of the flaps, the other flap having a plurality of openings, the loop on the first flap being adapted to pass through either of said openings, a strap arranged to pass through the loop after it has been passed through one of the openings, a stop on the strap for the loop, means for adjusting the position of the stop, and means for securing the strap to both flaps; substantially as described.

2. A blanket fastening device comprising a loop on one of the flaps, the other flap having a plurality of openings, the loop on the first flap being adapted to pass through either of said openings, a buckle on the second flap, a strap adjustably connected at one end to said buckle, means for connecting the other end of said strap to the second flap, said strap being arranged to be interlaced between its ends with the loop extending through one of the openings and another of said openings, and a stop on the strap for the loop on the first flap; substantially as described.

1,028,139. MANUFACTURE OF AZO DYESTUFFS OF THE ANTHRAQUINONE SERIES AND PROCESS OF MAKING SAME. ALBRECHT SCHMIDT, Höchst-on-the-Main, and GEORG KRÄNZLEIN, Sindlingen, near Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Sept. 27, 1911. Serial No. 651,639. (Cl. 8—1.)

1. The herein-described new proces for the manufacture of azo dyestuffs having the general formula:

A.N=N.C_6H_4O.CO.NH.R

in which A stands for an anthraquinonesulfonic residue and R for an aryl residue, which consists in combining diazotized aminoanthraquinonesulfonic acid with an aceto-acetic-arylid.

2. As new products the azo dyestuffs, obtained by combining diazotized aminoanthraquinonesulfonic acid with an aceto-acetic arylid, having the general formula:

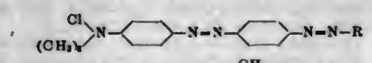
A.N=N.C_6H_4O.CO.NH.R

in which A means an anthraquinone-sulfonic acid residue and R means an aryl residue, dyeing wool and silk yellow shades of great fastness.

3. As a new product the azo dyestuff obtained from diazotized 2-aminoanthraquinone-3-sulfonic acid and aceto-acetic anilid, being when dry, a yellow powder, difficultly soluble in hot water with a yellow color, soluble in concentrated sulfuric acid with an orange-red color and dyeing wool and silk greenish-yellow tints of great intensity and a good fastness to light and water.

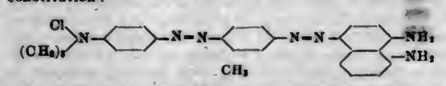
1,028,140. BLACK DISAZO DYESTUFF AND PROCESS OF MAKING SAME. FRANZ SCHOLL, Höchst-on-the Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Sept. 20, 1911. Serial No. 650,322. (Cl. 8—1.)

1. As new products, basic disazo dyestuffs of the constitution:



wherein "R" stands for a heteronuclear α-α-diaminonaphthalene; being black powders, soluble in water and alcohol, insoluble in ether, benzene and petroleum-ether, dyeing artificial silk blanck tints.

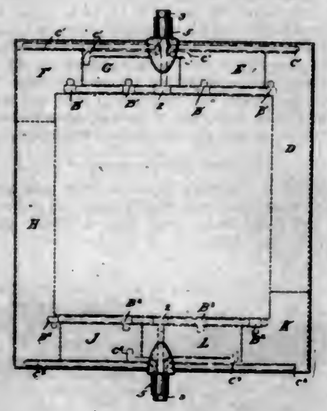
2. As a new product, the basic disazo dyestuff of the constitution:



being a black powder with a cupreous luster, soluble in water with a violet color, yielding on addition of a mineral acid a dark-blue precipitate and on addition of ammonia a reddish-violet solution, soluble in concentrated sulfuric acid with a greenish-blue color and in alcohol with a bluish-violet color, insoluble in ether, benzene and ligroin, dyeing artificial silk a bluish-violet black tint.

3. The process of manufacturing basic disazo dyestuffs which consists in diazotizing trimethylammoniumphenyl-azo-m-toluidin and causing it to act upon heteronuclear α-α-diaminonaphthalenes.

1,028,141. INFLATABLE LIFE-SAVING EQUIPMENT OF SOLDIERS. EDWARD W. SCOWDEN, Jamestown, N. Y. Filed Feb. 17, 1911. Serial No. 609,147. (Cl. 9—17.)



1. The combination with an army blanket of a plurality of air chambers integral thereto, means for simultaneously inflating said air chambers, and independent means for deflating singly each air chamber, the said inflating and deflating ducts passing through a combination valve piece common to all.

2. An army blanket of the character described, comprising a sheet of fabric provided with air chambers integral thereto, inflating tubes communicating with said air chambers, and deflating tubes leading therefrom, the said inflating and deflating tubes leading through a combination valve piece common to all.

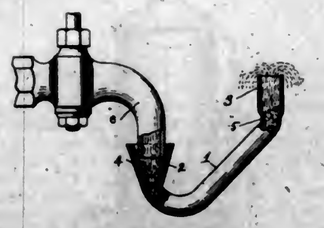
3. The combination with a blanket roll of a soldier of a plurality of inflatable air receivers attached to the equipment within said roll, means for simultaneously inflating said air receivers through a plurality of inflating tubes leading from a common inflating duct, and means for deflating each air receiver through an independent deflating tube, the said inflating and deflating tubes leading through a combination valve piece common to all.

4. The combination with the blanket roll of a soldier, of a plurality of air chambers attached to a poncho placed within said roll, means for inflating said air chambers while within said blanket roll, and independent means for deflating each of the air chambers substantially as described.

5. An inflatable army poncho of the character described, comprising a sheet of fabric, air compartments placed along the edges thereof, means for inflating said compartments, retaining means to maintain the air within said compartments, and independent means for deflating said compartments in *seriatim*.

[Claims 6 to 18 not printed in the Gazette.]

1,028,142. SANITARY DRINKING DEVICE. ALONZO D. SEAMAN, Milwaukee, Wis. Filed June 28, 1910. Serial No. 569,364. (Cl. 137—11.)



1. A portable sanitary drinking device having a flared end adapted to fit over a faucet or pipe to make a water-tight connection therewith by manual pressure directed in the line of the discharge, and having means for directing the stream of water from said faucet or pipe in an upwardly direction.

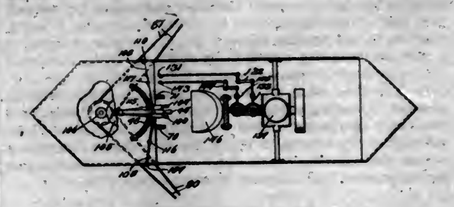
2. As a new article of manufacture, a portable sanitary drinking device comprising a unitary structure having a conical end adapted to coöperate with a faucet or pipe to make a water-tight connection therewith when pressed against the same in the line of the discharge, and having means for directing the issuing stream of water in an upwardly direction.

3. A portable sanitary drinking device comprising a main hollow portion having a flaring mouth and a nozzle portion each of said portions being arranged at an angle to the main body portion, said flaring mouth portion being provided with a resilient lining adapted to be manually pressed against a faucet in the line of the discharge to make a water-tight connection therewith.

4. A portable sanitary drinking device consisting of a tubular member having at one end a flaring mouth portion provided with a resilient lining, said portion adapted to be held firmly against the downwardly extending end of a water faucet, said main body portion extending diagonally upward from said flaring mouth portion, and having at its opposite end a restricted portion and a nozzle portion beyond said restricted portion, said nozzle portion being arranged at an angle with said main body portion so as to extend substantially vertically upward, whereby the downwardly directed stream of water from said faucet is deflected and delivered as a vertical stream.

1,028,143. AEROPLANE. WILLIAM B. SHEPARD, Beloit, Wis. Filed July 29, 1910. Serial No. 574,499. (Cl. 244—14.)

1. An aeroplane, comprising a frame, one or more sustaining planes, balancing planes at opposite sides of said frame, said balancing planes being adapted to rock about transverse axes, levers operatable independently of each other and connected with said balancing planes, respectively, for independently operating the same, an endless cable, and means for connecting said levers with said cable whereby they may be operated in unison by moving the cable.



2. An aeroplane, comprising a frame, one or more sustaining planes, balancing planes at opposite sides of said frame, said balancing planes being adapted to rock about transverse axes, levers operatable independently of each other and connected with said balancing planes, respectively, for independently operating the same, an endless cable, means for connecting said levers with said cable whereby they may be operated in unison by moving the cable, and a weight connected with said cable for automatically moving the same in one direction or the other as the machine tilts.

3. An aeroplane, comprising a frame, one or more sustaining planes, balancing planes at opposite sides of said frame, said balancing planes being adapted to rock about transverse axes, drums carried by said frame, cables operating on said drums and connected, respectively, with said balancing planes, levers connected, respectively, with said drums for rotating the same, said levers being operatable independently of each other, an endless cable, and means for connecting said levers with said endless cable whereby they may be operated in unison by moving the cable.

1,028,144. LAMP ATTACHMENT FOR VEHICLES. GEORGE S. SHERMAN, Great Neck, N. Y. Filed Jan. 2, 1909. Serial No. 470,429. (Cl. 240—62.)



1. A vehicle lamp bracket comprising, a lamp carrying member, a bearing support therefor having a socket therein, a lamp swinging member having a socket therein, a sleeve intermediate the bearing support and lamp swinging member fixed on said lamp carrying member and having a hole therein, a double ended bolt mounted in said hole, and means for moving said bolt into engagement with either the socket in the lamp swinging member or the socket in the bearing support, the said means comprising an interior screw thread in said hole, an exterior screw thread on the bolt, and means for rotating the bolt.

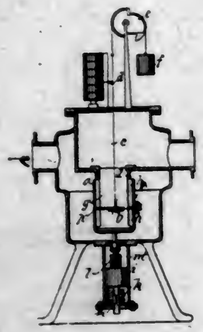
2. A vehicle lamp bracket comprising, a lamp carrying member, a bearing support therefor having a socket therein, a lamp swinging member having a socket therein, a sleeve intermediate the bearing support and lamp swinging member fixed on said lamp carrying member and having a hole therein, a double ended bolt mounted in said hole, and means for moving said bolt into engagement with either the socket in the lamp swinging member or the socket in the bearing support, the said means comprising an interior screw thread in the said hole, an exterior

screw thread on the bolt having a channel, longitudinal of the bolt, therethrough, a rotatable collar mounted in said sleeve and surrounding said bolt, a lug on said collar for engaging said channel, and a handle for rotating the collar.

3. A vehicle lamp bracket comprising, a lamp carrying member, a bearing support therefor, and means for causing the lamp carrying member to yieldingly occupy a given position in the bearing support, the said means comprising a cam plate having raised faces and notches thereon, and spring pressed plungers co-acting therewith.

4. A vehicle lamp bracket comprising, a lamp carrying member, a bearing support therefor, and means for causing the lamp carrying member to yieldingly occupy a given position in the bearing support, the said means comprising a cam plate having raised faces and notches thereon and spring pressed ball plungers co-acting therewith.

1,028,145. RECORDING APPARATUS FOR MEASURING GASEOUS FLUIDS. CARL FRIEDRICH SIMON, Stolberg, Germany. Filed July 24, 1911. Serial No. 640,300. (Cl. 73—167.)



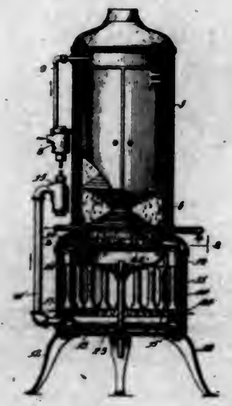
1. In a meter for gaseous fluids, the combination of a container having inlet and outlet openings, and means forming a variable passage for fluid therethrough, such means including members spaced apart and movable with respect to each other to provide a passage of constant width and a passage of variable width, means forming a wall for said opening of constant width confining the gaseous fluid to a path of movement through said opening adjacent said wall, and a device movable with respect to said members for varying the length of said passages.

2. In a meter for gaseous fluids, the combination of a slotted stationary cylinder disposed in the path of movement of the gaseous fluid, a piston for said cylinder, a shutter revoluble with respect to said cylinder for controlling the passages formed by the slots therein and spaced apart from said cylinder a predetermined distance, means forming a wall between said cylinder and shutter, and means carried by said piston forming the complementary walls to said last mentioned means to provide an opening of predetermined area for passage of gaseous fluids.

3. In an automatic recording apparatus for gaseous fluids, the combination of a vertically disposed slotted stationary cylinder, a piston movable in said cylinder, a shutter adapted to vary the openings formed by the said slots in said cylinder, a pivoted member including a cam disk, means operatively connecting said disk and pivoted member to rotate the latter in one direction subject to pressure upon said piston, and a counter weight for said piston operatively connected to said pivoted member, the said cam disks being such that the variation of the velocities of the gases or vapors produced by the variations of the positions of the said shutter and piston for a constant pressure and constant temperature of the gases or vapors to be measured are equalized by correspondingly varying the specific load on said piston.

4. A meter for gaseous fluids comprising in combination, a container having inlet and outlet means, a vertically disposed cylindrical shell having longitudinally extending slots for the passage of gaseous fluids therethrough, a shutter spaced apart from said cylindrical shell and movable with respect thereto to alter the area of the opening formed by the said slots, means for actuating said shutter responsive to actuations of current pressure, a piston in said cylinder adapted to vary its position responsive to fluctuations of said pressure thereby altering the area of the passages formed by the said slots, means forming a wall adjacent the upper margin of said slots and said shutter, and means carried by said piston forming a wall between said slots and said shutter whereby an opening for gaseous fluids is provided between said shutter and cylindrical shell of constant width and variable length, substantially as and for the purpose set forth.

1,028,146. INSTANTANEOUS WATER-HEATER. WILLIAM FRASER STEWART, St. Louis, Mo. Filed Mar. 23, 1911. Serial No. 616,400. (Cl. 122—250.)



1. A water heater comprising a plurality of burners arranged in a horizontal ring with their jet openings directed substantially horizontally toward the axis of the ring, and a housing containing a water coil located above and in substantial axial alinement with said ring, but within the inner periphery thereof, said housing being free of obstructions to the products of combustion other than the water coil.

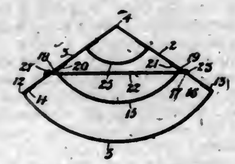
2. A water heater comprising a plurality of burners arranged in a horizontal ring with their jet openings directed substantially horizontally toward the center of the ring, and a housing containing a water coil located above said ring and substantially concentric with said ring and of smaller diameter than the inner periphery thereof, and a drip pan below and of larger diameter than said coil, said housing being free of obstructions to the products of combustion other than the water coil.

3. A water heater comprising a hollow base, a ring of burners inside of said base, a housing mounted on said base, and a water coil inside of said housing, the margin of the opening between the hollow base and said housing being above but within the inner periphery of said ring of burners and said opening being wider than said water coil.

4. A water heater comprising a ring of burners with their jet openings directed toward the axis of the ring, a drip pan inside of said ring of burners and with its outer margin close to the inner periphery of said ring, and a water coil above and of smaller diameter than said drip pan, the jets from the burners being arranged to issue above the drip pan and below the water coil substantially as described.

5. A water heater comprising a ring of burners with their jet openings directed toward the axis of the ring of burners, a drip pan inside of said ring of burners and with its outer margin close to the inner periphery of said ring of burners, and a water coil above and of smaller diameter than said drip pan, the jets from the burners being arranged to issue above the drip pan and below the water coil substantially as described, and an outlet pipe communicating with said drip pan.

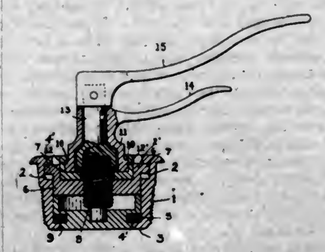
1,028,147. COLLAPSIBLE DISPLAY DEVICE. JULIEN STRANDERS, New York, N. Y., assignor to American Lithographic Company, New York, N. Y., a Corporation of New York. Filed Feb. 4, 1911. Serial No. 606,512. (Cl. 40—126.)



1. A collapsible display device including in combination, a flexible front member, two rigid back members, each having opposite parallel edges, the respective adjacent edges of each of said members being hinged together, the combined width of said back members being substantially equal to the width of said front member, and the opposite outer edges respectively of said back members being hinged to the opposite edges respectively of said front member; a cord secured to one of said back members, a hole through the other back member, said cord passing through said hole and means for securing said cord to that back member; said cord being efficient when thus secured for holding said back members in angular relation to each other and for holding said flexible front member in curved position.

2. A display device including in combination two rigid back members hinged together, said members having their opposite outer edges respectively stepped, a plurality of flexible front members each having their opposite edges hinged to a pair of opposite step risers of said back members and a tension member connecting said rigid back members for maintaining them in angular relation and for maintaining said front members in curved position.

1,028,148. BUNG. GEORGE STROH, Detroit, Mich. Filed Oct. 7, 1910. Serial No. 585,815. (Cl. 217—107.)



1. In a device of the character described, a bushing having recesses in its inner periphery and an annular seat, a bung adapted to interlock with said recessed face and to engage the seat, and independent means adapted to lock the bung in engagement with the recessed face and seat.

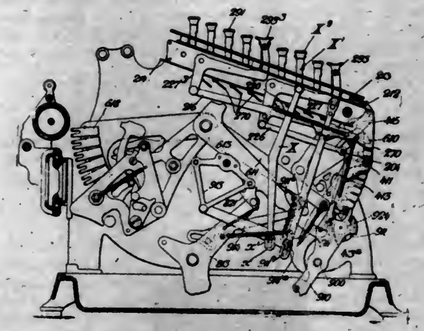
2. In a device of the character described, a bushing having an inner recessed periphery and provided with an annular seat, a rotatable bung adapted to rest on the seat, a device carried by the bung adapted to interlock with said recessed periphery and to hold the bung against outward movement, and independent means for forcing the bung against the seat and for frictionally holding the same against rotation.

3. In a device of the character described, a bushing having an inner recessed periphery and provided with an annular seat, a rotatable bung adapted to rest on the seat, a locking plate movable in the bung and adapted to enter and interlock with the recessed periphery when the bung is inserted in the bushing and turned, and independent means engaging the bung and plate adapted to move the bung relatively to the plate and force the bung to the seat.

4. In a device of the character described, a bushing provided in its inner periphery with slots having interrupted upper margins, an inner annular flange seat formed on the inner periphery, a bung adapted to rest on the seat, a locking plate movable in a transverse opening of the bung and having extensions adapted to enter said slots through the interrupted openings when the bung is to be seated, a plug rotatable in the bung and in screwthreaded engagement with the plate, and adapted to force the bung against the seat when the plate engages the bushing, a removable wrench adapted to non-rotatably interlock with the recessed outer face of the bung and an inner member rotatable in said wrench and adapted to non-rotatably interlock with the screw-plug when the wrench engages the bung.

5. In a device of the character described, a tubular bushing exteriorly fitted for permanent insertion in a vessel and provided near one end with inner peripheral slots having interrupted outer margins, an inner annular flange seat near the other end of the bushing, a transversely apertured bung having a compressible gasket adapted to rest on the seat, a locking plate movable in the opening of the bung and having its ends adapted to enter the bushing slots through the interrupted margins and interlock with the bushing when the plug is turned and an axial screw-plug rotatable and non-reciprocable in the bung in screw-threaded engagement with the plate for moving said bung relatively to the plate and frictionally hold the bung and plate against rotation in the bushing.

1,028,149. ADDING-MACHINE. WILLIAM E. SWALM, Los Angeles, Cal., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 22, 1910. Serial No. 557,059. (Cl. 235—60.)



1. In a machine of the character described, the combination with racks, means for reciprocating the same, manipulative means for variously limiting excursions of said racks, pinions, and means for engaging the latter with the racks during movement of the same in one direction and disengaging the pinions from the racks during movement of the latter in the opposite direction; of means for reversing at will this order of engagement and disengagement of racks and pinions during excursion of racks as limited by the aforesaid manipulative means.

2. In a machine of the character described, the combination with racks, means for reciprocating the same, manipulative means for variously limiting excursions of said racks, pinions, and means for engaging the latter with the racks during movement of the same in one direction and disengaging the pinions from the racks during movement of the latter in the opposite direction; of a key and connections for reversing at will this order of engagement and disengagement of racks and pinions during excursions of racks as limited by the aforesaid manipulative means.

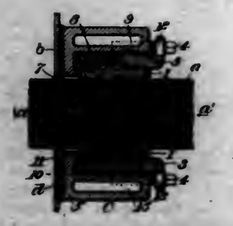
3. In a machine of the character described, the combination with racks, means for reciprocating the same, manipulative means for variously limiting excursions of said racks, pinions, a movable support for the latter; a pitman shiftably engageable with said support to vary the timing of engagement between pinions and racks, and normally operating to keep the pinions disengaged from the racks throughout movement of the latter in one direction and engaged with the racks throughout movement thereof in the opposite direction; and means applied to said pitman for reversing at will this order of engagement and disengagement of racks and pinions during excursion of racks as limited by the aforesaid manipulative means.

4. In a machine of the character described, the combination with racks, means for reciprocating the same, manipulative means for variously limiting excursions of said racks, pinions, a movable support for the latter; a pitman shiftably engageable with said support to vary the timing of engagement between pinions and racks, and normally operating to keep the pinions disengaged from the racks throughout movement of the latter in one direction and engaged with the racks throughout movement thereof in the opposite direction; and a key applied to said pitman for reversing at will this order of engagement and disengagement of racks and pinions during excursion of racks as limited by the aforesaid manipulative means.

5. In a machine of the character described, the combination with racks, means for reciprocating the same, manipulative means for variously limiting excursions of said racks, pinions, a rocking support for said pinions; a pitman engageable with said support on one side or the other of its rocking center, and normally operating to disengage the pinions from the racks for advance of the latter and engage the pinions with the racks for return movement thereof; and a key for shifting the pitman disengaging it from the support on one side of the latter's rocking center and engaging it therewith on the other side of such center and preserving the latter engagement while the racks advance in mesh with the pinions and under control of the aforesaid manipulative means for variously limiting advance of the racks.

[Claims 6 to 8 not printed in the Gazette.]

1,028,150. ELECTRODE-COLLAR FOR ELECTRIC FURNACES. EDWARD R. TAYLOR, Penn Yan, N. Y. Filed Jan. 17, 1911. Serial No. 603,059. (Cl. 204—64.)



1. The combination with a stemless furnace electrode rectangular in cross section, especially a square horizontal electrode, of an air-tight and gas-tight electrode collar adapted to be fixedly attached to the furnace and composed of a frame constructed with an electrode-admitting opening, and a face recess surrounding said opening, movable sections arranged within said recess and longitudinally with reference to the electrode and constructed to contact with the several sides and angles of the electrode, with the frame and with each other, and means including rotatable longitudinal screws for tightening the movable sections and retracting them to free the electrode.

2. An electrode collar adapted to be attached to and insulated from the shell of an electric furnace and to interact with an electrode square in cross section; said collar having, in combination, a metallic frame constructed with an electrode admitting opening and a face recess surrounding said opening, inner movable sections within said recess constructed and arranged to contact with the electrode and with each other and having longitudinal wedging inclines on their backs, endwise movable outer sections having wedging inclines in contact with those of said inner sections, and means for moving said outer sections endwise to tighten or loosen said inner sections around the electrode.

3. An electrode collar adapted to be attached to and insulated from the shell of an electric furnace, and to interact with an electrode square in cross section; said collar having, in combination, a metallic frame constructed with an electrode admitting opening and a face recess surrounding said opening, movable sections within said recess constructed and arranged to contact with the electrode and with each other to prevent the entrance of air and the escape of gases through said opening, said sections including endwise movable wedging sections, and said frame and wedging sections being constructed with the respective members of a dovetailed guide for each of these sections, and means for moving these sections endwise to tighten or loosen the movable sections of the collar as required.

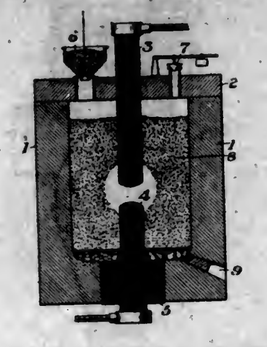
4. An electrode collar adapted to be attached to and insulated from the shell of an electric furnace, and to interact with an electrode square in cross section; said collar having, in combination, a metallic frame constructed with an electrode admitting opening and a face recess surrounding said opening, inner movable sections within said recess constructed and arranged to contact with the electrode and with each other and having longitudinal wedging inclines on their backs, endwise movable outer sections having wedging inclines in contact with those of said inner sections, said frame and outer sections being constructed with the respective members of a dove-tailed guide for each of the outer sections, and means for moving these outer sections endwise to tighten or loosen said inner sections around the electrode.

5. An electrode collar adapted to be attached to and insulated from the shell of an electric furnace, and to interact with an electrode square in cross section; said collar having, in combination, a metallic frame constructed with an electrode admitting opening and a face recess surrounding said opening, and provided within said recess and around said opening with a beveled collar, inner movable sections within said recess constructed and arranged to contact with the electrode and with each other and having longitudinal inclines on their backs and bevels at their inner ends, endwise movable outer sections having longitudinal inclines in contact with those of said inner sections, and means for moving these outer sections endwise to tighten or loosen said inner sections around the electrode; said bevels of the inner sections being constructed and arranged to contact with said beveled collar around the electrode admitting opening.

[Claims 6 to 12 not printed in the Gazette.]

1,028,151. REDUCTION OF REFRACTORY ORES. FRANK J. TONE, Niagara Falls, N. Y. Filed Apr. 8, 1907. Serial No. 366,915. (Cl. 204—63.)

1. The method of reducing metallic compounds subject to volatilization losses, consisting in electrically heating a mixture of the compound and a reducing agent within the reduction zone of an electric arc furnace to a temperature sufficient to cause volatilization of the compound and its reduction by the reducing agent, and maintaining the gases in the reduction zone under a raised pressure sufficient to reduce volatilization losses and to promote condensation of the reduced product but insufficient to wholly prevent volatilization of the compounds of the charge.



2. The process of reducing silicon compounds subject to volatilization losses, consisting in electrically heating a mixture of the compound and a reducing agent within the reduction zone of an electric arc furnace to a temperature sufficient to cause volatilization of the compound and its reduction by the reducing agent, and maintaining the gases in the reduction zone under a raised pressure sufficient to reduce volatilization losses and to promote condensation of the reduced product but insufficient to wholly prevent volatilization of the compounds of the charge.

1,028,152. SEAT. FRITZ TREUDE, Berlin, Germany. Filed July 13, 1911. Serial No. 638,319. (Cl. 4—18.)



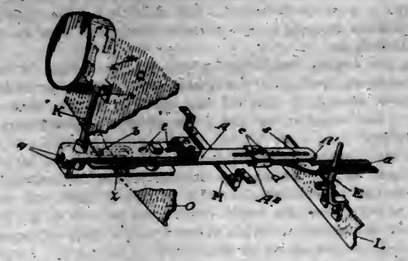
1. In a water closet, the combination with a bowl thereof, of two hinged seat portions mounted on the bowl having the axes of the hinges angularly disposed to cause the portions to approach and form a seat when they are down and to separate when they are turned upwardly, and means for connecting said portions to enable them to be lifted and lowered simultaneously.

2. In a water closet, the combination with the bowl thereof, of two hinged seat portions mounted on the bowl, the axes of the hinges of said seat portions being angularly disposed to cause the seat portions to separate when raised and to approach each other when lowered.

3. In a water closet, the combination with the bowl thereof, of seat portions disposed on said bowl, and devices causing said seat portions to separate when raised and to approach each other when lowered.

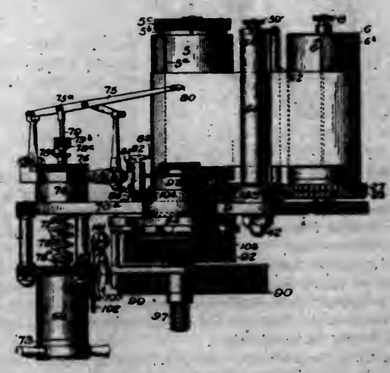
4. In a water closet, the combination with the bowl thereof, of seat portions disposed on said bowl, a cuff adapted to be slipped over and surround each seat portion, and devices causing said seat portions to approach each other when lowered and separate when raised.

1,028,153. AUTOMATIC HEADLIGHT. GEORGE T. TRIBE and JOHN M. BEMIS, Worcester, Mass. Filed Oct. 28, 1909, Serial No. 525,176. Renewed Oct. 26, 1911. Serial No. 656,996. (Cl. 240—62.)



The combination in a device for automatically turning the head light of a car having pivoted trucks; of a vertical lamp standard, rotatably supported in a bearing attached to the car, said standard having a square tapered end and a hinged plate at top to receive the said lamp, pivotally supported on said standard; a lever plate and screw for raising and depressing lamp; a crank with a shouldered portion having a square tapered vertical hole to receive the lower end of the lamp standard, and also having a laterally movable portion with a slot; with a laterally movable pivoted lever and its expansion joint, connecting the two parts and having a stud at its front end to engage the slot of said crank and a pronged slot at its rear end in which operates a vertical standard fastened to the front of a car truck, substantially as and for the purpose set forth.

1,028,154. CONTINUOUS INDICATOR FOR ENGINES. WILLIAM L. TRILL, Corry, Pa. Filed Nov. 19, 1908. Serial No. 463,406. (Cl. 234—21.)



1. An engine indicator having rotary drums, means for oscillating said drums to transfer a continuous strip of paper coiled on said drums from one drum to the other, and a clutch connection between one of the drums and the driving mechanism arranged to frictionally drive said drum in both directions; substantially as described.

2. An engine indicator having rotary drums, means for oscillating said drums to transfer a continuous strip of paper coiled on said drums from one drum to the other, a clutch connection between one of said drums and the driving mechanism arranged to frictionally drive said drum in both directions, and a clutch on the other drum arranged to drive it in one direction; substantially as described.

3. An engine indicator having rotary drums, differential gearing for oscillating said drums to transfer a

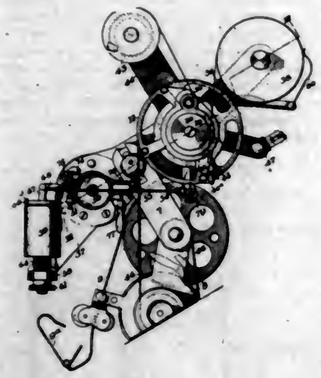
continuous strip of paper coiled on said drums from one drum to the other, and a frictional clutch connection between one of the drums and the driving mechanism arranged to frictionally drive said drum in both directions, the differential driving gear being arranged to rotate the drums a greater distance while moving in one direction than when moving in the reverse direction; substantially as described.

4. An engine indicator having rotary drums, a strip of paper supported on the drums, and means for oscillating the drums to unwind the strip of paper from one drum and wind it on the other drum; substantially as described.

5. An engine indicator having rotary drums, a strip of paper supported on the drums, means for oscillating the drums to unwind the strip of paper from one drum and wind it on the other drum, and a slot in at least one of the drums in which one end of the strip of paper is secured; substantially as described.

[Claims 6 to 32 not printed in the Gazette.]

1,028,155. CONTINUOUS INDICATOR FOR ENGINES. WILLIAM L. TRILL, Corry, Pa. Filed Mar. 11, 1911. Serial No. 613,907. (Cl. 234—21.)



1. An engine indicator having a drum arranged to carry a strip of paper thereover, means to oscillate said drum, and feeding mechanism actuated by the movement of the drum to feed the strip of paper over the drum; substantially as described.

2. An engine indicator having a drum arranged to carry a strip of paper, means to oscillate said drum, and feeding mechanism actuated by the movement of the drum in one direction to feed the strip of paper over the drum; substantially as described.

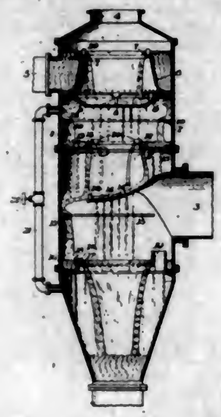
3. An engine indicator having a drum arranged to carry a strip of paper thereover, means to oscillate said drum, and feeding means carried by the drum and arranged to be actuated by the movement of the drum to feed the strip of paper over the drum; substantially as described.

4. An engine indicator having a drum arranged to carry a strip of paper thereover, means to oscillate said drum, and feeding means carried by the drum and arranged to be actuated by the movement of the drum in one direction to feed the strip of paper over the drum; substantially as described.

5. An engine indicator having a drum arranged to carry a strip of paper thereover, a paper feeding roller carried by the drum, means to oscillate said drum, and means actuated by the movement of the drum to rotate said roller to feed the strip of paper over the drum; substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,028,156. BAROMETRIC CONDENSER. CHARLES L. W. TRINKS, Pittsburgh, Pa. Filed Oct. 10, 1911. Serial No. 653,897. (Cl. 62—25.)



1. In a condenser of the counter-current type, an overflow weir in the upper portion of the condenser chamber, and a horizontal splash plate placed below and at such distance from the weir that the horizontal splash will strike the lateral walls of the condenser vessel said plate having ribs for forming predetermined openings in the horizontal splash veil for the upward travel of the non-condensable gases; substantially as described.

2. In a condenser of the counter-current type, an overflow weir in the upper portion of the condenser chamber, and a splash plate below the weir, said plate having ribs for causing predetermined openings in the horizontal splash veil for the upward travel of non-condensable gases said plate having ribs for forming predetermined openings in the horizontal splash veil for the upward travel of the non-condensable gases; substantially as described.

3. In a condenser of the counter-current type, the combination with means for producing a cascade of water, of a steam pipe entering the condenser below such means and having an upper extended portion formed in the shape of a flat splash plate having perforations therein, a reverting flange on the lateral wall of the condenser chamber below the place where the splash from such plate strikes the said wall, and lugs on said plate for causing predetermined openings for the upward travel of non-condensable gases; substantially as described.

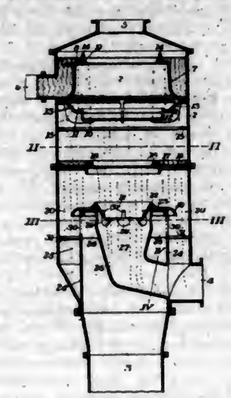
4. A condenser of the counter-current type having an annular trough at its lower portion below the steam inlet of the condenser, said trough having an inner overflow edge and a perforated bottom and also having a tubular opening therethrough extending above its water lever into the steam inlet space, and forming means for admitting steam to the outer surface of the water cone formed by the discharge from the inner edge of the trough, substantially as described.

5. A condenser of the counter-current type having means below its steam inlet for producing an annular water cascade, and means for drawing steam and air into the space surrounding said cascade, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,028,157. BAROMETRIC CONDENSER. CHARLES L. W. TRINKS, Pittsburgh, Pa. Filed Oct. 10, 1911. Serial No. 653,898. (Cl. 62—25.)

1. In a barometric condenser of the countercurrent type, a condensing vessel, a central steam pipe leading into the bottom of said vessel and supporting the same, said pipe having steam discharge ports or openings for the steam to flow into the condensing chamber both radially inward and radially outward, substantially as described.



2. In a barometric condenser of the countercurrent type, a double-walled steam admission pipe having steam ports in both its inner and outer walls, together with a baffle member arranged to throw water in front of both sets of ports, substantially as described.

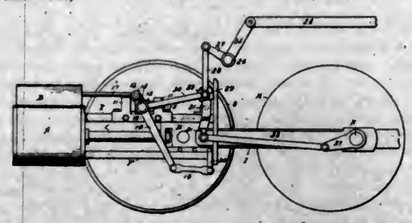
3. In a barometric condenser of the countercurrent type, a double-walled steam admission pipe having steam ports in both its inner and outer walls, together with a baffle member arranged to throw water in front of both sets of ports in proportion to the area of said ports, substantially as described.

4. In a barometric condenser of the counter-current type, a water baffle or weir having a plurality of concentric annular water discharges, and separate shallow striking members located in different planes below the respective discharges; substantially as described.

5. In a barometric condenser of the counter-current type, a water baffle or weir having a plurality of concentric annular water discharges, and separate shallow striking members vertically under the several discharges, said members being located in different horizontal planes and acting to splash water radially outwardly therefrom; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

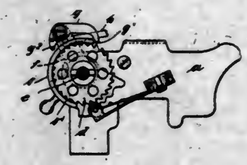
1,028,158. VALVE-GEAR. ERNEST TURNER, Dadeville, Ala. Filed Dec. 1, 1910. Serial No. 595,079. (Cl. 121—98.)



1. A valve gear mechanism comprising a support secured upon the upper cross-head guide, having upstanding spaced apart lugs thereon, said lugs having alining openings transversely therethrough, a bearing disposed between said lugs having laterally projecting pintles adapted to enter the openings in said lugs whereby said bearing is slidingly supported, a shaft rotatably mounted in said bearing, a rocking arm secured to said shaft intermediate its ends, said rocking arm being pivoted at its upper end to the valve for operating the same, a cross-head connected to the opposite end of said arm for rocking the arm, and a link motion loosely connected to said shaft whereby said bearing may be moved sidewise on its pintles in a straight line parallel to the direction of movement of the cross-head for varying the lap and lead of said valve.

2. A valve gear mechanism comprising a support secured upon the upper cross-head guide having upstanding spaced-apart lugs thereon, said lugs having alining openings transversely therethrough, a bearing disposed between said lugs having laterally projecting pintles adapted to enter the openings in said lugs whereby said bearing is slidingly supported, a rocking shaft mounted in said bearing, an upstanding arm fast on said shaft at one end thereof, said arm connected at its upper end to the valve for operating the same, a combination lever fast on said shaft at its opposite end, a cross-head connected to said lever for rocking the same, a radius bar of a link motion loosely connected to said shaft between the bearing and the combination lever, whereby said bearing may be moved sidewise on its pintles in a straight line parallel to the direction of movement of the cross-head for varying the lap and lead of said valve, the sidewise movement of said bearing being limited by said lugs.

1,028,159. TYPE-WRITING MACHINE. ANTHONY UTZ, Hartford, Conn., assignor to Royal Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 24, 1911. Serial No. 616,650. (Cl. 197—114.)



1. A line space mechanism comprising the combination of the platen ratchet wheel, its adjustable flanged guard having upon the flange thereof characters indicating different line space adjustments, a swinging arm to be actuated by the operator, a pawl pivoted in said arm and one end of which is adapted to engage and drive the ratchet and the other end of which coöperates with the line space indications on the flange of the guard to indicate to the operator the adjustment of the devices.

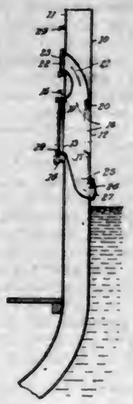
2. Line spacing mechanism comprising the combination of the platen ratchet wheel, its adjustable flanged guard having line space indicators, a movable pawl support, a pawl pivoted therein and adapted to actuate the ratchet wheel and a line space indicator moving with said support and coöperating with the indications on the guard.

3. Line spacing mechanism comprising the combination of the platen ratchet wheel, an adjustable guard having characters indicating the line spacing, a swinging pawl support, a pawl pivoted therein and adapted to actuate the ratchet wheel and a line space indicator moving back and forth with the pawl and arranged to overlie those line space indications on the guard that are, in any of the positions of adjustment, above and beyond its end.

1,028,160. VENTILATING-PORT FOR SHIPS. ALBERT VAN HERDMAN, New York, N. Y., assignor to Charles F. Werner, New York, N. Y. Filed Dec. 20, 1911. Serial No. 666,934. (Cl. 114—178.)

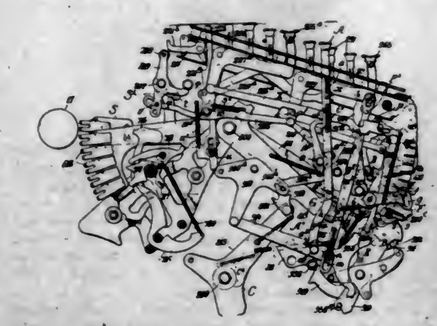
A ship provided with double sides having outer and inner port holes, an apertured casing fitted between said sides and having an upper inwardly extending curved duct that gradually contracts in width and has an inner convex wall to constitute a water shield, a lower downwardly and outwardly extending duct, an opening in the inner

wall that communicates with the upper duct, an opening in the outer wall that communicates with the lower duct,



and an outwardly oscillatable valve controlling the last named opening.

1,028,161. ADDING AND SUBTRACTING MACHINE. JESSE G. VINCENT, Detroit, Mich., assignor to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed Apr. 6, 1908. Serial No. 425,466. (Cl. 235—60.)



1. In a machine of the character described, the combination of differentially movable reciprocating racks, wheels movable into and out of engagement therewith, transfer mechanism for causing a complete rotation of any wheel in either direction to result in an increment of movement of the next adjacent wheel of higher order, and means for reversing the order of engagement and disengagement between wheels and racks to provide for movement of the wheels in either direction by the racks.

2. In a machine of the character described, the combination of differentially movable reciprocating racks, wheels movable into and out of engagement therewith, spring transfer mechanism for causing a complete rotation of any wheel in either direction to result in an increment of movement of the next adjacent wheel of higher order, and means for reversing the order of engagement and disengagement between wheels and racks to provide for movement of the wheels in either direction by the racks.

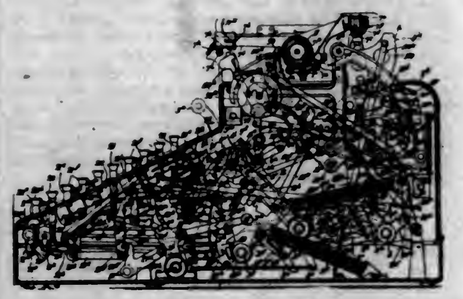
3. In a machine of the character described, the combination of differentially movable reciprocating racks and carriers, the racks having an increment of movement independent of the carriers, means normally preventing such independent movement of racks, wheels movable into and out of engagement with the racks, and means for reversing the order of engagement and disengagement between racks and wheels to provide for movement of the wheels by the racks in either direction, with provisions for causing complete rotation of any wheel in either direction to permit independent movement of the rack of the adjacent wheel of higher order for transfer purposes.

4. In a machine of the character described, the combination of differentially movable reciprocating racks and carriers, the racks having an increment of movement independent of the carriers under spring-actuation, means normally preventing such independent movement of racks, wheels movable into and out of engagement with the racks, and means for reversing the order of engagement and disengagement between racks and wheels to provide for movement of the wheels by the racks in either direction, with provisions for causing complete rotation of any wheel in either direction to permit independent movement of the rack of the adjacent wheel of higher order for transfer purposes.

5. In a machine of the character described, the combination of differentially movable reciprocating racks and carriers, the racks having an increment of movement independent of the carriers, pawls normally preventing such independent movement of racks, wheels movable into and out of engagement with the racks and having projections to displace said pawls upon complete rotation of wheels in either direction, and means for reversing the order of engagement and disengagement between racks and wheels to provide for movement of the wheels in either direction by the racks.

[Claims 6 to 55 not printed in the Gazette.]

1,028,162. ADDING AND LISTING MACHINE. JESSE G. VINCENT and RUSSELL E. BENNER, Detroit, Mich., assignors to Burroughs Adding Machine Company, Detroit, Mich., a Corporation of Michigan. Filed June 15, 1908. Serial No. 438,659. (Cl. 235—60.)



1. In a machine of the class described, the combination of one or more rows of vertically arranged depressible keys; horizontally movable stop pieces operatively engaged with said keys respectively and adapted to be projected rearwardly thereby, the stop pieces forming one or more vertical series or rows directed rearward; one or more rack-carriers arranged to move up and down along the row or rows of rearwardly directed ends of said stop pieces and having an abutment piece or pieces to encounter different stop pieces of a row or of rows respectively; racks on said carriers; and adding pinions arranged to engage said racks and located in rear of the keys and above the stop pieces.

2. In a machine of the class described, the combination of one or more rows of vertically arranged depressible keys; horizontally movable stop pieces operatively engaged with said keys respectively and adapted to be projected rearwardly thereby, the stop pieces forming one or more vertical series or rows directed rearward; one or more rack-carriers arranged to move up and down along the row or rows of rearwardly directed ends of said stop pieces and having an abutment piece or pieces to encounter different

stop pieces of a row or of rows respectively; racks on said carriers; adding pinions arranged to engage said racks and located in rear of the keys and above the stop pieces; a platen located above said pinions; type carriers pivoted in rear of said platen, their type carrying portions extending in front of the same; and operating connections between the type carriers and the rack-carriers.

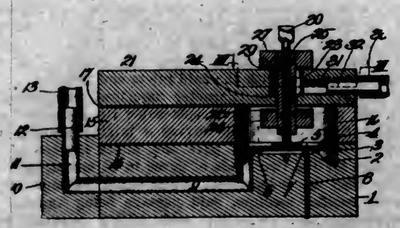
3. In a machine of the class described, the combination of one or more rows of vertically arranged depressible keys; horizontally movable stop pieces operatively engaged with said keys respectively and adapted to be projected rearwardly thereby, the stop pieces forming one or more vertical series or rows directed rearward; one or more rack-carriers pivoted in rear of said stop pieces to swing up and down along the same and having an abutment piece or pieces to contact with the stop pieces of a row or of rows respectively, said carriers having rearwardly projecting arms; racks on the forward ends of the carriers; adding pinions to engage said racks and located in rear of the keys and above the stop pieces; a platen located above said pinions; type carriers pivoted in rear of said platen, their type carrying portions extending in front of the same; and links connecting the type carriers in rear of their pivots with the rearwardly projecting arms of the rack carriers.

4. In a machine of the class described, the combination of one or more rows of vertically arranged depressible keys; horizontally movable stop pieces operatively engaged with said keys respectively and adapted to be projected rearwardly thereby, the stop pieces forming one or more vertical series or rows directed rearward; one or more rack-carriers arranged to move up and down along the row or rows of rearwardly directed ends of said stop pieces and having an abutment piece or pieces to encounter different stop pieces of a row or of rows respectively; racks on said carriers; adding pinions arranged to engage said racks and located in rear of the keys and above the stop pieces; a platen located above said pinions; type carriers pivoted in rear of said platen, their type carrying portions extending in front of the same; operating connections between the type carriers and the rack-carriers; and printing hammers mounted in front of the type carriers and adapted to swing rearwardly in delivering a blow on the type.

5. In a machine of the class described, the combination of a roller platen, means for advancing the same step-by-step, a hand-operated actuator for said means, a drive shaft, connections from the same for operating said means, and means for coupling or uncoupling the latter and said connections and by the same act rendering the hand-operated actuator inoperative or operative.

[Claims 6 to 156 not printed in the Gazette.]

1,028,163. PIANO-PLAYER MECHANISM. WILLIAM T. WAITE, Kansas City, Mo., assignor of one-half to S. M. Henley, Kansas City, Mo. Filed June 26, 1911. Serial No. 635,321. (Cl. 84—156.)



1. In a piano player mechanism, a vacuum chest provided with a plurality of vacuum chambers, a corresponding number of chambers opposite the vacuum chambers, provided with walls and a tracker duct or passage for and in communication with each of said last-named chambers, movable diaphragms forming partitions between the said vacuum chambers and said opposite chambers and normally engaging the walls of and subdividing the said opposite chambers into two compartments; each diaphragm having a vent or bleed opening to establish communication between a vacuum chamber and a compartment of one of the said opposite chambers, and means closing said vent or bleed openings when the diaphragms are in normal position and uncovering said openings when the diaphragms are in operative position.

2. In a piano player mechanism, a vacuum chest provided with a plurality of vacuum chambers, a corresponding number of chambers opposite the vacuum chambers, provided with walls and a tracker duct or passage for and in communication with each of said last-named chambers, movable diaphragms forming partitions between the said vacuum chambers and the said opposite chambers and normally engaging the walls of and subdividing the said opposite chambers into two compartments, each diaphragm having a vent or bleed opening to establish communication between a vacuum chamber and a compartment of one of the said opposite chambers, and pins closing the vent or bleed openings when the diaphragms are in normal position and uncovering said openings when the diaphragms are in operative position.

3. In a piano player mechanism, a vacuum chest provided with a plurality of vacuum chambers, a corresponding number of chambers opposite the vacuum chambers, provided with walls and a tracker duct or passage for and in communication with each of said last-named chambers, movable diaphragms forming partitions between the said vacuum chambers and the said opposite chambers and normally engaging the walls of and subdividing the said opposite chambers into two compartments, each diaphragm having a vent or bleed opening to establish communication between a vacuum chamber and a compartment of one of the said opposite chambers, and a pin fitting in the vent or bleed opening of each diaphragm when the same is in normal position and withdrawn from said opening when the diaphragm is in operative position.

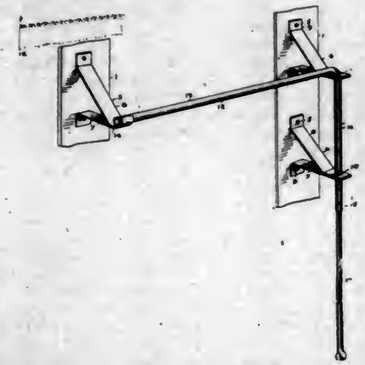
4. In a piano player mechanism, a vacuum chest provided with a plurality of vacuum chambers, a corresponding number of chambers opposite the vacuum chambers, provided with walls and a tracker duct or passage for and in communication with each of said last-named chambers, movable diaphragms forming partitions between the said vacuum chambers and the said opposite chambers and normally engaging the walls of and subdividing the said opposite chambers into two compartments, each diaphragm having a vent or bleed opening to establish communication between a vacuum chamber and a compartment of one of said opposite chambers, and a pin provided with a tapered end fitting in and closing each vent or bleed opening when the diaphragm thereof is in normal position and withdrawn from said opening when the said diaphragm is in operative position.

5. In a piano player mechanism, a vacuum chest provided with a plurality of vacuum chambers, a corresponding number of chambers above and a similar number of chambers below the vacuum chambers, a tracker duct or passage for and in communication with each of said last-named chambers, passages connecting the vacuum chambers with the overlying chambers, a diaphragm dividing the vacuum chambers from the underlying chambers, and when depressed engaging the chest to divide each of the last-named chambers into two compartments; each diaphragm having a vent or bleed opening to establish communication between each vacuum chamber and a compartment of one of the subdivided chambers, means closing the vent or bleed openings when the diaphragms are depressed and uncovering said openings when the diaphragms are raised, passages connecting the vacuum chambers and the overlying chambers, a series of valves corresponding in number to and adapted to be raised by the diaphragms, and consisting of stems extending from the vacuum chambers through said passages and the said overlying chamber, heads within the vacuum chambers and heads at the opposite ends of the stems normally closing communication between the atmosphere and the said overlying chambers, the vacuum chest also having passages connected with the

said overlying chambers to receive air from the latter when the valve is raised to close communication between the said chambers and the vacuum chambers and open communication between the said overlying chambers and the atmosphere.

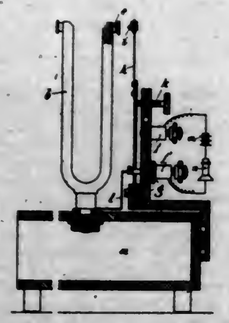
[Claims 6 and 7 not printed in the Gazette.]

1,028,164. CURTAIN-HOLDER. SALLIE B. WALKER, South Berkeley, Cal., assignor of one-half to Thomas R. Goth, San Francisco, Cal. Filed Jan. 23, 1911. Serial No. 604,106. (Cl. 156—22.)



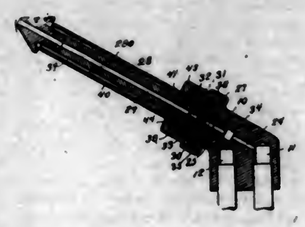
In combination with a frame, two brackets secured on one side of said frame having apertures in vertical alinement, an L-shaped tubular curtain holder having a horizontal member extending across the frame and a vertical member passing through said apertures, a short metal rod bent at right angles inside the tubular holder at the bend thereof, and a vertical stem detachably secured to the lower end of said vertical member.

1,028,165. RESONATOR FOR EXAMINING THE HUMAN VOICE. SUSANNE WEBER-BELL, Planegg, near Munich, Germany. Filed July 26, 1911. Serial No. 640,720. (Cl. 181—5.)



A device for analyzing the tones of the human voice comprising in combination, a sounding box, a tuning-fork mounted on said box provided with an electrical contact on one of its forked members, an electric circuit including a source of current and an ear receiver with one line connected with said fork, and a contact connected with the other line of said circuit and co-acting with the fork contact to make and break circuits upon vibration of the fork, substantially as and for the purposes set forth.

1,028,166. WELDING OR CUTTING APPARATUS. JOHN WALTER WHITFORD, Jersey City, N. J., assignor to Davis-Bournonville Acetylene Development Company, Pierre, S. D., a Corporation of South Dakota. Filed Mar. 4, 1911. Serial No. 612,189. (Cl. 158—109.)



1. A device of the character described comprising a head provided with a conical socket and separate conduits for combustible and combustion-supporting gases, a burner tip provided with a mixing and discharge passage, separate inlets for the two kinds of gases to said passage and a conical rear portion, the surfaces of said conical tip portion and conical socket being formed as similar abrupt-angled freely-separable conical seats, of a conicity greater than the critical angle of sticking, said seats having an annular channel formed between them intermediate their length for placing one kind of said inlets in communication with the corresponding conduit in the head, the portions of the seats at opposite sides of said channel affording inner and outer gas-tight seals of ample width, and means for forcing the tip and head together, said tip being held in place by said means alone.

2. A device of the character described comprising a head provided with a conical socket and separate conduits for combustible and combustion-supporting gases, a burner tip provided with a conical rear portion, a mixing and discharge passage, and separate inlets for the two kinds of gases to said passage, the inlet for one of the gases opening through said conical portion, the surfaces of said conical tip portion and conical socket being formed as similar abrupt-angled freely-separable conical seats of a conicity greater than the critical angle of sticking, these seats having portions at opposite sides of the inlet through the conical portion of the tip affording inner and outer gas-tight seals of ample width, and means for forcing the tip and head together, said tip being held in place by said means alone.

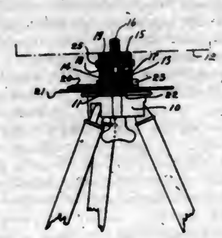
3. A device of the character described, comprising a head and a removable and replaceable tip supported and supplied thereby, said tip having a mixing passage discharging at its forward part and inlets thereto at its rear part for the two kinds of gases to be mixed, said tip having also an independent longitudinal passage for a gaseous cooling medium, said head having conduits communicating with said inlets and a third conduit communicating with said passage for cooling medium, and the head and tip being further provided with coöperating sealing seats, sealing the three kinds of fluids from each other and from the atmosphere where the conduits in the head communicate with the said inlets and passage.

4. A device of the character described, comprising a head and a removable and replaceable tip supported and supplied thereby, said tip having a mixing passage discharging at its forward part and inlets thereto at its rear part for the two kinds of gases to be mixed, said tip having also an independent longitudinal passage for a gaseous cooling medium, said passage being annular in cross-section and encircling said mixing passage, said head having conduits communicating with said inlets and a third conduit communicating with said passage for cooling medium, and the head and tip being further provided with coöperating sealing seats, sealing the three kinds of fluids from each other and from the atmosphere where the conduits in the head communicate with the said inlets and passage.

5. In a device of the character described, a tip having a mixing passage and inlets thereto for the two kinds of gases and also a longitudinal passage for gaseous cooling fluid, and a head provided with conduits for supplying said inlets and another conduit therein for leading cooling fluid to said cooling passage.

[Claims 6 to 8 not printed in the Gazette.]

1,028,167. INDICATING AND SWIVEL SUPPORT FOR CAMERAS. EDWIN JAMES WILLIAMS, Mount Vernon, N. Y. Filed July 25, 1911. Serial No. 640,509. (Cl. 88—61.)



1. A device for enabling the taking of panoramic photographs, comprising a stationary supporting member, a member swiveled thereon and constituting a rotatable support for a camera, being provided with means for attachment therewith, a graduated dial on one of said members, and a pointer on the other member, said pointer being adjustable relatively to both of said members.

2. A device for enabling the taking of panoramic photographs, comprising two members having swivel connection with each other, one member being provided with a threaded socket for engagement with a tripod screw and the other being provided with a corresponding screw for engagement with a camera, one member having a circular series of graduations and the other member having a coöperating index.

3. A device for enabling the taking of panoramic photographs, comprising a stationary supporting member, a member swiveled thereon and constituting a rotatable support for a camera, being provided with means for engagement therewith, means for holding said members against separation, a graduated dial carried by one of said members, and a coöperating pointer carried by the other member and adjustable thereupon.

4. A device for enabling the taking of panoramic photographs, comprising a stationary socket member provided with internal screw threads adapted to engage a tripod screw, a barrel member receiving said socket member and rotatably supported thereon, being provided at the top with a screw projection corresponding to the screw socket, for engagement with a camera, and a graduated dial and a pointer carried respectively by said members at their lower parts.

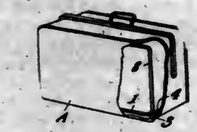
5. A device for enabling the taking of panoramic photographs, comprising a stationary socket member provided with internal screw threads adapted to engage a tripod screw, a member swiveled on the socket member and constituting a rotatable support for a camera, being provided with a screw for engagement therewith, and a dial and pointer carried by said members at their lower parts, spaced materially below the top of said swiveled member.

[Claims 6 to 9 not printed in the Gazette.]

1,028,168. ATTACHMENT FOR BAGS, GRIPS, VALISES, AND THE LIKE. WILLIAM G. WILLIAMS, Vinita, Okla. Filed Dec. 7, 1911. Serial No. 664,484. (Cl. 190—49.)

1. An attachment for valises, bags and the like, including a base frame, and spring side members extending from the sides of the base frame and normally diverging away from said frame.

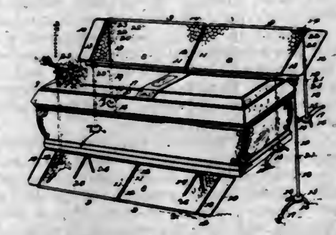
2. An attachment for valises, bags, and the like, including a base, side frames upstanding from the sides of the base, each side frame being formed in a single length of spring wire having arms extending transversely under one of the sides of the base and terminating in eyes engaging the ends of the base.



3. The combination with a receptacle having flexible walls, of a base upon and extending along the edge portions of the bottom of the receptacle, and spring side members upstanding from the base and along the end and top portions of the sides of the receptacle and constituting means for supporting said walls of the receptacle and for automatically opening said receptacle when unlocked.

4. In an article of manufacture a reinforcing and opening attachment for valises and the like, including a base frame, and spring side frames, each side frame being formed in a single length of spring wire having its terminal portions looped about one side of the base frame and merging into inwardly extending arms projecting under the frame, each arm having a terminal eye engaging one end of the base frame.

1,028,169. FLOWER-RACK. HARRY C. WILMOT, Pekin, Ill. Filed Dec. 9, 1911. Serial No. 664,866. (Cl. 211—14.)



1. A collapsible flower rack comprising tubular rectangular sections foldably connected at their adjoining ends, and collapsible members adapted to support said rack in inclined position, for the purpose set forth.

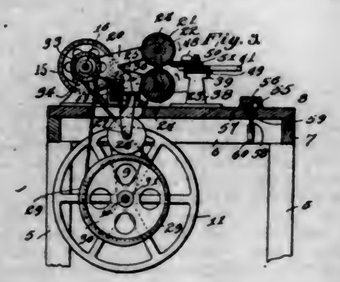
2. A collapsible flower rack comprising tubular rectangular sections foldably connected at their adjoining ends, standards for said rack comprising telescoping sections provided with means at their upper ends for engaging the edges of said rack, and means for adjustably connecting said rack engaging means and said standards, whereby said rack may be supported at varying angles, for the purpose set forth.

3. A collapsible flower rack comprising tubular rectangular sections foldably connected at their adjoining ends, standards for said rack comprising telescoping sections provided with means at their upper ends for engaging the edges of said rack, and means for adjustably connecting said rack engaging means and said standards, whereby said rack may be supported at varying angles, and extension pieces adapted to be connected with the ends of said rack, for the purpose set forth.

1,028,170. AUTOMATIC RAZOR-BLADE-SHARPENING MACHINE. HARRY C. WILSON, New York, N. Y. Filed May 10, 1911. Serial No. 626,201. (Cl. 51—16.)

1. In a machine of the class described, a supporting frame having a table, a razor blade clamp support, means

mounted in the support for holding a razor blade, opposed rotary dressing rollers movable into contact with opposite beveled faces of the cutting edge of such blade, a counter shaft mounted upon the table and having connection with the dressing rollers for rotating the same in reverse directions, a motor driven shaft connected with the counter shaft for driving the same, a cam operated by the counter shaft, and friction means connected with the dressing rollers and adapted to travel upon the cam for raising and lowering said rollers alternately into contact with the said razor blade for the sharpening thereof.



2. In a machine of the class described, a supporting frame having a table, a razor blade clamp support, means mounted in the support for holding a razor blade, opposed rotary dressing rollers movable into contact with opposite beveled faces of the cutting edge of such blade, a counter shaft mounted upon the table and having connection with the dressing rollers for rotating the same in reverse directions, a motor driven shaft connected with the counter shaft for driving the same, a cam operated by the counter shaft, friction means connected with the dressing rollers and adapted to travel upon the cam for raising and lowering said rollers alternately into contact with the said razor blade for the sharpening thereof, and means for tensioning said friction means and also sustaining it in engagement with the cam.

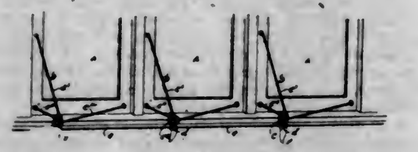
3. In a machine of the class described, a support, bearings rising from said support, a rotatable shaft journaled in said bearings, swinging arms loosely connected with said shaft, opposed rotary dressing rollers journaled in said arms in spaced relation to each other, a clamp receiving bar mounted upon the support forwardly of the said dressing rollers, a plurality of razor blade clamps removably mounted in said bar for positioning razor blades in the path of movement of the dressing rollers, whereby the latter will sharpen the said blades, a motor driven shaft journaled in said support, connection between the motor driven shaft and the said first-named shaft for rotating the latter, a cam wheel loosely mounted upon the motor driven shaft, a friction roller connected with the arms and engageable with the cam wheel, whereby the said arms will be raised and lowered for bringing the dressing rollers into alternate contact with the razor blades, and connections between the cam wheel and the said first-named shaft for rotating said cam wheel independently of the said motor driven shaft, and means acting upon the connections between the friction roller and the arms for holding said friction roller in constant contact with the cam wheel, and also for absorbing shocks and jars incident to the travel thereof.

4. In a machine of the class described, a support, bearings rising from said support, a rotatable shaft journaled in said bearings, swinging arms loosely connected with said shaft, opposed rotary dressing rollers journaled in said arms in spaced relation to each other, a clamp receiving bar mounted upon the support forwardly of the said dressing rollers, a plurality of razor blade clamps removably mounted in said bar for positioning razor blades in the path of movement of the dressing rollers, whereby the latter will sharpen the said blades, a motor driven shaft journaled in said support, connection between the motor driven shaft and the said first-named shaft for rotating the latter, a cam wheel loosely mounted upon the motor driven shaft, a friction roller connected with the arms and engageable with the cam wheel, whereby the said arms will be raised and lowered for bringing the dressing rollers into alternate contact with the razor blades, connections between the cam wheel and the said first-named shaft for rotating said cam wheel independently of the said motor driven shaft, and means acting upon the connections between the friction roller and the arms for holding said friction roller in constant contact with the cam wheel, and also for absorbing shocks and jars incident to the travel thereof.

5. In a machine of the class described, a supporting frame having a platform, bearings rising from the platform near the opposite sides thereof and rearwardly of the same, a counter shaft journaled in said bearings, swinging arms loosely connected with said shaft, hangers fixed to the frame and depending therefrom, a motor driven shaft journaled in said hangers, pulley wheels fixed to the counter and motor driven shafts, respectively, an endless band trained over said pulley wheels for driving the shafts in unison, rotatable dressing rollers journaled in the arms in spaced relation to each other, connections between the counter shaft and the said rollers for driving the latter in reverse direction to each other, a clamp support rising from the platform forwardly of said dressing rollers, a plurality of razor blade clamps removably fitted in said clamp support, whereby razor blades will be held in the path of movement of the dressing rollers for the sharpening thereof, a union bar connecting the arms, a depending fork formed on the union bar, a friction roller journaled in said fork, a pulley wheel loosely journaled on the motor driven shaft, a cam rim carried by the last-named pulley wheel and engageable by the said friction roller for automatically raising and lowering the dressing rollers into alternate contact with opposite beveled faces of the cutting edges of such razor blades held within the clamps, and connections between the counter shaft and the said loose pulley wheel for driving the same independently of the motor driven shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,028,171. WINDOW-SASH-OPERATING MECHANISM. WILLIAM VON WOLFFRADT, Cleveland, Ohio. Filed Jan. 28, 1911. Serial No. 605,188. (Cl. 16—28.)



1. In a window-sash operating mechanism, the combination with a vertically pivoted window-sash, of a traveling flexible member supported in a plane lower than said window-sash, a counterweight attached to said flexible member, an angularly-extending member mounted upon the window-sash and adjustably connected with said traveling member and means for holding said flexible member in adjusted positions, substantially as set forth.

2. In a window-sash operating mechanism, the combination with a plurality of vertical pivoted window-sashes of a plurality of braces extending laterally beyond the planes thereof and rigidly secured to said window-sashes, a traveling flexible member, a counterweight at one end thereof, adjustable connecting-means for securing said traveling member to each of the braces and means for holding said flexible member in adjusted positions, substantially as set forth.

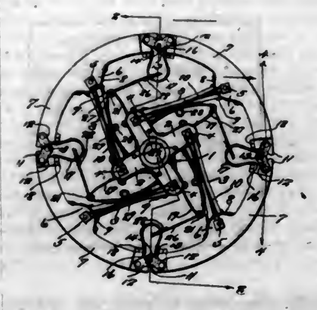
3. In window-sash operating mechanism, the combination with a plurality of pivoted window-sashes, of a plurality of bracket members rigidly attached thereto and extending beyond the plane of said windows, a flexible and relatively inextensible member mounted to travel transversely of the movement of the windows, adjustable connecting-means for securing the bracket members individually thereto, a counterweight for actuating the traveling member, and means for holding it in its adjusted positions, substantially as set forth.

4. In window-sash operating mechanism, the combination with a pivotally mounted window-sash, of a brace or bracket member connected with the window-sash substantially at the extremities of one of its pivotally movable rails and extending laterally beyond the plane of said window-sash, a flexible traveling member, a counterweight thereon, means for retaining said member in its adjusted position, and adjustable means for connecting the traveling member with the brace, substantially as set forth.

5. The combination with a plurality of vertical pivoted window-sashes, of a plurality of braces attached respectively near the extremities of their horizontal rails, a rope extending past said braces and over pulleys positioned beyond the series of windows, a counterweight attached at one end of the rope, retaining means for the opposite end of the rope, and adjustable connecting-means for securing the braces individually to said rope, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,028,172. RESILIENT WHEEL. JAMES R. WRIGHT, Trenton, Mo. Filed Mar. 2, 1912. Serial No. 681,065. (Cl. 152—30.)



1. In a resilient wheel having a hub, a rim comprising a plurality of loosely coupled sections, links arranged at right angles to and offset from the center of the hub and connecting the sections to the hub, and bowed springs connecting the adjacent ends of the sections.

2. In a resilient wheel having a hub, a rim comprising a plurality of loosely coupled sections, links arranged at right angles to and offset from the center of the hub and connecting the sections to the hub, elliptical springs secured to the hub, one disposed between one side of each link and the inner end of the adjacent link, bowed springs connecting the adjacent ends of the section, and looped links connecting the elliptical springs and the bowed springs.

3. In a resilient wheel having a rim comprising a plurality of sections, each having reduced end extensions with undercut portions, links one pivoted upon each side of each extension, a pivot pin passing through the adjacent ends of the links from one side of the rim to the other, and a sleeve fitting each pivot pin and arranged in the undercut portions, the links extending at angles to one another toward the center of the wheel.

1,028,173. SAFETY-FUSE. HARRY A. YATES, New York, N. Y., assignor, by mesne assignments, to The Y. & G. Electric Fuse & Engineering Company, a Corporation of New Jersey. Filed July 11, 1911. Serial No. 637,881. (Cl. 175—273.)

1. A safety fuse comprising a casing and a fusible element contained therein, said element having a main fusible portion, fusible head members, and fusible connections between the head members and the main fusible portion, the combined current carrying capacity of said connections being less than the current carrying capacity of the main fusible portion.



2. A safety fuse comprising a casing, and a fusible element contained therein, the latter comprising fusible head members each formed of connected sections, and a fusible member connecting the head members.

3. A safety fuse comprising a casing, and a fusible element therein, said element comprising a plurality of head members each head member being formed of separated sections, a fusible spider connecting the sections of each head, and a fusible strip connecting the spiders.

4. A safety fuse comprising a casing, a fusible ring located adjacent to each end of the casing, and a fusible connection extending between the rings, said ring being adapted to be ruptured upon the operation of the fuse, substantially as described.

5. A safety fuse comprising a casing, a fusible ring formed of a series of segments, a fusible spider connecting the segments, and a fusible strip connected to the spider.

[Claims 6 to 10 not printed in the Gazette.]

1,028,174. ACETYLENE-GAS GENERATOR. FAY H. YOUNG, Rockford, Ill. Filed Mar. 24, 1911. Serial No. 616,751. (Cl. 48—31.)



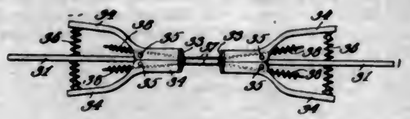
In an acetylene gas generator, the combination with an outer casing having an open top, of a removable cover for said open top, an inner casing located wholly within the outer casing and removable through the top of the same, said inner casing having a transverse partition above its lower end, forming a water reservoir in the upper portion of the outer casing, said casings having their lower portions spaced apart and the water reservoir communicating with the space between the casings to permit the water to flow between the two casings into the lower portion of the outer casing and thence into the inner casing, a removable carbid holder separate from both casings and located in the lower portion of the inner casing, said carbid holder being spaced from the inner casing and having means in one side and above its bottom for admitting water thereinto from the lower portion of the inner casing, and a gas conduit communicating with the carbid holder and extending through the partition of the inner casing and through the removable cover, said inner casing being removable upon the removal of the cover and exposing the carbid holder when so removed.

1,028,175. CLING-KNIFE. GEORGE WILLIAM ALLEN, Selma, Cal. Filed Jan. 2, 1912. Serial No. 668,926. (Cl. 146—6.)

1. In a fruit pitting machine, severing mechanism including a pair of transversely flexible members adapted to sweep the periphery of the pit of the fruit and to

conform to the shape of the pit of the fruit solely by their flexibility; and means for producing relative movement between the severing mechanism and the fruit.

2. In a fruit pitting machine, severing mechanism including resilient parallel wires adapted to sweep the periphery of the pit of the fruit; and a device for producing relative movement between the fruit and the wires.



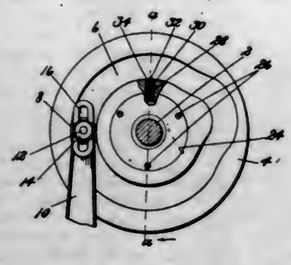
3. In a fruit pitting machine, severing mechanism including yieldably supported members adapted to flex transversely and to sweep the periphery of the pit of the fruit, and means for securing each of the yieldably supported members at both of its ends; and a device for producing relative movement between the fruit and the severing mechanism.

4. In a fruit pitting machine, severing mechanism including a pair of straight, transversely flexible members adapted to sweep the periphery of the fruit and to conform to the shape of the pit solely by their flexibility; and means for producing relative movement between the severing mechanism and the fruit.

5. In a fruit pitting machine, severing mechanism including a pair of transversely flexible members adapted to sweep the periphery of the pit of the fruit and to conform to the shape of the pit solely by their flexibility, and means for holding each of the flexible members at both ends; and means for producing relative movement between the severing mechanism and the fruit.

[Claims 6 to 31 not printed in the Gazette.]

1,028,176. LUBRICATING DEVICE. GEORGE A. AMBLER, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 6, 1906. Serial No. 329,396. (Cl. 184—1.)



1. A device of the class described provided with a friction surface and having in combination a receptacle for a lubricant, said receptacle and surface being connected by a passageway into which the lubricant is urged by centrifugal force, and means controlling the flow of lubricant through said passageway and arranged to effect an intermittent feed of lubricant to said surface.

2. A device of the character described having a friction surface and a chamber for lubricating material, means supporting said device for movement, said device having a passageway connecting said chamber and said friction surface, said passageway being so located with reference to the direction of movement of the device that the lubricant is urged into said passageway by said movement, a valve controlling the flow of lubricant through said passageway and means in frictional engagement with said surface for operating said valve.

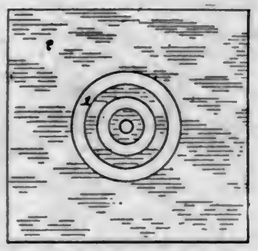
3. In a device of the class described, the combination with a rotatable cam having a chamber for a lubricant located interiorly with respect to the cam-surface, of a valve between said chamber and cam-surface against which the lubricant is fed by centrifugal force, and means for opening said valve at intervals.

4. In a device of the class described, the combination with a cam having a chamber for a lubricant, of a valve located in a passage connecting said chamber and the cam-surface and provided with a valve-seat at the outer end of said passage upon which it is normally seated, and means for opening said valve at intervals.

5. In a device of the class described, the combination with a rotatable cam having a chamber for a lubricant, of a removable closure for said chamber to permit the introduction of the lubricant, and means whereby the lubricant is fed intermittently from said chamber to the cam-surface by centrifugal force.

[Claims 6 and 7 not printed in the Gazette.]

1,028,177. MEANS AND PROCESS FOR PRODUCING INTAGLIO PRINTING-SURFACES. WALTER J. R. BARTLETT, San Francisco, Cal. Filed Jan. 2, 1908. Serial No. 415,443. (Cl. 101—178.)



1. In the preparation of plates for etching to form intaglio printing surfaces, the combination with a plate adapted, by etching treatment, to form a printing surface, of a protective film upon the surface of the plate and an ink transferred thereto in a replica of the design to be etched, said ink and film containing ingredients which, when brought into contact, react chemically by such contact to reduce the protective character of the film.

2. In the production of etched surfaces, the combination with a plate adapted for etching treatment and an acid risistant film covering the surface to be etched, of an ink used for the transfer of the design directly to the surface of said film, said ink and the film containing ingredients which, upon contact, chemically act to neutralise the acid-resistant qualities of the film.

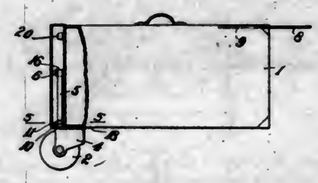
3. The method of determining the area of a surface to be etched to form an intaglio printing surface, which consists in providing a protective film for said surface, applying to said surface a replica of the desired design in a substance which will act by contact upon the protective film to destroy its acid-resistant and protective qualities where covered thereby.

4. The method of determining the area of a surface to be etched to form an intaglio printing surface, which consists in providing an actinically sensitive protective film for said surface, applying to said film a replica of the desired design in a substance which will act upon the film to destroy its acid-resistant, actinic and protective qualities where covered thereby.

5. The method of determining the area of a surface to be etched, which consists in providing a protective film therefor having a bitumen base and actinic sensitiveness, applying to said surface a replica of the desired design in a substance which will act upon the film to destroy its acid-resisting and actinic qualities where covered thereby.

[Claims 6 to 11 not printed in the Gazette.]

1,028,178. BAGGAGE-CARRYING ATTACHMENT. WILLIAM J. BATCHELOR, Boston, Mass. Filed July 6, 1909. Serial No. 506,237. (Cl. 190—38.)



1. In a baggage carrying attachment, a rod movably mounted on a suit case or trunk, a wheel attached thereto, a sliding collar mounted on said rod provided with laterally extending ears, and a plate attached to the said suit case or trunk having receiving and holding members adapted to receive and hold the said laterally extending ears.

2. In a baggage carrying attachment, a rod movably mounted on a suit case or trunk and having a square base portion, a wheel attached thereto, a sliding collar mounted on the said rod provided with laterally extending ears and adapted to slide over the said base portion and coöperate with the said square base portion in holding the wheel in operative position and preventing the rod from turning out of position, and a plate attached to the said suit case or trunk having receiving and holding members, into which the said laterally extending ears of the said sliding collar are adapted to slide and hold the parts securely in position.

3. In a baggage carrying attachment, a rod movably mounted on a suit case or trunk, a wheel attached thereto, a sliding collar mounted on the said rod and provided with laterally extending ears, a plate having receiving and holding members into which the ears of the said sliding collar slide and rest, a clamp adapted to hold the said rod in its inoperative position, and a square base portion integral with the said rod and adapted to coöperate with the said sliding collar in locking the wheel in its operative position.

4. In a baggage carrying attachment, the combination with a suit case, trunk and the like, of a rod movably mounted thereon, a wheel attached thereto, the said rod having a square portion adjacent to the said wheel, a bracket adapted to act as a guide way for the said rod, a sliding collar mounted on the said rod and adapted to slide and fit over the said square portion, laterally extending ears upon the said collar, and a plate attached to the said suit case or trunk having receiving and holding members adapted to receive and hold the said laterally extending ears.

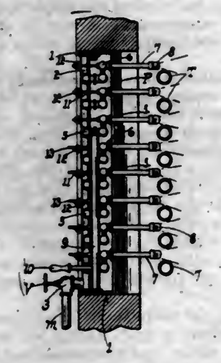
5. In a baggage carrying attachment, the combination with a suit case, trunk and the like, of a false end integral therewith, a rod movably mounted therein, a wheel attached thereto, the said rod having a square portion adjacent to the said wheel, a bracket adapted to act as a guide way for the said rod, a stud on the free end of the said rod and above the said bracket, a sliding collar mounted on the said rod and adapted to slide and fit over the square portion, laterally extending ears upon the said collar, and a plate having receiving and holding members adapted to receive and hold the said laterally extending ears.

[Claim 6 not printed in the Gazette.]

1,028,179. BOILER-CLEANER. AUGUST V. BAYER, St. Louis, Mo., and GIDEON PILLOW BROWN, Chicago, Ill. Filed Oct. 25, 1911. Serial No. 656,743. (Cl. 122—392.)

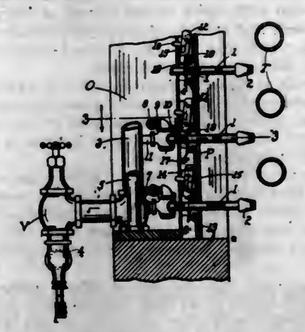
1. In a soot-blower for water-tube boilers having inclined tubes, a fixed riser mounted opposite the sides of the tubes, a set of pivoted nozzles communicating with the riser, arranged one above the other in vertical series and oscillating about non-coincident axes in the general direction of the tubes, thereby following the dip of the tubes during the blowing operation.

2. In a soot-blower for water-tube boilers having inclined tubes, a fixed vertical riser mounted opposite the sides of the tubes, a set of pivoted nozzles communicating with the riser, arranged one above the other in vertical series and oscillating about non-coincident axes in the general direction of the tubes, thereby following the dip of the tubes during the blowing operation.



3. In a soot-blower for water-tube boilers having inclined tubes, a fixed vertical riser mounted opposite the sides of the tubes, a series of branches leading from the riser, hollow joints on said branches arranged one above the other in vertical series, and nozzles leading from the joints and oscillating about the axes of the several joints, said axes being non-coincident and substantially at right angles to the dip of the water-tubes, whereby the nozzles follow the dip of the tubes during the blowing operation.

1,028,180. SOOT-BLOWER ATTACHMENT. AUGUST V. BAYER, St. Louis, Mo., assignor to Bayer Steam Soot Blower Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 4, 1912. Serial No. 681,379. (Cl. 122—392.)



1. In combination with a boiler-furnace wall provided with an opening, a nozzle oscillating across the opening, and projecting a cleaning fluid against the boiler, a shield passed over the nozzle, and a member overlapping the shield for maintaining the same in close proximity to the wall opposite said opening whereby the latter is kept permanently covered with the oscillations of the nozzle.

2. In combination with a boiler-furnace wall provided with an opening, a nozzle oscillating across the opening and projecting a cleaning fluid against the boiler, a shield mounted loosely on the nozzle and moving therewith in front of and across the opening, and a weighted member resting on the shield and maintaining the same in close proximity to the wall opposite the opening, whereby the latter remains permanently covered.

3. In combination with a roller-furnace wall-plate provided with an opening opposite the boiler, said opening being bounded by a flange having its outer edge disposed in a

plane inclined upwardly toward the wall-plate, an oscillating nozzle operating through said opening for projecting a cleaning fluid against the boiler, a shield passed over the nozzle and bearing against the inclined edge of the flange and overlapping the opening, a ledge on the outer face of the shield above the nozzle, and a gravitating member resting on said ledge for pressing the shield against the flange and preventing displacement thereof on the nozzle, the shield covering the opening during the movements of the nozzle.

4. In combination with a boiler-furnace wall-plate provided with an opening opposite the boiler, said opening being bounded by a flange terminating in an upwardly inclined edge directed toward the plate, a nozzle passed through the opening and having a definite range of movement across the same for projecting a cleaning fluid against the boiler, a shield passed over the nozzle and engaging the end of the flange and overlapping the opening, a ledge carried by the outer face of the shield above the opening formed therein for the reception of the nozzle, a weighted plate resting on the ledge, and means for movably anchoring said plate to the furnace wall, for the purpose set forth.

5. As an article of manufacture, a soot-blower nozzle attachment comprising a plate having an opening for the insertion of the nozzle, and a ledge secured to one face of the plate adjacent to the opening, as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,028,181. TANK-CAR. ANTON BECKER, Columbus, Ohio. Filed Apr. 16, 1909. Serial No. 490,807. (Cl. 105—264.)



1. In a tank car, the combination with a recessed center girder provided with seats at the bottom of the recessed portion thereof, and a tank, of supporting means secured to the tank, projecting into the recessed portion of the center girder and secured to said seats.

2. In a tank car, the combination with a center girder having a recessed portion, of a cover plate secured to said center girder and following the contour of the recessed portion of the latter, and a tank block secured in said recessed portion of the center girder.

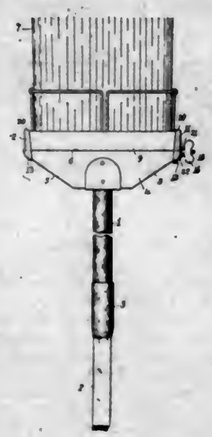
3. In a tank car, the combination with a center girder comprising parallel channels having alined recesses, of reinforcing plates secured to the inner faces of said channels at the recessed portions thereof, and tank blocks secured in the recessed portions of the center girder channels.

4. In a tank car, the combination with a center girder provided intermediate of its ends with laterally projecting depressed seats, a tank block mounted on said depressed seats and provided with depending flanges engaging the outer ends of said seats.

5. In a tank car, the combination with a center girder having depressed seats intermediate of its ends, a tank block located upon said depressed seats and flanges projecting from said tank block and disposed transversely over the center girder.

1,028,182. BROOM. GILBERT C. BEMIS, Worcester, Mass., assignor of one-half to Edward F. Fletcher, Worcester, Mass. Filed Feb. 5, 1912. Serial No. 675,438. (Cl. 15—54.)

1. A broom comprising a handle and head, said head having oblique terminal surfaces, a holder substantially equal in length to said head, sockets receiving the ends of said holder and head, and means for pressing said sockets toward each other, said sockets being adapted by their coaction with said oblique surfaces to draw the holder down against the head.



2. A broom comprising a handle and head, a holder substantially equal in length to said head, and sockets fitted to the ends of said head and holder and adapted to be pressed strongly toward each other, the parts being so constructed that such pressure will force the holder down upon the head.

3. A broom comprising a handle and head, a holder substantially equal in length to the head, the latter having oblique terminal surfaces, a socket fitted to each end of the head and holder and having an oblique side coacting with one of said oblique surfaces, and a rod and thumb screw adapted for pressing said sockets toward each other, the coacting of said oblique sides and surfaces forcing said holder tightly down upon said head.

4. A broom comprising a handle and head, the head having oblique terminal surfaces, a holder, sockets fitted to receive the joined ends of said head and holder, a square rod and a thumb screw adapted for pressing said sockets toward each other, said head being formed with a deep groove receiving said rod, and means for keeping said rod from escaping from said groove, the said oblique surfaces being adapted to move said sockets and rod downward as the sockets are pressed toward each other by the thumb screw and rod.

1,028,183. WIRE-CLAMP. HARRY R. BOOZE, Buchanan, Va. Filed June 14, 1910. Serial No. 566,794. (Cl. 39—53.)



The herein described wire stretching clamp embodying a pair of bars presenting opposing straight edges and provided at points intermediate their ends with registering recesses in their rear inner corners, bolts extending through the said bars at points spaced from their front rear sides, the inner ends of the bolts extending into the said recesses, the bolts of one of the bars being provided with eyes and those of the other bar being provided with hooks engaging said eyes so that the said bolts form detachable hinge connections between the bars, the said bolts being adjustable in the bars and being provided at their outer ends with securing and adjusting nuts which bear on the outer sides of the bars, the bars being further provided at their ends with stretching devices.

1,028,184. SAMPLE-FOLDER. WALTER H. BRITSCH, Fayette, Ohio. Filed Oct. 3, 1911. Serial No. 652,524. (Cl. 206—50.)



1. A sample folder comprising a strip of material, a memoranda strip on one side thereof and attached thereto, said memoranda strip comprising a series of detachable sections and being secured to the first mentioned strip.

2. A sample folder comprising a strip of material, a memoranda strip on one side thereof and attached thereto, said memoranda strip comprising a series of detachable sections and being secured to the first named strip, and a strip of goods on one side of the memoranda strip and attached to the sample folder.

1,028,185. SHOCK-ABSORBER. CHARLES O. BROWNE, Norwood, Ohio. Filed Nov. 16, 1911. Serial No. 660,568. (Cl. 21—105.)

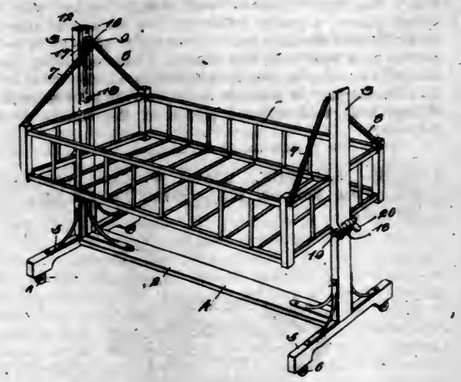
1. In a shock absorber, a compression cylinder closed at its inner end, and provided with a piston, adapted to engage the head of the cylinder, an outer cylindrical casing in which the compression cylinder is fitted to reciprocate, with a vacuum chamber in the outer casing beyond the compression cylinder, whereby the movement of the piston in one direction will draw out the compression cylinder against the vacuum pressure.

2. In a device of the character specified, in combination with members to be resiliently supported, a plunger secured to one member, and an outer casing secured to the other member, with an intermediate casing fitting within the outer casing and within which intermediate casing the plunger is fitted, means connecting the plunger and intermediate casing to cause the plunger to engage and draw out the intermediate casing upon the reverse movement of the plunger, the parts having a close sliding engagement, with the intermediate casing under the plunger filled with a compressible medium and a vacuum chamber in the outer casing beyond the intermediate casing.

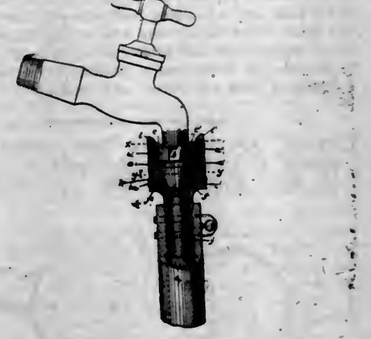
3. In a device of the character specified, in combination with members to be resiliently supported, a plunger secured to one member, and an outer casing secured to the other member, with an intermediate casing fitting within the outer casing and within which intermediate casing the plunger is fitted, the plunger having a head to engage and draw out the intermediate casing upon the reverse movement of the plunger, the moving parts having a close sliding engagement with each other, with the intermediate casing under the plunger filled with a compressible medium and a vacuum chamber in the outer casing beyond the intermediate casing.

1,028,186. SWINGING CRADLE. JAMES E. BURGE, Lincoln, Nebr. Filed Oct. 14, 1911. Serial No. 654,592. (Cl. 5—56.)

In a cradle of the class described, the combination with a body and a supporting frame therefor, comprising a pair of spaced apart uprights, said uprights being formed in sections hinged one to the other, and means to retain one of the sections of said uprights in any adjusted position with respect to the other; of suspension springs secured to the ends of said body and the adjustable sections of the respective uprights.



1,028,187. HOSE-COUPLING. CHARLES E. CAMPBELL, Portland, Oreg., assignor to Simon S. Keim, Newberg, Oreg. Filed Dec. 3, 1908. Serial No. 465,892. (Cl. 137—28.)



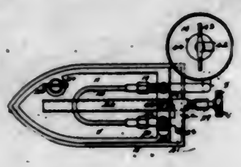
1. In a hose coupling, a nipple-like male part adapted to be affixed to the spout of a faucet, said nipple provided with a cone-shaped spout and further provided with oppositely located peripheral flanges spaced apart, the upper faces of said flanges formed with inclined planes, a gasket affixed on the spout of the male part directly under its said flanges, and a female part adapted to be inserted in a hose end and having a corresponding cone-shaped aperture, spring hook-members on the exterior of said female part in position to be inserted between and to engage with said inclined planes of the flanges of the male part.

2. In a hose coupling, a nipple-like male part, said nipple provided with a cone-shaped spout and further provided with oppositely located peripheral flanges spaced apart, the upper faces of said flanges formed with inclined planes, said spout provided with a peripheral groove directly under said flanges, a packing ring in said groove, and a female part adapted to be inserted in a hose end and having a corresponding cone-shaped aperture, spring hook-members on the exterior of said female part

in position to be inserted between and to engage with said inclined planes of the flanges of the male part.

3. In a hose coupling, a nipple-like male part, said nipple provided with a cone-shaped spout and further provided with oppositely located peripheral flanges spaced apart, the upper faces of said flanges formed with inclined planes, a gasket affixed on the male part directly under its said flanges; and a female part adapted to be inserted in a hose end and having a corresponding cone-shaped aperture, spring hook-members on the exterior of said female part in position to be inserted between and to engage with said inclined planes of the flanges of the male part.

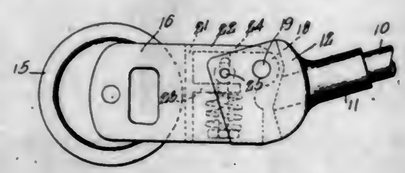
1,028,188. SAD-IRON. GEORGE W. CANN, Logansport, Ind. Filed Nov. 18, 1910. Serial No. 593,098. (Cl. 158—23.2.)



1. In a sad iron, a base having an interior flame chamber, a burner tube adjustably secured therein and extending lengthwise of the base, a valve casting adjustably held in said base, a supply pipe adjustably secured in said base, and a generator extending lengthwise of the base on opposite sides of the burner tube and having its ends connected to the supply pipe and valve casting.

2. In a sad iron, a base having an interior flame chamber, a burner tube adjustably secured therein and extending lengthwise of the base, a valve casting adjustably held in said base, a supply pipe adjustably secured in said base, and a generator extending lengthwise of the base on opposite sides of the burner tube and having its ends connected to the supply pipe and valve casting, a reservoir supported by said supply tube, and a movable cover independent of said supply tube and burner and generator.

1,028,189. SPRING-JOINT FOR TROLLEY-POLES. ROBERT F. COLEMAN, Philadelphia, Pa. Filed June 10, 1911. Serial No. 632,386. (Cl. 191—39.)



1. A trolley harp comprising a bifurcated support, a fork pivotally supported between the bifurcations of said support, said fork being formed with slotted extehsions, a pin passing through the slots in said extensions, said pin being rigidly supported by the bifurcations of said support, an apertured plate supported by said fork, a bolt secured to said pin and extending through the aperture in said plate and a spring coiled around said bolt, said spring contacting with said plate and the head of said bolt.

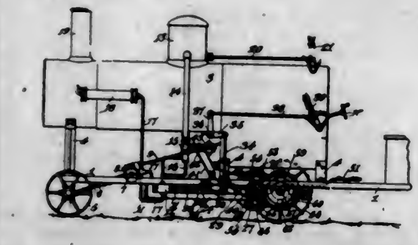
2. A trolley harp comprising a bifurcated support, a fork pivotally supported between the bifurcations of said support, said fork being formed with slotted extensions, a pin rigidly supported by the bifurcations of said support, said pin passing through the slots in said extensions, and a resilient connection between said pin and said fork.

3. A trolley harp comprising a bifurcated support, a fork pivotally supported between the bifurcations of said support, said fork being formed with slotted extensions, a pin rigidly supported by said bifurcations and arranged to extend through the slots formed in the fork, a plate formed integral with said fork and resilient means for normally spacing said plate and said pin.

4. A trolley harp comprising a bifurcated support, a fork pivotally arranged in the bifurcations of said support, said fork being formed with slotted extensions, a pin supported by said bifurcations and arranged to extend through the slots formed in said fork, a plate disposed at right angles to the slotted extensions of said fork and resilient means for normally spacing said pin and said plate.

5. A trolley harp comprising a bifurcated support, a fork pivotally supported between the bifurcations of said support, said fork being formed with slotted extensions, a pin passing through the slots in said extensions, an apertured plate supported by said fork, a bolt secured to said pin and extending through the aperture in said plate and resilient means carried by said bolt for normally spacing said pin and plate.

1,028,190. TRACTION-ENGINE. OSCAR MCGRUDER COX, Plainview, Tex. Filed May 27, 1910. Serial No. 563,813. (Cl. 21—114.)

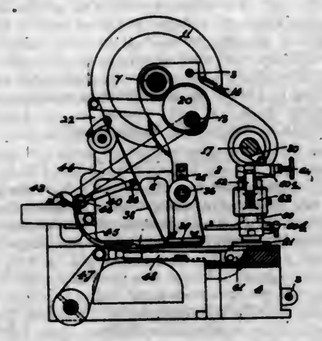


1. The combination of a main frame consisting of a series of parallel longitudinal beams and transverse beams connecting the same, a boiler, a pair of working cylinders secured on the said frame between the innermost beams below the boiler, a crank shaft mounted transversely on the frame and having its cranks connected directly with the said cylinders, steam chests on the outer sides of the cylinders and between the outermost beams of the frame, connections between the valves of the steam chests and the crank shaft whereby the admission of steam to the cylinders will be controlled, an axle mounted on the main frame adjacent to and parallel with the crank shaft, a traction wheel fixed on one end of the axle, a traction wheel loosely mounted on the opposite end of the axle, gearing for rotating both of the said traction wheels from the crank shaft, a fly wheel secured on the crank shaft and controlling the said gearing, and means for connecting the said gearing with the fly wheel or disconnecting it therefrom.

2. The combination of a frame, an axle thereon, traction wheels mounted on the said axle, one of the traction wheels being fixed to the axle and the other loose thereon, a differential gearing mounted on the axle and arranged to communicate motion to the traction wheels, a boiler, a pair of steam cylinders with steam chests mounted on the frame below the boiler, a driving shaft mounted transversely in the frame below the boiler and provided with a pair of cranks, direct, gearless and separate connections between the pistons of the cylinders and the cranks of the driving shaft, separate direct connections between the valves of the steam chests and the said driving shaft, said driving shaft being extended and provided with a rigidly mounted band wheel, a single pinion loosely mounted on the driving shaft and in direct mesh with the differential gear, and means for connecting and disconnecting the band wheel with the pinion.

3. The combination of a frame, an axle thereon, traction wheels mounted on the said axle, one of the traction wheels being fixed to the axle and the other loose thereon, a differential gearing mounted on the axle and arranged to communicate motion to the traction wheels, a boiler, a pair of steam cylinders with steam chests mounted on the frame below the boiler, a driving shaft mounted transversely in the frame in advance of the axle below the boiler and provided with a pair of cranks, direct, gearless and separate connections between the pistons of the cylinders and the cranks of the driving shaft, separate direct connections between the valves of the steam chests and the said driving shaft, and a single pinion mounted on the driving shaft for transmitting motion from the driving shaft to the said differential gearing on the axle and through the last mentioned gearing to the traction wheels, said pinion on the driving shaft being disconnected at will from positive connection with said shaft.

1,028,191. DIE PRINTING-PRESS. HAROLD BLACK CROKER, London, England. Filed Feb. 6, 1911. Serial No. 606,994. (Cl. 101—103.)



1. In a die printing press, a movable carrier with a die, rotary driving means, motion conversion mechanism connecting said driving means and die carrier, an impression plunger disposed in relation to the path of movement of said die carrier, said mechanism being of a character to impart reciprocatory motion to said die carrier and a stroke the length of which will carry the die carrier beyond the line of the impression plunger, a connecting rod and crank forming part of said motion conversion mechanism, said connecting rod being connected at one end with the die carrier and at the other end with said crank and said crank having an angular movement greater than that required for the reciprocation of the die carrier, means adapted to actuate the plunger and to move it toward the face of the die, means adapted to stop the travel of the die carrier when it comes in line with said plunger and to hold the same stationary while the plunger is in operation, and means adapted to compensate for the differences in motion of said crank and die carrier.

2. In a die printing press, a movable die carrier with a die, rotary driving means, motion conversion mechanism connecting said driving means and die carrier, an impression plunger disposed in relation to the path of movement of said die carrier, said mechanism being of a character to impart reciprocatory motion to said die carrier and a stroke the length of which will carry the die carrier beyond the line of the impression plunger, a connecting rod and crank forming part of said motion conversion mechanism, said connecting rod being connected at one end with the die carrier and at the other end with said crank and said crank having an angular movement greater than that required for the reciprocation of the die carrier, means adapted to actuate the plunger and to move it toward the face of the die, means adapted to stop the travel of the die carrier when it comes in line with said plunger and to hold the same stationary while the plunger is in operation, said connecting rod being arranged to contract and expand in length while the die carrier is stationary and thus to compensate for the differences in the movements of the die carrier and its driving crank.

3. In a die printing press, a movable die carrier with a die, rotary driving means, motion conversion mechanism connecting said driving means and die carrier, an impression plunger disposed in relation to the path of movement of said die carrier, said mechanism being of a character to impart reciprocatory motion to said die carrier and a stroke the length of which will carry the die carrier beyond the line of the impression plunger, a connecting rod and crank forming part of said motion conversion mechanism, said connecting rod being connected at one end with the die carrier and at the other end with said crank and said crank having an angular movement greater than that required for the reciprocation of the die carrier, means adapted to actuate the plunger and to move it toward the face of the die, means adapted to stop the travel of the die carrier when it comes in line with said plunger and to hold the same stationary while the plunger is in operation, said connecting rod being arranged to contract in length when the movement of the die carrier is stopped and up to the completion of the angular movement of the crank in one direction and to lengthen during the first part of the angular motion of the crank in the other direction and then to take up the drive and move the die carrier.

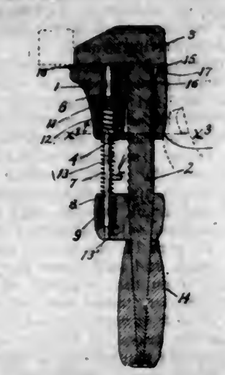
5. In a die printing press, an impression plunger, comprising two parts capable of relative movement and caused to occupy one or other of two positions, an endwise movable slide adapted to occupy one or other of two positions and comprising two portions of different thickness, said slide occupying a position between the said parts and so arranged that when moved to one position from its other position, relative motion of the two parts is set up and the length of the plunger altered.

[Claim 6 not printed in the Gazette.]

1,028,192. WRENCH. SCHUYLER C. CRUZAN, Whittier, Cal. Filed Aug. 24, 1911. Serial No. 645,886. (Cl. 81—147.)

1. The combination, with the stationary jaw and shank having ratchet teeth along the front edge thereof, of an adjustable jaw having a longitudinal and an oscillatory movement on said shank, a dog carried by said adjustable jaw and movable by the oscillation thereof into and out of engagement with said ratchet teeth, a spring to resist the movement of said adjustable jaw from said stationary jaw, said adjustable jaw having a lip projecting beyond the stationary jaw, said lip being adapted to engage an object to be turned to open the

wrench, said adjustable jaw having a rear portion adapted to be engaged by the thumb of the operator to disengage said dog from the ratchet teeth during the opening of the wrench.

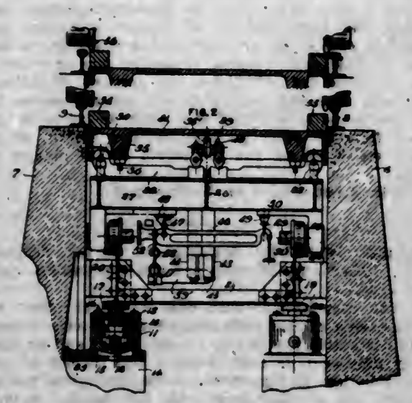


2. In combination, a shank, a stationary jaw, a movable jaw slidable lengthwise of said shank having a lip projecting forwardly beyond said stationary jaw, said lip being adapted to engage an object to be turned to assist in opening the wrench from a closed condition, and means to releasably hold said slidable jaw against opening movement, said slidable jaw when released being freely movable toward and from said stationary jaw.

1,028,193. METHOD OF MANUFACTURING FIRE-PROOF COMPOSITION. GEORGE A. CUMMINGS, Bondville, Vt. Filed Mar. 22, 1910. Serial No. 550,833. (Cl. 134—80.)

A method of manufacturing a fire-proof compound which consists in slaking fifty pounds of lime with sufficient water to prevent heating, then mixing ten pounds of Portland cement with the lime, then dissolving one-half bushel of salt in forty gallons of water, then thoroughly mixing a portion of the salt solution with the other ingredients to produce a smooth mass, and finally mixing the remainder of the salt solution with the mass.

1,028,194. TRACK-SCALE. WILLIAM DALTON, Schenectady, N. Y. Filed Feb. 23, 1911. Serial No. 610,202. (Cl. 73—121.)



1. An apparatus of the class described comprising a stationary track, a movable track between the rails of the stationary track, a weighing scale arranged to move on said movable track, said weighing scale being adapted to engage an object on said stationary track at points on opposite sides of the center of the stationary track.

2. In a railroad track scale, in combination with a stationary track, of a movable track, and a scale movable along the movable track and operated by the latter to engage an object on the stationary track at points on opposite sides of the center of the track.

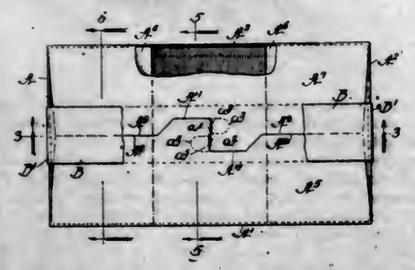
3. An apparatus of the class described comprising a stationary track, a vertically movable track, a plurality of weighing scales movable on said movable track and each adapted to engage an object on the stationary track at opposite sides of the center of the stationary track, and means for moving said movable track whereby said scales are adapted to act simultaneously.

4. An apparatus of the class described comprising a stationary track, a vertically movable track, a sectional platform, the sections thereof being independently movable on said movable track and having independent weighing mechanisms associated therewith, means on said platforms adapted to engage objects on said stationary track at opposite sides of the center of the latter, and means for moving said movable track.

5. An apparatus of the class described comprising a stationary track arranged above a pit, a vertically movable track in said pit extending parallel with said stationary track, a plurality of independently movable weighing scales mounted on said movable track and each provided with a platform extending across said pit and having means thereon adapted to engage an object on said stationary track at points on opposite sides of the center of the stationary track.

[Claims 6 to 11 not printed in the Gazette.]

1,028,195. CONTAINER. FRANK B. DAVIDSON, Marseilles, Ill., assignor to Howe and Davidson Company, East Orange, N. J., a Corporation of New Jersey. Filed Mar. 18, 1912. Serial No. 684,397. (Cl. 229—39.)



A box of sheet material having connected side walls and an end wall, said end wall consisting of two opposite inner flaps folded inwardly, and two opposite outer flaps folded inwardly against said inner flaps, the end margins of said outer flaps being adapted to meet each other in a straight line, except at their central parts, and being provided at such central parts with oppositely disposed extensions and corresponding notches and in the adjacent ends of said extensions with laterally disposed locking tongues separated from the edges of the flaps by locking notches; the locking tongues on each flap being adapted to enter beneath the extension of the other flap when the flaps are interlocked, and a strip of flexible material adhesively secured to the outer flaps with its center over the meeting edges of the same and its side margins overlapping to an equal extent both of said outer flaps.

1,028,196. GRIP-NUT. ALPHA Y. DAVIS, Chicago, Ill. Filed Dec. 9, 1911. Serial No. 664,725. (Cl. 151—21.)

1. A grip nut having a central threaded aperture extending through the same and comprising a base and an elastic wing extending over the base from one side thereof, said wing being normally inclined to the plane of the base and having a chamfered free end terminating upon a median axial plane of the nut which is oblique to the said side of the nut from which the wing extends whereby the said chamfered free end of the wing has a substantially semi-circular threaded notch constituting a part of the side wall of the nut aperture, the said wing having been elastically depressed into a plane parallel to the plane of the base during the threading of such aperture.



2. A grip nut having a central threaded aperture extending through the same and comprising a base and a pair of elastic wings extending over the base from opposite sides and being normally oppositely inclined to the plane of the base, the free edges of the wings being in juxtaposition upon a median axial plane of the nut, whereby each of said wings has a semi-circular threaded notch upon its free edge forming a part of the side wall of the nut aperture, the wings having been elastically deflected into a plane parallel to the plane of the base during the threading of such aperture.

3. A grip nut having a central threaded aperture extending through the same and comprising a base and a pair of elastic wings extending over the base from opposite sides and being normally oppositely inclined to the plane of the base, the ends of the wings being oppositely chamfered and such chamfered edges being in juxtaposition upon a median axial plane of the nut whereby each of said wings has upon its said chamfered edge a semi-circular threaded notch constituting a part of the wall of the threaded aperture of the nut, the said wings having been elastically deflected into a plane parallel to the plane of the base during the threading of such aperture.

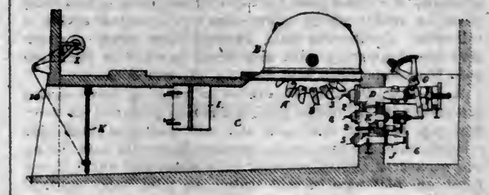
4. A grip nut having a central threaded aperture extending through the same and comprising a base and a pair of wings extending over the base from opposite sides, the said base and wings being formed integral from the intermediate and end portions respectively of a spring metal plate folded upon parallel transverse lines, the said wings being each inclined away from the plane of the base toward its free edge and the said free edges of the wings being oppositely chamfered and in juxtaposition upon a median axial plane of the nut whereby said chamfered edges each have a substantially semi-circular threaded notch constituting a part of the side wall of the nut aperture, the said wings having each been elastically depressed into a plane parallel to the plane of the base during the threading of such aperture.

5. A grip nut having a central threaded aperture extending through the same and comprising a base and a wing extending over the base from one side thereof, the said base and wing being formed integral from a spring metal plate folded upon a transverse line, the said wing being inclined away from the plane of the base toward its free edge and the said free edge of the wing being chamfered and terminating upon a median axial plane of the nut whereby the said chamfered edge has a substantially semi-circular threaded notch constituting a part of the side wall of the nut aperture, the said wing having been elastically depressed into a plane parallel to the plane of the base during the threading of such aperture.

1,028,197. HYDRAULIC APPARATUS AND MEANS FOR OPERATING THE SAME. WILLIAM A. DOBLE, San Francisco, Cal., assignor to Mary E. Doble, San Francisco, Cal. Filed Apr. 8, 1909. Serial No. 488,694. (Cl. 138—1.8.)

1. The combination with the wheel of an impact water motor, of a nozzle arranged to direct a stream of water against the blades of the wheel, a conduit or tailrace receiving the water flowing from the wheel, and separate means for injecting a forcible jet of water into the body of water in the conduit in the direction of its flow.

2. The combination with the wheel of an impact water motor, of a nozzle arranged to direct a stream of water against the blades of the wheel, a conduit or tailrace receiving the water flowing from the wheel, and a supplemental nozzle arranged to inject a jet of water into the body of water in the conduit in the direction of its flow.



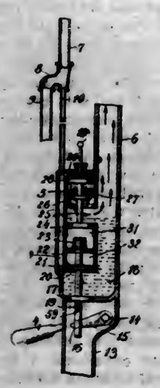
3. The combination with the wheel of an impact water motor, of a nozzle arranged to direct a stream of water against the blades of the wheel, a conduit or tailrace receiving the water flowing from the wheel, and a supplemental nozzle arranged to inject a jet of water into the body of water in the conduit in the direction of its flow, said nozzle provided with a control valve, as set forth.

4. The combination with the wheel of an impact water motor, of a nozzle arranged to direct a stream of water against the blades of the wheel, a conduit or tailrace below said wheel receiving the water flowing from the wheel, and a nozzle and means for supplying it with water at a high pressure, said nozzle arranged to direct a jet of water into the body of water in the conduit in the direction of its flow.

5. The combination with the nozzle of an impact motor, of a supplemental nozzle connected to receive water from the main nozzle and arranged below the latter and provided with an outlet for the discharge of gravel, etc., and adjustable valves for closing and opening the mouths of both nozzles.

[Claims 6 to 9 not printed in the Gazette.]

1,028,198. TANK-FLUSHING APPARATUS. WILLIAM DULLES, Englewood, N. J. Filed Dec. 16, 1910. Serial No. 597,680. (Cl. 4—28.)



1. In tank flushing apparatus, a tank, a valve casing provided with an outlet pipe, a flushing pipe and an overflow pipe between said tank and said casing, a stand pipe communicating with a drain passage formed in said casing and connected to said overflow pipe to receive water therefrom, an inlet pipe in said casing, an inlet valve controlling the discharge from said inlet pipe, an inlet valve stem on which said inlet valve is mounted and a closing valve on said inlet valve stem and mounted in a closing chamber

in, said casing communicating with said drain passage to receive fluid therefrom and thereby close said inlet valve, a flushing valve in said casing controlling the discharge of water through said outlet pipe, a flushing valve stem on which said flushing valve is mounted and which is adapted to open said inlet valve, operating means to open said flushing valve and simultaneously supply water from said tank and said inlet pipe for flushing purposes, a retarding valve on said flushing valve stem and mounted within a retarding chamber in said casing, there being a drain port communicating with said drain passage to discharge fluid therefrom when said flushing valve is opened.

2. In tank flushing apparatus, a tank, a valve casing provided with an outlet pipe, a flushing pipe and an overflow pipe between said tank and said casing, a stand pipe communicating with a drain passage formed in said casing and connected to said overflow pipe to receive water therefrom, an inlet pipe in said casing, an inlet valve controlling the discharge from said inlet pipe, an inlet valve stem on which said inlet valve is mountd and a closing valve on said inlet valve stem and mounted in a closing chamber in said casing communicating with said drain passage to receive fluid therefrom and thereby close said inlet valve, a flushing valve in said casing controlling the discharge of water through said outlet pipe, a flushing valve stem on which said flushing valve is mounted and which is adapted to open said inlet valve, operating means to open said flushing valve and simultaneously supply water from said tank and said inlet pipe for flushing purposes, retarding means to retard the closing of said flushing valve and means to discharge fluid from said drain passage when said flushing valve is opened.

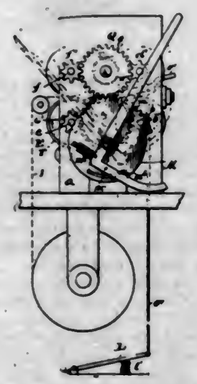
3. In tank flushing apparatus, a tank, a valve casing provided with an outlet pipe, a flushing pipe and an overflow pipe between said tank and said casing, a stand pipe communicating with a drain passage formed in said casing and connected to said overflow pipe to receive water therefrom, an inlet pipe in said casing, an inlet valve controlling the discharge from said inlet pipe, an inlet valve stem on which said inlet valve is mounted and a closing valve on said inlet valve stem and mounted in a closing chamber in said casing communicating with said drain passage to receive fluid therefrom and thereby close said inlet valve, a flushing valve in said casing controlling the discharge of water through said outlet pipe, a flushing valve stem on which said flushing valve is mounted and which is adapted to open said inlet valve, operating means to open said flushing valve and simultaneously supply water from said tank and said inlet pipe for flushing purposes and means to discharge fluid from said drain passage when said flushing valve is opened.

4. In tank flushing apparatus, a tank, a valve casing provided with an outlet pipe, a flushing pipe and an overflow pipe between said tank and said casing, a stand pipe connected to said tank and communicating with a drain passage provided in said casing to supply thereto water overflowing from said tank, an inlet pipe in said casing, an inlet valve controlling the discharge from said inlet pipe, a closing valve mounted in a closing chamber in said casing and communicating with said drain passage to thereby close said inlet valve, means projecting from said casing to manually operate said inlet valve, a flushing valve in said casing controlling the discharge of water through said outlet pipe, means to open said flushing valve and simultaneously supply water from said tank and said inlet pipe for flushing purposes and means to discharge fluid from said drain passage when said flushing valve is opened.

5. In tank flushing apparatus, a tank, a valve casing provided with an outlet pipe, a flushing pipe and an overflow pipe between said tank and said casing, a stand pipe connected to said tank and communicating with a drain passage provided in said casing to supply thereto water overflowing from said tank, an inlet pipe in said casing, an inlet valve controlling the discharge from said inlet pipe, a closing valve mounted in a closing chamber in said casing and communicating with said drain passage to thereby close said inlet valve, a flushing valve in said casing controlling the discharge of water through said outlet pipe, means to open said flushing valve and simultaneously supply water from said tank and said inlet pipe for flushing purposes and means to discharge fluid from said drain passage when said flushing valve is opened.

[Claims 6 to 18 not printed in the Gazette.]

1,028,199. TICKET-ISSUING MACHINE. WILLIAM P. DUN LANY, Cleveland, Ohio, assignor to E. L. Thurston, trustee, Cleveland, Ohio. Filed May 12, 1910. Serial No. 560,800. (Cl. 101—187.)



1. In a machine for printing and issuing tickets, the combination of a suitable frame, two printing cylinders, two platen rolls associated respectively with said printing cylinders and located one roll over its associated cylinder and one roll below its associated cylinder, means for simultaneously rotating the two rolls and the two cylinders at the same surface rate, two trains of mechanism for rotating said cylinders and rolls, and means limiting the range of movement of said trains of mechanisms whereby one may turn said cylinders and rolls through a greater arc than the other.

2. In a ticket printing and issuing machine, the combination of a printing cylinder, a platen roll, a plate having a slot substantially alined with the plane of contact of said cylinder and roll, a pivoted knife movable across said slot, a lever pivoted upon an axis at right angles to the knife, operative connections between the lever and printing and platen rolls, the said lever operating the said rolls throughout a portion of its path of movement, and during a certain portion of its movement ceasing to operate said rolls, at which time, it engages the knife to operate the same.

3. In a ticket printing and issuing machine, the combination of two printing cylinders, two platen rolls respectively associated therewith, a train of gearing for simultaneously turning said platen rolls and cylinders, a slotted plate, a knife movable across the slot in said plate, two levers each adapted when swung to engage with and move said knife, and mechanism respectively operated by said two levers for moving said train of gearing through different arcual distances.

4. In a ticket issuing and printing machine, the combination of a printing cylinder, a platen roll, a slotted plate, and a knife movable across the slot in said plate, a train of gearing for simultaneously turning said cylinder and roll at like surface speeds, a lever pivoted concentrically with the terminal member of said train of gears, a spring connecting said lever and terminal member, means limiting the arcual movement of said terminal member, the lever having an arm adapted to engage with and move said knife.

5. In a ticket issuing and printing machine, the combination of a printing cylinder, a platen roll, a slotted plate, and a knife movable across the slot in said plate, a train of gearing for simultaneously turning said cylinder and roll at like surface speeds, a lever pivoted concentrically with the terminal member of said train of gearing, a spring connecting said lever and terminal member, means limiting the arcual movement of said terminal member, the lever having an arm adapted to engage with and move said knife, said train of gearing including a ratchet and pawl.

[Claims 6 and 7 not printed in the Gazette.]

1,028,200. SPARK-PLUG. CHARLES C. ELDRIDGE and EDWIN J. BEEBE, Marshalltown, Iowa. Filed Mar. 20, 1911. Serial No. 615,689. (Cl. 123—169.)



1. In a spark plug, in combination, a main body portion and electrodes on one end thereof, one of which is positioned centrally and the other of which comprises a plurality of branches electrically connected at their base and positioned beside the said central electrode but spaced apart therefrom, the free ends of said branches being turned toward said central electrode and each of said branches being provided with a plurality of points so as to produce a large spark, said points extending closely adjacent to said central electrode but separated therefrom by a suitable spark space.

2. In a spark plug, in combination, a main body portion, a central electrode extending outward from one end thereof, and a second electrode having a plurality of branches extending outward from said body at the sides of said central electrode, the free ends of said branches being turned toward the said central electrode and each being provided with a transverse notch and a pair of corresponding points on the opposite sides of said notch, and means detachable from the opposite end of said body adapted to fit rotatably on the said central electrode as an axis to facilitate adjusting and cleaning said electrodes.

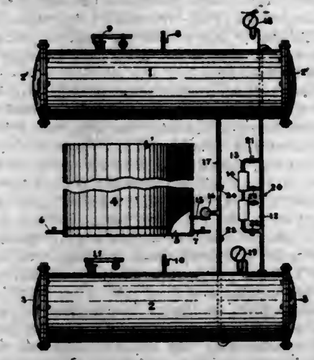
3. In a spark plug, the combination with a body having a central axial electrode on one end, of a second electrode having branches, the free ends of which are turned toward the said central electrode and each of said branches being provided with transverse notches and points on opposite sides of said notches, and a detachable cap on the other end of said body, the outer end of which is longitudinally perforated along its axis enabling it to fit over the said central electrode and also provided with an annular row of radially extending points adapted to successively brush past the several notches aforesaid when the said cap is rotated on the said central electrode as an axis to clean the said electrodes.

4. A spark plug of the character described, comprising a plurality of electrodes one of which is notched, and an element adapted to be detached from the plug and having a perforation adapted to be fitted rotatably upon one of the electrodes of the plug, said element also having a projection adapted to brush past the notched electrode, said projection passing through the notch to clean the latter when said element is rotated upon the first mentioned electrode.

5. In a spark plug of the character described, a main body portion and electrodes on one end thereof, one of said electrodes being notched, and a detachable cap having a longitudinal axial perforation adapted to receive one electrode, a cylindrical portion of said cap coaxial with said perforation adapted, when pivoted on said electrode, to serve as a gage in adjusting the distance of the notched electrode, and a radial member on said cylindrical portion extending at an angle to said perforation and adapted to brush past the notched electrode and enter the notch to clean it when the said cap is rotated on the first electrode.

[Claim 6 not printed in the Gazette.]

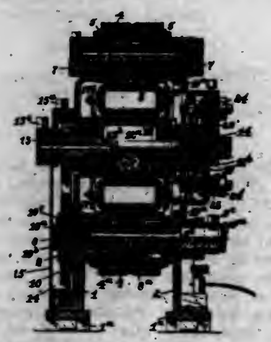
1,028,201. PROCESS OF PRESERVING WOOD. CARLETON ELLIS, Montclair, N. J., assignor to Copper Oil Products Company, New York, N. Y. Filed July 15, 1911. Serial No. 638,600½. (Cl. 99—12.)



1. The process of treating wood comprising subjecting wood to a preservative oil under pressure and then to the action of a fixed gas under higher pressure, said gas carrying less oxygen than normal air.

2. The process of treating wood comprising subjecting wood to the action of a preservative oil under pressure and then to the action of a gas under higher pressure and in using the same body of gas repeatedly in the treatment of successive charges of timber, without restoring said gas to atmospheric pressure.

1,028,202. ELECTRIC MAGNETO-MACHINE. GEORGE WASHINGTON FOYE, Fredericksburg, Va., assignor to Don C. Foye, Philadelphia, Pa. Filed Sept. 10, 1909. Serial No. 517,073. Renewed Feb. 16, 1912. Serial No. 677,962. (Cl. 172—36.)



1. In a magneto electric machine, a suitable frame comprising side members, bearing rollers having their ends journaled therein, an annular power transmitting ring revolubly supported on said rollers and provided with an internal rack, a stationary field within the ring, an armature rotatably supported within the field, a gear connected to rotate with the armature, a gear meshing with the internal rack, and gearing interposed between said first and second gears.

2. In combination a suitable frame, bearing rollers journaled therein having reduced central portions, an an-

nular power transmitting ring supported by said rollers and having an internal rack traveling in the reduced portions, a shaft journaled in the frame, a gear on said shaft meshing with said rack, an armature rotatably mounted within the ring, a gear on the hub of the armature at one end, a gear meshing with the gear on the armature hub and also with the gear on the said shaft, and a stationary field between the armature and rotary ring.

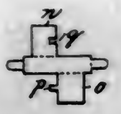
3. In combination a frame comprising suitable side plates, removable bearings carried thereby, antifriction rollers having their ends journaled in said bearings, a power transmitting ring revolubly supported by said rollers, a stationary field within the ring, an armature rotatably supported within the field, and gearing between the ring and armature.

4. In combination, a frame comprising suitable side plates or standards, removable bearings carried thereby, hollow rollers journaled in said bearings, said rollers having oil ducts leading from the hollow space to the bearing surfaces, a power transmitting ring revolubly mounted on said rollers, and having an internal rack, a gear meshing with said rack, a shaft carrying said gear, a second gear on said shaft, an armature having its hub journaled in said side plates, said hub having a gear meshing with said second gear, said gear shaft and armature hub being hollow for the reception of lubricant and having ducts leading to the bearing surfaces.

5. In combination, a frame comprising suitable side plates, one of said side plates having an open side, a rotary power transmitting ring suitably supported from said frame and having an internal rack, a removable plate closing the open side of the frame, a central armature having a supporting hub or shaft with one end journaled in said removable plate and the other end in the frame member, said armature being removable complete on the removal of said plate, gearing interposed between the armature shaft and internal rack of the ring, and a stationary field carried by the frame between the armature and ring.

[Claim 6 not printed in the Gazette.]

1,028,203. HANDLE-FASTENING FOR BAG-FRAMES. FRANZ A. FULLER, Newark, N. J., assignor to The J. E. Mergott Company, Newark, N. J., a Corporation of New Jersey. Filed Feb. 8, 1911. Serial No. 607,386. (Cl. 90—58.)

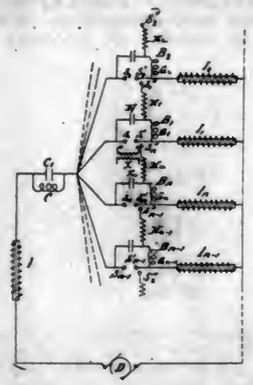


1. A handle connection for bag frames formed from a single blank of suitable material, comprising a flat base provided with upwardly extending longitudinally arranged sides, said sides being bent over the base to form a longitudinal bearing, and means extending downwardly from said base for securing the same to the bag frame.

2. A handle connection for bag frames formed from a single blank of suitable material, comprising a flat base provided with upwardly extending longitudinally arranged sides, the marginal edges of which are brought together to form a longitudinal bearing, said base being further provided with integral tongues extending downwardly from the ends of said base for securing the same to the bag frame, and a loop secured in the ends of said bearing.

3. A handle connection for bag frames formed from a single blank of suitable material, comprising a base provided with oppositely arranged wings, one of said wings having a marginal aperture and the other wing having a marginal projection, said wings being bent over the base to form a longitudinal bearing, the projection on the one wing engaging with the aperture on the other wing to secure said wings together, and integral tongues extending downwardly from said base for securing the same to the bag frame.

1,028,204. METHOD OF AND APPARATUS FOR PRODUCING ELECTRIC OSCILLATIONS. ROBERTO CLEMENA GALLETTI, Rome, Italy. Filed Jan. 27, 1908. Serial No. 412,902. (Cl. 172—282.)



1. The combination of a closed oscillatory main circuit and a plurality of auxiliary oscillatory circuits connected thereto, and means for charging and discharging the auxiliary circuits in orderly sequence from a direct current source.

2. The combination of an oscillatory main circuit and a plurality of auxiliary oscillatory circuits connected thereto, and means for charging and discharging the auxiliary circuits in orderly sequence from a direct current source.

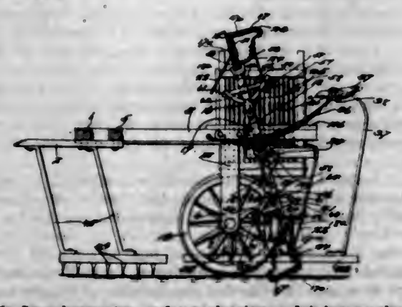
3. The combination of a main oscillatory circuit and a plurality of auxiliary circuits adjacent to each other, means for charging the auxiliary circuits, means for discharging one of them, and means whereby the latter establishes a discharge in an adjacent auxiliary circuit.

4. The combination of a main oscillatory circuit and a plurality of auxiliary circuits, means for charging the auxiliary circuits, means for discharging one of them, and means whereby the latter establishes a discharge in one of the other circuits.

5. The combination of a main oscillatory circuit, a number of auxiliary oscillatory circuits, a source of direct current, and impedance devices between the auxiliary circuits and the direct current source, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,028,205. POTATO-PICKER. ALLEN GILMORE, Lyndon, Wis. Filed July 8, 1911. Serial No. 637,573. (Cl. 55—59.)



1. In a harvester, a frame having a driving mechanism, a shaft mounted in bearings of the frame having gear connections with the driving mechanism, said shaft having revoluble rakes and means for preventing retrogression of the rakes as they enter the soil, and means for directing the rakes, into the soil, a chute having a bag attached thereto supported from the frame for receiving the potatoes when elevated by the rake, the rakes having one of their sides inclined so that the potatoes may roll into the chute.

2. In a harvester, a frame having a driving mechanism, a shaft mounted in bearings of the frame having gear connections with the driving mechanism, the shaft having frames provided in their free ends with slidingly mounted rakes, the shaft having sweeps to coöperate with the frames for moving them, and means coöperating between the shaft and the axle for preventing retrogression of the rakes as they enter the soil, means for directing the rakes into the soil, a chute having a bag attached thereto for receiving the potatoes when elevated by the rakes, each rake having one of its sides inclined, so that the potatoes may pass into the chute when each rake reaches a position substantially above the shaft.

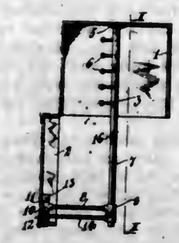
3. In a harvester, a pair of revoluble frames, slotted members carried by the outer ends of the frames, digging members arranged movably in the outer portions of the frames and in the slotted members, and means for holding the digging members in different positions as the frames revolve.

4. In a harvester, a pair of revoluble frames, slotted members carried by the outer ends of the frames, digging members arranged movably in the outer portions of the frames and in the slotted members, and means for holding the digging members in different positions as the frames revolve, and mechanisms coöperating with the means for releasing the digging members.

5. In a harvester, a pair of revoluble frames, slotted members carried by the outer ends of the frames, digging members arranged movably in the outer portions of the frames and in the slotted members, and means for holding the digging members in different positions as the frames revolve, and means for adjusting the digging members radially in the frames.

[Claims 6 to 13 not printed in the Gazette.]

1,028,206. GARMENT-RECEPTACLE. WINFIELD S. GILMORE, New York, N. Y., assignor to Crouch & Fitzgerald, a Corporation of New York. Filed Dec. 6, 1911. Serial No. 664,211. (Cl. 211—16.)



1. In a garment receptacle, the combination of a body portion; a cover portion hinged to the body portion along a vertical edge; a hanger rack secured to the body portion and projecting outwardly from the rear thereof; an extension piece for the hanger rack; an arm projecting from the cover portion and arranged to hold said extension piece in alinement with the hanger rack when the cover portion is in open position; a supporting leg extending upward at an angle from the cover portion and into supporting connection with said extension piece; and means secured to the cover portion for supporting said leg at its lower end.

2. In a garment receptacle, the combination of a body portion; a cover portion hinged to the body portion along a vertical edge; a hanger rack secured to the body portion and projecting outwardly from the rear thereof; an extension piece for the hanger rack; an arm

projecting from the cover portion and arranged to hold said extension piece in alinement with the hanger rack when the cover portion is in open position, said arm being pivotally supported at its inner end so as to swing in a vertical plane; a supporting leg extending upward at an angle from the cover portion and into supporting connection with said extension piece; and means secured to the cover portion for supporting said leg at its lower end.

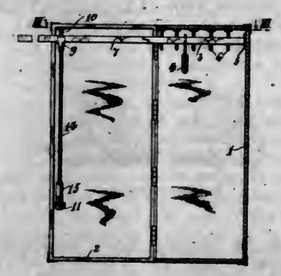
3. In a garment receptacle, the combination of a body portion; a cover portion hinged to the body portion along a vertical edge; a hanger rack secured to the body portion and projecting outwardly from the rear thereof; an extension piece for the hanger rack; an arm projecting from the cover portion and arranged to hold said extension piece in alinement with the hanger rack when the cover portion is in open position; means for connecting the hanger rack and extension piece together at their abutting ends; a supporting leg extending upward at an angle from the cover portion and into supporting connection with said extension piece; and means secured to the cover portion for supporting said leg at its lower end.

4. In a garment receptacle, the combination of a body portion; a cover portion hinged to the body portion along a vertical edge; a hanger rack secured to the body portion and projecting outwardly from the rear thereof; an extension piece for the hanger rack; an arm projecting from the cover portion and arranged to hold said extension piece in alinement with the hanger rack when the cover portion is in open position, said arm being permanently hinged at its inner end to the cover portion so as to swing in a vertical plane, and permanently hinged at its outer end to said extension piece; a supporting leg extending upward at an angle from the cover portion and into supporting connection with said extension piece; and means secured to the cover portion for supporting said leg at its lower end.

5. In a garment receptacle, the combination of a body portion; a cover portion hinged to the body portion along a vertical edge; a hanger rack secured to the body portion and projecting outwardly from the rear thereof; an extension piece for the hanger rack; an arm projecting from the cover portion and arranged to hold said extension piece in alinement with the hanger rack when the cover portion is in open position; a supporting leg extending upward at an angle from the cover portion and having a permanent connection at its upper end with said extension piece; and means secured to the cover portion for detachably supporting said leg at its lower end.

[Claim 6 not printed in the Gazette.]

1,028,207. RECEPTACLE FOR GARMENTS. WINFIELD S. GILMORE, New York, N. Y., assignor to Crouch & Fitzgerald, a Corporation of New York. Filed Dec. 6, 1911. Serial No. 664,212. (Cl. 211—16.)



1. In a garment receptacle, the combination of a body portion; a cover portion hinged to the body portion along a vertical edge; a hanger rack secured to the body portion and projecting outwardly from the rear thereof; an extension piece for the hanger rack; an arm projecting from the cover portion and arranged to hold said extension

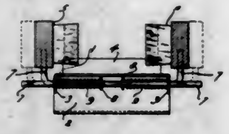
piece in alinement with the hanger rack when the cover portion is in open position, said arm being hinged at its inner end so as to swing in a horizontal plane; a supporting leg extending upward at an angle from the cover portion and into supporting engagement with said extension piece, said leg having a hinged connection at its lower end with the cover portion so as to swing inward and outward with relation thereto.

2. In a garment receptacle, the combination of a body portion; a cover portion hinged to the body portion along a vertical edge; a hanger rack secured to the body portion and projecting outwardly from the rear thereof; an extension piece for the hanger rack; and arm projecting from the cover portion and arranged to hold said extension piece in alinement with the hanger rack when the cover portion is in open position, said arm being hinged at its inner end so as to swing in a horizontal plane; a supporting leg extending upward at an angle from the cover portion and into supporting engagement with said extension piece, said leg having a hinged connection at its lower end with the cover portion so as to swing inward and outward with relation thereto, said arms and leg being permanently connected together at their outer ends.

3. In a garment receptacle, the combination of a body portion; a cover portion hinged to the body portion along a vertical edge; a hanger rack secured to the body portion and projecting outwardly from the rear thereof; an extension piece for the hanger rack; a vertical rod secured to the cover portion; an arm projecting from the cover portion and arranged to hold said extension piece in alinement with the hanger rack when the cover portion is in open position, said arm being hinged at its inner end on said vertical rod so as to swing in a horizontal plane; a supporting leg extending upward at an angle from the cover portion and into supporting engagement with said extension piece, said leg having a hinged connection at its lower end with said vertical rod so as to swing inward and outward with relation to said cover portion.

4. In a garment receptacle, the combination of a body portion; a cover portion hinged to the body portion along a vertical edge; a hanger rack secured to the body portion and projecting outwardly from the rear thereof; an extension piece hinged at its inner end to the outer end of the hanger rack; a vertical rod secured to the cover portion; an arm projecting from the cover portion and arranged to hold said extension piece in alinement with the hanger rack when the cover portion is in open position, said arm being hinged at its inner end on said vertical rod so as to swing in a horizontal plane; a supporting leg extending upward at an angle from the cover portion and into supporting engagement with said extension piece, said leg having a hinged connection at its lower end with said vertical rod so as to swing inward and outward with relation to said cover portion, said arm and leg being permanently connected together at their outer ends.

1,028,208. DEVICE FOR CLEANING SHOES. VICTOR M. GRAB, Chicago, Ill. Filed July 31, 1911. Serial No. 641,639. (Cl. 15—2.)

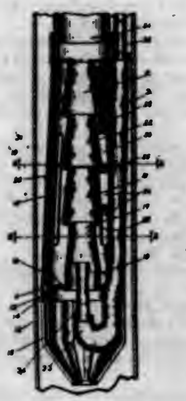


1. A device for cleaning shoes, comprising a frame, scraping devices on the frame, a brush at each side of the frame extending above the scraping devices, a pair of arms on each brush, both arms being slidably mounted in both sides of the frame, and means on the arms acting to normally hold the brushes at the inner limit of their movement.

2. A device for cleaning shoes, comprising a frame having scraping means thereon, wiping devices at the sides of the frame, a pair of arms on each wiping device, the arms of each pair being slidably mounted in both sides of the frame, and springs on said arms adapted to abut against the frame and normally hold the wiping devices at the inner limit of their movement.

3. A device for cleaning shoes, comprising a frame, a plurality of scraping blades on the frame, a brush at each side of the frame, downwardly and laterally directed arms on each brush, and means yieldingly supported on said arms and permitting the brushes to move to and from the frame when in operation.

1,028,209. AIR-LIFT PUMP. OTTO E. HARRIS, Indianapolis, Ind. Filed June 20, 1910, Serial No. 568,038. Renewed Apr. 15, 1912. Serial No. 691,003. (Cl. 103—84.)

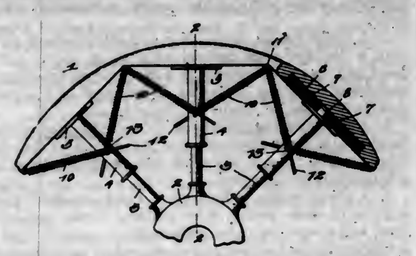


1. An air lift pump nozzle comprising a main tubular body having open ends, an air passage leading downwardly to the lower end of said tubular body and carrying an upwardly projected air nozzle, a tube of less diameter than the interior of the main body mounted in the lower end thereof and surrounding the air nozzle, and a plurality of tapered inspirator tubes arranged in succession above the first tube and each having water inlets leading into its lower end, the wall of said main tubular body being perforated, from a point below the upper end of the tube surrounding the air nozzle, upwardly.

2. An air lift pump nozzle comprising a main tubular body having open ends, an air passage leading downwardly to the lower end of said tubular body and carrying an upwardly projected air nozzle, a tube of less diameter than the interior of the main body mounted in the lower end thereof and surrounding the air nozzle, the wall of said main tubular body being perforated, from a point below the upper end of the tube surrounding the air nozzle, upwardly.

1,028,210. SPRING-WHEEL. IRA NEELY HARTON, Lisbon, N D. Filed Jan. 13, 1912. Serial No. 670,972. (Cl. 152—28.)

A resilient wheel comprising a rim having a plurality of slots therein, a hub, a plurality of spokes radially disposed on said hub, casings mounted on the end portions of said spokes, plates disposed on said casings and arranged to engage with said rim and to span said slots, coiled springs disposed within said casings arranged to resiliently act on said spokes and said sleeves, resilient means disposed in said slots and arranged to engage with the outer end portions of said sleeves for tangentially acting on said casings, a plurality of rods hinged on said rim between said slots, eye members formed on the sides of said casings, the rods extending through said eye members, and coiled springs disposed on said rods and arranged to resiliently act on said eye members.

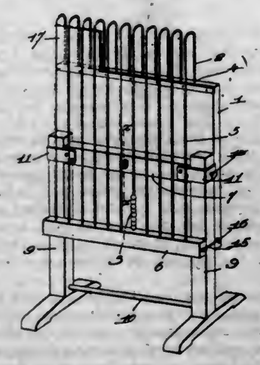


1,028,211. NAIL-BRUSH. ROLLA M. HEATH, New York, N. Y. Filed Oct. 19, 1907. Serial No. 398,140. (Cl. 15—35.)



A nail-cleansing brush comprising a suitable support, a part projecting therefrom and carrying a row of bristles adapted to go under the nails, and a nail guide on the support under the row of bristles adapted to engage the outer surfaces of the nails and to maintain the fingers and nails in proper relation to the bristles as the brush and hand are moved relatively to each other, said guide being provided with a soft nail-polishing material below the bristles, substantially as described.

1,028,212. EDUCATIONAL APPLIANCE. JULIUS HEDEWALD, Waltham, Mass. Filed Mar. 4, 1912. Serial No. 681,332. (Cl. 35—2.)

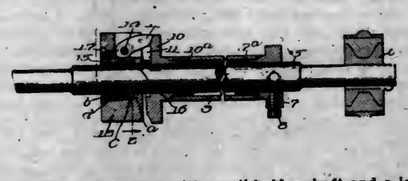


1. In a device of the class described, the combination with a stand, of a supporting member vertically adjustable on the stand, a black-board sustained by said supporting member and vertically adjustable therewith, U-shaped bead-carrying wires having one end secured to one edge of the black-board and the other end extending down behind the black-board, a cross-bar to which the latter ends of the wires are secured, said cross-bar being separate from the stand and adjustable vertically with the black-board.

2. In a device of the class described, the combination with a stand, of a supporting member vertically adjustable on the stand, a black-board sustained by said supporting member and vertically adjustable therewith, U-shaped bead-carrying wires having one end secured to one edge of the black-board and the other end extending down behind the black-board, a cross-bar to which the latter ends of the wires are secured, said cross-bar being separate from the stand and adjustable vertically with the black-board, and means tying each end of the cross-bar to the edge of the black-board, said means engaging the standard and holding the black-board from turning.

3. In a device of the class described, the combination with a stand comprising two posts 9, of a supporting member vertically adjustable on said stand, a black-board pivoted to said supporting member to turn about a horizontal axis, U-shaped bead-carrying wires connected at one end to one edge of the black-board, the other end of said wires extending down behind the black-board, a cross-bar connected to said other end of the wires, said cross-bars being separate from the stand, and hooks connected to the ends of the cross-bar and detachably engaging the edges of the black-board.

1,028,213. ROLL-HOLDER FOR PRINTING-PRESSES. ALBERT A. HENZI, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Mar. 13, 1911. Serial No. 614,280. (Cl. 242—68.)



1. The combination with a roll-holder shaft and a longitudinally-movable head on said shaft, of a collar on said shaft adjacent to said head and carrying means adapted to be actuated by the rotation of the head to engage the shaft, and other shaft-engaging means carried by the collar, said last-named means being adapted to permit the collar to be moved in one direction longitudinally of the shaft and automatically prevent its movement in the reverse direction.

2. The combination with a roll-holder shaft, a head adapted to be secured thereto and another head loose thereon, of a collar mounted on the shaft adjacent to said last-named head, means carried by the collar for engaging such head and adapted, when such head is turned, to force it toward the fixed head, a clamping plate adapted to be forced against the shaft by said engaging means, and other shaft-engaging means also carried by the collar and adapted to permit said collar to be moved in one direction longitudinally of the shaft and automatically prevent its movement in the reverse direction.

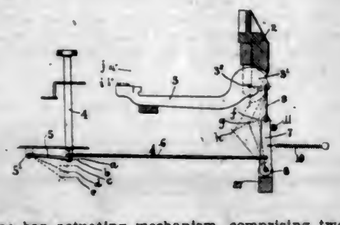
3. A clamping-device for roll-holders, comprising a head adapted to be mounted on a shaft, said head having means adapted to engage one end of a roll tube or core, the outer face of said head being provided with a cam, a collar adjacent to said outer face, a lever carried by said collar, means actuated by said lever for engaging the shaft, said lever being adapted to engage said cam on the face of the head, and other shaft-engaging means carried by the collar, said last-named means being adapted to permit the collar to be moved in one direction longitudinally of the shaft and to automatically prevent its movement in the reverse direction.

4. A clamping-device for roll-holders, comprising a head adapted to be mounted on a shaft, said head having means adapted to engage one end of a roll tube or core, the outer face of said head being provided with a cam, a collar ad-

jacent to said outer face, a lever carried by said collar, means actuated by said lever for engaging the shaft, said lever being adapted to engage said cam on the face of the head, other shaft-engaging means carried by the collar, said last-named means being adapted to permit the collar to be moved in one direction longitudinally of the shaft and to automatically prevent its movement in the reverse direction, and means for holding said second-named shaft-engaging means out of engagement with the shaft.

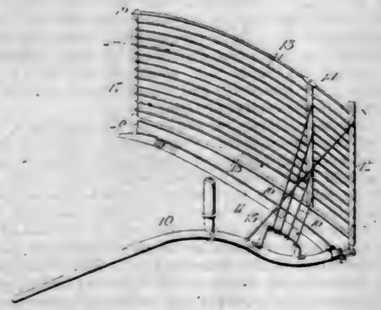
5. A clamping device for roll-holders, comprising a head adapted to be mounted on a shaft, said head having means adapted to engage one end of a roll tube or core, the outer face of said head being provided with a cam, a collar adjacent to said outer face, a lever carried by said collar, means actuated by said lever for engaging the shaft, said lever being adapted to engage said cam on the face of the head, and a rolling member located in an inclined socket in the collar that communicates with the shaft-opening in the collar, and means for holding said rolling member in position to bear against the shaft.

1,028,214. TYPE-WRITING MACHINE. EDWARD B. HESS, New York, N. Y., assignor to Royal Typewriter Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 30, 1908. Serial No. 460,227. (Cl. 197—30.)



A type bar actuating mechanism, comprising two connected breaking or accelerating toggle connections one disposed vertically between each type bar and a fixed point and the other extending forward under the type bar to a fixed point, a universal bar acted upon by the first named toggle connection and means acting on the second named toggle connection intermediate its ends on depression of its corresponding finger piece.

1,028,215. GRAIN-CRADLE. HORACE B. HEWITT, Indianapolis, Ind., assignor of one-half to The North Indianapolis Cradle Works, Indianapolis, Ind., a Corporation of Indiana. Filed Nov. 24, 1911. Serial No. 662,170. (Cl. 56—27.)



1. A grain cradle comprising a snathe, a scythe, and a cradle-head having supporting standards and fingers extending at an appropriate angle to said snathe, the front end of said fingers being each joined to a supporting front standard formed with its front edge tapered to a point and its front and rear faces curved in a direction corresponding to the point of the scythe, substantially as set forth.

2. A grain cradle comprising a front standard formed with a forward edge tapered to a sharp angle, and its front and rear faces curved in a direction to substantially correspond with the curvature of the point of the scythe, substantially as set forth.

3. A grain cradle comprising a front standard which is tapered to a sharp forward edge, the fingers of the cradle being secured to said standard flush with its front face, substantially as set forth.

4. A grain cradle comprising a front standard formed angular in cross section with a sharp corner toward the front and a number of fingers suitably supported from the scythe snathe in the rear and connected at their front ends to said front standard, substantially as set forth.

5. A grain cradle comprising a snathe, a scythe, and a cradle-head supported from said snathe having a front standard with a sharp front edge, the outer fingers of said cradle-head being each connected to the front standard by means of an angle ferrule one socket of which is formed to receive and correspond with the shape of said standard, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,028,216. MELTING AND CASTING MAGNESIUM AND ALLOYS THEREOF. BERTHOLD HOFFMANN and ROBERT SUCHY, Griesheim, Germany, assignors to Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany, a Corporation of Germany. Filed June 8, 1910. Serial No. 565,864. (Cl. 75—17.)

The herein described process of melting and casting magnesium and alloys thereof which consists in melting and casting said metal in the presence of calcium, the amount of calcium employed being so small that it cannot impart to the metal the character of a calcium alloy.

1,028,217. CHAIN-CONNECTOR. ARCHILE JACQUES, Attleboro, Mass. Filed Dec. 1, 1911. Serial No. 663,278. (Cl. 63—21.)



1. In a device of the class described, a case including spaced walls, and a curved resilient hanger pivoted at one end between the walls, the hanger being movable to position its free end between the walls; the hanger having adjacent its pivoted end, a pair of spaced loops, and having intermediate its ends, a third loop constituting a part of the hanger; all of which loops protrude beyond the case, when the free end of the hanger is between the walls.

2. In a device of the class described, a case comprising spaced walls; and a curved resilient hanger pivoted at one end between the walls, the free end of the hanger being movable into a position between the walls, one portion of the hanger protruding beyond one end of the case, and another portion of the hanger protruding beyond the other end of the case, when the free end of the hanger is between the walls; the walls having opposite projections, dividing the first mentioned portion of the hanger into spaced loops.

3. In a device of the class described, a case having spaced walls provided with duplicate grooves in their adjacent faces; and a curved, resilient hanger having transverse heads at its ends, one of which heads is pivoted in the walls, the other of which heads is adapted to pass into the grooves; the hanger including spaced loops which protrude beyond spaced portions of the case, when the last named head is seated at the ends of the grooves.

4. In a device of the class described, a case having spaced walls provided with oppositely disposed grooves in their adjacent faces, the grooves terminating in lateral seats; and a curved, resilient hanger having transverse heads at its ends, one of which heads is pivoted in the walls, the other of which heads is adapted to pass into the grooves, and to spring laterally into the seats; the hanger including spaced loops which protrude beyond spaced portions of the case when the last named head is mounted in the seats.

5. In a device of the class described, a case having spaced walls provided with oppositely disposed grooves in their adjacent faces, the grooves terminating in lateral seats; and a curved, resilient hanger having transverse heads at its ends, one of which heads is pivotally mounted in the walls, the other of which heads is adapted to pass into the grooves, and to spring laterally into the seats; the hanger including spaced loops which protrude beyond spaced portions of the case when the last named head is mounted in the seats, the loops being engageable to spring the last named head out of the seats; there being a bridge connecting the walls; and a projection outstanding from the bridge, whereby the case may be swung upon the pivotally mounted head of the hanger, when the other head is sprung out of the seats.

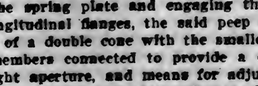
1,028,218. DITCHING-MACHINE. EDWARD JESCHKE, Bellevue, Ohio, assignor to The Jeschke Manufacturing Company, Bellevue, Ohio, a Corporation of Ohio. Filed Mar. 20, 1911. Serial No. 615,474. (Cl. 37—30.)

1. In a machine of the class described, the combination of a frame, a wheel depending from said frame near the front thereof, two plates secured on opposite sides of said frame and pivoted on an axis extending transversely of the frame, two substantially vertically disposed knives secured to the respective plates and bent inwardly at their lower ends, and a U-shaped cutter secured to said plates in advance of said knives, said knives and cutter depending from said frame near the rear thereof and being designed to support the rear end of said frame.

2. In a machine of the class described, the combination of a frame, a wheel depending from said frame near the front thereof, two plates secured on opposite sides of said frame and pivoted on an axis extending transversely of the frame, said plates being slotted at their free ends, bolts secured to said frame and engaging said slots, two substantially vertically disposed knives secured to the respective plates and bent inwardly at their lower ends, and a U-shaped cutter secured to said plates in advance of said knives, said knives and cutter depending from said frame near the rear thereof, and being designed to support the rear end of said frame.

3. In a machine of the class described, the combination of a frame, two plates secured on opposite sides thereof and pivoted on an axis extending transversely of the frame, said plates being slotted at their free ends, bolts secured to said frame and engaging said slots, two substantially vertically disposed knives secured to the respective plates and bent inwardly at their lower ends, a U-shaped cutter secured to said plates in advance of said knives, and two bars secured to the respective sides of said cutter and adjustably secured to said frame.

1,028,219. GUN-SIGHT. JOHN R. JONES, Westernville, N. Y. Filed Oct. 27, 1910. Serial No. 589,488. (Cl. 42—82.)



1. The combination with a gun barrel, of a key block, a spring plate, having one end secured to said key block, the opposite end having a middle lengthwise running slot and oppositely positioned edges flanged, the under surface of said plate adjacent to said slot having a seat the full width of said plate, a peep-sight in the form of a double cone, the smaller ends being connected to provide a centrally positioned sight aperture, said peep-sight having outstanding ears slidably held below said edge flanges, a cross plate spanning said slot, and secured to said flanges, a saddle plate slidable upon said gun barrel and frictionally engaged within said seat, and an upstanding ratchet plate secured to said saddle plate extending through said slot arranged for co-action with said cross plates.

2. The combination with a spring plate having a middle lengthwise running slot at one end and oppositely positioned edge flanges, of a key block secured to the end of said spring plate opposite said slot the under surface of said plate below said slot having a seat, a peep sight in the form of a double cone the smaller ends being connected to provide a centrally positioned sight aperture said peep sight having outstanding ears slidably held below said edge flanges, a cross plate spanning said slot and held to said flanges, a saddle plate frictionally engaged within said seat having an upstanding ratchet plate extending through said slot, a lens secured to one end of said peep sight, a cap secured to the opposite end of said peep sight having a sleeve, and a telescope slidably held within said sleeve.

3. A gun sight including a spring plate provided at one end with means for attachment to a gun barrel, a peep sight slidably mounted upon the opposite end of the spring plate, the said peep sight being in the form of a double cone with the smaller ends of the conical members connected to provide a centrally positioned sight aperture, and means for adjusting the free end of the spring plate toward and away from the gun barrel to regulate the elevation of the peep sight.

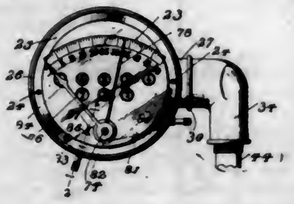
4. A gun sight including a spring plate adapted to extend longitudinally along a gun barrel and provided at one end with means for attachment to the gun barrel, the free end of the spring plate being formed with longitudinal flanges, a peep sight slidably mounted upon the free end of the spring plate and engaging the before mentioned longitudinal flanges, the said peep sight being in the form of a double cone with the smaller ends of the conical members connected to provide a centrally positioned sight aperture, and means for adjusting the free end of the spring plate toward and away from the barrel to regulate the elevation of the peep sight.

5. A gun sight including a spring plate adapted to extend longitudinally along a gun barrel and provided at one end with means for attachment to the gun barrel, the opposite end of the spring plate being slotted and formed with longitudinally disposed side flanges, a peep sight slidably mounted upon the free end of the spring plate and engaging the said longitudinally disposed flanges, the said peep sight being in the form of a double cone with the smaller ends of the conical members connected to provide a centrally positioned sight aperture, a transverse bar connecting the side flanges, and a ratchet plate projecting through the slot for coöperation with

the said transverse bar to adjust the free end of the spring plate toward and away from the barrel.

[Claim 6 not printed in the Gazette.]

1,028,220. SPEEDOMETER. JOSEPH W. JONES, New York, N. Y. Filed Aug. 7, 1908. Serial No. 447,447. (Cl. 73—123.)



1. The combination of a main or governor shaft, of a governor or centrifugal weight in the form of a ring through the center of which the shaft passes; weight-supporting and pivoting projections radiating in opposite directions from the shaft; and two exteriorly screw-threaded plugs engaging interiorly screw-threaded oppositely disposed openings respectively in the governor weight, the inner ends of said plugs engaging the outer ends of the pivoting projections, thereby pivoting the governor weight to swing to different angular positions transverse to the main shaft.

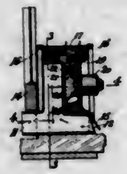
2. The combination of a main or governor shaft, of a governor or centrifugal weight in the form of a ring through the center of which the shaft passes; weight-supporting and pivoting projections radiating in opposite directions from the shaft; and a screw in each of the oppositely disposed screw-threaded openings, the inner end of each of said screws being tapered to engage and spread the outer end of the corresponding plug to securely retain the latter in its adjusted position.

3. The combination of a main or governor shaft, of a governor or centrifugal weight in the form of a ring through the center of which the shaft passes; means supporting said weight from the shaft to rotate with the shaft but to swing to different angular positions transverse thereof; a sleeve movable longitudinally on said shaft but rotatable therewith; an arm projecting rigidly from said sleeve into the path of the swinging movement of the weight whereby the weight in swinging to or toward a position at right-angles to the axis of the main shaft moves the sleeve longitudinally on the shaft; and spring means opposing such movement of the governor weight and sleeve.

4. The combination of a main or governor shaft, of a governor or centrifugal weight in the form of a ring through the center of which the shaft passes; said governor weight having a cylindrical bearing surface approximately parallel to the axis on which the weight swings; means supporting said weight from the shaft to rotate with the shaft but to swing to different angular positions transverse thereof; a sleeve movable longitudinally on said shaft but rotatable therewith; an arm projecting rigidly from said sleeve into contact with said cylindrical bearing surface, whereby the weight in swinging to or toward a position at right-angles to the axis of the main shaft moves the sleeve longitudinally on the shaft; and spring means opposing such movement of the governor weight and sleeve.

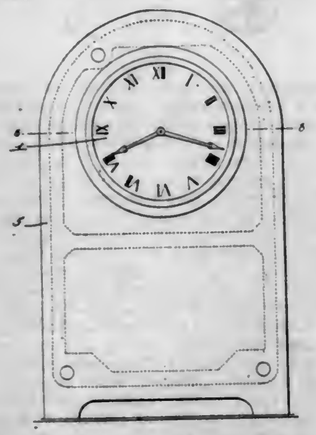
1,028,221. VENTILATOR. JAMES KEITH, London, England. Filed Apr. 25, 1911. Serial No. 623,274. (Cl. 98—31.)

1. In a ventilator, the combination of a hollow base formed as an open ended conduit, an arch-shaped chamber erected on said base and in communication with the interior of said base, said arch-shaped chamber having a vertical wall formed with a circular opening, a perforated covering formed as an incomplete cylinder having an axis parallel with said base, said covering surrounding and spaced from said arch-shaped chamber and extending down to said base, and a fan runner disposed on an axis parallel with that of the cylinder with its inlet center opposite said circular opening, said fan runner adapted to draw air through the hollow base and through the circular opening and to discharge it tangentially into the space between the chamber and the perforated covering.



2. In a ventilator, the combination of a hollow casing including a hollow base formed as an open-ended conduit and an incomplete cylindrical part erected on said base, the cylindrical part having a perforated circumferential wall and imperforate end walls, an arch-shaped chamber disposed within the cylindrical part and communicating with the interior of the hollow base, one end wall of said chamber being constituted by part of one end wall of the cylindrical part, the roof and second end wall of said chamber affording a partition between the interior of the cylindrical part and the base, the second end wall of the chamber having a circular opening and being spaced from the second end wall of the cylindrical part, and a centrifugal open fan runner disposed between the second end wall of the chamber and the second end wall of the cylindrical part, the inlet center of said fan runner being disposed opposite said opening, said fan runner serving to draw air through the open end of the base and through the said circular opening, and to discharge such air through the perforations in the said circumferential wall.

1,028,222. CLOCK-BANK. CLARENCE H. KELSEA, Lynn, Mass. Filed Oct. 7, 1911. Serial No. 653,326. (Cl. 194—78.)



1. In a clock bank, the combination with the winding shaft of a clock, of a toothed member thereon, a locking pawl normally engaging said toothed member to prevent winding movement of the shaft, a slide provided with means to engage the pawl and disconnect the same from the toothed member, and an actuator normally free to move independently of the slide but adapted to actuate the slide upon the insertion of a coin.

2. In a clock bank, the combination with the winding shaft of a clock, of a toothed member thereon, a locking pawl normally engaging said toothed member to prevent winding movement of the shaft, a slide provided with means to engage the pawl and disconnect the same from the toothed member, an actuator normally free to move independently of the slide but adapted to actuate the slide upon the insertion of a coin, and automatically-operative means to hold the slide in its retracted position after the coin has been released.

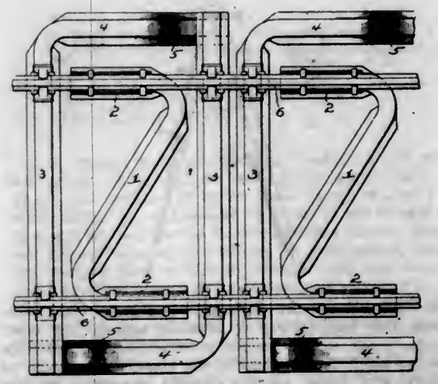
3. In a clock-bank, the combination with the winding shaft of a clock, of a toothed member thereon, a locking pawl normally engaging said toothed member to prevent winding movement of the shaft, a slide provided with means to engage the pawl and disconnect the same from the toothed member, an actuator normally free to move independently of the slide but adapted to actuate the slide upon the insertion of a coin, and means carried by the slide and adapted to hold it in its retracted position after the coin has been released.

4. In a clock bank, the combination with the winding shaft of a clock, of a toothed member thereon, a locking pawl normally engaging said toothed member to prevent winding movement of the shaft, a slide provided with means to engage the pawl and disconnect the same from the toothed member, an actuator normally free to move independently of the slide but adapted to actuate the slide upon the insertion of a coin, and a holding pawl pivoted to the slide and adapted to engage said winding shaft when the slide is retracted thereby to hold the slide in its retracted position.

5. In a clock bank, the combination with the winding shaft of a clock, of a toothed member thereon, a locking pawl normally engaging said toothed member to prevent winding movement of the shaft, a slide provided with means to engage the pawl and disconnect the same from the toothed member, an actuator normally free to move independently of the slide but adapted to actuate the slide upon the insertion of a coin, a holding pawl pivoted to the slide and adapted to engage said winding shaft when the slide is retracted thereby to hold the slide in its retracted position, and means operated by the unwinding movement of said shaft to disengage the holding pawl therefrom.

[Claims 6 to 9 not printed in the Gazette.]

1,028,223. METAL TIES FOR RAILROADS. JESSE SUMNER KIRK, Alliance, Ohio, assignor to William H. Morgan, Alliance, Ohio. Filed Oct. 14, 1911. Serial No. 654,762. (Cl. 238—5.)



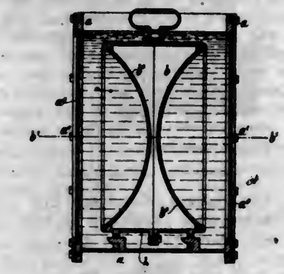
1. The combination of a Z-shaped tie, two L-shaped ties surrounding same, one free end of each L-shaped tie resting on a free end of the other L-shaped tie, and rails secured to both ties.

2. The combination of a Z-shaped tie, and two L-shaped ties surrounding the latter, each L-shaped tie having a long and a short member, the free end of each short member resting under and forming a support for the free end of the longer member, and rails secured to both sets of ties.

3. The combination of a Z-shaped tie, two L-shaped ties surrounding the latter, each L-shaped tie having a member adapted to extend crosswise the track, and a member adapted to extend lengthwise the track, the free end of each longitudinal member resting under and supporting the free ends of each transverse member, and rails secured to both sets of ties.

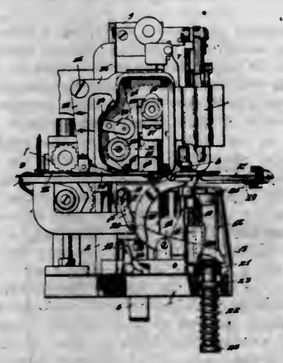
4. The combination of a Z-shaped tie, two L-shaped ties surrounding said Z-shaped tie, each L-shaped tie having one member extending cross-wise the track and a member extending lengthwise the track, each lengthwise member having a downwardly bent end to receive and support the free end of the transverse members of its companion tie, and rails secured to both sets of ties.

1,028,224. LIQUID-LENS SYSTEM. AUGUST KÖHLER, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Feb. 9, 1912. Serial No. 676,680. (Cl. 88—57.)



A liquid-lens-system comprising two vessels, the one inserted within the other, and a liquid filling the remaining space between the two vessels, each vessel having two opposite sides formed of glass as bodies of revolution in relation to an axis common to both vessels.

1,028,225. PIN-TICKETING MACHINE. FREDERICK KOHNLE, Dayton, Ohio. Filed Dec. 13, 1909. Serial No. 532,874. (Cl. 93—89.)



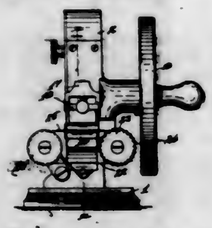
1. In a machine of the class described, a frame, a reciprocating member mounted thereon, staple forming mechanism actuated by said reciprocating member, staple clenching mechanism, a lifting lever engaging the same, a spring controlled arm pivotally mounted on said recip-

rocating member adapted to engage said lifting lever, ticket stapling mechanism movable into and out of operative position with said forming mechanism, and means controlled thereby for disengaging said arm from the lifting lever when said ticket stapling mechanism is in commission, said disconnected members automatically engaging when the ticket stapling mechanism is out of commission.

2. In a machine of the class described, a frame, a reciprocating member mounted therein, staple forming mechanism actuated in proper time movement by said reciprocating member, staple clenching mechanism in operative connection with said reciprocating member and operated in proper time movements relative to the staple forming mechanism, and ticket stapling mechanism adapted to be thrown into operative position with said stapling mechanism, and means under the control of said ticket stapling mechanism for disengaging the operative connection between reciprocating member and clenching mechanism when the ticket stapling mechanism is in commission.

3. In a machine of the class described, a frame, a reciprocating member mounted therein, staple forming mechanism actuated by said reciprocating member, staple clenching mechanism in operative connection with said reciprocating member, ticket stapling mechanism mounted on said frame, adapted to be moved into operative position with said staple forming mechanism, and means for disengaging the operative connection between said reciprocating member and staple clenching mechanism when moving said ticket stapling mechanism into commission, and automatically connecting said operative connections between said reciprocating member and staple clenching mechanism, when throwing said ticket staple clenching mechanism out of commission.

1,028,226. TAG-LABELING MACHINE. FREDERICK KOHNLE, Dayton, Ohio. Filed Dec. 13, 1909. Serial No. 532,875. (Cl. 101—187.)

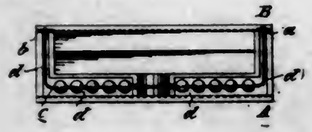


1. In a machine of the class described, a table, the front end of which constitutes a printing platen, means for supporting a roll of paper pierced at intervals in position to be fed across the table, a reciprocating plunger having a cross head projected over said platen, a type chase removably secured to said plunger cross head, a reciprocating arm on said table in rear of the printing head, having a point adapted to coöperate with the orifices in the paper for intermittingly feeding the strip forward, and a rotary device having connections with said printing head and arm for operating them in time movements.

2. In a machine of the class described, a table, the front end of which constitutes a printing platen, means for supporting a roll of paper pierced at intervals in position to be fed across the table, a reciprocating plunger having a cross head projected over said platen, a type chase removably secured to said plunger cross head, a reciprocating arm on said table in rear of the printing head, having a point adapted to coöperate with the orifices in the paper for intermittingly feeding the strip forward, a knife carried by the rear portion of the paper strip which lies upon the platen, and a rotary device having connections with said printing head and arm for operating them in time movements.

3. In a machine of the class described, a table, the front end of which constitutes a printing platen, means for supporting a roll of paper pierced at intervals in position to be fed across the table, a reciprocating printing head over said platen, a reciprocating arm on said table in rear of the printing head, having a point adapted to coöperate with the orifices in the paper for intermittingly feeding the strip forward, a knife carried by the rear portion of the printing head for severing that portion of the paper strip which lies upon the platen, a printing ribbon passing over the platen, ribbon feeding mechanism therefor, and a rotary actuating device having connections with said reciprocating arm the reciprocating printing head and the ribbon feeding mechanism for operating said parts in time movements during one complete rotation.

1,028,227. COMBINED ADDING APPARATUS AND PENCIL-BOX. GEORG KRÜGER, Gross-Lichterfelde, near Berlin, Germany. Filed May 16, 1910. Serial No. 561,583. (Cl. 35—2.)



1. A combined adding apparatus and pencil box, comprising an inner U shaped recess, a pencil compartment within said recess, pins fixed in the box across the ends of said recess, a U shaped rod engaging with said pins, beads on said rod, slots in the side of the box receiving the upright portions of the rod, when the latter is turned up, and a sliding lid for holding the rod in an erected position, and for the purpose specified.

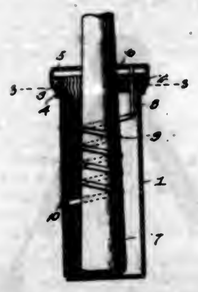
2. A combined adding apparatus and pencil box comprising an inner U-shaped recess, a pencil compartment within said recess, pins fixed in the box across the ends of said recess, a U-shaped rod engaging with said pins, beads on said rod, and a sliding lid for holding the rod in an erected position, as and for the purpose specified.

1,028,228. COMBINED DRAWING-COMPASSES AND PENCIL-CASE. VINCENZ LAMPEL, Leipa, Austria-Hungary. Filed May 25, 1910. Serial No. 563,291. (Cl. 33—1.)



A combined drawing compasses and pencil case, comprising two compass-legs of different lengths and semi-circular cross section hinged together and formed with external screw threads near to the hinge, an extension of semi-circular cross section slidably arranged on the shorter leg and fitted with a locking pin guided in a notched longitudinal slot of said leg, a ring adapted to embrace said legs and slide thereon, a sleeve fitted with a pencil and connected to said ring by a pin and being adapted to slide inside said compass-legs when in a closed position, a notched slot formed by said legs when in closed position for guiding said pin, a closing cap fitted with internal screw threads and adapted to be applied to said legs when said extension is retracted in the hollow thereof and legs are in closed position, a sleeve slidably arranged in said cap and fitted with a piece of india-rubber, and a ring connected to said sleeve by means of a pin guided in a notched longitudinal slot of the said sleeve, and adapted to slide on said cap in unscrewed position, substantially as set forth.

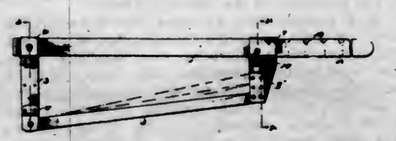
1,028,229. WHIP-LOCKING SOCKET. ALBERT A. LE GENDRE, Warren, Ark. Filed Sept. 12, 1911. Serial No. 648,831. (Cl. 21—130.)



1. A whip socket having its upper end provided with teeth, a cap having a flange also provided with teeth, said cap having a whip receiving opening, and a resilient member forming a plurality of convolutions connected with the cap and with the socket.

2. A whip socket having an annular bulging portion below its open month, the said bulging portion being provided with teeth or indentations, a cap having a continuous flange, the lower portion of the said flange being inturned and provided with teeth or indentations, the cap having a downwardly extending member, a helical resilient element connected with the said member, and the free end of the said resilient member being secured within the socket, all substantially as and for the purpose set forth.

1,028,230. PRUNING-SAW. CHARLES M. LEONARD, Hilton, N. Y. Filed Dec. 4, 1911. Serial No. 663,784. (Cl. 30—11.)

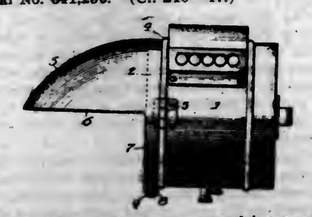


1. A pruning device comprising a handle, a sleeve mounted on one end thereof, an arm formed integral with said sleeve and disposed at right angles to the handle, a saw blade having one end secured to the outer end of said arm, a second sleeve mounted on said handle a desired distance from the first mentioned sleeve, an arm formed integral therewith, a plate secured to said arm, said arm and plate being provided with a series of openings arranged in pairs and bolts passing through said openings and through the free end of the saw blade to adjustably connect the saw blade to the handle.

2. A pruning device comprising a handle, an arm secured to one end and disposed at right angles thereto, a saw blade having one end secured to the outer end of said arm, a sleeve mounted on said handle a desired distance from the arm, an arm formed integral with said sleeves, means for adjustably connecting the free end of the saw blade to the second mentioned arm, said handle having a plurality of spaced openings formed therein, a bolt adapted to be disposed in said openings and abut against the inner side of the top of said sleeve, the turning movement of said bolt being adapted to tilt said sleeve to tighten or loosen the saw blade as required.

3. A pruning device comprising a handle, an arm secured to one end and disposed at right angles thereto, a saw blade having one end secured to the outer end of said arm, a U-shaped member slidably mounted on said handle a desired distance from the arm, a bolt disposed through the ends of said member and adapted to clamp the same to the handle, a V-shaped member pivotally secured to said U-shaped member by said bolt, the free end of said saw blade being adjustably secured to the lower end of said V-shaped member, said V-shaped member being adapted to be disposed at various angles to tighten or loosen the saw blade, the clamping action of said bolt holding said member in adjusted position.

1,028,231. ATTACHMENT FOR VEHICLE-LAMPS. HARRY A. LEWIS, Chicago, Ill. Filed July 29, 1911. Serial No. 641,236. (Cl. 240—47.)



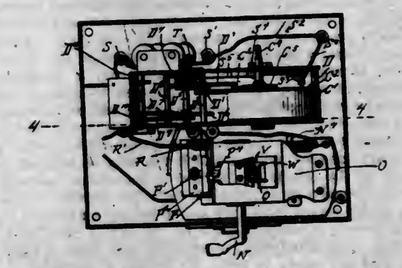
1. An attachment for lamps comprising a suitable door in front thereof having a vizor or hood projecting forward from the upper part of the rim portion thereof and adapted to intercept the upwardly radiating rays of light from the source of light, said vizor provided with depending straps that removably clamp the same to said door.

2. An attachment for vehicle lamps consisting of a vizor that projects in front of said lamp and provided with integral depending straps that removably clamp said vizor to said lamp.

3. An attachment for vehicle lamps consisting of a semi-dome shaped vizor that projects in front of said lamp and provided with depending straps that removably clamp said vizor to said lamp.

4. An attachment for vehicle lamps consisting of a semi-dome shaped vizor that projects in front of said lamp the lower edge of said vizor being in the horizontal plane of the source of light, and straps depending from the rear ends of said vizor that are adapted to engage said lamp and removably clamp the vizor thereto.

1,028,232. COIN-CONTROLLED CIRCUIT-CLOSING APPARATUS. JASPER E. LEWIS, Philadelphia, Pa., assignor of one-third to William B. Matthews, Washington, D. C. Filed Mar. 5, 1912. Serial No. 681,728. (Cl. 194—6.)



1. A coin-in-the-circuit apparatus for starting motors comprising a spring-pressed motor, a gear wheel actuated

thereby, a projection upon the latter, a rock shaft, a hook thereon normally in the path of said projection, an electro-magnet, an armature fixed to the rock shaft, a conductor plate against which the coin is adapted to contact, an electrical circuit connected to said plate and electro-magnet, a movable coin-holding member in the circuit affording means for throwing the coin against said contact plate to close the circuit, thereby causing the electro-magnet to be energized to attract the armature and cause the shaft carrying the same to throw the hook out of the path of said projection, allowing the motor to operate, and means for automatically stopping the motor, as set forth.

2. A coin-in-the-circuit apparatus for starting motors comprising a spring-pressed motor, a gear wheel actuated thereby, a projection upon the latter, a rock shaft, a hook thereon normally in the path of said projection, an electro-magnet, an armature fixed to the rock shaft, a conductor plate against which the coin is adapted to contact, an electrical circuit connected to said plate and electro-magnet, a movable coin-holding member in the circuit affording means for throwing the coin against said contact plate to close the circuit, thereby causing the electro-magnet to be energized to attract the armature and cause the shaft carrying the same to throw the hook out of the path of said projection, allowing the motor to operate, a metallic strip in the circuit, a rotatable disk actuated by the motor and against which said strip contacts, said disk having a recess in its circumference adapted to receive the end of the strip at each revolution of the disk to cause the circuit to close to throw the hook out of the path of said projection, as set forth.

3. A coin-in-the-circuit apparatus for starting motors comprising a spring-pressed motor, a gear wheel actuated thereby, a projection upon the latter, a rock shaft, a hook thereon normally in the path of said projection, an electro-magnet, an armature fixed to the rock shaft, a conductor plate against which the coin is adapted to contact, an electrical circuit connected to said plate and electro-magnet, a movable handle, a coin-holding member upon the latter adapted to throw the coin against said contact plate, means for returning the handle to its normal position, a rotatable disk geared to the motor and having a recess in its circumference, a metallic strip in the circuit adapted to ride upon the circumference of said disk and, when in alinement with the recess, to break the circuit, as set forth.

4. A coin-in-the-circuit apparatus for starting motors comprising a spring-pressed motor, a gear wheel actuated thereby, a projection upon the latter, a rock shaft, a hook thereon normally in the path of said projection, an electro-magnet, an armature fixed to the rock shaft, a conductor plate against which the coin is adapted to contact, an electrical circuit connected to said plate and electro-magnet, a movable handle, a coin-holding member upon the latter adapted to throw the coin against said contact plate, means for kicking the coin from the handle as it returns to its normal position, a rotatable disk geared to the motor and having a recess in its circumference, a metallic strip in the circuit adapted to ride upon the circumference of said disk and, when in alinement with the recess, to break the circuit, as set forth.

5. A coin-in-the-circuit apparatus for starting motors comprising a spring-pressed motor, a gear wheel actuated thereby, a projection upon the latter, a rock shaft, a hook thereon normally in the path of said projection, an electro-magnet, an armature fixed to the rock shaft, a conductor plate against which the coin is adapted to contact, an electrical circuit connected to said plate and electro-magnet, a movable handle, a coin-holding member upon the latter adapted to throw the coin against said contact plate, a stationary member against which the coin is adapted to contact as the handle is returned to its normal position, causing the coin to be released from the handle, a rotatable disk geared to the motor and having a recess in its circumference, a metallic strip in the circuit adapted to ride upon the circumference of said disk and, when in alinement with the recess, to break the circuit, as set forth.

[Claims 6 to 8 not printed in the Gazette.]

1,028,233. COMPOSITION FOR TREATING TREES. NICHOLAS LONGFEATHER, Syracuse, N. Y. Filed Oct. 12, 1911. Serial No. 654,422. (Cl. 167—6.)

1. A composition for treating trees consisting of white lead, zinc oxid, coal tar, excreta, pine gum and linseed oil thoroughly mixed and commingled to form a homogeneous mass.

2. A composition for treating trees consisting of white lead about 23%, zinc oxid about 2%, coal tar about 60%, excreta about 7½%, pine gum 1%, linseed oil 6½%, thoroughly mixed and commingled to form a homogeneous mass.

1,028,234. JUMPING-WALL. OTTO LOTZING, Brunswick, Germany. Filed Mar. 1, 1912. Serial No. 681,016. (Cl. 39—80.)



1. In a jumping wall, an upper portion comprising an element pivotally connected to each side of the wall, a telescopic element connected to each of the first-mentioned elements, a pivoted support, means for maintaining said support in an upright position and pivots for attaching both the telescopic elements to the top of the pivoted support, to form with the first-mentioned elements a roof-shaped structure.

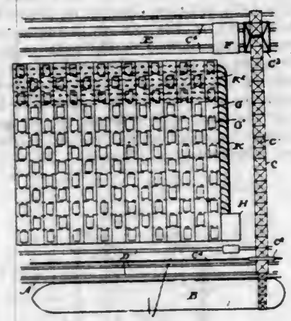
2. The combination with a wall of a pivoted support extending above the top of said wall, means for maintaining said support in an upright position, a pair of plates pivoted one on each side of said support and another pair of plates parallel to each of said first-mentioned plates and adapted to telescope relatively thereto, a wall plate on each side of the wall, a plate pivoted to each of said wall plates and adapted to connect the same to its corresponding telescopic plate and a spring adapted to influence the movement of the telescopic plates.

3. In a jumping wall, an upper portion comprising an element pivotally connected to each side of the wall, a telescopic element comprising two parallelly arranged plates connected by longitudinal joints to each of the first-mentioned elements, a pivoted wall, means for maintaining said wall in an upright position, means for attaching both the telescopic elements to the top of the pivoted wall and a roller revolubly mounted on said wall, above the connection of said telescopic elements.

1,028,235. COAL-HANDLING PLANT. FREDERICK W. LOVELL, Cleveland, Ohio, assignor to The McMyler Interstate Company, Bedford, Ohio, a Corporation of Ohio. Filed Sept. 20, 1911. Serial No. 650,397. (Cl. 214—4.)

1. In a coal storage plant, one or more tracks, coal conveying means for causing coal to be discharged and stored on said tracks, and a self loading car adapted to travel along said tracks for reclaiming the coal and for conveying the same to a desired point.

2. In a coal handling plant, a plurality of storage tracks on which coal is adapted to be dumped, a screening tower in proximity to the tracks, coal conveying and discharging means for causing coal to be discharged and stored on said tracks, and a self loading car adapted to travel along said tracks to receive a load and convey the same to the screening tower.



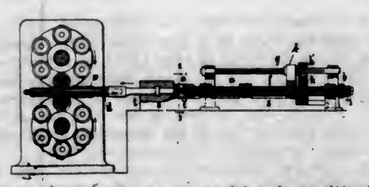
3. In a coal handling plant, a plurality of storage tracks on which coal is adapted to be dumped, a conveyer including a bridge arranged to travel over said tracks, and a coal carrying and dumping member adapted to move along said bridge, whereby coal may be dumped at any point on said tracks, and a self loading car adapted to travel along the tracks for reclaiming the coal and for conveying the same to a desired point.

4. In a coal handling plant, a plurality of storage tracks on which coal is adapted to be dumped, a conveyer including a traveling bridge adapted to pass over said tracks, and a coal carrying and discharging member adapted to move along said bridge, whereby coal may be dumped at any point on the tracks, a screening tower arranged in proximity to the tracks, and a self-loading car adapted to travel along the tracks so as to receive a load and to convey the same to the screening tower.

5. In a coal handling plant, an inclosure for the storage of coal, an apparatus for grading and delivering graded coal, a track extending from the said apparatus and having a number of branches extending into different parts of the inclosure, and a car adapted to travel along said track and its branches to convey coal from various parts of the inclosure to the grading and delivery apparatus.

[Claims 6 to 10 not printed in the Gazette.]

1,028,236. ROLLING-MILL. RICHARD LUDWIG, Bous-on-the-Saar, Germany. Filed Mar. 7, 1912. Serial No. 682,231. (Cl. 80—11.)



1. In a rolling machine comprising intermittently operating rolls, the combination of a mandrel-holder, a driving shaft, and a torsion spring arranged between and connecting the mandrel-holder with the driving shaft.

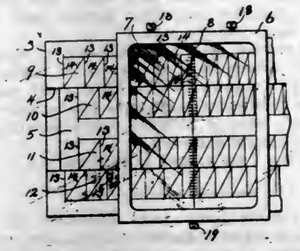
2. In a rolling machine comprising intermittently operating rolls, the combination of a mandrel-holder, a hollow driving shaft, and a torsion spring arranged in and connecting the driving shaft with the mandrel-holder.

3. In a rolling machine comprising intermittently operating rolls, the combination of a mandrel-holder, a hollow driving shaft, and a torsion spring arranged in and connecting the driving shaft with the mandrel-holder, the mandrel-holder and the driving shaft being provided with claws which engage one another with predetermined lost motion.

4. In a rolling machine comprising intermittently operating rolls, the combination of a mandrel-holder, a hollow driving shaft, and a torsion spring consisting of a plurality of rods arranged in and connecting the driving shaft with the mandrel-holder.

5. In a rolling machine comprising intermittently operating rolls, the combination of a mandrel-holder, a hollow driving shaft, a block adjustable in one end of the shaft, and a torsion spring having one end attached to the head of the mandrel-holder and the other end to said block.

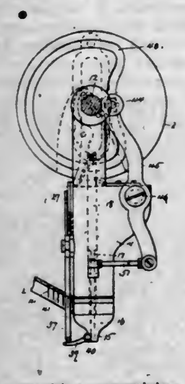
1,028,237. SLIDE-RULE. ARNOLD N. LURIE, Chicago, Ill., assignor of one-half to Theresa L. Lurie, Chicago, Ill. Filed Apr. 25, 1910. Serial No. 558,089. (Cl. 235—70.)



1. In a device of the class described, a scale having designated points along an upper line and a lower line to indicate the major divisions of said scale, diagonal lines connecting the designated points along the upper line with the designated points along the lower line, a runner to slide longitudinally along said scale and a vertical line on said runner divided into a plurality of equal divisions to coöperate with said diagonal lines.

2. In a slide rule, a scale having vertical lines of uniform length to indicate the major divisions of said scale, diagonal lines connecting the upper and lower ends of said vertical lines, a runner to slide longitudinally along said scale and a vertical line on said runner equal in length to the vertical lines of said scale and divided into a plurality of equal divisions.

1,028,238. TACKING MECHANISM. HARRY LYON, Brockton, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 1, 1905. Serial No. 263,233. (Cl. 1—18.)



1. A tack-driving machine comprising a continuously rotated shaft, a normally stationary driver, a normally stationary driver-operating cam loosely mounted upon the shaft, and means for effecting an operative connection between said cam and the shaft.

2. A tack-driving machine comprising a continuously rotated shaft, a normally stationary driver, a normally stationary driver-operating cam loosely mounted upon the shaft, means for effecting an operative connection between said cam and the shaft, and means for limiting the connection to restrict the cam to a single rotation.

3. A tack-driving machine having in combination a continuously rotated shaft, a normally stationary driver, a normally stationary driver-operating cam loosely mounted upon the shaft, and means for effecting an operative connection between said cam and shaft, said means including a non-repeating clutch device.

4. A tack-driving machine comprising a continuously rotated shaft, a normally inoperative driver, normally inoperative tack-delivering mechanism, a cam for operating said driver and said tack-delivery mechanism, said cam being normally loose upon said shaft, and means for effecting an operative connection between said cam and shaft for a single rotation only.

5. A tack-driving machine comprising a continuously rotated shaft, a normally stationary driver, a disk on said shaft, means for operating the driver, and means for clutching the disk to the shaft to be rotated thereby, said disk forming a part of both the driver-operating means and the shaft clutching means.

[Claims 6 and 7 not printed in the Gazette.]

1,028,239. COLOR-LAKE AND PROCESS OF MANUFACTURING SAME. ERNST ULRICHS, Elberfeld, Germany, assignor to Company Willing, Dahl & Co., A. G., Barmen, Germany. Original application filed Aug. 15, 1911, Serial No. 644,116. Divided and this application filed Jan. 16, 1912. Serial No. 671,486. (Cl. 8—1.)

1. A process of manufacturing color lakes, which consists in treating the dye produced from diazotized anilin and naphtholsulfonic acid 1:4 with a salt of a heavy metal.

2. A process of manufacturing color lakes, which consists in treating the dye produced from diazotized anilin and naphtholsulfonic acid 1:4 with a calcium salt.

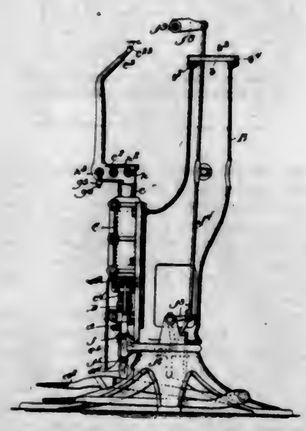
3. As new articles of manufacture, color lakes obtained from the dye produced from diazotized anilin and naphtholsulfonic acid 1:4 characterized by their orange-red shade, their resistance to water and alcohol, their insolubility in oil and their fast color against the action of light and yielding anilin and 2 amido naphtholsulfonic acid 1:4 on reduction by means of tin and hydrochloric acid.

4. As a new article of manufacture, a color lake obtained from the calcium salt of the dye produced from diazotized anilin and naphtholsulfonic acid 1:4 characterized by its orange-red shade, its resistance to water and alcohol, its insolubility in oil and its fast color against the action of light and yielding anilin and 2 amido naphtholsulfonic acid 1:4 on reduction by means of tin and hydrochloric acid.

1,028,240. PEGGING-MACHINE. RONALD FRANCIS MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass., a Corporation of New Jersey. Filed Mar. 24, 1900, Serial No. 10,020. Renewed Feb. 1, 1912. Serial No. 674,828. (Cl. 1—41.)

1. In a pegging machine, the combination with a vertically movable horn; of a cutting device operating in the top of said horn; a rod to actuate said cutting device; an actuator for said rod vertically movable with said horn and laterally movable with relation thereto to produce the independent vertical movement of said rod; a pivotally supported link coöperating with said actuator; and means for preventing the movement of said actuator caused by a downward movement of the horn relative to said link from causing any movement of the rod independent of the horn.

2. In a pegging machine, the combination with a rotatable and vertically movable horn; of a spring to force said horn to its operative position; a cutting device operating in the top of said horn; a rod to actuate said cutting device, rotatable with said horn, but longitudinally movable with relation thereto; an actuator for said rod vertically movable with said horn and laterally movable with relation thereto to produce the independent movement of the rod to actuate the cutters; means located independently of the horn to produce such lateral movement of the actuator regardless of the vertical position of the horn; and means for preventing the lateral movement of the actuator produced by a slight movement of the horn with relation to the operating device from being imparted to the rod to produce a movement thereof independent of the horn.



3. In a pegging machine, the combination with a vertically movable horn; of a depressing device therefor; a cutting device operating in said horn; an actuating device for said cutting device connected with said depressing device and adapted to operate said cutting device; means for preventing a vertical movement of the horn with relation to the depressing device, said depressing device thus constituting a connecting member to maintain said horn and said actuating device in the same vertical position relative to each other; means located independently of the horn for producing a lateral movement of said actuating device; and means whereby a portion of such lateral movement of the actuating device is prevented from producing a corresponding movement of the cutting device.

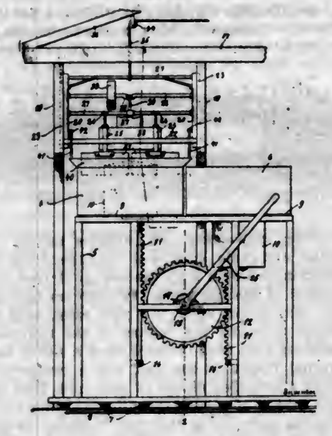
4. In a pegging machine, the combination with a vertically movable horn; of a depressing device therefor; a cutting device operating in said horn; an actuator vertically movable with the horn and independently movable to operate said cutting device; and a lost-motion connection between the cutting device and the actuator, whereby during a portion of the independent movement of the actuator the cutting device is not operated.

5. In a pegging machine, the combination with a vertically movable horn; of a cutting device operating in said horn; means for operating the cutting device located independently of the horn; and connections from said means to said cutting device so constructed and arranged that the cutting device is actuated only by said means and is unaffected by vertical movements of the horn.

[Claims 6 to 28 not printed in the Gazette.]

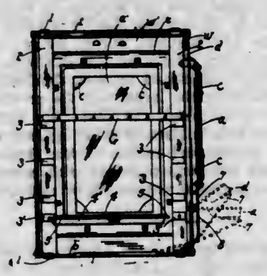
1,028,241. BLOCK-MOLDING MACHINE. ANDREW MCHENCH, Fargo, N. D. Filed July 13, 1911. Serial No. 638,886. (Cl. 25—60.)

In a block molding machine, a vertically slidable frame including a cross-bar having an opening, a tamping mechanism carried by the frame, a mold, a stationary receptacle located above the mold and extending loosely into the opening of the aforesaid cross-bar, said receptacle receiving the material and delivering the same into the mold, a hopper loosely supported on the mold, stems ex-



tending from the hopper and having a sliding engagement with the aforesaid cross-bar, and abutments on the stems above the cross-bar.

1,028,242. OVEN. PETER J. MCMORROW, St. Louis, Mo. Filed July 31, 1911. Serial No. 641,516. (Cl. 126—275.)

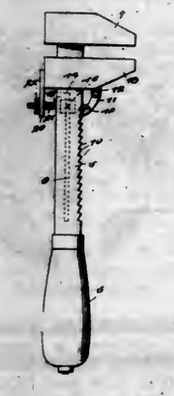


1. In an oven having end walls provided with transparent panels, strips on opposite sides of the panels having their outer edges clenched to the edges of the walls, and provided with ledge formations disposed along their inner edges.

2. In an oven having end walls provided with transparent panels, vertical strips on opposite sides of the panels, ledges on the strips for supporting suitable grates, a bottom deflector plate and drip pan, and brackets on said plate terminating in outwardly projecting arms, the bottom ledges having vertical walls provided with perforations to receive the bracket-arms and thereby support the drip-pan.

3. In an oven having a vertical wall provided with a vertically swinging door hinged at the bottom, links hinged to the sides of the door and extending permanently through said wall into the chamber of the oven, and bent to operate freely through said wall with an oscillation of the door in either direction, and suitable devices on the links positioned permanently outside the oven to engage the outer face of the oven wall for an open position of the door, and thereby arrest further movement on the part of the door.

1,028,243. WRENCH. CHARLES T. MELHORN, Amsbry, Pa. Filed Mar. 18, 1912. Serial No. 684,543. (Cl. 81—139.)

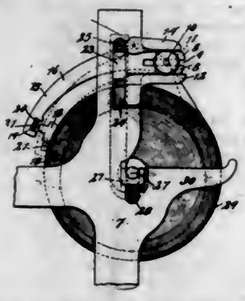


1. In a wrench, the combination with a longitudinally slotted shank provided with teeth on one face and having a stationary head formed on one end, the opposed walls of said shank having longitudinal grooves formed therein and entrance channels to the grooves at one end, an adjustable jaw on the shank, a guide block movable in the slot of said shank and provided with studs projecting into said longitudinal grooves, a pawl pivotally mounted on the adjustable jaw to engage the teeth of the shank, a stem connected to said pawl and movable through the opening in the guide block, and means for moving said stem to engage and disengage the pawl with the teeth upon the shank.

2. In a wrench, the combination with a longitudinally slotted shank provided with teeth upon one edge and having a stationary jaw formed on one end, the opposed walls of said slot having longitudinal grooves formed therein, a guide block movable in the slot of the shank and having studs projecting into said grooves, an adjustable jaw on the shank, a pawl pivotally mounted on the jaw to engage said teeth, a stem movably mounted in the guide block and pivotally connected to the free end of said pawl, a plate fixed to the adjustable jaw provided with an aperture through which said stem is freely movable, and a nut threaded upon the end of said stem and co-acting with the plate to move the stem and engage or disengage the pawl with the teeth on the shank.

3. In a wrench, the combination with a longitudinally slotted shank having teeth on one face and a jaw formed on one end, the opposed walls of the slot in said shank being provided with longitudinal grooves and entrance channels opening into the grooves at one end, a guide block provided with studs movable through said channels into the grooves, said block being longitudinally movable in the slot in the shank, an adjustable jaw on the shank, a pawl pivotally mounted on the jaw to engage the teeth on the shank and hold the jaw in its adjusted position, said guide block being provided with an opening, a stem pivotally engaged with one end of the pawl, a plate fixed to the adjustable jaw and provided with an aperture through which said stem is freely movable, a spring arranged on the stem and fixed at one end thereto, the other end of said stem being fixed to the plate, said spring normally acting to force the stem through the opening in the guide block and move the pawl out of engagement with the teeth on the shank, and a nut threaded on the end of the stem co-acting with said plate to move the stem and engage the pawl with said teeth and to place said spring under compression.

1,028,244. BRAKE MECHANISM FOR WEB-ROLLS. GABRIEL A. MENENDEZ, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 14, 1909. Serial No. 489,929. (Cl. 242—75.)



1. A roll-braking mechanism for printing presses having in combination a roll-frame, a brake-frame pivotally mounted on said roll-frame and having its pivots adjustable toward and away from said roll-frame, means for laterally adjusting said brake-frame, a hanger-frame suspended from said brake-frame between the pivotal point and the end of said brake-frame and adapted to carry a roll of paper, and a brake mounted on said brake-frame and adapted to bear upon the surface of said roll of paper.

2. A roll-braking mechanism for printing presses having in combination a roll-frame, a shaft mounted on said roll-frame and adjustable in positions parallel with each other toward and away from said roll-frame, means for adjusting said shaft, a brake-frame carried by said shaft, a hanger-frame adapted to support a roll of paper and suspended on said brake-frame at a point between said shaft and the other end of said brake-frame, and a brake mounted on said brake-frame and adapted to bear substantially throughout its entire length upon the surface of a roll of paper supported on said hanger-frame.

3. In a mechanism for braking rolls of paper, the combination with a roll-frame provided near its upper end upon each side with a horizontal slot, a shaft slidingly mounted in said slots and adjustable therein, means for adjusting the position of said shaft in said slots, a brake-frame carried on said shaft, a brake carried by said brake-frame and adapted to bear upon the periphery of the web-roll, vertical slots in said roll-frame, and roll hangers slidingly mounted in said slots in said roll-frame and supported at their upper ends on said brake-frame between the pivotal point of said brake-frame and said brake and adapted at their lower ends to rotatably support a web-roll.

4. In a mechanism for braking rolls of paper, the combination with a roll-frame provided near its upper end upon each side with a horizontal slot, two rack-bars one located alongside of each slot, a shaft mounted in said shaft engaging said rack-bars, and means for holding said slots, pinions on the ends of said shaft engaging said rack-bars, and means for holding said shaft against rotation relative to said rack-bars and against movement longitudinally of said slots, of a brake-frame pivotally mounted on said shaft, a brake carried by said brake-frame, and a hanger-frame suspended from said brake-frame at a point between said shaft and said brake and adapted to carry a roll of paper, said brake being adapted to rest upon the roll of paper carried by said hanger-frame.

5. In a mechanism for braking rolls of paper, the combination with a roll-frame provided near its upper end upon each side with a horizontal slot, two rack-bars one located alongside of each slot, a shaft mounted in said slots, pinions on the ends of said shaft engaging said rack-bars, and a rack-bar pivotally mounted above one of said pinions and adapted to engage the same to prevent its rotation, of a brake-frame pivotally mounted on said shaft, a brake carried by said brake-frame, and a hanger-frame suspended from said brake-frame at a point between said shaft and said brake and adapted to carry a roll of paper, said brake being adapted to rest upon the roll of paper carried by said hanger-frame.

1,028,245. PIPE AND CABLE COUPLING AND CASING THEREFOR. GEORGE W. MILLAR, St. Louis, Mo. Filed Jan. 19, 1910. Serial No. 538,822. (Cl. 137—28.)

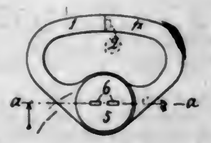


1. A coupling, embodying two thimbles having tapered exterior walls, and radial collars at the inner ends thereof, two pipe sections wherein the thimbles are driven for coniform expansion of said pipe ends, two sleeves having coniform bores and driven upon the pipe ends, said sleeves having flanges engaging the collars of the thimbles, two bisected coupling nuts each clamped upon a sleeve and having an internal thread at one end, and a two-part casing sleeve having a threaded nipple at each end, that engages the internal thread of a corresponding coupling nut.

2. A coupling comprising tapering thimbles having collars at their inner ends and adapted to be driven into the pipe sections to be coupled with their collars in engagement with the ends of the pipe sections, sleeves having flanges at their inner ends and adapted to be driven on the pipe sections with their flanges abutting against the collars of the thimbles, nuts on the sleeves and having shoulders engaging the flanges of the said sleeves, and a two-part casing having reduced and threaded ends with which the said nuts engage.

3. A coupling, comprising tapering thimbles having collars at their inner ends and adapted to be driven into the pipe sections to be coupled, sleeves adapted to be driven onto the pipe sections, and having flanges at their inner ends engaging the collars of the thimbles, nuts having bores of different diameters forming shoulders, the bore at the inner end being the larger and the portion beyond the shoulder being threaded, the said nuts fitting upon the sleeves with the shoulders abutting against the flanges of the sleeves, a two-part casing having threaded ends engaged by said nuts and provided with apertured flanges, and screws engaging the apertures of said flanges.

1,028,246. PADLOCK. JOHN EDVARD MODERG, Stillwater, Minn. Filed Aug. 9, 1911. Serial No. 643,250. (Cl. 70—104.)



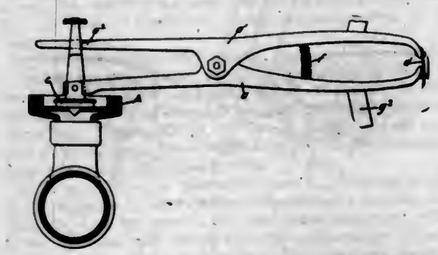
1. In a pad-lock, a shackle composed of two curved arms, each formed with overlapping plates or wings to form a hinge joint on which the opposite ends of the arms may swing to and from each other, one of said wings having a concealed shoulder, a spindle constituting the pivot of the joint and having in one end a keyhole, a spring-pressed dog concealed in a cavity near the other end of the spindle and arranged to engage the concealed shoulder and lock the shackle-arms closed against each other, and a key adapted for insertion through the key-hole and to press the dog out of locking engagement with the shoulder.

2. In a pad-lock, a shackle composed of two curved arms, each formed with overlapping plates or wings to form a hinge joint on which the opposite ends of the arms may swing to and from each other, one of said wings having a concealed shoulder, a spindle constituting the pivot of the joint and having in one end a keyhole, a spring-pressed dog concealed in a cavity near the other end of the spindle and arranged to engage the concealed shoulder and lock the shackle-arms closed against each other, and a key adapted for insertion through the keyhole and to press the dog out of locking engagement with the shoulder, said key rotating with the spindle, and means engaging the key to prevent sliding movement of same while it acts on the dog.

3. In a pad-lock, a shackle composed of two curved arms, each formed with overlapping plates to form a hinge joint on which the opposite ends of the arms may swing to and from each other, one of said plates having a concealed shoulder, a spindle constituting the pivot of the joint and having in one end a keyhole, a spring-pressed dog concealed in a cavity near the other end of the spindle and arranged to engage the concealed shoulder and lock the shackle-arms closed against each other, and a key adapted for insertion through the key hole and to press the dog out of locking engagement with the shoulder, said spindle having in each side a longitudinal groove and the key being formed with two arms, each arm slidable in one of the grooves and adapted to act on the dog to disengage it.

4. In a pad-lock, an internally cylindrical spindle casing formed of two hinge-members each of which has a shackle member, which members when closed form the shackle of the lock, a spindle forming the pivot of the hinge joint and having at one end an integral cap and near said cap an annular recess, and guards in the casing extending into said recess, another cap fixed to the casing and forming a retaining journal for the other end of the spindle, said journal cap having a concealed cavity, and the adjacent hinge member having a shoulder, a spring-pressed dog in the cavity arranged to engage the shoulder and lock the shackle arm in closed position, the integral cap having two keyholes and the spindle having at two opposite sides a longitudinal groove in line with one of the keyholes, and a key having two parallel arms adapted to enter said keyholes and grooves and act on the dog to disengage it, and guards extending from the casing into the annular groove of the spindle; said key having in its arms notches for the guards.

1,028,247. AUTOMATIC-SPRINKLER CLOSER. LEONARD D. MOREY, Watertown, Conn., assignor of one-half to Julius H. Bronson, Waterbury, Conn. Filed June 1, 1904. Serial No. 210,638. (Cl. 169—5.)



1. An automatic sprinkler closer comprising two members, one adapted to engage the frame of a sprinkler and the other provided with a valve for closing the sprinkler nozzle, one of said members being movable with relation to the other to force said valve against the valve-seat of the sprinkler, means for holding the valve in position to close the sprinkler nozzle, and means for automatically releasing said valve in case of fire, substantially as described.

2. An automatic sprinkler closer comprising two members pivoted together, a valve connected to one of said membera, and fusible means for connecting said members to hold said valve to the valve seat of a sprinkler, substantially as described.

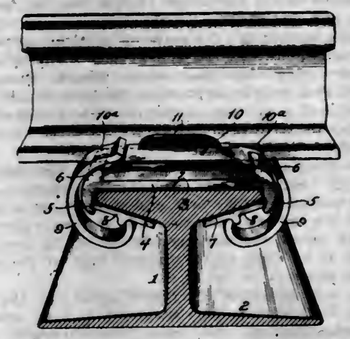
3. An automatic sprinkler closer adapted to be inserted between the valve seat and the opposing frame of an automatic sprinkler and comprising two members pivoted together, a valve connected to one of said members, and means for connecting said members to hold said valve to the valve seat of the sprinkler by the engagement of the other member with the frame of the sprinkler, substantially as described.

4. An automatic sprinkler closer comprising two members pivoted together, a valve connected to one of said members, and a spring catch for connecting said members beyond the pivot, substantially as described.

5. An automatic sprinkler closer comprising two members pivoted together, a valve connected to one of said members, a catch on one of said members and a spring link connected to the other member and adapted to engage said catch, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,028,248. MEANS FOR SECURING RAILS TO METAL TIES. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed Sept. 12, 1911. Serial No. 648,997. (Cl. 238—4.)



1. The combination with a metal tie having a top flange, of a chair seated on said flange and provided with a pair of upwardly projecting side shoulders near each end, clamping plates resting on the chairs and provided with shoulders engaging a pair of the shoulders on the chair and each also provided with a lip adapted to overlap the base flange of the rail, and means for locking the plates, chair and tie together.

2. The combination with a metal tie having a top flange, of a chair having a pair of upwardly projecting flanges at each end, with a space between the two pairs for the base flange of the rail, two clamping plates adapted to rest between said flanges and each having laterally projecting shoulders to engage the inner ends of said flanges, and a lip to overlap the base flange of the rail, and means for locking the plates, chair and tie together.

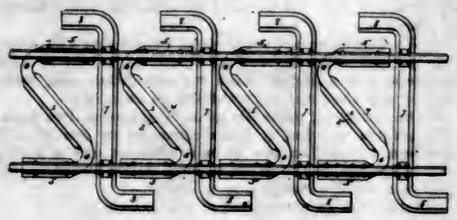
3. The combination with a metal tie having a top flange, of a chair having depending flanges to overhang the sides of the top flange of the tie, and a pair of upwardly projecting flanges near each end, clamping plates, each having laterally projecting shoulders to engage the inner ends of said upwardly projecting shoulders, and a lip to engage the base flange of the rail and means for securing the plates, chair and tie together.

4. The combination with a tie, of a chair having shoulders arranged in pairs on its upper surface, and two clamping plates each having a lip to engage the base flange of the rail and laterally projecting shoulders to engage the shoulders on the chair, the shoulders on one plate being wider than the shoulders on its companion plate.

5. The combination with a tie, of a chair having a pair of upwardly projecting flanges near each end, and two interchangeable clamping plates, each having a lip to overlap the base flange of the rail, and each having laterally projecting shoulders to engage the inner ends of the upwardly projecting flanges on the chair, the shoulders on one clamping plate being wider than the shoulders on its companion plate.

[Claim 6 not printed in the Gazette.]

1,028,249. METAL TIES FOR RAILROADS. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed Oct. 11, 1911. Serial No. 654,179. (Cl. 238—5.)



1. The combination of a series of straight, metal ties each composed of a base flange, a web and a top flange, the ends of said ties being bent at an angle to the body of the tie to form outboard or end bearings for the tie, and rails secured to the top flanges of said ties, intermediate the bent ends of the latter.

2. The combination of a series of straight, metal ties each composed of a base flange, a web and a top flange, the base flange being wider than the top flange, the ends of said ties being bent at an angle to the body of the tie to form outboard or end bearings for the tie and rails secured to the top flange of said ties intermediate the bent ends of the latter.

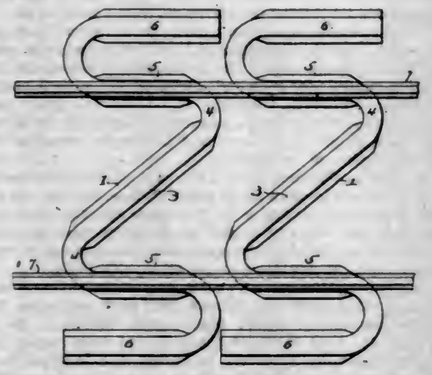
3. The combination of a series of metal ties, the ends of each of which are bent into parallel planes to form carrying members for the rails, and straight ties alternating with the bent ties, the two ends of the straight ties projecting beyond the carrying members of the bent ties, and bent at an angle to the straight body of the tie to form side supports for the track.

4. The combination of a series of metal ties, the ends of which are bent into parallel planes to form carrying members for the rails, and straight ties alternating with the bent ties, and provided at points outside of or beyond the carrying members of the bent ties, with bent ends which latter form side supports for the track, and rails secured to both series of ties.

5. The combination of a series of Z-shaped metal ties, and straight ties alternating with the bent ties, the straight ties having bent ends to form outboard or side bearings or supports for the track.

[Claim 6 not printed in the Gazette.]

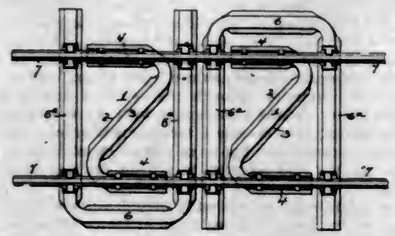
1,028,250. METAL TIE. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed Oct. 11, 1911. Serial No. 654,180. (Cl. 238—5.)



1. A metal tie for railroads having its ends bent into U shape, the inner members of said U-shape sections being parallel and forming the rail supports for the tie, and the outer members forming outboards or end bearings to support the tie against endwise tipping.

2. A metal tie of approximately Z-shape, the end of said tie being U-shape in plan, the inner members of said U-shaped sections being parallel and forming the supports for the rails, and the outer members forming outboards or end bearings to support the tie against endwise tipping.

1,028,251. METAL TIES FOR RAILROADS. WILLIAM HENRY MORGAN, Alliance, Ohio. Filed Oct. 14, 1911. Serial No. 654,711. (Cl. 238—5.)

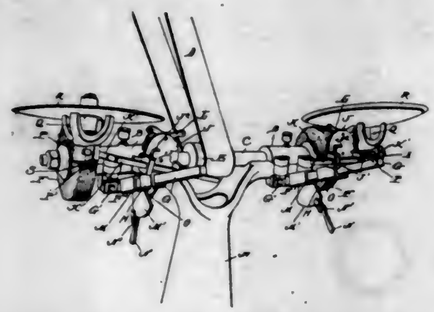


1. The combination with a series of Z-shaped metal ties, of intermediate ties extending around three sides of each Z-shaped tie and projecting at the sides of the track so as to support the latter against tilting movement.

2. The combination of a series of Z-shaped metal ties, and a series of U-shaped ties each extending around three sides of a Z-shaped tie and projecting at the sides of the track so as to support the latter against tilting movement.

3. The combination of Z-shaped ties and U-shaped ties each of the latter extending around three sides of one Z-shaped tie, the said U-shaped ties arranged so that their open ends will alternate with the closed ends of the next adjacent ties.

1,028,252. DISK-SHARPENER. JOHN B. MOYER, Lucas, S. D. Filed Sept. 28, 1910. Serial No. 584,244. (Cl. 51—7.)



1. In a device of the kind described, the combination with a grinding wheel, of a rotatable bar having a crank portion in advance of and transverse to the periphery of the grinding wheel, said crank portion being adapted to swing vertically, and said bar being movable in a straight line toward and away from the grinding wheel, a bearing carried by said crank portion, and a disk holder rotatably mounted on said bearing.

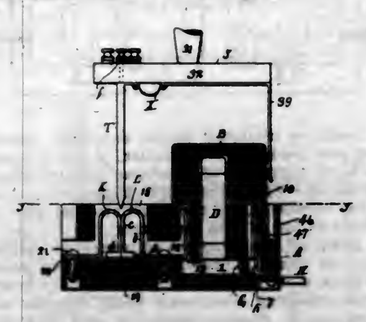
2. In a machine of the kind described, the combination with a grinding wheel of a guide bar, a sleeve adjustably mounted on said guide bar carrying a rack, a casting pivotally mounted on said rack carrying a pawl for engaging said rack, a bar adjustably mounted in said casting, and a revoluble disk holder carried by said bar.

1,028,253. GUARD DEVICE. THOMAS E. MURRAY, New York, N. Y. Filed Mar. 20, 1911. Serial No. 615,507. (Cl. 70—99.)



A guard device comprising a shell divided into two flexibly connected parts and having a suitable opening or openings in its wall whereby it may be applied to the object to be guarded so as to inclose the same, and an unreleasable latch fastening within said shell comprising a spring hook on one of said parts and an eye on the other part receiving and engaging said hook.

1,028,254. METER-TESTING CUT-OUT. THOMAS E. MURRAY, New York, N. Y. Filed June 29, 1911. Serial No. 636,016. (Cl. 175—183.)



1. In combination with service leads and a fuse, means for simultaneously connecting in said leads an auxiliary load, and an auxiliary fuse.

2. In combination with service leads, a meter and a fuse, means for simultaneously connecting in said leads testing devices for said meter, and an auxiliary fuse.

3. In combination with service leads, a fuse and a load, means for varying the load, and for simultaneously varying the fuse capacity in circuit proportionately to the load variation.

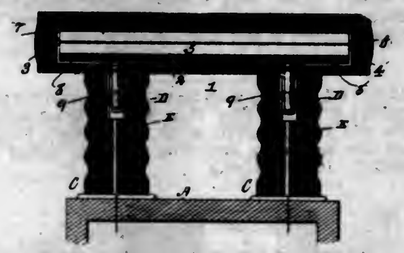
4. In combination with service loads and fuses therein, a meter, testing means therefor, an auxiliary load, an auxiliary fuse, and removable means for short-circuiting the service leads to the load and for connecting said auxiliary load, auxiliary fuse and testing means to said meter and to said service leads: the auxiliary fuse to coöperate with one of the first-named fuses.

5. A base block, a removable carrier, contacts on said block, contacts on said carrier coöperating with said block contacts, a meter, service and load leads connected to said block contacts, and, in circuit with said carrier contacts, mefer testing means and a fuse; the aforesaid parts being constructed and arranged so that upon the coöperation of said carrier and block contacts, said service leads shall be short-circuited to the load and said auxiliary load and said fuse shall be connected in circuit with said service leads and said meter.

[Claims 6 and 7 not printed in the Gazette.]

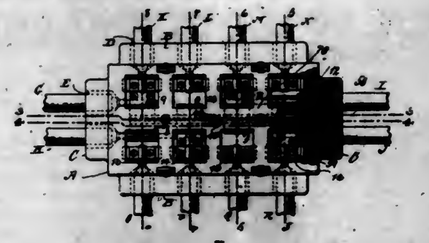
1,028,255. FUSE-CASE. THOMAS E. MURRAY, New York, N. Y. Filed Sept. 11, 1911. Serial No. 648,796. (Cl. 175—273.)

1. A tubular case closed at both ends, contacts within said case on the inner faces of the end closures thereof, parallel projections of conducting material extending through and surrounded by the wall of said case at right angles to the central longitudinal axis thereof disposed in the same plane and located between and at a distance from each of said contacts, and connections from said contacts to said projections.



2. A tubular case closed at both ends, contacts within said case on the inner faces of the end closures thereof, parallel projections of conducting material extending through and surrounded by the wall of said case at right angles to the central longitudinal axis thereof disposed in the same plane and located between and at a distance from each of said contacts, and connections from said contacts to said projections wholly inclosed in the material of the wall of said case.

1,028,256. ELECTRIC CUT-OUT. THOMAS E. MURRAY, New York, N. Y. Filed Oct. 4, 1911. Serial No. 652,793. (Cl. 175—274.)



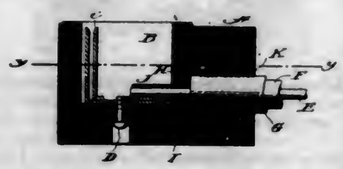
1. An electric cut-out, comprising a base block, a longitudinal partition thereon, a plurality of U-shaped contact plates extending through said partition with their arms on opposite sides thereof, fixed contact plates facing said arms, fuse plugs entering between said U-shaped plates and said fixed contact plates, plus main circuit conductors respectively connected to certain of said U-shaped plates, minus main circuit conductors respectively connected to the remainder of said U-shaped plates, bridges joining U-shaped plates connected to conductors of the same polarity, and branch circuit conductors connected to said fixed contact plates.

2. An electric cut-out, comprising a base block, a longitudinal partition thereon, a plurality of U-shaped contact plates extending through said partition with their arms on opposite sides thereof, fixed contact plates facing said arms, fuse plugs entering between said U-shaped plates and said fixed contact plates, plus main circuit conductors respectively connected to certain of said U-shaped plates, minus main circuit conductors respectively connected to the remainder of said U-shaped plates, bridges inclosed in said partition joining U-shaped plates connected to conductors of the same polarity, and branch circuit conductors connected to said fixed contact plates.

3. An electric cut-out, comprising a base block, a longitudinal partition thereon having a plurality of longitudinal slots, a plurality of U-shaped contact plates extending through said partition below said slots and having their arms on opposite sides of said partition, fixed contact plates facing said arms, fuse plugs entering between said U-shaped plates and said fixed contact plates, plus

main circuit conductors respectively connected to certain of said U-shaped plates, minus main circuit conductors respectively connected to the remainder of said U-shaped plates, bridge bars inserted in said slots in said partition and making contact with U-shaped plates connected to conductors of the same polarity, and branch circuit conductors connected to said fixed contact plates.

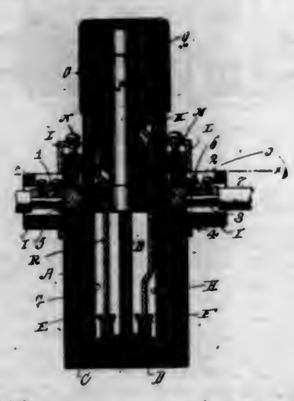
1,028,257. JOINT FOR SHEATHED CONDUCTORS. THOMAS E. MURRAY, New York, N. Y. Original application filed June 29, 1911, Serial No. 636,015. Divided and this application filed Nov. 20, 1911. Serial No. 661,327. (Cl. 173—268.)



1. A support, having an opening and in said opening a body of ductile metal, and, coherent to said body, an enlargement formed by consolidating thereon a comminuted mass of the same metal.

2. A support, having an opening and in said opening a body of lead, and, on said body and cohering thereto, a consolidated mass of lead floss.

1,028,258. ELECTRIC CUT-OUT. THOMAS E. MURRAY, New York, N. Y. Filed Dec. 9, 1911. Serial No. 664,704. (Cl. 175—274.)



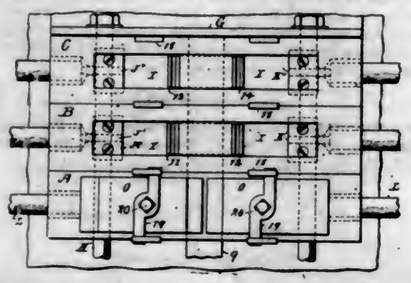
1. An electric cut-out, comprising a base in box form, circuit conductors longitudinally inclosed in walls of said base and having terminals at the bottom thereof, a cover for said base, and a bifurcated switch member disposed in said cover and having protruding contacts coöperating with said conductor terminals.

2. An electric cut-out, comprising a base in box form, circuit conductors disposed in walls of said base and having terminals at the bottom thereof, removable plates covering said conductors, a cover for said base, and a bifurcated switch member disposed in said cover and having protruding contacts coöperating with said conductor terminals.

3. An electric cut-out, comprising a base in box form, circuit conductors disposed in recesses in walls of said base and having terminals at the bottom thereof, plates slidable in said recesses and covering said conductors, a cover for said base, and a bifurcated switch member disposed in said cover and having protruding contacts cooperating with said conductor terminals.

4. An electric cut-out, comprising a base in box form, circuit conductors disposed in walls of said base and having terminals at the bottom thereof, removable plates covering said conductors, a sleeve detachably supported on said box and above said covering plates, a cover supported on said sleeve, and a bifurcated switch member disposed in said cover and having protruding contacts cooperating with said conductor terminals.

1,028,259. CONNECTION DEVICE FOR CIRCUIT-CONDUCTORS. THOMAS E. MURRAY, New York, N. Y. Filed Feb. 9, 1912. Serial No. 676,572. (Cl. 175—274.)



1. A group of insulating blocks, means for removably securing said blocks in juxtaposition, a circuit terminal on each block, a plurality of superposed mutually insulated conductors extending across said blocks, and movable means for connecting the circuit terminal on each block respectively to one of said conductors.

2. A group of insulating blocks, means for removably securing said blocks in juxtaposition, a circuit terminal on each block, a plurality of superposed mutually insulated conductors extending across said blocks, movable means for connecting the circuit terminal on each block respectively to one of said conductors, and fuses interposed in said connecting means.

3. A group of insulating blocks, means for removably securing said blocks in juxtaposition, two circuit terminals on each block, a plurality of superposed mutually insulated conductors extending across said blocks, and movable means for connecting the circuit terminals on each block respectively to one of said conductors.

4. A group of insulating blocks, means for removably securing said blocks in juxtaposition, two circuit terminals on each block, a plurality of superposed mutually insulated conductors extending across said blocks, movable means for connecting the circuit terminals on each block respectively to one of said conductors, and fuses interposed in said connecting means.

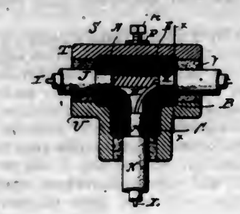
5. A plurality of groups of insulating blocks, each having a recess, means for removably securing said blocks in juxtaposition with said recesses in alinement, a circuit terminal on each block, a group of mutually insulated superposed conducting bars extending through said recesses, and means for connecting the circuit terminals on corresponding members of each of said groups of blocks to one and the same member of said group of bars.

[Cairns 6 to 13 not printed in the Gazette.]

1,028,260. JUNCTION-BOX FOR CIRCUIT-CONDUCTORS. THOMAS E. MURRAY, New York, N. Y. Original application filed Sept. 11, 1911, Serial No. 648,797. Divided and this application filed Mar. 9, 1912. Serial No. 682,645. (Cl. 173—268.)

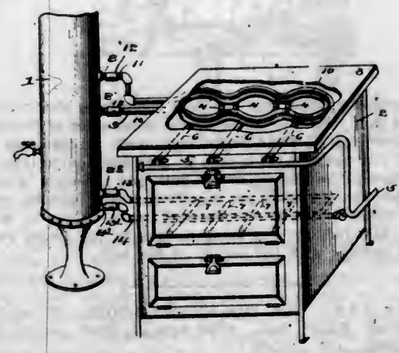
A junction box for main and branch conductors, of the type in which the conductor has an insulating covering and an outer metal sheath, comprisig a casing of refractory insulating material formed integrally of a tubular portion open at both ends and having a gap in its wall, and a tubular offset communicating with said tubular portion, a

closing piece for said gap, means for detachably securing said closing piece in said gap, and an outer casing of metal inclosing said casing of insulating material and formed in separable sections; the bores of said tubular portion and offset being of a diameter to fit the insulating cover of



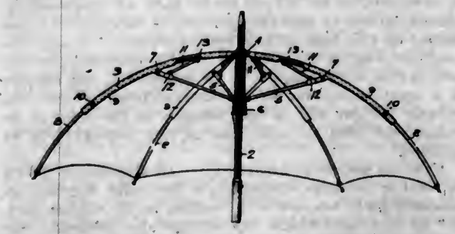
said conductors, the openings in said metal casing being of less diameter than the end faces of said tubular portion and offset and of larger diameter than the sheath of said conductors, and a packing of lead floss in the clearance spaces between said conductor sheaths and said outer casing openings.

1,028,261. WATER-HEATER. CLARA NICHOLS, Hillyard, Wash. Filed July 25, 1911. Serial No. 640,412. (Cl. 126—53.)



In combination with a boiler, a gas stove having annular burners, a water conducting pipe secured to said boiler and extending therefrom over said burners and inside of the circular rows of jets of said burners, thence on the outside of said rows of jets, thence back to said boiler and connected therewith, the parts of said pipe inside and outside of said circular rows of jets being parallel with each other and leaving between them narrow spaces for said jets, substantially as shown and described.

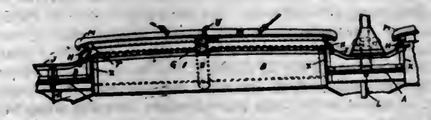
1,028,262. FOLDING UMBRELLA. WILLIAM O'BRIEN, Clairton, Pa. Filed Oct. 23, 1911. Serial No. 656,164. (Cl. 135—25.)



1. In an umbrella, a handle or stem, stays hinged thereto and comprising fixed and slidable portions, the latter having hinge joints, braces leading from the stem and pivoted to the stays, and pivoted links connecting the slidable portions with the braces.

2. In an umbrella, a handle or stem, stays hinged thereto and comprising a slidable jointed portion and a fixed substantially tubular portion, and means for reciprocating the slidable portion to bring the joint thereof into and out of the tubular portion.

1,028,263. SHIP'S HATCHES AND DECKS. JOSEPH R. OLDHAM, Cleveland, Ohio. Filed May 16, 1911. Serial No. 627,614. (Cl. 114—201.)



1. In a ship or vessel, the combination of a plurality of cambered metal hatches constructed of plates and stiffened inside of external or outer margins by angles or other bars, with outer margins curved down adapted to rest on, and to be secured to, outwardly inclined super-coamings having water drainage channels around their inner surface, the adjoining margins of hatches being upwardly turned, the upward projection of one hatch slightly overlapping the upward projection of the adjoining hatch, which is constructed with a gutter on the under side of adjoining margins extending transversely across the hatches, from within the channel on one side of the hatchway, to within the channel on the opposite side of the hatchway, and adapted to drain any leakage into wing ballast chambers through drain-pipes; hinges secured to the diagonal part of platform or reservoir deck and to the hatches so that they may be raised and lowered in a fore and aft direction, substantially as described.

2. In a ship or vessel, the combination of a plurality of cambered metal hatches, constructed of plates and stiffened inside of external margins by angle bars with said margins curved down and adapted to rest on, and be secured to the outward, downwardly beveled flange, of super-coamings, formed of channel bars having water drainage channels around their inner surface, the adjoining, or inner, margins of hatches being upwardly turned with the upward projection of one hatch overlapping the upward projection of the adjoining hatch, which is constructed with a gutter on the under side of the adjoining margin extending longitudinally the hatches, from within the channel on the fore side of the super coamings to within the channel on the aft side of the super coamings and adapted to drain any leakage through scupper holes and drain pipes into the reservoir or platform deck chamber, hinges secured to the reservoir deck and to the hatches, between the gutter and the channels to raise said hatches in a fore and aft direction, all substantially as set forth.

3. In ship construction, the combination of a pair, or pairs, of metal hatches with inner-adjoining-margins upwardly flanged, one flange of each pair of hatches having a slight projection adapted to cover the joint of said upwardly turned margins, the fellow hatch margin being constructed with a gutter below said flanges adapted to receive any leakage between said margins and to convey the water into drain pipes leading from around super-coamings, into wing ballast tanks or deck chambers between hatchways; outer margins of hatches downwardly curved and adapted to be seated on outwardly inclined or beveled super-coamings, said hatches being fitted with hinges attached to a platform deck to facilitate the raising and lowering of hatches when actuated by tackles, substantially as set forth.

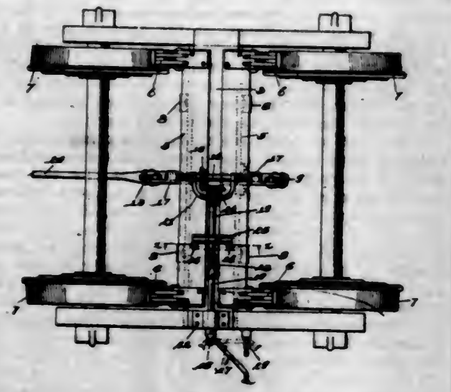
4. In a vessel or ship, the combination of a plurality of metal hatches having outer margins downwardly curved over downwardly beveled super-coamings, fitted with water drainage channels around their inner, upper surface, with inner-adjoining-margins having upwardly turned

flanges, one flange being higher and overlapping the other flange; the margin having the lower flange being constructed with a gutter under the adjoining margins of hatches, spanning the hatchway from within one drainage channel to within the drainage channel on the opposite side, substantially as set forth.

5. In a ship or other vessel, the combination of hatches in two or more units to each hatchway, constructed of steel plates and bars upwardly dished toward the center, having inner-adjoining-margins upwardly turned, one margin overlapping the adjoining margin which is constructed with a gutter beneath the joints of said margins extending across the hatchway from the water drainage channel connected to the super-coamings, on one side of the hatchway to the opposite side, the outer margins of hatches being curved down over outwardly inclined super-coamings connected to continuous longitudinal girder coamings which are reduced in height to support a platform deck between the hatchways, the hatches being adapted for draining leakage or sweat into the gutter, or channels, equipped with drain pipes leading into the wing ballast-tanks and deck chambers, knee plates secured to deck stringer plates and to sub-girder coamings abreast of hatchways, hinges and hoisting gear for hatches, all substantially as set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,028,264. ADJUSTING APPARATUS FOR BRAKE-RIGGING. LOUIS E. OLIVER, Maywood, and ALBERT CURRTON, Chicago, Ill. Filed Dec. 27, 1910. Serial No. 599,265. (Cl. 188—49.)



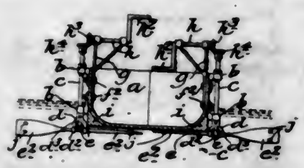
1. The combination with a brake rigging of oppositely disposed brake levers; an adjustable connection between said levers; a bevel gear arranged to operate said adjustable connection; a shaft carrying a bevel gear meshing with said first mentioned bevel gear and leading to a side of the car; and means for operating said shaft from said side of the car, substantially as described.

2. The combination with a brake rigging for railway cars comprising fulcrumed brake levers adapted through adjustment of the distance between corresponding ends thereof to effect the adjustment of the slack in said rigging, of longitudinally adjustable coupling means extending between and connecting said ends of said levers; a rotatably mounted transversely extending shaft carrying a gear meshing with a gear included in said coupling means, whereby longitudinal adjustment of said coupling means may be effected by rotation of said shaft; a knuckle joint interposed in said shaft; and means at the outer end of said shaft for effecting ready rotation thereof, substantially as described.

3. The combination with a brake rigging for railway cars comprising fulcrumed brake levers adapted through adjustment of the distance between corresponding ends thereof to effect the adjustment of the slack in said rigging, of rotatable screw threaded coupling means extending between and connecting said ends of said levers; a gear carried by said coupling means adapted when rotated to effect longitudinal adjustment of said coupling means; a manually rotatable shaft; and a gear carried by said shaft meshing with said first mentioned gear, substantially as described.

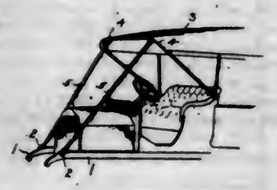
4. The combination with a brake rigging for railway cars comprising spaced fulcrumed brake levers adapted through adjustment of the distance between corresponding ends thereof to effect the adjustment of the slack in said rigging; of a bar extending between and connecting said ends of said levers, the respective ends of said bar being in oppositely threaded connection with said ends of said levers; a gear fixed to said bar; a manually rotatable transversely extending shaft; and a gear carried by said shaft meshing with said first mentioned gear, substantially as described.

1,028,265. PROPELLER APPARATUS FOR BOATS. ALBERT OPPENHEIMER, Notting Hill, London, England. Filed Oct. 12, 1911. Serial No. 654,218. (Cl. 115—52.)



A propeller apparatus for boats comprising shafts, supported in a vertical position on the outer sides of the hull and provided at their lower ends with attachments in which are mounted blade rods or bars adapted to turn in a horizontal plane beneath the hull, and rotatable in said attachments and which are provided at their opposite ends with blades arranged in planes at right angles to each other, said rods or bars being rotated by the blades coming in contact with the bottom of the hull.

1,028,266. GUY FOR VEHICLE-TOPS. HELEN M. ORMSBY, Xenia, Ohio. Filed Jan. 21, 1910. Serial No. 539,362. (Cl. 21—62.)

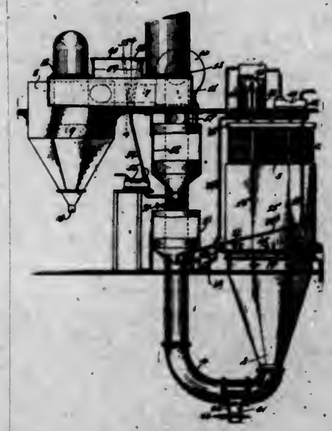


1. As an article of manufacture, an attachment device for vehicle top guys, comprising a base portion adapted to be secured to the vehicle top or body, an apertured extension carried by said base portion, an integral stud also carried by said base portion and projecting to a point beyond the level of the aperture in said apertured portion, said device being adapted to be attached to its support in a position angular to the general trend of the guy, whereby the guy will be bent abruptly at the point of its engagement with the apertured portion, substantially as specified.

2. As an article of manufacture, an attachment device for vehicle top guys comprising a vertically disposed attachment plate adapted to be secured to the vehicle part, and an apertured frame like portion also vertically disposed but arranged substantially at right angles to said attachment plate to which it is attached, and a stud carried by the attachment plate and adapted to engage the guy after it has been passed through the apertured portion, substantially as specified.

3. As an article of manufacture, an attachment device for vehicle top guys comprising a substantially T shaped member formed of two attached portions, the transverse portion being apertured for the passage of the guy therethrough, the pendant portion being adapted to be attached to the vehicle part, and means carried by the pendant portion for engaging the guy after it has been passed through the apertured portion, substantially as specified.

1,028,267. APPARATUS FOR DESICCATING FLUID SUBSTANCES. WILLIAM S. OSBORNE, New York, N. Y., assignor to The Griscom Spencer Company, a Corporation of New Jersey. Filed Oct. 26, 1910. Serial No. 589,111. (Cl. 99—5.)



1. An apparatus for desiccating fluid substances, comprising in combination a desiccating chamber having an enlarged inlet for air at its upper end provided with heating means adjacent thereto for raising the temperature of the incoming air, and a contracted outlet at the bottom thereof connected with a separator, means for producing a downwardly flowing air current in said chamber, and means for introducing material into said air current to be desiccated while in suspension, said separator acting to collect the bulk of desiccated material from said air.

2. In a desiccating apparatus, a desiccating chamber having an entrance for air adjacent its upper end surrounded by a plurality of heating coils, means for producing a current of air downwardly through said chamber, and means for introducing material to be desiccated into said downwardly flowing current and maintaining the same therein until desiccated.

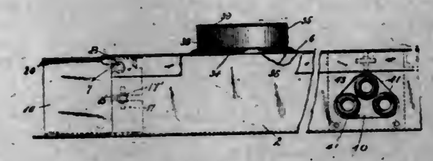
3. An apparatus for desiccating fluid substances, comprising in combination a desiccating chamber having an inlet for air at its upper end provided with heating means adjacent thereto for raising the temperature of the incoming air, and an outlet at the bottom thereof connected with a separator, means for producing a downwardly flowing air current in said chamber, and means for introducing material into said air current to be desiccated while in suspension, said separator acting to collect the bulk of desiccated material from said air.

4. An apparatus for desiccating fluid substances, comprising in combination a desiccating chamber having an inlet for air at its upper end provided with heating means adjacent thereto for raising the temperature of the incoming air, and an outlet at the bottom thereof connected with a separator, means for producing a downwardly flowing air current in said chamber, and means for introducing material into said air current to be desiccated while in suspension, said separator acting to collect the bulk of desiccating material from said air, a second separating chamber provided with means for moistening the air discharged from said first separator to further extract desiccated material.

5. An apparatus for desiccating fluid substances, comprising in combination a desiccating chamber having an inlet for air at its upper end provided with heating means adjacent thereto for raising the temperature of the incoming air, and an outlet at the bottom thereof connected with a separator, means for producing a downwardly flowing air current in said chamber, and means for introducing material into said air current to be desiccated while in suspension, said separator acting to collect the bulk of desiccating material from said air, a second separating chamber provided with means for directing a shower of liquid against a current of air discharged from said separator to further extract said desiccated material.

[Claims 6 to 20 not printed in the Gazette.]

1,028,268. CASE FOR METER CONNECTION-BLOCKS. GRANVILLE E. PALMER, Hartford, Conn., assignor, by mesne assignments, to The Metropolitan Engineering Company, a Corporation of New York. Filed Oct. 11, 1911. Serial No. 654,073. (Cl. 247—13.)



1. A protective device for meter connection blocks, comprising a box having lateral projections and a tang with a removable cover therefor, side extension adapter pieces, means for securing said side adapter pieces removably to said box, a cover extension adapter piece having means for securing it removably in position, and a cover having recesses engaging said projections on said box at points adjacent to said side extension pieces and a seal for said cover engaging said tang on said box at the other end of said box, said cover extending partially over said cover extension adapter piece.

2. A protective device for meter connection blocks, comprising a box, a removable cover therefor, an opening in said cover, a cap for said opening, hooked projections carried by said cap adapted to engage the inner side of said cover, and means for locking said cover against circumferential movement when said hooks engage said inner side.

3. A protective device for meter connection blocks, comprising a box, a removable cover therefor, an opening in said cover, a cap for said opening, hooked projections carried by said cap adapted to engage the inner side of said cover, a spring-pressed bolt carried by said cover adapted to enter a hole in said cover when said hooks engage the inner surface of said cover.

4. In combination with a meter casing, a box having an open end wherein said meter casing enters partly to close the same, and in said end a detachable frame secured to said box and coöperating with said meter casing to complete the closure of said end.

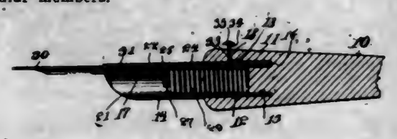
5. In combination with a meter casing, a box having an open end wherein said meter casing enters partly to close the same, and in said end a detachable frame comprising side plates and an adapter plate thereon and secured thereto, the said adapter plate having its outer edge recessed to fit against the periphery of said meter casing.

[Claim 6 not printed in the Gazette.]

1,028,269. PENHOLDER. ALBERT PAWLICZEK, Athol, S. D. Filed June 13, 1911. Serial No. 632,829. (Cl. 120—101.)

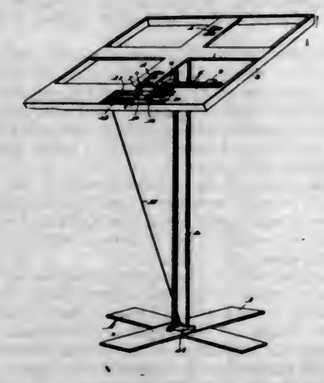
1. In a pen holder, a staff, an inner tubular member secured to the staff and having a longitudinal slot in its

upper portion, a curved plate fitted on the upper portion of the tubular member throughout the length of said plate for sliding movement and having a slot in registry with the first named slot, a stop lug carried by the plate and projecting inwardly from the plate through the slot of the inner tubular member, means within the inner tubular member to engage the lug and hold the said plate normally forward, an outer tubular member also secured to the staff and a pin engaged through said tubular members and adapted to engage the plate to hold it in a rearward position but to release the same for forward sliding movement to eject a pen forwardly thereof between the two tubular members.



2. In a pen holder, a staff having a bore in its forward end with a communicating channel having an inner wall and a transverse aperture communicating with the bore, a set pin disposed in said aperture for communication with the bore, an inner tubular member secured within the bore and inner wall of the channel with a surrounding space, said inner tubular member having a longitudinal slot and an aperture adapted to receive the inner end of the pin, a plate slidably mounted on the inner tubular member, a stop lug stamped from the plate and extending inwardly through the slot for movement therein, a spring within said inner tubular member and engaged against the end wall of the bore to hold said plate normally forward by engagement with said lug, the forward end of the plate being adapted to be engaged by the inner end of a pen and formed inwardly for engagement by said pin and an outer tubular member also secured within the bore and to the outer wall of the channel to provide a space between it and the inner tubular member for receiving the plate, and engaged by said pin, said pin when disengaged from the tubular members and plate, permitting said plate to be forced outwardly by the spring to eject the pen.

1,028,270. MUSIC-SHEET-TURNING DEVICE. JOSEPH PFARRHOFER, Chicago, Ill. Filed July 24, 1911. Serial No. 640,174. (Cl. 84—135.)

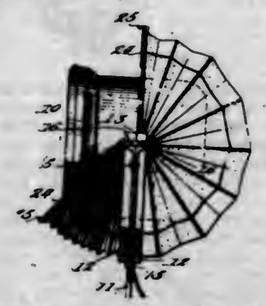


1. In a device of the class described, the combination of a series of turning arms pivotally mounted, said arms being provided with projecting fingers of progressively increasing length; a stationary screw; a freely rotatable bar threaded upon said screw, said bar being adapted when rotated to travel upon said screw toward said fingers and successively engage the latter to effect turning thereof; an oscillatory stop adapted to prevent rotation of said bar; resilient means for normally holding said stop in operative position; foot operable means for oscillating said stop to release said bar; and a spring for rotating said bar when released, substantially as described.

2. In a device of the class described, the combination of a series of turning arms pivotally mounted, means on said arms for engaging music sheets for turning, said arms being provided with projecting fingers of progressively increasing length; a stationary screw; a freely rotatable bar threaded upon said screw, said bar being adapted when rotated to travel upon said screw toward said fingers and successively engage the latter to effect turning thereof; an oscillatory stop adapted to prevent rotation of said bar; a spring for normally holding said stop in operative position; foot operable means for oscillating said stop to release said bar; and a spring for rotating said bar when released, substantially as described.

3. In a device of the class described, the combination with a music stand having a music sheet rest, of a series of turning arms pivotally mounted upon said rest adjacent the lower edge thereof, said arms being provided with projecting fingers of progressively increasing length; a stationary screw mounted in said rest adjacent the lower edge thereof; a rotatable bar threaded upon said screw, said bar being adapted when rotated to travel upon said screw toward said fingers and successively engage the latter to effect turning thereof; an oscillatory stop adapted to prevent rotation of said bar; resilient means for normally holding said stop in operative position; foot operable means for oscillating said stop to release said bar; and a spiral spring for rotating said bar when released, substantially as described.

1,028,271. LAMP-COVER. WILLIAM T. PHILLIPS, Berkeley, Cal. Filed July 22, 1910. Serial No. 573,230. (Cl. 150—52.)



1. In a cover for a device, a support for said device, separate pivoted flexible cover sections mounted upon said support to swing above and inclose the upper portion of said device and also to fold beneath their pivots to inclose the lower portion of the device, and means for connecting said sections above and below the device to completely inclose the same.

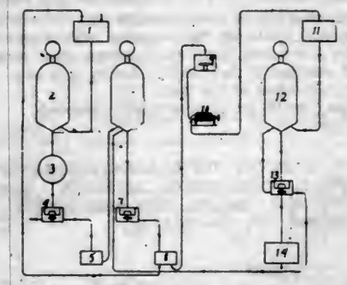
2. A lamp cover comprising separate series of ribs pivoted at opposite sides of a lamp, a flexible cover comprising separately mounted sections secured to said ribs, means connecting the free ends of said sections when opened to inclose said lamp, and a flexible flap mounted to inclose said sections when in folded position beneath said lamp.

3. In a cover for a device, a support for said device, flexible cover sections pivoted at opposite points upon said support to fold into a vertical plane beneath their pivotal line, means below said line for fixedly connecting said sections in said vertical plane, and means for detachably connecting the free ends of said sections above said device.

4. In a cover for a device, a support for said device, a pivoted folding cover mounted upon said support to fold into a vertical plane beneath its pivotal line and to swing upward in opposite directions to completely inclose said device, and means for detachably connecting the free ends of said cover.

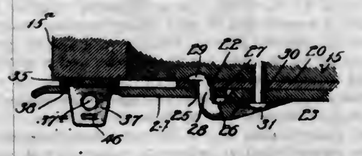
5. In a lamp cover, a U-shaped depending support having pivot posts at opposite sides thereof, a series of ribs mounted upon said posts to fold beneath said lamp, flexible cover sections secured to said ribs, and an inclosing flap secured to said support to inclose and protect said sections when folded beneath the lamp.

1,028,272. SUGAR PROCESS. RUDOLPH E. POSPISIL, Menominee, Mich. Filed Mar. 8, 1912. Serial No. 682,544. (Cl. 127—17.)



The process for obtaining high quality white granulated sugar from waste molasses which consists in raising the purity of the waste molasses by the addition thereto of syrup forming a by-product of the process, boiling the mixed syrup and molasses in a vacuum pan to a thickness of approximately 92 or 93 Brix, crystallizing the same and passing the crystals through a centrifugal separator and then melting them in water to approximately 33 degrees Baumé and boiling the juice so formed in a vacuum pan with green syrup from a centrifugal separator used in a later step in the process and passing the massecuite from said vacuum pan through a centrifugal separator where the syrup is produced for mixing with the molasses as mentioned, the crystals from the last mentioned centrifugal separator being then melted with water to form a juice of the consistency of approximately 30 degrees Baumé and bleached and filtered and then boiled in a vacuum pan with wash syrup from a centrifugal separator into which the massecuite thus formed next passes, the green syrup from said centrifugal separator being returned to the vacuum pan as before mentioned and the crystals being dried and forming white granulated sugar.

1,028,273. CAR-DOOR HASP-FASTENER. EDWARD POSSON, Chicago, Ill., assignor to Q. & H. Company, Chicago, Ill., a Corporation of Maine. Filed July 30, 1908. Serial No. 446,116. (Cl. 70—83.)



1. In a door fastening device, a hasp, a metal plate secured to the door, said plate having a hole therethrough, a hooked member adapted to engage the hasp and pass through the hole in the plate, the tip of the hook engaging the edge of said hole, a bolt passing through the said member, the plate and the door, and a nut for the bolt on the inside face of the door.

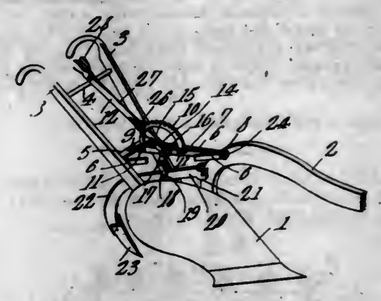
2. In a door fastening device, a metal plate extending transversely across the outer face of the door and having a hole through one end thereof, a member adapted to overlie the plate, said member and plate having registering holes with a bolt extending through them and through the door, a hooked projection extending from the end of said member through the said hole in the plate, and a hasp having a hole at one end thereof engaged by the said projection.

3. In a door fastening device, a metal strap extending across the door, a member engaging said strap, bolts passing through said member, the strap and the door, a hasp loosely engaged by said member and retained between the same and the underlying portion of said metal strip, and a staple on the door post at one side of the door opening to coact with said hasp.

4. A hasp fastener for a door comprising a base-plate fastened to the face of a door, a hasp, and a plate fastened to said base-plate and having a hook member with which said hasp is engaged and whose free end passes through said base-plate and is bent to extend along the inner side thereof, said base-plate having an eye or hole through which the bent end of said hook may be passed.

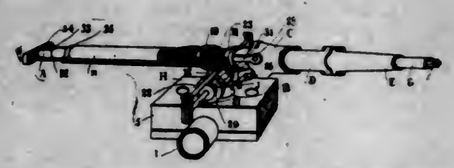
5. In a door fastening device, a metal plate secured to the outer face of the door and having a hole therethrough, hasp-supporting means comprising a portion overlying said metal plate and having a bolt-hole registering with an underlying bolt-hole through said plate and also comprising a portion extending from one end of said first portion through said first named hole in said plate and engaging the under surface of said plate, a bolt extending through the registering holes in said plate and overlying portion of said hasp-supporting means and also through the door, and a hasp having a hole at one end thereof through which loosely extends said second portion of said hasp-supporting means, whereby the hasp is retained between said hasp-supporting means and the underlying portion of said metal plate.

1,028,274. ADJUSTABLE SUBSOIL ATTACHMENT. WILLIAM I. PRATER, Jasper, Ga. Filed June 24, 1911. Serial No. 635,210. (Cl. 97—32.)



As an article of manufacture, a sub-soiling attachment for a plow, comprising a triangular frame adapted to serve at once as a brace between the plow beam and the handles of the plow and as a support for movable sub-soiling means, the frame comprising a cross brace adapted for terminal connection with the plow handles, a supporting bar projecting from the intermediate portion of the cross brace and braces converging from the ends of the cross brace into union with the supporting bar, the united ends of the bar and of the converging braces being adapted for connection with the plow beam; a segment secured to the supporting bar; a bell crank lever fulcrumed at its angle upon the supporting bar and including upper and lower arms both of which extend rearwardly; latch mechanism carried by the upper arm for engagement with the segment; a sub-soil beam located below the supporting bar and having means at its forward end for connection with a plow beam, the rear end of the sub-soil beam being downwardly and rearwardly extended; a sub-soil share attached to the rear end of the sub-soil beam; and a link pivotally connected with the intermediate portion of the sub-soil beam and with the lower arm of the lever.

1,028,275. AUTOMATIC TURNING DEVICE FOR FLUID HAMMER-DRILLS. JOHN JAMES PURCELL, Burke, Idaho. Filed July 29, 1911. Serial No. 641,296. (Cl. 125—10.)



1. The combination of the rock drill and the feeding cylinder rigidly secured together, of supporting means engaging the feeding cylinder and fluid operative means for imparting an oscillatory movement to the feeding cylinder for oscillating the drill.

2. In a rock drill a combination of the feeding cylinder having teeth thereon, supporting means for the cylinder, a rack bar engaging the teeth and means for reciprocating the rack bar.

3. The combination with a fluid operated rock drill including a steel, a chuck therefor, and a feeding cylinder rigidly connected to the chuck and adapted to rigidly feed the drill against the work and supporting means for the cylinder, of a fluid pressure cylinder extending transversely of the feed cylinder, a piston therein, and connecting means between the piston and the feed cylinder whereby reciprocation of the piston causes oscillation of the feed cylinder and thereby oscillates the steel.

4. In a rock drill the combination with a feed cylinder of supporting means therefor, a transversely extending fluid pressure cylinder, a piston therein, a rack bar operated by the piston and teeth on the feed cylinder engaged by the rack bar.

5. In a rock drill the combination with a feed cylinder of supporting means therefor, a transversely extending fluid pressure cylinder, a piston therein, a rack bar operated by the piston and teeth on the feed cylinder engaged by the rack bar, a four-way valve controlling the admission and exhaust of motive fluid to the cylinder and tappet means carried by the rack bar adapted to actuate the valve.

[Claims 6 and 7 not printed in the Gazette.]

1,028,276. CHAIN GRATE. JOHANN RADEMACHER, Pankow, near Berlin, Germany. Filed Sept. 19, 1911. Serial No. 650,172. (Cl. 110—40.)



1. In a chain-grate, the combination of a chain, a plurality of carriers secured to the chain, a plurality of detachable grate-bars carried by said carriers, and means for securing said bars to the carriers during a portion only of the travel of the chain, the grate-bars being automatically unlocked from the carriers during another portion of the travel of the chain to permit removal of the bars.

2. In a chain-grate, the combination of a chain having a plurality of links, a plurality of carriers secured to the links, a plurality of grate-bars carried by the carriers, and means for intermittently locking said grate-bars to said carriers during a portion only of the travel of the chain, the grate-bars being intermittently unlocked from said carriers during another portion of the travel of the chain to permit removal of the bars.

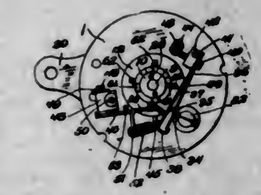
3. In a chain-grate having a plurality of links, a plurality of carriers secured to said links, a plurality of removable grate-bars, securing means for each grate-bar for detachably securing said bar to its carrier so as to permit its removal in a direction lengthwise of the bar, and means for intermittently locking said grate-bars to their carriers during parts of the travel of the chain, said bars being unlocked from said carriers during other parts of their travel.

4. In a chain-grate, the combination of a link, a carrier including a cross-bar secured thereto, a lengthwise removable grate-bar mounted on said cross-bar, and means for intermittently locking said grate-bar to said cross-bar during part only of each revolution of said link.

5. In a chain-grate, the combination of a traveling link, a cross-bar secured thereto, a removable and replaceable grate-bar mounted on said cross-bar, one or more projections on said grate-bar for engaging said cross-bar, and means for preventing longitudinal movement of said grate-bar with relation to its cross-bar during part only of each complete revolution of the link.

[Claims 6 to 15 not printed in the Gazette.]

1,028,277. CURRENT-CONTROLLING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. LEWIS T. RHOADES, Mont Clare, Pa. Filed Sept. 16, 1911. Serial No. 649,631. (Cl. 123—168.)



1. In a device of the character described, the combination with electric contacts normally apart, of a rotary member, a pivotally mounted contact moving member, means on said rotary member constructed to move the contact moving member in two directions, and a spring constructed to return said contact moving member to normal position and during such return movement close said contacts, substantially as described.

2. In a device of the character described, the combination with electrical contacts normally apart, of a rotary member, a contact moving member, means on said rotary member constructed to move said contact moving member in two directions, and a spring constructed to move said contact moving member in a third direction, and said parts so constructed as to move said contacts together during said last-mentioned movement, substantially as described.

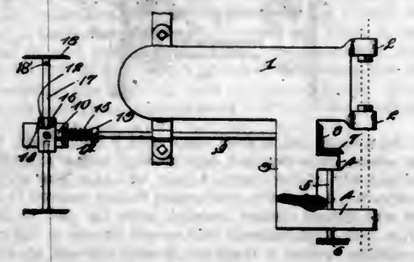
3. In a device of the character described, the combination with a fixed contact, and a movable contact normally spaced from the fixed contact, of a rotary member, a contact moving member, a cam block on said rotary member constructed to move the contact moving member in one direction, a second cam on said rotary member constructed to move the contact moving member in a second direction when moved by the first-mentioned cam, and a spring constructed to move said contact moving member in a third direction, and move said contacts together during said last-mentioned movement, substantially as described.

4. In a mechanism of the character described, the combination with contacts normally apart, of a movable member to which one of said contacts is secured, a cam tongue on said member, a rotary member, a contact moving member, cams on said rotary member constructed to move said contact moving member in two directions, and a spring constructed to move said contact moving member in a third direction and during said last-mentioned movement engage the cam tongue and force the contacts momentarily together, substantially as described.

5. In a mechanism of the character described, the combination with contacts normally apart and a cam face on one of said contacts, of a contact moving member, a rotary member, a series of cams on said rotary member constructed to normally move the contact moving member in one direction and when turned in a reverse direction move said contact moving member in a different direction, a second series of cam blocks on the rotary member constructed to move the contact moving member into position in line with the said cam face, and a spring constructed to draw said contact moving member across said cam face during the return movement of said contact moving member and force the contacts momentarily together, substantially as described.

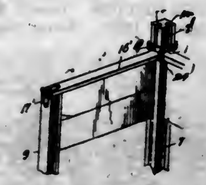
[Claims 6 to 16 not printed in the Gazette.]

1,028,278. COTTON-CHOPPER. LEWIS ISAAC RICHARDS, Crescent, Okla. Filed Aug. 28, 1911. Serial No. 646,316. (Cl. 97—46.)



An attachment for cultivators, consisting of a plate arranged for attachment to a frame bar of a cultivator and formed at one edge with ears by which it is adapted to be mounted on the main axle of the cultivator, the plate being formed intermediate of its ends with a lateral extension provided with bearings, a transverse shaft journaled in said bearings, a sprocket wheel secured to the outer end of said shaft, a bevel pinion secured to the inner end of said shaft, a bevel gear wheel meshing with said pinion, a longitudinally extending shaft extending through the lateral extension and journaled therein and carrying said gear wheel, and a revoluble chopper mounted on one end of said longitudinal shaft.

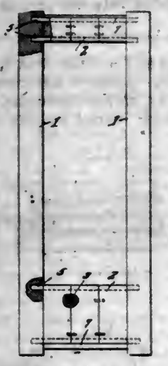
1,028,279. SIGN-POST. MILTON C. RICHARDSON and EUGENE B. COOKE, New Philadelphia, Ohio, assignors to The Highway Advertising Company, New Philadelphia, Ohio, a Corporation of Ohio. Filed Aug. 16, 1911. Serial No. 644,395. (Cl. 40—64.)



1. A sign comprising a central post and end posts, each of which has slots therein for the reception of sign sections, sign sections slidable in the slots, guards movably connected to the end posts and overlying the sign sections, and retaining devices for the sign guards connected to the central post, and means for holding the retaining devices against movement.

2. In a sign holder, a central post and end posts, the said posts having slots extending longitudinally thereof, sign sections slidable in the slots of the central post and one of the end posts, sign guards pivotally connected to each of the end posts and having their ends in proximity to the central post, a metal strap secured to the central post and arms hinged to the strap and extending across the slotted surfaces of the central post, and means for securing the ends of the arms together.

1,028,280. DOOR. BYRD C. ROCKWELL, Malvern, Ark. Filed Apr. 7, 1911. Serial No. 619,579. (Cl. 20—35.)



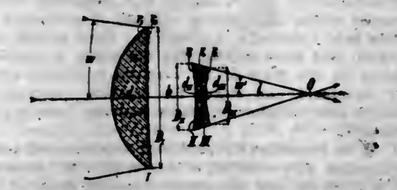
1. A door having one-piece stiles and multi-piece rails, the grain of all of the parts running in the same general direction.

2. In a door, stiles provided with mortises, rails composed of a plurality of connected sections, the upper and lower edges of which are grooved, and cleats engaging the grooves and the mortises.

3. In a door, stiles provided with mortises, rails composed of a plurality of connected sections, the grain of which runs in the same general direction as that of the stiles, and cleats disposed in grooves in the upper and lower edges of the rails and engaging the mortises.

4. A door having stiles, interposed sectional rails, and cleats connecting the rail sections and engaging the stiles, one of the outer tenons being provided with a filler strip between the stiles.

1,028,281. TELESCOPE-SPECTACLE GLASS. MORITZ VON ROHR, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Nov. 22, 1911. Serial No. 661,839. (Cl. 88—54.)



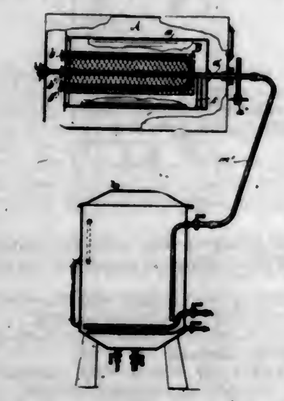
1. Achromatic telescope-spectacle-glass of at the most a twofold magnification, consisting of a single, collective front member and a dispersive hinder member, which latter is cemented together out of a collective lens of a lower refractive index and a dispersive lens of a higher relative dispersion, the dispersive lens being the hinder lens of the hinder member and bi-concave.

2. Achromatic telescope-spectacle-glass of at the most a twofold magnification, consisting of a single, collective front member and a dispersive hinder member, which latter is cemented together out of a collective lens of a lower refractive index and a dispersive lens of a higher relative dispersion, the hinder member being bi-concave and the dispersive lens being the hinder lens of this member and bi-concave.

3. Achromatic telescope-spectacle-glass of at the most a twofold magnification and suitable for an astigmatic eye, consisting of a single, collective front member and a dispersive hinder member, which latter is cemented together out of a collective lens of a lower refractive index and a dispersive lens of a higher relative dispersion, the hinder member being bi-concave, the dispersive lens being the

hinder lens of this member and bi-concave, the hinder surface of this hinder member being for the correction of the said astigmatism a toric one and one of the two radii of the toric surface lying between 20 and 35 mm.

1,028,282. APPARATUS FOR PRODUCING VEGETABLE EXTRACTS. ARTHUR ROSENBERGER, Berlin, Germany, assignor to Arthur Horowitz, Berlin, Germany. Filed June 21, 1911. Serial No. 634,577. (Cl. 167—4.)



1. In an apparatus for producing vegetable extracts, the combination with a casing provided with end walls, of a shaft having bearings in said end walls, a receptacle rigidly mounted on said shaft, a series of perforated tubes extending longitudinally within said receptacle, a cylindrical sieve within the receptacle, said sieve surrounding the tubes, removable closures for said openings, one end of the shaft being hollow and having connection with the series of tubes, a tube leading from said connections, said tube having communication with the interior of the receptacle, and means connected with said hollow shaft for rotating same.

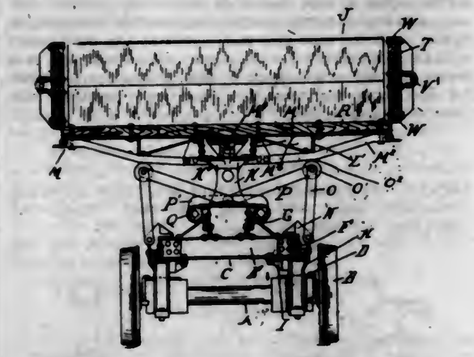
2. In an apparatus for producing vegetable extracts, the combination with a casing of a receptacle rotatably mounted within said casing, a series of perforated tubes within said receptacle, a cylindrical sieve within the receptacle, said sieve surrounding the tubes, a vacuum apparatus in the form of an evaporator located adjacent said receptacle, and means for effecting communication between said vacuum apparatus and the interior of the receptacle.

3. In an apparatus for producing vegetable extracts, the combination with a casing, of a receptacle within said casing, a shaft for said receptacle rotatably mounted in the walls of the casing, one end of said shaft comprising a hollow tube having communication with the interior of the receptacle, a cylindrical sieve within the receptacle, said sieve surrounding the shaft, a vacuum apparatus, said vacuum apparatus provided with suitable evaporating means and having connection with the hollow shaft.

4. In an apparatus for producing vegetable extracts, the combination with a stationary casing, of a receptacle, a series of tubes rigidly carried within the receptacle, a cylindrical sieve within the receptacle, said sieve surrounding the tubes, and means in geared connection with the receptacle for rotating the same.

1,028,283. RAILWAY DUMP-CAR. CLINTON W. RUSSELL, Detroit, Mich. Filed Apr. 19, 1909. Serial No. 490,752. (Cl. 105—190.)

1. In a dump car, a door comprising a plank body, metallic angle bars forming edge-binding strips, a pair of angle bars at the end of said door having overlapping flanges secured to the side and spaced flanges parallel to the end of the door, the inner of said spaced flanges bearing against the ends of said edge-binding strip, and a link for swinging the door pivoted between said spaced flanges.



2. In a dump car, a door comprising a plank body, metallic angle bars forming edge-binding strips extending longitudinally of said body, a pair of angle bars at the end of said body, having overlapping flanges secured to the sides and spaced flanges parallel with the end of said body, a filler block between said spaced flanges in the central portion thereof, a truss rod passing through an aperture in said flanges and filler block, and anchored thereto, and a swinging link pivoted between said spaced flanges.

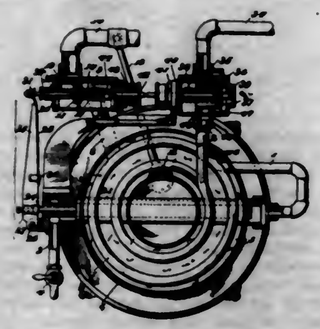
3. In a dump car, the combination with the axles, of journal bearings thereon, a cross beam supported upon said bearings in the vertical plane of the axles, a longitudinal sill supported centrally upon said cross beam, a platform and a side support for the platform in the vertical plane of said axles.

4. In a dump car, the combination with an axle, and a rigid platform; of a central rocker support for said platform, a cross beam in the vertical plane of the axle bearing said central rocker support and a side support for said tilting platform in the plane of said axle and mounted upon said cross beam.

5. In a dump car, the combination with an axle, of a cross beam arranged in the vertical plane of said axle, journal bearings on said axle and brackets upon said journal bearings having inward lateral extensions forming a wide supporting bearing for said cross beam.

[Claims 6 to 11 not printed in the Gazette.]

1,028,284. WATER-HEATER. EDWIN RUDD, Pittsburgh, Pa. Filed July 8, 1909. Serial No. 506,577. (Cl. 126—351.)



1. In a water heater, the combination of a conduit for water under pressure, a burner for heating the water in said conduit, a valve controlling the flow of fuel to said burner, power mechanism in the form of two springs normally holding said valve closed, a device operated against the tension of one of said springs by the flow of water through said conduit, and a thermostat opening the said valve against the tension of the other of said springs when the temperature of the water is below a predetermined degree.

2. In a water heater, the combination of a water receptacle, a burner, a fuel supply conduit, a valve in said conduit, thermostatic means normally tending to open said valve, a power device closing said valve in opposition to said thermostatic means, and mechanism actuated by the flow of water through said receptacle and in part overcoming said power device, whereby said thermostatic means overcomes the remaining part of said power device and opens said valve.

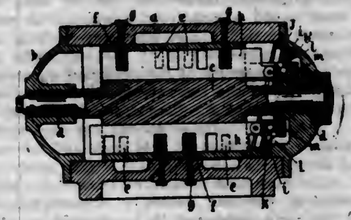
3. In a water heater, the combination of a water receptacle, a burner, a fuel supply conduit, a valve in said conduit, thermostatic means normally tending to open said valve, a compound power device closing said valve in opposition to said thermostatic means, and mechanism actuated by the flow of water through said receptacle and overcoming one part of said compound power device, whereby said thermostatic means overcomes the remaining part of said power device and opens said valve.

4. In a water heater, the combination of a water receptacle, a burner, a fuel supply conduit, a valve in said conduit, thermostatic means normally tending to open said valve, a plurality of springs acting to close said valve in opposition to said thermostatic means, and mechanism actuated by the flow of water through said receptacle and relieving said valve of the tension of one of said springs, whereby the thermostatic means is enabled to overcome the other spring and open said valve.

5. In a water heater, the combination of a water receptacle having an inlet and an outlet, a burner for heating the same, a fuel supply conduit leading to said burner, a valve controlling said conduit, thermostatic means tending to open said valve when the water in said receptacle is below a predetermined temperature, compound power mechanism overcoming said thermostatic means and normally holding said valve closed, and a motor actuated by the flow of water through said receptacle and overcoming one increment of said compound power mechanism, whereby the remaining increment of said power mechanism is overcome by said thermostatic means and the valve opened thereby.

[Claim 6 not printed in the Gazette.]

1,028,285. ROTARY MACHINE. ADOLF SADGER, Berlin, Germany, assignor to The American Rotary Machine Company, New York, N. Y. Filed Aug. 18, 1911. Serial No. 644,873. (Cl. 121—76.)



1. In a rotary machine the combination of a casing, a rotary drum therein having a circumferential groove and a radial longitudinal slot, an abutment fitted to said casing and engaging into said circumferential groove, a slide axially movable in said longitudinal slot and having a notch corresponding to said circumferential groove, a steering element journaled obliquely to the axis of and participating in the rotation of said drum, and means to connect said slide to said steering element.

2. In a rotary machine the combination of a casing a rotary drum therein having a circumferential groove and a radial longitudinal slot, an abutment fitted to said casing and engaging into said circumferential groove, a slide axially movable in said longitudinal slot and having a notch corresponding to said circumferential groove, a steering element journaled obliquely to the axis of and participating in the rotation of said drum, and a universal joint connecting said slide to said steering element.

3. In a rotary machine, the combination of a casing, a rotary drum therein having a circumferential groove and a radial longitudinal slot, an abutment fitted to said casing and engaging into said circumferential groove, a slide axially movable in said longitudinal slot and having a notch corresponding to said circumferential groove, a steering element journaled obliquely to the axis of and participating in the rotation of said drum, and a ball joint connecting said slide to said steering element.

4. In a rotary machine, the combination of a casing, a rotary drum therein having a circumferential groove and a radial longitudinal slot, an abutment fitted to said casing and engaging into said circumferential groove, a slide axially movable in said longitudinal slot and having a notch corresponding to said circumferential groove, a steering disk journaled obliquely to the axis of and participating in the rotation of said drum, a ball socket on said slide, a slotted ball in said socket, said steering disk engaging into the slot of said ball.

5. In a rotary machine, the combination of a casing, a rotary drum therein having a circumferential groove and a radial longitudinal slot, an abutment fitted to said casing and engaging into said circumferential groove, a slide axially movable in said longitudinal slot and having a notch corresponding to said circumferential groove, a steering disk journaled obliquely to the axis of and participating in the rotation of said drum, a removable ball socket piece fitted to the end of said slide, a slotted ball in said socket piece, said steering disk engaging into the slot of said ball.

[Claims 6 to 22 not printed in the Gazette.]

1,028,286. MACHINE OR APPLIANCE FOR DEALING PLAYING-CARDS. JENS ERNST SCHMIDT, Hessle, near Kingston-upon-Hull, England. Filed June 9, 1911. Serial No. 632,177. (Cl. 46—55.)



1. In a card dealing machine, the combination, with a rotary eccentric card holder, of a plate supported above the card holder and provided with projections which deal the cards as the card holder is rotated.

2. In a card dealing machine, the combination, with a rotary eccentric card holder, of a plate supported above the card holder and provided with projections which deal the cards as the card holder is rotated, a narrow channel being provided between the top of one side portion of the said card holder and the said plate, whereby the cards are dealt singly.

3. In a card dealing machine, the combination, with a rotary eccentric card holder, of a plate supported above the card holder and provided with projections which deal the cards as the card holder is revolved, and a spring-actuated feeding-bottom which presses the cards in the card holder toward the said plate.

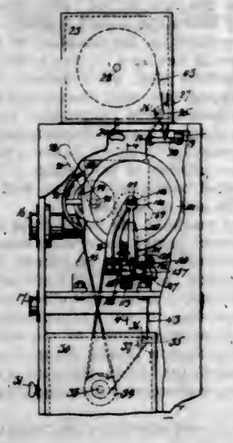
4. In a card dealing machine, the combination, with a stationary support provided with a projecting pillar, of an eccentric card holder journaled on the said pillar, a plate provided with projections for dealing the cards, and a handle for rotating the said card holder, whereby the cards are caused to strike the said projections.

5. In a card dealing machine, the combination, with a rotary eccentric card holder having a side portion for retaining the cards against lateral displacement, of a revoluble plate supported above the card holder and provided

with projections which deal the cards as the card holder is rotated, and a spring spacing-device which normally retains the plate when its projections are in proximity to the said side portion.

[Claims 6 to 10 not printed in the Gazette.]

1,028,287. CONSECUTIVE-VIEW-PERFORATING APPARATUS. EBERHARD SCHNEIDER, New York, N. Y. Original application filed Mar. 20, 1909, Serial No. 484,618. Divided and this application filed July 14, 1909. Serial No. 507,485. (Cl. 164—89.)



1. In a consecutive view perforating apparatus the combination of an arm fulcrumed thereon, punches extending from the arm in the path of a film to be perforated and to have objects photographed thereon, and means to swing said arm to bring the punches in the path of the film to simultaneously perforate two pairs of holes in the film, each two pairs of holes being at a fixed and predetermined distance from one of the objects on the film.

2. In a consecutive view perforating apparatus the combination of an arm fulcrumed thereon, a bracket adjustably supported on the arm, punches extending from the arm in the path of a film to be perforated, a rotative shaft journaled in the apparatus and a cam on the shaft in the path of said bracket to swing the arm and cause the punches to punch holes in said film.

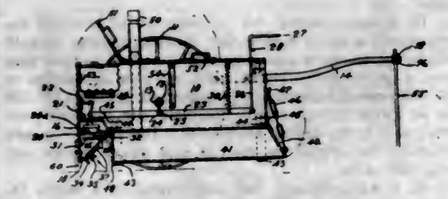
3. In a consecutive view perforating apparatus the combination of means to locate portions of a film in the field of a lens, an arm fulcrumed in the apparatus, a bracket adjustably supported on the arm, punches extending from the arm in the path of said film, a shaft journaled in the apparatus and a cam on the shaft in the path of said bracket to swing the arm and thereby perforate the film with said punches.

4. In a consecutive view perforating apparatus the combination of means to locate different portions of a film in the field of a lens, an arm fulcrumed in the apparatus, a bracket with a pair of legs slidably supported on the arm, punches extending from the arm in the path of said film, an adjusting bracket hinged in the apparatus in the path of one of said legs, a rotative shaft journaled in the apparatus and a cam on said shaft in the path of the other leg of the said adjusting bracket.

5. In a consecutive view perforating apparatus the combination of a housing, a front with an opening for said housing, means to maintain a film against said front, an arm fulcrumed at the rear of said front, punches extending from the arm in the path of said film, covers with conduits in the path of the punches secured to said front, means to move the film and means to swing said arm.

[Claim 6 not printed in the Gazette.]

1,028,288. LIQUID-HYDROCARBON DISTRIBUTER FOR ROADS. DAVID SCHOENTAG, Glasco, and ELMER J. LATUS, Albany, N. Y. Filed Jan. 19, 1911. Serial No. 603,543. (Cl. 137—63.)



1. In a device of the character described, the combination of a wheeled tank for the reception of liquid asphalt or the like, a straight transverse discharge chamber extending at its ends beyond the sides of the tank, said chamber being covered by the rear portion of the tank with its top directly against the bottom thereof and having its front and back walls downwardly convergent, the lower edges of said front and back walls being spaced to afford a slot-like discharge opening extending the full length of the chamber, a gate slidable over one of said walls transversely of the discharge slot, valved connection between the top of the chamber and tank, and means at the front of the tank for controlling said valved connection.

2. In a device of the character described, the combination of supporting wheels, a tank for the reception of liquid asphalt or oil carried between said wheels, draft means at the front of said tank, a straight transverse discharge chamber extending at its ends beyond the sides of the tank and having valved connection with said tank, the upper and larger portion of said discharge chamber being disposed directly against the tank, said discharge chamber having a rearwardly and downwardly inclined front wall, the lower edge of said front wall being obliquely spaced from the rear wall so as to afford a continuous discharge opening throughout its full length, and means accessible from the front of the device for controlling said valved connection.

3. In a device of the character described, the combination of a wheeled tank for the reception of liquid asphalt or oil, a discharge chamber of substantially triangular cross section with its base located immediately against the bottom of said tank adjacent the rear wall thereof and having at its apex a continuous discharge opening arranged transversely of the device, a valved connection between said tank and said discharge chamber, a regulating gate disposed parallel to said discharge opening and adapted to slide transversely of the same over its entire length, and a relatively short cut off gate also slidable transversely of said discharge opening and being adjustable independently of the regulating gate to vary the operative length of the discharge opening.

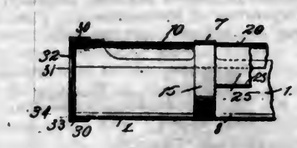
4. In a device of the character described, the combination of a wheeled tank for the reception of liquid asphalt or oil, a discharge chamber having its top portion directly against the bottom of said tank and its rear wall adjacent the plane of the rear wall of said tank, a valved connection between said discharge chamber and said tank, said discharge chamber having a transversely oblique slot-like discharge opening at its lower edge extending the entire length of the discharge chamber and arranged transversely of the device, an elongated regulating plate arranged parallel to and mounted to slide obliquely across said opening on the under side of the front wall of the discharge chamber adapted to adjust the operative width of said opening, and a relatively short plate mounted slidably between said regulating plate and the underside of said discharge chamber adapted to cut off part of said opening.

5. In a device of the character described, the combination of a wheeled tank for distributing liquid asphalt or oil, a discharge chamber directly connected to the tank in

such manner that the bottom thereof forms the top of said discharge chamber, said chamber comprising a vertical rear wall, an angularly disposed front wall and ends extending beyond the wheel tread at both sides and being provided with a slot-like opening at its lowest edge, a gate for regulating the operative width of said slot-like opening, a valved connection between said discharge chamber and said tank, means for operating said valved connection accessible from the front of said device and a baffle plate arranged below said valved connection for distributing the flow therefrom evenly throughout the slot.

[Claims 6 to 8 not printed in the Gazette.]

1,028,289. CONTAINER FOR SMALL ARTICLES. PETER B. SCHRAVERANDE, Montreal, Quebec, Canada. Filed Aug. 2, 1911. Serial No. 641,955. (Cl. 206—44.)

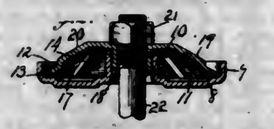


1. A container comprising a hollow cylindrical body formed with openings, a transparent sheet covering the openings and a transverse partition disk adapted to retain the transparent sheet in position.

2. A container comprising a hollow cylindrical body formed with openings and having inturned flanges providing a longitudinal interior rib, a transparent sheet covering the openings, and a transverse partition disk adapted to retain the transparent sheet in position and having a radial notch adapted to receive the interior rib.

3. A container comprising a hollow cylindrical body, and a folded longitudinal partition plate bent so as to provide three radial partitions and compartments.

1,028,290. WASHER. ALBERT L. SESSIONS, Bristol, Conn. Filed June 16, 1909. Serial No. 502,449. (Cl. 85—50.)



1. A washer composed of a plural number of plates each having a central opening, said washer including a dish-shaped plate, and means upon the said plates co-acting one with another to resist a force tending to flatten the dish-shaped plate.

2. A washer including a pair of opposed parts of dish-shape each having a central opening with means upon one part co-acting with those upon the other part to resist a force tending to flatten the parts.

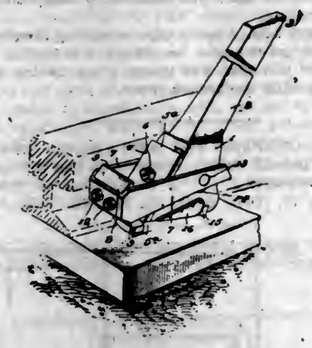
3. A washer including a pair of opposed parts of dish-shape each having a central opening, the edge of one being located within the dish-shaped portion of the other, and means upon said plates co-acting one with another to resist a force tending to flatten the parts.

4. A washer composed of a pair of opposed plates each having a central opening, said washer including a dish-shaped plate, a support projecting from one of the plates, and a shoulder located upon the opposite plate to resist force transmitted through said support tending to flatten the dish-shaped plate.

5. A washer including two opposed dish-shaped plates, the edge of one being located and resting within the dish-shaped portion of the other, shoulders upon one of the plates, and supports projecting from the opposite plate to engage said shoulders.

[Claims 6 to 13 not printed in the Gazette.]

1,028,291. SPIKE-PULLER. MACARIUS E. SHAFFER, Mount Savage, Md. Filed June 20, 1910. Serial No. 568,029. (Cl. 145—39.)

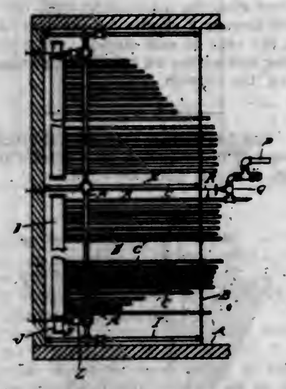


1. A spike puller, comprising a head, a blade carried by the head and pivotally connected thereto intermediate of the ends of the blade, and a yoke provided with a jaw coacting with the blade and embodying side arms pivotally connected to the head and extending along opposite side edges of the blade, whereby to assist in holding the blade from turning.

2. A spike puller, comprising a head, a blade carried by the head, a yoke pivotally connected to the head, the yoke embodying side arms extending on opposite sides of the head, and a block formed with two oppositely extending jaws adapted to coact with the blade, and an abutment block connected to the first-named block, the upper and lower edges of the abutment block being spaced from the adjoining and corresponding edges of the blade.

3. A spike puller, comprising a hollow head, a blade carried by the head, a yoke pivotally connected to the head and provided with a jaw adapted to co-act with the blade, a transverse bolt serving as the means for pivotally connecting the yoke to the head, and a handle inserted in the head and held therein by said bolt.

1,028,292. DRY-KILN. EDWARD D. SIDMAN, Detroit, Mich., assignor to The Sidman Company, Rochester, N. Y., a Corporation of New York. Filed May 13, 1907. Serial No. 373,350. (Cl. 34—19.)



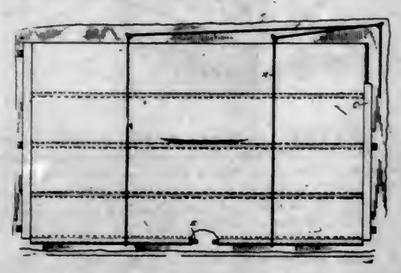
1. In a dry kiln, a plurality of spray pipes arranged to extend at opposite ends of the lumber in the kiln, and adjustable in relation to each other.

2. In a dry kiln, a spray pipe having a supply arm extending laterally therefrom, a supply pipe, and a swivel connection between said supply arm and the supply pipe.

3. A dry kiln, comprising heat-radiating steam pipes, a stationary spray pipe extending centrally and longitudinally of the kiln and laterally-adjustable spray pipes at opposite sides of the kiln connected to said centrally extending pipe.

4. In a dry kiln, a spray pipe extending longitudinally and centrally of the kiln, branch pipes extending to near the sides of the kiln, and spray pipes having swiveled connections with the branch pipes.

1,028,293. CURTAIN FOR DRY-KILNS. EDWARD D. SIDMAN, Detroit, Mich., assignor to The Sidman Company, Rochester, N. Y., a Corporation of New York. Filed May 13, 1907. Serial No. 373,351. (Cl. 156—10.)



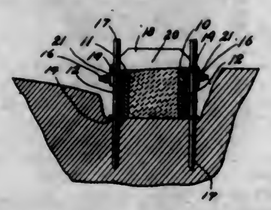
1. In a dry kiln, the combination with a door casing, of a flexible curtain having ribs or beads at the edges thereof, a batten hinged to said casing, and a bead on said batten for interlocking with the beads on said curtain.

2. In a kiln, the combination of a door casing, of a curtain therefor comprising a canvas facing, an asbestos lining formed of transversely-extending strips, and having their edges overlapped and stitched to the canvas, beads formed at the side edges of the curtain, a metallic tube at the bottom of the curtain, means for raising and lowering the curtain and rolling the same upon said tube, and hinged battens secured to the side of the casing and interlocking with the beads on said curtain.

3. In a dry kiln, the combination with a door or casing, of a curtain composed of a two-ply canvas facing and an interposed asbestos lining, ribs or beads on the opposite sides of said curtain, a metallic tube at the bottom of the curtain, hinged battens secured to the sides of said casing, and beads on said battens for interlocking with the beads on said curtain.

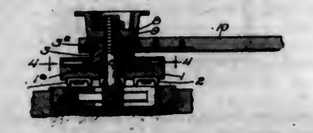
4. In a dry kiln, the combination with the door casing, of a curtain forming a closure for the door opening, a rib or bead at the edge of said curtain, and a batten hinged to the casing and having an interlocking engagement with the bead on the curtain.

1,028,294. COLLAPSIBLE CONCRETE-FORM. WALTER C. SIMPSON, Punxsutawney, Pa. Filed June 22, 1911. Serial No. 634,781. (Cl. 25—118.)



A mold for artificial stone curbing comprising side members, said side members being of unequal depth whereby an inclined upper face is formed on the curb, plates secured to the outer faces of the side members, said plates being arranged vertically, outstanding apertured portions formed on said plates, certain of said plates having downturned threaded and apertured lips on one of said outstanding portions, stakes disposed through the apertured outstanding portions, said stakes adapted to be driven in the ground, set screws in the said down-turned lips for engagement with certain of said stakes, and plates having a larger central tongue and shorter side tongues adapted to embrace the sides of the mold, said sides having grooves for the reception of said smaller tongues, the spaces between the smaller tongues and the larger tongues being of unequal lengths whereby the lower edge of the larger tongue will be level with the bottom of the mold.

1,028,295. VALVE-SEAT-DRESSING TOOL. FRANK L. SMITH, Chicago, Ill., and THOMAS B. WILLIAMS, Orange, Mass., assignors to Leavitt Machine Company, Orange, Mass., a Corporation of Massachusetts. Filed Nov. 20, 1911. Serial No. 661,380. (Cl. 29—95.)



1. A tool comprising a cutter head, a plurality of cutters and means securing them thereto and adapted to permit sliding adjustment in the direction of their cutting edges, said cutting edges being disposed in a single plane, the cutter-head being adapted for rotation about an axis perpendicular to said plane, and being adapted to receive pressure in the direction of said axis.

2. A tool comprising a cutter-head, a plurality of cutters, each of equilateral triangular cross-section, each edge thereof being adapted to serve as a cutting edge, and means on the head adapted for securing the cutters thereto with their active cutting edges in a single plane; means for exerting pressure on the cutter-head in a direction transverse to said plane, and means for rotating the cutter-head about an axis transverse to said plane.

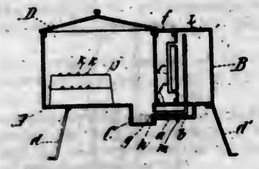
3. A tool comprising a cutter-head, a plurality of cutters therefor of equilateral triangular cross-section, all three longitudinal edges of such cutters being adapted to serve as cutting edges, the cutter-head having a plane surface; beveled clamping blocks arranged thereon and clamp screws securing them thereto, said blocks being adapted to engage the sloping sides of the respective cutters for securing them upon the head with their active cutting edges in a single plane; means for rotating the cutter-head about an axis perpendicular to such plane, and means for exerting pressure upon the cutter-head in a direction transverse to such plane.

1,028,296. PROCESS OF PRODUCING PRINTED COPIES OF KINEMATOGRAPHIC FILMS AND THE LIKE. LOUIS SOHIER, Champigny-sur-Marne, France, assignor to Société Sohier et Cie., Champigny-sur-Marne, Seine, France. Filed Dec. 6, 1909. Serial No. 531,629. (Cl. 101—205.)



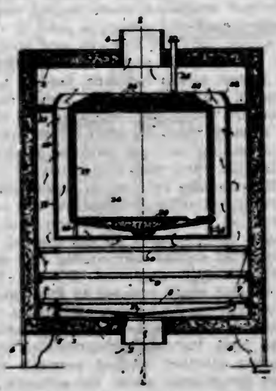
The herein described process of producing printed copies of kinematographic films and the like, which consists in the following steps; first, forming from the original film a gelatin plate in relief; second, molding from such plate, by means of a matrix of plaster or the like, a flexible printing band of plastic material such as celluloid; third, supplying consecutively oil and then a gelatinous ink to the printing surface of such band; and, fourth, pressing firmly the inked surface of such printing band against the film to be printed, such pressure serving to simultaneously spread the ink and produce the impression.

1,028,297. STERILIZER. ROY LEE SPAULDING, Helena, Mont. Filed June 13, 1911. Serial No. 632,876. (Cl. 167—3.)



In a sterilizer, a sterilizing chamber having its bottom provided with a depending portion forming a well, said well being adjacent to the periphery of said bottom, a reservoir in proximity to the sterilizing chamber, a pipe communicating with the well and with the reservoir, a pipe communicating with the well on a plane above the first mentioned pipe, said second mentioned pipe extending through the bottom of the reservoir and terminating near the top thereof, a cover for the sterilizing chamber, instrument supports in the sterilizing chamber, said supports being adjacent to an opposite portion of the said bottom and offset from the edge of the well, whereby easy access to said well is provided when the cover is removed, means for heating the liquid in the well, and a gage glass for the reservoir.

1,028,298. REFRIGERATOR. JOHN EDWARD STAFFORD, Gilbert, W. Va. Filed Apr. 4, 1910. Serial No. 553,397. (Cl. 62—10.)



1. In a refrigerator, an outer casing, a food compartment within said casing, porous material covering certain sides of the food compartment, means for supplying moisture to said porous material, and a foraminous casing surrounding the covered sides of the food compartment.

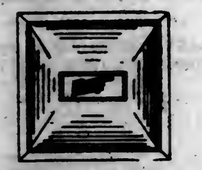
2. In a refrigerator, an outer casing, a foraminous casing within said outer casing and having its sides spaced apart therefrom, a food compartment within the foraminous casing and having its sides spaced apart therefrom, porous material on the sides of the food compartment, and means for supplying moisture thereto.

3. In a refrigerator, an outer casing provided with an air inlet and an air outlet, a foraminous casing within said outer casing and having outside communication with the air inlet and inside communication with the air outlet, a food compartment within the foraminous casing, porous material on the sides of the food compartment, and means for supplying moisture to the porous material.

4. In a refrigerator, an outer casing, a foraminous casing within the outer casing, a food compartment within the foraminous casing, porous material on the sides of the food compartment, and corrugated supports between the foraminous casing and the food compartment.

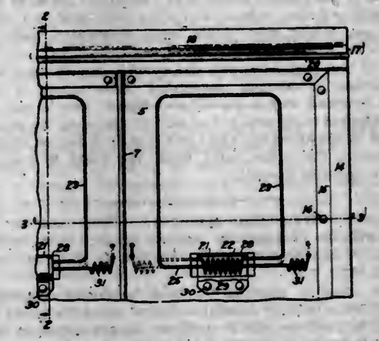
5. In a refrigerator, an outer casing provided with an air inlet and an air outlet, an inner casing within said outer casing having a plurality of foraminous sides spaced apart from the sides of the outer casing, said inner casing having exterior communication with the air inlet and interior communication with the air outlet, a food compartment within the inner casing, porous material on the walls of the food compartment corresponding to the foraminous sides of the inner casing, and means for supplying moisture to the porous material.

1,028,299. PROCESS FOR MAKING STEEL PUNCHES. MAX STAMM, Solingen, Germany. Filed July 17, 1911. Serial No. 639,013. (Cl. 76—4.)



The process of making a stroke or pressure punch, consisting in taking an inwardly tapering hollow matrix having the writing or picture desired engraved therein, pressing or beating the metal from which the punch is to be made into the matrix in such manner as to produce a plate having the engraved writing or picture of the matrix copied thereon, and then attaching the plate to a suitable holder.

1,028,300. FILING DEVICE. ALBERT F. STAPLES, Canisteo, N. Y., assignor to Superior Register Company, Canisteo, N. Y., a Corporation of New York. Filed June 28, 1911. Serial No. 635,900. (Cl. 129—84.)



1. A filing-device comprising a series of bill-holder frames having corresponding grooves in their opposed marginal surfaces, and elastic devices mounted on the frames and seated in said grooves to afford buffers and closures between the adjacent frames.

2. A filing-device comprising a bill-holder frame having grooves in the forward and rear surfaces of its upper marginal portion, a resilient band seated in said grooves, and bill-holder frames pivotally connected at the bottom with the first-mentioned frame and provided with grooves located in position to be engaged by said band when the frames are swung together about their pivotal connections.

3. A filing device comprising a flat body-portion and a hollow sheet-metal bottom-member fixed to the lower edge

of the body-portion, the sheet-metal, at the forward and rear lower angles of the bottom-member, extending outwardly at separate points in the form of aiming hinge sleeves.

4. A filing-device having, in combination, a bill-holder frame with a flat body-portion provided with an opening, a bill-clip comprising two loops connected by a resilient coil, said coil being located in said opening and one of the loops being on each side of the body-portion, and a sleeve inclosing and pivotally supporting the resilient coil and secured to the edge of the body-portion adjacent said opening.

5. A filing-device having, in combination, a bill-holder frame with a flat body-portion provided with an elongated opening, a bill-clip comprising two loops connected by a resilient member, said member being located in said opening and one of the loops being on each side of the body-portion, and a sleeve inclosing and pivotally supporting the resilient member and secured to the edge of the body-portion adjacent the opening.

[Claims 6 to 8 not printed in the Gazette.]

1,028,301. BRAKE SYSTEM. LUKE SUTHERLAND, Louisville, Ky. Filed June 4, 1910. Serial No. 564,977. (Cl. 188—7.)



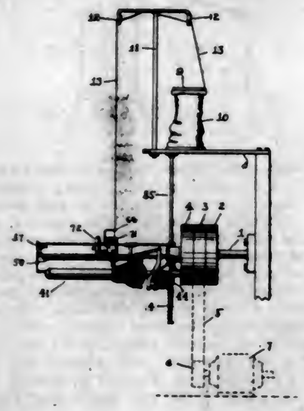
1. In a pneumatic brake, the combination of a cylinder, a piston in said cylinder, a spring for the piston, a piston rod, an extension for said rod adapted to be connected with the brake mechanism of a vehicle, connection between said cylinder and a supply of air under pressure, means for controlling the supply of air to said cylinder, said means comprising a chamber having inlet and outlet passages, pipes connecting the inlet passage with the source of air supply, and one of the outlet passages with the said cylinder, valves controlling said inlet and outlet passages, one of said valves being constantly open, and means for operating said valves.

2. In an apparatus for the purpose specified, a fluid controlling mechanism comprising three valves, a rock shaft provided with a plurality of fingers, two of said fingers adapted to operate two of said valves when the shaft is rocked in one direction, and another of said fingers adapted to operate the other valve when the shaft is operated in the opposite direction.

1,028,302. WINDING-MACHINE FOR YARN OR THREAD. FREDERICK JOHN THIEME, Fort Wayne, Ind. Filed Nov. 25, 1911. Serial No. 662,324. (Cl. 242—37.)

1. A winding machine for yarn or thread comprising a support, a pulley rotatably mounted on said support, an eccentric fixed on the support, a bracket rotatably supported on and surrounding said eccentric, a bobbin shaft rotatably supported by said bracket, a wheel fixed on said shaft adapted to engage said pulley, means for locking said bracket against rotation on said eccentric and holding the friction wheel against the pulley, means normally tending to partially turn the bracket about the eccentric, and means coöperating with the yarn or thread and arranged to be released when the yarn or thread is discontinuous for disengaging said locking means and moving the friction wheel from said pulley.

2. A winding machine for yarn or thread comprising a support, a pulley rotatably mounted on said support, an eccentric fixed on the support, a bracket rotatably supported on and surrounding said eccentric, a bobbin shaft rotatably supported by said bracket, a wheel fixed on said shaft adapted to engage said pulley, means for locking said bracket against rotation on said eccentric and holding the friction wheel against the pulley, means normally tending to partially turn the bracket about the eccentric, means coöperating with the yarn or thread and arranged to be released when the yarn or thread is discontinuous for disengaging said locking mechanism and remove the friction wheel from said pulley, and means for properly guiding the yarn or thread on a bobbin supported on the shaft.



3. A winding machine for yarn or thread comprising a support, a pulley rotatably mounted on said support, an eccentric fixed on the support, a collar having a notch secured on the support, a bracket rotatably supported on and surrounding said eccentric, a bobbin shaft rotatably supported by said bracket, a wheel on said shaft adapted to frictionally engage said pulley, a pawl on the bracket adapted to engage the notch and lock said bracket against rotation on the eccentric and hold said friction wheel against the pulley, means normally tending to partially turn the bracket about the eccentric, means for releasing the pawl from the notch, and means held by the yarn or thread and released when the yarn or thread is discontinuous for actuating the pawl releasing means, and disengage the friction wheel from said pulley.

4. A winding machine for yarn or thread comprising a support, a pulley rotatably mounted on said support, an eccentric fixed on the support adjacent said pulley, a collar having a notch secured on the support, a bracket rotatably supported on and surrounding said eccentric, a bobbin shaft rotatably supported by said bracket, a wheel fixed on said shaft adapted to frictionally engage said pulley, a pawl on the bracket adapted to engage the notch for locking said bracket against rotation on the eccentric and hold the wheel frictionally against the pulley, a spring attached to and normally tending to partially turn the bracket about the eccentric, a rocker shaft engaging and adapted to release the pawl from the notch, and means normally held by the yarn or thread and released when the yarn or thread is discontinuous for actuating the rocker shaft and disengage the pawl from the notch and permit the bracket to slightly rotate about the eccentric.

5. A winding machine for yarn or thread comprising a support, a pulley rotatably mounted on said support, an eccentric fixed on the support and adjacent said pulley, a collar having a notch secured on the support, a bracket rotatably mounted on and surrounding said eccentric, a bobbin shaft rotatably supported by said bracket, a wheel on said shaft adapted to frictionally engage said pulley, a pawl on the bracket adapted to be seated against the notch for locking said bracket against rotation on the eccentric and hold the friction wheel against the pulley, a spring connected with and normally tending to partially turn the bracket about the eccentric, a rocker shaft mounted on the bracket adapted to release the pawl from the notch, a plunger for quickly operating the rocker shaft, a trigger releasing said plunger, and means released when the yarn or thread is discontinuous for moving said trigger.

[Claims 6 and 7 not printed in the Gazette.]

1,028,303. SILICON PRODUCTS. FRANK J. TONE, Niagara Falls, N. Y., assignor to The Carborundum Company, Niagara Falls, N. Y., a Corporation of Pennsylvania. Filed Mar. 4, 1912. Serial No. 681,623. (Cl. 204—64.)

1. A silicon-oxygen-carbon product of felt-like texture having an approximate apparent density of 0.15 and a real density of about 2.3.

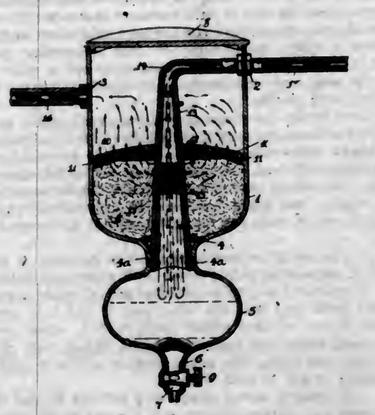
2. A silicon-oxygen-carbon product of felt-like texture, having an approximate apparent density of 0.15, a real density of about 2.3 and characterized by high thermal resistivity and refractability.

3. A refractory condensation product, consisting of silicon-oxygen and carbon in the proportion of approximately 50 parts of silicon, 44 parts of oxygen and 6 parts of carbon, having an approximate apparent density of 0.15, a real density of about 2.3, a pliant felt-like structure and being a poor conductor of heat.

4. A refractory condensation product of silica and a solid solution of silicon carbid and silica, characterized by a real density of 2.3, a pliant felt-like structure and having a high thermal resistivity.

5. A silicon-oxygen-carbon condensation product of a greenish or gray white color having a felt-like pliant structure.

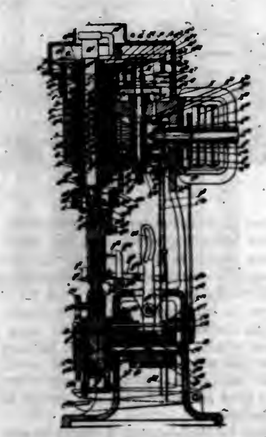
1,028,304. FUEL-OIL FILTER. JOSEPH REMI TOURANGEAU, Windsor, Ontario, Canada. Filed Mar. 20, 1911. Serial No. 615,512. (Cl. 210—11.)



In a fuel oil filter, a casing comprising an upper chamber having inlet and outlet openings at its upper end and a lower chamber with an outlet at the lower end and separated from the upper chamber by a neck portion, a perforated partition horizontally dividing said upper chamber, an inlet pipe secured in said inlet opening and flaring downwardly through said partition and secured in said neck and having a plurality of perforations through its wall immediately below said partition and a quantity of filtering substance filling said upper chamber below the partition.

1,028,305. MACHINE FOR REMAKING WIRE-DRAWING DIES. NICHOLAS KING TURNBULL, Manchester, England. Filed Mar. 4, 1911. Serial No. 612,887. (Cl. 76—4.)

1. In a hammering machine, a hammer, a holding portion therefor, eccentric tubes surrounding the holding portion and controlling the position of the hammer, a support for the holding portion, a slidably mounted bearing in which one end of the support is slidably mounted, and a rotatably mounted bearing in which the other end of the support is slidably mounted.



2. In a die hammering machine, a hammer, a die support, means for automatically moving the hammer in a curved path in relation to the die support, and means for moving the die support across the path of the hammer.

3. In a die hammering machine, a hammer, eccentric carrying means therefor, a die support, a support for the hammer, and rotatably mounted bearings in which the ends of the hammer support are slidably mounted.

4. In a die hammering machine, a hammer, a plurality of eccentric tubes surrounding the hammer and controlling its position, and means for imparting a rotary motion to the tubes.

5. In a die hammering machine, a hammer, a plurality of eccentric tubes surrounding the hammer and controlling its position, and means for causing the tubes to rotate at different relative speeds.

[Claims 6 to 16 not printed in the Gazette.]

1,028,306. BLACK COLORING-MATTERS. JOSEPH TURNER and HARRY DEAN, Huddersfield, England. Filed Sept. 21, 1911. Serial No. 650,571. (Cl. 8—1.)

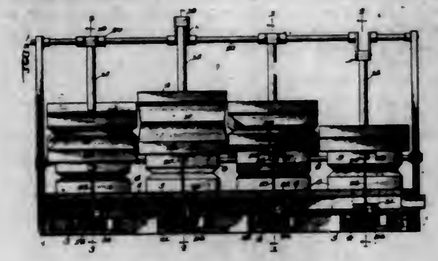
1. A process for manufacturing a dyestuff, which consists in combining a tetrazotized para-diamin with one molecular proportion of amido-naphthol-disulfonic acid (1.8.3.6) (H acid) in slightly mineral acid solution, then combining the intermediate body thus formed with one molecular proportion of a diazo-chlor-benzene, and finally adding one molecule of a meta-diamin.

2. A process for manufacturing a dyestuff, which consists in combining tetrazotized benzidin with one molecular proportion of amido-naphthol-disulfonic acid (1.8, 3.6) (H acid) in slightly mineral acid solution, then combining the intermediate body thus formed with one molecular proportion of a diazo-chlor-benzene, and finally adding one molecule of a meta-diamin.

1,028,307. MOTOR FOR PIANO-PLAYERS. EUGENE T. TURNEY, Davenport, Iowa, assignor to American Pneumatic Action Company, Davenport, Iowa, a Corporation of West Virginia. Filed Nov. 13, 1909. Serial No. 527,916. (Cl. 230—36.)

1. In a motor in combination, a crank shaft, a bellows connected with said crank shaft and mounted to oscillate with the revolution thereof, and means for admitting air

to and exhausting it from said bellows actuated by the oscillations thereof.



2. In a motor in combination, a crank shaft, a bellows having the base thereof pivoted, and the head connected with said crank shaft, said bellows having inlet and exhaust ports and valve mechanism for controlling said ports operated by the swing of said bellows upon its pivot.

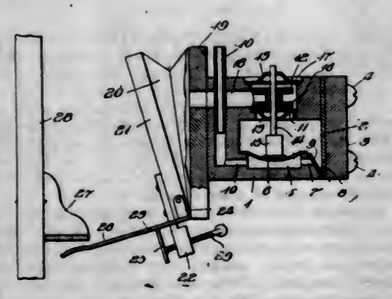
3. In a motor in combination, a crank shaft, a bellows having the base thereof pivoted and the head connected with said crank shaft, the base of said bellows having a port located to one side of the pivot, and a valve located outside of said bellows so as to contact with said base and cover said port as said bellows is moved toward said valve by its oscillation.

4. In a motor, in combination a crank shaft, a pivoted bellows attached to said shaft and oscillated thereby, said bellows having an inlet port and an independently mounted valve located in the path of oscillation of said inlet port so as to cover and close the same during a portion of its oscillatory movement.

5. In a motor, in combination an oscillating bellows, a crank shaft attached thereto and driven thereby, said bellows having an inlet port and a flexibly mounted valve located in the path of oscillation of said port so as to be opened and closed by the oscillation of the bellows.

[Claims 6 to 20 not printed in the Gazette.]

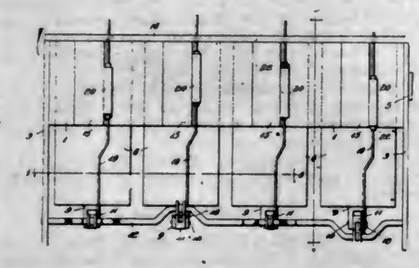
1,028,308. PIANO-PLAYER. EUGENE T. TURNEY, Davenport, Iowa, assignor to American Pneumatic Action Company, Davenport, Iowa, a Corporation of West Virginia. Filed Sept. 22, 1911. Serial No. 650,826. (Cl. 84—233.)



1. In a piano player a wind chest, a bellows placed in rear of said wind chest in a substantially vertical position with its members hinged together at their lower edges, the lower part of said bellows being exposed below said wind chest so as to be accessible from the front, a rearwardly extending arm at the lower edge of said bellows and pivotally attached to the movable member thereof, and an adjusting device below the lower edge of the bellows and accessible from the front for adjusting said arm.

2. In a piano player a bellows having a vertical fixed member 19 and a movable member 21 pivoted to each other at their lower edges, an arm 26 having a broad base portion 23, cut away at the center with ends 24 bent up and pivotally attached to the side edges of said movable member 21, said arm having also a downward projection 25 parallel to said movable member, a bracket 22 fastened to the outer face of said movable member and passing through the cut away portion of said arm to a point adjacent to said projection, and an adjusting screw 29 screwing through said bracket and bearing against said projection to adjust the angle of said arm relatively to said movable member of the bellows.

1,028,309. MOTOR FOR PIANO-PLAYERS. EUGENE T. TURNEY, Davenport, Iowa, assignor to American Pneumatic Action Company, Davenport, Iowa, a Corporation of West Virginia. Filed Sept. 22, 1911. Serial No. 650,827. (Cl. 230—36.)



1. In a motor for piano players, a vacuum chamber, a bellows, ports leading to said chamber and said bellows, a crank shaft, a connecting rod between said shaft and said bellows, a valve rod pivoted to said connecting rod, a guide hole for the other end of said valve rod, a valve carried by said rod intermediate its connections for controlling said ports.

2. In a motor for piano players, a crank shaft, a plurality of bellows, connecting rods between said bellows and said shaft, valve rods one end of which is pivoted to said connecting rod and the other ends of which move in guides, and valves carried by said rods intermediate their connections, and their bearings for controlling the exhaustion of air from and the admission of air to said bellows.

3. A pneumatic motor comprising a bellows, a crank shaft, a connecting rod between said shaft and said bellows, a guide way, a valve rod one end of which extends in said guide way and the other end of which is rotated by the action of said crank shaft, and a valve carried upon said valve rod intermediate its driven and guided ends for controlling the exhaustion of air from and the admission of air to said bellows.

4. A pneumatic motor comprising bellows hinged so as to expand and collapse at one end, a crank shaft, connecting rods between said shaft and the expanding and collapsing ends of said bellows, a vacuum chamber, valve blocks extending at right angles to said bellows, channels leading to said vacuum chamber and said bellows, and having ports upon the sides of said blocks, a valve rod extending by said ports one end of which is rotated by the action of said crank shaft and the other end of which extends through a guide hole, and a valve carried by said valve rod for controlling said ports.

5. A pneumatic motor comprising a plurality of bellows, a crank shaft, connecting rods between said bellows and said crank shaft, a valve rod one end of which is rotated by the action of said crank shaft, guide openings for the unattached ends of said valve rod, and a valve carried by said valve rod at a point remote from the guided portions for controlling the admission of air to and exhaustion of air from said bellows.

[Claims 6 and 7 not printed in the Gazette.]

1,028,310. COUPLING-RING FOR REFRIGERATOR-LININGS. WALTER H. WHITTIER, Grand Rapids, Mich., assignor to Grand Rapids Refrigerator Co., Grand Rapids, Mich., a Corporation of Michigan. Filed Feb. 23, 1912. Serial No. 679,403. (Cl. 62—10.)



1. A coupling ring for refrigerator linings, comprising a sheet metal structure having a middle portion forming a lining for an opening, marginal portions folded on the outside of the middle portion and outwardly extended edge portions forming a circumferential rib or flange on the outside of the ring.

2. A coupling ring for refrigerator linings, comprising a sheet metal structure having a middle portion forming a lining for an opening, marginal portions folded on the outside of the middle portion and an edge portion outwardly extended to form retaining means for the ring.

3. A coupling ring for refrigerator linings, comprising a middle portion forming a lining to an opening, marginal portions folded upon the outside of the middle portion and edge portions refolded upon the marginal portions to form channels adapted to receive flanges on the refrigerator linings.

4. A coupling ring for refrigerator linings, comprising a sheet metal structure having a middle convex portion forming a lining for an opening formed semi-circular at the ends and parallel at the sides, marginal portions folded upon the outside of the middle portion, edge portions extended outward opposite the ends and folded upon the marginal portions opposite the sides to form channels adapted to receive flanges on the refrigerator linings.

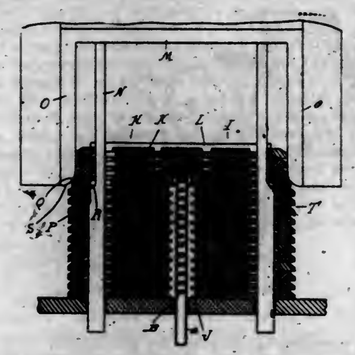
5. A coupling ring for refrigerator linings, comprising a sheet metal ring having a middle portion to form a lining for an opening and edge portions upon the outside of the middle portion adapted to enter between the flanges of a refrigerator lining to hold the ring in place.

1,028,311. SCARF-HOLDER. ALBERT WIEGEL, Cassel, Germany. Filed Feb. 18, 1911. Serial No. 609,406. (Cl. 2—84.)



A scarf holder comprising a single metal piece bent to form front and rear plates spaced apart, the front plate formed of triangular shape and the rear plate formed with a narrow portion and an upwardly extending collar button engaging hook, said hook and narrow wall separated by a downwardly extending slit for the passage of one end of the necktie, as and for the purpose set forth.

1,028,312. MACHINE FOR FORMING MULTIPLE-UNIT TUBES. CHARLES A. WILLIAMS, Detroit, Mich., assignor to Briscoe Manufacturing Company, Detroit, Mich., a Corporation of Michigan. Filed Feb. 25, 1910. Serial No. 545,949. (Cl. 153—70.)



1. A machine for forming multiple unit-tubes comprising a core member for engaging a blank tube and having a series of recesses or pockets therein, a series of die members each movable in a rectilinear path and laterally with respect to the core member for forcing the metal of the blank into said recesses, and means for operating said die members successively.

2. A machine for forming multiple unit tubes comprising a core member formed of a series of spaced sections and adapted to engage a blank tube, a series of die members each movable in a rectilinear path at substantially right angles to the core member for forcing the metal of the blank into the spaces between the sections of said core, and means for operating said die members successively.

3. A machine for forming multiple unit tubes, comprising a core member formed of a series of spaced sections, a series of pairs of die members respectively upon opposite sides of said core member and adapted to engage the spaces between the sections of said core member, and means for actuating said die members successively with the members of the same pair operated simultaneously.

4. A machine for forming multiple unit tubes, comprising a core member having a series of spaced sections, a series of pairs of die members arranged upon opposite sides of said core member and movable laterally with respect thereto into engagement with the spaces therebetween, and means for successively operating the pairs of dies and for withdrawing the same.

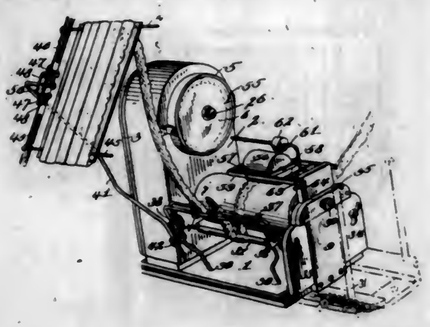
5. A machine for forming multiple unit tubes, comprising a core member formed of a series of spaced sections to which said sections are secured, a series of die members for engaging the spaces between said sections and movable laterally with respect thereto, and a reciprocatory cammed member engaging said dies to actuate the same successively.

[Claims 6 to 12 not printed in the Gazette.]

1,028,313. MEASURING-MACHINE. GEORGE L. WILLIAMS, Americus, Ga. Filed June 28, 1910. Serial No. 569,341. (Cl. 73—9.)

1. In a measuring machine, the combination of a frame provided with a rigid upright, a revoluble measuring roll supported at one end by said upright, registering mechanism coöperative with said roll, a pair of members pivotally connected to said frame on an axis below that of the measuring roll, said members being movable to and from positions at opposite sides of said upright, tension rods carried by said members and movable thereby into positions at opposite sides of the measuring roll, a cross member rigidly connecting the free ends of said member

and adapted to bear against said upright to limit the movement of said members toward operative position, and means connecting said cross member and upright for retaining the tension rods in coöperative relation with the measuring roll.



2. In a measuring machine, the combination of a revoluble measuring roll and registering mechanism operative thereby, the registering mechanism comprising a dial-operating shaft having means for driving it from the measuring roll, a dial mounted concentrically of said shaft, a stationary pointer coöperative with the graduated dial, a frictional driving connection between said shaft and dial including a sleeve attached to one of the parts and a head attached to the other part, said head frictionally engaging within said sleeve to cause the dial to rotate with the shaft, and a resetting device attached to the dial for adjusting the latter independently of said shaft.

3. In a measuring machine, the combination of a revoluble measuring roll and registering mechanism actuated thereby including a dial and its operating shaft, a wheel fixed to said shaft and having a tape surface and a yieldable backing of felt, and a toothed propeller operative by the registering mechanism and coöperative with the tape surface of said wheel.

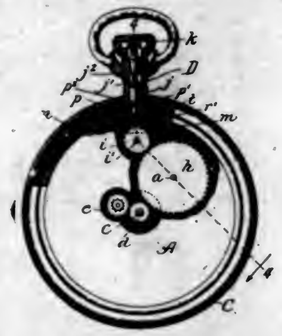
4. In a lace measuring machine, the combination of a revoluble measuring roll and registering mechanism actuated thereby, a reel for supporting the material to be measured, and a guide mounted at one side of the measuring roll embodying a pair of spaced rods connected by relatively adjustable guide plates which are slidable longitudinally on said rods and in a direction axially of the measuring roll, the rods and plates forming a space between them for the passage of the material.

5. In a lace measuring machine, the combination of a frame, a measuring roll revolubly mounted thereon on a horizontal axis, registering mechanism coöperative with the measuring roll, and means for insuring a proper frictional contact between the lace and the measuring roll embodying a tension roller having an axis parallel with that of the measuring roll, and means pivoted to the frame on a horizontal axis perpendicular to the axis of the measuring roll for carrying said tension roller to and from a position at the top of the measuring roll.

[Claims 6 to 9 not printed in the Gazette.]

1,028,314. STEM SETTING AND WINDING WATCH. JOSEPH ZALINSKY, Elgin, Ill., assignor to Illinois Watch Case Company, Elgin, Ill., a Corporation of Illinois. Filed Oct. 31, 1911. Serial No. 657,713. (Cl. 58—67.)

1. A stem-setting and winding watch comprising a case portion and a movement portion removably engaged each with the other, the case having a hollow pendant or stem, a longitudinally movable and rotatable stem arbor extending therethrough, intermediate and independent toothed setting and winding pinion mechanism on said stem arbor, and spring mechanism fixed in the case portion to assist said stem arbor in moving said intermediate independent toothed setting pinion mechanism, the movement portion having independent hand setting and main-spring winding trains arranged to be operatively engaged and disengaged with the intermediate independent toothed pinion setting and winding mechanism on the stem arbor, substantially as described.



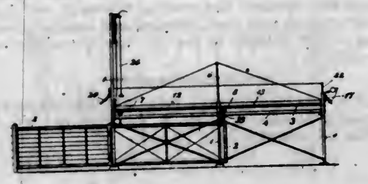
2. In a stem-setting and winding watch, the combination of a watch movement provided with independent hand-setting and winding-wheel trains operatively attached thereto, a watch case having a hollow pendant stem, a longitudinally movable and rotatable stem arbor extending through the pendant stem, spring mechanism for limiting the longitudinal movement of and holding the stem arbor at either limit of its longitudinal movement, an intermediate setting pinion operatively engaging with said stem arbor, setting spring mechanism fixed to the walls of the case for normally holding the intermediate setting pinion out of engagement with the independent hand-setting train, an operating lever operatively engaging the longitudinally movable stem arbor arranged to change the tension of and move said setting spring with its intermediate setting pinion into engagement with the hand-setting train of the movement, said spring, lever and intermediate setting-pinion being fixed to the case mechanism so as to remain therewith when the watch movement is removed from its engagement with the case, substantially as described.

3. In a stem-setting and winding watch, the combination of a watch movement provided with independent hand-setting and winding trains, a watch-case provided with a hollow pendant having a longitudinally movable and rotatable stem-arbor extending therethrough, a spring for holding the longitudinally movable stem-arbor at either limit of its longitudinal movement while permitting it to rotate, an intermediate setting pinion mounted upon said stem arbor, a setting-spring in fixed engagement with the watch case for holding said setting pinion on the stem arbor and throwing it into and out of engagement with the hand-setting train of the movement, an independent intermediate winding pinion having no toothed engagement with the intermediate setting pinion in engagement with the stem arbor and with the independent spring-winding train of the movement so arranged in its engagement with the said stem arbor that when the stem arbor is at one limit of its longitudinal movement its rotary movement is imparted to the intermediate winding pinion and when it is at its other limit of movement it is not affected thereby, and lever mechanism in said case interposed between the setting spring and operatively engaging said stem arbor to be operated by the longitudinal movements thereof and effect the tension of the setting spring and cause it to throw the intermediate setting pinion into positive engagement with the hand-setting train, substantially as described.

4. In a stem-setting and winding watch, the combination of a watch movement removably engaged with a watch case and provided with independent hand-setting and spring-winding trains, a watch case provided with a longitudinally movable and rotatable stem arbor, an intermediate toothed winding pinion thereon engaging with the spring winding train, an intermediate toothed setting pinion thereon engaging with the hand-setting train, a setting spring fixed in said watch case for normally holding said setting pinion out of engagement with the hand-setting train of the movement, and lever mechanism in said watch case operatively engaging the stem arbor to be operated by the longitudinal movements thereof and to change the tension of said setting spring and cause the engagement and disengagement of said intermediate setting pinion with the hand-setting train of the watch movement, substantially as described.

5. In a stem-setting and winding watch, the combination of a watch movement provided with a barrel-arbor having an independent spring-winding train engaging with one end thereof and arranged on one side of the watch movement, a toothed cannon pinion engaging with and forming a part of an independent hand-setting train on the opposite side of the watch movement from the spring-winding train, with a watch case having a hollow pendant, a longitudinally movable and rotatable stem arbor in said hollow pendant and provided with the usual crown at the outer end and with squared and grooved portions on the inner end, spring mechanism in said hollow pendant engaging with said stem arbor to hold it at either limit of its longitudinal movement, an intermediate toothed winding pinion loosely arranged on the squared portion of said stem atively engaging the spring winding train of the watch movement and arranged to be over the grooved portion of said stem arbor when said arbor is withdrawn to its outer limit of motion, an intermediate toothed setting pinion also loosely engaging the squared inner end of the stem arbor, a setting spring in fixed engagement with the watch case for normally holding said intermediate setting pinion on the stem arbor and out of engagement with the hand-setting train, and an operating lever fulcrumed in the watch case with one end thereof operatively engaging the stem arbor, and its other end engaging the setting spring of the watch case so that when the stem arbor is pulled to its outer limit of motion the opposite end of said operating lever contacts with and changes the tension of the setting spring so as to cause it to carry the intermediate setting pinion into operative engagement with the hand-setting train of the watch movement, substantially as described.

1,028,315. SLIDING GATE. PEDRO ZERBINO, Buenos Aires, Argentina. Filed July 3, 1908. Serial No. 441,890. (Cl. 39—31.)



1. The combination of a gate, a pivoted support therefor, a catch for maintaining said support in an inclined position, a device mounted on said support and adapted to release said catch, means for manually operating said releasing device, and means for automatically operating said releasing device.

2. The combination of a gate, a pivoted support on which said gate is arranged to travel in one direction or the other, said support being provided with channels, a plunger on said support, a lock arranged to maintain said support in one of its positions, and a ball arranged to travel in said channels to operate said plunger to unlock said support and permit it to return to its initial position.

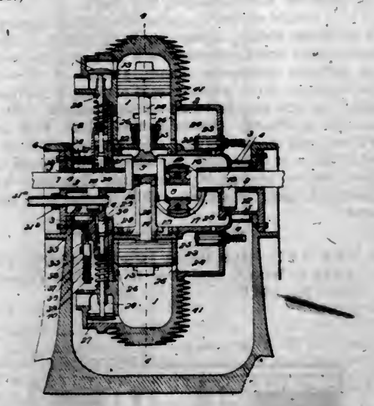
3. The combination of a gate, a support on which said gate is arranged to move to its open or closed position, a device for locking said gate in its open position, means for automatically releasing said device to permit said gate to close and means for retarding the operation of said releasing means.

4. The combination of a gate, a pivoted support on which said gate is arranged to travel in one direction or the other, said support being provided with two parallel connected channels and a third channel connected therewith, a plunger on said support extending into said third channel, a lock arranged to maintain said support in one of its positions, and a ball arranged to travel in said channels to operate said plunger to release the lock and permit the support to return to its initial position.

5. The combination of a gate, a pivoted support on which said gate is arranged to travel in one direction or the other, said support being provided with connected straight and sinuous channels, a plunger on said support extending into the straight channel, a lock arranged to maintain said support in one of its positions, and a ball arranged to travel in said channels to operate said plunger to release the lock and permit the support to return to its initial position.

[Claim 6 not printed in the Gazette.]

1,028,316. ROTARY ENGINE. NEWELL O. ALLYN, Warren, Ohio, assignor of one-half to George W. Upton, Warren, Ohio. Filed Mar. 6, 1905, Serial No. 248,619. Renewed May 28, 1909. Serial No. 498,963. (Cl. 123—44.)



1. A rotary engine comprising, in combination, a revoluble casing containing a crank chamber, a plurality of cylinders carried by the casing and arranged oppositely in pairs, the pairs being in different transverse planes, a series of independent and detachable compression chambers, one for each cylinder, carried by the casing at the sides of the inner ends of the cylinders, and each having an opening communicating with the crank chamber said pistons in such cylinders being arranged in pairs, rods for said pistons, cross-heads carried by said piston rods to which the latter are rigidly connected, and a rotatable crank shaft upon the cranks of which said cross-heads are mounted, each cylinder having two ports connected with its respective compression chamber, one port being at the inner extremity of the cylinder and the other in position to be uncovered when the piston is at its inward limit of movement, for the escape of the explosive mixture in the outer extremity of the cylinder, said mixture having been compressed in the compression chamber during the inward movement of the piston.

2. A rotary engine comprising, in combination, a revoluble casing, a plurality of cylinders carried by and fastened into the casing and arranged oppositely in pairs, the pairs being in different transverse planes, said pistons in such cylinders being arranged in pairs, rods for said pistons, cross-heads carried by said piston rods to which the latter are rigidly connected, a rotatable crank shaft

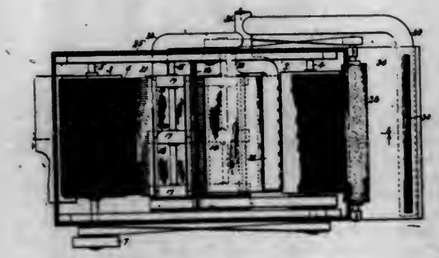
upon the cranks of which said cross-heads are mounted, and removable guideways in said casing for said cross-heads, said guideways being held in place by the inner ends of the cylinders, which inner ends have stuffing boxes through which said piston rods are passed.

3. A rotary engine comprising, in combination, a revoluble casing, a plurality of cylinders carried by and fastened into the casing and arranged oppositely in pairs, the pairs being in different transverse planes, said pistons in such cylinders being arranged in pairs, rods for said pistons, cross-heads carried by said piston rods to which the latter are rigidly connected, a rotatable crank shaft upon the cranks of which said cross-heads are mounted, removable guideways in said casing for said cross-heads, and screw plugs, forming the inner ends of the piston cylinders, for holding said guideways and having stuffing boxes through which said piston rods are passed.

4. A rotary explosive engine comprising, in combination, a revoluble casing, a plurality of cylinders carried by the casing and arranged oppositely in pairs, the pairs being in different transverse planes, pistons in such cylinders arranged in pairs, rods for said pistons, a rotatable crank shaft to the cranks of which said piston rods are connected, stationary sleeves around which said casing revolves, said sleeves having openings eccentric of the axis of rotation of the casing and wherein said crank shaft fits, said sleeves having oil containing chambers and means operated by the rotation of the shaft and within the oil chamber, for lubricating the shaft.

5. A rotary explosive engine comprising, in combination, a revoluble casing, a plurality of cylinders carried by the casing and arranged oppositely in pairs, the pairs being in different transverse planes, pistons in such cylinders arranged in pairs, rods for said pistons, a rotatable crank shaft to the cranks of which said piston rods are connected, stationary sleeves around which said casing revolves, said sleeves having openings eccentric of the axis of rotation of the casing and wherein said crank shaft fits, said sleeves having oil containing chambers, and loose bands engaging said shaft and extending into said chambers.

1,028,317. MACHINE FOR CLEANING FABRICS. JAMES E. BAKER, New York, N. Y. Filed June 10, 1910. Serial No. 566,278. (Cl. 91—59.)



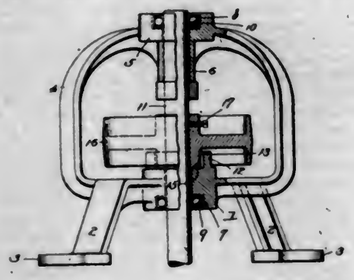
1. A machine for cleaning fabrics comprising a pair of upper rotating drums, an endless apron on said drums, a pair of lower drums, an endless apron of foraminous material mounted on said lower drums, a vibrator arranged to rapidly vibrate the adjacent portion of both of said aprons between the pairs of drums, a housing inclosing the operative parts of the machine and an air exhaust for the housing, substantially as described.

2. A machine for cleaning fabrics comprising a pair of upper rotating drums, an endless apron of foraminous material mounted on said drums, a pair of lower drums, an endless apron of foraminous material mounted on said lower drums, a vibrator located within the upper apron, a vibrator located within the lower apron, a housing inclosing the operative parts of the machine and exhaust or vacuum pipes arranged within the housing, substantially as described.

3. A machine for cleaning fabrics, comprising a pair of upper rotating drums, an endless apron of wire cloth applied to said drums, a pair of lower rotating drums, an endless apron of wire cloth applied to said lower drums, a rotating vibrator located within the upper apron and a rotating vibrator located within the lower apron, one of said vibrators being located in advance of the other, substantially as described.

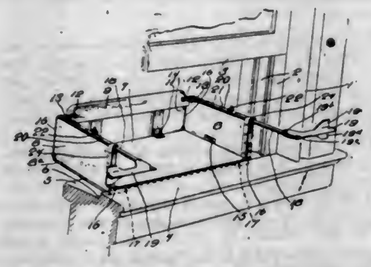
4. A machine for cleaning fabrics comprising a pair of upper rotating drums, an endless apron of wire cloth mounted on said drums, a pair of lower drums, an endless apron of wire cloth mounted on said lower drums, a vibrator located within the upper apron, a vibrator located within the lower apron, a housing inclosing the operative parts of the machine and exhaust or vacuum pipes arranged within the housing, substantially as described.

1,028,318. BEARING FOR VERTICAL DRIVE-SHAFTS. WILLIAM BARTHOLOMEW, Chicago, Ill., assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill., a Corporation of New York. Filed May 25, 1911. Serial No. 629,463. (Cl. 64—56.)



A bearing for vertical drive shafts comprising a circular base having a vertical bearing and provided with oppositely disposed supporting legs, said base being provided with a bearing chamber in its under side and an oil chamber in its top formed by an annular flange, an integral yoke extending upwardly from said base and provided with a depending bearing in vertical alinement with the bearing of the base, said bearing being provided with a bearing chamber in its top, a vertical shaft extending through said bearings and bearing chambers, and a drive member fixed on said shaft between said bearing chambers having a hub working in the oil chamber on the top of the base.

1,028,319. SAFETY-CHAIR FOR WINDOW-CLEANERS. CHARLES BLUM, New York, N. Y. Filed Dec. 20, 1911. Serial No. 666,875. (Cl. 20—87.)



1. In a window chair, the combination with a seat board, having collapsible side guards pivotally connected thereto, of means carried by said side guards adapted

to engage a window frame, and a back rest carried by said seat board adapted to engage said side guards for positively maintaining said window frame engaging means in engaged relation with a window frame.

2. In a window chair, the combination with a seat board adapted to have one of its edges engage a relatively outer surface of a window frame, and collapsible side guards fixed to said seat board, of means carried by said side guards adapted to engage a relative inner surface of the window frame, and a collapsible back rest pivotally connected to said seat board and adapted to be swung into position for positively maintaining said last mentioned means in engaged relation with a window frame.

3. In a window chair, the combination with a seat board, having collapsible side guards pivotally connected thereto, of means carried by said side guards adapted to engage a window frame, and locking means extending between and engaging said side guards to lock said side guards in non-collapsed position, whereby said window frame engaging means is positively maintained in engaged relation with a window frame.

4. In a window chair, the combination with a seat-board having collapsible side guards pivotally connected directly thereto, said seat-board being adapted to engage a relatively outer surface of a window frame; of telescopically mounted extension members fixed one to each of said side guards and each of said extension members having a laterally projecting end portion, said end portions projecting in opposite directions when said side guards are in non-collapsed position and being adapted to engage relatively inner surfaces of a window frame above the plane of said seat-board; and a collapsible back rest pivotally connected directly to said seat-board and adapted to be swung into position for positively maintaining the end portions of said telescopically mounted members in engaged relation with the window frame.

5. In a window chair, the combination with a seat-board; of means carried by said seat-board adapted to be moved into engaged relation with a window frame for supporting said seat-board from said window frame; and a pivotally mounted back rest carried by said seat-board adapted to be swung so as to lock said window frame engaging means in engaged relation with the window frame.

1,028,320. DISH-RECEPTACLE. MARY E. BOICE, Alexander, N. D. Filed Feb. 5, 1912. Serial No. 675,436. (Cl. 141—11.)



1. A rinsing and drying device, comprising a receptacle formed of wire, a tray portion formed at the upper end thereof, and a supporting means for the device.

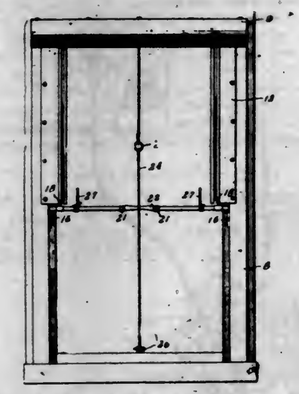
2. A rinsing and drying device, comprising a receptacle formed of wire, a tray formed on the upper portion of said receptacle, and supporting means for the device, said supporting means so disposing the device as to position the lower portion of the receptacle above the base portion of the supporting means.

3. A device of the class described, comprising a wire receptacle, a tray portion also formed of wire and surrounding the upper portion of said receptacle, and a supporting means for the device comprising a base portion, and arms carried thereon engaging said tray, said supporting means so disposing the device as to position the lower portion of the receptacle above the base portion of the supporting means.

4. A device of the class described, comprising a receptacle formed of wire, a tray portion formed at the upper end thereof and surrounding the same, certain of the wires forming the sides of said receptacle being continued to form the base portion and sides of said tray, a supporting means comprising a hoop, and arms carried thereon and engaged with the upper portion of the tray, said supporting means so positioning the device as to position the lower portion of the device above the base portion of the supporting means.

5. A device of the class described, comprising a wire receptacle, a tray also formed of wire and surrounding the upper portion of the receptacle, a supporting means for the device comprising a base hoop, arms pivotally carried thereon, the upper ends of said arms being adapted for engagement with the upper portion of said tray, and means to support said arms in their upright positions.

1,028,321. AWNING. WILSON M. BONNEY, Norfolk, Va. Filed May 27, 1911. Serial No. 629,827. (Cl. 156—44.)



1. In an awning, the combination with an outrigger, of spring retracted top and side curtains, a pull cord for said top curtain, and connections between said pull cord and said side curtains whereby operation of said pull cord to extend said top curtain will effect the extension of said side curtains.

2. In an awning, the combination with an outrigger, of spring retracted top and side curtains, a pull cord for said top curtain, and connections between said pull cord and said side curtains effective after the top curtain has been partially extended to extend said side curtains.

3. In an awning, the combination with an outrigger, of spring retracted top and side curtains, means for extending said curtains, and fingers on said outrigger to engage the extended end of said top curtain and maintain it in place.

4. In an awning, the combination with an outrigger, of spring retracted top and side curtains, means for extending said curtains, and spring fingers on either side of the center of said outrigger to engage the extended end of said top curtain and maintain it in place.

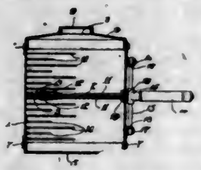
5. In an awning, the combination with an outrigger, of spring retracted top and side curtains, a pull cord for said top curtain, pull cords for said side curtains, and a connection between said top and side curtain pull cords to effect the extension of said curtains.

[Claims 6 to 11 not printed in the Gazette.]

1,028,322. FLOUR-SIFTER. WALDO W. BRABEN, Chicago, Ill. Filed Aug. 20, 1909. Serial No. 513,735. (Cl. 83—60.)

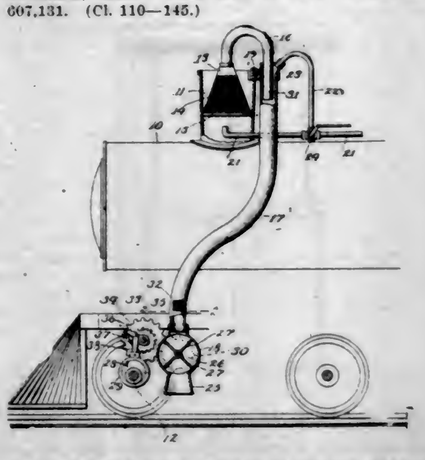
A flour sifter, comprising a receptacle, a sieve therein, an agitator in proximity to said sieve and projecting

through the wall of said receptacle, an exterior radial handle arranged in line with and fixed to said agitator, a longitudinally extending shaft arranged adjacent the wall



of said receptacle and centrally fixed to the inner end of said handle, and bearings fixed to the outer face of said receptacle and engaging the ends of said shaft.

1,028,323. SPARK-ARRESTER. FREDERICK E. BREWER, Townsend, Mont. Filed Feb. 7, 1911. Serial No. 607,131. (Cl. 110—145.)



The combination with a smoke stack, of a fine supported beside the stack, a conical foraminous screen arranged within the stack, a pipe leading from the upper end of the screen and bent to extend over the stack and into the upper end of the flue, a steam-supply-pipe, a branch pipe leading from the steam-supply-pipe into the stack beneath the foraminous screen, a branch pipe leading from the steam-supply-pipe into the upper end of the flue above the discharge end of the pipe which leads from the foraminous screen into the flue, a three-way valve arranged at the point of connection of the branch pipes with the steam-supply-pipe, and means for operating the valve to place the steam supply pipe in communication with the branch pipe, leading into the stack or into communication with the branch leading into the upper end of the flue.

1,028,324. PRESS. WINN E. BROUGHTON, Peabody, Mass., assignor to The Turner Tanning Machinery Company, Peabody, Mass., a Corporation of Maine. Filed Mar. 2, 1911. Serial No. 611,788. (Cl. 101—83.)

1. In an apparatus of the character described, in combination, a lower platen, a tool carrier, a slotted head connected with said carrier, a rod extended upwardly from said head, a helical spring encircling said rod, a collar fast on said rod and against which one end of said spring bears, an arm coöperating with said spring to compress it and store up power, a rod to which said arm is secured, means to move the latter rod, a locking dog coöperating with said slotted head to hold it stationary while the said spring is being compressed, a crank to which said locking dog is attached, a rock-shaft to which said crank is attached, a knock-off arm to engage said crank and rock said shaft to disengage the locking dog from said slotted head, means to elevate the knock-off arm, and means to rotate the said shaft to restore the locking dog into engagement with the slotted head, substantially as described.



2. In an apparatus of the character described, in combination, a lower platen, a tool carrier movable toward and from said lower platen, a spring to move said carrier, a foot treadle, a rod attached to said foot treadle, an arm carried by said rod and coöperating with said spring, a locking device coöperating with the movable carrier to prevent its movement while the said arm is compressing said spring, and a knock-off arm carried by said rod and coöperating with said locking device to release the said carrier and permit it to be moved by the said spring, substantially as described.

3. In an apparatus of the character described, in combination, a lower platen, a tool carrier, a spring to move said carrier toward the lower platen, a treadle, a rod attached thereto, an arm on said rod engaging the upper end of the said spring to compress the same, means for locking said carrier against movement while said spring is being compressed, and means for releasing said carrier when the spring has been compressed a predetermined amount to permit said spring to move the carrier rapidly toward the lower platen, substantially as described.

4. In an apparatus of the character described, in combination, a lower platen, a tool carrier, a rod connected with the said carrier to move therewith, a spring encircling said rod, a rock shaft, a device fast on the rock shaft and coöperating with the said rod to lock the same against movement by said spring, a compressing arm for said spring, a rod to which the compressing arm is attached, a knock-off device secured to the last-mentioned rod, a crank or arm on said rock-shaft with which the knock-off device coöperates to release the said carrier, and means to rotate said rock-shaft, substantially as described.

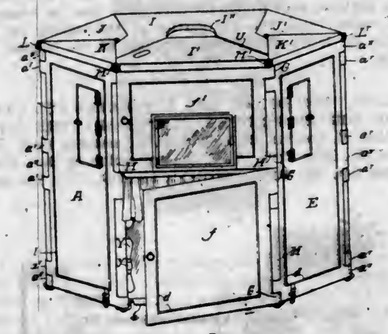
1,028,325. EXPANSION-HOOP. NORTON M. BROWN, Aurora, Ill. Filed May 5, 1911. Serial No. 625,355. (Cl. 217—94.)



1. An expanding hoop comprising a circular member having adjacent threaded ends, nuts on said ends, and a sleeve positioned loosely over said ends and between said nuts, said sleeve bearing at each end upon one of said nuts, substantially as described.

2. An expanding hoop comprising a circular rod having adjacent threaded ends, a sleeve positioned loosely over said ends, and nuts screwed onto said ends and having recesses for the reception of the ends of said sleeve, substantially as described.

1,028,326. COLLAPSIBLE CABINET. FRED F. BURDICK, River Forest, Ill. Filed Mar. 11, 1912. Serial No. 682,836. (Cl. 174—177.)



1. In a collapsible cabinet vertical walls consisting of panels pivotally attached together, and an additional panel pivotally attached to one of the first named panels, with rods connecting the panel which is on one side of said additional panel to the panel which is on the other side thereof, said panels respectively made of sheet metal provided with lugs on the sides thereof turned into a cylindrical form, the pivots of said panels consisting of pipes or tubes, provided with holes in the cylindrical walls thereof, and fitting into the cylindrically formed lugs on the sides of the panels, in combination with electric conducting wires in said pipes, and a top removably mounted on the vertical walls.

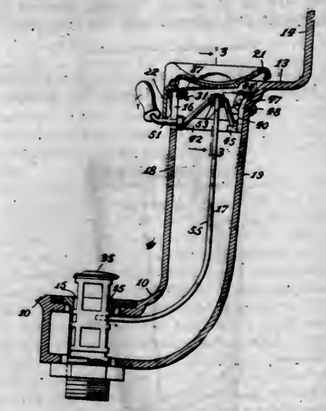
2. In a collapsible cabinet vertical walls consisting of panels pivotally attached together, and a two-part panel pivotally attached at one side thereof to one of the first named panels, with rods connecting the panel which is on one side of the two-part panel to the panel which is on the other side thereof, the pivots which join said panels consisting of pipes or tubes provided with holes in the cylindrical walls thereof, in combination with electric lamps, sockets to said lamps, said sockets secured in the holes in said pipes, electric conducting wires in said pipes in electric connection with said sockets, and a top.

3. A collapsible cabinet comprising vertical walls consisting of panels attached together by pivots, said panels respectively made of a sheet metal body provided with lugs, said lugs and one of the ends of said body respectively turned into a cylindrical form and said pivots respectively consisting of a pipe or tube provided with holes in the cylindrical wall thereof, said pipes being inserted in intermeshing cylindrically formed lugs, one of said panels arranged to form a door, rods connecting the panel which is on one side of the door panel to the panel on the other side thereof, electric lamps, socket to said lamps, said sockets secured in the holes in said pipes, and electric conducting wires to the lamps, said wires disposed in the cylindrically formed upper end of the panels and in said pipes, in combination with a top removably mounted on the vertical walls.

4. A collapsible cabinet comprising vertical walls consisting of panels attached together by pivots, said panels respectively made of sheet metal body provided with lugs, said lugs and one of the ends of said body respectively turned into a cylindrical form and said pivots respectively consisting of a pipe or tube provided with holes in the cylindrical wall thereof, said pipes being inserted in intermeshing cylindrically formed lugs, one of said panels arranged to form a door, rods connecting the panel which is on one side of the door panel to the panel on the other side thereof, electric lamps, sockets to said lamps, said sockets secured in the holes in said pipes, and electric conducting wires to the lamps, said wires disposed in the cylindrically formed upper ends of the panels and in said pipes, in combination with a top removably mounted on the vertical walls, said top consisting of a plurality of pieces pivotally attached together and to oppositely placed pivotal pipes one of said top pieces provided with a recess and additional ones arranged to cover said recess when in a determined position.

5. In a collapsible cabinet, vertical walls consisting of panels pivotally attached together, and an additional panel pivotally attached to one of the first named panels, with rods connecting the panel which is on one side of said additional panel to the panel which in on the other side thereof, said panels respectively made of sheet metal provided with lugs on the sides, said lugs and the upper ends of the panels turned into a cylindrical form, pipes or tubes arranged to form the pivots of said panels, said pipes or tubes, provided with holes in the cylindrical walls thereof, and fitting into the cylindrically formed lugs on the sides of the panels, in combination with electric lamps, sockets to said lamps, said sockets secured in the holes in said pipes, electric conducting wires in said pipes, in electric connection with said sockets, and a top removably mounted on the vertical walls, said top consisting of a plurality of pieces pivotally attached together and to oppositely placed pivotal pipes one of said top pieces provided with a recess and additional ones arranged to cover said recess when in a determined position.

1,028,327. LAVATORY. EDWIN ENOCH CARTER, Warren, Ohio, assignor to The Day-Ward Company, Warren, Ohio, a Corporation of Ohio. Filed Feb. 7, 1911. Serial No. 607,051. (Cl. 4—24.)



1. A basin having an overflow conduit with a rear wall and a bottom waste hole, a bracket, means for securing the bracket to the rear wall of the conduit, a yoke secured to the bracket and extending half way around the conduit, a crank journaled in the ends of the yoke, a waste plug adapted to fit the waste hole, and a connection between the waste plug and the crank, including a rod rigidly secured to the plug and loosely secured to the crank.

2. A basin having an overflow conduit with a rear wall, and a bottom waste hole, a bracket, means for securing the bracket to the rear wall, a yoke secured to the bracket, a crank journaled in the yoke, a waste plug adapted to fit the waste hole, a connection between the waste plug and the crank and means for rotating the crank including a handle in the plane of the crank arms.

1,028,328. ELECTRIC FUSE. GEORGE W. CHRISTIANS, New York, N. Y. Filed Dec. 27, 1911. Serial No. 668,067. (Cl. 175—273.)

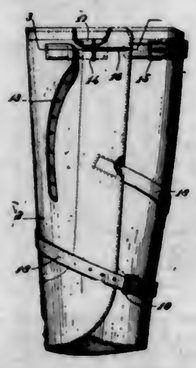


1. An electric fuse, comprising a rod of insulating material, terminals of conducting material thereon, and a continuous fuse wire longer than said rod, extending parallel thereto and having loops engaging with said terminals at a plurality of points.

2. An electric fuse, comprising a rod of insulating material, end caps of conducting material thereon, having integrally formed hooks on their circumferential edges, and a plurality of fuse strips connected to said hooks and extending lengthwise of said rod.

3. An electric fuse, comprising a rod of insulating material, having enlargements at its ends, caps of conducting material on said enlargements, a fuse strip connected at a plurality of points to said caps and extending lengthwise of said rod, and an insulating covering disposed between said enlargements and inclosing said fuse strip and rod.

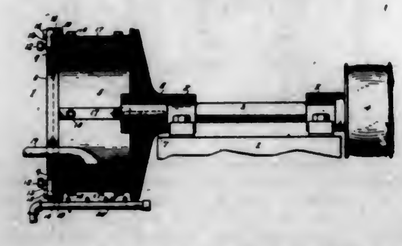
1,028,329. LEGGING. GABRIEL CIOCIOLA, Leavenworth, Kans. Filed Aug. 11, 1911. Serial No. 643,600. (Cl. 36—2.)



1. A legging comprising a body portion having overlapping parts the outer of which is provided near its top with a slot extending approximately parallel to the upper edge thereof, and the underlying part of which has attached thereto a swiveled device the shank of which extends through said slot and prevents up and down movements of the said overlapping parts of the legging relative to each other, and means, coöperating with said swiveled device, whereby the top overlapping portions of the legging may be adjustably secured together, so as to provide a legging of a variable size when closed.

2. A legging comprising a body portion having overlapping parts the outer which is provided near its top with a slot extending approximately parallel to the upper edge thereof, and the underlying part of which has attached thereto a swiveled strap-guiding loop the shank of which passes through said slot and prevents up and down movements of the said overlapping parts of the legging relative to each other, combined with a strap attached to the outer overlapping portion near the top thereof and passing through said loop, a buckle, on the underlying portion, with which the said strap may be engaged, and means, below the top portion of the legging for securing the lower overlapping portions of the legging together.

1,028,330. METHOD OF AND APPARATUS FOR CASTING CURVED PRINTING-PLATES AND THE LIKE. ELLIS W. COOPER, Bloomfield, N. J., assignor to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed Oct. 22, 1910. Serial No. 558,449. (Cl. 22—65.)



1. The method of casting a backing on curved printing plates which consists in securing a plate in a mold and introducing molten metal which is to form the backing of the plate into the interior of the mold, and rotating the mold at a speed sufficient to distribute the metal by centrifugal action against the inner surface of the plate until the metal has set.

2. The method of casting a backing on curved printing plates which consists in securing a plate in a drum and introducing molten metal which is to form the backing of the plate into the interior of the drum and rotating the drum at a speed sufficient to distribute the metal by centrifugal action against the inner surface of the plate until the metal has set.

3. The method of making curved printing plates which consists in securing a plurality of curved plates in a mold, introducing molten metal which is to form the backing of the plates into the interior of the mold, rotating the mold at a speed sufficient to distribute the metal by centrifugal action against the inner surface of the plates until the metal has set, and separating the continuous plate so formed into the different plates.

4. The method of making curved printing plates which consists in securing a plurality of curved plates in a drum, introducing molten metal which is to form the backing of the plates into the interior of the drum, rotating the drum at a speed sufficient to distribute the metal by centrifugal action against the inner surface of the plates until the metal has set, and separating the continuous plate so formed into the different plates.

5. In an apparatus for making curved printing plates, the combination with a mold of means for removably securing a curved printing plate in the mold, and means for rotating the mold to deposit a charge of molten metal introduced therein on the back of the plate.

[Claims 6 to 13 not printed in the Gazette.]

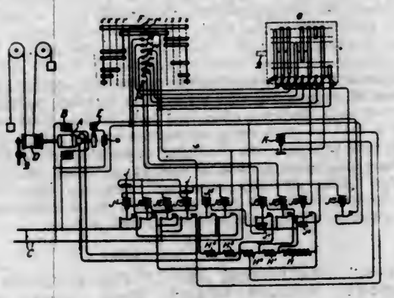
1,028,331. VEHICLE-TIRE. WILLIAM J. CUNNINGHAM, Philadelphia, Pa. Filed May 23, 1911. Serial No. 628,959. (Cl. 152—37.)

1. In a spring-wheel, an inner and an outer rim, one of said rims having an annular lug-member, and springs between said rims and each spring consisting of a wire doubled upon itself to form a loop secured to one rim, coils, and curved free ends slidably fitted through an opening in the lug-member of the other rim.



2. In a spring wheel, an inner and an outer rim, one of said rims having an annular lug-member, and springs between said rims and each spring consisting of a wire doubled to form a loop secured to one rim, coils having portions extending between the limbs of the loop, and curved free ends extending between portions of the coils and slidably fitted in an opening in the lug-member of the other rim.

1,028,332. AUTOMATIC MOTOR CONTROL. MAXWELL W. DAY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 15, 1909. Serial No. 507,843. (Cl. 172—152.)



1. In combination, an electric motor, a load driven thereby, a limit switch for automatically connecting said motor for dynamic braking, and automatic means responsive to a predetermined reduction in motor speed for changing the motor connections from braking connections to low speed driving connections.

2. In combination, an electric motor, a load driven thereby, a limit switch for automatically connecting said motor for dynamic braking, and an electromagnetically controlled switch responsive to a predetermined drop in the motor armature voltage for changing the motor connections from braking connections to low speed driving connections.

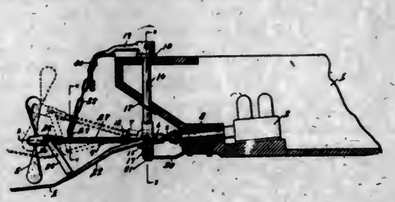
3. In combination, an electric motor, a load driven thereby, a limit switch for automatically establishing connections for retarding the motor, and means operative upon a predetermined reduction in speed for controlling the retarding connections and establishing driving connections.

4. In combination, an electric motor, a load driven thereby, a limit switch for short circuiting the motor armature through a resistance, and automatic means responsive to a predetermined reduction in motor speed for controlling the short circuiting connections and establishing driving connections.

5. In combination, an electric motor, a load driven thereby, a limit switch for automatically establishing connections for retarding the motor, and means responsive to a predetermined reduction in motor speed for controlling the retarding connections and establishing low speed driving connections.

[Claims 6 to 12 not printed in the Gazette.]

1,028,333. PROPELLER. EDWARD B. DESENBERG, Kalamazoo, and EDWARD S. PILSWORTH, Battle Creek, Mich. Filed Sept. 5, 1911. Serial No. 647,737. (Cl. 115—35.)



1. The combination with a boat, of a propeller; a propeller shaft comprising an engine section and a propeller section, a universal joint connecting said shaft sections, the propeller section being connected to said universal joint by a slip joint; a vertically disposed steering post having an annular member at its lower end embracing said universal joint and having journals disposed in alinement with the horizontal axial center of said universal joint, the vertical axial center of said joint being in alinement with the said post; an arm on said boat to which the under side of said ring is pivotally secured, the pivot being in axial alinement with the post; a shoe arranged below said propeller, said shoe being provided with forwardly projecting arms mounted on said journals on said post member; a bearing for the rear end of said propeller section of said shaft; upwardly projecting arms on said shoe on which said bearing is mounted; links connecting said bearing to said journals or said post; an arm on the upper end of said post; and a chain connected to said bearing supporting links and adjustably connected to said post arm.

2. The combination with a boat, of a propeller; a propeller shaft comprising an engine section and a propeller section; a universal joint connecting said shaft sections, the propeller section being connected to said universal joint by a slip joint; a vertically disposed steering post having an annular member at its lower end embracing said universal joint and having journals disposed in alinement with the horizontal axial center of said universal joint, the vertical axial center of said joint being in alinement with the said post; a shoe arranged below said propeller, said shoe being provided with forwardly projecting arms mounted on said journals on said post member; a bearing for the rear end of said propeller section of said shaft; upwardly projecting arms on said shoe on which said bearing is mounted; links connecting said bearing to said journals on said post; an arm on the upper end of said post; and a chain connected to said bearing supporting links and adjustably connected to said post arm.

3. The combination with a boat, of a propeller; a propeller shaft comprising an engine section and a propeller section; a universal joint connecting said shaft sections, the propeller section being connected to said universal joint by a slip joint; a vertically disposed steering post having an annular member at its lower end embracing said universal joint and having journals disposed in alinement with the horizontal axial center of said universal joint, the vertical axial center of said joint being in alinement with the said post; an arm on said boat to which the under side of said ring is pivotally secured, the pivot being in axial alinement with the post; a shoe arranged

below said propeller, said shoe being provided with forwardly projecting arms mounted on said journals on said post member; a bearing for the rear end of said propeller section of said shaft; upwardly projecting arms on said shoe on which said bearing is mounted; and links connecting said bearing to said journals on said post.

4. The combination with a boat, of a propeller; a propeller shaft comprising an engine section and a propeller section; a universal joint connecting said shaft sections, the propeller section being connected to said universal joint by a slip joint; a vertically disposed steering post having an annular member at its lower end embracing said universal joint and having journals disposed in alinement with the horizontal axial center of said universal joint, the vertical axial center of said joint being in alinement with the said post; a shoe arranged below said propeller, said shoe being provided with forwardly projecting arms mounted on said journals on said post member; a bearing for the rear end of said propeller section of said shaft; upwardly projecting arms on said shoe on which said bearing is mounted; and links connecting said bearing to said journals on said post.

5. The combination of a boat, of a propeller; a propeller shaft comprising an engine section and a propeller section; a universal joint connection for said shaft sections, a vertically disposed steering post having an annular member at its lower end embracing said universal joint and having journals disposed in alinement with the horizontal axial center of said universal joint, the vertical axial center of said joint being in alinement with the said post; a shoe arranged below said propeller, said shoe being provided with forwardly projecting arms mounted on said journals on said post member; a bearing for the rear end of said propeller section of said shaft carried by said shoe, an arm on the upper end of said post; and a chain adjustably connecting said shoe to said arm.

[Claim 6 not printed in the Gazette.]

1,028,334. PUNCTURE-PROOF TIRE. McROY DE VIESE, Fresno, Cal. Filed Oct. 7, 1911. Serial No. 653,392. (Cl. 152—34.)

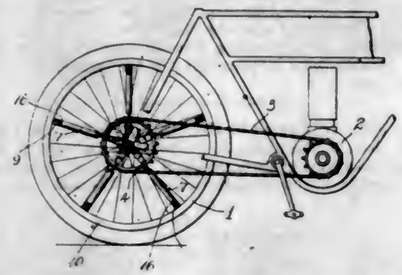


1. In a device of the class described, a primary rim; side plates applied thereto; a secondary rim; resilient means located between the rims and spacing them apart; cover plates connected with the secondary rim and overlapping the side plates; guards secured to the outer faces of the side plates and having portions disposed substantially parallel to the side plates and spaced from the side plates, the cover plates extending beneath said portions of the guards; and flexible members secured along one edge to the side plates, the flexible members extending substantially parallel to the side plates and having their outer edges attached to the cover plates; said portions of the guards serving to house the flexible members completely.

2. In a device of the class described, a primary rim; a secondary rim; means disposed between the rims for normally maintaining the same spaced apart; side plates secured to the primary rim; cover plates located upon the outside of the side plates, the cover plates having angularly disposed tread flanges inclosing the secondary rim; guards secured to the side plates and overlapping the edges of the cover plates; flexible members bound between the guards and the side plates, the guards being recessed to receive the edges of the flexible members, the flexible members being overlapped upon the cover plates and secured thereto; and securing elements extended through the side plates, and loosely through the cover plates, the guards having recesses in which the ends of the securing elements are received.

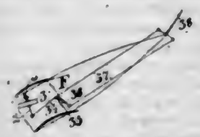
3. In a device of the class described, side plates; a primary rim held between the side plates; a secondary rim inclosing the primary rim circumferentially; resilient means located between the rims, for maintaining the same normally spaced apart; cover plates located upon the outside of the side plates, the cover plates having angularly formed tread flanges, extended across the secondary rim; securing members extended through the side plates, and loosely engaged with the cover plates, to permit an expansion and compression of the resilient means; guards secured to the side plates, and having recesses adapted to receive the ends of the securing members; the flexible members being engaged between the guards and the side plates, the flexible members overlapping the cover plates; reinforcing strips disposed upon the flexible members; and securing elements uniting the reinforcing strips, the flexible members, and the cover plates.

1,028,335. RESILIENT DRIVING MECHANISM FOR MOTOR-CYCLES. ALFRED A. DOVE, Los Angeles, Cal. Filed Feb. 4, 1911. Serial No. 606,497. (Cl. 21—64.)



A resilient driving mechanism for vehicle wheels, comprising in combination with a rim and a hub, of a sprocket wheel loosely mounted upon said hub, plunger rods pivoted to said sprocket wheel, springs for exerting a tension upon said plunger rods, inclosing casings receiving said springs and the outer ends of said plunger rods, the said casings being pivotally connected with the said rim and forming abutments for the springs, and a protecting and guiding covering for said spring and plunger.

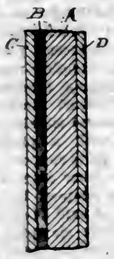
1,028,336. STABILIZING DEVICE FOR FLYING-MACHINES. WILHELM DÜCHTING, Berlin, Germany, assignor to Paul Rath, Major, Krakau, Germany. Filed Dec. 12, 1910. Serial No. 596,921. (Cl. 244—29.)



1. Stabilizing gyroscope for flying machines, consisting of the driving motor arranged as a rotary engine gyrating around the non-rotating crank shaft, the said driving motor suspended by means of a universal coupling from the frame work of the flying machine.

2. Stabilizing gyroscope for flying machines, consisting of the driving motor arranged as a rotary engine, the body of said engine suspended by means of a universal coupling from the frame-work of the flying machine, the crank shaft of said motor prevented from rotating by suitable means.

1,028,337. PLATE OR FILM FOR COLOR PHOTOGRAPHY. GEORGE EASTMAN, Rochester, N. Y., assignor to Eastman Kodak Company, Rochester, N. Y., a Corporation of New York. Filed May 31, 1910. Serial No. 564,972. (Cl. 95—2.)



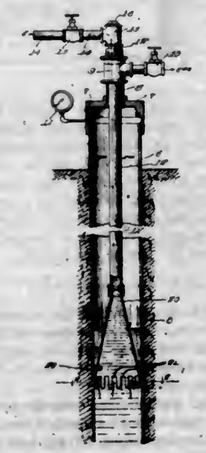
1. A polychromic plate for use in color photography embodying a support having minute differently colored transparent areas, a sensitized emulsion on one side thereof and a ray filter screen embodying removable coloring matter formed on the opposite side.

2. A polychromic plate for use in color photography embodying a support having minute differently colored transparent areas thereon, a sensitized photographic emulsion on one side thereof and a stained or dyed coating of soluble gelatin on the opposite side forming a ray filter.

3. As an article of manufacture, a polychromic film for color photography embodying a flexible support having minute differently colored transparent areas, a sensitized gelatin emulsion applied to one side thereof and a uniformly dyed or stained film of gelatin applied to the side of the support opposite the emulsion and serving as a ray filter.

4. As an article of manufacture, a polychromic plate for use in color photography embodying in a single structure a transparent support having minute differently colored transparent areas, a sensitized emulsion and a uniformly stained transparent coating upon and forming a part of said plate and constituting a ray filter which is located in front of the colored areas during exposure in a camera.

1,028,338. PUMPING MECHANISM. AUGUSTUS ELLSWORTH, Oilcenter, and AMBROSE F. ABBOTT and ROY C. ABBOTT, Bakersfield, Cal. Filed Dec. 15, 1910. Serial No. 597,486. (Cl. 103—8.)



1. In an oil pumping mechanism for wells the combination of an outer casing, a cap member or cover threaded to said casing, a centrally disposed vent device for natural gas attached to said cap member or cover, a lead pipe of relative small diameter passing through said vent device and into said casing down to and within the oil in the well, a flaring cone-shaped mouth at the lower end of said lead pipe, said flaring mouth portion touching or nearly touching the aforesaid casing and serrations or gas passages around the lower end of said flaring or cone-shaped mouthpiece.

2. In an oil pumping mechanism for wells, the combination of an outer casing, means on said outer casing to accumulate within said casing the natural gas arising from the oil in the well, means to register the pressure and means to regulate the amount of said accumulation of natural gas attached to said outer casing, a centrally disposed lead pipe passing within said casing down to and within the oil in the well, an enlarging mouthpiece to said lead pipe touching said outer casing, rectangular-shaped serrations around the lower edge of said enlarged mouthpiece, said serrations extending above and below the portion of the enlarged mouthpiece which touches the outer casing, and said serrations allowing the passage of the natural gas arising out of the oil in said well to said accumulating chamber.

3. In a device of the character described, the combination with a well casing, of a discharge pipe and a gas collecting device mounted upon the lower end of said discharge pipe of substantially conical form, the small end of said collecting device being connected to said discharge pipe, said collecting device being formed to permit upward passage of fluid between its lower edge and the well casing.

4. In a device of the character described, the combination with a well casing, of a discharge pipe, a gas collecting device mounted upon the lower end of said discharge pipe of substantially conical form, the small end of said collecting device being connected to said discharge pipe, and the large end of said collecting device being of substantially equal diameter with the interior of the well casing and being formed to permit the upward passage of fluid between itself and the well casing.

5. In a device of the character described, the combination with a well casing, of a discharge pipe, and a gas collecting device, mounted upon the lower end of said discharge pipe of substantially conical form, the small end of said collecting device being connected to said discharge pipe and the large end of said collecting device being of substantially equal diameter with the interior of the said well casing, the lower end of said collecting device being disposed within a body of liquid within the well casing and being formed to permit the upward passage of some of said liquid past said collecting device.

1,028,339. MILK-PAIL. LUTHER EUSANK, Raymond, Cal. Filed Oct. 27, 1911. Serial No. 657,018. (Cl. 31—14.)



1. A pail-body having a rim of isosceles triangular contour with rounded vertices, the apex being extended to form a long narrow spout to serve as a shield.

2. A pail-body having a rim of isosceles triangular contour, the apex being extended to form a long narrow spout to serve as a shield, and outwardly extended wing-like supports projecting from the rim.

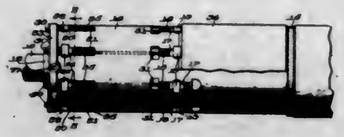
3. A pail-body having a rim of isosceles triangular contour with rounded vertices, the apex being extended to

form a long narrow spout to serve as a shield, and outwardly extended wing-like spouts projecting from the rim.

4. A pail-body having a rim of isosceles triangular contour, the apex being extended to form a long narrow spout to serve as a shield, and downwardly curved outwardly extended wing-like supports projecting from the wing.

5. A pail-body having a rim of isosceles triangular contour, the apex being extended to form a long narrow spout to serve as a shield, and downwardly curved outwardly extended wing-like supports projecting from the wing and spaced from the spout.

1,028,340. PLATE-CLAMPING MECHANISM FOR PRINTING-PRESSES. WILLIAM EVENSEN, Chicago, Ill., assignor to The Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed May 13, 1911. Serial No. 626,984. (Cl. 101—169.)



1. The combination with a plate-support, means carried by said plate-support adapted to engage and hold in position the inner edge of a stereotype plate, slidable clamping means adapted to engage the outer edge of said plate and the inner edge of a second plate, slidable clamping means adapted to engage the outer edge of said second plate, and means for moving said last-named slidable clamping means inward whereby said plates are clamped in position, said second plate serving to space said last-named slidable clamping means away from said first-named slidable clamping means, of alternative means in lieu of said second plate for spacing said first-named slidable clamping means a distance away from said second-named slidable clamping means whereby by the movement of said second-named slidable clamping means inward said first-named plate may be clamped in position independently of said second-named plate.

2. The combination with a plate-support, means carried by said plate-support adapted to engage and hold in position the inner edge of a stereotype plate, slidable clamping means adapted to engage the outer edge of said plate and the inner edge of a second plate, slidable clamping means adapted to engage the outer edge of said second plate, and means for moving said last-named slidable clamping means inward whereby said plates are clamped in position, said second plate serving to space said last-named slidable clamping means away from said first-named slidable clamping means, of alternative means in lieu of said second plate for spacing said first-named slidable clamping means away from said second-named slidable clamping means by a distance approximately equal to the distance which said first-named slidable clamping means is permitted to move away from said first-named clamping means.

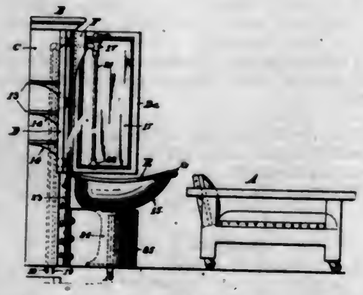
3. The combination with a plate-support, clamping means carried by said plate-support adapted to engage and hold in position the inner edge of a stereotype plate, slidable clamping means adapted to engage and hold in position the outer edge of said plate and the inner edge of a second plate, slidable clamping means adapted to engage and hold in position the outer edge of said second plate, and means for moving said last-named slidable clamping means inward for clamping both of said plates in position, of adjustable means for forcing said slidable clamping means variable distances toward said first-named clamping means whereby the distance by which said first-named and said second-named slidable clamping means are forced to be separated is kept approximately equal to the distance to which said first-named clamping means and said first-named slidable clamping means are free to move from each other.

4. The combination with a plate-support, clamping means carried by said plate-support adapted to engage and hold in position the inner edge of a stereotype plate, slidable clamping means adapted to engage the outer edge of said plate and the inner edge of a second plate, slidable clamping means adapted to engage the outer edge of said second plate, and means for moving said last-named slidable clamping means inward whereby said plates are clamped in position, said second plate serving to space said last-named slidable clamping means away from said first-named slidable clamping means, of a plurality of rods spacing said first-named slidable clamping means away from said second-named slidable clamping means.

5. The combination with a plate-support, clamping means carried by said plate-support adapted to engage and hold in position the inner edge of a stereotype plate, slidable clamping means adapted to engage and hold in position the outer edge of said plate and the inner edge of a second plate, slidable clamping means adapted to engage and hold in position the outer edge of said second plate, and a plurality of rods one of which is screw-threaded through each of said last-named slidable clamping means, of a plurality of rods one of which is connected by a screw-threaded joint with each of said first-named rods, each of said last-named rods having a bearing against one of the first-named slidable clamping means, whereby by the turning of said first-named rods said slidable clamps are moved toward said first-named clamping means, the screw-threads on said rods being such that said second-named slidable clamps are moved approximately twice as far as are said first-named slidable clamps.

[Claims 6 to 10 not printed in the Gazette.]

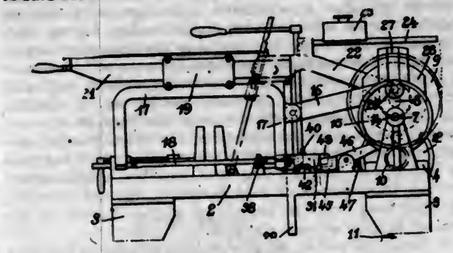
1,028,341. APPARATUS FOR SHAMPOOING LADIES' HAIR. WILLIAM FAERBER, Chicago, Ill. Filed Mar. 25, 1912. Serial No. 686,112. (Cl. 4—2.)



An apparatus for the purpose stated, comprising, in combination, a wall-section, side wings hingedly connected to said wall section at the forward margin thereof, a basin located in front of said wall section, said basin having a long, sloping, forward wall, there being in said forward wall at the upper edge thereof, a cut-out, an elastic cushion located in, and occupying the space of, said cut-out, and a water supply including a three-way faucet and flexible hose, as and for the object stated.

1,028,342. HACKSAW-MACHINE. LEONARD M. FAIRBANKS, New Haven, Conn., assignor to The Henry G. Thompson & Son Company, New Haven, Conn., a Corporation of Connecticut. Filed Oct. 31, 1911. Serial No. 657,764. (Cl. 29—73.)

1. In a hack saw machine the combination of the saw lifting bar having one or more smooth faces and clamping and lifting means for clamping, lifting and releasing said lifting bar, comprising a pair of jaws, one at least of which is provided with a smooth-faced friction button which is free to rock with the bar relative to the jaw for making sliding and clamping contact with the smooth face of said bar.



2. In a hack saw machine the combination of the saw lifting bar having one or more smooth faces and clamping and lifting means for clamping, lifting and releasing said lifting bar, comprising a pair of jaws, one at least of which is provided with a smooth-faced friction button which is free to rock with the bar relative to the jaw for making sliding and clamping contact with the smooth face of said bar, and means for adjusting the button relatively to the jaw to take up wear.

3. In a hack saw machine the combination of the saw lifting bar having one or more smooth faces and clamping and lifting means for clamping, lifting and releasing said lifting bar, comprising a pair of jaws, one at least of which is provided with a smooth-faced friction button which is free to rock with the bar relative to the jaw for making sliding and clamping contact with the smooth face of said bar, and an adjustable screw stud on the jaw upon which stud the button rocks.

4. In a hack saw machine the combination of the saw lifting bar having one or more smooth faces and clamping and lifting means for clamping, lifting and releasing said lifting bar, comprising a pair of jaws, one at least of which is provided with a smooth-faced friction button which is free to rock with the bar relative to the jaw for making sliding and clamping contact with the smooth face of said bar, said jaws and lifting bar having a relative angular movement and the said button being rotatable relatively to the jaws to partake of said angular movement.

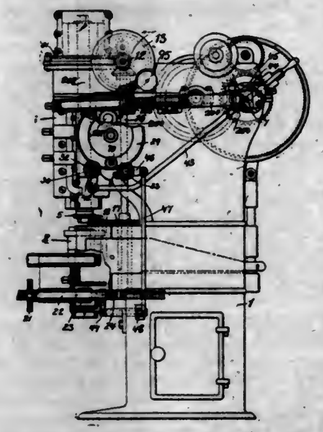
5. In a hack saw machine the combination of saw frame, movable guide bar therefor, means for reciprocating the saw frame, a lifting bar for the guide bar and means for automatically clamping and lifting said lifting bar comprising a pair of jaws and a pair of contact buttons carried by said jaws and having smooth faces bearing adjustably against said bar for making sliding and clamping contact therewith.

[Claim 6 not printed in the Gazette.]

1,028,343. GEAR-SHAPING MACHINE. EDWIN R. FELLOWS, Springfield, Vt., assignor to The Fellows Gear Shaper Company, Springfield, Vt., a Corporation of Vermont. Filed May 1, 1908. Serial No. 430,392. (Cl. 90—9.)

1. A gear generating machine adapted to form the teeth of a gear automatically in a plurality of series of cuts, comprising a work holder, a planing cutter having a series of gear-shaped teeth, mechanism for producing a relative axial movement between the cutter and work holder to cause the former to move across the face of the work, depth-feed mechanism for moving the cutter and work holder relatively together to cause the teeth of the former to progressively enter the work, indexing mechanism for producing a simultaneous lateral feed movement of the cutter and work holder at right angles to both the above-named movements, whereby the forms of gear teeth are generated in the work, a timing member, mechanism for operating said timing member, and means for simultaneously affecting the depth feed mechanism and timing member-operating mechanism to make one operative and the other inoperative, controlled at predetermined times by the depth mechanism and timing member respectively.

2. In a gear generating machine including a planing cutter and work holder, with depth feed mechanism and lateral feed mechanism therefor, an actuator for said depth feed mechanism, and means for causing said actuator to become periodically operative and inoperative, comprising a timing member provided with devices for placing and holding said actuator in an inoperative position, and causing the actuator to become again operative after a predetermined extent of movement of said timing member, and actuating mechanism for the timing member constructed and arranged to be operative when the depth feed actuator is inoperative.



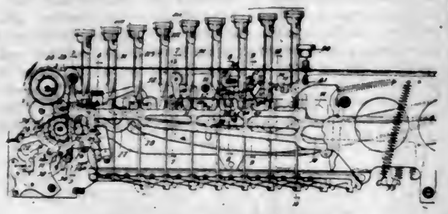
3. In a gear generating machine including a planing cutter and work holder, with depth feed mechanism and lateral feed mechanism therefor, means for causing the cutter to make first a series of roughing cuts and then a series of finishing cuts in the work, comprising an actuator for the depth feed mechanism, a timing device for rendering the said actuator inoperative, mechanism for driving said timing device in synchronism with the lateral feed mechanism, the latter being formed with provisions for keeping the actuator inoperative until the roughing cuts are completed and then causing the actuator to become operative, and means controlled by the depth feed mechanism for again making the actuator inoperative.

4. A gear generating machine adapted to form the teeth of a gear automatically in a plurality of series of cuts, comprising a work holder, a planing cutter having a series of gear-shaped teeth, mechanism for producing a relative axial movement between the cutter and work holder to cause the former to move across the face of the work, depth-feed mechanism for moving the cutter and work holder relatively together to cause the teeth of the former to progressively enter the work, indexing mechanism for producing a simultaneous lateral feed movement of the cutter and work holder at right angles to both the above-named movements, whereby the forms of gear teeth are generated in the work, and means for interrupting the depth-feed mechanism during a cycle of the indexing mechanism, and subsequently causing it to become operative.

5. A gear-generating machine, comprising a cutter and a work-holder, one of which has a reciprocatory motion relatively to the other in a direction parallel to the axis thereof, depth-feed mechanism for progressively moving one toward the other, including an actuator, a timing member actuated first by said depth feed mechanism for disabling the actuator, indexing feed mechanism for laterally shifting the work-holder and cutter, and mechanism operated by said indexing mechanism for driving the timing member, the latter being constructed to hold the depth feed actuator out of operation for a period and subsequently cause it to become operative.

[Claims 6 to 38 not printed in the Gazette.]

1,028,344. CALCULATING-MACHINE. DORR E. FELT, Chicago, Ill. Filed Nov. 28, 1911. Serial No. 662,800. (Cl. 235—82.)



1. In a multiple order key driven calculating machine, the combination with the numeral wheels, and keys for actuating said wheels, of means for normally locking the wheels, such means being released only at the end of complete downstrokes of the keys and during the ensuing up strokes thereof.

2. In a multiple order key driven calculating machine, the combination with the numeral wheels, the keys for actuating said wheels, and the train of mechanism carrying motion from the keys to the wheels, of means for locking said mechanism and said wheels normally, such means being released only at the end of complete downstrokes of the keys and during the ensuing upstrokes thereof.

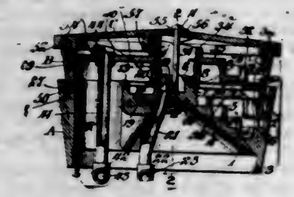
3. In a multiple order key driven calculating machine, the combination with a numeral wheel, and the series of keys actuating the wheel, of means for locking the wheel during down strokes of the keys, such means being releasable only at the end of complete down strokes and remaining released during the ensuing upstrokes.

4. In a multiple order keyboard operating calculating machine, the combination with a numeral wheel, the series of keys actuating the wheel, and the mechanism for carrying motion from the keys to the wheel, of means for locking the wheel during down strokes of the keys, such means being releasable only at the end of complete down strokes of the keys and remaining released during the ensuing upstrokes.

5. In a calculating machine, the combination with the numeral wheels, and keys for actuating said wheels, of means for locking the wheels, such means retaining their normally locking action on the wheels in case of partial strokes upon the keys and until full strokes are given the same keys.

[Claims 6 to 36 not printed in the Gazette.]

1,028,345. OIL-BURNER. LEON FETTY, Hutchinson, Kans. Filed Oct. 10, 1910. Serial No. 586,355. (Cl. 158—92.)



1. An oil burner provided with superposed chambers each having tortuous channels for fluid, the upper chamber being provided with an inlet for water and the lower chamber with an inlet for oil, the two chambers communicating by a passage leading from the water chamber into the oil chamber substantially coincident with the oil inlet to the oil chamber.

2. An oil burner provided with superposed chambers each having tortuous channels for fluid, the upper chamber being provided with an inlet for water and the lower chamber with an inlet for oil, the two chambers communicating by a passage leading from the water chamber into the oil chamber substantially coincident with the oil inlet to the oil chamber, and both chambers having conical portions in which the tortuous channels are formed, the water chamber being shallower than the oil chamber.

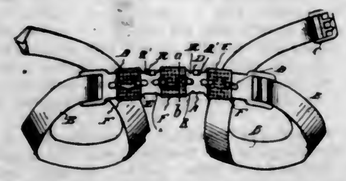
3. An oil burner having superposed chambers each with an intermediate conical portion provided with a continuous channel leading indirectly from the apex of the cone toward the bottom of the chamber, the upper chamber discharging into the lower chamber at the apex of the cone in said lower chamber, and each chamber having means for the introduction of fluid thereinto and the directing of such fluid into the upper end of the channel in the conical portion of said chamber.

4. In an oil burner, an oil evaporating member having a bottom formed with an intermediate conical portion and surrounding walls, said conical portion having concentric channels formed therein, each channel discharging into the next lower channel at a point remote from the discharge end of the latter, the apex part of the conical portion being provided with a distributing plateau and a duct leading thereto.

5. In an oil burner, an oil evaporating member having a bottom formed with an intermediate conical portion and surrounding walls, said conical portion having concentric channels formed therein, each channel discharging into the next lower channel at a point remote from the discharge end of the latter, the conical portion having an axial passage with distributing ducts leading to the channels, and a duct entering the axial passage at one side thereof.

[Claims 6 to 22 not printed in the Gazette.]

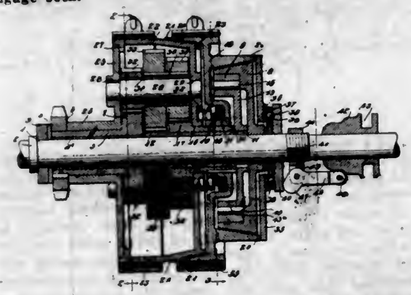
1,028,346. BELT. DAVID FRANKS, Glasgow, Scotland. Filed May 2, 1910. Serial No. 558,938. (Cl. 241—10.)



A garment retainer comprising in combination, a girth, an elongated strip carried thereby, a plurality of friction pads disposed on one face of said strip in spaced apart relation to each other, adapted to engage a portion of a garment, and extending beyond the upper margin of the said strip, and a plurality of devices adapted for connection to a second garment and including hooks for engagement with said strip along its upper margin between said friction pads, and having their ends also lying therebetween, the relative thickness of said hooks and friction pads being such that the latter protrude beyond the former at the face of the strip.

1,028,347. VARIABLE-SPEED PLANETARY GEARING. EMIL GNOETH, Madisonville, Ohio. Filed July 3, 1911. Serial No. 636,586. (Cl. 74—34.)

1. In a variable speed planetary gearing, the combination with the power shaft, the driven element having a spur gear, a planet carrier inclosing the latter, a plurality of shafts in the carrier, a set of planet gears on each shaft one of which meshes with said spur gear, an inner sleeve loose on the power shaft and having a pinion meshing with the largest planet gear, and an outer sleeve loose on the inner sleeve and having a pinion meshing with the medium planet gear; of a disk fast on the inner sleeve and having a flange constituting the inner member of the low speed clutch, a disk fast on the power shaft and having a cone constituting the inner member of the medium speed clutch, mechanism within the cone and coacting with said flange to make up the low speed clutch, a plate splined on the outer sleeve and having oppositely projecting flanges, one of which coacts with said cone to make up the medium speed clutch and the other of which forms the outer member of the high speed clutch, the casing of said carrier constituting the inner member of the latter, a brake applicable to said carrier, a brake applicable to said plate, and manually controlled means for adjusting said plate and its flanges so as to engage the two members of the medium speed clutch or those of the high speed clutch, or to simultaneously disengage both.



2. In a variable speed planetary gearing, the combination with the power shaft, the driven element having a spur gear, a planet carrier comprising a casing having a conical portion constituting the inner member of the high speed clutch, a plurality of shafts in the carrier, a set of planet gears on each shaft one of which meshes with said spur gear, an inner sleeve loose on the power shaft and having a pinion meshing with the largest planet gear, and an outer sleeve loose on the inner sleeve and having a pinion meshing with the medium planet gear; of a disk fast on the inner sleeve and having a flange constituting the inner member of the low speed clutch, a disk fast on the power shaft and having a cone constituting the inner member of the medium speed clutch, mechanism within the cone and coacting with said flange to make up the low speed clutch, a plate splined on the outer sleeve and having oppositely projecting flanges, one of which coacts with said cone to make up the medium speed clutch and the other of which has an inclined inner wall coacting with the conical portion of said carrier to make up the high speed clutch, a brake for the carrier, a separate brake for said plate, and manually controlled means for adjusting said plate and its flanges so as to engage the two members of the medium speed clutch or those of the high speed clutch, or to simultaneously disengage the members of both clutches.

3. In a variable speed planetary gearing, the combination with the power shaft, the driven element having a spur gear, a planet carrier comprising a casing having a conical portion constituting the inner member of the high speed clutch, a plurality of shafts in the carrier, a set of planet gears on each shaft one of which meshes with said spur gear, an inner sleeve loose on the power shaft and having a pinion meshing with the largest planet gear, and an outer sleeve loose on the inner sleeve and having a pinion meshing with the medium planet gear; of a disk fast on the inner sleeve and having a flange constituting the inner member of the low speed clutch, a disk fast on the power shaft and having a cone constituting the inner member of the medium speed clutch, a ring fast within the cone, mechanism carried by the ring and coacting with said flange to make up the low speed clutch, a plate splined on the outer sleeve and having oppositely projecting flanges, one of which has an inclined inner wall coacting with said cone to make up the medium speed clutch and the other of which has an inclined inner wall coacting with the conical portion of the casing to make up the high speed clutch and a cylindrical outer wall; a brake band surrounding the latter, a second brake band surrounding the planet casing, means for setting said brake bands independently, and manually controlled means for adjusting said plate and its flanges so as to engage the two members of the medium speed clutch or those of the high speed clutch or to simultaneously disengage the members of both clutches.

4. In a variable speed planetary gearing, the combination with the power shaft, the driven element having a spur gear, a planet gear carrier inclosing the latter, a plurality of shafts in the carrier, a set of planet gears on each shaft one of which meshes with said spur gear, an inner sleeve loose on the power shaft and having a pinion meshing with the largest planet gear, and an outer sleeve loose on the inner sleeve and having a pinion meshing with the medium planet gear; of a disk fast on the inner sleeve and having peripheral notches which are deeper at one end that at the other, a roller in each notch, yielding means forcing it normally toward the shallower end thereof, a disk fast on the power shaft and having a cone constituting the inner member of the medium speed clutch, a ring fixed within the cone and coacting with said rollers to make up the low speed clutch, a plate splined on the outer sleeve and having oppositely projecting flanges, one of which coacts with said cone to make up the medium speed clutch and the other of which forms the outer member of the high speed clutch, the casing of said carrier constituting the inner member of the latter; means for retarding the rotation of said carrier, independent means for retarding rotation of said plate, and manually controlled means for adjusting said plate and its flanges so as to engage the two members of the medium speed clutch or those of the high speed clutch, or to simultaneously disengage the members of both clutches.

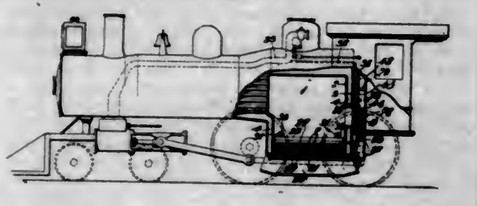
5. In a variable speed planetary gearing, the combination with the power shaft, the driven element having a spur gear, a planet carrier inclosing the latter, a plurality of shafts in the carrier, a set of planet gears on each shaft, one of which meshes with said spur gear, an inner sleeve loose on the power shaft and having a pinion meshing with the largest planet gear, and a second sleeve loosely surrounding the shaft and having a pinion meshing with the medium planet gear; of a disk fast on one sleeve and having a flange provided with peripheral notches which are deeper at one end than at the other and are provided in their deeper ends with sockets, a roller disposed in each notch, a spring-pressed pin disposed in each socket and bearing the roller toward the shallower end of the notch, a disk fast on the power shaft and having a flange constituting the inner member of the medium speed clutch, a ring fixed within the flange and coacting with said rollers to make up the low speed clutch, a plate splined on the other sleeve and having oppositely projecting flanges which form the outer members of the medium and high speed clutches, the casing of said carrier constituting the inner member of the latter clutch; means for retarding the rotation of said carrier, independent means for retarding the rotation of said plate, and manually controlled means for adjusting said plate and its flanges so as to engage the two members of the medium speed clutch or those of the high speed clutch, or to simultaneously disengage the members of both clutches.

[Claims 6 to 13 not printed in the Gazette.]

1,028,348. SMOKE AND GAS CONSUMER FOR LOCOMOTIVES. DANIEL GOFF, Millville, N. J., assignor to Goff Gravity Boiler Feed Company, Camden, N. J., a Corporation of New Jersey. Filed Sept. 30, 1910. Serial No. 584,657. (Cl. 110—61.)

1. In a device of the character stated, a locomotive boiler, a fire box therefor, said fire box comprising a plurality of horizontally disposed grate bars, a plurality of vertically disposed grate bars oppositely disposed on two sides of said fire box, means to discharge steam from the boiler through said latter grate bars, furnace doors for said fire box, means for discharging an auxiliary supply of steam above said grate bars and means for controlling the supply of steam to said discharge means.

2. In a device of the character stated, a locomotive boiler, a fire box therefor, said fire box comprising a plurality of horizontally disposed grate bars, a plurality of vertically disposed grate bars oppositely disposed on two sides of said fire box, means to discharge steam from the boiler through said latter grate bars, means for discharging an auxiliary supply of steam above said grate bars, furnace doors for said fire box, and means controlled by the movement of said furnace doors for controlling the supply of steam to said discharge means.



3. In a device of the character stated, a locomotive boiler, a fire box therefor comprising a plurality of horizontally disposed grate bars, a plurality of vertically disposed grate bars on opposite sides of said horizontally disposed grate bars and spaced from the wall of said fire box, steam conduits having openings therein adapted to discharge steam through said latter grate bars, a damper located in each space back of said vertically disposed grate bars and adapted to be moved to a position between said vertically disposed grate bars and said steam conduits to control both the passage of the steam and of air through said bars, and means to control a supply of steam to said conduits.

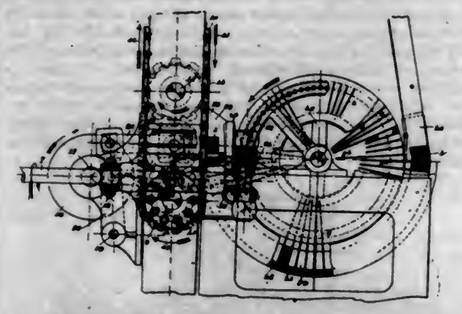
4. In a device of the character stated, a locomotive boiler, a fire box therefor, said fire box consisting of a plurality of horizontally disposed grate bars, a plurality of vertically disposed pivotally mounted grate bars at opposite sides of said horizontally disposed grate bars, said bars being secured together, whereby each set may be swung as a unit toward the center of said fire box, a damper supported in the rear of each unit of vertically disposed grate bars, steam conduits having perforations therein adapted to discharge steam through said vertical grate bars, furnace doors for said fire box, and means for controlling the supply of steam to said conduits.

5. In a device of the character stated, a locomotive boiler, a fire box therefor, said fire box consisting of a plurality of horizontally disposed grate bars, a plurality of vertically disposed pivotally mounted grate bars at opposite sides of said horizontally disposed grate bars, said bars being secured together, whereby each set may be moved as a unit, a damper supported in the rear of each unit of vertically disposed grate bars, steam conduits having perforations therein adapted to discharge steam through said vertical grate bars, furnace doors for said fire box, means controlled by the movement of said furnace doors for controlling the supply of steam to said conduits, and means to direct a current of air through said grate bars.

[Claims 6 to 16 not printed in the Gazette.]

1,028,349. MACHINE FOR MEASURING OFF AND PACKING MATCHES IN BOXES, &c. HENRY ALFRED GSELL, Paris, France. Filed Feb. 27, 1912. Serial No. 680,173. (Cl. 144—61.)

1. In a machine of the class described, the combination with the endless chain of match-bars, wheels around which passes said chain, means for actuating said wheels intermittently and suitable devices for pushing matches out from the chain bars; of a plurality of movable slides, a suitable carrier for said slides, arranged to move the latter in front of the chain of match-bars, means for pushing the slides outwardly below the matches before they are pushed out from the bars, means for holding the discharged matches between two adjacent slides in their outer positions, and means for moving the slides inwardly at the desired place, substantially as set forth.



2. In a machine of the class described, the combination with the endless chain of match-bars, wheels around which passes said chain, means for actuating said wheels intermittently and suitable devices for pushing matches out from the chain bars; a revolving drum, arranged in front of said chain, a plurality of radial slides, movable in radial directions in said drum, means for moving said slides outwardly below the match-bars for the reception of matches from said bars, means for holding matches between two adjacent slides during the revolution of the drum, means for moving the slides inwardly when it is desired to discharge the matches therefrom, and means for revolving the drum intermittently, substantially as set forth.

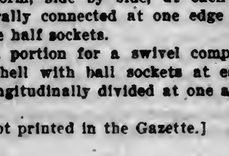
3. In a machine of the class described, the combination with the endless chain of match-bars, wheels around which passes said chain, means for actuating said wheels intermittently and suitable devices for pushing matches out from the chain bars; a revolving drum, arranged in the front of said chain, a plurality of radial slides, movable in radial directions in said drum, means for moving said slides outwardly below the match-bars for the reception of matches from said bars, a suitable casing around the lower half of the drum, arranged so that the outwardly moved slides extend to the inner side of said casing, means for moving the slides inwardly when it is desired to discharge the matches therefrom, and means for revolving the drum intermittently, substantially as set forth.

4. In a machine of the class described, the combination with the endless chain of match-bars, wheels around which passes said chain, means for actuating said wheels intermittently and suitable devices for pushing matches out from the chain bars; a revolving drum, arranged in the front of said chain, a plurality of radial slides, movable in radial directions in said drum, means for moving said slides outwardly below the match-bars for the reception of matches from said bars, a suitable casing around the lower half of the drum arranged so that the outwardly moved slides extend to the inner side of said casing, suitable partitions in said casing for measuring off the matches according to packing boxes, means for moving the slides inwardly when it is desired to discharge the matches therefrom, and means for revolving the drum intermittently, substantially as set forth.

1,028,350. ELECTRIC SWITCH. MONROE GUEST, Hartford, Conn., assignor to Hart & Hegeman Manufacturing Company, Hartford, Conn., a Corporation of Connecticut. Filed Sept. 20, 1910. Serial No. 582,835. (Cl. 175—293.)

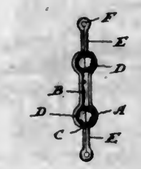
1. In an electric switch of the push button type, a frame plate having a plurality of stops, a pole plate mounted on the spindle and connected to move with said poles, swinging pawls pivoted on the pole plate and adapted to engage the stops on the frame plate, a pinion mounted on the spindle and adapted for movement independently of said pole plate and poles, a spring connecting said pinion with said poles, a knock-off lug on said pinion adapted for engagement with said pawls, a driving connection between the push buttons and said pinion.

2. In an electric switch of the push button type, the combination with a supporting bar, a frame plate, the latter having two sets of oppositely disposed stops, a spindle supported in the frame plate, the poles mounted on said spindle, a pole-plate connected to move with said poles, pawls pivotally supported on said pole-plate, one adapted for coöperation with one set of said stops, and one with the other set, an operating member mounted on the spindle, a spring connecting said operating member with said poles, a knock-off lug on said operating member adapted for coöperation with said pawls, a driving connection between the push buttons and said operating member.



3. In an electric switch of the push button type the combination with the supporting bar, a frame plate and spindle supported by the frame plate, the frame plate having a plurality of stop shoulders on each side of said spindle, poles mounted on the spindle, a pole-plate mounted on the spindle and connected to move with said poles, pawls pivoted on said pole-plate, a spring tending to hold said poles in engagement with the stops on the frame plate, and an operating member mounted on the spindle and adapted for movement independently of the poles, a spring connecting said operating member and said poles, a knock-off lug actuated by said member and adapted to engage said pawls to disengage them from said stops, and a driving connection between said operating member and push buttons.

1,028,351. SWIVEL. CLIFFORD GUISE, Toronto, Ontario, Canada. Filed Mar. 23, 1911. Serial No. 616,454. (Cl. 59—95.)



1. In a swivel two ball portions each comprising a stem and a ball in combination with a dumb-bell shaped socket portion adapted to engage the two balls and formed of two longitudinal halves integrally connected at one side of each end.

2. A blank for forming the ball portion of a swivel comprising two hemispheres connected by a bar adapted to form a stem when bent in the middle to bring the hemispheres together to form a ball.

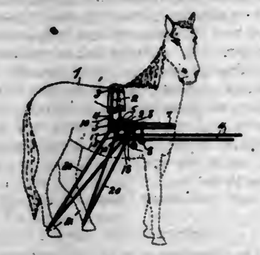
3. A blank for forming the socket portion of a swivel stamped to form side by side two half sockets integrally connected at one edge.

4. A blank for forming the socket portion of a swivel stamped to form, side by side, at each end, two half sockets integrally connected at one edge and half tubes connecting the half sockets.

5. A socket portion for a swivel comprising a dumb-bell shaped shell with ball sockets at each end of the shell being longitudinally divided at one side from end to end.

[Claim 6 not printed in the Gazette.]

1,028,352. ANIMAL-THROWING DEVICE. CHARLES B. HALSTEAD, Kansas City, Mo. Filed Apr. 13, 1911. Serial No. 620,910. (Cl. 54—71.)



1. In an animal throwing device, a throwing rope adapted to extend across and be supported by an animal's back, two members supported by and through which the rope is adjustable lengthwise, a breast embracing device secured to said members, and two clamping devices respectively supported by said members, the rope having a running connection with said devices and forming between the said devices and said members two loops for respectively engaging the hind legs of the animal, the clamping devices having means by which the rope may be drawn therethrough in one direction for shortening the loops, but which will clampingly engage the rope to prevent its being drawn in the opposite direction.

2. In an animal throwing device, a throwing rope adapted to extend across and be supported by an animal's back, two plates which in the operative position are vertically disposed and which are each provided with two transverse holes through which the rope extends, a breast embracing device secured to said plates, and two clamping devices respectively supported by said plates, the rope having a running connection with said clamping devices and forming between said devices and said plates two loops for respectively engaging the hind legs of the animal, the clamping devices having each means by which the rope may be drawn in one direction for shortening the adjacent loop, but which will clampingly engage the rope to prevent its being drawn in the opposite direction.

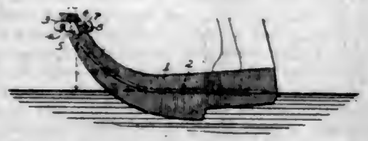
3. In an animal throwing device, a throwing rope adapted to extend across and be supported by an animal's back, two plates which in the operative position are vertically disposed and which are each provided with two transverse holes through which the rope extends, a breast embracing device secured to said plates, two levers pivotally supported at one set of ends by said plates respectively, and two stirrups with which the rope has a running connection and which are pivotally supported by said levers respectively at points between the ends of the levers, the free ends of the levers being adapted to cooperate with the stirrups respectively to clamp the rope to prevent its being drawn in one direction through the stirrups, but which permit the rope to be drawn through the stirrups in the opposite direction, the rope between the plates and the stirrups forming two loops for respectively engaging the hind legs of the animal.

4. In an animal throwing device, a throwing rope adapted to extend across and be supported by the back of an animal, two members supported by and through which the rope is adjustable lengthwise, a breast embracing device secured to said members, two levers pivotally supported at one set of ends by said two members respectively, and two stirrups with which the rope has a running connection and between which and said two members the rope forms two loops for respectively engaging the hind legs of the animal, said two stirrups being pivotally supported by said levers respectively at points between the ends of the levers, the free ends of the levers cooperating with said stirrups respectively to clamp the rope to prevent its being withdrawn in one direction through said stirrups, but which permits it to be drawn in the opposite direction to respectively shorten said loops.

5. In an animal throwing device, a throwing rope, a saddle supporting the rope and through which the rope is adjustable lengthwise, two members supported by the rope at opposite ends of the saddle and through which the rope is adjustable, a breast embracing device secured to said members, and two clamping devices respectively supported by said members, the rope having a running connection with said clamping devices and forming between the clamping devices and said members two loops for respectively engaging the hind legs of an animal, each clamping device having means for clamping the rope to prevent the rope being drawn in one direction therethrough, but which permits the rope being drawn in the opposite direction to shorten the adjacent loop.

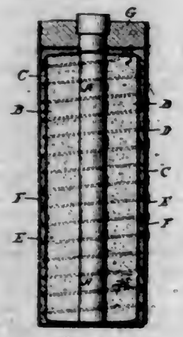
[Claims 6 to 8 not printed in the Gazette.]

1,028,353. ATTACHMENT FOR PLANTERS. PETER F. HANSEN, Quasqueton, Iowa. Filed Jan. 15, 1912. Serial No. 671,152. (Cl. 111—6.)



In combination, a planter-shoe, a pair of spacing-runners located on opposite sides of said shoe and spaced apart therefrom throughout, and having their forward ends bent upwardly to conform to the forward curvature of said shoe, cross-connections between the forward ends of said runners and the forward end of said shoe, comprising alined cross-bars secured to said runners and having oppositely-directed projections adapted to contact with opposite sides of the shoe opposite each other, said projections having alined bolt-holes forward of the shoe and alined horizontal slots in the rear of the shoe, and bolts passed through said holes and slots to engage the forward and rear edges of said shoe, with securing-means therefor, said slots permitting vertical adjustment of said runners along said shoe.

1,028,354. GALVANIC BATTERY. ALBRECHT HEIL, Frankfort-on-the-Main, Germany. Filed Jan. 14, 1911. Serial No. 602,559. (Cl. 204—49.)



1. In a dry battery cell, in combination, a negative element, a depolarizing mass containing a mercury compound, an electrolytic paste having no mercury compound therein when the battery is first made, and a zinc element, the parts being so combined that the mercury compound will be slowly dissolved by the electrolytic paste and pass through the electrolytic paste into amalgamating contact with the zinc element.

2. In a dry battery cell, in combination, an electrolytic paste free of mercury compound when the battery is first made, a negative element, a depolarizing mass therefor moistened with a mixture of a mercury compound and of dissolved salts of the electrolyte, and a zinc element, the parts being so combined that the mercury compound will be slowly dissolved and diffuse itself very gradually through the electrolytic paste into amalgamating contact with the zinc element.

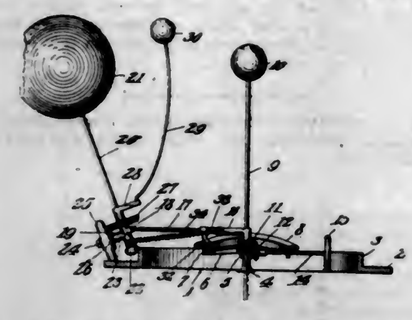
3. In a dry battery cell, in combination, a negative element, a depolarizing mass containing mercuric oxid, an electrolytic paste having no mercury compound therein when the battery is first made, and a zinc element, the parts being so combined that the mercury compound will be slowly dissolved by the electrolytic paste and pass through the electrolytic paste into amalgamating contact with the zinc element.

4. In a dry battery cell, in combination, an electrolytic paste containing no mercury compound when the battery is first made, a negative element, a depolarizing mass therefor moistened with a mixture of mercuric oxid and of dissolved salts of the electrolyte, and a zinc element, the parts being so combined that the mercury compound will be slowly dissolved and diffuse itself very gradually through the electrolytic paste into amalgamating contact with the zinc element.

5. The process of amalgamating a zinc element of a galvanic cell which consists in bringing a mercury compound gradually and in very small quantities into contact with the zinc element during the operation of the cell.

[Claim 6 not printed in the Gazette.]

1,028,355. TELLURIAN. GEORGE T. HUFF, Baltimore, Md. Filed Oct. 26, 1911. Serial No. 656,888. (Cl. 35—3.)



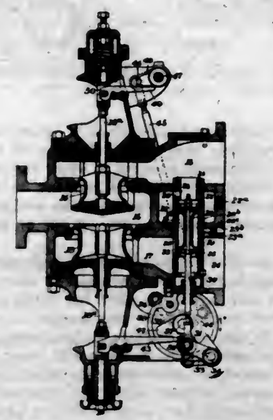
1. A tellurian comprising a track; a sun standard held eccentrically with respect to the track; an arm mounted upon the sun standard to swing around the sun standard and to rock upon its own axis; a head pivoted to the arm for movement in a single plane; an earth shaft journaled in the head, and adapted at one end to engage with the track, to secure a rotation of the earth shaft; a moon bracket; rotatable upon the earth shaft; a rotatable member journaled upon the head and adapted to engage the track; means for operatively connecting the rotatable member and the moon bracket; means for swinging the arm about the sun standard; and means for rocking the arm.

2. A tellurian comprising a track; a sun standard held eccentrically with respect to the track; an arm mounted upon the sun standard to swing around the sun standard and to rotate upon its own axis; a head pivoted to the arm for movement in a single plane; an earth shaft journaled for rotation in the head and adapted to engage the track, to secure a rotation of the earth shaft; a moon bracket rotatable upon the earth shaft; a rotatable member journaled upon the head and adapted to engage the track; means for operatively connecting the rotatable member and the moon bracket; a secondary track inclined at an angle to the plane of the first track; and a finger upon the arm, adapted to ride upon the second track, to rotate the arm.

3. A tellurian comprising a track; a sun standard held eccentrically with respect to the track; an arm mounted upon the sun standard to swing around the sun standard and to rotate upon its own axis; a head pivoted to the arm for movement in a single plane; an earth shaft journaled in the head, and adapted to engage the track, to secure a rotation of the earth shaft; a moon bracket rotatable upon the earth shaft; a rotatable member journaled upon the head and adapted to engage the track; means for operatively connecting the rotatable member and the moon bracket; a second track inclined at an angle to the first track; a finger upon the arm, adapted to ride upon the second track to rotate the arm; spring means for holding the finger upon the second track; and spring means for tilting the head, to hold the earth shaft engaged with the first track.

4. A tellurian comprising a base including angularly disposed primary and secondary tracks; a sun standard held eccentrically with respect to the tracks; an arm mounted upon the sun standard to swing around the sun standard and to rock upon its own axis; a head pivoted to the arm; an earth shaft journaled in the head and adapted at one end to engage with the secondary track to secure a rotation of the earth shaft; a moon bracket rotatable upon the earth shaft; a rotatable member carried by one side of the head, and adapted to move along the primary track; intermeshing pinions upon the rotatable member and upon the moon bracket; and means for rocking the arm automatically, as it swings about the sun standard.

1,028,356. STEAM HYDRAULIC PRESS. LORENZ IVERSEN, West Homestead, Pa., assignor to Mesta Machine Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed June 21, 1911. Serial No. 634,619. (Cl. 138—16.)



1. In a steam-hydraulic press or the like having a press-head and pull-back or left cylinder, a control valve comprising a valve sage having ports therein, a ported member movable within the cage, a valve member movable relatively to the ported member, and also arranged to actuate the said member at the limits of its movement, and a single actuating device connected to the valve member, said valve member, ported member and cage being constructed and arranged in different positions of the parts to control the raising and lowering of the press-head; substantially as described.

2. In a steam-hydraulic press or the like, having an intensifier cylinder, a hydraulic cylinder, a relief device for said cylinder and pull-back or lift cylinders, of a controlling valve device for the pull-back cylinders and the relief device for hydraulic cylinder, said device comprising a valve cage or casing having ports in communication with the ports leading to said cylinders, a member movable within the cage or casing and having coöperating ports, a movable valve movable relatively to said member and also adapted to actuate the same, and means for actuating the valve; substantially as described.

3. In a steam-hydraulic press or the like, the combination with an intensifier, a hydraulic cylinder, a relief device for said cylinder and pull-back or lift cylinders, of a compound valve device for controlling the pull-back cylinders and the relief device for hydraulic cylinders, said device comprising a cage member having ports therein, a ported member movable within the cage, and a valve member movable relatively to the ported member and also arranged to actuate the said member at the limits of its movement and a single control lever connected to said device to actuate the same, said lever having a direction of movement corresponding to the direction of movement of the press-head; substantially as described.

4. In a steam-hydraulic press or the like, the combination with an intensifier, a hydraulic cylinder, having a relief device and pull-back or lift cylinders, of a controlling valve device for the pull-back cylinders and the relief device of the hydraulic cylinder, said device comprising a valve cage having ports communicating with the supply and exhaust connections of the said cylinders, a sleeve movable longitudinally within the cage and having ports which coöperate with the ports of the cage, said sleeve having an open end communicating with a steam supply connection, a valve member movable within the sleeve and also adapted to move the sleeve, and actuating connections for the valve member; substantially as described.

5. In apparatus of the character described, the combination with a ported valve cage, of a sleeve or bushing member arranged to move longitudinally within the cage and having coöperating ports, a valve member movable longitudinally within the sleeve or bushing member, and also arranged to move said member, the movement of the valve and the sleeve controlling said ports, a rotatable member, actuating connections between the rotatable member and the stem of the valve member, and a lever having an actuating connection with the rotatable member; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,028,357. ILLUMINANT AND METHOD OF PRODUCING THE SAME. JOSEPH HIDY JAMES, Pittsburgh, Pa. Filed Mar. 17, 1911. Serial No. 615,173. (Cl. 48—221.)

1. An illuminant consisting of a mixture of acetylene gas, acetaldehyde vapor, and formaldehyde gas.

2. The method of producing an illuminant consisting in saturating liquid acetaldehyde with formaldehyde gas, charging acetylene gas into the acetaldehyde thus saturated, and then vaporizing said liquid.

1,028,358. SHOTGUN. THOMAS C. JOHNSON, New Haven, Conn., assignor to Winchester Repeating Arms Company, New Haven, Conn., a Corporation. Filed Feb. 9, 1912. Serial No. 676,679. (Cl. 42—76.)

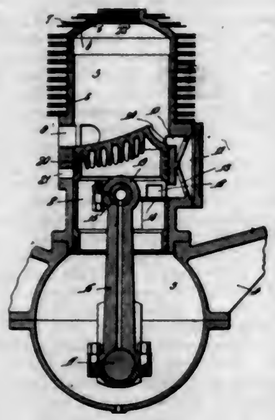


A shot-gun having the walls of the rear portion of the cartridge-chamber of its gun-barrel roughened to be gripped by the metal heads of paper shell cartridges at the instant of firing to prevent the heads from longitudinal rearward movement and separation from the paper portions of the shells.

1,028,359. MEANS FOR COOLING GAS-ENGINES. CHESTER CHARLES JONES, Beatrice, Nebr. Filed Mar. 5, 1909. Serial No. 481,274. (Cl. 123—171.)

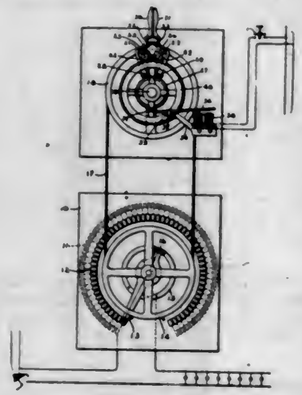
An air-cooled explosion engine including a hollow piston closed at one end, heat radiating studs extending from the

inner or inactive face of the closed end of the piston, a wrist pin disposed diametrically within the piston, a pitman having a rounded head engaging the wrist pin, a deflector extending from the wall of the piston to one side of



and close to the pitman head, said deflector and pitman head coöperating to deflect the gases toward one side portion of the piston and against the lugs, there being an outlet port for the gases within the piston close to and above the deflector.

1,028,360. CIRCUIT-CONTROLLING DEVICE. FRANZ KÄSTNER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Feb. 17, 1908. Serial No. 416,242. (Cl. 175—312.)



1. The combination with a plurality of rheostats, of a drive shaft, operating mechanisms for said rheostats arranged to be driven by said shaft, means whereby each operating mechanism is clutched to the drive shaft by a relative movement in either direction between the mechanism and the shaft, and means for causing said relative movement.

2. The combination with a plurality of rheostats, of a drive shaft, operating mechanisms for said rheostats arranged to be driven by said shaft, means whereby each operating mechanism is clutched to the shaft by a relative movement in either direction between the mechanism and the shaft, and means whereby the mechanism and the shaft are unclutched by stopping the movement of the operating mechanism.

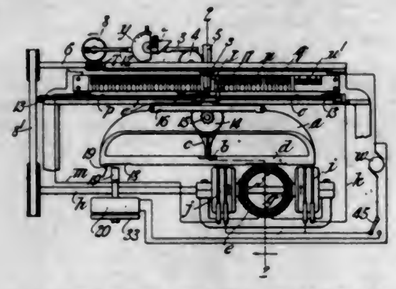
3. The combination with a plurality of rheostats, of a drive shaft, operating mechanisms for said rheostats arranged to be driven by said shaft, means whereby each operating mechanism is clutched to the shaft by a relative movement in either direction between the mechanism and the shaft, means whereby the mechanism and the shaft are unclutched by stopping the movement of the operating mechanism, and electrically controlled means for stopping the movement.

4. The combination with a plurality of rheostats, of a drive shaft therefor provided with a friction disk for each rheostat, operating mechanism for said rheostats each including a pair or friction rollers for locking the disks to the operating mechanism upon the rotation of the disk in either direction, and means for rotating said disks.

5. The combination with a plurality of rheostats, of a drive shaft, operating mechanisms for said rheostats arranged to be driven by said shaft each comprising a clutch member secured to the shaft, a second member having driving conections with a rheostat, means whereby said members are clutched together by a relative movement between them and an electromagnetically-controlled mechanism for uncutching said members.

[Claims 6 to 10 not printed in the Gazette.]

1,028,361. MACHINE FOR PERFORATING MUSIC-SHEETS. JOHN F. KELLY, Pittsfield, Mass. Filed Apr. 13, 1911. Serial No. 620,735. (Cl. 164—115.)



1. In a perforating machine, the combination of a carriage transversely movable to the line of motion of the roll to be perforated, punches to effect the perforation devices to automatically set the carriage in motion and to stop the same when the carriage has reached a predetermined position relative to the width of the roll to be punched.

2. In a machine for perforating master rolls, a carriage, punches, and a die element thereon to effect the perforation of the roll, means to move the carriage transversely to the line of motion of the roll, means to set the carriage in motion in opposite directions, and index means to determine the position the carriage will come to rest.

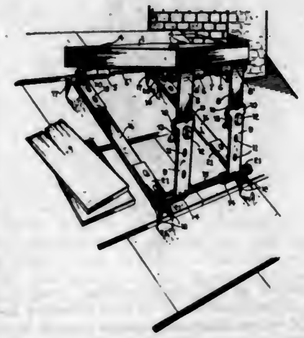
3. In a master roll perforating machine, the combination with a movable carriage, electrical terminal branches insulated from each other, an index device, electrical devices for setting the carriage in motion in opposite directions depending upon the position of the index device relative to said branches.

4. In a master roll perforating machine, the combination with a movable carriage, electrical terminal branches insulated from each other, an index device adapted to move over a note scale, electrical devices for setting the carriage in motion in opposite directions, depending upon the position of the index device relative to said branches, and means on the carriage to register with the index device and the insulation which separates the branches to effect the stopping of the carriage.

5. A master roll perforating machine comprising a carriage operable transversely to the line of motion of the roll to be perforated, a punch and die on the carriage, an index device movable over a note scale, the position of which index device determines the direction the carriage is to be moved prior to the punching operation, and the position in which the carriage will come to rest, and means for effecting the perforation.

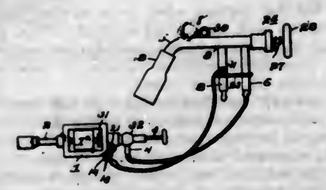
[Claims 6 to 10 not printed in the Gazette.]

1,028,362. SHINGLE-BRACKET. VERSAL D. KING, Greensboro, Vt. Filed Jan. 5, 1911. Serial No. 600,955. (Cl. 20—86.)



A device of the character described, comprising an adjustable platform, curved supporting bars secured to the under side of said platform, the inner widely spaced ends of said supporting bars being secured upon a transverse rod at the inner side of said platform and the other more narrowly spaced ends being secured upon a transverse rod which is carried by the upper sections of adjustable struts which support the outer portion of the platform, and means to connect the lower ends of said adjustable struts with an inner transverse rod secured upon toothed ties which are also secured upon the first mentioned transverse rod.

1,028,363. BLOWPIPE. BERNARD L. KISSEL, Joplin, Mo. Filed Feb. 13, 1911. Serial No. 608,250. (Cl. 158—109.)



1. A blowpipe, consisting of a main tube, a chambered burner connected to the same, said burner having its outlet formed with an internal flange, a second tube traversing the interior of the first-mentioned tube, and an adjustable tip connected to the internal tube and adapted in conjunction with the internal flange to control the fluids.

2. A blowpipe, consisting of a main tube, a chambered burner connected to the same, said burner having its outlet formed with an internal flange, means for adjusting said burner, a second tube traversing the interior of the first-mentioned tube, and an adjustable tip connected to the interior tube and adapted to operate in conjunction with the internal flange to regulate the fluids.

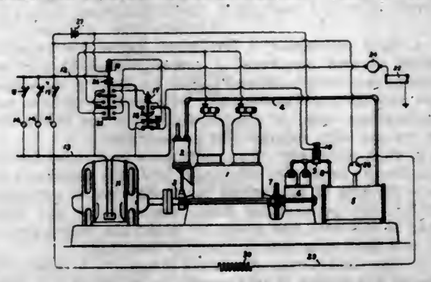
3. A blowpipe, consisting of a main tube, a chambered hood connected to the same, an internal flange on said hood, a second tube traversing the interior of the first-mentioned tube, an adjustable tip on the interior tube to work in conjunction with the flange of the main tube, and a gage on the main tube to regulate the hood and thus set the mixing point.

4. A blowpipe, consisting of a main tube, a chambered burner connected to the same, a second tube in the interior of the main tube, a valve for the same, a regulating screw, and tubes having connection with the first-mentioned tubes.

5. A blowpipe, consisting of a main tube, a nitrous oxid tube in the interior of the main tube, a valve to control the nitrous oxid, a yoke having a burner thereon and adapted to be connected to a nitrous oxid tank or the like, an outlet from the tank extending through said yoke, and a connection between the burner on the yoke and the gas supply tube, and between the nitrous oxid outlet of the yoke and the nitrous oxid tube.

[Claim 6 not printed in the Gazette.]

1,028,364. SELF-STARTING DIRECT-CONNECTED GENERATOR. CHARLES D. KNIGHT, Schenectady, and WALTER O. LUM, Amsterdam, N. Y., assignors to General Electric Company, a Corporation of New York. Filed Oct. 14, 1910. Serial No. 587,031. (Cl. 171—97.)



1. The combination with an electric generator, of an internal combustion engine for driving the same, a source of energy for starting said engine, an electromagnetic device for controlling said energy, a load circuit for said generator, and electromagnetic means for closing the load circuit and simultaneously cutting off the starting energy.

2. The combination with an electric generator, of an internal combustion engine for driving the same, a source of energy for starting said engine, an electromagnetic device for controlling said energy, a load circuit for said generator, and an electromagnetic switch controlled by the potential of said generator arranged to close the load circuit and simultaneously cut off the starting energy.

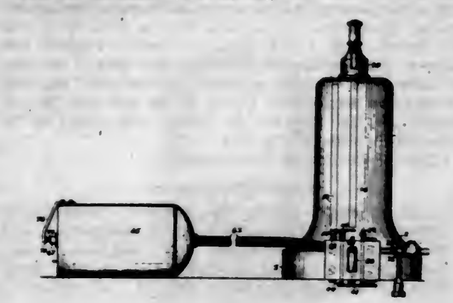
3. The combination with an electric generator, of an internal combustion engine for driving the same, a source of energy for starting said engine, an electromagnetic device for controlling said energy, a load circuit for said generator having translating devices therein, a switch for each translating device, means for applying the starting energy to the engine when one of said switches is closed, and electromagnetic means for closing the load circuit when the potential of the generator reaches a predetermined value and simultaneously cutting off the starting energy.

4. The combination with an electric generator, of an internal combustion engine for driving the same, a source of energy for starting said engine, an electromagnetic device for controlling said energy, a load circuit having translating devices therein, a switch for each translating device, an electromagnetic switch controlled by the potential of said generator for closing the load circuit, a relay arranged to be operated when a translating device switch is closed, and contacts on said relay controlling the electromagnetic switch.

5. The combination with an electric generator, of an internal combustion engine for driving the same, a source of energy for starting said engine, a load circuit having translating devices therein, a switch for each translating device, an electromagnetic switch for closing the load circuit, a relay arranged to be operated when one of said translating device switches is closed and provided with contacts for controlling the electromagnetic switch and applying starting energy to the generator.

[Claims 6 to 11 not printed in the Gazette.]

1,028,365. CARBONATING APPARATUS. ALPHONSO L. KOENIG, San Francisco, Cal. Filed Sept. 7, 1910. Serial No. 580,923. (Cl. 209—1.)



1. In a carbonator, a receptacle, means for supplying liquid to said receptacle, a rubber perforated partition closing said receptacle, and means for passing compressed gas through said perforations into said receptacle, said perforations being of greater size at the gas outlet than at the gas inlet, substantially as described.

2. In a carbonator, the combination of a receptacle for the liquid, means for admitting into said receptacle minute streams of compressed gas, consisting of perforated rubber, the perforations being larger at the gas outlet than at the inlet, and means for supplying compressed gas to said inlet ends, substantially as described.

3. The combination of a liquid receptacle, a rubber disk closing the bottom of said receptacle, means for admitting liquid to said receptacle, and means for admitting compressed gas below said rubber disk, said rubber disk being formed with perforations larger at the upper end than at the lower, substantially as described.

4. The combination of a receptacle having a flaring lower portion, a perforated rubber disk secured in said lower portion, a support above said disk, the upper portion of said support abutting against said flaring portion, means for admitting liquid to said receptacle above said disk, and means for admitting compressed gas to the lower side of said disk, substantially as described.

5. The combination of a liquid receptacle, a perforated rubber disk closing the bottom of said receptacle, and a support for the upper side of said disk comprising concentric rings alternating in depth, means for supplying liquid to said receptacle above said disk and means for supplying compressed gas below said disk, said means having a series of outlets corresponding to the several concentric rings of less depth, substantially as described.

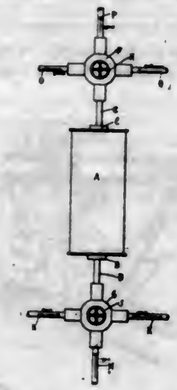
[Claims 6 to 15 not printed in the Gazette.]

1,028,366. APPARATUS FOR PRODUCING HYDROGEN GAS. HOWARD LANE, Birmingham, England, assignor to Internationale Wasserstoff Aktiengesellschaft, Frankfort-on-the-Main, Germany. Filed July 16, 1910. Serial No. 572,411. (Cl. 48—97.)

1. The combination with a retort wherein hydrogen gas may be generated by the alternate oxidation and deoxidation of a metal in the manner described, of a pair of valves both in permanent communication with the retort and respectively adapted to be put into communication at one end with a container for the hydrogen gas generated, a supply of reducing gas, and a supply of air under pressure, and at the other end with a supply of steam under pressure, a gas washing and regenerating apparatus and a discharge outlet, substantially as set forth.

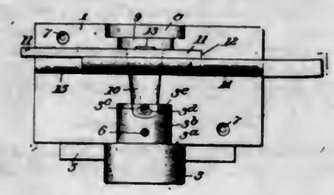
2. The combination of a retort wherein hydrogen gas may be generated by the alternate oxidation and deoxidation of a metal, conduits for conducting air and reducing gas thereinto and hydrogen therefrom, a valve for controlling said conduits, other conduits for conducting steam into said retort and reaction products from said retort, and a valve for controlling said last mentioned conduits.

3. The combination of a retort wherein hydrogen may be generated by the alternate oxidation and deoxidation of a metal, a main conduit at each end thereof, three branch



conduits leading to each main conduit, and a three-way valve at each intersection of branch conduits and a main conduit, said valves being adapted to control the communication of the branch conduits with the main conduits.

1,028,367. CORE-BOX. WILSON K. LEVERING, Baltimore, Md. Filed June 13, 1911. Serial No. 632,978. (Cl. 22—13.)



1. A box for making sand cores for forming eyes in sash weights, said box having a mold cavity, and a bar extending across such cavity, said bar being formed of a pair of superposed sections capable of relative sliding movement the one on the other.

2. A two part core box having half the pattern formed in each part, and a bar extending across the pattern cavity and clamped between the two sections of the box, said bar being supported wholly by such sections.

3. A divided core box having the mold cavity formed partly in each section, and a figure-pattern-carrying bar extending across the mold cavity between the two sections of the box parallel with the line of division thereof.

4. A divided core box having the mold cavity formed partly in each section, and a figure-pattern-carrying bar extending across the mold cavity between the two sections of the box, said bar comprising two superposed independent, separable sections.

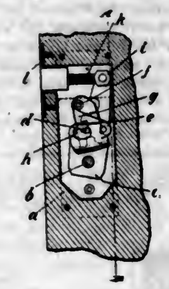
5. A core box having a mold cavity therein, and a bar extending across said cavity, said bar being made up of two unconnected sections, one resting on the other, and supported wholly thereby a figure pattern carried by the upper section, and the end of the lower section projecting beyond the side of the box so that it may be grasped by the operator, whereby, when said lower section is withdrawn, said upper section will fall away.

[Claims 6 to 8 not printed in the Gazette.]

1,028,368. LOCK. MAX LINDNER, Berlin, Germany. Filed Aug. 1, 1910. Serial No. 575,016. (Cl. 70—75.)

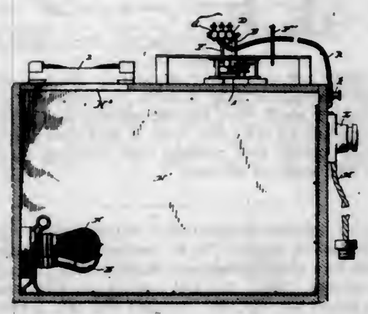
An improved lock comprising in combination with the lock-case having a separate flange, an intermediary lever

pivoted upon the inner side of the face-plate of the lock-case, a nut mounted in the upper end of said intermediary lever, the bolt, the threaded shaft of said bolt screwed into said nut, a stud projecting from said inter-



mediary lever, a lever pivotally mounted on said face-plate and having a notch with which said stud engages, tumblers having each a notch with which engages said stud of the intermediary lever, substantially as described and shown and for the purpose set forth.

1,028,369. PHOTOGRAPHIC-PRINTING APPARATUS. MATTHEW W. LOWDER, Indianapolis, Ind. Filed July 7, 1911. Serial No. 637,270. (Cl. 95—73.)



1. A photograph printing apparatus embodying a timing motor mechanism, an exposure controlling member, means whereby said controlling member is moved by the motor mechanism during the period of exposure, and having a movement independently thereof to terminate the period of exposure, and means for automatically effecting such independent movement of the controlling member.

2. A photographic printing apparatus embodying a timing motor mechanism, a carrier driven by the motor mechanism, an exposure controlling member movably mounted on the carrier, yielding means tending to normally hold the said controlling member in position on the carrier to effect an exposure, and means for effecting a relative movement of the carrier and member to terminate the exposure.

3. A photographic printing apparatus embodying a timing motor mechanism, a carrier driven by the motor mechanism, a switch mounted on said carrier and embodying terminals, one fixed and the other movable with relation to the carrier, a lamp in circuit with said switch, and means for automatically effecting the movement of the movable terminal to control said lamp circuit.

4. A photographic printing apparatus embodying a timing motor mechanism, a carrier driven thereby, an electric switch mounted on said carrier and embodying a terminal fixed with relation to the carrier and a controlling terminal movable with relation thereto, a lamp in circuit with said terminals, a spring for normally holding said movable terminal in contact with its coöperating terminal to complete the circuit, and means for automatically separating said terminals during the movement of the carrier to break the circuit and terminate the exposure period.

5. A photographic printing apparatus embodying actinic and non-actinic lamps, a printing frame in juxtaposition thereto, a timing motor mechanism, a switch embodying relatively fixed and movable contacts, means whereby the switch is moved by the timing motor mechanism, independent circuits including said actinic and non-actinic lamps and switch, and a fixed projection adapted to coöperate with said switch for interrupting the circuit through one of said lamps and establishing the same through the other of said lamps.

[Claims 6 to 8 not printed in the Gazette.]

1,028,370. TELEPHONE ATTACHMENT. THOMAS I. LUDWIG, Sandusky, Ohio. Filed Apr. 26, 1911. Serial No. 623,402. (Cl. 179—147.)



1. In combination with a desk telephone provided with the usual receiver hook, of a receiver holding attachment therefor comprising a clip, a double arm carried by said clip, a bell crank lever pivoted to said arm, a rod operably connected with said bell crank lever, a receiver carrying arm operably connected with said rod, a curved arm operably connected to the double arm and to the receiver carrying arm, and means for operably connecting the bell crank lever with the lower end of said curved arm.

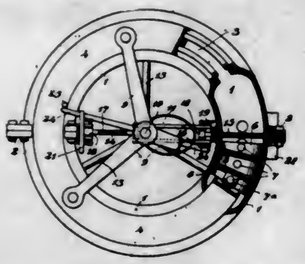
2. In combination with a desk telephone having the usual receiver hook, of a receiver holding attachment therefor comprising a clip adapted to be connected to the pedestal of the telephone outfit, a bell crank lever pivotally mounted in the clip, and having one end projecting upwardly, a rod pivotally connected to said clip and operably connected intermediate of its ends to the bell crank lever, a receiver carrying arm pivoted to the outer end of said rod and projecting upwardly, a curved arm pivoted to the clip and having its other end operably connected to the receiver carrying arm, and means to operate the arm connected to the bell crank lever and to the lower end of the curved arm.

3. In combination with a desk telephone attachment having the usual receiver hook, of a receiver attachment comprising a clip adapted to engage the pedestal thereof, a double arm carried by said clip, a short link pivotally mounted in one end of said arm, a bell crank lever pivotally mounted in the other end of said arm, a rod pivotally connected at one end to the short link and operably connected intermediate of its ends to the upper end of the bell crank lever, a receiver carrying arm operably connected to the free end of said rod, a curved arm operably connected at its upper end to said receiver carrying arm and pivoted to the double arm of the clip, the lower end of said receiver carrying arm being operably connected to the rod, whereby the rod connected to the link and lever is moved to or from the usual receiver hook of the telephone device to lock the same in its lowered position or to move away from the same and permit it to assume its raised position.

4. In combination with a desk telephone provided with the usual receiver hook, of a receiver holding attachment

therefor comprising a support adapted to be connected to the pedestal of the desk telephone, a double arm carried by said support, a bell crank lever pivoted to said arm, a rod operably connected with said bell crank lever, a receiver carrying arm adjustably pivoted to said rod, an operating arm for the receiver carrying arm having its upper end adjustably connected with the receiver carrying arm above its pivotal point with the double arm, said operating arm being adjustably pivoted to said double arm adjacent to its lower end, and means for operably connecting the bell crank lever with the extreme lower end of said operating arm.

1,028,371. ROTARY ENGINE. EDUARDO JOSÉ MARIA MADERO, Buenos Aires, Argentina. Filed Jan. 20, 1911. Serial No. 603,742. (Cl. 121—70.)



1. A rotary engine comprising a casing having an annular chamber provided with inlet and exhaust ports at diametrically opposite points, connected slides to bisect said chamber alternately at said points, a piston in said chamber, a shaft mounted axially of the chamber, means connecting the shaft and piston, and a spring carried by the shaft to operate the slides.

2. A rotary engine comprising a casing having an annular chamber provided with inlet and exhaust ports at diametrically opposite points, connected slides to bisect said chamber alternately at said points, a piston in said chamber, a shaft mounted axially of the chamber, means connecting the shaft and piston, means to hold the slides in one position during the period of travel of the piston from one of said points to the other, means operated by the movement of the piston to release said slides at the end of said period, and a yielding member on the shaft adapted to reverse the position of the slides simultaneously with the releasing of the latter.

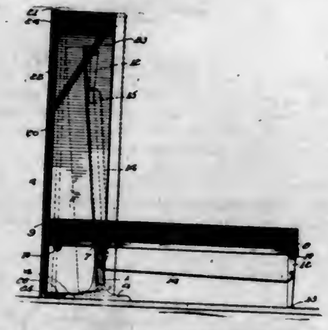
3. A rotary engine comprising a casing having an annular chamber provided with inlet and exhaust ports at diametrically opposite points, connected slides to bisect said chamber alternately at said points, a piston in said chamber, a shaft mounted axially of the chamber, means connecting the shaft and piston, means to hold the slides in one position during the period of travel of the piston from one of said points to the other, means operated by the movement of the piston to release said slides at the end of said period, and an endless normally elliptical spring on the shaft adapted to reverse the position of the slides simultaneously with the releasing of the latter.

4. A rotary engine comprising a casing having an annular chamber provided with admission and exhaust ports at diametrically opposite points, a piston in said chamber, a ring closing said chamber rotatably mounted on the casing and connected to the piston, mechanism for controlling said ports, slides adapted to divide the chamber at said ports, a shaft mounted axially of the chamber, means to lock the slides in one position during the period of travel of the piston from one point to the other, means on the ring to operate the locking means at the end of said period to release the slides, and a spring mounted on the shaft between the slides adapted to reverse the position of the latter simultaneously with the releasing of the slides.

5. A rotary engine comprising a casing having an annular chamber provided with inlet and exhaust ports, a piston in said chamber, slides adapted to divide the chamber alternately at said ports, means to alternately lock the slides in the chamber, a rotatable shaft mounted axially of said chamber and connected to the piston, a spring fixed to the shaft between the slides and adapted to be compressed by one of the slides prior to the passage of the piston past the exhaust port, and means to release the slides simultaneously with said passage, whereby the spring expands and shifts the position of the slides.

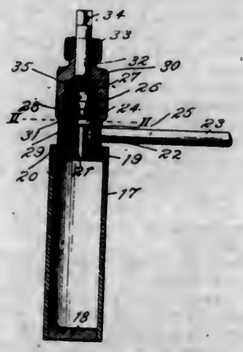
[Claims 6 to 9 not printed in the Gazette.]

1,028,372. FOLDING BED. WILLIAM H. MCCARRY, Pittsfield, Mass. Filed Nov. 25, 1911. Serial No. 662,426. (Cl. 5—37.)



A folding bed comprising supporting brackets having outwardly extending webs thereon and recesses in their lower faces, a shelf, vertical rods carrying said shelf, lateral extensions on the lower ends of said rods adapted to adjustably engage said recesses and diagonal braces to support said shelf, as specified.

1,028,373. PRESSURE-MEDIUM CONTAINER. HARRY M. MCCASLIN, Elmira, N. Y., assignor to American-La France Fire Engine Company, Elmira, N. Y., a Corporation of New York. Original application filed Feb. 21, 1908, Serial No. 417,150. Divided and this application filed June 2, 1909. Serial No. 499,808. (Cl. 220—110.)



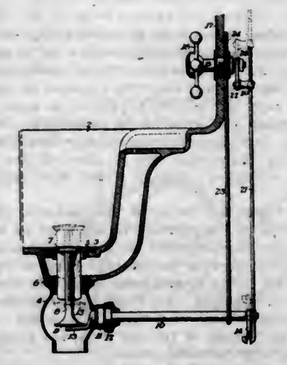
1. A device of the character described, comprising in combination a container for compressed fluid, having a fluid passage, a sealing nut therein having a recess forming a continuation of said fluid passage, and a puncturable sealing diaphragm constituting a control valve carried by said sealing nut and seated and unseated thereby to close and open the container during charging.

2. A device of the character described, comprising in combination a container for compressed fluid, having a fluid passage, a sealing nut therein having a recess forming a continuation of said fluid passage, a puncturable sealing diaphragm controlled by said sealing nut and seated and unseated thereby to close and open the container during charging, a filling cap adapted to be secured upon said container to prevent the escape of charging fluid into the atmosphere during charging, and an operating member for said sealing nut, having its operating head disposed within the filling cap and its operating stem extending through the filling cap to a point without.

3. Apparatus of the character described, comprising in combination, a container for compressed fluid having a fluid passage, a sealing nut having a fluid passage in communication therewith, a sealing diaphragm controlled by said sealing nut to establish or close communication between said passages and a filling cap having an interior chamber communicating with said sealing nut passage and having means of connection with an external source of compressed fluid.

4. Apparatus of the character described, comprising in combination a container for compressed fluid having a fluid passage, a sealing nut having a fluid passage in communication therewith, a sealing diaphragm controlled by said sealing nut to establish or close the communication between said passages, a filling cap having an interior chamber communicating with said sealing nut passage and having means of connection with an external source of compressed fluid and an operating member for said sealing nut having its operating head disposed within said interior chamber of the filling cap and its operating stem extending through the filling cap to a point without, whereby said sealing nut may be operated during the charging of the container to control said sealing diaphragm.

1,028,374. SINK OR BASIN STOPPER. PETER J. MCGUIRE, Wilkinsburg, and HOWARD J. FRONK, Monaca, Pa., assignors to United States Sanitary Manufacturing Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Jan. 8, 1912. Serial No. 669,997. (Cl. 4—24.)



1. A closure for basins or sinks, comprising a stopper having a stem extending downwardly through the outlet from the basin, a crank shaft having a crank below said stem for raising the stopper, means for actuating the crank shaft, and an adjustable bearing for said shaft having an elongated slot for permitting such adjustment, and a screw passing through the slot for securing the link in its adjusted position; substantially as described.

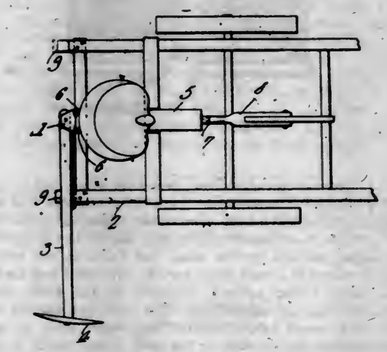
2. A closure for basins or sinks, comprising a stopper, a crank shaft having a crank for raising the stopper, a second crank on the crank shaft, an actuating shaft substantially parallel with the crank shaft, a crank on the actuating shaft, said crank on the actuating shaft being shorter than the second crank on the crank shaft, an operating handle on the actuating shaft, and a link connecting the crank on the actuating shaft and the second crank on the crank shaft; substantially as described.

3. A closure for basins or sinks, comprising a stopper, a crank shaft having a crank for raising the stopper, a second crank on the crank shaft, an actuating shaft substantially parallel with the crank shaft, a crank on the actuating shaft, said crank on the actuating shaft being shorter than the second crank on the crank shaft, an operating handle on the actuating shaft, a link connecting the crank on the actuating shaft and the second crank on the crank shaft, an adjustable link connecting the crank on the end of the actuating shaft and the second crank on the crank shaft, and means for securing the link in its adjusted position; substantially as described.

4. A closure for basins or sinks, comprising a stopper extending downwardly through the outlet of the basin, a crank shaft having a crank for raising the stopper, and also having a second crank, an actuating shaft having a crank at one end thereof, the crank on the end of the operating shaft being shorter than the second crank on the first shaft, a link connecting the crank on the actuating shaft and the second crank on the crank shaft, a handle on the other end of the actuating shaft, and an adjustable support for one end of the crank shaft; substantially as described.

5. A closure for basins or sinks, comprising a stopper, a crank shaft having a crank for raising the stopper, a second crank on the crank shaft, an actuating shaft substantially parallel with the crank shaft, a crank on the actuating shaft, a bearing for the actuating shaft, a link connection between the crank on the actuating shaft and the second crank on the crank shaft, and means for adjusting said link, an adjustable bearing for the crank shaft, and means for securing the adjustable bearing for the crank shaft to the bearing for the operating shaft; substantially as described.

1,028,375. PLANTER-MARKER. JOHN H. MILLER, New Weston, Ohio. Filed Aug. 29, 1910. Serial No. 579,574. (Cl. 111—24.)



In a planter marker the combination with a frame, of a cuff pivotally connected to the central portion of the frame at the rear end thereof, a marker arm pivotally connected to the cuff, a reversible marker at the outer end of said arm, supporting brackets connected to the sides of the frame at the rear end thereof, a guide sleeve supported above the frame, a transversely extending supporting roller journaled within the sleeve at a point between the ends of the sleeve, parallel upstanding guide rollers journaled within the sleeve at the rear end thereof, and a flexible actuating element extending between the guide rollers and over the supporting roller and through the sleeve, one end of said element being attached to the marker arm at a point between the ends of the arm, and means situated on the frame for actuating said element.

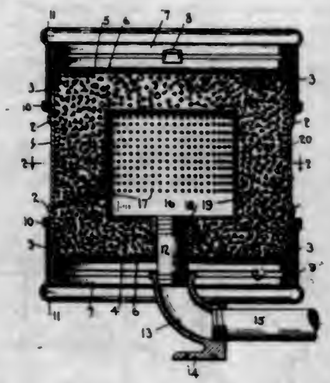
1,028,376. ADJUSTER FOR BLOWPIPE SYSTEMS. PHILIP C. MILLER, Chicago, Ill. Filed Aug. 22, 1910. Serial No. 578,355. (Cl. 193—10.)



1. In a pneumatic conveyer, a pipe having a receiving hood and having a curved elbow therein, a suction means applied to the pipe, and an adjuster slidably seated within the inner curve of the elbow.

2. In a pneumatic conveyer, a suction-fan, a pipe leading to said suction-fan and having one of its ends connected thereto, a funnel-shaped hood, an elbow connecting said hood to the opposite end of said pipe and an adjuster slidably adjustable through the inner curve of said elbow, said adjuster adapted to strengthen the force of suction within the said elbow.

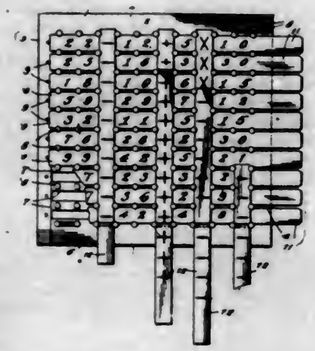
1,028,377. FILTER. STANLEY S. MONTANYE, Johnstown, Pa. Filed July 13, 1911. Serial No. 638,366. (Cl. 210—16.)



1. A filter of the character described comprised a shell having formed therein near its ends inwardly and outwardly projecting beads, perforated disks in said ends next outside the inwardly projecing beads, the lowermost disk being secured to the shell and forming the bottom thereof, asbestos sheets next outside the disks and having their edges folded around the ends of the shell, inner bands holding said edges within the ends and against said disks, and outer bands holding the outer folds of said edges against the outside of the ends, these bands having beads along their edges coacting with the outwardly projecting beads in the shell to protect the edges of the asbestos; combined with a filtered water receptacle within said shell, filtering material between the shell and receptacle, and an outlet.

2. A filter of the character described comprising a shell having formed therein near its ends inwardly and outwardly projecting beads, perforated disks arranged in the upper and lower ends of said shell and engaging said inwardly projecting beads, said lower disk being secured to the shell and forming the bottom thereof, asbestos sheets arranged on the outer sides of said disks, said sheets having their edges folded over the ends of the shell, inner sheet holding bands adapted to be engaged with the edges of the sheets whereby the same are held in engagement with the inner sides of the ends of the shell, clamping bands arranged over the overlapping ends of the sheets whereby said ends are clamped into engagement with the outer sides of the shell and with the outwardly projecting beads therein, annular beads formed on the outer edges of said clamping bands and adapted to protect the folded edges of the asbestos, an inner filtered water receptacle arranged in said shell, said receptacle having its upper portion finely perforated, a filtering material arranged in the space between the receptacle and said shell and the upper and lower disks thereof, a nipple secured in the lower disk of the shell, a threaded socket formed on the bottom of said filtered water receptacle and adapted to be screwed onto the inner end of said nipple whereby the receptacle is supported in said shell, an elbow adapted to be screwed onto the outer end of said nipple, said elbow having a filter supporting foot and a discharge pipe adapted to be screwed into said elbow.

1,028,378. EDUCATIONAL DEVICE. HUGO NEWMAN, New York, N. Y. Filed July 6, 1910, Serial No. 570,553. Renewed Mar. 4, 1912. Serial No. 681,612. (Cl. 35—9.)



1. In an educational device of the character set forth, the combination of a supporting frame, a set of shiftable, removable and interchangeable strips of substantially the same dimensions carrying characters located in horizontal rows, one or more of the rows having strips superimposed one upon another, the strips of the several rows being interchangeable, and one or more rows of vertically shiftable strips carrying characters, one or more of the vertical rows having character carrying strips superimposed one upon another.

2. In an educational device of the character set forth, the combination of a supporting frame, a set of shiftable, removable and interchangeable strips of substantially the same dimensions carrying characters, located in horizontal rows, the strips of the several rows being interchangeable, and a set of shiftable, removable and interchangeable strips of substantially the same dimensions carrying characters and located in vertical rows, the strips of the several rows being interchangeable.

3. In an educational device of the character set forth, the combination of a supporting frame, a set of shiftable, removable and interchangeable strips of substantially the same dimensions, carrying characters, located in horizontal rows, one or more of the rows having strips superimposed one upon another, the strips of the several rows being interchangeable, and a set of vertically shiftable, removable and interchangeable strips of substantially the same dimensions, carrying characters, located in vertical rows, one or more of the vertical rows having character carrying strips superimposed one upon another and the strips of the several vertical rows being interchangeable.

4. In an educational device of the character set forth, the combination of a supporting frame, a set of shiftable, removable and interchangeable strips of substantially the same dimensions carrying characters located in horizontal rows on each side of said frame, the strips on one side having characters differing from those on the other side, and the strips of the several rows and of the two sides being interchangeable, and one or more rows of vertically disposed character carrying strips shiftable transversely of the horizontally disposed strips located on each side of the frame.

5. In an educational device, the combination of a supporting frame, a set of shiftable, removable and interchangeable strips carrying characters and located in horizontal rows, and means for guiding said strips and comprising ways formed by headed pins.

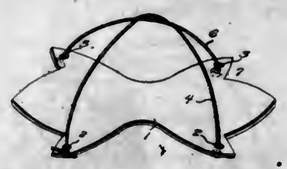
[Claims 6 to 11 not printed in the Gazette.]

1,028,379. SPOKE-TIGHTENER. JOHN W. NORTON, Lockney, and PERRY N. SUMRALL, Quitaque, Tex. Filed Feb. 11, 1911. Serial No. 608,032. (Cl. 21—49.)



In a spoke tightener, a plate having integral ears upstanding from its edges adapted to straddle the rim of a wheel, said plate having a non-circular opening therethrough in alinement with the bore in the rim, a sleeve having a lug extending from one end thereof of the same configuration as the opening through said plate, said sleeve being externally threaded and having the opposite end to the lug cupped, said sleeve having an opening therethrough of the proper size to receive a tenon, a fiber or other washer having one face thereof adapted to fit compactly within the cupped face of the sleeve and a flange to bear against the walls of said cup, and the other face perpendicular to the bore of said washer to receive the shoulder formed by the tenon of a spoke and an outer sleeve adapted to fit over said first mentioned sleeve, said outer sleeve having a non-circular perimeter and one end thereof adapted to bear against said plate.

1,028,380. PUZZLE. KENZO OKAMOTO, Hempstead, N. Y. Filed May 12, 1911. Serial No. 626,797. (Cl. 46—41.)



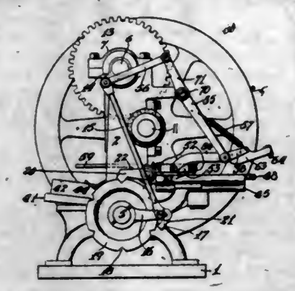
1. A puzzle consisting of a body formed with oppositely located pairs of openings, and a cord or the like threaded at its ends through the openings of each pair, the cords being interlooped and provided at their ends with stops.

2. A puzzle consisting of a body with oppositely located pairs of openings, and a cord or the like threaded at the ends through the openings of each pair, the cords being provided at their ends with stops.

3. A puzzle consisting of a flat body formed with two pairs of openings oppositely located, and a cord threaded at its ends through the openings of each pair, and being provided at their ends with stops.

4. A puzzle consisting of a flat elongated body formed near each corner with an opening, a cord threaded at its ends through the openings at one side of the body and provided at its said ends with stops, and a cord threaded at its ends through the openings at the other side of the body and provided with stops at its ends, the said cords between their ends being looped.

1,028,381. PENCIL-PRINTING MACHINE. THOMAS R. OWEN, Los Angeles, Cal., assignor of one-half to E. W. Peck, Los Angeles, Cal. Filed July 27, 1909. Serial No. 509,900. (Cl. 101—83.)



A manually operated pencil printing machine comprising a pair of standards each having lower intermediate and upper journal bearings and a guide flange, a driven shaft mounted in the lower journal bearings, a pencil carrying cylinder having longitudinal pencil grooves and fixed to the driven shaft, a ratchet wheel fixed to the driven shaft and having notches registering with the longitudinal pencil grooves of the pencil carrying cylinder, a crank arm loosely mounted on the driven shaft and provided with a movable pawl engaging the notches of the ratchet wheel, a stationary pawl engaging the notches of the ratchet wheel, a driving shaft having a gear fixed thereto and a crank arm and mounted in the upper journal bearings, a main shaft mounted in the intermediate journal bearings, a rod connecting the crank arms, a hand-wheel having a hub provided with a pinion meshing with the gear, retaining guiding and pencil seating springs extending over and in close contact with the pencil carrying cylinder, means for supplying pencils to the pencil carrying cylinder, a form carrier having anti-friction rollers and slidable on the guide flanges, springs for supporting and returning the form carrier to normal position, and cams fixed on the driving shaft bearing on the anti-friction rollers for depressing the form carrier.

1,028,382. SAFETY-CAP FOR FOUNTAIN-PENS. GEORGE S. PARKER, Janesville, Wis. Filed July 31, 1909. Serial No. 510,549. (Cl. 120—42.)



The combination with a fountain pen barrel having a nozzle provided with a flat-faced abutment and a pen fixed within said nozzle and extending beyond the abutment, of a cap comprising a sleeve internally threaded at both ends thereof adapted to fit over said nozzle and engage a threaded portion of said barrel, an inner cap carried by said sleeve, said inner cap being threaded in the threads upon the outer end of said sleeve, but spaced from the body portion thereof, said inner cap being adapted to inclose said pen and to contact circumferentially with said flat-faced abutment with a tight frictional contact when said sleeve is engaged with the threaded portion of said barrel, and a knurled portion upon said inner cap extending beyond said sleeve whereby the position of said inner cap within said sleeve may be adjusted.

1,028,383. ELECTRIC HEATER. LEON F. PARKHURST, Pittsfield, Mass., assignor to General Electric Company, a Corporation of New York. Filed Apr. 26, 1909. Serial No. 492,410. (Cl. 219—43.)



1. An electric heater comprising a body to be heated, a flat heating unit located beneath the said body and resilient means for securing the unit to the body.

2. An electric heater comprising a body to be heated, a flat heating unit located beneath the said body and a spring clamp for securing the unit to the body.

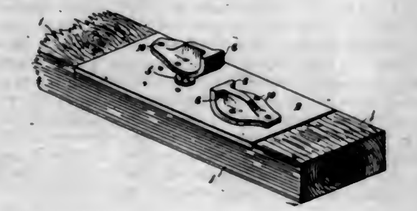
3. An electric heater comprising a fluid receptacle, an auxiliary member rigidly secured to the bottom of said receptacle to reinforce the same, a flat heating unit and means including a resilient device for securing the unit to said member.

4. An electric heater comprising a fluid receptacle, a flat heating unit and yielding clamping means for securing the unit to the bottom of said receptacle.

5. An electric heater comprising a fluid receptacle having a reinforced bottom, a flat heating unit and a resilient device for securing the heating unit to said bottom.

[Claims 6 to 8 not printed in the Gazette.]

1,028,384. RAIL-BRACE. WILLIAM G. PAUL, Navarre, Ohio, assignor of one-half to Michael J. Bowler and August J. Scharlo, Canton, Ohio. Filed Mar. 20, 1912. Serial No. 685,132. (Cl. 239—15.)



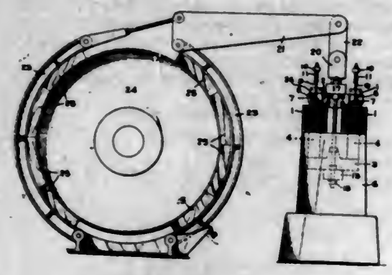
1. In combination, a rail plate having two upright posts thereon, a circular block having pairs of apertures in diametric lines at varying relations to the center adapted to engage the posts, and a rail brace having a circular socket in its bottom adapted to fit the block, with means for clamping the brace and plate together.

2. In combination, a rail plate having two upright posts thereon, a circular block having pairs of apertures in diametric lines at varying relations to the center adapted to engage the posts, and a rail brace having a circular socket in its bottom adapted to fit the block, with slotted apertures in the brace and bolts in the apertures for clamping the brace and plate together.

1,028,385. ELECTROMAGNET. EDGAR PRICE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Dec. 26, 1911. Serial No. 667,926. (Cl. 175—21.)

1. An electromagnet comprising a coil, a stationary armature, two movable magnetic members at the ends of said armature, and a movable core in the shape of a U, said armature being substantially equal in length to the distance between the legs of said U, whereby said legs are capable of passing the ends of said armature and engaging said movable members.

2. An electromagnet comprising a coil, a stationary armature, two movable magnetic members at the ends of said armature, a movable core in the shape of a U, said armature being substantially equal in length to the distance between the legs of said U, whereby said legs are capable of passing the ends of said armature and engaging said movable members, and buffers limiting the movement of said movable members.



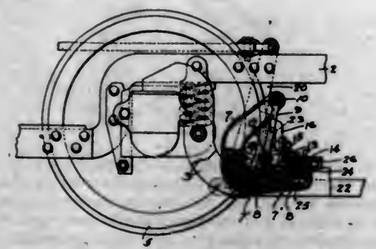
3. An electromagnet comprising a coil, a stationary armature, two movable magnetic members supported and guided at the ends of said armature, and a movable core in the shape of a U, said armature being substantially equal in length to the distance between the legs of said U, whereby said legs are capable of passing the ends of said armature and engaging said movable members.

4. An electromagnet comprising a coil, a stationary armature, two movable magnetic members supported and guided at the ends of said armature, a movable core in the shape of a U, said armature being substantially equal in length to the distance between the legs of said U, whereby said legs are capable of passing the ends of said armature and engaging said movable members, and buffers limiting the movement of said movable members.

5. An electromagnet comprising two coils, a movable, U-shaped core, a stationary armature, two movable magnetic members supported and guided at the ends of said armature, said armature being substantially equal in length to the distance between the legs of said U-shaped core, whereby said legs are capable of moving within said coils, passing the ends of said armature and moving said movable magnetic members when said coils are energized.

[Claims 6 to 8 not printed in the Gazette.]

1,028,386. BRAKE-BEAM SUPPORT. WILLIAM GUNN PRICE, New Castle, Pa. Filed Sept. 30, 1910. Serial No. 584,744. (Cl. 188—24.)



1. The combination with a suitable truck, of wheels, swinging brake-hangers, a brake-beam eccentrically supported by said hangers, and a spring bearing against the lower face of said brake-beam.

2. The combination with a suitable truck, of wheels, swinging brake-hangers, a brake-beam eccentrically supported by said hangers, and a compression spring engaging the lower face of said brake-beam.

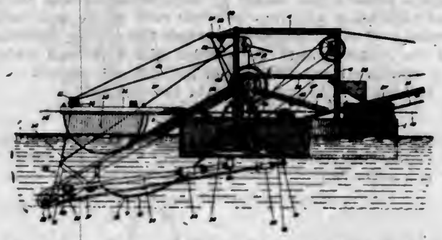
3. The combination of a suitable brake, of wheels, swinging brake-hangers, a brake-beam eccentrically supported by said hangers, and a compression spring in sliding contact with the under side of said brake-beam and supporting the same.

4. The combination of a suitable truck, of wheels, swinging brake-hangers, a brake-beam eccentrically supported by said hangers, and compression springs, said beams having a sliding support on said springs.

5. The combination with a suitable truck, of wheels, a brake-beam and compression springs, said brake-beam having a sliding support on said compression spring.

[Claims 6 to 12 not printed in the Gazette.]

1,028,387. SUCTION-DREDGER. ERASTUS E. ROBERSON, Le Grand, Cal., assignor of two-thirds to William A. Huelsdonk, Le Grand, Cal. Filed Jan. 3, 1910. Serial No. 535,929. (Cl. 37—9.)

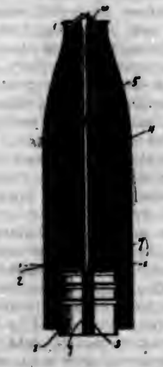


1. A dredger comprising two floats spaced apart, a conveyer pivotally mounted between said floats, a frame hinged to each of said floats and spaced apart, an independent auxiliary float on the outer end of each of said frames, and means connecting said conveyer to said frames as described.

2. A dredger comprising the combination of two floats spaced apart, a projecting frame hinged to each float, an independent auxiliary float on each of said frames, a conveyer pivotally mounted between said floats, means connecting said conveyer with said frames, a suction means operating in connection with said conveyer and a fluid pressure discharge means operating at the base of said conveyer as described.

3. A dredger comprising the combination of two floats spaced apart, an independent frame hinged to each of said floats, an auxiliary float on each of said independent frames a conveyer pivotally mounted between said floats and connected with said frames and means for raising and lowering said conveyer as described.

1,028,388. SUPPORT FOR INCANDESCENT MANTLES. ROBERT RODER, Mishawaka, Ind., assignor to Victor E. Freeman, New York, N. Y. Filed Sept. 13, 1911. Serial No. 649,177. (Cl. 67—102.)



1. A mantle supporting device, comprising a mantle supporting rod, a supporting device for said rod having a guiding engagement with the lower end of the rod, fusible material for securing the rod in a fixed relation with said support, and a stop for limiting the downward movement of said rod, when released by the melting of said fusible material.

2. A mantle supporting device, comprising a mantle supporting rod, a supporting socket for said rod closed at its lower end and having a guiding engagement with said rod, space being provided between the socket and rod, a fusible material located in the space between the socket and rod and normally holding said rod in a position above the bottom of the socket.

3. A mantle supporting device, comprising a mantle supporting rod, a supporting socket for said rod closed at its lower end and having a guiding engagement with said rod, space being provided between the socket and rod, a fusible material substantially filling said socket and holding the rod in a position above the bottom of the same, whereby the said fusible material will be liquefied by the heat of the burner, to permit the rod to descend in said socket, and will act as a dash pot to cushion its descent.

4. A mantle supporting device comprising a burner cap provided with a vertical central socket, a mantle supporting rod having its lower end engaging said socket, said rod and socket being of such cross section as to fit each other with a guiding engagement, and to provide space between them, and a fusible material in said socket for holding said rod in position above the bottom of the socket.

5. A mantle supporting device comprising a burner cap provided with a central vertical cylindrical socket, a mantle supporting rod having its lower end provided with longitudinally disposed ridges engaging the wall of the socket and providing between said ridges, spaces between the rod and the wall of the socket and a fusible material in said socket for holding the rod in position above the bottom of the socket.

1,028,389. METHOD OF TREATING STEEL. AUGUSTE J. ROSSI, Niagara Falls, N. Y., assignor to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Filed Jan. 6, 1911. Serial No. 601,161. (Cl. 75—45.)

1. The method of treating steel which consists in incorporating carbon in quantity sufficient to produce any desired degree of hardness and to the molten product adding titanium in quantity sufficient to prevent any undesired brittleness in the resulting steel product characterized as containing titanium and as unalloyed with other metal, substantially as described.

2. The method of treating steel which consists in incorporating carbon in quantity sufficient to produce any desired degree of hardness and to the molten product adding titanium in quantity sufficient to prevent any undesired brittleness in the resulting steel product characterized as containing titanium less than 0.50 per cent. and as unalloyed with other metal, substantially as described.

1,028,390. WINDING-MACHINE. GEORGE H. RUPLEY, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 25, 1907. Serial No. 364,317. (Cl. 242—25.)

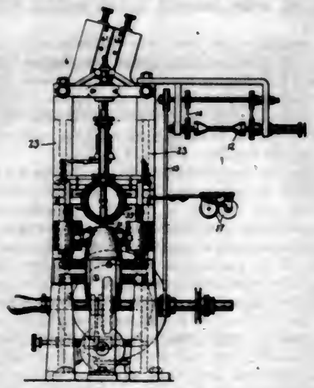
1. A mechanism for winding wire and the like comprising an electric motor the speed of which varies with the load, a winding spindle driven thereby, and means for positively feeding wire to the spindle.

2. A mechanism for winding wire and the like comprising a motor the speed of which varies with the load, a winding spindle driven thereby, and a second electric motor for positively feeding wire to the spindle.

3. A mechanism for winding wire and the like comprising a series wound electric motor, a winding spindle having a direct mechanical driving connection therewith, and means for positively feeding the wire to the spindle.

4. A mechanism for winding wire and the like comprising a series wound electric motor, a winding spindle having a direct mechanical driving connection therewith, and independently driven mechanism for positively feeding the wire to the spindle.

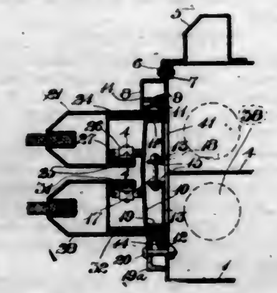
5. A mechanism for winding wire and the like comprising a series wound electric motor, a winding spindle having a direct mechanical driving connection therewith, inde-



pendently driven mechanism for positively feeding the wire to the spindle, and means for varying the feeding speed.

[Claims 6 to 26 not printed in the Gazette.]

1,028,391. METALLIC WINDOW. JOHN F. RUTH, St. Louis, Mo. Filed May 21, 1907. Serial No. 374,930. (Cl. 189—73.)



1. In a window of the class described, a sheet metal frame, cushion plates arranged against the faces of the side portions thereof, there being parallel shoulders formed on said plates adjacent the edges thereof, means whereby said plates are detachably held on the frame, metal sash arranged for operation in the window frame, and there being elongated flanges formed on the side rails of the sash for engaging between the shoulders on the cushion plates and the means which hold said plates on the frame.

2. In a window of the class described, a sheet metal frame, cushion plates arranged against the faces of the side portions thereof, there being parallel shoulders formed on said plates adjacent the edges thereof, metal stops whereby said plates are detachably held on the frame, metal sash arranged for operation in the window frame, there being elongated flanges formed on the side rails of the sash for engaging between shoulders on the cushion plates and the stops which hold said plates on the frame, and anti-friction rollers carried by the side rails of the window sash for engaging the faces of the cushion plates.

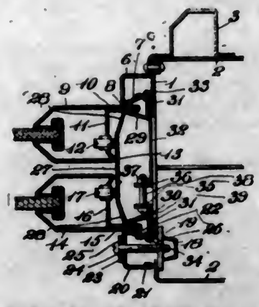
3. In a window of the class described, a sheet metal frame, cushion plates arranged against the faces of the side portions thereof, there being parallel shoulders formed on said plates adjacent the edges thereof, means whereby said plates are detachably held on the frame, metal sash arranged for operation in the window frame, there being elgonated flanges formed on the side rails of the sash for engaging between the shoulders on the cushion plates and the means which hold said plates on the frame, anti-friction rollers carried by the side rails of the frame for engaging the cushion plates, and means whereby the central portions of the cushion plates are adjusted toward the anti-friction rollers.

4. In a window of the class described, a frame, sash operating therein, cushion plates arranged between the side rails of the sash and the frame, means arranged on said cushion plates independent of the frame whereby the central portions of the cushion plates are adjusted inwardly and outwardly, anti-friction rollers carried by the side rails of the window sash, which rollers engage the faces of the cushion plates, and means for holding the cushion plates in place upon the frame.

5. In a window of the class described, a frame, sash arranged for operation therein, cushion plates arranged between the sides of the frame and the sides of the sash, means whereby the central portions of the cushion plates are adjusted to and from the side rails of the sash independent of the frame or sash, and there being openings in the frame beneath the cushion plates through which the counterbalancing weights of the sash are inserted.

[Claims 6 to 34 not printed in the Gazette.]

1,028,392. METALLIC WINDOW. JOHN F. RUTH, St. Louis, Mo. Filed Sept. 10, 1907. Serial No. 392,137. (Cl. 189—73.)



1. In a metal window, the combination with jambs and sash operating therein, of an auxiliary jamb arranged between the sash and the jamb and capable of being bent toward or away from the jamb, and stops located on the jamb, one of which is adjustable in the direction of the bend of the auxiliary jamb.

2. In a window frame, the combination with metallic jambs and a metallic sash operating therein, of an auxiliary jamb capable of being bent toward or away from the jamb, a fixed stop for securing one of the margins of the auxiliary jamb and a movable stop for securing the opposite margin of the auxiliary jamb.

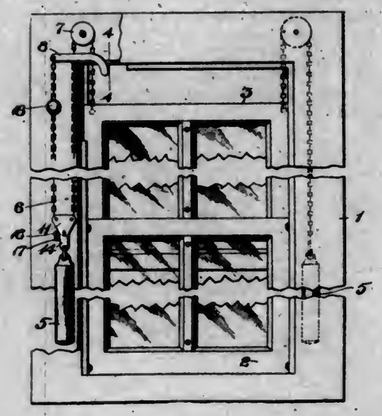
3. In a metallic window, the combination with metallic jambs and a metallic sash operating therein, of an auxiliary jamb capable of being bent toward or away from the jamb, a fixed stop secured to the jamb for holding one of the side margins of the auxiliary jamb and a movable stop secured to the jamb for securing the opposite margin of the auxiliary jamb, said auxiliary jamb and stops serving as a guide for said sash.

4. In a window provided with a frame, sashes and stops located in the frame, there being a longitudinal groove formed in the jamb of said window, a detachable stop, a movable plate carried by the wall of said groove and a screw bolt carried by said plate, whereby the said stop may be adjusted and held in its desired adjustment.

5. In a window provided with a window frame, sashes and stops located in the frame, there being a longitudinal groove formed in the jamb of said window frame, a detachable stop, a movable plate carried by the wall of said groove and a screw bolt carried by said plate located in said groove and protected by said wall, whereby the said stop may be held in position.

[Claims 6 to 29 not printed in the Gazette.]

1,028,393. METALLIC WINDOW. JOHN F. RUTH, St. Louis, Mo. Filed Mar. 26, 1907, Serial No. 364,694. Renewed Jan. 3, 1911. Serial No. 600,528. (Cl. 189—74.)



1. In a window of the class described, a frame, sashes operating therein, a weight operating in the frame, a flexible connection between one sash and the weight, a pulley arranged in the frame over which the flexible connection passes, a fusible means between one end of the flexible connection and the frame, and an automatically operating clutch forming a connection between the weight and the flexible connection.

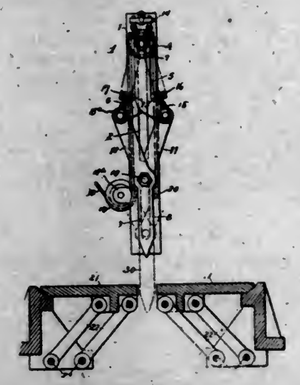
2. In a window of the class described, a frame, sashes operating therein, a weight, a flexible connection between one sash and the weight, a pulley on the frame over which the flexible connection passes, fusible means between one end of the flexible connection and the frame, a normally free connection uniting the weight and the flexible connection which is locked to said flexible connection when the fusible means is broken, and an auxiliary means rigidly fixed on the flexible connection and forming an emergency stop against which the normally free connection engages, should the same fail to grip the flexible connection when the fusible means is broken.

3. In a metallic window of the class described, the combination with a counterbalancing weight and the window chain or cable, of a clutch arranged between the weight and the cable, which clutch comprises a housing, a pair of pulleys arranged therein, a fixed block between the pulleys, a link pivotally carried by the housing and which link carries a weight, and a jaw adjustably arranged on the upper end of the link and adapted to clamp the chain or cable against the fixed block.

4. In a window of the class described, the combination with the frame and sashes arranged for operation therein, of a flexible connection fixed at one end to one of the window sashes, fusible means uniting the opposite end of said flexible connection to the window frame, a pulley arranged on the window frame over which the flexible connection passes to form a depending loop in said flexible connection between the fusible means and the window sash, a normally free clutch arranged to move on the loop in the flexible connection, a weight carried by said clutch, and which clutch is locked to the flexible connection when the fusible means is broken.

5. In a window of the class described, a frame, sashes, operating therein, a flexible connection, one end of which is attached to one of the window sashes, fusible means connecting the opposite end of the flexible connection to the window frame, a counterbalancing weight, and an automatically operating clutch carrying the weight arranged to normally move free upon the flexible connection.

1,028,394. APPARATUS FOR ACTUATING THE CONDUIT-COVERS OF ELECTRIC RAILWAYS. DINO DAVIDE SAMAIA, Vicenza, Italy. Filed Apr. 28, 1910. Serial No. 558,219. (Cl. 191—5.)



1. Apparatus for actuating the conduit covers of electric railways, comprising a support adapted to be mounted upon a car, a pair of levers mounted on said support and movable up and down thereon, a second pair of levers connected to said first named pair of levers and movable up and down therewith, the latter having two arms adapted to normally lie adjacent each other, means for moving both pair of levers downwardly on said support and to cause said two arms to spread or diverge from each other, and means for returning the levers to their normal position.

2. Apparatus for actuating the conduit covers of electric railways, comprising a support adapted to be mounted upon a car, a pair of levers mounted on said support and movable up and down thereon, a second pair of levers connected to said first named pair of levers and movable up and down therewith, the latter having two arms adapted to normally register with each other, means for guiding the movement of said pairs of levers, means for moving both pairs of levers downwardly in said guiding means and to cause said normally registering arms to spread or diverge from each other, and means for returning the levers to their normal position.

3. Apparatus for actuating the conduit covers of electric railways, comprising a support adapted to be mounted upon a car, a pair of levers mounted on said support and movable up and down thereon, a second pair of levers connected to said first named pair of levers and movable up and down therewith, a pivot common to said second pair of levers, the latter having two arms below said pivot adapted to normally register with each other, means for guiding the movement of said two pairs of levers and said pivot, means to move both pairs of levers downwardly in said guiding means and to continue the downward movement of said first named pair of levers after said pivot has reached the downward limit of its movement, whereby said first named pair of levers will be caused to diverge from each other and cause the diverging movement of said normally registering arms, and means for returning the levers to their normal position.

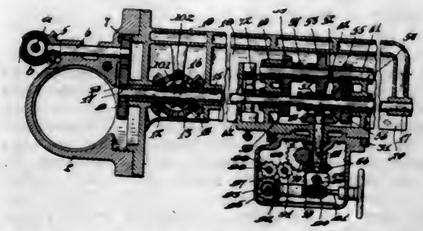
4. Apparatus for actuating the conduit covers of electric railways, comprising a support adapted to be mounted upon a car, a pair of levers mounted on said support and movable up and down thereon, a second pair of levers connected to said first named pair of levers and movable up and down therewith, the latter having two arms adapted to normally register with each other, means for guiding the movement of said two pairs of levers, means for moving both of said pairs of levers downwardly in said guiding means and to cause said normally registering arms to spread or diverge from each other, additional means for guiding the movement of said first named pair

of levers to prevent the same from spreading during the first part of their movement, and means for returning the levers to their normal position.

5. Apparatus for actuating the conduit covers of electric railways, comprising a support adapted to be mounted upon a car, a pair of levers mounted on said support and movable up and down thereon, a pivot common to both levers, a second pair of levers connected to said first named pair of levers and movable up and down therewith, a pivot common to said second pair of levers, the latter having two arms below said pivot adapted to normally register with each other, a guideway for the movement of said pivots, means for moving both of said pivots downwardly in said guideway and to cause said normally registering arms to spread or diverge from each other, and means for returning the levers to their normal position.

[Claims 6 to 12 not printed in the Gazette.]

1,028,395. RADIAL DRILL. HERMAN W. SCHATZ, Cincinnati, Ohio, assignor to The American Tool Works Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 4, 1909. Serial No. 520,848. (Cl. 77—28.)



1. A radial drill arm of hollow formation, comprising a forward wall having an intermediate U-shaped portion, and oppositely disposed vertical and inclined surfaced portions in cross section providing three bearing surfaces above and below the medial line of the arm, and a rear wall connecting with said forward wall, at the upper and lower portions thereof of curved outline in cross section, and extended in oppositely disposed inclined planes toward the medial line of the arm.

2. A radial drill arm of hollow formation, comprising a forward wall having an intermediate U-shaped portion and oppositely disposed vertical and inclined portions in cross-section, providing three bearing surfaces above and below the medial line of the arm, and a rear wall connecting with said forward wall with the upper and lower portions thereof of curved outline in cross section, tapering lengthwise of the arm, and extended in oppositely disposed inclined planes toward the medial line of the arm.

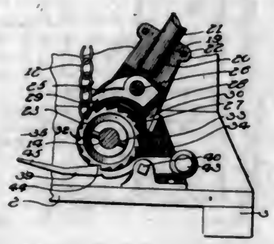
3. In a radial drill, an arm, an arm shaft, clutch and gear mechanism carried by said arm for governing the direction of rotation of said arm shaft, a head-stock slidably mounted upon said arm, a clutch operating shaft journaled in said arm, for actuating said clutch mechanism, clutch manipulating mechanism carried by said head-stock, and transmission elements between said clutch manipulating mechanism on the head-stock and actuating shaft, whereby the direction of rotation of arm shaft can be controlled from the head-stock at any position it occupies on the radial arm.

4. A radial drill arm, having an arm shaft, clutch and gear mechanism for imparting forward and reverse rotation to said shaft, a head-stock slidably mounted upon said arm, a clutch opecating shaft carried by said arm connecting with said clutch mechanism, a clutch manipulating lever carried by said head-stock, and intermediate transmission elements between said clutch shaft and head-stock manipulating lever slidable along said clutch shaft, whereby the direction of rotation can be governed at any position of the head-stock upon the arm.

5. In a radial drill, a radial arm, a head-stock, slidably supported upon ways formed on said arm, means for swinging said head-stock relatively to the arm, a rack carried by the arm, clutch and gear mechanism between the rack on the arm and head-stock swinging mechanism, and manipulating means carried by the head-stock, whereby said clutch mechanism can be shifted for alternately feeding the head-stock upon the arm or universally swinging the same.

[Claims 6 to 15 not printed in the Gazette.]

1,028,396. PAPER-BALER. CHARLES SCHICK, Davenport, Iowa. Filed Dec. 28, 1911. Serial No. 668,313. (Cl. 100—6.)



1. A baling press comprising a casing, a base, a transverse shaft carried by said base, a chain, a drum mounted upon said shaft, said chain wound upon said drum, a ratchet casing carried by said shaft, a dog carried by said casing and coöperating with said drum for rotating the same, and means carried by said base and coöperating with said dog for releasing the same and for allowing said chain to be unwound from said drum when said ratchet casing is swung to a certain position.

2. In a ratchet device of the class described the combination with a casing, a drum, a ratchet wheel carried by said casing and coöperating with said drum, a chain wound upon said drum, a dog pivotally mounted within said casing, of a bracket coöperating with said dog being adapted to engage said dog for automatically throwing said dog out of engagement with said ratchet when said casing is swung to a certain position.

3. A ratchet device for a baling press comprising a casing, a ratchet wheel carried thereby, a drum associated therewith, a dog pivotally mounted within said casing and being provided with a rearwardly extending lip, and means coöperating with said dog and being adapted to engage said rearwardly extending lip for automatically kicking said dog out of engagement with said ratchet wheel for allowing said drum to rotate.

4. In a ratchet device of the class described, the combination with a casing, a ratchet wheel carried thereby, a drum associated therewith, a dog pivotally mounted within said casing, of a bracket provided with an upwardly extending portion, a laterally extending lip carried thereby, said dog being provided with a rearwardly extending lip, means for normally holding the forward end of said dog in engagement with said ratchet wheel, said rearwardly extending lip of said dog being adapted to engage said lip of said bracket for kicking said dog out of engagement with said ratchet wheel when said casing is swung to the desired position.

5. In a ratchet device of the class described the combination with a ratchet casing comprising a plurality of sections, a ratchet wheel carried thereby, a dog pivotally secured between said sections and provided with a ratchet engaging end, of a rearwardly extending lip formed upon said dog, a flange formed upon each of said sections and being adapted to abut along their inner edges, springs supported by said flanges and engaging said dog for holding the same in engagement with said ratchet, and means coöperating with said dog for automatically kicking the same out of engagement with said ratchet.

[Claim 6 not printed in the Gazette.]

1,028,397. AUTOMATIC SAFETY-TRIP FOR ENGINES. CHARLES SCHNITZLER, Oil City, Cal. Filed Feb. 6, 1911. Serial No. 606,859. (Cl. 136—11.)



1. A safety mechanism for engines comprising a throttle valve wheel, a dog capable of engaging the same, an elongated rock shaft carrying the said dog and extending to a point near a moving part of the engine, means carried by said moving part of the engine and adapted to be brought into engagement with the said rock shaft when the engine exceeds its normal speed, for permitting of the stopping of the engine.

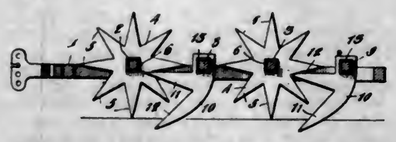
2. A safety device for engines comprising an elongated rock shaft, a dog carried thereby and adapted to engage the throttle mechanism of the engine, means for holding said throttle mechanism against the dog, and a lever carried by the fly wheel of the engine and operable by centrifugal force for causing its end to move outwardly into position to abut upon said rock shaft and rock the same for disengaging the dog from the throttle wheel mechanism.

3. An automatic engine stopping mechanism comprising a throttle wheel having a roughened inner surface, a rock shaft extending past said throttle wheel and the rim of the fly wheel of the engine and having a dog projecting laterally therefrom, capable of engaging the roughened surface of said valve wheel, a weight mounted upon the said valve wheel and connected therewith by a cable, capable of turning the wheel when released by the dog, a spring tending to rock said shaft when the dog is released from the fly wheel and means carried by the fly wheel of the engine for rocking said shaft and disengaging the said dog when the engine exceeds a given speed.

4. A safety mechanism for engines comprising a wheel connected with the throttle valve thereof, a dog capable of engaging said wheel for stopping its rotation, means for turning the wheel when the dog is disengaged, a rock shaft carying the said dog, and having a lever projecting therefrom at right angles to its axis of rotation, and a spring pressed lever carried by the fly wheel of the engine and arranged to have its end thereon into the path of the rock shaft lever for abutting against and actuating the same when it is drawn outwardly by the centrifugal force due to excessive speed in the fly wheel.

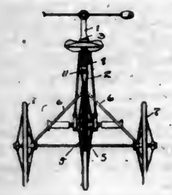
5. A safety device for engines comprising a longitudinal adjustable rock shaft, a dog carried thereby and projecting at right angles to its rock axis and adapted to engage the throttle mechanism of the engine, means for holding the throttle mechanism against the dog, means upon the rock shaft for affecting its longitudinal adjustment, and means carried by the fly wheel of the engine and operable by centrifugal force for disengaging the dog from the fly wheel mechanism when the engine is to be stopped.

1,028,398. COMBINED HARROW AND PULVERIZER. CARL SJOMAN, Ramsay, Mich. Filed May 13, 1911. Serial No. 626,893. (Cl. 55—11.)



In a device of the class described, the combination with a frame, a pair of rotatably mounted shafts thereon, and star-shaped cutters carried on said shafts; of an additional pair of shafts arranged in the rear of said mentioned shafts and rigidly mounted on the frame, a plurality of double pointed ground-treating teeth arranged on said last mentioned shafts, one of the points of said teeth being disposed below the cutters and the other between said cutters adapted to remove the trash therefrom.

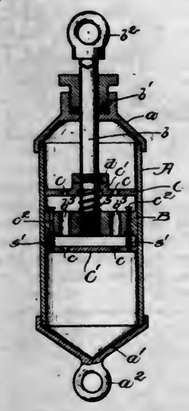
1,028,399. VELOCIPEDE-FRAME. WILLIAM J. SLEFFEL, Cleveland, Ohio, assignor to The Kirk-Latty Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 27, 1911. Serial No. 668,126. (Cl. 208—113.)



1. A velocipede frame, comprising a forward portion connecting the front axle and the handle-bars; and a rear portion connecting said forward portion and the rear axle, and including two main supporting members attached to said forward portion and to said rear axle, said members being in contact for the greater part of their length but being spaced from each other at one point, and seat supporting means adapted to securely engage between such spaced parts of said members, and auxiliary supporting members attached to said main supporting members and to said rear axle adjacent the ends thereof.

2. A velocipede frame comprising a forward portion connecting the front axle and the handle-bars; and a rear portion connecting said forward portion and the rear axle, and including two main supporting members attached to said forward portion and to said rear axle, said members being in contact for the greater part of their length, being fixedly secured together at the forward ends and being spaced from each other at one point, and seat supporting means adapted to securely engage between such spaced parts of said members, and auxiliary supporting members attached to said main supporting members and to said rear axle adjacent the ends thereof.

1,028,400. SHOCK-ABSORBER. HORACE B. STANTON, Boston, Mass. Filed Aug. 8, 1910. Serial No. 576,066. (Cl. 21—105.)



1. A shock-absorber comprising a cylinder, a main piston having passages therethrough, and two auxiliary pistons, one at each side of the main piston, said main piston

being movable relatively to the auxiliary pistons, and said auxiliary pistons having passages therethrough of smaller area than the passages of the main piston and being adapted partially to restrain the later part of the movement of the main piston in each direction.

2. A shock-absorber comprising a cylinder, a main piston having passages therethrough, and two auxiliary pistons, one at each side of the main piston, said main piston being movable relatively to the auxiliary pistons, and all of said pistons being movable together as one part, said auxiliary pistons having passages therethrough of smaller area than the passages of the main piston and being adapted partially to restrain the latter part of the movement of the main piston in each direction.

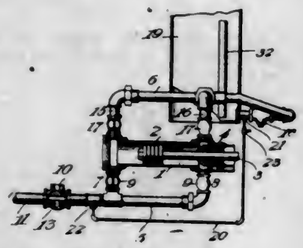
3. A shock-absorber comprising a cylinder, a main piston having passages therethrough, two auxiliary pistons, one at each side of the main piston, and a piston rod carrying all of said pistons, said auxiliary pistons mounted to slide longitudinally with relation to said piston rod and having passages therethrough of smaller area than the passages of the main piston and being adapted partially to restrain the latter part of the movement of the main piston in each direction.

4. A shock-absorber comprising a cylinder, a main piston having passages therethrough, and two auxiliary pistons one at each side of the main piston, said main piston being movable relatively to the auxiliary pistons, and said auxiliary pistons having passages therethrough of smaller area than the passages of the main piston and being adapted partially to restrain the latter part of the movement of the main piston in each direction, and means to vary the area of the passages through one at least of said auxiliary pistons.

5. A shock-absorber comprising a cylinder, a piston rod, a main piston on the piston rod, having passages therethrough, and two auxiliary pistons one at each side of the main piston, said auxiliary pistons having passages therethrough of smaller area than the passages of the main piston, one of said auxiliary pistons being mounted to slide on said piston rod, and the other being provided with pins adapted to slide through the main piston.

[Claims 6 and 7 not printed in the Gazette.]

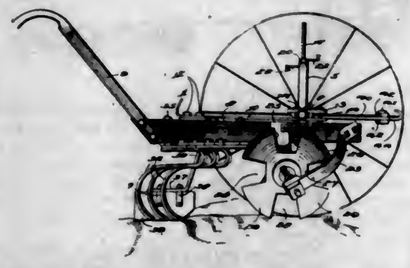
1,028,401. PUMP. FRED C. THOMPSON, Granger, Wash. Filed Nov. 26, 1910. Serial No. 594,376. (Cl. 103—79.)



A pump comprising a piston and cylinder, a feed-pipe having valved connection with the cylinder, a discharge pipe having valved connection with the cylinder, separate water-suction and air-suction terminals for the feed-pipe, and a valved pipe in communication at one end with a source of liquid and at its other end in communication with the feed-pipe.

1,028,402. COTTON CHOPPER AND CULTIVATOR. DURWORD L. THORNTON, Monroe, Ga. Filed May 29, 1911. Serial No. 630,087. (Cl. 97—49.)

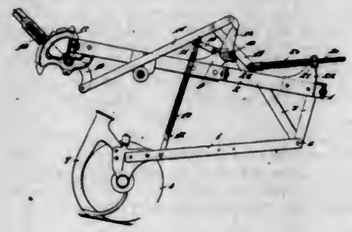
1. An agricultural machine comprising an axle, wheels carried thereby, a beam, supporting arms connected to the rear portion of said beam, means connecting said arms to said axle, means for adjustably connecting the forward portion of said beam to said axle, hanger bearings carried by opposite sides of said beam, shafts journaled in said bearings and supported in divergent relation, gear connections between the inner ends of said shafts, and chopping means carried by said shafts.



2. An agricultural machine comprising an arched axle, wheels carried by the spindles thereof, a beam, supporting arms provided with inturned rear ends, means for connecting the rear ends of said arms to the rear portion of said beam, means for rigidly connecting the forward ends of said arms to said axle, adjusting means for connecting the forward end of said beam to said axles, chopping means carried by the forward portion of said beam, and cultivating means carried by the rear portion of said beam.

3. An agricultural machine comprising an arched axle, wheels therefor, a beam, means for connecting the rear portion of said beam to said axle, an adjusting bolt extending through the forward end of said beam and the central portion of said axle, nuts on said bolt for engaging the upper and lower surfaces of said axle, handles carried by said nuts, a spring coiled about said bolt and bearing upon said beam, means carried by said bolt for regulating the tension of said spring, chopping means carried by said beam, and cultivating means carried by said beam.

1,028,403. SEEDING-MACHINE. ELMER E. TOWLE, Richmond, Ind., assignor to The American Seeding Machine Company, Springfield, Ohio, a Corporation of Ohio. Filed Oct. 10, 1910. Serial No. 586,284. (Cl. 111—18.)



1. In a seeding machine, a frame, a drag bar, a rocking member operatively connected to the drag bar, a lever mechanism operatively connected to the rocking member, and a link connected at one end to the mechanism for operating the rocking member and at the other end spring connected to the frame, said link being positioned to fulcrum and slide upon a portion of the rocking member at predetermined points in its movement.

2. In a seeding machine, compound lever mechanism, compensating lever mechanism and power means therefor, said compensating lever mechanism pivotally connected to one element of said compound lever mechanism and loosely fulcrumed to a second element of the compound lever mechanism, whereby, in the movement of the various elements, the fulcrum of the compensating lever is changed to provide means for producing the greatest leverage for said compensating means to increase and balance the pressures between the compound lever mechanism and load.

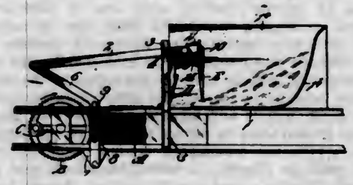
3. In a seeding machine, a frame, a pivoted drag bar, a furrow opener thereon, a rock bar, link and lever mechanism connecting said rock bar and drag bar, a compound leverage mechanism for actuating said rock bar, a spring actuated lever mechanism hinged at one end to the frame, the other end being pivoted to and movable with a member of the compound leverage actuating mechanism and movable eccentrically to the rock bar, said spring actuated lever mechanism moving from a position where its pivots are alined to a flexed position, the spring being compressed during a portion of the flexing and applying said energy at the ends of the movement, to assist in moving said furrow opener.

4. In a seeding machine, a rock bar, a rack arm, a link and lever connected to said rock arm, a fulcrum member on one of the rocking elements, a link and spring plunger pivoted together, the link being pivoted to the rock arm link, the other end of the plunger being slidably swiveled to the frame, said link slidably engaging said fulcrum member.

5. In a seeding machine, a frame, a rock bar, a rock arm, a fulcrum on one of said rocking elements, means for moving the rock arm, a member pivotally connected at one end to said actuating means and slidably engaging said fulcrum, and a spring connection between the frame and the other end of said member.

[Claims 6 to 22 not printed in the Gazette.]

1,028,404. BALING-PRESS. LUTHER TRABUE, Girard, Ill., assignor to Belleville Baler Company, Belleville, Ill., a Corporation of Illinois. Filed Dec. 8, 1911. Serial No. 664,658. (Cl. 100—25.)



1. A baling press provided with a plunger for compressing the material in the baling chamber, a beater for forcing the material down into the baling chamber, an auxiliary feeding mechanism separate and distinct from said beater for feeding the material into position to be acted upon by the beater, and a connection between said plunger and feeding mechanism for transmitting movement from said plunger to said feeding mechanism.

2. A baling press provided with an auxiliary feeding mechanism for moving the material into position to be forced into the baling chamber of the press, said auxiliary feeding mechanism comprising a reciprocating carrier and a feeding device pivotally mounted on said carrier, a plunger for compressing the material in the baling chamber, and means for actuating said feeding mechanism from said plunger.

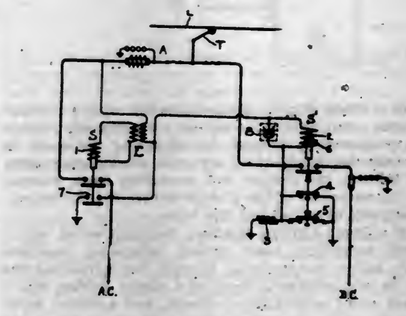
3. A baling press provided with a plunger or compressing member, and an auxiliary feeding mechanism operatively connected to said plunger for feeding the material into position to be acted upon by the device which forces the material into the path of said plunger, said auxiliary feeding mechanism comprising a reciprocating carrier that is rockably mounted and a pivotally mounted device on said carrier for engaging the material.

4. A baling press comprising a plunger for compressing the material in the baling chamber, a beater for forcing the material down into the path of said plunger, and an auxiliary feeding mechanism separate and distinct from said beater and operatively connected to said plunger for moving the material into position to be acted upon by said beater, said auxiliary feeding mechanism comprising a reciprocating carrier mounted in rockable bearings and a device on said carrier for engaging the material.

5. In a baling press, an auxiliary feeding mechanism comprising a reciprocating carrier, a movable feeding device mounted on said carrier, and means for holding said feeding device rigid when the carrier moves in one direction, and permitting it to yield relatively to the carrier when the carrier moves in the opposite direction.

[Claims 6 to 16 not printed in the Gazette.]

1,028,405. SELECTIVE ALTERNATING-DIRECT-CURRENT SYSTEM. JOHN F. TRITLE, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed July 27, 1908. Serial No. 445,445. (Cl. 191—41.)



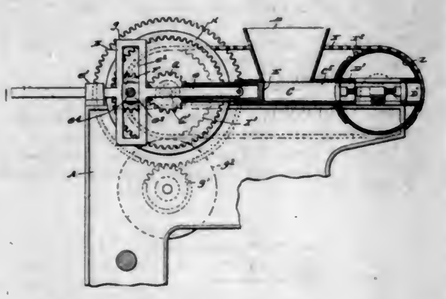
1. A selective high potential alternating and low potential direct current system for electric cars comprising a transformer having its primary connected to the power circuit, an A. C. switch, a D. C. switch, an actuating coil for said A. C. switch connected across the secondary of said transformer, an actuating coil for said D. C. switch connected in series with the primary of said transformer, and means connected in shunt to the actuating coil of said D. C. switch acting as a conductor on high potential A. C. operation and as a non-conductor on low potential D. C. operation.

2. A selective alternating-direct current system for electric cars comprising a transformer having its primary connected to the power circuit, an A. C. switch, a D. C. switch, an actuating coil for said A. C. switch connected across the secondary of said transformer, an actuating coil for said D. C. switch connected in series with the primary of said transformer, and means connected in circuit with one of said actuating coils for controlling the operation thereof, said means being conductive on alternating current when a voltage is applied thereto which is less than that required to operate the D. C. switch and non-conductive on direct current at the voltage at which said D. C. switch will close.

3. A selective alternating-direct current system for electric cars comprising a transformer having its primary connected to the power circuit, an A. C. switch, a D. C. switch, an actuating coil for said A. C. switch connected across the secondary of said transformer, an actuating coil for said D. C. switch connected in series with the primary of said transformer, and a lightning arrester connected in shunt to the actuating coil of said D. C. switch.

4. A selective alternating-direct current system for electric cars comprising a transformer having its primary connected to the power circuit, an A. C. switch, a D. C. switch, an actuating coil for said A. C. switch connected across the secondary of said transformer, an actuating coil for said D. C. switch connected in series with the primary of said transformer, and a lightning arrester of the aluminum cell type connected in shunt to the actuating coil of said D. C. switch.

1,028,406. DOUGH-DIVIDING MACHINE. FRANK H. VAN HOUTEN, Jr., Fishkill-on-the-Hudson, N. Y., assignor to Dutchess Tool Company, Fishkill-on-the-Hudson, N. Y., a Corporation of New York. Filed Nov. 3 1911. Serial No. 658,376. (Cl. 107—15.)



1. In a dough divider, the combination with a movable measuring head having measuring compartments therein and a reciprocatory plunger for advancing the dough to said measuring head, of an epicyclic driving gear interposed between the plunger and measuring head, whereby when the movement of the plunger is arrested the measuring head will be moved and vice versa.

2. In a dough dividing machine, the combination with a movable measuring head having measuring chambers therein and a reciprocatory plunger for advancing the dough to said measuring head, of a rotary driving wheel, a planet wheel coöperating therewith, and a driven wheel coöperating with the planet wheel, said planet wheel and driven wheel being connected, the one with the plunger and the other with the measuring head, whereby upon the movement of either the measuring head or plunger being arrested the other will be operated.

3. In a dough dividing machine, the combination with a rotary measuring head having measuring chambers therein, and a reciprocatory plunger for advancing the dough to said measuring head, of a driving mechanism embodying a power driven sun wheel, a planet wheel in engagement therewith, and a concentric wheel with which the planet wheel engages, with driving connections between the wheel and measuring head and between the plunger and planet wheel, respectively, substantially as described.

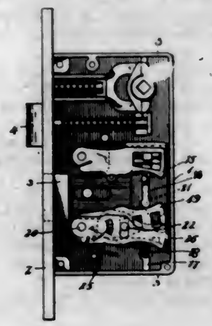
4. In a dough dividing machine, the combination with the rotary measuring head having measuring chambers therein, reciprocatory plunger and compression chamber through which the dough is advanced by the plunger to the measuring head, of an epicyclic driving gear embodying sun and planet wheels, and a concentric wheel with which the planet wheel coöperates, a driving connection between the planet wheel and reciprocatory plunger and gearing between the concentric wheel and rotary head, whereby either the plunger or the head is free to move independently of the other.

5. In a dough dividing machine, the combination with the rotary measuring head having measuring chambers therein, reciprocatory plunger and compression chamber through which the dough is advanced by the plunger to the measuring head, of an epicyclic driving gearing having its different driven elements connected respectively with the plunger and measuring head, and means for rotating its driving element.

[Claims 6 to 9 not printed in the Gazette.]

1,028,407. PASSAGE-DOOR LOCK. HENRY G. VOIGHT and NORMAN B. HURD, New Britain, Conn., assignors to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Oct. 26, 1911. Serial No. 656,842. (Cl. 70—71.)

1. In a lock, the combination with a dead bolt, of an upper set of tumblers and a lower set of tumblers, a casing containing said parts, said casing having a double-ended key-hole, a set of keys including a guest, maid's, housekeeper's, guard and emergency keys, means whereby certain of said keys can be inserted in said key-hole only in normal position to operate directly upon the upper set of tumblers, one of said sets of tumblers including an emergency tumbler with means capable of dogging the bolt when projected, certain of said keys being so bitted as to operate said emergency tumbler to prevent retraction of the bolt by other of said keys.



2. In a lock, the combination with a dead bolt and two sets of tumblers therefor, a casing for said parts, said casing having a double-ended keyhole, a series of keys including a guest, maid's and housekeeper's, guard and emergency keys, means whereby said guest, guard and emergency keys may be inserted in said keyhole only in normal position to operate directly upon one of said sets of tumblers, connecting means for said sets of tumblers, one of said sets including an emergency tumbler with means adapted when said bolt is projected by the guard and emergency keys to prevent retraction of the bolt by the other keys of the series and adapted to be operated by the guest, maid's and housekeeper's keys so that the bolt may be retracted by any of the keys of the series.

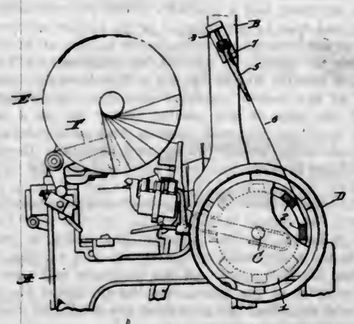
3. In a lock, the combination with a dead-bolt, of two sets of tumblers therefor, a casing containing said parts, said casing having a double-ended keyhole, therein, a series of keys including a guest, maid's, housekeeper's, guard and emergency key, means whereby certain of said keys can be inserted in said keyhole only in normal position to act directly upon one set of tumblers, and connecting means for said sets of tumblers, one of said sets including an emergency tumbler with means to prevent the retraction of said bolt by certain of said keys, certain keys being so bitted that when the dead bolt is projected thereby it can only be retracted by the same keys, the other keys being so bitted that when the dead-bolt is projected thereby it can be retracted by any of the keys of the series.

4. In a lock, the combination with a dead bolt, of two sets of tumblers therefor, a casing containing said parts, said casing having a double-ended key-hole, a key post opposite one end of said key-hole, a plurality of keys including drill pin keys and solid pin keys adapted to said double-ended key-hole, said key-hole and key post being adapted to receive said drill pin keys in normal position to act directly upon one of said sets of tumblers and adapted to receive said solid pin keys in inverted position to act directly upon the other set of tumblers, and connecting means for said sets of tumblers, one of said sets including an emergency tumbler with means to hold the bolt projected, said guard and emergency keys being so bitted that when the dead bolt is projected thereby it can only be retracted by the same key, said solid pin keys being bitted to actuate the emergency tumbler when projecting the dead bolt so that said bolt may be retracted by any of said keys.

5. In a lock, the combination with a dead bolt of two sets of tumblers therefor, connecting means for said tumblers, a casing containing said parts, one side plate of said casing having a double-ended key-hole, a drill pin opposite one end of said key-hole, the other side plate of said casing having a key-hole opposite the first mentioned key-hole and having a second key-hole, a drill pin opposite said second key-hole, and a plurality of keys including drill pin keys and solid pin keys, said double-ended key-hole being adapted to receive said drill pin keys in one position to operate directly upon one set of tumblers, said second key-hole in the inner plate being adapted to receive said drill pin keys to operate directly upon the other set of tumblers, said double-ended key-hole and the key-hole opposite thereto being adapted to receive the solid pin keys in reversed position to operate upon one set of tumblers, one of said sets of tumblers including an emergency tumbler with means to hold the bolt projected, certain of said drill pin keys being so bitted that when the dead bolt is projected thereby either from the outside or the inside, the emergency tumbler will be positioned to block the operation of the other keys of the series, the other keys of the series being so bitted that when the dead bolt is projected thereby from either side the emergency tumbler will be positioned to permit retraction of the dead bolt by any of the keys of the series.

[Claims 6 and 7 not printed in the Gazette.]

1,028,408. BOBBIN-STRIPPER. WILLIAM WALMSLEY, Lowell, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Oct. 16, 1911. Serial No. 654,970. (Cl. 139—85.)

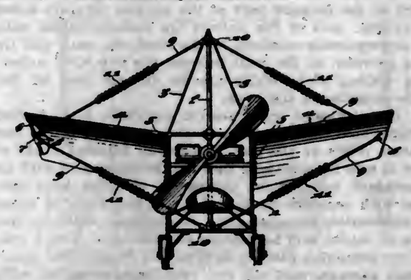


In a loom having filling replenishing mechanism at one side of its frame, in combination, a crank-shaft extended beyond the frame at the replenishing side thereof, a drum-like yarn-stripper mounted on such extension, a bracket on the frame adjacent said stripper, and a plurality of split spindles fixedly mounted on and depending from the bracket and pointing toward the stripper, each spindle being adapted to receive and hold temporarily a bobbin with its tip directed toward the stripper, whereby the latter may draw off and wind upon itself the waste yarn from a bobbin held upon a spindle.

1,028,409. AEROPLANE. CHARLES BECK WESTERMAN, Columbia, Pa. Filed Nov. 22, 1911. Serial No. 661,747. (Cl. 244—12.)

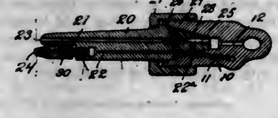
1. An aeroplane comprising a rectangular central frame, laterally projecting planes having hinged connection at their inner ends to the upper end of said central frame, and elastic stays connecting the outer ends of said planes above and below with said frame, said stays so connected as to permit each plane to move entirely independent of the other plane, substantially as described.

2. An aeroplane comprising a rectangular central frame, an upwardly projecting post on the frame, laterally projecting wings having hinged connection at their inner ends to the upper end of said frame, spring stays connecting the upper end of said post with the outer ends of said planes, and other spring stays connecting the outer ends of said planes with said frame, said stays so connected as to permit each plane to move entirely independent of the other plane, substantially as described.



3. An aeroplane comprising a central rectangular frame, laterally projecting planes having hinged connection at their inner ends to the upper end of said frame, elastic means supported by the frame and connected to the outer ends of the planes above and below the planes, said stays so connected as to permit each plane to move entirely independent of the other plane, substantially as described.

1,028,410. BLOWPIPE. JOHN WALTER WHITFORD, Pontiac, R. I., assignor to Davis-Bournonville Acetylene Development Company, Pierre, S. D., a Corporation of South Dakota. Original application filed Mar. 4, 1911, Serial No. 612,189. Divided and this application filed Jan. 31, 1912. Serial No. 674,496. (Cl. 158—13.5.)



1. Apparatus for cutting metals by means of gases, comprising a socketed head and a removable and replaceable tip having a readily separable conical sealing joint, and means for holding them together, said head having three separate conduits opening into its socket for gases to form a combustible mixture and oxygen for cutting, respectively, and said tip having heating jet and cutting jet passages, said heating jet passage having separate inlets communicating with two of the conduits in the head and said cutting jet passage having an inlet communicating with the third conduit, two kinds of these inlets opening through the conical portion of the tip which with the conical surface of the socket affords gas-tight seals preventing leakage of the three kinds of gases.

2. Apparatus for cutting metals by means of gases, comprising a socketed head and a removable and replaceable tip having a readily separable conical sealing joint, and means for holding them together, said head having three separate conduits opening into its socket for gases to form a combustible mixture and oxygen for cutting, respectively, and said tip having heating jet and cutting jet passages, said heating jet passage having separate inlets communicating with two of the conduits in the head and said cutting jet passage having an inlet communicating with the third conduit, one inlet opening through the rear extremity of the tip and the other two kinds of these inlets opening through the conical portion of the tip which with the conical surface of the socket affords gas-tight seals preventing leakage of the three kinds of gases.

3. Apparatus for cutting metals by means of gases, comprising a socketed head and a unitary removable and replaceable tip, said head having three separate conduits for gases to form a combustible mixture and oxygen for cutting, respectively, and said unitary tip being provided

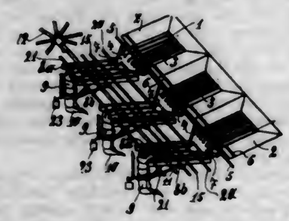
therein with a cutting jet passage having a delivery orifice at the forward part of the tip and communicating at the rear part of the tip with the corresponding conduit in the head and with a heating jet passage having a delivery orifice at the forward part of the tip and separate inlets in the rear part of the unitary tip communicating with the corresponding conduits in the head, the head and tip being provided at the joint between the two with coöperating sealing seats which prevent leakage and all improper mingling of the gases.

4. In a device of the character described, a tip having a longitudinal mixing passage with a discharge orifice and saparate inlets at the rear for leading different kinds of gases to said passage, said tip being provided also with an independent longitudinal passage, a socketed head provided with separate conduits for the two kinds of gases for combustion communicating respectively with the two kinds of inlets, said head being provided also with a conduit for supplying gaseous fluid to said independent longitudinal passage, said tip and head being provided with similar external and internal conical seats for sealing, there being separate annular passages formed between said conical seats for placing said independent longitudinal passage and one kind of said inlets, respectively, in communication with their conduits in the head.

5. In a device of the character described, a tip having a longitudinal mixing passage with a discharge orifice and a longitudinal inlet and lateral inlets for leading different kinds of gases to said passage, said tip being provided also with an independent longitudinal passage discharging at the forward part of the tip, and a socketed head provided with separate conduits for the two kinds of gases for combustion opening, respectively, through the rear and side of said socket and communicating with said lateral and longitudinal inlets, said head being provided with another side conduit for supplying gaseous fluid to said independent longitudinal passage, said tip and head being provided with similar external and internal conical seats for sealing, there being separate annular passages formed between said conical seats for placing said independent longitudinal passage and the lateral inlets, respectively, in communication with their conduits in the head.

[Claims 6 to 8 not printed in the Gazette.]

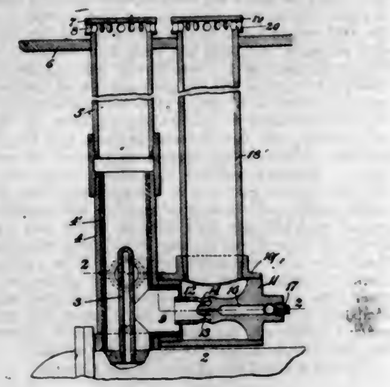
1,028,411. MACHINE FOR PLANTING POTATOES. FRITZ WIEGHARD and HEINRICH GÖSEL, Jr., Heimburg, Germany. Filed Dec. 14, 1910. Serial No. 597,218. (Cl. 111—27.)



In a machine for planting potatoes, comprising containers and seed ducts, conveyers to bring the potatoes from their containers one by one into the seed ducts, comprising in combination ledges arranged side by side and at the top provided with depressions, means to impart to each second one of said ledges a forwardly and upwardly directed movement, the other ledges being fixed, and means to feed the potatoes onto said ledges, for the purpose set forth.

1,028,412. IGNITION-TUBE HEATER. JAMES E. WISE, Butler, Pa., assignor to Spang and Company, Butler, Pa., a Corporation of Pennsylvania. Filed Dec. 19, 1910. Serial No. 598,019. (Cl. 123—145.)

1. The combination of engine house or inclosure, an explosive engine, an ignition-tube therefor, a heater casing inclosing the tube, a burner within the casing, an air inlet extending to the exterior of the engine inclosure, and a similarly extended outlet for the heater products.



2. The combination with an engine inclosure, an explosive engine within the inclosure, and an ignition-tube for the engine, of a heater casing inclosing the ignition-tube, a burner within the casing, said casing being closed to the admission of air from within the engine inclosure, and an air inlet and a products outlet for the casing extending and open to the exterior of the engine inclosure.

3. The combination of an explosive engine, an inclosure in which the engine is located, an ignition-tube for the engine, a tubular heater having a flue extension through a wall of the engine inclosure and open to the exterior thereof, the base of the tubular heater having a lateral branch, a burner mounted therein, and an air inlet pipe connected to the lateral branch and extending through a wall of the furnace inclosure and open to the exterior thereof.

4. The combination of an explosive engine, an inclosure in which the engine is located, an ignition-tube for the engine, a heater for the ignition-tube which is entirely closed to the engine inclosure, and two flues for the heater extending through a wall of the inclosure and open only at the exterior of the latter, one flue supplying air to the heater and the other flue providing the draft and discharging the products of combustion.

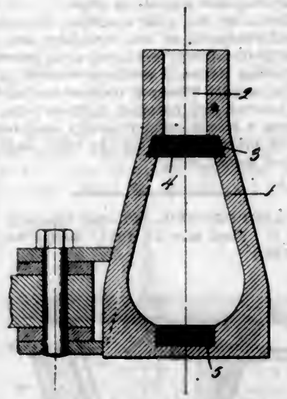
5. The combination of an explosive engine, a roofed inclosure in which the engine is located, an ignition-tube for the engine, a heater for the ignition-tube which is entirely closed to the engine inclosure, and flues extending from the heater through the roof of the inclosure and open at the exterior of the latter, one flue admitting air to the heater and the other flue providing the draft and discharging the products of combustion.

1,028,413. MOLD FOR FORMING GLASS ARTICLES. WILLIAM JAMES WOODS, Corning, N. Y., assignor to Corning Glass Works, Corning, N. Y., a Corporation of New York. Filed Dec. 20, 1911. Serial No. 667,026. (Cl. 49—69.)

1. A mold for glass articles, having a section therein at the point where an abrupt change is made in the contour of the article which is to be blown therein, the said section having lower heat conductivity than other parts of the mold which come in contact with the glass from which the article is to be blown.

2. A mold for glass articles, having therein means for locally retarding the cooling of the glass at the point where the contour of the article to be blown changes in respect to the cooling af the glass at other points.

3. In a mold for blowing electric light bulbs having a restricted neck adjacent to a shoulder, a zone of heat non-conducting material located within the interior of the mold and forming part of the interior thereof located at the junction of the neck and shoulder parts of the mold said zone being of smaller heat conductivity than adjacent portions of the interior of the mold.



4. A mold for glass articles having its molding walls formed in sections of materials of different heat conductivity, one of such sections being adapted to locally retard the cooling of the glass while the adjacent section is shaping and cooling the glass.

1,028,414. POWER-GENERATOR. VINCENT C. DE YBARRONDO, Los Angeles, Cal. Filed Oct. 20, 1909. Serial No. 523,691. (Cl. 219—38.)

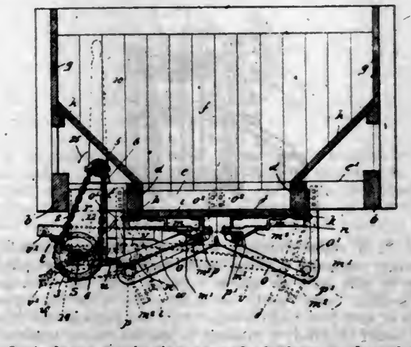


A traction engine including a boiler and a tender detachably connected to the boiler, a pair of insulating sleeves fitted in one end of the boiler, a pair of electrodes projecting into the boiler and having the outer ends thereof received within the said insulating sleeves, the said electrodes comprising rods which are disposed longitudinally with respect to the boiler and having a parallel relation to each other, insulating props supporting the free ends of the electrodes within the boiler, means upon the tender for generating an electric current, and conductors for conveying the electric current to the electrodes of the boiler.

1,028,415. CAR-DOOR-OPERATING MECHANISM. WINFIELD HANCOCK YOST, Montreal, Quebec, Canada, assignor to National Dump Car Company, Chicago, Ill. Filed Sept. 30, 1910. Serial No. 584,677. (Cl. 105—185.)

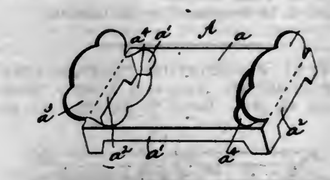
1. In a car, the combination with door operating mechaniam including an oscillatory shaft, of means for oscillating such shaft comprising a chain pulley rigid on said shaft, a chain looped intermediate its ends over such chain pulley, a second shaft to which the ends of the chain are secured, and means for rotating the second shaft.

2. A dump car having an end platform, a door frame presenting a discharge opening spaced longitudinally of the car from the said platform, a door hinged to the door frame to swing transversely of the car, a shaft extending longitudinally of the car at one side of the said opening and terminating at opposite ends at points adjacent the ends of the said opening, means operatively connecting the said shaft and door, a second shaft arranged longitudinally of the car above the first mentioned shaft and having one end thereof extending beyond the corresponding end of the first mentioned shaft to a point adjacent the said platform, means for operating the last mentioned shaft, and means operatively connecting the said shafts together.



3. A dump car having an end platform, a door frame presenting a longitudinally disposed discharge opening spaced longitudinally of the car from the said platform, a pair of doors hinged to the opposite sides of the door frame, a shaft extending longitudinally of the car at one side of the said opening and terminating at opposite ends at points adjacent the ends of the said opening, means operatively connecting the shaft to each of the doors, a chain pulley upon such shaft, a second shaft arranged longitudinally of the car above the first mentioned shaft and having one end thereof extending beyond the corresponding end of the first mentioned shaft to a point adjacent the said platform, a chain passing over the said pully and connected to the said second shaft, and an operating lever upon the end of the said second shaft adjacent the said platform.

1,028,416. TOY HANDKERCHIEF-BOX. HENRY A. YOUNG, Providence, R. I. Filed Mar. 18, 1912. Serial No. 684,481. (Cl. 46—37.)



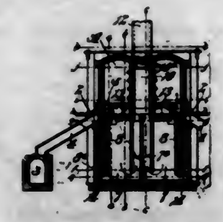
In combination, the box-body A adapted to contain handkerchiefs and dolls, and said box-body constructed in one member and having its bottom, a, cut so as to form two upwardly-extending wings at the ends of said box-body, as at a^3, a^2 to receive the handkerchiefs and dolls therebetween, in the manner shown and for the purpose specified.

1,028,417. RECUPERATIVE ZINC-SMELTING FURNACE. JOHN ZELLWEGER, St. Louis, Mo. Filed Feb. 7, 1911. Serial No. 607,214. (Cl. 75—95.)

1. In a retort furnace, a recuperator provided with an air-collecting chamber, a burner arranged in communication with said air-collecting chamber, a group of vertically disposed air ducts communicating at their upper ends with said air-collecting chamber and at their lower ends with the atmosphere, fire flues arranged in proximity to said air ducts, and outlet ports communicating with the upper ends of said flues and through which fire gases escape from the retort chamber.

2. In a retort furnace, vertically disposed fire flues arranged in such a manner that fire gases will travel down-

wardly through same, uptake flues that communicate with the lower ends of said fire flues, and a chamber communicating with the uptake flues that lead from a group of fire flues for collecting the exhaust gases from said flues.



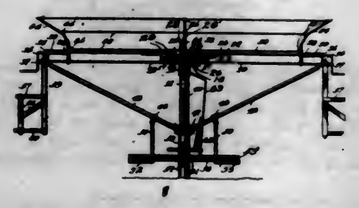
3. In a retort furnace, a plurality of approximately straight vertically disposed unobstructed fire flues standing side by side with air spaces between them and arranged in groups, outlet ports communicating with the upper ends of said flues and through which fire gases escape from the retort chamber, a chimney or similar device communicating with the lower ends of said fire flues of each group, said air spaces communicating at their lower ends with the atmosphere, and a single burner communicating with the upper ends of the air ducts of each group.

4. In a retort furnace, groups of approximately straight vertically disposed and unobstructed fire flues, a chimney or similar device communicating with the lower ends of the flues of each group so that exhaust fire gases will travel downwardly through said flues, clean-out openings in the front wall of said furnace located adjacent the upper and lower ends of the fire flues of each group, air spaces adjacent said fire flues whose lower ends communicate with the atmosphere, and a single burner which is supplied with air from the upper ends of the air spaces of each group.

5. A retort furnace having a furnace chamber and a number of recuperator sections, each of which comprises means for causing the heat in the fire gases going out of a certain part of the furnace chamber to heat air which is admitted to the same part of said chamber from which said fire gases escaped.

[Claims 6 to 13 not printed in the Gazette.]

1,028,418. COMBINATION CLOTHES-LINE AND MERRY-GO-ROUND. NICOLAS G. ZUZULIN, Minot, N. D. Filed Aug. 15, 1911. Serial No. 644,179. (Cl. 46—27.)



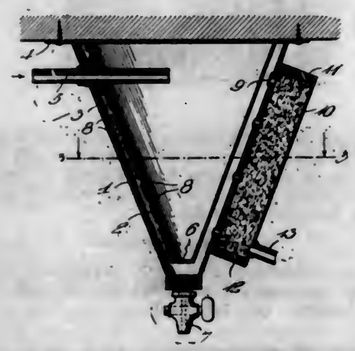
1. A device of the character described comprising a stanchion, a cap secured to the upper end thereof, a vertical shaft projecting from said end, a sleeve on said shaft, a plate mounted on said sleeve and provided with radially extending lugs on its periphery, supporting arms secured to said lugs, seats depending from said supporting arms, and operating means carried by said vertical shaft and said supporting arms.

2. A device of the character described comprising a stanchion, supporting arms carried thereby and rotatable therearound, braces for said supporting arms, collars on said braces, angular supporting arms depending from said collars, a seat supported upon said angular arms, and means for rotating said seat.

3. A device of the character described comprising a stanchion, supporting arms carried thereby, braces for said supporting arms, angular supporting arms depending from said braces, cleats on each side of the free ends of said angular arms, a seat carried by said angular arms, and means for rotating said supporting arms.

4. In a device of the kind described, a stanchion, a collar revolubly mounted on said stanchion and provided with a plurality of laterally extending arms provided with end pieces having flattened portions, sockets each comprising a substantially T-shaped member having the ends of the head grooved, said flattened portions being engaged by said grooves, a second collar revolubly mounted on said stanchion, and braces connecting the outer ends of said arms with said second collar.

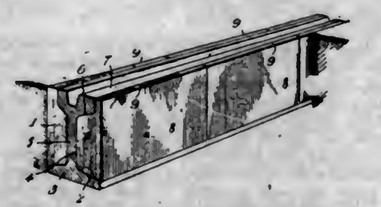
1,028,419. GAS-PURIFIER. CLAUDE HERBERT ABBOTT, Lisbon, N. D. Filed May 15, 1911. Serial No. 627,212. (Cl. 48—138.)



1. A gas purifier comprising a plurality of casings arranged one within the other and spaced apart, means for supplying gas to the inner casing adjacent the upper portion thereof, said inner casing having gas openings in one side wall, the outer casing having a gas outlet in its side opposite the openings in the inner casing, means for relieving the casings of condensed moisture, and a filter communicating with said outlet, the latter being located adjacent to the upper portion of the outer casing.

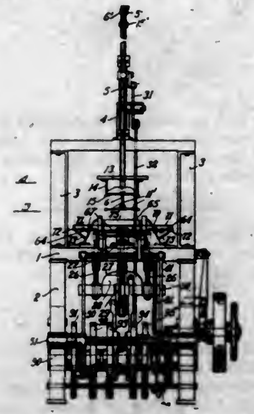
2. A gas purifier comprising a plurality of inverted cone-shaped casings arranged one within the other and spaced apart, means for supplying gas to said inner casing at its larger end, said inner casing having a plurality of gas exit openings in one side wall and a moisture outlet at its apex, the outer casing having a gas outlet in its side opposite the gas exits of the inner casing, and a filter communicating with said outlet.

1,028,420. PAVING. EDWARD ALCOTT, Manassas, Va. Filed Mar. 12, 1912. Serial No. 683,251. (Cl. 104—14.



A filler block adapted to be carried by a railway rail and interposed between the same and adjacent paving, said block being formed of wood and having a base shaped to be firmly seated on the upper surface of a rail base, an inner flat side adapted to lie in contact with the web of a rail, an upper surface that is shaped for firm engagement with the under surface of the tread of a rail, and an outer side that presents a straight flat surface to the adjacent paving, said block having an upstanding extension that is a continuation of said outer side, the extension being adapted to lie in contact with one longitudinal side edge of the tread of the rail and terminating flush with the said tread so that the upper surface of the said extension forms a continuation of the tread of the rail, said block being arranged so that its grain extends transversely to the line of rail traffic.

1,028,421. BOX-COVERING MACHINE. JOSEPH ALGER, Brockton, Mass., assignor of one-half to himself and one-half to Arthur H. Alger, Brockton, Mass. Filed June 12, 1908. Serial No. 438,146. (Cl. 93—54.)



1. In a box covering machine means for supporting a box and covering blank, an inclined slideway in line with the end of the box support, a slide movable in said slideway to approach said support, an arm adjustably supported on said slide and means adjustably supported on said arm to fold a blank about the end of a box.

2. In a box covering machine means for supporting a box and covering blank, an inclined slideway in line with the end of the box support, a slide movable in said slideway to approach said support, and means adjustably supported on said slide to fold the blank about the end of the box.

3. In a box covering machine removable means for supporting boxes and covering blanks, a laterally adjustable slideway in line with the ends of the box support, a slide movable in said slideway to approach said support, and means on said slide to fold a blank about the ends of a box.

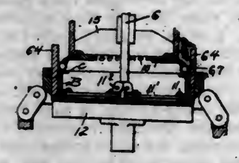
4. In a box covering machine a support for a box and covering blank, a vertically descending placer for locating said box on said support, said placer comprising a pair of adjustable arms normally depending from a right line but movable into alinement upon reaching the bottom of the box.

5. In a box covering machine a support for a box and covering blank, a vertically descending slide, lateral box contacting means on said slide, and means for laterally adjusting said box on said support, said lateral box adjusting means being yieldingly carried in normal advance of said box contacting means.

[Claims 6 to 25 not printed in the Gazette.]

1,028,422. BOX-COVERING MACHINE. JOSEPH ALGER, Brockton, Mass., assignor of one-half to himself and one-half to Arthur H. Alger, Brockton, Mass. Original application filed June 12, 1908, Serial No. 438,146. Divided and this application filed Oct. 16, 1909. Serial No. 522,978. (Cl. 93—54.)

1. In a machine of the class described, a support for a box and a covering blank, side folders mounted to be moved relatively thereto to fold the blank thereabouts, means for positioning the box laterally on said support, said means being yieldable upon the arrival of the folders at their proper position.



2. In a machine of the class described, a support for a box and a covering blank, side folders mounted to be moved relatively thereto to fold the blank thereabouts, means for positioning the box longitudinally on said support, means for holding the box positioned laterally on said support, said means being yieldable upon the arrival of the folders at their proper position.

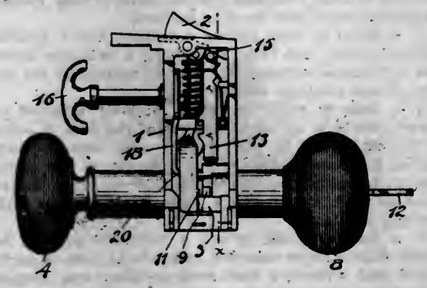
3. In a machine of the class described, a support for an extension edge box and a covering blank therefor, side folders mounted to be moved relatively thereto to overlie the edge of a box on said support to fold the blanks thereabouts, means for positioning the box laterally on said support, said means being yieldable upon the arrival of the folders to their proper position.

4. In a machine of the class described, a support for an extension edge box and a covering blank therefor, side folders and end folders mounted to be moved relatively thereto to overlie the edge of a box on said support to fold the blanks thereabouts, means for positioning the box laterally and longitudinally on said support with regard to said folders, said means being yieldable upon the arrival of the folders to their proper position.

5. In a machine of the class described, a support for a box and a covering blank, a folder for laying the blank against the box, said support and folder being relatively movable to operatively engage the parts, means for positioning the box laterally on said support, said means being yieldable upon the positioning of the folders and support to their proper relative position.

[Claims 6 to 9 not printed in the Gazette.]

1,028,423. LOCK. AUGUST ARENS, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed Dec. 28, 1911. Serial No. 668,292. (Cl. 70—91.)



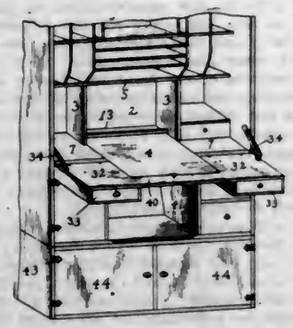
1. In a lock, a latch, an inner knob and roll-back for operating the latch, an outer knob and roll-back for operating the latch, a key-controlled device and roll-back for operating the latch, means for blocking the operation of the latch by the outer knob, independent means for blocking the latch against operation by the outer knob or said key, and means of connection between the inner knob and the last mentioned blocking means to release the latter when the inner knob is turned.

2. In a lock, a latch, an inner knob and roll-back for operating the same, an outer knob and roll-back for operating the same, a key for operating the latch independently

of the knobs, a dead locking device for the outer knob, a latch blocking device manually operable from the inside of the door to which the lock is applied when said door is closed, and operative means of connection between the inner knob and the last mentioned latch blocking device to release the same when the inner knob is turned.

3. In a lock, a latch, an inner knob and roll-back for operating the same, an outer knob and roll-back for operating the same independently of the first mentioned knob, key controlled means concentric with said knobs for operating the latch independently of said knobs, a dogging device to prevent the operation of the latch by the outer knob, a latch blocking device to prevent the operation of the latch by the outer knob or the key, and means of connection between the blocking device and said inside knob to free said blocking device from the latch when the inside knob is turned.

1,028,424. DESK. EDWIN BALTZLEY, Glen Echo, Md., assignor, by mesne assignments, to Vernon I. Richard, Washington, D. C. Filed Mar. 5, 1907. Serial No. 360,644. (Cl. 45—52.)



1. A stand or desk having a cabinet, and a combined cabinet closure and table, comprising a swinging member and a rotatable member, both of said members having extended table-forming surfaces.

2. A stand or desk having a cabinet and a combined cabinet closure and table, comprising a swinging member and a rotatable member, and means for controlling the rotation of said rotatable member, both of said members having extended table-forming surfaces.

3. A stand or desk having a cabinet, and a combined cabinet closure and table, comprising a swinging member and a rotatable member, and a brake controlling the rotation of said rotatable member.

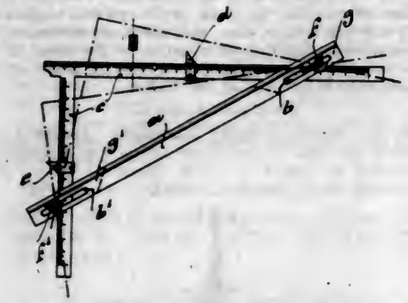
4. A desk or stand having a rotatably mounted leaf whose axis is at or near the front of the desk, a portion of the leaf when in horizontal position being projected beyond the front of the desk and a portion in rear thereof, and a swinging leaf at either side of said rotatably mounted leaf and movable to a horizontal or table-forming position.

5. A desk or stand having a rotatably mounted leaf whose axis is at or near the front of the desk, a portion of the leaf when in a horizontal position being projected beyond the front of the desk and a portion in rear thereof, and a leaf carrying receptacle pivoted at the side of said rotatably mounted leaf and movable toward and from the front of the desk.

[Claims 6 to 12 not printed in the Gazette.]

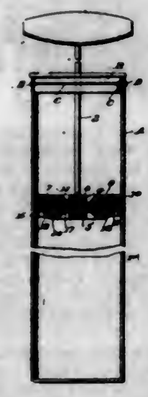
1,028,425. BEVEL-PROTRACTOR. JOSEF BRANDL, Neunuhsberg, Germany. Filed Feb. 3, 1912. Serial No. 675,314. (Cl. 73—80.)

A bevel protractor characterized by a board or ruler *a* provided at its ends with longitudinal slots *b*, b^1 in which may slide the thumb screws *f*, f^1 and slots *g*, g^1 in which both sides *c c*, graduated in millimeters and secured together exactly at 90°, are slidably guided and may be fixed in any desired position by means of the thumb screws *f*, f^1, while the sides *c*, *c* of the right angle are



each provided with an indicator *d*, *e*, which indicators are slidable over said sides *c*, *c*, said tool being especially fit for getting the accurate height and width of the steps when constructing stair-cases.

1,028,426. PUMP-PLUNGER. FORREST VICTOR BRAYMER, Blooming Valley, Pa. Filed July 21, 1911. Serial No. 639,810. (Cl. 103—63.)



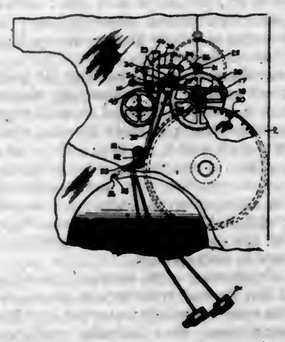
1. A plunger head including a plunger cup, a perforated washer on the cup, and a perforated resilient lubricant supporting disk disposed adjacent to said washer, and means for forcing the cup, washer and disk toward each other.

2. A plunger head, including a plunger cup, oppositely disposed lubricant supporting disks on each side of the cup, said disks being perforated, whereby to permit fluid pressure to force the lubricant out of the lubricant supporting disks, and means for forcing the disks toward the cup.

3. The combination with a plunger rod, of a plunger head therefor including a plunger cup, oppositely disposed disks located on each side of the cup, each of said disks having a central depressed portion extending toward said cup, the disks being adapted to support lubricating material on each side of the cup, said disks being perforated whereby to permit fluid pressure to force a portion of the lubricant out from said disks, and oppositely disposed nuts having screw threaded engagement with the rod and disposed on each side of the plunger head.

4. The combination with a plunger rod having a screw threaded portion, of nuts on the opposite ends of the screw threaded portion, a flexible plunger cup disposed between the nuts, a ring of fibrous absorbent material disposed on one side of the plunger cup, a perforated disk disposed against the outer face of the ring and between the ring and the adjacent nut, said disk having a central depressed portion, a perforated washer on the opposite side of the plunger cup, and a disk located between said washer and the adjacent nut, said disk having a depressed central portion and a depressed marginal portion adapted to contact with the face of the washer, said disk being perforated.

1,028,427. CLOCK. SOLON B. BRICKER, St. Paris, Ohio. Filed Oct. 14, 1911. Serial No. 654,686. (Cl. 58—8.)



1. In a striking device for a clock the combination with a frame, a train of gears, a counting wheel, a plurality of striking clappers, of a cam member carried by said frame and being adapted to engage said clappers, a cam wheel carried by said frame, and means coöperating with said cam-wheel and cam-member for shifting said cam-member when said cam wheel is rotated.

2. In a striking device for a clock, the combination with a frame, a main shaft, of a cam-member supported by said frame, a cam-wheel carried by said shaft, a bracket carried by said frame, a shaft carried by said bracket, laterally extending arms carried by said shaft, a shifting-member engaging said cam-member, one of said arms engaging said cam-wheel, the other of said arms engaging said shifting-member for causing said cam-member to be shifted when said cam-wheel is rotated, and means for rotating said main shaft.

3. In a striking device, the combination with a frame, a train of gearing carried thereby, of a main shaft, a cam-wheel carried thereby, a cam-member comprising a pair of cam-arms carried by said frame, striking clappers having angle ends carried thereby, means for rotating said cam-members, and means coöperating with said cam-wheel and cam-member for shifting said cam-member whereby the same may be brought to operate different striking clappers.

4. In a striking device for a clock, the combination with a frame, of a train of gears, a counting wheel, a plurality of striking clappers, a counting arm coöperating with said counting wheel, a cam spur wheel carried by said frame and operated by said train of gears, a releasing lever carried by said frame and provided with a downwardly extending leg having a laterally extending foot engaging said cam spur wheel, said releasing lever provided with a forwardly extending arm, means engaging said forwardly extending arm and coöperating with said counting arm for raising and lowering said counting arm as said spur wheel is rotated whereby the rotation of said counting wheel will be controlled, means for operating said clappers, a cam guide wheel supported by said frame, and means coöperating with said cam guide wheel and carried by said frame and coöperating with said clapper operating means for causing said clapper operating means to actuate different clappers at different times.

1,028,428. SWORD AND SCABBARD. EMILIO F. BRUNELLO, Appalachia, Va. Filed May 5, 1911. Serial No. 625,243. (Cl. 224—2.)



1. A scabbard consisting of separable sections; one of said sections having longitudinal recesses in its inner wall at one end, parallel extensions on the end of the other scabbard section to engage in said recesses, and means carried by the latter section coacting with the first-named section to detachably lock said sections together.

2. A scabbard consisting of separable sections, one of said sections having longitudinal recesses in its inner wall at diametrically opposite points, the other of said sections being provided with reduced longitudinal extensions to fit into said recesses of the first-named section, and opposed spring arms secured at one of their ends to the latter section and provided upon their other ends with studs, said part named section having apertures in its wall inwardly of said recesses to receive said studs and lock said sections together.

1,028,429. SWIVEL-PLUG ATTACHMENT. ALBERT W. BUELL, St. Paul, Minn., assignor to Federal Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 5, 1911. Serial No. 647,760. (Cl. 173—359.)



1. A swivel plug attachment comprising a ring member having an externally threaded shell contact, a plug member of insulating material on which said ring member is rotatively mounted, said plug member being adapted for the attachment of conductors, a center contact carried at the end of said plug member, interlocking devices carried respectively by said ring member and said plug member adapted to prevent longitudinal movement of said plug member with reference to said ring member, one of said interlocking devices being adapted to yield to permit the insertion of said plug member into said ring member, and the interlocking device carried by said plug member constituting an intermediate contact member having sliding engagement with the interior surface of said shell member.

2. A swivel plug attachment comprising a ring member having an externally threaded shell contact, a plug member of insulating material on which said ring member is rotatively mounted, a center contact carried at the end of said plug member, interlocking devices carried respectively by said ring member and said plug member adapted to prevent longitudinal movement of said plug member with reference to said ring member, one of said interlocking devices being adapted to yield to permit the insertion of said plug member into said ring member, and the interlocking device carried by said plug member constituting an intermediate contact member having sliding engagement with the interior surface of said shell member, said plug member being provided with longitudinally extending, laterally separated passages opening through its base for conductors, and means carried by said plug member for electrically connecting said conductors to said intermediate contact member and to said center contact,

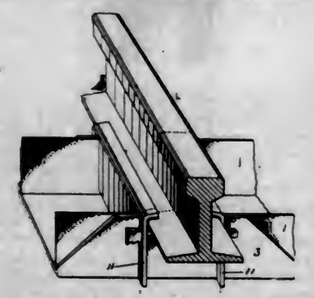
3. A swivel plug attachment comprising a ring member including a threaded metal shell contact, said ring member being provided at its base with an inwardly projecting annular shoulder, a plug member of insulating material having a reduced stem on which said ring member is rotatively mounted and a base providing a radially extending annular shoulder located in abutting relation with the base of said ring member, a spring contact secured to said stem and adapted for abutting engagement with the annular shoulder of said ring member and for sliding engagement with the interior of said shell contact, a binding screw having electric connection with said spring contact, a center contact secured in the end of said stem, and a binding screw having electric connection with said center contact, said stem being provided with circumferentially spaced recesses in which said binding screws are located and with laterally spaced, longitudinally extending passages opening through the base of said plug member for the conductor wires.

1,028,430. SHOTGUN. FRANK F. BURTON, East Haven, Conn., assignor to Winchester Repeating Arms Co., New Haven, Conn., a Corporation. Filed Mar. 21, 1912. Serial No. 685,346. (Cl. 42—76.)



A gun having the walls of the cartridge-chamber of its gun-barrel formed with a plurality of anchoring-pockets to anchor the sheet-metal cape of paper-shell cartridges at the instant of firing to prevent the said caps from longitudinal rearward movement and separation from the paper tubes of the shells.

1,028,431. RAILWAY-TIE AND FASTENER THEREFOR. ARTHUR C. CANDLAND, Provo, Utah. Filed Jan. 29, 1912. Serial No. 674,025. (Cl. 238—5.)



1. In combination with an open topped metallic shell; reinforcing members having closed sides and bottom for each end portion of said shell; rail supporting blocks in said shell; clamps adapted to engage the base flange of a rail and to hold said rail supporting blocks in place; and means to draw said reinforcing members and said clamps together.

2. In combination with an open topped metallic shell; reinforcing members having closed sides and bottom contiguous each end portion of said shell; rail supports in said shell; clamps adapted to engage the base flange of a rail placed on said supports, each having open slots therein; and means in said slots to draw said reinforcing members and said clamps toward each other.

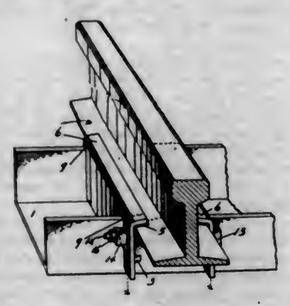
3. In combination with a U-shaped metallic shell, outwardly extended lugs thereon; rail supporting blocks in said shell, reinforcing members adjoining the bottom and sides of each end portion of said shell; outwardly extended lugs on said reinforcing members; and means to bind said reinforcing members and transversely placed rails on opposed sides of said shell.

4. In combination with a railway tie portions of which are bent outwardly, rail supporting blocks within said tie; clamps transversely placed in said tie adjoining said blocks, each having open slots therein, rectangular opening therethrough and a portion bent to engage the base flange of a rail; a reinforcing member having closed sides and bottom surrounding each end portion of said tie and adapted to strengthen the sides and bottom thereof and to co-act with said clamps in holding the rail in a fixed position on the tie; and keys driven within the rectangular openings in said clamps.

5. In combination with outwarly extended portions of a railway tie, clamps transversely placed in said tie contiguous the said outwardly extended portions thereof and each having open slots therein, rectangular openings therethrough and a portion bent to engage the base flange of a rail; reinforcing members one each of which is placed adjoining the sides and bottom of each end portion of said tie and having a portion of each side of each extended outwardly subjacent said outwardly extended portions of said tie; and keys driven within the said rectangular openings in said clamps in slidable contact with the underside of said outwardly bent portions of said reinforcing members.

[Claim 6 not printed in the Gazette.]

1,028,432. RAILWAY-TIE AND FASTENER. ARTHUR C. CANDLAND, Provo, Utah. Filed Feb. 2, 1912. Serial No. 674,864. (Cl. 238—5.)



1. A railway tie and fastener therefor consisting of an upturned U-shaped channel, portions of the sides of said channel bent outwardly to form lugs and other portions to form braces, a rail supporting block in each end portion of said channel adjacent said outwardly extending lugs, insulating strips on said rail supporting blocks and said lugs and means to grip the base flange of a railway rail and said extended lugs firmly together.

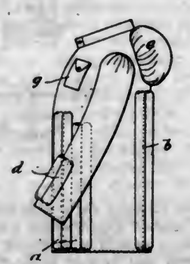
2. In a railway tie and fastener the combination of outwardly extended lugs on said tie, rail supporting blocks in said tie and adjacent said lugs, braces integral with the sides of said channel, clamps transversely fitted in said channel a portion thereof adapted to grip the sides of said channel and having rectangular openings therein, and another portion bent to grip the base flange of a rail, bolts having trapezoidal heads on each placed in said rectangular openings, trapezoidal washers on said bolts, said washers and said heads of said bolts in slidable contact with the under side of said lugs.

3. A railway tie and fastener therefor consisting of an upturned U-shaped channel, lugs therein formed from outwardly bent portions of the sides of said channel, braces integral with the sides of said channel, a rail supporting block in each end portion of said channel adjacent said lugs, insulating strips between said rail supporting blocks and said lugs, a railway rail placed thereon, a means to grip the base flange of a railway rail and said lugs firmly together.

4. In a railway tie and fastener the combination of outwardly extended lugs on said tie, rail supporting blocks in said tie adjacent said lugs, braces integral with the sides of said tie, clamps transversely fitted in said channel having open slots therein, a portion on each end of said clamps adapted to grip the sides of said channel and provided with rectangular openings therein, threaded bolts having trapezoidal heads on each, a trapezoidal washer carried on each of said bolts and a threaded nut adapted to be turned on each of said bolts.

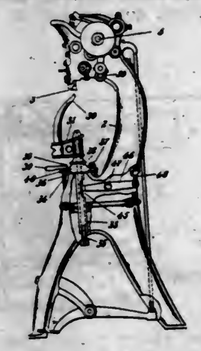
5. In a railway tie and fastener the combination of outwardly extending portions on said tie forming lugs, outwardly extended braces integral with the sides of said tie, clamps transversely fitted in said channel, portions of the ends thereof partially severed from said clamps by open slots and having rectangular openings therein, a metal bushing in each of said openings, threaded bolts having trapezoidal heads and carrying a trapezoidal washer on each placed in said rectangular openings with one side of said trapezoidal washer and the side of the trapezoidal bolt slidably in contact with the said extended lugs and the opposite side of said trapezoidal washer and trapezoidal head in slidable contact with said bushings, and a threaded nut adapted to be turned on each of said bolts to bind said clamps together and to draw said clamps inward and downward on a railway rail.

1,028,433. MARINE LIFE-SAVING JACKET. WILLIAM CARROLL, West Silvertown, London, England, assignor of one-half to George M. Boddy, London, England. Filed Aug. 16, 1911. Serial No. 644,407. (Cl. 9—20.)



A life saving garment, comprising a short jacket open at the bottom and adapted to fasten down the front, a relatively large buoyant cushion or pillow extending transversely above and across the shoulders portion of the jacket and operating to hold the head of the wearer above the water level when the wearer is unconscious, the ends of the said cushion being arranged in proximity to the arm openings of the jacket, its top being arranged in proximity to the neck opening and extending along the tops of the shoulders, and its bottom being arranged below the level of the arm openings, and a series of auxiliary buoyant compartments secured to the body portion of the jacket and operating to assist the said cushion or pillow in supporting the wearer but being relatively of much less size and buoyancy than the said cushion or pillow.

1,028,434. WORK-SUPPORT MECHANISM FOR FASTENING-INSERTING OR OTHER MACHINES. LOUIS A. CASGRAIN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Mar. 17, 1906, Serial No. 306,612. Divided and this application filed May 21, 1907. Serial No. 374,853. (Cl. 1—41.)



1. In a machine of the class described, a vertically movable work support so sustained as normally to tend to assume a depressed position, power operated means acting intermittently during each cycle of operations to raise and sustain the work support yieldingly and then to sustain it rigidly in raised position.

2. In a machine of the class described, a vertically movable work support so sustained as normally to tend to assume a depressed position, means acting intermittently during each cycle of operations to raise the work support first yieldingly and then positively and to sustain it rigidly in raised position together with adjustable means for varying the positive movement.

3. In a machine of the class described, a vertically movable work support so sustained as normally to tend to assume a depressed position, a single cam and connections between it and the work support acting intermittently during each cycle of operations to raise the work support yieldingly, then to sustain it rigidly in raised position, and finally to release it so that it will descend, whereby the work may be alternately clamped and unclamped during each cycle of operations.

4. In a machine of the class described, a vertically movable work support, means for partially but not wholly counterbalancing it, means acting intermittently during each cycle of operations to raise the work support yieldingly and then to sustain it rigidly in raised position, the latter means being constructed and arranged to sustain the work support so that it may yield downwardly during the first part of its upward movement.

5. In a machine of the class described, a vertically movable work support, a power-actuated lever and connections between said lever and said work support for moving the work support yieldingly, and a pawl and ratchet controlled by said lever for rendering said connections unyielding, whereby the work support is locked rigidly in position at a predetermined point in the cycle of operations.

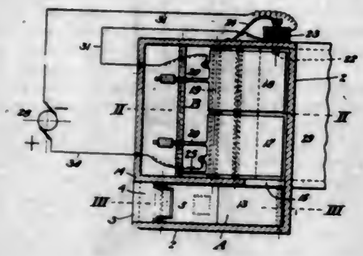
[Claims 6 to 19 not printed in the Gazette.]

1,028,435. ANIMAL-TRAP. JOHN B. CESSNA, Pittsburgh, Pa. Filed Mar. 14, 1911. Serial No. 614,491. (Cl. 43—34.)

1. In an animal trap, the combination of a casing having an entrance compartment and an execution compartment communicating therewith, a trap door operable to open and close the entrance compartment, a tilting electrocution platform in the execution compartment, and means

connected therewith for engaging and disengaging the trap door, substantially as set forth.

2. In an animal trap, the combination of a casing having an entrance compartment and an execution compartment communicating therewith, a trap door operable to open and close the entrance compartment, a pivoted platform having a lever extension connected with the trap door, a tilting electrocution platform in the execution compartment, and means connected therewith for engaging and disengaging the trap door, as substantially set forth.



3. An animal trap having an entrance opening, a door therefor, a pivoted platform having a lever connection with said door, a pair of pivotally mounted platforms of conducting material, a latch for the door operable thereby, and means supplying current to each of said platforms, substantially as set forth.

4. An animal trap having an entrance opening, a door therefor, a pivoted platform having a lever connection with said door, a pair of pivotally mounted platforms of conducting material, a supporting latch and magnet therefor, a latch for the entrance door operable by the said platforms, and means supplying current to each of said platforms, substantially as set forth.

5. In an animal trap, a casing having an inner chamber and an entrance opening communicating therewith, a trap door and a connected platform operable to open and close the entrance opening, a pair of separated supporting insulated contact plates pivotally mounted in the inner chamber, a lever connected therewith having a latch for engaging the trap door, a magnet and latch engaging one of the contact plates, and means for establishing circuit through said magnet and plates when circuit is closed between the plates, substantially as set forth.

[Claims 6 to 8 not printed in the Gazette.]

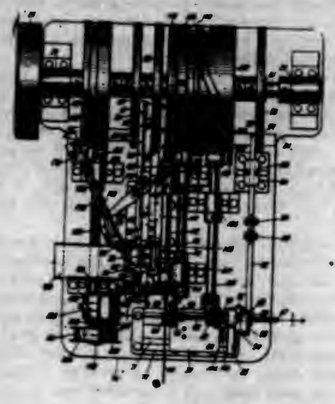
1,028,436. TUFT-MAKING MACHINE. DANIEL L. CHANDLER, Ayer, Mass., assignor of one-third to John H. Trayne, Groton, Mass., and one-third to Edgar W. Blake, Pepperell, Mass. Filed June 26, 1911. Serial No. 635,258. (Cl. 15—7.)

1. A tuft making machine having, in combination, means to remove the bur from the end of a tube, means for placing a bunch of bristles in said tube, and means to compress said tube against said bristles to bind the same therein.

2. A tuft making machine having, in combination, means for chamfering the inside of the end of a tube, means for inserting a bunch of bristles in said tube, and means to compress said tube against said bristles to bind the same therein.

3. A tuft making machine having, in combination, means for chamfering the inside of the end of a tube, means for inserting a bunch of bristles into said tube, and means to present said tube first to the action of said chamfering means and then to said bristle inserting means.

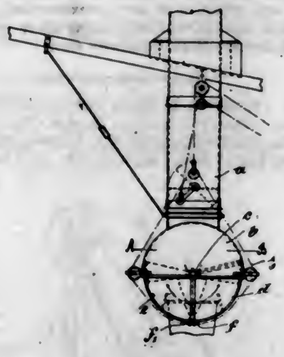
4. A tuft making machine having, in combination, means for chamfering the inside of the end of a tube, means for inserting a bunch of bristles into said tube, means for compressing said tube against said bristles to hold the same therein, and means to present said tube first to the action of said chamfering means and then to said bristle inserting and tube compressing means.



5. A tuft making machine having, in combination, means for inserting a bunch of bristles into the end of a tube, and means for cutting off of said tube the portion containing said bristles.

[Claims 6 to 26 not printed in the Gazette.]

1,028,437. SMOKE AND GAS COLLECTOR FOR ENGINE-HOUSES. HERMANN CLASEN, Schmiedefeld, Germany. Filed Oct. 3, 1911. Serial No. 652,653. (Cl. 104—208.)



A smoke and gas collector for engine-houses, comprising in combination a lead-off pipe beneath which the flue-pipe of the engine or locomotive is to be placed, a hemispherical bonnet at the lower end of said lead-off pipe, a pair of flaps corresponding to the envelop of said bonnet movably arranged within the latter and adapted to be turned in opposite direction and designed when turned downward and outward to embrace the flue-pipe of the locomotive placed underneath and to liberate the area of the lead-off pipe, but when again moved back to liberate the flue-pipe and to close the lead-off pipe, for the purpose set forth.

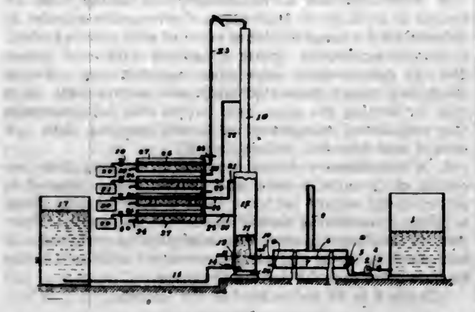
1,028,438. CIGARETTE-BOX. BENJAMIN COHON, Westwood, N. J. Filed Nov. 21, 1911. Serial No. 661,471. (Cl. 229—27.)

A cigarette box comprising an outer open-end casing and an inner slidable container having front and back walls, said front and back walls being provided with portions partly cut out and bent up in opposite directions in the interior of the container so as to form a transverse series of division members on each wall, said series being



spaced longitudinally from each other and coöperating to divide the interior into compartments each of which is adapted to hold a cigarette.

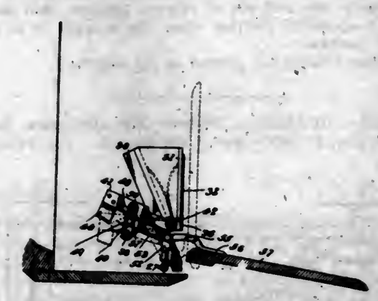
1,028,439. PROCESS OF TREATING PETROLEUM. JACOB COLLINS, Olinda, Cal., assignor of one-half to Wm. J. Travers, Olinda, Cal. Filed Sept. 19, 1911. Serial No. 650,238. (Cl. 196—25.)



1. The process of treating petroleum containing water and light hydrocarbons more volatile than water, which consists in heating the petroleum to a temperature above 212° F., while under pressure sufficient to prevent volatilization of the water or light hydrocarbons, allowing the heated petroleum to rise in a column of petroleum to gradually reduce the pressure to a point in excess of atmospheric pressure, but sufficiently low to permit volatilization of the lighter hydrocarbons and part of the water from the vapor of said column, collecting and drawing off said lighter hydrocarbons, under the reduced pressure at the top of said column, and allowing the residue of petroleum from the column to rise in another column to gradually reduce the pressure to atmospheric pressure and permitting the water to volatilize from the surface of said second column.

2. The process of treating petroleum containing water and hydrocarbons more volatile than water, consisting in heating the petroleum to a temperature above 212° F., introducing the heated petroleum gradually, into the bottom of a heated column of petroleum at substantially the same temperature, causing the petroleum to gradually rise to the surface of said column so as to gradually reduce the hydrostatic pressure on the petroleum until the pressure becomes sufficiently low to permit volatilization of the said lighter hydrocarbons, collecting and drawing off such lighter hydrocarbons while maintaining a pressure on the surface of said column, in excess of atmospheric pressure, and then again introducing the petroleum gradually into the lower part of a mass of petroleum at substantially the same temperature and causing the petroleum to gradually rise to the surface of said mass of petroleum so as to gradually remove the hydrostatic pressure in the petroleum, and allowing the water to volatilize and escape from the petroleum as it reaches the surface of said mass.

1,028,440. EXPRESSION MECHANISM FOR PIANOS. WILLIAM F. COOPER and EDWARD P. CHASE, Norwalk, Ohio; said Chase assignor to The A. B. Chase Company. Filed Apr. 8, 1910. Serial No. 554,184. (Cl. 84—160.)



1. In a pneumatic piano, a movable hammer rest rail and its operating rod, a tension bellows, and connections between the bellows and rod to cause movement of the latter by movements of the former, said connections being movable to place them into and out of an operative position, said connections in operative position acting as an arm or extension of and movable with the movable board of the bellows with said arm extending angularly with respect to the plane of the face of said board, the board and extension operating as a unitary structure when in operative relationship, and means for moving the connections into and out of operative position changing the angularity of the extension relative to the board.

2. In a pneumatic piano, a movable hammer rest rail and its operating rod, a tension bellows, and connections between the bellows and rod to cause movement of the latter by movements of the former, said connections being movable to place them into and out of an operative position, said connections in operative position acting as an arm or extension of and movable with the movable board of the bellows with said arm extending angularly with respect to the plane of the face of said board, and means for moving the connections into and out of the operative position, the movement of said connections out of operative position changing the angularity of the extension relative to the board and breaking the operative relation between the bellows and rod.

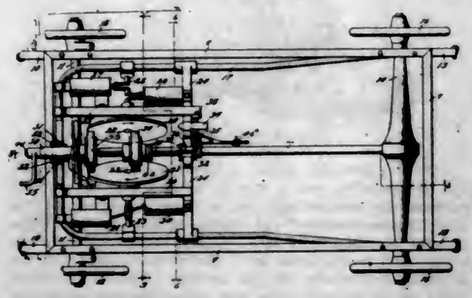
3. In a pneumatic piano, a movable hammer rest rail and its operating rod, a tension bellows, and connections between the bellows and rod to cause movement of the latter by movements of the former, said connections being movable to place them into and out of an operative position, said connections in operative position acting as an arm or extension of and movable with the movable board of the bellows with said arm extending angularly with respect to the plane of the face of said board, and means for moving the connections into and out of the operative position, said means retaining the connections in either position and changing the angularity of the extension relative to the board.

4. In a pneumatic piano, a movable hammer rest rail and it operating rod, a tension bellows, and connections between the bellows and rod to cause movement of the latter by movements of the former, said connections being movable to place them into and out of an operative position, said connections in operative position acting as an arm or extension of and movable with the movable board of the bellows with said arm extending angularly with respect to the plane of the face of said board, a pedal door and means for moving the connections into and out of the operative position, said means being controlled by the movements of the treadle door.

5. In a pneumatic piano, a casing having an opening, a hammer rest rail, a tension bellows, means for causing movements of the hammer rest rail by movements of the movable board of the tension bellows, said means being movable to break the operative relationship between the rail and bellows, and a movable element carried by and adapted to form a closure for an opening in the casing of the piano, said element effecting a movement of said means into and out of operative position by its movements into and out of closure position, said means being in operative position when the element is in non-closure position.

[Claims 6 to 20 not printed in the Gazette.]

1,028,441. GEARING. JOSEPH DAIN, Ottumwa, Iowa. Filed Nov. 2, 1907. Serial No. 400,371. (Cl. 74—26.)



1. A transmission-device, comprising disconnected disks arranged at an angle to each other, a disk adapted to co-operatively engage the inner faces of said disks, and power-transmitting devices connected with said disks.

2. A transmission device for motor vehicles, comprising disconnected drive disks arranged at an angle to each other, a driven disk arranged to be driven by said drive disks, and independent motors connected with said drive disks respectively for driving the same.

3. A transmission device for motor vehicles, comprising disconnected drive disks arranged at an angle to each other, a driven disk arranged to be driven by said drive disks, and independent motors for driving said drive disks respectively, said driven disk being movable toward and away from said drive disks.

4. A transmission device for motor vehicles, comprising disconnected drive disks arranged at an angle to each other, a driven disk arranged to be driven by said drive disks, and independent motors for driving said drive disks respectively, said driven disk being movable toward and away from said drive disks and toward and from the centers thereof.

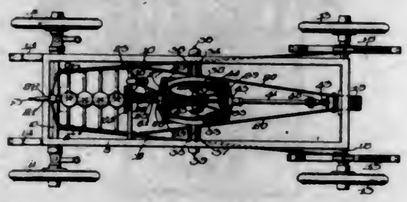
5. A transmission device for motor vehicles, comprising disconnected drive disks arranged at an angle to each other, a shaft extending between said disks, a driven disk mounted on said shaft and movable longitudinally thereof between said drive disks, and independent motors connected with said drive disks respectively for driving the same.

[Claims 6 to 38 not printed in the Gazette.]

1,028,442. GEARING. JOSEPH DAIN, Ottumwa, Iowa. Filed Nov. 7, 1908. Serial No. 461,568. Renewed July 3, 1911. Serial No. 636,708. (Cl. 74—26.)

1. A transmission device comprising coacting disks arranged at an angle to each other, a driven disk adapted to coöperatively engage the inner faces of said coacting disks, a power-transmitting device connected with said driven disk, an intermediate drive disk engaging said coacting disks, and means connected with said intermediate drive disk for driving the same.

2. A transmission device comprising coacting disks arranged at an angle to each other, a driven disk adapted to coöperatively engage the inner faces of said coacting disks, a power-transmitting device connected with said driven disk, an intermediate drive disk engaging said coacting disks, and means connected with said intermediate drive disk for driving the same, said intermediate drive disk being movable into and out of engagement with said coacting disks.



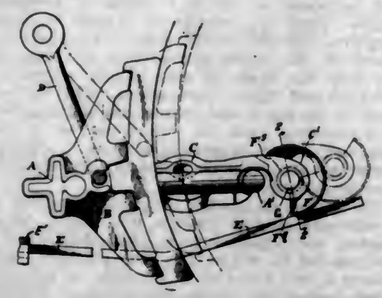
3. A transmission device comprising coacting disks arranged at an angle to each other, a driven disk adapted to coöperatively engage the inner faces of said coacting disks, a power-transmitting device connected with said driven disk, an intermediate drive disk engaging said coacting disks, and means connected with said intermediate drive disk for driving the same, said driven disk being movable into and out of engagement with said coacting disks.

4. A transmission device comprising coacting disks arranged at an angle to each other, a driven disk adapted to coöperatively engage the inner faces of said coacting disks, a power-transmitting device connected with said driven disk, an intermediate drive disk engaging said coacting disks, and means connected with said intermediate drive disk for driving the same, said driven disk being movable into and out of engagement with said coacting disks and toward and from the centers thereof.

5. A transmission device comprising coacting disks arranged at an angle to each other, a driven disk adapted to coöperatively engage the inner faces of said coacting disks, a power-transmitting device connected with said driven disk, an intermediate drive disk engaging the peripheries of said coacting disks, and means connected with said intermediate drive disk for driving the same.

[Claims 6 to 30 not printed in the Gazette.]

1,028,443. BRAKE-BEAM SUSPENSION. NATHAN H. DAVIS, Philadelphia, Pa. Filed Oct. 30, 1911. Serial No. 657,398. (Cl. 188—70.)



1. The combination with a trussed brake beam having a strut, of a roller element journaled to said strut adjacent the conenction of the latter to the tension member of the beam, and a truck supported track element on which said roller element runs.

2. The combination with a brake beam formed with the usual eye for a third suspension, of a roller element having a journal received in said eye, and a truck supported track element on which said roller runs.

3. The combination with a brake beam formed with an eye located and adapted to receive a pin connecting the beam to a swinging third suspension link, of a roller element having a journal received in said eye, and a truck supported spring track element on which said roller runs.

4. The combination with a brake beam proper having a portion extending transversely to the length of the beam, of a roller journaled to said portion and comprising a web laterally displaced from said portion, and a rim overlapping said portion, said roller being cut away to permit of a partial revolution of said roller relative to the beam proper, and a truck supported spring track element on which said roller runs.

5. In a third suspension for brake beams, the combination with a brake beam proper provided with a pair of apertured ears in front of the tension member of the beam, a roller element comprising a web extending between and journaled in said ears, and a rim overlapping both ears, said rim and web being cut away to permit of a partial revolution of said roller with respect to said beam, and a truck supported track element on which said roller element runs.

1,028,444. PROTECTIVE COVERING FOR RESISTANCE-CONDUCTORS. JOHN T. H. DEMPSTER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Mar. 20, 1909. Serial No. 484,772. (Cl. 173—264.)

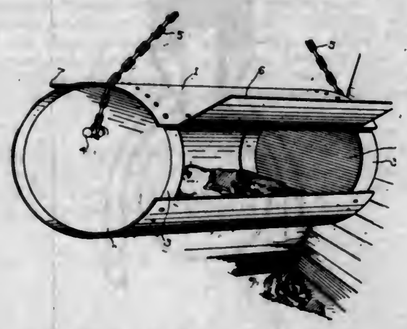
1. The combination of an oxidizable resistance conductor, a mica insulation adjacent thereto, and a protective material interposed between the conductor and the mica, said material comprising a basic oxid.

2. The combination of an oxidizable resistance conductor, a mica insulation adjacent thereto, and a protective material interposed between the conductor and the mica, said material comprising aluminum oxid and an aluminate.

3. The combination of an oxidizable resistance conductor, a mica insulation adjacent thereto, and a protective material interposed between the conductor and the mica, said material comprising aluminum oxid, an aluminate and a binder.

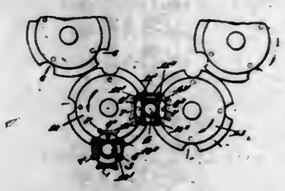
4. The combination of a resistance conductor containing iron, nickel, and chromium, a mica insulation adjacent thereto, and a protective material between the conductor and the mica, said material comprising aluminum oxid and an aluminate.

1,028,445. FEED-HOPPER. HARPER W. DEWEY, Sidney Center, N. Y. Filed Dec. 24, 1910. Serial No. 599,103. (Cl. 119—61.)



A device of the character described comprising a cylindrical rotatable casing made of a single sheet of material, said casing being provided on one of its sides with a longitudinal opening, an upwardly inclined shield formed on the upper edge of said opening and integral with said casing, a longitudinally extending projection formed upon either end of said casing and adjacent the top thereof, end-closures riveted to said casing, pivot pins mounted upon said end-closures above the center thereof, and suspending chains secured to said pins and adapted to engage the ends of said casing and said projections when the cylinder is rotated.

1,028,446. PLAITING-MACHINE. EMIL DIEBOLD, Ennetbaden, Switzerland. Filed May 31, 1911. Serial No. 630,392. (Cl. 28—4.)



1. In a plaiting machine, the combination of a plurality of driving wheels, recesses therein for the reception of the bobbin spindles, lugs on these spindles, pins on the driving wheels located adjacent to the recesses which pins prevent the dropping of the spindles owing to their contact with the lugs, fixed guide plates, and two pairs of cheeks on the spindles which cheeks are in contact with the guide plates and prevent a rotation of the spindles on the driving wheel.

2. In a plaiting machine, a plurality of driving wheels, recesses therein for the reception of the bobbin spindles, lugs on these spindles, pins on the driving wheels located adjacent to the recesses, two pairs of cheeks on the spindles, one pair located higher than the other, the lugs and cheeks being in one piece, and fixed guide plates each provided with a recess to clear the lower pair of cheeks.

3. In a plaiting machine a plurality of driving wheels, pins arranged thereon, a plurality of spindle holders, lugs on these latter adapted to coöperate with the pins, two pairs of cheeks arranged in the spindle holders, and fixed guide plates over which the cheeks slide and which prevent rotation of the spindle holder.

4. In a plaiting machine a spindle, a sleeve fixedly mounted thereon, a further sleeve which can rotate on the first sleeve, a pin displaceably arranged on the fixed sleeve and having cheeks, a spring pressing the latter into a lower position, a downward bend in the pin, a curved groove in the rotary sleeve, and a striker on the rotary sleeve by means of which the said sleeve is rotated and the pin with the cheeks raised.

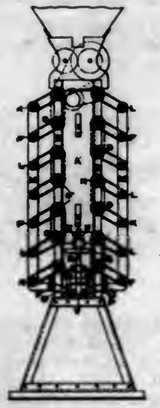
5. In a plaiting machine a driving wheel, spindles and lugs mounted thereon, two cheeks at different heights, a plate fixed to the machine frame concentric to and partially surrounding the driving wheel, a fixed pin projecting into the path of the lugs, and two strikers attached to the plate and extended into the track of the cheeks.

1,028,447. APPARATUS FOR CLEANING AND SEPARATING SEEDS AND THE LIKE. FREDERICK MALCOLM DOSSOR, Doncaster, England. Filed July 10, 1911. Serial No. 637,758. (Cl. 130—18.)

1. An apparatus for cleaning and separating seeds comprising a frame, vertical angle irons having bearing recesses and slots, and vertical connecting rods also having recesses, brackets having bosses at each end, each upper boss having flats which pass through the slots into the bearing recesses provided in the angle irons and the lower bosses being carried in the recesses of the connecting rods, and ledges on the brackets, cleaning sections and supporting boards for the cleaning sections carried on the ledges.

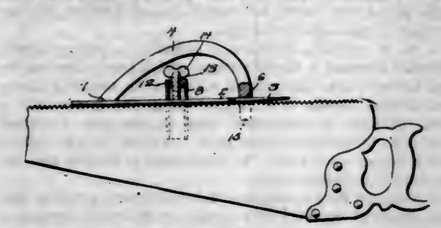
2. An apparatus for cleaning and separating seeds comprising a frame, vertical angle irons thereon having bearing recesses with slots leading therefrom, vertical connecting rods brackets having upper bosses with flats adapted to pass through the slots in the angle irons and lower bosses and forked carriers for the lower bosses adjustably

mounted on the connecting rods, ledges on the brackets and supporting boards carried by the ledges.



3. In apparatus of the type described for cleaning and separating seeds and the like, cleaning sections, the mechanism for simultaneously adjusting the working angle of the various cleaning sections, comprising cross shafts at each side of the machine, double and single levers pivoted thereon, a screw carried in a bracket fixed to one end of the frame, an operating hand wheel on the screw, and links connecting the screw to the pivoted double levers on each side, substantially as herein set forth.

1,028,448. TOOL FOR LEVELING SAW-TEETH. EDVARD EASTLUND and JOHN A. JOHNSON, New York, N. Y. Filed Oct. 3, 1911. Serial No. 652,586. (Cl. 76—47.)



1. A saw tooth leveling device including an elongated flat abrading member, a handle engaging the abrading member, and a saw engaging guide independent of the handle and adjustably mounted on the abrading member.

2. A saw tooth leveling device including a flat abrading member, a detachable handle coacting with and engaging the abrading member, guiding means on the handle engaging the saw, and a saw-engaging guide detachably mounted upon the abrading member.

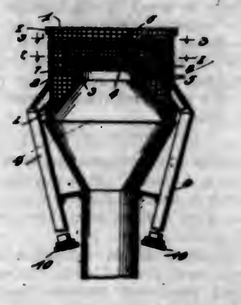
3. A saw tooth leveling device including a flat abrading member, a handle secured to but detachable from the abrading member, said handle being slotted at its rear end to embrace a saw, and a guide detachably engaging the abrading member and extending down beyond the same in a direction away from the handle, said guide being slotted to embrace the saw.

4. A saw tooth leveling device including a bowed file engaging member constituting a handle, a file detachably carried by the handle, and a guide independent of the handle carried by but detachable from the file, said guide being bifurcated to receive the saw.

5. A saw tooth leveling device including a file having a tapered shank, a bowed handle formed at one end with a laterally extending slot through which the tapered shank passes and with a vertical slot communicating with the first named slot and designed to receive the edge margin of the saw, and a guide carried by the file, said guide comprising a body portion transversely slotted for the reception of the file and vertically slotted to embrace the margin of the saw.

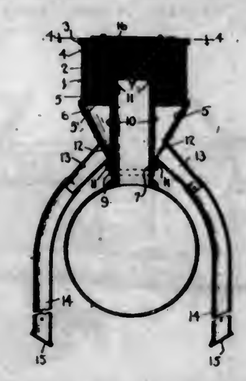
[Claims 6 and 7 not printed in the Gazette.]

1,028,449. SPARK-ARRESTER FOR SMOKE-STACKS. ELMER E. ELLSWORTH, Portland, Oreg., assignor to Ellsworth Spark Arrester Company, a Corporation of Oregon. Filed May 25, 1911. Serial No. 629,323. (Cl. 110—130.)



The combination with a smoke stack having a conically converging top, of a cylindrical screen clamped to the top of said stack, a reinforcing ring around the top of said cylindrical screen, a second ring concentric with and spaced around said first ring, brackets connecting the rings and supporting the outer one, a screen cap supported at its lower portion by said outer ring in spaced relation to the stack and inner screen, an outer screen band provided with reinforcing rings at top and bottom surrounding and spaced from said cap and resting on the inclined top of the stack, and pipes for disposing of the sparks caught.

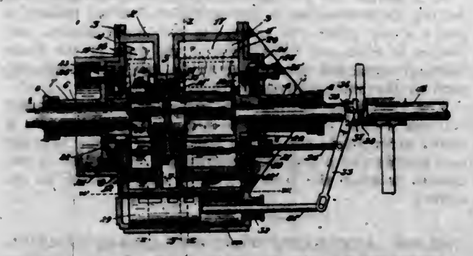
1,028,450. SPARK-ARRESTER. ELMER E. ELLSWORTH, Palmer, Oreg., assignor to Ellsworth Spark Arrester Company, a Corporation of Oregon. Filed July 17, 1911. Serial No. 638,925. (Cl. 110—134.)



1. A spark arrester comprising an outer wire netting cylinder, binding bands secured to the upper and lower edges of said cylinder, a wire netting cylinder arranged within and spaced from said outer cylinder, an angle iron ring secured to the upper edge of said inner cylinder, a binding band secured to the lower edge thereof, radially disposed right angular bracing and supporting bears secured to said angle iron ring and to the sides of said outer cylinder, a funnel shaped hopper secured at its upper edges to the lower ends of said supporting bars and to the lower end of said outer cylinder, means to support said arrester on a smoke stack, and means to receive the sparks and cinders caught by said cylinders and hopper of the arrester.

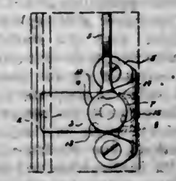
2. A spark arrester comprising an outer wire netting cylinder and a wire netting cylinder arranged within and spaced from said outer cylinder, a cover plate removably secured to the upper end of said inner cylinder, a hopper secured to the lower end of said outer cylinder, a stack engaging collar arranged on the lower end of said hopper, a supporting band adapted to be engaged with the stack to form a support for the arrester, hanger bars adapted to be engaged with the stack and lower end of the arrester to form additional supports for the latter, spark and cinder receiving spouts connected with said hopper, spark and cinder receiving tubes connected with said spouts, and means to close the lower ends of said tubes whereby the sparks and cinders may be retained therein and discharged when desired.

1,028,451. REVERSIBLE HYDRAULIC TRANSMISSION. PETER ENGLISH, San Francisco, Cal., assignor to Milton P. Ropp, San Francisco, Cal. Filed July 21, 1910. Serial No. 573,060. (Cl. 138—3.)



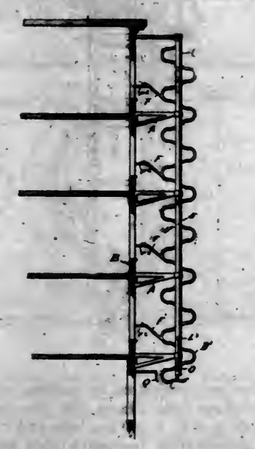
A motion transmitting device including a cylindrical two part casing with a transverse dividing web, independent axially alined driving and driven shafts journaled in opposite ends of the casing and eccentric thereto, slotted drums fixed to the inner ends of said shafts, with their peripheries forming close joints with the ends and one side of the inner peripheries of the casings, crescent shaped spaces between the drums an dthe opposite sides, a filling of non-compressible liquid, a pin fixed in the central web axially of the casings and projecting into each compartment thereof, wings or vanes carried upon said pin, slidable within the slotted drums and fitting the interior of the drum casings, a valve casing, a valve slidable therein and having pairs of ports, passages connecting the casings and the valve casing, and means to move the valve to connect different pairs of ports with the passages.

1,028,452. WINDOW-FASTENER. LOUIS W. GATES, West Haven, Conn., assignor to C. Cowles & Co., New Haven, Conn., a Corporation. Filed Mar. 14, 1912. Serial No. 683,768. (Cl. 16—18.)



The combination with a casing, of an operating handle formed with a pivot extending through the top of the casing, a bolt loosely mounted on said pivot and formed with two downwardly projecting lugs, an operating disk secured to the inner end of the pivot below the said bolt and formed with two upwardly projecting lugs adapted respectively to engage with the lugs on the bolt, and whereby when the bolt is in the operating position the lever may stand at right angles thereto, and when the bolt is retired the lever will stand in line therewith.

1,028,453. FIRE-ESCAPE. JOHN BERRIEN GLOVER, Brooklyn, N. Y. Filed Jan. 27, 1912. Serial No. 673,934. (Cl. 227—11.)



1. A fire escape comprising longitudinally slotted zigzag tubes, upright beams, bracket members fastened to the latter and recessed to receive said zigzag tubes, a carrier member movable in oppositely disposed slots of the tubes, the ends of the carriers being spherical-shaped and movable within the tube, means for holding a person upon the carrier, covers for the slots of the tubes and opened by the carrier as it comes in contact therewith, as set forth.

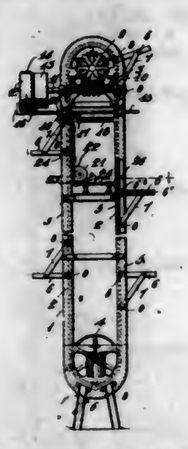
2. A fire escape comprising longitudinally slotted zigzag tubes, upright beams, bracket members fastened to the latter and recessed to receive said spiral tubes, a carrier member movable in the oppositely disposed slots of the tubes, the ends of the carriers being spherical-shaped and movable within the tube, means for holding a person upon the carrier, covers fastened to the upper edge of each slot of the tube and having their opposite edges free, and extensions upon the under edge of each slot and against which said covers are adapted to contact, as set forth.

3. A fire escape comprising a series of zigzag, slotted tubes, means for holding the same in an upright position, slotted, curved, tubular sections hinged to the lower ends of said tubes, weighted means for holding the same in their normal positions, a carrier movable through the slots of the tubes and sections hinged thereto, designed to carry a person whose weight will cause said sections to swing upon the hinges as the carrier approaches the exit ends of said sections, as set forth.

1,028,454. SAFETY DEVICE FOR ELEVATORS. WILLIAM H. GRANT, Honey Creek, Wis. Filed June 27, 1911. Serial No. 635,549. (Cl. 193—36.)

1. In combination with a passenger elevator provided with a driving belt, a safety device comprising a belt shifting bar, a spring adapted to move the shifter to carry the driving belt of the elevator to an inoperative position, said bar having therein a notch, a stop plate adapted to engage said notch and thereby hold said bar in an operative position, a pivotally mounted trip plate, fingers projecting from said plate, a releasing rod en-

gaged with said operating bar and adapted to be actuated by one of said fingers, a trip bar engaged with the other finger, and a trip plate on said bar adapted to be engaged by a moving part of the elevator whereby said trip bar is actuated and said cam and releasing bar operated to release said belt shifting bar to permit the spring to move the shifter to carry the driving belt from operative to inoperative position.



2. In an elevator comprising an endless belt, steps carried by said endless belt, braces for the steps also carried by the endless belt, a driving belt, and a shifting rod therefor, the combination therewith of a spring for actuating the shifter to move the driving belt to inoperative position, means for holding the shifter in position against the stress of the spring to maintain the driving belt in its operative position, and means whereby the holding means is released by the passage of the brace rollers to a predetermined height.

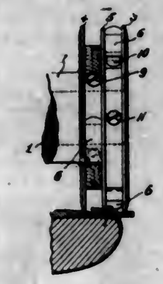
3. In an endless belt elevator comprising driving mechanism, a spring to normally hold it in inoperative position, means for holding the driving mechanism in operative position against the stress of the spring, steps carried by the elevator belt, braces for the steps engaging the elevator belt, and rollers on the inner ends of the steps and braces, the combination therewith of means actuated by the brace rollers of an occupied step at a predetermined point to release the holding means and permit the spring to shift the driving means to its inoperative position.

4. In an endless belt elevator, comprising a guide bar for the endless belt, having an opening at a predetermined point, a driving belt, fast and loose pulleys, a shifter, a spring normally holding the shifter in the loose pulley position, means for holding the shifter in the fast pulley position against the stress of the spring, a trip bar for the holding means projecting into the opening in the guide bar, steps carried by the elevator belt, braces on the steps engaging the elevator belt and rollers on the braces adapted, when the respective step is occupied and said roller is passing the opening in the guide bar, to disengage the trip bar.

1,028,455. ROTARY TACK-PULLING TOOL. JOHN B. HADAWAY, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 23, 1910. Serial No. 545,286. (Cl. 12—16.)

1. A rotary tack pulling tool provided with one or more tack pulling blades, and guard flanges projecting beyond their working edges between which the inseam is fed longitudinally, substantially as described.

2. A rotary tack pulling tool provided with tack pulling blades, guard flanges on opposite sides of the blades projecting beyond their working edges between which the inseam is fed longitudinally, and an intermediate flange to press on the inseam beyond which the working edges of the blades project, substantially as described.

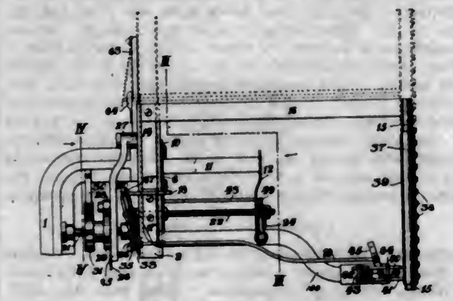


3. A rotary tack pulling tool provided with side flanges and an intermediate flange of less diameter than the side flanges, tack pulling blades between the side and intermediate flanges, the working edges of which are within the peripheries of the side flanges and beyond the periphery of the intermediate flange, substantially as described.

4. A device for pulling stay tacks comprising a tack pulling blade arranged to act on the line of the inseam, a guard along which the inseam is fed longitudinally, arranged to guide the inseam out of the path of the blade while allowing the operator to bring the inseam into the path of the blade, substantially as described.

5. A device for pulling stay tacks comprising a guard between which the inseam is fed longitudinally and a guard arranged to act on the line of the inseam between said guards and a tack puller operating in the line of the inseam between the former guards, substantially as described.

1,028,456. AUTOMATIC WEFT-REPLENISHING MECHANISM OF LOOMS FOR WEAVING. JAMES HARLING and RALPH HARLING, Rosegrove, near Burnley, England. Original application filed Nov. 11, 1910, Serial No. 591,866. Divided and this application filed June 17, 1911. Serial No. 633,763. (Cl. 139—85.)



1. The combination, with a stationary pirn hopper, and a stationary guide spindle secured thereto; of a removable hopper and an upper guide spindle secured to it and adapted to register with the stationary guide spindle when the removable hopper is connected to the stationary hopper, a sleeve slidable on the two said spindles and provided with a series of supports for the weft, catches for supporting the pirns in the removable hopper and for supporting the sleeve when on the upper spindle, and a projection secured to the stationary hopper and operating to retract the said catches and release the pirns and the sleeve simultaneously when the removable hopper is connected to the stationary hopper.

2. The combination, with a removable pirn hopper, and a guide spindle secured to it; of a sleeve slidable on the said spindle and provided with a series of supports for the weft, and a retractable spring-actuated rod provided with catches at its respective end portions which normally support the pirns in the hopper and the sleeve on the spindle.

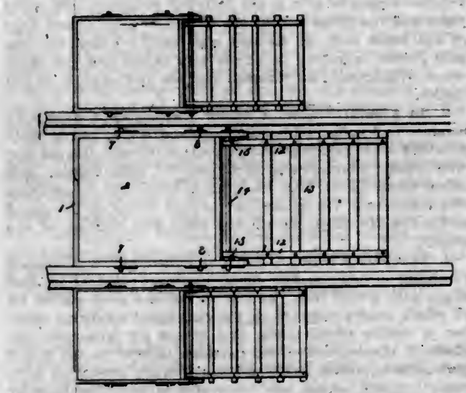
3. The combination, with a pirn hopper having converging side portions at its lower end which form an outlet for the pirns, of a partition secured in the upper part of the hopper directly over its outlet and dividing it into two lateral compartments, a cam pivoted in the lower part of the hopper in line with and between its said partition and outlet, and means for oscillating the cam to permit the pirns to pass from the said compartments alternately through the said outlet.

4. The combination, with a pirn hopper provided with a partition which divides it into two lateral compartments, of a cam pivoted directly under the said partition, and means for oscillating the cam to release the pirns alternately from the said compartments.

5. The combination, with a pirn hopper provided with two compartments arranged side by side, of a shaft journaled between the said compartments and in the lower part of the hopper, a cam secured on one end portion of shaft inside the hopper, a second cam secured on the other end portion of the shaft and adapted to support the projecting end portions of the pirns, and means for oscillating the said shaft and its cams to release the pirns alternately from said compartments.

[Claims 6 and 7 not printed in the Gazette.]

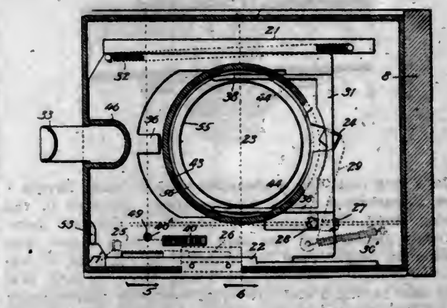
1,028,457. CATTLE-GUARD. EARL C. FEASTER, Skedee, Okla. Filed June 17, 1911. Serial No. 633,726. (Cl. 39—42.)



1. A cattle guard including a substantially rectangular frame, segmental members arranged in pairs and pivoted adjacent the longitudinal sides of the frame, bars connecting each of the segmental members upon each side of the frame, a platform positioned within the frame to be guided thereby and arranged above the segmental members, angular shafts mounted in bearings upon the platform and connected with the segmental members, a pivoted gate upon the frame, and links connected with the segments nearest the said gate and secured to the gate below its pivot.

2. In a cattle guard, a substantially rectangular frame having its longitudinal sides projecting beyond one of its transverse connecting ends, a platform within the frame and guided thereby, shafts journaled in bearings provided upon the under face of the platform, said shafts having angular ends, a pair of rods arranged transversely of the frame and mounted in bearings in the side of the frame below the platform, segmental members upon the shafts adjacent the longitudinal sides of the platform, said segmental members being provided with openings adapted to serve as bearings for the offset ends of the shafts, a pivoted bar connecting each pair of the segmental members upon each of the sides of the frame, an axle mounted in bearings in the projecting sides of the frame, a gate connected with the axle, said gate being provided with a depending portion arranged below the axle, and links connected with the said depending portion and with the segmental members adjacent the gate, substantially as and for the purpose set forth.

1,028,458. VENDING-MACHINE. CARL G. HASSMANN, Chicago, Ill., assignor to Mills Novelty Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 1, 1912. Serial No. 687,747. (Cl. 211—8.)



1. In a vending machine of the character described, the combination of a delivery-chute having a feed-opening in its top, a spring-retracted slide-member supported on said top and provided with an opening, forwardly-projecting delivery-fingers on the slide-member traversing said feed-opening by forward movement of said member, and means for releasably locking the slide-member in its forward withdrawn position.

2. In a vending machine of the character described, the combination of a delivery-chute having a feed-opening in its top provided with a rear recess, a spring-retracted slide-frame supported on said top and having a forward stack-seating section, forwardly-projecting delivery-fingers on said frame traversing said feed-opening by forward movement of the frame, a spring-pressed supporting head retractable into said recess by forward movement of said frame and coöperating with said seating-section, and means for releasably locking said frame in its forward withdrawn position.

3. In a vending machine of the character described, the combination of a delivery-chute having a feed-opening in its top, a spring-retracted slide-frame supported on said top and having a raised rear-end cross-bar, delivery-fingers projecting forwardly from said cross-bar near opposite sides of the frame to traverse said feed-opening by forward movement thereof, and means for releasably locking said frame in its forward withdrawn position.

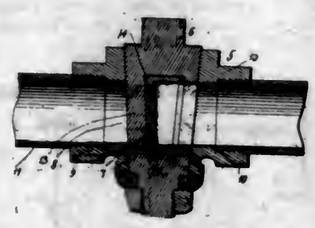
4. In a vending machine of the character described, the combination of a delivery-chute having a feed-opening in its top provided with a rear recess, a spring-retracted slide-frame supported on said top and having a forward stack-seating section and an elongated slot, delivery-fingers projecting forwardly from the rear end of the slide-frame to traverse said feed-opening by forward movement of said frame, a spring-pressed lever having a head on one end coöperating with said seating-section and retractable into said recess, and a stud on its opposite end projecting into said slot, and means for releasably locking said frame in its forward withdrawn position.

5. In a vending machine of the character described, the combination of a delivery-chute having a feed-opening in its top, a spring-retracted slide-member supported on said top and provided with an opening, forwardly-projecting delivery-fingers on the slide-member traversing said feed-opening by forward movement of said member, a cap on said top having an opening with a sleeve depending therein in the path of said fingers and provided with

openings for their passage therethrough, and means for releasably locking the slide-member in its forward withdrawn position.

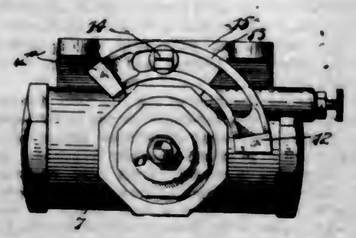
[Claims 6 and 7 not printed in the Gazette.]

1,028,459. STOP-COCK. HAROLD P. F. HEDGER, Waseca, Saskatchewan, Canada. Filed May 18, 1910. Serial No. 562,104. (Cl. 137—7.)



In a stop cock, the combination with a casing having a bore therethrough; of a plug rotatably mounted in the casing, said plug having a transverse passage therethrough disposed to one side of its axial center and greater in height than the diameter of the bore, a one-piece rectangular inoxidisable lining fitted in said passage and having a slot extending vertically therethrough of an extent equal to the diameter of the bore and communicating with a similarly disposed drain slot in the narrow side of the plug at right angles to the passage and coextensive with the longitudinal center thereof, the inner faces of the top and bottom portions of the lining being flush with the upper and lower exposed walls of the slot.

1,028,460. DOOR-CHECK STOP. WILLIAM K. HENRY, New Britain, Conn., assignor to The American Hardware Corporation, New Britain, Conn., a Corporation of Connecticut. Filed June 26, 1911. Serial No. 635,319. (Cl. 16—88.)



1. In an apparatus of the character described, comprising a double acting door controlling mechanism including a swinging lever arm, a spindle, a casing for supporting said spindle, a connection for said lever arm whereby the latter may be connected to a door frame, stop mechanism comprising two adjustable stop shoulders carried by the spindle supporting casing, said stop shoulders being connected with each other, said connection comprising an arc-shaped frame, a guide-way in the spindle supporting casing for said stop carrying frame, said stop supporting frame having a slot and a set-screw passing through said slot into said spindle supporting casing.

2. In an apparatus of the character described, a double acting door controlling mechanism including a swinging lever arm, a spindle, a casing for supporting said spindle, a connection for said lever arm whereby the latter may be connected to a door frame, stop mechanism comprising two adjustable stop shoulders carried by the spindle supporting casing said stop shoulders being connected with each other, said connection comprising an arc-shaped frame, a guide on the casing for said frame and means to secure said frame thereon at various positions of adjustment.

1,028,461. SAFETY-RAZOR. SAMUEL HETLIN, New York, N. Y. Filed Oct. 11, 1910. Serial No. 586,438. (Cl. 30—12.)



1. In a safety razor, a holder comprising coöperating clamping jaws and a channeled back, a flat guard plate provided with teeth on the two side edges thereof, a blade provided with cutting edges on the two side edges thereof, means for attaching the blade to said guard, whereby the attached blade and guard are adapted to be frictionally retained between the clamping jaws of said holder, and the attached blade and guard may be withdrawable from and reversed edge for edge with relation to the holder, and guiding and retaining means positioned at the corners of the guard and coöperating with the channeled back of said holder.

2. In a safety razor, a holder comprising coöperating clamping jaws and a channeled back operating to retain said jaws in spring pressed engagement with each other, a single guard plate provided with teeth along its two side edges, a double-edged blade, means for fastening the blade directly to the guard plate, and guides positioned at the several corners of said guard plate for retaining said guard plate and the blade within the holder to present one edge of the blade and one toothed edge of the guard for use, said guides operating to retain said guard and the blade when withdrawn and reversed end for end relative to the holder.

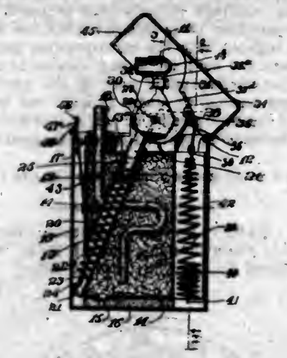
3. In a safety razor, a holder comprising a channeled member and coöperating side members, a flat guard plate provided with guides at the respective corners thereof and with teeth intermediate each pair of said guides, said guard being adapted for insertion between the coöperating side members of the holder, two of said guides on the guard being slidably fitted within the channeled member of the holder.

4. In a safety razor, a holder provided with a channeled retaining member, a flat guard plate provided at its two edges with guard teeth, and at its corners with guides all of which guides conform to the channeled retaining member, a double edged blade, and means for attaching the blade at the respective end portions thereof to the guard plate, the attached blade and guard being reversible with respect to the holder, and removable at will therefrom by sliding the guard and blade with respect to said holder, the guides and teeth at one side of the guard plate and one edge of the blade being insertible into the channeled retaining member of the holder so as to conceal the inserted edges of the parts, the other edge of the blade and the toothed edge of the guard being exposed for use.

1,028,462. AUTOMATIC IGNITER. DAVID HEYMAN, New York, N. Y. Filed May 27, 1911. Serial No. 629,865. (Cl. 67—8.)

1. In an automatic igniter, the combination with a casing and a lid therefor, of means for releasably locking the lid to the casing, a friction member within the casing having no connection with the lid and held in inoperative condition when the lid is closed, and means independent of the lid and having a normal tendency to operate said friction member and open said lid when the locking means is released.

2. In an automatic igniter, the combination with a casing and a lid pivoted thereto, of means for releasably locking the lid to the casing, a friction member revolvable within the casing having no connection with the lid and held in inoperative condition when the lid is closed, and means independent of the lid and having a normal tendency to revolve said friction member and open said lid when the locking means is released.



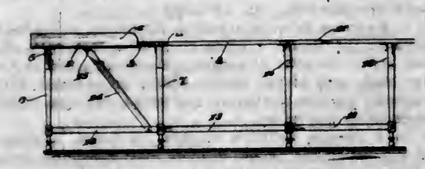
3. In an automatic igniter, the combination with an inner casing, of a friction member rotatably supported thereby, means for pressing a sparking body into contact with said friction member, an outer casing adapted to hold said friction member inoperative, and a retractile spring independent of said outer casing and tending normally to operate said friction member.

4. In an automatic igniter, the combination with an inner casing having supports for a friction member, of a friction member rotatable in said supports, means for pressing a sparking body into contact with the friction member, an outer casing having a lid which, when closed, retains the friction member against rotation, and a retractile spring independent of said lid and adapted, when the lid is opened, to operate said friction member for the production of sparks.

5. In an automatic igniter, the combination with an inner casing having projecting lugs, of a stud supported in said lugs, a friction member rotatable on said stud, an outer casing having a lid which, when closed, retains the friction member against rotation, and a spring independent of said lid and having one end anchored to said casing and adapted to rotate said friction member when the lid is opened.

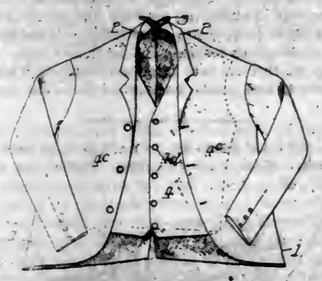
[Claims 6 to 9 not printed in the Gazette.]

1,028,463. GAME-TABLE. ROBERT HOCKIN, Pictou, Nova Scotia, Canada. Filed June 9, 1911. Serial No. 632,121. (Cl. 45—116.)



In combination, a table section, a pair of supporting legs hinged to one end thereof and adapted to swing upwardly and inwardly toward said section, a block secured to the opposite end of said section, a pair of legs hinged to said block and adapted to swing upwardly and inwardly toward said section to over lie the first named pair of legs, a second section hinged to the first section and adapted to be folded upwardly and inwardly to a position above and parallel with said first section, means for spacing said sections apart when in folded position, a pair of legs hinged to one end of said second section and adapted to swing upwardly and inwardly toward said second section, a third section hinged to said second section and adapted to swing upwardly and inwardly into superposed position on said section so that it will lie between the first and second sections when the table is completely folded, and a leg hinged to said last named section and adapted to swing upwardly and inwardly toward said section.

1,028,464. BURIAL-GARMENT. CHARLES C. HOLCOMB, Richmond, Ind., assignor to Richmond Casket Company, Richmond, Ind., a Corporation of Indiana. Filed May 18, 1906. Serial No. 317,455. (Cl. 2—61.)



A burial garment comprising two similar and separate coat sections, said sections having means at the back of the collar for holding them together, and two similar and separate vest sections having upper extensions secured respectively to the inner side of the shoulders of the coat and having lower lateral extensions provided with means for holding the vest sections together at the back.

1,028,465. MECHANICAL ACCOUNT-BOOK. WILLIAM G. HOPKINS, Chicago, Ill. Filed Feb. 25, 1911. Serial No. 610,688. (Cl. 11—22.)



1. In a mechanical account book, the combination of a writing table, a pair of transversely extending spools carried by said table adjacent its ends, whereby a strip of paper, carried by said spools, may extend over and across said writing table from one spool to the other, high speed driving mechanism, normally disconnected from, but capable of being operatively connected with either winding spool to rotate the one in one direction and the other in the opposite direction, and manually controlled power applying and speed regulating mechanism associated with said driving mechanism, for throwing said driving mechanism into operative connection with either winding spool.

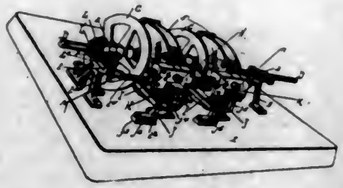
2. In a mechanical account book, the combination of a writing table, a pair of transversely extending spools carried by said table adjacent its ends, whereby a strip of paper, carried by said spools, may extend over and across said writing table from one spool to the other, driving mechanism therefor, having two continuously and oppositely rotating spool driving members, and lever controlled mechanism for throwing either of said spool driving members into or out of operative connection with the spool associated therewith.

3. In a mechanical account book, the combination of a writing table, a pair of transversely extending spools carried by said table adjacent its ends, whereby a strip of paper, carried by said spools, may extend over and across said writing table from one spool to the other, a continuously running motor, a friction disk associated with

each spool, operative connections between the motor and disks for driving them in opposite directions, a controlling lever, and operative connections between the lever and disks whereby either may be thrown into frictional contact with its associated spool.

4. In a mechanical account book, the combination of a writing table, a pair of transversely extending spools carried by said table adjacent its ends, whereby a strip of paper, carried by said spools, may extend over and across said writing table from one spool to the other, a continuously running motor, a friction disk associated with each spool, operative connections between the motor and disks for driving them in opposite directions, a controlling lever, operative connections between the lever and disks whereby either may be thrown into frictional contact with its associated spool, and brake mechanism for each spool.

1,028,466. STEAM-ENGINE. CHARLES A. JOHNSON, Boston, Mass. Filed May 17, 1911. Serial No. 627,807. (Cl. 121—69.)



1. In a rotary engine, the combination with a plurality of cylinders, pistons working in said cylinders, a shaft upon which said pistons are mounted, each of said pistons having a lobe extending radially from said pistons, a valve for each cylinder, said valve being movable into and out of the path of movement of said lobe, cam-wheels carried by said shaft, each of said wheels having a cam-groove, a rocker for each cam-wheel having one end thereof engaging with and traveling in said groove, a rock-shaft pivoted at one end to said rocker, and a rocker for each of said valves and secured to the other end of said rock-shaft.

2. In a rotary engine, the combination with a plurality of cylinders, pistons working in said cylinders, a shaft upon which said pistons are mounted, each of said pistons having a lobe extending radially from said pistons, a valve for each cylinder, said valve being movable into and out of the path of movement of said lobe, cam-wheels carried by said shaft, each of said wheels having a cam-groove, the cam portion of each wheel in the series being diametrically oppositely disposed to the cam-portion in the next wheel, a rocker for each cam-wheel having one end thereof engaging with and traveling in said groove, a rocker for each of said valves, and a rock-shaft connecting each cam-wheel rocker with its corresponding valve-rocker.

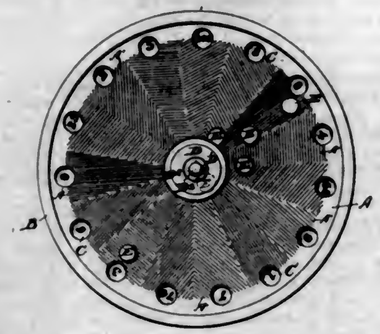
3. In a rotary engine, the combination with a plurality of cylinders having steam-inlet openings, of a steam-cut-off valve, comprising a slidable bar common to all cylinders and having openings therethrough arranged relative to the said steam-inlet ports whereby when one of said openings is in register with the corresponding port of one of the cylinders, the next succeeding opening is out of register with the corresponding port in the next succeeding cylinder and passage of steam through the latter port is cut off.

4. In a rotary engine, the combination with a plurality of cylinders having steam-inlet openings and with a shaft upon which said cylinders are carried, of a steam-cut-off valve comprising a slidable bar common to all cylinders and having openings therethrough arranged relative to the said steam-inlet ports whereby when one of said openings is in register with the corresponding port of one of the cylinders, the next succeeding opening is out of register with the corresponding port in the next succeeding cylinder and passage of steam through the latter port is cut off, and means, operable by said cylinder-shaft, for actuating said steam-cut-off valve.

5. In a rotary engine, the combination with a plurality of cylinders having steam-inlet openings and with a shaft upon which said cylinders are carried, of a steam-cut-off valve comprising a slidable bar common to all cylinders and having openings therethrough arranged relative to the said steam-inlet ports whereby when one of said openings is in register with the corresponding port of one of the cylinders, the next succeeding opening is out of register with the carresponding port in the next succeeding cylinder and passage of steam through the latter port is cut off, and means, operable by said cylinder-shaft, and including intermeshing gears, for actuating said steam-cut-off valve.

[Claims 6 to 10 not printed in the Gazette.]

1,028,467. GAME. ROBERT KAERSCHKE, Detroit, Mich., assignor to Adam Brandau, Detroit, Mich. Filed Dec. 7, 1911. Serial No. 664,471. (Cl. 46—61.)



1. A game board having an inclined top provided with a plurality of pockets near its outer edge, said pockets being arbitrarily colored, a plurality of balls colored to correspond with the colors of the pockets, and a top adapted when spun to deflect the balls into said pockets.

2. A game board having a dished top provided with a plurality of pockets, a rim surrounding said board, said top divided by contrasting color segments into a plurality of stripes leading to the pockets, a series of balls respectively colored to correspond with said segments, and a top adapted when spun to deflect said balls into the pockets.

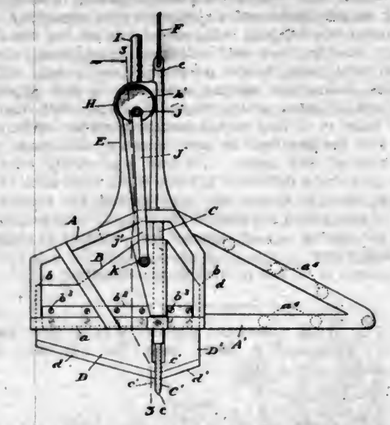
1,028,468. DEVICE FOR SPLITTING CARCASSES. AUGUST KARHAN, New York, N. Y. Filed Nov. 21, 1910. Serial No. 593,346. (Cl. 17—30.)

1. In a carcass splitting machine, a frame, a cutter head slidable in the frame, a guide stem depending from the frame, and a plurality of separate blades attached to the cutter head, said blades having sliding engagement with the exterior surface of that part of said guide stem which depends below the frame.

2. In a carcass splitting machine, a frame, a cutter head slidable in the frame, a guide stem depending from the frame, said guide stem being provided in its external surface with a plurality of grooves, and separate blades fastened to the cutter head, the adjacent end edges of said blades being slidably fitted in said grooves of the guide stem.

3. In a carcass splitting machine, a frame, a cutter head slidable in the frame, a guide stem depending from the frame, and two blades separate from each other and secured to the cutter head, the adjacent end edges of said blades having sliding engagement with that part of the guide stem which depends from the frame, and the cutting edges of said blades being inclined in opposite directions to each other.

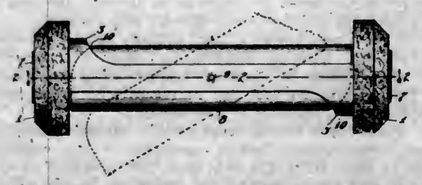
4. In a device of the class described, a frame, a guide bar connected therewith, said guide bar being provided with a substantially cylindrical stem which depends from the frame, a cutter head having slidable engagement with the guide bar and with the frame, and a plurality of blades attached to the cutter head, the adjacent end edges of said blades having sliding engagement with that part of the stem which depends from the frame.



5. A carcass splitting machine embodying a frame provided with a cutter head guide way, a cutter head having sliding engagement with the guide way, said frame being provided with a member extending beyond that part of the frame in which the cutter head slides, said member being adapted to be grasped by hand, a guide stem depending from the frame, and a plurality of separate blades attached to the cutter head, the adjacent end edges of said blades having sliding engagement with the part of the guide stem which depends from the frame.

[Claims 6 to 9 not printed in the Gazette.]

1,028,469. CARRIER. ALLEN KELLER, Chicago, Ill. Filed Aug. 28, 1911. Serial No. 646,307. (Cl. 243—35.)



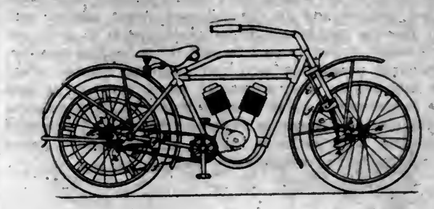
1. A carrier having a frame and a content-receptacle pivoted on an axis transverse to the longitudinal axis of the carrier to swing both ends of the content-receptacle out of the plane of the carrier.

2. In a carrier, a frame and a content-receptacle pivoted between the ends of the frame on an axis transverse to the longitudinal axis of the carrier, and a cushion fixed to each end of the frame.

3. In a carrier, a frame and a content-receptacle normally open at both ends and pivoted to the frame between the ends thereof on an axis transverse to the longitudinal axis of the carrier, end cushions forming closure means for the open ends of the content-receptacle and means for retaining the content-receptacle in alinement with the frame.

1,028,470. SPRING-FRAME FOR VELOCIPEDES. FRANK KITLITSCHKO, Milwaukee, Wis., assignor to Waverley Manufacturing Company, Jefferson, Wis., a Corporation of Wisconsin. Filed Jan. 29, 1912. Serial No. 674,188. (Cl. 208—97.)

1. The combination with a wheel fork, of levers pivoted to the ends of the fork members and connected at a distance therefrom by a wheel axle, leaf springs fastened to the fork members and normally diverging therefrom toward their free ends, and links connecting the free ends of the springs with said levers so as to allow the axle to yield upwardly against the tension of the springs.



2. The combination with a wheel fork, of levers pivoted to the free ends of the fork members, a wheel axle carried by said levers at a distance from and parallel with their pivot connections with the fork members, leaf springs rigidly secured to the fork members and normally diverging therefrom toward the free ends of said members and of the springs, and links connecting the free ends of the springs with said levers, the connections between said links and levers being adjustable toward and from the pivot connections between the levers and fork members.

3. The combination with a front wheel fork, of elbow-shaped levers pivoted at their elbows to the free ends of the fork members, and having forwardly and downwardly extending arms, an axle connected with and carried by the forwardly extending arms of said levers, leaf springs secured at their upper ends of the fork members on the rear sides thereof and diverging normally therefrom toward their lower ends, and links connecting the lower free ends of said springs with the downwardly extending arms of said levers.

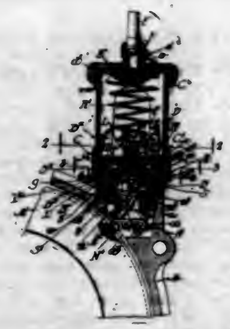
4. The combination with a front wheel fork, of elbow-shaped levers pivoted at their elbows to the lower free ends of the fork members and having forwardly and downwardly projecting arms, an axle carried by said forwardly projecting arms, leaf springs secured by clips at their upper ends to the rear sides of the fork members, stay rods fastened at their lower ends to said clips and at their upper ends to said fork members for distributing the strain on the springs between different parts of the fork members, and links connecting the lower ends of the springs with the downwardly projecting arms of said levers.

5. The combination with a rear wheel fork, of levers pivoted to the rear ends of the fork members and extending rearwardly therefrom, an axle carried by said levers, leaf springs secured at their front ends to the fork members on the under side thereof, and diverging normally therefrom toward their free ends, and links connecting the rear ends of the springs with said levers between said axle and their pivot connections with the fork members.

1,028,471. FORCE-FEED OILER. AXEL LEVEDAHL, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Aurora, Ill., a Corporation of Illinois. Filed Nov. 7, 1910. Serial No. 591,011. (Cl. 184—33.)

1. In combination with a reservoir, a closure for said reservoir embracing bearing members and an interposed, relatively movable sliding member engaged between said bearing members, and having both a sliding and a rotative movement, said relatively movable member having a piston chamber provided with an admission port and an exhaust port, each closed against one of said bearing members, a reciprocable piston in said piston chamber, a supply port in one bearing member opening into the reservoir, a discharge passage in the other bearing member offset from said supply port, automatic means for producing relative movement of the members to alternately bring said admission port of said piston chamber to register with said supply port and its exhaust port to register with said discharge passage, and automatic means for intermittently reciprocating said piston.

2. In combination with a reservoir, a closure for said reservoir embracing inner and outer flat bearing members and an interposed plate slidably engaged between said bearing members, and having both a sliding and a rotative movement, said plate having a piston chamber provided with an admission port closed against said inner bearing member and an exhaust port closed against said outer bearing member, a reciprocable piston in said piston chamber, a supply port in said inner bearing member, a discharge passage in said outer bearing member offset from said supply port, automatic means for moving said plate to alternately bring said admission and exhaust ports of said piston chamber to register respectively with said supply port and discharge passage, and automatic means for intermittently reciprocating said piston.



3. In combination with a reservoir, a closure for said reservoir embracing inner and outer flat bearing members and an interposed plate slidably engaged between said bearing members, said plate having a piston chamber provided with an admission port closed against said inner bearing member and an exhaust port closed against said outer bearing member, a reciprocable piston in said piston chamber, a supply port in said inner bearing member, a discharge passage in said outer bearing member offset from said supply port, automatic means for moving said plate to alternately bring said admission and exhaust ports of said piston chamber to register respectively with said supply port and discharge passage, and automatic means for intermittently reciprocating said piston, said last named means being adjustable to determine the length of the reciprocation of said piston.

4. In combination with a reservoir, a chamber adjacent said reservoir having a flat wall and a surrounding cylindric wall provided with internal radial teeth, a flat disk bearing against the flat wall of said chamber and provided with peripheral teeth adapted to engage the teeth of said chamber, said disk being of less diameter than said chamber and being eccentrically placed therein, a flat plate intermediate said flat chamber wall and said reservoir bearing against said flat disk and confining the same within said chamber, a piston chamber in said disk having oppositely disposed admission and exhaust ports, said exhaust port being closed against the wall of said chamber and said admission port being closed against said flat plate, a piston reciprocable in said piston chamber, a supply port in said flat plate, a discharge passage opening through the flat wall of said chamber at a point offset from said supply port, means for causing said disk to roll edgewise about the cylindric walls of said chamber with its opposite faces in sliding engagement with said plate and the flat wall of said chamber adapted to alternately bring said admission and exhaust ports of said piston chamber to register with said supply port and discharge passage, and means projecting from the wall of said chamber adapted to reciprocate said piston.

5. In combination with a reservoir, a chamber adjacent said reservoir having a flat wall and a surrounding cylindric wall provided with internal radial teeth, a flat disk bearing against the flat wall of said chamber and provided with peripheral teeth adapted to engage the teeth of said chamber, said disk being of less diameter than said chamber and being eccentrically placed therein, a flat plate intermediate said flat chamber wall and said reservoir bearing against said flat disk and confining the same within said chamber, a piston chamber in said disk having an admission and an exhaust port oppositely disposed, said exhaust port being closed against the flat wall of said chamber and said admission port being closed against said plate, a piston reciprocable in said piston chamber, means for causing said disk to roll edgewise about the cylindric walls of said chamber with its opposite faces in sliding engagement respectively with said plate and the flat wall of said chamber, said plate and flat chamber wall being provided respectively with a suppy port and a discharge passage offset from each other and positioned to alternately register with the associated ports of said piston chamber in the movement of said disk, and a pin located in said chamber wall adapted to reciprocate said piston.

[Claims 6 to 15 not printed in the Gazette.]

1,028,472. WAR VESSEL. HUDSON MAXIM, New York, N. Y. Filed Mar. 8, 1907. Serial No. 361,395. (Cl. 114—1.)



1. A war vessel having a water compartment for its immersion, a screw propeller, and an outlet for said compartment immediately in front of and within the suction action of said propeller.

2. A war vessel having water compartments for its immersion, with downwardly and forwardly inclined inlet passages, and rearwardly and downwardly inclined outlet passages, and valves controlling said passages.

3. A war vessel having longitudinally extending oppositely disposed water compartments, with inlet channels extending in a rearward and upward direction from the exterior of the vessel to the interior thereof, and means controlling the entry of water through said channels.

4. A war vessel having a longitudinally extending water compartment slanting downwardly from the forward part of the vessel to the stern thereof, an opening from the rear of said compartment to the exterior water, and a propeller in promixity to said opening.

5. A war vessel having longitudinally extending parallel water compartments having openings to the exterior water at their front and rear ends, port openings on the sides of said compartments, and means for closing all of said openings.

[Claims 6 to 10 not printed in the Gazette.]

1,028,473. TORPEDO-BOAT. HUDSON MAXIM, Hopatcong borough, N. J. Filed Nov. 21, 1908. Serial No. 463,828. (Cl. 114—17.)



1. In a torpedo boat, the combination of the hull of the boat, a dispensable bow portion or compartment, an explosive charge in the forward end thereof, and a tamping material in said bow portion between said explosive charge and the bow of the torpedo-boat proper.

2. In a torpedo-boat, the combination of the hull of the boat, a dispensable bow portion or compartment, an explosive charge in the forward end thereof, and a watered compartment in said bow portion between said explosive charge and the bow of the torpedo-boat proper.

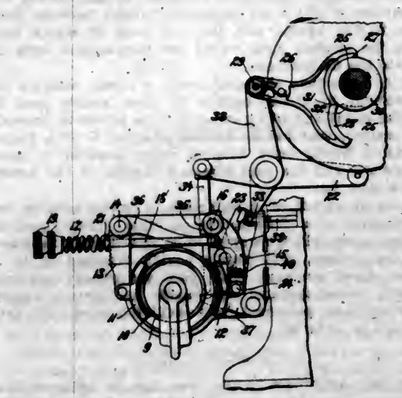
3. In a torpedo-boat, the combination of a dispensable bow portion or extension, having a high explosive charge in its forward end, alternate compartments filled with air and water interposed between the high explosive charge and the bow of the torpedo-boat.

4. A torpedo-boat consisting of two hulls united longitudinally end to end, a warhead carried by the forward hull and an extensible auxiliary explosive head.

5. A torpedo-boat, consisting of two hulls united longitudinally end to end, an extensible warhead carried by the forward hull, and an auxiliary explosive head carried at the front of the warhead.

[Claims 6 to 15 not printed in the Gazette.]

1,028,474. TENSION DEVICE. BENJAMIN F. MAYO, Salem, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 22, 1909. Serial No. 529,342. (Cl. 112—39.)



1. A sewing machine, having, in combination, stitch forming devices, a tension device including a brake mechanism, a spring, suitable connections actuated by the spring and acting continuously on the brake mechanism, and means for actuating said connections during the operation of the machine to vary the ratio between the effective pressure of the brake mechanism and the force of the spring.

2. A sewing machine, having, in combination, stitch forming devices, a tension device including a brake mechanism, a spring and two sets of connections between the spring and brake mechanism and means for throwing one set only of connections out of operation during each cycle of operations of the machine.

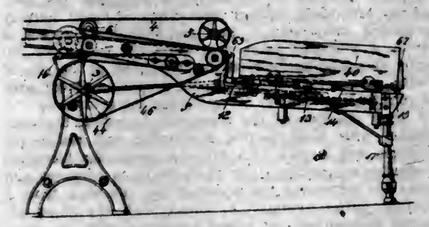
3. A sewing machine, having, in combination, stitch forming devices, a tension device including a brake, a brake carrying lever, a spring arranged to act on the lever, a rod for supporting the spring arranged transversely of the lever and movable to adjust the point at which the spring acts on the lever with relation to the fulcrum of the lever.

4. A sewing machine, having, in combination, stitch forming devices, a tension device including two oppositely disposed brakes, an actuating lever for each brake, a spring acting on both levers, and means for throwing one brake only out of operation during each cycle of operations of the machine.

5. A sewing machine, having, in combination, stitch forming devices, a tension device including two oppositely disposed brakes, an actuating lever for each brake, a rod connected to one lever and extending transversely of the other lever, a spring supported by said rod arranged to actuate both levers, and means for throwing one brake out of operation during each cycle of operations of the machine.

[Claims 6 to 13 not printed in the Gazette.]

1,028,475. JOGGER FOR PAPER-RULING MACHINES OR PRINTING-PRESSES. GEORGE F. MCADAMS, New York, N. Y. Filed June 10, 1909. Serial No. 501,369. (Cl. 101—34.)



1. In a jogging attachment, a suitable support, a side board hinged to the support and a spring-actuated plunger arranged to hold the side board in either its upright or tilted position.

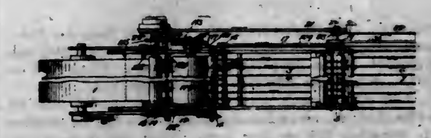
2. In a jogging attachment, a supporting frame, rods or shafts mounted to move longitudinally in a direction transverse to the frame, side boards fixed to said shafts or rods, a rotary shaft, a cam on the shaft, a cross bar, a pitman connecting the cross bar with the cam, and flexible connections between the cross bar and said movable shafts or rods for imparting movement to the side boards.

3. In a jogging attachment, a suitable supporting frame, side boards mounted to move toward and away from each other, a cross bar mounted to move backward and forward, a rotary shaft, cams on the shaft, pitmen connecting the cams with the cross bar, and flexible connections between the cross bar and movable side boards.

4. In a jogging attachment, the combination with a paper support, of side boards hinged to the support, and spring-actuated plungers for holding the side boards in either an upright or a horizontal position.

5. A jogging attachment for paper ruling machines or printing presses, comprising a frame hinged at one end to the machine or press and provided at its opposite end with supporting legs, rods or shafts mounted to reciprocate transversely of the frame, guide pulleys carried by the frame, a cross bar mounted to move backward and forward relative to the frame, flexible connections passing over the guide pulleys and connecting the said reciprocating rods or shafts with the cross bar, a rotary shaft carried by the machine or press, cams on the shaft, pitmen connecting the cams with the cross bar on the jogging attachment and a front board fixed to move with the cross bar.

1,028,476. PAPER CUTTING, RULING, AND ASSEMBLING MACHINE FOR MAKING TABLETS. GEORGE F. MCADAMS, New York, N. Y. Filed Jan. 19, 1910. Serial No. 538,928. (Cl. 101—29.)



1. The combination with sheet delivery mechanism, and insert delivery mechanism, of a lay boy provided with a movable table for receiving the sheets and inserts, mechanism for lowering the table, and trailing wires beneath which the sheets and inserts are delivered, said trailing

wires serving as a trip mechanism to set in operation the table lowering mechanism.

2. The combination with sheet delivery mechanism, of a lay boy provided with a movable table, means for lowering the table including a worm and worm wheel, a ratchet and rocking pawl, means for bodily reciprocating the pawl and trailing wires arranged to rock the pawl into engagement with the ratchet as the sheets accumulate under the wires.

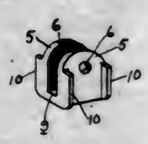
3. In a machine of the character described, the combination with sheet delivery mechanism, of insert delivery mechanism comprising a table for supporting a pile of inserts, a vibrating lever provided with means for engaging and pushing forward the lowermost of the pile of inserts, a counting mechanism and a cam connected with the counting mechanism for operating the said lever.

4. In a machine of the character described, the combination with sheet cutting mechanism and means for feeding a web thereto, of a delivery mechanism including a table for supporting a pile of sheets to be advanced and means for advancing one sheet of the pile at a time, a counting device arranged to co-act with the sheet advancing mechanism and means connected with the sheet cutting mechanism for operating the counting device.

5. In a machine of the character described, a combination with a sheet cutting mechanism, means for feeding a web thereto and an insert delivery mechanism provided with means for advancing one insert at a time from a pile of inserts, of a counting mechanism provided with means for operating the insert advancing mechanism and means connected with the sheet cutting mechanism for operating the counting mechanism.

[Claim 6 not printed in the Gazette.]

1,028,477. PIN. EUGENE MOREHOUSE, Providence, R. I., assignor to B. A. Ballou and Company, Inc., Providence, R. I., a Corporation of Rhode Island. Filed Dec. 6, 1911. Serial No. 664,293. (Cl. 24—160.)



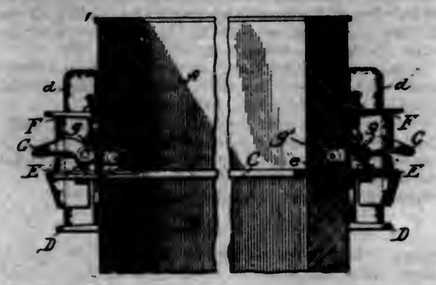
1. A pin component comprising a U-shaped member having pierced side walls adapted to be held by a pintle between the joint ears of the pin, said member having laterally extending portions for engaging the edges of the pin joint ears to prevent movement about the pintle.

2. The combination with a pin having a body portion with integral outwardly extending pierced joint ears, of an independent U-shaped ear supporting member having correspondingly pierced side walls united by a bridge, said member being positioned between said ears, a pintle passing through the holes in said ears and walls, a pin-stem pivoted on said pintle between said walls and adapted to receive its fulcrum on said bridge, and laterally extending flanges on said member for engaging the edges of said ears for preventing movement about the pintle.

1,028,478. MOLDER'S FLASK. CHARLES MORGAN, Freeport, Ill., assignor to Arcade Manufacturing Company, Freeport, Ill., a Corporation of Illinois. Filed Nov. 8, 1911. Serial No. 659,135. (Cl. 22—48.)

1. The combination with a flask-section, of a pair of handles therefor, and finger-operated levers for the handles each engaging the surface upon which the flask-section rests in two points in separate lines whereby when operated simultaneously the flask-section will be elevated, all its parts moving in straight lines.

2. The combination with a flask-section, of a pair of handles adapted thereto, a U-shaped lifting handle, the furcations of which are pivoted between their ends to the handle and the free ends of which bear upon the surface upon which the flask-section rests to elevate the flask-section.



3. The combination with a flask-section, of a pair of handles adapted thereto, a U-shaped lifting handle, the furcations of which are adjustably pivoted between their ends to the handle and the free ends of which bear upon the surface upon which the flask-section rests to elevate the flask-section.

4. As an article of manufacture, a handle adapted for attachment to a flask-section or other article used in making molds and which requires to be moved in drawing the pattern, said handle having attached to it a finger-operating lifting lever adapted when operated to move the handle and the part attached thereto in the appropriate direction.

5. As an article of manufacture, a handle adapted for attachment to a flask-section or other article used in making molds which requires to be moved when in drawing the pattern, said handle having attached to it, a lifting lever provided with two engagement-portions whereby when operated the handle and part attached thereto will be prevented from oscillation about the axis and will be elevated.

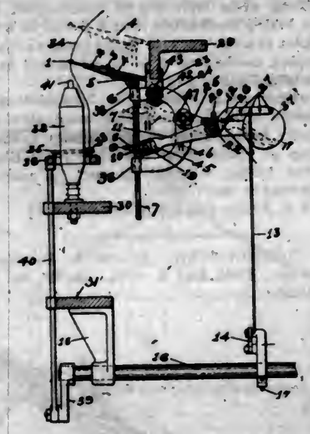
1,028,479. DISPLAY-CARD. CHARLES M. MORGAN, Los Angeles, Cal. Filed Nov. 20, 1911. Serial No. 661,222. (Cl. 40—146.)



A display card comprising a base, a bracket having one end secured thereto and a display configuration secured to the other end of said bracket, the bracket being adapted to be sprung upwardly and backwardly for permitting the display configuration to stand in approximately vertical position upon the base, the display configuration being forced endwise against the base by the bracket, and the parts being capable of folding in flat form when not in use.

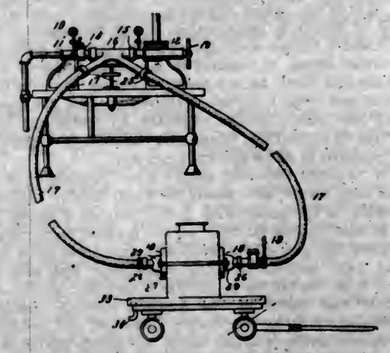
1,028,480. SPINNING-MACHINE. LEON J. MORIN, Taunton, Mass. Filed Feb. 11, 1911. Serial No. 608,146. (Cl. 118—16.)

1. A spinning machine thread feeding mechanism including a vertically reciprocatory ring rail, the same comprising a vertically reciprocatory protecting thread board, thread guides carried by said board, lift rods connected to said board, a yoke having an upper and lower bearing for said rods, lift rod operating levers, and a longitudinally disposed lever shaft also supported on said yoke, means whereby said yoke and its said attached devices may be adjusted to set the guides in desired position, a rock shaft through which the ring rail is actuated and means connected to said rock shaft for oscillating said lever shaft to raise and lower said thread board in proportion to that of said ring rail.



2. A spinning machine thread feeding mechanism including a vertically reciprocatory ring rail, the same comprising a vertically reciprocatory protecting thread board, thread guides carried by said board, lift rods, a yoke having an upper and lower bearing for said rods, lift rod operating levers, a longitudinally disposed lever shaft also supported by said yoke, means whereby said yoke and its said attached devices may be adjusted to set the guides in desired position, an arm on said lever shaft having a series of holes, a rock shaft, an arm on said rock shaft also provided with a series of holes, a rigid connection between said arms adapted to engage any of said holes in either of said arms whereby the stroke of the thread board and guide eyes may be regulated.

1,028,481. BRANCH CONNECTION FOR METER-TESTING MACHINES. PHILIP MUELLER, Decatur, Ill., assignor to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed May 16, 1911. Serial No. 627,608. (Cl. 73—51.)



1. In a fluid meter tester having two opposed and spaced connecting heads, a branch fitting connected at its ends to said heads and comprising an X-shaped conduit member having a central dividing wall forming two separated V-shaped channels independently communicating with said heads.

2. In a fluid meter tester having a pair of opposed and spaced connecting heads, a branch fitting connected at its ends to said heads and comprising two elbow conduit members connected together at the bends of the elbows, the elbow members having independent communication with said heads.

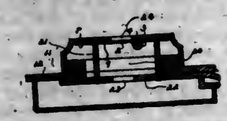
3. In a fluid meter tester having a pair of spaced connecting heads, a branch fitting engaging between the heads and comprising two elbow conduits connected together with one branch of each elbow member in rectilinear alinement with the corresponding branch of the opposite elbow member, said branches communicating independently with said heads.

4. In a fluid meter tester having spaced connecting heads, a branch connection comprising two acute elbow conduit members connected together with a branch of each elbow member in rectilinear alinement with the corresponding branch of the opposite elbow member, said branches communicating independently with said heads, the ends of said branches lying in parallel planes.

5. In a fluid meter tester having opposed heads, a branch connection fitting between the heads and comprising two independent conduit members, the end of one being in a plane parallel to the corresponding end of the other and in rectilinear alinement therewith, and the other ends of the conduits being displaced at an acute angle therefrom.

[Claims 6 to 13 not printed in the Gazette.]

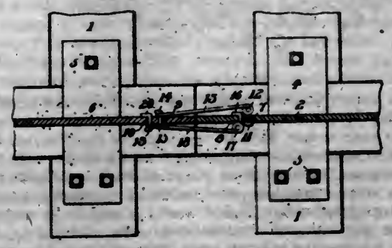
1,028,482. SUIT-CASE LOCK. JAMES J. MURPHY, Terryville, Conn., assignor to Eagle Lock Co., Terryville, Conn., a Corporation. Filed Mar. 5, 1912. Serial No. 681,688. (Cl. 70—115.)



1. In a suit-case lock, the combination with a cup-like escutcheon having a keyhole, of a pivotal dust-guard located within the said cup-like escutcheon in position to normally cover the keyhole thereof.

2. In a suit-case or trunk lock, the combination with an escutcheon having a keyhole, of a retaining plate located within the said escutcheon, bearing upon the inner face thereof and formed with an opening, and a pivotal dust-guard located in the opening of the said plate and held in place thereby, and normally closing the key-hole in the escutcheon.

1,028,483. RAIL-JOINT. WALENTY NALEPKA, South Omaha, Nebr., assignor of one-sixth to Paul Zurek, one-sixth to Karol Siewniak, and one-sixth to Stanley Wiernek, South Omaha, Nebr. Filed Sept. 1, 1911. Serial No. 647,178. (Cl. 173—262.)



In a rail joint, the combination with the confronting ends of the rails, having the webs thereof provided with

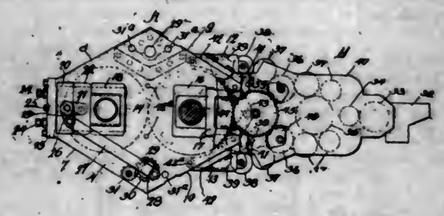
sets of openings, of coiled springs arranged upon both sides of the web of one rail, said springs having the ends thereof arranged in the opening of said rail and clenched, the opposite ends of said springs terminating in yokes, and hooks having the ends thereof clenched in the openings of the other rail and adapted to hold said yokes and thereby provide a bond between said rails.

1,028,484. METALLIC TIE. WALENTY NALEPKA, South Omaha, Nebr., assignor of one-sixth to Paul Zurek, one-sixth to Karol Siewnak, and one-sixth to Stanley Wiernek, South Omaha, Nebr. Filed Sept. 1, 1911. Serial No. 647,179. (Cl. 238—8.)



A metallic tie comprising a rectangular relatively thin slab for supporting a pair of rails, plates fixedly secured to the upper face of said slab at each end thereof and each provided with an inwardly extending portion capable of overlapping one side of the base of the rail for securing the same upon the slab, said slab further provided in proximity to each of said inwardly extending portions with a centrally disposed longitudinally extending rectangular slot, the lower portion of said slot being of greater width than the upper portion thereby providing the side walls of the slot with shoulders, inner fasteners mounted upon said slab and each consisting of a plate provided with outwardly projecting flanges capable of overlapping the outer side of the bases of the rails for maintaining them in position upon the slab, rectangular blocks integral with the lower face of said inner fasteners centrally thereof and extending into said slots, said inner fasteners provided with openings projecting therethrough and through said blocks, bolts extending upwardly through said blocks and fasteners and having their heads engaging said shoulders to prevent the withdrawal of the bolts upwardly through said slots, and means mounted upon the upper ends of said bolts and engaging said fasteners for fixedly securing these latter and the bolts in position upon the slab.

1,028,485. PRINTING-PRESS. GEORGE E. PANCOAST, New York, N. Y. Filed Dec. 30, 1905. Serial No. 293,928. (Cl. 101—90.)



1. A rotary printing press including in combination, a plurality of printing couples, and a plurality of frames, one for each couple, said frames being so constructed that by means thereof the couples may be assembled with the adjacent couples at various distances from each other.

2. A rotary printing press including in combination, a plurality of printing couples, and a plurality of frames, one for each couple, said frames being interchangeable and so constructed that by means thereof the couples may be assembled with the adjacent couples at various distances from each other.

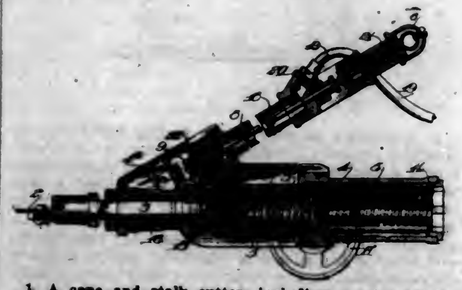
3. A rotary printing press including in combination, a plurality of printing couples, a plurality of inking mechanisms, one for each couple, and a plurality of frames in which the couples are mounted, said printing couples, inking mechanisms and frames being respectively interchangeable, and said frames being so constructed that the inking mechanisms and the design cylinders of the respective couples may be assembled in various relations to each other.

4. A printing press including in combination, a design cylinder, an inking mechanism, and a frame in which said design cylinder is mounted, said frame being so constructed that the inking mechanism may be assembled in various relations to said design cylinder.

5. A printing press including in combination, a plurality of design cylinders, an inking mechanism for each design cylinder, and a frame for each design cylinder, said frames being so constructed that the respective design cylinders and inking mechanisms may be assembled in various relations to each other.

[Claims 6 to 21 not printed in the Gazette.]

1,028,486. CANE-CUTTER. ELMER E. PAXTON, Honolulu, Hawaii. Filed May 9, 1911. Serial No. 626,031. (Cl. 56—103.)



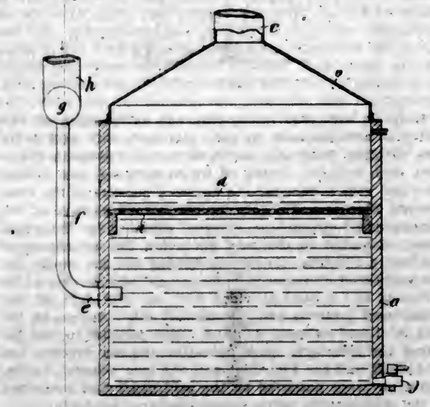
1. A cane and stalk cutter, including a substantially horizontal, cylindrical chamber and a divergently inclined connection therewith, a piston and spring located in the first named chamber and a cutter and shank connected therewith, an air supply connection with the inclined portion of the apparatus, a valve chamber contiguous to the junction of the two parts with an inlet port to the piston chamber and an exterior discharge port, a valve controlling said ports, a steering handle, and a lever mechanism contiguous thereto whereby the valve may be opened and closed to actuate the spring and cutter.

2. A cane and stalk cutter, consisting of a substantially horizontal tube and a divergently inclined tubular connection therewith, wheel supports therefor, a cutter, the shank of which is reciprocable in the horizontal tube, a piston and a hollow shell fitting said tube and with which the cutter shank is connected, a spring inclosed within the tube and shell, an air pressure supply connected with the inclined tube, a valve controlled port at the junction of the convergent tubular members, by which air is first admitted to retract the piston and compress the spring and then released to allow the spring to act.

3. A portable cane and stalk cutter, comprising a horizontal tube and a divergently inclined tubular connection therewith, a spring-impelled cutter, having a shank operable in said horizontal tube, an air pressed retracting piston operating in the horizontal tube and acted upon by the spring, said inclined tubular connection and said horizontal tube having ports at their junction, and a valve chamber and valve in the inclined tubular connection whereby air may be alternately admitted and exhausted, said valve having a stem, levers by which the stem and valve may be moved, and a guiding handle contiguous to the levers whereby the stem may be manually reciprocated.

4. A cane-stalk cutter including convergent cylindrical tubes mounted upon bearing wheels, one of said tubes being horizontally disposed, and outwardly acting blade with guided shank and a plunger movable in the horizontal tube, a spring contained in said tube adapted to impel the cutter, a compressed air supply to the inclined tube, a valve chamber located at the juncture of the tubes, having alined inlet and discharge ports, and a port to the plunger chamber, a guiding handle at the upper end of the inclined tube, movable levers contiguous to the handle, a slidable stem, and a valve actuated thereby to simultaneously open and close the inlet and discharge ports and connect either with the plunger chamber.

1,028,487. COLLECTION OF FUME, FLUE-DUST, AND OTHER MATTER SUSPENDED IN GAS. RICHARD FRANCIS PEARCE, Liverpool, England. Filed July 29, 1911. Serial No. 641,368. (Cl. 75—30.)



1. An apparatus for collecting fume, flue dust and other matter suspended in gas, comprising a tank or receptacle adapted to contain a body of water, a submerged filtering medium composed of material of fibrous texture, one or more gas inlet tubes extending only a short distance into the tank at the lower part thereof, a gas outlet tube at the upper part of the apparatus, and inlet and outlet water tubes, substantially as hereinbefore described.

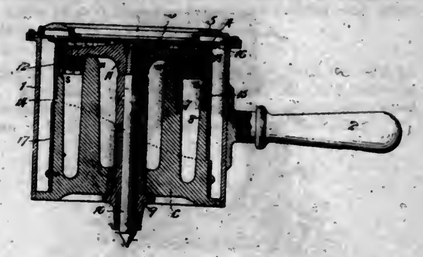
2. An apparatus for collecting fume, flue dust and other matter suspended in gas, comprising a tank or receptacle adapted to contain a body of water, a submerged filtering screen of cocoanut fiber or matting, one or more gas inlet tubes extending only a short distance into the tank at the lower part thereof, a gas outlet tube at the upper part of the apparatus, and inlet and outlet water tubes, substantially as hereinbefore described.

1,028,488. MAGNETIC SPEED-INDICATOR. LEON LE FONTOIS, New Rochelle, N. Y., assignor to A. R. Mosler & Co., New York, N. Y., a Corporation of New York. Filed June 15, 1907. Serial No. 379,181. (Cl. 73—123.)

1. A speed indicator including a magnet having inner and outer annular flanges, a vibratory element carried by one of the flanges, and an armature provided with an annular series of teeth located between the other one of the flanges and the vibratory element.

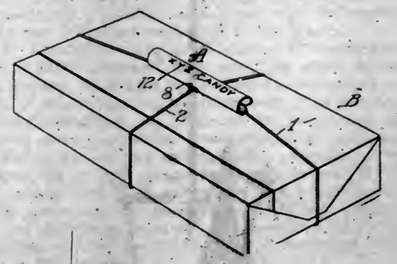
2. A speed indicator including a magnet having inner and outer annular flanges, an annular series of vibratory elements carried by one of the flanges, and an armature provided with an annular series of teeth located between the other one of the flanges and the vibratory elements.

3. A speed indicator including a magnet having inner and outer annular flanges, a vibratory element carried by one of the flanges, an armature provided with an annular series of teeth located between the other one of the flanges and the vibratory element, a casing having a front plate provided with a slot therein registering with the outer end of the vibratory element, and a magnifying glass carried by said casing in register with the slot and the outer end of the vibratory element and on the opposite side of the slot from the vibratory element.



4. A speed indicator including a magnet having inner and outer annular flanges, an annular series of vibratory elements carried by one of the flanges, an armature provided with an annular series of teeth located between the other one of the flanges and the vibratory elements, a casing having a front plate provided with an annular series of slots therein registering with the outer ends of the vibratory elements, and an annular magnifying glass carried by the said casing in register with the slots and the outer ends of the vibratory elements and on the opposite sides of the slots from the vibratory elements.

1,028,489. PACKAGE-CARRIER AND ADVERTISING DEVICE. ERNST F. PRIDDAT, Chicago, Ill. Filed Nov. 6, 1911. Serial No. 658,839. (Cl. 224—57.)



1. A carrying device adapted to removably engage a package-tie, comprising a shell formed of sheet material, with a longitudinal slot at its lower side and a marginal inturned part forming with the shell-wall by which it is carried an open longitudinal tie-supporting channel, the lower wall of said channel being curved down at its ends, for the purpose set forth.

2. A carrying device adapted to removably engage a package tie, comprising a shell having a longitudinal slot and having at one side of said slot an inturned margin forming with the shell-wall by which it is carried an open longitudinal tie-supporting channel, the device having said inturned margin and the adjacent part of the shell recessed centrally to accommodate a cross-tie.

1,028,490. GRIP-TREAD AND MUD-SHOE FOR AUTOMOBILES. CORTEZ V. POOH, St. Louis, Mo., assignor of four-eighteenths to Edward Brochschmitt, four-eighteenths to Arville A. Van Cleave, and four-eighteenths to John Schuls, St. Louis, Mo. Filed Mar. 22, 1911. Serial No. 616,111. (Cl. 152—14.)

In a device of the character described, the combination with a pair of endless chains of smaller diameter than the

wheel, said chains being arranged on opposite faces of the wheel, of a plurality of grip treads, each of said grip treads comprising a pair of mud shoes provided with base portions conforming to the tire, said base portions being connected at both ends to said endless chains, respectively, a



mud blade projecting outwardly from each mud shoe, said mud blades being arranged parallel to each other, a reinforcing lug integral with said blade and base portion of each shoe, and a grip tread chain connecting said lugs together.

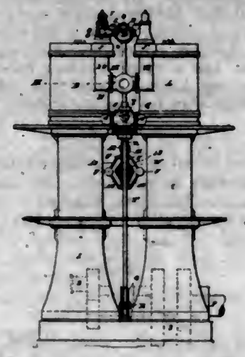
1,028,491. COMBINED MOP HOLDER AND WRINGER. GEORGE W. PURCELL, Toledo, Ohio, assignor, by mesne assignments, to George H. McKillip. Filed Sept. 2, 1911. Serial No. 647,370. (Cl. 15—4.)



1. In a device of the character described, a main frame, a roller carried by the main frame, an auxiliary frame pivotally connected with the main frame, a roller carried by the auxiliary frame to coöperate with the first named roller and movable toward and from said first named roller by a proper movement of said main frame, a handle pivotally connected with the auxiliary frame, a latch carried by the handle and movable into and out of engagement with the auxiliary frame, a mop, a holding element for the same whereby said mop may be drawn between the rollers, and said handle being provided near its end adjacent the mop with an element to engage said mop to prevent its accidental displacement.

2. In a device of the character described, a main frame, an auxiliary frame pivotally connected therewith, opposing rollers carried by said frames, a mop, means detachably connecting the mop with the main frame, a handle pivotally connected with the auxiliary frame, and a latch carried by the handle to engage the auxiliary frame to rigidly connect the same with the handle.

1,028,492. GAS-ENGINE. CYRUS ROBINSON, Pittsburgh, Pa., assignor to Westinghouse Machine Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 13, 1900. Serial No. 8,526. (Cl. 123—59.)



1. In an explosive gas engine, the combination of two cylinders arranged side by side, pistons within said cylinders dividing them into explosion and compression chambers, each cylinder having at its compression end a head provided with a duct for the outward passage of the compressed mixture and a duct for the inward passage of the uncompressed mixture, an external chamber for the mixed gases connected to the said ducts for the uncompressed mixture, a throttle valve for governing the gas supply for the said external chamber, and each cylinder having at its explosion end a head provided with an inlet duct for the compressed mixture and an exhaust duct, valves in the said inlet and exhaust ducts, a shaft parallel to and between the cylinders, valve operating devices between the said shaft and the two inlet and the two exhaust valves, and a governor actuated by the said shaft and connected to the said throttle valve, substantially as set forth.

2. In an explosive gas engine, the combination of two cylinders arranged side by side, oppositely moving pistons therein and dividing the cylinders into compression and explosion chambers, two ducts one leading from the compression end of one cylinder to the explosion end of the other, and the other leading from the compression end of the second cylinder to the explosion end of the first, two independently movable admission valves arranged opposite each other at the explosion ends of the cylinders, exhaust valves arranged opposite to each other at the said ends, a transverse valve shaft between the said admission and exhaust valves adapted to actuate the same, a throttle valve connected to the compression ends of both of said cylinders to control the intake of explosive mixture thereto, a governor connected to said valve and an operating shaft connected to the said governor and the said transverse valve shaft, substantially as set forth.

3. In a gas engine, the combination of two parallel cylinders arranged side by side, pistons in the cylinders, a crank shaft, connections between the pistons and the crank shaft, a gas valve located between the cylinders, ducts leading from the valve to the cylinders at their inner ends, a continuously rotating shaft parallel to the cylinders and located between them, a governor on the shaft, connections between the governor and valve whereby the action of the latter is controlled by the former, an intake valve and an exhaust valve located near the outer end of one cylinder, a similar intake valve and a similar exhaust valve located near the outer end of the other cylinder, a cross shaft located between the two cylinders and having connections with the aforesaid shaft to be continuously rotated thereby, and operative connections between the said cross shaft and the said valves whereby all of the valves are operated by the shaft in proper timed relation, substantially as set forth.

4. In a gas engine, the combination of two parallel cylinders located side by side, pistons in the cylinders, a crank shaft, connections between the pistons and the crank shaft, a valve for mixed gases between the cylinder, a shaft parallel to the cylinders and located between them, a governor controlled by the shaft, connections between the governor and the valve whereby the former controls the latter, ducts leading from the valve to the cylinders, inlet and exhaust valves for one cylinder, similar intake and exhaust valves for the other cylinder, a cross shaft, gearing between the cross shaft and the parallel shaft whereby the former is controlled by the latter, and devices controlled by the cross shaft whereby the said inlet and exhaust valves of the two cylinders are operated in proper timed relation, substantially as set forth.

5. In a gas engine, the combination of two parallel cylinders, pistons one in each cylinder dividing it into explosion and compression chambers, a crank shaft, connections between the crank shaft and the pistons, each of the said cylinders having a gas intake duct connected with its compression chamber, an outlet duct for compressed gas connected with the compression chamber, and an inlet duct for compressed gas connected with the explosion chamber, the ends of said inlet and outlet ducts for compressed gas being immediately adjacent each other, and a single unitary connection between the two cylinders, the said connection having separate passages, one registering with the said outlet duct of one cylinder and the inlet duct of the other, and the other passage registering with the outlet duct of the second cylinder and the inlet duct of the first, substantially as set forth.

1,028,493. AZO DYE. FRIEDRICH RÜNKEL, Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Sept. 19, 1911. Serial No. 650,090. (Cl. 8—1.)

1. The herein described new azo dyes being benzophenone-azo-naphthol-sulfonic acids, which are after being dried and pulverized powders yielding upon reduction with stannous chlorid and hydrochloric acid para-aminobenzophenone and a 1-amino-2-naphthol sulfonic acid and being especially adapted for preparing pigments fast to light and water, substantially as described.

2. The herein described new azo dye being benzophenone-azo-2-naphthol-3.6-disulfonic acid, which is after being dried and pulverized a red powder yielding upon reduction with stannous chlorid and hydrochloric acid para-aminobenzophenone and 1-amino-2-naphthol-3.6-disulfonic acid and being especially adapted for preparing pigments fast to water and to light, substantially as described.

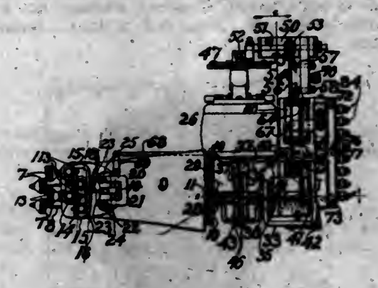
1,028,494. COIN AND BILL CARRIER. CLAUDE S. J. RUSSELL, Watertown, N. Y. Filed Nov. 15, 1911. Serial No. 660,462. (Cl. 229—69.)



1. A coin and bill mailer, comprising a central body portion having its side edges formed into flaps capable of being folded inwardly upon said body, and having an integral end portion adapted to be folded upon said body and to be held rigidly in place by said flaps, the central part of said end portion cut-away to form a recess or pocket to receive a piece of paper money, the opposite end of said body having an integral cover adapted to be folded upon said body and said end portion, the side edges of said cover detachably engaging portions of said flaps for holding the cover in place.

2. A coin and bill mailer, comprising a main body having an integral end portion adapted to be folded upon said body, said body having flexible flaps arranged on its opposite sides adapted to be folded inwardly upon said end portion, the portions of said flaps adjacent the line of folding pasted to said end flap for permanently connecting said parts, the remaining portions of said flaps constituting free edges, said end portion having an oblong opening forming a recess or pocket to receive a piece of paper money, the opposite end of said body comprising a flexible cover adapted to be folded upon said end portion, the lateral edges of said cover adapted to slidably engage the free edges of said flaps for detachably holding said cover in place.

1,028,495. ELECTRIC SELF-PLAYING VIOLIN. HENRY K. SANDELL, Chicago, Ill., assignor to Mills Novelty Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 3, 1911. Serial No. 600,470. (Cl. 84—218.)



1. In an electric self-playing violin, the combination with the rotary sounders, of a motor for solely driving them, electric mechanism for moving the sounders relatively to the strings of the instrument, electric expression-controlling mechanisms for the sounders, all of said mechanisms being housed in the same compartment with said motor and sounders controlling mechanism located extraneously of said compartment and means connecting said last mentioned controlling mechanism with the sounder moving and controlling mechanism in the housing.

2. In an electric self-playing violin, the combination with the rotary sounders, of a motor for solely driving them, electric mechanism for moving the sounders relatively to the strings of the instrument, electromagnet-controlled mechanism for reversing the rotation of the sounders, solenoid-controlled mechanism constructed and arranged to regulate the extent of said movement of the sounders, all of said mechanisms being housed in the same compartment with said motor and sounders, controlling mechanism located extraneously of said compartment and means connecting said last mentioned controlling mechanism with the sounder moving and controlling mechanism in the housing.

3. An electric self-playing violin comprising rotary sounders, a motor for solely driving them, electric mechanism for moving the sounders relatively to the strings of the instrument, electric expression-controlling mechanisms for the sounders, all of said mechanisms being housed in the same compartment with said motor and sounders, and means whereby said sounder moving and controlling mechanism may be controlled extraneously of the housing.

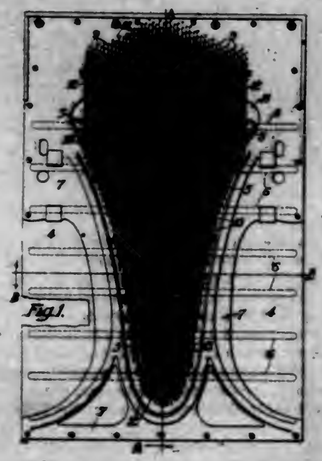
4. In an electric self-playing violin the combination with rotary shafts having sounders on their advance-ends, one for each string, of gears on the opposite ends of said shafts intermeshing in pairs, a drive-gear meshing with the inner members of said pairs, a longitudinally-movable spring-retracted rotary drive-shaft engageable at its forward end, by movement against the resistance of its retracting-spring, with the drive-gear, a reversible friction-drive device on the drive-shaft, an electric circuit, a motor in said circuit geared to the drive-shaft, and an electromagnet in said circuit having its armature engageable with the drive-shaft in opposition to its retracting-spring, for the purpose set forth.

5. In an electric self-playing violin the combination with rotary shafts having sounders on their advance-ends, one for each string, of gears on the opposite ends of said

shafts intermeshing in pairs, a drive-gear meshing with the inner members of said pairs and provided with pins on its rear face forming pairs with the members of each pair diagonally opposite each other, a longitudinally movable spring-retracted rotary drive-shaft provided on its advance-end with arms to engage said pins, a reversible friction-drive device on the drive-shaft, an electric circuit, a motor in said circuit geared to the drive-shaft, and an electromagnet in said circuit having its armature engageable with the drive-shaft in opposition to its retracting-spring, for the purpose set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,028,496. PIANO. HENRY K. SANDELL, Chicago, Ill., assignor to Mills Novelty Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 2, 1911. Serial No. 652,281. (Cl. 84—25.)



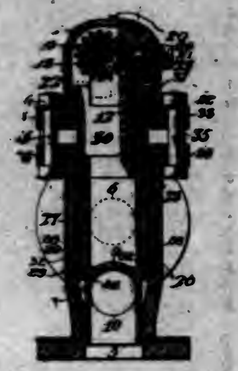
1. A musical stringed instrument having a sounding board, a string-plate spaced from the sounding-board and provided with a central opening, a bridge projecting from the sounding-board through said opening, and strings stretched across the opening over said bridge, with the relatively-longer and heavier strings traversing the central portion of said opening and the relatively-shorter and lighter ones traversing the lateral portions thereof.

2. A musical stringed instrument having a sounding-board, a string-plate spaced from the sounding-board and provided with a central opening, a bridge projecting from the sounding-board through said opening, and strings stretched across the opening over said bridge, with the relatively-longer and heavier strings traversing the central portion of said opening and the relatively shorter and lighter ones traversing the lateral portions thereof, the series of strings being relatively disposed to produce their chromatic sequence back and forth across the center of the series.

3. A musical stringed instrument having a sounding-board, a string-plate spaced from the sounding-board and provided with a central elongated opening widest toward one end, a bridge projecting from the sounding-board through said opening adjacent to its edges and conforming to the contour thereof, and strings stretched across the opening over said bridge, with the relatively longer and heavier strings traversing the central portion of said opening and the relatively shorter and lighter ones traversing the lateral portions thereof.

4. A musical stringed instrument having a sounding-board, a string-plate spaced from the sounding-board and provided with an opening of general V-shape, a continuous bridge of the shape of said opening projecting therethrough from the sounding-board, and strings stretched across the opening over said bridge with the relatively larger and heavier strings traversing the central portion of said opening and the relatively shorter and lighter ones traversing the lateral portions thereof.

1,028,497. VALVE. JOHN V. SCHMID, Philadelphia, and CARLISLE MASON, Wyndmoor, Pa., assignors to Nelson Valve Company, a Corporation of Pennsylvania. Filed Dec. 23, 1909. Serial No. 534,612. (Cl. 137—4.)



1. A valve comprising a casing, having a serrated grooved ledge for the reception of packing, and a gland having a serrated grooved face opposed to said ledge, and relatively adjustable with respect thereto.

2. In a valve, the combination with a casing provided with openings, of a valve member movable in said casing, and a packing gland having portions respectively extending through said casing, and covering said openings.

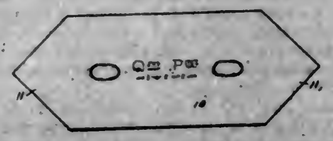
3. A valve comprising a casing having a port, a piston mounted in said casing, having a port arranged to register with the casing port, and provided with a toothed extension having its end flush with said casing in closed position, and arranged to project through said casing in open position, means within said casing arranged to engage said extension to shift said piston, the teeth of said extension indicating the position of said piston.

4. In a valve, the combination with a casing provided with a passageway, of a piston arranged to control said passageway, packing for said piston, a separating sleeve surrounding said piston and arranged to space said packing, and a gland having flanges extended through said casing arranged to adjust said packing.

5. In a valve, the combination with a casing having suitable ports and openings, of means movable to close said ports, packing surrounding said means, and a gland arranged to adjust said packing and provided with shields arranged to cover the openings in said casing.

[Claims 6 to 24 not printed in the Gazette.]

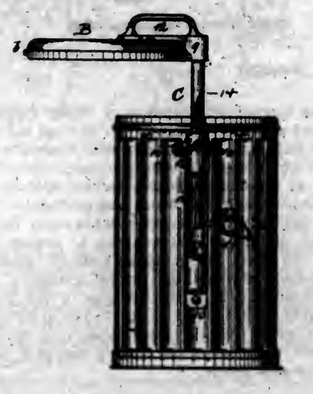
1,028,498. WRAPPER FOR CIGARS. ANTHONY SCHNEIDER, Jersey City, N. J., assignor to Heidenberg & Company, New York, N. Y., a Corporation of New Jersey. Filed Nov. 9, 1911. Serial No. 650,435. (Cl. 131—11.)



1. A cigar-package comprising a cigar; and a hexagonally-shaped cover having a body portion of substantially the length of a cigar and projecting pointed ends, wrapped cylindrically about the cigar and held by end-twists; the projecting ends of the cover being untwisted and of substantially rectangular outline and laid back smoothly on the body portion and secured thereto by an adhesive.

2. A cigar package comprising a cigar; and a cover having a substantially rectangular body portion and flaring ends, the said body portion being wrapped cylindrically about the cigar and held by end twists; the ends being untwisted, laid back upon and lengthwise of the package, and secured thereto by an adhesive.

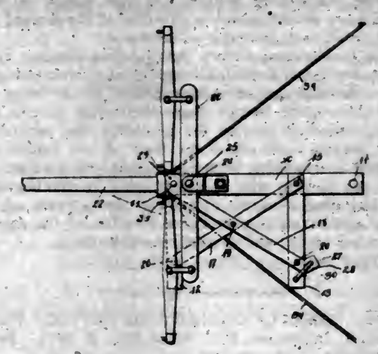
1,028,499. CAN WITH SELF-CLOSING LID. LOUIS SCHOTT, Cincinnati, Ohio, assignor to Cincinnati Galvanizing Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Mar. 27, 1911. Serial No. 617,073. (Cl. 220—4.)



The combination of a cylindrical can-body provided with diametrically spaced handles, a cylindrical socket open at its upper end, secured to the outside of this body parallel to its axis and close to one of the handles thereon, a projection provided in this socket between its ends, a cap for this can-body fitted with its side over the upper edge of this latter, a handle provided on this cap and extended to form a bracket which overhangs the can-body and a pin depending from the bracket and fitted to the socket on the can-body, said pin being provided with a cam-groove adapted to receive the projection in said socket, said groove being shaped to form an upper portion parallel to the axis of the pin which, under normal conditions, is occupied by the projection in the socket, an intermediate curved portion and a lower portion which is again parallel to the axis of the pin so that, when the cap is raised by means of its handle, it is first caused to move straight upwardly until free of the can-body, after which it is caused to turn away from the can-body to render the same accessible and finally, the raising movement being continued, it becomes entirely disengaged from the can.

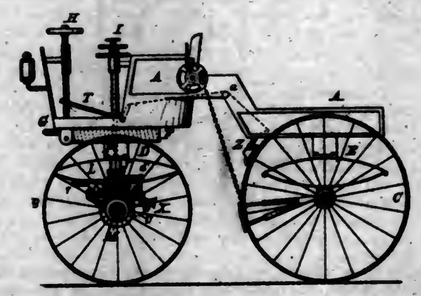
1,028,500. COMBINATION MANURE-SPREADER HITCH. CARL C. SCHULTZ, Victor, Iowa. Filed Oct. 2, 1911. Serial No. 652,252. (Cl. 21—36.)

In an evener hitch, a stub tongue, brackets secured thereto in spaced parallel relation and projecting therefrom, each of said brackets comprising a single section of metal bent upon itself to provide top and bottom portions in spaced parallel relation and secured at its extremities to the stub tongue, the ends of the metal beneath the tongue being bent to form loops, braces connecting the brackets from diagonally opposite points, the securing means for the outer ends of the braces passing through the brackets and forming loops with the ends thereof, a spring operated pin carried by the rear extremity of one brace engaged through apertures in the loop portion of the rear bracket adapted for securing a draft pole in the loops of the brackets and draft attaching means for eveners



mounted upon the stub tongue for securing said draft tongue in the loops beneath the stub tongue at times.

1,028,501. ROAD-ENGINE. GEORGE B. SELDEN, Rochester, N. Y. Original application filed May 8, 1879. Divided and this application filed Sept. 7, 1895. Serial No. 561,733. (Cl. 21—90.)



1. The combination with the body of a road engine or self-propelling vehicle, of a driving and steering truck therefor, said driving and steering truck comprising an axle, driving and steering wheels and a motor, motor controlling devices, and part of the steering mechanism, said motor controlling devices and a part of the steering mechanism extending within reach of the operator on the body of the vehicle, and means for turning said axle on the axis of the steering mechanism; substantially as described.

2. The combination with the body of a road engine or self-propelling vehicle, of a driving and steering truck, comprising an axle, driving and steering wheels, and a motor, motor controlling devices and a part of the steering mechanism extending within reach of the operator on the body of the vehicle, and means for turning said axle on the axis of the motor controlling devices, whereby the controlling devices remain operative in any position of the truck, with respect to the body; substantially as described.

3. The combination with the body of a road engine or self-propelling vehicle, and a driving and steering fore-truck therefor supporting the body, of driving and steering wheels for said fore truck, a driving mechanism carried thereon, controlling devices therefor and steering mechanism, said steering mechanism including means for turning the axle substantially on the axis of the said controlling devices, whereby the controlling devices remain operative in any position of the truck, with respect to the body; substantially as described.

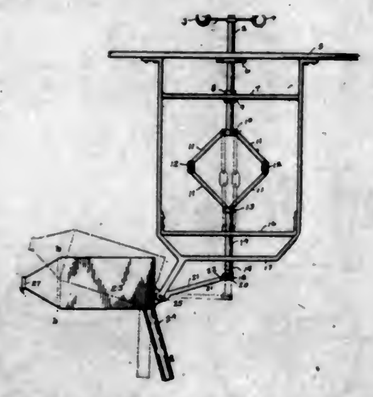
4. A driving and steering truck for road engines or self-propelling vehicles, comprising an axle, driving and steering wheels, a motor, motor-controlling devices, and a

steering mechanism, including means for turning the axle on a substantially vertical axis, and connections between the motor controlling devices and the motor, so constructed as to permit complete rotation of the driving and steering truck; substantially as described.

5. The combination with a driving and steering truck for road engines or self-propelling vehicles, comprising an axle and driving and steering wheels, a motor below the body of the vehicle, flexible motor-controlling devices, and manually operated devices for actuating the motor-controlling devices from above the body of the vehicle; of a steering mechanism including means for turning the axle on the vertical axis of the steering mechanism, said means including a device extending within reach of the operator and permitting complete rotation of the driving and steering truck; substantially as described.

[Claims 6 to 21 not printed in the Gazette.]

1,028,502. AEROPLANE SIGHTING DEVICE. FRANK L. SLACK, Inglewood, Cal. Filed Feb. 7, 1911. Serial No. 607,033. (Cl. 88—2.)



1. In an aeroplane sighting device the combination of a suitable means for observing the surface of the earth beneath the aeroplane and suitable automatic device for shifting the field of vision of the observing apparatus as the speed of the aeroplane is increased or decreased.

2. In an aeroplane sighting device: the combination of a suitable observing instrument for viewing the surface of the earth from an aeroplane; a suitable governor; suitable means for transmitting motion from the governor to the observing instruments and suitable means for increasing and decreasing the speed of the governor as the speed of the aeroplane increases or decreases, all substantially as set forth.

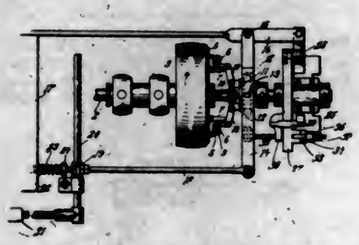
3. In an aeroplane sighting device: the combination of a suitable observing apparatus; a suitable governor; means for transmitting motion from the governor to the observing apparatus; a driving apparatus propelled by air currents; and means for transmitting power from the driving apparatus to the governor.

4. In an aeroplane sighting device: an air propelled apparatus for transmitting motion to a shaft; a suitable governor attached to said shaft; a governor shaft; a suitable observing apparatus; a suitable lever for transmitting motion from the governor shaft to the observing apparatus and thereby varying the position of the observing apparatus.

5. In an aeroplane sighting device: the combination of a suitable air propelled apparatus; suitable means for transmitting motion from the air propelled apparatus to a governor; a suitable governor operated by the air propelled apparatus; suitable apparatus for connecting the said governor with an observing instrument; an observing instrument arranged to be shifted by means of said governor and connecting apparatus and a suitable framework attached to an aeroplane for securing the said parts in their relative positions, all substantially as described and for the uses and purposes set forth.

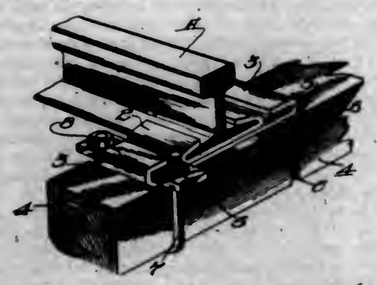
[Claim 6 not printed in the Gazette.]

1,028,503. SHIFTER MECHANISM. FRED ELVERTON SUTHERLAND and JAMES ANDREW BROWN, Los Angeles, Cal. Original application filed May 27, 1909, Serial No. 498,765. Divided and this application filed Feb. 28, 1910. Serial No. 546,554. (Cl. 74—13.)



A brake mechanism including a frame formed with a bearing and provided upon one side thereof with a slotted guideway and upon the opposite side thereof with an extension, a guide member being arranged upon the slotted guideway at the middle portion thereof, a shaft journaled within the bearing of the frame and provided with a brake wheel, a pair of brake levers pivoted upon the extended portion of the frame and adapted to engage the brake wheel of the shaft, the swinging ends of the shoe levers passing loosely through the slotted guideway, a rod arranged at substantially right angles to the brake levers and slidably mounted upon the before mentioned guide member, a pair of toggle levers connecting the rod to the shoe levers, and means for sliding the said rod for actuating the shoe levers.

1,028,504. RAILWAY-RAIL CHAIR. JOHN W. SWALES, Fruitvale, Cal. Filed Oct. 2, 1911. Serial No. 652,226. (Cl. 238—4.)



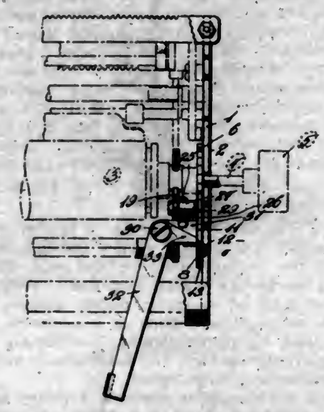
1. A railway rail chair, comprising inner and outer plates secured one to the other said inner plate having its edges fashioned to engage the flange of the rail and said outer plate having its edges turned toward the first named flanges, and fashioned to form channels, U-shaped bolts embracing the tie and extending up on each side thereof, and a connection between the ends of the bolts passing across the tie through said channels.

2. In a railway rail chair, an inner plate having turned-over edges to clasp the rail, an outer plate having its edges turned to form channels, bars passing through said channels, and U-shaped bolts, the ends of which pass through said bars and are secured thereto.

3. A railway rail support, consisting of an outer plate having its edges turned to form channels, bars extending through said channels across the tie, U-shaped bolts passing across beneath the tie having upturned ends passing through the bars, grooves made in the sides of the tie to

receive said ends, and an interior plate secured to the first named plate and having its edges turned over to clasp the rail flanges.

1,028,505. PLATEN-ROTATING MEANS FOR TYPE-WRITING MACHINES. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 23, 1910. Serial No. 583,437. (Cl. 197—114.)



1. In a device of the character described, a roller having a ratchet wheel attached and operating means therefor, comprising a pawl, a spring tending to move said pawl toward the ratchet wheel, a pin supporting said pawl, a sleeve upon which said pin is mounted, and means for shifting the sleeve to change the relation of the supporting pin to the pawl.

2. In a device of the character described, a roller having a ratchet wheel attached and operating means therefor, comprising a pawl, a spring tending to move said pawl toward the ratchet wheel, a pin supporting said pawl, a sleeve upon which said pin is mounted, means for shifting the sleeve to change the relation of the supporting pin to the pawl, and means on the sleeve for retaining the pin in adjusted position.

3. In a device of the character described, a roller having a ratchet wheel attached, means for operating said ratchet wheel comprising a pivoted pawl, a pin supporting said pawl above the ratchet wheel, a sleeve member upon which said pin is fixed, a notched support for said sleeve member, and a spring actuated pin mounted in the sleeve member and adapted to engage either of the notches in the support.

4. In a device of the character described, a roller having a ratchet wheel attached, a vertically slotted lever, a spring-actuated pawl pivoted thereto adjacent the ratchet wheel, an independent support for the pawl, and a horizontally movable hand lever engaging the slot of the first lever.

5. In a device of the character described, a roller having a ratchet wheel attached, a slotted lever, a spring-actuated pawl pivoted thereto adjacent the ratchet wheel, an adjustable support for the pawl, and a second lever engaging the slot of the first lever.

[Claims 6 to 8 not printed in the Gazette.]

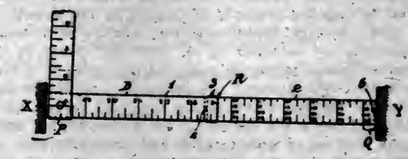
1,028,506. ROLL-SUPPORT. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Original application filed Sept. 23, 1910, Serial No. 583,438. Divided and this application filed Jan. 25, 1911. Serial No. 604,669. (Cl. 242—68.)

A roll support comprising a spindle, said spindle being recessed at its ends, a spring within said recess at one end, a pin retained within said recess in contact with said spring, said pin having a groove therein, a bracket, said bracket being provided with an opening substantially equivalent to the diameter of the body portion of said pin, said bracket being also provided with a slot leading



into said opening, said slot being substantially the width of the grooved portion of said pin, the parts being arranged in such manner that said pin may be forced against said spring and placed in the opening in said bracket through said slot, substantially as described.

1,028,507. RULE. LOUIS VOGGENREITER, New York, N. Y. Filed May 29, 1911. Serial No. 630,161. (Cl. 73—40.)



1. The combination with a rule having a plurality of sections of an adjustable extension which latter is graduated to give a direct reading therefrom of the combined length of one or more sections of the rule and the extension to the distances that the latter is extended, there being plural sets of said graduations, one or another set of which is used to make the reading depending upon the number of sections in use when making the measurement.

2. The combination with a rule having a plurality of sections of an adjustable extension which latter is graduated to give a direct reading therefrom of the combined length of one or more sections of the rule and the extension to the distances that the latter is extended, there being plural sets of said graduations, one or another set of which is used to make the reading depending upon the number of sections in use when making the measurement, said sets of graduations being designated 1, 2, etc., set 1 being read when one section of the rule is in use, set 2 when two sections are in use, etc.

3. The combination with a folding rule in pivotally connected sections of an adjustable extension on one end of said rule, said extension being graduated to give a direct reading therefrom of the combined length of one or more sections of the rule and the extension to the distances that the latter is extended, there being plural sets of said graduations, one or another set of which is used to make the reading depending upon the number of sections in use when making the measurement, said sets of graduations being designated 1, 2, etc., set 1 being read when one section of the rule is in use, set 2 when two sections are in use, etc.

4. The combination with a folding rule in pivotally connected sections of an adjustable extension on one end of said rule, said extension being graduated to give a direct reading therefrom of the combined length of one or more sections of the rule and the extension to the distances that the latter is extended, there being plural sets of said graduations, one or another set of which is used to make the reading depending upon the number of sections in use when making the measurement, the fraction of a unit by which the pivoted ends of the sections extend beyond their pivots being uniform and the complement thereof being added to the distal end of the adjustable extension before its unit graduations begin.

5. The combination with a folding rule in pivotally connected sections of an adjustable extension on one end of said rule, said extension being graduated to give a direct reading therefrom of the combined length of one or more sections of the rule and the extension to the distances that the latter is extended, there being plural sets

of said graduations, one or another set of which is used to make the reading depending upon the number of sections in use when making the measurement, the fraction of a unit by which the pivoted ends of the sections extend beyond their pivots being uniform and the complement thereof being added to the distal end of the adjustable extension before its unit graduations begin, and an extensible piece mounted on the distal end of the section which is at the opposite end of the rule from the aforesaid graduated adjustable extension, said piece when extended increasing the length of said section by the same fraction of a unit that the pivoted ends of the sections extend as aforesaid beyond their pivots.

[Claim 6 not printed in the Gazette.]

1,028,508. SOUR LIQUID. ROBERT WAHL, Chicago, Ill. Filed Sept. 5, 1911. Serial No. 647,668. (Cl. 99—11.)

1. The process of manufacturing the herein described sour liquid, which consists in mixing with water, food-material having the property of promoting the growth of lactic acid bacteria, inoculating the mixture with lactic acid bacteria and maintaining it, until the extent of the acidulation approximates at least one per cent., at a temperature that will promote the fermenting action of said bacteria and prevent substantially all other fermentation in said mixture, while retaining the unassimilated food-remnants and other unfermented and unfermentable extractive substances of said material.

2. The process of manufacturing the herein described sour liquid, which consists in mixing with water, food-material having the property of promoting the growth of lactic acid bacteria, raising the temperature of the mixture to 35° C., or thereabout, thereupon inoculating the mixture with lactic acid bacteria and maintaining it, until the extent of acidulation approximates at least one per cent., at a temperature that will promote the fermenting action of said bacteria and prevent substantially all other fermentation in said mixture, while retaining the unassimilated food-remnants and other unfermented and unfermentable extractive substances of said material.

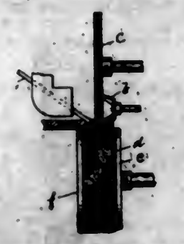
3. The process of manufacturing the herein described sour liquid, which consists in mixing with water, food-material having the property of promoting the growth of lactic acid bacteria, inoculating the mixture with lactic acid bacteria and maintaining it, until the extent of acidulation approximates at least one per cent., at a temperature that will promote the fermenting action of said bacteria and prevent substantially all other fermentation in said mixture, while retaining the unassimilated food-remnants and other unfermented and unfermentable extractive substances of said material and condensing the resultant liquor to increase the acid content thereof to an extent that will preserve it.

4. The herein described sour liquid composed of the products of lactic acid fermentation to the exclusion of the products of substantially all other fermentation and in which the lactic acid content approximates at least one per cent., and the unassimilated food-remnants and other unfermented and unfermentable extractive substances of lactic-acid-bacteria-growing food-material.

5. The herein described sour liquid consisting of a concentrated liquor composed of the products of lactic acid fermentation to the exclusion of the products of substantially all other fermentation and in which the proportion of lactic acid is sufficiently in excess of one per cent. to preserve said liquor against spoiling, and the unassimilated food-remnants and other unfermented and unfermentable extractive substances of lactic-acid-bacteria-growing food-material.

1,028,509. SOLE-CHANNELING MACHINE. EDWIN A. WEBSTER, Groveland, Mass., assignor to Haverhill Shoe Machinery Co., Haverhill, Mass., a Corporation of Maine. Filed Oct. 24, 1907. Serial No. 398,909. Renewed Feb. 17, 1912. Serial No. 678,412. (Cl. 12—27.)

1. In a sole channeling machine, a feeding device for the grain side of the sole having a sole feeding portion composed of a rigid, closely compacted mass of emery, or similar abrasive material, and a non-abrasive, sole-supporting portion at one side thereof, said feeding portion having an abrasive, sole-engaging face and said sole-supporting portion having a non-abrasive, sole-supporting face, said faces being continuously arranged with relation to each other, substantially as described.



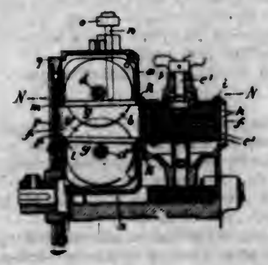
2. In a sole-channeling machine a pair of feeding devices adapted to be pressed against the opposite sides of the sole, the feeding device for the grain side thereof having a sole-feeding portion composed of a rigid, closely compacted mass of emery, or similar abrasive material, and a sole-supporting portion of non-abrasive material, said portions having unindented, continuously arranged, and respectively, abrasive and non-abrasive sole-engaging faces, substantially as described.

3. In a sole-channeling machine, a rotary feeding device for engaging the grain side of the sole, comprising a roll composed of a mass of abrasive material having a circular, unindented, abrasive, sole-engaging face and a circular support pressed against one end of said roll having a smooth, non-abrasive, sole-supporting face continuous with the face of said roll, and adapted to engage the surface of the sole simultaneously therewith, substantially as described.

4. In a sole channeling machine a feeding device for engaging the grain side of the sole, comprising a rotary shaft, a roll secured thereon composed of a mass of abrasive material having an unindented cylindrical, sole-engaging face, and a metal support bearing against one end of said roll at its periphery and having a smooth, cylindrical, sole-engaging and supporting face continuous with the face of said roll, substantially as described.

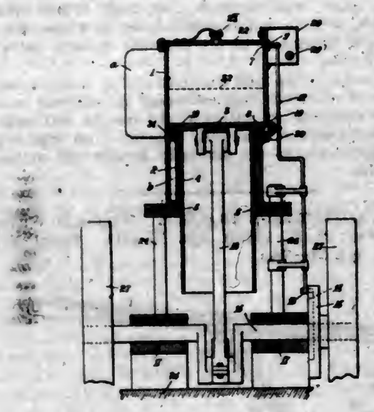
5. In a sole channeling machine a feeding device for engaging the grain side of the sole, comprising a shaft, a roll composed of a mass of abrasive material mounted on said shaft and having a cylindrical, sole-engaging face, and metal disks clamped against opposite ends of said roll and having, at their peripheries, a smooth, cylindrical, sole-supporting surface, continuous with the sole-engaging face of said roll, substantially as described.

1,028,510. MACHINE FOR CUTTING MEAT, LARD, AND THE LIKE BY MEANS OF FLAT ROTATING KNIVES. OTTO WEFING, Ilmenau, Germany. Filed May 10, 1911. Serial No. 626,253. (Cl. 17—24.)



In a meat cutting machine, the combination with a plurality of vertically disposed upper disk-like knives, rotatably mounted in parallel relation to each other, of a plurality of vertically disposed lower disk-like knives rotatably mounted in parallel relation to each other for coaction with said upper knives, a set of grids for retaining said lower knives in spaced apart relation to each other at a predetermined distance, the said grids being disposed parallel to the lower knives and extending longitudinally cross-wise above the axis of rotation thereof, a second set of grids adapted to retain said upper knives in shearing relation to said lower knives, said second set of grids being disposed parallel to the upper knives, and extending below the axis of rotation thereof, means pivotally mounting said second set of grids at one end rearwardly with respect to the path of travel of the material cut by said knives, yieldable means for normally forcing said second set of grids with its forward end downwardly toward said first set of grids, and a knife movable crosswise the path of travel of the material cut, and in succeeding relation to the forward end of said first and second set of grids, substantially as and for the purpose set forth.

1,028,511. ATMOSPHERIC ENGINE. ALBERT R. WEISZ and GEORGE R. WEISZ, New York, N. Y. Filed Dec. 1, 1911. Serial No. 663,238. (Cl. 60—13.)

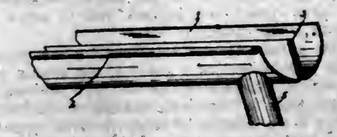


1. In an engine, the combination with a cylinder composed of two sections, one of greater diameter than the other, a piston within the larger section of the cylinder, having a clearance between the rim of the piston and the walls of the cylinder, a trunk projecting from said piston, an inlet port, and an outlet port in the cylinder section of greater diameter, valves for said ports, a hot-gas supply-means connected with the inlet port, a crank shaft, connections from the same to the piston and means for operating the valves automatically, substantially as set forth.

2. In an engine, the combination with a cylinder composed of two sections, one of greater diameter than the other, a piston within the larger section of the cylinder, having a clearance between the rim of the piston and the walls of the cylinder, a trunk projecting from said piston, an inlet port, and an outlet port in the cylinder section of greater diameter, valves for said ports, a hot gas supply means connected with the inlet port, an automatic relief valve in the cylinder section of greater diameter, a crank shaft, connections from the same to the piston and means for operating the valves automatically, substantially as set forth.

3. In an engine, the combination with a cylinder composed of two sections, one of greater diameter than the other, and forming an integral shoulder at the open end of the greater diameter section, a piston within the larger section of the cylinder, having a clearance between the rim of the piston and the walls of the cylinder, a trunk projecting from said piston, the distance from the inner-side of the closed end of the cylinder section of greater diameter to the said integral annular shoulder being greater than the distance between the innermost point reached by the inner surface of the piston and the outermost point reached by the outer surface of the piston, within the greater diameter part of the cylinder, a trunk projecting from said piston, an inlet port, and an outlet port in the cylinder section of greater diameter, valves for said ports, heat supply means connected with the inlet port, a crank shaft, connections from the same to the piston and means for operating the valves automatically, substantially as set forth.

1,028,512. DRAINAGE-GUTTER. JACOB F. WEITZEL, Columbus, Ohio. Filed Sept. 5, 1911. Serial No. 647,678. (Cl. 108—28.)

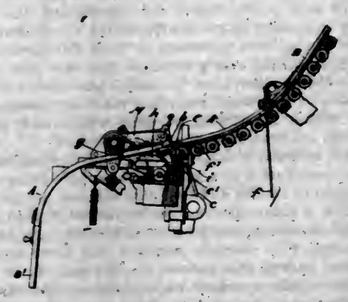


1. A gutter comprising a body portion, and a comparatively thin longitudinal dividing partition formed integrally therewith, said partition being of a height to form main and supplemental channels.

2. A gutter comprising a body portion having a comparatively thin central longitudinal fold formed therein and dividing the body portion into a main and supplemental channel.

3. A gutter comprising a channel body portion having a comparatively thin central longitudinal partition therein and dividing the gutter into main and supplemental channels, and an outlet port communicating with both sections of said channel.

1,028,513. AUTOMATIC WEFT-REPLENISHING MECHANISM FOR LOOMS. JEAN CHARLES ALFRED WENNING, Mülhausen, Germany, assignor to Société Alsacienne De Constructions Mecaniques, Mülhausen, Germany. Filed Nov. 30, 1910. Serial No. 594,842. (Cl. 139—85.)



1. In an automatic weft replenishing mechanism for looms, the combination of a guide at the supply place of the loom, adapted to receive and feed pirn carriers toward such supply place, a removable charger connected to said guide so as to be capable of being removed therefrom, a reserve of independent pirn carriers carrying full pirns with an entirely free thread end portion on the top of the pirn body and movably mounted on said removable charger, said charger being adapted to direct said pirn carriers to said guide, means for introducing the pirns from their carriers into the shuttle of the loom and automatic means for seising and retaining at least during the

first pick the free thread end portion of the new pirn introduced into the shuttle, when the spent pirn of the shuttle is changed, so that the thread of the freshly introduced pirn can correctly be threaded into the shuttle.

2. In an automatic weft replenishing mechanism for looms, the combination of a guide at the supply place of the loom, adapted to receive and feed pirn carriers toward such supply place, a removable charger connected to said guide so as to be capable of being removed therefrom, a reserve of independent pirn carriers carrying full pirns with an entirely free thread end portion on the top of the pirn body and movably mounted on said removable charger, said charger being adapted to direct said pirn carriers to said guide, means for introducing the pirns from their carriers into the shuttle of the loom and an automatic movable retaining piece capable of being lowered into such a position with regard to the freshly loaded shuttle that it meets with the free thread end portion on the top of the full pirn in the shuttle when the latter, after its supplying, is actuated by the picker, in order to retain the said thread end portion and to allow of the threading-in of the shuttle.

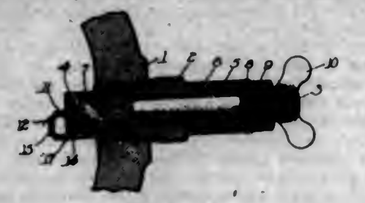
3. In an automatic weft replenishing mechanism for looms, the combination of a guide at the supply place of the loom, adapted to receive and feed pirn carriers toward such supply place, a removable charger connected to said guide so as to be capable of being removed therefrom, a reserve of independent pirn carriers carrying full pirns with an entirely free thread end portion on the top of the pirn body and movably mounted on said removable charger, said charger being adapted to direct said pirn carriers to said guide, means for introducing the pirns from their carriers into the shuttle of the loom and an automatic movable retaining brush capable of being lowered into such a position with regard to the freshly loaded shuttle that it meets with the free thread end portion on the top of the full pirn in the shuttle when the latter, after its supplying, is actuated by the picker, in order to retain the said thread end portion and to allow of the threading-in of the shuttle.

4. In an automatic weft replenishing mechanism for looms, the combination of a guide at the supply place of the loom, adapted to receive and feed pirn carriers toward such supply place, a removable charger connected to said guide so as to be capable of being removed therefrom, a reserve of independent pirn carriers carrying full pirns with an entirely free thread end portion on the top of the pirn body and movably mounted on said removable charger, said charger being adapted to direct said pirn carriers to said guide, means for introducing the pirns from their carriers into the shuttle of the loom, automatic means for seising and retaining at least during the first pick the free thread end portion of the new pirn introduced into the shuttle, when the spent pirn of the shuttle is changed, and means for removing from said seizing and retaining means the thread portions which may adhere thereto from the preceding changing operation.

5. In an automatic weft replenishing mechanism for looms, the combination of a guide at the supply place of the loom, adapted to receive and feed pirn carriers toward such supply place, a removable charger connected to said guide so as to be capable of being removed therefrom, a reserve of independent pirn carriers carrying full pirns with an entirely free thread end portion on the top of the pirn body and movably mounted on said removable charger, said charger being adapted to direct said pirn carriers to said guide, means for introducing the pirns from their carriers into the shuttle of the loom, an automatic movable retaining piece capable of being lowered into such a position with regard to the freshly loaded shuttle that it meets with the free thread end portion on the top of the full pirn in the shuttle when the latter, after its supplying, is actuated by the picker, in order to retain the said thread end portion and to allow of the threading-in of the shuttle, and a fixed toothed piece and a pusher mounted on the lay, adapted to remove from said retaining piece all of the thread which may adhere thereto, substantially as and for the purpose described.

[Claims 6 to 13 not printed in the Gazette.]

1,028,514. IGNITER OR THE LIKE. WALTER C. WESTAWAY, Chicago, Ill., assignor, by mesne assignments, to Chicago Pneumatic Tool Company, Chicago, Ill., a Corporation of New Jersey. Filed July 16, 1909. Serial No. 507,894. (Cl. 123—169.)

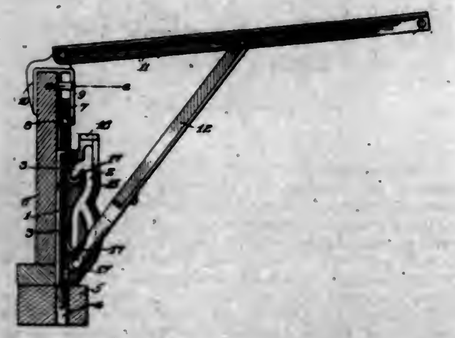


1. In a device of the kind described and in combination, a plurality of electrodes spaced from each other, each electrode comprising a tube open at both ends and arranged with an end of each tube proximate the end of the opposite tube, the proximate end of one of said tubes brought substantially to an edge.

2. A spark plug, comprising a body part and a pair of relatively fixed electrodes mounted thereon and insulated from each other, each electrode comprising a tube open at both ends, with an end of each beveled on the exterior and arranged proximate to the similarly formed end of the opposite tube.

3. In a device of the kind described and in combination, a plurality of relatively fixed electrodes spaced from each other, each electrode comprising a tube open at both ends, with an end of each substantially brought to an edge and arranged proximate to the similarly formed end of the opposite tube.

1,028,515. ADJUSTABLE BRACKET. WILLIS D. WHITNEY, Holley, N. Y. Filed Apr. 7, 1911. Serial No. 619,513. (Cl. 21—74.)



1. The combination with a standard having a plurality of communicating slots terminating in different horizontal planes, of an arm pivotally connected to the standard, a brace pivotally mounted on the arm and provided with an integral end portion arranged to move in the slots of the standard, and enlargements formed on the standard at the ends of the slots for supporting the end portion of the brace, the standard including a body portion and a member separable from the body portion, and a securing device for holding the member in engagement with the body portion.

2. The combination with a standard having a plurality of communicating slots terminating in different horizontal planes, of an arm pivotally connected to the standard, a brace pivotally mounted on the arm, the standard including a body portion and a member separable from the body portion and the brace being slotted and having an integral end portion for coöperative engagement with the separable member, and a securing device for holding the separable member in engagement with the body portion of the standard.

1,028,516. PRODUCTION OF CONTINUOUS ELECTRIC ARCS AND APPARATUS THEREFOR. FRANZ H. A. WIELGOLASKI and OTTO SCHÖNHERR, Christiania, Norway, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed Mar. 12, 1910. Serial No. 548,957. (Cl. 204—31.)



1. The process of producing continuous electric arcs by stretching an electric arc from an electrode situated at the periphery of a furnace to an electrode situated in proximity to the center of the furnace by means of a current of fluid, said current of fluid being so directed relatively to the arc, that it will flow through the furnace substantially in the same direction as the longitudinal direction of the arc.

2. The process of producing continuous electric arcs by stretching an electric arc from an electrode situated at the periphery of a furnace to an electrode situated in proximity to the center of the furnace by means of a current of fluid, said current of fluid being so directed relatively to the arc, that it will flow through the furnace substantially in the same direction as the longitudinal direction of the arc, and removing the fluid from a point in proximity to the center of the furnace.

3. The process of producing continuous electric arcs by stretching an electric arc from an electrode situated at the periphery of a furnace to an electrode situated in proximity to the center of the furnace by means of a current of fluid directed at an angle to the radius of the furnace, said current of fluid being so directed relatively to the arc, that it will flow through the furnace substantially in the same direction as the longitudinal direction of the arc.

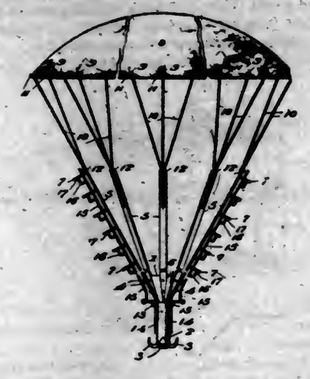
4. The process of producing continuous electric arcs by stretching an electric arc from an electrode situated at the periphery of a furnace to an electrode situated in proximity to the center of the furnace by means of a current of fluid directed at an angle to the radius of the furnace and removing the fluid from a point in proximity to the center of the furnace, said current of fluid being so directed relatively to the arc, that it will flow through the furnace substantially in the same direction as the longitudinal direction of the arc.

5. The process of producing continuous electric arcs by stretching electric arcs from a plurality of electrodes situated at the periphery of a furnace to an electrode situated in proximity to the center of the furnace by means of currents of gas, said current of gas being so directed relatively to the arc, that it will flow through the furnace substantially in the same direction as the longitudinal direction of the arc.

[Claims 6 to 16 not printed in the Gazette.]

1,028,517. PARACHUTE. CARL L. WILLARD, Denver, Colo. Filed Jan. 23, 1911. Serial No. 604,214. (Cl. 244—21.)

1. In a parachute, the combination with means for supporting the aviator, of spring-actuated members connected thereto, a foldable hood or umbrella, ropes having loose or running connections between the hood or umbrella and the spring-actuated members whereby the hood or umbrella may be distended and elevated above the spring-actuated members, and releasable means for holding the spring-actuated members in folded condition.



2. In a parachute, the combination with a support for the aviator, of spring-actuated members connected thereto, a hood or umbrella connected to the spring-actuated members, confining devices adapted to be positioned around the spring-actuated members to hold them in folded condition, and an operable device adapted for releasing said confining members.

3. In a parachute, the combination with a support for the aviator, of spring-actuated members connected thereto, a hood or umbrella connected to the spring-actuated members, confining devices adapted to be positioned around the spring-actuated members to hold them in folded condition, said confining devices being disposed at intervals so as to hold the spring-actuated members at numerous points, and an operable device adapted for releasing said confining devices.

4. In a parachute, the combination with a support for the aviator, of spring-actuated members connected thereto, a hood or umbrella connected to the spring-actuated members, sectional confining devices adapted to embrace the spring-actuated members and disposed at intervals thereabout, rods having members adapted to releasably engage the confining devices, and hand operated means for shifting the rods to cause release of the sectional confining devices.

5. In a parachute, the combination with a support for the aviator, of spring-actuated members, a hood or umbrella connected thereto, sectional confining devices having eyes, rods having members passing through said eyes to hold the confining devices around the spring-actuated members, lugs on the spring-actuated members against which the confining devices are adapted to abut, and operating means for the rods.

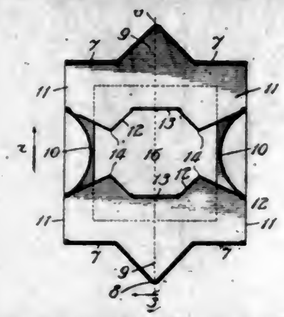
[Claims 6 and 7 not printed in the Gazette.]

1,028,518. VENTILATOR. ALEXANDER G. WILSON, Chicago, Ill. Filed Nov. 2, 1910. Serial No. 590,298. (Cl. 98—22.)

1. A ventilator of the character described, comprising a box having an inlet, imperforate faces having central bulging sections and lateral flat sections extending therefrom, imperforate sides forming between them and said flat sections interposed outlet-openings, and interior deflecting-walls extending between said imperforate faces and connecting the opposite sides at their corresponding lateral edges to form with said sides a chamber, within the box open to said inlet, said walls being formed of members of angular cross-section forming openings between them by which said outlet-openings communicate through said chamber with said inlet.

2. A ventilator of the character described, comprising a box having an inlet, imperforate faces having central V-shaped sections and lateral flat sections extending therefrom, imperforate sides forming between them and said

flat sections interposed outlet-openings, and interior deflecting-walls joining corresponding edges of said sides to form therewith a chamber within the box open to said inlet, said walls being formed of members of general V-shape in cross-section forming openings between them by which said outlet-openings communicate with said inlet, and the apexes of said members extending inwardly.



3. A ventilator of the character described, comprising a box provided with an open base, a closed outer end, relatively-opposite imperforate air-ramming and deflecting faces having central bulging sections and lateral flat sections extending therefrom, and relatively-opposite imperforate side-walls forming openings between their edges and those of said faces, and interior deflecting-walls extending between said faces and joining corresponding edges of said side-walls to form therewith a chamber within the box open to said inlet, said deflecting-walls being formed of members of general V-shape in cross-section forming between them openings through which said outlet-openings communicate through said chamber with said inlet.

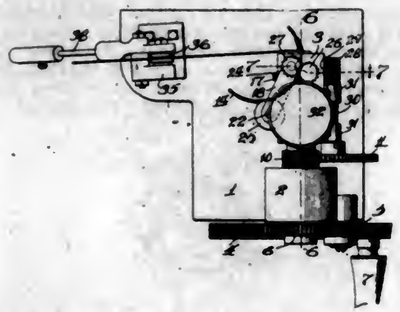
4. A ventilator of the character described, comprising a box provided with an open base, a closed outer end, relatively-opposite imperforate air-ramming and deflecting faces having central bulging sections and lateral flat sections extending therefrom, and relatively-opposite imperforate side-walls presenting concave outer surfaces and forming openings between their edges and those of said faces, and interior deflecting-walls extending between said faces and joining corresponding edges of said side-walls to form therewith a chamber within the box open to said inlet, said deflecting-walls being formed of members of angular cross-section forming between them openings through which said outlet-openings communicate through said chamber with said inlet.

1,028,519. MACHINE FOR WINDING WIRE ON THERMOSTATIC SPRINGS. THEODORE H. WURMS and ROBERT BAUMANN, St. Louis, Mo., assignors to National Clock & Electric Manufacturing Co., St. Louis, Mo., a Corporation of Missouri. Filed Aug. 29, 1910. Serial No. 579,457. (Cl. 242—4.)

1. A machine for winding wire or the like upon curved articles, such as thermostatic-springs, the same comprising a revoluble-head for holding and feeding the curved articles from a point on one side of said head to a point located approximately at the axis of rotation of the head; and suitable means for supplying wire to the articles while they are being revolved by said head, in combination with means for causing said head to revolve.

2. A machine for winding wire on curved springs, comprising a revoluble-head, feeding-devices carried by said head for automatically feeding the curved springs from the side of said head to a point approximating the axial-line thereof; means for revolving said head; and means for simultaneously causing said feeding-devices to feed the curved springs.

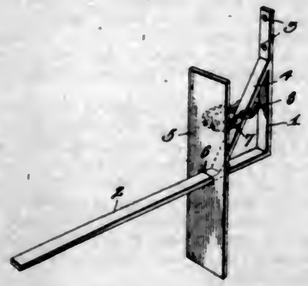
3. In a machine of the class described, a driven shaft, a head carried by said shaft, a pair of article carrying and feed rolls carried by said head and bodily rotatable therewith, a gear wheel connected with each roll, a fixed pinion embracing the driven shaft, a planetary gearing revoluble with said head and meshing with said fixed pinion for the rotation of said feed rolls and a fixed source of wire supply.



4. A machine for winding wire on flat articles, comprising a revoluble-head; a pair of feed-rolls mounted on said head to rotate therewith and revolve in their bearings to feed the articles; swinging pressure-bars; a spring for engaging said pressure-bars; means for revolving said head; means for revolving said feed-rolls to feed the articles while said head is revolving; and means for guiding the wire to the articles carried by said head.

5. In a machine of the class described, a driven shaft, a head carried by said shaft, a pair of article carrying and feed rolls carried by said head and bodily rotatable therewith, a gear wheel connected with each roll, a fixed pinion embracing the driven shaft, a planetary gearing revoluble with said head and meshing with said fixed pinion for the rotation of said feed rolls, a guide plate carried by the head and a fixed source of wire supply.

1,028,520. BAG-SUPPORT. ALBERT P. ZIMMERMAN, Spring Valley, Minn. Filed June 28, 1911. Serial No. 635,794. (Cl. 248—20.)

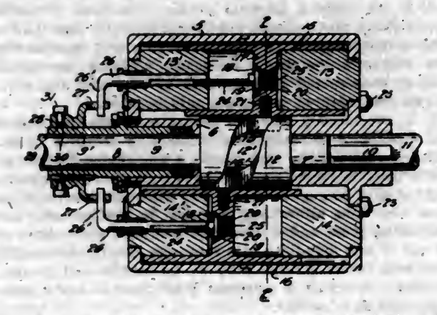


In combination with a bracket having an arm, of a shield having an aperture to receive said arm, converging spring arms secured to the rear of said shield and having their free ends adapted to engage with the bracket to hold the shield in an upright position.

1,028,521. ANTHRACENE DERIVATIVES AND PROCESS OF MAKING SAME. ARTHUR ZITSCHER and ERNST JULIUS RATH, Offenbach-on-the-Main, Germany, assignors to Corporation of Chemische Fabrik Griesheim Elektron, Frankfort-on-the-Main, Germany. Filed Feb. 24, 1912. Serial No. 679,686. (Cl. 8—1.)

The process for the manufacture of 2-aminoanthracene derivatives consisting in treating anthraquinone derivatives, which do not contain sulfo groups and at least contain one amino group in the beta position, with zinc in presence of an alkali until the product becomes insoluble in alkali substantially as described.

1,028,522. VARIABLE-SPEED-TRANSMISSION DEVICE. FREDERICK T. ADAMS, Victoria, British Columbia, Canada. Filed Aug. 14, 1911. Serial No. 643,896. (Cl. 192—18.)



1. In a variable speed power transmission device, the combination with a driving shaft and a cam thereon, of a plurality of longitudinally movable cylinders, operative connection between the cylinders and said cam, plungers for the respective cylinders, a body of fluid, means for controlling the flow of the fluid in said cylinders, and a casing surrounding the aforesaid parts and to which said plungers are connected for support.

2. In a variable speed power transmission device, a driving shaft, a cam thereon, a cylinder having a partition intermediate its length, a passage extending through said partition, a valve for regulating the amount of opening of said passage, a driven shaft, plungers extending into the opposite ends of said cylinder and connected to said driven shaft to revolve therewith, operative connection between the cylinder and said cam whereby longitudinal movements of the cylinder is effected, a body of fluid, and means for controlling said valve to regulate the flow of the fluid through said passage.

3. In a variable speed power transmission device, a driving member, a driven member, interfitting plunger and cylinder elements carried by the driven member and arranged for relative axial movements, a cam provided on the driving member, devices provided on one of said elements and coöperating with said cam for effecting the axial movement thereof, a body of fluid, and a valve for controlling the flow of the fluid whereby the driven member is rotatably connected with the driving member.

4. In a variable speed transmission device, a driving shaft, a driven shaft, cylinders and plungers revolubly connected with the driven shaft and having axial movements with respect to each other, means provided upon the driving shaft for effecting such axial movements, and means for controlling the flow of a fluid to and from the respective cylinders whereby said axial movements of the cylinders may be regulated to operatively connect the driven and driving shafts.

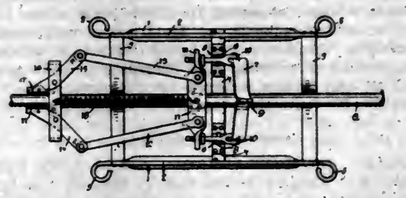
5. In a variable speed transmission device, a driving member, a driven member, a cylinder, an apertured partition separating the cylinder into two chambers, a valve for the aperture of said partition, a plunger for each of the cylinder chambers, and carried by said driven member, a means provided on the driving member and acting to effect reciprocating axial movements to the cylinder, a body of fluid for retarding the axial movements of the cylinder, and a valve for controlling the circulation of the fluid whereby the driven member is caused to rotate with the driving member.

[Claim 6 not printed in the Gazette.]

1,028,523. PIPE-LAYING MACHINE. NILS ANDERSON, Omaha, Nebr. Filed May 12, 1911. Serial No. 626,825. (Cl. 37—53.)

1. In a machine of the class described, a frame, a pipe-gripping device adapted to be placed over a pipe from one side thereof, and a lever fulcrumed on the frame and connected with the gripping device for actuating the same.

2. In a machine of the class described, a frame adapted to support a pipe, a forked lever fulcrumed on the frame and adapted to straddle the pipe, and a toggle device having jaws adapted to grip the pipe, the toggle device being connected with the forked lever and being open at one side so as to adapt it to straddle the pipe from the same side as the forked lever.

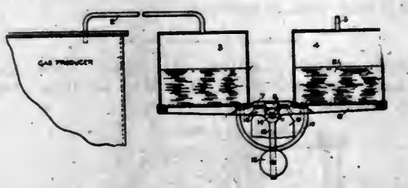


3. In a machine of the class described, a pair of transverse bars, resilient means connecting the same, a pair of links connected with one of said transverse bars, a pair of levers fulcrumed on the other transverse bar and each connected at one end with one of the links, and pipe-gripping jaws carried at the other ends of the levers.

4. In a machine of the class described, a pipe-supporting frame, a pipe-gripping device, a lever fulcrumed on the frame and connected with the pipe-gripping device for reciprocating the same, and means on the gripping device engaged by the frame to rotate said device during its reciprocating movement.

5. In a machine of the class described, a pipe-supporting frame, a lever removably connected therewith, a toggle-lever pipe-gripping device connected with the lever and adapted to straddle a pipe supported on the frame, and means on the gripping-device engageable by the frame to rotate said device during longitudinal movement thereof.

1,028,524. GAS-PRODUCER. CYRIL J. ATKINSON, Milwaukee, Wis. Filed Feb. 4, 1909. Serial No. 476,012. (Cl. 48—87.)



1. The combination of a gas producer, means for supplying water thereto, closed chambers movable to different angles to govern the locus of the liquid therein, connections between the means for supplying water to the producer and the movable chambers, means of communication between said chambers, an adjustable weight tending to bring said chambers to level neutral position, and connections from the gas space of said producer to said chambers whereby the movement of said chambers is governed by the gas pressure within said producer to operate said connections to control said water supplying means.

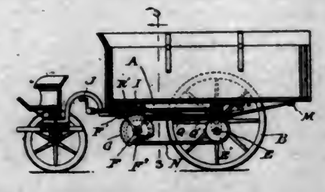
2. The combination of a gas producer, means for supplying water thereto, closed chambers movable to different levels, means of communication between said chambers, a liquid within said chambers controlling movement thereof by its location, a pipe connecting the upper portion of said producer and one of said chambers, an adjustable weight tending to bring said chambers to level neutral position and means governed by the movement of said chambers for controlling said water supplying means.

3. The combination of a gas producer, means for supplying water thereto, closed chambers, a pivotal support upon which said chambers may vibrate up and down, a conduit connecting the lower parts of said chambers, a constant quantity of liquid within said chambers con-

trolling vibration thereof by its location, a pipe connecting the upper space of said producer and one of said chambers, an adjustable weight tending to bring said chambers to level neutral position and means governed by the movement of said chambers for controlling said water supplying means.

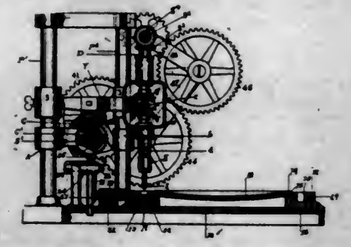
4. The combination of a gas producer, means for supplying water thereto, chambers mounted to vibrate up and down, a conduit connecting the lower parts of said chambers, a constant quantity of liquid within said chambers controlling vibration thereof by its location, an adjustable weight tending to bring said chambers to level neutral position, and means governed by the movement of said chambers for controlling said water supplying means.

1,028,525. DUMPING-WAGON. JOSEPH AUTH, Covington, Ky., assignor of one-half to Edward Lushbaugh, Covington, Ky. Filed Jan. 16, 1912. Serial No. 671,400. (Cl. 21—20.)



A dumping wagon comprising a truck frame, a wagon box hinged to said frame, a shaft journaled upon hangers underneath the rear axle, a sprocket wheel fixed to said shaft, a second shaft, a sprocket wheel fixed to the latter, a sprocket chain passing about said sprocket wheels, gear mechanism for driving one of said sprocket wheels, said chain having a projecting end fastened to the bottom of the box adjacent to its rear end, a lug projecting from the bottom of the box near its forward end, and a rod pivotally connected at one end to said lug and its other end forked and pivotally connected to a pivotal pin connecting links of said chain, as set forth.

1,028,526. NUT-TAPPING MACHINE. CARL BAERWALDE, Cleveland, Ohio. Filed Mar. 20, 1911. Serial No. 615,718. (Cl. 10—130.)



1. A nut tapping machine having a horizontally disposed ring provided at regular intervals with vertically disposed openings adapted to receive the nuts to be tapped and corresponding holes in its periphery, split bushing in said openings and bolts adapted to enter said holes and force the bushing upon the nuts in clamping relation.

2. A nut tapping machine having a ring and a fixed table on which said ring is rotatably mounted, said ring having openings at intervals to receive nuts and bushings about said nuts and having a side hole for each opening adapted to enter a bolt to thrust against said bushing and lock the nut therein.

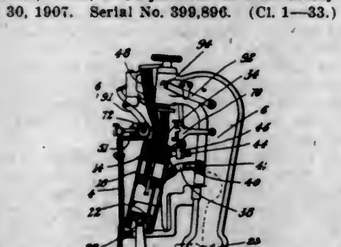
3. A nut tapping machine having a table and a ring rotatably mounted thereon provided with openings to receive the nuts to be tapped and a hole through its periphery to each opening, in combination with a bolt adapted to be thrust in said holes successively as said ring is turned and a cam actuated device to cause said bolt to act.

4. A nut tapping machine having a centered rotatable nut carrying ring constructed as described, in combination with a bolt adapted to enter said ring and successively lock the nuts therein, a vertically disposed depressible member constructed to force said bolt inward and a rotatable cam adapted to depress said member.

5. A nut tapping machine having a vertically disposed tap spindle, a substantially triangular movable frame carrying said spindle and posts in the angles thereof on which the said frame slides, a housing supported from the front of said frame and means to rotate the spindle in reverse directions alternately mounted in said housing and comprising gears and a clutch between said gears fixed on the end of said spindle, and a rotatable cam in engagement with said frame substantially at its middle and bottom, whereby the frame is operated from its balancing point and raised and lowered.

[Claims 6 and 7 not printed in the Gazette.]

1,028,527. SCRUBBING-MACHINE. VIRGIL BALLARD, Plantersville, Miss. Filed Jan. 19, 1911. Serial No. 603,515. (Cl. 15—14.)



In a scrubbing machine, the combination with a wheel-supported axle, of guide arms each pivotally connected at one end directly to the axle, a cross head movable between the arms, a brush disposed in advance of the arms and having connection with the cross head, and operating means for the brush supported upon the axle and having connection with the cross head.

1,028,528. HEEL-BUILDING MACHINE. WILLIAM RODERICK BARCLAY and ARTHUR BATES, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 30, 1907. Serial No. 399,896. (Cl. 1—33.)

1. A heel-nailing machine, having in combination, a nail-supplying device, stationary heel-sustaining means, and a nail-driving mechanism mounted for angular movement in a vertical plane and arranged to register alternately with the nail-supplying device and the said sustaining means, the heel-sustaining means being at all times out of the path of movement of the driving mechanism.

2. A heel building machine, having in combination, a support for a plurality of heel lifts, devices for centering the lifts upon said support and means for sustaining said support and centering devices for simultaneous pivotal movement about an approximately horisontal axis into an inclined lift receiving position.

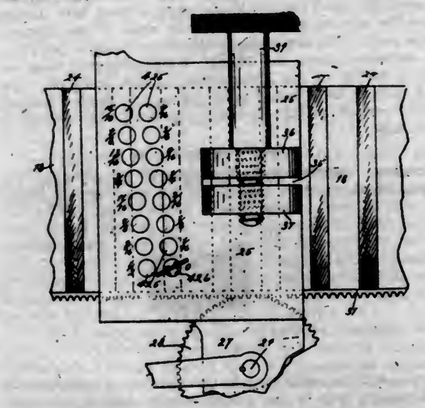
3. A heel building machine, having in combination, a support for sustaining a plurality of lifts, devices for centering the lifts upon said support, mechanism for inserting nails in the lifts and means for swinging said support and centering devices about an approximately horizontal axis from operative relation to said mechanism into an inclined lift receiving position.

4. In a heel-building machine in combination, lift-sustaining means comprising clamping members arranged to receive the lifts of a heel between them, a presser head mounted for tilting movement and arranged to be moved to and from a position in which it bears upon the said lifts, and means actuated by the movement of the said pressure head for closing and positively opening the clamping members.

5. In a heel-building machine in combination, a nail-supplying device, means for sustaining the lifts of a heel, a nail-driving mechanism mounted for angular movement, a presser head mounted for tilting and vertical movement and arranged to be moved alternately to and from a position in which it bears upon the said lifts, and means operated by the movement of the presser head to move the nail-driving mechanism to register alternately with the said nail-supplying device and the said sustaining means for the lifts.

[Claims 6 to 23 not printed in the Gazette.]

1,028,529. SAW-GAGE. THOMAS BEMIS, Indianapolis, Ind. Filed Sept. 8, 1908. Serial No. 451,991. (Cl. 143—174.)



1. A saw gage including a gage bar, a plate adjacent said gage bar, one of said members being stationary and the other slidable and adjustable in connection therewith, and one of said members being provided with equidistant transversely extending slots and the other member with an inclined series of holes arranged for registration with said slots, said slots being at least as long as the series of holes, a pin adapted to be inserted through any one of said holes and into one of said slots, and a fence connected with the adjustable member.

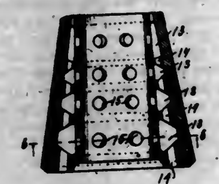
2. A saw gage including a gage bar, a plate adjacent said gage bar, one of said members being stationary and the other slidable and adjustable in connection therewith, and one of said members being provided with equidistant transversely extending slots and the other member with an inclined series of holes extending from one of said slots to another of said slots, said slots being at least as long as the series of holes, a pin adapted to be inserted through any one of said holes and into one of said slots, and a fence connected with the adjustable member.

3. A saw gage including a table, a gage bar having equidistant transversely extending slots therein, a fence slidable on said table, a plate connected with said fence that is slidable and adjustable longitudinally of said gage bar and has an inclined series of holes extending from one slot in said gage bar to another slot therein, said slots being at least as long as the series of holes, and a pin adapted to be inserted through any one of said holes into a slot in said gage bar.

4. A saw gage including a table, a relatively fixed gage bar connected with the table and having equidistant slots transversely thereof, a fence slidable on said table and provided with a fence plate connected therewith that is slidable longitudinally along said gage bar and provided with an inclined series of holes extending in an inclined row from one slot in said gage bar to the next one, said slots being at least as long as the series of holes and a pin adapted to be inserted through any one of said holes.

5. A saw gage including two gaging members, one of said members being stationary and the other member slidable and adjustable in connection therewith, and one of said members being provided with equidistant slots, means on the other member for engagement of different points in an inclined line thereon with different parts of the slots of said slotted member, and a fence connected with the adjustable member.

1,028,530. CRUSHER-HEAD FOR GRINDING-MILLS. EDWARD S. BLACK, Chicago, Ill., assignor to Edgar Allen American Manganese Steel Company, Augusta, Me., a Corporation of Maine. Filed Oct. 28, 1911. Serial No. 657,265. (Cl. 83—10.)



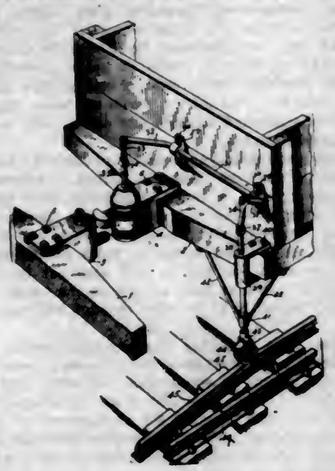
1. A crusher head formed as a single integral casting and having a central bearing designed to receive a driving shaft, and a plurality of internal recesses or cavities; said recesses having longitudinally extending openings which intersect the bearing aforesaid and terminate short of the upper and lower ends of the head and said recesses being in communication with the surrounding atmosphere through passages formed in the head and extending through the upper and lower ends thereof.

2. A crusher head formed as a single integral casting and having a central bearing designed to receive a driving shaft, and a plurality of internal recesses or cavities; said recesses being in communication with the surrounding atmosphere through passages extending through the upper and lower ends of the head, and in communication wth the central bearing aforesaid through openings the length of which is less than the length of said head.

3. A crusher head formed as a single integral structure and having a central bearing surface designed to receive a driving shaft, and a plurality of recesses arranged one above the other and extending circumferentially about the bearing surface, and communicating therewith through a series of holes, said head having also a plurality of vertically extending passages intersecting said recesses or cavities and whereby they are placed in com-

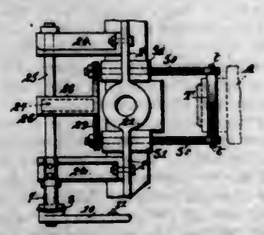
munication with one another, the upper and lower ends of said passages extending through the ends of the heads whereby said recesses are placed in communication with the surrounding atmosphere.

1,028,531. CAR-COUPLING. MICHAEL BLAETTNAR and JOHN BLAETTNAR, Pomeroy, Ohio. Filed Feb. 26, 1910. Serial No. 546,085. (Cl. 213—59.)



The combination with a car having an end extending base, of a draw-head connected therewith, a gravity operated pin having engagement with the draw-head, a vertical sleeve having at its opposite ends spaced wings fitting on the upper and lower faces of the end extending base, means rigidly connecting said wings with the end extending base, a lower sleeve, angle braces connected with the lower sleeve and the car, a reciprocatory push-rod extending through the sleeves, a fork carried at the lower end of the push rod, a wheel carried by the fork, a vertically longitudinally curved rail to elevate the wheel, a horizontal rock-shaft provided at its ends with cranks of different lengths, brackets fixed to the car and receiving the rock-shaft, a link connecting the upper end of the push-rod upon the short crank, and a flexible member connecting the long crank with the gravity operated pin.

1,028,532. GEAR-SHIFTING MECHANISM. JOSEPH K. BOLAND, New Orleans, La. Filed Dec. 4, 1911. Serial No. 663,729. (Cl. 74—39.)



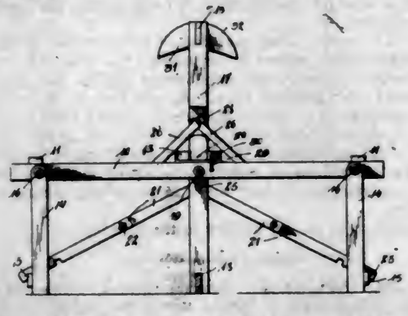
1. In a gear shifting mechanism, a support, a rock shaft supported thereon, a cam on said rock shaft, a yoke in which said cam operates, connecting rods extending from said yoke, and means by which said rock shaft may be rocked.

2. In a gear shifting mechanism, a support, a rock shaft, a cam on said rock shaft, a yoke in which said cam operates, a pair of connecting rods extending from said yoke, bearings for said connecting rods, a lever for rocking said rock shaft, bearings for supporting said rock shaft from said support and a collar having trunnions to which the ends of said rods are connected.

3. In a gear shifting mechanism, a support, a rock shaft, a cam on said rock shaft, a yoke in which said cam operates, connecting rods extending from said yoke, bearings for said connecting rods, a lever for rocking said rock shaft, bearings for supporting said rock shaft from said support, and means for holding said lever in the neutral position.

4. In a gear shifting mechanism, a support, a rock shaft, a cam on said rock shaft, a yoke in which said cam operates, connecting rods extending from said yoke, bearings for said connecting rods, a collar pivotally mounted between the ends of said connecting rods, a lever for rocking said shaft, bearings for supporting said rock shaft from said support, a resilient arm having an aperture, and a spring latch on said lever coöperating with said arm aperture for holding said lever in the neutral position.

1,028,533. WASHBENCH. WILLIAM J. BOOK, Earling, Iowa. Filed Oct. 9, 1911. Serial No. 653,581. (Cl. 68—35.)



A wash bench including spaced tub supporting bars, leg frames pivoted adjacent to the ends of said bars, spaced uprights pivoted intermediate their ends to the intermediate portions of said bars, U-shaped brackets on said bars, an H-shaped cross bar fitting in said brackets, said uprights fitting in the indentations of the cross bar ends and being locked thereby to said bars, and jointed inclined braces carried by said uprights and detachably secured to said legs.

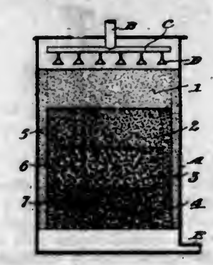
1,028,534. INSULATOR. CHARLES C. BRADY, Ezra, Ky. Filed Sept. 28, 1911. Serial No. 651,830. (Cl. 173—28.)



An insulator comprising in combination, a substantially rectangular body having a downwardly inclined longitudinal groove formed in its top face and a central vertical opening communicating with said groove, said body being further provided with a pair of longitudinal openings disposed on opposite sides of the vertical opening for receiving attaching screws, and a hook-bolt disposed within the vertical opening for securing a wire to the body across the groove thereof.

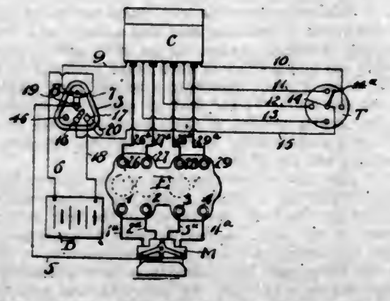
1,028,535. FILTER. GEORGES DE BRANDNER, Brussels, Belgium. Filed May 16, 1911. Serial No. 627,885. (Cl. 210—8.)

1. A filter comprising a casing having therein a plurality of layers or strata of pulverulent material, the fineness of the material of said layers progressively decreasing in the direction in which the water passes through the filter, and peripheral layers of finer pulverulent material for deflecting entering water toward the center of the filtering body.



2. A filter comprising a casing having therein a plurality of layers or strata of pulverulent material, the fineness of the material of said layers decreasing progressively in the direction in which the water passes through the filter, and peripheral layers of pulverulent filtering material the fineness of which decreases from the periphery toward the center of the filter.

1,028,536. SWITCH FOR JUMP-SPARK IGNITION SYSTEMS. EVAN D. BRIGHT, Philadelphia, Pa., assignor to The Connecticut Telephone & Electric Company, Incorporated, Meriden, Conn., a Corporation of Connecticut. Filed Nov. 11, 1907. Serial No. 401,570. (Cl. 123—148.)



1. In a jump spark ignition system, a normally open primary coil circuit leading from a battery, a normally closed shunt circuit leading from a high-tension magneto, a switch adapted to both of said circuits, both of said circuits overlapping at said switch, said switch when in one position being arranged to open the primary coil circuit and close said shunt circuit, and when in another position to close said primary coil circuit without opening said shunt circuit, and when in another position to open both of said circuits.

2. In a jump spark ignition system, a normally open primary coil circuit leading from a battery, a normally closed shunt circuit leading from a high-tension magneto, a switch adapted to both of said circuits, both of said circuits overlapping at said switch, said switch when in one position being arranged to open the primary coil circuit and close said shunt circuit, and when in another position to close said primary coil circuit without opening said shunt circuit, and when in another position to open both of said circuits, and when in a fourth position to close the primary coil circuit and open the shunt circuit.

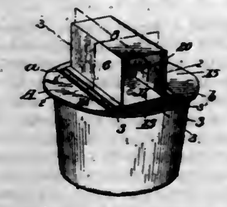
1,028,537. ASH-SIFTER OR ANALOGOUS DEVICE. JAMES S. BROWN, Harrison, N. Y. Filed Jan. 7, 1910. Serial No. 536,849. (Cl. 83—60.)

1. A device of the character described comprising a stationary casing, means within said conveyer for deflecting and retarding material during its passage through said casing, a base for said casing, comprising a plurality of disks, each disk being provided with an opening and a plurality of downwardly extending rims, one within another, and arranged to receive the upper edge of a receptacle between them, the innermost rim disposed at an angle to the outer rim and adapted to perform the double functions of fitting snugly upon receptacles of different diameters and receiving and deflecting material passing through said base from the deflectors of said casing as specified.



2. A device of the character described, comprising a casing, means within said casing for deflecting and retarding material during its passage through said casing, a base for said casing comprising a plurality of disks in pairs one within the other, each disk being provided with an opening and a plurality of downwardly extending rims arranged to receive the upper edge of a receptacle between them, one of said rims disposed at an angle to another rim and coöperating therewith to perform the double function of fitting snugly upon receptacle of different diameters and receiving and deflecting material passing through said base from the deflectors of the casing as specified.

1,028,538. ANIMAL-TRAP. ROBERT P. BROWN, Washington, D. C. Filed Feb. 16, 1912. Serial No. 677,932. (Cl. 43—24.)



1. A foldable trap of the character described, comprising a base member formed of jointed sections foldable flatwise one on the other, one of said sections being apertured, a tilting platform mounted within said aperture and forming a closure therefor, and a readily detachable collapsible hood-portion comprising foldably connected sides and a connecting top.

2. A foldable trap of the character described, comprising a base member formed of jointed sections foldable flatwise one on the other, one of said sections being apertured, a tilting platform mounted within said aperture and forming a closure therefor, and a readily detachable collapsible hood-portion comprising foldably connected sides, a connecting top and a foldably connected closed end.

3. A knock-down trap of the character described, comprising a base formed of jointed sections foldable flatwise one on the other, one of said sections having a centrally located aperture, and having grooves or channels adjacent the walls of said aperture, a tilting platform, and a foldable hood-portion fashioned from a single piece of material bent to form side panels, a connecting top and an end panel, said side and end panels being foldably connected to said top, and said side and end panels having their lower edges bent to form flanges adapted to detachably engage said grooves or channels.

4. A knock-down trap of the character described, composed of paper and consisting of a base member formed of a middle section and a section at each side thereof and hinged thereto so that it may be folded relatively to the main section, said main section having an opening through it, and a tilting platform mounted on the base and forming a closure for said opening; and a hood-portion formed of paper folded to form parallel sides, a connecting top

and an end panel, said sides and end panel being foldably connected to the top, said sides and end panel having their lower edges provided with flanges adapted to detachably engage said grooves or channels, and a bait-holder fixed to the hood-portion, said hood-portion adapted to be unfolded and to lie flat upon the base.

1,028,539. DENTAL CROWN AND BACKING. ROBERT E. CAMPBELL, Berkeley, Cal. Filed July 20, 1911. Serial No. 639,548. (Cl. 32—30.)



1. A backing for a dental crown consisting of a metallic plate formed with a perforation therethrough, and having an annular flange surrounding the perforation on one side of the plate, and a projection formed on the other side of the plate.

2. A backing for a dental crown, comprising a metallic plate formed with a perforation therethrough, said plate having projections on both sides one of said projections being of tubular form and axially alined with said perforation, said tubular projection having outwardly diverging walls.

3. A backing for a dental crown, comprising a metallic plate formed with a perforation therethrough, said plate having a plurality of pins projecting from one side and having a projection of tubular form on the other side axially in line with said perforation, said pins adapted to enter recesses in the back of the crown.

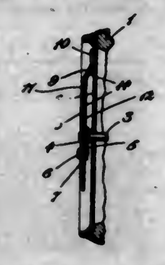
4. In a dental crown and a backing therefor, the combination of a plate formed with a perforation therethrough, said plate having projections on both sides, one of said projections being of tubular form and axially alined with the perforation, a crown having a threaded stem formed thereon, said stem adapted to extend through the perforation in the plate and through the tubular projection, and a nut to be screwed on the portion of the stem within the tubular projection to thereby bind the plate and crown together.

5. In a dental crown, and backing therefor, the combination of a plate having a perforation therethrough, said plate having projections on both sides, one of said projections being of tubular form with outwardly diverging walls and arranged axially in line with the perforation, a crown having a threaded stem adapted to extend through the perforation in the plate and through said projection, and a conical nut to be screwed on that portion of the stem within the tubular projection, said nut adapted to bear against the divergent walls of said projection.

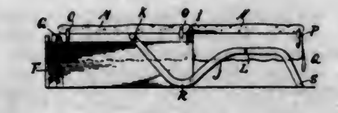
[Claim 6 not printed in the Gazette.]

1,028,540. INDEX DEVICE. GEORGE E. CHATILLON, New York, N. Y. Filed July 22, 1909. Serial No. 508,898. (Cl. 73—151.)

An index device having a dial with graduations upon its surface, an actuating shaft, and a pointer carried by the shaft formed from flattened material and having a straight flattened and elongated portion closely adjacent to and parallel with the surface of the dial whereat the graduations are produced and adapted to traverse said graduations when the shaft is turned, said pointer being also provided with a main portion connected with the shaft and extended across the dial at a greater distance from its surface than said terminal portion and having a connecting portion extended at an angle to the surface of the dial and affording integral connection between said main and terminal portions of the pointer, and said pointer having a longitudinal corrugation extended lengthwise along its main portion and along said angular connecting portion to its junction with the flattened terminal portion and affording a reinforcement for said angular connecting portion.



1,028,541. SOFA-BED OF THE DAVENPORT STYLE. HARRY CHESSLER, New York, N. Y. Filed Jan. 4, 1912. Serial No. 669,361. (Cl. 5—48.)



1. A sofa-bed convertible by a single movement comprising essentially a frame, a seat and a back, and two substantially S-shaped braces one on each side, a pivot attaching one end portion of each brace centrally to a side of the back, a pivot attaching a second bent portion adjoining the center of the seat to same, and a handle in the rear center portion of the seat whereby the back and seat are simultaneously moved toward the operator when forming a bed out of the sofa.

2. A sofa bed convertible by a single movement; comprising essentially a frame, a seat and a back, supporting brackets for the back, two pivots in the rear bottom end portion of the back connecting with said brackets, two hinges connecting each a front bottom portion of the seat and the frame, and two pivotally secured substantially S-shaped braces connecting the back and seat and forming feet when a bed has been formed.

3. In a sofa-bed a movable seat and back, two substantially S-shaped braces one at each side of said seat and back, a pivot in each side of the back engaging one end portion of said brace, a second pivot in approximately the middle of the side of the seat engaging the adjoining portion of the brace, and a handle in the rear portion of the seat by which the back and seat are movable in one operation, said braces being so shaped as to form two feet when the sofa has been transformed into a bed.

4. In a sofa bed operative mechanism for converting same by one movement, comprising essentially two substantially S-shaped braces connecting said back and seat each consisting of a straight rear portion with its end pivotally connected to the side of the back, a portion curved at about a right angle thereto, a second straight portion pivotally secured to the side of the seat, and a slanting end portion, said first curved and said end portions being adapted to form feet when the sofa has been transformed into a bed.

1,028,542. MEANS FOR DRAWING LIQUID FROM RECEPTACLES. FREDERICK NEWNHAM CHRISTIAN, Tauranga, New Zealand. Filed Sept. 21, 1911. Serial No. 650,506. (Cl. 226—33.)

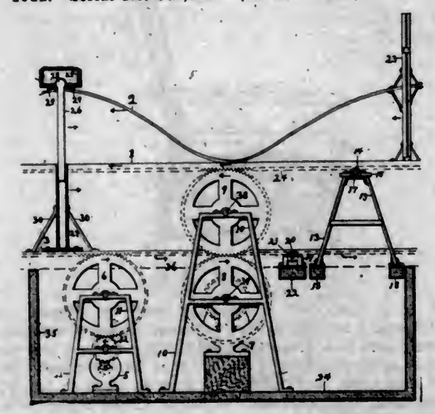
1. In means for the purpose described, a funnel, a substantially right trihedral support fixed upon the top of the funnel and adapted to receive the corner of a can and to support the tin, and a hollow piercer projecting from the lower part of the support, adapted to enter the can and to lead its contents into the funnel, substantially as specified.



2. In a means for the purpose described, a funnel adapted to fit upon a tank opening, a strainer across the mouth of the funnel, a substantially right trihedral support fixed on the top of the funnel, and a hollow piercer projecting upward from an aperture in the bottom of the support formed with apertures in its side and provided with an air admission pipe opening through its side above such apertures, substantially as herein specified.

3. In a device of the class described, a funnel having upstanding sides adapted to rest firmly upon a tank, and having an extension adapted to fit into the tank opening; a strainer in said funnel; an inverted substantially right trihedral support of sheet material and having an opening near the apex thereof, and secured on said upstanding sides with its apex over said extension and adapted to receive one corner of a rectangular can and support the same; a cone piercer secured with its base surrounding said opening of the support, and extending parallel to one edge of the support and having elongated apertures near the base and a vent aperture near the apex; and a pipe extending throughout the opening of the support to said vent aperture.

1,028,543. AMUSEMENT APPARATUS. DOUGLAS HAMPTON CLEGHORN, San Diego, Cal. Filed Nov. 21, 1911. Serial No. 661,623. (Cl. 104—111.)



1. In an amusement apparatus, the combination of two endless tracks, one above the other and each mounted for rotation, carriages on one track and running on the other, and means for operating the tracks in opposite directions.

2. The combination in an amusement apparatus, of two endless tracks, one above and supporting the other, carriages carried on one track and running on the other track, and means to revolve the tracks in opposite directions.

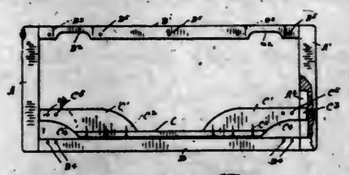
3. The combination in an amusement apparatus, of two endless tracks, one above and supporting the other, carriages carried on one track and running on the other track, and means to revolve the tracks in opposite directions, said last named means including a master gear between the tracks and meshing a rack on the respective tracks.

4. The combination in an amusement apparatus, of two endless tracks, one above and supporting the other, carriages carried on one track and running on the other track, and means to revolve the tracks in opposite directions, said carriages mounted on a ball joint.

5. In an amusement apparatus, the combination of two endless tracks, one above the other and each mounted for rotation, carriages on one track and running on the other, and means for operating the tracks in opposite directions, said track on which the carriages travel being undulatory and said carriages having both a limited oscillating motion and a vertical movement toward and from the lower track.

[Claims 6 to 10 not printed in the Gazette.]

1,028,544. BASE-SHIELD FOR PIANOS. CLARENCE COLEMAN, Newcastle, Ind. Filed Jan. 24, 1912. Serial No. 673,018. (Cl. 45—22.)



1. A base shield for pianos, consisting of a rectangular frame, a longitudinal member having its ends connected to and movable slidingly in ways therefor in the end pieces of the frame, said frame and the said longitudinal member being capable of being attached to the bottom of the piano.

2. A base shield for pianos, consisting of a rectangular frame there being offsets in the inner edge of the rear side piece of the frame to afford clearance for the rear casters of the piano, a longitudinal member having its ends connected to and movable slidingly in ways therefor in the end pieces of the frame there being offsets in the said longitudinal member to afford clearance for the frontal casters of the piano, and the said frame and said longitudinal member being capable of being attached to the bottom of the piano.

3. A base shield for pianos, consisting of a rectangular frame there being offsets in the inner edge of the rear side piece of the frame, and there being longitudinal grooves in the inner faces of the end pieces of the frame, a longitudinal bar, a head piece secured to each end of the bar and having a tongue to engage said grooves in the end pieces of the frame, and there being an offset in the frontal side of each of the said head pieces.

1,028,545. WHIFFLETREE-HOOK. FRANK COLLINS, Lynnville, Tenn. Filed Mar. 21, 1912. Serial No. 685,267. (Cl. 21—79.)



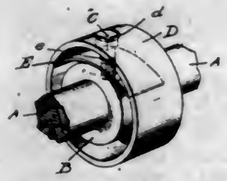
1. The combination with a whiffletree having a beveled end face, a longitudinally extending elongated hook pivotally mounted at its ends upon the whiffletree and having its intermediate portion disposed across said beveled face and in close proximity thereto, and lugs with which the longitudinally extending portions of the hook co-act to limit the pivotal movement thereof in one direction.

2. The combination with a whiffletree having a beveled end face, of an elongated U-shaped hook longitudinally disposed upon the whiffletree and pivotally mounted there-

on at its ends, the intermediate portion of said hook being adapted to coöperate with the beveled face of the whiffletree to retain a trace in engagement therewith, and stop lugs provided with beveled surfaces over which the longitudinally extending portions of the hook are adapted to be forced, said lugs limiting the pivotal movement of the hook in one direction.

3. The combination with a whiffletree having a beveled end face, of a cuff secured upon said whiffletree provided with oppositely disposed pivot studs, an elongated U-shaped hook pivotally mounted upon said studs at its ends and extending longitudinally upon the whiffletree, the intermediate portion of the hook being disposed across the beveled face of the whiffletree and in close proximity thereto to retain a trace connected to the intermediate portion of the hook in engagement with said beveled face, and stop lugs formed on said cuff provided with beveled faces over which the longitudinal portions of the hook are adapted to be forced to dispose the same behind the lugs and limit the pivotal movement of said hook in one direction.

1,028,546. SET-SCREW GUARD. STETSON S. COOK, Falls City, Oreg. Filed Aug. 21, 1911. Serial No. 645,150. (Cl. 74—52.)



1. A set screw guard embodying an annular housing adapted to encircle the shaft, collar and screw and to be displaced transversely to give access to the screw, and a spring mounted within and engaging at its ends the inner side of the housing and adapted to bear centrally on the collar in the same transverse plane, for yieldingly holding the housing against transverse displacement.

2. A set screw guard embodying an annular housing having an aperture therein for the head of the screw and a spring within the housing for yieldingly supporting the housing whereby the housing may be displaced transversely to expose the screw through the aperture.

3. A set screw guard embodying a housing having a shaft opening elongated transversely to permit of lateral displacement of the housing on the shaft and a spring for yieldingly holding the housing in substantially concentric position.

4. A set screw guard embodying an annular housing having a radial wall with a shaft opening therein elongated transversely to permit of lateral displacement of the housing on the shaft, and a spring mounted within the housing and having an aperture for the screw, whereby the parts are held in position on the shaft and may be displaced transversely to give access to the screw.

5. A set screw guard embodying a housing having a radial wall with an opening therein elongated transversely to permit of transverse displacement of the housing on the shaft and an aperture for the reception of the head of the screw, and a spring mounted within the housing and at its ends engaging the inner side of the housing and at its center adapted to engage the part secured on the shaft by the screw.

[Claim 6 not printed in the Gazette.]

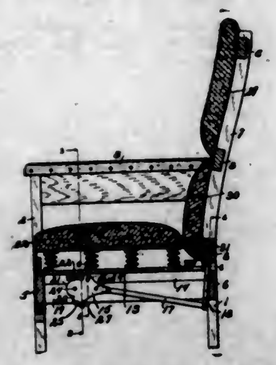
1,028,547. BRUSH. GEORGE W. COPELAND, Ensley, Ala., assignor of one-half to James W. Karr, Ensley, Ala. Filed Mar. 4, 1912. Serial No. 681,378. (Cl. 15—28.)

1. A brush of the character described, including a handle, a channeled plate secured to said handle, a brush head provided with bristles and adapted to be slipped by endwise movement into the channeled plate, the brush head being formed at one point with a depression, and a spring pressed latch bar carried by the handle and adapted to enter the depression in the head, whereby to prevent the accidental longitudinal displacement of the latter.



2. As a new article of manufacture, a dry brush for use by wall paper hangers, including a handle, a channeled plate secured to the handle, a brush head provided with bristles and adapted to be slipped by an endwise movement into the channeled plate, the handle being formed with a socket, an expansion spring mounted in said socket, a transversely extending latch bar formed at one end with a retaining lug and at its opposite end with an angularly disposed finger piece, the handle being formed with a transversely elongated recess in which the latch bar is mounted for movement, the spring bearing upon the latch bar moving it toward the head, and the head being formed with a depression adapted for engagement by said latch bar, for the purpose specified.

1,028,548. ADJUSTABLE CHAIR. MARTIN L. CROMER, Sturgis, Mich. Filed Dec. 1, 1911. Serial No. 663,391. (Cl. 155—28.)



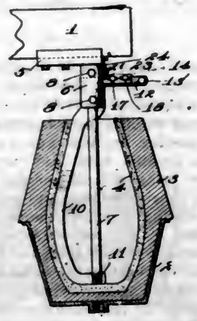
1. In a chair, the combination with the hinged adjustable back and tilting seat, of means for adjustably supporting said back comprising said tilting seat; a cam arranged under said seat to support it in its tilted positions, said seat being provided with a friction block in bearing engagement with said cam; a pair of spaced supports between which said cam is pivotally mounted, the cam pivot being at the rear of the engaging pivot thereof, said cam being provided with a slotted arm projecting downwardly and rearwardly relatively to its pivot; an arm on said back projecting downwardly between said supports; an operating connection for said back and cam comprising a link pivotally connected to said arm and to said back and to said slotted arm of said cam and constituting a positive connection between said back and cam to operate the cam to raise and lower the seat by the tilting of the back and retain the back in its adjusted positions by the coaction of said seat and cam therewith; and a latch for said cam adapted to engage the same only when the seat is in its lowered position and the back is in its raised or forward position.

2. In a chair, the combination with the hinged adjustable back and tilting seat, of means for adjustably supporting said back comprising said tilting seat; a cam arranged under said seat to support it in its tilted positions, said seat being provided with a friction block in bearing engagement with said cam; a pair of spaced supports between which said cam is pivotally mounted, the cam pivot being at the rear of the engaging portion thereof, said cam being provided with a slotted arm projecting downwardly and rearwardly relatively to its pivot; an arm on said back projecting downwardly between said supports and an operating connection for said back and cam comprising a link pivotally connected to said arm and to said back and to said slotted arm of said cam and constituting a positive connection between said back and cam to operate the cam to raise and lower the seat by the tilting of the back and retain the back in its adjusted positions by the coaction of said seat and cam therewith.

3. In a chair, the combination with the hinged adjustable back, and tilting seat, of means for adjustably supporting said back comprising said tilting seat; a cam pivotally mounted under said seat to support the seat in its tilted position, said seat being in frictional bearing engagement with said cam; and a link pivotally connected to said cam and to said back and constituting a positive connection between said cam and back whereby the cam and back are adjusted together, said seat coacting with said cam for supporting the back in its adjusted positions.

4. In a chair, the combination with the hinged adjustable back and tilting seat, of means for adjustably supporting said back comprising said tilting seat; a pivoted cam arranged to support said seat in its tilted positions, said seat being in frictional bearing engagement with said cam; a positive operating connection for said back and cam whereby the cam is operated to raise and lower the seat by tilting of the back and the back is retained in its adjusted positions by the coaction of said seat and cam therewith; and a latch for said cam adapted to engage the same only when the seat is in its lowered position and the back is in its raised or forward position.

1,028,549. POTTERY-JIGGER. JOSEPH CROSSLEY, Trenton, N. J. Filed Aug. 16, 1911. Serial No. 644,437. (Cl. 25—24.)



1. A jigger comprising a vertical supporting bar, a skeleton profile pivotally secured to said bar at its lower end and adapted to swing across the bar, and means detachably connected for securing the profile at the upper end of the bar.

2. A jigger comprising a vertical supporting bar, a skeleton profile pivotally secured to the lower end of and adapted to swing across said bar, and a detachable latch on the profile and engaging the upper end of the bar.

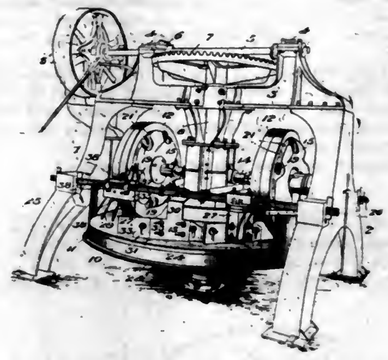
3. A jigger comprising a vertical supporting bar, a skeleton profile pivotally secured to the lower end of and adapted to swing across said bar, a longitudinally adjustable latch, and means for securing said latch at the upper end of the bar.

4. A jigger comprising a vertical supporting bar, a skeleton profile pivotally secured to the lower end of and adapted to swing across said bar and provided with an arm at its upper end, a latch on said arm, and a locking member engaging said latch.

5. A jigger comprising a vertical supporting bar, a skeleton profile pivotally secured to the lower end of and adapted to swing across said bar and provided with an arm at its upper end, an adjustable latch on said arm, a pivotally supported locking member engaging said latch, and means for holding said locking member in engagement with the latch.

[Claims 6 to 8 not printed in the Gazette.]

1,028,550. GRINDING-MILL. WILLIAM R. CUNNINGHAM, Bucyrus, Ohio, assignor to The American Clay Machinery Co., Bucyrus, Ohio, a Corporation of Ohio. Filed Jan. 2, 1912. Serial No. 668,885. (Cl. 83—45.)



1. In a grinding mill, the combination with a revoluble pan, of a revolubly mounted muller having a tire formed of removable and reversible annular sections.

2. In a grinding mill, the combination with a revoluble pan, of a revolubly mounted muller having a tire formed of removable and reversible annular sections, and means for rigidly securing the tire-sections to the body of the muller.

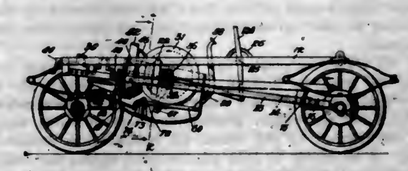
3. In a grinding mill, the combination with a revoluble pan, of a revolubly mounted muller having a tire formed of removable and reversible annular sections, and means for rigidly clamping the sections to each other.

4. In a grinding mill, the combination with a revoluble pan, of a revolubly mounted muller having a tire formed of removable and reversible annular sections, means for locking the sections rigidly to the body of the muller, and means for drawing the sections into fixed clamping engagement with each other.

5. In a grinding mill, the combination with a revoluble pan, of a revolubly mounted muller having a tire formed of removable and reversible annular sections, and wooden blocks driven between the inner periphery of the sections and the body of the muller, for rigidly locking the sections to said body.

[Claims 6 to 12 not printed in the Gazette.]

1,028,551. GEARING. JOSEPH DAIN, Ottumwa, Iowa. Filed May 22, 1909. Serial No. 497,645. (Cl. 74—26.)



1. The combination of a prime mover, a driven shaft, friction-operated transmission mechanism for driving said

shaft from said prime mover, and means for connecting said shaft directly with the prime mover and for automatically moving said shaft to disconnect it from said transmission mechanism.

2. The combination of a prime mover, a driven shaft, friction-operated transmission mechanism for driving said shaft from said prime mover, and means for moving said shaft to connect it directly with the prime mover and to automatically disconnect said prime mover and said shaft from said transmission mechanism.

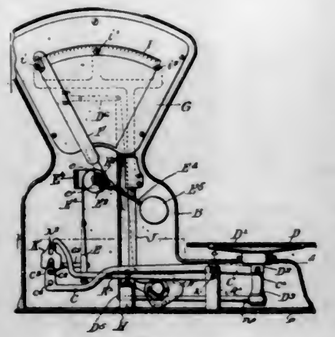
3. The combination of a motor, a drive disk connected with said motor, friction disks driven by said drive disk, a driven disk coacting with said friction disks, and means for moving said driven disk to disconnect it from said friction disks and to connect it directly with said drive disk.

4. The combination of a motor, inclined friction disks driven thereby, a driven disk adapted to coact with said inclined disks and movable out of engagement therewith, and means for driving said driven disk directly from the motor.

5. The combination of a motor, inclined friction disks driven thereby, a driven disk adapted to coact with said inclined disks, and means for disconnecting said driven disk from said inclined disks and for driving said driven disk directly from the motor.

[Claims 6 to 40 not printed in the Gazette.]

1,028,552. WEIGHING-SCALE. ALLEN DE VILBISS, Jr., Toledo, Ohio, assignor to Toledo Computing Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed Nov. 26, 1909. Serial No. 529,925. (Cl. 73—104.)



1. In weighing scales, the combination of a main beam, a goods receiver thereon, indicating means including a fixed weight chart, means for overbalancing the scales in predetermined degree, means for advancing the range of indication of the weight chart to correspond, and manually controlled operating means common to both said means.

2. In weighing scales, the combination of a main beam, an index operated thereby, a goods receiver thereon, a fixed chart bearing variable weight indications with which the index coöperates, means for altering the counterbalancing effect of the scale, means for correspondingly varying the weight indications of the chart, and an operating device common to the two said means for operating them simultaneously.

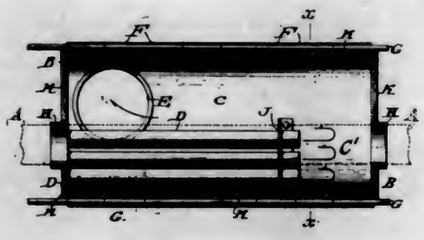
3. In weighing scales, the combination of a main beam, a goods receiver thereon, a pendulum operatively connected with the beam, an index connected to the pendulum, a chart having weight graduations, one or more weights for application to the beam, an indicator to denote the range of weighing by said graduations, means for depositing the weight or weights on the beam, and means for simultaneously shifting said indicator, said two means being operatively connected.

4. In weighing scales, the combination of a main beam, a goods receiver thereon, a pendulum operatively connected with the beam, an index connected to the pendulum, a fixed plate bearing a series of weight graduations and apertured at the ends of the series of graduations, one or more normally suspended weights for application to the beam, a movable indicator extending behind the plate and adapted to show through the apertures thereof, means for depositing the weight or weights on the beam, and means for simultaneously shifting said indicator, said two means being operatively connected.

5. In weighing scales the combination of a main beam, a goods receiver thereon, a pendulum operatively connected with the beam, an index connected to the pendulum, a fixed plate bearing a series of weight graduations and apertured at the ends of the series of graduations, one or more normally suspended weights for application to the beam, a movable indicator extending behind the said plate and adapted to show through the apertures thereof, cams for depositing the weight or weights on the beam and correspondingly shifting said indicator and means for shifting the cams.

[Claims 6 to 11 not printed in the Gazette.]

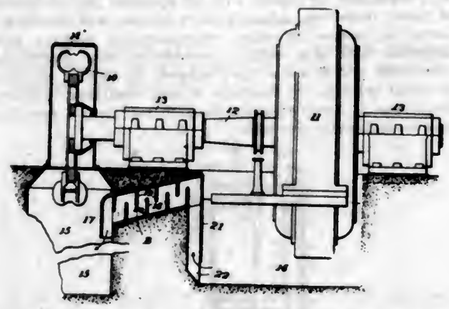
1,028,553. AUTOMOBILE-HEATER. FRANK W. DILKS, Philadelphia, Pa., and DAVID REYAM and EUGENE E. DU PONT, Wilmington, Del.; said Dilks assignor to said Reyam and said du Pont. Filed July 12, 1911. Serial No. 638,145. (Cl. 237—3.)



1. In a vehicle heater of the character stated, a casing forming a heating chamber, the same having openings in its end walls adapted to receive an exhaust pipe of said vehicle extending through said heating chamber, air conveying pipes passing through and supported by one of said end walls parallel with said exhaust pipe, said air conveying pipes being open at one end to the atmosphere with the other ends extending into said casing with such ends terminating at a point remote from the opposite end wall of said casing and emptying into the end portion of said chamber remote from the inlet end, and a hot air outlet connected with said casing in proximity to the said exhaust pipe and air conveying pipes and at the end of the casing opposite to the discharge ends of said air conveying pipes, the opening for the cold air inlet pipes and the hot air outlet being both at the same end of the casing, whereby the air is forced to traverse over the exhaust pipe toward the front end of the casing to be discharged through said outlet.

2. In a vehicle heater of the character stated, a casing forming a heating chamber, the same having openings in its end walls adapted to embrace an exhaust pipe of said vehicle, air conveying pipes passing through and supported by one of said end walls, said pipes being open to the atmosphere and extending into said casing and having their discharge ends at a point remote from the opposite end wall of said casing, and a hot air outlet in proximity to the exhaust pipe and the air conveying pipes and connected with said casing at the end of the latter opposite to the discharge ends of said air conveying pipes, said casing having its sides and end walls formed of sections with means for detachably connecting the same.

1,028,554. HYDRO-ELECTRIC UNIT. WILLIAM A. DOBLE, San Francisco, Cal., assignor to May E. Doble, San Francisco, Cal. Filed June 1, 1910. Serial No. 564,438. (Cl. 138—18.)



1. The combination with a hydraulic motor, of a generator driven thereby, a pit for said generator, a housing for said motor, and an air passage connecting said pit with said housing.

2. The combination with a hydraulic motor, of a generator driven thereby, a pit for said generator, a discharge conduit for said motor, and an air passage connecting said pit with said conduit.

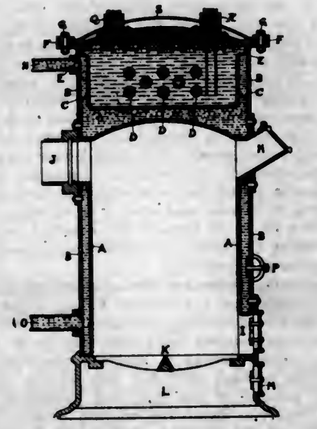
3. The combination with a hydraulic motor, of a generator driven thereby, a pit for said generator, a discharge conduit for said motor, an air passage connecting said pit with said conduit, and a hood over the motor terminal of said passage.

4. The combination with a hydraulic motor, of a generator driven thereby, a pit for said generator, a discharge conduit for said motor, and an air passage connecting the bottom of said pit with said conduit.

5. The combination with a hydraulic motor, of a generator driven thereby, a pit for said generator, a discharge conduit for said motor, an air passage connecting said pit with said conduit, and an extension for said passage extending to the bottom of said pit.

[Claims 6 to 11 not printed in the Gazette.]

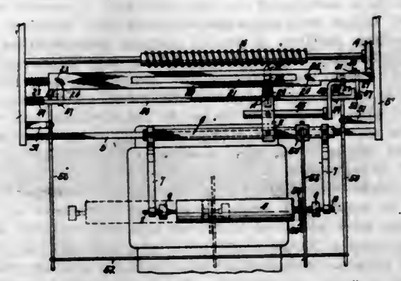
1,028,555. COMBINATION-BOILER FOR HEATING APPARATUS AND HOT-WATER SUPPLY. HENRY BARBER DONALD and EDWIN SPRAGG DONALD, Leeds, England. Filed June 12, 1911. Serial No. 633,192. (Cl. 122—33.)



1. A combination boiler for heating purposes and hot water supply comprising an outer boiler, a heating supply apparatus in communication therewith, means for heating the outer boiler, a cover for the outer boiler at the top thereof, an inner boiler extending downwardly from said cover and adapted to be heated by the water within the outer boiler, conducting pipes for hot water circulation extending into said inner boiler.

2. A combination boiler for heating apparatus and hot water supply, characterized by an outer or primary iron boiler (for the heating apparatus circulation), a fire box fitted or formed concentrically within the lower part of said primary boiler, an inner or secondary copper boiler (for the domestic hot water supply) fitted concentrically and detachably within the upper part of said primary boiler by means of flanges, bolts, and annular shoulder, and a series of inclined transverse water tubes intersecting said secondary boiler, the hot water in said primary boiler circulating around said secondary boiler and through said intersecting water tubes, substantially as herein set forth.

1,028,556. TYPE-WRITING MACHINE. PHILLIP JACOB DREHER, Toledo, Ohio. Filed July 31, 1911. Serial No. 641,560. (Cl. 197—65.)



1. The combination with the platen-roll of a typewriter, of a worm, means for driving said worm, and pneumatically controlled mechanism operable to coöperate with said worm to impart retracting movements to the platen-roll.

2. The combination with the platen-roll of a typewriter, of a rotating worm, pneumatically controlled mechanism operable to coöperate with said worm to impart retracting movements to the platen-roll, and means actuated by a part of said mechanism to impart line spacing movements to the platen-roll when said mechanism is actuated.

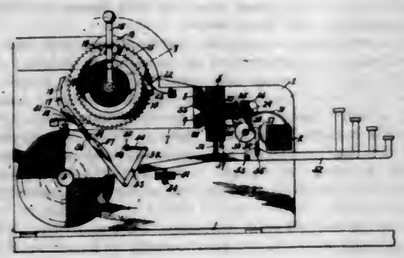
3. The combination with a rotating worm, of a carriage having engagement with the platen-roll and capable of longitudinal movements therewith, a tooth movably carried by said carriage for engagement with the worm, and pneumatically operated mechanism for controlling the worm engaging and disengaging movements of said tooth to cause it to coöperate with the worm to retract the carriage and platen-roll a predetermined distance.

4. The combination with a platen-roll, of a rotating worm, means having longitudinal movements with the platen-roll and having a relatively movable part for engagement with said worm to coöperate therewith to communicate retracting movements to said means and platen, and pneumatically operated mechanism for controlling the movements of said part to engage and disengage the worm at predetermined intervals.

5. The combination with the platen-roll of a typewriter, of rotatable means, a carriage attached to and movable with said platen-roll and having a part capable of movement to engage and disengage said means to coöperate therewith to move the carriage and platen-roll to retracted position, and pneumatically controlled mechanism operable to move said part to engage said means at predetermined intervals.

[Claims 6 to 18 not printed in the Gazette.]

1,028,557. SHEET-PERFORATING MACHINE. PHILLIP JACOB DREHER, Toledo, Ohio. Filed Sept. 5, 1911. Serial No. 647,622. (Cl. 164—112.)



1. In a machine of the class described, a movable sheet perforating part, a hammer movable to impart perforating movements thereto, means operable to retract the hammer from part striking position and then to release said hammer, and spring means for influencing a quick return of the hammer to part striking position.

2. In a machine of the class described, a movable punch part, means normally retaining such part retracted from punching position, a pivoted member influenced to normally strike and impart punching movements to said part, a key lever, and means connecting said member and lever and operable to rock said member away from said part when the lever is rocked in one direction and to release said member at a predetermined point to permit a quick return of the same to part striking position.

3. In a machine of the class described, a yieldingly movable sheet perforating punch, an oscillatory member adapted to strike and impart punching movements to said punch when retracted therefrom and then released, a key lever, and a hooked finger projecting from said key lever and engaging said member to retract the member and release it when the key lever has been moved a predetermined distance.

4. In a machine of the class described, sheet perforating means, means operable to actuate the perforating movements of the perforating means, a set of sheet feeding rolls, a ratchet wheel fixed to one of said rolls, a lever having its fulcrum coaxial with said ratchet wheel, a pawl carried by the lever for engaging the ratchet wheel teeth in one direction of movement of the lever, a spring influencing a movement of the lever in the direction of wheel driving movement of said pawl, means preventing a back turning of the drive roll and an escapement mechanism operable by a movement of said operating means to permit a step by step feeding movement of the feed rolls.

1,028,558. APPARATUS FOR GENERATING AND STORING ACETYLENE. GERARD LESTER EASTMAN and ALBERTSON HICKS, Roslyn, N. Y. Filed Feb. 18, 1911. Serial No. 609,398. (Cl. 48—4.)

1. A portable apparatus for generating and storing acetylene, comprising a receptacle having a gas reservoir and a separate generating chamber, means permitting of the uni-directional flow, only, of gas between said generating chamber and said reservoir, a removable container adapted to fit in said generating chamber, said container having an apertred partition serving to form a chamber for the reception of liquid and a separate chamber for the reception of calcium carbid, a main valve arranged to control the flow of liquid through the aperture in said partition, whereby the escape of liquid from the liquid chamber through said aperture into the calcium carbid chamber is optionally prevented, a cover adapted to close the end of said generating chamber, means positioned on the outside of said generating chamber for actuating said main valve positioned within said container, and a relief valve adapted to optionally permit of the escape of gas from said generating chamber.

2. The sub-combination, comprising a generating receptacle provided with an outlet aperture, means, provided with an automatic check-valve, in sealed communication with said aperture and adapted to conduct gas thereto, a container for liquid, with an aperture for the escape of liquid therefrom, adapted to fit within said generating receptacle, means affording communication between said container and said outlet aperture of said generating receptacle, and a main valve adapted to control the flow of liquid through the aperture in said container, whereby the escape of liquid through the said last named aperture may be optionally prevented.



3. A portable apparatus for generating and storing acetylene, comprising a receptacle having a gas reservoir and a separate generating chamber, valvular means permitting of the uni-directional flow only, of gas between said generating chamber and said reservoir, a removable container adapted to fit in said generating chamber, said container consisting of two sections, one of said sections having an apertured supporting means extending across the same, a main valve adapted to completely close said aperture and seal the same against the escape of liquid therethrough, a foraminated supporting means positioned distant from the bottom of one of said sections adapted to maintain particles of calcium carbid out of contact with the bottom, means at the upper end of said container for permitting of the escape of gas from the said container, means connected with said main valve and projecting externally of said container, a removable cover for closing one end of said generating chamber and adapted to contact with the said means for engaging with said main valve, and means for simultaneously locking said cover and actuating said main valve.

4. The sub-combination, comprising a generating receptacle having an apertured bottom, tubular means in sealed communication with said aperture and extending upwardly therefrom, a check-valve arranged within said means adapted to permit of uni-directional passage, only, of gas therethrough, a removable container, adapted to fit within said generating receptacle and having an apertured partition therein, and a main valve adapted to control the flow of liquid through the aperture in said partition, whereby the escape of liquid through said aperture may be optionally prevented.

5. A portable apparatus for generating and storing acetylene, comprising a receptacle having a gas reservoir and a separate generating chamber, said reservoir and said generating chamber being separated by an apertured partition, tubular means in sealed communication with the aperture in said partition and serving to prevent the direct passage of gas from said generating chamber into said reservoir externally of said tubular means, a check-valve permitting of uni-directional passage, only, of gas from said generating chamber through said aperture in the bottom thereof and to said reservoir, and means for closing the outer end of said generating chamber, whereby the same may be effectually sealed against the escape of gas therefrom.

[Claim 6 not printed in the Gazette.]

1,028,559. SOFFIT-CLIP. GUSTAV EDWARD ESCHER, South Orange, N. J. Filed Nov. 17, 1910. Serial No. 592,913. (Cl. 72—71.)

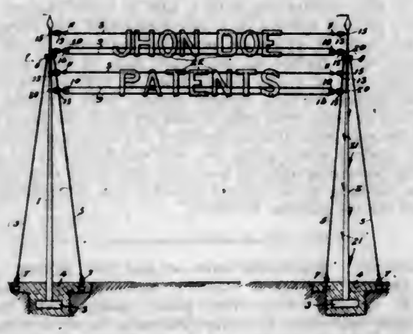


1. As a new article of manufacture, a soffit clip comprising a narrow bar or strip of metal, having one end bent upon itself to form a securing hook at one side of the main body portion of the clip, the other end being bent upon itself reversely to the securing hook to form a closed loop or eye at the opposite side of the main body portion, said clip being adapted to lie transversely to the beam and wholly embedded in the cementitious material surrounding the beam, with the loop or eye lying below the beam.

2. As a new article of manufacture, a soffit clip comprising a narrow bar or strip of metal looped upon itself to form a plurality of closed loops or eyes at one side of the main body portion of the clip, the ends being bent to form securing hooks at the opposite ends of the main body portion, said clip being adapted to lie transversely of the beam and wholly embedded in the cementitious material surrounding the beam, with the loops or eyes lying below the beam.

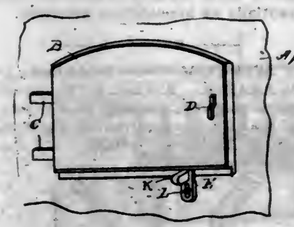
3. As a new article of manufacture, a soffit clip comprising a narrow bar or strip of metal looped upon itself to form a closed loop or eye at one side of the main body portion of the clip, the ends being bent to form securing hooks at the opposite ends of the main body portion, said clip being adapted to lie transversely of the beam and wholly embedded in the cementitious material surrounding the beam, with the loop or eye lying below the beam.

1,028,560. SIGN. WILLIAM FARRAH, Gateway, Mont. Filed Mar. 10, 1911. Serial No. 613,555. (Cl. 40—144.)



In a device of the class described, a pair of standards, a fixed cable extending from one standard to the other, pulleys on said standards below said fixed cable, an endless cable mounted on said pulleys, a plurality of letters, means for detachably and slidably mounting said letters on the first said cable and means for detachably clamping the letters to the endless cable, substantially as described.

1,028,561. DOOR-CATCH. FRANK S. FLEURY, Titusville, Pa. Filed Dec. 22, 1910. Serial No. 598,829. (Cl. 70—15.)



In a catch for doors, a body, an integral head formed with said body having a curved portion extending from the front to the top thereof, then inclined downward to its rear edge, and means for fastening said catch to a door supporting wall adjacent the door, the lower edge of said door adapted to ride upon the curved portion and when closed rest upon the inclined portion as shown and for the purpose set forth.

1,028,562. CHUCK. OSCAR L. FOGLEMAN, St. Louis, Mo. Filed July 28, 1911. Serial No. 641,028. (Cl. 29—141.)



1. In combination with a tool having a shank provided with a groove in opposite sides, each having an inclined portion at its inner end, a chuck having an opening for the reception of said shank and provided on opposite sides of its interior at points removed from its outer end with projections adapted to fit in said grooves, and to provide a wedging connection with said inclined portions of the shank.

2. In combination with a tool having a shank provided with a groove in opposite sides, each having an inclined portion at its inner end, a chuck having an opening for the reception of said shank and provided on opposite sides of its interior, at points removed from its outer end, with inclined projections adapted to fit in said grooves and to provide a wedging connection with said inclined portions thereof.

3. In combination with a tool having a shank provided with grooves in opposite sides, each having an inclined portion at its inner end, a chuck having an opening for the reception of said shank and being indented on opposite sides, at points removed from its outer end, to provide projections on the interior of the chuck, said projections being adapted to fit in said grooves, and having inclined forward ends adapted to provide a wedging connection with said inclined portions of the grooves.

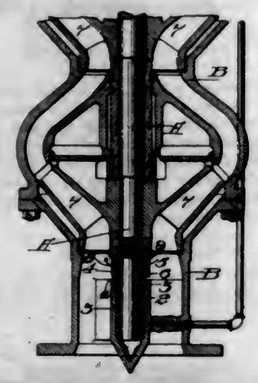
1,028,563. TANNING. JOSEPH FORSTER, Warrington, England. Filed Apr. 29, 1911. Serial No. 624,024. (Cl. 149—4.)



The process of tanning which consists in progressively passing the butts through a series of ascending tan pits.

each of which overflows into the next lower pit, such butts being first treated while suspended from their edges, later in the flat or superimposed condition, and finally by being dusted while hanging saddlewise flesh side outward, substantially as hereinbefore described.

1,028,564. SELF-CLEANING BEARING FOR SUBMERGED SHAFTS. WALTER L. FORWARD, Berkeley, Cal., assignor to Byron Jackson Iron Works, Inc., San Francisco, Cal., a Corporation of California. Filed Dec. 29, 1910. Serial No. 600,000. (Cl. 64—22.)



1. A self-clearing bearing comprising a shaft, a sleeve therefor, and a cap chambered to receive the end of the sleeve and having a running fit therewith, said cap being secured upon the shaft and having a plurality of ports and having means upon the interior for positively discharging water by centrifugal force through said ports.

2. A self-clearing bearing comprising a shaft, a sleeve therefor, and a cap secured to the shaft, said cap having a running fit with the upper end of the sleeve and said cap having a chamber with means therein acting upon the water to discharge the same by centrifugal force, said cap having a port through which the discharge of water takes place.

3. A cleaning device for submerged shaft bearings comprising a shaft, a bearing member adapted to receive said shaft, a cap secured upon the shaft and having a port, said cap having also, a chamber adapted to receive the end of the bearing member and having a running fit therewith, and means on the interior of the cap for discharging fluid leaking past the bearing member into the chamber of the cap, said means including a vane formed upon the interior of the cap and adapted to discharge water by centrifugal force through a port formed in the cap adjacent the vane.

4. A cleaning device for submerged shaft bearings comprising a shaft, a bearing member adapted to receive said shaft, a cap secured upon the shaft and having a port, said cap having also, a chamber adapted to receive the end of the bearing member and having a running fit therewith, and means for discharging fluid leaking past the bearing member into the chamber of the cap, said means including a plurality of impeller vanes formed upon the interior of a cap and adapted to discharge fluid by centrifugal force through ports formed in the wall of the cap adjacent each of the vanes.

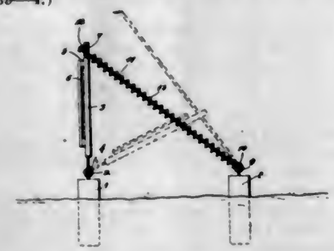
1,028,565. CURTAIN AND LIKE DISPLAY DEVICE. FERDINAND FRANK, San Francisco, Cal. Filed Sept. 5, 1911. Serial No. 647,529. (Cl. 211—22.)

1. A display device for curtains and piece goods, said device consisting of a longitudinally divided roller between the parts of which a number of curtains may be placed, clamps by which the two parts of the roller are locked together to hold the curtains, and screws passing through the clamps having their ends contacting with one of the parts of the roller whereby the parts of said roller may be opened or closed to accommodate different amounts of material.



2. A display device for curtains and the like, said device including a longitudinally divided shaft or roller having interior surfaces between which the curtains may be disposed, clamps adapted to slip over the ends and retain the two-parts together, said clamps having nut forming extensions and screws passing therethrough, whereby the distance between the two parts of the shaft may be adjusted, said shaft having journals at the ends upon which it is revoluble.

1,028,566. FLOOD-GATE. GEORGE S. GARDNER, Flemingsburg, Ky. Filed Dec. 11, 1911. Serial No. 665,024. (Cl. 39—4.)

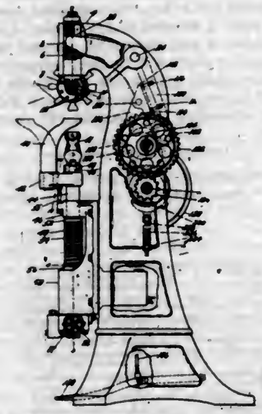


1. In a device of the class described the combination with a pair of blocks, posts pivotally connected to the blocks, a gate frame carried by the posts, a second pair of blocks arranged in the rear of the first named blocks, rods pivotally connected at their lower ends to the second named blocks and having their upper ends slidably connected to the posts, and means carried by said rods to hold the gate frame yieldably supported in a perpendicular position.

2. The combination with a pair of blocks having eye-bolts secured thereto, of a gate comprising side posts, the lower ends of which are pivotally connected to the eye-bolts, slots formed in the upper ends of said posts, a second pair of blocks spaced from the first named blocks and having eye-bolts secured thereto, rods pivotally connected at their lower ends to said eye-bolts, the upper ends of the rods being slidably mounted in the slots of the posts, coil springs surrounding the rods and having their upper ends bearing against the posts and their lower ends against the eye-bolts of the second named blocks substantially as and for the purpose set forth.

1,028,567. MACHINE FOR STAMPING BOOTS AND SHOES. WILLIAM GORDON, Boston, and LAURENCE E. TOPHAM, Somerville, Mass., assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 23, 1903. Serial No. 186,368. (Cl. 101—83.)

1. In a machine of the class described, a work-support, stamping mechanism, and means for moving said stamping mechanism and work-support relatively for pressing the work, in combination with means for rigidly sustaining one of said members until a predetermined pressure is exceeded, and additional means readily accessible to the operator for adjusting said sustaining means to vary the amount of predetermined pressure.



2. A machine of the class described, comprising a work-support, a stamping die, and oppositely driven actuating mechanism for relatively moving said members at a slow speed from position of clearance to position of pressure, and then at a greater speed from position of pressure to position of clearance.

3. In a machine for stamping the bottoms of shoes, the combination with a work-support, a stamping die, and actuating mechanism for relatively moving said support and die from position of clearance to position of pressure and from position of pressure to position of clearance, said actuating mechanism comprising an operating lever, independent cams for actuating said lever in opposite directions, and means for relatively adjusting said lever and cams.

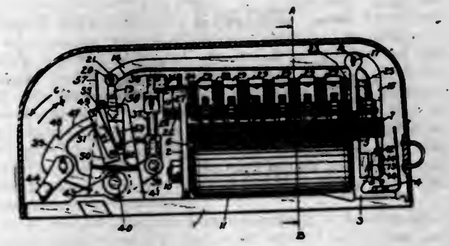
4. In a machine for stamping the bottoms of shoes, the combination with a work-support, a stamping die, and actuating mechanism for moving said die toward and from the work-support for stamping and releasing the stock, said actuating mechanism comprising an operating lever, a cam for actuating said lever to move the die toward the work-support, an arm adjustably mounted on said lever, and a second cam engaging said arm for actuating said lever to move the die away from the work-support.

5. A stamping machine having, in combination, a work-support, a stamping die, a driving shaft, an intermediate shaft driven by the driving shaft at a different rate of speed from the driving shaft, actuating mechanism interposed between the intermediate shaft and the stamping die for moving the die toward and from the work-support, and manually controlled means acting automatically to regulate the extent of the continuous rotation imparted to the intermediate shaft, whereby the stamping die may either be brought to rest in engagement with work on the work-support or automatically returned to its initial position remote from the work-support after having momentarily impressed the work.

[Claims 6 to 24 not printed in the Gazette.]

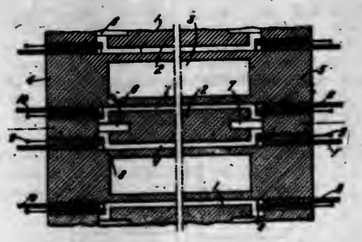
1,028,568. ELECTRIC LOCK. WILLIAM S. HENRY, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed May 8, 1911. Serial No. 625,859. (Cl. 246—53.)

In an electric signal lock, a pivoted sector, a shoulder upon the sector, a dog, a member having a guiding slot for the dog, said dog adapted to engage the shoulder, a latch pivoted to said sector and having its free end coinciding with the periphery of the sector, a spring for pressing the latch in one direction, means for limiting its movement in said direction so that the end of the latch will lie in proximity to the shoulder on the sector, means for moving the sector and thereby compressing the said spring when the dog is in locking position, and causing the shoulder



to abut the dog thus preventing further movement, means for raising the dog thereby allowing the spring to expand and force the latch under the dog, so that the sector can be thereafter further moved.

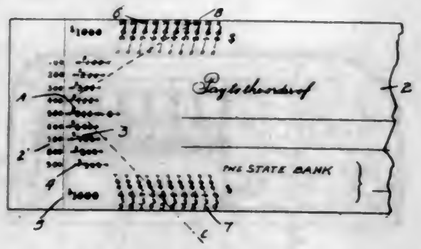
1,028,569. VERTICAL COKE-OVEN. ARTHUR OWEN JONES, Whitley Bay, England, assignor of one-half to The Firm of Stettiner Chamotte-Fabrik Actien-Gesellschaft vormals Didier, Stettin, Germany. Filed July 15, 1911. Serial No. 638,625. (Cl. 202—9.)



1. Coking ovens, comprising in combination vertical coking chambers surrounded by end and side walls, each side wall having a plurality of horizontal superposed heating flues extending through said side wall from end to end thereof, each end of each side wall having a vertical passage, regenerative chambers connected to said vertical passages and communicating therewith, means for admitting gas to said horizontal heating flues at each end thereof, and means for controlling the passage of products of combustion through one or more of the horizontal heating flues independent of the other flues.

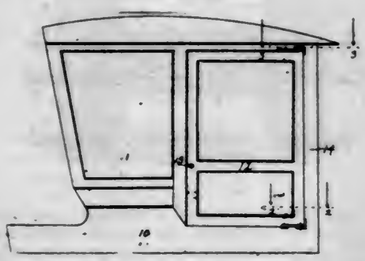
2. Coking ovens, comprising in combination vertical coking chambers surrounded by end and side walls, each side wall, which forms a partition between two adjacent coking chambers, having a series of superposed horizontal heating flues extending through said side wall from end to end thereof and in a vertical plane in proximity to the side of one of the coking chambers, and a second series of superposed horizontal heating flues extending through said side wall from end to end thereof in proximity to the adjacent coking chamber and in a plane parallel to the vertical plane containing the other series of horizontal heating flues, each end of each side wall having a vertical passage connected to the corresponding end of each horizontal heating flue, regenerative chambers connected to said vertical passages and communicating therewith, and means for admitting gas to horizontal heating flues at each end thereof, and means for controlling the passage of products of combustion through one or more of the horizontal heating flues independent of the other flues.

1,028,570. PROTECTIVE CHECK. EARLE M. JONES, Minneapolis, Minn., assignor of one-fiftieth to Gilbert Kvitrud, Minneapolis, Minn. Filed July 30, 1908. Serial No. 446,058. (Cl. 11—13.)



A check, money order, or similar instrument having a column of characters therein at one end and rows of characters angularly disposed on the face of the check with respect to said column, the check having perforations therein opposite the characters of said column and rows, said perforations being between the edges of the paper and the characters of said column, the rows of characters corresponding to the amount for which the check is drawn being next to the severed edge and visible when the paper is torn across the corners between the perforations opposite the characters representing the amount for which the instrument is drawn in said column and rows.

1,028,571. SPRING-DOOR. WILLIAM H. JORDAN, Knightstown, Ind. Filed Aug. 25, 1910. Serial No. 578,962. (Cl. 21—125.)

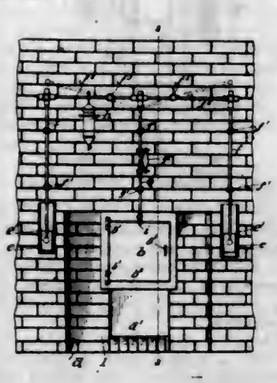


1. The combination with a door casing and a door, of a pair of pivotal bars connecting each end of the door with the casing, one bar of each pair being on each side of the door and pivoted at one end to the casing and at the other end to the side of the door away from its edge, and the inner bar of one pair and the outer bar of the other pair being substantially parallel with the door when closed and the other bars extending from the door at an angle therewith, substantially as set forth.

2. The combination with a door casing and a door, of a pair of pivotal bars connecting each end of the door with the casing, one bar of each pair being on each side of the door and pivoted at one end to the casing and at the other end to the side of the door away from its edge, and one bar of each pair being substantially parallel with the door when closed and the other one extending therefrom at an angle, a flat spring secured to the inside of the door near its forward edge, and a bar pivoted at one end to the door casing and at the other end to the free end of the spring and arranged to draw said spring toward the door when in the closed and opened positions, substantially as set forth.

3. The combination with a door casing and a door, of plates removably secured transversely of the door to the door casing near the top and bottom of the door, a pair of pivotal bars connecting each end of the door with one of said plates, one bar of each pair being on each side of the door and pivoted at one end to said plate and at the other end to the side of the door away from its edge, and one bar of each pair being substantially parallel with the door when closed and the other one extending therefrom at an angle, a flat spring secured to the inside of the door near its forward edge, a bar pivoted at one end to one of said plates and at the other end to the free end of the spring and arranged to draw said spring toward the door when in the closed and open positions, and a stop extending from said plate for engaging and stopping the door in its opening movement.

1,028,572. FURNACE. JOHANNES KAUTH, Wiesbaden, Germany. Filed Feb. 27, 1909. Serial No. 480,340. (Cl. 110—55.)



1. A furnace comprising a brick structure containing a fuel chamber and a combustion chamber opening directly into the fuel chamber, imperforate grate bars in said fuel chamber, a continuous inlet channel in the furnace wall at each side of and close to the fuel chamber extending from the front face of said brick structure, at one end, beyond the fuel chamber at the other end, said channels inclosed by the combustion chamber at its latter end and each formed with a plurality of inwardly-extending terminal nozzles.

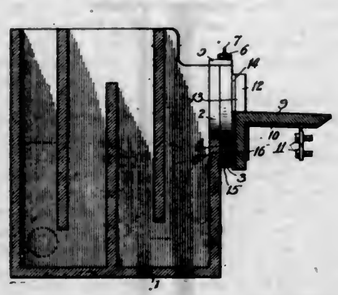
2. A device of the kind described comprising a casing, a fire-box and an ash-pit intermediate the sides of said casing and spaced inwardly and downwardly from the forward end thereof, a door at one end of said fire-box and a bridge-wall bearing upon its opposite end, an air conduit in close proximity to each side of said fire-box and having an inlet in communication with the atmosphere at the forward end of said casing, the opposite end of each conduit projecting beyond said bridge-wall and formed with a plurality of nozzles substantially in alinement with the adjacent side walls of said fire-box, a combustion chamber extending from said bridge-wall including a restricted channel into which said nozzles empty, means manipulatable at the forward end of said casing normally holding said door closed, and a shutter connected to said means for closing the inlet of each air conduit, said means actuatable to open said door whereupon said shutters will simultaneously uncover said inlets.

3. A device of the class described comprising a casing, a fuel chamber mounted therein and having a closure at one end, a bridge wall bearing upon the other end and including a restricted channel in the line of passage of the products of combustion, continuous air conduits positioned adjacent to and heated solely from said fuel chamber, one end of each conduit communicating exteriorly of said casing at its forward end, a combustion chamber into which said restricted channel discharges, nozzles carried at the opposite ends of said conduits spaced apart and emptying into said channel, mechanism normally barring the closure of said fuel chamber and adapted to control the intake of each conduit simultaneously, and a handle for actuating said mechanism, said closure being disengaged when said mechanism is actuated.

4. A device of the kind described comprising a casing, a fuel chamber mounted therein and having a door at one end and a bridge-wall bearing upon its opposite end forming a restricted channel in continuation thereof, a combustion chamber surrounding said channel, continuous air conduits divergingly opening into the atmosphere at the front of said casing, and convergingly-extending past said bridge-wall, each conduit positioned adjacent to and heated solely from said fuel chamber and provided with spaced outlets diametrically opposite and emptying into said restricted channel, a shutter closing the intake opening of each conduit and working in vertical guideways on each side of said door, a vertically-disposed and slidable member connected to each shutter, a link for reciprocating said members and means normally barring said door, said link arranged to uncover said last-mentioned openings and simultaneously to disengage said barring means.

5. In a device of the kind described comprising a brick-framework, a fire-box at the forward end and a combustion chamber at the rear end thereof communicating with each other, air conduits located above the ash-pit within the heating range of the fire-box, means for controlling the admission of air to said conduits, and a retarding device for said means, the combination of a bridge-wall bearing at the rear end of said fire-box, the forward end of said framework extending inwardly and downwardly from its center, a closure for said fire-box intermediate the ends of said inward extension, a restricted channel formed by said bridge-wall opening into said combustion chamber, a plurality of spaced nozzles formed upon each conduit and opening into said channel at diametrically opposite sides and a tilting link having a flange bearing upon said closure to prevent its movement, said link actuated by said means to allow said movement.

1,028,573. PAPER-MAKING MACHINE. HERMAN L. KUTTER, Hamilton, Ohio, assignor of one-half to Frank C. Trowbridge, Hamilton, Ohio. Filed Mar. 2, 1912. Serial No. 681,033. (Cl. 92—44.)



1. A paper-making machine comprising, a flow-box having a vertical front wall having an outflow notch and constituting one member of a couple, an apron-board disposed in front of the flow-box and having a notched vertical rear facing disposed against the front wall of the flow-box and constituting the second member of the couple, a hose secured to the face of one member of the couple at the margins of the notch therein and coöperating with the face of the other member of the couple, and means for permitting fluid pressure to be maintained within the hose, combined substantially as set forth.

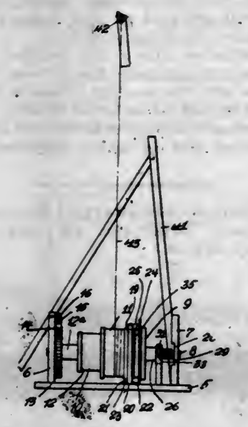
2. A paper-making machine comprising, a flow-box having a vertical front wall having an outflow notch and constituting one member of a couple, an apron-board disposed in front of the flow-box and having a notched vertical rear facing disposed against the front wall of the flow-box and constituting the second member of the couple, a hose secured to the face of one member of the couple at the margins of the notch therein and coöperating with the face of the other member of the couple, a felt facing carried by the hose-supporting member between the hose and the other member of the couple, and means for permitting fluid pressure to be maintained within the hose, combined substantially as set forth.

3. A paper-making machine comprising, a flow-box having a vertical front wall having an outflow notch and constituting one member of a couple, an apron-board disposed in front of the flow-box and having a notched vertical rear facing disposed against the front wall of the flow-box and constituting the second member of the couple, a hose secured to the face of one member of the couple at the margins of the notch therein and coöperating with the face of the other member of the couple, a packing-gland formed of sections and disposed between the hose-supporting member and the other member of the couple, and means for permitting fluid pressure to be maintained within the hose, combined substantially as set forth.

4. A paper-making machine comprising, a flow-box having a vertical front wall having an outflow notch and constituting one member of a couple, an apron-board disposed in front of the flow-box and having a notched vertical rear facing disposed against the front wall of the flow-box and constituting the second member of the couple, a hose secured to the face of one member of the couple at the margin of the notch therein and coöperating with the face of the other member of the couple; a packing-gland supported by the hose-supporting member of the couple, a felt facing carried by the hose-supporting member between the packing-gland and the other member of the couple, and means for permitting fluid pressure to be maintained within the hose; combined substantially as set forth.

[Claims 6 to 17 not printed in the Gazette.]

1,028,574. INTERMITTENT-GRIP DEVICE. ROBERT LESLIE LAMBERTON, Sistersville, W. Va. Filed May 21, 1910. Serial No. 562,753. (Cl. 74—53.)

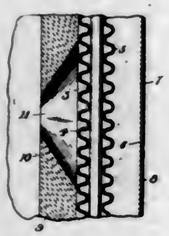


1. A device of the class described comprising a revoluble clutch member, an oscillatory clutch member normally held in engagement therewith, a gravity member carried by said oscillatory member and adapted to auto-

matically separate said members, a brake mechanism in connection with said revoluble member, said means including a brake band surrounding said clutch member, and a wedge member carried by said brake band and adapted to move said oscillatory member out of engagement with said revoluble member.

2. A device of the type described, comprising a revoluble clutch member, an oscillatory clutch member normally held in engagement therewith, and means carried by said oscillatory clutch member for intermittently moving said oscillatory clutch member out of engagement with said revoluble clutch member, said means including a pivoted triangular shaped gravity member carried by said oscillatory member and adapted to engage said revoluble clutch member.

1,028,575. INSULATING-PANEL. GILBERT B. LEGNARD and ELMERINDO FORMATO, Pittsburgh, Pa. Filed Dec. 4, 1911. Serial No. 663,751. (Cl. 20—4.)



1. The combination with a wall provided with funnel-shaped openings, of wall units arranged against said wall and in communication with the openings thereof, each unit comprising a rectangular frame provided with corrugated plates at the rear sides thereof, and pieces of cloth arranged at the front side of said frame.

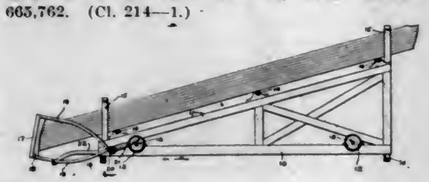
2. An insulating panel comprising a rectangular frame, corrugated plates carried by the rear edges thereof, pieces of cloth carried by the front edges thereof, pieces of torn paper arranged between said pieces of cloth.

3. The combination with a wall provided with openings, of rectangular frames arranged against said wall and in communication with the openings of said wall, and sound absorbing material arranged in each frame.

4. The combination with a wall having openings formed therein, of frame units arranged against said wall and in communication with the openings thereof, and sound absorbing material arranged in each frame and including corrugated plates and pieces of cloth.

5. The combination with a wall provided with funnel-shaped openings, of composite board frames arranged in communication with the openings of said wall, each frame comprising corrugated plates, pieces of cloth, and pieces of torn paper arranged between said pieces of cloth, with an air space between said corrugated plates and said pieces of cloth.

1,028,576. LOADING APPARATUS. WILLIAM H. LINES, Ansonia, Conn. Filed Dec. 14, 1911. Serial No. 665,762. (Cl. 214—1.)



1. In a loading apparatus, the combination with a rack having an inclined rest and a base and wheels mounted upon the base, of a running gear having a bed placed high enough to permit the platform of a truck to be backed under it and rear wheels placed at a sufficient distance apart to permit the rear wheels of a truck to pass between them.

2. In a loading apparatus, the combination with a rack having an inclined rest provided with transverse rollers, for the purpose set forth, and a base provided with wheels, of a running gear having a bed placed high enough to permit the platform of a truck to be locked under it and rear wheels placed at a sufficient distance apart to permit the rear wheels of a truck to pass between them.

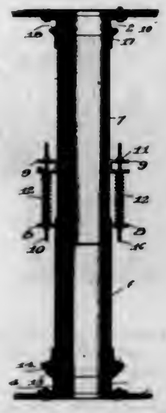
3. In a loading apparatus, the combination with a rack having an inclined rest, a base having wheels mounted thereon and a swinging retainer, for the purpose set forth, of a running gear having a bed placed high enough to permit the platform of a truck to be backed under it and rear wheels placed at a sufficient distance apart to permit the rear wheels of a truck to pass between them.

4. In a loading apparatus, the combination with a rack having an inclined rest, a base having wheels mounted thereon, a swinging retainer, for the purpose set forth, and crank shafts journaled in the base upon which the retainer is pivoted, rotary movement of the crank shafts acting to throw the retainer into and out of operative position, of a running gear having a bed placed high enough to permit the platform of a truck to be backed under it and rear wheels placed at a sufficient distance apart to permit the rear wheels of a truck to pass between them.

5. A loading apparatus of the character described comprising a rack having an inclined rest, a base having wheels mounted thereon, a swinging retainer and crank shaft journaled in the base upon which the retainer is pivoted, rotary movement of the crank shaft acting to throw the retainer into and out of operative position, and a running gear adapted to receive the rack and provided with means for holding the rack thereon.

[Claims 6 to 9 not printed in the Gazette.]

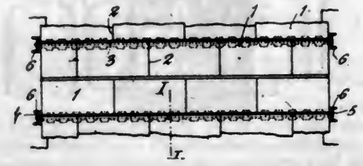
1,028,577. SIFTER-SPOUT. FRANK B. LUCKING, Cannon Falls, Minn. Filed Aug. 31, 1911. Serial No. 647,094. (Cl. 193—22.)



1. In a device of the character described, the combination with an upper discharge spout and a lower receiving spout, of telescoping cylindrical body members, one of said body members being provided with perforated ears, the other of said members being provided with oppositely positioned U-shaped members the sides of which extend outwardly and are perforated, threaded rods pass through the perforations of said ears and U-shaped members, nuts securing said rods in adjusted position in said ears, springs carried by said rods and bearing between the ears and the sides of the U-shaped members to normally maintain said body members in extended position, and ball and socket coupling means between the free ends of said body members and said spouts.

2. In a device of the character described, the combination with an upper discharge spout and a lower receiving spout, of a pair of telescoping cylindrical body members, means for normally maintaining said members in said position, bearing collars carried by the free ends of said body members, and bearing collars carried by said spouts and adapted to coact with the first named collars to form ball and socket connections between the body members and the spout.

1,028,578. STRAIGHT VAULT. JENS GABRIEL FREDRIK LUND, Christiania, Norway. Filed Feb. 10, 1908. Serial No. 415,195. (Cl. 72—68.)



1. A method for building up straight vaults of brittle material, consisting in so placing, in parallel rows, blocks—provided at their lower part with cross grooves alternating with cross teeth—that there are formed between the rows continuous longitudinal joints each having a lower widened part limited by the said cross grooves and teeth, arranging within said widened joint parts tie-rods provided at both ends with contacting irons which engage the end faces of the end blocks of two adjacent rows, filling mortar into said widened joint parts until the mortar completely surrounds the rods and fills also the cross grooves between the cross teeth, tying up the rods to such a degree, that the contacting irons engage with pressure against the end faces of the end blocks and comparatively high compressive stresses of the lower part of the blocks are established, before the mortar is hardened and then allowing the mortar to harden under these conditions, the result being a vault having blocks compressed at their under part and containing in said under part longitudinal widened grooves filled with hardened unstressed mortar surrounding highly tensioned tie-rods.

2. A method for building up straight vaults of brittle material, consisting in so placing, in parallel rows, blocks—provided at their lower part with cross grooves alternating with cross teeth—that there are formed between the rows continuous joints parallel in two directions, at right angles to each other, and each of said joints having a lower widened part limited by the said cross grooves and teeth, arranging within said widened joint parts tie-rods crossing each other and provided at both ends with contacting irons, which engage the end faces of the end blocks of two adjacent rows, filling mortar into said widened joint parts until the mortar completely surrounds the rods and fills also the cross grooves between the cross teeth, tying up the rods to such a degree that the contacting irons engage with pressure against the end faces of the end blocks and comparatively high compressive stresses of the lower part of the blocks are established in the said two directions, before the mortar is hardened, and then allowing the mortar to harden under these conditions, the result being a vault having blocks compressed at their under part and containing in said under part crossing widened grooves filled with hardened mortar surrounding highly tensioned tie-rods.

1,028,579. CONNECTOR FOR CONDUITS AND PIPES. GEORGE A. LUTZ, Plainfield, N. J. Filed Sept. 23, 1909. Serial No. 519,192. (Cl. 247—12.)

1. A connector comprising a piece of material having a plurality of branches at an angle to each other, one of said branches being tubular and provided with internal screw threads, the other branch having a socket opening in two directions, one of said directions being at an angle to the bore of said tubular branch, said connector having a chamber communicating with said tubular branch and with said socket.



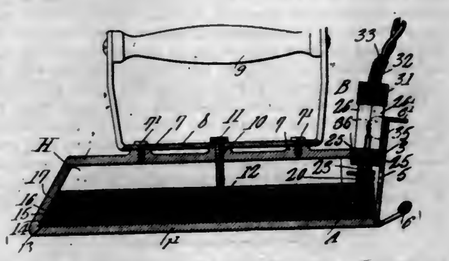
2. A connector comprising a single piece of material having a plurality of branches located at an angle to each other, one of said branches being tubular and provided with internal screw threads and with a seat at the inner part of its bore, the other branch having a socket having two sides open and facing in different directions, one of said directions being at an angle to the axis of the tubular branch, and the other of said directions being in the plane of said axis, said connector being provided with an internal chamber communicating with said branch and with said socket.

3. A connector comprising a single piece of material having a plurality of branches at an angle to each other, one of said branches being tubular and provided with internal screw threads and with a seat at the inner part of its bore, the other branch having a socket having two sides open and facing in different directions, said connector being provided with an internal chamber communicating with said branch and with said socket, and a cap secured upon the connector over one open side of the socket and over said chamber.

4. The combination of a tubular pipe provided with threads at its end, a connector having a plurality of branches, one of said branches being tubular and provided with threads receiving the threads of said pipe, the other branch being provided with a socket and having a side opening at an angle to said pipe, and a channel-like conduit received in said socket, said conduit being provided with a removable cover.

5. The combination of a tubular pipe provided with threads at its end, a connector having a plurality of branches, one of said branches being tubular and provided with threads receiving the threads of said pipe, the other branch being provided with a socket and having a side opening at an angle to said pipe, a channel-like conduit received in said socket, said conduit being provided with a removable cover, said connector having an internal chamber communicating with the tubular branch and with said socket, and a cover secured over said socket and chamber.

1,028,580. ELECTRIC SAD-IRON. EDWIN H. LUX, Logansport, Ind. Filed July 17, 1911. Serial No. 638,948. (Cl. 219—25.)



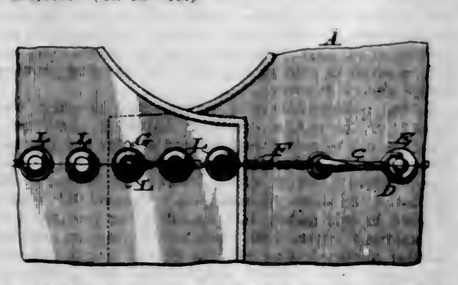
1. An electric sad iron, having a heating unit conforming in contour to the shape of the iron, composed of three superposed plates of electrical insulating and noncombustible material, the intermediate plate being provided

with parallel slots in the rear straight edge thereof with a straight central slot at the apex, and a plurality of outwardly and forwardly inclined slots in the two forward curved edges upon each side of the apex of the plate, and a resistance wire wound longitudinally of said plate from one side of the rear edge of the same, starting with the outer rear edge slot through the slots of the forward and rear edges alternatingly and terminating at the other outer slot of the rear edge of the plate.

2. An electric sad iron, having a casing open at its rear end, a heating unit insertible therein and providing an upper air space, a metal plate disposed upon the upper face of said heating unit, a binding screw accessible from the exterior of the casing engaging said metal plate to lock the unit within the casing, a closure for the rear open end thereof, said closure being provided with an upturned lower edge and with an upstanding stem, said stem being further provided with a rearwardly extending lug to coact with the lower edge to form a rest for the iron, a pair of lugs formed upon the front face of the said stem to provide a receptacle for a plug, the said metal plate resting upon the unit being provided with upstanding binding posts at its rear edge forming a connection for the terminals of the resistance wire of the unit, and a plate insulated from the terminals of the metal plate for holding the said terminals of the resistance coil in place.

3. An electric sad iron, having a casing open at its rear end, a heating unit insertible therein, a closure for the rear open end thereof, said closure being provided with an upturned lower edge and with an upstanding stem, said stem being further provided with a rearwardly extending lug to coact with the lower edge to form a rest for the iron, and a pair of lugs formed upon the front face of said stem to provide a receptacle for a terminal plug.

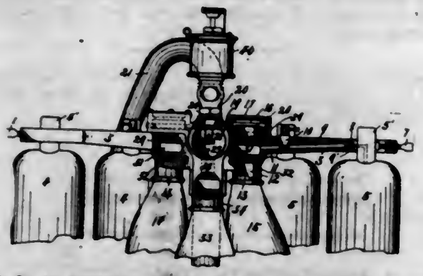
1,028,581. ANIMAL-BLANKET. WALTER M. LYMAN, Philadelphia, Pa. Filed Jan. 3, 1911. Serial No. 600,475. (Cl. 54—79.)



A blanket having overlapping flaps and an opening in the inner flap at the end thereof, a hook attached to said flap and set back from said end, and a series of alined openings in the outer flap, in combination with a flexible member having both ends disconnected from said outer flap and which is adapted to be reeved in a number of said alined openings and remain in the flap in which it is reeved when the flaps are separated, and a cross head on one end of said member adapted to be passed loosely through the end opening of the inner flap and interlocked with the latter in said opening and having on the other end a ring providing for detachable connection with said hook the length of said cross bar and the diameter of said ring being greater than the diameters of said openings, said cross bar and said ring thus serving as stops on the terminals of the flexible member preventing change in the adjustment of the latter, and improper disconnection of the same from the openings in the flap that it occupies.

1,028,582. ANESTHETIC-ADMINISTERING APPARATUS. ELMER I. MCKESSON, Toledo, Ohio. Filed Nov. 28, 1910. Serial No. 594,559. (Cl. 128—13.)

1. In an apparatus of the class described, the combination of a mixing chamber from which gas is drawn, separate sources of gas supply in communication with such chamber, two valves normally closing the communication between such chamber and said sources of supply, and means separate from said valves and automatically operative to simultaneously open said valves at each inhalation by the outward drawing of fluid therethrough.



2. In an apparatus of the class described, the combination of a mixing chamber having an outlet, separate sources of fluid supply in communication with such chamber, valves normally closing the communication between said chamber and the sources of fluid supply, a gate valve normally closing the passage through said chamber and movable by fluid circulation through the chamber, and means coöperating with said gate valve to effect a positive opening of said former valves by the outward flow of fluid through said chamber.

3. In an apparatus of the class described, the combination of a fluid outlet passage, a plurality of sources of fluid under pressure in communication with such passage, valves normally closing the communication between each of said sources and said passage, and swinging means automatically operative by the outward movement of fluid through said passage to effect positive opening movements of said valves.

4. In an apparatus of the class described, the combination of a plurality of sources of fluid supply, a fluid passage in communication with and common to said sources of supply, and means normally closing the communication between said passage and sources of supply and having a swinging part in said passage which is moved to open the communication between said passage and sources of supply by the outward movement of fluid through said passage.

5. In an apparatus of the class described, the combination of a plurality of sources of fluid supply, a passage common to and in communication with said sources of fluid supply, valves normally closing the communication between said passage and the sources of fluid supply, rocking means for effecting an opening of said valves when rocked in one direction, a gate valve normally closing said passage and movable by the flow of fluid therethrough, and connection between said gate valve and rocking means to rock said means to open the associated valves when fluid flows in one direction through said passage.

[Claims 6 to 14 not printed in the Gazette.]

1,028,583. REBREATHING-BAG FOR ANESTHETIZING APPARATUS. ELMER I. MCKESSON, Toledo, Ohio. Filed May 1, 1911. Serial No. 624,486. (Cl. 128—13.)

1. A rebreathing apparatus comprising a shell having a passage therethrough, and a bag of pliable material receiving a portion of said shell and mounted for adjustment thereon, and means for holding the bag and shell in relative adjustment.

2. A rebreathing apparatus comprising an impervious bag of pliable material, a member adjustably fitting within said bag to regulate the capacity thereof, said member having a passage therethrough to the exterior of the bag and having a perforate closure for the inner end of such passage.

3. A rebreathing apparatus comprising a bag of pliable material, a member adjustably fitting within said bag to regulate the capacity thereof, and a protecting case for the bag.

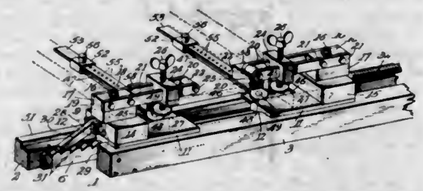


4. An article of the class described, comprising a shell, a collar mounted for longitudinal adjustment on said shell and having a close sliding fit therearound, and a bag of pliable material receiving an end of said shell and attached at its open end to said collar.

5. An article of the class described, comprising a shell, a collar mounted for longitudinal adjustment thereon, a bag of pliable material and a bag protecting case fitting one within the other and receiving an end of the shell with their open ends attached to said collar, said shell having a passage therethrough to the interior of the bag and a perforate closure for the inner end of said passage.

[Claims 6 to 10 not printed in the Gazette.]

1,028,584. CLAMP FOR USE IN THE PRODUCTION OF SCREEN AND WINDOW FRAMES, DOORS, &c. RICHARD MCKNIGHT, Denver, Colo. Filed Oct. 9, 1911. Serial No. 653,549. (Cl. 144—291.)



1. In a clamp as specified, the combination with a support, of carriages slidably mounted thereon, rigid lateral pressure clamp blocks on the outer ends of said carriages, adjustably mounted vertical pressure screw clamps on said carriages; means for locking one of said carriages against outward movement; and means for moving the other carriage toward the locked carriage, and at the same time holding it against reverse movement.

2. In a clamp as specified, the combination with a support, of carriages slidably mounted thereon having rigid abutments on their outer ends, supports pivotally mounted on the abutments, vertical pressure screw clamps adjustable horizontally on said supports, a screw for moving one of said carriages back and forth, and means for locking the other clamp against outward movement beyond a desired position.

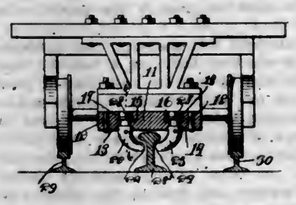
3. In a clamp as specified, the combination with a support, of carriages slidably mounted thereon, having rigid abutments upon their outer ends; supports pivotally mounted on the abutments; blocks slidably mounted on the supports; vertically disposed screw clamps carried by said blocks; a feed screw for operating one of said carriages; and a stop device for locking the other carriage against further outward movement after the same has been adjusted.

4. In a clamp as specified, the combination with a support, of carriages slidably mounted thereon, having rigid lateral pressure abutments; horizontal supports pivotally mounted upon said abutments; blocks slidably mounted on the supports and screw clamps extending vertically through said blocks; adjustable abutment blocks mounted on the carriages and facing at right angles to the said rigid abutments; a feed screw for operating one of said carriages and a stop device for locking the other carriage against further outward movement after the same has been adjusted.

5. In a clamp as specified, the combination with a support including a guide rail, of carriages mounted upon said rail having rigid lateral pressure abutments; supports pivotally mounted on the abutments; slide blocks on the supports and thumb screws extending down through the blocks and provided with clamp plates at their lower ends; laterally adjustable pivotally mounted arms on the carriages; adjustable pivotally mounted abutments on said arms facing at right angles to the rigid abutments; a feed screw for operating one of the carriages; and a stop device for locking the other carriage against further outward movement after the same has been adjusted.

[Claims 6 to 15 not printed in the Gazette.]

1,028,585. DERAILMENT-PREVENTER. JOSEPH W. MCLEAN, Tucson, Ariz. Filed Oct. 9, 1911. Serial No. 653,554. (Cl. 105—95.)



1. The combination with a wheeled car, of a derailment preventer supported beneath said car, said derailment preventer comprising a body, a pair of grasping shoes depending from said body and rotatably supported by the latter, said shoes having their lower ends curved laterally and disposed toward each other when in active position, means for locking said shoes against rotation, and a third rail having its tread received between said shoes above the lower ends of the latter.

2. A derailment preventer comprising a body portion provided with means for attachment beneath a car body, said body portion being provided with spaced vertical openings therethrough, depending ears carried by the body portion and disposed respectively on opposite sides of said openings, grasping shoes rotatably mounted in said openings respectively and having their lower ends curved laterally, and detachable bolts passing through the ears adjacent each opening and through respective shoes to secure the latter against rotation.

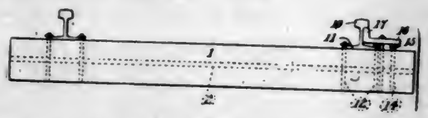
1,028,586. SHOE-RETAINER. DAVID S. MCMULLAN, Cleveland, Ohio, assignor of one-half to Robert J. Coleman, Akron, Ohio. Filed May 11, 1911. Serial No. 626,625. (Cl. 36—8.)



A shoe-retainer comprising a strip of material adapted to be secured to the upper inner face of the heel of a shoe with its central portion located at the rear of the heel of the wearer, said central portion having its lower

edge beveled, said strip having an inwardly-projecting, hollow, elastic rib, forming a pneumatic cushion adapted to frictionally assist in retaining the shoe in place.

1,028,587. TIE AND RAIL-FASTENER. RUSSELL D. MILLIRON, Mount Pleasant, Pa. Filed Feb. 23, 1912. Serial No. 679,339. (Cl. 238—3.)



1. In a tie and rail fastener, the combination with rails, of a concrete body, a horizontal metallic bar embedded in said body and extending from one end thereof to the opposite end, lateral extensions carried by said bar adjacent to the ends thereof, the ends of said bar and said lateral extensions having openings formed therein with the walls thereof screw threaded, screws arranged in the ends of said tie and screwed into the openings of said bar and the lateral extensions thereof adapted to retain said rails upon said tie, additional screws mounted in said tie and said bar, adjacent to the ends of said tie, plates resting upon said screws and some of the first mentioned screws and adapted to brace the outer sides of said rails, and other screws extending through said plate into said tie and engaging in the lateral extensions of said bar.

2. In a tie and rail fastener, the combination with rails, and a concrete body, of a metallic bar arranged in said body and having the ends thereof provided with openings with the walls of said openings screw threaded, screws extending into said tie and screwed in some of said openings of said bar to retain said rails upon said tie, additional screws arranged in said tie and said bar adjacent to the outer ends of said tie, plates mounted upon said screws and bracing the outer sides of said rails, and other screws extending through said plates into said tie and the bar embedded therein.

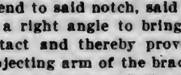
1,028,588. FARM-GATE. HENRY J. MITCHELL, Cincinnati, Ohio. Filed Dec. 11, 1908. Serial No. 466,955. (Cl. 39—33.)



1. In a gate of the character described, a post, a bracket hinge fitted to said post and adapted to swing thereon, said bracket hinge composed of a hinge, a loop, and a roller combined together, a gate, said gate supported by said bracket hinge, and adapted to slide and swing, one of the slats which compose the body of the gate provided with a horizontally inclined lower edge, whereby by sliding the gate longitudinally, by reason of the inclined edge of the slat passing over the said roller, it at the same time receives a rising movement and a lock block attached to said gate, which enters the bracket hinge when the gate is closed, to lock said gate, as set forth.

2. In a gate of the character described, a post, a bracket hinge fitted to said post, and adapted to swing thereon, said bracket hinge composed of a hinge which is connected to the post, a loop, which carries at its lower end a wheel, said wheel revolving in said loop, the loop and wheel swinging on said hinge, a gate, said gate supported by said bracket hinge and adapted to slide and to swing, one of the slats which compose the body of the gate provided with a horizontally inclined lower edge, whereby, by sliding the gate longitudinally, by reason of the inclined edge of the slat passing over the said wheel, it at the same time, receives a rising movement, and a lock block attached to said gate which enters the bracket hinge when the gate is closed to lock the gate, as set forth.

1,028,589. GRAVITY-CARRIER. FRANK E. MOORE, St. Paul, Minn., assignor to Mathews Gravity Carrier Company, St. Paul, Minn., a Corporation of Minnesota. Filed Mar. 27, 1909. Serial No. 486,233. (Cl. 193—1.)



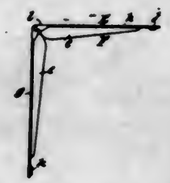
1. A gravity carrier comprising side and middle rails, rollers having journals fitting within notches provided in said side rails and locking bars extending lengthwise of said side rails and having slots therein to receive the journals of said rollers.

2. In a carrier, side rails having notches therein, rollers having journals to enter said notches and locking bars having slots to receive the outer ends of said journals.

3. A carrier comprising side rails having notched edges, rollers having journals fitting within said notches, said journals projecting outwardly beyond said side rails, and slotted bars adapted to receive the projecting ends of said journals, said slots being sufficiently long to compensate for variation in the spacing of the notches in said rails.

4. A gravity carrier comprising side rails having bearings open at the top thereon, rollers having journals fitting within said bearings and locking bars having slots to receive said journals, said slots being sufficiently long to compensate for any variation in the spacing of the bearings on said rails.

1,028,590. SHELF AND OTHER LIKE BRACKET. JOHN HENRY MORGAN, Harrogate, England. Filed Sept. 23, 1910. Serial No. 583,424. (Cl. 248—18.)

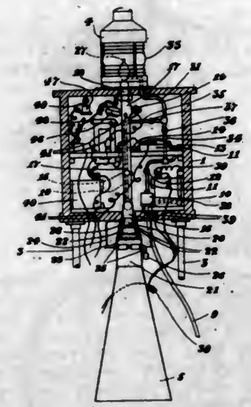


1. A bracket formed of a single blank of sheet metal having a central longitudinal rib, the walls of which are spaced from each other and a flange on each side of said rib, a V-shaped depression being formed in said rib by which the walls of the rib are spread laterally and form flat abutting surfaces, said rib gradually increasing in height from each end to said notch, said flanges being bent approximately at a right angle to bring the opposite flat surfaces into contact and thereby provide a support for the outwardly projecting arm of the bracket.

2. A bracket formed from a single elongated diamond shaped blank of sheet metal, comprising a central folded hollow tapering rib, a tapering flange on each side of the rib, a protuberance on each flange at a suitable distance from the ends of the blank, a V-shaped indent recess with flattened faces formed in the rib, a portion of each portion of the rib and flanges bent approximately at a right angle until one flattened face rests upon the other and the said protuberance turned at or about a right angle into strengthening corner pieces on the outer edges of the flanges.

3. A bracket consisting of a hollow folded central rib formed out of a flat blank of sheet metal formed to the required shape in dies, said rib having a flange and a protuberance on each side thereof, a V-shaped indent recess in the upper surface of the rib forming opposed flattened faces, corrugations in the flanges for a distance on each side of the V-shaped recess, said rib and flanges being bent approximately at right angles until one of the said flattened faces is in contact with the other, turning in the protuberance to form strengthening corner pieces along and at right angles to the outer edges of the flanges, and means for securing the two flattened faces of the V-shaped recess together.

1,028,591. SIGNALING APPARATUS. JOHN MOYES, Glasgow, and CHARLES ALEXANDER STEVENSON, Edinburgh, Scotland. Filed Nov. 19, 1910. Serial No. 593,182. (Cl. 116—13.)



1. A signaling apparatus, comprising, in combination a sound intensifier, an explosion chamber communicating with said sound intensifier, a pulsating apparatus for automatically supplying gas periodically to the explosion chamber, an electric sparking device for effecting the explosions in the explosion chamber, and means operated from the said pulsating periodic gas supply apparatus for controlling said sparking device.

2. A signaling apparatus, comprising, in combination a sound intensifier, an explosion chamber communicating with said sound intensifier, a pulsating apparatus for automatically supplying gas periodically to the explosion chamber, an electric sparking device for effecting the explosion in the explosion chamber, and means operated from the said pulsating periodic gas supply apparatus for automatically making and breaking the circuit of the sparking device.

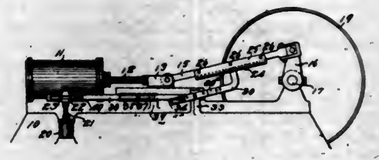
3. A signaling apparatus comprising, in combination a sound intensifier, an explosion chamber communicating with said sound intensifier, a pulsating apparatus for automatically supplying gas periodically to the explosion chamber, an electric sparking device for effecting the explosions in the explosion chamber, and contacts on and operated from the said pulsating periodic gas supply apparatus for automatically making and breaking the circuit of the sparking device.

4. A signaling apparatus comprising, in combination, a sound intensifier, an explosion chamber communicating with said sound intensifier, a pulsating gas supply apparatus for automatically controlling the supply of gas periodically to the explosion chamber, means for controlling electrically the supply of gas to said pulsating periodic gas supply apparatus, an electric sparking device for effecting the explosions in the explosion chamber and means operated from the pulsating periodic gas supply apparatus for controling said sparking device.

5. A signaling apparatus comprising, in combination a sound intensifier, a plurality of explosion chambers communicating with the sound intensifier, a pulsating periodic gas supply apparatus for automatically supplying gas to the explosion chambers, electric sparking devices for effecting the explosions in the explosion chambers, and means operated from the pulsating periodic gas supply apparatus for controlling said sparking devices.

[Claims 6 to 20 not printed in the Gazette.]

1,028,592. VALVE-GEAR. ELMER J. MYERS, Martinsburg, Pa., assignor of one-half to Charles F. Brown, Hollidaysburg, Pa. Filed Mar. 2, 1911. Serial No. 611,895. (Cl. 121—99.)



1. A valve gear for steam engines, including a lever mounted to receive motion from the pitman, an arm projecting from the lever, a second lever having one end thereof connected to the before mentioned arm by an adjustable pivot which can be shifted to either side of the pivot of the first mentioned lever, and an operative connection between the second lever and the steam valve of the engine.

2. A valve gear for steam engines, including a guide rib upon the pitman of the engine, a lever, a block carried by the lever and slidably engaging the said guide rib whereby an oscillating movement is imparted to the lever, an arm projecting from the lever, a second lever, a pivot pin on the lever, said second lever having one end thereof connected to the arm by said pivot which can be shifted to either side of the pivot of the first mentioned lever, and an operative connection between the second lever and the steam valve of the engine.

3. A valve gear for steam engines, including a lever mounted to receive motion from the pitman of the engine, an arm projecting from the lever, a second lever capable of lateral adjustment, a pivot pin mounted thereon, said second lever having one end thereof connected to the said arm by the said pivot pin which can be shifted to either side of the pivot of the first mentioned lever, a support upon which the pivot of the second mentioned lever is adjustably mounted to admit of the said lever being shifted back and forth to reverse the movement thereof and regulate the amplitude of movement, and an operative connection between the second lever and the steam valve of the engine.

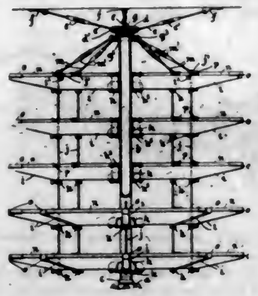
4. A valve gear for steam engines, including a lever mounted to receive motion from the pitman, an arm projecting from the lever, a second lever capable of lateral adjustment, a pivot pin mounted thereon, said second lever having one end thereof connected to the arm by said pivot pin which can be shifted to either side of the pivot of the first mentioned lever by a longitudinal movement of the second mentioned lever, a support upon which the pivot of the second mentioned lever is slidably mounted to admit of the said lever being moved to regulate the amplitude of movement thereof or reverse the direction of movement, and a head applied to the valve stem and having a sliding connection with the opposite end of the second lever.

5. A valve gear for steam engines, including a lever mounted to receive motion from the pitman, a slotted arm projecting from the lever, a second lever capable of lateral adjustment, a pivot pin mounted thereon, said second lever connected to the arm by a pivot member which is adjustable within the slot and can be shifted to either side of the pivot of the first mentioned lever by a longitudinal movement of the second mentioned lever, a slotted support adjustably receiving the pivot of the second mentioned lever whereby the said second mentioned lever can be moved back and forth to regulate the amplitude of movement thereof or reverse the direction of movement thereof, a

slotted head applied to the valve stem, and a pin upon the opposite end of the second lever adjustably engaged by the said slotted head.

[Claim 6 not printed in the Gazette.]

1,028,593. ROTARY CHEESE-RACK. HERMAN NAUMANN, Manitowoc, Wis. Filed Feb. 26, 1912. Serial No. 679,804. (Cl. 31—28.)



1. In a rotary rack, the combination of an upright shaft, a footstep on which the same turns, a shaft-collar at the upper end, and a plurality of pull-off members radially extending from said shaft-collar to an overhead support and adjustable as to length.

2. In a rotary rack, the combination of an upright shaft, a footstep on which the same is adapted to rotate, a cap-piece on the upper end of said shaft and having a socket therefor and a journal, a bearing-collar in which said journal turns, and a plurality of pull-off members arranged radially with respect to said collar and secured thereto and to a fixel overhead support, and adjustable as to length.

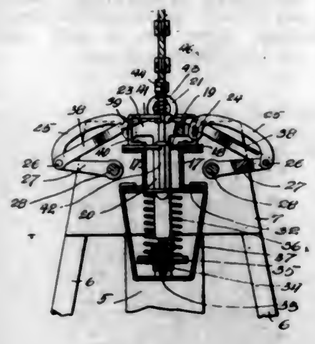
3. In a rotary rack, the combination of an upright rotatable shaft, a plurality of vertically adjustable spiders thereon, each spider being provided with means for clamping it to said shaft and having a plurality of radial sockets, a plurality of radial arms having their ends mounted in said sockets, a plurality of vertical rods each of which passes through all of the arms in a vertical line at a distance from said shaft, a plurality of adjustable members mounted on said rods and forming rests for said arms and having means for clamping them to said rods, and diagonal braces connecting the upper ends of said rods with said shaft above said spiders.

4. In a rotary rack, the combination of an upright rotatable shaft, a plurality of vertically adjustable spiders thereon, each spider being provided with means for clamping it to said shaft and having a plurality of radial sockets, a plurality of radial arms having their ends mounted in said sockets, a plurality of vertical rods each of which passes through all of the arms in a vertical line at a distance from said shaft, a plurality of adjustable members mounted on said rods and forming rests for said arms and having means for clamping them to said rods, a cap-piece mounted on the upper end of said shaft, and a plurality of diagonal brace-rods connected respectively at their lower ends to said vertical rods and at their upper ends to said cap-piece and each containing a turnbuckle whereby its length can be adjusted.

5. In a rotary rack, the combination of an upright rotatable shaft, a plurality of vertically adjustable spiders thereon, each spider being provided with means for clamping it to said shaft and having a plurality of radial sockets, a plurality of radial arms having their ends mounted in said sockets, a plurality of vertical rods each of which passes through all of the arms in a vertical line at a distance from said shaft, a plurality of adjustable members mounted on said rods and forming rests for said arms and having means for clamping them to said rods, diagonal braces connecting the upper ends of said rods with said shaft above said spiders, and a plurality of sector-shaped shelf-sections adapted to rest on the outer ends of said radial bars.

[Claims 6 and 7 not printed in the Gazette.]

1,028,594. ELEVATOR SAFETY DEVICE. MIHALY NESZTOR, Hartford, Wis. Filed Oct. 11, 1911. Serial No. 654,027. (Cl. 187—87.)

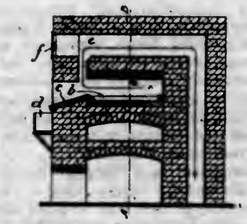


1. In an elevator safety device, the combination with guides, a rectangular frame carried thereby adjacent to the lower ends of said guides and provided with inwardly projecting lugs, a hoisting cable, and a cage slidably mounted between said guides and comprising A-shaped side frames having heads, of a cross head connecting said heads, a spring actuated pin arranged centrally of said cross head and adapted to be supported by the hoisting cable, shafts journaled in the heads of said frames, gripping members carried by the outer ends of said shafts and adapted to frictionally engage said guides, hooks carried by said gripping members and adapted to engage the lugs of said rectangular frame for moving said gripping members out of engagement with said guides when said hoisting cable is slack, and connections between said shafts and said spring actuated pin for moving said gripping members into engagement with said guides when the hoisting cable of said pin is displaced.

2. In an elevator safety device, the combination with guides, a rectangular frame carried thereby adjacent to the lower ends of said guides and provided with inwardly projecting lugs, a hoisting cable, and a cage slidably mounted between said guides and comprising A-shaped side frames having heads, of a cross head connecting said heads, a spring actuated pin arranged centrally of said cross head and adapted to be supported by the hoisting cable, shafts journaled in the heads of said frames, gripping members carried by the outer ends of said shafts and adapted to frictionally engage said guides, hooks carried by said gripping members and adapted to engage the lugs of said rectangular frame, for moving said gripping members out of engagement with said guides when said hoisting cable is slack, connections between said shafts and said spring actuated pin for moving said gripping members into engagement with said guides when the hoisting cable of said pin is displaced, and means actuated by a movement of said shafts and including locking members and spring pressed keepers for retaining said shafts in an adjusted position with the gripping members thereof in engagement with said guides.

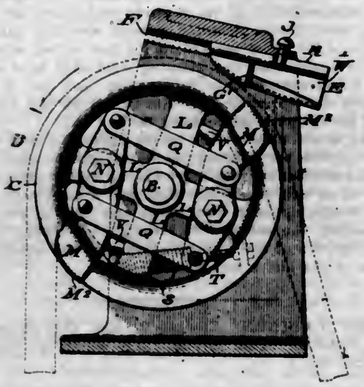
1,028,595. TIN-OXIDIZING FURNACE. KONSTANTIN VON OLSZEWSKI, Dresden, Germany. Filed Oct. 27, 1911. Serial No. 657,161. (Cl. 23—13.)

In an oxidizing furnace, the combination with a melting pan and with a furnace for heating the same, of a vertical partition dividing the fire chamber of said furnace into two independent parts, an air chamber arranged between the melting pan and the chimney, and a damper for regulating the air supply to said air chamber, while the



parts of the fire chamber are being alternately stoked, so as to maintain the furnace at a uniform temperature, substantially as set forth.

1,028,596. SAFETY-BRAKE. JOHN T. O'NEILL, Philadelphia, Pa. Filed June 28, 1911. Serial No. 635,855. (Cl. 74—46.)



1. In a safety device, a revoluble member, a housing having a cap joining the top of the same, means adapted to rotate said revoluble member, a shoe dependingly supported from and slidingly mounted in said housing and oppositely movable means movably mounted on the revoluble member and adapted by centrifugal action to ride against said shoe and move the same into sliding engagement with the said cap and cable and cause the shoe to control the revoluble member and consequently stop the same.

2. In a safety device of the character stated, a revoluble member, a flexible member adapted to rotate the same, a dog mounted on said revoluble member, a housing for said member having a cap, a movably mounted wedging shoe supported on said housing and beneath said cap and having a projection adapted to be engaged by said dog by centrifugal action of the latter to slide said shoe against said cap and the member to wedgingly hold the latter.

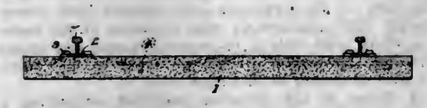
3. In a safety device of the character stated, a revoluble member, means for rotating the same, a housing for said revoluble member having a cap at the top thereof, a sliding shoe supported by said housing, a dog on said revoluble member, means held in the cap and engaging said shoe to limit its movement and a spring connected with said revoluble member and dog for controlling the latter in its normal position, said dog being adapted by centrifugal action to engage a surface of and tighten against and move said shoe wedgingly against said cap and said revoluble member.

4. In a safety device of the character stated, a revoluble member, means for rotating the same, a housing for said revoluble member, said housing having a cap, a slidably mounted shoe supported by said housing, and movable beneath said cap, a dog on said revoluble member, means held in the cap and engaging said shoe to limit its movement, a spring connected with said revoluble member and dog for controlling the latter in its normal position, said dog being adapted by centrifugal action to engage a surface of and tighten against and move said shoe wedgingly against said cap and revoluble member, and means on said cap and dog for limiting the return movements thereof.

5. In a safety device of the character stated, a pulley, a flexible member adapted to rotate the same, a housing for said pulley, said housing having a cap thereon, a movable shouldered shoe supported on said housing, a dog mounted on said pulley, a resilient device connected with said pulley and dog for retaining the latter in normal position disengaged from said shoe, said dog being adapted by centrifugal action on the abnormal rapidity of rotation of said pulley to engage the inner face of said shoe and abut the shoulder thereon, thereby wedgingly engaging said shoe with said cap and said flexible member and controlling the latter and means on the dog for engaging a member of said pulley to limit the return movement of the dog.

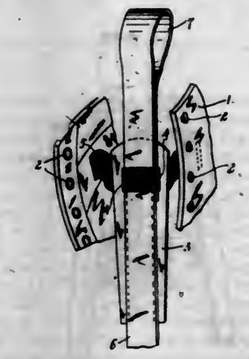
[Claims 6 and 7 not printed in the Gazette.]

1,028,597. RAILWAY-TIE. JOSEPH PALLAS, Jr., Thurston, Nebr. Filed Jan. 9, 1912. Serial No. 670,222. (Cl. 238—3.)



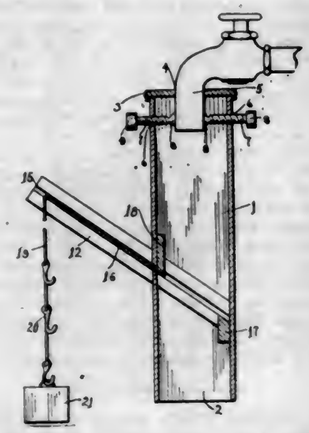
In a tie and rail fastener, the combination with rails, of a concrete body, a longitudinal rod embedded in said body and extending from one end of said body to the opposite end thereof, chairs formed integral with said rod and having the upper surfaces thereof exposed above the upper surface of said concrete body to support the base flanges of said rails, screws mounted in the ends of said chairs, and heads carried by said screws and extending on to the base flanges of said rails.

1,028,598. SHOE-TONGUE SUPPORTER. GEORGE PAPP, New York, N. Y. Filed Oct. 23, 1911. Serial No. 656,190. (Cl. 36—54.)



A shoe having quarters consisting of two pieces, the front edges of said pieces being provided with a fastening means, a tongue bridging the closure slit at the front edges of said pieces, said tongue being provided with slits, and an elastic band drawn through the slits in said tongue and attached to said pieces.

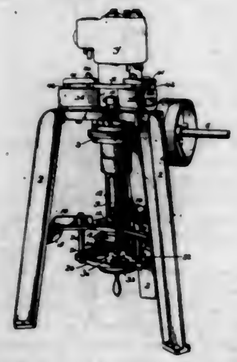
1,028,590. WATER-REGULATOR. ROBERT B. PARKER, Jr., Gloucester, Mass. Filed Aug. 17, 1911. Serial No. 644,571. (Cl. 137—104.)



1. A device of the character described, comprising a casing open at its lower end and provided with means for water tight engagement with a faucet at its upper end, a cut-off plate slidable transversely across said casing intermediate its length, a cord connected to said plate, and a float connected to said cord.

2. A device of the character described comprising a casing open at its lower end and a sheet rubber closure at its upper end provided with a faucet receiving aperture, means for clamping said casing to a faucet, one side of said casing being provided intermediate its length with a transversely extending slot, guides extending upwardly and outwardly through said slot, a cut-off plate slidable in said guides and through said slot, a roller journaled in the outer ends of said guides, a cord secured by one end to said plate and with its other end passed over the roller, and a float adjustably connected to said cord.

1,028,600. CYLINDER-BORING MACHINE. HOWARD A. PEDRICK, Philadelphia, Pa., assignor to H. B. Underwood & Company, Philadelphia, Pa., a Firm. Filed Apr. 16, 1909. Serial No. 490,265. (Cl. 77—1.)



1. The combination, in a cylinder boring machine, of an elevated supporting frame, a vertical boring spindle rotatably mounted in bearings on said frame and extending downwardly therefrom, a boring head at the upper end of said spindle, means for mounting the cylinder structure in an inverted position on the upper end of the elevated supporting frame, and means located below the elevated supporting head for imparting to the boring spindle rotating movement and movement in the direction of its axis.

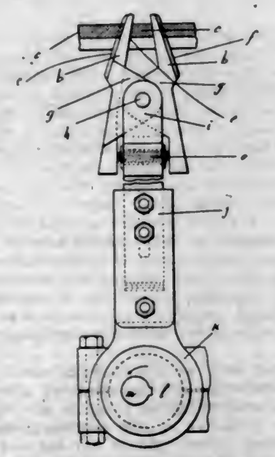
2. The combination, in a cylinder boring machine, of an elevated supporting frame, clamps on said frame for engaging a flange around the open lower end of the cylinder, and a vertically movable and rotating boring head mounted upon the upper end of a downwardly extending spindle, said spindle being disposed so as to travel upwardly between the clamps and enter the open end of the cylinder from below the same.

3. The combination, in a cylinder boring machine, of a boring spindle and its boring head, a frame in which said spindle is free to turn and to slide, radially adjustable supporting blocks against which the front face of a flange at the end of the cylinder is adapted to bear, and clamping devices radially adjustable on said supporting blocks and constructed to engage the back face of the flange at the end of the cylinder and confine said flange to the supporting blocks.

4. The combination of the boring spindle, means for rotating the same, a feed screw axially disposed in respect to the boring spindle and rotating with the same, and means for imparting rotating movement to said feed screw independently of its rotating movement with the spindle, said means including a head rotating with the spindle, a spur wheel secured to the feed screw, a pinion carried by said head and meshing with said spur wheel, a star wheel connected to said pinion, and one or more fixed pins for engaging said star wheel as the same is carried around with the rotating head.

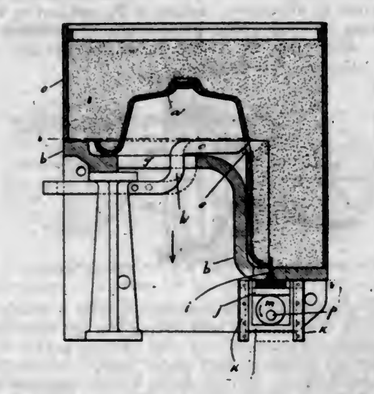
5. The combination of the boring spindle, a feed screw therefor, means for rotating the boring spindle, feed screw operating mechanism rotating with the boring spindle and having as an element a star wheel, and a plate carrying a pin for engaging said star wheel and having provision for changing the position of said pin in respect to the axis of rotation of the star wheel whereby the direction of rotation of the latter may be reversed.

1,028,601. PATTERN. EDWARD PIPHER, Port Hope, Ontario, Canada. Filed Nov. 27, 1911. Serial No. 662,729. (Cl. 22—163.)



In a pattern, the combination of a normally stationary member provided with a mold forming surface and with slideways; a reciprocating member carrying a pivot associated with said stationary member; movable patterns adapted to enter the sand of the mold through said slideways mounted on said pivot and provided with extensions; and resilient means associated with said extensions adapted to normally force said movable patterns toward each other, substantially as described.

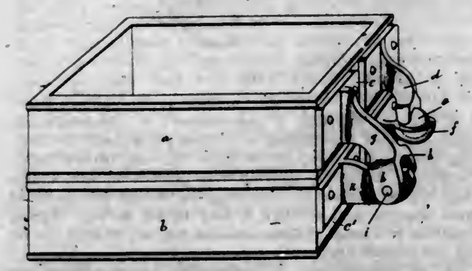
1,028,602. PATTERN. EDWARD PIPHER, Port Hope, Ontario, Canada. Filed Nov. 27, 1911. Serial No. 662,730. (Cl. 22—163.)



1. In a pattern for molds, the combination of a stationary pattern member; a pattern block on which said member is supported provided with an elongated slot; and a longitudinally reciprocating pattern member extending beneath said block provided with a bent portion passing through said slot and with another portion extending above said block adapted to enter the sand of the mold, said bent portion adapted to contact with one of the walls of said slot and therefore limit its movement, substantially as described.

2. In a pattern for molds, the combination of a stationary pattern member; a pattern block on which said member is supported provided with a slot; a longitudinally reciprocating pattern member extending beneath said block provided with a bent portion passing through said slot and with another portion extending above said block adapted to enter the sand of the mold, said bent portion adapted to contact with one of the walls of said slot to limit its movement; and a second reciprocating member passing through said block adapted to be forced into the sand of the mold and to contact with an edge of said stationary pattern member, substantially as described.

1,028,603. FLASK FOR THE CASTING OF METAL BODIES. EDWARD PIPHER, Port Hope, Ontario, Canada. Filed Dec. 1, 1911. Serial No. 663,409. (Cl. 22—105.)



1. A flask for casting metal bodies, comprising two separable flask parts and two sets of steadying members therefor, one set of steadying members providing for the correct centering of the flask parts to bring the parts of the mold cavity into exact correspondence, and the other set of steadying members providing for the adjustment of the flask parts during the centering thereof.

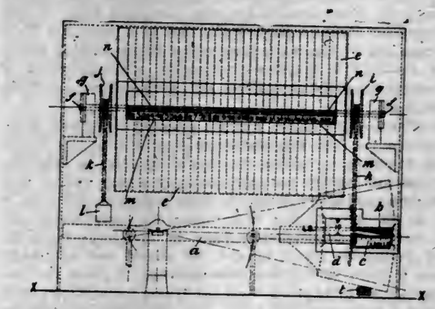
2. A flask for casting metal bodies, comprising two separable flask parts, a socket fixed to one of the flask parts and a ball fixed to the other flask part to engage in the socket for effecting an exact correspondence of the sections of the mold cavity, and means fixed to the flask parts coöperating with the ball and socket to hold the flask parts in their assembled relation.

3. A flask for casting metal bodies, comprising two separable flask parts, centering means connected to the flask parts permitting one of said parts to swing in a plane parallel to the other part and thus bring the sections of the mold cavity into exact correspondence, and means fixed to the flask parts coöperating with the centering means to maintain the flask parts in their assembled relation.

4. A flask for casting metal bodies, comprising two separable flask parts, means for centering the flask parts, and means permitting of the adjustment of the flask parts consisting of an arm provided with a bearing pin fixed to one of the flask parts, and a slotted arm fixed to the other flask part, to receive the bearing pin, and coöperating with the centering means to hold the flask parts in their centering relations.

5. A flask for casting metal bodies, comprising two separable flask parts, a socket connected to one of the flask parts, and a ball connected to the other flask part to engage in the socket, whereby the flask parts can be accurately centered, a bifurcated arm connected to one of the flask parts provided with a bearing pin and a slotted arm connected to the other flask part to enter into the forked end of the bifurcated arm and receive the bearing pin.

1,028,604. WEIGHING-MACHINE. HENRY POOLEY, Birmingham, England. Filed Jan. 15, 1910. Serial No. 538,264. (Cl. 73—104.)

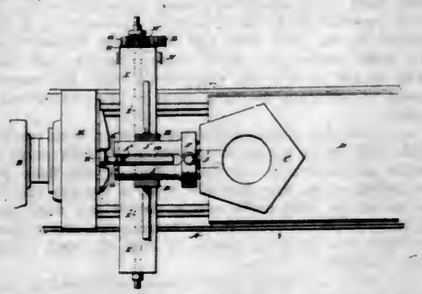


1. An automatic price and weight indicating weighing machine, comprising in combination, a weight indicating means comprising a stationary part of the casing having minor order of weight graduations thereon, and a steelyard with major order of weight graduations thereon, the steelyard being movable relatively and in proximity to the stationary part of the casing bearing the graduations to enable the minor and major order of graduations to be read together; a price indicating means comprising a fixed part on the casing having a unit price scale, a rotatable member having a price indicating scale, a spindle on which the rotatable member is mounted, and a device connected with one end of the spindle for returning the rotatable member to the zero position; and a flexible member connecting one end of the spindle directly to the steelyard.

2. A weighing machine having a rotatable price drum connected by chain gearing to a steelyard or weighing beam, and provided with a weight for returning the drum, and holding the chain gearing taut; a counterpoise operating in a liquid contained in a vessel and connected to the steelyard; and means for closing the liquid containing vessel and for holding the counterpoise immovable

therein, and for preventing the steelyard and price drum connected with the counterpoise from moving; substantially as and for the purposes set forth.

1,028,605. BAR-TURNING TOOL. JAMES CHARLES POTTER, Pawtucket, R. I., assignor to Potter & Johnston Machine Co., Pawtucket, R. I., a Corporation of Rhode Island. Filed Dec. 3, 1906. Serial No. 346,086. (Cl. 82—2.)



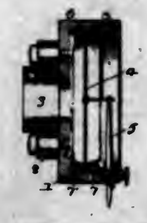
1. The combination of a chuck adapted to support work at one end, a slide traversable in a path that lies in the same direction in which the chuck axis lies, a laterally movable tool carrier mounted at one end on said slide and extending forward therefrom and carrying a tool at its forward free end, means for maintaining the tool carrier in a position to keep the tool away from the work during its travel toward the chuck, and automatic means to move said tool carrier laterally to place the tool in contact with the work when the travel toward the chuck reaches a predetermined point, the tool being inactive on the work when in its position away therefrom and cutting when it is in its inward position, and said slide, in one direction of travel, carrying the tool in a direction from the free end of the work toward the chuck, during which time the tool is inactive, and in its other direction of travel carrying the tool along the work during a cutting operation.

2. The combination of a chuck adapted to support work at one end, a slide traversable in a path that lies in the same direction in which the chuck axis lies, a laterally movable tool carrier pivotally mounted at one end on said slide and extending forward therefrom and carrying a tool at its forward free end, means for maintaining the tool carrier in a position to keep the tool away from the work during its travel toward the chuck, and automatic means to move said tool carrier laterally to place the tool in contact with the work when the travel toward the chuck reaches a perdetermined point, the tool being inactive on the work when in its position away therefrom and cutting when it is in its inward position, and said slide, in one direction of travel, carrying the tool in a direction from the free end of the work toward the chuck, during which time the tool is inactive, and in its other direction of travel carrying the tool along the work during a cutting operation.

3. The combination of a chuck adapted to support work at one end, a slide traversable in a path that lies in the same direction in which the chuck axis lies, a laterally movable tool carrier mounted at one end on said slide and extending forward therefrom and carrying a tool at its forward free end, said tool carrier comprising two members situated on opposite sides of the work in the chuck, a pair of jaws movable crosswise of the path of travel of the slide situated to engage the tool carrier members when a predetermined point in the travel toward the chuck is reached, and automatic means to reciprocate said jaws.

4. The combination of a chuck adapted to support work at one end, a turret traversable in a path that lies in the same direction in which the chuck axis lies, a tool carrier composed of two members pivotally mounted at one end on the turret and projecting free therefrom on opposite sides of the work, said tool carrier having a tool at its forward free end, a spring device normally spreading said members apart, and a pair of jaws located on opposite sides of said carrier and movable toward and from the same.

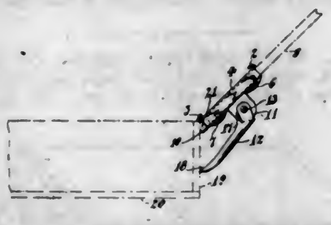
1,028,606. SOUND-BOX FOR TALKING-MACHINES. BENTLEY L. RINEHART, Camden, N. J., assignor to Victor Talking Machine Company, a Corporation of New Jersey. Filed Jan. 29, 1906. Serial No. 298,339. (Cl. 181—11.)



1. In a sound box the combination with a casing provided with a cylindrical bore having one end open to the full diameter of the bore, of a solid resilient gasket having a cylindrical periphery, said gasket being frictionally and removably retained in said casing by the engagement of the periphery of said gasket with the cylindrical wall of said bore, and a diaphragm entirely supported by said gasket and having its opposite plane surfaces out of engagement with said gasket.

2. In a sound box the combination with a casing provided with a cylindrical bore having one end open to the full diameter of the bore, of a solid resilient gasket having a cylindrical periphery of the same diameter as said bore and frictionally retained in said casing by the engagement between the periphery of said gasket and the cylindrical wall of said bore, said gasket being provided with an internal annular groove having side walls diverging from the bottom thereof toward the center of said gasket, said diaphragm being supported by said gasket by the frictional engagement of the circumferential edge of said diaphragm with the walls of said groove.

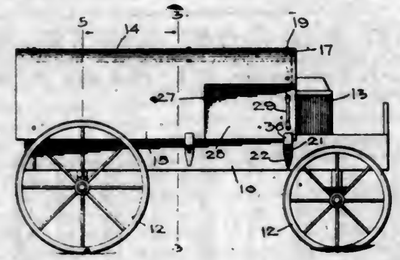
1,028,607. CIGAR-BOX-LID HOLDER. MAX ROTHSCHILD, New York, N. Y. Filed Sept. 15, 1911. Serial No. 649,497. (Cl. 217—61.)



1. In combination, a label-holder; a clip-flange for clamping said label-holder to a hinged box-cover; a hinge-lug bent out at right angles from the rear of said label-holder; a depending spurred arm pivoted to said hinge-lug; and provisions for retarding the pivotal movement of said spurred arm so that it may be set in any angular position to engage the rear wall of the box to hold the lid at the desired angle.

2. In combination, a label-holder; a clip-flange for clamping said label-holder to a hinged box-cover; a hinge-lug bent out at right angles from the rear of said label-holder; a depending spurred arm pivoted to said hinge-lug, said arm comprising a symmetrical fold of sheet metal and provisions for retarding the pivotal movement of said spurred arm so that it may be set in any angular position to engage the rear wall of the box to hold the lid at the desired angle.

1,028,608. WAGON-COVER. JESSE K. RUSSELL, Marion, Ill. Filed Apr. 17, 1911. Serial No. 621,603. (Cl. 21—7.)



1. The combination with a wagon body having side and end portions, of a cover for the body, said cover comprising a top and sides formed of a single section of material, said top portion being rounded, arched braces secured to the section of metal forming the top and sides, said braces having their lower ends offset inwardly, means detachably securing said offset portions to the sides of the body, forward and rear end portions for the cover and a closure mounted in the rear end.

2. A cover for vehicles comprising a top, braces secured to the top, sides formed by downturned portions of the top, means for detachably securing the lower ends of the braces to a wagon body, the surrounding edges of the top and sides being bent upon themselves, forward and rear ends for the cover, said ends being positioned inwardly of the forward and rear edges of the top and sides and having inturned portions secured to the braces and movable closures for the sides and rear end of the cover.

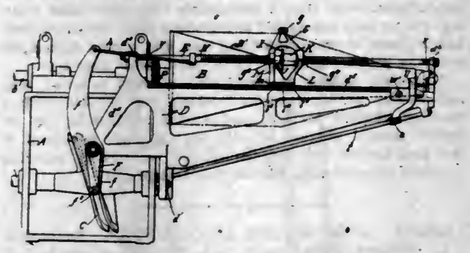
3. In a cover of the class described, the combination with a vehicle body, of a cover formed of a section of metal having down-turned side portions, the top of the cover being rounded, said sides being located outwardly of the sides of the vehicle body, a forward end for the cover, said forward end extending into contact with the bottom of the body, and a transverse strip in contact with said forward end to form a moisture proof joint.

4. In a cover having a top, sides, forward and rear ends, the combination with suitable braces therefor, of guideways secured at their forward ends to the braces, said sides having openings therethrough, covers having their upper ends engaged upon the guideways, a U-brace adapted for limiting the movement of the covers in either direction and handles therefor.

5. In combination with a vehicle body, of a cover for the body, said cover having its top and sides formed of a single section of sheet metal, forward and rear ends for the cover having inturned edges, braces for securing said inturned portions of the ends to the top and side portions, guide rods secured longitudinally within the cover adjacent the forward portion thereof, slidable doors mounted upon the guide rods and movable over openings in the sides of the cover, guideways secured to said sections for receiving the lower edges of the doors when opened, a semi-arched brace having end portions in which said doors are slidable and U-braces secured to the inner sides of the doors, said U-braces being adapted to contact with the ends of the semi-arched brace to limit the movement of the doors in a closed or open position.

1,028,609. WINDING-MACHINE. CLAES RYDEN, Providence, R. I., assignor to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed Oct. 5, 1910. Serial No. 585,451. (Cl. 242—27.)

1. In a winding machine, the combination with the winding spindle, of a screw-threaded traverse-bar arranged opposite said spindle, a thread-guide mounted on the bar, means to reciprocate the thread-guide, a bushing adapted to feed the guide along the bar, a progression wheel mounted on said bushing and adapted to contact with the winding to turn the bushing, and a slide having bearings on the bar abutting the ends of the bushing, said slide arranged to move with the bushing but held from turning on the bar.



2. In a winding machine, the combination with the winding spindle, of a screw-threaded traverse-bar arranged opposite said spindle, a thread-guide mounted on the bar, a bushing adapted to rotate to feed the guide along the bar, a slide having bearings on the bar abutting the ends of the bushing, and means to hold the slide from turning on the bar.

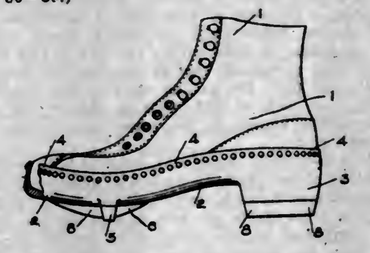
3. In a winding machine, the combination with the winding spindle, of a screw-threaded traverse-bar, a thread-guide mounted on the bar, a bushing rotatable to feed the guide along the bar, a slide having bearings on the bar abutting the ends of the bushing, and guiding means arranged to allow the slide to move along the bar while preventing it from turning on the latter.

4. In a winding machine, the combination with the winding spindle and screw-threaded traverse-bar, of a thread-guide mounted on the bar, a bushing to feed the guide along the bar, a slide having bearings on the bar abutting the ends of the bushing and formed with a runner portion, and means adjacent the bar formed with a guiding track for the runner portion of the slide.

5. In a winding machine, the combination with the winding spindle and screw-threaded traverse-bar, of a bracket having bearings for the traverse-bar and formed with a track running parallel to said bar, a thread-guide mounted on the bar, a bushing to feed the guide along the bar, and a slide having bearings on the bar abutting the ends of the bushing and formed with a runner portion adapted to slide on the track.

[Claims 6 to 18 not printed in the Gazette.]

1,028,610. METALLIC SHOE. GEORGE W. SASS, Minneapolis, Minn. Filed July 21, 1911. Serial No. 639,754. (Cl. 36—59.)



1. A shoe or boot provided with a metallic sole having longitudinal reinforcing ribs, and provided with a detachable and replaceable wearing bar extended transversely of said sole through the said reinforcing ribs.

2. A shoe or boot provided with an integrally formed sole and heel having an upturned flange to which the shoe body is secured, and provided with a detachable and re-

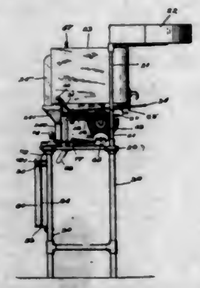
placeable wearing bar and with a detachable and replaceable supplemental wearing heel.

3. The combination with a shoe or boot provided with a metallic sole and heel and formed with longitudinal reinforcing ribs, of a detachable and replaceable wearing bar having dovetailed engagement with the said ribs.

4. The combination with a shoe or boot having a metal sole and heel, the said sole having longitudinal laterally spaced reinforcing ribs, a detachable and replaceable wearing bar having dovetailed engagement with the intermediate portions of said reinforcing ribs, and screws detachably securing said wearing bar to the said metal shoe sole.

5. A shoe or boot provided with a metal sole and heel, and having a supplemental wearing heel formed with a recessed central portion, and screws applied to the recessed central portion of said supplemental heel and to the heel proper, for detachably and replaceably securing the said supplemental heel to the heel proper.

1,028,611. COIN SORTER AND COUNTER. FREDERICK L. SATTLEY, Indianapolis, Ind., assignor of one-half to Clarence Stanley, Indianapolis, Ind. Filed Apr. 28, 1906. Serial No. 314,251. (Cl. 133—3.)



1. In a coin sorter, a sorting receptacle comprising a plurality of differentially perforated sorting shelves, means for vibrating the coin receptacle, means for normally confining the coins within the area of said shelves, shelves arranged to receive the sorted coins from the sorting shelves, coin chutes one leading from each of said last mentioned shelves.

2. In a coin sorter, a sorting receptacle comprising a plurality of differentially perforated sorting shelves, means for vibrating the coin receptacle, means for normally confining the coins within the area of said shelves, shelves arranged to receive the sorted coins from the sorting shelves, coin chutes one leading from each of said last mentioned shelves, coin chutes one leading from each of said receiving shelves.

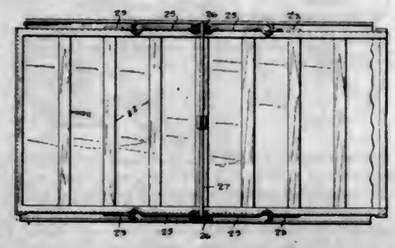
3. In a coin sorter, a movably mounted sorting body containing a plurality of substantially horizontal superposed shelves differentially perforated, means for normally confining the coins within the area of said shelves, differentially perforated shelves arranged to receive the sorted coins from the sorting shelves, coin chutes one leading from each of said receiving shelves, and means for imparting motion to the sorter in a substantially horizontal plane.

4. In a coin sorter, a movably mounted body containing a plurality of substantially horizontal superposed shelves differentially perforated, movable means for normally confining the coins within the area of said shelves, differentially perforated shelves arranged to receive the sorted coins from the sorting shelves, coin chutes one leading from each of said receiving shelves, and means for imparting motion to the sorter in a substantially horizontal plane.

5. In a coin sorter, a sorting body containing a plurality of substantially horizontal superposed shelves differentially perforated, movable means for normally confining the coins within the area of said shelves, inclined shelves arranged to receive the sorted coins from the sorting shelves, means for gyrating the sorter in a substantially horizontal plane, and a connection between the gyrating means and the sorter permitting a tilting of the sorter to discharge the sorted coins upon the inclined shelves.

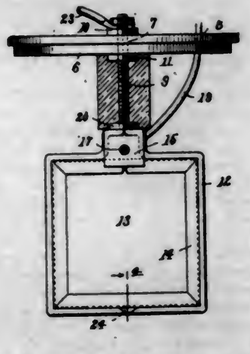
[Claims 6 to 30 not printed in the Gazette.]

1,028,612. HOSE-CONVEYER. CHARLES J. SCHNEIDER, JOHN SCHNEIDER, JOHN H. LOEFFLER, and CHARLES FLECK, West Hoboken, N. J. Filed Sept. 21, 1911. Serial No. 650,588. (Cl. 21—28.)



A hose conveyer comprising a top and bottom frame of angle iron construction, vertical bars or slats connecting and supporting said frame at its sides, transverse bars or slats connecting said frame at the bottom and front end thereof, wheels attached to the under side of said frame for supporting and sliding the conveyer on a horizontal surface and affording space for the passage of air between the exterior of the bottom of the conveyer and said horizontal surface, and upwardly extending standards attached to the sides of said frame to afford rigidity thereto and for attachment to overhead suspension, the conveyer being of wagon body form and said frame, vertical and transverse bars or slats and standards being arranged to permit the circulating of air under and around the hose contained in the conveyer; substantially as set forth.

1,028,613. BATTERY-ELEMENT SUPPORT. CHARLES B. SCHOENMEHL, Waterbury, Conn. Filed Aug. 19, 1910. Serial No. 577,922. (Cl. 204—38.)



1. An electrode supporting frame for a battery, comprising a frame formed of a single piece of wire surrounding the edges of the electrode and having its end portions flattened and turned up centrally and the flate sides disposed against each other to form a single round central suspending rod for attachment to a battery cover.

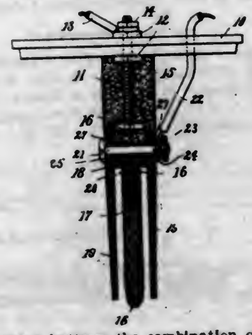
2. An electrode supporting frame for a battery, comprising a frame formed of a single piece of half round wire surrounding the edges of the electrode and having its end portions turned up and the flat sides disposed against each other to form a single round suspending rod for attachment to the central part of a battery cover, and detachable means with a round hole therethrough to engage the round suspending rod and for holding the said end portions together adjacent to the said plate.

3. The combination with a plate electrode, of a sheet metal binding strip covering the edges of the plate, a wire frame surrounding the edges of the binding strip and having its two end portions disposed upwardly from the central part of the electrode to form a suspending rod.

4. An electrode supporting frame for a battery, comprising a frame formed of a single piece of wire bent to surround the edge portions of the said electrode, a sheet metal binding strip intermediate the wire and electrode and having lips struck up therefrom to engage the frame and hold it in place.

5. An electrode supporting frame for a battery, comprising a frame formed of a single piece of wire bent circularly to engage the edges of a circular shaped negative electrode and having its end portions disposed upwardly and centrally from the top portions of the electrode to form a single centrally disposed suspending rod.

1,028,614. PRIMARY BATTERY. CHARLES B. SCHOENMEHL, Waterbury, Conn. Filed Oct. 15, 1910. Serial No. 587,204. (Cl. 204—38.)



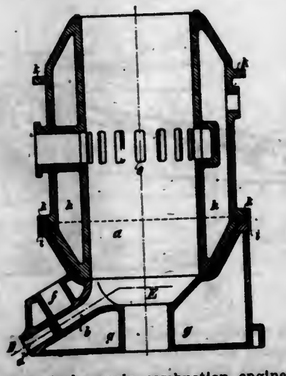
1. In a primary battery, the combination of a negative electrode plate, a positive electrode plate having a washer of a different metal cast in one side thereof and having an integral sleeve extending through the positive plate, an insulating block between the two, a bolt passing through the said sleeve, and a positive electrode plate and insulating block for securing the said parts together.

2. In a primary battery, the combination of a negative electrode plate, a positive electrode plate, an insulating block arranged between the two, a bolt for securing the parts together, and a sleeve within the positive electrode plate and having a radially disposed flange embedded in the plate to form a reinforced connection intermediate of the bolt and positive electrode plate.

3. In a primary battery, the combination of a negative electrode plate, a positive electrode plate, an insulating block arranged between the two, a bolt and nut for securing the parts together, a sleeve within the positive electrode plate having a radially disposed flange seated within the outer face of the said positive electrode to form a connection intermediate of said positive plate, bolt and nut.

1,028,615. TWO-STROKE CYCLE COMBUSTION-ENGINE. KARL SCHWARZ, Nuremberg, Germany. Filed Jan. 21, 1911. Serial No. 603,822. (Cl. 123—193.)

1. In a two-stroke cycle combustion engine, the combination with a jacketed cylinder having one end tapered on the outside and a flange at a point between its central portion and the end face, of a cover with a flange adapted to compass the tapered cylinder end and to come with its flange in contact with the cylinder flange, said cover having several long and narrow combustion chambers in radial planes extending from the inside wall to a point without the inner periphery of said cylinder whereby it is rendered possible to spare spaces in the cover for the air-inlet valves and the parts operating same without cutting into the two flanges.



2. In a two-stroke cycle combustion engine, the combination with a jacketed cylinder having its two ends tapered on the outside and two flanges between its central portion and the end faces, of two covers with flanges adapted to compass the tapered cylinder ends and to come with their flanges in contact with the cylinder flanges, said two covers having each several long and narrow combustion chambers in radial planes extending from the inside wall to a point without the inner periphery of said cylinder whereby it is rendered possible to spare spaces in the covers for the air-inlet valves and the parts operating same without cutting into the flanges.

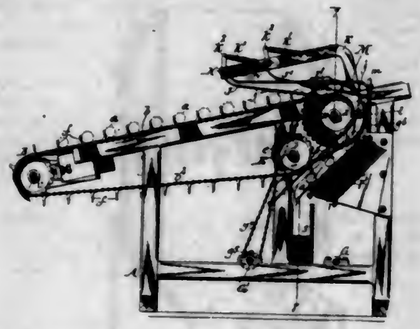
3. In a two-stroke cycle combustion engine, the combination with a jacketed cylinder having one end tapered on the outside and a flange at a point between its central portion and the end face, of a cover with a flange adapted to compass the tapered cylinder end and to come with its flange in contact with the cylinder flange, said cover having several long and narrow combustion chambers in radial planes, which chambers are inclined to the cylinder axis and extend from the inside wall to a point, without the inner periphery of said cylinder, said cover having also tubular connections for the injecting devices in line with and tubular connections for the air-inlet valves at right angles to the combustion chambers, whereby space is obtained for the parts operating the air-inlet valves without cutting into the two flanges.

4. In a two-stroke cycle combustion engine, the combination with a jacketed cylinder having its two ends tapered on the outside and two flanges between its central portion and the end faces, of two covers with flanges adapted to compass the tapered cylinder ends and to come with their flanges in contact with the cylinder flanges, said two covers having each several long and narrow combustion chambers in radial planes which chambers are inclined to the cylinder axis and extend from the inside wall to a point without the inner periphery of said cylinder, said cover having also tubular connections for the injecting devices in line with and tubular connections for the air-inlet valves at right angles to the combustion chambers, whereby space is obtained for the parts operating the air-inlet valves without cutting into the flanges.

1,028,616. CORN-HUSKING MACHINE. WILLIAM H. SELLS, Buffalo, N. Y. Filed Oct. 23, 1908. Serial No. 459,153. (Cl. 130—5.)

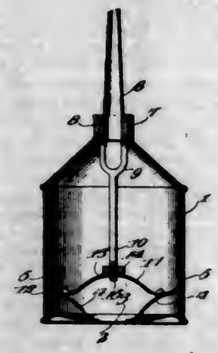
1. A corn husking machine comprising a belt conveyer having an upper part which conveys the corn in

one direction and a lower part which conveys the corn in another direction, means arranged adjacent to the upper part of said conveyer and operating on the corn while on this part to effect a partial separation or preliminary loosening of the husks from the corn, and husking rollers arranged adjacent to the lower part of said conveyer and operating to effect a complete separation or final removal of the husks from the corn while the latter is engaged by the lower part of the conveyer.



2. A corn husking machine comprising a belt conveyer having an upper part which conveys the corn in one direction and a lower part which conveys the corn in another direction, longitudinal bars having teeth arranged adjacent to the upper part of said conveyer and operating on the corn while on this part to effect a partial separation or preliminary loosening of the husks from the corn, and husking rollers arranged adjacent to the lower part of said conveyer and operating to effect a complete separation or final removal of the husks from the corn while the latter is engaged by the lower part of the conveyer.

1,028,617. OIL-CAN. RAYMOND D. SHEPARDSON, Becket, Mass. Filed Feb. 21, 1912. Serial No. 679,056. (Cl. 221—48.)

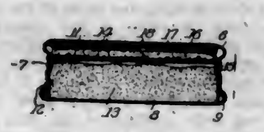


1. A can having a yieldable bottom, a discharge nozzle fitted to the can, yieldable means supported by the can and bearing against the bottom, second yieldable means bearing against the first means, and means on the nozzle engaging against the said second means to regulate the pressure of the second means against the first means.

2. A can having a yieldable bottom, a discharge nozzle removably fitted to the can, springs carried by the can and having portions yieldingly bearing against the bottom, a spring bearing against the first springs, and means on the nozzle bearing against the second spring.

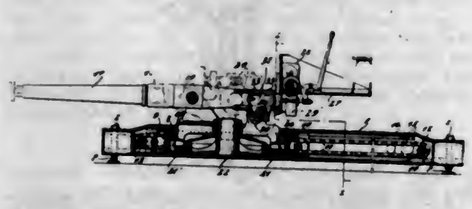
3. A can having a yeildable bottom and a discharge nozzle, a spring carried by the can and yieldingly bearing against the bottom, a second spring bearing against the first spring, and adjustable means on the nozzle adapted to engage against the second spring when the nozzle is in place upon the can.

1,028,618. POWDER-BOX. BESSIE H. SMITH, Chicago, Ill., assignor to George A. Foster, Evanston, Ill. Filed June 21, 1911. Serial No. 634,542. (Cl. 132—11.)



A face powder box comprising a container consisting of two sections, a lower section having a bottom and an upwardly extending peripheral flange having a head formed at its bottom and an upper section having a perforated top and a downwardly extending peripheral flange, the flange on said upper section being adapted to fit snugly within the flange on the lower section and against the bottom of the lower section and having a screw-thread between the top of the the upper section and the upper edge of the flange on the lower section, the cover having a threaded flange to engage the thread on the container, and a powder puff adapted to be detachably arranged within the cover and clamped thereby upon the top of the container to seal the perforations therein.

1,028,619. APPARATUS FOR CHARGING OPEN-HEARTH FURNACES, &c. JAMES SMITH, Ealing, England, assignor to Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Jan. 13, 1912. Serial No. 671,069. (Cl. 214—23.)



1. In an apparatus of the character described, the combination of a main traveling structure, a carriage mounted thereon, a charging arm supported on said carriage, and means for traversing the carriage on said structure comprising a motor located at one side of said structure adjacent the rear thereof, and operative connections between said motor and carriage, said motor and connections participating in the movement of the structure, but being stationary relatively to the carriage.

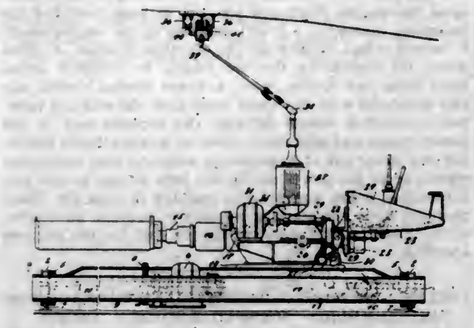
2. In an apparatus of the character described, the combination of a main traveling structure, a carriage mounted thereon, a charging arm supported on said carriage, a motor located at one side of said structure adjacent the rear thereof, a shaft along the side of said structure, gearing connecting said motor and shaft, and drive chains from said shaft connected to said carriage, said motor, gear and shaft participating in the movement of the structure but being stationary relatively to the carriage.

3. In an apparatus of the character described, the combination of a main traveling structure, a carriage mounted thereon, a charging arm supported on said carriage, means for traversing the carriage on said structure, and means for tilting the charging arm comprising a crank located beneath the charging arm, operative connections interposed between said crank and the charging arm, and means for driving said crank.

4. In an apparatus of the character described, the combination of a main traveling structure, a carriage mounted thereon, a charging arm supported on said carriage, means for traversing the carriage on said structure, and means for tilting the charging arm comprising a crank located beneath the charging arm, and arms provided with rollers connected to said crank and engaging guides on the rear of the bearing of the charging arm, and means for driving said crank.

5. In an apparatus of the character described, the combination of a main traveling structure, a carriage mounted thereon, a charging arm supported on said carriage, means for traversing the carriage on said structure, means for tilting the charging arm comprising a crank located beneath the charging arm, operative connections interposed between said crank and the charging arm, means for adjustably attaching said connections to the charging arm, and means for driving said crank.

1,028,620. APPARATUS FOR CHARGING OPEN-HEARTH FURNACES AND THE LIKE. JAMES SMITH, Ealing, England, assignor to Babcock & Wilcox Company, Bayonne, N. J., a Corporation of New Jersey. Filed Jan. 13, 1912. Serial No. 671,070. (Cl. 214—23.)

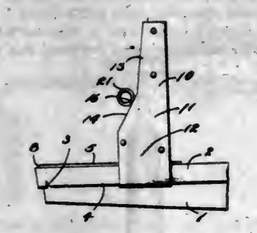


1. In an apparatus of the character described, the combination of a main traveling structure, a carriage mounted thereon, a turn table supported on the carriage, a charging arm supported on said table at one side of the vertical axis of said table, a central column also mounted on said table, electric collector gear carried by said column, said collector gear being extended above the charging arm.

2. In an apparatus of the character described, the combination of a main traveling structure, a carriage mounted thereon, a turn table mounted on said carriage, a charging arm supported on said table at one side of the vertical axis thereof, electric motors mounted on said turn table and mechanism actuated by said motors for rotating the turn table and for rotating said charging arm and also for tilting said arm on its horizontal axis, a central column, and an electric collector gear carried by said column, said collector gear being extended above the charging arm.

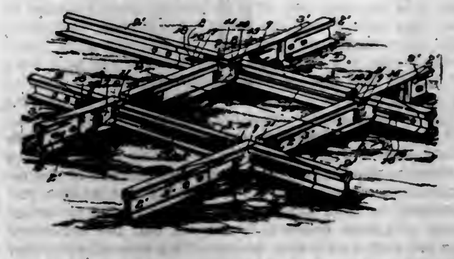
1,028,621. STAKE OR STANDARD FOR WAGON-BOLSTERS. OLIVER J. A. SMITH, Piedmont, Mo. Filed Jan. 5, 1912. Serial No. 669,651. (Cl. 21—54.)

A bolster having U-shaped plates secured to its ends, said plates having kerfs formed in their bight portions, metal strips having their inner ends secured to the upper surfaces of the bolster, and their outer ends terminating in downwardly extending flanges adapted to bear against the ends of said bolster and between said ends and bight portions of said plates, perforations formed in the strips, standards having body portions, the side edges of which being beveled to produce a base, side plates secured to the body portions, and having their lower edges extending below said base and terminating in grooves for engaging the kerfs and lower edges of the U-shaped plates, and a spring operated pin carried by the base portions to engage the



perforations in the strips, whereby the stakes or standards may be adjusted upon the bolster.

1,028,622. RAILWAY-CROSSING. RICHARD CLARANCE SMITH and MOSES THOMAS SINCLAIR, Plymouth, W. Va. Filed Dec. 9, 1911. Serial No. 664,850. (Cl. 104—40.)



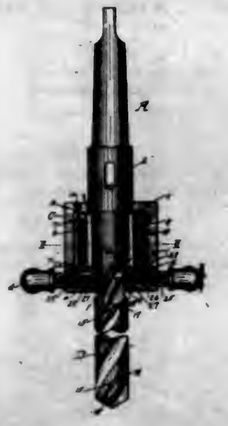
A railway crossing comprising main rails, cross rails having their inner ends abutting against said main rails, said main rails having an enlarged portion formed thereon at the intersection of the cross rails, and recesses formed on the inner side of said main rails adjacent the inner ends of the cross rails, rail sections having their ends disposed in said recesses and arranged in alinement with the cross rails, securing rods arranged in alinement with the rail sections and having their ends disposed transversely through the main rails, bolts arranged transversely in the inner ends of the cross rails, having eyes formed at each end thereof through which the ends of said rods are adapted to pass and nuts threaded on the ends of said rods to hold said rails rigidly in place.

1,028,623. AIR DRILL-SOCKET. ROBERT J. SMITH, Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Sept. 27, 1907. Serial No. 394,849. (Cl. 77—55.)

1. In an air-drill-socket, the combination with a drill socket formed with its lower end of reduced diameter, of a bearing sleeve surrounding the reduced portion, a roller cage and bearing rollers therein surrounding said sleeve, a second bearing sleeve surrounding the rollers, a case inclosing the rollers and having its top loosely fitting around the portion of the socket of larger diameter, a washer between said top and the rollers and extending across the line of contact between said top and socket, and a second washer between the bottom of the case and the bearing sleeve.

2. In an air-drill-socket, the combination with a drill socket, of a stationary member surrounding the socket, one of said parts being formed with a recess surrounding the socket, and the socket being formed with an opening extending therethrough from said recess, air passages on opposite sides of the socket leading from the recess to the outer surface of said member, and pipes connecting said passages to a source of air supply.

3. In an air-drill-socket, the combination with a drill-socket formed with an annular shoulder, of a case in which the socket is rotatably mounted and having an inner surface flush with said shoulder, said parts being formed with an air passage therethrough, and a non-metallic ring or washer extending across the joint between the socket and case.

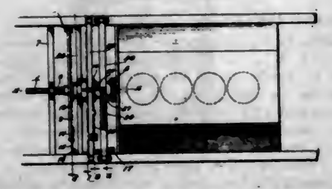


4. In an air-drill-socket, the combination with a drill-socket formed with one portion of reduced diameter, of a stationary member in which the socket is mounted for rotation, and a non-metallic substantially flat washer surrounding the reduced portion of the socket and extending across the joint between the socket and the stationary member, said socket and member being formed with communicating air passages extending therethrough.

5. In an air-drill-socket, the combination of a drill-socket, and a member in which the drill-socket is mounted for rotation, said member being provided with a number of passages for supplying compressed air to the drill socket, said passages being so disposed that the distances between said passages as measured around the circumference of the drill socket are substantially equal.

[Claims 6 to 8 not printed in the Gazette.]

1,028,624. AUTOMOBILE-STARTER. WILBERT B. SPEICE, Payne, Ohio. Filed Sept. 13, 1911. Serial No. 649,040. (Cl. 185—41.)



1. In engine starting mechanism, the combination of the engine shaft, a starting member adapted to make clutched engagement with the engine shaft, a power spring, two wheels the one fast to the engine shaft and the other having connection with the starting member and adapted to wind the power spring, a third wheel adapted to transmit motion from one of the two wheels to the other for winding the power spring, and means connecting the third wheel with the power spring to throw said third wheel out of engagement with the two wheels when the power spring has been wound to the predetermined point.

2. In engine starting mechanism of the character described, the combination of the engine shaft, a starting member adapted to make clutched engagement with the engine shaft, wheels, the one end secured to the engine shaft and the other splined to the starting member, a power spring having connection with the last mentioned wheel, a third wheel for transmitting motion from one wheel to the other, and connecting means between said third wheel and power spring for automatically throwing the wheels out of engagement when the power spring has been wound to the predetermined point.

3. In engine starting mechanism of the character described, the combination of the engine shaft, a starting member adapted to make clutched engagement therewith, a wheel fastened to the engine shaft, a second wheel splined to the starting member, a third wheel adapted to transmit motion from one to the other of the before mentioned wheels, a spring supporting said third wheel, a power spring having one end connected with the wheel mounted upon the starting member, and a lever having one end connected with the power spring and the other end connected with the said third wheel to throw the latter out of engagement with the first mentioned wheels after the power spring has been wound to the predetermined point.

4. In starting mechanism for explosive engines, the combination of the engine shaft, a starting member loose upon the engine shaft and adapted to make clutched engagement therewith, a wheel fastened to the engine shaft, a second wheel splined to the starting member, a third wheel for connecting the two wheels to transmit movement from one to the other, a power spring having one end connected with the wheel loose upon the starting member, connecting means between the opposite end of the power spring and said third wheel for automatically throwing the latter out of engagement with the first mentioned wheels after the power spring has been wound to the predetermined point, and a brake adapted to hold the wheel mounted upon the starting member to prevent unwinding of the power spring substantially as and for the purpose specified.

1,028,625. METHOD OF PACKING AND PACKAGE FOR DISASSEMBLED WHEELBARROWS. ARTHUR C. STEBBINS, Lansing, Mich., assignor to Lansing Wheelbarrow Company, Lansing, Mich. Filed June 8, 1911. Serial No. 632,019. (Cl. 206—46.)



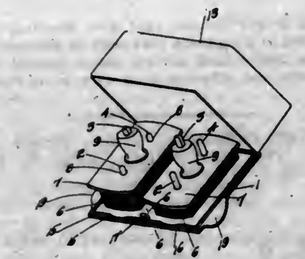
1. A package for the parts of disassembled wheelbarrows, comprising side walls formed of a plurality of super-imposed A-shaped wheelbarrow frames, strap-like frame cross pieces having hooked ends disposed as side wall and top and bottom cross pieces, the hooked ends of the side wall cross pieces being engaged over the outer frames, the cross pieces of the outer frames being in position, top and bottom walls arranged under the cross pieces of the outer frames, cross bolts connecting opposed cross pieces, and bolts arranged through the side members of the frames.

2. A package for the parts of disassembled wheelbarrows, comprising side walls formed of a plurality of super-imposed A-shaped wheelbarrow frames, strap-like frame cross pieces having hooked ends disposed as side wall and top and bottom cross pieces, the hooked ends of the side wall cross pieces being engaged over the outer frames, the cross pieces of the outer frames being in position, and top and bottom walls arranged under the cross pieces of the outer frames.

3. A package for the parts of disassembled wheelbarrows, comprising side walls formed of a plurality of super-imposed A-shaped wheelbarrow frames, frame cross pieces disposed as side wall and top and bottom cross pieces, the cross pieces of the outer frames being in position, top and bottom walls arranged under the cross pieces of the outer frames, cross bolts connecting opposed cross pieces, and bolts arranged through the side members of the frames.

4. A package for the parts of disassembled wheelbarrows, comprising side walls formed of a plurality of super-imposed A-shaped wheelbarrow frames, frame cross pieces disposed as side wall and top and bottom cross pieces, the cross pieces of the outer frames being in position, and top and bottom walls arranged under the cross pieces of the outer frames.

1,028,626. DEVICE FOR HOLDING SAFETY-RAZOR BLADES. LEON W. STETSON, Whitman, Mass. Filed Oct. 10, 1911. Serial No. 653,807. (Cl. 206—16.)

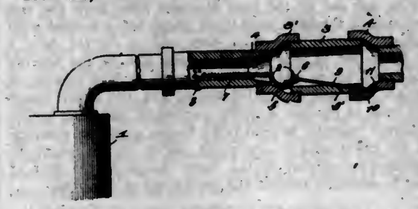


1. A device for holding safety razor blades having a base provided with at least three pins rising therefrom adapted to loosely engage perforations in a stack of razor blades, a presser plate formed with perforations which are also engaged loosely by said pins, a handle which is rigidly connected with said presser plate and rises therefrom above an intermediate one of said perforations, said handle having an aperture which is of larger diameter than the perforation in the plate and extends vertically through said handle, and a spring friction device mounted within the said aperture in the handle and engaging the pin which passes through the handle.

2. A device for holding safety razor blades having a base provided with a plurality of pins rising therefrom adapted to loosely engage perforations in a stack of blades, one of said pins being formed with two flattened faces, a presser plate formed with perforations which are engaged loosely by said pins, a handle which is rigidly connected with said presser plate and rises vertically therefrom above that perforation in the presser plate which is engaged by the flat faced pin and has an aperture extending vertically therethrough to receive the said flat faced pin, and friction springs in said aperture in the handle which engage the said flat faces of the flat faced pin.

3. A device for holding safety razor blades having a base provided with a series of pins rising therefrom adapted to engage perforations in a plurality of razor blades, a presser plate formed with perforations also adapted to be engaged by said pins and to rest upon the top of the razor blades engaged by said pins, a platform surrounding some of the pins at the base thereof and of less diameter than the blades and forming a seat for the bottom blade slightly elevated above the base of the holder.

1,028,627. SAFETY-VALVE. BYRON STEVENS, Oakland, Cal. Filed June 21, 1911. Serial No. 634,474. (Cl. 137—92.)



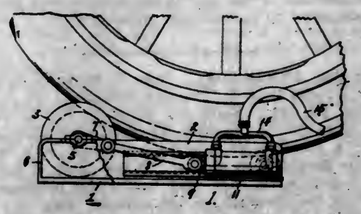
1. A device of the class described, comprising a pair of pipe sections, connecting means therebetween, one of said pipe sections being provided with a valve seat at the connected end thereof, a ball valve for the seat, a coil spring having connection with the pipe section having the seat therein and acting on said valve to tend to seat the same, and means to retain said valve in its open position, said means being ineffective at a predetermined temperature.

2. In a device of the character described, the combination with a pair of pipe sections, one of said sections being provided with a valve seat in the end thereof, a sleeve of enlarged diameter disposed between said sections, and connecting members between said sleeve and pipe sections; of a valve, a spring having connection with said valve and the pipe section having the valve seat tending to draw said valve into said seat, an arm also carried by said valve and extending through an opening in one of said connecting members, and means coöperating with said arm in the opening to normally retain said valve in an open position.

3. In a device of the character described, the combination with a pair of pipe sections, one of said sections having a valve seat in the end thereof, tubular connecting means between said sections, said means having an orifice therein; of a valve, a spring connected to said valve and the pipe section having the valve seat therein, an arm also engaged with said valve and extending through the orifice in said connecting means, and means applied to said arm in the orifice to normally retain said valve in an open position.

4. In a device of the class described, the combination with a pair of pipe sections, one of which has a valve seat in one end thereof, a sleeve of enlarged diameter disposed between said pipe sections, said sleeve having an inclined slot extending through the wall thereof, and a pair of connecting members between said pipe sections and said sleeve, one of said connecting members having an opening therein alining with the slot of said sleeve; of a valve, a spring having connection with said valve and the pipe section having the valve seat therein, an arm also engaged with said valve, said arm being extended through the slot in said sleeve and the opening in said connecting member, and means applied to the arm in said opening to normally retain said valve in its open position.

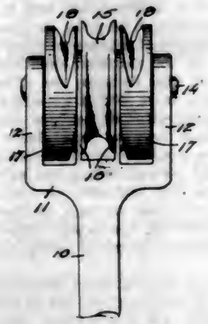
1,028,628. TIRE-INFLATING APPARATUS. MASON F. STOLBERG, Toledo, Ohio. Filed Aug. 24, 1911. Serial No. 645,892. (Cl. 230—27.)



In an apparatus of the type set forth, a base, a pair of vertical spaced flanges carried by the base and extending

longitudinally thereof, one of the flanges being arranged flush with one side of the base and the other flange being spaced from the opposite side of the base, a third short flange at one end of the base disposed flush with the last named side of the base, said third flange being formed with a bearing intermediate of its ends and on its top face, a shaft journaled in said pair of flanges and in the bearing of the third flange and having a crank that is located in the space between the third flange and the inner flange of the pair of flanges, a pump carried by the base at the end thereof opposite to said third flange, a pitman connected to the crank and to the pump piston, and a longitudinal guide-way carried by the inner flange of the pair of flanges to slidingly receive the cross-head of the pump.

1,028,629. TROLLEY. SIMON DE CAMARA STONE, Somerville, Mass. Filed July 10, 1911. Serial No. 637,728. (Cl. 191—39.)

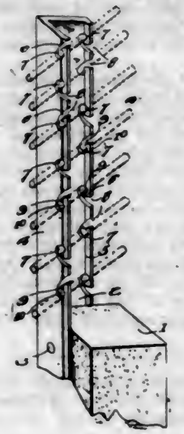


1. The combination with a trolley harp having vertical supports provided with shaft openings, supplemental perforated supports between the first mentioned supports, said supplemental supports being spaced at equal distances from each other and from the side supports, a trolley wheel mounted between supplemental supports, and eccentrically mounted grooved disks between the supplemental supports and the first named supports, said disks having tapering circumferential grooves for guiding a trolley wire on to the trolley wheel, said supplemental supports adapted to form compartments for the trolley wheel and each of the disks, whereby to prevent the frictional engagement of said wheel with said disks.

2. In a trolley the combination with a harp having vertical side supports, provided with openings to receive a shaft, a shaft in the openings, supplemental supports having shaft openings, a trolley wheel arranged between said supplemental supports said supplemental supports being disposed between the first named supports at equal distances apart and from the side supports, eccentrically mounted disks arranged between the supplemental supports and each of the side supports, an elevation on the harp midway between the side supports, a connecting member at the bottom of said supplemental supports, means for securing the said connecting member to the said elevation, said harp being provided with depressions on either side of the said elevation to permit the rotary movement of the eccentrically mounted disk.

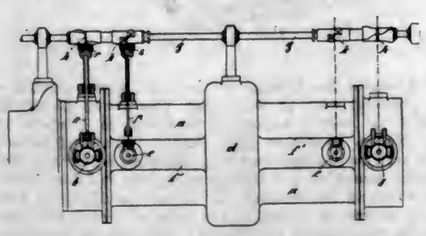
1,028,630. FENCE-POST. JOHN E. STRYKER, New York, N. Y., and DICK P. STRYKER, Somerville, N. J. Filed Sept. 28, 1911. Serial No. 651,852. (Cl. 39—12.)

A fence post of the class described comprising an angle body, a plurality of contiguous pairs of wire receiving sockets formed upon each of the side edges of said body, the sockets upon each edge having the openings intermediate the openings on the opposite edge, one socket upon one edge adapted to coöperate with the socket on the opposite edge for holding a wire in position, one of said sockets being downwardly pitched and the other of said sockets being upwardly pitched, each of said sockets being provided with an overhanging lip provided with a comparatively narrow resilient neck carrying at its other end



an enlarged bulged portion, said wire receiving sockets being provided at their inner ends with an enlarged pocket portion, and said bulged portion being adapted to normally obstruct the entrance of a wire to or from said pocket.

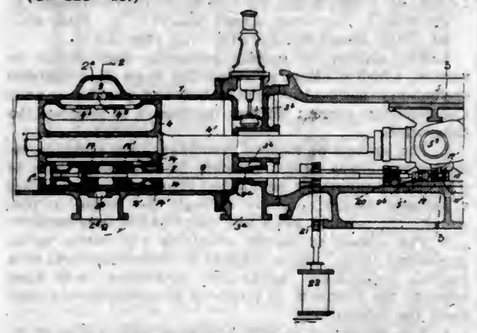
1,028,631. STEAM-ENGINE. JOHANN STUMPF, Berlin, Germany. Filed July 26, 1910. Serial No. 573,933. (Cl. 121—45.)



1. In combination with a cylinder having a steam inlet port at its end and a main exhaust, an admission valve controlling the admission of steam to said cylinder through said inlet port, means for operating said inlet valve, said means being adjustable to give an earlier or later cut off of the valve as required, a supplementary exhaust passage communicating with the inlet end of said cylinder, a valve normally at rest and closing said supplementary exhaust passage and means for moving said valve from its normal position of rest to relieve compression when the cut off is late comprising a member movable and adjustable with the operating means for the admission valve and an operating member for the supplementary exhaust valve arranged to co-act with said movable member to operate said supplementary exhaust valve when the operating means for the admission valve gives late cut off.

2. In combination with a cylinder having a steam inlet port at its end and a main exhaust port, an admission valve controlling the admission of steam to said cylinder through said inlet port, a slidable and rotatable cam for operating said valve to give a variable cut off as desired, a supplementary exhaust passage communicating with the inlet end of the cylinder, a valve normally at rest and closing said supplementary exhaust passage and means for moving said valve from its normal position of rest to relieve compression when the cut off is late comprising a cam slidable and rotatable with the operating cam for the admission valve and an operating arm for said supplementary exhaust valve, said operating arm being arranged to co-act effectively with said rotatable and slidable cam when the operating means for the admission valve is located to give a late cut off.

1,028,632. STEAM-ENGINE. JOHANN STUMPF, Berlin, Germany. Filed Aug. 6, 1910. Serial No. 575,921. (Cl. 121—45.)



1. In combination with the moving parts of a steam engine, a cylinder having a steam inlet port at its end and separate exhaust ports, a mechanically actuated inlet valve controlling said inlet port, a hollow ported piston working in said cylinder and arranged to overrun said exhaust ports at and near the end of its stroke, the port in said piston being arranged to register with said cylinder exhaust ports when the piston has overrun the same, and means for controlling the commencement of compression while minimizing surface condensation, consisting of a valve on said piston and controlling the admission of exhaust steam to the interior thereof, and means actuated from a moving part of the engine for operating said valve.

2. In combination with the moving parts of a steam engine, a cylinder having a steam inlet port at its end and separate exhaust ports, a partial hot jacket about the inlet end of said cylinder, a hollow ported piston working in said cylinder and arranged to overrun said exhaust ports at and near the end of its stroke, the port in said piston being arranged to register with said cylinder exhaust ports when the piston has overrun the same, and means for controlling the commencement of compression while minimizing surface condensation, consisting of a valve on said piston and controlling the admission of exhaust steam to the interior thereof, and means actuated from a moving part of the engine for operating said valve.

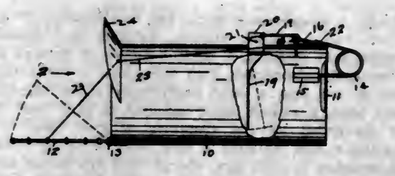
3. In combination with the moving parts of a unidirectional flow steam engine, a cylinder having an inlet port at its end used only for admitting steam and separate exhaust ports, a hollow piston adapted to overrun and control said exhaust ports, in the cylinder at and near the end of its working stroke, and means for controlling the commencement of compression while minimizing surface condensation, consisting of a valve on said piston and controlling the admission of exhaust steam to the interior thereof, means actuated from a moving part of the engine for operating said valve and means for withdrawing exhaust steam from said hollow piston.

4. In combination with the moving parts of a unidirectional flow steam engine, a cylinder having an inlet port at its end used only for admitting steam, and separate exhaust ports, a hollow piston adapted to overrun and control said exhaust ports in the cylinder at and near the end of its working stroke, an adjustable valve on said piston, and controlling the admission of exhaust steam to the interior thereof, means for controlling the commencement of compression while minimizing surface condensation consisting of means actuated from a moving part of the engine for operating said valve, and means for withdrawing exhaust steam from said hollow piston.

5. In combination with the cross head and connecting rod of a uni-directional flow steam engine, a cylinder having a steam inlet port at its end, a hollow piston in said cylinder, and means for controlling the commencement of compression while minimizing surface condensation, consisting of an unbalanced piston valve slidable in said hollow piston and controlling the admission of exhaust steam to the interior of the piston, an arm set eccentrically on the cross head end of the connecting rod, a rod joining said piston valve and said eccentric arm to operate said piston valve, and means for withdrawing steam from the interior of the piston.

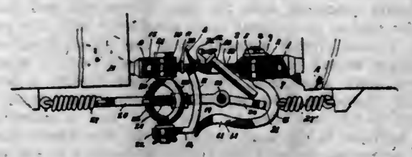
[Claims 6 to 8 not printed in the Gazette.]

1,028,633. ANIMAL-TRAP. ARVID E. SWANSON, Spokane, Wash., assignor of one-half to Thomas Olson, Dover, Idaho. Filed Jan. 14, 1911. Serial No. 602,714 (Cl. 43—19.)



An animal trap comprising a substantially cylindrical casing closed at one end by a stationary screen and at the opposite end by a hinged screen, a spring secured to the end of the casing provided with the stationary screen and extending above the casing, cables passing from the spring along the exterior of the casing and connected to the hinged screen end, a trigger pivoted upon the exterior of the casing and extending downwardly into the casing, a keeper pivoted upon the exterior of the casing and hooked through the spring and engaged by the trigger, and a hood extending from the end of the casing having the hinged closure and provided with openings through which the cables pass.

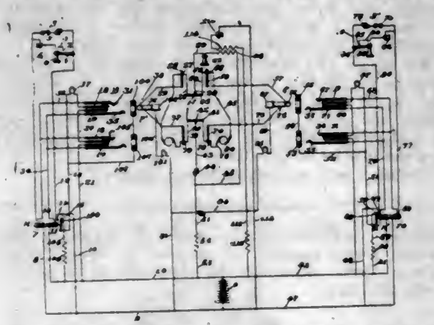
1,028,634. AUTOMATIC COUPLING FOR MINE-CARS. DANIEL H. TAYLOR, Tercio, Colo. Filed June 16, 1911. Serial No. 633,496. (Cl. 213—56.)



1. In a car coupling, a drawhead having a longitudinal recess and an intersecting vertical aperture, a pivotally supported hook member having a shank engaging said aperture, a guide member engaging the recess of the drawhead and mounted upon the shank of the hook member, and a coupling pin carried by the guide member and the hook member.

2. In a car coupling, a drawhead having a longitudinal recess intersected by a vertical aperture, a hook member having a shank pivotally engaging the vertical aperture, said hook member being provided with a slot having an inclined rear wall, a guide member engaging the recess of the drawhead and pivotally connected with the shank of the hook member, said guide member being provided with a slot having an inclined rear wall, and a coupling pin extending through the slot of the guide member into the slot of the hook member.

1,028,635. TELEPHONE SYSTEM. DAVID L. TEMPLE, Lewistown, Pa., assignor, by mesne assignments, to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed July 18, 1903. Serial No. 166,178. (Cl. 179—57.)



1. In a telephone system, the combination of a substation and a central station, suitable line connections between said stations, a central source of current supply permanently connected with said line, a repeating coil relay in the line, a local supervisory signal circuit normally open, a switch point included in said local circuit and controlled by the armature of said relay, a cord plug and a jack included in said local circuit, a resistance coil included in said local circuit and interposed between one pole of said source of current and a stationary contact of said relay, the said supervisory lamp being lighted when the plug is in the jack and the armature released, and means for producing an audible call signal at any called subscriber's station.

2. In a telephone system, the combination of a substation and a central station and suitable line connection between the same, a cord circuit and a jack at the central station, a repeating coil relay in the line, a source of current supply permanently connected with the line, a supervisory lamp associated with said cord circuit, and a local circuit including said lamp and having a switch point controlled by said relay, said local circuit including the thimble or testing ring of the said jack, and said thimble or testing ring being connected with a movable contact of said relay.

3. In a telephone system, the combination of a substation and a central station and suitable line connection between the same, a jack and a cord circuit at the central station, a central source of current supply permanently connected with the line, a repeating coil relay in the line, a line signal lamp associated with the said jack, a local circuit including said line signal lamp and having a switch point controlled by said relay, a supervisory lamp associated with said cord circuit, a local circuit including said supervisory lamp and having a switch point controlled by said relay and a resistance coil included in the local circuit of the supervisory lamp and interposed between the source of current and a stationary contact of said relay and means for producing an audible call signal at any called subscriber's station.

4. In a telephone system, the combination of sub-stations and a central station and suitable line connection between the same, an operator's cord circuit having plugs, jacks coöperating with said plugs for establishing connection between the sub-stations, a source of current supply permanently connected with the sub-station lines, a repeating coil relay in each line, each repeating coil consisting of two primary coils, one in each side of the line, and of a secondary coil connected with both the tip and ring contacts of a jack, said secondary coils being at all times free from battery current line signal lamps connected to the armature of said relay, and local circuits for the same, supervisory lamps associated with said cord circuit, local circuits for said supervisory lamps, all of said local circuits having switch points controlled by said relays.

5. In a telephone system, the combination of a substation and a central station and suitable line connection between the same, a central source of current supply, a line lamp signal, a local circuit including said source of current supply and said line lamp signal, a relay for closing said local circuit, a jack electrically connected with the line and provided with a test ring, a cord circuit having a plug, the armature of said relay being permanently connected with both the test ring and said lamp but said test ring being excluded from the circuit of said lamp.

[Claims 6 to 15 not printed in the Gazette.]

1,028,636. METHOD OF EXHAUSTING VESSELS. CHARLES J. THATCHER, Upper Nyack, N. Y. Filed Mar. 30, 1910. Serial No. 552,310. (Cl. 176—2.)

1. The process of rapidly producing high vacua in vessels, which consists in subjecting them to a suitable preliminary mechanical exhaustion, and passing a suitable electrical current through the vessels to complete the exhaustion.

2. The process of rapidly producing high vacua in incandescent lamps, which consists in subjecting them to a suitable preliminary mechanical exhaustion and passing a suitable electric current through the lamps to precipitate the residual gases and complete the exhaustion.

3. The process of rapidly producing high vacua in incandescent lamps, which consists in subjecting them to a suitable preliminary mechanical exhaustion, and then bringing the filaments to intensive incandescence to complete the exhaustion.

4. The process of rapidly producing high vacua in incandescent lamps, which consists in subjecting them to a suitable preliminary mechanical exhaustion and then bringing the filaments to intensive incandescence to precipitate the residual gases and complete the exhaustion.

5. The process of rapidly producing high vacua in vessels containing an electrical conductor, which consists in mechanically exhausting them until the mass of gas within the vessels does not exceed the normal, intrinsic, precipitating power of the conductor, and then passing a suitable electric current through the conductor to precipitate the residual gases and complete the exhaustion.

[Claims 6 and 7 not printed in the Gazette.]

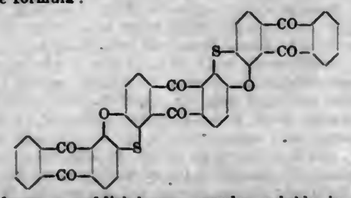
1,028,637. VAT DYE. PAUL THOMASCHEWSKI, Vohwinkel, near Elberfeld, Germany, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Original application filed Feb. 28, 1911, Serial No. 611,361. Divided and this application filed Sept. 6, 1911. Serial No. 647,947. (Cl. 8—1.)

1. The herein described new vat dyes having most probably the formula:



A meaning an anthraquinone radical which dyes are after being dried and pulverized reddish to brown powders soluble in concentrated sulfuric acid generally with from a green to greenish-blue coloration; dyeing cotton from an alkaline hydrosulfite vat from red to brown shades, substantially as described.

2. The herein described new vat dye having most probably the formula:



which forms a reddish-brown powder soluble in boiling naphthalene with a brown-orange coloration, and dyeing cotton from a hydrosulfite vat Bordeaux-red shades, substantially as described.

1,028,638. METALLIC CULVERT. KARL JOHAN THORSEN, Oakland, Cal., assignor to California Corrugated Culvert Company, Oakland, Cal., a Corporation of California. Filed Feb. 14, 1912. Serial No. 677,610. (Cl. 61—9.)



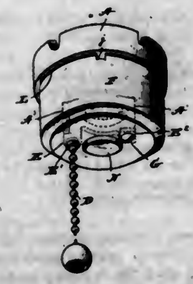
1. In a metallic culvert of the arch-type, the metallic section thereof bent throughout the greater portion of its arch on a curve of relatively long radius, said curve being followed at each end with short curves of relatively small radius, and said short curves being followed by straight portions continuing to the extremities of the section sides.

2. A metallic culvert of the arch-type, comprising a metallic section bent throughout the greater portion of its arch on a curve of relatively long radius, said curve being followed at each end with short curves of relatively small radius, and said short curves being followed by straight portions continuing to the extremities of the section sides, and a base upon which the extremities of the metallic section rest, said base forming the bottom of the culvert.

3. A metallic culvert of the arch-type, comprising a metallic section bent throughout the greater portion of its arch on a curve of relatively long radius, said curve being followed at each end with short curves of relatively small radius, and said short curves being followed by straight portions continuing to the extremities of the section sides, and a base upon which the extremities of the metallic section rest, said base forming the bottom of the culvert, and continuing up the outside of the straight portions of the sides of said metallic section.

4. A metallic culvert of the arch-type, comprising a metallic section bent throughout the greater portion of its arch on a curve of relatively long radius, said curve being followed at each end with short curves of relatively small radius, and said short curves being followed by straight portions continuing to the extremities of the section sides, and a base upon which the extremities of the metallic section rest, said base forming the bottom of the culvert, the surface of said bottom being inclined downward from each side, and said base continuing up the outside of the straight portions of the sides of the said metallic section.

1,028,639. INSULATED SWITCH-COVER. ALLEN A. TIRRILL, Schenectady, N. Y. Filed Apr. 14, 1910. Serial No. 555,467. (Cl. 175—282.)



1. In a switch, a supporting base having a lug thereon, switch mechanism mounted on said base, a cover for said mechanism, means for securing the cover in place, an insulating lining for the cover, the cover and lining having a notched portion adapted to receive the lug on the base, and a portion of the cover adjoining the notched portion thereof being offset to engage beneath a corresponding portion of the lining to retain the lining in place.

2. A switch cover of the character described comprising a metallic cup-shaped member notched at one edge, an insulating lining therefor, said lining being correspondingly notched at its edge, and a part of the metal of the cup-shaped member being offset at said notched portion thereof to underlie a corresponding portion of the edge of the lining, substantially as described.

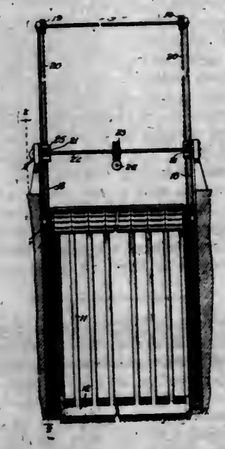
3. A switch cover of the character described comprising a cup-shaped body having a notched lower edge, and an insulating lining therein comprising a cup-shaped portion fitting the top of the cup-shaped body, and a cylindrical portion fitting the lower part of the cup-shaped body abutting at its upper edge against the edge of the cup-shaped portion of the lining and projecting at its lower edge an appreciable distance beyond the edge of the cup-shaped body, the lower end of the lining being notched to correspond to the notch of the cup-shaped body, and the cup-shaped body having a part offset to underlie a corresponding part of the lining adjoining the notched portions thereof to retain the lining in place.

4. An article of the character described comprising a metallic switch cover having an inwardly turned lug at its open edge, and an insulating lining for the cover comprising an end member and a side member, the inner end of the side member engaging the marginal portion of the end member to hold the same in place, and the lug on the cover engaging the outer edge of the side member substantially as described.

5. An article of the character described comprising a metallic switch cover, and an insulating lining therefor comprising an end member for the closed end of said cover, and a side member, the inner end of the said member engaging the marginal portion of the end member to retain the same in place, a part of the metallic cover engaging the side member to retain the same against removal, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,028,640. SLUICE-GATE. WILLIAM VAN DEN HEUVEL, Los Angeles, Cal. Filed Mar. 15, 1912. Serial No. 684,048. (Cl. 61—46.)



1. In a gate, the combination of a plurality of hinged sections, packing means between the sections, whereby a substantially liquid-tight flexible closure is secured, and means for shifting said gate one section at a time, substantially as described.

2. In a gate, the combination of a plurality of sections, means for pivotally uniting said sections, each of said pivotally united sections being composed of a plurality of rigidly united sections, substantially as described.

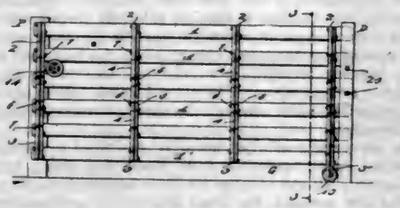
3. In a gate, the combination of a plurality of sections, means for pivotally uniting said sections, each of said pivotally united sections being composed of a plurality of rigidly united sections, and means for packing the joints between said pivotally united sections, substantially as described.

4. In a gate, the combination of a plurality of sections, knuckle joints uniting said sections, each of said sections being composed of a plurality of rigidly united sections, substantially as described.

5. In a gate, the combination of a plurality of sections, knuckle joints uniting said sections, each of said sections being composed of a plurality of rigidly united sections, and means for packing said knuckle joints, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,028,641. GATE. RANDALL T. VAN VALKENBURG, Geneva, N. Y. Filed Jan. 8, 1912. Serial No. 670,056. (Cl. 39—33.)



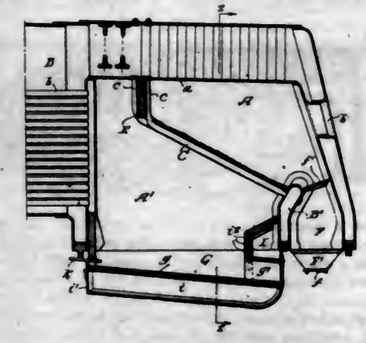
1. A gate comprising horizontal slats certain of which are spaced an equal distance apart, and uprights of angle-iron secured across said slats and each having outbent loops opposite the spaces between said spaced slats and feet secured to them; combined with a pivot post, a caster wheel supported thereby and of a diameter to fit loosely between the spaced slats, flanges thereon overlapping said slats, a latch post made in two spaced members, a plurality of bolts connecting said members, and collars mounted on the bolts between the members and adapted to sustain the tips of two of said spaced slats.

2. A gate comprising horizontal slats certain of which are spaced an equal distance apart, uprights of angle-iron secured across said slats and each having outbent loops opposite the spaces between said spaced slats and feet secured to them, the lower end of the outermost upright being continued below the lowermost slat and provided with a stud projecting beneath it, a bracket secured to the opposite face of said slat and depending therefrom and provided with a stud projecting toward said other stud, and a roller journaled on said studs; combined with a pivot post, a caster wheel supported thereby and of a diameter to fit loosely between the spaced slats, a latch post, and means therein for sustaining the tips of two of said spaced slats when said roller is lifted off the ground.

1,028,642. DOWNDRAFT FIRE-BOX. SAMUEL M. VAUCLAIN and GEORGE R. HENDERSON, Philadelphia, Pa., assignors to The Baldwin Locomotive Works, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 8, 1911. Serial No. 648,329. (Cl. 122—97.)

1. The combination in a locomotive of a fire box; a series of tubes communicating with the fire box; a water partition extending across the lower end of the fire box some distance from the rear end thereof, forming a chamber, with series of inclined tubes extending from the water partition to the crown sheet of the fire box.

2. The combination in a boiler of a fire box; a transverse water partition at the lower end of the fire box some distance from the rear end thereof; a series of tubular grate bars connected to the said partition and to the crown sheet of the boiler, said tubes communicating with the water space of the boiler; and a transverse partition at the upper end of the grate to prevent products of combustion from passing over the grate into the combustion chamber.

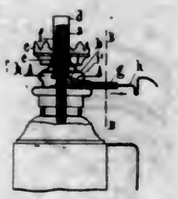


3. The combination in a boiler of a fire box; a transverse water partition at the lower end of the fire box located some distance from the end thereof; a series of water tubes forming a grate, said water tubes communicating at the lower end with the water partition and having vertical portions coupled to the crown sheet of the fire box and communicating with the water space of the boiler, the vertical portions of said tubes being staggered, with fire brick sections held in place by the tubes and forming a partition preventing the passage of the products of combustion over the forward end of the grate.

4. The combination in a boiler, of a fire box; a transverse water partition in the lower portion of the fire box some distance from the rear end thereof and forming a clean out space; a series of inclined water tubes forming a grate and connected to said partition and with the crown sheet of the fire box; a hopper at the lower end of the clean out space having a door; and a trap door at the upper end of said space, so that when the trap door is opened the clinkers and large portions of burned coal may be removed from the surface of the grate and discharged into the hopper.

5. The combination of a locomotive fire box having a crown sheet above the tubes of the boiler; with a series of inclined tubular grates located within the fire box, one end of said tubes being bent up and attached to the crown sheet of the boiler and the other end attached to the boiler at the rear end of the fire box.

1,028,643. ATTACHMENT FOR LAMP-BURNERS. CHARLES VESSIÈRE, Paris, France. Filed Jan. 23, 1912 Serial No. 672,938. (Cl. 67—72.)



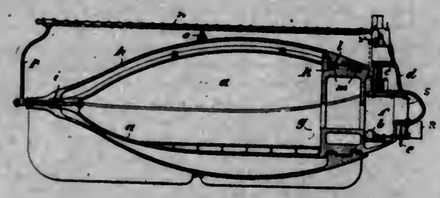
1. In a lamp burner, the combination, with the gallery, its support, and a centrally located sleeve carried by the latter and projecting into the former; of a wick tube arranged concentrically with said sleeve and projecting through the same; an axially-adjustable by-pass tube interposed between said wick tube and said sleeve and having a corrugated sleeve connected to its inner wall; and means for adjusting said by-pass tube.

2. In a lamp burner, the combination, with a gallery, and a support therefor provided with a guide; of a wick tube; an axially-adjustable by-pass tube encircling the same and provided adjacent its lower end with a pair of diametrically-opposed projections; and an element for operating said by-pass tube slidably mounted in said guide and provided at its inner end with a fork whose prongs are upwardly inclined and have guides which are engaged by said projections.

3. In a lamp burner, the combination, with a gallery, a support therefor provided with a guide, and a centrally-located sleeve carried by said support and projecting into said gallery; of a wick tube arranged concentrically with said sleeve and projecting through the same; an axially-adjustable by-pass tube interposed between said sleeve and said wick tube and provided at its lower end with a pair of diametrically-opposed projections; and an element for operating said by-pass tube slidably mounted in said guide and provided at its inner end with a fork whose prongs have oblique guides which are engaged by said projections.

4. In a lamp burner, the combination, with a gallery, a support therefor provided with a guide, and a centrally-located sleeve carried by said support and projecting into said gallery; of a wick tube arranged concentrically with said sleeve and projecting through the same; an axially adjustable by-pass tube interposed between said sleeve and said wick tube and provided at its lower end with a pair of diametrically-opposed projections; a corrugated sleeve secured to the inner wall of said by-pass tube; and an element for operating said by-pass tube slidably mounted in said guide and having at its inner end a fork whose prongs are provided with oblique guides which are engaged by said projections.

1,028,644. NON-CAPSIZING BOAT. JACOB HENDRIK VAN VIERSEN, The Hague, Netherlands. Filed Aug. 26, 1910. Serial No. 579,043. (Cl. 9—4.)

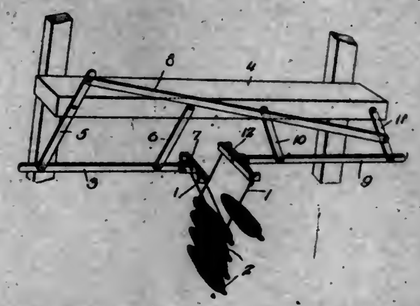


A non-capsizing life boat comprising a nonrevolving hull and a revoluble shell surrounding the same, the rear portion of the hull projecting from the shell upward above the level of the top of the shell and being provided with convenient means of ingress to and egress from the interior of the hull together with a net supported from the hull over the outer shell and extending back to said projecting hull portion.

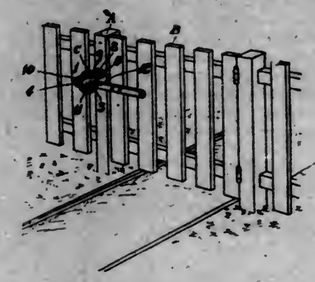
1,028,645. SEED-CORN STRINGER. FRANK E. WEAVER, Corning, Iowa. Filed Dec. 31, 1909. Serial No. 535,802. (Cl. 139—32.)

1. In an appliance of the character specified the combination of oppositely disposed strand crossing members, pivotally supported suspending links for the strand crossing members, one of the links of one of the members being extended beyond its pivot support, and a bar connecting the extension of said link with one of the links of the other member whereby both strand crossing members are simultaneously operated in opposite directions.

2. An appliance of the character set forth comprising a horizontal support, oppositely disposed horizontal bars provided at their inner ends with cross heads, the latter being of different lengths and said horizontal bars being in different horizontal planes, oppositely inclined links pivotally supporting the horizontal bars, one of the links being extended, and a connecting bar between the extension of said extended link and one of the links of the other horizontal bar to cause said horizontal bars to move simultaneously in opposite directions, said cross heads adapted to support strands which in the operation of the appliance are crossed and recrossed.



1,028,646. GATE-LATCH. HARDY T. WILKES, Greenville, Fla., assignor of one-half to J. H. Boyd, Olustee, Fla. Filed Apr. 8, 1911. Serial No. 619,810. (Cl. 70—28.)



In a latch of the class described, a latch plate secured to the gate, a gravity closing ring, a support for the ring, said support comprising spaced parallel side members being formed at their center to provide a horizontally disposed longitudinal fulcrum member, the said member having its ends formed to provide oppositely inclined curved surfaces adapted to engage the inner surface of the said ring and operate as a fulcrum, said surfaces being further adapted to support the ring so as to expose the uppermost portion of the ring opening above the said fulcrum member whereby the finger may be inserted between the ring and said member substantially as and for the purpose described.

1,028,647. FUSE. GEORGE R. WILLETT, Pittsburgh, Pa. Filed Oct. 27, 1911. Serial No. 657,095. (Cl. 175—273.)



1. A cartridge fuse comprising a non-fusible cartridge shell having the ends thereof slotted, transverse sleeves located within the slotted ends of said shell, screws extending through said sleeves, and a soft metal fuse located longitudinally of said shell and having the ends thereof extending through the slots of said shell and around said screws and held in engagement therewith.

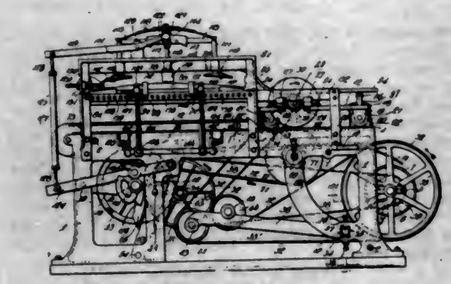
2. A cartridge fuse comprising a non-fusible shell having the ends thereof slotted, caps detachably mounted upon the ends of said shell and having slots registering with the slots of said shell, screws arranged transversely of the ends of said shell and extending through the slots of said shell and the slots of said caps, a fuse arranged longitudinally of said shell and having the ends thereof extending through said slots and around said screws, and means carried by said screws for anchoring the ends of said fuse upon said caps.

3. A cartridge fuse comprising a non-fusible shell having the ends thereof provided with slots, caps detachably mounted upon the ends of said shell and having slots communicating with the slots of said shell, transverse screws arranged in the ends of said shell and extending through the slots of said shell and said caps, a fuse arranged within said shell and having the ends thereof extending through said slots and engaging said screws, nuts screwed upon said screws for retaining the ends of said fuse in engagement with the outer sides of said caps, and means surrounding said screws within said shell for bracing the walls of said shell during the screwing action of said nuts.

4. A cartridge fuse comprising a shell having the ends thereof slotted, screws arranged transversely of said shell and extending through the slots of said shell, a fuse arranged longitudinally within said shell and having the ends thereof extending through the slots of said shell and in engagement with the ends of said screws, nuts screwed upon the ends of said screws for retaining the ends of said fuse in engagement therewith, and means surrounding said screws within said shell for bracing the walls of said shell during the screwing action of said nuts.

5. A cartridge fuse comprising a shell having the ends thereof slotted, screws arranged transversely of said shell and extending through the slots of said shell, and a fuse located longitudinally of said shell and having the ends thereof extending through the slots of said shell and held in engagement with one end of each screw.

1,028,648. STAVE-JOINTING MACHINE. PERRY HAZARD WILLIAMS, Memphis, Tenn., assignor of one-half to G. Gronauer, Memphis, Tenn. Filed May 5, 1911. Serial No. 625,201. (Cl. 147—34.)



1. A stave jointing machine comprising a main supporting frame, a saw carriage adapted to travel on said frame, a saw operatively mounted in said carriage, a stave holding plate having its upper surface curved from the center toward its ends and inclined outwardly, spring stave receiving devices adapted to hold the stave substantially horizontal when first placed in position on said plate, a stave shifting mechanism adapted to move the stave evenly across said receiving devices and into engagement with said plate, an adjustable end gage adapted to receive the ends of the staves when placed on said receiving devices, and means to bend and clamp the staves down into operative engagement with said holding plate.

2. A stave jointing machine comprising a main supporting frame, a saw carriage adapted to travel on said frame, a saw operatively mounted in said carriage, a transversely notched stave holding plate having its upper surface curved from the center toward its ends, spring stave receiving devices standing normally above said notches and adapted to hold the stave when first placed in position in the supporting mechanism, a stave shifting mechanism adapted to move across said receiving devices and into engagement with said plate, and means to bend and clamp the staves down into operative engagement with said holding plate.

3. A stave jointing machine comprising a main supporting frame, a carriage movable thereon, a saw operatively mounted on the carriage, work-supporting mechanism including a vertically movable clamp and beneath it a stave-holding plate having its operative surface curved longitudinally and inclined laterally and provided with two transverse notches, and stave-receiving devices adapted to hold the stave substantially horizontal when first placed in position upon said work-support, the same comprising upright plates having slotted lugs, set screws engaging the slots of said lugs for supporting the plates, and springs secured at one end to one extremity of the plates with their other ends lying out of contact with the other extremities thereof, said extremities lying in the notches and the free ends of the springs standing above them, for the purpose set forth.

4. A stave jointing machine comprising a main supporting frame, a saw carriage adapted to travel on said frame, a saw revolubly mounted in said carriage, a work holding plate, stave receiving devices adapted to coact with said holding plate to support a stave when first placed thereon, a gage adapted to indicate the saw line, said gage comprising a stationary attaching plate, a stave engaging plate hingedly connected to said attaching plate, a spring to hold said stave engaging plate in position to form a yielding stop for the stave, and automatically operated stave clamping devices adapted to bend and clamp the stave down upon said holding plate after said stave has been adjusted in position thereon.

5. A stave jointing machine comprising a main supporting frame, a saw carriage adapted to travel on said frame, a saw operatively mounted in said carriage, a work holding plate having its upper surface curved from the center toward its ends and inclined outwardly and downwardly to support a stave in position wherein the saw will cut the edges of the stave on a bevel, clamping devices adapted to bend the ends of the stave down and clamp the same in position on said holding plate, adjustable stave receiving bars, stave receiving springs secured to said bars and adapted to receive and hold the staves in position to be bent down and clamped by said clamping members, and means to shift the stave evenly across said receiving devices and in position to be engaged by the saw.

[Claims 6 and 7 not printed in the Gazette.]

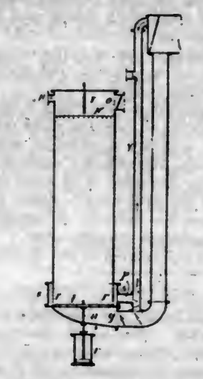
1,028,649. STICK. EMIL WITZENMANN, Pforzheim, Germany. Filed Mar. 18, 1912. Serial No. 684,384. (Cl. 135—45.)



1. A stick comprising a spirally wound metal tape provided with edges movably interlocking, elastic means disposed within said spirally wound tape, and means connected at the opposite ends of said elastic means and bearing against the opposite ends of said spirally wound tape.

2. A stick comprising a spirally wound metal tape provided with edges movably interlocking, a coiled spring axially of said spirally wound tape, means for connecting the ends of said spring with the ends of said tape, and a jacket around said coiled spring.

1,028,650. PROCESS OF DIFFUSION. PETER JACOB WOLFF, Bedburg, Germany. Filed Dec. 24, 1910. Serial No. 599,146. (Cl. 127—8.)



The process of extracting juice from beet chips by lixiviation in which the diffusion juice and the chips travel in opposite directions, consisting in making a fluid mixture of the chips and diffusion juice, forming a vertical column composed of such mixture, feeding water to the upper part of the column withdrawing the extract of juice from the lower end of the column feeding fresh portions of the mixture of chips and diffusion juice to the column from below and withdrawing the exhausted chips from the top of the column as they are forced upward by the entering mixture.

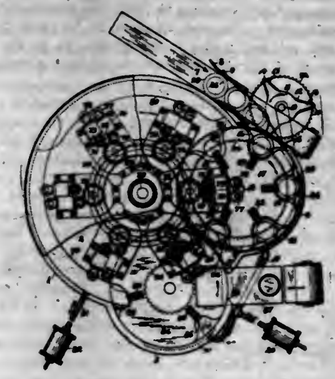
1,028,651. CLAMP. GEORGE M. WRIGHT, Worcester, Mass., assignor to Wright Wire Company, Worcester, Mass., a Corporation of Massachusetts. Filed Jan. 16, 1911. Serial No. 602,851. (Cl. 39—79.)



A clamp, arranged to hold wires crossing at right angles, having a central longitudinal division to engage one of said wires and loops for embracing the other of said wires at right angles to said first wire, said loops having oblique inner edges with the inner corners arranged to contact with the sides of the wire lying between them.

1,028,652. DOUBLE-SEAMING AND VACUUMIZING MACHINE. LUDWIG WURZBURG, San Francisco, Cal. Filed Sept. 25, 1908. Serial No. 454,811. (Cl. 118—23.)

1. In a continuous rotary double seaming machine, the combination with a continuously rotating carrier having a plurality of can body receiving pockets, of a plurality of axially rotatable can holder chucks mounted on said carrier, a plurality of sets of double seaming rollers mounted on said carrier, and direct pressure means for actuating said seaming rollers as the carrier rotates, an external annular gear for rotating said carrier, a central driving shaft extending axially through said rotary carrier, and connecting gearing for communicating motion from said central driving shaft to said annular external gear on the carrier, substantially as specified.



2. An apparatus of the character described, having a chamber, means for exhausting air from said chamber, a rotary can carrier in said chamber, means for rotating said carrier, means for introducing cans in succession into said chamber while maintaining a vacuum therein, means for causing said cans to be engaged by said carrier to be transported thereby, and means for seaming said cans while being so carried, substantially as described.

3. In a vacuumizing and double seaming machine, the combination of a seaming chamber, a vacuumizing chamber, means for feeding a can to said vacuumizing chamber, mechanism for feeding said can from said vacuumizing chamber to said seaming chamber, provided with means for preventing the passage of free air through said vacuumizing chamber to said seaming chamber, means in the latter chamber for seaming the can, means for producing a vacuum in the vacuumizing chamber, and means for maintaining the vacuum in the seaming chamber, substantially as described.

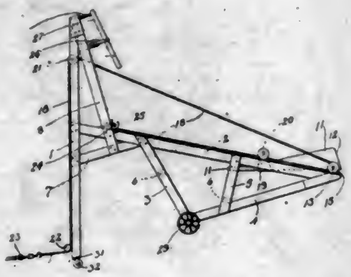
4. In a vacuumizing and seaming machine, the combination of a vacuumizing chamber, means for feeding cans and tops thereinto, and for depositing the tops upon the cans, means for producing a vacuum therein, a seaming chamber, means for maintaining a vacuum therein, mechanism for transporting a can with the top thereon from said vacuumizing to said seaming chamber, said mechanism being provided with means for preventing the passage of free air through the vacuumizing chamber to the seaming chamber, and means in said latter chamber for seaming the tops upon the cans therein, substantially as described.

5. In a vacuumizing and seaming machine, the combination of a vacuumizing chamber, means for producing a vacuum therein, means for feeding cans thereinto in succession, a seaming chamber, means for maintaining a vacuum therein, means for introducing tops into the seaming chamber, mechanism for transporting the cans in succession from the vacuumizing into the seaming chamber, said mechanism being provided with means for preventing the passage of free air through said vacuumizing into the seaming chamber, and means in said seaming chamber for seaming the tops upon the cans, substantially as described.

1,028,653. LOADER. FRED ZURBUCHEN, Alta Vista, Kans. Filed Apr. 14, 1911. Serial No. 621,013. (Cl. 214—10.)

1. A loader, comprising a frame including an inclined track, a carrier, grooved rear wheels rotatably secured to the carrier at the rear thereof, brackets upstanding from the carrier, grooved wheels rotatably secured to the brack-

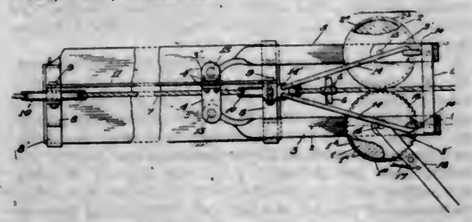
ets, said wheels being adapted to engage the inclined track in their grooves, cables secured to the frame and extending under the wheels of the carrier and reversely over sheaves, sheaves secured to the top and bottom of the frame for engaging said cables, resilient abutments for engaging the wheels of the carrier brackets to limit the movement thereof, and resiliently supported abutments for engaging the carrier when swung on the front wheels as pivots to absorb the shock of the checking of the pivotal movement of the carrier.



2. A loader, comprising a frame including an inclined track, a carrier having grooved wheels riding on said track, yoke shaped resilient abutments near the upper end of the track for engaging the front wheels of the carrier to limit its forward movement, sheaves secured to the upper and lower ends of the frame, cables having one end secured to the frame and the other passing over the sheaves, the intermediate portions of said cables being adapted to rest upon the tracks and pass under the wheels of the carrier in their loops, whereby when the cable is tightened the carrier will be swung upward on its front wheels as pivots, arms projecting from the frame, levers pivoted to the arms and depending into the path of movement of the carrier when upwardly swung, and springs having one end secured to the frame and the other to the upper end of the levers to absorb the shock when the carrier strikes said levers.

3. A loader comprising a frame including a track, a carrier, grooved wheels rotatably secured to the carrier, cables extending over the tracks and under the wheels of the carrier and reversely to the frame whereby when the cables are tightened the carrier will travel upon the tracks as and for the purpose set forth.

1,028,654. CRIMPING APPLIANCE. WILLIAM H. ADDISON, Seattle, Wash., assignor of one-half to David R. Jones, Seattle, Wash. Filed Aug. 22, 1910. Serial No. 578,481. (Cl. 153—28.)



1. A crimping appliance comprising a supporting means adapted for traversing a suspended cable track, pressure members mounted on said means for engaging therebetween attachments applied to and engaging over said track, said members being provided with coacting surfaces extending over and beneath the track for clenching the attachments.

2. An appliance for crimping an attachment applied to a cable track comprising a supporting means adapted for traversing the track, and pressure means arranged to extend alongside the track and provided with active faces for engagement with the attachment both above and below the track.

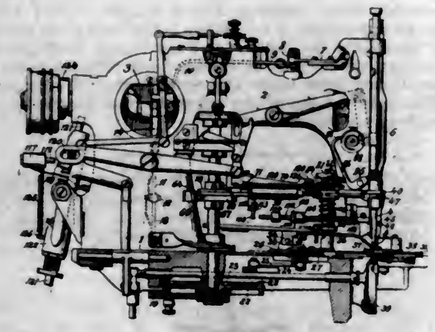
3. An appliance for crimping an attachment applied to a cable track comprising a supporting means adapted for traversing the track, and pressure means arranged to extend alongside the track and provided with active faces for engagement with the attachment both above and below the track, said members being free for rotation to permit of partial insertion of the attachment therebetween.

4. A crimping appliance comprising a supporting means adapted for traversing an elevated cable track, means on said supporting means for bending attachments applied to said track including opposing pressure members rotatably supported on said supporting means and having grooved peripheral portions for reception of said track therein, and means for applying one of said pressure members to bend attachments on said track and simultaneously advance said supporting means.

5. A crimping appliance comprising a supporting means adapted for traversing an elevated cable track, and spaced rotatable pressure members mounted on said means for engaging therebetween attachments applied to said track, said members being provided with coacting grooved surfaces for bending the attachments about said track, said members being free for rotation to permit of partial insertion of an attachment therebetween.

[Claims 6 to 10 not printed in the Gazette.]

1,028,655. THREAD-CUTTING MECHANISM FOR SEWING-MACHINES. EDWARD B. ALLEN and JOHN C. RINGE, Bridgeport, Conn., assignors to The Singer Manufacturing Company, a Corporation of New Jersey. Original application filed Aug. 7, 1908, Serial No. 447,381. Divided and this application filed June 17, 1909. Serial No. 502,713. (Cl. 112—33.)



1. In a sewing machine, the combination with overseaming stitch-forming mechanism including a thread-carrying needle, and feeding mechanism for moving the work in different directions in relation to the stitch-forming mechanism, of a purl-thread guide, means for maintaining the same in advance of the stitch-forming mechanism with relation to the direction of feed, and means connected with the feeding mechanism and deriving therefrom feeding movements relative to the stitch-forming mechanism whereby both the needle-thread and the purl-thread are severed at the end of a stitching operation.

2. In a sewing machine, the combination with overseaming stitch-forming mechanism including a thread-carrying needle, and feeding mechanism, of a purl-thread guide coöperating with the stitch-forming mechanism in the production of a corded overseam, and means including a movable member and a plurality of separate thread-engaging shoulders adapted for coöperation therewith at different distances from an extremity of its operative portion, whereby the needle-thread and purl-thread respectively, may be successively nipped and severed.

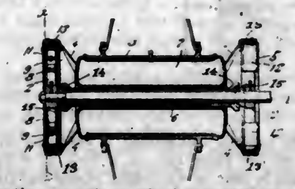
3. In a sewing machine, the combination with overseaming stitch-forming mechanism including a thread-carrying needle, and feeding mechanism, of a purl-thread guide coöperating with the stitch-forming mechanism in the production of a corded overseam, and means including a movable member and a plurality of separate thread-engaging shoulders upon the same side thereof and a thread-separating finger intermediate said shoulders for nipping the needle- and purl-threads and for severing the same.

4. In a sewing machine, the combination with overseaming stitch-forming mechanism including a thread-carrying needle, and feeding mechanism, of a purl-thread guide coöperating with the stitch-forming mechanism in the production of a corded overseam, and means including a plurality of thread-engaging shoulders of which one is adapted to yield relatively to another for nipping respectively the needle- and purl-thread and for severing the same.

5. In a sewing machine, the combination with overseaming stitch-forming mechanism including a thread-carrying needle, and feeding mechanism, of a purl-thread guide coöperating with the stitch-forming mechanism in the production of a corded overseam, and means including a thread-separating implement adapted to engage upon opposite edges thereof respectively the needle-thread and purl-thread, and a common cutting blade for severing both the needle-thread and the purl-thread at the end of a stitching operation.

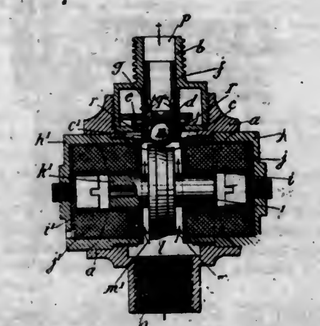
[Claims 6 to 11 not printed in the Gazette.]

1,028,656. PNEUMATIC HUB. NORMAN E. ANDRIE, Centerville, Md. Filed Oct. 31, 1911. Serial No. 657,758. (Cl. 152—40.)



In combination an axle, a wheel mounted upon the axle, an interposed cushion between the hub of the wheel and the axle, supports secured to the axle and comprising radial arms, spaced rings arranged upon opposite sides of the supports, said rings being connected at intervals at their outer edges, spring arms connecting the rings with the hub portion of the wheel, swinging frames located between the rings and provided with rollers at their free ends to engage the arms of the supports, and springs for pressing adjacent swinging frames apart.

1,028,657. DEVICE FOR CONTROLLING FROM A DISTANCE THE PASSAGE OF GAS. ALBERT MAURICE AUBERT and JEAN MARCEL AUBERT, Billancourt, France. Filed Aug. 19, 1908. Serial No. 449,354. (Cl. 137—4.)



1. Mechanism for controlling gas from a distance, comprising a casing, tubes attached thereto for the admission and escape of gas, a cut-off valve, a spring to press said valve on its seat, a freely and axially movable body having a conical surface of revolution between cylindrical surfaces of different diameters axial therewith, said body maintained distant from the walls of the casing to permit the passage of gas around and past the body under all conditions of operation, a round faced member between said body and valve, and means controlled from a distance for moving the entire cylindro-conical surface in one direction or the other.

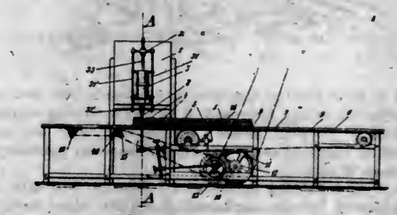
2. Mechanism for controlling gas from a distance, comprising a casing, pipes attached thereto for the admission and escape of gas, a cut-off valve, a spring to press the valve on its seat, a freely and axially movable member having a conical surface of revolution between cylindrical portions of different diameters and co-axial therewith, a ball between said member and valve, cylindrical bearings mounted on opposite sides of the cylindro-conical body and co-axial therewith, two electro-magnets adapted to be controlled from a distance by a source of current, and cores attached to the cylindro-conical body movable in said bearings.

3. Means for controlling the passage of gas from a distance, comprising a casing, pipes attached thereto for the admission and escape of gas, a cut-off valve, a body of revolution free to move, composed of a central conical part and two lateral cylindrical parts of different diameters, a freely movable ball interposed between the body of revolution and the valve, an electro-magnet on each side of the body, and cores for said magnets mounted on the opposite faces of said body and co-axial therewith.

4. Means for controlling the passage of gas from a distance, comprising a casing, tubes on the casing for the admission and escape of gas, a valve, a seat for said valve, a freely movable cylindro-conical body of revolution, a ball interposed between said body and the valve, a socket formed on the seat of the valve and in which said ball is mounted and is free to move both laterally and vertically, electro-magnets on the respective sides of the body, and cylindrical cores on the opposite faces of the body.

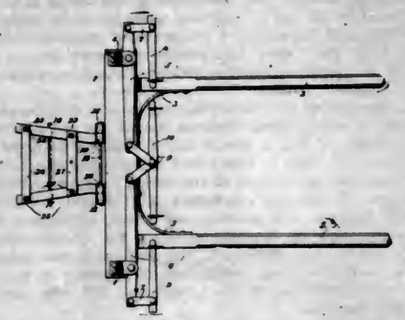
5. In apparatus for controlling gas from a distance, the combination with a spring-urged valve; of a member having a conical portion with cylindrical portions of different diameters on the respective sides of said conical portion, a ball free to rotate in any direction between the valve and conical portions, and means controlled from a distance to axially move said member to cause the ball to open the valve and permit it to close.

1,028,658. SOAP-FILLING MACHINE. RUDOLPH BALHORN, Breslau, Germany. Filed Nov. 25, 1910. Serial No. 594,151. (Cl. 226—9.)



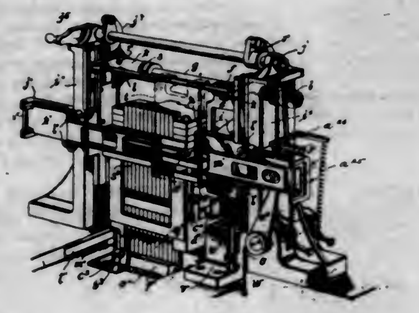
In a device of the character described, the combination of a pump for periodically discharging viscous liquid, adjustable means for regulating the extent of the piston travel of said pump, means for admitting the viscous liquid to said discharging means by its own gravity and the suction of the pump only, and means for intermittently feeding trays carrying receptacles up to and away from the discharge opening of said pump, means for regulating the extent of said intermittent feeding movement, and hammering means, striking the filled receptacles from below, the parts all constructed, arranged and coöperating substantially as set forth.

1,028,659. ADJUSTABLE STUB-HOUNDS FOR WAGON-TONGUES. HAROLD BALL, Ball, Kans. Filed Jan. 25, 1911. Serial No. 604,642. (Cl. 21—36.)



In combination with a tongue stay bar, longitudinally adjustable draw-bars secured thereto, said draw-bars having their body portions provided with elongated slots, means passed through the slots and engageable with the said bar for holding the draw-bars in adjusted position, eyes formed on the inner ends of the draw-bars, stub hounds adapted to be clamped between the hounds of a wagon, eyes formed on the outer ends of the stub hounds, and said eyes being pivotally connected to the eyes on the draw-bars.

1,028,660. TYPE CASTING AND COMPOSING MACHINE. ERNEST B. BARBER, Brooklyn, N. Y., assignor, by mesne assignments, to International Typesetting Machine Company, New York, N. Y., a Corporation of New York. Filed May 31, 1910. Serial No. 564,290. (Cl. 101—200.)



1. In a type casting machine, a keyboard, two sets of stops adjusted by the keyboard, a two-way moving matrix plate, and a stopping element coöperating with one set of keyboard adjusted stops to arrest a one-way movement of the matrix plate.

2. In a type casting machine, a keyboard, two sets of stops adjusted by the keyboard, a matrix plate having movement in two directions in angular relation, and a stopping element coöperating with one set of the keyboard adjusted stops to arrest the movement of the matrix plate in one direction, the matrix plate having movement in the other direction independent of the stopping element.

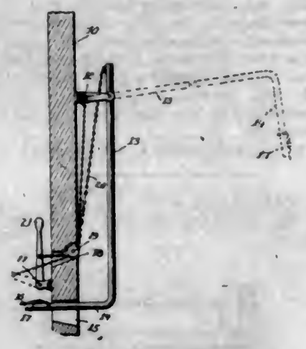
3. In a type casting machine, a keyboard, two sets of stops adjusted by the keyboard, a two-way moving matrix plate, a stopping element coöperating with one set of the keyboard adjusted stops to arrest a one-way movement of the matrix plate from its normal position, and means to restore the matrix plate to its normal position.

4. In a type casting machine, a keyboard, two sets of stops adjusted by the keyboard, a two-way moving matrix plate, a stopping element coöperating with one set of the keyboard adjusted stops to arrest a one-way movement of the matrix plate, and means for returning the keyboard adjusted stops.

5. In a type casting machine, a keyboard, two sets of stops adjusted by the keyboard, a two-way moving matrix plate, a stopping element coöperating with one set of the keyboard adjusted stops to arrest a one-way movement of the matrix plate, and means for tensioning the keyboard adjusted stops.

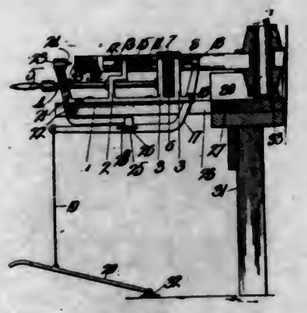
[Claims 6 to 44 not printed in the Gazette.]

1,028,661. TICKET-HANDLER. JAMES E. BARNABA, Douglas, Ill. Filed Mar. 21, 1912. Serial No. 685,166. (Cl. 232—1.)



A ticket handler comprising a swinging arm pivotally mounted on the outer face of a wall of a building, said wall having a pair of vertically alined openings, angular extensions on the free end of the arm for projecting through the lower end of the said opening, a spring clip on the extension, a chain secured at the opposite end of the arm, and passing through the upper of the said openings, and a handle on the chain, located on the inner side of the wall, whereby when a ticket is placed under the clip, and the chain pulled, the arm will be swung up to present the ticket within convenient reach of the driver of a wagon.

1,028,662. WHEEL-TIRE BOLTER. MILES K. BARRON, Coffeyville, Kans. Filed Sept. 14, 1910. Serial No. 582,069. (Cl. 81—36.)



1. A wheel tire bolter, comprising a base plate provided with a plurality of upwardly projecting bearing arms, a slidable shaft journaled in said arms and provided at its front end with a wrench head, a spring for exerting pressure in opposite directions on one of said bearing arms and the shaft to hold the latter yieldingly at one end of its slidable movement, a lever pivoted to said base plate provided with a head for engaging and holding a rotatable object against turning movement, said head being disposed in axial alinement with and forward of said shaft, a lever engaging the rear end of said shaft for forcing the same forward, said levers having a pin and slot connection below the base plate, means connected to one of the levers for imparting movement to both, and means for imparting rotation to said shaft.

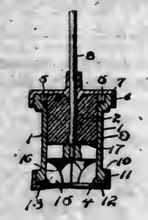
2. A wheel tire bolter, comprising a base plate having a plurality of upwardly projecting arms, a shaft journaled and slidable edwise in said arms and of reduced diameter at its rear extremity to form a rearwardly disposed annular shoulder, and provided at its front extremity with a hollow head of angular form internally in cross section and provided in the bottom wall of said head with an opening, a spring exerting pressure in opposite directions upon one of said arms and said shaft to hold the latter yieldingly at its rearmost position of sliding adjustment, an angle lever arranged to operate in a vertical plane and pivoted to the rear end of the base plate and provided at its upper end with an upright slot receiving the reduced end of the shaft with the shoulder of the latter engaging the slotted end of the lever at opposite sides of the slot, a second angle lever pivoted to the front end of the base plate for movement in a vertical plane and provided at its upper end with a head alined with and forward of said shaft and adapted to engage and hold a rotatable object from turning and having a pin and slot connection at its opposite end with the first-named angle lever, a foot treadle connected to the said first-named lever, and means for rotating the said shaft.

3. The combination with a suitable support of a bar mounted thereon and projecting forwardly therefrom and provided in its projecting edge with a longitudinal slot and provided rearward of said slot with upwardly projecting walls as a support for a horizontally arranged wheel, a base plate mounted on the bar with arms projecting upward between adjacent spokes of the said wheel, a longitudinally slidable shaft journaled in said arms extending radially of the wheel between said adjacent spokes and provided forward of the foremost bearing with a hollow head susceptible of non-rotatably receiving a nut at the inner side of the felly of the wheel, yielding means for holding said shaft with its hollow head rearward of said nut, a cog wheel mounted slidingly and non-rotatably on said shaft between a pair of said bearing arms, a lever pivoted to the base plate and susceptible of sliding said shaft forwardly until its head receives said nut, a second lever pivoted to said base plate and provided with a rearwardly projecting screw-driver point for engagement with the nick of the head of the bolt carrying said nut, a pin and slot connection between the opposite end of the lever and the first-named lever forward of the pivotal point of the latter, means for operating said levers, a second shaft journaled in said bearing arms and provided at its front end with a handle, and a cog wheel secured upon said shaft between a pair of said bearing arms and engaging the first-named cog wheel.

1,028,663. SALT-SHAKER. CARL ESSLINGER BAUERMEISTER, Terre Haute, Ind. Filed Oct. 7, 1911. Serial No. 653,305. (Cl. 65—45.)

1. In a salt shaker, a housing designed to receive a cake of salt, a shaft arranged in said housing and projecting therefrom, a plunger rigidly connected with said shaft formed with a knife edge on its upper surface, and a cap for said housing formed with an opening of substantially the same shape as said plunger, and adapted to be closed by said plunger.

2. In a salt shaker of the class described, a housing adapted to receive a cake of salt, a plunger arranged in said housing formed with knives on its upper edge for engaging said salt and removing the particles therefrom when rotated, means for rotating said plunger, a closure for one end of said housing formed with a body portion, and a plurality of lugs extending therefrom radially toward the center but falling short of the center, whereby an aperture is defined, said lugs being of such a shape as to define an aperture of such size and shape as to be closed by said plunger, and a clamping member arranged to clamp said end closure in place.

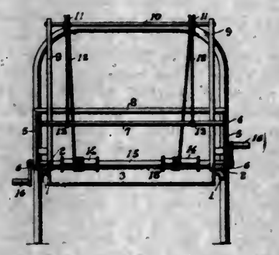


3. In a salt shaker of the class described, a housing designed to receive a cake of salt, means for preventing said salt from rotating, an upper cap formed with an aperture therein, a shaft projecting through said upper cap and through said cake of salt, a plunger rigidly connected with said shaft formed with a knife edge on its upper surface, and a lower cap for said housing formed with an opening of substantially the same shape as said plunger and adapted to be closed by said plunger.

4. In a salt shaker of the class described, a housing adapted to receive a cake of salt, means for preventing the rotation of said cake of salt, a plunger formed with knives on the upper edge for engaging said cake of salt and removing particles therefrom when rotated, means for rotating said plunger, and a cap formed with an aperture therein for receiving and distributing the salt removed from said cake, said cap comprising a body portion and a plurality of lugs, the space between said lugs forming said aperture and accommodating the lower edge of said plunger, the lower edge of said plunger being adapted to close said aperture.

5. In a salt shaker of the class described, a housing adapted to receive a cake of salt, a substantially star shaped plunger arranged in said housing formed with knife edges on the upper side, means for moving said plunger against said cake of salt and then rotating the same for removing particles of salt, and a cap arranged below said plunger, said cap being formed with a star shaped opening, said opening flaring outwardly from the lower edge to the upper edge of said cap and accommodating the lower edge of said plunger for being closed thereby and for receiving and distributing particles of salt removed by said plunger.

1,028,664. INVALID'S REST. FRANK I. BELLES, Noxen, Pa. Filed Sept. 20, 1911. Serial No. 651,327. (Cl. 5—43.)



The combination with a bedstead, of a substantially U-shaped rest having its arms pivoted upon the side members of the bedstead, a pair of vertical members which project between the side arms and the U-shaped rest, a

top connecting member for the said vertical members, sheave wheels upon the connecting member, a shaft mounted in bearings arranged below the connecting member, said shaft being provided with drums, flexible members secured to the U-shaped rest and passing through the sheave wheels and secured to the drums, means for rotating the shaft, means for locking the shaft against rotation, and a bed-bottom fabric for the rest and for the bedstead.

1,028,665. PUMP. ACHILLE BERTELLI, Brescia, Italy. Filed Dec. 31, 1910. Serial No. 600,346. (Cl. 103—54.)



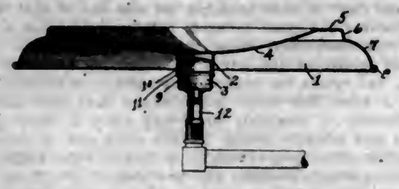
1. In a pump of the class described, the combination of a well tube, a pipe fitting in the well tube and communicating with the latter, means for sealing the upper end of the well tube, a suction pump connected with the pipe, an upwardly tapered air injecting tube centrally disposed in the pipe, and means for forcing a continuous supply of air through the tapered air injecting tube.

2. In a pump of the class described, the combination of a well tube formed at its bottom with openings for the admission of water, a seal at the upper end of the well tube, a pipe extending in the well tube and communicating with the water in the bottom of the latter, said pipe being spaced from the well tube, an upwardly tapered air injecting tube centrally disposed near the bottom of the pipe, a pipe connecting the upwardly extended air injecting tube and the space formed between the well tube and the pipe, a suction pump communicating with the upper end of the pipe, and an air pump for supplying air to the space between the pipe and the well casing to supply air to the air injecting tube.

3. In a pump of the class described, the combination of a well tube formed at its bottom with openings for the admission of water, a seal at the upper end of the well tube, a pipe extending in the well tube and communicating with the water in the bottom of the latter, said pipe having a restricted portion, to form a valve seat, a valve coöperating with the valve seat, said pipe being spaced from the well tube, an upwardly tapered air injecting tube centrally disposed near the bottom of the pipe and below the valve, a pipe connecting the air injecting tube and the space formed between the pipe and the well tube, an air pump for supplying said space with air, and a regulating valve on said air pump.

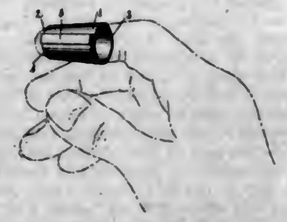
4. In a pump of the class described, the combination of a well tube, formed at its bottom with openings, a pipe extending into the well tube and communicating with the water therein, an air injecting tube coöperating with the pipe to lift water therein, a suction pump communicating with the pipe, and an air pump to supply air to the air injecting tube.

1,028,666. GAS-HEATER. LEWIS F. BETTS, New York, N. Y., assignor to Abbot A. Low, Horseshoe, N. Y., and Maurice J. Wohl and Harry Hertsberg, Brooklyn, N. Y., trustees. Filed Mar. 25, 1910. Serial No. 551,412. (Cl. 158—108.)



A burner of the class described comprising a hollow body forming a reservoir adapted to receive gas accumulated under pressure therein, said body consisting of upper and lower cup-shaped members, the open end portions of which are formed with annular pressed-out projections engaging one another concentrically to thereby connect the two members of the body together so that the upper member forms a closure for the upper end of the lower member, the lower member being provided with a plurality of orifices in its sides forming radially extending jets and said jets being unobstructed so as to permit burning of the gas as it issues therefrom without previous admixture with air.

1,028,667. CUTTING DEVICE. CHARLES FREDERICK BILLAU, Cedar Rapids, Iowa. Filed Oct. 17, 1911. Serial No. 655,112. (Cl. 30—14.)



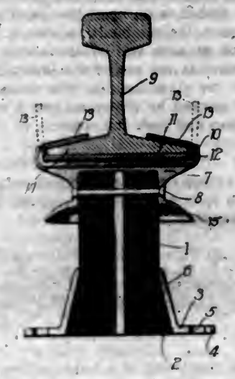
A device of the class described comprising a frusto-conical member of integral sheet metal construction adapted to be positioned on a finger, a portion of the said member being flattened, whereby a plane surface is provided, a U-shaped holder carried thereby, one side of the said holder being secured throughout its length to the said flattened portion, together with a blade positioned between the sides of the said U-shaped holder, the said plane surface of the frusto-conical member on the inside of the holder tending to prevent the device from turning when it is positioned on a finger.

1,028,668. SUPPORT FOR THIRD RAILS. EDWARD J. BLAIR, Chicago, Ill. Filed Sept. 2, 1911. Serial No. 647,377. (Cl. 191—1.)

1. A support for third rails, comprising a standard, a cap secured to the upper end thereof and adapted to support a rail thereon, said cap having a slot extending therethrough transversely of the rail, and a clamping member adapted to be inserted into said slot and to have the ends thereof bent over to engage the rail.

2. A support for third rails, comprising a standard, a cap secured to the upper end thereof and adapted to support a rail thereon, said cap having a slot extending therethrough transversely of the rail, a clamping member adapted to be inserted into said slot and to have the ends thereof bent over to engage the rail, and shoulders at opposite sides of said clamping member adapted to abut against the edges of the rail.

3. A support for third rails, comprising a standard, a cap secured to the upper end of said standard, and adapted to support a rail thereon, spaced integral shoulders on opposite sides of said cap adapted to abut against the edges



of the rail, said cap having a slot extending therethrough between said shoulders, and a clamping member adapted to be inserted into said slot and to have the ends thereof bent over to engage and secure the rail.

1,028,669. PROCESS OF PRESERVING OR COOKING FRUITS OR VEGETABLES. FRIEDRICH BLASSNECK and AMÖNE BLASSNECK, Seesen, Germany. Filed Dec. 1, 1911. Serial No. 663,259. (Cl. 99—8.)

1. The herein described method of preserving or cooking fruits and vegetables, which consists in treating the fruits or vegetables with a solution of an oxid of an alkaline earth metal, to set the natural color in the skin and pulp thereof and boiling the same.

2. The herein described method of preserving or cooking fruits and vegetables, which consists in treating the fruits or vegetables with a solution of caustic lime, to set the natural color in the skin and pulp thereof and boiling the same.

3. The herein described method of preserving or cooking fruits and vegetables, which consists in boiling the fruits or vegetables, treating the same with a solution of an oxid of an alkaline earth metal, to set the natural color in the skin and pulp thereof, and boiling the same.

1,028,670. PACKING-TABLE. WILLIAM E. BROCK and STEPHEN H. HUBBARD, Chattanooga, Tenn. Filed Mar. 9, 1911. Serial No. 613,294. (Cl. 45—26.)



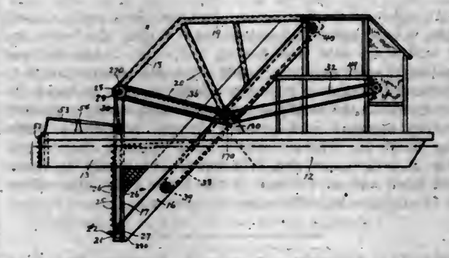
1. In a packing table, an outer fixed rim, a central fixed support having a horizontally flat unobstructed top surface elevated above the rim and always remaining at the same elevation, a rotatable annular carrier between the said rim and support and having its upper surface on a fixed level with the upper surface of said support and surrounding the latter, and a pedestal for the table as a whole and located centrally with respect to the latter, the space under the fixed rim being clear.

2. In a packing table, an outer fixed rim, a central fixed support having a horizontally flat unobstructed top surface always remaining at the same elevation and disposed above the plane of the rim, a rotatable annular carrier between the said fixed rim and support and having its upper surface on a level with the upper surface of said support and provided with a plurality of vertical partitions extending transversely thereover in radial planes to form spaces which are fully open at their outer and inner extremities and upper portions to receive receptacles containing candy or material to be packed, and a pedestal for supporting the table as a whole.

3. In a packing table, an outer fixed rim, a central fixed support having a horizontally flat unobstructed top surface elevated above the rim and always remaining at the same elevation, a rotatable annular carrier between the said rim and support and having its upper surface on a level with the upper surface of said support and surrounding the latter, a pedestal for the table as a whole and located centrally with respect to the latter, the space under the fixed rim being clear, and means for maintaining a regular rotation of the carrier.

4. In a packing table, an annular rotatable carrier having a plurality of radially arranged inwardly converged partitions disposed on the upper surface thereof and extending fully across the same, the spaces between the partitions being open at their inner and outer extremities and at their top portions to receive receptacles containing candy or material to be packed, the said receptacles being prevented from being pushed inwardly beyond the inner terminals of the partitions, combined with a fixed rim arranged outside of the carrier and below the plane of the latter to hold packing receptacles to receive the candy or material from the receptacles held between the partitions.

1,028,671. MARINE HARVESTER. REUBEN BROOKS, Gloucester, Mass. Filed Mar. 11, 1912. Serial No. 683,180. (Cl. 56—70.)



1. The combination with a marine vessel, of harvesting mechanism movably supported thereby to cut material below the surface of the water, means for elevating the submerged material cut by the harvesting mechanism, and means for respectively submerging or raising said harvesting mechanism and said elevating means.

2. The combination with a marine vessel, of a frame pivotally supported by said vessel to cut material below the surface of the water, harvesting mechanism carried by said frame, means carried by said frame for elevating the submerged material cut by the harvesting mechanism, and means for rocking said frame to respectively submerge or raise said harvesting mechanism and said elevating means.

3. The combination with a marine vessel, of a movable frame supported thereby, harvesting mechanism movably supported by said frame to cut material below the surface of ported by said frame to cut material below the surface of the water, a conveyer also carried by said frame for elevating the submerged material cut by the harvesting mechanism, and means for moving said frame to respectively submerge or raise said harvesting mechanism.

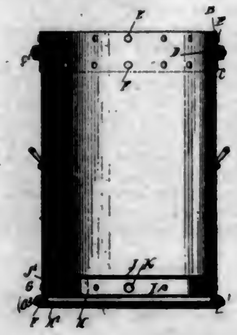
4. The combination with a marine vessel, of harvesting mechanism supported thereby, means for elevating the submerged material cut by the harvesting mechanism, and means for simultaneously submerging or elevating said

harvesting mechanism and the receiving end of said elevating mechanism.

5. The combination with a marine vessel, of a movable frame supported thereby, harvesting mechanism carried by said frame to cut material below the surface of the water, a conveyer also carried by said frame for elevating the submerged material cut by the harvesting mechanism, and means for moving said frame to respectively submerge or raise said harvesting mechanism and said conveyer, a motor, connections between the motor and cutting mechanism having provisions for imparting movement to the cutting machinism when the frame is in different positions.

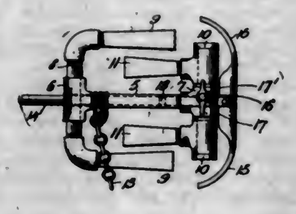
[Claims 6 to 15 not printed in the Gazette.]

1,028,672. NOISELESS ASH-CAN. AUGUST M. H. DE BRUYCKER, New York, N. Y. Filed Sept. 7, 1911. Serial No. 648,023. (Cl. 220—34.)



An ash can comprising a cylindrical body open at both ends, a base extending within, and closing the lower end of said body, said base having a circular flange disposed against the extreme lower body edge, and terminating in an outwardly bent and inwardly curved portion, a band disposed around the inside of said flange and having a grooved portion opposite said grooved flanged portion, a buffer ring partially disposed within said opposite curved portion of said flange and said band, and means to secure said band and said flange to the lower body edge whereby to clamp said buffer ring in position.

1,028,673. ANCHOR. THOMAS B. BUTTERS, New York, N. Y. Filed Dec. 19, 1911. Serial No. 666,790. (Cl. 114—208.)



1. In an anchor, the combination with a hollow shank, of folding flukes at each end of same, and a sliding and rotating stem with flukes and locked within the shank.

2. In an anchor, the combination with a tubular shank, of movable flukes at each end of same, a stem carried within the shank and having flukes, and locking means for holding the latter flukes in an operative or folding position.

3. In an anchor, the combination with a tubular shank, of movable flukes at each end of the shank, a stem within the shank, auxiliary flukes at the outer end of the stem, and means adapted to lock the movable and auxiliary flukes in a folded and inoperative position.

4. In an anchor, the combination with a tubular shank, of T heads at each end of the shank, flukes carried by each T head, a rotatable and slidable stem carried in a tubular shank, flukes at the outer end of the stem, and means connected with the stem for locking the stem so as to retain the flukes in a folded or an operative position.

5. In an anchor, the combination with a tubular shank, of a cross head at each end of the shank, a perforated spindle with flukes at one end of the shank, flukes on studs and carried by the other head of the shank, a stem with recesses, flukes carried by the stem, and a bolt adapted to enter the recesses and lock the stem.

1,028,674. RAILROAD-TIE. JACOB CARON, Nampa, Idaho. Filed Nov. 18, 1911. Serial No. 661,008. (Cl. 238—5.)



A railroad tie consisting of a body portion provided with spaced openings and having inverted L-shaped lugs adjacent said openings, and pins projecting upward beneath said lugs; in combination with rail clamps held in said openings, a wedge behind each rail clamp to hold the same in position, and a spring for each wedge comprising a body portion having an opening at one end to engage the respective pin, an angled portion to rest on the head of the respective wedge and side flanges to engage against the sides of said head.

1,028,675. SCREW-DRIVER. BURTON B. CHASE and EMMETT VAN SICKLE, Port Jervis, N. Y., assignors of one-third to Charles N. Knapp, Port Jervis, N. Y. Filed July 11, 1911. Serial No. 637,892. (Cl. 145—76.)



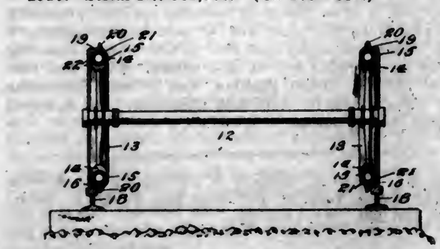
1. A screw driver comprising a handle, a shank rotatably connected therewith, a ferrule fixed to the handle and surrounding a portion of the shank, spaced inner and outer ratchet disks loosely surrounding the shanks within the ferrule and provided with non-circular openings, said disks being provided with ball seats, locking bearing balls confined within the seats and adapted to engage the ferrule on reverse movements of the disks, and a slidable sleeve locking against rotation on the shank and having a non-circular portion adapted for alternate engagement with the non-circular openings of the ratchet disks to lock the same independently of each other on the shank.

2. A screw driver comprising a handle, a shank rotatably connected therewith, a ferrule fixed to the handle and surrounding a portion of the shank, spaced inner and outer ratchet disks loosely surrounding the shank within the ferrule and provided with non-circular openings, said disks being provided with ball seats, locking bearing balls

confined within the seats and adapted to engage the ferrule on reverse movements of the disks, a slidable sleeve locked against rotation on the shank and having a non-circular portion adapted for alternate engagement with the non-circular openings of the ratchet disks to lock the same independently of each other on the shank, the said ferrule being provided with notches in its outer end, and lugs formed on the sleeve and engageable in the notches for locking the sleeve with the ferrule and simultaneously locking the shank with the sleeve.

3. A screw driver comprising a handle, a shank rotatably connected therewith, a ferrule fixed to the handle and surrounding a portion of the shank, ratchet mechanisms loosely surrounding the shank within the ferrule and provided with non-circular openings, and a slidable sleeve carried by the shank and locked against rotation thereon, said sleeve being provided with a non-circular portion adapted for alternate engagement with the non-circular openings of the ratchet mechanisms to lock the latter independently of each other on the shank.

1,028,676. ATTACHMENT FOR VEHICLE-WHEELS. SPENCER A. CHERRY, Nashville, Tenn. Filed May 14, 1910. Serial No. 561,366. (Cl. 105—182.)

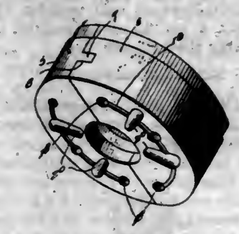


1. An attachment for a vehicle wheel comprising an annular, substantially rigid band adapted to surround the tread of a pneumatic tire and to be held in place thereon by the inflation of said tire, said band having rigid side portions adapted to engage said tire laterally, one of said side portions being of a relatively less width to permit said band to be slipped laterally over said tire when deflated, and the other of said side portions being of a relatively greater width and being extended to a position substantially adjacent the rim of the wheel to prevent relative lateral movement of said tire and band, said band having an annular flange on its surface, said last-named side portion and said flange being arranged respectively to engage at opposite sides said tire and a railroad rail beneath said wheel.

2. An attachment for a vehicle wheel comprising an annular, substantially rigid band adapted to surround the tread of a pneumatic tire and to be held in place thereon by the inflation of said tire, said band having rigid side portions adapted to engage said tire laterally, one of said side portions being of a relatively less width to permit said band to be slipped laterally over said tire when deflated, and the other of said side portions being of a relatively greater width and being extended to a position substantially adjacent the rim of the wheel to prevent relative lateral movement of said tire and band, said band having an annular flange on its outer surface located in substantially the same vertical plane with the center of said tire, said last-named side portion and said flange being arranged respectively to engage at opposite sides said tire and a railroad rail beneath said wheel.

1,028,677. HUB-PLATE FOR WHEELS. MATTHIAS CHRISTMAN, Springfield, Mo., assignor of one-third to Harry L. Bissett and one-third to George A. McLaughlin, Springfield, Mo. Filed Mar. 25, 1911. Serial No. 616,873. (Cl. 64—26.)

1. A wheel provided with an annular recess in one face, a hub plate seated within said recess, and common means for securing said plate in said recess and for permitting the passage of lubricating material through said plate.



2. A wheel provided with an annular recess having sockets formed in its inner end, means for admitting grease to said recess, a hub plate mounted within said recess and provided with openings formed therethrough and registering with said sockets, and pins passing through said openings in said plate and into said sockets to hold said plate in place and being also provided with openings to permit a lubricant to pass through said plate.

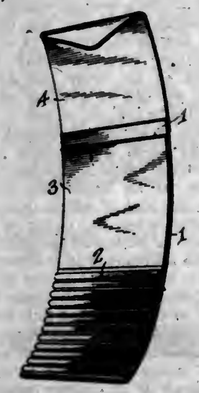
3. A wheel provided with an annular recess, a hub plate mounted within said recess, the inner face of said hub plate being provided with an annular groove, said plate being provided with a plurality of openings, the outer face of said plate being provided with a plurality of pockets and with grooves connecting said pockets with said openings, and a grease cup positioned within said wheel and communicating with said annular grooves formed in said plate.

4. A wheel provided with an annular recess, a hub plate mounted in said recess, a lubricant holder mounted in said wheel and communicating with said annular recess, means for permitting the passage of a lubricant through said hub plate, the outer face of said hub plate being provided with pockets and with grooves leading to said pockets, and means for retaining said hub plate within said recess.

5. A wheel provided with an annular recess and with a plurality of sockets formed in the inner end of said recess, a hub plate positioned within said recess and provided with a plurality of openings registering with said sockets, and hollow dowel pins passing through said openings in said plate and into said sockets to hold said plate in position, and to form conduits to permit the passage of a lubricant through said plate.

[Claims 6 to 12 not printed in the Gazette.]

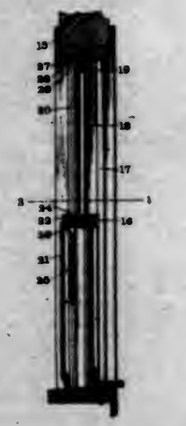
1,028,678. MAILING-TUBE. DAVID S. COLE, Washington, Iowa. Filed Nov. 8, 1911. Serial No. 659,188. (Cl. 229—92.)



A mailing tube comprising a plain backing sheet, a corrugated sheet secured wholly upon the inner end por-

tion of said backing sheet and to be rolled up to form an inside supporting cylinder, a smooth protecting sheet secured by its inner end to said backing sheet adjacent said corrugated sheet, and adapted to be rolled upon the article to be mailed, between said cylinder and said protecting sheet, and a sealing sheet secured to the outer end of said backing sheet as specified.

1,028,679. SWINGING WINDOW-SCREEN. JOHN H. CORNELISON, St. Louis, Mo. Filed Apr. 15, 1909. Serial No. 489,977. (Cl. 156—14.)



1. In combination with a window frame, a swinging screen, longitudinally extensible springs permanently fastened at corresponding ends to the inner face of the screen and their other ends pivotally connected to and readily detached from the frame, allowing the entire screen to be moved away from the frame and held in parallel or oblique planes thereto, said spring serving, when under tension, to hold one edge of the screen in revoluble contact with the frame and normally holding the inner face of the screen yieldingly against the frame, as set forth.

2. In combination with a window frame, a swinging screen, longitudinally extensible springs loosely connected at corresponding ends to the inner face of the screen and to said frame, allowing the entire screen to be moved away from the frame and held in parallel or oblique planes thereto, said springs serving, when under tension, to hold one edge of the screen revolubly in contact with the frame and normally holding the inner face of the screen yieldingly against the frame, as set forth.

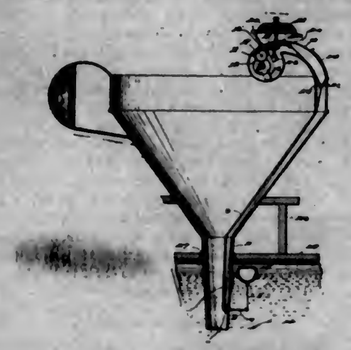
3. The combination with a window frame, provided with a projection at its upper end and with bearing pins, of a screen, one end of which is adapted to engage with said projection when the screen is in one position and the other end of which is adapted to engage with said pins when the screen is in another position.

4. The combination with a window frame provided with a projection at its upper end and with bearing pins, of a screen, one end of which is adapted to engage with said projection when the screen is in one position and the other end of which is adapted to engage with said pins when the said screen is in another position, and yielding means for holding said screen in position.

5. The combination with a window frame, provided with a projection at its upper end and with bearing pins, of a screen, one end of which is adapted to engage with said projection when the screen is in one position and the other end of which is adapted to engage with said pins when the screen is in another position, and spring means for yieldingly holding said screen in position.

[Claims 6 to 10 not printed in the Gazette.]

1,028,680. FUNNEL. ANTONIO J. COASI, Irish Town, Gibraltar. Filed Jan. 12, 1911, Serial No. 602,816. Renewed Apr. 25, 1912. Serial No. 693,195. (Cl. 116—15.)



In a signaling device of the character described, a tubular device adapted to be inserted in an opening in a receptacle, a lever pivotally mounted on and projecting laterally from the lower end of said tubular device, a float, a cord connecting said float to said lever, a signaling device at the upper end of said tubular device and normally held in locked position, and a cord connecting said signaling device with said float lever, and operated by said float to release said signaling mechanism.

1,028,681. VALVE. NELSON B. CREIGHTON and SAMUEL BLOCK, New York, N. Y. Filed Jan. 28, 1911. Serial No. 605,219. (Cl. 137—92.)



1. A valve, comprising a valve body having an inlet, an outlet and a valve seat intermediate the inlet and outlet, a spring pressed valve disk adapted to be seated on the valve seat, means including an arm for engaging the valve disk for moving it off its seat, and a locking and releasing device, comprising a movable member having an abutment for normally engaging the arm of the valve engaging means to hold it against movement in one direction and thereby hold the valve disk off its seat, and a fusible solder for holding said abutment under ordinary temperature but detaching the abutment at a higher temperature.

2. A valve, comprising a valve body having an inlet, an outlet, a separate chamber and a valve seat intermediate the said inlet and the said outlet, a spring pressed valve disk having a tendency to be seated on the said seat and having its stem extending into the said separate chamber, a rock shaft extending into the said separate chamber and having a tooth engaging the said valve stem to move the said valve disk off its seat, an arm on the outer end of the said rock shaft a lever having a detachable abutment for normally engaging said arm to hold it in a position for holding the valve disk off its seat, and solder having a low fusing point for attaching the abutment to the said lever.

3. A valve, comprising a valve body having an inlet, an outlet, a separate chamber and a valve seat intermediate

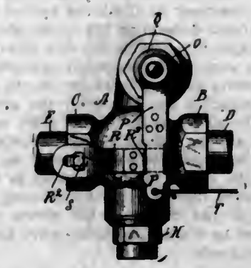
the said inlet and the said outlet, a spring pressed valve disk having a tendency to be seated on the said seat and having its stem extending into the said separate chamber, a rock shaft extending into the said separate chamber and having a tooth engaging the said valve stem to move the said valve disk off its seat, an arm on the outer end of the said rock shaft, a lever having a detachable abutment for normally engaging said arm to hold it in a position for holding the valve disk off its seat, solder having a low fusing point for attaching the abutment to the said lever, and a rod connected with the said lever.

4. A valve, comprising a valve body having an inlet, an outlet, a separate chamber and a valve seat intermediate the said inlet and the said outlet, a spring pressed valve disk having a tendency to be seated on the said seat and having its stem extending into the said separate chamber, a rock shaft extending into the said separate chamber and having a tooth engaging the said valve stem to move the said valve disk off its seat, an arm on the outer end of the said rock shaft, a lever having a detachable abutment formed of an angular lug for normally engaging said arm to hold it in a position for holding the valve disk off its seat and solder having a low fusing point for attaching the lug to the said lever.

5. A valve, comprising a valve body having an inlet, an outlet, a separate chamber and a valve seat intermediate the said inlet and the said outlet, a spring pressed valve disk having a tendency to be seated on the said seat and having its stem extending into the said separate chamber, a rock shaft extending into the said separate chamber, and having a tooth engaging the said valve stem to move the said valve disk off its seat, an arm on the outer end of the said rock shaft, a lever having a detachable abutment for normally engaging said arm to hold it in a position for holding the valve disk off its seat, said abutment being formed of angular lugs on opposite faces of the said lever, the lugs and the said lever having registering apertures, and a plug of solder of a low melting point filling the said registering apertures.

[Claims 6 and 7 not printed in the Gazette.]

1,028,682. VALVE. NELSON B. CREIGHTON and SAMUEL BLOCK, New York, N. Y. Filed July 26, 1911. Serial No. 640,622. (Cl. 137—92.)

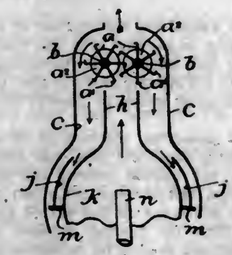


1. A valve comprising a valve body having an inlet, an outlet, and a valve seat intermediate the said inlet and outlet, a spring pressed valve adapted to be seated on the said valve seat, actuating means for engaging the said valve to move the same off its seat, said means being adapted to release said valve upon disengaging movement in opposite directions, a lever having a fulcrum formed by a part of said actuating means, fusible solder rigidly connecting the said lever with its fulcrum, and means to prevent movement of said lever in one direction against the force of said spring whereby to normally hold the valve off its seat.

2. A valve, comprising a valve body having an inlet, an outlet, and a valve seat intermediate the said inlet and the said outlet, a spring-pressed valve adapted to be seated on the said valve seat, actuating means for engaging the said valve to move the same off its seat, a lever, a member fixed on the said actuating means, fusible solder connecting the fulcrum end of the said lever with the said fixed member, and an abutment link fulcrumed on the said valve body and detachably engaging the free end of the said lever whereby the valve is normally held off its seat.

3. A valve, comprising a valve body having an inlet, an outlet and a valve seat intermediate the said inlet and the said outlet, a spring-pressed valve adapted to be seated on the said valve seat, actuating means for engaging the said valve to move the same off its seat, a lever, a member fixed on the said actuating means, fusible solder connecting the fulcrum end of the said lever with the said fixed member, and an abutment link fulcrumed on the said valve body and detachably engaging the free end of the said lever whereby the valve is normally held off its seat, the said lever having a forked end and the abutment link having lugs near its free end for engagement with the said fork.

1,028,683. SPARK-ARRESTER FOR LOCOMOTIVES. PATRICK EDWARD CUNNINGHAM and REGINALD REID, Chidlows Well, Western Australia, Australia, assignors of one-half to Valentine Mure Fitz-Hugh, Doodlakin, Australia. Filed June 30, 1911. Serial No. 636,207. (Cl. 110—137.)



1. A spark arrester comprising, in combination, a casing, a pair of coöperatively arranged revoluble spark-arresting members therein having blades, the blades of one member interengaging with the blades of the opposed member, an operative connection between said members for insuring rotation thereof in predetermined relation, and a funnel contained in said casing for directing exhaust steam and products of combustion only against the interengaging blades of said members, said funnel forming spark-collecting chambers at opposite sides thereof and directly beneath the outer peripheral portions of said bladed spark-arresting members.

2. A spark arrester comprising, in combination, a casing, a pair of coöperatively arranged revoluble spark-arresting members therein having blades, the blades of one member interengaging with the blades of the opposed member, means for causing rotation of the bladed spark-arresting members to maintain a predetermined relation between the interengaging blades thereof, and a funnel for projecting exhaust steam and products of combustion against the interengaging blades of said members, the outlet of said funnel having its walls arranged below and within the space between the axes of said members, spark-receiving chambers being formed within the casing and exteriorly of said funnel, said chambers being directly below the outer peripheral portions of said members.

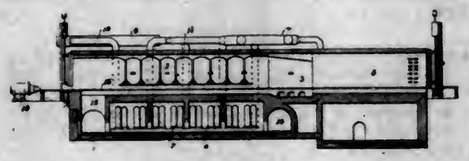
1,028,684. COMBINATION-CHECK. MICHEAL DALY, Maryville, Ill. Filed Apr. 6, 1911. Serial No. 619,384. (Cl. 11—15.)



In a book of the kind described, a pair of covers, a flexible strip secured at one end to one of said covers and

formed with overlapping folds, each fold being composed of a number of coupon checks, each having a hole, the holes of said coupons resting upon one another being in alinement, flat headed pins located in said alining holes, and a book number and a consecutive serial number being located on each coupon.

1,028,685. METHOD OF SAVING HEAT. FRED H. DANIELS, Worcester, Mass., assignor to The American Steel and Wire Company of New Jersey, Hoboken, N. J., a Corporation of New Jersey. Original application filed Jan. 25, 1910, Serial No. 540,061. Divided and this application filed Aug. 20, 1910. Serial No. 578,113. (Cl. 148—21.)

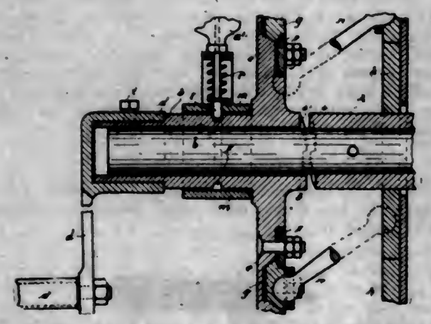


1. In the art of annealing, the method of saving heat consisting in passing annealing pots and their contents through a furnace and bringing the annealing pots into contact therein with the burning gases to heat the pots and then with the unburned gases to thereby heat the unburned gases.

2. In the art of annealing, the method of saving heat consisting in passing annealing pots and their contents through a furnace and therein heating the pots by contact with the burned and burning gases and heating the unburned gases by contact with the heated pots, passing the burned gases from the heating chamber through an air heating chamber and heating by radiation air supplied thereto, then mixing and burning the mixed heated air and heated unburned gases within the combustion chamber of the furnace.

3. In the art of annealing the method of saving heat consisting in passing the articles to be annealed through a heating furnace, heating the articles by the burned and burning bases and then heating the unburned gases by radiation from the heated articles and thereby effecting an interchange of heat between the annealed articles and their retainers with the unburned gases and thereby reducing the temperature of the annealed articles and raising that of the unburned gases.

1,028,686. STARTING DEVICE FOR MOTOR-VEHICLES AND THE LIKE. MARIO DEMONTE, Gorizia, Austria-Hungary. Filed May 26, 1911. Serial No. 629,601. (Cl. 123—185.)



1. A starting device for motor-vehicles and the like, comprising a sleeve loosely mounted on the end of the engine shaft, a starting handle connected to the outer end of the sleeve, a clutch element on the inner end of the sleeve, a corresponding clutch element on the engine shaft to engage therewith, a disk integral with said sleeve, a stationary plate on the motor frame facing the disk, and connections between the disk and said plate, the connections being such as to pull the disk and hold the clutch in gear as long as the shaft is rotated by the starting handle in the forward direction and to push the disk and disengage the clutch if the shaft should be rotated by the engine in the backward direction, substantially as set forth.

2. A starting device for motor-vehicles and the like, comprising a sleeve loosely arranged on the end of the engine shaft, a starting handle on the outer end of said sleeve, a clutch element on the inner end of the same, a corresponding clutch element on the engine shaft to engage therewith, a disk integral with said sleeve, a ring of conical cross-section loosely fitted in a corresponding groove in said disk, means for retaining the ring in said groove, a stationary plate on the motor frame facing the disk, and connections between the ring and the stationary plate, the connections being such as to pull the ring and hold the clutch in gear as long as the shaft is rotated by the starting handle in forward direction and to push the ring into its groove and disengage the clutch if the shaft should be rotated by the engine in backward direction, substantially as set forth.

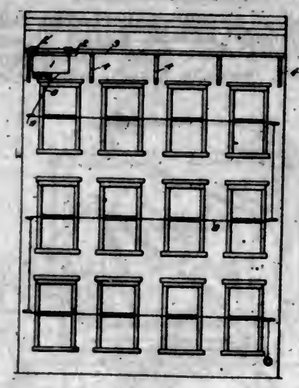
3. A starting device for motor-vehicles and the like, comprising a sleeve loosely mounted on the end of the engine shaft, a starting handle on the outer end of the sleeve, a clutch element on the inner end of the same, a corresponding clutch element on the engine shaft to engage therewith, a disk integral with the sleeve, a ring of conical cross-section rotatably held in a groove in said disk, a stationary plate on the motor frame facing the disk, and links connected to the plate and to the disk by means of ball-and-socket joints, the links having an angular position relative to the shaft so as to pull the ring and hold the clutch in gear as long as the shaft is rotated by the starting handle in forward direction and to push the ring into its groove and disengage the clutch if the shaft should be rotated by the engine in backward direction, substantially as set forth.

4. A starting device for motor-vehicles and the like, comprising a sleeve loosely arranged on the end of the engine shaft, a starting handle on the outer end of the sleeve, a clutch element on the inner end of the same, a corresponding clutch element on the engine shaft to engage therewith, a stationary bearing for the sleeve, a spring-actuated bolt in said bearing normally engaging a circular groove in the sleeve so as to hold the clutch out of gear, means for disengaging the bolt from the groove, a disk integral with the sleeve, a stationary plate on the motor frame facing the disk, and connections between the plate and the disk, the connections being such as to pull the disk and hold the clutch in gear as long as the shaft is rotated in forward direction by the starting handle and to push the disk and disengage the clutch if the shaft should be rotated by the engine in backward direction, substantially as set forth.

1,028,687. FIRE-ESCAPE. VINCENZO DENARO, Newtown, Conn. Original application filed July 24, 1911, Serial No. 640,352. Divided and this application filed Dec. 6, 1911. Serial No. 664,274. (Cl. 227—22.)

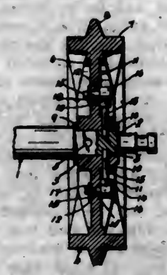
1. In combination, a building or other structure, a fire escape therefor comprising a track extending across the upper portion of the structure aforesaid, a frame movable along said track, escape means mounted in said frame, an operating rope connected to said escape means, and means for detachably holding said rope temporarily distributed at opposite portions of the structure.

2. In combination, a building or other structure, a fire escape therefor comprising a track extending across the upper portion of the structure aforesaid, a frame movable along said track, escape means mounted in said frame, an operating rope connected to said escape means, and spring clamps secured to the building at opposite sides thereof for detachably holding said ropes temporarily distributed across the wall of said building.



3. In combination, a building or other structure, a fire escape therefor comprising a track extending across the upper portion of the structure aforesaid, a frame movable along said track, escape means mounted in said frame, an operating rope connected to said escape means and adapted to extend back and forth across the wall of the building in proximity to the windows thereof, clamps secured at opposite sides of the building and adapted to temporarily hold said rope detachably at any point in its length, said clamps comprising a stationary member, a pivoted member secured thereto, and a compression spring bearing against said pivoted member for holding the said operating rope in detachable position.

1,028,688. WHEEL CONSTRUCTION. JOHN W. DODD, Lynchburg, Va. Filed May 2, 1911. Serial No. 624,598. (Cl. 105—143.)



1. In a wheel construction, the combination with a squared axle having sockets formed in the faces thereof, of a wheel including a hub having a squared bore, a web having recesses therein, said hub and web being provided with radial bores the inner ends of which register with the sockets of the axle, while their outer ends terminate in the recesses of the web, pins passing through said bore and engaging said socket, and means for maintaining said pins in place.

2. In a wheel construction, the combination with a squared axle having sockets formed in the faces thereof, of a wheel including a hub having a bore adapted to engage said axle and radial bores registering with the sockets of the axle, pins passed through said bores and engaging said sockets, said wheel also having a web provided with bores adjacent the heads of said pins, and pins passed through said latter bores and bearing against the first mentioned pin to maintain the same in position.

1,028,689. PUMP-ROD COUPLING. ARTHUR L. DOUGLASS, Tularosa, N. Mex. Filed July 7, 1911. Serial No. 637,389. (Cl. 74—17.)

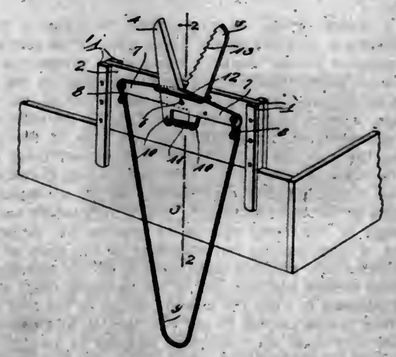


1. In a device of the character described, the combination with a pump rod and a power rod, of a pair of rigid members projecting from the power rod, a pair of pivotally mounted levers connected with said rigid members, a projection extending from said pump rod for engaging said levers and said rigid members for connecting the pump rod and the power rod.

2. In a device of the character described, the combination with a pump rod and a power rod, of a pair of bars connected with said power rod formed with a plurality of notches, a pair of arms pivotally mounted on said bars and formed with notches registering with said first mentioned notches, means projecting from said pump rod for engaging said bars and said arms in said notches and a locking member for locking said levers against movement.

3. In a device of the character described, the combination with a pump rod and a power rod, of bolts projecting from said pump rod, rigidly mounted bars extending from said power rod formed with notches for accommodating said bolts, a pair of arms pivotally mounted on the lower end of said bars and formed with notches registering with said first mentioned notches and accommodating said bolts, said arms being designed to lift into position and hold in position said bolts and a slidable sleeve fitting over the ends of said levers opposite their pivotal point for locking the same against movement.

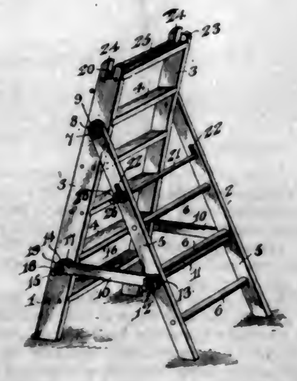
1,028,690. HEADING DEVICE FOR KAFIR CORN AND THE LIKE. ARCHIE DRURY, Elgin, Kans. Filed Jan. 11, 1912. Serial No. 670,605. (Cl. 146—23.)



The combination with a supporting frame, of a pair of pivotal connected cutters of substantially bell-crank form

composed of upright blades one of which is provided with teeth and the other a cutting edge, said cutters having arms forming levers, guides secured to said support and embracing the cutters for limiting the open position of the same, lugs forming a continuation of said cutters and projecting below the pivotal connection of the cutters, a spring connecting the ends of said lugs, and a looped cable suspended from the outer ends of the levers, whereby, the said cutters are adapted to be simultaneously operated.

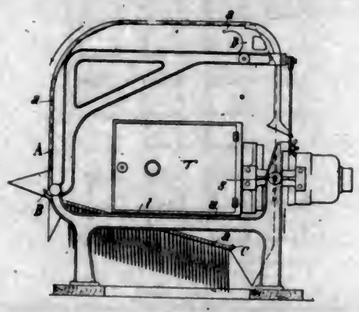
1,028,691. COMBINED STEP AND EXTENSION LADDER. JAMES E. DUNCAN, Elton, La. Filed Sept. 30, 1911. Serial No. 652,215. (Cl. 228—17.)



1. A ladder of the class described comprising a front ladder section provided in the upper ends of its side bars with recesses, a rear ladder section pivoted at the upper ends of its side bars to the front ladder section at a point intermediate of the ends thereof and adapted to be arranged in an inclined position to provide a step ladder and in an upright position to form an extension of the front section, said rear section being provided in its side bars with slots, a loose locking rod extending across the rear section and operating in the slots and adapted to engage the recesses of the side bars of the front section when the parts are arranged to form an extension ladder, braces pivoted at their rear ends to the rear ladder section, means for securing the front ends of the braces to the front ladder section when the parts are arranged to form a step ladder, and means for also securing the free front ends of the braces to the ends of the locking rod for holding the latter in engagement with the said recesses when the parts are arranged to form an extension ladder.

2. A ladder of the class described including a front ladder section provided in the upper ends of its side bars with recesses having extended front walls forming stops, said front ladder section being also provided in its top step with a groove arranged at the lower ends of the said recesses, a rear ladder section provided in its side bars with slots located intermediate of the ends of the rear section, the upper ends of the side bars thereof being pivoted to the side bars of the front section below the said recesses to permit the rear section to be arranged at an angle to the front section to form a step ladder and at an angle to the front section to provide an extension thereof, a loose locking rod operating in the slots of the rear section and movable into and out of the recesses of the front section and engaged by the extended front walls of the recesses to limit the forward swing of the rear section, rear braces pivoted to the rear section and provided at their free ends with openings adapted to receive the ends of the locking rod to retain the ladder in engagement with the recesses when the parts are arranged to form an extension ladder, and means mounted on the front section for engaging the openings in the free ends of the braces when the parts are arranged to form a step ladder.

1,028,692. LANTERN AND PLATES THEREFOR. HENRI FRANÇOIS ETIENNE SYLVAIN DUSSERIS and JAMES TIBURCE FELIX CONTI, Paris, France. Filed Apr. 4, 1910. Serial No. 553,307. (Cl. 88—28.)



1. In projection lanterns, the combination of a chain of plate holders with alternating long and short horizontal shafts, of frames pivoted to said shafts, being adapted to be folded and to be suspended on the long shafts, inclined rails adjacent said long shafts, and means to impart to the chain of plate holders an intermittent movement.

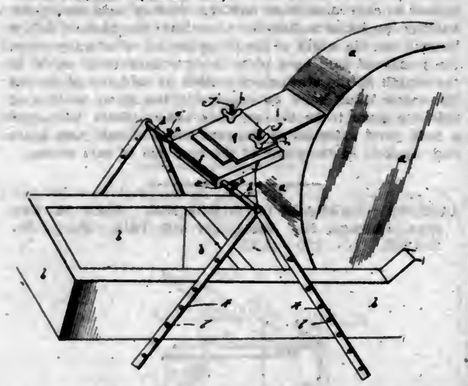
2. In projection lanterns, the combination of a chain of plate holders with alternating long and short horizontal shafts, of frames pivoted to said shafts, being adapted to be folded and to be suspended on the long shafts, inclined rails adjacent said long shafts, a uniformly operated feed mechanism, and means operated by said mechanism for imparting an intermittent movement to said chain.

3. In projecting lanterns, the combination of a chain of plate holders with alternating long and short horizontal shafts, of frames pivoted to said shafts, being adapted to be folded and to be suspended on the long shafts, inclined rails adjacent said long shafts, a uniformly operated ratchet wheel, a spring-controlled lever, a two-armed pawl frictionally mounted upon said lever, two fixed adjustable stops, and means adapted to engage and disengage said pawl and ratchet for imparting an intermittent feed movement to said chain, substantially as described and for the purpose set forth.

4. In projecting lanterns, the combination of a chain of plate holders with alternating long and short horizontal shafts, of frames pivoted to said shafts, being adapted to be folded and to be suspended on the long shafts, inclined rails adjacent said long shafts, a ratchet wheel, means for imparting a continuous and uniform movement to said ratchet wheel and a lever rotating around the shaft of said ratchet wheel, a two-armed pawl frictionally mounted upon said lever, and two fixed adjustable stops upon the shaft of said ratchet wheel, and a spring controlling said lever adapted to normally hold one arm of the pawl upon said lever against one of the stops and in engagement with the ratchet wheel and to disengage said pawl and ratchet wheel, when the second arm of said pawl encounters the other stop for the purpose of varying the time of exposure but effecting the change of the plates instantaneously, substantially as described.

5. In a projecting device, the combination with a lantern, mechanism for guiding a plate chain throughout a complete circuit of travel and abreast of said lantern, one portion of said mechanism being inclined downwardly in the direction of the advancing movement of the chain, a continuous foldable plate chain exceeding in length the combined length of its guide mechanism, and means for advancing a portion of the chain abreast of the lantern and causing remaining portions of the chain to fold or collapse in said inclined portion of said guide mechanism.

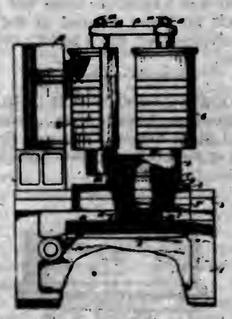
1,028,693. ATTACHMENT FOR GRINDSTONES. FRED W. EGGERS, Wausau, Wis. Filed June 14, 1911. Serial No. 633,191. (Cl. 51—7.)



1. In combination with a base, standards adjustably mounted thereon, a shaft journaled on the said standards, a tool holder mounted to slide and to swing on the said shaft, bolts extending upwardly from the said tool holder, a clamping plate mounted on the said tool holder and having the said bolts passed therethrough, thumb nuts mounted on the said bolts and adapted to engage the said clamping plate to clamp a tool in the said holder and collars adjustably mounted on the said shaft for limiting the sliding movement of the said holder on the said shaft.

2. In combination with a base, pairs of standards adjustably mounted on the said base, the standards in each pair being inclined so that the upper ends thereof will meet, the mentioned upper ends being provided with registering apertures, a shaft journaled in the registering apertures of the said standards, a tool holder mounted to slide and to swing on the said shaft, means for clamping a tool to the said tool holder and means adjustably mounted on the said shaft for limiting the sliding movement of the tool holder.

1,028,694. MACHINE FOR CASTING AND FINISHING CYLINDRICAL STEREOTYPE-PLATES. ARNOLD EGLI, Plauen, Germany, assignor to Vogtlandische Maschinen-Fabrik (vormals J. C. & H. Dietrich) A. G., Plauen, Germany. Filed Oct. 31, 1911. Serial No. 657,711. (Cl. 22—3.)



1. In a machine for casting and finishing cylindrical stereotype plates, the combination of a stationary mold, a turn-table, core cylinders mounted thereon, a carriage carrying said turn table and adapted to move toward and away from said mold, a cam-track arranged below said carriage and turn-table, and guiding means on the underside of said turn table adapted to engage said cam track so as to rotate said turn table.

2. In a machine for casting and finishing cylindrical stereotype plates, the combination of a stationary mold, a turn table, three core cylinders mounted thereon and spaced 120° apart, a carriage carrying said turntable, a cam-track arranged below said carriage and turn-table, and guiding means on the underside of said turn-table adapted to engage said cam-track.

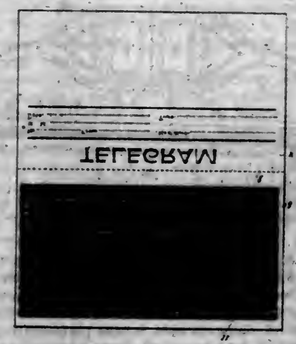
3. In a machine for casting and finishing cylindrical stereotype plates, the combination of a stationary mold, a turn-table, core cylinders mounted thereon, a reciprocating carriage carrying said turn-table, a cam-track arranged below said carriage and turn-table and comprising two curved grooves connected at their ends to form rectilinear extensions, guiding means on the underside of said turn-table adapted to engage said cam-track, and switching means in connection with said cam-track.

4. In a machine for casting and finishing cylindrical stereotype plates, the combination of a stationary mold, a turn-table, core cylinders mounted thereon, a reciprocating carriage carrying the turn-table, a cam-track arranged below said carriage and comprising two curved grooves connected at their ends to form rectilinear extensions, guiding means on the underside of said turn-table adapted to engage said cam-track, switches provided at the junctions of said curved grooves, and tongues projecting from said switches into the grooves to about half the depth of said grooves for the purpose of guiding the guiding means on the underside of said turn-table.

5. In a machine for casting and finishing cylindrical stereotype plates, the combination of a stationary mold, a turn-table, core cylinders mounted thereon, a reciprocating carriage carrying said turn-table, a cam-track arranged below said carriage and turn-table and comprising two curved grooves, connecting at their ends to form retilinear extensions, switches at the junctions of said grooves, tongues projecting from said switches across said grooves to about half the depth thereof, and lever-arms connected with said tongues and extending into the path of the said guiding means for the purpose set forth.

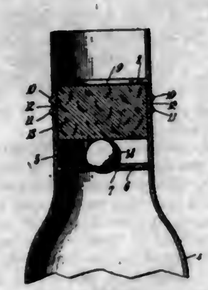
[Claim 6 not printed in the Gazette.]

1,028,695. TELEGRAM-BLANK. WILLIAM ENGLAND, Callao, Peru. Filed Feb. 18, 1911. Serial No. 609,427. (Cl. 11—28.)



A semi-transparent telegram blank folded to form two sections, one of said sections having imprinted lines and words, and the other of said sections having imprinted a body coating of transfer material, said coating being omitted to form lines and words in intaglio to govern the writing on the folded blank, said imprint on both sections being on the same side of the ontspread blank, and said lines and words of the two sections registering when said sections are folded.

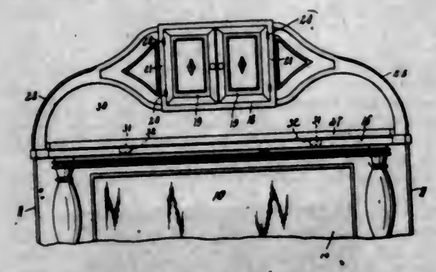
1,028,696. SINGLE-USE BOTTLE. BERNARD ERDALE, New York, N. Y. Filed Oct. 20, 1911. Serial No. 655,741. (Cl. 215—110.)



1. In a single use bottle, the combination of a neck having a pair of partitions located within the same and disposed parallel with each other, said partitions having openings therethrough, an expansible member mounted within said neck and located between said partitions and engaging one of the same, and a spherical closure member likewise mounted between said partitions and fitting the edge of the opening in the other partition, the said expansible member serving to hold the said spherical member in position to close the opening through the other partition.

2. The combination of a neck, a pair of partitions located within the neck and having apertures therethrough, a spherical closure member located between said partitions and engaging the edge of the opening through one of the same, and an expansible member mounted within said neck and located between said partitions in position to engage said closure member and the other partition, so as to hold said closure member in place, said neck having means formed on the outer surface thereof between said partitions, to facilitate cutting and breaking the same when the expansible member is to be removed.

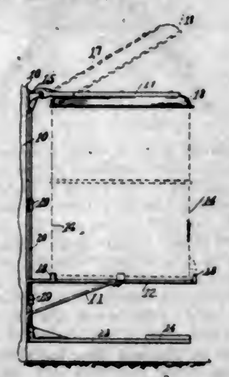
1,028,697. MUSIC-CABINET ATTACHMENT FOR PIANOS. KÁLMÁN FARKAS, New York, N. Y., assignor of one-half to Joseph Gerbovich, New York, N. Y. Filed Mar. 12, 1912. Serial No. 683,314. (Cl. 45—64.)



1. The combination with the top plate of a piano comprising a fixed rear section and a front section hinged to said rear section, said rear section being provided with a plurality of recesses, of a box-shaped casing divided into a plurality of compartments, a base plate resting upon the fixed section of said top plate, tenons upon the under face of said base plate seated in said recesses, brackets attached to said base plate and the sides of said casing for holding the latter a distance above said top plate which is larger than the width of the front section of said top plate, the length of said base plate being substantially equal to the length of the stationary section of said top plate and its width being such as to permit the front section of said top plate to be thrown back substantially 180°.

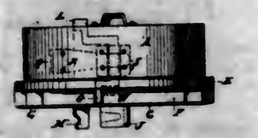
2. The combination with the top plate of a piano comprising a fixed rear section and a front section hinged to said rear section, said rear section being provided with a plurality of recesses, of a box-shaped casing divided into a plurality of compartments, a base plate resting upon the fixed section of said top plate, tenons upon the under face of said base plate seated in said recesses, brackets attached to said base plate and the sides of said casing for holding the latter a distance above said top plate which is larger than the width of the front section of said top plate, the length of said base plate being substantially equal to the length of the stationary section of said top plate and its width being such as to permit the front section of said top plate to be thrown back substantially 180°, and a back plate attached to the rear edges of said base plate and brackets in the plane of the rear end of said casing.

1,028,698. GARBAGE-PAIL HOLDER. JOHN H. FARLING, Chicago, Ill. Filed Apr. 13, 1910. Serial No. 555,233. (Cl. 220—115.)



The combination with a support, of a bracket, a plate secured to the support and to the bracket and provided with peripheral upturned lugs, a second bracket secured to the support above the plate and provided with a pair of spaced ears, an arm extending forwardly over the plate and having its inner end disposed within the ears of the last mentioned bracket, a pivot-pin connecting said inner end of the arm and the ears of the bracket, guides disposed between said brackets and fixedly secured to the support, a rod slidably mounted within said guides and having its upper end forked and disposed between the inner end of the arm and the ears of the first mentioned bracket, a pivot-pin connecting the said forked end of the rod and the inner end of the bar, a bar extending outwardly beneath the plate and having its inner end rigidly secured to the rod, said bar being disposed in the vertical plane of the first mentioned bar, and a treadle fixed to the outer end of said bar.

1,028,699. LOCKING DEVICE FOR CABLE CARRIERS. HIRAM T. FERNALD, Lowell, Mass., assignor to Lamson Consolidated Store Service Company, Newark, N. J., a Corporation of New Jersey. Filed June 29, 1908. Serial No. 440,832. (Cl. 186—32.)

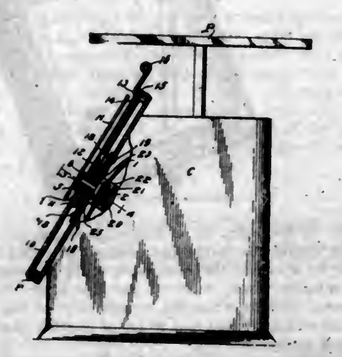


1. In a cable carrier adapted to travel on a track or way, a body portion, a cover hinged to the body portion,

a lever pivoted to the body portion, a latch on the upper end of the lever to lock the cover closed, a finger on the lower end of the lever to be engaged by the track or way to prevent the turning of the lever to release the latch from the cover, and yielding means for holding the latch in locked or unlocked positions.

2. In a cable carrier adapted to travel on a track or way, a body portion, a cover hinged to the body portion, a lever pivoted to the body portion, a latch on the upper end of the lever to lock the cover closed, a finger on the lower end of the lever to be engaged by the track or way to prevent the turning of the lever to release the latch from the cover, a stud projecting from the lever, and a spring bearing on the stud to hold the lever so that the latch will be held in locked or unlocked positions.

1,028,700. ADJUSTABLE DIAL-SCALE. HARRISON D. FLEGEL, Racine, Wis., assignor to Edward J. Schowalter, Racine, Wis. Filed Oct. 16, 1911. Serial No. 654,931. (Cl. 73—46.)

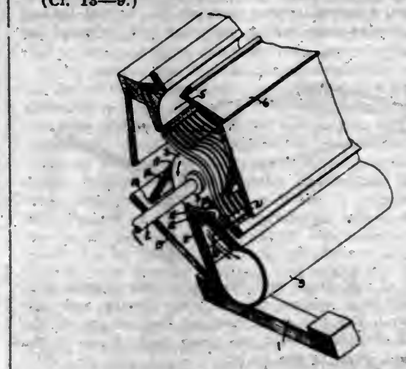


1. The combination with a scale mechanism including a hand and its arbor, and a casing for such mechanism including a face plate having a surrounding flange and a tubular bushing around said arbor upset at its outer end in rear of the hub of the hand; of a dial loosely mounted on said bushing between its upset end and the face plate and having a notch in its upper edge, and a plate forked at its lower end and riveted to the dial astride its bearing, the plate extending thence upward through said notch with its end bent forward around the flange of the face plate and projecting outward into a handle.

2. The combination with a scale mechanism including a hand and its arbor, and a casing for such mechanism including a face plate having a surrounding flange and a tubular bushing around said arbor upset at its outer end in rear of the hand; of a dial loosely mounted on said bushing between its upset end and the face plate, and a plate riveted at its lower end to the dial and extending thence upward and bent forward in an elbow making frictional contact with the flange of the face plate and projecting thence radially outward into a handle.

3. The combination with a scale mechanism including a face plate having a hole through its center, a bracket behind this plate having feet spacing it therefrom, a bearing plate in front of the face plate, screws passing through both plates and into the bracket, an arbor journaled in the latter and in the bearing plate and carrying the hand at its front extremity, the pan, and connections for turning the arbor by depression of the pan; of a strip riveted to the face plate and extending over the bearing plate, a bushing whose rear end is mounted in said strip, whose bore loosely surrounds the arbor and whose front end is upset, a dial movably mounted on said bushing between its ends, and means for manually setting the dial over the face plate.

1,028,701. COTTON-GIN. JOHN R. FORDICE, Little Rock, Ark. Filed May 14, 1909. Serial No. 495,838. (Cl. 13—9.)



1. In a saw gin, the combination of a series of saws, a suction nozzle having a contracted opening disposed in close proximity to the saw teeth for directing currents along the face of the saws and removing cotton from the saws, one wall of the nozzle having a top portion extending peripherally along a portion of the saws, a vacuum chamber in communication with said nozzle, and a mote receiver disposed back of the saws to catch motes ejected from the saws by centrifugal action.

2. In a saw gin, the combination of a series of saws, a suction nozzle having a contracted opening disposed in close proximity to the saw teeth to direct suction currents over the saw teeth and remove cotton therefrom and direct it into the nozzle, the top of one of the nozzle walls being extended peripherally about a portion of the saws, a vacuum chamber communicating with the suction nozzle, and a mote catcher disposed back of the saws and above the nozzle to receive motes discharged from the saws by centrifugal action and direct the same back of the saws out of the influence of the suction currents.

3. In a cotton gin employing air suction means for the removal of cotton from the saws, the combination of a series of saws, a suction nozzle disposed adjacent the saws and having the top of one of its walls close to and extending about a portion of the periphery of the saws to cause increased velocity of the suction currents in the direction of saw movement and its opposite wall forming a dam for the saw induced currents to direct the same into the nozzle, and a vacuum chamber connected to said suction nozzle.

4. In a vacuum cotton gin, the combination of a series of saws, a suction nozzle having a contracted opening disposed below the top of the saws, a suction chamber in communication with said suction nozzle, the top of the nozzle wall toward the rear of the saws extending close to and peripherally about a portion of the saws, and a mote board disposed above the suction nozzle to receive motes discharged from the saws by centrifugal action and direct the same back of the saws and out of the influence of the suction currents.

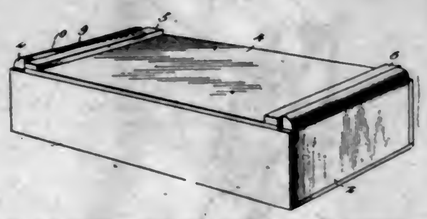
5. In a vacuum cotton gin, the combination of a series of saws, a suction nozzle disposed below the saws and in close proximity thereto for removing cotton from the saw in the direction of saw movement, and an inclined mote board having its upper end in close proximity to the tops of the saws, and its lower end directing the motes to the rear of the suction nozzle and out of the influence of the suction currents.

[Claims 6 to 11 not printed in the Gazette.]

1,028,702. EGG-CASE. JULIUS FRITZ, Petaluma, Cal. Filed Mar. 2, 1911. Serial No. 611,436. (Cl. 217—56.)

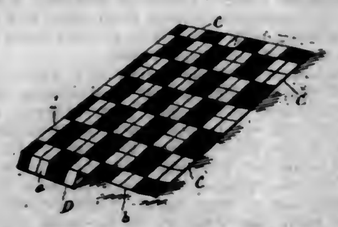
The combination with a crate having recessed end walls, a portion of its end walls extending above the

top edges of its side walls, a closure provided at opposite ends with projecting tongues adapted to engage in the recesses in the walls of the crate, cleats carried by said closure, a bowed spring carrying at one end thereof a locking wedge and having its other end disposed be-



tween one of the cleats and the top of the closure, said spring extending transversely of the closure and disposed between the inner longitudinal face of one of the cleats, and contacting with the inner face of one of the extended end walls of the crate.

1,028,703. WOODEN FLOOR-COVERING. GEORGE FULTON, Winnipeg, Manitoba, Canada. Filed Apr. 6, 1911. Serial No. 619,360. (Cl. 20—75.)



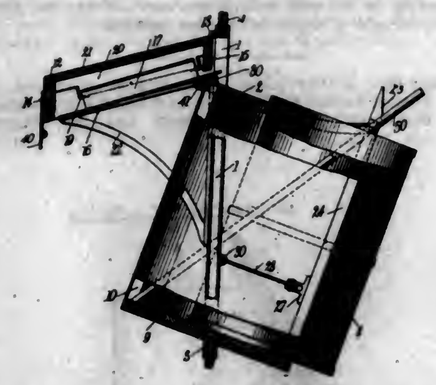
A floor covering section consisting of an even number of compound slices of wood cut across the grain and formed with parallel beveled ends, the said slices being arranged in a plurality of rows with their beveled ends inclined in opposite directions in alternate rows, in combination with a continuous backing to which the said slices are cemented.

1,028,704. PENHOLDER. MAY F. GARDNER, Pittsburgh, Pa. Filed Nov. 25, 1911. Serial No. 662,498. (Cl. 120—36.)



A pen holder having the outer end thereof provided with an opening and an eradicator compartment, a resilient bushing arranged in the opening of said pen holder, a cap detachably mounted upon the end thereof and provided with a tubular stem extending through said bushing into said compartment, and a compressible bulb connected to said cap for drawing controllable quantities of liquid from said compartment into the stem of said cap.

1,028,705. GARBAGE-CAN HOLDER. ALBERT DURFEE GATCHEL, Louisville, Ky. Filed Aug. 4, 1911. Serial No. 642,260. (Cl. 220—119.)



1. The combination of a frame, a receptacle movably mounted within the frame and adapted to swing from one position to another, the receptacle being adapted to contain a suitable vessel, doors on one side of the receptacle, and means whereby when the receptacle is in one position the doors will be closed and when in another position the doors will be opened.

2. A device of the class described comprising a frame adapted to be positioned within an opening in a wall or fence, a receptacle hingedly mounted within the frame, a cover hingedly mounted adjacent the top of the frame, the said receptacle being adapted to be swung from one side of the frame to the other, the said cover closing the receptacle when in one position, a plurality of doors carried by the receptacle, and means connecting the doors and the frame whereby when the receptacle is swung the doors are opened, thereby exposing the interior of the receptacle.

3. A device of the class described comprising a frame adapted to be positioned within an opening in a fence or wall, a receptacle hingedly carried within the frame and movable about the said hinges whereby the upper portion of the receptacle may be accessible from either side of the fence or wall, together with a cover carried adjacent the top of the frame and adapted to close the receptacle when it is in one position, doors movably mounted on the receptacle, means whereby the doors may be opened when the receptacle is moved to another position, thereby exposing the interior of the receptacle, the said means closing the doors when the receptacle is returned to the first position.

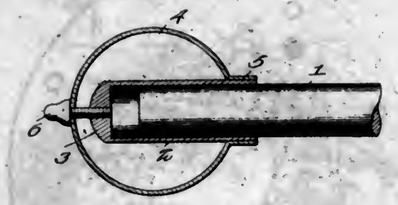
4. A device of the class described comprising a frame adapted to be supported in an upright position, a receptacle hingedly mounted within the frame, a cover movably carried adjacent the top of the frame and adapted to close the said receptacle when it is in one position, a plurality of doors movably mounted on the receptacle, together with means engaging the doors and the frame whereby when the receptacle is swung to another position the said doors will be opened.

5. A device of the class described comprising a frame, a receptacle movably supported within the frame, the said receptacle being adapted to be swung to either side of the frame, a cover movably supported adjacent the top of the receptacle for closing the receptacle, means for supporting the cover, a plurality of doors on the receptacle, together

with means whereby when the receptacle is swung from one position to the other the doors will be opened and the interior of the receptacle exposed, the cover remaining in normal position.

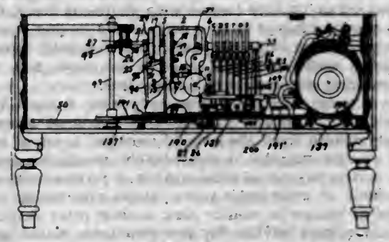
[Claims 6 to 10 not printed in the Gazette.]

1,028,706. WINDOW-CURTAIN ROD. JANE GEARY, New Bedford, Mass. Filed July 5, 1910. Serial No. 570,409. (Cl. 156—19.)



A curtain pole comprising a bar, a cap permanently secured thereon, and having the same equal in diameter thoughout its length, said cap being provided with a thickened semi-circular rounded end, and formed with a centrally arranged opening therein, an ornamental ball mounted on and entirely covering the said cap, and a retaining element extended through one end of the ball and threaded into the said central opening of the cap substantially as and for the purpose described.

1,028,707. AUTOMATIC GRAPHOPHONE OF THE DISK-RECORD TYPE. JAMES I. GEMMILL, Orrville, Ohio. Filed Mar. 1, 1911. Serial No. 611,671. (Cl. 181—4.)



1. In an automatic graphophone, the combination with a suitably-mounted bank of records, of means for automatically displacing the records successively from the bank, means for conducting each record as displaced to playing position, a sound reproducer mechanism, means for causing the sound reproducer to traverse the records while the latter are in playing position, and means for removing the records from playing position and returning them to the bank of records with their faces reversed.

2. In an automatic graphophone, the combination with a carrier for disk-records, a bank of disk records mounted therein in substantially vertical position, means for successively displacing the records and conducting them in vertical position to the point for playing, means for positioning the records in playing position, a sound reproducer, means for causing the sound reproducer to traverse the records while the latter are in playing position, means for removing the records from playing position and returning same to the carrier with their faces reversed from that occupied when displaced from said carrier, and means for intermittently advancing the carrier.

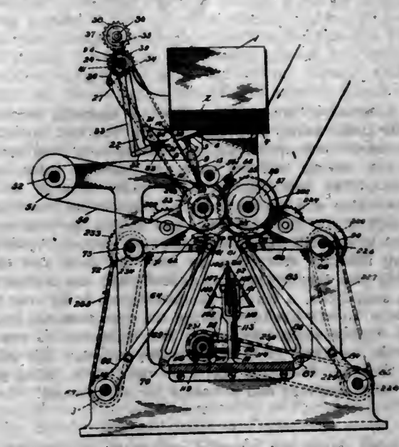
3. A mechanism for automatically-playing graphophone records of the double-faced disk type, comprising in combination, an intermittently-movable record carrier, a bank of records mounted edge-wise therein to be successively displaced therefrom, a sound reproducer, means for conducting each record as displaced from the carrier into position with relation to the sound reproducer, and means for automatically displacing the record after it is played and returning it to the bank of records with its reverse face presented in the direction of the carrier travel from that it occupied when displaced from said carrier.

4. In mechanism for automatically-playing records of the double-faced disk type, the combination with an intermittently-movable record carrier, and a bank of records mounted edgewise therein to be successively displaced therefrom, of means for operating the carrier intermittently to successively displace the records, a sound reproducer, means for automatically conducting the records from their carrier-displaced position to playing position with respect to the sound reproducer, means for causing the sound reproducer to traverse the records while the latter are in playing position, means for removing the records from playing position, and means for turning the records and returning same to the opposite end of the bank of records in the carrier, said records throughout their travel and while in playing position being maintained in the edgewise position.

5. In mechanism for automatically-playing graphophone records of the double-faced disk type in a vertical position, the combination with an intermittently movable record carrier, and a bank of records mounted edge-wise therein, of a sound reproducer, means for conducting the records in vertical position from the carrier to playing position with relation to the sound reproducer, means for causing the sound reproducer to traverse the records while the latter are in playing position, and means for reversing the records after their removal from playing position and returning the same to the carrier with their faces reversed from that which they occupied when displaced therefrom.

[Claims 6 to 25 not printed in the Gazette.]

1,028,708. BOOK AND PAMPHLET MAKING MACHINE. CHARLES GITZENDANNER, New York, N. Y., assignor of one-half to William H. Horton, New York, N. Y. Filed June 8, 1910. Serial No. 565,818. (Cl. 11—2.)



1. A book or pamphlet making machine including in combination a plurality of signature-opening devices, means for bringing together open signatures from a plurality of said opening devices and insetting one within another, and means for stitching said signatures together.

2. A book or pamphlet making machine including in combination a plurality of signature opening devices, means for bringing together open signatures from a plurality of said opening devices and insetting one within another, means for stitching said signatures together and means for folding them as one.

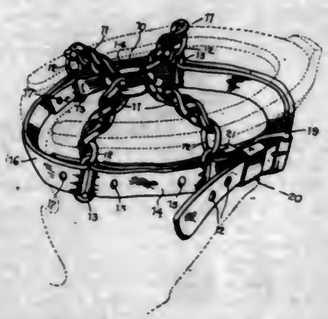
3. A book or pamphlet making machine including in combination a plurality of signature opening devices, means for progressing an opened signature past another of said opening devices whereby said signature and another opened signature from said other opening device are brought together and one inset within the other, and means for stitching said signatures together.

4. A book or pamphlet-making machine including in combination a series of signature-holders, a series of signature-opening devices, a series of means for supplying signatures from a holder to an opening device, means extending along said series of signature holders for conveying an opened signature from one of said opening devices past other opening devices of said series in position to be inset with signatures opened by said other opening devices, whereby said conveyed signature and signatures from said other opening devices are inset one within another, and means for stitching said signatures together.

5. A book or pamphlet making machine including in combination a plurality of signature-opening devices, means for bringing together open signatures from a plurality of said opening devices and insetting one within another, and means for stitching said signatures together, while open, from the back through to the inside.

[Claims 6 to 15 not printed in the Gazette.]

1,028,709. OVERSHOE FOR HORSES. THOMAS J. GORMAN, Sr., Hudson Heights, N. J. Filed Dec. 28, 1911. Serial No. 668,368. (Cl. 168—1.)

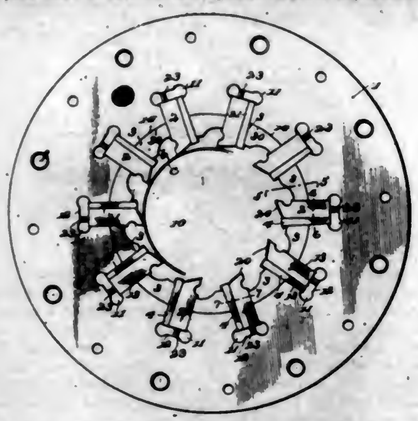


In a device of the kind described, a centrally disposed circular link, chains connected to said link and radiating from spaced portions thereof, said chains each terminating in a link having rounded ends and parallel sides, said terminal links being arranged in pairs adapted to lie on either side of a horse's hoof, a leather strap connecting each pair of the terminal links and having its ends overlapping to provide three thicknesses of leather, rivets extending through said strap to hold the ends and body together and thereby provide a semi-rigid connection between said links, a leather strap adapted to fit over the rear of a horse's hoof connecting the rear terminal links, and a leather strap having one end connected to one of the front terminal links and passing through the other front terminal link, said last mentioned strap being provided with openings and a buckle for adjustment.

1,028,710. ROTARY METAL-CUTTING-OFF DEVICE. GEORGE GORTON, Racine, Wis. Filed Dec. 5, 1910. Serial No. 595,812. (Cl. 29—105.)

1. A metal cutting-off saw comprising a blade having a central work receiving opening and formed with spaced cutter pockets arranged around said opening and formed with abutment floors equally spaced from the center of said opening, and cutters keyed in said pockets with cutting points in said opening and at their outer ends provided with fixed stop heels seated against said floors to determine the radial cutter adjustment, said heels adapted to be ground off, substantially as described.

2. A metal cutting-off saw comprising a blade having a central work receiving opening and formed around said opening with spaced cutter pockets, said pockets having abutment floors equally spaced from the center of said opening, cutters adapted to said pockets, and means for removably securing the cutters in said pockets, said cutters having stop heels abutting against said floors to determine radial cutter adjustment, said heels being formed by pins fixed in said cutters against relative adjustment.



3. A metal cutting-off saw comprising a blade having a central work receiving opening with spaced cutter pockets arranged around said opening, said pockets having abutment floors, cutters adapted to said pockets and having stop heels composed of material softer than the blade and body of the cutters, and means for securing the cutters removably in said pockets.

4. A metal cutting-off saw comprising a blade having spaced cutter pockets formed with abutment floors, removable cutters adapted to said pockets and having relatively soft metal stop heels adapted to seat on said floors and compress under abnormal endwise pressure, and means for securing said cutters in said pockets.

5. A metal cutting-off saw comprising a blade having spaced cutter pockets formed with abutment floors uniformly spaced from the axis of rotation, a set of removable cutters adapted to said pockets, means for securing said cutters in said pockets, said set of cutters composed of a number of wide short point cutters alternating with a series of otherwise similar long narrow point cutters, all of said cutters having flat end stop heels seated against said floors, all of said short point cutters being of exactly the same length from heel end to point, and all of said long point cutters being of exactly the same length from heel end to point, the radial adjustment of said cutters being determined by grinding said heel ends, substantially as described.

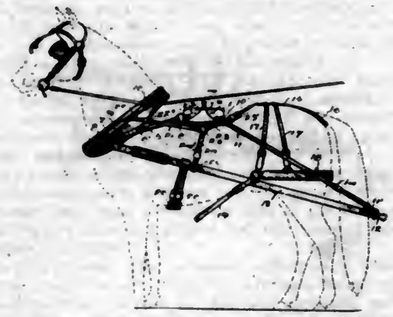
[Claims 6 to 11 not printed in the Gazette.]

1,028,711. HARNESS ATTACHMENT. CHARLES M. GREEN, Garden City, Kans. Filed Apr. 4, 1911, Serial No. 618,818. Renewed Feb. 20, 1912. Serial No. 678,955. (Cl. 54—1.)

1. In a harness, a saddle, a collar, traces, straps connecting each side of said saddle with each side of said collar, straps connecting each side of said saddle with the ends of the traces and straps connecting the sides of said saddle with the collar and with the back strap of the harness.

2. In a harness, a collar, a saddle, traces, a strap on each side of the collar connecting it with the forward end of the saddle, a strap on each side of the saddle connecting it with the rear ends of the trace, a strap on each side of the collar connecting it with each side of the saddle, and a strap on each side of the saddle connecting it with the back strap.

3. In a harness, a collar, a saddle, traces, a strap on each side of the collar connecting the lower end of the collar with the forward end of the saddle, a strap connected to and extending from the rear end of the saddle and connected with the rear end of a trace, said strap being adjustable, a strap on each side of the collar extending from its upper portion to the side of the saddle, and a strap on each side of the saddle extending to the back strap.

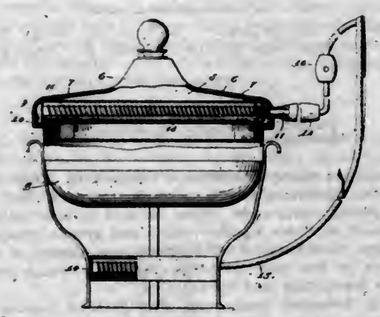


4. In a harness, a collar, a saddle, traces, a strap on each side of the collar connected thereto at its lower end adjacent to the forward end of the trace, said strap being connected at its other end to the forward end of the saddle, a strap extending from the rear end of each side of the saddle to the end of the trace, and adjustable in length, a strap on each side of the collar extending from its upper portion and connected to the side of the saddle, a strap extending from each side of the saddle to the back strap, and a strap extending from each side of the saddle and connected with each trace.

5. In a harness, a collar, a saddle, traces, a strap on each side of said collar connected at one end to the lower end of the hame and at the other end to the forward end of the saddle, a strap adjustable in length located on each side of the saddle and connected at one end to the rear end of the trace, a ring depending from each side of the saddle, a strap connected at one end to the hame adjacent to its upper end and at the other end to said ring, a strap on each side of the saddle connected at one end to said ring, and at its other end to the back strap, and a strap connected to a ring on each side of the saddle and to a trace on each side of the harness.

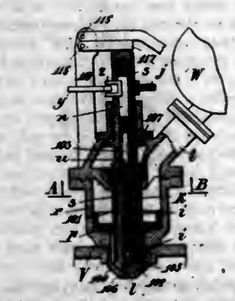
[Claim 6 not printed in the Gazette.]

1,028,712. LID FOR COOKING UTENSILS. ARTHUR GREGORY, Durango, Mexico. Filed October 21, 1911. Serial No. 655,944. (Cl. 219—44.)



A chafing dish cover comprising a hollow body closed at either end and having one end portion reduced so as to enter the dish, an electric heater arranged in spaced relation to the opposite ends of the body and supported from the shoulder resulting from reducing the said end portion, and a hollow handle adapted for receiving electric leads and extending through the body and connected to one end of the heater.

1,028,713. CARBURETER FOR INTERNAL-COMBUSTION MOTORS. WASSILY GRINEWEZKI, Moscow, Russia. Original application filed Jan. 28, 1907, Serial No. 354,575. Divided and this application filed July 6, 1910. Serial No. 570,539. (Cl. 123—30.)



1. A carbureting device for internal combustion engines comprising in combination an air receptacle of variable volume, and a connection to the engine cylinder through which air compressed therein may be admitted to the air receptacle to expand the same, together with means serving to reduce the volume of the air chamber and at the same time spray a fluid combustible into the compressed air as it is expelled from the air receptacle by its contraction.

2. In a carbureter for internal combustion engines, the combination of a casing having an opening at one end, an air valve seated in said opening and having a hollow spindle extending into the casing, a hollow fuel-containing spindle in said air valve spindle, having an inlet connection, and a discharge connection through the air valve, a piston located in said casing, means for forcing said piston toward the open end of the casing, and means through which the motion of said piston controls the flow of fuel through the hollow fuel-containing spindle.

3. In a carbureter for internal combustion engines the combination of a casing having an opening at one end adapted to communicate with the engine cylinder, an air valve seated in said opening and having a hollow spindle extending through said casing, a hollow, fuel-containing spindle seated in said air valve spindle, having inlet and outlet connections, a compound piston located partly in said casing and partly in the fuel containing spindle, and means for forcing said piston toward the open end of the casing.

4. In a carbureter for internal combustion motors the combination of an air container terminating in a nozzle having a valve seat formed in its interior, and a hollow air valve having a conical perforated valve face adapted to seat itself in said valve seat, together with means for introducing a quantity of fluid combustible into the interior of said valve and simultaneously expelling the combustible in the valve and the air in the container through the nozzle of the container.

5. In a carbureter for internal combustion motors the combination of a casing having an opening at one end adapted to be connected to the combustion chamber of the motor, a hollow spindle located and movable endwise in the casing and having a valve face adapted to seat itself in said opening, said valve face being perforated, means for admitting a quantity of fluid combustible into the interior of said spindle and expelling the same therefrom through its perforated face, said means comprising an annular piston in the casing mounted on the hollow spin-

die and having frictional contact with said spindle sufficient to reciprocate same, and means for forcing said piston toward the open end of the casing.

[Claims 6 to 21 not printed in the Gazette.]

1,028,714. DOOR TRACK AND HANGER. WILLIAM F. HACKNEY, Washington, Kans., assignor of one-half to Edgar Bennett, Washington, Kans. Filed Nov. 22, 1911. Serial No. 661,679. (Cl. 16—90.)



1. The combination with a metallic trackway formed of a flanged portion and a tubular track portion integral therewith, brackets for supporting the trackway above the doorway, a door, a hanger plate connected to the upper end of said door and provided with inwardly turned lugs having apertures therein, and roller bearings moving within the trackway, each roller bearing comprising a pair of rollers, a yoke connecting the same, said yoke having a stud adapted to pass through the aperture in the adjacent hanger of the door.

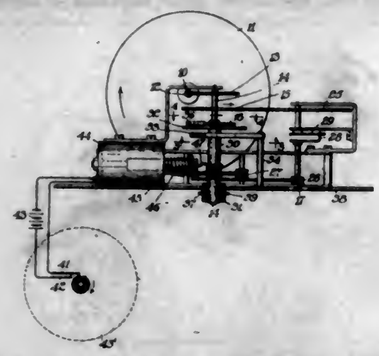
2. The combination with a door having an upper beveled end, of a hanger plate connected to the upper end of said door and having laterally extending lugs each formed with an aperture, of a trackway secured above the doorway, said trackway having a tubular section, roller bearings moving within said tubular sections, each roller bearing comprising a pair of rollers, each roll formed of two sections connected by a shaft, a yoke having two arms adapted to engage with the shafts of the rolls, and a stud formed at the center of each yoke and adapted to project through the aperture in the adjacent hanger lug.

3. The combination of a metallic trackway formed of a flanged portion and a tubular track portion integral therewith, brackets for supporting the trackway above a doorway, a door, a hanger plate connected to the upper end of said door and provided with inwardly turned lugs having apertures therein, and bearings moving within the trackway, each bearing including a member having a stud adapted to pass through the aperture in the adjacent hanger of the door.

1,028,715. MAXIMUM-INDICATING AND WATT-HOUR METER. CHESTER I. HALL, Chicago, Ill., assignor to Mineralac Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 14, 1911. Serial No. 643,839. (Cl. 171—34.)

1. In a device of the class described, the combination of motor mechanism whose motion is proportional to and varies as the energy supplied to an electric circuit, a register driven by said motor mechanism, an indicator, a driving spring, indicator driving mechanism actuated by said spring, a gear connected with the motor mechanism, a pawl and ratchet connection between said gear and said driving mechanism, an electromagnet adapted upon energization to return the indicator driving mechanism to its initial position, and a clock-controlled switch for periodically closing the circuit of the electromagnet.

2. In a device of the class described, the combination of motor mechanism whose motion is proportional to and varies as the energy supplied to an electric circuit, a register driven by said motor mechanism, an indicator, a driving spring, indicator driving mechanism actuated by said spring, a gear connected with the motor mechanism, a pawl and ratchet connection between said gear and said driving mechanism, and clock-controlled mechanism adapted periodically to return the indicator driving mechanism to its initial position.



3. In a device of the class described, the combination of motor mechanism whose motion is proportional to and varies as the energy supplied to an electric circuit, an indicator, a driving spring, indicator driving mechanism actuated by said spring, a gear connected with the motor mechanism, a pawl and ratchet connection between said gear and said driving mechanism, an electro-magnet adapted upon energization to return the indicator driving mechanism to its initial position, and a clock-controlled switch for periodically closing the circuit of the electromagnet.

4. In a device of the class described, the combination of motor mechanism whose motion is proportional to and varies as the energy supplied to an electric circuit, an indicator, a driving spring, indicator driving mechanism actuated by said spring, a gear connected with the motor mechanism, a pawl and ratchet connection between said gear and said driving mechanism, and clock-controlled mechanism adapted periodically to return the indicator driving mechanism to its initial position.

5. In a device of the class described, the combination of motor mechanism whose motion is proportional to and varies as the energy supplied to an electric circuit, a register driven by said motor mechanism, an indicator, a source of power independent of said motor mechanism tending to drive said indicator, a pawl and ratchet connection between said motor mechanism and said indicator, and clock-controlled mechanism for periodically resetting said source of power.

[Claims 6 to 11 not printed in the Gazette.]

1,028,716. BEDSTEAD. DWIGHT K. HALL, Goshen, N. Y. Filed May 11, 1911. Serial No. 626,513. (Cl. 5—4.)



1. A bed frame composed of supporting posts having sockets therein, members extending between said posts and having their ends fitting in said sockets, said post and said members having tongue and groove engagement at their sockets, whereby a turning movement of one in respect to the other detaches them, and means for normally preventing said turning.

2. A bedstead comprising two parallel tubular post members and two transversely extending frame members, said post members having sockets in the side thereof and one of said frame members having beveled ends and a notch adjacent each end thereof and in the face opposite to the bevel, and the other of said frame members having

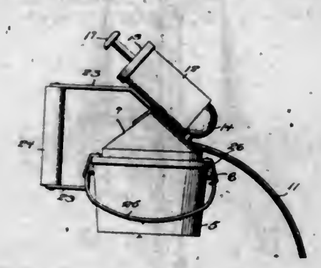
tenons entering sockets in said posts members and means for preventing the separation of the ends of the post members adjacent to said second-mentioned frame member.

3. A bedstead including two substantially parallel frame members, each having a plurality of openings or sockets in one side thereof, a plurality of connecting members, each having a beveled end and a notch in the face thereof opposite to the bevel and adapted to receive the edge of the corresponding socket in the first-mentioned member, whereby said second-mentioned members can be withdrawn from said sockets only upon a relative tilting of the two members and posts connected to said first-mentioned members for preventing said tilting.

4. A bedstead including two substantially parallel frame members each having a plurality of openings or sockets in one side thereof, a plurality of connecting members each having a notch in one face thereof adjacent each end and adapted to receive the edge of the corresponding socket in the first-mentioned members whereby said second-mentioned members can be withdrawn from said sockets only upon a relative tilting of the two members and means connected to said first-mentioned members to prevent said tilting.

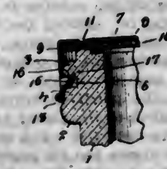
5. In combination, post members, transversely extending frame members and vertically extending frame members substantially parallel to said post members, means for detachably connecting the ends of said second-mentioned frame members to said first-mentioned frame members intermediate of the ends of the latter and permitting the removal of said second-mentioned frame members only upon the relative tipping or tilting of said post members and means for preventing normally said movement of said post members.

1,028,717. SKIMMER. ELIAS I. HALLOCK, Babylon, N. Y. Filed July 11, 1911. Serial No. 637,997. (Cl. 31—14.)



A device for the purpose described, including a receiver, a cone shaped cover mounted on said receiver, a cylinder secured in inclined position to the cover with the outer end of the cylinder projecting beyond the apex of the cover, a valved communication between the interiors of the cylinder and cover, a piston operating in said cylinder, handle brackets connected to said cover, one of said brackets being also connected to the upper end of the cylinder and serving to reinforce the connection of said cylinder with the cover, and a handle carried by said brackets.

1,028,718. BOTTLE OR JAR CLOSURE. CHARLES HAMMER, Brooklyn, N. Y., assignor to American Metal Cap Co., Brooklyn, N. Y., a Corporation of New York. Filed Dec. 16, 1911. Serial No. 666,128. (Cl. 215—85.)



1. A bottle cap formed of thin sheet metal and having a flange provided with a series of vertical stiffening corrugations, a stiffening bead or rim formed at the lower edge of the flange, and an intervening unstiffened portion, said unstiffened portion being provided with a series of instruck locking projections intersecting and reinforced by the adjacent corrugations and portions of the stiffening bead or rim, said projections being of semi-elliptical form with their major axes disposed at an angle to the plane of the flange, said projections being longitudinally and transversely curved and inclined to the horizontal plane of the cap and having their upper edges separated from the flange and their lower surfaces rounded, whereby said edges and rounded lower surfaces of the projections are adapted to bind respectively upon the lower and upper surfaces of pairs of coacting superposed spiral threads on a receptacle.

2. The combination with a receptacle having pairs of spaced superposed separated spiral threads, of a thin sheet metal cap having a flange provided with an upper corrugated portion spaced from the side of the receptacle a distance equivalent to the thickness of the threads and terminating about in line with the bottom faces of the upper threads, a stiffening bead or rim at its lower edge arranged in line with the outer faces of the lower threads and an intermediate unstiffened portion disposed opposite the space between the threads, said unstiffened portion being provided with instruck locking projections disposed between said corrugations and bead and separated by slits from the adjacent corrugations, said projections being longitudinally and transversely bowed and reinforced by the adjacent corrugations and portions of the rim and bead, the upper edges of said locking projections being arranged to bear against the lower faces of the upper threads and the outwardly and downwardly curved inner faces thereof arranged to bind against the upper surfaces of the lower threads.

1,028,719. ELECTRIC-LAMP SOCKET. HERMAN T. HARTWIG, Hartford, Conn., assignor to The Arrow Electric Company, Hartford, Conn., a Corporation of Connecticut. Filed Dec. 14, 1910. Serial No. 597,244. (Cl. 173—362.)



1. In an electric lamp socket, resilient means interposed between the shell and body for taking up play between the latter.

2. An electric lamp socket comprising an inclosing casing and a porcelain socket body within the same, in combination with an insulating lining interposed between said casing and socket body and having its inner and outer bearing faces resiliently spaced apart to take up play between the shell and the socket body when the latter is undersized, substantially as described.

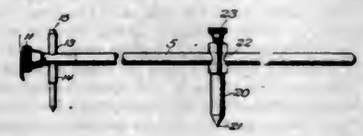
3. An electric lamp socket comprising an inclosing casing and a porcelain socket body within the same carrying a screw shell to receive a lamp base, in combination with an insulating lining separating said casing from the socket body and screw shell, the portion of said lining surrounding said porcelain body having its inner and outer bearing faces spaced apart radially a greater distance than the normal thickness of said lining to take up play between the casing and said body when the latter is undersized.

4. An electric lamp socket comprising an inclosing casing and a porcelain socket body within the same carrying a screw shell to receive a lamp base, in combination with an insulating lining for said casing, said lining comprising a plain cylindrical portion surrounding the screw shell and

a portion of greater diameter surrounding the socket body, the latter portion having its inner and outer bearing faces spaced apart radially a greater distance than the normal thickness of said lining to take up play between the casing and said body, substantially as described.

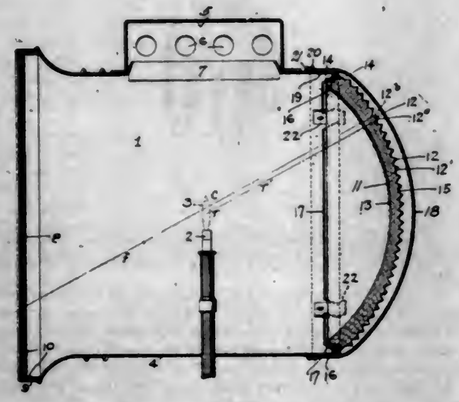
5. A lining for electric lamp sockets having the inner and outer bearing faces thereof spaced radially apart a greater distance than the normal thickness of said lining to take up play between the casing and the socket body, said lining being longitudinally slotted to receive the stem of a switch key, substantially as described.

1,028,720. MARKING GAGE OR TRAM. JOHN W. HASBURG, Chicago, Ill. Filed Jan. 27, 1912. Serial No. 673,717. (Cl. 33—13.)



A tool of the class described comprising a bar tapered and screw threaded at one end and bifurcated by a slot at said end, said slot terminating in a bore larger in diameter than the slot, a split tube for holding a marker, said bar having another bore in said slotted end parallel with the first said bore, and a tapered, screw-threaded head having a tapered screw-threaded perforation for engagement with the threaded end of said bar and a smaller central perforation for insertion of a scribe pin.

1,028,721. ILLUMINATOR. THOMAS CLARENCE HEISEY and ANDREW J. SANFORD, Newark, Ohio, assignors to A. H. Heisey & Co., Inc., Newark, Ohio, a Corporation of West Virginia. Filed Aug. 16, 1910. Serial No. 577,416. (Cl. 240—111.)



1. An illuminator provided with a source of light and a casing around the same, an inwardly extending annular flange formed integral with said casing, a reflector provided with an annular edge engaging said flange, and a gasket of elastic material between said flange and said annular edge.

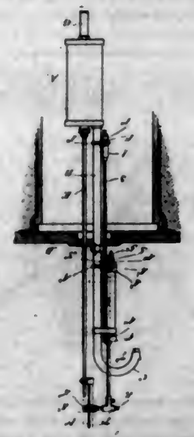
2. An illuminator having a source of light and a casing surrounding the same and having an annular inclined flange in its rear portion, a reflector provided with an annular inclined edge having a groove therein and a gasket of elastic material seated in said groove and holding said reflector within said flange.

3. An illuminator having a source of light and a casing around the same, said casing having an annular inclined flange in its rear portion, a reflector provided with an annular inclined edge adapted to mate within said flange and having a groove in said edge, a gasket of elastic material carried within said groove and adapted to support said reflector within said flange, and further means for securing said reflector to said casing.

4. An illuminator having a source of light and a casing around the same; said casing having an annular inclined flange in its rear portion, a reflector provided with annular inclined edge adapted to mate within said flange and having a groove within said edge, a gasket of elastic material carried within said groove and adapted to support said reflector within said flange, and a cap around said reflector and provided with means attaching it to said casing.

5. An illuminator having a source of light and a casing around the same, said casing having an annular inclined flange in its rear portion, a reflector provided with an annular inclined edge adapted to mate within said flange and having a groove within said edge, a gasket of elastic material carried within said groove and adapted to support said reflector within said flange, and spring clips attached to said casing and pressing on said reflector to secure the same in place.

1,028,722. PNEUMATICALLY-CONTROLLED DRAIN-VALVE. MARTIN H. HESS, Davenport, Iowa. Filed Feb. 15, 1912. Serial No. 677,751. (Cl. 103—60.)



1. In combination with a water pipe having a drain outlet, a drain valve casing connected with said water pipe, a valve in said casing closing the outlet thereof, a plunger in the casing connected with the valve, a spring for normally holding the valve open, an air compressor, means whereby compressed air may be admitted from the air pump into the casing above the plunger when water is flowing through the pipe thereby causing the closing of the valve, and means for relieving the air pressure when the water ceases flowing thereby permitting the spring to open the valve.

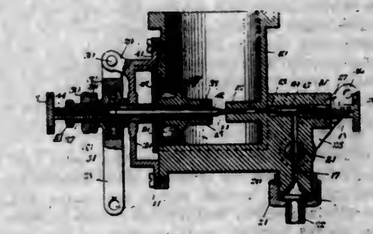
2. In combination with a pump having a drain opening, a drain valve casing communicating with the drain opening and having an outlet, a valve in the casing closing said outlet, a spring for opening the valve, a plunger in the casing connected with the valve, an air compressor, pipe connections between the air compressor and the valve casing above the plunger; means for operating the air compressor when the pump is operated whereby compressed air is supplied to the casing and closes the valve during the pumping operation; and an air vent whereby when the pumping ceases the air pressure is reduced and the spring permitted to open the valve, thereby draining the pipe.

3. A drain valve comprising a casing adapted to be attached to a water pipe or container and provided with an opening adapted to register with an opening in the pipe, and with an outlet in its lower end, a valve for closing said outlet; cup leathers attached to the upper end of the valve and fitting the casing; a spring for opening said valve; an air compressor, an air pipe connected with the compressor and with the casing above the cup leathers, and and air vent above the said cup leathers.

4. A drain valve comprising a casing adapted to be attached to a water pipe and provided with an opening adapted to register with an opening in the water pipe, and an outlet, a valve for closing said outlet, cup leathers attached to the upper end of the valve and fitting the casing, a spring for opening said valve, an air supply pipe connected with the end of the casing above the cup leathers; with an air compressor provided with an inlet valve, and a relief valve; an air pipe connecting the compressor chamber with the said drain valve casing, and a check valve in said air pipe between the air compressor and the said casing.

5. In combination with a pump cylinder, a piston rod and delivery pipe; a valve casing controlling the drain opening of said pipe, and having an outlet in its lower end, and a minute air vent at its upper end, a valve in the casing for closing said outlet; cup leathers attached to said valve, and a spring for opening the valve; with an air compressor cylinder, a piston therein, and means for operating said piston from the pump rod; a relief valve connected with the compressor cylinder, an air pipe connecting the compressor cylinder with the upper end of the valve casing, and a check valve for preventing back flow of the air from the casing into said compressor.

1,028,723. CARBURETER. HUGO HEZINGER, Baldwin, and CARL HEZINGER, New York, N. Y. Filed May 17, 1911. Serial No. 627,826. (Cl. 48—155.1.)

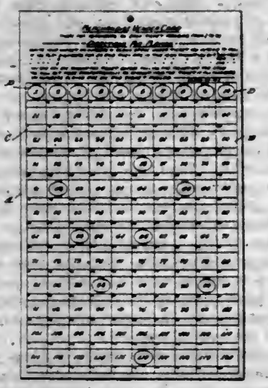


A carbureter such as described, having a bucket-shaped mixing chamber provided in the side wall thereof with an air supply opening; a gasolene supply pipe having an inlet opening into said chamber oppositely disposed to and in line with the center of said opening; a closure valve for said opening suitably mounted on said chamber; means for manually operating said closure valve to expose and close said air supply opening; a needle valve carried by said closure valve and adapted to close the inlet opening of said gasolene supply pipe; and means for adjusting the said needle valve on the said closure valve to move therewith to regulate the extent of closure of the said gasolene supply pipe in relation to the closure of the said air supply opening.

1,028,724. GAME APPARATUS. JULIUS D. HIRSCH, Savannah, Ga. Filed Nov. 20, 1911. Serial No. 661,200. (Cl. 46—56.)

1. A game apparatus, substantially as herein described, comprising a table having ticket spaces and indicating spaces adjacent to and corresponding with their respective ticket spaces, tickets detachably attached to their respective ticket spaces and having under folded numbered slips containing a series of numbers, the said tickets and the indicating spaces corresponding to the ticket spaces of said tickets being correspondingly designated, substantially as and for the purposes set forth.

2. A game apparatus comprising a table having spaces and a series of tickets detachably secured to the table and corresponding to their respective indicating spaces of the table, the said spaces and tickets being correspondingly designated.

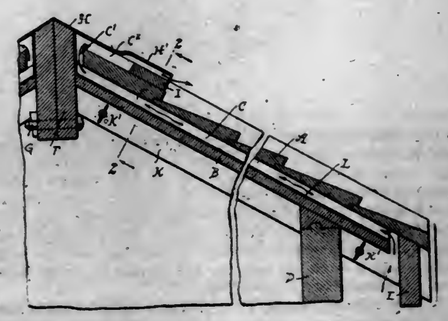


3. A game apparatus comprising a table having designated spaces adapted to receive numbers chosen by a player, and tickets detachably connected with the table and corresponding to said designated spaces and suitably designated whereby they may be identified with their respective spaces, said tickets having series of numbers concealed when the ticket is in connection with the table.

4. In a game apparatus, a table having ticket spaces adapted to receive a ticket, spaces for designation adjacent to their respective ticket spaces and tickets detachably applied to their respective ticket spaces, the tickets and their respective designation spaces being correspondingly designated.

5. In a game apparatus, a ticket having lateral wings and a numbered slip foldable between said wings.

1,028,725. ROOF CONSTRUCTION. ERNEST FRANKLIN HODGSON Needham, Mass. Filed Jan. 11, 1911. Serial No. 601,947. (Cl. 108—1.)



1. A roof construction, comprising a ridge pole, spaced outer and inner sheathings forming between them an air space, the eaves end of which opens into the atmosphere, the outer sheathing terminating short of the ridge pole forming at the side of the ridge pole an air space communicating with the first air space, a longitudinal strip on the outer sheathing adjacent to the upper end thereof, and a ridge cap extending over the ridge pole and having a side extension projecting over the outer sheathing and secured to said strip, said cap forming an air space open-

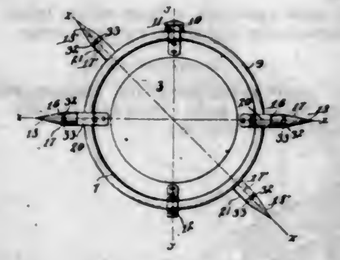
ing into the atmosphere and into which the space at the side of the ridge pole opens.

2. A roof construction, comprising a ridge pole, spaced outer and inner sheathings forming an air space between them, the outer sheathing terminating short of the ridge pole, the eaves end of the said air space opening into the atmosphere, and a ridge cap over the ridge pole and extended over the outer sheathing, the lower edge of the said extended portion of the ridge cap being corrugated and forming with the outer sheathing a second air space communicating with the upper end of the said first-named air space and leading to the atmosphere.

3. A roof construction, comprising spaced outer and inner sheathings forming an air space between them, the eaves end of the air space opening into the atmosphere, a ridge pole extended above the outer sheathing and spaced a short distance from the upper end of the same, a ridge cap over the ridge pole and extended over the upper portion of the outer sheathing, the lower edge of the said extended portion of the ridge cap being corrugated, and a longitudinally-extending filling in strip held on the outer sheathing and on which rests the said corrugated portion, the said extended portion of the ridge cap forming with the outer sheathing an air outlet communicating with the upper end of the said air space.

4. A roof construction, comprising a ridge pole, spaced inner and outer sheathings, the outer sheathings terminating short of the ridge pole, the said sheathings forming an air space communicating with the atmosphere at the eaves, sheets of water-proof material extending over the outer surface of the inner sheathings and on the sides of the ridge pole, filling strips on the outer sheathings adjacent to the upper ends, and a cap on the ridge pole and extending over the outer sheathings onto the filling strips, the lower edges of the cap being corrugated.

1,028,726. COOKING UTENSIL. HANS P. HOLM, Hampton, Iowa. Filed Nov. 18, 1910. Serial No. 593,009. (Cl. 53—6.)



1. A cooking utensil comprising a receptacle, a cover for said receptacle, peripheral flanges on said receptacle and said cover respectively, the edges of said flanges being rolled to form co-acting portions forming a tight joint between them, close fitting jackets for said cover and said receptacle respectively, the jacket for the receptacle being separable therefrom, a hinge connection between said jackets and a latch for securing said jacket in closed position, substantially as described.

2. In a cooking utensil, a receptacle, a close fitting jacket for said receptacle, a cover adapted to fit snugly on said receptacle, oppositely disposed projections on said jacket and said cover adapted to register with each other and together forming cylindrical trunnions and conical extensions, in combination with a lifting device provided with hooks to engage said trunnions, and a turning device comprising a handle having a socket to engage said conical extension, substantially as described.

3. In a cooking utensil, a receptacle, a close fitting jacket for the same, a cover, projections on said jacket and said cover adapted to register to form trunnions for the utensil, a projection on said utensil provided with a vertical aperture, said jacket being recessed to permit protrusion of said projection, a handle provided with a socket to receive the projection on the receptacle, and a latch on said handle adapted to engage said aperture, substantially as described.

4. In a cooking utensil, upper and lower members, projections on said members adapted to register to form trunnions for the device and said projections being provided with transverse apertures formed part in each projection to permit insertion of an instrument between the parts of the trunnions for separation of the members, substantially as described.

1,028,727. VEHICLE-WHEEL. FRANK HOUSHOLDER, Guthrie, Okla. Filed June 8, 1911. Serial No. 631,972. (Cl. 152—31.)

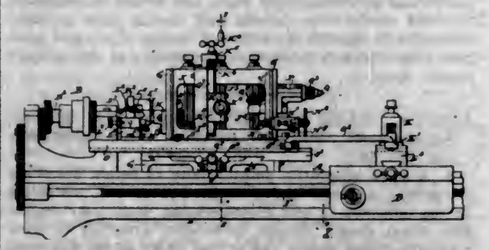


1. In a vehicle-wheel, the combination with the hub and casing surrounding the same, of spoke-sockets around the casing, spokes playing in said sockets, split-rings disposed one within another and against which the inner ends of the spokes bear, and anti-friction rollers between the split-rings, substantially as shown and for the purpose set forth.

2. In a vehicle-wheel, the combination with the hub and casing surrounding the same, of spoke-sockets around the casing, split-rings located within the casing and disposed one within another, anti-friction-rollers between the split-rings, spokes movable in the sockets, and rollers journaled on the inner ends of the spokes to bear upon the outer split-ring, substantially as shown and for the purpose set forth.

3. In a vehicle-wheel, the combination with the hub and casing surrounding the same, of spoke-sockets around the casing, split-rings located within the casing and disposed one within another, anti-friction rollers between the split-rings, spokes movable in the sockets to bear against the outer split-ring, short felly-sections attached to the outer ends of the spokes, and a flexible tire around the felly, substantially as shown and described.

1,028,728. LATHE ATTACHMENT. ROBERT HUGHES, Mount Vernon, N. Y. Filed Sept. 7, 1911. Serial No. 648,119. (Cl. 29—27.)



1. In combination with a lathe, a frame removably attached to the lathe bed, a milling tool mounted to turn on the said frame, a gearing for driving the said milling tool from the lathe spindle, a work holder slidable on the said frame, and a connection between the said work holder and the lathe carriage for moving the work holder in unison with the carriage.

2. In combination with a lathe, a frame removably attached to the lathe bed, a milling tool mounted to turn on the said frame, a gearing for driving the said milling tool from the lathe spindle, a work holder slidable on the said frame and having centers, of which one is provided with an index, and a connection between the said work holder and the lathe carriage for moving the work holder in unison with the carriage.

3. In combination with a lathe, a frame removably attached to the lathe bed, a milling tool mounted to turn on the said frame, a gearing for driving the said milling tool from the lathe spindle, a work holder slidable on the said frame and having centers of which one is adjustable for tapering work, and a connection between the said work holder and the lathe carriage for moving the work holder in unison with the carriage.

4. In combination with a lathe, a frame removably attached to the bed of the lathe, a longitudinal shaft journaled on the said frame in axial alinement with the lathe spindle, means for connecting the shaft with the lathe spindle, vertical shafts journaled on the said frame and geared together, gear wheels connecting one of the said vertical shafts with the said longitudinal shaft, a transverse milling spindle journaled on the said frame, gear wheels connecting the said milling spindle with the other of the said vertical shafts, a milling tool on the said milling spindle, a work holder mounted on the said frame, and a connection between the said work holder and the lathe carriage for moving the work holder longitudinally with the carriage.

5. In combination with a lathe, a frame removably attached to the bed of the lathe, a longitudinal shaft journaled on the said frame in axial alinement with the lathe spindle, means for connecting the shaft with the lathe spindle, vertical shafts journaled on the said frame and geared together, gear wheels connecting one of the said vertical shafts with the said longitudinal shaft, a transverse milling spindle journaled on the said frame, gear wheels connecting the said milling spindle with the other of the said vertical shafts, a milling tool on the said milling spindle, a transverse guideway on the said frame, a milling table bed mounted to slide on the said guideway, a milling table mounted to slide lengthwise on the said milling table bed and provided with work-holding centers, and a link connecting the said milling table with the lathe carriage.

[Claims 6 to 9 not printed in the Gazette.]

1,028,729. RAIL-JOINT. GRANVILLE A. HUMASON, Shreveport, La., assignor, by direct and mesne assignments, to Humason Rail Joint Company, Shreveport, La., a Corporation of Louisiana. Filed Aug. 21, 1911. Serial No. 645,105. (Cl. 238—18.)



1. The combination with two rails having their webs provided each with a semi-elliptical slot adapted to form an elliptical opening when the two rails are abutting, and each provided with bolt holes, of a pair of fish plates, the one provided with an elliptical tongue integral therewith, and the other provided with an elliptical recess adapted to receive said tongue, the said tongue fitting in said elliptical opening in the webs of said rails, and being provided with a slight clearance at either end, with bolts passing through said openings and holding said fish plates against said rail, and holding the end of said elliptical tongue in said elliptical recess in said fish plate, substantially as described.

2. The combination with two rails having their webs provided each with a semi-elliptical slot adapted to form an elliptical opening when the two rails are abutting, and each provided with bolt holes, of a pair of fish plates, the one provided with an elliptical tongue integral therewith, and the other provided with an elliptical recess adapted to receive said tongue, the said tongue fitting in said elliptical opening in the webs of said rails, and being provided with a slight clearance at either end, with bolts passing through said openings and holding said fish plates against said rail, and holding the end of said elliptical tongue in said elliptical recess in said fish plate, the bases of said rails being cut away to form an interlocking joint, substantially as described.

3. The combination with two rails having their webs provided each with a semi-elliptical slot adapted to form an elliptical opening when the two rails are abutting, and each provided with bolt holes, of a pair of fish plates, the one provided with an elliptical tongue integral therewith, and the other provided with an elliptical recess adapted to receive said tongue, the said tongue fitting in said elliptical opening in the webs of said rails and being provided with a slight clearance at either end, with bolts passing through said openings and holding said fish plates against said rail, and holding the end of said elliptical tongue in said elliptical recess in said fish plate, the web of one of said rails being cut away as at a^3, and shouldered as at a^4, and provided with a tongue a', and the web of the other rail being cut away as at a^5 to register with said cut away portion a^3 of the first rail, and being provided with a recess to receive said tongue a', whereby an interlocking joint is secured, which will both assist in securing vertical rigidity and also in preventing lateral displacement, substantially as described.

1,028,730. WATCHCASE. JOHN C. HUMPHREYS, Sutton, W. Va. Filed Jan. 18, 1911. Serial No. 603,349. (Cl. 58—88.)



1. A watch case rim provided on one side of the pendant with flanges, a winding stem disposed between the flanges, and a cap hinged to the rim and arranged to fit snugly against the flanges.

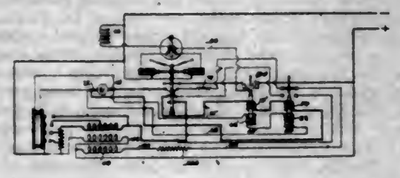
2. A watch case rim provided on one side of the pendant with flanges, a winding stem disposed between the flanges, a cap hinged to the rim and arranged to fit snugly against the flanges, and means for locking the cap in closed position.

1,028,731. CONTROLLING APPARATUS FOR ELECTRIC MOTORS. JOHN D. IHLDER, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Dec. 6, 1907. Serial No. 405,349. (Cl. 172—152.)

1. The combination with a motor, of controlling apparatus therefor, a differential relay, and means controlled by said relay for effecting a positive stop of said motor when the same acts as a generator or attains an undue speed.

2. The combination with a motor, of a main line switch therefor, a brake magnet, a doubly wound magnet, and means whereby said doubly wound magnet effects the open-

ing of the main line switch and the deenergisation of said brake magnet when the motor acts as a generator or runs at an excessive speed.



3. The combination with an electric motor, of a main line switch and controlling apparatus for said motor, a brake magnet, a differentially wound magnet associated with said switch and having one winding connected in series with the motor armature, and having the other winding connected across the motor armature, means for maintaining said switch in closed position during normal operation of the motor, and means controlled by said differential magnet for effecting the opening of the main line switch and the deënergisation of the brake magnet when the motor attains an excessive speed.

4. The combination with an electric motor, of a doubly wound magnet having one winding connected directly across the motor armature, and the other winding arranged to be connected in series with the motor armature, and electro-mechanical means controlled by said electro-magnet for effecting the stopping of the motor when the speed of the latter becomes excessive or when said motor acts as a generator.

5. The combination with an electric motor, of controlling apparatus therefor, a doubly wound magnet, and electrical devices controlled by said magnet for effecting a positive stop of the motor when the speed of the latter becomes excessive or when said motor acts as a generator.

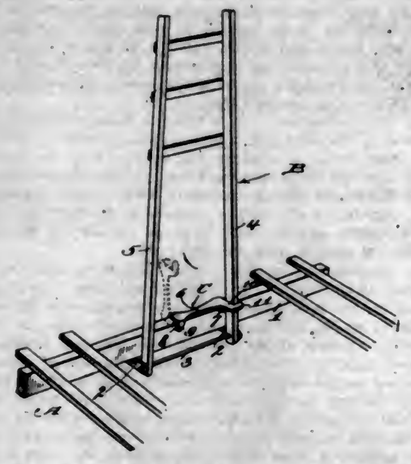
[Claims 6 to 21 not printed in the Gazette.]

1,028,732. SEWING-RACK. LILLIE JENNINGS, Lamont, Okla. Filed Dec. 14, 1910. Serial No. 597,274. (Cl. 223—53.)



A rack of the character described comprising a back board provided with longitudinally extending grooves and with a transversely extending groove connecting said longitudinally extending grooves, said transversely extending groove being undercut, a longitudinally extending strip mounted in each of said longitudinally extending grooves, and a transversely extending strip mounted in said transversely extending groove, said longitudinally extending strips being provided with grooves in which the ends of said transversely extending strip fit.

1,028,733. WAGON HAY-RACK. PETER JESS, Lyons, Iowa, assignor of one-half to Charles A. Evans, Jr., Clinton, Iowa. Filed June 12, 1911. Serial No. 632,619. (Cl. 21—74.)

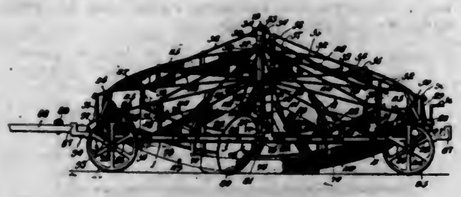


1. The combination, with a hay rack, including an end stringer, of a ladder pivoted to said stringer, and a movable retaining member carried by said stringer and comprising a flat body portion adapted to rest squarely upon the top face of the stringer and a terminal hook formed upon said body and adapted for engagement with said ladder when the same is in one position.

2. The combination, with a hay rack, including a stringer, of a ladder pivoted to said stringer, and a latch carried by said stringer for retaining said ladder in one position, said latch comprising a body portion provided at opposite ends with depending pairs of spaced ears adapted to straddle the stringer, and at one end with a hook adapted to engage said ladder.

3. A latch of the type specified comprising a body portion adapted for pivotal connection at one end to a stringer and provided at its other end with a pair of spaced ears adapted to straddle the stringer, and a retaining hook on one end of said body portion.

1,028,734. DITCHER AND GRADER. GEORGE WASHINGTON JORY, Marysville, Cal. Filed May 27, 1911. Serial No. 629,822. (Cl. 37—17.)



1. In an excavating machine, an inclined rotatable series of dirt receiving buckets or receptacles with one edge in position to engage the ground, a plow in operative relation to the series of buckets where engaging the ground, and a deflector plate or share between the plow and that portion of the series of buckets engaging the ground.

2. In an excavating machine, an inclined rotatable series of dirt receiving buckets or receptacles, with one edge in position to engage the ground, a plow mechanism in operative relation to the series of buckets where engaging the ground, and a deflector plate or share between the plow and that portion of the series of buckets engaging the ground, said deflector plate being curved in opposite directions from a central point to be active in opposite directions of travel of the machine.

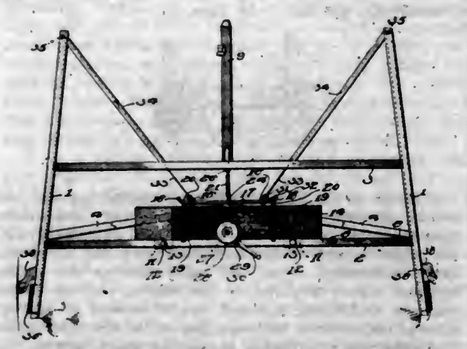
3. In an excavating machine, an inclined rotatable series of dirt receiving buckets or receptacles with one edge in position to engage the ground, a plow mechanism in operative relation to the series of buckets where engaging the ground, and a deflector plate or share between the plow and that portion of the series of buckets engaging the ground, said deflector plate having adjustable supports whereby the plate may be adjusted in directions toward and from the ground.

4. In an excavating machine, a suitable frame, adjustable wheel supports therefor whereby the distance of the frame from the ground may be varied, an inclined rotatable circular series of buckets or receptacles for dirt having one edge in engaging relation to the ground, and means for varying the inclination of the axis of rotation of the circular series of buckets.

5. In an excavating machine, a suitable frame, supporting wheels therefor having adjustable connections with the frame for varying the distance of the latter from the ground, an inclined circular rotatable series of buckets or receptacles at one point adapted to engage the ground, a plow mechanism carried by the frame, means for adjusting the inclination of the circular series of buckets, and a deflector plate or share carried by the frame and adjustable thereon toward and from the ground.

[Claims 6 to 24 not printed in the Gazette.]

1,028,735. BURIAL APPARATUS. THADEUS KEITH, New York, N. Y. Filed July 31, 1911. Serial No. 641,474. (Cl. 27—6.)



1. A burial apparatus comprising an elevated framework, a pair of bars adapted to lie parallel to a coffin, chains connected with one of said bars and detachably connected to the other bar, and adapted to be passed under a coffin, hoisting chains connected to said bars, and a hoisting mechanism on said frame work connected with said hoisting chains.

2. A burial apparatus comprising an elevated framework, a rod having a chain connected to each end adapted to extend about a coffin, a second rod with which said chains are detachably connected said rods arranged to lie parallel to the length of a coffin, hoisting chains connected to said rods, a hoisting rope mounted on said framework, and a windlass and operating mechanism connected therewith and mounted on said frame work.

3. A burial apparatus comprising an elevated framework, ropes and chains adapted to be secured to a coffin for suspending the same, and hoisting mechanism connected with said ropes and chains, cords mounted on said elevated frame-work and connected with said rods, a windlass connected with said cords and weights slidable upon said uprights having said cords secured thereto.

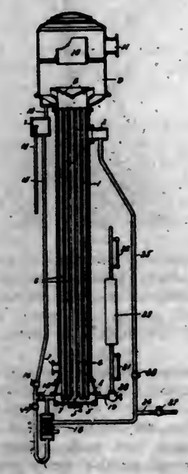
4. A burial apparatus comprising an elevated framework having longitudinal rods, a pair of rods and chains connected to said rods and adapted to be extended beneath the coffin, hoisting chains connected with said rods, a hoisting mechanism connected with said hoisting chains, hollow bars extending from the lower part of the framework to the top of the framework at its ends, grooved uprights at the ends of the frame connected at their upper ends to the upper ends of said hollow bars, pulleys at the upper end of said grooved uprights, cords extending through said hollow bars, and through said grooved uprights and over said pulleys and connected at one end to said rods for securing a coffin, and weights connected at the other ends of said cords and slidable in said grooved uprights.

1,028,736. FISH-SCALING DEVICE. OTTO KELL, Des Moines, Iowa. Filed July 31, 1911. Serial No. 641,598. (Cl. 17—10.)



A fish scaling device, comprising a base provided with inclined lugs on its lower surface and with openings adjacent to each lug respectively designed to permit scales removed by the lugs to pass through said base, upwardly and inwardly extending sides secured together at a point spaced apart from the base to leave a space above the base open at both ends, said sides being further extended in substantially cylindrical form to constitute a handle.

1,028,737. PROCESS OF EVAPORATION AND APPARATUS THEREFOR. PAUL KESTNER, Lille, France, assignor to Kestner Evaporator Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 22, 1911. Serial No. 645,426. (Cl. 127—9.)



1. The process of evaporating liquids which comprises passing an inflowing body of liquid upward through a heated tube as an ascending film, diverting a controlled amount of the liquid emerging from the top of the tube and admixing the diverted liquid with liquid from another source to form said body.

2. The process of evaporating liquids which comprises passing an inflowing body of liquid upward through a

heated tube as an ascending film, diverting a controlled amount of the liquid emerging from the top of the tube and admixing the diverted liquid with liquid from another source to form said body, the proportions of liquid so admixed being varied from time to time to correspond with variations in evaporating conditions within said tube.

3. The process of evaporating liquids which comprises passing an inflowing body of liquid upward through a heated tube as an ascending film, collecting the liquid emerging from the top of the tube as a pool or body overflowing to a point of discharge while diverting a controlled amount and admixing the diverted liquid with liquid from another source to form said inflowing body.

4. The process of evaporating liquids which comprises passing an inflowing body of liquid upward through a heated tube as an ascending film, collecting the liquid emerging from the top of the tube as a comparatively quiescent pool or body overflowing to a point of discharge while diverting a controlled amount and admixing the diverted liquid with liquid from another source to form said inflowing body.

5. The process of evaporating liquid which comprises passing an inflowing body of liquid upward through a heated tube as an ascending film, collecting the liquid emerging from the top of the tube and diverting a controlled amount of it, reheating the diverted liquid and admixing it with other liquid to form said inflowing body.

[Claims 6 to 9 not printed in the Gazette.]

1,028,738. EVAPORATING APPARATUS. PAUL KESTNER, Lille, France, assignor to Kestner Evaporator Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Aug. 22, 1911. Serial No. 645,427. (Cl. 127—9.)



1. In an evaporator, a plurality of groups of evaporating tubes, a common heating chamber inclosing said plurality of groups, a common offtake for the vapor formed in all said groups and means for passing liquid to be evaporated successively or independently through said groups.

2. In an evaporator, three or more groups of evaporating tubes, a common heating chamber inclosing said groups, a common offtake for the vapors formed in all said groups, means for passing liquid to be evaporated successively through two such groups and means for passing liquid through another group independently of the circulation through the other said groups.

3. In a climbing film evaporator, a plurality of vertical evaporating tubes of a type adapted for climbing film evaporation, a common heating chamber surrounding said tubes, a lower casing inclosing depending ends of said tubes, a partition in said casing dividing it into subchambers communicating with groups of said tubes, an upper casing at the top, a partition in said latter casing dividing it into a plurality of subchambers communicating with corresponding groups of said tubes, means for feeding liquid to one of the lower subchambers and means for returning liquid from one of the upper subchambers to another of the lower subchambers.

4. In a climbing film evaporator, a plurality of vertical tubes, a heating chamber surrounding said tubes of a type adapted for climbing film evaporation, a surmounting hood having means for removing vapor from all said tubes, a casing inclosing depending ends of said tubes, a plurality of partitions in said casing dividing it into feeding subchambers for corresponding groups of tubes, a plurality of partitions in said hood dividing it into liquid-receiving subchambers communicating with corresponding groups of tubes, means for supplying liquid to one of said feeding subchambers and means for withdrawing liquid from the corresponding liquid-receiving subchamber.

5. In a climbing film evaporator, a plurality of vertical tubes, a heating chamber surrounding said tubes of a type adapted for climbing film evaporation, a surmounting hood having means for removing vapor from all said tubes, a casing inclosing depending ends of said tubes, a plurality of partitions in said casing dividing it into feeding subchambers for corresponding groups of tubes, a plurality of partitions in said hood dividing it into liquid-receiving subchambers communicating with corresponding groups of tubes, means for supplying liquid to one of said feeding subchambers and means for withdrawing liquid from the corresponding liquid receiving chamber and returning it to another feeding subchamber.

[Claims 6 to 33 not printed in the Gazette.]

1,028,739. FEEDER FOR CORN-SHREDDERS. CHRISTOPHER KIBAT, Belvidere, Ill. Filed Dec. 5, 1910. Serial No. 595,780. (Cl. 193—2.)

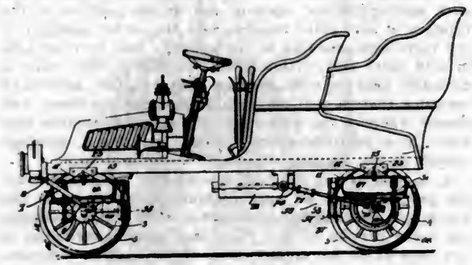


A feeder of the class described including opposite side guides provided at their inner faces with longitudinal grooves having parallel top and bottom walls with their side edges located in the same vertical plane, transverse shafts extending across the space between the guides, sprocket wheels mounted on the shafts, and an endless conveyer comprising sprocket chains located at opposite sides of the conveyer and arranged on the sprocket wheels, transverse slats extending across the space between the sprocket chains and having their terminals arranged at the links thereof, laterally projecting slidable members consisting of flat shanks interposed between the links of the sprocket chains and the ends of the slats, integral annular stop flanges arranged in a vertical plane and extending entirely across the grooves of the guides and fitting against the side edges of the top and bottom walls of the said grooves and having an equal bearing at the top and bottom of the same, and outer tapered rounded bearing portions formed integral with the annular flanges and extending centrally from the same and projecting into the grooves to support the endless conveyer and maintaining the sprocket chain in mesh with the sprocket wheels, and fastening devices piercing the ends of the slats, the flat shanks of the slidable members and the links of the sprocket chains and securing the said parts together.

1,028,740. CUSHIONING DEVICE FOR VEHICLES. THEODORE A. KLENKE, New York, N. Y., assignor to Klenke Cushion Axle Company, a Corporation of New York. Filed Nov. 27, 1906. Serial No. 345,389. (Cl. 21—50.)

1. In a vehicle, the combination of a bed, an axle, two supports, one support carried by the axle and the other

support secured to a supporting piece connected to the bed and movable longitudinally thereon, resilient means supported by the two supports and adapted to transmit the pressure of the weight of the bed from one support to the other, and connections between the two supports permitting vertical play between them but causing the upper support to move with the lower support rigidly in a longitudinal direction.



2. In a vehicle the combination of a bed, a pressure transmitting member pivotally mounted with relation to said bed, means for permitting a bodily longitudinal movement of the pivot with relation to said bed, an axle, a pair of wheels, and a pneumatic cushion arranged between said axle and said member, said cushion being adapted to absorb shock.

3. In a vehicle the combination of a bed, a pressure transmitting member movably mounted with relation to said bed and free to have a bodily longitudinal movement relatively thereto, a pair of wheels, an axle, means rigid with the axle for supporting a pneumatic cushion, connections between said means and the pressure transmitting member permitting motion of said means and member toward or away from each other but causing them to move together as a unit in all other directions and a pneumatic cushion supported by said member and said means, said cushion being adapted to absorb shock.

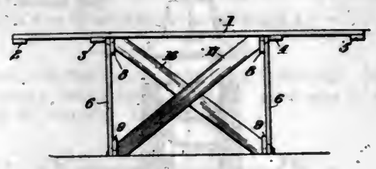
4. In a vehicle the combination of a pneumatic bag, two supports one resting upon the top of the bag and having a yielding connection with the bed and adapted to transmit weight from the bed to the bag and the other supporting the bag and rigidly connected with the wheel-carrying axle and adapted to transmit the weight to the wheel, and connections between the two supports independent of the pneumatic bag and rigid in all respects except as to movement of the supports toward and away from each other, the said supports, their connections and the pneumatic bag being so shaped and arranged as to leave the bag unconfined at its sides and free to expand and contract, whereby the bag supports may freely move toward or away from each other but will be compelled to move together rigidly as a unit in all other directions thereby maintaining their parallelism and relative location to each other except as to their distance apart.

5. In a vehicle, the combination of a bed, an axle, two supports, one carried by the axle and rigidly connected therewith and the other secured to a supporting piece connected with the bed so as to be movable longitudinally thereon, resilient means supported by the two supports and adapted to transmit the pressure of the weight of the bed from one support to the other, and connections between the two supports adapted to permit vertical play between the supports and causing the upper support to move in all other directions rigidly with the lower support.

[Claims 6 to 33 not printed in the Gazette.]

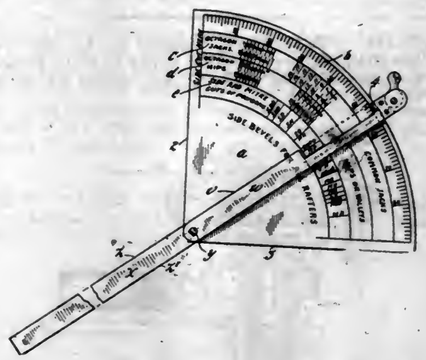
1,028,741. KNOCKDOWN TABLE. CHARLES D. KREIDER, Lititz, Pa. Filed Nov. 11, 1911. Serial No. 659,688. (Cl. 45—48.)

A knock-down table comprising a top having spaced cleats on its under side, said cleats having notches near the middle, leg-frames arranged to engage such cleats, said frames having notched upper and lower cross-bars, and detachable crossed braces having notches at each end



for engaging the notches in the cross-bars of the leg-frames, the upper ends of the braces being adapted to engage the notches in the cleats.

1,028,742. COMBINATION BEVEL-PROTRACTOR. JOSEPH LA FOLLETTE, Portland, Oreg. Filed July 28, 1911. Serial No. 641,154. (Cl. 73—6.)



1. In a device of the character described in combination with a quadrantal scale bearing plate provided at the apex with a notch the bottom of which coincides with the scale center, a pair of interchangeable stocks each adapted to fulcrum in the notch of said plate, and means for clamping the stocks on the plate, all as and for the purpose set forth.

2. In a device of the character described in combination with a quadrantal scale bearing plate provided at the apex with a notch the bottom of which coincides with the scale center, a pair of interchangeable stocks, each stock comprising two members and provided with means for clamping the two members together, said means comprising two studs one at each end of the stock, the inner stud adapted to fulcrum in said notch, and means for clamping the stock on the plate, said means coöperating with the outer stud, all for the purpose set forth.

1,028,743. LINER FOR USE IN FIXING SCREW-SPIKES IN RAILWAY-SLEEPERS. GEORGES LAKHOVSKY, Paris, France. Filed Jan. 19, 1910. Serial No. 538,834. (Cl. 85—2.8.)

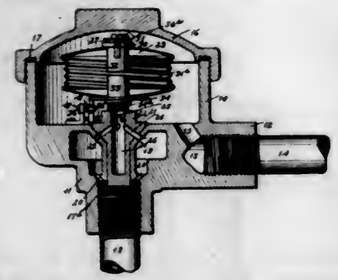
A liner for securing screw spikes in railway sleepers, comprising two independent semi-cylindrical shells, each provided internally with a helicoidal screw thread having the same pitch as the screw thread of the screw spike with which it is to be used and the projection of which on the inner face of the shell increases progressively from the top to the bottom, each of the shells being semi-circular in shape at its upper edge and having its longitudinal edges inclined in such a manner that the transverse section of the shell has a development progressively diminishing from the top to the bottom, each shell having

externally smooth portions and spaced transverse ribs of such increasing height that the sharp edges of the ribs



are limited in the median plane of the shell by a line parallel to the inclination of the longitudinal edges.

1,028,744. STEAM-TRAP. GEORGE C. LA MOUNTAIN, Marshalltown, Iowa, assignor to Ray P. Scott, Marshalltown, Iowa. Filed June 26, 1911. Serial No. 635,399. (Cl. 236—10.)



1. In a device of the class described, a steam tight casing with an inlet opening, a valve seat in the lower part of said casing provided with outlet openings, a valve seated in said valve seat, a hollow circumferentially corrugated disk composed of thin metal mounted in said casing, a limiting block centrally mounted in the upper end of said disk and extending to a point near the middle thereof, a similar limiting block centrally mounted in the lower end of said disk and extending to a point near the middle thereof, said blocks being of such length that when the disk is expanded by heat, they do not touch each other, but when the disk is contracted the upper block rests upon the lower block and prevents the collapse of the disk, yielding means for holding said valve in its open position, means whereby the expansion of said disk closes said valve.

2. In a device of the class described, a steam tight casing provided with an inlet opening and provided at its lower side with an outlet opening, a detachable cover on said casing, a valve seat provided with openings communicating with said outlet opening, a valve in said valve seat, a bracket mounted in the interior of said casings, independent of said cover, a circumferentially spirally corrugated hollow metal disk, designed to contain a volatile liquid, mounted on said bracket, means whereby yielding pressure is imparted to said valve to hold it normally in its open position, and means whereby the longitudinal expansion of said disk closes said valve, means for holding said disk against rotary motion.

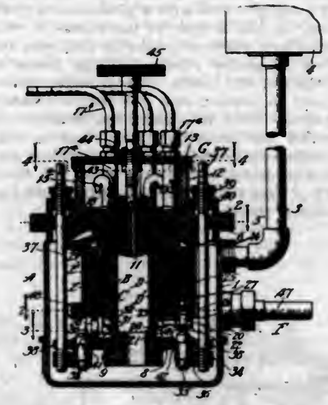
3. In a device of the class described, a steam tight casing provided with an inlet opening, a valve seat in the lower part of said casing provided with outlet openings, the upper portion of said valve seat being constructed in the form of an inverted truncated cone, a hollow circumferentially corrugated disk composed of thin metal mounted within said casing, a valve seated in and fitting said valve seat, said valve being provided with a cylindrical opening extending from its lower end and with openings connecting said cylindrical opening with the interior of said casing, and also with openings which communicate with said cylindrical opening and in one position of the rotation of said valve register with the outlet openings in the valve seat, yielding means whereby said valve is held in said valve seat, yielding means whereby said valve is normally held in such position that the last mentioned openings therein register with said outlet openings, and means whereby the expansion of said disk rotates said valve to a position where the last mentioned openings therein do not register with said outlet openings.

4. In a device of the class described, a steam tight casing provided with an inlet opening, a valve seat in the lower part of said casing provided with outlet openings, the upper portion of said valve seat being constructed in the form of an inverted truncated cone, a hollow circumferentially corrugated disk, designed to contain a volatile liquid, composed of thin metal, mounted within said casing, a valve seated in and fitting said valve seat, said valve being provided with a cylindrical opening extending from its upper end to a point spaced apart from its lower end and with openings connecting said cylindrical opening with the interior of said casing, and also with openings which in one position of the rotation of said valve register with the outlet openings in the valve seat, yielding means whereby said valve is held in said valve seat, yielding means whereby said valve is normally held in such position that the last mentioned openings therein register with said outlet openings, means whereby the expansion of said disk rotates said valve to a position where the last mentioned openings do not register with said outlet openings, said means comprising a plate secured to the lower part of said disk, a downwardly extending lug on said plate, a pivotally mounted bell crank lever, one arm of which is designed to coact with said lug, a laterally extending arm on the upper end of said valve provided with a slot in which is received the other arm of said bell crank lever, said parts being so constructed and arranged that the expansion of said disk rotates said valve until the last mentioned openings therein do not register with the outlet openings in the valve seat.

5. In a device of the class described, a casing provided with an inlet opening, a valve seat therein provided with outlet openings, said valve seat being constructed with a vertical cylindrical opening terminating at its upper end in an opening which is in the shape of an inverted truncated cone, a valve seated in and fitting said valve seat, said valve being provided with a cylindrical opening extending from its upper end to a point spaced apart from its lower end and with openings connecting said cylindrical openings with the interior of said casing, and also with openings which communicate with said cylindrical opening and in one position of the rotation of said valve register with the outlet openings in the valve seat, a hollow circumferentially corrugated disk composed of thin metal mounted in said casing, means whereby the expansion of said disk rotates said valve to a position where the last mentioned openings therein do not register with said outlet openings, said means comprising a plate secured to the lower part of said disk, a downwardly extending lug on said plate, a bracket, a bolt rotatably mounted in said bracket, a bell crank lever mounted on said bolt, one arm of which is designed to coact with said lug, a laterally extending arm on the upper end of said valve provided with a slot in which is received the other arm of said bell crank lever, and means whereby yielding pressure is exerted to hold said valve normally in its open position, said means comprising a coil spring mounted on said bolt and secured to said bracket and said bell crank lever.

[Claim 6 not printed in the Gazette.]

1,028,745. LUBRICATING DEVICE. IVERT LARSEN, Chicago, Ill. Filed Nov. 27, 1911. Serial No. 662,620. (Cl. 184—33.)



1. In a device of the character set forth, the combination of an oil chamber, a sight-feed chamber, measuring pump discharge ducts leading into said sight-feed chamber, ducts leading from said sight-feed chamber and adapted to convey the measured charges therefrom, means for forcing measured charges of oil through said first-named ducts to said second-named ducts, a duct leading to said sight-feed chamber through which it may be flooded, and a valve controlling said last named duct.

2. In a device of the character set forth, the combination of a casing, a sight-feed chamber, measuring pump discharge ducts leading into said sight-feed chamber, ducts leading from said chamber and adapted to convey the measured charges therefrom, means for forcing measured charges of oil through said first-named ducts to said second-named ducts, a duct leading to said sight-feed chamber through which it may be flooded, and a valve controlling said last-named duct and having an external operating stem.

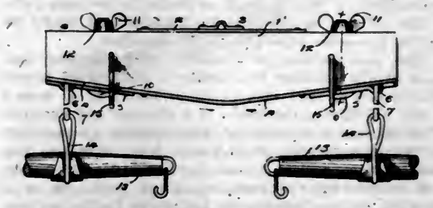
3. In a device of the character set forth, the combination of a casing, a sight-feed chamber, measuring pump discharge ducts leading into said chamber, ducts leading from said chamber and adapted to convey the measured charges therefrom, means for forcing measured charges of oil through said first-named ducts to said second-named ducts, a duct leading to said sight-feed chamber through which it may be flooded, and a valve controlling said last-named duct having an operating stem extending through the sight-feed chamber.

4. In a device of the character set forth, the combination of a casing, a sight-feed chamber, a stationary cylinder equipped with discharge ducts leading to the sight-feed chamber, ducts leading from the sight-feed chamber through which the measured charges may pass from the sight-feed chamber, a rotary member mounted on said stationary cylinder and equipped with a pump provided with a port adapted to register successively with said discharge ducts, means for actuating the pump as it is carried by said rotary member, a duct leading to the sight-feed chamber through which said chamber may be flooded, and a manually operated valve controlling said last-named duct.

5. In a device of the character set forth, the combination of an oil chamber, a stationary cylinder therein, a sight-feed device surrounding said oil chamber, measuring-pump discharge ducts in said stationary cylinder leading to the sight-feed chamber, delivery-pump suction and discharge ducts in said stationary cylinder, said suction ducts adapted to receive charges from the measuring pump discharge ducts, a rotary cylinder encompassing said stationary cylinder and equipped with a measuring pump having a port adapted to register successively with the measuring-pump discharge ducts and equipped also with a delivery pump having a port adapted to register alternately with the delivery-pump suction and discharge ducts, a duct through which oil may pass directly to the sight-feed chamber, and a manually operated valve controlling said last-named duct.

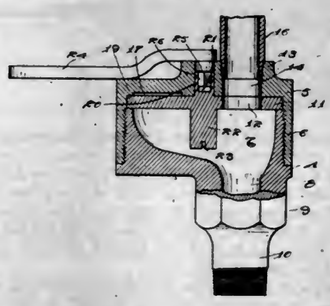
[Claims 6 to 11 not printed in the Gazette.]

1,028,746. SLIDE-EQUALIZER DOUBLETREE. PETER A. LARSEN, Mount Pleasant, Utah. Filed May 4, 1911. Serial No. 624,984. (Cl. 21—76.)



In a device of the kind described, a draft bar, a metallic plate provided with a longitudinally extending slot having an open ended loop formed adjacent its outer end, said plate being positioned at one end of said draft bar, and a securing bolt and nut passing through the draft bar and slot in the plate, said bolt being positioned adjacent the end of the draft bar and the slot being of such length that the plate may be moved to bring the loop past the end of the draft bar whereby the open end of said loop may be uncovered.

1,028,747. VALVE. CHRISTOPHER F. LAUFER, Richmond, Cal., assignor to Rena B. Laufer, Richmond, Cal. Filed May 22, 1911. Serial No. 628,710. (Cl. 137—7.)



A valve comprising a hollow body portion having a reduced threaded portion, an extension leading from said body portion and provided with an opening communicating with the hollow central portion of said body portion, a valve resting upon said body portion and provided with an opening to one side of its center, oppositely disposed stems leading from the center of said valve, one being provided with a groove in its end and the other with a socket, a bonnet resting upon said valve, the side walls of said bonnet being threaded to engage the threads of said body portion, said bonnet being provided with an opening formed in alinement with said extension and with the opening of said valve and being also provided with an opening through which said last mentioned stem passes whereby an operating tool may pass into said last-mentioned opening and into said socket to turn said valve.

1,028,748. FILAMENTS AND OTHER PRODUCTS OBTAINED FROM CELLULOSE COMPOUNDS. LEONHARD LEDERER, Sulzbach, Germany. Filed Sept. 6, 1906. Serial No. 333,467. (Cl. 18—54.)

1. The manufacture of filaments from acidylized nitrocellulose, which consists in causing a solution of the com-

pound cellulose ester to pass through an orifice in the shape of a liquid jet and then removing the solvent from the same, substantially as described.

2. The manufacture of filaments from cellulose compounds, which consists in causing a solution of acetyl-nitro-cellulose to pass through an orifice in the shape of a liquid jet and then solidifying the jet by removing the solvent from the same, substantially as described.

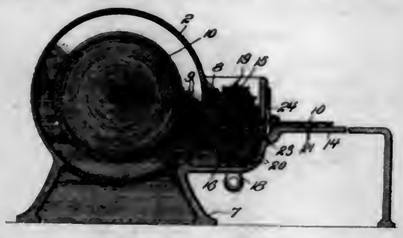
3. The manufacture of filaments from cellulose compounds, which consists in causing a solution of compound cellulose-ester to pass through an orifice in the shape of a jet, then solidifying the jet to a filament and finally denitrating the same, substantially as described.

4. The manufacture of filaments from cellulose compounds, which consists in causing a solution of acetyl-nitro-cellulose to pass through an orifice so as to form a jet, then solidifying the latter to a filament and denitrating the filament thus obtained, substantially as described.

5. The manufacture of filaments from cellulose compounds, which consists in causing a solution of a compound cellulose-ester to pass through an orifice, so as to form a jet, then solidifying the latter and finally denitrating and disacetylizing the filament thus obtained, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,028,749. DISPENSING AND FORMING APPARATUS. JAMES FRANCIS LEEPER, Berkeley Springs, W. Va. Filed Aug. 26, 1911. Serial No. 646,266. (Cl. 164—42.)



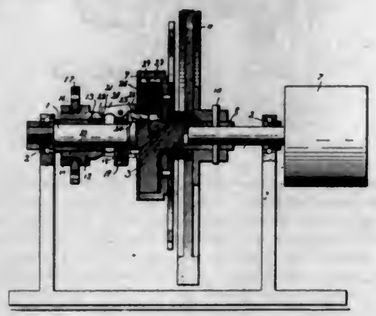
1. Apparatus of the class described comprising a table having a graduated portion, a fixed cutter at one end of the table, a movable cutter disposed above the fixed cutter and provided with a handle, a hand hold supported by the table and mounted beneath the handle of the second cutter, and a pair of dies coöperatively associated behind the cutters and operating to feed the formed material along the graduated portion of the table.

2. Apparatus of the class described comprising a graduated table, an apertured portion formed on the table at one end thereof, the lower wall of the aperture in said portion being beveled to form a cutting knife, a movable cutter mounted on said portion, and a pair of dies supported by the table behind the aperture and adapted to feed the formed material through the aperture and across the graduated portion of the said table.

1,028,750. AUTOMATIC CLUTCH. PASCAL LEONE, New York, N. Y. Filed July 29, 1911. Serial No. 641,307. (Cl. 192—11.)

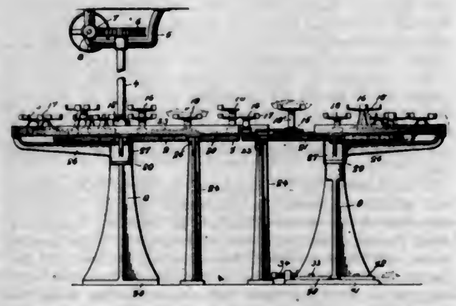
1. A clutch mechanism comprising a shaft, a disk rotatable therewith and provided with peripheral recesses, a casing about the disk, blocks movable within the recesses, each block being provided with a recess in its end with an inclined way at the bottom of the recess, a roller upon each inclined way, resilient means for retaining the blocks within their respective recesses, tilting levers engaging the inner ends of the blocks, pivotal levers and a clutch block adapted to contact with the pivotal levers, causing the two sets of levers to actuate the blocks to force the rollers beyond the periphery of the disk to engage the inner circumference of the surrounding portion of the casing, and means for returning the rollers to their normal positions, as set forth.

2. A clutch mechanism comprising a shaft, a disk rotatable therewith and provided with peripheral recesses, a casing about the disk, blocks movable within the recesses, each block being provided with a recess in its end with an inclined way at the bottom of the recess, a roller upon each inclined way, resilient means for retaining the blocks within their respective recesses, tilting levers engaging the inner ends of the blocks, pivotal levers and a clutch block adapted to contact with the pivotal levers, causing the two sets of levers to actuate the blocks to force the rollers beyond the periphery of the disk to engage the inner circumference of the surrounding portion of the casing, springs connected one to each block and the other to the bearing of each roller and serving to return the rollers to their normal positions, as set forth.



3. In a clutch mechanism, in combination with a shaft, a fly wheel carried thereon, a disk rotating with the shaft and having peripheral recesses, a hollow block movable within each recess, the outer end of each block having a recess, the bottom wall of which is inclined, a roller mounted upon each inclined bottom of the recess, a pin passing through the walls of each block, a coiled spring fastened at one end to said pin and its other end to a roller, springs interposed between the disk and the surrounding portion of the casing, the adjacent ends of the springs engaging each an edge of the block, tilting levers each projecting through an opening in the disk and having a bearing against the inner end of a block, and means for tilting said levers to cause the blocks to move against the tension of said springs which are interposed between the disk and casing, as set forth.

1,028,751. CONVEYER. CHRISTOPHER W. LEVALLEY, Milwaukee, Wis. Filed Nov. 28, 1908. Serial No. 464,970. (Cl. 193—2.)



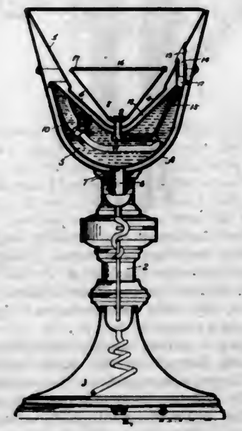
1. In a conveyer, the combination of an endless driven belt, a series of narrow bars disposed in a common horizontal plane and a series of supports for the material to be conveyed carried by the said bars and arranged alternately

in different horizontal planes, whereby the supports are allowed to overlap, substantially as set forth.

2. In a conveyer, the combination of an endless driven belt disposed in a horizontal plane, narrow bars carried thereby and extending laterally outward from the line of conveyer, and supports for the material to be conveyed carried by said bars than which they are broader and arranged alternately in higher and lower horizontal planes, substantially as set forth.

3. In a horizontal conveyer, the combination of an endless driven belt, turning wheels around which the belt passes supported on vertical axes, cross supports for the material to be conveyed secured to the belt, supporting and steadying tracks for the cross supports arranged between the turning wheels, such wheels being also arranged to support and steady the cross supports as they pass around the wheels, and bridge pieces between the tracks and the turning wheels, substantially as set forth.

1,028,752. HYGIENIC CHALICE. CARL J. LJUNGGREN, Providence, R. I. Original application filed Jan. 23, 1907, Serial No. 353,725. Divided and this application filed Oct. 10, 1908. Serial No. 457,157. (Cl. 65—13.)



1. A chalice comprising an outlet chamber, a reservoir connected to the outlet chamber whereby a measured quantity of liquid will be discharged into the outlet chamber when the reservoir is tilted and then righted, and a drain pocket formed between the outlet chamber and reservoir.

2. A chalice comprising an outlet chamber, a reservoir connected to the outlet chamber whereby a measured quantity of liquid will be discharged into the outlet chamber when the reservoir is tilted and then righted, a drain pocket formed between the outlet chamber and reservoir, a waste chamber, and means for conducting the waste liquid from the drain pocket to the waste chamber.

3. A chalice comprising a cup, a reservoir mounted within the cup, said reservoir and cup having a space therebetween, an outlet chamber mounted upon and connected with the reservoir, whereby a measured quantity of liquid will be discharged into the outlet chamber when the cup is tilted and then brought to an upright position, and a chamber for delivering the liquid from the reservoir to ervoir for receiving the waste liquid from the drinking edge of the cup.

4. A chalice comprising an outlet chamber, a reservoir, an inlet chamber in the reservoir connected to the outlet chamber for delivering the liquid from the reservoir to the outlet chamber, and a drain pocket formed between the outlet chamber and reservoir.

5. A chalice comprising an outlet chamber, a reservoir, connected with the outlet chamber, an inlet chamber in the reservoir connected to the outlet chamber and extending above the reservoir, and an air vent tube in communication with the inlet chamber.

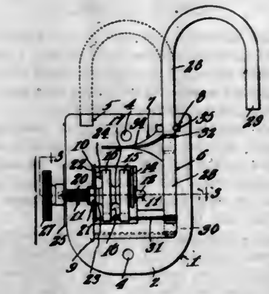
[Claims 6 to 8 not printed in the Gazette.]

1,028,753. PIANO-KEY. FRANK B. LONG, Los Angeles, Cal. Filed Dec. 1, 1909. Serial No. 530,848. (Cl. 84—16.)



A key for pianos, organs and like instruments, provided on its under face near each end and at approximately its center with a transverse recess, a cork pad seated in each of said recesses, the outer face of the pad being flush with the lower face of the key and the side edges of the pads being flush with the side edges of the key, sundry of the said recesses having intermediate their ends a transverse groove for the purpose specified.

1,028,754. PERMUTATION-PADLOCK. MORRIS J. LOVETT, Randsburg, Cal. Filed Oct. 23, 1911. Serial No. 656,149. (Cl. 70—113.)



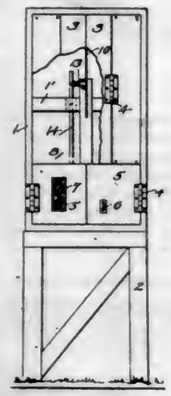
1. A permutation pad-lock comprising a casing; a shackle slidable and rotatable in the casing; a finger mounted upon the shackle to slide with the shackle, the shackle being rotatably connected with the finger and the finger being held against rotation with the shackle, by the casing; and a tumbler mounted for rotation in the casing, the tumbler having an opening in which the finger moves transversely; the finger coöperating with the casing to maintain one end of the shackle permanently in the casing.

2. A permutation pad-lock comprising a casing; a shackle slidable and rotatable in the casing; a finger mounted upon the shackle to slide with the shackle, the shackle being rotatably connected with the finger, and the finger being held, by the casing, against rotation with the shackle; a tumbler mounted for rotation in the casing and having an opening to receive the finger; and spring means engaging the shackle, to move the finger out of the opening.

3. A permutation pad-lock comprising a casing having a shackle-receiving opening, the casing being provided with a spring space, communicating with the shackle-receiving opening, there being a stop opening communicating with the shackle-receiving opening and with the spring space; a shackle mounted to slide and to rotate in the shackle-receiving opening; a spring mounted in the spring space and engaged at one end with the shackle to slide the same, there being a lug upon the shackle, adapted to register in the stop opening, to hold the shackle against sliding movement and to maintain the spring under tension; a tumbler mounted to rotate in the casing and pro-

vided with an opening; and means carried by the shackle for engagement by the tumbler and for registration in the opening in the tumbler.

1,028,755. MAIL-HANDLING APPARATUS. WILLIAM L. MAINER, Lamb, Tex., assignor of one-half to J. M. Hubert, Lamb, Tex. Filed Feb. 10, 1912. Serial No. 676,789. (Cl. 105—231.)



1. In mail handling apparatus, the combination of a casing, doors normally closing said casing, a mail supporting arm, means normally holding said arm retracted in the casing, automatic means for releasing said arm, and means for projecting the arm from the casing.

2. In mail handling apparatus, the combination of a casing, a mail delivery arm, means normally holding said arm retracted in the casing, means for releasing the arm, means for projecting the arm from the casing when released, doors closing said casing, and means for locking said doors operable by the delivery arm.

3. In mail handling apparatus, the combination of a casing, a mail delivery arm, means normally holding said arm retracted in the casing, means for releasing the arm, means for projecting the arm from the casing when released, and doors for closing said casing adapted to be opened by the delivery arm when projected from the casing.

4. In mail handling apparatus, the combination of a casing, a mail delivery arm, means normally holding said arm retracted in the casing, means for releasing the arm, means for projecting the arm from the casing when released, doors closing said casing, and means for locking the doors closed adapted to be released by movement of said arm, said doors being in the path of movement of the arm to be forcibly opened thereby when the arm is released.

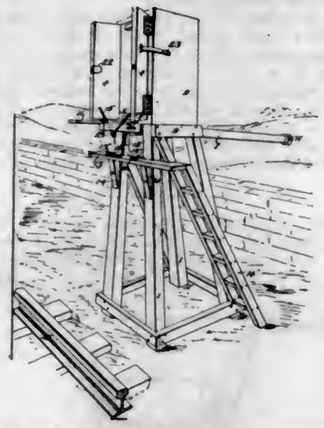
5. In mail handling apparatus, a casing, a delivery arm pivoted in said casing, means normally holding said arm retracted in the casing, and a time controlled device for releasing the arm from said retracting means.

[Claims 6 and 7 not printed in the Gazette.]

1,028,756. MAIL-RECEIVING APPARATUS. WILLIAM L. MAINER, Lamb, Tex., assignor of one-half to J. M. Hubert, Lamb, Tex. Filed Feb. 10, 1912. Serial No. 676,790. (Cl. 105—231.)

1. A mail bag receiving apparatus comprising a receptacle, a pivoted receiving member, a trigger coöperating with one end of the receiving member to engage and hold said member in an abnormal position to catch the bag and operable by impact of the bag with the receiving member to disengage the trigger from the latter, and a weight carried on the other end of the member to move the receiving member when released to carry the bag into the receptacle.

2. A mail bag receiving apparatus, comprising standards, a receptacle carried by said standards, doors for said receptacle, an arm mounted on the standards adapted to remove a bag from a moving train, means to permit the arm to deliver the bag into the receptacle when actuated, and means coöperating with said arm to automatically close the doors aforesaid as the bag is deposited in the receptacle.



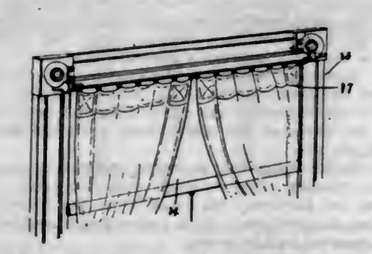
3. A mail bag receiving apparatus, comprising standards, a receptacle mounted thereon, doors for said receptacle, an arm pivotally mounted beneath the receptacle, a connection between the doors aforesaid and the arm operable to close the doors when the arm is actuated, and means to hold the arm in operative position and adapted to be released by contact of the bag with said arm.

4. A mail bag receiving apparatus, comprising standards, a receptacle carried thereby, doors for said receptacle, means for catching a bag from a moving train, delivering the bag into said receptacle and simultaneously closing the doors aforesaid.

5. A mail bag receiving apparatus, comprising standards, a receptacle carried thereby, doors for said receptacle, an arm pivotally mounted on the standards having means normally tending to cause the arm to assume a vertical position, means for holding the arm in operative position to receive a bag from a moving train, means connecting the doors and arm aforesaid normally inactive when the latter is in operative position and operable to close the doors when the arm is actuated, and means on the arm to catch the bag and operable by said bag to permit its deposit into the receptacle when the arm is swung thereinto.

[Claims 6 and 7 not printed in the Gazette.]

1,028,757. COMBINED CURTAIN-POLE AND SHADE-SUPPORT. CHARLES MARGERISON, Toronto, Ontario Canada. Filed July 28, 1910. Serial No. 574,328. (Cl. 156—23.)



As a new article of manufacture, a combined curtain pole and shade support comprising a cylindrical shell having a longitudinally-extending slot, the longitudinal edges of said slot being inturned to provide rounded shade guiding lips, said shell provided with a longitudinal row of base openings arranged in spaced parallel relation to said slot, shade roller bearings supported within said shell, and curtain rings having shanks projecting through and fixedly held in said openings and provided with heads that are seated in the inner ends thereof whereby a curtain hung on said rings will maintain said slot in proper position.

1,028,758. STUFFING-BOX. GEORGE W. MASON, Marshall, and FRANCESCO HAMMOND, Casey, Ill. Filed Apr. 11, 1911. Serial No. 620,315. (Cl. 121—109.)

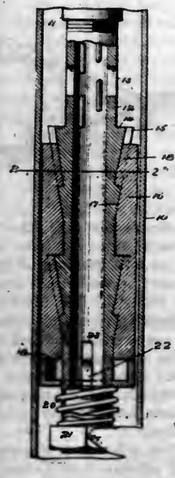


1. A stuffing box for the purpose set forth comprising a cylindrical casing having its lower end reduced to provide a shoulder and a threaded extension, a headed sleeve within the casing and engaging the shoulder thereof, a packing ring arranged directly above the sleeve, a follower member having its peripheral wall formed to present a substantially horizontal wall and a downwardly inclined wall arranged within the casing and position upon the said packing ring, the casing being provided with a plurality of angularly projecting lugs, each of said lugs having a threaded opening communicating with the casing, a plurality of packing rings positioned above said follower, a cap adapted to engage within the upper portion of the casing and to contact with the uppermost one of a series of packing rings positioned above said follower, and headed threaded bolts for the said openings and adapted to engage upon the substantially horizontal shoulder of the said follower.

2. A stuffing box for the purpose set forth comprising a cylindrical casing having its lower end reduced to provide a shoulder and an exteriorly threaded extension, a headed sleeve within the casing engaging the shoulder thereof, a packing ring arranged directly above the sleeve, a follower member having its peripheral wall formed to present a substantially horizontal wall and a downwardly inclined wall arranged within the casing, and positioned upon the said packing ring, the casing being provided with a plurality of angularly projecting lugs, each of said lugs having a threaded opening communicating with the casing, a series of packing rings positioned above said floor, a cap adapted to engage within the upper portion of the casing and to contact with the uppermost one of said series of packing rings positioned above said follower, and headed threaded bolts for the said openings arranged at an inclination to said downwardly inclined hollow of the follower, and adapted to engage the substantially horizontal shoulder.

3. A stuffing box for the purpose set forth comprising a cylindrical casing having its lower end reduced to provide a shoulder and a threaded extension, a headed sleeve within the casing engaging the shoulder thereof, a packing ring arranged directly above the sleeve, a follower member having its peripheral wall formed to present a substantially V-shaped notch and positioned upon the packing rings, the casing being provided with a plurality of angularly projecting lugs, each of said lugs having a threaded opening communicating with the V-shaped notch of said follower, a cap adapted to engage within the upper portion of the casing and to be supported above the said follower, and headed threaded bolts for the said openings arranged at an inclination to said V-shaped notch of the follower and adapted to engage with one of the walls of the said V-shaped notch.

1,028,759. WELL-TUBING LOCK. ALBERT K. MCKEE, Coalinga, Cal., assignor of one-third to Eustace V. Bray and one-third to Thomas Cox, Jr., Coalinga, Cal. Filed Apr. 27, 1911. Serial No. 623,695. (Cl. 103—65.)



1. A tubing lock for wells comprising a shell adapted to support a tube within a casing upwardly flaring flanges on said shell formed with grooves, slips slidable obliquely on said flanges, tongues on said slips engageable in the grooves in said flanges, a vertically slidable flanged washer carried by said shell, below the flanges thereon and a spring in compression below said washer and tending to raise the same, the flange of said washer bearing against the ends of said slips, and means to hold said spring so as to continuously press against said washer.

2. In a lock for tubing in wells, a casing, a tube within said casing, a shell secured to said inner tube, flaring projections on said shell, slips slidably carried by said projections, a flanged washer carried by said shell and in bearing relation with said slips, a nut carried by the end of said shell, a spring in compression between said nut and flanged washer and a removable key carried by said shell arranged to hold the washer depressed with respect to the shell.

3. In a tubing lock for wells, in combination with a shell having flared projections thereon, slips engageable with and slidable on said projections, serrated faces of said slips adapted to bite into the inner wall of a casing, a flanged washer slidable vertically on said shell and adapted to control the oblique movement of said slips, means to raise said washer with respect to the shell, a key carried by said shell and a weight adapted to depress said key against the means for raising the washer.

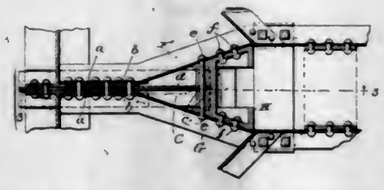
4. In a tubing lock, a shell, flaring flanges thereon, slips carried by said flanges, a flanged washer carried by said shell and adapted to control the movement of the slips with respect to the shell, means tending to raise said washer, and a plurality of keys carried by said shell adapted to hold the washer in its lowest position, one of said keys

being capable of being broken and discharged from said shell when desired.

5. In a tubing lock, a shell, upwardly and outwardly movable slips carried thereby, a flanged washer slidable vertically on said shell and adapted to bear against said slips, means below said washer tending to raise the same and a plurality of keys carried by said shell and adapted to bear against said washer in opposition to the means for raising the same, one of said keys being capable of being broken and dislodged from said shell when desired.

[Claims 6 and 7 not printed in the Gazette.]

1,028,760. DRAFT-SILL CONSTRUCTION FOR CARS. WILLIAM R. MCKEEN, Jr., Omaha, Nebr., assignor to McKeen Motor Car Company, Omaha, Nebr., a Corporation of New Jersey. Filed July 7, 1911. Serial No. 637,326. (Cl. 105—76.)



1. In an under frame for cars, the combination of a center sill; draft sills, the rear ends of which bend toward and lap past the adjacent end of the center sill; and a filler block interposed between the converging portions of the draft sills, and firmly secured thereto.

2. In an under frame for cars, the combination of body bolsters; a single center sill disposed between said bolsters; draft sills, the rear ends of which bend toward and lap past the adjacent ends of the center sills; and a filler block interposed between the converging portions of the draft sills, said parts being firmly joined together, substantially as described.

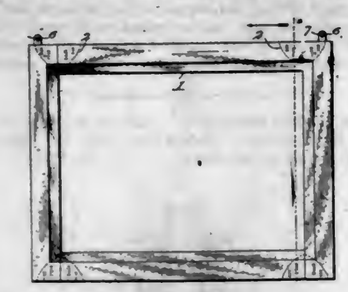
3. In an under frame for cars, the combination with a single center sill of substantially I-cross-section; of draft sills, the inner ends of which are arranged on opposite sides of and close to the vertical web of the center sill, and which diverge thence to a point in advance of or beyond the end of said center sill, and thence extend parallel with each other; a filler block interposed between the diverging portions of the draft sills; and fastenings rigidly uniting the draft sills to the center sill, and the filler block to the draft sills.

4. In an under frame for cars, the combination of a center sill; draft sills secured at their inner ends to the center sill, and diverging therefrom through a portion of their length, and through another portion extending parallel with each other; a filler block interposed between the diverging portions of the draft sills, and having a slot at its rear or inner end into which the evrtical web of the center sill is carried; and fastenings firmly uniting the draft sills and the filler block to the center sill and to each other.

1,028,761. METALLIC DOWEL-PLATE FOR USE IN THE PRODUCTION OF SCREEN-FRAMES, &c. RICHARD MCKNIGHT, Denver, Colo., assignor to The Steel Tenon Manufacturing Company, a Corporation of Colorado. Filed Oct. 9, 1911. Serial No. 653,530. (Cl. 85—11.)

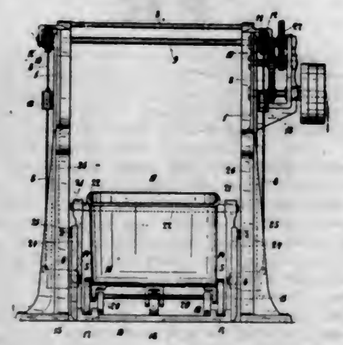
1. A dowel, comprising a metal plate having one straight edge and two outwardly curved edges which meet at a point, and fingers projecting from opposite sides of the plate in alternate order, which are formed by cutting vertically disposed tongues from said plate and bending the same at right angles to the plate, the lower edges of said fingers being inclined and sharpened, said plate being provided with a screw receiving aperture between two of said tongues.

2. A dowel, comprising a substantially triangular shaped metal plate having a straight upper edge and its opposite side curved downwardly from said straight upper edge and converging equally to an apex point at the center of the width of the plate, said plate being provided



with a plurality of right angled tongue portions stamped out of and turned outwardly from the opposite sides of the plate, said tongues having their lower ends upwardly and outwardly inclined from the face of the plate to their outer edges, said inclined edge being also beveled along its side to form a wood shearing and cutting edge.

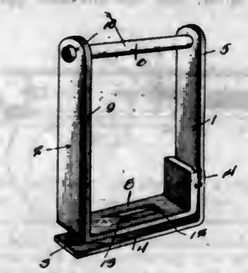
1,028,762. CONVEYING AND DISCHARGING DEVICE FOR USE IN BAKERIES OR THE LIKE. ALFRED LUTZE, Halle-on-the-Saale, Germany. Filed Dec. 24, 1910. Serial No. 599,082. (Cl. 214—12.)



A vertically movable plate having a track thereon adapted to receive a wheeled trough, a hook carried by the plate and adapted to engage the front axle of the trough, projections on the upper rear portion of the trough, posts carried by the plate, a bar adapted to pass through the posts and rest on said projections and means for lifting and tilting the plate.

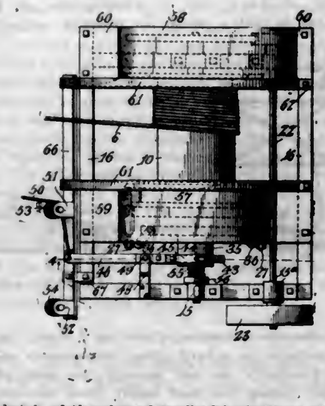
1,028,763. STIRRUP. JOHN C. MILLER, Grantsville, Md. Filed Aug. 5, 1910. Serial No. 575,729. (Cl. 54—49.)

A stirrup constructed as herein described comprising a substantially U-shaped member comprising a vertical element and a pair of spaced horizontal elements, the lower horizontal element being provided with an opening and having ears adjacent the said opening, a second element comprising a substantially L-shaped member having its lower horizontal portion provided with a depending ear pivotally connected with the ears of the first named section, the normally vertical wall of the L-shaped member having an elongated opening which normally is adapted to engage with the horizontal member of the first named section, the lower or normally horizontal member of the L-shaped section being slitted, and the metal thereof bent downwardly to provide a tongue, the said horizontal member having its extremity upturned to form a weighted element which is adapted to overcome the weight of the



normally vertical arm of the said L-shaped member and force the spring normally into contact with the lower or horizontal arm of the substantially U-shaped member.

1,028,764. CLUTCH. NICHOLAS C. MILLER, Dodgeville, Wis. Filed Jan. 31, 1911. Serial No. 605,824. (Cl. 192—5.)



1. A clutch of the class described including a driven rim, a rotating shaft, clutch levers carried by the shaft and having means for engaging the rim, means for permitting the reversal of the levers to arrange them for engagement with either the inner or outer faces of the rim, a shifting lever connected with the clutch levers, means for urging the shifting lever in one direction, a rope connected with the shifting lever for moving the same in the opposite direction, and spaced guiding means for the rope located at opposite sides of the shifting lever, whereby the shifting lever may be moved in either direction.

2. A clutch of the class described including a driven rim, a rotating shaft, clutch levers carried by the shaft and having means for engaging the rim, means for permitting the reversal of the levers so as to arrange them for engagement with either the inner or outer faces of the rim, a spring for urging the clutch levers in one direction, a shifting lever connected with the clutch levers, a rope connected with the shifting lever, brackets or casings located at opposite sides of the shifting lever, and guiding pulleys mounted in the brackets or casings and arranged to receive the rope, whereby the rope may be operated to move the shifting lever in either direction.

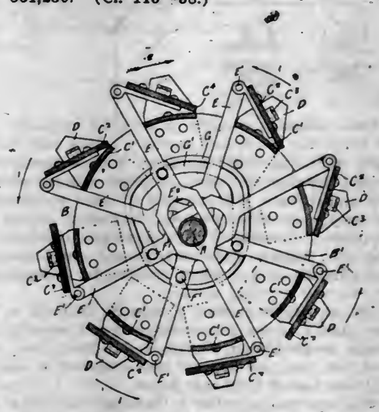
3. A clutch of the class described including a driven rim, a rotating support, clutch levers fulcrumed on the support and having means for engaging the rim, a slidable sleeve, links connected with the sleeve, screws adjustably mounted on the clutch levers and pivoted to the links, a spring for urging the sleeve in one direction, a shifting lever for moving the sleeve in the opposite direction, and a rope connected with the shifting lever for moving the same.

4. A clutch of the class described including a rotating shaft, a driven rim, a cross head fixed to the shaft, clutch levers pivoted at an intermediate point of their length to the cross head and provided with shoes for engaging the said rim, screws piercing the clutch levers and provided with clamping nuts located at opposite sides of the clutch levers, and adjustably connecting the screws with the same, a sleeve slidably mounted on the said shaft, links pivotally connecting the sleeve with the screws, a shiftable lever connected with the sleeve, a spring for urging the sleeve in one direction, and an operating rope connected with the shifting lever for moving the sleeve in the opposite direction.

5. In a clutch of the class described, the combination with a rotating shaft and a driven rim, of a cross head fixed to the shaft, clutch levers fulcrumed at an intermediate point of their length on the end portions of the cross head and provided with means for engaging the rim, means for permitting the reversal of the levers so as to arrange them to engage with either the inner or outer faces of the rim, a sleeve slidable on the shaft, means for urging the sleeve in one direction, a shifting lever connected with the sleeve for moving the same in the opposite direction, spaced guide pulleys located at opposite sides of the shifting lever, and an operating rope connected with the shifting lever and adapted to be arranged on either of the guide pulleys to enable the rope to be operated for moving the shifting lever in either direction.

[Claim 6 not printed in the Gazette.]

1,028,765. AIRSHIP-PROPELLER. RICHARD H. MILTON, Greensboro, N. C. Filed Nov. 20, 1911. Serial No. 661,230. (Cl. 115—58.)



1. A propeller, substantially as herein described, comprising a shaft, a body or reel having heads at its opposite ends, bucket plates extending between said heads and fixed thereto, lugs projecting outwardly at the ends of the said bucket plates, movable bucket plates pivoted between their front and rear edges to said lugs and movable on their said pivots between open and closed positions, bars connecting the diametrically opposite pivoted bucket plates and slotted at their middles for the passage of the shaft, stud-like projections on said bars, a cam having a groove entered by the said stud-like projections and a sleeve encircling the shaft and extending beyond the reel and adapted to be turned whereby to adjust the position of the cam to cause the buckets to open and close at the desired points, substantially as set forth.

2. A propeller, substantially as herein described, comprising a body or reel having bucket plates and pivoted bucket plates coöperating with those of the reel or body

and means for opening and closing the buckets, the buckets when closed being provided at their bottoms with venting openings or spaces, substantially as set forth.

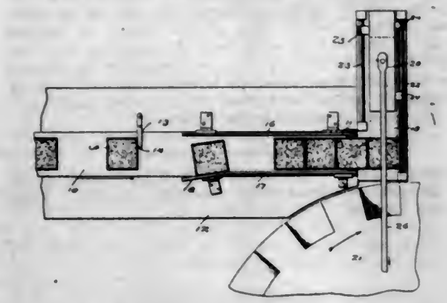
3. A propeller for airships comprising a reel or body and buckets at the rim thereof and adapted to open and close, the said buckets having at their bottoms restricted openings or passages when the buckets are in closed position, substantially as set forth.

4. A propeller, substantially as described, having buckets composed of inner fixed plates spaced apart and outer pivoted plates and means for rocking the latter between open and closed position, substantially as set forth.

5. A revolving propeller having propelling buckets provided with inner fixed plates and outer pivoted plates and with arms connected with the latter, a cam operating upon said arms to adjust the pivoted plates of the buckets and means whereby the cam may be adjusted to vary the points at which the buckets may be opened and closed, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,028,766. CONVEYING AND FEEDING MECHANISM. WALTER L. MONTGOMERY, Chicago, Ill. Filed July 19, 1911. Serial No. 639,331. (Cl. 193—4.)



1. The combination with a movable member, of a finger extending above and partially across said movable member, said finger being formed with a notch at its outer end defining an initial shoulder against which an article placed upon said movable member is adapted to strike, and a shoulder portion adapted to engage said article after the same has been partially turned for completing the turning movement thereof, and means arranged adjacent said movable member for replacing said article on said movable member.

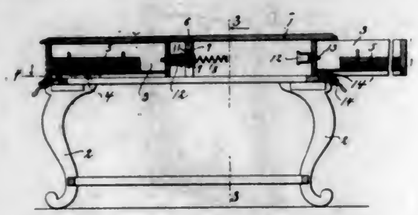
2. The combination with a movable belt, of a finger secured rigidly at one side of the belt and extending substantially perpendicular thereto and adjacent the center of said belt, and an inclined guide located at one side of said belt spaced from said finger.

3. The combination with a traveling belt, of a finger rigidly secured at one side of the belt and extending substantially perpendicular thereto, said finger extending substantially half way across the belt and with a shoulder at one side of the finger spaced from the extremity.

4. The combination with a traveling belt, of a finger ridigly secured at one side of the belt and extending over the same, said finger comprising a shoulder stopping short of the center line of said belt and with an extremity extended beyond said shoulder substantially to the center line of said belt.

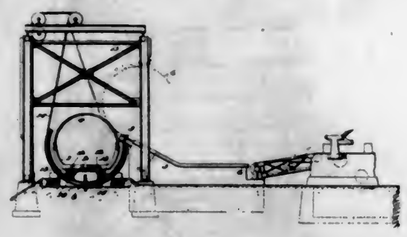
1,028,767. DUET PIANO-BENCH. BENJAMIN F. MOONEY, Findlay, Ohio. Filed May 31, 1911. Serial No. 630,379. (Cl. 45—7.)

In a duet piano bench, the combination of a top portion, a pair of drawers slidable therein and adapted to open outwardly in opposite directions, a partition between said drawers, a coiled spring passing through said partition, a bushing in which said spring is located, said bushing having a spiral slot therein, a sleeve in which the bushing is mounted having a projection thereon to engage in the spiral slot, the aforesaid bushing having



notches at opposite ends thereof to permit of application of a tool for adjustment of the tension of the spring, the inner ends of the drawers being adapted to compress the springs when the drawers are closed, and catches for holding the drawers normally in closed position.

1,028,768. CAR-UNLOADING DEVICE. ROBERT H. MOORE, Chicago, Ill., assignor to American Creosoting Company, Chicago, Ill., a Corporation of Indiana. Filed Nov. 10, 1911. Serial No. 659,639. (Cl. 214—1.)



1. A device for unloading a car on a track comprising a cradle movable on a fixed plane transversely of a fixed track in proximity to and beyond the ends of a car thereon for raising the load bodily from the car, and a platform upon which the load is discharged.

2. A device for unloading a car on a track comprising a cradle movable on a fixed plane transversely of a fixed track in proximity to and beyond the ends of a car thereon and designed to engage and raise the load from the car without disturbing the latter and discharge the load at one side of the track.

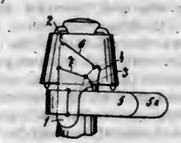
3. A device for unloading a car on a track comprising a cradle pivotally mounted at one side of a fixed track and movable on a fixed plane transversely of the latter and in proximity to the ends of a car thereon, means for raising the cradle and turning it on its pivot, and a platform upon which the cradle discharges the load raised thereby from the car.

4. In combination with a fixed track having cut-outs and a car designed to be located between said cut-outs, a cradle pivotally mounted at one side of the track and fitting in said cut-outs, said cradle in its upward travel being designed to raise the contents from the car, and a platform upon which the cradle discharges.

5. In combination with a fixed track having cut-outs, and a car designed to be located between said cut-outs, a cradle pivotally mounted at one side of the track and fiting in said cut-outs, said cradle in its upward travel being designed to raise the contents from the car, and means for retaining the car on the track while the cradle is lifting the load therefrom.

[Claims 6 and 7 not printed in the Gazette.]

1,028,769. CAP FOR STOPPERS OF BOTTLES. GEORG MORIZ and GEORG PAUL BARSCHALL, Rixdorf, near Berlin, Germany. Filed June 23, 1911. Serial No. 634,933. (Cl. 215—24.)

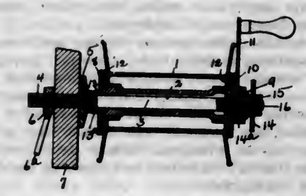


1. As a new article of manufacture, a cap of the character described, for the stoppers of bottles, consisting of a strip of material having a tongue at one end thereof, two slits in the other end of the strip, and two longitudinal lugs connected with approximately the middle portion of one longitudinal edge of the strip, the end of the tongue farthest away from the strip having a slit, the slit end of the tongue being adapted to pass through the said slits in the strip, and one of the ends of said lugs being adapted to pass through the said slit in the tongue.

2. As a new article of manufacture, a cap of the character described, for the stoppers of bottles, consisting of a strip of material having a tongue at one end thereof, two slits in the other end of the strip, and two longitudinal lugs connected with approximately the middle portion of one longitudinal edge of the strip, the end of the tongue farthest away from the strip having a slit, the other end of the tongue having a recess and a projection adjacent thereto, the slit end of the tongue being adapted to pass through the said slits in the strip and to be retained therein by the said projection, and one of the ends of said lugs being adapted to pass through the said slit in the tongue.

3. As a new article of manufacture, a cap of the character described, for the stoppers of bottles, consisting of a strip of material having a tongue at one end thereof, two slits in the other end of the strip, and two longitudinal lugs connected with approximately the middle portion of one longitudinal edge of the strip, the end of the tongue farthest away from the strip having a slit, the slit end of the tongue being adapted to pass through the said slits in the strip, and one of the ends of said lugs being adapted to pass through the said slit in the tongue, the ends of each slit being enlarged into a hole.

1,028,770. REEL. FRED JOSEPH MOSER, Kane, Pa. Filed Mar. 14, 1911. Serial No. 614,290. (Cl. 242—100.)



1. In a reel, the combination of a spool; a crank; a mounting for the spool and crank; devices operative from the crank end of the mounting for locking the crank mounting against rotary movement; and means for locking the crank with and releasing the crank from the spool.

2. In a reel, the combination of a spool; a crank; a mounting for the spool and crank; devices operative from the crank end of the mounting for locking the crank mounting against rotary movement; and means for locking the crank and spool together as the crank is turned relatively to the mounting in one direction and for releasing it therefrom as the crank is turned in the opposite direction.

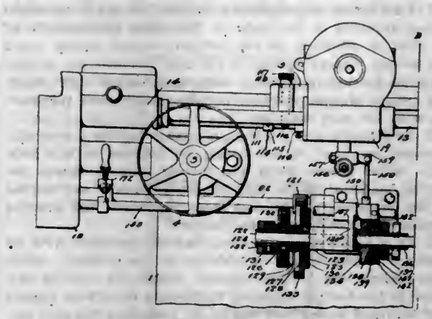
3. In a reel, the combination of a spool; a crank having a screw threaded hub; concentric mountings for the crank and spool, the crank mounting being screw threaded to operate with the screw threaded mountings on the crank hub; devices operative from the crank end of the mounting for holding the crank mounting against rotation as the crank is turned relatively to the mounting.

4. In a reel, the combination of a sleeve on which the spool is rotatively mounted, said sleeve having a flange at one end and a screw thread at the opposite end; a crank having a screw threaded hub mounted on the screw threaded sleeve and adapted to operate on said screw to clamp the crank and spool together, or to brake the spool; a shaft on which the sleeve is mounted; and devices operative from the crank for locking the sleeve against rotation.

5. In a reel, the combination of a shaft; a spool mounted on the shaft; a crank; brake flanges; means actuated by the crank for locking the brake flanges to the spool so that they will rotate with the spool and for disengaging them therefrom; and means operative from the crank for locking one of the brake flanges to the shaft and for disengaging it therefrom.

[Claims 6 to 8 not printed in the Gazette.]

1,028,771. DRIVING MECHANISM. ARISTIDES REYNOLDS MURRAY, Cincinnati, Ohio, assignor to The Cincinnati Shaper Co., Cincinnati, Ohio. Filed Jan. 13, 1908. Serial No. 410,676. (Cl. 74—46.)



1. In an indexing mechanism a driving-shaft, a driven-shaft frictionally impelled by the driving-shaft, a stop disk on the driven shaft having a notch, a rock-shaft, a latch fixed to the rock-shaft and adapted to engage the notch, a second stop disk impelled at a different speed from the first and having a notch, and a second latch adjustable on the rock-shaft adapted to engage the notch of the second disk.

2. In indexing mechanism a shaft frictionally driven, a stop disk fixed thereon having a notch, a rock-shaft, a latch fixed to the rock-shaft and adapted to enter the notch, a second stop disk loosely mounted on the shaft and having a notch, gearing impelling the second disk at a different speed from that of the first, and means for preventing the latch from entering except when the notches in the disks coincide.

3. In indexing mechanism a shaft frictionally driven, a stop disk thereon having a notch, a rock-shaft, a latch fixed thereon adapted to enter the notch, a plurality of stop disks loosely mounted on the shaft and having a different number of notches, gearing intermediate the shaft and the loose disks impelling the latter at a reduced speed in relation to the shaft, and a second latch adjustable on the rock-shaft adapted to engage the notches of either of the loose disks.

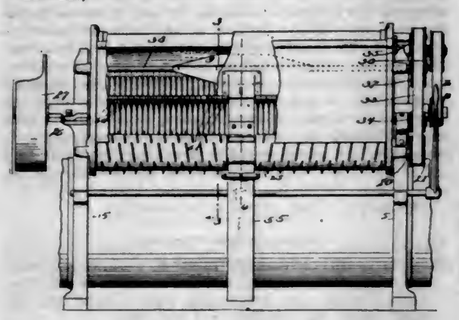
4. In indexing mechanism, the combination of a friction driver, a driven shaft, a plurality of disks thereon driven at different speeds and provided with notches, a detent adapted to engage the notches and means for momentarily retracting the detent.

5. In indexing mechanism, the combination of a friction driver, a driven shaft, a disk thereon rotating at the shaft speed, another disk thereon, means for rotating said other

disk at a speed different from the shaft speed, each of the disks being provided with a notch and a retractable detent adapted to engage the notches.

[Claim 6 not printed in the Gazette.]

1,028,772. HULLER-GIN. STEPHEN D. MURRAY, Dallas, Tex. Filed Jan. 7, 1911. Serial No. 601,318. (Cl. 13—19.)



1. In a huller gin, a hulling chamber having an enlarged outlet provided in the body of the same intermediate of its ends in addition to the ordinary outlet means along the bottom thereof, means in the said chamber for moving material therein in opposite directions toward said outlet, and cotton ginning devices including a roll box coöperating with the said chamber.

2. In a huller gin, a hulling chamber having a centrally disposed enlarged outlet therein in addition to the ordinary outlet means along the bottom thereof, means for moving material in the chamber from opposite extremities of the chamber toward said enlarged outlet, and ginning devices coöperating with the chamber.

3. In a huller gin, a hulling chamber provided with an enlarged outlet therein in addition to the ordinary outlet means along the bottom thereof, means for moving material in the hulling chamber in opposite directions toward said enlarged outlet, and means for removing the seed cotton from the hulling chamber.

4. In a huller gin, a hulling chamber having an enlarged outlet located between the ends of the same and in addition to the ordinary outlet means along the bottom thereof, means for feeding material into opposite extremities of said chamber, means in the chamber for moving the material therein toward the said enlarged outlet, and ginning devices coöperating with the chamber.

5. In a huller gin, a hulling chamber provided with an enlarged outlet between the ends thereof and in addition to the ordinary outlet means at the bottom thereof, ginning saws coöperating with said chamber, and means in the hulling chamber coöperating with the saws for throwing the material in the chamber against the saws and also moving the material lengthwise of the chamber along the saws toward the said enlarged outlet.

[Claims 6 to 16 not printed in the Gazette.]

1,028,773. NOSE-GUARD FOR EYEGLASSES. JAMES H. OSTRANDER, Chicago, Ill. Filed Mar. 11, 1908. Serial No. 420,364. (Cl. 88—9.)



1. A nose guard comprising a strip stamped from a sheet of metal and having an upwardly directed end for attachment and below the attaching end curving edgewise to the inner edge of and beyond the attaching end, then bending edgewise beneath the other bend or fold to the outer side of and beyond the attaching end, said strip then bending or folding edgewise inwardly and upwardly to a point above the attaching end thence curved inwardly edgewise and downward lengthwise of the upward fold, and substantially parallel with and in close proximity thereto and outwardly beyond the attaching end to correspond with the second bend or fold, the extremity of the strip then curved edgewise inwardly and upwardly parallel to the last named downwardly curved part and the guard sprung or bent to throw the edges of some of the parts thereof out of a common plane.

2. A device of the class described embracing a thin flat resilient strip of metal having an upwardly directed attaching end, a portion of said strip curving edgewise to the outer edge of and beyond the attaching end, said strip then bending or folding edgewise inwardly and upwardly to a point above the attaching end thence curved inwardly edgewise and downward lengthwise of the upward fold, and substantially parallel with and in close proximity thereto and outwardly beyond the attaching end to correspond with the second bend or fold, the extremity of the strip then curved edgewise and upwardly parallel to the last named downwardly curved part and the guard sprung or bent to throw the edges of some of the parts thereof out of a common plane.

3. A nose guard embracing a continuous contacting strip affording a plurality of folds, some of said folds normally projecting forwardly beneath and beyond a point of attachment of said strip, other of said folds projecting normally rearwardly of said point of attachment and together therewith affording a support on either side of the point of attachment.

1,028,774. PROCESS OF EXTRACTING METALS. AUGUSTE HENRI PERRET, Paris, France. Filed Nov. 21, 1910. Serial No. 593,509. (Cl. 75—17.)

1. The hereindescribed process for the treatment of substances containing metals of the vanadium group, which comprises forming a molten bath of such substance and subjecting such bath to the action of an oxidizing medium until such substance has reached its highest state of oxidation.

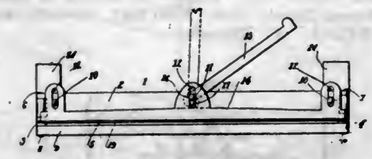
2. The hereindescribed process for the treatment of substances containing metals of the vanadium group, which comprises mixing such substance with a sufficient proportion of alkaline carbonate to insure fusion thereof, melting such mixture and subjecting it to the action of an oxidizing agent, and casting the molten mass immediately upon completion of oxidation.

3. The hereindescribed process for the treatment of substances containing metals of the vanadium group, which comprises mixing the substance to be treated with a sufficient proportion of alkaline carbonate to insure fusion thereof, melting said mixture in a reverberatory furnace and projecting an oxidising agent upon the bath thus formed, casting the substance as soon as it has reached a maximum state of oxidation, and treating the cast substance with boiling water.

4. The hereindescribed process for the treatment of substances containing metals of the vanadium group, which consists in mixing the substance to be treated with a sufficient proportion of alkaline carbonate to insure fusion thereof, melting the mixture thus formed and projecting an oxidizing agent upon the molten bath, casting the molten substance as soon as oxidation has been completed, forming a liquor containing the substance to be treated, concentrating such liquor, mixing the concentrated liquor with acid of a quantity sufficient to effect exact neutralization of the liquor, introducing a higher oxid of the metal to be obtained into the liquor, forming a precipitate of the liquor, treating the precipitate in the presence of an oxidizing agent, and recovering traces of the metal.

5. The hereindescribed process for the treatment of substances containing metals of the vanadium group, which consists in mixing the substance to be treated with a suitable proportion of alkaline carbonate to insure fusion thereof, melting such mixture to form a molten bath and treating such bath with an oxidizing agent, casting the molten mass after the oxidizing operation has been completed, forming a liquor containing the constituents of said substance, adding an acid to such liquor to effect exact neutralization thereof and to form a precipitate, decanting the liquor immediately after neutralization, washing the precipitate with water mixed with an alkaline carbonate, filtering the liquor and precipitate, digesting the precipitate with alkaline carbonate lyes, adding an oxidizing agent, eliminating the silica which has remained insoluble, precipitating the vanadate and pervanadate contained in such solutions, and washing and drying the precipitate thus obtained.

1,028,775. SAW-CLAMP. ANDREW PETERSON, Metaline, Wash. Filed Dec. 8, 1910. Serial No. 596,295. (Cl. 76—78.)



1. In a device of the class described, a U-shaped frame having spaced apart transverse members and slotted vertical members, hinged connections between said transverse members and said vertical members, a movable jaw carried by said frame, means for actuating said jaw, and means for securing said frame to a suitable support.

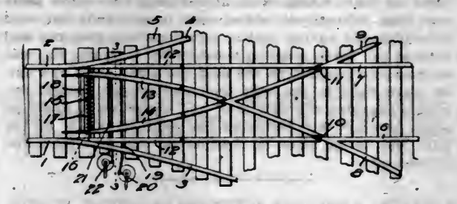
2. In a device of the class described, a horizontal frame member, a pair of depending U-shaped members hingedly secured to the ends of said frame member, a stationary jaw carried on pivots secured in the return-bent ends of said U-shaped members, said pivots being co-axial with said hinges, a movable jaw slidably secured on said first mentioned frame member, means for actuating said jaw, and means carried by said depending members for securing the device to a support.

3. In a device of the class described, a horizontal frame member, a pair of depending U-shaped members pivotally mounted in the ends thereof, a stationary jaw member carried between pivots in the return bent ends of said depending members, said pivots being co-axial with said first mentioned pivots, a plurality of vertical studs secured to said horizontal frame member, a movable jaw having transverse slots adapted to bear over said studs, a cam lever pivoted on one of said studs and adapted to bear against said movable jaw, and means carried by said depending members for securing the device to a support.

4. In a device of the class described, a horizontal frame member, a pair of depending U-shaped members pivoted in the ends thereof, a stationary jaw member carried between pivots in the return-bent ends of said U-shaped members, said pivots being coaxial with said first named pivots, a plurality of vertical studs secured in said horizontal frame member, a movable jaw provided with transverse slots adapted to bear over said studs, a cam lever pivoted on one of said studs and adapted to bear against said movable jaw, laterally extending portions adjacent the ends of said horizontal frame member, laterally extending portions formed on said depending members, and clamp screws carried in said last named portions and adapted to clamp a supporting element against the extended portions of said frame.

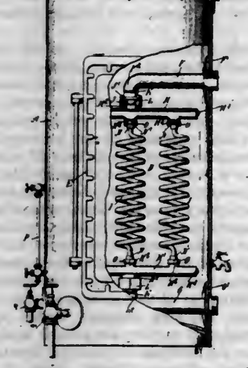
1,028,776. RAILWAY-SWITCH. GROVER CLEVELAND PHINNEY, Marble Falls, Tex. Filed Aug. 16, 1911. Serial No. 644,325. (Cl. 104—12.)

1. The combination with the rails of the main line, of a rod connecting said rails, switch points pivotally supported between the rails and having their ends slidably mounted on the rod, a spring connecting the points and wound on the rod, and an abutment block projecting between the rails for limiting the inward movement of the switch points.



2. The combination with a railway trackway including a main line and diverging sidings, of a rod connecting the various rails, switch points having one end pivotally secured in alinement with certain of the rails and having their ends slidably engaged on the rod, a spring wound on the rod and having its ends secured to two switch points of different pairs, an abutment block interposed between said connected switch points, said bars connecting the various switch points in pairs for shifting the same to open the sidings, whereby shifting of either pair of switch points will stretch the spring and the contracting force of the spring will reshift the points upon releasing of the bar to open the main line.

1,028,777. EVAPORATING APPARATUS. JOHN ANTHONY POWER, Babylon, N. Y. Filed Jan. 27, 1912. Serial No. 673,782. (Cl. 127—9.)



1. An evaporating apparatus, comprising a shell having a door, a water inlet, a vapor outlet, steam inlet and outlet pipes arranged within the shell and fixed thereto, and a heating device mounted to turn on the inner ends of the said fixed steam inlet and outlet pipes and connected therewith for the circulation of steam through the said heating device.

2. An evaporating apparatus, comprising a shell, a pair of oppositely-disposed manifolds within the said shell, coils connecting the said manifolds with each other, inlet and outlet pipes fixed in the said shell, and ground joints in axial alinement and connecting the said manifolds with the said fixed pipes.

3. An evaporating apparatus, comprising a shell, oppositely-disposed manifolds within the said shell and provided at their middle with seats, coils connecting the said manifolds with each other, inlet and outlet pipes fixed in

the said shell and having conical terminals engaging the said seats, and coupling members for fastening the said terminals in position on the seats.

4. An evaporating apparatus, comprising a shell, oppositely-disposed manifolds within the said shell and provided at their middle with alined inlet and outlet seats and with reduced coil seats, coils intermediate the said manifolds and having conical terminals engaging the said reduced coil seats, coupling members for fastening the said terminals in position on the said coil seats, inlet and outlet pipes fixed in the said shell and having conical terminals engaging the said inlet and outlet seats, and coupling members for fastening the said terminals of the inlet and outlet pipes in position on the said inlet and outlet seats.

1,028,778. TOOL FOR APPLYING GLAZIERS' POINTS. JAMES POWERS, Newark, N. J., and JOHN G. SCHOFIELD, Washington, D. C. Filed Apr. 24, 1911. Serial No. 623,067. (Cl. 1—44.)



1. A tool for applying glaziers' points comprising a hollow bar adapted to contain the points, means for feeding the points forwardly or outwardly, a driving plunger slidably mounted on the bar and movable transversely thereof, a pivoted bell crank lever having one of its arms connected with the plunger, an actuating spring bearing against the other arm of the lever and arranged to be compressed by the same, and a pivotally mounted operating lever extending longitudinally of the bar and provided with means for engaging and tripping the bell crank lever.

2. A tool for applying glaziers' points comprising a hollow bar adapted to receive the points, means contained within the bar for feeding the points forwardly or outwardly, a driving plunger slidably mounted on and movable transversely of the bar, a pivotally mounted bell crank lever having longitudinal and transverse arms and provided at the junction of the arms with a shoulder, the longitudinal arm being connected with the plunger, a coiled spring arranged to be compressed by the transverse arm, and a pivoted operating lever extending longitudinally of the bar and provided with a dog arranged to engage the shoulder of the bell crank lever for actuating the same during a portion of the movement of the operating lever and carried out of engagement with the shoulder through a continued movement of the operating lever.

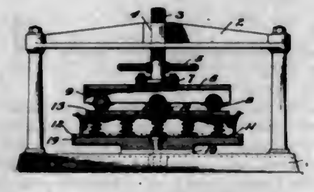
3. A tool for applying glaziers' points comprising a hollow bar adapted to receive the points, means contained within the bar for feeding the points forwardly or outwardly, a driving plunger slidably mounted on the bar, a pivoted spring-actuated lever connected with the plunger and provided with a shoulder, a pivotally mounted operating lever, and a dog movably mounted on the operating lever and arranged to engage the shoulder of the spring-actuated lever for moving the same during a portion of the movement of the operating lever and adapted to be carried out of engagement with the shoulder to trip the spring actuated lever.

4. A tool for applying glaziers' points comprising a hollow bar adapted to receive the points, means contained within the bar for feeding the points forwardly or outwardly, a driving plunger slidably mounted on the bar, a pivoted spring-actuated lever connected with the plunger and provided with a shoulder, a pivotally mounted operating lever, a dog pivoted at its outer end and having its inner end arranged to engage the shoulder of the spring-actuated lever, a spring for moving the dog inwardly, and means for adjusting the dog to vary the engagement of the same with the shoulder.

5. A tool for applying glaziers' points comprising a hollow bar adapted to receive the points, means contained within the bar for feeding the points forwardly or outwardly, a driving plunger slidably mounted on the bar and movable transversely thereof, a pivotally mounted spring-actuated lever provided with a shoulder and connected with the plunger, a pivoted operating lever, a dog pivotally connected at one end with the operating lever and having its other end arranged to engage the shoulder of the spring-actuated lever, said dog being provided with an exterior arm, a spring mounted on the operating lever and connected with the dog for moving the same inwardly, and a set screw carried by the arm of the dog and arranged to engage the operating lever for adjusting the dog.

[Claims 6 to 16 not printed in the Gazette.]

1,028,779. UPHOLSTERING-MACHINE. GEORGE S. PRICE, Detroit, Mich., assignor of one-half to Leonard A. Young, Detroit, Mich. Filed Sept. 15, 1910. Serial No. 582,118. (Cl. 155—43.)



1. An upholstering machine comprising a base, a spring-seat turntable pivoted on the base to swing parallel thereto, a yoke secured on the base over the turntable, a hand screw in screwthreaded engagement with the yoke, and in axial alinement with the turntable, a pressure plate journaled on the end of the screw adjacent the turntable, rollers journaled on the under side of the pressure plate in substantially parallel relation to the turntable, and a draw plate removably inserted between the rolls and the turntable.

2. An upholstering machine comprising a base, an upright yoke secured on the base, a turntable journaled on the base under the yoke, a hand screw in screwthreaded engagement with the yoke in axial alinement with the turntable, a pressure plate journaled on the end of the screw adjacent the turntable, bearing blocks depending from the base of the pressure plate, rollers journaled in parallel relation in the bearing blocks, and a draw board removably inserted between the pressure plate and turntable.

1,028,780. IRRIGATION-REGULATOR. GEORGE RAPPEEN PROCTOR, Grand View, Idaho. Filed Nov. 25, 1911. Serial No. 662,433. (Cl. 137—60.)

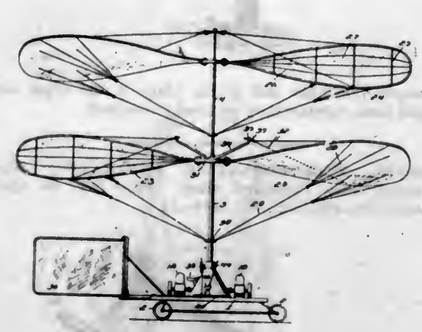


1. In a regulator, a trough like member smaller at one end than at the other and having an inclined portion, and a reversible gate to fit the smaller end and adjustable longitudinally of the trough like member, to permit fluid to pass thereby in regulated quantities.

2. In a regulator, a trough like member having an inclined bottom with the sides arranged equal distances apart at each end, and a reversible angular gate to fit the sides of the trough like member and adapted to be adjusted longitudinally of the inclined bottom, so as to permit fluid to pass thereover.

3. In a regulator, a trough like member having an inclined bottom with the sides arranged equal distances apart at each end, and a reversible angular gate to fit the sides of the trough like member and adapted to be adjusted longitudinally of the inclined bottom, so as to permit fluid to pass thereover, the reversible angular gate having a long and a short arm, the short arm having its upper end disposed slightly below the upper edges of the trough like member, while the longer arm when upright is flush with the upper edges of the trough like member.

1,028,781. FLYING-MACHINE. WILLIAM J. PURVIS and CHARLES A. WILSON, Goodland, Kans. Filed Mar. 18, 1910, Serial No. 550,264. Renewed Nov. 2, 1911. Serial No. 658,236. (Cl. 244—19.)



1. A flying machine comprising a frame, vertical shafts carried by the frame, a casing in which said shafts are journaled, means for rotating said shafts, lifting and sustaining propellers carried by the shafts, horizontal shafts extending laterally from the opposite sides of the machine, tilting planes eccentrically mounted on said horizontal shafts at right angles to the line of flight for movement in a vertical plane, an operator's seat arranged in rear of the casing, gears carried by the horizontal shafts, brackets upon the frame on opposite sides of the casing and carrying fixed racks, levers fulcrumed on said brackets and carrying segments meshing with the gears on the horizontal shafts, and pawls carried by said levers to engage the racks and lock the levers in adjusted position.

2. A flying machine comprising a frame, a casing mounted thereon, shafts coaxially mounted and extending at their lower ends into said casing, one of said shafts projecting above the other, upper and lower collars mounted on each shaft, inclined arms upon each shaft above the upper collar, said arms having upwardly bent perforated ends, propeller blades carried by each shaft and secured to the upper collars thereof, guys extending from the under side of the blades to the lower collar, guys extending to the upper surfaces of the blades, eye bolts connected with the latter-named guys and passing through the bent ends of the angularly arranged arms, and nuts fitted on said bolts and bearing against the bent ends of the arms.

3. A flying machine comprising a frame, a substantially conical gear casing mounted on the frame and having a cylindrical bearing collar at its upper reduced end, a vertical propeller shaft journaled at its lower end in the base of the casing, bearing members on the base of the casing and lower end of the shaft, bearing balls between said bearing members, a beveled gear wheel carried by said propeller shaft, above said bearing members, a hollow vertical propeller shaft extending into the casing and inclosing the first-named propeller shaft, anti-friction bearings between the lower end of the hollow shaft and the beveled gear, anti-friction bearings between the hollow shaft and cylindrical collar, a second bevel gear mounted upon said hollow shaft, pinions meshing with the beveled surfaces of said gears, horizontal drive shafts journaled in the casing and carrying said pinions, motors for driving said horizontal shafts, and propellers carried by the said vertical propeller shafts.

1,028,782. AUTOMATIC STABILIZER FOR FLYING-MACHINES. MAX RAABE, Cronberg in the Taunus, Germany. Filed Apr. 19, 1911. Serial No. 622,108. (Cl. 244—12.)



1. In an aeroplane, the combination of a suitable frame, a plurality of separate and independent supporting planes, a vertically disposed axis on which each of said planes is mounted to rotate on said frame, and a vertically disposed vane on each of said planes adapted to effect rotation of its respective plane through the medium of air currents, substantially as described.

2. In an aeroplane, the combination of a suitable frame, a plurality of supporting planes, a member on which each of said planes is secured and at an angle relatively thereto, a vertically disposed axis for securing each of said members to said frame; and a vertically disposed vane secured to each of said planes and adapted to rotate its respective plane on its axis through the medium of air currents, substantially as described.

3. In an aeroplane, the combination of a suitable frame, a plurality of supporting planes disposed in triangular relation, a plurality of disks disposed above said planes, means securing each of said planes to each of said disks at an angle relatively thereto, a vertically disposed axis connecting each of said disks with the supporting frame, members movably mounted on the frame and having connection with said vertically disposed axes, and operable to actuate the latter, and a vertically disposed vane secured to each of said planes and adapted to rotate its respective plane on its axis through the medium of air currents, substantially as described.

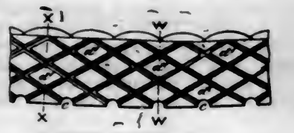
4. In an aeroplane, the combination of a suitable frame, a plurality of supporting planes, a disk mounted above and supporting each of said planes, bars hingedly mounted on said frame, a vertically disposed axis connected with each of said disks and secured to said bars for supporting said disks, a vertically disposed shaft mounted on the frame, a member slidably mounted on said shaft, links connecting said slidable member with the supporting axes of said disks, and operable to adjust the position of said axes, and a vertically disposed vane secured to each of said planes and adapted to rotate its respective plane on its axis through the medium of air currents, substantially as described.

1,028,783. MOTOR-CYCLE DRIVING-BELT. CURT THEODOR LEONARD VON RABENAU, Islington, England. Filed July 17, 1911. Serial No. 638,978. (Cl. 74—62.)

1. A driving belt for transmitting power by the frictional grip of its inclined sides upon the side faces of a grooved pulley, having in combination grooves cut across its under surface, a pattern of segment like basket-work raised above the general upper surface of the belt, and a pattern of studs with intervening sunken channels on each side face of the belt, substantially as and for the purpose described.

2. A driving belt for transmitting power by the frictional grip of its inclined sides upon the side faces of a

grooved pulley, having in combination grooves cut across its under surface, and a pattern of projections above the general upper surface of the belt, the said projections being so arranged as to present alternate maximum and minimum masses of material in cross section, substantially as and for the purpose described.

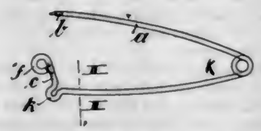


3. A driving belt for transmitting power by the frictional grip of its inclined sides upon the side faces of a grooved pulley, having in combination grooves cut across its under surface, and a pattern of studs with intervening sunk channels on each side face of the belt, the said channels communicating with the said grooves, substantially as and for the purpose described.

4. A driving belt for transmitting power by the frictional grip of its inclined sides upon the side faces of a grooved pulley, having in combination a central core of canvas coated or impregnated with an adhesive, an exterior coating of india rubber, said belt having sunk spaces formed in the rubber on each of its four sides so spaced and arranged as to present alternate spaces of greatest and least material at regular distances apart, substantially as and for the purpose described.

5. A motor cycle driving belt comprising a central core of canvas and an external coating of india rubber, said coating having patterns molded on each of its four sides by alternate sinkings and projections of the said rubber, arranged and operating to produce regular alternating transverse lines of greatest and least flexibility, substantially as and for the purpose described.

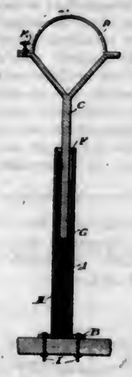
1,028,784. SAFETY-PIN. FRITZ RAUPACH, Pulsnitz, Germany. Filed June 15, 1909. Serial No. 502,311. (Cl. 24—161.)



A safety pin comprising a single piece of wire bent upon itself to form a resilient pin portion and body portion, the free end of said body portion being bent upwardly to form a resilient closing means and terminating in an outwardly bent ring, said closing portion being split to form a top aperture and a lower aperture with a restricted slot or groove therebetween, whereby when said pin portion is being closed the pin point will pass though said groove or slot in a protected position, springing said closing portion outwardly and passing through said lower aperture into said ring, when closed, substantially as described.

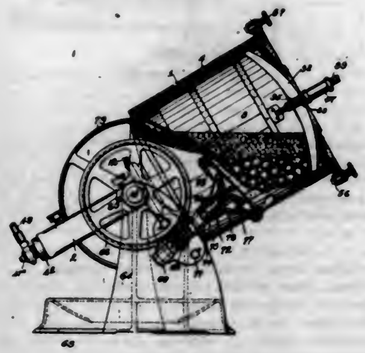
1,028,785. TROLLEY-ADJUSTER. WILLIAM J. REEDER, Louisville, Ky. Filed July 22, 1911. Serial No. 640,045. (Cl. 191—35.)

A trolley pole adjuster, comprising a fork mounted in a casing secured to the top of a car, a cap for the top of said casing having a hole through its center, a piston rod on said fork projecting through said hole in the said cap, a flange on the lower end of said piston rod, a spring in said casing bearing up against the lower side of said flange, a retainer with one end hinged to the upper end of one of the forked arms and a thumb screw



to secure the other end of the hinge to the other arm of said fork, substantially as herein described.

1,028,786. ELECTROPLATING APPARATUS. MARCELLUS REID, Cleveland, Ohio. Filed Dec. 10, 1908. Serial No. 466,753. (Cl. 204—11.)



1. In an electro-plating apparatus, the combination of a tank, a basket in said tank, a centrally arranged anode projecting into the lower portion of said basket, and a cathode terminal carried by said basket, said terminal comprising a ring extending around the side of the basket at the lower end thereof.

2. In an electroplating apparatus, the combination of a tank, a basket in said tank, an anode projecting into the lower portion of said basket, and a cathode terminal consisting of a plurality of spaced metallic rings extending around the side of the basket with one or more metallic members connecting said rings.

3. In an electroplating apparatus, the combination of a tank, a basket in said tank, an anode projecting into the lower portion of said basket, one or more rings extending around the basket and carried thereby, a plurality of vertically extending strips or plates secured to said ring or rings, and a terminal support electrically connected to said strips or plates.

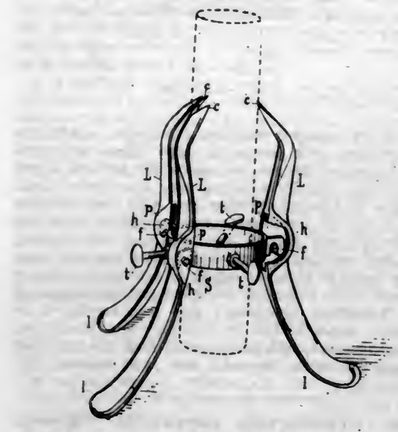
4. In an electroplating apparatus, the combination of a tank, a basket in said tank, an anode projecting into the lower portion of said basket, a cathode terminal consisting of a plurality of spaced rings extending around the basket and a plurality of vertically extending strips or plates secured to said rings, and a spider in said basket

having its arms secured to said strips or plates and provided with a hub for the reception of an electric terminal.

5. In an electroplating apparatus, the combination of a tank, a basket having a perforated bottom, a centrally arranged anode projecting into the lower portion of the basket, a cathode terminal carried by said basket and consisting of a plurality of rings extending around said basket and metal strips or plates connecting said rings, and a spider secured to the upper ends of said strips or plates and provided with a hub or bearing for an electric terminal.

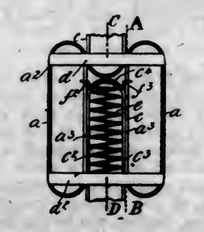
[Claims 6 to 27 not printed in the Gazette.]

1,028,787. CHRISTMAS-TREE AND STANDARD HOLDER. FRANK ROSSMEISSL, Newark, N. J., assignor of one-half to Harry W. Foster, Newark, N. J. Filed Aug. 24, 1910. Serial No. 578,748. (Cl. 248—38.)



In a device of the class specified, the combination of a plurality of levers the upper ends of which are adapted to engage the object to be supported and the lower ends of which are adapted to serve as legs, and having pockets intermediate of their ends which contain fulcrum pins, a sleeve having radially projecting hooks entering the pockets upon which the levers are detachably fulcrumed, and screws passing through the sleeve for engaging the object to be supported, substantially as described.

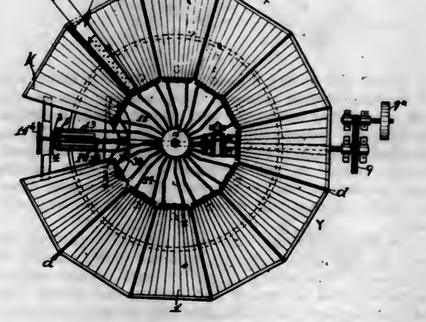
1,028,788. FLEXIBLE AND EXPANSIBLE BRACELET. KEVITT ROTHERHAM, Coventry, England. Filed Mar. 16, 1912. Serial No. 684,250. (Cl. 59—79.)



1. In a flexible and expansible bracelet, the combination of adjacent pairs of outer links having longitudinal guiding slots at their opposite inner sides, transverse pivot pins soldered at their ends to said outer links to rigidly connected and distance apart the links of each pair, a hollow inner link freely fitting the spaces between two adjacent pairs of outer links and oppositely side slotted for adjacent pivot pins of two pairs of outer links to pass through, a coiled spring contained within the inner link in compression between the one end of said link and one of the pivot pins and which can be put into position through one of the side slots of said inner link, and means provided upon the inner link at one end to permit of said end being put into effective engagement with the opposite slots of the pair of outer links after the soldering of the pivot pins, substantially as described.

2. In a flexible and expansible bracelet, the combination of adjacent pairs of outer links having longitudinal guiding slots at their opposite inner sides, transverse pivot pins soldered at their ends to said outer links to rigidly connect and distance apart the links of each pair, a hollow inner link freely fitting the spaces between two adjacent pairs of outer links and oppositely side slotted for adjacent pivot pins of two pairs of outer links to pass through, a coiled spring contained within the inner link in compression between the one end of said link and one of the pivot pins and which can be put into position through one of the side slots of said inner link, and bendable horns or ends provided upon the inner link at one end to permit of said end being put into engagement with opposite slots of the outer links after the pivot pins have been soldered, said horns being provided from an attached coupling bar soldered to the inner link end, substantially as described.

1,028,789. SEPARATING DEVICE. JOHN EDWARD ROTHWELL, Denver, Colo. Filed Nov. 16, 1909. Serial No. 528,401. (Cl. 75—86.)



1. A separating device comprising a series of trays placed side by side, means for moving the trays, and packing strips located between the trays.

2. A separating device comprising a series of trays, means for rotating the same, filter means in said trays, central suction means, a pipe leading from said means to each tray for drawing the solution therefrom as the tray moves, means for tilting the tray at a certain point, and means for cutting the suction off when the tray is tilted and forcing fluid through the said pipe to the tray below the filter, and independent means for conducting compressed fluid against the material on the top of the filter means.

3. A separating device comprising a rotary disk and a stationary disk, trays surrounding said disks, a suction pipe and a pressure pipe connecting each tray with the rotary disk, said rotary disk having a ring of suction openings therein communicating with the suction pipes and another ring of pressure openings communicating with the pressure pipes, said stationary disk having grooves in its inner face adapted to communicate with the suction openings, and also having openings adapted to communicate with the pressure openings, pressure and vacuum means connected with said grooves, and openings in the

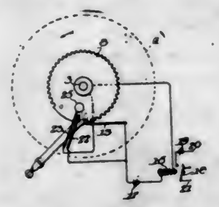
stationary disk and spring means for holding the disks together.

4. A separating device comprising a stationary disk and a movable disk having grooves and ports therein, a shaft supporting said disks, a spring coiled around the shaft and pressing the stationary disk against the movable disk, a split nut on said shaft engaging the other end of the spring, a sleeve surrounding the nut, an arm on said sleeve, a rod on the stationary disk engaging the arm, trays surrounding the disks, means for rotating the trays and pipes connecting the trays with the ports in the movable disks.

5. A separating device comprising a series of trays, means for rotating the same, trunnions arranged at right angles to the radial line for supporting the trays, means for tilting the trays on said trunnions at a certain place, and means passing through the trunnions for withdrawing the solution from the trays or applying fluid thereto.

[Claims 6 and 7 not printed in the Gazette.]

1,028,790. SIGNALING SYSTEM. HARRY O. RUGH, Sandwich, Ill., assignor to Sandwich Electric Company, Sandwich, Ill. Original application filed Sept. 1, 1910, Serial No. 580,068. Divided and this application filed Sept. 14, 1911. Serial No. 649,355. (Cl. 179—85.)



1. A call box having a circuit controlling element, contact making devices mounted independently of said element, controlling means for said contact making devices also mounted independently of said element and having frictional engagement with said element, whereby movement of said element in one direction will establish certain circuit conditions, and a movement in the opposite direction of the element will establish different circuit conditions.

2. A call box having a movable circuit controlling element, contact making devices mounted independently of said element, controlling means for said contact making devices mounted on one of said devices and having frictional engagement with said element, whereby movement of said element in one direction will establish certain circuit conditions, and a movement of the element in the opposite direction will establish different circuit conditions.

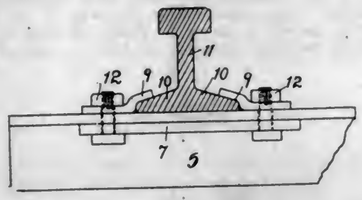
3. A call box having a movable circuit controlling element, contact making springs mounted independently of said element, controlling means for said contact making springs also mounted independently of said element, and having frictional engagement with said element, whereby movement of said element in one direction will establish certain circuit conditions, and a movement of the element in the opposite direction will establish different circuit conditions.

4. A call box having a movable circuit controlling element, contact making springs mounted independently of said element, controlling means for said contact making springs mounted on one of said springs and having frictional engagement with said element, whereby movement of said element in one direction will establish certain circuit conditions, and a movement of the element in the opposite direction will establish different circuit conditions.

5. A call box having a rotatable circuit controlling element, contact making devices mounted independently of said element, controlling means for said contact making devices also mounted independently of said element and having frictional engagement with said element, whereby movement of said element in one direction will establish certain circuit conditions, and a movement in the opposite direction of the element will establish different circuit conditions.

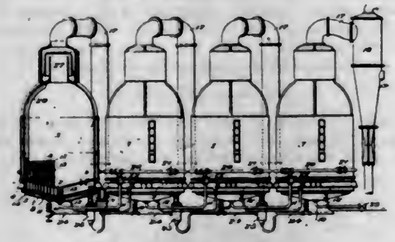
[Claims 6 to 8 not printed in the Gazette.]

1,028,791. METALLIC TIE. BURTON S. RUPP and JESSE W. JOHNSON, Salt Lake City, Utah, assignors to Universal Metallic Tie Company, a Corporation of Utah. Filed May 19, 1911, Serial No. 628,318. Renewed May 7, 1912. Serial No. 695,802. (Cl. 238—5.)



A tie of the character described, comprising a body portion of channel form having its upper edges out-turned to form horizontal flanges, and means for securing a rail to said flanges, said means comprising clips seated upon said flanges and having portions that take over the base flanges of the rail, reinforcing bars extending along the undersides of said flanges, and separate bolts passing through said reinforcing bars, said flanges and said clips, said clips being of sufficient length to extend from one of said flanges to the other and overlying the base flanges of the rail throughout their length, said clips serving to tie the opposite edges of the tie together, said reinforcing bars being of such length as to extend from the fastening bolt of one clip to the fastening bolt of an opposed clip.

1,028,792. EVAPORATING APPARATUS. THORNTON F. SANBORN, Ensenada, Porto Rico, assignor to Sanborn Evaporator Company, a Corporation of Delaware. Filed Dec. 28, 1910. Serial No. 599,773. (Cl. 127—18.)



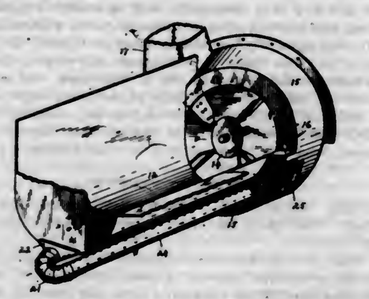
1. An evaporating effect or cell, having an inclined tube sheet or bottom, for the evaporating chamber, upwardly extending heating tubes closed at their upper ends and having their lower ends secured to and opening through the said inclined bottom, a juice take-off or outlet leading from the said inclined bottom, a steam chamber below said tube sheet and which has an inclined bottom, take-off tubes secured to and opening through said inclined bottom of the steam chamber and having their upper parts extending into the heating tubes to near the upper closed ends thereof and there open to the interior of the heating tubes, a condensation outlet for the steam chamber, a chamber below the steam chamber and with which the take-off tubes communicate and an outlet for said chamber last-named, said outlet being subject to vacuum, whereby the non-condensable gases are drawn off from the heating tubes.

2. A multiple evaporating effect having a plurality of cells, each cell having in combination, heating tubes closed at one end and secured at the other end to a wall of the evaporating chamber and opening therethrough, a steam chamber with which said heating tubes communicate, take-off tubes extending into the heating tubes and open to the interior thereof, and means for conveying the non-condensable gases from the heating tubes of one cell through the take-off tubes thereof to the steam chamber of a succeeding cell.

3. A multiple evaporating effect, having a plurality of cells, each cell having in combination, a bottom for the evaporating chamber, upright heating tubes closed at their upper ends and secured at their lower ends to the bottom and opening therethrough, a steam chamber with which said heating tubes communicate, take-off tubes extending up into the heating tubes and open to the interior thereof, a pipe line for taking off the water of condensation from the respective cells, and separators in said pipe line for conveying to the steam space of a succeeding cell the vapor or steam entraining with the condensation water flowing from a preceding cell.

4. A multiple evaporating effect, having a plurality of cells, each cell having in combination with the evaporating chamber thereof, heating tubes imperforate where disposed within the evaporating chamber, a steam chamber with which the heating tubes communicate, take-off tubes communicating with the interior of the said heating tubes, a chamber with which the take-off tubes communicate, vacuum producing means for the multiple effect, and means affording communication between the chamber with which the take-off tubes communicate in a given cell and the steam chamber of a succeeding cell, whereby the non-condensable gases are removed from the heating tubes of the respective cells.

1,028,793. PNEUMATIC STACKER. JOSEPH K. SHARPE, Jr., Indianapolis, Ind., assignor to The Indiana Manufacturing Company, Indianapolis, Ind., a Corporation of West Virginia. Filed Apr. 29, 1910. Serial No. 558,394. (Cl. 193—21.)



1. The combination, in a pneumatic stacker, of a hopper, a vertically arranged fan casing communicating with said hopper and arranged at one side thereof, a fan in said casing, a conduit leading from said casing to the side of said hopper opposite to said fan for discharging an air blast therethrough, and means in said casing for permitting an air blast from said fan to discharge through said conduit and for preventing material from entering said conduit.

2. The combination, in a pneumatic stacker, of a hopper, a fan casing at one side of said hopper embodying means for permitting the lateral expansion of air therein, a fan in said casing, a conduit leading from said fan casing to the opposite end of said hopper for discharging an air blast from said fan into said hopper, and a partition in said fan casing for permitting the blast from said fan to enter said conduit and for preventing material from entering therein.

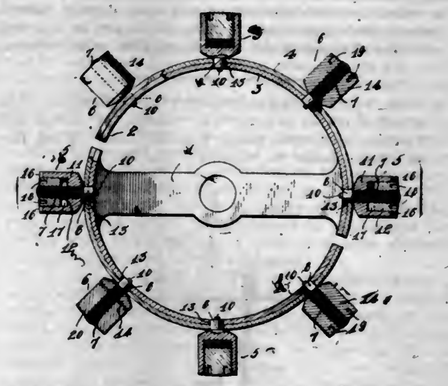
3. In a pneumatic stacker, a hopper, a fan housing having a portion of its peripheral wall voluted and communicating with one end of said hopper, a flange associated with said volute portion to form an air container in said housing, a fan in said housing, and a perforated shield in said housing between said fan and said air container for separating material from air expanding into said container.

4. In a pneumatic stacker, a hopper, a fan housing having a portion of its peripheral wall voluted and communicating with one end of said hopper, a flange associated with said volute portion to form an air container in said housing, a fan in said housing, and a conduit leading from said air container to the opposite end of said hopper for discharging an air blast therethrough, and toward said fan.

5. In a pneumatic stacker, a hopper, a fan housing having a portion of its peripheral wall voluted and communicating with one end of said hopper, a flange associated with said volute portion to form an air container in said housing, a fan in said housing, a conduit leading from said housing to the outer end of said hopper for discharging an air blast through said hopper and toward said fan, and a shield in said housing for preventing material from entering said conduit.

[Claims 6 and 7 not printed in the Gazette.]

1,028,794. BALANCE-WHEEL. MICHAEL SPORLEDER, Colorado City, Colo., and WILLIAM SPORLEDER, Okemah, Okla. Filed Jan. 5, 1912. Serial No. 669,676. (Cl. 58—108.)



1. A balance wheel having a series of openings in its periphery, a series of screws having their inner ends mounted in said openings, an adjustable shell mounted on the screws, and a weight engaging the shells and adjustable on the screws.

2. In a balancing device for balance wheels, the combination with a screw bolt having its inner end smooth to engage a smooth bored opening in the periphery of a balance wheel, of a shell adjustably mounted upon the screw bolt.

3. A balancing device for balance wheels, comprising a screw bolt adapted to engage the periphery of a balance wheel, and a shell mounted upon said screw bolt and provided with adjusting slots in its outer end.

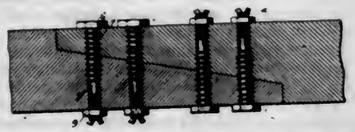
4. A balancing device for balance wheels, comprising a screw bolt adapted to engage the periphery of a balance wheel, a shell mounted upon said screw bolt and provided with adjusting slots in its outer end, and an adjustably mounted weight carried by the screw bolt and engaging the shell.

5. A balancing device for balance wheels, comprising a screw bolt adapted to engage the periphery of a balance wheel, a shell mounted upon said screw bolt and provided with a pair of oppositely disposed slots whereby the shell may be adjusted laterally upon said screw bolt, and a

device adjustably mounted on said screw bolt and contained within the shell and provided with a pair of slots whereby it may be adjusted laterally upon the screw bolt.

[Claim 6 not printed in the Gazette.]

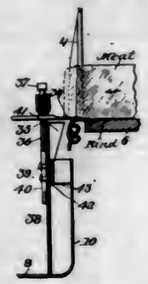
1,028,795. BOLT. HARRY B. STEINHOUSE and CLARENCE L. STEINHOUSE, Cairo, Ill. Filed Dec. 1, 1910. Serial No. 595,025. (Cl. 85—1.)



1. A bolt for securing objects in contact with each other, having a head at one end for engaging one of the objects and provided with wood screw threads extending from the head for the greater portion of its length, the diameter of the remainder of the bolt being approximately equal to the diameter of the body of the said threaded portion and provided with screw threads to receive a nut for engaging the other object, the end of the reduced portion of the bolt being split longitudinally.

2. The combination with two wooden members having registering apertures, the apertures being of the same size to form a bore of uniform diameter, of a headed bolt in the bore with its head against one member, said bolt being provided with wood threads extending from the head for the greater portion of its length and screwing into the said members, the remainder of the bolt being slightly reduced and provided with screw threads, and a nut on the said reduced and threaded end and engaging the other member.

1,028,796. RIND-REMOVING ATTACHMENT FOR MEAT-SLICING MACHINES. EDWARD M. STILES and THOMAS H. STILES, Mount Pleasant, Iowa. Filed Jan. 19, 1910. Serial No. 538,889. (Cl. 17—24.)



1. In a machine of the character described, the combination with a relatively movable meat support, and a slicing knife extended beyond the upper surface of said support, of means for removing the outer layer from each slice of the meat separately.

2. In a machine of the character described, the combination with a relatively movable meat support, and a slicing knife extending beyond the upper surface of said support, of a relatively stationary severing knife arranged above the upper surface of said support, and arranged to remove the outer layer from each slice of the meat separately.

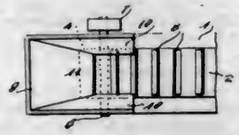
3. In a machine of the character described, the combination with a relatively movable meat support, and a slicing knife extending beyond the upper surface of said support, of a vertically adjustable severing knife extending over and above the upper surface of said support and arranged to remove the outer layer from each slice of the meat separately.

4. In a meat slicing machine, the combination of a slicing blade, a meat carrier, a support on which the carrier is mounted for movement toward and away from the slicing blade, and a rind severing knife arranged in the path of movement of only a portion of the meat as it is fed toward and away from the knife.

5. In a machine of the character described, the combination with a relatively movable meat support, and a slicing knife extending beyond the upper surface of said support, of a vertically and horizontally adjustable severing knife extending over the upper surface of said support for removing the outer layer of each slice of the meat separately.

[Claims 6 to 41 not printed in the Gazette.]

1,028,797. FEEDER FOR DRY SEPARATORS. FRITZ OSCAR STROMBORG, Seattle, Wash. Filed Feb. 6, 1911. Serial No. 606,881. (Cl. 193—24.)



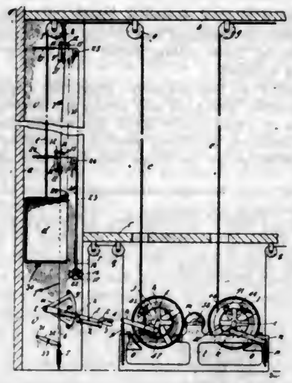
A dry separator comprising a hopper consisting of sides having their lower edges inclined downwardly from their rear ends to a point near their mid-lengths where they are curved, their curves being extended slightly upward at their forward edges, said lower edges, from the termination of their curved portions forward, being inclined forwardly and upwardly to their front ends, an inclined and curved bottom connecting the lower edges of the sides beginning at the rear ends and extending to and ending at the termination of their curved portions, the bottom being open from this point to the front end, in combination with means for discharging material upon the bottom of the hopper at its upper rear ends, and a moving member to receive the material from the bottom of the hopper at its forward, upwardly curved end, and carry it away in a forwardly and upwardly inclined direction, said moving member being parallel with and very near to the upwardly inclined forward portions of the lower edges of the side walls of the hopper and closing the forward open portion of the bottom of the hopper, and said upwardly inclined forward portions of the lower edges of the side walls of the hopper overhanging the margins of the moving member sufficiently to deposit the material at a distance from the edges of said moving member.

1,028,798. ELEVATOR. CHARLES A. STURM, Portland, Oreg. Filed Mar. 24, 1911. Serial No. 616,749. (Cl. 187—32.)

1. The combination of an elevator hoisting mechanism with an automatic control system comprising: an elevator cage operatively connected with said hoisting mechanism, a fixed projection on said cage, a pivoted projection on said cage, a segmental support, a controlling lever, said lever being pivoted on said segmental support operatively connected with said hoisting mechanism and normally locked in place, means for releasing said controlling lever, a series of selective stops operatively connected with said controlling lever and adapted to engage the pivoted cage projection, means for drawing said stops into the path of said pivoted cage projection, and a pivotally fixed stop in the path of said fixed cage projection, by means of which the extreme motion of the cage is limited.

2. The combination of an elevator hoisting mechanism with an automatic control system comprising: an elevator cage operatively connected with said hoisting mechanism, a fixed projection on said cage, a pivoted projection on the cage, a segmental support, a controlling lever, said lever being pivoted on said segmental support and operatively connected with said hoisting mechanism, a spring-held bell-crank pivoted on said controlling lever, said bell-crank having a shoulder normally engaging said support to lock said lever in place, a finger-piece pivoted on said controlling lever operatively connected with said bell-crank to release said lever from said support, a series of selective stops operatively connected with said controlling lever and adapted to engage the pivoted cage projection, means for drawing said stops into the path of said pivoted cage projection, and a pivotally fixed stop in the path of said fixed cage projection, by means of which the extreme motion of the cage is limited.

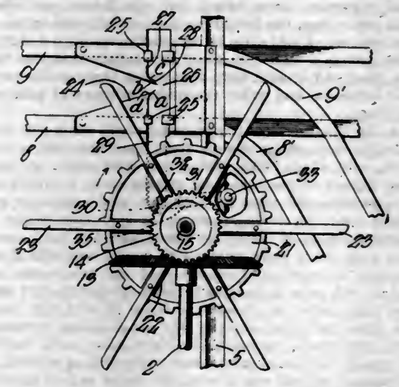
3. The combination of an elevator hoisting mechanism with an automatic control system comprising: an elevator cage operatively connected with said hoisting mechanism, a fixed projection on said cage, a pivoted projection on the cage, a segmental support, a controlling lever pivoted on said segmental support, said lever operatively connected with said hoisting mechanism, a spring-held bell-crank pivoted on said controlling lever, said bell-crank having a shoulder normally engaging said support to lock the lever in place, a finger-piece pivoted on said controlling lever operatively connected with said bell-crank to release said lever from said support, a series of selective stops operatively connected with said controlling lever and adapted to engage the pivoted cage projection, means for drawing said stops into the path of said pivoted cage projection, and a pivotally fixed stop in the path of said fixed cage projection, by means of which the extreme motion of the cage is limited.



4. The combination of an elevator hoisting mechanism with an automatic control system comprising: an elevator cage operatively connected with said hoisting mechanism, a fixed projection on said cage, a pivoted projection on the cage, a segmental support, a controlling lever, said lever being pivoted on said segmental support and operatively connected with said hoisting mechanism, a spring-held bell-crank pivoted on said controlling lever, said bell-crank having a shoulder normally engaging said support to lock the lever in place, a finger-piece pivoted on said controlling lever and operatively connected with said bell-crank to release said lever from said support, a series of selective stops operatively connected with said bell-crank, a corresponding series of spring-held hand-levers operatively connected with said selective stops and adapted to draw said stops into the path of said pivoted cage projection, and a pivotally fixed stop in the path of said fixed cage projection by means of which the extreme motion of the cage is limited.

1,028,799. CUTTING MECHANISM FOR CORN-HARVESTERS. WILLIAM H. TILSON, Plainview, Tex. Filed Dec. 12, 1911. Serial No. 665,354. (Cl. 56—130.)

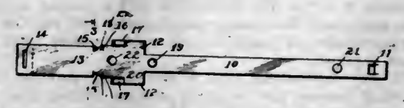
1. A cutting mechanism for corn harvesters, having a frame, stalk guiding bars, a stationary blade disposed between said bars in the path of the stalks, a rotary shaft, a plurality of radially disposed stalk engaging arms carried by said shaft and in co-active relation with the stalk guiding bars, a reciprocatory blade disposed in co-active relation with the stationary blade, a cam carried upon the shaft, a lever having one end pivoted to the frame while the free end thereof is operably connected to the reciprocatory blade, and means carried by said lever and in engagement with the cam for reciprocating the reciprocatory blade.



2. A cutting mechanism for corn harvesters, having a frame, stalk guiding bars, a stationary blade disposed between said bars in the path of the stalks, a rotary shaft, a plurality of radially disposed stalk engaging arms carried by said shaft and in co-active relation with the guiding bars, a reciprocatory blade disposed in co-active relation with the stationary blade, a cam carried upon the shaft, a lever having one end pivoted to the frame, while the free end thereof is operably connected to the reciprocatory blade, and means carried by said lever and in engagement with the cam for reciprocating the reciprocatory blade, said stationary blade being provided with two cutting edges, while the reciprocatory blade is provided with a recessed cutting edge disposed to co-act with the cutting edges of the stationary blade to produce a shearing action upon each movement thereof.

3. A cutting mechanism for corn harvesters, having a rotary shaft, a stationary blade provided with a V-shaped cutting edge disposed in the path to be engaged by the stalks to be cut, a reciprocatory blade disposed in co-active relation with said stationary blade and provided with a recessed cutting edge for co-action with the V-shaped cutting edge of the stationary blade, a cam mounted upon the shaft and provided with a plurality of blade retracting and projecting portions, a lever operably connected to said reciprocatory blade, and an arm carried by said lever and disposed in engagement with the cam to impart reciprocation to the reciprocatory blade during the rotation of the shaft.

1,028,800. SEAL. NELSON H. TUNKS, Lima, Ohio. Filed Jan. 23, 1911. Serial No. 604,213. (Cl. 70—99.)



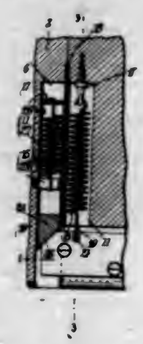
1. In an improved seal of the class described a metal strip, side wings opposite each other spaced from the outer end of said strip and folded over said strip, an extension formed on the outer end of said strip, folded over the folded portion of said wing members and constructed with a transverse slot near its free end designed

to receive the said strip, said strip being inserted through said last named slot, the inner end of said strip and the folded portions of said wing members being provided with coacting means for locking said inner end when it is again inserted through said slot and under the said folded portions.

2. An improved seal comprising a metal strip, side wings formed thereon opposite each other spaced from the outer end of said strip, said side wings being folded over said strip, an extension formed at the outer end of said strip, said extension being folded over the folded portions of said side wings, the folded portions of said side wings and the free end of said strip being constructed with a slot and with prongs designed to enter and engage said slot when the inner end of said strip is inserted through the slot in said extension and under the folded portions of said wing members.

3. An improved seal comprising a metal strip, side wings opposite each other spaced from the outer end of said strip, said wings being folded over said strip, an extension formed at the outer end of said strip, provided with a transverse slot near its free end, said extension being folded over the folded portions of said side wings, the folded portions of said side wings and the inner end of said strip being constructed with a slot and with prongs designed to enter and engage said slot when the inner end of said strip is inserted through the slot in said extension and under the folded portions of said side wings, the folded portions of said side wings being constructed with downward extensions at their outer ends designed to engage the inner end of said strip and to prevent any movement of said end toward the outer end of said seal after said prongs have entered the slot designed to receive them.

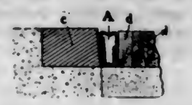
1,028,801. DOOR-STRIP. LEVI JACKSON VALENTINE, Plainview, Tex., assignor of one-half to Dennis Hemefinger and Joe E. Lancaster, Plainview, Tex. Filed Oct. 9, 1911. Serial No. 653,716. (Cl. 20—68.)



1. The combination with a door casing provided with vertical recesses and a lateral opening leading from one recess, and a door having a recess in its lower end, of a strip in the recess of the door, said strip projecting beyond the edges of the door into the recesses of the casing, springs within the door and connected with the strip for holding it within the recess, and spring pressed bolts in the recesses of the casing and engaging said strip on an incline to force it out of the recess of the door when the door is closed.

2. The combination with a door casing provided with vertical recesses and a lateral opening leading from one recess, and a door provided with a horizontal recess in its lower end, of a strip in the recess of the door, said strip being of a length greater than the width of the door and having its ends beveled and projecting into the recesses of the casing, springs connected with the strip for holding said strip within the recess, bolts in the recesses of the casing and having beveled ends for engaging the beveled ends of the strip, and springs in said recesses and connected with the bolts and forcing the said bolts outward.

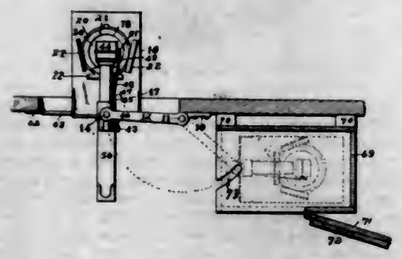
1,028,802. BUFFER FOR USE WITH WOOD PAVING. GEORGES THÉODORE VALLÉE, Paris, France. Filed May 13, 1910. Serial No. 561,117. (Cl. 94—8.)



1. A buffer of the character specified, comprising two shells oppositely arranged and fitting one within the other, the cheeks of these shells fitted one within the other being thus doubled.

2. A buffer of the character specified, comprising two shells oppositely arranged and fitting one within the other, the cheeks of these shells fitted one within the other being thus doubled, the body portion of one of the shells having the shape of the tread under surface of a rail.

1,028,803. PROJECTOSCOPE. CHARLES A. WALHOF, Rock Valley, Iowa, assignor of one-half to I. S. Large, Rock Valley, Iowa. Filed July 25, 1910. Serial No. 573,736. (Cl. 88—26.)



1. In a device of the class described, the combination of arms designed to be pivotally supported adjacent to a window opening, a frame pivotally mounted in said arms, an object casing carried by said frame, mirrors mounted on said object casing, a projecting tube also carried by said casing, and a mirror mounted on the projecting tube, said frame and the parts connected with it being capable of being extended through a window opening or of being moved to position alongside of a wall adjacent to a window opening.

2. In a device of the class described, the combination of arms designed to be pivotally supported adjacent to a window opening, a frame pivotally mounted in said arms, an object casing carried by said frame, mirrors mounted on said object casing, a projecting tube also carried by said casing, and a mirror mounted on the projecting tube, said frame and the parts connected with it being capable of being extended through a window opening or of being moved to position alongside of a wall adjacent to a window opening, and a stationary casing in position to receive the frame and parts connected with it when moved to position adjacent to the wall to which the arms are pivoted.

3. In a device of the class described, the combination of arms designed to be pivotally supported adjacent to a window opening, a frame pivotally mounted in said arms, an object casing carried by said frame, mirrors mounted on said object casing, a projecting tube also carried by said casing, a mirror mounted on the projecting tube, said frame and the parts connected with it being capable of being extended through a window opening or of being moved to position alongside of a wall adjacent to a window opening, and a stationary casing in position to

receive the frame and parts connected with it when moved to position adjacent to the wall to which the arms are pivoted, said casing being provided with a double door at one end and side, for the purposes stated.

4. In a device of the class described, the combination of arms designed to be pivotally supported adjacent to a window opening, a frame pivotally mounted in said arms, an object casing carried by said frame, mirrors mounted on said object casing, a projecting tube also carried by said casing, a mirror mounted on the projecting tube, said frame and the parts connected with it being capable of being extended through a window opening or of being moved to position alongside of a wall adjacent to a window opening, and a casing inclosed except on one side and one end, and being provided with slots at the open end, means for permanently securing said casing in position, a double door connected with the casing to close the side and end, said arms being designed to swing to position above and below the casing, and journals carried by the arms and fixed to the said frame and designed to enter said slots, for the purposes stated.

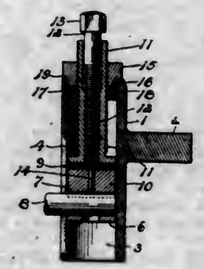
5. In a device of the class described, the combination of a frame, an object casing fixed to and supported by the frame, and open at its end adjacent to the frame and also having an opening at its top, an object plate in the casing below said opening, a spring for yieldingly holding the plate adjacent to the opening, arms pivoted at the inner end of the casing and also pivoted to said plate, a cross piece connecting said arms, and a bar pivoted within the casing designed to engage said cross piece and extended to position adjacent to the inner end of the casing, for the purposes stated.

[Claims 6 to 11 not printed in the Gazette.]

1,028,804. PROCESS OF MAKING COMPOSITION BUTTER. RICHARD D. WINSHIP and PHILIP E. SMITH, Chicago, Ill. Filed Apr. 12, 1910. Serial No. 554,936. (Cl. 99—13.)

The process of making a composition butter which consists in mixing equal quantities by weight of sweet milk or cream, pure fresh butter, and a neutral vegetable oil; heating said mixture to a temperature between 80 and 90 degrees F.; thereafter placing the heated mixture in a churn and agitating said mixture; simultaneously aerating said agitated mixture with air, at atmospheric temperature, by forcibly introducing it therein in quantities proportional to the velocity of the agitating means, so that said air shall in some degree pass through said mixture to carry off noxious qualities and fumes, and in some degree remain entrapped in the compound by the surface tension of said vegetable oil; and continuing said aeration until said compound has been reduced in temperature to normal atmospheric temperature by contact of all parts thereof with said air.

1,028,805. TOOL-HOLDER. JOHN M. WOOD, Detroit, Mich. Filed Sept. 25, 1911. Serial No. 651,033. (Cl. 82—36.)



1. In a tool holder, the combination of a head having a longitudinal bore and a slot in one side, a shank on the head, a block slidable within the bore and provided with a transverse opening opposite the slot in the head to receive a tool, means for securing the tool in the block, an externally screwthreaded extension on the block extending outward through the bore, and a nut on the extension engaging the end of the head and detachably secured thereto to turn thereon.

2. In a tool holder, the combination of a head having a longitudinal bore and a slot in one side, a shank on the head, a block slidable within the bore and having a transverse opening opposite the slot in the head to receive a tool, a tubular extension on the block projecting outward through one end of the head, means on the extension engaging the end of the head to adjust said block and extension longitudinally of the bore, and means extending into the tubular extension from its outer end for securing the tool in the block.

3. In a tool holder the combination of a head having a longitudinal bore and a slot in one side of the head, a block slidable within the bore and having a transverse opening opposite the slot in the head to receive a tool, an externally and internally screwthreaded tubular extension on the block extending outward through one end of the head, a nut on the extension detachably secured to the end of the head to turn freely thereon and adjust the block and extension within the bore, a clamping screw extending into the outer end of the tubular extension and through the same in engagement with the internal screw threads and means within the block adapted to be moved by the screw for securing the tool in the block.

4. In a tool holder, the combination of a head having a smooth longitudinal bore extending therethrough and longitudinal slots in its sides, a block slidable within the bore and having a transverse opening and slot extending laterally from the opening, a jaw within the slot in the block to engage and hold a tool in the opening in said block, a tubular extension on the block projecting outward therefrom through the end of the block, means on the extension for adjusting the block longitudinally in the bore, means extending through the tubular extension into engagement with the jaw for moving the jaw into clamping engagement with a tool, and a set screw extending through one of the slots in the head into engagment with the block for holding said block in its adjusted position within the head.

5. In a tool holder, the combination of a head having a longitudinal bore extending therethrough and a slot in one side, a block slidable within the bore and having an opening, a slot extending laterally from the opening opposite the slot in the head to receive a tool, a jaw in the slot in the block movable therein to engage and clamp a tool, a tubular extension on the block extending in the axis of the bore outward through the end of the head, a nut having a shoulder engaging the end of the head and provided with an extension fitting within the end of the bore and formed with an annular groove, said nut having screwthreaded engagement with the extension on the head to adjust said head longitudinally within the bore, a pin extending transversely of the head in engagement with the annular groove in the nut to detachably hold the nut in place and permit a free rotation thereof upon the head, and a clamping screw extending into the tubular extension through its outer end and having screwthreaded engagement therewith, said screw being adapted to engage said jaw at its inner end to move the jaw and clamp the tool within the block.

1,028,806. NUT-LOCK. WILLIAM B. WOODS, Baltimore, Md. Filed July 5, 1911. Serial No. 636,876. (Cl. 151—52.)



1. A nut lock comprising a split washer having one of its legs inclined and terminating above the other, said

inclination being on a gradual curve from a point intermediate the length of the inclination.

2. A nut lock comprising a split washer having one of its legs terminating above the other and inclined upon a gradual curve from a point intermediate the length of the leg, and a spring tongue struck up from the washer opposite the terminal end of the inclined leg and having its terminal end lying above the normal plane of the washer and substantially in a plane with the terminal end of the inclined leg.

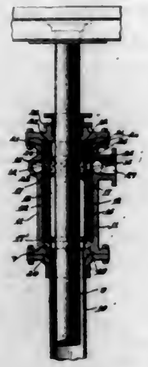
3. A nut lock comprising a split washer having one leg inclined on a curve, a base flange, and a locking tongue struck up from the flange and having its terminal end projecting above the washer.

4. A nut lock comprising a split washer having a portion thereof inclined from the normal horizontal plane on the arc of a circle whose axis is horizontal, a base flange, and a locking tongue struck up from the flange and having its terminal end projecting above the washer.

5. A nut lock comprising a split washer having one of its legs circumferentially curved, a base flange, and a locking tongue struck up from the flange and having its terminal end projecting above the washer.

[Claim 6 not printed in the Gazette.]

1,028,807. HYDRAULIC-ELEVATOR SAFETY DEVICE. THOMAS E. BROWN, New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J., a Corporation of New Jersey. Filed Nov. 23, 1905. Serial No. 288,637. (Cl. 138—14.)



1. In a hydraulic elevator; the combination with a car and plunger, of a cylinder for said plunger, and a throttling device within said cylinder arranged to leave an annular space between the plunger and said throttling device, the operation of the latter to regulate the outflow of fluid being dependent upon the difference of pressure of the motor fluid exerted on its ends and also upon the weight of its movable part.

2. In a hydraulic elevator, the combination with a car, plunger and cylinder, a throttling device for regulating the outflow of motor fluid, and a partition within the cylinder above the throttling device.

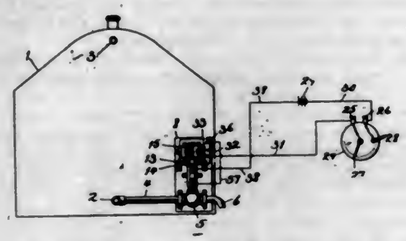
3. In a hydraulic elevator, the combination with a car, plunger and cylinder, of means for controlling the flow of motor fluid to and from said cylinder, means within said cylinder for limiting the speed of descent of said car, and means for assisting gravity in holding the movable part of said speed-limiting means normally in its lowermost position.

4. In a hydraulic elevator, the combination with a car, plunger and cylinder, of a throttling device including a movable part carried within said cylinder and acting to regulate the speed of outflow of the motor fluid, and one or more resilient devices for assisting gravity in holding the movable part of said throttling device normally in its lowermost position.

5. In a hydraulic elevator, the combination with a car, plunger and cylinder, of a supply pipe connected to the cylinder, a throttling device carried by said cylinder independently of the supply pipe and acting to regulate the speed of outflow of the fluid, and one or more resilient devices for assisting gravity in holding the movable part of said throttling device normally in its lowermost position.

[Claims 6 to 28 not printed in the Gazette.]

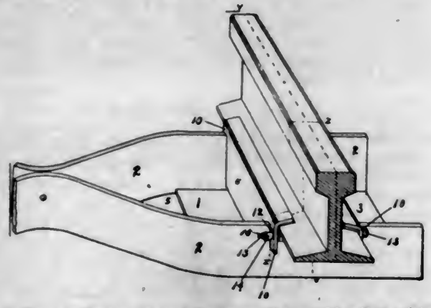
1,028,808. MEANS FOR PREVENTING THE FREEZING OF WATER IN THE CIRCULATING SYSTEMS OF AUTOMOBILE-ENGINES. HOWARD S. CAMPBELL, Baltimore, Md., assignor of one-third to Jacob Zill and one-third to Percy Teixeira de Mattos, Baltimore, Md. Filed Feb. 21, 1911. Serial No. 610,019. (Cl. 123—174.)



1. The combination with a radiator of an automobile, of a drain pipe from the radiator; a vent device in said drain pipe; electrical means for actuating the vent device and mechanical means for holding said vent device in the actuated position.

2. The combination with the radiator of an automobile, of a drain pipe from the lower end of the radiator; a valve in said pipe and having a stem; an armature carried by the stem; an electro-magnet adjacent the said armature; a temperature-actuated element; an electric circuit including the temperature-actuated element and the electro-magnet, and means for engaging the armature to hold the latter after the electro-magnet has moved the same.

1,028,809. RAILWAY-TIE AND FASTENER. ARTHUR C. CANDLAND, Provo, Utah. Filed Dec. 19, 1911. Serial No. 666,856. (Cl. 238—5.)



1. In a railway tie and fastener the combination of two upturned metal channels each having closed sides and bottom and united by the sides thereof being extended and bent together in arcuate form the bottom being cut out adjacent said arcuately bent portions, ballast receiving pockets within said tie, and means to fasten a railway rail on said tie.

2. A railway tie consisting of two metallic channels formed from a sheet of metal having a portion of the bottom cut out and the sides adjacent said cut out portion bent together and rigidly secured, cushion blocks within said channels, and means to fasten a rail thereon.

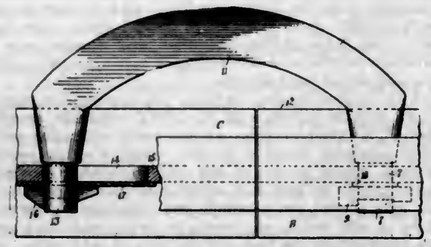
3. A railway tie consisting of an upturned metallic channel with the middle portion of the bottom cut out and the sides bent together in arcuate form and rigidly secured, cushion blocks in said channel, ballast receiving pockets in said channel adjacent said blocks, and means to secure a rail on said blocks.

4. A railway tie and fastener consisting of an upturned metallic channel having the middle portion of the bottom cut out and the sides secured together adjacent said cut out portions in arcuate form, cushion blocks in said channel, ballast receiving pockets in said channel having closed sides and open top and bottom, and means to fasten a rail on said tie which is supported on said blocks.

5. A railway tie and fastener consisting of a sheet of metal bent to form two upturned channels having separated bottoms and with the sides of one integral with the sides of the other and with the sides connecting the said channels bent together in arcuate form, the middle portion of each side of each of said channels being bent outwardly and curved downwardly, cushion blocks fitted in said channels adjacent said bent out portions, ballast receiving pockets in said channels adjacent said cushion blocks, and means to hold a rail on said channels.

[Claim 6 not printed in the Gazette.]

1,028,810. FLOAT-RAIL LOCK. GEORGE W. CLEMMONS, Scranton, Pa., assignor of one-third to Charles M. Carhart, Hoboken, N. J., and one-third to Edgar Henneger, West New York, N. J. Filed Aug. 30, 1911. Serial No. 646,053. (Cl. 239—11.)



1. In combination with a rail on a wharf or bridge and a rail on a car float, a U-shaped yoke having one leg fixedly pivoted in the web of one rail and its other leg slidably pivoted in the web of the other rail thereby maintaining said rails in alinement and permitting a limited play between them.

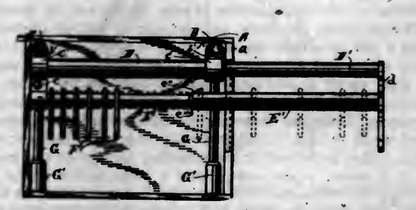
2. In combination, two rails disposed substantially in the same line, one of said rails having a circular aperture in one end, the other of said rails having an elongated slot therein, a yoke having a pair of shanks, one of said shanks rotatably mounted in said circular aperture and the other of said shanks slidably mounted in said slot, and means maintaining said yoke in position on said rails.

3. In a means for maintaining a car rail on a wharf or float in alinement with the car rail on a car float, a U-shaped yoke each end of which terminates in a cylindrical shank, a key inserted transversely through each of said shanks, a washer carried by one of said shanks, and a relatively long bearing plate carried by the other of said shanks, said long plate adapted to bear on the web of one of the rails, to prevent the withdrawal of a shank through the elongated slot in the web through which said shank extends.

1,028,811. BRACKET AND CASE. CHARLES B. CORBIN, Grand Rapids, Mich. Filed Aug. 2, 1911. Serial No. 642,025. (Cl. 211—15.)

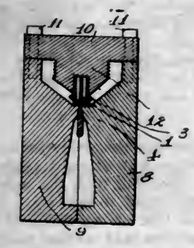
1. In a bracket attachment for display cases, an upper permanently located cylindrical bar and a lower permanently located bar parallel therewith, an upper extensible bar telescoping into the permanent cylindrical bar, a lower extensible bar telescoping over the lower permanent bar, the back end of the lower extensible bar chamfered to pass freely through the hooks on hangers that may be supported on the lower permanent bar, and means for preventing the extensible bars from being disconnected from the permanent bars when extending the bracket and a spur thereon having the front edge perpendicular and the top inclined downward toward the back end of the bar.

2. In a bracket construction for display cases, an upper permanently located cylindrical bar, a lower permanently located bar parallel therewith, a pair of extensible bars connected by a handle at one end and so disposed that one will telescope into the permanent cylindrical bar and the other will telescope over the lower permanent bar, the lower extensible bar chamfered at the end and having a spur projecting upward therefrom, and a catch on this bar arranged to engage a notch in the permanent bar when the bracket is extended so the bars may not be disconnected.



3. In a bracket attachment for display cases, an upper cylindrical bar, a lower bar parallel therewith, clamps engaging said bars to hold them permanently connected, an upper extensible bar telescoping into the upper cylindrical bar, a lower cylindrical bar telescoping over the lower permanent bar, a handle connecting the outer ends of the extensible bars, the lower permanent bar having a notch near one end, the lower extensible bar having a spring catch to engage said notch when the bars are extended, the back end of said extensible bar chamfered and a spur extending upward to hold hangers when the bar is extended, and means for securing and supporting the bracket in a glass display case.

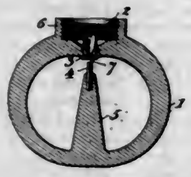
1,028,812. METHOD OF MAKING SPRAY-NOZZLES. STUART W. CRAMER and WILLIAM B. HODGE, Charlotte, N. C.; said Hodge assignor to said Cramer. Filed Oct. 26, 1910. Serial No. 589,199. (Cl. 22—201.)



1. The method of forming a spray nozzle which consists in supporting a bushing having a spray orifice and a breaking pin in a predetermined relation to each other, casting a frame around said bushing and pin and then removing the part of the pin which was held in the bushing.

2. The method of forming a spray nozzle which consists in supporting a bushing having a spray orifice and a breaking pin in a predetermined relation to each other, pouring liquid metal around the bushing and pin to embed them permanently in a frame, and then removing the part of the pin which was held in the bushing.

1,028,813. SPRAY-NOZZLE FOR HUMIDIFIERS. STUART W. CRAMER and WILLIAM B. HODGE, Charlotte, N. C.; said Hodge assignor to said Cramer. Original application filed Oct. 26, 1910, Serial No. 589,199. Divided and this application filed Jan. 26, 1912. Serial No. 673,674. (Cl. 137—57.)



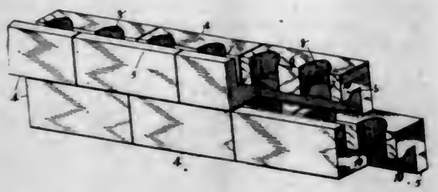
1. A spray nozzle comprising a body and a frame and having a discharge orifice whose walls are of material different from the body and integrally united therewith, and a pin integrally united to the body in alinement with said orifice and forming the breaking surface of the nozzle.

2. A spray nozzle comprising a body and a frame and having a discharge orifice whose walls are of less erosive material than the body and integrally united therewith, and a pin integrally united to the body in alinement with said orifice and forming the breaking surface of the nozzle.

3. A spray nozzle comprising a body and a frame and having a discharge orifice whose walls are of material different from the body and integrally united therewith, and a pin of greater diameter than said orifice, integrally united to the body in alinement with the orifice and forming the breaking surface of the nozzle.

4. A spray nozzle comprising a body and a frame and having a discharge orifice whose walls are of harder material than the body and integrally united therewith, and a pin of harder material than the body, integrally united thereto in alinement with said orifice and forming the breaking surface of the nozzle.

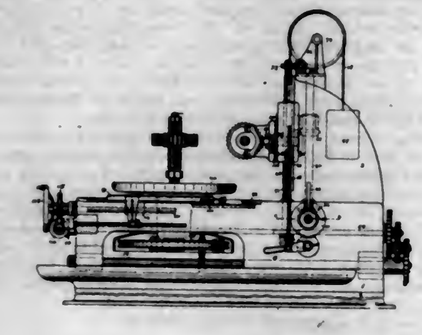
1,028,814. BUILDING-BLOCK. FREDERICK W. DUNN, Chicago, Ill., assignor to George H. Harrison and George E. McGibney, Corning, N. Y. Filed June 18, 1906. Serial No. 322,127. (Cl. 72—38.)



A building block having a body portion provided with a longitudinal vertical wall at right angles to said body and having tongues extending from the ends and center of the body and at right-angles to said wall, said tongues terminating in beveled lips having flattened ends, and a channel extending between said vertical wall and said tongues, the width of said channel being greater than the width of the ends of said lips.

1,028,815. UNIVERSAL GEAR-CUTTER. FREDERICK L. EBERHARDT and WILLIAM F. ZIMMERMANN, Newark, N. J. Filed Feb. 18, 1907, Serial No. 357,782. Renewed June 21, 1911. Serial No. 634,526. (Cl. 90—4.)

1. In a gear cutting machine, the combination with a main drive shaft, of a cutter shaft having a cutter mounted thereon, gearing connecting said shafts, including reversing gears, a cutter feed shaft, drive and change gears between said main drive and feed shafts, an index shaft, drive and change gears between said main drive shaft and index shaft, said drive and change gears so arranged to produce a helical line of action passing around the axis of the blank.



2. In a gear cutting machine, the combination with a main drive shaft, of a cutter carriage, an angularly adjustable cutter shaft mounted therein having a cutter secured thereto, gearing connecting said shafts, comprising reversing gears, a cutter feed shaft to actuate said cutter carriage, drive and change gears between said main drive and feed shafts, a work spindle carriage, a work spindle rotatably mounted therein, an index shaft to actuate said work spindle, drive and change gears between said main drive and index shafts, and drive and change gears so arranged to produce a helical line of action passing around the axis of the work spindle.

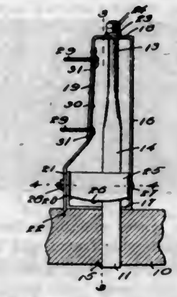
3. In a gear cutting machine, the combination with a blank spindle carriage, of a spindle rotatably mounted therein, a cutter carriage, an angularly adjustable cutter shaft rotatably mounted therein, having a cutter secured thereto, means to rotate said cutter including reversing gears, means to feed said cutter substantially parallel to the axis of said blank spindle and relatively to the rotations of said cutter, and means to rotate said blank spindle relatively to the feed and rotations of said cutter, said relative means arranged to produce a helical line of action passing around the axis of said blank spindle.

4. In a gear cutting machine the combination with a blank spindle carriage, of a blank spindle rotatably mounted therein, a cutter carriage, an angularly adjustable cutter shaft rotatable therein having a cutter secured thereto, means to rotate said cutter including reversing gears, means to feed said cutter relatively to the rotation thereof, means to rotate said blank spindle relatively to the feed and rotations of said cutter, comprising a main drive shaft, a countershaft rotating in synchronism with said cutter, drive and change gears connecting said countershaft and blank spindle and drive and change gears from said countershaft to said feeding means, to produce a helical line of action passing around the axis of said blank spindle.

5. In a gear cutting machine, the combination with a main drive shaft, of a cutter carriage, a swivel carriage mounted thereon, a cutter shaft mounted in said swivel carriage, having a cutter secured thereto, gearing arranged between said main drive and cutter shafts to rotate said cutter including reversing gears, a countershaft, gearing between said main drive and countershafts, having a ratio equal to, or a multiple of, said gearing between said main drive and cutter shafts, means to feed said cutter relatively to the rotation thereof, including drive and change gears between said countershaft and feeding means, a blank spindle and means to rotate said blank spindle relatively to the feed and rotation of said cutter, comprising drive and change wheels between said countershaft and blank, said gearing arranged to produce a helical line of action pasing around the axis of said blank spindle.

[Claims 6 to 19 not printed in the Gazette.]

1,028,816. WAGON-STANDARD. IVY H. ENGLAND, Hendersonville, N. C. Filed Dec. 9, 1910. Serial No. 596,476. (Cl. 21—54.)

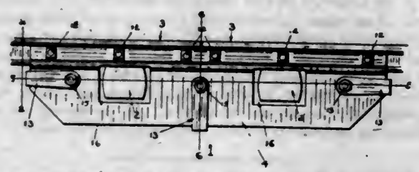


1. A wagon standard comprising the combination with a bolster, of a strap bolt having a lower looped portion engaged therearound and provided with a forwardly extending bur adapted to engage the lower surface of the bolster, said strap bolt being formed with a threaded upper end and intermediate upwardly converging portions, a standard proper comprising a section of metal having its lower end extended transversely through said loop to form a base and then directed upwardly, the upper portion of said strip being provided with an apertured transversely extending portion adapted to receive the threaded end of the strap bolt, binding nuts engaged thereon, said strap being then extended downwardly in front of the last named upturned portion and sharpened, a guide loop disposed between the lower ends of the portions of the standard and a bolt disposed through the said portions and loop for holding the loop stationary.

2. A wagon standard, comprising a strap bolt having an upper threaded end and having a loop at its lower end for receiving a wagon bolster, a standard proper having guide portions embracing the strap bolt and having a horizontal portion slidably engaged on the upper end of the strap bolt, and clamp nuts engaged on the threaded portion of the bolt above the horizontal portion of the standard for forcing the standard downward relative to the bolt to clamp the standard against the bolster.

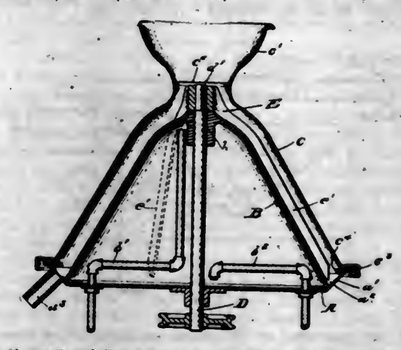
3. The combination with a strap bolt having a loop at its lower end for engaging a bolster and having its upper end threaded, of a standard proper having a basal portion disposed between the arms of the loop and having an upper horizontal portion slidably engaged on the bolt, said standard bearing guide portions embracing the arms of the loop, the loop and standard being both formed with portions for biting into the bolster, and means for forcing the standard downward relative to the strap bolt for clamping a bolster between the bottom of the loop and the bottom portion of the standard.

1,028,817. RAIL-JOINT. CYRUS EVERITT, Sidney, Ill. Filed Aug. 8, 1911. Serial No. 642,938. (Cl. 239—12.)



The combination with the meeting ends of a pair of rails, of a pair of plates adapted to span said ends, said plates comprising fish plate portions adapted to bear against the rail webs, said fish plate portions terminating at their lower ends in upper and lower horizontal portions having a space for receiving the flanged bases of the rails, the extreme lower ends of the plates being provided with inwardly directed flange portions which contact for holding the plates in spaced relation, means for clamping the fish plate portions of the rail webs, clevises spanning those portions of the plates positioned beneath the flange portions of the rails, a plurality of alined apertures formed in said plates for receiving the rail ties, said apertures being greater in area than the ties, as and for the purpose set forth.

1,028,818. PASTEURIZING-MACHINE. GUSTAV A. FISCHER, Cleveland, Ohio. Filed May 16, 1911. Serial No. 627,439. (Cl. 210—20.)



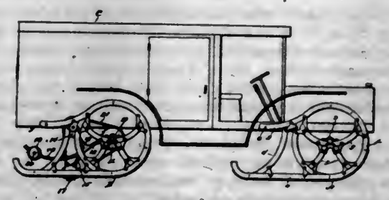
1. A pasteurizing machine comprising the combination of a chamber having an inclined upper surface, means for heating said chamber and positioned beneath said surface, a removable skirt conforming to and substantially inclosing said surface, and an interposed wiper having a finger conforming to such upper surface and independently movable relative to the chamber and skirt.

2. A pasteurizing machine comprising the combination of a dome, means for heating the same, a trough surrounding the lower portion of said dome, a removable skirt covering said dome and gravitationally resting upon said trough, and a wiper having divergent fingers interposed between and movable relatively to said dome and skirt.

3. A pasteurizing machine comprising the combination of a dome, means for heating the same, a trough surrounding the lower portion of said dome and provided with an outlet, a removable skirt spaced from said dome and resting upon said trough, said skirt being provided above with a receiving inlet, a driving shaft extending to the top of said dome, and a rotary wiper secured to said shaft and including a plurality of downwardly divergent fingers interposed between said do... and skirt.

4. A pasteurizing machine comprising the combination of a stationary dome, means for heating the same, and positioned entirely within said dome, a trough surrounding the lower portion of said dome and provided with an outlet, a driving shaft projecting up through said dome, a rotary wiper secured to said shaft and overlying said dome, and a removable skirt covering said wiper and trough, and provided above with a single receiving inlet.

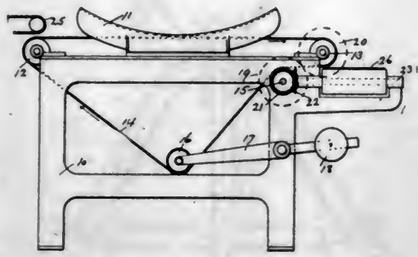
1,028,819. AUTOMOBILE SLEIGH ATTACHMENT. BOWDITCH PLACE FRAZEE, Bath, Me. Filed July 15, 1911. Serial No. 638,654. (Cl. 21—47.)



In a sleigh attachment for automobiles, a runner including two side members suitably spaced and connected

together by means including a shoe having a longitudinal slot, a driven sprocket wheel, a pivotally supported frame carrying an idler and a propulsion wheel extending through the slot in the shoe, a chain guided over the idler to transmit motion from the driven sprocket wheel to the propulsion wheel, and a weighted arm extending rearwardly from the frame between the side members of the runner.

1,028,820. DOUGH-WORKING APPARATUS. DAVID J. HANNA, Fishkill-on-the-Hudson, N. Y. Filed Jan. 20, 1912. Serial No. 672,326. (Cl. 107—9.)



1. In apparatus of the character described, a form and a flexible, yielding compression apron juxtaposed thereto, in combination with means for moving said elements with relation to each other to work interposed dough, said apron being unsupported during the working portion of its travel, substantially as described.

2. In apparatus of the character described, a trough-shaped form and a flexible, yielding compression apron lying in said trough, in combination with means for moving said elements with relation to each other to work interposed dough, said apron being unsupported during the working portion of its travel, substantially as described.

3. In apparatus of the character described, a trough-like form having its web shaped to the desired contour of the finished dough, a flexible, yielding compression apron lying in such trough and means for moving said elements with relation to each other to work interposed dough, said apron being unsupported during the working portion of its travel, substantially as described.

4. In apparatus of the character described, a form and a flexible, yielding compression apron juxtaposed thereto, in combination with means for moving said elements with relation to each other to work interposed dough, at least one of said elements having its juxtaposed face of soft material, said apron being unsupported during the working portion of its travel, substantially as described.

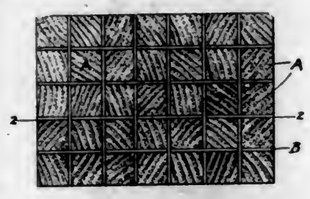
5. In apparatus of the character described, a form and a flexible, yielding compression apron juxtaposed thereto, in combination with means for moving said elements with relation to each other to work interposed dough, both of said elements having their juxtaposed faces of soft material, said apron being unsupported during the working portion of its travel, substantially as described.

[Claim 6 not printed in the Gazette.]

1,028,821. BASE FOR PRINTING-PLATES. MAX HOGE and PAUL C. RIEBE, Chicago, Ill., assignors, by direct and mesne assignments, to Upright Grain Printing Base Company, Chicago, Ill., a Corporation of Illinois. Original application filed Feb. 8, 1909, Serial No. 476,841. Divided and this application filed May 10, 1909. Serial No. 495,166. (Cl. 101—177.)

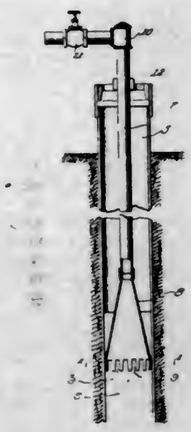
1. A base block for printing plates made of a plurality of elements of wood with the grain vertical and interposed intersecting septa of longitudinally fibrous material to which said elements are glued.

2. A base block for printing plates comprising, in combination with a rectangular peripheral band or frame, a multiplicity of rectangular elements of wood with the grain vertical assembled in intersecting rows oblique to the sides of the frame; triangular elements occupying the



marginal triangular spaces remaining between the oblique blocks and the encompassing frame, and intersecting septa of longitudinally tenacious material uniting and united to the blocks.

1,028,822. WELL-PUMPING MECHANISM. ALBERT H. HONEY, Los Angeles, Cal. Filed July 27, 1911. Serial No. 640,769. (Cl. 103—8.)



1. In an oil pumping mechanism for wells, the combination of a casing open at its upper end, an oil and gas flow section in the lower portion of said casing, an oil and gas flow pipe leading from the flow section to the upper end of the casing, an oil standing section in the upper portion of the casing around the flow pipe, and a downwardly opening funnel in the lower end of the flow pipe and allowing a passage for oil between its edges and the casing, the lower end of the downwardly pointing funnel being substantially equal in diameter to the well casing.

2. In a device of the character described, the combination of an open top well casing and a flow pipe disposed within said well casing, a connecting device of substantially conical form the smaller end of which is connected to said flow pipe and the large end of which is substantially equal in diameter to the well casing; and there being passages formed about the edge of the larger end of said collecting member to permit the passage of oil thereby.

1,028,823. FRUIT-ELEVATOR. JOHN B. HORRELL and ARTHUR S. BRYANT, Santa Paula, Cal., assignors, by direct and mesne assignments, to H. K. Miller Manfg. Co., Glendora, Cal., a Corporation of California. Filed Jan. 4, 1906. Serial No. 294,504. (Cl. 193—4.)

1. A fruit elevator comprising a tank adapted to contain liquid, two pulleys, one in the tank below the liquid level and the other above the liquid level, an inner belt on said pulleys, an outer flexible belt secured to the inner belt by blocks common to both belts, said blocks being spaced apart to form loops in the limb between said pulleys thereby forming V-shaped pockets between the pulleys and over said blocks, and means for guiding the belt.



2. An elevator comprising a tank adapted to contain liquid, a belt in the tank having an upper limb thereof partially below the liquid level, means for looping such limb and the belt below the liquid level at one portion and unlooping the same above the liquid level at another portion, and said loops forming V-shaped pockets between the pulleys, and means for driving the belt.

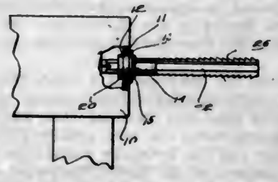
3. An elevator comprising two belts, one of said belts being inside the other, blocks between the belts to hold them apart at intervals, V-shaped pockets on the blocks, a tank adapted to contain liquid, and means for holding the belts aslant partially below the liquid level, the inner belt comprising an upper limb having a curved portion below the liquid level and a straight portion extending from said curved portion upwardly across the plane of the liquid level, forming loops in the outer belt extending in line from below to above the liquid level and means for driving the belts.

4. The combination of two pulleys arranged on horizontal axes at different levels, a belt on said pulleys, connectors at intervals on said belt, a belt carried by said connectors outside of and spaced apart from the first named belt, a tank adapted to contain liquid to partially submerge the upper limb of the outer belt whereby liquid may be made to serve as feeding means below the top of the upper pulley, and V-shaped pockets on the connectors.

5. In an elevator comprising a tank adapted to contain liquid, a pulley extending below the liquid level of the tank, a pulley above said level, a conveyer comprising two belts, one outside the other, spaced apart from and fastened to each other at intervals and running around said pulley; and a wheel provided with flexible flippers on its rim and adapted to run in said tank below said level to move floating contents of the tank toward the outer belt.

[Claims 6 to 8 not printed in the Gazette.]

1,028,824. BROACHING MECHANISM. RALPH R. LAPOINTE, Hudson, Mass., assignor, by mesne assignments, to Lapointe Machine Tool Co., Hudson, Mass., a Corporation of Maine. Filed Oct. 4, 1911. Serial No. 652,880. (Cl. 90—33.)



1. An apparatus of the kind described, comprising a sleeve arbor for guiding a broach and supporting the work thereon, said arbor being formed of plural sections, and means for rigidly clamping said sections in assembled relation, said means having a portion adapted to fit a broaching machine head.

2. An apparatus of the kind described, comprising a sleeve arbor formed in plural sections with a lengthwise extending guideway therein for a broach, said arbor having a shoulder to serve as a work abutment, and means cooperative with a portion of the arbor at the rear of said shoulder for clamping the sections thereof rigidly together in assembled relation.

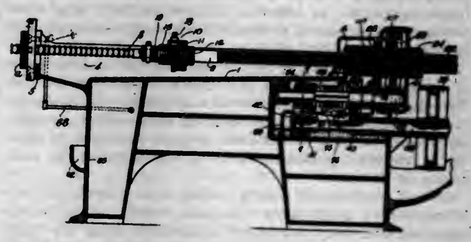
3. An apparatus of the kind described, comprising a sleeve arbor having a lengthwise extending guide way therethrough for a broach, a slotted work holding portion at its front end, and a shoulder to serve as a work abutment with a conical formation at the rear of said shoulder, and a ring having a tapered opening therethrough for cooperation with said conical formation to clamp the sections rigidly together, said ring being formed to interengage with a broaching machine head.

4. An apparatus of the kind described, comprising a sleeve arbor having a lengthwise extending angular guideway therethrough for a broach and slots at opposite sides of said guide way opening thereinto, a broach having a body angular in cross section to fit said guideway with oppositely extending ribs to fit sid slots and be guided thereby, the body of the broach having bearing shoulders at either side of said ribs fitting slidably against backing portions of said arbor, and a line of cutting teeth tapering with relation to the direction of broach movement carried by one of said ribs.

5. An apparatus of the kind described, comprising a sleeve arbor having a lengthwise rectangular guide way therethrough for a broach and slots at opposite sides opening into said way, and a broach having a body portion rectangular in cross section to fit said way and opposite ribs to be guided by said slots, the body of the broach having bearing shoulders at either side of said ribs fitting slidably against backing portions of said arbor, said ribs having lines of cutting teeth formed thereon oppositely diverging with relation to the direction of broach movement and operable through a work holding portion of said sleeve arbor for cutting key ways in a work piece.

[Claim 6 not printed in the Gazette.]

1,028,825. BROACHING-MACHINE. RALPH R. LAPOINTE, Hudson, Mass., assignor, by mesne assignments, to Lapointe Machine Tool Co., Hudson, Mass., a Corporation of Maine. Filed Nov. 14, 1911. Serial No. 660,235. (Cl. 90—33.)



1. A machine of the kind described, comprising a framework having lengthwise guide-ways, a slide head fitted to said guide-ways and adapted to receive a broach, a screw fixed to said slide head, and a nut with driving connections having bearing in the frame engaged with said screw, said nut having a lateral flange adapted to withstand the cutting thrusts.

2. A machine of the kind described, comprising a bed frame having lengthwise extending slide-ways at a recessed open top thereof, said bed having its front end open to permit access to said ways, a face plate removably secured to said front end, a slide head fitted to said ways, and an operating screw with driving connections engaged with said slide head.

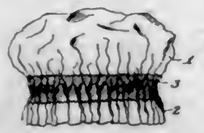
3. A machine of the kind described, comprising a bed frame, an operating screw having connections to operate a reciprocating tool, a nut engaged with said screw and having bearing in the bed frame, and means for supporting said screw on its ends whereby the nut is relieved of all strains or pressures from said screw, except working thrusts.

4. A machine of the kind described, comprising a bed frame having slide-ways, a slide head fitted thereto adapted to engage a broach, an operating screw supported at one end of said slide head, a support for the other end of said screw, and a nut fitted in the bed frame for operating said screw, the end bearings of said screw supporting the same independently of said nut.

5. A machine of the kind described, comprising a bed frame, an operating screw, a nut engaged with said screw, the threads being shortened to leave clearance spaces, and guide bearings carried by the bed frame for the opposite ends of said screw adapted to support it for alined reciprocation, whereby it is supported in fixed relation to the nut and independently thereof.

[Claims 6 to 20 not printed in the Gazette.]

1,028,826. BATHING-CAP. THOMAS W. MILLER, Ashland, Ohio, assignor to The Faultless Rubber Company, Ashland, Ohio, a Corporation of Ohio. Filed Dec. 15, 1911. Serial No. 666,049. (Cl. 2—106.)



1. In a bathing cap, a body portion formed of waterproof material, and an elastic or resilient puckering cord disposed in a sealed waterproof pocket or channel formed on said body portion.

2. In a bathing cap, a body portion formed of waterproof material, and an elastic or resilient puckering cord disposed in a sealed waterproof pocket or channel formed on said body portion, said cord being of normal shorter length than said pocket or channel and loosely disposed therein.

3. In a bathing cap, a body portion formed of waterproof material, a waterproof strip connected at its edges to said body portion and forming a sealed annular cord receiving pocket or channel between it and said body portion, and an elastic or resilient puckering cord disposed in said pocket or channel.

4. In a bathing cap, a body portion formed of a flat piece of waterproof material, a waterproof strip connected at its edges to said body portion at a distance from the edge thereof and forming a sealed annular cord receiving pocket or channel between it and said body portion, and an elastic or resilient puckering cord loosely disposed in said pocket or channel.

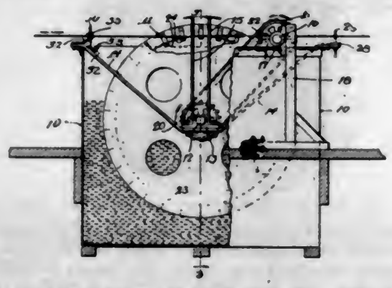
5. In a bathing cap, a body portion formed of a flat piece of waterproof material, a waterproof strip united at its edges to said body portion at a distance from the edge thereof by waterproof cement and forming a sealed annular cord receiving pocket or channel between it and said body portion, and a resilient or elastic puckering cord of normal shorter length than said channel or pocket and loosely disposed in said channel or pocket.

[Claims 6 and 7 not printed in the Gazette.]

1,028,827. INSULATED-WIRE-SATURATING MACHINE. PAUL A. NEHRING, Sycamore, Ill., assignor to Nehring Insulated Wire and Manufacturing Company, a Corporation of Illinois. Filed Dec. 30, 1911. Serial No. 668,742. (Cl. 91—46.)

1. In a device of the class described, a compound containing tank, drum supports therein, a rotary wire dipping drum having a drum shaft located wholly within the tank, journal blocks open at their upper ends and mounted upon said supports, and vertical guide bars extending upward from said journal blocks upon either side of the shaft.

2. In a machine of the class described, a rotary wire dipping drum, comprising spaced disks secured upon a shaft, and a tapered drum face of open construction between said disks arranged to receive one or more turns of the wire to be saturated.



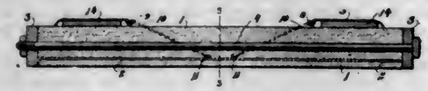
3. In a machine of the class described, a rotary wire dipping drum having one or more open, tapered drum faces, spaced apart and capable of receiving one or more turns of the wire to be saturated, and delivering each wire therefrom continuously in a line tangential to the drum face.

4. In a machine of the class described, a rotary wire dipping drum having supporting members carried by a shaft, and a plurality of circumferentially arranged struts secured to said supporting members, said struts being angularly disposed with respect to the axis of the drum and forming a drum face of tapered, open construction.

5. In a machine of the class described, a compound receiving tank, a rotary wire dipping drum journaled within said tank, and having one or more tapering drum faces of open construction, and a wiper board having one or more slots therein arranged in a plane tangential with respect to said drum faces, whereby wires may pass tangentially from the drum through said slots of the wiper board.

[Claims 6 to 8 not printed in the Gazette.]

1,028,828. RAILROAD-TIE. WILLIAM G. PAUL, Navarre, Ohio, assignor of one-half to Michael J. Bowler and August J. Scharlo, Canton, Ohio. Filed Mar. 20, 1912. Serial No. 685,131. (Cl. 238—8.)



1. A railroad tie composed of a cementitious body, a longitudinal channel bar embedded therein, plates on the ends of the channel bar, an axial bolt clamping these parts together, rail plates spaced above the body, cushion blocks between the rail plates and the body, the outer ends of the rail plates being bifurcated and curved and twisted downward and inward on opposite sides of the bolt and anchored to the flanges of the channel bar, and adjustable rods connecting the inner ends of the plates with the channel bar.

2. A railroad tie composed of a cementitious body, a longitudinal bar embedded therein, plates on the ends of the bars, an axial bolt clamping these parts together, rail plates spaced above the body, cushion blocks between the rail plates and the body, the outer ends of the rail plates being bifurcated and curved downward and inward on opposite sides of the bolt and anchored to the embedded bar, and adjustable rods connecting the inner ends of the plates with the embedded bar.

3. A railroad tie composed of a cementitious body, a longitudinal bar embedded therein, rail plates spaced above the body, cushion blocks between the rail plates and the body, the outer ends of the rail plates being bifurcated and curved downward and inward and anchored to the embedded bar, and adjustable rods connecting the inner ends of the plates with the embedded bar.

4. A railroad tie composed of a cementitious body, rail plates spaced above the body, cushion blocks between the rail plates and the body, the outer ends of the rail plates being curved downward and inward and anchored in the body, and rods anchored in the body adjustably connected with the inner ends of the plates.

5. A railroad tie composed of a cementitious body, a longitudinal channel bar embedded therein, plates on the ends of the channel bar and a longitudinal bolt clamping these parts together.

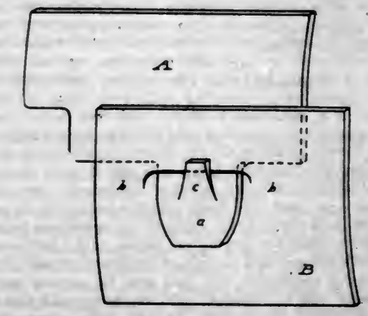
1,028,829. CULVERT. ARVID REUTERDAHL, Boise, Idaho. Filed May 3, 1911. Serial No. 624,831. (Cl. 61—9.)



1. The combination, in a culvert, of a suitably formed section having teeth or denticles projecting therefrom, with a section provided with displaced retaining strips integral with said section and cavities or apertures produced in said section by these displacements of the retaining strips, said apertures containing and engaging said teeth or denticles, all substantially as set forth.

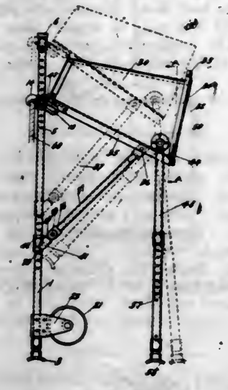
2. The combination, in a culvert, of a suitably formed section having teeth or denticles projecting therefrom, said teeth being provided with auxiliary locking teeth protruding therefrom, with a section provided with displaced retaining strips integral with said section and cavities or apertures produced in said section by these displacements of the retaining strips, said apertures containing and engaging said teeth or denticles, and said auxiliary locking teeth so disposed that they can engage or abut with said retaining strips, substantially as set forth.

1,028,830. CULVERT. ARVID REUTERDAHL, Boise, Idaho. Filed Oct. 7, 1911. Serial No. 653,441. (Cl. 61—9.)



The combination, in a culvert, of a suitably formed section having teeth or denticles projecting therefrom, said teeth being provided with auxiliary locking teeth protruding therefrom, with a section provided with incisions or cuts, said incisions or cuts engaging and containing said teeth or denticles, and said auxiliary locking teeth being so disposed that they can engage or abut with said incisions or cuts, substantially as set forth.

1,028,831. PORTABLE CAR-UNLOADING CHUTE. JOHN W. STAGG, Anniston, Ala. Filed Mar. 31, 1911. Serial No. 618,260. (Cl. 57—37.)



1. A quick unloading apparatus comprising a portable frame mounted on wheels and adapted to be tilted into vertical position alongside the receptacle for the material to be unloaded, a chute mounted on said frame and provided with side walls and a door at its discharge end, and means for attachment of the chute and its truck support to said receptacle for the material to be unloaded, said frame comprising supports which in operative position stand close to said receptacle and are adapted to support the discharge end of the chute in an overhung position free of other connections with its discharge end in position to deliver the contents of the chute into a wagon, substantially as described.

2. A quick unloading apparatus comprising a wheeled truck, a chute adjustably mounted on one end of the truck which is adapted to be tilted to stand on non-rotatable end supports and bring the chute into loading position, a door at the discharge end of the chute to store material therein, and means to hold the chute in position alongside the receptacle for the material to be unloaded, the truck means standing close to the receptacle and out of the way of wagons into which the chute discharges, substantially as described.

3. A portable apparatus of the character described, comprising a chute having side walls and an end door which controls the discharge of material from the chute, a main supporting frame for the chute consisting of two vertical standards that rest on the ground and are connected to the intake end of the chute, means to adjustably connect the discharge end of the chute to the frame which supports said discharge end free of the connections and in an overhung elevated position, and means to hold the frame with its overhanging chute alongside the receptacle for the material to be unloaded, substantially as described.

4. A portable apparatus of the character described, comprising a pair of leg supports adapted to rest upon the ground, vertically adjustable devices adapted to engage the receptacle from which the material is being unloaded and hold said legs in close vertical position alongside same, an unloading chute having a door controlling the discharge of material therefrom, means connecting said chute near its intake end to said legs, and means to give it vertical and angular adjustability thereon, said means

being adapted to support the weight of the loaded chute with its discharge end standing free in an overhung position and being disposed so as not to interfere with wagons passing under the discharge end of the chute, substantially as described.

5. A portable apparatus of the character described, comprising a chute adapted to receive and hold material, a frame-work to support the main weight of the loaded chute which comprises vertically disposed legs which rest on the ground and are adapted to stand close to the receptacle that is being unloaded into the chute, means to adjustably brace and support the discharge end of the chute from said legs in an overhung position, said chute being adapted to fold down against said legs, and wheels connected to said legs so as to support same when lowered to a substantially horizontal position to provide for the transportation of the apparatus on wheels, substantially as described.

[Claims 6 to 16 not printed in the Gazette.]

1,028,832. FURNACE FOR SINTERING METALLIC FILAMENTS FOR ELECTRIC INCANDESCENT LAMPS. CARL TRENZEN, Koeln-Braunsfeld, and ERNST HAAGN, Hanau, Germany; said Haagn assignor to The Firm of W. C. Heraeus Gesellschaft mit Beschränkter Haftung, Hanau, Germany. Original application filed Jan. 21, 1911. Serial No. 603,852. Divided and this application filed May 5, 1911. Serial No. 625,334. (Cl. 219—36.)

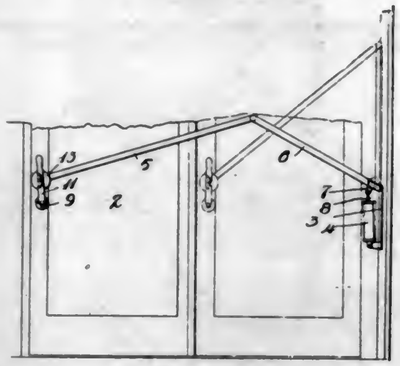


1. In a sintering furnace the combination of a tube of pure iridium, means for passing electric current through said tube for heating the latter, a surrounding body of refractory material out of contact with said tube, cooling devices surrounding said tube and refractory body, means for admitting gas to the interior of said tube and between the tube and the surrounding body and cooling devices, and means for introducing filaments into said tube.

2. In a sintering furnace the combination of a tube of pure iridium arranged to freely expand and contract under the influence of temperature variations, means for passing electric current through said tube for heating the latter, a surrounding body of refractory material out of contact with said tube, cooling devices surrounding said tube and refractory body, means for admitting reducing gas to the interior of said tube and between the tube and the surrounding body and cooling devices, and means for introducing filaments into said tube.

3. In a sintering furnace the combination of a tube of pure iridium arranged to freely expand and contract under the influence of temperature variations, means for passing electric current through said tube for heating the latter, a surrounding body of refractory material out of contact with said tube, cooling devices surrounding said tube and refractory body, means for admitting reducing gas to the interior of said tube and between the tube and the surrounding body and cooling devices, a suspension device of pure iridium for carrying the filaments, and means for introducing said suspension device and filaments into said tube.

1,028,833. DOOR-CONTROLLING MEANS. HENRY G. VOIGHT, New Britain, Conn. Filed Jan. 25, 1912. Serial No. 673,287. (Cl. 70—102.)



1. In a device of the character described, the combination of a door casing, a sliding door, a lever pivoted to said door and connected to said casing and swinging with the opening and closing movement of said door, a member carried by and oscillating with the movement of said lever, a member pivotally mounted on said door and carrying a part adapted to engage said oscillating member as said door closes and lock said door against opening movement, and means whereby said member may be withdrawn from locking engagement and whereby said door may be opened.

2. In a device of the character described, a sliding door, a movable arm carried thereby, a connection for said arm independent of the door, an operating handle carried by the door, a locking device operable by said handle and coacting with said arm to hold said arm against movement and to thereby lock said door.

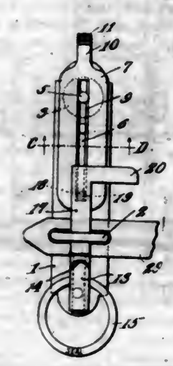
3. In a device of the character described, a sliding door, a movable lever carried thereby, a connection for said lever independent of the door, an operating handle carried by the door, a locking device operable by said handle and coacting with said lever to hold said lever against movement and to thereby lock said door, and closing mechanism for said door operatively connected with said lever to move the latter in a direction to move said door into closed position.

4. In a device of the character described, a sliding door, a movable lever carried thereby, a connection for said lever independent of the door, an operating handle carried by the door, a locking device operable by said handle and coacting with said lever to hold said lever against movement and to thereby lock said door, closing mechanism for said door operatively connected with said lever to move the latter in a direction to move said door into closed position, means for regulating said closing mechanism.

5. In a device of the character described, a sliding door, an arm pivotally mounted near one end on said door, a support or connection independent of the door for the other end of said arm, said arm being movable relatively to said door and to said independent support, an operating handle carried by the door for moving the latter, said handle having a limited independent movement relatively to said door, and a locking mechanism for said arm to prevent movement thereof and to thereby lock the door, said locking mechanism being controllable by the said independent movement of said handle.

[Claims 6 to 11 not printed in the Gazette.]

1,028,834. SEAL-LOCK. ALFRED WOOLEN, Grove, N. D., assignor to himself and Frank O. Hellstrom, Grove, N. D., and Michael Hiltner, Bismarck, N. D. Filed Feb. 12, 1912. Serial No. 676,953. (Cl. 70—23.)



1. In a seal lock, a sliding bolt including a tubular extension having a ring receiving slot, and recessed means movable within the extension for successively distorting the ring and deflecting said ring into the recess, the walls of the recess coöperating with the ring to hold the ring against withdrawal from the slot.

2. A seal lock including a sliding bolt, having a tubular extension, said extension being provided with a slot for the reception of a sealing element, a recessed member slidable within the extension and having means at one end for deflecting that portion of the sealing element in the path of the member, and a tongue carried by said member for engaging the sealing element to deflect it into the recess.

3. A seal lock including a sliding bolt having a tubular extension formed with a slot for the reception of a sealing element, and means slidable within the bolt for engaging and becoming permanently interlocked with the sealing element, said sealing element coöperating with the extension and the bolt to hold said bolt against movement.

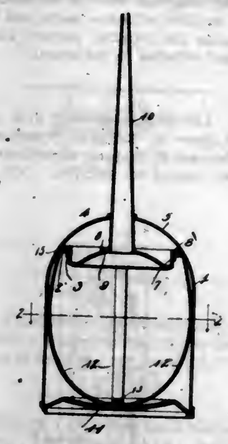
4. A seal lock including a bolt, said bolt having a tubular extension, there being a slot within the extension for receiving a sealing element and guiding it transversely of and then parallel with the longitudinal axis of the extension, and a member movable into the tubular extension in one direction for bending the sealing element out of and back into engagement with said member to hold said member against withdrawal from the tubular extension.

5. A seal lock including a bolt, having a tubular extension provided with a slot for the reception of a sealing element, and a recessed member slidable into the extension between the receiving portion and the end portions of the slot, said member being movable in one direction to prevent withdrawal of the sealing element through the slot and to become interlocked with said element, said sealing element, when engaged by the bolt, constituting means for holding the bolt against movement.

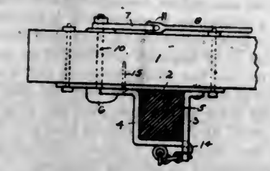
[Claims 6 and 7 not printed in the Gazette.]

1,028,835. OIL-CAN. MADEL T. AXELTON and WILLIAM C. AXELTON, Graettinger, Iowa; said William C. Axelton assignor to said Madel T. Axelton. Filed Apr. 27, 1911. Serial No. 623,690. (Cl. 221—32.)

In an oil can, the combination with a body provided with a flexible bottom, and having an annular depending flange at its oil receiving end, a hollow removable top provided with a flange to engage with the upper edge of the body, a circular arched shaped diaphragm forming the lower oil directing wall of the top, an oil discharge spout secured to the central portion of said diaphragm and passing through the upper wall of the top, whereby the spout is rigidly held in position, and means yieldingly disposed between the flexible bottom of the body and the annular flanged portion thereof, said means consisting of arms pivotally connected and adapted for yielding contact with the inner surface of the body with the pivoted connected portions in contact with the flexible bottom.



1,028,836. CAR-STAKE HOLDER. CHARLES E. BALDWIN, Gillett, Wis., assignor of one-fourth to E. C. Smith, Gillett, Wis. Filed Feb. 3, 1911. Serial No. 606,445. (Cl. 105—173.)



1. A stake holder comprising a bed plate, an angle riveted thereto, holes near the outer extremity of the angle, said angle forming one permanent side of the stake socket, a removable Z-shaped bar forming two sides of the stake socket, prongs on one end of said Z-shaped bar engaging the holes in the angle bar, a latch for holding the free end of said Z-bar against the bed plate, means for turning the latch, substantially as described.

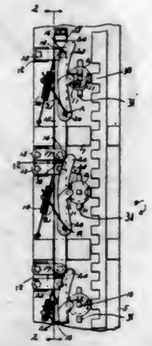
2. A stake holder comprising a bed plate, an angle bar attached thereto, said bed plate and angle bar forming two permanent sides of the stake socket, a Z-shaped removable bar forming two sides of the stake socket, projections on the face of the bed plate engaging corresponding sockets in one leg of the Z-bar, a latch for holding the Z-bar to the base plate, means for attaching the Z-bar to the angle bar, means for turning the latch to release the Z-bar substantially as set forth.

3. In a stake holder, a base plate, a projecting lug, said base plate and lug forming the back and one side of the stake socket, a removable Z-bar forming one side and front of the stake socket, means for connecting the projecting lug and the front leg of the Z-bar, a latch for holding the Z-bar in place, means for turning the latch and means for locking the turning mechanism against accidental release.

4. In a stake holder, a bed plate, a projecting angle bar permanently attached to the bed plate, a Z-bar removably attached to the projecting angle bar, a latch to hold the Z-bar against the bed plate, means for actuating the latch, and means for engaging the actuating means and coacting therewith for holding the latch into engagement with the Z-bar.

5. In a stake holder, a beam, means secured to the beam for embracing two adjacent sides of a stake, a Z-shaped bar movably attached to the said means and adapted to embrace the other adjacent sides of the stake, a portion of the Z-bar lying parallel with the beam, and a latch on the beam for engaging the parallel portion and temporarily holding it in fixed relation to the beam.

1,028,837. LOCKING DEVICE FOR VOTING-MACHINES. JAMES A. BUTLER, Winthrop, Mass., assignor to Frederick E. Nickels, Dorchester, Mass. Filed Nov. 16, 1910. Serial No. 592,705. (Cl. 235—54.)



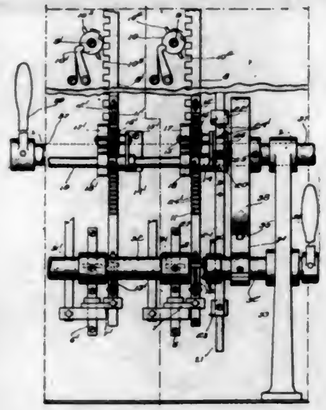
1. A device of the nature described comprising an actuatable device, a sliding rack operatively positioned with respect thereto, a lever interlocking with said device, a locking bar adapted to be engaged and locked by said lever in its movement toward the voting position and a second lock bar related to the first mentioned lock bar and adapted to be moved by the lever of the first lock bar to a position to intercept the lever, of the said second lock bar, in its movement toward the unlocking position, and said lock bars being movably-mounted on pivoted supports.

2. The combination of a series of rotatable hubs, and a lever pivotally mounted adjacent each of said hubs and having two members, of which one interlocks with said hub and is moved by the rotation of the hub to swing said lever, and the other of said members has a riding pin, of a series of approximately contacting lock bars related to said series of hubs and pivotally mounted on movable supports, each of said lock bars having a curved lower end with which the riding pin of said second lever member is adapted to coöperate to lift said lock bar from its normal position, whereby said pin enters between two of said lock bars.

1,028,838. VOTING-MACHINE. JAMES A. BUTLER, Providence, R. I., assignor to Frederick E. Nickels, Dorchester, Mass. Filed July 14, 1911. Serial No. 638,469. (Cl. 235—55.)

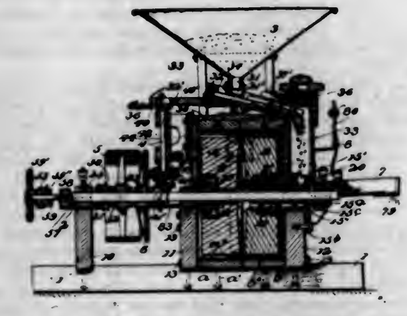
1. A voting machine comprising a series of bars slidably mounted, racks on said bars, actuable means for moving said bars independently, a shaft journaled in bearings and having a series of pinions engaging said racks and a gear, a second shaft journaled in bearings and having a gear driven by the gear of said first shaft, a stopping device, and means carried by said second shaft for moving said stopping device toward the stopping position.

2. A voting machine comprising a series of bars slidably mounted, racks on said bars, actuable means for moving said bars independently, a shaft journaled in bearings and having a series of pinions engaging said racks and a series of gears, a second shaft journaled in bearings and having a series of gears, in engagement with the gears of the first shaft, and a pinion, a rack bar slidably mounted and in engagement with the pinion of said second shaft, a stop adjustably secured on said rack bar, and means posi-



tioned in the path of said stop for limiting the movement thereof and of said rack bar.

1,028,839. GRINDING-MILL. WILFRED P. CARSON and JOHN J. HUBBARD, Taylorsville, N. C., assignors to Carson-Hubbard Mill Company, Taylorsville, N. C., a Corporation of North Carolina. Filed Oct. 4, 1911. Serial No. 652,808. (Cl. 83—8.)



1. In a grist mill, in combination, coöperating burs, a rotary spindle, a friction disk fixed on said spindle and having a side driving face, a shaft, a movable member actuated by said shaft, and a friction wheel on and driving said shaft and normally in engagement with and driven by said driving face of said disk, and means for adjusting said spindle longitudinally to throw said burs into and from grinding relation and said disk into and from driving relation with respect to said wheel.

2. In a grist mill or the like, the combination of a frame, coöperating burs, a longitudinally adjustable rotary spindle carrying one of said burs, means for adjusting said spindle longitudinally to move said bur to and from grinding position, mechanism for feeding material to be ground to said burs comprising a movable member, and actuating means for said movable member driven by said spindle and comprising mechanism whereby the operative connection between said member and said spindle is thrown into and out of gear by the longitudinal movement of said spindle in moving the bur carried thereby to and from grinding position.

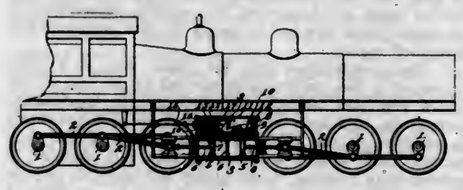
3. In a grist mill or the like, the combination of a frame, coöperating burs, a longitudinally adjustable rotary spindle carrying one of said burs, means for adjusting said spindle longitudinally to move said bur to and from grinding position, mechanism for feeding the material to be ground to said burs comprising a movable member, a shaker to receive the ground material from said burs, operating connections for said movable member and for said shaker, and driving means therefor from the spindle, said driving means being thrown into and out of operative connection with the spindle by the longitudinal movement thereof in carrying the bur secured thereto to and from grinding position.

4. In a grist mill or the like, comprising coöperating burs, the combination of a rotary longitudinally adjustable spindle, means for adjusting said spindle to throw the burs into and from grinding relation, a friction disk rotating and movable longitudinally with said spindle, a movable member, a rotary shaft for actuating said member, said shaft being transversely arranged with respect to said spindle and being yieldingly held laterally toward said friction disk and having a friction wheel normally engaging the friction driving side face of said disk and driven thereby to actuate said shaft, and means whereby said wheel is limited against moving into operative engagement with said side face when said spindle is adjusted to throw said burs from operative grinding relation.

5. In a grist mill or the like, comprising coöperating burs, a rotary driving spindle, a casing, and feed mechanism, the combination of a vertically disposed rotary disk having a vertical friction driving surface, a vertical shaft actuating said feed mechanism and having a friction wheel normally in friction driven relation with said surface, a rockable frame mounted on a transverse axis and carrying said shaft, a spring mechanism acting on said frame to hold said wheel against said driving surface, and means limiting the swing of said rockable frame toward said friction surface.

[Claims 6 to 15 not printed in the Gazette.]

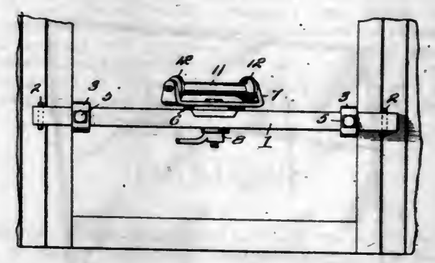
1,028,840. STEAM-ENGINE. WILLIAM ROBERT SANDERS, Sunset, Tex., assignor of one-half to John W. Harvey, Sunset, Tex. Filed Dec. 13, 1909. Serial No. 532,966. (Cl. 121—41.)



An engine comprising two cylinders having a tandem arrangement and separated by means of a partition, each of the said cylinders having terminal ports, pistons arranged in the cylinders, a chest common to both cylinders, slide valves for the ports arranged within the cheat, a lever, a guide member arranged within the chest adjacent one end thereof, an operating rod extending within the chest and mounted in the said guide member, a rod connecting one of the said valves to one end of the said lever, a second rod disposed below the said operating rod and connecting the other of the said valves to the said guide and operating rod, a pitman arranged above the said operating rod and connecting the opposite end of the lever with the said guide member, and a connection secured to the inner end of the said operating rod substantially as and for the purpose described.

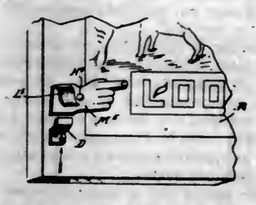
1,028,841. LOADING AND UNLOADING DEVICE. THOMAS SUCHLA, Courtenay, N. D. Filed Oct. 12, 1910. Serial No. 586,699. (Cl. 214—6.)

A device of the class described comprising a supporting bar, clips surrounding said bar and having laterally extending clamping arms, pins extending through the bar to limit the movement of and to prevent the disengagement of said clips, set screws carried by the clips for adjustably holding the supporting bar in engagement with a door frame, a clip slidably mounted on the bar and having a notched table, a threaded stud projecting therefrom, a



bracket having a notched table thereon, and an aperture to receive said stud, a timber supporting roller journaled in the bracket, and a lever nut on the stud to clamp the tables together.

1,028,842. DISPLAY DEVICE. DALE MARSHALL, Cheltenham, England. Filed Feb. 6, 1912. Serial No. 675,892. (Cl. 46—40.)



1. A display device comprising in combination, a stationary display element, a second relatively flat display element, pertinent to said first mentioned display element and pivotally mounted thereon to move in an upright plane, and normally assuming a predetermined correlated display position with respect thereto, responsive to the force of gravity, and means disposed in offset relation to and carried by said first mentioned display element to be encountered by air currents to alter the position of said second mentioned display element to produce an animated effect to the display.

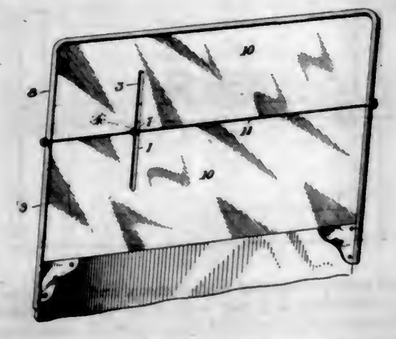
2. A display device comprising in combination, a display means, a display element, pertinent to said display means and pivotally mounted to move in an upright plane, and normally assuming a predetermined correlated display position with respect to said display means, responsive to the force of gravity, and means disposed in offset relation to and carried by said display element to be encountered by air currents to alter the position of said display element to produce an animated effect to the display.

3. A display device comprising in combination, a display means, a display element, pertinent to said display means and pivotally mounted to move in an upright plane, and normally assuming a predetermined correlated display position with respect to said display means, responsive to the force of gravity, means disposed in offset relation to and carried by said display element to be encountered by air currents to alter the positions thereof, to produce an animated effect to the display, and means for directing the air current to the said offset means of said display element.

1,028,843. CLEANING DEVICE FOR WIND-SHIELDS. EWING B. RHODES, Pittsburgh, Pa. Filed Feb. 9, 1912. Serial No. 676,662. (Cl. 15—59.)

1. A cleaner for a sectional wind shield, comprising a yieldable strip of cleaning material arranged at the ad-

joining edges of the sections of the wind shield and engaging the front side of the shield, and means extending between the adjoining edges of the sections of the wind shield to facilitate shifting said cleaning strip upon the front side of said shield.

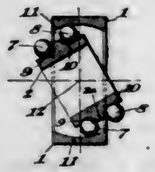


2. A cleaner for a sectional wind shield, comprising a holder, a yieldable cleaning strip mounted in said holder, and capable of engaging one face of said shield for cleaning it, and a stem connected to said holder and extending between the sections of said wind shield for maintaining said strip in engagement with the front side of the shield and serving as operating means for moving the cleaning strip to and fro.

3. A cleaner for a sectional wind shield, comprising a holder, a yieldable cleaning strip mounted in said holder and capable of engaging one face of said shield for cleaning it, a stem connected to said holder and capable of extending between the sections of said wind shield for maintaining said strip in engagement with the front side of the shield, and means carried by said stem to facilitate shifting said cleaning device.

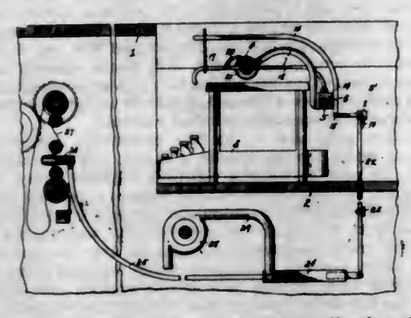
4. A cleaner device for a sectional wind shield, comprising a cleaning strip arranged in a vertical position at and capable of cleaning the front side of said shield, and a stem capable of extending between the sections of the shield and engaging the edges thereof for maintaining said strip in a vertical position and in frictional contact with the front side of said shield, a handle connected to said stem for facilitating the shifting of said strip.

1,028,844. BALL-BEARING. SVEN GUSTAF WINQQUIST, Gottenborg, Sweden, assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden. Filed Aug. 28, 1907. Serial No. 390,416. (Cl. 64—58.)



The herein described improved ball bearing having inner and outer members each integrally formed from a single piece of metal, the inner member having a plurality of peripheral tracks extended around it affording oppositely arranged shoulders, and a plurality of ball sets arranged in said tracks of the inner member, the outer member having a concave spherical inner surface struck from a center point positioned at the rotative axis of the inner member and midway between the respective ball sets, and affording concentric tracks having spherical bearing surfaces reversely inclined to the rotative axis of the inner member and opposite to the shoulders afforded by the respective tracks of the inner member, the respective ball sets being interposed between said shoulders of the inner member and the respective reversely inclined bearing surfaces of the outer member to transmit end thrust imposed upon said inner member, and said inner member being capable of universal turning movement around said center point to facilitate the introduction and withdrawal of the ball sets within and from said outer member.

1,028,845. LINE-SPACING MECHANISM FOR TYPE-WRITERS. PHILLIP JACOB DREHER, Toledo, Ohio. Original application filed July 31, 1911, Serial No. 641,560. Divided and this application filed Sept. 25, 1911. Serial No. 651,269. (Cl. 197—120.)



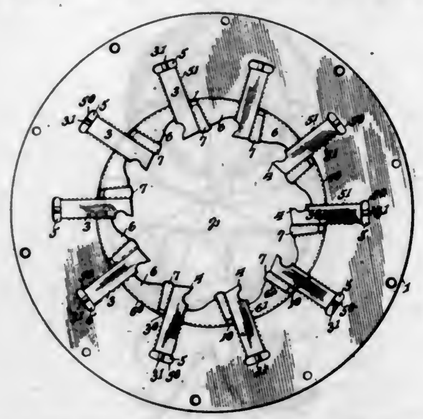
1. The combination with the platen-roll of a typewriter, of a line spacing lever having pawl and ratchet connection with the platen-roll, a horizontal bar mounted for horizontal movements, means guiding the movements of such bar to cause it to have vertical movements when moved in a horizontal plane, means yieldingly holding the bar in one position, pneumatically controlled means operative to impart movements in the opposite direction to said bar, and mechanism connecting said bar and spacing lever for imparting line spacing movements to the latter when the bar is moved by said pneumatically controlled means.

2. The combination with the platen roll of a typewriter, of a line spacing lever pivoted to the rear of the platen roll and movable therewith in its longitudinal movements, said lever having its forward end projecting in advance of the platen roll, pawl and ratchet connection between said lever and platen roll operable to communicate rotation to the platen roll upon an upward oscillation of said lever, a pair of levers, one disposed at each end of the longitudinal movements of the platen roll, a member connecting and movable by said pair of levers and having sliding engagement with said spacing lever, and means automatically operable to move said pair of levers to communicate platen roll turning movements to said spacing lever.

3. The combination with the platen roll of a typewriter, of a lever having pawl and ratchet connection with the platen roll, a bar, means guiding the movements of said bar to cause it to have transverse movements when longitudinally moved, connection between said bar and lever for imparting platen roll actuating movements to the lever when the bar is moved, and mechanism automatically operable to move said bar.

4. The combination with the platen roll of a typewriter, of a reciprocal bar, means guiding said bar to cause it to have vertical transverse movements when longitudinally reciprocated, means operable to intermittently shift said bar, a set of levers fulcrumed adjacent to said bar and having engagement therewith, a ball-like member connecting the forward ends of said levers, a line spacing lever pivoted at one side of the platen roll and projecting to the opposite side thereof with its free end working over said member and in sliding engagement therewith, and pawl and ratchet connection between said spacing lever and platen roll.

1,028,846. METAL-CUTTING-OFF DEVICE AND THE LIKE. GEORGE GORTON and CHARLES R. CARPENTER, Racine, Wis.; said Carpenter assignor to said Gorton. Filed June 15, 1910. Serial No. 567,109. (Cl. 29—105.)



1. A rotary member having a central work-receiving bore formed with pockets spaced around and opening into said bore, and a circular series of separate removable abutting thrust-elements confined to said member and arranged around said bore, and including inwardly projecting cutters, certain of said elements fitting said pockets, said series of abutting elements backing the inner working ends of said cutters.

2. A rotary member having a central work receiving bore, and a ring of abutting thrust elements separable from said member and coupled to and driven thereby and arranged around said bore and interlocking together and with the edge of said member against lateral deflection from the plane thereof, said elements including inwardly projecting cutters, and tightening wedges.

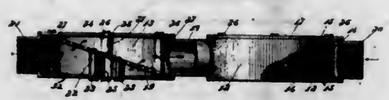
3. A rotary blade having a central work receiving opening and a continuous series of abutting thrust-elements removably locked to said blade and around said opening and including projecting cutters, and tightening wedges, substantially as described.

4. A rotary blade having uniformly spaced edge pockets, and a continuous series of separable abutting thrust elements removably coupled to and driven by said blade and arranged completely around the same, certain of said elements fitted in said pockets, said elements including projecting cutters, thrust blocks and locking means.

5. A rotary blade provided with removable cutters, and removable abutting thrust elements arranged between said cutters and receiving the thrust thereof and transmitting the same throughout the series of elements and cutters and comprising tightening and wedging means, substantially as described.

[Claims 6 to 17 not printed in the Gazette.]

1,028,847. EXHAUST-MUFFLER. AUGUSTUS G. SNYDER, Utica, N. Y. Filed Oct. 16, 1911. Serial No. 654,925. (Cl. 121—116.)



1. An exhaust muffler comprising two hollow bodies having communicating chambers one of which is provided with numerous transverse baffling devices, and the other of which is provided with an inclined perforated baffling plate.

2. An exhaust muffler comprising two hollow bodies having communicating chambers one of which is provided with numerous pins and encircling loosely coiled wires or springs, and the other of which is provided with an inclined perforated baffling plate.

3. An exhaust muffler comprising two hollow discoidal bodies having communicating chambers one of which is provided with numerous pins and encircling loosely coiled wires or springs, and the other of which is provided with an inclined perforated baffling plate, said discoidal bodies each having a removable cap or cover plate.

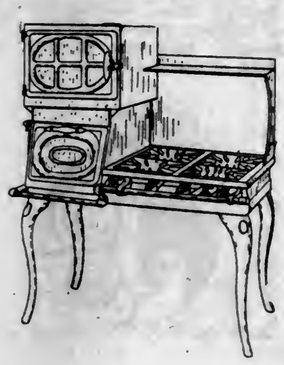
DESIGNS.

42,570. GAS-RANGE. JOHN A. ALEXANDER and FRANK I. K. BERRY, Battle Creek, Mich., assignors to A. B. Stove Company, Battle Creek, Mich., a Corporation of Michigan. Filed Feb. 10, 1912. Serial No. 676,826. Term of patent 14 years.



The ornamental design for a gas range, as shown.

42,571. GAS-RANGE. JOHN A. ALEXANDER and FRANK K. BERRY, Battle Creek, Mich., assignors to A. B. Stove Company, Battle Creek, Mich., a Corporation of Michigan. Filed Feb. 10, 1912. Serial No. 676,827. Term of patent 14 years.



The ornamental design for a gas range, as shown.

42,572. LAMP-COLLAR. EDWIN W. BRYCE, Pittsburgh, Pa. Filed Feb. 8, 1912. Serial No. 676,459. Term of patent 14 years.



The ornamental design for a lamp collar, as shown.

42,573. REFLECTOR HOLDER-BOWL FOR LIGHTING-FIXTURES. AUGUSTUS D. CURTIS, Chicago, Ill., assignor to National X-Ray Reflector Company, a Corporation of Illinois. Filed Dec. 12, 1911. Serial No. 665,398. Term of patent 7 years.



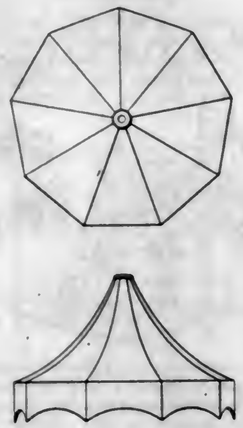
The ornamental design for a reflector holder bowl for lighting fixtures, as shown.

42,574. BRIDGE-PLATE FOR WATCH-MOVEMENTS. WILLIAM H. EBELHARE, Syracuse, N. Y., and JOSEPH A. FREUND, Waltham, Mass., assignors to The Keystone Watch Case Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 17, 1912. Serial No. 678,910. Term of patent 14 years.



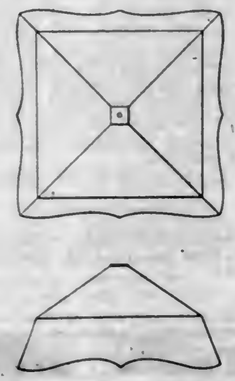
The ornamental design for a bridge plate for a watch movement, as shown.

42,575. LAMP-SHADE. JOSEPH FRIEDBERG, New York, N. Y. Filed Feb. 26, 1912. Serial No. 680,083. Term of patent 3½ years.



The ornamental design for a lamp shade as shown.

42,576. LAMP-SHADE. JOSEPH FRIEDBERG, New York, N. Y. Filed Feb. 26, 1912. Serial No. 680,084. Term of patent 3½ years.



The ornamental design for a lamp shade as shown.

42,577. SAUCE-BOAT OR SIMILAR ARTICLE. CHARLES EDWARD HAVILAND, Limoges, France. Filed Mar. 28, 1912. Serial No. 686,952. Term of patent 14 years.



The ornamental design for a sauce boat or similar article, as shown.

42,578. RUG. FRIEDRICH HEIDL, Yonkers, N. Y., assignor to Alexander Smith & Sons Carpet Company, New York, N. Y., a Corporation of New York. Filed Apr. 16, 1912. Serial No. 691,217. Term of patent 3½ years.



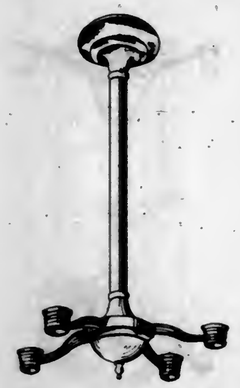
The design for a rug, as shown and described.

42,579. ATTACHMENT FOR REFLECTOR HOLDER-BOWLS FOR LIGHTING-FIXTURES. PAUL M. HOTCHKIN, Chicago, Ill., assignor to National X-Ray Reflector Company, a Corporation of Illinois. Filed Dec. 12, 1911. Serial No. 665,402. Term of patent 7 years.



The ornamental design for an attachment for reflector holder bowl for lighting fixtures, as shown.

42,580. BRACKET FOR REFLECTORS. PAUL M. HOTCHKIN, Chicago, Ill., assignor to National X-Ray Reflector Company, a Corporation of Illinois. Filed Dec. 12, 1911. Serial No. 665,403. Term of patent 7 years.



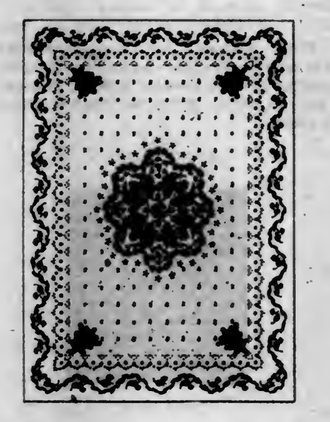
The ornamental design for bracket for reflectors, as shown.

42,581. MANIFOLD FOR INTERNAL-COMBUSTION ENGINES. RUSSELL HUFF, Detroit, Mich, assignor to Packard Motor Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 27, 1911. Serial No. 662,774. Term of patent 7 years.



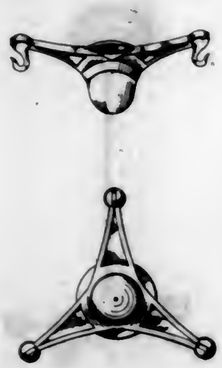
The ornamental design for a manifold for internal combustion engines, as shown.

42,582. LINOLEUM. HATTIE C. LESLIE, Duquesne, Pa. Filed Apr. 6, 1912. Serial No. 689,088. Term of patent 7 years.



The ornamental design for linoleum, as shown.

42,583. CANOPY FOR ELECTRIC-LIGHT FIXTURES. ARTHUR J. MORGAN, Chicago, Ill., assignor to National X-Ray Reflector Company, a Corporation of Illinois. Filed Dec. 12, 1911. Serial No. 665,388. Term of patent 7 years.



The ornamental design for a canopy for electric light-fixtures, as shown.

42,584. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 15, 1912. Serial No. 691,048. Term of patent 3½ years.



The ornamental design for a rug, as shown.

42,585. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 15, 1912. Serial No. 691,049. Term of patent 3½ years.



The ornamental design for a rug, as shown.

42,586. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 22, 1912. Serial No. 692,532. Term of patent 3½ years.



The ornamental design for a rug, as shown.

42,587. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 22, 1912. Serial No. 692,533. Term of patent 3½ years.



The ornamental design for a rug, as shown.

42,588. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 29, 1912. Serial No. 693,979. Term of patent 3½ years.



The ornamental design for a rug, as shown.

42,589. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed Apr. 20, 1912. Serial No. 693,980. Term of patent 3½ years.



The ornamental design for a rug, as shown.

42,590. LACE. IDA RIEGER, New York, N. Y., assignor to Alpha Embroidery Co., West New York, N. J., a Corporation of New Jersey. Filed Apr. 3, 1912. Serial No. 688,311. Term of patent 3½ years.



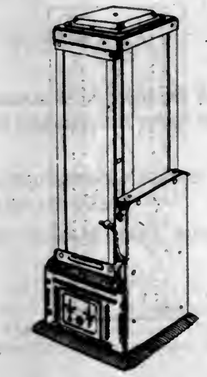
The ornamental design for lace, as shown.

42,591. STAND FOR VENDING-MACHINES. ROLLAND ROBBINS, Crafton, Pa., assignor to The Sanitary Fountain and Vending Machine Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Feb. 26, 1912. Serial No. 680,088. Term of patent 14 years.



The ornamental design for a stand for vending machines, as shown.

42,592. VENDING-MACHINE. ROLLAND ROBBINS, Crafton, Pa., assignor to The Sanitary Fountain and Vending Machine Company, Pittsburgh, Pa., a Corporation of Delaware. Filed Feb. 26, 1912. Serial No. 680,089. Term of patent 14 years.



The ornamental design for a vending machine, as shown.

42,593. REFLECTOR HOLDER-BOWL FOR LIGHTING-FIXTURES. GEORGE I. RUNION, Elmhurst, Ill., assignor to National X-Ray Reflector Company, a Corporation of Illinois. Filed Dec. 12, 1911. Serial No. 665,405. Term of patent 7 years.

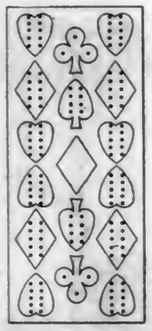
The ornamental design for a reflector holder bowl for lighting fixtures, as shown.

42,594. CRUET. ANDREW J. SANFORD, Newark, Ohio. Filed Mar. 22, 1912. Serial No. 685,571. Term of patent 14 years.



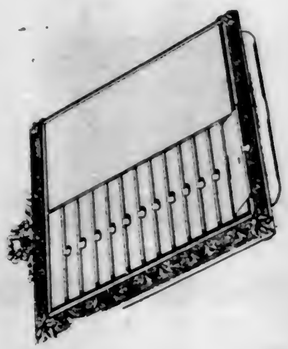
The ornamental design for a cruet, as shown.

42,595. CRIBBAGE-BOARD. LESLIE M. STAKE, San Diego, Cal. Filed Sept. 2, 1911. Serial No. 647,454. Term of patent 7 years.



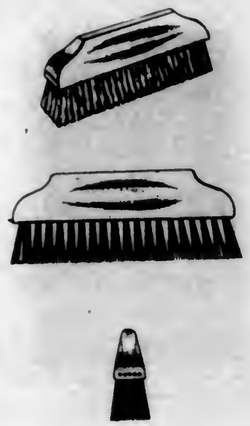
The ornamental design for a cribbage board, as shown.

42,596. DIRECTORY. JAMES S. TAYLOR, Newburgh, N. Y. Filed Nov. 15, 1911. Serial No. 660,532. Term of patent 3½ years.



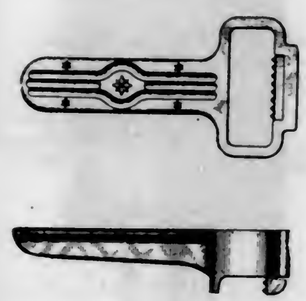
The ornamental design for a directory, as shown.

42,597. HAIR-BRUSH. JOHN WEBSTER, East Providence, R. I. Filed Sept. 1, 1910. Serial No. 580,143. Term of patent 14 years.



The ornamental design for a hair brush as shown and described.

42,598. STEP FOR POLES. JAMES H. WHITE, New York, N. Y. Filed Feb. 26, 1912. Serial No. 680,086. Term of patent 7 years.



The ornamental design for a step for poles, as shown.

TRADE-MARKS

PUBLISHED JUNE 4, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 37,053. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GRONEWEG & SCHOENTGEN CO., Council Bluffs, Iowa. Filed Aug. 31, 1908.

ROVER



Particular description of goods.—Coffee, Tomato Catsup, Canned Oysters, and Corn-Syrup.
Claims use since about the 1st of July, 1908.

Ser. No. 47,710. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) THE BALTIMORE BRUSH CO., Baltimore, Md. Filed Feb. 10, 1910.

MONUMENTAL

Particular description of goods.—Paint-Brushes, Varnish-Brushes, Sash-Tools, Artists' Brushes, Fresco, Marking, and Lacquer Brushes, Mottlers, Color and Copying Brushes, Blenders, Sign-Writers' Brushes, Grainers, Stipplers, Paper-Hangers' Brushes, Glue, Grease, Roof, Acid, and Tar Brushes, Car-Scrubs, Bag-Marking, Furniture-Rubbing, and Stencil Brushes, Dusters, Calcimine, Skimming, and Whitewash Brushes, Water-Tools, and Radiator, Bakers', and Lather Brushes.
Claims use since Nov. 15, 1909.

Ser. No. 50,959. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STAR MILLING CO., Nicholasville, Ky. Filed July 21, 1910.

BON TON

Particular description of goods.—Wheat-Flour.
Claims use since May, 1889.

Ser. No. 51,059. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMERICAN COFFEE COMPANY OF NEW ORLEANS, LT'D., New Orleans, La. Filed July 26, 1910.

FRENCH OPERA



Particular description of goods.—Tea.
Claims use since October, 1907.

Ser. No. 53,356. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SPRATT'S PATENT, LIMITED, London, England. Filed Dec. 19, 1910. Under ten-year proviso.

SPRATT'S
X
PATENT

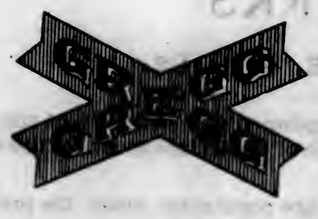
Particular description of goods.—Dog-Biscuits.
Claims use since 1868.

Ser. No. 53,361. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE DERN TEA & COFFEE COMPANY, Colorado Springs, Colo. Filed Dec. 19, 1910.
Particular description of goods.—Tea, Spices, and Flavoring Extracts.

COFFEE MILL

Claims use since on or about Nov. 15, 1910.

Ser. No. 53,919. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) GREGG VARNISH COMPANY, St. Louis, Mo. Filed Jan. 16, 1911. Under ten-year proviso.



The crossed bars appearing in red and the crossed words thereon in a contrasting color.

Particular description of goods.—Varnishes.

Claims use since on or about Jan. 1, 1895.

Ser. No. 54,067. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) AMALGATYPE MACHINE COMPANY, New York, N. Y. Filed Jan. 24, 1911.

AMALGATYPE

Particular description of goods.—Typographic Machines and the Parts Thereof.

Claims use since Jan. 3, 1910.

Ser. No. 54,382. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ELI LILLY AND COMPANY, Indianapolis, Ind. Filed Feb. 8, 1911.

HYPODERMS

Particular description of goods.—Ampoules Containing Hypodermatic Medicaments.

Claims use since Jan. 1, 1898.

Ser. No. 54,450. (CLASS 39. CLOTHING.) PROSER BROS., New York, N. Y. Filed Feb. 10, 1911.



Particular description of goods.—Coats, Vests, and Trousers.

Claims use since 1907.

Ser. No. 55,267. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) B. H. GLADDING DRY GOODS CO., Providence, R. I. Filed Mar. 23, 1911. Under ten-year proviso.



No claim being made to the word "Quality."

Particular description of goods.—Laces; Curtains; Textile Portières; Textile Draperies; Cotton, Linen, Silk, Velvet, and Woolen Dress Goods; Linen, Cotton, Woolen, Velvet, and Silk Goods in the Piece; Towels; Serviettes; Cotton, Linen, Woolen, and Silk Sheets, Pillow-Cases, Blankets, Comforters, Puffs, Shams, and Spreads; Table-Linens; Veilings; Chiffon; Hair-Nets; Shawls; Handerchiefs; Textile Carpets and Rugs; Steamer-Rugs; Carriage-Robes, and Afghans.

Claims use since 1807.

Ser. No. 55,268. (CLASS 39. CLOTHING.) B. H. GLADDING DRY GOODS CO., Providence, R. I. Filed Mar. 23, 1911. Under ten-year proviso.



No claim being made for the word "Quality."

Particular description of goods.—Men's, Women's, and Children's Hosiery; Gloves and Mittens; Textile and Knitted Underdrawers, Undershirts, and Union Suits; Bath-Robes; Bathing-Suits; Leather, Canvas, Cloth, and Rubber Boots, Bootees, Shoes, Slippers, Sandals, Moccasins, Leggings, and Overshoes; Nightgowns and Pajamas; Sweaters; Men's, Youths', and Boys' Coats, Vests, Trousers, and Overcoats; Straw, Felt, and Textile Hats and Caps; Outer Shirts; Textile Collars, Cuffs; Overalls; Women's, Misses', and Children's Coats, Cloaks, Wraps, and Rain-Coats; Gowns and Dresses; Inner and Outer Suits; Outer Skirts; Trimmed and Untrimmed Hats, Caps, and Bonnets for Women, Misses, and Children; Fur Coats, Jackets, Muffs, Capes; Neckwear of Fur and Textile Fabrics; Cuffs for Women; Aprons; Shirt-Waists; Underskirts; Corsets, Corset and Slip Waists, and Brassieres; Kimonos, Wrappers, and Negligées; Chemises, Drawers, Corset-Covers, Combination-Garments, and Princess Slips; Bands and Diapers; Rompers; Sanitary Belts and Napkins.

Claims use since 1807.

Ser. No. 55,350. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TRACY, PACKARD & HUNTOON, Montclair, N. J., and New York, N. Y. Filed Mar. 27, 1911.

MEASURIT

Particular description of goods.—Blended Coffee.

Claims use since Sept. 1, 1910.

Ser. No. 55,378. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BRISTOL DRUG & GUM CORPORATION, Bristol, Tenn. Filed Mar. 28, 1911.



No claim being made to the surname "Locketts'."

Particular description of goods.—Flavoring Extracts and Imitation Flavors.

Claims use since Mar. 1, 1911.

Ser. No. 55,420. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) EDWARD MILLER, Jr., Evansville, Ind. Filed Mar. 30, 1911.



Particular description of goods.—A Remedy for Diseases of Females.

Claims use since February, 1911.

Ser. No. 55,540. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) T. P. MCCUTCHEON & BRO. INCORPORATED, Philadelphia, Pa. Filed Apr. 5, 1911.

4 in 1

Particular description of goods.—Neckties.

Claims use since on or about Mar. 16, 1911.

Ser. No. 55,624. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EDWARD W. COON, Philadelphia, Pa. Filed Apr. 8, 1911.



TRADE MARK

The word "Cheese" and the representation of the cheese are hereby disclaimed.

Particular description of goods.—Cheese.

Claims use since Dec. 2, 1910.

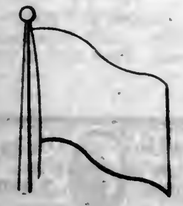
Ser. No. 56,124. (CLASS 17. TOBACCO PRODUCTS.) THE AMERICAN TOBACCO COMPANY, New York, N. Y. Filed May 2, 1911.

BANNER

Particular description of goods.—Long-Cut Tobacco.

Claims use since 1861.

Ser. No. 56,953. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN OPTICAL COMPANY, Southbridge, Mass. Filed June 10, 1911.



Particular description of goods.—Eyeglasses, Spectacles, Lenses, Mountings, Bridges, Guards, Lens Attachments, Temples, and Goggles.

Claims use since May 1, 1911.

Ser. No. 57,910. (CLASS 17. TOBACCO PRODUCTS.) COMPAGNIE LAFERME TABAK- & CIGARETTEN-FABRIKEN, Dresden, Germany. Filed July 28, 1911. Under ten-year proviso.



Particular description of goods.—Cigarettes and Smoking-Tobaccos.

Claims use since Aug. 27, 1875.

Ser. No. 58,056. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JOS. MIDDLEBY, JR., INC., Boston, Mass. Filed Aug. 7, 1911.

MIDDLE

Particular description of goods.—Pie-Fillings.
Claims use since 1898.

Ser. No. 58,455. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) REED & CARNRICK, Jersey City, N. J. Filed Aug. 31, 1911.

RE-ZYME

Particular description of goods.—A Remedy for Diseases of the Kidneys Comprising the Primary Substance from the Cells of Cortex and the Convoluted Tubules of the Kidneys.
Claims use since July 26, 1911.

Ser. No. 58,609. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A/S SARDINFABRIKKEN NORRIG, Stavanger, Norway. Filed Sept. 9, 1911.

NORWEG. TROUTLING GARANTIRT IN BJØRNSON SARDINE REINSTEM OLIVENOL

No claim being made to the words "Norweg" "Garantirt in Reinstem Olivenol," and "Ala Sardine," the portrait being that of Björnstjerne Bjornson, deceased.
Particular description of goods.—Sardines.
Claims use since Aug. 10, 1910.

Ser. No. 58,711. (CLASS 37. PAPER AND STATIONERY.) WILLIAM MITCHELL (PENS) LIMITED, Birmingham, England. Filed Sept. 18, 1911. Under ten-year proviso.

TRADE MARK SELECTED PENS. LONDON

Particular description of goods.—Steel and Metallic Pens.
Claims use since 1835.

Ser. No. 58,717. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RAIMES & CO., New York, N. Y. Filed Sept. 19, 1911.

EXPRESS

Particular description of goods.—Liquid Polish for Polishing Brass, Signs, Railings, Copper, Nickel, Harness, Metallic Household Articles, and All Kinds of Metal.
Claims use since May, 1909.

Ser. No. 58,921. (CLASS 38. PRINTS AND PUBLICATIONS.) OLIVER EMERSON BENNETT, Boston, Mass. Filed Sept. 29, 1911.

No claim being made to the words "1000 Ready Red Reminders Due Delinquent Debtors," the seal and the lettering on the hand being printed in red.
Particular description of goods.—A Booklet.
Claims use since Sept. 1, 1911.

Ser. No. 59,290. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) EMIL RATH, Frankfort-on-the-Main, Germany. Filed Oct. 23, 1911.

Infantibus

Particular description of goods.—Gutta-Percha and India-Rubber Nipples for the Nursing-Breast.
Claims use since May, 1911.

Ser. No. 59,788. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TRINACRIA MACARONI WORKS, Baltimore, Md. Filed Nov. 18, 1911.

TRINACRIA

Particular description of goods.—Macaroni.
Claims use since July 15, 1909.

Ser. No. 59,865. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BARIUM PRODUCTS COMPANY, Scranton, Pa. Filed Nov. 23, 1911.

POMONA BRAND

Particular description of goods.—Chemical Preparations for Use in Spraying Vegetation.
Claims use since Oct. 1, 1911.

Ser. No. 60,040. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) QUAKER LACE COMPANY, Philadelphia, Pa. Filed Dec. 1, 1911.

QUAKER LACES

The portrait being fanciful and no claim being made for the word "Laces."
Particular description of goods.—Lace Piece Goods for Dresses.
Claims use since Sept. 30, 1911.

Ser. No. 60,041. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) QUAKER LACE COMPANY, Philadelphia, Pa. Filed Dec. 1, 1911.

QUAKER CURTAINS

The portrait being fanciful and no claim being made for the word "Curtains."
Particular description of goods.—Lace Curtains.
Claims use since Sept. 30, 1911.

Ser. No. 60,390. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRIETTE GABILLA, Paris, France. Filed Dec. 21, 1911.

FOLLE PASSION

Particular description of goods.—Perfumes, Lotions, Toilet Waters and Creams, Toilet Powders and Rouges, and Dentifrices in Paste, Powder, and Liquid Form.
Claims use since Sept. 24, 1910.

Ser. No. 60,391. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRIETTE GABILLA, Paris, France. Filed Dec. 21, 1911.

LES JEUX ET LES RIS

Particular description of goods.—Perfumes, Lotions, Toilet Waters and Creams, Toilet Powders and Rouges, and Dentifrices in Paste, Powder, and Liquid Form.
Claims use since Oct. 29, 1910.

Ser. No. 60,392. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRIETTE GABILLA, Paris, France. Filed Dec. 21, 1911.

LA VIERGE FOLLE

Particular description of goods.—Perfumes, Lotions, Toilet Waters and Creams, Toilet Powders and Rouges, and Dentifrices in Paste, Powder, and Liquid Form.
Claims use since Oct. 29, 1910.

Ser. No. 60,393. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) HENRIETTE GABILLA, Paris, France. Filed Dec. 21, 1911.

TOUT LE PRINTEMPS

Particular description of goods.—Perfumes, Lotions, Toilet Waters and Creams, Toilet Powders and Rouges, and Dentifrices in Paste, Powder, and Liquid Form.
Claims use since Oct. 29, 1910.

Ser. No. 60,468. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) G. W. PARKS COMPANY, Newark, N. J., and Providence, R. I. Filed Dec. 27, 1911.

Particular description of goods.—Jewel-Boxes, Cigarette-Cases, Match-Boxes, Mesh Bags, Card-Cases, Vanity-Cases, Pocket-Books, Hand-Mirrors, Hair-Brushes, Clothing-Brushes, Nail-Files, Scissors, Combs, Hat-Brushes, Salve-Jars, Puff-Boxes, Nail-Polishers, Penknives, Inkstands, Desk-Blotters, Ink-Erasers, Letter-Openers, and Stamp-Boxes.
Claims use since July, 1905.

Ser. No. 60,470. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) G. W. PARKS COMPANY, Newark, N. J., and Providence, R. I. Filed Dec. 27, 1911.

P

Particular description of goods.—Jewel-Boxes, Cigarette-Cases, Match-Boxes, Hand-Mirrors, Hair-Brushes, Clothing-Brushes, Nail-Files, Scissors, Combs, Hat-Brushes, Salve-Jars, Puff-Boxes, Nail-Polishers, Penknives, Inkstands, Desk-Blotters, Ink-Erasers, Letter-Openers, Stamp-Boxes, Mesh Bags, and Vanity-Boxes, All of Sterling Silver.
Claims use since July, 1905.

Ser. No. 60,545. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) AMERICAN PIANO COMPANY, New York, N. Y. Filed Jan. 2, 1912.

Primatone.

Particular description of goods.—Piano-Players, Player-Pianos, and Note-Sheets for the Same.
Claims use since June 21, 1911.

Ser. No. 60,586. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) D. W. MELLEN COMPANY, Springfield, Mass. Filed Jan. 3, 1912.

MELLEN

No claim being made to the word "Mellen."
Particular description of goods.—Paint, Including Ready Mixed, Paste, and Dry; Putty, Calcimine, Liquid Fillers, Varnish, Water-Colors, Paste Oil-Colors Ground in Oil, and Bronze Powders.
Claims use since Nov. 1, 1909.

Ser. No. 60,647. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) VICTOR TALKING MACHINE COMPANY, Camden, N. J. Filed Jan. 5, 1912.

VICTROLETTE

Particular description of goods.—Talking-Machines, Talking-Machine Records, Talking-Machine Parts, and Talking-Machine Accessories.
Claims use since Nov. 21, 1911.

Ser. No. 60,675. (CLASS 25. LOCKS AND SAFES.) AMERICAN STEEL SAFE CO., St. Joseph, Mo. Filed Jan. 8, 1912.

A

Particular description of goods.—Safes.
Claims use since July 1, 1909.

Ser. No. 60,903. (CLASS 7. CORDAGE.) A. LESCHEN & SONS ROPE COMPANY, St. Louis, Mo. Filed Jan. 19, 1912.

DRAGON

Particular description of goods.—Wire Rope.
Claims use since Oct. 22, 1901.

Ser. No. 60,904. (CLASS 7. CORDAGE.) A. LESCHEN & SONS ROPE COMPANY, St. Louis, Mo. Filed Jan. 19, 1912.

SATURN

Particular description of goods.—Wire Rope.
Claims use since Nov. 28, 1911.

Ser. No. 60,993. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) BON AMI COMPANY, New York, N. Y. Filed Jan. 24, 1912.

BON AMI

Particular description of goods.—Scouring-Soap.
Claims use since July 5, 1892.

Ser. No. 60,994. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ROBERT E. REEDY, Chicago, Ill. Filed Jan. 24, 1912.



Particular description of goods.—Chewing-Gum.
Claims use since Nov. 4, 1911.

Ser. No. 61,008. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) SUPERIOR TANNING CO., Chicago, Ill. Filed Jan. 24, 1912.



Particular description of goods.—Leather Made of Hides of Cows, Horses, and Hogs.
Claims use since May 15, 1909.

Ser. No. 61,051. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEO. W. HERREN, Stockton, Cal. Filed Jan. 26, 1912.

MORMON - TEA



The words "Mormon Tea" being disclaimed.
Particular description of goods.—Remedies for Rheumatism and Blood Diseases.
Claims use since Jan. 7, 1912.

Ser. No. 61,054. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THE BOSTON MANUFACTURING CO. 1901, Waltham and Boston, Mass. Filed Jan. 26, 1912.



The picture being fanciful.
Particular description of goods.—Ginghams.
Claims use since Dec. 7, 1909.

Ser. No. 61,223. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ADAM DIXON WARNER, Los Angeles, Cal. Filed Feb. 2, 1912.

FRUCERA
TRADE MARK

Particular description of goods.—Prepared Balanced Food Compositions Consisting of Fruits, Nuts, Cereals, and other Ingredients.
Claims use since Oct. 1, 1911.

Ser. No. 61,228. (CLASS 17. TOBACCO PRODUCTS.) ALEXANDER H. NEUTHARD, Houston, Tex. Filed Feb. 3, 1912.

E. C.

Particular description of goods.—Cigars and Cigarettes.
Claims use since Oct. 24, 1908.

Ser. No. 61,240. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) JOHN PICKERING PUTNAM, Boston, Mass. Filed Feb. 3, 1912.

SECURITAS.

Particular description of goods.—Hardware and Plumbing and Steam-Fitting Supplies—Namely, Basin-Traps, Bath-Traps, Sink-Traps, and Lavatory-Traps, Baths, Basins, Sinks, and Lavatories, Water-Closets, Plumbers' and Steam-Fitters' Valves and Traps.
Claims use since on or about July 1, 1897.

Ser. No. 61,252. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) WOLVERINE MARINE COMPANY, Grand Rapids, Mich. Filed Feb. 5, 1912.



Particular description of goods.—Reverse-Gears, Propeller-Wheels, Intermediate Bearings, Thrust-Bearings, Stern-Bearings, Stuffing-Boxes, Steering-Wheels, Under-Water Exhausts, and Water-Scoop Intakes.
Claims use since Oct. 10, 1911.

Ser. No. 61,265. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JENCKES SPINNING COMPANY, Pawtucket, R. I. Filed Feb. 5, 1912.

TAMARACK

Particular description of goods.—Cotton Textiles for Dress Goods.
Claims use since November, 1906.

Ser. No. 61,295. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912.



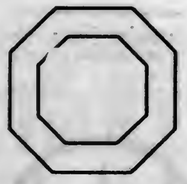
Particular description of goods.—Letter-Copying Cloths Cut in Pieces Ready for Use in the Copying-Press.
Claims use since Mar. 1, 1908.

Ser. No. 61,367. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PETER LUDWIG SCHMIDT, Elberfeld, Germany. Filed Feb. 8, 1912.

Regent

Particular description of goods.—Hair-Cutting Machines and Scissors.
Claims use since Aug. 26, 1896.

Ser. No. 61,534. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JAMES R. KEISER, INC., New York, N. Y. Filed Feb. 15, 1912.



Particular description of goods.—Handkerchiefs and Kerchiefs.
Claims use since Jan. 27, 1912.

Ser. No. 61,584. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMMON & PERSON, Jersey City, N. J. Filed Feb. 17, 1912.

BABY BRAND

No claim being made to the word "Brand."
Particular description of goods.—Oleomargarin.
Claims use since Feb. 13, 1912.

Ser. No. 61,587. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) THE J. B. WILLIAMS COMPANY, Glastonbury, Conn. Filed Feb. 17, 1912.

YANKEE

Particular description of goods.—Shaving and Toilet Soaps.
Claims use since about the year 1846.

Ser. No. 61,591. (CLASS 38. PRINTS AND PUBLICATIONS.) PEDRO ROVEDA, Mexico City, Mexico. Filed Feb. 17, 1912.

THE CITY OF THE SUN

Particular description of goods.—Drawings, Plans, &c., Especially Plans for Constructions.
Claims use since July, 1909.

Ser. No. 61,620. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KAHN-BECK COMPANY, Los Angeles, Cal. Filed Feb. 20, 1912.

Bellocraft

Particular description of goods.—Crackers, Cakes, Candy, and Pastes.
Claims use since Jan. 26, 1907.

Ser. No. 61,628. (CLASS 39. CLOTHING.) ASHE, NOYES & SMALL CO., Auburn, Me. Filed Feb. 20, 1912.

Lepracaun

The word "Lepracaun."
Particular description of goods.—Shoes Made of Leather; or Leather in Combination with Any or All of the Following Materials: Cloth, Felt, Rubber, Cork, and Canvas.
Claims use since Feb. 9, 1912.

Ser. No. 61,673. (CLASS 39. CLOTHING.) THE EXCELSIOR SHOE COMPANY, Portsmouth, Ohio. Filed Feb. 23, 1912.

WORLD SCOUTS

Particular description of goods.—Leather Boots and Shoes.
Claims use since Jan. 25, 1912.

Ser. No. 61,729. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE LOHMANN COMPANY, New York, N. Y. Filed Feb. 26, 1912.

LOHMANNIZED

Particular description of goods.—Metal Sheets, Castings, and Bars.
Claims use since Mar. 15, 1911.

Ser. No. 61,735. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HARRIS WOODSON CO., INC., Lynchburg, Va. Filed Feb. 26, 1912.

BON TON

Particular description of goods.—Candy.
Claims use since May 10, 1907.

Ser. No. 61,782. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOSIAH WILLIS SEAVER HARDING, Amityville, N. Y. Filed Feb. 28, 1912. Under ten-year proviso.



Particular description of goods.—Woven Fabrics Used for Hospital-Bandages and Dress-Linings.
Claims use since 1872.

Ser. No. 61,856. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FRANKLIN P. ALBRIGHT, Philadelphia, Pa. Filed Mar. 2, 1912.

MEL-LACTART

Particular description of goods.—A Remedy for Coughs, Colds, Sore Throat, Croup, Hoarseness, Whooping-Cough, and Bronchial Complaints.
Claims use since Feb. 1, 1897.

Ser. No. 61,857. (CLASS 17. TOBACCO PRODUCTS.) FITZPATRICK & DRAPER, Troy, N. Y. Filed Mar. 2, 1912.

AMERICAN GENTLEMAN

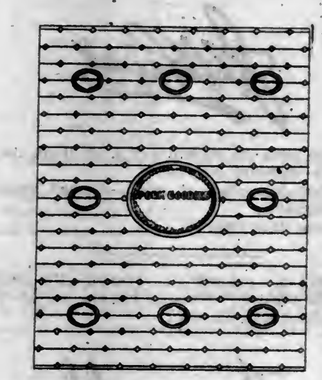
Particular description of goods.—Cigars.
Claims use since about 1873.

Ser. No. 61,933. (CLASS 39. CLOTHING.) SHAW STOCKING COMPANY, Lowell, Mass. Filed Mar. 4, 1912.

UWAREM

Particular description of goods.—Hosiery.
Claims use since February, 1912.

Ser. No. 61,954. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE TAYLOR PROVISION CO., Trenton, N. J. Filed Mar. 6, 1912.



No claim being made to the word "Pork."
Particular description of goods.—Pork Meat.
Claims use since Feb. 9, 1912.

Ser. No. 61,984. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) GRÜDER, BLANK & CO. G. M. B. H., Berlin, Germany. Filed Mar. 7, 1912.

Gral

Particular description of goods.—Alcohol Lamps and Burners.
Claims use since June 8, 1903.

Ser. No. 62,006. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) BONWIT, TELLER & CO., New York, N. Y. Filed Mar. 7, 1912.

"Bontell"

Particular description of goods.—Neckties, Neckscarfs, and Jabots, Feathers, Plumes, Artificial Flowers for Millinery Purposes, and Belts for Personal Wear.
Claims use since about Aug. 1, 1911.

Ser. No. 62,084. (CLASS 39. CLOTHING.) A. G. HYDE & SONS, New York, N. Y. Filed Mar. 9, 1912.

HALCYON

Particular description of goods.—Outer Coats, Cloaks, Dress-Waists, Shirt-Waists, Jackets, Outer Skirts, Underskirts, and Petticoats.
Claims use since Sept. 23, 1910.

Ser. No. 62,135. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HUNT BROS. COMPANY, San Francisco, Cal. Filed Mar. 13, 1912.

J. H. Hunt

The same being the signature of J. H. Hunt, the president of the applicant corporation.

Particular description of goods.—Canned Fruits and Canned Vegetables.

Claims use since 1909.

Ser. No. 62,142. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM COURTNAGE, Great Falls, Mont. Filed Mar. 13, 1912.

Idowell CREAMERY

The use of the said word "Creamery" in said drawing is hereby disclaimed.

Particular description of goods.—Cheese, Cream, Butter, Eggs, and Ice-Cream.

Claims use since Feb. 1, 1912.

Ser. No. 62,177. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) J. F. IMBS MILLING COMPANY, St. Louis, Mo., and Belleville, Ill. Filed Mar. 15, 1912.

CHARM

Particular description of goods.—Wheat-Flour.

Claims use since Sept. 12, 1876.

Ser. No. 62,180. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) AMERICAN BEAD CO., New York, N. Y. Filed Mar. 15, 1912.

RAJAH PERLA

The word "Perla," shown in the drawing, forming no part of the trade-mark.

Particular description of goods.—Beads.

Claims use since Feb. 1, 1912.

Ser. No. 62,244. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) JOSLIN MFG. CO., Providence, R. I. Filed Mar. 18, 1912.

WWJHE

Particular description of goods.—Shoe and Corset Lacings.

Claims use since Jan. 1, 1911.

Ser. No. 62,257. (CLASS 11. INKS AND INKING MATERIALS.) THE AMERICAN INK COMPANY, Denver, Colo. Filed Mar. 18, 1912.



Particular description of goods.—Writing-Ink.

Claims use since Sept. 1, 1911.

Ser. No. 62,259. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MILLS, DUFLOT & COMPANY, New York, N. Y. Filed Mar. 19, 1912.



No claim being made to "The Original," "Original No. 6450," "Color," or "Blond."

Particular description of goods.—Hair-Nets.

Claims use since March, 1909.

Ser. No. 62,278. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) HAMILTON MORGAN, San Francisco, Cal. Filed Mar. 19, 1912.

POSTART

Particular description of goods.—Undertakers' Make-Up Outfits.

Claims use since Nov. 1, 1911.

Ser. No. 62,280. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) SAMUEL BUYER, New York, N. Y. Filed Mar. 19, 1912.



Particular description of goods.—Hose-Supporters, Elastic Arm-Bands, Dress-Shields, Suspenders, Belts for Personal Wear, and Sleeve-Protectors.

Claims use since about Mar. 11, 1912.

Ser. No. 62,314. (CLASS 38. PRINTS AND PUBLICATIONS.) THE INCORPORATED PRINTSELLERS' ASSOCIATION. London, England. Filed Mar. 21, 1912. Under ten-year proviso.



Particular description of goods.—Engravings, Prints, and Etchings.

Claims use since about 1847.

Ser. No. 62,417. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BOND FOUNDRY AND MACHINE COMPANY, Manheim, Pa. Filed Mar. 25, 1912.

HOLSCREW

Particular description of goods.—Shaft-Collars.

Claims use since March, 1910.

Ser. No. 62,431. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE GREAT WESTERN SUGAR COMPANY, Denver, Colo. Filed Mar. 26, 1912.

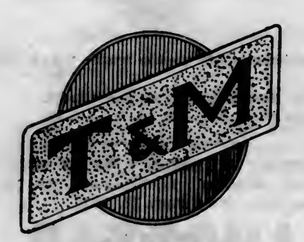
HONEY HAY

"Honey Hay."

Particular description of goods.—Stock Food.

Claims use since Jan. 4, 1912.

Ser. No. 62,441. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) TERMAAT & MONAHAN CO., Oshkosh, Wis. Filed Mar. 27, 1912.



Consisting of a circle and slab with the letters "T & M" on the slab.

Particular description of goods.—Gasolene-Engines.

Claims use since Mar. 15, 1912.

Ser. No. 62,463. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) JOHN C. WELWOOD, New York, N. Y. Filed Mar. 28, 1912.

Tye-It

The trade-mark consists of the word "Tye-It" printed in red.

Particular description of goods.—Washable Ribbons Made Wholly or Partly of Silk.

Claims use since about Dec. 15, 1911.

Ser. No. 62,470. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BREWER & CO., Worcester, Mass. Filed Mar. 28, 1912.

LIN-MINTS

Particular description of goods.—Cough-Lozenges.

Claims use since about Nov. 8, 1911.

Ser. No. 62,482. (CLASS 39. CLOTHING.) LEWIS & BASHLOW, New York, N. Y. Filed Mar. 28, 1912.

UNICORN MILLS

Particular description of goods.—Hosiery, Undershirts, Dress-Shirts, Negligée Shirts, Undervests, Overvests, Union Suits, Drawers, and Sweaters.

Claims use since the fall of 1906.

Ser. No. 62,489. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) HESS & HOPKINS LEATHER COMPANY, Rockford, Ill. Filed Mar. 29, 1912. Under ten-year proviso.



Particular description of goods.—Harness, Fly-Nets, Horse-Collars, and Riding-Saddles.

Claims use since July, 1894.

Ser. No. 62,493. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) E. MYERS LYE CO., St. Louis, Mo. Filed Mar. 29, 1912.



Particular description of goods.—Powdered Lye.
Claims use since June 16, 1900.

Ser. No. 62,495. (CLASS 5. ADHESIVES.) INTERNATIONAL PAPER CO., New York, N. Y. Filed Mar. 29, 1912.

BINDARENE

Particular description of goods.—Concentrated Waste Lyes of the Sulfite-Cellulose Manufacture.
Claims use since Nov. 20, 1911.

Ser. No. 62,505. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE ARTHUR CHEMICAL CO., New Haven, Conn. Filed Mar. 29, 1912.

Kismet

Particular description of goods.—Perfumes.
Claims use since Dec. 11, 1911.

Ser. No. 62,568. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) INTERSTATE COMMERCE CO., INC., Richmond, Va. Filed Apr. 1, 1912.



The picture being fanciful.
Particular description of goods.—Flavoring Extracts, Imitation Fruit Flavors, and Spices.
Claims use since Jan. 1, 1903.

Ser. No. 62,614. (CLASS 41. CANES, PARASOLS, AND UMBRELLAS.) EDWARD C. KUHN, Cincinnati, Ohio. Filed Apr. 3, 1912. Under ten-year proviso.

K

Particular description of goods.—Umbrellas and Parasols.
Claims use since the year 1870.

Ser. No. 62,618. (CLASS 39. CLOTHING.) THE M. WILBER DYER COMPANY, New York, N. Y. Filed Apr. 3, 1912.

Marcella

Particular description of goods.—Drawers, and Combination Drawers and Corset-Covers.
Claims use since January, 1908.

Ser. No. 62,631. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) HANNAH L. FRIEDLANDER, Pittsfield, Mass. Filed Apr. 3, 1912.

PUTIANO

Particular description of goods.—A Polishing Preparation for Use in Polishing Pianos, Automobiles, and Furniture.
Claims use since Mar. 2, 1912.

Ser. No. 62,636. (CLASS 37. PAPER AND STATIONERY.) N. SHURE CO., Chicago, Ill. Filed Apr. 4, 1912.

"Wonder"

Particular description of goods.—Fountain-Pens and Parts Therefor.
Claims use since Jan. 1, 1909.

Ser. No. 62,745. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) EVERETT & TREADWELL CO., Kingston, N. Y. Filed Apr. 8, 1912.

ASHOKAN

Particular description of goods.—Canned Vegetables and Canned Fruits.
Claims use since Mar. 26, 1912.

Ser. No. 62,746. (CLASS 27. HOROLOGICAL INSTRUMENTS.) THE NEW HAVEN CLOCK CO., New Haven, Conn. Filed Apr. 8, 1912.



No claim being made to the words "New Haven Clock Co."
Particular description of goods.—Clocks.
Claims use since Mar. 26, 1912.

Ser. No. 62,826. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) L. NUNZIATO SON & CO., San Francisco, Cal. Filed Apr. 11, 1912.

VESUVIO

Particular description of goods.—Alimentary Paste.
Claims use since July 1, 1887.

Ser. No. 62,925. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CALIFORNIA CANNERIES CO., San Francisco, Cal. Filed Apr. 16, 1912.

OPTIMO

Particular description of goods.—Canned Fruits and Canned Vegetables.
Claims use since Jan. 1, 1912.

Ser. No. 62,937. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE N. K. FAIRBANK COMPANY, Chicago, Ill. Filed Apr. 16, 1912.

DOMINION BRAND

Particular description of goods.—Cotton-Seed Oil.
Claims use since Mar. 23, 1912.

Ser. No. 62,946. (CLASS 48. MALT EXTRACTS AND LIQUORS.) GOTTFRIED KRUEGER BREWING COMPANY, Newark, N. J. Filed Apr. 17, 1912.



Particular description of goods.—Lager-Beer.
Claims use since 1873.

Ser. No. 62,957. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE BEST MANUFACTURING COMPANY, INC., San Leandro, Cal. Filed Apr. 17, 1912. Under ten-year proviso.

BEST

Particular description of goods.—Harvesters and Traction-Engines.
Claims use since 1886.

Ser. No. 62,985. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y. Filed Apr. 19, 1912.

PATRONA

Particular description of goods.—Biscuit.
Claims use since Feb. 10, 1912.

Ser. No. 63,004. (CLASS 48. MALT EXTRACTS AND LIQUORS.) MILTON L. EPPSTEIN, Fort Worth, Tex. Filed Apr. 19, 1912.

MANATOKA

Particular description of goods.—Beer.
Claims use since Mar. 1, 1912.

Ser. No. 63,117. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) GEO. BORGFELDT & CO., New York, N. Y. Filed Apr. 25, 1912.



Particular description of goods.—Dolls.
Claims use since about Apr. 15, 1912.

Ser. No. 63,158. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) HYGIENIC FIBRE COMPANY, New York, N. Y. Filed Apr. 26, 1912.

T.C.A.

Particular description of goods.—Absorbent Cotton.
Claims use since September, 1908.

Ser. No. 63,163. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) BAER BROS., New York, N. Y. Filed Apr. 26, 1912.

LAUROLIN

Particular description of goods.—Floor-Wax, Carriage-Paint, Wire-Screen Enamel, Floor-Enamel, Bath-Tub Enamel, Stovepipe-Enamel, Enamel, Bronze Powder, Varnish Stain, Bronzing Liquid, Gold Paint, Aluminum Paint, Furniture-Polish.
Claims use since Jan. 1, 1912.

Ser. No. 63,165. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) PACIFIC NOVELTY COMPANY, New York, N. Y. Filed Apr. 26, 1912.

"PLYO"

Particular description of goods.—Hair-Pins.
Claims use since Apr. 18, 1912.

Ser. No. 63,166. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) VIRGINIA SILK CO. INCORPORATED, South Richmond, Va. Filed Apr. 27, 1912.

La Comtesse

Particular description of goods.—Ribbons.
Claims use since Apr. 1, 1912.

Ser. No. 63,174. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TILLSON & CO. INC., Salem, Oreg. Filed Apr. 27, 1912.

Web Foot

Particular description of goods.—Evaporated Fruits.
Claims use since 1902.

Ser. No. 63,199. (CLASS 29. BROOMS, BRUSHES, AND DUSTERS.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Apr. 29, 1912.

N. Y.

Particular description of goods.—Camel's-Hair Brushes and Bristle Brushes.
Claims use since Mar. 1, 1908.

Ser. No. 63,228. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) REX IGNITION MANUFACTURING CO., New York, N. Y. Filed May 1, 1912.

REX

Particular description of goods.—Spark-Plugs.
Claims use since about June 1, 1910.

Ser. No. 63,232. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ASKYO-DELER-VANTAGE CO., INC., Baltimore, Md. Filed May 1, 1912.

VANTAGE

Particular description of goods.—Playing-Cards.
Claims use since Mar. 1, 1912.

Ser. No. 63,256. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE HARTFORD MACHINE SCREW COMPANY, Hartford, Conn. Filed May 2, 1912.

H. M. S.

Particular description of goods.—Spark-Plugs.
Claims use since Dec. 2, 1911.

Ser. No. 63,257. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE HARTFORD MACHINE SCREW COMPANY, Hartford, Conn. Filed May 2, 1912.



Particular description of goods.—Spark-Plugs.
Claims use since Dec. 2, 1911.

Ser. No. 63,316. (CLASS 39. CLOTHING.) THE W. H. DEAN COMPANY, New York, N. Y. Filed May 4, 1912.

W. H. Dean

The signature being a facsimile of the signature of William H. Dean.
Particular description of goods.—Men's, Women's, and Children's Aprons and Women's and Children's Dresses.
Claims use since January, 1906.

Ser. No. 63,320. (CLASS 15. OILS AND GREASES.) THE TEXAS COMPANY, Houston and Port Arthur, Tex., and New York, N. Y. Filed May 4, 1912.

TEXAMMO

Particular description of goods.—Lubricating-Oil.
Claims use since Dec. 20, 1911.

Ser. No. 63,360. (CLASS 15. OILS AND GREASES.) PENNSYLVANIA LUBRICATING COMPANY, Pittsburgh, Pa. Filed May 6, 1912.

"PALUBCO"

Particular description of goods.—Lubricating-Greases.
Claims use since about Mar. 9, 1912.

TRADE-MARKS

REGISTERED JUNE 4, 1912.

86,768. WOUND-HEALING REMEDIES. ACTIEN-GESELLSCHAFT FÜR ANILIN-FABRIKATION, Berlin, Germany.
Filed January 4, 1912. Serial No. 60,599. PUBLISHED MARCH 26, 1912.

86,769. PLAYER-PIANOS. CHARLES A. AHLSTROM, Jamestown, N. Y.
Filed October 27, 1911. Serial No. 59,883. PUBLISHED APRIL 2, 1912.

86,770. TURNBUCKLES. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 13, 1911. Serial No. 60,207. PUBLISHED JANUARY 30, 1912.

86,771. TURNBUCKLES. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 13, 1911. Serial No. 60,208. PUBLISHED JANUARY 30, 1912.

86,772. MEDICINAL TONICS. ANALGESOL CHEMICAL COMPANY, Jersey City and Passaic, N. J.
Filed December 20, 1911. Serial No. 60,496. PUBLISHED APRIL 2, 1912.

86,773. RAW AND PARTIALLY-PREPARED PITCH, TAR, AND ASPHALT. BARRETT MANUFACTURING COMPANY, New York, N. Y.
Filed August 23, 1911. Serial No. 58,344. PUBLISHED FEBRUARY 27, 1912.

86,774. DISINFECTANTS AND INSECTICIDES. BARRETT MANUFACTURING COMPANY, New York, N. Y.
Filed January 29, 1912. Serial No. 61,113. PUBLISHED APRIL 2, 1912.

86,775. DISINFECTANTS AND INSECTICIDES. BARRETT MANUFACTURING COMPANY, New York, N. Y.
Filed January 29, 1912. Serial No. 61,114. PUBLISHED APRIL 2, 1912.

86,776. DIETETIC PREPARATIONS COMPOSED OF MILK-SUGAR AND FORMALDEHYDE. BAUER & CIE., Berlin, Germany.
Filed March 26, 1910. Serial No. 48,684. PUBLISHED MARCH 19, 1912.

86,777. MALT PREPARATION. BISK BROS. BREWING CO., Chicago, Ill.
Filed June 24, 1911. Serial No. 57,282. PUBLISHED APRIL 2, 1912.

86,778. RUBBER BOOTS AND SHOES. BOSTON RUBBER SHOE COMPANY, Boston, Mass.
Filed February 1, 1911. Serial No. 54,232. PUBLISHED APRIL 2, 1912.

86,779. RUBBER BOOTS AND SHOES. BOSTON RUBBER SHOE COMPANY, Boston, Mass.
Filed February 1, 1911. Serial No. 54,233. PUBLISHED APRIL 2, 1912.

86,780. HEADACHE REMEDY. JOHN J. BRODBECK, New York, N. Y.
Filed January 31, 1912. Serial No. 61,168. PUBLISHED MARCH 26, 1912.

86,781. REMEDY FOR CERTAIN DISEASES. BROWN BROS., Baltimore, Md.
Filed December 14, 1911. Serial No. 60,220. PUBLISHED MARCH 26, 1912.

86,782. ADHESIVE CEMENT. CARMENTIUM SALES CO., Boston, Mass.
Filed February 2, 1912. Serial No. 61,221. PUBLISHED APRIL 2, 1912.

86,783. REMEDY FOR RHEUMATISM. J. RANDOLPH CANNON, Norfolk, Va.
Filed November 22, 1911. Serial No. 59,857. PUBLISHED MARCH 26, 1912.

86,784. WEATHER-STRIPS. CHAMBERLIN METAL WEATHER STRIP CO., Detroit, Mich.
Filed February 7, 1912. Serial No. 61,320. PUBLISHED APRIL 2, 1912.

86,785. FINGER-RINGS. FREDK. N. CHARRINGTON, London, England.
Filed December 1, 1911. Serial No. 60,035. PUBLISHED APRIL 2, 1912.

86,786. BAKING-POWDER. CHRISTIE-COLLAR MFG. CO., Muskegon, Mich.
Filed January 26, 1912. Serial No. 61,046. PUBLISHED MARCH 19, 1912.

86,787. TABLETS FOR TREATING DISEASES OF THE REPRODUCTIVE ORGANS. HEMAN C. CLEVELAND, Buffalo, N. Y.
Filed January 31, 1912. Serial No. 61,159. PUBLISHED MARCH 19, 1912.

86,788. CERTAIN CONSTRUCTION MATERIALS. W. H. COLEBROOK'S SONS, Syracuse, N. Y.
Filed April 11, 1911. Serial No. 55,675. PUBLISHED NOVEMBER 14, 1911.

86,789. BITUMEN. WINONA T. COLEMAN, Boston, Mass.
Filed May 31, 1911. Serial No. 56,709. PUBLISHED APRIL 2, 1912.

86,790. [WITHDRAWN.]

86,791. WATER-PURIFYING AND BOILER-CLEANING COMPOUND FOR STEAM-BOILERS. WILLIAM R. DU MOND, New York, N. Y.
Filed November 15, 1910. Serial No. 52,785. PUBLISHED MARCH 19, 1912.

86,792. ADDING AND CALCULATING MACHINES. THE DUPLEX ADDING MACHINE COMPANY, St. Louis, Mo.
Filed November 9, 1911. Serial No. 59,629. PUBLISHED APRIL 2, 1912.

86,793. METAL CEILINGS, SIDE WALLS, AND SKY-LIGHTS. THE EMPIRE IRON AND STEEL COMPANY, Niles, Ohio.
Filed May 11, 1911. Serial No. 56,299. PUBLISHED APRIL 2, 1912.

86,794. REMEDY FOR CERTAIN DISEASES. DR. ARTHUR ERHARD GESELLSCHAFT MIT BESCHRÄNKTER HAFTUNG, Berlin, Germany.
Filed October 18, 1911. Serial No. 59,216. PUBLISHED APRIL 2, 1912.

86,795. CERTAIN BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES. FEDERAL RUBBER MANUFACTURING CO., Cudahy, Wis.
Filed September 14, 1911. Serial No. 58,673. PUBLISHED APRIL 2, 1912.

86,796. PIPES, TUBES, AND CONDUITS. JAMES McDOUGALL LIMITED, Wednesbury, England.
Filed September 23, 1911. Serial No. 58,828. PUBLISHED APRIL 2, 1912.

86,797. HAIR-TONIC. LOUIS R. FIEBERT, New York, N. Y.
Filed January 25, 1912. Serial No. 61,017. PUBLISHED MARCH 26, 1912.

86,798. ANNULAR KNIVES. FORTUNA MACHINE CO., New York, N. Y.
Filed December 9, 1911. Serial No. 60,137. PUBLISHED APRIL 2, 1912.

86,799. HATS. LEO GALITZKI, Chicago, Ill.
Filed February 17, 1912. Serial No. 61,588. PUBLISHED APRIL 2, 1912.

86,800. LIQUID STOVE-POLISH. GILLAN & GILLAN, Passaic, N. J.
Filed January 2, 1912. Serial No. 60,540. PUBLISHED MARCH 26, 1912.

86,801. LEATHER LEGGINGS, CANVAS LEGGINGS, AND LEATHER SANDALS. THE HAGERSTOWN LEGGING COMPANY, Hagerstown, Md.
Filed January 15, 1912. Serial No. 60,829. PUBLISHED APRIL 2, 1912.

86,802. MAGNETO-ELECTRIC GENERATORS. HERCULES ELECTRIC COMPANY, Indianapolis, Ind.
Filed April 17, 1911. Serial No. 55,785. PUBLISHED APRIL 2, 1912.

86,803. LIME. A. C. HORN COMPANY, New York, N. Y.
Filed March 31, 1911. Serial No. 55,444. PUBLISHED APRIL 2, 1912.

86,804. PORTLAND CEMENT. JOSEPH H. HOUGHTON, New York, N. Y.
Filed February 2, 1912. Serial No. 61,227. PUBLISHED APRIL 2, 1912.

86,805. ANTISEPTIC AND GERMICIDAL OINTMENTS. THE INTERSTATE MEDICAL COMPANY, Kingsley, Iowa.
Filed January 17, 1910. Serial No. 47,199. PUBLISHED MARCH 19, 1912.

86,806. INNER-SHOE TIRE-CASINGS FOR AUTOMOBILE-TIRES. JACKSON-ENO RUBBER COMPANY, Los Angeles, Cal.
Filed February 14, 1912. Serial No. 61,461. PUBLISHED MARCH 26, 1912.

86,807. BAKING-POWDER. JAQUES MFG. CO., Chicago, Ill.
Filed November 20, 1911. Serial No. 59,816. PUBLISHED MARCH 26, 1912.

86,808. REMEDY FOR THE SCALP. OTTO B. JAENEL, Liberty, N. Y.
Filed September 26, 1910. Serial No. 51,956. PUBLISHED MARCH 19, 1912.

86,809. ROACH-POWDER. LOUIS A. KAAS, Newark, N. J.
Filed March 4, 1911. Serial No. 54,848. PUBLISHED APRIL 2, 1912.

86,810. LEATHER AND CANVAS SHOES. KIRK-DUNNING CO., INC., Philadelphia, Pa.
Filed January 18, 1912. Serial No. 60,892. PUBLISHED APRIL 2, 1912.

86,811. MEDICAL PREPARATION FOR OVER-PERSPIRING AND SORE FEET. MACK'S MEDICAL CO. INC., Boston, Mass.
Filed December 6, 1911. Serial No. 60,087. PUBLISHED MARCH 26, 1912.

86,812. POWDER FOR ABSORBING PERSPIRATION FOR CHILDREN. F. MANTOVANI, Milan, Italy.
Filed January 27, 1912. Serial No. 61,081. PUBLISHED MARCH 26, 1912.

86,813. OINTMENT FOR THE EXTERNAL APPLICATION OF IODIN. MENLEY & JAMES, LIMITED, London, England, and New York, N. Y.
Filed September 15, 1910. Serial No. 51,846. PUBLISHED MARCH 19, 1912.

86,814. PREPARATION FOR REGENERATING METALS. METALL-REGENO G. M. B. H., Munich, Germany.
Filed November 24, 1911. Serial No. 59,909. PUBLISHED APRIL 2, 1912.

86,815. CERTAIN PHARMACEUTICAL PREPARATIONS. THE W. L. MILNER & COMPANY, Toledo, Ohio.
Filed December 6, 1911. Serial No. 60,103. PUBLISHED APRIL 2, 1912.

86,816. CHILDREN'S, MISSES', AND LADIES' CLOTHING. ADOLPH L. MOCK, New York, N. Y.
Filed November 21, 1911. Serial No. 59,836. PUBLISHED APRIL 2, 1912.

86,817. CERTAIN PHARMACEUTICAL PREPARATIONS. ERNEST MOLWITZ, New York, N. Y.
Filed January 9, 1912. Serial No. 60,692. PUBLISHED MARCH 5, 1912.

86,818. MEDICINAL SYRUP. ANDREA DELLA MONICA, New York, N. Y.
Filed January 25, 1912. Serial No. 61,027. PUBLISHED APRIL 2, 1912.

86,819. MEDICINAL PREPARATION FOR CHAPPED SKIN, SUNBURN, AND HANGNAILS. JOHN T. MORTON, Lynchburg, Va.
Filed January 29, 1912. Serial No. 61,110. PUBLISHED MARCH 19, 1912.

86,820. CERTAIN HEATING, LIGHTING, AND VENTILATING APPARATUS. THE NAGEL-CHASE MANUFACTURING COMPANY, Chicago, Ill.
Filed April 18, 1910. Serial No. 49,184. PUBLISHED NOVEMBER 21, 1911.

86,821. MATTRESSES, BED-SPRINGS, COTS, AND FEATHER PILLOWS. NASHVILLE SPRING AND MATTRESS CO., Nashville, Tenn.
Filed February 15, 1912. Serial No. 61,532. PUBLISHED APRIL 2, 1912.

86,822. COFFEE, TEA, AND SPICES. THE NEWTON TEA & SPICE CO., Cincinnati, Ohio.
Filed November 10, 1911. Serial No. 59,644. PUBLISHED MARCH 26, 1912.

86,823. FACE-CREAM, FACE-POWDER, AND HAIR-TONIC. JULIA A. NORTON, Los Angeles, Cal.
Filed June 12, 1911. Serial No. 56,967. PUBLISHED MARCH 26, 1912.

86,824. CERTAIN CHEMICAL PREPARATION. OAKES MANUFACTURING COMPANY, Long Island City, N. Y., and Boston, Mass.
Filed January 31, 1912. Serial No. 61,148. PUBLISHED MARCH 19, 1912.

86,825. IRISH MALT WHISKY. THE OLD BUSHMILLS DISTILLERY CO., LTD., Bushmills and Belfast, Ireland.
Filed July 12, 1911. Serial No. 57,600. PUBLISHED FEBRUARY 20, 1912.

86,826. CERTAIN TOILET PREPARATIONS. THE OWL DRUG COMPANY, San Francisco, Cal.
Filed January 23, 1912. Serial No. 60,974. PUBLISHED APRIL 2, 1912.

86,827. READY-MIXED PAINT USED AS A PROTECTIVE COATING. PATTON PAINT COMPANY, Milwaukee, Wis.
Filed February 12, 1912. Serial No. 61,426. PUBLISHED APRIL 2, 1912.

86,828. CLEANSER AND POLISHER FOR WOOD. THE PROGRESS COMPANY, Chicago, Ill., assignor to Uno Manufacturing Company, Chicago, Ill., a Corporation of Illinois.
Filed December 30, 1910. Serial No. 53,543. PUBLISHED APRIL 2, 1912.

86,829. BELT-DRESSING. GEORGE RAHMANN, New York, N. Y.
Filed December 5, 1911. Serial No. 60,074. PUBLISHED MARCH 26, 1912.

86,830. PROPHYLACTIC OINTMENT FOR VENEREAL DISEASES. SELDEN I. RAINFORTH, New York, N. Y.
Filed August 18, 1911. Serial No. 58,259. PUBLISHED APRIL 2, 1912.

86,831. REMEDY FOR DIABETES. EMIL RATH, Frankfort-on-the-Main, Germany.
Filed October 23, 1911. Serial No. 59,291. PUBLISHED APRIL 2, 1912.

86,832. MATTRESSES. THE SANITARY BEDDING CO., New York, N. Y.
Filed December 16, 1911. Serial No. 60,295. PUBLISHED APRIL 2, 1912.

86,833. CERTAIN HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES. SILVER & COMPANY, New York, N. Y.
Filed May 18, 1905. Serial No. 5,979. PUBLISHED APRIL 2, 1912.

86,834. EMERY, EMERY-WHEELS, EMERY-CLOTH, AND EMERY-PAPER. SIRUBIN-WERKE G. M. B. H., Berlin, Germany.
Filed August 17, 1911. Serial No. 58,240. PUBLISHED APRIL 2, 1912.

86,835. PHOTOGRAPHIC CHEMICALS. SOCIÉTÉ ANONYME DES CELLULOSES PLANCHON, Lyon, France.
Filed February 7, 1912. Serial No. 61,331. PUBLISHED APRIL 2, 1912.

86,836. REMEDIES FOR CERTAIN AILMENTS. SOUTHWESTERN MEDICINE CO., Houston Heights, Tex.
Filed December 15, 1911. Serial No. 60,237. PUBLISHED APRIL 2, 1912.

86,837. MERCERIZED AND OTHERWISE-PROCESSED COTTON YARNS. HARDING TILTON & COMPANY, Boston, Mass.
Filed January 31, 1912. Serial No. 61,169. PUBLISHED APRIL 2, 1912.

86,838. CERTAIN DENTAL, MEDICAL, AND SURGICAL APPLIANCES. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y.
Filed February 6, 1912. Serial No. 61,296. PUBLISHED APRIL 2, 1912.

86,839. HAMES. U. S. HAME COMPANY, Buffalo, N. Y.
Filed January 19, 1912. Serial No. 60,913. PUBLISHED APRIL 2, 1912.

86,840. HAMES. U. S. HAME COMPANY, Buffalo, N. Y.
Filed January 19, 1912. Serial No. 60,915. PUBLISHED APRIL 2, 1912.

86,841. MEDICINAL SALVE. U-VA-JEE MANUFACTURING CO., Watertown, Wis.
Filed December 18, 1911. Serial No. 60,300. PUBLISHED MARCH 26, 1912.

86,842. BEER. VALENTIN BLATZ BREWING CO., Milwaukee, Wis.
Filed April 24, 1905. Serial No. 2,881. PUBLISHED APRIL 2, 1912.

86,843. COMBINATION KITCHEN-BOILERS AND GAS WATER-HEATERS. VICTOR COMBINATION KITCHEN BOILER COMPANY, Oakland, Cal.
Filed September 21, 1911. Serial No. 58,761. PUBLISHED APRIL 2, 1912.

86,844. MAGNESIA IN ALL FORMS USED IN MEDICINE AND PHARMACY. THE WASHINGTON CHEMICAL CO. LTD., Washington Station, England.
Filed January 22, 1912. Serial No. 60,967. PUBLISHED MARCH 19, 1912.

86,845. OUTERSHIRTS, UNDERSHIRTS, DRAWERS, TROUSERS, HOSIERY, AND OVERALLS. WATTS BROTHERS COMPANY, INC., Lynchburg, Va.
Filed October 2, 1911. Serial No. 58,960. PUBLISHED APRIL 2, 1912.

86,846. SHAMPOO-PASTE. HOMER L. WEBBER & COMPANY, Wenona, Ill.
Filed January 30, 1912. Serial No. 61,133. PUBLISHED MARCH 19, 1912.

86,847. HEADACHE-POWDERS. THE F. A. WECK CO., San Francisco, Cal.
Filed May 1, 1908. Serial No. 34,655. PUBLISHED NOVEMBER 28, 1911.

86,848. DYES. R. WEDEKIND & CO. G. M. B. H., Uerdingen-on-the-Rhine, Germany.
Filed January 4, 1912. Serial No. 60,622. PUBLISHED APRIL 2, 1912.

86,849. ALKALINE SOLUTION FOR THE TREATMENT OF CATARRH. WHEELER CHEMICAL CO. INC., Lynchburg, Va.
Filed December 13, 1911. Serial No. 60,215. PUBLISHED MARCH 26, 1912.

86,850. CERTAIN PHARMACEUTICAL PREPARATION. ALMOND J. WHITE, Chillicothe, Mo.
Filed January 9, 1912. Serial No. 60,699. PUBLISHED MARCH 26, 1912.

86,851. MOTOR OILS AND LUBRICANTS. THE WHITE & BAGLEY CO., Worcester, Mass.
Filed February 24, 1912. Serial No. 61,710. PUBLISHED APRIL 2, 1912.

86,852. TUBE AND FLUE EXPANDERS AND CUTTERS. GUSTAV WIEDEKE AND COMPANY, Dayton, Ohio.
Filed January 13, 1912. Serial No. 60,797. PUBLISHED APRIL 2, 1912.

86,853. SEWING-MACHINES, PARTS OF AND ATTACHMENTS THEREFOR. WILLCOX & GIBBS SEWING MACHINE CO., New York, N. Y.
Filed January 5, 1912. Serial No. 60,635. PUBLISHED APRIL 2, 1912.

86,854. SHAVING AND TOILET SOAPS. THE J. B. WILLIAMS COMPANY, Glastonbury, Conn.
Filed January 24, 1912. Serial No. 60,995. PUBLISHED MARCH 26, 1912.

86,855. HAIR-OILS AND UNGUENTS. ANNA K. ZIEMSSEN, Philadelphia, Pa.
Filed November 7, 1911. Serial No. 59,606. PUBLISHED APRIL 2, 1912.

86,856. BELTING, HOSE, AND MACHINERY PACKING. EDWARD Z. JEFFERSON, Pittsburgh, Pa.
Filed January 12, 1912. Serial No. 60,765. PUBLISHED MARCH 26, 1912.

86,857. COLD-WATER PAINT IN DRY POWDER FORM. LIBERTY PAINT COMPANY INC., Brooklyn, N. Y.
Filed February 26, 1912. Serial No. 61,735. PUBLISHED APRIL 2, 1912.

86,858. COLD-WATER CALCIMINE IN DRY POWDER FORM. LIBERTY PAINT COMPANY INC., Brooklyn, N. Y.
Filed February 26, 1912. Serial No. 61,737. PUBLISHED APRIL 2, 1912.

86,859. SEWING-MACHINES AND SEWING-MACHINE PARTS BELONGING THERETO. ALBERT G. MASON, Cleveland, Ohio.
Filed November 23, 1911. Serial No. 59,870. PUBLISHED APRIL 2, 1912.

86,860. LEATHER BLACKINGS AND DRESSINGS. F. MATT & CO., Newark, N. J.
Filed December 9, 1911. Serial No. 60,140. PUBLISHED MARCH 26, 1912.

TRADE-MARK CANCELED.

82,251. ORANGES, GRAPE-FRUIT, AND TANGERINES. MUNROE & STEVENS, Daytona, Fla.
Registered June 13, 1911. Canceled May 13, 1912.

LABELS

REGISTERED JUNE 4, 1912.

16,365.—*Title:* "COMMERCIAL NOTE." (For Cigars.) A. C. HENSCHEL & Co., Chicago, Ill. Filed May 13, 1912.

16,366.—*Title:* "ALGHIERI'S SOUP." (For Soup.) ALGHIERI CHEF, INC., Dover, Del., and Cambridge, Mass. Filed October 20, 1911.

16,367.—*Title:* "NORDANA." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed May 13, 1912.

16,368.—*Title:* "JEFFERSON. (For Cigars.) MAX. GROSSMAN, Peoria, Ill. Filed May 18, 1912.

16,369.—*Title:* "KETTERING'S WORLDS CATARRH REMEDY." (For a Remedy for Catarrh.) HENRY H. KETTERING, Pittsburgh, Pa. Filed March 15, 1912.

16,370.—*Title:* "UNCLE HIRAM'S BRIGHTEN-ALL." (For Brighteners and Polishes.) NEW METHOD VARNISH COMPANY, Elmira, N. Y. Filed April 15, 1912.

16,371.—*Title:* "FORT LEWIS CLUB." (For Whisky.) HARRY C. LEWIS, Cleveland, Ohio. Filed May 17, 1912.

16,372.—*Title:* "ALBEM-OIL." (For Oil for Type-Writers.) WILLIAM G. STEVENSON, Philadelphia, Pa. Filed April 27, 1912.

PRINTS

REGISTERED JUNE 4, 1912.

3,043.—*Title:* "ARROW COLLARS AND SHIRTS." (For Collars and Shirts.) CLUETT, PEABODY & COMPANY, Troy, N. Y. Filed May 13, 1912.

3,044.—*Title:* "EVERYMAN." (For Men's Garters.) GEORGE FROST COMPANY, Boston, Mass. Filed April 29, 1912.

3,045.—*Title:* "THE WUNDER WAIST-BAND." (For Trousers.) MARX & HAAS CLOTHING CO., St. Louis, Mo. Filed May 15, 1912.

3,046.—*Title:* "GOLD DUST." (For a Cleansing Preparation.) THE TABLET AND TICKET CO., Chicago, Ill.; New York, N. Y., and San Francisco, Cal. Filed April 1, 1912.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE TURNER.

Decided April 26, 1912.

APPLICATION—PROSECUTION—ABANDONMENT.

Where at the end of the year following a proper final rejection the applicant filed an amendment complying with certain formal requirements made by the Examiner and a request that the final rejection be waived, but without any sufficient showing why such action should be taken, *Held* that the application is abandoned.

ON PETITION.

DYNAMO-ELECTRIC MACHINE.

Mr. William Henry Taylor and *Mr. Frank S. Appleman* for the applicant.

MOORE, *Commissioner:*

This is a petition from the action of the Primary Examiner holding the above-entitled application abandoned.

On February 3, 1910, the Examiner finally rejected all of the claims, on the ground that they were based on an inoperative structure. He notified the applicant also that before an appeal could be forwarded all formal matters must receive attention. On February 1, 1911, an amendment was filed containing a new sheet of drawings, an amendment to the specification, and a request that the Examiner waive his final rejection—

in view of the difficulties encountered in working out the problems in an apparatus of this character.

On April 5, 1911, the Examiner refused to enter this amendment, on the ground that the case was under final rejection and that the application was abandoned for lack of sufficient prosecution. The present petition was filed March 16, 1912.

If the amendment did not affect the merits of the application, but merely presented the invention more clearly, the Examiner might have entered the amendment under the ruling in *ex parte Loppenthin*, (122 O. G., 1723;) but the amendment was clearly not such as to save the case from abandonment. The final rejection appears to have been proper in view of the record of the case, and applicant does not contend that it was premature. The rule requires that before an appeal can be taken all preliminary and intermediate questions relating to matters not affecting the merits must be settled; but this does not extend the time within which to take the appeal. No sufficient reasons were given in connection with the amendment of February 2, 1911, for reopening the case.

The case is distinguished from *ex parte Wynne*, (176 O. G., 1070,) cited by the applicant, in that in that case no final rejection had been entered. In fact, the claims had never been rejected by the Examiner, but he had insisted upon a demonstration of the operativeness of the process.

The Examiner's holding that this application was abandoned is clearly right, and the petition is denied.

EX PARTE SIMS.

Decided April 29, 1912.

1. TRADE-MARKS—GOODS OF THE SAME DESCRIPTIVE PROPERTIES—CANNED FISH AND CANNED SALMON.

Canned fish and canned salmon *Held* to be goods of the same descriptive properties.

2. SAME—ANTICIPATION.

A trade-mark consisting of the words "Harbor Light" in association with a marine scene the prominent feature of which is the representation of a lighthouse *Held* properly refused registration in view of the prior registration of marks consisting, respectively, of the word "Harbor" and the words "Light House" associated with the picture of a lighthouse applied to goods of the same descriptive properties.

ON APPEAL.

TRADE-MARK FOR CANNED SALMON.

Mr. H. A. Seymour for the applicant.

MOORE, *Commissioner:*

This is an appeal from the refusal of the Examiner of Trade-Marks to register as a trade-mark for canned salmon a mark consisting of the words "Harbor Light" in association with a marine scene the prominent feature of which is the representation of a lighthouse.

The refusal to register was based on the following registrations: Jed Frye & Co., January 27, 1903, No. 39,672; Rosenstein Brothers, December 22, 1903, No. 41,718; Jed. Frye & Co., December 24, 1907, No. 66,679; Rosenstein Brothers Inc., January 21, 1908, No. 67,195.

The mark of Jed Frye & Co. consists of the word "Harbor." The goods upon which it is used are canned fish. The mark of Rosenstein Bros. consists of the words "Light House" and the picture of a lighthouse. The goods are stated to be dried, pickled, or otherwise-preserved fish.

It is contended that applicant's goods are not of the same descriptive properties as that of the registrants and that his mark does not so nearly resemble theirs that their simultaneous use would be liable to cause confusion.

Under the rulings of the Court of Appeals of the District of Columbia canned fish and canned salmon are goods of the same descriptive properties. In the case of *John Braadland, Ltd.*, (174 O. G., 1029,) in considering whether a mark consisting of the picture of a bear and the words "Teddy Bear Brand" was registrable as a trade-mark for sardines, the court said:

> Registration was refused in view of certain existing registered marks, the most prominent one which will be sufficient for this case, being that of the Northwestern Fisheries Company. Its mark consists of the picture of a bear having one foot resting upon a fish, the same being surrounded by ornamental scrolls and surmounted by the words "Pioneer Fishery." It appears that the latter mark has only been used on canned salmon, but the registration includes all kinds of canned fish. The mark could therefore at any time in the future be based upon canned sardines. The fact that the mark has not been used on sardines will not prohibit the owner from so using it at any time. Non-use will not deprive the owner of the protection of the courts.

The fact that applicant's place of business is on the Pacific slope, while the registrants are located in New York, is believed to be immaterial.

In my opinion the Examiner of Trade-Marks was right in holding that applicant's mark so nearly resembles that of the registrants as to be likely to cause confusion in the mind of the public. As stated above, the mark of Jed Frye & Co. consists of the word "Harbor." Obviously the words "Harbor Light" could not be registered in view of the prior registration of the word "Harbor," and the fact that these words are associated with a marine scene including the representation of a lighthouse does not obviate the liability of confusion. The mark of Rosenstein Bros. includes the representation of a lighthouse and the words "Light House," and since applicant's mark includes the representation of a lighthouse the liability of confusion is obvious.

The decision of the Examiner of Trade-Marks is affirmed.

EX PARTE GOLD.

Decided December 13, 1911.

PATENTABILITY—PROCESS OF HEATING BY STEAM.

Claims for a process of heating by steam *Held* to state nothing more than the function of the apparatus shown and to be anticipated by the prior art.

APPEAL from Examiners-in-Chief.

ART OF HEATING BY STEAM.

Mr. Otto R. Barnett for the applicant.

BILLINGS, *First Assistant Commissioner:*

This is an appeal from the decision of the Examiners-in-Chief affirming the action of the Primary Examiner in finally rejecting the claims of this application, sixteen in number, of which the following set forth the invention sufficiently for the purpose of this decision:

> 1. The improvement in the art of heating by steam which consists in providing a supply of steam at high pressure, providing in the apartment to be heated an inclosed body of steam in free communication with a zone of low pressure, which body receives steam from said supply, utilising the thermostatic properties of said body of steam to control the inflow thereto from said supply, producing at will a higher temperature in said body, by neutralising said thermostatic control of the inflow and closing said free communication with a zone of low pressure.
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> 3. The improvement in the art of heating by steam which consists in providing a supply of steam at high pressure, providing in the apartment to be heated an inclosed body of steam taken from said supply and which has a freely open outlet, utilising the thermostatic properties of the steam adjacent said outlet to control the inflow of steam to said inclosed body, whereby said body of steam is maintained at substantially atmospheric pressure, and maintaining said body at a higher temperature by, at will, eliminating or varying the conditions of said thermostatic control of inflow, so as to maintain said body, either at a pressure substantially equal to that of the supply or at any pressure intermediate atmospheric pressure and said supply pressure.
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> 7. The improvement in the art of heating by steam which consists in providing a supply of steam at high pressure, providing in the apartment to be heated an inclosed body of steam which receives steam from said supply and which has an outlet, utilising the thermostatic properties of steam from said body in a region beyond said outlet to control the inflow to said body, whereby said inclosed body is maintained at substantially atmospheric pressure, and increasing the temperature of said body by excluding steam from said region beyond said outlet, thereby eliminating thermostatic control of said inflow, and utilising the steam near said outlet to close the same.
>
> 12. The process of maintaining a body of steam, in a radiating system which has an outlet to the atmosphere, at supply pipe pressure, atmospheric pressure or any intermediate pressure at will which consists of providing a source of supply of high pressure steam in communication with said system, utilising the temperature of the steam in said system to control the inflow from said supply to said system and causing said control to be neutralized and said outlets to be closed under various predeterminable conditions of temperature and pressure in said system.

The references cited are as follows: Weber, May 14, 1889, No. 403,162; Gold, May 30, 1893, No. 498,545; Mason, December 24, 1895, No. 551,778; Gold, May 5, 1908, No. 886,969. British: Still *et al.*, April 21, 1904, No. 9,209.

The Examiners-in-Chief also called attention to the following references: E. E. Gold, November 7, 1893, No. 508,134; E. E. Gold, July 3, 1894, No. 522,253; Martin, October 25, 1887, No. 371,959.

The claims were first rejected on the following grounds: (1) that the question of their patentability to this applicant is *res adjudicata* by reason of a decision adverse to him in interference No. 27,640, entitled *Gold* v. *Gold;* (2) that they define nothing more than the function of the particular apparatus shown; (3) that they state nothing requiring invention over the prior art.

On appeal this action of the Examiner was affirmed by the Examiners-in-Chief, except as to the rejection of claims 3, 5, 11, 12, 13, and 15, on the ground of *res adjudicata*. After appeal was taken to the Commissioner the Examiner obtained jurisdiction of the case for further consideration in connection with the patent to Weber in view of a demonstration of an apparatus constructed in accordance with that patent, which had been witnessed by him. He filed in the case an affidavit as to the test and held that all the claims were anticipated by this patent. Upon further appeal the Examiners-in-Chief affirmed this action, and the case is now before me upon all the grounds of rejection.

The claims cover an alleged process of heating by steam, specifically heating the cars of a railway-train, in which the steam may be supplied to the radiators at atmospheric pressure, at train-pipe pressure, or at any predetermined pressure therebetween.

The patent to Weber discloses a steam trap and radiator in which both the inlet and outlet valves

are under the control of a single thermostat placed between the radiator and the outlet-valve so that the water of condensation and the steam passing from the radiator come in contact therewith. The thermostat is adjustably connected to the valves, whereby the extent of its action thereupon can be regulated.

In the brief on this appeal reference is made to the fact that appellant was not represented at the test referred to in the affidavit of the Primary Examiner. This is, however, immaterial. The affidavit does not show by whom the test was made or in what proceeding the operation of the Weber device had been called in question. It is sufficient to say that the proceeding in which the test was made was not an *inter partes* proceeding in which the present appellant was involved and that therefore the doctrine laid down in *Mark* v. *Greenawalt* (138 O. G., 965; 32 App. D. C., 253) does not here apply. The Examiner has, however, stated under oath the facts within his knowledge, (Rule 66,) and appellant could, if he had so desired, have filed rebutting affidavits based on tests by him. (Rule 76.)

The test witnessed by the Examiner shows, as appears from the affidavit, that the apparatus of the Weber patent can be adjusted to carry out the process set out in the appealed claims—that is to say, convertibly. Appellant does not seriously contend that this is not true as to operating the device at atmospheric pressure or at train-pipe pressure; but he argues that the Weber device cannot be adjusted to automatically establish and maintain any desired intermediate pressure under all conditions. In other words, he contends that if the Weber device could be adjusted to supply steam to the radiators so as to maintain a temperature of 70° in the car, for example, when the outside temperature was 40° it would not do so if the outside temperature should drop to zero and that in order to maintain the desired temperature in the car it would then be necessary to further adjust the apparatus.

The proposition upon which appellant bases this argument overlooks the fact that the closing of the outlet-valve, which is necessary in order to get any pressure in the radiators higher than atmospheric and consequently a higher temperature than that corresponding to steam at atmospheric pressure, is not an absolute closure, but merely such as will prevent the escape of the steam, while allowing the escape of the water of condensation, the water acting as a seal against the passage of the steam. (See appellant's argument before the Examiners-in-Chief filed April 12, 1911, p. 9, and appellant's Patent No. 771,628, lines 10 to 19, p. 3.) Furthermore, it is not necessary that the—

> automatic inlet valve must be operated absolutely independent of the outlet valve if the intermediate pressure is to be maintained.

The inlet and outlet orifices may be exceedingly small in most installations. (See patent to Tudor, No. 318,401, p. 2, and *Modern Plumbing, Steam and Hot Water Heating*, by Lawler, p. 282.) Consequently but slight movements of the supply and exhaust valves of the Weber device produce very material effects. As pointed out above, the closing of the outlet-valve is not an absolute closing, but that necessary to prevent the escape of steam. Furthermore, the exhaust-valve of the Weber patent is provided with a soft seating portion. Consequently there may be additional movement of the supply-valve after the exhaust-valve has reached its closed position. Moreover, any tendency to rise or fall in the radiator-pressure is counteracted, at least in part, by a corresponding increase or decrease in the rate of condensation, since the temperature varies with the pressure, and the higher the temperature the greater the rate of condensation. Not only this, but an increase in radiator-pressure lessens the inflow of steam and increases the rate of discharge of the water of condensation, allowing more steam to come in contact with the thermostat, whereby the valves are moved nearer their seats.

Not only is the device of the Weber patent capable of being operated convertibly, but, as pointed out in the Examiner's statement of April 10, 1911, such convertibility of action is an inherent characteristic thereof. This being true, the claims were properly rejected on this patent.

The references of record show car-heating systems in which the steam is supplied to the radiators at atmospheric pressure, systems in which it is supplied at train-pipe pressure, and systems in which it is supplied at a predetermined intermediate pressure. Each of these methods of heating is operative by itself and would be unaffected by the fact that in a suitable apparatus one or both of the other methods could be also carried out. They have therefore no coöperative relation, and the appealed claims cover mere aggregations. Whether it required invention to devise an apparatus in which these three methods could be carried out is not here in question; but it is evident that as a process no invention was involved in bringing together two or all three of the independent methods of operation. (*In re Harris*, 170 O. G., 484; 37 App. D. C.,?.)

The apparatus disclosed is capable of being operated in any one of three ways, and the appealed claims are alleged methods for changing at will from one of such modes of operation to one or the other or both of the remaining modes; but this adjustment of the device is not a process, but merely operating it in the manner in which it was designed to be operated.

As to the question of *res adjudicata* it is perfectly apparent that if the claims state merely the adjusting of the device so as to operate it in the way in which it was designed to be operated they are not separably patentable from the machine itself—in other words, that they are but different statements of the invention defined by the apparatus claims. It therefore follows that the judgment in the prior interference is a bar to the allowance of any claims the alleged method of which could be carried out by the apparatus in issue in that interference.

The decision of the Examiners-in-Chief is affirmed.

BURTON MEDICINE CO. *v.* UNITED DRUG CO.

Decided May 10, 1912.

TRADE-MARKS—OPPOSITION—CROSS-BILL NOT PERMISSIBLE.

Where an opposition to the registration of a trade-mark is filed by a registrant, *Held* that a cross-bill asking for the cancelation of the opposer's registration will not be admitted.

APPEAL from Examiner of Interferences.

TRADE-MARK FOR SHAMPOO-PASTE, HAIR-TONIC, ETC.

Messrs. Small & Small and *Messrs. McReynolds & Hay* for the Burton Medicine Co.

Mr. Edw. C. Davidson and *Messrs. Emery, Booth, Janney & Varney* for the United Drug Co.

TENNANT, *Assistant Commissioner:*

This is an appeal by the United Drug Co. from the refusal of the Examiner of Interferences to admit a cross-bill filed by it which seeks the cancelation of a registration of a trade-mark to the Burton Medicine Co.

The present proceeding is an opposition instituted by the Burton Medicine Co. to the registration of the word "Rexall" as a trade-mark for certain pharmaceutical preparations, application for which has been made by the United Drug Co., and the opposition refers to a trade-mark "Rex Oil," owned by the Burton Medicine Co., which is registered in this Office. It is this registration that the United Drug Co. seeks to have canceled by the proposed cross-bill.

It is urged that there is nothing in the statutes authorizing the institution of opposition and cancelation proceedings which necessitates the consideration of these questions in separate proceedings and that the rules of the Office which deal at all with the procedure treat them together and indicate that the usual equity practice should be followed as far as possible in such proceedings.

Assuming, without deciding, that there is nothing in the statute or rules to prohibit a consideration of an opposition to registration and an application for cancelation of a registration of the opposer in a single proceeding, I am, nevertheless, of the opinion that the issue raised by the application for cancelation is a distinct issue and not, in this instance at least, germane to the subject-matter of the proceeding in opposition to the registration of the trade-mark by the United Drug Co.

The filing of a cross-bill is not permitted in equity practice unless it relates to the same subject-matter as the original bill:

> A cross bill may and usually does introduce new facts and new issues not disclosed by the original bill; but such new facts and issues must relate to the subject matter of the original, and must be so closely connected therewith as to constitute the cross-bill a mere auxiliary of the original or a dependency thereon. It must not set up matter which is not germane to the matter of the original bill. Questions which are entirely distinct from those presented in the original bill cannot be introduced by a cross-bill, although such questions be connected with the subject-matter of the original bill; nor can a new subject-matter be introduced, although the controversy with relation thereto and that with relation to the subject-matter of the original bill arise out of the same transaction. A cross bill will of course not lie to litigate a question open only to a direct proceeding for the purpose involved. (16 Cyc., 331.)

In the case of *Stonometz Printers' Machinery Co.* v. *Brown Folding-Mach. Co.* (46 Fed. Rep., 851) suit was brought under section 4918 of the Revised Statutes alleging interference between the complainant's and the defendant's patents and also alleging infringement of the complainant's patent by the defendant. The defendant sought to file a cross-bill alleging infringement of the defendant's patent by the complainant. In discussing this question the court said:

> A cross-bill *ex vi terminorum* implies a bill brought by a defendant against the plaintiff in the same suit, or against other defendants in the same suit, or against both, touching the matter in question in the original bill. (Story, Eq. Pl., sec. 389.) It is brought either to obtain a discovery of facts in aid of the defense to the original bill, or to obtain full and complete relief to all parties as to the matter charged in the original bill. It should not introduce new and distinct matters not embraced in the original bill, as they cannot be properly examined in that suit, but constitute the subject-matter of an original independent suit. The cross-bill is auxiliary to the proceeding in the original suit, and a dependency upon it. It is said by Lord Hardwicke that both the original and cross-bill constitute but one suit, so intimately are they connected together. (*Ayres* v. *Carver*, 17 How., 591; *Cross* v. *De Valle*, 1 Wall., 1.) It should not introduce any distinct matter. It is auxiliary to the original suit, and a graft and dependency upon it. If its purpose be different from this, it is not a cross-bill, though it may have a connection with the same general subject.
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> * * * * * * *
>
> The cross-bill does not seek to defeat plaintiff's causes of action, and the matters alleged in it are not essential to the complete disposition of plaintiff's case, or of defendant's rights in relation to the plaintiff's causes of action.

The object of the opposition filed by the Burton Medicine Co., which corresponds to the original bill, in the present instance is to prevent the registration of a certain mark to the United Drug Co.

The object of the proposed cross-bill is to secure cancelation of the registration of a different mark, ownership of which is claimed by the Burton Medicine Company.

It is true that the opposition mentions the registration which it is sought to cancel by the cross-bill; but the rights attacked by the original and the cross bills are wholly distinct, and it might well be that the opposition could be sustained in the absence of the registration which it is sought to cancel or that the registration could be canceled even though the opposition to the registration of the United Drug Company were sustained.

It must be held, therefore, that the question raised by the proposed cross-bill is not germane to the issue raised by the opposition proceeding. The cases cited by appellant in which cross-bills have been permitted have been duly considered; but it is believed that they bear less analogy to the present case than that above cited.

The testimony in this case on the issue raised by the opposition has all been taken, and to permit the filing of the cross-bill would inject a new issue into the proceeding, which would in all probability require a reopening of the case for the taking of further testimony. This is an additional reason for denying the petition in the present instance.

The decision of the Examiner of Interferences is believed to be right and is affirmed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

MCMANUS *v.* HAMMER.

Decided February 5, 1912.

INTERFERENCE—PRIORITY.

Evidence reviewed and McM. *Held* to be the "real inventor," and therefore entitled to the award of priority.

Mr. W. R. Spooner for the appellant.

Mr. H. M. Sterling for the appellee.

ROBB, *J.:*

This is an appeal from a decision of an Assistant Commissioner of Patents in an interference proceeding awarding priority of invention to Hammer, the senior party and patentee. The patent to Hammer was inadvertently issued as the McManus application was on file at the time.

The invention is a comparatively simple one, easily understood, and relates to an improved bottle and jar closing device. Part of the claims cover a dished disk which is nothing more than a piece of paper or cardboard cut round to fit snugly into the top of the bottle-neck, and a so-called rabbeted portion of the bottle, which expression, reduced to common phrase, means that the inside top portion of the neck is cut out sufficiently to admit the disk, so that when the bottle-cap is screwed down the disk will be about even with the top of the bottle; in other words, a little shoulder is made in the inside of the neck, upon which this disk rests. Another feature of some of these counts relates to the form of the top of the bottle-cap which is required to be depressed so that when the cap is screwed down the depression will come in contact with the dished disk and, of course, force it tightly into place. The other set of counts relate particularly to the cap and the manner of applying it to the bottle. Under these counts the cap is required to have a plurality of inclined notches at its lower edge, which in practice simply means that the lower edge of the cap is bent inward in a plurality of places so that the projections thereby produced will engage the separated threads which these counts require to be formed on the exterior of the bottle and which threads run slantingly downward to a shoulder. The counts of the issue are six in number but counts 1, 2, and 4 fully illustrate the different features of the invention and are here reproduced:

> 1. A bottle or jar having a rabbeted portion, a dished disk adapted to fit said rabbeted portion, and a cap adapted to flatten said dished disk to increase its diameter.
>
> 2. A bottle or jar having a rabbeted portion, a dished disk adapted to fit into said rabbeted portion, and a cap having a depression in its end adapted to flatten the dished disk to increase its diameter.
>
> 4. A bottle or jar provided with an annular shoulder and a plurality of superposed separated threads connecting at their lower ends with said shoulder, in combination with a cap having one or more impunched projections at its lower edge to engage said threads, said projections being provided with inclined upper walls having an annular arrangement with relation to the lower edge of the cap conforming to the angular arrangement of the threads with relation to the shoulder, whereby stops are provided at the junction of the threads with the shoulder to limit the turning movement of the cap, the relative angular arrangement of the parts being such as to adapt the cap to be screwed down into close contact with the shoulder so that the inclined upper walls of the projections and basal edges of the inner walls thereof will respectively bear against the threads and shoulder and exert resisting pressures to prevent injury to the projections when the cap is screwed on.

The real question involved is that of originality. Although we have carefully examined the entire record, which is needlessly long and involved, we will content ourselves with a statement of what we conceive to be the material facts. McManus, prior to the events culminating in this controversy, had for some time interested himself in bottle-closing devices. On January 27, 1904, he applied for a patent on a rim with angular grooves and a cap to fit the grooves. This application was allowed June 14, 1904, as Patent No. 762,745. His next application was filed May 24, 1904, and was granted as Patent No. 772,250, on October 11th following. On June 3, 1905, he filed an application on a device similar to the one in issue, the essential differences being that the separated threads ended in a horizontal groove, instead of a shoulder, and the inside of the neck was not rabbeted. The notches in the lower part of the cap in the earlier device were straight instead of inclined—a mechanical detail. While Hammer applied for a patent other than the one in issue on May 22, 1905—which, so far as the record discloses, was never granted—it is clearly apparent that McManus possessed far greater knowledge of the art than he. They were both young men and had been acquainted in Baltimore, Md., for some time.

At the end of May, 1904, McManus, who had been working in Philadelphia, went to New York and engaged board and room with a Mr. and Mrs. Furness. The evidence is clear and convincing that he was then busily engaged in developing his ideas relative to bottle-closing devices. McManus testifies that after he had applied for his second patent he conceived the invention in issue, and that in June of 1904 he made a drawing or sketch of his invention; that he took this drawing to the Demuth Glass Factory in Brooklyn and exhibited it to the foreman, a Mr. Dries, who referred witness to a Mr. Shields, since deceased, the mold-maker of the factory and to whom McManus showed his drawing. McManus also left with Mr. Shields a model which he had filed out of a bottle-neck or piece of wood. Mr. Shields was unable to make a bottle embodying the invention. This drawing and model were not preserved by the factory so that McManus was unable to produce them in evidence. While Mr. Furness subsequently became financially interested in stock companies which McManus organized to exploit his inventions, his testimony and that of his wife being consistent and evidently given in perfect good faith is entitled to consideration. Soon after McManus had taken a room there, at the end of May, 1904, Mr. Furness interviewed him for the purpose of ascertaining his business. McManus, according to the witness, informed him that he was an inventor of bottle-caps and thereupon submitted "various samples of caps in brass and tin." Witness becoming interested, McManus exhibited to him a crude drawing of an invention which he said he had just made. McManus explained this invention. The witness states—

> that the groove or ribs on the outside of the top of the bottle was run down to the shoulder and the notch in the cap was beveled slightly so that he (McManus) stated that the bevel in the notch would fit the groove on the outside of the bottle. And at the top of the bottle he was to have a little groove and was to have a piece of paper or cardboard cut full so that it would belly up so that when the cap was put on it would force the paper tight against the sides of the bottle and make a complete seal as he termed it, and the cap was dented so that it would catch this washer in this ridge at the top of the neck of the bottle.

This description, it will be noted, fairly describes the invention. It is suggested by one of the tribunals of the Patent Office that this witness failed to locate the projections *at the lower edge* of the bottle-cap. It would be too great a reflection upon

the intelligence of McManus to assume that he would have placed them anywhere else. The failure of this witness to couch his description in technical terms adds to rather than detracts from the weight of his testimony. It is apparent that he fully understood the result sought to be accomplished and the manner in which it was to be attained. Mrs. Furness also testified to having seen the drawing referred to by her husband and as to her recollection of the description which McManus gave her of the features of his invention. The testimony of these witnesses is important as Hammer admitted in his cross-examination, (XQs. 1371 to 1380,) that he had no conception of any feature of the invention until some time in September, 1904, which was after he had gone to New York and had commenced to room with McManus.

McManus had a wooden model made (McManus Exhibit No. 4), in the early spring of 1905 by Edward Collins, a pattern and model maker of Brooklyn. This model shows the separated threads and is rabbeted on the inside of the neck. Hammer testified that this model—

showed an *annular* rib or shoulder with threads going into the shoulder on an incline; it was also provided with a rabbeted portion in its top.

The drawings, Hammer further testified, showed—

a cap having a depression in its top with inclined notches at its basal edge, also a dished disk to fit into the rabbeted portion.

Hammer testifies positively that it was he who had this model made. Unfortunately for Mr. Hammer, however, Mr. Collins—an entirely disinterested witness—disclaims ever having seen him, and is positive that the model was made for McManus from a sketch furnished by him; that the witness knew no one else in the transaction. Further corroboration is found in the receipted bill which McManus produced and which was identified by Mr. Collins. Mr. Collins, under cross-examination, was asked how he was able to remember this particular model, and replied:

He (McManus) had some patent wafer that he put on top, that is why it impresses itself on my memory.

He was further asked, under cross-examination, whether at the time this model was made he came in contact with Mr. Hammer, who was thereupon pointed out to him. The witness did not remember ever having seen Hammer. The Collins model was also exhibited to Mr. Shields who, however, was unable to make a bottle like it.

Some time in June of 1905 McManus and Hammer were in Baltimore and, at the latter's suggestion, interviewed a Mr. Donahue, a manufacturer of models for glass. Donahue testifies that they appeared as representatives of the McManus Manufacturing Company. A tool was procured of Mr. Donahue which McManus took to the Nivision Glass Factory in Baltimore, where an imperfect bottle was produced. This tool McManus says he changed, or caused to be changed, so that a perfect bottle embodying the invention was produced. Hammer, according to the testimony of McManus, had then returned to New York. The Patent Office was not satisfied that a perfect bottle was produced at this time for the reason that Donahue, testifying concerning the tool which had been in Hammer's possession, said it would not produce such a bottle. But the man who produced the bottle and who is a disinterested witness, testified positively concerning it, and his testimony fully corroborated McManus. Mr. Jackson, secretary and one of the directors of the Nivision Company, testified to the making of the first bottle, which is an exhibit in the case; that the bulge in the tool was changed so as to "put a small edge in the inside of the rim of the bottle neck;" that the bottle then produced was perfect, having outside threads that ran down to a shoulder; that the mold from which this bottle was made caused McManus's name to be impressed upon the bottle. The witness further stated that his work was all done at the direction of McManus and that he had never seen Hammer until the morning of the day he testified. Mrs. Furness, in her testimony, given before this witness was called, mentioned seeing a bottle not long after McManus returned from Baltimore with McManus's name on it; that this feature particularly attracted her attention. Mr. Donahue, called by Hammer remembers that he made such a name-plate for the mold in question. Mrs. Furness testified that this bottle finally disappeared, and it is the contention of McManus that Hammer was responsible for its disappearance. The description which Mrs. Furness gives of this bottle tends to corroborate the testimony of Mr. Jackson and of McManus relating thereto.

McManus further testifies that it was finally determined to form a company, composed of McManus, Hammer, Furness, and a Mr. Specht, to exploit this particular invention; that it was agreed that McManus should apply for a patent and assign his invention to Hammer in trust for the interested parties; that in accordance with this understanding and agreement McManus, accompanied by Hammer, on or about July 7, 1905, went to the New York office of Evans, Wilkins & Co., a corporation organized under the laws of Virginia and having its principal place of business in Washington, D. C.; that under McManus's direction, Hammer having left the office, the application and drawings were prepared, and that McManus then executed the application. That such an agreement was entered into and that what was done by McManus upon this occasion looking to the filing of the application was in pursuance of that agreement, is testified to by Mr. Furness and by Mr. Spooner, an attorney who was consulted and who represents McManus in this proceeding. Without reviewing the testimony of either Mr. Furness or Mr. Spooner in reference to this feature of the case, we deem it sufficient to state that we find the fact to be that such an arrangement was entered into as testified to by them.

Evans, Wilkins & Co. had previously represented McManus in patent matters. The application which McManus says he executed in their New York office on the date mentioned was not filed. Subsequently, on July 28, 1905, the same application was executed by Hammer in the Washington office of the Evans Company and filed in the Patent Office. McManus

contends he knew nothing of this. We will advert to this question later. It appears that some time in February, 1906, Mr. Spooner came to Washington for the purpose of investigating the McManus applications and learned for the first time of the Hammer application. He testifies that he discussed the matter with Mr. Evans of the Evans Company, giving Mr. Evans the complete history of the case; that upon his return to New York Hammer declined to recede from the position he had taken, saying that he had fixed the matter up with Mr. Clark, who was then in charge of the Evans Company's New York office, so that the application could be made in his (Hammer's) name instead of in that of McManus. Mr. Spooner, accompanied by McManus, again came to Washington early in May and interviewed Mr. Evans. The history of the case was again gone over and Mr. Evans suggested that it would be necessary for McManus to make an application, which would be placed in interference with the application filed by Hammer. Mr. Evans admits that he agreed to take charge of McManus's case and act for him. Accordingly, McManus's application was prepared in the Evans Company's office, being a duplicate of the application filed by Hammer. This application was prepared under the direction of and witnessed by Mr. Sterling, counsel for Hammer in this proceeding; and right here it may be stated that Mr. Sterling was a stockholder and one of the five directors of the Evans Company and closely connected with that company, representing it in interference and infringement cases.

Upon the filing of the McManus application McManus and Mr. Spooner again came to Washington and again interviewed Mr. Evans. The case was again carefully discussed and all the information in the possession of McManus or Mr. Spooner was freely given to Mr. Evans. Upon being informed as to the fees that would be charged by the Evans Company in taking the testimony in the interference proceeding, Mr. Spooner represented to Mr. Evans that McManus would be unable to meet such an expense; that it would be necessary for him (Spooner), although not familiar with patent cases, to attend to the taking of the testimony, but that the Evans Company should continue as counsel in all matters outside of that. This arrangement was assented to by the Evans Company, as Mr. Evans admitted in his testimony. Without going into further details, it is sufficient to say that after the preliminary statements had been filed the Evans Company withdrew as counsel for McManus, but Mr. Sterling appeared as counsel for Hammer.

We will here give a brief summary of Hammer's case: We fully agree with the Patent Office that Hammer has shown no conception of any of the counts of the issue prior to the alleged execution by McManus of the application of July 7, 1905. His case depends almost entirely upon the testimony of members and employees of the Evans Company. Mr. Clark, who was then in charge of the New York office of the company, says he "was given to understand" that Hammer was the inventor. He fails, however, satisfactorily to explain how it happened that McManus's name was placed at the top of the specifications by the stenographer to whom he dictated them, in accordance with the custom of putting the name of the inventor in that place. This name was subsequently erased and Hammer's inserted. It is also strange that McManus should have been the one to explain the invention to the draftsman. To be sure, the draftsman testifies that Hammer subsequently criticised the drawing and required some changes in it. We do not attribute much importance to this testimony, however.

Coming now to the testimony of Mr. Evans and Mr. Sterling, they both state that McManus was present when Hammer executed his (Hammer's) application and understood that it was for the invention in issue. They both testified positively (Sterling with great detail) that Hammer then paid the fee of thirty dollars for that and another application executed by McManus and covering a notching device. As to the latter statement, McManus produced a receipt in his name for the money which he said he paid for his application and a balance due on a prior one; as to the former statement, it is very significant that although Mr. Sterling had testified that Mr. Spooner, at one of the interviews leading up to the preparation and filing of the present application, was informed that McManus was present when the Hammer application was executed, Mr. Evans, when asked the direct question by Hammer's counsel—Mr. Sterling—whether he had so informed Mr. Spooner answered equivocally and stated that he had said to Mr. Spooner that McManus—

should have asserted his claims at the time the application of Mr. Hammer was *filed*.

It is equally significant that Mr. Evans testified that in one of those interviews McManus exhibited to him the McManus copy of the original specifications and then—

stated that a mistake had been made in the filing of the application, that it should have been filed in his (McManus's) name instead of Mr. Hammer's.

Mr. Spooner in his testimony categorically denied that Mr. Evans even made the remark that McManus should have asserted his claims at the time the Hammer application was filed. He was equally positive that no suggestion was made by Mr. Evans—

or any one else in any of the interviews there, that Mr. Hammer's application was made in Mr. McManus's presence, or that Mr. McManus had knowledge of it at the time.

On the contrary, that McManus had stated to Evans that he, McManus, knew nothing of the execution of that application and that Evans had confirmed the statement. The failure of Evans to speak when reason and duty required him to speak tends strongly to show that his subsequent recollection while testifying for Hammer was at fault. The testimony of Mr. Sterling, when considered in the light of the surrounding circumstances as disclosed by this record, loses much of its its probative force.

We think Mr. Evans and Mr. Sterling have confused this Hammer application with some other; but, even assuming that their recollection is correct, the record leaves no room for doubt in our minds that McManus is the real inventor of these claims

and each of them, and that the award should have been in his favor. He well may have thought that the trust arrangement with Hammer fully protected his interests.

The decision is reversed and priority awarded McManus.

Reversed.

Court of Appeals of the District of Columbia.

IN RE MORGAN.

Decided February 5, 1912.

1. PATENTABILITY—INCANDESCENT-LAMP-SECURING MEANS. Claims for a device for fastening an incandescent lamp in its socket *Held* unpatentable in view of the prior art.

2. SAME—DOUBLE USE. Where the locking devices employed by the applicant had been used for the same purpose in nut-locks, *Held* that applicant had made merely a double use of this old instrumentality when he employed it as a means for fastening an incandescent lamp in its socket.

Mr. A. V. Cushman for the appellant.

Mr. R. F. Whitehead for the Commissioner of Patents.

ROBB, *J.*:

This is an appeal from a decision of the Commissioner of Patents (176 O. G., 275) rejecting appellant's application for a patent on a spiral-spring locking device for an electrical incandescent lamp. The first and fourth of the ten counts are here reproduced:

1. The herein described means for fastening against removal an incandescent lamp in its socket, comprising the lamp socket, a protective shell therefor, the lamp and its base, a helical spring having one end free, and covered by the protective shell when the lamp is in position.

4. In combination with a lamp socket and its protective covering shell, a lamp adapted to be inserted therein by a threading motion, said lamp having a base, a helical spring secured at one end to the base, but free at the other end, said spring when the lamp is in place, being covered by said protective covering shell.

As pointed out by the Patent Office tribunals, it was old to provide an electric lamp with a coiled spring. The patents to Kurz *et al.*, Knowles, and Arnold, show such springs on the outside of the socket, while in the patents to Russell the spring-wire is on the inside of the socket. In the Russell patents, however, the wire is fastened at both ends and does not act as a locking device. The patents to Mitsch, Donally, and Libby, disclose lock-nuts in which accidental displacement of the nut is prevented by a spiral spring. Mitsch, in his specification, says his invention—

relates to locks for screw-threads which will allow without hindrance the screwing of two devices upon each other in one direction, but which when so attached in any position relatively to each other will secure said devices from being turned in the reverse direction.

Donally, whose construction most nearly resembles appellant's, describes his invention as relating particularly to locking-nuts. We agree with the Patent Office that it involved no invention to free one end of Russell's spring and make use of a well-known form of lock-nut. Appellant insists that this is not a case of mere double use as defined in *Potts v. Creager*, (155 U. S., 597.) He insists that the lock-nut references ought not to be considered because, as he contends, they are from a non-cognate art. We cannot agree with him. He found his spring in the incandescent-lamp art. He desired to provide that spring with a locking feature and did provide it with a well-known form of lock-nut. It is difficult to conceive where he would have looked to find this lock-nut if not in the art to which it related; in other words, the lock-nut which he used was not designed for use in any particular device but for use generally in any device where such a feature might be desired. As the Examiners-in-Chief well said:

Certain devices are common to the arts as a whole because they are adapted for use in many situations.

The limitation in claim 10 that a key must be used is of no importance, as such a feature is shown in the Libby patent.

The decision of the Commissioner is affirmed.

Affirmed.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Boldt design patent, No. 39,921, for a design for a bottle, *Held* void on its face for lack of patentable novelty and invention. *Charles Boldt Co. v. Nivison-Weiskopf Co.*, 194 Fed. Rep., 871.

(U. S. C. C. A.) The Truffault reissue patent, No. 12,437, (original No. 695,508,) for a shock-absorber for spring-vehicles, *Held* valid and infringed. *Western Mfg. Co. v. Hartford*, 194 Fed. Rep., 875.

(U. S. C. C.) The Monahan and Kieren patents, Nos. 688,789 and 785,070, for grass-twine machines, *Held* valid, but not infringed. *Oshkosh Grass Matting Co. v. Waite Grass Carpet Co.*, 194 Fed. Rep., 885.

(U. S. C. C.) The Stanley patent, No. 469,809, for a system of electrical distribution, *Held* not infringed. *Westinghouse Electric & Mfg. Co. v. Sutter*, 194 Fed. Rep., 888.

(U. S. D. C.) The Jerrems patents, Nos. 745,625 and 824,871, for feeding mechanism for grass-twine machines, *Held* not infringed. *Steiger v. Waite Grass Carpet Co.*, 194 Fed. Rep., 878.

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Designs	17—No.	42,899 to No. 42,915, inclusive.
Trade-Marks	112—No.	96,861 to No. 96,972, inclusive.
Labels	22—No.	16,373 to No. 16,395, inclusive.
Prints	3—No.	3,047 to No. 3,049, inclusive.
Reissues	4—No.	12,425 to No. 12,428, inclusive.
Total	891	

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	5	.....	North Carolina	3	.....
Arizona	3	.....	North Dakota	3	.....
Arkansas	1	.....	Ohio	59	9
California	27	1	Oklahoma	3	.....
Colorado	11	.....	Oregon	5	.....
Connecticut	13	1	Pennsylvania	70	9
Delaware	3	2	Rhode Island	5	.....
Florida	2	.....	South Carolina	1	.....
Georgia	5	1	South Dakota	5	1
Idaho	1	.....	Tennessee	5	.....
Illinois	78	13	Texas	8	2
Indiana	12	2	Utah	1	1
Iowa	10	3	Vermont	1	.....
Kansas	7	2	Virginia	7	.....
Kentucky	6	.....	Washington	6	3
Louisiana	4	3	West Virginia	5	1
Maine	5	.....	Wisconsin	12	3
Maryland	4	2	Wyoming	.....	2
Massachusetts	58	11			
Michigan	15	4	Alaska, District of	.....	.....
Minnesota	19	1	Canal Zone	.....	.....
Mississippi	.....	1	District of Columbia	6	.....
Missouri	28	2	Hawaii Territory	.....	.....
Montana	5	.....	Philippine Islands	.....	.....
Nebraska	5	1	Porto Rico	.....	.....
Nevada	1	.....	U. S. Army	.....	.....
New Hampshire	.....	.....	U. S. Navy	1	.....
New Jersey	31	16			
New Mexico	1	.....	Total to citizens of the United States	656	121
New York	97	34			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	Mexico	.....	.....
Austria-Hungary	2	3	Netherlands	.....	.....
Belgium	1	1	New South Wales	.....	.....
Brazil	.....	.....	New Zealand	.....	.....
British West Indies	.....	.....	Norway	.....	.....
Canada	9	.....	Portugal	.....	.....
Cape Colony	.....	.....	Queensland	.....	.....
Colombia	.....	.....	Russia	1	.....
Cuba	.....	.....	Scotland	1	.....
Denmark	2	.....	South Australia	1	.....
Egypt	.....	.....	Spain	.....	.....
England	23	1	Sweden	2	.....
Ecuador	.....	.....	Switzerland	2	.....
France	9	.....	Transvaal, South Africa	.....	.....
Germany	33	2	Victoria	1	.....
Guatemala	.....	.....	Western Australia	.....	.....
India	1	.....			
Ireland	.....	.....	Total to citizens of foreign countries	93	7
Italy	4	.....			
Japan	.....	.....			
Madeira	.....	.....			

Notaries Public—Amended Law.

[PUBLIC—No. 362.]

An act to amend section five hundred and fifty-eight of the Code of Law for the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section five hundred and fifty-eight of the Code of Law for the District of Columbia, relating to notaries public, be amended by adding at the end of said section the following: "*Provided*, That the appointment of any person as such notary public, or the acceptance of his commission as such, or the performance of the duties thereunder, shall not disqualify or prevent such person from representing clients before any of the Departments of the United States Government in the District of Columbia or elsewhere, provided such person so appointed as a notary public who appears to practice or represent clients before any such Department is not otherwise engaged in Government employ, and shall be admitted by the heads of such Departments to practice therein in accordance with the rules and regulations prescribed for other persons or attorneys who are admitted to practice therein: *And provided further*, That no notary public shall be authorized to take acknowledgements, administer oaths, certify papers, or perform any official acts in connection with matters in which he is employed as counsel, attorney, or agent or in which he may be in any way interested before any of the Departments aforesaid."

Approved, June 29, 1906.

Renewal of Forfeited Cases.

A petition for the renewal of a forfeited application need not be signed by the inventor or assignee, but may be signed by the attorney.

A power of attorney in the original application authorizing an attorney to transact all business in the Patent Office in connection with the application construed to be of sufficient scope to include the signing of a petition for renewal and the subsequent prosecution of the application. (*Ex parte Ages*, 101 O. G., 1609.)

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business June 8, 1912.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Apr. 12	Apr. 11	621
128	2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	Apr. 1	May 1	467
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	May 9	May 28	171
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	Apr. 22	Apr. 26	563
167	5. Bookbinding; Harvesters; Jewelry; Music.	Mar. 16	Apr. 18	504
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	May 9	May 9	324
312	7. Educational Appliances; Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Feb. 19	Apr. 15	829
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Apr. 29	Apr. 25	542
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels.	Apr. 25	Apr. 22	375
235	10. Carriages and Wagons	Apr. 12	Apr. 18	750
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Apr. 8	Apr. 11	457
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Apr. 12	Apr. 18	784
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Apr. 16	Apr. 30	514
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Apr. 12	May 9	442
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Mar. 13	Apr. 6	1074
109	16. Telegraphy; Telephony	Apr. 11	Apr. 30	263
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	May 4	May 8	311
327	18. Injectors and Ejectors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Apr. 15	Apr. 13	291
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	Mar. 23	Mar. 20	454
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	Apr. 27	Apr. 17	240
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 16	Apr. 6	459

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	May 1	May 8	256
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Apr. 9	Apr. 16	521
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Apr. 8	Apr. 23	540
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	May 13	May 11	214
106	26. Electricity, Generation; Motive Power.	Jan. 19	Jan. 27	631
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	May 1	May 1	445
65	28. Internal-Combustion Engines	Mar. 1	Mar. 14	792
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Apr. 1	May 7	567
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 13	May 1	456
172	31. Alcohol; Ammonia. Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Apr. 1	Apr. 8	374
278	32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	Apr. 11	Apr. 25	359
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Mar. 20	Apr. 29	553
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Apr. 3	Apr. 8	597
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Mar. 18	May 1	886
264	36. Drafting; Driers; Engraving; Measuring Instruments; Photography.	Mar. 6	Apr. 24	566
107	37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	May 1	May 4	546
378	38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working.	Mar. 19	Apr. 25	703
321	39. Water Distribution	Mar. 1	Mar. 25	642
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 8	May 16	411
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Apr. 10	Apr. 19	619
279	42. Electric Railways; Electric Signaling; Railway Signaling; Signals.	Apr. 6	Apr. 17	506
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	May 9	May 8	351

Oldest new case, Jan. 19; oldest amended, Jan. 27.

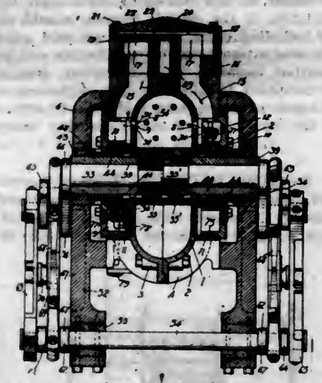
Total number of applications awaiting action 21,970

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks	Apr. 1	Apr. 27	1086
	Designs	Apr. 4	Apr. 26	335
	Labels and Prints	May 28	May 27	78

PATENTS

GRANTED JUNE 11, 1912.

1,028,848. ROTARY ENGINE. JOHN T. AABEL, San Francisco, Cal., assignor to Monarch Rotary Engine Company, San Francisco, Cal., a Corporation of California. Filed Sept. 30, 1907, Serial No. 395,057. Renewed Oct. 20, 1910. Serial No. 588,182. (Cl. 121—48.)



1. In a rotary engine, the combination of a cylinder, a shaft rotating in the cylinder, a piston secured to said shaft, the walls of the cylinder transverse to the shaft being apertured from a circular series of ports, a casing forming with each of said apertured walls, a chamber, a valve in the form of a circular arc movable over each series of ports, and means for selectively admitting steam to the chamber at one side and exhausting it from the chamber at the other, substantially as described.

2. In a rotary engine, the combination of a cylinder, a shaft rotating in the cylinder, a piston secured to said shaft, the walls of the cylinder transverse to the shaft being apertured to form ports, a casing forming with each of said apertured walls a chamber, valves for controlling said ports, and means for selectively admitting steam to the chamber at one side and exhausting it from the chamber at the other, substantially as described.

3. In a rotary engine, the combination of a cylinder, a shaft rotating in said cylinder, a piston rotating in said cylinder on said shaft, a casing at each side of the cylinder, forming a chamber, the walls of the cylinder between said cylinder and chambers being formed with ports, and a cut off valve and a compression valve arranged to be moved over the ports at the opposite sides of the cylinder, respectively, substantially as described.

4. In a rotary engine, the combination of a cylinder, a shaft therein, a piston on said shaft rotating in said cylinder, casing forming chambers, one on each side of the cylinder, a cut off valve and a compression valve in the chambers, at both sides of the cylinder, and means for moving said valves, substantially as described.

5. In a rotary engine, the combination of a cylinder, a shaft therein, a piston on said shaft rotating in said cylinder, the sides of the cylinder having ports, a cut off valve and a compression valve on each side, movable over said ports, and casings for forming chambers over said ports, said casings comprising parts arranged to rest against the compression valves and hold them to their seats, substantially as described.

[Claims 6 to 43 not printed in the Gazette.]

1,028,849. KEY-RETAINING DEVICE. GEORGE E. ALLEN, Bridgeport, Conn. Filed July 19, 1911. Serial No. 639,367. (Cl. 70—7.)

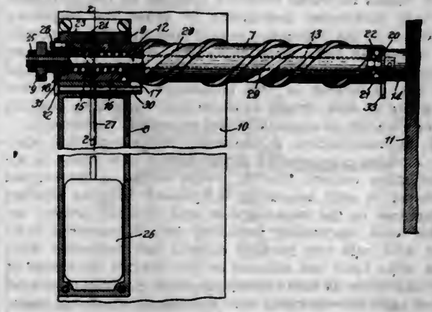


1. In a key fastening device, an integral piece of flexible wire bent in a U-shaped form and having the extremities thereof bent outwardly therefrom and a retaining plate mounted to swing on one of the ends of the said wire and adapted for removable engagement with the free end of the said wire.

2. In a device of the class described, the combination of a looped piece of flexible wire and a retaining plate, the said retaining plate being mounted to swing on one of the ends of the said wire and adapted for removable engagement with the free end of the said wire.

3. In a key fastening device, a looped piece of flexible wire and a returning plate swingingly mounted thereon to retain the free ends of the said wire in spaced relation to permit of inserting the free ends of the wire through the eye of the key.

1,028,850. DOOR-CHECK. WILLIAM H. ASPEGREN, Quincy, Mass. Filed Aug. 15, 1911. Serial No. 644,192. (Cl. 16—77.)



1. A door-check having, in combination, a nut, a screw having screw-threaded engagement with said nut, means for imparting a relative rotation to said screw and nut in one direction, means for checking the relative rotation of said screw and nut in the opposite direction, and means to lock said screw and nut against relative rotation.

2. A door-check having, in combination, a nut, a screw having screw-threaded engagement with said nut, means for imparting a relative rotation to said screw and nut in one direction, means for checking the relative rotation of

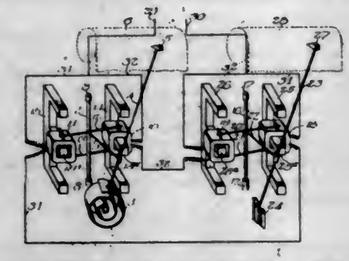
said screw and nut in the opposite direction, and means to lock said screw and nut against relative rotation at two points in their axial movement.

3. A door-check having, in combination, a nut, a screw having screw-threaded engagement with said nut, a flexible member wound about the axis of said screw and nut and having one end attached to one of said elements, a weight suspended from the other end of said member thereby to impart a relative rotation to said screw and nut in one direction, and means for checking the relative rotation of said screw and nut.

4. A door-check having, in combination, a nut, a screw having screw-threaded engagement with said nut, a flexible member wound helically about said screw and having one end attached thereto, a weight suspended from the other end of said member thereby to impart a relative rotation to said screw and nut in one direction, and means for checking the relative rotation of said screw and nut.

5. A door-check having, in combination, a nut, a screw having screw-threaded engagement with said nut, said screw being provided with a helical groove, a flexible member attached at one end to said screw and wound helically about said screw in said groove, a weight suspended from the other end of said member thereby to impart a relative rotation to said screw and nut in one direction, and means for checking the relative rotation of said screw and nut in the opposite direction.

1,028,851. LONG-DISTANCE PRESSURE-RECORDER. JACOB W. BARD, Peoria, Ill., assignor to Sangamo Electric Company, Springfield, Ill., a Corporation of Illinois. Filed Nov. 8, 1911. Serial No. 659,253. (Cl. 73—117.)



1. The combination with a measuring instrument, of an alternating electric circuit having two branches in parallel, means including members operated by the movement of said measuring instrument to cause the respective variation of the impedance in said branches of said circuit, an indicating hand, and mechanism including coils connected respectively with said parallel circuits and operated by the variations of the impedance in the respective branches of said circuit to cause said indicating hand to move with the movements of said measuring instrument.

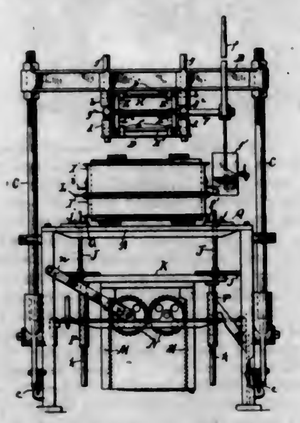
2. In combination, a measuring instrument, two electric circuits connected in parallel with each other in an alternating current circuit, means including mechanism operated by said measuring instrument to cause relative differences in the impedance of said parallel circuits, an index hand, mechanism including coils in operative relation with said two parallel circuits and connected with said index hand and adapted by the relative variations of the impedance in said circuits to cause movements of said index hand corresponding with the movement of said measuring instrument.

3. In combination, a measuring instrument, two electric circuits connected in parallel with each other in an alternating current circuit, means including members operated by said measuring instrument to cause variations relative to each other of the impedance in said parallel circuits, a pair of solenoids connected one with each of said parallel circuits, cores for said solenoids, an index hand, and connections between said solenoids and said index hand adapted, when said solenoids are moved upon their cores, to move said index hand.

4. In combination, a measuring instrument, a pair of solenoids connected in parallel with each other to a source of alternating current, cores for said solenoids, connections between said solenoids and said measuring instrument adapted by the movements of said measuring instrument to move said solenoids to cover more or less of their respective cores, a second pair of solenoids, cores therefor, electric connections between said first and second pair of solenoids whereby one of each pair is in series with one of the other pair, and the movements of said first solenoids upon their cores will cause corresponding movements of said second solenoids upon their cores, an index hand, and connections between said index hand and said second solenoids whereby said index hand may be rocked by the movements of said solenoids.

5. In combination, a measuring instrument, alternating current circuits, means including mechanism operated by the movement of said measuring instrument to cause relative variation of the electric current in said circuits, mechanism including cores, and coils on said cores connected with said alternating current circuits and adapted by the relative variation of the current flow therein to cause a movement of said coils upon said cores, and an indicating hand connected with said coils to move therewith with the movements of said measuring instrument.

1,028,852. MOLDING-MACHINE. JOHN N. BATTENFELD, Cleveland, Ohio, assignor to The Berkshire Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 9, 1909. Serial No. 516,929. (Cl. 22—43.)



1. In a molding machine, a table adapted to support a flask, a frame extending upwardly above the table, a presser head supported by the frame and including a presser plate, a shaft having bearings guided for vertical movement with respect to the frame, power multiplying connections between the shaft, frame and presser plate, and means for turning the shaft to raise and lower the presser plate.

2. In a molding machine, a table adapted to support a flask, a frame extending upwardly above said table, a presser head supported by said frame, said presser head including a presser plate, a shaft having bearings guided for vertical movement with respect to said frame, and power multiplying connections between the shaft, frame and presser plate comprising links connected to the frame, links connected to the presser plate, and arms rigid with the shaft and connected to the two sets of links respectively.

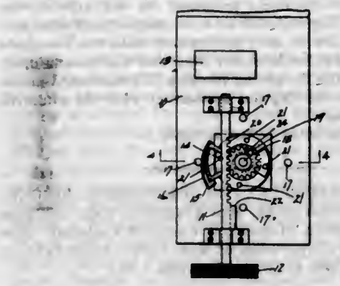
3. In a molding machine, a table adapted to support a flask, a frame extending upwardly above said table and comprising a cross member, upright members supporting the cross member, a presser head supported by said cross member and including a vertically movable presser plate, rods guided for vertical movement in said cross member, a shaft having bearings in said guide rods and adapted to be moved vertically therewith, and toggle connections between the shaft, cross member and presser plate comprising links pivoted to the cross member, links pivoted to the presser plate, and arms rigid with the shaft and pivoted to the free ends of said links respectively.

4. In a molding machine, a table adapted to support a flask, a frame extending upwardly above the table and comprising two upright members, and a cross member supported by said upright members and adapted for adjustment along the same, a presser head supported by said cross member and including a vertically movable presser plate, rods slidably mounted in bearings on said cross member, a shaft having bearings in said rods, and adapted to be moved vertically therewith, and means for moving the presser plate downwardly a predetermined distance with a multiplication of the power applied to the shaft comprising toggle connections between the shaft, cross member and presser plate.

5. In a molding machine, a platform for holding the flask, lifting means for the cope, and adjustable stops for determining the location of the flask on the platform, said stops limiting the movement of the flask with respect to two directions and being adjustable in each of those two directions.

[Claim 6 not printed in the Gazette.]

1,028,853. SIGNAL MECHANISM FOR ELECTRIC RAILWAYS. ROBERT D. BEATTY, Cleveland, Ohio. Filed Mar. 15, 1911. Serial No. 614,576. (Cl. 246—54.)



1. In mechanism of the class described, the combination of a base; a plurality of fixed contacts on said base; a movable switch member adapted to successively close with said contacts; means for moving said switch member, including a rack operatively connected with said member, said rack being adapted to be reciprocated by external means; and a stop carried by said rack adapted to engage said member and retain the same against forward movement.

2. In mechanism of the class described, the combination of a base; a plurality of fixed contacts circularly disposed on said base; a rotatable switch member adapted to successively close therewith; means for rotating said switch member from one contact to another, said means including a pinion co-axial with said member and having pawl-and-ratchet connection therewith; a rack engaging said pinion, a stop limiting the advance movement of said rack; and a second stop carried by said rack and adapted in advance position to engage and retain said member against further rotation, said rack being adapted to be reciprocated by external means.

3. In mechanism of the character described, the combination with a trolley wire; of a base supported thereover; a fixed contact on said base; a rotatable switch member on said base adapted to close with said contact; and means for rotating said member, said means including a reciprocable rack operatively connected with said member and adapted to be reciprocated by the raising of said wire incidentally to the passage of a trolley thereunder.

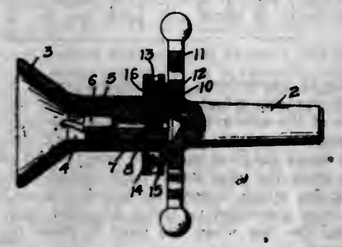
4. In mechanism of the character described, the combination with a trolley wire; of a base supported thereover; a fixed contact on said base; a rotatable switch member on said base adapted to close with said contact; and means for rotating said member, said means including a pinion co-axial with said member and having pawl-and-ratchet connection therewith, and a rack engaging said pinion, said rack being arranged to be reciprocated by the raising of said wire incidentally to the passage of a trolley thereunder.

1,028,854. VEHICLE-SIGNAL. EDWARD J. BEST and CHARLES M. FITCH, Chicago, Ill. Filed Dec. 27, 1910. Serial No. 599,318. (Cl. 177—329.)



A rear signal for automobiles comprising a casing; an electric light in said casing; a clear glass pane in the rear wall of said casing; a rod traversing the front of said casing; a pair of spaced brackets pivoted on said rod and carrying a convex transparent sign arranged to be swung to and away from a position behind said clear glass pane; another pair of spaced brackets pivoted on said rod between said first pair and carrying a convex transparent sign arranged to be swung to and away from a position behind said clear glass pane and behind said first-mentioned sign, one of said signs bearing the word "Right" and the other the word "Left"; an electro-magnet arranged in said casing at each end of said signs; armatures pivoted on said rod and lying over said magnets; a lever fulcrumed above each of said armatures; a link connection between the rearward end of said armatures and said levers; a link connection between the forward ends of each of said levers and one of said pairs of brackets near their pivots; and electric circuits under the control of the driver and arranged to excite said magnets, substantially as described.

1,028,855. CENTERING-TOOL. CHARLES BLOMSTROM, Minneapolis, Minn. Filed Dec. 6, 1909. Serial No. 531,709. (Cl. 77—18.)



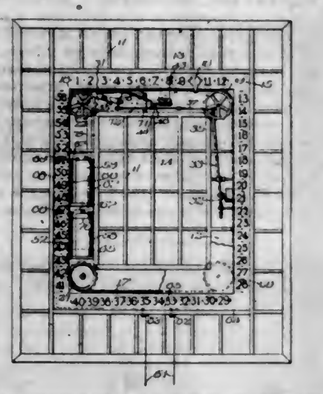
1. A centering tool comprising a spindle having a longitudinal socket therein, a drill carrier slidable in said socket, said spindle having longitudinal slots therein, a pin mounted transversely in said carrier, projecting into and through said slots, a wheel having a hub threaded on the walls of said socket, said hub being provided with an exteriorly threaded flange having an annular recess and a cap engaging the threads of said flange and having an inwardly projecting lip forming a wall of said recess, the ends of said pin projecting into said recess for the purpose specified.

2. The combination, with a lathe tail stock, of a spindle mounted therein and having a cup at its outer end,

said spindle having a longitudinal socket in the rear of said cup and longitudinal slots in its walls, said spindle being exteriorly threaded, a drill carrier slidable in said socket, a pin mounted in said carrier and projecting into slots on each side of said carrier and beyond the threaded surface of said spindle, an interiorly threaded hub mounted on said spindle and having operating handles, said hub having an exteriorly threaded flange on one side provided with an annular recess to receive the ends of said pin, and an interiorly threaded ring fitting said flange and having an inwardly extending part to lap by the ends of said pin, whereby the movement of said hub back and forth on said spindle will reciprocate said drill carrier, for the purpose specified.

3. The combination, with a lathe tail stock, of a spindle mounted therein and having a longitudinal socket and longitudinal slots in its walls communicating with said socket, said spindle being exteriorly threaded, a drill carrier slidable in said socket and having a transverse opening therein, a pin fitting within said opening and extending through said carrier from side to side and having ends projecting into the longitudinal slots in said spindle, an interiorly threaded hub mounted on said spindle and having operating handles, said hub having means engaging the projecting ends of said pin and operating to move said pin back and forth in said slots to reciprocate said carrier when said hub is revolved.

1,028,856. ANNUNCIATOR AND CABINET FOR BARBER-SHOPS. IRA J. BRADSHAW, Waukegan, Ill. Filed July 1, 1911. Serial No. 636,445. (Cl. 177—338.)



1. In an annunciator the combination, of a pointer, a carrier, sprocket wheels for the carrier, a ratchet wheel on one of the sprockets, a pawl, an electro-magnet having an armature, mechanism connected with said armature which moves the pawl backward over the ratchet, a spring which gives the pawl its forward operative movement, a locking dog which engages the sprocket so as to hold the same from movement in either direction, and means for tripping the dog when the pawl is given its backward movement.

2. In an annunciator the combination, of a pointer, a carrier, sprocket wheels for the carrier, a ratchet wheel on one of said sprockets, a pawl, a pivoted pawl-carrying member, and mechanism for moving the pawl back and forth over the ratchet comprising an electro-magnet, a pivoted armature for the magnet, a rocking member, a spring for giving the pawl its active or forward stroke to which one end of the rocking member is attached, a link connecting said end of the rocking member with the pawl carrying member, and a link connecting the other end of the rocking member with said armature.

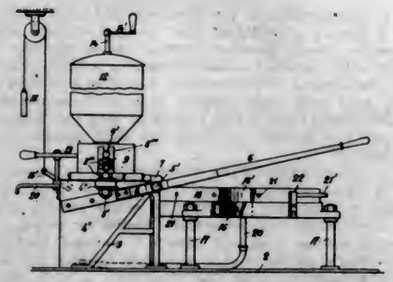
3. In an annunciator the combination, of a pointer, a carrier, sprocket wheels for the carrier, a ratchet wheel on one of said sprockets, a pawl, a pivoted pawl carrying member, mechanism for moving the pawl back and forth over the ratchet comprising an electro-magnet, a pivoted armature for the magnet, a rocking member, a spring for giving the pawl its active or forward stroke to which one end of the rocking member is attached, a link connecting said end of the rocking member with the pawl carrying member, a link connecting the other end of the rocking member with said armature, and releasing mechanism for said sprocket comprising pins on the sprocket, a pivoted dog formed with a notch adapted to engage said pins successively and when in said position to hold the sprocket from rotation in either direction, a spring which causes the dog to bear against said pins, and a finger on the rocking member which trips the dog.

4. In an annunciator, the combination with a pointer and means for giving the same step by step movements comprising a rotatable element and a driving mechanism therefor, of a locking mechanism for said rotatable element comprising a series of pins circularly arranged on one side of the same, a pivoted dog notched so as to engage said pins successively and when in said position to hold the rotatable element from rotation in either direction, and means operated by the initial movements of said driving mechanism for tilting said dog out of contact with the pin with which it is engaged.

5. In an annunciator, the combination with a pointer and means for giving the same step by step movements comprising a rotatable element, a ratchet and pawl, means for moving the pawl backward over the ratchet, and a spring to give the pawl its forward active stroke; of a locking mechanism for said rotatable element comprising a series of pins circularly arranged on one side of the same, a pivoted dog notched so as to engage said pins successively and when in said position to hold the rotatable element from rotation in either direction and means operated by said means for giving the pawl its backward movement which tilts the dog out of contact with the pin with which it is engaged.

[Claim 6 not printed in the Gazette.]

1,028,857. APPARATUS FOR PREPARING OXONE. GEORGE FRED BRINDLEY, San Francisco, Cal., assignor to The Roessler & Hasslacher Chemical Company, New York, N. Y., a Corporation of New York. Filed Feb. 17, 1909. Serial No. 478,508. (Cl. 204—21.)



1. An apparatus for preparing oxone from peroxid of sodium comprising a melting pot, electrodes dipping into said pot, a resistance connecting said electrodes and located within the said pot, means for connecting said electrodes to a source of electrical energy, standards on which the melting pot is pivoted, a hopper supported above said melting pot, said hopper support being adapted to be turned from a position above the melting pot to a position beyond the same.

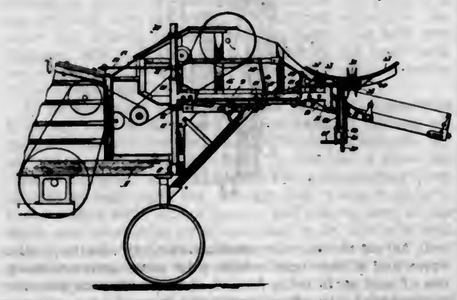
2. An apparatus for preparing oxone from peroxid of sodium, comprising a melting pot, electrodes dipping into said pot, a resistance connecting said electrodes and located within the said pot, means for connecting said electrodes to a source of electrical energy, standards on which the melting pot is pivoted, a hopper shiftably supported above the said melting pot for containing the said peroxid and having a distributing nozzle at its lower end, a cover for closing the upper end of said hopper, a shaft passing through the said hopper and into the nozzle, and a crank on said shaft, and a screw feed on said shaft for feeding the peroxid to the melting pot.

3. An apparatus for preparing oxone from peroxid of sodium, comprising a horizontally pivoted bowl-shaped melting pot open at its top, standards for supporting said melting pot upon its bearings, means attached to the ends of said pot for supporting electrode connections, electrodes therein supported but insulated from the pot and dipping down into the bowl of the pot, connections from said electrodes to a source of electrical energy, means for swinging said pot upon its pivots to pour out the molten mass, a closed hopper shiftably supported above the melting pot for containing the peroxid to be melted, said hopper being capable of being turned from a position above the melting pot to a position beyond the same.

4. An apparatus for preparing oxone from peroxid of sodium, comprising a double walled melting pot having a water space between the walls, horizontal bearings on which said melting pot may turn, projecting lugs on the ends of said melting pot, bolts supported in said lugs but insulated therefrom, an electrical connection attached to each of said bolts projecting over the melting pot and having slotted upturned ends, electrodes connected to said upturned ends and shiftable up and down in said slots and projecting downward into the bowl of the pot, a removable conductor between the said electrodes and having close electrical connection therewith, and connections from said electrodes to a source of electrical energy.

5. An apparatus for preparing oxone from peroxid of sodium, comprising a pivoted melting pot, an outer casing inclosing the same, and forming a watering jacket therefor, an inner bowl of copper supported within the outer casing, a covered lip on said inner bowl projecting beyond said outer casing, electrodes supported on the casing and dipping into the pot, a conductor between and having close electrical connection with said electrodes, but removable therefrom and located within the said bowl, an electrical connection from a source of energy to said electrodes, a horizontally movable lever pivoted on said outer casing and supporting at its end above the bowl a hopper for the peroxid, a shaft within said hopper having a feed screw thereon for feeding the peroxid into the melting pot and a lever attached to the outer casing of the pot whereby the pot may be turned upon its bearings.

1,028,858. WING-CARRIER. WALTER FRANK BROWN, Minneapolis, Minn. Filed Feb 25, 1911, Serial No. 610,736. Renewed May 6, 1912. Serial No. 695,569. (Cl. 193—16.)



1. In a wing carrier adapted to be laterally extended from the side of a threshing machine, a supporting frame, comprising a vertical mast; a horizontal boom mounted on said mast, a supporting device adjustably mounted on said mast for maintaining in raised position the said boom, and a plurality of tie rods extended between the frame of the threshing machine and said mast to guide said mast.

2. In a wing carrier adapted to be laterally extended from the side of a threshing machine, a supporting frame, comprising a vertical mast, a horizontal boom mounted on said mast, a supporting device adjustably mounted on said mast for maintaining in raised position the said boom, a plurality of tie rods extended between the frame of the threshing machine and said mast to guide said mast, a pivot head fixedly mounted on the end of said boom for supporting said carrier, a conveyer mechanism embodying an endless moving chain, a driving mechanism for moving said chain, and an extensible transmission mechanism connecting said chain and said driving mechanism.

3. In a wing carrier adapted to be laterally extended from the side of a threshing machine, a supporting frame, comprising a vertical mast, a horizontal boom mounted on said mast, a supporting device adjustably mounted on said mast for maintaining in raised position the said boom, a plurality of tie rods extended between the frame of the threshing machine and said mast to guide said mast, a pivot head fixedly mounted on the end of said boom, a bracket depended from said pivot head to form a low pivotal foot rest, an extensible member pivotally connected with said bracket and said carrier, and manually operable means for extending and contracting said extensible member.

4. In a wing carrier adapted to be laterally extended, a supporting frame comprising a vertical mast; a horizontal boom mounted on said mast, said boom supporting said carrier through its torsional resistance.

1,028,859. NUT-LOCKING DEVICE. JAMES H. BULLARD and EDWIN W. BULLARD, Springfield, Mass., assignors, by mesne assignments, to United Nut Lock Company, Springfield, Mass., a Corporation of Massachusetts. Filed Oct. 6, 1909. Serial No. 521,198. (Cl. 151—15.)



1. In a nut locking device, a rigid body having a bolt opening, rigid inwardly projecting thread engaging members disposed in a plane parallel to the general plane of the device and separated from each other by a gap between their ends, the gap being of a depth to allow the bolt threads to pass.

2. In a nut locking device, a body having a bolt opening, and having a concentric recess, as b, inwardly projecting thread engaging members disposed in a plane parallel to the general plane of the device and separated from each other by a gap between their ends.

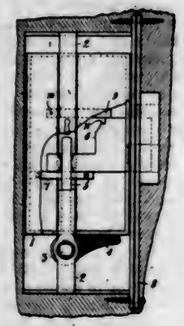
3. In a nut locking device a body having a bolt opening through it and having a concentric recess as b on both sides, rigid inwardly projecting thread engaging members disposed in a plane parallel to the general plane of the device and separated from each other by a gap between their ends.

4. In a nut lock, a rigid body having a bolt opening through it, rigid inwardly projecting thread engaging members disposed in a plane parallel to the general plane of the device and shaped to conform to the shape of the bolt thread recess, and separated from each other by a gap between their ends.

5. In a nut locking device, a rigid body having a bolt receiving opening through it, and rigid inwardly projecting thread engaging members having curved inner edges, and disposed in a plane parallel to the general plane of the device and separated from each other by a gap between their ends.

[Claims 6 to 8 not printed in the Gazette.]

1,028,860. GRAVITY-LOCK. JOHAN HJALMAR CARLSTEDT, Gefle, Sweden. Filed Apr. 15, 1911. Serial No. 621,397. (Cl. 70—51.)



1. In a gravity lock, the combination of a vertically movable casing, a sliding bolt mounted in the said casing, and connections between the said casing and the said sliding bolt causing the latter to be advanced by the descending movement of the casing.

2. In a lock, the combination of a vertically movable casing, a sliding bolt mounted in the said casing, a spindle, bolt-actuating means attached to the said spindle, said means comprising two arms one of which serves as a lift arm for the casing, while the other engages the sliding bolt, causing the same to be advanced by the descending movement of the casing.

3. In a lock, the combination of a vertically movable casing, guide bars engaging corresponding grooves in the said casing, and a sliding bolt mounted in the said casing in such a manner as to be advanced by the descending movement of the same.

4. In a lock, the combination of a vertically movable casing, guide bars engaging corresponding grooves in the said casing, a sliding bolt mounted in the said casing, and connections between the said casing and the said sliding bolt causing the latter to be advanced by the descending movement of the casing.

5. In a lock, the combination of a vertically movable casing, a sliding bolt comprising a shank and a head mounted in the said casing in such a manner as to be advanced by the descending movement thereof, and a striker plate having an opening for the head of the said bolt, said bolt having the upper part of the head obliquely cut at the end and the lower part thereof partly cut away, leaving a comparatively thin plate of uniform thickness adapted to enter a corresponding downward extension of the opening in the striker plate.

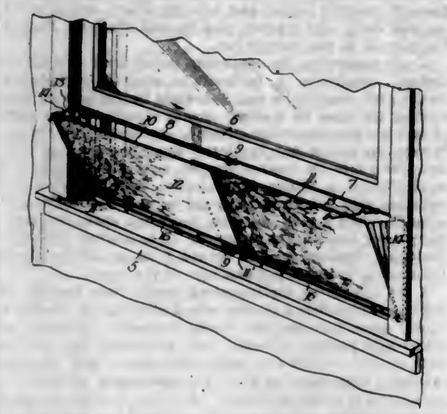
[Claims 6 and 7 not printed in the Gazette.]

1,028,861. WEATHER-SHIELD. CHARLES A. CARSCADDEN, Chicago, Ill., assignor of one-half to George A. Woodman, Chicago, Ill. Filed Oct. 12, 1911. Serial No. 654,327. (Cl. 98—31.)

1. A weather shield comprising a frame adapted to fit in a window frame, a shield pivoted on said frame, and means for retaining said shield in adjusted position, said frame and shield each consisting of a plurality of sections adapted to telescope one upon the other whereby the shield may be adjusted to window frames of various widths.

2. A weather shield comprising a collapsible frame adapted to fit in a window frame, a plurality of shield sections slidably mounted on said frame, and means for holding said shield sections in operative position.

3. A weather shield comprising a telescoping frame adapted to fit in a window frame, a plurality of shield sections pivoted on the bottom of said frame and adapted to slide longitudinally one past the other, and means for adjustably securing the upper edges of said shield sections to the top of said frame whereby the opening between said shield sections and the bottom of a window resting on the top of said frame may be varied.

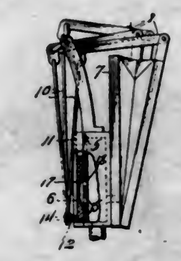


4. A weather protector comprising an elongated frame made in sections adapted to telescope one upon the other, a pair of shield sections pivotally secured to the bottom of said frame and adapted to telescope upon each other with the telescoping movement of the frame, end pieces of flexible material connecting the ends of the shield with the ends of the frame, and means for holding the shield sections in adjusted position on the frame.

5. A weather shield comprising a frame adapted to be adjusted to fit window frames of various widths, a plurality of shield sections pivoted on the bottom of said frame, said frame and sections being adapted to be telescoped, means for holding the shield sections in adjusted position on the frame, and an apron depending from the shield sections over the bottom member of the frame.

[Claim 6 not printed in the Gazette.]

1,028,862. SLIDE-VALVE FOR AIR-MOTORS. WILLIAM F. COOPER and EDWARD P. CHASE, Norwalk, Ohio; said Chase assignor to The A. B. Chase Company. Filed Oct. 30, 1909. Serial No. 525,567. (Cl. 230—36.)



1. In air motors, the combination of two parts, a slide valve and a base upon which said valve moves slidably, one of said parts being formed of a non-vitreous non-elastic material, the other part being formed of a vitreous material.

2. In air motors, the combination with a body having a non-vitreous non-metallic non-elastic slide face, of a slide valve operative slidably on said face and formed of vitreous material.

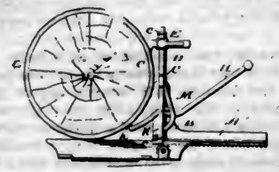
3. In air motors, the combination with the body having a wooden slide face, of a slide valve operative on said face and formed of vitreous material.

4. In air mtors, the combination with the body having a wooden slide face, of a slide valve operative on said face and formed of glass.

5. An air motor having a wooden slide face, and a slide valve movable thereon to cover and uncover the port or ports in said face, said slide valve being formed of vitreous material.

[Claims 6 and 7 not printed in the Gazette.]

1,028,863. SAWMILL-DOG. ALONZO A. DE LOACH, Bridgeport, Ala. Filed May 12, 1909, Serial No. 495,407. Renewed Oct. 30, 1911. Serial No. 657,623. (Cl. 143—126.)



1. An apparatus of the character described, comprising a sliding bar connected to the head block, a top dog adjustably mounted on said bar, a curved pendulum bar pivoted to said sliding bar, a pivot bar rigidly connected to said sliding bar, an operating lever pivoted to said pivot bar, a lower dog in the form of a bar provided with a hook at one end and an arm at the other end pivoted to said operating lever, the said arm being adapted to engage said pendulum bar with means carried by the head block for supporting the weight of the movable parts, substantially as described.

2. An apparatus of the character described, comprising a sliding bar connected to the head block, a top dog adjustably mounted on said bar, a curved pendulum bar pivoted to said sliding bar, a pivot bar rigidly connected to said sliding bar, an operating lever pivoted to said pivot bar, a lower dog in the form of a bar provided with a hook at one end and an arm at the other end pivoted to said operating lever, the said arm being adapted to engage said pendulum bar and a stud projecting from the head block and supporting the weight of the movable parts, substantially as described.

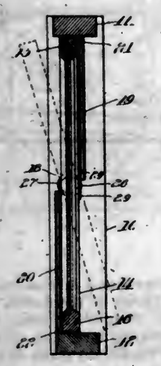
3. An apparatus of the character described, comprising a sliding bar connected to the head block, a top dog adjustably mounted on said bar, a curved pendulum bar pivoted to said sliding bar, a lug on said bar, a pivot bar rigidly connected to said sliding bar, an operating lever pivoted to said pivot bar, a lower dog in the form of a bar provided with a hook at one end and an arm at the other end pivoted to said operating lever, the said arm engaging said lug, with means carried by the head block for supporting the weight of the movable parts, substantially as described.

4. An apparatus of the character described, comprising a sliding bar connected to the head block, a top dog adjustably mounted on said bar, a curved pendulum bar pivoted to said sliding bar, a lug on said bar, a pivot bar rigidly connected to said sliding bar, an operating lever pivoted to said pivot bar, a lower dog in the form of a bar provided with a hook at one end and an arm at the other end pivoted to said operating lever, the said arm engaging said lug, and a stud projecting from the head block and supporting the weight of the movable parts, substantially as described.

5. An apparatus of the character described, comprising a sliding bar connected to the head block, a top dog adjustably mounted on said bar, an operating lever connected to said sliding bar, a lower dog provided with a hook at one end pivoted to said operating lever, with a lug carried by the head block and projecting beneath the lower end of the operating lever for supporting the weight of the movable parts, substantially as described.

[Claim 6 not printed in the Gazette.]

1,028,864. SWINGING-FIXTURE MOUNTING. CHARLES H. DRIVER, Racine, Wis. Filed Sept. 17, 1910. Serial No. 582,526. (Cl. 20—53.)



1. In a swinging fixture mounting, the combination with a frame provided in two opposite members with sockets which are formed in said frame members entirely outside the inner faces of said members, and a swingable fixture fitted within said frame having two members which fit closely against the socketed members of said frame, of hinge trunnions attached to said members of the fixture and of a diameter greater than the width of the fixture members to which they are attached and having rotative bearing in said sockets, and stops attached to the frame against which the fixture fits when closed, said stops being fitted at their ends against said trunnions to afford water proof joints at these points.

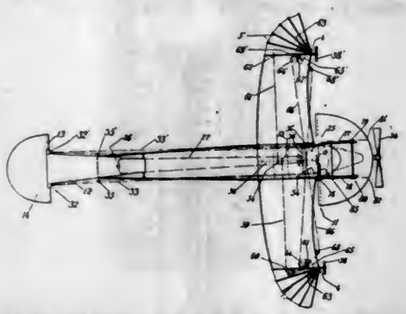
2. In a swinging fixture mounting, the combination with a frame provided with hinge sockets formed therein and a swingable fixture mounted in said frame, said frame having stops against which the fixture fits when closed, of hinge trunnions rotatively mounted in said sockets, said sockets being of a diameter greater than the thickness of the fixture and provided with means for attaching the same to the fixture, said trunnions being formed with exteriorly curved faces which are exposed at the front and rear faces of the fixture and adapted for engagement with the adjacent ends of the stops to provide weather proof joints between said parts.

3. In a swinging fixture mounting, the combination with a frame provided with hinge sockets formed therein and a swingable fixture mounted in said frame, said frame having stops against which the fixture fits when closed, of hinge trunnions rotatively mounted in said sockets and of a diameter greater than the width of the fixture and being provided with attaching lugs which fit over the front and rear sides of and are attached to the fixture, said lugs being formed with exterior faces curved on the radii of the trunnions and the adjacent ends of the stops being curved to engage the curved faces of said lugs to provide weather proof joints between said parts.

1,028,865. FLYING-MACHINE. VITO ETTORE D'URSO, New York, N. Y. Filed Mar. 9, 1911. Serial No. 613,846. (Cl. 244—14.)

1. In an aeroplane, and in combination with the sustaining plane or planes of the device, an auxiliary front plane horizontally pivoted along its inner side, means under the control of the operator for operating the same and for setting the same at different angles, and means for causing said front plane to assume automatically an upwardly inclined position; substantially as described.

2. In an aeroplane, and in combination with the sustaining plane or planes of the device, a body, a shaft extending across the front of the same, a plane mounted on said shaft, a lever also mounted on said shaft, for operating the same, means tending to cause said plane to assume an upwardly inclined position, and means to loosen said shaft from said lever; substantially as described.



3. In an aeroplane, and in combination with the sustaining plane or planes of the device, a body, a shaft extending across the front of the same, a plane mounted on said shaft, an operating lever also mounted on said shaft, means tending to cause said plane to assume an upwardly inclined position, means for setting said lever and plane at different positions, means for reinforcing said plane, and means for loosening said shaft from said lever; substantially as described.

4. In an aeroplane, and in combination with the sustaining plane or planes of the device, a body, a shaft extending across the front of the same, a plane mounted on said shaft and outwardly extending therefrom, an operating lever also mounted on said shaft, drums loosely mounted on said shaft, means for fixing the same on said shaft, means for setting said lever and plane at different positions, and flexible reinforcing means wound upon said drums having each end attached to the outer portion of said plane after being passed through points near the extreme positions which can be assumed by said outer portion; substantially as described.

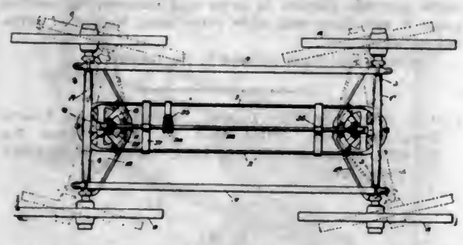
5. In an aeroplane, and in combination with the sustaining plane or planes of the device, a body, a shaft extending across the front part of the same, a plane mounted on said shaft and outwardly extending therefrom, an operating lever also mounted on said shaft, means for setting said lever and plane at different positions, drums loosely mounted on said shaft, means for fixing the same to and for loosening the same from said shaft, flexible reinforcing means wound upon said drums having each end attached to the outer portion of said plane, after being passed through points near the extreme positions which can be assumed by the same, means tending to cause said plane to assume an upwardly inclined position, and means for loosening said shaft from said lever; substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,028,866. TURNING DEVICE FOR VEHICLES. JOHN M. EADIE, New York, N. Y., assignor to Eadie Vehicle Gear Company, a Corporation of New Jersey. Filed Aug. 6, 1908. Serial No. 447,205. (Cl. 21—93.)

1. In a vehicle, the combination with the front and rear axles of a fifth wheel on the front axle, a sixth wheel on the rear axle, racks on said wheels, a shaft having pinions substantially at its ends to engage said racks, said shaft and racks being above the plane of said wheels, a bearing plate for said sixth wheel secured to the body of the vehicle, means for adjusting the amount of friction between said plate and sixth wheel and a covering and protecting device for the rack and gear at the rear axle.

2. In a vehicle, the combination of front and rear axles, a fifth wheel on the front axle, a sixth wheel on the rear axle, racks on said wheels, a shaft and pinions for operating said racks and wheels simultaneously, a plate for each wheel secured to the body of the vehicle and arranged to bear on said wheels, another plate secured at one of said wheels and below it, reaches extending over said last mentioned wheel and eye-bolts for securing said reaches to said last mentioned plate.



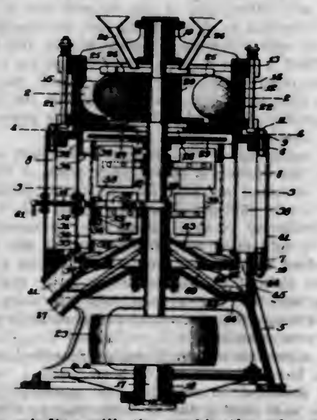
3. In a vehicle, the combination of a body, front and rear axles, fifth and sixth wheels on said axles, shafting and gears for rotating said wheels, plates above said wheels secured to the body, king bolts for said wheels situated between the axles and a member at each wheel and extending below the same to form a bearing for the king bolt thereat, each of said members being rigidly secured to its plate at points on opposite sides of its king bolt.

4. In a vehicle, the combination of a body, front and rear axles, fifth and sixth wheels on said axles, shafting and gears for rotating said wheels, plates above said wheels secured to the body, king bolts for said wheels and a member extending below one of said wheels and forming a bearing for the king bolt therebeneath, said king bolts being situated between the axles, and clips or supports on both sides of the axle thereat, said clips or supports being arranged to hold said wheels and plate firmly together.

5. In a vehicle, the combination of a body, front and rear axles, fifth and sixth wheels on said axles, shafting and gears for rotating said wheels, plates above said wheels secured to the body, king bolts for said wheels situated between the axles and a member at each wheel and extending below the same to form a bearing for the king bolt thereat, each of said members being rigidly secured to its plate, by clips or supports on opposite sides of the king bolt.

[Claims 6 to 20 not printed in the Gazette.]

1,028,867. GRINDING-MILL. GEORGE S. EMMICK, Nazareth, Pa. Filed June 27, 1910. Serial No. 568,956. (Cl. 83—45.)



1. In a grinding mill, the combination of a supporting frame, a vertically-arranged driving shaft; walls forming a grinding chamber surrounding the axis of said shaft; grinding mechanism within said chamber, including a member carried by said shaft; said chamber having a floor portion extending beneath said member and having a discharge opening therein adjacent said shaft; a horizontally-arranged disk carried by said shaft beneath said opening; a fan carried by said shaft beneath said disk; and a screen surrounding said fan outwardly of said disk.

2. In a grinding mill, the combination of a supporting frame, a vertically-arranged driving shaft; walls forming a grinding chamber surrounding the axis of said shaft; grinding mechanism within said chamber, including a member carried by said shaft; said chamber having a floor portion extending beneath said member and having a discharge opening therein adjacent said shaft; a horizontally-arranged disk carried by said shaft beneath said opening; a fan carried by said shaft beneath said disk; and a pair of screens arranged in spaced relation to each other and surrounding said fan, the space between said screens being beneath the outer edge of said disk.

3. In a grinding mill, the combination of a supporting frame, a vertically-arranged driving shaft; walls forming a grinding chamber surrounding the axis of said shaft; grinding mechanism within said chamber, including a member carried by said shaft; said chamber having a floor portion extending beneath said member and having a discharge opening therein adjacent said shaft; a scraper carried by the bottom of said member above said floor portion and having its inner end terminating outwardly of said opening; a fan carried by said shaft below said floor portion; and a screen surrounding said fan outwardly of said opening.

4. In a grinding mill, the combination of a supporting frame, a vertically-arranged driving shaft; walls forming a grinding chamber surrounding the axis of said shaft; grinding mechanism within said chamber, including a member carried by said shaft; said chamber having a floor portion extending beneath said member and having a discharge opening therein adjacent said shaft; a scraper carried by the bottom of said member above said floor portion and having its inner end terminating outwardly of said opening; a horizontally-arranged disk carried by said shaft beneath said opening; a fan carried by said shaft beneath said disk; and a screen surrounding said fan outwardly of said disk.

5. In a grinding mill, the combination of a supporting frame, a vertically-arranged driving shaft; walls forming a grinding chamber surrounding the axis of said shaft; grinding mechanism within said chamber, including a member carried by said shaft; said chamber having a floor portion extending beneath said member and having a discharge opening therein adjacent said shaft; a scraper carried by the bottom of said member above said floor portion and having its inner end terminating outwardly of said opening; a horizontally-arranged disk carried by said shaft beneath said opening; a fan carried by said shaft beneath said disk; and a pair of screens arranged in spaced relation to each other and surrounding said fan, the space between said screens being beneath the outer edge of said disk.

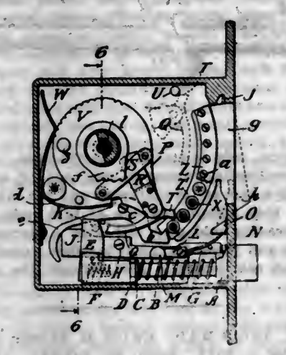
[Claims 6 to 17 not printed in the Gazette.]

1,028,868. COMBINATION OR KEYLESS LOCK. OLIVER M. FARRAND, New York, N. Y. Filed Aug. 16, 1911. Serial No. 644,388. (Cl. 70—18.)

1. A lock of the class described having a combination device comprising a set of pins with shoulders and means for holding said pins in line, the pins being reversible end for end to shift the positions of the shoulders and effect a change in the combination.

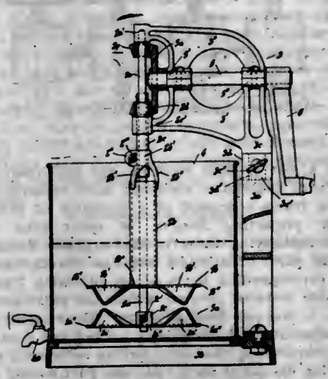
2. A lock of the class described having a combination device comprising a set of pins X with shoulders Y, plates Z, Z' and means for detachably fastening each of said pins separately between the plates.

3. A lock of the class described having a combination arm and an outside knob for operating the same, a spindle of said knob projecting through to the inner side of the lock and provided with a circumferential groove near its inner end, a free arm pivotally mounted on said spindle, an inside knob having a hollow shaft rotatably mounted on the inner end of said spindle and engaging said free arm to rotate the latter, said hollow shaft having a slot in line with said circumferential groove, a key fitting



loosely in said groove and slot to permit rotary movement between the spindle and the hollow shaft and a sleeve overlying said hollow shaft and key to hold the latter in place, said sleeve being held in place by the knob on said shaft.

1,028,869. AERATING BUTTER-SEPARATOR. ALPHEUS FAY, Louisville, Ky. Filed Feb. 19, 1912. Serial No. 678,575. (Cl. 31—43.)



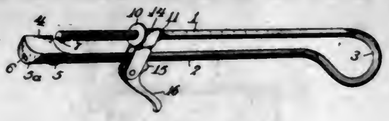
1. In a device of the character described, inversely juxtaposed agitators, means for supplying air between them, and means for rotating them oppositely.

2. In a device of the character described, inversely juxtaposed agitators, each with radial channels of outwardly increasing triangular cross-section, means for supplying air between them, and means for rotating them oppositely.

3. In a device of the character described, inversely juxtaposed agitators, each with a continuously closed plane web part and a part at an angle thereto presented peripherally, means for supplying air between them, and means for rotating them oppositely.

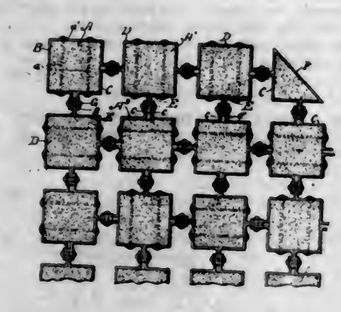
4. In a device of the character described, inversely juxtaposed agitators, each with parts closed throughout a horizontal region but with parts at an angle thereto presented peripherally, a shaft with which one agitator turns, a tubular shaft surrounding the aforesaid shaft and attached to the other agitator with open ends for admission of air between the agitators, and means for rotating them oppositely.

1,028,870. GLASS-GAGE CUTTER. EDWARD F. FLETCHER, Worcester, Mass. Filed Oct. 23, 1908. Serial No. 459,209. (Cl. 49—52.)



In a glass tube cutter, the combination of a pair of parallel resiliently separated rods, one of which is provided with a rest at its extremity and the other a cutting means, a stop slidable on one of said rods, a U-shaped strap embracing said stop and rods, a spring carried by said strap and pressed against the first named rod, and a trigger and cam pivotally held between the ends of said strap.

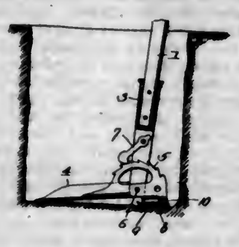
1,028,871. DOOR-MAT. EWING M. FORBES, Chicago, Ill. Filed Aug. 7, 1911. Serial No. 642,747. (Cl. 15—62.)



1. In a mat or floor covering, the combination with a plurality of individual elements, each comprising a surrounding frame composed of a plurality of parts having laterally projecting flanges, of pivot pins extending through registering holes in the adjacent flanges of the adjoining parts of a frame and also through the flanges on the corresponding parts of an adjoining frame blocks of suitable material secured within the individual frames.

2. In a mat or floor covering, the combination with corner elements each comprising a block and a surrounding frame composed of two parts having outwardly projecting registering flanges at their ends, one part merely extending around one corner of the block and a part extending around the rest of the periphery of the block, of a series of marginal elements intermediate of the corner elements each comprising a rectangular block and a surrounding frame composed of a plurality of parts, one of which extends along the outer surface of the block and around the adjacent corners thereof and provided at its ends with outwardly projecting flanges registering with similar flanges on the adjacent parts of the frame, central elements located within the corner and marginal elements each comprising a rectangular block surrounded by a frame having outwardly projecting flanges on each side, the flanges on all of the elements overlapping and registering with the adjacent flanges on the adjoining blocks, means for pivotally connecting the registering flanges on adjoining elements, and rods extending through each block and through registering holes in the parts of the surrounding frame for securing the block to all of the parts of the frame and also fastening the parts of the frame together, whereby each element is individually assembled before being pivotally connected to the other elements to form a mat.

1,028,872. POST-HOLE DIGGER AND SHOVEL. WILLIAM F. FEYCHBERG, Philadelphia, Pa. Filed Nov. 20, 1911. Serial No. 661,341. (Cl. 55—71.)

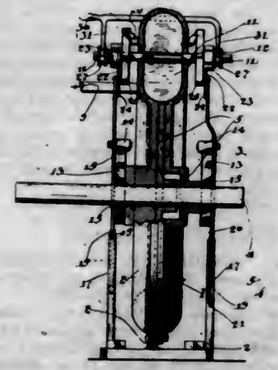


1. A device of the kind described comprising a handle having a bifurcated socket at its lower end, a shovel pivotally carried by said socket, a ratchet carried by the shovel and working through said bifurcation, a bearing plate carried by said ratchet, said bearing plate being upon the rear side of the socket, and a pawl pivoted to said socket and adapted to engage the ratchet.

2. In a device of the kind described, a handle, a bifurcated socket in which the handle is secured, a shovel, a segmental ratchet carried by said shovel, the ratchet being pivoted in and extending through said bifurcation, a bearing plate loosely carried by the upper end of the ratchet, a pawl carried by the socket and adapted to engage the ratchet and means for temporarily locking the shovel, in vertical alinement with the handle.

3. A post hole digger comprising a handle, a slotted socket carried by the lower end of the handle, a shovel pivotally connected to said socket, a ratchet carried by the shovel, said ratchet working through the bifurcation of the socket, said ratchet and the slotted portion of the socket having openings adapted to aline when the parts are in normal position, and a spring secured to the socket, the free end portion of the spring being adapted to enter said openings, as and for the purpose set forth.

1,028,873. ROTARY STEAM-ENGINE. LOUIS B. GESNER, Downers Grove, Ill. Filed Sept. 13, 1911. Serial No. 649,125. (Cl. 121—51.)



1. In a steam rotary engine, a two-part circular casing having an annular piston chamber formed therein, an axial shaft journaled in said casing, there being a space around said shaft and between the parts of said casing, a circular piston web secured to said shaft and adapted to operate in said space, the peripheral surface of said web forming a portion of the interior surface of said piston chamber, a rotary piston fitting said piston chamber and carried by said piston web, steam inlet and exhaust passages arranged adjacent each other and leading to and from said piston chamber respectively; an abutment chamber arranged adjacent said passages and forming a recess in said piston chamber, a rotatable abutment mounted in said abutment chamber comprising four equally spaced radial arms the ends of which conform to corresponding surfaces in said annular and abutment chambers, the arms of said abutment being adapted to traverse a portion of the path of said piston, and means for intermittently rotating said abutment comprising a cam secured to said shaft, a cam roller adapted to traverse said cam, a reciprocatory bar carrying said cam, an abutment shaft extending through said abutment casing, and an operative connection provided between said abutment shaft and said bar, substantially as described.

2. In a rotary steam engine, a circular casing having an annular piston chamber formed therein, an axial shaft journaled in said casing, there being an inclosed space extending from said shaft to said piston chamber, a circular web the periphery of which forms a portion of the wall of said annular chamber, said piston web being secured to said shaft and adapted to rotate therewith, a revolving piston formed integral with said circular web and adapted to operate in said annular piston chamber, there being adjacent steam inlet and exhaust passages leading to and from said annular chamber respectively, a substantially semi-circular abutment chamber forming a recess in said piston chamber and arranged adjacent said passages, a shaft disposed parallel with said first named shaft and journaled in said abutment chamber, an abutment consisting of four equally spaced radial arms carried by said abutment shaft, the exterior ends of said arms conforming to the contour of corresponding surfaces in said annular and abutment chambers, and means for intermittently rotating said abutment shaft comprising a cam secured to said first named shaft, a cam roller adapted to traverse said cam and to move toward and away from said first named shaft, a reciprocatory bar carrying said cam roller and adapted to be moved in one direction by the action of said cam, resilient means for moving said bar in the other direction, a ratchet wheel carried by said abutment shaft, and a pawl resiliently mounted on said bar and adapted to engage said ratchet wheel for rotating the same in one direction, substantially as described.

3. In a rotary steam engine, a casing comprising an annular piston chamber circular in cross-section, an axial shaft journaled in said casing, there being an inclosed space between said shaft and said chamber, a circular piston web secured to said shaft and adapted to rotate in said inclosed space, a radial piston fitting the walls of said piston chamber and formed integral with said piston web, there being inlet and exhaust steam passages leading to and from said chamber respectively, a substantially semi-circular abutment chamber forming a recess in said annular chamber and arranged adjacent said passages, an abutment shaft journaled in said abutment chamber and arranged parallel with said first named shaft, an abutment comprising four radial arms spaced at ninety degrees to each other and carried by said abutment shaft, the exterior ends of said arms conforming to corresponding surfaces in said annular and abutment chambers, the construction being such that said abutment arms project into the path traversed by said piston, and means for intermittently rotating said shaft to prevent interference of said abutment arms with said piston comprising a cam carried by said first named shaft, a cam roller adapted to traverse the periphery of said cam, a reciprocatory bar adapted to be moved in one direction by the action of said cam, a helical spring connecting with said bar and adapted to move the same in the other direction, a pair of integral ratchet wheels mounted on said abutment shaft, one of said ratchet wheels being larger than the other and formed concentric therewith, a spring-pressed pawl carried by said bar and adapted to engage the smaller of said ratchet wheels, and a stop-pawl pivoted to said abutment casing and adapted to engage the teeth of the larger of said ratchet wheels, substantially as described.

4. In a rotary steam engine, a circular casing comprising an annular piston chamber, an axial shaft journaled in said casing, there being an inclosed space extending from said shaft to said piston chamber, a circular piston web secured to said shaft and adapted to rotate in said space, a radial piston carried by said piston web for operation in said piston chamber, there being inlet and exhaust steam passages leading to and from said piston chamber, a substantially semi-circular abutment casing projecting from said first named casing and forming a recess in said annular chamber, an abutment shaft arranged parallel with said first named shaft and concentric with said abutment casing, an abutment carried by said abutment shaft comprising four equally spaced radial arms the exterior ends of which conform to corresponding surfaces in said annular and abutment chambers, said abutment shafts projecting laterally from the sides of said abutment casing, and means for intermittently operating said abutment shaft in either direction comprising a pair of cams secured to said first named shaft, a pair of cam rollers adapted to traverse the peripheries of said cams, a pair of reciprocatory bars carrying said cam rollers and adapted to be moved in one direction by the action of said cams, a pair of helical tension springs adapted to move said bars in the other direction, a pair of ratchet wheels loosely mounted upon said abutment shaft at each end thereof, a spring-pressed pawl carried by each of said bars and adapted to engage one of the ratchet wheels of each of said pairs thereof, stop pawls pivoted to said abutment casing and adapted to engage the other of said ratchet wheels, a pair of grooved collars splined to said abutment shaft and adapted to be clutched to said ratchet wheels, and operative means for moving said collars longitudinally on said abutment shaft substantially as described.

5. In a rotary engine of the class described, the combination of a steam-propelled rotor with a valve-operating-and-reversing mechanism comprising a pair of cams on the rotor shaft, a pair of rods intermittently operated thereby, a ratchet pawl on each said rods, a rotary valve mounted on a shaft, a pair of ratchet wheels loosely mounted on said valve shaft and adapted to be operated by said pawls, a pair of clutch collars splined to said valve shaft, a connection between said clutch collars whereby they may be moved in unison, projections on said clutch collars adapted to interfit with recesses on said ratchet wheels, said clutch collars being so disposed as to engage said ratchet wheels one at a time, substantially as described.

1,028,874. HINGE. JOHN GRONEK, Philadelphia, Pa. Filed Sept. 19, 1911. Serial No. 650,288. (Cl. 16—168.)



1. A hinge comprising a pair of butts provided with knuckles, each of the said knuckles being provided with inclined coacting edges and each of the said edges being provided with co-acting teeth.

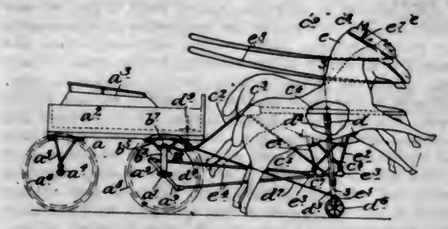
2. A hinge comprising a pair of butts having knuckles and a pintle connecting the knuckles, and each of said knuckles being provided with inclined coacting faces substantially as and for the purpose set forth.

3. A hinge for the purpose set forth comprising a pair of butts having knuckles and a pintle connecting the knuckles, the knuckles of one of the butts being provided with a horizontal straight wall terminating in a central vertical wall, the remaining portion of the knuckle being curved upwardly to its connection with the butt and being provided with teeth, the knuckle of the second butt being

formed with a coacting horizontal straight wall and a centrally arranged vertical wall having its remaining portion curved upward, the curved face of this knuckle being provided with teeth adjacent its connection with the vertical face thereof.

4. A hinge comprising a pair of butts having knuckles, a pintle connecting the knuckles, each of said knuckles being formed with a horizontal portion and a centrally arranged vertical portion, and the remainder of each of the knuckles being inclined upwardly toward their connections with the butts and being provided with teeth.

1,028,875. TOY WAGON. CLIFFORD M. HARBISON, Brooklyn, N. Y., assignor of one-half to August J. Gleissner, Brooklyn, N. Y. Filed Dec. 13, 1911. Serial No. 665,517. (Cl. 208—42.)



1. A toy vehicle of the class described comprising a main part having a seat, hangers suspended thereunder, a crank axle mounted in said hangers, a transversely arranged upright body supporting frame mounted in front of the main part, a body pivotally supported on the top of the body supporting frame, a guiding axle supported at the bottom of the body supporting frame and adapted to swing in a horizontal plane and provided with wheels, a hanger connected centrally with said bottom of the body, a crank rod connected with said hanger and with the crank axle, and pedals supported in front of the seat and in operative connection with the guiding axle.

2. A vehicle of the class described comprising a main part provided with hangers having axles, the front axle being provided with cranks, an upright body supporting frame mounted in front of the main part and provided at the bottom thereof with a guiding axle adapted to swing in a horizontal plane and provided with wheels, pedals supported in the front of the main part and in operative connection with said guiding axle, bodies pivotally supported in the top of the body supporting frame, hangers connected with said bodies, crank rods connected with said hangers and with the cranks of the front axle, and a pole between said bodies and connected with the body supporting frame and with the hangers which support the front axle.

3. A vehicle of the class described comprising a main part provided with a rear axle having wheels, and a front axle having wheels and provided with two cranks, a transversely arranged body supporting frame mounted in front of the main part and provided at the bottom thereof with a guiding axle adapted to swing in a horizontal plane and provided with wheels, pedals supported in the front of the main part and in operative connection with the guiding axle bodies pivotally supported centrally thereof in the top of the body supporting frame, hangers connected with the central bottom part of said bodies, crank rods connected with said hangers and with the cranks of the front axle, and a pole supported between said bodies.

4. A vehicle of the class described comprising a main part provided with an axle, a transverse body supporting frame mounted at the front of the main part and provided at the bottom thereof with a guiding axle adapted to swing in a horizontal plane and provided with wheels, pedals supported in front of the main part and in operative connection with the guiding axle, a body pivotally supported centrally of the body supporting frame and in the top portion thereof, said bottom being provided centrally thereof with a hanger, and crank rod connected with said hanger and with the crank axle.

1,028,876. TRANSMISSION-GEARING FOR MOTOR-VEHICLES. ROBERT GASTON HARDGRAVE and CHARLES T. ADAIR, Tucumcari, N. Mex. Filed Dec. 3, 1910. Serial No. 595,525. (Cl. 74—58.)



1. Transmission gearing including separate gears, one of said gears having an annular series of teeth upon one face thereof and a plurality of annular series of teeth upon the opposite face thereof, means under the control of the operator for locking said gears against movement, and means for successively shifting the gears to place one of said gears in mesh with any series of teeth upon the other gear.

2. Mechanism of the class described, including a driven gear having an annular series of teeth upon each face thereof, a drive gear, an actuating lever, and separate means operated by said lever for shifting the driven gear to bring either series of teeth into the path of the drive gear and subsequently moving the drive gear into mesh with said series and means for automatically locking the gears against relative displacement.

3. Mechanism of the class described including a drive gear, a driven gear having annular series of teeth upon the two faces thereof, separate devices coöperating with the respective gears for locking said gears against relative movement, a motor, a clutch connection between the motor and the drive gear, and lever controlled means for simultaneously releasing the gears from their locking means and disengaging the clutch members.

4. Mechanism of the class described including a driven gear having a plurality of annular series of teeth, a rock shaft, means operated thereby for shifting said gear, a drive gear, an actuating shaft, means operated by said shaft for shifting the drive gear toward or away from the driven gear, an operating lever for rotating said shaft, said lever being mounted to swing relative to the shaft, and a connection between the lever and the first mentioned rock shaft for transmitting motion to said shaft from the lever,

5. Mechanism of the class described including a driven gear having a plurality of annular series of teeth, a rock shaft, means operated thereby for shifting said gear, a drive gear, an actuating shaft, means operated by said shaft for shifting the drive gear toward or away from the driven gear, an operating lever for rotating said shaft, said lever being mounted to swing relative to the shaft, and a connection between the lever and the first mentioned rock shaft for transmitting motion to said shaft from the lever, and separate toothed members movable with the respective gears, separate means for engaging said members to hold the gears against movement, and means for simultaneously releasing the gears.

1,028,877. SPOOL-PACKAGE FOR SILK, &c. PAUL BERNARD HERRICK, Oneida, N. Y., assignor to Oneida Community, Limited, Oneida, N. Y., a Corporation of New York. Filed Dec. 26, 1911. Serial No. 667,596. (Cl. 242—123.)

1. A spool package of silk thread and so forth comprising a spool having a body and integral rims, silk thread wound upon said body between said rims and caps of glossy, thin, resilient sheet celluloid having outer retaining flanges formed with inturned gripping edges to embrace and grip said rims and hold said caps thereon and having central alining flanges to enter the hole of the spool and have alining action in connection therewith, said outer flanges projecting radially beyond and lying in juxtaposition to said thread and forming an effective contrasting appearance in relation thereto and also having a protecting action thereon.

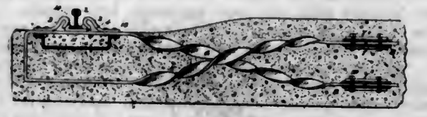


2. A spool package for thread and so forth comprising a spool having a body and rims, thread wound upon said body between said rims and caps of glossy, thin, resilient sheet celluloid having outer retaining flanges formed with inturned gripping edges to embrace and grip said rims and hold said caps thereon and having central alining flanges to enter the hole of the spool, said outer flanges lying in juxtaposition to said thread and forming an effective contrasting appearance in connection therewith and also having a protecting action in relation thereto.

3. A spool package for thread and so forth comprising a spool having a body and rims, material upon said body between said rims and caps of glossy, thin sheets of resilient moisture repellant material having outer retaining flanges to embrace said rims thereon, said outer flanges lying in juxtaposition to said material and forming an effective contrasting appearance in connection therewith and also having a protecting action in relation thereto.

4. A spool package for thread and so forth comprising a spool having a body and rims, material upon said body between said rims and caps formed of glossy, thin sheets of moisture repellant material having outer retaining portions embracing said rims, there being a reinforced thread notch formed in one of said retaining portions and in the corresponding rim, said outer portions lying in juxtaposition to said material on said body and being of a color free from apparent tinging effect in connection therewith and also having a protecting action in relation thereto.

1,028,878. RAIL-FASTENING. GEORGE D. HILL, Louisville, Ky. Filed Aug. 17, 1911. Serial No. 644,678. (Cl. 238—5.)



1. A reinforced concrete railway tie, having a rail fastening fastened thereon comprising two flange shaped shoulders for the reception and retention of the rails, with a locking plate fitting therein, substantially as described and set forth.

2. A reinforced railway tie consisting of a body of concrete, or suitable plastic material, wherein is embedded twisted shaped metallic longitudinal reinforcements, with rail fastening devices, each of said rail fastening devices consisting of two flange shaped shoulders fastened to the reinforcement, embedded in the concrete or other suitable plastic material forming the body of said tie, having recesses in the inside faces for the retention in place of a rail fastening plate, substantially as described and set forth.

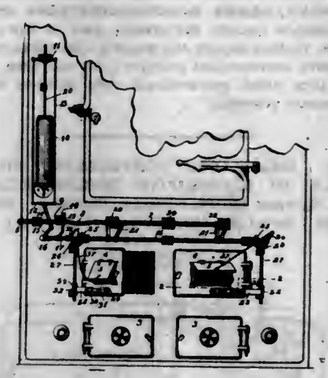
3. A reinforced railway tie consisting of a body of concrete or suitable plastic material wherein is embedded twisted shape metallic longitudinal reinforcements, with rail fastening devices attached thereto, each of said rail fastening devices consisting of two flanged shoulders fastened to the reinforcement, embedded in the concrete, or other suitable plastic material, forming the body of said reinforced railway tie, adapted to receive and retain a metallic locking plate with fastening clips of unequal thickness on opposite diagonal corners, for widening the gage of rails to the extent necessary to suit the degree of curvature, substantially as described and set forth.

4. A twisted shape metallic longitudinal reinforcement with rail fastening devices attached thereto, each of said rail fastening devices consisting of two flange shaped shoulders, fastened to the reinforcement, in combination with a suitable metallic casting-box having slots in its sides in which the said shoulders are adapted to fit, for suspending in proper position the metallic reinforcement, while being surrounded by the concrete or other suitable plastic material, substantially as described and set forth.

5. A metallic railway fastening device with reversible gage adjusting fastening plate fitting therein, in combination with a reinforced concrete railway tie and rail mounted thereon and the metallic reinforcement embedded therein, substantially as described.

[Claim 6 not printed in the Gazette.]

1,028,879. DEVICE FOR PROMOTING COMBUSTION IN FURNACES. EDWIN HONESS, Cleveland, Ohio. Filed May 9, 1906. Serial No. 315,918. (Cl. 110—55.)



1. The combination, with a furnace wall having ports therein, of a fluid supply pipe extending along said wall, nozzles on said pipe projecting into said ports, a shaft adjacent said pipe, said shaft having one or more arms engaging said pipe, a fuel door, and means operated by the opening of said door for rotating said shaft in a direction to move the pipe toward the furnace wall, substantially as specified.

2. The combination, with a furnace wall having ports therein, of a fluid supply pipe extending along said wall, nozzles on said pipe projecting into said ports, a shaft adjacent said pipe, said shaft having one or more arms engaging said pipe, a fuel door, and connections between said door and shaft whereby the opening of said door will rotate said shaft in a direction to move the pipe toward the furnace walls while permitting the closing of the door without operating said shaft, substantially as specified.

3. The combination, with the front furnace wall having ports therein, of a fluid supply pipe extending along said front wall and having nozzles projecting into said ports, a shaft, a valve in said pipe connected with said shaft, a time regulating device operating said shaft in one direction, a pair of fuel doors, means operated by the opening of either of said doors for rotating said shaft in the opposite direction, and means carried by said shaft adapted to engage said supply pipe to move the same toward and from the furnace wall, substantially as specified.

4. The combination, with a furnace wall having ports

therein, of a fuel supply pipe having nozzles projecting into said ports, a shaft adjacent said pipe, positive connections between said shaft and said pipe whereby the rotation of said shaft may move the pipe toward and from the furnace wall, time regulating means for rotating said shaft in one direction, a fuel door, and means operated by the movement of said door for rotating said shaft in the opposite direction, substantially as specified.

5. The combination, with a furnace wall having ports therein, of a fluid supply pipe having nozzles projecting into said ports, a shaft adjacent said pipe, a lost motion connection between said shaft and pipe whereby the rotation of the shaft may move said pipe toward and from the furnace wall, a fuel door, means operated by said door for rotating said shaft in one direction, and means for automatically rotating said shaft in the opposite direction, substantially as specified.

[Claims 6 to 10 not printed in the Gazette.]

1,028,880. PROCESS OF MAKING SULFURIC ANHYDRID. HENRY HOWARD, Boston, Mass. Filed Oct. 21, 1909. Serial No. 523,808. (Cl. 23—1.)

1. In the process of making sulfuric anhydrid, the method which consists in refrigerating gases containing sulfur-dioxid to remove substantially all the moisture therefrom, and then converting the thus dried sulfur-dioxid into sulfuric anhydrid by the contact process.

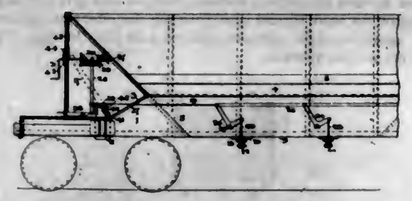
2. In the process of making sulfuric anhydrid, the method which consists in refrigerating gases containing sulfur-dioxid to remove the greater part of the moisture therefrom, further drying the gases by bringing them into contact with concentrated sulfuric acid, and then converting the thus dried sulfur-dioxid into sulfuric anhydrid by the contact process.

1,028,881. MEANS FOR CONTROLLING THE AIR-SUPPLY TO LOCOMOTIVE-BOILER FURNACES. JAMES HOWDEN HUME, Glasgow, Scotland. Filed Dec. 14, 1909. Serial No. 533,089. (Cl. 110—147.)

1. In a locomotive boiler furnace having a fire door, in combination, a valve controlling a forced draft to said furnace, a valve controlling an induced draft to said furnace, a guard for locking the fire door, an operating lever connected to said guard, and links connecting said lever with said valves, whereby when said guard is in position to lock the fire door the forced draft is in operation, and when said guard is in unlocking position the induced draft is in operation.

2. In a locomotive boiler furnace having a fire door, and a fire box with openings below the same, in combination, a valve controlling a forced draft to said furnace, a valve controlling an induced draft to said furnace, a guard for locking the fire door, an operating lever connected to said guard, links connecting both said valves with said guard whereby when said guard is in position to lock the fire door the forced draft is in operation, and when said guard is in unlocking position the induced draft is in operation, valves controlling the said openings in the fire-box and links connecting said valves with said lever.

1,028,882. DUMP-CAR. FRANK S. INGOLDSBY, St. Louis, Mo., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo., a Corporation of West Virginia. Filed Sept. 20, 1906, Serial No. 335,352. Renewed Oct. 17, 1910. Serial No. 587,510. (Cl. 105—14.)



1. In a dump car, the combination of two dumping doors on opposite sides of the car axis, two longitudinally extending closing members on opposite sides of said axis, said members being adapted to be under tension during the closing operation and a combination of levers and links connecting said members with said doors.

2. The combination in a dump car of a plurality of longitudinal dumping doors, two longitudinal members forming a portion of the door closing mechanism and adapted to be under tension during the door closing movement, bell cranks operated by said members, respectively, and links connecting the bell cranks with the doors.

3. In a dump car, the combination of a dumping door and car frame, a jointed link connection between the two, a longitudinally movable operating member, and a bell crank connected with said operating member and said link connection.

4. In a dump car, the combination with a car frame of a longitudinal dumping door, a bell crank mounted to swing in a fore and aft direction, a longitudinally movable member connected with the bell crank, toggle links connecting the door with the frame, and a connection between such links and the bell crank.

5. In a dump car, the combination of a central longitudinal beam, a pair of dumping doors hinged to the opposite edges thereof, a pair of door raising mechanisms carried by the beam and each comprising a longitudinal member, a bell crank and links operated thereby.

[Claims 6 to 49 not printed in the Gazette.]

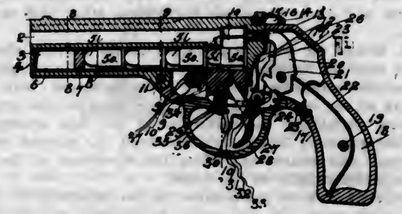
1,028,883. WRENCH. ADALBERT IRING, Czernowitz, Austria-Hungary. Filed May 5, 1911. Serial No. 625,347. (Cl. 81—130.)



A wrench comprising a hand lever having a head at one end; a wrench jaw fixed to the head at one end; a

chamber through the head at an angle to the hand lever, said chamber having tapered side walls at the fixed jaw end of the head; a rack bar within said chamber having a head engaged by the tapered walls of the chamber to adapt the bar to resist a pull; a pivot screw at the head end of the bar to secure the bar against backward movement and to permit it to swing thereabout; a spring to keep the free end of the bar normally in a raised position; an operating handle formed by projecting the free end of the bar without the chamber; a movable jaw having a rack for engagement with the rack of the bar when in normal position to lock said jaw against outward displacement from the fixed jaw; and tongue and groove means for securing the jaw in sliding relation in the head.

1,028,884. AUTOMATIC FIREARM. IVAR JOHNSON, Redlands, Cal., assignor of one-half to Charles E. Ide, Redlands, Cal. Filed Feb. 15, 1911. Serial No. 608,684. (Cl. 42—6.)



1. In a firearm, a barrel section and a stock section, said barrel section having a firing bore and a cartridge magazine, and a chamber with which said bore and magazine communicate, means for feeding cartridges into said chamber from said magazine, a cocking and firing mechanism including a main operating trigger, a plunger for moving the cartridges along said chamber into alinement with the firing bore and an auxiliary trigger connected with said plunger for actuating the same.

2. In a firearm, a barrel section including a firing bore and a cartridge magazine and a chamber with which said magazine and bore communicate, a plunger operating in said chamber means for feeding cartridges along said magazine into said chamber to be engaged by said plunger, a firing mechanism including a main trigger, an auxiliary trigger mounted on said main trigger and connected with said plunger and operating upon the first part of the movement of the finger of the operator to move a cartridge from alinement with the magazine into alinement with the firing bore before the main trigger is moved.

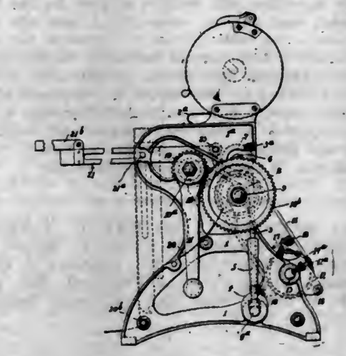
3. In a firearm, a barrel section including a firing bore and a cartridge magazine and a chamber with which said magazine and bore communicate, a plunger operating in said chamber, means for feeding cartridges along said magazine into said chamber to be engaged by said plunger, a firing mechanism including a main trigger, an auxiliary trigger mounted on said main trigger and connected with said plunger and operating upon the first part of the movement of the finger of the operator to move a cartridge from alinement with the magazine into alinement with the firing bore before the main trigger is moved and then moving with the main trigger on further movement of the finger of the operator to cause the main trigger to actuate the cocking and firing mechanism, said firearm including a shell discharge opening, a slide closing said opening, means for restoring said plunger to its initial position, and means for "opening" said slide as said plunger moves to its initial position to permit the ejection of the fired shell.

4. In a firearm, a barrel section including a firing bore and a cartridge magazine and a chamber with which said magazine and bore communicate, a plunger operating in said chamber, means for feeding cartridges along said magazine into said chamber to be engaged by said plunger, a firing mechanism including a trigger, an auxiliary trigger mounted on said main trigger and connected with said plunger and operating upon the first part of the movement of the finger of the operator to move a cartridge from alinement with the magazine into alinement with the firing bore before the main trigger is moved, said firearm including a shell discharge opening, a slide closing said opening, means for restoring said plunger to its initial position, and means for "opening" said slide as said plunger moves to its initial position to permit the ejection of the fired shell.

5. In a firearm, a barrel section including a firing bore and a cartridge magazine and a chamber with which said magazine and bore communicate, a plunger operating in said chamber, means for feeding cartridges along said magazine into said chamber to be engaged by said plunger, a firing mechanism including a trigger, an auxiliary trigger mounted on said main trigger and connected with said plunger and operating upon the first part of the movement of the finger of the operator to move a cartridge from alinement with the magazine into alinement with the firing bore before the main trigger is moved and then moving with the main trigger on further movement of the finger of the operator to cause the main trigger to actuate the cocking and firing mechanism, said firearm including a shell discharge opening, a slide closing said opening, means for restoring said plunger to its initial position, and means for "opening" said slide as said plunger moves to its initial position to permit the ejection of the fired shell.

[Claims 6 to 9 not printed in the Gazette.]

1,028,885. LETTER-COPYING APPARATUS. EMILE AUGUSTUS KLABER, New York, N. Y. Filed June 16, 1911. Serial No. 633,585. (Cl. 100—62.)



1. Letter copying apparatus comprising a holder for a roll of tissue or like paper, frames supporting said holder, said frames being provided with members capable of movement toward and away from the main body, pressure rollers one of which is mounted on the movable members between which the tissue and the letters to be copied are passed, means for pulling the movable members of the frames down to cause the pressure rollers to come together, a support for the letters and a receptacle for said letters after they are copied, a take up roller for the tissue and means for actuating the pressure roller and the take up roller.

2. Letter copying apparatus comprising a holder for a roll of tissue or like paper, frames supporting said holder, said frames having spring members, pressure rollers, one of which is mounted on the spring members and between which rollers the letters to be copied and the tissue are passed, means for pulling said spring members down to bring the rollers together, a support for the letters to be copied, a receptacle for said letters after they are copied, a take up roller for the tissue and means for actuating the take up and pressure rollers.

3. Letter copying apparatus comprising a holder for a roll of tissue or like paper, frames supporting said holder, said frames having spring members, pressure rollers, one

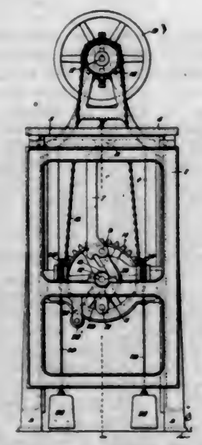
of which is mounted on the spring members, rods connected at their upper ends to the spring members, plates at the lower ends of the rods, slots in the plates, eccentrics engaging the slots, a shaft carrying the eccentrics and mounted in bearings on the main body of the frame, a handle for operating said shaft, a support for the letters to be copied, a receptacle for the letters when copied, a take up roller for the tissue and means for actuating the take up and pressure rollers.

4. Letter copying apparatus comprising a holder for a roll of tissue or like paper, frames supporting said holder, said frames having spring members, pressure rollers, one of which is mounted in the spring members, rods connected at their upper ends to the spring members, said rods at their lower ends being provided with slotted plates with the slots in which engage eccentrics upon a shaft mounted in bearings on the main body of the frames a handle for operating said shaft, a support for the letters to be copied, said support comprising a tray like device having slots on the sides thereof, a transverse bar engaging said slots, a hook shaped extremity on the ends of the sides of the tray like device, an extension pivotally connected to the tray like device, a receptacle for the lettters when copied, a take up roller and means for operating the take up roller and the pressure roller.

5. Letter copying apparatus comprising a holder for a roll of tissue or like paper, frames supporting said holder, said frames having spring members, pressure rollers, one of which is mounted in the spring members, rods connected at their upper ends to the spring members, plates at the lower ends of the rods, slots in the plates, eccentrics engaging the slots, a shaft carrying the eccentrics and mounted in bearings on the main body of the frame, a handle for operating said shaft, a support for the letters to be copied, said support comprising a tray like device having slots on the sides thereof, a transverse bar engaging said slots, a hook shaped extremity on the ends of the sides of the tray like device, an extension pivotally connected to the tray like device, a receptacle for the letters when copied, said receptacle comprising a plate pivotally mounted in the side frames and means for operating the pressure roller and take up roller.

[Claims 6 to 10 not printed in the Gazette.]

1,028,886. MECHANICAL MOVEMENT. CHARLES F. KNOWLTON, Pittsburgh, and FRANK F. ELLIOT, Ross township, Allegheny county, Pa., assignors to The Osborn Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Mar. 30, 1909. Serial No. 486,812. (Cl. 74—5.)



1. Means for imparting motion to the moving element of a machine consisting of a completely revoluble actuating crank having a less throw than the whole movement desired, and a link connected with the crank and the moving element and arranged to be swung bodily around the pivotal center of the crank.

2. Means for imparting motion to the moving element of a machine consisting of a completely revoluble actuating crank having a less throw than the whole movement desired, a link connected with the crank and the moving element, and means controlling the link whereby it is carried by the crank around the pivotal center thereof.

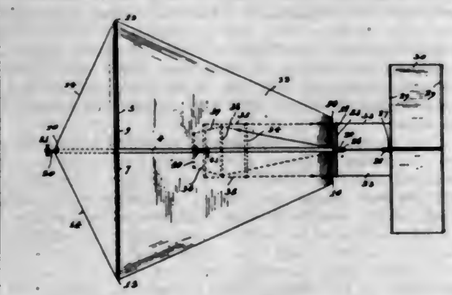
3. Means for imparting motion to the moving element of a machine consisting of a completely revoluble actuating crank, a link connected with the crank and moving element respectively, and means controlling the movement of the link whereby it is bodily swung by the crank around the pivotal center thereof.

4. Means for imparting motion to the moving element of a machine consisting of a completely revoluble crank, a link connected with the crank and moving element respectively, and means controlling the movement of the link whereby it is bodily swung by the crank around the pivotal center thereof for one half revolution of the crank and away therefrom during the other half revolution.

5. Means for imparting motion to the moving element of a machine having a pitman consisting of a completely revoluble actuating crank, a link connected with the crank at one of its ends and at the other to the pitman, means controlling the movement of the link whereby it is bodily swung by the crank around the pivoted center thereof, and means controlling the movement of the pitman, substantially as set forth.

[Claims 6 to 12 not printed in the Gazette.]

1,028,887. AEROPLANE. HENRY J. KRAFT, Chicago, Ill. Filed Apr. 15, 1912. Serial No. 691,056. (Cl. 244—12.)

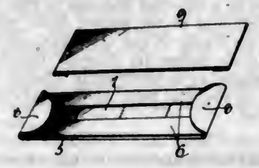


1. An aeroplane comprising a frame having a longitudinal base member, a forward transverse fabric-supporting member secured to said base member near one end and having upwardly curved ends, a support secured forwardly of said transverse member and projecting above said base member, a rear transverse fabric-supporting member secured to said base member and of less length than said forward transverse member, a covering secured to said frame members from said support to said rear transvese member and means for propelling and guiding said aeroplane.

2. An aeroplane comprising a frame having a longitudinal base member, a forward transverse fabric-supporting member secured to said base near one end and having upwardly curved ends, a fabric support arranged forward of said transverse member and centrally thereof, a covering for said frame secured to said fabric support at a point on the plane between the plane of the base and the ends of said transverse member and extending rearwardly in direct lines to the ends of said transverse member and thence rearwardly in direct lines between the last points to the end of said base, a rear transverse member to which the rear end of said covering is secured and means for propelling and guiding said aeroplane.

3. An aeroplane comprising a frame having a longitudinal base member, a forward transverse fabric-supporting member secured to said base member near one end and having upwardly curved ends, a support secured forwardly of said transverse member and projecting above said base member, a rear transverse fabric-supporting member secured to said base member and of less length than said forward transverse member, a covering secured to said frame members from said support to said rear transverse member, means for propelling said aeroplane and means for guiding the same comprising two guiding plane surfaces secured to each other at right angles, a space bar, universal joint connections at the ends of said bar connecting said guiding planes to said base and means for moving said guiding planes in four directions.

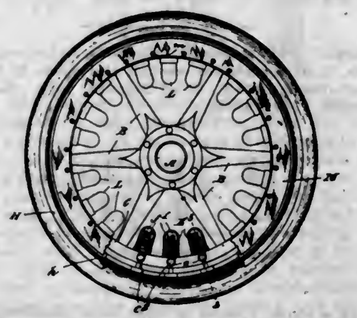
1,028,888. PACKAGE OF COMMODITY. JOHN O. E. KROHN, Chicago, Ill. Filed May 4, 1910. Serial No. 559,424. (Cl. 206—46.)



1. A non-crushable wrapper comprising a stiff metallic strip having a body portion adapted to receive one or more thin articles, longitudinal flaps that fold down upon said articles and upon the exterior of which a commodity is placed, and end flaps that fold over and close the wrapper and retain said commodity in position.

2. A non-crushable wrapper comprising a stiff metallic strip having a body portion adapted to receive one or more thin articles, longitudinal flaps that fold down upon said articles and upon the exterior of which a commodity is placed, and end flaps that fold over and close the wrapper and retain said commodity in position in such a manner that the commodity may be removed without disturbing the other articles.

1,028,889. SPRING-CUSHION TIRE FOR VEHICLE-WHEELS. ARTHUR J. LAYHON, Lowell, Mass. Filed Jan. 3, 1911. Serial No. 600,564. (Cl. 152—38.)



1. The combination of an inner rim provided with radial perforations, an outer rim having a channel on its inner surface, push-rods arranged in said perforations to slide freely therein and having externally threaded end-portions and having heads which enter said channel and are free to slide therein without turning, springs attached at their outer ends to said inner rim, each of said springs having a reduced innermost coil, and nuts turning on the threaded portions of said push-rods and provided with annular grooves to receive said innermost coils of said springs at their inner ends thereof, to stretch said springs and to regulate the contractile force of said springs.

2. The combination of an inner rim provided with radial perforations, an outer rim having a channel on its inner surface, push-rods arranged in said radial perforations to slide freely therein and having externally threaded end-portions, and having heads which enter said channel and are free to slide therein without turning, said inner rim having lateral depressions, spiral springs having their innermost coils bent into parallelism with their axes and secured in said depressions of said inner rim, nuts swiveled to the inner ends of said springs and turning on the threaded portions of said push-rods.

3. The combination of an inner rim provided with radial perforations, an outer rim having a channel on its inner surface, push-rods arranged in said perforations to slide freely therein and having externally threaded end-portions and having heads which enter said channel and are free to slide therein without turning, elastic buffers secured in said channel between adjacent push-rods and springs to force said push-rods outward against the bottom of said channel.

1,028,890. MEDICAL INHALER. JOHN LEACH, Blackburn, England. Filed Oct. 27, 1910. Serial No. 589,436. (Cl. 128—13.)



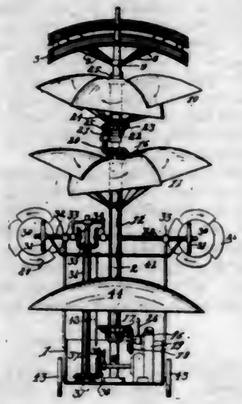
1. An inhaler for the purpose of medicinally impregnating air with curative properties, consisting of an air tight box or receptacle containing a suitable chemical mixture and having a lid or cover fastened thereon and provided with valve controlled air inlet and outlet tubes, and having the air outlet tube extending from the center of the lid or cover to the outside of the edge of the same where it terminates in a perforated mouthpiece which controls the outflow of the chemical mixture, substantially as described.

2. An inhaler for the purpose of medicinally impregnating air with curative properties comprising, in combination, a box or receptacle section divided into chambers communicating with one another, a lid or cover section secured to said box or receptacle section, pieces of sponge or similar material saturated with a chemical mixture of curative or medicinal ingredients and situated in said chambers, a suction tube fixed to said lid or cover section and communicating at its inner end with the interior of the box or receptacle section and having at its outer end a perforated screw attachment constituting a valve for controlling flow through the tube, an air inlet tube in connection with said box or receptacle section and controlled by a valve furnished with a spring automatically closing it and with a push-piece for opening it, and means for obtaining tightness between the parts, substantially as described.

1,028,891. AIRSHIP. WILLIAM DAVID LE FEVRE, Dover, Del. Filed Nov. 2, 1910. Serial No. 590,293. (Cl. 244—15.)

1. In an air-ship, the combination with oppositely disposed longitudinal-flight propellers having blades, of vertical-flight propellers having blades, the blades of one longitudinal flight propeller being oppositely inclined to those of the other longitudinal flight propeller and the blades of one vertical flight propeller being oppositely inclined to those of the other vertical flight propeller, the car body, two masts of different height secured thereto, sleeves on the higher mast to which said vertical flight propellers are respectively secured, driving means between the sleeves on the higher mast, a gear on one of said sleeves, a sleeve on the shorter mast, driving means be-

tween the sleeve on the shorter mast and the horizontal flight propellers, a gear on the last named sleeve, horizontal driving shafts, and gears on the latter respectively connected with the said gears on the sleeves.



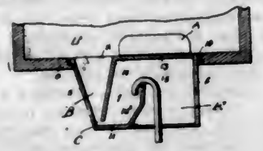
2. In an air-ship, the combination with a car body and two masts of substantially unequal height, of an aeroplane secured at the upper part of the higher mast, rotatable slats pivotally supported by the frame of the aeroplane and forming the body of the latter, vertical-flight propellers sleeved on the higher mast beneath the aeroplane, longitudinal-flight propellers rotatably mounted on the car-body at the sides thereof and on opposite sides of the higher mast and below the vertical flight propellers and intermediately between the top and bottom of the ship, a sleeve on the lower mast, driving connections between said sleeve and the longitudinal flight propellers, a parachute beneath the longitudinal-flight propellers and over the car-body, and means for independently actuating the sleeve on the lower mast and the vertical-flight propellers.

3. In an air-ship, the combination with a mast secured thereto, of vertical-flight propellers sleeved thereon, a second mast and a rotatable sleeve thereon, a gear on the sleeve, a frame on the air-ship, propeller shafts mounted on the frame at opposite sides of the first mast, longitudinal-flight propellers on said shafts, the propellers having blades the blades of one propeller being inclined in a direction opposite to those of its companion propeller, driving shafts mounted on the frame, a gear on each driving shaft in mesh with said gear on the rotatable sleeve, a friction wheel mounted on each driving shaft to rotate therewith but slidable longitudinally thereon, a friction disk fixed to each propeller shaft and engaged by the corresponding friction wheel, means for shifting the friction wheels radially upon their respective friction-disks, means for driving the vertical-shaft propellers and the sleeve on the second mast, and means to independently control the rotation of the vertical shaft propellers and said sleeve.

4. In an air-ship, the combination with oppositely disposed longitudinal-flight propellers having blades, of vertical-flight propellers having blades, the blades of one longitudinal flight propeller being oppositely inclined to those of the other longitudinal flight propeller and the blades of one vertical flight propeller being oppositely inclined to those of the other longitudinal flight propeller, an aeroplane, slats pivotally supported by the frame of the aeroplane and forming the body portion of the same, means for rotating the slats on their pivots, a mast, sleeves thereon by which the vertical flight propellers are respectively driven, a second mast, a sleeve thereon, a frame on which said longitudinal flight propellers are mounted, driving connections between the last named sleeve and the longitudinal flight propellers for simultaneously rotating them in mutually opposite directions, a controlling device for said driving connections, means for simultaneously rotating the sleeves on the first mast in mutually opposite directions, and means to rotate the sleeve on the second mast.

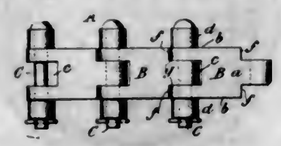
5. In an air-ship, the combination with a car, of two masts fixed thereto, a sleeve rotatable on one mast, longitudinal flight propellers disposed at opposite sides of the car and rotatably mounted thereon, the blades of one propeller being oppositely inclined to those of the other, gearing connecting the rotatable sleeve to each propeller to simultaneously rotate them in opposite directions, means controlling said gearing and adaptable to operate said gearing to change the relative speed of rotation of said propellers, a rotatable sleeve supported by the second mast, a vertical-flight propeller secured to the last named sleeve, a second rotatable sleeve supported by the second mast, a vertical-flight propeller secured to the said second sleeve, the blades of one vertical-flight propeller being oppositely inclined to those of the other, gearing connecting the two rotatable sleeves on the second mast to rotate one sleeve in a direction opposite to that of the other, an aeroplane secured to the second mast, slats pivotally supported by the frame of the aeroplane and forming the body of the latter, means for rotating the slats on their pivots, and means to independently control the rotation of the sleeve on the first mast and one of the sleeves on the second mast.

1,028,892. HYDROCARBON-BURNER. ROBERT LIDDELL, Tecumseh, Nebr. Filed Aug. 24, 1910. Serial No. 578,710. (Cl. 158—91.)



A liquid fuel burner comprising a tray having an upwardly and outwardly inclined wall, an apron formed on the bottom of the tray and having a portion inclined in opposite direction of the said inclined wall, a liquid fuel discharge pipe having its discharge end disposed immediately above the said inclined portion of the apron, and a cover partly closing the tray and formed with a depending member which extends at an angle toward the said inclined wall of the tray, the said member having its lower end spaced from the bottom of the tray.

1,028,893. DRIVE-CHAIN. CHARLES J. LUTHER, Elizabeth, N. J., assignor of one-half to Francis E. Knowles, South Orange, N. J. Filed Sept. 21, 1910. Serial No. 582,972. (Cl. 74—32.)



1. In a chain, a series of links, each comprising an integral structure having a substantially closed body portion and side arms provided with a recess between them adapted to receive the shank of the next adjacent link, pivot pins extending through said side arms and the shanks of the adjacent links, and each link having integral driving projections extending outwardly from said side arms and surrounding said pivot pins.

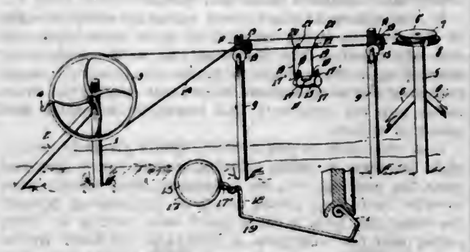
2. In a chain, a series of links, each comprising an integral structure having a substantially closed body portion and side arms provided with a recess between them adapted to receive the shank of the next adjacent link, said side arms each extending rearwardly of said recess a distance at least equal to the thickness of the arm, and pivot pins extending through said side arms and the shanks of the adjacent links, and each link having integral driving projections extending outwardly from said side arms and surrounding said pivot pins, said driving projections having a diameter materially less than the exterior length of said side arms.

3. In a chain, a series of links each comprising an integral structure having a substantially-closed body portion and side arms provided with a recess between them adapted to receive the shank of the next adjacent link, pivot pins extending through the side arms and shanks of the adjacent links, and each link having integral driving projections extending outwardly from said side members and surrounding pivot pins.

4. In a chain, a series of links each comprising an integral structure having a substantially-closed body portion and side members provided with a recess between them adapted to receive the shank of the next adjacent link, pivot pins extending through the side members and shanks of the adjacent links, each link having integral driving projections extending outwardly from said side members and surrounding said pivot pins, and said pivot pins being removable from the links and having means engaging the outer ends of said driving projections, one of said means being removable.

5. In a chain, a series of links each comprising an integral structure having a substantially-closed body portion and side arms provided with a recess between them adapted to receive the shank of the next adjacent link, pivot pins extending through the side members and shanks of the adjacent links, and each link having integral driving projections extending outwardly from said side members and surrounding said pivot pins, each of said pivot pins having a head at one end and a cotter pin at the opposite end.

1,028,894. MAIL-CARRIER. CHARLES MAAR, White, S. D. Filed July 14, 1911. Serial No. 638,506. (Cl. 104—146.)



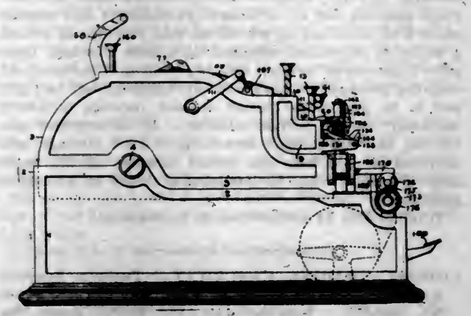
1. A mail carrier apparatus comprising a number of posts located at intervals apart between two distant points, a transverse bracket on each of said posts having a grooved pulley in each end, a post at one of said points having a flanged horizontal wheel thereon, a grooved wheel at the other distant point, a cable and means for operating the same, a pair of bracket arms secured to said cable and projecting laterally therefrom and extending downward, and a main carrier receptacle mounted on the lower ends of said bracket arms, said carrier receptacle and arms being automatically moved out of engagement with said grooved operating wheel, and passing over the same, and automatically returning to its normal suspended position after leaving said wheel.

2. A mail carrier apparatus consisting of a number of posts located at intervals apart between two distant points, a transverse bracket on each of said posts having U-shaped depending ends, a grooved pulley mounted in each U-shaped depending end, a post at one of said distant points having a horizontal wheel at its top with a horizontal flange, a post at the other distant point, a groove operating wheel on said pulley, an endless cable passing over said wheels and said pulleys, a mail carrier receptacle, and brackets suspending said receptacle from said cable and each consisting of a wire secured at one end to said cable, projecting upward, then laterally, then downward, then laterally, and then downward, and wound about the end of said receptacle and secured thereto.

1,028,895. ELECTROLYTIC DEPOSITION OF METALS. PASCAL MARINO, Regents Park, London, England. Filed Feb. 21, 1912. Serial No. 679,182. (Cl. 204—1.)

In the process of electrolytically depositing metals, the step of preparing an electrolyte for the plating bath which consists in dissolving in an aqueous solution of sodium glycero-borobenzoate a salt of the metal to be deposited.

1,028,896. ADDING AND LISTING MACHINE. EDWIN L. MATTHEWS, Minneapolis, Minn. Filed Apr. 27, 1908. Serial No. 429,377. (Cl. 235—60.)



1. The combination, in a machine of the class described, with a series of indicating wheels, and a series of primary adding wheels in engagement therewith, of a laterally movable carriage, a motor-wheel mounted upon said carriage and adapted to be brought into mesh successively with said primary adding wheels as said carriage is moved, a series of numbered keys mounted upon said carriage, connections between said keys and said motor-wheel whereby said motor-wheel is turned by each key an amount corresponding to the numerical value of the operated key, means for advancing said carriage from left to right, step by step, as said keys are operated, and a carrying mechanism that is put into operative position as said keys are operated during the left to right movement of the carriage, substantially as described.

2. The combination, in a machine of the class described, with a series of indicating wheels and a series of primary adding wheels in engagement therewith, of a laterally movable carriage, a motor-wheel mounted upon said carriage, and adapted to be brought into mesh successively with said primary adding wheels as said carriage is moved, a series of numbered keys, mounted upon said carriage, connections between said keys and said motor-wheel whereby said motor-wheel is turned by each key an amount corresponding to the numerical value of the operated key, and a printing mechanism controlled by said motor-wheel and arranged to print upon a suitable strip or sheet numbers corresponding to the operated keys, substantially as described.

3. The combination, in a machine of the class described, with a series of indicating wheels, and a series of primary adding wheels in engagement therewith, of a laterally movable carriage, a motor-wheel mounted upon said carriage and adapted to be brought into mesh successively with said primary adding wheels as said carriage is moved, a series of keys mounted upon said carriage, connections between said keys and said motor-wheel, means for advancing said carriage from left to right, step by step, as said keys are operated, a carrying mecha-

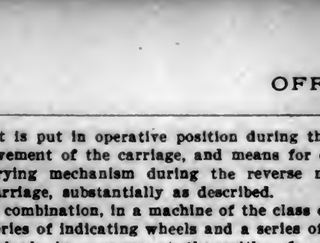
nism that is put in operative position during the left-to-right movement of the carriage, and means for operating said carrying mechanism during the reverse movement of the carriage, substantially as described.

4. The combination, in a machine of the class described, with a series of indicating wheels and a series of primary adding wheels in engagement therewith, of a laterally movable carriage, a motor-wheel mounted upon said carriage and adapted to be brought successively into engagement with said adding wheels as said carriage is moved, a series of keys also mounted upon said carriage, operative connections between said keys and said motor-wheel, a carrying mechanism connected with said adding wheels and arranged to be set in carrying position during the left-to-right movement of said carriage, and a key-controlled means for operating said carrying mechanism when the carriage is at the limit of its travel, substantially as described.

5. The combination, in a machine of the class described, with a series of indicating wheels, and a series of primary adding wheels in engagement therewith, of a laterally movable carriage, a motor-wheel mounted upon said carriage, and adapted to be brought successively into engagement with said adding wheels as said carriage is moved, a series of keys also mounted upon said carriage, operative connections between said keys and said motor-wheel, a spring arranged to move said carriage from left to right, and to be put under tension as said carriage is moved, manually, in the reverse direction, an escapement controlling the left-to-right movement of said carriage, and operated by said keys and means operated by the movement of said carriage for restoring each key to its normal position.

[Claims 6 to 14 not printed in the Gazette.]

1,028,897. MARINE CABLEWAY. THOMAS SPENCER MILLER, South Orange, N. J. Filed May 5, 1908, Serial No. 430,991. Renewed Jan. 27, 1910. Serial No. 540,470. (Cl. 214—14.)



1. In a cableway, the combination with a drum, of a fluid pressure operated engine therefor, a cable under tension actuated by said drum, and means automatically acting in accordance with the degree of tension of the cable for increasing the fluid pressure of the engine when the tension on the cable is reduced and for decreasing such fluid pressure when the tension on the cable increases.

2. In a cableway, the combination with a drum, of a fluid pressure operated engine therefor, a cable under tension actuated by said drum, and means for automatically increasing the fluid pressure of the engine when the tension of the cable is reduced, and for automatically decreasing such fluid pressure when the tension on the cable increases.

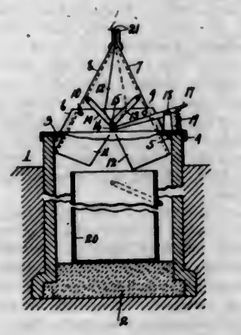
3. In a cableway, the combination of an axially movable drum, a fluid pressure operated engine therefor, a valve mechanism actuated by the axial movement of the drum in one direction to admit an increase of fluid pressure to the engine, and actuated by the axial movement of the drum in the opposite direction to decrease the admission of fluid to the engine.

4. In a cableway, the combination of a drum, a cable under tension operated thereby, a fluid pressure operated engine for the drum, valve mechanism for automatically increasing the fluid pressure of the engine when the tension on the cable is reduced and automatically decreasing such fluid pressure when the tension on the cable is increased, and supplemental manually controlled mechanism for operating said valve mechanism.

5. A cableway including in combination a fluid pressure operated engine, a shaft, a winding drum mounted on and having axial movement along said shaft, a cable, valve mechanism for controlling the fluid pressure in the engine, and means operated by the axial movement of the drum for affecting said valve to produce an increase or decrease of steam pressure in the engine according to the direction of axial movement of the drum.

[Claims 6 to 39 not printed in the Gazette.]

1,028,898. GARBAGE-RECEPTACLE. LOUIS A. MORAN, Grosse Pointe Farms, Mich. Filed July 13, 1911. Serial No. 638,253. (Cl. 220—115.)



1. A receptacle having a cover, spouts pivotally mounted in the cover to swing together at their upper ends and close the opening into the receptacle, said spouts being movable upon their pivots to expose the opening through the cover and form a chute below said opening to direct refuse into the receptacle, and a removable container within said receptacle below said spouts.

2. A receptacle having a cover, spouts pivotally mounted in the cover to swing together at their upper ends and close the opening into the receptacle, said spouts being movable upon their pivots to expose the opening through the cover and form a chute below said opening to direct refuse into the receptacle, and means for actuating said spouts in unison.

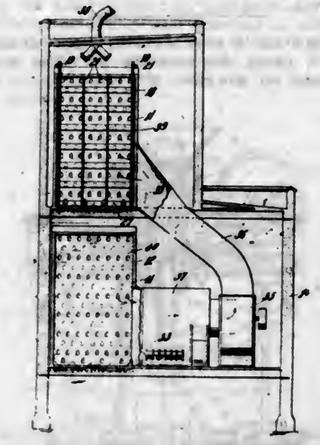
3. A receptacle having a cover, spouts pivotally mounted in the cover to swing together at their upper ends and close the opening into the receptacle, said spouts being movable upon their pivots to expose the opening through the cover and form a chute below said opening to direct refuse into the receptacle, a removable container within the receptacle below said spouts, pivoted links connected to the sides of the spouts, and an operating lever pivotally connected to said links.

1,028,899. GRAIN-DRIER. FULTON R. MORRIS, Milwaukee, Wis., assignor to Morris Grain Drier and Salvage Company, Milwaukee, Wis., a Corporation of Wisconsin. Filed Feb. 12, 1912. Serial No. 677,150. (Cl. 34—34.)

1. A grain drier, comprising a chamber formed of cement walls having duct openings molded therein, and air ducts extending across the chamber with their ends removably secured in said openings.

2. A grain drier, comprising a chamber formed of cement walls having duct openings molded therein, air ducts extending across the chamber with their ends removably secured in said openings, and means for closing some of the air ducts on one side of the chamber and for closing the other air ducts on the other side of the chamber.

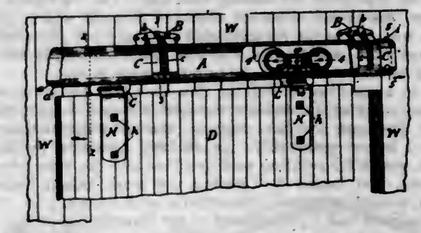
3. A grain drier, comprising a drying chamber having rows of duct openings on its opposite sides, air ducts extending across the drying chamber and connecting with the duct openings, shutters slidably mounted on each side of the drying chamber to close the duct openings of alternate rows, rack bars connected with the shutters, a shaft journaled across the drying chamber, pinions on the shaft meshing with the rack bars, and means for turning the shaft for sliding the shutters on both sides of the drying chamber.



4. In a grain drier having walls with duct openings therein, a removable air duct comprising arch shaped end pieces, strips connecting the upper ends of the end pieces together and other strips connecting the lower ends of the end pieces together, an open mesh fabric surrounding the frame formed by said strips and the end pieces, and set screws in the end pieces for engaging the walls of the openings and holding the air duct in place.

5. A grain drier, comprising a chamber, an open mesh bottom for the chamber forming a series of hoppers, a sliding gate mounted on the bottom of the chamber and having transverse blades for closing the mouths of the hoppers, said gate comprising a rectangular frame of angle iron with the blades extending thereacross, hangers on the bottom of the chamber projecting through the gate between the blades, rollers on the hangers for supporting the flanges of the angle iron side members of the gate, and means for sliding the gate to uniformly vary the outlet from the several hoppers.

1,028,900. DOOR-HANGER. ALBERT H. NELLER and ROBERT B. LOUDEN, Fairfield, Iowa. Filed Dec. 12, 1910. Serial No. 596,949. (Cl. 16—91.)



1. In door hangers, the combination with a tubular track having a central slot in its lower surface, the lower portions adjoining the slot being inwardly and horizontally disposed in cross-section, and having rounded portions adjoining the slot terminating in downwardly and outwardly projecting edges set at an angle to said horizontal portions, of a door carriage comprising a truck frame and wheels rotatively mounted therein and wheels provided with a central rib mounted in the carriage, the edges of the rib adjoining the face of the wheels being grooved to correspond with said rounded portions of the track, and means to connect a door to the carriage.

2. In door hangers, a tubular shaped track having a central slot in its lower surface, a carriage adapted to run in the track and support a door, a bracket adapted to be secured to a wall and having an outstanding horizontally disposed hinge-pin, a sleeve adapted to embrace and support the track and having its upper end arched and forming a peak in its center adapted to hang on the hinge-pin and means to connect a door to the carriage.

3. In door hangers, a tubular shaped track having a central slot in its lower surface, a carriage adapted to run in the track and support a door, a bracket adapted to be secured to a wall and having an open center with outwardly projecting side arms, and a hinge-pin joining the ends of the arms together, a sleeve adapted to embrace and support the track and having its upper end arched and forming a peak in its center adapted to hang on the hinge-pin and means to connect a door to the carriage.

4. In door hangers, a tubular shaped track having a central slot in its lower surface, a carriage adapted to run in the track and support a door, a bracket adapted to be secured to a wall and having an open center, with outwardly projecting side arms and downwardly projecting ends forming braces to bear against the wall, and a hinge-pin joining the ends of the arms together, a sleeve adapted to embrace and support the track and having its upper end arched and forming a peak in its center adapted to hang on the hinge-pin and means to connect a door to the carriage.

5. In door hangers, a tubular shaped track having a central slot in its lower surface, a carriage adapted to run in said track and support a door, and a sheet metal plate having an upwardly extending point projecting through a hole in the track and a bolt passed through holes in the sides of the track and through openings in the lower end of the plate.

[Claims 6 to 9 not printed in the Gazette.]

1,028,901. TRAVELER'S COMPANION. CHARLES NELSON, New York, N. Y., assignor to S. Sternau & Co., New York, N. Y., a Copartnership. Filed Dec. 10, 1908. Serial No. 466,784. (Cl. 126—38.)



1. A stand for a traveler's companion comprising an annulus having ears formed in one side thereof, legs pivotally connected to said ears and having portions which coöperate with said annulus to limit the outward movement of said legs which have notches on the inside thereof, and means adapted to coöperate with said notches to hold said legs separated.

2. A stand for a traveler's companion having an annulus or ring, integral ears formed in such ring and legs pivoted to the ears, and a lamp engaging with the legs and holding them separated, the said legs having bent portions which engage with the bottom of the ring when the lamp is in place.

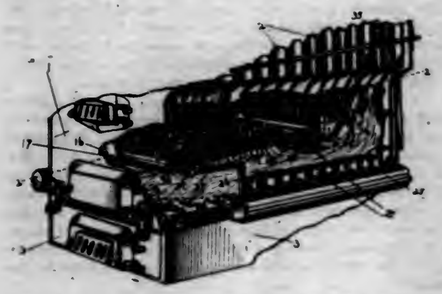
3. A stand for a traveler's companion comprising an annulus, legs pivotally connected thereto and capable of a limited outward movement and having notches on the insdie thereof, and a lamp adapted to engage said notches and hold said legs separated.

4. A stand for a traveler's companion having an annulus or ring formed of sheet metal, ears struck down from the material forming the annulus, legs pivoted to the ears, and a lamp engaging with the legs and holding them separated, the upper extremities of the legs adjacent to the pivot being bent upward so that such bent up portion engages with the bottom of the ring or annulus when the lamp is in position.

5. A stand for a traveler's companion having an annulus or ring, legs pivoted to the annulus or ring, said legs

being provided with means acting in conjunction with the annulus or ring to prevent spreading of the legs, and a lamp engaging with the legs and holding them separated, each leg having a notch and an inclined wall above it, such inclined wall having a cam effect on the lamp, keeping the same seated against the base of the notch.

1,028,902. BOILER-GRATE. JOHN L. NEWTON, Utica, N. Y., assignor to Hart & Crouse Company, Utica, N. Y., a Corporation. Filed July 18, 1910. Serial No. 572,471. (Cl. 122—229.)



1. In a hot-water heater formed with an internal fire space, a grate formed in two independent sections, each of a plurality of pipes with a header at each end and a pipe extending from each header outwardly through the wall of the heater and connected with the circulating system outside the walls of the heater, substantially as described.

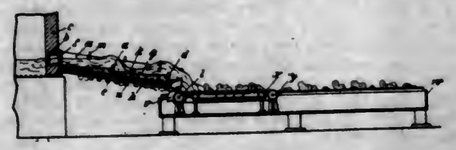
2. In a hot-water heater as shown and described having an internal fire-space with portions of the circulatory system above and below said space, a grate in said fire-space, composed of two independent sections each section having a pipe projecting through the external wall of the heater and connected on the outside to a portion of said system below the plane of the grate and a pipe likewise projecting and connected above the plane of the grate, substantially as described.

3. The combination with a hot-water heating apparatus having its exterior walls constructed as parts of a circulatory system, of a grate formed of independent sections and being part of said system and within the apparatus, each section being connected to the apparatus on the outside thereof and each section being removable when detached from such connection, substantially as described.

4. The combination in a heating apparatus, of members forming parts of a circulatory system and a grate forming a part of such system, the grate having a header at each end, one of said headers being loosely hung in position whereby to allow for the expansion and contraction of the grate.

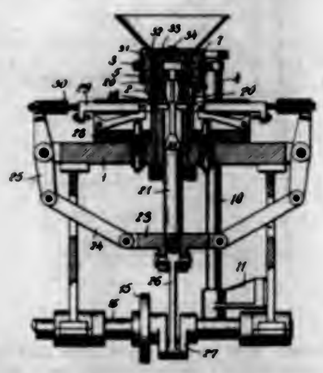
5. In an apparatus of the character described, the combination of a casing forming part of a circulatory system inclosing a fire-space, grate-sections in the fire-box, each section having headers severally provided with a pipe extending through the casing and there having connected members on the outside of the casing from said pipe to the source of supply, the said grate-sections being adapted to act as members in a circulating system.

1,028,903. ART OF MAKING INSULATING BUILDING MATERIAL. HEINRICH OTTMANN, Munich, Germany. Filed Mar. 28, 1907. Serial No. 365,160. (Cl. 106—44.)



The process of producing an insulating and building material which consists in floating incandescent blast-furnace slag upon water while simultaneously perforating the lower crust forming upon the mass, whereby the slag will be puffed and intimately vesiculated, comminuting the puffed slag, mixing the comminuted puffed slag with a binding material, and forming the mixture into shape.

1,028,904. MACHINE FOR MAKING LINK MESH. ALPHONSO C. PRATT, Montclair, N. J. Filed Sept. 12, 1911. Serial No. 648,876. (Cl. 140—1.)



1. In a machine for making link mesh, a support for the mesh comprising two members on opposite sides of the mesh, means for moving said members and the mesh together step by step in one direction, and means for moving the mesh relatively to said members in another direction, substantially as set forth.

2. In a machine for making link mesh, a support for the mesh comprising two parallel members having their adjacent faces shaded to correspond with the surfaces presented by the mesh, said faces being adapted to engage the mesh, means for moving said members and the mesh together step by step in one direction, and means for moving the mesh relatively to said members in another direction, substantially as set forth.

3. In a machine for making link mesh, a support for the mesh comprising two members on opposite sides of the mesh, means for moving said members and the mesh together step by step in one direction, and means for causing the movement of the mesh with said members to move the mesh in another direction relatively to said members, substantially as set forth.

4. In a machine for making link mesh, the combination of two concentric rotatable members between which the mesh lies, means for rotating said members and the mesh between them, and means for moving the mesh axially relatively to said members, substantially as set forth.

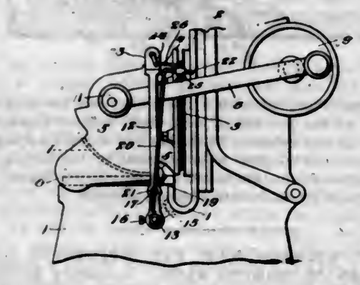
5. In a machine for making link mesh, the combination of two concentric rotatable members between which the mesh lies, said members having their adjacent surfaces shaped to correspond with the surfaces presented by the mesh, means for rotating said members and the mesh step by step, and means for moving the mesh axially relatively to said members, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,028,905. COUNTING ATTACHMENT FOR PRINTING-PRESSES. WILLIAM J. RAMSAIER, New York, N. Y. Filed June 17, 1911. Serial No. 633,764. (Cl. 235—91.)

1. A counting attachment for printing presses comprising a standard, a horizontal rock shaft carried by said standard, an operating lug carried by said rock shaft and adapted to be engaged by a moving part of a printing press, a vertically extending vertically adjustable rod carried wholly by said rock shaft, a counter mechanism carried by said standard and a spring device connecting the upper end of said rod to said counter mechanism.

2. A counting attachment for printing presses comprising a standard, a horizontal rock shaft carried by said standard, an operating lug carried by said rock shaft and adapted to be engaged by a moving part of a printing press to rotate said shaft in one direction, a vertically extending rod wholly carried by said rock shaft, a counter mechanism carried by said standard, a spring device connecting the upper end of said rod to said counter mechanism, and means for adjusting said spring to vary the normal position of the rock shaft and the operating lug carried thereby.



3. A counting attachment for printing presses comprising a standard, a horizontal rock shaft carried by said standard, an operating lug carried by said rock shaft and adapted to be engaged by a moving part of a printing press, a vertically extending rod carried by said rock shaft, a counter mechanism carried by said standard, a counter operating arm connected to said counter mechanism, a laterally extending arm carried by the said vertical rod, a sleeve adjustably mounted on said arm and a spring device connecting the arm of the counter mechanism to the said sleeve.

4. A counting attachment for printing presses comprising a standard, a horizontal rock shaft carried by said standard, a rotatably and longitudinally adjustable operating lug carried by said rock shaft and adapted to be engaged by a moving part of a printing press, a vertically extending rod carried by said rock shaft, a counter mechanism carried by said standard and a spring device connecting the upper end of said rod to said counter mechanism.

5. A counting attachment for printing presses comprising a standard, a rock shaft carried by said standard, an operating lug carried by said rock shaft and adapted to be engaged by a moving part of a printing press, a vertically extending rod carried by said rock shaft, a counter mechanism carried by said standard near the upper end of said rod, and a device connecting the upper end of said rod to said counter mechanism.

[Claims 6 to 10 not printed in the Gazette.]

1,028,906. MEANS FOR ABSORBING NICOTIN. SAMUEL ALEXANDER REED, Brookston, Pa. Filed Dec. 20, 1910. Serial No. 598,318. (Cl. 131—12.)



A nicotin arrester for a pipe composed of an admixture of plaster of Paris with charcoal formed into a tablet, said tablet arranged to be held in the bowl of the pipe and having a plurality of peripheral recesses for communication with the stem of the pipe.

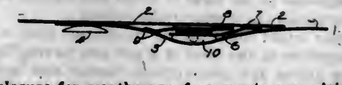
1,028,907. BOTTLE-STOPPER. FRANK RUSSELL, Adelaide, South Australia, Australia. Filed May 13, 1911. Serial No. 626,969. (Cl. 215—53.)



1. A bottle-stopper, comprising in combination a stopper, a plurality of longitudinally extending holes in said stopper, a plurality of longitudinal grooves formed in the sides of said stopper, passages connecting said holes with said grooves and a length of fibrous material passing through said holes, passages and grooves and being formed on the outer side of the cork into a loop by means of which the withdrawal of the cork may be effected.

2. A bottle-stopper, comprising in combination a stopper, two longitudinally extending holes in said stopper, two longitudinal grooves formed in the sides of said stopper, two passages formed in the inner end of the cork connecting said holes with said grooves and a length of fibrous material, the center portion of said material extending across the top of said cork between said holes and the end portions being passed through said holes, end passages and side grooves and being joined together on the outer side of the cork to form a loop by which the withdrawal of the cork may be effected.

1,028,908. CLOSURE FOR WEATHERPROOF GARMENTS. LAWRENCE T. SAWYER, Newton, Mass. Filed Dec. 19, 1910. Serial No. 598,010. (Cl. 2—86.)



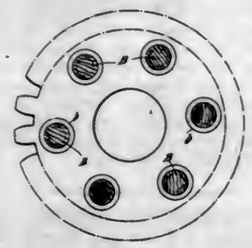
1. A closure for weatherproof garments comprising overlapping side portions, strips attached to the opposing faces of said overlapping side portions and having free edges normally extending backwardly from the free edges of said side portions, means for fastening said closure including fasteners for securing said strips together with their under faces lying in contact and fasteners for securing said overlapping side portions together so that when said side portions are secured together the strips will be folded back along the side portions to which they are respectively attached and have their free edges overlapping each other in a direction opposite to the overlapping of the side portions to form an interlocking weatherproof joint.

2. A closure for weatherproof garments comprising overlapping side portions, strips of flexible material sewn to the opposing faces of said side portions, each strip having one of its edges sewn to one of the side portions and having its free edge normally extending backwardly from the free edge of the side portion to which it is sewn, said flexible strips being of less width than the opposing faces of said overlapping side portions so that they may be entirely concealed between said opposing faces, and means for fastening said closure including fasteners on said strips for securing the strips together with their under faces in contact and fasteners for securing the overlapping side portions together after the strips are fastened together so that the overlapping side portions will lie flat against each other with the flexible strips folded back along the side portions to which they are respectively sewn and with their free edges overlapping each other in a direction opposite to the overlapping of the side portions to form an interlocking joint entirely concealed between the opposing faces of the side portions.

3. A closure for weatherproof garments comprising two overlapping side portions, strips of flexible material sewn

to the opposing faces of said side portions, each strip having one of its edges sewn to one of the side portions by a line of stitches somewhat back from the free edge of said side portion and having its free edge normally extending backwardly from the free edge of the side portion, said flexible strips being of less width than the opposing faces of said overlapping side portions so that they may be entirely concealed between said opposing faces, and means for fastening the overlapping side portions together so that said strips will be folded back along the side portions to which they are respectively sewn with their faces lying in contact and with their free edges overlapping each other in a direction opposite to the overlapping of the side portions to form an interlocking joint entirely concealed between the opposing faces of the side portions, whereby the closure presents the appearance of the usual single lap closure both on the inside and the outside of the garment.

1,028,909. GEAR-WHEEL. JAMES SAY, York, England. Filed June 16, 1911. Serial No. 633,534. (Cl. 74—28.)



1. A gear wheel comprising a continuous strip of metal wound edgewise in the form of a coil and having the teeth extending across the convolutions thereof.

2. A gear wheel comprising a continuous strip of metal wound edgewise in the form of a coil and having the teeth extending across the convolutions thereof and means for securing the convolutions together.

3. A gear wheel comprising a strip of metal wound in the form of a coil and having the teeth extending across the convolutions thereof, and plugs of a sound deadening material extending through holes formed in the metal strip across the convolutions thereof.

4. A gear wheel comprising a strip of metal wound in the form of a coil and having the teeth extending across the convolutions thereof, and plugs extending through holes formed in the metal strip across the convolutions thereof and formed with spaced bearing surfaces arranged to bear against each alternate convolution of the coil.

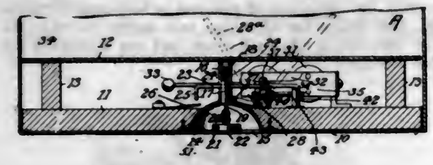
5. A gear wheel comprising a strip of metal wound in the form of a coil and having the teeth extending across the convolutions thereof, metal sleeves extending through holes formed in the metal strip across the convolutions and formed with spaced bearing surfaces arranged to engage with each alternate convolution and plugs of a sound deadening nature driven into the said sleeves so as to expand the aforesaid bearing surfaces into intimate contact with the adjacent portions of the convolutions.

[Claim 6 not printed in the Gazette.]

1,028,910. SAFETY JEWEL-CHEST. HERMAN SCHMARSOW, New York, N. Y. Filed Nov. 25, 1911. Serial No. 662,261. (Cl. 177—316.)

1. A chest having an apertured bottom, a tubular sleeve extending upwardly therefrom, a spring-influenced plunger slidable in said sleeve, a link depending from the plunger, a friction shoe depending from said link, the shoe and link being accommodated within the bottom aperture, an electric alarm within the chest, and an alarm circuit controlled by the plunger.

2. A chest provided with an inverted cup-shaped member inserted into the chest-bottom, a tubular sleeve extending upwardly from said member, a spring-influenced plunger slidable in said sleeve, a link depending from the plunger, a friction shoe depending from said link, the shoe and link being accommodated within the cup-shaped member, an electric alarm within the chest, and an alarm circuit controlled by the plunger.

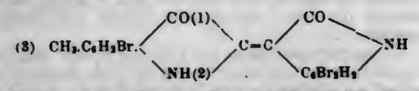


3. A chest provided with a lid, a lock-bolt for said lid, a contact spring carried by said bolt, a stud depending from the lid and adapted to engage the contact spring, a fixed contact pin adapted to be engaged by the spring, an electric alarm within the chest, and an electric alarm circuit controlled by said contact spring and pin.

1,028,911. REDDISH-BLUE VAT DYESTUFFS AND PROCESS OF MAKING SAME. ALBRECHT SCHMIDT and KARL THIESS, Höchst-on-the-Main, Germany, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Oct. 20, 1910. Serial No. 588,148. (Cl. 8—1.)

1. As new products, the herein-described dyestuffs obtainable by brominating the product obtained by condensing 7-methylindoxyl and isatin, the brominated product containing in a molecule from two to five atoms of bromin, being bluish-violet powders insoluble in water, very difficultly soluble in alcohol, difficultly soluble in chloroform to a violet solution, more readily soluble in anilin and nitrobenzene, difficultly soluble in concentrated sulfuric acid to a dark green solution, yielding when reduced with hydrosulfite and alkali a yellowish vat by which cotton and wool are dyed reddish-blue tints.

2. As a new product, the herein described vat dyestuff, having the formula



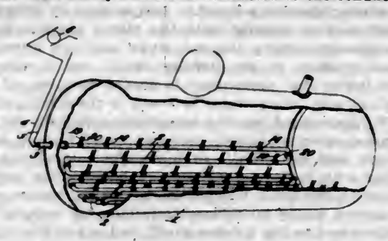
obtainable by brominating the product obtained by condensing 7-methylindoxyl and isatin, being a bluish-violet powder, insoluble in water, very difficultly soluble in alcohol, difficultly soluble in chloroform to a violet solution, more readily soluble in anilin and nitrobenzene, soluble in concentrated sulfuric acid to a dark-green solution, yielding when reduced with hydrosulfite in caustic soda lye a yellowish vat, by which cotton and wool are dyed reddish-blue tints.

3. The herein described process of manufacturing reddish-blue vat dyestuffs, which consists in treating with bromin the product obtained by condensing 7-methylindoxyl and isatin.

4. The herein described process of manufacturing reddish-blue vat-dyestuffs, which consists in treating with bromin, in presence of a sulfur acid, the product obtained by condensing 7-methylindoxyl and isatin.

1,028,912. ELECTRIC STEAM-GENERATOR. SULTAN SCHOENBROON, Pittsburgh, Pa. Filed Jan. 4, 1912. Serial No. 669,349. (Cl. 219—40.)

1. An electric steam generator, having a water reservoir, a conduit within the reservoir and hermetically sealed therewithin, an electrical source of energy, a circuit leading therefrom, the conductors of which are mounted within said conduit, said conduit being provided with a plurality of apertures in spaced relation throughout the length thereof, and a plug carrying a pair of electrodes mounted in each aperture and connected to the conductors.



2. An electric steam generator, having a water reservoir, a conduit within the reservoir and hermetically sealed therewithin, an electrical source of energy, a circuit leading therefrom, the conductors of which are mounted within said conduit, said conduit being provided with a plurality of apertures in spaced relation throughout the length thereof, a plug sealing each aperture, and a pair of electrodes connected to and carried by the plug and connected to the conductors within the conduit.

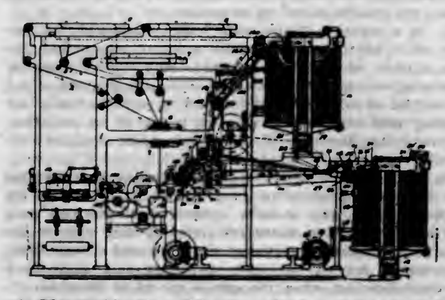
3. An electric steam generator, having a water reservoir, a conduit within the reservoir, an electrical source of energy, a circuit leading therefrom and having the conductors thereof mounted within the conduit and protected from the water by the conduit, said conduit being provided with a plurality of apertures, a plug hermetically sealing each aperture, and two electrode carrying plugs mounted in each sealing plug and electrically connected to the conductors within the conduit.

4. An electric steam generator, having a water reservoir, a conduit within the reservoir, an electrical source of energy, a circuit leading therefrom and having the conductors thereof mounted within the conduit and protected from the water by the conduit, said conduit being provided with a plurality of apertures, a plug hermetically sealing each aperture, and two electrode carrying plugs mounted in each sealing plug and electrically connected in parallel to the conductors within the conduit.

5. An electric steam generator, having a water reservoir, a conduit within the reservoir, an electrical source of energy, a circuit leading therefrom having the conductors thereof mounted within the conduit, said conduit being provided with a plurality of apertures, a plug hermetically sealing each aperture, two electrode carrying plugs mounted in each sealing plug and insulated therefrom, the inner ends of said plug being connected to the respective conductors within the conduit, and an electrode terminal carried by each of the electrode carrying plugs.

[Claims 6 and 7 not printed in the Gazette.]

1,028,913. PRINTING-MACHINE. EDWARD P. SHELDON, New York, N. Y., assignor, by mesne assignments, to R. Hoe and Co., New York, N. Y., a Corporation of New York. Filed May 22, 1907. Serial No. 375,003. (Cl. 101—120.)



1. The combination with means for supporting two piles of sheets, of means for forwarding a sheet from each pile and at the same time producing a relative movement between the sheets and sidewise to their direction of movement whereby they are superposed, and means for folding the superposed sheets.

2. The combination with means for forwarding a web, of web severing means, means for supporting two piles of sheets side by side, means for forwarding a sheet from each pile and at the same time producing a relative sidewise movement between the sheets whereby they are superposed, means for associating the superposed sheets with the web product, and means for folding together the sheets cut from the web and the superposed sheets.

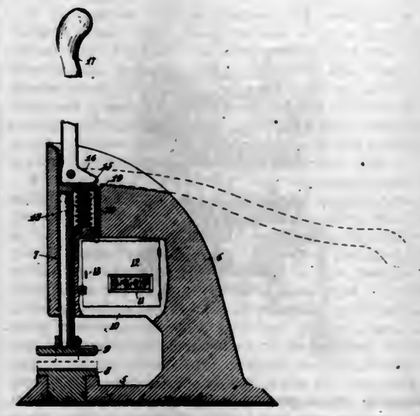
3. The combination with means for forwarding a web, of web severing means, means for supporting two piles of sheets side by side, means for forwarding sheets from the piles and simultaneously producing a relative sidewise movement between the sheets whereby they are superposed, and means for folding together the superposed sheets and sheets cut from the web.

4. The combination with means for forwarding a web, of web severing means, means for supporting a pile of multi-length sheets, a collecting cylinder to which the web sheets are fed, means for forwarding a multi-length pile sheet, and a detaining cylinder operating to produce an interval between the successive pile sheet deliveries.

5. The combination with means for forwarding a web, of web severing means, means for supporting a pile of multi-length sheets, a collecting cylinder to which the web sheets are fed, means for forwarding a multi-length pile sheet, a detaining cylinder operating to produce an interval between the successive pile sheet deliveries, and a cutting cylinder coöperating with the detaining cylinder.

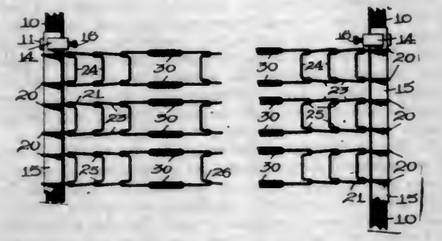
[Claims 6 to 8 not printed in the Gazette.]

1,028,914. REGISTERING SEAL-PRESS. CARTER D. STAMPER, Beattyville, Ky. Filed June 21, 1910. Serial No. 568,095. (Cl. 235—101.)



The combination of a seal press comprising an overhanging arm having relatively long and relatively short parallel bores extending vertically therein, and provided with a cavity between the upper ends of said bores and an enlarged recess below and communicating with the shorter bore, a slidable die plunger mounted in the longer bore, a register actuating plunger slidable in the short bore, a register mounted in said recess and with which said actuating plunger coöperates, a flat cross head connecting the upper ends of the two plungers in spaced relation, a spring seated in said cavity and bearing upwardly against said cross head, and a lever pivoted in the bore overhanging arm and having a cam for engagement with the upper surface of the said cross head.

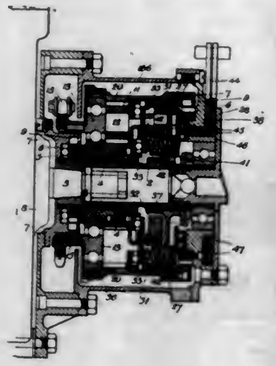
1,028,915. BED-BOTTOM. JOSEPH STOTT, Worcester, Mass. Filed Apr. 15, 1910. Serial No. 555,704. (Cl. 5—67.)



1. In combination with a bed bottom frame, of two adjusting bars extending respectively the length of the side rails of said frame and supported over the same, means for supporting these bars on the respective side rails, means for adjusting the bars in and out and at each end of each bar independently, and a resilient fabric extending transversely of the frame and supported solely on said longitudinal bars, for the purpose herein set forth.

2. In combination with a bed frame, of two bars extending respectively the length of the side rails of said frame, means for supporting these bars on and above the respective side rails of said frame, means for adjusting one of these bars in and out and also each end of the bar independently, and a resilient fabric extending transversely of the bed frame and supported solely on said longitudinal bars, for the purpose herein set forth.

1,028,916. VARIABLE-SPEED GEARING. JOHN JAMES HENRY STURMEY, Coventry, England. Filed Mar. 13, 1911. Serial No. 614,213. (Cl. 74—34.)



1. Variable speed gearing comprising a driving shaft, epicyclic gearing mounted loosely thereon, a power transmission member carried by said gearing mechanism for releasably connecting the epicyclic gearing with the driving shaft, and one-way clutch devices for preventing backward rotation of the extreme members of the epicyclic gearing.

2. Variable speed gearing comprising a driving shaft, epicyclic gearing mounted loosely thereon, a power transmission member carried by the intermediate member of the epicyclic gearing, mechanism for releasably and severally connecting members of the epicyclic gearing with the driving shaft, and a one-way clutch device for automatically arresting backward rotation of one of the extreme members of the epicyclic gearing when the other is locked to the driving shaft.

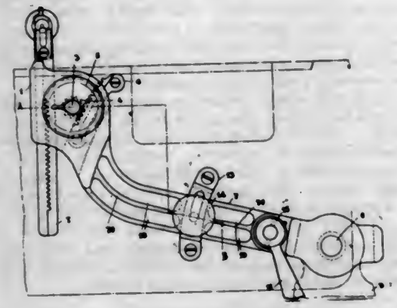
3. Variable speed gearing comprising a driving shaft, a sun wheel mounted loosely thereon, planet pinions meshing with said sun wheel, a planet pinion carrier, a power transmission member secured to said carrier, an internally toothed annulus meshing with the planet pinions, means for releasably locking the sun wheel and the internally toothed annulus to the driving shaft, and a one-way clutch device for preventing backward rotation of the sun wheel when the annulus is locked to the driving shaft.

4. Variable speed gearing comprising a driving shaft, a sun wheel mounted loosely thereon, planet pinions meshing with said sun wheel, an internally toothed annulus meshing with the planet pinions, a planet pinion carrier, a power transmission member in driving connection with said carrier, means for releasably locking the annulus and the sun wheel to the driving shaft, and a one-way clutch device for preventing backward rotation of the annulus when the sun wheel is locked to the driving shaft.

5. Variable speed gearing comprising a driving shaft, a sun wheel mounted loosely thereon, planet pinions meshing with said sun wheel, a planet pinion carrier, a power transmission member in driving connection with said carrier, an internally toothed annulus meshing with said pinions, means for releasably locking the annulus and sun wheel to the driving shaft, and a one-way clutch device for preventing backward rotation of the sun wheel when the annulus is locked to the driving shaft, and a one-way clutch device for preventing backward rotation of the annulus when the sun wheel is locked to the driving shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,028,917. SIGHTING DEVICE FOR MACHINE-GUNS AND THE LIKE. BORIS SVISTOUNOFF, St. Petersburg, Russia. Filed Feb. 13, 1911. Serial No. 608,242. (Cl. 89—32.)



1. In a sighting device with independent sighting line for use with quick-firing guns a stand supporting the gun, a lever connected at one end to said stand, a casing carried upon the other end of said lever, a rack slidably mounted within said casing, a sight upon said rack, and means for automatically adjusting the rack in a vertical direction when the gun is moved in elevation.

2. In a sighting device with independent sighting line for use with quick-firing guns a stand supporting the gun, a lever connected at one end to said stand, means for clamping said lever to the stand, a sight supported at the other end of said lever, and means for automatically adjusting said sight when the gun is moved in elevation, whereby the direction of the sighting line remains constant.

3. In a sighting device with independent sighting line for use with quick-firing guns horizontal trunnions for supporting the gun, a lever connected at one end to a horizontal trunnion, means for clamping said lever to the trunnion, a sight supported at the other end of said lever, and means for automatically adjusting said sight in a vertical direction when the gun is moved in elevation.

4. In a sighting device with independent sighting line for use with quick-firing guns a stand supporting the gun, a lever connected at one end to said stand, a casing at the other end of said lever, a pin passing through said casing, a toothed pinion carried upon said pin and a toothed wheel firmly connected thereto, a toothed rack upon the rear end of the gun and engaging with said toothed pinion, a rack slidably mounted within the casing and engaging with said toothed wheel, and a sight upon said rack.

5. In a sighting device with independent sighting line for use with quick firing guns horizontal trunnions for supporting the gun, a lever connected at one end to a horizontal trunnion, a sight supported at the other end of the lever, means for automatically adjusting said sight in a vertical direction when the gun is moved in elevation, a spring arm formed upon the lever, a screw fixed to said lever and passing through its spring arm, a ring upon the spring arm, projections formed upon said ring, a nut upon the screw, and projections upon said nut.

[Claims 6 to 10 not printed in the Gazette.]

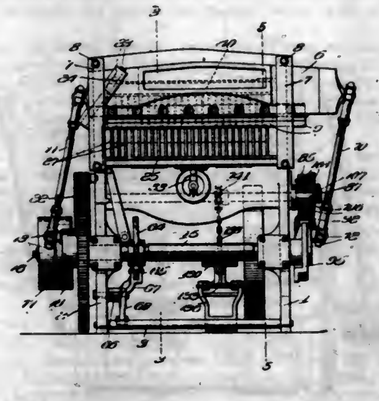
1,028,918. DELIVERY-GOODS RECEIVER. INNES T. VERDIN, Glendale, Ohio. Filed Jan. 13, 1912. Serial No. 671,002. (Cl. 232—41.)



1. In a device for the temporary reception of delivery goods, the combination of a box, a door for the same, key-operatable locking mechanism to hold the door in closed postion, but normally in inoperative condition, a bracket consisting of spaced complementary gripping arms, rigidly secured inside of the box and opposite the door, they being of elastic material to impart spring action, and adapted to support a bottle placed between them by engaging the same at the neck thereof, a pusher on the door opposite the bracket and adapted to act upon the bottle for the purpose of insuring proper placing of the same upon the bracket, means provided above the bracket and susceptible of being actuated by a bottle while being placed between the gripping arms of the bracket, and intermediate devices whereby these means are operatively connected to the locking mechanism and whereby this latter is caused to become operative when a bottle is placed within the box.

2. In a device for the temporatry reception of delivery goods, the combination of a box, a door for the same, a key-operatable latch pivotally secured to the inner side of the door, a keeper adjustably supported inside of the box and adapted to co-act with the latch for holding the door in closed position, but normally inoperative, a bracket provided inside of the box opposite the door thereof and permitting suspension of a bottle in the manner stated, a rocker-rod mounted in the box above this bracket, an arm on this rod, a link whereby it is connected to the keeper and an additional arm on this rod and positioned to be above the bracket mentioned and in a position so as to be actuated by the top of a bottle while the same is being placed upon the bracket, whereby the keeper is caused to assume a position in which it becomes capable of co-acting with the latch.

1,028,919. PAPER-CUTTING MACHINE. DARIUS T. WADHAMS, Oswego, N. Y., assignor to Niel Gray, Jr., Oswego, N. Y. Filed July 30, 1909. Serial No. 510,452. (Cl. 164—55.)



1. In a paper cutting machine, the combination with the knife and the clamp to coöperate with the knife during the cutting operation, of clamp sustaining means normally to elevate the clamp and mechanism independent of the clamp to depress said sustaining means to permit the clamp to lower and rest upon the work by gravity.

2. In a paper cutting machine the combination with a suitable frame and table thereon, a clamp fitted to the frame, clamp elevating springs oppositely arranged and operating to elevate the clamp by their combined tension, and means automatically to depress one spring whereby the clamp may descend by gravity against the tension of the opposite spring to bear upon the work with the balance of its weight.

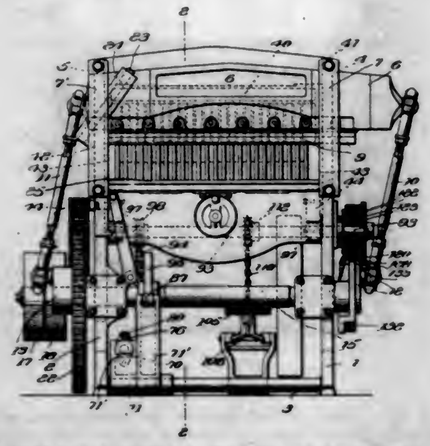
3. In a paper cutting machine the combination with a suitable frame and a table thereon, a drive shaft, a knife, connections between the drive shaft and the knife to operate the knife, a clamp fitted to the frame, spring pressed arms arranged to engage the clamp at its opposite ends and adapted to elevate the clamp by their combined strength, and connections between the drive shaft and one arm to depress the arm to permit the clamp to descend by gravity against the tension of the opposite arm.

4. In a paper cutting machine the combination with a suitable frame and a table thereon, a knife, a drive shaft, connections between the knife and the drive shaft whereby the knife is operated, a clamp, racks depending therefrom at either end, spring pressed arms arranged adjacent to the depending racks, rollers on the arm ends in engagement with the under portion of the racks whereby said arms operate to elevate the clamp their combined strength being necessary therefor, stop lugs on the arms, opposing lugs on the frame in position to be engaged by the arm lugs when the clamp is in elevated position, a cam on the drive shaft, and connections between the cam and one of the arms whereby said arm is depressed to permit the clamp to descend by gravity on to the work against the tension of the opposite arm.

5. In a paper cutting machine the combination with a suitable frame and a table thereon, a knife, a drive shaft, connections between the knife and the drive shaft, whereby the knife is operated, a clamp, racks depending therefrom, a clamp shaft, rack-pinions on the clamp shaft in mesh with the racks, a pressure-device on the clamp shaft through which said shaft is operated whereby a clamping pressure is produced on the work by the clamp, a pressure-cam on the drive-shaft, an operating jaw for the pressure-device arranged to be thrown into operation by the cam to produce the clamping pressure and means to adjust the position of said jaw relative to the pressure cam whereby the pressure is adjusted for a longer or shorter period.

[Claims 6 to 16 not printed in the Gazette.]

1,028,920. PAPER-CUTTING MACHINE. DARIUS T. WADHAMS, Oswego, N. Y., assignor to Niel Gray, Jr., Oswego, N. Y. Filed Oct. 19, 1910. Serial No. 587,851. (Cl. 164—54.)



1. In a paper cutting machine, the combination with the knife and the clamp to coöperate with the knife, of a clamp-shaft, connections from the clamp-shaft to the clamp, to lower the clamp when the shaft is rotated, a drive-shaft, connections from the drive-shaft to the clamp-shaft to rotate the clamp-shaft to lower the clamp, a spring embodied in said last named connections to exert its pressure on the work, a pressure device arranged to impart a rotatable pressure to the clamp-shaft when actuated and means to actuate the pressure device.

2. In a paper cutting machine, the combination with the knife and the clamp to coöperate with the knife, of a clamp-shaft, connections from the clamp-shaft to the clamp to lower the clamp when the shaft is rotated, connections to the clamp-shaft to lower the clamp, said clamp lowering connections being adapted when actuated to lower the clamp and to produce a constant holding pressure thereon, means to actuate the connections, means to return connections to their initial positions, a pressure device arranged to impart a rotatable pressure on the clamp-shaft when actuated and means to actuate the pressure device to produce a clamping pressure on the work.

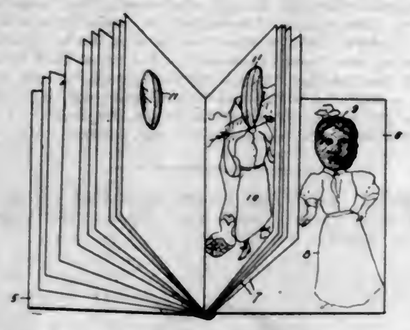
3. In a paper cutting machine, the combination with the knife and the clamp to coöperate with the knife, of a clamp-shaft, connections from the clamp-shaft to the clamp to lower the clamp when the shaft is rotated, connections to the clamp-shaft to rotate the shaft to lower the clamp, a spring embodied in said connections, means to actuate the connections to rotate the clamp-shaft and to energize the spring, a pressure device arranged to impart a rotatable pressure to the clamp-shaft when actuated, means to actuate the pressure device to produce a clamping pressure on the work, and independent manually operated connections to rotate the clamp-shaft to lower the clamp onto the work.

4. In a paper-cutting machine, the combination with the knife and the clamp to coöperate with the knife, of means to elevate the clamp, oppositely arranged bell-crank levers suitably journaled, a spring interposed between the arms of said levers, connections from one of the levers to the clamp, and means to actuate the other lever to lower the clamp through the interposed spring and to energize the spring when the clamp bears on the work.

5. In a paper cutting machine, the combination with the knife and the clamp to coöperate with the knife, of a clamp-shaft, connections from the clamp-shaft to the clamp to lower the clamp when the shaft is rotated, oppositely arranged bell-crank levers suitably journaled, opposed bearing heads pivotally carried on the respective lever arms, a spring interposed between the bearing heads, connections from one bell-crank lever to the clamp-shaft whereby the shaft is rotated, a roller on the opposite lever, a drive shaft and an engaging element on the drive-shaft to engage the roller to actuate the levers to depress the clamp.

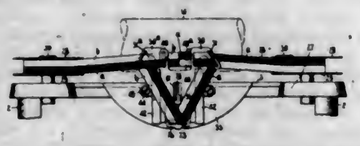
[Claims 6 and 7 not printed in the Gazette.]

1,028,921. PICTURE-BOOK. FRANK U. WAGNER, Milford, Ind. Filed Oct. 31, 1908. Serial No. 460,509. (Cl. 11—20.)



A book having designs on its leaves and on the inside of its rear cover, a portion of the cover design being formed in relief, and a portion of the design on each leaf being cut away to provide a sight opening, all of said openings registering with each other and with the cover design to form a passage into which the relief portion of the cover design projects, to complete the design of any leaf at which the book is opened, and to emphasize the completed portion of such design.

1,028,922. TYPE-WRITING MACHINE. JOHN WALDHEIM, Newark, N. J., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed May 27, 1911. Serial No. 629,795. (Cl. 197—157.)



1. In a typewriting machine, the combination of a platen, ribbon guiding mechanism for maintaining the ribbon in the vicinity of the printing point and for directing the ribbon at one side of the platen in a polygonal course of an odd number of sides, and means for controlling said guiding mechanism to present at will opposite edge portions of the ribbon to the types, said means being adjustable independently of movement of said mechanism.

2. In a typewriting machine, the combination of ribbon guiding mechanism for directing the ribbon triangularly in the vicinity of the printing point, and means for controlling said guiding mechanism to present at will opposite edge portions of the ribbon to the types.

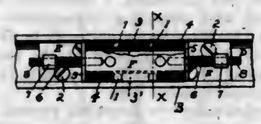
3. In a typewriting machine, the combination of ribbon guides for maintaining the ribbon in triangular form at one side of the printing point, and means including said guides for vibrating selected portions of the triangularly maintained part of the ribbon.

4. In a typewriting machine, the combination of ribbon guides for maintaining the ribbon in triangular form at one side of the printing point, and means for at will vibrating selected ones of said guides.

5. In a typewriting machine, the combination of a plurality of ribbon vibrators coöperative with a single ribbon, and means for at will vibrating predetermined ones of said vibrators.

[Claims 6 to 37 not printed in the Gazette.]

1,028,923. SELF-ADJUSTING CLAMP-BAR FOR DOOR AND FURNITURE CLAMPS. FREDERICK WELKER, Williamsport, Pa. Filed Feb. 9, 1911. Serial No. 607,661. (Cl. 144—291.)



1. An independent self-contained clamping device embracing in its construction, a bar having a recess in one face, bearing plates located at intervals therein, anti-friction members rolling on said plates, other bearing plates freely adjustable longitudinally to the bar and acting to retain said anti-friction members and receive the pressure of the work for the purposes set forth.

2. In a door or furniture clamp, a platen, a self adjusting clamping bar having a longitudinal recess, fixed bearing plates therein, anti-friction members rolling on said plates, movable retaining plates outside said anti-friction members and extending beyond the edges of the recess, means for holding said outside plates in place, and means within the recess for returning said outside plates to normal position after the clamping operation is completed.

3. In a door or furniture clamp an intermediate self adjusting clamping bar embracing in its construction a longitudinal recess, fixed bearing plates therein, movable outside pressure plates, anti-friction members between said plates, flanges or lugs at the ends of said movable plates, studs secured in said lugs, springs embracing the studs and compressed against rigid lugs on the fixed plates, whereby each anti-friction element becomes a unit of construction for the purposes set forth.

1,028,924. FUSE AND ADJUSTING-KEY THEREFOR. ULRICH WILCK, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Apr. 4, 1908. Serial No. 425,157. (Cl. 86—23.)



1. An adjusting key for fuses comprising setting members and means for coupling said members with the fixed and movable parts respectively of a fuse, and a retaining device for the adjusting key independent of said coupling means and adapted to engage within a circumferential groove of the fuse and hold the setting key against displacement from the fuse.

2. An adjusting key for fuses comprising setting members and means for coupling said members with the fixed and movable parts respectively of a fuse, a retaining device for the adjusting key independent of said coupling means and adapted to engage within a circumferential groove of the fuse and hold said setting key against displacement from the fuse, and a member on the retaining device through which it is removed from engaging position.

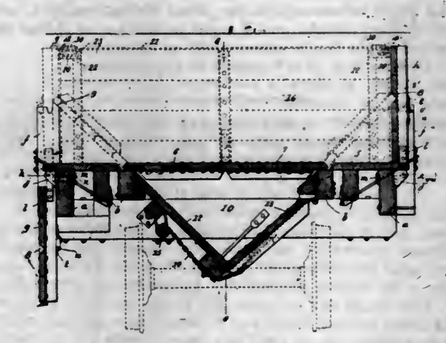
3. An adjusting key for fuses comprising an annular setting member provided with a means for coupling it with the adjustable fuse part, and a manually releasable bolt adapted to engage a circumferential groove of the fuse and having a permanently fixed angular distance from said coupling means for preventing the key being lifted off the fuse.

4. An adjusting key for fuses comprising an annular setting member provided with a means for coupling it with the adjustable fuse part, and a manually releasable bolt situated permanently opposite to said coupling means and adapted to engage a circumferential groove of the fuse for preventing the key being lifted off the fuse.

5. An adjusting key for fuses comprising an annular setting member provided with a means for coupling it with the adjustable fuse part, and a manually releasable bolt adapted to engage a circumferential groove between the fixed and adjustable fuse part and having a permanently fixed angular distance from said coupling means for preventing the key being lifted off the fuse.

[Claims 6 to 9 not printed in the Gazette.]

1,028,925. CAR. WINFIELD HANCOCK YOST, Montreal, Quebec, Canada, assignor to Rodger Ballast Car Company, Chicago, Ill., a Corporation of Maine. Filed Nov. 21, 1910. Serial No. 593,531. (Cl. 105—15.)



1. A ballast car comprising an understructure including a flooring, side walls hinged to such understructure and having the spaces extending transversely above the car flooring between the ends thereof unobstructed, such walls being adapted to swing outwardly and downwardly from upright position, side stakes rigidly secured to the understructure and disposed substantially outwardly of the said side walls when the latter are in upright position, and means locking such side walls to the side stakes.

2. In a ballast car, the combination with the understructure thereof, of side stakes rigidly secured to the understructure, and side walls hinged to the understructure, such side walls being of greater height than the side stakes and adapted to inclose the latter.

3. In a ballast car, the combination with the understructure, of side walls hinged at their lower ends to the understructure, side stakes rigidly secured to and projecting upwardly from the understructure and disposed substantially outwardly of the inner faces of the side walls when the latter are in upright position, and means for locking such side walls to such side stakes, such locking means being carried by the side walls and disposed completely outwardly of the inner faces thereof.

4. In a ballast car, the combination with the understructure thereof, of side stakes rigidly secured to the understructure, side walls hinged to the understructure, such side walls being of greater height than the side stakes and adapted to inclose the latter, and means for locking such side walls in upright position.

5. In a ballast car, the combination with the understructure thereof, of side stakes rigidly secured to the understructure, side walls hinged to the understructure, such side walls being of greater height than the side stakes and adapted to inclose the latter, and means for locking such side walls to the side stakes.

[Claims 6 to 15 not printed in the Gazette.]

1,028,926. NON-INFLAMMABLE LUBRICANT AND PROCESS OF PREPARING THE SAME. JONAS W. AYLSWORTH, East Orange, N. J., assignor of one-half to Frank L. Dyer; Montclair, N. J. Filed Oct. 14, 1910. Serial No. 587,043. (Cl. 87—9.)

1. As a new composition of matter, a lubricant comprising finely divided graphite and a chlorin substitution product of naphthalene, substantially as described.

2. As a new composition of matter, a lubricant comprising a liquid halogen substitution product of naphthalene and finely divided graphite in suspension therein, substantially as described.

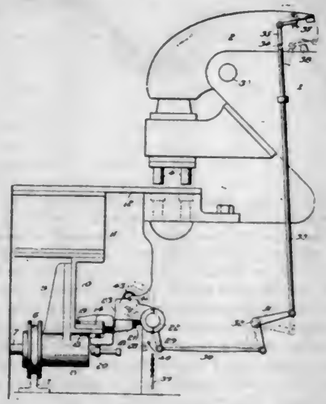
3. As a new composition of matter, a lubricant comprising a liquid halogen substitution product of naphthalene, finely divided graphite, and a thickening agent, substantially as described.

4. As a new composition of matter, a lubricant comprising liquid chloro-naphthalene, finely divided graphite, and solid chloro-naphthalene, substantially as described.

5. As a new composition of matter, a lubricant comprising liquid chloro-naphthalene, finely divided graphite, solid chloro-naphthalene, and a small percentage of rubber dissolved in the liquid, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,028,927. FEED MECHANISM FOR PUNCHING-PRESSES. VAN TUYL H. BIEN, Quincy, Mass. Filed Oct. 30, 1911. Serial No. 657,542. (Cl. 164—117.)



1. Feed mechanism for punching presses comprising in combination a work-bearing carriage, a clamp affixed to said carriage having a projecting arm, a stop-member upon the press frame normally in the path of said arm, and unitary means under control of the press rocker-arm for automatically removing said stop-member from the path of said clamp arm.

2. Feed mechanism for punching presses comprising in combination a work-bearing carriage, a spacing rack on one side of said carriage, a clamp adjustably affixed to said spacing rack having a projecting arm, a stop-member upon the press frame normally in the path of said arm, and unitary means under control of the press rocker-arm for automatically removing said stop-member from the path of said clamp arm.

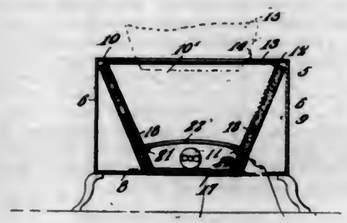
3. Feed mechanism for punching presses comprising in combination a work-bearing carriage, a graduated spacing rack on one side of said carriage, a plurality of clamps adjustably affixed to said spacing rack, a horizontal arm projecting from each of said clamps, a stop-member upon the press frame normally in the path of said arms, and unitary means under control of the press rocker-arm for automatically removing said stop-member from the path of said clamp arms.

4. Feed mechanism for punching presses comprising in combination a work-bearing carriage, a graduated spacing rack on one side of said carriage, a plurality of adjustable spacing clamps having teeth adapted to engage with those of the rack aforesaid, a horizontal arm projecting from each of said clamps, a stop-member pivotally supported upon the press frame normally in the path of said arms, and means under control of the press rocker-arm for automatically raising said stop-member out of the path of each successive clamp arm.

5. Feed mechanism for punching presses comprising in combination a work-bearing carriage, a series of spacing clamps affixed to said carriage each having a projecting arm, a stop-member upon the press frame having a transverse rib normally in the path of said arms, and means under control of the press rocker-arm for automatically removing said stop-member from its normal position to permit passage of the clamp arms aforesaid after performing their respective functions.

[Claims 6 to 10 not printed in the Gazette.]

1,028,928. STOVE AND FURNACE. FERNAND A. BROUSSARD, Carencro, La. Filed Mar. 29, 1911. Serial No. 617,741. (Cl. 126—347.)

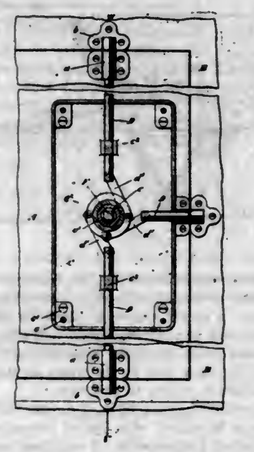


A stove or furnace, comprising a casing rectangular in shape and provided with an enlarged aperture in one end thereof, and a removable closure therefor, of a combined ash pit and fire box removably mounted within the casing through the open end thereof, said combined ash pit and fire box being in the form of a truncated triangle in cross section, with a sealed rear end spaced from the closed end of the casing and with an open front end adjacent the closure controlled aperture end thereof, and a curved grate disposed between the inclined walls of the combined ash pit and fire box and dividing the same into the ash pit and fire box, the inclined walls of the combined ash pit and fire box being spaced apart, the space between the same having a heat insulating filling therein.

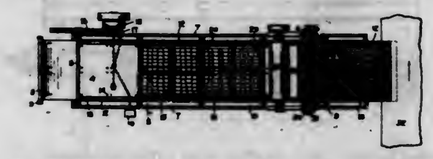
1,028,929. DOOR-LOCK. JOHN CALDWELL, New York, N. Y. Filed May 2, 1911. Serial No. 624,645. (Cl. 70—46.)

1. A door-lock comprising a rotary key-barrel, having a flanged retaining collar and recesses for receiving tumblers, a divided cylinder encircling said key-barrel and inclosing said collar, said cylinder having tumbler recesses registering with those in said key-barrel and tumblers within said recesses, in combination with a spindle having connection with said key-barrel and a knob and bolts connected with said spindle, whereby the turning of said key-barrel by a key or the knob may be made to cause a thrust of said bolts for locking and unlocking.

2. A door-lock, comprising a rotary key-barrel having a flanged retaining collar, a divided cylinder having a recess within which said collar may move, means for securing said key-barrel within said cylinder, an actuating shank connected with said key-barrel, a spindle connected with said shank, and a bolt connected with said spindle, whereby the turning of a key operates to give said bolt a thrust.



1,028,930. MACHINE FOR MAKING PLASTER-BOARD. DE LANCEY A. CAMERON, Geneseo, N. Y., assignor to Delac Plaster Co., Mumford, N. Y., a Corporation of New York. Filed May 20, 1911. Serial No. 628,569. (Cl. 25—92.)

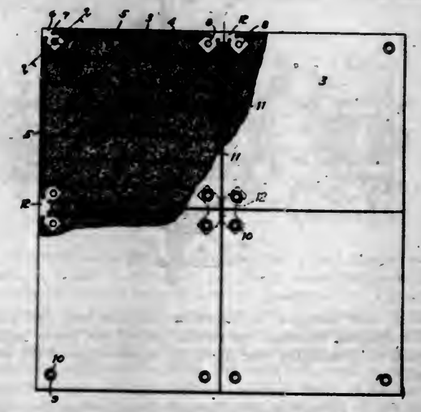


1. A machine for making plaster-board comprising a flexible, endless bed adapted to constitute the bottoms of a succession of molds, rigid side-bars removably secured to and carried by the lateral edges of the bed to constitute side-walls for said molds, drums over which the bed is stretched, means for moving the bed about said drums, and means for removing the side bars automatically from the bed as it passes over one of the drums.

2. A machine for making plaster-board comprising a flexible, endless bed adapted to constitute the bottom of a succession of molds, cross-bars normally fixed to the bed to constitute the end-walls of the molds, rigid side-bars mounted upon the lateral edges of the bed to constitute the side-walls of the molds, the side bars being separable from the bed by movement in a plane normal thereto, drums over which the bed is stretched, means for moving one of the drums intermittently to advance the bed, means for discharging plastic material into the molds, and a support adjacent one of the drums and substantially on a level with the upper surface of the bed so as to receive from the bed the molded boards and the side-bars as the bed passes around said drum.

3. A machine for making plaster-board comprising an endless belt of flexible material adapted to constitute the bottom of a succession of molds, cross-bars normally fixed to the bed to constitute the end-walls of the molds, drums over which the bed is stretched, means for moving the bed and the drums intermittently, and rigid side-bars constituting the sides of the mold, the side-bars and the bed having coöperating abutments and recesses whereby the side-bars are temporarily secured in place on the bed but are permitted to separate from the bed, with the finished plaster-board, when the bed reaches one of said drums.

1,028,931. PLASTER-BOARD. DE LANCEY A. CAMERON, Geneseo, N. Y., assignor to Delac Plaster Co., Mumford, N. Y., a Corporation of New York. Filed Oct. 31, 1911. Serial No. 657,882. (Cl. 72—124.)



1. A plaster-board comprising a panel of plastic composition, sheet-metal anchorages embedded in the panel adjacent its corners and extending outwardly approximately to the edges of the panel, the anchorages being provided with nail-receiving perforations, and reinforcing wires embedded in the panel parallel with, and close to, its edges and fixed at their ends to the anchorages.

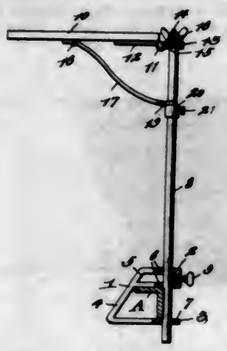
2. A plaster-board comprising a panel of plastic composition, sheet-metal anchorages embedded in the panel adjacent its corners and extending outwardly approximately to the edges of the panel, the anchorages being provided with nail-receiving perforations located at a substantial distance within the edges of the board, and reinforcing wires embedded in the panel parallel with, and close to, the edges thereof and fixed to the anchorages at points nearer to the edges of the board than said nail-receiving perforations.

3. A plaster-board comprising a panel of plastic composition, reinforcing wires embedded in said panel and extending parallel with, and close to, the edges thereof, and anchorages at the corners of the panel, each anchorage comprising a piece of sheet-metal embedded in the panel substantially parallel with and intermediate its opposite surfaces, the anchorage extending from the extreme corner of the panel inwardly, said wires being connected with the anchorages, and each anchorage extending inwardly beyond its points of connection with the wires and being provided, in said inward extension, with a nail-receiving perforation.

1,028,932. INVALID'S TABLE. FRANK J. COLLINS, Topeka, Kans. Filed Oct. 7, 1911. Serial No. 653,300. (Cl. 45—82.)

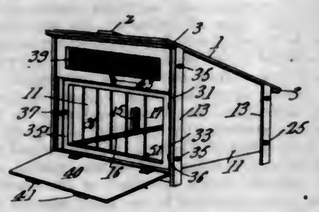
The combination with a base adapted for attachment to a bed rail, said base being formed with upper and lower apertured members adapted to embrace the rail, said members being formed with openings, a standard mounted in said opening and adapted to extend across the outer side of the rail, a set screw carried by one of said members and arranged to impinge against the standard to hold the same in different vertically adjusted positions, the standard being provided at its upper end with a threaded stud, a hinge provided with a leaf and an apertured member which latter is mounted for a turning movement on said stud, a binding nut acting on the stud against said member, a table top secured to the other member of the hinge, the mem-

bers of the hinge being connected by a horizontal pivot, a set collar encircling the standard and vertically adjustable thereon, and a brace pivotally connected at one end to the under face of the table top and formed with a forked



opposite end adapted to partially encircle the rod and have a bearing thereon, the forked end of the brace being adapted to detachably rest upon the upper edge of the set collar.

1,028,933. KNOCKDOWN CHICKEN-COOP. WILLIAM H. COMPTON, Orleans, Ind. Filed Mar. 20, 1911. Serial No. 615,698. (Cl. 217—39.)

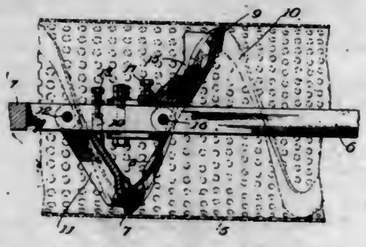


A knockdown coop including side panels, cleats secured to end portions thereof and extending therebelow to constitute supporting legs, end panels, means for tying the faces of the side panels and adjacent the lower edges thereof, strips secured along the upper edges of the side panels and upon the inner faces of said panels, a top panel bearing upon the upper edges of the side and end panels, transverse cleats secured to the end portions thereof and lapping the upper edges of the end panels, strips secured longitudinally along the lower face of the top panel and interposed between and abutting at their ends against the end panels, said strips lying against the inner faces of the strips upon the side panels, and buttons secured to the lower faces of the strips on the top panel and movable under the strips on the side panels to lock the top panel upon the side and end panels, and a bottom panel slidably mounted within the guides on the side panels.

1,028,934. COMBINED CONVEYER AND SCRAPER FOR CENTRIFUGAL MACHINES. BENJAMIN DENVER COPPAGE, Wilmington, Del. Filed Sept. 16, 1911. Serial No. 649,606. (Cl. 127—3.)

1. In a centrifugal machine, the combination with a perforated drum or rotor, of a spiral conveyer blade in said rotor formed of a succession of overlapping sections each movable independently of other sections with relation to the interior surface of the rotor.

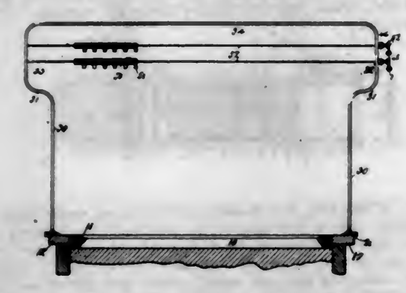
2. In a centrifugal machine, the combination with a perforated drum or rotor, of a core extending longitudinally in said rotor, and a spiral conveyer blade in said rotor formed in sections each pivotally supported from said core for movement toward or from the interior surface of the rotor.



3. In a centrifugal machine, the combination with a perforated drum or rotor, of a core extending longitudinally in said rotor, a spiral conveyer blade in said rotor formed in sections, and supporting arms extending between said core and said blade sections respectively, each arm being secured at its outer end to its blade section and at its inner end pivotally joined to the core.

4. In a centrifugal machine, the combination with a perforated drum or rotor, of a spiral conveyer blade in said rotor formed of a succession of sections, means supporting said sections in the rotor, and means yieldingly holding some of said sections in contact with the inner surface of the rotor.

1,028,935. GAME-COUNTER. WILLIAM L. DEMING, Salem, Ohio. Filed June 24, 1911. Serial No. 635,200. (Cl. 235—123.)



1. The combination, with a game table having side rails, of an inverted U-shaped frame having its legs movably carried by the side rails, and a string of counters carried by such frame.

2. In a device of the character described, the combination of an inverted U-shaped frame, guides adapted to be stationarily carried, means for establishing a sliding connection between the legs of the frame and such guides, and a string of counters carried by the frame.

3. In a device of the character described, the combination, with a pair of stationary guide plates, blocks slidably mounted thereon, a U-shaped frame having its legs secured to the blocks respectively, a wire extending between the legs of the frame, and shiftable counters strung on such wire.

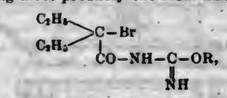
4. In a game counter, the combination of a stationary guide plate, a shiftable block riding thereon, a tubular standard rising from said block, a counting device connected with the standard, and a locking pin within the standard adapted to project into a slot in the guide plate.

5. The combination, with a game table, of a plate secured thereto and overhanging the edge, a block slidably mounted on said plate and formed to extend across and beneath its outer edge, the plate being longitudinally slotted, a standard rising from the block, a counting device connected with said standard, and a pin carried with the block and adapted to project into the slot.

[Claims 6 to 14 not printed in the Gazette.]

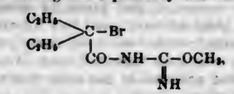
1,028,936. ALKYL ETHER OF ISOUREA. MAX ENGELMANN and BENEDICT MERKEL, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Aug. 9, 1911. Serial No. 643,197. (Cl. 23—24.)

1. The herein described ethers of diethylbromoacetylisourea having most probably the formula:



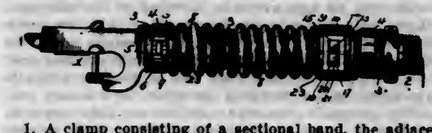
in which R means a hydrocarbon radical being crystalline powders; being converted into bromodiethylacetylurea by treatment with a hot acid; and being valuable sedatives, substantially as described.

2. The herein described methylether of diethylbromoacetylisourea having most probably the formula:



being a crystalline powder melting at 70° C. difficultly soluble in cold water, easily soluble in alcohol, ether, acetone and in acids; and being a valuable sedative, substantially as described.

1,028,937. CLAMPING-BAND FOR ATTACHING HOSE TO COUPLING-NIPPLES. JOHN W. FREE, West Pittsburg, Pa., assignor to Safety-Armorite Conduit Company, Pittsburgh, Pa. Filed Dec. 22, 1911. Serial No. 667,308. (Cl. 137—28.)



1. A clamp consisting of a sectional band, the adjacent ends of the sections being provided with locking lugs, one of said lugs being provided with a plurality of shoulders, and loops for adjustably securing the band in place, substantially as set forth.

2. A clamp consisting of a sectional band, the adjacent ends of the sections being provided with locking lugs, one of said lugs being provided with a plurality of shoulders, and also provided with a lug for the engagement of a coupling tool, and loops for adjustably securing the band in place.

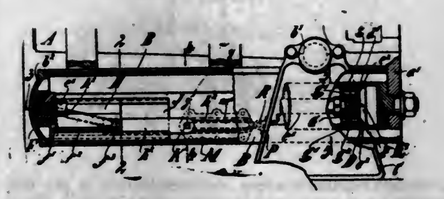
3. A clamp consisting of a sectional band, the adjacent ends of the sections being provided with locking lugs, one of said lugs being provided with a plurality of shoulders, the band sections being provided on their inner sides with spiral grooves substantially as set forth.

4. The combination with a flexible steel armor, of a sectional clamping band, each section provided on its inner surface with spirally arranged grooves, the adjacent ends of the sections being provided with locking lugs, the lug on one section having a plurality of shoulders, and loops for adjustably clamping the band sections on the end of the flexible steel armor, substantially as set forth.

1,028,938. PROCESS OF PRODUCING DIVINYL. FRITZ HOFMANN and CARL COUTELLE, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed July 6, 1911. Serial No. 637,208. (Cl. 23—24.)

The process of producing divinyl which consists in completely alkylating tetramethylenediamin, converting the thus obtained product into the corresponding quaternary ammonium base and finally decomposing this ammonium base by means of alkali, substantially as described.

1,028,939. FLUID-BRAKE FOR RECOIL-GUNS. WALTER HEILEMANN, Essen-on-the-Ruhr, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Sept. 20, 1910. Serial No. 582,914. (Cl. 89—43.)



1. A recoil mount for guns with fluid recoil brake comprising a cradle, a cylinder, relatively revoluble parts in the cylinder having fluid restricting passageways, a guideway fixed on the cradle and disposed lengthwise of the same, a member slidable within the guideway and provided with a cam-slot, one of said revoluble parts having connecting engagement with the cam-slot, and a means connecting the sliding member with a part of the gun mount not partaking of the elevation movement of the gun barrel, whereby to effect rotation of said revoluble member through the slot connection and regulate the recoil length of the gun barrel.

2. A recoil mount for guns with fluid recoil brake comprising a cradle, a cylinder, a piston and piston rod within the cylinder and secured to the cradle, a sleeve mounted on the piston rod adjacent the piston and having therein fluid restricting passageways, a guideway mounted within the cradle, a slide operable within the guideway and having a diagonally disposed slot, an arm on the piston rod having engagement with the slot, and adapted to be rotated thereby and turn the piston relatively to the sleeve, and a link connection between the slide and a part of the gun not partaking of the elevation movement of the gun barrel, said link connection being adapted to effect movement of the slide on the elevation of the gun barrel whereby to regulate the recoil length thereof.

3. A recoil mount for guns with fluid recoil brake comprising a cradle, a cylinder within the cradle, fluid throttling means within the cylinder, a guideway mounted within the cradle and disposed lengthwise of the same, a slide operable within the guideway and provided with a cam-slot having connection with the fluid throttling means, a link connection between the slide and a part of the gun mount not partaking of the elevation movement of the gun barrel whereby to effect the automatic regulation of the fluid throttling means on the elevation of the gun barrel, said link connection passing through an aperture in the cradle, and means associated with said slide adapted to maintain said aperture closed to the ingress of foreign matter at the different angles of elevation of the gun barrel.

1,028,940. SPRINKLER-NOZZLE. RUDOLPH M. HUNTER, Philadelphia, Pa. Filed Aug. 15, 1910. Serial No. 577,150. (Cl. 169—5.)

1. In a sprinkler nozzle, the combination of the body having a valve seat, with a valve piece therefor, a two part mechanism interposed between the body and the valve piece to hold said valve piece upon the seat one member of said mechanism consisting of a freely acting spring lever and the other of an oblique strut, an adjustable abutment screw to adjust the position of the oblique strut a spraying or distributing member carried by the body in line with the valve seat and having a central pin at its top, and a fusible member for normally retaining the spring lever under heavy tension connected at one end to the

spring lever and at the other to the pin of the distributing member, the parts being so constructed that upon the release of the spring lever by the fusible member it will forcibly act to fully disrupt the fusible member before being reached by the water.



2. In a sprinkler nozzle, the combination of the body having a valve seat, with a valve piece therefor, a mechanism interposed between the body and the valve piece to hold said valve piece upon the seat one member of said mechanism consisting of a freely acting spring lever formed of spring sheet metal made double-ply for a portion only of its length and adjacent to the valve end and single-ply at its free and longer end, and a fusible member for normally retaining the single ply end of the spring lever under heavy tension, the parts being so constructed that upon the release of the spring lever by the fusible member it will forcibly act to fully disrupt the fusible member before being reached by the water.

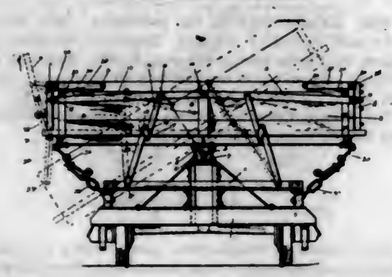
3. In a sprinkler nozzle, the combination of the body having a valve seat, with a valve piece therefor, a mechanism interposed between the body and the valve piece to hold said valve piece upon the seat one member of said mechanism consisting of a freely acting spring lever formed of spring sheet metal made double-ply for a portion only of its length and adjacent to the valve end by being folded upon itself nearer one end than the other and single-ply at its free and longer end, and a fusible member for normally retaining the spring lever under heavy tension, the parts being so constructed that upon the release of the spring lever by the fusible member it will forcibly act to fully disrupt the fusible member before being reached by the water.

4. In a sprinkler nozzle, the combination of the body having a nozzle, a valve therefor, an adjusting abutment screw, a two-part mechanism interposed between the abutment screw and the valve one of which parts consists of a long spring lever having its connection with the valve and other member of the mechanism out of alinement and made two-ply for a part of its length at and adjacent to said connection and in one of which plies is formed a seat for the other member of the mechanism and in the other of which plies is provided a seat directed toward and acting upon the valve, and a link having a fusible element between its ends and having one end supported from the body and the other end engaging the free end of the spring lever and normally maintaining it under great tension.

5. In a sprinkler nozzle, the combination of the body having a nozzle, a valve therefor, an adjusting screw abutment on the body directed toward the nozzle, a two-part mechanism interposed between the abutment screw and the valve one of which parts consists of a long spring lever having its connection with the valve and other member of the mechanism out of alinement but close to one end and made of a strip of spring sheet metal folded upon itself to form a two-ply structure one ply having a transverse groove for the other member of the mechanism and the other ply having a recess directed toward the valve and out of alinement with the groove, and a link having a fusible element between its ends and having one end supported from the body and the other end engaging the free end of the spring lever and normally maintaining it under great tension.

[Claim 6 not printed in the Gazette.]

1,028,941. DUMP-CAR. FRANK L. IRWIN, Columbus, Ohio, assignor to The Ralston Steel Car Company, Columbus, Ohio, a Corporation of Ohio. Filed May 26, 1911. Serial No. 629,715. (Cl. 105—191.)



1. In a dump car having doors thereon, an arm pivotally mounted at one end upon the body of said car and pivotally connected at its other end with said door, a plurality of links pivotally connected and pivotally mounted at one end upon the body of said car, and at the other end pivotally connected with the door, and a plurality of links pivotally connected together and pivotally united at one end to said arm and at the other end to the underframe of said car.

2. In a dump car, a car body, an arm pivotaly mounted thereon, a door pivotally connected with said arm, a plurality of pivotally connected links associated with said arm and with the underframe of said car to maintain said door in an elevated position, and a plurality of links pivotally connected together and mounted pivotally at one of their ends upon the body of said car and pivotally connected at their other end with said door, whereby said door is lifted away from said car body on the side of the car which is lowered during the dumping operation.

3. In a dump car having a car body and an underframe construction, an arm pivotally mounted at one end upon said car body, a door pivotally associated with the other end of said arm, a link construction pivotally connected with said underframe and said arm to maintain said door in an elevated position on the side of the car which is lowered during the dumping operation, and a link construction pivotally connected with the car body and with said door to swing the door when the car body recedes therefrom or approaches thereto.

1,028,942. SERVING APPARATUS. FRANCIS KORFF, Lansing, Mich., assignor to Korff Mfg. Co., Lansing, Mich. Filed Oct. 10, 1911. Serial No. 653,936. (Cl. 91—14.)



1. In a structure of the class described the combination with the base, of a roll holder mounted thereon; a moistening roller; a U-shaped bracket arranged on said base between said roll holder and moistening roller; a cross rod at the upper end of said bracket under which the tape is passed; a blade spring having a forwardly projecting flange at its upper end arranged to support the tape and to coact with said rod to provide tape holder jaws; a tape cutter and support pivotally mounted on said bracket to swing toward and from said tape holder jaws and said moistening roller; a spring arranged to hold said cutter yieldingly upward; and a catch.

3. In a structure of the class described, the combination with the base, of a roll holder mounted thereon; a moistening roller; a U-shaped bracket arranged on said base between said roll holder and moistening roller; a cross rod at the upper end of said bracket under which the tape is passed; a blade spring having a forwardly projecting flange at its upper end arranged to support the tape and to coact with said rod to provide tape holder jaws; and a tape cutter and support comprising a pair of plates spaced to receive the tape therebetween, the forward edge of the upper plate being adapted as a cutter, said upper plate having downturned pivot ears at its ends pivotally mounted on said bracket to swing toward and from said tape holder jaws and said moistening roller.

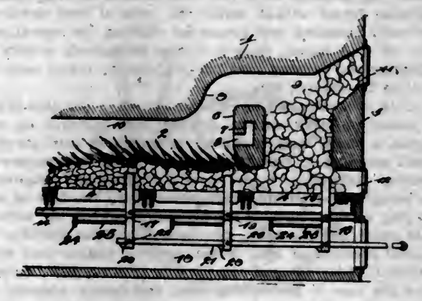
4. In a structure of the class described, the combination with the base, of a roll holder mounted thereon; a moistening roller; a U-shaped bracket arranged on said base between said roll holder and moistening roller; a cross rod at the upper end of said bracket under which the tape is passed; a blade spring having a forwardly projecting flange at its upper end arranged to support the tape and to coact with said rod to provide tape holder jaws; a tape cutter and support pivotally mounted on said bracket to swing toward and from said tape holder jaws and said moistening roller; and a catch arranged to engage said cutter when it is in an intermediate position, for the purpose specified.

5. In a structure of the class described, the combination of a roll holder mounted thereon; a U-shaped bracket; a cross rod at the upper end of said bracket under which the tape is passed; a blade spring having a forwardly projecting flange at its upper end arranged to support the tape and to coact with said rod to provide tape holder jaws; a tape cutter and support comprising a pair of plates spaced to receive the tape therebetween, the forward edge of the upper plate being adapted as a cutter, said upper plate having down-turned pivot ears at its ends pivotally mounted on said bracket to swing toward and from said tape holder jaws; a spring arranged to hold said cutter yieldingly upward, the tops of the arms of the bracket being adapted to serve as stops for said cutter; and a catch pivoted on said cross rod to engage said cutter when it is in an intermediate position, for the purpose specified.

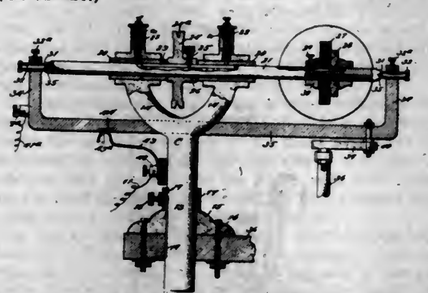
[Claims 6 to 12 not printed in the Gazette.]

1,028,943. GRATE. OTTO H. KRUEGER, Los Angeles, Cal. Filed Dec. 9, 1911. Serial No. 664,804. (Cl. 126—173.)

In a furnace, a grate, a transverse shaft mounted underneath the grate, longitudinally disposed supporting bars extending underneath the grate and in which the ends of the shaft are mounted for a longitudinally sliding movement, a tubular head mounted to turn on said shaft and provided with upwardly projecting tines designed to rake the grate and with a downwardly projecting arm, an actuating bar pivotally connected to said arm, means for limiting the pivotal movement of said arm relative to the bar in one direction, rods connected to said head and projecting downwardly therefrom in angular relation to the tines, and a rake carried by said rods.



1,028,944. FRICTION-GEARING. FLOYD D. LEACH, Chicago, Ill. Filed May 9, 1910. Serial No. 560,275. (Cl. 74—26.)



1. In a device of the class described, the combination of a motor, a driving disk mounted thereon, a movable frame adjacent thereto, a shaft mounted at its ends in said frame, a bearing for said shaft independent of said frame, a friction disk rigidly mounted on said shaft and adapted to be brought in frictional engagement with said driving disk, and means for shifting the lateral position of said frame whereby the friction disk is caused to travel over the face of said driving disk.

2. In a device of the class described, the combination of a motor, a driving disk mounted thereon, a movable frame adjacent thereto, a shaft mounted at its ends in said frame, a bearing for said shaft independent of said frame, a friction disk rigidly mounted on said shaft and adapted to be brought in frictional engagement with said driving disk, and foot-operated means for shifting the lateral position of said frame whereby the friction disk is caused to travel over the face of said driving disk.

3. In a device of the class described, a suitable stand, a motor provided with a driving disk mounted on said stand, a shaft support rigidly mounted on said stand, a shaft mounted to slide within bearings on said support, a friction disk rigidly mounted on said shaft and adapted to be brought in frictional engagement with the face of said driving disk, a movable frame within which the ends of said shaft are pivotally mounted, and means for shifting the lateral position of said frame, thereby sliding said shaft within its bearings and causing said friction disk to travel over the face of the driving disk.

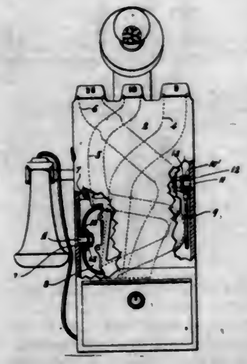
4. In a device of the class described, a suitable stand, a motor provided with a driving disk mounted on said stand, a shaft support rigidly mounted on said stand, a shaft mounted to slide within bearings on said support, a driv-

ing pulley mounted on said shaft whereby power may be transmitted from said motor, a friction disk rigidly mounted on said shaft and adapted to be brought in frictional engagement with the face of said driving disk, a movable frame within which the ends of said shaft are pivotally mounted, and means for shifting the lateral position of said frame, thereby sliding said shaft within its bearings and causing said friction disk to travel over the face of the driving disk.

5. In a device of the class described, a suitable stand, a motor provided with a driving disk mounted on said stand, a shaft support rigidly mounted on said stand, a shaft mounted to slide within bearings on said support, a friction disk rigidly mounted on said shaft and adapted to be brought in frictional engagement with the face of said driving disk, a movable frame within which the ends of said shaft are pivotally mounted, means for shifting the lateral position of said frame, thereby sliding said shaft within its bearings and causing said friction disk to travel over the face of the driving disk, and means whereby the shifting of said frame from a predetermined position closes an electrical circuit and starts said motor.

[Claim 6 not printed in the Gazette.]

1,028,945. TELEPHONE PAY-STATION. GEORGE A. LONG, Hartford, Conn., assignor to The Gray Telephone Pay Station Company, Hartford, Conn., a Corporation of Connecticut. Filed Jan. 24, 1910. Serial No. 539,676. (Cl. 116—1.)



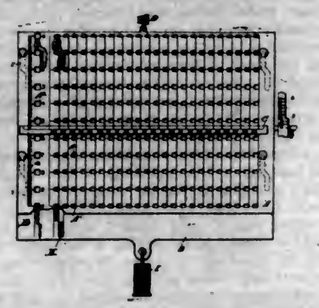
1. A telephone pay station comprising a case, a telephone transmitter supported by the case exteriorly thereof, a signal within said case, and a non-resonant connection between said signal and said telephone transmitter.

2. A telephone pay station comprising a case, a telephone transmitter supported by said case exteriorly thereof, a signal supported within the case, and a non-resonant connection between said signal and its support.

1,028,946. CHART FOR COMPUTING-SCALES. ANTHONY W. LOSHBOUGH, Detroit, Mich. Filed Sept. 14, 1910. Serial No. 581,937. (Cl. 73—104.)

1. In a chart for computing scales, a movable flat or planiform chart on which is indicated a plurality of numerals denoting value computations and also a relatively increasing weight capacity, and a flat plate provided with a plurality of rows of apertures co-acting with said chart through which a predetermined and relatively limited number of said numerals may be simultaneously viewed.

2. In a chart for computing scales, a fixed frame provided with suitable apertures in rows, a movable chart located back of the fixed frame on which are displayed a plurality of numerals indicating value computations and a relatively increasing weight capacity, said numerals adapted to be viewed through the apertures in the frame, and means for actuating said movable chart whereby certain rows of numerals indicating value computations and the weight indications corresponding therewith may be displayed at the same time through the apertured frame.



3. In a chart for computing scales, a fixed frame provided with a plurality of apertures, a movable chart located back of the fixed frame on which are displayed a plurality of numerals indicating value computations in stepped groups, also numerals indicating a relatively increasing weight capacity in line therewith, means for shifting said movable chart with reference to the apertured frame whereby said numerals may be displayed in rows through the openings in the latter, and means for effecting a lateral movement of said chart whereby a row of another group of computations may be displayed in line with the corresponding weight indications.

4. In a chart for computing scales, a fixed frame provided with a series of apertures in spaced rows, a movable chart located back of the fixed frame on which are displayed a plurality of numerals indicating value computations, also numerals indicating a relatively increasing weight capacity in line therewith, a spring designed to normally support the movable chart, a plurality of removable weights suspended from said chart adapted to operate in conjunction therewith whereby upon the addition or withdrawal of one or more of said weights said chart is adapted to present another row of numerals in line with said openings in the frame, due to the action of said spring.

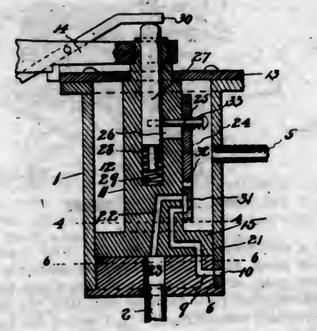
5. In a chart for computing scales, a fixed frame provided with a series of apertures in spaced rows, a movable chart located back of the fixed frame on which are displayed a plurality of numerals indicating value computations in stepped groups, said groups corresponding to the distance between the rows of apertures in the fixed frame, said chart also provided with numerals indicating a relatively increasing weight capacity in line with the rows of value computations, the chart being also provided with a stepped slotted opening adapted to receive a projecting pin carried by the fixed frame, the pin carried by the fixed frame, means for actuating said movable chart with reference to the fixed frame, and a graduated member adapted to indicate the adjustment necessary to present any required weight or value computations.

[Claims 6 to 11 not printed in the Gazette.]

1,028,947. VALVE. JAMES L. MCGEE, La Junta, Colo. Filed July 21, 1910, Serial No. 573,070. Renewed Apr. 20, 1912. Serial No. 692,212. (Cl. 137—7.)

A valve comprising a casing, a plug in one end of the casing, said plug having a central orifice, a pipe tapped into said orifice, other pipes tapped into the sides of the casing on opposite sides of the plug, the plug provided with ducts 7 and 8, communicating with the last-mentioned pipes, and an exhaust-duct 9 between the ducts 7 and 8, a valve-piston revolubly mounted in the casing and having one end fitting the casing and plug air-tight, the end of said piston provided with grooves 16 and 17, adapted to register with ducts 7 and 8, and a groove 18 constantly in communication with exhaust-duct 9, the

head of the piston also provided with ducts 19 and 20, communicating with said grooves 16 and 17, a duct 21 leading from groove 18 to the side of the piston, another duct 22 connecting the sides of the piston with the approximate center of the end of the piston and in alinement with the central orifice in the plug, a segmental plate



slidably mounted on the side of the piston, said plate provided with a groove adapted to connect the ends of ducts 21 and 22 and a transverse opening adapted to register with the duct 22, a supply-pipe tapped into the casing, and means to operate said valve-piston and segmental plate, substantially as shown as described.

1,028,948. CONTROLLER. JOSEPH F. MENNINGEN, West Allis, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Dec. 27, 1910. Serial No. 599,448. (Cl. 172—179.)



1. In a controller, the combination of a plurality of pivotally mounted drums adapted to be shifted relatively laterally to each other only when the controller is in off position.

2. In a controller, the combination of a plurality of hinged movable members, and a plurality of drums secured to said movable members and arranged so that the drums may be shifted relatively to each other only when the controller is in off position.

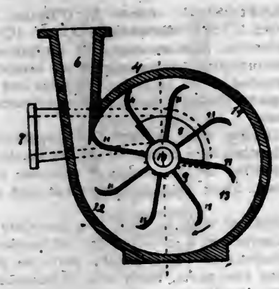
3. In a controller, the combination of a casing comprising a plurality of pivotally mounted parts, a drum in each of said parts, means whereby said parts may be shifted relatively to each other, and means whereby said parts may be shifted relatively to each other only when the drums are in certain predetermined positions.

4. In a controller, the combination of a casing comprising a plurality of pivotally mounted parts, a main drum mounted in one of said parts, a reversing drum mounted in another of said parts, and means for shifting the relative positions of said parts and drums only when the drums are in certain predetermined positions.

5. In a controller, the combination of a plurality of pivotally mounted drums, and means whereby said drums may be shifted relatively laterally to each other only when the controller is in off position.

[Claims 6 to 14 not printed in the Gazette.]

1,028,949. LIQUID-PUMP. LEWIS HALLOCK NASH, South Norwalk, Conn., assignor to Nash Engineering Company, a Corporation of New York. Filed Nov. 10, 1904. Serial No. 232,097. (Cl. 103—43.)



1. In a centrifugal pump, the combination of a casing having an outlet at its circumference, and having an inlet at its center at the side of the center line opposite the outlet passage, combined with an impeller wheel having blades forming contact with the side walls of the casing to separate the inlet and outlet ports.

2. In a centrifugal pump, a casing, a revolving member forming a fluid tight joint with the casing, at a certain point, an inlet port adjacent the center of the wheel for admitting fluid to one side of said point, and an outlet for the escape of the fluid at the opposite side of said point, said joint separating inlet and outlet columns.

3. The combination of a casing, a wheel forming a fluid-tight joint with the casing, a fluid inlet adjacent the center of the wheel on one side of the point where the joint is formed, an outlet in the opposite side of said joint outside the path of rotation of the wheel, said joint separating the inlet and outlet to prevent the back pressure at the outlet from having free escape into the inlet.

4. The combination of a casing, a wheel having blades forming a fluid-tight joint with the casing, a fluid inlet adjacent the center of the wheel on one side of the point where the joint is formed, an outlet on the opposite side of said joint, said joint separating the inlet and outlet to prevent back pressure at the outlet from having escape to the inlet, said blades being directed forward in the direction of rotation of the wheel.

5. In a centrifugal pump, a casing, a revolving impeller member forming a fluid-tight joint with said casing at a certain point, said revolving impeller member having reaction blades extending forward in the direction of the rotation of the pump, an inlet port at the center of the wheel for admitting fluid to one side of said point, an outlet port outside the periphery of the wheel for the escape of the fluid from the opposite side of said point, said joint separating the inlet and outlet columns.

[Claims 6 and 7 not printed in the Gazette.]

1,028,950. EXPLOSIVE. JAMES F. O'BRIEN, Chicago, Ill. Filed Sept. 20, 1911. Serial No. 650,373. (Cl. 52—1.)

1. An explosive, consisting of a chlorate of an alkali metal, a carbo-hydrate of the group $C_6H_{10}O_5$, and a silico-aluminous substance.

2. An explosive, consisting of a chlorate of an alkali metal and a carbo-hydrate of the group $C_6H_{10}O_5$ in the approximate proportions three to one, and a silico-aluminous substance.

3. An explosive, consisting of a chlorate of an alkali metal and a carbo-hydrate of the group $C_6H_{10}O_5$ in the approximate proportions three to one, and a substance containing a silico-aluminous compound.

4. An explosive, consisting of $KClO_3$, a member of the group $C_6H_{10}O_5$, and a silico-aluminous substance.

5. An explosive, consisting of $KClO_3$ and a member of

the group $C_6H_{10}O_5$ in the approximate proportions three to one, and a silico-aluminous material.

[Claims 6 to 8 not printed in the Gazette.]

1,028,951. EXPLOSIVE. JAMES F. O'BRIEN, Chicago, Ill. Filed Oct. 2, 1911. Serial No. 652,390. (Cl. 52—1.)

1. In combination with an explosive containing an alkali metal chlorate and a carbohydrate, an insulator coating firmly adhering to the explosive particles and containing an inflammable material, and an adhesive carbohydrate and an oxidizer.

2. In combination with an explosive containing an alkali metal chlorate and a carbohydrate, an insulator coating firmly adhering to the explosive particles and composed of carbon, black oxid of manganese and sugar of milk.

3. In combination with an explosive containing an alkali metal chlorate and a carbohydrate, an insulator coating firmly adhering to the explosive particles and composed of carbon two parts, black oxid of manganese two parts and sugar of milk one part.

1,028,952. EXPLOSIVE. JAMES F. O'BRIEN, Chicago, Ill. Filed Feb. 19, 1912. Serial No. 678,708. (Cl. 52—1.)

1. An explosive, comprising a chlorate of an alkali metal, a cereal flour, and a silico-aluminous material.

2. An explosive, comprising a chlorate of an alkali metal, a wheat flour, and a silico-aluminous material.

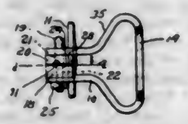
3. An explosive, comprising a chlorate of an alkali metal, wheat flour, and burned clay.

4. An explosive, comprising potassium chlorate, wheat flour, and burned clay.

5. An explosive, comprising potassium chlorate, wheat flour, starch, and burned clay.

[Claims 6 to 9 not printed in the Gazette.]

1,028,953. HINGE. ROBERT W. ONYONS, Boston, Mass., assignor of one-half to Frank Pickering, Dorchester, Mass. Filed Nov. 20, 1911. Serial No. 661,199. (Cl. 16—111.)

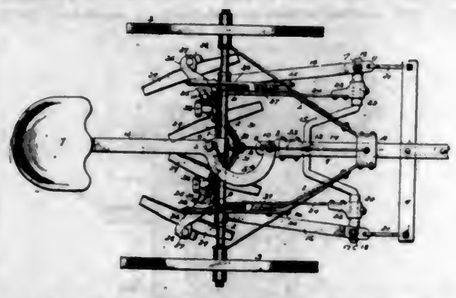


1. In a hinge, a stationary supporting spring leaf adapted to be secured to a wall, a movable leaf adapted to be secured to a blind or cover, a pintle on one of said leaves, a plurality of notches on one of said leaves adjacent to the bearing face on the other leaf, a lug on the opposite leaf and adapted to engage said notches, and a spring member integral with said stationary leaf and bearing against the movable leaf to cause said lug to seat in one of said notches.

2. In a hinge, a stationary supporting spring leaf adapted to be secured to a wall, a movable leaf pivoted to the said stationary leaf, a lug on one of said leaves, a plurality of radial grooves on the other leaf and adapted to engage with said lug, and a spring member integral with the stationary leaf and bearing against the movable leaf to cause said lug to seat in one of said notches.

3. In a hinge, a stationary supporting member comprising a substantially parallel spring supporting leaf and spring member integral therewith said stationary supporting member being adapted to be secured to a wall, a movable leaf pivoted to said spring supporting portion and locking mechanism between said movable leaf and said spring supporting leaf to lock said movable leaf in different positions relative to said supporting leaf.

1,028,954. CULTIVATOR. WILLIAM L. PAUL, South Bend, Ind., assignor to Oliver Chilled Plow Works, South Bend, Ind. Filed Feb. 26, 1909. Serial No. 480,271. (Cl. 97—35.)



1. In a cultivator, the combination with framework, a cultivator gang, and a part projecting upwardly from the cultivator gang, of upper and lower members having pivotal connection at their forward ends with the framework, means pivotally connecting the rear end of the lower member with the cultivator gang, means pivotally connecting the upper member with the upper end of the part projecting upwardly from the cultivator gang, and supporting means connected with said cultivator gang forwardly of the connections between the latter and said members.

2. In a cultivator, the combination with a frame, and beams pivotally supported at their forward ends and capable of free vertical movement on their pivotal supports, a cultivator gang connected by a horizontal pivot to the rear end of each beam, and flexible supporting means attached to said frame and connected at the lower end with the cultivator gangs in advance of the pivotal connection of the latter with the rear ends of said beams.

3. In a cultivator, the combination with a frame, pivoted beams suspended at their forward ends therefrom, and a plurality of cultivator gangs loosely connected with the rear ends of said beams by means of horizontal pivots, of an upwardly projecting yoke connecting the cultivator gangs, a link pivotally attached at one end to the frame and having pivotal connection at its other end with said yoke, and supporting means for the cultivator gangs connected with said gangs in advance of the pivotal connections between said gangs and the beams.

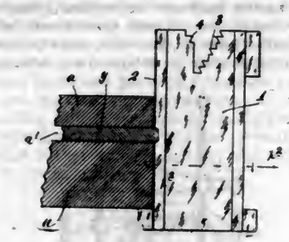
4. In a cultivator, the combination with a frame and pivoted beams suspended therefrom, of heads pivoted between their ends by horizontal pivots to the rear ends of said beams and at an angle to the latter, shanks secured to each head, cultivator blades carried by the shanks, arms projecting forwardly from the pivotal connection between the beams and heads, and means connected with said forwardly projecting arms for adjusting the gangs vertically and for supporting them.

5. In a cultivator, the combination with a frame and pivoted beams suspended therefrom, of S-shaped heads, each pivotally attached between its ends to the rear end of one of said beams, vertical shanks clamped to the respective ends of each S-shaped head, cultivator blades carried by said shanks, a link pivoted at one end to the frame, a yoke pivotally attached to the other end of said link and connected with the respective heads between the ends of the latter, and means connected with said heads for raising, lowering and supporting the same and the cultivator blades carried thereby.

[Claim 6 not printed in the Gazette.]

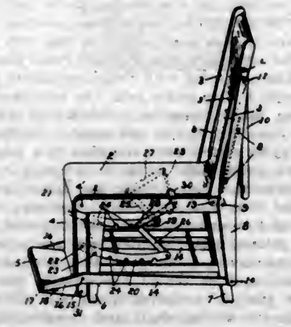
1,028,955. MATRIX FOR LINOTYPE-MACHINES. HANS PETERSEN, Minneapolis, Minn., assignor to The Linograph Manufacturing Company, Minneapolis, Minn., a Corporation of Minnesota. Filed May 13, 1911. Serial No. 626,959. (Cl. 199—12.)

1. The combination with a mold, of a multiplicity of matrices having beveled working edges which, when the matrices are assembled at the mold, afford air escape vents from the mold cavity.



2. A matrix having at one end a diverging notch formed on one edge with letter distributing teeth and formed on its opposing edge with a straight section and with font distributing teeth, substantially as described.

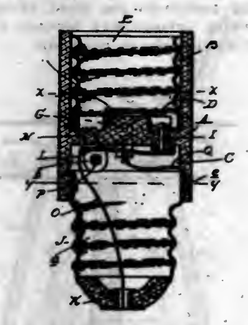
1,028,956. COMBINATION-CHAIR. LARS M. PETERSON, Bingham Canyon, Utah. Filed Aug. 28, 1911. Serial No. 646,524. (Cl. 155—16.)



1. The combination, with a chair-seat and its supports or legs, of a back-frame pivoted to said seat, a head-rest mounted at the upper end of said back-frame, a leg-rest pivoted to said seat, a foot-rest pivoted to said leg-rest, connections between said back-frame, leg-rest and foot-rest which move said leg-rest and back-frame angularly and said foot-rest parallel to said seat when said back-frame is swung pivotally, a flexible covering on said seat, back-frame and head-rest, a strut-support for said back frame, means for maintaining its normally suspended or substantially vertical position throughout the movements of said pivoted parts, and means for locking all of the said pivoted or movable parts against movement.

2. The combination with a chair-seat and its supports, of a back-frame having a head-rest thereon, said back-frame pivoted to said seat for tilting movement relative thereto, a flexible covering for said seat, back-frame and head-rest, a strut-support pivotally suspended on said back-frame at substantially the lower edge of said head-rest, a leg-rest pivotally suspended from said seat, a foot-rest pivoted to said leg-rest, a pair of levers pivoted to said strut-support and to said seat, connecting-bars pivoted to said levers and to said leg-rest and foot-rest, said levers supporting said foot-rest in its horizontal position throughout its movements and also supporting said strut-support in its vertical suspended position, the pivoting of said strut-support to said levers being below the pivoting thereof to said back-frame, whereby a pillow-offset is formed between the levers and head-rest, and slats 8' on said levers for supporting the back-portion of said flexible covering below the plane of said head-rest when said back-frame is tilted into a horizontal position.

1,028,957. PLUG-SOCKET. JAMES WILEY PHELPS, Detroit, Mich. Filed Apr. 9, 1909. Serial No. 488,999. (Cl. 173—344.)



1. In a plug socket, the combination with a tubular insulator body, of an insulator head arranged transversely therein intermediate the body ends, a switch member pivoted upon one side of the head and a contact therefor, and a center contact upon the opposite side of said head and secured to the latter by the switch pivot.

2. The combination of an insulator body having a recess or socket formed therein of a size to receive the shell of a plug contact, and a lateral opening extending through the socket wall, a plug contact positioned within the recess, and a retainer for uniting the parts fixed upon the exterior of the plug shell and engaging the opening in the wall of the recess.

3. The combination of an insulator body having a recess or socket formed therein, and an opening leading through the recess wall, of a shell contact located within the recess, and a solder member upon the shell engaging the opening.

4. The combination of an insulator body having a recess or socket formed therein, and an opening leading through the recess wall, of a shell contact located within the recess, a retainer for the shell engaging the opening, and a conductor within the body socket extending in operative relation to the opening and embedded within the retainer.

5. The combination of an insulator body having a socket formed therein, and a transverse opening leading through the socket wall, of a shell contact located within the socket, a conductor located within said socket extending within the opening, and material within said opening forming a connection between the body and shell and uniting the latter with the conductor.

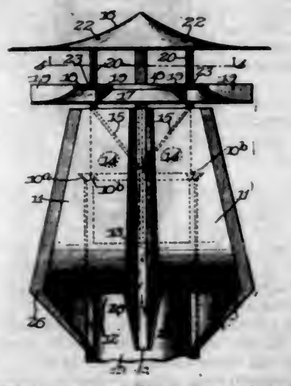
[Claims 6 to 11 not printed in the Gazette.]

1,028,958. CHIMNEY TOP OR VENTILATOR. JESSE L. PHILLIPS, Chicago, Ill. Filed May 8, 1911. Serial No. 625,934. (Cl. 98—4.)

1. In a chimney top or ventilator, the combination with a pipe, of a peripheral flange secured to the upper extremity of the pipe and forming an enlargement thereon, a hood having a larger inside diameter than the outside diameter of said pipe and flange, the said hood being secured adjacent to and extending beyond the upper extremity of the pipe whereby a draft passage is provided between the periphery of the pipe and the interior of the hood, and a cap comprising an imperforate cap plate supported above the top of the hood, and a perforated plate supported between the upper extremity of the hood and the said imperforate cap plate.

2. In a chimney top or ventilator, the combination with a pipe, of a hood having a larger inside diameter than the outside diameter of the pipe, the said hood being of a larger mean diameter than the outside diameter of the pipe and being corrugated to form a plurality of vertically extending passages alternating on the interior and exterior of the hood, a perforated top plate supported above the upper extremity of the hood, the said perforation in the top plate registering approximately with the passageway in the pipe but of sufficient diameter to permit

the discharge of currents from the alternate vertically extending passages both on the interior and exterior of the hood, and an imperforate cap plate supported immediately above the said perforated top plate, there being a peripheral discharge passage way between the perforated top plate and the imperforate cap plate.



3. In a chimney top or ventilator, the combination with a pipe, of a hood adapted to surround the upper extremity of the pipe, the said hood being of a larger mean diameter than the outside diameter of the pipe and being corrugated to form a plurality of vertically extending passages alternating on the interior and exterior of the hood, the said interior passages being closed longitudinally by the walls of the pipe whereby a plurality of vertical draft passages are formed around the exterior of the pipe and discharging into the upper extremity of the hood beyond the upper end of the pipe, and a cap supported above the top of the hood.

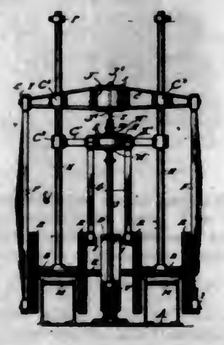
4. In a chimney top or ventilator, the combination with a pipe, of a hood having a larger inside diameter than the outside diameter of the pipe, the said hood being secured adjacent to and extending beyond the upper extremity of the pipe whereby a draft passage is provided between the periphery of the pipe and the interior of the hood, a division plate secured to the hood near its upper extremity but separated from the walls of the hood at its lower extremity whereby the hood may be telescoped over the pipe walls, there being shoulders formed at the ends of the offsets of the said division plates adjacent the walls of the hood to furnish seats for supporting the hood on the upper extremity of the pipe.

5. In a chimney top or ventilator, the combination with a pipe, of a hood having a larger inside diameter than the outside diameter of the pipe, the said hood being secured adjacent to and extending beyond the upper extremity of the pipe whereby a draft passage is provided between the periphery of the pipe and the interior of the hood, a cap comprising an imperforate cap plate supported above the top of the hood, a perforated plate supported between the upper extremity of the hood and the said imperforate cap plate, the perforation in the last said plate being adapted to register with the discharge opening in the upper extremity of the hood, and a division plate secured within the discharge opening between the upper extremity of the pipe and the hood, the said plate being adapted to divide the discharge opening of the pipe into a plurality of vertically extending passages and having its upper edge cut at an acute angle to the vertical axis of the pipe.

[Claims 6 to 18 not printed in the Gazette.]

1,028,959. DOUBLE-ACTING PUMP-JACK. WILLIAM T. PITTMAN, Fort Worth, Tex., assignor to Crescent Pump Works, Fort Worth, Tex., a Corporation of Texas. Filed Aug. 16, 1911. Serial No. 644,291. (Cl. 103—62.)

1. In a double acting pump jack, the combination of a bed, guide rods rising therefrom, a horizontal shaft journaled in the bed and carrying wheels arranged in pairs, the wheels of each pair being at opposite sides of one of the guide rods, and cross heads guided vertically on said rods, one above the other, one of said cross heads being connected to the end wheels of the series and the other cross head being connected with the intermediate wheels.



2. In a double acting pump jack, the combination of a bed, guide rods rising therefrom, a horizontal shaft journaled in the bed and carrying four gears, a driving shaft journaled in the bed and having pinions meshing with the respective gears, a cross head guided on said rods and connected with the end gears, and a second cross head guided on said rods and connected with the intermediate gears.

3. In a double acting pump jack, the combination of a bed a driving shaft journaled horizontally therein, a driven shaft journaled in the bed parallel to the driving shaft and carrying four wheels arranged in a longitudinal series, upright guide rods rising from the bed between the intermediate and end wheels, an upper cross head guided on said rods and connected by pitmen with the end wheels, and a lower cross head guided on said rods and connected by pitmen with the intermediate wheels.

4. In a double acting pump jack, the combination of a bed, a driving shaft journaled horizontally therein and carrying four pinions, a driven shaft journaled in the bed parallel to the driving shaft and carrying four gears meshing with the respective pinions, guide rods rising from the bed, a pump-rod-carrying cross head guided by said rods and connected with the end gears on said driven shaft, and a second pump-rod-carrying cross head, below the first, guided on said rods and connected with the intermediate gears of the series.

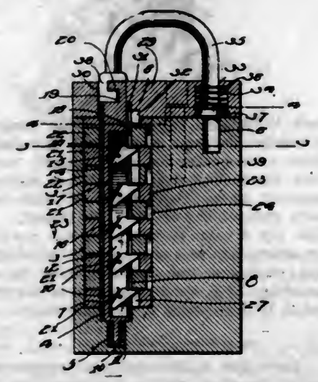
5. In a double acting pump jack, the combination of a bed, guide rods rising therefrom, a relatively long cross head guided on said rods at points between the center of said head and the ends of the same, whereby the ends of the cross head project laterally beyond the guide rods, a second, relatively short cross head having its ends embracing the guide rods below the first named cross head, pump rods carried by the respective cross heads and telescoping with each other, and means to operate the cross heads oppositely.

[Claims 6 to 15 not printed in the Gazette.]

1,028,960. COMBINATION-PADLOCK. ELI PORTER, Lawrence, Mass. Filed Aug. 1, 1911. Serial No. 641,708. (Cl. 70—113.)

1. In a lock, a body portion provided with a longitudinally extending socket, a sleeve mounted in said socket, and provided with a longitudinally extending slot, a shaft slidably mounted in said sleeve, latches pivotally connected with said shaft and projecting through said slot, locking disks and spacing washers alternately mounted upon said sleeve and said locking disks adapted to be engaged by said latches to lock said shaft within said socket, and a shackle pivotally and slidably connected with said body portion and adapted to be engaged by said shaft to lock said shackle.

2. A lock comprising a body portion provided with a longitudinally extending socket having a reduced inner end, a spring mounted in said reduced end, a shaft mounted in said socket and contacting with said spring, a sleeve surrounding said shaft and provided with a longitudinally extending slot, a plurality of latches pivotally connected with said shaft and projecting through said slot, locking disks and spacing washers mounted in said socket and surrounding said sleeve, said locking disks adapted to engage said latches, and a shackle pivotally and slidably connected with said body portion and adapted to be engaged by said shaft.



3. A lock comprising a body portion provided with a longitudinally extending socket having a reduced inner end and a well formed at the bottom of said reduced end, a sleeve provided with a longitudinally extending slot mounted in said socket and fitting within said reduced end, a shaft provided with a longitudinally extending recess, and a pin extending from the inner end of said shaft into said well, a spring mounted in said well, and surrounding said pin, latches pivotally mounted in said recess and projecting through said slot, locking disks mounted in said socket and adapted to engage said latches to lock said shaft, and a shackle pivotally and slidably connected with said body portion and adapted to be engaged by said shaft.

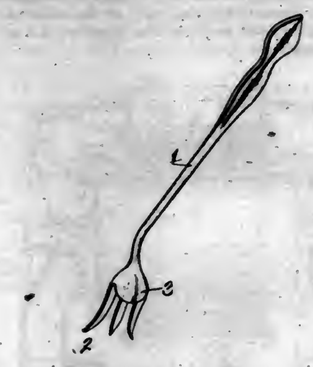
4. A lock comprising a body portion provided with a longitudinally extending socket, a shaft mounted in said socket and provided with a longitudinally extending recess, a plurality of latches pivotally mounted in said recess, a plate secured to the inner wall of said recess, a plurality of springs mounted upon said plate and engaging said latches to normally lock the same outwardly, a sleeve surrounding said shaft and provided with a slot through which said latches project, a plurality of locking disks mounted within said socket and adapted to engage said latches to lock said shaft and a shackle pivotally and slidably connected with said body portion and adapted to be engaged by said shaft.

5. A lock comprising a body portion provided with a longitudinally extending socket having a longitudinally extending groove leading therefrom, a locking shaft mounted in said socket, locking disks and spacing washers alternately mounted in said socket and surrounding said shaft, said spacing washers being provided with tongues fitting within said slot to prevent the rotation of said washers, means carried by said shaft for engaging said disks to lock said shaft, and a shackle slidably and rotatably connected with said body portion and adapted to be engaged by said locking shaft.

[Claim 6 not printed in the Gazette.]

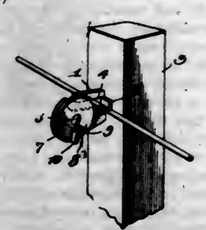
1,028,961. OYSTER-FORK. JAMES B. PORTER, Kansas City, Mo. Filed Oct. 3, 1911. Serial No. 652,528. (Cl. 30—5.)

An oyster fork provided under the connected ends of its tines with a downwardly and forwardly extending cutter having a substantially semi-circular cutting edge and of concavo-convex form in cross section with the concave



side adjacent the tines of the fork, the said cutter diverging forwardly with respect to the tines.

1,028,962. WIRE-FASTENER. WILLIAM C. POST, Estherville, Iowa. Filed Feb. 7, 1912. Serial No. 676,102. (Cl. 39—12.)



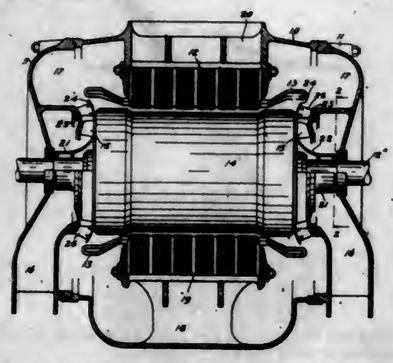
1. A device for securing wires to a post, comprising a body member adapted to be applied to the post, said body member being provided with a curved slot terminating at the one end in the edge of said body member, a disk rotatably mounted on the body member immediately adjacent the slot therein, said disk being provided with a notch therein adapted to aline with the slot in various positions of the disk, a laterally extending flange formed on the disk, whereby the latter may be rotated, and an additional flange formed on the body member adjacent the inner end of the slot to form a bearing surface for the wires when locked in position therein.

2. A device of the class described, comprising a body member adapted to be applied to a stationary member, said body member being provided with a curved slot, one end of which terminates in the edge of said body member, a disk rotatably mounted on said body member immediately adjacent the slot therein, said disk being provided with a notch adapted to aline with portions of the slot in various positions of the disk and said notch having one wall thereof cam-shaped, a flange formed integral with the opposite wall of said notch to rotate said disk, and an additional flange formed on said body member at the inner end of said slot to provide a bearing surface for the wire when the latter is locked to the body member.

1,028,963. DYNAMO-ELECTRIC MACHINE. WILLIAM H. POWELL and ROBERT B. WILLIAMSON, Milwaukee, Wis., assignors to Allis-Chalmers Company, a Corporation of New Jersey. Filed Apr. 8, 1910. Serial No. 554,182. (Cl. 171—252.)

1. In a dynamo-electric machine, the combination of a stator having a housing, a rotor having a shaft and located within the housing, said housing being adapted to receive

air around said shaft, means within said housing for circulating the air, and a deflector mounted directly on said shaft and provided with a flaring portion the dimensions of which increase toward the inner part of the machine, said deflector being adapted to guide the incoming air to said circulating means.



2. In a dynamo-electric machine, a rotor having a shaft and core, a blower at the end of the rotor, a stator, a housing inclosing the same, said housing extending beyond the end of the stator and forming an air chamber and provided with an annular opening which surrounds the shaft adjacent the blower and communicates with said chamber, and a deflector mounted on the shaft and provided with a flaring portion which extends through said opening, whereby air may be guided to said blowers and into the chamber.

3. In a dynamo-electric machine, a rotor having a shaft and core, a stator, a housing inclosing the same, said housing having at an end thereof a conduit extending toward the shaft and provided with an opening surrounding the same, and also a chamber between the rotor core and said end of the housing and adapted to receive air supplied through said conduit, and a deflector surrounding the shaft and having a portion extending inwardly toward the chamber and flaring outwardly from the shaft.

4. In a dynamo-electric machine, a rotor having a shaft and core, a blower at the end thereof, a stator, a housing inclosing the rotor and stator and forming at the end of the stator core an air chamber, an air supplying conduit at the end of the housing, said conduit extending upwardly about the shaft and provided with an annular opening which surrounds the shaft adjacent the blower and communicates with said chamber, and a curved deflector plate mounted on the shaft at the upper end of the conduit and provided with a portion which extends through the opening and is curved or flares away from the shaft.

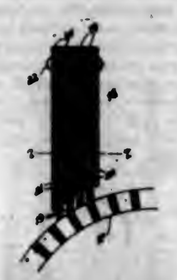
5. In a dynamo-electric machine, a rotor having a shaft and core, a stator, blowers at the ends of the core, a housing inclosing the rotor and stator and forming at opposite ends of the stator core air receiving chambers, air supplying conduits at the ends of the housing, said conduits extending from the bottom of the housing upwardly to and about the shaft and being provided with discharge openings which surround the shaft adjacent the blowers, and deflector or guide plates mounted on the shaft at the upper ends of the conduits and having curved or outwardly flaring portions which extend through the openings.

[Claims 6 to 11 not printed in the Gazette.]

1,028,964. BRUSH FOR DYNAMO-ELECTRIC MACHINES. ABRAHAM PRESS, Norwood, Ohio, assignor to The Bullock Electric Manufacturing Company, a Corporation of Ohio. Filed Mar. 17, 1906. Serial No. 306,554. (Cl. 171—210.)

1. A brush for dynamo-electric machines comprising a plurality of current carrying laminæ and a plurality of laminæ of magnetic material, said current carrying laminæ and magnetic laminæ being alternately arranged.

2. A brush for dynamo-electric machines comprising a member having a large inherent reactance, and means associated therewith for intensifying the reactance of said member.



3. A brush for dynamo-electric machines comprising a conducting member having a large skin effect and one or more members of magnetic material adjacent thereto.

4. A brush for dynamo-electric machines comprising a strip of magnetic material and a metallic strip having a high magnetic permeability on each side thereof.

5. A brush for dynamo-electric machines comprising a plurality of alternately arranged current conducting iron laminæ and reactance iron laminæ, only the former laminæ extending to the commutator end of the brush.

[Claims 6 to 17 not printed in the Gazette.]

1,028,965. DYNAMO-ELECTRIC MACHINE. HOWARD H. RALSTON, Norwood, Ohio, assignor to The Bullock Electric Manufacturing Company, a Corporation of Ohio. Filed Jan. 27, 1905. Serial No. 242,822. (Cl. 171—211.)



1. As an article of manufacture, a commutator segment having one end slotted, combined with a connector consisting of a flat strip of conducting material having an opening or cut-away portion in one end, said strip fitting in the slot in said segment and part of the material of said segment adjacent to the opening in said connector filling said opening.

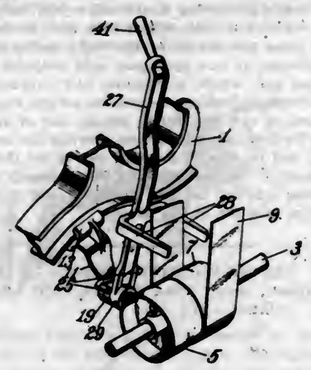
2. A commutator segment comprising a bar having a slot, and an extension or neck having an apertured end seated in said slot, the side of the bar being locally depressed into the aperture.

1,028,966. BELT-SHIFTER. WILLIAM A. REED, Chelsea, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 15, 1909. Serial No. 477,958. (Cl. 64—4.)

1. A belt shifter having in combination a bracket provided with a clamp, a support adjustably mounted thereon, a shifting member mounted on said support, and yielding means acting to oppose relative motion between said support and said member.

2. A belt shifter having in combination a support provided with stops, a shifting lever movable in a path limited by said stops and means whereby said support may be angularly adjusted to vary the extreme positions of the lever.

3. A belt shifter having in combination a support provided with stops, a shifting lever movable in a path limited by said stops, and means whereby said support may be angularly adjusted in a path at an angle to the axes of said stops.

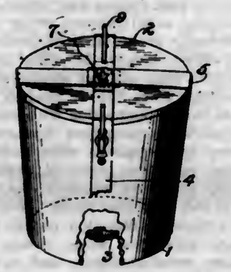


4. A device for shifting a belt having in combination a support, a shifting lever rotatable upon said support, and means whereby said support and with it said lever may be angularly adjusted in a plane approximately parallel with that of the face of the belt.

5. A belt shifter having in combination a bracket adapted to be clamped to any convenient fixed base, a support carried by said bracket, a shifting member carried by said support and movable with respect thereto, said support being angularly adjustable with respect to said bracket, and means for holding said support in adjusted position.

[Claims 6 to 12 not printed in the Gazette.]

1,028,967. PAIL AND COVER THEREFOR. LOUIS T. ROENITZ, Chicago, Ill., assignor to Fibre Container Company, Chicago, Ill., a Corporation of Illinois. Filed Nov. 7, 1910, Serial No. 591,071. Renewed Apr. 17, 1912. Serial No. 691,503. (Cl. 217—66.)



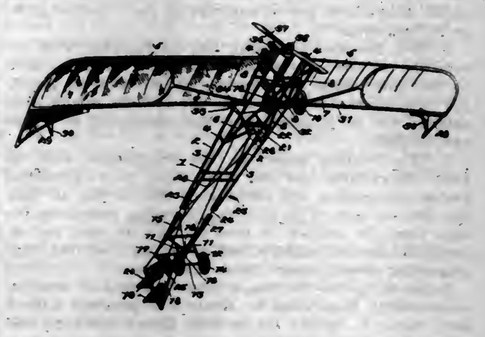
1. A protective and reinforcing device for pails comprising a plurality of metallic straps encompassing the same, all of the ends of said straps terminating in overlapped relation on the top of said pail, a rivet secured through the said ends, and another rivet secured through the bottom of the pail and the overlapped straps.

2. In a protective device for pails a plurality of slotted metallic straps surrounding the pail and its cover to firmly engage the same thereon, and bail ears projecting through the slots secured to said pail by means of the said straps adapted to prevent the removal of the cover therefrom, and to receive a bail therein.

3. Reinforcing and sealing means for pails embracing straps of metal having apertures in diametrically opposite sides thereof near the top of the pail, a bail ear projecting through each of said apertures, and secured to said pail by means of said straps, said straps being of a length to extend completely around the pail longitudinally and to overlap at the center of the bottom and the center of the cover, said overlapped ends provided each with an aperture therethrough, and a rivet extending through the ends at the bottom and top.

4. A protective and reinforcing device for pails, comprising a plurality of metal straps encompassing the same, one of said straps having slots therein, bail ears engaged in said slots and secured to the pail by means of said straps, a rivet through the bottom of the pail and the overlapping straps, and a rivet seal through the straps on the top of the pail.

1,028,968. AEROPLANE. LAWRENCE ROBERT ROONEY, Hollidaysburg, Pa. Filed July 22, 1911. Serial No. 639,922. (Cl. 244—29.)

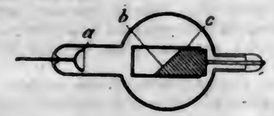


1. In an aeroplane, the combination with a frame, a main supporting plane carried thereon, a vertical rudder in the rear of said frame, means for the operation of the same, additional horizontal rudders carried on said mentioned rudder, ailerons pivotally carried on the ends of said supporting plane, a lever carried on said frame and formed in sections, one of said sections being operatively connected to the last mentioned rudders, the other section being similarly connected to said ailerons, and both of said sections being pivotally operable on axes at right angles to one another.

2. In an aeroplane, the combination with a frame, a main supporting plane carried thereon, a vertical rudder carried on the rear of said frame, means for the operation of the same, additional horizontal rudders carried on said mentioned rudder, ailerons carried on the ends of said supporting plane, a lever pivotally mounted on said frame and having operative connection with the last mentioned rudders, and a pivotal handle for said lever operable on an axis at right angles to the axis of the lever proper, said handle member having operative connection with said ailerons, whereby the same may be simultaneously operated with the operation of the last mentioned rudders.

3. In an aeroplane, a frame, a main supporting plane carried thereon, ailerons carried on the ends of said supporting plane, a rudder mounted on a vertical axis at the rear end of said frame, a lever fulcrumed on the frame and operatively connected to said vertical rudder, additional rudders pivoted on a horizontal axis to the frame of the last mentioned rudder and slotted to receive therethrough said last mentioned rudder, an additional lever fulcrumed on the side of the frame opposite that carrying the aforesaid lever, said latter lever having operative connection with said horizontal rudders, a handle member pivoted to the last mentioned lever on an axis disposed at right angles to the axis of the latter, and means connecting said pivoted handle member to said ailerons, whereby the latter may be operated simultaneously with the operation of said horizontal rudders.

1,028,969. X-RAY TUBE. JOSEPH ROSENTHAL, Munich, Germany. Filed Sept. 21, 1905. Serial No. 279,423. (Cl. 175—314.)



1. In a Röntgen apparatus, the combination, with the Röntgen tube, the cathode and the anticathode, of means arranged within said tube to permit the rays to pass directly from the cathode to the anticathode but to prevent the emanation of rays direct from the anticathode against the walls of the tube.

2. In a Röntgen apparatus, the combination, with the Röntgen tube, the cathode and the anti-cathode, of a screen arranged within said tube and surrounding the anticathode to permit the rays to pass directly from the cathode to the anticathode but to intercept all rays emanating directly therefrom.

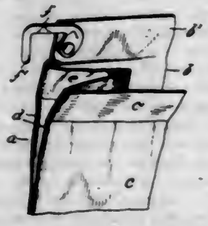
3. In a Röntgen apparatus, the combination, with the tube, the cathode and the anticathode, of a screen mounted on the anticathode and surrounding the same to permit the rays to pass directly from the cathode to the anticathode but to intercept the rays emanating from the anti-cathode.

4. In a Röntgen apparatus, the combination, with the tube, the cathode, and the anticathode, of a cylindrical casing surrounding the anticathode and having an open end directed toward the cathode, the casing permitting the rays from the cathode to pass through its open end directly to the anticathode but acting to filter the rays emanating directly from the anticathode.

5. An X-ray tube having a massive target of material substantially impervious to X-rays and provided with a deep recess to receive the cathode stream entering said target, a cathode mounted in said tube to coöperate with said target, said tube being formed of a glass body surrounding said target and cathode, interceptors formed on said target to minimize the discharge of undesirable radiation therefrom and a window substantially transparent to X-rays mounted on said target through which the X-rays pass before striking the body of said tube.

[Claims 6 and 7 not printed in the Gazette.]

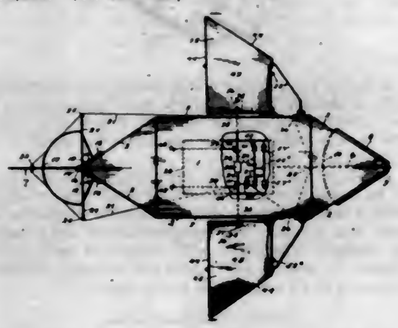
1,028,970. CLOSURE FOR MOTHPROOF BAGS. JACOB JULIUS SCHEUCH, New York, N. Y., assignor to The White Tar Company, New York, N. Y., a Corporation of New York. Filed Nov. 22, 1911. Serial No. 661,650. (Cl. 229—65.)



1. A bag of the character described having outer front and back walls and having its bottom and longitudinal edge portions closed; the mouth edge portions of said outer walls being adapted to be folded upon each other and the mouth edge portion of one of said outer walls being provided with a stiff hook pivoted at one end and arranged to be thrown downwardly entirely across one of the longitudinal edge portions of the bag, after the mouth edge portions thereof have been folded upon each other, and to engage one of said outer walls with its free end, which then overlies the last-named outer wall, and thereby to lock the bag in its closed position; the body of the bag below its folded mouth edge portions pressing against the free overlying end of the hook in the locking position of the latter.

2. A bag of the character described having front and back outer walls and having its bottom and longitudinal edge portions closed; the mouth edge portion of one of said outer walls projecting above the top of the other of said outer walls and being adapted to fold thereover and thereby to close the mouth of the bag; and a stiff hook which is pivoted at one end upon said projecting mouth edge portion and which is adapted and arranged to be thrown downwardly entirely across one of the longitudinal edge portions of the bag and to engage one of said outer walls with its free end, which then overlies the last-named outer wall, and thereby to lock the bag in its closed position; the body of the bag below its folded mouth edge portions pressing against the free overlying end of the hook in the locking position of the latter.

1,028,971. FLYING-MACHINE. MARION L. SHACKLEFORD, Oatman, Ariz. Filed Dec. 24, 1910. Serial No. 599,228. (Cl. 244—15.)



In a flying machine of the character described, a relatively long supporting plane, a gas bag strapped to the upper surface of the supporting plane, frames hinged upon opposite sides of the supporting plane approximately midway the ends thereof to be swung vertically in a direction transversely of the supporting plane, means including cables for swinging said frames and holding them against movement, relatively small integral wings pivoted to the frame to be vertically swung so that their angle of incidence may be varied, means including cables to swing said wings and hold them against movement, a supporting structure depending from the supporting plane, means mounted thereon having connection with said cables, oppositely rotating elevation propellers mounted on the supporting structure upon opposite sides thereof, oppositely rotating direction propellers mounted upon the rear end of the supporting structure, common means to drive all the propellers, a rear direction rudder pivoted to the supporting plane, a forward direction rudder pivoted to the supporting plane below the same, cables to swing the direction rudders simultaneously, and operating means mounted upon the supporting structure to move the last named cables.

1,028,972. NAIL-ASSORTING MECHANISM. CHESTER C. SMALL, Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Aug. 1, 1902, Serial No. 117,935. Divided and this application filed Feb. 11, 1904. Serial No. 193,131. (Cl. 1—39.)

1. In a machine of the class described, a raceway for the passage of nails, said raceway being provided with grooves shaped and arranged to cause the nails to arrange themselves with their corresponding sides in predetermined relative positions, and means for receiving nails from said raceway constructed to control the axial position of the nails.

2. In a machine of the class described, a raceway presenting a groove provided in its bottom near its delivery end with a nail-receiving opening of a width less than the width of the nail, said opening being shaped to insure the delivery of a nail from the groove with one of its edges upturned and arranged to cause nails to be successively delivered from said groove and to turn about their axes in passing therefrom into said opening.



3. A raceway having a groove to sustain by one of its side walls one of the two sides of a nail, the opposite side wall of the groove directing one of the two edges of the nail, said groove having an opening narrower than the width of the nail to be received and extending through its floor near its lower end which opening is entered by the edge of the nail, whereby nails as they pass into said opening have their two sides positioned always in the same manner.

4. In a machine of the class described, nail-guiding tubes, said tubes having passageways extending throughout their length, which are narrower than the width of the nails to be guided therein, whereby said nails are restrained from free axial rotation, said tubes being flexible and adapted to be twisted to deliver nails axially arranged in the desired positions.

5. In a machine of the class described, means for axially assorting nails constructed to receive nails with their axes at an angle to the direction in which they are to be driven and to arrange their corresponding faces in predetermined relative positions, and a series of guide tubes leading therefrom having passages narrower than the width of the nails whereby said nails are restrained from free axial rotation.

[Claims 6 to 21 not printed in the Gazette.]

1,028,973. OIL-BURNER. HAROLD T. SMITH, Willis, Kans., assignor of one-third to B. L. Cornelius, Hutchinson, Kans., and one-third to A. V. Smith, Willis, Kans. Filed Aug. 21, 1911. Serial No. 645,290. (Cl. 158—75.)



1. In an oil burner the combination with a tubular body, of a tip on said body, a head closing the tip end of said body, said head being provided with a valve port and having a nozzle directed into said tip, a steam tube extending through the tubular body and connecting with the nozzle in said head, means for supplying steam to said tube, means for admitting oil to the interior of said tubular member, and a valve for controlling the port in the burner head.

2. An oil burner comprising a union, a burner tip, a pipe connecting the union and tip, a head located within the tip and having a valve port and a nozzle directed into the tip, a steam tube extending through the pipe and communicating with said nozzle, means for supplying steam to said tube, means for admitting oil to the interior of said pipe, and a valve stem extending through said pipe and adapted for controlling the port in the burner head.

3. A burner comprising a pipe having a union at one end and a burner tip at the other, a head located within the tip and having a channel and a valve port, a nozzle integral with the head and having a channel co-extensive with the channel in the head and having a spreading flange spaced from the body of the head, a steam tube extending through the pipe and communicating with the head channel, a valve stem for controlling said valve port, and means for supplying oil to the interior of said pipe.

4. A burner comprising a pipe having a union at one end and a burner tip at the opposite end, a head located within the burner tip and having a nozzle projected toward the discharge mouth of said tip, a tube connecting the nozzle in said head with the union, means for admitting steam to said tube, and means for admitting oil to the pipe, said head having a valve port, and a valve for controlling the flow of oil through said port.

5. The combination with a union, a burner tip and a pipe connecting said parts, of a head located within the burner tip and comprising a diaphragm for dividing the tip into separate chambers, said head having a boss on its inner side provided with a depending apertured ear and having a valve port in line with the aperture in said ear, a nozzle on the outer face of said head having an annular flange, said flange being spaced from the body of the burner tip to form an annular space between the edge of the flange and the body of the tip, a conduit for conducting steam from said union through the pipe to said nozzle, and means for delivering oil into the pipe around the steam conduit.

[Claim 6 not printed in the Gazette.]

1,028,974. MEASURING-WHEEL FOR BALING-PRESSES. HERBERT B. SPERRY, Ottumwa, Iowa, assignor to Dain Manufacturing Company of Iowa, Ottumwa, Iowa, a Corporation of Iowa. Filed July 8, 1910. Serial No. 571,025. (Cl. 100—27.)



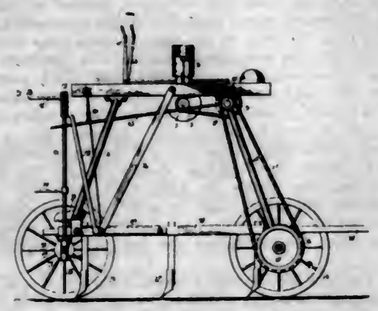
1. A wheel having a laterally-projecting annular flange provided with perforations at intervals, a plurality of fingers pivotally supported by said wheel and projecting through said perforations, and means for varying the angular relation of said fingers to the periphery of the wheel.

2. A wheel having a laterally-projecting annular flange provided with perforations at intervals, a rotary disk arranged adjacent to said wheel, a plurality of fingers pivotally connected with said disk and projecting through said perforations, and means for securing said disk and wheel in fixed relation to each other.

3. A wheel having a laterally-projecting annular flange provided with perforations at intervals, a disk arranged concentrically with said wheel, a bolt on which said wheel and disk are pivotally mounted, and fingers pivotally connected with said disk and projecting through said perforations.

4. A wheel having a laterally-projecting annular flange provided with perforations at intervals, a disk arranged concentrically with said wheel, a bolt on which said wheel and disk are pivotally mounted, and fingers pivotally connected with said disk and projecting through said perforations, said disk being adjustable to vary the angular relation of said fingers to said wheel.

1,028,975. AUTOMOBILE. WILLIAM E. STANLEY, Hawkinsville, Ga. Filed Dec. 14, 1910. Serial No. 597,209. (Cl. 97—30.)



1. In an automobile a frame, legs pivoted to the frame, bearings mounted on the legs, knuckles having axles journaled in the bearings, wheels mounted on the axles respectively, means connected with the knuckles by which they may be moved simultaneously, additional means for supporting the frame, and means for holding the legs in a predetermined position relatively to the frame.

2. In an automobile a frame, legs pivoted to the front of the frame, legs pivoted to the rear of the frame, and detachable side bars connecting the legs at the front and rear of the frame respectively.

3. In an automobile a frame carrying a motor, legs pivoted at one end of the frame, legs pivoted at the other end of the frame, detachable side bars connecting the legs at one end of the frame with the legs at the other end of the frame respectively, wheels mounted on the legs, and means by which the motor is adapted to drive the wheels mounted on the legs at one end of the frame.

4. In an automobile a frame, legs having bearings pivoted at the front of the frame, legs pivoted at the rear of the frame, detachable means connecting the legs at the front and the rear of the frame respectively, brackets having bearings journaled in the first-mentioned bearings, knuckles having axles journaled in the second-mentioned bearings, wheels mounted on the axles, and wheels mounted on the second-mentioned legs.

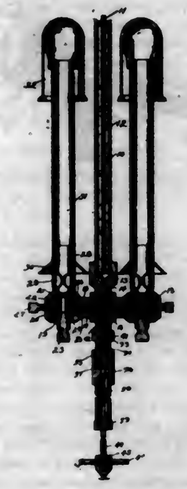
5. In an automobile a frame, legs having bearings, pivoted at the front of the frame, legs pivoted at the rear of the frame, detachable side bars for connecting the front and rear legs, brackets having bearings journaled in the first-mentioned bearings, knuckles having axles journaled in the second-mentioned bearings, wheels mounted on the axles, and wheels mounted on the second-mentioned legs.

[Claims 6 to 8 not printed in the Gazette.]

1,028,976. HYDROCARBON-BURNER. ALVIN RALPH SWAINE, Des Moines, Iowa. Filed Aug. 4, 1909. Serial No. 511,658. (Cl. 67—48.)

1. In a device of the class described, the combination of a cross head having a gas passageway therein, and a vertically arranged chamber communicating with the gas passageway, a tube detachably mounted in the gas passageway and having a tapered end in said chamber, a tube mounted in said chamber and having a small gas passageway at its top, an enlarged chamber at its central portion provided with a lateral passageway leading to its side and designed to receive the tapered end of said tube, and a set-screw seated in the cross head to engage said tube and detachably hold it in position with the tapered end of the first mentioned tube inserted in the lateral passageway of the vertically arranged tube.

2. In a device of the class described, the combination of a cross head having a gas passageway therein, and a vertically arranged chamber communicating with the gas passageway, a tube detachably mounted in the gas passageway and having a tapered end in said chamber, a tube mounted in said chamber and having a small gas passageway at its top, an enlarged chamber at its central portion provided with a lateral passageway leading to its side and designed to receive the tapered end of said tube, and a set-screw seated in the cross head to engage said tube and detachably hold it in position with the tapered end of the first mentioned tube inserted in the lateral passageway of the vertically arranged tube, and a plug screwed into the lower end of the vertically arranged tube to close the lower end of the chamber therein.



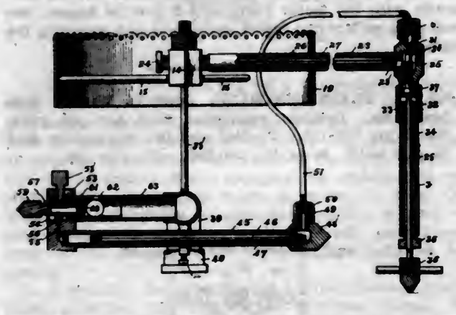
3. In a device of the class described, the combination of a cross head having a vertically arranged chamber therein open at both ends, a tube loosely mounted in said chamber and having a small passageway at its top, an enlarged chamber at its central portion communicating with the passageway, and a lateral passageway at its side communicating with the central chamber, a tapered projection connected with the cross head and having a gas passageway therein, said tapered projection being designed to enter the end of the lateral passageway, and a set-screw in the cross head designed to detachably hold the tube in position to form a gas tight joint between said tapered projection and the lateral passageway.

4. In a device of the class described, the combination of a generating tube, a block screwed to the lower end thereof and having a passageway therein, a cross head screwed to said block, said cross head being provided with a gas chamber communicating with said passageway in the block, a laterally extended passageway communicating with said chamber, and a vertically arranged chamber in the outer end of the cross head communicating with the said lateral passageway, said horizontal passageway being enlarged at its outer end and provided with an inclined shoulder, a tube placed in the outer end of said lateral passageway and inclined at both ends and having a passageway extending through it, the inner inclined end of said tube being designed to engage said shoulder, a tube detachably mounted in the chamber at the outer end of the cross head, said tube having a central gas chamber, a small passageway at its top, a laterally extended passageway at its central portion, the latter being designed to receive the tapered outer end of said tube, a detachable plug screwed into the lower end of said vertically arranged tube, and a set-screw seated in the outer end of the cross head and designed to engage the side of the vertically arranged tube to detachably hold it in position forming a gas tight connection between the passageway in the tapered-ended tube and the chamber in the vertically arranged tube.

5. In a device of the class described, the combination of a gas generating tube, a block connected to the lower end thereof and having a passageway extended through it, a cross head connected to the lower end of said block and having a gas chamber therein, a tube screwed into the lower end of said gas chamber and having a cylindrical chamber at its lower end, a block screwed to the lower end of the said tube, and provided with a chamber for packing material, a rod extended through said block and tube and seated in the tube, and having a pointed upper end designed to close the passageway in the lower end of the first mentioned block.

[Claims 6 to 9 not printed in the Gazette.]

1,028,977. HYDROCARBON-LAMP. ALVIN RALPH SWAINE, Des Moines, Iowa. Filed Oct. 1, 1909. Serial No. 520,499. (Cl. 67—50.)



1. In a hydrocarbon lamp, the combination of a suitably supported block provided with a chamber adapted to communicate with a source of fuel supply, a filtering pipe extending horizontally from said block, a rod extending vertically from said block, a hollow burner fitting having a pair of downwardly projecting arms, a generating tube extending horizontally between said arms, a connection between said pipe and one end of said tube for supplying liquid fuel to the tube, and means for conducting the vaporized fuel from the other end of said tube into said burner fitting.

2. In a hydrocarbon lamp, the combination of a suitably supported block provided with a chamber adapted to communicate with a source of fuel supply, a filtering pipe extending horizontally from said block, a plug screwed into said block opposite said pipe and in alinement therewith, a rod extending vertically from said block, a hollow burner fitting having a pair of downwardly projecting arms, a generating tube extending horizontally between said arms, a connection between said pipe and one end of said tube for supplying liquid fuel to the tube, and means for conducting the vaporized fuel from the other end of said tube into said burner-fitting.

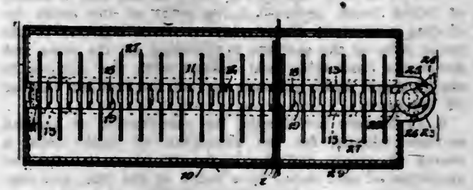
3. In a hydrocarbon lamp, the combination of an open ended tube, a device mounted in the tube comprising a series or number of straight rods and a flexible, porous tube surrounding them, so as to leave a space between the tube and the rods, and means for supplying hydrocarbon to one end of the tube.

4. In a hydrocarbon lamp, the combination of an open ended tube, a device mounted in the tube comprising a series or number of straight rods, and a flexible, porous tube surrounding them, so as to leave a space between the tube and the rods, the ends of said porous tube being closed beyond the ends of said rods, and means for supplying hydrocarbon to one end of the tube.

5. In a hydrocarbon lamp, the combination of a suitably supported block provided with a chamber adapted to communicate with a source of fuel, a filtering pipe extending horizontally from said block, a valve casing at the free end of said pipe, a valve in said casing, a handle rod depending from said casing for controlling said valve, a rod extending vertically from said block, a hollow burner fitting having a pair of downwardly projecting arms, a generating tube extending horizontally between said arms, a connection between said casing and one end of said tube for supplying liquid fuel to the tube, and means for conducting the vaporized fuel from the other end of said tube into said burner fitting.

[Claims 6 and 7 not printed in the Gazette.]

1,028,978. RACK FOR PATTERNS. FREDERICK H. TOBENBOSKE, Quincy, Mass. Filed Nov. 29, 1911. Serial No. 663,114. (Cl. 45—4.)



1. A device of the character described having a plurality of compartments, each compartment having a stationary and a movable wall, a slide carrying the movable walls, means for adjusting the slide, and means for holding the slide with its walls shifted away from the stationary walls.

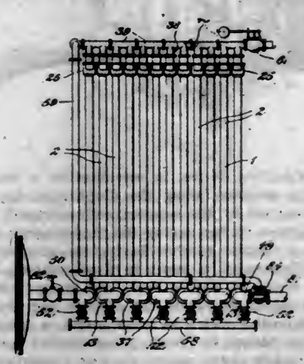
2. A device of the character described comprising a base having a plurality of uprights, a slide having a corresponding plurality of uprights, said uprights having oppositely facing thickened portions, and a spring for causing said uprights to yieldingly clamp articles placed between them.

3. A device of the character described comprising a base having upwardly projecting ribs, said base also carrying stationary uprights, and a connected series of movable uprights to coöperate with the stationary uprights for clamping articles placed between them.

4. A device of the character described comprising a base having a plurality of arched uprights, a slide movable longitudinally of the base and having a plurality of uprights under said arched uprights, and means for shifting said slide to cause the uprights to coöperate in clamping articles placed between them.

5. A device of the character described comprising a base having a plurality of arched uprights, a slide movable longitudinally of the base and having a plurality of uprights under said arched uprights, and means for shifting said slide to cause the uprights to coöperate in clamping articles placed between them, said means including a spring and a cam for actuating the slide in opposition to said spring.

1,028,979. HEATER FOR WATER. ROBERT WADHAM, Stockholm, Sweden. Filed Dec. 18, 1907. Serial No. 407,024. (Cl. 122—29.)



1. In heaters for liquids, the combination of heating sections adapted for the circulation of liquid from a source

of supply and provided with an outlet for the discharge of such liquid to a boiler or the like, a source of liquid under pressure independent of the boiler including a normally closed conduit, and means for connecting said conduit with the sections to supply liquid under pressure to said sections for blowing off the same.

2. In heaters for liquids, the combination of heating sections adapted for the circulation of liquid from a source of supply and provided with an outlet for the discharge of such liquid to a boiler or the like, a source of liquid under pressure independent of the boiler including a normally closed conduit, means adjacent to the lower ends of the sections for blowing off the same and means for connecting said conduit with the sections to supply liquid under pressure to said sections for blowing off the same.

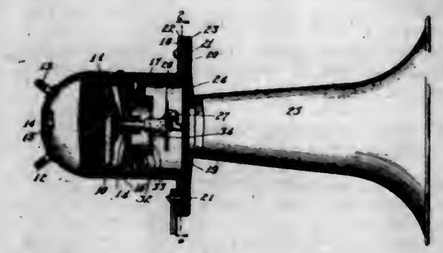
3. In heaters for liquids, the combination of heating sections adapted for the circulation of liquid from a source of supply and provided with an outlet for the discharge of said liquid to a boiler or the like, and controllable means for supplying liquid to said heating sections under pressure independent of the boiler for blowing off the sections.

4. In heaters for liquids, the combination of heating sections adapted for the circulation of liquid from a source of supply and provided with an outlet for the discharge of such liquid to a boiler or the like, means for blowing off the sections, a source of liquid under pressure independent of the boiler including a normally closed conduit, independent connections for supplying liquid under pressure from said conduit to the several heating sections for blowing off the same and means for controlling the supply of liquid under pressure from the conduit through each such independent section.

5. In heaters for liquids, the combination of heating sections adapted for the circulation of liquid, means for blowing off the sections, controllable means for supplying liquid to be heated to the sections, other controllable means for supplying liquid under pressure to said sections for blowing off the same, and a safety valve connected with the sections and adapted for operation upon the rise of pressure therein.

[Claims 6 to 16 not printed in the Gazette.]

1,028,980. ELECTRICAL SIGNALING DEVICE. THEODORE WEISS and THEODORE A. WALTHER, Chicago, Ill.; said Walther assignor to said Weiss. Filed Oct. 21, 1911. Serial No. 656,060. (Cl. 177—7.)



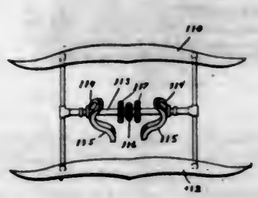
1. In a signaling device, in combination, a diaphragm, a supporting member facing the diaphragm, an oscillating tapper carried by the support and arranged to strike the diaphragm, a spring urging the tapper away from the diaphragm, a circular ratchet having its axis perpendicular to the diaphragm, a finger in fixed relation with the tapper and engaging the ratchet, and means for imparting relative rotary motion to the support and the ratchet.

2. In a signaling device, in combination, a diaphragm, a rotary motor having its shaft perpendicular to the diaphragm, a rocker shaft carried by and transverse to the shaft of the motor and having a laterally projecting tapper positioned to strike the diaphragm, a stationary annular ratchet concentric with the motor shaft, and a finger fixed upon the rocker shaft and engaging the ratchet.

3. In a signaling device, in combination, a diaphragm, a rotary motor having its shaft perpendicular to the diaphragm, a rocker shaft carried by and transverse to the shaft of the motor and having a laterally projecting tapper positioned to strike the diaphragm, a stationary annular ratchet concentric with the motor shaft, a finger fixed upon the rocker shaft and engaging the ratchet, and a spring urging the tapper away from the diaphragm.

4. In a signaling device, in combination, a diaphragm, a rotary motor having its shaft perpendicular to the diaphragm, a pair of parallel rocker shafts carried by and transverse to the motor shaft, each rocker shaft being provided with a laterally projecting tapper positioned to strike the diaphragm, a stationary annular ratchet concentric with the motor shaft, and a pair of fingers, one fixed upon each of the rocker shafts and each engaging the ratchet.

1,028,981. FLYING-MACHINE. JOHN W. WILSON, Boston, Mass. Original application filed Apr. 23, 1910, Serial No. 557,135. Divided and this application filed Sept. 8, 1910. Serial No. 580,695. (Cl. 244—29.)



1. In a flying-machine, a plane, a horizontal shaft supporting it, a pair of bars having slots inclined to the horizontal through which the ends of said shaft extend, a bar arranged between the aforesaid bars through which said horizontal shaft also extends, and means for moving said shaft in opposite directions in said slots about the middle bar as a center, substantially as described.

2. In a flying-machine, a plane, a horizontal shaft supporting it, a pair of bars having slots inclined to the horizontal through which the ends of said shaft extend, a bar arranged between the aforesaid bars through which said shaft extends, and means for moving said shaft in opposite directions in said slots about the middle bar as a center and means for rocking said shaft, substantially as described.

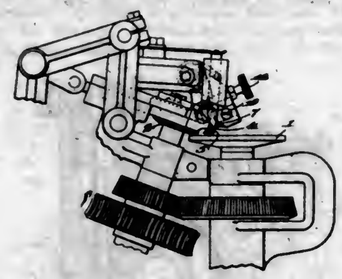
3. In a flying-machine, a horizontally arranged plane movable about a vertical axis, combined with inclined directing means engaging the support of said plane, to move said plane so that its position relative to the horizontal becomes more and more oblique as it is moved about the vertical axis and means for moving said plane in opposite directions about the vertical axis, substantially as described.

4. In a flying-machine, a horizontally arranged plane movable about a vertical axis and also movable about a horizontal axis, combined with inclined directing means for said plane whereby its position relative to the horizontal becomes more and more oblique as it is moved about the vertical axis, means for moving said plane about the vertical axis in opposite directions and means for moving said plane about the horizontal axis in opposite directions, substantially as described.

5. In a flying-machine, a horizontally arranged plane, a frame supporting it movable about a vertical axis and inclined guides for the end portions of said frame located at opposite sides of the vertical axis about which the frame is movable, which direct its movements when it is rotated about its vertical axis and means for moving said frame, substantially as described.

[Claim 6 not printed in the Gazette.]

1,028,982. SOLE-MACHINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed May 24, 1906. Serial No. 318,530. (Cl. 12—17.)



1. A machine for operating on a partly-finished insole blank provided with a marginal abutment, having, in combination, means for supporting, feeding and operating upon the marginal portion of the blank, including a guide at one side in the direction of feed of the point of operation of the feeding means engaging the abutment in opposition to the operating means to swing the blank inward and maintain it in operating position relative to said means while operating on the convexly curved portions of the margin of the blank, substantially as described.

2. A machine for operating on a partly-finished insole blank provided with a marginal abutment, having, in combination, means for supporting the flat blank, means for feeding the blank and for operating upon the blank outside of said abutment, and a guide at one side in the direction of feed of the point of operation of the feeding means engaging the abutment on the inside to swing the blank inward and hold the blank in engagement with the operating means as an end portion of the blank is fed past said means, substantially as described.

3. A machine for operating on a channeled insole blank, having, in combination, means for supporting the flat blank, means for operating on the marginal portion of the blank, means for feeding the blank, and a guide at one side in the direction of feed of the point of operation of the feeding means engaging the channel and acting in opposition to the operating means to swing the blank inward as an end portion is being fed and hold it in engagement with the operating means, substantially as described.

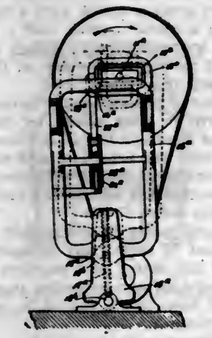
4. A machine for operating on a channeled insole blank, having, in combination, means for supporting, feeding and operating on the marginal portions of the blank, and a normally-fixed guide at one side in the direction of feed of the point of operation of the feeding means engaging in the channel of the blank to swing the convexly curved portions of the margin of the blank inward, substantially as described.

5. A machine for operating on a channeled insole blank, having, in combination, means for supporting the flat blank, means for feeding the blank and for turning up and setting the lip thereof, and a guide at one side in the direction of feed of the point of operation of the feeding means engaging the channel to swing the blank inward and to maintain the blank in proper operative relation to the lip-turning means as an end portion of the blank is fed past said means, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,028,983. WINDING-MACHINE. ALFRED H. WOUTERS, Norwood, Ohio, assignor to Allis-Chalmers Company, a Corporation of New Jersey, and The Bullock Electric Manufacturing Company, a Corporation of Ohio. Filed Feb. 28, 1907. Serial No. 359,851. (Cl. 153—64.5.)

1. The combination in a winding machine, of a rotatable non-circular former of fixed shape, a bending bar, and automatic means whereby said bending bar is constrained to so move that the part of the material which is being bent is always in substantially the same position relative thereto.



2. In an edgewise winding machine, a rotatable former, a movable frame carrying a supply of metallic strip to be wound, and an anti-buckling guide movable with said frame.

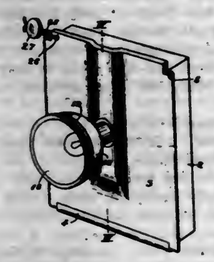
3. In an edgewise winding machine, a rotatable former, a movable frame carrying a supply of metallic strip to be wound, an anti-buckling guide movable with said frame, and means for causing said frame to so move that the bending surface of the guide is always at substantially the same distance from the periphery of the former.

4. In an edgewise winding machine, a rotatable former, a movable frame carrying a supply of metallic strip to be wound, and an anti-buckling guide and a tension device carried by said frame.

5. In an edgewise winding machine, a rotatable former, a movable frame carrying a supply of metallic strip to be wound, an anti-buckling guide and a tension device carried by said frame, and means for causing said frame to so move that the bending surface of the guide is always at substantially the same distance from the periphery of the former.

[Claims 6 to 15 not printed in the Gazette.]

1,028,984. STORAGE-BATTERY LAMP. CHARLES B. BARTLEY, Pittsburgh, Pa., assignor of one-half to George F. Rylands and one-fourth to R. H. Rush, Charleroi, Pa. Filed Sept. 26, 1911. Serial No. 651,424. (Cl. 240—8.5.)



1. An electric lamp case of sheet metal having a removable front, an electric lamp therein, a spring contact for establishing current through the case to the lamp socket, and a spring contact secured to the removable front for making connection with the end of the lamp socket, substantially as set forth.

2. In a lamp, the combination with an inclosed battery, of a sheet metal case, a sliding front provided with an electric lamp socket in series circuit with the front and body of the case and the battery, and a spring contact device on the inner side of the sliding front adapted to engage the center of an electric lamp in said socket and to

make connection with the battery, substantially as set forth.

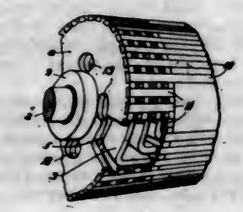
3. In a lamp, the combination of a sheet metal case, a slidingly mounted front provided with a lamp socket and lamp and having a contact spring, and a battery within the case having terminal contact springs adapted to engage said contact spring and the side of the case respectively, substantially as set forth.

4. A battery casing of sheet metal having a removable front provided with a lamp socket, an insulated spring contact secured on the inner face of the front and adapted to make contact with the lamp base and having an opposite contact terminal, and means for connecting said terminal and the metal of the case with a source of current, substantially as set forth.

5. A lamp battery casing of sheet metal having a slidably attached front in interfitting engagement with the edge portions of the casing and provided with a lamp socket and an insulated contact spring therefor arranged lengthwise of the front in the line of its movement, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,028,985. DYNAMO-ELECTRIC MACHINE. BERNARD ARTHUR BEHREND, Norwood, Ohio, assignor to Allis-Chalmers Company, a Corporation of New Jersey, and The Bullock Electric Manufacturing Company, a Corporation of Ohio. Filed Aug. 21, 1905. Serial No. 275,119. (Cl. 171—252.)



1. In a dynamo-electric machine, a core, coils thereon, an end plate at the extremities of the coils, and means for holding the end turns in place comprising a plurality of members extending from the end plate to and terminating at the core.

2. In a dynamo-electric machine, a rotatable element comprising a core, windings thereon having end turns or connections, an end cover or plate for the end turns, said core and end plate having opposite corresponding slots or openings, and coil retaining elements extending across the end turns from the end plate to and terminating at the core, said elements being secured in said slots or openings.

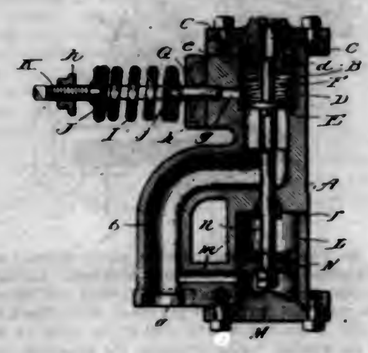
3. In a dynamo-electric machine, a rotatable element, comprising a core, windings carried thereby and having end turns or connections, end plates for said windings, undercut slots in the periphery of said plates, and coil retaining elements extending only across the end turns and fitting in the slots of the end plates.

4. In a dynamo-electric machine, a rotatable member comprising a slotted core, windings in said slots having end turns or connections, an end plate or cover for said end turns, said end plate having openings corresponding to said core slots, and means for retaining said windings in place located in said plate and extending only over said end turns.

5. In a dynamo-electric machine, a rotatable element comprising a slotted core, coils in said slots having end turns, end covers for said end turns, wedges in the core slots for retaining the coils in place, and wedges extending only between the end covers and the core for holding the end turns in place.

[Claims 6 to 12 not printed in the Gazette.]

1,028,986. HYDRAULIC PRESS. WILLIAM P. BETTENDORF, Bettendorf, Iowa; J. W. Bettendorf administrator of said William P. Bettendorf, deceased. Filed Jan. 14, 1910. Serial No. 538,038. (Cl. 138—16.)



1. The combination with a hydraulic press having a pull-back cylinder for the platen thereof, of an accumulator cylinder, pipe connecting the same to said pull-back cylinder, a floating valve that automatically closes said pipe when a break occurs therein between the valve and the accumulator, and a valve-controlled safety-vent between said floating valve seat and the pull-back cylinder.

2. In mechanism of the kind specified, an emergency valve for connecting the pull-back cylinder and accumulator pipes comprising a suitable housing having a stepped passage therethrough, the outlet end of which is enlarged to form a valve chamber, which latter has a lateral outlet, a valve controlled safety vent leading therefrom, a floating valve adapted to close said chamber, and means movable in the direction of the length of said chamber and actuated by the water pressure entering said passage and adapted to hold said valve open.

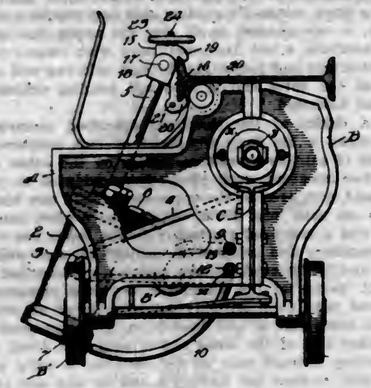
3. In mechanism of the kind specified, an emergency valve for connecting the pull-back cylinder and accumulator pipes comprising a suitable housing having a stepped passage therethrough, one end of which is enlarged to form a valve-chamber, having a lateral outlet, an automatically returnable valve adapted to close said chamber, a valve-controlled safety vent leading from said chamber, a cylinder, and a piston in the same, which latter moves in the direction of the length of said chamber, is actuated by the pressure of the water entering said passage and is adapted to open said valve.

4. In mechanism of the kind specified, an emergency valve for connecting the pull-back cylinder and accumulator pipes comprising a suitable housing having a stepped passage therethrough, the outlet end of which is enlarged to form a valve-chamber, which latter has a lateral outlet, a safety vent leading from said chamber, a graduated pressure valve controlling said vent, a floating valve adapted to close said chamber, and means movable in the direction of the length of said chamber, and actuated by the water pressure entering said passage, and adapted to open said valve.

5. In mechanism of the kind specified, an emergency valve for connecting the pull-back cylinder and accumulator pipes comprising a suitable housing having a stepped passage therethrough, one end of which is enlarged to form a valve-chamber having a lateral outlet and a safety vent leading therefrom, a regulated tension floating valve adapted to close said chamber, a graduated pressure valve controlling said vent, a cylinder, and a piston in the same, which latter moves in the direction of the length of said chamber, is actuated by the pressure of the water entering said passage and is adapted to open said valve.

[Claims 6 and 7 not printed in the Gazette.]

1,028,987. FLIPPER FOR FEED MECHANISM OF HYDRAULIC PRESSES. WILLIAM P. BETTENDORF, deceased, Bettendorf, Iowa, by Joseph W. Bettendorf, administrator. Original application filed Oct. 25, 1909, Serial No. 524,467. Divided and this application filed May 8, 1911. Serial No. 625,865. (Cl. 78—96.)



1. Mechanism of the kind specified comprising a traveling support for work, a single rocking cylinder transverse to said work and movable therewith, and a piston therefor the outer end of which is adapted to be removably secured to and alter the position of said work.

2. Mechanism of the kind specified comprising a suitable traveling support for work, a single cylinder transverse to said work and movable therewith, and a piston the outer end of which is jointed and is adapted to be removably secured to and alter the position of said work.

3. Mechanism of the kind specified comprising a suitable traveling support for work, a single cylinder transverse to said work, and a piston the outer end of which is jointed and is adapted to be removably secured to and alter the position of said work, and pipe connections carried by said support for supplying and exhausting the actuating medium to and from said cylinder.

4. Mechanism of the kind specified comprising a suitable traveling support for work, a single rocking cylinder arranged transverse to said work, and a piston the outer end of which is jointed and is adapted to be removably secured to and alter the position of said work, and flexible pipe connections carried by said support for supplying and exhausting the actuating medium to and from said cylinder.

5. Mechanism of the kind specified comprising a traveling support for work, a single cylinder carried by said support and arranged transverse to said work, a piston the outer end of which is adapted to be removably secured to and alter the position of the work, and means carried by said support for supplying the actuating medium to and exhausting it from said cylinder.

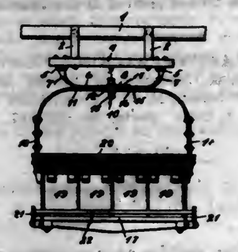
[Claims 6 to 8 not printed in the Gazette.]

1,028,988. ENSILAGE-CARRIER. OSCAR BORGEN, Dallas, Wis. Filed Mar. 2, 1911. Serial No. 611,748. (Cl. 214—4.)

1. In combination with a base, dumping compartments slidably mounted on said base, and means secured to said base and engaging said compartments to prevent them from dumping.

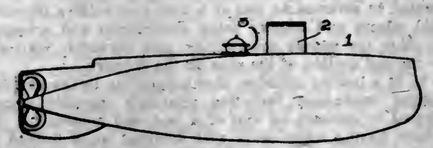
2. In combination with a base, dumping compartments mounted on the base, arms pivotally secured to said base, a bar secured to one end of the arms and adapted to engage the compartments to lock them from movement on the base, and a handle bar secured to the other ends of the arms to actuate the arms and locking bar.

3. In combination with a base, a plurality of dumping compartments mounted on the base, arms pivotally secured intermediate of their ends to the base, a bar secured to one end of the arms and adapted to engage the compartments to lock them from movement on the base, and



a handle bar secured to the other ends of the arms to actuate the arms and locking bar.

1,028,989. SUBMARINE SIGNALING AND SAFETY DEVICE. CHARLES BROWN, Chicago, Ill. Filed Apr. 4, 1910. Serial No. 553,166. (Cl. 114—16.5.)



1. The combination with a submarine, of a receptacle carried on the deck thereof, a buoy adapted to rest in said receptacle, a hose communicating within the vessel and extending axially through the buoy, a casing threaded on the lower end of said buoy receptacle and having a central aperture in the bottom thereof adapted to receive said hose, upwardly and downwardly directed flanges on the bottom of said casing, conically tapered members secured within said flanges concentric with said aperture, conical members slidably engaged on said hose, and a yoke having its arms secured to the slidable members adapted to engage one or the other of said members on the rigid complemental members.

2. In a signaling buoy for submarines, a hose communicating within the vessel and extending axially through the buoy, guide plates in the lower end of said buoy, shutters adapted to slide between said guide plates to clamp said hose and retain the buoy in position, an outwardly turned stem on each shutter, and a lever engaged on each stem adapted to be manually operated to release the shutters from the hose to permit the buoy to rise.

3. A buoy for submarines having a lower water chamber and an upper closed operating chamber, valves arranged in the walls of the lower chamber, mechanisms operated from the vessel for opening and closing the same from the vessel, and a pump in the lower water chamber acting to discharge the water from said buoy after submergence.

4. A buoy for submarines having a lower water chamber and an upper water tight operating chamber, valves arranged in the walls of the lower chamber, mechanisms in the operating chamber and operated from the vessel for opening and closing the same, an electrically operated pump in the lower water chamber acting to discharge the water from said buoy after submergence, and signaling devices carried on the buoy.

5. A submarine buoy of the class described embracing an upper tight and a lower water chamber, electrically operated valves positioned in said lower chambers to permit the inlet of water, operating mechanism in the upper chamber embracing an electric motor, a pump driven thereby, and connections to permit the discharge of the water from the lower chamber of the buoy by means of said

pump and a hose leading through said buoy to the top thereof and communicating at its lower end in a submarine.

[Claims 6 to 23 not printed in the Gazette.]

1,028,990. LASTING-MACHINE. LOUIS M. BROWN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 6, 1910. Serial No. 565,287. (Cl. 12—14.)



1. In a lasting machine, shoe supporting means and end lasting mechanism including relatively movable wipers formed to embrace an end of a last, and holders therefor, said wipers and holders being constructed and arranged to present the shoe engaging portion of the wipers to a shoe on said supporting means so that the wipers will normally have a localized bearing at the inner edge of that marginal portion of the shoe bottom which they overlie.

2. In a lasting machine, shoe supporting means and end lasting mechanism including relatively movable wipers formed to embrace an end of a last, and holders therefor, said wipers and holders being constructed and arranged to pitch the wipers downwardly and inwardly relatively to the end portion of the shoe on the support.

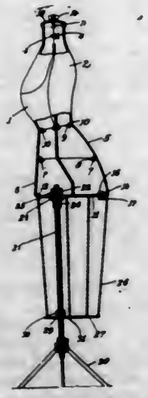
3. In a lasting machine, shoe supporting means and end lasting mechanism including relatively movable wipers formed to embrace an end of a last and holders for the wipers having wiper seats with inclined walls formed to pitch the wipers downwardly toward the plane of the last bottom and inwardly toward the median line of the last.

4. In a lasting machine, shoe supporting means, and end lasting mechanism including relatively movable wipers formed to embrace an end of a last, and holders therefor, said wipers and holders being constructed and arranged to adapt the wipers for operation to produce a crease to receive the binder in that surface of the overworked upper which lies parallel to the lip of the innersole.

5. In a lasting machine, shoe supporting means and end lasting mechanism including relatively movable wipers formed to embrace an end of a last, holders in which the wipers are carried, and a bead formed on the lower face of the wipers at their edges.

[Claims 6 to 13 not printed in the Gazette.]

1,028,991. FOLDING GARMENT-FORM. BERNARD CAHN, San Diego, Cal. Filed Dec. 4, 1911. Serial No. 663,735. (Cl. 211—13.)



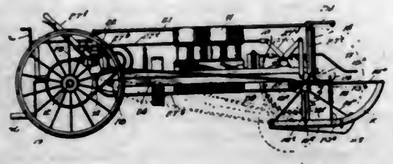
1. A device of the character described comprising a pedestal carrying a supporting rod, a bust and hip form, a cross bar on the under side of said hip form, a collar on said cross bar, a sleeve adjustable on said supporting rod and having a flange, such collar on said cross bar being adapted to fit over said sleeve and permit said cross bar to rest on said flange, as described.

2. A device of the character described comprising a form composed of two members which, when joined will form a bust, means for guiding said two members into position, a cap adapted to fit over the upper ends of said two members, a rod fixed stationary with respect to said two members and projecting through said cap and a wing nut on the outer end of said rod bearing against said cap, as described.

3. A device of the character described comprising a bust form, a hip form composed of two members, eyes on one of said two members, blocks on the other one of said two members, such blocks being adapted to project into said eyes, eyes on the upper one of said two members, hooks on said bust form adapted to project into said eyes, and a rod fixed stationary to the lower one of said two members and adapted to project through said bust form and be fastened in such position, as described.

4. A device of the character described comprising a hip and bust form suitably joined, a hook on one side of the lower end of said bust form, a slotted member on the other side of the lower end of said bust form, a bolt projecting through said slotted member, a wing nut on said bolt, a cross bar having a slot at one end adapted to fit over said hook and a fork at the other end adapted to fit over said bolt and a supporting means engaging said cross bar, as described.

1,028,992. ICE-HARVESTING MACHINE. SAMUEL M. CAMPBELL, Rock Island, Ill. Filed Apr. 24, 1911. Serial No. 622,985. (Cl. 62—8.)



1. An ice harvesting machine comprising a truck frame, means for propelling said truck frame, a power operated ice cutting device carried by said truck frame, runners for said truck frame, and guide plates pivotally connected with the rear end of said runners and having their front ends free to move vertically so as to be capable of entering a cut in the ice, whereby said guide plates guide the machine in making a second cut.

2. An ice harvesting machine comprising a truck frame, means for propelling said truck frame, a power operated ice cutting device carried by said truck frame, runners for said truck frame, and spring pressed guide plates pivotally connected with said runners so as to be capable of entering a cut in the ice, whereby said guide plates guide the machine in making a second cut.

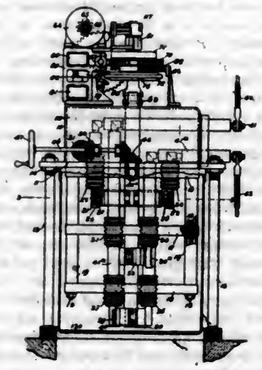
3. A runner for an ice harvesting machine comprising a curved runner shoe, a guide plate pivoted at the rear end of said shoe and lying parallel therewith, and a resilient device tending to force said guide plate below the level of the lower surface of said shoe.

4. A runner for an ice harvesting machine comprising a curved runner shoe, a guide plate lying beside said shoe and pivoted to the rear end thereof, said guide plate having a slot and pin connection with said shoe adjacent its front end, and a spring tending to force said guide plate below the level of the lower surface of said shoe.

5. An ice harvesting machine comprising a truck frame, means for propelling said truck frame, a power-operated ice cutting device carried by said truck frame, runners for said truck frame, and guide plates having one end thereof freely movable so as to be capable of entering a cut in the ice, whereby said guide plates guide the machine in making a second cut.

[Claims 6 to 10 not printed in the Gazette.]

1,028,993. MOTOR-OPERATED SWITCH. HERBERT W. CHENEY, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Apr. 3, 1909. Serial No. 487,729. (Cl. 175—281.)



1. In combination, a switch comprising stationary and movable contacts, a spring tending to operate the movable contact of the switch to open and closed positions when it is in closed and open positions respectively, releasable means for holding the movable contact against such tendency in each position, and means independent of the pull of the spring and operative upon each movement of the movable contact for immediately restoring in the spring an amount of energy substantially equivalent to that expended in producing such movement.

2. In combination, a switch comprising stationary and movable contacts, a spring tending to move the movable contact of the switch to closed or open position according as it is in open or closed position respectively, releasable means for holding the movable contact against such tendency in each of said positions, a motor for winding said spring, and means independent of the pull of the spring and operative upon each movement of the movable contact for causing the motor to wind the spring substantially as far as it unwound in producing such movement.

3. In combination, a switch comprising stationary and movable contacts, a rotary shaft for operating the movable contact both to open and close the switch by movements of the shaft in the same direction, a spring tending to move said shaft in that direction, releasable means for stopping the movement of the shaft when the switch is in open and closed positions, the point of stopping for open position being such that the opening movement is greater than the closing movement, and means for rewinding the spring.

4. In combination, a switch comprising stationary and movable contacts, a shaft for moving the movable contact both to open and closed positions by movements of said movable contact in the same direction, a spring tending to move the shaft in that direction, a motor for winding the spring, means for stopping the movement of the shaft when the switch is in either open or closed position, and controlling means for both causing the release of said stopping means to permit the shaft to move the switch to the other position and the energization of the motor to produce a rewinding of the spring substantially as far as it unwound in producing such movement of the switch.

5. In combination, a switch having coöperating stationary and movable contacts, a rotary drum or shaft carrying the movable contact, an operating motor, a coil spring having one end connected to the shaft and forming the driving connection between the latter and the motor, means for controlling said spring so that the latter will shift the drum or shaft intermittently to open and close the switch, said means comprising an escapement disk mounted on the shaft and provided with a plurality of notches and an escapement lever adapted to engage said notches, and electrically operated means for shifting said lever.

[Claims 6 to 21 not printed in the Gazette.]

1,028,994. BUBBLE-BLOWER. FRANK H. CORDTMEYER, New York, N. Y. Filed Oct. 10, 1911. Serial No. 653,789. (Cl. 46—31.)

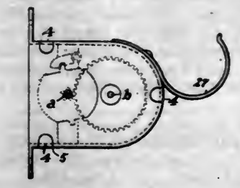


1. In a bubble blower, a body portion having a plurality of exteriorly circumposed annular ridges and provided with an air chamber having a plurality of differentially restricted orifices, the smaller of said orifices opening within the circumference of the innermost of said ridges.

2. In a bubble blower, a body portion having an interiorly formed air chamber; and a plurality of outlet passages for said chamber, one of said passages being relatively freer than the other of said passages to deliver the major portion of air from said chamber; and a plurality of annular ridges one circumvallating the more constricted passage and the other circumvallating the first mentioned ridge.

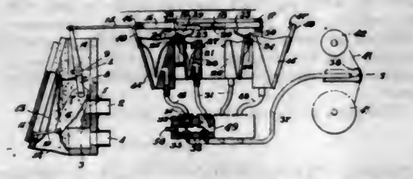
3. In a bubble blower, a body portion having an interiorly formed air chamber, and a plurality of outlet passages for said chamber, one of said passages being relatively freer than the other of said passages to deliver the major portion of air from said chamber; a plurality of annular ridges one circumvallating the more constricted passage and the other circumvallating the first mentioned ridge; and an open ended pipe for delivering air within said chamber.

1,028,995. SPRING-MOUNTING FOR CURTAIN AND SHADE ROLLERS. HENRY CZABOR, Cleveland, Ohio. Filed Oct. 9, 1911. Serial No. 653,557. (Cl. 156—36.)



A device for operatively mounting shades and the like on windows having a suitable mounting and operating mechanism comprising an arbor provided with a shank adapted to engage a curtain or shade roller therewith, a wheel fixed on said arbor having opposite flat portions on its periphery provided with a tooth at its middle rounded on its back and segmental portions between the said flat portions, said teeth being retired within the periphery of said wheel, and means adapted to engage one of said teeth at a time and lock the said wheel against rotation, whereby a rapid rotation of said wheel will cause the pawl to avoid said teeth and a slow rotation will afford engagement therewith.

1,028,996. PLAYER-PIANO. JOSEPH H. DICKINSON, Cranford, N. J. Filed Mar. 14, 1912. Serial No. 683,663. (Cl. 84—160.)



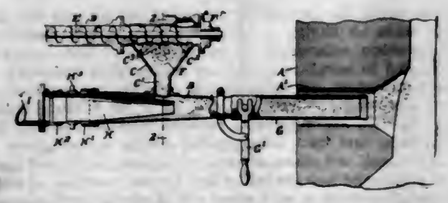
1. In a piano playing mechanism, the combination with an adjustable element forming part of said mechanism, of a rack and pawl means for adjusting said element in one direction or the reverse thereof, step by step, and two independent mechanisms for adjusting said valve to its limit of adjustment, in one stroke, in opposite directions, a separate pneumatic device for operating each separate element adjusting means, and means for controlling the pneumatic device from a perforated music sheet, substantially as set forth.

2. In a piano playing mechanism, the combination with an adjustable element forming part of said playing mechanism, a rack bar in operative connection with said element, a pneumatic, a pawl for engagement with the rack and operated from the movable board of the pneumatic, an additional pneumatic, means for shifting said rack bar lengthwise by said additional pneumatic, in the same direction as it is moved by the pawl, and independent means for governing the operation of said two pneumatics from a perforated music sheet, substantially as set forth.

3. In a piano playing mechanism, the combination with an adjustable element forming part of said playing mechanism, of a rack bar in operative connection with said element, a pneumatic, a pawl for engagement with the rack and operated from the movable board of the pneumatic, an additional pneumatic, means for shifting said rack bar lengthwise by said additional pneumatic, in the same direction as it is moved by the pawl, a stop in the path of said bar for limiting its movement, and independent means for governing the operation of said two pneumatics from a perforated music sheet, substantially as set forth.

4. In a piano playing mechanism, the combination with an adjustable element forming part of said playing mechanism, of a rack bar operatively engaged with said element, stops for limiting the lengthwise movement of said rack bar in either direction when the limit of adjustment in either direction of said element has been reached, two racks formed on said bar, two pneumatics, a pawl operated from the movable board of each pneumatic, for engagement with a rack, means for throwing the pawls out of engagement with the racks when said pneumatics are expanded, two additional pneumatics, and means for shifting the said rack bar lengthwise by means of said additional pneumatics, and means for independently controlling the operation of the four pneumatics from a perforated music sheet, substantially as set forth.

1,028,997. POWDERED-FUEL-FEEDING APPARATUS. WILLIAM R. DUNN, Easton, Pa. Filed July 26, 1911. Serial No. 640,668. (Cl. 110—105.)

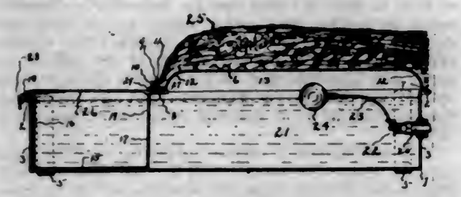


1. Mechanism for blowing powdered coal into a combustion chamber comprising in combination an air blast chamber, a second chamber provided with a port at its lower end opening to said blast chamber, means for effecting a distributed feed of powdered coal into said second chamber above the lower end thereof and provisions for supplying air to said second chamber at a rate which is regulable independently of the rate at which the powdered coal is supplied thereto, and a blast nozzle extending into said blast chamber with its discharge end in proximity to said port and adjustable with respect thereto to vary the eductive effect on said second chamber of the blast discharged from said nozzle.

2. Mechanism for blowing powdered coal into a combustion chamber comprising in combination an air blast conduit, a chamber provided with a port at its lower end opening to said conduit, means for effecting a distributed feed of powdered coal into said chamber above its lower end and provisions for supplying air to said chamber at a rate which is regulable independently of the rate at which the powdered coal is supplied thereto, and a blast nozzle extending into said blast conduit with its discharge end located in advance of said port, said blast nozzle being axially adjustable to vary the eductive effect on said chamber of the blast discharged from said nozzle.

3. Mechanism for blowing powdered coal into a combustion chamber comprising in combination an air blast conduit, a chamber provided with a port at its lower end opening to said blast conduit, means for effecting a distributed feed of powdered coal into said chamber above its lower end and provisions for supplying air to said chamber at a rate which is regulable independently of the rate at which the powdered coal is supplied thereto, a conduit supplying air under pressure for the blast in line with but separate from said blast conduit, and a blast nozzle member comprising a discharge end projecting into said blast conduit in proximity to and slightly in advance of said port and a body portion connecting and in threaded engagement with said blast and air supply conduits, said threaded engagement permitting of an axial adjustment of the discharge end of the blast nozzle to thereby vary the eductive effect on said chamber of the blast discharged from the said blast nozzle.

1,028,998. FOUNTAIN-TANK. ALBERT N. EATON, Omaha, Nebr. Filed Mar. 17, 1911. Serial No. 615,029. (Cl. 119—73.)



1. A fountain tank comprising a body portion having downwardly and outwardly directed flanges extending entirely around its upper edge, a transverse bar extending across said body portion, a hood covering only a portion of said body, said hood having terminal downwardly inclined flanges bearing upon the flanges of the body portion at the rear of and at each side of the body portion, the forward edge of said hood terminating in a flat valley portion and an upstanding lip, said valley portion resting upon and being secured to said transverse bar and said lip and valley portion extending transversely of the body portion, a drinking pan seated in that part of the body portion that is not covered by the hood, means for supplying water to the body portion, and a detent bar one end of which has frictional engagement over the front terminal flange of the body portion and the other end of which passes over the rear wall of the drinking pan and under the transverse bar, as and for the purposes set forth.

2. A fountain tank, comprising, in combination with an elongated, rectangular container having an open top with a terminal flange; a supply pipe traversing one of the ends of the container and provided with a valve and a float; a supporting-bar disposed transversely of the container upon said flange; a rectangular drinking-pan having an intake aperture near the upper edge of its containing wall and adapted to be removably disposed within the container with one of its ends engaging the supporting-bar; a strap adapted to be mounted upon the drinking-pan, with one of its ends in engagement with the terminal flange of the elongated container, its opposite end being in engagement with said supporting-bar; and a rectangular hood above the container, said hood being secured near its edges to the supporting-bar and to the flange of the container.

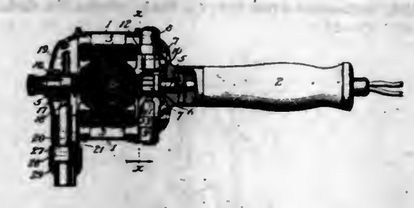
3. A fountain tank, comprising, in combination with an elongated, rectangular container having an open top with a continuous, flat, outwardly-projecting, terminal flange; a supply pipe traversing one of the ends of the container and provided with a valve and a float; a supporting-bar disposed transversely of and between the ends of the container upon said continuous flange; a rectangular drinking-pan having an apertured wall and adapted to be disposed within the container with one of its ends engaging and extending above the supporting-bar; a rectangular hood formed with downwardly-inclined sides and ends and with flat, outwardly-projecting, terminal flanges, one of its terminal end flanges being formed with an upset portion forming a trough extending transversely of the container between said flange and the downwardly-inclined end of the hood.

4. A fountain tank, comprising an elongated receptacle having a transversely curved containing wall with a flat, outwardly-projecting, downwardly-inclined rim; a supporting-bar disposed transversely between the ends of the receptacle and bearing upon said rim; a conducting-pipe extending within the receptacle and provided with a float valve; an elongated hood formed with downwardly-inclined portions at its sides and ends, said side portions and an end portion of the hood having flat, outwardly-projecting, downwardly-inclined flanges, the opposite end portion of the hood being provided with a horizontal flange with an upset terminal to form intermediate the downwardly-inclined end portion of the hood and said upset terminal, a transversely disposed valley; said hood being disposed upon the receptacle, its inclined flanges registering with the inclined terminal rim thereof, its horizontal flange bearing upon said supporting-bar.

5. A fountain tank, comprising a receptacle rectangular in plan and formed with a continuous, flat, outwardly-projecting, downwardly-inclined, terminal flange; a supporting-bar disposed transversely between the ends of the receptacle and bearing upon said flange; a conducting pipe traversing the containing wall of the receptacle and provided with a float valve; a rectangular hood having downwardly-inclined wall portions at its sides and ends with flat, outwardly-projecting flanges, one of the end flanges of said hood being upset to form a barrier plate, and to form between the barrier plate and inclined portion a longitudinal gutter; said hood adapted to have a seating upon the receptacle with its outwardly-projecting flanges at its sides and one of its ends bearing upon the continuous flange of the receptacle, the flange upon its opposite end bearing upon said supporting-bar; a drinking pan removably seated in the receptacle adjacent to said barrier plate, said pan having an intake aperture formed in and near the upper edge of its containing wall; a detent bar mounted upon the receptacle and adapted to overhang a part of the drinking pan, and connected with said supporting-bars; and a plurality of keepers traversing the supporting-bar, the flanges of the hood and the flanges of said receptacle.

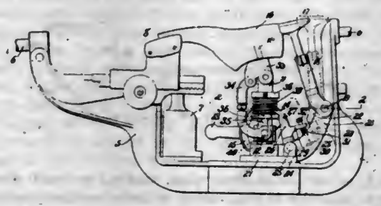
1,028,999. MASSAGE APPARATUS. CHARLES ENDORF, Jr., Chicago, Ill., assignor to Commercial Electric Motor Mfg. Co., Chicago, Ill., a Corporation of Illinois. Filed Feb. 15, 1911. Serial No. 608,778. (Cl. 128—16.)

1. In a massage apparatus of the type herein described, the combination of an inclosing housing formed with a lateral neck, an electric motor arranged in said housing and having an armature shaft, an eccentric on said armature shaft, an eccentric collar encircling said eccentric and having an extension or stem, a vibratory lever formed with a globular enlargement midway of its length, one arm of said lever having sliding engagement with the stem of the aforesaid eccentric collar, the other arm of the lever being adapted for the attachment of the massage applicator, a cylindrical sleeve surrounding the enlargement of the vibratory lever, a transverse pin pivotally connecting the said enlargement and sleeve together, and a cap piece adapted to hold said sleeve in a recess formed therefor in the lateral sleeve of the inclosing housing, substantially as set forth.



2. In a massage apparatus of the type herein described, the combination of an inclosing housing formed with a lateral neck, an electric motor arranged in said housing and having an armature shaft, an eccentric on said armature shaft, an eccentric collar encircling said eccentric and having an extension or stem, a vibratory lever formed with a globular enlargement midway of its length, one arm of said lever having sliding engagement with the stem of the aforesaid eccentric collar, the other arm of the lever being adapted for the attachment of a massage apparatus, a cylindrical sleeve surrounding the enlargement of the vibratory lever, a transverse pin pivotally connecting the said enlargement and sleeve together, flexible washers fitted to the respective upper and lower ends of said cylindrical sleeve, and a cap piece adapted to hold said sleeve in a recess formed therefor in the lateral sleeve of the inclosing housing, substantially as set forth.

1,029,000. SHOE-JACK. ANDREW EPPLER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 3, 1910. Serial No. 590,449. (Cl. 12—127.)



1. A jack for leveling machines, having, in combination, means for jacking and unjacking the shoe, and a connected end rest for a leveling tool movable into and out of operative position as said means are operated to jack and unjack the shoe respectively, substantially as described.

2. A jack for leveling machines, having, in combination, a saddle, a heel-post having a spindle pivoted thereon, a pivotally mounted end rest for a leveling tool, and means for concurrently tilting the spindle and rest in the same direction, substantially as described.

3. A jack for leveling machines, having, in combination, a saddle, a tilting spindle, an end rest for a leveling tool movable toward and from the shoe, and cam means for tilting the spindle toward the saddle and concurrently moving the rest toward the shoe, substantially as described.

4. A jack for leveling machines, having, in combination, shoe jacking and unjacking means, an end rest for a leveling tool movable into and out of operative position, and

a single controller for concurrently operating said means and rest, substantially as described.

5. A jack for leveling machines, having, in combination, an end rest for a leveling tool movable toward and from the shoe, a cam, and operative connections between the cam and rest for positively moving the rest, said connections being provided with a yielding link to take up an excessive throw of the cam, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

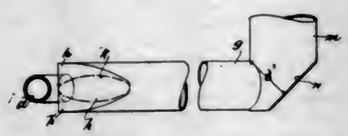
1,029,001. FLY-CATCHER. HERMANN FINGERHUT, Breslau, Germany. Filed Oct. 23, 1911. Serial No. 656,136. (Cl. 43—22.)



1. In a fly catcher, in combination, a foldable dished base plate having an air vent, a collapsible member airtightly secured thereto so as to inclose said air vent, adhesive substance on the outer surface of said collapsible member, a flexible handle at its free end, said adhesive member adapted to snugly fit the dished portions of said base plate halves in collapsed state, and means for sealing the superposed edges of the folded base plate, substantially as set forth.

2. In a fly catcher, in combination, a foldable base plate comprising two hinged-together members with interfitting corrugations along the edges, an adhesive member adapted to be inclosed in collapsed state by said hinged members, a seal between the folded-together base plate members, and means for breaking said seal, substantially as set forth.

1,029,002. SOUND-CONDUIT OR AMPLIFYING DEVICE FOR TALKING-MACHINES AND THE LIKE. ALEX FISCHER, West Kensington, London, England. Filed Apr. 16, 1910. Serial No. 555,776. (Cl. 181—27.)



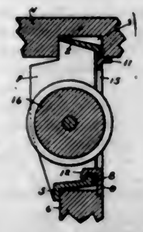
1. A sound conducting pipe, having a bend provided with a plane or flat reflecting surface inclined equally to the axes of both parts of the pipe on opposite sides of the bend so that the sound waves are reflected in straight lines parallel with the axis of the pipe, the free space or cross sectional area at the narrowest place between the angle of the bend and the reflector being approximately equal to the cross sectional area of that part of the pipe from which the sound waves pass on their way to the bend.

2. A sound conducting pipe, having a bend provided with a plane or flat reflecting surface inclined equally to the axes of both parts of the pipe on opposite sides of the bend so that the sound waves are reflected in straight lines parallel with the axis of the pipe, the parts of the pipe on opposite sides of the bend being of different diameters and the free space or cross sectional area at the narrowest place between the angle of the bend and the reflector being approximately equal to the diameter or cross sectional area of the smaller part of the pipe from which the sound waves pass on their way to the bend and such reflecting surface being of such dimensions as to receive all of the projected area from that part of the pipe from which the sound waves proceed.

3. A sound conducting pipe having a plurality of bends each of which bends is provided with a plane or flat reflecting surface inclined equally to the axes of both parts of the pipe on opposite sides of the bend so that the sound waves are reflected in straight lines parallel with the axis of the pipe, the free space or cross sectional area at the narrowest place between the angle of the bend and the reflector being approximately equal to the cross sectional area of that part of the pipe from which the sound waves pass on their way to the bend.

4. A sound conducting pipe having a plurality of bends, each bend being provided with a plane or flat reflecting surface inclined equally to the axes of both parts of the pipe on opposite sides of the bend so that the sound waves are reflected in straight lines parallel with the axis of the pipe, the parts of the pipe on opposite sides of the bend being of different diameters and the free space or cross sectional area at the narrowest place between the angle of the bend and the reflector being approximately equal to the diameter or cross sectional area of the smaller part of the pipe from which the sound waves pass on their way to the bend, and such reflecting surface being of such dimensions as to receive all of the projected area from that part of the pipe from which the sound waves proceed.

1,029,003. SASH-PULLEY. JAMES H. FOOTE, Cincinnati, Ohio. Filed Mar. 16, 1907. Serial No. 362,650. (Cl. 16—17.)



1. In a sash pulley, the combination with a sheave bearing casing having rigid top and bottom projections thereon for preventing outward movement of the casing in its surrounding framework, of a separate face plate adapted to coöperate with the framework, and having a sheave opening therein, said face plate being movable toward the casing when the latter is seated in the window framework, and coöperating interlocking projections on the casing and face plate whereby they are connected, the framework is clamped between the plate and casing and the casing is held down in its seat in the framework.

2. A sash pulley embodying a sheave bearing casing having a supporting surface and a shoulder at the bottom for coöperation with the surrounding framework and front and rearwardly facing surfaces on its upper portion for engaging with the framework to prevent both inward and outward movement at the top, and means detachably connected with the casing and adapted to be moved into position to engage with the framework at the top of the casing to hold the casing down in its seat after the casing is seated.

3. In a sash pulley, the combination with a seat in a window frame and a sheave bearing casing with an extension at its upper end presenting forwardly and rearwardly facing surfaces to engage the walls of a socket prepared for its retention at the upper end of said frame seat to prevent both inward and outward movement at the top and an extension at the rear of its lower end having a forwardly facing surface to arrest the forward movement of said casing in said seat, of means interposed between said casing and the surrounding framework for holding said casing against upward movement in said frame seat.

4. A sash cord pulley adapted to seat in a previously prepared seat in a window frame, embodying a sheave bearing casing having a rigid extension permanently projecting a fixed distance at the top with rearwardly and forwardly directed faces for engaging with the frame to prevent both inward and outward movement of the top of the casing, and a rigid extension at the bottom having a forwardly directed face located in substantially the same vertical plane as the rearwardly directed face of the top extension for engaging with the frame to prevent outward movement of the bottom of the casing.

5. A sash cord pulley adapted to seat in a previously prepared seat in a window frame, embodying a sheave bearing casing having a rigid extension at the top with rearwardly and forwardly directed faces for engaging with the frame to prevent both inward and outward movement of the top of the casing, a rigid extension at the bottom having a forwardly directed face for engaging with the frame to prevent outward movement of the bottom of the casing, and a face plate detachably secured to the casing and extended laterally beyond the casing to overlie the frame around the casing seat said face plate being adapted to move into operative position, after the casing is seated.

[Claims 6 to 12 not printed in the Gazette.]

1,029,004. SASH-PULLEY. JAMES HALL FOOTE, Cincinnati, Ohio. Filed Oct. 14, 1910. Serial No. 587,064. (Cl. 16—17.)



1. A sash cord pulley embodying a sheave bearing casing having upwardly and downwardly extending projections on its inner side adapted to seat against the inner face of the window framing and laterally extending flanges on its outer side adapted to seat against the outer side of the window framing, said flanges extending upwardly a less distance than the said end projection, whereby the casing may be inserted in the framing in an inclined position and seated by a bodily downward movement with the projections in engagement with the framing.

2. A sash cord pulley embodying a sheave bearing casing having upwardly and downwardly extending end projections on its inner side, the upwardly extending projection being longer than the downwardly extending projection, and laterally extending flanges on front of the casing extending upwardly a less distance than the end projection, whereby the casing may be inserted in an inclined position and seated by a bodily downward movement with the projections and flanges on opposite sides of the window framing.

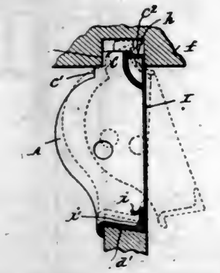
3. A sash cord pulley embodying a sheave bearing casing having rigid upwardly and downwardly extending end projections integral therewith on its inner side, the upwardly extending projection being longer than the downwardly extending projection and laterally extending flanges on the front of the casing intermediate the ends of the casing, whereby the casing may be inserted in an inclined position and seated by a bodily downward movement with the projections and flanges against the inner and outer sides of the window framing.

4. A sash cord pulley embodying a sheave bearing casing having rigid projections on its inner side for seating against the inside of the window framing to prevent outward movement of the casing and flanges on the outer side for preventing inward movement of the casing, and a face plate connected with the outer side of the casing and extending laterally beyond the edges of the casing to engage the window framing and holding the casing seated.

5. A sash cord pulley embodying a sheave bearing casing having rigid top and bottom projections on its inner side, and a face plate of resilient material, secured to the casing, at a point remote from one end, whereby the end of said face plate may be sprung away from the casing for inserting the sheave bearing casing in the window framing.

[Claims 6 to 11 not printed in the Gazette.]

1,029,005. SASH-CORD PULLEY. JAMES H. FOOTE, Cincinnati, Ohio. Filed Dec. 20, 1911. Serial No. 666,898. (Cl. 16—17.)



1. A sash cord pulley embodying a sheave bearing casing having an extension at the top adapted to enter a recess in the framing whereby it is held against escape toward front and rear and a projection at the bottom on the inner side of the casing of less length than the top extension and adapted to seat against the inner side of the framing, whereby the bottom projection may be passed through the framing and seated against the inner side thereof without withdrawing the top extension from its recess, means for preventing the bodily upward movement and for preventing the inward movement of the bottom of the casing when seated in the framing.

2. A sash cord pulley adapted to be seated in the window framing by a bodily downward movement, embodying a sheave bearing casing having an extension at the top adapted to enter a recess in the framing, whereby it is held against escape toward the front and rear, a projection at the bottom on the inner side of less length than the top extension and adapted to seat against the inner side of the framing whereby the bottom projection may be passed through the framing and seated against the inner side thereof without withdrawing the top extension from its recess, a movable keeper supported by the casing in front of and coöperating with the top extension, and means for preventing bodily upward movement and for preventing the inward movement of the bottom of the casing when seated in the window framing.

3. A sash cord pulley adapted to be seated in the window framing by a bodily downward movement, embodying a sheave bearing casing having extensions at the top and bottom, with rearwardly and forwardly directed faces respectively in substantially the same plane, a shoulder on the top extension projecting in rear of said plane for holding the casing down to its seat, means on the casing for limiting its inward movement at the lower end, and a movable keeper coöperating with the outer side of the top projection.

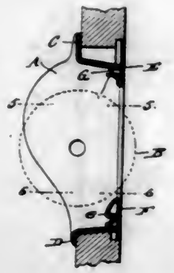
4. A sash cord pulley adapted to be seated in the window framing by a bodily downward movement embodying a sheave bearing casing having extensions at the top and bottom with rearwardly and forwardly directed faces respectively in substantially the same plane, the top extension having its forwardly directed face in a plane in rear of the plane of the front of the casing, and a movable keeper located in front of and coöperating with the top extension.

5. A sash cord pulley adapted to be seated in the window framing by a bodily downward movement embodying a

sheave bearing casing having extensions at the top and bottom with rearwardly and forwardly directed faces respectively in substantially the same plane, the top extension having a rearwardly extending shoulder for holding the casing down in its seat and a forwardly directed face in rear of the plane of the front of the casing, and a movable keeper located in front of and coöperating with the top extension.

[Claims 6 to 8 not printed in the Gazette.]

1,029,006. SASH-CORD PULLEY. JAMES H. FOOTE, Cincinnati, Ohio. Filed Dec. 23, 1911. Serial No. 667,555. (Cl. 16—17.)



1. A sash cord pulley embodying a sheave bearing casing having upwardly and downwardly extending projections on its inner side adapted to seat against the inner face of the window framing and laterally extending flanges on its outer side adapted to seat against the outer side of the window framing, said flanges extending upwardly a less distance than the said end projection, whereby the casing may be inserted in the framing in an inclined position and seated by a bodily downward movement with the projection in engagement with the framing, and a face plate extending above the front of the casing and having inwardly extending tongues above and below the sheave for coöperation with the casing to retain the face plate in position.

2. A sash cord pulley embodying a sheave bearing casing having upwardly and downwardly extending end projections on its inner side, the upwardly extending projection being longer than the downwardly extending projection and laterally extending flanges on the front of the casing extending upwardly a less distance than the upwardly extending projection, a face plate and interlocking projections at the top and bottom of the face plate and casing, the construction being such that the projections and flanges will seat against inner and outer faces of the window framing and the face plate will hold the casing down to its seat.

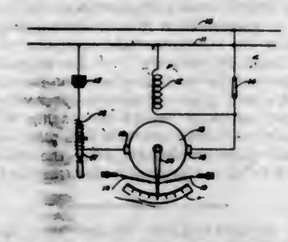
3. A sash cord pulley embodying a sheave bearing casing having rigid projections on its inner side for seating against the inside of the window framing to prevent outward movement of the casing, and flanges on the outer side for preventing inward movement of the casing, a face plate, interlocking projections rigidly connecting one end of the face plate and casing and stops for limiting the outward movement of the opposite end of the face plate, whereby one end of the face plate may be moved away from the casing to insert the pulley in the window framing.

4. A sash cord pulley embodying a sheave bearing casing having rigid top and bottom projections on its inner side, the top projection being longer than the bottom projection and a face plate of resilient material rigidly secured at the lower end and loosely secured at its upper end to the front of the casing, whereby the face plate may be sprung away from the casing at the upper end for inserting the pulley in the window framing.

5. A sash cord pulley embodying a sheave bearing casing having rigid top and bottom projections on its inner side adapted to seat against the inner face of the window framing, the upper projection being longer than the lower projection, and projections within the casing at top and bottom, a resilient face plate rigidly connected with said internal projections at one end and loosely connected with the internal projections at the opposite end of the casing.

[Claim 6 not printed in the Gazette.]

1,029,007. FREQUENCY-RESPONSIVE DEVICE. BUDD FRANKENFIELD, Los Angeles, Cal., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Mar. 12, 1910. Serial No. 548,992. (Cl. 172—245.)



1. In a frequency-responsive device, a field member having a single winding arranged to be connected to a circuit, a relatively movable armature having a single winding arranged to be connected to the same circuit and to produce a flux interacting upon and displaced in space from that produced by the field winding, and means associated with said windings for causing the time-displacement between the two fluxes to be such at normal frequency that no torque is produced between the armature and the field member, and for varying the time-displacement between the armature and field fluxes to produce such a torque upon a change in the frequency in the circuit.

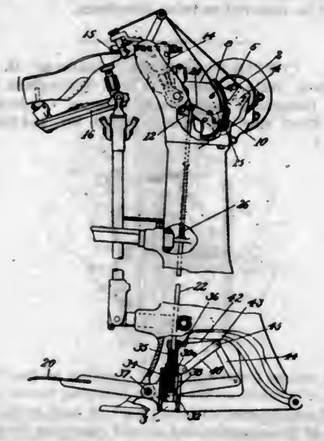
2. In a frequency-responsive device, a field winding arranged to be connected to a circuit, a relatively movable armature having a commutator and brushes and arranged to be connected to the same circuit, the brushes being so located on the commutator that the fluxes produced by the currents in the armature and field windings are displaced in space, and means associated with said windings for causing said fluxes to be displaced in time by an angle which is dependent upon the frequency in the circuit to which the windings are connected and which at normal frequency is such that no torque is produced between the armature and field fluxes.

3. In a frequency-responsive device, a field winding arranged to be connected to a circuit, a relatively movable armature having a commutator and brushes and arranged to be connected to the same circuit, the brushes being so located that the armature and field fluxes are substantially in space-quadrature, and means for causing the armature and field fluxes to be in time-quadrature upon normal frequency in the circuit so that no torque is produced between the armature and field, and for varying the time-displacement between the two fluxes upon a change in frequency so that a torque is produced.

4. In a frequency-responsive device, a field winding arranged to be connected to a circuit, a relatively movable armature having a commutator and brushes and arranged to be connected to the same circuit, the brushes being so located on the commutator that the armature and field fluxes are substantially in space-quadrature, and a condenser which is so connected that the armature and field fluxes are substantially in time-quadrature for normal frequency in the circuit so that no torque is produced.

5. In combination, a field winding, a relatively movable armature winding, a commutator for said armature winding, brushes coöperating with said commutator and arranged on the commutator so that the fluxes produced by the armature and field windings are displaced in space, and means associated with said windings for causing the torque produced between them when they are connected to the same circuit to be in opposite directions according as the frequency in said circuit is above or below a predetermined value.

1,029,008. TREADLE MECHANISM. FREDERICK M. FURBER, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 24, 1908. Serial No. 417,551. (Cl. 74—5.)



1. In a machine of the class described, the combination with a treadle and a treadle rod, of yielding means acting normally to uplift the rod, a block movable on the treadle rod lengthwise of the rod, a spring arranged to be compressed by force applied to the block in the direction to depress the treadle rod, and connections from the treadle to depress the block when the treadle is depressed.

2. In a machine of the class described, the combination with a treadle and a treadle rod, of yielding means acting normally to uplift the rod, a block, means yieldingly holding the block normally in abutting relation to the rod, a connection from the treadle to the block acting through said yielding means to depress the treadle rod and serving to hold the block out of such abutting relation to the rod.

3. In a machine of the class described, the combination with a treadle and a treadle rod, of means for yieldingly uplifting the rod, a block, a yielding connection between the block and the rod arranged to be put under stress when the rod is lowered, and an extensible connection between the block and the treadle for lowering the block and rod.

4. In a machine of the class described, the combination with a treadle and a treadle rod operatively connected with a vibrating tool, of a block, a yielding connection between the block and the rod arranged to be put under stress when the rod is lowered, and an indirect connection between the block and the treadle constructed and arranged to absorb any vibrations that pass the block.

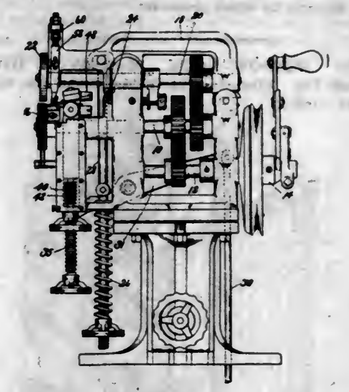
5. In a machine of the class described, the combination with a treadle and a rod, of means so related to the rod that said rod is vibrated therefrom, a flexed toggle having one member connected to the rod and the other member connected to the treadle, and an abutment with which the knuckle of the toggle has engagement.

[Claims 6 to 12 not printed in the Gazette.]

1,029,009. MACHINE FOR BEVELING AND FLESHING SOLES. JOHN J. GILLESPIE, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 23, 1907. Serial No. 398,768. (Cl. 12—17.)

1. A machine for preparing channeled shoe soles for attachment to boots or shoes, having, in combination, means for fleshing the marginal part of the flesh side of a sole and means for beveling the sole to a thin edge upon its opposite side beneath the channel lip.

2. A machine for preparing channeled shoe soles for attachment to boots or shoes, having, in combination, means for fleshing the marginal part of the flesh side of a sole and means for simultaneously beveling the sole to a thin edge upon its opposite side beneath the channel lip.



3. A machine for preparing channeled shoe soles for attachment to boots or shoes, having in combination, a knife for removing a layer of stock from the marginal part of the flesh side of a sole, a knife for beveling the sole to a thin edge upon its opposite side beneath the channel lip, means for advancing a sole against said knives and means under the control of the operator for imparting a relative separating movement to said knives.

4. A machine for preparing channeled shoe soles for attachment to boots or shoes, having in combination, a device for removing a layer of stock from the marginal part of the flesh side of a sole, and a device for simultaneously beveling the sole to a thin edge upon its opposite side beneath the channel lip, said devices being arranged to act simultaneously upon the sole at approximately the same point.

5. A machine for preparing channeled shoe soles for attachment to boots or shoes, having in combination, a knife for removing a layer of stock from the margin of the flesh side of a sole, a knife for beveling the sole to a thin edge beneath the channel lip upon its opposite face, means for advancing the sole against said knives, and a lip-raising device arranged in advance of the beveling knife for raising the channel lip out of proximity to said knife.

[Claims 6 to 9 not printed in the Gazette.]

1,029,010. KITE. HARRY P. GUILLO, Revere, Mass., assignor to Forbes Lithograph Manufacturing Company, Boston, Mass., a Corporation of Massachusetts. Filed Dec. 23, 1909. Serial No. 534,604. (Cl. 244—22.)



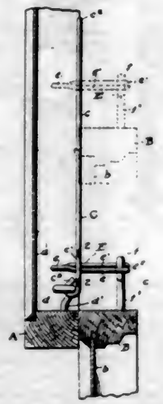
1. The knock-down kite above described, comprising a cover, a removable rib connectible to said cover, lateral arms independent and unconnected from each other and from said movable rib, and detachable means for holding said arms in extended relation.

2. The knock-down kite above described, comprising a cover, a removable rib connectible to said cover, lateral arms independent and unconnected from each other, and detachable means made of resilient material for holding said arms in extended relation adjustable upon said arms, whereby the angle of said arms to each other may be adjusted.

3. The knock-down kite above described, comprising a cover, a removable rim connectible to said cover, lateral

arms independent and unconnected from each other, and detachable means made of resilient material for holding said arms in extended relation, said arms being adapted to yield slightly to wind pressure.

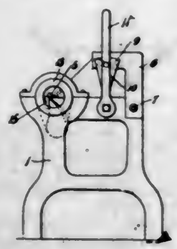
1,029,011. WINDOW-LOCK. RICHARD K. HALDANE, Sanford, Fla. Filed Aug. 21, 1911. Serial No. 645,113. (Cl. 16—146.)



1. A window lock comprising a headed fastener, means for attaching the same to one of the sash rails, a yoke having yielding sides, an eye located in the bow of said yoke and adapted for receiving the head of the fastener, and means for attaching said yoke on a sash rail adjacent to said fastener, said yoke being provided with a swivel connected with the attacher for said yoke whereby the same may be turned up to the lock position, or down and around on the sash rail when unlocked.

2. A window lock comprising a yoke having a loop at one end and an eye near the other, means for attaching the same to a sash rail, and a fastener having a head at one end, said head being adapted to forcing through the eye of said yoke, and the other end of the fastener being movably connected with means whereby the fastener may be attached to a sash rail adjacent to the one to which said yoke is attached.

1,029,012. CORNICE-BRAKE. HENRY HIGGIN, Newport, Ky., assignor of one-half to The Higgin Manufacturing Company, Newport, Ky., a Corporation of West Virginia. Filed Oct. 6, 1911. Serial No. 653,235. (Cl. 153—46.)



1. In a cornice brake, the combination with the clamping jaws, of a bending apron to act upon the sheet metal, with trunnions for the apron, having the hollow spaces therein opposite the forward end of the clamping jaws, whereby the bent sheet metal may be removed endwise from the machine.

2. In a cornice brake, the combination with the clamping jaws and a former secured to one of said jaws, of a bending apron to act upon the sheet metal, with hollow trunnions for the apron, having the hollow spaces therein opposite the ends of the former, whereby the bent sheet metal may be removed endwise therefrom.

1,029,013. COFFIN-FASTENER. CHARLES H. HISER, Springfield, Ohio, assignor to The Springfield Metallic Casket Company, Springfield, Ohio, a Corporation of Ohio. Filed Mar. 22, 1909. Serial No. 484,980. (Cl. 27—12.)



1. In a clamp for the parts of a casing of the character described, the combination of the clamping device pivotally connected at one end with one part of said casing, means arranged at the opposite end of said clamping device to engage the other part of said casing, said clamping device being formed of two parts, and means for adjusting the respective parts of said clamping device with respect to each other.

2. In a clamp for the parts of a casing of the character described, the combination, with the laterally extending adjacent flanges on the respective parts of said casing, of a clamping device pivotally connected to one part of said casing; said clamping device having means for engaging the flange of the other part of said casing, said clamping device being formed of two parts, and means for adjusting the respective parts of said clamping device with respect to each other, substantially as specified.

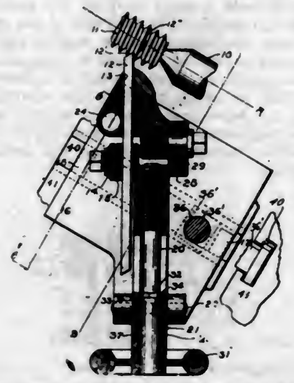
3. In a clamp for the parts of a casing of the character described, the combination, with the laterally extending adjacent flanges on the respective parts of said casing, of a clamping device pivotally connected to one part of said casing; said clamping device having a pivoted clamping lever to engage the flange of the other part of said casing, said clamping device being formed of two parts, and means for adjusting the respective parts of said clamping device with respect to each other, substantially as specified.

4. In a device of the character described, laterally extending adjacent flanges, a two-part clamp, one part being pivotally connected to one of said flanges and the other part having a clamping lever, means for adjusting the distance to which said parts may be separated, and a guide pin on one part adapted to enter a recess in the other part, substantially as specified.

5. In a clamp for the members of a casing of the character described, the combination of a two-part clamp, one part being pivotally connected to one member of said casing and the other part having a clamping lever, means for adjusting the parts of said clamp with respect to each other, and means for preventing the respective parts of said clamp from turning in relation to each other.

1,029,014. DEVICE FOR CUTTING THREADS AND OTHER LATHE-WORK. JOHN F. IVARSON, Boston, Mass. Filed Sept. 10, 1909. Serial No. 517,140. (Cl. 82—24.)

1. A thread cutting attachment, comprising a tool rest having means for feeding a tool in a particular direction thereon; a guide on the rest, fixing the line in which the tool may be fed thereon; parts on said rest at points remote from each other forming a line of abutment adapted to engage horizontally against an abutment shoulder on a carriage of a suitable machine, such as a lathe; said line of the abutment being at an angle to said line of feed of the tool, and means to fasten the rest in this position, whereby the tool's feeding direction is fixed relative to such carriage; the angle of the thread being determined by said angle between said line of abutment and said line of feed of the tool.



2. The combination of a tool support comprising a base; a tool holding pedestal, pivoted thereon on a horizontal axis; and tool-feeding means fixed on said pedestal acting in a direction perpendicular to the direction of said pivotal axis; there being a vertical screw forming one leg of the pedestal; and a lug with horizontal clamping screw forming another leg; these two with the pivot forming a tripod support for the tool.

3. The combination of a carriage with a shoulder fixed in its angular relation to the axis of the thread which is to be cut; a tool rest adapted to be supported removably on said carriage and having lugs fixed in position on said rest adapted to rest against said shoulder; means to fasten the tool rest there; means to hold a tool on said rest, including a groove running in the direction of feed of the tool to the work, said groove having a wall rising laterally beside the tool on the side from which the carriage is fed and adapted to bear against and sustain that side of the tool; said carriage being adapted to be impelled parallel with the axis of the work; whereby the resistance of the work presses the tool normally against said lateral support and presses the tool rest normally against said shoulder of the carriage.

4. The combination of a tool support and feeding means thereon; said support having a groove running in the direction of feed and with open top adapted to receive a tool projecting to variable distances above the top of the groove and to guide such a tool, propelled by said feed; and a screw set in the bottom of said groove and projecting vertically upward therein forming a bottom of variable elevation within the groove on which bottom the tool slides when so propelled.

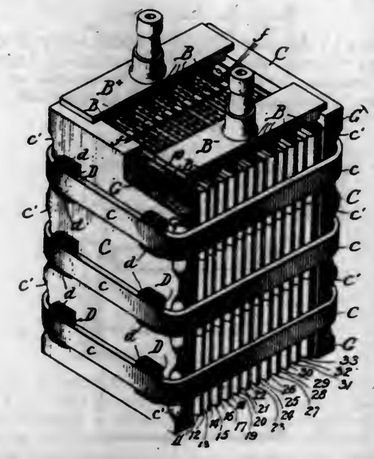
5. The combination of a tool support and feeding means, comprising a pedestal having ways in the direction of feed; a block to travel in said ways toward and from the work; there being a shoulder arranged on the block; means to clamp the tool against the shoulder; means to feed the block; and a support for the tool between said block and the work.

[Claims 6 to 9 not printed in the Gazette.]

1,029,015. SECONDARY BATTERY. GUSTAVUS J. JOHNSON, Chicago, Ill., assignor to E. C. Tourtelot, Chicago, Ill. Filed Aug. 28, 1911. Serial No. 646,443. (Cl. 204—29.)

1. A non-metallic, electrically non-conducting plate for supporting active material in an electric battery, said plate having its body permeable to the electrolyte and provided with perforated chambers for the reception and retention of said active material, and having its outer edge impervious to the electrolyte.

2. A non-conducting plate for supporting active material in contact with the conductor of the electrodes of an electric battery, said plate having its body permeable to the electrolyte and provided with chambers for the reception and retention of said active material, and having its outer edge extended above the chambered strata of the active material.



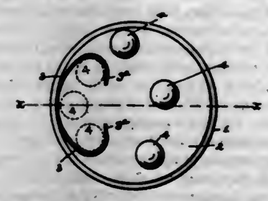
3. A non-conducting plate for supporting active material in contact with the conductor of the electrodes of an electric battery, said plate having its body permeable to the electrolyte and provided with chambers for the reception and retention of said active material, and having its outer edge beveled and extended above the chambered strata of the active material.

4. A non-conducting plate for supporting active material in contact with the conductor of the electrodes of an electric battery, said plate having its body permeable to the electrolyte and provided with perforated recesses or chambers for the reception and retention of said active material, and having its outer edge beveled and extended above the line of the recesses or chambers.

5. A storage battery composed of non-conducting plates to which the active material is applied, conducting plates in contact with said active material, channels on the outer faces of the plates, and keys in the channels of opposite plates.

[Claims 6 to 12 not printed in the Gazette.]

1,029,016. PUZZLE GAME APPARATUS. EDWARD G. JOHNSTON, Columbus, Ohio. Filed Apr. 3, 1909. Serial No. 487,706. (Cl. 46—41.)

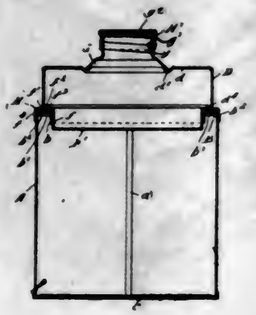


1. Puzzle-game apparatus comprising a receptacle having a plane surface, three balls movable about said plane surface by the tilting of the receptacle, and a pocket approximately of a size to receive all of said balls, said pocket having its ends turned inwardly to form a narrow gateway for the passage of the balls and being of less depth than twice the diameter of a ball.

2. The combination with a cup-like casing, of a C-shaped compartment located therein and against the wall

of said casing, the ends of said compartment terminating in inturned hook-like portions, and balls adapted to roll within said casing, the size and form of said compartment being such as to permit the passage of only one of said balls between one end of the compartment wall, and a second ball at the center of the length of and in contact with said compartment wall.

1,029,017. COMPARTMENT FRICTION-TOP CAN. HARRY W. JONES, New York, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Aug. 19, 1907. Serial No. 389,159. (Cl. 220—92.)



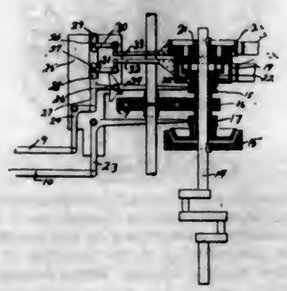
1. A sectional or compartment can comprising a main section and a supplemental section, both having openings located at their upper ends when assembled, a removable closure for the opening in the supplemental section, the main section having a body and an annular head disk furnished with a depending friction seat wall at its inner edge, said supplemental section having a body and a countersunk bottom head furnished with a friction seat wall coöperating with the friction seat wall of the main section and adapted to close the opening in the annular head disk of the main section, and securing the two sections together, the bottom head of said supplemental section having an externally projecting rim portion extending beyond the body thereof and provided with an upwardly projecting annular shoulder fitting within the lower end of the body of said supplemental section, and the body of said supplemental section being secured at its lower end to said rim portion and extending upwardly therefrom.

2. A sectional or compartment can comprising a main section and a supplemental section, both of said sections being provided with openings at their upper ends when assembled, and a closure for the opening in said supplemental section, the main section having a body and an annular head disk furnished with a depending friction seat wall at its inner edge, said supplemental section having a body and a countersunk bottom head furnished with a friction seat wall coöperating with the friction seat wall of the main section, and adapted to close the opening in the annular head disk of the main section and secure the two sections together, the bottom head of said supplemental section having an externally projecting rim portion extending beyond the body thereof and provided with an upwardly projecting annular shoulder fitting within the lower end of the body of said supplemental section, and the body of said supplemental section being secured at its lower end to said rim portion and extending upwardly therefrom.

1,029,018. TRANSMISSION AND CONTROL SYSTEM. HENRY M. KINNEY, Winona, Minn., assignor to Winona Wagon Company, Winona, Minn., a Corporation. Filed Sept. 22, 1911. Serial No. 650,750. (Cl. 74—34.)

1. A transmission system comprising a crank shaft, a sleeve loose thereon, a drive gear on the sleeve, clutch sleeves splined to the sleeve at each side of the drive gear, means to move the clutch sleeves independently, and coöperating members having connection with the crank shaft for engagement with the respective clutch sleeves, whereby the drive gear may be rotated at either of two speeds.

2. A transmission system comprising a crank shaft, a sleeve loose thereon, a drive gear on the sleeve, clutch sleeves splined to the sleeve at each side of the drive gear, means to move the clutch sleeves independently, coöperating members on the crank shaft for engagement with the respective sleeves, one of said members including means engageable with its clutch sleeve in one position thereof for rotating the drive gear ahead at reduced speed and other means engageable with the said clutch sleeve in another position thereof for rotating the drive gear in reverse direction.



3. A transmission system comprising a crank shaft, a sleeve loose thereon, a drive gear on the sleeve, clutch sleeves splined to the sleeve at either side of the drive gear, coöperating members on the crank shaft for engagement with the respective clutch sleeves, one of said members operative through such engagement to rotate the drive gear at full speed ahead, the other of said members including means engageable with its clutch sleeve in one position thereof for rotating the drive gear ahead at reduced speed and other means engageable with said clutch sleeve in another position thereof for rotating the drive gear in reverse direction, and means to move the clutch sleeves independently.

4. A transmission system comprising a crank shaft, a sleeve loose thereon, a drive gear on the sleeve, clutch sleeves splined to the sleeve at either side of the drive gear, coöperating members on the crank shaft for engagement with the respective clutch sleeves, one of said members operative through such engagement to rotate the drive gear at full speed ahead, the other of said members including means engageable with its clutch sleeve in one position thereof for rotating the drive gear ahead at reduced speed and other means engageable with said clutch sleeve in another position thereof for rotating the drive gear in reverse direction, and a single lever and connections therefrom to each of said clutch sleeves for moving the same independently into operative and inoperative positions.

5. A transmission system comprising a crank shaft, a gear loose and a gear fast thereon, two brake drums loose on said shaft, an interior gear on one of said drums, a planetary gear system on the other drum meshing with said interior gear and said fast gear, means to hold either drum from rotation, and means to connect the other drum operatively with the loose gear, whereby the same may be driven at slow speed ahead or in reverse direction.

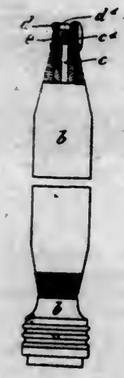
[Claims 6 to 9 not printed in the Gazette.]

1,029,019. HEEL-CUSHION. GEORGE W. LEVAN, Philadelphia, Pa. Filed Mar. 29, 1911. Serial No. 617,689. (Cl. 36—37.)

In a heel cushion the combination with two hingedly connected plates, a downwardly struck lug on each of two opposite sides of one of said plates, a slot formed at each side of each of said lugs, of a pair of U-shaped springs disposed between said plates, one leg of each of said springs extending over one of said lugs and through the slots at the sides thereof.



1,029,020. BOBBIN FOR WEAVING-LOOMS. ADOLF MARAZZI, Kottern, near Kempten, Germany, assignor to The Firm of Genossenschaft für Textilpatente, Basel, Switzerland. Filed Feb. 9, 1911. Serial No. 607,691. (Cl. 242—125.)



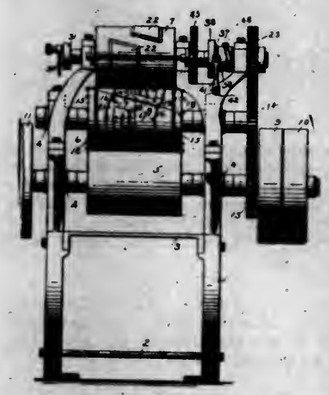
1. As a new article of manufacture, a bored full bobbin wound with reserve thread, in which said bobbin the bore is enlarged at one end to form a recess wherein the reserve thread is seated and adapted to be blown therefrom by compressed air.

2. As a new article of manufacture, a bored full bobbin wound with reserve thread, having the reserve thread seated in the bore in the bobbin and from which it is adapted to be blown by compressed air.

3. As a new article of manufacture, a bored full bobbin wound with reserve thread, having the reserve thread seated in the bore in the bobbin, and a protective covering for the reserve thread, arranged at one end of the bore.

4. As a new article of manufacture, a bored full bobbin wound with reserve thread, having the reserve thread seated in the bore in the bobbin, and a notched metal cap on one end of the bobbin to protect the reserve thread in the bore.

1,029,021. CUTTING AND PRINTING MACHINE. WILLIAM P. MARSH, Dayton, Ohio, and HARRY E. DILL, Indianapolis, Ind., assignors, by direct and mesne assignments, to National Coning Machinery Company, Indianapolis, Ind., a Corporation of Indiana. Filed July 31, 1909. Serial No. 510,666. (Cl. 101—126.)



1. In a machine of the class described, a main frame and a plurality of coacting revoluble drums therein, one drum including a plurality of alternate reversely-arranged wedge-shaped plates extending around the periphery thereof, adjustable means on the drums engaging the ends of the plates for moving the latter longitudinally relatively to each other, cutting blades clamped between adjacent plates by the relative longitudinal adjustment thereof, and printing means arranged on the plates between the said blades.

2. In a machine of the character described, a main frame, and a plurality of co-acting drums therein, one drum having spaced peripheral flanges, segmental wedge-shaped plates set in between the flanges and reversely arranged in alternate order, adjusting devices mounted in the flanges and engaging the ends of the plates for moving the latter longitudinally, cutting blades clamped between adjacent plates by the relative longitudinal adjustment thereof, and printing means arranged on the plates between the said blades.

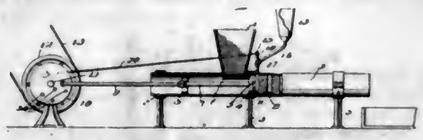
3. In a machine of the character described, a main frame, and a plurality of coacting drums therein, one drum having spaced peripheral flanges, segmental wedge-shaped plates set in between the flanges and reversely arranged in alternate order, adjusting devices mounted in the flanges and engaging the ends of the plates for moving the latter longitudinally, cutting blades clamped between adjacent plates by the relative longitudinal adjustment thereof, printing means arranged on the plates between the said blades, and additional blades extending across the plates and meeting the ends of the first-mentioned blades.

4. In a machine of the character described, a main frame, and a plurality of revoluble drums mounted in said frame, one drum having a plurality of wedge-shaped segmental plates arranged on its periphery reversely one to another and each plate consisting of end and middle sections, cutting blades between the sections, additional cutting blades between adjacent plates, devices carried by the drum and engaging the end sections of the plates for clamping together the sections of the plates and blades between them and the blades between adjacent plates, and printing means arranged on the middle sections of the plates.

1,029,022. PROCESS OF MAKING FUEL-BRIQUETS. ARDON M. MITCHELL, Flushing, N. Y., assignor, by mesne assignments, of one-half to Kate M. Widmer, New York, N. Y. Filed Oct. 12, 1910. Serial No. 586,678. (Cl. 44—1.)

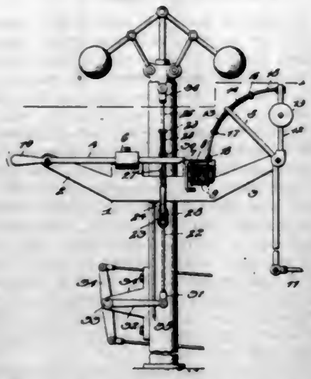
1. A process of making fuel briquets which consists in mixing a colloidal solution with a carboniferous base to

cause cohesion of the particles thereof, forming the mass thus treated into a row of successive briquets and simultaneously moving said row in one direction, and introducing bodies of crystalloidal solution between successive briquets during their formation.



2. A process of making fuel briquets which consists in mixing a liquid binding agent with a suitable basic mass, forming the mass thus treated into a row of successive briquets, and introducing a hardening agent in a liquid state between each completed briquet and the succeeding briquet before the formation of the latter has been completed.

1,029,023. ENGINE-STOP AND SPEED LIMIT. WILLIAM ANTON MUELLER, Bath, S. D., assignor of one-half to John L. Sullivan, Decatur, Ill. Filed Aug. 4, 1911. Serial No. 642,281. (Cl. 121—103.)



1. In an engine, the combination with valve controlling means, including a governor and a sectional rod operatively connected to the governor, means tending to move one section of the rod into extended relation to the other section, a latch adapted to hold said sections together as against said extension, and means controlled by the eccentric of the engine independent of the governor for automatically releasing the latch at a predetermined speed of the engine.

2. In an engine, the combination with valve controlling means, including a governor and a sectional rod operatively connected to said governor, of means tending to move one section of the rod into extended relation to the other section, a latch adapted to hold said sections together as against the extending movement, a lever adapted to move the latch to released position, a trip for holding the lever in an inoperative position and a speed controlled oscillating arm designed to engage said trip to move it out of engagement with the lever.

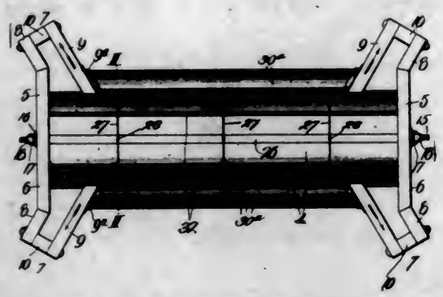
3. In an engine stop of the character described, the combination of a governor, controlling means for said governor including a trip member, an oscillating member having a bent upper portion, means for connecting the lower portion of said lever with the moving part of the engine, a weighted arm pivotally connected to said lever and extending upwardly therefrom, a curved arm from the upper end of said weighted arm and loosely engaging the upper end of said oscillating lever, collars carried by said curved arm and positioned on opposite sides of said oscillating lever, springs positioned between said collars, and adjacent portions of said oscillating lever, the free end of said curved arm constituting an actuating portion for engaging the trip member when the speed of the engine becomes abnormal.

4. In an engine of the character described, the combination with a governor column, a governor mounted therein, a movable valve actuating member carried by the governor column, a transverse supportig member rigidly secured to the governor column, an extendible connection between the governor and the movable valve controlling member, a latch for normally preventing expansion of said extendible member, a supporting member rigidly secured to the governor column, a weighted lever carried by said supporting member and adapted to engage said latch to actuate the same to permit expansion of said extendible member, a trip member carried by said support and adapted to normally engage said lever to hold the same in an elevated postion, a lever fulcrumed to said support and adapted to be connected to a movable part of the engine and means carried by said lever for actuating said trip member.

5. In combination with a Corliss valve controlling mechanism having a telescopic rod for actuating the valve mechanism thereof, of a mechanical and electrical device for actuating said rod, so that the same will cause the valve mechanism to stop the engine, the mechanical and electrical arrangements of said device being arranged to actuate the common trip for permitting a weighted lever to fall and cause said rod to actuate.

[Claims 6 to 8 not printed in the Gazette.]

1,029,024. CULVERT-MOLD. GORDON B. MURRAY, Grant City, Mo. Filed Sept. 22, 1910. Serial No. 583,230. (Cl. 25—32.)

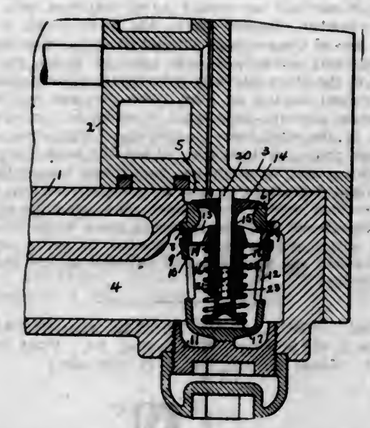


1. A culvert mold, comprising an inner hollow form, consisting of bars arranged edge to edge, the topmost bar constituting a key strip susceptible of dropping from between the adjacent bars when unsupported, end frames fitting against the ends of said inner form, and provided with laterally projecting wings embodying parts formed at their inner edges to correspond with and spaced outward from said inner form and spaced inwardly from the body portion of the end frames, an outer form consisting of boards arranged edgewise one upon another and forming walls to rest upon the ground and substantially paralleling the opposite sides of the inner form; each of said walls extending from one of said pairs of wings to the corresponding part of the wing of the other end frame, expansion rings fitting in the inner form, a tube extending axially through the inner form and the end frames and provided with slots, collars secured to fixed points on said tube, slidable collars also mounted on said tube, outwardly converging links pivotally connecting said collars with the expansion ring, screw rods fitting in said tube, nuts screwed on the ends of said rods and projecting through said slots and engaging the last-named collars, and nuts engaging the outer ends of said rods at the outer sides of said end frames for imparting longitudinal movement to said rods and the nuts connected thereto and engaging the last-named collars.

2. A culvert mold, comprising an inner hollow form, consisting of bars arranged edge to edge, the topmost bar

constituting a key strip susceptible of dropping from between the adjacent bars when unsupported, end frames fitting against the ends of the inner form, and provided with laterally projecting wings embodying parts formed at their inner edges to correspond with and spaced outward from said inner form and spaced inwardly from the body portion of the end frames, an outer form consisting of boards arranged edgewise one upon another and forming walls to rest upon the ground and substantially paralleling the opposite sides of the inner form; each of said walls extending from one of said pairs of wings to the corresponding part of the wing of the other end frame, expansion rings fitting in the inner form, a tube extending axially through the inner form and the end frames and provided with slots, collars secured to fixed points on said tube, slidable collars also mounted on said tube, outwardly converging links pivotally connecting said collars with the expansion ring, screw rods fitting in said tube, nuts screwed on the ends of said rods and projecting through said slots and engaging the last-named collars, springs mounted on said tube between adjacent collars and tending to press the slidable collars away from the fixed collars to effect the collapse of the expansion rings, and nuts screwed upon the outer ends of said rods at the outer sides of said end frames and adapted when turned in one direction to impart longitudinal outward movement to said rods and corresponding movement to the slidable collars to effect the expansion of said rings.

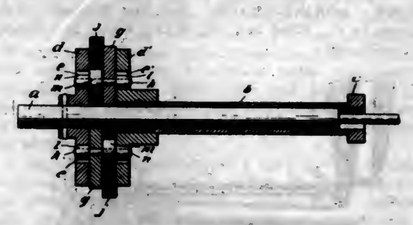
1,029,025. INLET-VALVE FOR COMPRESSORS. HARRY D. MURRAY, Grove City, Pa., assignor to The Bessemer Gas Engine Company, Grove City, Pa., a Corporation of Pennsylvania. Filed Mar. 29, 1911. Serial No. 617,728. (Cl. 103—66.)



In an inlet valve for compressors, the combination of a cylinder having an inlet passage; a cylinder head extending over a part of the passage; a valve disk operating in the inlet passage; a stem extending from the valve disk, said disk and stem having an opening extending in an axial direction from the face of the valve; a pin arranged in the opening and resting on the cylinder head; a spring arranged in the opening and arranged against the pin; a guide in which the valve stem operates; a shoulder on the valve stem; and a spring arranged between the shoulder and the guide for exerting pressure on the valve.

1,029,026. SPARK-REGULATOR FOR EXPLOSION-ENGINES. CHARLES HENRY NEWMAN, Blackstone, Va. Filed Mar. 3, 1911, Serial No. 612,139. Renewed Nov. 10, 1911. Serial No. 659,670. (Cl. 123—117.)

1. In a device of the class set forth, a driving shaft, a concentric governed shaft, a pair of plates affixed respectively to said shafts and provided with oppositely arranged cam slots, a pair of radially operating arms carrying rollers working respectively in said cam slots, and centrifugal devices attached to said arms, for the purpose set forth.

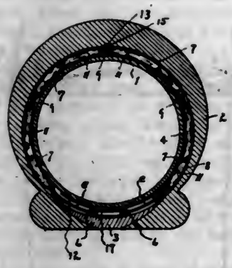


2. In a device of the class set forth, a driving shaft, a concentric carrying the operating element, a plate attached to each shaft and arranged parallel and each being provided with diametrically opposite cam slots, the slots in one plate being arranged oppositely to the other slots, radial arms slotted to embrace one of said shafts, each radial arm carrying a roller working in the slot of the other arm and with an additional pair of rollers working in cam slots in said plates, and centrifugal devices connected to said radial arms.

3. In a device of the class set forth, a driving shaft, a governed shaft sleeved on the driving shaft and provided with the operating element, companion disks fastened to the respective shafts and provided with cam slots, and governor-weight operated means between the disks and in engagement with said slots for independently advancing the rotation of the sleeved shaft.

4. In combination, a driving shaft, a governed shaft sleeved thereon and carrying the operating element, a pair of disks affixed respectively to said shafts, governor weights mounted between said disks and carrying means engaging the disks and adapted to advance the disk on the governed shaft, for the purpose set forth.

1,029,027. PNEUMATIC-TIRE PROTECTOR. ALBERT H. RAWITZER, Omaha, Nebr. Filed Nov. 9, 1911. Serial No. 659,313. (Cl. 152—18.)



1. An internal armor for double tube pneumatic tires comprising in combination with a tire casing having an inner peripheral recess and an inner tube, a tubular body member made of two separated pieces of fabric quilted longitudinally throughout its length, means for securing the edges of said body together, a longitudinally disposed contact member lying partly in said inner peripheral recess of the tire casing and partly in the groove between two of the quilted portions of the tubular body member.

2. An internal armor for double tube pneumatic tires comprising in combination with a tire casing having an inner longitudinal recess and transverse grooves, a tubular body member made of two separated pieces of fabric quilted longitudinally throughout its length, means for securing the edges of said body together, a longitudinally disposed contact member lying partly in said inner peripheral recess of the tire casing and partly in the groove between two of the quilted portions of the tubular body

member, and transversely extending contact members carried by the tubular body member which engage in said transverse grooves.

1,029,028. BORING-BRACE. DILLARD REDMON, Washington, D. C. Filed Jan. 25, 1912. Serial No. 673,333. (Cl. 145—68.)

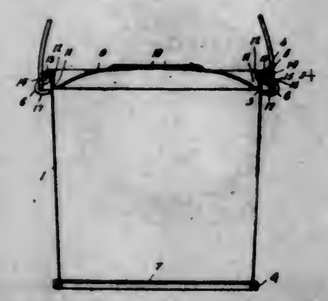


1. In a boring brace having a brace frame, a revoluble hand grip thereon and a bit chuck, the combination of a spindle in axial alinement with the chuck, a leveling device mounted on said spindle and gear connections between the spindle and said hand grip.

2. In a boring brace having a brace frame, a revoluble hand grip thereon and a bit chuck, the combination of a spindle in axial alinement with the chuck, a leveling device carried by said spindle and gear connections between the spindle and said hand grip, said gear connections comprising gears mounted on said hand grip and said spindle, bevel pinions meshing with each of said gears and a shaft connecting said pinions and revolving therewith.

3. In a boring brace having a brace frame, a revoluble hand grip thereon and a bit chuck, the combination of a spindle in axial alinement with the chuck, a leveling device mounted on said spindle, and gear connections between the spindle and said hand grip, said gear connections being arranged in a manner to neutralise rotation of said spindle.

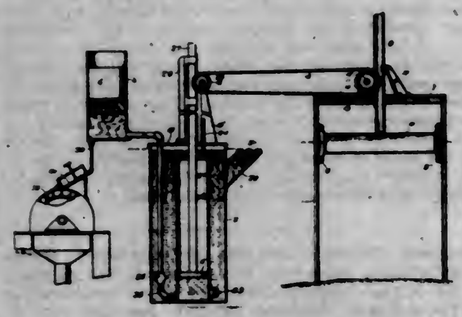
1,029,029. LARD-PAIL. EDWARD C. RITCHELL, St. Paul, Minn., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 20, 1908. Serial No. 427,966. (Cl. 220—29.)



1. In a sheet metal pail or vessel for lard or other articles, the combination with a pail body having a smooth interior friction seat wall at its upper end or mouth, and provided with an external continuous annular roll at its said upper end, of segmental reinforcing wires embraced by said annular roll on the pail body, and provided each at one end with a depending integral bail eye lug having a downwardly projecting portion 15, an outward bend 16 and an inward bend 17, and a depending countersunk inside fitting cover having a friction seat wall tightly engaging the friction seat wall of the body, and provided with an annular inverted U-shaped continuous rim snugly fitting and engaging said external annular roll of the body, the lower portion of said U-shaped rim of the cover projecting below the center of said annular roll on the body, substantially as specified.

2. In a sheet metal pail, the combination with a pail body circular in cross section and having a continuously annular roll at its upper end furnished with openings on its lower side and at diametrically opposite points, of a pair of separate piece, curved, segmental reinforcing wires adapted to be inserted endwise in the roll after the latter has been formed, and embraced by said roll and provided each at its outer end with a depending integral bail ear projecting at right angles downwardly from the roll, and having another portion projecting outwardly from said downwardly projecting portion, substantially as specified.

1,029,030. APPARATUS FOR ACTUATING WATER-MOTORS. PETRUS SANDER, Moline, Ill. Filed Oct. 18, 1911. Serial No. 655,280. (Cl. 61—51.)



In a device of the class described, the combination with a pair of partially submerged water chambers, of a third water chamber disposed above the water level, a float within one of the partially submerged water chambers, an intermittently submerged arm open at either end connected to the other partially submerged water chamber, a compartment having an inlet valve disposed within the last named partially submerged chamber, an air pipe connected to the said inner compartment projecting above the high water level, a float within the said inner compartment, power transmission mechanism connecting the last named float and the float beforementioned; an outlet pipe provided with a check valve connecting the said inner compartment and the aforesaid third water chamber, a float within the last named chamber, an outlet pipe for that chamber and a water wheel disposed beneath the said outlet pipe.

1,029,031. COMBINATION BURNER AND BLOWPIPE. ARTHUR H. SCHILKE, Wilmerding, Pa. Filed Feb. 5, 1912. Serial No. 675,499. (Cl. 158—99.)

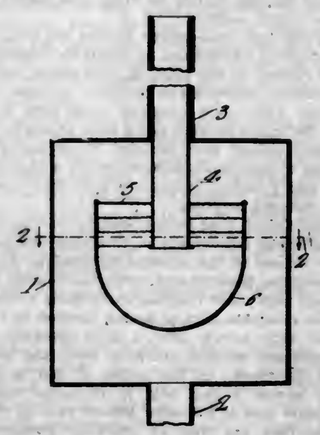


1. In a combination burner and blow pipe, a tubular arm, an L-shaped body having one arm swiveled on the tubular arm, a mixing tube having one end mounted on the other arm of the body and having inlets, the body having an L-shaped duct with its extremities extending to the extremities of the respective arms, and the body having an air duct extending from the extremity of the arm on which the mixing tube is mounted to the exterior of the body, and a small air tube having one end engaged to the arm of the body on which the mixing tube is mounted, the said air tube communicating with the air duct and extending longitudinally within the mixing tube with its free end terminating concentrically within the free end of the mixing tube.

2. In a combination burner and blow pipe a tubular arm, an L-shaped body having one arm swiveled on the end of the tubular arm, and having the other arm reduced in diameter to form a shoulder, a mixing tube having one end mounted on the reduced arm and abutting against the shoulder, the mixing tube having its free end contracted and having inlets, the body having an L-shaped duct with its extremities extending to the extremities of the arms, the extremity of the said duct in the reduced arm being arranged adjacent the side of the reduced arm and being counterbored to form a socket, an apertured mouthpiece fitting in the socket, and the body having an air duct extending from the extremity of the reduced arm adjacent the side of the reduced arm opposite the aforementioned duct and parallel with the corresponding arm of the L-shaped duct to the exterior of the body, the air duct having its extremities counterbored to provide sockets, a small air tube having one end fitting in one socket of the air duct and extending longitudinally within and along the one side of the mixing tube with its free end offset and terminating concentrically within the contracted end of the mixing tube, and a nipple having a stem screw-threaded into the other socket of the air duct.

3. In a combination burner and blow pipe, a tubular arm, an L-shaped body having one arm swiveled on the tubular arm, a mixing tube having one end mounted on the other arm of the body, the mixing tube having its free end contracted and having inlets, the body having an L-shaped duct with its extremities extending to the extremities of the respective arms, and the body having an air duct extending from the extremity of the arm on which the mixing tube is mounted and parallel with the corresponding arm of the L-shaped duct to the exterior of the body, the air duct having one extremity counter-bored to provide a socket, and a small air tube having one end fitting in the said socket of the air duct and extending longitudinally within the mixing tube with its free end terminating concentrically within the contracted end of the mixing tube.

1,029,032. ACCELERATOR FOR HOT-WATER HEATING SYSTEMS. ADOLF G. STAPEL, Montgomery, Ala. Filed Mar. 3, 1911. Serial No. 612,043. (Cl. 237—15.)

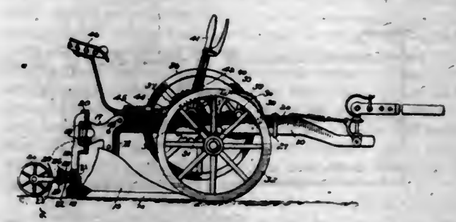


1. An accelerator comprising a tank having an inlet in its lower portion, an outlet conduit communicating with said tank below its top and arranged in substantial alinement with said inlet, and a concave baffle interposed between said inlet and said outlet, and having its upper edge above the lower end of said outlet conduit.

2. An accelerator comprising a tank having an inlet in its lower portion, an outlet conduit communicating with said tank below its top and arranged in substantial alinement with said inlet, a concave baffle interposed between said inlet and said outlet and having its upper edge above the lower end of said outlet conduit, and screening means arranged in said tank adjacent the upper edge of said baffle.

3. An accelerator comprising a tank having an inlet in its lower portion, an outlet conduit communicating with said tank below its top, and a substantially cup-shaped baffle interposed between said inlet and said outlet conduit, with its cavity opening upward, said outlet conduit projecting at its lower end into said cavity.

1,029,033. GANG OR SULKY PLOW. HARRY STERNBERG and JESSE FURBY, Nashville, Ill. Filed Feb. 25, 1911. Serial No. 610,876. (Cl. 97—36.)



1. An attachment for plows, comprising a plate adapted to be attached to a plow beam, a crank axle carrying a furrow wheel and mounted for rotation upon said plate, a crank axle carrying a land wheel and mounted for rotation upon said plate, an operating lever connected to the furrow wheel axle, a toothed wheel loose upon said furrow wheel axle, means supported upon said plate for locking said toothed wheel, and a locking lever connected to said furrow wheel axle and provided with a pawl for engagement with said toothed wheel.

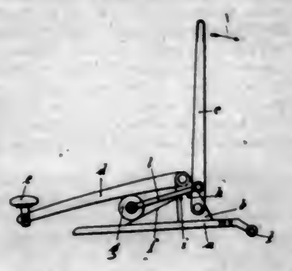
2. An attachment for plows, comprising a plate adapted to be attached to a plow beam, a crank axle carrying a furrow wheel and mounted for rotation upon said plate, a crank axle carrying a land wheel and mounted for rotation upon said plate, a toothed wheel and a chain wheel carried by said furrow wheel axle, another chain wheel carried by the land wheel axle, a chain leading over said chain wheels, a lock device operating to engage the toothed wheel, an operating lever connected to the furrow wheel axle, and a spring pawl carried by the lever and engaging with the toothed wheel.

3. The combination with a plow including a beam and moldboard, of a crank axle carrying a furrow wheel and mounted for rotation relative to said beam, another crank axle carrying a land wheel and mounted for rotation relative to said beam, means for communicating motion from said furrow wheel axle to said land wheel axle, a toothed wheel loose upon said furrow wheel axle, means supported from said beam for locking said toothed wheel, and a locking lever connected to said furrow wheel axle and provided with a pawl for engagement with said toothed wheel.

1,029,034. OBSTETRICAL DEVICE. JOSEF STÖGER, Munich, Germany. Original application filed Dec. 17, 1909, Serial No. 533,694. Divided and this application filed June 2, 1910. Serial No. 564,666. (Cl. 128—20.)

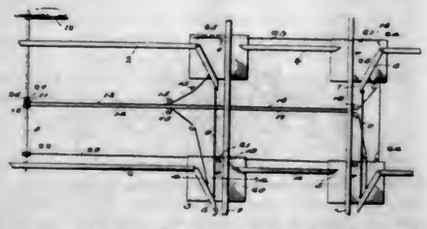
In an obstetrical device, a plate, a handle thereon, a hand lever and a pad carrying lever, both fulcrumed on said plate, inclined plane means on said plate, a roller

interposed between said inclined plane and said pad carrying lever, means connecting said roller to said hand lever,



and means for securing said hand lever in the desired position, substantially as set forth.

1,029,035. RAILWAY-CROSSING. CARL ULSH and GEORGE ULSH, Marion, Ohio. Filed Aug. 21, 1911. Serial No. 645,115. (Cl. 104—116.)



1. A crossing comprising a main track and an intersecting track, tongues pivoted at the ends of the intersecting track and adapted to bridge the rails of the main track, means connecting the tongues at the same sides of the rails of the main track together, a shaft journaled transversely of the intersecting track, pulleys mounted thereon, and cables attached at one end with the pulleys and at their other ends with the tongues and arranged to wind in reverse directions upon the pulleys.

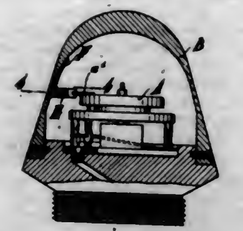
2. A crossing comprising a main track and an intersecting track, tongues pivoted at the ends of the rails of the intersecting track and adapted to bridge the rails of the main track, means connecting the tongues at the same sides of the rails of the main track together, a shaft journaled transversely of the intersecting track, pulleys mounted on the shaft, one of said pulleys being fixed to the shaft and the other having limited movement with relation to the shaft, and cables attached at one end to the pulleys and at their other ends with the tongues and arranged to wind in reverse directions upon the pulleys.

3. A crossing comprising a main track and an intersecting track, tongues pivoted at the ends of the rails of the intersecting track and adapted to bridge the rails of the main track, means operatively connecting the tongues at the same sides of the rails of the main track together, a shaft journaled transversely of the intersecting track, pulleys mounted thereon, cables attached at one end to the pulleys and connected at their other ends with the tongues, said cables arranged to wind in reverse directions upon the pulleys, a series of locking devices for the tongues, a third pulley mounted upon the said shaft, a cable connected at one end with the last mentioned pulley and connected with the units of the series of locking devices, and a return spring connected with the end of the last mentioned cable which is remote from the shaft.

4. A railroad crossing, including continuous main track rails, discontinuous track rails spaced from the main track rails, tongues pivoted at the ends of the transverse track rails and adapted when turned in one direction to bridge the main track rails and connect the transverse track rails, means connecting the tongues, whereby the tongues shall shift together, locking devices shiftable in position to hold the tongues in their bridging position, an operating means, means operatively connecting the locking devices to the operating means, means operatively connecting the tongues to the operating means, there being a shifting engagement between the tongue operating devices and the said operating means, whereby to cause an operation of the tongue locking devices in advance of or subsequent to the actuation of the tongues.

5. A crossing comprising a main track and a transverse track, tongues pivoted at the ends of the transverse track and adapted to bridge the rails of the main track, means connecting together the tongues at the same sides of the rails of the main track, an operating device, connections operatively connecting the tongues to the operating device, the connections to one pair of tongues being so engaged with the operating device that they move in reverse directions to the connections of the other pair of tongues upon a movement of the shaft in one direction, locking devices disposed adjacent to each of the tongues and adapted when projected to lock the tongues across the main track rails, and means operatively connected with the operating device for shifting said locking devices into or out of operative engagement with said tongues.

1,029,036. MECHANICAL TIME-FUSE. KARL WIESER, Bredeney, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Original application filed July 1, 1910, Serial No. 569,911. Divided and this application filed Sept. 14, 1911. Serial No. 649,358. (Cl. 102—37.)



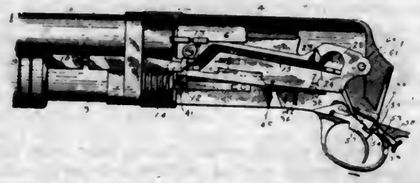
1. A mechanical time-primer having an outer primer part for effecting adjustment, a rotatable member which effects the release of the priming mechanism, and a nonyielding coupling between the rotatable member and said outer primer part; said coupling comprising a hinged part carried by the outer primer part and adapted to disconnect the coupling through inertia on firing and permit of rotation of the rotary member.

2. A mechanical time-primer having an outer primer part for effecting adjustment, a rotatable member which effects the release of the priming mechanism, and a nonyielding coupling between the rotatable member and said outer primer part; said coupling comprising a member carried by the rotatable part and a lever pivotally mounted on the outer primer part adapted to engage with said member and to become disengaged by the action of inertia on firing, and a spring adapted to hold said lever in engaging or released position.

3. A mechanical time-primer having an outer primer part for effecting adjustment, a rotatable member which effects the release of the priming mechanism, and a nonyielding coupling between the rotatable member and said outer primer part; said coupling comprising a tongue carried by the rotatable part, a spring secured to the inner face of the outer primer part, a lever pivotally mounted on the spring and adapted to engage with said tongue and to become disengaged by the action of inertia on firing, said lever having a part held in frictional engagement with the inner face of the outer primer part by the spring whereby to hold the lever in operative position during transport of the primer.

4. A mechanical time-primer having an outer primer part for effecting adjustment, a rotatable member which effects the release of the priming mechanism, and a nonyielding coupling between the rotatable member and said outer primer part; said coupling comprising a tongue carried by the rotatable part; a spring secured to the inner face of the outer primer part, a bifurcated lever pivotally mounted on the spring, the prongs of said lever adapted to engage with said tongue during the transport state of the fuse and to become disengaged by the action of inertia on firing, said lever having further a flat face engaging the inner face of the outer primer part actuated by said spring to hold the lever in operative position.

1,029,037. FIREARM. CHARLES A. YOUNG, near Enon, Ohio. Filed Feb. 23, 1911. Serial No. 610,215. (Cl. 42—17.)



1. In a fire arm, a stock, a barrel, a reciprocating breech block a firing pin in said block, a swinging carrier, a lock action located in said carrier comprising a reciprocating spring actuated plunger brought into alinement with the firing pin when the carrier is in closed position, a sear adapted to hold the plunger in retracted position, and a spring adapted to advance the plunger when released by the sear.

2. In a fire arm, a stock, a barrel, a reciprocating breech block a firing pin in said block, a swinging carrier, a reciprocating plunger in said carrier, a spring tending to advance the plunger, means for holding the plunger in its retracted position and means to release the plunger, said plunger being movable into and out of alinement with the firing pin by the swinging movement of the carrier.

3. In a fire arm, a stock, a barrel, a reciprocating breech block, a firing pin in said block a swinging carrier, having a longitudinal bore therein a plunger reciprocating in said bore, a helical spring adapted to advance the plunger into engagement with the firing pin when the carrier is in closed position, a head on said plunger, a sear adapted to engage the head and hold the plunger in retracted position, and means to disengage the sear.

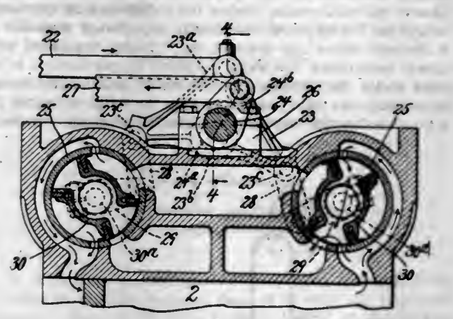
4. In a fire arm, a stock, a barrel, firing mechanism including a hammer, a reciprocating action bar, a stop movable into and out of the path of the action bar to limit the movement thereof, means whereby the hammer will automatically move the stop into the path of the action bar upon the retraction of the hammer and means independent of the hammer for automatically withdrawing the stop from the path of the action bar upon the falling of the hammer.

5. In a fire arm, a stock, a barrel, firing mechanism including a hammer, a reciprocating action bar, a stop movable into and out of the path of the action bar to limit the movement thereof, a control member extending into the path of the hammer and engaged thereby to move the stop into the path of the action bar when the hammer is in its set or cocked position, and a spring adapted to remove the stop from the path of the action bar upon the falling of the hammer.

[Claims 6 to 36 not printed in the Gazette.]

1,029,038. LOCOMOTIVE VALVE-GEAR. OTIS W. YOUNG, Chicago, Ill., assignor to Young-Mann-Averill Company, a Corporation of Illinois. Filed Aug. 11, 1908. Serial No. 447,939. (Cl. 121—98.)

1. In an expansive fluid motor, in combination with two valves which operate alternately as inlet and exhaust valves, an oscillating element and connections therefrom to the valves for operating them; an oscillating fulcrum for said element having its axis parallel with and substantially equi-distant from the valve seats; the motor shaft, and connections therefrom angularly separated approximately ninety degrees thereabout to said oscillating element and said oscillating fulcrum respectively for oscillating them.



2. In an expansive fluid motor, in combination with the motor shaft, two valves which operate alternately as inlet and exhaust valves; an oscillating element and connections therefrom to the valves respectively for giving their seating faces movement of travel with respect to the ports which they control; an oscillating fulcrum for said oscillating element having its axis parallel with the axis of said oscillating element, and connections from the motor shaft at points approximately ninety degrees apart thereabout to said oscillating element and said fulcrum respectively for oscillating them.

3. In an expansive fluid motor, in combination with the motor crank shaft, two rocking valves which operate alternately as inlet and exhaust valves; an oscillating element and connections therefrom to the valves for operating them; an oscillating fulcrum for said element having its axis parallel with and substantially equi-distant from the axis about which the valves respectively rock, and connections from points approximately ninety degrees apart about the motor crank shaft to the oscillating element and to said oscillating fulcrum respectively for oscillating them.

4. In an expansive fluid motor, in combination with the motor crank shaft and piston, two valves which act alternately as inlet and exhaust valves; a pivoted valve actuator and links therefrom trending divergently to the valves respectively for actuating them; a movable fulcrum for said actuator; a part which moves synchronously with the piston, and connections therefrom for moving said fulcrum to modify the trend of the links in each stroke of the piston.

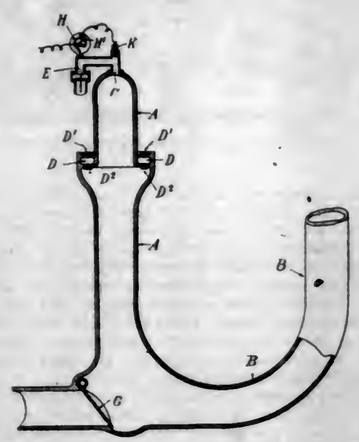
5. In an expansive fluid motor, in combination with the piston; two valves which operate alternately as inlet and exhaust valves; a pivoted actuator for the valves; connections from said actuator to the valves respectively; a movable fulcrum for the actuator; means for moving said fulcrum with respect to the valve seats in direction to retract each valve when it is opening for inlet and advance it when it is opening for exhaust; an element which moves synchronously with the piston, and connections therefrom for operating said actuator adjusting means.

[Claims 6 to 14 not printed in the Gazette.]

1,029,039. INTERNAL-COMBUSTION LIQUID-PUMP. EDWARD BAYNES BADCOCK, London, England. Filed May 16, 1911. Serial No. 627,544. (Cl. 160—0.)

1. In an internal combustion pump having a cylinder formed with a covering head, an admission way for the entry of water furnished with means to check return flow, and a foot extension in which water makes an outward movement and afterward an inward movement, the combination of means for effecting ignition when the head of the cylinder is charged with combustible mixture prior to the water making its outward movement under the

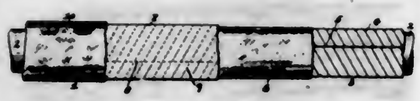
influence of the charge when exploded, a connection at the head of the cylinder fitted with means to permit a new charge to enter by induction into the head of the cylinder above the waste products of combustion of the ignited charge, as the water moves outward when the pressure within the head of the cylinder has fallen below atmospheric, the said means closing the connection as the water completes its outward movement, an exhaust disposed at a distance below the head of the cylinder furnished with means permitting the waste products of combustion to escape under the influence of the water making its inward movement, the said means closing the exhaust when the water reaches the level thereof, for the purposes set forth.



2. In an internal combustion pump having a cylinder formed with a covering head, an admission way near the base of the cylinder for the entry of water furnished with means to check return flow, and an upwardly directed foot extension extending from the base of the cylinder in which water makes an outward movement and afterward an inward movement, the combination of means for effecting ignition when the head of the cylinder is charged with combustible mixture prior to the water making its outward movement under the influence of the charge when exploded, a connection at the head of the cylinder fitted with a valve to permit a new charge to enter by induction into the head of the cylinder above the waste products of combustion of the ignited charge as the water moves outward when the pressure within the head of the cylinder has fallen below atmospheric, the valve closing the connection as the water completes its outward movement, an exhaust disposed at a distance below the head of the cylinder and from the base thereof, furnished with means permitting the waste products of combustion to escape under the influence of the water making its inward movement, the said means closing the exhaust when the water reaches the level thereof, for the purposes set forth.

3. In an internal combustion pump having a cylinder formed with a covering head, a suction way near the base of the cylinder for the entry of water furnished with means to check return flow, and an upwardly directed foot extension extending from the base of the cylinder in which water makes an outward movement and afterward an inward movement, the combination of means for effecting ignition when the head of the cylinder is charged with combustible mixture prior to the water making its outward movement under the influence of the charge when exploded, a connection at the head of the cylinder fitted with an admission valve to permit a new charge to enter by induction into the head of the cylinder above the waste products of combustion of the ignited charge as the water moves outward when the pressure within the head of the cylinder has fallen below atmospheric, the admission valve closing the connection as the water completes its outward movement, an exhaust port disposed at a distance below the head of the cylinder and from the base thereof, furnished with upper and lower valves for excluding escape when the internal pressure rises materially above the external pressure and excluding entry under external pressure while the water moves outward, and permitting the waste products of combustion to escape under the influence of the water making its inward movement, the lower valves closing the exhaust when the water reaches the level thereof, for the purposes set forth.

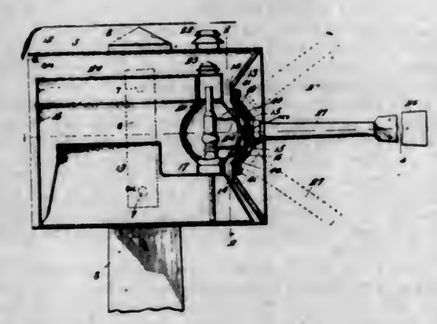
1,029,040. CONDUIT. HOWARD H. BALLIETT, Pittsburgh, Pa., assignor to John H. Parker, Cliftondale, Mass. Filed Apr. 29, 1911. Serial No. 624,273. (Cl. 247—4.)



1. A flexible conduit comprising an inner tube formed of a sheet having angular parallel indentations on its outer surface, a wrapping around said tube and comprising a sheet having angular parallel indentations on its inner surface in an opposite direction to those on the inner tube, and an outer covering applied around said wrapping.

2. A flexible conduit comprising an inner tube formed from a sheet having angular parallel indentations on its outer surface, a wrapping around said tube and comprising a sheet having angular parallel indentations on its inner surface in an opposite direction to those on the inner tube, an intermediate textile wrapping between said tube and first named wrapping and permeated with a cementitious compound, and an outer covering applied around said first named wrapping.

1,029,041. SIGNAL-LANTERN. EMILE W. BEANE, Winslow, Ariz. Filed Apr. 23, 1910. Serial No. 557,167. (Cl. 246—37.)



1. In combination, a lamp box having a lamp removably positioned therein, and a plurality of vari-colored lenses arranged in one end of said box in concentric relation to the globe of the lamp, a semaphore arm having a tubular portion movable into alinement with any one of said lenses to receive the light rays radiated therefrom and diffuse the same upon the arm, and means arranged in the end of the lamp box and connected to the inner end of the tubular portion of the semaphore arm to be moved by said arm over the other lenses, substantially as and for the purpose set forth.

2. In combination, a lamp box having a lamp removably positioned therein, a plurality of vari-colored lenses arranged in one end of the box, an oscillatory semaphore arm, means carried by said arm movable into alinement with any one of said lenses to receive the light rays

radiated therefrom and to concentrate the same upon the arm, and means movably arranged in the end of the lamp box and connected to the arm to be drawn over the other of said lenses in the oscillatory movement of the arm, substantially as and for the purpose set forth.

3. In combination, a lamp box having a lamp removably positioned therein, a plurality of vari-colored lenses arcuately arranged in one end of the lamp box, a semaphore arm mounted for oscillatory movement and having a tubular portion movable into alinement with any one of said lenses, curtains mounted in the end of the lamp box above and below the lenses connected to the inner end of the tubular portion of said arm whereby said curtains are drawn over the lenses with which said arm is not alined to concentrate a light of a single color upon the arm.

4. In combination, a lamp box having a lamp removably positioned therein, a plurality of vari-colored lenses arcuately arranged in one end of the lamp box in concentric relation to the globe of the lamp, an oscillatory semaphore arm having a tubular portion the inner end of which is disposed contiguous to the lenses, said tubular portion being adapted to be moved into alinement with any one of said lenses to concentrate a light of a single color upon the semaphore arm, curtains mounted upon spring rollers arranged in the end of the lamp box above and below said lenses, the free ends of said curtains being connected to opposite sides of the tubular portion of the arm whereby the same are drawn over the lenses with which the tubuluar portion of the arm is not alined, substantially as and for the purpose set forth.

1,029,042. ELECTRICAL MEASURING INSTRUMENT. WALTER E. BEEDE, New York, N. Y. Filed Apr. 8, 1911. Serial No. 619,679. (Cl. 171—95.)



1. An electrical measuring instrument comprising a stationary arbor, an armature and a pointer and a counterbalance for the armature and for the pointer all formed in one piece and pivotally mounted on the arbor, a spring connected to such piece and adjustably connected to the arbor and a conductive coil controlling the armature.

2. An electrical measuring instrument comprising a stationary arbor, an armature and a pointer and a counterbalance for the armature and for the pointer all formed in one piece and pivotally mounted on the arbor, a conductive coil controlling the armature, and means opposing the influence of the conductive coil on the armature.

3. An electrical measuring instrument comprising a base plate, a stationary arbor rigidly projecting from the base plate, a one-piece combined armature and pointer and counterbalance rotatively mounted on the arbor, a conductive coil controlling the armature, a split anchor-disk frictionally mounted on the free end of the arbor outwardly from the rotative piece including the armature so as to be frictionally rotatively adjustable on the arbor, and a spring connected to such rotative piece and also connected to the anchor-disk and arranged to oppose the conductive coil.

4. A combined one-piece armature and pointer and counterbalance formed of a single piece of sheet metal.

5. A combined one-piece armature and pointer and counterbalance formed of a single piece of sheet metal and having a portion of U-shaped transverse section from the opposite sides of which the armature and the pointer project, respectively.

[Claims 6 to 8 not printed in the Gazette.]

1,029,043. APPARATUS FOR MOLDING CONCRETE BEAMS. ELIA BIANCHI, Milan, Italy. Filed June 13, 1910. Serial No. 566,583. (Cl. 25—121.)

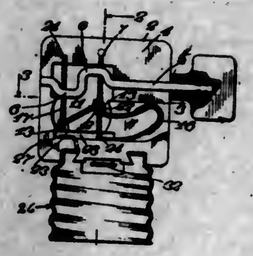


1. A core for concrete molds, comprising in combination, a sheet of flexible material bent to have a top and sides, opposite sides of the structure consisting of overlapping elements slidable on one another, means movably connecting said overlapping elements, and means joining said connecting elements and engaging the overlapping elements, whereby all four sides of the core may be simultaneously spread.

2. A core for concrete molds, comprising in combination, a sheet of flexible material bent to have a top and sides, opposite sides of the structure consisting of overlapping elements slidable on one another, and means joining said overlapping elements for simultaneously spreading all of said sides.

3. In apparatus of the character described, a core member of sheet metal having a continuous top and side walls that are movable toward and from each other, said member also having convergently disposed end walls, each comprising slidably overlapped sections, a rod disposed longitudinally within the core and having its ends movable into engagement with the end walls for forcing the same outwardly, and links connected to the rod and to the end walls for moving the side walls away from each other.

1,029,044. MECHANICAL MOVEMENT AND ELECTRIC-LIGHT SOCKET. TONJES AUGUST CARL BOTH, New York, N. Y., assignor, by mesne assignments, to The Zee Socket & Mfg. Co., Boston, Mass., a Corporation of Massachusetts. Original application filed Dec. 30, 1911, Serial No. 668,632. Divided and this application filed Mar. 20, 1912. Serial No. 684,989. (Cl. 173—346.)



1. A mechanical movement comprising a rotary driving member, actuating members upon the driving member, two links, one mounted on each of the actuating members and an intermediate member carried by the links and provided with grooves or valleys in its ends, and a reciprocating resilient driven member having a surface to coöperate with the intermediate hill and valley member.

2. A mechanical movement comprising a rotary driving member, actuating members upon the driving member, two links, one mounted on each of the actuating members and

an intermediate member provided with grooves or valleys and with one or more accelerators or kickers, and a reciprocating resilient driven member having a surface to cooperate with the intermediate hill and valley member.

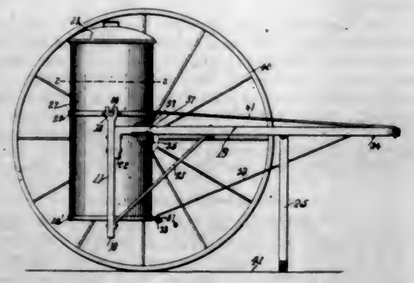
3. A mechanical movement comprising two reciprocating driving members, an intermediate member connected to the reciprocating members and provided with grooves or valleys at its ends, a reciprocating resilient driven member having a surface to coöperate with the groove or valley in the pivoted intermediate member.

4. A mechanical movement comprising a rotary driving member, actuating members upon the driving member, two links, one mounted on each of the actuating members and an intermediate member carried by the links and provided with grooves or valleys in its ends and with retarding means, and a reciprocating resilient driven member having a surface to coöperate with the intermediate hill and valley member.

5. A mechanical movement comprising a rotary driving member, actuating members upon the driving member, two links, one mounted on each of the actuating members and an intermediate member provided with grooves or valleys and with one or more accelerators or kickers and with retarding means, and a reciprocating resilient driven member having a surface to coöperate with the intermediate hill and valley member.

[Claims 6 to 11 not printed in the Gazette.]

1,029,045. CAN-CART. PETER E. BOYUM, Whalan, Minn. Filed Mar. 22, 1910. Serial No. 550,834. (Cl. 21—119.)



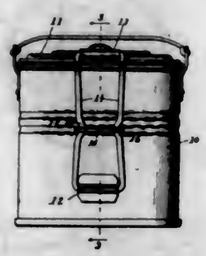
The combination with a frame having vertically extending side arms and a cross bar connecting the lower ends of the side arms, the upper ends of said arms terminating each in a bearing, and wheels rotatably mounted at the side arms below the bearings at the ends thereof, of a standard connected at its lower end to the central portion of the cross bar and having a bearing formed at its upper end, said standard being in alinement with the side arms of the frame, a pair of receptacles, a band encircling each receptacle and provided with oppositely disposed trunnions, the outer trunnion of each band resting in the adjacent bearing of the side arm while the inner trunnions of both bands rest in the bearing of the center arm, a U-shaped handle member having the ends of the side arms thereof connected to the side members of the frame below the bearings thereof, brace rods extending diagonally between the arms of the handle member and the side arms of the frame, a brace member having two arms connected to the side arms of the handle member, said brace being adapted when the vehicle is at rest to bear at its lower end against the ground, a holding rod coupled at one end to the upper end of the central standard between the receptacles and having a hook at its opposite end adapted to engage with the handle member, and brace rods loosely connected at their lower ends to the bottom of the receptacle and provided with hooks at their upper end portions adapted to engage with apertures formed in the U-shaped handle member.

1,029,046. BROOM-BRIDLE. JAMES A. BROWN, Westport, Ind. Filed Nov. 1, 1911. Serial No. 657,902. (Cl. 15—23.).



A broom bridle constructed of a single length of wire bent intermediate of its ends to form a loop adapted to encircle the broom head, said wire being twisted at the terminating ends of said loop, and then bent intermediate of its ends to form a set of loops which are disposed upon the opposite side of the broom head from the twisted portion, a second set of loops formed by the remaining ends of the wire and disposed on the opposite side of the broom head from the first set, and the ends of said wire being brought around on the side of the broom head opposite said second set and the extremities slightly bent and disposed one beyond the other so as to engage all of the straws of the broom head.

1,029,047. CLOSURE-RETAINING DEVICE. CLAUDE CALVER, Cerro Gordo, Ill. Filed July 12, 1911. Serial No. 638,142. (Cl. 220—22.)

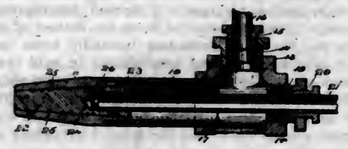


1. A device of the class described comprising a plurality of bearings, one for attachment to a container and the other for attachment to the closure thereof, a plurality of similar rods having their ends bent laterally and journaled in the said bearings, the said rods having indented portions midway between the ends thereof and a bar extending transversely to the said rods and having the ends thereof engaging the rods at the said indented portions.

2. In a container provided with a closure, a bearing formed on the said container, a second bearing formed on the said closure, spaced rods having their ends journaled in the said bearings and a transversely extending bar having its ends in engagement with the said rods.

3. In a container provided with a closure, a bearing on the said container, a second bearing on the said closure, spaced rods having their ends bent laterally and journaled in the said bearings, the said rods having indented portions midway between the ends thereof and a bar extending transversely to the said rods and having the ends thereof in engagement with the rods at the said indented portions.

1,029,048. OIL-BURNER. JOHN B. COWPER, Bayonne, N. J. Filed Mar. 28, 1911. Serial No. 617,365. (Cl. 158—75.)



1. A burner of the character described comprising a nozzle, a sprayer-block snugly fitted into the interior of the nozzle having an oil channel, and provided with spiral grooves in its outer surface, and means for providing each groove with an individual, independent supply of oil intermediate of its ends and from the channel.

2. A burner of the character described comprising a nozzle, a sprayer-block snugly fitted into the interior of the nozzle having an oil channel, and provided with continuous spiral grooves in its outer surface, means for providing each groove with an individual, independent supply of oil intermediate of its ends and from the channel, and means for providing each groove also with a supply of gaseous material.

3. A burner of the character described, comprising a nozzle, an elongated frusto-conical sprayer block snugly fitted into the interior of the nozzle and provided with continuous spiral grooves, in its outer surface, said sprayer block also having an interior chamber and radial bores communicating independently between the chamber and each groove at a point intermediate the ends of the latter.

4. A burner of the character described, comprising a nozzle and a sprayer block snugly fitted into the nozzle, one of said parts having its surface provided with a plurality of separated grooves each of which extends spirally around the block, said block having a chamber and being provided with conduits through which the chamber has communication with the spiral grooves intermediate of the ends of the latter, the burner also having means whereby liquid fuel and a gaseous material are delivered to the chamber and the inner ends of the spiral grooves, respectively.

5. A burner of the character described, comprising a nozzle, a sprayer block of gradually decreasing diameter from its rear to its forward end, snugly fitted in said nozzle and formed exteriorly with a plurality of separated grooves each of which extends spirally around the same from the rear end to the front end thereof, the burner also having means through which gaseous material is supplied to the rear end of each of the grooves and means through which the interior of the block is supplied with liquid fuel, and said block having bores through which the liquid-fuel is delivered to the grooves intermediate of the ends of the latter.

[Claims 6 to 10 not printed in the Gazette.]

1,029,049. HAT-PIN GUARD. ALBERT C. DE SHEPPARD, Bloomsburg, Pa. Filed June 9, 1911. Serial No. 632,218. (Cl. 24—155.)

1. A hat pin guard comprising a sheath, a longitudinal fixed guide therein, and a clamping member having a forwardly projecting leaf co-acting with the guide, to receive the pin, the rear end of the said leaf being bowed to extend into the path of the pin in rear of the guide and adapted to deflect the pointed end of the pin and bind the end of the pin between the said bowed portion and the rear end of the guide.



2. A hat pin guard embodying a sheath, a fixed guide therein, yielding means co-acting with the guide to receive a hat pin, and means in rear of the guide and within the sheath for deflecting the pointed end of the pin.

1,029,050. TROLLEY-WHEEL. ERNEST U. DOWN, Bowling Green, Ohio. Filed Apr. 22, 1911. Serial No. 622,645. (Cl. 64—26.)



1. A trolley-wheel, comprising a rim portion, an oil magazine disposed within and carrying said rim portion, said magazine having an axial opening therethrough, a sleeve projecting through and mounted in said opening, and having portions at its ends for embracing the magazine sides, and a multiple part bushing fitted within said sleeve and having its ends flanged for embracing the ends of the sleeve, said sleeve and bushing having openings therethrough for the passage of oil from the magazine to the interior of the bushing.

2. A trolley-wheel, comprising a rim portion, an oil magazine mounted within and carrying an axial opening therethrough, a hub-sleeve projected through and mounted in said opening and having apertures therethrough, and a bushing fitted within the sleeve and having ribs arranged around its circumference for spacing the bushing body from the sleeve to provide oil passages, said bushing having apertures from said passages to the interior thereof.

3. A trolley-wheel, comprising a rim portion, an oil magazine mounted within and carrying said rim portion, said magazine having an axial opening therethrough, a hub sleeve threaded through said opening and having means at its ends for preventing longitudinal movements of the sleeve within the magazine, and a two-part bushing fitted within the sleeve with its outer ends annularly flanged and bearing against the sleeve ends, said bushing having its body formed with external ribs, which provide oil passages between the sleeve and bushing, and said sleeve and bushing having apertures therethrough which coöperate with said spaces to open communication between the magazine and the interior of the bushing.

1,029,051. PARADE-TORCH. FRANK DUTCHER, Versailles, Pa. Filed Aug. 25, 1910. Serial No. 578,985. (Cl. 102—24.)

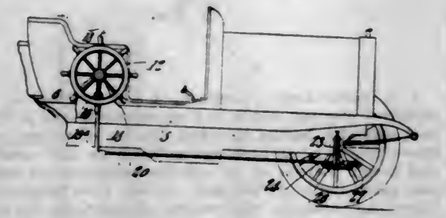
A torch of the character described, comprising a tubular portion, a burning compound placed therein, the tubular portion projecting beyond the compound, a tubular col-

lapsible handle having a closed end, the closed end of the handle projecting into the torch tube extension to connect



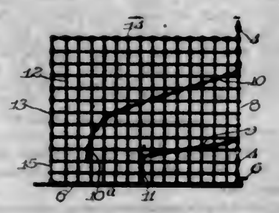
the handle thereto and to hold the compound within the torch tube.

1,029,052. STEERING-GEAR. CHARLES J. ENGLE, BERT W. FREEMAN, and DANIEL E. NEAL, Moline, Ill. Filed Mar. 28, 1910. Serial No. 552,032. (Cl. 21—90.)



The combination with a vehicle body and a seat, of an upstanding shaft journaled within the body and under the seat, a laterally extending shaft journaled under the seat, and extending beyond one side of the body, means for transmitting motion for said laterally extending shaft to the upstanding shaft, steering wheels, means operated by the upstanding shaft for shifting the wheels, a wheel supported in a plane parallel with one side of the body, said wheel being secured to the laterally extending shaft outside of and close to the seat, and radially extending handles upon the peripheral portion of said wheel, certain of the handles constantly extending upwardly and forwardly beyond the seat.

1,029,053. BIRD-TRAP. SAMUEL W. EVANS, Bloomington, Ill. Filed Aug. 5, 1911. Serial No. 642,552. (Cl. 43—24.)



1. In a bird trap the combination of a main inclosure, an inner compartment therefor adjacent one wall thereof, said wall having an aperture formed therethrough into said compartment, and a passageway extending from said aperture inwardly into said compartment and having its outlet presented downwardly adjacent the bottom of the trap, said inner compartment having communication with the main inclosure adjacent the inner end of said passageway.

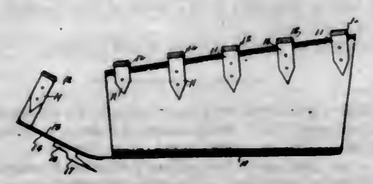
2. In a bird trap the combination of a main inclosure, an inner compartment adjacent one wall of said inclosure, said wall having an aperture formed therethrough into said compartment and spaced from the bottom of the trap, a walk for the birds extending inwardly from the lower edge of said aperture and terminating in said inner compartment at a point removed from both ends thereof, an upright wall section extending downwardly from the inner end of said walk to the bottom of the trap and across the said inner compartment, the member 10 extending inwardly from the upper edge of said aperture and across the said inner compartment to form with said walk a passageway, the inner end of said member 10 being turned downwardly below the level of the inner end of said walk and terminating at a distance from the bottom of the trap to form an exit for the bird, said down turned end of the member 10 being spaced from the inner wall of said inner compartment, the said inner wall having an exit at the lower edge thereof into the main inclosure, extending above the extremity of the down turned end of said member 10 and said member 10 being situated below the top of said inner compartment and forming therewith a false passage.

1,029,054. RAIL-JOINT. GIUSEPPE FABRIZI, Pittsburgh, Pa. Filed Feb. 3, 1912. Serial No. 675,249. (Cl. 239—6.)



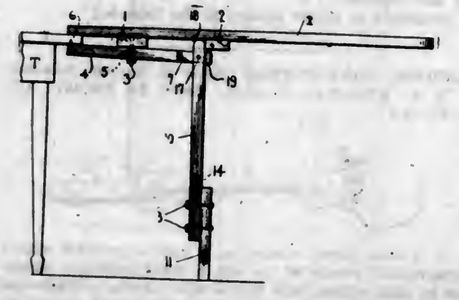
In combination with the meeting ends of two rails, of a chair adapted to receive the flanges of said rails, fish plates arranged parallel with said rails one upon each side thereof, having laterally extending base flanges formed thereon, and side walls formed on said chair, having longitudinal grooves formed in their inner faces to receive the flanges on said fish plates, a cushioning member arranged between the inner ends of said rails, said side walls having recesses formed therein, flanges formed on said cushioning member and disposed in said recesses to prevent longitudinal movement of said member.

1,029,055. HUSKER. JOSEPH G. FEJFAR, Yankton, S. D. Filed Jan. 4, 1909. Serial No. 470,627. (Cl. 130—4.)



The herein described husking implement comprising an attaching member, and inclined extensions formed thereon to engage the palm of the hand of the wearer, said extensions being provided with U-shaped clefts producing slots and tongues located therein, a supporting plate secured to said extension, husking means provided thereon, fastening means retaining the husking means against displacement, said fastening means being disposed in the slots and the said tongues adapted to contact with the opposite edges of the slots for concealing the said fastening means and preventing injury to the hand of the wearer.

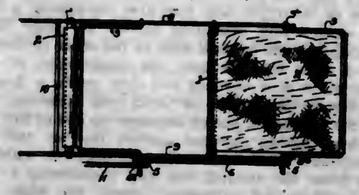
1,029,056. IRONING-TABLE. JAMES T. FIELDS, Elgin, Ill. Filed Nov. 6, 1911. Serial No. 658,761. (Cl. 68—10.)



1. In an ironing table, the combination with the top having two cleats along its lower face near its inner end, a bolt depending from the outer cleat, and a guide pin depending from the inner one; of a clamping lever having a slot in its body engaging said bolt and its inner end reduced to form a tongue and the inner extremity of said tongue notched and loosely engaging said guide pin, a leg having a forked upper end mounted astride said tongue and the fork arms provided with rounded extremities adapted to contact with the lower side of said top, a transverse pivot through said arms and tongue, an adjustable foot at the lower end of the leg, and a hook and eye connection between said leg and top.

2. In an ironing table, the combination with the top having a transverse cleat along its under side, a guide pin depending from said cleat, and a clamping lever fulcrumed to the lower side of said top between the extremity of the latter and said cleat and having a notch in its inner extremity loosely engaging said guide pin; of a leg having a forked upper end mounted astride the inner end of said lever, a transverse pivot through the lever and fork arms in such position that when the leg is upright the extremities of said arm engage beneath the top and against one edge of said cleat and the inner end of the lever is depressed out of contact with said cleat, the length of said fork arms being sufficient to permit the notch between them to pass over said pin when the leg is folded upward against the table top, and means for holding it in this position.

1,029,057. PROPELLER FOR AIR OR WATER CRAFT. ADOLPH FINCH, San Diego, Cal., assignor of one-third to A. B. Bowman, San Diego, Cal. Filed Oct. 28, 1908. Serial No. 459,923. (Cl. 244—28.)



1. A propelling appliance for aerial or water locomotives, comprising, a frame, a torsional spring roller, a revoluble crank adjacent thereto, a canvas attached to said roller at one end and to said crank at its other end, a sprocket on said crank and means in connection with said sprocket for facilitating the stopping of said crank in a certain position in any revolution if so desired without stopping the motive power, all substantially as set forth.

2. A propelling appliance for aerial or water locomotives comprising a frame, a pair of extensible and retractable wings comprising torsional spring rollers, revoluble cranks, adjacent thereto, and canvases attached to said rollers at one of their ends and to said cranks at their other ends, a chain connecting said cranks, special sprockets on said cranks, means in connection with said sprockets for facilitating the stopping of said cranks in certain positions in any revolution, if so desired without stopping the motive power, all substantially as set forth.

3. The combination in a propelling appliance for aerial or water locomotives of a frame, a pair of extensible and retractable wings mounted thereon comprising torsional spring rollers, revoluble cranks adjacent thereto, canvases attached to said rollers at one of their ends and to said cranks at their other ends, loose hub sprockets on said cranks, means in connection with said sprockets for stopping said wings in their extended position, for retaining them in said position and for releasing them when desired, all substantially as set forth.

4. In an appliance for propelling longitudinally and upward, aerial or water navigation ships, the combination of a plurality of wings comprising, spring rollers, revoluble cranks, sheets of flexible material connecting said cranks with said spring rollers, a plurality of frames for sustaining said wings, sprocket and chain means for operating said wings in pairs and alternately with each other, lever and spring means in connection with said sprocket and chain means for stopping and retaining said wings in a certain position and for starting them when desired, all substantially as set forth.

5. In an appliance for propelling longitudinally and upwardly aerial or water navigation ships, the combination of a plurality of wings comprising rollers provided with torsional springs, revoluble cranks, sheets of flexible material attached at one of their ends to said rollers and adapted to roll thereon, the other ends being attached to said cranks, supporting frames for sustaining said wings, sprockets on said cranks, chains connecting said sprockets, levers on said sprockets adapted to stop said cranks when desired in a certain position of their revolution, other levers on said frames adapted to retain said cranks in said certain positions and for starting them when desired, all substantially as set forth.

1,029,058. SNIPPING-MACHINE. LOUIS W. G. FLYNT, Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 9, 1909. Serial No. 526,981. (Cl. 164—50.)

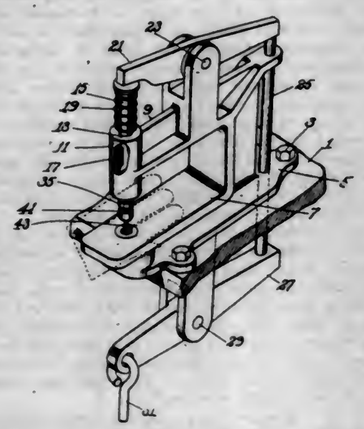
1. A machine for snipping curved edges of small radius having in combination a knife-holder, a plurality of knives arranged in a curve corresponding approximately to that of the edge to be snipped, a cutting block, means for producing relative movement between said knife-holder and block, and a slender guide adapted to center said knives with relation to said curved edge.

2. A machine for snipping a curved edge located at the base of a narrow indentation having in combination, a plurality of knives, a cutting bed, means for reciprocating said knives, and a slender guide adapted to be received within said indentation and to be forced against said curved edge.

3. A snipping machine, having, in combination, a plurality of knives, a cutting block, means for producing relative movement between said parts, and a guide for the work to which the work may be presented from any transverse direction.

4. A snipping machine, having, in combination, a plurality of knives, a cutting block, means for producing relative movement between said knives and block, and a guide for the work unobstructed on all sides.

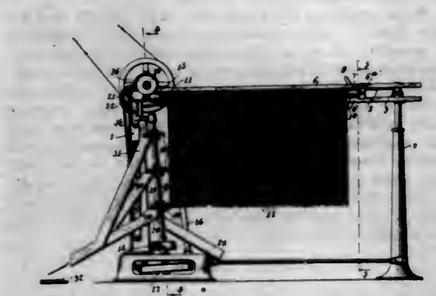
5. A snipping machine, having, in combination, a knife holder, a plurality of knives mounted therein, a cutting block, a slender cylindrical guide rod for the work carried



by said holder and extending into said block, and means for reciprocating said holder.

[Claims 6 to 11 not printed in the Gazette.]

1,029,059. MACHINE FOR CUTTING DRIED PASTES. KARL GAMMEL, Cleveland, Ohio. Filed Sept. 1, 1911. Serial No. 647,182. (Cl. 107—22.)



1. In a machine for cutting dried pastes, the combination with a holder adapted to receive a stick for supporting said paste in an approximately vertical plane, a guide for the opposite end of said stick, and a plurality of cutters inclined vertically for severing said depending paste in predetermined lengths, and a carrier for advancing said paste to said cutters.

2. In a machine for cutting dried pastes, the combination of a holder adapted to receive one end of a support whereby said pastes may be supported in an approximately vertical plane, a guide engaging the free end of said support and permitting longitudinal movement thereof, a plurality of cutters arranged in the path of said paste, and means for automatically feeding said paste toward the said cutters.

3. In a machine for cutting dried pastes, means for supporting the pastes in a substantially vertical plane, means for advancing the same in a predetermined path, and cutters on opposite sides of the said path and coöperating to sever the paste.

4. In a machine for cutting pastes, the combination of two approximately parallel inclined shafts, cutting knives secured to said shafts opposite each other and moving in an approximately horizontal plane, means for supporting said edible pastes in two approximately vertical parallel planes, and means for automatically feeding said pastes against and between said knives.

5. In a machine for cutting dried pastes, the combination with two upright parallel shafts inclined slightly and spaced apart, cutters on said shafts arranged opposite each other in pairs and operative in an approximately horizontal plane, an endless carrier, a holder, means for detachably securing said holder to the carrier, a support for the pastes mounted in said holder and moved thereby, and permitting the pastes to be arranged in approximately parallel vertical planes, and a separate trough for each pair of cutters for removing the portions of paste severed by said cutters.

[Claims 6 to 12 not printed in the Gazette.]

1,029,060. CAKE-TURNER. ENOS M. HARPER, Setauket, N. Y. Filed Sept. 20, 1911. Serial No. 650,381. (Cl. 65—3.)



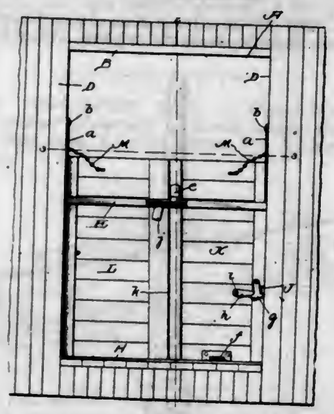
1. A cake turner comprising a handle provided with a longitudinal groove in one end, a shank rotatably mounted in said groove, said handle also having a transverse groove communicating with said longitudinal groove, an operating lever rigidly connected to the shank and movable in the transverse groove, a spring connected to the shank and to the handle and yieldingly holding said shank against rotation, and a ferrule secured upon the end of the handle to retain the rod in the longitudinal groove thereof, said ferrule consisting of two sections hingedly connected together at one of their ends.

2. A cake turner, comprising a handle, provided with a longitudinal groove terminating at its inner end in a pocket and a transverse groove formed near the outer end of the handle, a shank rotatably mounted in said slot and having its inner end provided with a flange adapted to seat in said pocket to prevent endwise movement of the shank, an aperture formed in the shank, a coil spring surrounding the inner end of the shank and having its outer terminal secured in the aperture and its inner terminal passing over the flange and anchored in the handle, a lever rigidly connected to the shank and near the inner end thereof, a ferrule consisting of upper and lower sections hingedly connected, said ferrule being adapted to inclose the inner end of the shank and handle, a slot formed in the upper section of the ferrule and through which the lever is passed, said lever being operable to rotate the shank to turn a cake.

1,029,061. GRAIN-DOOR. JOHN HENRY, Grand Forks, N. D. Filed Feb. 14, 1911. Serial No. 608,510. (Cl. 20—30.)

1. In a grain door for cars, the combination of a car body having a door opening and door posts, a door-sustaining bar carried by the car body, and a door bearing outward against the bar and posts and comprising sections the opposed edges of which are inclined from the vertical, whereby one section is wider at its upper end than at its lower end and the adjoining section is wider at its lower end than at its upper end, and also comprising a flange on one section and extending beyond the edge thereof and overlapping the opposed edge of the other section.

2. In a grain door for cars, the combination of a car body having a door opening and door posts, a door-sustaining bar carried by the car body and extending crosswise of the opening, a keeper arranged on one of the posts, and a door bearing outward against the bar and posts and comprising sections the opposed edges of which are inclined from the vertical and also comprising a flange on one section and extending beyond the edge thereof and overlapping the edge of the other section; the section adjacent the post that bears the keeper being wider at its upper end than at its lower end and being provided with detachable means for engaging the keeper and holding the section against upward movement.



3. In a grain door for cars, the combination of a car body having a door opening and door posts, a door-sustaining bar carried by the car body and extending crosswise of the opening, a keeper on one of the door posts, and a door bearing outward against the car body and bar and comprising sections the opposed edges of which are inclined from the vertical and also comprising a flange on one section and extending beyond the edge thereof and overlapping the edge of the other section; the section that is widest at its upper end being arranged adjacent the keeper-bearing post, and being provided with means for detachably engaging said keeper and with other means for engagement with the bar to hold the section thereagainst, and the other section being provided with means for bearing upward against the underside of the bar.

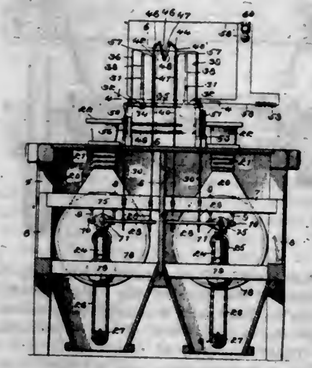
4. In a grain door for cars, the combination of a car body having a door opening and door posts, means for preventing outward movement of a door, keepers on the inner portions of the posts, and a door bearing outward against the said means and the posts and interposed between said keepers and the posts and comprising sections the opposed edges of which are inclined from the vertical and between which edges the joint is broken.

5. In a grain door for cars, the combination of a car body having a door opening and door posts, a door-sustaining bar carried by the car body and extending crosswise of the opening, keepers on the inner portions of the door posts, a keeper on the side of one post toward the door opening, and a door interposed between the first-named keepers and the posts and bearing outward against the car body and crosswise bar and comprising sections the opposed edges of which are inclined from the vertical and between which edges the joint is broken; the section that is widest at its upper end being arranged adjacent the post on the side of which toward the door opening is the keeper and being provided with means for detachably engaging said keeper and with other means for engagement with the bar to hold the section thereagainst, and the other section being provided with means for bearing upward against the bar.

[Claims 6 to 13 not printed in the Gazette.]

1,029,062. RECORDING DEVICE. GUY F. HOOVER, Sherman, Tex. Filed July 22, 1911. Serial No. 640,000. (Cl. 73—100.)

1. In a mechanism of the character described, the combination of a rod fulcrumed intermediate of its ends, bearings arranged on said rod on opposite sides of its fulcrum, a shaft rotatably mounted in said bearings, a cylinder fixed on one end of said shaft, a casing for said cylinder, a counterbalancing weight for said cylinder arranged on one end of said rod, means for feeding a continuous stream of material to the cylinder to overbalance the cylinder, driving means connected to said shaft in line with the fulcrum of said rod to continuously rotate said cylinder, and means automatically actuated in the movement of the cylinder under the weight of material thereon to record the weight of said material.



2. In a mechanism of the character described, the combination of a rod fulcrumed intermediate of its ends, a casing fixed to one end of said rod, a counterbalancing weight on the other end of the rod, bearings arranged on said rod on opposite sides of its fulcrum, a shaft rotatably mounted in said bearings and extending into the casing, a material receiving cylinder arranged within the casing and fixed on said shaft, means for feeding a continuous stream of material to the cylinder, means for continuously rotating said cylinder to discharge the material, and means automatically actuated in the bodily movement of said cylinder by the weight of the material thereon to record the weight of said material.

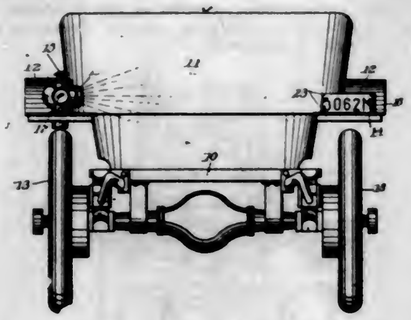
3. In a mechanism of the character described, the combination of a shaft having a material receiving cylinder on one end, a pivotally mounted counter-balanced rod disposed in parallel relation to said cylinder shaft, said rod carrying bearings for the shaft, a casing for the cylinder, the journal of said counter-balanced rod being secured to the cylinder casing, a drive shaft, an endless flexible connection connecting said cylinder shaft immediately beneath the journal of the counter-balanced rod with said drive shaft, and means connected to said counter-balanced rod and automatically actuated by the weight of the material on said cylinder to record the weight of such material.

4. In a mechanism of the character described, the combination of a material receiving cylinder mounted for bodily oscillatory movement, a casing therefor, means for feeding a continuous stream of material to said cylinder, means for rotating said cylinder, a vertically disposed plate, a chart movable over the face of said plate, means for continuously moving said chart in the rotation of the cylinder, and a marker arranged for movement over the face of said shart and automatically actuated in the bodily movement of the cylinder to record the weight of material deposited thereon upon said chart.

5. In a mechanism of the character described, the combination with a pair of counterbalanced material receiving cylinders, of a chart, means for feeding a continuously moving stream of material to each of said cylinders, means automatically actuated in the bodily movement of the cylinders under the weight of the material thereon to record upon said chart the combined weight of the material deposited on said cylinders, and additional means independently actuated in the movement of each of said cylinders to separately record the amount of material deposited upon each cylinder.

[Claims 6 and 7 not printed in the Gazette.]

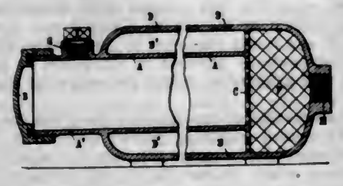
1,029,063. MOTOR-VEHICLE. RUSSELL HUFF, Detroit, Mich., assignor to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Oct. 28, 1910. Serial No. 589,544. (Cl. 21—23.)



1. In a motor vehicle, the combination with the body and the guards at the sides of the body extending rearwardly beyond the body, of a license plate mounted on and directly above the extended part of one of said guards for observation from the rear of the vehicle, and a lamp mounted on and directly above the extended part of the other said guard with one of its lenses facing said license plate, for the purpose described.

2. In a motor vehicle, the combination with the body and a fender or guard mounted on the body at each side thereof and extending rearwardly beyond the body, of a license plate mounted on and directly above one of said fenders with its face at a slight angle to the transverse axis of the vehicle whereby the face of said plate may be observed from the rear of the vehicle and at the same time may be illuminated from a point transversely across the vehicle, and a lamp mounted on and directly above the other said fender with one of its lenses facing said plate whereby the latter may be illuminated.

1,029,064. PROCESS FOR THE PREPARATION OF HYDROGEN BY AUTOCOMBUSTION. GEORGE FRANÇOIS JAUBERT, Paris, France. Filed Jan. 5, 1911. Serial No. 600,859. (Cl. 48—198.)



1. The herein described process for the preparation of hydrogen by auto-combustion, which consists in causing metals of the kind described to act at a high temperature without external heating upon alkaline hydrates of the kind described.

2. The herein described process for the preparation of hydrogen by auto-combustion, which consists in causing dry and pulverulent metals of the kind described to act at a high temperature without external heating upon dry and pulverulent alkaline hydrates of the kind described.

3. The herein described process for the preparation of hydrogen by auto-combustion, which consists in forming a mixture, stable when cold, of metals of the kind described and alkaline hydrates of the kind described, and then kindling the mixture.

4. The herein described process for the preparation of hydrogen by auto-combustion, which consists in forming a dry pulverulent mixture, stable when cold, of metals of the kind described, and dry and pulverulent alkaline hydrates of the kind described, and then kindling the mixture.

1,029,065. COP-TUBE. HENRY KELLERMAN, Mayfield, Pa. Filed Jan. 22, 1910. Serial No. 539,589. (Cl. 242—122.)



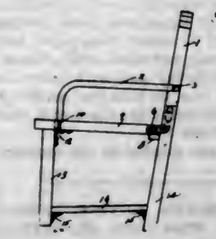
A quill of the character described, constructed of paper having continuous walls of uniform thickness throughout, the major portion of said quill being slightly tapered and the remainder of the quill comprising a plurality of annular portions increasing in diameter away from the larger terminal of the tapered portion of the same.

1,029,066. PROCESS OF DYEING VEGETABLE FIBERS WITH HALOGENATED INDIGO AND INDIGOID DYESTUFFS. ADOLF KERTESZ, Mainkur, Germany, assignor to Cassella Color Company, a Corporation of New York. Filed Dec. 11, 1911. Serial No. 664,923. (Cl. 8—5.)

1. The process of dyeing vegetable fibers with halogenated indigo and indigoid dyestuffs by treating the material in a hot alkaline liquor containing the dyestuff and in addition sodium sulfid as a reducing agent.

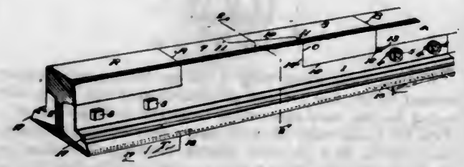
2. The process of dyeing vegetable fibers with halogenated indigo and indigoid dyestuffs by treating the material in a hot alkaline liquor containing the dyestuff and in addition sodium sulfid as a reducing agent, hydrosulfite being added only toward the end of the operation.

1,029,067. FOLDING CHAIR. JOSEPH KITAK, Brighton, Wash. Filed Oct. 9, 1911. Serial No. 653,548. (Cl. 155—8.)



The combination in a foldable chair of a rigid back and rear legs and a seat hingedly connected to said back, front legs hinged to the under side of said seat, and a brace hinged between said front and rear legs, of downwardly curved and slightly resilient arms having their rear ends pivoted to said back and their forward undermost edges bearing vertical pins, slots in the side edges of said seat and slightly out of alinement with said pins and into which said pins are adapted to be sprung by first forcing said arms slightly outwardly and then backwardly, whereby said arms are tightly frictioned against movement with relation to said back and said seat.

1,029,068. RAIL-JOINT. JOHN D. KOHER, Cromwell, Ind., assignor of one-half to Alonzo Miller, Cromwell, Ind. Filed Sept. 6, 1911. Serial No. 647,933. (Cl. 239—8.)



1. In a rail joint, the combination with adjoining rail sections, of continuous plates disposed on opposite sides of the rail sections and having their intermediate portions spanning the junction of the rails and the outer ends of the plates secured to the rails, and overlapping enlargments on said plates between the rail sections to form a continuation of the tread surface.

2. In a rail joint, the combination with adjoining rail sections, of coacting plates spanning the junction of the adjacent rail ends, and inter-engaging tread portions on the plates between the inner ends of the rail sections, each plate being rigidly secured to one rail at one end and slidably secured to the other rail at the other end of the plate.

3. In a rail joint, the combination with adjoining rail sections, of continuous plates disposed on opposite sides of the rail sections and having their intermediate portions spanning the junction of the rails, and the outer ends of the plates secured to the rails, overlapping tread enlargements on each plate, each enlargement having a square shoulder abutting against the adjacent rail end, and means for securing said shoulder in constant engagement with said rail end to form a continuous tread surface.

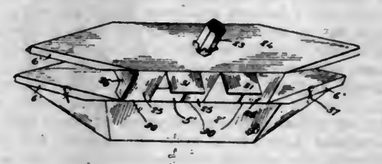
4. In a rail joint, the combination with adjoining rail sections, of coacting plates, spanning the junction of adjacent rail ends, overlapping tread enlargements on each plate, means for rigidly securing one end of each plate to the adjacent rail section with the enlargement abutting firmly against the rail tread, and means for slidably securing the other end of the plate to the adjoining rail section thus providing for variation in the movement of the overlapped terminals of the tread enlargements.

5. In a rail joint, the combination with adjoining rail sections, of coacting plates spanning the junction of adjacent rail ends, overlapping tread enlargements on said plates between the inner ends of the rail sections and forming a continuous tread surface, and means forming a rigid connection between one plate and the adjacent rail and a sliding connection between the other plate and the same rail on the other side thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,029,069. COMBINED CONVERTIBLE SOUVENIR AND ADVERTISING POSTAL CARD, PUZZLE, BOAT, AND BOX. SAMUEL L. LAZARON, Cincinnati, Ohio. Filed Aug. 30, 1911. Serial No. 646,908. (Cl. 46—37.)

1. A device of the character described comprising a single sheet of material provided with a series of longitudinal creases and with a series of diagonal creases near the ends and having slots, slits and openings therein, substantially as shown, whereby said device may be first folded into form as a postal card and then used as a puzzle by further folding and securing it into the form of an oblong boat box, substantially as set forth and for the purposes specified.



2. A device of the character described comprising a single sheet of paste board or other suitable material having a series of longitudinal creases arranged parallel to each other and tapering at their ends and having a series of slots and openings therein, substantially as shown whereby said device may be first folded into form as a postal card and then used as a puzzle by further folding and detachably securing it into the form of a boat box which is adapted to be used as a receptacle, substantially as set forth and for the purposes specified.

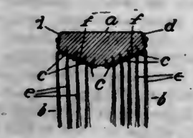
3. A device of the character described comprising a single sheet of material, creased longitudinally and also creased diagonally of its length near the ends and provided with parallel and diagonal slits and with openings as shown, substantially as set forth and for the purposes specified.

4. A device of the character described comprising a sheet of paste board or other suitable material, having a series of longitudinal creases arranged parallel to each other and tapering at their ends and having a series of slits and openings therein part of said slits being disposed diagonally to the longitudinal creases and intersecting same, and additional diagonal creases in the end portions of said device whereby the same may be readily folded first into the form of a postal card and then adapted to be used as a puzzle by folding and detachably securing the parts together to form a boat box, substantially as set forth.

5. A device of the character described comprising a single sheet of paste board or other suitable material having pairs of creases extending longitudinally of the central part thereof and tapering toward each other near their ends, said sheet having cut away portions to provide for tapering and truncated projections, additional creases in the portion between said diagonal slits, one of said parts having a flanged hole in its central part and another of said parts having an integrally formed roll and adapted to project through said hole when the parts are folded together in the form of a boat box to form a smoke-stack for said boat, substantially as set forth and for the purposes specified.

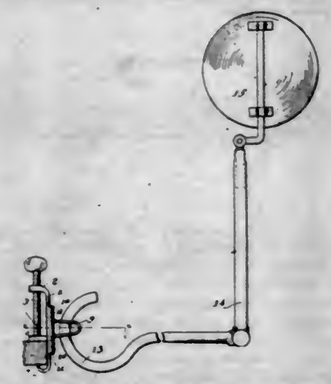
[Claims 6 to 8 not printed in the Gazette.]

1,029,070. BRUSH. VICTORIA M. LE MIEUX, Faribault, Minn. Filed Feb. 25, 1910. Serial No. 545,996. (Cl. 15—28.)



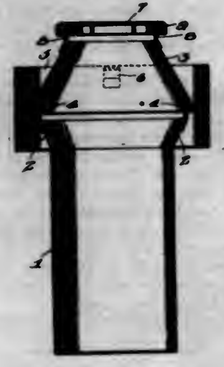
A brush consisting of a brush-material supporting device; and a strip of brush material having a woven portion from which extend loosely warp threads; said woven portion being arranged on the bottom face of said device in substantially spiral form; the adjacent parts of the spiral overlapping to cover the bottom of said device.

1,029,071. MIRROR-HOLDER. RODALPH H. LE PAGE, Chicago, Ill. Filed Apr. 24, 1911. Serial No. 623,013. (Cl. 45—97.)



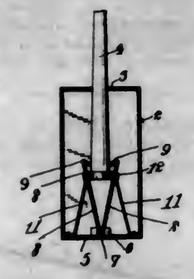
A device of the class described comprising a sheet metal body 1 having one end 2 bent at right angles thereto and perforated and threaded for the reception of a clamping screw 3, said body being provided with a central longitudinal slot 6; a clamping block 4 swiveled to screw 3 and provided with a T-shaped lug 5 slidably engaging slot 6; a clamping jaw 7 on the other end of body 1; a perforated supporting bracket 9 provided with feet 10 resting on the back of body 1; and edges 11 bent over said feet, substantially as described.

1,029,072. CHIMNEY-CAP. ALVIN F. LIESKE, Henderson, Minn. Filed Apr. 3, 1911. Serial No. 618,596. (Cl. 98—4.)



The combination in a device such as described with a sleeve provided at its upper end with an integral flared extension, a truncated conical cap arranged above the sleeve and having its lesser diameter smaller than the diameter of the sleeve, and its greater diameter larger than the diameter of the flared extension, straps connecting the truncated conical cap upon the flared extension of the sleeve, a plate located in spaced relation above the cap, a depending flange formed upon the periphery of the plate, the diameter of the said plate being of greater diameter than the minor of the cap and of a less diameter than the major end thereof, straps secured to the cap and engaging said plate in spaced relation to the flange formed thereon, off-set extensions provided upon the straps and engaging the flange, and a ring secured to the cap and extending in spaced relation thereto and having its ends equally distant from the opposite sides of the space between the flared end of the sleeve and the major end of the cap, substantially as and for the purposes set forth.

1,029,073. WHIP-LOCK. GEORGE LIPP, Allen, Nebr. Filed May 16, 1911. Serial No. 627,440. (Cl. 21—129.)



A whip lock, comprising a casing having an aperture formed in the top for the introduction of the whip, said casing having ears upstanding from the bottom thereof, a pivot pin connecting the said ears, a pair of arms pivotally mounted on said pin and having inwardly inclining recessed upper ends, blade springs having one end secured to the casing and the other bearing against the arms to press the arms toward each other, and a key for spreading the arms apart against the force of the springs.

1,029,074. WRENCH. WILLIAM A. LITTLE, Cresson, Pa., assignor of one-third to Walter D. Little and one-third to William A. McGuire, Cresson, Pa. Filed May 24, 1911. Serial No. 629,103. (Cl. 81—91.)



A wrench of the character described comprising a handle, a jaw pivotally mounted intermediate of its ends in one end of said handle, a second jaw pivotally connected to one end of the first named jaw and co-acting therewith, a pair of links pivotally connected to said second named jaw intermediate of its ends, the inner ends of said links being pivoted to the handle inwardly of the pivot of said first named jaw and out of alinement therewith longitudinally of the handle, the pivot connecting said links to the second named jaw being disposed in a plane which is intermediate of the plane of the pivot of said first named jaw and the plane of the pivot connecting the links to the handle when considered with respect to the longitudinal axis of said handle and when the jaws are closed upon an object.

1,029,075. COLLARED SPIRALLY-WOUND ROLL. CHARLES S. LOCKWOOD, Newark, N. J., assignor to Hyatt Roller Bearing Company, Harrison, N. J., a Corporation of New Jersey. Filed Aug. 10, 1911. Serial No. 643,258. (Cl. 64—62.)

1. In a roller bearing, a roll formed of a spirally wound strand with integral collar thereon, the division between the strands extending through the said collar.

2. In a roller bearing, a roll formed of spiral coils with integral collar thereon, and the division between the coils extending through the said collar, and a washer applied to the body of the roll adjoining such collar to cover the division joint.

3. In a roller bearing, the combination, with a suitable casing, of spirally wound rolls fitted to such casing and having an integral collar thereon, and a hub having a seat fitted to the rolls and an annular shoulder adapted to engage the said collar.

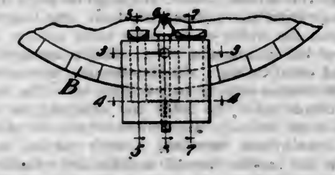


4. In a roller bearing, the combination, with a suitable casing, of spirally wound rolls fitted to such casing and having an integral collar thereon, with washer fitted to the roll adjoining the collar, and a hub having a seat fitted to the rolls and an annular shoulder adapted to engage the said washer.

5. In a roller bearing, the combination, with a hub having opposed conical roll-seats with a groove at their junction forming shoulders at the bases of the seats, of spirally wound conical rolls having integral collars with beveled ends in contact in the said groove and the inner faces of the collars opposed to the said shoulders.

[Claim 6 not printed in the Gazette.]

1,029,076. LIQUID-DISPENSER. WALTER CHRISTIAN MALOZ, Patterson, La., assignor, by direct and mesne assignments, of one-third to David H. Maloz, Patterson, La., and one-third to William P. Brady, New Orleans, La. Filed Jan. 30, 1912. Serial No. 674,296. (Cl. 73—158.)



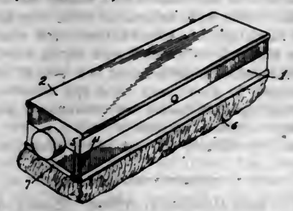
1. In a liquid dispenser adapted to communicate with a supply of liquid, a plurality of liquid measures each having an inlet and outlet, and means for establishing the flow of the liquid into all of the inlets simultaneously, for cutting off the flow of the liquid through any one of the inlets, and for inversely establishing and cutting off the discharge of the liquid from the outlet of any measure as the flow to the measure is established or cut off, so that all of the measures may be normally filled and any one may be emptied.

2. In a liquid dispenser, a body embodying a plurality of liquid measures, and a rotary spigot in the body, the body having an inlet extending to the spigot, each measure having an inlet and an outlet extending to the spigot, and the spigot having ducts to establish a communication between the inlet of the body and all of the inlets of the measures simultaneously and being adapted to cut off the flow through any inlet of the measure, and having ducts to permit the liquid to flow from the outlet of the corresponding measure when the flow through the inlet of the said measure is cut off, so that all of the measures may be normally filled and any one may be emptied.

3. In a liquid dispenser, a body having a vertical spigot socket therethrough, a plurality of recesses in its upper end to form liquid measures, an inlet for the body extending to the spigot socket, an inlet for each of the liquid measures extending to the spigot socket, and an outlet for each of the liquid measures extending from the lower end of the liquid measure to the spigot socket, a closure for each of the liquid measures and having an air vent therethrough; buoyant valves for closing the vents through the closures when the liquid measures become filled; and a spigot fitting through the spigot socket and having ducts to establish a communication between the said inlet of the body and all of the inlets of the liquid measures simultaneously and being adapted to cut off the flow through any inlet of the measures, and having ducts to permit the liquid to flow from the outlet of the corresponding measure when the flow through the inlet of the said measure is cut off, so that all of the measures may be normally filled and any one may be emptied.

4. A liquid dispenser adapted to communicate with a supply of liquid and embodying a plurality of liquid measures, and means for permitting all of the measures to be filled simultaneously, and for cutting off the flow to any one measure and at the same time to permit the liquid to be discharged from the measure.

1,029,077. POLISHING-BRUSH. GASTON METZGER, Kansas City, Mo. Filed Apr. 10, 1911. Serial No. 619,922. (Cl. 15—16.)

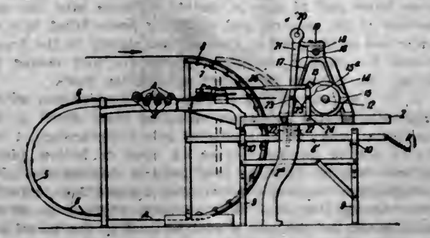


1. A polishing brush having a body, two hooks, one on each end of the body, and two pins disposed transversely one at each end of the body, for supporting a polishing device, one end of each pin being secured to the body, the pins being respectively movable into and out of locked engagement with said hooks.

2. A polishing brush having a body, two hooks, one on each end of the body, and two resilient pins disposed transversely of the body and adapted to support a polishing device, one end of each pin being rigidly secured to the body, said pins being movable into and out of locked engagement with said hooks respectively.

3. A polishing brush having a body, a flexible polishing member having two loops one at each end thereof, two hooks one at each end of the body, and two pins disposed transversely, one at each end of the body and respectively insertible into and removable from said loops, one end of each pin being secured to said body, the pins being movable into and out of locked engagement with said hooks respectively.

1,029,078. TENSION APPLIANCE FOR BALE-TIE MACHINES. JOHN W. MILLER, Waukegan, Ill., assignor to The American Steel & Wire Company of New Jersey, Hoboken, N. J., a Corporation of New Jersey. Filed Sept. 29, 1910. Serial No. 584,545. (Cl. 140—73.)



1. In a bale tie machine having an intermittent wire feeding mechanism, a tension appliance comprising means

for forming a loop in the strand wire being fed into said bale tie machine, and mechanism for moving the loop-forming mechanism to vary the size of the loop in the strand wire.

2. In a bale tie machine having an intermittent wire feeding mechanism, a tension appliance comprising means for forming a loop in the strand wire being fed into said bale tie machine, and means operatively connected to the bale tie driving mechanism for moving the loop-forming mechanism to vary the size of the loop in the strand wire.

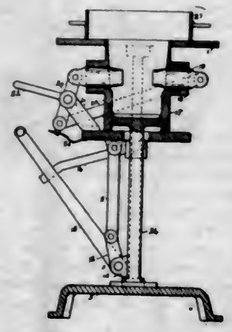
3. In a bale tie machine having an intermittent wire feeding mechanism, a tension appliance comprising means for forming a loop in the strand wire being fed into said bale tie machine, mechanism for moving the loop-forming mechanism to vary the size of the loop in the strand wire, and means for preventing backward movement of the strand wire between the loop-forming means and the bale tie machine.

4. In a bale tie machine having an intermittent feed mechanism for the strand wire from which the bale ties are formed, a tension appliance comprising means for maintaining a loop in the strand wire, and means for increasing the size of said loop during the bale tie forming operations.

5. In a bale tie machine having means for intermittently feeding the strand wire from which the bale ties are formed into said machine, the combination with means arranged to form a loop in the strand wire being fed into the machine, and means for increasing the size of the loop, of a stop arranged to grasp and hold the forward end of the strand wire against backward movement when the size of the loop is being increased.

[Claims 6 to 19 not printed in the Gazette.]

1,029,079. MOLDING-MACHINE. LOUIS J. MONAHAN and ROBERT ZIEBELL, Oshkosh, Wis. Filed Aug. 16, 1911. Serial No. 644,471. (Cl. 22—13.)



1. A piston molding machine comprising a suitable supporting frame having a stripping plate arranged horizontally at the top, a bracket arranged to slide vertically below the stripping plate, a suitably formed open piston pattern attached to the bracket and having cross holes therethrough, plugs fitted to slide a limited distance in said cross holes and to pass a limited distance into the open portion of the pattern, end stripping posts fitted into the lower end of the pattern and secured rigidly to the frame, means for sliding the plugs outwardly and means for sliding the pattern downward around the posts.

2. In a piston molding machine the combination with a supporting frame having a stripping plate fitted to the top thereof and having a pattern hole therethrough, a vertically sliding bracket having an open or hollow piston pattern secured thereto, said pattern having the holes therethrough horizontally, suitably formed lugs fitted to slide through the said holes to form impressions in the sand inside the pattern, a post secured to the frame and fitted into the pattern to form the bottom thereof, means for sliding the plugs outwardly and means for locking the pattern in its upper position.

1,029,080. MATCH-BOX. JOHN F. MURRAY, Colorado Springs, Colo., assignor of one-third to George A. Schrody and one-third to Edward T. Murray, Colorado Springs, Colo. Filed July 6, 1911. Serial No. 637,060. (Cl. 206—21.)



1. A match box including a body having a guide plate therein extending throughout the width thereof and downwardly to an outlet throat the length of said throat being greater than the length of the matches, a plate slidably mounted upon and closing the body, a flange on said plate for normally closing the throat, and a spring interposed between the body and plate for holding said flange yieldingly in closed position.

2. A match box including a body having an outlet throat at its lower end, there being a ledge at the upper end of the body, a plate slidably mounted on the body, a flange thereon overhanging the ledge, a flange thereon extending under and normally closing said throat, and yielding means interposed between the ledge and the adjacent flange for holding the plate normally in closed position.

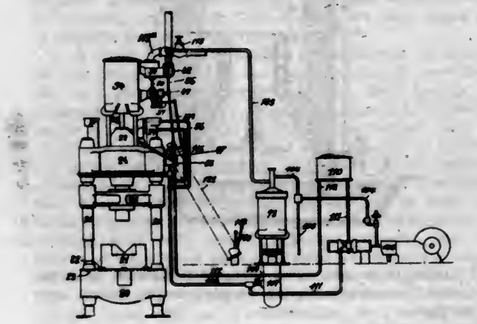
3. A match box including a body having an outlet throat at the bottom thereof and a guide plate leading to the throat from the back of the body, the length of the throat and the width of the plate being greater than the length of the matches, a plate slidably mounted on the body and constituting a closure therefor, means upon the plate for closing said throat, a ledge upon the body, and elastic means upon the ledge and engaging the plate to hold the same normally in position to close the throat.

4. A match box including a body having an outlet throat at the bottom thereof, a guide plate leading downwardly to said throat from the back of the body, and a flange extending downwardly from and under the guide plate, a plate constituting a closure for the body and slidably mounted on said body, a flange on said plate for closing the throat, and resilient means interposed between the plate and body for holding said flange normally in closed position.

5. A match box including a body, there being a throat at the bottom thereof and extending throughout the width of the body, a guide plate for directing the contents of the body to the throat, said guide plate being of a width greater than the length of the matches, a plate slidable on and constituting a closure for the body, a flange carried thereby for closing a throat, a spring housed between the body and the plate for holding said plate normally in position with the flange closing the throat, and coöperating means upon the body and plate for limiting the movement of said plate relative to the body.

1,029,081. FORGING-PRESS. CASIMIR VON PHILP, South Bethlehem, Pa., assignor to Bethlehem Steel Company, South Bethlehem, Pa., a Corporation of Pennsylvania. Filed Dec. 21, 1910. Serial No. 598,606. (Cl. 138—17.)

1. The combination of a main ram cylinder an intensifier cylinder, piston and plunger, acting on the main cylinder, an accumulator for supplying the main cylinder comprising a water chamber and a steam cylinder, piston and plunger for acting on the water to produce the pressure, a water supply pump therefor, means for actuating the pump and a control valve therefor actuated with the said piston and plunger of the accumulator, valve mechanism for controlling the main cylinder, valve mechanism for controlling the intensifier and connections for jointly operating both said valve mechanisms.



2. The combination of a main ram cylinder an intensifier cylinder, piston and plunger, acting on the main cylinder, an accumulator for supplying the main cylinder comprising a water chamber and a steam cylinder, piston and plunger for acting on the water to produce the pressure, a water supply pump therefor, means for actuating the pump and a control valve therefor actuated with the said piston and plunger of the accumulator and valves for controlling the main cylinder and the intensifier.

3. In combination, a main hydraulic cylinder, an intensifier therefor, an accumulator supplying the hydraulic cylinder an inlet check valve for controlling the inlet to the hydraulic cylinder and means for holding closed or leaving free said check valve at will and means for jointly controlling both the main cylinder and the intensifier.

4 In combination, a main hydraulic cylinder, an intensifier therefor, an accumulator supplying the hydraulic cylinder a pull back cylinder in constant communication with the accumulator, an inlet check valve controlling the inlet to the hydraulic cylinder, means for positively closing or holding closed the said check valve, valve mechanism for controlling the intensifier, and a single lever and operating connections for successively releasing the check valve from said positive means and then closing the intensifier exhaust and opening the intensifier inlet.

5. In combination, a main hydraulic ram cylinder, an intensifier therefor, an accumulator supplying the hydraulic cylinder a pull back cylinder in constant communication with the accumulator, an inlet check valve controlling the inlet to the hydraulic cylinder, means for positively closing or holding closed the said check valve, valve mechanism for controlling the intensifier, and a single lever and operating connections for successively releasing the check valve from said positive means and then closing the intensifier exhaust and opening the intensifier inlet and separately adjustable means for automatically actuating the said positive valve closing means before reversing the intensifier, whereby the reversal of the intensifier may also cause the reverse movement of the main hydraulic ram.

[Claims 6 to 27 not printed in the Gazette.]

1,029,082. PNEUMATIC IMPACT-TOOL. CHARLES K. PICKLES, St. Louis, Mo., assignor, by mesne assignments, to Chicago Pneumatic Tool Company, Chicago, Ill., a Corporation of New Jersey. Filed Aug. 27, 1900. Serial No. 28,247. (Cl. 121—20.)

1. In a pneumatic impact tool having a piston chamber, a piston formed with a pair of independent annular grooves and longitudinal passages extending to opposite ends of the piston, and adapted to control means for admitting motive fluid from the rear piston chamber to the forward piston chamber to effect a return movement of the piston, and means for so admitting the motive fluid substantially as set forth.



2. In a pneumatic impact tool, a piston formed with a pair of independent annular grooves and longitudinal passages extending to opposite ends of the piston, and adapted to control means for admitting motive fluid from the rear piston chamber to the forward piston chamber to effect a return movement of the piston, and means to prevent a reflux of motive fluid into the rear of piston chamber, and means for so admitting the motive fluid substantially as set forth.

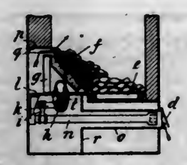
3. In a pneumatic impact tool, the combination of a main casing having a piston chamber, a fluid actuated controlling valve, and an impact piston adapted to control means for admitting motive fluid from the rear piston chamber to the forward piston chamber to effect a return movement of the piston, and means for so admitting the motive fluid substantially as set forth.

4. In a pneumatic impact tool, the combination of a main casing having a piston chamber, a fluid actuated controlling valve, and an impact piston adapted to control means for admitting a limited quantity of motive fluid from the rear piston chamber to the forward piston chamber to impart an initial return movement to the piston, and means for so admitting the motive fluid substantially as set forth.

5. In a pneumatic impact tool, the combination of a main casing having a piston chamber, a fluid actuated controlling valve, an impact piston adapted to control means for admitting motive fluid from the rear piston chamber to the forward piston chamber to effect a return movement of the piston, means for so admitting the motive fluid and means to prevent a reflux of motive fluid into the rear of piston chamber, substantially as set forth.

[Claims 6 to 127 not printed in the Gazette.]

1,029,083. APPLIANCE FOR SMOKELESS COMBUSTION. ANDERS BORCH RECK, Hellerup, Denmark. Filed Apr. 12, 1910. Serial No. 554,960. (Cl. 110—24.)



1. In apparatus of the class described, in combination a fire pot, a grate co-acting therewith for supporting fuel therein, a movable coking and fuel supporting plate extending between one of the walls of said fire pot and the said grate, said plate being inclined upwardly with respect to said grate and so positioned that the upper horizontal edge thereof adjacent the wall of the fire pot is

spaced therefrom to admit air into said fire pot, means for moving said plate, means for varying the air supply to the grate, and means for varying from the outside the amount of air passing through said space over the upper edge of the movable coking plate.

2. In apparatus of the class described, in combination a fire pot, a grate co-acting therewith for supporting fuel therein, a movable coking and fuel supporting plate extending between one of the walls of said fire pot and the said grate, said plate being inclined upwardly with respect to said grate and so positioned that the upper horizontal edge thereof adjacent the wall of the fire pot is spaced therefrom to admit air into said fire pot, means for moving said plate, means for varying the air supply to the grate, and means for varying from the outside the amount of air passing through said space over the upper edge of the movable coking plate, these means being independent of the means for varying the supply of air to the grate.

3. In apparatus of the class described, in combination a fire pot, a grate co-acting therewith for supporting fuel therein, two movable coking and fuel supporting plates extending each between one of the walls of said fire pot and the said grate, said plates being inclined upwardly with respect to said grate and so positioned that the upper horizontal edges thereof adjacent the walls of the fire pot are spaced therefrom to admit air into said fire pot, means for moving said plates, means for varying the air supply to the grate and means for varying from the outside the amount of air passing through said spaces over the upper edge of the movable coking plate, these means being independent of the means for varying the supply of air to the grate.

4. In apparatus of the class described, in combination a fire pot, a grate co-acting therewith for supporting fuel therein, two movable fuel supporting plates extending each between one of the walls of said fire pot and the said grate, said plates being inclined upwardly with respect to said grate and so positioned that the edges thereof adjacent the walls of the fire pot are spaced therefrom to admit air into said fire pot, means for varying the air supply to the grate, and means independent thereof for varying the position of the movable inclined plates forward and backward, so that, when in their most rearward position, they fit tightly to the walls of the furnace and so themselves control the passage of air into the fire pot.

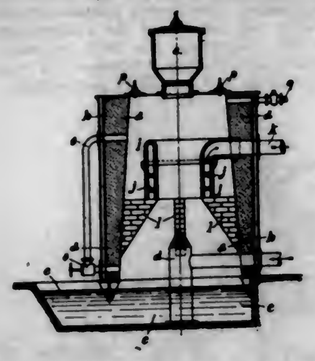
5. In apparatus of the class described, in combination, a fire pot, a grate co-acting therewith for supporting fuel therein, two movable fuel supporting plates formed as boxes with compartments open above and closed below, adapted to retain ashes, and extending each between one of the walls of said fire pot and the said grate, said plates being inclined upwardly with respect to said grate and so positioned that the edges thereof adjacent the walls of the fire pot are spaced therefrom, to admit air into said fire pot, means for moving said plates, means for varying the air supply to the grate, and means for varying from the outside the amount of air passing through said spaces, these means being independent of the means for varying the supply of air to the grate.

1,029,084. GAS PRODUCER OR GENERATOR. ALEXANDER JOHN RICKIE, Cossipur, Calcutta, India. Filed July 28, 1911. Serial No. 640,982. (Cl. 48—69.)

1. A gas generator having a wall inclosing the fuel; an annular retort fixing chamber having a diaphragm therein, and an inlet and a discharge orifice; and supports attached to the generator wall which support the chamber with the inlet in the hottest zone of the fuel.

2. A gas generator for the fuel; a retort fixing chamber for all the gases, comprising upper and lower parts, the lower part comprising two annular walls with a spiral diaphragm and inlets at the lower end, and the upper part an annular inverted U shaped member having a discharge orifice; and cantaliver supports in the generator for the chamber with the inlets thereto in the incandescent zone of the fuel.

3. A producer gas generator, comprising a fuel chamber, and an annular fixing chamber disposed in the fuel



and having inner and outer surfaces in contact with the fuel, and the entrance to the chamber in the hottest zone of the fuel.

1,029,085. TARIFF-CHART. JOHN H. ROBINSON, Washington, D. C. Filed Apr. 29, 1912. Serial No. 693,903. (Cl. 35—6.)



1. A chart for aiding in the determination of charges for transportation of merchandise, etc., in any direction in a given geographical area, said chart having the geographical area represented as sub-divided throughout into small rectangular areas all of uniform corresponding dimensions and each representing the smallest desired unit of geographical area and a plurality of zone indications around one of said unit areas as a center, the boundaries of each of said zones coinciding with unit area boundaries, whereby the geographical distance of each zone boundary from the center unit may be made substantially uniform throughout.

2. A chart for aiding in the determination of charges for transportation of merchandise, etc., in any direction in a given geographical area, said chart having the geographical area represented as sub-divided throughout into small rectangular areas all of uniform corresponding dimensions and each representing the smallest desired unit of geographical area, there being distinctive boundary undulations for the political divisions extending only parallel with the unit boundaries, and a plurality of zone indications around one of said unit areas as a center, the boundary of each of said zones co-inciding with unit area boundaries, whereby the geographical distance of each zone boundary from the center unit may be made substantially uniform throughout.

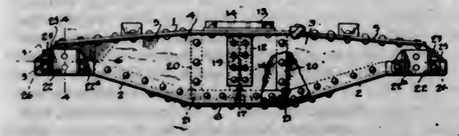
3. A chart for aiding in the determination of charges for the transportation of merchandise, etc., in any direction in a given geographical area, said chart having the geographical area defined by a conventionalized representation of the area with its boundaries formed only by straight horizontal and vertical lines and with the area so bounded, sub-divided into rectangular unit areas all of uniform corresponding dimensions.

4. A chart for aiding in the determination of charges for the transportation of merchandise, etc., in any direction in a given geographical area, said chart having the geographical area defined by a conventionalized representation of the area with its boundaries formed only by horizontal and vertical lines and with the area so bounded sub-divided into rectangular unit areas all of uniform corresponding dimensions, and a plurality of distinctive zone boundary indicating lines around one of said unit areas as a center, the boundary of each of said zones coinciding with unit area boundaries, whereby the geographical distance of each zone boundary from the center unit may be made substantially uniform throughout.

5. A chart for aiding in the determination of charges for the transportation of merchandise, etc., in any direction in a given geographical area containing political divisions, said chart having the geographical area defined by a conventionalized representation of the area with its boundaries formed only by straight lines normal to each other and with the area so bounded sub-divided into small rectangular unit areas all of uniform corresponding dimensions, there being distinctive lines representing the political divisions of the area, said distinctive lines extending only parallel with the boundaries of the unit areas and a plurality of distinctive zone boundary indicating lines around one of said unit areas as a center, the boundary of each of said zones coinciding with unit area boundaries, whereby the geographical distance of each zone boundary from the center unit may be made substantially uniform throughout.

[Claim 6 not printed in the Gazette.]

1,029,086. BOLSTER. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 1, 1911. Serial No. 630,731. (Cl. 105—106.)



1. In a bolster, the combination comprising spaced pairs of web plates having their ends abutting and each formed with a laterally projecting flange along its upper edge, a compression member fixed to and connecting all of said flanges, and a flanged tension member fixed to and connecting the lower edges of said plates.

2. In a bolster, the combination comprising a pair of web plates formed each with a laterally projecting flange along its upper edge, said plates and flanges having their ends abutting, and a king-pin-receiving member connecting said webb plates.

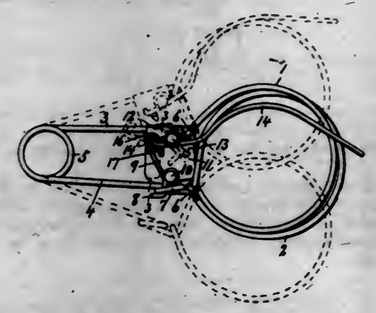
3. In a bolster, the combination comprising a pair of web plates formed each with a laterally projecting flange along its upper edge, said plates and flanges having their ends abutting, a compression member fixed to and connecting said flanges, a tension member fixed to and connecting the lower edges of said plates, and a king-pin-receiving member connecting said plates.

4. In a bolster, the combination comprising a pair of web plates formed each with a laterally projecting flange along its upper edge, said web plates and flanges having their ends abutting, a compression member fixed to and connecting said flanges, a tension member fixed to and connecting the lower edges of said web plates, and a king-pin-receiving member connecting said web plates and being fixed to said tension member.

5. In a bolster, the combination comprising a pair of web plates formed each with a laterally projecting flange along its upper edge, said plates and flanges having their ends abutting, and a king-pin-receiving member comprising an I-section disposed with one of its flanges connecting said plates.

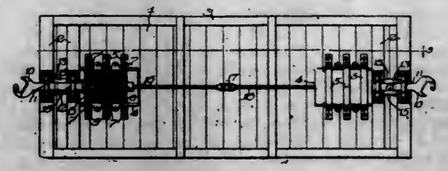
[Claims 6 to 14 not printed in the Gazette.]

1,029,087. ANIMAL-TRAP. WILLIAM SCOTT, Lititz, Pa., assignor to Oneida Community, Limited, Oneida, N. Y., a Corporation of New York. Filed Nov. 13, 1911. Serial No. 660,071. (Cl. 43—23.)



An animal trap comprising a pair of connected arms spring tensioned to spread apart, said arms being provided with ring jaws having portions thereof disposed in intersecting planes, a plate secured to one of said arms and to the corresponding ring, a trigger and detent mounted on said plate for coöperative engagement, and means on the lower arm for interlocking engagement with a portion of the detent when the trap is set.

1,029,088. BUFFER FOR RAILWAY-CARS. MORECZ SIMON, East Chicago, Ind. Filed Nov. 1, 1911. Serial No. 658,044. (Cl. 213—41.)



As a buffer for railway cars, a pair of buffer cages arranged one at either end of the said car; the cages being internally partitioned and provided with springs in the several partitions, plungers arranged at either end of either buffer cage, a buffer bar secured to one of the plungers of either buffer cage, rods secured to the other plunger of either buffer cage, means secured to the end car sills and engaging either buffer bar for permitting inward and preventing outward movement of the latter from its normal position and a turnbuckle connecting the said rods.

1,029,089. ORE-CONCENTRATING LAUNDER. PHILIP R. STANHOPE, Denver, Colo. Filed Aug. 12, 1911. Serial No. 643,743. (Cl. 83—89.)

1. In an ore concentrating launder, the combination in a launder having a discharge aperture of a pipe fitting, ex-

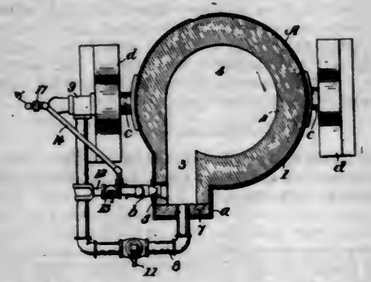
tending into said aperture and depending from the bottom of said launder, and having an angular discharge portion below its connection with said launder, said fitting being provided with an outwardly flaring inlet edge, a water discharging nozzle within said launder provided with an outwardly beveled head, threaded to the inside of the outer end portion of said pipe, said threaded end being arranged to permit its head end portion to be adjusted toward the flaring inlet end of said pipe fitting, a threaded outer end to said nozzle, a valve connected to said threaded end, and a hose connected to said valve and arranged to lead to a supply of water under pressure.



2. The combination with an ore concentrating launder, of riffles consisting of rows of nails projecting from opposite sides of the interior of the launder adjacent to its bottom.

3. The combination with a V-shaped launder, of riffles consisting of rows of nails extending from opposite sides of the interior of the launder adjacent to its bottom, the rows on one side being arranged to overlap those on the other side.

1,029,090. CRUCIBLE-FURNACE. DAVID REISINGER STEELE, Curtis Bay, Md., assignor to Harry D. Harvey, Baltimore, Md. Filed Sept. 6, 1911. Serial No. 647,993. (Cl. 75—186.)



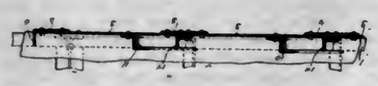
1. A crucible furnace having a furnace chamber, and having a combustion chamber comprising a passageway leading into the lower part of the furnace chamber, a burner arranged to direct its burning gases into the combustion chamber transversely of the passageway, an air pipe leading to the burner, and an air pipe arranged to deliver a blast of air longitudinally of the passageway against the gases and into the furnace chamber.

2. A crucible furnace, having a cylindrical furnace chamber and having a combustion chamber comprising a passageway leading tangentially into the lower part of the furnace chamber, a burner arranged to direct its burning gases into the combustion chamber transversely of the passageway, and an air pipe leading to the burner, an air pipe arranged to deliver a blast of air longitudinally of the passageway against the gases and into the furnace chamber and means for independently regulating the flow of air though said pipes.

3. A crucible furnace having a furnace chamber and having a combustion chamber comprising a passageway leading into the lower part of the furnace chamber, a burner arranged to direct its burning gases into the combustion chamber transversely of the passageway, a main air pipe arranged to deliver a blast of air longitudinally of the passageway against the gases and into the furnace chamber, a branch air pipe leading from said main pipe to the burner, a valve in said branch pipe, and a valve in the main pipe between the branch pipe and the combustion chamber.

4. The combination with suitable bearings of a crucible furnace having trunnions mounted in said bearings, said furnace having a furnace chamber and having a combustion chamber comprising a passageway leading into the lower part of the furnace chamber, a burner arranged to direct its burning gases into the combustion chamber transversely of the passageway, a main air pipe having one end swiveled at the pivotal axis of the furnace and having its other end connected with the furnace chamber, said pipe arranged to deliver a blast of air longitudinally of the passageway against the gases and into the furnace chamber, a branch air pipe leading from the main pipe between said ends and connecting the main pipe with the burner, a valve in the main pipe between the branch pipe and the combustion chamber, and a fuel pipe leading to the burner.

1,029,091. CAR STRUCTURE. VICTOR M. SUMMA, St. Louis, Mo., assignor, by mesne assignments, to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 19, 1910. Serial No. 572,773. (Cl. 105—192.)



1. In a car structure, upper and lower chords, tension members extending between and engaging the chords, and compression members extending between and engaging the chords, said tension members being of variant stress sustaining capacities proportionate to the variant stresses to be sustained and comprising gusset plates adapted for connecting said compression members to said girders.

2. In a car structure, upper and lower chords, tension members extending between and engaging the chords and of variant capacities proportionate to the stress occurring at the relative position of the respective tension member, and compression members extending between said chords and of similarly variant capacities said tension members serving as means for connecting said compression members to said chords.

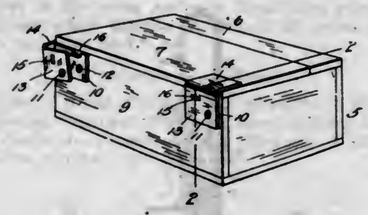
3. In a car structure, upper and lower chords, vertical and diagonal stress members engaging said chords, the diagonal stress members extending each from the upper end portion of one vertical stress member to the lower end portion of the next vertical stress member said stress members being of variant capacities each relative to the proportionate amount of load to be sustained and said vertical stress members being adapted to connect said diagonal stress members to said chords.

4. In a car structure, upper and lower chords, sheathing comprising plates connecting said chords and arranged edge to edge, tension members, each having a relatively flat face lying flat against said plates along the respective meeting edges thereof and fixed thereto, and diagonal compression members, each extending from the upper end portion of one tension member to the lower end portion of the next adjacent tension member and fixed to the sheathing, said tension and compression members being of variant capacities, each proportionate to the relative amount of load to be sustained and said tension members being adapted to connect said compression members to said chords.

5. In a car structure, upper and lower chords, stress sustaining members disposed between said chords, sheathing plates, and splice plates for connecting said sheathing plates, said splice plates and said sheathing plates being adapted for connecting said stress sustaining members to said chords.

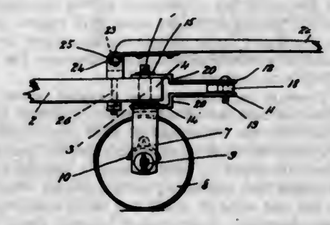
[Claims 6 to 17 not printed in the Gazette.]

1,029,092. BOX-COVER FASTENER. OLE SUNDE and OSCAR RYAN, Seattle, Wash. Filed Feb. 19, 1912. Serial No. 678,732. (Cl. 70—3.)



A box cover fastener comprising a plate secured at spaced points through the plate to a box to remain in fixed position and provided at its upper end with a forwardly-projecting protuberance, an angle plate pivotally-connected with the first-named plate and provided with a recess in one limb to receive said protuberance, the other limb of said plate adapted to engage over the box cover.

1,029,093. DRAFT ATTACHMENT. ADOLPH TAICHER, Maribel, Wis. Filed Jan. 22, 1912. Serial No. 672,630. (Cl. 21—63.)



1. In a draft attachment, the combination, with a main draft pole, of a vertical spindle journaled in the front end portion of the pole and having a bracket at its lower part and a rectangular projection at its upper part, a ground wheel journaled in the said bracket, a pair of links engaging with the said spindle, the upper link of the pair being provided with a rectangular hole which engages with the said projection, a whiffletree pivoted to the front ends of the said links, a double-eye provided with a vertical stem which connects it to the main draft pole behind the said spindle, and an auxiliary draft pole pivoted to the said double-eye and projecting above and across the said whiffletree.

2. In a draft attachment, the combination, with a main draft pole, a vertical spindle journaled at the front end of the said pole, a ground wheel carried by the said spindle, a steering link secured to the said spindle and projecting in front of the draft pole, and a whiffletree pivoted to the front end of the said steering link; of a vertical stem secured to the said main draft pole behind the said spindle, and an auxiliary draft pole pivoted to the upper end of the said stem and projecting above and across the said whiffletree.

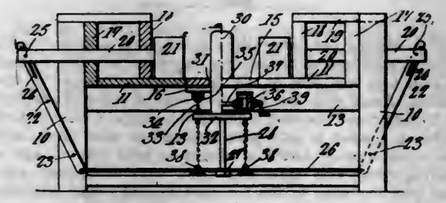
1,029,094. RECEPTACLE FOR THREAD, CORD, SILK, AND THE LIKE. CARL J. ULMANN, New York, N. Y. Filed Feb. 8, 1911. Serial No. 607,422. (Cl. 242—146.)

A receptacle of the kind described comprising two axially alining tubular sections in butt joint engagement with each other, a relatively narrow flange extending inwardly at the free end of one of said sections to form a relatively large opening for exposing the contents to view, a transparent closure secured to the inner surface of said flange to cover the opening formed thereby, a wall substantially closing the free end of the other section and provided with an eyelet through which the contents may be withdrawn, said eyelet being diametrically opposite the said transparent closure, an exterior sealing strip extending about said sections so as to bridge the



joint thereof and maintain said sections in engagement with each other, and an inner wall secured to one of said sections and extending beyond the same into frictional engagement with the other section.

1,029,095. MOLD. ELMER J. WILBER, Brooklyn, Mich. Filed Oct. 3, 1910. Serial No. 585,078. (Cl. 25—30.)



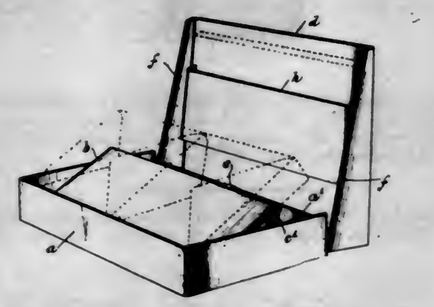
A mold, having a framework, a table supported therein, a pallet board located centrally of the table and provided with a central aperture, a cylindrical standard mounted in the framework and disposed below and concentrically to said aperture, said standard being of a lesser diameter than the aperture, a pair of spaced vertically disposed boards carried by the framework upon opposite sides of the pallet board, two mold sections normally disposed upon opposite sides of the pallet board, a rod connected to each section and mounted for reciprocation in each respective pair of boards, a core disposed for vertical sliding movement upon the standard and within the aperture of the pallet board, manually operable means for imparting a sliding movement to the core, a lever pivoted intermediate of its ends to the lower end of the standard for horizontal swinging movement, two oppositely extending rods connected at their inner ends to said lever at opposite points and equi-distantly from the pivot thereof, and two vertically disposed levers mounted in the framework at opposite ends thereof and having their upper ends pivoted to the respective mold section rods and to the respective rods of the horizontal swinging lever.

1,029,096. DISPLAY-BOX. OTTO A. WOLF, New York, N. Y., assignor to George B. Hurd & Company, New York, N. Y., a Copartnership. Filed Mar. 29, 1912. Serial No. 687,029. (Cl. 206—44.)

1. A display box comprising a box part, a cover hinged thereto, adjacent to the bottom thereof, a movable bottom in said part, a collapsible support, one edge of which is hinged to said part adjacent to said cover, and the other edge of which is hinged to said bottom, and a flexible connection extending from said collapsible support over the edge of the box part, to said cover, whereby the opening of said cover will through said flexible connection extend said collapsible support and raise said bottom, and the closing of said cover will permit said bottom to drop within said box part.

2. A display box embodying therein a box part having one low side, a cover hinged adjacent to said low side and

to the bottom thereof, a movable bottom in said part, a collapsible support, one edge of which is hinged adjacent to said low side, and the other edge of which is hinged to said bottom, and a flexible connection extending from said collapsible support over said low side to the top of said cover, whereby the opening of said cover will extend said collapsible support and raise said bottom, and the closing of said cover will permit said bottom to drop within said part.



3. A display box, comprising a box part, a cover hinged thereto, adjacent to the bottom thereof, a movable bottom in said part one edge of which is hinged adjacent to the bottom of said part, and the other edge of which is adapted to be raised and lowered, a collapsible support, one edge of which is hinged to said part adjacent to said cover, and the other edge of which is hinged to said bottom, and a flexible connection extending from said collapsible support over the edge of the box part to said cover, whereby the opening of said cover will through said flexible connection extend said collapsible support and raise said bottom, and the closing of said cover will permit said bottom to drop within said box part.

4. A display box, comprising a box part, a cover hinged thereto, adjacent to the bottom thereof, a movable bottom in said part, a collapsible support comprising two sections hinged together and adapted to fold beneath said bottom, one edge of which is hinged to said part adjacent to said cover, and the other edge of which is hinged to said bottom, and a flexible connection extending from said collapsible support over the edge of the box part, to said cover, whereby the opening of said cover will through said flexible connection extend said flexible support and raise said bottom, and the closing of said cover will permit said bottom to drop within said box part.

5. A display box embodying therein a box part having one low side, a cover hinged adjacent to lower edge of said low side, a movable bottom in said part, a collapsible support comprising two sections hinged together and adapted to fold beneath said bottom, one edge of which is hinged adjacent to said low side, and the other edge of which is hinged to said bottom, and a flexible connection extending from said collapsible support over said low side to the top of said cover, whereby the opening of said cover will extend said collapsible support and raise said bottom, and the closing of said cover will permit said bottom to drop within said part.

[Claim 6 not printed in the Gazette.]

1,029,097. VALVE. HARRY E. ATKINSON, Traverse City, Mich. Filed Mar. 9, 1912. Serial No. 682,644. (Cl. 50—14.)

1. In a pressure regulating valve, a casing having an inlet, a piston movable in the casing, a sleeve arranged in one end of said casing in which one end of the piston is movably disposed, said piston having longitudinal grooves in its periphery gradually diminishing in area from the end of the piston inwardly, a coiled spring arranged upon said piston yieldingly holding the same against movement under the action of the pressure fluid, said spring having intermediate coils of substantially the same diameter as the interior diameter of the casing adapted to gradually decrease the flow of pressure fluid into said casing upon compression of the spring.



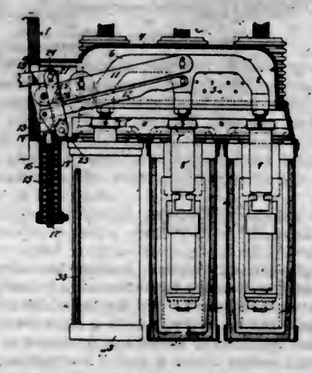
2. In a pressure regulating valve, a casing, a piston longitudinally movable in said casing provided with means to maintain a uniform volume of flow at the outlet irrespective of the variation of pressure within the casing, and a compressible spring arranged upon said piston the coils of which are adapted to be closely engaged upon an abnormal increase of pressure to gradually decrease the flow of pressure fluid into said casing.

3. In a pressure regulating valve, a casing having a fluid inlet, a sleeve in one end of said casing, a piston having a head on one end, the other end of said piston being provided with longitudinally extending tapering grooves and disposed for movement in said sleeve, a spring arranged upon said piston and extending upon opposite sides of the inlet port, the end coils of the spring being closely engaged and the intermediate coils thereof spaced apart to permit the flow of the fluid through the same and beneath the piston head and also into the outlet grooves in the end of the piston between the same and the sleeve.

4. In a pressure regulating valve, a casing having an inlet port, a sleeve threaded in one end of said casing, a piston provided with a head on one end and having longitudinally extending tapering grooves in its other end, said latter end of the piston being movable in the sleeve, a coiled spring arranged upon the piston and having the end coils thereof secured together and spaced from the casing walls, the intermediate coils of the spring being of substantially the same diameter as the interior diameter of the casing and extending upon opposite sides of the inlet port, said spaced coils admitting of the flow of the pressure fluid between the same and beneath the head of the piston and into the outlet grooves in the opposite end of the piston, increase of pressure in said casing moving the piston into said sleeve, an abnormal increase of pressure in the casing engaging the intermediate coils of the spring with each other to gradually reduce the flow of the pressure fluid through said coils and beneath the piston.

5. In a pressure regulating valve, a casing having an inlet port intermediate of its ends, a closure plug threaded in one end of the casing, a sleeve threaded in the other end of said casing, a piston arranged in said casing having a head on one end and provided with a plurality of longitudinal peripheral grooves in its other end, said grooves tapering from the end of the piston inwardly, an adjusting screw threaded in the other end of the piston and bearing upon said closure plug, a coiled spring arranged upon the piston, the end coils of said spring being connected and bearing against the sleeve and piston head respectively, said piston head being of less diameter than the internal diameter of the casing, the intermediate coils of the spring being spaced apart and engaging the casing walls, the pressure fluid being adapted to flow between said spaced coils of the spring and beneath the piston head to act upon the piston and move the grooved end thereof into the sleeve, the compression of the spaced intermediate coils of the spring upon an increase of fluid pressure in the casing gradually diminishing the flow of the pressure fluid through the coils of the spring and beneath the piston head.

1,029,098. HIGH-POTENTIAL ELECTRIC SWITCH. CHARLES C. BADEAU, Winthrop, Mass., assignor to Sears B. Condit, Jr., Brookline, Mass. Filed Apr. 6, 1911. Serial No. 619,448. (Cl. 175—287.)



1. An oil switch provided with a movable contact normally biased to open position, an operating device for moving it to closed position, and an interlock to permit closure normally but to prevent closure if the bias fails.

2. An oil switch provided with a movable contact and a coil spring giving a normal bias to the open position, an operating device for moving it to closed position, and a mechanical interlock between the movable contact carrier and the operating means to prevent closure of the switch if the spring breaks.

3. A high potential oil switch provided with an oil vessel in which contact is made and broken, a pivoted frame, movable contacts carried thereby, an operating arm and a roller in the path of the arm near the closing position of the switch to insure a quick make and break.

4. A high potential oil switch provided with an oil vessel in which contact is made and broken, a pivoted frame, movable contacts carried thereby, an operating arm carrying a cam roller to shift the frame, said cam roller engaging a latching roller near the closed position of the switch to effect a rapid make and break.

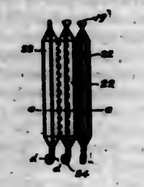
5. In a high potential oil switch a plurality of moving contacts, parallel motion mechanism for reciprocating them, means for giving a normal opening bias, a roller engaging the mechanism to close the switch, and a cooperative roller on the movable member engaged near the closing switch position to lock it in such position.

[Claims 6 to 15 not printed in the Gazette.]

1,029,099. MANUFACTURE OF RADIATOR-TUBES. EMIL BEHRINGER and HERMAN BEHRINGER, Brooklyn, N. Y. Original application filed Apr. 13, 1910, Serial No. 555,276. Divided and this application filed Sept. 12, 1910. Serial No. 581,598. (Cl. 113—116.)

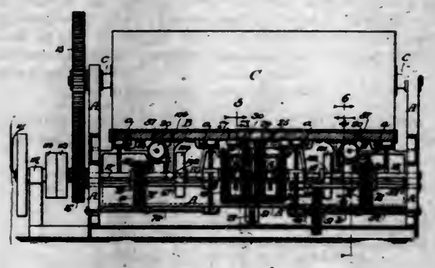
1. The herein-described method of making a radiator tube from a single sheet of metal, which consists in creasing the sheet to produce therein two series of corrugations that are offset relatively to one another, forming diagonal deflections therebetween, folding the sheet to bring the corrugations into parallelism, at a proper distance one from another and seaming the ends of the sheet.

2. Making a radiator tube from a single sheet of metal, by forming in the metal sheet two series of corrugations offset relatively to one another, with diagonal connections between the said series, and folding on a median line to bring said corrugations into parallelism.



3. The herein-described method of making a radiator tube from sheet metal, which consists in corrugating the metal so as to leave a blank space at both ends of each corrugation, bringing two series of such corrugations horizontally together in parallelism to form a vertical passage transversely thereof, closing the tube forward and rearward, and forming either end thereof into a flange normal to the paralleling horizontal corrugations.

1,029,100. BED-AND-CYLINDER PRINTING-PRESS. ABRAHAM T. H. BROWER, Chicago, Ill. Original application filed July 20, 1906, Serial No. 326,964. Divided and this application filed June 10, 1908. Serial No. 437,674. (Cl. 101—158.)



1. In a bed and cylinder printing press, the combination with the main frame and the reciprocating bed, of a transversely movable bar mounted on the main frame and extending longitudinally beneath said bed, a rack mounted upon the under side of said bed, said rack being movable transversely thereof and slidably engaging said bar, a pair of bed rack pinions coöperating with said rack, rotary cam mechanism and connections between said cam mechanism and said bar for shifting the same transversely to alternately engage said rack with said pinions, substantially as described.

2. In a bed and cylinder printing press, the combination with the reciprocating bed, the rotary cylinder and cylinder shaft, of a transversely movable rack mounted upon the under side of said bed, a bed rack pinion shaft formed of two sections arranged in line, two bed rack pinions of the same size fixed to said shaft sections, means operated by one of said shaft sections to rotate the other shaft section in opposite direction, gear mechanism driven from one of said shaft sections for shifting said rack to alternately engage said pinions and two intermeshing gears, one upon said cylinder shaft and one upon one of the sections of said bed rack pinion shaft, substantially as described.

3. In a bed and cylinder printing press, the combination with the reciprocating bed and the rotary cylinder, of a bed rack mounted upon the under side of said bed and movable transversely thereof, a bed rack pinion shaft comprising two sections arranged in line, two bed rack pinions of the same size fixed to the inner ends of said shaft sections, beveled gears directly connecting the inner ends of said shaft sections to rotate the same in opposite direc-

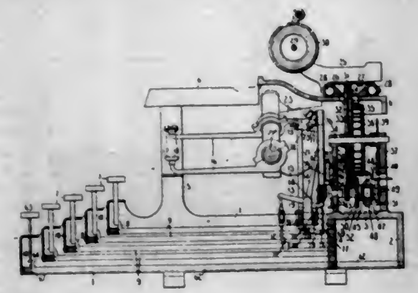
tions, a bar extending longitudinally beneath said bed and slidably engaged by said rack, rotary cam mechanism driven from one of said shaft sections and connections between said cam mechanism and said bar for shifting said bar to move said rack alternately into engagement with said pinions, substantially as described.

4. In a bed-and-cylinder printing press the combination with the bed of a rack mounted immediately beneath said bed and movable transversely thereof, a bed rack pinion shaft provided with pinions and means for shifting the bed rack from one to the other of said pinions comprising a bar extending lengthwise beneath the bed and engaging the bed rack, crank arms connected to said bar, gear mechanism for actuating said crank arms and cam mechanism for imparting movement to said gear mechanism.

5. In a bed-and-cylinder printing press the combination with a main frame and the bed of means for reversing the bed comprising studs carried by the bed, cam-wheels mounted in the main frame and having reversely curved grooves across their faces, said grooves being arranged to receive said studs, and means for imparting revolution to said cam-wheels.

[Claim 6 not printed in the Gazette.]

1,029,101. TYPE-WRITING MACHINE. ALEXANDER T. BROWN, Syracuse, N. Y. Original application filed Oct. 21, 1904, Serial No. 229,485. Divided and this application filed Jan. 3, 1908. Serial No. 409,214. (Cl. 197—97.)



1. In a typewriting machine, the combination with the keys and key actuated devices, of a universal bar having the form of a stepped segment and mounted to move substantially in the plane of the segment, the steps of said segment coöperating with said key actuated devices.

2. In a typewriting machine, the combination of a series of keys; a segmentally arranged series of sub-levers actuated by said keys; and a universal bar having the form of a segment and mounted to move substantially in the plane of said segment and to be operated by said sub-levers.

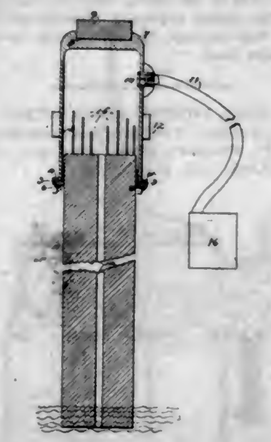
3. In a typewriting machine, the combination of a universal bar; means for guiding said universal bar in a motion such that all parts of said universal bar move in the same direction and to the same extent, said means including two arms fixed to a rock shaft and a link pivoted to said universal bar and to a fixed part; and means for operating said universal bar.

4. In a front-strike typewriting machine, the combination of a series of keys; segmentally arranged type bars, a segmentally arranged series of sub-levers which transmit motion from said keys to said type bars; and a universal bar having the form of a segment and mounted on parallel links for motion substantially in the plane of said segment, said universal bar being operated by said sub-levers.

5. In a typewriting machine, the combination of a segmental universal bar comprising a stepped portion made of organic material and interposed between two metallic plates; and key actuated devices engaging the steps of said segment.

[Claims 6 and 7 not printed in the Gazette.]

1,029,102. PILE-DRIVING DEVICE. MAX CAZIN, Hamilton, Cal. Filed Oct. 19, 1911. Serial No. 655,464. (Cl. 61—41.)



1. In a pile-driving device, a bumper for receiving the hammer blows, and means for interposing a confined body of water between the bumper and the top of the pile.

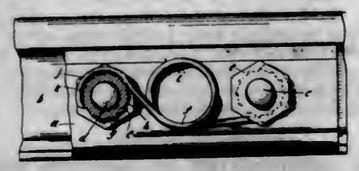
2. In a pile driving device, a hollow cap having an open bottom and a hermetically sealed top, a bumper in said cap for receiving hammer blows, a gasket for making a watertight joint between said cap and a pile, and a body of water filling the space between the top of said pile and the top of said cap.

3. A cap for pile-driving comprising a cylinder closed at the top and open at the bottom, a bumper in said top, an inlet for water, and a check valve in said inlet.

4. A cap for pile driving comprising a cylinder closed at the top and open at the bottom, a bumper in said top, guide pieces, an inlet for water, and a check valve in said inlet.

5. Means for driving concrete and other piles having a hole or pipe extending longitudinally from top to bottom thereof, comprising a cap fitted about the top of a pile having an open bottom communicating with said hole or pipe and a closed top, a bumper in said top, an inlet for water, a check-valve in said inlet and a source of water-supply for said cap.

1,029,103. NUT-LOCK. WILLIAM M. CHRISTIANSON, Portland, Oreg. Filed Jan. 10, 1912. Serial No. 670,501. (Cl. 151—48.)

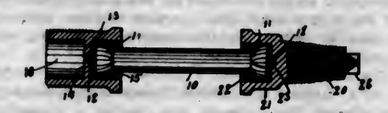


1. In a rail joint, the combination with a pair of clamping bolts; of a pair of lock nuts, said lock nuts made with an annular groove, said groove having an endless series of indentations; and a resilient lock rod, said rod shaped to hook on to said nuts and provided with a series of projections adapted to engage the indentations of said nuts and thereby to prevent the nuts working loose but permitting of tightening without removing the said lock rod.

2. In a rail joint, the combination of a pair of clamping bolts; with a pair of lock-nuts adapted to engage said bolts, said nuts made with an annular groove, and

provided with ratchet teeth at the bottom of said groove; and a resilient lock-rod provided with a central loop and having its ends formed into right and left hooks adapted to engage said grooves, said hooks having on their inner surface a series of ratchet teeth registering with the teeth in said grooves, whereby said nuts are retained in a locked position.

1,029,104. STAY-BOLT. EDWARD W. CLARK, Los Angeles, Cal. Filed June 24, 1911. Serial No. 635,141. (Cl. 85—1.5.)

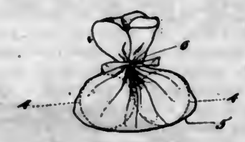


1. An improved flexible stay bolt, consisting of a shaft having heads and annular flanges near said heads; and end sections having sockets into which said heads are received and revolubly held by swaging said sockets upon said heads, said flanges being swaged down upon the ends of the sockets, said end sections being adapted to be secured in the outer shell and fire-box shell substantially as described.

2. An improved flexible stay bolt, consisting of a shaft having heads; a boiler shell section comprising an exteriorly threaded thimble having a partition therein, one end of said thimble being swaged upon one head of the shaft to revolubly connect the thimble and shaft; and a fire-box section comprising a body portion externally threaded and having in one end a socket into which is received and revolubly secured therein by swaging one head of the shaft.

3. An improved flexible stay-bolt consisting of sections adapted to be secured into the outer shell and fire-box shell; a connecting section revolubly connected to the outer shell and fire-box sections by swaging of some of the parts upon other of the parts, and a protective cover for the joints between the connecting and other sections.

1,029,105. PERFUME PREPARATION. GEORGE L. CLARKE, Brooklyn, N. Y., assignor to The Eden Company, a Corporation of Arizona. Filed July 3, 1911. Serial No. 636,625. (Cl. 167—3.)



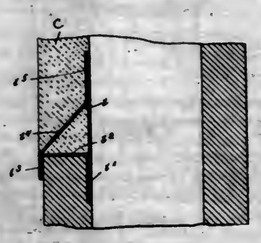
1. In a perfume preparation, a disk composed of perfume particles incased in a compound having the property of being readily abraded, combined with means connected therewith for producing abrasions of said disk.

2. In a perfume preparation, a disk consisting of a mixture of perfume particles and an ingredient having the property when mixed with said particles of imprisoning the odor of said perfume until said particles are exposed by the abrasion of said disk, combined with an abrasive surface in close proximity to said disk.

3. In a perfume preparation, a sac consisting of a receptacle of textile fabric having an abrasive surface, combined with and inclosing disks composed of perfume particles incased in a compound having the property of being manually abraded by said textile fabric.

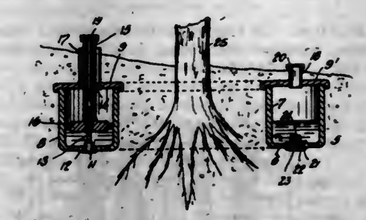
1,029,106. METALLIC REINFORCEMENT FOR WALLS. WALTER L. COLLINS, Milford, Mass. Original application filed Aug. 1, 1910, Serial No. 574,768. Divided and this application filed Jan. 16, 1911. Serial No. 602,782. (Cl. 72—125.)

1. The metallic reinforcement herein described adapted to be arranged at the junction of a plaster wall and a base-board, consisting of a strip of sheet metal bent to form a back portion which is folded upon itself for a short distance at its lower end to form a lip, a horizontal portion arranged to extend forward across the top of the base-board, a downwardly extended portion at the front end of said horizontal portion which is folded upon itself to form a lip, an upwardly inclined portion above said lip which is made long enough to extend from front to back of the wall, and a portion extended upwardly at the rear end of said inclined portion.



2. The metallic reinforcement herein described adapted to be arranged at the junction of a plaster wall and a base-board, consisting of a strip of sheet metal bent to form a back portion which is folded upon itself for a short distance at its lower end to form a lip, a horizontal portion arranged to extend forward across the top of the base-board, a downwardly extended portion at the front end of said horizontal portion which is folded upon itself to form a lip, an upwardly inclined portion above said lip which is made long enough to extend from front to back of the wall, and which is made foraminous, and a portion extended upwardly at the rear end of said inclined portion.

1,029,107. PLANT-WATERING DEVICE. GEORGE R. COULS, Tacoma, Wash. Filed July 19, 1911. Serial No. 639,342. (Cl. 137—60.)

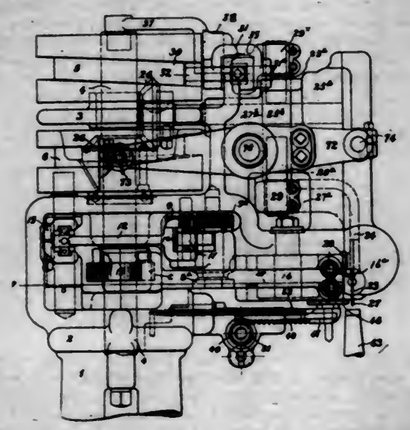


In a device of the class described, an annular water container provided in the bottom with an outlet opening, a tapering plug for controlling the discharge through said opening, said bottom further provided with a drain opening, a cover for said container formed of a plurality of sections, one of said cover sections provided with a water inlet, a float within the receptacle having a hollow stem projecting through one of the cover sections, a valve rod extending through the float and stem and having a valve normally closing said drain opening, and a casing-tube surrounding the stem and in which the latter is freely movable.

1,029,108. SLUGGING OR NAILING MACHINE. MARK THOMAS DENNE, Rushden, England. Filed Oct. 22, 1907. Serial No. 398,589. (Cl. 1—31.)

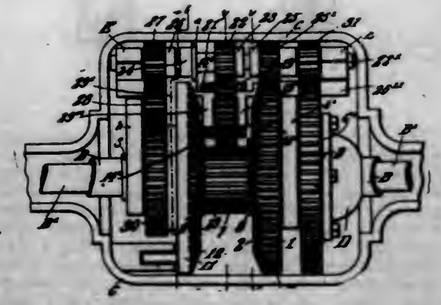
1. The combination, in a slugging or nailing machine in which the slugs are cut from a continuous length of wire and presented to a driver by a rotatable carrier, of a positively-operated four-motion feeding awl, an upright bar to which the awl is rigidly connected, vertically alined bearings attached to said bar, stationary, vertical studs on which said bearings slide, and about which studs the bar can be rocked, means to reciprocate the bar to cause

said awl to penetrate the stock and to be withdrawn therefrom alternately, and means to rock said bar positively and intermittingly upon the vertical studs as fulcra, to thereby impart to said awl a feeding movement and a return movement.



2. The combination, in a slugging or nailing machine in which the slugs are cut from a continuous length of wire and presented to a driver by a rotatable carrier, of an upright bar, an awl rigidly connected therewith, means to sustain said bar at its upper and lower ends and to permit vertical reciprocation thereof and also a rocking movement of said bar, means to reciprocate the bar positively to thereby move the awl into and out of the stock, and other means to rock the bar when in its depressed position and thereby cause the awl to feed the work, said latter means rocking the bar oppositely when in its elevated position to retract the awl into starting position.

1,029,109. TRANSMISSION-GEARING. AARON F. DICKEY, Somerset, Pa. Filed July 3, 1911. Serial No. 636,802. (Cl. 74—59.)

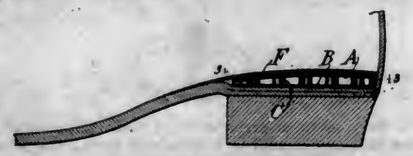


1. The combination with a driving shaft and a driven shaft, of a variable and reversed speed transmission gearing interposed therebetween, and having a transmission shaft disposed to be operably connected with the driving shaft, two main gears rotatably mounted upon the driven shaft with opposed bevel gears operably connected at all times with the driving shaft, and means mounted upon and operably connected with the transmission shaft, whereby one of the main gears operates the transmission shaft at high and reverse speed and the other gear operates the transmission shaft at intermediate and low speed.

2. The combination with a driving shaft and a driven shaft, of a variable and reversed speed transmission gearing interposed therebetween, and having a transmission shaft disposed to be operably connected with the driving shaft, two main gears rotatably mounted upon the driven shaft with opposed bevel gears operably connected at all times with the driving shaft, a slidably and rotatably mounted geared clutch member mounted upon the driven shaft between the main gears, a slidably mounted geared clutch member keyed to the transmission shaft, two clutch members to coöperate one at a time therewith rotatably mounted upon said transmission shaft, a gear interposed between the geared portions of both clutch members, and means for throwing the geared clutch member of the driven shaft into operable relation with either main gear to rotate the transmission shaft and driven shaft from either main gear.

3. The combination with a driving shaft and a driven shaft, of a variable and reversed speed transmission gearing interposed therebetween, and having a transmission shaft disposed to be operably connected with the driving shaft, two main gears rotatably mounted upon the driven shaft with opposed bevel gears operably connected at all times with the driving shaft, a slidably and rotatably mounted geared clutch member mounted upon the driving shaft between the main gears, slidably mounted geared clutch members keyed to the transmission shaft, a gear interposed between the geared portions of said clutch members, means for throwing the geared clutch member of the driven shaft into co-acting relation with either main gear to rotate the transmission shaft and driven shaft from either main gear, two gears rotatably mounted at opposite ends of the transmission shaft, one of said gears being in mesh with one of the main gears at all times, each one of said two gears having clutch faces opposed to the geared clutch member of the transmission shaft, a gear of lesser diameter than the main gear carried by the other main gear, a small gear interposed therebetween and the other of the two loose gears of the transmission shaft, and means for operating said geared clutch of the transmission shaft to connect either one of the loose gears with the transmission shaft to operate the driven shaft from either one of the main gears through either one of the loose gears.

1,029,110. VENTILATING-CUSHION FOR FOOTWEAR. FRANCIS J. DROBINSKI, New York, N. Y., assignor to Revere Rubber Company, Chelsea, Mass., a Corporation of Rhode Island. Filed Mar. 31, 1911. Serial No. 618,071. (Cl. 36—37.)



1. A cushion for shoes comprising upper and lower plates each formed of an integral piece of soft rubber, and hollow columns located perpendicularly to said plates and each connected to both of said plates, said columns formed of soft rubber and said plates serving to close said columns and form independent air cells in each column and to maintain said columns in position.

2. A cushion for shoes comprising upper and lower plates, a vertical wall connecting said plates at their edges, and hollow columns formed of elastic and resilient material and connected to both said plates, whereby said columns form air cells adapted to return said plates to position after compression, and are maintained in place by said plates, the whole constructed of soft rubber and said top and bottom plates and vertical wall connected by an air tight connection and forming a bellows-like structure and said structure provided with an opening for the passage of air.

3. A cushion for shoes comprising upper and lower plates closed at their edges, and hollow columns each connected to both of said plates, the whole formed of soft rubber, and said structure provided with an opening for the passage of air, and forming a bellows-like cushion.

4. A cushion for shoes comprising upper and lower plates, hollow columns each connected to both of said plates and walls connected to said plates, the whole formed of soft rubber vulcanized together and one of said walls being provided with an air passage forming a bellows-like cushion.

5. A cushion for shoes comprising upper and lower plates, hollow columns each connected to both of said plates and walls connected to said plates forming an inclosure, the whole formed of soft rubber vulcanized together and the front wall of said structure being provided with an air passage.

[Claim 6 not printed in the Gazette.]

1,029,111. CARBURETER-ADJUSTING DEVICE. HARRY S. ECHTERNACH, Strasburg, Pa., assignor to Virgil A. Meck, Strasburg, Pa. Filed May 15, 1911. Serial No. 627,293. (Cl. 123—198.)



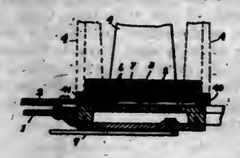
1. A carbureter and compression testing device for explosive engines, comprising in combination with the engine cylinder, a gage box divided into two chambers, one of said chambers communicating with the engine cylinder, the second chamber communicating with the first chamber and the outer air, means for preventing the contents of said second chamber from entering the first chamber, means for controlling the discharge of the contents of said second chamber into the outer air, and a gage for measuring the pressure in both of said chambers.

2. A pressure indicating and testing device for explosive engines, comprising in combination with the explosive chamber of the engine, of a gage box communicating with said explosive chamber, means carried by said gage box for indicating the pressure of the successive explosions and means carried by said gage box for indicating the maximum pressure reached during a succession of explosions and during variations of the explosive mixture.

3. In a combined pressure indicator and carbureter adjuster for explosive engines of the class described, the combination with the explosive chamber of the engine, of a casing mounted adjacent thereto and communicating therewith, said casing divided into two chambers of equal volume, the first of said chambers communicating with the explosive chamber of the engine, and provided with a gage, the second of said chambers communicating with the first chamber, a check valve allowing a flow from the first to the second chamber and preventing any return, and a relief valve in said second chamber for regulating the discharge therefrom.

4. In a carbureter adjusting device for explosive engines of the class described, the combination with the explosive chamber of the engine and the carbureter, of a gage adapted to receive the pressure from said explosive chambers, means carried by said gage for indicating the pressure of each explosion and means carried by said gage for indicating the maximum pressure reached during a series of explosions.

1,029,112. ADDRESSING-MACHINE. STERLING ELLIOTT, Newton, Mass. Filed Sept. 26, 1910. Serial No. 583,730. (Cl. 101—1.)



1. In an addressing-machine, a pair of slotted guide-bars arranged with a space between them, combined with a receptacle for a pile of stencil-plates, having a recess at the bottom for the delivery of the lowermost stencil-plate of the pile, said recess having shallow guiding-portions at its ends in line with the slots in the guide-bars, and having a deep portion between said guiding-portions, opposite the space between said guide-bars, to permit unobstructed passage of a bent or otherwise deformed stencil-plate, and means for pushing the lowermost stencil-plate of the pile through said recess and into engagement with the guide-bars, substantially as described.

2. In an addressing-machine, a pair of slotted guiding-bars arranged with a space between them, combined with a receptacle for a pile of stencil-plates having a recess at the bottom for the delivery of the lowermost stencil-plate of the pile, said recess having shallow guiding-portions at its ends in line with the slots in the guide-bars, the top walls of said guiding-portions being beveled in a direction from the inside toward the outside of the receptacle, and said recess having a deep portion between said beveled guiding-portions opposite the space between said guide-bars to permit unobstructed passage of a bent or otherwise deformed stencil-plate, and means for pushing the lowermost stencil-plate of the pile through said recess and into engagement with the guide-bars, substantially as described.

3. In an addressing-machine, the combination with means for holding a plurality of stencil-plates in a pile, of a movable pusher adapted to remove the lowermost plate from the pile, having a short plate-engaging portion at its front end, of a thickness corresponding to the thickness of a stencil-plate and having two long pile-raising side portions of a greater thickness, arranged back of said plate-engaging portion, and in parallel to engage the under side of the frame of the next to the lowermost stencil-plate of the pile, substantially as described.

4. In an addressing-machine, the combination with means for holding a plurality of stencil-plates in a pile, of a movable pusher having side portions at its top, which are extended throughout its length and raised at one end a short distance, corresponding to the thickness of a stencil-plate, and raised for the remaining portion a greater distance to lift the pile of stencil-plates, and having upwardly inclined portions extending from the lower to the higher parts of said portions, substantially as described.

5. In an addressing-machine, the combination with means for holding a plurality of stencil-plates in a pile, of a movable pusher having side portions at its top which are extended throughout its length and raised to occupy two different elevations, and having a depressed portion throughout its length between said side portions, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,029,113. VENDING-MACHINE. MARTIN ELZAS, New York, N. Y., assignor to Liberty Vending Co., New York, N. Y., a Corporation of New York. Original application filed Apr. 22, 1911, Serial No. 622,663. Divided and this application filed Sept. 29, 1911. Serial No. 651,960. (Cl. 194—1.)

1. In a machine of the character described, the combination with a magazine to hold articles to be vended, of

means for discharging the articles from the magazine, coin controlled mechanism to operate said means, coin collecting and returning receptacles, a movable element disposed near the intake ends of the receptacles for controlling the passage of the coin into them, and automatic means to move said element including a weight supported by the articles whereby said movable element will be operated automatically by the weight to return the coin to the operator in the event that the machine is empty, such operation of said movable element being thus entirely out of control of the operator.



2. In a machine of the character described, the combination with a magazine to hold articles to be vended, of means for discharging the articles from the magazine, coin controlled mechanism to operate said means, coin collecting and returning receptacles, a pivoted plate disposed near the intake ends of the receptacle for controlling the passage of the coin into the same from said coin controlled mechanism, a depending element connected with the pivoted plate, and a weight supported by the articles and provided with means engaging the depending element whereby the coin will be returned to the operator when the machine is empty.

3. In a machine of the character described, the combination with a magazine for holding articles to be vended, of means for discharging the articles from the magazine, coin controlled mechanism including a manually operated element, to operate said means, a pivoted plate to normally receive the coin thereon, means coöperating with the pivoted plate, whereby said coin may be conducted to said coin controlled mechanism or returned to the operator, depending upon the position of the pivoted plate, means to normally oppose the movement of the pivoted plate, a weight disposed upon the articles to travel downwardly as said articles are discharged, and a rod attached to the plate and extending downwardly to have a portion thereof disposed in the path of travel of the weight, whereby the operation of the pivoted plate is automatic and beyond the control of the operator.

4. In a machine of the character described, a movable element, a plate provided with an opening for receiving a coin and adapted to be moved so that the coin will engage said element to move the same, a plurality of receptacles disposed below said plate, a trap door disposed above one of the receptacles to normally prevent the coin from entering that receptacle, and means to move the trap door.

5. In a machine of the character described, a receptacle for holding articles to be vended, a weight disposed upon the articles, a plurality of receptacles adapted to receive coins, an operating lever to discharge the articles from the machine, a movable plate provided with an opening for receiving the coin and adapted to be moved so that said coin may engage the lever to operate the same, a trap door disposed below said plate and across one of the last named receptacles to normally prevent the coin from falling in the receptacle and to conduct said coin into the farthermost receptacle, and means actuated by the weight to move the trap door.

1,029,114. HEATER AND GLOWER RENEWAL FOR LAMPS. OTTO FOELL, Newark, N. J., and ANTON KUEBAUCH and ROY NECKERMAN, Pittsburgh, Pa., assignors, by mesne assignments, to Nernst Lamp Company, a Corporation of Pennsylvania. Original application filed Nov. 11, 1908, Serial No. 462,121. Divided and this application filed Sept. 3, 1910. Serial No. 580,342. (Cl. 176—21.)



In combination with a lamp glower, a support base therefor provided with electrical terminals, a heater support, a heater carried thereby, metallic prongs provided on said support for removably securing the same to said base and for connecting said heater to said terminal.

1,029,115. CAR-UNDERFRAME. ROBERT E. FRAME, Chicago, Ill., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed July 18, 1910. Serial No. 572,509. (Cl. 105—76.)



1. In a car underframe, an interlocked center sill and body bolster, each formed of a commercial shape, and parts of each being cut away to accommodate parts of the other.

2. In a car underframe, an interlocked center sill and body bolster, each formed of a commercial shape, and parts intermediate the ends of each of said members being cut away to accommodate parts of the other.

3. In a car underframe, an interlocked center sill and body bolster, each formed of a rolled commercial shape, parts of each being cut away to accommodate parts of the other, and a cover plate connecting parts of the cross member on opposite sides of the longitudinal member.

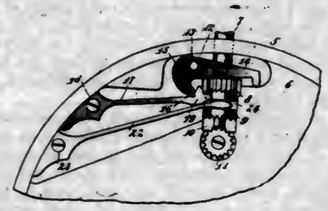
4. In a car underframe, an interlocked center sill and a body bolster, each formed from a rolled commercial shape, parts of each being cut away to accommodate parts of the other, and a cover plate extending transversely over the center sill and connecting partly severed parts of the cross member.

5. In a car underframe, intersecting members, each comprising a commercial shape, one member being formed with an opening in its web to accommodate a part of the other, and the second member being formed with a marginal opening to accommodate part of the first member.

[Claims 6 to 23 not printed in the Gazette.]

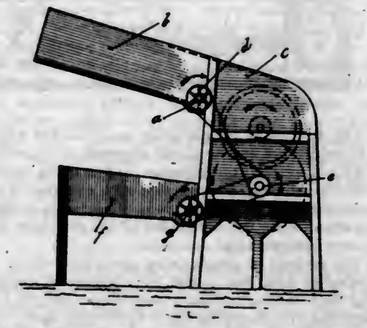
1,029,116. STEM WINDING AND SETTING WATCH. JOSEPH A. FREUND, Waltham, Mass., assignor to The Keystone Watch Case Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 8, 1911. Serial No. 664,584. (Cl. 58—68.)

1. In a watch movement, the combination with a dial plate, of a winding stem having a clutch mounted thereon adapted to move on said stem and rotate therewith, a pendant lever pivoted at one end to the dial plate and engaging with said winding stem, a spring detent secured at one end to said dial plate and provided with a catch at its opposite end, said latter end being formed with two differently inclined faces along which successively is adapted to travel one end of said pendant lever to a final locking position, and a spring-member secured at one end to said dial plate engaging with said clutch at its opposite end and operated by said detent, substantially as described.



2. A watch movement comprising in part a pendant lever, and a spring member secured at one end and provided with a catch at its opposite end, said catch being provided with differently inclined faces along which successively is adapted to travel one end of said pendant lever to a final locking face beyond said inclined faces and at an incline to the latter.

1,029,117. SAFETY DEVICE FOR THRESHING-MACHINES. ROBERT GROSS, Kl. Damerau, Germany. Filed June 14, 1911. Serial No. 633,202. (Cl. 130—27.)



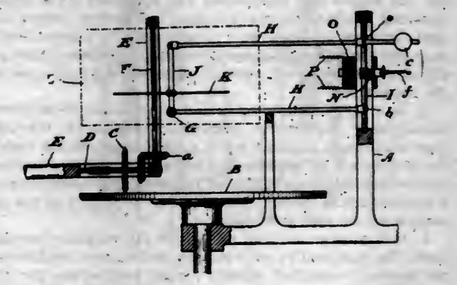
A threshing machine comprising in combination the feed chute and the threshing drum, a protecting cylinder transversely mounted across the inner end of said feed chute, said chute being unobstructed in front of said cylinder, radial arms on said cylinder provided with rounded ends, and means for revolving said protecting cylinder directly from the shaft of the threshing drum and in the same direction as the threshing drum, substantially as described and shown and for the purpose set forth.

1,029,118. COMPOUND FOR REMOVING GREASE-PAINT, BURNT CORK, &c., FROM THE FACE. EDGAR J. M. HART, New York, N. Y. Filed Apr. 5, 1911. Serial No. 619,087. (Cl. 87—5.)

A compound for removing grease-paint, soot, rouge, etc., from the skin comprising a mineral oil base having mixed therewith an extract of cabbage, cucumber and linseed.

1,029,119. WEIGHT-RECORDING MECHANISM. HERBERT E. T. HAULTAIN, Toronto, Ontario, Canada. Filed Oct. 29, 1910. Serial No. 589,760. (Cl. 234—1.)

1. In a weight recording apparatus the combination of a transversely movable worm spindle rotatable to indicate the amount of material weighed; means for supporting a record surface; a stylus movable over said surface normally tending to maintain a zero position; a knife blade connected with the stylus transverse to the spindle and adapted to engage the worm thereon; and means for periodically disengaging the knife blade to permit the stylus to return to its zero position.

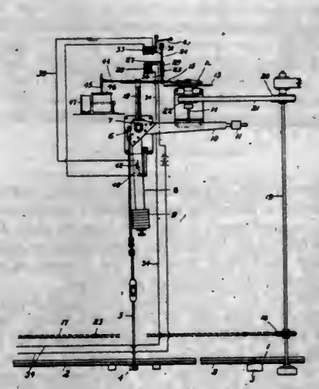


2. In weight recording apparatus the combination of a transversely movable worm spindle rotatable to indicate the amount of material weighed; means for supporting a record surface; a stylus movable over said surface normally tending to maintain a zero position; means whereby the stylus may engage the worm of the spindle in any position of the latter; and means for periodically disengaging the stylus to permit it to return to normal position.

3. In a weight recording apparatus the combination of a transversely movable worm spindle rotatable to indicate the amount of material weighed; means for supporting a record surface; a movable recording stylus normally tending to maintain a zero position; a knife blade connected with the stylus transverse to the spindle and adapted to engage the worm thereon; and means for periodically disengaging the knife blade to permit the stylus to return to its zero position.

4. In weight recording apparatus the combination of a transversely movable worm spindle rotatable to indicate the amount of material weighed; means for supporting a record surface; a movable recording stylus normally tending to maintain a zero position; means whereby the stylus may engage the worm of the spindle in any position of the latter; and means for periodically disengaging the stylus to permit it to return to normal position.

1,029,120. REGISTERING WEIGHING APPARATUS. HERBERT E. T. HAULTAIN, Toronto, Ontario, Canada. Filed July 20, 1911. Serial No. 639,497. (Cl. 73—100.)



1. In a registering weigher the combination of weighing mechanism; registering mechanism controlled thereby;

means for driving said registering mechanism; and means controlled by the weighing mechanism for automatically stopping the registering mechanism at a predetermined position of the weighing mechanism.

2. In a weigher adapted to register the weight of moving loads, the combination of weighing mecchanism; registering mechanism controlled thereby; means for conditioning the registering mechanism for operation at a predetermined position of the weighing mechanism before the load comes on the apparatus; and means for automatically stopping the registering mechanism at a predetermined position of the weighing mechanism when the load goes off the apparatus.

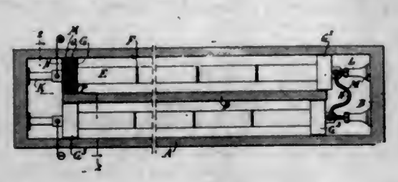
3. In a registering weigher the combination of weighing mechanism; registering mechanism controlled thereby; stop mechanism actuable when a load comes off the weighing mechanism to tend to stop the registering mechanism; control mechanism actuable by the weighing mechanism at a predetermined position of the latter to permit of the operation of the stop mechanism.

4. In a weigher adapted to register the weight of moving loads the combination of weighing mechanism; registering mechanism controlled thereby; stop mechanism for the registering mechanism; means actuable by a load before it comes on the weighing mechanism to condition the stop mechanism to tend to move to the release position and actuable by a load when it comes off the apparatus to condition the stop mechanism to tend to move to the stop position; and control mechanism normally tending to lock the stop mechanism in either its stop or release position and actuable by the weighing mechanism at a predetermined position of the latter to release the stop mechanism.

5. In weighing apparatus a depressible load supporting frame across which a load may be caused to travel comprising two parts supported by the weighing apparatus at their adjacent ends and hinged on stationary supports at their distant ends whereby the effect of a traveling load gradually increases from zero to a maximum and decreases to zero again in combination with a weight integrating device; means for driving said device actuated at a rate proportionate to the rate of travel of the load; and means whereby the said integrating device is governed as to rate of action in proportion to the depression of the aforesaid frame.

[Claim 6 not printed in the Gazette.]

1,029,121. APPARATUS FOR GRAPHITIZING LARGE ELECTRODES. PAUL LOUIS TOUSSAINT HÉROULT, La Praz, France, assignor, by mesne assignments, to Electrode Company of America, Niagara Falls, N. Y., a Corporation of New York. Filed Oct. 18, 1909. Serial No. 523,194. (Cl. 204—64.)



1. A furnace for graphitizing electrodes having means for containing a plurality of electrodes placed end to end, and means spaced apart a distance greater than the length of a single electrode, for making electrical connections with the endmost electrodes, whereby the current is conducted endwise through the column of electrodes.

2. A furnace for graphitizing electrodes having means for containing a plurality of electrodes placed end to end, means for making electrical connections between such electrodes, and means spaced apart a distance greater than the length of a single electrode, for making electrical connections with the endmost electrodes, whereby the current is conducted endwise through the column of electrodes.

3. A furnace for graphitizing electrodes having means for containing a plurality of electrodes placed end to end, means spaced apart a distance greater than the length of a single electrode, for making electrical connections with the endmost electrodes, and means adapted to press the endmost electrodes toward each other, whereby the current is conducted endwise through the column of electrodes.

4. A furnace for graphitizing electrodes comprising a pair of chambers alongside of each other and adapted to contain a plurality of electrodes placed end to end, and a block at each end of each of said chambers, said blocks spaced apart a distance greater than the length of a single electrode for making electrical connections with the endmost electrodes, and means for pressing the blocks at one end forward to press the electrodes toward the blocks at the other end, whereby the current is conducted endwise through the column of electrodes.

5. The combination with a furnace for graphitizing electrodes including a pair of chambers adapted to contain a plurality of electrodes placed end to end in each of said chambers, a stationary terminal block at one end of each of said chambers, and a movable terminal block at the opposite end of each of said chambers, said blocks spaced apart a distance greater than the length of a single electrode for making electrical connections with the endmost electrodes, and means for pressing said movable blocks forward.

1,029,122. GRAPHITIZING ELECTRODES. PAUL LOUIS TOUSSAINT HÉROULT, La Praz, France, assignor, by mesne assignments, to Electrode Company of America, Niagara Falls, N. Y., a Corporation of New York. Filed Feb. 10, 1910. Serial No. 543,067. (Cl. 204—64.)



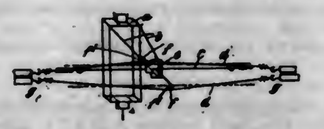
1. The method of graphitizing an electrode which consists in subjecting an end of the electrode to imperfect contact with a resistant conductor, and passing a sufficient current through the electrode and such resistant conductor, whereby such end of the electrode is heated to graphitising temperature while the remainder of the electrode is heated to a lower temperature.

2. The method of graphitizing electrodes which consists in arranging them end to end with imperfect contact, subjecting them to longitudinal pressure and passing a current through them to graphitize their contacting ends.

3. The method of graphitizing electrodes which consists in arranging them end to end with an intervening resistant packing affording imperfect contact, subjecting them to longitudinal pressure and passing a current through them to graphitise their contacting ends.

4. An electrode made up of sections joined together, the joined ends of which are graphitized and other parts of which are not graphitized to the same extent.

1,029,123. ELECTRICAL MEANS FOR MAGNIFYING SMALL MECHANICAL EFFECTS. ERNEST SYDNEY HEURTLEY, Oxford, England. Filed June 29, 1910. Serial No. 569,499. (Cl. 178—46.)



1. The method of reproducing in magnified form the effects of small forces which consists in establishing in the circuit containing a resistance medium electrical conditions corresponding to and greater than said small forces and subjecting different portions of the resistance medium simultaneously to the action of two associated media of different activities with relation to said resistance and causing variations of resistance by varying the relative extents of the portions of the resistance medium subjected simultaneously to the associated media by and in accordance with the said small forces.

2. The method of producing small electrical impulses in magnified form which consists in heating a resistance medium included in a charged circuit by the current passing through said circuit to thereby increase the resistance of said circuit, and subjecting different portions of the resistance medium to the action of two associated media of different activities with relation to said resistance medium aand causing variations of resistance in the said circuit including the resistance medium by varying the relative extents of the portions of the resistance medium subjected simultaneously to the associated media by and in accordance with said small electrical impulses.

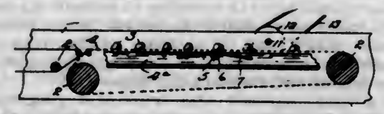
3. The method of magnifying the effect of small forces which consists in establishing in an electric circuit a condition of resistance by heat generated by the passage of current through a predetermined portion of said circuit, and causing a variation of such resistance by the application to said resistance, in accordance with motions produced by the forces to be magnified, of a medium capable of causing a variation in said resistance by varying the heat thereof.

4. The method of magnifying the effect of small forces which consists in establishing in an electric circuit a resistance by heat developed by the passage of the current through a predetermined portion of said circuit, and causing a variation in said resistance by presenting portions of the heated part of the circuit to a medium capable of varying the resistance, by a relative movement between the resistance portion of the circuit and the said medium, due to the action of the small forces.

5. The method of magnifying small forces which consists in establishing in an electric circuit a predetermined temperature condition by the action in said circuit of an electric current representing greater energy than the small forces, and then controlling the effect of the electric current by a heat modifying medium acting on the temperature condition due to the electric current and in accordance with variations in the small forces.

[Claims 6 to 14 not printed in the Gazette.]

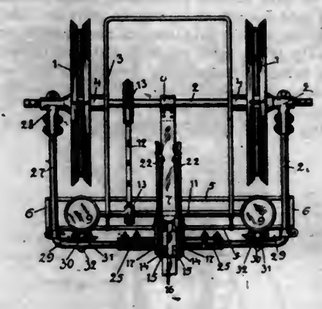
1,029,124. FLOODING DEVICE FOR CHOCOLATE-COATING MACHINES. THAMOS G. HOLLIS and SAMUEL GIBNEY, Reading, Pa., assignors to The Firm of W. G. Hollis, Reading, Pa. Filed Feb. 6, 1912. Serial No. 675,751. (Cl. 91—2.)



1. In a flooding device for chocolate coating machines, the combination of a traveling perforated belt adapted to carry the blanks to be coated, a liquid chocolate container, a flooding plate comprising two blades mounted on a shaft, said blades being inclined downwardly out of the horizontal and adapted to raise the liquid chocolate, a power shaft and means on the power shaft to convey an oscillating movement to the flooding plate.

2. In a flooding device for chocolate coating machines, the combination of an endless conveyer, adapted to carry the blanks to be coated, a liquid chocolate container located below said belt, a flooding plate in the container, said plate comprising a rod and a pair of blades, each of which blades is inclined downwardly from the horizontal, a power shaft, a cam on the end of the power shaft, an oscillating bar in engagement with the cam and a vertical bar connecting the oscillating bar and the flooding plate rod.

1,029,125. CORN AND COTTON PLANTER. MARTIN T. HOOPER, Midland, Tex. Filed Sept. 9, 1911. Serial No. 648,560. (Cl. 111—6.)



1. In a corn and cotton planter, the combination with the wheels and axle thereof, of a seed can, a seed chute correlated with said can, a horizontal laterally projecting socket centrally mounted upon the forward portion of the machine and adapted to undergo vertical adjustment, a bar provided with a right angle bend, having one of its extremities received by said socket, and its other extremity pivoted upon one of the axle extremities, means for manually communicating vertical motion to said socket, and a plow rigidly supported upon said bar in front of the seed chute.

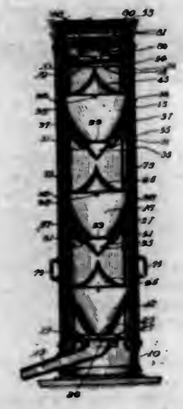
2. In a corn and cotton planter, the combination with the wheels and axle thereof, of a seed can, and a seed chute correlated with the seed can, a plate mounted upon the front part of the planter frame, provided with vertical guides, a plate adapted to undergo vertical adjustment in said guides, means for manually communicating vertical motion to said plate, a socket projecting rigidly in a lateral direction from said plate, a bar provided with a right angle bend, having its forward end received by said socket, and its rear end pivoted upon one of the axle extremities, rotatable means for reducing the friction due to vertical motion of said plate in its guides, and a plow rigidly supported from said bar, and positioned in front of the seed chute.

3. In a corn and cotton, planter, the combination with the wheels and axle thereof, of a frame mounted upon said axle, an auxiliary frame transversely disposed in front of the first named frame, a seed can mounted upon the auxiliary frame at each extremity thereof, one in front of each transporting wheel, a seed chute depending from each seed can, a pair of sockets mounted at the front of the machine, adapted to undergo individual vertical adjustment, a pair of bars provided with a right angled bend, having their forward extremities received by said sockets, and their rear ends pivoted upon the axle extremities, and a pair of plows rigidly supported from said bars, one positioned in front of each seed chute.

1,029,126. CONCRETE-MIXING MACHINE. DAVID B. HOOVER, Elizabethtown, Pa. Filed Sept. 10, 1910. Serial No. 581,361. (Cl. 83—73.)

1. In a concrete mixer, the combination with interposing mixing hoppers, each having an inlet and an outlet, of a surrounding casing operative to support said hoppers, a gate suspended by links within said casing dependent from each of said hoppers automatically actuated to control said outlet, and comprising opposed complementary jaws pivoted to said hoppers and coöperative with the walls thereof to govern its rocking movement, and yielding means tending to maintain said jaws in closed position to retain material in said hoppers, said material being effective to open said jaws in opposition to the closing means, by the accumulation of a predetermined weight of said material in said hopper.

2. In a concrete mixer, the combination with a plurality of interposing hoppers having tapering walls and each provided with an inlet and an outlet, of a surrounding casing operative to support said hoppers, means to control each of said outlets comprising complementary jaws pivoted to said hopper by relatively movable links dependent therefrom within said casing, and means tending to maintain said jaws closed, to retain material in said hopper, said jaws being automatically opened by the weight of material when a predetermined accumulation of said material is collected in said hopper, the weight of said material tending to frictionally engage said jaws with said hopper.



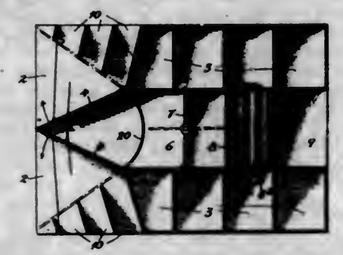
3. In a concrete mixer, the combination with a plurality of interposing hoppers having tapered walls, and each provided with an inlet and an outlet, of a cylindrical surrounding casing operative to support said hoppers, relatively movable links pivotally attached to said hoppers within said casing and forming pivots, conical gates comprising relatively movable complementary jaws arranged to rock on said pivots, forming closures for said outlets operative to retain material in said hoppers, and weights mounted on said jaws tending to maintain them in closed position, said gates being arranged to be automatically opened in opposition to said weights, by the pressure of a predetermined accumulation of material in said hoppers.

4. In a concrete mixer, the combination with a plurality of interposing hoppers, each having an inlet and an outlet, of a surrounding cylindrical casing operative to support said hoppers in spaced vertical relation, relatively movable links within said casing, gates for said hoppers forming receptacles with said hoppers to retain material when in position to close said outlets, and comprising substantially semiconical complementary jaws movably pivoted on said links to swing apart and to rock on said links, and means tending to maintain said gates closed, said material being effective to automatically open said gates when a predetermined accumulation is collected in said hoppers.

5. A concrete mixer comprising a plurality of interposing hoppers of substantially the form of a conoidal frustum, and each provided with an inlet and an outlet, a cylindrical surrounding casing operative to maintain said hoppers in spaced vertical relation, a gate for each of said outlets having hollow semi-conical complementary jaws, separately pivoted to links within said casing dependent from said hoppers and arranged to swing apart, weights carried by said jaws normally tending to maintain said gate closed to retain material in said hopper, and means including said material to open said gate in opposition to said weights by a predetermined accumulation of said material collected in said hopper, the rocking movement being governed by the walls of said hopper.

[Claims 6 to 15 not printed in the Gazette.]

1,029,127. WATER-POWER APPLIANCE. NELSON W. JAMESON, Georgetown, Del. Filed Oct. 18, 1911. Serial No. 655,427. (Cl. 138—3.)



1. A barge provided with water-tight compartments located on both sides of a central canal adapted to be closed at one end by wings, said barge having outwardly flaring forward portions, said wings being pivoted at the inner ends of said flaring portions and said flaring portions being provided with transverse outlets, for the purpose set forth and means in said canal operated to transmit the power derived therefrom, to distant mechanism.

2. A barge provided with water-tight compartments located on both sides of a central canal adapted to be closed at one end by wings, said barge having outwardly flaring forward portions, said wings being pivoted at the inner ends of said flaring portions and said flaring portions being provided with transverse outlets, for the purpose set forth, a water operated wheel in said canal in rear of said wings and means operated by said wheel for transmitting the power thereof to distant mechanism.

3. A barge provided with water-tight compartments located on both sides of a central canal adapted to be closed at one end by wings, said barge having outwardly flaring forward portions, said wings being pivoted at the inner ends of said flaring portions and said flaring portions being provided with transverse outlets, for the purpose set forth, a guard located in rear of said wings, a wing-gate located adjacent thereto, means in said canal in rear of said gate and operating to transmit the derived power therefrom to distant mechanism and means located on the deck of said barge for operating said gate.

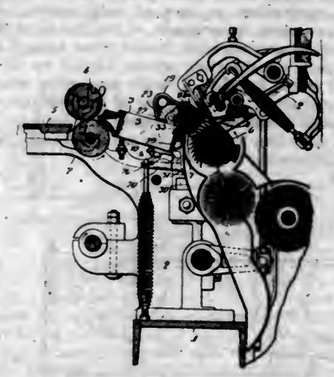
4. A barge provided with water-tight compartments located on both sides of a central canal adapted to be closed at one end by wings, said barge having outwardly flaring forward portions, said wings being pivoted at the inner ends of said flaring portions and said flaring portions being provided with transverse outlets, for the purpose set forth, a guard located in rear of said wings, a wing-gate located adjacent thereto, means in said canal in rear of said gate and operating to transmit the derived power therefrom to distant mechanism, means located on the deck of said barge for operating said gate, and means adapted to be operated from one portion of said barge for steadying the operations of the same.

5. A barge provided with water-tight compartments located on both sides of a central canal normally open at one end and at the other adapted to be closed by wings, said barge having outwardly flaring forward portions, said wings being pivoted to the inner ends of said flaring portions and the latter being provided with transverse outlets for the purpose set forth, a movable gate adjacent to said wings, means in said canal operated to transmit the power therefrom to distant mechanism and means on the sides of said barge for steadying the operations of the same.

[Claims 6 and 7 not printed in the Gazette.]

1,029,128. HEILMANN COMBER. HORMIDAS JARRY, Lawrence, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Feb. 27, 1911. Serial No. 611,118. (Cl. 19—6.)

1. In a Heilmann comber, the combination with the upright frame-standards forming a combing-head space between them and provided with lateral projections terminating in the said space, of the removable piecing-rolls and the sliver pan supported on said projections.



2. In a Heilmann comber, the combination with the upright frame-standards forming a combing-head space between them and provided with lateral projections terminating in said space, of the removable piecing-rolls, sliver pan and front shield all supported in their operative relations upon the said projections.

3. In a Heilmann comber, the combination with the removable piecing-rolls and the stirrups for one of them, of the upright frame-standards provided with means projecting laterally therefrom in front of the stirrups and forming the support for the other of said rolls.

4. In a Heilmann comber, the combination with the piecing-rolls, and the stirrups for one of them, of the frame-standards forming a combing-head space between them and having lateral projections in front of the said stirrups terminating in the combing-head space, and journal supports for the other piecing-roll carried by said projections and extending rearwardly therefrom.

5. In a Heilmann comber, the combination with piecing-rolls and the stirrups for one of them, of the frame-standards forming a combing-head space between them and each provided with two bracket arms which extend laterally from the same side of the standard and provide a space between them for the stirrup, one of said arms forming the support for the stirrup-engaged piecing-roll and the other for the other.

[Claims 6 to 19 not printed in the Gazette.]

1,029,129. HEILMANN COMBER. HORMIDAS JARRY, Lawrence, Mass., assignor to The Whitin Machine Works, Whitinsville, Mass., a Corporation of Massachusetts. Filed Dec. 28, 1911. Serial No. 668,345. (Cl. 19—6.)

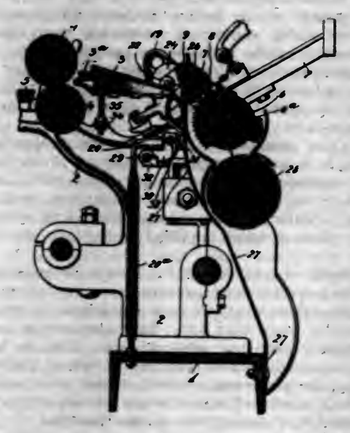
1. In a Heilmann comber, the combination of the upright frame standards forming a combing head space between them, a casing mounted therein, and a sliver pan seated on the casing.

2. In a Heilmann comber, the combination of the frame standards and piecing rolls, a front casing, a support for the casing below the level of the piecing rolls and a sliver pan seated on the casing above such support.

3. In a Heilmann comber, the combination of the frame standards forming a combing head space, a piecing-roll shaft, a horsetail base supported at a point in front of the shaft and extending rearwardly toward the shaft, a sliver pan, and independent means confined to the central region of the combing head space for supporting one end of the sliver pan.

4. In a Heilmann comber, the combination of the frame standards forming a combing head space, a piecing roll shaft, a horsetail base supported in front of and extending rearwardly toward the said shaft, a front casing below the level of the shaft and a sliver pan seat on the casing.

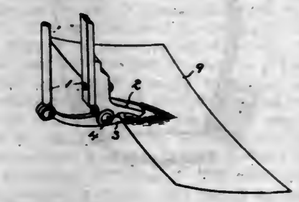
5. In a Heilmann comber, frame standards forming a combing head space between them, piecing rolls and a combing cylinder mounted in the combing head space, a



casing in front of the cylinder having a projecting seat carried thereon, and a sliver-pan supported on the seat in front of the piecing-rolls.

[Claims 6 to 22 not printed in the Gazette.]

1,029,130. GRIPPER. CHARLES A. JUENGST, Croton Falls, N. Y. Filed July 23, 1907. Serial No. 385,213. (Cl. 101—36.)



Gripper mechanism comprising a pair of coöperating jaws, one of said jaws having a concave gripping surface and the other jaw having a coöperating convex gripping surface, the said concavo-convex gripping surfaces of the jaws tapering in width from the inner part of the jaws outward toward the end of the jaws whereby to crimp a signature or sheet gripped therebetween so as to temporarily stiffen the body of the sheet or signature, and means for moving the gripper jaws to transport the signature or sheet held therein from one point to another.

1,029,131. SIZING AGENT AND METHOD OF MAKING SAME. FRANKLIN H. KALBFLEISCH, Babylon, N. Y. Filed Apr. 26, 1911. Serial No. 623,436. (Cl. 23—13.)

1. A process of the nature disclosed for producing a hard non-porous sizing compound containing a large amount of magnesium sulfate intimately mixed with aluminum sulfate and containing a relatively small quantity of water, comprising the step of preparing a liquor of a thick syrupy consistency containing not materially more than 30% water and comprising about 22% of a mixed oxid content including oxids of alumina and magnesium, and then cooling the same to form a hard cake.

2. A process of the nature disclosed for producing a hard non-porous sizing compound completely soluble in water and containing a large amount of magnesium sulfate intimately mixed with as much alumina sulfate and containing a relatively small quantity of water, which

comprises the addition of dehydrated sulfate of magnesium to alum-cake devoid of free acid to form a hot concentrated solution of the mixed sulfates, and then cooling the same into a hard cake.

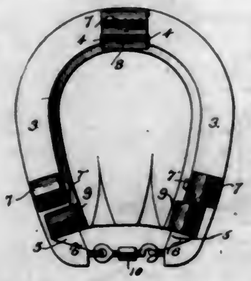
3. A process of the nature disclosed for producing a non-porous sizing compound containing about 22% of mixed metallic oxids available as precipitants for rosin-size, comprising the step of preparing a thick syrupy liquor of about two parts of alum cake and about one part of dehydrated magnesium sulfate, and then forming the same into a hard cake.

4. A sizing composition of the nature disclosed characterized by a hard non-porous structure about 22% of which constitutes a metallic oxid content available as a precipitant for rosin-size, said composition comprising about 30% water and the balance formed of mixed metallic sulfates of which $Al_2(SO_4)_3$ constitutes about one-half.

5. A sizing composition of the nature disclosed characterized by a hard non-porous structure and having a metallic oxid content available as a precipitant for rosin-size of materially more than 16%, said composition containing materially less than 48% of water, and the balance formed of mixed metallic sulfates including $MgSO_4$ and $Al_2(SO_4)_3$, the percentage content of the latter being approximately equal to the percentage content of the water.

[Claims 6 to 9 not printed in the Gazette.]

1,029,132. OVERSHOE FOR HORSES. HENRY KASSIK, Yonkers, N. Y. Filed July 11, 1911. Serial No. 638,006. (Cl. 168—30.)



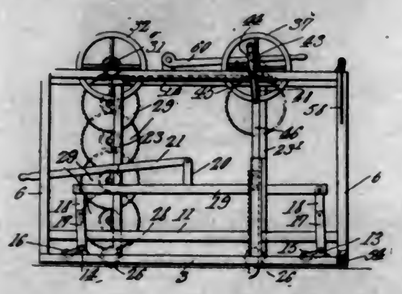
1. A horse overshoe comprising hinged sections, each of which is recessed on its inner face for receiving a calk of a horseshoe, means for securing said sections together, and means carried by said first named means and adapted to force said calk into said recess upon rotating the said first named means.

2. A horse overshoe comprising hinged sections, each of which is recessed on its inner face for receiving a calk of a horseshoe, one face of said recess being inclined and provided with a slot, a follower slidably mounted in said slot and adapted to bear against said calk for forcing the latter along said inclined face, and means for operating said follower.

3. A horse overshoe comprising hinged sections, each of which is recessed on its inner face for receiving a calk of a horseshoe, one face of said recess being inclined and provided with a slot, a follower slidably mounted in said slot and adapted to bear against said calk for forcing the latter along said inclined face, and a threaded coupling member for securing said sections together and carrying said follower, said threaded member operating said followers upon rotating the former.

1,029,133. ICE-CUTTING MACHINE. JOHN S. KOHR, Onset, Pa., assignor of one-half to Raymond W. Krall, York, Pa. Filed Nov. 7, 1910. Serial No. 591,141. (Cl. 62—8.)

1. In an ice cutting machine, the combination of the supporting frame, a vertically guided saw carried thereby, mechanism for reciprocating said saw, a pair of spiked rollers extending transversely of the frame of the machine and serving to support the same during the cutting operation of the saw, gearing connecting a portion of the saw operating mechanism to one of said rollers, a pair of shafts extending transversely of the frame of the machine at points near the ends thereof, arms secured to said shafts, a pair of supporting wheels carried by the shaft at one end of the machine, a single supporting wheel carried by the shaft at the other end of the machine, a lifting head, and means upon the frame and head for simultaneously operating the arms to simultaneously raise or lower the supporting wheels.



2. In an ice cutting machine, the combination with a supporting frame, of a guideway carried thereby, and including a central passage, a slot through the front of the guide way and communicating with the passage, and a groove in the rear wall of the passage in alinement with the slot, a saw disposed in said guide-way with its inner edge in the groove and its toothed edge projecting through the slot, driving rollers journaled upon the frame, and means connected with the rollers and the saw for operating the saw and rollers simultaneously.

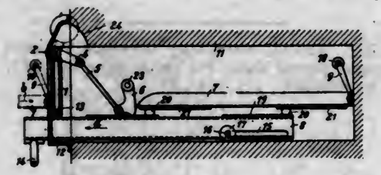
3. In an ice cutting machine, the combination with a supporting frame, of a vertically guided saw carried thereby, means for reciprocating the saw, ice-engaging rollers extending transversely of the frame and constituting supports for the frame during the cutting operation of the saw, gears connecting the saw operating mechanism to one of said rollers, arms adjacent the ends of the frame and mounted to swing relative thereto, supporting wheels carried by the arms, and means for swinging the arms to shift the supporting wheels into or out of engagement with the surface on which the machine is mounted.

4. In an ice-cutting machine, the combination with a supporting frame, of arms mounted to swing relative to the frame, means for actuating the arms, supporting wheels carried by the arms and movable therewith into or out of engagement with the surface supporting the frame, a saw carried by the frame, mechanism for actuating the same, spiked rollers extending transversely of the frame and constituting means for supporting said frame during the cutting operation of the saw, mechanism for transmitting motion to the saw-operating mechanism from one of the rollers, and means for locking the supporting wheels in their lowermost position to hold the frame elevated and the rollers out of engagement with the ice.

1,029,134. BAKER'S OVEN. FRIEDRICH KÜHTZ, Cannstatt-Stuttgart, Germany. Filed Mar. 2, 1912. Serial No. 681,193. (Cl. 107—65.)

1. In a baker's oven, the combination with a movable pan adapted to be pushed into the baking chamber and to be withdrawn therefrom, of a trap-door adapted to open and to close the baking chamber, a cam adapted to rock in the baking chamber and to be raised by said pan during the withdrawal, and means for so connecting said cam with said door as to cause both of them to simultaneously move.

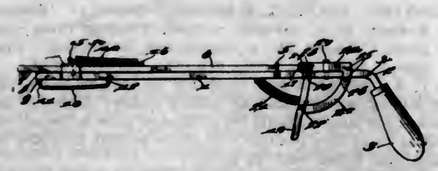
2. In a baker's oven, the combination with a trap-door adapted to open and to close the baking chamber, of a pan adapted to be pushed into the baking chamber and to be withdrawn therefrom, means on said pan for opening said trap-door on the pan being pushed in, a cam adapted to rock in the baking chamber and to be raised by said pan during the withdrawal, and means for so connecting said cam with said door as to cause both of them to simultaneously move.



3. In a baker's oven, the combination with a furnace front, of a trap-door mounted in said furnace front to rock about an upper axis for opening and closing the baking chamber, a cam adapted to rock in the baking chamber, means for so connecting said cam with said trap-door as to cause both of them to simultaneously move, a pan adapted to be pushed into the baking chamber under said cam when raised and to engage behind said cam when lowered, and an arm with a roller at the rear end of said pan adapted to strike and to open said trap-door, said cam being adapted to be raised by said pan during the withdrawal.

4. In a baker's oven, the combination with a furnace front, of a trap-door mounted in said furnace front to rock about an upper axis for opening and closing the baking chamber, a supporting frame comprising two parallel rails guided in said furnace front at right angles thereto and a handle connecting the front ends of the rails, said parallel rails having each at the rear end a longitudinal slot and on the top two longitudinal recesses, a cross shaft engaging in the longitudinal slots of said two rails, two wheels on said shaft adapted to roll on the bottom of the baking chamber, four balls adapted to roll in the longitudinal recesses of said two rails, a pan adapted to roll on said four balls and to be pushed into the baking chamber and to be withdrawn therefrom, an arm with roller at the rear end of said pan adapted to strike and to open said trap-door, a cam adapted to rock in the baking chamber and to be raised by said pan during the withdrawal and to drop behind the pan at the end of the inward motion, an arm on said trap-door, and a rod pivotally connecting said cam with said arm whereby said trap-door and said cam are caused to simultaneously move.

1,029,135. GAS-LIGHTER. EMIL LAMPRECHT, Philadelphia, Pa. Filed June 16, 1911. Serial No. 633,481. (Cl. 67—6.)



1. A device of the character described, comprising a bar, a plunger movable longitudinally in contact with said bar, a spring exerting pressure on said plunger to move it outwardly, a receptacle for pyrophoric alloy on said bar, said plunger roughened on its face where it contacts with said alloy, a pivoted trigger removably connected with the plunger and constructed to move said plunger rearwardly, and means on the bar for disengaging said trigger from the plunger when the plunger reaches a predetermined rearward position, substantially as described.

2. A device of the character described, comprising a bar, guides on the bar, a plunger movable in said guides in contact with said bar, and a spring exerting pressure on said plunger in an outward direction, of a casing formed in said bar adapted to contain a piece of pyrophoric alloy, and said plunger roughened on its face where it contacts with said alloy, a wire spring bent at both ends, said bar having an opening to receive one end of said spring, and the other end of said spring positioned in the casing to press the alloy against the plunger, and said wire bent at its other end so that the pressure of the spring on the alloy is increased as the end is forced into the opening in the bar, substantially as described.

3. A device of the character described, comprising a bar, guides on the bar, a plunger movable in said guides in contact with said bar, and a spring exerting pressure on said plunger in an outward direction, of a casing formed in said bar adapted to contain a piece of pyrophoric alloy, and said plunger roughened on its face where it contacts with said alloy, means for drawing said plunger rearwardly, and means on the bar constructed to release the plunger from said first-mentioned means when the plunger reaches a predetermined position, substantially as described.

4. A device of the character described, comprising a bar, guides on the bar, a plunger movable in said guides in contact with said bar, and a spring exerting pressure on said plunger in an outward direction, of a casing formed in said bar adapted to contain a piece of pyrophoric alloy, and said plunger roughened on its face where it contacts with said alloy, a wire spring bent at both ends, said bar having an opening to receive one end of said spring, and the other end of said spring positioned in the casing to press the alloy against the plunger, and said wire bent at its other end so that the pressure of the spring on the alloy is increased as the end is forced into the opening in the bar, means for drawing said plunger rearwardly, and means for releasing said last-mentioned means, substantially as described.

5. A device of the character described, comprising a bar, guides on the bar, a plunger movable in said guides in contact with said bar, and a spring exerting pressure on said plunger in an outward direction, of a casing formed in said bar adapted to contain a piece of pyrophoric alloy, and said plunger roughened on its face where it contacts with said alloy, one end of said bar bent, a handle on said bent end of the bar, a trigger pivotally connected at one end to the bar, a spring holding said trigger in normal position, means on said trigger constructed to engage the plunger and move it rearwardly when the trigger is moved, and means on said bar constructed to release the said plunger from said means on the trigger, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,029,136. FURNITURE-CASTER. CHRISTIAN F. LAUN, Waterville, Conn., assignor to Berbecker & Rowland Manufacturing Company, Waterville, Conn., a Corporation of Connecticut. Filed Nov. 4, 1911. Serial No. 658,518. (Cl. 155—33.)



In a furniture caster, the combination with an outer shell of curved form in cross-section and having an inwardly turned locking edge, of a corrugated spanner washer located within said shell and having means for securing the caster to an article of furniture; said spanner washer being of a diameter such that it may pass within the inwardly turned edge aforesaid and enter said shell, and the periphery thereof being forced beneath said locking edge by flattening the corrugations of said washer.

1,029,137. FIRELESS COOKER. CALVIN A. LAUZON and JOHN A. ROSE, Grand Rapids, Mich., assignors, by mesne assignments, to Wm. Heap & Co., Muskegon, Mich., a Copartnership. Filed Jan. 29, 1909. Serial No. 474,985. (Cl. 62—23.)



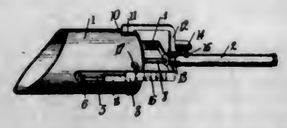
1. In a fireless cooker, a suitable insulated receptacle; a removable cover; a heating body; loops secured to said cover for supporting the said heating body; and a swinging arm for locking the said heating body in place, coacting for the purpose specified.

2. In a fireless cooker, a suitable insulated receptacle; a heating body; loops secured within said receptacle for supporting said heating body; and a swinging arm for locking the said heating body in place, coacting for the purpose specified.

3. A removable cover for a fireless cooker consisting of a metal casing having a top plate and a bottom plate; a partition wall therein midway between the said plates, forming a chamber toward the interior of said cooker and a space outside of said partition; insulating material filling the space toward the outer side of the said partition; and a heating body detachably secured to the inner side of the said cover within the inner receptacle, coacting as specified.

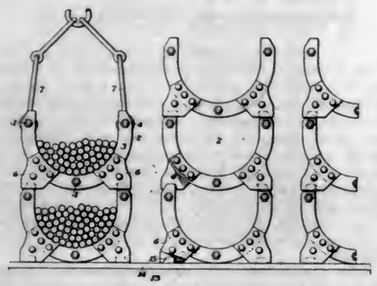
4. In a fireless cooker, a removable cover consisting of a metal casing having tapered edges and having a compartment filled with a suitable insulating material; a heating body detachably secured to the inner side of said cover within the said receptacle, whereby the said cover and heating body are removable together, and the said heating body is rendered accessible, coacting as specified.

1,029,138. SCALE-SCOOP. FRANK HENRY MARTIN, San Francisco, Cal. Filed Aug. 30, 1911. Serial No. 646,794. (Cl. 73—46.)



A device of the class described comprising a handle having arms at one end thereof, grooves adjacent the outer ends of the said arms, a receptacle having pins at opposite sides thereof positioned between the arms, the said pins engaging in the said grooves, a series of graduations on one of the arms, an index on the scoop and movable along the graduations, a rod extending rearwardly of the scoop and into the handle, a spring contained within the handle and engaging the end of the said rod, a lever pivoted to the handle and having the thumb rest at one end thereof, the other end of the lever being provided with a number of teeth, a number of teeth carried by the receptacle adapted to engage the teeth on the lever, and a spring engaging the said thumb rest and the handle whereby the said teeth may be held in engagement with each other when the scoop is being filled, movement of the thumb rest carrying the teeth out of engagement whereby the mass of material within the receptacle may be engaged by the said index and graduations.

1,029,139. METAL-STORAGE SYSTEM. JAMES T. MOLTRUP, Beaver Falls, Pa. Filed June 14, 1911. Serial No. 633,214. (Cl. 214—6.)



1. In a storage system for metal lengths, a series of superimposed cradles having open ends, and arranged each to support a series of metal lengths independently of an adjacent cradle; substantially as described.

2. In a storage system for metal lengths, a set of superimposed cradles of U-shape and having open ends, said cradles also having interfitting connection with each other; substantially as described.

3. In a storage system for metal lengths, a set of superimposed U-shaped cradles, said cradles consisting of spaced U-shaped members and tie connections between the same; substantially as described.

4. In a storage system for metal lengths, a set of superimposed U-shaped cradles, said cradles consisting of spaced U-shaped members and tie connections between the same, each cradle having means for supporting it upon another cradle; substantially as described.

5. In a storage system for metal lengths, a cradle comprising spaced U-shaped members, and tie connections between said members, said members having supporting leg portions; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

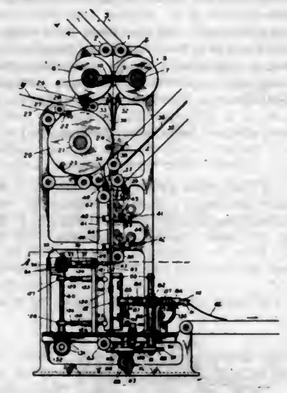
1,029,140. FOLDING-MACHINE. JOHN D. MORGAN, Summit, N. J., assignor to Goss Printing Press Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 5, 1911. Serial No. 619,157. (Cl. 101—120.)

1. A folding machine including in combination a pair of folding jaws, means for folding a sheet thereinto, and means for longitudinally rotating said jaws to deliver the folded sheet in a position transverse to that in which the sheet was folded into the jaws.

2. A folding machine including in combination a pair of folding jaws traveling between a folding-in and a delivery position, means for folding a sheet into said jaws at the folding-in position, means for longitudinally rotating said jaws as they travel toward the delivery position, and means for causing said jaws to deliver the folded sheet at the delivery position.

3. A folding machine including in combination a pair of folding jaws traveling between a folding-in and a delivery position, means for folding a sheet into the jaws at the folding-in position, and means for rotating said jaws longitudinally to deliver the sheet in a position transverse to that in which the sheet was folded into the jaws.

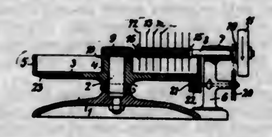
4. A folding machine including in combination a pair of folding jaws, movable between a vertical and a horizontal position considered longitudinally of the jaws, and means for folding a sheet into the jaws in one of said positions and means for releasing the folded sheet from the jaws in the other of said positions.



5. A folding machine including in combination a pair of intermittently traveling folding jaws traveling between and coming to rest at both a folding position and a delivery position, said folding jaws being longitudinally rotatable, means for feeding a sheet along a vertical path to said jaws, means for folding the sheet into the jaws while they are at rest at the feeding position, means for rotating the pair of jaws into a horizontal position as they travel toward the delivery position, means for causing the jaws to release the sheet at the delivery position, and a horizontal conveyer for receiving and conveying away the sheets from said folding jaws.

[Claims 6 to 38 not printed in the Gazette.]

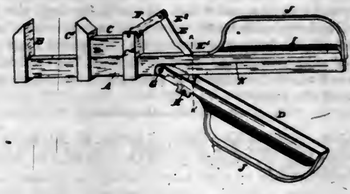
1,029,141. MEAT-CHOPPING MACHINE. ANDREAS NIELSEN, Copenhagen, Denmark, assignor to Harald Friis, Frederiksberg, near Copenhagen, Denmark. Filed Sept. 26, 1911. Serial No. 651,358. (Cl. 17—19.)



In a meat chopping machine the combination of a rotary table with a shaft located above the table, means for rotating said shaft at a considerable speed relatively to the peripheral speed of the corresponding points of the table, and a plurality of circular knives rigidly secured on said shaft and a plurality of circular knives mounted to run loose on the shaft.

1,029,142. WRENCH. CHESTER A. REEVES, Laidlaw, Oreg. Filed Nov. 28, 1911. Serial No. 662,041. (Cl. 81—87.)

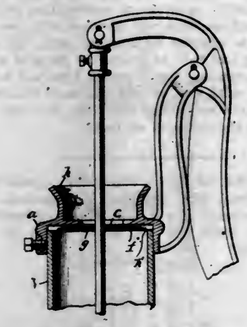
1. In a wrench, in combination, a shank having a fixed jaw thereon, a jaw slidable on the shank, a bar extending transverse the shank between the jaws and the handle and having a curved section with its concaved side toward the jaws, said bar and shank having sliding and supporting connection maintaining constant relation between the shank and bar at their points of contact, a link connecting said transverse bar and the sliding jaw, and a controlling lever pivoted to the shank and to the end of said transverse bar.



2. In a wrench, in combination, a shank having a jaw fixed thereto, a jaw slidable on the shank, a bar extending transversely of the shank and having a curved section at one end and a straight section at its other end, the shank having a slot therein between the jaws and the handle and snugly receiving the curved section of said transverse bar, a link connecting the straight end of said bar with the slide, a controlling lever pivoted to the shank and to said transverse bar and adapted to control its projection from the shank and thereby the separation of the jaws.

3. In a wrench, in combination, a shank having a fixed jaw thereon, a jaw mounted to slide along the shank, the shank having a slot extending therethrough in the general plane of the jaws, a bar extending transverse the shank in said plane and fitting snugly within said slot, the end of said bar passing through the shank being curved with its concave side toward the jaws, a controller bar pivoted to the shank substantially concentric the curve of said bar and being also pivoted to the end of the same bar, a link connecting the opposite end of said transverse bar to the sliding jaw, whereby the position of the sliding jaw relative to the fixed jaw may be controlled.

1,029,143. PUMP-CAP. LESTER M. RICH, Cincinnati, Ohio. Filed May 20, 1910. Serial No. 562,545. (Cl. 103—65.)

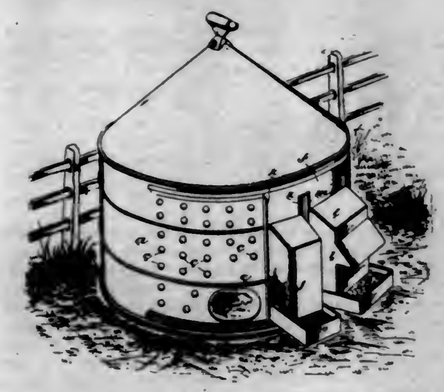


1. In combination with a pump casing and a cap secured thereon, said cap being provided with a slot in its top wall and with a funnel or hopper surrounding the same, a plate fastened to the under side of said cap and provided with a slot coincident with the aforesaid slot in the cap, a sliding plate provided with a hole for the passage of the pump rod and slidingly confined between said plate and the under side of the pump cap, the fit of the parts being sufficiently loose to permit water to be run down from the hopper or funnel into the pump casing, for the purpose set forth.

2. In combination with a pump casing and a cap secured thereon, said cap being provided with a slot in its

top wall and with a funnel or hopper surrounding the same, a plate fastened to the under side of said cap and provided with a slot coincident with the aforesaid slot in the cap, a sliding plate provided with a hole for the passage of the pump rod and slidingly confined between said plate and the under side of the pump cap, the fit of the parts being sufficiently loose to permit water to be run down from the hopper or funnel into the pump casing, the edge of said plate being confined between the cap and the pump casing, and means being provided to prevent rotative action of the plate.

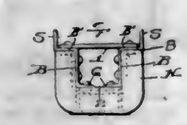
1,029,144. CHICKEN-COOP. LESTER M. RICH, Indianapolis, Ind. Filed Oct. 2, 1911. Serial No. 652,330. (Cl. 119—19.)



1. A chicken coop provided with a door-way and with a movable door adapted to close the same, this door being provided with two openings adapted to coincide with the door opening when the door is closed, a water trough attached to the exterior of the door coincident with one of the said openings, and a feed trough attached to the door coincident with the other opening.

2. A chicken coop provided with a main large opening and an adjacent smaller opening, in combination with a door slidable over said openings and provided with two openings one of which is adapted to coincide with the aforesaid smaller opening and both of which are adapted to coincide with the main opening, a feed trough attached to the door and coinciding with one of said openings therein, and a water trough attached to the door over the other opening in the door, for the purposes set forth.

1,029,145. BUNK OR BODY-BOLSTER. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed Feb. 19, 1910. Serial No. 544,795. (Cl. 105—106.)



1. In a car underframe, a transversely disposed supporting member comprising the combination of spaced channel beams having their webs bent longitudinally for disposing their upper flanges in upstanding position, and means connecting said beams.

2. In a car underframe, a transversely disposed supporting member comprising the combination of channel beams having their channels opening toward each other, and having their webs bent longitudinally to positions disposing their upper flanges in upstanding condition, and means connecting said beams.

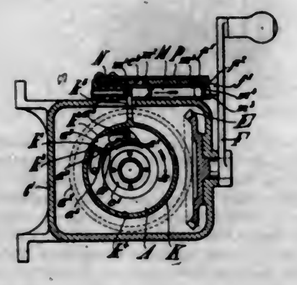
3. In a car underframe, a transversely disposed supporting member comprising the combination of channel beams, and means connecting the same, the webs of each channel beam being bent longitudinally for positioning the upper portion thereof in a horizontal plane, providing a tread with the upper flange of the beam upstanding therefrom.

4. In a logging bunk, a flanged beam bent longitudinally intermediate its width for forming a tread of a portion of the web and disposing a flange upstanding therefrom.

5. In a logging bunk, the combination comprising reformed rolled channels forming runways in three separate planes.

[Claims 6 to 19 not printed in the Gazette.]

1,029,146. FUSE-ADJUSTING MACHINE. WILHELM SCHWARTZ, Bredeney, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Dec. 10, 1909. Serial No. 532,391. (Cl. 86—23.)



1. A fuse adjusting device comprising a pair of relatively rotatable adjusting members; a set of driving gears for said members; means for relative angular setting of said adjusting members; means for locking one of said adjusting members to the fuse body; other means for locking the other adjusting member to the adjustable fuse part; means for releasing said other locking means at completion of the fuse adjustment; means obstructing the advance movement of said driving gears at completion of the fuse adjustment, in coöperation with said other locking means and said releasing means for withdrawing said obstructing means and simultaneously retracting said locking means back of its final releasing position, on partial reverse movement of said driving element at commencement of the operation.

2. A fuse adjusting device comprising a pair of relatively rotatable adjusting members; a driving element for relatively rotating said members, one of said members being provided with means for coupling it to an adjustable part of the fuse; and means coöperating with said driving element whereby said coupling means is automatically released when said driving element has reached a predetermined position, said releasing means being adapted to be moved into a relative position causing the coupling means to return to its effective position when said driving element assumes its initial position.

3. A fuse adjusting device comprising a pair of relatively rotatable adjusting members, a driving element for relatively rotating said members, one of said members being provided with means for coupling it to an adjustable part of the fuse; a spring controlled member normally held in a position causing said coupling means to move into its ineffective position when said driving element has reached a predetermined position; and means for holding said spring-controlled member in a position causing said coupling means to return to its effective position when said driving element assumes its initial position.

4. A fuse adjusting device comprising a pair of relatively rotatable adjusting members, a driving element for relatively rotating said members, one of said members being provided with means for coupling it to an adjustable part of the fuse; a spring-controlled member normally held in a position causing said coupling means to move into its ineffective position when said driving element has reached a predetermined position; and means for locking said spring-controlled member in a position causing said coupling means to return to its effective position when said driving element assumes its initial position.

5. A fuse adjusting device comprising a pair of relatively rotatable adjusting members; a driving element for relatively rotating said members, one of said members being provided with means for coupling it to an adjustable part of the fuse; a spring-controlled member normally held in a position causing said coupling means to move into its ineffective position when said driving element has reached a predetermined position; means for locking said spring-controlled member in a position causing the coupling means to return to its effective position when said driving element assumes its initial position; and means whereby on the advance movement of said driving element beyond its initial position said locking means is automatically released.

[Claims 6 to 12 not printed in the Gazette.]

1,029,147. FRICTION-CLUTCH. GEORGE W. SHAFFER, Buffalo, N. Y. Filed Jan. 23, 1911. Serial No. 604,110. (Cl. 192—13.)



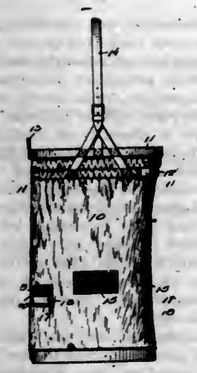
1. A friction clutch comprising a driving and a driven part, one of said parts having a contact-rim and the other part having a pair of friction-shoes fixed at one of their ends and free at their other, the free end of each shoe being notched and having a fulcrum pin extending through said notched end, an actuating lever for each shoe having a notch into which said fulcrum-pin fits and extending inward from said pin toward the fixed ends of said shoes, an oscillating member coöperating with each actuating-lever, an adjusting-pin eccentrically arranged in the fixed end of each friction shoe, said adjusting pins serving as axes for said oscillating members, means for pivotally connecting said oscillating members with the fulcrumed ends of said actuating levers, and shifting means engaging said actuating levers.

2. A friction clutch comprising a driving and a driven part, one of said parts having a contact rim surrounding the other part and said other part comprising a friction rim and a diametral arm having said friction rim separated therefrom at two points to provide a pair of friction-shoes, each having one end rigid with said arm and its other end free, said friction-shoes having their free ends notched and said diametral arms having pockets extending outward to the periphery of said friction rim in line with said notches, a fulcrum pin passing through the notched free end of each friction shoe, an actuating-lever for each friction-shoe having a notch at one edge into which said fulcrum-pin fits, said levers extending toward the fixed ends of said shoes, an adjusting-pin passing through the friction rim at each end of said arm and having an eccentric portion extending into the adjacent pocket of said arm, an oscillating spreader-block at each end of said arm having a notch into which the eccentric portion of said adjusting-pin fits and which is interposed between said adjusting-pin and the fulcrumed end of the actuating-lever, said oscillating-blocks and actuating levers having registering notches in their opposing edges, connector-pins fitting into said registering notches and slightly out of alinement with said fulcrum and adjusting-pins, and a shifting-device engaging the free ends of said actuating-levers.

3. A friction clutch comprising a driving and a driven part, one of said parts having a contact rim and the other having segmental friction-shoes fixed at one end and free at their other, spreading means co-acting with the free end of each friction-shoe and comprising an oscillating member and an actuating lever fulcrumed to the free end of the friction-shoe, a connector pin interposed between said oscillating member and said actuating lever and an eccentric adjusting pin interposed between said oscillating member and the fixed end of the other friction-shoe, and means for actuating said actuating levers.

4. A friction clutch comprising driving and driven members, one of said members having a contact rim, and the other having a segmental friction shoe fixed at one end and free at its other, spreading means co-acting with the free end of the friction shoe comprising an oscillating block and a coacting actuating lever, a rotatable pin having an eccentric surface upon which the block bears adapted to adjust the position of said block, a connector pin interposed between said oscillating block and actuating lever, said oscillating block and actuating lever having notches to receive said pin and means for actuating said lever.

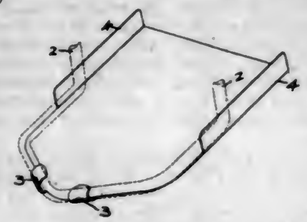
1,029,148. FEED-BAG. AUGUST SCHULTZ, San Diego, Cal. Filed Dec. 8, 1911. Serial No. 664,614. (Cl. 119—65.)



1. A nosebag comprising a receptacle having openings therethrough convenient to the nostrils of the head of an animal engaged therein, a duct element engaged in each opening and extending outwardly therefrom, the outer portion of the ducts being secured against the bag above the openings, whereby the portion of bag therebeneath is offset outwardly, for the purpose described, and a screen at the outer end of the duct.

2. In a nosebag, a ventilator comprising a vertical duct element of flexible material, secured by its lower end in the bag a helical spring bracing element therein, and a screen at its upper end.

1,029,149. PLATFORM FOR DENTAL ARTICULATORS. GEORGE B. SNOW, Buffalo, N. Y., assignor to The Snow Dental Company, Buffalo, N. Y., a Corporation of New York. Filed Aug. 28, 1911. Serial No. 646,392. (Cl. 32—1.)



A platform for dental articulators; consisting of a body having a flat upper surface provided with a claw or claws for the reception of the lower model support of the articulator and lateral vertical flanges; substantially as described.

1,029,150. ELECTROMAGNET. NATHAN H. SUREN, Needham, Mass., assignor to The Gamewell Fire-Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed July 22, 1910. Serial No. 573,292. (Cl. 175—21.)



1. In an electro-magnet, the combination with the magnet-coils and heel-piece connected thereto, of a supporting-frame, a plate composed of noncarbonizable material having high insulating properties interposed between the heel-piece and supporting-frame which extends from end to end of the heel-piece and is extended forward to provide a support for a plurality of binding-posts, binding-posts arranged thereon, and means to hold said plate in fixed position, substantially as described.

2. In an electro-magnet, the combination with the magnet-coils and heel-piece connected thereto, of a supporting-frame, an insulating plate interposed between said frame and heel-piece which is angularly formed and extends entirely over the top and one side of the heel-piece, and means to connect said heel-piece with the frame and to hold the insulating-plate in fixed position therebetween, substantially as described.

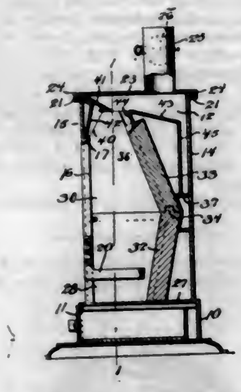
3. In an electro-magnet, the combination with the magnet-coils and heel-piece connected thereto, of a supporting-frame and an insulating-plate interposed between said frame and heel-piece which extends from end to end of the heel-piece, and has a recess throughout its length to receive said heel-piece, one side wall of said recess extending downwardly to the lower edge of the heel-piece, substantially as described.

4. In an electro-magnet, the combination of the magnet-coils and heel-piece, of a supporting-frame and an angularly formed insulating-plate arranged between said heel-piece and frame which extends over the top and one side of the heel-piece from end to end thereof and which extends forward at the opposite side of the heel-piece to provide a bearing portion for binding-posts, binding-posts arranged on said forwardly extended portion, and means to connect said heel-piece with said frame and to hold the insulating-plate in fixed position therebetween, substantially as described.

5. In an electro-magnet, the combination with the magnet-coils and armature, of a supporting-plate for the armature, and a plate interposed between the armature and its supporting-plate composed of non-carbonizable material having high insulating properties, and means for holding it in fixed position therebetween, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,029,151. PORTABLE FIREPLACE. CORNELIUS L. TAYLOR, Huntington, W. Va. Filed June 10, 1911. Serial No. 632,423. (Cl. 126—120.)



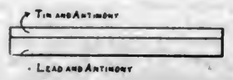
1. A portable fire place comprising a shell having inwardly directed ledges, said shell having an opening in the front with inwardly directed flanges at the side and upper margins of the same, a lining formed of end blocks of refractory material supported upon said ledges and extending at the front edges rearwardly of the side flanges of the opening and rear blocks of refractory material extending between the end blocks and inclined forwardly at the upper part, a forward baffle member within the shell and bearing at one edge upon the upper margin flange of the opening and supported at its rear edge upon the end lining blocks and inclined rearwardly and downwardly, and a rear baffle member supported upon the lining blocks, the upper portion of said rear baffle member being inclined downwardly and rearwardly.

2. A portable fire place comprising a shell having an ash pit in the lower portion, inwardly directed ledges at the juncture of the ash pit and the body of the shell, said shell having an opening in the front with inwardly directed flanges at the side and upper margins of the same, a lining formed of blocks of refractory material supported upon said ledges and extending at the front edges rearwardly of the side flanges of the opening, supporting members connected to the inner faces of the shell and bearing against the lining members and maintaining them in spaced relation to the shell, a forward baffle member within the shell and bearing upon the lining and inclined forwardly and upwardly, and a rear baffle member supported upon the lining and inclining rearwardly and downwardly.

3. A portable fire place comprising a shell having an ash pit in the lower portion, inwardly directed ledges at the juncture of the ash pit and the body of the shell, said shell having an opening in the front with inwardly directed flanges at the side and upper margins of the same, a lining formed of blocks of refractory material supported upon said ledges and extending at the front edges rearwardly of the side flanges of the opening, supporting members connected to the inner faces of the shell and bearing against the lining members and maintaining them in spaced relations to the shell, a forward baffle member within the shell and bearing upon the lining and inclined forwardly and upwardly, and provided with a deflector portion supported upon the upper marginal flange of the opening of the shell, and a rear baffle member supported upon the lining and inclining rearwardly and downwardly.

4. A portable fire place comprising a shell having an ash pit in the lower portion, inwardly directed ledges at the juncture of the ash pit and the body of the shell, said shell having an opening in the front with inwardly directed flanges at the side and upper margins of the same, a lining formed of blocks of refractory material supported upon said ledges and extending at the front edges rearwardly of the side flanges of the opening, supporting members connected to the inner faces of the shell and bearing against the lining members and maintaining them in spaced relations to the shell, a forward baffle member within the shell and bearing upon the lining and inclined forwardly and upwardly, and provided with a deflector portion supported upon the upper marginal flange of the opening of the shell, and a rear baffle member supported upon the lining and inclining rearwardly and downwardly, said rear baffle member having a downwardly directed rear portion supported by one of the lining supporting members.

1,029,152. COMPOSITE METAL. LEWIS B. TEBBETTS, 2d, St. Louis, Mo., assignor of one-half to Hoyt Metal Company, St. Louis, Mo., a Corporation of Missouri. Filed July 1, 1911. Serial No. 636,517. (Cl. 29—181.)

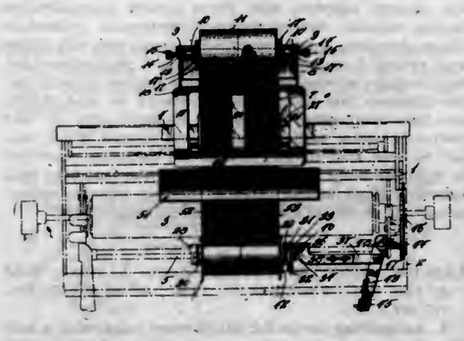


1. In a composite metal, a facing layer containing tin and a hardening and stiffening agent, and a backing layer containing lead and a hardening and stiffening agent.

2. In a composite metal plate, a facing layer containing tin and antimony, and a backing layer containing lead and antimony.

3. In a composite metal, a facing layer comprising from eighty-six per cent. to ninety-seven per cent. of tin, from three per cent. to fourteen per cent. of antimony, from naught to five per cent. of copper, from naught to two per cent. of nickel, and a backing layer comprising from seventy per cent. to ninety-six per cent. of lead, from four per cent. to fifteen per cent. of antimony, and from naught to fifteen per cent. of tin.

1,029,153. TALLY-ROLL ATTACHMENT FOR TYPE-WRITING MACHINES. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 23, 1910. Serial No. 583,438. (Cl. 197—132.)



1. A tally roll attachment comprising a roll support and roll feeding means, a typewriting machine carriage having a rack bar, and an additional bar mounted thereon, means on the roll support for engaging the rack bar, and means on the feeding device for engaging the additional bar, both of said latter means permitting lateral adjustment of the tally roll support and feeding means.

2. A tally roll feeding means comprising a feeding roll with ratchet attached, a bracket forming a support for the roll adapted to be laterally adjustable on a bar, a ratchet pawl carrying arm adapted to actuate the ratchet having a projecting portion, a slide bar adapted to engage with said projecting portion of the arm to operate the pawl.

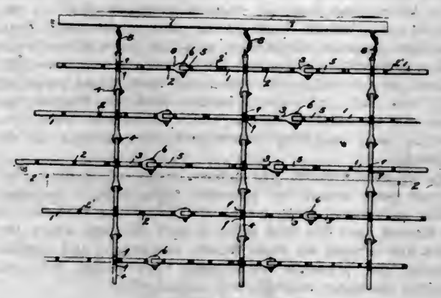
3. In a device of the character described, a typewriter carriage provided with a platen, a feed roll, a tally roll mounted behind the platen, a feeding device for the roll mounted in front of the platen, a guard member positioned in front of and adjacent the tally sheet as it passes from the roll, and a guide member directing the tally sheet behind the feed roll and under the platen.

4. In a longitudinally adjustable tally strip device a tally roll feeding means, comprising a feeding roll with ratchet attached, a bracket forming a support for the roll, a ratchet pawl-carrying arm adapted to actuate the ratchet, having a projecting portion, a slidable bar adapted to engage the said projecting portion of the arm to operate the pawl, and a pivoted handle for operating the bar.

5. In a longitudinally adjustable tallying device a tally roll feeding means, comprising a feeding roll with ratchet attached, a bracket forming a support for the roll, a ratchet pawl-carrying arm adapted to actuate the ratchet, having a projecting portion, a slidable bar having an inclined surface engaging the said projecting portion of the arm to operate the pawl, and a handle for operating the bar.

[Claims 6 to 10 not printed in the Gazette.]

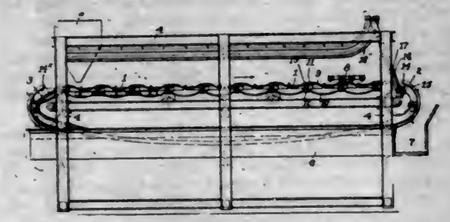
1,029,154. FLEXIBLE HARROW. JOHN L. TOWNSEND, Winfred, S. D. Filed July 14, 1911. Serial No. 638,532. (Cl. 55—32.)



1. In a flexible harrow, the combination of a plurality of transverse bars composed of sections, journal members pivotally connecting said sections, teeth mounted in said bars, certain of said teeth coöperating with the sections and journal members to clamp and hold the same in position, and coupling members pivotally connecting the transverse bars.

2. In a flexible harrow, the combination of a plurality of transverse bars composed of sections, teeth mounted on said bars, journal members pivotally connecting said sections, teeth threaded at their upper extremity and passing through openings in the journal members and sections, nuts screwed to said threaded portion above and below the journal members and sections to receive and clamp the same therebetween, coupling members secured to the sections at right angles thereto and pivotally connecting the transverse bars, and flanges on the coupling members to engage over said sections.

1,029,155. FILTER APPARATUS. BRUCE W. TRAYLOR, New York, N. Y. Filed Dec. 5, 1910. Serial No. 595,822. (Cl. 75—86.)



1. In combination, an endless series of flexibly connected filter pans, directing wheels about which the pans pass, flexible pressure and suction connections with valves for controlling the same, said pans being arranged to receive material while passing along one stretch, and a bath for receiving the pans as they pass along their return course, substantially as described.

2. In combination, an endless series of flexibly connected filter pans, directing wheels, flexible pressure and suction connections with valves for controlling the same, and means for discharging material into the pans as they pass the said means, and a bath through which the pans are returned while the pressure connections are open to subject the pans to reverse pressure for cleaning, substantially as described.

3. In combination, a series of flexibly connected filter pans, arranged to be supplied with material a bath through which the pans are returned, flexible suction and pressure connections with controlling valves, means for closing the suction and opening the pressure valve for the passage of the pans through the bath, and means for opening the suction valve and closing the pressure valve for the movement of the pans outside the bath and while the material to be filtered is contained therein, substantially as described.

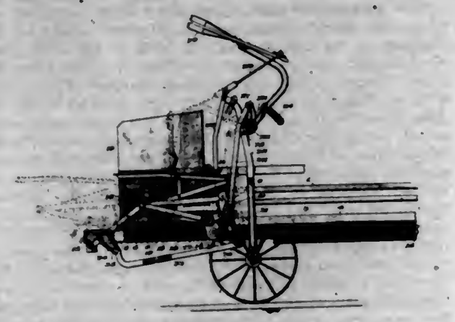
4. In combination, an endless series of flexibly connected pans, wheels to direct the pans substantially horizontally, means for delivering material to be filtered onto the pans flexible suction and air pressure connections with valves for controlling the same, and connections traveling with the pans and communicating with the flexible suction and air pressure means, and a horizontal track controlling said traveling connections substantially as described.

5. In combination, an endless series of flexibly connected pans, means for directing them along a substantially horizontal path, means for delivering material to be filtered onto the said pans, a path through which the pans are carried on their return movement, and flexible suction and pressure connections with valves for controlling the same, substantially as described.

[Claim 6 not printed in the Gazette.]

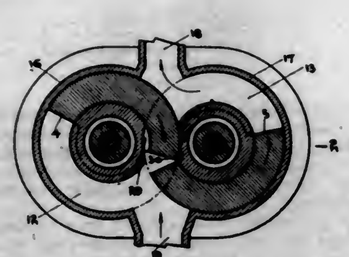
1,029,156. HAY-BALING PRESS. THOMAS E. TURNER and ORA J. HEATH, Springfield, Ohio, assignors to International Harvester Company, a Corporation of New Jersey. Filed Feb. 15, 1912. Serial No. 677,807. (Cl. 100—25.)

A baling press having, in combination, a feed hopper, a compression chamber, a plunger head, a draw bar, means whereby said draw bar is operatively connected with said plunger head, said means including toggle bars pivotally connected with the frame of the machine and upon opposite sides thereof, a swinging feeder head adapted to be moved into and from said compression chamber, means for actuating said feeder head, said means including a transversely arranged rock shaft journaled in bearings carried by the frame of the machine and having lever arms secured to opposite ends thereof, bell crank levers pivotally mounted upon the frame of the machine and having one arm thereof connected with said lever arms by means of links, bracket members secured to said toggle



bars, and bars pivotally connecting said bracket members with the remaining arms of said bell crank levers.

1,029,157. PUMP OR MOTOR. RUDOLPH ULLMAN, Oak Park, Ill. Filed Feb. 13, 1911. Serial No. 608,298. (Cl. 103—44.)

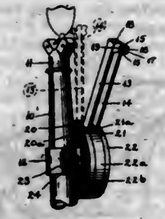


1. A rotary motor, comprising side plates spaced apart and secured together, said plates having internally-projecting annular flanges forming overlapping cylindrical piston-chambers, shafts extending through said side plates and arranged concentrically with said piston-chambers, substantially semi-cylindrical pistons moving in said piston-chambers and having hubs mounted on said shafts, and inlet and outlet passages at opposite sides of said piston-chambers, said pistons having flanges which project between said annular flanges and coöperate therewith to form the inner boundaries of the piston-chambers.

2. A rotary motor, comprising side plates spaced apart and secured together, said plates having internally-projecting annular flanges forming overlapping cylindrical piston-chambers, shafts extending through said side plates and arranged concentrically with said piston-chambers, substantially semi-cylindrical pistons moving in said piston-chambers and having hubs mounted on said shafts, and inlet and outlet passages at opposite sides of said piston-chambers, said pistons having flanges which project between said annular flanges and coöperate therewith to form the inner boundaries of the piston-chambers, said annular flanges having extended bearing surfaces coöperating with the outer surfaces of the pistons.

1,029,158. IGNITING DEVICE. LOUIS A. VOELL, Fond du Lac, Wis. Filed Mar. 31, 1910. Serial No. 552,599. (Cl. 67—20.)

1. An igniting device for gas burners comprising a pair of swinging arms pivoted concentrically beside the burner and having respectively spark-producing elements operating by contact with each other, means connected to one of the arms to swing the same to bring the element carried thereby to igniting position adjacent the burner tip, means including a spring in tension between said arms and automatically actuated by the movement of said arms to subsequently swing the other arm to such position and contact said elements, and means to return the arms to original position.

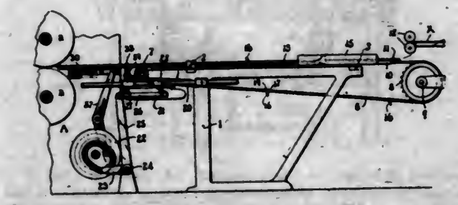


2. An igniting device for gas burners comprising a supporting casing, a pair of plates pivotally mounted therein, said plates having arms projecting outside the casing and provided at their outer ends with contact spark-producing elements, a spring connecting the plates and tending to cause one to turn with the other, to bring said elements in contact, means connected to one of the plates to turn the same to swing its arm to igniting position beside the burner tip, a detent between the other plate and the casing, normally preventing the action of the spring, means carried by the first-mentioned plate to release said detent and allow the spring to act when said plate is swung to said position, and means to return the plates to original position.

3. An igniting device for gas burners comprising a supporting casing provided with converging slots, a pair of arms pivoted in the casing and extending through the slots and carrying contact spark-producing members at their outer ends, means to swing one arm to igniting position adjacent the burner tip, automatic means to subsequently swing the other arm to similar position, whereby the convergence of the slots will cause said member to contact, and means to return the arms to original position.

4. An igniting device for gas burners comprising a supporting casing, plates 42 and 43 pivoted side by side therein and having projecting arms provided at their outer ends with contact spark-producing members, a pull cord connected to the plate 43 to turn the same to swing its arm to igniting position adjacent the burner tip, a spring connecting said plates and tending to turn one with the other, a detent between the plate 42 and the casing and acting to prevent turn of the plate, a cam carried by the plate 43 and engaging the detent to release the same when the plate 43 is turned to said position, and a spring connected to the plate 43 to return said plates to original position.

1,029,159. SHEET-FEEDING MECHANISM FOR PRINTING-PRESSES. FREDERICK WESTERBECK, St. Louis, Mo. Filed June 5, 1911. Serial No. 631,291. (Cl. 101—36.)



1. In a sheet feeding mechanism for printing presses, a reciprocating feeding device, an endless auxiliary feeding device leading to said reciprocating feeding device, and guides through which the sheets are adapted to travel continuously while being fed by both of said feeding devices, said guides bridging the space between the reciprocating feeding device and the auxiliary feeding device and constituting means for holding the sheets while they are being released from the endless feeding device and picked up by the reciprocating feeding device.

2. In a sheet feeding mechanism for printing presses, a reciprocating feeding device, an endless auxiliary feeding device leading to said reciprocating feeding device, guides bridging the space between the reciprocating feeding device and the auxiliary feeding device and through which the sheets are adapted to travel while being fed by both of said feeding devices, the portions of said guides at the location of the reciprocating feeding device being open sided, gages alongside of the open-sided portions of the guides against which the side edges of the sheets ride while moving through said guide portions, and means for moving said gages into engagement with the side edges of said sheets.

3. In a sheet feeding mechanism for printing presses, a reciprocating feeding device, an endless conveyer, table bars on which the sheets are laid before they are engaged by said conveyer, guides bridging the space between the reciprocating feeding device and the conveyer, extending forwardly from said table bars and having horizontal channels therein, the guides being provided with rearwardly projecting gage members parallel with the side walls of the guides, and the side walls of the guides being provided at their sheet receiving ends with inclined faces leading forwardly from said gage members and adapted to centralize the sheets transversely of the feeding mechanism as they move forwardly upon the table bars between the gage members and enter into the guides.

4. In a sheet feeding mechanism for printing presses, a reciprocating feeding device, an endless conveyer, guides bridging the space between the reciprocating feeding device and the conveyer, a runway member on which said endless conveyer is operable, and sheet engaging fingers pivoted to said conveyer, said sheet engaging fingers being arranged to ride upon said runway member while in sheet feeding action, and being provided with heels having stop pins for engagement with said conveyer to prevent the fingers from turning forwardly upon their pivots, said stop pins being located below the endless conveyer when it is traveling on the runway member, so as to allow said fingers to drop below the sheets when said fingers reach the end of the runway member.

1,029,160. ARTIFICIAL TOOTH. FRANZ WIKNER, Vienna, Austria-Hungary. Filed Mar. 2, 1912. Serial No. 681,052. (Cl. 32—9.)

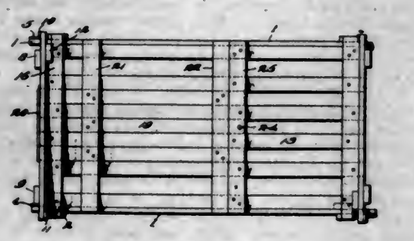


An artificial tooth having a body portion, the front sides of which are shaped to conform to the front and sides of a natural tooth, said body portion being provided at its rear with a recess extending from the top to the bottom thereof, whereby the tooth may be fixed to a mouth plate.

1,029,161. COLLAPSIBLE VENTILATED CRATE. LEWIS A. WILLIAMS, Houston, Tex. Filed Mar. 28, 1911. Serial No. 617,447. (Cl. 217—48.)

1. In a collapsible crate, the combination with side and end sections having interpenetrating slats, of means interlocking the interpenetrating ends of said crate body com-

prising main and auxiliary standards secured to said slat sections whereby they may be folded flat, and top and bottom closures, substantially as described.



2. In a collapsible crate, the combination with side and end sections comprising slats having interpenetrating ends, of means interlocking the adjacent corners of the crate body comprising spaced main and auxiliary standards secured to said sections on the outside thereof and abutment strips on the inside thereof at two of the diagonally opposed corners of the crate body and provided with a main standard on the outside and an auxiliary standard on the inside secured to said sections at the other two diagonally opposed corners whereby the sections may be folded flat but are locked against collapse in the opposite direction, and top and bottom closures, substantially as described.

3. In a collapsible crate, the combination of side and end sections having interpenetrating slats, main standards fixed to the outside of the slats of the side and end sections near the ends thereof, auxiliary standards fixed to the outside of the slats of the side and end sections at the ends at two diagonally opposite corners of the crate, auxiliary standards fixed to the inside of the slats of the side and end sections at their ends at the other two diagonally opposite corners of the crate, and top and bottom closures, substantially as described.

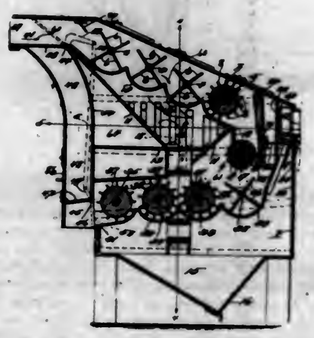
4. In a collapsible crate, the combination of side and end sections having interpenetrating slats, main standards fixed to the outside of the slats of the side and end sections near the ends thereof, auxiliary standards fixed to the outside of the slats of the side and end sections at the ends at two diagonally opposite corners of the crate, auxiliary standards fixed to the inside of the slats of the side and end sections at their ends at the other two diagonally opposite corners of the crate, abutment strips on the inside of the slats of the side and end sections near the ends thereof at the two first mentioned diagonally opposite corners of the crate, and top and bottom closures, substantially as described.

1,029,162. COTTON-CLEANER. SAMUEL WILLIAMS, Elk City, Okla. Filed Oct. 18, 1911. Serial No. 655,404. (Cl. 13—19.)

1. In an apparatus as set forth, a casing having an upper and lower chamber adjoining at one end, cotton cleaning mechanisms in the chambers, means for conveying the air from the upper chamber to the rear of the casing where it exits, and an air conduit between the upper chamber and the lower chamber, thus causing approximate vacuum in lower chamber.

2. In an apparatus as set forth, a casing having upper and lower chambers adjoining at one end, cotton cleaning mechanisms in the chambers, means for conveying the air from the upper chamber to the rear of the casing where it exits, and an air conduit from the lower chamber to the exit, thus causing approximate vacuum in the lower chamber, and a crushing mechanism arranged at the point where the chambers adjoin.

3. In a machine as set forth, a casing having an upper chamber with a plurality of beaters operable therein, screening arranged below the beaters, a chute below the screening, down which the refuse passes, a second chamber with beaters therein in the lower portion of the casing, passage ways merging from the chute and from one another at their upper portions, one upon each side of the lower chamber, through which the refuse passes, a pair of passages in the casing, one on each side thereof communicating with the space between the screening and the chute, and extending to and merging together at the rear of the casing, through which the air is adapted to be drawn by suction thereby causing a vacuum in the lower chamber, and a refuse box below the casing to receive the refuse from the first passages.

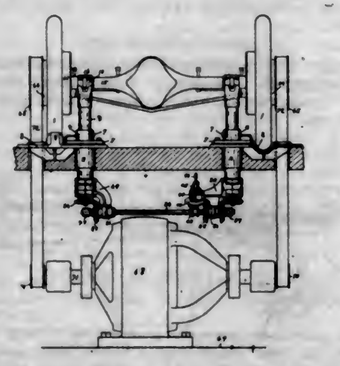


4. In a cotton cleaner, a series of rotary beaters, a corrugated roller and rub-board adapted to operate upon the cotton after leaving the beaters, a series of rotary pickers adapted to operate upon the cotton after leaving the corrugated roller, said beaters, corrugated roller and rub-board being mounted in a casing with screening means in connection with the beaters and picker rolls, and means for carrying away refuse.

5. In a cotton cleaner, a series of rotary beaters followed by a single picker, a corrugated roller and rub-board adapted to operate upon the cotton after leaving the beaters and the single picker, a series of rotary pickers preceded by a single beater adapted to operate upon the cotton after leaving the corrugated roller, said beaters, pickers, corrugated roller and rub-board being mounted in a casing with screening means in connection with the beaters and picker rolls, and means for carrying away refuse.

[Claims 6 to 8 not printed in the Gazette.]

1,029,163. TESTING-JACK. RICHARD T. WINGO, Detroit, Mich., assignor to Cadillac Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Dec. 1, 1911. Serial No. 663,221. (Cl. 73—51.)



1. In a testing device for automobiles, the combination of a pair of lifting jacks, means for operating the same independently or simultaneously at will, a dynamometer mounted adjacent the lifting jacks and having a shaft pulleys on each end of said shaft, pulleys adapted to be secured to the driving wheels of an automobile whose rear axle is secured to the upper ends of the lifting jacks, and belts connecting the pulleys on the dynamometer and on the rear axle.

2. In a testing device for automobiles, the combination of manually adjustable means for engaging the rear axle of an automobile and supporting the same, a dynamometer having a shaft, pulleys secured to the dynamometer shaft, pulleys adapted to be secured to the automobile axle and belts connecting the pulleys on the axle and shaft, said belts adjustable by the axle supporting means.

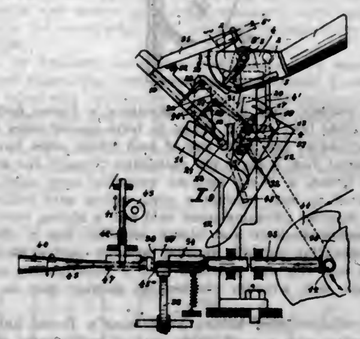
3. In a testing device for automobiles, the combination of a pair of sleeves, a ram in each sleeve formed with proper means at its upper end to engage the rear axle of an automobile, a jack-screw mounted in each sleeve and a nut in each ram in which said screw engages, a gear on the lower end of each screw, a slidable shaft, means to revolve the same, a gear meshing with each gear secured to the jack-screw, and means for operatively connecting the shaft to either or both of said gears at will.

4. In a testing device for automobiles, the combination of a pair of plates secured to the floor and having troughs to receive the rear wheels of an automobile, a lifting jack adjacent to each trough and comprising a sleeve mounted on one of said plates and a hollow ram slidable in the sleeve, a bearing at the upper end of each ram to engage the axle of the automobile adjacent a wheel, a nut in the lower end of each ram, a jack-screw carried by the lower end of each sleeve and engaging in a nut in a ram, a bevel gear secured to the lower end of each screw, a horizontal bearing in each bracket, a bevel-gear mounted in each bearing and engaging the bevel-gear on the adjacent jack-screw, and means to turn the gears in either direction at will, either singly or together.

5. In a testing device for automobiles, the combination of means to support the rear axle of an automobile and the wheels on the ends of the axle, a spacing ring adapted to be secured to the outer sides of each wheel, driving gears secured to said rings, a dynamometer mounted with its shaft substantially parallel to the axle and having gears at the ends of its shaft, and flexible driving members extending around the gears on the dynamometer and on the axle.

[Claims 6 to 8 not printed in the Gazette.]

1,029,164. MACHINE FOR MAKING CIGAR AND CIGARETTE HOLDERS. GEORG WIRTH, Augsburg, Germany. Filed Aug. 20, 1910. Serial No. 579,750. (Cl. 93—77.)



1. In a machine for making cigar or cigarette holders, the combination with a paper winding mandrel of means for pointing the mouth-pieces for the holders with their beaded ends away from the mandrel, and means for feeding the mouth-pieces to and in alinement with the mandrel.

2. In a machine for making cigar or cigarette holders, an angular trough for mouth-pieces, and a second trough arranged above the same, in combination with a rotatable gripper, means for separating its jaws after it has introduced a mouth-piece in the second trough, and means for holding the jaws open in advance of the mouth-piece in the first trough.

3. In a machine for making cigar or cigarette holders, an angular trough for mouth-pieces, and a second trough arranged above the same, in combination with a rotatable gripper, a knife for separating the jaws of the gripper after inserting a mouth-piece in the second trough and a sliding-piece adapted to hold said jaws open until they close over a mouth-piece in the lower trough.

4. In a machine for making cigar or cigarette holders, an angular trough for mouth-pieces, and a second tilting trough arranged above the same, in combination with a rotatable gripper, a knife for separating the jaws of the gripper after inserting a mouth-piece in the second trough and a sliding-piece adapted to hold said jaws open until they close over a mouth-piece in the lower trough.

5. In a machine for making cigar or cigarette holders, an inclined trough for beaded mouth-pieces, beaded at one of their ends, in combination with a rotatable gripper normally adapted to embrace the shank of a mouth-piece, but to abut against the bead of the same, and means for releasing the gripper from the bead after the same has reversed the direction of the mouth-piece.

[Claims 6 to 10 not printed in the Gazette.]

1,029,165. COMPOUND. ALFRED M. BAILEY, Salem, Mass. Filed Apr. 11, 1911. Serial No. 620,443. (Cl. 134—9.)

A leather dressing compound consisting of a mixture of carnauba wax, paraffin wax, Cera wax, beeswax, Venice turpentine and gum camphor in about the proportions of six ounces of carnauba wax, six ounces of paraffin wax, one ounce of Cera wax, one-half ounce of beeswax, one-half ounce of Venice turpentine and two ounces of gum camphor.

1,029,166. SPLICE-PLATE FOR RAILS. ALFRED P. BAMBERGER, New Cumberland, and GEORGE PORTER, New Market, Pa., assignors of one-fourth to Walter M. Smith and one-fourth to Forrest N. Burns, New Cumberland, Pa. Filed Feb. 23, 1912. Serial No. 679,509. (Cl. 239—9.)



1. In a railway rail fastening, a splice-plate having an upturned portion between its ends to overlap the joint between the rails and a clamp having a portion resting on said upturned portion of the splice-plate the end of said clamp bearing against the vertical portions of the splice plates.

2. A splice-plate embodying a web, a tread-engaging portion, and a lateral base portion with an upturned member, combined with a clamp having a lateral portion to rest upon said member the free end of said lateral portion bearing against the vertical portion of the web of said splice plate.

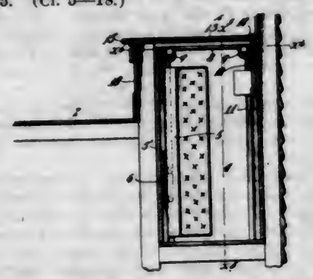
3. A splice-plate embodying a web, a tread-engaging portion, and a lateral base portion with an upturned member, combined with a clamp having a lateral portion to rest upon said member, said clamp being formed in hinged sections.

4. A splice-plate comprising a web, a tread-engaging portion, a lateral base member with web-engaging portion, and an upturned member forming a rest for a clamp member the free end of said lateral portion bearing against the vertical portion of the web of said splice plate.

5. A splice-plate embodying a web portion, a tread-engaging member, and a base member having an upturned portion forming a rest for a clamp member, the base member terminating at a point above the tie-engaging plane of the splice-plate combined with a clamp having an inwardly extending portion bearing against said upturned portion and engaging the web of said splice plate.

[Claims 6 to 8 not printed in the Gazette.]

1,029,167. DISAPPEARING BED. EDWARD R. BRAINERD, Los Angeles, Cal. Filed Apr. 15, 1909. Serial No. 490,155. (Cl. 5—18.)



1. The combination of a casing provided with a bed receiving recess, of a carrier mounted to move vertically in said bed receiving recess, and a bed pivotally mounted on said carrier to move vertically therewith and to turn into vertical or horizontal position.

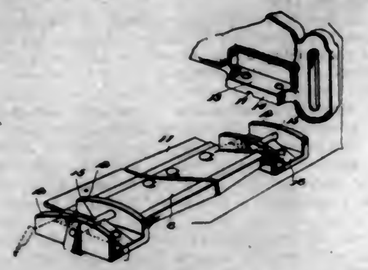
2. The combination of a casing provided with a bed receiving recess, a carrier mounted to move vertically within said bed receiving recess, a bed mounted on said carrier to move into and out of said recess, a second carrier mounted to move vertically within the recess, cables connecting said carrier, pulleys supporting said cables to provide for counter-balancing motion of the two carriers, and a closure means for the said recess hinged to the second carrier to turn down over the recess when the bed is lowered into position within the recess.

3. The combination with a casing provided with a bed receiving recess, of bed carrying means movable vertically within said bed receiving recess, a bed hinged to said bed carrying means to be movable therewith down into the recess or upwardly out of the recess and to turn over to extend outside of the casing when in raised position, counter-balancing means for said bed movable vertically within said recess, and means connecting said counter-balance means with said bed to cause the counter-balance means to descend when the bed rises, and vice versa, and closure means for said recess carried by said counter-balance means.

4. The combination of a casing provided with a bed receiving recess, of bed carrying means movable vertically within said bed receiving recess, a bed hinged to said bed carrying means to be movable therewith down into the recess or upwardly out of the recess and to turn over to extend outside of the casing when in raised position, counter-balancing means for said bed movable vertically within said recess, and means connecting said counter-balance means with said bed to cause the counter-balance means to descend when the bed rises, and vice versa, and closure means for said recess hinged to said counter-balance means so as to be adapted to be turned back to expose the bed and to descend with the counter-balance means when the bed is raised.

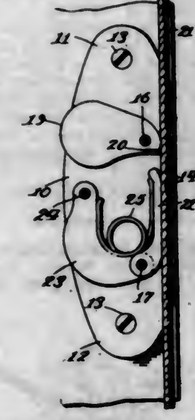
1,029,168. STATIONARY-KNIFE MOUNTING. LEVI BROWN, Richmond, Ind., assignor to John M. Lonts, Richmond, Ind. Original application filed Apr. 24, 1911, Serial No. 622,992. Divided and this application filed Oct. 5, 1911. Serial No. 652,939. (Cl. 56—19.)

1. In a machine of the character described, the combination of two side frames, each provided with two parallel bearing surfaces and with a depression on the under side thereof, a stationary knife, a plurality of parallel flanges provided on each end thereof to embrace the bearing surfaces on said side frames, a cylindrical pin mounted in said flanges and engaging said depression and means for adjusting said knife around said pin as a center and fixing said knife in its adjusted position.



2. The combination with a knife bar and a side frame, one of said parts having a portion fitting in a correspondingly shaped elongated recess in the other part, the opposing walls of the two parts closely contacting to rigidly maintain the angular relationship of the parts, a fulcrum ridge extending across said recess fixed to one part and engaging the other part and bolts connecting the side frame and cutter bar on opposite sides of said fulcrum ridge.

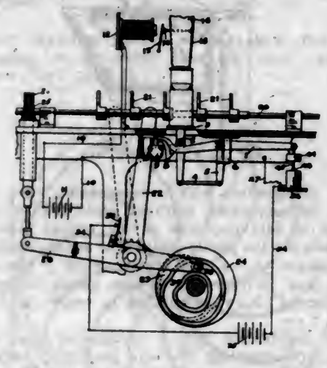
1,029,169. CORD-HOLDER FOR WINDOW-SHADES. WILLIAM B. CASWELL, Newport, R. I. Filed Mar. 31, 1911. Serial No. 618,226. (Cl. 24—132.)



1. A window cord holder, comprising a frame formed from a plate bent into U shape to form spaced sides and a cord guide at the bend, one of said frame sides having a segmental slot, a pivot pin extending through the sides of said frame, a clamp member swinging upon said pin in position to bear against a cord within said guide, a tension member swinging upon said pin, a spring between said tension member and clamp member, and a clamp screw operating in said tension member and extending through said slot and provided with a head bearing upon the frame side, whereby the tension member may be adjusted.

2. A window cord holder comprising a frame having spaced sides and a cord guide, one of said frame sides having a segmental slot, a clamp member swinging between said frame sides in position to bear against a cord within said guide, a tension member swinging between said frame sides, a spring operating between said tension member and clamp member, and a clamp device engaging said tension member through said slot.

1,029,170. RAPID-WEIGHING SCALE. NEWTON B. CONVERSE, Fresno, Cal., assignor to himself, J. E. Dickinson, Francis M. Wright, B. W. Norton, L. Z. Ickes, and K. Arakilian, trustees. Filed Sept. 8, 1907, Serial No. 391,043. Renewed Sept. 26, 1910. Serial No. 583,801. (Cl. 73—181.)



1. In weighing scales, the combination of a scale beam, a load supporting member at one end of said beam, a weight at the other end thereof, an electro-magnetic device adjacent to one end, and means actuated by said electro-magnetic device when energized to move the load supporting end of the scale beam into the position corresponding with the upper position of the load supporting member when a load has been removed therefrom, substantially as described.

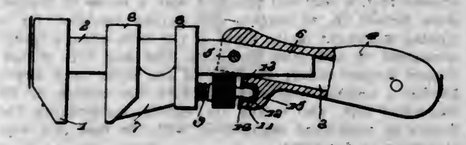
2. In weighing scales, the combination of a scale beam, a load supporting member carried by said scale beam, means for balancing the weight of material on said pan, an electro-magnetic device arranged to attract the scale beam to the position it assumes when the load has been removed from said member, and to hold it in said position, and means for energizing said electro-magnetic device, substantially as described.

3. In weighing scales, the combination of a scale beam, a scale pan at one end of said beam, a weight at the other end thereof, a solenoid, a core for said solenoid connected with said weight to swing therewith, and means for energizing said solenoid, substantially as described.

4. In weighing scales, the combination of a scale beam, a scale pan at one end thereof, a weight at the other end, a core attached to said weight, a solenoid into which said core can pass, means for moving a filled receptacle from said scale pan and for placing an empty receptacle thereon, and means operatively connected with said latter means for energizing said solenoid, substantially as described.

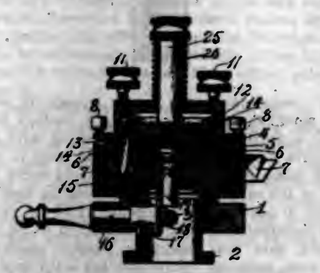
5. In weighing scales, the combination of a scale beam, a load supporting member at one end thereof, a weight at the other end, means for moving a filled receptacle from said scale pan and for placing an empty receptacle thereon, and an auxiliary device operatively connected with said latter means for positively bringing said scale beam to rest immediately after the said movement, substantially as described.

1,029,171. WRENCH. JAMES R. COYLE, Huntsville, Ala. Filed Apr. 18, 1911. Serial No. 621,827. (Cl. 81—126.)



A wrench of the character described, comprising a handle formed with a socket and with a lateral projection to one side of said socket, said projection having a recess formed therein, a shank provided with a stationary jaw and pivotally mounted in the socket at a point in advance of the recess, an actuating rod formed with a head mounted to turn and rock in said recess, and a movable jaw slidable on said shank, the shank being formed with an elongated extension projecting into the handle of the socket to a point beyond the inner end of the recess, said extension being straight on its front edge and beveled on its rear edge, whereby, with the length of the extension, said front edge will bear against the adjoining wall of the socket with the handle in longitudinal alinement with the shank and the beveled rear edge of the shank will engage with the adjoining wall of the socket with the handle in angular relation to the shank so as to relieve the pivot of the shank from undue strain.

1,029,172. MACHINE-TOOL HOLDER. ROBERT B. CRAIG, Dayton, Ohio. Filed Feb. 25, 1911. Serial No. 610,918. (Cl. 29—49.)



1. A tool carrier comprising a base, a rotary tool carrier mounted on said base with vertical movement, an interlocking means comprising members carried respectively by the rotary carrier and the base and caused to interengage by relative vertical movement, wedging keys adapted to firmly bind the rotary carrier and base together after their rotary adjustment is determined, and means for seating and unseating said wedging keys, imparting movement to the rotary carrier in the direction to disengage the interlocking means, and having a resilient connection with said rotary carrier in the direction of seating the carrier and wedging keys.

2. A tool holder comprising a base, a tool carrier mounted on said base with rotary and axial movements, wedging keys having axial movement relatively to said parts adapted to bind them together after their rotary and vertical adjustments have been determined, a vertically movable block having connection with said wedging keys, whereby they move said keys to and from binding position and a spring connection between said block and the rotary carrier.

3. A tool holder comprising a base, a tool carrier mounted on said base with rotary and axial movements, wedging keys having axial movement relatively to said parts adapted to bind them together after their rotary and vertical adjustments have been determined, a vertically movable block having connection with said wedging keys, whereby they move said keys to and from binding position, an extension on said block projecting through the carrier and a spring interposed between the protruding end of said extension and the carrier, through which the block imparts movement to the carrier in the direction of seating.

4. A tool holder comprising a base, a rotary tool carrier mounted on said base and having vertical movement thereon, a lifting block adapted to raise the rotary carrier and affording a support for the carrier when raised, permitting its rotary movement and a yielding seating connection between said block and carrier.

5. A tool holder comprising a base, a rotary tool carrier mounted on said base and having vertical movement thereon, a lifting block adapted to raise the rotary carrier and affording a support for the carrier when raised, per-

mitting its rotary movement and a yielding seating connection between said block and carrier comprising an extension from the block projecting through the carrier and the spring interposed between the protruding end of the extension and the carrier.

[Claims 6 to 9 not printed in the Gazette.]

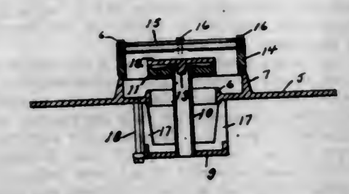
1,029,173. FOUNTAIN-BRUSH. WILLIAM C. CUTLER, Sawtelle, Cal. Filed Dec. 9, 1911. Serial No. 664,878. (Cl. 15—50.)



1. The combination of a brush, a body in which the brush is mounted, said body having a passage leading to the brush, a soap reservoir communicating with said passage, a valve movably mounted in said body to open and close said passage, and a handle for said valve pivotally mounted on the valve to be closed against the body or to be turned out to position for manipulating of the valve.

2. The combination of a brush, a body in which the brush is mounted, said body having a passage leading to the brush, a soap reservoir communicating with said passage, spring operated means in said reservoir for forcing soap through said passage, a valve for closing said passage, and a rod movably mounted in said reservoir to clean said passage and the opening through the valve.

1,029,174. OIL-BURNER. HARRY M. DAGGETT, Oakland, Cal. Filed Apr. 4, 1910. Serial No. 553,269. (Cl. 158—80.)

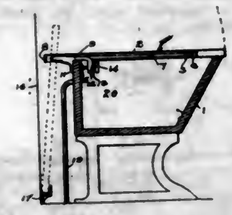


1. In an oil burner, a plate, an oil supply pipe carried thereby and projecting therethrough; a flange on said plate and surrounding said pipe; a ring forming a close joint with the flange and having lugs projecting above the top thereof, a second ring secured above the first ring and resting on said lugs; substantially as set forth.

2. In an oil burner, a plate having an opening therethrough, an oil supply pipe carried by said plate and projecting therethrough, two flanges on said plate forming an annular channel for the retention of oil, a ring on the outer flange, and a second ring secured to the first ring and having an inwardly projecting flange, substantially as described.

3. In an oil burner, a plate having an opening therethrough, an oil pipe carried by said plate and having a flat top of substantially the same diameter as the opening through said plate, a loose cap carried by said top, a ring supported by said plate, and a second ring supported a short distance above said first mentioned ring whereby an air passage is formed between the two rings to assist the combustion of oil, substantially as described.

1,029,175. COVER FOR WASHTRAYS, &c. ELMER U. DANENHOWER, Orange, N. J. Filed Feb. 23, 1911. Serial No. 610,263. (Cl. 217—59.)

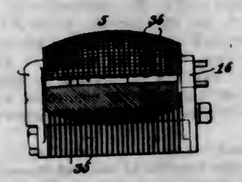


1. The combination with a rectangular wash tray or the like, of supporting brackets projecting outside the back wall of said tray and having lateral pivotal pins located between the planes of the side walls extended, and a cover adapted to lie upon the top edges of the walls of the tray and having between the planes of said side walls extended slideways adapted to receive said pivotal pins.

2. The combination with a rectangular wash tray or the like, of supporting brackets projecting outside the back wall of said tray and having lateral pivotal pins located between the planes of the side walls extended, and a cover having at its under surface and substantially parallel to its side edges flanges adapted to engage the top edges of the walls of the tray, said flanges at the lateral edges of the cover having at their inner facing sides slideways receiving said pivotal pins.

3. The combination with a rectangular wash tray or the like, of supporting brackets straddling the edge of the back wall of said tray and secured so as to project outside said wall, said brackets having lateral pivotal pins outside the tray, and a cover having on the under surface of its body flanges adapted to engage the top edges of the walls of the tray and hold said body above said brackets, said flanges having at their inner sides slideways with said pivotal pins.

1,029,176. SKIVING-MACHINE. EUGENE F. DAVENPORT, Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 26, 1911. Serial No. 667,584. (Cl. 69—9.)

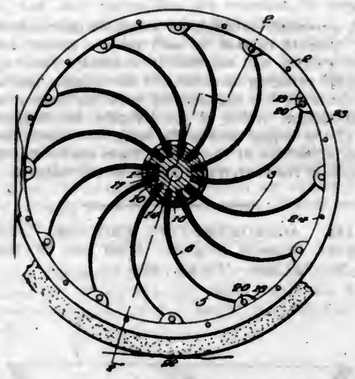


1. A skiving machine having in combination, a knife, a presser foot, a feed roll provided with a series of grooves formed in its surface and having provision for a tipping movement in the plane of the knife edge, a bodily movement to and from the knife edge, and stripper fingers supported adjacent to the feed roll and projecting into said grooves formed in the surface of the roll, substantially as described.

2. A skiving machine having, in combination, a knife, a presser foot, a feed roll provided with a series of narrow slots formed in its surface and having provision for a tipping movement in the plane of the knife edge, a bodily movement to and from the knife edge and thin wedge-shaped fingers closely received in the slots, each finger having a pointed end engaging with the bottom of its respective slot, and means for rigidly maintaining the fingers in permanent engagement with the feed roll, substantially as described.

3. A skiving machine having, in combination, a cylindrical knife, a presser foot supported above the knife, a feed roll supported within the knife and provided with a series of slots in its surface, a pair of arms in which the feed roll is journaled having downward extensions, a transverse rod mounted in the extensions and a plurality of stripper fingers rigidly secured to the rod and received closely into said slots formed in the feed roll, substantially as described.

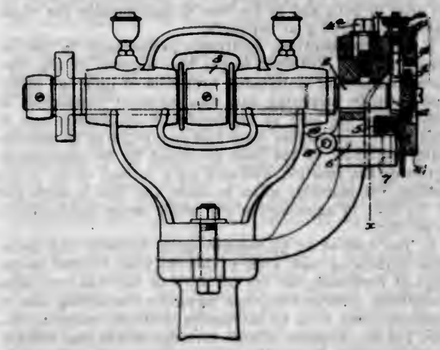
1,029,177. SPRING-WHEEL. WILLIAM T. DULANY, Jr., Arlington, N. J. Filed June 29, 1911. Serial No. 636,077. (Cl. 152—50.)



1. In a wheel, a hub having a plurality of radial sockets, a rim, a plurality of spring spokes each formed with a pair of coacting leaves lying against each other and a return bend connecting the leaves at one end of the spoke, one of said leaves being offset from the other leaf to provide a head for engaging respectively in the sockets and to likewise provide a lateral shoulder at the inner end of the head, clamp members extending through said hub and engaging said shoulder, and means for connecting said spokes at their outer ends to said rim.

2. As a new article of manufacture, a spring spoke for vehicle wheels, including a pair of co-acting leaves lying against each other, and a return-bend connecting the leaves at one end of the spoke, one of said leaves being offset away from the other at a point spaced apart from but in proximity to the bend, to provide a head at the said end of the spoke.

1,029,178. EDGE-CHAMFERING MACHINE. WILLIAM G. EATON, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 3, 1906, Serial No. 341,884. Renewed Mar. 25, 1912. Serial No. 686,009. (Cl. 12—87.)



1. An insole chamfering machine, having, in combination, a cutter arranged to chamfer the feather of an insole, a work support arranged to engage the surface of the insole acted upon by the cutter, and an edge gage adjustable to change the width of the chamfer on the feather, substantially as described.

2. An insole chamfering machine, having, in combination, a rotary cutter arranged to chamfer the feather of an insole, a work support to engage the surface of the insole acted upon by the cutter and an edge gage to determine the width of the chamfer on the feather, substantially as described.

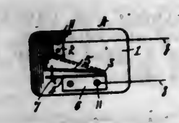
3. An insole chamfering machine, having, in combination, a rotary spindle, a cutter mounted thereon and formed to cut on its inner side, an edge gage encircling the spindle at the inside of the cutter and fixed to an adjustable stem, and means for adjusting the stem to move the operative extremity of the edge gage toward or from the axis of rotation of the cutter, substantially as described.

4. An insole-chamfering machine, having, in combination, a rotary cutter formed to cut on one side, a work support having a flat work-supporting surface perpendicular to the axis of rotation of the cutter and adjacent to the periphery thereof, a spring-pressed presser for holding the work against the work support and the cutter, and an edge gage for determining the distance of the edge of the work from the axis of rotation of the cutter, substantially as described.

5. An insole-chamfering machine, having, in combination, a rotating spindle, a cutter mounted thereon and formed to cut on its inner side, a work support surrouning the cutter and having a flat work-supporting surface perpendicular to the axis of rotation of the cutter and adjacent to the inner side of the cutter, a spring-pressed presser for holding the work against the work support, and an edge gage located between the presser and the spindle, substantially as described.

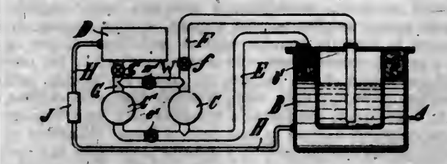
[Claims 6 and 7 not printed in the Gazette.]

1,029,179. AUTOMATIC FIRE-ALARM APPARATUS. GARRETT F. EMCH, Woodville, Ohio. Filed Aug. 30, 1911. Serial No. 646,926. (Cl. 177—303.)



In a device of the character described, a touch-off unit having a fixed contact part and a movable contact part disposed in a common electrical signal circuit, the movable part comprising a member which is fixed relative to the fixed part and having the edge thereof adjacent to the fixed part bent laterally and extended at both ends with one extension bent over the remaining portion of such bent edge and lying adjacent thereto and influenced to normally move outwardly therefrom into contact with the fixed part and a fusible member coacting with said extensions to retain the movable extension out of contact with said fixed part.

1,029,180. SODA-BOILER STEAM-POWER PLANT. RAYMOND D'EQUEVILLEY-MONTJUSTIN, Kiel, Germany. Filed Feb. 11, 1909. Serial No. 477,455. (Cl. 122—21.)



1. A steam power plant comprising a primary engine, a soda steam generating boiler connected therewith and

adapted to supply power thereto, said engine adapted to return a portion of its exhaust to said soda boiler, a separate secondary engine connected with and adapted to receive the remaining exhaust from the primary engine, and a condenser connected with said secondary engine.

2. A steam power plant comprising a multi-cylinder compound engine, divisible into two or more pressure units, a soda steam generating boiler having a soda receptacle, a condenser, means connecting the cylinders of the engine with the soda boiler and the condenser, and controlling means in said connection adapted to effect communication of the cylinders with each other and with the soda receptacle of the boiler, whereby said soda receptacle may receive the exhaust from one or more of the cylinders and the other cylinders may receive the remaining exhaust as the power medium from the first named cylinders.

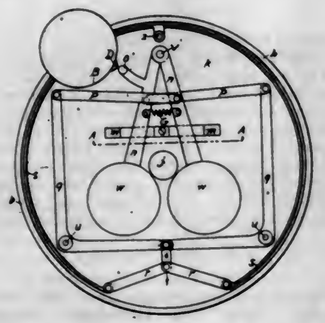
3. A steam power plant comprising twin steam engines, a soda steam generating boiler communicating with the engines, and having means whereby the live steam from said boiler may be divided between the engines and means whereby the exhaust steam from one of the engines may be returned to the generating boiler.

4. A steam power plant comprising a primary and a separate secondary engine, a soda steam generating boiler connected with an adapted to supply live steam to said engines separately or together, a condenser, and means whereby the exhaust steam from one of the engines is returned to the soda boiler, and the exhaust from the other engine is conducted to the condenser.

5. A steam power plant comprising a compound steam engine having a high pressure and two similar low pressure cylinders in communication, a soda steam generating boiler having a soda receptacle, a condenser; one of said low pressure cylinders communicating with and adapted to return its exhaust steam to the soda receptacle, the other low pressure cylinder communicating with and adapted to deliver its exhaust steam to the condenser, and a throttling valve intermediate the high pressure cylinder and said last named low pressure cylinder for controlling the passage of steam therebetween.

[Claims 6 to 8 not printed in the Gazette.]

1,029,181. MECHANISM FOR PREVENTING EXCESSIVE SPEEDS OF AUTOMOBILES. ETHELBERT FAVARY, New York, N. Y. Filed Sept. 19, 1906. Serial No. 335,270. (Cl. 74—45.)



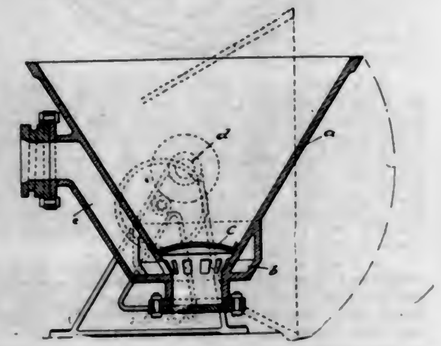
1. A governor, embodying a rotatable part, centrifugally acting weights carried thereby, spring catches arranged to hold the weights against centrifugal action up to a predetermined speed, and means auxiliary to the centrifugal action of the weights for positively moving said weights outwardly upon being released from said catches.

2. A governor, embodying a rotatable part, centrifugally acting weights carried by said part, a keeper connected to said weights and movable in a definite plane upon the outwardly swinging movement of the weights, and a latch carried by the rotatable part and engaging said keeper to resist the centrifugal action of the weights, the operative contacting faces of the keeper and latch being inclined, as specified.

3. A governor, embodying a rotatable part, centrifugally acting weights carried by said part, a keeper connected to said weights and movable in a definite plane upon the outwardly swinging movement of the weights, and a latch carried by the rotatable part and having oppositely inclined faces, one of wrich is arranged to resist the centrifugal action of the weights by engagement with the keeper and the other of which is designed to assist in the centrifugal action upon engagement with the keeper subsequent to the release of the first-named face from the keeper.

4. A governor, embodying a rotatable part, centrifugally acting weights carried by said part, a keeper connected to said weights and movable in a definite plane upon the outwardly swinging movement of the weights, and a spring latch arranged for engagement with the keeper to resist the centrifugal action of the weights, the engaging surfaces of the keeper and latch being so formed that upon the initial release of the keeper from the latch, the latch will asist in the centrifugal action of the weights.

1,029,182. AGGLOMERATING PROCESS. ALEXANDRE FOLLIET, Brussels, Belgium. Filed May 25, 1911. Serial No. 629,288. (Cl. 75—65.)



1. An agglomerating treatment preliminary to the recovery of lead contained in the fine residues of zinc furnaces, comprising suitably preparing said fine material containing, an addition to the lead to be eventually recovered, iron in such readily oxidizable state and quantities as to agglomerate the whole by the heat developed by its combustion, initiating the reaction, and blowing a current of air or gas through the material so as to cause the iron to burn and by its heat to agglomerate the whole mass, substantially as set forth.

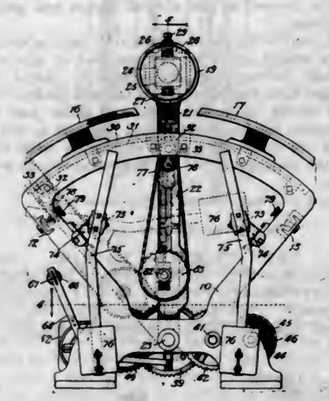
2. An agglomerating treatment preliminary to the recovery of lead contained in the fine residues of zinc furnaces, comprising moistening with milk of lime and otherwise suitably preparing said fine material containing, in addition to the lead to be eventually recovered, iron in such readily oxidizable state and quantities as to agglomerate the whole by the heat developed by its combustion, initiating the reaction, and blowing a current of air or gas through the material so as to cause the iron to burn and by its heat to agglomerate the whole mass, substantially as set forth.

3. The method of agglomerating by reaction fine materials containing lead with a view to their further metallurgical treatment for the recovery of the lead, the same comprising incorporating fine materials containing lead in oxidized forms, such as carbonates, sulfates, residues, etc., with the fine residues of zinc furnaces or the like containing both lead and iron, the latter in forms or combinations readily oxidizable and in quantities sufficient by its combustion to agglomerate the whole, and causing a current of air or gas to traverse the suitably prepared mixture after having suitably initiated the reaction.

4. A treatment for the agglomeration of fine materials containing lead with a view to their further metallurgical treatment for the recovery of the lead, the same comprising mixing and suitably preparing fine plumbiferous and ferruginous residues of zinc furnaces or the like with other materials in a fine state containing sulfuretted lead, the iron in the said residues being in a state or combinations and in quantities such as to be capable of agglomerating the whole by the heat produced by its combustion, initiating the reaction by means of some fragments of incandescent fuel, and supporting the reaction by causing a current of air or gas to traverse the mixture.

5. A treatment of fine materials with a view to their further metallurgical treatment for the recovery of the lead therein contained, the same comprising mixing fine materials or residues containing iron in readily oxidizable forms or combinations with other materials in a fine state containing sulfureted lead, the latter materials in quantities corresponding to the iron or its combustible combinations, and agglomerating the whole and transforming the sulfid to oxid by causing a current of air or gas to traverse the suitably prepared mixture, first suitably initiating the reaction.

1,029,183. IRONING-MACHINE. CHARLES T. GILMORE, Chicago, Ill. Filed Jan. 19, 1910, Serial No. 538,827. Renewed Dec. 22, 1911. Serial No. 667,359. (Cl. 68—9.)



1. An ironing-machine comprising, in combination, a frame, a support on the frame for the article to be ironed, a curved rack-device on the frame, an oscillatory member fulcrumed on the frame and movable with relation to said support, a pinion carried by said member and meshing with said rack, and ironing-means carried by said member and coöperating with said support, for the purpose set forth.

2. An ironing-machine comprising, in combination, a frame, a support on the frame for the article to be ironed, a curved rack-device on the frame, an oscillatory member fulcrumed on the frame and movable with relation to said support, a pinion carried by said member and meshing with said rack, ironing-means carried by said member and coöperating with said support, and means for actuating the pinion in opposite directions, for the purpose set forth.

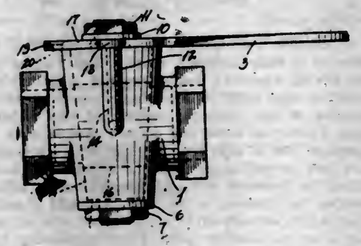
3. An ironing-machine comprising, in combination, a frame, a support on the frame for the article to be ironed, a rack-device on the frame, an oscillatory member fulcrumed on the frame and movable with relation to said support, a pinion carried by said member and meshing with said rack, ironing-means carried by said member and coöperating with said support, and gear-and-sprocket mechanism operatively connected with said pinion and serving, when actuated, to rotate it in engagement with said rack, for the purpose set forth.

4. An ironing-machine comprising, in combination, a frame, a support on the frame for the article to be ironed, a member fulcrumed on the frame and movable with relation to said support, an ironing-roller journaled on said frame and provided with a cone-pulley, a second cone-pulley journaled on said member and belted to said first-named cone-pulley, means for oscillating the arm in opposite directions, and means for driving said last-named cone-pulley, for the purpose set forth.

5. An ironing-machine comprising, in combination, a frame, a support on the frame for the article to be ironed, a rack on the frame, an oscillatory member fulcrumed on the frame and movable with relation to said support, an ironing-roller journaled on said member, a shaft carried by said member and provided with a pinion meshing with said rack, means for driving said shaft, and means operated by the movement of said shaft for driving said roller, for the purpose set forth.

[Claims 6 to 21 not printed in the Gazette.]

1,029,184. VALVE. FREDERICK P. GLASSNER, Searchlight, Nev. Filed July 18, 1911. Serial No. 639,076. (Cl. 137—7.)



1. A valve mechanism, comprising a casing, a valve plug fitting therein, the said casing having lateral passages formed in its walls having exteriorly arranged inlets and adapted to lead the lubricant directly into the port of the valve when it is in closed position for permitting of the filling of the port with a lubricant and means for turning the said valve.

2. A valve mechanism, comprising a casing, a turn plug fitting in said casing having a transverse port, the walls of the casing having passages formed therein to one side of the valve seat, said passages having their inner discharge ends opposite the port of the turn plug when the valve is closed, and means for closing the exterior entrance to said passages when the valve is open.

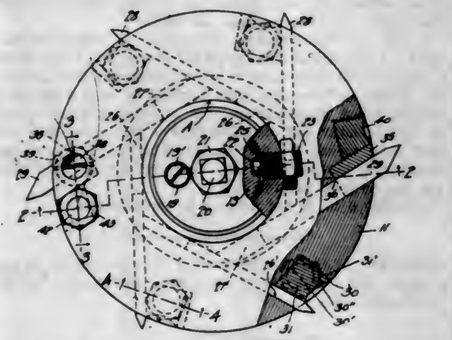
3. A lubricating valve mechanism, comprising a casing having a valve seat therein, and provided with lateral projections having lubricating passages extending through the same, and a handle for turning the valves, having covering portions adapted to close the said lubricating ports.

4. A lubricating valve comprising a casing, a valve fitting therein, the said casing having a lubricant inlet formed in its walls and adapted to lead lubricants into the port of the valve, a handle for turning the valve, and means carried thereby for closing the lubricant passage when the valve is in opened position, the said closing means also having an opening adapted to be brought over the lubricant passage for admitting lubricant thereto.

1,029,185. MATCHER-HEAD. JAMES W. GRAY, Tacoma, Wash. Filed Apr. 1, 1911. Serial No. 618,459. (Cl. 144—230.)

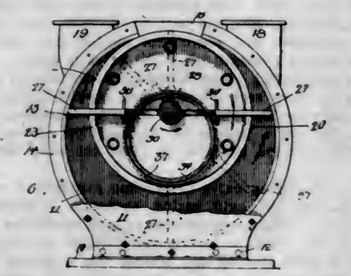
1. A matcher head comprising a body provided with a tangentially disposed slot and a tangentially disposed recess communicating with the slot, an adjustable carrier mounted in said recess and provided with a groove regis-

tering with said slot, a cutter bit positioned in said slot and extending through said groove, said body further provided with a dove-tail recess communicating with that recess in which is mounted the carrier, an adjustable wedge block located in said dove-tail recess, and means for drawing said block in a direction longitudinally of the head whereby said carrier is actuated to clamp the bit in operative position.



2. A matcher head comprising the combination with a spindle, of a body mounted thereon and formed with a socket having a portion thereof tapered, a slotted bushing mounted in said socket and having a conical portion corresponding to the tapering portion of the socket, said bushing having an inner end portion formed with a pair of openings, one of said openings having a screw-threaded wall, a bolt extending through one end of said body and engaging the threaded wall of said opening for adjustably connecting the bushing to the body, that end of said body through which extends said bolt provided with an opening having a screw-threaded wall, a bolt extending through the threaded opening in the body and through the other opening of the bushing for regulating the longitudinal position of the head with respect to the spindle, and means for keying the spindle to the head.

1,029,186. POSITIVE BLOWER. WILLIAM W. GREEN, Niles, Mich., assignor to Garden City Fan Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 16, 1911. Serial No. 609,049. (Cl. 230—30.)



1. A positive blower comprising a casing, comprising metal end walls, each having a central opening therein, and a sheet metal cylindrical wall secured to said end walls, bearing brackets secured to the outer faces of said end walls, and having annular flanges projecting inwardly through said openings in the end walls, an elastic ring surrounding each annular flange, a rotary drum within said casing and eccentrically disposed with respect thereto, shafts secured to said drum in axial alinement therewith and journaled in said bearing brackets, and blades slidably mounted in said drum and arranged to bear against the rings on said annular flanges, and elastic rings, said annular flanges acting to maintain said blades in position across the space between the drum and casing.

2. A positive blower, comprising a cylindrical casing, having inlet and outlet openings, a rotary drum journaled within said casing on an axis eccentric with respect to that of the cylindrical casing, blades slidably mounted in said drum, and arranged to project out therefrom, so as to traverse the space between the casing and drum, said blades having transverse projections rigid upon their ends, circular, blade-guiding members, concentric with the cylindrical casing and projecting into the interior thereof and an elastic ring surrounding each blade guiding member, said blade-guiding members and elastic rings being arranged to engage the transverse projections on the blades to continuously hold the blades in contact with the cylindrical wall of the casing.

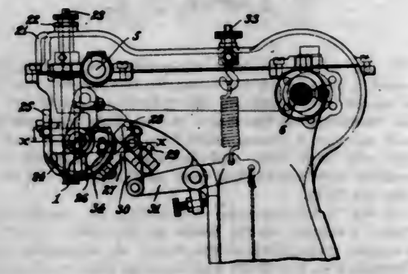
3. In a positive blower, a drum, comprising a plurality of segmental sections spaced apart to leave a longitudinal slot in its wall and radial slots for the reception of a blade, radially slotted flanges secured to said drum sections with their slots registering with the radial slots in the drum, and stud shafts secured to and projecting out from said slotted flanges.

4. In a positive blower, a drum, comprising a plurality of segmental sections spaced apart to leave longitudinal slots in its wall, said drum section having inwardly extending radial flanges, the edges of which are spaced apart to form bearing surfaces for blades, radially slotted flanges secured to said drum sections with their slots registering with the slots between said radial flanges of the drum, and stud shafts secured to said slotted flanges and projecting out therefrom.

5. In a positive blower, a sectional drum, the sections of which are spaced apart for the reception of one or more blades, and having inwardly extending radial flanges whose edges form bearing surfaces for said blade or blades, and stud shafts projecting from said drum and having slotted flanges secured thereto, and fastened to the radial flanges of the drum, said slots registering with the gap between the sections of the drum to receive side edges of the blades.

[Claims 6 to 8 not printed in the Gazette.]

1,029,187. VAMP-TRIMMING MACHINE. JOHN B. HADAWAY, Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 8, 1906, Serial No. 333,773. Renewed Apr. 17, 1912. Serial No. 691,504. (Cl. 12—82.)



1. A vamp trimming machine, having, in combination, a guide roll for the vamp and lining having one end directed toward the sole of a shoe placed in the machine and being provided with a peripheral surface concave longitudinally of the roll, a vibrating trimming knife working across the other end of the roll, a knife coöperating with said vibrating knife to trim the vamp and lining and means for rotating the roll.

2. A vamp trimming machine, having, in combination, vamp trimming knives, a guiding roll for the vamp and lining, means for rotating the roll and a guard arranged to extend between a trimming knife and the lasting tacks of a shoe placed in the machine and to coöperate with said roll to feed the shoe.

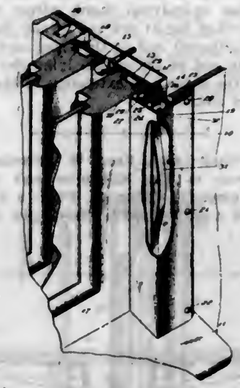
3. A vamp trimming machine having in combination, vamp trimming knives, a guide roll for the vamp and lining, means for rotating said roll, and a presser roll located beneath one of the knives and coöperating with said guiding roll to feed the shoe.

4. A vamp trimming machine, having, in combination, vamp trimming knives and means acting continuously on the vamp and lining to feed the shoe.

5. A vamp trimming machine, having, in combination, vamp trimming knives, and guiding means in continuous engagement with both the vamp and the lining for guiding the vamp and lining to the knives.

[Claims 6 to 8 not printed in the Gazette.]

1,029,188. WEATHER-GUARD FOR WINDOWS. WILLIAM S. HAMM, Hubbard Woods, and ALFRED H. NEWPHER, Chicago, Ill., assignors to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 3, 1911. Serial No. 618,727. (Cl. 20—69.)



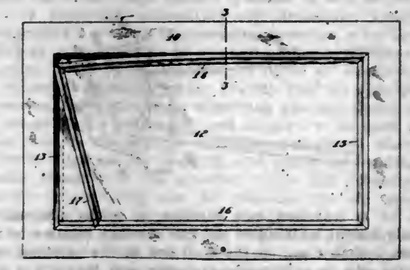
1. In a weather guard for windows, in combination, a stile having a longitudinal chambered casing, such chamber having an open side facing the sash-way, a floating bar within the casing, a pair of flexible plates carried by the bar and folded to overlap, one of said plates having its free edge presented to the sash-way and adapted to engage a sash, and a spring urging the bar toward the sash-way.

2. In a weather guard for windows, in combination, a stile having a longitudinal chambered casing, such chamber having an open side facing the sash-way, a floating bar within the casing, two flexible plates of spring metal attached to the bar and projecting from opposite sides thereof toward the sash-way, such plates having their free edges turned inwardly and overlapping, the edge of one of such plates being adapted to engage a sash, and the edge of the other engaging the inner face of the instanding portion of its companion, and a spring urging the bar toward the sash-way.

1,029,189. WINDOW-SASH. WILLIAM S. HAMM, Hubbard Woods, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Sept. 7, 1911. Serial No. 648,195. (Cl. 189—78.)

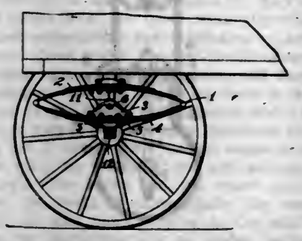
1. In a window, in combination, a sash having rails provided with seats for a panel, panel retaining strips seated on the inner edges of the rails, the ends of adjacent strips having abutting engagement, such strips being normally outwardly bowed.

2. In a window sash, in combination, an angular frame having a pane seat and an instanding rib spaced apart from the seat, pane-retaining strips fitted upon the rib at the several sides of the frame, the ends of contiguous strips meeting as mitered joints, the inner portion of the end of one of the strips being cut away to conform to the side face of the adjacent strip, and one of such strips being normally bowed outward.



3. In an angular sash frame, pane-retaining strips fitted to the inner faces of the sash rails and locked in place by their mitered engagement at the angles of the sash, one of such strips being formed of elastic material and being normally bowed outward.

1,029,190. RUBBER VEHICLE-SPRING. MILTON HANDY, Worcester, Mass.; Annie W. Handy administratrix of said Milton Handy, deceased. Filed Oct. 1, 1910. Serial No. 584,842. (Cl. 21—50.)



1. In combination with a vehicle spring and an elastic block arranged to receive said spring upon its extreme compression, of a metal cap attached to said elastic block and covering a larger surface of said block than the point of contact with said vehicle spring.

2. In combination with a vehicle spring and an elastic block attached to a solid base on said vehicle, arranged to receive said spring upon its extreme compression, of a metal cap attached to said block and covering the point of contact with said vehicle spring.

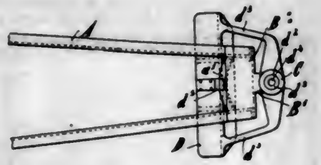
3. In combination with a vehicle spring and a semi-cylindrical elastic block arranged to receive said spring upon its extreme compression, of a metal cap mounted upon the upper surface of said block and provided with side flanges depending from said cap and arranged to prevent the undue lateral expansion of said block beneath said cap.

4. In combination with an elliptic vehicle spring and a semi-cylindrical elastic block attached to the lower leaves of said spring, arranged to receive the upper leaves of said spring upon its extreme compression, of a metal cap mounted upon the upper or arched crown of said block, covering more of said crown than the point of contact with said vehicle spring and provided with depending side flanges preventing undue lateral expansion of said block and providing means for the attachment of said cap and said block.

1,029,191. SPADE ARRANGEMENT. WALTER HEILEMANN and HEINRICH KANONENBERG, Essen-on-the-Ruhr, Germany, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Sept. 11, 1911. Serial No. 648,659. (Cl. 89—40.)

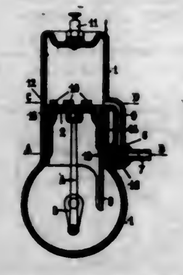
1. In a traveling gun carriage, a spade adapted to permit lateral training of the gun carriage relative to

the spade, a vertical pivot pin on the spade, and a limber eye on the trail end of the carriage; said eye forming the pivot bearing for the vertical pivot pin on the spade.



2. In a traveling gun carriage, a spade adapted to permit lateral training of the gun carriage relative to the spade, a limber eye on the trail end of the carriage, and a pivot pin on said spade engaging said limber eye and provided with a hole for engagement by a limber pin.

1,029,192. FOUR-PHASE SINGLE-PISTON, VALVELESS MOTOR. CHARLES EDOUARD HENRIOD, Neuilly-sur-Seine, France, assignor to Societe Ribeyrolles & Cie., Puteaux, Seine, France. Filed Nov. 23, 1909. Serial No. 529,585. (Cl. 123—45.)



1. In a four cycle explosion motor, the combination with a cylinder provided with orifices capable of communicating with the exterior either for the admission of fresh gases or for the expulsion of burned gases, a rotary sliding piston, having channels for establishing communication with said orifices, according to the position of said piston, a rotary distributer adapted to admit gas into said cylinder through one of said piston channels and one of said orifices during the suction stroke, a prolongation in said piston having a groove, and a finger riding in said groove, and controlled by said rotary distributer to rotate said piston, the relation between said piston and distributer being such that during the compression and explosion periods said piston covers the orifice leading to said distributer at the same time that the rotary distributer interrupts the admission of the fresh gas, whereby all communication is cut off between the carbureter and the cylinder during said compression and explosion periods.

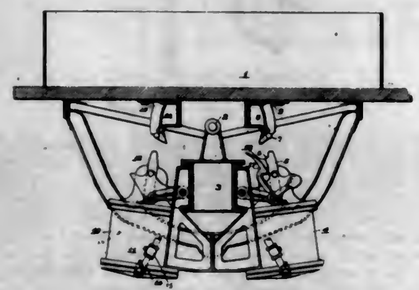
2. In a four-cycle explosion motor, the combination of a cylinder 1, provided with orifices 10, 12, and 9 capable of communicating with the exterior, either for the admission of fresh gases, or for the exhaustion of a part of the burned gases, a piston 2, with a channel 14, sliding in the cylinder, closing by means of the base, in an upward movement, the channel 9 which leads to the distributer; a rotary distributer 16 with a groove 6 capable of placing the fresh gas admission channel 7 in communication with the interior of the cylinder, during the suction period, by means of the channels 9 and 14 arranged in the cylinder, the channel 6 also placing the interior of the cylinder in communication with the exterior through the channels 14, 9, 15 and 12 during the period of explosion of the burned gases; said sliding piston 2 and said rotary distributer 16 being so related that during the compression and explosion periods the piston covers the channel 9 leading to the distributer, at the same time as the rotary distributer interrupts the communication between the channel 9 and the fresh gas admission channel 7, in such manner that all communication is cut off between the carbureter and the interior of the cylinder during the compression and explosion periods.

1,029,193. SPOOL ATTACHMENT. ISABEL HOWARD-O'KEEFFE, Lake Nomininigue, Quebec, Canada. Filed Aug. 21, 1911. Serial No. 645,187. (Cl. 242—126.)



In combination with a spool having a hole therethrough and adapted to have thread wound thereon, of a one piece device for securing the loose end of the thread and comprising a hollow cylindrical shank within the said hole, an integral notched lug at one end of the shank and lying flat upon the adjacent end of the spool and integral lugs at the opposite end of the shank, lying flat upon the adjacent end of the spool, and extending to the edge thereof where they are clenched.

1,029,194. DUMP-CAR. FRED W. HUBBARD, Columbus, Ohio, assignor to The Kilbourne and Jacobs Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Aug. 18, 1910. Serial No. 577,783. (Cl. 105—190.)

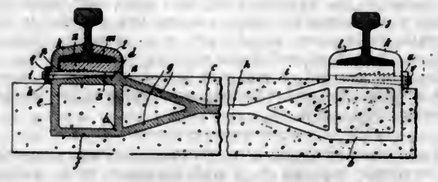


1. In a dump car, an air cylinder, a piston rod therein adapted to engage the car bed to dump the same, a second air cylinder, a piston rod therein adapted to be elevated into engagement with the car bed, the air thus lifting the said last mentioned piston rod being retained in said cylinder in sufficient volume to cushion the car bed in its dumping operation.

2. In a dump car, an air cylinder, a piston rod therein adapted to engage the car bed to dump the same, a second air cylinder on the opposite side of said car, a piston rod therein adapted to be elevated into engagement with the car bed before the dumping operation begins, the air thus lifting said last mentioned piston rod being retained in said cylinder in sufficient volume to cushion the car bed in its dumping movement toward the side on which said second cylinder is located.

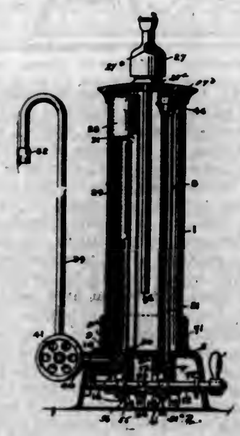
1,029,195. RAILWAY-TIE. WILLIAM IRING, New York, N. Y. Continuation of application Serial No. 631,839, filed June 7, 1911. This application filed Sept. 16, 1911. Serial No. 649,688. (Cl. 238—3.)

1. A railway tie comprising rail supporting plates, uprights depending therefrom, base plates connecting the uprights, pairs of converging members extending from the inner of said uprights and meeting at the center of the tie and an inclosing block of cement exposing the rail supporting plates.



2. A railway tie comprising rail supporting plates, jaws extending therefrom for gripping the rail flanges, uprights depending therefrom, base plates connecting the uprights, pairs of converging members extending from the inner of said uprights and meeting at the center of the tie and an inclosing block of cement exposing the rail supporting plates.

1,029,196. LIQUID CARBONATING AND DISPENSING APPARATUS. GUY L. KENNEDY, San Francisco, Cal., assignor to National Carbonated Liquid Co., San Francisco, Cal., a Corporation of California. Filed Apr. 5, 1909. Serial No. 487,845. (Cl. 209—14.)



1. A liquid carbonating and dispensing apparatus comprising means from which gas and liquid under pressure are discharged upwardly, a gas-holding bell disposed over and surrounding the said means to form a carbonating chamber and so located with respect to said means as to serve as a baffle against which the liquid strikes and is sprayed downwardly therefrom through the gas in the bell, a compression storage vessel having its bottom in open communication with the bottom of the bell whereby the carbonated liquid forms a seal between and rises in the bell and vessel until the compression in the vessel is substantially the same as the pressure of gas and liquid flowing in the said means, and a valve controlled outlet for drawing off the carbonated liquid from the vessel.

2. A liquid carbonating and dispensing apparatus comprising means from which gas and liquid under pressure are discharged upwardly, a gas-holding bell disposed over and surrounding the said means to form a carbonating chamber and to serve as a baffle against which the liquid strikes and is sprayed downwardly therefrom through the gas in the bell, a compression storage vessel surrounding and in open communication at its bottom with the bottom of the bell whereby the carbonated liquid forms a seal between and rises in the bell and vessel until the compression in the vessel is substantially the same as the pressure of gas and liquid flowing in the said means, and a valved outlet through which carbonated liquid flows from the vessel while the gas is sealed in said bell.

3. A combined carbonating and dispensing apparatus comprising a storage or dispensing reservoir, a carbonator adapted to hold a body of gas and having a valveless connection therewith, a dispenser of liquid at full pressure, a dispenser of liquid under gravity flow at atmospheric pressure, valve means for admitting gas and liquid under pressure to the carbonator and adapted to be open when the pressure dispenser is operating and closed when the gravity dispenser is operating, and means for holding air under pressure in the reservoir while the pressure dispenser is operating and for releasing the air pressure when the gravity dispenser is operating.

4. A liquid carbonating and dispensing apparatus comprising means from which gas and liquid under pressure are discharged upwardly, a gas-holding bell disposed over and surrounding the said means to form a carbonating chamber and to serve as a baffle against which the liquid strikes and is sprayed downwardly therefrom through the gas in the bell, a compression storage vessel in open communication with the bottom of the bell whereby the carbonated liquid rises in the bell and vessel until the compression in the vessel is substantially the same as the pressure of gas and liquid flowing in the said means, a valve-controlled vent for permitting the air under compression in the top of the vessel to escape, means for interrupting the discharge of gas and liquid into the vessel while the vent is open, and means for drawing off the carbonated liquid from the vessel while the vent is open.

5. A liquid carbonating and dispensing apparatus comprising means from which gas and liquid under pressure are discharged upwardly, a gas-holding bell disposed over and surrounding the said means to form a carbonating chamber and to serve as a baffle against which the liquid strikes and is sprayed downwardly therefrom through the gas in the bell, a compression storage vessel in open communication with the bottom of the bell whereby the carbonated liquid rises in the bell and vessel until the compression in the vessel is substantially the same as the pressure of gas and liquid flowing in the said means, a vent valve for permitting the air under compression in the vessel to escape, an inlet valve for controlling the admission of gas and liquid to the bell, a dispensing valve for controlling the discharge of carbonated liquid from the vessel, and a mechanism for first closing the inlet valve and then opening the vent and dispensing valve in succession.

[Claims 6 to 24 not printed in the Gazette.]

1,029,197. LASTING-MACHINE. EUGENE L. KEYES, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 13, 1911. Serial No. 608,288. (Cl. 12—14.)

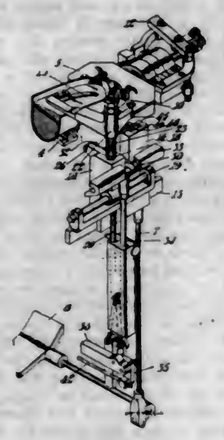
1. A lasting machine having, in combination, a lasting instrumentality constructed and arranged to wipe up the side and inwardly over the bottom of a shoe and a feeler to determine the plane of the bottom of the shoe and means associated with the feeler for limiting with relation to that plane the extent of the upward wipe.

2. A lasting machine having, in combination, a lasting instrumentality constructed and arranged to wipe up the side and inwardly over the bottom of a shoe and means including a feeler to engage the shoe bottom and a cooperating abutment to determine the plane in which the lasting device can wipe inwardly relatively to the plane of the shoe bottom.

3. A lasting machine having, in combination, a lasting instrumentality constructed and arranged to wipe up the side and inwardly over the bottom of a shoe, a hold-down movable into and out of position to engage the bottom of the shoe, and means associated with the hold-down for limiting the extent of the upward wipe with relation to the hold-down.

4. A lasting machine having, in combination, a lasting instrumentality constructed and arranged to wipe up the

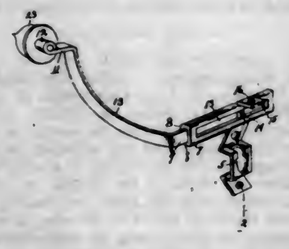
side and inwardly over the bottom of a shoe and means including a hold-down and manual actuating means to cause it to engage the shoe bottom, and a coöperating abutment to determine the plane in which the lasting device can wipe inwardly relatively to the plane of the shoe bottom.



5. A lasting machine having, in combination, end lasting wipers, means to raise them in wiping contact with the upper on the sides of the last, means to close them to lay the upper over the edge and down upon the bottom of the shoe, a support for the last, a hold-down to clamp the last against the support, and a stop positioned by the hold-down to limit the rise of the wipers relatively to the plane of the shoe bottom as ascertained by the hold-down.

[Claims 6 to 12 not printed in the Gazette.]

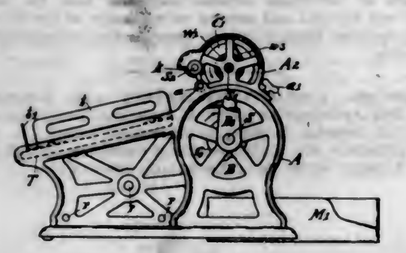
1,029,198. ADJUSTABLE SHADE-ROLLER AND WINDOW-CURTAIN FIXTURE. RUDOLPH A. KOTTKAY, Detroit, Mich. Filed Dec. 16, 1911. Serial No. 666,116. (Cl. 156—24.)



1. A window shade fixture comprising brackets mounted on the jamb of the casing, each bracket having a curtain pole arm slidably mounted thereon, each curtain pole arm having an outer angular portion crossing the outer face of the casing transversely and provided with a socket at its end, a telescopic curtain pole having tenons at its ends adapted to enter the sockets at the terminals of said arms, and a compressible spring mounted within the telescopic curtain pole whose tension normally urges the members of said pole outwardly to yieldingly hold the tenons thereon in the sockets of the angular extensions of the curtain pole arms.

2. A window shade fixture comprising a bracket to support a shade holder, an oblong integral plate carried on the upper end of said bracket, means for fastening the bracket in place, the oblong plate at the end of the bracket having rearwardly turned margins which, in conjunction with said plate, form a way, the face of said plate having a longitudinal slot therein, a shank adapted to slide in the way formed on said plate, said shank having a projecting lug which extends into the slot in said plate, an angular curtain pole arm extending laterally from the end of said shank crossing the face of the casing, the free end of said arm having a socket to receive a curtain pole, and a curtain pole having a tenon which enters said socket.

1,029,199. CURRENCY CUTTING AND SIGNING MACHINE. ARTHUR C. LA MAY, Rochester, N. Y., assignor to Robert Bannard and Thomas J. Swanton, Rochester, N. Y. Filed Dec. 1, 1910. Serial No. 595,105. (Cl. 101—117.)



1. In a device for the purpose described, two coöperating series of rotary cutters supported upon substantially parallel and revolubly supported shafts; means for co operatively rotating the two series of cutters at substantially the same peripheral speed; a series of pairs of relatively movable grippers carried by the first shaft, such grippers being spring actuated to normally clamp the paper between them; a fixed cam and means engaging the cam and connected to the grippers permitting the grippers to assume clamping positions at a predetermined initial gripping point in each rotation of the first shaft and operating to open the grippers at a second fixed point in each such rotation of the shaft; means for holding the grippers in their open positions independent of a continuous forward rotation of the shaft; means adapted to disengage such holding means on a movement of the shaft backward from a point slightly advanced angularly from the initial gripping position and means for arresting a backward movement of the shaft at such initial gripping point and a series of supporting segments carried by the first shaft and coöperating therewith a series of printing segments carried by the second shaft and means for inking such printing segments.

2. In a device for the purpose described, two coöperating series of rotary cutters supported upon substantially parallel and revolubly supported shafts; means for coöperatively rotating the two series of cutters at substantially the same peripheral speed; a series of pairs of relatively movable grippers carried by the first shaft, such grippers being spring actuated to normally clamp the paper between them; a fixed cam and means engaging the cam and connected to the grippers permitting the grippers to assume clamping positions at a predetermined initial gripping point in each rotation of the first shaft and operating to open the grippers at a second fixed point in each such rotation of the shaft; means for holding the grippers in their open positions independent of a continuous forward rotation of the shaft; means adapted to disengage such holding means on a movement of the shaft backward from a point slightly advanced angularly from the initial gripping position and means for arresting a backward movement of the shaft at such initial gripping point; a series of supporting segments carried by the first shaft and coöperating therewith a series of printing segments carried by the second shaft and means for inking such printing segments and a source of electric energy and means for connecting the characters on the printing segments thereto for heating the characters.

3. In a device for the purpose described, two coöperating series of rotary cutters supported upon substantially parallel and revolubly supported shafts; means for coöperatively rotating the two series of cutters at substantially the same peripheral speed; a series of pairs of relatively movable grippers carried by the first shaft, such grippers being spring actuated to normally clamp the paper between them; a fixed cam and means engaging the cam and connected to the grippers permitting the grippers to assume clamping positions at a predetermined initial gripping point in each rotation of the first shaft and operating to open the grippers at a second fixed point in each such rotation of the shaft; means for holding the grippers in their open positions independent of a continuous forward rotation of the shaft; means adapted to disengage such holding means on a movement of the shaft backward from a point slightly advanced angularly from the initial gripping position and means for arresting a backward movement of the shaft at such initial gripping point; a series of supporting segments carried by the first shaft and coöperating therewith, a series of printing segments carried by the second shaft and means for inking such printing segments; a source of electric energy and means for connecting the characters on the printing segments thereto for heating the characters; a series of printing segments carried by the first shaft coöperating therewith; a series of supporting segments carried by the second shaft and means for inking the last named printing segments.

4. In a device for the purpose described, two coöperating series of rotary cutters supported upon substantially parallel and revolubly supported shafts; means for coöperatively rotating the two series of cutters at substantially the same peripheral speed; a series of pairs of relatively movable grippers carried by the first shaft, such grippers being spring actuated to normally clamp the paper between them; a fixed cam and means engaging the cam and connected to the grippers permitting the grippers to assume clamping positions at a predetermined initial gripping point in each rotation of the first shaft and operating to open the grippers at a second fixed point in each such rotation of the shaft; means for holding the grippers in their open positions independent of a continuous forward rotation of the shaft; means adapted to disengage such holding means on a movement of the shaft backward from a point slightly advanced angularly from the initial gripping position and means for arresting a backward movement of the shaft at such initial gripping point; a series of supporting segments carried by the first shaft and coöperating therewith; a series of printing segments carried by the second shaft and means for inking such printing segments and a source of electric energy and means for connecting the characters on the printing segments thereto for heating the characters.

5. In a device for the purpose described, two coöperating series of rotary cutters, supported upon substantially parallel and revolubly supported shafts; means for coöperatively rotating the two series of cutters at substantially the same peripheral speed; a series of pairs of relatively movable grippers carried by the first shaft, such grippers being spring actuated to normally clamp the paper between them; a fixed cam and means engaging the cam and connected to the grippers permitting the grippers to assume clamping positions at a predetermined initial gripping point in each rotation of the first shaft and operating to open the grippers at a second fixed point in such rotation of the shaft; means for holding the grippers in their open positions independent of a continuous forward rotation of the shaft; means adapted to disengage such holding means on a movement of the shaft backward from a point slightly advanced angularly from the initial gripping position; means for arresting a backward movement of the shaft at such initial gripping point; means adapted to receive and aline the edges of the sheets prior to the engagement thereof by the grippers and a printing mechanism adapted to engage and print upon the sheets a series of impressions properly positioned on each individual strip to be cut therefrom.

[Claims 6 to 14 not printed in the Gazette.]

1,029,200. AUTOMATIC RAILWAY-SWITCH. ORA L. LANCE, Corvallis, Oreg. Filed Apr. 1, 1911. Serial No. 618,477. (Cl. 104—77.)



1. A switch embodying a point continuously exteriorly convex and interiorly concave from end to end, the said point having a tread portion upon its concave side along one edge and its said concave side constituting a flange clearing recess, spaced chairs having each a concave seat upon which the convex side of the point is disposed, whereby the point is supported for rotation, the point, when in operative position having its tread projecting above the seat and when in inoperative position being bodily received within the seats of the chairs, and means for rotating the point.

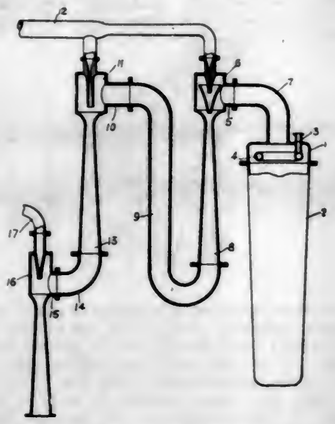
2. A switch embodying a point continuously exteriorly convex and interiorly concave from end to end, the said point having a tread portion upon its concave side along one edge and its said concave side constituting a flange clearing recess, spaced chairs having each a concave seat upon which the convex side of the point is disposed, whereby the point is supported for rotation, the point, when in operative position having its tread projecting above the seat and when in inoperative position being bodily received within the seats of the chairs, and a bearing comprising an attaching portion, and a transversely curved bearing head fitting in the concave side of the point at the free end of the point.

3. In a switch, the combination with a track-rail, of a chair having a seat receiving and supporting one end of the said rail, a chair having a concave seat and spaced from and in alinement with the first mentioned chair, a bearing having a transversely curved bearing head, and a switch point continuously exteriorly convex and interiorly concave from end to end, the said switch point being disposed at one end in the seat of the first mentioned chair with its said end abutting against the said rail, the opposite end of the point receiving the head of the said bearing and the convex side of the point being disposed at an intermediate point in the seat of the second mentioned chair, whereby the point is supported for rotation, the point being formed along one edge upon its concaved side with a tread flange, and means for rotating the point.

4. In a switch, the combination with a track rail, of a switch point having a tread portion and a flange clearing recess, the said point being exteriorly convex, a chair supporting the track rail and the said point and the said chair and track rail having intermerging concave seats receiving the convex side of the point whereby the point is supported for rotation about its longitudinal axis, and means for turning the point.

5. In a switch, the combination with a track rail, of a chair disposed against the rail, the said chair and the rail having intermerging concave seats, a switch point having a convex side disposed upon the said intermerging seats of the chair and rail whereby the point is supported for rotation about its longitudinal axis, said point having a tread portion and a flange clearing recess, and means for turning the point.

1,029,201. REFRIGERATING-MACHINE. MAURICE LEBLANC, Paris, France. Original application filed Feb. 15, 1905, Serial No. 245,719. Divided and this application filed Sept. 27, 1910. Serial No. 583,991. (Cl. 62—6.)



1. A freezing machine, comprising a refrigerating chamber, a series of fluid actuated ejectors communicating therewith and operating in tandem, and a condenser communicating with the last ejector of the series.

2. A freezing machine, comprising a refrigerating chamber, a primary fluid ejector communicating with said chamber and adapted to exhaust fluid therefrom, secondary fluid ejector receiving the fluid discharged from said primary ejector, and a condenser communicating with the exhaust of the secondary ejector.

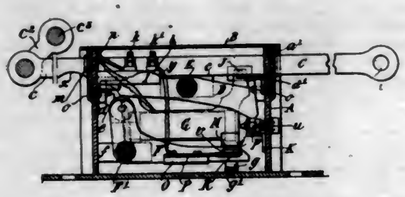
3. A freezing machine comprising a refrigerating chamber, a primary fluid actuated ejector communicating therewith and adapted to exhaust fluid therefrom, a secondary fluid actuated ejector receiving the fluid discharged from said primary ejector, and a condenser communicating with the exhaust of the secondary ejector and receiving the fluid discharged therefrom.

4. A freezing machine comprising a refrigerating chamber, a primary fluid ejector communicating therewith, a secondary fluid ejector receiving the fluid discharged from said primary ejector, a condenser communicating with the exhaust of the secondary ejector and receiving the fluid discharged therefrom, and means for admitting a stream of liquid to said refrigerating chamber.

5. A freezing machine comprising a refrigerating chamber, means for introducing a flow of water to be cooled or frozen into said chamber, a steam actuated ejector communicating with said chamber and adapted to create a vacuum therein, a second steam actuated ejector communicating with the exhaust of the first ejector and receiving the steam and vapor exhausted therefrom, and a jet condenser communicating with the exhaust of said second ejector and receiving all the fluid discharged therefrom.

1,029,202. SAFETY-BOLT TO LOCK AND RELEASE THE LEVERS SERVING TO OPERATE FROM A DISTANCE A SWITCH, SIGNAL, &c., FOR RAILWAYS. CHARLES LEGRAND and ALEXANDRE ARMEL, Paris, France. Filed Apr. 7, 1909. Serial No. 488,509. (Cl. 246—29.)

1. The combination of a locking bar, a rocking lever having locking engagement with said locking bar, a locking lever, one arm of which is nearly normal in direction to the rocking lever and holds the same against the locking bar so that the back pressure of said rocking lever on said arm is in a direction nearly coincident with the length of said arm, said rocking lever having a camming engagement with the end of said arm by which, when the arm is free, the rocking lever can be forcibly moved from its locking position, an armature adapted to lock or release said locking lever, and an electro-magnet controlling said armature.



2. The combination of a locking bar, a rocking lever having locking engagement with said locking bar, a locking lever, one arm of which is nearly normal in direction to the rocking lever and holds the same against the locking bar so that the back pressure of said rocking lever on said arm is in a direction nearly coincident with the length of said arm, said rocking lever having a camming engagement with the end of said arm by which, when the arm is free, the rocking lever can be forcibly moved from its locking position, said locking lever having also a long arm, an armature adapted to lock or release the long arm of said locking lever, and an electro-magnet controlling said armature.

3. The combination of a locking bar having rounded notches therein, a rocking lever fixed against bodily movement with said locking bar, a projection thereon adapted to engage the notches in the locking bar, a bent lever, one arm of which is nearly normal in direction to the rocking lever so that the bent lever is swung on its pivot when the rocking lever is depressed by the sliding of the locking bar over the rounded notches, a vibrating armature adapted to lock or release the bent lever, and an electro-magnet controlling said armature.

4. The combination of a locking bar, rounded notches in said locking bar, a rocking lever fixed against bodily movement with said locking bar, a projection thereon adapted to engage the notches in the locking bar, a bent lever one arm so far displaced from a right angular position in regard to the rocking lever that the bent lever is swung on its pivot when the rocking lever is depressed by sliding the locking bar over the rounded notches, a vibrating armature adapted to lock or release the long arm of the bent lever, an electro-magnet for displacing said armature to permit the release of the bent lever whereby the movement of the locking bar is permitted, a stop on the long arm of the bent lever, a stop on the vibrating armature, said stops serving to lock the bent arm and through it the whole of the mechanism including the locking bar when the armature is unattracted.

5. The combination of a locking bar, rounded notches in said locking bar, a rocking lever, a projection thereon adapted to engage the notches in the locking bar, a bent lever one arm so far displaced from a right angular position in regard to the rocking lever that the bent lever is swung on its pivot when the rocking lever is depressed by sliding the locking lever over the rounded notches, a vibrating armature adapted to lock or release the long arm of the bent lever, an electro-magnet for displacing said armature to permit the release of the bent lever whereby the movement of the locking bar is permitted, a stop on the long arm of the bent lever, a stop on the vibrating armature, said stops serving to lock the bent arm and through it the whole of the mechanism including the locking bar when the armature is unattracted, a stop adapted to push the armature to attracted position and means for operating said stop from the exterior of the apparatus whereby the mechanism and locking bar may be released in case of accident, and means for sealing said external means against improper use.

[Claims 6 to 8 not printed in the Gazette.]

1,029,203. INSECTIFUGE. OSCAR R. LOEWENTHAL, Vancouver, British Columbia, Canada. Filed Mar. 7, 1912. Serial No. 682,280. (Cl. 167—6.)

1. The insectifuge, comprising powdered borax, dry common salt and flour of sulfur substantially as specified.

2. The insectifuge, comprising powdered borax, dry common salt, flour of sulfur and boracic acid.

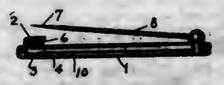
3. The insectifuge, comprising two parts by weight of powdered borax, one part of dry common salt, one part of flour of sulfur and one part of boracic acid.

1,029,204. CLOSURE FOR LADIES' WAISTS AND BLOUSES. WALTER LUFT, Elberfeld, Germany. Filed Aug. 15, 1911. Serial No. 644,177. (Cl. 2—57.)



A garment closure comprising strips or bands, a plurality of pockets in each of said bands, one longitudinal edge of each of said pockets being open, and each of said pockets having an aperture for the reception of a press button.

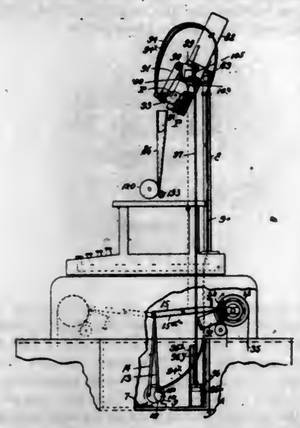
1,029,205. PIN. CHARLES F. MARKHAM, Providence, R. I. Filed Jan. 4, 1912. Serial No. 669,334. (Cl. 24—156.)



In a pin, a front plate, an independent catch member having a pin point receiving portion and a base plate integral with said portion, the edges of said base plate being turned slightly upward from the plane of said plate, said plate resting upon and being supported against the inner surface of the front plate, and the edges of said front plate being rolled over the said upturned edges of said base plate whereby the latter is interlocked with the roll of the front plate near the end of the pin body to rigidly retain said member in position therein.

1,029,206. MECHANISM FOR FEEDING PAPER TO TYPE-WRITERS. THOMAS A. MCCALL, Cleveland, Ohio, assignor to The Automatic Typewriter Company, Cleveland, Ohio, a Corporation of Ohio. Original application filed Mar. 19, 1908, Serial No. 422,033. Renewed Apr. 22, 1909, Serial No. 491,602. Divided and this application filed Sept. 24, 1909. Serial No. 519,415. (Cl. 197—130.)

1. In combination with the paper holding mechanism of a typewriter, a paper receptacle, pneumatically operated mechanism for transferring paper sheet by sheet from said receptacle to said paper holding mechanism, a valve controlled conduit connected with the pneumatically operated mechanism, a lever operatively connected to said valve, a rotating member, a plurality of dogs pivoted upon said member, means causing said dogs to engage with the lever, and a perforated strip passing between the dogs and the lever and controlling their engagement with the lever.



2. In combination with the paper holding mechanism of a typewriter, a tube, suction cups connected therewith, guides compelling the movement of said cups in right lines toward and from the paper in said receptacle, a rock shaft having slotted arms, devices connected with the cups and projecting into the slots in said arms, means for rocking said rock shaft, a valve controlled conduit which includes a flexible pipe connected with said tube, and mechanism for operating the valve in said conduit.

3. In combination with the paper holding mechanism of a typewriter, a paper receptacle, a rock shaft, a tube carrying suction cups, mechanism operated by the rock shaft for moving said tube and suction cups toward and away from the paper in said receptacle, two flexible tubes connected with opposite ends of the tube carrying the suction cups, a valve casing intermediate of said flexible tubes and an air exhausting mechanism, a cylinder with which the other flexible tube is connected, a piston in said cylinder, mechanism through which said piston operates said rock shaft, a valve in said valve casing, and means for operating said valve.

1,029,207. INSULATOR-SUPPORT. OLIVER P. MEGAHAN, Westerville, Ohio. Filed July 18, 1911. Serial No. 639,128. (Cl. 173—321.)

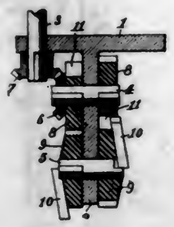


The combination with a cross arm of a support formed with an upwardly bent lower hooked end having an insulator thereon, a flat perforated upper end shaped with a downwardly bent hook engaging the arm and suspended thereover, and a fastening bolt passed through said hook and arm and having a second insulator thereon.

1,029,208. DIE-SINKING OR ROUTING TOOL. GEORGE MELLING, Jackson, Mich., assignor of one-third to Herman W. Melling and one-third to Le Roy Northrup, Jackson, Mich. Filed Sept. 8, 1911. Serial No. 648,318. (Cl. 90—11.)

1. A die sinking or routing tool, comprising two gears fixed on a shaft, cutters inserted in the outer sides of said

gears and projecting radially beyond the same, driving gears engaging said gears fixed on a second shaft and having respective recesses for the passage of the cutters and means for driving the second named gears.

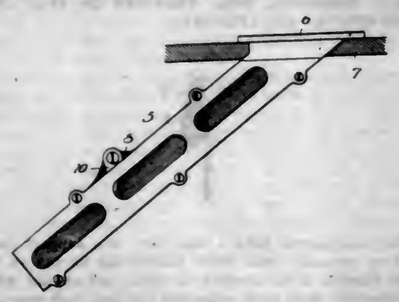


2. A die sinking or routing tool, comprising a frame having a web or middle member, two shafts journaled in the same, a pair of gears fixed on each shaft and engaging the opposing gears on the other shaft, cutters inserted in the outer sides of one pair of gears and projecting radially beyond the same, recesses in the other gears to permit the passage of the cutters, the cutters and recesses being oppositely arranged in each respective pair of gears and means for driving the recessed gears.

3. A die sinking or routing tool, comprising a frame having a depending web, two shafts journaled in the web, a pair of gears fixed on one shaft having conical outer surfaces, radially disposed cutters in said conical surfaces and projecting beyond the periphery of the same, driving gears fixed on the other shaft engaging the first named gears and each having a recess to permit a cutter to pass and means for driving said last named shaft.

4. A die sinking or routing tool, comprising a frame having a depending web with flat parallel sides, an upper shaft and a lower shaft journaled in the web, a pair of gears fixed on each shaft and engaging opposite sides of the web oppositely arranged radial cutters inserted in the outer sides of the lower gears and projecting beyond the peripheries of the same, the gears on the upper shaft having oppositely arranged recesses therein to permit the passage of the cutters and bevel gearing adapted to connect the upper shaft with a vertical driving spindle.

1,029,209. COIN-CHUTE FOR VENDING-MACHINES. HERBERT S. MILLS, Oak Park, Ill. Filed Feb. 8, 1912. Serial No. 676,314. (Cl. 194—101.)

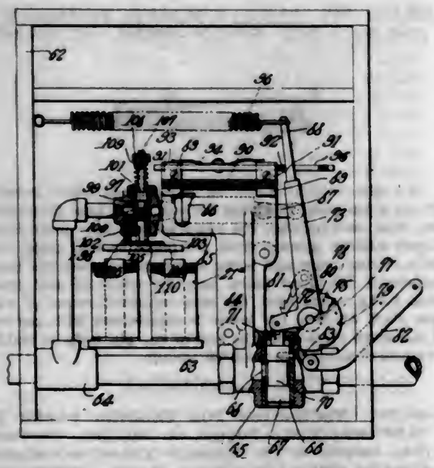


1. In combination, a coin-chute provided between its ends with a bottom discard-opening, a magnet having its field at one end of said opening and insufficiently powerful to alone overcome the momentum of and halt a disk of magnetic metal rolling in the chute through said field, and a yielding stop extending into the coin-path through the chute at the opposite, advance end of said opening and operating, in conjunction with said magnet, to sufficiently retard the progress of such disk through said chute as to cause it to discharge through said discard-opening, said stop presenting a degree of resistance insufficient to prevent the passage of a coin through said chute and past said opening.

2. In combination, a coin-chute provided between its ends with a bottom discard-opening, a magnet having its field at one end of said opening and insufficiently powerful to alone overcome the momentum of and halt a disk of magnetic metal rolling in the chute through said field, and a pivotal stop-finger depending into the coin-path through the chute at the opposite, advance end of said opening and operating, in conjunction with said magnet, to sufficiently retard the progress of such disk through said chute as to cause it to discharge through said discard-opening, said stop-finger presenting a degree of resistance insufficient to prevent the passage of a coin through said chute and past said opening.

3. In combination, a metal coin-chute provided between its ends with a slot forming a discard-opening in the chute-bottom, a magnet secured to the outer surface of a wall of the chute to bring its field at one end of said opening and exert its magnetic action through said chute-wall, said field being insufficiently powerful to alone overcome the momentum of and halt a disk of magnetic metal rolling therethrough in the chute, and a pivotal stop-finger depending into the coin-path through the chute at the opposite, advance end of said opening and operating, in conjunction with said magnet, to sufficiently retard the progress of such disk through said chute as to cause it to discharge through said discard-opening, said stop-finger presenting a degree of resistance insufficient to prevent the passage of a coin through said chute and past said opening.

1,029,210. AUTOMATIC BRAKE-APPLYING MEANS FOR RAILWAYS. ALFRED MINNICK, Coeur d'Alene, Idaho, assignor to Minnick Automatic Train Controller Company, a Corporation of Utah. Filed Aug. 20, 1909. Serial No. 513,840. (Cl. 188—4.)



1. In a system of train control, an air brake applying means on each train comprising a train pipe connecting provided with an air outlet valve, two electric circuits on each train and means controlled by one of the electric circuits and in turn controlling the air outlet valve to move the latter to open and closed positions successively at short intervals for a predetermined number of times.

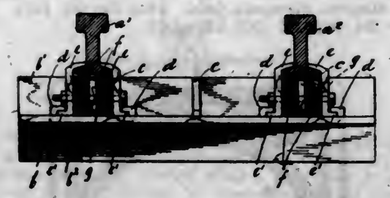
2. In a system of train control, an air brake applying means on each train comprising a train pipe connection provided with an air outlet valve, an electric circuit on the train, means controlled by the electric circuit and in turn controlling the air outlet valve to move the latter to open and closed positions successively at short intervals

for a predetermined number of times and then to lock open, and manual means for causing the closing of the valve after being locked open.

3. In a system of train control, an air brake applying means on each train comprising a train pipe connection provided with an air outlet valve, and means for actuating the valve comprising a cylinder, a piston therein, a connection between the air pipe connection and the cylinder on the train pipe side of the air outlet valve, a valve in said cylinder connection, an actuating means for the air outlet valve controlled by the piston, an electrically actuated controlling means for the valve in the cylinder connection and circuit controlling means in the circuit of the electrically actuated valve controlling means in turn controlled by the air outlet valve controlling means.

4. An automatic service application brake mechanism for an air brake system, having a spring closed lap valve, and means automatically actuated to impart to the lap valve intermittent opening and closing thereof.

1,029,211. RAIL-TIE OR SLEEPER. STEVEN MOGYOROSI, Stamford, Conn. Filed Aug. 23, 1911. Serial No. 645,653. (Cl. 238—5.)



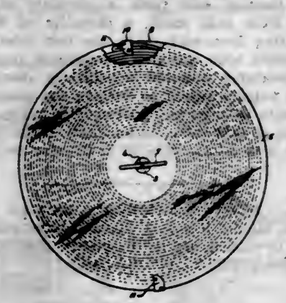
1. A cross tie or sleeper for track rails consisting of a main body or rail having at one side upwardly and downwardly projecting flanges, cross ribs extending from the upwardly projecting flange to the main body, a wooden block placed on each side of said cross rib and which extends beyond the upper margin of the said upwardly projecting flange and cross rib, the two blocks being adapted to support the track rail and adjustable clamping means on the main body for the track rail.

2. A cross tie or sleeper for track rails consisting of a main body or rail having at one side upwardly and downwardly projecting flanges, cross ribs extending from the upwardly projecting flange to the main body, a wooden block placed on each side of said cross rib and which extends beyond the upper margin of the said upwardly projecting flange and cross rib, the two blocks being adapted to support the track rail, hook-shaped projections on the main body at each side of a cross rib, and adjustable clamping bars for the track rails engaging said projections.

1,029,212. REEL FOR STRIP MATERIAL. ROSWELL A. MOORE, Waterbury, Conn., and ARTHUR SIDNEY SUTCLIFFE, Newark, N. J., assignors to The Narrow Fabric Corporation, Orange, Conn., a Corporation. Filed Nov. 24, 1911. Serial No. 662,120. (Cl. 242—70.)

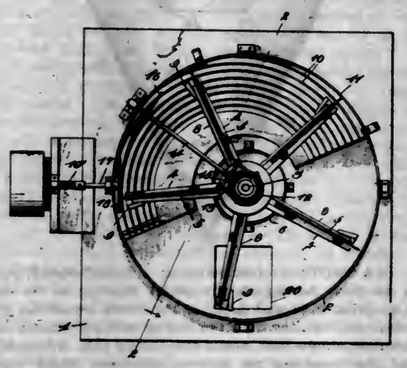
1. The herein described package for strip material comprising a drum, a key passing through the drum and connected therewith, a disk on each side of the drum, said disks formed with central openings through which the ends of the key extend, a handle attached to one end of the key outside one of the disks, and the other end of the key folded over the outer face of the other disk whereby the disks are coupled with the drum

2. The herein described package for strip material comprising a drum of yielding material formed with a central perforation, a key extending through said perforation with which the edges of the key engage, a disk on each side of the drum, said disks formed with central perforations through which the ends of the key extend, a handle attached to one end of the key outside one of the disks, and the other end of the key folded over the



outer face of the other disk whereby the disks are coupled with the drum.

1,029,213. CORN-BUTTING MACHINE. JOHN MORRAL, Larue, Ohio, assignor of one-fourth to William Drake and one-fourth to Maurice C. Clements, Larue, Ohio. Filed Sept. 23, 1911. Serial No. 650,910. (Cl. 146—11.)



1. A machine of the class described, comprising a horizontal table, means to revolve ears of corn thereon, a cutter rotatably mounted immediately above said table near the outer edge thereof, and means to guide the ears of corn radially to a position beneath the cutter as the same are revolved on the table.

2. A machine of the class described, comprising a table, means to revolve ears of corn thereon, a cutter rotatably mounted immediately above said table, a rasp revolubly mounted adjacent said cutter and the outer periphery of the table, and means to guide the ears of corn beneath the cutter and into engagement with the rasp as the same are revolved on said table.

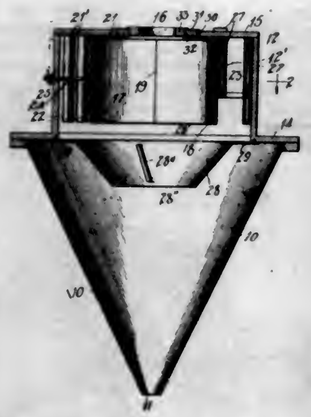
3. A machine of the class described, comprising a table, a rotatable shaft extending centrally therethrough, a plurality of rigid arms radiating from said shaft above the table, a plurality of flexible arms also radiating from said shaft, said arms being adapted to carry ears of corn around said table as said shaft is revolved, a cutter rotatably mounted immediately above said table near the outer edge, and means to guide the ears of corn outwardly beneath said cutter as the same are revolved on the table.

4. A machine of the class described, comprising a table having an opening therein, a rotatable shaft extending centrally through said table, a plurality of arms radiating from said shaft and adapted to revolve the contents of the table as the shaft is rotated, a cutter rotatably mounted immediately above said table, and cam tracks on the upper surface of said table adapted to guide the contents beneath said cutter as said contents are revolved.

5. A machine of the class described, comprising a table having an opening therein, a rotatable shaft extending centrally through said table, a plurality of rigid arms radiating from said shaft, a plurality of flexible arms also radiating from said shaft, the last referred to arms being provided with engaging members on their free ends, a cutter rotatably mounted immediately above said table, said arms being adapted to revolve the contents of said table beneath said cutter, guiding cam tracks on the upper surface of said table, and a gage rail on said table.

[Claims 6 to 10 not printed in the Gazette.]

1,029,214. DUST-COLLECTOR. ORVILLE M. MORSE, Jackson, Mich.; Sarah G. Morse special administratrix of said Orville M. Morse, deceased. Filed Oct. 9, 1905. Serial No. 281,927. (Cl. 83—48.)



1. In a centrifugal dust collector, a decked casing, polygonal in plan, having an air outlet opening in its deck, and an inlet, a curved deflector structure depending from the deck and shorter than the casing making substantially a complete single turn about the casing axis, arranged to direct the incoming air into an eccentric whirl wholly within the lateral confines of the deflector structure and of relatively small diameter, the periphery whereof extends contiguous to and includes within it part of the air outlet opening, said deflector being arranged relative to the casing to provide between said parts an air flow space substantially surrounding the deflector, and provided with apertures through the deflector effecting communication between the whirl area and the air flow space, and a base structure below said decked casing having a dust outlet therein in open communication with all parts of the air flow space and whirl area.

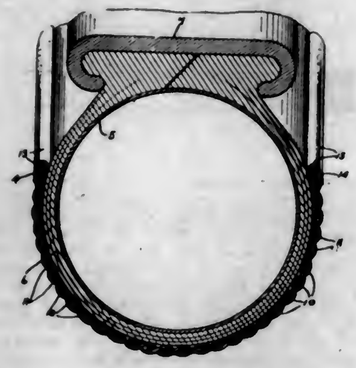
2. In a centrifugal dust collector, a decked casing head polygonal in plan having therein an outlet, a tangential inlet, an apertured deflector completely surrounding the casing axis dividing the casing into an inner whirl area, and a surrounding air flow space communicating through the deflector apertures, said deflector depending from the casing deck and shorter than the casing and arranged to deflect the incoming air into a relatively small eccentric whirl including within its periphery part of the deck-outlet, and a conical casing member below the head in open communication with all parts of the head and having therein a dust outlet.

3. In a centrifugal dust collector, a casing comprising a head of polygonal, angular section, and a tapering base, an eccentric air directing structure in said head arranged to divert the incoming air into an eccentric vortical whirl, a tangential inlet to said whirl area, an air outlet from said whirl area, the directing structure provided with openings communicating with the space intermediate said structure and the casing, a dust outlet in the bottom of the base and a conical guard below the eccentric vortical whirl area.

4. In a centrifugal dust collector, a casing comprising a head polygonal in cross section, a conical base in open communication with all parts of the head arranged with its larger end to substantially circumscribe the bottom of the casing, a deflecting structure in the head arranged to deflect incoming air into an eccentric vortical whirl, said deflector having peripheral openings therein, an air inlet, an air outlet opening into said whirl area, a dust outlet at the bottom of the cone, and a frusto-conical guard, open at both ends, disposed, small end down, below the vortical whirl area.

5. In a centrifugal dust collector, a casing comprising a head and a tapering base in vertical coaxial alinement, an eccentrically curved air-directing structure in said head arranged to direct the incoming air into an eccentric vortical whirl, an inlet to the whirl area, an air outlet from said whirl area, skimming openings in the air-directing structure, a dust outlet in the bottom of the base, and a conical guard below the eccentric whirl area, provided with a skimming aperture therein.

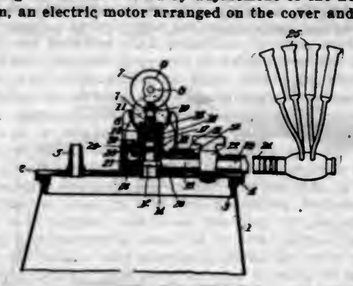
1,029,215. TIRE PROTECTOR OR SHIELD. ARTHUR H. MORTON, Cleveland, Ohio. Filed Dec. 11, 1911. Serial No. 664,914. (Cl. 152—16.)



A tire protector comprising a plurality of rings, said rings being substantially geometrical circles, a series of wires disposed transversely of said rings and arranged in close proximity to each other, each transverse wire being interwoven with said rings by being passed alternately under and above said rings, the said transverse wires being bowed down where they pass under said rings and being curved up where they pass over the said rings and means for securing the ends of the transverse wires at each side of the rings to each other.

1,029,216. COW-MILKING MACHINE. FRED ELTON NEWELL, Westminster, Vt., assignor to Vermont Farm Machine Company, Bellows Falls, Vt., a Corporation of Vermont. Filed Apr. 24, 1907. Serial No. 370,102. (Cl. 31—99.)

In a milking machine using vacuum suction and free air in the operation of milking, the combination of a milk receptacle, a cover therefor, a pulsator mounted on said cover and having a piston cylinder provided with air and milk passages, the air passage communicating through the cylinder with the milk passage, the piston cylinder having its outer end provided with a movable packed nut, a piston arranged in said cylinder and having a stem extending through and engaging said nut and on which the nut is adjustable and with which it moves, a lifter spring seated in the cylinder and bearing against the nut and having its tension varied by adjustment of the nut on the stem, an electric motor arranged on the cover and adapted



to actuate the piston in one direction, and means to effect the return stroke of the piston.

1,029,217. WINDOW-SASH. ALFRED H. NEWPHER, Chicago, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 19, 1911. Serial No. 644,957. (Cl. 189—78.)



1. In a window sash, in combination, an angular frame having a pair of instanding parallel ribs extending along its several sides, one thereof being a pane seat, a pane-retaining frame U-shaped in cross-section fitted astride the other of said ribs and comprising a plurality of strips, the adjacent strips bearing laterally each upon the other, the inner leaf of one of said strips being cut away at one end to bear against the inner face of the adjacent strip.

2. In a window sash, in combination, an angular frame having instanding parallel ribs extending along its several sides, one thereof being a pane seat, a pane-retaining frame U-shaped in cross-section fitted upon the other of said ribs and comprising a plurality of strips, the inner leaf of such strips being of less width than the outer leaf, the adjacent strips bearing laterally each upon the other, the inner leaf of one of said strips being cut away at one end to bear against the inner face of the adjacent strip.

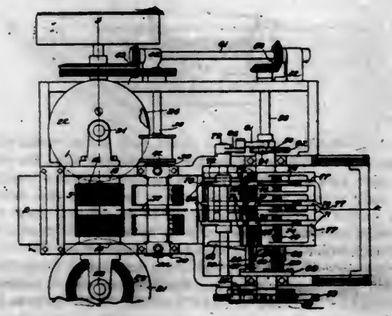
3. In a window sash, in combination, an angular frame having instanding parallel ribs extending along its several sides, one thereof being a pane seat, the other rib having a recess in its outer face, a pane-retaining frame U-shaped in cross-section fitted upon the other of said ribs and comprising a plurality of strips, the adjacent strips bearing laterally each upon the other, the inner leaf of one of said strips being cut away at one end to bear against the inner face of the adjacent strip, such retaining frame having an instanding projection for entering the recess in the rib.

4. In a window sash, in combination, an angular frame having instanding parallel ribs extending along its several sides, one thereof being a pane seat, the other rib having a recess in its outer face, a pane-retaining frame U-shaped in cross-section fitted upon the other of said ribs and comprising a plurality of strips, the adjacent strips bearing laterally each upon the other, the inner leaf of one of said strips being cut away at one end to bear against the inner face of the adjacent strip, one of the strips having the edge of its outer leaf mitered to enter the rib recess.

5. In a window sash, in combination, an angular frame having a shouldered pane seat and an instanding rib on its several sides spaced apart from the pane seat, a U-shaped retaining strip mounted astride the rib on each side of the frame, the several strips having a lateral bearing each upon the other, one of the strips having in part a longitudinal bearing upon one adjacent strip.

[Claim 6 not printed in the Gazette.]

1,029,218. MATCH-MAKING MACHINE. THOMAS NIMMO, South Portland, and ALMON G. LIBBY, Portland, Me. Filed May 8, 1911. Serial No. 625,816. (Cl. 144—51.)



1. A match making machine, comprising means for supporting and guiding veneer stock, means acting laterally upon the stock to slice the same for individual matches, means acting endwise upon the stock to compress the same for forming individual match points, and connections for causing said slicing and point compressing means to operate in timed relation so that points are formed on the individual matches as divided by the slicing means.

2. A match making machine, comprising means for supporting and guiding a double match length of veneer stock, means acting laterally upon the stock to slice the same for forming individual matches, means acting endwise and simultaneously upon both ends of the stock to compress the same for forming match points, said slicing and point forming means being movable in the direction of stock feed, and geared connections for causing said slicing and point forming means to operate in timed relation for coöperation in feeding the stock and so that points are formed on individual matches as divided by said slicing means.

3. A match making machine, comprising a feed way for veneer stock, means mounted to operate endwise upon the stock for compressing the same to form individual match points, and a pair of rotary knife carriers mounted on opposite sides of said way having knives formed to slice through intermediate portions of the stock to produce individual matches and to leave an uncut band of stock near the points thereof as formed by said point forming means, and connections for causing said knife carriers and said point forming means to operate in timed relation.

4. A match making machine, comprising a feedway for veneer stock, point forming means, and a pair of rotary knife carriers mounted on opposite sides of said way having knives formed to slice through intermediate portions of the stock to produce individual matches said knives having cut-away positions arranged to leave uncut bands of stock at the butt end and near the points as formed by said point forming means.

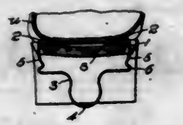
5. A match making machine, comprising a pair of oppositely mounted rotary knife carriers for slicing the stock into individual matches, and a pair of oppositely mounted rotary forming disks adapted to continuously form points on the opposite ends of the stock, said forming disks and knife carriers being mounted on axes in a common plane and intergeared for relatively timed operation.

[Claims 6 to 13 not printed in the Gazette.]

1,029,219. SOLE-EDGE PROTECTOR FOR BOOTS AND SHOES. THOMAS G. PLANT, Boston, Mass., assignor to United Shoe Machinery Company, Boston, Mass., a Corporation of New Jersey. Filed Feb. 19, 1909. Serial No. 478,953. (Cl. 36—72.)

1. A protecting device for boots and shoes comprising discontinuous sole edge shields and means permanently

connecting said shields, said means including a part constructed to enable the shields to be moved toward or away from the edge of the shoe sole as about a longitudinally extended hinge located materially above the sole bottom.



2. A protecting device for boots and shoes comprising discontinuous shields shaped for engagement with the edge of a shoe sole and an arched connecting member integral with said shields and having means to enable the shields to be spread apart for application to or removal from the sole edge and acting normally to spring said shields toward each other for engagement with said edge.

3. A sole edge protector for boots and shoes, comprising opposed edge shields, holding lips thereon and a connecting member for said shields provided with a tube-like crown section along which said connecting member may be flexed.

4. A sole edge protector for boots and shoes comprising shields shaped to fit over the edge and projecting margin of a shoe sole, said shields having transverse flexing slots formed therethrough, and a sole-bridging member connecting said shields.

5. A protecting device for boots and shoes comprising two shields 1 shaped to protect opposite edge portions of a shoe sole, lips 2 extending from said shields to protect the projecting margin of the sole, said shields and lips being curved horizontally and vertically to conform substantially to the shapes of said edge portions and having transversely extending slots 7 formed therethrough, and a connecting member continuous with said shields comprising portions extending toward each other and an arched member 4 connecting said portions, substantially as described.

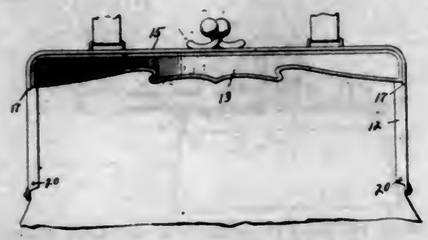
1,029,220. REMOVABLE HEEL. FRANK POWYSZENSKI, Chicago, Ill. Filed Jan. 29, 1912. Serial No. 674,064. (Cl. 36—42.)



A removable heel, comprising a fixed and a removable member, one member being formed with a dovetail projection and the other with a counterpart dovetail recess, a reinforcing member embedded in the member containing the dovetail recess aforesaid, and having a vertical screw-threaded lug at its rear end and a pair of inclined lugs at its forward side ends, and a longitudinal bolt passing through the aforesaid dovetail projection and engaging said screw-threaded lug, substantially as set forth.

1,029,221. FRAME FOR HAND-BAGS, POCKET-BOOKS, AND THE LIKE. LOUIS B. PRAHAR, Massapequa, and LESTER L. PRAHAR, New York, N. Y. Filed Dec. 29, 1910. Serial No. 599,970. (Cl. 150—29.)

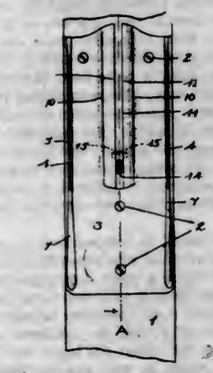
1. A jaw for hand-bags, pocket-books and the like, having a frame member, a side plate and a sheet metal strip disposed between the outer surface of said member and the inner surface of said plate, and having its outer edge folded outwardly and backwardly upon itself to form a groove into which the outer edge of said plate may slide to conceal the outer edge of said plate, and having its end edges folded over to form grooves facing each other, along which the end edges of said plate may slide, and means for rigidly securing said strip to said frame member prior to the attachment of the plate to the former.



2. A jaw for hand-bags, pocket-books and the like having a frame member substantially in the form of a channel in cross section, the channel serving to receive the edge of the body of the bag, a side plate upon the outer surface of the body of the bag, and a sheet metal strip partially concealed by said plate, and having its outer edge and its end edges folded over to form grooves or channels into which said plate may slide to conceal the upper edge and end edges of said plate, the said strip having a portion of its lower edge folded back upon itself, and extending into said channel alongside the body of the bag, to position said strip.

3. A jaw for hand bags, pocket books and the like having a frame member substantially in the form of a channel in cross section, the channel serving to receive the edge of the body of the bag, a side plate upon the outer surface of the body of the bag, and a sheet metal strip partially concealed by said plate and serving to conceal the outer and the end edges of said plate and having its opposite edge folded back upon itself and extending into said channel inside of the body of the bag and thence substantially across the channel inside of the latter, whereby said strip positions said plate and the body of the bag retains said strip in position.

1,029,222. SAWYER'S CLAMP. FREDERICK C. PREUS, Newark, N. J. Filed Mar. 28, 1911. Serial No. 617,376. (Cl. 143—91.)

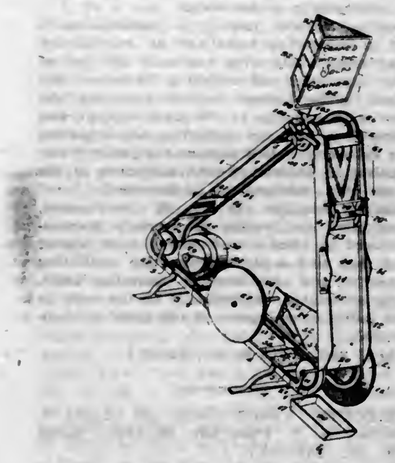


1. A sawyer's clamp comprising in combination a body portion adapted to be secured in an upright position and having a vertical slot with forwardly and upwardly closed sockets on its opposite walls, a rest for a stick to be sawed on the lower part of said body portion, and a lever having its end lying in said slot and provided with trunnions to enter said sockets.

2. In a sawyer's clamp, the combination of a body portion having an upwardly extending slot open at its top and at the back of the body portion and provided at its opposite side walls with undercut sockets opening rearward, a lever having an end adapted to slide in said slot and provided with trunnions to enter said sockets, said lever adapted to project forwardly from the body portion, and arms projecting from said body portion and forming therewith a rest for a stick to be sawed beneath said lever.

3. In a sawyer's clamp, the combination of a body portion having an upwardly extending slot and a series of upwardly and forwardly closed fulcrum seats arranged along said slot and open toward the rear side of the body portion, a lever in said slot projecting forwardly from the body portion, means on the lever for engaging said seats and preventing escape of the lever forwardly through the slot, and a rest projecting forwardly from the body portion beneath said lever in such relation to said lever as that a stick to be sawed can be clamped upon said rest by downward swinging of the lever.

1,029,223. DEMONSTRATING-MACHINE. WALTER R. RAE, Chicago, Ill., assignor to The Ohio Varnish Company, Cleveland, Ohio, a Corporation of Ohio. Filed Jan. 3, 1911. Serial No. 600,546. (Cl. 35—12.)



1. In a demonstrating machine, the combination of means for automatically performing repeating cycles including the application of material, the manipulation of such material, and the obliteration of the effect produced by such manipulation.

2. In a machine of the class described, the combination with means for holding a sample to be treated, and means for automatically applying graining material thereto, automatically manipulating such material to produce an effect illustrative of graining, and automatically obliterating such effect.

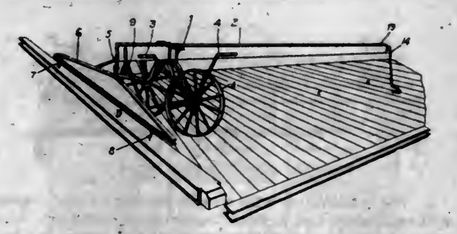
3. In a machine of the class described, the combination with means for holding a sample to be treated, and means for automatically applying graining material thereto, automatically manipulating such material to produce an effect illustrative of graining and automatically obliterating such effect, means for continuously repeating such three-operation cycle.

4. The combination, with means for holding a panel, and mechanism for automatically drawing a graining tool across such panel and rocking it during such movement.

5. The combination, with means for holding a panel, of means for automatically applying graining material thereto, means for automatically moving a graining tool across such material after it is applied, to give it a grained effect.

[Claims 6 to 23 not printed in the Gazette.]

1,029,224. CARRIAGE FOR TRANSPORTING AND LAYING CONCRETE BEAMS. ROBERT A. REYNOLDS and ALONZO C. RAYMOND, Detroit, Mich. Filed Dec. 13, 1911. Serial No. 665,553. (Cl. 21—65.)



1. A carriage for handling concrete beams, having in combination, a pair of wheels, an axle, a tongue supported thereon at one side of its mid-point, and an equalizer bar swivelly connected with the shorter end of the tongue and suspended at right angles thereto, substantially as described.

2. A carriage for handling concrete beams, having in combination, a pair of wheels, an axle, a tongue supported thereon at one side of its mid-point, an equalizer bar swivelly connected with the shorter end of the tongue and suspended at right angles thereto and loosely hung hooks attached to said equalizer bar at points equidistant from its point of suspension, substantially as described.

3. A carriage for handling concrete beams, having in combination, a pair of wheels, an axle, a tongue supported thereon at one side of its mid-point, an equalizer bar swivelly connected with the shorter end of the tongue and hanging at right angles thereto, and a snubbing bar provided with a nose adapted to engage between the flanges of a concrete I beam, substantially as described.

4. A carriage for handling concrete beams, having in combination, a pair of wheels, an axle, a tongue supported thereon at one side of its mid-point, an equalizer bar swivelly connected with the shorter end of the tongue and at right angles thereto, and a snubbing bar to prevent the concrete beam swinging against the wheels, substantially as described.

1,029,225. T-SQUARE AND OTHER DRAFTING DEVICE. VICTOR ALBERT RIGAUMONT, Pittsburgh, Pa. Filed Mar. 3, 1911. Serial No. 611,964. (Cl. 33—8.)

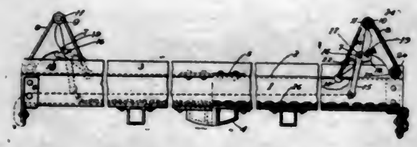


A drafting implement of the character described, comprising a blade or the like having flat top and bottom faces and square pen guiding edges, the bottom face being provided at each edge thereof with a groove spaced back from the edge and opening on the edge face in a manner to provide an overhanging lip projecting into close proximity to the plane of a bottom face and leave a square pen guiding edge of only slightly less width than the thickness of the blade, the bottom face of the blade between said grooves being an uninterrupted surface.

1,029,226. COLLAPSIBLE CHOCK FOR LOG-CAR BUNKS. JOHN M. ROHLFING, St. Louis, Mo., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Original application filed Feb. 19, 1910, Serial No. 544,795. Divided and this application filed Jan. 31, 1912. Serial No. 674,028. (Cl. 105—173.)

1. In combination, a flanged beam bent longitudinally intermediate its width for disposing a portion of the web

laterally to form a tread having an upstanding flange, and a chock mounted on said web and adapted to be shifted from a position extending above said upstanding flange to position below the top edge of the flange.



2. The combination with a bunk, having a tread formed with apertures and a flange upstanding therefrom, of a chock comprising pivotally connected legs, one of the legs having means for engaging said apertures for retaining the leg against longitudinal movement, and means for detachably connecting the legs for retaining the same in upstanding position against pivotal movement.

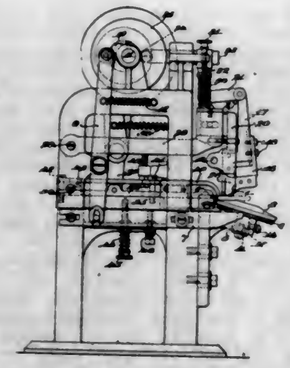
3. A chock comprising pivotally connected legs, and a hook fixed on one leg, a trip lever pivoted to the other leg, and a hook extended from said lever, adapted to engage the first mentioned hook for detachably locking legs in an outstanding position.

4. The combination with a bunk, of a chock comprising a pair of pivotally connected legs one of said legs having means adapted to engage the bunk for retaining the leg against longitudinal movement, and allowing pivotal movement thereof, the other leg being adapted to have a sliding engagement longitudinally of the bunk, for permitting relative pivotal movement of the legs, and a hook carried between said legs for detachably connecting the legs in an upstanding position for preventing said pivotal movement thereof.

5. The combination with a bunk having longitudinal treads and apertures formed therein, of a chock comprising a pair of pivotally connected legs, one of said legs being formed with means for engaging said apertures to retain the leg against longitudinal movement, the other leg being formed with an eye, a pin extending through said eye, rollers carried by said pin and engaging said treads, and means for detachably connecting the legs in upstanding position.

[Claims 6 to 9 not printed in the Gazette.]

1,029,227. CHANNELING-MACHINE. JOHN G. ROSS, South Easton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 3, 1905, Serial No. 272,528. Renewed Jan. 2, 1908. Serial No. 470,531. (Cl. 12—27.)



1. A channeling machine having, in combination, a work support, a channeling knife vibrating transversely with respect to the line of feed during the channel cutting operation, a yielding presser foot bearing on the surface of the work opposite to the work support, and means for supporting and actuating the channeling knife connected with the presser foot so that the path of movement of the channeling knife is determined by the presser foot in accordance with varying thickness in the work, substantially as described.

2. A channeling machine having, in combination, a work support, a channeling knife vibrating transversely with respect to the line of feed, a yielding presser foot bearing on the surface of the work opposite to the work support, and a lever by which the channeling knife is supported and actuated, the lever being oscillated about a fulcrum connected with the presser foot so as to move in unison with the latter to conform to varying thickness in the work, substantially as described.

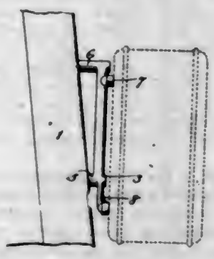
3. A channeling machine having, in combination, means for holding the work and slitting the edge thereof, a channeling knife vibrating transversely with respect to the line of feed during the channel cutting operation, a yielding presser foot bearing on the surface of the work, and means for supporting and actuating the channeling knife connected with the presser foot so that the path of movement of the channeling knife is determined by the presser foot in accordance with varying thickness in the work, substantially as described.

4. A channeling machine having, in combination, a work support, a channeling knife and an edge-slitting knife vibrating transversely with respect to the line of feed, means for supporting and actuating the knives, and two independent yielding presser feet bearing against the surface of the work opposite to the work support and connected respectively with the supporting and actuating means for the knives so as to determine the paths of motion of the knives in accordance with variations in the thickness of the work, substantially as described.

5. A channeling machine having, in combination, means for supporting and feeding the work, a channeling knife arranged to vibrate transversely with respect to the line of feed, and a pivotally-mounted oscillating lever for supporting and actuating the channeling knife, the knife being adjustable longitudinally of the lever so as to vary the radius of oscillation of the knife, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,029,228. BRACKET. VERNON ROYLE and VERNON E. ROYLE, Paterson, N. J. Filed Nov. 25, 1910. Serial No. 594,170. (Cl. 248—30.)



1. The box supporting bracket of skeleton angular form provided with perforated legs at its apexes for securing it to a support and with perforated extensions directed laterally from its margin for securing it to a box.

2. The box supporting bracket of triangular form provided with perforated legs of varying lengths at its apexes for securing it to a support and with perforated extensions for securing it to a box.

1,029,229. HAND-FIREARM. FREDERICK T. RUSSELL, Philadelphia, Pa., assignor to A. H. Fox Gun Company, a Corporation of Pennsylvania. Filed Mar. 22, 1911. Serial No. 616,156. (Cl. 42—75.)



1. In a gun, the combination of the barrel and gun frame structure, with a fore end resting against the barrel and gun frame structure, and locking means for retaining the fore end in position consisting of a pivoted latch plate carried by the barrel portion and having two cam edge portions forming a high point at their juncture, a spring to force the latch backward toward the gun frame, and a keeper on the fore end adapted to move over the two cam edges of the latch plate successively and pass the high point at the juncture thereof in applying or removing the fore end.

2. In a gun, the combination of the barrel and gun frame structure, with a fore end resting against the barrel and gun frame structure, and locking means for retaining the fore end in position consisting of a latch frame secured to the barrel portion and having a latch slot and an obliquely arranged spring socket, a pivoted latch plate arranged in the slot of the latch plate and having two cam edge portions forming a high point at their juncture, a spring arranged in the oblique spring socket of the latch frame to force the latch backward toward the gun frame, and a keeper on the fore end adapted to move over the two cam edges of the latch plate successively and pass the high point at the juncture thereof in applying or removing the fore end.

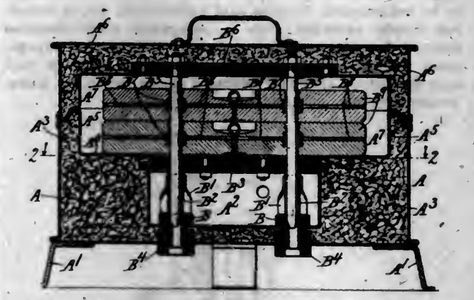
3. In a gun, the combination of the barrel and gun frame structure, with a fore end resting against the barrel and gun frame structure and having a fore end iron, and locking means for retaining the fore end in position consisting of a latch frame secured to the barrel portion and having a latch slot and an obliquely arranged spring socket, and also a shoulder to form an abutment for the end of the fore end iron, a pivoted latch plate carried by the barrel portion and having two cam edge portions forming a high point at their juncture, a spring to force the latch backward toward the gun frame, and a keeper on the fore end iron adapted to move over the two cam edges of the latch plate successively and pass the high point at the juncture thereof in applying or removing the fore end.

4. In a gun, the combination of the gun frame and barrel structure, with a latch frame secured to the barrel structure, a latch plate guided in the latch frame and having a retaining cam edge said latch plate being pivoted at its end next to the barrel structure, a spring carried by the latch frame and pressing upon the end of the latch most distant from the pivot thereof, and a fore end having a fore end iron engaging the gun frame and having a keeper arranged for engagement with the cam edge of the latch between the points of its pivot and application of the spring pressure.

5. In a gun, the combination of the gun frame and barrel structure, with a latch frame secured to the barrel structure, a latch plate guided in the latch frame and having a retaining cam edge said latch plate being pivoted at its end next to the barrel structure, a spring carried by the latch frame and pressing upon the end of the latch most distant from the pivot thereof, and a fore end having a fore end iron engaging the gun frame and having its forward end slotted and provided with a keeper roll arranged for engagement with the cam edge of the latch between the points of its pivot and application of the spring pressure.

[Claims 6 to 9 not printed in the Gazette.]

1,029,230. APPARATUS FOR HEATING ELECTRICAL UNITS. HENRY H. RUSSELL, New York, N. Y., assignor to Walter D. Hodson, Janesville, Wis. Filed Apr. 6, 1911. Serial No. 619,230. (Cl. 219—34.)



1. A radiator heater comprising a heating chamber electric heating elements therein and a cover therefor insulated conducting rods carried by said cover and terminals in opposition to said conducting rods.

2. A radiator heater comprising a heating chamber electric heating elements therein and a cover therefor insulated conducting rods carried by said cover and terminals in opposition to said conducting rods said terminals located below the bottom of said heating chamber.

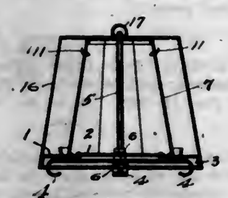
3. A radiator heater comprising a heating chamber electric heating elements therein and a cover therefor insulated terminals embedded in the bottom wall of said chamber and conducting rods in opposition thereto carried by said cover and penetrating said wall.

4. A radiator heater comprising a heating chamber electric heating elements therein and a cover therefor a plurality of live electric terminals adjacent said chamber and dead terminals carried by said cover passing through said chamber and in contact with said live terminals.

5. A radiator heater comprising a heating chamber electric heating elements therein and a cover therefor, an insulating block below said chamber, live terminals embedded within said block and conducting rods insulated one from the other carried by said cover located within said chamber and in contact with said embedded terminals.

[Claims 6 to 17 not printed in the Gazette.]

1,029,231. FILE-CABINET. WILBUR E. RYAN, Memphis, Tenn. Filed Apr. 1, 1912. Serial No. 687,569. (Cl. 45—4.)

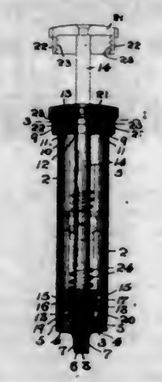


The combination with a spider and rotatable base, of a support provided with a plurality of rearwardly inclined faces arranged about a center, a retaining flange secured at the lower end of each face forming a V-shaped recess, a hook near the upper end of each face, and a case having a perforation to engage a hook and formed with a pointed lower end to rest in said recess.

1,029,232. AIR-PUMP. FREDERICK J. SCHAEFER and EMIL BEYER, Newark, N. J. Filed Oct. 24, 1911. Serial No. 656,475. (Cl. 230—27.)

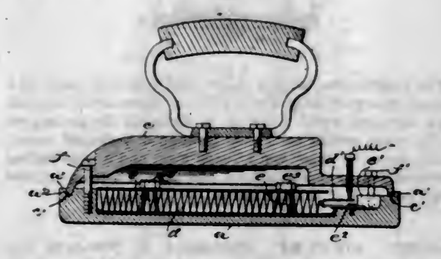
1. In a pump, the combination with a tubular body-portion or shell, of screw-thread portions formed at the

upper portion or mouth of said body-portion or shell to provide external and internal screw-threaded surfaces, a guide-block provided with a central opening and external screw-threads engaging said internal screw-thread surfaces of said body-portion or shell, a piston rod adapted to be reciprocated through said guide-block, and a piston-rod handle provided with an internally screw-threaded annular flange or skirt adapted to be brought into engagement with said external screw-thread surfaces of said body-portion or shell, to lock said piston-rod in its downwardly thrust position within said pump.



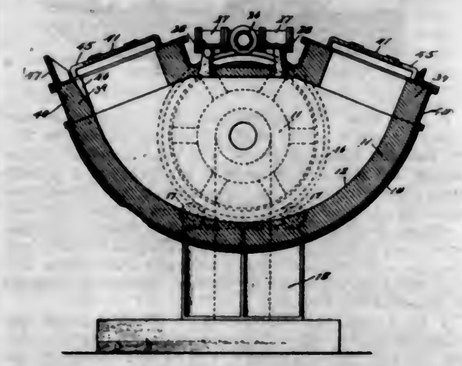
2. In a pump, the combination with a tubular body-portion or shell, of screw-thread portions formed at the upper portion or mouth of said body-portion or shell to provide external and internal screw-thread surfaces, a bottom-plug provided with a discharge-orifice connected with the lower end of said body-portion or shell, a guide-block provided with a central opening and external screw-threads engaging said internal screw-thread surfaces of said body-portion or shell, a piston-rod adapted to be reciprocated through said guide-block, and a combined piston rod handle and pump-cap secured to the upper end of said piston-rod, the same being provided with an internally screw-threaded annular flange or skirt adapted to be brought into engagement with said external screw-thread surface of said body-portion or shell, to close the top of said pump and to lock said piston-rod in its downwardly thrust position within said pump when not in use, a resilient valve-member, and means connected with the inner end of said piston-rod for carrying the same, said valve-member being adapted to close the discharge-orifice of said bottom-plug when said piston rod is locked in its downwardly thrust position.

1,029,233. ELECTRIC SAD-IRON. VIKTOR SCHILD, Brienz, Switzerland, assignor to James Welter, Passaic, N. J. Filed Jan. 31, 1911. Serial No. 605,802. (Cl. 219—25.)



An electric sad iron comprising a bottom plate having a recessed flange on its upper edge, an arched cover plate having a dependent lip on its under side engaging said recessed flange, a heater disposed in said bottom plate out of contact with said cover plate, and means for securing said plates together.

1,029,234. BALLING-FURNACE. MORRIS SELLERS and HAL M. NICHOLLS, Chicago, Ill. Filed Apr. 13, 1911. Serial No. 620,882. (Cl. 75—127.)



1. The combination of an oscillating working chamber provided with a hearth which is formed on curved lines lying in the planes of oscillation and which is curved on transverse lines, said chamber being formed with an opening or openings in line with the travel of the ball on the hearth for the purpose of charging and drawing, means for introducing a hot blast into said chamber, and means for oscillating said chamber.

2. In balling apparatus, the combination with an oscillatory working chamber provided with a curved hearth which is formed on arcs less than a circle, lying in the planes of oscillation and which is concaved transversely on curved lines, of means for oscillating said chamber, and means for introducing a hot blast into said chamber.

3. The combination of an oscillating working chamber provided with a hearth which is formed on curved lines lying in the planes of oscillation and which is concaved on curved lines transversely thereto, the curvature of the hearth on the planes of oscillation and the axis of oscillation being so related that points on the working portion of the hearth move on radii shorter than the hearth radius, and means for oscillating said chamber.

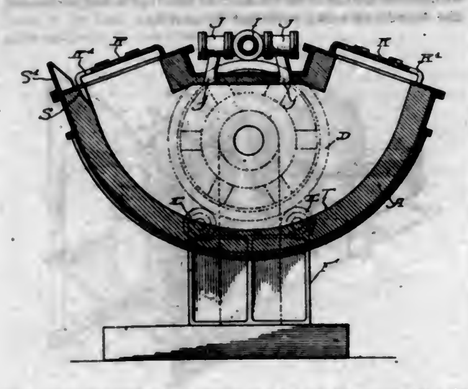
4. The combination of a pivoted working chamber and means for imparting movements of rotation to the same, said chamber being provided with a hearth formed on curved lines eccentric to the axis of rotation and lying in planes perpendicular thereto and concaved transversely on curved lines.

5. The combination of an oscillating working chamber provided with a hearth which is formed on curved lines lying in the planes of oscillation, which is also concave transversely on lines having radii shorter than those of the first mentioned curves, and means for introducing gases in a state of combustion into said chamber so that they are directed against the hearth on lines substantially radial to the longitudinal curvature of the hearth.

[Claims 6 to 27 not printed in the Gazette.]

1,029,235. PROCESS OF BALLING SCRAP. MORRIS SELLERS and HAL M. NICHOLLS, Chicago, Ill. Filed Nov. 8, 1911. Serial No. 659,104. (Cl. 75—50.)

1. The process of balling scrap metal which consists in causing a charge of scrap in the presence of a balling temperature to be rolled over a curved surface, whereby the charge will be formed into a ball of desired size and contour, and simultaneously causing said charge to be carried up and pitched down by gravity on a line of travel about a center having a radius shorter than the radius of said surface, whereby the charge is simultaneously formed into a ball and compressed.



2. The process of balling scrap metal which consists in causing a charge of scrap to be oscillated in the presence of a welding temperature upon a surface formed on a curve about a given center, whereby the charge is formed into a ball, and simultaneously causing the charge to alternately rise and descend sharply in a line of travel eccentric to the center about which said balling surface extends, so that the ball is compressed by such sharp descents and elevations.

3. The process of balling scrap metal which consists in rolling a charge of scrap in the presence of a welding temperature upon a surface formed to give a spherical contour to the charge, and simultaneously moving said balling surface about a center eccentric to that about which the balling surface is drawn, whereby the ball is caused to alternately descend and rise upon a sharp inclination, by means of which travel the ball is strongly compressed by its own weight and velocity.

4. The process of balling scrap metal which consists in causing the metal to be rolled back and forth on a curved surface by imparting oscillatory movements to the surface and while subjected to a flame directed down upon the surface from above of sufficient intensity to heat the pieces of scrap to a welding condition without reducing them to molten condition.

5. The process of balling scrap metal which consists in causing the metal to be rolled back and forth on a longitudinally curved transversely concaved surface by imparting oscillatory movements to said surface and while subjected to a flame directed downwardly into the concavity of said surface.

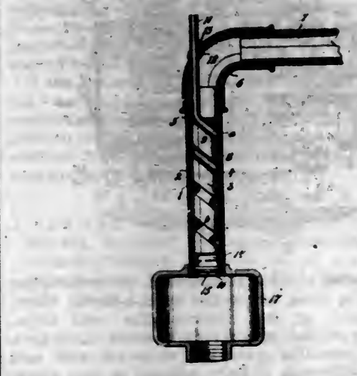
[Claims 6 to 20 not printed in the Gazette.]

1,029,236. CARBONATOR. ARTHUR E. SHATTUCK, San Francisco, Cal., assignor to National Carbonated Liquid Co., San Francisco, Cal. Filed July 26, 1911. Serial No. 640,672. (Cl. 209—1.)

1. A carbonator comprising a helical conduit, means for supplying liquid under pressure to one end of the conduit, and a spiral pipe extending through the conduit for reducing the cross-sectional area thereof for the passage of liquid and having a plurality of orifices for discharging gas into the liquid passing through the conduit.

2. A carbonator comprising a pipe section, a plug therein having a spiral groove in its circumferential surface coöperating with the pipe section to form a liquid conduit, and means extending longitudinally of the conduit for reducing the cross-sectional area thereof for the passage of liquid and for injecting gas into the liquid in its passage through the conduit.

3. A carbonator comprising a section of pipe, a plug fitted in and extending longitudinally thereof and having a helical groove extending from one end of the plug to the other, a helical pipe extending in the groove of the plug and having gas-discharging orifices, said pipe being open at one end to receive gas and closed at the other, means for supplying water to one end of the groove, and means for receiving carbonated liquid from the other end of the groove.



4. A carbonator comprising a section of pipe, an elbow connected therewith having an opening in its wall, a water supply pipe connected with the elbow, a helically grooved plug fitted in the said section of pipe whereby water will pass only through said groove, and a perforated helical tube extending longitudinally of the groove and having a gas inlet portion extending through the opening of the coupling.

5. A carbonator comprising a structure having a helical conduit for the passage of liquid, a tube of helical form extending longitudinally of the conduit and of less cross-sectional area than the latter to cause the liquid to flow in an approximately film-like tubular stream, said tube being in contact with the walls of the conduit at different points to break up the stream, said tube having minute gas discharging orifices in the portion located in the conduit.

[Claims 6 and 7 not printed in the Gazette.]

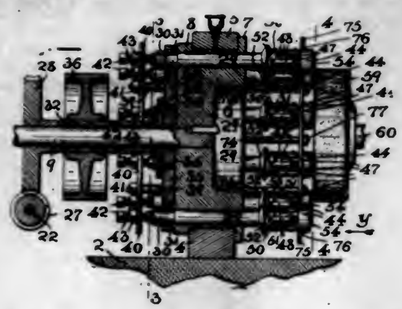
1,029,237. HASP. ORA C. SHAFFER, Van Wert, Ohio, assignor of forty-five one-hundredths to Gus Jones, Van Wert, Ohio. Filed Mar. 18, 1912. Serial No. 684,552. (Cl. 70—83.)



1. The combination with a hasp constructed at one end to be connected with a support by which the hasp is to be carried and having adjacent its opposite end a staple-receiving slot, of a latch connected in a pivotal manner to the hasp at the opposite side of the slot therein; with reference to the end of the hasp that is constructed to be connected with a support, and having arms movable in a plane alongside the face of the hasp and also having outwardly directed finger-pieces on said arms and angularly disposed terminals at the ends of the arms adapted to be positioned in a staple.

2. The combination with a hasp having a slot, of a latch pivoted to the hasp and movable parallel to the face thereof and comprising arms disposed at acute angles to each other, outwardly directed finger-pieces on the arms, and angularly-disposed terminals on the arms adapted to be positioned in a staple or the like.

1,029,238. BUTTON-MACHINE. HERBERT J. SKIFF, Newark, N. J. Filed May 29, 1911. Serial No. 630,002. (Cl. 79—9.)



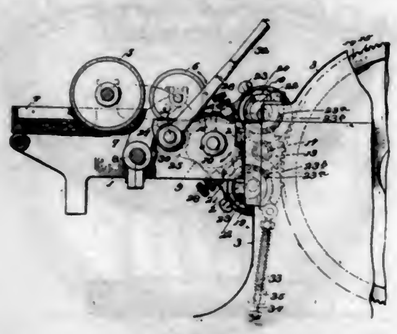
1. In a machine of the kind described, the combination with a revolving table, of rotating chuck-spindles, chuck-members carried by said chuck-spindles, said chuck-members being formed by pivotally mounted chuck-jaws, a rearwardly extending spring-arm connected with each chuck-jaw, a wedge-ring slidably mounted on each chuck-spindle, means for reciprocating said wedge-rings at a certain point of the table's revolution to automatically open and close said chuck-members, comprising a pair of stationary cam-members adapted to engage said wedge-rings, one of said cam-members having an inclined face extending in one direction and the other of said cam-members having an inclined face extending in the opposite direction, and a perforated guard-plate carried by said table through which said chuck-jaws project.

2. In a machine of the kind described, a revolving table, rotating chuck-spindles journaled therein, chuck-members carried by said chuck-spindles, said chuck-members comprising a series of pivotally mounted chuck-jaws, rearwardly extending spring-arms connected with each chuck-jaw, a wedge-ring slidably mounted on each chuck-spindle an annular shoulder connected with each wedge ring, a pair of stationary cam-members adapted to engage said annular shoulders of said wedge-rings at a certain point in said table's revolution to move said wedge-rings successively away from and into contact with said spring-arms to open and close said chuck-jaws, and a perforated guard-plate carried by said table through which said chuck-jaws project.

3. In a machine of the kind described, a revolving table, rotating chuck-spindles journaled therein, chuck-members carried by said chuck-spindles, said chuck-members comprising a series of pivotally mounted chuck-jaws, rearwardly extending spring-arms connected with each chuck-jaw, a wedge-ring slidably mounted on each chuck-spindle, an annular shoulder connected with each wedge-ring, a stationary cam-member having an inclined face adapted to engage said annular shoulder of each wedge-ring to move the same away from contact with said spring-arms to open said chuck-jaws, a second cam-member having an oppositely inclined face adapted to engage said annular shoulder of each wedge-ring to move the same into contact with said spring-arms to close said chuck-jaws, and a perforated guard-plate carried by said table through which said chuck-jaws project.

1,029,239. DAMPENING MECHANISM FOR PRINTING-PRESSES. WALTER H. SMITH, Niles, Ohio, assignor to The Harris Automatic Press Company, Niles, Ohio, a Corporation of Ohio. Filed Apr. 4, 1910. Serial No. 553,270. (Cl. 101—180.)

1. In combination with a press cylinder, a distributing roll, upper and lower transfer rolls for engaging said distributing roll and said plate cylinder, manually-operable means located between the two rolls for moving them in opposite directions out of engagement with the press cylinder, each roll being capable of being moved out of normal position by such cylinder without interference by such manually-operable means, and means acting on the lower roll for returning it to its normal position when so moved, the upper roll being returned by gravity.



2. In combination with a press cylinder, a distributing roll, upper and lower transfer rolls for engaging said distributing roll and cylinder, arms supporting said transfer rolls pivoted concentrically to the axis of said distributing roll, upper and lower levers interposed between said arms, and means for operating said levers for moving said arms and rolls in opposite directions, said arms and rolls being capable of being moved out of, and returned to, their normal positions independently of said levers.

3. In combination with a press cylinder, a distributing roll, upper and lower transfer rolls for engaging said distributing roll and cylinder, arms supporting said transfer rolls pivoted concentrically to the axis of said distributing roll, set screws carried by said arms, levers interposed between said arms and with which said set screws engage, and means for operating said levers to move said arms and rolls in opposite directions, said rolls and their arms being capable of being moved independently of said levers by the press cylinder.

4. In combination, a distributing roll, arms loosely supported concentrically to the axis of said roll, transfer rolls carried by said arms, each arm having an adjusting screw, levers fulcrumed concentrically to the axis of said distributing roll and with which said adjusting screws are designed to engage, and means connecting said levers for shifting the transfer rolls.

5. In combination, a distributing roll, a fixed sleeve, arms loosely supported by said sleeve, transfer rolls carried by said arms, each arm having an adjusting screw, levers fulcrumed on said sleeve and with which said adjusting screws are designed to engage, and means engaging said levers for shifting the transfer rolls.

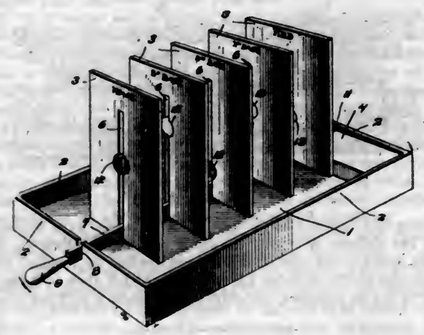
[Claims 6 to 11 not printed in the Gazette.]

1,029,240. PUZZLE. EARL R. SNEDAKER, Philadelphia, Pa. Filed Sept. 28, 1911. Serial No. 651,672. (Cl. 46—41.)

1. A device of the character described, comprising a base, a vertical partition on said base having a slot therein, and an opening in said slotted portion, a bar positioned through the slot, and a ball adapted to be supported on the bar and manipulated through the opening, substantially as described.

2. A device of the character described, comprising a base, a plurality of vertical partitions on the base, said partitions having alined slots, openings in said partitions in the slotted portions thereof, said openings being out of alinement, a bar positioned through said slots, and a ball adapted to be supported on said bar and manipulated thereby to pass the ball through the said openings in the partitions, substantially as described.

3. A device of the character described, comprising a base, a vertical partition on said base having a slot therein, and an opening in said slotted portion, a bar positioned through the slot, a ball adapted to be supported on the bar and manipulated through the opening, said bar having its upper edge curved concentrically with the curvature of the ball, and a handle on the outer end of said bar, substantially as described.

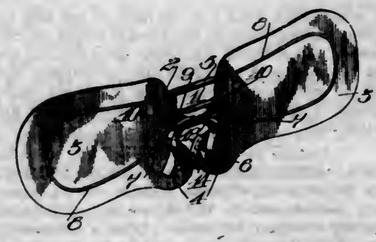


4. A device of the character described, comprising a base, a plurality of vertical partitions on the base, said partitions having alined slots, openings in said partitions in the slotted portions thereof, said openings being out of alinement, a bar positioned through said slots, and a ball adapted to be supported on said bar and manipulated thereby to pass the ball through the said openings in the partitions, said bar having its upper edge curved concentrically with the curvature of the ball, and a handle on the outer end of said bar, substantially as described.

5. A device of the character described, comprising a base, a wall around said base, a plurality of vertical partitions on said base, said partitions all having registering longitudinal slots therein, openings in said partitions in the slotted portions thereof, said openings being out of alinement, a bar projecting through all of said slots, a ball, and an inclined block at the inner end of said base constructed to guide the ball onto the bar, substantially as described.

[Claim 6 not printed in the Gazette.]

1,029,241. SANITARY EYE-SHIELD. JOHN F. SNYDER, Oakland, Cal. Filed Apr. 27, 1911. Serial No. 623,555. (Cl. 2—149.)



1. An eye shield consisting of a frame embodying a nose clamp, and a removable shield carried by the frame having separated portions bendable across the inner faces of the nose clamp so as to lie between the members of the clamp and the nose of the wearer.

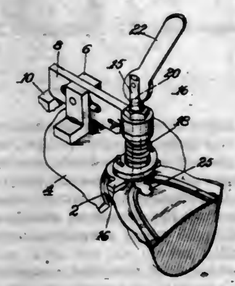
2. An eye shield, consisting of a frame embodying a nose clamp and a removable shield carried by the frame having separated portions normally overlying the members of the nose clamp, said shield having a portion bendable at right angles to said separated portions and engaged with a portion of the frame.

3. An eye shield consisting of a frame embodying a pair of clamps and a readily removable shield having the portions normally overlying the clamps said portions being bendable at right angles across the inner faces of said clamps, so as to lie between the clamps and the nose of the wearer.

4. An eye shield comprising a flexible blank fashioned with lobes arranged upon each side of a central opening, said lobes being bendable and adapted to press upon the sides of the nose when applied, and means for temporarily maintaining the shield in position on the face of the wearer, said means embodying a nose clamp across the inner face of which the lobes are bent when the shield is applied to the nose of the wearer.

5. An eye shield formed of medicated material and having lobes adapted to press upon the sides of the nose when applied, means for temporarily maintaining the shield in position on the face of the wearer, said means including a resilient frame having a nose clamp, and a shiftable lock engaging portion of the shield.

1,029,242. LASTING APPARATUS. BENJAMIN F. STUBER, Gardiner, Me., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 5, 1910. Serial No. 595,691. (Cl. 12—14.)



1. A toe lasting mechanism for welt shoes having, in combination, toe embracing wipers, a retarder to clamp the upper upon the wipers; and a last depressor having a foot formed to extend rearwardly to overlie the rib of a welt shoe innersole and engage the innersole inside the rib.

2. A toe lasting mechanism for welt shoes having, in combination, toe embracing wipers, a retarder comprising a clamping plate to grip the upper against the wipers and a carrier for said plate; and a last depressor movably mounted in said carrier and having a foot with a portion formed to extend rearwardly over and out of crushing engagement with the innersole rib and a portion to engage the innersole inside the rib for forcing the last downwardly.

3. A toe lasting mechanism for welt shoes having, in combination, toe embracing wipers, a retarder comprising the curved clamping plate 16 arranged over the wipers, a tubular carrier 15 for the plate, and means 14, 8, 18 to actuate said carrier and plate; and a last depressor comprising a stem 20 movable endwise in the carrier 15, an eccentric 22 to operate the stem in the carrier, and a detachable foot at the lower end of the stem deflected rearwardly from the atem to overlie the rib of the shoe innersole and engage the shoe inside the rib for depressing the last.

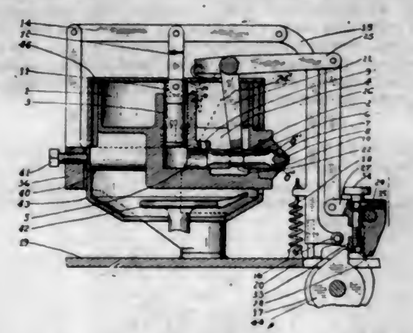
4. A toe lasting mechanism for welt shoes having, in combination, toe embracing wipers, a retarder to clamp the upper upon the wipers; and a last depressor having a foot formed eccentrically thereof to overlie the rib of a welt shoe inersole and engage the innersole inside the rib and having a face to form an abutment for the inner side of the rib at the end of the toe and support the rib against the closing pressure of the wipers.

5. A toe lasting mechanism for welt shoes having, in combination, toe embracing wipers, a retarder to clamp the upper upon the wipers; and a last depressor having a foot formed to overlie the rib of a welt shoe innersole and engage the innersole inside the rib and having a face to form an abutment for the inner side of the rib, said foot

being detachable to permit substitution of feet having rib-supporting faces formed according to the shape of the shoes to be lasted.

[Claims 6 to 11 not printed in the Gazette.]

1,029,243. METAL-POT FOR TYPE-CASTING MACHINES AND THE LIKE. JOHN S. THOMPSON, Chicago, Ill. Filed Sept. 20, 1907. Serial No. 393,765. (Cl. 22—71.)



1. A metal pot supported in a pivotally mounted yoke comprising a vertically movable plunger, and a horizontally movable choker valve, pivotally mounted levers supported by members on said yoke adapted to control the movements of said plunger and choker valve, non-resilient means for adjusting the horizontal position of the metal pot in said yoke, the whole adapted to be swung around in said supporting yoke.

2. A device of the kind described, comprising a pivotally mounted yoke, a metal pot loosely supported therein, adjusting means arranged on opposite sides of the pot for controlling its vertical position in the yoke, means behind the pot for controlling its horizontal position in said yoke, a plunger and choker valve, and operating levers therefor pivotally mounted in supporting members affixed thereto, the whole adapted to be swung around with said yoke to give access to the parts.

3. In a device of the kind described, a base, a yoke pivotally mounted upon said base, a metal pot suspended in said yoke, and means for adjusting said metal pot vertically and horizontally in said yoke.

4. In a device of the kind described, a base, a yoke pivotally mounted upon said base, a metal pot suspended in said yoke, and non-resilient means for adjusting the vertical position of said metal pot.

5. In a device of the kind described, a base, a yoke pivotally mounted upon said base, a metal pot suspended in said yoke, and non-resilient means for adjusting the metal pot horizontally therein.

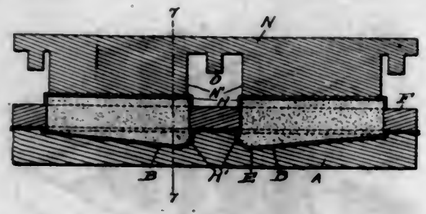
[Claims 6 to 27 not printed in the Gazette.]

1,029,244. RAILWAY-TIE. VINCENT TISI, San Francisco, Cal. Filed June 17, 1911. Serial No. 633,706. (Cl. 106—31.)

A composition for the manufacture of articles, said composition including sand—approximately 105 parts; cement—approximately 50 parts; sawdust—approximately 5 parts; and asphaltum—approximately 28 parts, the several ingredients being heated and mixed together substantially as herein specified.

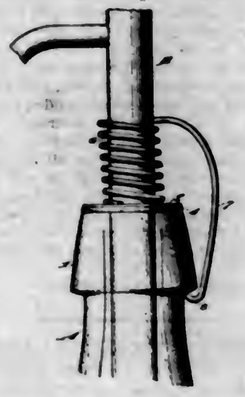
1,029,245. APPARATUS FOR MAKING HARNESS-SADDLES. WILLIAM F. TREECE, Statesville, N. C., assignor to Compress Pad & Saddle Company, Statesville, N. C. Filed Aug. 13, 1910. Serial No. 577,000. (Cl. 69—8.)

An apparatus for making saddle pads, the same comprising a mold block, molds formed therein, in combination with a plate having openings conforming in size and relative location to the molds, the said openings being provided with peripheral flanges extending below the lower face of the plate to prevent lateral displacement, and



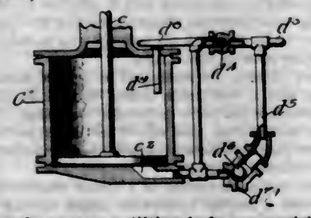
above the upper face of the plate to serve as a measure of the amount of filling material required in forming the pad and a plate provided with projections or formers conforming to the form of the molds in which they are adapted to act as plungers, substantially as shown and described.

1,029,246. BOTTLE-STOPPER. ANDREW H. TYSON, Washington, D. C. Filed Aug. 10, 1911. Serial No. 643,397. (Cl. 215—25.)



The combination with a bottle-neck, a cap and gasket, of a tube passing through the central orifice in the cap and gasket, and a spring encircling the tube and bearing against the cap, said spring having an integral hook in position to engage the bottle neck when the spring is compressed to resiliently force the cap and gasket against the bottle neck.

1,029,247. PNEUMATIC CUT-OFF FOR DUMP-CARS. JOHN W. WILCOX, Chicago Heights, Ill., assignor, by mesne assignments, to The Kilbourne & Jacobs Manufacturing Company, Columbus, Ohio, a Corporation of Ohio. Filed Jan. 25, 1910. Serial No. 540,040. (Cl. 105—190.)

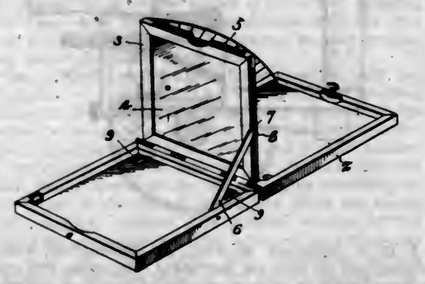


1. In a dump car, a tilting body, an upright cylinder at each side of the car, pistons in said cylinders, suitable means between said pistons and the said body, whereby the body may be tilted and then restored to normal position, means for admitting air to the said cylinders, and automatic means operated for cutting off the air upon the moving of the car body both to tilt the same and to restore said body to normal position.

2. In a dump car, a tilting body, a cylinder and piston connected with said body, for operating the latter, said cylinder having an opening at one end thereof, a passage communicating with said opening to supply air to said cylinder, a cut off valve for said passage, a by-pass around said cut off valve, a check valve in said by-pass to prevent the air from passing through the by-pass to the cylinder, said by-pass provided with an exhaust opening normally closed by said check valve, and means for reducing the pressure in the pipe, whereby the check valve is then operated by the pressure in the cylinder, causing the exhaust of air therefrom through said openings.

3. In a dump car, a tilting body, a cylinder and piston connected with said body, for operating the latter, a pin at the top of the cylinder adapted to be actuated by the upward movement of the piston head, means for supplying air pressure to the cylinder to operate said piston upwardly, a cut-off valve for controlling the admission of pressure to the cylinder, operated by said pin, whereby the pressure is cut off when the piston reaches a predetermined point in its upward movement.

1,029,248. DRAFTSMAN'S APPLIANCE. ROBERT WILLIAMS, Irondequoit, N. Y. Filed Sept. 3, 1910. Serial No. 580,348. (Cl. 33—29.)



1. A device of the class described comprising an upright transparent sheet, a horizontal work support located on one side of the sheet and pivotally connected thereto, means for supporting said sheet in an upright position, and a foldable light shield connecting one side of the sheet and one side of the support.

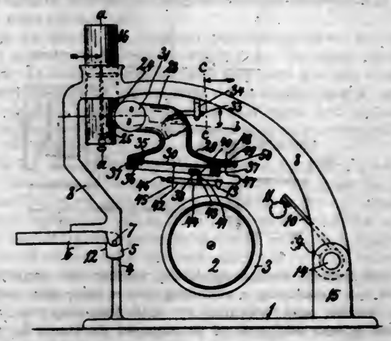
2. A device of the class described comprising an upright transparent sheet, a picture support on one side of the sheet, a work support on the opposite side of the sheet, and a light shield connecting one side of a transparent sheet and one side of the work support.

3. A device of the class described comprising a work support, a picture support alined with the work support and adapted to fold in parallel relation thereto, a transparent member pivotally connected to the work support and to the picture support and adapted to lie in parallel relation therewith, and means for holding said transparent member upright when the picture support and the work support are alined.

4. A device of the class described comprising a pair of supports hinged together to swing into alinement or into parallel relation, the faces of said supports which are opposed when the supports are arranged parallel being pocketed, a transparent sheet adapted to be housed by said support, said means for supporting said transparent sheet in an upright position when the pair of supports are alined.

5. A device of the class described comprising a pair of alined supports hinged together to swing into parallel relation, an upright transparent sheet also hinged to swing into parallel relation with the supports, and a plaited collapsible light shield secured to one edge of the transparent sheet and to one edge of one of the supports.

1,029,249. PHONOGRAPHIC RECORDING AND REPRODUCING DEVICE. SAMUEL W. WYLIE, Jamestown, N. D. Filed Mar. 6, 1911. Serial No. 612,573. (Cl. 181—10.)



1. In a phonographic recording or reproducing device, the combination with a casing having at one end a lug and at its base a horizontal bar, a diaphragm secured in the casing, a stylus lever fulcrumed intermediate its ends to the horizontal bar, a rod connecting one end of said lever with the middle of the diaphragm, a stylus in the other end of the lever, and a spring connecting the stylus end of the lever with the lug on the casing and acting on the lever to maintain the diaphragm in a substantially plane position when the stylus is engaged with the recording or record surface.

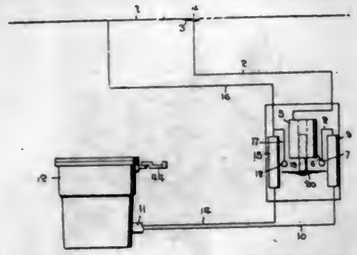
2. In a photographic recording or reproducing device, the combination with a casing having at one end a lug and at the base a horizontal bar, a diaphragm secured in the casing, a stylus lever fulcrumed intermediate its ends to the horizontal bar, a rod connecting one end of said lever with the middle of the diaphragm, a stylus in the other end of the lever, and a spring connecting the stylus end of the lever with the lug on the casing and acting on the lever to maintain the diaphragm in a substantially plane position when the stylus is engaged with the recording or record surface; and means at the lug for changing the tension of the spring.

3. The combination with a sound box or casing and a diaphragm secured therein, of a stylus lever having one end connected with the diaphragm and the other or stylus end of the lever provided with a bow-shaped spring having at one end an arm, said casing having at one edge a lug with a hole receiving said arm, and a set-screw holding the arm adjustably in the hole.

1,029,250. ELECTRIC-SWITCH-OPERATING MECHANISM. AARON BURR ALLEN, Pueblo, Colo., assignor to Allen Switch Company, Pueblo, Colo. Filed June 15, 1911. Serial No. 633,254. (Cl. 104—198.)

1. A switch operating mechanism comprising a coil, a cup within said coil, a magnet pole within said cup, a casing for said parts to close and protect the latter, connections between said parts and a switch for operating the latter, connections between said coil and the electric current wire of a line, a fuse within said last mentioned connections, a shunting coil adjacent said fuse, a second fuse opposite said first fuse, electrical connections between the second fuse and the first coil, connections between the second fuse and the shunting coil, a broken electrical connection between the shunting coil and the electric current wire, a core carrying a contact plate, said core working within the shunting coil and adapted to be drawn upwardly thereby, a contact point in the con-

nection between the first fuse and the electric current wire, a contact point in the connection between the second fuse and the shunting coil, said contact plate when drawn upwardly being adapted to connect said contact point and short circuit the current to protect the fuses and the first mentioned coil, and a pole box inclosing the fuses, shunting coil, core, contact plates and contact point.

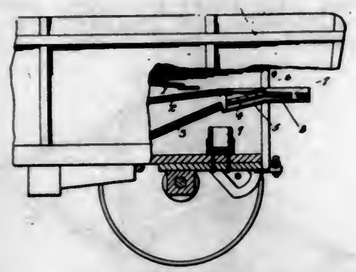


2. An electric switch operating mechanism comprising a pole box containing a shunting coil, a core and contact plate carried and operated by said shunting coil, and contact points adapted to be engaged at times by said contact plate and fuses, a switch box containing a magnetizing coil, a cup within said coil and adapted to be magnetized thereby, a magnet pole movable within said cup, a plate within said switch box above the coil therein, said magnet pole projecting and operating through said plate, and switch throwing mechanism connected with and operated by the projecting portion of said magnet pole when the latter is caused to move within the cup, electrical connections between the magnetizing coil and the fuses within the pole box, a cover for said switch box, a positive electrical connection between one of the fuses and the current wire, one of the contact points within the pole box being connected with this positive electrical connection, an electrical connection between the other fuse and the shunting coil, the other contact point being carried by this first mentioned electrical connection, a breakable electrical connection between the shunting coil and the current wire to which the positive connection is secured, and breaking means between the breakable electrical connection and the current wire for holding the breakable connection normally broken.

3. A switch operating mechanism comprising a magnetising coil within a switch box, a magnet pole within said coil, a plate within said box, said pole projecting and operating through said plate, means for resiliently holding said magnet pole in its upward position, said coil when energized being adapted to draw the pole downwardly, a swinging lug pivoted to the upper end of the pole above said plate, a rock shaft within said casing, a rock head carried on one end of said shaft, said head carrying rollers projecting therethrough to be operated by said swinging lug to rock the shaft when the pole moves downwardly, said head having integral therewith a hood to engage the upper edge of the swinging lug and assist in guiding the latter, a reciprocating switch operating rod extending into said casing, connections between the rock shaft and the switch rod for operating the latter, a switch shoe carried by the switch rod, electrical connections between the coil and the current wire, a pole box positioned in the path of said electrical connections, fuses within said pole box, means within said pole box for protecting the fuses within said pole box and the energizing coil within said switch box from being overcharged and burned out, electrical connections between said pole box and the current wire, and means for holding said last mentioned connections normally broken.

4. A switch operating mechanism comprising a magnetizing coil within a switch box, a magnet pole within said coil, a plate within said box, said pole projecting and operating through said plate, means for resiliently holding said magnet pole in its upward position, said coil when energized being adapted to draw the pole downwardly, a swinging lug pivoted to the upper end of the pole above said plate, a rock shaft within said casing, a rock head carried on one end of said shaft, said head carrying rollers projecting therethrough to be operated by said swinging lug to rock the shaft when the pole moves downwardly, said head having integral therewith a hood to engage the upper edge of the swinging lug and assist in guiding the latter, a reciprocating switch operating rod extending into said casing, a crank arm carried by said rock shaft, a crank pin projecting at right angles from said crank arm, a crank sleeve carried by said reciprocating rod and engaged over said crank pin to connect the switch rod with the rock shaft to be operated by the latter, a switch shoe carried by the switch rod, electrical connections between the coil and the current wire, a pole box positioned in the path of said electrical connections, fuses within said pole box, means within said pole box for protecting the fuses within said pole box and the energizing coil within said switch box from being overcharged and burned out, electrical connections between said pole box and the current wire, and means for holding said last mentioned connections normally broken.

1,029,251. TAIL-BOARD FOR BEAN-THRESHERS. HUBERT N. ALWOOD, Potterville, Mich. Filed Nov. 21, 1910. Serial No. 593,347. (Cl. 130—15.)



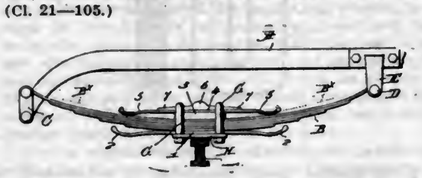
1. In a threshing machine, in combination with a fanning mill an open top tail board comprising two upper surfaces having an angular relation greater than a straight angle, the forward surface being adapted to direct the air current, fingers engaging above the surface adjacent to said mill, said board portion more remote from said mill being provided with a slot and receiving means thereunder.

2. In a threshing machine, a tail board having in combination an unobstructed upper board and a lower board, the two boards being closed together at the rear end and the upper board being bent to form forward and rear surfaces, the forward surface of the upper board being arranged in the path of the air blast and adapted, thereby, to deflect the same over and above the rear surface and the upper board having its rear surface partially cut away to form a catch slot through which the berries may drop and be conveyed away on the lower board, substantially as described.

3. In a threshing machine, a tail board having in combination an unobstructed upper board and a lower board, the two boards being bent near their centers to form forward and rear surfaces, the forward surface of the upper board being placed in the path of an air blast, a receptacle located under the forward edge of the two boards, the rear surface of the upper board being inclined away from the air current escaping from the end of the forward surface and being provided with a catch slot through which the heavier particles dropped from the air current onto the upper board drop, the lower board being inclined to convey such particles into said above mentioned receptacle, substantially as described.

4. In a threshing machine, a tail board having in combination an upper board unobstructed for the passage of air therealong and thereaway from and bent near its center to form a forward and a rear surface meeting at an angle, the said forward surface being arranged in the path of an air blast and the rear surface being inclined away from the forward surface as aforesaid to allow the air blast to pass over and away from the rear surface, and the said rear surface having a catch slot cut therein, through which heavier particles, having dropped out of the air blast and onto the rear surface, drop, and means for conveying such dropping particles away, substantially as described.

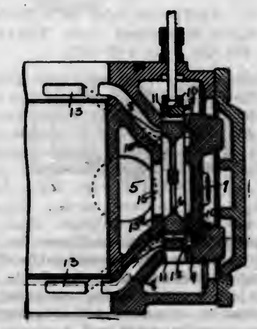
1,029,252. SHOCK-ABSORBER. OWEN B. AMES, Brewster, N. Y. Filed Nov. 20, 1911. Serial No. 661,302. (Cl. 21—105.)



1. The combination with the frame member and the axle member of a vehicle, and a spring fixedly mounted on one of said members and operatively connected with the other member, of a resilient and normally passive member fixedly supported by the axle adjacent said spring and having its free ends oppositely extended adjacent and in the recoil path of the spring and extending toward said spring at opposite sides of the fixedly mounted portion of the spring, recoil of the spring after flexure bringing it into direct and temporary engagement with the free ends of and thereby flexing said resilient member to take up and absorb the shock of the recoil.

2. The combination with the frame member, and the axle member of a vehicle, and a spring fixedly mounted on one of said members and operatively connected with the other member, of a resilient and normally passive member supported above said spring, and a rigid spacing block interposed between said spring and said resilient member, the thickness of the block varying according to the curvature of the spring, to properly space the spring and said resilient member, said resilient member having its free ends oppositely extended adjacent to and in the recoil path of the spring and extending toward said spring at opposite sides of the fixedly mounted portion of the spring, recoil of the spring after flexure bringing it into direct and temporary engagement with the free ends of and thereby flexing said resilient member to take up and absorb the shock of the recoil.

1,029,253. STEAM-ENGINE. EDWIN J. ARMSTRONG, Erie, Pa. Filed June 17, 1911. Serial No. 633,746. (Cl. 136—1.)



1. In an engine, the combination of a cylinder; a valve chest; a main steam port leading from the chest to the cylinder; a valve operating over said port for the admission and exhaust of steam from the cylinder; and an auxiliary exhaust port controlled by said valve and opening only to exhaust steam from the cylinder.

2. In an engine, the combination of a cylinder; a valve chest; a main steam port leading from the chest to the cylinder; a valve operating over said port for the admission and exhaust of steam from the cylinder; and an auxiliary exhaust port controlled by said valve and opening in advance of and with the main port and only to exhaust steam from the cylinder.

3. In an engine, the combination of a cylinder; a valve chest; a main steam port leading from the chest to the cylinder; a valve operating over said port for the admission and exhaust of steam from the cylinder; and an auxiliary exhaust port controlled by said valve and opening from the bottom of the cylinder and only to exhaust steam from the cylinder.

4. In an engine, the combination of a cylinder; a valve chest; a main steam port leading from the chest to the cylinder; a valve operating over said port for the admission and exhaust of steam from the cylinder; and an auxiliary exhaust port controlled by said valve and opening in advance of and with the main port and only to exhaust steam from the cylinder, said auxiliary port extending from the bottom of the cylinder.

5. In a steam engine, the combination of a cylinder; a valve chest; a main steam port leading from the chest to the cylinder; a valve operating over said port and having passages for admitting and exhausting steam from the cylinder by way of said port; and an auxiliary port controlled by said valve and in general alinement in the face of the valve chest with the main valve port and opening only to exhaust into the same passages in the valve as the main port.

[Claims 6 to 10 not printed in the Gazette.]

1,029,254. NON-INFLAMMABLE LUBRICATING-OIL. JONAS W. AYLSWORTH, East Orange, N. J., assignor of one-half to Frank L. Dyer, Montclair, N. J. Filed Oct. 14, 1910. Serial No. 587,044. (Cl. 87—9.)

1. As a new composition of matter, a lubricant comprising a lubricating oil having dissolved therein a halogen substitution product of a carbocyclic compound in which the halogen is in the ring or closed chain, substantially as described.

2. As a new composition of matter, a lubricant comprising a lubricating oil having dissolved therein a chlorin substitution product of a carbocyclic compound in which the chlorin is in the ring or closed chain, substantially as described.

3. As a new composition of matter, a lubricant comprising a lubricating oil having dissolved therein a halogen substitution product of a carbocyclic compound having lubricating properties, substantially as described.

4. As a new composition of matter, a lubricant comprising a lubricating oil having dissolved therein a chlorin substitution product of a carbocyclic compound having lubricating properties, substantially as described.

5. As a new composition of matter, a lubricant comprising a lubricating oil having dissolved therein a halogen substitution product of a carbocyclic compound of waxy texture, substantially as described.

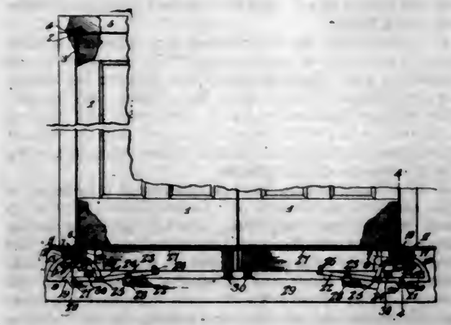
[Claims 6 to 12 not printed in the Gazette.]

1,029,255. AUTOMATIC DOOR-OPERATING MECHANISM. WILLARD D. BAKER, Rogers, Ark. Filed Jan. 17, 1911. Serial No. 603,167. (Cl. 39—95.)

1. In a device of the class described, the combination of a door, a depressible platform, means to yieldably support the platform at its normal level, stops to limit the upward movement of the platform to said normal level, an oscillatory gear, an operative connection between the oscillatory gear and the door, a lever operatively connecting the depressible platform with the oscillatory gear.

2. In a device of the class described, the combination of a swinging door having a depending vertical pintle ex-

tending through the floor, a bearing bracket located beneath the floor and supporting the pintle, a vertical shaft arranged in parallelism with the pintle and also mounted upon the bearing bracket, a pivotally mounted gear arranged to oscillate in a vertical plane, a pinion mounted on the said shaft and meshing with the oscillatory gear, a horizontal gear also mounted on the vertical shaft and connected with the said pinion, a pinion mounted on the said pintle and meshing with the horizontal gear, a depressible platform, springs arranged beneath the depressible platform for yieldably supporting the same, and an approximately horizontal lever fulcrumed at a point intermediate of its ends and connected at one end of the platform and at the other end to the oscillatory gear at one side of the pivot of the same.



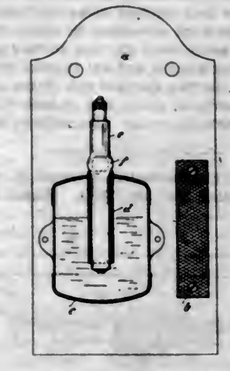
3. In a device of the class described, the combination of a swinging door, a depressible platform, springs arranged beneath the platform for yieldably supporting the same, means for limiting the vertical movement of the platform to prevent the same from rising above the plane of the floor, a pivotally mounted gear arranged to oscillate in a vertical plane, an approximately horizontal lever fulcrumed at a point between its ends and connected at one end to the platform and at the other end to the oscillatory gear at one side of the pivot thereof, and gearing for connecting the oscillatory gear with the swinging door.

4. In a device of the class described, the combination with a swinging door, and a depressible platform, mechanism for transmitting motion from the platform to the door, springs yieldably supporting the platform, lugs projecting from the platform at the edges thereof, and vertical guides receiving the lugs and permitting a limited vertical movement and adapted when pressure is applied to one end of the platform to prevent the other end from rising above the plane of the floor.

5. In a device of the class described, the combination with a door provided with a hinge element consisting of an approximately L-shaped portion secured to the door at the corners thereof, and a depending pintle extending through the floor, a bracket supporting the pintle, a horizontal gear mounted on the pintle, a pivotally mounted oscillatory gear arranged to move in a vertical plane, gears connecting the horizontal gear with the oscillatory gear, and a lever fulcrumed at an intermediate point and connected at one end with the platform and at its other end with the oscillatory gear at one side of the pivot thereof.

1,029,256. IGNITION APPARATUS. WILHELM BALTRUSCH, Elberfeld, Germany. Filed Aug. 3, 1910. Serial No. 575,329. (Cl. 67—4.)

1. An ignition device comprising in combination, a support, an abrasive element mounted on said support, a receptacle mounted on said support adapted to contain an ignitible substance, a tubular member supported in said receptacle but separable therefrom with one end immersed in said substance and carrying at such end an absorbent material and a spark producing element adjacent to said absorbent material and adapted to be struck on the abrasive element, and means for adjusting said spark producing element with respect to said member.



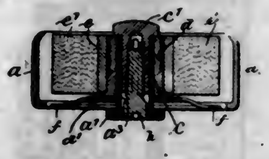
2. An ignition device comprising in combination, an abrasive element, a receptacle adapted to contain an ignitible substance, a tubular member supported in said receptacle but separable therefrom with one end immersed in said substance and carrying at such end an absorbent material and a spark producing element adjacent to said absorbent material and adapted to be struck on said abrasive element, and means for adjusting said spark producing element with respect to said member.

3. An ignition device comprising in combination, a receptacle adapted to contain an ignitible substance, a member supported in said receptacle and separable therefrom with one end immersed in said substance and carrying at such end an absorbent material and a spark producing element adjacent to said absorbent material, and means for adjusting said spark-producing element with respect to said member.

4. An ignition device comprising in combination, a receptacle adapted to contain a liquid ignitible substance and having an orifice, a member separable from said receptacle adapted to close said orifice and with one end immersed in said substance and carrying at such end an absorbent material and a spark producing element adjacent to said absorbent material, and means for adjusting said spark producing element with respect to said member.

5. An ignition device comprising in combination, a receptacle adapted to contain a liquid ignitible substance, a guide tube within said receptacle forming the orifice thereof, a tubular member adapted to close said orifice and with one end immersed in said substance and carrying at such end an absorbent material and a spark producing element adjacent thereto, and means for adjusting said spark producing element with respect to said member.

1,029,257. SHUTTLE FOR SEWING-MACHINES. HENRY A. BATES, Middletown, Conn. Filed Dec. 7, 1911. Serial No. 664,474. (Cl. 112—23.)



1. In a shuttle for sewing machines, the combination with a bobbin case, a tubular central part and a revoluble sleeve adapted frictionally and directly to receive the thread bobbin, of an axial member removable and adjustable and having a connection with the tubular central part by screw-threaded parts and having a shouldered head to extend over the outer end of the sleeve, and a spring bearing against the inner face of the sleeve.

2. In a shuttle for sewing machines, the combination with a bobbin case and tubular central part, of an axial member removable and adjustable and having a shouldered head, a revoluble sleeve adapted frictionally to receive the thread bobbin extending around the tubular central part and at its outer end coming beneath the shouldered head, and said sleeve of greater diameter than the shouldered head, and said sleeve also of less diameter at the upper end than at the lower portion and also provided with a flange at the lower end and a spring bearing against the inner face of the sleeve at said flanged end.

3. In a shuttle for sewing machines, the combination with a bobbin case, of a cross-bar and integral tubular central part, said cross-bar having a central perforation, a revoluble sleeve adapted frictionally and directly to receive the thread bobbin and extending around said tubular central part, an axial member removable and adjustable and having a connection with the tubular central part by screw-threaded parts also having an element of friction, and said axial member having a shouldered head to extend over the outer end of the sleeve, and a spring bearing against the inner face of the sleeve.

4. In a shuttle for sewing machines, the combination with a bobbin case, of a cross-bar and substantially integral tubular central part, a sleeve adapted to receive the thread bobbin and extending around said tubular central part, an axial member having a shouldered head to extend over the outer end of the sleeve and of less diameter than the sleeve, and said axial member otherwise consisting of a split tube with tapering screw-threaded walls, a tapering screw adapted by its longitudinal movement to expand said axial member to frictionally grip the interior walls of the tubular central part, and a spring bearing against the inner face of the sleeve.

1,029,258. DENTAL MIRROR. EDWARD P. BRADLEE, Danville, Va. Filed Mar. 30, 1912. Serial No. 687,893. (Cl. 32—27.)



1. A dental mirror provided with a handle, and a shield secured to said handle adjacent to said mirror.

2. A dental mirror provided with a handle, and a shield detachably secured to said handle adjacent to said mirror.

3. A dental mirror provided with a shank, a shield adapted to engage said shank and a handle adapted to secure said shield upon said shank.

4. A dental mirror provided with a screw threaded shank, a shield engaging said shank and a handle provided with a screw threaded aperture to engage said screw threaded shank and secure said shield.

5. A shield for a dental mirror adapted to be secured along the handle on both sides of the same adjacent to said mirror, whereby the mouth can be widened and the cheek protected during a dental operation.

[Claim 6 not printed in the Gazette.]

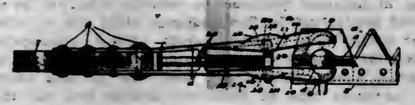
1,029,259. PITMAN CONNECTION. BERT R. BENJAMIN, Oak Park, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed Jan. 15, 1912. Serial No. 671,305. (Cl. 74—17.)



1. A pitman connection having, in combination, a pitman body, flexible pitman straps having one end thereof secured to opposite sides of said body and the opposite end thereof provided with jaw members having journal bearing surfaces thereon, a bearing block adapted to be received between said jaws, and means for yieldingly pressing said jaws together in a manner to engage said bearing block, said means including a laterally-projecting ear member integral with one of said strap members and arranged between the jaw members thereof and the body of the pitman, said ear member having a longitudinally-arranged slot therein, the oppositely-disposed strap having an opening therein adapted to receive said ear member, and a spring-pressed sliding wedge operative between the surface of said strap and the end wall of the slot in said ear member.

2. A pitman connection having, in combination, a pitman body, flexible pitman straps having one end thereof secured to opposite sides of said body and the opposite end thereof provided with jaw members having journal bearing surfaces thereon, a bearing block adapted to be received between said jaws, and means for yieldingly pressing said jaws together in a manner to engage said bearing block, said means including a laterally-projecting ear member integral with one of said strap members and arranged between the jaw members thereof and the body of the pitman, said ear member having a longitudinally-arranged slot therein, the oppositely-disposed strap having an opening therein adapted to receive said ear member, a wedge having the point thereof adapted to be received by said slot, a longitudinally-arranged tang portion integral with the head portion of said wedge, a lug integral with one of said straps and having a longitudinal opening therein adapted to slidably receive said tang portion, and a compression spring encircling said tang portion and operative between the head of said wedge and said lug.

1,029,260. PITMAN CONNECTION. BERT R. BENJAMIN, Oak Park, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed Jan. 15, 1912. Serial No. 671,306. (Cl. 74—17.)



1. A pitman connection having, in combination, a pitman body, flexible straps upon opposite sides of said body and having one end thereof secured thereto, the opposite end thereof being provided with jaw members having journal bearing portions adapted to engage with a bearing block, said straps having inwardly inclined web portions in the direction of the length thereof and extending from said jaw members toward the opposite ends of said straps, said web portions being provided with centrally arranged slots, said straps being provided with inwardly projecting ear members intermediate the body portion of said pitman and said jaw members, said ear members having semi-circular notches at their adjacent ends, a slidable key having the body portion received by said notches, and a T-shaped head portion at one end thereof, said T-shaped head portion having cross head portions at opposite ends thereof,

said cross head portions being provided with inclined shoulder portions adapted to engage with said inclined web portions, a coiled spring encircling the body portion of said key and operative between said ear members and said head portion in a manner to slide said key in a direction to close said jaws, and means whereby said key may be retracted.

2. A pitman connection having, in combination, a pitman body, flexible straps upon opposite sides of said body and having one end secured thereto, the opposite end thereof being provided with jaw members having journal bearing portions adapted to engage with a bearing block, said straps having inwardly inclined web portions in the direction of the length thereof and extending from said jaw members toward the opposite ends of said straps, said web portions being provided with centrally arranged slots, one of said slots having an enlargement at one end thereof, said straps being provided with inwardly projecting ear members intermediate the body portion of said pitman and said jaw members, said ear members having semi-circular notches in their adjacent ends, a slidable key having the body portion received by said notches, and a T-shaped head portion at one end thereof, said T-head portion having cross head portions at opposite ends thereof, said cross head portions being provided with inclined shoulder portions adapted to engage with said inclined web portions, a coiled spring encircling the body portion of said key and operative in a manner to slide said key in a direction to close said jaws, and means whereby said key may be retracted, one of said cross head portions being adapted to be received by the enlargement at the end of the slot in one of said straps in a manner to retain said key in a retracted position.

1,029,261. DELAY-ACTION EXPLODER. FRANK BERNARDI and JOHN B. SAUVE, Mokelumne Hill, Cal., assignors to Patent Electric Fuse Spitter Co., Mokelumne Hill, Cal., a Corporation of California. Filed Oct. 21, 1911. Serial No. 655,875. (Cl. 102—10.)



1. The combination with a fuse, of a female member thereon having a chamber to contain an inflammable substance, said chamber having a vent for the gases generated by the ignition of said substance, electrical means for firing said substance, and a perforated cap inclosing a chamber into which the vented gases from the first-named chamber exhaust before being released to the atmosphere, to prevent premature explosion.

2. The combination with a fuse, of a female member thereon, having a chamber to contain an inflammable substance, said chamber having a vent for the gases generated by the ignition of said substance, electrical means for firing said substance, a perforated cap inclosing a chamber into which the vented gases from the first-named chamber exhaust before being released to the atmosphere, to prevent premature explosion, and a fireproof filtering material in said cap.

3. A delay action exploder comprising a fuse, a ferrule attached to one end of the fuse, an explosive in the ferrule adjacent to the fuse, a filament embedded in the explosive, an electrical conductor attached to each end of the filament, a plug in which the conductors are mounted arranged in the ferrule adjacent to the explosive, a perforation in said plug extending lengthwise and centrally thereof, to form an air space, an auxiliary plug formed in the outer end of the ferrule for holding the first named plug in position, a perforation extending lengthwise through said plug registering with the perforation in the first named plug, a wad for closing the first named perforation, and a grease filling in the last named perforation above the wad.

4. A delay action exploder comprising a fuse, a ferrule attached to one end of the fuse, an explosive in the ferrule adjacent to the fuse, a filament embedded in the explosive, an electrical conductor attached to each end of the filament, a plug in which the conductors are mounted arranged in the ferrule adjacent to the explosive, a perforation in said plug extending lengthwise and centrally thereof, to form an air space, an auxiliary plug formed in the outer end of the ferrule for holding the first named plug in position, a perforation extending lengthwise through said plug registering with the perforation in the first named plug, a wad for closing the first named perforation, a grease filling in the last named perforation above the wad, and means formed in the ferrule for retaining the last named plug therein.

5. A delay action exploder comprising a fuse, a ferrule attached to one end of the fuse, an explosive in the ferrule adjacent to the fuse, a filament embedded in the explosive, an electrical conductor attached to each end of the filament, a plug in which the conductors are mounted arranged in the ferrule adjacent to the explosive, a perforation in said plug extending lengthwise and centrally thereof, to form an air space, an auxiliary plug formed in the outer end of the ferrule for holding the first named plug in position, a perforation extending lengthwise through said plug registering with the perforation in the first named plug, a wad for closing the first named perforation, a grease filling in the last named perforation above the wad, means formed in the ferrule for retaining the last named plug therein, a perforated dome mounted on the end of the ferrule, and a flame filter in said dome.

[Claims 6 to 8 not printed in the Gazette.]

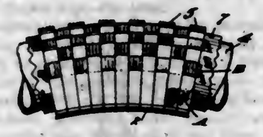
1,029,262. FINGER-PIECE EYEGLASSES. EUGENE C. BERNHEIM, Southbridge, Mass., assignor to American Optical Company, Southbridge, Mass., a Corporation of Massachusetts. Filed June 26, 1909. Serial No. 504,409. (Cl. 88—50.)



In the eyeglass art, as a new article of manufacture, a sheet metal blank adapted to be bent up and provided with oppositely extending straps for engaging the lens edge, lens fastening ears laterally and centrally arranged as to said straps, and a bridge end supporting member attached to one of said lens fastening ears, said member being also provided with an ear for the support of a nose clamp.

1,029,263. VEHICLE-TIRE. EUGENE H. BINGHAM and THEODOR TOMINSKI, San Francisco, Cal. Filed Oct. 12, 1910. Serial No. 586,737. (Cl. 152—16.)

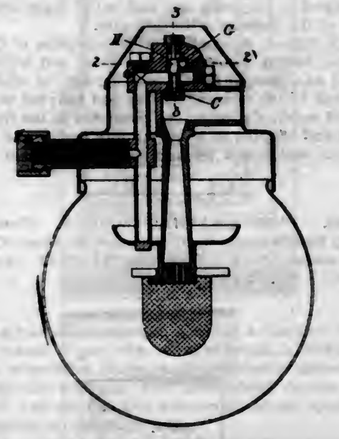
1. A vehicle tire comprising a casing formed of two series of strips having inherent power of recovery, said strips crossing each other and the strips of one series having alternate portions thicker than intermediate portions thereby forming alternate tread portions and intermediate depressions, the said depressed portions being overlaid by the other strips and the tread portions being arranged in staggered relation.



2. A vehicle tire comprising a casing formed of two series of interlaced metal strips flat on one side, one series of strips undulating on the outer side to form alternate thickened tread portions and intermediate depressions, the depressed portions of the strips underlying the strips of the other set at the point of crossing of said strips.

3. The combination with an inflatable tube and a clencher rim of an armor composed of crosswise extending U-shaped spring metal strips having terminal hook members engageable with the rim, and circumferential spring rings interwoven with the crosswise extending members, and the tread portions of said circumferentially extending members being thickened and corrugated.

1,029,264. VAPOR-BURNER. ARTHUR ISAAC BLANCHARD, Islington, London, England. Filed Dec. 4, 1909. Serial No. 531,310. (Cl. 158—120.)



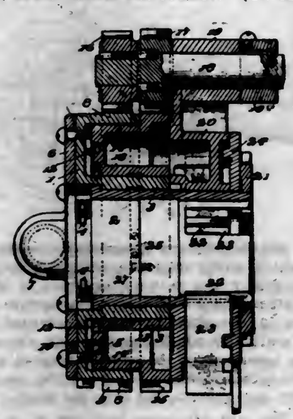
1. In a vapor burner, the combination of a nipple having a jet orifice and a conically walled cup surrounding the orifice, a guide in alinement with the orifice, an elongated casing movable in the guide, a flexible cleaner-rod partly within the casing and secured at its inner end in the casing and extending the full length of the casing, and a fine delicate cleaner needle mounted on the free end of the flexible cleaner-rod.

2. In a vapor burner, the combination of a nipple having a jet orifice and a conically walled cup surrounding the orifice, a guide in alinement with the orifice, an elongated casing movable in the guide, a flexible cleaner-rod partly within the casing and secured at its inner end to the casing and extending the full length of the casing, a fine delicate cleaner-needle mounted on the free end of the flexible cleaner-rod, and means for moving the elongated casing.

3. In a vapor burner the combination of a lamp frame, a nipple screwed into the lamp frame and provided with a jet orifice and a conical cup surrounding the orifice, a guide held fixedly in said nipple and having radial fins on its exterior for holding the same in place, a housing longitudinally movable in said guide, a cleaner needle in said housing and adapted to be guided into said jet orifice by said conical cup, and means for longitudinally moving said housing.

4. A vapor burner, comprising a vapor chamber having its wall provided with a bearing bore having a uniform part and a round shoulder terminating said part, said vapor chamber having an orifice, a cleaner needle for the orifice, a movable part provided with a rack and carrying said needle, a spindle passing through said bearing and provided with a flange and with a round shoulder engaging the shoulder of the bearing, a spring on said spindle and engaging between the shoulder of the bearing and said flange, a pinion on said spindle and engaging said rack, and a manipulating means on the outer end of said spindle.

1,029,265. PIPE-CUTTING TOOL. BRADFORD BORDEN, Toronto, Ontario, Canada, assignor to The Borden Company, Warren, Ohio, a Corporation of Ohio. Filed Dec. 20, 1910. Serial No. 598,289. (Cl. 81—190.)



1. A pipe cutting tool comprising a rotatable carrier, a series of inwardly movable pipe cutters mounted in such carrier, a cam plate engaging each of the cutters for simultaneously moving them inwardly, said carrier and cam plate having differential gear wheels, and differential pinions meshing with said gear wheel, said pinions being actuated by the rotation of the carrier.

2. A pipe cutting tool comprising a centering device for securing the tool to a pipe, a rotatable carrier, a series of inwardly movable pipe cutters mounted in such carrier, a cam plate engaging each of the cutters for simultaneously moving them inwardly, said carrier and cam plate having differential gear wheels, differential pinions meshing with said gear wheels, and a common shaft for said pinions supported by said centering device.

3. A pipe cutting tool comprising a centering device for securing the tool to a pipe, a rotatable carrier, a series of inwardly movable pipe cutters mounted in such carrier, said carrier having a central hub and a concentric gear wheel, a cam plate axially rotatable on said hub and having a gear wheel adjacent to the gear wheel of the carrier, said gear wheels being of different pitch, gear pinions engaging the gear wheels of the carrier and cam plate, and a common support for said pinions for obtaining a differential travel between the carrier and cam plate.

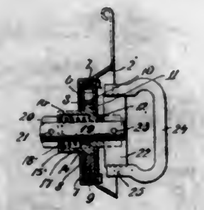
4. A pipe cutter comprising a centering device having a shaft bearing, a rotatable carrier having a central hub, a series of pipe cutters mounted in said carrier, said carrier having a gear wheel, a cam plate journaled on said hub, said cam plate also having a gear wheel of different pitch from that of the carrier gear wheel, a ro-

tatable shaft mounted in said bearing, and pinions fast on said shaft meshing with said gear wheels, both of said pinions being rotated by the rotation of the carrier.

5. A pipe cutter comprising a rotatable carrier, a series of inwardly movable pipe cutters, said carrier having a central hub and an outer concentric wall carrying a gear wheel, a cam plate for simultaneously moving inwardly all of said cutters, said cam plate having a hub fitted on the hub of the carrier, and an outer wall fitting within the outer wall of the carrier, a gear wheel carried by said cam plate and located adjacent to the gear wheel of the carrier, said gear wheels being of different pitch, a fixedly supported revoluble shaft, and pinions carried by said shaft and meshing, respectively, with said gear wheels.

[Claims 6 and 7 not printed in the Gazette.]

1,029,266. WINDING-KEY FOR PHOTOGRAPHIC CAMERAS. CARL BORNMANN, Binghamton, N. Y., assignor to Ansco Company, Binghamton, N. Y. Filed Nov. 14, 1911. Serial No. 660,297. (Cl. 95—31.)



A winding key for cameras comprising a casing, a movable block which partly fills the casing, a locking bar within the casing in the part not occupied by the block, a recessed shaft provided with a cam like surface, a spring in the recess in the shaft, a spindle adapted to slide through the shaft and which engages with the spring, a device on the inner end of the spindle adapted to engage with and turn a cartridge spool and a device on its outer end adapted to engage with and turn the shaft.

1,029,267. PIN-JOURNAL FOR PHOTOGRAPHIC CAMERAS. CARL BORNMANN, Binghamton, N. Y., assignor to Ansco Company, Binghamton, N. Y. Filed Nov. 14, 1911. Serial No. 660,299. (Cl. 95—31.)



1. A pin journal for cameras embodying a perforated plate adapted to be fastened to the camera, a pin having a head upon its outer end whereby it may be withdrawn and rotated on its axis, a cylindrical part beneath the head, an angular part beneath the cylindrical part, a reduced part beneath the angular part, both of said last-named parts adapted to slide through the opening in the plate, a terminal part on the inner end of the pin adapted to engage with a cartridge spool and a spring adapted to normally press the pin inwardly.

2. A pin journal for cameras embodying a plate adapted to be fastened to the camera and provided with an opening, a pin having means upon its outer end whereby it may be withdrawn and rotated on its axis, a section adjoining said means adapted to cover and close the opening, means upon the pin whereby when withdrawn and partly turned, it may be held in its retracted position, a device upon the inner end of the pin adapted to engage a cartridge spool, and a spring which normally presses the pin inwardly.

1,029,268. PHOTOGRAPHIC CAMERA. CARL BORNMANN, Binghamton, N. Y., assignor to Ansco Company, Binghamton, N. Y. Filed Jan. 12, 1912. Serial No. 670,910. (Cl. 95—31.)

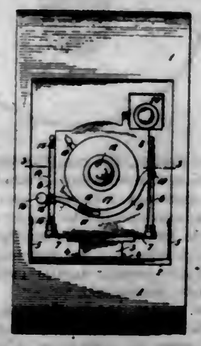


1. In a camera, an arm pivoted at one end to the camera, and a winding key connected to the free end of the arm adapted to be swung outwardly from the camera with the arm.

2. In a camera, a chamber for the reception of the winding spool, an arm pivoted at one end to the camera, its free end adapted to register with one end of said chamber, and a winding key connected to the free end of the arm adapted to be swung into and out of registration with the end of the chamber with said arm.

3. In a camera, a chamber for the reception of the winding spool, having a notch in one of its end walls adapted to act as a journal for the winding key, an arm pivoted at one end to the camera, its free end adapted to register with said notch, a winding key connected to the free end of the arm and adapted to be swung into and out of registration with said notch by appropriate movement of said arm.

1,029,269. PHOTOGRAPHIC CAMERA. CARL BORNMANN, Binghamton, N. Y., assignor to Ansco Company, Binghamton, N. Y. Filed Jan. 12, 1912. Serial No. 670,911. (Cl. 95—51.)



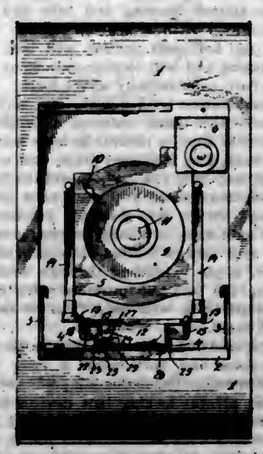
1. The combination of a vertically movable lens supporting frame, supporting and guiding devices therefor, a lever pivoted at one end to one of the last-named devices, means at the other end of the lever supported by the opposite guiding device for holding the lever in predetermined positions, and means connecting the vertically movable lens frame with the lever.

2. The combination of a vertically movable lens-supporting frame, supporting and guiding devices therefor, a resilient lever pivoted at one end to one of said guiding devices, a rack at the other end of the lever supported by the opposite guiding device and which with its said support incloses the lever, and whereby the latter is held in predetermined positions, and means connecting the vertically movable lens frame with the lever.

3. The combination of a vertically movable lens supporting frame, uprights for supporting and guiding said frame located at opposite sides thereof, a lever pivoted at one end to one of the uprights, means upon the other upright, engageable with the free end of the lever to hold it in predetermined positions, and means connecting the vertically movable lens frame with the lever.

4. The combination of a vertically movable lens supporting frame, uprights for supporting and guiding said frame located at opposite sides thereof, a resilient lever pivoted at one end to one of the uprights, a rack on the opposite upright, which incloses the lever and with the several teeth of which the lever is adapted to engage, and means connecting the vertically movable lens frame with the lever.

1,029,270. PHOTOGRAPHIC CAMERA. CARL BORNMANN, Binghamton, N. Y., assignor to Ansco Company, Binghamton, N. Y. Filed Jan. 12, 1912. Serial No. 670,913. (Cl. 95—45.)



1. In a focusing device for cameras, a movable lens supporting frame, finger clips on said frame, a slideway for the lens supporting frame, a longitudinally movable part guided by the slideway, and interlocking devices on the said part and on the lens supporting frame operated by manipulation of the finger clips.

2. In a focusing device for cameras, a movable lens supporting frame, finger clips on said frame, a slideway for the lens supporting frame, a longitudinally movable part guided by the slideway, interlocking devices on said part and on the lens supporting frame operated by manipulation of the finger clips, a swinging lever pivoted at one end to the camera, an index plate with which the free end of the lever engages, and means connecting the lever with said longitudinally movable part.

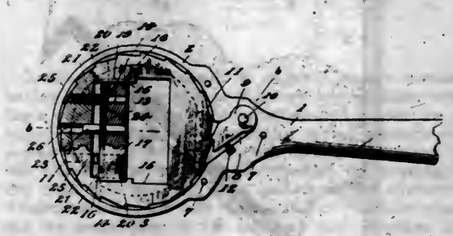
3. In a focusing device for cameras, a movable lens supporting frame, a slideway therefor, a longitudinally movable part guided by the slideway, devices on said part and on the lens supporting frame adapted to interlock when in registration with each other, a swinging lever pivoted at one end to the camera, an index plate at the free end of the lever, means to lock the lever to the index plate, and means connecting the lever with said longitudinally movable part about midway its ends.

4. In a focusing device for cameras, a movable lens supporting frame, a spring pressed finger clip on said frame, a slideway for the lens supporting frame, a longitudinally movable part guided by the slideway, devices on said part and on the lens supporting frame controlled by the spring actuated finger clip and which interlock when in registration with each other, and a pivoted lever means connecting the lever with said movable part, whereby its position may be determined.

5. In a focusing device for cameras, a movable lens supporting frame, a spring pressed finger clip on said frame, a slideway for the lens supporting frame, a longitudinally movable part guided by the slideway, devices on said part and on the lens supporting frame operated by the spring actuated finger clip and which interlock when in registration with each other, a pivoted lever, means connecting the lever with said movable part, and an index plate, said lever being adapted to interlock with and be held by the index plate, whereby the position of the said movable part may be varied to correspond with different focal distances.

[Claims 6 to 13 not printed in the Gazette.]

1,029,271. RATCHET-WRENCH. JOSEPH FRANKLIN BOSSERMAN, Staunton, Va. Filed Aug. 26, 1911. Serial No. 646,192. (Cl. 81—61.)



A ratchet wrench having a head provided with a work receiving opening, a jaw in said opening, movable toward and from one side thereof, a pair of adjusting screws mounted for revolution in and carried by said jaw and each having a gear, and an operating gear mounted in and carried by the jaw and disposed between and engaging the gears of the screws, the diameter of the said operating gear exceeding the width of the jaw so that the said gear projects beyond opposite sides of the gear and is thereby adapted to be revolved manually the said head of the wrench being provided with threaded openings at one side of the work receiving opening for engagement by the adjusting screws.

1,029,272. CLUTCH MECHANISM FOR GANG-PLOW LIFTERS. FREDERICK J. BRADBERRY, Mitchell, S. D. Filed Apr. 26, 1911. Serial No. 623,373. (Cl. 192—9.)

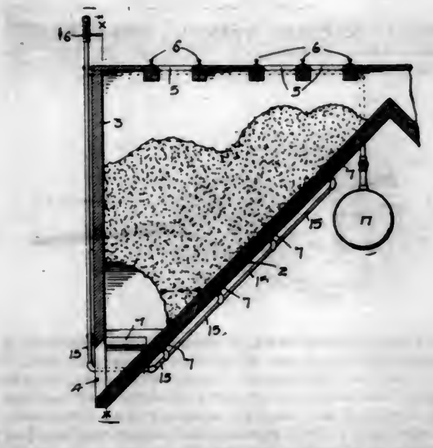


1. The combination of a frame, a shaft revolubly mounted thereon, a revolving gear loosely mounted on the end thereof and having jaws on the inner end of its hub, a sleeve secured to said shaft and having jaws adapted to engage the jaws on the gear, a spring to force the jaws into engagement, a pinion and a disk secured to said shaft, a gear revolubly mounted adjacent the disk and in mesh with the pinion and having a cam on its side whereby the disk may be engaged and the shaft moved longitudinally to disengage said jaws, and means to lock said shaft and the jaws on the sleeve in inoperative position.

2. The combination of a platform, a bearing thereon, a driving gear and a hollow hub therefor revoluble in said

bearing, said hub having clutch-jaws on its inner end, a second bearing, a shaft revoluble and slidable in said bearing and in said hub, a sleeve secured to said shaft and provided with clutch jaws to engage those on said hub, a spring to force said jaws into engagement, a disk and a pinion secured to the shaft, a gear revolubly mounted in mesh with said pinion, a cam on said gear adapted to engage the disk and longitudinally move the shaft to disengage the clutch jaws, and a locking device connected to said shaft to hold the clutch-jaws on the sleeve out of engagement with the jaws on the hub.

1,029,273. DISCHARGING DEVICE FOR BINS. WALTER BUTLER, St. Paul, Minn. Filed Jan. 29, 1912. Serial No. 674,128. (Cl. 57—37.)



1. The combination, with a bin having an open top and an outlet opening in its lower wall and a door for said opening, of a fluid pressure nozzle having means for connection with a fluid pressure supply and arranged to direct the fluid pressure into the material in said bin to disintegrate and break the arches formed by adhesion of the material to the walls of the bin, the material moving by gravity toward said outlet opening.

2. The combination, with a bin having a hopper bottom and an outlet opening, of a series of nozzles arranged in the bottom of said bin upon different levels, and pipes having a controlling valve communicating with a source of fluid pressure supply.

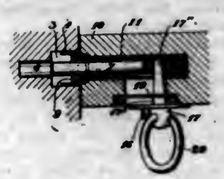
3. The combination, with a bin having a hopper bottom and outlet opening, said bottom having a manifold chamber extending transversely thereof and provided in its wall with fluid pressure nozzles leading into said bin, and a fluid pressure supply pipe communicating with said manifold chamber and having a controlling valve.

4. The combination, with a bin having a hopper bottom and outlet opening, of a casting arranged in the bottom of said bin transversely thereof and having a manifold chamber and a fluid pressure chamber and ports leading from one chamber to the other, a fluid pressure supply pipe communicating with said manifold chamber and with a source of fluid pressure supply, and a controlling valve for said pipe.

5. The combination, with a bin having a hopper bottom and discharge opening, of a casting mounted in the bottom of said bin and having a manifold chamber therein, a pressure chamber communicating with said bin, and a wall provided with ports at intervals leading from said manifold chamber and said pressure chamber, a fluid pressure pipe communicating with said manifold chamber and with a source of fluid pressure supply, and a controlling valve.

[Claims 6 to 8 not printed in the Gazette.]

1,029,274. WINDOW. DAVID R. CALER, Beaver, Pa. Filed Nov. 9, 1911. Serial No. 650,382. (Cl. 20—49.)



1. A pivotal sash lock consisting of a follower strip, a slotted bolt housing attached thereto, a bolt in said housing, a slotted tube for the bolt housing adapted to be mounted in the sash, a spring inserted between the ends of the bolt and its housing, and an operating pin extending through the slotted housing and tube and engaging the bolt, substantially as set forth.

2. A pivotal sash lock consisting of a follower strip, a slotted bolt housing attached thereto, a bolt in said housing, a slotted tube for the bolt housing adapted to be mounted in the sash, a spring inserted between the ends of the bolt and its housing, and an operating pin extending through the slotted housing and tube and engaging the bolt and provided with a bearing portion whereby upon rotation of the bolt said portion will bear against a resisting abutment and will impart movement to the operating pin and bolt, substantially as set forth.

3. The combination with a sash, of a slotted housing, a slotted tube within said housing, a follower strip connected with said tube, a pivotal locking bolt and a spring therefor in said tube, a slotted plate, and a pin extending therethrough engaging the bolt, substantially as set forth.

4. The combination with a sash, of a slotted housing, a slotted tube within said housing, a follower strip connected with said tube, a pivotal locking bolt and a spring therefor in said tube, a slotted plate provided with a fulcrum device, a pin extending through said slotted plate and engaging the bolt and provided with a lever attachment for coöperation with said fulcrum device, substantially as set forth.

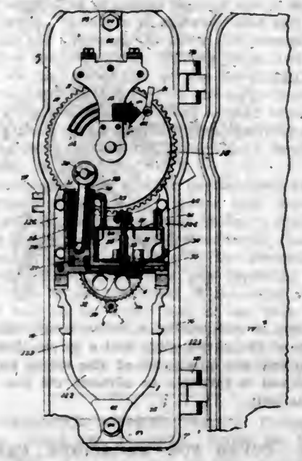
5. The combination of a window frame provided with vertical recesses and bolt holes, a sash provided with laterally adjustable followers adapted for operation in said recesses, pivotal locking bolt devices at each side of the sash connected with said followers and having actuating pins provided with recessed lever plates and terminals, and fixed abutments extending outwardly from the face of the sash providing fulcrum bearings for said plates, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,029,275. RAILWAY SIGNALING APPARATUS. CLARENCE W. COLEMAN, Westfield, N. J., assignor to The Hall Signal Company, a Corporation of Maine. Filed Feb. 15, 1909. Serial No. 477,849. (Cl. 246—21.)

1. In a railway signaling apparatus, the combination of a movable signal, a motor device, connections between the motor device and the signal through which the latter moves said signal to an indicating position, fluid pressure apparatus including a cylinder and a piston, one of which is connected with the signal and moved when the signal is operated by the motor to draw fluid into the cylinder, and an electro-responsive device controlling said fluid pressure apparatus to support the signal independently of the motor device at any point in its return movement at which said electro-responsive device is energized.

2. In a railway signaling apparatus, the combination of a signal, an electro-magnetically operated clutch one member of which is connected to the signal, a motor connected to the other clutch member for moving the signal to one of a plurality of positions when the clutch is energized, fluid pressure signal holding apparatus having a movable member connected with the first clutch member to be moved thereby when the signal is operated by the motor, an electro-responsive device for controlling the fluid pressure apparatus, and circuits through which said electro-responsive device is controlled for relieving the fluid pressure in said apparatus, to permit said signal to assume a different position.



3. In a railway signaling apparatus, the combination of a signal having a plurality of indicating positions, a motor device, connections between the signal and motor device through which the motor device moves said signal to one of said positions, fluid pressure apparatus including a cylinder and a piston, one of which is connected with the signal and moved when the signal is operated by the motor, to suck fluid into the cylinder, and electro-responsive means operatively related to said fluid pressure apparatus and energized to control said apparatus to support the signal at its operated position independently of the motor device, and deënergized to relieve the fluid pressure therein and permit the return movement of the signal.

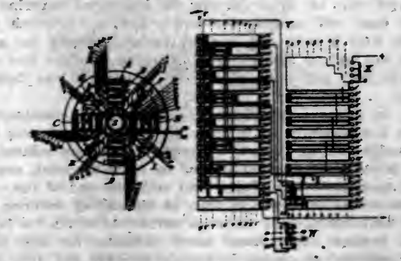
4. In a railway signaling apparatus, the combination with a part to be moved, a cylinder and piston one being connected with said part, a fluid passage connected with said cylinder, a check valve in said passage arranged to permit a fluid to enter said cylinder, means independent of the fluid in the cylinder for moving said part in one direction, and means for opening a passage to permit the fluid to pass out from the cylinder when said part moves in the opposite direction.

5. In a railway signaling apparatus, the combination with a movable signal, a motor for operating the same, signal holding mechanism comprising a cylinder and a piston one of which is movable with the signal, a fluid inlet passage connected with one member of said holding mechanism and provided with a check valve, an outlet passage also connected to one member of said holding mechanism, and a valve controlling the same, connections between said motor and signal for moving the signal, connections between the movable member of said holding mechanism and said motor and signal connections for raising said movable member and thereby sucking in the fluid into the cylinder, and means for opening the valve in the outlet passage to permit the fluid to pass out of the cylinder and the piston to drop.

[Claims 6 to 19 not printed in the Gazette.]

1,029,276. REGULATING DYNAMO-ELECTRIC MACHINES. GEORGE HERBERT CONDICT, New York, N. Y. Filed Jan. 10, 1906, Serial No. 295,418. Renewed Oct. 8, 1910. Serial No. 586,069. (Cl. 171—228.)

1. The combination with a dynamo electric machine having main field poles and auxiliary poles creating a commutating field, an armature and conductors associated therewith, and sectional windings upon the said poles, of a controller having contacts connected with the individual sections of said windings and so arranged that the initial movements of the controller change the grouping of the windings of the main field poles with respect to one another to weaken the magnetic field created thereby, without changing the grouping of the windings of the auxiliary field poles, and subsequent movements of the controller change the grouping of the windings of the auxiliary field poles to strengthen the magnetic field created thereby, substantially as described.



2. The combination with a dynamo electric machine having main field windings and auxiliary windings creating a commutating field, an armature and conductors associated therewith, of a controller having contacts connected with the said windings so arranged that the initial movement of the controller changes the grouping of the main field windings with respect to one another to weaken the magnetic field created thereby, without changing the connections of the auxiliary field windings, and subsequent movements of the controller change the grouping of the auxiliary windings to strengthen the magnetic field created thereby, substantially as described.

3. The combination with a dynamo-electric machine having main field poles and auxiliary poles creating a commutating field, an armature and conductors associated therewith, and windings upon the said main field poles and auxiliary poles connected in series with one another and with the armature, of a controller having contacts connected with the said windings and so arranged that the initial movements of the controller change the grouping of the windings of the main field poles with respect to one another to weaken the magnetic field created thereby, without changing the grouping of the windings of the auxiliary field poles, and subsequent movements of the controller change the grouping of the windings of the auxiliary field poles to strengthen the magnetic field created thereby, substantially as described.

1,029,277. FIRE-EXTINGUISHING APPARATUS. EDWIN TURNER COPELAND and EDWIN WARD COPELAND, New York, N. Y. Filed June 3, 1911. Serial No. 631,121. (Cl. 169—5.)



1. In a fire extinguishing apparatus, the combination with a sprinkler-head, a valve and separable devices for normally holding the valve closed, of members related to the latter devices and connected by a fusible joint, and an electrical heating device inclosed by one of said members and in close relation to the fusible joint.

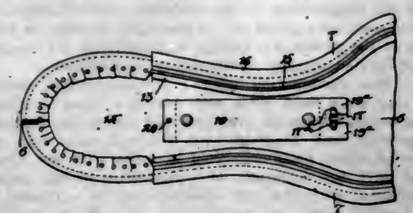
2. In a fire extinguishing apparatus, the combination with a sprinkler-head, a valve and separable devices for

normally holding the valve closed, of members related to the latter devices and connected by a fusible joint and one of said members comprising a heat coil, an apertured plate bent over upon itself and inclosing the said heat coil so that the heat coil is in close relation to the fusible joint.

3. In a fire extinguishing apparatus, the combination with a sprinkler-head, a valve and separable devices for normally holding the valve closed, of members related to the latter devices and connected by a fusible joint, one of said members comprising a heat coil, one end of the convoluted wire of which is free, an insulating covering to said heat coil against the outer surface of which the loose wire is bent and a sheet metal inclosure for said heat coil and its insulating wrapping so that the free end of the heat coil wire is in close relation to the fusible joint.

4. In a fire extinguishing apparatus, the combination with a sprinkler-head, a valve and separable devices for normally holding the valve closed, of members related to the latter devices and connected by a fusible joint, one of said members comprising a heat coil, one end of the convoluted wire of which is free, an insulating covering to said heat coil against the outer surface of which the loose wire is bent, and a sheet metal inclosure for said heat coil and its insulating wrapping so that the free end of the heat coil wire is in electrical contact with the fusible joint.

1,029,278. INNERSOLE FOR WELTED SHOES. HARVEY F. CRAWFORD, Brockton, Mass., assignor of one-half to George H. Snow, Brockton, Mass. Filed Dec. 13, 1911. Serial No. 665,546. (Cl. 36—22.)

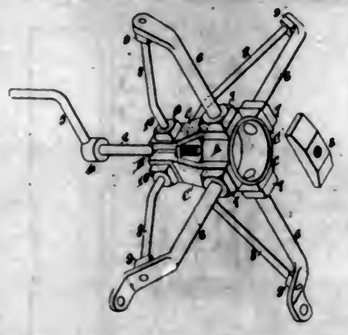


1. An inner sole for a welted shoe provided at the forward portion of the shank part with a stiffener-engaging member composed of a finished outer head embedded in and substantially flush with the upper surface of the sole, and a body portion extending through the sole and projecting from the under surface thereof, said body portion being provided at its inner end with an inner head slightly spaced from the under surface of the sole and adapted to bear on the under side of a slotted shank stiffener and confine said stiffener against the under side of the sole without affecting the flexibility of the sole.

2. An inner sole for a welted shoe provided at the forward portion of its shank part with a stiffener-engaging member composed of a finished outer head embedded in and flush with the upper surface of the sole, and two prongs integral with said head and extending through the sole and projecting from the under surface thereof, the outer ends of said prongs being bent outwardly in opposite directions toward the edges of the sole to form ears slightly spaced from the under surface of the sole and adapted to bear on the under side of a shank stiffener, the said member being adapted to confine a slotted stiffener against the under side of the sole without affecting the flexibility of the sole.

1,029,279. WHEEL-DISHING DEVICE. JAMES S. CREIGHTON, Smithflat, Cal. Filed Jan. 21, 1911. Serial No. 603,833. (Cl. 157—1.)

A wheel dishing device, including two rings axially in line, one of said rings closed at its outer end and the other adapted to receive a wheel hub which is slidable therein, radial arms removably fixed in the second named ring and contacting with the wheel felly when the hub is introduced into the ring, said arms having outwardly turned flattened ends, inclined brace rods having their inner ends removably secured in the first named ring and their outer ends abutting against the flattened, outwardly



turned arms, a rod having a collar contacting with the outer face of the closed ring, and a screw threaded plate fitting against the outer end of the wheel hub, through which the rod is turnable to advance the hub with relation to the felly.

1,029,280. COVER FOR MAGAZINES, PAMPHLETS, SHEET-MUSIC, AND THE LIKE. ELI DAVIDSON, Boston, Mass. Filed Jan. 23, 1911. Serial No. 604,077. (Cl. 129—1.)



1. The combination with a cover having front and back leaves, of a holding member secured to the back thereof and provided with guiding lips, a backing plate adapted to be slipped into said holding member from one end thereof, said backing plate having magazine-positioning lips 15 at one end which rest against the end of the magazine to be placed in the cover and also having a slot extending from each end thereof, said slots being of such lengths as to terminate opposite the positions occupied by the staples of said magazine when positioned against the lips, a cord secured to the backing member and adapted to be passed through the slot at one end thereof between the leaves of the magazine around the staples therein and then through the slot at the other end, and means to connect the end of the cord to the backing plate.

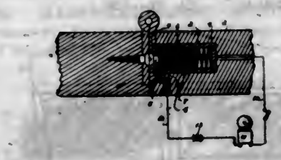
2. The combination with a cover having front and back leaves, of a holding member secured to the back thereof and provided with guiding lips, a backing plate adapted to be slipped into said holding member from one end thereof, said backing plate having a slot at each end, said slots being of such lengths as to terminate opposite the positions occupied by the staples of the magazine to be placed in the cover, a cord secured to the backing member and adapted to be passed through the slot at one end and between the leaves of the magazine and around the staples and then through the slot at the other end, and means to connect the end of the cord to the backing plate.

3. The combination with a cover having front and back leaves, of means to detachably secure said cover to a magazine, the front leaf of the cover having a sight opening, and a pocket in the rear thereof to receive the front page of the magazine whereby the title of the magazine may be seen through the sight opening.

4. The combination with a cover having front and back leaves, of a holding member secured to the back thereof and provided with guiding lips, a backing plate adapted to be slipped into said holding member from one end thereof, said backing plate having at each end a slot and said slots being of such lengths as to terminate opposite the positions occupied by the staples of the magazine to be placed in the cover, a cord secured to the backing member and adapted to be passed through one of said slots and then between the leaves of the magazine and around the staples and then through the other slot, means to connect the end of the cord to the backing plate, and fastening devices on the outer face of the front leaf of the cover near the back thereof and on the inner face of the back leaf of the cover near the front thereof whereby the magazine and front cover may be folded inwardly and the back cover folded over the front cover and fastened in folded position.

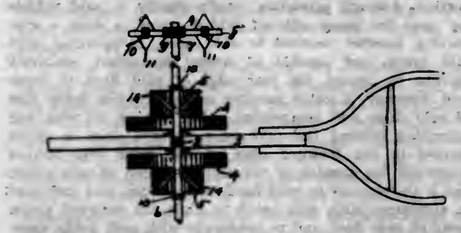
5. The combination with a cover having front and back leaves, of means to detachably secure said cover to a magazine, the front leaf of the cover having a sight opening, a pocket in the rear thereof to receive the front page of the magazine so that the title of the magazine may be seen through the sight opening, and fastening devices on the outer face of the front leaf of the cover near the back thereof and on the inner face of the back leaf of the cover near the front thereof whereby the magazine and front cover may be folded inwardly and the back cover folded over the front cover and fastened in folded position.

1,029,281. BURGLAR-ALARM. OTIS L. DAVIS, Iowa City, Iowa. Filed Feb. 21, 1912. Serial No. 679,070. (Cl. 177—202.)



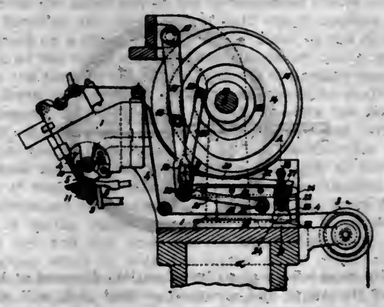
The combination with a hinge, of a shell adapted to be located in line with one of the screw holes in the hinge, a sleeve in said shell, an insulating plug in said sleeve, a screw passing through the hinge and into the plug, a spring between the shell and plug and tending to force the plug outward, an electric alarm, and wires connecting the shell and hinge with the alarm.

1,029,282. COTTON CHOPPER AND CULTIVATOR. GREEN D. FARGASON, Camp Hill, Ala. Filed June 16, 1911. Serial No. 633,532. (Cl. 97—45.)



In a cotton chopper and cultivator, the combination of a plow beam, driving wheels adjustably and removably attached thereto, a metal bar mounted transversely of the beam of the said plow, other metal bars mounted pivotally and transversely of the first named metal bar and carrying vertical levers adjustably mounted thereon, double pointed hoeing members firmly secured to the end of the said vertical levers, wheels having zigzag channels in their peripheries and attached to the aforementioned driving wheels, with means for connecting the said vertical levers to the said zigzag channeled wheels in such a manner as to cause a reciprocating transverse motion of the said vertical levers, substantially as shown and described.

1,029,283. SEWING-MACHINE. ALFRED B. FOWLER, Central Falls, R. I., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 9, 1897. Serial No. 618,554. (Cl. 112—20.)



1. A chain stitch shoe sewing machine, having, in combination, a curved hook needle, a looper, a tension device, an intermittently acting thread clamp which engages the thread between the tension and the work, and means for moving the thread clamp while closed in the direction of the lead of the thread to pull off thread from the tension, substantially as described.

2. A chain stitch shoe sewing machine, having, in combination, a curved hook needle which acts to set the stitch, a looper, a constantly acting tension device, a movable thread clamp which engages the thread between the tension and the work, and means for operating the thread clamp in timed relation to the movement of the needle to clamp the thread just before the needle begins its retracting stroke, to move while clamped in the direction of the lead of the thread to pull off thread from the supply and to unclamp the thread during the last part of the retracting stroke of the needle so that the needle may set the stitch against the tension, substantially as described.

3. A chain stitch shoe sewing machine, having, in combination, a curved hook needle, a looper, a tension, an intermittently acting thread clamp which engages the thread between the tension and the work, means for moving the thread clamp while closed in the direction of the lead of the thread to give up thread to the retracting needle, substantially as described.

4. A shoe sewing machine, having in combination, a curved hooked needle, a looper, a tension device, an intermittently acting thread clamp which engages the thread between the tension and the work, and means for moving the closed thread clamp while the needle is making its retracting stroke in the direction of the lead of the thread to pull off thread from the tension and deliver it to the needle, substantially as described.

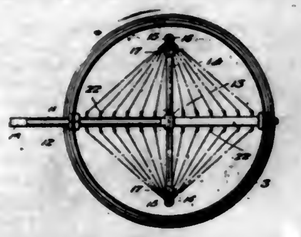
5. A shoe sewing machine, having in combination, a curved hooked needle, a looper, a tension device, an intermittently acting thread clamp which engages the thread between the tension and the work, and means for moving the thread clamp while closed in the direction of the lead of the thread to pull off thread from the tension and deliver it to the stitch forming mechanism during the thread consuming movements thereof, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,029,284. TRACK-SANDER. MACK J. FOWLER, Roanoke, Va. Filed Oct. 23, 1911. Serial No. 656,333. (Cl. 105—263.)

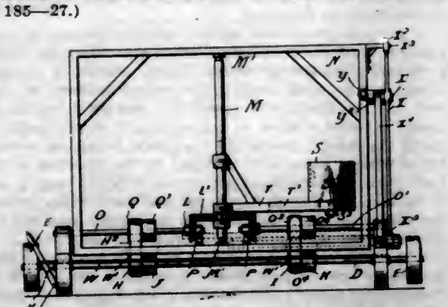
1. The combination with a sand box having sand holes at the sides thereof for the exit of the sand, of means for simultaneously admitting a plurality of air blasts into the sand in the central part of the sand box at points entirely separated from the sand holes aforesaid and directing such blasts in opposite directions through the intervening sand toward the respective exit holes aforesaid for the purpose of agitating the intervening sand and directing it toward the respective holes.

2. The combination with a sand box having sand holes on opposite sides thereof for the exit of the sand, of an air pipe centrally extending crosswise of the sand box in the same general plane as said sand-holes and provided on



opposite sides with a plurality of outlets disposed at intervals of its length and arranged so that they will simultaneously distribute air blasts into the body of the sand and toward the respective sand holes aforesaid.

1,029,285. WEIGHT-MOTOR. ALFRED C. GEIGER, Glenallen, Va. Filed Feb. 2, 1912. Serial No. 675,043. (Cl. 185—27.)



A momentum power apparatus having runners, a shaft journaled therein, counter shafts journaled in suitable bearings upon the runners, a frame pivotally mounted upon said counter shafts, means for driving the counter shafts, an upright rotatable shaft mounted in the frame and having gear connections with the counter shafts, a weighted arm fixed to said upright shaft, a standard pivoted to the runner, a lever pivoted to the standard, a bracket member upon said frame and having pivotal connection with the lever, a push button mounted upon said standard and adapted to bear against the frame, and a spring fixed at one end to the standard and its other end to the frame, as set forth.

1,029,286. BELL. GEORGE W. GOFF, East Hampton, Conn. Filed Apr. 15, 1911. Serial No. 621,355. (Cl. 116—33.)



The combination with a bell, of a suspension device therefor, said suspension device formed with an integral base, the upper end of the bell and the base of the suspension device having alined openings, combined with a U-shaped staple having reduced ends which extend up through the said perforations in the bell and suspension device, a bell tongue hung upon said staple and the ends of the staple upset upon the base of the suspension device, whereby the tongue is secured in the bell and the suspension device riveted to the outer face thereof.

1,029,287. DETONATING COMPOSITION. ERNEST GOODWIN, Stamford Hill, London, England, assignor to Eley Brothers Limited, Edmonton, London, England. Filed Dec. 20, 1911. Serial No. 666,889. (Cl. 52—2.)

1. The herein-described detonating composition comprising a fulminate of mercury, a peroxid and trinitrotoluene.

2. The herein-described detonating composition comprising a fulminate of mercury, barium peroxid and a trinitrotoluene.

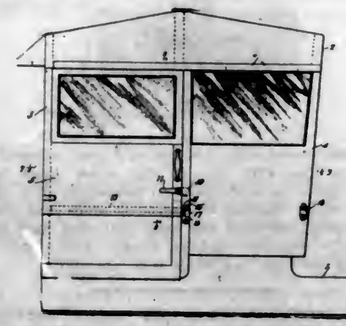
3. The herein-described detonating composition comprising finely divided fulminate of mercury, a peroxid and trinitrotoluene.

4. The herein-described detonating composition comprising finely divided fulminate of mercury, barium peroxid and tinitrotoluene.

5. The herein-described detonating composition comprising a fulminate of mercury, barium peroxid, stibnite and trinitrotoluene.

[Claim 6 not printed in the Gazette.]

1,029,288. SLIDING DOOR. CLAY GORDON, Greenfield, Ohio, assignor of one-half to C. R. Patterson and Sons, Greenfield, Ohio, a Copartnership. Filed Jan 3, 1911. Serial No. 600,487. (Cl. 21—125.)



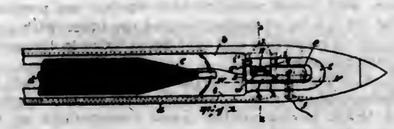
1. A vehicle top comprising a fixed side portion and having a doorway arranged in front of said fixed side portion, a track extending longitudinally to said vehicle top near the upper edge of said doorway, a door, a supporting member secured to said door, coöperating with said track and capable of lateral movement relatively thereto to permit the rear edge of said door to enter said doorway, a guide member secured to the inner side of said door and comprising a bar having its rear end extending beyond the rear edge of said door, a notch formed in the forward edge of said fixed side portion to permit the passage of the projecting end of said guide, and a lip secured to said fixed side portion and arranged in alinement with said notch to limit the outward movement of said door and to coöperate with said guide member to maintain said door in its proper position relatively to said top.

2. A vehicle top comprising a fixed side portion and having a doorway in front of said fixed side portion, a longitudinal track supported by said top above said doorway, a door supported from said track and adapted to be moved transversely to said track into said doorway, a supporting member secured to the upper portion of said door and having a portion extending beyond the rear edge of said door, said fixed side portion having a part to be engaged by said supporting member to support the rear portion of said door when it has been moved into said doorway.

3. A vehicle top comprising a fixed side portion, a doorway arranged in alinement therewith, a projection extending longitudinally to said top and overhanging said fixed side portion and said doorway, an angle iron secured to said projection and having one flange extending beneath the same and spaced therefrom, a door adapted to fit within said doorway, and a supporting member secured to said doorway and adapted to extend between the flange of said angle iron and the supporting projection, said supporting member having a flat portion extending beyond the end of said door and said fixed side portion having a slot to receive said projection.

4. A vehicle top comprising a fixed side portion and having a doorway arranged in front of said side portion, a longitudinal bar overhanging said doorway and said fixed side portion, an angle iron secured to said bar and having one flange extending beneath and spaced away from said bar to form a track, said angle iron having its forward end curved inward, a door adapted to fit within said doorway, a supporting device secured to said door and comprising an angle iron having one flange arranged to engage said track and one end projecting beyond the edge of the door, and a stop to retain said supporting device on said track, said stop being so arranged with relation to said track as to permit the rear edge of said door to move transversely to said track when said door is in its foremost position, the fixed side portion having a part arranged to be engaged by the projecting end of said track and to support the rear edge of said door when it has been moved transversely to said track.

1,029,289. HAND-THREADING SHUTTLE. ARNOLD GULDEMANN, Paterson, N. J. Filed Sept. 7, 1911. Serial No. 648,130. (Cl. 139—46.)

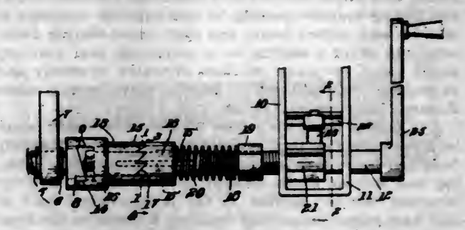


1. In a shuttle, a filling-tension device including two coacting filling-gripping members having relatively broad filling-gripping faces bearing flatwise against each other and each extending substantially vertically, one of said members being elastically held against the other and pivoted on a substantially horizontal axis below said gripping faces, the space formed between said members when the pivoted member is moved out of contact with the other member having an unobstructed downwardly open entrance thereto whereby to admit the filling between said members by a downward movement thereof, substantially as described.

2. In a hand-threading shuttle, the combination of a shuttle body, a supporting part arranged therein and having spaced lateral projections formed with filling-guiding slits and also having a filling-holding tongue projecting toward one end of the shuttle body, means, carried by said part, for retaining the thread in said slits, and a spring actuated tension member arranged between said projections and normally held in filling-gripping relation to said supporting part, said tension member being arranged substantially vertically, pivoted at or near its lower end and having its upper end-portion exposed for manual engagement.

1,029,290. STARTING DEVICE. HENRY HENKEN, Savannah, Ga. Filed Jan. 16, 1911. Serial No. 603,035. (Cl. 123—185.)

1. In a cranking device for engines, the combination with an engine shaft having a clutch collar rigidly secured thereon, of a cranking shaft in alinement with the engine shaft, a double-ended clutch member loosely mounted on the cranking shaft and adapted to have its clutch teeth at its inner end engage with the clutch teeth of the clutch collar on the engine shaft, a clutch collar slidably mounted on the cranking shaft in advance of said double-ended clutch member with the clutching teeth of the last mentioned clutch collar being adapted to engage the clutch teeth at the outer end of the double-ended clutch member, the teeth at the outer end of said clutch member being disposed on a plane opposite to the plane of the clutching teeth at the inner end of the double-ended clutch member with the teeth of the clutch collar of the engine shaft and the teeth of the clutch collar of the cranking shaft being correspondingly formed for coöperation with the clutching teeth of the double-ended clutch member and with the clutch teeth at the outer end of the double-ended clutch member formed more abrupt than the teeth at the inner end of the clutch member, a nut on the cranking shaft in alinement with said clutch member and clutch collars, and a spring coiled around the cranking shaft between said nut and the outer end of the clutch collar of the cranking shaft to hold the latter clutch collar and the double-ended clutch member in coöperative relation, whereby the cranking shaft may be rotated to start the engine shaft and whereby in the event of back firing of the engine shaft when rotating the latter to start the engine the teeth at the outer end of the double-ended clutch member will ride over the teeth of the clutch collar on the cranking shaft.



2. In a cranking device for engines, the combination with an engine shaft having a clutch collar rigidly secured thereon, of a cranking shaft in alinement with the engine shaft, a double-ended clutch member slidably and rotatably mounted on the cranking shaft with the teeth at its inner end adapted to engage the teeth of the clutch collar on the engine shaft, a clutch collar slidably mounted on the cranking shaft in front of the double-ended clutch member and having its teeth formed to coöperate with the teeth at the outer end of the double-ended clutch member, means for yieldably holding the double-ended clutch member and the clutch collar of the cranking shaft in coöperative relation, the inner end of the cranking shaft being reduced or its reduced portion screw threaded and a nut secured to the reduced, screw threaded inner end of the cranking shaft to form a stop to limit the sliding movement of the double-ended clutch member inwardly of the cranking shaft when the latter is in its normal position.

3. In a cranking device for engines, the combination with the engine shaft and a clutch collar rigidly secured thereon, of a cranking shaft in alinement with the engine shaft, a clutch collar loosely mounted on the cranking shaft adapted to engage with the clutch collar on the engine shaft, a third clutch collar slidably mounted on the cranking shaft and adapted to engage the loose clutch collar, a nut threaded on the cranking shaft, and a spring coiled around the cranking shaft between the nut and the slidable clutch collar and means whereby the cranking shaft may be rotated.

4. In a cranking device for engines, the combination with the engine shaft and a clutch collar rigidly secured thereon, of a cranking shaft in alinement with the engine shaft, a clutch collar loosely mounted on the cranking shaft adapted to engage with the clutch collar on the engine shaft, a third clutch collar slidably mounted on the cranking shaft and adapted to engage the loose clutch collar, a nut threaded on the cranking shaft, a spring coiled around the cranking shaft between the nut and the slidable clutch collar, two bearings for the cranking shaft, and ratchet mechanism comprising a ratchet collar on the

shaft between said bearings of less length than the distance between said bearings and means whereby the cranking shaft may be rotated.

1,029,291. BOLSTER FOR RAILWAY-CARS. EDWARD D. HILLMAN, Larchmont, N. Y., assignor to Benjamin A. Hegeman, Jr., North Plainfield, N. J. Filed Dec. 2, 1911. Serial No. 663,507. (Cl. 105—107.)



1. A bolster comprising sides formed of two main parallel Z-beams having their upper flanges extended outwardly from and their lower flanges inwardly toward each other, top and bottom plates secured to said flanges, a lower structure directly secured to the lower central part of said main beams comprising auxiliary Z-beams on the same vertical planes with and less in depth than said main Z-beams and having their upper flanges extended inwardly toward and their lower flanges outwardly from each other, a center bearing plate secured to said auxiliary beams, and fillers between said main and auxiliary beams and having central openings in line with the openings in said top and bottom plates and said center bearing to receive and afford a bearing for a center pin, said auxiliary beams being cut away on lines diverging upwardly and outwardly from said center bearing plate to said main Z-beams; substantially as set forth.

2. A bolster comprising sides formed of two main parallel Z-beams having their upper flanges extended outwardly from and their lower flanges inwardly toward each other, top and bottom plates secured to said flanges, a lower structure directly secured to the lower central part of said main beams comprising auxiliary Z-beams on the same vertical planes with and less in depth than said main Z-beams and having their upper flanges extended inwardly toward and their lower flanges outwardly from each other, a lower plate (14) secured to the outwardly extending lower flanges of said auxiliary beams, a center bearing plate secured to said auxiliary beams and lower plate, a filler secured to and between the sides of said main Z-beams and extending vertically between the lower inwardly extending flanges thereof and said top plate, and a filler secured to and between the sides of said auxiliary Z-beams and extending vertically between the upper inwardly extending flanges thereof and said lower plate (14), said top, bottom and lower plates and center bearing plate having alined vertical openings to receive and afford a bearing for a center pin, and said auxiliary beams being cut away on lines diverging upwardly and outwardly from said center bearing plate to said main Z-beams; substantially as set forth.

1,029,292. VENTILATED SIGHTING-RIB FOR GUNS. FRANK O. HOAGLAND, Bridgeport, Conn., assignor to Remington Arms and Ammunition Company, Ilion, N. Y., a Corporation of New York. Filed Mar. 28, 1912. Serial No. 685,890. (Cl. 42—80.)



1. A gun barrel provided with a sighting rib supported by pillars in staggered relation and having transverse openings between the pillars and a longitudinal opening the entire length of the rib.

2. A gun barrel having an integral sighting rib and pillars therefor in staggered relation, said pillars being spaced apart transversely to provide a longitudinal opening extending the length of the rib.

3. A gun barrel provided with a sighting rib supported by pillars in staggered relation leaving relatively wide transverse openings between the pillars.

4. A gun barrel provided with a sighting rib supported by pillars, the width of the pillars being less than the width of the rib.

1,029,293. TRANSPORTATION-TICKET. JOHN M. HOFFNER, Buffalo, N. Y. Filed May 3, 1909. Serial No. 493,564. (Cl. 11—15.)



1. A ticket of the character described having a list of similar name designations printed lengthwise on each face, each name in one list being stepped one space longitudinally with respect to the identical name in the other, the obverse side of said ticket having also columns arranged lengthwise indicating different periods of time, said ticket being adapted to be divided between any two names of the list on the obverse side and at right angles to said columns, said ticket when divided having one portion provided with a lip or projection and the other with a notch, said lip or projection and said notch being in line with one of said columns.

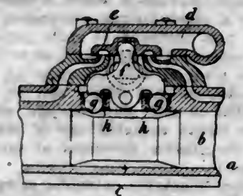
2. A ticket having a portion thereof divided into transversely-disposed spaces, each bearing name designations, said ticket having similar name designations on its reverse side stepped one space longitudinally with respect to identical name designations on its obverse side and having also on said obverse side columns intersecting said transverse spaces and indicating periods of time, said ticket being adapted to be divided between any two adjoining transverse spaces.

3. A ticket of the character described adapted to be divided transversely and having a longitudinal row of similar name designations printed on each face but stepped one space longitudinally with respect to each other so that when divided transversely between said name designations, the uppermost designation on the obverse face of one portion of the ticket is the same as the lowermost designation on the reverse face of the other portion of the ticket, the obverse face of said ticket having also longitudinal columns indicating periods of time, the time being indicated by dividing the ticket by an irregular line having the irregularity in line with one of said columns to indicate the time of expiration of the ticket.

4. A ticket of the character described adapted to be divided transversely and having lines on its face dividing a portion thereof into intersecting transversely-disposed spaces and longitudinally-disposed columns and designations in said spaces for indicating car lines upon which the ticket may be used, said columns being suitably designated for indicating periods of time, said ticket being adapted to be divided on one of the lines between the transverse spaces in a manner to leave an irregularity at the divided edge of both portions in line with one of said columns.

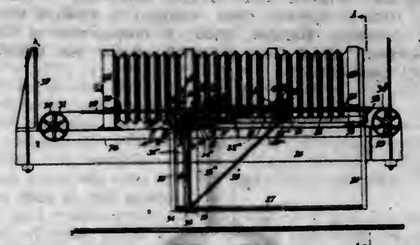
1,029,294. ROCK-DRILL. JAMES MINERS HOLMAN and JOHN LEONARD HOLMAN, Camborne, England. Filed June 22, 1911. Serial No. 634,687. (Cl. 121—10.)

1. In a rock drill, the combination with a working cylinder, and a piston therein provided with a recessed portion, and inclined actuating shoulders, adjacent to said recessed portion, of a distributing valve for said cylinder, a pivotal rocker operatively connected with said valve, and provided with actuating arms, a ball located adjacent to each of said arms, and having a portion extending into the path of said piston, and means for holding the ball out of contact with the recessed portion of said piston between the inclined shoulders thereof.



2. In a rock drill, the combination with a working cylinder and a piston therein provided with a recessed portion and an inclined actuating shoulder at each end of said recessed portion, of a distributing valve for the cylinder, a pivoted rocker operatively connected therewith, and provided with actuating arms on opposite sides of the point of pivoting of said rocker, the cylinder being provided with an aperture in its wall adjacent to each of said actuating arms, a bushing located in each of said apertures, and a ball located in each of said bushings, and having a part projecting into the path of the said inclined actuating shoulders of the piston, said bushings having reduced apertures at their inner ends, to hold said balls out of contact with the piston except at the instant of operative contact with said inclined actuating shoulders of the piston.

1,029,295. AUTOMATIC FOCUSING APPARATUS FOR PHOTOGRAPHIC LENSES. LODEWYK J. R. HOLST, Lansdowne, Pa., assignor to Williams, Brown and Earle, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed May 8, 1911. Serial No. 625,872. (Cl. 95—45.)



1. In an automatic focusing apparatus for photographic lenses, a pair of guide-ways arranged at right angles to each other, a sleeve movable along each of said guideways, two slide-rods engaging said sleeves, each of said sleeves carrying the pivot for one slide-rod and a guide for the other slide-rod, and an oscillatory fulcrum-slide through which both of said slide-rods are guided, substantially as and for the purposes described.

2. In an automatic focusing apparatus for photographic lenses, a pair of guide-ways arranged at right angles to each other, a sleeve movable along each of said guide-ways, two adjacent slide-rods engaging said sleeves, said slide-rods respectively terminating in said sleeves, and an oscillatory fulcrumed slide through which both of said slide-rods are guided, substantially as and for the purposes described.

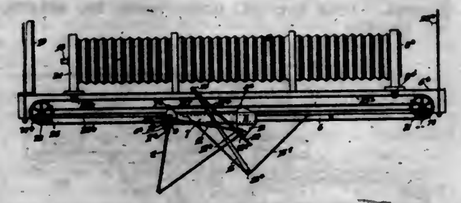
3. In an automatic focusing apparatus for photographic lenses, guide-ways arranged at right angles to each other, sleeves movable along said guide-ways, two slide-rods respectively engaging with and terminating in said sleeves, and a driving mechanism for said sleeves, substantially as and for the purposes described.

4. In an automatic focusing apparatus, a carriage comprising guide-ways arranged at right angles to each other, sleeves movable along each of said guide-ways, each of said sleeves carrying a pivot and a slide, rods attached to said pivots and guided in said slides, driving-mechanism for said sleeves, an oscillatory fulcrumed slide guiding said rods, a rocker-arm carried by said fulcrumed slide, and operative connections between said rocker-arm and driving-mechanism to lock and unlock said sleeves to and from said driving-mechanism.

5. In an automatic focusing apparatus, a carriage, comprising guide-ways arranged at right angles to each other, a sleeve movable along each of said guide-ways, a rod pivoted to each of said sleeves, a lens supporting frame, operative connections to transmit the movement of one of said sleeves to said lens supporting frame, a frame carrying a plate support, and operative connections to transmit the movement of the other of said sleeves to said plate support.

[Claims 6 to 13 not printed in the Gazette.]

1,029,296. MEANS FOR MECHANICALLY FOCUSING PHOTOGRAPHIC LENSES. LODEWYK J. R. HOLST, Lansdowne, Pa., assignor to Williams, Brown and Earle, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed June 1, 1911. Serial No. 630,628. (Cl. 95—43.)



1. In a focusing apparatus, a support, a plate-slide and a lens-slide carrying a pivot, adapted to move along said support, a lens-carrier, means operatively connecting the same with said lens-slide, a plate-carrier, means operatively connecting the same with said plate-slide, rods arranged at right angles to each other and operatively connected with said support and slides, and operating means adapted to shift the pivot of said lens-slide by one continuous forward movement, or by one continuous backward movement, to cause said lens-slide and said plate-slide to move, partly in the same direction and partly in opposite directions through the entire range of their relative adjustment from the position of maximum reduction to the position of maximum magnification.

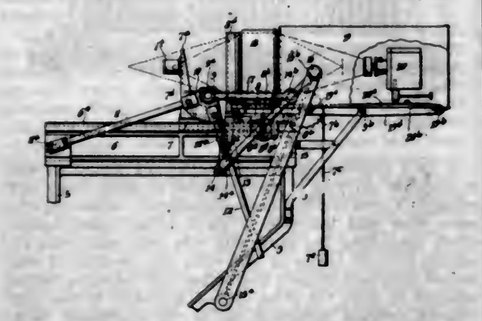
2. In a focusing apparatus, a support carrying an oscillatory fulcrumed slide-block, a lens-slide carrying a pivot, and a plate-slide carrying an oscillatory slide-block, rods arranged at right angles to each other, rotatably suspended on said pivot and respectively engaging said slide-blocks to thereby control the relative movement of said lens-slide and plate-slide, a lens support, means operatively connecting the same with said lens-slide, a plate support and means operatively connecting the same with said plate-slide, said operative connections causing the ratio of the movements of the lens-slide and lens-carrier to be equal to the ratio of the movements of the plate-slide and plate-carrier.

3. In a focusing apparatus, a lens-slide, a support for said slide, a plate-slide adapted to travel along said support, oscillatory guides, rods arranged at right angles to each other and pivoted at the point of their intersection to said lens-slide, said rods engaging said oscillatory guides pivoted respectively on said support and plate-slide, a lens-carrier, means operatively connecting the same with said lens-slide, said operative connections causing the driving point of said lens-slide and said lens-carrier to assume simultaneously corresponding points in their trajectories, a plate-carrier, and means operatively connecting the same with said plate-slide, said last named

operative connections causing the driving point of said plate-slide and said plate-carrier to simultaneously assume corresponding points of their respective trajectories.

4. In a focusing apparatus, a support carrying a fulcrum, a lens-slide adapted to travel along said support, a plate-slide adapted to travel along said support, oscillatory guides, one of which constitutes a fulcrum slide, a set of rods arranged at right angles to each other and pivoted at the point of their intersection to said lens-slide, said rods engaging said oscillatory guides, the fulcrum slide formed by one of said guides being pivoted in the fulcrum carried by said support and the other guide being pivoted to said plate-slide to control thereby the relative movements of said lens-slide and plate-slide, operating levers adapted to shift the suspension point of said rods along said support, a lens-carrier, a plate-carrier, connections between said lens-slide and lens-carrier, and connections between said plate-slide and plate-carrier to cause said lens-slide and plate-slide to reach points in their trajectories simultaneously with the arrival of said lens-carrier and plate-carrier respectively in corresponding points of their respective trajectories.

1,029,297. MEANS FOR MECHANICALLY FOCUSING PHOTOGRAPHIC LENSES. LODEWYK J. R. HOLST, Lansdowne, Pa., assignor to Williams, Brown and Earle, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 30, 1911. Serial No. 657,633. (Cl. 88—24.)



1. In a focusing apparatus, a frame, a lens-slide mounted on said frame, a plate-carriage mounted on said frame, means to impart movement to said slide, means also to impart relative movement to said plate-carriage, said means being pivotally connected to each of said two last-named members at a fixed driving point or axis on each and being adapted to automatically maintain the distance between the projections of the driving points of said slide and carriage on a line parallel to the frame always equal to the length of one of the conjugate-foci, minus the focus.

2. In a focusing apparatus, a frame carrying a fulcrum for a sliding-rod, a lens-slide and a plate-carriage movable on said frame, means to impart movement to said lens-slide, means also to impart relative movement to said plate-carriage, said means being pivotally connected to each of said two last-named members at a fixed driving point or axis on each and being adapted to automatically maintain the distance between said fulcrum and the projection of the driving point on said lens-slide on a line passing through the center of said fulcrum parallel to the frame always equal to the length of one of the conjugate-foci, minus the focus.

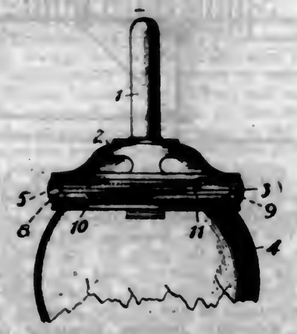
3. In a focusing apparatus, a frame carrying a fulcrum for a slide-rod, a lens-slide and a plate-carriage adapted to move along said frame, means to impart movement to said lens-slide, means also to impart relative movement to said plate-carriage, said means being pivotally connected to each of said two last-named members at a fixed driving point or axis on each and being adapted to automatically maintain the distance between said fulcrum and the projection of the driving point on the lens-slide on a line passing through the center of said fulcrum parallel to the frame always equal to the length of one of the conjugate-foci, minus the focus, and to automatically maintain the corresponding distance between similar projections of the driving points on said lens-slide and plate-carriage always equal to the length of the other conjugate-focus, minus the focus.

4. In a focusing apparatus, a frame, a lens-slide carrying a pivot and a plate-carriage coöperating with said frame, a set of rods arranged at right angles to each other, rotatably suspended at the point of intersection of said rods on the pivot of said lens-slide, an oscillatory guide block pivoted on said frame, and an oscillatory guide block pivoted on said plate-carriage, each of said oscillatory guide blocks engaging one of said rods, to thereby control the relative movement of said lens-slide and plate-carriage.

5. In a focusing apparatus, a frame carrying a fulcrum, comprising an oscillatory guide block, a lens-slide carrying a laterally projecting pivot-pin, a plate-carriage having an oscillatory guide block, said lens-slide and plate-carriage adapted to travel along said frame, rods rotatably suspended on the pivot-pin of said lens-slide, said rods arranged at right angles to each other, and respectively engaging said oscillatory guide blocks, controlling thereby the relative movements of said lens-slide and plate-carriage, operating means, adapted when moved in one direction to shift the suspension point of said rods to cause the driving point of said lens-slide to continually approach said fulcrum and the driving point of said plate-carriage to first approach, and then to recede from said fulcrum and vice versa, upon reversing the direction of movement of said operating means, to maintain between the driving points of said lens-slide and plate-carriage, distances, the projections of which, on a line passing through said fulcrum, parallel to the frame, will always be conjugate to the corresponding distances between said fulcrum and the similar projections of the driving point of said lens-slide.

[Claims 6 and 7 not printed in the Gazette.]

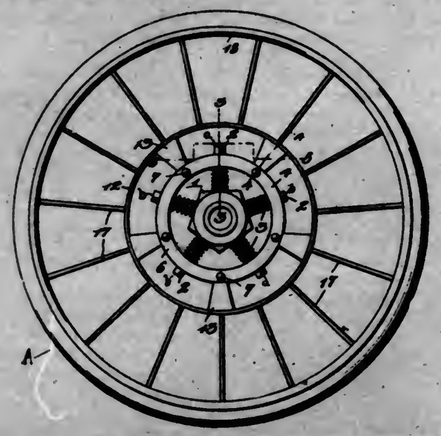
1,029,298. GLOBE AND SHADE HOLDER. WILLIAM C. HOMAN, Meriden, Conn., assignor to Edward Miller & Company, Meriden, Conn., a Corporation of Connecticut. Filed Mar. 15, 1912. Serial No. 683,976. (Cl. 240—115.)



1. In a shade or globe holder, an annular flange, a ring-like wire shade retaining element having a U shaped projection adjacent its middle portion, a slot formed in said annular flange through which said projection is adapted to extend, said slot being provided with a central restricted portion adapted to be positioned to retain said projection in engagement with said flange, said ring-like element having its ends offset to form operating handles, and a second and elongated slot formed in said annular flange through which said handles pass to the outside of the flange.

2. In a shade or globe holder, an annular flange, a ring-like wire shade retaining element having a U shaped projection adjacent its middle portion, a slot formed in said annular flange through which said projection is adapted to extend, said slot being provided with a central restricted portion adapted to be positioned to retain said projection in engagement with said flange, said ring-like element having its ends overlapping and offset to form operating handles, and a second and elongated slot formed in said annular flange through which said handles pass to the outside of the flange, said second slot having a laterally enlarged central portion and narrowed offset end portions.

1,029,299. SPRING-WHEEL. WILLIAM H. HOWSLEY, Jr., Adams, Tenn. Filed Feb. 19, 1912. Serial No. 678,523. (Cl. 152—39.)

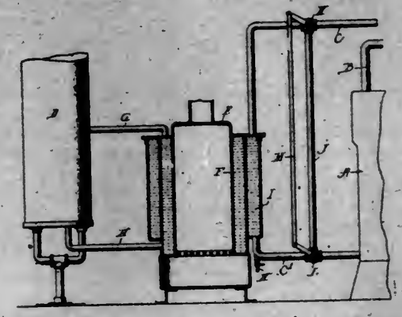


1. In a vehicle wheel, the combination of a hub, a plurality of radial guide pins projecting therefrom, an annular member arranged in spaced relation with the hub, said member having a plurality of elongated openings to receive said pins, coil springs mounted on said pins and disposed between said member and hub, said annular member being formed in sections, said sections having semi-circular grooves formed therein, coil springs circumferentially arranged in said grooves and disposed between said pins, a concentric rim arranged in spaced relation with the annular member, and spacing blocks arranged between said rim and annular member having their inner ends secured between the sections of the annular member, radial spokes projecting from said rim, and a felly secured to the outer ends of said spokes.

2. In a vehicle wheel, the combination of a hub, a plurality of radial guide pins projecting therefrom, an annular member arranged in spaced relation with said hub, springs mounted on said pins and arranged between said member and hub, said member having elongated openings to receive said pins, said annular member being formed in sections, having semicircular grooves formed in their inner faces, coil springs arranged in said grooves and disposed between said pins, a concentric rim arranged in spaced relation with said annular member, spacing blocks formed on said rim and arranged between said rim and annular member, said blocks having reduced inner ends and said annular member having openings formed therein and arranged between the guide pins to receive the reduced end of said spacing blocks, radial spokes projecting from said rim, and a felly secured to the outer ends of said spokes.

1,029,300. WATER-HEATER. WILLIAM HENRY JONES, Chicago, Ill. Filed Feb. 26, 1910. Serial No. 546,182. (Cl. 237—15.)

1. The combination of a main heating apparatus including a radiator and having circulating passages for heated fluid including a return passage from said radiator, a secondary heater having independent circulating passages including a water-heating chamber in heat-conductive relation with said return passage in the main heating apparatus, and a combustion chamber arranged to independently heat said water-heating chamber of the secondary heater.



2. The combination, with heating apparatus including a radiator and having circulating connections including a return pipe from said radiator, and with a hot water tank, of a water heater having a combustion chamber and a water-heating passage connected at top and bottom with said tank and also having a second passage in heat-conductive relation with said first-mentioned passage, said second passage being interposed in the return pipe of said heating apparatus.

3. The combination, with hot water heating apparatus including a radiator and having circulating connections including a return pipe from said radiator, and with a hot water tank, of a water heater having a combustion chamber and a water-heating chamber surrounding said combustion chamber and connected at top and bottom with said tank and also having a second water chamber surrounding and in heat-conductive relation with said first-mentioned chamber, said second chamber being interposed in the return pipe of said heating apparatus.

4. The combination, with a hot water tank, and with a heater having a chamber for heating the water in said tank provided at its top and bottom portions with circulating connections with said tank and also having a second chamber in heat-conductive relation with said first-mentioned chamber; of a heating apparatus having circulating connections including a return pipe with an upper portion C communicating with the top of said second chamber, a lower portion C' communicating with the bottom thereof, a pipe connecting said upper and lower portions of the return pipe, and means for alternatively directing the flow through said second chamber or through said connecting pipe.

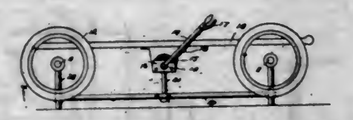
5. The combination, with a hot water tank, and with a heater having a combustion chamber, a heating chamber surrounding said combustion chamber provided at its top and bottom portions with circulating connections with said tank, and a second chamber surrounding and in heat-conductive relation with said first-mentioned chamber; of a heating apparatus having circulating connections including a return pipe with an upper portion communicating with the top of said second chamber, a lower portion communicating with the bottom thereof, a pipe connecting said upper and lower portions, a three-way valve at each end of said connecting pipe, and an operating rod for simultaneously shifting said three-way valve.

[Claims 6 to 10 not printed in the Gazette.]

1,029,301. COMBINED LIFTING-JACK AND BRAKE MECHANISM FOR AUTOMOBILES. ALEX KERTÉSZ, Newark, N. J. Filed Jan. 10, 1912. Serial No. 670,487. (Cl. 21—8.)

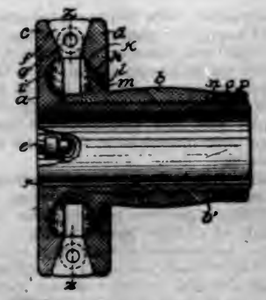
In combination with a vehicle frame, an operating shaft journaled on the said frame and extending transversely

thereto, a main bar extending longitudinally to the said frame and provided with a slot, a bolt loosely extended through the said slot and secured to the said operating shaft, U-shaped lifting members mounted to swing on the axles of the vehicle and pivotally connected to the ends



of the said main bar and an operating lever keyed to the said operating shaft for rotating the same to actuate the said main bar and move the said lifting members into lifting position.

1,029,302. SPEED-GOVERNOR. ALFRED KINDBERG, Rockwell City, Iowa, assignor of one-half to Gustav M. Andersson, Waterloo, Iowa. Filed Aug. 26, 1910. Serial No. 579,062. (Cl. 74—45.)



1. In combination, a rotary shaft, a bushing fixed thereon and having an integral flange beveled on one side, a sleeve rotatably and slidably mounted on said bushing and provided with an exterior pulley surface and with an integral flange similar to the other said flange with a similar bevel on its face which is adjacent to the beveled face of the other flange and spaced apart therefrom, elastically-connected governor-weights located oppositely about said shaft and having their opposite faces beveled to fit the abutting beveled faces of said flanges and adapted to contact frictionally therewith, means for varying the tension of the elastic connections between said weights to limit their outward movement, and means for adjustably securing said sleeve upon said bushing to cause its beveled flange to more or less compress the weights between itself and the other beveled flange to adjustably vary the inward limit of play of said weights.

2. In combination, a rotary shaft, a beveled ring secured thereon, another beveled ring movably seated about said shaft, said rings having annular hollows combined to form an oil-chamber concentric with the shaft, one of said rings having a circular hollow in its outer face in communication with the said oil-chamber, an absorbent gasket in said last-mentioned hollow adapted to deliver oil gradually to said chamber, and elastically-connected governor-weights conformed to and seated movably upon the bevels of said rings.

3. In combination, a rotary shaft, a bushing secured thereon having a beveled flange, a sleeve movably seated upon said bushing and having a like beveled flange, elastically-linked governor-weights fitted movably in contact with the beveled faces of said flanges, said weights and said fixed flange having alined communicating sockets, a pin seated in each pair of alined sockets, the sockets in the flange being radially of larger dimensions than the diameters of the pins therein and wider near the shaft with the forward wall of each sloped forwardly to permit the inclosed pins to slide therealong and form differential connections to gradually overcome the inertia of the parts to be driven.

1,029,303. GUN TO BE MOUNTED UPON AUTOMOBILES. NORBERT KOCH, Essen-Bellinghausen, Germany, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Filed Aug. 23, 1911. Serial No. 645,556. (Cl. 89—40.)



1. In a combined automobile and field mounting for guns, the combination with a gun barrel, a wheeled gun trail and an automobile; of a cross head supporting the gun barrel, said cross head being pivoted on the trail and adapted to turn with the gun barrel on said trail for training through an angle of 360°.

2. In an automobile mounting for guns, the combination with a gun barrel, a wheeled gun trail and an automobile, of means for rigidly securing said trail on the automobile comprising a jaw on the automobile, a lip on the trail adapted to engage said jaw, and a trail supporting block on said automobile having securing bolts for the trail.

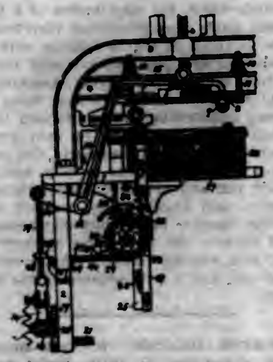
3. In an automobile mounting for guns, the combination with a gun barrel, a wheeled gun trail and an automobile; of extension pieces for the trail adapted to form wheel tracks for the trail to facilitate the running up of the gun carriage onto the automobile said tracks being detachable from the automobile.

4. In an automobile mounting for guns, the combination with a gun barrel, a wheeled gun trail and an automobile; of a slide carrier, a cross head supporting said slide carrier and gun barrel; locking means between said trail and said slide carrier comprising a stirrup hinged to the trail, an eye on said slide carrier and a locking bolt for securing said stirrup to the slide carrier.

5. In an automobile mounting for guns, the combination with a gun barrel, a wheeled gun trail and an automobile; of a cross head supporting the gun barrel, said cross head being pivoted on the trail and adapted to turn thereon with the gun barrel for training through an angle of 360°, means on the automobile and on said trail for rigidly securing the latter on the automobile.

[Claims 6 to 8 not printed in the Gazette.]

1,029,304. GUM-ROLL GOVERNOR FOR ENVELOP-MACHINES. AUGUST LAUBSCHER, Springfield, Mass., assignor to United States Envelope Company, Springfield, Mass., a Corporation of Maine. Filed Nov. 29, 1911. Serial No. 663,124. (Cl. 93—68.)



1. In an envelop-machine, the combination, with a gum-roll, and mechanism for operating the same, such mechanism being provided with a projecting member, of a member slidingly mounted adjacent to the path of travel of said projecting member, an elevator, and a pivotally mounted member operated by said elevator in its downward movement to actuate said sliding member into said path to arrest the movement of said projecting member, said pivotally-mounted member being operatively connected with said sliding member.

2. In an envelop-machine, the combination, with a gum-roll, and mechanism for operating the same, such mechanism being provided with a projecting member, of a horizontal member slidingly mounted adjacent to the patn of travel of said projecting member, a horizontal pivotally mounted operating member for such sliding member, and an elevator provided with means to actuate said operating member and thereby cause said sliding member to be thrust into said path to arrest the movement of said projecting member.

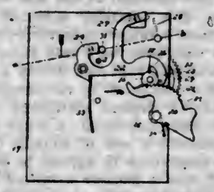
3. In an envelop-machine, the combination, with gum-roll-operating mechanism provided with a projecting member, of a horizontal member slidingly mounted adjacent to the path of travel of said projecting member and spring pressed in one direction, a horizontal pivotally mounted operating member for such sliding member, and an elevator provided with means to actuate said operating member and thereby cause said sliding member to be thrust into said path to arrest the movement of said projecting member.

4. In an envelop-machine, the combination, with gum-roll-actuating mechanism provided with a projecting member, of a jointed longitudinally-yielding member slidingly mounted adjacent to the path of travel of said projecting member, a suitably mounted operating member for such sliding member, and an elevator provided with means to actuate said operating member and thereby cause said sliding member to be thrust into said path to arrest the movement of said projecting member.

5. A gum-roll governor, for envelop-machines, comprising, with a gum-roll-actuating mechanism projecting member and an elevator projecting member, a slidingly-mounted latch-rod spring-pressed in one direction, such latch-rod being in operative relation to said first-mentioned projecting member, and a pivotally-mounted arm connected with said latch-rod and being in operative relation to said second-mentioned projecting member.

[Claims 6 to 8 not printed in the Gazette.]

1,029,305. ALARM-CLOCK. PAUL LUX, Waterbury, Conn., assignor to The Waterbury Clock Co., Waterbury, Conn., a Corporation. Filed Aug. 31, 1911. Serial No. 647,123. (Cl. 58—17.)



1. In an alarm-clock, the combination with a time-movement running a plurality of days without re-winding, of an alarm-mechanism organized with the time-movement and including an alarm-cam located at the front of the said time-movement, and a lifting lever, a gathering hub, and a rack, all located upon the back of the rear movement plate of the said time-movement; means for automatically releasing the alarm-mechanism once in twenty-four hours and automatically stopping it after an alarm has been sounded for a predetermined length of time, and a manual stop for manually stopping the alarm-movement at any point within its predetermined period of operation without interfering with its regular automatic operation for its full period the next time the alarm is sounded.

2. In an alarm-clock, the combination with a time-movement running a plurality of days without re-winding, of an alarm-mechanism organized with the said time-movement and including an alarm-cam, and a longitudinally movable lifting-shaft operated in one direction by a spring, and in the opposite direction by the said alarm-cam and coacting with the alarm-mechanism to prepare the same for the re-sounding of the alarm.

3. In an alarm-clock, the combination with a time-movement running a plurality of days without re-winding, of an alarm-mechanism organized with the time-movement and comprising a lifting-lever, a gathering-hub and a rack all located upon the back of the rear movement-plate and an alarm-cam located at the front of the said time-movement, and a longitudinally movable lifting-shaft operated by the said alarm-cam and co-acting at its rear end with the said lifting-lever to lift the same for releasing the alarm-train and the said rack.

4. In an alarm-clock, the combination with a time-movement running a plurality of days without re-winding, of an alarm-mechanism organized with the time-movement and including a three-armed lever, a gathering-hub and a rack, and an alarm-cam, and a longitudinally movable lifting-shaft automatically moved from front to rear by the said alarm-cam and co-acting at its rear end with an arm of the said lever for lifting the same.

5. In an alarm-clock, the combination with a time-movement running a plurality of days without re-winding, of an alarm-mechanism organized with the time-movement and including a three-armed lever, a gathering hub, and a rack all located upon the back of the rear movement-plate, and an alarm-cam located in front of the front movement-plate, a longitudinally movable lifting-shaft automatically moved from front to rear by the said alarm-cam, co-acting at its rear end with the said lever, and a manual stop co-acting with the said rack for manually stopping the alarm at any point within the limit of its sounding without interfering with its full automatic operation at the next succeeding cycle in the operation of the alarm-mechanism.

1,029,306. GATE. LEWIS MARTIN, Roseland, Mo. Filed Aug. 1, 1911. Serial No. 641,771. (Cl. 39—14.)



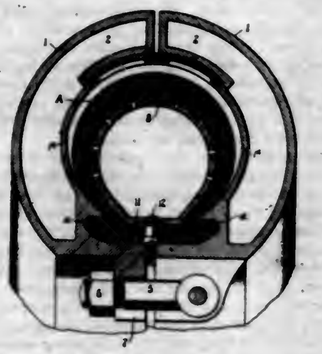
1. The combination with a plurality of posts, of a gate coöperatively mounted therebetween, a catch carried by one of said posts, a catch lever pivoted on said gate and adapted to coöperate with said catch, bearings mounted on said gate, an operating lever mounted for rotation in said bearings, arms formed at right angles at the terminals of said lever and extending in opposite directions, means for actuating said operating lever, and means whereby the outer end of the catch lever may be moved upon the rotation of the operating lever aforesaid.

2. The combination with a plurality of posts, of a gate coöperatively mounted therebetween, a catch carried by one of said posts, a catch lever pivoted on said gate and adapted to coöperate with said catch, bearings mounted on said gate, an operating lever mounted for rotation in said bearings, arms formed at right angles at the terminals of said lever and extending in opposite directions, flexible members secured to said arms to cause the rotation of the operating lever from either side of the gate, and a link connecting one of said arms to said latch lever.

3. The combination with a plurality of posts, of a gate mounted therebetween, a catch carried by one of said posts, a latch lever mounted on said gate for coöperation with said gate, the upper terminals of said bearings being at right angles to the body portion thereof, an operating lever

mounted for rotation in the upper terminals of said bearings, an upwardly extending arm formed at one terminal of said lever, a dependent arm formed at the opposite terminal thereof, a link connecting said upwardly extending arm to said latch lever, and actuating means secured to the terminal of said arm and extending in opposite directions on each side of the gate aforesaid.

1,029,307. METHOD OF MAKING PNEUMATIC-TIRE CASINGS. NELSON W. MCLEOD, St. Louis, Mo., assignor to American Tire Company, St. Louis, Mo., a Corporation. Filed Nov. 13, 1911. Serial No. 660,027. (Cl. 154—14.)



1. The method of making pneumatic tire casings, which consists in forming a casing structure of fabric and raw rubber, thereafter placing the threads of said fabric under uniform tension to, approximately, the limit of the elasticity of the threads by applying pressure internally of said structure, and finally vulcanizing said structure whereby the threads are set in their stretched condition.

2. The method of making pneumatic tire casings, which consists in forming a casing structure of fabric and raw rubber, thereafter placing the threads of said fabric under uniform tension to, approximately, the limit of the elasticity of the threads by applying fluid pressure internally of said structure, and finally vulcanizing said structure whereby the threads are set in their stretched condition.

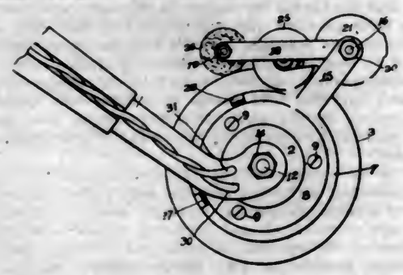
3. The method of making pneumatic tire casings, which consists in forming a casing structure of fabric and raw rubber, placing the threads of said fabric under uniform tension to, approximately, the limit of the elasticity of the threads by applying pressure internally of said structure, and finally vulcanizing the structure while the fabric threads are under uniform tension whereby the threads are set in their stretched condition.

4. The method of making pneumatic tire casings, which consists in forming a casing structure of fabric and raw rubber, thereafter subjecting such structural elements to a uniform pressure applied internally of the structure whereby the threads of the fabric are placed under uniform tension to, approximately, the limit of the elasticity of the threads, holding said threads under uniform tension, and finally vulcanizing the structure while the threads are under uniform tension whereby the threads are set in their stretched condition.

5. The method of making tire casings which consists in forming a casing structure of fabric and raw rubber laid around the periphery of an annular mandrel, condensing the portions of said fabric at the sides of said mandrel, thereafter placing the threads of said fabric under uniform tension to, approximately, the limit of the elasticity of the threads by pressure applied internally of said structure, and vulcanizing said structure during a continuation of pressure against said structure from the interior thereof whereby the threads are set in their stretched condition.

[Claims 6 to 11 not printed in the Gazette.]

1,029,308. APPLIANCE FOR SUPPLYING RIBBON GOLD TO ROTARY-DISK GILDING-TOOLS. JOHN C. MERWIN and JOHN W. DONOVAN, Holyoke, Mass., assignors to National Blank Book Company, Holyoke, Mass., a Corporation of Massachusetts. Filed Nov. 18, 1911. Serial No. 661,097. (Cl. 41—8.)



1. In an appliance of the class specified, the combination, with a foil depositing disk, and a handle to which said disk is rotatably connected; of a frame mounted adjacent said disk; a support pivoted at one end to said frame; a rotary paper winding arbor mounted in the other end of said support and normally resting upon the periphery of said disk, whereby the rotation of the latter will effect that of said arbor; cheek plates carried by said arbor and embracing said disk at opposite sides thereof, to hold said support in position with respect to said disk; and a reel of paper backed metallic foil carried by said frame, the free end of the paper backing being attached to said arbor, whereby the foil will be deposited upon said disk and the backing wound upon said arbor during the rotation of said disk.

2. In an appliance of the class specified, the combination, with a handle provided at one end with a bolt, and a foil depositing disk rotatably mounted on said bolt; of a friction element arranged concentrically of said disk; clamping means associated with said element for causing the same to rotate with said disk during a portion of the rotary movement of the latter in one direction; means for holding said friction element stationary during the remainder of such rotary movement; a frame associated with said friction element; and a reel of metallic foil carried by said frame and adapted to be deposited upon said disk during rotation thereof.

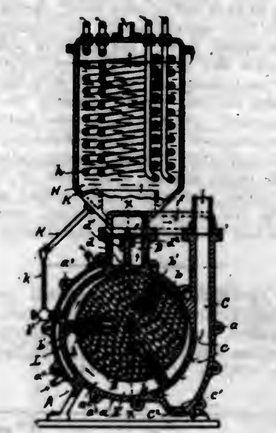
3. In an appliance of the class specified, the combination, with a handle provided at one end with a bolt, and a foil depositing disk rotatably mounted on said bolt; of a friction element arranged concentrically of said disk; clamping means associated with said element for causing the same to rotate with said disk during a portion of the rotary movement of the latter in one direction; means for holding said friction element stationary during the remainder of such rotary movement; a frame associated with said friction element; a reel of metallic foil carried by said frame and adapted to be applied to said disk during rotation thereof; and a member arranged to engage said handle during reverse rotation of said disk for limiting such rotation, to prevent said frame from striking against said handle.

4. In an appliance of the class specified, the combination, with a handle provided at one end with a bolt, and a foil depositing disk rotatably mounted on said bolt; of a friction element arranged concentrically of said disk; clamping means associated with said element for causing the same to rotate with said disk during a portion of the rotary movement of the latter in one direction; means provided upon said friction element and arranged to engage said handle, to hold the friction element stationary during the remainder of such rotary movement; a frame associated with said friction element; and a reel of metallic foil carried by said frame and adapted to be deposited upon said disk during rotation thereof.

5. In an appliance of the class specified, the combination, with a handle provided at one end with a bolt, and a foil depositing disk rotatably mounted on said bolt; of a friction element arranged concentrically of said disk; clamping means associated with said element for causing the same to rotate with said disk during a portion of the rotary movement of the latter in one direction; means provided upon said friction element and arranged to engage said handle, to hold the friction element stationary during the remainder of such rotary movement; a frame associated with said friction element; a reel of metallic foil carried by said frame and adapted to be deposited upon said disk during rotation thereof; and means independent of the first-named means provided upon said friction element and arranged to engage said handle during reverse rotation of said disk for limiting such rotation, to prevent said frame from striking against said handle.

[Claims 6 to 9 not printed in the Gazette.]

1,029,309. AIR AND GAS COMPRESSOR. CASPER W. MILES, Anderson township, Hamilton county, Ohio, assignor to Stephen S. Miles, Greensboro, N. C. Filed Dec. 20, 1909. Serial No. 534,146. (Cl. 230—30.)



1. In a gas compressor, means for providing a multistage compression with each stage of limited pressure capacity, said means comprising a plurality of compressor cylinders embodying cylindrical members each embraced between two end plates or disks, a shaft journaled in said end plates eccentrically with reference to said cylinders, a plurality of rotary disks eccentrically located in said cylinders and concentrically supported upon and driven by said shaft, said rotary disks fitting closely between the end plates of the respective cylinders, a plurality of radially movable plungers for each of said disks, said plungers being movably seated in recesses in said disks and laterally supported by said end plates, and in contact at their outer ends with the inner walls of the respective cylinders and adapted to form therewith a compression chamber of gradually decreasing cross sectional area, means for introducing a liquid seal between the plungers and inner walls during the earlier period only of compressing action of the plungers, gas supply and exit ports to the respective cylinders, each exit port being positioned in close proximity to the point of least cross sectional area of said chamber, and conduits connecting said ports to the respective cylinders in series.

2. In a gas compressor, means for providing a multistage compression with each stage of limited pressure capacity, said means comprising a plurality of compressor cylinders embodying cylindrical members each embraced between two end plates or disks, a shaft journaled in said respective end plates eccentrically with reference to said cylinders, a plurality of rotary disks located within said respective cylinders and concentrically supported upon and driven by said shaft, said rotary disks fitting closely between the end plates of said respective cylinders, a plurality of radially movable plungers, exceeding two in number to each disk, seated in recesses in said rotary disks and closely fitting between said cylinder end plates, the outer ends of said plungers continuously contacting with the inner walls of said cylinders, and adapted to form therewith a compression chamber of gradually decreasing cross sectional area, means for introducing a liquid seal between the plungers and inner walls during the earlier period only of compressing action of the plungers, a plurality of gas supply ports through the cylinder walls of the respective cylinders adapted to continuously supply gas on the intake side of said cylinders to a point where the space between said plungers reaches a maximum, exit ports to the respective cylinders, each exit port being positioned in close proximity to the point of least cross sectional area of said chamber, and conduits connecting said ports of the respective cylinders in series.

3. In a gas compressor, means for providing a multistage compression with each stage of limited pressure capacity, said means comprising a plurality of compressor cylinders embodying cylindrical members, each embraced between two end plates or disks, a shaft journaled in said respective end plates eccentrically with reference to said cylinders, a plurality of rotary disks located within said respective cylinders and concentrically supported upon and driven by said shaft, said rotary disks fitting closely between the end plates of said respective cylinders, a plurality of radially movable plungers, exceeding two in number to each disk, seated in recesses in said rotary disks and closely fitting between said cylinder end plates, the outer ends of said plungers continuously contacting with the inner walls of said cylinders and adapted to form therewith a compression chamber of gradually decreasing cross sectional area, means for introducing a liquid seal between the plungers and the inner walls during the earlier period only of compression action of the plungers, gas supply and exit ports to the respective cylinders, each exit port being positioned in close proximity to the point of least cross sectional area of said chamber, and valve controlled conduits connecting said respective ports of said cylinders in series.

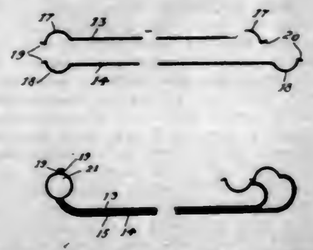
4. In a gas compressor, means for providing a multistage compression with each stage of limited pressure capacity, said means comprising a plurality of compressor cylinders embodying cylindrical members, each embraced between two end plates or disks, a shaft journaled in said respective end plates eccentrically with reference to said cylinders, a plurality of rotary disks located within said respective cylinders and concentrically supported upon and driven by said shaft, said rotary disks fitting closely between the end plates of said respective cylinders, a plurality of radially movable plungers, exceeding two in number to each disk, seated in recesses in said rotary disks and closely fitting between said cylinder end plates, the outer ends of said plungers continuously contacting with the inner walls of said cylinders, and adapted to form therewith a compression chamber of gradually decreasing cross sectional area, means for introducing a liquid seal between the plungers and inner walls during the earlier period only of compressing action of the plungers, a plurality of gas supply ports through the cylinder walls of the respective cylinders adapted to continuously supply gas on the intake side of said cylinders to a point where the space between said plungers reaches a maximum, exit ports to the respective cylinders, each exit port being positioned in close proximity to the point of least cross sectional area of said chamber, and conduits connecting said ports of the respective cylinders in series.

5. In a gas compressor, means for providing a multistage compression with each stage of limited pressure capacity, said means comprising a plurality of compressor cylinders embodying cylindrical members each embraced between two end plates or disks, a shaft journaled in said respective end plates eccentrically with reference to said cylinders, a plurality of rotary disks located within said respective cylinders and concentrically supported upon and driven by said shaft, said rotary disks fitting closely between the end plates of said respective cylinders, a plurality of radially movable plungers, exceeding two in number to each disk, seated in recesses in said rotary

disks and closely fitting between said cylinder end plates, the outer ends of said plungers continuously contacting with the inner walls of said cylinders and adapted to form therewith a compression chamber of gradually decreasing cross sectional area, a plurality of gas supply ports through the cylinder walls of the respective cylinders adapted to continuously supply gas on the intake side of said cylinders to a point where the space between said plungers reaches a maximum, valve controlled exit ports to the respective cylinders, each exit port being positioned in close proximity to the point of least cross sectional area of said chamber, conduits connecting said ports of the respective cylinders in series, and valve controlled ports leading to said cylinders intermediate of said gas supply and exit ports positioned to supply a liquid lubricant and sealing medium to said cylinders during the earlier period only of the compressing action.

[Claims 6 to 9 not printed in the Gazette.]

1,029,310. METHOD OF FORMING CLOSED CONTINUOUS SPIRAL CHAMBERS FROM SHEET METAL. JOHN O. OLSON and WILLIS W. GRANT, St. Paul, Minn., assignors to Spiral Radiator Company, St. Paul, Minn., a Corporation of Arizona. Filed Apr. 7, 1911. Serial No. 619,538. (Cl. 113—112.)



1. The method of forming a closed continuous spiral chamber from sheet metal, which consists in cutting two sheets of different lengths to form the outer and inner walls of said chamber, placing said sheets in proper relative position and forming the same concurrently into a spiral, thereafter, and while said sheets are contactingly held in said spiral coil, forming in proximity to the adjacent edges of said sheets inwardly extended contacting corrugations to effect separation of the sheets and hold the same spaced from one another the desired distance throughout the extent of the spiral coil, and securing said sheets along all the edges thereof so as to form a steam-tight joint.

2. The method of forming a closed continuous spiral chamber from sheet metal, which consists in cutting two sheets of different lengths to form the outer and inner walls of said chamber, placing said sheets in proper relative position and forming the same concurrently into a spiral, thereafter, and while said sheets are contactingly held in said spiral coil, forming in proximity to the adjacent edges of said sheets inwardly extended contacting corrugations, the formation of said corrugations operating to effect separation of the sheets and hold the same spaced from one another the desired distance and to provide seaming valleys extending along the edges of said spiral coil, and uniting said edges so as to form a steam-tight joint by filling said valleys with metal and welding said metal to each sheet by application of intense heat.

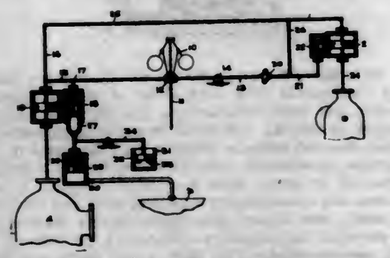
3. The method of forming a closed continuous spiral chamber from sheet metal, which consists in cutting two sheets of different lengths to form the outer and inner walls of said chamber, forming on each side of said sheets independently a flat topped shallow bend, placing the sheets in position so that the flat tops of said bends will engage, securing said sheets together along one end thereof, forming the two sets of sheets concurrently into a spiral of the desired form, additionally bending said side edges to space the sheets apart and form means of securing said side edges together, and securing the sheets along said side edges and the other ends thereof by a steam-tight joint.

4. The method of forming a closed continuous spiral chamber from sheet meal, which consists in cutting two sheets of different lengths to form the outer and inner walls of said chamber, forming along each side edge of said sheets independently a flat topped shallow bend, placing the sheets in position so that the flat tops of said bends will engage, securing said sheets together along one end thereof, forming the two sets of sheets concurrently into a spiral of the desired form, additionally bending said side edges to space the sheets apart and form an outwardly flaring seaming valley, and uniting said side edges and the other ends of the sheets by filling said valley with metal and welding said metal to each sheet by the application of intense heat.

5. The method of forming a closed continuous spiral chamber from sheet metal, which consists in cutting two sheets of different lengths to form the outer and inner walls of said chamber, forming along each side edge of said sheets independently a flat topped shallow bend and a flanged lip at each end of each sheet, curving each sheet separately to form approximately the beginning and final curves of the spiral, placing the sheets in position so that one set of said end curves will come together and the flat tops of said bends will engage, securing said sheets together along one end thereof, forming the two sets of sheets concurrently into a spiral of the desired form, additionally bending said side edges to space the sheets apart and form an outwardly flaring seaming valley, and uniting said side edges and the other ends of the sheets by filling said valley with metal and welding said metal to each sheet by the application of intense heat.

[Claims 6 and 7 not printed in the Gazette.]

1,029,311. GOVERNING MECHANISM FOR MIXED-PRESSURE TURBINES. WILHELM PAPE, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Dec. 27, 1911. Serial No. 668,130. (Cl. 121—118.)



1. In combination, a mixed pressure turbine, conduits admitting low and high pressure fluid thereto, valve means in the conduits, a governor controlling the action of the valve means, a device moved by the low pressure valve means for causing the high pressure valve means to open when it closes, and a regulator sensitive to the pressure of the low pressure source of supply for closing the low pressure valve means independently of the governor.

2. In combination, a mixed pressure turbine, conduits admitting low and high pressure fluid thereto, valves in said conduits, motors for operating the valves, controllers for the motors, a speed governor for actuating the controllers, levers connected to the motors and controllers for holding the controller of the high pressure valve in its initial position so long as the low pressure valve follows the movements of the governor, and pressure responsive means acting on one of the controllers to cause its valve to close.

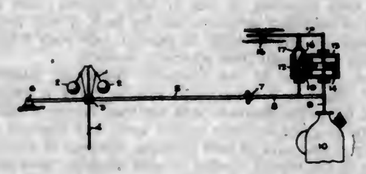
3. In combination, a mixed pressure turbine, conduits admitting low and high pressure fluid thereto, valves in the conduits, a governor, a lever means moved by the governor for controlling both of said valves, a pressure regulator for controlling the low pressure valve independently of the governor, and a second lever means actuated by the low pressure valve that causes the high pressure valve to open when said low pressure valve closes in response to the action of the regulator.

4. In combination, a mixed pressure turbine, conduits admitting low and high pressure fluid thereto, valves in the conduits, motors for actuating the valves, controllers for the motors, a speed governor that normally actuates both controllers, a means moving with the low pressure valve motor which under certain circumstances moves the controller of the high pressure valve motor, and a regulator responsive to changes in pressure of the low pressure source for modifying the action of the governor on the motor of the low pressure valve.

5. In combination, a mixed pressure turbine, conduits admitting low and high pressure fluid thereto, valves in the conduits, motors for actuating the valves, a controller for the high pressure valve motor, a two-part controller for the low pressure valve motor, a speed governor, a lever means actuated by the governor and moving one of the controllers, a secondary governing lever actuated by said means for moving the other controller, a lever connected to both motors and to said secondary lever, and a pressure responsive means for actuating one part of the first mentioned controller.

[Claims 6 to 8 not printed in the Gazette.]

1,029,312. GOVERNING MECHANISM FOR TURBINES. WILHELM PAPE, Charlottenburg, Germany, assignor to General Electric Company, a Corporation of New York. Filed Dec. 27, 1911. Serial No. 668,132. (Cl. 121—118.)



1. In combination, a prime mover, a valve means regulating the admission of motive fluid thereto, a governor that controls the action of the valve means, and a device which artificially causes over-regulation by the valve means.

2. In combination, a prime mover, a valve means regulating the admission of motive fluid thereto, an actuator for said means, a governor controlling the movements of the actuator, and a device moved by the actuator which artificially causes over-regulation by the valve means.

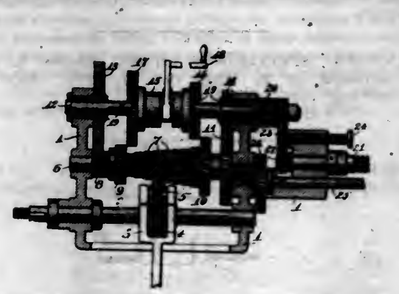
3. In combination, a prime mover, a valve means regulating the admission of motive fluid thereto, a motor for moving the valve means, a controller for the motor, a governor, and a device that acts on the controller to artificially cause over-regulation by the valve means.

4. In combination, a prime mover, a valve means regulating the admission of motive fluid thereto, a fluid actuated motor for moving the valve means, a pilot valve for the motor, a governor, and a device for prolonging the period that the motor ports controlled by the pilot valve are open.

5. In combination, a prime mover, a valve means regulating the admission of motive fluid thereto, a motor for actuating the valve means, a controller for the motor comprising two principal parts, a governor that is connected to and moves one of said parts to cause movement of the motor, and a means connected to and moving the other of said parts to cause a greater motor movement than would be due to governor action only.

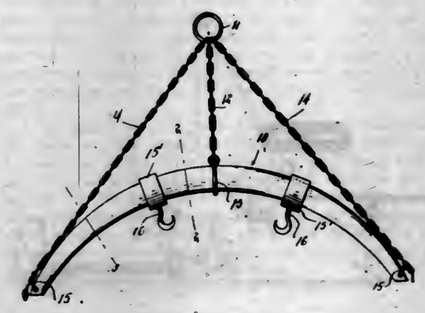
[Claims 6 to 9 not printed in the Gazette.]

1,029,313. FEED-GEARING. JOHN R. PERRINE, Cincinnati, Ohio, assignor to The Cincinnati Lathe & Tool Company, Cincinnati, Ohio. Filed Jan. 25, 1912. Serial No. 673,361. (Cl. 74—58.)



Feed gearing comprising, a first countershaft, means for imparting selective speeds of rotation to said shaft, four diversely sized gears fast on said first countershaft, a second countershaft, a pair of diversely sized gears loose on said second countershaft and engaging the outer ones of the gears on the first countershaft, a spool-structure splined on the second countershaft, gears carried by the spool-structure and adapted to engage with the inner gears on the first countershaft, clutches at the hubs of the loose gears on the second countershaft and at the hubs of the gears carried by this spool-structure, a long pinion fast on the second countershaft, a driven shaft, a narrow gear fast on said driven shaft, a second driven shaft, a narrow gear fast on the said second driven shaft and at some distance from the gear on the first driven shaft, a slidable narrow gear constantly engaging the long pinion and adapted to slide along the same so as to be in mesh with either the gear on the first or the gear on the second driven shaft or be in disengaged position between those two gears, and a handle mechanism for sliding said slidable gear, combined substantially as set forth.

1,029,314. GAMBREL. FRANKLIN H. PIERCE, Princeton, Ill. Filed Nov. 6, 1911. Serial No. 658,825. (Cl. 17—30.)

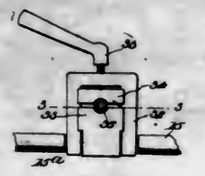


1. A gambrel, comprising an arcuate shaped body member tapered from its center toward both ends, a pair of hook bearing sleeves slidable upon said body member and means for suspending said body member with its bowed portion directed upwardly.

2. A gambrel, comprising an arcuate shaped body member tapered from its center toward both ends, a pair of hook bearing sleeves slidable upon said body member, a suspending ring, a chain connecting said ring with the

center of the body member, and chains connecting said ring with the ends of the body member, said latter chains being so proportioned that when the gambrel is suspended the bowed portion of the body member will be directed upwardly.

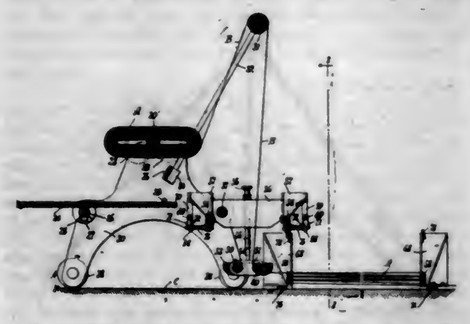
1,029,315. SPECIALIST'S CHAIR. GEORGE L. POLL, Brooklyn, N. Y. Filed Oct. 31, 1911. Serial No. 657,902. (Cl. 155—10.)



1. The combination with a chair frame, of a clamping device adapted to be secured thereto, said device comprising a substantially U-shaped member having alined openings near the free ends of the legs thereof through which the chair frame is adapted to pass, a jaw member disposed between the said free ends of such U-shaped member, said jaw member being constructed to engage the chair frame, a second jaw member arranged between the legs of said U-shaped member adjacent the bend thereof, said jaw members having opposing clamping faces, a shank disposed between said faces and adapted to be gripped thereby, and a set screw mounted in the bend of the U-shaped member and adapted to engage said second jaw member, whereby, upon tightening said screw, both of said jaw members are moved relatively to said U-shaped member, and clamping of the parts produced.

2. In a device of the class described, the combination with a chair back frame, of a head rest clamping device mounted thereon, said frame being formed adjacent its center with a reduced portion, and said clamping device comprising gripping members adapted to engage such reduced portion, whereby said clamping device is prevented from moving longitudinally of said frame, while free to turn thereon.

1,029,316. MACHINE FOR PILING TEXTILE FABRICS. CHARLES J. PRIESTER, Hackensack, N. J., assignor of one-third to Harris L. Rosenthal, New York, N. Y. Filed Mar. 6, 1912. Serial No. 681,894. (Cl. 223—3.)



1. A machine of the character described, having a movable carrying frame; a plurality of guide members disposed transversely to the path of said machine, and spaced apart; supports for said members to prevent the fall thereof when lifted; means for anchoring fabric carried by said machine at predetermined stations, said means employing a plurality of rods for folding thereover said fabric; a hopper carried by said machine, for said rods; and means for extracting said rods from said hopper at said stations.

2. A machine of the character described, having a plurality of guide members spaced apart and disposed transversely to the path of said machine; a plurality of receptacles disposed approximately parallel to and at opposite sides of said guide members to hold suitable anchor rods; a plurality of anchoring members adjustable adjacent the path of said machine to hold said rods; and means for extracting said rods from said receptacles to deposit the same outside and adjacent said anchoring members.

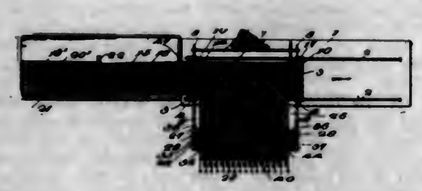
3. A machine of the character described, adapted to travel about a cutting table and to carry a supply of fabric for piling thereon, said machine having a plurality of parallel guide members spaced apart and disposed transversely to the path of said machine, adapted to receive the fabric of the supply carried by said machine, between said members; a plurality of hoppers carried by said machine approximately parallel to said guide members and at opposite sides thereof; a plurality of pockets adjustably mounted on said table, to determine the length of the pile; a plurality of rods carried in said hoppers for delivery to said pockets; and means mounted on said hoppers and said pockets, coöperative to deliver from each of said hoppers one of said rods as said hoppers pass said pockets.

4. A machine of the character described, adapted to travel about a cutting table and to carry a supply of fabric for piling thereon, said machine having a plurality of parallel guide members spaced apart and disposed transversely to the path of said machine, adapted to receive the fabric of the supply carried by said machine, between said members; a plurality of hoppers carried by said machine approximately parallel to said guide members and at opposite sides thereof; a plurality of pockets adjustably mounted on said table, to determine the length of the pile; a plurality of rods carried in said hoppers for delivery to said pockets; a plurality of extracting plungers, each mounted on one of said hoppers; and a plurality of engaging members, one for each of said plungers, mounted on said pockets, to extract said rods from said hoppers singly and from alternate pockets.

5. A machine of the character described, adapted to travel about a cutting table and to carry a supply of fabric for piling thereon, said machine having a plurality of parallel guide members spaced apart and disposed transversely to the path of said machine, adapted to receive the fabric of the supply carried by said machine, between said members; a plurality of hoppers carried by said machine approximately parallel to said guide members and at opposite sides thereof; a plurality of pockets adjustably mounted on said table, to determine the length of the pile; a plurality of rods carried in said hoppers for delivery to said pockets; a plurality of delivery members mounted one on each of said hoppers for the extraction therefrom of said rods singly; and a plurality of interference members mounted on said pockets, each member being arranged to operate the plungers of one of said hoppers.

[Claims 6 to 9 not printed in the Gazette.]

1,029,317. COMPOSING-MACHINE. CARL G. PRITCHARD, Warren, Ohio. Filed Feb. 8, 1910. Serial No. 542,670. Renewed Oct. 10, 1911. Serial No. 653,965. (Cl. 189—5.)



1. In a composing machine, a series of longitudinally movable but normally idle matrix bars, a series of controlling elements, each adapted to move longitudinally at right angles to the matrix bars and to control any desired number of such matrix bars, means for first positioning said elements to control the matrix bars while the latter are idle, and means for permitting a relative movement between the matrix bars and the controlling elements, after the latter have completed their longitudinal movement, to synchronously position such matrix bars, said controlling elements being capable of being then returned to their initial position and again operated for a new line before the matrix bars are returned to their original position.

2. In a composing machine, a series of longitudinally movable but normally idle matrix bars, a series of controlling elements, each adapted to control any desired number of matrix bars, means for first positioning said elements to control the matrix bars while the latter are idle, and means for permitting the controlling elements to be moved relatively to the matrix bars in a different direction from their positioning movement to synchronously position the matrix bars.

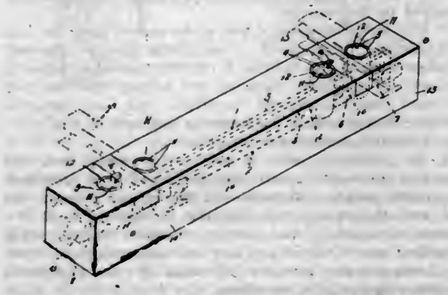
3. In a composing machine, a series of movable but normally idle matrix bars, a series of stops corresponding in number to the matrix bars, one for each bar, connections between such matrix bars and the stops, a series of controlling elements each adapted to directly coöperate with and control any desired number of said stops and through them their respective matrix bars, means for first positioning said elements in coöperative relation to said stops, means for permitting a relative movement between the stops and the controlling elements to synchronously position the stops and the matrix bars, said controlling elements being capable of being returned to their initial position and again operated for a new line before the matrix bars are returned to their original position.

4. In a composing machine, a series of movable but normally idle matrix bars, a series of stops, one for each matrix bar, connections between such matrix bars and the stops, a series of controlling elements, each adapted to control any desired number of stops and through them the matrix bars, means for first positioning said elements in relation to said stops, and means for permitting the controlling elements a movement relative to the stops to synchronously position the stops and the matrix bars.

5. In a composing machine, a series of movable but normally idle stops, a corresponding series of movable but normally idle matrix bars, a connection between each matrix bar and one of the stops, a series of elements designed to intersect the plane of the stops and extended at right angles thereto, means for successively projecting said elements across the planes of the stops while the latter and said matrix bars remain idle, and means for permitting a relative movement between the stops and the elements for synchronously positioning the stops and the matrix bars.

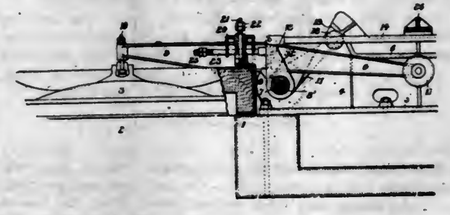
[Claims 6 to 22 not printed in the Gazette.]

1,029,318. CEMENT RAILWAY-TIE. HENRY G. RECKINGER, Aurora, Ill. Filed Dec. 27, 1911. Serial No. 668,121. (Cl. 238—3.)



In combination with a cement railway tie, a pair of reinforcing members adapted to be embedded therein, said members being formed with a plurality of semicircular depressions, said depressions being held in spaced relation by ribs, said ribs being arranged horizontally and in paced parallel relation to form spaces for receiving the cement forming the tie, said depressions being arranged in confronting relation to produce sockets for receiving wooden plugs, said sockets being arranged in pairs adjacent each end of the tie, and wooden cushioning blocks arranged between the sockets forming a pair and upon which the rails rest, and securing devices adapted to be driven into the wooden plugs and sockets to hold the rails in place.

1,029,319. FURNACE-COVER. CHARLES S. ROBINSON, Youngstown, Ohio. Filed Feb. 6, 1912. Serial No. 675,730. (Cl. 75—190.)



1. A furnace cover, a lever having one end connected to the cover, a truck arranged between the ends of the lever, a motor, and means carried by the truck, coöperative with the lever and the motor for first lifting the portion of the lever intermediate of its ends and then imparting a horizontal movement to the lever.

2. A furnace cover, a lever having one end connected to the cover, a truck arranged between the ends of the lever, a motor, and a second lever mounted on the truck and coöperative with the motor and the first lever to lift the portion of the lever between its ends and to impart a horizontal movement to the lever.

3. A furnace cover, a lever having one end connected to the cover, a truck, a motor, and a second lever mounted on the truck and movable with respect to the lever, one portion of the second lever being operatively connected to the motor and another portion being arranged to tilt the lever so as to lift the cover upon the actuation of the motor.

4. A furnace cover, a lever having one end connected to the cover, a truck arranged between the ends of the lever, a motor, a second lever mounted on the truck and coöperative with the motor and the first lever to lift the portion of the lever between its end and to impart a horizontal movement to the lever, and means preventing the horizontal movement of the lever until the cover has been lifted.

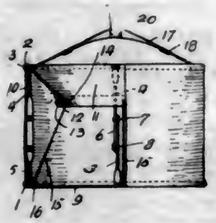
5. A furnace cover, a lever having one end connected to the cover, a truck arranged between the ends of the lever, a motor, a second lever mounted on the truck and coöperative with the motor and the first lever to lift the portion of the lever between its ends and to impart a horizontal movement to the lever, an arm connected to travel with the second lever, and means coöperative with the arm for preventing horizontal movement of the first lever until the cover has been lifted.

[Claims 6 to 12 not printed in the Gazette.]

1,029,320. FEED-BAG. STANISLAW SAVOSICK, Ipswich, Mass. Filed July 31, 1911. Serial No. 641,570. (Cl. 119—65.)

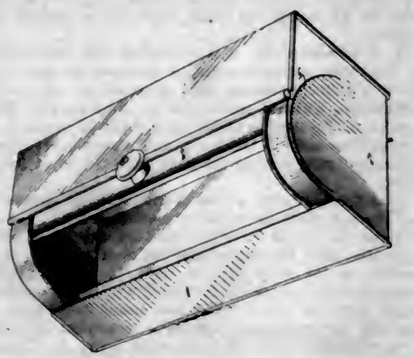
1. A feed bag comprising a cylindrical flexible body portion having the upper portion thereof bent upon itself to provide an inwardly extending portion having the lower terminus thereof above the center of said body portion, a top ring secured to said body portion at the junction of the inturned portion, an inner ring secured to the

lower terminus of said inturned portion, said inturned portion funnel shaped in contour, a bottom ring secured to said bottom plate, collapsible braces arranged within said body portion and connected at their ends to said top and bottom rings, inclined cables connecting said inner ring to said bottom ring for maintaining the inturned portion stationary when the bag is extended, supporting means adapted to be mounted upon the horse's head, and transversely extending means for connecting said supporting means to said top ring.



2. A feed bag comprising a bottom ring, a top ring, collapsible braces connected to the top and bottom rings for maintaining said rings spaced apart when the braces are extended, set screws engaging with the braces for maintaining them extended, an inner ring, a bottom plate secured to said bottom ring, a cylindrical flexible body portion secured to the bottom and top rings and bent upon itself to form an inwardly extending depending portion having the lower terminus secured to said inner ring, said depending portion being funnel shaped, inclined cables for connecting said inner ring to said bottom ring thereby maintaining said depending portion stationary when the bag is extended, and means connected to the top ring for supporting the bag from the horse's head.

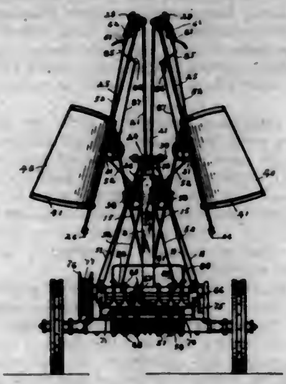
1,029,321. SHEET-METAL BOX. JACOB SCHAFFER, New York, N. Y. Filed June 25, 1910, Serial No. 568,777. Renewed Nov. 24, 1911. Serial No. 662,251. (Cl. 220—90.)



1. A sheet metal box provided with a curved cover, two opposite walls of the box having struck up integral arcuate portions offset from the remainder of the walls, the edges of which portions form curved shoulders or guides for said cover, substantially as described.

2. A sheet metal box provided with a "roll top" cover the end walls of which have a semi-circular portion inclined inward forming an internal semi-circular shoulder or guide for the cover, which shoulder is deepest at the middle portion of its curvature and grows shallower toward its extremities, substantially as described.

1,029,322. SHOCK LOADER AND UNLOADER. JAMES B. SCHUMAN, Indianapolis, Ind., assignor to The Schuman Company, Indianapolis, Ind., a Corporation. Filed July 3, 1909. Serial No. 505,879. (Cl. 214—2.)



1. In a shock loader, a framework comprising cross-members and standards, means for securing said members and standards together and constituting a ball bearing, balls mounted in said securing means, shock lifters mounted on said balls, and means for operating said lifters.

2. In a shock loader, the combination of a supporting frame, a shock-post pivotally secured thereto and having a curved lower end, and means for elevating and lowering said post.

3. In a shock loader, the combination of a supporting frame, a shock-post pivotally secured thereto and provided with means at its lower end to permit skidding thereof, and means for elevating and lowering said post.

4. In a shock loader, the combination of a support, a shock-post pivotally secured thereto and provided with means to permit the skidding thereof, and a shock-holder mounted on said post.

5. In a shock loader, the combination of a supporting frame, a shock-lifter pivotally secured thereto comprising a post having a curved lower end and a shock-holder associated therewith, and means for elevating and lowering said shock-lifter.

[Claims 6 to 27 not printed in the Gazette.]

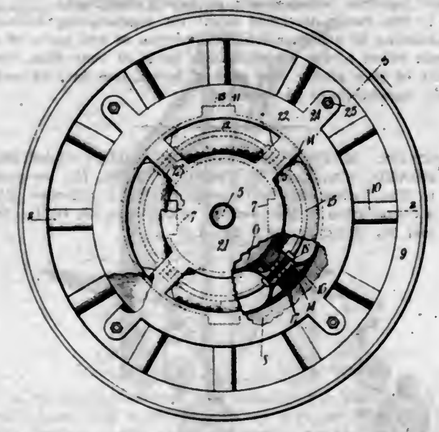
1,029,323. RESILIENT VEHICLE-WHEEL. HARRY J. SHEEDY, Scranton, Pa., assignor of one-half to Jacob R. Schlager, Scranton, Pa. Filed Aug. 19, 1911. Serial No. 644,979. (Cl. 152—40.)

1. In a resilient wheel a hub having a recess, a rim having a recess spaced from the hub and disposed therearound, a plurality of elongated detached resilient members disposed end to end between the hub and the rim, and projections on the resilient members between their ends and disposed in the recesses.

2. In a resilient wheel a hub, a rim spaced from the hub and disposed therearound, a pneumatic member disposed between the hub and the rim, a rod disposed longitudinally through the pneumatic member, and having shoulders and threaded terminals spaced therefrom, and nuts engaging the threaded terminals for pressing the ends of the pneumatic member against the shoulders.

3. In a resilient wheel a hub, a rim spaced from the hub and disposed therearound, a plurality of detached pneumatic members disposed end to end and between the hub and the rim, a rod disposed through each of the pneumatic members and having shoulders and threaded terminals spaced therefrom, and nuts engaging the threaded terminals for pressing the ends of the pneumatic members against the shoulders.

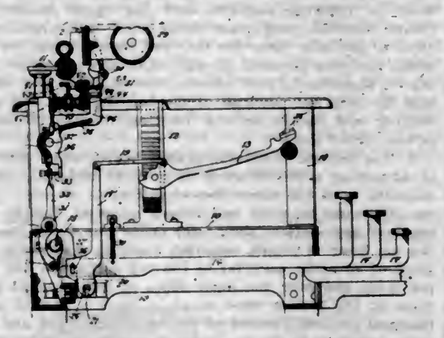
4. In a resilient wheel a hub having a recess, a rim having a recess spaced from the hub and disposed therearound, a plurality of pneumatic members having projections, the pneumatic members being disposed end to end and between the hub and the rim with their projections disposed in the recesses, a rod disposed through each of the pneumatic members, having shoulders and threaded terminals spaced therefrom, and nuts engaging the ends of the threaded terminals for pressing the ends of the pneumatic members against the shoulders.



5. In a resilient wheel a hub, a rim spaced from the hub and disposed therearound, a plurality of pneumatic members disposed end to end and between the hub and the rim, a rod disposed through each of the pneumatic members and having shoulders and threaded terminals spaced therefrom, nuts engaging the threaded terminals for pressing the ends of the pneumatic members against the shoulders, and side plates engaging the sides of the hub and the rim.

[Claims 6 and 7 not printed in the Gazette.]

1,029,324. TYPE-WRITER. ZALMON G. SHOLES, New York, N. Y., assignor to Zalmon G. Sholes Typewriter Company, a Corporation of Delaware. Filed Dec. 23, 1910. Serial No. 599,014. (Cl. 197—22.)



1. In a typewriter, a transverse supporting bar slitted at intervals and key levers having rearward rising portions extending up in front of said supporting bar and furnished with hooks extending from front to back across said bar within said slits, substantially as described.

2. In a typewriter, a transverse tubular supporting bar slitted on the top at intervals, and key levers having rearward rising portions extending up in front of said supporting bar and furnished with hooks engaging the front edges of said slits in said bar, substantially as described.

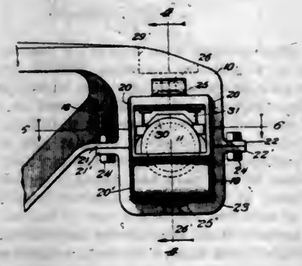
3. A typewriter comprising in combination type bars, an escapement lever, a supporting bar, horizontal key levers having upright portions engaging said supporting bar, transmitting levers operatively connected with said key levers and with said type bars, a pivotal bar to which said escapement lever is fixed, a second bar normally resting against the rear edges of the upright portions of said key levers, and arms connecting said last named bars together, substantially as described.

4. A typewriter comprising in combination type bars, an escapement lever, a supporting bar, horizontal key levers having upright portions engaging said supporting bar, transmitting levers operatively connected with said key levers and with said type bars, a pivotal bar to which said escapement lever is fixed, a second bar normally resting against the rear edges of the upright portions of said key levers, arms connecting said last named bars together, and a slidable carriage upon which all of said bars, excepting the type bars are mounted, substantially as described.

5. In a typewriter, a fulcrum tube slitted at suitable intervals, key levers having hooks entering said slits, a spring bearing down on said hooked portions for securing said bars, and a spring for lifting each key lever, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,029,325. CAR-TRUCK. FRANK H. VAN SWERINGEN, Chicago, Ill. Filed July 17, 1911. Serial No. 638,824. (Cl. 105—243.)



1. In a car truck, a side frame having journal-box receiving apertures, said frame perforated in vertical alinement above and below said apertures and having parti-spherical depressions between said aperture and said perforations to provide bearing surfaces, and a swiveling journal-box in said aperture provided with parti-spherical projections and trunnions for engagement with said perforations and depressions respectively, in the side frame.

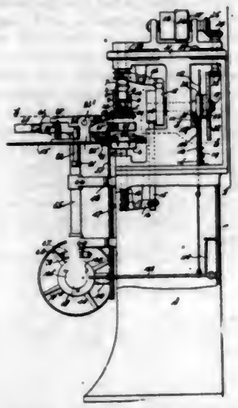
2. In a device of the character described, a side frame downwardly projecting at its ends and provided with a box receiving opening, a stirrup bolted to the side frame on each side of said opening for closing said opening, said stirrup and opening flanked on their sides by rounded side bearings, a journal box within the opening, closed by the stirrup, and trunnions projecting from the upper and lower wall of said box and receiving bearing support in said side frame and stirrup.

1,029,326. CAN-CAPPING MACHINE AND FEEDING DEVICE THERETO ADAPTED. BURT EUGENE TAYLOR, Randolph, N. Y., assignor to Borden's Condensed Milk Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 5, 1909. Serial No. 521,125. (Cl. 113—14.)

1. The combination, with means to loosely hold, and feed in a horizontal path, toward a predetermined vertical axis a cylindrical container, of four oppositely-bearing independently horizontally movable spring-tensioned fingers having their operative ends normally projecting into said path and yieldingly held on a circle concentric with said axis and coinciding with the cylindrical circumference of said container.

2. The combination, with means to feed a cylindrical container to a position centering with a predetermined axis, of a pair of oppositely disposed spring-tensioned fin-

gers having their operative ends disposed in the path of said feed and movably supported to positively impel said container toward said position, and another pair of oppositely disposed, spring-tensioned fingers having their operative ends likewise disposed in said path and movably supported to hold said container at said position against impulsion thereto imparted by said first mentioned pair of fingers.



3. The combination, with means to feed a cylindrical container to a position centering with a predetermined axis, of a pair of oppositely disposed spring-tensioned fingers having their operative ends disposed in the path of said feed and movably supported to positively impel said container toward said position, another pair of oppositely disposed spring-tensioned fingers having their ends likewise disposed in said path and movably supported to hold said container at said position against impulsion thereto imparted by said first mentioned pair of fingers, and means to hold, against their said spring impulsion, the operative ends of all said fingers normally in said path and on a predetermined circle concentric with said axis and coinciding with the cylindrical circumference of said container.

4. In a can-capping machine a crimping mechanism comprising a pair of chucks relatively movable on a common axis, a crimping device rotatable relatively thereto in paths concentric with said axis, and means to so move said chucks and crimping device, a shaft, means to rotate it, a cam on said shaft, a roller riding on said cam, a slidably supported rod connected with said roller, a cam feeding mechanism, means to actuate intermittently said can-feeding mechanism whereby a can is fed to, left between, and advanced from between said chucks, a support adjacent one side of said crimping mechanism, pivoted to said support a lever having its free end normally disposed adjacent to said chucks and above the path of said feeding mechanism, and its opposite end disposed to be raised by said rod, a spring connecting said rod with a stationary part, and a spring connected with said lever to maintain it in its said normal position.

5. In a can-capping machine a crimping mechanism comprising a pair of chucks relatively movable on a common axis, a crimping device rotatable relatively thereto in paths concentric with said axis, and means to so move said chucks and crimping device, in combination with a can-feeding mechanism, means to actuate intermittently said feeding mechanism whereby a plurality of cans are intermittently advanced in sequence toward and from said crimping mechanism, a bifurcated movable can-releasing member normally supported above the path of said feeding mechanism adjacent said chucks its bifurcation straddling said axis, and means to intermittently depress and raise said member during each intermission in the advance of said cans, whereby they are positively forced away from said crimping device and one of said chucks.

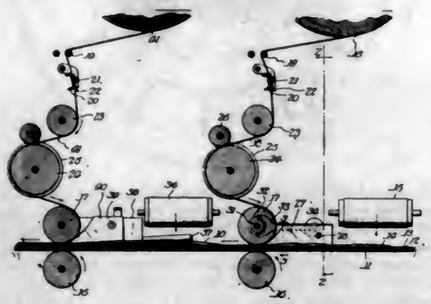
[Claims 6 to 10 not printed in the Gazette.]

1,029,327. PREPARATION FOR REGENERATING METALS. BRUNO TÜRKE, Munich, Germany. Filed Feb. 9, 1911. Serial No. 607,554. (Cl. 148—25.)

1. The composition of matter, consisting of resin, bone dust, blue vitriol, borax, and rock salt, the amount of boue dust being double that of each of the other ingredients, except the resin, the quantity of which latter is equal to the sum of the quantities of all the other ingredients together, substantially as herein described.

2. The herein-described agent for regenerating metals, consisting of a pulverulent preparation of five parts of a resin allied to the terpenes, two parts of bone dust, one part of blue vitriol, one part of borax, one part of rock salt, substantially as specified.

1,029,328. METHOD OF MANUFACTURING PLASTER-BOARD. CLARENCE W. UTZMAN, Chicago, Ill., assignor to The United States Gypsum Company, Chicago, Ill., a Corporation of New Jersey. Filed June 26, 1911. Serial No. 635,284. (Cl. 25—1.)

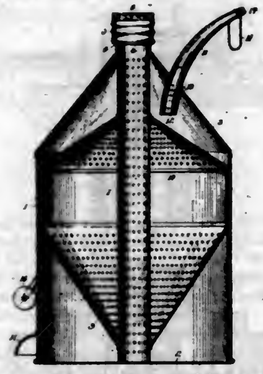


1. The method of making plaster board which consists in advancing a bottom sheet of covering material, superimposing upon said sheet alternate layers of plastic material and fibrous material, holding the plastic material away from the edges of the covering material so as to leave a portion of said material exposed at each side of said layers, folding the exposed edge portions of said covering material over onto the upper surface of the upper layer of plastic material, applying a separate sheet of covering material over the upper surface of plastic material, said upper sheet being of a width sufficient to partially cover the inturned edges of said bottom sheet, applying pressure to said upper sheet to cause the plastic material to flow between the edges of said sheet and the inturned portions of the bottom sheet, and preventing said plastic material from escaping at the edges of said upper sheet.

2. The method of making plaster board which consists in advancing a bottom sheet of covering material, superimposing upon the upper face of said sheet alternate layers of plastic material and fibrous material, folding the edges of said bottom sheet over on to the upper face of the top layer of plastic material, applying a separate top sheet of covering material to the top surface of the upper layer and over the inner edges of the inturned portions of the bottom sheet so as to leave a part of said inturned portions exposed at the top of the board and applying pressure to the top layer of covering material until its upper surface lies flush with the exposed surfaces of said inturned portions.

1,029,329. NON-EXPLOSIVE OIL-CAN. EDWARD J. WALSH and WENDEL VARGO, East Pittsburgh, Pa. Filed Feb. 28, 1911. Serial No. 611,373. (Cl. 221—1.)

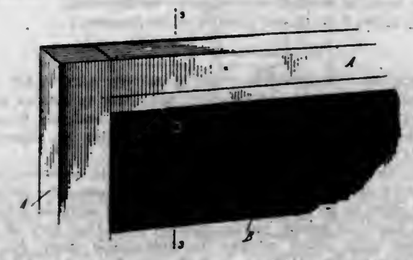
1. A non-explosive oil can comprising a shell closed at each lower end, a cone shaped top mounted upon the upper portion of said shell, a threaded mouth piece at the apex of said top, a cap for closing said mouth piece, a vertically disposed foraminous tube extending from the bottom of the shell to said mouth piece, screens mounted upon the upper end of the tube, a pair of foraminous cone shaped retarders surrounding and fixed to said tube and extending to the inner wall of said shell, said retarders being oppositely disposed with respect to each other, and a spout extending into said top and to a point in proximity to the upper retarder, that portion of the spout extending into said top being perforated.



2. A non-explosive oil can comprising a shell closed at each lower end, a cone shaped top mounted upon the upper portion of said shell, a threaded mouth piece at the apex of said top, a cap for closing said mouth piece, a vertically disposed foraminous tube extending from the bottom of the shell to said mouth piece, screens mounted upon the upper end of the tube, a pair of foraminous cone shaped retarders surrounding and fixed to said tube and extending to the inner wall of said shell, said retarders being oppositely disposed with respect to each other, and a spout extending into said top and to a point in proximity to the upper retarder, that portion of the spout extending into said top being perforated, the lower of said retarders being of greater height than the upper retarder.

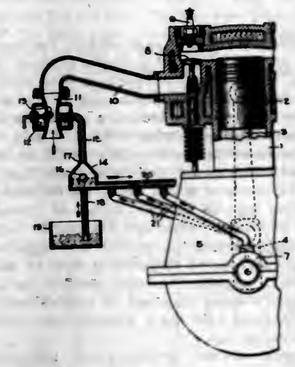
3. A non-explosive oil can comprising a shell closed at each lower end, a cone shaped top mounted upon the upper portion of said shell, a threaded mouth piece at the apex of said top, a cap for closing said mouth piece, a vertically disposed foraminous tube extending from the bottom of the shell to said mouth piece, screens mounted upon the upper end of the tube, a pair of foraminous cone shaped retarders surrounding and fixed to said tube and extending to the inner wall of said shell, said retarders being oppositely disposed with respect to each other, and a spout extending into said top and to a point in proximity to the upper retarder, that portion of the spout extending into said top being perforated, the lower of said retarders being of greater height than the upper retarder, said upper retarder extending in said top.

1,029,330. FLY-ESCAPE FOR SCREENS. HARRISON WALTER WELTY, Fort Wayne, Ind. Filed July 14, 1911. Serial No. 638,479. (Cl. 156—37.)



A fly escape for screens, comprising a screen panel having a line of openings near its upper edge, a guard extending across the inside of the screen panel near its upper edge, spaced therefrom, and open along its lower edge and intermeshing with the screen panel above the line of openings therein, a guard extnding across the outer side of the screen panel above the inner guard, its lower edge intermeshing with the screen panel below the line of openings therein, a line of openings in the outer guard, and vertically disposed spacing blocks interposed between the guards and the screen panel, and means for securing the spacing blocks to the screen panel.

1,029,331. AUTOMATIC LUBRICATING DEVICE. OTTO WINKLER, Köpenick, Germany, assignor to General Electric Company, a Corporation of New York. Filed Dec. 27, 1911. Serial No. 668,016. (Cl. 123—196.)



1. An internal combustion engine having a fuel inlet conduit in combination with a lubricant containing vessel connected thereto and subjected to the suction effects existing in the conduit, a valve for preventing lubricant from entering the conduit from the vessel, and a discharge pipe that receives its supply of lubricant from the vessel.

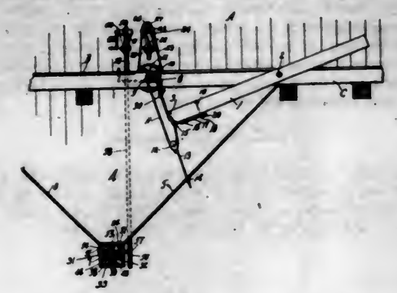
2. In combination a conduit in which a suction is created, a chambered vessel connected to the conduit and subjected to the suction effects existing therein, a reservoir from which lubricant is raised to the vessel, a valve preventing lubricant from flowing from the vessel to said conduit, and one or more pipes conveying lubricant from the vessel to the parts to be lubricated.

3. In combination, a conduit in which a suction is created, a chambered vessel to which the effects of the suction are communicated, a reservoir below the vessel, a tube through which the suction effect in the vessel raises the lubricant, a valve which prevents lubricant in the vessel from entering the said conduit, and a pipe discharging lubricant from the vessel.

4. In combination, a conduit in which a suction is created by a moving machine part, a closed chambered vessel which is subjected to the suction effects existing in the conduit, a float valve in the vessel that is adapted to close the communication between the vessel and the conduit when the fluid therein reaches a certain level, a reservoir located below the vessel, a pipe extending downward from the vessel whose lower end is submerged in lubricant in the reservoir, and means for supplying lubricant from the vessel to the parts to be lubricated.

5. In combination an open ended tube through which fluid flows and creates a suction, a closed chambered vessel, a suction pipe connected at one end to the tube and at the other end to the vessel, a float valve in the vessel that controls the suction pipe, a pipe that freely discharges lubricant from the vessel, a lubricant tube that discharges into the vessel, and a reservoir containing lubricant into which the lubricant tube extends.

1,029,332. GRAIN-ELEVATOR WAGON-DUMP AND CONVEYER MECHANISM. FREDERICK J. ZIMMERMAN, Athens, Ill. Filed May 12, 1910. Serial No. 560,875. (Cl. 214—11.)



1. In a grain elevator wagon dump, the combination with a pair of dump logs, of a shaft, a drum carried on said shaft, a flexible cable wrapped on said drum, having one of its ends attached directly to one of said dump logs, and the other end passing through a pulley fixed beneath said dump log, and thence being secured to said dump log, and means for operating said shaft whereby the said cable may be caused to lower and raise said dump logs.

2. In a grain elevator wagon dump, the combination with a pair of dump logs, of a shaft, a pair of drums on said shaft, a pair of flexible cables one wrapped on each of said drums, each cable having its opposite ends attached to one of said dump logs, one of the ends of each of said cables, passing through a pulley secured beneath each of said dump logs before being attached to said dump logs, and means for operating said shaft whereby said cables lower or raise said dump logs.

3. In a grain elevator wagon dump, the combination with a pair of dump logs, of a shaft carried beneath the elevator driveway floor, a pair of drums on said shaft, a pair of flexible cables wrapped one on each of said drums, and attached to said dump logs, a hand crank shaft carried above said elevator driveway floor, a chain and sprocket connection between said crank shaft and said first mentioned shaft, whereby a manually controlled operation of said crank shaft will raise and lower said dump logs, and means for locking said crank shaft against rotation, whereby said dump logs may be held immovable in any desired position.

4. In an apparatus of the character described, in combination, pivoted dump logs, a receiving bin disposed below one end of the dump logs and having an inclined wall extending to a point approximately centrally beneath said dump logs, and operating means for the dump logs comprising gearing and flexible connections between said gearing and the ends of the dump logs operating in the bin.

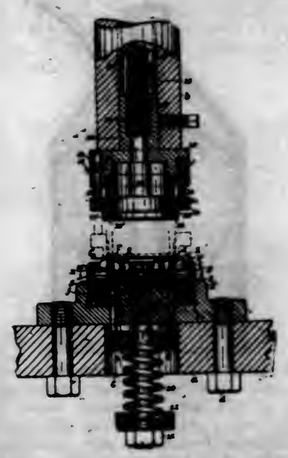
5. In an apparatus of the character described, in combination, pivoted dump logs, a receiving bin located beneath the dump logs, an operating shaft, cables connecting said shaft with said dump logs, guiding pulleys for the cables, said pulleys disposed within the bin and beneath the dump logs, and manually controlled means for operating said shaft.

[Claim 6 not printed in the Gazette.]

1,029,333. DIE STRUCTURE. BENJAMIN ADRIANCE and AMOS CALLESON, Brooklyn, N. Y.; said Calleson assignor to said Adriance. Filed May 19, 1910. Serial No. 562,170. (Cl. 113—42.)

1. In combination, with one member of a die mechanism, a cutting member having a cutting edge arranged opposite to and coactive with a working face of said die member, and means for moving one of said members relatively to the other in substantially the same direction as said face extends, said cutting edge extending in substantially the direction of thrust of the movable member substantially as described.

2. In combination, with one member of a die mechanism, said member having a working face extending substantially in the same direction as the thrust line of the die mechanism, a cutting member having a cutting edge arranged opposite to and coactive with said face, one of said members being movable relatively to the other in substantially the same direction as said thrust-line extends, and said cutting edge extending in substantially the direction of thrust of the movable member substantially as described.



3. In combination, with the male and female die members of a die mechanism, one of said members having a working face extending substantially in the same direction as the thrust-line of the die mechanism, a cutter having a cutting edge arranged opposite to said face and arranged in the other member, one of said members being movable in the same direction as the thrust line extends, and said cutting edge extending in substantially the direction of thrust of the movable member substantially as described.

4. In combination, with the male and female die members of a die mechanism, a cutting member having a cutting edge opposite to and coactive with a working face of one of said members adjacent the other die member, and means for effecting a relative movement between the cutting member and the die member having said face in substantially the same direction as said face extends, said cutting edge extending in substantially the direction of thrust of the movable member substantially as described.

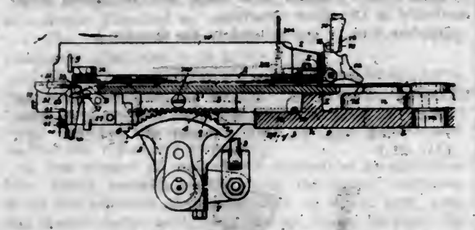
5. In combination, with the male and female die members of a die mechanism, one of said members having a working face thereof adjacent the other extending in substantially the same direction as the thrust-line of the die mechanism, a cutting member having a cutting edge arranged opposite to and coactive with said face, and means for effecting a relative movement between the cutting member and the die member having said face in substantially the same direction as said thrust-line extends, said cutting edge extending in substantially the direction of thrust of the movable member substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,029,334. MACHINE FOR MAKING ARTICLES OF SHEET METAL. BENJAMIN ADRIANCE and AMOS CALLESON, Brooklyn, N. Y.; said Calleson assignor to said Adriance. Filed Dec. 28, 1910. Serial No. 599,655. (Cl. 113—113.)

1. In a mechanism for removing sheets in sequence from a stack of sheets, the combination, with means for moving the sheet to be removed in wiping contact with an adjoining sheet, of means, having contact with that face of the latter sheet which adjoins the first-named sheet, for restraining said adjoining sheet during the moving of said first-named sheet, substantially as described.

2. In a mechanism for removing sheets in sequence from a stack of sheets, the combination, with means for moving the sheet to be removed in wiping contact with an adjoining sheet, of compression-grip means, having contact with that face of the latter sheet which adjoins the first-named sheet, for restraining said adjoining sheet during the moving of said first-named sheet, substantially as described.



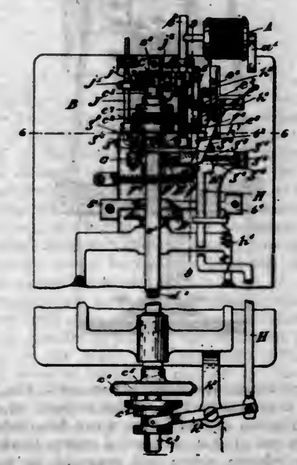
3. In a mechanism for removing sheets in sequence from a stack of sheets, the combination, with means for moving the sheet to be removed in wiping contact with an adjoining sheet, of means for exerting a compression-grip on said adjoining sheet during the moving of said first-named sheet, substantially as described.

4. The combination, with means for supporting the stack of sheets, of means for removing a sheet from the stack planiform fashion, and a gripping mechanism operative to grip the tail end of the next adjoining sheet and thereby hold the latter against movement during the removal of the first sheet, substantially as described.

5. The combination, with means for supporting the stack of sheets, of means for removing a sheet from the stack planiform fashion, and a gripping mechanism operative to grip the tail end of the remaining sheets which are at one side of the first sheet and thereby hold the latter against movement during the removal of the first sheet, substantially as described.

[Claims 6 to 61 not printed in the Gazette.]

1,029,335. MECHANISM FOR SUPPLYING THREAD TO BOBBINS IN LOOPERS. FREDERICK BAKER, Brighton, near Melbourne, Victoria, Australia. Filed May 25, 1904. Serial No. 209,625. (Cl. 112—22.)



1. In a sewing machine, the combination of a case for a rotary bobbin, a rotary bobbin located in the case, a rotary spindle, means for winding thread upon the spindle, and means for transferring it to the bobbin in the case.

2. In a sewing machine, the combination of a case for a rotary bobbin, a rotary bobbin located in the case, a spindle alined therewith, means for winding thread upon the spindle, means for shoving such thread lengthwise of the spindle onto the bobbin in the case.

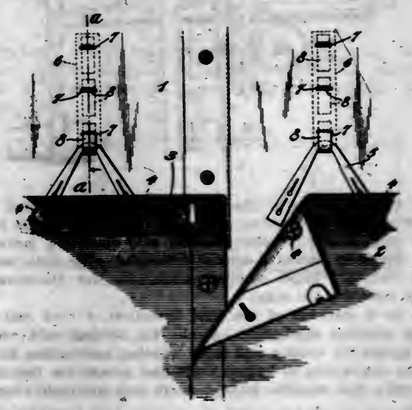
3. In a sewing machine, the combination of a rotary bobbin having a central spindle, a spindle alined therewith, means for winding thread in a coil on the last named spindle, means for bringing the two spindles substantially into engagement, and means for shoving the thread from the spindle on which it is wound onto the spindle of the bobbin.

4. In a sewing machine, the combination of a rotary bobbin, a spool winding spindle mounted in bearings in line with the bobbin, a removable face plate for such spindle, and means for transferring the spool from the spindle to the bobbin.

5. In a sewing machine, the combination, with a revolving hook, a bobbin mounted in said hook, a spool winding spindle, a lever, a movable face plate revolubly mounted on the lever and adapted to form a wall for a spool being wound on the spindle, another face plate forming the other wall for such spool, and means for transferring the spool from the spindle to the bobbin.

[Claims 6 to 27 not printed in the Gazette.]

1,029,336. SHIRT. REINHOLD BARTELL, Newark, N. J., assignor to Bartell Improved Shirt Company, New York, N. Y., a Corporation of New York. Filed Dec. 10, 1910. Serial No. 596,624. (Cl. 2—96.)



1. A shirt provided with garment supporting means positioned at predetermined points thereon, each of said means including a reinforcing strip arranged on the inside of the shirt, said shirt and strip being provided with a series of vertically arranged button holes passing therethrough and a plurality of loops secured to the reinforcing strip above the button holes and adapted to pass therethrough.

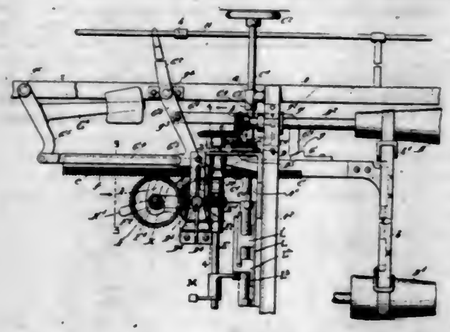
2. A shirt provided with garment supporting means comprising a reinforcing strip arranged on the inside of the shirt and securely sewed thereto, said strip and shirt being provided with a series of spaced vertically arranged button holes passing therethrough, and a plurality of loops secured to the reinforcing strip above the button holes and adapted to pass therethrough, each of said loops having an end portion secured to the reinforcing strip and above the adjacent button hole, the lower end portion of the loop being adapted to be passed through said button hole to the outside of the shirt.

3. A shirt provided with a garment supporting means positioned at predetermined points thereon, each of said means including a reinforcing strip secured to the shirt, said shirt and strip being provided with a series of button holes passing therethrough and a plurality of loops secured to the reinforcing strip and adapted to pass through such button holes.

1,029,337. PROCESS FOR THE PRODUCTION OF LITHOGRAPHIC-PRINTING PLATES. LAURENT BASSANI, Paris, France. Filed Feb. 7, 1911. Serial No. 607,020. (Cl. 101—173.)

A process for the production of lithographic printing plates which consists in forming an ink design upon the plate, covering the design with a solution of dextrin and candied sugar in water, removing the ink of the design, covering the plate with a solution of sensitive asphalt in essence of turpentine to which some Venetian turpentine is added, treating the plate with lukewarm water and exposing the plate to the light, substantially as described and for the purpose set forth.

1,029,338. BELT-SHIFTER. EDMUND E. BLAKE, Saco, and WILLIAM H. GOLDSMITH, Jr., Biddeford, Me., assignors to Saco-Pettee Company, Newton, Mass., a Corporation of Massachusetts. Filed Dec. 17, 1909. Serial No. 533,511. (Cl. 118—13.)



1. In a machine of the kind described, a rack and a taper winding mechanism, automatic operating means for said rack, means for disconnecting said operating means, and manually operated means connected with both said rack and said taper winding mechanism for simultaneously resetting the same.

2. In a machine of the kind described, a rack and a taper winding mechanism, means for setting said rack and means for setting said taper winding mechanism, said means comprising a hollow shaft and means for turning it, and a rod slidable in said shaft and rotatable therewith.

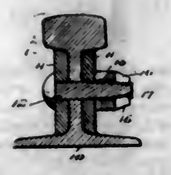
3. In a machine of the kind described, a driver connection comprising a hollow shaft, a hand wheel mounted thereon, a gear mechanism also mounted on said shaft, a belt shifter comprising a rack engaging said gear mechanism, in combination with a rod slidable in said hollow shaft, and rotatable therewith, and a taper winding mechanism connected to said rod to be operated thereby whereby the rotation of said hand wheel and said shaft will move the said belt shifter and said taper mechanism.

4. In a machine of the kind described, a driver connection comprising a hollow shaft, a hand wheel mounted thereon, a gear mechanism also mounted on said shaft, a belt shifter comprising a rack engaging said gear mechanism, in combination with a rod angular in cross section slidable in said hollow shaft and rotatable therewith, and a taper winding mechanism connected to said rod to be operated thereby whereby the rotation of said hand wheel and said shaft will move the said belt shifter and said taper mechanism to re-set said parts after the bobbins have been wound.

5. In a machine of the character specified, a driver connection comprising a hollow shaft, a hand wheel mounted thereon, a gear mechanism also mounted on said shaft, a belt shifter comprising a rack engaging said gear mechanism, in combination with a rod slidable in said hollow shaft and rotatable therewith, and a taper winding mechanism connected to said rod to be operated thereby whereby the rotation of said hand wheel and said shaft will move said belt shifter and said taper mechanism simultaneously, said rack having two sets of rack teeth, means connecting said hollow shaft with one of the sets of said rack teeth whereby said rack may be operated by hand in one direction, and means engaging the other set of rack teeth whereby said rack will be moved automatically in the other direction.

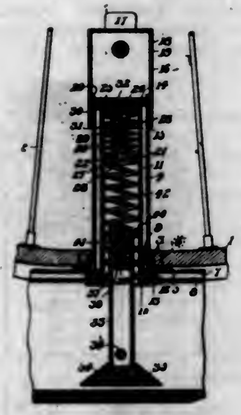
[Claims 6 to 14 not printed in the Gazette.]

1,029,339. NUT-LOCK. FRANK D. BOZARTH, Williamsburg, Va., assignor of one-half to L. W. Brown, Berkley, Va. Filed Aug. 23, 1909. Serial No. 514,285. (Cl. 151—21.)



A nut lock comprising a threaded bolt having a longitudinal furrow formed therein transversely of the threads and with substantially radial sides, of a nut having a bendable tongue projecting outwardly from one side thereof, with one edge of said tongue registering with the bore of the nut and the opposite edge extending substantially from the edge of the nut and in position to be struck by a hammer to be driven into the furrow of the bolt.

1,029,340. AUTOMATIC TIRE-PUMP. ALBERT BREST, New Castle, Pa. Filed Dec. 26, 1911. Serial No. 667,857. (Cl. 152—11.)



In a tire pump, the combination with the rim of a wheel, and a pneumatic tire carried thereby, of a cylinder secured to the rim of said wheel, a cap detachably mounted upon the end of said cylinder, a casing located in said cylinder, a tubular piston rod arranged in said casing and extending into said tire and adapted to be actuated by a depression thereof, a pair of valves carried by said tubular piston rod at the inner end thereof for controlling the passage of air therethrough, and valves arranged within said casing at the inner end thereof for controlling the inlet and exhaust of air to and from said casing.

1,029,341. TRANSFORMING FORMYL ESTERS OF CELLULOSE OR SOLUTIONS OF THE SAME INTO STABLE PLASTIC SOLUTIONS. EMILE BRONNERT, Niedermorschweiler, near Mülhausen, Germany, assignor to The Firm of Vereinigte Glanzstoff-Fabriken A.-G., Elberfeld, Germany. Filed Mar. 25, 1911. Serial No. 616,993. (Cl. 106—40.)

1. A composition of matter consisting of formyl esters of cellulose dissolved in lactic acid.

2. The method of dissolving formyl cellulose, which consists in dissolving it in lactic acid.

3. The method of producing a solution of formyl cellulose, which consists in dissolving the formyl cellulose in formic acid; mixing the solution thus formed with lactic acid; distilling off and collecting the formic acid, and cooling the remaining solutions.

4. The method of producing a solution of formyl cellulose, which consists in dissolving the formyl cellulose, under the influence of a gentle heat, in formic acid; adding thereto lactic acid, distilling off, under vacuum, the formic acid, and allowing the resulting solutions to cool.

5. The method of producing solutions of formyl cellulose, which consists in dissolving, under the influence of heat, in formic acid, the waste products of artificial silk; adding thereto lactic acid; distilling off in a vacuum the formic acid; separately collecting the latter, and cooling the resulting solution.

1,029,342. DRINKING-CUP HOLDER. CYRUS A. BAYANT, Passaic, N. J., assignor to V. M. Sales Co., Plainfield, N. J. Filed Oct. 17, 1911. Serial No. 655,119. (Cl. 211—29.)



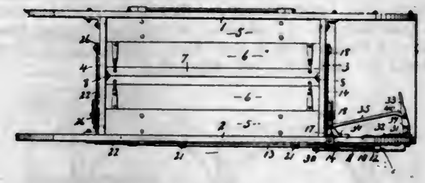
1. A drinking cup holder, comprising a box provided at the lower front edge with a slit for the removal of the lowermost of the flat drinking cups contained in the box one on top of the other, the front and bottom of the box having recesses leading to the slit for the insertion of the thumb and forefinger for the removal of the lowermost drinking cup, and a supporting frame removably held in the said box and provided with a rearwardly and upwardly-inclined bottom, legs depending at the rear of the inclined bottom, and a back rising from the rear of the said bottom to the top of the box.

2. A drinking cup holder, comprising a box provided at the lower front edge with a slit for the removal of the lowermost of the flat drinking cups contained in the box one on top of the other, the front and bottom of the box having recesses leading to the slit for the insertion of the thumb and forefinger for the removal of the lowermost drinking cup, and a supporting frame removably held in the said box and provided with a rearwardly and upwardly inclined bottom, legs depending at the rear of the inclined bottom, and a back rising from the rear of the said bottom to the top of the box, the said back having its lower portion curved forwardly.

3. A drinking cup holder, comprising a box provided at the lower front edge with a slit for the removal of the lowermost of the flat drinking cups contained in the box one on top of the other, the front and bottom of the box having recesses leading to the slit for the insertion of the thumb and forefinger for the removal of the lowermost drinking cup, and a supporting frame removably held in the said box and formed of a single piece of wire bent to form a bottom, legs and a back, the bottom being inclined upwardly and rearwardly, side members, and diagonal crossing members, the said side and diagonal members terminating in the said legs and the said back having side members and a top cross bar connecting the side members with each other at the top, the said back side members terminating at their lower ends in the legs of the said bottom side members.

4. A drinking cup holder, comprising a box provided at the lower front edge with a slit for the removal of the lowermost of the flat drinking cups contained in the box one on top of the other, the front and bottom of the box having recesses leading to the slit for the insertion of the thumb and forefinger for the removal of the lowermost drinking cup, and a supporting frame removably held in the said box and formed of a single piece of wire bent to form a bottom, legs and a back, the bottom being inclined upwardly and rearwardly, side members, and diagonal crossing members, the said side and diagonal members terminating in the said legs and the said back having side members and a cross bar connecting the side members with each other at the top, the said back side members terminating at their lower ends in the legs of the said bottom side members, and the said back side members being curved forwardly above the rear upper portion of the said bottom.

1,029,343. DUMP-WAGON. WILBUR L. COLLINS, Newark, N. Y., assignor to Daniel W. Crowley, Newark, N. Y. Filed Mar. 6, 1911. Serial No. 612,503. (Cl. 21—20.)



1. In a dump wagon, a dump box having opposite pairs of laterally swinging bottom doors, a lever fulcrumed on the box, flexible connections between the lever and front ends of the doors, separate flexible connections between the lever and rear ends of the doors, a pawl on the lever, a toothed rack pivoted at one end to the box, and means for moving the toothed rack into and out of engagement with the pawl comprising a cam lever pivoted to the opposite end of the rack, a foot lever, and connections between the foot lever and cam lever.

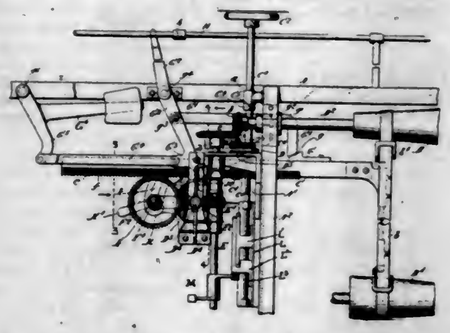
2. In a dump wagon, a dump box having bottom doors, a door-controlling mechanism comprising a hand lever pivoted to one side of the box and movable lengthwise thereof, a pawl rigid on the lever, a toothed rack pivoted at one end to the same side of the box and movable transversely of the direction of movement of the lever to force its teeth into and out of the path of said pawl, a rock arm pivoted to the opposite end of the rack and provided with a cam, a fixed bearing for the cam on the adjacent side of the box, a foot lever and connections between said foot lever and rock arm for rocking the cam against said bearing to force the rack out of engagement with the pawl, and connections between the first-named lever and doors.

3. In a dump wagon, a dump box having laterally swinging bottom doors, a hand lever pivoted to the front end of one side of the box and movable lengthwise thereof, a pawl on the lever, a toothed rack pivoted at one end to the same side of the box and extending rearwardly from said pivot, a rock arm pivoted to the rear end of said rack and provided with a cam, a bearing for the

1,029,337. PROCESS FOR THE PRODUCTION OF LITHOGRAPHIC-PRINTING PLATES. LAURENT BASSANI, Paris, France. Filed Feb. 7, 1911. Serial No. 607,020. (Cl. 101—173.)

A process for the production of lithographic printing plates which consists in forming an ink design upon the plate, covering the design with a solution of dextrin and candied sugar in water, removing the ink of the design, covering the plate with a solution of sensitive asphalt in essence of turpentine to which some Venetian turpentine is added, treating the plate with lukewarm water and exposing the plate to the light, substantially as described and for the purpose set forth.

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1. In a machine of the kind described, a rack and a taper winding mechanism, automatic operating means for said rack, means for disconnecting said operating means, and manually operated means connected with both said rack and said taper winding mechanism for simultaneously resetting the same.

2. In a machine of the kind described, a rack and a taper winding mechanism, means for setting said rack and means for setting said taper winding mechanism, said means comprising a hollow shaft and means for turning it, and a rod slidable in said shaft and rotatable therewith.

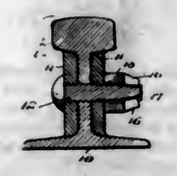
3. In a machine of the kind described, a driver connection comprising a hollow shaft, a hand wheel mounted thereon, a gear mechanism also mounted on said shaft, a belt shifter comprising a rack engaging said gear mechanism, in combination with a rod slidable in said hollow shaft, and rotatable therewith, and a taper winding mechanism connected to said rod to be operated thereby whereby the rotation of said hand wheel and said shaft will move the said belt shifter and said taper mechanism.

4. In a machine of the kind described, a driver connection comprising a hollow shaft, a hand wheel mounted thereon, a gear mechanism also mounted on said shaft, a belt shifter comprising a rack engaging said gear mechanism, in combination with a rod angular in cross section slidable in said hollow shaft and rotatable therewith, and a taper winding mechanism connected to said rod to be operated thereby whereby the rotation of said hand wheel and said shaft will move the said belt shifter and said taper mechanism to re-set said parts after the bobbins have been wound.

5. In a machine of the character specified, a driver connection comprising a hollow shaft, a hand wheel mounted thereon, a gear mechanism also mounted on said shaft, a belt shifter comprising a rack engaging said gear mechanism, in combination with a rod slidable in said hollow shaft and rotatable therewith, and a taper winding mechanism connected to said rod to be operated thereby whereby the rotation of said hand wheel and said shaft will move said belt shifter and said taper mechanism simultaneously, said rack having two sets of rack teeth, means connecting said hollow shaft with one of the sets of said rack teeth whereby said rack may be operated by hand in one direction, and means engaging the other set of rack teeth whereby said rack will be moved automatically in the other direction.

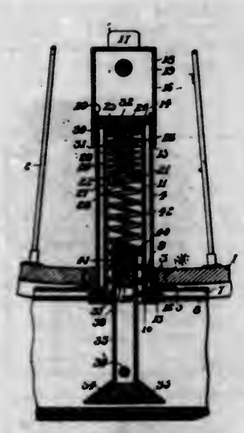
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A nut lock comprising a threaded bolt having a longitudinal furrow formed therein transversely of the threads and with substantially radial sides, of a nut having a bendable tongue projecting outwardly from one side thereof, with one edge of said tongue registering with the bore of the nut and the opposite edge extending substantially from the edge of the nut and in position to be struck by a hammer to be driven into the furrow of the bolt.

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In a tire pump, the combination with the rim of a wheel, and a pneumatic tire carried thereby, of a cylinder secured to the rim of said wheel, a cap detachably mounted upon the end of said cylinder, a casing located in said cylinder, a tubular piston rod arranged in said casing and extending into said tire and adapted to be actuated by a depression thereof, a pair of valves carried by said tubular piston rod at the inner end thereof for controlling the passage of air therethrough, and valves arranged within said casing at the inner end thereof for controlling the inlet and exhaust of air to and from said casing.

1,029,341. TRANSFORMING FORMYL ESTERS OF CELLULOSE OR SOLUTIONS OF THE SAME INTO STABLE PLASTIC SOLUTIONS. EMILE BRONNERT, Niedermorschweiler, near Mülhausen, Germany, assignor to The Firm of Vereinigte Glanzstoff-Fabriken A.-G., Elberfeld, Germany. Filed Mar. 25, 1911. Serial No. 616,993. (Cl. 106—40.)

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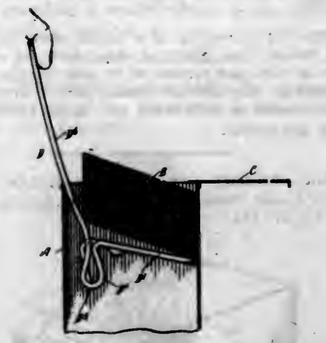
2. The method of dissolving formyl cellulose, which consists in dissolving it in lactic acid.

3. The method of producing a solution of formyl cellulose, which consists in dissolving the formyl cellulose in formic acid; mixing the solution thus formed with lactic acid; distilling off and collecting the formic acid, and cooling the remaining solutions.

4. The method of producing a solution of formyl cellulose, which consists in dissolving the formyl cellulose, under the influence of a gentle heat, in formic acid; adding thereto lactic acid, distilling off, under vacuum, the formic acid, and allowing the resulting solutions to cool.

5. The method of producing solutions of formyl cellulose, which consists in dissolving, under the influence of heat, in formic acid, the waste products of artificial silk; adding thereto lactic acid; distilling off in a vacuum the formic acid; separately collecting the latter, and cooling the resulting solution.

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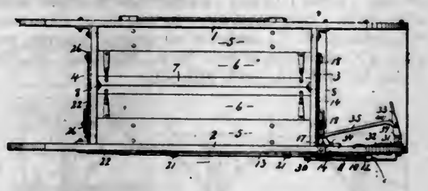
1. A drinking cup holder, comprising a box provided at the lower front edge with a slit for the removal of the lowermost of the flat drinking cups contained in the box one on top of the other, the front and bottom of the box having recesses leading to the slit for the insertion of the thumb and forefinger for the removal of the lowermost drinking cup, and a supporting frame removably held in the said box and provided with a rearwardly and upwardly-inclined bottom, legs depending at the rear of the inclined bottom, and a back rising from the rear of the said bottom to the top of the box.

2. A drinking cup holder, comprising a box provided at the lower front edge with a slit for the removal of the lowermost of the flat drinking cups contained in the box one on top of the other, the front and bottom of the box having recesses leading to the slit for the insertion of the thumb and forefinger for the removal of the lowermost drinking cup, and a supporting frame removably held in the said box and provided with a rearwardly and upwardly inclined bottom, legs depending at the rear of the inclined bottom, and a back rising from the rear of the said bottom to the top of the box, the said back having its lower portion curved forwardly.

3. A drinking cup holder, comprising a box provided at the lower front edge with a slit for the removal of the lowermost of the flat drinking cups contained in the box one on top of the other, the front and bottom of the box having recesses leading to the slit for the insertion of the thumb and forefinger for the removal of the lowermost drinking cup, and a supporting frame removably held in the said box and formed of a single piece of wire bent to form a bottom, legs and a back, the bottom being inclined upwardly and rearwardly, side members, and diagonal crossing members, the said side and diagonal members terminating in the said legs and the said back having side members and a top cross bar connecting the side members with each other at the top, the said back side members terminating at their lower ends in the legs of the said bottom side members.

4. A drinking cup holder, comprising a box provided at the lower front edge with a slit for the removal of the lowermost of the flat drinking cups contained in the box one on top of the other, the front and bottom of the box having recesses leading to the slit for the insertion of the thumb and forefinger for the removal of the lowermost drinking cup, and a supporting frame removably held in the said box and formed of a single piece of wire bent to form a bottom, legs and a back, the bottom being inclined upwardly and rearwardly, side members, and diagonal crossing members, the said side and diagonal members terminating in the said legs and the said back having side members and a cross bar connecting the side members with each other at the top, the said back side members terminating at their lower ends in the legs of the said bottom side members, and the said back side members being curved forwardly above the rear upper portion of the said bottom.

1,029,343. DUMP-WAGON. WILBUR L. COLLINS, Newark, N. Y., assignor to Daniel W. Crowley, Newark, N. Y. Filed Mar. 6, 1911. Serial No. 612,503. (Cl. 21—20.)



1. In a dump wagon, a dump box having opposite pairs of laterally swinging bottom doors, a lever fulcrumed on the box, flexible connections between the lever and front ends of the doors, separate flexible connections between the lever and rear ends of the doors, a pawl on the lever, a toothed rack pivoted at one end to the box, and means for moving the toothed rack into and out of engagement with the pawl comprising a cam lever pivoted to the opposite end of the rack, a foot lever, and connections between the foot lever and cam lever.

2. In a dump wagon, a dump box having bottom doors, a door-controlling mechanism comprising a hand lever pivoted to one side of the box and movable lengthwise thereof, a pawl rigid on the lever, a toothed rack pivoted at one end to the same side of the box and movable transversely of the direction of movement of the lever to force its teeth into and out of the path of said pawl, a rock arm pivoted to the opposite end of the rack and provided with a cam, a fixed bearing for the cam on the adjacent side of the box, a foot lever and connections between said foot lever and rock arm for rocking the cam against said bearing to force the rack out of engagement with the pawl, and connections between the first-named lever and doors.

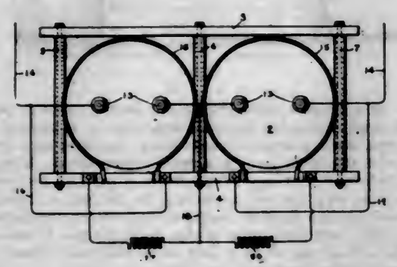
3. In a dump wagon, a dump box having laterally swinging bottom doors, a hand lever pivoted to the front end of one side of the box and movable lengthwise thereof, a pawl on the lever, a toothed rack pivoted at one end to the same side of the box and extending rearwardly from said pivot, a rock arm pivoted to the rear end of said rack and provided with a cam, a bearing for the

cam, a foot lever, connections between the foot lever and rock arm for operating said cam to force the rack out of engagement with the pawl, a spring for forcing the rack into engagement with the pawl, and connections between the first-named lever and doors.

4. In a dump wagon, a dump box having bottom doors, door-controlling mechanism comprising a hand lever pivoted to one side of the box and movable lengthwise thereof, connections between said lever and the doors, a pawl rigid on the lever, a horizontally-disposed toothed rack pivoted at one end within a slot in the same side of the box and movable transversely of the direction of movement of the lever to force its teeth into and out of the path of said pawl, a rock arm pivoted to the opposite end of the rack and provided with a cam, a fixed bearing for the cam on the adjacent side of the box at the other end of the slot, a foot lever and connections between said foot lever and rock arm for rocking the cam against said bearing to force the rack out of engagement with the pawl, and a spring bearing against the rack to return same to normal position when the foot lever is released.

5. In a dump wagon, a dump box having laterally swinging bottom doors, a hand lever pivoted to the front end of one side of the box and movable lengthwise thereof, connections between said lever and the doors, a pawl on the lever, a toothed rack pivoted at one end within a slot in the same side of the box and extending rearwardly from said pivot, a rock arm pivoted to the rear end of said rack and provided with a cam, a bearing for the cam at the rear end of said slot, a foot lever, connections between the foot lever and rock arm for operating said cam to force the rack out of engagement with the pawl, and a spring for forcing the rack into engagement with the pawl.

1,029,344. REGULATING RESISTANCE FOR ELECTROLYTIC CONDENSERS. ELMER E. F. CREIGHTON, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Apr. 23, 1909. Serial No. 491,713. (Cl. 175—30.)



1. The combination with an electrolytic condenser cell, a shunt circuit around said cell, and a regulating resistance for said cell in said circuit, of thermostatic means mounted in thermal relation to said cell and responsive to the temperature of said cell for maintaining said shunt circuit closed when the temperature of said cell is abnormal and for opening said shunt circuit when the temperature of the cell again becomes normal.

2. The combination with a plurality of electrolytic condenser cells connected in series, of thermostatic means mounted in thermal relation to said cell and responsive to an abnormal temperature of said cells for automatically completing a high resistance shunt circuit around any of said cells and for opening said shunt circuit as the temperature of said cells becomes normal.

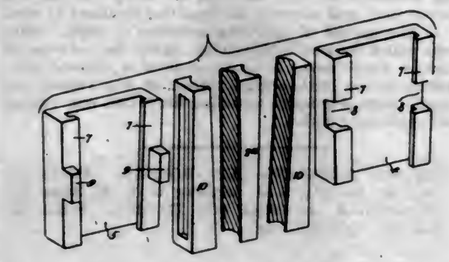
3. The combination with an electrolytic condenser cell, of a high resistance shunt circuit around said cell, and thermostatic means mounted in thermal relation to said cell for closing and then opening said shunt circuit as the temperature of said cell becomes abnormal and then returns to normal.

4. The combination with a plurality of electrolytic condenser cells, of thermostatic means mounted in thermal relation to said cell for completing and then opening through a regulating resistance a shunt circuit around any one of said cells when its temperature rises above a predetermined point and then again falls to said point.

5. The combination with a condenser cell comprising two electrodes, of a high resistance shunt circuit between said electrodes, and thermostatic means in thermal relation to the wall of said cell and responsive to temperature of said wall for closing said shunt circuit when said temperature is abnormal and for opening said circuit as the temperature again becomes normal.

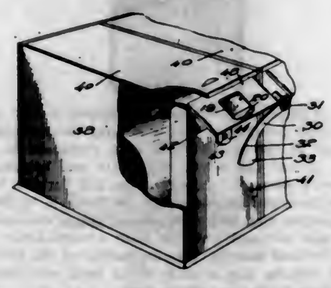
[Claim 6 not printed in the Gazette.]

1,029,345. ROPE-CLIP. JOHN S. CROSLAND, Trenton, N. J. Filed May 2, 1911. Serial No. 624,628. (Cl. 24—136.)



A rope clip consisting of a casing made in two parts having flanges; two pieces of channel-shaped section having closed ends and formed to fit said flanges to prevent separation of the said two casing parts; with a holding member formed to fit between two bodies of rope passing through the casing.

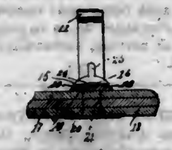
1,029,346. TICKET AND LABEL CABINET. CHARLES W. DE LANEY, Hammond, Ind. Filed July 9, 1910. Serial No. 571,144. (Cl. 211—37.)



1. The combination with a cabinet, of a guide member projecting therefrom and having depending L-shaped flanges, a bracket member having recessed furcations fitting between the depending flanges of the guide member, an undulating spring member passing transversely of the guide and having its ends fitting into the recesses of the furcations of the brackets, and a cutting blade pivoted to the guide to pass across the ends of the said guide and to cut a label projecting therefrom.

2. The combination with a cabinet, of a bracket secured to the said cabinet and having forwardly projecting furcations, said furcations each having a recess formed in the upper face thereof, a guide member secured to the cabinet and having flanges bent around the furcations of the brackets, an undulating spring member having its ends fitting into the recesses of the furcations and having its intermediate portion bearing against the guide member to resiliently hold a label in position, and a pivotally supported blade member adapted to pass transversely of the end of the guide to sever a label projecting from the end of the guide.

1,029,347. HARNESS-HOOK. ARTHUR DENTON, Taylorville, Ill. Filed Apr. 5, 1910. Serial No. 553,471. (Cl. 54—61.)



In a device of the character described, the combination of a hook comprising a body portion convexed in cross section upon its upper side and being formed with a notch, and a lower flat face engaging the lay section of a saddle, and a rim extending transversely of the body portion of the hook and engaging one end of the said lay section, a curved extension formed upon the body portion completing the said hook, the body portion being formed with an opening registering with an opening formed in one section of the saddle, a screw passing through said opening and formed with a threaded terminal, a nut located upon said threaded terminal and seated within the recess formed in one saddle section and opening in the lower saddle section and a head formed upon said screw and being provided with a tooth engaging the notch in the body portion of the hook and providing a locking means by the resiliency of the saddle and lay sections.

1,029,348. NON-REFILLABLE BOTTLE. ALPHONS DEYROOS, New York, N. Y. Filed May 9, 1911. Serial No. 625,994. (Cl. 215—68.)



1. A stopper for a bottle, comprising a central stem, a plurality of spaced sections on the said stem and adapted to fit into the neck of the bottle, the lower and middle sections having outwardly-opening valves grouped around the said central stem, and the upper section having openings for the passage of the liquid, the valves of one section being out of alinement with the valves of the other section and the openings of the upper section being out of alinement with the valves of the middle section.

2. A stopper for a bottle, comprising a central stem, a plurality of spaced sections on the said stem and adapted to fit into the neck of the bottle, the lower and middle sections having outwardly-opening valves grouped around the said central stem, the valves of one section being sliding valves and the valves of the other section hinged valves and out of alinement with the sliding valves, and the upper section having openings for the passage of the liquid.

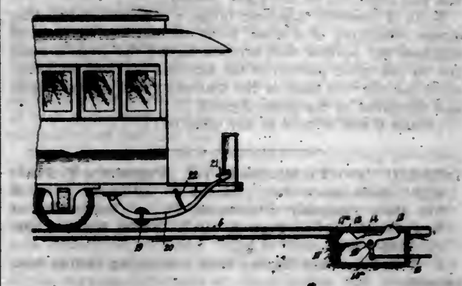
3. A stopper for a bottle, comprising a central stem, a plurality of spaced sections on the said stem and adapted to fit into the neck of the bottle, the lower section having sliding valves and the middle section having hinged valves, the opening movement of the sliding valves of the lower section being limited by the middle section and the opening movement of the hinged valves of the middle section being limited by the upper section, the latter having openings for the passage of the liquid.

4. A stopper for a bottle, comprising a threaded central stem, lower middle and upper sections screwing on the said stem and adapted to fit the neck of a bottle, the said sections being spaced apart, the lower and middle sections having openings, slidable valves for closing the openings in the lower section, and flap valves for closing the openings in the middle section, the under side of the latter having a stop plate for limiting the opening movement of the valves in the lower section, and the upper section being provided with a stop plate for limiting the opening movement of the flap valves, and the said upper portion having openings for the passage of the liquid.

5. A stopper for a bottle, comprising a threaded central stem, lower, middle and upper sections screwing on the said stem and adapted to fit the neck of a bottle, the said sections being spaced apart, the lower and middle sections having openings, slidable valves for closing the openings in the lower section, and flap valves for closing the openings in the middle section, the under side of the latter having a stop plate for limiting the opening movement of the valves in the lower section, and the upper section being provided with a stop plate for limiting the opening movement of the flap valves, the said upper section having openings for the passage of the liquid and having a top plate screwing on the said stem.

[Claim 6 not printed in the Gazette.]

1,029,349. RAILWAY-SWITCH. CHARLES ELMER ESTES, Medusa, N. Y., assignor of one-fourth to Leonard B. Scutt, Livingstonville, N. Y., and three-fourths to Nellie O. Estes, Medusa, N. Y. Filed June 18, 1910. Serial No. 567,586. (Cl. 104—24.)



1. The combination of two tracks, a movable switch point to connect and disconnect the tracks, a crank disk substantially horizontally disposed between the tracks and having a crank arm operatively connected to the switch point, an operating lever arranged between each track at distances from the switch point, each operating lever having alining operating cams, each lever having a depending arm and fulcrumed at a point to swing in a vertical plane and alternately project the cams into operative position, and connecting rods connecting the arms of the levers to the crank disk at the opposite sides of the crank arm.

2. The combination of two tracks, a movable switch point to connect and disconnect the tracks, a crank disk substantially horizontally disposed between the tracks and having a crank arm operatively connected to the switch point, an operating lever arranged between each track at distances from the switch point, each operating lever having alining operating cams, each lever having a depending arm and fulcrumed at a point to swing in a vertical plane and alternately project the cams into operative position, and connecting rods connecting the arms of the levers to the crank disk at the opposite sides of the crank arm, with one of said rods constructed of two sections and having a bell-crank lever in its length operatively connecting the said sections together.

1,029,350. METALLIC-FILAMENT LAMP. KARL FARKAS, Glen Ridge, N. J., assignor to J. Emil Walscheid, Weehawken, N. J. Filed Dec. 9, 1910. Serial No. 596,410. (Cl. 176—39.)



1. In a metallic filament lamp of the type described, leads having each an enlarged flat portion arranged at a right angle to each other and located between the stem and filament carrying support proper.

2. In a metallic filament lamp of the type described, leads having each an enlarged flat portion arranged at a right angle to each other, and a glass rim fused to the upper portion of said flat leads.

3. A metallic filament lamp comprising a vacuum chamber with stem and leads, said leads having each an enlarged flat portion so arranged that they stand at a right angle to each other extending beyond the stem, a glass rim on the upper portion of the flat leads, a glass rod or arbor fused centrally to said rim, supports in said rim insulated by the glass, metallic filaments whose free ends are secured to the supports of the glass rim, and means for suspending the filaments.

4. In a metallic filament lamp, a filament supporting device consisting of a stem, leads therein having each an enlarged flat portion that extends beyond the stem, a glass rim on the upper portion of the enlarged lead portions, a glass rod or arbor fused centrally to said glass rim, and supports for the free ends of the filament fused into said rim and insulated by the glass thereof.

5. In a metallic filament lamp, a filament supporting device consisting of a stem, leads therein having each an enlarged flat portion that extends beyond the stem, a glass rim on the upper portion of the flat lead portions, and supports for the free ends of the filament fused into said rim and insulated by the glass thereof.

[Claim 6 not printed in the Gazette.]

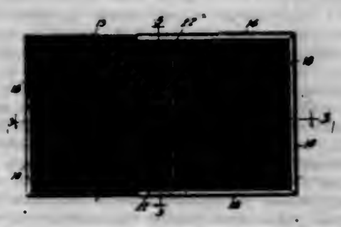
1,029,351. HOT PICKLING-BATH. FREDERICK F. FARNHAM, McKeesport, Pa., assignor to American Sheet & Tin Plate Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Sept. 8, 1911. Serial No. 648,354. (Cl. 148—42.)

1. A cleaning and fluxing bath containing molten lead chlorid.

2. A cleaning and fluxing bath consisting of molten lead chlorid and stannous chlorid.

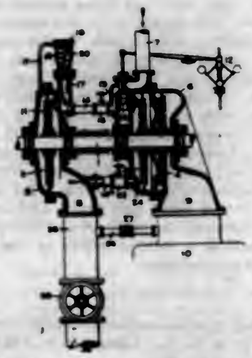
3. A cleaning and fluxing bath consisting of molten lead chlorid and stannous chlorid, the latter not exceeding 25 per cent. of the whole.

1,029,352. SHEET-METAL WINDOW-SCREEN. ABE FLINK, Chicago, Ill. Filed July 25, 1910. Serial No. 573,783. (Cl. 156—38.)



In a metallic window screen the combination of two frames each having longitudinal top and bottom U-shaped members, one of the said frames being inclosed and arranged to slide within the other, the inner of said frames having a tight set infold 15 and a netting secured therein, and the outer of said frames having a more open infold 17 and a netting secured therein, whereby one frame may work within the other without getting out of line or jamming, the frames having also the vertical inner members each of which is formed with a double fold 23, the folded part being set down close upon the netting at the fold only and the fold being bent outwardly at an angle from the plane of the sheet so as to come near the plane of the other sheet of netting, substantially as and for the purposes described.

1,029,353. UTILIZING EXHAUST-STEAM IN TURBINE PLANTS. GEORG FORNER, Berlin, Germany, assignor to General Electric Company, a Corporation of New York. Filed Feb. 7, 1912. Serial No. 675,939. (Cl. 121—118.)



1. In combination, a turbine comprising a high pressure element in which the steam expands to the permissibe heating pressure, a mixed pressure element supplementing the work of the former in driving a load, a conduit connected to and receiving the exhaust from the high pressure element for heating purposes, means for supplying a portion of the exhaust steam from the high pressure element to the mixed pressure element, and means for supplying high pressure steam to the high and mixed pressure elements.

2. In combination, a turbine comprising a high pressure element in which the steam expands to the permissible heating pressure, a mixed pressure element supplementing the work of the former in driving a load, means supplying low pressure steam thereto, a conduit connected to and receiving exhaust steam from the high pressure element for heating purposes, a regulator sensitive to the pressure of the steam entering the conduit for controlling the admission of steam to the high pressure element, and a speed governor for controlling the admission of high pressure steam to the mixed pressure element.

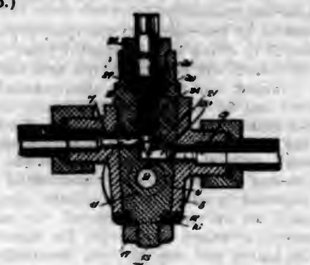
3. In combination, a turbine comprising a high pressure element and a mixed pressure element, a conduit receiving exhaust steam from the high pressure element, controlling valves for both elements, that for the high pressure element receiving steam after it has passed through the controlling valve of the mixed pressure element, a speed governor that controls the valve of the mixed pressure element, and a pressure sensitive regulator for the valve of said high pressure element.

4. In a steam plant in which steam is drawn off for industrial purposes, the combination of a main turbine element through which said steam passes and performs work, a supplemental turbine element, means for admitting steam thereto only when said main element cannot carry the load, and a conduit that receives steam from the main turbine for industrial purposes.

5. In a steam plant in which steam is drawn off for industrial purposes, the combination of a main turbine element through which said steam passes and performs work, a conduit receiving steam therefrom, a supplemental turbine element, a throttle valve which admits steam to the main element up to the point where it is operating at full capacity and thereafter admits steam to the supplemental element, and a speed governor for controlling said valve.

[Claims 6 to 10 not printed in the Gazette.]

1,029,354. FAUCET. HERMAN FORSMAN, Bakersfield, Cal. Filed Apr. 15, 1911. Serial No. 621,214. (Cl. 137—26.)



1. A faucet body having a central opening and two inlets and two outlets, leading thereto, a plug disposed in the central opening and having two transverse passages for simultaneously connecting the inlets with the outlets respectively, one of the transverse passages having two lateral branches for registering with one of the inlets, and one of the outlets respectively, there being a longitudinal opening in the plug leading to the last-mentioned transverse passage, between the lateral branches, and a valve member disposed for moving in the longitudinal opening for controlling the last-mentioned transverse passage.

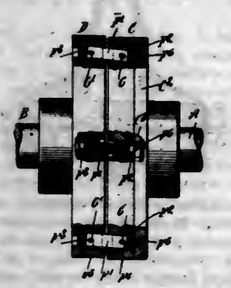
2. A faucet body having a central opening and two inlets and two outlets leading thereto, a plug disposed for rotating in the central opening and having two passages for simultaneously connecting the inlets with the outlets respectively, one of the passages having branches for connecting one of the inlets with one of the outlet when the plug has been rotated to move the other passage out of registry with the other inlet and outlet, a stop on the faucet, and a detachable member secured to the plug for limiting the rotation of the plug relatively to the faucet.

3. A faucet body having a central opening and two inlets and two outlets leading thereto, a plug disposed for rotating in the central opening, and having two passages for simultaneously connecting the inlets with the outlets respectively, one of the passages having branches for connecting one of the inlets with one of the outlets when the plug has been rotated to move the other passage out of registry with the other inlet and outlet, there being a longitudinal opening leading to one of the passages, a valve member disposed for moving in the longitudinal opening for controlling the last-mentioned passage, a stop on the faucet, and a detachable member secured to the plug for limiting the rotation of the plug relatively to the faucet.

1,029,355. FLEXIBLE COUPLING. WILLIAM J. FRANCKE, New Brunswick, N. J. Filed Jan. 25, 1912. Serial No. 673,282. (Cl. 64—13.)

1. In a coupling, the combination of coupling members adapted to be secured to the adjacent ends of two shafts, flexible connecting members connecting the said coupling members with each other, each flexible connecting member having a plurality of superimposed flat springs, keepers on the ends of the said superimposed flat springs, the keepers engaging recesses in the faces of the said coupling members, and a connection between one of the keepers of each connecting member and the corresponding coupling member for preventing the connecting members from turning in the coupling members.

2. In a coupling, the combination of coupling members adapted to be secured to the adjacent ends of two shafts, flexible connecting members connecting the said coupling members with each other, each flexible connecting member having a plurality of superimposed flat springs provided near their ends with elongated slots, keepers receiving the ends of the said flat springs of each connecting member, pins on the keepers and extending through the said flat spring slots, and a connection between one of the keepers of each connecting member and the corresponding coupling member for preventing the connecting members from turning in the coupling members.



3. In a coupling, the combination of coupling members adapted to be secured to the adjacent ends of two shafts, a ring on the outer face of one of said coupling members, flexible connecting members connecting the said coupling members with each other, each flexible connecting member having a plurality of superimposed flat springs, keepers on the ends of the said superimposed flat springs, the keepers engaging recesses in the faces of the said coupling members, and means on one of the keepers of each connecting member and engaging the said ring for holding the connecting members against turning in the coupling members.

4. In a coupling, the combination of coupling disks adapted to be secured to the adjacent ends of two shafts, flexible connecting members each having keepers at the ends thereof, the keepers fitting into corresponding recesses in the coupling disks, and a ring on the outer face of one of said disks and provided with a groove, one of the keepers of each connecting member having an extension fitting in the groove of the said ring.

5. In a coupling, the combination of coupling members adapted to be secured to the adjacent ends of two shafts, flexible connecting members connecting the said coupling members with each other, each flexible connecting member having a plurality of superimposed flat springs, the said connecting members being arranged in a circle and the flat springs being capable of flexing in the direction of the turning movement of the coupling, and keepers in which the ends of the springs of each connecting member are held, the keepers slidingly engaging recesses in the said coupling members, one of the keepers of each connecting member being provided with a flat offset fitting a groove in the corresponding coupling member.

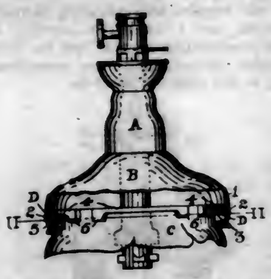
[Claims 6 and 7 not printed in the Gazette.]

1,029,356. GLOBE AND GLOBE-HOLDER. EDWIN E. FREDERICK, Bridgeville borough, Pa. Filed Mar. 4, 1912. Serial No. 681,354. (Cl. 240—115.)

1. In combination with a globe having an annular series of spaced-apart flanges on the upper portion thereof, a holder therefor having a depending annular flange into which the globe is inserted from below, said annular flange being provided with a seat, and a wire annulus sprung into said seat and provided with a plurality of inwardly extending integral loops upon which said globe-flanges rest whereby said globe is supported in said holder.

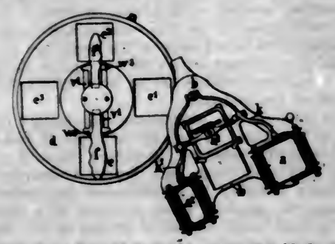
2. In combination with a globe having an annular series of spaced-apart flanges on the upper portion thereof, the ends of said flanges being turned downwardly to form stops, a holder therefor having a depending annular flange into which the globe is inserted from below, said annular flange being provided with a seat, and a wire annulus

sprung into said seat and provided with a plurality of inwardly extending integral loops upon which the under face of said globe-flanges rest between said stops whereby said globe is supported in said holder.



3. In combination with an inverted holder provided with a depending flange having a plurality of inwardly projecting supporting members, a globe having a circumferential series of spaced-apart flanges on the upper portion thereof, said flanges being formed with plain bottom edges and downwardly extending stops at each end of said bottom edges, whereby said globe may be mounted in said holder by causing the intervals between the globe-flanges to register with said inwardly projecting supporting members and inserting said globe upwardly into said annular flange and then rotating said globe until by dropping the same the bottom edges of said globe-flanges between said stops rest upon said supporting members.

1,029,357. MACHINE FOR CUTTING SLICES OF BUTTERED BREAD AND SANDWICHES. SEVERIN AUGUSTE GAGE, Paris, France. Filed Dec. 29, 1909. Serial No. 535,445. (Cl. 146—12.)



1. In a machine of the character specified, a rotary table, a plurality of containers on the table, one of said containers being adapted for containing a loaf of bread, another for containing meat, and another for containing butter, said last named container having a perforated bottom, a plunger movable in the container for forcing the butter through the perforated bottom, means in connection with each of the other containers for feeding the bread and meat downwardly, means for cutting off a slice of bread and a slice of meat, said table having an opening for receiving the cut bread, a movable bottom in the opening, and means for moving the table to bring the bottom in succession beneath the container for the bread, beneath the container for the butter, and beneath the container for the meat.

2. A device of the class described, comprising a rotating table having an opening, a movable bottom in the opening a plurality of containers for containing the material from which the sandwiches are to be formed, means for advancing the material in the containers, means for intermittently moving the table to bring the movable bottom in succession beneath the containers, means for depressing the said bottom when beneath the said container for receiving the slices of bread, means for severing a slice of bread when the bottom is below the container, means for depositing butter on the bread when the bottom is beneath the butter container, means for severing a slice of meat when the movable bottom is beneath the meat container, and means for lifting the said bottom when the table is moved to bring the bottom from beneath the meat container.

3. In a device of the character specified, a plurality of knives mounted to swing in a horizontal plane, means for simultaneously swinging the said knives and moving them longitudinally, said means comprising a block to which the knives are connected, a shaft, a crank disk on the end of the shaft, said block having an opening for receiving the crank of the disk, and a guide for constraining said block to move longitudinally.

4. In a device of the character specified, a plurality of knives mounted to swing in a horizontal plane, a support to which the knives are connected, the said knives being oppositely arranged, and means for simultaneously swinging the knives and moving them longitudinally, said means comprising a crank disk, a support having an opening for receiving the disk and a guide for constraining the support to move longitudinally with respect to the knives.

5. In a device of the character specified, a plurality of knives mounted to swing in a horizontal plane, a support to which the knives are connected, the said knives being oppositely arranged, and means for simultaneously swinging the knives and moving them longitudinally.

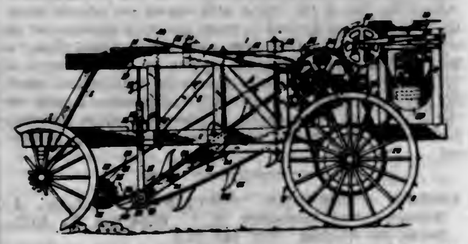
[Claims 6 to 8 not printed in the Gazette.]

1,029,358. CURTAIN-POLE. AUGUST P. GEISER, Washington, Pa. Filed Feb. 17, 1912. Serial No. 678,203. (Cl. 156—19.)



A curtain pole comprising segment-shaped sections adapted to be fitted together to provide a pole that is cylindrical throughout, said sections having the confronting faces thereof grooved to provide a V-shaped opening to receive the upper ends of curtains whereby the curtains can be draped over one of said sections, caps detachably mounted upon the ends of said sections and tapering pins located within said caps and extending in between said sections to frictionally hold said sections in engagement with said caps.

1,029,359. ROCK-GATHERING AND EXCAVATING MACHINE. DAVID A. GILCHRIST, Belgrade, Mont. Filed July 7, 1909. Serial No. 506,304. (Cl. 55—17.)

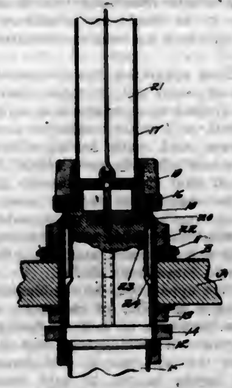


1. In a machine of the character specified, a frame, an endless conveyer supported by the frame, links pivoted by one end to the frame, a roller journaled in the free ends of the links and on which the front end of the conveyer is supported, arms extending forwardly from the links, a brush roller journaled between the arms, a cross head supporting the free ends of the links, and means for adjusting the cross head vertically, said means comprising a swivel bar substantially parallel with the cross head, a screw journaled in the swivel bar, and a nut on the cross head with which the screw engages.

2. In a machine of the character specified, a frame, an endless conveyer supported by the frame, links pivoted by one end to the frame, a roller journaled in the free ends of the links and on which the front end of the conveyer is supported, arms extending forwardly from the links, a brush roller journaled between the arms, a cross head supporting the free ends of the links, and means for adjusting the cross head vertically.

3. In a machine of the class described, in combination, a frame, a swivel bar mounted in said frame, an adjusting screw mounted in said bar, a cross head connected with said adjusting screw and adapted to be raised and lowered thereby, arms attached to said cross head and extending downwardly therefrom, a guide roller supported between said arms, links connecting the ends of said roller with said frame, a conveyer belt mounted in said frame in an inclined position and having its lower end guided around said guide roller, and means for driving said conveyer belt.

1,029,360. TANK-VALVE. DAVID W. GORMAN, Boston, Mass., assignor to F. W. Webb Manufacturing Company, Boston, Mass., a Corporation of New Jersey. Filed Aug. 4, 1910. Serial No. 575,407. (Cl. 4—5.)

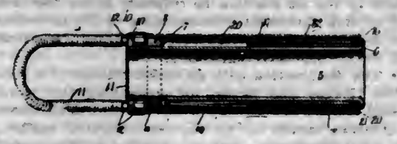


1. In a tank valve for water closets, the combination with a valve body secured to the bottom of the tank and having an upwardly projecting screw threaded flange, of a removable valve seat internally threaded and screwed onto said upwardly projecting flange on the valve body, said removable valve seat having an inwardly projecting flange at its upper side, an internally threaded movable valve member faced with elastic material to form a seat, and a guide located within the valve body and secured by screw threads to the movable valve member and comprising radial webs, the lower portion of said guide being of a diameter greater than the bore of the inwardly flanged portion of the removable valve member.

2. In a tank valve for water closets, the combination with a valve body secured in the bottom of the tank and having an upwardly projecting screw threaded flange and an outwardly horizontally projecting flat flange, of a removable valve seat internally threaded and screwed onto said upwardly projecting flange on the valve body and seated against said horizontally projecting flat flange on the valve body, said removable valve seat having an inwardly projecting flange at its upper side, an internally threaded movable valve member faced with elastic material to form a seat, and a guide located within the valve body and secured by screw threads to the movable valve member and comprising radial webs, the lower portion of said guide being of a diameter greater than the bore of the inwardly flanged portion of the removable valve member.

1,029,361. HAIR-STEAMING DEVICE. THOMAS GROSBET and ERNEST UNGER, New York, N. Y. Filed Nov. 16, 1911. Serial No. 660,592. (Cl. 219—19.)

1. In a means for steaming hair, an inner tube, an outer tube spaced therefrom, a heating means disposed between said tubes and at one end thereof, an insulating handle extending from said tubes, and means for suspending said device in adjusted position.



2. In a device for steaming hair, a pair of concentrically-disposed and telescoped tubes, means maintaining said tubes spaced from each other, electric resistance disposed between said tubes, and a removable plate normally closing the bore of the inner of said tubes, said closing plate having an aperture therein, to permit the escape of steam from the end of the bore of said inner tube.

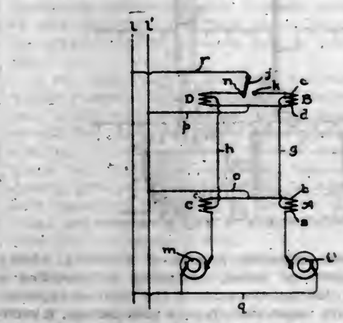
3. In a hair-steaming device, a tube having one end thereof flared outward and the opposite end externally screw-threaded, a spacing ring engaging said screw-threaded end, adjacent the end of the tube, a plate in screw-threaded engagement with said tube at the end, a handle connected to said end plate, an outer tube collapsing said inner tube and held spaced from the same by said ring, said outer tube abutting said plate, and electrical heating means disposed between said tubes.

4. In a hair-steaming device, an inner tube, a spacing ring carried by said tube, an outer tube spaced from said inner tube by said ring, a heating means adapted to be disposed between said tubes, a U-shaped bail having one end thereof passing through said outer tube and engaging said ring, and means for removably connecting the other end of said bail with said outer tube.

5. In a hair-steaming device, an inner tube, a spacing ring carried by said tube, an outer tube spaced from said inner tube by said ring, heating means disposed between said tubes, a U-shaped bail having one end thereof passing through said outer tube and engaging said ring, means for removably connecting the other end of said bail with said outer tube, a movable hook carried by said bail, and means carried by said hook for locking the same on said bail.

[Claim 6 not printed in the Gazette.]

1,029,362. CONTROL SYSTEM. JOHN L. HALL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed June 2, 1911. Serial No. 630,874. (Cl. 172—239.)



1. The combination with an electric motor, of a member driven thereby, and means for controlling the operation of said member comprising a circuit controller biased to off position, means for moving the controller against the bias, electroresponsive means for causing the controller to move a predetermined amount in response to its bias upon a corresponding movement of said member, and a switch for controlling the circuit of said electroresponsive means.

2. The combination with an electric motor, of a member driven thereby, means for controlling the operation of

said member comprising a circuit controller biased to off position, means for moving the controller against the bias, an electroresponsive device for causing the controller to return to the off position in response to its bias with a step by step movement corresponding to the movement of said member and a switch for controlling the circuit of said electroresponsive device.

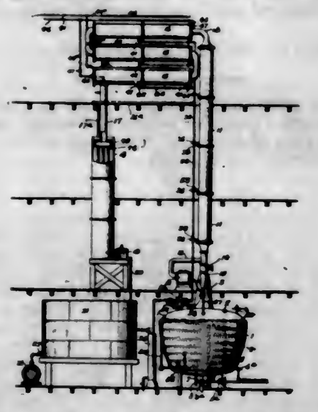
3. The combination with an electric motor, of a member driven thereby and means for controlling the operation of said member comprising a circuit controller biased to off position, means for moving the controller against the bias, electroresponsive means controlled by the movement of said member for causing said controller to return to off position with a step by step movement in response to its bias, and a switch for controlling the circuit of said electroresponsive means.

4. The combination with an electric motor, of a member driven thereby, and means for controlling the operation of said member comprising a circuit controller biased to off position, means for moving the controller against the bias, a pair of electromagnets, and means controlled by the movement of said member for causing the said magnets to be alternately energized to cause the controller to return to the off position with a step by step movement in response to its bias.

5. The combination with an electric motor, of a member driven thereby, and means for controlling the operation of said member comprising a circuit controller biased to off position and movable in opposite directions against said bias, means for moving the controller against the bias, electroresponsive means for causing the controller to move a predetermined amount in response to its bias upon a corresponding movement of said member in a corresponding direction, and a switch for controlling the circuit of said electroresponsive means.

[Claims 6 to 16 not printed in the Gazette.]

1,029,363. PROCESS OF AND APPARATUS FOR DISTILLING. CYRUS T. HANNA, Philadelphia, Pa. Filed Oct. 14, 1909. Serial No. 522,640. (Cl. 195—13.)



1. The herein described process of distilling whisky and other spirituous bodies, consisting in providing a suitable mash, heating the same to the point of vaporization, causing the vapor therefrom to pass through a vertical conduit comprising a series of closed chambers connected by foraminous passages forming entangling means to assist condensation and in which conduit the temperature is successively lowered sufficiently to effect liquefaction or separation of the impurities in the vapor condensable at relatively high temperature, removing said products of high temperature condensation, and finally condensing the purified vapor.

2. The herein described process of distilling whisky and other spirituous bodies, consisting in providing a suitable mash, heating the same to the point of vaporization, causing the vapor therefrom to pass through a conduit comprising a series of closed chambers connected by foraminous passages forming entangling means to assist condensation and in which conduit the temperature is successively lowered sufficiently to effect liquefaction or separation of the impurities condensable at relatively high temperature, introducing a gaseous body into the vapor conduit at a temperature differing from said vapor and at any point between the outlet from the mash vessel and the discharge to the condenser, removing said products of high temperature condensation from the vapor conduit, and finally condensing the purified vapor.

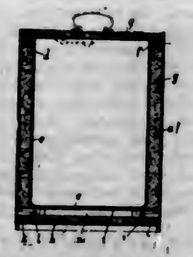
3. In a distilling apparatus, the combination of means for producing a vaporous body, a vapor conductor leading therefrom and dividing into a plurality of chambers, a series of foraminous shells within said vapor conductor and into which said vapor passes, said shells having closed upper and open lower ends and being disposed within the upper and lower portions of said chambers whereby the vapors in passing from one chamber to another must pass in and out of said foraminous shells, the condensation or separation products remaining behind and collecting at the bottom of the shells and chambers, and means for separately withdrawing said condensation or separation products.

4. In a distilling apparatus, the combination of means for producing a vaporous body, a vapor conductor leading therefrom and divided into chambers, a series of foraminous shells within said vapor conductor and into which said vapor passes, said shells having closed upper and open lower ends and being disposed within the upper and lower portions of said chambers whereby the vapors in passing from one chamber to another must pass in and out of said foraminous shells, the condensation or separation products remaining behind and collecting at the bottom of the shells and chambers, and means for sealing the lower ends of said foraminous shells.

5. In a distilling apparatus, the combination of a vapor conductor having a plurality of chambers, a foraminous shell within the chambers of said conductor and so disposed that the vapor in passing from one chamber to another must pass into and out of said foraminous shell, and entangling means carried by said foraminous shell at the points of emergence for said vapor.

[Claims 6 and 7 not printed in the Gazette.]

1,029,364. METHOD OF MAKING HEAT-INSULATED RECEPTACLES. ROBERT HARTWIG, Berlin, Germany, assignor to Thermos-Aktiengesellschaft, Berlin, Germany. Filed June 29, 1911. Serial No. 635,971. (Cl. 62—23.)

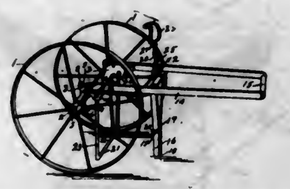


1. The improved method of making a heat insulated receptacle comprising an inner and an outer vessel and having a bad heat-conducting material in the jacket-space between the two vessels, which method consists in placing the outer vessel being in the form of a shell without bottom and having an inner flange flange-downward upon a suitable support, inserting the inner vessel having a bottom and an outer flange bottom upward and concentrically into the outer vessel, the outer flange of the inner vessel lying above the inner flange of the outer vessel, ramming tight up the jacket-space between the two vessels with insulating material, placing such material on the bottom of the inner vessel and fastening an outer bottom in the outer shell, substantially as described.

2. The improved method of making a heat insulated receptacle comprising an inner and an outer vessel and having a bad heat-conducting material in the jacket-space between the two vessels, which method consists in placing the outer vessel being in the form of a shell without bottom and having an inner flange flange-downward upon a suitable support, placing an elastic jointing device upon this flange, inserting the inner vessel having a bottom and an outer flange bottom upward and concentrically into the outer vessel, the flange of the inner vessel coming in uniform contact with the jointing device, ramming tight up the jacket-space between the two vessels up to the level of the bottom of the inner vessel with insulating material, compressing the jointing device between the two flanges by means of a tensioning device, spreading a layer of insulating material upon the bottom of the inner vessel, pressing an outer bottom down upon the said layer and fastening the said bottom in the outer shell, substantially as described.

3. The improved method of making a heat insulated receptacle comprising an inner and an outer vessel and having a bad heat-conducting material in the jacket-space between the two vessels, which method consists in placing the outer vessel being in the form of a shell without bottom and having an inner flange flange-downward upon a suitable support, placing an elastic jointing device upon this flange, inserting the inner vessel having a bottom and an outer flange bottom upward and concentrically into the outer vessel, the flange of the inner vessel coming in uniform contact with the jointing device, ramming tight up the jacket-space between the two vessels up to the level of the bottom of the inner vessel with insulating material, arranging a tensioning device above the bottom of the inner vessel, compressing the jointing device between the two flanges by tightening up the tensioning device, locking the said device in place, spreading a layer of insulating material upon the bottom of the inner vessel, pressing an outer bottom down upon the said layer and fastening the said bottom in the outer shell, substantially as described.

1,029,365. HAND-CART. SAMUEL B. HAZARD, Peoria, Ill. Filed Aug. 27, 1908. Serial No. 450,512. (Cl. 21—119.)



1. In a cart of the character described, the combination of a frame, ground wheels connected to said frame, a supporting bail pivotally attached with said frame, and a spring arm extending up from said frame, said arm provided with a plurality of hook engaging portions.

2. In a cart of the character described, the combination of a frame, ground wheels connected with said frame, a supporting bail pivotally attached to said frame, a hook for holding the bail in an inoperative position, and a spring arm extending up from said frame, said arm provided with a plurality of hook engaging portions.

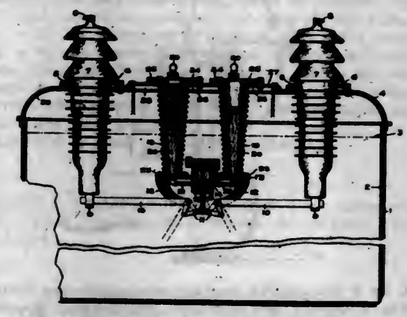
3. In a cart of the character described, the combination of a pair of short axles, ground wheels mounted on said axles, a frame connected with said axles, said frame provided with a pair of open hooks forming semi-circular seat receiving portions, a bail pivotally hung upon said frame, and a spring arm extending up from said frame, said arm provided with a plurality of hook engaging portions.

4. In a cart of the character described, the combination of a pair of brackets each provided with an extension lug, wheel spindles connected with said brackets and ground wheels mounted upon said spindles, a frame connected with said brackets, a supporting bail pivotally connected with said brackets, and adapted when the frame is elevated into a suitable position, to have engagement with the extension lugs of said brackets, and an arm attached to and extending upwardly from said frame, said arm provided with hook engaging portions.

5. In a cart of the character described, the combination of a pair of brackets each provided with an extension lug and with open hooks forming semi-circular seat receiving portions, wheel spindles connected with said brackets and ground wheels mounted upon said spindles, a frame connected with said brackets, a supporting bail pivotally connected with said brackets, and adapted when the frame is elevated in a suitable position, to have engagement with extension lugs of said brackets, an arm extending up from said frame and provided with hook engaging portions, a leg attached to and forming a rest for said frame, and a hook pivotally attached to said leg for holding the bail in an inoperative position.

[Claims 6 to 14 not printed in the Gazette.]

1,029,366. ELECTRIC SWITCH. EDWARD M. HEWLETT, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Sept. 15, 1909. Serial No. 517,816. (Cl. 175—282.)



1. An electric switch comprising a movable contact, a fluid pressure motor mechanism connected to said contact to actuate it, an insulating conduit connected to said motor mechanism and containing an insulating fluid, a pressure conduit connected to said insulating conduit and containing a pressure fluid of a density different from that of said insulating fluid, and means for varying at will the pressure of the pressure fluid in said pressure conduit.

2. An electric switch comprising a movable contact and a fluid pressure motor mechanism connected to said contact, a pipe containing pressure fluid, means for varying at will the pressure of said fluid in said pipe, and an insulating conduit connected to said pipe and to said motor mechanism and containing insulating fluid of a density different from the density of said pressure fluid said insulating conduit being mounted in a position to cause said insulating fluid to separate said motor mechanism and said pressure fluid.

3. An electric switch comprising a movable contact, a fluid pressure motor mechanism for actuating said contact, means for supplying a pressure fluid to actuate said motor mechanism, and an insulating conduit connected to said motor mechanism and to said means and containing insulating fluid which forms an insulating movable partition between the pressure fluid and said motor mechanism.

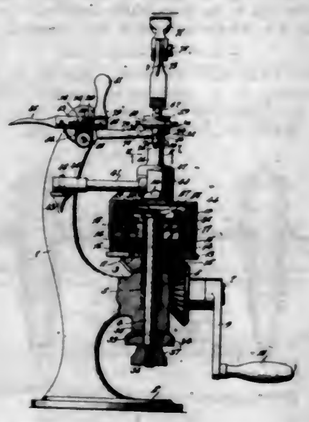
4. An electric switch comprising a movable contact, a fluid pressure motor mechanism connected to said contact to actuate it, a pipe for supplying pressure fluid to actuate said motor mechanism, means for varying at will the pressure of the pressure fluid in said pipe, and an insulating conduit between said pipe and said motor mechanism

containing insulating fluid of a different density than the pressure fluid and mounted in a position to cause the insulating fluid to remain in said insulating conduit.

5. An electric switch comprising a movable contact, a hollow insulator containing insulating fluid, a support for said insulator, a fluid pressure motor mechanism for actuating said movable contact, said mechanism being mounted on said insulator and in communication with the interior of said insulator near one end thereof, and means connected to the interior of said insulator near the other end for varying at will the pressure of said insulating fluid and thereby operating said motor mechanism.

[Claims 6 to 28 not printed in the Gazette.]

1,029,367. LENS-CUTTING MACHINE. FREDERICK L. HIGGINS, Ridgefield, N. J., assignor to The Meyrowitz Manufacturing Co., a Corporation of New Jersey. Filed Sept. 2, 1911. Serial No. 647,313. (Cl. 49—49.)



1. In a lens-cutting machine, a support, lens cutting means, a unitary, self-contained, lens-clamping structure carried by said support, and mechanism for driving said structure rotarily, said driving mechanism being substantially independent of the clamping action of said structure.

2. In a lens-cutting machine, a support, lens cutting means, a lens-clamping structure, mechanism for driving said structure rotarily, said structure having means for clamping a lens under adjustable pressure, said driving mechanism being substantially independent of the clamping action of said structure.

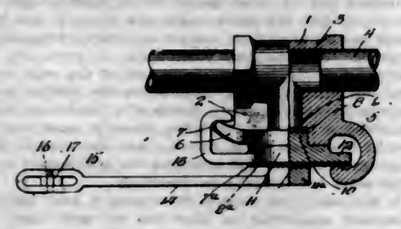
3. In a lens-cutting machine, a support, a lens cutting means, a lens-clamping structure comprising lens clamps proper and means for clamping a lens therebetween under adjustable pressure, mechanism for driving said structure rotarily, said driving mechanism being substantially independent of the clamping action of said structure, one of said lens clamps being normally spaced determinedly with respect to parts of said mechanism, regardless of the pressure exerted by said lens clamps upon a lens therebetween.

4. In a lens-cutting machine, a support, lens cutting means, a lens clamping structure comprising lens clamps proper and means for clamping a lens therebetween, one of said clamps being fixedly held against longitudinal and lateral displacement with respect to said support, and the other being universally jointed, whereby said latter clamp may accommodate itself to the surface of the work, mechanism for driving said structure rotarily, and means co-acting with said mechanism for varying the path of said structure.

5. In a lens-cutting machine, a support, lens cutting means, a lens-clamping structure comprising lens clamps proper and means for clamping a lens therebetween, one of said clamps being universally jointed, whereby said clamp may accommodate itself to the surface of the work, mechanism for driving said structure rotarily, and means co-acting with said mechanism for varying the path of said structure.

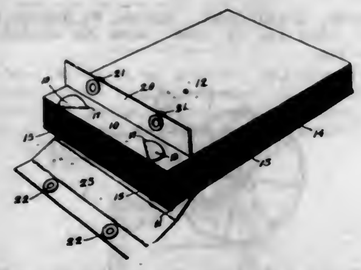
[Claims 6 to 11 not printed in the Gazette.]

1,029,368. AIR-BRAKE. GEORGE W. HOHN and EDWARD G. REISINGER, Butler, Pa. Filed Sept. 28, 1911. Serial No. 651,684. (Cl. 188—2.)



The combination with a train line pipe, of a valve carried thereby and in communication with said train line pipe, an arm supported by said valve, a lug carried by said valve, a detachable head normally closing said valve, a lip carried by said head and engaging the arm of said valve, a flat spring carried by said head and coöperating with said lip in retaining said head in engagement with said valve, a hook carried by said head and engaging the lug of said valve, and means adapted to be actuated by the derailment or displaced part of a truck for moving said lip and said hook out of engagement with said arm and said lug whereby said head can be unseated by the pressure of air within said train line pipe.

1,029,369. LOOSE-LEAF BOOK. FRANK E. HOUSH, Winthrop, Mass. Filed Jan. 26, 1912. Serial No. 673,589. (Cl. 129—18.)

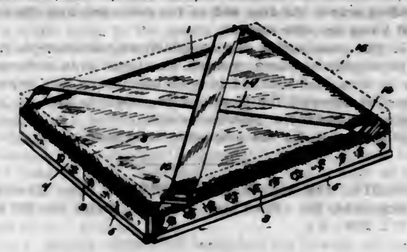


1. A looseleaf book comprising a stack of leaves, said stack having a multiplicity of opposed, oblique, open-ended slots; a multiplicity of stiff locking strips mounted in said slots; and means for closing the open ends of the slots to prevent the escape of the strips.

2. A looseleaf book comprising a stack of leaves, said stack having a multiplicity of opposed, oblique, open-ended slots; a multiplicity of stiff locking strips mounted in said slots; and a detachable member for closing the open ends of the slots to prevent the escape of the strips.

3. A looseleaf book comprising a stack of leaves made with a plurality of opposed, oblique, open-ended slots; a plurality of stiff locking strips mounted in said slots, each having lateral extensions at its ends; a front cover section slotted to correspond with the slots of the stack and provided with a flap; a rear cover section slotted to correspond with the slots of the stack and provided with a flap; and means for separably fastening the two flaps together to close the open-ended slots.

1,029,370. COVER FOR BED-SPRINGS. ISRAEL M. JACOBS, Philadelphia, Pa. Filed Mar. 7, 1912. Serial No. 682,141. (Cl. 5—13.)



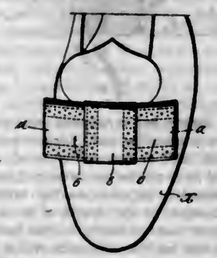
1. A cover for bed springs comprising a sheet of flexible material, a series of elastic straps secured to the under face of said covering adjacent its ends, and hooks on the free ends of said straps adapted to engage the end angles of a bed spring, and transverse straps comprising two sections secured to the under face of the cover adjacent its ends and adapted to be positioned under a bed spring, and means connecting the sections of said straps, substantially as described.

2. A cover for bed springs comprising a sheet of flexible material, elastic devices on said flexible material adapted to connect the same to a bed spring, and diagonally positioned crossed straps on the upper face of said cover adapted to secure a mattress on said cover, substantially as described.

3. A cover for bed springs, comprising a sheet of flexible material, elastic straps secured at one end to the cover, hooks on the free ends of said straps adapted to engage a bed spring, and diagonally positioned crossed straps on the upper face of said cover adapted to secure a mattress on said cover, substantially as described.

4. A cover for bed springs comprising a sheet of flexible material, a series of elastic straps secured to the under face of said covering adjacent its ends, and hooks on the free ends of said straps adapted to engage the end angles of a bed spring, and diagonally positioned crossed straps on the upper face of said cover adapted to secure a mattress on said cover, substantially as described.

1,029,371. SHOE ORNAMENT. CHARLES P. KEIGHLEY, Vineland, N. J. Filed Feb. 12, 1912. Serial No. 676,988. (Cl. 36—1.)



1. A shoe ornament, consisting of a body of stiffening material; a covering of flexible ornamental material for said body; with a metal plate concealed between the stiffening material and the ornamental material; said metal plate having projecting portions passing through the material of the ornament for attaching the same to a shoe.

2. A shoe ornament, consisting of a body of stiffening material; a covering of flexible ornamental material for said body; with a metal plate concealed between the stiffening material and the ornamental material; said metal plate having projecting portions passing through the material of the ornament for attaching the same to a shoe, with a separable ornamental tongue held in place by said projecting portions of the metal plate.

3. A shoe ornament consisting of a layer of stiffening material; a metal plate lying adjacent thereto and having projecting tongues passing through said stiffening material; and a length of flexible ornamental material extended over the cover piece of stiffening material, having its ends bent around the combined pieces of stiffening material and metal plate and engaging the projecting tongues of the metal plate.

4. A shoe ornament consisting of a layer of stiffening material; a metal plate lying adjacent thereto and having projecting tongues passing through said stiffening material; and a length of flexible ornamental material extended over the cover piece of stiffening material, having its ends bent around the combined pieces of stiffening material and metal plate and engaging the projecting tongues of the metal plate; with a second piece of ornamental material extending across the front of the first ornamental piece and having its ends folded around the structure and fastened together.

5. A shoe ornament consisting of two pieces of stiffening material; a metal plate mounted between said pieces and having projecting tongues extending through one of the same; a length of flexible ornamental material extending over and around said pieces of stiffening material and having its ends secured in place by engagement with the projecting tongues of said metal plate; with a second piece of ornamental material extending across the outer face of the structure having its ends brought around the same and turned toward each other; the projecting tongues of the metal plate engaging said ends to hold them together.

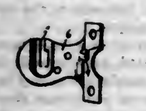
[Claims 6 to 8 not printed in the Gazette.]

1,029,372. CURTAIN-POLE. ELLIS B. KING, Jeannette, Pa. Filed Nov. 25, 1911. Serial No. 662,266. (Cl. 156—19.)



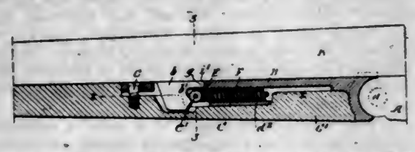
In a curtain pole, a rod, said rod having the side thereof at the ends provided with flat faces, face plates screwed to said flat faces, split tubular pins carried by said plates and providing oppositely disposed resilient arms, a bar having an inner concave face adapted to retain curtains in engagement with said rod, said bar having the ends thereof provided with openings for said split pins, and wear plates secured to said bar and having openings registering with the openings thereof to receive said pins.

1,029,373. SHADE-BRACKET. JAMES M. KING, Monett, Mo. Filed May 8, 1909. Serial No. 494,743. (Cl. 156—24.)



A shade bracket formed of a sheet of metal including members lying at right angles to each other, a portion of the sheet of metal being struck up across the angle from one member to the other in arc shape and unsevered from both of the members, whereby a combined brace and bearing is formed.

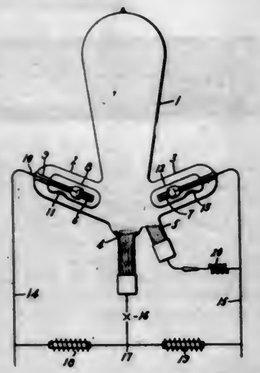
1,029,374. FORE-ARM LOCK FOR GUNS. JOHN C. KREMER and ANSLEY H. FOX, Philadelphia, Pa., assignors to A. H. Fox Gun Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 23, 1910. Serial No. 598,921. (Cl. 42—75.)



1. The combination in a gun, of a breech piece, a barrel section pivoted thereto having a depending lug, the lug having a notched face, a fore arm consisting of a fore arm iron and a wooden section secured thereto, said fore arm iron being slotted at each side to form guides, a rectangular latch bolt extending into the slots and adapted to the guides, a loosely mounted roller carried by the outer end of the latch bolt, and a spring mounted in the fore arm iron and bearing against the rear of the latch bolt.

2. The combination in a gun, of a breech frame, a barrel section pivoted thereto, said barrel section having a depending lug, with a notched face, a fore arm consisting of a body section and an iron secured thereto and shaped to fit the end of the breech section, said iron having a depending portion, with longitudinal slots therein, a latch bolt in the form of an H, a loosely mounted roller carried by the latch bolt, and a spring mounted between the cross member of the latch bolt and a pin on the fore arm iron, the said roller engaging the notched face of the barrel lug when the fore arm is in position.

1,029,375. VAPOR ELECTRIC APPARATUS. OSIAS O. KRUH, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Oct. 18, 1905, Serial No. 283,259. Renewed Sept. 2, 1911. Serial No. 647,437. (Cl. 176—50.)



1. The combination of a receptacle or container provided with arms or projections, electrodes in each of said arms, and a shield for each electrode surrounding said electrode and closed at that side where the arm or projection opens into the main receptacle.

2. The combination of a receptacle or container having an arm or projection, an electrode located in said arm or projection, and a shield interposed in the path of particles entering said arm or projection from the main container, said shield also extending around said electrode.

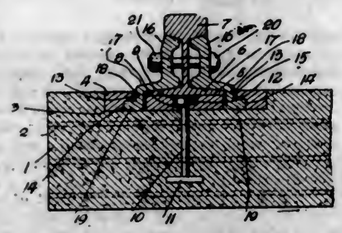
3. The combination of a receptacle or container formed with a condensing chamber, a plurality of arms opening into said container, a vaporizable electrode, a plurality of solid electrodes located respectively in said arms, and shields for said electrodes, each of said shields surrounding one of said electrodes and having an opening in the side thereof.

4. The combination of a receptacle or container provided with arms or projections, electrodes in each of said arms, and a shield for each of said electrodes, said shield extending across the free end of the corresponding electrode and along the side thereof.

5. The combination of a receptacle or container provided with tubular members or arms, an electrode in each member or arm, and a shield in each member or arm between the electrode and the mouth of the opening into the container of the tubular member or arm.

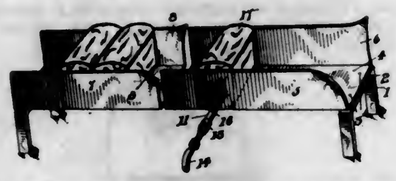
[Claims 6 and 7 not printed in the Gazette.]

1,029,376. TIE AND RAIL-FASTENER. JOHN KRYNOCK, Duquesne, Pa. Filed Mar. 6, 1912. Serial No. 681,888. (Cl. 238—3.)



In a tie and rail fastener, the combination with rails, and a concrete tie provided with transverse recesses, of a chair mounted in each recess and provided with a seat for the confronting ends of said rails, a plate embedded in said tie, parallel bolts carried thereby and extending into said chair, nuts screwed upon said bolts beneath the ends of said rails for retaining said chair in engagement with said tie, said plate having slots formed therein with the outer walls of said slots recessed to provide overhanging lips, and splice bars connected to and bracing the sides of said rails, said splice bars having the lateral flanges thereof provided with angle edges extending into the slots of said chair and engaging under said lips.

1,029,377. SEALING DEVICE FOR WRAPPERS. JOHN E. LANG, Washington, Pa. Filed Nov. 25, 1911. Serial No. 662,357. (Cl. 93—2.)



1. A sealing device for wrappers comprising supports, longitudinal bars connecting said supports, a heating table located upon said bars at one end thereof, a cooling table located upon said bars at the opposite end thereof and alining with and spaced from said heating table, each of said tables of a width equal to the length of the article operated upon, and a burner located beneath said heating table and adapted to heat the bottom and side walls thereof.

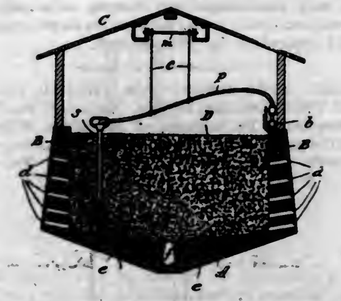
2. A sealing device for wrappers embodying supports, longitudinal parallel bars carried thereby, a heating table secured to said bars and having side walls with the ends thereof flared at one end of said device, a cooling table arranged upon said bars at the opposite end of said device and having the walls thereof flared confronting the end of said heating table, straps carried by said bars, said tables spaced from each other and each of said tables of a width equal to the length of the article operated upon, and a gas burner supported by said straps and adapted to project a flame beneath said heating table and against the side walls thereof.

3. A sealing device for loaves of bread embodying a heating table, a cooling table alining therewith, said heating table having one end thereof flared whereby a wrapped loaf of bread can easily enter said table, each of said tables of a width equal to the length of the article operated upon and said tables spaced from each other, and means arranged transversely of the bottom of said heating table for heating the bottom and side walls of said table.

4. A sealing device for wrappers for loaves of bread, comprising a heating table including a bottom and a pair of side walls, said table open at each end, a cooling table arranged in longitudinal alinement with and spaced from said heating table including a bottom and a pair of side walls and open at each end, supporting means for the outer end of said tables and supporting means for the bottom of each of said tables.

5. A sealing device for wrappers for loaves of bread, comprising a heating table including a bottom and a pair of side walls, said table open at each end, a cooling table arranged in longitudinal alinement with and spaced from said heating table including a bottom and a pair of side walls and open at each end, supporting means for the outer end of said tables and supporting means for the bottom of each of said tables, each of said tables of a width slightly greater than the length of the loaf.

1,029,378. PROCESS OF RENDERING MINERAL SUBSTANCES AVAILABLE AS FERTILIZERS BY AID OF FERMENTATION. CHARLES F. LAWTON, New York, N. Y., assignor to F. W. Huestis, New York, N. Y. Filed Sept. 14, 1911. Serial No. 649,367. (Cl. 71—9.)



1. A process of rendering mineral substances available as fertilizers, by aid of fermentation, which consists first in reducing said mineral substances to powder, second, in mixing the same with a suitable quantity of fermentable organic matter in the presence of water, third, in raising the temperature of the mixture to the fermenting point, and continuing the fermenting by access of air and by the occasional regulating of temperature, moisture and air supply, as may be required, until said mixture has become practically decomposed.

2. A process of rendering mineral substances available as fertilizers, by aid of fermentation, which consists first in reducing said mineral substances to powder, second in mixing the same with a suitable quantity of fermentable organic matter in the presence of water, third in raising the temperature of the mixture to the fermenting point, and allowing the fermentation to go on with access of air, until said mixture is practically decomposed.

3. In a process for making the alkalis phosphates and silica in minerals soluble to serve as fertilizers mixing the finely powdered mineral with fermentable organic matter moisture and air and then inducing a regulated fermentation of the mixture.

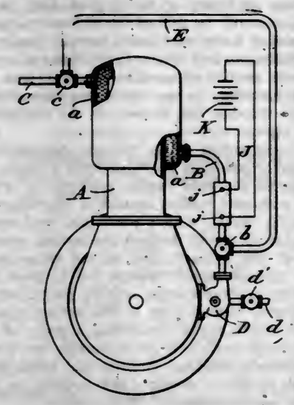
4. In a process for rendering the fertilizing constituents of minerals assimilable by plants the method of mixing the powdered mineral with fermentable organic matter and then fermenting the mixture by regulating the heat, moisture and air so as to promote the most rapid decomposition of both the organic matter and the mineral.

1,029,379. HAT-PIN-POINT PROTECTOR. OSCAR G. LEE, Jacobs Creek, Pa. Filed Dec. 9, 1911. Serial No. 664,827. (Cl. 24—155.)



A hat pin point protector comprising the combination with a head, of a cylindrical sleeve integral therewith and projecting from the inner end thereof, said sleeve open at its inner end and provided at the said end with interior threads, a plug formed of two different diameters, that portion of the smaller diameter provided with peripheral threads and engaging with the threads of said sleeve, that portion of the larger diameter abutting against the inner edge of the sleeve, said plug formed with a tapering opening, a pair of rectangular oppositely disposed locking members positioned in said sleeve and extending from the plug to the head, each of said members having its inner face grooved and its outer face flat, the ends of the grooves opposing the inner face of the plug flared, and springs of ogee curvature interposed between the flat face of said member and the inner face of the sleeve for retaining said members normally closed and in engagement with the pointed end of a hat pin, each of said springs having one end fixedly secured to one end of a locking member.

1,029,390. MEANS FOR PRELIMINARILY HEATING INTERNAL-COMBUSTION ENGINES. ABBOT A. LOW, Horseshoe, and HARRY HERTZBERG, New York, N. Y.; said Hertzberg assignor to said Low. Filed Nov. 8, 1907. Serial No. 401,239. (Cl. 123—179.)



1. The combination of an internal combustion engine, the cylinder of which is jacketed to provide a chamber for the circulation of a cooling medium in contact with the walls of the engine cylinder, circulating pipes connected to said circulating chamber, a by-pass connected to the circulating pipes at the respective sides of said chamber of the engine cylinder, valves for controlling the flow of water through the circulating pipes and the chamber to the exclusion of the by-pass, said valves being operable to direct the flow of water through the by-pass and the chamber to the exclusion of the circulating pipes, and an externally positioned heater coöperating with one of said pipes for heating the water when it is directed to circu-

lata through the by-pass and the chamber of said cylinder jacket.

2. The combination of the cylinder of an internal combustion engine having a chambered jacket, circulating pipes for establishing the circulation of a liquid in contact with the walls of said engine cylinder, a by-pass connected with said circulating pipes at the respective sides of said chambered jacket, three way valves positioned to direct the circulation of water through said pipes and the chambered jacket to the exclusion of the by-pass, said valves being operable to control the flow of water through the by-pass and the chambered jacket to the exclusion of the rest of the circulating pipes, and an external electric heater coöperating directly with said circulating pipes for heating the water when it is directed by said valves to circulate through the by-pass and into contact with the walls of the engine cylinder for heating the latter prior to starting the engine.

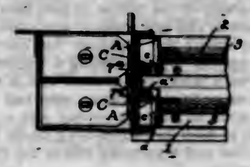
3. The combination of the cylinder of an internal combustion engine having a jacketed chamber, circulating pipes for establishing the circulation of a liquid in contact with the walls of said engine cylinder, a by-pass pipe connected with said circulating pipes at the respective sides of the jacketed chamber, valves positioned to control the flow of liquid through the circulating means and the jacketed chamber to the exclusion of the by-pass, said valves being operable to direct the flow of liquid through the by-pass and the jacketed chamber to the exclusion of said circulating pipes, and an electrically-operated heater comprising a plurality of resistance coils included in an electric circuit, said heater enveloping one of said circulating pipes for heating the water when it is directed to flow through the by-pass to the exclusion of the circulating pipes, whereby the walls of the engine cylinder may be heated preliminary to starting the engine.

4. The combination of an internal combustion engine, the cylinder of which is provided with a water jacket, a system of piping for establishing the circulation of a liquid through the jacket and into contact with the walls of the engine cylinder, a by-pass connected to said system of circulating piping at the respective sides of the water jacket, three way valves positioned to direct the flow of liquid through the system of piping and the water jacket to the exclusion of the by-pass, said valves being operable to shut off the flow of liquid through the circulating pipes and to direct said liquid through the by-pass, and an electrically-operated heater comprising a group of resistance coils applied externally to said system of piping, said heater operating to heat the water when it is directed to circulate through the by-pass to the exclusion of the system of piping.

5. The combination of an internal combustion engine, the cylinder of which is provided with a water jacket, a cooling system for said engine cylinder, a by-pass pipe connected with said cooling system at the respective sides of said water jacket, valves positioned and operating to direct the flow of liquid through the cooling system to the exclusion of the by-pass, said valves being operable to direct the flow of liquid through the by-pass to the exclusion of the cooling system, and an electrically-operated heater engaging with a part of the cooling system externally thereof, said heater comprising a group of resistance coils each wound on a core of insulating material, whereby the heater is adapted to heat the water when it is directed to circulate thraugh the by-pass to the exclusion of the cooling system.

1,029,381. WINDOW-SASH. EDMUND H. LUNKEN, Cincinnati, Ohio, assignor to The Lunkenheimer Company, Cincinnati, Ohio, a Corporation. Filed Feb. 20, 1912. Serial No. 678,914. (Cl. 189—72.)

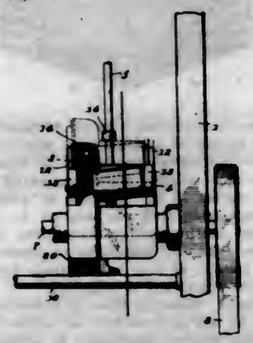
1. A metallic window sash having side bars of pressed sheet metal of channel form, each of said side bars having a folded portion forming an integral glass retaining flange projecting away from the channel, an angle bar removably secured to each of said channel bars, and having a glass retaining flange or portion parallel with said first named glass retaining flange, and an angle bar of pressed sheet metal within the channel of each side bar having a flange parallel with the walls of the channel, and fastening means securing the inner and outer angle bars to the cross web of the channel bar, substantially as described.



2. A metallic window sash having side bars of pressed sheet metal of channel form, each of said side bars having a folded portion forming an integral glass retaining flange projecting away from the channel, an angle bar removably secured to each of said channel bars, and having a glass retaining flange or portion parallel with said first named glass retaining flange, and an angle bar of pressed sheet metal within the channel of each side bar having a flange parallel with the walls of the channel, and a portion at right angles thereto removably secured to the cross web of the channel bar and having its edge bearing against one of the side walls of the channel, and fastening means securing the inner and outer angle bars to the cross web of the channel bar, substantially as described.

3. A metallic window sash comprising channel bars of pressed sheet metal having side flanges with mitered abutting ends, intermediate flanges unequally spaced between said side flanges and forming wide and narrow channels, and corner irons resting in the larger channels and suitably secured to the channel bars.

1,029,382. ATTACHMENT FOR THREAD DOUBLING AND TWISTING MACHINES. GEORGE F. MACFARLANE, Wilkes-Barre, Pa., assignor of one-half to Wilkes-Barre Silk Company, Wilkes-Barre, Pa., a Corporation of Pennsylvania. Filed July 25, 1910. Serial No. 573,675. (Cl. 118—6.)



1. In a thread doubling and twisting machine, the combination of a driving shaft, a thread feed roll about which the thread extends, gearing adapted to connect the shaft and thread roll, means for automatically disengaging said parts and separating the roll and shaft when the thread engaged by the roll is broken, and means for preventing the broken thread from entering the space separating the roll and shaft independent of any interference with free longitudinal movement of the thread.

2. In a thread doubling and twisting machine, the combination of a driving shaft, a thread feed roll adapted to be driven by the shaft, means for moving the feed roll from engagement with the shaft when the thread engaged thereby is broken, and a guard plate or shield mounted to move with said roll and extending across the space separating the roll and shaft.

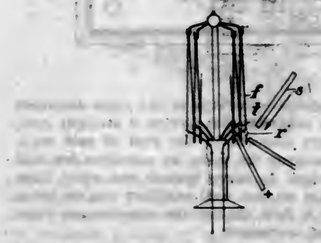
3. In a thread doubling and twisting machine, the combination of a thread feed roll, a driving shaft, gearing adapted to connect said roll and shaft, a spring acting to separate members of said gearing to disconnect the roll and shaft when the thread breaks, and a guard plate or shield extending across the space separating the roll and shaft.

4. In a thread doubling and twisting machine, the combination of a driving shaft, a set of thread feed rolls mounted in bearings that are movable vertically to and from the shaft, gearing adapted to connect said shaft and rolls when the latter are in their lowered position, means for automatically raising said rolls to disengage said connecting gearing when the thread breaks, and a vertical guard plate or shield for preventing the broken ends of a thread from becoming entangled with the shaft.

5. In a thread doubling and twisting machine, the combination of a driving shaft, a gear thereon, a set of feed rolls supported by a vertically movable frame above the shaft and provided with pinions adapted to engage said gear when the frame is in its lowered position, a spring acting to lift said frame and feed rolls, and a guard plate or shield extending downwardly from the feed roll supporting frame and over the outer face of which the thread extends after leaving said rolls.

[Claims 6 to 9 not printed in the Gazette.]

1,029,383. PROCESS OF MOUNTING AND SOLDERING ELECTRICAL FILAMENTS. SILVIO MARIETTI, Alpignano, near Turin, Italy, assignor to Société Anonyme des Perfectionnements aux Lampes Electriques à Filaments Metalliques, Brussels, Belgium. Filed July 2, 1908. Serial No. 441,624. (Cl. 176—38.)



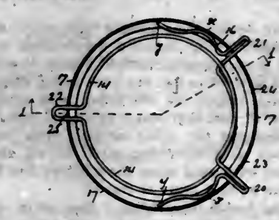
1. The improvement in the art of connecting a lamp filament to a leading-in-conductor, which consists in producing an arc at the junction of the filament and conductor, and simultaneously directing a current of air on the region of formation of the arc, thereby deflecting the latter away from the leg of the filament.

2. The improvement in the art of connecting a lamp filament to a leading-in-conductor, which consists in protecting a portion of the filament by a portion of the conductor and producing an arc at such protected portion of the filament, whereby the filament will become soldered to the conductor at such protected portion, and simultaneously directing a current of air on the region of formation of the arc, thereby deflecting the latter away from the leg of the filament.

3. The improvement in the art of connecting a lamp filament to a leading-in-conductor, which consists in protecting a portion of the filament by a portion of the conductor, passing an electric current through the conductor and producing an arc at such protected portion of the filament, whereby the filament will become soldered to the conductor at such protected portion, and simultaneously directing a current of air on the region of formation of the arc, thereby deflecting the latter away from the leg of the filament.

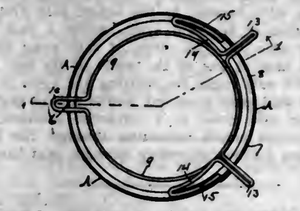
1,029,384. GLOBE-HOLDER. JOSEPH E. MARTIN, Kansas City, Mo., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Jan. 20, 1912. Serial No. 672,295. (Cl. 240—115.)

1. In globe supports, the combination of a gallery with a self-centering spring clasp having an inner coil which grasps the neck of the shade or globe and an outer coil whose ends bear against the inside of the gallery, said outer coil ends having each two points of bearing against the gallery when grasping the shade or globe, substantially as described.



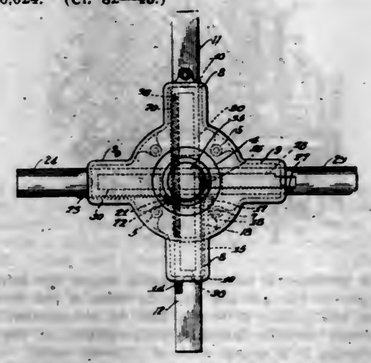
2. In globe supports, the combination of a gallery with a self-centering spring clasp having an inner coil which grasps the neck of the shade or globe and an outer coil whose ends bear against the inside of the gallery, said outer coil ends each having reverse bends to afford two points of bearing against the gallery, substantially as described.

1,029,385. GLOBE-HOLDER. JOSEPH E. MARTIN, Kansas City, Mo., assignor to The Bryant Electric Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Jan. 20, 1912. Serial No. 672,296. (Cl. 240—115.)



The combination of the slotted collar of a shade holder or globe support with a resilient coil having overlapping ends with bends forming handles guided in slots in the collar, the said ends being continued outwardly beyond said bends and then bent back again to form faces to bear against the inner face of the collar, substantially as described.

1,029,386. CENTERING TOOL AND PUNCH. GILBERT U. MAYS, Butler, Pa. Filed May 29, 1911. Serial No. 630,024. (Cl. 82—45.)



1. A centering device comprising a base plate, a casing mounted thereon, radially disposed overlapping shiftable arms extending in said casing, each of a pair of said arms provided with a pair of racks, one rack being disposed at right angles with respect to the other, the other of said arms provided with longitudinal racks, pinions ar-

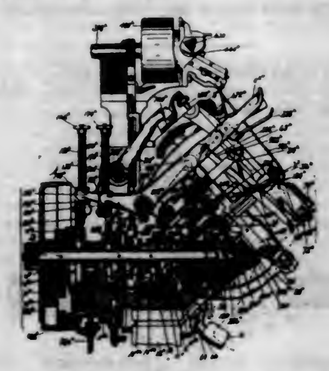
ranged within the casing and engaging with said racks for shifting the arms in unison when one of said arms is moved, means arranged within said casing for retaining said arms in a retracted position, and a spring controlled punch extending through the inner ends of said arms and said base plate.

2. A centering device comprising a base plate, a casing mounted thereon, radially disposed overlapping shiftable arms extending in said casing, each of a pair of said arms provided with a pair of racks, one rack being disposed at right angles with respect to the other, said arms being slotted, another of the said arms having a rack on one longitudinal edge and the other of said arms having a longitudinal rack at one of the walls of its slot, and pinions engaging with said racks for shifting the arms in unison when one of said arms is moved.

3. A centering device comprising a base plate, a casing mounted thereon, radially disposed overlapping shiftable arms extending in said casing, each of a pair of said arms provided with a pair of racks, one rack being disposed at right angles with respect to the other, said arms being slotted, another of the said arms having a rack on one longitudinal edge and the other of said arms having a longitudinal rack at one of the walls of its slot, pinions engaging with said racks for shifting the arms in unison when one of said arms is moved, and means within said casing for retaining said arms in a retracted position.

4. A centering device comprising a base plate, a casing mounted thereon, radially disposed overlapping shiftable arms extending in said casing, each of a pair of said arms provided with a pair of racks, one rack being disposed at right angles with respect to the other, said arms being slotted, another of the said arms having a rack on one longitudinal edge and the other of said arms having a longitudinal rack at one of the walls of its slot, pinions engaging with said racks for shifting the arms in unison when one of said arms is moved, means within said casing for retaining said arms in a retracted position, and a spring controlled punch extending through the slots of said arms and further extending through said base plate.

1,029,387. PULLING-OVER MACHINE. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass., a Corporation of New Jersey. Filed Mar. 28, 1903. Serial No. 149,966. (Cl. 12—4.)



1. A pulling-over machine having means for gripping an upper at the end and opposite sides of the forward portion and pulling it over a last, in combination with a heel-rest movable laterally with relation to the last for adapting it to engage heels of different lasts.

2. A pulling-over machine having, in combination, means for gripping an upper at the toe and at opposite sides of the forepart and pulling it over a last, a rest for the heel of the last, and means for automatically pressing said rest forwardly into position to support the last against longitudinal rearward displacement by the toe pulling means.

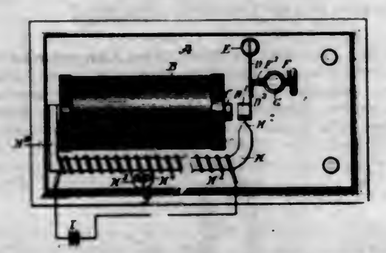
3. A pulling-over machine having, in combination, for gripping an upper at the toe end and at opposite sides of the fore part and pulling it over a last, a heel-rest, and yielding actuating mechanism operatively connected with the pulling means for moving the heel-rest into position to hold the last against rearward displacement by the pulling means.

4. Means for gripping an upper and pulling it over a last, a rest for the bottom of the last, a rest for the heel of the last, and actuating mechanism adapted to position the heel-rest automatically for supporting lasts of varying sizes.

5. In a pulling-over machine, means for pulling an upper over a last, in combination with a laterally movable heel-rest and means for locking said heel-rest against displacement.

[Claims 6 to 120 not printed in the Gazette.]

1,029,388. ELECTROMAGNETIC APPARATUS. JOHN MCINTYRE, Jersey City, N. J. Filed May 29, 1906. Serial No. 319,260. (Cl. 171—122.)



1. An electromagnetic apparatus of the class described comprising a main electromagnet having a straight core, an auxiliary magnet disposed in the field of said main magnet so as to augment the same, an armature for said main magnet arranged to move toward and away from the pole of said main magnet, said auxiliary magnet being adapted to project a field against the armature at right angles to its line of movement.

2. An electromagnetic apparatus of the class described comprising a main electromagnet having a straight core, an auxiliary magnet disposed in the field of said main electromagnet so as to augment the same, an armature disposed near one pole of said magnet and arranged to move toward and away therefrom in a direction parallel with the axis of the main magnet, one pole of said auxiliary magnet being bent into close proximity to said armature, and being adapted to project a field against the armature at right angles to its line of movement.

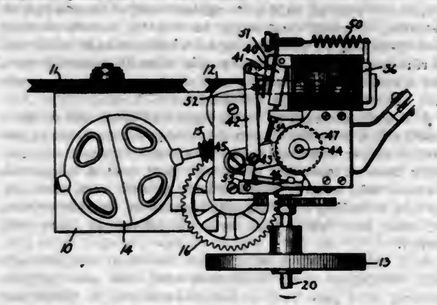
1,029,389. WELDING-MACHINE. AMANDUS METZGER, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Feb. 23, 1909. Serial No. 479,523. (Cl. 219—8.)

1. A welding machine comprising a carriage arranged to be propelled upon the surface of the material to be welded, welding means movably mounted upon the carriage and a single means to move the carriage and the welding means.

2. A welding machine comprising a carriage arranged to be propelled upon the surface of the material to be welded, a welding electrode movably mounted on the carriage in proximity to the material, and a single means to move the carriage and the electrode.

3. A welding machine comprising a carriage, an electric motor mounted thereon to propel the same upon the surface of the material to be welded, a welding electrode mounted on said carriage in proximity to the material and connections whereby the motor moves the electrode with reference to the carriage.

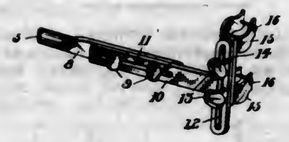
4. A machine for welding seams comprising an electrically propelled carriage arranged to propel itself upon the surface of the material to be welded parallel with the seam, and a welding electrode mounted on the carriage in proximity to the seam.



5. A machine for welding seams comprising a carriage having a wheel arranged to travel along the seam, an electric motor mounted thereon so as to propel the same and an electrode mounted upon said carriage in longitudinal alinement with said wheel.

[Claims 6 to 12 not printed in the Gazette.]

1,029,390. TELEPHONE-HOLDER. MARIAN MILEWSKI, Carmel, N. Y. Filed Feb. 1, 1912. Serial No. 674,771. (Cl. 248—3.)

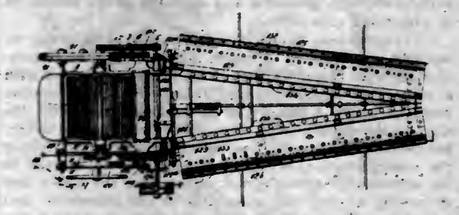


A holder for the purposes set forth comprising a face plate, an arm projecting therefrom and having its outer end offset and flattened, a T-shaped bracket having the stem thereof longitudinally slotted and positioned against the flattened portion of said arm, a plurality of thumb screws for adjustably connecting the slotted stem of said bracket to the flattened portion of said arm, said bracket having its head provided with a slot extending in the direction of its length, a bar positioned against one side of said bracket, a plurality of thumb screws extending through the slot of the head and engaging in said bar for adjustably connecting it to the bracket, said bar of less length than the length of the head, a clamping member projecting from the upper and lower ends of said bar, and clamping screws extending through the free ends of said clamping members for securing these latter around an object.

1,029,391. LAP-WINDER. CHARLES MILLS and LOREN W. PENNEY, Newton, Mass., assignors, by mesne assignments, to Saco-Pettee Company, Newton, Mass., a Corporation of Massachusetts. Filed July 19, 1909. Serial No. 508,323. (Cl. 19—16.)

1. In a lap winder, means for winding the lap under pressure comprising a bed having rotatable elements, a core adapted to rest on said elements, guides for said lap and a top roll and means for rotating it and said rotatable elements in unison and means common to both said top roll and said guides whereby any vertical movement of said top roll will be communicated to said guides to cause the vertical movement thereof.

2. In a lap winder, means for winding the lap under pressure comprising a bed having rotatable elements, a core adapted to rest on said elements, guides for said lap and a top roll and means for rotating it, supports for said top roll, supports for said lap guides, ways common to both sets of supports, and means common to both said top roll and said guides whereby any vertical movement of said top roll will be communicated to said guides to cause the vertical movement thereof.



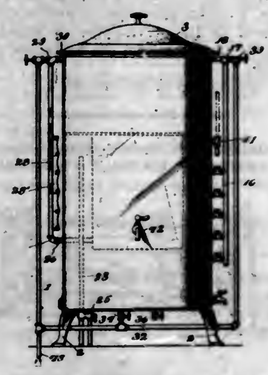
3. In a lap winder, means for winding the lap under pressure comprising a bed, a core, a guide for the lap having an axial support, a top roll, an axial support for said top roll, each of said axial supports being provided with a rack, in combination with pinions engaging said racks and mounted on a common axis, as set forth.

4. In a lap winder, means for winding the lap under pressure comprising a bed, a core, a guide for the lap having an axial support, a top roll, an axial support for said top roll, each of said axial supports being provided with a rack, in combination with a shaft, pinions mounted on said shaft and engaging said racks, and means for rotating said shaft.

5. In a lap winder, means for winding the lap under pressure comprising a bed, a core, a guide for the lap having an axial support, a top roll, an axial support for said top roll, each axial support being provided with racks, pinions engaging said racks and mounted on a common axis, in combination with braking means whereby the movement of said parts may be checked.

[Claims 6 to 17 not printed in the Gazette.]

1,029,392. COFFEE OR TEA URN. ALPHONSE F. MONEUSE, New Rochelle, N. Y. Filed Mar. 18, 1911. Serial No. 615,377. (Cl. 53—3.)



1. A coffee-urn, having in combination, a beverage receptacle, a percolater, a boiler, a service or feed-pipe in communication with the upper part of the urn and provided with a number of valved faucets in communication with the boiler, said faucets being arranged at predetermined intervals, a steam-pipe receiving a supply of steam from a source independent of the boiler and means whereby suction may be created in the service-pipe to withdraw a prescribed quantity of water from the boiler and supply it to the percolator.

2. A coffee urn, having in combination, a beverage receptacle, a percolator, a boiler, a service-pipe in communication with the upper part of the urn and provided with a number of faucets arranged at predetermined points and in communication with the boiler, a steam-pipe in communi-

cation with the service-pipe and receiving a supply of steam from a source independent of the boiler, and an injector aspirator situated in the steam-pipe for creating suction within the service-pipe whereby water may be withdrawn from the boiler and delivered to the percolator in prescribed quantities.

3. A coffee-urn, having in combination, a beverage receptacle, a percolator, a boiler, a service-pipe in communication with the upper part of the urn and provided with a number of suitably spaced faucets in communication with the boiler, a steam-pipe in communication with the service-pipe and receiving a supply of steam from a source independent of the boiler, an injector-aspirator controlling the communication, whereby suction may be created in the service-pipe to withdraw water from the boiler and deliver it in prescribed quantities to the percolator, and means for causing the beverage in the receptacle to be withdrawn and passed through the substance in the percolator to give additional strength to the beverage.

4. A coffee-urn, having in combination, a beverage receptacle, a percolator, a boiler, a service-pipe in communication with the upper part of the urn and provided with a number of suitably spaced faucets in communication with the boiler, a steam-pipe in communication with the service-pipe and receiving a supply of steam from a source independent of the boiler, an injector-aspirator controlling the communication whereby suction may be created in the service-pipe to withdraw water from the boiler and deliver it in prescribed quantities to the percolator, a circulating-pipe in communication with the beverage-receptacle and the upper part of the urn, said circulating-pipe being in communication with the steam-pipe, and an injector-aspirator for creating suction in the circulating-pipe, whereby the beverage may be withdrawn from the receptacle and discharged into the percolator and again passed into the receptacle.

5. A coffee-urn, having in combination, a beverage receptacle, a percolator, a boiler, a service or feed-pipe in communication with the upper part of the urn and provided with a number of valved faucets in communication with the boiler, said faucets being arranged at predetermined intervals, a partition shielding the inner ends of the faucets from the fluctuating level of the boiling water in the boiler, a steam-pipe, and means whereby suction may be created in the service-pipe to withdraw a prescribed quantity of water from the boiler and supply it to the percolator.

[Claim 6 not printed in the Gazette.]

1,029,393. GATE. ROY MOORE, Adena, Ohio. Filed Apr. 17, 1911. Serial No. 621,581. (Cl. 39—18.)



1. In combination, a gate mounted to swing open and shut, and foldable so that one end thereof can be raised, a latch for holding said gate against lateral and vertical movement, and means for operating said latch, said means including a resilient element for holding said gate in a normal, raised position when said latch is withdrawn.

2. In combination, a gate mounted to swing open and shut, and foldable so that one end thereof can be raised, a latch for holding said grate against lateral and vertical movement, means for holding said gate against lateral movement alone, a member movably mounted upon said gate, and serving simultaneously to operate said latch and to raise or lower said gate, and a resiliently extensible, adjustable connection between said operating member and said gate.

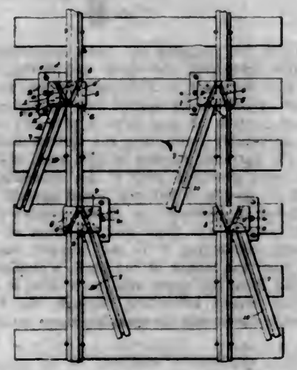
3. In combination, a gate mounted to swing open and shut, and foldable so that one end thereof can be raised, a latch movably carried by said gate, means adapted to cooperate with said latch to hold said gate against vertical and lateral movement when said latch is projected, a keeper for holding said gate against lateral movement, an operating member controlling said latch, means whereby said operating member serves to withdraw said latch and to raise said gate to disengage the same from said keeper, and a resiliently extensible, adjustable connection between said operating member and said gate.

4. A gate mounted to swing open and shut, and foldably constructed, whereby it can be raised and lowered at one end, a keeper adapted to hold said gate closed, an operating member mounted upon said gate, and a connection between said member and the body of said gate, said connection including a spring, said operating member serving to raise and lower said gate to release it from said keeper.

5. A gate hinged to swing open and shut, and having a body consisting of pivotally connected bars and uprights, whereby said gate body is foldable and can be raised and lowered at the end remote from the hinged end, a latch movably carried by said gate, means adapted to coöperate with said latch, to hold said gate against vertical and lateral movement when said latch is projected, a fixed member adapted to receive a part of said gate body to hold said gate against lateral movement, a pivoted lever mounted upon said gate body and operatively connected with said latch, and an elongated member having a spring connection with said gate body and an adjustable connection with said lever.

[Claims 6 and 7 not printed in the Gazette.]

1,029,394. CAR-REPLACER. WILLIAM H. MORRIS, Galena, Ill., and ALBERT GAUNBISEN and FRITZ HOPPE, Platteville, Wis. Filed Oct. 28, 1911. Serial No. 657,287. (Cl. 104—162.)



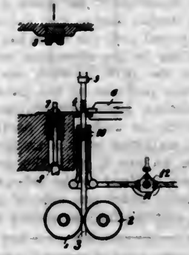
1. A car replacer comprising a base member having an engaging jaw at one side adapted to take over the ball of a rail; means in said base member adapted to be adjusted to engage against the rail to lock said base member thereto, said base member having two wheel flange grooves in its upper side disposed in V-form; an inclined grooved rail member adapted to be pivotally connected with said base member at the opposite sides thereof, one of said base member grooves being disposed for registration with the groove in said rail member when the latter is connected with one side of said base member, the other of said grooves being disposed for registration with one edge of said rail member when the latter is connected with the other side of said base member, substantially as described.

2. A car replacer comprising a base member having an engaging jaw at one side adapted to take over the ball of a rail; a set screw threaded in said base member adapted to be adjusted to engage against the rail to coöperate with said jaw for locking said base member to said rail, said base member having two wheel-flange grooves in its upper side disposed in V-form; an inclined grooved rail member adapted to be pivotally connected with said base member at opposite sides thereof, one of said base member grooves being disposed for registration with the groove in said rail member when the latter is connected with one side of said rail, the other of said grooves being disposed for registration with one edge of said rail member when the latter is connected with the other side of said base member, substantially as described.

3. A car replacer comprising a base member having an engaging jaw at one side adapted to take over the ball of a rail; means in said base member adapted to be adjusted to engage against the rail to lock said base member thereto, said base member having wheel-flange grooves in its upper side; an inclined grooved rail member adapted to be pivotally connected with said base member at the opposite sides thereof; and depending studs on said base member adapted to engage against the opposite sides of a tie to maintain said base member rigidly in position, substantially as described.

4. A car replacer comprising a base member having an engaging jaw at one side adapted to take over the ball of a rail; means in said base member adapted to be adjusted to engage against the rail to lock said base member thereto, said base member having wheel-flange grooves in its upper side; an inclined grooved rail member adapted to be pivotally connected with said base member at the opposite sides thereof; and depending studs on said base member adapted to engage against the opposite sides of a tie to maintain said base member rigidly in position, said rail member being provided with points at its under side for piercing the surface engaged thereby to prevent slippage, substantially as described.

1,029,395. ART OR PROCESS OF MANUFACTURING BOLTS, RIVETS, AND SIMILAR ARTICLES. HANS MÜLLER, Hagen, Germany. Filed Jan. 4, 1912. Serial No. 669,495. (Cl. 10—27.)



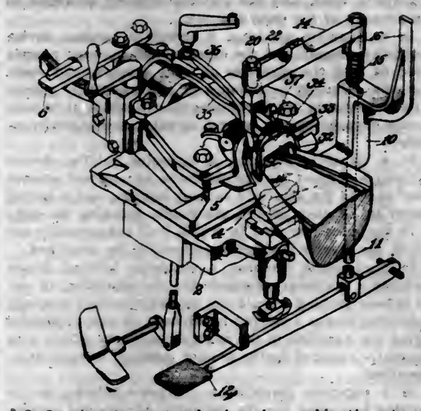
1. A process in the manufacture of bolts, rivets and similar articles out of rods heated to their entire lengths consisting of refrigerating the shank portion of the intended article previous to the upsetting of the head of such article.

2. The herein described process in the manufacture of bolts, rivets and similar articles consisting of cutting uniform pieces from a feed rod heated to its entire length, bringing them in face of the orifice of a matrix, inserting so much into the said matrix as is intended for a shank, upsetting the head of the bolt, and of refrigerating during the pauses of the feeding movements the shank-portion of the article in advance of the cutting operation by sprinkling a refrigerating liquid on said shank.

1,029,396. LASTING-MACHINE. CARL S. NORDEN, Wakefield, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 15, 1911. Serial No. 614,621. (Cl. 12—14.)

1. Lasting apparatus having, in combination, toe lasting wipers, a hand lever for actuating the wipers, and a treadle

connected with the retarder to control upper gripping pressure while the wipers are being actuated.



2. Lasting apparatus having, in combination, toe lasting wipers, a toe rest, means to raise the wipers to rub the upper up the side faces of the shoe, a holddown to clamp the last down on the toe rest, and an abutment on the holddown arranged to overlie the wipers in position to engage the upper upon the top face of the wipers while the wipers are being closed, and means to close the wipers.

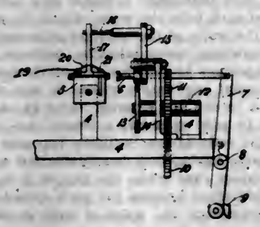
3. Lasting apparatus having, in combination, toe lasting wipers, a toe rest, means to raise the wipers to rub the upper up the side faces of the shoe, a holddown to clamp the last down on the toe rest, and an abutment on the holddown arranged to overlie the wipers and limit their rising movement at the plane of the shoe bottom, said holddown having an arm extending rearwardly over the edge of the shoe bottom and a foot that is vertically adjustable relatively to the wiper abutment and is arranged to engage the insole inside the channel lip.

4. Lasting apparatus having, in combination, toe lasting wipers, and a holddown comprising the vertically movable operating rod, the lateral arm 14 thereon, the depending stem 20 adapted to be positioned over the wipers, the base swiveled on the stem and having the abutment 25 over the wipers, and the foot 26 mounted for vertical adjustment relatively to the abutment 25 and arranged to reach rearwardly over the channel lip and engage the insole at the inner side of said lip.

5. Lasting apparatus having, in combination, toe lasting wipers, a toe rest, a holddown to clamp the last on the toe rest, and an upper pulling gripper fulcrumed on the holddown.

[Claims 6 to 16 not printed in the Gazette.]

1,029,397. CIGARETTE-MACHINE. STANISLAUS PALMOWSKY, New York, N. Y., assignor to The American Tobacco Company, a Corporation of New Jersey. Filed July 31, 1909. Serial No. 510,606. (Cl. 131—35.)



1. In a cigarette making machine, a support for the cigarette, and means for holding the cigarette on said support comprising a yielding element and a rigid element,

the cigarette engaging surfaces of which are disposed in parallel relation to the surface of the support upon which the cigarette rests, and the yielding element arranged to act in advance of the rigid element.

2. In a cigarette machine, a cigarette holding device comprising a support for the cigarette, an opposed presser member to hold the cigarette on said support, and resilient means arranged in advance of, and yieldingly engaging the cigarette in the same direction in which it is subsequently engaged by the presser member, substantially as described.

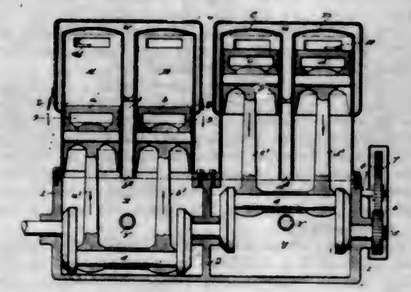
3. In a cigarette machine, a cigarette holding device comprising a support for the cigarette, an opposed presser member to hold the cigarette on said support, and a spring arranged in advance of and yieldingly engaging he cigarette in the same direction in which it is subsequently engaged by the presser member, substantially as described.

4. In a cigarette machine, a cigarette holding device comprising a stationary support for the cigarette, an opposed presser member to hold the cigarette on said support, and resilient means arranged in advance of and yieldingly engaging the cigarette in the same direction in which it is subsequently engaged by the presser member, substantially as described.

5. In a cigarette machine, a cigarette holding device comprising a support for the cigarette, an opposed presser member to hold the cigarette on said support, and resilient means carried by said presser member and arranged in advance of and yieldingly engaging the cigarette in the same direction in which it is subsequently engaged by the presser member, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

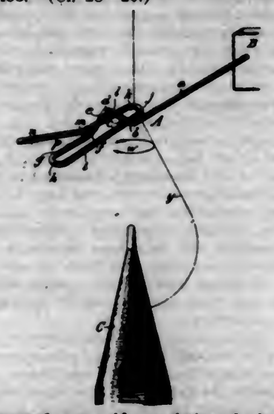
1,029,398. INTERNAL-COMBUSTION ENGINE. RAWLEY H. POWELL, Grafton, W. Va. Filed Apr. 20, 1911. Serial No. 622,188. (Cl. 123—60.)



1. In an internal combustion engine, a plurality of cylinders arranged in pairs, a crank shaft, a piston for each pair of cylinders connected with said crank shaft, the pistons of adjacent pairs of cylinders being connected to the crank shaft at 180° apart, an individual crank case for each pair of the cylinders, said crank case being in free communication with one end of its pair of cylinders, and a by-pass for each individual cylinder of a pair, between the cylinders of each pair, the walls of said by-passes being integral with the walls of the adjacent cylinders, and said by-passes establishing communication between the cylinders above the pistons and the interior of the crank case.

2. In an internal combustion engine, a pair of cylinders each having an intake and exhaust valve at one end, pistons disposed in said cylinder, a crank case, a common crank shaft, the ends of the cylinders opposite the intake and exhaust valve having free communication with the interior of the crank case when the piston is in its lower position, an individual by-pass for each cylinder disposed between said cylinders, the walls of said by-passes being integral with those of the cylinders on either side thereof, and said by-passes having a common integral wall, an inlet valve for permitting the entrance of air into the crank case, and means for timing the movement of the intake and exhaust valves.

1,029,399. YARN-GUIDE. FESTUS S. RAND, Providence, R. I., assignor to Universal Winding Company, Portland, Me., a Corporation of Maine. Filed Oct. 5, 1910. Serial No. 585,453. (Cl. 28—20.)

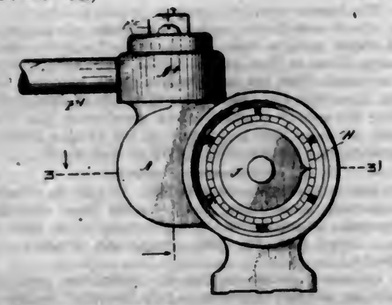


1. An improved yarn-guide consisting of a length of wire extending in a shank portion *a*, bent at substantially right-angles at *b* to form the cross-bar *c*; then bent in the same plane at an acute angle, forming the elbow *d* with the inclined arm *e*; bent again at *f* and continued in the side *g* extending in the direction of the shank portion *a*; then bent back at *h* and continuing in the opposite direction to form a hairpin loop, with the side *i* resting on top of the bend *b*; then bent around over the cross-bar *c* to form the loop *j*; extending out over the bar *c* and arm *e* with a clearance between the overlapping portions; and continued in an extension *n* diverging from the portion *g* to form a V-shaped opening *p*.

2. A self-threading yarn-guide consisting of the shank *a* having an offset cross-bar *c*; an elbow *d* at the end of the cross bar; and a double loop *g*, *h*, *i*, *j*, *l* extending outward then back and around over the cross-bar *c* to form the eye *k*; and terminating in the diverging end *n*, with an entrance space for the yarn between one side of the loop and the underlying portions of the guide.

3. A self-threading yarn-guide formed with a double hairpin loop having an underlying portion at one end of the loop bent in an elbow with a transverse bar crossing the loop to form an eye *k*, with the portion of the loop adjacent the elbow inclined to the sides thereof and adapted to lead the yarn under one side of the loop and back of the cross-bar, substantially as shown and described.

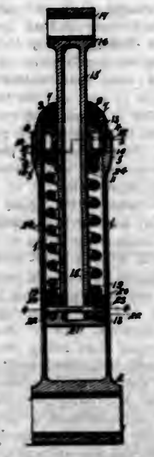
1,029,400. CLOCK FOR ROVING OR SPINNING MACHINERY OR THE LIKE. ALEXANDER RANKEILLOR, Saco, Me., assignor, by mesne assignments, to Saco-Pettee Company, Newton, Mass., a Corporation of Massachusetts. Filed July 30, 1909. Serial No. 510,434. (Cl. 235—91.)



1. The clock above described comprising a casing, a shaft located therein, a counting mechanism connected to said shaft to be operated thereby, means for operating said shaft, one end of said shaft projecting through said casing, in combination with a loose collar on said shaft also projecting through said casing as described.

2. The clock above described comprising, in combination, a casing, counting mechanism within said casing including a collar or sleeve having a notched edge, operating means extending into said casing, an indicating member having a tongue to engage the notch in said collar or sleeve, a bolt passing through said collar or sleeve and adapted to hold said tongue in said notch and said counting mechanism in positive engagement with said operating means, a nut for holding said bolt in place, and means for preventing removal of said nut.

1,029,401. RESILIENT SPOKE. GEORGE T. REICHENBACH and JACOB G. PECK, Portland, Oreg., assignors to H. O. Peck Automobile Wheel Company, Incorporated, Portland, Oreg. Filed May 10, 1911. Serial No. 626,159. (Cl. 152—47.)



1. A resilient spoke for vehicle wheels and the like comprising a cylinder, a piston rod projecting into said cylinder, a piston in said cylinder including a cap threaded onto the end of said piston rod, said cap having a pocket opening at the top, a washer on said piston rod for closing said pocket, a pin hole passing through said cap and piston rod, and a pin of lesser diameter than said pin hole held in said pin hole and a cushioning means within said cylinder coöperating with said piston.

2. In a resilient spoke for vehicle wheels and the like, a cylinder section having an open end, a piston rod projecting through said open end, said cylinder having a seat adjacent to its open end, a web held on said seat, a tubular cap threaded into said open end of said cylinder to engage said web and retain it on its seat, said web and said cap having an aperture to permit passage of said piston rod, and a rod packing carried within said cap and a cushioning means within said cylinder coöperating with said piston.

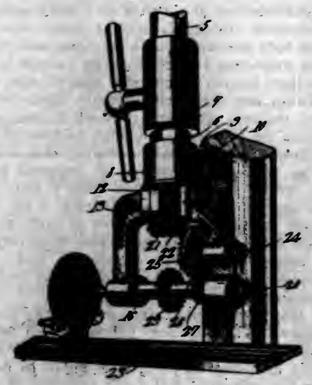
3. In a resilient spoke for vehicle wheels and the like, a cylinder section having an open end, a piston rod projecting through said open end, said cylinder having a seat adjacent to its open end, a web held on said seat, a tubular cap threaded into said open end of said cylinder to engage said web and retain it on its seat, said web and said cap having an aperture to permit passage of said piston rod, a rod packing carried within said cap, said web having a seat and said cylinder having a recess to receive the same and a cushioning means within said cylinder coöperating with said piston.

4. In a resilient spoke for vehicle wheels and the like, a cylinder section having an open end, a piston rod projecting through said open end, said cylinder having a seat adjacent to its open end, a web held on said seat, a tubular cap threaded into said open end of said cylinder to engage said web and retain it on its seat, said web and said cap having an aperture to permit passage of said piston rod, a rod packing carried within said cap, and a tubular bearing sleeve for said piston rod carried by said web, and a cushioning means within said cylinder coöperating with said piston.

5. In a resilient spoke for vehicle wheels and the like, a cylinder section having an open end, a piston rod projecting through said open end, said cylinder having a seat adjacent to its open end, a web held on said seat, a tubular cap threaded into said open end of said cylinder to engage said web and retain it on its seat, said web and said cap having an aperture to permit passage of said piston rod, a rod packing carried within said cap, a tubular bearing sleeve for said piston rod carried by said web, said bearing sleeve having a flange at its upper end to engage said cap, said rod packing being mounted between the apertured end of said cap and said flange and a cushioning means within said cylinder coöperating with said piston.

[Claims 6 and 7 not printed in the Gazette.]

1,029,402. MILLING ATTACHMENT FOR DRILL-PRESSES. RICHARD H. RITTER, Sedalia, Mo. Filed Apr. 11, 1911. Serial No. 620,299. (Cl. 90—17.)

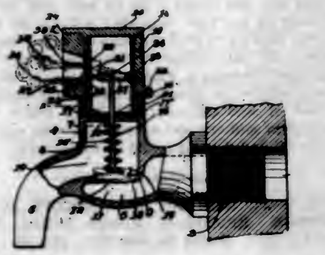


1. An attachment of the character described embodying an inverted U-shaped yoke, a spindle having one end journaled in one arm of the yoke and having primary and secondary reduced portions, the latter reduced portion being journaled in the other arm of the yoke, a pinion slidable on the secondary reduced portion of the spindle and fixed against rotation relative thereto, a pair of sleeves of different lengths on the primary reduced portion of the spindle and arranged between the pinion and the shoulder formed by the primary reduced portion, a milling wheel slidable on the primary reduced portion between the sleeves and fixed against rotation relative to the spindle, a nut screw-threaded on the extremity of the secondary reduced portion for retaining the said sleeves, milling wheel and pinion in position, and permitting the spindle to be withdrawn from the arms.

2. An attachment of the character described embodying an inverted U-shaped yoke, a spindle having one end journaled in one arm of the yoke and having primary and secondary reduced portions, the latter reduced portion being journaled in the other arm of the yoke, a pinion slidable on the secondary reduced portion and fixed against rotation relative thereto, a pair of sleeves on the primary reduced portion and arranged between the pinion and the shoulder formed by the primary reduced portion, a milling wheel slidable on the primary reduced portion be-

tween the sleeves and fixed against rotation relative to the spindle, a nut screw threaded on the extremity of the secondary reduced portion for retaining the sleeves, milling wheel and pinion in position and permitting the spindle to be removed, a short shaft journaled for rotation in one arm of the yoke and removable therefrom, a bevel gear fixed on the said shaft, and a pinion slidable on the said shaft and arranged between the bevel gear and the corresponding arm and fixed against rotation relative to the said shaft, whereby the pinions may be removed from the shaft and spindle for the purpose described.

1,029,403. FAUCET. CHARLES SCHLATTERER, Philadelphia, Pa. Filed June 2, 1911. Serial No. 630,940. (Cl. 137—4.)



1. The combination in a faucet of a body portion having an extension formed thereon, a valve seat located within said body portion, a valve engaging said valve seat and a stem projecting therefrom, a cap carried by the extension, a shell located within said cap, an arm hingedly secured within the shell and pivotally connected to the valve stem, the said cap being provided in one side with a slot, means for preventing entrance to the shell, a key movable through said cap for operating this means and for engaging the arm, as and for the purposes set forth.

2. In a faucet, the combination with a body portion, of a valve operating in said body portion, a cap mounted on said body portion, means mounted in said cap for actuating said valve, a locking mechanism coöperating with said last named means and carried by said cap, and means whereby said locking mechanism may be actuated for the movement of the valve aforesaid.

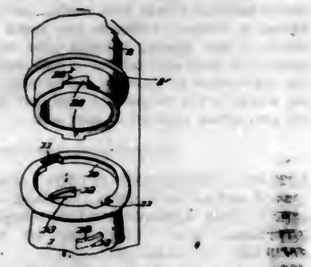
3. In a faucet, the combination with a body portion, of a valve operating in said body portion, a cap detachably mounted on said body portion, a shell carried within said cap, a valve actuating mechanism mounted in said shell and means for operating said valve actuating mechanism mounted in said shell.

4. In a faucet, the combination with a body portion, of a valve operating in said body portion, a cap detachably mounted on said body portion, a shell carried within said cap, a valve stem projecting into said cap, a lever pivoted in said shell and connected to said stem, and means for operating said lever vertically.

5. In a faucet, the combination with a body portion, of a valve operating in said body portion, a cap detachably mounted on said body portion, a shell carried within said cap, a valve stem projecting into said cap, a lever pivoted in said shell and connected to said stem, a barrel mounted in said cap and abutting against said shell, a locking mechanism coöperating with said barrel, and means whereby said locking mechanism and barrel may be actuated and movement imparted to said lever.

1,029,404. STREET-LIGHT POST AND THE LIKE. GERARD SCHUMACHER, Anniston, Ala. Filed Sept. 27, 1911. Serial No. 651,670. (Cl. 189—26.)

1. A hollow supporting section having a top opening surrounded by an inwardly extending flange having a vertical notch therethrough, said section provided with an internal fixed locking lug arranged a distance from and directly below said notch, in combination with an upper section having a supporting ledge and an exterior locking lug a distance below said ledge and adapted to pass through said notch and on partial rotation of said upper section to pass and drop below said internal lug and on further rotation of said upper section to lock under said internal lug, substantially as described.



2. An open-end hollow section having an annular inwardly extending flange at said open end and formed with notches, said section having internal lugs spaced from and arranged directly below said notches, in combination with a post section having an end adapted to extend longitudinally into said hollow section and provided with a portion to rest on the top edge thereof and with exterior locking lugs adapted to pass through said notches and on partial rotation of said post section to pass said internal lugs and on further rotation of said post section to pass under said internal lugs and into locking engagement therewith.

3. A hollow pole base at its upper end having a neck formed with internal locking lugs, said neck having a top vertically-notched supporting ledge a distance above said lugs, in combination with a pole section having an exterior shoulder adapted to rest on said ledge to support said section, said section projecting below said shoulder and into said neck and having exterior locking lugs engaged under said internal lugs of the base, the vertical width of said external lugs being less than the vertical distance between said ledge and said internal lugs.

4. An open-top hollow base having a horizontal inwardly-extending flange around its top opening and formed with vertical notches, said base provided with segmental internal lugs directly below said notches in combination with a post section having an end to extend down into said base and a ledge to engage the top edge thereof and provided with external lugs adapted to pass down through said notches and under said internal lugs and into wedging locking contact with the under edges thereof.

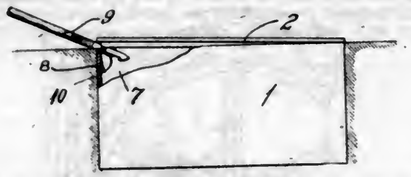
5. A street light post or the like, comprising a hollow base having a top opening and a column leveling and supporting ledge having a transverse top surface, said base internally provided with fixed column locking means arranged below said ledge, in combination with a separate column having a supporting ledge with a transverse under surface adapted to rest on said horizontal top surface of said ledge of the base and thereby maintain the column in vertical position, said column having a portion depending from its said ledge and removably depending in said base and bracing the column against lateral stresses and provided with a portion to engage said means of the base and lock said column to the base perpendicular to and with said ledges in tight engagement.

[Claim 6 not printed in the Gazette.]

1,029,405. COVER FASTENING AND RELEASING DEVICE. WADE HAMPTON SMITH, Macon, Ga. Filed Feb. 8, 1912. Serial No. 676,475. (Cl. 70—82.)

1. In combination, a receptacle, a cover therefor, locking means coöperating with said cover to hold the same closed with respect to the receptacle, and a lever adapted to be engaged with said locking means to release the same and upon continuous movement to raise the cover aforesaid.

2. In combination, a receptacle, a cover therefor, means including catches pivotally mounted on said cover and adapted to automatically engage the receptacle to lock the same closed, and a lever adapted to be engaged with said means to release the catches and upon continuous movement to raise the cover.



3. In combination, a receptacle comprising locking projections, a cover therefor, a rock shaft pivotally mounted on said cover and having normally depending locking catches for interlocking with the projections aforesaid, said shaft having a reduced portion intermediate its ends, the cover aforesaid having a slot adjacent the reduced portion of the rock shaft, and a key lever adapted to be inserted in the slot in the cover, and formed with a hook to engage the reduced portion of said rock shaft whereby the catches may be disengaged from the locking projections upon movement of the lever and the cover raised by a further movement of said lever.

4. In combination a receptacle, a cover therefor, locking means coöperating with the cover to hold the same closed with respect to the receptacle, and a lever engageable with the locking means and adapted to fulcrum on the receptacle whereby on initial movement of said lever the locking means will be released and subsequent movement of the lever will raise the cover.

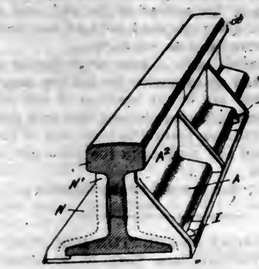
1,029,406. BUFFING-ROLL. WILLIAM HENRY STAYNES, Leicester, England. Filed Oct. 20, 1911. Serial No. 655,752. (Cl. 149—16.)



A buffing roll having projecting ribs on its surface with abrasive working faces, said ribs being arranged in series converging to a point approximately a V so that as the roll rotates in the direction of the apices of the ribs the latter, by divergence from their apices, act upon the work from the center thereof laterally outward toward the edges of the same, the ends of said ribs overlapping each other and being diminished in width.

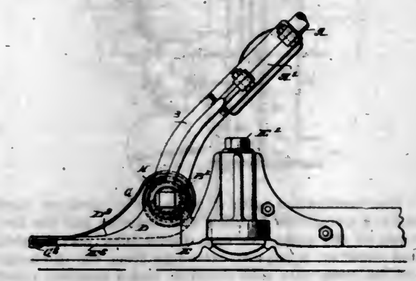
1,029,407. RAIL-JOINT. JOSEPH H. UNDERWOOD, Roscoe, Pa. Filed Mar. 1, 1912. Serial No. 680,950. (Cl. 239—6.)

A rail joint comprising two plates, one of which has an integral rail engaging flange and transverse recesses in the upper surface of the plate and which recesses communicate with openings in the lower portion of the flange, the upper surface of the recessed plate having raised portions adjacent to the ends and underneath said flange, lugs integral with the flange and raised portion underneath the latter, the other of said plates having a flange and lateral projections parallel to each other and adapted to slide in said recesses and through the openings in the flange of the first referred to plate, said projections and bottom of the openings having registering apertures for the reception of fastening means, the inner end of each of said projections upon the second referred to plate terminating in a shoulder adapted to contact with the raised portions at the ends of



the recessed plate to limit the movements of the two plates toward each other, as set forth.

1,029,408. TROLLEY. JOHN H. WALKER, Lexington, Ky. Filed July 7, 1910. Serial No. 570,791. (Cl. 191—40.)



1. The combination of a base plate having an extension provided with lugs having bearings, a pivot pin fitting in said bearings and comprising a main section having an angular portion at one end and slotted from its opposite end and provided in said slotted end with a threaded socket, a threaded stud screwing in said socket and having a cupped flange receiving the slotted end of the main portion of the pin, the pole prongs encircling the pin alongside the lugs of the base plate, means for securing the prongs rigidly to the pivot pin, and a flat coiled spring held at one end in the slot of the pivot pin and wound spirally around said pin and held at its other end to the base plate, substantially as set forth.

2. In a trolley pole support, the combination of a turn table having its base plate extended and provided on said base plate with bearing lugs extending along the extension of the base plate, forming a groove or recess for a spring plate, the prongs lapping alongside the lugs of the turn table, a pivot pin extending through the prongs and lugs and having a body portion socketed in one end and slotted longitudinally from said end and a threaded stud screwing in said socket, and a flat spiral spring wound around the pivot pin between the lugs of the turn table and held at one end in the slot of the said pivot pin and having its other end bent into engagement with the edge of the base plate, substantially as set forth.

3. The combination of a trolley pole, a two part pivot pin therefor having its main portion slotted longitudinally and its other portion cupped to encircle and prevent the spreading of the split portion and a flat plate spring held at one end in the slot of the pivot pin and coiled around the latter, substantially as set forth.

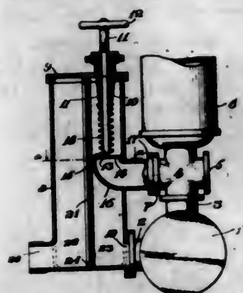
4. The combination of a pivot pin composed of a main portion and a threaded stud, the main portion being socketed in one end and slotted longitudinally from said end and the stud being screwed in the socket of the main portion and having means engaging with the slotted end thereof for preventing the spreading of such end, lugs

having bearings in which the pivot pin may be turned, the trolley pole having its prongs provided with bearings in which the pin may be turned, means for holding the pin from turning in the prongs of the pole and a spring coiled around the pivot pin and held at one end in the slot thereof, substantially as set forth.

5. The combination with a base plate having bearings for a pivot stud and an extension beyond the same, of the trolley pole, a pivot pin in the bearings of the base plate and a flat plate spring having one end bent into connection with the edge of the base plate, the other end of the spring being coiled around and secured to the pivot pin, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,029,409. PRESSURE-REGULATOR FOR PUMPS. RUDOLPH W. WITTEMANN, New York, N. Y. Filed May 2, 1911. Serial No. 624,527. (Cl. 103—85.)



1. The combination with a pump, of a pressure tight chamber, a connection between said chamber and the suction end of the pump, an open liquid inlet port leading to said chamber, a conduit extending from the discharge end of the pump into said chamber, and a pressure relief valve in said conduit within said chamber, substantially as set forth.

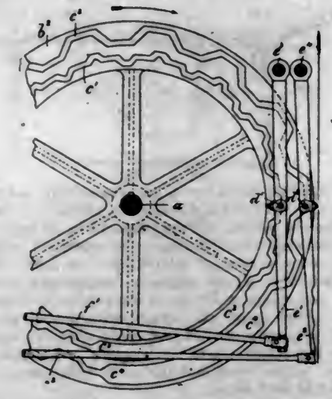
2. The combination with a pump, of a chamber connected with the suction end of the pump, a conduit extending from the discharge end of the pump into said chamber, a pressure relief valve in said conduit within said chamber, a liquid inlet for said chamber, a screen in said chamber, said screen dividing the liquid inlet side of said chamber from that containing the outlet, the said pressure relief valve and the said conduit, substantially as set forth.

3. The combination with a pump, of a chamber connected with the suction end of the pump, of a pressure relief conduit extending from the discharge end of the pump into said chamber, a valve in said pressure relief conduit within said chamber, a spring pressing on said valve to seat it, a cover for said chamber, means in said cover for adjusting the tension of the said spring, a liquid inlet for said chamber and a removable screen within said chamber, between the inlet and outlet of said chamber, substantially as set forth.

4. The combination with a pump, of a chamber connected with the inlet terminal of the pump, an overflow pipe extending from the discharge terminal of the pump into said chamber, a yielding pressure valve for said overflow pipe, within said chamber, a removable dividing screen in said chamber, and a liquid inlet for said chamber, said liquid inlet being at one side of the screen plate and the outlet and overflow pipe at the opposite side of said screen plate, substantially as set forth.

1,029,410. WINDING-ENGINE FOR COLLIERIES OR LIKE PURPOSES. ROBERT JAMES WORTH, Stockton-on-Tees, England. Filed Aug. 26, 1909. Serial No. 514,781. (Cl. 121—97.)

1. A valve gear for winding engines comprising a movable element operatively connected to the engine to move synchronous therewith, the engine having a steam valve and an exhaust valve, means for operating the valves, means on the aforesaid movable element for actuating the valve operating means, and means on the movable element for stopping the operation of the valve gear at a predetermined time.



2. A valve gear for winding engines comprising a movable element operatively connected to the engine to move synchronous therewith, the engine having a steam valve and an exhaust valve, means for operating the valves, means on the aforesaid movable element for actuating the valve operating means, said actuating means being arranged to progressively increase the lead of the exhaust valve and to advance the cut-off of the steam valve after the commencement of the wind, and means on the movable element for stopping the operation of the valve gear at a predetermined time.

3. A valve gear for winding engines comprising a movable element operatively connected to the engine to move synchronous therewith, the engine having a steam valve and an exhaust valve, means for operating the valves, and means on the aforesaid movable element for actuating the valve operating means, said actuating means being arranged to progressively increase the lead of the exhaust valve, and to advance the cut-off of the steam valve after the commencement of the wind.

4. A valve gear for winding engines comprising a movable element operatively connected to the engine to move synchronous therewith, the engine having a steam valve and an exhaust valve, means for operating the valves, and a series of successively operating means on the aforesaid movable element for actuating the valve operating means, said actuating means corresponding in number to the number of strokes required to be made by the engine for one complete wind.

5. A valve gear for winding engines comprising a movable element operatively connected to the engine to move synchronous therewith, the engine having a steam valve and an exhaust valve, means for operating the valves, and a series of successively operating means on the aforesaid movable member for actuating the valve operating means, said actuating means being arranged to progressively increase the lead of the exhaust valve, and to advance the cut-off of the steam valve after the commencement of the wind.

[Claims 6 to 14 not printed in the Gazette.]

1,029,411. SHEARS. GEORGE ZELL and WILLIAM S. SHENK, Lancaster, Pa. Filed July 8, 1911. Serial No. 637,493. (Cl. 164—46.)

1. In shears of the class described, a base, a swinging arm connected therewith for vertical movement, an operating lever connected with the base for vertical movement, the said arm being provided with a bifurcated free end, a rack bar adjustably connected with the operating lever and working within the bifurcation, means pivotally connected with the arm and engageable with the rack bar, for lowering the said arm on the lowering of the operating lever, cutters carried by the base and arm respectively, and lifting means connected with the operating lever and engageable with the arm for raising the same after having been lowered and having an extension for bringing the said lifting means into and out of connection with the said arm.



2. In shears of the class described, a base, a swinging arm pivotally connected with the base at one end thereof, an operating lever pivotally connected with the base at the opposite end thereof, coöperative cutting blades carried by the base and arm respectively, the said arm being provided with a bifurcation in its free end, a rack bar adjustably connected with the operating lever and engaged in the bifurcation in the arm, opposed links detachably connected with the swinging arm and having a cross pin engageable with the rack bar, and a lifting bar pivoted to the operating lever and engageable with the pivotal connection of the links with the arm for lifting the latter after being lowered by the operating lever.

1,029,412. GREASE-CUP. OSCAR ZERK, Cleveland, Ohio, assignor to The Zerk Manufacturing Company, Cleveland, Ohio, a Corporation of Ohio. Filed Sept. 2, 1910. Serial No. 580,217. (Cl. 184—48.)



1. In a grease cup, the combination, with a cup member and a cap member screwing one onto the other, of a tongue and a spring mounted in and carried by one and the same member, the spring frictionally bearing on the tongue, whereby the movable member is held against premature movement and the tongue slides but does not rotate in the other member.

2. In a grease cup, the combination, with a cup member and a cap member screwing one onto the other, of a tongue slidable but non-rotatable in one member, and a spring mounted within the other member and having a pair of arms engaging the opposite sides of said tongue, said arms being connected with the bowed portion of the spring through the intermediacy of coils.

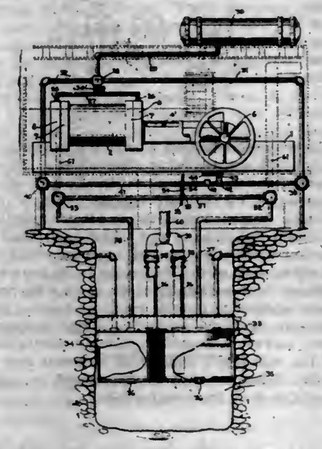
3. In a grease cup, the combination, with a cup member having external threads and a cap member having internal threads screwing onto the cup member, of a flat tongue slidable but non-rotatable in a non-circular bore of the cup member, and a spring mounted within the cap member and having a pair of arms engaging the opposite sides of said tongue, said arms being connected with the bowed portion of the spring through the intermediacy of coils.

4. In a grease cup, the combination of a cup having a non-circular bore and a threaded exterior and a cap having a threaded interior and screwing onto the cup, a disk within the cap at its upper end, a tongue swiveled in said disk and occupying the bore, and a spring rotatable with the cap and frictionally engaging the tongue.

5. In a grease cup, the combination of a cup having a square bore and a threaded exterior and a cap having a threaded interior and screwing onto the cup, a disk within the cap at its upper end, a flat tongue swiveled to said disk and occupying a diagonal position in the square bore, and a spring frictionally engaging the flat side of the tongue.

[Claims 6 to 13 not printed in the Gazette.]

1,029,413. PUMPING APPARATUS. FRIEND A. ALLEN, Granger, Mo., assignor of one-half to John W. Searight, Granger, Mo. Filed June 5, 1911. Serial No. 631,229. (Cl. 103—8.)



In an apparatus of the kind described, the combination with the extended branch pipes connected with the ends of the cylinder of an air engine, of a water receiving chamber with an inlet valve mounted on the end of each of said branch pipes and adapted to be suspended within a well, a valve in each of said branch pipes, an air escape pipe connected with the top of each of said cylinders, a valve in each of said air escape pipes, a water discharge pipe connected with the top of each of said cylinders, a rotary rod connected with said valve in the branch pipes, a second rotary rod connected with each valve in the air escape pipe, a link connection between said rods, a pair of tappets on the first named rod, a toothed gear wheel having a depending pin adapted to successively engage said tappets and alternately operate the same, a second toothed wheel meshing with said toothed wheel, a toothed wheel on the opposite end of the shaft of said second toothed wheel, and worm meshing with said last named toothed wheel, and mounted on the crank shaft of the engine.

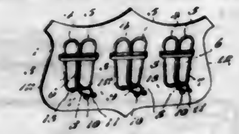
1,029,414. MILK-BOTTLE HOLDER. EDWARD R. BENNETT, Athol, Mass. Filed Feb. 17, 1912. Serial No. 678,408. (Cl. 248—20.)



A bottle holder comprising a back member, vertically spaced bottle receiving loops secured to the back member,

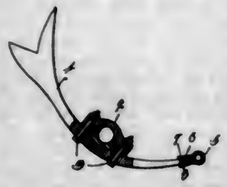
and a combined clamp and support consisting of a spring wire bent upon itself and having its end portions turned at right angles and engaged in the back member, said spring wire above the angularly turned end portions standing in spaced relation to the back and gradually approaching the latter in an upward direction, the bight portion of the spring wire being turned away from the back member in parallel relation to the bottle receiving loops.

1,029,415. PEN AND PENCIL HOLDER. GEORGE P. BOARDMAN, Syracuse, N. Y. Filed Feb. 25, 1911. Serial No. 610,810. (Cl. 24—12.)



A pencil holder comprising a support, attaching means therefor, the said support being adapted to be attached to the garment of the wearer, a plurality of pencil supporting elements mounted on the said support, each of the said elements being formed from a single piece of resilient material secured to the support and folded upon itself to provide a pair of vertically disposed loops immediately adjacent each other, each of the said loops being provided with a free terminal bent outwardly at an angle with respect to the support, adapted to provide clamping jaws, a plurality of transversely arranged projecting strips stamped from the support, and each adapted to slidably receive the loops of one of the said pencil supporting elements and to hold them against displacement from the support on separation of the clamping jaws from each other.

1,029,416. PACKER-ARM FOR GRAIN-BINDERS. HENRY BOHLINGER, Gilmanton, Wis. Filed Nov. 6, 1911. Serial No. 658,689. (Cl. 56—126.)



In a device of the character described, the combination with a packer arm having a threaded lower end, of a bearing sleeve, an internally threaded laterally extending boss formed integral with said sleeve and adapted to be threaded onto the lower end of the packer arm to detachably secure the bearing sleeve to said packer arm.

1,029,417. COIN-CONTROLLED LOCK. GEORGE G. F. BOSWELL, Indianapolis, Ind., assignor of one-fourth to David A. Boswell, Indianapolis, Ind. Filed Aug. 24, 1911. Serial No. 645,733. (Cl. 194—78.)

1. A coin controlled lock having a bolt, a stationary coin chute with a coin opening at one edge, a slidable plate having means thereon engaged by the coin when said bolt is withdrawn, whereby said plate will be moved into position to cover said coin chute and prevent the introduction of a coin, a spring to throw the bolt, and a knob controlled means to return said plate to a normal position and uncover said coin chute.

2. A coin controlled lock having a case, a coin chute in said case arranged to permit the coin to move downwardly crosswise of the case, a bolt having a transverse coin passageway through it which will register with the lower end of said coin chute when said bolt is thrown, a slidable plate having a projection thereon extending within said bolt which will catch and support the coin when it is within the bolt, means on said plate which will be engaged by the coin when said bolt is withdrawn and moves said plate into position to cover the coin chute, means for returning the bolt independently of said plate and dislodging the coin, and means actuated by a knob for returning said plate to a position for uncovering the coin chute.



3. A coin controlled lock having a case, a coin chute in said case arranged to permit the coin to move downwardly crosswise of the case, a bolt having a transverse coin passageway through it registering with the lower end of said coin chute when said bolt is thrown, a slidable chute closing plate having a projection thereon extending within a groove in said bolt and which will catch and support the coin when it is within said bolt, a shoulder on said projection which will be engaged by the coin when said bolt is withdrawn whereby said plate will be moved into position to cover the coin chute, a knob and shaft, the latter provided with an arm projecting through the bolt for engaging the coin when in the bolt and for withdrawing the bolt when the knob is turned, a spring engaging the end of said arm for returning it to its normal position, means for returning the bolt independently of said plate and dislodging the coin, and means actuated by the knob for returning said plate to a position for uncovering the coin chute.

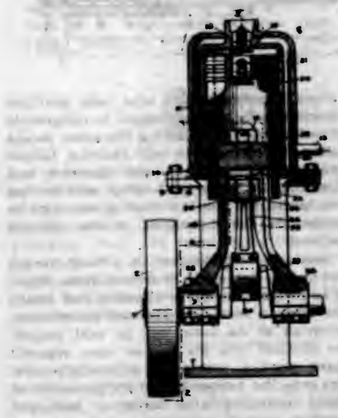
1,029,418. WRENCH. CHARLES E. BRADFORD, Chicago, Ill. Filed Oct. 23, 1911. Serial No. 656,091. (Cl. 81—145.)



1. A wrench comprising a shank having a stationary jaw formed on one end and a cylindrical stem on its other end, said stem being threaded adjacent to the shank, a rack longitudinally slidable in one face of the shank, an adjustable jaw longitudinally movable on the shank and rack, locking means carried by the jaw coöperating with said rack, a spring mounted in the stationary jaw normally acting to force said rack in one direction, and a handle rotatable on said stem and engaged with the threaded portion thereof, said handle engaging the sliding rack to force the same in the opposite direction when the handle is rotated whereby said movable jaw is adjusted.

2. A wrench comprising a shank having a stationary jaw formed on one end and a cylindrical stem on its other end, said stem being provided with screw threads adjacent to the shank, a rack mounted for longitudinal sliding movement on one face of the shank, a jaw slidable upon said wrench and rack, locking means carried by the jaw and coöperating with the rack, said stationary jaw having an opening therein, said rack being provided with a stud on one end projecting into said opening, a spring on said stud normally acting to force the rack in one direction, a handle rotatable upon said stem, a disk secured to one end of the handle having threaded engagement upon the threaded portion of the stem and also engaging the other end of said rack whereby the rack is moved in the opposite direction when the handle is rotated to adjust the movable jaw, and a stop secured to the end of said stem to be engaged by the handle to prevent its removal from the stem.

1,029,419. INTERNAL-COMBUSTION ENGINE. EVERETT R. BURTNETT, San Mateo, Cal., assignor of one-third to Robert E. Bowie and one-third to Thomas O. Heydenfyldt, Redwood City, Cal. Filed May 15, 1911. Serial No. 627,195. (Cl. 123—50.)



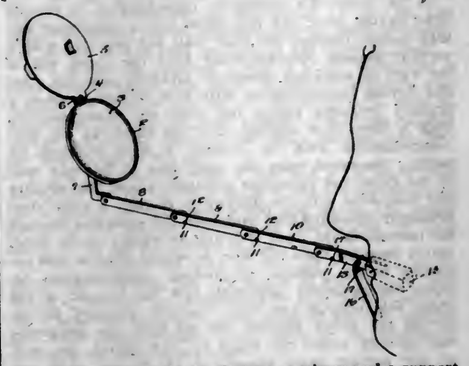
1. In an internal combustion engine, the combination of a cylindrical casing, a piston fitting closely within and reciprocating in said casing, a cylindrical extension from said piston, a stationary abutment within said extension provided with suitable laterally located supports, a cross-head centrally connected to said extension at the side of said abutment remote from said piston, a shaft, a crank thereon, a pitman connected to said crank and cross head, means for admitting combustible mixture to the space between said piston and casing, a valve permitting said mixture to pass from said space to the space between the piston and the abutment, and means within said latter space for igniting said combustible mixture, said extension having an exhaust port for the products of combustion.

2. In an internal combustion engine, the combination of a cylindrical casing, a piston fitting closely within and reciprocating in said casing, a cylindrical extension from said piston, a stationary abutment within said extension provided with suitable laterally located supports, a cross-head centrally connected to said extension at the side of said abutment remote from said piston, a shaft, a crank thereon, a pitman connected to said crank and cross head, means for admitting combustible mixture to the space between said piston and casing, a valve in said piston permitting said mixture to pass from said space to the space between the piston and the abutment, and means within said latter space for igniting said combustible mixture, said extension having an exhaust port for the products of combustion.

3. In an internal combustion engine, the combination of a cylindrical casing, a piston fitting closely within and reciprocating therein, a cylindrical extension, a stationary abutment within said extension provided with suitable laterally located supports, a cross-head centrally connected to said extension at the side of said abutment remote from said piston, a shaft, a crank thereon, a pitman connected to said crank and cross-head, means for admitting combustion mixture to the space between said piston and casing, a valve in said piston permitting said mixture to pass from said space to the space between the piston and the abutment, and means within said latter space for igniting said combustible mixture, said extension having an exhaust port for the products of combustion, and said casing having a second exhaust port always open to the atmosphere with which the first-named port is adapted to register in the movement of the piston.

4. In an internal combustion engine, the combination of a cylindrical casing, an exterior casing forming with the first-named casing a water jacket, a piston fitting closely within and reciprocating in said cylindrical casing and having an opening therethrough, said piston having an extension, an abutment forming with said extension and piston a chamber, the cylindrical casing having in its end an inlet opening into the space between said end and the piston, valves for controlling both of said openings, said piston being provided with an extension, a cylindrical abutment around which said extension reciprocates, laterally located supports for said abutment, a shaft, a crank on said shaft, a pitman connected thereto, a connection between the pitman and the extension passing between said supports, and a spark plug supported by said abutment, said extension having an exhaust port.

1,029,420. MIRROR-SUPPORT. CURTIS S. BUZBY, Frankford, Pa. Filed Sept. 5, 1911. Serial No. 647,788. (Cl. 45—97.)



1. As an article of manufacture, a mirror and a support therefor and attached thereto, including a mouthpiece adapted to be gripped between the teeth of the user, and a chin rest pivoted to said support adjacent to the mouthpiece and movable into or out of a position parallel to the mouthpiece.

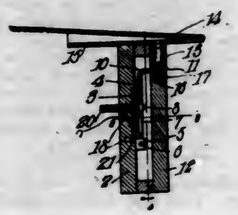
2. The combination with a mirror, of an angular supporting link pivoted thereto to permit the mirror to move in a plane parallel to the angular link, a series of supporting links pivoted to the terminal end of the angular link for movement in planes parallel to the plane of the angular link, means on each link engaging the next adjacent link to limit the relative movement of the links in one direction, and a mouthpiece attached to the terminal link.

3. The combination with a mirror, of an angular supporting link having a long and a short arm, the mirror being pivoted to the terminal end of the long arm, the

mirror being disposed in a plane at right angles to the plane of the angular link; a series of supporting links pivoted to each other, the terminal link of the supporting links being pivoted to the short end of the angular link, said supporting links having movement in planes parallel to the plane of the angular link, means on each link engaging the next adjacent link to limit the relative movement of the links in one direction, and a mouthpiece attached to the terminal link.

4. The combination with a mirror, of an angular supporting link having a long and a short arm, the long arm being pivoted to the mirror, a series of supporting links joined to each other, one end link of the series being pivotally connected to the short arm of the angular link, the link at the opposite end of the series of links being provided with a relatively soft mouthpiece, each link of the series of supporting links being formed at one end with a notch and at the other end with a laterally projecting lug, the lug of one link entering the notch of the adjacent link, and thus limiting the relative movement of the links in one direction.

1,029,421. ACTION FOR PNEUMATIC PIANO-PLAYERS. ERICK V. CARLSON, Chicago, Ill. Filed May 9, 1908. Serial No. 431,862. (Cl. 84—178.)

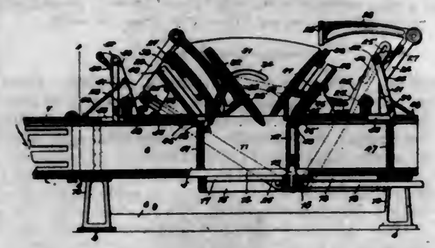


In an action for pneumatic piano-players, a vacuum chest having front and rear walls and a transverse passage formed through the front wall and provided with a vertical passage communicating with the upper end of the wall, an operating pneumatic arranged upon the chest and having communication with said vertical passage, a primary arranged within the chest and communicating with a bleed duct opening into the chest, an air duct communicating with the primary, a lever mounted for rocking movement upon the inner face of the rear wall of the chest and extending upwardly across the primary and connected with the diaphragm thereof, a valve stem integrally connected with said lever and extending through the passage in the front wall and outwardly of the chest, valves mounted upon the stem in spaced relation and operating in the passage establishing communication between the operating pneumatic and the interior of the chest, said passage-way being centrally enlarged for receiving the valves whereby the air from the pneumatic will directly strike the edges of both valves, one wall of said passage being recessed to receive the outer one of said valves with the inner face thereof flush with the inner face of the passage whereby air flowing from the operating pneumatic will be prevented from unseating said outer valve and leaking through its seat.

1,029,422. HAY-PRESSER. HENRY CLARENCE CASHON, Oktaha, Okla. Filed Dec. 28, 1911. Serial No. 668,269. (Cl. 100—25.)

1. In a hay press, the combination of a body provided with a baling chamber and a hopper in communication therewith, a plunger to reciprocate in said hopper and means for actuating the same, feeding means movable into the hopper, a movable guard member mounted in the hopper, latch devices to hold said guard member against movement automatically actuated to release said member at the end of the reciprocatory movement of the plunger in each direction, and additional means to move said guard member when the same is released and position the same relative to the feeding members.

2. In a hay press, the combination of a body provided with a baling chamber and a hopper in communication therewith, a plunger to reciprocate in said hopper and means for actuating the same, a vertically disposed guard member movably mounted in the hopper, feeding members movable into the hopper on opposite sides of the guard member, means to alternately move said feeding members into the hopper in the actuation of the plunger, latch devices to hold the guard member against movement automatically actuated to release said member when the feed members are moved to their full extent into the hopper, and means for moving said guard member when the same is released to position the same relative to the respective feed members.



3. In a hay press, the combination of a body provided with a baling chamber, a hopper, a plunger to reciprocate in said chamber and means for actuating the same, means for forcibly feeding the material to said chamber behind the plunger during its movement in each direction, and means arranged within the hopper with which said feeding means co-acts to insure the uniform feed of material to the baling chamber in the movement of the plunger in opposite directions.

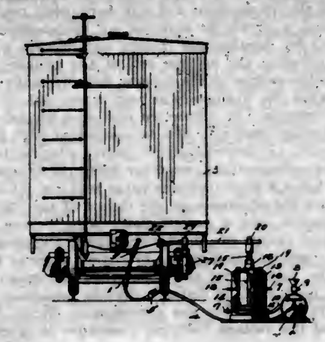
4. In a hay press, the combination of a body having a baling chamber and a hopper in communication therewith, a plunger to reciprocate in the chamber and means for actuating the same, a vertically disposed guard member pivotally mounted at its lower end in said hopper, feeding members movable into the hopper upon opposite sides of the guard member, means for alternately moving said members into the hopper in the reciprocation of the plunger, spring controlled latch devices to hold said guard member against pivotal movement, means connected to said latch devices and actuated by the feeding members to release the guard member at the end of the movement of the plunger in each direction, and means to move said guard member upon its release and dispose the same with relation to the feeding members during their movement into the hopper.

5. In a hay press, the combination of a body having a central baling chamber, a hopper arranged above said chamber, a plunger to reciprocate in the baling chamber and means for actuating the same, a pair of feeding members alternately movable into the hopper in the movement of the plunger in opposite directions, a guard member pivotally mounted in the hopper and disposed at an inclination therein when the material is being fed to the baling chamber, latch devices to secure said member in its inclined position, said feed members co-acting with the latch devices to release the guard member, and means to dispose the same at an opposite inclination in the hopper, substantially as and for the purpose specified.

[Claims 6 to 15 not printed in the Gazette.]

1,029,423. FLUID-ACTUATED LIFTING-JACK. WILLARD R. CHANDLER, Branchville, S. C. Filed July 26, 1911. Serial No. 640,663. (Cl. 57—119.)

A lever having a forked end fashioned as hooks to engage the flange of a car wheel and flat tread-engaging portions, and a rack on the upper face of the lever; combined with a toothed load member formed with a hook



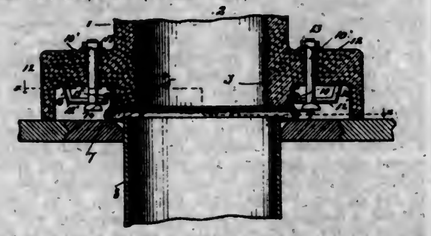
and suspended over said rack, and an upwardly bent load hook at the lower end of said member.

1,029,424. CLOSURE FOR VESSELS. JOHN CONLEY, New York, N. Y., assignor to Conley Foil Company, New York, N. Y., a Corporation of New York. Filed Oct. 22, 1909. Serial No. 523,986. (Cl. 215—82.)



A vessel provided near its mouth with annular interior and exterior grooves arranged in different planes, and a closure consisting of a thin film-like sheet of yielding, ductile material comprising a central, depressed disk, and diverging inner and outer walls connected by a bridge, the outer wall of the closure continuously and closely engaging and housed in the exterior annular groove of the vessel mouth, and the inner wall in engagement with the annular interior groove of said mouth.

1,029,425. WATER-CLOSET CONNECTION. JOSEPH J. COSGROVE, Philadelphia, Pa. Filed Aug. 28, 1911. Serial No. 646,314. (Cl. 137—94.)



1. The combination with the soil pipe of a water-closet, of a flexible floor plate and flexible flange, constituting a ferrule, attached to the soil pipe and embracing the outlet flange of the closet and forming a sleeve joint connection therewith.

2. The combination with the soil pipe of a water-closet, of a combined floor plate and flange, said flange being flexible and adapted to form a sleeve joint connection with the closet.

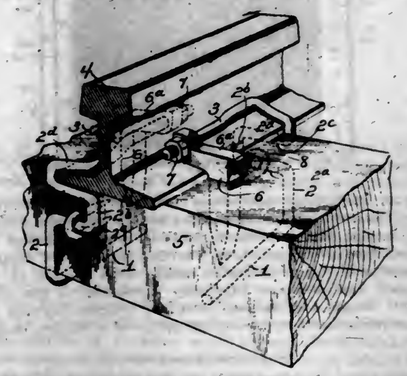
3. The combination with a water-closet, a tapered ring surrounding the outlet flange of the closet, and a soil pipe, of a combined floor plate and flange, which is connected to the soil pipe, and tapered to receive said ring, said flange being flexible and forming a sleeve joint connection with the closet.

4. The combination with a soil pipe of a combined floor plate and unthreaded flexible metallic corrugated flange made of a single section of metal pressed to shape and secured to the soil pipe and forming a sleeve-joint connection with the closet.

5. The combination with a water-closet having a tapered metallic ring surrounding its outlet opening, of a soil pipe and a flexible integral floor plate and flange secured to the soil pipe and having a tapered seat to receive the tapered ring of the closet.

[Claim 6 not printed in the Gazette.]

1,029,426. DEVICE FOR SECURING RAILS TO TIES. OLIVER H. COUNSON, Memphis, Tenn. Filed Sept. 21, 1911. Serial No. 650,638. (Cl. 238—4.)



1. A device for securing a rail to a tie, comprising a yoke bent to engage the underside of the tie and project over the top of the latter, the upper portion of said yoke being bent to overhang the base flange of the rail, and means secured to the tie and engaging the upper overhanging portion of said yoke for locking the latter in place.

2. A device for securing a rail to a tie, comprising a yoke having upper and lower horizontal members connected by a vertical member, the latter having a bend intermediate its ends, the lower member of the yoke adapted to rest under the tie, and the upper member rest over the base flange of the rail.

3. The combination with a rail and a tie, of a yoke straddling the tie and base flange of the rail and engaging the underside of said tie and said base flange, and means engaging that portion of the yoke overhanging the base flange of the rail for locking the yoke in place.

4. The combination with a rail and tie, of a single piece yoke engaging the lower face of the tie and base flange of the rail, and a spike driven into the tie and having a head overlapping the base flange of the rail, and the said head being provided with a hole for the passage of the upper member of the yoke.

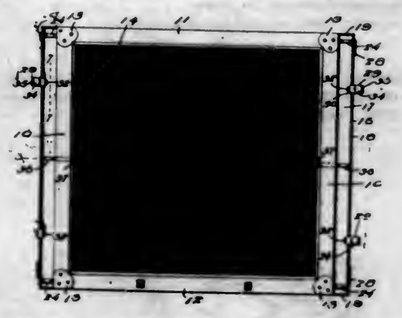
5. The combination with a rail and a tie, of a single piece yoke comprising a lower member to engage the under face of the tie, a top member to engage the base flange of the rail and a side member, the latter being bent substantially as shown, and a spike driven into the tie and having a head overlapping the base flange of the rail, the said spike and top member of the yoke being connected.

[Claim 6 not printed in the Gazette.]

1,029,427. WINDOW-SCREEN. EDWARD H. CRAWFORD, New Orleans, La. Filed May 5, 1911. Serial No. 625,252. (Cl. 156—38.)

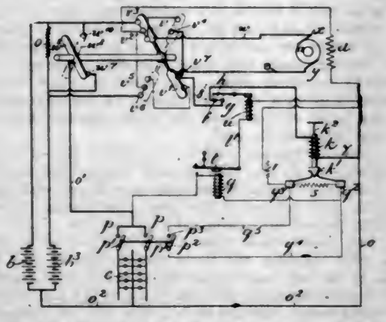
A window screen comprising a frame having longitudinally grooved stiles, and said stiles being provided, adjacent the ends, with alining sockets, the same intersecting the grooves and opening through the outer edges of the stiles, the inner ends of the sockets being reduced to

form circular shoulders, extensible pieces including abutment flanges and wings, guide stems having their outer ends split to form slots for engagement with the said wings and riveted thereto, said guide stems having their inner ends formed with reduced spindle portions engaging in the inner reduced portions of the said sockets, expansion springs surrounding the stems and working against the same for forcing the extensible pieces outwardly from the stiles, inwardly extending adjusting



stems fixed to the said wings, the same working through suitable openings provided in the vertical stiles and threaded thereon adjustable nuts, the latter working against the inner faces of the stiles, for limiting the outward slipping movement of the extensible pieces with respect to the frame, and members adjustably connected to the abutment flanges and having out-turned tongues adapted for engagement with vertical guide strips of a window casing.

1,029,428. ELECTRICAL DISTRIBUTION SYSTEM. JOHN PEACHEY CROUCH, Newton Heath, and JAMES ETCHELLS, Manchester, England. Filed Dec. 9, 1909. Serial No. 532,275. (Cl. 171—313.)



1. In an electrical distributing system, a consumption circuit, a secondary battery adapted to supply the consumption circuit, a voltage reducing resistance, a dynamo adapted to supply the consumption circuit through said voltage reducing resistance and simultaneously charge the battery, an electro-magnetic cut out for the dynamo, a switch in the circuit of the electromagnet of the cut out, a voltage coil operating such switch, a compensating resistance adapted to be connected in series with the voltage coil when the dynamo is supplying the battery and the consumption circuit is open, an electro-magnetic switch normally short circuiting the compensating resistance when the dynamo is not supplying the battery and consumption circuit, and a switch opened and closed with opening and closing of the consumption circuit and adapted to short circuit the compensating resistance when the consumption circuit is closed and to open the short circuit of the compensating resistance when the consumption circuit is open.

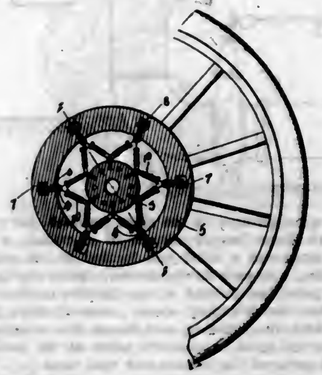
2. In an electrical distributing system, the combination with a dynamo, a secondary battery and a consumption circuit of electro-magnetic cut out mechanism controlling the dynamo, a circuit for such cut out mechanism, a voltage switch for opening and closing such circuit, a second circuit, including the voltage coil of the voltage switch, subject to the voltage of the dynamo and also to the battery voltage when the dynamo is at rest or cut out, a voltage reducing resistance in connection with such second circuit, a compensating resistance also in connection with the said secod circuit, an electromagnetic switch adapted to short circuit the compensating resistance when the dynamo voltage falls below a predetermined value or is cut out so as to then reduce the resistance of the circuit of the coil of the voltage switch, and a switch closed with closure of the consumption circuit for short circuiting the compensating resistance and maintaining the total resistance of the circuit of the voltage coil the same when the consumption circuit is open and the voltage reducing resistance is not in effective use as when the consumption circuit is completed and the voltage reducing resistance is in effective use.

3. An electrical distributing system comprising a dynamo and a consumption circuit, two batteries connected at one end to one pole of the dynamo and to one end of the consumption circuit and having their other ends respectively connected to the dynamo and consumption circuit and joined together through a resistance, an electromagnetic cut out mechanism controlling the dynamo, a circuit for such cut out mechanism, a voltage switch for opening and closing such circuit, a second circuit, including the voltage coil of the voltage switch, subject to the voltage of the dynamo and also to the battery voltage when the dynamo is at rest or cut out, a compensating resistance in connection with said second circuit, an electromagnetic switch adapted to short circuit the compensating resistance when the dynamo voltage falls below a predetermined value or is cut out so as to then reduce the resistance of the circuit of the coil of the voltage switch, and a switch closed with closure of the consumption circuit for short circuiting the compensating resistance and maintaining the total resistance of the circuit of the voltage coil the same when the consumption circuit is open and the voltage reducing resistance is not in effective use as when the consumption circuit is completed and the voltage reducing resistance is in effective use.

4. An electrical distributing system comprising a dynamo and a consumption circuit, two batteries connected at one end to one pole of the dynamo and to one end of the consumption circuit and having their other ends respectively connected to the dynamo and consumption circuit and joined together through a resistance, means for interchanging the connections of the said batteries with the consumption circuit and dynamo respectively automatically with reversal in direction of rotation of the dynamo, an electromagnetic cut out mechanism controlling the dynamo, a circuit for such cut out mechanism, a voltage switch for opening and closing such circuit, a second circuit, including the voltage coil of the voltage switch, subject to the voltage of the dynamo and also to the battery voltage when the dynamo is at rest or cut out, a compensating resistance in connection with said second circuit, an electromagnetic switch adapted to short circuit the compensating resistance when the dynamo voltage falls below a predetermined value or is cut out so as to then reduce the resistance of the circuit of the coil of the voltage switch, and a switch closed with closure of the consumption circuit for short circuiting the compensating resistance and maintaining the total resistance of the circuit of the voltage coil the same when the consumption circuit is open and the voltage reducing resistance is not in effective use as when the consumption circuit is completed and the voltage reducing resistance is in effective use.

5. An electrical distributing system comprising a dynamo, a consumption circuit, a secondary battery, a current supply main between the positive side of said battery and the positive side of said consumption circuit, a resistance in circuit with said supply main, an external switch between said supply main and consumption circuit, means connecting the dynamo to the positive pole of said battery and indirectly through said resistance to said supply main, a short cuiting switch having its winding connected at one end to the negative pole of the battery and negative side of the consumption circuit and its other end to the negative pole of the dynamo and comprising a movable contact and two fixed contacts normally connected by the movable contact, a compensating resistance connected between said fixed contacts, a voltage coil having one terminal connected to one of the said fixed contacts and its other end connected to the said supply main on the consumption circuit side of the resistance in circuit therewith, a resistance between the second fixed contact and the negative pole of the dynamo, an electromagnetic cut out for the dynamo, and a switch controlling the circuit of said cut out and itself controlled by said voltage coil, said external switch being adapted to short circuit said compensating resistance when it closes the consumption circuit.

1,029,429. SPRING-HUB. GEORGE H. DAVIS, Advance, Mo. Filed Dec. 22, 1910. Serial No. 598,783. (Cl. 152—44.)

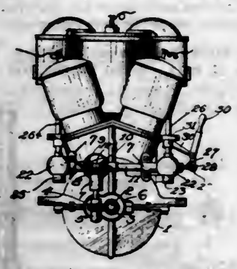


1. In a spring hub, the combination with a bushing, having a central opening therein, a plurality of radially extending eye bolts removably carried by said bushing, an inner rim spaced from said bushing, said inner rim being provided with a plurality of rectangular depressions in one vertical face thereof, said depressions coöperating with an opening extending from the same to interior surface of the inner rim, said openings being flared toward said bushing, eye bolts mounted in said openings, nuts mounted in said depression upon said eye bolts adapted to adjustably retain the same in said openings, and convergent springs interposed between said eye bolts.

2. In a spring hub, the combination with a bushing, having a central opening therein, a plurality of radially extending eye bolts removably carried by said bushing, an inner rim spaced from said bushing, said inner rim being provided with a plurality of rectangular depressions in one vertical face thereof, said depressions coöperating with an opening extending from the same to interior surface of the inner rim, said opening being flared toward said bushing, eye bolts mounted in said openings, nuts mounted in said depression upon said eye bolts adapted to adjustably retain the same in said openings, and convergent springs interposed between said eye bolts, each eye bolt of the inner rim having two springs secured thereto.

1,029,430. REVERSING MECHANISM FOR MOTORS. JOHN W. EISENHUTH, Brooklyn, N. Y. Filed Nov. 21, 1908, Serial No. 463,803. Renewed Sept. 29, 1911. Serial No. 651,986. (Cl. 121—97.)

1. In a motor, the combination with a crank shaft and valve shafts, a hollow shaft, gear wheels loosely mounted thereon, the hubs of which are each provided with a slot, a rotating rod within said hollow shaft, a connection between said rod and valve shafts, means on said rod to enter the slots of the hubs to render either of the gears active on the hollow shaft, the construction being such that when the rod has rendered either of the gears active the motor will have reversed its operation without changing the direction of the rotation of the hollow shaft.



2. In a motor, the combination with a crank shaft and valve shafts, of a hollow shaft provided with slots, gear wheels loosely mounted thereon and provided with slotted hubs, a rotating rod slidably mounted in said hollow shaft, a gear connection between the ends of said rod and said valve shafts, and lugs carried by said rod for engagement with the slotted hubs of said gears and the slots of the hollow shaft to render either of said gears active to effect a reverse of operation of the valve shafts without changing the direction of rotation of the hollow shaft.

3. In a motor, the combination with a crank shaft and valve shafts, of a hollow shaft having loosely mounted gears operated by said crank shaft, said gears being provided with slotted hubs, a rod slidable through said hollow shaft and adapted to selectively engage with said hubs to lock the same to the hollow shaft, and a gear connection between said valve shafts and the ends of said hollow shaft.

4. In a motor, the combination with a crank shaft and valve shafts, of a hollow shaft, oppositely disposed gears on said hollow shaft, hubs for said gears provided with slots, a rod slidable in said hollow shaft, lugs carried by said rod for selective engagement with the slotted hubs of said gears to lock the same to the hollow shaft, a connection between the crank shaft and said gears, and a connection between the ends of said hollow shaft and said valve shafts.

5. In a motor, the combination with a crank shaft and valve shafts, of a hollow shaft, hubs spaced apart on said shaft and each provided with an end clearance chamber, said hubs being slotted, a gear for each hub, a rod slidably mounted in said hollow shaft, lugs carried by said rod, said lugs being adapted to engage with the slots of said hubs to lock the same to said hollow shaft and being arranged so that when one is engaged with a hub the other will be projecting into said clearance chamber, a connection between said crank shaft and said gears, and a connection between said hollow shaft and said valve shafts.

[Claims 6 to 8 not printed in the Gazette.]

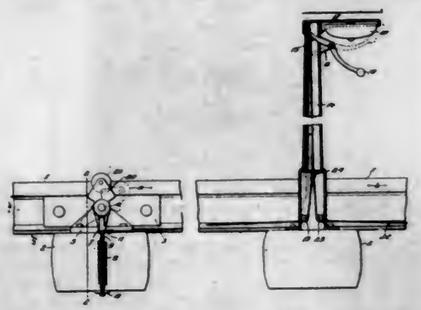
1,029,431. SUGAR-CAN. ROBERT E. ELLIOTT and GEORGE W. COOK, Jr., Bainbridge, N. Y. Filed Aug. 2, 1911. Serial No. 641,892. (Cl. 211—6.)



A receptacle of the class set forth having its bottom inclined downwardly from its rear to its front and the front portion thereof being substantially straight, the

straightened and inclined portions of the bottom being provided at their juncture with an inclined opening, the straight portion of the bottom being provided with ways, a gravity door slidably mounted within the ways, a wire member comprising an agitator secured to the door and projecting within the receptacle, said wire member being extended upon the outer face of the door and having its upper extremity bent to provide a finger hold.

1,029,432. SIGNAL. IRVING L. FAKE, Baltimore, Md. Filed Jan. 17, 1911. Serial No. 603,146. (Cl. 246—46.)



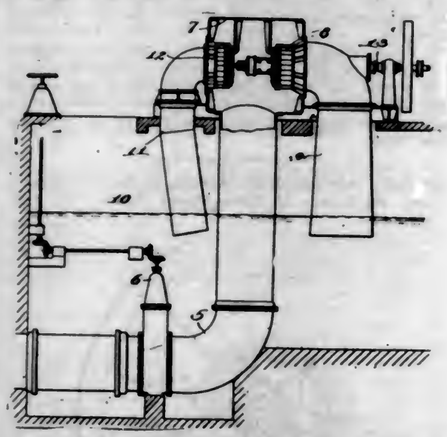
1. In a device of the class described, the combination with rails and supporting ties therefor, of a signal mechanism, a transverse shaft supported upon one of the ties and rails and projecting beyond the end of said tie, means secured to the bottom of said tie and projecting beyond the end thereof, a trip lever carried by said shaft and positioned to be engaged by the wheels of the train, a cable lever connected to the projecting end of the shaft, a cable interconnecting said last-named lever and the signal mechanism, and means connected to said last-named lever and to the projecting end of said means secured to the bottom of the tie for returning the trip lever to normal operative position.

2. In a device of the class described, the combination with rails and supporting ties therefor, of a signal mechanism, a transverse shaft supported upon one of the ties and rails and projecting beyond the end of said tie, means secured to the bottom of said tie and projecting beyond the end thereof, a trip lever carried by said shaft and positioned to be engaged by the wheels of the train, a cable lever connected to the projecting portion of the shaft, a cable interconnecting said last-named lever and the signal mechanism, means connected to the last-named lever and to the projecting end of said means secured to the bottom of the tie for returning the trip lever to normal operative position, said means being disposed in spaced parallel relation with the end portion of said tie.

3. In a device of the class described, the combination with a rail and supporting tie therefor, of a signal mechanism, a transverse shaft supported upon the tie and rail and projecting beyond the end of said tie, a plate secured to the bottom of said tie and projecting beyond the end thereof, a trip lever carried by said shaft and positioned to be engaged by the wheels of the train, a cable lever connected to the projecting shaft, a cable interconnecting said last-named lever and the signal mechanism, and a spring connected to the last-named lever and to the said plate secured to the bottom of the tie for returning the trip lever to normal operative position.

4. In a device of the class described, the combination with rails and supporting ties therefor, of a signal mechanism, a transverse shaft supported upon one of the ties and rails and projecting beyond the end of said tie, a plate secured to the bottom of said tie formed with a projecting apertured arm portion, a trip lever carried by said shaft and positioned to be engaged by the wheels of the train, a cable lever connected to the projecting portion of the shaft, clevises carried by said lever, a cable connected to one of said clevises for interconnecting said last-named lever and the signal mechanism, and means connected to the other of said clevises and the said apertured arm portion of the bottom plate for returning the trip lever to normal operative position.

1,029,433. TURBINE. JOHN H. FELTHOUSEN, York, Pa., assignor to S. Morgan Smith Company, York, Pa., a Corporation of Pennsylvania. Filed July 22, 1911. Serial No. 640,005. (Cl. 138—5.)



1. In an apparatus of the class specified, the combination with water supply means, of a casing, a turbine having gates and a shaft and located in one portion of said casing, a by-pass having movable gates similar to the turbine gates and located at an opposite portion of said casing, the water supply means communicating intermediately with the chamber, and means for simultaneously operating the gates to open the gates of the turbine and close the gates of the by-pass and vice versa.

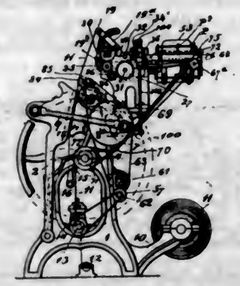
2. In an apparatus of the class specified, the combination with a water supply means, of a power generating turbine having a set of movable gates coöperating therewith, a by-pass having a set of movable outlet gates similar to the turbine gates, the power generating turbine and by-pass being disposed in the supply means, and mechanism for simultaneously operating the gates of the power generating turbine and by-pass in contrary directions to open one set and close the other set to avoid intercepting a constant flow of the water through the supply means.

3. In an apparatus of the class specified, the combination of a turbine casing providing a receiving chamber, a water supply means communicating with said chamber, a turbine located in one portion of said chamber at one side of the point of communication of the water supply means therewith and having gates and a shaft projecting therefrom, a by-pass communicating with an opposite portion of said chamber at the opposite side of the point of communication of the supply means and having outlet controlling gates, and mechanism for simultaneously operating the gates of the turbine and the by-pass to move said gates in contrary directions to alternately open and close the respective gates.

4. In an apparatus of the class specified, the combination of an inclosed chamber, a water supply means intermediately communicating therewith, a power generating turbine and a by-pass disposed in opposite portions of the chamber on opposite sides of the point of communication with the latter of the supply means and respectively having gates to establish and shut off communication of the water in alternation relatively to the turbine and by-pass, and mechanism for simultaneously operating the gates in contrary directions, the said mechanism including a governor.

5. In an apparatus of the class specified, the combination with a water supply means, of a turbine casing with which said means communicates, a turbine located in one extremity of the casing and having gates and a shaft projecting therefrom, a by-pass communicating with the opposite extremity of the casing and having an outlet controlled by gates and a deflector extending inwardly within the gates, and mechanism for operating the turbine and by-pass gates in contrary directions, the turbine and by-pass having outlets projecting from the turbine casing.

1,029,434. PRINTING-PRESS. WILLIAM FREDERICK CHARLES FOSTER, Wawanesa, Manitoba, Canada. Filed Aug. 19, 1907. Serial No. 389,155. (Cl. 101—13.)

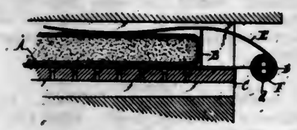


1. The combination with a printing press, having a frame and stationary platen, a main shaft, a parallel crank shaft and crank disks thereon, and oscillating bed and connecting rods, of a support for a paper roll upon said frame, guide and take up rolls therefor, a numbering device comprising rotatable numbering disks, perforating rolls and a cutting blade, and feed rolls intermediate between the perforating rolls and cutting blade, a cam upon one of the crank disks, mechanism operatively connected with said cam to alternately rotate said numbering disks, and reciprocate said cutting blade, a radially adjustable crank pin upon one of said cranks, and rack and gear mechanism operatively connected with said perforating and intermediate feed rolls, said rack being arranged to move said rolls alternately with the movement of the knife blade, substantially as described.

2. In a Gordon press having a platen, a frame and movable bed and crank shaft, crank wheels and connecting rods, therefor, the combination therewith, of a support for a roll of paper, lower guide and feed rolls therefor, a numbering device comprising rotatable numbering disks and actuating ratchet and pawl therefor, a bracket upon the frame, perforating and feed rolls on said bracket, a reciprocating knife blade, a cam upon one of said crank wheels, a lever pivoted on said frame and actuated by said cam to operate said pawl and ratchet, a second lever pivoted on said frame and actuated by said cam to reciprocate said knife to cut the paper, alternately with the movements of the numbering disks, a cam upon one of the crank wheels, an inking device pivoted on said frame adjacent to said numbering disks and having an extended arm, engaging with said cam, whereby the movements of said inking device alternate with the movements of said numbering device, gearing for rotating the perforating disks and upper feed rolls in unison, an adjustable crank pin on one of said crank wheels and a rack and gear arranged to operate said rolls, and a length adjusting roll located between the numbering disks and the perforating disks, substantially as described.

3. The combination with a printing press having a frame and platen, and a crank shaft and crank wheels thereon, of paper feed rolls upon said frame, speed rolls on the frame, a driving belt connecting one of said crank wheels with one of said speed rolls, and a driving belt connecting one of said speed rolls and one of said feed rolls, an idler roller on the frame, a take up roller in a fold of the paper, a numbering device adjacent to the platen, a length adjusting roll over which the paper passes, perforating and upper feed rolls, a knife blade, and instrumentalities operatively connected with the crank shaft of the press for operating the numbering device, the upper feed and perforating rolls, and the knife blade, substantially as described.

1,029,435. OIL-CAKE PAN. ALFRED W. FRENCH, Piqua, Ohio. Filed Apr. 1, 1911. Serial No. 618,356. (Cl. 100—50.)



1. A cake pan for inserting oil cakes into presses comprising a flat body which is provided at one end with a transverse handle, and is also provided with a stop projection adapted to strike a portion of the press to limit the movement of the pan into the press, substantially as set forth.

2. A cake pan for inserting oil cakes into presses which is provided with an upwardly projecting back stop adapted to engage one end of the cake, and with a stop projection adapted to strike a portion of the press to limit the movement of the pan into the press, substantially as set forth.

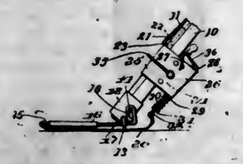
3. A cake pan for inserting oil cakes into presses which is provided near one end with an upwardly projecting back stop to engage one end of the cake, and with a downwardly projecting stop adapted to strike a portion of the press to limit the movement of the pan into the press, substantially as set forth.

4. A cake pan for inserting oil cakes into presses which is provided with an integral upwardly bent portion forming a back stop adapted to engage one end of the cake, and with an integral downwardly bent stop portion adapted to strike a part of the press to limit the movement of the pan into the press, substantially as set forth.

5. A cake pan for inserting cakes into presses consisting of a thin sheet of metal provided with longitudinal corrugations and provided at one end with a handle, substantially as set forth.

[Claims 6 to 10 not printed in the Gazette.]

1,029,436. COMBINED MOP HOLDER AND WRINGER. PAUL FUHRER, Denver, Colo. Filed Mar. 21, 1911. Serial No. 615,997. (Cl. 15—43.)



1. In a combined mop and wringer, a handle, a frame having lateral loops, a pin carried by said handle and extending through said loops, means for swingingly connecting said frame to said handle, a member slidable upon said handle, a rotatable device carried by said sliding member, and a mopping fabric connected to said frame and to said rotatable device.

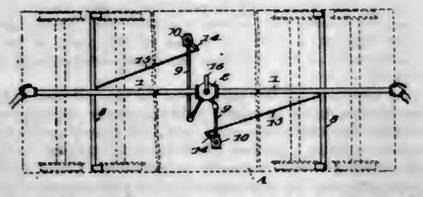
2. In a combined mop and wringer, a handle, a frame including spaced sides and a connecting plate, means for swingingly connecting said frame to said handle, lateral loops at the inner ends of said frame members, a pin car-

ried by said handle and extending through said loops, a member slidable upon said handle, a rotatable device carried by said sliding member, and a mopping fabric connected to said frame and to said rotatable device.

3. In a combined mop and wringer, a handle, a frame comprising spaced side members having terminal loops, a plate secured to said side members, a pin secured to said handle and extending through said loops, a link carried by said handle and engaging around said frame sides, a member slidable upon said handle, a rotatable device carried by said sliding member, and a mopping fabric connected to said frame and to said rotatable device.

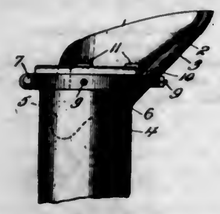
4. In a combined mop and wringer, a handle, a frame swingingly connected to said handle, another frame slidable upon said handle and having a flaring socket, a rod mounted for rotation through said socket and movable laterally therein toward and away from the handle, a mopping fabric connected to said frame and to said rod, and means for rotating said rod to apply a twisting strain to said fabric.

1,029,437. SAFETY RAILROAD DEVICE. JAMES MARTIN GALLOWAY, Sunbright, Tenn. Filed Feb. 10, 1912. Serial No. 676,708. (Cl. 188—2.)



In a safety appliance for cars, a car having a train line air pipe and a brake beam, a valve mounted in the train line pipe and provided with a main port way normally open to the train line and branch port ways normally open to the train line, conduits in open communication with the branch port ways, a bleeding valve located in each conduit and normally closed, and connections between the bleeding valve and the brake beam for opening the bleeding valve to the atmosphere on the fall of the beam from the car.

1,029,438. SMOKE ELEVATOR AND CONCENTRATOR. WILLIAM F. GEYER, Great Falls, Mont. Filed July 26, 1911. Serial No. 640,563. (Cl. 98—4.)



1. In combination with the stack of a locomotive or other moving vehicle, a deflector fitted to the upper end of the stack and flaring outwardly and rearwardly and serving to lift and to concentrate the smoke as the latter leaves the stack.

2. In combination with the stack of a locomotive or other moving vehicle, a deflector fitted to the upper end of the stack and flaring outwardly and rearwardly and serving to lift and to concentrate the smoke as the latter leaves the stack, and a second deflector spaced from and arranged below the first mentioned deflector and adapted to gather air upon the forward movement of the vehicle to direct said air upwardly and rearwardly to further elevate the smoke as it clears the first mentioned deflector.

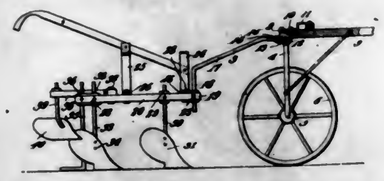
3. In combination with the smoke stack of a locomotive or other moving vehicle, spaced shells fitted to the upper end of the stack, each of the shells being upwardly and rearwardly flared, the upper shell serving to elevate and to concentrate the smoke and the lower shell serving to gather in the air and to direct the same upwardly and rearwardly to further elevate the smoke as the latter clears the upper shell.

4. A smoke elevating and concentrating device comprising a band, and spaced shells secured to said band, each of said shells flaring upwardly and rearwardly.

5. A smoke elevating and concentrating device comprising a band, upper and lower spaced shells secured to said band, each of the shells flaring upwardly and rearwardly and the lower shell having wings at its lower forward ends.

[Claim 6 not printed in the Gazette.]

1,029,439. CONNECTING DEVICE BETWEEN A DRAFT AND A DRAG MEMBER. JAMES A. GREGORY, Woodville, N. C. Filed Aug. 3, 1911. Serial No. 642,212. (Cl. 21—63.)



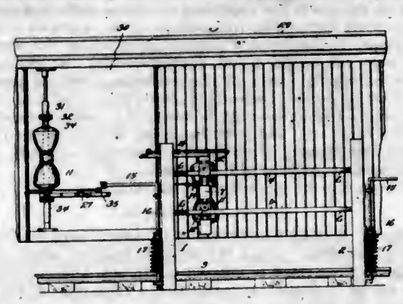
1. In a wheeled vehicle, the combination of a draft member having an inverted U-shaped frame with stub axles, and a wheel journaled on each stub axle, the rim of the wheels terminating at a point below the top of the frame; a drag frame; and two diverging arms having their forward ends connected by a universal joint to the top central portion of the U-shaped frame and their rear terminals adjustably connected to the forward portion of the drag frame, each arm having a long rearwardly inclined intermediate portion and straight ends, whereby the wheels are permitted to assume a position at right angles to and in front of the drag frame and pass below the intermediate portions of the arms.

2. In a wheeled vehicle, the combination of a draft member having an inverted U-shaped frame with oppositely disposed stub axles forming the extreme terminals thereof, and a wheel journaled on each stub axle; a drag frame provided with two vertically disposed sockets in the forward ends thereof; and a connection between the draft member and drag frame, consisting of two dividing rods, the forward ends of which are connected by a universal joint to the top central portion of the U-shaped frame while the body portions thereof diverge and terminate in vertical terminals, said vertical terminals fitting adjustably within the vertical sockets of the drag frame, and means for rigidly securing said vertical terminals of the rods in said vertical sockets of the drag frame.

1,029,440. MAIL-BAG CATCHER AND DELIVERER. GUST HALL and JOHNNY BRAND, Princeton, Minn. Filed Dec. 23, 1910. Serial No. 598,891. (Cl. 105—231.)

1. A device of the class described comprising a pair of parallel delivery arms adapted to hold a mail bag, a catcher reversely mounted upon one of said arms, means for locking the bag within the catcher, and flexible means removably connected to the catcher for holding it in catching position.

2. A device of the class described comprising a pair of delivery arms adapted to hold a mail bag, a substantially U-shaped catching frame reversibly pivoted upon one of said arms, a pair of locking levers pivoted upon said frame, a bag receiving saddle, a flexible connection between said levers and saddle, means for holding said levers and saddle in bag receiving position, said means comprising a pair of springs secured to said connection, and means actuated upon the operation of the levers and saddle by the bag to lock the levers around the bag.

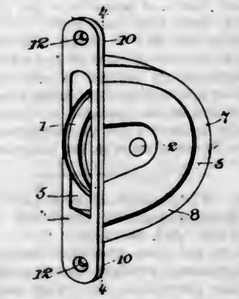


3. The combination with a pair of supporting posts, of horizontal, superimposed tracks thereon and offset therefrom, a delivery frame adapted to hold the mail bag and mounted to travel upon said tracks, a catching device mounted for reversal upon said frame, removable, flexible means for holding said device in catching position, resilient means carried by one of said posts and removably connected to said delivery frame, to resist movement of the same, and resilient means carried by the second post and adapted to be removably connected to said frame for resisting reverse movement thereof.

4. The combination with a pair of supporting posts, of horizontal, relatively spaced tracks supported thereon and offset therefrom, a delivery frame adapted to hold the mail bag and mounted to travel upon said tracks, reversible catching means carried by the frame, a vertical shaft mounted for rotation on one of the posts and provided with a laterally extending arm, flexible means carried by said arm and removably connected to said frame, resilient means carried by said shaft to hold the same in retracted position and resist movement of said frame, a similar vertical shaft rotatably mounted upon the second post and provided with a lateral arm, resilient means carried by said shaft for retracting the same, and flexible means carried by said lateral arm and adapted to be removably secured to said frame to resist reverse motion of the same.

5. The combination with a pair of supporting posts, of tracks supported thereon and offset therefrom, a delivery frame adapted to hold the mail bag mounted to travel upon said tracks, and means to flexibly hold said frame against travel over the track at either end thereof, together with means carried by the frame for catching the bag.

1,029,441. CAP FOR SASH-PULLEYS. RICHARD F. HAMILTON, Baltimore, Md. Filed Feb. 1, 1912. Serial No. 674,811. (Cl. 16—17.)



1. A cap for sash pulley housings adapted to fit over the opening therein, and provided with a small opening through which the portion of the window cord extending to the counterweight may pass, said cap being provided with an inwardly extending guide shield opposite the cord opening therein.

2. A cap for a sash pulley housing consisting of a stamped metal sheet adapted to fit over the opening therein and provided with a small opening through which the window cord extending to the counterweight may pass, said opening being formed by stamping inwardly a portion of the sheet partly cut out and said inwardly stamped portion being adapted to form a guide shield for the cord opposite the opening.

1,029,442. SEMAPHORE-POLE. CHARLEY ALEXANDRIA HELDERMAN and JOHN STEPHEN RUSSELL, Gold Hill, N. C. Filed Mar. 13, 1912. Serial No. 683,592. (Cl. 240—63.)



1. The combination with a semaphore pole, of a guide member having a raising and lowering element for the lamp associated therewith, means for locking the guide member to the pole, and means on the pole for engaging the lamp.

2. The combination with a semaphore pole, of a lamp, a guide member, a raising and lowering element for the lamp associated with the guide member, means on the guide member for steadying the lamp when elevated, means for locking the device to the pole, and means on the pole for engaging the lamp.

3. The combination with a semaphore pole, of a lamp having a head portion, a guide member, a raising and lowering element for the lamp, means on the guide member for engaging the head portion of the lamp, means for locking the guide member to the pole, and means on the pole for yieldingly engaging the lamp.

4. The combination with a semaphore pole, of a lamp, a guide pipe rotatably secured to the pole, means on the pipe for engaging the lamp, means for locking the lamp to the pole, and raising and lowering means for the lamp associated with the pipe.

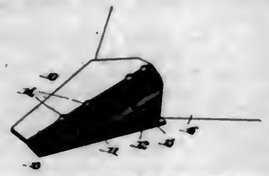
5. The combination with a semaphore pole, of a lamp, a guide pipe rotatably secured to the pole, a spring clamp member for holding the lamp steady secured to the guide pipe, a lock for locking the guide pipe to the pole, retaining means on the pole for the lamp, and raising and lowering means for the lamp associated with the pipe.

[Claim 6 not printed in the Gazette.]

1,029,443. PLOWSHARE ATTACHMENT. PRYOR H. HICKLE and LORENZA D. SPEAR, Choate, Tex. Filed Aug. 8, 1911. Serial No. 642,929. (Cl. 97—22.)

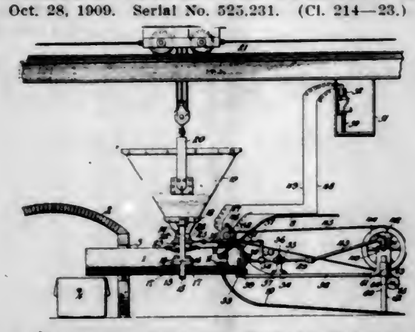
In a device of the class described the combination of an upper plate and a lower plate, the sides of the said plates being inclined to form apices disposed in vertical alinement, the said plates being connected and tapered to form a point at the front ends thereof and tongues formed on

the rear ends of the said plates and spaced apart to form an opening for the reception of a plowshare, with the



tongue of the upper plate extending rearwardly a distance beyond the tongue of the lower plate.

1,029,444. POT-FILLING APPARATUS FOR GLASS-FURNACES. PETER HOFFMANN, Tarentum, Pa. Filed Oct. 28, 1909. Serial No. 525,231. (Cl. 214—23.)



1. An apparatus of the class described including a track, a chute, a hopper connected with the chute for supplying the same with material, a cut-off for controlling the passage of the material from the hopper to the chute, feeding means for expelling the material from the chute, a motor carried by the chute and operatively connected with the feeding means and with the cut-off for actuating the same, and means for moving the chute into and out of a furnace, said means suspending the chute from the track and allowing the chute with the hopper and the motor to move as one part in introducing the chute into and removing it from a furnace.

2. An apparatus of the class described including a track, a chute, a hopper connected with the chute for supplying the same with material, a cut-off for controlling the passage of the material from the hopper to the chute, feeding means for expelling the material from the chute, a motor carried by the chute and operatively connected with the feeding means for actuating the same, means for connecting the cut-off with the feeding means, whereby the feeding means and the cut-off will be simultaneously actuated by the motor, and means for moving the chute into and out of a furnace, said means suspending the chute from the track and allowing the chute with the hopper and the motor to move as one part in introducing the chute into and removing it from a furnace.

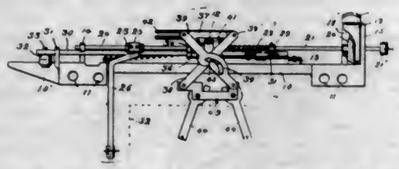
3. An apparatus of the class described including a chute adapted to be introduced into a furnace, a hopper connected with the chute for supplying the same with material, a cut-off for controlling the passage of the material from the hopper to the chute, a plunger for expelling the material from the chute, means connected with the plunger for actuating the same, and yieldable means for connecting the cut-off with the plunger to permit an independent operation of the latter.

4. An apparatus of the class described including a chute adapted to be introduced into a furnace, a hopper connected with the chute for supplying the same with material, a cut-off for controlling the passage of the material from the hopper to the chute, a plunger for expelling the material from the chute, means connected with the plunger for actuating the same, and yieldable means connecting the cut-off and the plunger and consisting of telescopic members and an interposed spring adapted to permit an independent operation of the plunger.

5. An apparatus of the class described including a chute adapted to be introduced into a furnace, a hopper connected with the chute for supplying the same with material, a cut-off for controlling the passage of the material from the hopper to the chute, a plunger for expelling the material from the chute, means connected with the plunger for actuating the same, an arm extending from the plunger, rods connected, respectively, with the cut-off and the said arm, a casing mounted on one of the rods and receiving the other rod, and a coiled spring housed within the casing and forming a yieldable connection to permit an independent movement of the plunger.

[Claims 6 to 23 not printed in the Gazette.]

1,029,445. SHEET-REGISTERING DEVICE FOR PRINTING-PRESSES. HANS HONIGMANN, Duluth, Minn., assignor of one-third to Edward G. Hilliard and one-third to Oliver F. Collier, Duluth, Minn. Filed Apr. 8, 1911. Serial No. 619,824. (Cl. 101—13.)



1. The combination with a platen press, of two longitudinally movable shafts carried by the platen, a guide carried by one shaft, a registering means carried by the other shaft, and means operated by the press for moving first the shaft carrying the guide and then the shaft carrying the registering means, substantially as shown and described.

2. The combination with a platen press, of two longitudinally movable shafts carried by the platen, a guide carried by one shaft, a registering means carried by the other shaft, and means operated and timed with the press to move the shafts longitudinally in successive order.

3. The combination with a platen press, of a shaft longitudinally movable upon the platen, a guide carried by said shaft and extending in a plane with the platen, means operated by the rocking of the platen for moving said guide transverse the platen, a second shaft longitudinally movable upon the platen, means operated by the rocking of the platen for moving said shaft longitudinally and registering means secured on the shaft for registering the blank sheets of paper with the guide upon the platen after they have been fed thereto.

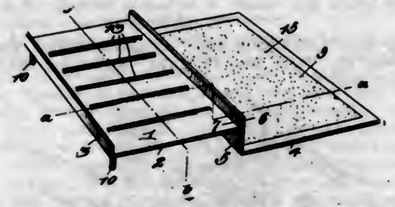
4. The combination with a platen printing press, of a frame secured to the lower edge of the platen, two longitudinally movable shafts carried by the frame, a guide carried by one of said shafts, means operated by the rocking of the platen for moving the guide transverse the platen and registering means carried by the other shaft for registering the blank sheets of paper with the guide upon the platen after they have been fed thereto.

5. The combination with a platen printing press, of a frame secured to the lower edge of the platen, two longitudinally movable shafts carried by said frame, a guide carried by one of said shafts, registering means carried by the other shaft and means operated by the rocking of the platen for operating said guide and registering means.

[Claims 6 to 16 not printed in the Gazette.]

1,029,446. FLAT-IRON STAND AND POLISHER. GEORGE G. HUNT, Piano, Ill. Filed July 12, 1911. Serial No. 638,123. (Cl. 68—27.)

1. A device of the class described comprising a metal sheet having horizontal portions disposed side by side and one in a higher plane than the other and respectively forming a flat iron stand and a cleaning pad holder, the central portion of said sheet being doubled and forming a common wall for and between the stand and holder, the upper portion of said wall extending above the stand and said wall also forming a support for one side of the stand, the bottom of the stand being provided with transverse slots and scraping ribs struck up from the sides of said slots and forming reinforces therefor, said stand having supporting devices at its outer side.



2. A device of the class described comprising a metal sheet having horizontal portions disposed side by side and one in a higher plane than the other and respectively forming a flat iron stand and a cleaning pad holder, the central portion of said sheet being doubled and forming a common wall for and between the stand and holder, the upper portion of said wall extending above the stand and said wall also forming a support for one side of the stand, the bottom of the stand being provided with transverse slots and scraping ribs struck up from the sides of said slots and forming reinforces therefor, said stand having supporting devices at its outer side, and the said holder having a depressed portion for the reception of a cleaning and polishing pad.

1,029,447. LIFTING-JACK. NIELS JANTZEN, Victoria, British Columbia, Canada, assignor of one-half to Burtren Alexander Holden, Victoria, Canada. Filed Nov. 22, 1910. Serial No. 593,734. (Cl. 74—36.)

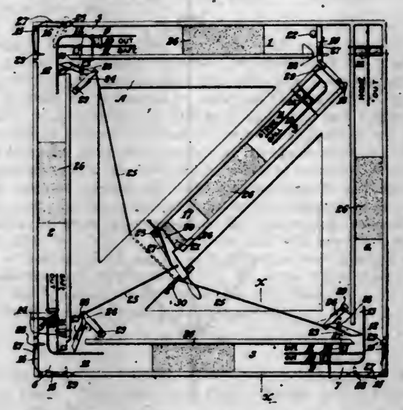


1. The combination of a driving gear, a power transmitting member driven by the driving gear, a gear receiving motion from said transmitting member, a support, a yoke holding said driving gear and movable in the support, a shaft journaled in the support, a block mounted eccentrically on the shaft, and a connection between said block and yoke whereby in the movement of the shaft the driving gear may be moved into and out of engagement with the power transmitting member according to the direction of movement of said yoke.

2. The combination of a worm gear, a support for the worm gear, a power transmitting member driven from said worm gear and comprising a pair of spaced pinions and a worm wheel intermediate said pinions and in engagement with said worm gear, a gear receiving motion from said power transmitting member, and a holder for said worm gear consisting of a yoke, a shaft, a block eccentrically mounted on the shaft, a strap encircling the said block, and a pivotal connection between said strap and yoke whereby in the movement of the shaft the yoke may move the worm gear into and out of engagement with said worm wheel according to the direction of movement of the yoke.

3. The combination of a worm gear, a worm wheel adapted to receive motion from said gear, and a holder for said worm gear consisting of a yoke, a shaft, a block eccentrically mounted on the shaft, a strap encircling the said block, a pivotal connection between said strap and yoke whereby in the movement of the shaft the yoke may move the worm gear into and out of engagement with said worm wheel according to the direction of movement of the yoke, and a support for said holder.

1,029,448. GAME. EARL P. JESSOP, U. S. Navy. Filed Oct. 3, 1911. Serial No. 652,487. (Cl. 46—62.)



1. In a baseball game, in combination, a board with runways representing a baseball diamond, partitions dividing the far ends of the runways at the bases into three compartments two of which form pockets and one of which is open, a spring actuated projector representing the batter, a spring actuated projector at each base, a trigger adapted to be operated by a ball passing through the open compartment for tripping said projectors, and a trigger adapted to be tripped by a projected ball for tripping the projector at the batter's position.

2. In a baseball game, in combination, a spring actuated projector representing the pitcher, a runway through which a ball projected by said projector passes, partitions at the far end of said runway dividing it into three compartments two of which form pockets and one of which represents a strike the other a ball and the third of which is open, a trigger opposite said open compartment, and a spring actuated projector adapted to be tripped by said trigger when it is struck by a ball.

3. In a baseball game, in combination, a board with runways representing a ball field, bases at the far ends of each of these runways each formed by partitions dividing said runways into three compartments of which two are closed at their far ends one representing out and the other safe and the third of which is open connecting adjoining runways, a trigger opposite the far end of said open compartment adapted to be tripped by a ball, a spring actuated projector adapted when said trigger is tripped to project the ball along the second runway, and means for initially projecting the ball.

4. In a baseball game, in combination, a board with runways representing a ball field, bases at the far ends of each of three runways each formed by partitions dividing said runway into three compartments of which two are closed at their far ends and of which one represents out and the other safe and the third of which is open connecting adjoining runways, a partition dividing the end of the runway carrying the base into two compartments, a spring actuated projector 23 for projecting a ball from the inner one of said latter compartments, a spring actuated projector for initially pitching a ball, a spring actuated

projector adapted to be tripped by the pitched ball to project a ball to the first base, spring actuated projectors at the bases adapted to be tripped by a ball passing through the open compartment thereat for passing the struck ball to the next base, and means, actuated by the initial pitching projector for tripping the projectors 23 when said initial projector is actuated.

5. A runway for a ball game substantially as set forth a continuous section of the bottom of which is roughened.

[Claim 6 not printed in the Gazette.]

1,029,449. UMBRELLA STRUCTURE. JOSEPH KIRKLEY and FRANK A. WHITE, Augusta, Ga. Filed July 21, 1911. Serial No. 634,422. (Cl. 135—30.)



1. In an umbrella structure, a stick, a runner movable thereon, a notch secured to the stick and provided with a slotted cup portion, ribs having spherical heads mounted in the cups of the notches and having formed integral thereon projecting portions disposed at an angle with respect to the ribs and movable in the slots of the said cup portions and adapted to limit the swing of the ribs, and stretchers connecting the ribs with the runner.

2. In an umbrella structure, a stick, a notch secured thereon, ribs connected to the notches, a runner movable on the stick and provided with a slotted cup portion, stretchers connecting the ribs with the runner and provided with spherical heads fitted in the cup of the runner, and integral projecting portions formed on the heads and at an angle to the said stretchers and movable in the slots in the cup of the runner, on movement of the runner to an open and closed position.

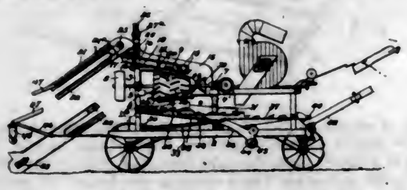
3. In an umbrella, ribs having a vertical upper end, a projecting portion formed integral therewith and disposed at an angle to the ribs.

1,029,450. BOTTLE-SEALING DEVICE. SYLVESTRE KANKA, Paris, France. Filed June 28, 1909. Serial No. 504,909. (Cl. 215—10.)



The combination with a bottle having a head provided with an annular locking shoulder, of a capsule corrugated into locking contact with said shoulder and provided with extended reëntering portions in relation to a part of the corrugations to increase the extent of the capsule in the direction of its height, the capsule also being provided with depending tongues extending from a part of the corrugations and in alinement with a part of the reentering portions between the corrugations from which the tongues extend, whereby when the tongues are moved upwardly by manual force the portions of the capsule thereabove are bent on a line passing approximately through the top portions of the adjacent corrugations.

1,029,451. CORN-SHELLER. CHARLES MCKEE, Monticello, Ill. Filed May 13, 1910. Serial No. 561,197. (Cl. 130—6.)

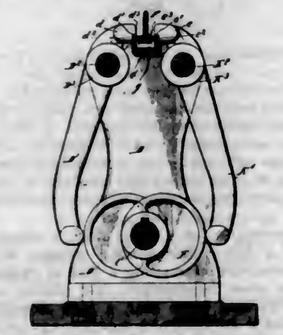


1. In a corn sheller, a journaled shaft, a cylinder mounted thereon, a concave surrounding the cylinder, a feed screw mounted upon the shaft at the receiving end of the concave, a raddle rack located under the concave and having its receiving end portion projecting beyond the delivery end of the concave, and a feed rack located above the concave and having its delivery end located above the feed screw, the said racks being located one above the other with the concave and cylinder between them.

2. In a corn sheller, a cylinder journaled for rotation, a concave surrounding the same, an ear feeding rack located above the concave, an ear turning means located at the end of the cylinder and adapted to receive ears from the ear feeding rack and present the same endwise between the cylinder and concave, and a raddle rack located below the concave and having its receiving end projecting beyond the delivery end of the concave, said racks being located one above the other with the concave and cylinder between them.

3. In a corn sheller, a cylinder journaled for rotation, a concave surrounding the same, means for feeding ears between the concave and the cylinder, spaced teeth carried at the delivery end of the concave at the lower portion thereof and extending approximately longitudinally of the concave and projecting beyond the delivery end thereof, and a raddle rack located below the concave and having its receiving end portion projecting beyond the delivery end of the concave.

1,029,452. MACHINE FOR ATTACHING CLOTHING TO FLATS. CHARLES MILLS, Newton, Mass., assignor, by mesne assignments, to Saco-Pettee Company, Newton, Mass., a Corporation of Massachusetts. Filed Nov. 12, 1909. Serial No. 527,644. (Cl. 140—97.)



1. In a machine for attaching clothing to flats, in combination, a frame, a table carried thereby, a pair of jaws one pivotally mounted on each side of said table, and means for causing said jaws to approach a flat located on said table to attach clothing thereto, each jaw having a face adapted to engage the upright edge of a fastener and turn it against the horizontal surface of the flat and having a die adapted thereafter to engage said turned edge and clamp it against said flat.

2. In a machine for attaching clothing to flats, in combination, a frame, a table carried thereby and adapted to support a flat and its clothing, a pair of jaws one pivotally mounted on each side of said table, and means for causing them to approach said flat simultaneously, each jaw having a face opposing the face of the other jaw and having below said face and adjacent to it a right angled die, whereby as said jaws approach the unattached clothing on a flat, said clothing having fasteners attached to each edge thereof, the face of each jaw will engage said fasteners simultaneously and press them toward each other and against said flat thereby stretching said clothing about said flat and said dies will simultaneously clamp said fasteners about said flat, as set forth.

3. A machine for attaching clothing to flats, comprising a frame, a table carried thereby to support the flat, a pair of jaws on each side of the table, and means for causing said jaws to approach and stretch the clothing on said flat and thereafter to clamp a fastener on each edge of said clothing to said flat and set the same.

4. A machine for attaching clothing to flats, comprising a frame, a table attached thereto, a pair of jaws on each side of the table, said jaws having fastening-turning and clothing-stretching surfaces, and means for causing said jaws to approach and stretch said clothing and thereafter to attach one or more fasteners connected thereto to said flat, whereby the stretched clothing is attached to said flat as set forth.

1,029,453. PIPE-COUPLING. WILLIAM E. MORELAND, Union City, Ga. Filed July 12, 1911. Serial No. 638,115. (Cl. 188—13.)



1. In a device of the class described, a hanger block for engagement with the under side of a car, a main bar slidably mounted on the hanger block and adapted for engagement with the main bar of an adjacent car, a dog mounted on the main bar and adapted to engage the main bar of the adjacent car, a slide bar slidably mounted on the main bar for operating the said dog when the adjacent cars ore coupled together and a locking pawl mounted on the slide bar and adapted to engage the main bar when the said slide bar is slidably operated on the main bar.

2. In a device of the class described, a hanger block for engagement with the under side of a car, a main bar slidably mounted on the hanger block and adapted for engagement with the main bar of an adjacent car, a spring actuated locking dog mounted on the main bar and adapted to engage the main bar of the adjacent car, a slotted slide bar slidably mounted on the main bar for operating the said dog when the adjacent cars are coupled together, the said dogs being adapted to extend through the slot in the slide bar and a spring actuated locking pawl mounted on the slide bar and adapted to engage the main bar when the said slide bar is slidably operated on the main bar.

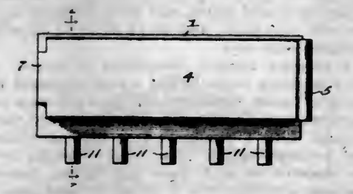
3. In a device of the class described the combination of a hanger block for connection to the under side of a car, a main bar mounted to slide on the hanger block and adapted for engagement with the main bar of an adjacent car, a slide bar slidably mounted on the main bar, means on the said slide bar and adapted to engage the said hanger block to automatically lock the main bars of adjacent cars when the said cars are coupled together, service pipes for connection with the said main bar, valves mounted on the service pipes and a rack on the said slide bar and engaging the said valve for operating the same when the said slide bar is slidably operated on the said main bar.

4. In a device of the class described, the combination of a hanger block for connection to the under side of a car, a main bar mounted to slide on the hanger block and adapted for engagement with the main bar of an adjacent car, a slide bar slidably mounted on the main bar, pins mounted on the said slide bar and adapted to engage the said hanger block to automatically lock the main bars of adjacent cars when the said cars are coupled together, service pipes for connection with the said main bar, valves mounted on the said service pipes and a rack mounted on the said slide bar and engaging the said valve to operate the same when the said slide bar is slidably operated on the said main bar.

5. In a device of the class described, the combination of a hanger block for engagement with the under side of a car, a main bar slidably mounted on the hanger block and adapted for engagement with the main bar of an adjacent car, a slide bar mounted to slide on the said main bar, locking dogs mounted on the said main bar and adapted for engagement with the main bar of the adjacent car to lock the said main bars, means on the said slide bar for engagement with the said hanger block to actuate the said slide bar and operate the said locking dogs to automatically lock the said main bars when the adjacent cars are coupled together, service pipes for connection with the said main bar, valves mounted on the said service pipes and a rack mounted on the said slide bar and adapted to engage the said valves to operate the same when the said slide bar is slidably operated on the said main bar.

[Claim 6 not printed in the Gazette.]

1,029,454. LUBRICATOR. HENRY C. NOFFSINGER, Jewell, Ohio. Filed Mar. 15, 1911. Serial No. 614,651. (Cl. 184—94.)



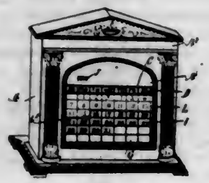
A lubricator comprising a box having oil discharging means, one of the said walls of the box being provided with an opening, the edges of the wall above and below said openings being formed U-shaped and disposed in opposite directions, and a cover having U-shaped edge portions snugly interlocking with the U-shaped edge portions of the box and having a longitudinal end tongue concaved inwardly to engage the box and hold said cover against accidental sliding.

1,029,455. PERPETUAL CALENDAR. JOHN JAMES O'BRIEN, New York, N. Y., assignor of one-half to Isaac A. Rose, New York, N. Y. Filed June 20, 1911. Serial No. 634,270. (Cl. 40—117.)

1. A perpetual calendar, comprising a fixed front bearing the names of the days of the week, a movable web behind the said front and extending below the same, the web being provided with numerals for indicating the days of each month and in register with the said names of the days of the week, the said web being provided with the names of the months of the year, each name being arranged to indicate the numerals for the corresponding month, and a second single web operating over the first-named web and provided with means whereby to move continuously and indicate the past days of the month.

2. A perpetual calendar, comprising a fixed front bearing the names of the days of the week, and a movable web

behind the said front and extending below the same, the web being provided with numerals for indicating the days of each month and in register with the said names of the days of the week, the said web being provided with the



names of the months of the year, each name being arranged to indicate for the numerals for the corresponding month, and a second web of transparent material movable over the said first-named web and having cut-out portions arranged in step form to indicate all the past days of the month.

1,029,456. MOLDBOARD PLOWING-MACHINE. WILLIAM GORDON PARMELE, Chetopa, Kans. Filed Nov. 11, 1910. Serial No. 591,817. (Cl. 97—30.)



1. A plowing machine comprising a furrow turning plow; a carrying frame having wheels arranged to track in the furrow formed by said plow; a boom connecting said plow with said frame, said boom being pivotally connected with said plow; and means mounted on said frame for winging said plow.

2. A plowing machine comprising a furrow forming plow; a carrying frame having wheels arranged to track in the open furrow formed by said plow; a boom pivotally mounted on said frame and extended forward therefrom, said boom being pivotally secured in longitudinally extended bearings on said plow; and a rocking lever pivotally mounted on said frame and having transmission connections with said plow to rotate the said plow on said boom.

3 A plowing machine comprising a furrow forming plow; a carrying frame having wheels arranged to track in the furrow formed by said plow; a boom having a pivot shaft for connecting with said frame, said boom being extended forward therefrom; a pivotal mounting for said shaft disposed to one side of the said boom; an adjusting mechanism for rotating said shaft on its pivot in a horizontal plane, and embodying a sliding rod having a screw threaded end section and a nut mounted thereon between fixed bearing members; and a plow connected with said boom at the forward end thereof.

4. A plowing machine comprising a furrow forming plow; a carrying frame having wheels arranged to track in the furrow formed by said plow; a boom pivotally connected with the forward end of said frame and extended in operative position below the surface of the ground; a mold board plow pivotally connected with said boom to wing thereon; and a rocking mechanism for said plow embodying a manually manipulated crank rod pivotally mounted on said frame and having links for connection with said plow.

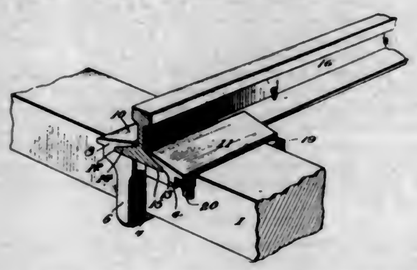
1,029,457. LAMP. WALTER H. PENICK, Martin, Tenn. Filed Mar. 16, 1912. Serial No. 684,350. (Cl. 240—83.)

A lamp base having a receptacle therein, two of the walls of the receptacle having sockets therein, a closure adapted to cover the receptacle, ears carried by the closure, pintles extending through the ears and into the sockets, and portions struck up from the closure and en-



gaging the pintles to hold them operatively associated with the said ears.

1,029,458. RAIL-FASTENING MEANS FOR RAILWAY-TIES. HENRY K. POWERS, Kittanning, Pa. Filed Apr. 8, 1912. Serial No. 689,252. (Cl. 238—2.)



1. A rail fastening means, comprising two members having interlocking inner edges and adapted to engage the rail and opposite ends of said members having downwardly extending arms adapted to embrace the under side of a tie.

2. A rail fastening means comprising two members, flat plates having interlocking inner edges and upon which the rail is adapted to rest, upwardly extending rail engaging members carried by said plates, and downwardly extending members carried by opposite ends of said plates and adapted to engage the under side of a tie, substantially as shown and described.

3. A rail fastening means comprising two plates having teeth on their inner edges extending in opposite directions and adapted to interlock and upon which a rail is adapted to rest, rail engaging members carried by the upper face of the said plates, a downwardly extending arm carried by one end of one of the plates and adapted to engage the under face of a tie, and a downwardly extending arm carried by the opposite end of the other plate and adapted to engage the under face of a tie.

4. A rail fastening means comprising two plates having teeth on their inner edges extending in opposite directions and adapted to interlock, and upon which a rail is adapted to rest, rail engaging members carried by the upper face of the said plates, a downwardly extending arm carried by one end of one of the plates and adapted to engage the under face of a tie, a downwardly extending arm carried by the opposite end of the other plate and adapted to engage the under face of a tie, and means for holding the plates against transverse movement in respect to each other.

5. The combination with a tie having a transverse rectangular groove therein, rail clamping members in said groove and having interlocking inner faces, arms carried by said rail-engaging members and extending downwardly under the tie, and a wedge driven in between one edge of the rectangular opening and one of the rail clamping members for holding the members in their interlocking position, whereby the members are held against vertical, longitudinal and transverse movement.

[Claims 6 and 7 not printed in the Gazette.]

1,029,459. SOLE-HOLDING DEVICE. JOHN F. QUIGLEY, West Lynn, Mass. Filed Mar. 21, 1912. Serial No. 685,219. (Cl. 211—24.)



1. In a device of the class described, the combination with a base plate, a single guide rod rising from one end thereof, and a double guide rod rising from the other end thereof and having its two arms connected by a bend at their upper extremities; of a clamping plate having eyes at its extremities slidably engaging the single rod and the inner arm of the double rod and provided with a T-shaped notch between said eyes, and a stepped rod whose lower end is loosely connected with said base plate at its mid-length and whose steps are adapted to be detachably engaged with said notch in the clamping plate.

2. In a device of the class described, the combination with a base plate, guide rods rising from the ends thereof, and a fastening rod whose lower end is loosely connected with the base plate at its mid-length and whose body is provided with steps; of a clamping plate having eyes at its extremities slidably engaging the guide rods and a T-shaped notch between said eyes adapted to be detachably engaged with the steps on said fastening rod.

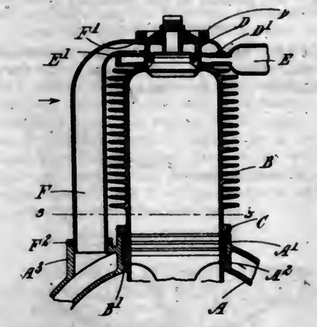
3. In a device of the class described, the combination with a base plate having notches opening out its extremities, an eye at its mid-length, and threaded holes between said eye and the inner ends of the notches; of two supporting plates having slots in their bodies which underlie said base plate, set screws passing through said slots and into the threaded holes in the base plate, guide rods rising rigidly from said supporting plates through the notches in the base plate, a stepped rod rising from said eye, and a clamping plate having eyes near its extremities slidably mounted on said guide rods and a slot at its mid-length detachably and adjustably engaging said stepped rod.

4. In a device of the class described, the combination with a base plate having notches opening out its extremities, an eye at its mid-length, and threaded holes between said eye and the inner ends of the notches; of two supporting plates having slots in their bodies underlying said threaded holes and one of such plates having an L-shaped slot near its outer end, set screws passing through said slots and into the threaded holes, guide rods rising rigidly from said supporting plates through the notches in the base plate and one of them bent outward at its upper extremity and thence downward in an outer arm detachably engaging said L-shaped slot, a stepped rod rising from said eye, and a clamping plate having eyes near its extremities slidably mounted on said guide rods and a slot at its mid-length detachably engaging said stepped rod.

5. In a device of the class described, the combination with a base plate, two upright guides rising from its extremities, and a single rod loosely connected with the mid-length of said plate and having a series of annular grooves in its body; of a clamping plate having eyes near its ends slidably mounted on said guide rods and a T-shaped slot at its mid-length with its shank opening out one edge of the plate and the edges of said slot being undercut, for the purpose set forth.

1,029,460. FLUID-PRESSURE ENGINE. CHARLES BENJAMIN REDRUP, Cardiff, England. Filed June 15, 1911. Serial No. 633,334. (Cl. 121—105.)

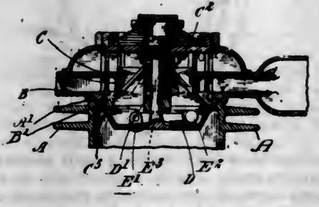
1. In a fluid-actuated motor, the combination of a power cylinder provided with a shoulder, a crank chamber provided with a threaded orifice constituting a seat for said shoulder, and a divided nut for clamping said cylinder shoulder on said seat.



2. In a fluid-actuated motor provided with a power cylinder and crank chamber, the combination of an inlet pipe for the cylinder, and a common detachable means for clamping said cylinder and inlet pipe to the crank chamber.

3. In a fluid-actuated motor, the combination of a power cylinder provided with a shoulder, an inlet pipe secured to said cylinder, a crank chamber provided with a socket constituting a seat for said inlet pipe and with a threaded orifice constituting a seat for said cylinder shoulder, and a divided nut on said cylinder adapted to be screwed into such threaded orifice for firmly clamping said cylinder and inlet pipe on said chamber.

1,029,461. COUNTERBALANCING DEVICE FOR VALVES. CHARLES BENJAMIN REDRUP, Cardiff, England. Filed June 15, 1911. Serial No. 633,336. (Cl. 123—188.)



1. For internal combustion engines of the rotating cylinder type the combination with a suction valve recessed on one side, of a counter-balance device mounted in the recess for the purpose described.

2. For internal combustion engines of the rotating cylinder type the combination with a suction valve recessed on one side, of arms pivotally connected to the valve within the recess, for the purpose described.

3. For internal combustion engines of the rotating cylinder type the combination with a suction valve recessed on one side, of arms pivotally connected to the valve at opposite points within the recess and carrying weights at their free ends, substantially as described.

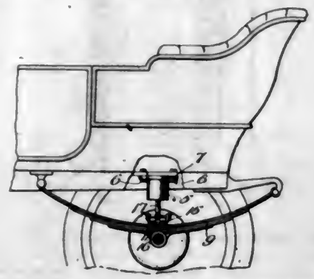
4. For internal combustion engines of the rotating cylinder type the combination with a suction valve recessed on one side, of arms pivotally connected to the valve at opposite points within the recess and carrying weights at their free ends, and means for limiting the centrifugal movement of the arms, substantially as described.

5. For internal combustion engines of the rotating cylinder type, the combination with a suction valve recessed on one side, of a stem fixed to the valve, a hollow guide for the stem, arms having one of their ends pivotally connected to the valve and arranged in the recess, weights carried by the free ends of the arms, and lugs projecting

from the arms and adapted to engage the guide for limiting the centrifugal movement of the arms, substantially as described.

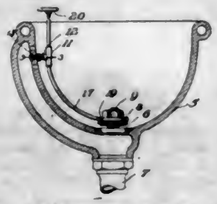
[Claim 6 not printed in the Gazette.]

1,029,462. SHOCK-ABSORBER. STANFORD WALTON RIFE, San Marcos, Tex. Filed May 17, 1911. Serial No. 627,723. (Cl. 21—105.)



In combination with two relatively movable members including the frame and body of a vehicle; of a shock absorber including a cylinder connected to one of the members, a piston in the cylinder and having a cupped end, a bearing rod extending transversely of and arranged in the cupped end, a bearing rod connected to the other of said members, and a piston rod adapted for turning and bodily sliding movements on said bearing rods.

1,029,463. WASTE-PLUG LIFTER. HERMENEGILD ROTTLER, Raymond, Iowa. Filed Mar. 22, 1911. Serial No. 616,133. (Cl. 4—24.)



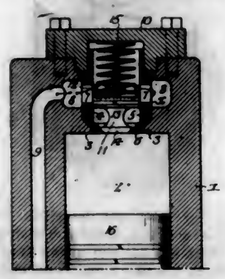
In combination, a basin having a drain opening and an opening in its wall, a split sleeve fitting in said wall opening and provided with gripping flanges on its inner end to engage said wall, a conical expander movable longitudinally in said split sleeve and provided with lateral projections, a nut threaded on said sleeve and adapted to engage the projections to move said expander in said sleeve and hold said sleeve in locked relation with said wall, a guide carried by said sleeve and a rod movable in said guide and carrying a stopper on its lower end adapted to close the drain opening.

1,029,464. VALVE. WILLIAM F. RUWELL, Philadelphia, Pa. Filed Nov. 7, 1911. Serial No. 659,037. (Cl. 103—66.)

1. The combination in a compressor pump of a valve casing, having a valve seat and lateral passages, a valve arranged to close against said seat, said valve having a portion arranged to move past the passages, said valve portion being of such thickness as to never entirely close the passages.

2. The combination in a compressor pump of a valve casing having a valve seat and lateral passages, a piston headed valve arranged to close against said seat, said piston head being arranged to move past the passages and being of such thickness as to never entirely close the passages.

3. The combination in a compressor pump of a valve casing having a valve seat and lateral passages, a piston headed valve arranged to close against said seat, a spring bearing on said piston head, said piston head being arranged to move past the passages and being of such thickness as to never entirely close the passages.

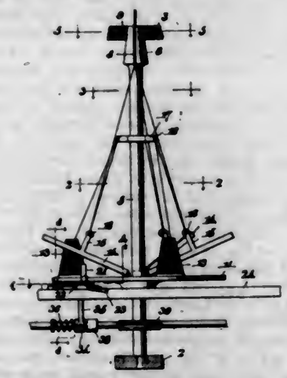


4. The combination in a compressor pump having a compression chamber and a passage, of means providing an aperture between the compression chamber and the passage, and a valve intermediate the aperture and the compression chamber, said valve being movable to either side of and never entirely covering the aperture.

5. The combination in a compressor pump having a passage, a compression chamber, and a valve chamber communicating with the compression chamber, of means providing an aperture between the valve chamber and the said passage, said aperture being between the compression chamber and the end of the valve chamber; and a valve fitting and movable within the valve chamber to points on either side of the aperture, said valve never covering the entire aperture.

[Claims 6 to 20 not printed in the Gazette.]

1,029,465. TWISTING-MACHINE. JOHN RYAN, Winnipeg, Manitoba, Canada. Filed Oct. 4, 1911. Serial No 652,734. (Cl. 28—21.)



1. In a twisting device, a twisting unit including a vertically supported shaft, a disk on said shaft having a plurality of upstanding spool carrying spindles, levers extending radially from the shaft and having arms provided with guide eyes, arms extending radially from the shaft and having guide eyes, a line shaft, means for transmitting motion from the line shaft to the vertical shaft including a loose pulley having a clutch member and a slidable clutch feathered upon the line shaft, a shipping lever having a bifurcated arm engaging the slidable clutch member, said shipping lever being provided with a finger having a lateral extension whereby it may be supported in an upright position in the path of the levers extending radially from the vertical shaft when the said levers lie flat upon the disk, and a reciprocatory slide having a notch adapted to engage the finger when the latter is tilted.

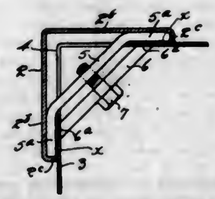
2. In a twisting device, a twisting unit including a vertically supported shaft, a disk on said shaft having a plurality of upstanding spool carrying spindles, levers extending radially from the shaft and having arms provided with guide eyes, arms extending radially from the shaft and having guide eyes, a line shaft, means for transmitting motion from the line shaft to the vertical shaft including a loose pulley having a clutch member and a slidable clutch feathered upon the line shaft, a shipping lever having a bifurcated arm engaging the slidable clutch member, said shipping lever being provided with a finger having a lateral extension whereby it may be supported in an upright position in the path of the levers extending radially from the vertical shaft when the said levers lie flat upon the disk, a reciprocatory slide having a notch adapted to engage the finger when the latter is tilted, spring means to retain the slidable clutch member normally in engagement with the clutch member on the loose pulley, and a spring actuated catch to retain the shipping lever in retracted position.

1,029,466. METAL FILING UNIT. ADOLF H. SCHAFFERT, Youngstown, Ohio, assignor to The General Fireproofing Company, Youngstown, Ohio, a Corporation of Ohio. Filed May 11, 1911. Serial No. 626,600. (Cl. 45—2.)



A filing unit having a clearance hole in its bottom wall, a foot piece having a rest projection protruding through said hole and a securing flange secured to the bottom wall upon the inside thereof, and a shield covering fitting the foot piece externally and clamped between the same and said bottom wall.

1,029,467. FURNITURE CONSTRUCTION. ADOLF H. SCHAFFERT, Youngstown, Ohio, assignor to The General Fireproofing Company, Youngstown, Ohio, a Corporation of Ohio. Filed July 26, 1911. Serial No. 640,725. (Cl. 45—48.)

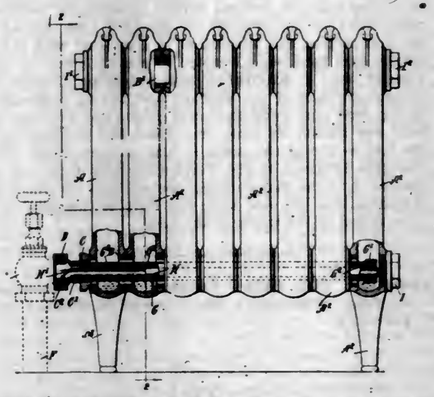


1. A joint and fastening for metal furniture construction comprising a sheet-metal member having a corner notch, a second sheet-metal member receiving the corner of the first mentioned member, a rigid cross-bar carried by one of the members and having a clearance at its ends from the other member, and also engaging within the notch of said other member, a clamping-plate arranged in opposition to the cross-bar and having its ends exerting a binding pressure against resilient portions of the member having the corner notch, and an adjustable fastening device connecting the clamping plate to the cross-bar.

2. A joint and fastening for metal furniture construction comprising a member having a corner notch, a second member receiving the corner of the first mentioned member, a rigid cross bar carried by one of said members and engaging within said notch, a clamping plate arranged in substantial parallelism to said cross bar and having its ends exerting a binding pressure against opposite portions of the member having the corner notch, and an adjustable fastening device connecting the clamping plate to said cross bar.

3. A joint and fastening for furniture construction comprising a hollow upright leg member having one side thereof cut away and formed with a supporting shoulder, and a superstructure including a body portion having its corner fitting within the leg member and resting on said shoulder, the said corner of the body also having formed therein a notch, a cross bar rigidly fitted within the leg member and arranged diagonally therein so as to engage with the said notch, a clamping plate fitted within the corner of the body portion and adjustably binding against opposite walls thereof, and a clamping screw adjustably connecting said plate with the cross bar.

1,029,468. RADIATOR. FREDERICK SCHNEIDER, Fort Leavenworth, Kans., assignor of one-fourth to Samuel F. McDonald, Memphis, Tenn., and one-fourth to George F. Weller, Leavenworth, Kans. Filed Oct. 21, 1911. Serial No. 655,876. (Cl. 237—18.)



1. A radiator, comprising a series of connected radiator sections, a supply valve, a distributing pipe connected with the said supply valve and extending through the radiator sections, except the last one in which the pipe terminates, the said distributing pipe having in its top openings leading into the radiator sections, and a return flow pipe extending through the said distributing pipe and having one end opening into the last radiator section and having the other end terminating adjacent the said valve and water sealed, the space between the said pipes being closed at the outer end.

2. A radiator, comprising a series of radiator sections, nipples connecting the said sections with each other at top and bottom, a distributing pipe extending through the bottom nipples and having one end closed and terminating in the last radiator section, the said distributing pipe having its top openings for discharging the heating medium into the radiator sections, a supply valve connected with the other end of the said distributing pipe, and a return flow pipe extending through the said distributing pipe and opening into the last radiator section, the discharge end of the said return flow pipe being adjacent the said valve and water sealed.

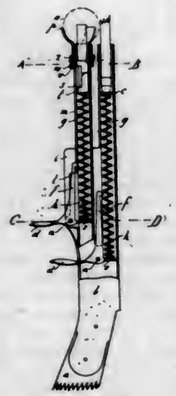
3. A radiator, comprising a series of radiator sections, nipples connecting the said radiator sections with each other at top and bottom, a supply valve, a distributing pipe extending through the bottom nipples provided in its top with openings in register with the interior of the radiator sections, the terminal of the distributing pipe being within the last radiator section and being provided with a cap closing its outer end, a reducing coupling connected with the first radiator section and connecting the said valve with the entrance end of the said distributing

pipe, said coupling containing water to form a water seal, and a return flow pipe extending through the said distributing pipe and through the said cap into the last radiator section, the other end of the said return flow pipe opening into the water seal of the said reducing coupling.

4. A radiator, comprising a series of radiator sections, nipples connecting the radiator sections with each other at top and bottom, a supply valve, a distributing pipe extending through the bottom nipples provided in its top with openings in register with the interior of the radiator sections, the terminal of the distributing pipe being within the last radiator section and being provided with a cap closing its outer end, a reducing coupling connected with the first radiator section and connecting the said valve with the entrance end of the said distributing pipe, the said reducing coupling having an enlarged head for the reception of water to form a water seal, and a return flow pipe extending through the said distributing pipe and passing through the said cap into the last radiator section, the front end of the said return flow pipe being bent downward and extending into the water seal in the head of the said reducing coupling.

5. A radiator comprising a series of radiator sections having openings at top and bottom establishing communication between the sections, an enlarged head carried by the first section and adapted to be connected with a fluid supply, said head being adapted to contain water to form a water seal, a distributing pipe extending through the bottom openings of the sections and having openings in its top, said pipe being connected at one end with the said head and having its other end closed and terminating in the last section of the radiator, and an open ended return flow pipe arranged in the distributing pipe with one end opening into the last radiator section, and its other end extending into the said head and bent downwardly so as to be sealed by the water in the head.

1,029,469. TOY GUN. GEORG SCHRÖDEL, Nuremberg, Germany. Filed Dec. 2, 1911. Serial No. 663,513. (Cl. 124—12.)



1. In a toy gun, in combination, a trigger mechanism, a spring for discharging a projectile when said trigger mechanism is actuated to release said spring and means for preventing extension of a portion of said spring and for maintaining same in contact with said trigger mechanism on the discharge of said projectile.

2. In a toy gun, in combination, a main frame, a barrel integral with said frame, a second barrel fixed to said frame, trigger mechanism, springs in said barrels for discharging projectiles when said trigger mechanism is actuated to release said springs and pins passing through said barrels and said springs for preventing extension of portions of said springs and for maintaining same in contact with said trigger mechanism on the discharge of said projectiles.

3. In a toy gun in combination, a main frame, a barrel integral with said frame, a second barrel fixed to lugs depending from said first barrel, projections adapted to be inserted in said barrels, triggers pivoted to said frame, sears forming part of said triggers adapted to engage with their respective projectiles, springs in said barrels for discharging said projectiles, when said triggers are actuated to release said springs and disengage said sears, arms extending from said triggers on which said springs rest and pins passing through said barrels and said springs for preventing extension of portions of said springs and for maintaining same in contact with said arms of said triggers on the discharge of said projectiles.

4. In a toy gun in combination, a main frame, a barrel integral with said frame, a second barrel fixed to said frame, a projectile adapted to be inserted in one of said barrels, a cup at the mouth of the said second barrel to receive a second projectile, a striking bolt, means for guiding said bolt, triggers pivoted to said frame, sears on said triggers adapted to engage with the first of said projectiles and said striking bolt, springs in said barrels for discharging said projectile and said bolt when said triggers are actuated to release said springs and disengage said sears, arms extending from said triggers on which said springs rest and pins passing through said barrels and said springs for preventing extension of portions of said springs and for maintaining same in contact with said arms of said triggers on the discharge of said projectiles.

1,029,470. ENGINEER'S COMBINATION-ROD. ALBERT SCHROEDER, Piqua, Ohio. Filed Sept. 26, 1910. Serial No. 583,972. (Cl. 88—66.)



1. An engineer's rod of substantially hexagonal form comprising two interlocking members, one member consisting of three parts forming the three faces of a hexagon, hinged together at their adjacent sides, each part having an upper and a lower section hinged together, the other member consisting of a single part bent to form the other three faces of the hexagon, the said part having an upper and a lower section hinged together, and flanges on the edges of the two members adapted to lock the two members together to form a flag pole, substantially as described.

2. An engineer's rod of substantially hexagonal form comprising two interlocking members, one member consisting of three parts forming the three faces of a hexagon, hinged at their adjacent sides, each part having an upper and a lower section hinged together, a hexagonal shoulder, said hexagonal shoulder being riveted to the lower end of the lower section of the middle part of said one member, a half screw head, said half screw head being swiveled into said hexagonal shoulder, the other member consisting of a single part bent to form the other three faces of the hexagon, a half screw head the complement of said first half screw head, said second half screw head being rigidly fastened to the lower end of the lower section of said other member, flanges, said flanges being on the edges of the two members adapted to lock the two members together, a shoe having a receptacle, said shoe being smooth or having screw threads on the inner surface of its receptacle, said shoe screwing up over said first and second half screws, the walls of said shoe extending up over the lower ends of said two interlocking members, holding said two interlocking members firmly to said hexagonal shoulder for the purpose of making a very firm hexagonal flag pole, substantially as described.

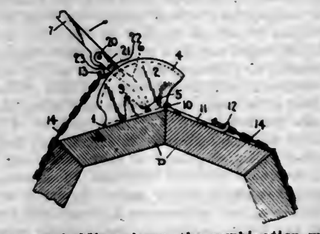
3. An engineer's rod of substantially hexagonal form comprising two interlocking members, one member consisting of three parts forming the three faces of a hexagon, hinged at their adjacent sides, each part having an upper and a lower section hinged together, a second hexagonal shoulder, said second hexagonal shoulder being riveted to the upper end of the upper section of the middle face of said one member, a third half screw head, said third half screw head being swiveled in to said second hexagonal shoulder, the other member consisting of a single part bent to form the other three faces of the hexagon, a fourth half screw head the complement of said third half screw head, said fourth half screw head being rigidly fastened to the upper end of the upper section of said other member, flanges, said flanges being on the edges of the two members adapted for locking the two members together, a cap, said cap having a receptacle, screw threads, said screw threads being on the inner surface of said receptacle, said cap screwing down over said third and fourth half screw heads, the walls of said cap extending down over the upper ends of said two interlocking members, holding said two interlocking members firmly to said second hexagonal shoulder for the purpose of making a very firm flag pole, substantially as described.

4. An engineer's rod including a leveling rod comprising two members, one member consisting of three parts, hinged at their adjacent sides, each part having an upper and a lower section hinged together, a hexagonal shoulder, said hexagonal shoulder being riveted to the lower end of the lower section of the middle face of said one member, a half screw head, said half screw head being swiveled into said hexagonal shoulder, a second hexagonal shoulder, said second hexagonal shoulder being riveted to the upper end of the upper section of the middle face of said one member, a third half screw head, said third half screw head being swiveled into said second hexagonal shoulder, the other member consisting of a single part bent to form three faces of a hexagon, having an upper and a lower section hinged together, a second half screw head and the complement of said first half screw head, said second half screw head being rigidly fastened to the lower end of the lower section of said other member, a fourth half screw head, said fourth half screw head being rigidly fastened to the upper end of the upper section of said other member and forming the complement of said third half screw head, a shoe, said shoe screwing up over said first and second half screw heads, a cap, said cap screwing down over said third and fourth half screw heads, substantially as described.

5. An engineer's rod including a leveling rod having flanges on its lateral edges, and a target consisting of a frame, said frame being adjustably attached to said leveling rod by means of two sets of hooks, one set being rigidly fastened to said frame, the other set fitting over said frame, the two sets fitting into the flanges of the leveling rod, flanges in duplicate, said flanges being rigidly fastened to said frame and extending out over and fitting against the flanges of the leveling rod, blocks in duplicate, said blocks fitting closely to the flanges of the leveling rod, a plate, guides, the guides connecting said plate and one of said blocks, a screw, said screw connecting said plate and one of said blocks, springs in duplicate, said springs fitting and working over said guide, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

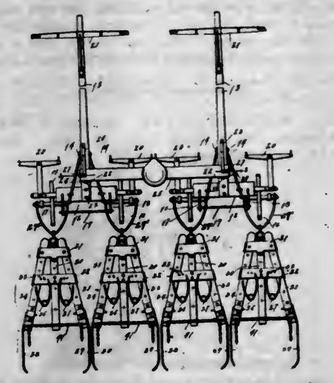
1,029,471. WOODWORKING-CLAMP. AUGUST J. SCHULTE, Tacoma, Wash. Filed Mar. 14, 1912. Serial No. 683,833. (Cl. 144—297.)



1. In a work-holding clamp, the combination with a flat base, a claw pivoted at one end to one end of the base and having a hook at its other end, and a chain; of parallel plates projecting at right angles from the edges of the base and having arcuate rims around their peripheries directed inward toward but spaced from each other, a main pivot through said plates at the center of the circle around which said rims are struck, a lever having a boss at its inner end journaled on said pivot and resting against the inner face of one of said plates when one side of the lever rests against the edge of the rim of said plate, a washer on the pivot between the inner face of the opposite plate and the other end of the boss, a dog movably connected with the lever and adapted to engage the rim of the last-named plate, and a hook on the lever adapted to engage said chain.

2. In a work-holding clamp, the combination with a flat base having parallel plates projecting from its edges and provided around their peripheries with arcuate rims projecting inward toward but spaced from each other, a hook connected with one end of said base, and a main pivot through said plates near the base at the center of the circle around which said rims are struck; of a lever mounted on said pivot and projecting between said rims and having a handle at its outer end, a hook on the lever beyond said rims, a stop on the lever adjacent said hook, a dog pivoted to the lever and projecting inward between said rims and having in its outer face a transverse notch struck on a line to slide over one of said rims when the dog rests against the stop, and a chain connecting said hooks.

1,029,472. CULTIVATING DEVICE. FRANCIS MARION SHONKWILER and JOHN THOMI, Burns, Kans. Filed Nov. 8, 1910. Serial No. 591,289. (Cl. 97—31.)



1. In a device of the class described, the combination of a pair of transversely alined spaced inverted wheeled U shaped frames, a pair of tongues having their inner ends secured to the bight portions of said frames respectively, means connecting said tongues together and permitting

a limited movement of the latter toward and away from each other, and a cultivating element secured to each of said frames.

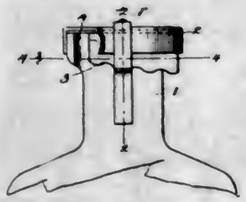
2. In a device of the class described, the combination of a pair of transversely alined spaced inverted wheeled U shaped frames a pair of tongues having their inner ends secured to the bight portions of said frames respectively, a roller mounted at corresponding points on the upper face of each tongue, a beam supported upon said rollers, a pivotal connection between each tongue and beam, means carried by said beam for engaging said tongues to limit the movement of the latter away from each other, and a cultivating element secured to each of said frames respectively.

3. In a device of the class described, the combination of a pair of transversely alined spaced inverted wheeled U shaped frames, a pair of tongues having their inner ends secured to the bight portions of said frames respectively, a roller mounted at corresponding points on the upper face of each tongue, a beam supported upon said rollers, a pivotal connection between each tongue and beam, a depending arm carried by said beam at each end for engaging said tongues respectively to limit their movement away from each other, and a cultivating element secured to each of said frames respectively.

4. In a device of the class described, the combination of a pair of transversely alined spaced inverted wheeled U-shaped frames, a pair of tongues having their inner ends secured to the bight portions of said frames respectively, means connecting said tongues together and permitting a limited movement of the latter toward and away from each other, a vertical rod journaled in each end of the bight portion of each frame, each of said rods having their terminals bent at right angles to each other, and provided with means for connection to a swingletree, a pivotal connection between the upper ends of the vertical rods of each frame, and a cultivating element secured to each of said frames respectively.

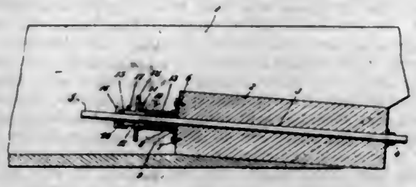
5. In a device of the class described, the combination of a pair of transversely alined spaced inverted wheeled U shaped frames, draft connections carried by each frame, a pair of cultivating elements secured to each frame, each of said elements comprising a central beam, a plate secured transversely of said beam at its forward end and having upwardly extending terminals, a second plate secured to said central beam and provided with a plurality of perforations on opposite sides of the beam, and having its terminals bent upwardly, a pair of side beams having their forward ends pivoted to the first named plate on opposite sides of the central beam, a pair of springs each having one end removably engaged with a recess in the second named plate, and its other end engaging a respective beam at its rear end, a controlling finger pivoted to the rear end of each side beam for forcing the rear ends of the side beams toward the central beam by engagement of said finger with the product being cultivated, and a plurality of cultivator teeth depending from each of said side beams.

1,029,473. BOTTLE-STOPPER. ALBERT J. SLAUGHTER, Washington, Va. Filed Apr. 8, 1911. Serial No. 619,744. (Cl. 215—85.)



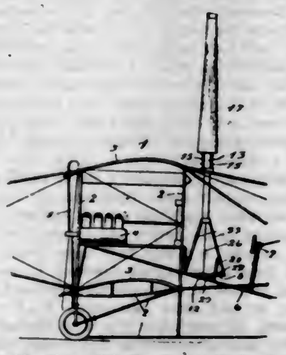
The combination with a bottle having a neck provided with oppositely inclined corrugated surfaces, of a cap removably fitted to the neck, and a clamp comprising a substantially elongated member pivoted intermediate of its ends to the central portion of the cap, said strip being bowed on opposite sides from its pivotal point and thence extended downwardly against the sides of the neck and having terminals extending longitudinally to the plane of the neck of the bottle and engaging therewith, each terminal being bent upon itself so that the rigidity of each terminal exceeds that of the intermediate portion of the elongated clamp member and each of said terminals being provided with an offset portion underlying and yieldingly engaging the notch surface of the flange of the neck.

1,029,474. STUFFING-BOX. WILLIAM SMITH, Winthrop, Mass. Filed Mar. 15, 1911. Serial No. 614,665. (Cl. 121—109.)



In combination with a boat hull provided with a shaft log supporting a propeller shaft, of a packing gland surrounding the propeller shaft, a collar with an attaching flange secured to the rear end of said shaft log, a spiral spring surrounding said shaft, one end of said spring abutting against the outer edge of said attaching flange, the other end of said spring abutting against the inwardly extending portion of said packing gland, a flexible tube surrounding the shaft and spring between the collar and the packing gland, clamping rings surrounding the opposite ends of said flexible tube for securing the tube to the collar and gland, said spring preventing the tube from collapsing.

1,029,475. SAFETY APPLIANCE FOR FLYING-MACHINES. LOUIS W. STOLP, Washington, D. C. Filed Nov. 22, 1911. Serial No. 661,819. (Cl. 244—21.)



1. The combination with the frame-work of a flying machine, of an operator's seat, means including a movable element to securely hold the operator's seat in place upon said frame-work, manually operated means to move the element to release the operator's seat from its connection with said frame-work, a parachute connected with the operator's seat, including an umbrella portion, automatic means to open the umbrella portion and normally held against movement, and means movable with said manually operated means to release said automatic means for opening the umbrella portion.

2. The combination with the frame-work of a flying machine, of an operator's support, a movable element to connect the support with the frame-work, manually operated means to move the element, a parachute connected with the operator's support including an umbrella portion, and means operated simultaneously with the movement of the manually operated means to open the umbrella portion of the parachute.

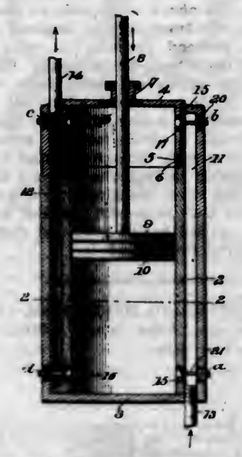
3. The combination with the frame-work of a flying machine, of brackets secured to such frame-work, an operator's seat disposed between the brackets, an element pivotally connected with the operator's seat and having oppositely extending end portions movable into and out of the brackets, a hand lever pivoted upon the operator's seat and having operative connection with the pivoted element, and a parachute connected with the operator's seat.

4. The combination with the frame-work of a flying machine, of an operator's seat, detachable means for securely holding the operator's seat in place upon said frame-work, a parachute connected with the operator's seat including an umbrella portion, means for opening the umbrella portion of the parachute, and common means to operate the first and second named means.

5. The combination with the frame-work of a flying machine, of an operator's seat, detachable means for securely holding the operator's seat in place upon said frame-work including a latch pivoted to said operator's seat, a parachute connected with said operator's seat, including a staff and umbrella portion, means to open said umbrella portion comprising an element longitudinally movably mounted on the staff, a spring to move the element when released, a device to normally hold the element against movement, and common means to move said device and pivoted latch.

[Claims 6 and 7 not printed in the Gazette.]

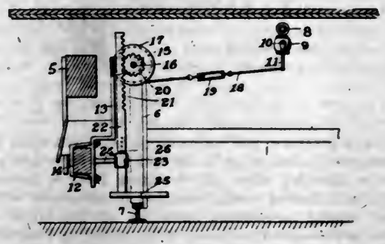
1,029,476. DOUBLE-ACTING PUMP. GEORGE ST. PETERS, Mattoon, Wis. Filed Mar. 13, 1911. Serial No. 614,119. Renewed Apr. 15, 1912. Serial No. 691,005. (Cl. 103—78.)



1. In a pump, a barrel having chambers at opposite sides thereof and extending longitudinally of the same, the walls of said chambers having threaded apertures near their ends and said barrel having other threaded apertures in alinement respectively with the threaded apertures of the chambers, a threaded sleeve and a threaded plug for each alined pair of said apertures and united by a plurality of bars spaced apart, said plugs adapted to engage respectively in the apertures of the chambers and said threaded sleeves adapted to engage respectively in the threaded apertures of the barrel, a valve in each of said sleeves, and a plunger operating in said barrel.

2. In a pump, a barrel open at one end and internally threaded at the open end and having chambers at opposite sides thereof and extending longitudinally of the same, the walls of said chambers having threaded apertures near their ends and said barrel having other threaded apertures in alinement respectively with the apertures of the chambers, a closure for the open end of the barrel and provided with a threaded annular flange engaging the threaded portion of the barrel, said flange having threaded apertures registering with the adjacent threaded apertures of the barrel, a threaded sleeve and a threaded plug for each alined pair of said apertures and united by a plurality of bars spaced apart, said plugs adapted to engage respectively in the threaded apertures of the chambers and said threaded sleeves adapted to engage respectively in the threaded apertures of the barrel and to likewise extend through the threaded apertures of the flange, a valve in each of said sleeves, and a plunger operating in said barrel.

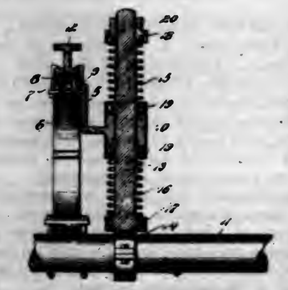
1,029,477. VALVE-CONTROLLING MECHANISM FOR TRAIN-AIR-BRAKE SYSTEMS. PERRY T. STRADER, Amarillo, Tex. Filed Sept. 20, 1911. Serial No. 650,316. (Cl. 188—2.)



1. The combination with a wheel truck and a valved train pipe, of valve operating mechanism, comprising a vertical bracket, a clip detachably connecting the lower end of the bracket to the truck, a guide sleeve projecting inwardly from said bracket, a rack bar slidable in the sleeve and having a foot adapted for contact with a rail on the derailment of the truck, a cog gear journaled on the bracket and meshing with said rack bar, a pulley operated by the gear, and a pull member connected with the valve and said pulley.

2. The combination with a wheel truck and a valved train pipe, of valve operating mechanism, comprising a vertical bracket, a clip detachably connecting the lower end of the bracket to the truck, a guide sleeve projecting inwardly from said bracket, a rack bar slidable in the sleeve and having a foot adapted for contact with a rail on the derailment of the truck, a cog gear journaled on the bracket and meshing with said rack bar, a pulley operated by the gear, a pull member connected with the valve and said pulley, and adjustable stop means carried by the rack bar for limiting the downward movement thereof in the sleeve.

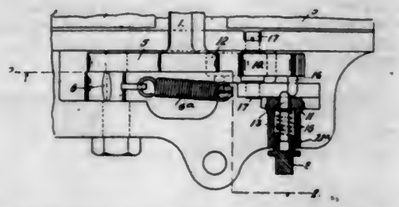
1,029,478. SHOCK-ABSORBER. WALTER R. STURGEON, Sterling, Kans. Filed Sept. 6, 1911. Serial No. 647,827. (Cl. 21—105.)



A shock absorber for vehicles comprising a bracket having a horizontal portion adapted for bearing on the lower face of the upper side of one of the vehicle springs, a down-

wardly directed vertical portion and a vertically disposed sleeve offset from and connected to the vertical portion, a rod slidingly fitted in the sleeve and having its lower end adapted to be clamped to the axle of the vehicle, a nut screwed onto the upper end of the rod, a cup adjacent to the lower end of the rod, and compression springs surrounding the rod and bearing on the opposite ends of the sleeve and also on the nut and cup.

1,029,479. ENGINE OR LIKE GOVERNOR. JOHN TAYLOR and DAVID HENRY EVANS, Liverpool, England. Filed Feb. 26, 1912. Serial No. 679,922. (Cl. 121—111.)



1. In a governor, the combination of a vibrating lever, a tilting weight mounted on the vibrating lever and adapted to be operated when the vibrating lever is moved abnormally, a pivoted weight adapted to coöperate with the tilting weight to prevent operation of the latter when sudden or excessive movement of the vibrating lever occurs, and friction means for holding the pivoted weight in normal position comprising a yielding contact and a stop with which the yielding contact engages.

2. In a governor, the combination of a vibrating lever, a tilting weight mounted on the vibrating lever and adapted to be operated when the vibrating lever is moved abnormally, a pivoted weight adapted to coöperate with the tilting weight to prevent operation of the latter when sudden of excessive movement of the vibrating lever occurs, a pin extending from the pivoted weight, a spring pressed pin coöperating with the pin on the weight, and means for regulating the pressure on the spring pressed pin.

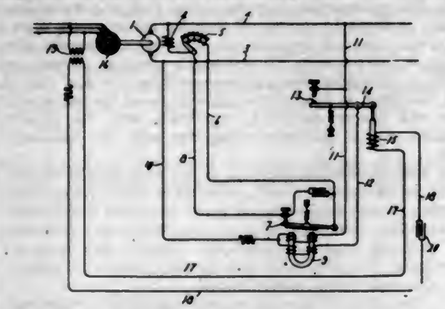
3. In a governor, the combination of a vibrating lever, a tilting weight mounted on the vibrating lever and adapted to be operated when the vibrating lever is moved abnormally, a pivoted weight adapted to coöperate with the tilting weight to prevent operation of the latter when sudden or excessive movement of the vibrating lever occurs, and friction means for holding the pivoted weight in normal position, comprising a yielding contact and a stop with which the yielding contact engages, said pivoted weight being located so that when it is removed from its interlocking position against the tilting weight, the subsequent movement of said tilting weight to its normal position will cause the pivoted weight to be returned to its normal position and reset the friction means.

1,029,480. MOTOR SPEED-REGULATOR. ALLEN A. TIRRILL, Schenectady, N. Y., assignor to General Electric Company, a Corporation of New York. Filed Jan. 9, 1909. Serial No. 471,381; (Cl. 171—229.)

1. The combination of a source of power, an alternating current generator driven thereby, and means for varying the speed of said source of power, said means being responsive to changes of voltage and to changes of frequency of the current from said generator.

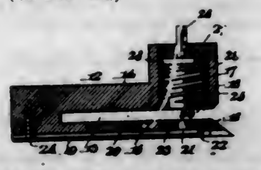
2. The combination of a motor, an alternating current generator driven thereby, a resistance in the field circuit of said motor and a make and break device for periodically short circuiting said resistance, the relative length of the intervals of make and break being responsive to variations of frequency of the generator current.

3. The combination of a motor having a shunt field winding, a resistance in the field circuit of the motor, an alternator driven by said motor, electromagnetic means operated by current derived from the alternator for shunting said resistance, said means being inclined in a circuit



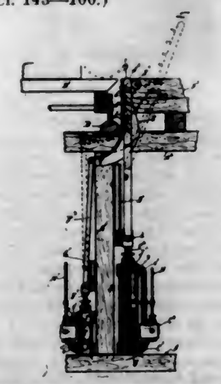
resonant to a frequency higher than the normal frequency of the current generated in the alternator.

1,029,481. PRINTING-PRESS PUNCH. IRVIN C. WHITMAN, Dexter, Me. Filed May 31, 1911. Serial No. 630,309. (Cl. 164—94.)



The combination with a tympan having a slit in its outermost sheet, of a punch, comprising an elongated body provided with a slot longitudinally disposed therein and opening through one end, the said slot being of uniform size throughout its extent, an internally threaded boss formed on and projecting outwardly from the body at the slotted end thereof, a sleeve adjustably engaged in one end of the said boss, a ring adjustably engaged in the opposite end thereof, a punch movably mounted in the boss and adapted to work through the ring and having a tapping stem working through the sleeve, a coiled expansion spring resting upon the ring and acting upon the punch to hold the same in normal position, and a spring-held ejector lug carried by the body and disposed in the path of movement of the said punch.

1,029,482. LOG-TURNING MECHANISM. WILLIAM M. WILKIN, Erie, Pa. Filed June 7, 1911. Serial No. 631,804. (Cl. 143—100.)



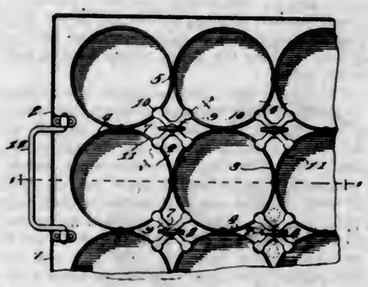
1. The combination in a log-turner, of a substantially angular shaped channeled tooth-bar guide open at the rear edge thereof, trunnions thereon intermediate of its length

mounted in bearings on the mill-frame, a tooth-bar operating in the tooth-bar guide, means at the upper rear part of the tooth-bar guide to retain the tooth-bar within the channel therein, piston and piston-rod mechanism connected with the tooth-bar guide for operating it, and piston and piston-rod mechanism connected with the lower part of the tooth-bar for operating it, substantially as set forth.

2. The combination in a log-turner of a substantially angular shaped channeled tooth-bar guide the channel thereon opening rearwardly, trunnion bearings thereon at or near the angle therein mounted in bearings on the mill frame, a tooth-bar slidably mounted in the tooth-bar guide, a roller in the upper part of the rear of the upwardly extending end of the tooth-bar guide engaging the rear edge of the tooth-bar to retain it in place in the channel of the tooth-bar guide, cylinder, piston and piston-rod mechanism connected with the laterally extending lower end of the tooth-bar guide, and cylinder, piston, and piston-rod mechanism connected with the lower end of the tooth-bar, substantially as set forth.

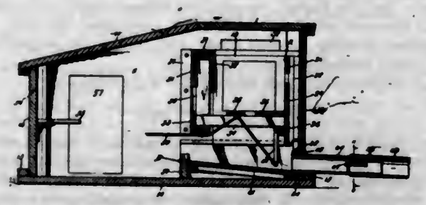
3. In a log-turner, a substantially L-shaped tooth-bar guide having a tooth-bar channel opening rearwardly therein, trunnions thereon near the angle therein, and a tooth-bar guide-roller at the rear upper part thereof, substantially as set forth.

1,029,483. BAKING-PAN. ROSE S. WOODWORTH, Cornish, Okla. Filed June 16, 1911. Serial No. 633,454. (Cl. 53—6.)



In a bake pan, a bottom pan having a plurality or rows of annular grooves and upstanding interiorly threaded tubes, one tube being disposed intermediate each group of four grooves, mold rings engaging the grooves and having inclined recesses at their upper edges, set screws engaging the threaded tubes, and clamping members upon said set screws having arms provided with terminal heads engaging the inclined recesses at the upper edges of the mold rings.

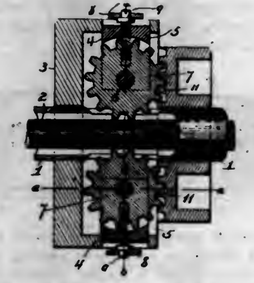
1,029,484. REFRIGERATOR-ROOM. FELIX ZEIPEN, Fordville, N. D. Filed Mar. 30, 1911. Serial No. 617,935. (Cl. 62—10.)



1. In a refrigerator the combination of a housing forming a storage chamber, an ice bunker disposed within said housing and having its front, bottom and rear walls provided with openings and disposed in spaced relation to the corresponding walls of the housing, a drip pan removably seated upon the floor of the housing beneath the ice bunker, a valved drain pipe extending through the rear wall of the housing and communicating with the interior of the drip pan and a gate hingedly supported by the bottom of the bunker adapted to swing downwardly to form a barrier to the free passage of air between the forward and rear portions of the housing by way of the space between the drip pan and the bottom of the bunker, whereby the passage of cold air from the forward portion of the housing to the drain pipe by way of the space between the bottom of the bunker and the drip pan is prevented when the valve in said drain pipe is open.

2. In a refrigerator, the combination of a housing forming a storage chamber, an ice bunker disposed within said housing and having its front, bottom and rear walls provided with openings and disposed in spaced relation to the corresponding walls of the housing, a drip pan removably seated upon the floor of the housing, beneath the ice bunker, a valved drain pipe extending through the rear wall of the housing and communicating with the interior of the drip pan, a gate hingedly supported by the bottom of the bunker adapted to swing downwardly to form a barrier to the free passage of air between the forward and rear portions of the housing by way of the space between the drip pan and the bottom of the bunker, whereby the passage of cold air from the forward portion of the housing to the drain pipe by way of the space between the bottom of the bunker and the drip pan is prevented when the valve in said drain pipe is open, and means for supporting said gate in position to permit the free passage of cold air through the space between the bottom of the bunker and the drip pan.

1,029,485. LATHE SCREW-MACHINE. GEORGE K. ATKINSON, Cincinnati, Ohio. Filed Apr. 4, 1911. Serial No. 618,958. (Cl. 29—63.)



1. In feeding mechanism of the character described, the combination with a tubular spindle and a frame secured thereto and rotatable therewith, of feed wheels mounted in said frame and having peripheral teeth, and a scroll mounted freely on the spindle and meshing with said feed wheels.

2. In feeding mechanism of the character described, the combination with a tubular spindle, of a frame secured thereto and rotatable therewith, said frame having guideways, carriers movably mounted in said guideways, feed wheels mounted in said carriers and having peripheral teeth, means for pressing said feed wheels in directions toward each other, and a scroll mounted freely on the spindle and meshing with the peripheral teeth of the feed wheels.

3. In feeding mechanism of the character described, the combination with a tubular spindle, of a frame secured thereto and rotatable therewith, carriers movably mounted in said frame, feed wheels mounted in said carriers and having peripheral teeth, springs carried by said frame, screws connecting said springs with the feed wheel carriers, and a scroll mounted freely on the spindle and meshing with the peripheral teeth of said feed wheel.

4. In feeding mechanism of the character described, the combination with a tubular spindle and a frame secured

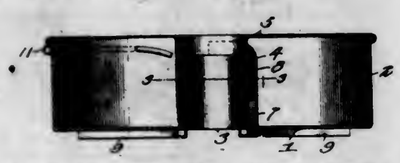
thereto and rotatable therewith, of feed wheels mounted in said frame and provided with peripheral teeth, a scroll mounted freely on the spindle and comprising a disk having two spiral gears on one face meshing with the peripheral teeth of the feed wheels.

1,029,486. FRUIT-PICKING BAG. FREDERICK WILLIAM BURCH, Pueblo, Colo. Filed Feb. 10, 1911. Serial No. 607,866. (Cl. 150—2.)



In combination a fruit picker bag to receive the fruit at its upper end and having an enlarged lower portion provided iwth a vertically disposed fold or tuck which when folded reduces said enlarged portion to the same diameter as the main portion, and means for folding the bag to different lengths, said lower folded portion spreading automatically as the bag is lowered to its full length for the discharge of the fruit.

1,029,487. PHOTOGRAPHIC-PRINT WASHER. EDWARD N. BURDICK, Westerly, R. I. Filed Mar. 21, 1910. Serial No. 550,596. (Cl. 95—97.)

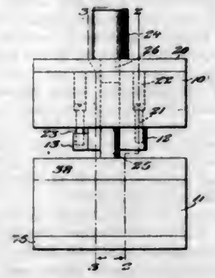


A print washer comprising a receptacle having a centrally located discharge opening, a column extending upwardly from the opening, a second column embracing the first column and spaced therefrom and extended above the said first column and provided with a lower foraminous portion, a water inlet member extending partly around the receptacle and opening thereinto and adapted to cause the water as it is introduced to the receptacle to circulate in a substantially spiral-like manner in the receptacle, and a vertically disposed vane secured to the second column and extending tangentially thereto.

1,029,488. COMB EMBOSSING AND CUTTING DIES. JOHN E. BURGHOFF and JOHN B. WILKS, Leominster, Mass. Filed Dec. 14, 1910. Serial No. 597,305. (Cl. 18—44.)

1. In a device of the class described, a stationary die holder, a punch holder movable toward and away from the said die holder, interfitting comb shaped punches carried by the said punch holder, one of said punches being yieldably supported relative to the other punch, comb shaped embossing dies mounted upon the die holder in alinement with the said punches, and means yieldably supporting the said dies for independent relative movement with respect to each other.

2. In a device of the class described, a stationary die holder, a punch holder movable toward and away from the said die holder, interfitting comb shaped punches carried by the said punch holder, one of said punches being yieldably supported relative to the other punch, comb shaped embossing dies mounted upon the die holder in alinement with the said punches, means yieldably supporting the said dies for independent relative movement with respect to each other, and a frame plate fixed to the die holder and having an opening receiving said dies and punches.



3. In a device of the class described, a stationary die holder, a punch holder movable toward and away from the said die holder, interfitting comb shaped punches carried by the said punch holder, one of said punches being yieldably supported relative to the other punch, comb shaped embossing dies mounted upon the die holder in alinement with the said punches, means yieldably supporting the said dies for independent relative movement with respect to each other, a frame plate fixed to the die holder and having an opening for receiving said dies and punches, and means for guiding the punch holder toward and away from the die holder.

4. In a device of the class described, a stationary die holder, a punch holder movable toward and away from the said die holder, interfitting comb shaped punches carried by the said punch holder, one of said punches being yieldably supported relative to the other punch, comb shaped embossing dies mounted upon the die holder in alinement with the said punches, means yieldably supporting the said dies for independent relative movement with respect to each other, a frame fixed to the die holder and having an opening for receiving said dies and punches, means for guiding the punch holder toward and away from the die holder, and means for independently adjusting the dies and punches for normally sustaining the same in flushed relation to each other.

5. In a device of the class described, a stationary die holder, a punch holder movable toward and away from the said die holder, interfitting comb shaped punches carried by the said punch holder, one of said punches being yieldably supported relative to the other punch, comb shaped embossing dies mounted upon the die holder in alinement with the said punches, means yieldingly supporting the said dies for independent relative movement with respect to each other, a frame fixed to the die holder and having an opening for receiving said dies and punches, means for guiding the punch holder toward and away from the die holder, means for independently adjusting the dies and punches for normally sustaining the same in flushed relation to each other, and means for regulating the first named means.

[Claims 6 and 7 not printed in the Gazette.]

1,029,489. FLUID-PRESSURE TURBINE. ATHOL WILFRID CLARKE, Manchester, England, assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Dec. 29, 1909. Serial No. 535,524. (Cl. 121—57.)

1. In a turbine a blade carrying element having slots therein, blades and spacing pieces in the slots, and projections on the blades, the width of said projections being less than the width of the blades and the lengths of the projections extending lengthwise of the faces of the blades to engage corresponding recesses in the spacing pieces.



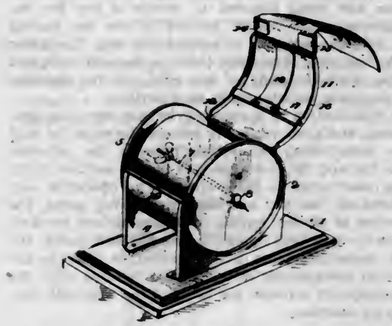
2. In a turbine a blade carrying element having slots therein, concavo-convex blades, and spacing pieces in the slots, and wedge shaped projections on the convex portions of the blades to engage corresponding recesses in the spacing pieces, said wedge shaped projections being thickest at the bases of the blades.

3. In a turbine a blade carrying element having a slot, blades and spacing pieces in the slot, and a longitudinally disposed wedge shaped projection on one of said elements and engaging a recess in the other element, said wedge having its length extending lengthwise of the blade.

4. A turbine blading having a wedge shaped projection on its convex face, the length of the projection extending lengthwise of the blade.

5. A turbine blade having a wedge shaped projection on its convex face, the length of the wedge extending lengthwise of the blade and having its thickest portion at the base of the blade.

1,029,490. ROLL-HOLDER FOR LABELS AND THE LIKE. EUGENE F. CONNORS and THEODORE N. BARNSDALL, 2d, Bradford, Pa. Filed Sept. 7, 1911. Serial No. 648,215. (Cl. 211—31.)



1. A roll holder comprising a central body portion, a curved cover hinged to the body portion and closing the same, a transverse bar carried by the cover and spaced from the cover to form a guide for the paper, a spring carried by the bar and engaging the under face of the cover for holding the paper against the same, a lip carried by the outer free end of the cover and inwardly extending flanges carried by the lip for forming a guide, substantially as shown and described.

2. A roll holder comprising a central body portion having flexible heads, a bolt passing through the said heads, a roll of paper upon the bolt between the heads, a thumb nut screwed on the bolt on the outside of the heads, a curved cover hinged to the body portion and closing the same, said cover having laterally extending flanges forming a guide for the paper, a bar rigidly secured between the flanges and forming a guide for the paper, a spring carried by the bar and engaging the under face of the paper, a lip carried by the free end of the cover, inwardly extending lugs carried by the lips to form a guide for the paper yet exposing the lower face of the paper, the outer end of said lip sharpened to form a knife to sever the paper from the roll, substantially as shown and described.

3. A roll holder comprising a central body portion, a cover hinged to the body portion, a transverse bar carried by the cover and spaced to form a guide for the paper, a spring carried by the bar and engaging the under face of the cover for holding the paper against the same, and means carried by the outer end of the cover for severing the paper.

4. A roll holder comprising a body portion, a member hinged to the body portion, a transverse bar carried by the said member and spaced therefrom to form a guide for the paper, a spring carried by the transverse bar and engaging the under face of the said member for holding the paper against the same, a lip carried by the outer free end of the said member and inwardly extending flanges carried by the lip for forming the guide.

5. A roll holder, comprising a body portion having flexible heads, a bolt passing through said heads, a roll of labels mounted on the bolt between the heads, means for drawing the heads inwardly for frictionally engaging the ends of the roll of labels, a member hinged to the said body portion, a transverse bar carried by the said member and spaced therefrom to form a guide for the labels, a spring carried by the transverse bar and engaging the under face of the said member for holding the labels against the same, a lip carried by the outer free end of the said member and inwardly extending flanges carried by the lip for forming the guide on each side of the said hinged member.

[Claim 6 not printed in the Gazette.]

1,029,491. DRILL. EUGENIO F. CORTINAS, Breaux Bridge, La. Filed Oct. 30, 1911. Serial No. 657,637. (Cl. 166—3.)



1. A drill comprising a rotary head having its lower end terminating in a drill point, a shaft rotatably mounted in said drill point and extending transversely of the axis of rotation of the head, a bit provided with a plurality of cutting blades mounted on said shaft, said blades being adapted to be disposed successively in active position by the rotation of the bit, and means for locking said bit against rotation during the normal operation of the drill to maintain a given blade thereof in active position, said locking means being movable under the influence of a predetermined movement of the drill while the bit is disposed in engagement with the material being operated upon to permit the rotation of the bit.

2. A drill comprising a rotary head, a bit provided with a plurality of cutting blades rotatably mounted on the head with its axis of rotation disposed at right angles to the axis of rotation of the head, said blades being adapted to be disposed successively in active position by the rotation of the bit, and means for locking said bit against rotation during the normal operation of the drill to maintain a given blade thereof in active position, said locking means being movable when a predetermined move-

ment is imparted to the drill while the bit is disposed in engagement with the material being operated upon to permit the rotation of the bit.

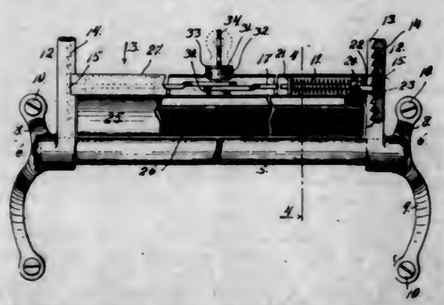
3. A drill comprising a head having a reduced lower end, a shaft rotatably mounted in said reduced lower end and extending transversely of the head, a rotatable bit having a plurality of cutting blades supported by said shaft on each side of the reduced lower end of the head, yielding locking means for each bit for securing same against rotation during the normal operation of the drill to maintain a given blade thereof in active position, said means comprising a rod slidable in said head having an enlarged lower end adapted to engage the adjacent bit, and a spring constantly tending to move said rod so as to force the enlarged lower end into engagement with the adjacent bit, said rod being movable against the influence of said spring when a predetermined movement is imparted to the drill while the bit is disposed in engagement with the material being operated upon to permit the rotation of the bit in one direction.

1,029,492. RAIL-JOINT. FRANK E. COTTIER, Mound City, Mo. Filed Aug. 2, 1911. Serial No. 641,998. (Cl. 239—8.)



A rail joint comprising a pair of rails having their ends enlarged and formed with extensions, one of said extensions having its lower face continuous with the base of the rail and its upper face horizontally flat, the said extension being provided with a dove-tailed projection, the said extension being further provided with a projecting tongue, the rail end being formed with a pocket having its lower wall continuous with the upper face of the extension, the second rail having its head extended, the lower face of the extension being horizontally flat, the said head extension being provided with a dovetailed recess and being further provided with a projecting tongue continuous with its under face, the rail extension also having a pocket whose upper wall is continuous with the lower face of the extension, the said rail end also having an extending plate arranged below the base flange of the rail, the said plate being provided with openings, the base of the first named rail end being provided with threaded openings, and threaded elements for engaging these openings after the rail ends are assembled.

1,029,493. ROBE-RAIL LOCK FOR AUTOMOBILES. VERKIE LUCAS DE DONTNEY, Denver, Colo. Filed Dec. 13, 1911. Serial No. 665,591. (Cl. 45—13.)



1. The combination with a robe rail, of upwardly-projecting arms equipped with ratchet teeth, a bar having its extremities constructed to straddle the said arms, the bar having a hollow upper portion, two rods located in the upper portion of the bar and arranged to overlap, the said rods being spring-actuated to cause their outer extremities to protrude beyond the ends of the bar, the said protruding extremities of the rods being arranged to interlock with the teeth of the said arms, and suitable means for actuating the said rods to disconnect their extremities from the teeth of the arms, substantially as described.

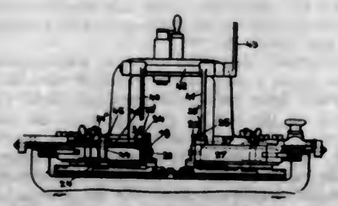
2. The combination with a robe rail, of upwardly projecting arms, a bar having its extremities constructed to straddle the said arms, a ratchet and pawl connection between the bar and the arms, the bar being formed concavo-convex with its concave surface lowermost, the lower part of the bar having inturned flanges flexibly arranged to coöperate with the robe-rail for robe-securing purposes, substantially as described.

3. The combination with a robe rail, of upwardly projecting arms equipped with ratchet teeth, a bar having its extremities constructed to straddle the said arms, and having a longitudinally disposed cavity in its upper surface, spring-actuated rods located in the said cavity, their outer extremities being arranged to engage the ratchet teeth of the said robe rail arms, the inner extremities of the rods overlapping each other and provided with openings adapted to receive a key for withdrawing the rod extremities from the ratchet teeth of the arms, the upper part of the bar having a cylinder centrally located to receive the said key, the lower part of the bar being interposed between the robe rail arms and constructed to coöperate with the robe rail for garment securing purposes, substantially as described.

4. The combination of a robe rail equipped with upwardly projecting arms having vertically disposed grooves provided with ratchet teeth, the robe rail also having bracket arms for fastening purposes, and a bar arranged to straddle the said arms and carrying in its upper portion spring actuated rods whose extremities extend beyond the extremities of the bar and coöperate with the ratchet teeth of the arms, the inner extremities of the rod overlapping each other and being adapted to receive a key for unlocking purposes, the central portion of the bar having a rotary cylinder adapted to receive the key, the lower part of the bar being interposed between the said arms and coöperating with the body of the robe rail for garment securing purposes, substantially as described.

5. The combination of a robe rail having upwardly projecting arms, and a bar vertically movable between the said arms, an interlocking connection between the extremities of the bar and the said arms, the central portion of the bar being constructed to receive a key, an operative connection between the key and the interlocking parts, the lower portion of the bar having its lower surface concave, and its lower edges bent upwardly into the said cavity, the upwardly projecting parts being adapted to yield as the bar is forced downwardly into clamping relation with the articles interposed between the bar and the robe rail, substantially as described.

1,029,494. KNITTING-MACHINE. EDOUARD DUBIED, Couvet, Switzerland, assignor to Edouard Dubied & Cie., Couvet, Switzerland. Filed July 1, 1910. Serial No. 569,974. (Cl. 66—28.)



1. In a knitting machine, the combination of two sets of jacks, each jack being provided with a trapeziform part at its head, two sets of cam devices, bars arranged on the inner side of said cam devices for holding down said jacks, recesses in said bars permitting rising of the jacks only when engaging or disengaging the needles, such recesses being offset relatively to each other in the direction of travel of said cam devices, means for moving said bars, latches for closing said recesses, and means for actuating said latches.

2. In a knitting machine the combination of two sets of jacks, each jack being provided with two downwardly inclined surfaces at its ends, two sets of cam devices, bars arranged on said cams for holding down the jacks recesses in the bars permitting the rising of the heads of the jacks only when engaging or disengaging the needles, means for moving said bars, latches for closing said recesses and means for raising and lowering said latches.

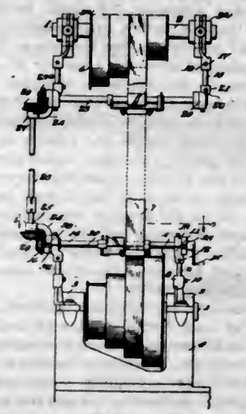
3. In a knitting machine the combination of a removable carriage, cam devices on said carriage, each cam device including a triangular member, bars slidably arranged on said cams, recesses in said bars, latches for closing said recesses, means for raising and lowering the latches, means for simultaneously moving the triangular member of each cam device with the latch on the same cam device, and means for lowering the triangular member of a cam device when the triangular member of the other cam device is raised.

4. In a knitting machine the combination of a carriage, cam device on said carriage, bars for holding down the jacks, said bars being slidably arranged on said cams and having recesses, latches for closing said recesses, said latches having pins, and slides arranged on the carriage, the slides having inclines engaging the pins.

5. In a knitting machine the combination of a carriage, cams on said carriage, bars for holding down the jacks, said bars being slidably arranged on said cams and having recesses, latches for closing said recesses, said latches having pins, slides arranged on the carriage and having inclines engaging the pins a shaft disposed transversely of the carriage, two levers mounted on said shaft and engaging slots in the slides and a handle mounted on said shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,029,495. BELT-SHIFTER. WARREN ELKIN, Winchester, Ky., assignor of two-ninths to George A. Green, two-ninths to Jefferson P. Monroe, and two-ninths to Edward J. Egan, Winchester, Ky. Filed Aug. 3, 1911. Serial No. 642,142. (Cl. 64—4.)



1. In combination with spaced oppositely arranged stepped cone pulleys, and a belt connecting the registering stepped sections of the pulleys, of a shifting mechanism near each pulley, each mechanism comprising a shaft parallel with the axis of the pulley, a sleeve loose on the shaft and provided with a spiral cam groove on its periphery, a carriage provided with a bearing engaging the shaft on each side of the sleeve, and a roller engaging the groove, the distance between the bearings being approximately twice the length of the sleeve, spaced parallel rods extending laterally from the carriage, a loop engaging the belt, and provided at each end with an eye sliding on a rod, a fixed plate adjacent to the shaft and provided with spaced notches, a mutilated disk at one end of the cam for engaging the notches to lock the cam, a mutilated disk at the opposite end of the carriage for engaging the notches to lock the carriage, said disks rotating with the shaft, and being oppositely arranged, the mutilated portion of each disk extending over 180° of the circumference of the disk, and means for simultaneously rotating the shafts.

2. In combination with spaced oppositely arranged stepped cone pulleys, and a belt connecting the registering stepped sections of the pulleys, of a shifting mechanism near each pulley, each mechanism comprising a shaft parallel with the axis of the pulley, a sleeve loose on the shaft and provided with a spiral cam groove on its periphery, a carriage provided with a bearing engaging the shaft on each side of the sleeve, the distance between the bearings being approximately twice the length of the sleeve, spaced parallel rods extending laterally from the carriage, a loop engaging the belt, and provided at each end with an eye sliding on a rod, a fixed plate adjacent to the shaft and provided with spaced notches, means connected with the carriage for engaging the notches to lock the carriage during the movement of the sleeve, means connected with the sleeve for engaging the notches to lock the said sleeve during the movement of the carriage, said means being connected with the shaft and being oppositely arranged, a roller on the carriage engaging the groove, and means for simultaneously rotating both shafts.

3. In combination with spaced oppositely arranged cone pulleys, and a belt connecting the pulleys, of a shifting mechanism near each pulley, each mechanism comprising a shaft parallel with the axis of the pulley, a sleeve loose on the shaft and provided with a spiral cam groove on its periphery, a carriage provided with a bearing engaging the shaft on each side of the sleeve, and a roller engaging the groove, the distance between the bearings being approximately twice the length of the sleeve, spaced parallel rods extending laterally from the carriage, a loop engaging the belt, and provided at each end with an eye sliding on a rod, means for simultaneously rotating both shafts, and means in connection with the shaft for locking alternately the sleeve and the carriage.

4. In combination with spaced oppositely arranged cone pulleys, and a belt connecting the pulleys, of a shifting mechanism near each pulley, each mechanism comprising a shaft parallel with the axis of the pulley, a sleeve loose on the shaft and provided with a spiral cam groove on its periphery, a carriage provided with a bearing engaging the shaft on each side of the sleeve, and a roller engaging the groove, the distance between the bearings being approximately twice the length of the sleeve, a loop for engaging the belt slidably connected with the carriage, means for alternately locking the sleeve and the carriage from movement with respect to the shaft, and means for rotating both shafts.

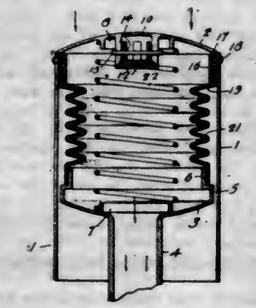
5. In combination with spaced oppositely arranged cone pulleys, and a belt connecting the pulleys, of means near each pulley for shifting the belt, said means comprising a shaft parallel with the axis of each pulley, a sleeve provided with a spiral groove on the shaft, a carriage slidable on the shaft provided with a lug engaging the groove of the sleeve, means for simultaneously rotating the shafts, and means for alternately locking the sleeve and the carriage from movement with respect to the shaft.

[Claims 6 and 7 not printed in the Gazette.]

1,029,496. PUMP FOR AUTOMOBILE-ALARMS. WILLIAM HENRY GARLOCK, Seattle, Wash. Filed Oct. 18, 1911. Serial No. 655,293. (Cl. 230—2.)

1. A device of the character specified, comprising a base plate having a tubular extension at its center, and a rib encircling the opening of the extension on the opposite face therefrom, and having an annular lateral flange on the same face with the rib, said flange having an in-

wardly offset portion at its free end, a casing having one end open to receive the plate, said casing having a tubular extension at the center of the closed end extending into the casing and having perforations at the extension, said casing having an annular rib encircling the extension, a coil spring within the extension having its ends seated around the annular ribs of the base plate and casing, a valve for closing the inner end of the tubular extension of the casing, means for limiting the movement of the valve, a ring within the casing at the closed end, means for detachably connecting the ring to the casing, and a bellows shell having one end fitting on the ring and the other fitting on the offset portion of the flange of the base plate.



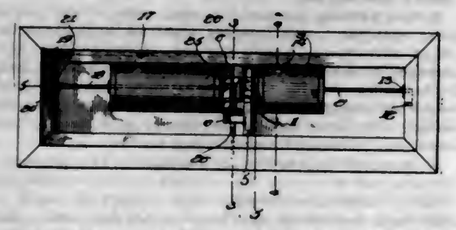
2. A device of the character specified, comprising a casing having one end open and the other closed and provided with a plurality of air inlet openings at approximately the center thereof, and with a tubular inwardly extending extension inclosing the openings, a valve for closing the inner end of the extension, said valve having lateral lugs extending into the extension, the valve fitting against the end of the extension, said lugs being longitudinally slotted, a pin passing transversely of the extension and engaging the slots, a plate for closing the open end, said plate being movable in the casing and having a tubular extension extending outwardly, a ring within the casing at the closed end and detachably connected to the casing, a bellows connecting the ring to the plate, and a spring within the bellows acting normally to press the plate away from the casing.

3. A device of the character specified, comprising a casing having one end open and the other closed and provided with a plurality of air inlet openings at approximately the center thereof, and with a tubular inwardly extending extension inclosing the openings, a valve for closing the inner end of the extension, means for limiting the movement of the valve, a plate movable in the open end of the casing, said plate having a tubular outlet, a ring within the casing at the closed end and detachably connected to the casing, a bellows connecting the plate and the ring, and a spring acting normally to press the plate and the casing away from each other.

4. A device of the character specified, comprising a casing having one end open and the other closed and provided with a plurality of air inlet openings at approximately the center thereof, and with a tubular inwardly extending extension inclosing the openings, a valve for closing the inner end of the extension, means for limiting the movement of the valve, a plate movable in the open end of the casing, said plate having a tubular outlet, a bellows within the casing connecting the plate to the casing at its closed end, and a spring pressing the plate and the casing away from each other.

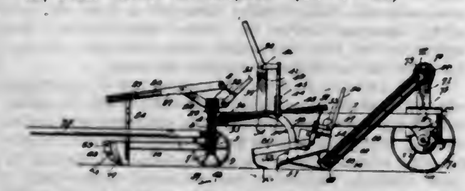
1,029,497. DOOR-SIGN. ELMER F. GOODWIN, Clarksburg, W. Va. Filed Jan. 18, 1912. Serial No. 671,911. (Cl. 40—76.)

A sign of the class described comprising a casing, a partition carried thereby, a primary indicating cylinder, a shaft supporting said primary indicating cylinder, a bracket carried by said partition and engaging the inner end of said shaft supporting said primary cylinder, an



auxiliary indicating cylinder, and means for driving said primary cylinder and capable of being shifted for driving said auxiliary cylinder.

1,029,498. DITCHING-MACHINE. HENRY W. GRIBLER and ARTHUR G. GRIBLER, Van Wert, Ohio. Filed Dec. 22, 1911. Serial No. 667,269. (Cl. 37—25.)



1. A machine of the character specified, comprising a wheel supported open frame, a plate pivoted in the frame at the front end thereof, a scraper suspended from the rear end of the plate, means for raising or lowering the rear end of the plate, a yielding connection between the said means and the scraper to permit the scraper to yield upwardly, a gage in front of the scraper for limiting the depth of the cut of the scraper, an endless conveyer behind the scraper for receiving the soil and delivering it from the machine, a guiding device in front of the frame for engaging and following the ditch, means for raising and lowering the said device, arms connected to the gage at one end and pivoted to the scraper at the other end, and means connected with the arms for moving the gage.

2. A machine of the character specified, comprising a wheel supported open frame, a plate pivoted in the frame at the front end thereof, a scraper suspended from the rear end of the plate, means for raising or lowering the rear end of the plate, a yielding connection between the said means and the scraper to permit the scraper to yield upwardly, a gage in front of the scraper for limiting the depth of the cut of the scraper, an endless conveyer behind the scraper for receiving the soil and delivering it from the machine, a guiding device in front of the frame for engaging and following the ditch, means for raising and lowering the said device.

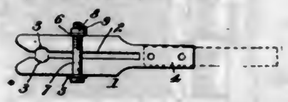
3. A machine of the character specified, comprising a wheel supported open frame, a plate pivoted in the frame at the front end thereof, a scraper suspended from the rear end of the plate, means for raising or lowering the rear end of the plate, a yielding connection between the said means and the scraper to permit the scraper to yield upwardly, a gage in front of the scraper for limiting the depth of the cut of the scraper, an endless conveyer behind the scraper for receiving the soil and delivering it from the machine, and a guiding device in front of the frame for engaging and following the ditch.

4. A machine of the character specified, comprising a wheel supported open frame, a plate pivoted in the frame at the front end thereof, a scraper suspended from the rear end of the plate, means for raising or lowering the rear end of the plate, a yielding connection between the said means and the scraper to permit the scraper to yield upwardly, a gage in front of the scraper for limiting the depth of the cut of the scraper, and an endless conveyer behind the scraper for receiving the soil and delivering it from the machine.

5. A machine of the character specified, comprising a wheel supported open frame, a plate pivoted in the frame at the front end thereof, a scraper suspended from the rear end of the plate, means for raising or lowering the rear end of the plate, a yielding connection between the said means and the scraper to permit the scraper to yield upwardly, a gage in front of the scraper for limiting the depth of the cut of the scraper, and means for adjusting the gage with respect to the scraper.

[Claims 6 to 17 not printed in the Gazette.]

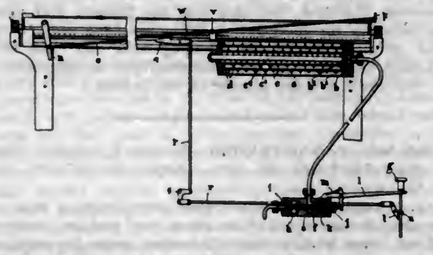
1,029,499. TERMINAL CLIP. PETER C. HAINS, Jr., Washington, D. C. Filed Nov. 22, 1911. Serial No. 661,745. (Cl. 173—269.)



1. A terminal clip formed of a sheet of thin flat resilient material having a central slot whereby a pair of spring jaws are formed, means mounted upon said jaws for adjusting said jaws toward and away from each other, said means extending transversely across and over said jaws and the slot in a plane substantially parallel to the flat surfaces of the jaws.

2. A terminal clip formed of a sheet of thin flat resilient material having a central longitudinal slot whereby a pair of spring jaws are formed, upturned lugs on the outer edges of said jaws, a retaining bolt passing through said upturned lugs across and upon the flat surfaces of the jaws for adjusting said jaws toward and away from each other, and a nut mounted on the end of said bolt and turned home against the adjacent lug, said adjacent lug being turned against one side of the nut to lock the same.

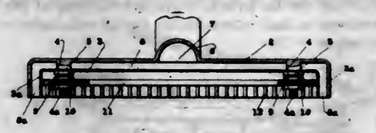
1,029,500. TYPE-WRITING AND CALCULATING MACHINE. ARTHUR WILLIAM HARRIS, London, England, assignor to The Harris Calculating Machine Company Limited, London, England. Filed Feb. 20, 1912. Serial No. 678,897. (Cl. 197—67.)



In typewriting and calculating machines, the combination with a typewriter carriage, a pneumatic cylinder, valve and finger key, of a collar and valve lever in conjunction with the key, a catch adapted to engage the collar when the key is depressed, a trip piece adjacent the carriage, a projection on the carriage for actuating said piece, and rods and bell crank lever connecting the catch and trip piece, substantially as described.

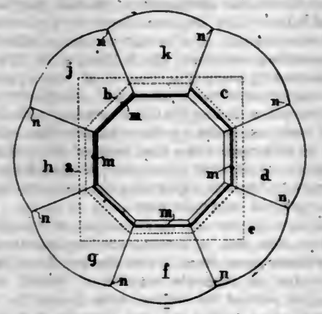
1,029,501. NOZZLE. GEORGE H. HORLACHER, Portland, Oreg. Filed Sept. 18, 1911. Serial No. 649,943. (Cl. 15—60.)

1. As a new article of manufacture, a base having a depending annular flange, a tubular stem opening within the flange and rising from the upper surface to form a hand hold, studs secured upon the lower face of said base, a contact plate having rigid teeth on its outer surface secured upon said studs, and means for adjusting the plate on said studs, whereby the teeth may be raised and lowered with reference to the edge of said flange.



2. A nozzle comprising a base having a depending annular flange, a tubular stem opening within the flange and rising from the upper surface of the base to form a hand hold, studs secured upon the lower face of said base, an inner casing conforming in outline to said base and flange secured upon said studs in position to form a narrow space between the two casings communicating with said tubular stem, a contact plate having rigid teeth on its outer face secured upon said studs, below the inner casing, and means for adjusting the plate on the studs, whereby the teeth may be raised and lowered with reference to the edges of said flanges.

1,029,502. TRUMPET. JOSEPH MARGULIES LANDON, Upper Norwood, London, England. Filed Mar. 11, 1910. Serial No. 548,667. (Cl. 181—27.)



1. A trumpet comprising a support having a polygonal aperture therein and a plurality of sectional trumpet flaps, each flap pivoted at its inner edge to said support adjacent an edge of said aperture and in a position offset from the position of its adjacent flaps, whereby said flaps may be folded into a flat position and opened to form a complete bell, substantially as described.

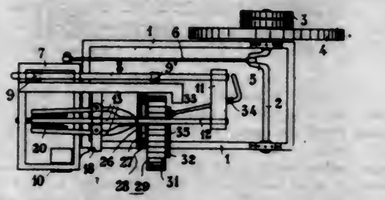
2. A trumpet comprising a support provided with a polygonal aperture having beveled edge faces, and a sectional trumpet flap pivotally connected to each beveled face at a position varying from the pivotal position of its complementary flaps, substantially as described.

3. A trumpet comprising a central support having a polygonal aperture therein, a plurality of sectional trumpet flaps, each flap pivoted to said support adjacent an edge of said aperture on one side of said support, forming the bell portion of the trumpet when assembled, and a plurality of sectional flaps similarly connected to the opposite side of said support and forming a continuation of the bell portion of the trumpet, the whole arranged so that both sets of said flaps may be folded into a flat superposed position, substantially as described.

1,029,503. MACHINE FOR THE MANUFACTURE OF WOODEN PINS OR PEGS. CARLO LUMELLO, Turin, Italy, assignor of one-half to Francesco Franco, Turin, Italy. Filed June 29, 1911. Serial No. 636,087. (Cl. 144—12.)

1. In a machine for the manufacture of wooden pins or pegs, the combination of a reciprocating spindle for pushing the wooden piece from which the peg is to be formed,

knives pivoted to a frame and arranged around the central axis, blocks for centering said wooden piece during its advancement, rods connected to the reciprocating spindle and intended to slide under the rear ends of the knife-holders and means for adjusting the inclination of said rods with regard to the central axis and the approaching of the edges of the knives to each other during the advancement of said wooden piece.



2. In a machine for the manufacture of wooden pins or pegs, the combination of a reciprocating spindle for pushing the wooden piece from which the peg is to be formed, knives pivoted on supports capable of lateral oscillation and arranged around the central axis, blocks for centering said wooden piece during its advancement, rods connected to the reciprocating spindle and intended to slide under the rear ends of the knife-holders and means for adjusting the inclination of said rods with regard to the central axis and the approaching of the edges of the knives to each other during the advancement of said wooden piece.

3. In a machine for the manufacture of wooden pins or pegs, the combination of a reciprocating spindle for pushing the wooden piece from which the peg is to be formed, knives pivoted to supports capable of lateral oscillation, and arranged around the central axis, blocks for centering said wooden piece during its advancement, rods carried by a central rod connected to the reciprocating spindle and intended to slide under the rear ends of the knife holders, these rods being pivoted at a point intermediate between their ends, and sleeves adjustable on said central rod, on which the ends of said rods rest.

4. In a machine for the manufacture of wooden pins or pegs, the combination of a reciprocating spindle for pushing the wooden piece from which the peg is to be formed, knives pivoted on supports capable of lateral oscillation and arranged around the central axis, blocks for centering said wooden piece during its advancement, rods carried by a central rod connected to the reciprocating spindle and intended to slide under the rear ends of the knife holders, these rods being pivoted in a point intermediate between their ends, and screw threaded sleeves adjustable on the central rod, on the rim of which the ends of said rods rest.

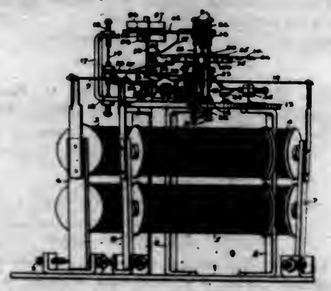
5. In a machine for the manufacture of wooden pins or pegs, the combination of a reciprocating spindle for pushing the wooden piece from which the peg is to be formed, knives pivoted to supports capable of lateral oscillation and arranged around the central axis, blocks for centering said wooden piece during its advancement, springs pushing said blocks against the side faces of said wooden piece, rods carried by a central rod connected to the reciprocating spindle and intended to slide under the rear ends of the knife holders, these rods being pivoted at a point intermediate between their ends, and sleeves adjustable on said central rod, on which the ends of said rods rest.

[Claims 6 and 7 not printed in the Gazette.]

1,029,504. SELECTIVE TELEPHONE SYSTEM. WILLIAM F. MARTEN, Oakland, Cal. Filed June 3, 1911. Serial No. 631,026. (Cl. 179—85.)

1. In combination with two line wires, and, at each station, selecting coils in a branch circuit between one line wire and the ground, releasing coils in a branch circuit between the other line wire and the ground, connecting coils between the two line wires, means for closing any one of said branch circuits, and means whereby, when said connecting circuit is closed, said selecting circuit is broken, substantially as described.

2. In combination with two line wires, and, at each station, selecting coils in a branch circuit between one line wire and the ground, releasing coils in a branch circuit between the other line wire and the ground, connecting coils between the two line wires, means for closing any one of said branch circuits, and means whereby, when said circuit through the connecting coils is broken, the circuit through the release coils is also broken and the circuit through the selecting coils is closed, substantially as described.



3. The combination of two line wires, connecting coils at the several stations of the line connected to both line wires, releasing coils at the several stations interposed between one line wire and the ground, a switch in the local circuit of each releasing coil, means whereby the energization of each releasing coil withdraws the armature of the corresponding connecting coil, and means whereby the withdrawal of said armature breaks the circuit through said local circuit, substantially as described.

4. The combination of two line wires, telephone branch circuits at the several stations of the line connected to both line wires, releasing coils at the several stations interposed between one line wire and the ground, a switch operated by each releasing coil, and means whereby the energization of each of said releasing coil circuits breaks the corresponding branch telephone circuit, substantially as described.

5. The combination of two line wires, releasing coils at the several stations of the line interposed between one of said line wires and the ground, selecting coils at said stations interposed between the other line wire and the ground, switches at the several stations, also interposed between the first line wire and the ground, and means actuated by the energization of the releasing coils to open the circuits through the releasing coils and close those through the selecting coils, substantially as described.

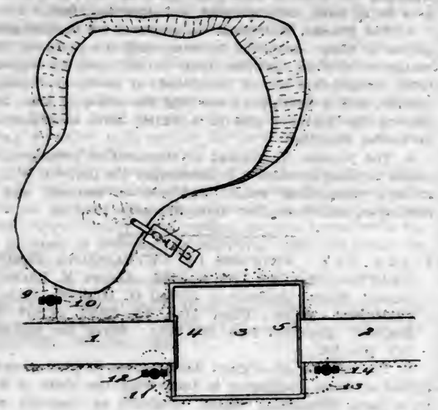
[Claims 6 to 9 not printed in the Gazette.]

1,029,505. CANAL-FEEDER. ROBERT L. MARTIN, Ocala, Fla. Filed Oct. 30, 1911. Serial No. 657,598. (Cl. 61—4.)

1. A canal having upper and lower levels, a lock connecting the lower end of the upper level and the upper end of the lower level, a reservoir having means for maintaining a supply of water therein at a height above that of the upper level, means for conducting water from said reservoir into the upper level of the canal, and means for conducting water from the upper to the lower level.

2. A canal having upper and lower levels, a lock connecting them, a reservoir having means for maintaining a supply of water therein at a height above that of the upper level, means for conducting water from the reservoir into the upper canal level, means for conducting water from the upper level into the lock, and means for conducting water from the lock into the lower level.

3. A canal having upper and lower levels, a lock connecting them, a reservoir, means for pumping water into the reservoir to maintain a supply of water therein at a height above that of the water in the upper canal level, gate-controlled means for conducting water from the reservoir into the upper level, gate-controlled means for conducting water from the upper level into the lock, and gate-



controlled means for conducting water from the lock into the lower level.

1,029,506. DOOR-SIGN. EMORY MCCLUNG, Clarksburg, W. Va., assignor to Elmer F. Goodwin, Clarksburg, W. Va. Filed Oct. 7, 1911. Serial No. 653,408. (Cl. 40—89.)

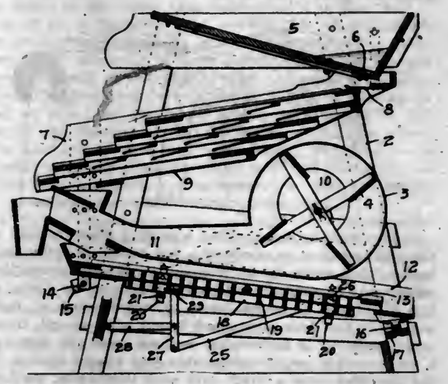


A door sign of the class described comprising a casing, a plurality of horizontally extending flat bars engaging the upper and lower inner sides of said casing and being located at the front face thereof and spaced from the back of said casing, an apron-winding device carried by said bars, said device comprising guiding rollers journaled upon said bars, an apron-operating-roller-supporting-shaft and an apron-tension-roller-supporting-shaft journaled upon said bars between said guide rollers, an apron-operating-roller supported upon said apron-operating-roller-supporting-shaft, an apron-tension-roller carried by said apron-tension-roller-supporting-shaft, an apron passing over said guide rollers and being secured at one end to said apron-operating-roller and at the other end to said apron-tension-roller, said casing being provided on one side behind one of said flat bars with a cut-out portion contiguous to the apron-operating-roller-supporting-shaft, a primary gear secured to said apron-operating-roller-shaft contiguous to said cut-out portion, an auxiliary gear positioned in said cut-out portion and meshing with said primary gear, a plate extending across the cut-out portion holding the auxiliary gear in mesh with said primary gear, and key receiving means carried by said auxiliary gear.

1,029,507. CLEANING-RACK FOR GRAIN-SEPARATORS. RICHARD L. OWENS, Minneapolis, Minn. Filed Aug. 30, 1911. Serial No. 646,868. (Cl. 130—15.)

1. The combination, with a grain shoe, having a suitable sieve mounted therein, and means for adjusting the angle or inclination of said shoe, of a cleaning rack mounted upon said shoe and adjustable therewith and having a series of transverse, upright slats arranged with their edges in contact with the under surface of said sieve, and means for reciprocating said shoe and said rack simultaneously in opposite directions.

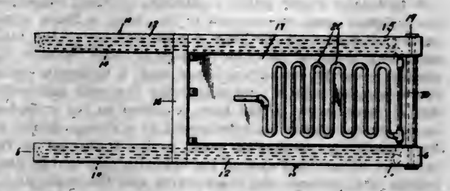
2. The combination, with a grain shoe, having a suitable sieve mounted therein, of an adjustable plate, rollers on the lower end of said shoe arranged to move over said plate, a cleaning rack mounted upon said shoe and adjustable therewith, and having a series of transverse, upright slats arranged with their edges in contact with the under surface of said sieve and means for reciprocating said shoe and said rack simultaneously in opposite directions.



3. The combination, with a grain shoe having a suitable sieve mounted therein, of a cleaning rack mounted upon said shoe and adjustable therewith and having a series of transverse upright slats arranged with their edges in contact with the under surface of said sieve, means for adjusting at will the lower end of said sieve and means for reciprocating said shoe and said rack simultaneously in opposite directions, substantially as described.

4. The combination with a grain shoe having a suitable sieve mounted therein, of an adjustable plate 17, rollers 16 on the lower end of said shoe arranged to move over said plate, means for adjusting said plate, a cleaning rack mounted upon said shoe and adjustable therewith and having a series of transverse, upright slats arranged with their edges in contact with the under surface of said sieve, and means for reciprocating said shoe and said rack simultaneously in opposite directions, substantially as described.

1,029,508. STEAM ROAD-ICER. HARLEIGH S. PARKER, Littlefork, Minn. Filed May 23, 1911. Serial No. 629,067. (Cl. 37—35.)

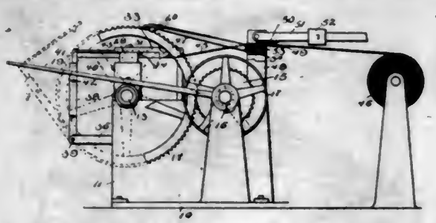


A steam road icer comprising a sleigh having hollow runners having upturned forward ends, cross members connecting the runners, a transverse rod connecting the forward ends of the runners, a sheet metal apron secured between the bottom edges of the runners and having its forward end coiled around the rod, longitudinal heating pipes in the runners, a plurality of heating coils mounted between the runners and supported on the apron, said pipes and coils communicating with each other and means for supplying heat to the pipes.

1,029,509. BOX-BINDING MACHINE. ERNST PONKOW, Baltimore, Md. Filed July 17, 1911. Serial No. 638,998. (Cl. 144—25.)

1. In a box binding machine, a shaft, a frame carried by the shaft and adapted to surround a box in one direction

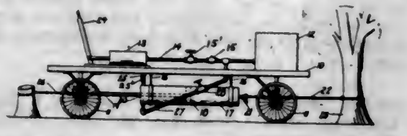
said frame being made up of telescoping sections adjustable in two directions and a second frame carried by the first mentioned frame adapted to surround a box in a direction at right angles to the first mentioned frame said second mentioned frame being made up of telescoping sections adjustable in two directions.



2. In a box binding machine, a shaft, a frame carried by the shaft adapted to surround a box in one direction said frame being made up of telescoping sections permitting adjustment to vary the internal capacity of the frame in two directions, a second frame carried by and at right angles to the first mentioned frame said second frame being made up of telescoping sections upon one side and a hinge section upon another side said hinged section being provided with a latch and said telescoping sections permitting the varying of the said frame in two dimensions.

3. In a box binding machine, a shaft, a frame carried by the shaft said frame being made up of telescoping sections permitting the varying of the internal area of the frame in two directions, means carried by the frame for holding a box within the frame, a guide member, and tension means adjustable longitudinally upon the guide member to correspond to the adjustment of the frame.

1,029,510. HYDRAULIC STUMP-PULLER. ABRAHAM H. PRESTBYE, Kalispell, Mont. Filed Sept. 5, 1911. Serial No. 647,679. (Cl. 138—9.)



A hydraulic stump puller comprising a wheel supported base, a fluid tank on one end of the base, a force pump on the other end of the base, a pipe connecting the tank and pump, a cut off valve in the pipe, a check valve in the pipe between the cut off valve and tank, a hydraulic cylinder below the base, a pipe connecting the tank and cylinder, a check valve in the pipe, a piston in the cylinder, means on the piston for attachment to a stump, means on the cylinder for anchoring same, a pipe connected to the cylinder, at one end and at its opposite end to the first-named pipe between the check valve and the tank, and a cut off valve in the last-named pipe.

1,029,511. PROCESS OF DEVELOPING PHOTOGRAPHIC PLATES AND FILMS. HARRY M. PRINDLE, Boston, Mass., assignor to Alfred H. Hildreth, trustee, Cambridge, Mass. Filed May 19, 1904, Serial No. 208,739. Renewed Sept. 30, 1911. Serial No. 652,179. (Cl. 95—88.)

1. The process of original development of photographic plates or films, consisting in immersing the plate or film in a bath comprising water, bichlorid of mercury, sodium chlorid, and a developer; washing the plate or film; and placing the plate or film in a fixing bath, substantially as herein described.

2. The process of original development of photographic plates or films, consisting in immersing the plate or film while in subdued actinic light, in a bath comprising water, bichlorid of mercury, sodium chlorid, and a developer; washing the plate or film; and placing the plate or film in a fixing bath, substantially as herein described.

3. The process of original development of photographic plates or films, consisting in immersing the plate or film, while in subdued actinic light, in an open or exposed bath comprising water, bichlorid of mercury, sodium chlorid, and a developer; washing the plate or film; and placing the plate or film in a fixing bath, substantially as herein described.

4. The process of original development of photographic plates or films consisting in immersing the plate or film in a bath comprising water, bichlorid of mercury and a developer, and thereafter fixing the plate or film.

1,029,512. PROCESS OF DEVELOPING PHOTOGRAPHIC PLATES AND FILMS. HARRY M. PRINDLE, Boston, Mass., assignor to Alfred H. Hildreth, trustee, Cambridge, Mass. Filed May 18, 1904, Serial No. 208,616. Renewed Sept. 30, 1911. Serial No. 652,180. (Cl. 95—88.)

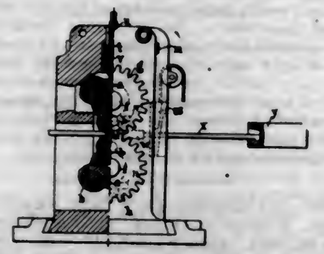
1. The process of original development of photographic plates or films, consisting in immersing the plate or film in a bath comprising water, bichlorid of mercury and sodium chlorid; immersing the plate or film in a suitable developer; washing the plate or film; and placing the plate or film in a fixing bath, substantially as herein described.

2. The process of developing photographic plates or films, consisting in immersing the plate or film, while in subdued actinic light, in a bath comprising water, bichlorid of mercury and sodium chlorid; then immersing the plate or film in a suitable developer; then washing the plate or film; and finally placing the plate or film in a fixing bath, substantially as herein described.

3. The process of developing photographic plates or films, consisting in immersing the plate or film, while in subdued actinic light, in an open or exposed bath comprising water, bichlorid of mercury and sodium chlorid; then immersing the plate or film in a suitable developer contained in an open tray; then washing the plate or film; and finally placing the plate or film in a fixing bath, substantially as herein described.

4. The process of original development of photographic plates or films which consists in first subjecting the plate or film to the action of bichlorid of mercury, and thereafter developing and fixing the same.

1,029,513. MANUFACTURE OF METAL TUBES, RODS, OR THE LIKE. HENRY REINHARD, Aston, Birmingham, England, assignor to Tubes Limited, Aston, Birmingham, England. Filed Oct. 30, 1908. Serial No. 460,360. (Cl. 80—14.)



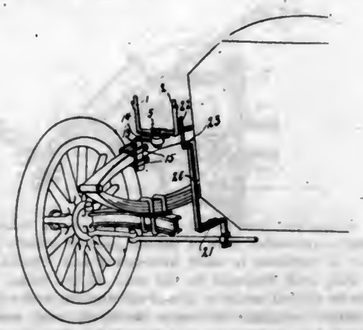
1. Means for rolling a mass of metal comprising rotatable housings, pilger rolls mounted in said housings, gear pinions connected with said rolls and meshing with an internally toothed wheel for the purpose of driving the rolls when the housings rotate, and mechanical means disposed behind the rolls for the purpose of intermittently forcing the metal to the same, and of enabling high speed working to be obtained; as set forth.

2. Means for rolling a mass of metal comprising rotatable housings, power driven pilger rolls mounted in said housings, and power means disposed behind said rolls for the purpose of intermittently moving the metal in one direction only, toward the rolls for the purpose of enabling high speed working to be obtained; as set forth.

3. Means for rolling a mass of metal comprising rotatable housings, pilger rolls mounted in said housings, a continuously power operated driving shaft, a driven feed shaft, and a spring coupling connecting said driving shaft and said feed shaft for the purpose of intermittently and in one direction only moving the metal to force it to the rolls; as set forth.

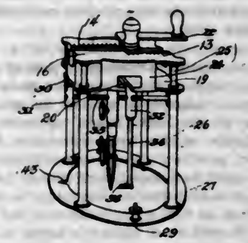
4. Means for rolling a metal bloom for forming a tube or the like including rotatable housings, pilger rolls mounted in said housings arranged to operate on the bloom longitudinally, and wedges for the pilger rolls for the purpose of individually adjusting them for wear; as set forth.

1,029,514. DIRIGIBLE LIGHT-SUPPORT. WILLIAM A. SAPP, Elgin, Nebr. Filed Sept. 7, 1911. Serial No. 648,086. (Cl. 240—62.)



A bracket for automobile lamps comprising adjustably connected lamp carrying arms, a shifting arm having a lateral slotted extension, a lug projecting from one of said arms and coöperating with said slotted extension, a supporting bracket for the lamp carrying arms, and means for actuating said shifting arm.

1,029,515. ELLIPSOGRAPH. CARL SCHREIBER, Chicago, Ill. Filed Sept. 23, 1910. Serial No. 583,406. (Cl. 33—5.)



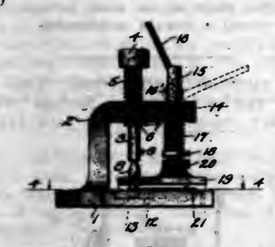
1. In an ellipsograph, the combination of mechanism for moving an instrument in an elliptical path, a housing inclosing said mechanism and forming the top piece of the instrument, a plurality of fixed supporting legs directly connected to said housing, a plate below the housing operatively connected to the instrument actuating mechanism, a lug secured upon each end of the plate, a threaded member mounted in said lugs and forming the sole support and adjusting means for said instrument, substantially as described.

2. In an ellipsograph, the combination of mechanism for moving an instrument in an elliptical path, a housing inclosing said mechanism, a plurality of fixed supporting legs depending from said housing, a plate below the housing operatively connected to the instrument actuating mechanism, a connection between the plate and instrument, means for adjusting the instrument to change the length of the minor axis, and a member carried by the plate traveling in a path along the major axis, and serving as an indicator in adjusting the instrument to vary the length of the minor axis, substantially as described.

3. In an ellipsograph, the combination of mechanism for moving an instrument in an elliptical path, a plate operatively connected to said mechanism, a lug secured upon each end of the plate, a screw-threaded stem upon which the instrument is mounted, having a bearing in each of said lugs, said stem serving as a means for adjusting the instrument to vary the length of the minor axis, and one of said lugs serving as a mounting for a member traveling along the major axis, and serving as an indicator in adjusting the instrument to vary the length of the minor axis, substantially as described.

4. In an ellipsograph, the combination of mechanism for moving an instrument in an elliptical path, a plate operatively connected to said mechanism, a lug secured upon each end of the plate, a screw-threaded stem having a bearing in each of said lugs, and serving as a means for adjusting the instrument to change the length of the minor axis, and a guide rod mounted in the lugs and coöperating with the threaded stem to serve as a mounting for the instrument, substantially as described.

1,029,516. SAW-GUMMER. ERICK SMITH, Flagstaff, Ariz. Filed Feb. 3, 1912. Serial No. 675,192. (Cl. 76—30.)

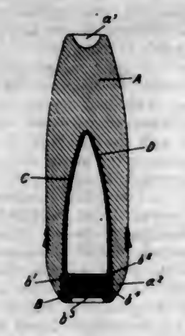


In a saw gummer, the combination with a base, of an overhanging arm provided with an opening therethrough, a plunger mounted for vertical movement in said opening having an enlarged head at its upper extremity, a spring mounted on said plunger between the arm and the head aforesaid normally tending to hold the plunger at its upper limit of movement, an adjusting collar mounted on the plunger and adapted to bear against the under surface of the arm aforesaid to limit the upward movement of the plunger, a punch removably carried by the lower end of the plunger and having an open transverse slot therein, a standard mounted for vertical movement in the arm, a lifting lever pivotally secured to the upper portion of the standard and having a cam at its lower end adapted to engage with the upper surface of the said arm to hold the standard in raised position, a clamping plate adjustably secured to the lower end of the standard and having an opening therethrough through which the plunger is adapted to pass, a spring adjustably mounted on said standard normally tending to hold the clamping plate in clamping position, and a die removably mounted in the base aforesaid and having an opening therethrough through which the punch is adapted to pass.

1,029,517. PROJECTILE FOR ORDNANCE. HENRY STANBRIDGE, Tinsley, near Sheffield, England, assignor to Joseph Albert Hill, Sheffield, England. Filed Feb. 25, 1911. Serial No. 610,821. (Cl. 102—29.)

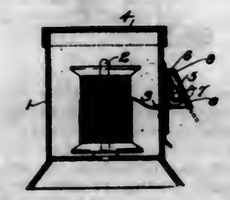
1. A projectile for ordnance comprising a hollow shell having in combination a concave head, a tapering front portion having a long radius of ogive and an inwardly sloping base portion.

2. A projectile for ordnance comprising a hollow shell having in combination a concave head, a tapering front portion having a long radius of ogive and an inwardly sloping base portion, a non-corrosive metal liner forming a chamber for the charge and a liner of non-conducting material held in place by said metal liner.



3. A projectile for ordnance comprising a hollow shell having in combination a concave head, a tapering front portion having a long radius of ogive and an inwardly sloping base portion, an open-ended non-corrosive metal liner forming a chamber for the charge and an open-ended liner of non-conducting material held in place by said metal liner, the walls of the shell and the liners being subsequently closed in toward one another.

1,029,518. THREAD PROTECTOR AND CUTTER. MABEL C. TEMPLE, Hopkinton Springs, Mass. Filed Sept. 6, 1911. Serial No. 647,818. (Cl. 242—138.)



1. A box for protecting thread having an opening in the side thereof, a plate movably mounted and normally adapted to close said opening, and a cutter operable by the plate, for the purpose described.

2. A box for protecting thread having an opening in the side thereof, a plate pivoted to the side of the box, and adapted to normally close said opening, a cutter operable by the plate, and a shield normally housing the cutter and having a slot therein through which said cutter is projected to an operative position.

3. A box for protecting thread having an opening in the side thereof, an elongated plate pivoted at one end to the box above said opening and the lower end having flared extensions, said plate being adapted to normally close said opening, a cutter mounted for movement with said plate and having a curved portion, and a shield normally housing said plate and cutter and having a slot therein through which said cutter is projected to an operative position.

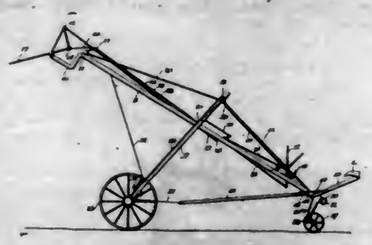
4. In combination, a box for protecting thread provided with a thread opening therein, a movable plate normally closing said opening, a cutter mounted on the box, a shield normally housing said cutter, and means connecting the cutter with the plate whereby, on movement of the latter, the cutter will be projected from its shield into an operative position.

1,029,519. METHOD OF MAKING UNFREEZABLE EXPLOSIVES. VEZIO VENDER, Milan, Italy. Original application filed Dec. 8, 1906, Serial No. 346,961. Divided and this application filed Oct. 30, 1909. Serial No. 525,545. (Cl. 52—3.)

1. A method of making mixed esters of glycerin, consisting in nitrating a suitable basic glycerin ester of a monobasic acid of the acetic series with acid containing not less than sixty-five per cent. of nitric acid to obtain practically unfreezable explosive.

2. A method of making mixed esters of glycerin, consisting in nitrating a suitable basic glycerin ester of a monobasic acid of the acetic series with a mixture of nitric and sulfuric acid containing more nitric than sulfuric acid.

1,029,520. STACKER. OBVA LESLIE WAGGONER, Latham, Kans. Filed Apr. 22, 1911. Serial No. 622,722. (Cl. 56—62.)



1. A stacker comprising a pair of vehicle wheels supporting a revoluble axle, a second pair of wheels movable bodily in relation to said first-mentioned wheels and to said axle, and disposed to the rear of the same, a member to be pulled upon by draft animals in order to cause the entire machine to move forward, and mechanism controllable by movements of said member for shifting the said second-mentioned wheels relatively to the position of said first-mentioned wheels and said axle supported thereby.

2. In a stacker, the combination of a pair of front wheels, an axle supported thereby, a pair of rear wheels, a frame member supported at one of its ends by said front wheels, a second frame member supported at one of its ends by said rear wheels, a rake head carried by said second-mentioned frame at the end thereof opposite said second-mentioned wheels, and mechanism controllable by movements in the general position of said second-mentioned wheels relatively to said first-mentioned wheels for lifting said rake head.

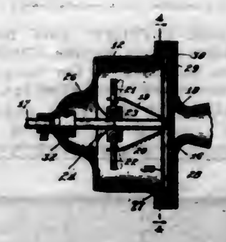
3. In a stacker, the combination of a pair of front wheels, an axle supported thereby, a pair of rear wheels, a frame member supported at one of its ends by said front wheels, a frame member supported by said second-mentioned frame at the end thereof opposite said second-mentioned wheels, mechanism controllable by movements in the general position of said second-mentioned wheels relatively to said first-mentioned wheels for lifting said rake head, and mechanism connected with said rake head and controllable at will of the operator for enabling him to actuate said rake head when the latter is raised.

4. In a stacker, the combination of front wheels, rear wheels, a frame member supported at one of its ends by said front wheels, another frame member supported at one of its ends by said rear wheels, a rake head carried by one of said frame members, connections from the frame member carrying said rake head to the other frame member, mechanism controllable by the rotation of said front wheels for moving said rear wheels for gradually shifting the position of said rear wheels to render the latter closer to or farther from said front wheels, and connections from said mechanism to said rake head for lifting or lowering the latter as the general position of said rear wheels is shifted relatively to the position of said front wheels.

5. In a stacker, the combination of front wheels, rear wheels, a frame member supported at one of its ends by said front wheels, another frame member supported at one of its ends by said rear wheels, a rake head carried by one of said frame members, connections from the frame member carrying said rake head to the other frame member, mechanism controllable by the rotation of said front wheels for moving said rear wheels for gradually shifting the position of said rear wheels to render the latter closer to or farther from said front wheels, connections from said mechanism to said rake head for lifting or lowering the latter as the general position of said rear wheels is shifted relatively to the position of said front wheels, and means controllable at the will of the operator for turning said rake head at any desired height thereof.

[Claims 6 to 9 not printed in the Gazette.]

1,029,521. ELECTRICAL SIGNALING DEVICE. THEODORE WEISS, Chicago, Ill. Filed Mar. 16, 1911. Serial No. 614,943. (Cl. 116—1.)



1. In a signaling device, in combination, a diaphragm, a tapper located adjacent the diaphragm, a rotatable head, arms projecting radially from the head and pivoted to swing in a plane coincident with the axis thereof, bars connecting the arms with the tapper, and means for swinging the arms on their pivots.

2. In a signaling device, in combination, a diaphragm, a tapper located adjacent the diaphragm, a rotatable head, arms projecting radially from the head and pivoted to swing in a plane coincident with the axis thereof, bars connecting the arms with the tapper, means for swinging the arms on their pivots, and an electric motor for rotating the head.

3. In a signaling device, in combination, a chambered casing having an apertured end, a diaphragm secured within the casing, a shaft journaled in the opposite end of the casing, a tapper slidably mounted on the end of the shaft and adapted to strike the diaphragm as it reciprocates, a head fixed to the shaft, arms radiating from the head and pivoted thereto to swing in a plane coincident with the axis of the shaft, bars connecting the arms with the tapper, and cams fixed to the casing and entering the path of rotation of the arms.

4. In a signaling device, in combination, a chambered casing having an apertured end, a diaphragm secured within the casing, a shaft journaled in the opposite end of the casing, a tapper slidably mounted on the end of the shaft and adapted to strike the diaphragm as it reciprocates, a head fixed to the shaft, arms radiating from the head and pivoted thereto to swing in a plane coincident with the axis of the shaft, bars connecting the arms with the tapper, cams fixed to the casing and entering the path of rotation of the arms, and an electric motor for driving the shaft.

5. In a signaling device, in combination, a rotary electric motor, a casing secured to the motor, the end of the motor shaft projecting into the casing, a diaphragm mounted within the casing and being perpendicular to the axis of the shaft, a tapper slidably mounted on the end of the shaft and adapted to strike the diaphragm, a pair of arms radiating from the shaft and pivoted to swing in a plane coincident with the axis thereof, connection between the arms and the tapper, and cams fixed within the casing and projecting into the path of rotation of the arms.

[Claims 6 to 8 not printed in the Gazette.]

1,029,522. PROCESS OF AND COMPOSITION FOR COATING ALUMINUM OR ITS ALLOYS FOR SOLDERING, &c. BRAXTON DAVENPORT AVIS, Jr., Clarksburg, W. Va. Filed Feb. 27, 1912. Serial No. 680,368. (Cl. 91—70.1.)

1. The process of coating aluminum with tin comprising the steps of applying to the aluminum surface stannous chlorid and heating until a coating of tin is formed upon such surface, substantially as described.

2. The process of coating aluminum with tin comprising the steps of applying to the aluminum surface a mixture containing stannous chlorid, zinc chlorid and comminuted tin and heating until a coating of tin is formed upon such surface, substantially as described.

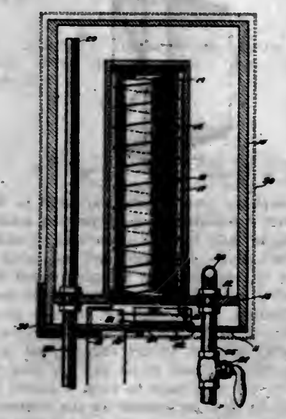
3. The process of preparing aluminum articles for subsequent union by soldering, comprising the steps of coating with tin those surfaces which are to be soldered, by applying thereto a substance containing stannous chlorid and heating until a coating of tin is formed upon such surfaces, substantially as described.

4. The process of preparing aluminum articles for subsequent union by soldering, comprising the steps of applying to those surfaces which are to be soldered, a non-oxygenous salt of tin which when heated in contact with a surface of aluminum or superficially oxidized aluminum, produces upon such surface a coating of tin and heating until a coating of tin is formed upon such surfaces, substantially as described.

5. A composition of matter for coating aluminum with tin, comprising stannous chlorid, zinc chlorid and comminuted tin, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,029,523. AUTOMATIC ELECTRIC WATER-HEATER. JAMES I. AYER, Cambridge, Mass., assignor to Simplex Electric Heating Company, Cambridge, Mass., a Corporation of Massachusetts. Filed Jan. 2, 1912. Serial No. 669,067. (Cl. 219—39.)



1. A device of the kind described, comprising a vessel having liquid supply and delivery connections, means for dividing off a portion of said vessel to form a lower base portion and an upper liquid holding body portion, an electric heater mounted in said body portion, and a thermostat in said base portion, said thermostat being formed and connected to render said heater inoperative at a predetermined thermal condition of the vessel contents.

2. A device of the kind described, comprising a vessel having liquid supply and delivery connections and formed

with a removable bottom, a removable plate adapted to be fitted within said vessel to divide off the lower from the upper part thereof, an electric heater fitted within said vessel, and a thermostat mounted in said lower part of said vessel connected to control said heater by the thermal condition of the interior of the vessel.

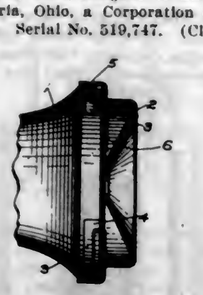
3. A device of the kind described, comprising a vessel having liquid supply and delivery connections, one end thereof being removable, a removable partition dividing off said vessel to form a liquid holding body portion and an end portion separated therefrom, an electric heater mounted in said body portion of the vessel, and current controlling means mounted in said end portion of the vessel connected to control said heater and operable by the thermal condition of the vessel contents.

4. A device of the kind described, comprising a vessel having liquid supply and delivery connections, a removable plate fitted in said vessel for dividing off the same to form a liquid holding body portion and an end portion separated therefrom, said plate carrying a housing projecting into the body portion of the vessel, an electric heater fitted in said housing, and current controlling means for said heater mounted in said end portion of the vessel, said means being operable by the thermal condition of the vessel contents.

5. A device of the kind described, comprising a vessel having liquid supply and delivery connections, means for dividiug off said vessel to form a liquid holding body portion and a base portion with a housing extending into the body portion, an electric heater fitted in said housing, and a thermostat with a condenser connected thereto mounted in said base portion, said thermostat being arranged and connected to control said heater and being operable by the thermal condition of the vessel contents.

[Claim 6 not printed in the Gazette.]

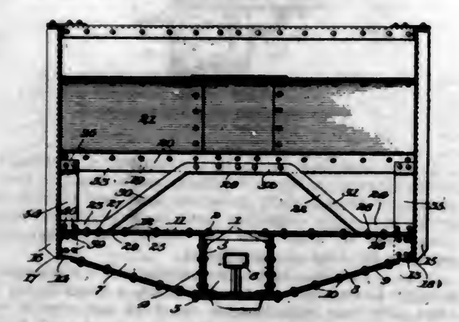
1,029,524. TELEPHONE-RECEIVER SHELL. JOHN F. BARBOUR, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed Sept. 27, 1909. Serial No. 519,747. (Cl. 179—179.)



1. In a telephone receiver shell adapted to house telephone receiver mechanism, a main portion made of sheet metal of substantially tubular shape and expanded at one end into a bell shape, said expanded end being open, the exterior edge of said open end being extended to form an annular portion substantially parallel to the long axis of said main portion, a plurality of bayonet slots pressed into the metal of said annular portion, the long arms of said slots being parallel to the edge of the open end of the main portion, a sheet metal cap for said shell, said cap having its top depressed to form a crater like receptacle for the ear and perforated at the center to permit the passage of sound waves to the ear, an annular shoulder formed on said cap against which the edge of the main portion abuts when said cap is mounted on the main portion, the edge of the cap being bent over substantially at right angles to said shoulder, hollow lugs formed on the inside of said bent over edges of the material of said cap and adapted to enter said bayonet slots when the cap is mounted on the shell to unite said cap and shell, said lugs frictionally engaging the top and sides of said slots to prevent relative movement between the cap and main portion when the two are united.

2. In a telephone receiver shell, adapted to house telephone receiver mechanism, a main portion made of sheet metal substantially tubular in shape and expanded at one end into a bell shape, said expanded end being open, the exterior of said open end being extended to form an annular portion having its walls substantially parallel to the long axis of said main portion, a plurality of bayonet slots pressed into the metal of said annular portion, the long arms of said slots being substantially parallel to the edge of the open end of the main portion, a sheet metal cap for said shell, said cap having its top depressed to form a crater like receptacle for the ear and perforated at the center to permit the passage of sound waves to the ear, the edge of the cap being bent over to form an annular portion substantially parallel to the long axis of the main portion when the cap is mounted on the main portion and lugs on the inside of said bent over edges of said cap adapted to enter said bayonet slots when the cap is mounted on the shell to unite said cap and shell, said lugs frictionally engaging the top and sides of said slots to prevent relative movement between the cap and main portion when the two are united.

1,029,525. FLOOR-SUPPORT AND BOLSTER FOR HOPPER-CARS. ANTON BECKER, Columbus, Ohio, assignor to The Ralston Steel Car Company, Columbus, Ohio, a Corporation of Ohio. Filed Jan. 30, 1909. Serial No. 475,257. (Cl. 105—185.)



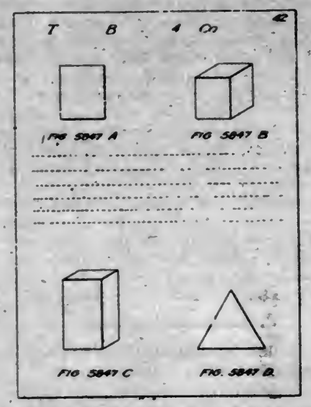
1. In a hopper car, a bolster, a floor supporting member mounted thereon, a sub side sill, and a gusset member secured to said floor supporting member and bolster and sub side sill.

2. In a hopper car having a bolster and floor, a member secured transversely upon the under face of said floor, a supporting member having its ends applied to the upper face of said bolster on opposite sides of the center sill, and having its middle portion bent upwardly into engagement with said transverse member, and a gusset member arranged vertically at the side of the car and secured in engagement with said transverse member, supporting member, and bolster.

3. In a hopper car, a bolster, a floor supporting member mounted thereon, a sub side sill, and a gusset member secured to said floor and floor supporting member and bolster and sub side sill.

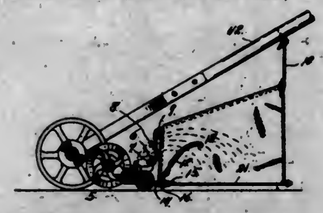
1,029,526. CATALOGUE. CHARLES F. BEEZLEY, Jr., Chicago, Ill., assignor to R. R. Donnelley & Sons Company, Chicago, Ill., a Corporation of Illinois. Filed June 16, 1909. Serial No. 502,597. (Cl. 11—19.)

In a stock page catalogue, a plurality of stock pages, each of which pages having a page or folio number, a plurality of illustrations, and an illustration key for each illustration, each key including a page index character common to the several illustrations on the same page but independent of the page or folio number and a designating character, each designating character differing from each of the other designating characters on the same page, and an index to the page index characters having the several page index characters consecutively arranged, and also having the corresponding catalogue or page folio numbers



associated therewith, substantially as and for the purpose described.

1,029,527. GRASS-CATCHER FOR LAWN-MOWERS. CHARLES S. BONHAM, Denver, Colo. Filed July 17, 1911. Serial No. 638,869. (Cl. 56—114.)



1. A grass catcher for lawn mowers equipped with a shield applied to the forward extremity of the catcher, the said shield being hinged to the catcher and normally occupying an upwardly and rearwardly-inclined position, the shield being so located that it shall form a dam to prevent the escape of the grass, while, at the same time; allowing the grass to pass rearwardly from the cutter to enter the catcher above and through the shield, substantially as described.

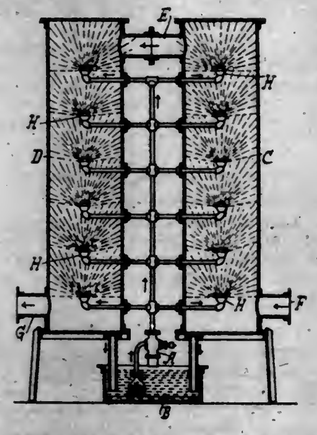
2. A grass catcher equipped at its forward extremity with a hinged shield, provided with stops on its inner surface adapted to support the shield in an upwardly and rearwardly-inclined position, the shield being adapted when thrown forwardly, to occupy a plane approximately the same as that of the bottom of the catcher, whereby the grass is allowed to pass freely out of the forward extremity of the catcher.

3. A grass catcher for lawn mowers, equipped with a hinged shield, which is normally rearwardly and upwardly inclined, the shield being freely movable on its hinge and provided with stops adapted to support it in its position of rearward inclination, when the catcher is in use, the shield being arranged to swing forwardly to occupy a plane approximately the same as that of the bottom of the catcher, substantially as described.

4. A grass catcher for lawn mowers, equipped with a shield hinged at the forward edge of the same and normally occupying an upwardly and rearwardly inclined position, means for supporting the shield in position to prevent the escape of grass while the catcher is in use, and at the same time allowing the grass to enter the catcher freely as it flies from the cutter, the shield being free to open forwardly to permit the discharge of grass, substantially as described.

5. A grass catcher for lawn mowers equipped with a shield hinged at the forward edge of the same, means for supporting the shield in position to prevent the escape of grass while the catcher is in use and at the same time allowing the grass to enter the catcher freely therethrough as it flies from the cutter, substantially as described.

1,029,528. PROCESS OF ABSORBING OXIDS OF NITROGEN. CARL BOSCH and HANS KELLER, Ludwigshafen-on-the-Rhine, Germany, assignors to Badische Anilin & Soda Fabric, Ludwigshafen-on-the-Rhine, Germany, a Corporation. Filed June 22, 1909. Serial No. 503,037. (Cl. 23—13.)

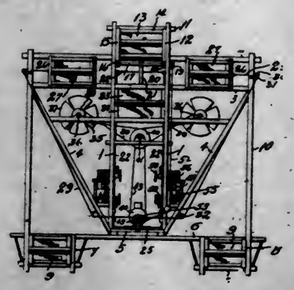


1. The process of absorbing oxids of nitrogen from mixtures containing them, by introducing a suspension of an absorbent into the gas mixture in a state of fine division.

2. The process of absorbing oxids of nitrogen from mixtures containing them, by introducing milk of lime in a state of fine division into the gas mixture.

3. The process of absorbing oxids of nitrogen from mixtures containing them, by spraying milk of lime into the gas mixture.

1,029,529. AIRSHIP. JOHN F. BRADSHAW, near Overton, Tex. Filed Oct. 14, 1910. Serial No. 587,049. (Cl. 244—6.)



1. In an air-ship, a frame, a gas bag at the upper end of the frame arranged to be moved forwardly and rearwardly of the frame, other gas bags at the upper end of the frame below and normally at each side of the first gas bag and arranged to be moved laterally of the frame, a fixed gas bag under the first gas bag and below the laterally adjustable gas bags, a propeller mounted on the frame, and an engine carried by the frame and having driving connection with the propeller.

2. In an air-ship, a frame, a gas bag adjustable longitudinally of the frame, a pair of connected gas bags adjustable transversely of the frame and at right angles to

the first named gas bag, a propeller mounted on the frame, and an engine for driving the propeller.

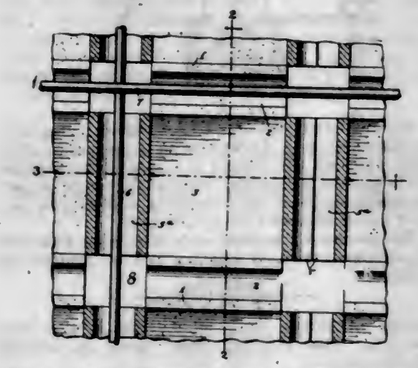
3. In an air-ship, a supporting frame, a gas bag fixed longitudinally of the frame, a second gas bag adjustable longitudinally of the frame, a pair of connected gas bags adjustable transversely of the frame, a propeller mounted on the frame, and an engine for driving the propeller.

4. In an air-ship, a supporting frame, a gas bag fixed longitudinally of the frame, a second gas bag adjustable longitudinally of the frame, a pair of connected gas bags adjustable transversely of the frame, a pair of fixed gas bags supported from the underside of the frame, a propeller mounted on the frame, and an engine for driving the propeller.

5. In an air-ship, a frame, movable gas bags mounted in the frame, a fixed gas bag mounted in the frame below the movable gas bags, propellers, one mounted at each side of the fixed gas bag and within the frame, a common driving member mounted in the frame, connections between said member and the propellers, and an engine mounted on the frame and having driving connection with the member.

[Claims 6 and 7 not printed in the Gazette.]

1,029,530. BLOCKS FOR BUILDING CONSTRUCTION. FERDINAND BURCHARTZ, New York, N. Y. Original application filed Nov. 2, 1909, Serial No. 525,878. Divided and this application filed Aug. 4, 1910. Serial No. 575,533. (Cl. 72—66.)



1. In a floor construction, the combination of open ended blocks arranged in alinement in intersecting rows, and spaced from each other, channel blocks separate from said open ended blocks, and substantially U-shaped in cross section, located between and closing the open ends of said open ended blocks, and forming substantially continuous channels and a coalescent material in said channels.

2. In a floor construction, the combination of open ended blocks arranged in alinement in intersecting rows, and spaced from each other, channel blocks separate from said open ended blocks and substantially U-shaped in cross section, located between and closing the open ends of said open ended blocks and forming substantially continuous channels, said channel blocks terminating below the upper surfaces of said open ended blocks, and a coalescent material in said channels and extending over the tops of the channel blocks.

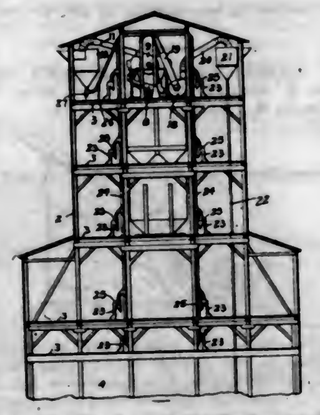
3. In a floor construction, the combination of open ended blocks arranged in alinement in intersecting rows and spaced from each other, channel blocks separate from said open ended blocks and substantially U-shaped in cross section, located between and closing the open ends of said open ended blocks and forming substantially continuous channels, said channel blocks being shorter than said open ended blocks and a coalescent material in said channels and extending over the ends of the channel blocks.

4. In a floor construction, the combination of open ended blocks arranged in alinement in intersecting rows and spaced from each other, channel blocks, separate from said open ended blocks, and substantially U-shaped in cross section, located between and closing the open ends of said open ended blocks and forming substantially continuous channels, said channel blocks terminating below the upper surfaces of and being shorter than said open ended blocks and a coalescent material in said channels and extending over the tops and ends of the channel blocks.

5. In a floor construction, the combination of open ended blocks arranged in intersecting rows and spaced from each other, channeled closure blocks located between and closing the open ends of said open ended blocks, said closure blocks being arranged in longitudinal alinement with each other in rows to form substantially continuous channels, and having the opposed ends of the closure blocks in each row spaced from each other, and a coalescent material extending into said channels and into the spaces between said opposed ends of said closure blocks.

[Claims 6 to 8 not printed in the Gazette.]

1,029,531. DUST-COLLECTING SYSTEM. HENRY L. DAY, Minneapolis, Minn. Filed Dec. 7, 1908. Serial No. 466,294. (Cl. 83—47.)

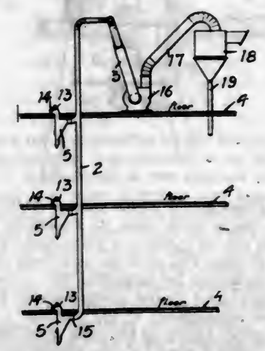


1. The combination, in a dust-collecting system, with a suitable conductor, and a fan arranged to create a current of air through said conductor, and a suitable dust receiving chamber into which the air-current and the material carried thereby is discharged by said fan, of a series of inlet openings connected with the said conductor, whereby grain, dust and like mixed material may be delivered to the dust collecting system at different points, and a separator arranged between each of said inlet openings and the conductor substantially at the initial point of entry of heavy and light material into the dust collecting system, whereby the grain or heavier material may be separated at the initial points where it enters the dust collecting system, and only the light material pass into and through the conductor.

2. The combination, in a dust collecting system, with a suitable conductor, of a series of separators connected with said conductor at different points substantially at the initial points of entry of grain and light material into the dust collecting system, and means arranged to create a current of air through said conductor and through each of said separators, means for conducting mixed grain and dust, or similar mixed material, into each of said separators wherein the heavy material is separated from the light material and the light material is carried off by the air-current into and through said conductor, substantially as described.

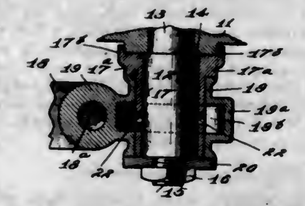
3. The combination, in a dust collecting system, with a suitable main conductor and a fan arranged to create a current of air through said main conductor, of a floor-sweep formed with an inlet opening for grain and relatively light material and provided with a separating chamber substantially at the initial point of entry of grain and light material into the dust collecting system and connected with said conductor, and into which floor-sweep grain, dust and like material may be swept, and the dust and light material delivered to said main conductor, while the grain and heavier material is separated and deposited in said separator.

1,029,532. FLOOR-SWEEP. HENRY L. DAY, Minneapolis, Minn. Filed Dec. 7, 1908. Serial No. 466,297. (Cl. 83—47.)



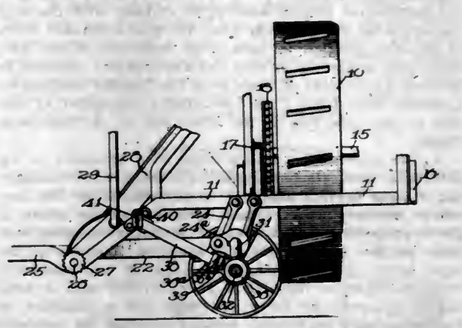
The combination, with a dust collecting system arranged in a grain-cleaning house or other structure, having a series of floors, a separating chamber located below each floor connected with said dust collecting system, and a sweep opening above each floor through which grain and other material may be swept from the floor into said separator and means for conveying relatively light material separated from the grain from each separator into the dust collecting system in communication with all of the separating chambers.

1,029,533. PITMAN CONNECTION FOR HARVESTING-MACHINES. JOHN H. DOWNING, Stillwater, Minn., assignor to the State of Minnesota. Filed Feb. 25, 1911. Serial No. 610,710. (Cl. 74—17.)



In a pitman connection for harvesting machines, the combination with a crank wheel and a pitman, of a crank pin secured to the said crank wheel eccentric to the axis of rotation thereof, there being a bearing surface formed on the said crank wheel circumferentially of the crank pin adjacent the inner end of the bearing surface thereof, a bearing secured to the pitman and sleeved over the crank pin, said bearing comprising an inner bushing of material having suitable frictional qualities and being uniformly cylindrical throughout the major portion of its length and having a flanged portion of increased diameter at its extreme inner end whereby a covered bearing surface of increased thickness is provided at its inner extremity to coöperate with the said bearing surface formed on the crank wheel for taking end thrust on the bearing, and a bearing block secured to the pitman and sleeved over the bushing, its inner extremity in contact with the shoulder formed by the increased diameter portion at the inner extremity of the bushing, its outer extremity being flush with the outer extremity of the bushing, there being a circumferential cavity or oil pocket formed in the bearing block and normally closed by the bushing, a filling duct in the bearing block, and a feed vent or vents in the bushing communicating between said cavity or oil pocket and the bearing surface of the crank pin, and means carried by the outer extremity of the crank pin for securing the parts of the said bearing in their operative positions on the crank pin said means extending beyond the ends of both bearing block and bushing.

1,029,534. HARVESTER-TRUCK. JOHN H. DOWNING, Stillwater, Minn., assignor to the State of Minnesota. Filed May 10, 1911. Serial No. 626,393. (Cl. 56—33.)



1. The combination with the frame of a harvester, of an attachable and detachable axle for a truck wheel comprising a body portion adapted for securement to the harvester frame and a wheel spindle, said body portion of the axle being cylindrical in form and of approximately uniform diameter throughout, and provided with a fixed lug or pin near its inner extremity and a plurality of separated and perforated bearing castings or brackets on the main frame adapted to rotatably support said body portion of the axle, said separated castings or brackets being provided with slots opening into the perforations therein, adapted to register with the said lug or pin on the axle body when the axle is rotated to an inoperative position to permit the insertion of the axle body.

2. The combination with the frame of a harvester, of an attachable and detachable axle for a truck wheel comprising a body portion adapted for securement to the harvester frame and a wheel spindle, said body portion of the axle being cylindrical in form and of approximately uniform diameter throughout, and provided with a fixed lug or pin near its inner extremity, a plurality of separated and perforated bearing castings or brackets on the main frame adapted to rotatably support said body portion of the axle, said separated castings or brackets being provided with slots opening into the perforations therein, adapted to register with the said lug or pin on the axle body when the axle is rotated to an inoperative position to permit the insertion of the axle body, and means for locking the axle against rotation to prevent withdrawal of same from the bearing castings or brackets.

3. The combination with the frame of a harvester, of an attachable and detachable axle for a truck wheel comprising a body portion adapted for securement to the harvester frame and a wheel spindle, said axle being cranked whereby the spindle and the body portion lie in different planes, said axle formed of an integral cylindrical bar of approximately uniform diameter throughout and being provided with a fixed lug or pin on the body portion, a plurality of separated and perforated bearing castings or brackets on the main frame adapted to rotatably support said body portion of the axle, one of said separated castings or brackets being provided with a slot opening into the perforation therein adapted to register with the said lug or pin on the axle body when the axle is rotated to an inoperative position to permit the insertion of the axle

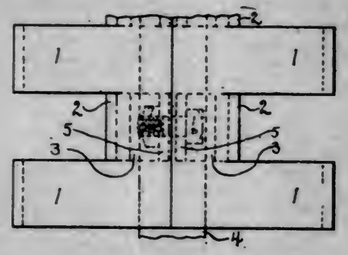
body, and means for locking the axle against rotation on the cylindrical body portion comprising a bar secured, at one end to the axle adjacent the cranked wheel spindle, and at its other end to the frame of the harvester.

4. The combination with the frame of a harvester, of an attachable and detachable axle for a truck wheel comprising a body portion adapted for securement to the harvester frame and a wheel spindle, said axle being cranked whereby the spindle and the body portion lie in different planes, said axle being formed of an integral cylindrical bar of approximately uniform diameter throughout and being provided with a fixed lug or pin on the body portion, a plurality of separated and perforated bearing castings or brackets on the main frame adapted to rotatably support said body portion of the axle, one of said separated castings or brackets being provided with a slot opening into the perforation therein adapted to register with the said lug or pin on the axle body when the axle is rotated to an inoperative position to permit the insertion of the axle body, and means for locking the axle against rotation to prevent withdrawal of same from the bearing castings or brackets comprising a bar detachably connected at one end to the axle and at its other end to the harvester frame.

5. The combination with a frame of a harvester, of an attachable and detachable axle for a truck wheel comprising a body portion adapted for securement to the harvester frame, a wheel spindle lying out of the plane of the body portion and a cranked portion connecting said body portion and spindle, the said body portion of the axle being cylindrical in form and of approximately uniform diameter throughout and provided with a fixed lug or pin near its inner extremity and a plurality of separated and perforated bearing castings or brackets on the main frame adapted to rotatably support said body portion of the axle, said separated castings or brackets being provided with slots opening into the perforations therein adapted to register with the said lug or pin on the axle body when the axle is rotated to an inoperative position to permit the insertion of the axle body and means for detachably connecting the cranked portion of the axle adjacent the wheel spindle thereof to the harvester frame to prevent withdrawal of the same from the bearing castings or brackets.

[Claims 6 to 11 not printed in the Gazette.]

1,029,535. PULLEY. RAYMOND W. DULL, Aurora, Ill. Filed Oct. 21, 1910. Serial No. 588,351. (Cl. 64—18.)

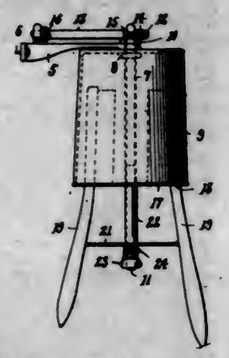


1. A pulley having two similarly formed members, each member comprising separated rim portions and an intermediate arm integral with said rim portions, said arm having a suitably shaped portion adapted for securing the members to a suitably shaped shaft.

2. A pulley having a plurality of similarly formed members, each member comprising separated rim portions and intermediate arms integral with said rim portions, said arms having a suitably shaped portion adapted for securing the members to a suitably shaped shaft.

3. In a pulley a member comprising separated rim portions and intermediate arms integral with said rim portions, said arms having a suitably shaped portion adapted for securing said member to a suitably shaped shaft.

1,029,536. TOOTH-BRUSH CASE. ALBERT H. FLOOD, Bridgeport, Conn. Filed Oct. 2, 1911. Serial No. 652,268. (Cl. 132—11.)



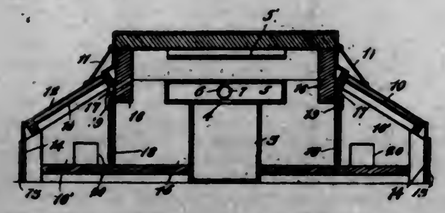
1. A tooth brush holder of the class described, the same comprising a casing open upon its underside and having suitable means for its support, a plate adapted to support one or more brushes and to close said open underside of the casing, and means for adjusting the supporting plate vertically with respect to the casing opening to permit of the removal or replacement of the brushes.

2. A tooth brush holder of the class described, the same comprising a casing having an open underside and suitable means for its support, a rod adjustably mounted in the casing, a plate mounted upon the rod and adapted to support one or more brushes and to close said open side of the casing, and means for supporting the rod and plate in a raised or closed position with respect to the casing opening to permit of the removal or replacement of the brushes.

3. A tooth brush holder of the class described, the same comprising a casing open upon its underside and having suitable means for its support, a tube secured to the casing, a rod mounted in the tube, a plate supported on the rod and adapted to hold one or more brushes and to close said open side of the casing, and means for adjusting the rod and plate vertically with respect to the tube and casing to open and close the same and to permit of the removal or introduction of the brushes.

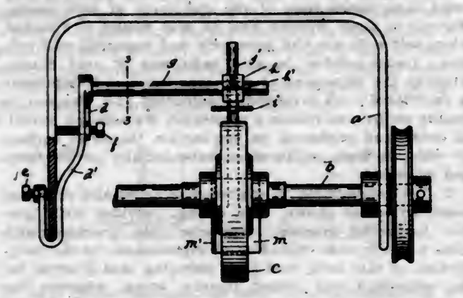
4. A tooth brush holder of the class described, the same comprising a cylindrical casing open upon its underside and having suitable means for its support, a tube supported in the casing, a rod adjustably mounted in the tube, a round plate adapted to support one or more brushes and to close said open end of the casing, a second rod pivotally and adjustably connected to the adjustable rod, and whereby the plate is raised and lowered with respect to the open end of casing to open and close the same.

1,029,537. BROODER. ALEX ETHMER FORD, Divernon, Ill. Filed May 17, 1911. Serial No. 627,769. (Cl. 119—32.)



In a brooder, the combination of a plurality of guides, ventilators frictionally held in said guides, and windows adapted to be held upwardly by said ventilators, and means for holding said windows so that the same will readily move and extend over said ventilators, when raised.

1,029,538. GUARD FOR HEEL-SCOURING MACHINES. GEORGE B. GARDNER, Haverhill, Mass. Filed Feb. 16, 1911. Serial No. 609,027. (Cl. 51—17.)

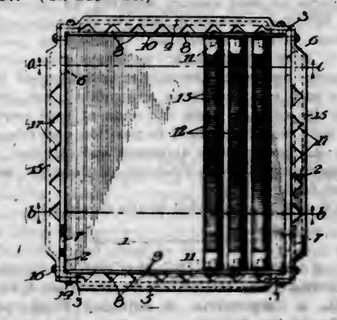


1. A guard for heel-scouring wheels comprising a bracket having a supporting arm adapted to be held parallel to the shaft of the machine, a clip through which said arm extends, said clip being rotatably and longitudinally adjustable on said arm, an elongated shank mounted in said clip and extending therethrough at right angles to and at one side of said arm said shank being longitudinally and rotatably adjustable therein, and a guard plate mounted on one end of said shank extending longitudinally thereof and adapted to be held beneath and adjacent the scouring wheel, substatially as described.

2. In combination with a heel-scouring wheel having an inclosing hood, a bracket having a U-shaped arm adapted to be placed astride the edge of the hood, and having oppositely disposed set-screws for clamping the same thereon and adjusting the same to different inclinations with relation thereto, a supporting arm rigidly mounted in said bracket at an angle thereto, a clip adjustably mounted on said arm and a guard plate having a shank adjustbly mounted in said clip at an angle to said arm, said guard being adapted to be held adjacent the scouring wheel to cover a portion thereof, substantially as described.

3. A holder for a heel-scouring wheel guard comprising a main body portion having a U-shaped portion at one end, a pair of set-screws arranged in said portion adjacent the end thereof to clamp a support therebetween, a set-screw in said body portion arranged oppositely to the set-screw of said end portion, an arm extending from the opposite end of said body portion at an angle thereto, and a guard plate mounted for universal adjustment on said arm, substantially as described.

1,029,539. RHEOSTAT. WILLIAM H. GAULKE, Milwaukee, Wis., assignor to Independent Electric Mfg. Company, Milwaukee, Wis. Filed Aug. 8, 1911. Serial No. 642,957. (Cl. 219—48.)



1. A device of the character described comprising a closed structure, resistance units therein, ventilating apertures near the top of the structure, ventilating apertures near the lower portion of said structure, and a passage for uniting the upper with the lower apertures.

2. A device of the character described having a closed resistance box, apertures near the top thereof, apertures near the bottom thereof, and a member secured to said box over said apertures to form a channel for uniting said apertures.

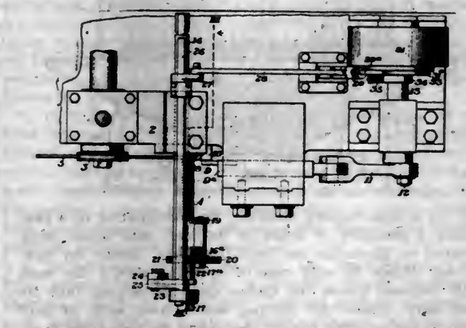
3. A device of the character described having a closed resistance box, apertures near the top thereof, apertures near the bottom thereof, and a member secured to said box over said apertures to form a channel for uniting said apertures, said member having openings whereby said channel communicates with the atmosphere.

4. A device of the character described having a resistance box, ventilating apertures near the top thereof, ventilating apertures at or near the bottom thereof, and means for providing a cooling path for heated air emitted through the upper apertures toward the lower apertures.

5. A device of the character described having a resistance box, ventilating apertures near the top thereof, ventilating apertures at or near the bottom thereof, means for providing a cooling path for heated air emitted through the upper apertures toward the lower apertures, and means whereby said path communicates with the atmosphere.

[Claims 6 to 9 not printed in the Gazette.]

1,029,540. MACHINE FOR COILING AND CUTTING COIL-SPRINGS. NOAH S. HARTER, Waukegan, Ill., assignor to The American Steel & Wire Company of New Jersey, Hoboken, N. J., a Corporation of New Jersey. Filed Nov. 19, 1909. Serial No. 528,911. (Cl. 153—64.)



1. In mechanism for forming and cutting off coil springs, the combination with coil-forming mechanism, of a cutting-off tool, means including a clutch for actuating said tool, a stop in the path of the advancing end of the coil being formed, and means operatively connecting a member of said clutch with the stop for positively moving said clutch member when the stop is engaged by the end of the formed coil; substantially as described.

2. In mechanism of the character described, the combination with coil-forming means including an arbor about which the coil is rotated as it forms, of a cutting-off tool, a shaft for actuating said tool, driving means for said shaft including a clutch, an arm located in the path of the advancing rotating end of the coils being formed, and means operatively connecting a member of said clutch with said arm for positively moving said clutch member when the arm is engaged by the advancing end of said coils; substantially as described.

3. In mechanism of the character described, the combination with coil-forming means including an arbor about which the coil is rotated as it forms, of a cutting-off tool, a shaft for actuating said tool, driving means for said shaft including a clutch, an arm located in the path of the advancing rotating end of the coils being formed, means operatively connecting a member of said clutch with said arm for positively moving said clutch member when said arm is engaged by the end of the coils, and means for adjusting said arm in the direction of the axis of the coils to vary the length of the coils; substantially as described.

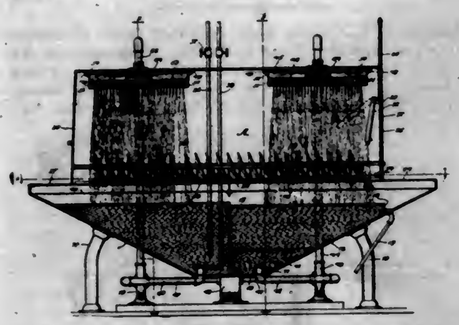
4. In mechanism for forming and cutting off coil springs, the combination with coil-forming mechanism, of a cut-

ting-off tool, means including a clutch for actuating said tool, an arm in the path of the advancing end of the coil being formed, means operatively connecting a member of said clutch with said arm for positively moving said clutch member when engaged by the end of the coils, and means for adjusting the angular position of said arm; substantially as described.

5. In mechanism of the character described, the combination with coiling means, including an arbor about which the coils are rotated as they are formed, of a cutting-off tool, a shaft for actuating said tool, means for driving the shaft, including a clutch, an arm located in the path of movement of the advancing end of the coils being formed, a shaft to which said arm is connected, gearing actuated by said shaft, and mechanical connections between the gearing and a member of the clutch; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

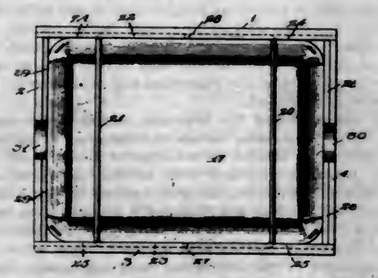
1,029,541. DISH-WASHING MACHINE. LOUIS A. HAUSTETTER, Chicago, Ill. Filed Mar. 29, 1911. Serial No. 617,759. (Cl. 141—9.)



1. In a dish-washing machine, the combination of a case having a plurality of tanks in its base, said tanks being adapted to discharge one into the other, means for supporting dishes in said case, a spraying device for each tank disposed above the dishes and discharging into its tank only, means for forcing water from each of said tanks to its spraying device, and means for supplying fresh water to one of said tanks.

2. In a dish-washing machine, the combination of a case, a spraying-device at the top thereof comprising a box slidably mounted in said case and having a perforated bottom, means for supporting racks beneath said device, and means for supplying water to said spraying-device.

1,029,542. EGG-CARRIER. JOHN EDWARD HERMAN, Rochester, N. Y. Filed June 30, 1911. Serial No. 636,175. (Cl. 217—30.)



1. In an egg-carrier the cover securing and releasing construction, comprising two transverse rods, provided at their ends with arms extending at right-angles to the body portion thereof; horizontal grooves on the interior longitudinal walls of the casing of the carrier, engaged by said arms and limiting their sliding movement interiorly by longitudinally central stops within said grooves; rabbeted inner-upper edge of the end-pieces of said casing, whereby a flush interior wall to said casing is afforded, when said rods are slid exteriorly and engaging said rabbets; thumb-notches in said end-pieces of said casing, whereby the movement of said transverse rods interiorly is facilitated,—all arranged, constructed and disposed to readily secure and release a removable, tray-shaped, inverted cover, and producing an egg-carrier, the outer surface of which is flush on all sides, substantially as set forth and described.

2. The combination in the cover-securing and releasing construction, as shown, of a casing, provided with interior horizontal grooves, transverse rods, provided with arms at their ends extending at right-angles to the body-portion of said rods, said arms engaging said grooves, being controlled and guided thereby, stops, whereby the movement of said rods interiorly is limited, and rabbeted inner-upper edges of the end-pieces of said casing, disposed to produce a flush interior wall when said rods are slid exteriorly,—all arranged, constructed and disposed to readily secure and release a removable tray-shaped cover.

3. The combination in the cover-securing and releasing construction, as shown, of a casing, provided with interior horizontally disposed grooves, transverse rods, provided with arms at their ends extending at right-angles to their body portion, said arms engaging said grooves interiorly and being controlled and guided thereby, stops, disposed to limit said rods in their movement interiorly, rabbeted inner-upper edges of said end-pieces of said casing, disposed to afford a flush inner wall to said casing, when said rods are slid exteriorly and engage said rabbets, and notches in the upper edge, centrally, of said end-pieces, disposed to facilitate the movement of said rods interiorly,—all arranged, constructed and disposed to readily secure and release a removable cover.

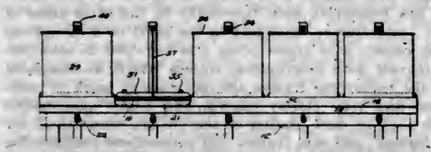
4. In an egg-carrier, the combination in the cover-securing and releasing construction, comprising a casing, provided with interior longitudinal horizontally disposed grooves; transverse rods, provided with parallel arms extending at right angles to the body-portion of said rods, and disposed to engage said grooves interiorly; exterior stops, whereby said transverse rods are limited in their movement outward and disposed to form an interior flush surface to said casing, bounding the cover, when said rods are slid exteriorly,—all arranged, constructed and disposed to readily secure and release a removable tray-shaped cover, and producing a top and sides that are flush, substantially as shown.

5. In an egg-carrier the combination of a casing, provided with longitudinal, horizontally disposed grooves; transverse rods, provided with parallel disposed arms extending at right angles to the body-portion of said rods and engaging said grooves; rabbets on the inner-upper edges of said end-pieces of said casing, whereby an interior flush surface is afforded, when said rods are slid exteriorly, and limiting their exterior movement; intersecting partitions, disposed to form egg-pockets; a base-portion extending over the entire bottom of the carrier and disposed to form bottoms to said egg-pockets; a removable cover, disposed to rest for its support upon the ends of said partitions, adjoining said casing and held in position and released by said rods,—all constructed, arranged and disposed to produce an egg-carrier that is flush on all its sides, substantially as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,029,543. FABRIC-MARKING MACHINE. GUIDO HORVÁTH, Chicago, Ill., assignor to T. Buettner & Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 14, 1911. Serial No. 643,981. (Cl. 101—132.)

1. In a fabric marking machine, the combination of a table, a movable carriage for the fabric thereon, locking mechanism for said carriage, a series of patterns each having openings in proximity to one edge thereof and arranged to be separably superimposed on said fabric, means for holding one edge of each of said patterns in fixed position upon said table, means for positioning each of said patterns with respect to said holding means, said positioning means consisting of pins attached thereto and adapted to register with the said openings in the pattern, a clamping member secured to the free edge of each of said patterns, and means connected with said clamping member adapted normally to maintain said pattern out of engaging position, substantially as described.



2. In a fabric marking machine, the combination of a table, a movable carriage for the fabric thereon, locking mechanism for said carriage, a series of patterns arranged to be separably superimposed on said fabric, means for holding one edge of each of said patterns in fixed position upon said table, means for positioning each of said patterns with respect to said holding means, a clamping member secured to the free edge of each of said patterns, and means connected with the said clamping member adapted normally maintain said pattern out of engaging position, substantially as described.

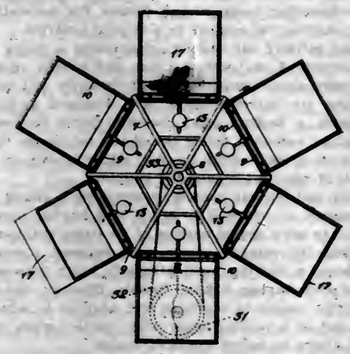
3. In a fabric marking machine, the combination of a table, a series of patterns, each having openings in proximity to one edge thereof, arranged along said table, a carriage for the fabric movable along said table, means for guiding said carriage in its travel, a member adapted to engage with said guiding means for locking said carriage in proper relation to each of said patterns, means for holding one edge of each of said patterns in fixed position upon the table, means for positioning each of said patterns with respect to said holding means, said positioning means consisting of pins attached thereto and adapted to register with the said openings in the pattern, a clamping member secured to the free edge of each of said patterns, and means connected with said clamping member adapted normally to maintain said pattern out of engaging position, substantially as described.

4. In a fabric marking machine, the combination of a table, a series of patterns arranged along said table, a carriage for the fabric movable along said table, means for guiding said carriage in its travel, a member adapted to engage with said guiding means for locking said carriage in proper relation to each of said patterns, means for holding one edge of each of said patterns in fixed position upon said table, means for positioning each of said patterns with respect to said holding means, a clamping member secured to the free edge of each of said patterns, and means connected with the said clamping member adapted normally to maintain said pattern out of engaging position, substantially as described.

1,029,544. FABRIC-MARKING MACHINE. GUIDO HORVÁTH, Chicago, Ill., assignor to T. Buettner & Co., Chicago, Ill. Filed Dec. 23, 1911. Serial No. 667,507. (Cl. 101—132.)

1. In a machine of the class described, means for positioning the patterns consisting of a pair of pivotally connected coacting clamping members, and means for locking said clamping members together, said means comprising a threaded sleeve mounted in one of said clamping members, a revoluble threaded stem in the other of said members and adapted to engage therewith, and a plate member for determining the longitudinal movement of said revoluble stem, the said locking means serving also to center the pattern with respect to said clamping members, substantially as described.

2. The combination with a fabric marking machine comprising fixed supports for the fabric, and a revolving frame adjacent thereto, of a support for a pattern comprising a pair of arms swingingly mounted on said revolving frame, a weight carried by said arms at one of the ends thereof and adapted normally to elevate the other free ends thereof, a clamping member for engaging one edge of a pattern to support the same, and tension means for connecting said clamping member with the free ends of said arms, substantially as described.



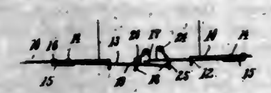
3. The combination with a fabric marking machine comprising fixed supports for the fabric, a revolving frame adjacent thereto, adapted to carry thereon a series of swingingly mounted pattern supporting arms, of means for positioning said pattern supporting arms in proper relation to each of said fabric supports, said means comprising a member secured upon the fixed support and a member secured to the pattern supporting arms adapted to engage therewith, substantially as described.

4. In a fabric marking machine, the combination of a fixed support for the fabric, a revolving frame adjacent thereto, and a swingingly mounted pattern support formed with a locking member thereon carried by said revolving frame, said member being adapted with the swinging of the pattern support into operating position to engage with said fixed support to lock the revolving frame in a fixed position, substantially as described.

5. In a fabric marking machine, the combination of a fixed support for the fabric, a revolving frame adjacent thereto, a series of swingingly mounted pattern supports, each formed with a locking member thereon, carried by said revolving frame, said members being adapted with the swinging of any selected one of said pattern supports into operating position to engage with the fixed support to lock the revolving frame in a fixed position, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,029,545. AUTOMATIC COUPLING FOR TOY RAILWAY-CARS. CHARLES A. HOTCHKISS, Bridgeport, Conn., assignor to The Ives Manufacturing Corporation, Bridgeport, Conn., a Corporation of Connecticut. Filed Jan. 31, 1912. Serial No. 674,579. (Cl. 46—48.)



1. An automatic coupler for toy railway cars, comprising a strip of sheet metal pivotally connected at one end to a car, and having a hook formed of the outer end of the strip, a locking pawl pivotally hung in the said shank so as to permit the hook of a similar coupler sliding thereunder, and means for normally holding the coupler in a yieldable, but central position.

2. The combination with a sheet metal toy car having a depending end flange with a transverse slot therein, of a coupler pivoted to the bottom of the car and extended out through and supported in the slot, said coupler including a hook end, and a pawl pivotally connected on the

upper side and back of the hook to automatically engage a similar hook on an adjoining coupler.

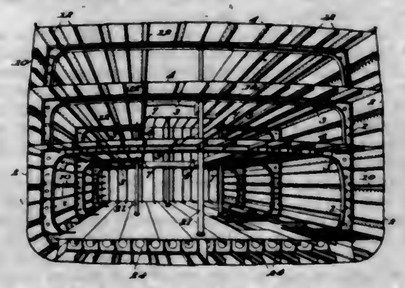
3. The combination with a sheet metal toy car having a depending end flange with a transverse slot therein, of a coupler pivoted to the bottom of the car and extended out through and supported in the slot, said coupler including a hook end, a pivoted pawl to automatically engage and hold a connecting coupler, and means for normally but yieldably holding the coupler in a central position.

4. A toy railway car coupler, comprising a shank pivotally connected at one end to a car and having upwardly disposed ears upon opposite sides of its outer end portion, and having its extreme outer end disposed upward to form a hook, a locking pawl pivotally hung between the said ears and extended below the shank to engage the forward end of a connecting coupler either above or below the shank of the first mentioned coupler.

5. A toy railway car coupler, comprising a shank pivotally connected at one end to a car and having upwardly disposed ears upon opposite sides of its outer end portions, and having its extreme outer end disposed upward to form a hook, a locking pawl pivotally hung between the said ears and having a hole therein through which the shank of the coupler is arranged and adapted to admit the forward end of a similar connecting coupler when shoved in either above or below the said shank.

[Claims 6 to 9 not printed in the Gazette.]

1,029,546. CONSTRUCTION OF FLOATING VESSELS. JOSEPH WILLIAM ISHERWOOD, Middlesbrough, England. Original application filed Jan. 28, 1907, Serial No. 354,521. Divided and this application filed Aug. 15, 1910. Serial No. 577,159. (Cl. 114—79.)



1. A vessel in its main body portion provided with consecutive transverse frames individually a plurality of times stronger and spaced a plurality of times farther apart than has heretofore been customary in the same class of vessel, said frames extending to the shell or deck plating of the vessel, said vessel being also provided in said portion thereof with longitudinal frames which, as compared with the transverse frames are individually weak and very closely spaced, and which also extend to the shell or deck plating of the vessel, substantially as described.

2. A vessel in its main body portion provided with consecutive transverse frames individually a plurality of times stronger and spaced a plurality of times farther apart than has heretofore been customary in the same class of vessel, said frames being also of a less aggregate total weight than has heretofore been customary in the same type of vessel, and extending to the shell or deck plating of the vessel, said vessel being also provided in said portion thereof with longitudinal frames which, as compared with the transverse frames are individually weak in cross section and very closely spaced, and which also extend to the shell or deck plating of the vessel, substantially as described.

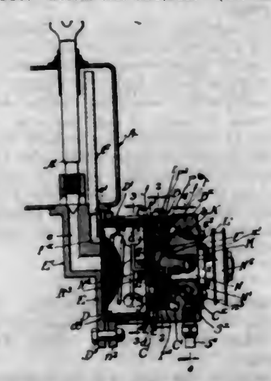
3. A vessel in its main body portion provided with consecutive transverse frames individually a plurality of times stronger and spaced a plurality of times farther apart than has heretofore been customary in the same class of vessel; said frames extending to the shell or deck plating of the vessel; said vessel being also provided in said portion thereof with longitudinal frames which, as compared with the transverse frames are individually weak in cross section and very closely spaced, and which also extend to the shell or deck plating of the vessel; and said transverse frames being of a less aggregate total weight than has heretofore been customary in the same class of vessel, substantially as described.

4. A vessel in its main body portion provided with consecutive transverse frames individually a plurality of times stronger and spaced a plurality of times farther apart than has heretofore been customary in the same class of vessel; said frames extending to the shell or deck plating of the vessel; said vessel being also provided in said portion thereof with longitudinal frames which, as compared with the transverse frames are individually weak in cross section and very closely spaced, and which also extend to the shell or deck plating of the vessel; connections for said frames; and said frames and connections constituting a framework having a less aggregate total weight of metal than has heretofore been customary in the framework and connections of the same class of vessel, substantially as described.

5. A vessel in its main body portion provided with consecutive transverse continuous frames and beams individually a plurality of times stronger and spaced a plurality of times farther apart than has heretofore been customary in the same class of vessel; said frames extending to the shell and deck plating of the vessel; said vessel being also provided in said portion thereof with longitudinal frames which, as compared with the transverse frames are individually weak in cross section and very closely spaced, and which also extend to the shell or deck plating of the vessel; said frames and beams and their connections constituting a framework of a less total weight of metal in the aggregate than has heretofore been customary in the framework and connections of the same class of vessel, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,029,547. FORCE-FEED OILER. AXEL LEVEDAHL, Aurora, Ill., assignor to Aurora Automatic Machinery Company, Aurora, Ill., a Corporation of Illinois. Filed Nov. 7, 1910. Serial No. 591,012. (Cl. 184—33.)



1. In combination with a reservoir, a closure for said reservoir, embracing bearing members and an interposed, relatively movable sliding member engaged between said bearing members, said relatively movable member having a piston chamber provided with an admission port and an exhaust port, each closed against one of said bearing members, a reciprocable piston in said piston chamber, a plurality of supply ports in one bearing member opening into the reservoir, a like number of discharge passages in the other bearing member each offset from an associated supply port, automatic means for producing relative movement of the members to alternately bring said admission port of said piston chamber to register with a supply port, and its exhaust port to register with an associated discharge passage, automatic means for reciprocating said piston and adjusting means acting to vary the length of movement of said piston in the case of each of the several pairs of associated supply ports and discharge passages.

2. In combination with a reservoir, a closure for said reservoir, embracing bearing members and an interposed, relatively movable sliding member engaged between said bearing members, said relatively movable member having a piston chamber provided with an admission port and with an exhaust port, each closed against one of said bearing members, a reciprocable piston in said piston chamber, a reciprocable plunger carried by said relatively movable member adapted to impart movement to said piston and to be moved thereby, a plurality of supply ports in one bearing member opening into the reservoir, a like number of discharge passages in the other bearing member, each offset from an associated supply port, automatic means for producing relative movement of the members to alternately bring said admission port of said piston chamber to register with a supply port and its exhaust port to register with an associated discharge passage, a like number of fixed members adapted to be engaged alternately by said piston and said plunger, and means for independently adjusting said fixed members to vary the length of movement of said piston in the case of each fixed member.

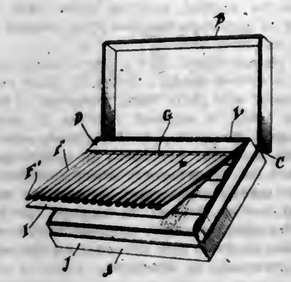
3. In combination with a reservoir, a chamber adjacent said reservoir having a flat wall and a surrounding cylindric wall, a flat disk bearing against the flat wall of said chamber and engaging at its peripheral edges against the cylindric wall of said chamber, said disk being of less diameter than said chamber and being eccentrically placed therein, a flat plate intermediate said flat chamber wall and said reservoir bearing against said flat disk and confining the same within said chamber, a piston chamber in said disk having an admission and an exhaust port oppositely disposed, said exhaust port being closed against the flat wall of said chamber, and said admission port being closed against said plate, a piston reciprocable in said piston chamber, a plunger movable with said piston, a second plunger carried by said disk, a rocking-arm carried by said disk engaging the inner ends of said plungers whereby the movement of one will effect an equal movement of the other, means for causing said disk to roll edgewise about the cylindric wall of said chamber with its opposite faces in sliding engagement between said plate and said flat chamber wall, said plate and flat chamber wall being provided respectively with a supply port and discharge passage offset from each other and positioned to alternately register with the associated ports of said piston chamber in the movement of said disk, and means located in said chamber adapted to be engaged successively by the outer end of said piston and the outer end of said second plunger to reciprocate said piston.

4. In combination with a reservoir, a chamber adjacent said reservoir having a flat wall and a surrounding cylindric wall provided with internal radial teeth, a flat disk bearing against the flat wall of said chamber and provided with peripheral teeth adapted to engage the teeth of said chamber, said disk being of less diameter than said chamber and being eccentrically placed therein, said disk and chamber each having a number of teeth which is a multiple of the difference between the numbers of teeth contained by them, a flat plate intermediate said flat chamber wall and said reservoir bearing against said flat disk and confining the same within said chamber, a piston chamber in said disk having an admission and an exhaust port oppositely disposed, said exhaust port being closed against the flat wall of said chamber, and said admission port being closed against said plate, a piston reciprocable in said piston chamber, a plunger movable with said piston, a second plunger carried in said disk, a rocking-arm carried by said disk engaging the inner ends of said plungers whereby the movement of one will effect an equal movement of the other, means for causing said disk to roll edgewise about the cylindric walls of said chamber with its opposite faces in sliding engagement between said plate and said flat chamber wall, said plate and flat chamber wall being provided respectively with a supply port and discharge passage offset from each other and positioned to alternately register with the associated ports of said piston chamber in the movement of said disk, and a pin located in said chamber wall adapted in succession to be engaged by the outer end of said piston and the outer end of said second plunger.

5. In combination with a reservoir, a chamber adjacent said reservoir having a flat wall and a surrounding cylindric wall, a flat disk bearing against the flat wall of said chamber and engaging at its peripheral edge against the cylindric wall of said chamber, said disk being of less diameter than said chamber and being eccentrically placed therein, a flat plate intermediate said flat chamber wall and said reservoir bearing against said flat disk and confining the same within said chamber, a piston chamber in said disk having an admission and an exhaust port oppositely disposed, said exhaust port being closed against the flat wall of said chamber, and said admission port being closed against said plate, a piston reciprocable in said piston chamber, a plunger movable with said piston, a second plunger carried by said disk, a rocking-arm carried by said disk engaging the inner ends of said plungers whereby the movement of one will effect an equal movement of the other, means for causing said disk to roll edgewise about the cylindric walls of said chamber with its opposite faces in sliding engagement between said plate and said flat chamber wall being provided respectively with a supply port and discharge passage offset from each other and positioned to alternately register with the associated ports of said piston chamber in the movement of said disk, a like number of pins located in said chamber wall, each adapted to be engaged by the outer end of said piston and the outer end of said second plunger in succession, and means for independently adjusting said pins to determine the distance moved by said piston in the case of each pin.

[Claims 6 to 9 not printed in the Gazette.]

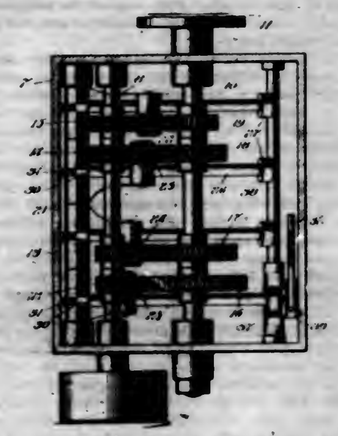
1,029,548. CIGARETTE-BOX. JOSEPH R. W. MENGER, Union Hill, N. J. Filed Feb. 15, 1911. Serial No. 608,762. (Cl. 206—48.)



1. A cigarette box provided with a cover hinged thereto below the top thereof and a row of matches hinged to said box at one side thereof and contacting with said cover and arranged to be raised therewith in the act of raising the cover from the box, but normally disconnected from the cover and exposed to permit them to be grasped without touching either the box or cover, substantially as set forth.

2. A cigarette box provided with a cover which is hinged thereto below the top thereof, and a row of matches which are hinged to the box a short distance above the point at which the cover is hinged thereto, said matches extending entirely across the box to the opposite edge thereof and arranged to be engaged by the cover and to be raised therewith in the act of raising the cover from the box, substantially as set forth.

1,029,549. CHANGE-SPEED MECHANISM. ROBERT MILNE, Rockford, Ill. Filed June 29, 1911. Serial No. 636,040. (Cl. 74—58.)



1. In a change speed device, the combination of a driving shaft, a driven shaft, a series of gears on each shaft, at least one of said series being composed of stepped gears, said gears lying in opposed relation to one another, a shiftable gear for each set of opposed gears, and means actuated with a sliding movement in a direction crosswise of the gearing and adapted to throw and maintain a selected shiftable gear in position to effect a connection between its set of opposed gears, substantially as described.

2. In a change speed device, the combination of a driving shaft, a driven shaft, a series of gears on each shaft, at least one of said series being composed of stepped gears, said gears lying in opposed relation to one another, a shiftable gear for each set of opposed gears, means actuated with a sliding movement in a direction crosswise of the gears and adapted to throw any selected shiftable gear into position to effect a connection between its set of opposed gears, and means for automatically returning said shiftable gears to normal position after said means have moved out of operative relation with respect thereto, substantially as described.

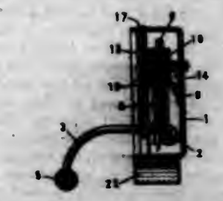
3. In a change speed device, the combination of a driving shaft, a driven shaft, a series of gears on each shaft, at least one of said gears being composed of stepped gears, said gears lying in opposed relation to one another, a shiftable gear for each set of opposed gears, means actuated with a sliding movement in a direction crosswise of the gears for throwing any selected shiftable gear into position to make a connection between its set of opposed gears, and a stop member to regulate the return movement of the shiftable gear, whereby it lies when in normal position in mesh with one gear of the set of opposed gears, substantially as described.

4. In a change speed device, the combination of a driving shaft, a driven shaft, a series of gears on each shaft, at least one of said series being composed of stepped gears, said gears lying in opposed relation to one another, an intermediate gear for each set of opposed gears, a pivotally mounted support for each of said intermediate gears, and means actuated with a sliding movement in a direction crosswise of the gears for throwing any selected intermediate gear into position to effect a connection between its set of opposed gears, substantially as described.

5. In a change speed device, the combination of a driving shaft, a driven shaft, a series of gears on each shaft, at least one of said gears being composed of stepped gears, said gears lying in opposed relation to one another, an intermediate gear for each set of opposed gears, a pivotally mounted support for each of said intermediate gears, means actuated with a sliding movement in a direction crosswise of the gears for throwing any selected intermediate gear into position to effect a connection between its set of opposed gears, means for automatically returning said intermediate gear to normal position, and a stop member for limiting the return movement of said intermediate gear, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,029,550. CASUALTY-INDICATOR. ARDON M. MITCHELL, Flushing, N. Y. Filed Feb. 11, 1909. Serial No. 477,303. (Cl. 116—31.7.)



1. A casualty indicator, comprising, in combination with a vehicle, a plurality of identification means, means removably supporting said identification means, a fender, and means for forcibly expelling said identification means upon collision of said fender with an object.

2. A casualty indicator, comprising, in combination with a vehicle, a plurality of identification means, means normally supporting said identification means in removable position, a forwardly projecting element rigid with said supporting means, and means for forcibly expelling said identification means upon collision of said projecting element with an object.

3. A casualty indicator, comprising, in combination with a vehicle, a plurality of identification means, a plurality of supports for holding said identification means in position for removal, means for forcibly expelling said identification means, means for normally restraining said expelling means, and a fender adapted to be tripped to release said expelling means.

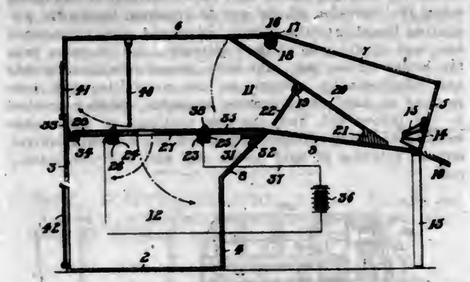
4. A casualty indicator, comprising, in combination with a vehicle, a plurality of identification means, supports for holding said identification means at rest, an expelling means, means for normally restraining said expelling means, and a fender rigidly mounted on said supporting means and projecting forwardly therefrom and adapted to release said expelling means upon collision of said fender with an object.

5. A casualty indicator composed of a rock shaft, a series of arms vertically carried by said rock shaft, a bar located in front of and in rigid connection with said rock shaft, springs surrounding said arms, means for normally holding said arms in restraint, means for holding said springs compressed, and a plurality of identification means carried by each of the arms.

[Claims 6 to 17 not printed in the Gazette.]

1,029,551. RAT-TRAP. STEVE MOLNÁR, Homestead, Pa., assignor of one-fourth to Mike Kosztotanyi, one-fourth to Joe Pentek, and one-fourth to Charles Kuhn, Homestead, Pa. Filed Jan. 20, 1912. Serial No. 672,263. (Cl. 43—34.)

1. An electric rat trap comprising a structure having an entrapping compartment formed therein and a receptacle, a trap door fulcrumed in said trapping compartment and having the lower edge thereof weighted to maintain the upper edge thereof in engagement with the roof of said structure, bait holders supported by said structure adjacent to the upper edge of said trap door, bearings of insulation carried by the end walls of said structure, tiltable platforms supported by said bearings and having the confronting edges thereof slotted to provide longitudinally arranged tongues, and contact bars arranged upon said platforms with the extensions thereof extending on to said tongues and each forming one terminal of an electric circuit bridged by the rat.



2. In an electric rat trap, the combination with a suitable source of electrical energy, of a structure having bottom plates, roof plates, and front plates, one of said plates having openings formed therein, a gang plank having the upper edge thereof terminating at the openings of said front plate, bait holders carried by said roof plates, a tiltable trap door arranged between said end walls with the lower edge of said trap door weighted and in proximity to the openings of said front walls and the upper edge of said trap door extending in proximity to said bait holders, tiltable platforms arranged between said end walls, and contact bars arranged upon said tiltable platforms and each forming one terminal of an electric circuit bridged by the rat and communicating with said source of energy.

3. In an electric rat trap, the combination with a suitable source of electrical energy, of a structure having an entrapping compartment formed therein, of a receptacle adapted to receive rodents from said compartment, a trap door fulcrumed within said entrapping compartment and having the forward edge thereof weighted to maintain the upper edge thereof against the roof of said structure, tiltable platforms normally supported in a horizontal position within said structure, tongues carried by the confronting edges of said platforms, contact bars arranged upon said platforms and each forming one terminal of an electric circuit bridged by the rat and communicating with said source of energy, extensions carried by said bars and extending on to said tongues, and slide doors carried by one of the walls of said structure whereby easy access can be had to the compartments of said structure.

1,029,552. ADJUSTABLE SCREW-JOINT COUPLING FOR SUPPLY-PIPES. PHILIP MUELLER and ANTON C. SCHUERMANN, Decatur, Ill., assignors to H. Mueller Manufacturing Company, Decatur, Ill., a Corporation of Illinois. Filed Mar. [illegible]911. Serial No. 616,696. (Cl. 137—28.)

1. In combination, an externally threaded shank having its inner wall flared at [illegible] a supply pipe having an enlarged threaded portion [illegible]ent its end and being reduced outwardly of the threaded portion, the reduced outer end of the supply pipe fitting loosely in the shank, a coupling member having internal threads engaging over the enlarged portion of the supply pipe and about the shank, and further having an inwardly extending flange embracing the reduced end of the supply pipe in spaced relation from the end of the shank, and a gasket fitting in the flared end of the shank and abutting against the flange, whereby the gasket is compressed against the supply pipe by the tightening of the coupling member over the gasket.

2. In a coupling, an externally threaded shank having its inner wall flaring at [illegible]d of the shank, a supply pipe extending loosely in the shank and having an enlarged threaded portion [illegible]ding outwardly from the shank, a gasket engaging [illegible] flared end of the shank about the supply pipe, and a coupling member threaded on the end of the shank and having an inwardly extending flange engaging with the gasket and binding the same in the shank and on the supply pipe, the coupling member having an internally threaded portion extending beyond the flange and engaging adjustably over the threaded and enlarged portion of the supply pipe.



3. In a coupling, an externally threaded shank having its inner wall flaring at its end of the shank, a supply-pipe extending loosely in the shank and having an enlarged threaded portion [illegible]ding outwardly from the shank, a gasket engaging in the flared end of the shank about the supply pipe, and a coupling member threaded on the end of the shank and having an internal shoulder engaging with the gasket and binding the same in the shank and on the supply pipe, the coupling member having an integral threaded portion extending beyond the said shoulder, and engaging adjustably over the threaded and enlarged portion of the supply pipe.

1,029,553. EMERGENCY-TIRE. DE WITT NELSON, Minneapolis, Minn. Filed Jan. 27, 1908. Serial No. 412,801. (Cl. 152—23.)

1. An emergency tire comprising tire sections having a coupling, means at their ends, said coupling means being connected by partially rotating one of said sections, and means for drawing the coupled sections together.

2. An emergency tire comprising skeleton metallic frames and wooden rim sections secured thereto, said frames having seats for the tire sections and couplings at their ends included within the circumference of said sections, whereby the abutting ends of the sections may be connected together, and means for clamping the tire sections on a rim.

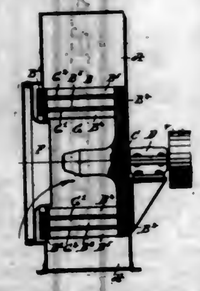
3. An emergency tire comprising metallic frames having seats therein for solid rubber sections, and flanges arranged to grip said sections, wooden rims provided on the opposite side of said frames from said rubber tire sections and means for securing them to said frames, and couplings provided at the abutting ends of said sections and whereby they are joined together, said coupling being united by partially rotating one of said sections.

4. An emergency tire comprising tire sections having eyes and lugs thereon, the eye and lug of one section being adapted to interlock with the corresponding eye and lug of the adjoining section by partially rotating one of said sections, whereby the sections are coupled together, and means for tightening the said sections around a wheel rim.

5. An emergency tire comprising tire sections and means for coupling them together, and means for drawing the said sections around a wheel rim, said means comprising a stud having right and left hand threads thereon, and burs having curved surfaces loosely mounted in said tire sections and having threaded holes to receive said stud.

[Claims 6 and 7 not printed in the Gazette.]

1,029,554. CENTRIFUGAL PUMP OR BLOWER. MAXIMILLIAN NEUMAYER, Cincinnati, Ohio; Clara Neumayer administratrix of said Maximillian Neumayer, deceased. Filed July 24, 1908. Serial No. 445,109. (Cl. 230—11.)



1. A centrifugal pump, blower or like machine, provided with a runner having a single inlet, and a plurality of annular concentric suction chambers entirely within the runner and moving therewith.

2. A centrifugal pump, blower or like machine, having a runner provided with a plurality of concentric suction chambers, of varying capacity entirely within the runner and traveling therewith.

3. A centrifugal pump, blower or like machine, comprising a casing, a runner entirely therein having a plurality of concentric suction chambers within the runner and traveling therewith, and a series of blades in each chamber.

4. A centrifugal pump, blower or like machine, comprising a casing and a runner, the casing having an inlet and an outlet, and the runner having a series of blades, and a plurality of series of suction chambers, the suction chambers alternating with the series of blades, said chambers being entirely within and traveling with the runners.

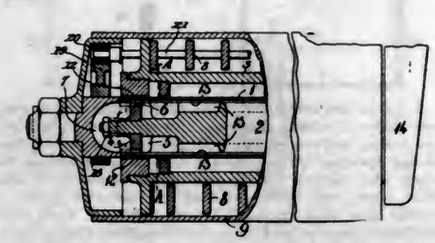
5. A centrifugal pump, blower or like machine, comprising a casing and a runner, the casing having an inlet and an outlet, and the runner having a central suction chamber, an annular series of blades encircling the central suction chamber, one of said series being spaced radially with respect to the other series, whereby to form a suction chamber between the series and concentric with the central suction chamber.

[Claims 6 to 21 not printed in the Gazette.]

1,029,555. VALVE FOR HYDRAULIC BRAKES IN GUNS WITH RECOILING BARRELS. EMIL OLSSON, Bofors, Sweden, assignor to Aktiebolaget Bofors-Gullspång, Bofors, Sweden, a Limited Company. Filed Nov. 12, 1909. Serial No. 527,677. (Cl. 89—43.)

1. A hydraulic brake for artillery guns with recoiling barrel, comprising in combination, a brake cylinder, a hollow piston rod, a controlling rod embraced by the same, means for rotating one of said rods relatively to the other when the elevation of the gun is changed, means for admitting liquid into the hollow piston rod, a valve arranged on the end of said controlling rod embraced by said piston rod and means for guiding said valve in the piston rod so as to change during the counter-recoil, the passage areas for the liquid through the interior of the piston rod in accordance with the mutual angular position of said piston rod and controlling rod.

2. A hydraulic brake for artillery guns with recoiling barrel, comprising in combination, a brake cylinder, a hollow piston rod, a controlling rod embraced by the same, means for rotating one of said rods relatively to the other when the elevation of the gun is changed, means for admitting liquid into the hollow piston rod, a valve member and seat on the end of the controlling rod plunging into the hollow piston rod, said valve member being rotatable and longitudinally movable on the controlling rod, projections on said valve member engaging guiding grooves in the piston rod, and coacting openings in said valve member and seat registering more or less according to the mutual rotation of said piston rod and said controlling rod.



3. A hydraulic brake for artillery guns with recoiling barrel, comprising in combination, a brake cylinder, a hollow piston rod, a controlling rod embraced by the same, means for rotating one of said rods relatively to the other when the elevation of the gun is changed, means for admitting liquid into the hollow piston rod, a valve member and seat on the end of the controlling rod plunging into the hollow piston rod, said valve member being rotatable and longitudinally movable on the controlling rod and guided in the piston rod, openings in said valve member coöperating with openings in the valve seat during the counter-recoil for admitting more or less liquid depending upon the mutual position of the valve member and seat, and additional small openings in the valve member cooperating with the openings in the seat to admit a constant quantity of liquid.

1,029,556. LIGHTING-FIXTURE. JOHN L. PALMER and CHARLES N. WHEELER, Peoria, Ill. Filed Jan. 25, 1911. Serial No. 604,562. (Cl. 240—73.)



1. The combination with a fixture arm having an open end, of a member to close said open end and having an extension to overlie one of the walls of said arm, and means for carrying a lamp having threaded engagement with one of the parts.

2. The combination with a fixture arm having an open end, of a member to close said end and having an extension to overlie one of the walls of the arm, and means extending through said wall and having threaded engagement with the extension to clamp it to said arm.

3. The combination with the hollow arm of a lighting fixture, of a member lying adjacent to and closing said open end, one of the described parts having an extension to overlie the other, and a nipple for carrying a lamp socket adapted to engage one of the parts for clamping both parts together.

4. The combination with an arm having an open end, of a member to close said open end having an extension to enter it and lie upon one of the walls of said arm, and a threaded nipple extending through said wall and secured in said extension.

5. The combination with the hollow arm of a lighting fixture, the same having an open end, of a member to close said open end and having a part to fit into the arm and including an extension to lie upon one of the walls of the latter, and means adapted to pass through said wall in a slidable manner and adapted to be held by said extension.

[Claims 6 and 7 not printed in the Gazette.]

1,029,557. ELECTRIC FIXTURE. JOHN L. PALMER and CHARLES N. WHEELER, Peoria, Ill. Filed May 4, 1911. Serial No. 624,989. (Cl. 240—78.)



1. As a new article of manufacture, a member having an open end and adapted for carrying an electric lamp, and having an opening in one of its walls, a member to close the said open end and having a part to engage the first said member by friction, said part having an extension or nipple adapted to pass freely through and suspended in said opening and adapted to receive a lamp.

2. As a new article of manufacture an arm having an open end and provided with an opening in one of its walls, a member to close said open end and having a part to frictionally engage one of the walls of the arm and provided interiorly of the arm with an extension or nipple adapted to enter said opening of the wall and suspended in and below the same and threaded on its extremity exteriorly of the arm.

3. As a new article of manufacture, an arm having an open end and provided with an opening in one of its walls, a member to close said open end and having a part to frictionally engage the inner wall of the arm and provided interiorly of said arm with an extension or nipple adapted to freely pass into said opening of the wall and suspended in and below the same and adapted to receive a lamp socket.

4. As a new article of manufacture, an arm having an open end and provided with an opening in one of its walls, a member to close said open end and having a part to frictionally engage said arm and also having an extension interiorly of the arm provided with a second extension or nipple to enter the opening of the wall and depending therein, said opening being of larger diameter than the greatest diameter of the nipple, said nipple having provision to hold a lamp socket.

5. As a new article of manufacture, an arm having an open end and provided with an opening in its side, a member to close said open end and having a part to detachably engage the arm by friction and provided with a depending extension or nipple to receive a lamp socket.

[Claims 6 to 12 not printed in the Gazette.]

1,029,558. ELECTRIC FIXTURE. JOHN L. PALMER and CHARLES N. WHEELER, Peoria, Ill. Filed May 4, 1911. Serial No. 624,990. (Cl. 240—78.)



1. As a new article of manufacture, an arm for carrying an electric lamp having an opening in its end and also provided with an opening in its wall, a nipple freely suspended in said opening, and a member to engage said nipple to prevent it from moving.

2. As a new article of manufacture, an arm for carrying an electric lamp having an opening in its end and also provided with an opening in its wall, a nipple freely suspended in said opening, and a closure for the end of the arm having a part to frictionally engage one of the walls of the arm and adapted to engage and hold the nipple.

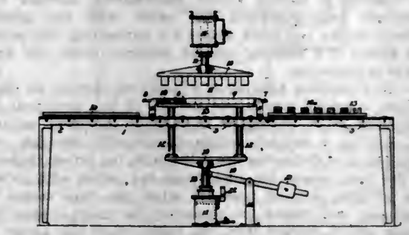
3. As a new article of manufacture, an arm for carrying an electric lamp having a recessed end provided with an opening in its wall, a nipple freely suspended from said arm in said opening, a member frictionally engaging the arm and held in position by such frictional engagement, and having a part to engage the nipple, the latter having a part to engage the member and threaded exteriorly of the arm.

4. As a new article of manufacture, an arm for carrying an electric lamp having a hole in its wall communicating with its interior, a nipple suspended freely in the hole and resting upon the inner wall of the arm, and means in said arm adapted to engage the nipple to prevent it turning within the arm.

5. As a new article of manufacture, a hollow arm for holding an electric lamp having a hole near its outer end, a nipple freely suspended in the hole and having a part to bear upon the inner wall of said arm, and a member to slidably engage the nipple and to prevent it turning.

[Claims 6 to 12 not printed in the Gazette.]

1,029,559. MOLDING APPARATUS. ALBERT A. PAULY, Youngstown, Ohio. Filed Jan. 23, 1911. Serial No. 604,052. (Cl. 25—120.)



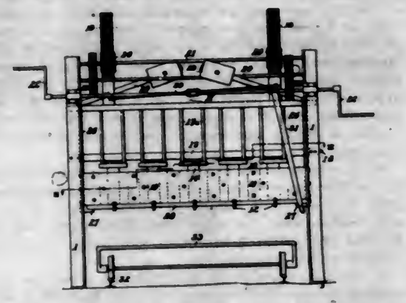
1. A bed having a pair of side rails, a fixed series of parallel rollers supported between the rails, a fixed mold-body supported over the central portion of the bed, a pallet adapted to travel on the rollers and to close the lower ends of mold-spaces in the mold-body, a power actuated support for the pallet arranged below the mold-body and adapted to lift the pallet above the rollers into engagement with the mold-body and to retire below the rollers, and an ejector above the mold body.

2. In a molding machine, a mold-body having an open bottom, a horizontal bed below the same, a pallet adapted to travel on the bed, a cross-head below the bed, pallet-supporting means on the cross-head adapted to engage the pallet and lift it into engagement with the bottom of the mold, means for moving the cross-head upwardly and giving it a yielding upward tendency, and means above the mold-body for pushing molded articles downwardly through the mold-body and delivering the pallet with the molded article thereon to the bed.

1,029,560. MOLDING APPARATUS. ALBERT A. PAULY, Youngstown, Ohio. Filed Oct. 28, 1911. Serial No. 657,243. (Cl. 25—120.)

1. In a molding apparatus, a mold-body having mold-spaces with open lower ends, a pallet to close the bottom of the mold-spaces, an ejecting means to push the molded articles downwardly through the mold-body, a support for the pallet, and means carried by the ejecting means having a yielding upward tendency and for holding the said support against the pallet during the ejection of the articles.

2. In a molding apparatus, a mold-body having mold-spaces with open lower ends, a pallet to close the bottom of the mold-spaces, an ejecting means to push the molded articles downwardly through the mold-body, a support for the pallet, and means for giving a downward movement to the support independently of the ejecting means at the close of the ejecting operation.

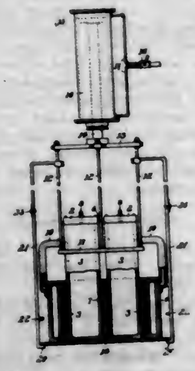


3. In a molding apparatus, a mold-body having an open bottom, a pallet having a yielding upward tendency, a conveyer below the pallet and spaced therefrom, and means for pushing a molded article downwardly through the mold-body and against the yieldable pallet until the pallet rests on the conveyer.

4. In a molding apparatus, a mold-body having an open bottom, a pallet closing the bottom of the mold-body, a pallet-rest below the pallet and spaced therefrom, means for ejecting a molded article downwardly through the mold-body and delivering the pallet with the article thereon to the rest, and means for supporting the pallet and giving it a yielding upward tendency while the first means is operating.

5. In a molding apparatus, a mold-body having an open bottom, a pallet closing the bottom of the mold-body, a pallet-rest below the pallet and spaced therefrom, means for ejecting a molded article downwardly through the mold-body and delivering the pallet with the article thereon to the rest, means for supporting the pallet and giving it a yielding upward tendency while the first means is operating, and means for removing the pallet-supporting means out of contact with the pallet when the pallet is lowered upon the said rest.

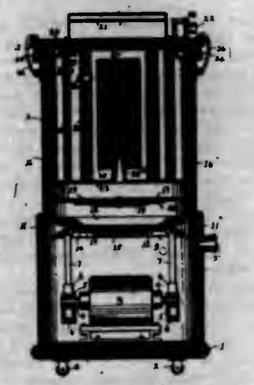
1,029,561. MOLDING APPARATUS. ALBERT A. l'AULY, Youngstown, Ohio. Filed May 19, 1910, Serial No. 562,222. Renewed Jan. 11, 1912. Serial No. 670,726. (Cl. 25—41.)



1. In a molding apparatus, a mold-support, a vertical hollow core suspended therefrom, a hollow vertical mold-body surrounding the lower end of the core, an ejector having travel above the mold-body to permit the mold to be filled and having travel between the core and mold body to eject the molded article, pipes connecting the hollows of the core and mold-body and supporting the latter, and means to supply a heated fluid to the said core and mold-body.

2. In a molding apparatus, a vertical mold-body, a plate to close the bottom of the same, an ejector normally above the mold-body and adapted to push the molded article downwardly, vertical supports connected to move simultaneously with said ejector, a pair of plate-engaging lugs on each support, the lower members of each pair arranged to support the plate during the molding action and the upper lugs arranged to receive a plate when the ejector begins its ejecting operation.

1,029,562. DUST-COLLECTOR FOR VACUUM-CLEANERS. FRANK S. R. PRENTISS, San Francisco, Cal. Filed June 2, 1911. Serial No. 630,866. (Cl. 83—47.)



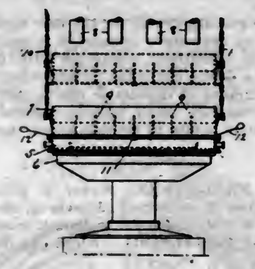
1. In a dust collector for vacuum cleaners, a pan having a plurality of compartments therein and open at the top, a cover for said pan, means to make same substantially air tight, and a joint at the top wall of each of said compartments, an air inlet pipe in said cover and adjacent the outer wall of said pan, said pan having openings from one compartment to another; an outlet pipe in the central compartment and a dust filter secured on said outlet pipe, substantially as described.

2. In a dust collector for vacuum cleaners, a pan having a plurality of compartments therein, said pan having openings from one compartment to another, means whereby the air passing from one compartment to another will be directed around the several compartments, a cover having means to make a substantially air tight joint with each of said compartments, an air inlet pipe through said cover and adjacent the outer wall of said pan, an air outlet pipe in the inner compartment and a dust filter supported upon said air outlet pipe, substantially as described.

1,029,563. MOLDING APPARATUS. ROBERT R. RUST, New York, N. Y. Filed May 29, 1911. Serial No. 630,018. (Cl. 22—45.)

1. An improved mold packing apparatus which comprises a hopper flask adapted to be superposed upon a mold flask during charging and jolting, in combination with rigid retaining bars arranged within said hopper flask serving to prevent rebound of the sand in the mold flask and to sustain any excess of sand over that required for the mold upon the separation of the hopper and mold flasks.

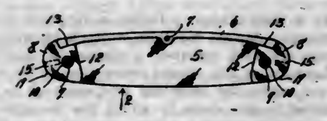
2. An improved mold packing apparatus which comprises a hopper flask adapted to be superposed upon a mold flask during charging and jolting, in combination with rigid retaining bars arranged within said hopper flask, adjacent its parting face, said bars serving to prevent rebound of the sand in the mold flask and to sustain any excess of sand over that required for the mold upon the separation of the hopper and mold flasks.



3. An improved mold packing apparatus which comprises a hopper flask adapted to be superposed upon a mold flask during charging and jolting, in combination with a grid of retaining bars of various heights arranged within said hopper flask with their lower faces lying in substantially the same plane adjacent the parting face of the hopper flask, said bars serving to prevent rebound of the sand in the mold flask and to sustain any excess of sand over that required for the mold upon the separation of the hopper and mold flasks, substantially as described.

4. An improved mold packing apparatus which comprises a hopper flask adapted to be superposed upon a mold flask during charging and jolting, in combination with a grid of retaining bars arranged in said hopper, said bars having sufficient vertical height to insure the packing of the hopper sand between the same so that they serve not only to retain any excess of sand over that required for the mold upon the separation of the hopper and mold flasks, but also serve to prevent the rebound of the sand in the flask during jolting.

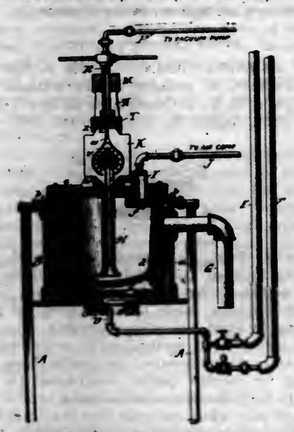
1,029,564. POCKET-KNIFE. JOSEPH V. WECKBAUGH, Denver, Colo. Filed Dec. 27, 1910. Serial No. 599,436. (Cl. 30—10.)



1. A handle for pocket knives equipped with a main spring and a removable false tang fitted into the end of the handle and pivoted to take the place of a blade tang, which may be substituted for the false tang, the latter being shaped to exactly fill the tang end of the handle when in a position corresponding with the open position of the blade, the said false tang having three faces, the first and second of which are shaped to respectively engage the spring when in positions corresponding with the open and intermediate positions of a blade, the second face of the false tang being nearer the pivot than the first face, whereby the false tang is relieved from tension when the second face is adjacent to the spring, the tang, however, at such time being prevented from assuming either of the positions corresponding with the open or closed positions of a real blade without placing the spring under tension, the third face being flush with the exterior surface of the end of the handle when the tang is in position corresponding to the open position of the blade.

2. A knife blade provided with a main spring and a removable false tang pivoted to take the place of a blade tang and provided with three faces, the first of which is engaged by the said spring to place the tang under tension when the tang is in the position corresponding with the open position of a blade, the third face at the same time being flush with the outer surface of the end of the handle, the second face being nearer the pivot than the first face whereby the tang is relieved from tension when in a position corresponding to the position of a blade when intermediate the open and closed positions, the second face, however, when in the last-named position being shaped to conform approximately to the adjacent surface of the spring whereby the turning of the tang upon its pivot in either direction places the spring under tension.

1,029,565. PNEUMATIC CASTING APPARATUS. SAMUEL PRICE WETHERILL, Jr., and JOHN PRICE WETHERILL, Jr., Philadelphia, Pa., assignors, by direct and mesne assignments, to Wetherill Finished Castings Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 8, 1906, Serial No. 333,817. Renewed Nov. 3, 1911. Serial No. 658,419. (Cl. 22—69.)



1. A casting apparatus, comprising a melting pot adapted to serve as a containing reservoir for the molten casting metal, an air-tight cover for the pot, a dip-pipe depending from and removable through the cover and whose lower end opens near the bottom of the pot, a casting mold separate from the cover and having a gate in alinement with the upper end of the dip-pipe, and means for transferring the molten casting metal from the melting pot into the mold; substantially as described.

2. A casting apparatus, comprising a melting pot adapted to serve as a containing reservoir for the molten casting metal, an air-tight cover for the pot, a dip-pipe depending from and removable through the cover and whose lower end opens near the bottom of the pot, a casting mold separate from the cover and having a gate in alinement with the upper end of the dip-pipe, and a fluid pressure conduit opening into the pot above level of the casting metal therein; substantially as described.

3. A casting apparatus, comprising a melting pot adapted to serve as a containing reservoir for the molten casting metal, an air-tight cover for the pot, a dip-pipe depending from and removable through the cover and whose lower end opens near the bottom of the pot, a casting mold separate from the cover and having a gate in alinement with the upper end of the dip-pipe, and a fluid pressure conduit opening into the pot above the level of the casting metal therein, and having a side delivery, thereby avoiding penetration of the entering air jet or jets into the metal; substantially as described.

4. A casting apparatus, comprising a melting pot adapted to serve as a containing reservoir for the molten casting metal, an air-tight cover for the pot, a dip-pipe depending from the cover and whose lower end opens near the bottom of the pot, a casting mold having a gate in alinement with the upper end of the dip-pipe, means for releasably holding the mold in place, means for directing a heating flame upon the upper open end of the dip-pipe when the mold is not in place, and a fluid pressure conduit opening into the pot

above the level of the casting metal therein; substantially as described.

5. A casting apparatus, comprising a melting pot adapted to serve as a containing reservoir for the molten casting metal, an air-tight cover for the pot, a dip-pipe depending from the cover and whose lower end opens near the bottom of the pot, a casting mold having a gate in alinement with the upper end of the dip-pipe, means for releasably holding the mold in place, means for directing a heating flame upon the upper end of the dip-pipe when the mold is not in place, said means consisting of an air pipe and a gas pipe discharging into a mixing chamber from which extends a burner pipe, the said air and gas pipes being mounted to swing into and out of position, and a fluid pressure conduit opening into the pot above the level of the casting metal therein; substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,029,566. CARRIER-CHAIN. GEORGE S. WITHAM, Jr., Hudson Falls, N. Y., assignor to The Witham Company, Hudson Falls, N. Y., a Corporation of New York. Filed Aug. 22, 1910. Serial No. 578,267. (Cl. 193—2.)



1. A carrier chain, made up of a series of individual links, having inclined side wings merging into a trough-like closed bottom; substantially as described.

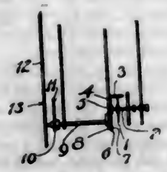
2. A carrier chain, made up of a series of individual links, having inclined side wings merging into a trough-like closed bottom, and vertical webs underlying the side wings and supporting the same; substantially as described.

3. A link for carrier chains, comprising an upper receiving main body portion constituting a cradle or trough with inclined side wings merging into the trough-like bottom at substantially the central upper surface thereof so as to center along the middle portion of the link the material to be conveyed, a subjacent forwardly extending cross-bar at one end of the link, and a subjacent bar-engaging boss at the other end of the link.

4. A link for carrier chains comprising a body presenting a trough-like surface, upwardly inclined side wings merging into said surface and extending laterally beyond the body at opposite sides of the latter, and transverse vertical webs interposed between the lateral portions of the body and the under surfaces of the respective side wings; substantially as described.

5. A carrier chain, made up of a series of individual links, having inclined side wings merging into a trough-like bottom, a forwardly-projecting cross-bar at one end, and a boss at the other end, said boss having a hollow interior and a longitudinal slot opening into said interior and being furthermore separated from the sides of the link by intervening recesses; substantially as described.

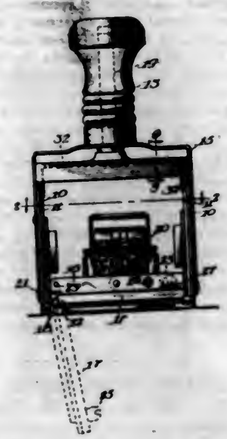
1,029,567. REGULATING APPARATUS FOR TIME-PIECES. FRANK R. ALFORD, Winsted, Conn., assignor to Wm. L. Gilbert Clock Company, Winsted, Conn., a Corporation of Connecticut. Filed Dec. 30, 1911. Serial No. 668,664. (Cl. 58—109.)



1. In a regulating device for the hair-spring of a time-piece, an arm operatively connected to said hair-spring, a shaft having a different axis of motion from said arm and operatively connected thereto, a device connected to said shaft and furnishing a plurality of engageable points and a cover plate having a relatively small opening therein adjacent to said engageable points to furnish access thereto.

2. In a regulating device for the hair spring of a time-piece, an arm operatively connected to said hair spring, a crank arm operatively connected with the first mentioned arm, a device connected to said crank arm and furnishing a plurality of engageable points, and a cover plate having a relatively small opening therein adjacent to said engageable points to furnish access thereto.

1,029,568. HAND-STAMP. HARRY S. FOLGER, Chicago, Ill., and ASA M. COMSTOCK, Muskegon, Mich., assignors to Harry S. Folger and Oscar Romel, trustees, Chicago, Ill. Filed July 31, 1911. Serial No. 641,435. (Cl. 101—70.)



1. In a hand stamp, a frame, a die-plate consisting of two channels hinged together, a catch by which the two channels are held together, a spring for moving one of the channels on the hinged connection so as to separate the two, means for releasing said catch so as to permit the spring to act, cams by which the die-plate is turned for inking and printing, pivots upon which said cams are supported, and a pad-holding box supported in the upper part of the frame and having ears which cover and protect the pivots, said ears being resilient for the purpose of holding said box in position.

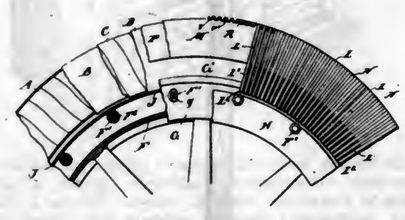
2. The combination with the frame of a hand stamp, and cams pivoted thereto, of a pad-holding box supported in the upper part of the frame and having ears which cover and protect the pivoted supports of said cams, said ears being resilient for the purpose of holding said box in position.

3. In a hand stamp, the combination with two channels secured together by a hinge at one end and a catch at the other, of a spring for raising one of said channels when the catch is released, and a stop for limiting the movement of the raised channel under the action of said spring.

4. In a hand stamp, two channels having their backs together, a hinge by which the channels are secured together at one end, springs secured to the flanges of one channel, catches on the other channel adapted to engage said springs so as to hold the free ends of the channels together, and means for releasing said springs from said catches.

5. In a hand stamp, two channels having their backs together, a hinge connection between the channels, springs secured to the flanges of one channel, catches on the other channel for engaging said springs to hold the channels together, push buttons by which said springs are released from said catches, and an elevating spring for separating the channels when the first named springs are released from the catches.

1,029,569. VEHICLE-TIRE. AUGUST KLEINATLAND, Paterson, N. J., assignor to Atlantic Punctureless Tire Co., Paterson, N. J., a Corporation of New Jersey. Filed Apr. 8, 1911. Serial No. 619,696. (Cl. 152—8.)

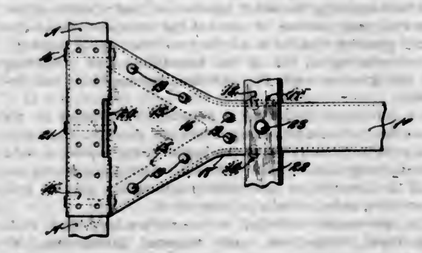


1. A tire, a rim, segmental plates on each side of said rim, each having a flange folded upon itself, a series of semicircular loops of metal covering the tread portion of said tire, each of said loops separated from the next, a layer of fabric on the inner faces of said loops, rubber in the spaces between said loops and vulcanized to the latter and to said fabric, hooks on the ends of said loops constructed to engage said flanges, and a non-conductor of heat arranged in the form of an annular layer between said fabric and tire.

2. A tire, a rim, segmental plates on each side of said rim, each having a flange folded upon itself, a series of semicircular loops of metal covering the tread portion of said tire, a ribbon of corrugated metal located on the peripheral line of said loops and separating each from the next, a layer of fabric on the inner faces of said loops, rubber in the spaces between said loops and vulcanized to the latter and to said fabric and ribbon, and hooks on the ends of said loops constructed to engage said flanges.

3. A tire, a rim, segmental plates on each side of said rim, each having a flange folded upon itself, bolts extending across said rim and connecting said plates, an annular plate supported by said bolts and carrying said tire, a series of semicircular loops of metal covering the tread portion of said tire, each of said loops separated from the next, a layer of fabric on the inner faces of said loops and vulcanized to the latter, hooks on the ends of said loops constructed to engage said flanges and non-conducting material interposed between said fabric and tire.

1,029,570. CARLINE. WILLIAM MILLER, St. Louis, Mo., assignor to Standard Railway Equipment Company, East St. Louis, Ill., a Corporation of Illinois. Filed Feb. 26, 1912. Serial No. 679,881. (Cl. 108—5.)



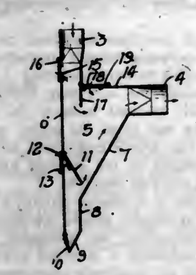
1. A sectional carline comprising a flanged body member having bifurcated ends adapted to be secured to the side plates of a car and separate end members secured flatwise to said bifurcated ends respectively, each end member consisting of a wide-spreading gusset plate having a saddle portion adapted to fit over the side plate of the car.

2. A metal carline comprising a channel member spread at the ends, and gusset plates secured flatwise against the outer surface of the respective spread ends of said channel member, and having marginal flanges embracing the flanges of said channel member back of the spread of the ends thereof, each of said gusset plates widening toward the end of said channel member and having a saddle portion adapted to fit over the adjacent side plate of the car.

3. A metal carline comprising a channel member whose web extends horizontally, the end portions of the web of said channel being bent downward, and a gusset plate secured flatwise to the web portion of said channel member near its ends, the side marginal portions of said gusset plates adjacent to the inner ends of said gusset plates being flanged and secured to the flanges of said channel member, said gusset plates widening toward the ends of said channel member and having saddle portions adapted to fit over the side plates of the car and down-turned portions adapted to be secured to the inner faces of said side plates.

4. A metal carline comprising a channel member whose flanges extend vertically, the end portions of said channel member being slitted longitudinally and the severed portions spread apart, the ends of said severed portions being turned downward, and a gusset plate secured to the web portion of said channel member near the slits, the side marginal portions of said gusset plate adjacent to their inner ends being flanged and secured to the flanges of said channel member, said gusset plates widening toward the ends of said channel members and having saddle portions adapted to fit over the side plates and downturned portions adapted to be secured to the inner faces of said side plates.

1,029,571. SEPARATOR. HENRY L. DAY, Minneapolis, Minn. Filed Dec. 7, 1908. Serial No. 466,295. (Cl. 130—17.)

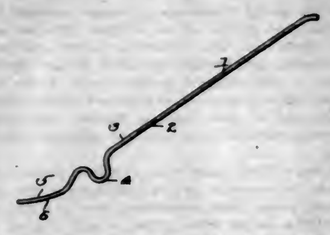


In a dust-collecting system, a separator having at its upper end an inlet, and provided with an expansion chamber below said inlet and having a closed pocket at its lower end, an automatically closing door for permitting the escape of material from said pocket, a wall inclining upwardly from the pocket toward a discharge exit at the upper portion of the expansion chamber, the opposite wall of the expansion chamber being provided with an upper inlet opening in proximity to said discharge exit and an independent inlet opening near the lower portion of the expansion chamber, and a deflector disposed over said last-named inlet opening, substantially as described.

1,029,572. ERASER-TOOL. WELLINGTON L. SIEGEL, Wilkes-Barre, Pa. Filed Aug. 12, 1911. Serial No. 643,747. (Cl. 120—35.)

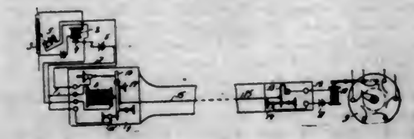
An eraser tool comprising a handle portion, a shank carried by one end of the handle portion, said shank being widened and bent into a bow portion to form a burnisher,

and a longitudinally curved eraser portion integrally connected to said bow portion by a compound curve, the



underside of said eraser portion being serrated to form a plurality of parallel cutting teeth.

1,029,573. WIRELESS-CONTROLLED CURRENT-DISTRIBUTER. CHRISTOPH WIRTH, Nuremberg, Germany, assignor to The Firm of Wirth, Beck & Knauss, Nuremberg, Germany. Filed Aug. 23, 1911. Serial No. 645,590. (Cl. 178—319.)



1. The combination of a coherer circuit including an electro-magnet, a second circuit controlled by the electro-magnet and itself containing an electro-magnet, a decoherer circuit including an armature operated by the second electro-magnet, a distributer controlling circuit including a make and break device, a traction element connected with the make and break device, and means on the armature for adjustably connecting the traction element therewith whereby the armature controls the make and break device.

2. In a system of the class described, the combination of a distributer operating circuit including a movable and a fixed contact, a circuit including a movable and a fixed contact, means for operating the last-mentioned contact, a connecting element between the movable contacts and insulating one from the other, and a winding device carried by the second-mentioned movable contact for changing the length of the element and thereby the relation of the two movable contacts.

3. The combination of a coherer circuit, a decoherer circuit including an armature, means controlled by the coherer circuit for operating the armature, a distributer operating circuit including a movable contact having a flexible member, and an insulating connection between the flexible member and armature whereby the armature operates the movable contact to close the distributer circuit before the armature closes the decoherer circuit.

4. The combination of a coherer circuit, a decoherer circuit including an armature, means controlled by the coherer circuit for operating the armature, a distributer operating circuit including a movable contact having a flexible member, an insulating connection between the flexible member and armature whereby the armature operates the movable contact to close the distributer circuit before the armature closes the decoherer circuit, and an adjusting means on the armature for attaching the said insulating connection therewith and for adjusting the relation of the said movable contact and armature.

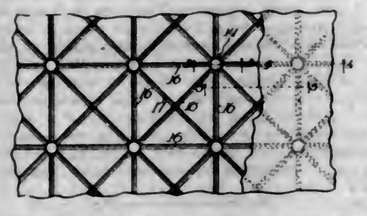
1,029,574. WIRE NAIL. STUART E. BELL, Los Angeles, Cal. Filed Dec. 8, 1909. Serial No. 531,960. (Cl. 85—10.)

A nail having a body and a head, said body from its center toward the head of the nail being of oval contour and having its short axis increasing in length from the center of the body toward the head of the nail, and the long axis decreasing in length from the center of the body toward the head, the maximum length of the short axis toward the head of the nail being equal to the minimum length of the long axis at the medial portion of the nail, and the long axis decreasing in length from the center of the body toward the point of the nail, and terminating in inclined oppositely disposed surfaces extending from the



center of the body toward the point and converging toward one another and of a less length than the oval portion of the body, and said shorter axis increasing in length from the center of the body toward the point whereby in the driving of the nail an oval opening is formed the longer axis of which is changed to the shorter axis upon the completion of the driving operation, whereby to securely hold the nail in position and prevent splitting of the material in the driving operation of the nail.

1,029,575. PAVEMENT. RUDOLPH S. BLOME and WILLIAM J. SINEK, Chicago, Ill., assignors to Rudolph S. Blome Company, Chicago, Ill., a Partnership. Filed July 13, 1911. Serial No. 638,340. (Cl. 94—1.)

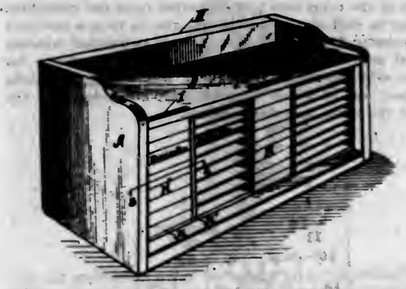


1. A pavement including a foundation provided with longitudinal parallel grooves extending throughout the length of the pavement, transverse parallel grooves extending the entire width of the pavement, diagonal parallel grooves extending throughout the width of the pavement and crossing the other grooves at their points of intersection, and cavities at each of the intersections of the several grooves, the walls of such cavities being vertical, and a surfacing on top of the foundation and extending into the grooves and the cavities, substantially as described.

2. A pavement including a foundation provided on its top surface with intersecting V-shaped grooves, and cavities at the intersections of the grooves, the walls of said cavities being substantially vertical, and a surfacing on top of the foundation and extending into the grooves and the cavities, substantially as described.

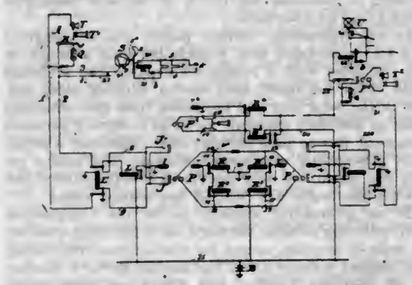
3. A pavement including a foundation provided with longitudinal, transverse, and diagonal intersecting V-shaped grooves, and cavities at the intersections of the grooves, the walls of such cavities being substantially vertical, and a surfacing on top of the foundation and extending into the grooves and the cavities, substantially as described.

1,029,576. CABINET FOR HOLDING MANIFOLDING DEVICES. CHARLES W. BYHAM, Warren, Ohio. Filed Apr. 2, 1912. Serial No. 688,070. (Cl. 45—2.)



A cabinet for holding manifolding account devices comprising a casing, partitioned compartments mounted therein, a stop for limiting the inner movements of said compartments and allowing a space intermediate the inner end thereof and the rear wall of the casing, a top with a space intermediate the inner edge thereof and the rear wall of the cabinet, said top projecting over the forward ends of the compartments and provided with slots in said projecting portion, card receiving receptacles in registration with said slots and adapted to hold identification cards, as set forth.

1,029,577. TELEPHONE-EXCHANGE SYSTEM. EDWARD E. CLEMENT, Washington, D. C. Filed Mar. 3, 1905. Serial No. 248,306. (Cl. 179—5.)



1. In a combined telephone and fire-alarm system, a plurality of subscribers' stations and a central station, a telephone set at each sub-station and means for interconnecting the lines at the central office, a fire-alarm station, telegraphic receiving apparatus thereat, a line-circuit extending therefrom to the central office and there provided with a line-terminal similar to those of subscribers' lines, means at a subscriber's station to send a telegraphic signal over the line-circuit to central, and special means controlled by an operator to connect the alarm station line with said subscriber's station line, whereby the subscriber may transmit a telegraphic signal direct to the alarm station.

2. In a combined telephone and signaling system, a plurality of subscribers' stations, a central station, line-circuits extending from the sub-stations to the central station and having connection terminals thereat, means to transmit signals over a subscriber's line, a signal receiving station having a line-circuit extending to the central station with a connection terminal thereat, operator's connective circuits for interconnecting the various line-terminals, and special terminal means for the line from the signal receiving station, apart from the regular connection terminals, adapted to connect said line direct with the terminals of the subscribers' lines.

3. In a combined signal and telephone system, a plurality of subscribers' lines having sub-station telephone sets and signal devices, a central office switchboard and terminals for the lines thereon, coöperating operators' terminals for interconnecting the same, a common alarm receiving station and line also provided with a switchboard terminal similar to the line-terminals, whereby it may be connected to other lines in the ordinary manner, and a special terminal device for said alarm receiving line controlled by an operator and adapted to coöperate directly with the subscribers' line-terminals.

4. In a combined telephone and signaling system, a central telephone exchange and a signal receiving headquarters, a plurality of subscribers' stations and line circuits extending therefrom to the telephone exchange, with terminal jacks therefor, operators' cord circuits and plugs for interconnecting said jacks, a line circuit extending from signal headquarters to the telephone exchange and also provided thereat with a jack, and a special plug terminal for said signal line adapted to connect the same direct to any calling subscribers' jack.

5. In an electrical signaling system, a substation comprising the following instrumentalities: a signal train and make-and-break devices governed thereby to send a code signal, a detent for said train normally restraining the same, circuit connections extending thereto and having an extension or branch, with initial or primary controlling means for said branch normally maintaining the same open, additional means operable from without the substation for releasing the code-signal train, a central station signal arranged to be operated by said signal train on the closure of said branch and an auxiliary station signal arranged to be operated by said signal train when the latter is released.

[Claims 6 to 9 not printed in the Gazette.]

1,029,578. TOOL FOR REMOVING SEALS. JOHN J. FERRALL and EDMUND MACKAY, New York, N. Y. Filed Apr. 11, 1911. Serial No. 620,403. (Cl. 81—3.)



1. A tool of the character described, comprising a handle, a head at one end thereof, a plurality of parallel longitudinal tines extending from said head, and a reinforcement for one of said tines arranged, partly upon said tine and partly upon said head, and the outer of said tines extending downwardly and forwardly parallel with, but below, said intermediate reinforced tine, substantially as specified.

2. A tool of the character described, comprising a handle, a head at one end thereof, a plurality of parallel longitudinal tines extending from said head, a reinforcement struck up from one of said tines and arranged partly upon said tine and partly upon said head and having its inner end bifurcated; and the tines arranged at the sides of said reinforced tine extending downwardly and forwardly parallel with, but below said reinforced tine, and a longitudinal reinforcement struck up from said handle portion having its lower end disposed intermediate the bifurcated end of the reinforcement first named, substantially as specified.

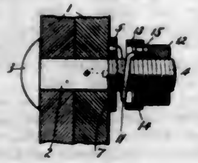
1,029,579. METHOD OF SEPARATING SUBSTANCES IN SUSPENSION BY WASHING. BOTHO SCHWERIN, Frankfort-on-the-Main, Germany. Filed Aug. 29, 1911. Serial No. 646,746. (Cl. 83—84.)

The herein described method of separating substances held in suspension in liquid, which consists in adding to the liquid containing a plurality of solids in mechanical suspension, a strongly non-neutral colloidal body, and an

electrolyte capable of neutralizing the electrical condition of the substance absorbing the colloidal body, whereby said substance will be caused to remain in a condition of suspension while another substance separates therefrom.

REISSUES.

13,425. NUT-LOCK. CHARLES C. BLOSSOM, Wickford, R. I. Filed Mar. 22, 1911. Serial No. 616,284. Original No. 950,629, dated Mar. 1, 1910, Serial No. 402,021. (Cl. 151—13.)



1. The combination with a threaded bolt of a threaded nut provided with rounded notches and having a hole adapted to receive the end of a pawl, a washer provided with rounded notches and having also a hole adapted to receive the end of said pawl, a reversible spring pawl, one end of which is adapted to be interchangeably fastened in the hole in the nut or the hole in the washer, as desired, and means to prevent said washer from turning.

2. The combination with a threaded bolt of a threaded nut, a flange on the nut, rounded notches on the nut within the flange, a washer having rounded notches, a reversible spring pawl, one end of which is adapted to be interchangeably fastened to the nut or to the washer, as desired, and means to prevent the washer from turning.

3. The combination of a threaded bolt having a groove which cross-cuts the threads, but does not entirely remove them, a washer having a lug adapted to enter the groove in the bolt and having also rounded notches, a threaded nut having rounded notches, a pawl interposed between the nut and the washer, and means whereby the pawl may be interchangeably attached to either the nut or the washer, so as to engage with the notches upon the other of said parts and prevent the nut from turning.

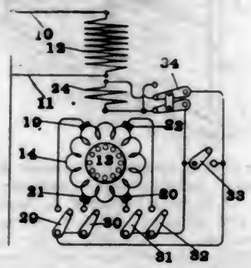
4. The combination of a threaded bolt, a washer having means to prevent turning upon the bolt and having also rounded notches, a threaded nut having rounded notches, a pawl interposed between the nut and the washer, and means whereby the pawl may be interchangeably attached to either the nut or the washer so as to engage with the notches upon the other of said parts and prevent the nut from turning.

13,426. ALTERNATING-CURRENT MOTOR. VALÈRE ALFRED FYNN, St. Louis, Mo. Filed Apr. 8, 1912. Serial No. 689,435. Original No. 967,362, dated Aug. 16, 1910, Serial No. 494,905. (Cl. 172—276.)

1. In an alternating current motor, the combination with a stator provided with a main inducing winding, of a rotor provided with a commuted winding and a second winding closed on itself, a magnetic shunt forming a pathway for magnetic flux to link with said commuted winding without linking with said second winding, and means for directing the flow of current in said commuted winding along two axes.

2. In an alternating current motor, the combination with a stator provided with a main inducing winding, of a rotor provided with a commuted winding and a second winding closed on itself, said second winding being embedded in the rotor core and separated from the commuted winding by sufficient magnetic material to form a pathway for magnetic flux to pass through said commuted winding without penetrating said second winding and means for closing said commuted winding by way of brushes along two axes.

3. In an alternating current motor, the combination with a stator provided with a main inducing winding, of a rotor provided with a commuted winding and a second winding closed on itself, said second winding being embedded in the rotor core and separated from the commuted winding by sufficient magnetic material to form a pathway for magnetic flux to pass through said commuted winding without penetrating said second winding, and means for closing said commuted winding by way of brushes along two axes, one of which approximately coincides with the axis of the main inducing winding.



4. In an alternating current motor, the combination with a stator provided with a main inducing winding, of a rotor provided with a commuted winding and a second winding closed on itself, said second winding being embedded in the rotor core and separated from the commuted winding by sufficient magnetic material to form a pathway for magnetic flux to pass through said commuted winding without penetrating said second winding, means for closing said commuted winding along one axis and means for impressing a compensating E. M. F. on said commuted winding along another axis.

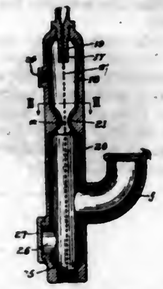
5. In an alternating current motor, the combination with a stator provided with a main inducing winding, of a rotor provided with a commuted winding and a second winding closed on itself, said second winding being embedded in the rotor core and separated from the commuted winding by sufficient magnetic material to form a pathway for magnetic flux to pass through said commuted winding without penetrating said second winding, and means for closing the circuit of said commuted winding along two axes when the motor has reached any desired speed.

6. In an alternating current motor, the combination with an inducing member having a main inducing winding, of an induced member, means for conductively impressing on the induced member along one axis an E. M. F. derived from the inducing member, and means for conductively impressing the same E. M. F. on the induced member along another axis displaced by substantially 180/n degrees from the axis of the main inducing winding after the motor has reached a sufficient speed.

7. In an alternating current motor, the combination with an induced member, of an inducing member having a main inducing winding and an auxiliary winding, means for connecting the auxiliary winding to the induced member along one axis at starting and means for connecting said winding to the induced member along another axis displaced by substantially 180/n degrees from the axis of the main inducing winding when a desired speed has been attained.

13,427. VACUUM CLEANING APPARATUS. GEORGE W. MACKENZIE, Ben Avon, Pa., assignor to The Hydraulic Vacuum Cleaning Company, Pittsburgh, Pa., a Corporation of Delaware. Filed May 3, 1912. Serial No. 694,962. Original No. 999,325, dated Aug. 1, 1911, Serial No. 577,109. (Cl. 230—13.)

1. An aspirating pump consisting of a cylindrical hollow chamber provided with an annular restriction, a fluid inlet jet at one end of said chamber having a reduced aperture, a waste connection at the other end of the chamber beyond the said restriction, and a lateral air suction connection between the waste connection and said restriction, substantially as set forth.



2. An aspirating pump consisting of a cylindrical hollow chamber provided with an annular restriction, a fluid inlet jet at one end of said chamber having a reduced aperture, an air port opening to the interior of the chamber between the annular restriction and the fluid inlet jet, a waste connection at the other end of the chamber beyond the said restriction, and a lateral air suction connection between the waste connection and said restriction, substantially as set forth.

3. An aspirating pump consisting of a cylindrical hollow chamber provided with an annular restriction, a fluid inlet jet at one end of said chamber having a reduced aperture, a valve-controlled air port opening to the interior of the chamber between the annular restriction and the fluid inlet jet, a waste connection at the other end of the chamber beyond the said restriction, and a lateral air suction connection between the waste connection and said restriction, substantially as set forth.

4. An aspirating pump consisting of a cylindrical hollow chamber provided with an annular restriction, a fluid inlet jet at one end of said chamber having a reduced aperture, a waste connection at the other end of the chamber beyond the said restriction, a covered opening leading into the chamber near its waste connection, and a lateral air suction connection between the waste connection and said restriction, substantially as set forth.

5. An aspirator consisting of a vacuum chamber provided with an annular restriction, a fluid inlet jet at one end of said chamber, an outlet opening at the other end of the chamber beyond said restriction, and a lateral air suction connection between the outlet opening and said restriction.

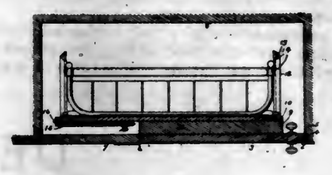
6. In an aspirator, the combination of a casing embodying a vacuum chamber and a suction chamber having a reduced intervening communicating opening, a jet nozzle extending into the vacuum chamber, and an air connection opening into the suction chamber.

7. In an aspirator, the combination of a casing embodying a vacuum chamber provided with an air inlet valve and a suction chamber having an air connection and a waste delivery opening, said chambers being connected by a restricted communicating opening, and a jet nozzle extending into the vacuum chamber.

8. An aspirator consisting of a casing provided with a vacuum chamber and a suction chamber communicating therewith through an intervening restricted opening and having an air inlet opening and a waste delivery opening, and a jet nozzle extending into the vacuum chamber and adapted to pass a column of water through the vacuum chamber, restricted opening, and suction chamber.

9. A casing embodying a vacuum chamber, a restricted opening, and a suction chamber in longitudinal alinement, said suction chamber having a lateral air inlet opening and an endmost delivery opening, and a jet nozzle extending into the end of the vacuum chamber in alinement with the restricted opening and adapted to propel a stream of water therethrough having an exterior adapted to substantially close the restricted opening and to exhaust the air from the vacuum chamber.

13,428. DISAPPEARING BED. WILLIAM L. MURPHY, San Francisco, Cal., assignor to Murphy Wall Bed Company, San Francisco, Cal., a Corporation of California. Filed Apr. 25, 1912. Serial No. 693,266. Original No. 1,007,596, dated Oct. 31, 1911, Serial No. 600,496. (Cl. 5—18.)



1. In combination, a receptacle, a door swinging on a vertical pivot to close the receptacle, a bedstead wider than said door mounted on said door and means on said bedstead for closing said receptacle when the door is open.

2. In combination, a receptacle, a door hinged at one side to the receptacle, a bedstead wider than said door, mounted on said door so that when the door is closed the bedstead extends beyond the hinged side of said door.

3. In combination with a receptacle, a door, hinges whereby said door can swing horizontally to close said receptacle, said receptacle being of greater width than said door, and being extended past the hinges of the door, a spacing device secured to said door, and a bed secured to said spacing device and extending beyond the spacing device and the door, substantially as described.

4. In combination with a door, a bed secured thereon extending past the hinged side of said door, and a supplementary door movably connected to the bed and arranged to completely close the doorway when the main door is fully opened, substantially as described.

5. In combination with a door, a bed secured thereon, extending past the hinged side of said door, and a supplementary door movably connected to the bed and arranged to completely close the doorway when the main door is fully opened, and having a latch adapted to engage the keeper of the latch of the main door, substantially as described.

6. In combination with a receptacle having a hinged door, said receptacle being of greater width than said door, and being extended past the hinges of said door, a bed secured to said door and having a portion arranged when the door is closed to enter said extended portion of the receptacle, and a supplementary door movably connected to the bed and arranged to completely close the doorway, substantially as described.

7. In combination with a receptacle having a hinged door, said receptacle being of greater width than said door, and being extended past the hinges of said door, a bed secured to said door and having a portion arranged when the door is closed to enter said extended portion of the receptacle, and a supplementary door movably connected to the bed and arranged, when the main door is fully opened, to completely close the doorway, and having a latch adapted to engage the keeper of the latch of the main door, substantially as described.

8. In combination with a door, a bed secured thereon, extending past the hinged side of said door, and a supplementary door movably connected to the bed and arranged when the main door is fully opened to completely close the doorway, and a spring for normally opening said supplementary door, substantially as described.

9. In combiantion with a wall having an opening, a bed of greater width than said opening, and pivotal means for connecting the wall, at one vertical side of said opening, and the bed whereby, in the horizontal movement of the bed through said opening on said pivotal connections, different portions of the bed swing therethrough at different times.

10. In combination with a wall having an opening, a bed

of greater width than said opening, and pivotal means for connecting the wall, at one vertical side of said opening, and the bed intermediate of the sides thereof.

11. In combination with a wall having an opening, a bed of greater width than said opening, and pivotal means for connecting the wall, at one vertical side of said opening, and the bed intermediate of the sides thereof, said pivotal means including a door rigidly secured to the bed, and adapted to close the opening.

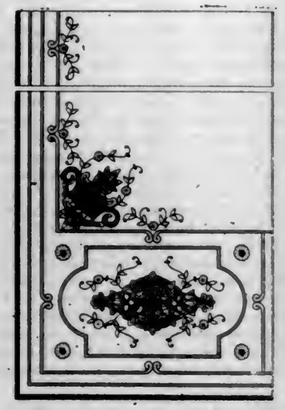
12. In combination with a wall having an opening, a bed of greater width than said opening, and pivotal means for connecting the wall, at one vertical side of said opening, and the bed intermediate of the sides thereof, said pivotal means including a door and a spacing device rigidly secured to the door and bed, the door being adapted to close the opening.

13. In combination with a wall having an opening, a bed pivoted on a vertical axis adjacent to one side of said opening and intermediate between the sides of the bed.

14. In combination with a wall having an opening, a bed comprising a part pivoted on a vertical axis adjacent to one side of said opening and intermediate between the sides of the bed, and a folding bed frame adapted to swing upward upon a horizontal axis.

DESIGNS.

42,599. LACE CURTAIN. AUGUST BECKER, Brooklyn, N. Y. Filed Sept. 6, 1911. Serial No. 647,966. Term of patent 14 years.



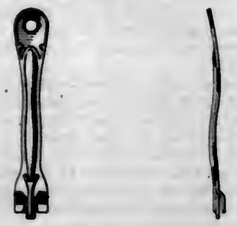
The ornamental design for a lace curtain, as shown.

42,600. LACE CURTAIN. AUGUST BECKER, Brooklyn, N. Y. Filed Sept. 6, 1911. Serial No. 647,967. Term of patent 14 years.



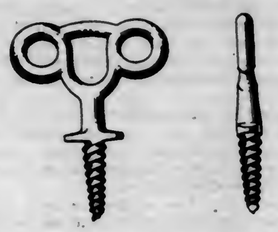
The ornamental design for a lace curtain, as shown.

42,601. TOOL FOR REMOVING SEALS. JOHN J. FERRALL and EDMUND MACKAY, New York, N. Y. Filed Apr. 11, 1911. Serial No. 620,519. Term of patent 14 years.



The ornamental design for a tool for removing seals, as shown.

42,602. STAGE-SCREW. CLAUDE L. HAGEN, New York, N. Y. Filed Nov. 15, 1911. Serial No. 660,534. Term of patent 7 years.



The ornamental design for a stage screw as shown.

42,603. CIGAR-ASH HOLDER. BELA R. HALDERMAN, Franklin Grove, Ill. Filed Jan. 13, 1912. Serial No. 671,131. Term of patent 7 years.



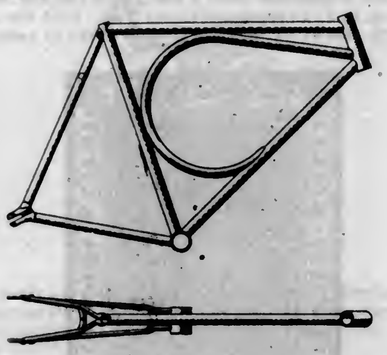
The ornamental design for cigar ash holder, as shown.

42,604. HAT-PIN GUARD. ALOIS HUML, Cleveland, Ohio. Filed Jan. 16, 1912. Serial No. 671,524. Term of patent 7 years.



The ornamental design for a hat pin guard, as shown.

42,605. BICYCLE-FRAME. WILLIAM F. KENDT, Buffalo, N. Y., assignor to George C. Strauss, Buffalo, N. Y. Filed Jan. 2, 1912. Serial No. 669,102. Term of patent 7 years.



The ornamental design for a bicycle frame, as shown.

42,606. STATUETTE. EDITH E. LEVETT, New York, N. Y. Filed Apr. 22, 1912. Serial No. 692,502. Term of patent 7 years.



The ornamental design for a statuette, as shown.

42,607. STATUETTE. EDWARD J. MCNERNEY, Kansas City, Mo. Filed Apr. 1, 1912. Serial No. 687,860. Term of patent 3½ years.



The ornamental design for a statuette, as shown.

42,608. NOODLE OR MACARONI. SAMUEL MUELLER, Jersey City, N. J. Filed May 15, 1909. Serial No. 496,330. Term of patent 14 years.



The ornamental design for a noodle, as shown and described.

42,609. RUG. HENRY W. PARTON, Yonkers, N. Y., assignor to Alexander Smith & Sons Carpet Company, New York, N. Y., a Corporation of New York. Filed Feb. 21, 1912. Serial No. 679,140. Term of patent 3½ years.



The ornamental design for a rug as shown and described.

42,610. RUG. HENRY W. PARTON, Yonkers, N. Y., assignor to Alexander Smith & Sons Carpet Company, New York, N. Y., a Corporation of New York. Filed Feb. 21, 1912. Serial No. 679,141. Term of patent 3½ years.



The ornamental design for a rug as shown and described.

42,611. COMBINATION BOTTLE-OPENER AND BUTTON-HOOK. ERWIN F. REICHMUTH, Denver, Colo. Filed Feb. 2, 1912. Serial No. 675,071. Term of patent 14 years.



The ornamental design for a combination bottle opener and button hook, as shown.

42,612. MOLASSES-PITCHER. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Heisey & Co., Newark, Ohio, a Corporation of West Virginia. Filed Feb. 12, 1912. Serial No. 677,254. Term of patent 14 years.



The ornamental design for a molasses pitcher, as shown.

42,613. RUG. GEORGE J. STENGEL, Yonkers, N. Y., assignor to Alexander Smith & Sons Carpet Company, New York, N. Y., a Corporation of New York. Filed Feb. 21, 1912. Serial No. 679,136. Term of patent 3½ years.



The ornamental design for a rug as shown and described.

42,614. RUG. GEORGE J. STENGEL, Yonkers, N. Y., assignor to Alexander Smith & Sons Carpet Company, New York, N. Y., a Corporation of New York. Filed Feb. 21, 1912. Serial No. 679,137. Term of patent 3½ years.



The ornamental design for a rug as shown and described.

42,615. DISH. JESSE CARL UNDERWOOD, Missoula, Mont. Filed Mar. 21, 1912. Serial No. 685,355. Term of patent 14 years.



The ornamental design for a dish, as shown.

TRADE-MARKS

PUBLISHED JUNE 11, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 35,543. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed June 17, 1908.



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, and Spelling-Tablets.
Claims use since Feb. 26, 1904.

Ser. No. 38,757. (CLASS 5. ADHESIVES.) T. M. DUCHÉ & SONS, New York, N. Y. Filed Nov. 18, 1908. Under ten-year proviso.



Particular description of goods.—Glue.
Claims use since Jan. 1, 1882.

Ser. No. 41,714. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ODELL HARDWARE CO., Greensboro, N. C. Filed Apr. 10, 1909. Under ten-year proviso.



Particular description of goods.—Razors, Chisels, Augers, Auger-Bits, Axes, Hatchets, Hammers, Mattocks, Picks, and Fire-Axes.
Claims use since Apr. 1, 1894.

Ser. No. 45,216. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRESNO HOME PACKING COMPANY, Fresno, Cal. Filed Oct. 9, 1909.

BABY RIBBON BRAND



The word "Brand" is hereby disclaimed.
Particular description of goods.—Canned and Dried Fruits.
Claims use since about August, 1903.

Ser. No. 45,689. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN A. REAM, Blue Rapids, Kans. Filed Nov. 3, 1909.

SURE SHOT

Particular description of goods.—Remedy for Diphtheria, Quinsy, and All other Diseases of the Throat.
Claims use since Oct. 20, 1909.

Ser. No. 47,743. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) JAMES T. SMITH, Newark, N. J. Filed Feb. 11, 1910.

HEALTH

Particular description of goods.—Leather Made from Unsplit Cattle-Hides.
Claims use since November, 1909.

Ser. No. 49,423. (CLASS 39. CLOTHING.) THE BIG STORE COMPANY, Cincinnati, Ohio. Filed May 2, 1910.



Consisting of a representation of a building which is applicant's place of business and the words "The Big Store."
Particular description of goods.—Men's and Boys' Ready-Made Coats, Vests, Trousers, Overcoats, Overalls, Leather Boots, Leather and Canvas Shoes, Rubber and Cloth Overshoes, Men's and Boys' Hats and Caps, Men's and Boys' Dress-Shirts, Negligée Shirts, Work-Shirts, Undershirts, Drawers, Collars, Cuffs, and Hosiery, and Children's Suits, Wraps, Waists, Undershirts, and Underskirts.
Claims use since Oct. 8, 1896.

Ser. No. 50,327. (CLASS 15. OILS AND GREASES.) THE PARAGON REFINING CO., Toledo, Ohio. Filed June 15, 1910.

PARAGON

Particular description of goods.—Illuminating-Oils and Lubricating Oils and Greases.
Claims use since Oct. 27, 1888.

Ser. No. 52,127. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SIMONS, SHUTTLEWORTH & FRENCH CO. INC., New York, N. Y. Filed Oct. 5, 1910.



Particular description of goods.—Fresh Apples.
Claims use since July, 1909.

Ser. No. 53,945. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) ABRAM N. PASMAN, Jersey City, N. J. Filed Jan. 18, 1911.



Particular description of goods.—Flush-Valves.
Claims use since Oct. 1, 1910.

Ser. No. 54,947. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) CHIPMAN LIMITED, New York, N. Y. Filed Mar. 8, 1911.

VARNO

Particular description of goods.—Preservative for Paint and Varnish.
Claims use since Feb. 14, 1911.

Ser. No. 55,040. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) VITAL REMEDIES COMPANY, Houston, Tex. Filed Mar. 13, 1911.



No claim being made to the word "Vitalitas."
Particular description of goods.—Blood Remedy, Female Remedy, Stomach Remedy, Kidney Remedy, a Nerve-Tonic, Liver Remedy in Liquid Form, and Remedies in Either a Powder Form or as a Paste for Eczema and Piles, and a Salve for External Eruptions.
Claims use since Feb. 1, 1911.

Ser. No. 55,170. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) B. M. SHIPMAN CO., New York, N. Y. Filed Mar. 18, 1911.

CUCKOOS

Particular description of goods.—Herring in Tomato Sauce, Soused Mackerel, Kippered Herring, and Boned Herring.
Claims use since Mar. 1, 1910.

Ser. No. 55,626. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DIAMOND CREAMERY CO., Massena, N. Y. Filed Apr. 8, 1911.



Particular description of goods.—Butter.
Claims use since Jan. 1, 1877.

Ser. No. 56,020. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) SPENCER HEATER COMPANY, Scranton, Pa. Filed Apr. 28, 1911. Under ten-year proviso.

SPENCER
HEATER

Particular description of goods.—Steam and Hot-Water Heaters and Parts Thereof.
Claims use since and during the year 1888.

Ser. No. 56,827. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SABRA PACKARD, South Tacoma, Wash. Filed June 5, 1911.

ARBAS NIKSOH

Particular description of goods.—A Remedy for Hemorrhoids, Cuts, Burns, Inflamed Eyes or Eyelids, Earache, Scalp Diseases, Dandruff, Seat-Worm, Itching, Smarting, Stiff Neck, Lame Back, Unpleasant Odor of Feet, Armpits, and Body, and Profuse Perspiration.
Claims use since May 1, 1911.

Ser. No. 57,350. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ALBERT J. KILLMER, Mason City, Iowa. Filed June 28, 1911.



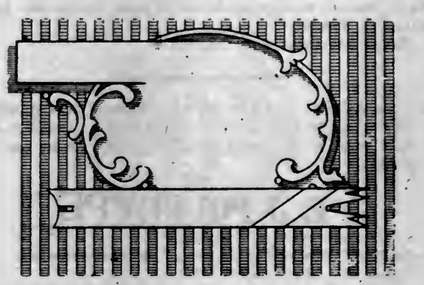
The elongated mark being in red and the circular mark in blue.
Particular description of goods.—Headache-Capsules and Foot Remedy.
Claims use since Sept. 1, 1910.

Ser. No. 57,788. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) ROCHESTER ROTARY WASHER COMPANY, Rochester, N. Y. Filed July 24, 1911.



Particular description of goods.—Laundry Washing-Machines.
Claims use since Feb. 6, 1911.

Ser. No. 58,011. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEEMAN BROTHERS, New York, N. Y. Filed Aug. 3, 1911.



The stripes being blue.
Particular description of goods.—Canned Fruits and Vegetables.
Claims use since May, 1896.

Ser. No. 58,023. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) E. R. PAHL & CO., Milwaukee, Wis. Filed Aug. 3, 1911.

High Life

Particular description of goods.—Canned Peas, Sweet Pickles, Sour Pickles, Chilli Sauce, Olives, Preserves, Horse-Radish, Crab-Apple Jelly, Grape Jelly, Apple-Butter, Grape

and Apple Jelly, Currant Jelly, Salad-Dressing, Onions, Cider Vinegar, Mustard Dressing, Tomato Catsup, Table-Vinegar, Prepared Mustard, and Chow-Chow.
Claims use since May 15, 1907.

Ser. No. 58,140. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JAY V. DANIELS, Chicago, Ill. Filed Aug. 11, 1911.

SAXOLITE

Particular description of goods.—Face-Powders.
Claims use since May 15, 1911.

Ser. No. 58,191. (CLASS 37. PAPER AND STATIONERY.) WEST VIRGINIA PULP & PAPER COMPANY, New York, N. Y. Filed Aug. 14, 1911.

Virgin

Particular description of goods.—Book Printing and Lithographing Paper Coated on One Side.
Claims use since Jan. 2, 1908.

Ser. No. 58,605. (CLASS 15. OILS AND GREASES.) WILLIAM W. HOLLAND, Baltimore, Md. Filed Sept. 9, 1911.

HEEL & TOE

Particular description of goods.—A Composition of Waxy Matter Molded in Small Definite Forms for Application to Fabrics.
Claims use since Aug. 29, 1911.

Ser. No. 58,681. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) EMILE JAMES, New York, N. Y. Filed Sept. 15, 1911. Under ten-year proviso.

E.J.POLITYPE

Particular description of goods.—Machine-Needles.
Claims use since about 1880.

Ser. No. 58,939. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE KINSLER-BENNETT CO., Hartford, Conn. Filed Sept. 29, 1911.



Particular description of goods.—Universal Joints.
Claims use since June 17, 1907.

Ser. No. 59,083. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) HARLEY-DAVIDSON MOTOR CO., Milwaukee, Wis. Filed Oct. 9, 1911.

Ful-Floteing

Particular description of goods.—Motor-Cycle Seat-Supports.
Claims use since Sept. 26, 1911.

Ser. No. 59,272. (CLASS 32. FURNITURE AND UPHOLSTERY.) A. J. LOGAN COMPANY, Pittsburgh, Pa. Filed Oct. 21, 1911.



The representation of the bedstead, springs, mattress, and pillows thereon, independently of the circle in which inclosed, is not claimed for exclusive appropriation.
Particular description of goods.—Mattresses, Bed Box-Springs, Bedding-Pads, Pillows, and Bolsters.
Claims use since September, 1906.

Ser. No. 59,455. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) C. M. MCCLUNG & CO., Knoxville, Tenn. Filed Nov. 1, 1911.



Particular description of goods.—Coal, Wood, Gas, Gasolene, and Oil Stoves, Coal, Wood, and Gas Ranges, Blowers for Portable Forges, Portable Forges, and Oil-Lanterns.
Claims use since about the year 1893.

Ser. No. 59,533. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) DELLA (ROBART) WOODFIELD, Wellsville, N. Y. Filed Nov. 3, 1911.

JUNGLE

Particular description of goods.—A Substitute for Coffee.
Claims use since Sept. 25, 1911.

Ser. No. 59,596. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) C. M. MCCLUNG & CO., Knoxville, Tenn. Filed Nov. 7, 1911.



Particular description of goods.—Coal, Wood, Gas, Gasolene, and Oil Stoves, Coal, Wood, and Gas Ranges, Blowers for Portable Forges, Portable Forges, and Oil-Lanterns.
Claims use since about 1882.

Ser. No. 59,648. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) W. COOPER FIELDING, Charlotte, N. C. Filed Nov. 10, 1911.

Femury

Particular description of goods.—Remedies for Diseases of Females.
Claims use since Sept. 9, 1909.

Ser. No. 60,008. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) JESSE PRESCOTT, Webster, Mass. Filed Nov. 29, 1911.

Pyrofuse

Particular description of goods.—Refuse-Burners.
Claims use since Oct. 19, 1911.

Ser. No. 60,046. (CLASS 37. PAPER AND STATIONERY.) THE HENRY PAPER CO., Lincoln, N. H. Filed Dec. 2, 1911.



Particular description of goods.—Manila Wrapping-Paper, Bags, and Envelops.
Claims use since Oct. 20, 1911.

Ser. No. 60,051. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) A. G. MADDOCK, Duarte, Cal. Filed Dec. 2, 1911.

HAVAJO LOVE

Magnum Bonum

No claim being made to the words "Magnum Bonum."
Particular description of goods.—Fresh Oranges.
Claims use since Nov. 1, 1911.

Ser. No. 60,078. (CLASS 32. FURNITURE AND UPHOLSTERY.) ATLANTA METAL BED COMPANY, Atlanta, Ga. Filed Dec. 5, 1911.



Particular description of goods.—Metal Beds, Cribs, Cots, Couches, and Springs for Beds.
Claims use since Oct. 1, 1910.

Ser. No. 60,249. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) FALL RIVER BLEACHERY, Fall River, Mass. Filed Dec. 15, 1911.

"WE'LL TRY"



Particular description of goods.—Cotton Piece Goods.
Claims use since about Nov. 21, 1876.

Ser. No. 60,258. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) OTTO L. KUEHN CO., Milwaukee, Wis. Filed Dec. 15, 1911.

O. K.

Particular description of goods.—Pickled Herring, Salted Herring, Smoked Herring, and Canned Sardines.
Claims use since 1896.

Ser. No. 60,277. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WESTERN GROCER COMPANY, Marshalltown, Iowa. Filed Dec. 15, 1911.

HEADLIGHT

Particular description of goods.—Canned Fruits and Vegetables; Mustard; Catsup; Flavoring Extracts; Pork and Beans; Pork and Beans with Tomato Sauce; Hominy; Kraut; Coffee, and Tea.
Claims use since Feb. 15, 1892.

Ser. No. 60,351. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) ROBERT E. MILLER, Brooklyn, N. Y. Filed Dec. 19, 1911.

R.E.M.

Particular description of goods.—Bearing Metal.
Claims use since Apr. 10, 1911.

Ser. No. 60,703. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) HARRY D. HARVEY, Baltimore, Md. Filed Jan. 9, 1912.

MONARCH

Particular description of goods.—Foundry Apparatus—to wit, Furnaces, Forges, and Ovens for Treating Metals, Core-Ovens, Pressure-Blowers for Such Furnaces, Cars for Annealing-Ovens.
Claims use since Jan. 1, 1904.

Ser. No. 60,917. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) GEORGE G. ROBERTS, Whitman, Mass. Filed Jan. 19, 1912.

CINCHE

Particular description of goods.—Shoe-Nails.
Claims use since Aug. 15, 1905.

Ser. No. 61,028. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE VOLTITE COMPANY, LIMITED, Auckland, New Zealand. Filed Jan. 25, 1912.

VOLTITE

Particular description of goods.—An Electroplating-Powder.
Claims use since Sept. 30, 1910.

Ser. No. 61,048. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BEDFORD SAFETY RAZOR COMPANY, Bedford, Mass. Filed Jan. 26, 1912.

Bedford

No claim is made for the word "Bedford."
Particular description of goods.—Safety-Razors.
Claims use since on or about Dec. 24, 1911.

Ser. No. 61,185. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) L. A. CARPENTER PRESS METAL CO., Augusta, Me., and Boston, Mass. Filed Feb. 1, 1912.

VAN

Particular description of goods.—Pipe-Hangers Used by Plumbers.
Claims use since Apr. 28, 1911.

Ser. No. 61,186. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) L. A. CARPENTER PRESS METAL CO., Augusta, Me., and Boston, Mass. Filed Feb. 1, 1912.

OU

Particular description of goods.—Pipe-Hangers Used by Plumbers.
Claims use since Apr. 28, 1911.

Ser. No. 61,215. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HERMAN RUDOLFF, Novato, Cal. Filed Feb. 2, 1912.

SUNSET

Particular description of goods.—Cheese.
Claims use since Sept. 3, 1911.

Ser. No. 61,217. (CLASS 39. CLOTHING.) HAMBURGER BROS., New York, N. Y. Filed Feb. 2, 1912.

Particular description of goods.—Kimonos, Sacks, House-Dresses, and Bath-Robes.
Claims use since about Jan. 1, 1911.

Ser. No. 61,230. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOSEPH R. LEESON, Boston, Mass. Filed Feb. 3, 1912.

LEESON

No claim is made for the word "Leeson."
Particular description of goods.—Winding-Machines for Winding Yarn and Thread in Cones, Cops, Bobbins, and Packages.
Claims use since May 16, 1911.

Ser. No. 61,285. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912.

NTY

Particular description of goods.—Key-Rings.
Claims use since Mar. 1, 1908.

Ser. No. 61,300. (CLASS 37. PAPER AND STATIONERY.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Feb. 6, 1912. Under ten-year proviso.

TOWER'S

Particular description of goods.—Shipping-Tags, Writing-Tablets, Visiting-Cards, Envelops, and Magazine-Pencils.
Claims use since 1871.

Ser. No. 61,370. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NELS A. ANDERSON, Tacoma, Wash. Filed Feb. 8, 1912.

VIKING

Particular description of goods.—Hair-Tonics.
Claims use since Jan. 2, 1912.

Ser. No. 61,483. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RICHARD HUDNUT, New York, N. Y. Filed Feb. 15, 1912.

UNEKA

Particular description of goods.—Soap, (Solid and Liquid.)
Claims use since Nov. 22, 1911.

Ser. No. 61,489. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) RICHARD HUDNUT, New York, N. Y. Filed Feb. 15, 1912.

DUBARRY

Particular description of goods.—Soap, (Solid and Liquid.)
Claims use since Feb. 1, 1912.

Ser. No. 61,585. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RONDOUX SISTERS, Salt Lake City, Utah. Filed Feb. 17, 1912.

RONDOUX

Particular description of goods.—Medicine for the Relief of Coughs and Colds and Kindred Lung and Throat Ailments.
Claims use since Feb. 1, 1912.

Ser. No. 61,640. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) WILLIAM H. CARROLL, New York, N. Y. Filed Feb. 21, 1912.



Particular description of goods.—Gold and Silver Badges; Watch-Chain Charms; Scarf-Pins; Napkin-Rings; Nut-Picks; Lemon-Squeezers; Sugar-Spoons; Oyster-Forks; and Fruit-Knives, All Made of Any of the Precious Metals.
Claims use since Dec. 1, 1911.

Ser. No. 61,720. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) MORRIS CARSWELL & COY. LIMITED, Glasgow, Scotland. Filed Feb. 26, 1912.

MORRISCA

Particular description of goods.—Gut Cast-Lines and Traces, Silk Lines, Cast-Lines and Traces in Metal, Lines and Traces Made of Gut Substitutes, Artificial Bait, Fishing Hooks, Mounted and Unmounted, and Fishing-Tackle.
Claims use since June 1, 1910.

Ser. No. 61,800. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GEORGE PICKERING & CO., INC., Elmira, N. Y. Filed Feb. 29, 1912. Under ten-year proviso.

NEW PEERLESS

Particular description of goods.—Textile-Dyes.
Claims use since Jan. 24, 1888.

Ser. No. 61,855. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THE FRUIT JUICE CO. L'T'D, Brooklyn, N. Y. Filed Mar. 2, 1912.



No claim being made to the words "Pure Juice Always."
Particular description of goods.—Fruit-Juices and Potable Derivatives from Fruit.
Claims use since May 1, 1911.

Ser. No. 61,866. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE IRONSIDES COMPANY, Columbus, Ohio. Filed Mar. 2, 1912.

ABBA

Particular description of goods.—Ready-Mixed Paints and Varnishes and Paint-Oils.
Claims use since Sept. 5, 1902.

Ser. No. 62,005. (CLASS 39. CLOTHING.) BONWIT, TELLER & CO., New York, N. Y. Filed Mar. 7, 1912.

"Bontell"

Particular description of goods.—Fur Coats, Fur Scarfs, Fur Muffs, Fur Stoles, Corsets, Gloves, Ladies' and Misses' Outer Suits and Cloaks, Vests, Pajamas, Collars, Camisoles, Chemises, Dressing-Gowns, Petticoats, Blouses, Sporting-Skirts, Infants', Children's, Misses', and Ladies' Dresses, Frocks, Bodices, Vests, and Belts, (in the Nature of Corsets,) Robes, Day-Dresses, Night-Dresses, Wrappers, Hoods, Knickerbockers, Bonnets and Hats, Stockings, Wraps, Mufflers, Bibs, Hosiery, Negligées, Undershirts and Drawers and Combination-Suits of Underwear for Ladies, Misses, and Children, Shirt-Waists, and Corset-Covers.
Claims use since Aug. 1, 1911.

Ser. No. 62,240. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CAMMEYER, New York, N. Y. Filed Mar. 18, 1912.

GAZELLA

Particular description of goods.—White Liquid Preparations for Cleaning White Kid, White Buckskin, White Calfskin, White Canvas, and All Sorts of White Goods.
Claims use since Dec. 1, 1911.

Ser. No. 62,291. (CLASS 37. PAPER AND STATIONERY.) ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y. Filed Mar. 20, 1912.



Particular description of goods.—Toilet-Paper.
Claims use since Dec. 16, 1911.

Ser. No. 62,316. (CLASS 15. OILS AND GREASES.) WEST INDIA OIL COMPANY, Bayonne, N. J. Filed Mar. 21, 1912.

DRAGON



Particular description of goods.—Gasolene and Refined Oil for Heating, Lighting, and Power Purposes.
Claims use since Jan. 22, 1912.

Ser. No. 62,328. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) PENNSYLVANIA FLEXIBLE METALLIC TUBING COMPANY, Philadelphia, Pa. Filed Mar. 22, 1912.

PENFLEX

Particular description of goods.—Metal Hose.
Claims use since May 1, 1911.

Ser. No. 62,330. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE CONTINENTAL METAL COMPANY, Brooklyn, N. Y. Filed Mar. 22, 1912.



Particular description of goods.—Antifriction Metal.
Claims use since 1902.

Ser. No. 62,331. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE CONTINENTAL METAL COMPANY, Brooklyn, N. Y. Filed Mar. 22, 1912.

ARM & HAMMER

Particular description of goods.—Antifriction Metal.
Claims use since 1902.

Ser. No. 62,340. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE DUNHAM CO., Berea, Ohio. Filed Mar. 22, 1912. Under ten-year proviso.

DUNHAM

Particular description of goods.—Land, Snow, Lawn, and Golf-Ground Rollers and Road-Rollers.
Claims use since 1881.

Ser. No. 62,341. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE DUNHAM CO., Berea, Ohio. Filed Mar. 22, 1912. Under ten-year proviso.



Particular description of goods.—Land, Snow, Lawn, and Golf-Ground Rollers and Road-Rollers.
Claims use since 1881.

Ser. No. 62,446. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) FLEMING & CHRISTIAN CO., Richmond, Va. Filed Mar. 27, 1912.

MOUNTAIN TOP

Particular description of goods.—Grape-Juice.
Claims use since January, 1900.

Ser. No. 62,468. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CHILDS, PARR & JOSEPH, New York, N. Y. Filed Mar. 28, 1912.



Particular description of goods.—Cotton Piece Goods.
Claims use since Jan. 1, 1909.

Ser. No. 62,480. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) PFANNMUELLER ENGINEERING CO., Chicago, Ill. Filed Mar. 28, 1912.

Pěkō

Particular description of goods.—Woven Machinery Belting.
Claims use since Jan. 1, 1912.

Ser. No. 62,481. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) RED JACKET MANUFACTURING COMPANY, Davenport, Iowa. Filed Mar. 28, 1912. Under ten-year proviso.



Consists in painting or coloring a pump or its parts red.
Particular description of goods.—Well-Pumps.
Claims use since January, 1881.

Ser. No. 62,509. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) STANDARD VARNISH WORKS, New York, N. Y. Filed Mar. 29, 1912.

CALORA

Particular description of goods.—Enamels, Ready-Mixed Paints, and Varnishes.
Claims use since Feb. 15, 1911.

Ser. No. 62,532. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM RIPPEY, Cincinnati, Ohio. Filed Mar. 30, 1912.

FOAMOLINE

Particular description of goods.—Preparations for Use in Making Ice-Cream, Water-Ices, and other Frozen Desserts.
Claims use since about Apr. 1, 1895.

Ser. No. 62,569. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) A. A. WHITE COMPANY, Boston, Mass. Filed Apr. 1, 1912. Under ten-year proviso.

Florence White

Particular description of goods.—Ready-Mixed Paints.
Claims use since about June, 1861.

Ser. No. 62,590. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) EMPIRE TIRE COMPANY, Trenton, N. J.; Philadelphia, Pa.; Chicago, Ill.; Detroit, Mich.; Indianapolis, Ind.; Kansas City, Mo.; Newark, N. J.; New York, N. Y., and Atlanta, Ga. Filed Apr. 1, 1912.

MIKADO

Particular description of goods.—Pneumatic Tires.
Claims use since Feb. 8, 1912.

Ser. No. 62,607. (CLASS 44. DENTAL, MEDICAL, AND SURGICAL APPLIANCES.) THE VICTORY COMPANY, Buffalo, N. Y. Filed Apr. 2, 1912.

Thermozone

Particular description of goods.—A Therapeutic Battery.
Claims use since Oct. 28, 1911.

Ser. No. 62,620. (CLASS 47. WINES.) ALBERT CHARLES FREDERICK MORGAN, London, England. Filed Apr. 3, 1912. Under ten-year proviso.

DIXON'S
Double Diamond
PORT

Particular description of goods.—Port-Wine.
Claims use since Aug. 30, 1832.

Ser. No. 62,652. (CLASS 39. CLOTHING.) ROSENAU & LOEB, Philadelphia, Pa. Filed Apr. 4, 1912.



The picture being fanciful.
Particular description of goods.—Hosiery.
Claims use since Mar. 30, 1912.

Ser. No. 62,682. (CLASS 38. PRINTS AND PUBLICATIONS.) TOWER MANUFACTURING & NOVELTY CO., New York, N. Y. Filed Apr. 6, 1912.

T
N. Y.

Particular description of goods.—Whist Scoring-Pads, Catalogues, Circulars, and Folders.
Claims use since Mar. 1, 1908.

Ser. No. 62,688. (CLASS 39. CLOTHING.) NOYES-NORMAN SHOE COMPANY, St. Joseph, Mo. Filed Apr. 6, 1912.



Particular description of goods.—Leather Boots and Shoes.
Claims use since Feb. 20, 1912.

Ser. No. 62,701. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GARNER PRINT WORKS & BLEACHERY, West Haverstraw, Wappingers Falls, and New York, N. Y. Filed Apr. 6, 1912. Under ten-year proviso.

ROWENA

Particular description of goods.—Plain and Printed Cotton Piece Goods.
Claims use since 1892.

Ser. No. 62,703. (CLASS 42. KNITTED, NETTED AND TEXTILE FABRICS.) GARNER PRINT WORKS & BLEACHERY, West Haverstraw, Wappingers Falls, and New York, N. Y. Filed Apr. 6, 1912.

VELOUTINE

Particular description of goods.—Plain and Printed Cotton Piece Goods.
Claims use since 1901.

Ser. No. 62,708. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GARNER PRINT WORKS & BLEACHERY, West Haverstraw, Wappingers Falls, and New York, N. Y. Filed Apr. 6, 1912.

Marquise

Particular description of goods.—Plain and Printed Cotton Piece Goods.
Claims use since 1906.

Ser. No. 62,709. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GARNER PRINT WORKS & BLEACHERY, West Haverstraw, Wappingers Falls, and New York, N. Y. Filed Apr. 6, 1912.

Doucettine

Particular description of goods.—Plain and Printed Cotton Piece Goods.
Claims use since 1906.

Ser. No. 62,740. (CLASS 39. CLOTHING.) GLOBE SHIRT & OVERALL CO., Abingdon, Ill. Filed Apr. 8, 1912.



Particular description of goods.—Overalls, Peg-Top Pants, Lined Coats, Jackets, Play-Suits, Night-Shirts, and Pajamas.
Claims use since 1889.

Ser. No. 62,755. (CLASS 39. CLOTHING.) PERFECTION OVERGAITER CO., Winooski, Vt. Filed Apr. 8, 1912.

DRISADUK

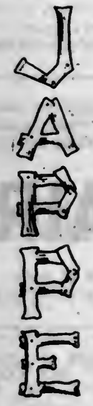
Particular description of goods.—Overgaiters, Leggings.
Claims use since Jan. 1, 1912.

Ser. No. 62,809. (CLASS 38. PRINTS AND PUBLICATIONS.) DAVENPORT PEARL BUTTON COMPANY, Davenport, Iowa. Filed Apr. 10, 1912.



No claim being made to the word "Pearl."
Particiuar description of goods.—Button-Cards.
Claims use since Mar. 4, 1912.

Ser. No. 62,822. (CLASS 37. PAPER AND STATIONERY.) CORNELL & WARD, New York, N. Y. Filed Apr. 10, 1912.



Particular description of goods.—Toilet-Paper.
Claims use since July 1, 1911.

Ser. No. 62,850. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) FRIEDMAN BROS. & SON NECKWEAR CO. INC., New York, N. Y. Filed Apr. 11, 1912.



The pictures being fanciful.
Particular description of goods.—Neckties.
Claims use since Dec. 1, 1911.

Ser. No. 62,868. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ZIMMERMAN & ZIMMERMAN, INC., Philadelphia, Pa. Filed Apr. 12, 1912.

ZEE ZEE

Particular description of goods.—Vehicle-Tires and Tubes of Rubber.
Claims use since about Dec. 1, 1911.

Ser. No. 62,905. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GEORGE BOYD & SONS, Camden, N. J. Filed Apr. 15, 1912.

Queen

Particular description of goods.—Table-Syrups.
Claims use since early part of May, 1881.

Ser. No. 62,911. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE NORMAN BAKING COMPANY, Minneapolis, Minn. Filed Apr. 15, 1912.

DAIRY

Particular description of goods.—Bread.
Claims use since on or about Mar. 25, 1912.

Ser. No. 62,913. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE KESSLER YEAST CO., Columbus, Ohio. Filed Apr. 15, 1912. Under ten-year proviso.

KESSLER

Particular description of goods.—Yeast.
Claims use since 1851.

Ser. No. 62,914. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) KENT MANUFACTURING COMPANY, New York, N. Y. Filed Apr. 15, 1912.

PRIDE OF THE LOOM

Particular description of goods.—Piece Goods Comprising Lawns, Nainsooks, Batistes, Voiles, Muslins, Long-Cloth, Organdies, Cambrics, Scrims, and Silks.
Claims use since the 14th day of March, 1912.

Ser. No. 62,942. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) THE DEFOREST SHEET & TINPLATE CO., Niles, Ohio. Filed Apr. 17, 1912.

COUPON

Particular description of goods.—Sheet-Steel.
Claims use since Feb. 19, 1912.

Ser. No. 62,954. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE GASSER COFFEE CO., Toledo, Ohio. Filed Apr. 17, 1912.

EL PERCO

Particular description of goods.—Coffee.
Claims use since Apr. 9, 1912.

Ser. No. 62,970. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) L. H. JUNOD & CO., New York, N. Y. Filed Apr. 18, 1912.

J

Particular description of goods.—Embroideries.
Claims use since 1909.

Ser. No. 62,990. (CLASS 24. LAUNDRY APPLIANCES AND MACHINES.) HORACE W. CAMPBELL, Columbus, Ohio. Filed Apr. 19, 1912.

Airvac

Particular description of goods.—Laundry Washing-Machines.
Claims use since Mar. 25, 1912.

Ser. No. 63,012. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HARBOR PACKING CO., Port Blakely, Wash. Filed Apr. 20, 1912.

Western Belle

Particular description of goods.—Canned Salmon.
Claims use since Feb. 1, 1912.

Ser. No. 63,018. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE HARBOR PACKING CO., Port Blakely, Wash. Filed Apr. 20, 1912.

SEMINOLE

Particular description of goods.—Canned Salmon.
Claims use since Feb. 1, 1912.

Ser. No. 63,022. (CLASS 39. CLOTHING.) OPPENHEIM, OBERNDORF & CO., Baltimore, Md. Filed Apr. 20, 1912.

BIG BEN

Particular description of goods.—Dress-Shirts, Negligée Shirts, and Work-Shirts.
Claims use since Dec. 19, 1911.

Ser. No. 63,036. (CLASS 39. CLOTHING.) MARY E. CLAFLIN, Philadelphia, Pa. Filed Apr. 18, 1912. Under ten-year proviso.

WALDO M.CLAFLIN

Particular description of goods.—Boots and Shoes Made of Leather, Rubber, Woven and Felted Fabrics.
Claims use since 1876.

Ser. No. 63,088. (CLASS 7. CORDAGE.) COLUMBIA ROPE CO., Auburn, N. Y. Filed Apr. 24, 1912.

COROCO

Particular description of goods.—Manila and Sisal Rope and Cordage.
Claims use since Jan. 1, 1910.

Ser. No. 63,099. (CLASS 39. CLOTHING.) SIMON & PLECHNER, New York, N. Y. Filed Apr. 24, 1912.

Simplex

Particular description of goods.—Coats, Vests, Trousers, and Overcoats for Young Men and Boys.
Claims use since Apr. 2, 1912.

Ser. No. 63,109. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) POWELL'S, New York, N. Y. Filed Apr. 24, 1912. Under ten-year proviso.

Powell's

Particular description of goods.—Candy, Chocolate, Cocoa, Preserved Fruit, and Nuts.
Claims use since about Jan. 1, 1883.

Ser. No. 63,121. (CLASS 48. MALT EXTRACTS AND LIQUORS.) FRESNO BREWING COMPANY, Fresno, Cal. Filed Apr. 25, 1912.

Morovit

Particular description of goods.—Beer.
Claims use since Apr. 17, 1912.

Ser. No. 63,132. (CLASS 48. MALT EXTRACTS AND LIQUORS.) THE NORTHAMPTON BREWING CO., Northampton, Pa. Filed Apr. 25, 1912.

TRU-BLU

Particular description of goods.—A Particular Brew of Beer.
Claims use since June 15, 1911.

Ser. No. 63,150. (CLASS 9. EXPLOSIVES, FIREARMS, EQUIPMENTS, AND PROJECTILES.) THE OHIO MATCH COMPANY, Wadsworth, Ohio. Filed Apr. 26, 1912.

PREMIER

Particular description of goods.—Matches.
Claims use since about Aug. 4, 1911.

Ser. No. 63,206. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE WALTER M. LOWNEY COMPANY, Boston, Mass. Filed Apr. 29, 1912.

VESTA

Particular description of goods.—Candies.
Claims use since Jan. 15, 1912.

Ser. No. 63,227. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE OHIO CONFECTION CO., Cleveland, Ohio. Filed May 1, 1912.

SAMMY

Particular description of goods.—Candy.
Claims use since Jan. 1, 1906.

Ser. No. 63,246. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMMON & PERSON, Jersey City, N. J. Filed May 1, 1912.

OKAO

Particular description of goods.—Oleomargarin.
Claims use since Apr. 17, 1912.

Ser. No. 63,265. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) I. B. KLEINERT RUBBER COMPANY, New York, N. Y. Filed May 2, 1912.

FLEXO

Particular description of goods.—Dress-Shields.
Claims use since Mar. 15, 1912.

Ser. No. 63,290. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ST. LOUIS COFFEE & SPICE MILLS, St. Louis, Mo. Filed May 4, 1912.

SUCCESS

Particular description of goods.—Blended Coffee.
Claims use since 1903.

Ser. No. 63,291. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ST. LOUIS COFFEE & SPICE MILLS, St. Louis, Mo. Filed May 4, 1912.

SECURITY

Particular description of goods.—Blended Coffee.
Claims use since Aug. 20, 1911.

Ser. No. 63,319. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THOMAS MORTON, New York, N. Y. Filed May 4, 1912. Under ten-year proviso.

"MORTON'S"

Particular description of goods.—Window-Sash Chains.
Claims use since 1879.

Ser. No. 63,328. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) SMITH WEBBING COMPANY, Pawtucket, R. I. Filed May 4, 1912.

SNUGTEX

Particular description of goods.—Textile Belts for Men's Apparel.
Claims use since Feb. 9, 1912.

Ser. No. 63,350. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BURGESS-NORTON MFG. COMPANY, Geneva, Ill. Filed May 4, 1912.



The picture shown being fanciful.
Particular description of goods.—Hatchets.
Claims use since Apr. 15, 1912.

Ser. No. 63,406. (CLASS 48. MALT EXTRACTS AND LIQUORS.) JOHANN BAPTIST WEYERMAN, Potsdam, Germany. Filed May 8, 1912.



Particular description of goods.—Beer, Colored Malt Beer, Concentrated Extract of Colored Malt and Beer.
Claims use since July 16, 1907.

Ser. No. 63,445. (CLASS 39. CLOTHING.) THE 14TH STREET STORE, New York, N. Y. Filed May 10, 1912.

Wilma

Particular description of goods.—Corsets.
Claims use since Apr. 15, 1912.

TRADE-MARKS

REGISTERED JUNE 11, 1912.

86,861. CANNED VEGETABLES, FRUITS, PREPARED WHEAT-FLOUR AND PREPARED PANCAKE-FLOUR. ACKER, MERRALL & CONDIT COMPANY, New York, N. Y.
Filed June 7, 1911. Serial No. 56,877. PUBLISHED SEPTEMBER 5, 1911.

86,862. LEATHER SHOES. ADAMS SHOE COMPANY, Lynn, Mass.
Filed February 8, 1912. Serial No. 61,379. PUBLISHED APRIL 9, 1912.

86,863. CUTLERY, MACHINERY, AND TOOLS AND PARTS THEREOF. ADRIANCE, PLATT & CO., Poughkeepsie, N. Y.
Filed January 4, 1912. Serial No. 60,597. PUBLISHED APRIL 9, 1912.

86,864. CANNED SALMON. ALASKA FISH CO., Seattle, Wash.
Filed January 31, 1912. Serial No. 61,166. PUBLISHED APRIL 2, 1912.

86,865. STRUCTURAL FORGINGS AND BAR-IRON AND BAR-STEEL. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed November 4, 1911. Serial No. 59,554. PUBLISHED APRIL 9, 1912.

86,866. STRUCTURAL FORGINGS, BAR-IRON, AND BAR-STEEL. AMERICAN IRON AND STEEL MANUFACTURING COMPANY, Lebanon and Reading, Pa.
Filed December 22, 1911. Serial No. 60,405. PUBLISHED APRIL 9, 1912.

86,867. RECORDING APPARATUS. AMERICAN RECORDER COMPANY, Chicago, Ill.
Filed December 6, 1910. Serial No. 53,151. PUBLISHED APRIL 9, 1912.

86,868. SCRAPES. ATLANTA AGRICULTURAL WORKS, Atlanta, Ga.
Filed September 29, 1911. Serial No. 58,936. PUBLISHED APRIL 9, 1912.

86,869. WHEAT-FLOUR. ATLANTIC MARITIME COMPANY, Kittery, Me., and Boston, Mass.
Filed February 12, 1912. Serial No. 61,428. PUBLISHED APRIL 9, 1912.

86,870. TOY VEHICLES. AUTO SPECIALTY MANUFACTURING CO., INC., Indianapolis, Ind.
Filed December 7, 1911. Serial No. 60,119. PUBLISHED APRIL 9, 1912.

86,871. VENTILATING APPARATUS FOR USE IN WITHDRAWING AIR FROM BUILDINGS, CARS, &C. AUTOFORCE VENTILATING SYSTEM, Pierre, S. D., and Boston, Mass.
Filed April 11, 1911. Serial No. 55,663. PUBLISHED APRIL 9, 1912.

86,872. COAL-TAR OILS. BARRETT MANUFACTURING COMPANY, New York, N. Y.
Filed December 20, 1911. Serial No. 60,519. PUBLISHED APRIL 9, 1912.

86,873. ROLLED OATS AND RICE. BERDAN & COMPANY, Toledo, Ohio.
Filed July 13, 1910. Serial No. 50,811. PUBLISHED APRIL 18, 1911.

86,874. TABLE-KNIVES. BERNDORF METAL WORKS ARTHUR KRUPP, Berndorf, Austria-Hungary.
Filed May 27, 1911. Serial No. 56,645. PUBLISHED APRIL 9, 1912.

86,875. TABLE-KNIVES. BERNDORF METAL WORKS ARTHUR KRUPP, Berndorf, Austria-Hungary.
Filed May 27, 1911. Serial No. 56,648. PUBLISHED APRIL 9, 1912.

86,876. ROOFING, WATERPROOF SOUND-INSULATING AND HEAT-INSULATING PAPERS. CHARLES S. BIRD, East Walpole, Mass.
Filed January 2, 1912. Serial No. 60,580. PUBLISHED APRIL 9, 1912.

86,877. DRESS AND SHIRT WAISTS. BLOOM & MILLMAN, New York, N. Y.
Filed December 22, 1911. Serial No. 60,408. PUBLISHED APRIL 9, 1912.

86,878. COTTON DUCK. GEO. B. CARPENTER & CO., Chicago, Ill.
Filed January 18, 1912. Serial No. 60,882. PUBLISHED APRIL 9, 1912.

86,879. AWNING-STRIPES. GEO. B. CARPENTER & CO., Chicago, Ill.
Filed January 18, 1912. Serial No. 60,885. PUBLISHED APRIL 9, 1912.

86,880. ORANGES. CHARTER OAK CITRUS ASSN., Charter Oak, Cal.
Filed August 24, 1911. Serial No. 58,356. PUBLISHED APRIL 9, 1912.

86,881. LUBRICATING-OIL. THE CLARKSON & FORD COMPANY, New York, N. Y.
Filed October 23, 1911. Serial No. 59,302. PUBLISHED APRIL 9, 1912.

86,882. ROOFING-CEMENT COMPOSED OF COAL-TAR, SLATE, AND ASBESTOS. COAL TAR PRODUCT COMPANY, New York, N. Y.
Filed November 18, 1911. Serial No. 59,783. PUBLISHED APRIL 9, 1912.

86,883. RAILROAD-RAILS. CONTINUOUS RAIL COMPANY, Wilmington, Del., and New York, N. Y.
Filed October 27, 1911. Serial No. 59,381. PUBLISHED APRIL 9, 1912.

86,884. RAILROAD-RAILS. CONTINUOUS RAIL COMPANY, Wilmington, Del., and New York, N. Y.
Filed October 27, 1911. Serial No. 59,382. PUBLISHED APRIL 9, 1912.

86,885. MACARONI. CRESCENT MACARONI AND CRACKER CO., Davenport, Iowa.
Filed December 15, 1911. Serial No. 60,244. PUBLISHED APRIL 9, 1912.

86,886. HAMS AND BACON. THE CUDAHY PACKING COMPANY, Chicago, Ill.
Filed January 26, 1912. Serial No. 61,041. PUBLISHED APRIL 2, 1912.

86,887. CEREAL BREAKFAST FOODS. GEORGE K. CUMMINGS, New York, N. Y.
Filed January 27, 1911. Serial No. 54,126. PUBLISHED APRIL 2, 1912.

86,888. ADJUSTABLE SUPPORTS FOR MIRRORS. GEORGE DAVIDSON, New York, N. Y.
Filed December 15, 1911. Serial No. 60,245. PUBLISHED APRIL 9, 1912.

86,889. COTTON-SEED OIL FOR COOKING PURPOSES. DELTA OIL CO., Greenville, Miss.
Filed September 14, 1911. Serial No. 58,664. PUBLISHED APRIL 2, 1912.

Ser. No. 63,246. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMMON & PERSON, Jersey City, N. J. Filed May 1, 1912.

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Particular description of goods.—Oleomargarin.
Claims use since Apr. 17, 1912.

Ser. No. 63,265. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) I. B. KLEINERT RUBBER COMPANY, New York, N. Y. Filed May 2, 1912.

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Claims use since Mar. 15, 1912.

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Particular description of goods.—Blended Coffee.
Claims use since 1903.

Ser. No. 63,291. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ST. LOUIS COFFEE & SPICE MILLS, St. Louis, Mo. Filed May 4, 1912.

SECURITY

Particular description of goods.—Blended Coffee.
Claims use since Aug. 20, 1911.

Ser. No. 63,319. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THOMAS MORTON, New York, N. Y. Filed May 4, 1912. Under ten-year proviso.

"MORTON'S"

Particular description of goods.—Window-Sash Chains.
Claims use since 1879.

Ser. No. 63,328. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) SMITH WEBBING COMPANY, Pawtucket, R. I. Filed May 4, 1912.

SNUGTEX

Particular description of goods.—Textile Belts for Men's Apparel.
Claims use since Feb. 9, 1912.

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The picture shown being fanciful.
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Claims use since Apr. 15, 1912.

Ser. No. 63,406. (CLASS 48. MALT EXTRACTS AND LIQUORS.) JOHANN BAPTIST WEYERMAN, Potsdam, Germany. Filed May 8, 1912.



Particular description of goods.—Beer, Colored Malt Beer, Concentrated Extract of Colored Malt and Beer.
Claims use since July 16, 1907.

Ser. No. 63,445. (CLASS 39. CLOTHING.) THE 14TH STREET STORE, New York, N. Y. Filed May 10, 1912.

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Filed January 27, 1911. Serial No. 54,126. PUBLISHED APRIL 2, 1912.

86,888. ADJUSTABLE SUPPORTS FOR MIRRORS. GEORGE DAVIDSON, New York, N. Y.
Filed December 15, 1911. Serial No. 60,245. PUBLISHED APRIL 9, 1912.

86,889. COTTON-SEED OIL FOR COOKING PURPOSES. DELTA OIL CO., Greenville, Miss.
Filed September 14, 1911. Serial No. 58,664. PUBLISHED APRIL 2, 1912.

86,890. READY-MIXED DECORATIVE AND PRESERVATIVE PAINTS. DENNY, HILBORN & ROSENBACH, Philadelphia, Pa.
Filed January 26, 1912. Serial No. 61,059. PUBLISHED APRIL 9, 1912.

86,891. READY-MIXED DECORATIVE AND PRESERVATIVE PAINTS. DENNY, HILBORN & ROSENBACH, Philadelphia, Pa.
Filed January 26, 1912. Serial No. 61,060. PUBLISHED APRIL 9, 1912.

86,892. READY-MIXED DECORATIVE AND PRESERVATIVE PAINTS. DENNY, HILBORN & ROSENBACH, Philadelphia, Pa.
Filed January 26, 1912. Serial No. 61,061. PUBLISHED APRIL 9, 1912.

86,893. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES. DETROIT SANITARY SUPPLY CO., Detroit, Mich.
Filed September 1, 1911. Serial No. 58,497. PUBLISHED APRIL 9, 1912.

86,894. CALENDARS. DODGE PUBLISHING COMPANY, New York, N. Y.
Filed February 1, 1912. Serial No. 61,191. PUBLISHED APRIL 9, 1912.

86,895. CALENDARS. DODGE PUBLISHING COMPANY, New York, N. Y.
Filed February 1, 1912. Serial No. 61,192. PUBLISHED APRIL 9, 1912.

86,896. CANNED PEARS. DOOLEY, SMITH & COMPANY, New York, N. Y.
Filed January 2, 1912. Serial No. 60,558. PUBLISHED APRIL 2, 1912.

86,897. LEAD-PENCILS. EAGLE PENCIL COMPANY, New York, N. Y.
Filed January 29, 1912. Serial No. 61,117. Renewal of No. 9,103, February 21, 1882. PUBLISHED APRIL 9, 1912.

86,898. LEAD-PENCILS, COLORED PENCILS, COPYING-PENCILS, AND INK-PENCILS. A. W. FABER, Stein, Germany.
Filed January 27, 1912. Serial No. 61,077. PUBLISHED APRIL 9, 1912.

86,899. HANDKERCHIEFS. JOHN V. FARWELL COMPANY, Chicago, Ill.
Filed January 17, 1912. Serial No. 60,874. PUBLISHED APRIL 9, 1912.

86,900. COTTON DRESS GOODS. MARSHALL FIELD & COMPANY, Chicago, Ill.
Filed February 2, 1911. Serial No. 54,258. PUBLISHED APRIL 9, 1912.

86,901. CERTAIN FOODS. A. GOODMAN & SON, New York, N. Y.
Filed December 29, 1911. Serial No. 60,518. PUBLISHED APRIL 2, 1912.

86,902. CAST-IRON CAR-WHEELS. GRIFFIN WHEEL COMPANY, Chicago, Ill.
Filed November 20, 1911. Serial No. 59,818. PUBLISHED APRIL 9, 1912.

86,903. CANNED SALMON. GROSSFELD AND ROE COMPANY, Chicago, Ill.
Filed May 27, 1911. Serial No. 56,611. PUBLISHED AUGUST 22, 1911.

86,904. CIGARS. HARTFORD BROS., Decatur, Ill.
Filed November 9, 1911. Serial No. 59,617. PUBLISHED APRIL 9, 1912.

86,905. CIGARS. THE HAUTZENRODER CO., Mansfield, Ohio.
Filed February 5, 1912. Serial No. 61,261. PUBLISHED APRIL 9, 1912.

86,906. HANDKERCHIEFS. HELLER & LONG, New York, N. Y.
Filed February 7, 1912. Serial No. 61,340. PUBLISHED APRIL 9, 1912.

86,907. CANDY AND CHOCOLATES. HESS BROTHERS INC., New York, N. Y.
Filed January 9, 1912. Serial No. 60,702. PUBLISHED APRIL 9, 1912.

86,908. ARM-BANDS AND GARTERS. JACOB J. HOFFMANN, New York, N. Y.
Filed November 14, 1911. Serial No. 59,716. PUBLISHED APRIL 9, 1912.

86,909. HAMMOCKS. HERMAN L. HOHLFELD, Philadelphia, Pa.
Filed January 12, 1912. Serial No. 60,782. PUBLISHED APRIL 9, 1912.

86,910. CONDIMENT CONSISTING OF A MIXTURE OF PEPPER AND SALT. WILLIAM HORLICK, Jr., Racine, Wis.
Filed May 9, 1911. Serial No. 56,264. PUBLISHED APRIL 2, 1912.

86,911. RIFLES, SHOTGUNS, AND REVOLVERS. THE ITHACA GUN COMPANY, Ithaca, N. Y.
Filed August 21, 1909. Serial No. 44,291. PUBLISHED APRIL 9, 1912.

86,912. STEERING-GEARS. JACKSON-CHURCH-WILCOX CO., Saginaw, Mich.
Filed January 27, 1912. Serial No. 61,087. PUBLISHED APRIL 9, 1912.

86,913. SPARK-PLUGS. THE KANSAS CITY AUTOMOBILE SUPPLY CO., Kansas City, Mo.
Filed December 14, 1908. Serial No. 39,309½. PUBLISHED APRIL 9, 1912.

86,914 WHOLE-WHEAT FLOUR AND CEREAL BREAKFAST FOOD. HUNYADI LASZLO COMPANY, Chicago, Ill.
Filed August 25, 1910. Serial No. 51,543. PUBLISHED APRIL 9, 1912.

86,915. CERTAIN FOODS. LEHMANN-HIGGINSON GROCER CO., Wichita, Kans.
Filed February 13, 1911. Serial No. 54,489. PUBLISHED APRIL 2, 1912.

86,916. WHEAT-FLOUR. LEXINGTON MILL & ELEVATOR CO., Lexington, Nebr.
Filed January 22, 1912. Serial No. 60,965. PUBLISHED APRIL 9, 1912.

86,917. SARDINES. ALEX LUNESCHLOSS, New York, N. Y.
Filed July 25, 1911. Serial No. 57,807. PUBLISHED APRIL 2, 1912.

86,918. EGGS. LUCAS PRODUCE COMPANY, New York, N. Y., and Leipsic, Ohio.
Filed February 8, 1912. Serial No. 61,350. PUBLISHED APRIL 9, 1912.

86,919. SPARK-PLUGS, TERMINALS, PROTECTORS, CLIPS, AND CONNECTORS. MAC-KAR MANUFACTURING COMPANY, Jamaica Plain, Mass.
Filed September 16, 1911. Serial No. 58,694. PUBLISHED APRIL 9, 1912.

86,920. CATSUP. MCMECHEN PRESERVING COMPANY, Wheeling, W. V.
Filed January 23, 1912. Serial No. 60,979. PUBLISHED APRIL 2, 1912.

86,921. FRESH OYSTERS. MILES & CO. INC., Baltimore, Md.
Filed January 2, 1912. Serial No. 60,577. PUBLISHED APRIL 9, 1912.

86,922. FRESH OYSTERS. MILES & CO. INC., Baltimore, Md.
Filed January 2, 1912. Serial No. 60,578. PUBLISHED APRIL 9, 1912.

86,923. SUBSTITUTE FOR LINSEED-OIL. BYRON MORGAN, New York, N. Y.
Filed December 13, 1911. Serial No. 60,204. PUBLISHED APRIL 9, 1912.

86,924. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 23, 1912. Serial No. 60,986. PUBLISHED APRIL 2, 1912.

86,925. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 25, 1912. Serial No. 61,016. PUBLISHED APRIL 2, 1912.

86,926. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 27, 1912. Serial No. 61,096. PUBLISHED APRIL 2, 1912.

86,927. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 27, 1912. Serial No. 61,098. PUBLISHED APRIL 2, 1912.

86,928. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 27, 1912. Serial No. 61,100. PUBLISHED APRIL 2, 1912.

86,929. BISCUIT. NATIONAL BISCUIT COMPANY, Jersey City, N. J., and New York, N. Y.
Filed January 27, 1912. Serial No. 61,105. PUBLISHED APRIL 2, 1912.

86,930. SUBSTITUTE FOR COFFEE. NATIONAL ESSENCE FOR COFFEE CO., Philadelphia, Pa.
Filed December 18, 1911. Serial No. 60,341. PUBLISHED APRIL 2, 1912.

86,931. HARNESS. JOHN C. NICHOLS HARNESS MANUFACTURING COMPANY, Janesville, Wis.
Filed October 2, 1911. Serial No. 58,974. PUBLISHED APRIL 9, 1912.

86,932. CERTAIN ELECTRICAL APPARATUS AND SUPPLIES. NORTHWESTERN ELECTRIC EQUIPMENT COMPANY, Brooklyn, N. Y.
Filed December 21, 1910. Serial No. 53,413. PUBLISHED APRIL 9, 1912.

86,933. PREPARED CEREAL FLOUR. THE NORTHWESTERN ELEVATOR AND MILL CO., Toledo, Mount Vernon, and Loudonville, Ohio.
Filed May 23, 1911. Serial No. 56,542. PUBLISHED APRIL 2, 1912.

86,934. ASPHALT, MACADAM, CONCRETE, AND BITUMINOUS PAVING. WILLIAM R. PETTY, Fort Worth, Tex.
Filed February 9, 1911. Serial No. 54,406. PUBLISHED APRIL 9, 1912.

86,935. SPECIAL MANUFACTURE OF NOODLES FOR SOUPS. THE PFAFFMANN EGG NOODLE CO., Cleveland, Ohio.
Filed April 24, 1911. Serial No. 55,943. PUBLISHED APRIL 2, 1912.

86,936. COFFEE. THE THEO. POEHLER MERCANTILE CO., Lawrence, Kans.
Filed January 4, 1912. Serial No. 60,610. PUBLISHED APRIL 2, 1912.

86,937. OIL CONTAINING AND APPLYING DEVICES KNOWN AS OIL-GREASE GUNS. THE RANDALL-FAICHNEY COMPANY, Boston, Mass.
Filed November 27, 1911. Serial No. 59,966. PUBLISHED APRIL 9, 1912.

86,938. WRAPPING-PAPER. REPUBLIC BAG & PAPER CO., New York, N. Y.
Filed November 7, 1911. Serial No. 59,607. PUBLISHED APRIL 9, 1912.

86,939. CHEWING-GUM. JOHN B. ROBBINS, Malden, Mass.
Filed December 5, 1911. Serial No. 60,111. PUBLISHED APRIL 2, 1912.

86,940. POULTRY FEED. RUDY-PATRICK SEED CO., Kansas City, Mo.
Filed February 5, 1912. Serial No. 61,254. PUBLISHED APRIL 9, 1912.

86,941. CERTAIN CUTLERY, MACHINERY, AND TOOLS AND PARTS THEREOF. SANDERSON BROTHERS & NEWBOULD LIMITED, Sheffield, England.
Filed September 25, 1911. Serial No. 58,837. PUBLISHED APRIL 9, 1912.

86,942. LADIES' SANITARY BELTS AND MEN'S HOSE-SUPPORTERS. MEYER W. SCHLOSS, New York, N. Y.
Filed August 26, 1911. Serial No. 58,407. PUBLISHED APRIL 9, 1912.

86,943. BREAD. EUGENE SCHMID, Cincinnati, Ohio.
Filed January 8, 1912. Serial No. 60,688. PUBLISHED APRIL 2, 1912.

86,944. GREEN COFFEE. SCHÜTTE BÜNEMANN & CO., New York, N. Y.
Filed July 26, 1911. Serial No. 57,826. PUBLISHED APRIL 2, 1912.

86,945. SUSPENDERS. THE SCOUT SUSPENDER & SPECIALTY MFG. CO., Kalamazoo, Mich.
Filed February 26, 1912. Serial No. 61,750. PUBLISHED APRIL 9, 1912.

86,946. BOWS FOR SHOES. SHOE CITY NOVELTY CO., Lynn, Mass.
Filed November 23, 1911. Serial No. 59,877. PUBLISHED APRIL 9, 1912.

86,947. STARCH FOR LAUNDRY PURPOSES. SOCIÉTÉ ANONYME DES USINES REMY, Wijgmael, Belgium.
Filed June 27, 1911. Serial No. 57,332. PUBLISHED MARCH 19, 1912.

86,948. STOCK FEED. STAFOLIFE FEED & MILLING CO., LTD., New Orleans, La.
Filed December 28, 1911. Serial No. 60,492. PUBLISHED APRIL 2, 1912.

86,949. STOCK FEED. STAFOLIFE FEED & MILLING CO., LTD., New Orleans, La.
Filed December 28, 1911. Serial No. 60,493. PUBLISHED APRIL 2, 1912.

86,950. STOCK FEED. STAFOLIFE FEED & MILLING CO., LTD., New Orleans, La.
Filed December 28, 1911. Serial No. 60,494. PUBLISHED APRIL 2, 1912.

86,951. REFINED OIL FOR LIGHTING, HEATING, AND POWER PURPOSES. STANDARD OIL COMPANY, Bayonne, N. J.
Filed January 27, 1912. Serial No. 61,067. PUBLISHED APRIL 9, 1912.

86,952. REFINED OIL FOR LIGHTING, HEATING, AND POWER PURPOSES. STANDARD OIL COMPANY, Bayonne, N. J.
Filed January 27, 1912. Serial No. 61,069. PUBLISHED APRIL 9, 1912.

86,953. GASOLENE AND NAPHTHA. STANDARD OIL COMPANY, Bayonne, N. J.
Filed January 27, 1912. Serial No. 61,071. PUBLISHED APRIL 9, 1912.

86,954. BENZIN. STANDARD OIL COMPANY, Bayonne, N. J.
Filed January 27, 1912. Serial No. 61,072. PUBLISHED APRIL 9, 1912.

86,955. NAPHTHA. STANDARD OIL COMPANY, Bayonne, N. J.
Filed January 27, 1912. Serial No. 61,073. PUBLISHED APRIL 9, 1912.

86,956. NAPHTHA. STANDARD OIL COMPANY, Bayonne, N. J.
Filed January 27, 1912. Serial No. 61,074. PUBLISHED APRIL 9, 1912.

86,957. CHAIR-TIPS. THE STAR RUBBER CO., Akron, Ohio.
Filed December 18, 1911. Serial No. 60,308. PUBLISHED APRIL 9, 1912.

86,958. TOBACCO-POUCHES. THE STAR RUBBER CO., Akron, Ohio.
Filed December 18, 1911. Serial No. 60,309. PUBLISHED APRIL 9, 1912.

86,959. SPIRAL DRILLS, REAMERS, AND MILLING-CUTTERS. R. STOCK & CO., SPIRALBOHRER-WERKZEUG UND MASCHINENFABRIK AKTIENGESELLSCHAFT, Marienfelde, near Berlin, Germany.
Filed September 15, 1910. Serial No. 51,827. PUBLISHED APRIL 9, 1912.

86,960. CERTAIN FOODS. JOHN ALDEN STOUGHTON, South Windsor, Conn.
Filed October 4, 1911. Serial No. 58,996. PUBLISHED APRIL 9, 1912.

86,961. HORSE-COLLARS. STRAUS, BODENHEIMER SADDLERY CO., Houston, Tex.
Filed May 1, 1911. Serial No. 56,086. PUBLISHED APRIL 9, 1912.

86,962. ROBES AND MANTEAUX. ANNA M. TAFT, Chicago, Ill.
Filed February 5, 1912. Serial No. 61,251. PUBLISHED APRIL 9, 1912.

86,963. BOOTS AND SHOES MADE OF LEATHER AND LEATHER TIPS THEREFOR. THE TEL-TIL-TIP CO., Holland, Mich.
Filed December 12, 1911. Serial No. 60,190. PUBLISHED APRIL 9, 1912.

86,964. CROCKERY PIN-CUPS AND CROCKERY PIN-TRAYS. TOWER MANUFACTURING & NOVELTY CO., New York, N. Y.
Filed February 6, 1912. Serial No. 61,291. PUBLISHED APRIL 9, 1912.

86,965. PAPER BAGS. THE UNION BAG AND PAPER COMPANY, Jersey City, N. J., and New York, N. Y.
Filed February 28, 1912. Serial No. 61,791. PUBLISHED APRIL 9, 1912.

86,966. PRECIOUS-METAL SEWING-THIMBLES. UNTERMEYER-ROBBINS & COMPANY, New York, N. Y.
Filed February 23, 1912. Serial No. 61,671. PUBLISHED APRIL 9, 1912.

86,967. GEAR-GREASES. UTAH OIL REFINING COMPANY, Salt Lake City, Utah.
Filed December 26, 1911. Serial No. 60,455. PUBLISHED FEBRUARY 13, 1912.

86,968. CANNED CHOP-SOY. VETTE & ZUNCKER, Chicago, Ill.
Filed January 5, 1912. Serial No. 60,633. PUBLISHED APRIL 2, 1912.

86,969. STRAIGHT RYE AND STRAIGHT BOURBON WHISKY. JOHN WEBER, Jr., Des Moines, Iowa.
Filed February 8, 1909. Serial No. 40,418. PUBLISHED JUNE 15, 1909.

86,970. CERTAIN FOODS. WESTERN GROCER COMPANY, Marshalltown, Iowa.
Filed December 15, 1911. Serial No. 60,276. PUBLISHED APRIL 2, 1912.

86,971. PREPARED POULTRY FOOD. FRANK C. WILLIAMS, Easton, Pa.
Filed June 1, 1911. Serial No. 56,725. PUBLISHED SEPTEMBER 12, 1911.

86,972. OPEN-WEAVE CLOTH. W. P. WILLIS & CO., New York, N. Y.
Filed January 2, 1912. Serial No. 60,565. PUBLISHED APRIL 9, 1912.

LABELS

REGISTERED JUNE 11, 1912.

16,373.—*Title:* "EAGLE BRAND SWEATER SHIRT." (For Shirts and Sweaters.) THE ADLER UNDERWEAR & HOSIERY MFG. CO., Cincinnati, Ohio. Filed April 4, 1912.

16,374.—*Title:* "AMPT'S TOASTED CORN DAINTIES." (For Toasted Corn-Flakes.) CHARLES F. AMPT, Cincinnati, Ohio. Filed May 2, 1912.

16,375.—*Title:* "ALL-BUT-LINEN." (For Suiting.) BURTON BROS. & Co., New York, N. Y. Filed March 29, 1912.

16,376.—*Title:* "COLLEGE." (For Toilet-Paper.) GEORGE E. CURRAN, Boston, Mass. Filed May 23, 1912.

16,377.—*Title:* "OPERA." (For Toilet-Paper.) GEORGE E. CURRAN, Boston, Mass. Filed May 23, 1912.

16,378.—*Title:* "PRIDE OF SHERIDAN." (For Flour.) J. W. DENIO MILLING COMPANY, Sheridan, Wyo. Filed April 24, 1912.

16,379.—*Title:* "BEST OUT WEST." (For Flour.) J. W. DENIO MILLING COMPANY, Sheridan, Wyo. Filed April 24, 1912.

16,380.—*Title:* "LA COMPOSA." (For Cigars.) THE MOEHLE LITHOGRAPHIC COMPANY, New York, N. Y. Filed May 27, 1912.

16,381.—*Title:* "BABY ROSE." (For Cigars.) THE MOEHLE LITHOGRAPHIC COMPANY, New York, N. Y. Filed May 27, 1912.

16,382.—*Title:* "LOYAL ORDER." (For Cigars.) THE MOEHLE LITHOGRAPHIC COMPANY, New York, N. Y. Filed May 27, 1912.

16,383.—*Title:* "CHIEF OKEE." (For Cigars.) THE MOEHLE LITHOGRAPHIC COMPANY, New York, N. Y. Filed May 27, 1912.

16,384.—*Title:* "ROSA DEL LAGO." (For Cigars.) THE MOEHLE LITHOGRAPHIC COMPANY, New York, N. Y. Filed May 27, 1912.

16,385.—*Title:* "OSHKOSH SPECIAL." (For Beer.) THE OSHKOSH BREWING CO., Oshkosh, Wis. Filed May 13, 1912.

16,386.—*Title:* "SNIFFLE-BALM." (For a Medicinal Preparation.) FRED'K. H. ROBINSON, Philadelphia, Pa. Filed March 23, 1912.

16,387.—*Title:* "BON TON THE MOST PERFECT FITTING CORSET IN THE WORLD." (For Corsets.) ROYAL WORCESTER CORSET CO., Worcester, Mass. Filed May 10, 1912.

16,388.—*Title:* "BLUE RIBBON." (For Playing-Cards.) THE RUSSELL PLAYING CARD COMPANY, Milltown, N. J., and New York, N. Y. Filed April 18, 1912.

16,389.—*Title:* "KNIGHTHOOD BRAND." (For Salmon.) SANBORN-CRAM CO., South Bend, Wash.; Astoria, Oreg., and Burnett, Alaska. Filed April 24, 1912.

16,390.—*Title:* "RED RAVEN BRAND." (For Salmon.) SANBORN-CRAM CO., South Bend, Wash.; Astoria, Oreg., and Burnett, Alaska. Filed April 24, 1912.

16,391.—*Title:* "THE STAFF OF LIFE NATURE'S BREAD." (For Bread.) LOUIS SCHNEIDER, Chicago, Ill. Filed January 25, 1912.

16,392.—*Title:* "BLACK AND GOLD." (For Whisky.) S. FROEHLICH & SON, Newark, N. J. Filed May 1, 1912.

16,393.—*Title:* "ROMEO & JULIET." (For Whisky.) S. FROEHLICH & SON, Newark, N. J. Filed May 1, 1912.

16,394.—*Title:* "GINGER-BRANDY." (For Brandy.) S. FROEHLICH & SON, Newark, N. J. Filed May 1, 1912.

16,395.—*Title:* "KOH-I-NOOR DRESS FASTENER." (For Dress-Fastening Devices.) WALDES & Co., Prague-Wrschowitz, Austria-Hungary. Filed April 3, 1912.

PRINTS

REGISTERED JUNE 11, 1912.

3,047.—*Title:* "MY HAT IS IN THE RING." (For Teddy Hats.) BOSTON NOVELTY CO., Boston, Mass. Filed April 12, 1912.

3,048.—*Title:* "I DONE HAD TO FRAME RASTUS." (For Wheat Breakfast Food.) CREAM OF WHEAT CO., Minneapolis, Minn. Filed May 23, 1912.

3,049.—*Title:* "ELECTRIC RUG AND CARPET CLEANER." (For Rug and Carpet Cleaner.) ELECTRIC CLEANER CO., Indianapolis, Ind. Filed May 13, 1912.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

WILLIAMS *v.* BARNES AND THORSCHMIDT.

Decided October 4, 1911.

INTERFERENCE—PRIORITY.

Evidence reviewed and *Held* insufficient to establish that W. had a conception of the invention in issue prior to that of B. and T. or that he reduced the invention to practice prior to the filing of the application of B. and T., and that priority was therefore properly awarded the latter.

APPEAL from Examiners-in-Chief.

SHEET-METAL-FASTENER-DRIVING MACHINE.

Mr. Conrad A. Dieterich for Williams.

Mr. Harold Serrell for Barnes and Thorschmidt.

MOORE, *Commissioner:*

This is an appeal by Williams from a decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority to Barnes and Thorschmidt.

The invention in issue relates to machines for driving corrugated sheet-metal fasteners, which are used in making box-shooks. The issue is set out in eight counts, of which the following sufficiently indicate the nature of the invention:

2. In a machine of the character described, means for feeding a metal strip, means for varying said feed to produce fasteners of different widths, means for severing a fastener from said strip, and means for driving the fastener edgewise.

8. In a machine of the character described, the combination with a support for the material to be joined, of a transverse support arranged above said support having arranged thereon a feeding device adapted to advance a metal strip, means for adjusting said feeding device to vary the extent of the feed, a chuck arranged adjacent to said feeding device adapted to receive one end of said strip, a cutting device adapted to sever the end of the strip within said chuck, means for holding the severed end of said strip longitudinally in a horizontal position within said chuck, and means for forcing said severed end edgewise from said chuck, and into the material to be joined.

Williams alleges that he conceived the invention in September, 1904, that he made drawings thereof and disclosed it to others in November, 1904, and reduced it to practice in November, 1905. Barnes and Thorschmidt claim conception of the invention, the making of drawings thereof, and disclosure to others in November or December, 1904, and reduction to practice in August or September, 1905.

The application of Barnes and Thorschmidt was filed March 8 and that of Williams March 21, 1906.

The counts are all limited to a machine in which means are provided for varying the feed so that fasteners of suitable lengths may be cut off from the strips of metal.

The Examiner of Interferences and the Examiners-in-Chief each found that Barnes and Thorschmidt and Williams built machines embodying the invention in issue in August, 1905, and November, 1905, respectively; but they both found that there was no evidence establishing at what time prior to the building of the machine either of the parties to the interference had a conception of the variable-feed device. They further found that neither of the parties had established a reduction to practice of the invention in issue prior to his filing date, since there was no testimony that the machines were ever adjusted to cut off fasteners of different lengths.

That Williams built a machine substantially like the machine shown in his application in November, 1905, is abundantly proved; but there is no testimony that this machine was ever operated in the manner called for by the issue of this interference. Several of the witnesses testify to having seen the machine operated in November or December, 1905; but none of them refers to the adjustability of the feed mechanism. Pearson, who was a box-manufacturer in Philadelphia, testifies that in the early part of January, 1906, he saw one of these machines operated and was so pleased with it that he ordered one substantially like it. He does not say, however, anything about the adjustable feature, merely stating that the machine worked and drove fasteners satisfactorily. As there is no further evidence as to the operation of the machine prior to the date on which Williams filed his application, it must be held that he has not established a reduction to practice of the invention in issue prior to that date.

It is contended that the testimony on behalf of Williams shows that this machine was completed so that it could be operated by hand in August, 1905, the only thing lacking to make the machine automatic being the placing in position of miter-gears, which, it appears, were not ordered until November, 1905. Williams himself, however, does not so testify, merely stating (Q. 63) that the machine was running by November 8, 1905, and that—

I had the machine finished some time before that except two brass gears—miter gears, that I was waiting for from Boston.

Reich testifies that the machine was built in August, except for the gears; but he undertakes to fix the date by the fact that he wrapped up certain parts of this machine in newspaper and that he remembers noticing that the paper was dated An-

gust, 1905. The testimony is believed to be clearly insufficient to establish that the machine had been built at this time. Nor is Fennelly's testimony any more definite on this point. It is to be noted that neither Fennelly nor Reich testifies that the machine contained the adjustable feed mechanism at the time they say it was originally built.

The testimony offered on behalf of Barnes and Thorschmidt is believed to establish that they built a machine substantially like that shown in their application in August or September, 1905. This date is fixed by Thorschmidt, Wood, and Gansert with reference to certain orders given to Gansert, who actually built the machine.

Thorschmidt testifies (Q. 36) that the machine contained two levers which could be—

closed or opened in order to lengthen or to shorten the strips of metal or end-menders to be cut at the desired length.

Gansert testifies that the machine introduced in evidence as "Barnes and Thorschmidt First Machine July–September 1905" is the identical machine which he built. In describing this machine he states (Q. 24) that—

the ratchet wheel was operated by means of a pawl; the same pawl was attached to an adjustable lever.

An inspection of the machine shows that the length of the fastener is varied by adjusting such a lever.

There was introduced in evidence a working drawing said to have been made by Gansert in June, 1905, and while this drawing does not show the part connected with the feed-levers which in the application drawing is lettered *i* Gansert points out that the levers shown in that drawing are arranged in two sections.

This testimony establishes a conception of the invention by Barnes and Thorschmidt prior to any date that can be awarded Williams, and as the latter has not established a reduction to practice of the invention prior to his filing date priority was properly awarded Barnes and Thorschmidt, whose application was filed prior to that of Williams.

The decision of the Examiners-in-Chief is affirmed.

EX PARTE BARTHELS.

Decided May 1, 1912.

AFFIDAVIT UNDER RULE 75—FOREIGN APPLICATION—DATE OF AND IDENTITY OF INVENTIONS—HOW ESTABLISHED.

Where an applicant claims the benefit of the filing of an application in a foreign country for the purpose of overcoming a reference, his affidavit, filed under the provisions of Rule 75, "should be accompanied by a copy of the original foreign application, certified to by the Patent Office of the country in which it was filed, and if it is not in the English language, a sworn translation of the same or a translation made by the official translator of this Office. If the application was not made by the inventor himself, applicant's affidavit should also state that the application in the foreign country was filed for his benefit and that such procedure is in accordance with the procedure in the foreign country."

ON PETITION.

CATAMENIAL APPLIANCE.

Mr. B. Singer and *Mr. Carl H. Crawford* for the applicant.

BILLINGS, *First Assistant Commissioner:*

This is a petition from the action of the Primary Examiner holding insufficient an affidavit filed under the provisions of Rule 75 to overcome a reference cited.

It appears that applicant's claims were rejected on a foreign patent. He thereupon filed an affidavit stating that he had filed in Germany on a date given, which was prior to the effective date of the reference cited, an application—

fully disclosing the subject-matter of the above entitled United States application.

Section 4887 of the Revised Statutes reads, in part, as follows:

An application for patent for an invention or discovery or for a design filed in this country by any person who has previously regularly filed an application for a patent for the same invention, discovery, or design in a foreign country which, by treaty, convention, or law, affords similar privileges to citizens of the United States shall have the same force and effect as the same application would have if filed in this country on the date on which the application for patent for the same invention, discovery, or design was first filed in such foreign country, provided the application in this country is filed within twelve months in cases within the provisions of section forty-eight hundred and eighty-six of the Revised Statutes, and within four months in cases of designs, from the earliest date on which any such foreign application was filed.

Rule 75 of the Rules of Practice provides that when an application is rejected on reference to a domestic patent which substantially shows and describes but does not claim the rejected invention or on reference to a foreign patent such patent, unless its date is more than two years prior to the date on which application was filed in this country, will not be a bar to the grant of a patent if the inventor shall make oath to facts showing the completion of the invention in this country before the filing of the application on which the domestic patent issued or before the date of the foreign patent and that the invention has not been in public use more than two years prior to his application and that he has not abandoned the same.

The statement of applicant that the foreign application discloses the same invention that he is now claiming is merely his conclusion. The fact that a copy of the patent granted on that application is in this Office is not sufficient, since there is nothing to show that the disclosure of the patent is exactly the same as the disclosure of the application as filed.

In order to comply with the provisions of Rule 75 applicant's affidavit should be accompanied by a copy of the original foreign application, certified to by the Patent Office of the country in which it was filed, and, if it is not in the English language, a sworn translation of the same or a translation made by the official translator of this Office. If the application was not made by the inventor himself, applicant's affidavit should also state that the application in the foreign country was filed for his benefit and that such procedure is in accordance with the procedure in the foreign country. The Examiner will then have the information before him from which he can determine whether the application relied upon was for the same invention as that which applicant is now claiming.

Applicant asks for a general ruling on many points as to the proving of foreign applications; but such ruling is not necessary for the purpose of this case and is therefore not made except as above indicated.

The petition is denied.

QUENZER v. COLLIS.

Decided July 11, 1911.

1. INTERFERENCE—PRIORITY—REDUCTION TO PRACTICE.
Evidence reviewed and *Held* insufficient to establish that a device constructed by C. prior to Q.'s reduction to practice of the invention in issue amounted to anything more than an abandoned experiment.

2. SAME—SAME—CONCEALMENT.
Held that if a device built by C. prior to Q.'s reduction to practice constituted a reduction to practice of the invention C. had so concealed the same as to justify an award of priority to Q. under the ruling in *Mason v. Hepburn*, (84 O. G., 147; 13 App. D. C., 86.)

APPEAL from Examiners-in-Chief.

ANKLE-SUPPORTER.

Mr. Elgin L. McBurney and *Mr. Eugene C. Brown* for Quenzer.

Mr. Joseph R. Littell for Collis.

TENNANT, *Assistant Commissioner:*

This is an appeal by Collis from the decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority of invention to Quenzer, the junior party.

The issue of the interference is as follows:

An improved ankle support and protector of the class described, comprising flexible non-elastic front strips constituting retaining members, a body consisting of a strip wholly of elastic fabric or webbing and extending from edge to edge of said front strips and connected at its ends with the rear edges of said front strips and adapted to surround the ankle, and a bottom member consisting of a strip wholly of elastic fabric or webbing and extending from edge to edge of said front strips at the bottom and having its ends connected with the bottom edges of said front strips and adapted to pass under the instep.

Quenzer alleges conception, disclosure, and reduction to practice in October, 1907. Collis alleges conception in the fall of 1906 and disclosure and reduction to practice in December, 1906.

It is claimed in behalf of Quenzer that immediately after his reduction to practice of the invention in October, 1907, devices embodying the invention in issue were placed upon the market by him and continuously marketed to the date of taking testimony.

Collis claims to have reduced the invention to practice by a construction of certain devices embodying the invention in issue, which are offered in evidence as Exhibits C and D. He testifies that he wore the ankle-supporter, Exhibit C, home on his foot December 10, 1909, showed it to his wife, and wore it back again the next day to the factory; that on December 11 he put these Exhibits C and D away with the paper patterns in a drawer that he kept for that purpose. (Qs. 32 to 34.) On cross-examination he testifies (X-Qs. 83 to 87) that these exhibits remained preserved in his desk until they were produced when he was preparing for the interference. It is shown, however, by the testimony that in February, 1909, he began the manufacture of devices similar to Exhibits 5 and 6 and continued to manufacture the same until the time the testimony was taken.

It appears that on January 9, 1908, Quenzer filed an application for patent, No. 409,978, which disclosed the invention in issue and also another form of support. Division was required by the Patent Office, and the particular device involved in this interference was canceled from that application, and a patent, No. 921,563, was subsequently issued upon the remaining species of the invention disclosed in the original application. In April, 1909, Quenzer, learning that Collis had begun the manufacture of the invention in issue, threatened him with suit for infringement of his Patent No. 921,563. Upon finding out, however, that that patent did not cover the invention in issue, which, as above stated, had been canceled during the pendency of the application, he filed his application involved in this interference, which was subsequently placed in interference with an application of Collis which had been filed in the meantime.

The Examiner of Interferences held that the device, Exhibit C, relied upon by Collis, amounted to nothing more than an abandoned experiment, and that in the absence of any showing of diligence or excuse for his lack of diligence from 1906 to 1909 his right to a patent is subordinate to that of Quenzer.

The Examiners-in-Chief state that in their opinion—

the principal question to be determined on the appeal, as we view the matter, is whether Collis has forfeited the invention, it being the contention of his counsel that he conceived of and reduced to practice prior to any date which is alleged by Quenzer.

They held that in view of Collis's concealment of the invention he had forfeited his right to a patent.

Collis has attacked the proofs presented in behalf of Quenzer, asserting that the latter failed in establishing any substantial manufacture and sale of ankle-supporters like the issue in his testimony-in-chief and that certain rebuttal testimony amounted to an attempt to bolster up the testimony-in-chief and cure his failure of establish a reduction to practice of the invention prior to the date upon which Collis filed his application. A motion was filed to strike out the rebuttal testimony presented in behalf of Quenzer.

These contentions of Collis are clearly without foundation. The witnesses Mary Clarke, Hull, and Green, who were called during the taking of the *prima facie* testimony, each testifies to facts showing that devices made in accordance with the issue of this interference were continuously manufactured and sold by Quenzer from November 16, 1907, to the date upon which testimony was taken, and Quenzer asserts (X-Qs. 49 to 77) that he never made any other form of device than that covered by the issue. The rebuttal testimony objected to by Collis was presented for the purpose of showing that Collis should be presumed to have knowledge of Quenzer's manufacture and sale, and was clearly in rebuttal of the statement by Collis that he did not know of Quenzer's manufacture and sale of the device in issue, as well as other assertions made by him. It must therefore be held that the rebuttal testimony presented by Quenzer was proper, and the refusal of the lower tribunals to disregard the same was right.

I agree with the lower tribunals that Quenzer has established a reduction to practice of the invention as early as November, 1907. The question,

therefore, upon which this case must turn is whether the device made by Collis in December, 1906, constitutes a reduction to practice, and, if so, whether he forfeited his rights to the invention under the doctrine announced in *Mason* v. *Hepburn* (84 O. G., 147; 13 App. D. C., 86) and applied in other cases of the same character.

As before stated, but two ankle-supports were made by Collis in 1906. One of these was worn by him upon two occasions at most, and apparently but for a few hours. These devices were then placed in a drawer, and admittedly nothing further was done with the same until 1909, more than a year after Quenzer had begun the manufacture and sale of similar devices. It is not asserted by either of the parties that the device covered by the issue is of such a simple character that no test would be necessary to determine its efficiency. The only testimony concerning the practicability of the device, Exhibit C, is the testimony of Collis himself and that based merely upon his own experience in wearing the same from his factory to his home and back, and the statements which he made to his wife and to his stitcher, Abbie A. Rounds, that the same was satisfactory. Collis was actively engaged during this period in the manufacture of ankle-supporters, and the sole reason given for his failure to manufacture this invention was because he was busy with his general business and did not care to take it up until he had the proper time to devote to the same with his additional lines of ankle supporters and protectors. (Q. 48.) He further testifies that it is his custom to file away models and patterns until the time to put them upon the market was ripe.

The testimony shows that about the time he made the Exhibits C and D he placed upon the market another device known as "corset" style of ankle-support which he had invented and for which he filed an application for patent in the year 1904, but which patent he intentionally delayed issuing. (Qs. 63 and 64.)

In view of the circumstances above set forth I am of the opinion that Collis has failed to establish that the device constructed by him in 1909 amounted to anything more than an abandoned experiment. The testimony presented by Quenzer in rebuttal, furthermore, shows that the invention in issue was publicly sold and advertised and that certain of Collis's salesmen were accustomed to visit the shop of Hegeman where Quenzer's devices were sold and exhibited from the counter near where such salesmen conducted their business, and I agree with the Examiners-in-Chief that—

> the facts of the case, as shown by the testimony, are such as to indicate that Collis was aware of what Quenzer was doing in the commercial aspect of the matter, although he denies that he knew Quenzer at that time.

This case in my opinion falls clearly within the principles announced in *Warner* v. *Smith*, (84 O. G., 311; 13 App. D. C., 111.) In that case the court said—

> that the device constructed by the appellee in January of 1892 could have been used and worn upon the person and might to some extent have served the purpose for which it was designed might perhaps be conceded; but this does not necessarily constitute reduction to practice. Without entering into any special examination of the rec-

> ord for the purpose of supporting our opinion that what the appellee did in January, 1892, was no more than a mere experimental model, discarded by him as soon as made and apparently forgotten by him for several years afterward—for which we need only adopt the opinion of the Board of Examiners, in which we fully concur—we are disposed to rest our conclusion upon a broader basis.

After pointing out the intent of the provisions of the Constitution to promote the advancement of the useful arts and the necessity that an inventor be diligent in reducing his invention to practice and giving the same to the public, the court continues:

> Can one who has made an invention and who has locked it up in the secrets of his own exclusive knowledge and who produces it only when some rival inventor has entered the field be held to have acted in accordance with the policy of the law or with the spirit and purpose of the constitutional provision? Such action, or inaction, as we might more properly term it, not only contravenes the interests of the public, but also operates to injure the rival inventor who in the meantime enters the field of invention upon the faith of the conditions as they appear to exist and upon which he is entitled to rely. Such rival inventor expends his time, his efforts, and his money in the elaboration of his conception in ignorance of the fact that any one else has been in the same field before him, and he goes into the Patent Office only to be confronted after several months of effort there with the claim of some one else, who then comes forward for the first time and alleges that he had the same invention long before. Probably such claimant is not barred by any statute from making his claim, and if he sufficiently proves it he and not his competitor will be entitled to the patent, for it is to the first inventor, the first to conceive and to reduce into practice, that the law awards priority. But such conditions make it imperative upon him that he should prove his claim beyond all reasonable doubt, and the Patent Office and the courts are justified in presuming in such cases that what is claimed to be reduction to practice is no more than mere experiment until the contrary is clearly shown.

In the case of *Adams* v. *Murphy* (96 O. G., 845; 18 App. D. C., 172) the court discussed the ruling in the case of *Warner* v. *Smith*, *supra*, as follows:

> We said in that case that delay and inaction of this kind totally unexplained, during which a rival entered the field of invention, conceived and perfected the invention, and made his application to the Patent Office for a device for which there seems to have been a demand by the public, would justify the Patent Office and the courts in presuming that what was claimed to be reduction to practice amounted to no more than a mere abandoned experiment until the contrary is clearly shown.

In the cases of *Rolfe* v. *Hoffman*, (121 O. G., 1350; 26 App. D. C., 336;) *Rolfe* v. *Kuisling*, (143 O. G., 562; 32 App. D. C., 582;) *Gaisman* v. *Gillette*, (165 O. G., 245,) relied upon by the appellant, there was no doubt that the invention in issue had been reduced to practice by the successful parties, and the only question arising was that of concealment of invention.

In the present case there is in my opinion no sufficient testimony to establish that the invention was reduced to practice by Collis in 1906, as alleged; but even assuming that the devices made by Collis did constitute a reduction to practice of the invention, I am of the opinion, as before stated, that the testimony warrants the presumption that Collis was aware of what Quenzer was doing prior to the time he (Collis) began to manufacture his invention, and consequently prior to the date upon which he filed his application for patent, and that therefore this case falls within the ruling of the Court of Appeals of the District of Columbia in *Mason* v. *Hepburn*, *supra*; *Thomson* v. *Weston*, (99 O. G., 864; 19 App. D. C., 373;) *Matthes* v. *Burt*, (114 O. G., 764; 24 App. D. C., 265;) *Howard* v. *Bowes*, (137 O. G., 733; 31 App. D. C., 619.)

I find no error in the decision of the Examiners-in-Chief, and it is accordingly affirmed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

IN RE MARCONI.

Decided February 5, 1912.

1. INTERFERENCE—FINAL DECISION ON PRIORITY—CLAIMS THEREAFTER PRESENTED BY LOSING PARTY NECESSARILY INCLUDED IN SCOPE OF DECISION—DUTY OF COMMISSIONER TO REJECT.

Where after the termination of an interference the losing party presented claims which were necessarily included in the scope of the decision in the interference and concluded thereby, it was the duty of the Commissioner to reject such claims.

2. SAME—SAME—SAME—CLAIMS IN APPLICATION NOT INVOLVED IN INTERFERENCE—RES ADJUDICATA.

M. filed two applications disclosing different species of the same invention; but in neither of them was the invention claimed broadly. After the declaration of an interference between the later application and an application of B. a patent was granted on the earlier application. The interference was decided in favor of B., and thereafter M. sought to reissue the patent with claims broad enough to cover the devices disclosed in both of his applications. *Held* that these claims were properly refused on the ground that M.'s right thereto was concluded by the decision in the interference.

Mr. L. F. H. Betts and *Mr. Thomas E. Robertson* for the appellant.

Mr. R. F. Whitehead for the Commissioner of Patents.

SHEPARD, *C. J.*:

This is an appeal from the decision of the Commissioner of Patents rejecting the following claims of an application for the reissue of a patent:

> 17. In a wireless telegraph transmitter, the combination of two rotatable members, teeth on the adjacent portions thereof, an oscillation circuit connected to said rotatable members, and means for rapidly rotating said members so that the teeth shall be caused to pass one another in opposite directions.
>
> 18. A spark-gap device comprising movable terminals and means for simultaneously rotating said terminals toward and away from each other for the purpose of making and breaking a spark, substantially as described.
>
> 19. In a wireless telegraph transmitter, the combination of two rotatable disks adapted to rotate in the same direction, teeth on the adjacent peripheries thereof, an oscillation circuit connected to said disks, and means for rapidly rotating said disks so that the teeth may be caused to pass one another in opposite directions, substantially as described.

The Patent No. 935,381, for which the reissue is applied, was granted September 28, 1909, on an application filed Oct. 1, 1907. A British application for the same patent was applied for February 25, 1907. It relates to transmitting apparatus for wireless telegraphy and specially to means for creating high-frequency alternating currents. While it discloses a sufficient foundation for the broad claims now under consideration, the claims cover the specific form of the invention.

The revolving wheel as shown is formed of two metal disks, with equally-spaced teeth projecting radially outward from their peripheries. These are fixed side by side, but insulated from each other, the teeth of one disk being spaced midway between the teeth of the other, and the bodies of the disks are respectively connected to the two poles of the current-generator. Revolving in the same plane and in the same direction as the generator-wheel and in close proximity to it, but not in contact with it, is a toothed collector consisting of a plain metal disk, the outer rim of which is broad enough to carry teeth which will project over the teeth of both disks of the generator-wheel, the distance between the teeth on this collector-wheel being the same as that between the teeth of either of the two disks of the generator-wheel. The electromotive force of the source of electricity employed should be sufficient to cause the current to jump the small air-space between the teeth of the generator-wheel and the teeth of the collector-wheel as these pass each other when revolving close together; the wheels turning in the same direction.

Marconi also filed another application on March 31, 1909, relating to transmitting apparatus for wireless telegraphy in which the discharge takes place across a small gap between discontinuous metal surfaces in relative motion at a very high speed.

In the specific form described and shown the moving surfaces consist of pegs or studs on the adjacent faces of two parallel disks fixed to two shafts in a line with each other and revolved in opposite directions, the shafts being mounted in insulated bearings.

Clifford D. Babcock filed an application July 17, 1907, describing an apparatus for a transmitter for wireless telegraphy in which the disks provided with studs on their adjacent faces rotate in opposite directions. On July 12, 1909, while both of Marconi's applications were depending, an interference was declared between his later, or second application and Babcock's. The issue was declared in the following counts:

> 1. In a wireless telegraph transmitter the combination of two disks, means for rapidly rotating the disks in opposite directions, studs on the adjacent faces of the disks, and an oscillation circuit connected to the disks.
>
> 2. In a wireless telegraph transmitter the combination of two parallel disks, means for rapidly rotating the disks in opposite directions, studs on the adjacent faces of the disks, and an oscillation circuit connected to the disks.

When the preliminary statements were opened it appeared that Marconi had alleged a date of invention later than Babcock's filing date. Notice was given Marconi to show cause why a decision of priority should not be made in favor of Babcock on the record; and this time was on request therefor extended. No cause having been shown by the extended date, priority was awarded to Babcock, and there was no appeal therefrom. Patent issued to Babcock in execution of the decision on July 19, 1910.

The chief contention in the case is over claims 17 and 18, which it is conceded by appellant are broader than those contained in the issue of interference; but the latter he contends—

> are limited to, and cover nothing more than specific and detail improvements common to both the Marconi and Babcock apparatus described in their respective later applications.

No question was made in the Patent Office that the reissue application had sufficient foundation in the description of Patent No. 935,381, or that it was in full compliance with the rules governing reissue.

The ground of rejection was that Marconi was estopped to make the broad claims of the applica-

tion by reason of the former decision in the interference.

The reason given is that while the claims directly involved therein were narrower than those of the present application, these broader claims could readily have been made on the one involved, and priority determined therein, wherefore the right to them is concluded by that adjudication. In support of that view, *Blackford* v. *Wilder* (28 App. D. C., 535) and other cases are cited.

The question is whether the principle of *res adjudicata* has been correctly applied in refusing the reissue application.

The first contention of the appellant is that the parties to the proceedings are not the same, because the parties to the interference were Marconi and Babcock, while the present controversy is between Marconi and the Patent Office. The distinction is one of form, and not of substance. The proceeding is *ex parte*. The Patent Office—the Commissioner of Patents—is not a party to the proceeding in the ordinary sense. He is the head of the Office in which all applications for patents are filed. When filed in proper form, and fees paid, it is his duty to cause examinations to be made, and to issue the patent if "it shall appear that the claimant is justly entitled thereto." (R. S., sec. 4893.)

It is the duty of the Commissioner of Patents, representing the public, and also the private rights of the inventor involved in the pending application, as well as all other inventors having the sanction of the Patent Office, to see that entire justice be done to all concerned. (*In re Drawbaugh*, 9 App. D. C., 219–240.)

If in the performance of his duty, the examination discloses a former patent anticipating, or covering the invention applied for, the applicant is not justly entitled to a patent, and it is his duty to so decide. If the right of the applicant to the invention has been adjudicated against him in a former proceeding either in the courts or the Patent Office, he may likewise reject the application; and he may without formal proof of the record of proceedings in the Supreme Court of the United States, take notice of the facts adjudicated therein. (*In re Drawbaugh*, 9 App. D. C., 219–257–258.)

For a stronger reason he may act upon knowledge derived from a search of the records of litigation and decision made in his own department. Unquestionably, a patent issued on this application would dominate the subject-matter of Babcock's patent that was involved in the interference proceeding and decision. If the broader claims now applied for were necessarily included in the scope of that decision, and concluded thereby, it was the duty of the Commissioner to reject them, for the patent could not justly be issued. It is true that the Commissioner might, in the exercise of his discretion, and especially if in doubt, have declared another interference with Babcock and devolved upon him the burden of maintaining the conclusiveness of the former adjudication. But he was under no obligation to pursue that course in what he regarded as a plain case, and the effect of his representation of Babcock's interest for the purpose of urging the former adjudication is, for all the purposes of the present proceeding, the same as if Babcock were a formal party.

The second contention is that the broad claims were not, and could not be involved in the interference, because Patent 935,381 had issued before Babcock's application had been disclosed to Marconi in the interference case, and therefore Marconi could not make the broad claims in his later application for the reason that they would be invalidated if granted, because they could have been made in the first application for which patent had issued.

Assuming this would be the result, he might, nevertheless, have made the claims in the depending application and obtained an adjudication of priority as to them, if entitled thereto, in the interference proceeding. Having obtained such an adjudication, he might probably have avoided the result apprehended by striking them out by amendment, and then presenting them in the application for reissue of his older patent. Be that as it may, however, this situation was presented to him: He could not overcome the date of Babcock's application in respect of the specific invention of the issue; and he feared to present the broader claims because if awarded to him they might be invalidated by the former patent in which they might have been included by amendment before issue, or by reissue afterward. An extension of time was given him in which he might consider the proper action to take under the circumstances presented. At any rate, as said by the Commissioner—

but for the fact that Marconi had been granted an earlier patent, these claims could undoubtedly have been put in the later application, and included in the interference. If they could not have been put therein, then it was clearly incumbent upon Marconi if he would contest these claims, to have promptly filed his application for reissue so that it could have been included in the interference, or if it was not possible to have filed the reissue within time for filing preliminary statements, or that fixed by the order to show cause, to have asked for an extension until such reissue could be filed. To grant these claims to Marconi would, as pointed out by the Examiners-in-Chief, give him claims dominating Babcock upon the very subject matter upon which he prevailed in the interference. * * *

Had Marconi desired to pursue the course suggested, there could be no doubt that he would have been given plenty of time and that his reissue application, applied for promptly, could and would have been brought into the interference. Instead, he elected to abide the judgment in the depending cause, and suffer Babcock's patent to issue in pursuance thereof.

Having done so, he seeks now to dominate those claims by the broader ones which might, and ought, if intended ever to be claimed, to have been expressly embraced in that litigation. We think that the Commissioner was right in deciding that he was concluded by the former decision. There should be an end of litigation in the Patent Office as elsewhere, and the principle of *res judicata* is applied therein to its full extent. (*Blackford* v. *Wilder*, 28 App. D. C., 535; *Horine* v. *Wende*, 29 App. D. C., 415; *in re Edison*, 30 App. D. C., 321–328; *U. S., ex rel. Newcomb Motor Co.*, v. *Moore*, 30 App. D. C., 464–476; *Carroll* v. *Hallwood*, 31 App. D. C., 165.)

The appellant is in error in the contention that

Blackford v. *Wilder*, *supra*, is distinguishable, and inapplicable to the conditions of this case, because the broader claims therein involved had been presented in the same application, after the adverse decision on the narrower claims, and were, moreover, founded on the same construction shown in an exhibit that had been relied upon in the cause. The particular facts in that case furnished plainer grounds, perhaps, for the application of the principle, but not essentially different ones. These claims were within the disclosure of the second application in specification and drawing, and might have, as we have seen, been made and brought into that interference, and expressly and directly embraced in the decision therein. To allow them in this subsequent proceeding would result in a patent dominating the narrower claims then directly determined, and impair the operation and effect of that decision. The conditions bring the case within the doctrine thus stated in *Blackford* v. *Wilder*, *supra*, page 550:

Applying the well settled principle of estoppel by judgment, before stated, it follows inevitably that the final decision in the first interference is conclusive, unless it can be made to appear that the question upon which the determination of the second case rests is one that neither was, nor could have been presented and determined in the first case.

The other cases are in accord. The decision was right and will be affirmed. This decision will be certified to the Commissioner of Patents.

Affirmed.

Court of Appeals of the District of Columbia.

HUFF *v.* GULICK.

Decided March 4, 1912.

INTERFERENCE—PRIORITY.

Evidence reviewed and *Held* insufficient to establish beyond a reasonable doubt that H., who was the last to conceive the invention in issue, reduced the same to practice before G. filed his application, and priority *Held* properly awarded to G.

Mr. J. A. Watson for the appellant.

Mr. A. H. Graves for the appellee.

VAN ORSDEL, *J.*:

This is an appeal from a decision of the Commissioner of Patents in an interference proceeding, (177 O. G., 525.)

The applications in issue relate to improvements in motor-vehicles, and are explained by the Examiner of Interferences as follows:

The invention in issue is concerned more particularly with the construction of the back axle and embodies, in connection with other elements, a casing of peculiar inturned construction surrounding the differential and ends of the axle section. The purpose of the organization appears to be the retention of the lubricant in the casing, upon tilting of the axle, and to prevent consequent impairment of the functions of the adjacent band brake.

The invention is set forth in a single count, which reads as follows:

In a motor vehicle, the combination of axle-sections, differential gearing, a main casing about said gearing having inwardly extended sleeves at its opposite ends surrounding said axle-sections, and end casings detachably fastened to the exterior of said main casings and having tubes or sleeves receiving said axle-sections and fitted in said main casing sleeves.

It appears that appellee conceived the invention at least as early as February, 1906, while appellant failed to produce evidence of conception prior to November, 1906. Appellee made no reduction to practice before August 9, 1907, the date of the filing of his application, upon which a patent was issued November 24, 1908. Appellant did not file his application until April 28, 1909, a date subsequent to the issuance of appellee's patent. Hence the burden is upon appellant to prove his case beyond a reasonable doubt.

Appellant relies for reduction to practice upon a test run made in March, 1907, with an automobile containing the invention in issue. The testimony, however, fails to show definitely the successful operation of the device. The run was planned from Detroit to Buffalo, but was abandoned at Toledo, owing to the breaking of the bridge after a run of about eighty miles. The evidence shows that the injury was not occasioned through any defect in the novel parts of the bridge, and that the car ran well until the accident. The testimony, however, goes no further. It fails to show that the device fulfilled its purpose. It is apparent that the machine might have run well for eighty miles, and yet the experimental bridge may have retained the oil no better, or possessed no greater strength, than the known devices. We agree with the tribunals of the Patent Office in holding that this test was insufficient, and also that the invention is sufficiently complex to require a test in order to demonstrate its practicability.

Appellant also testified as to other experimental runs, but his testimony is uncorroborated, and, therefore, insufficient. The same objection applies to his testimony that several of the 1908 cars, which are shown by an instruction-book offered in evidence to contain the subject-matter of the issue, were sold between July 30, 1907, and August 9th. It is true he testifies after reference to the books of the company, but these books were not placed in evidence, and hence are not corroborative. Neither is the date of the instruction-book proved.

We are of opinion, therefore, that appellant has failed to overcome the heavy burden resting upon him, especially in view of the fact that he was in a position to prove beyond question the facts upon which he seeks to establish his right to a patent. Even if the operation of the experimental bridge on the Toledo run was not susceptible of more definite proof, other tests were made about which evidence could have been adduced. It was also within his power to prove conclusively that the 1908 cars were put into operation prior to appellee's filing date, if such was the fact. Having this evidence within his control, and not producing it, it must be presumed that it was unfavorable to his case.

The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Court of Appeals of the District of Columbia.

IN RE MEYER BROS. COFFEE AND SPICE COMPANY.

Decided April 1, 1912.

TRADE-MARKS—"TROPHY"—DESCRIPTIVE.

The word "Trophy" *Held* properly refused registration on the ground that it is descriptive, in that it in-

dicates that the goods to which it is applied had been recognized as of superior quality.

Mr. J. A. Carr for the appellant.

Mr. W. S. Ruckman for the Commissioner of Patents.

SHEPARD, *C. J.*:

Applicant appeals from a decision of the Commissioner of Patents (170 O. G., 705) denying registration of a trade-mark for coffee, which consists of the representation of a loving-cup in connection with the word "Trophy."

The Commissioner held that the mark is descriptive, in that it indicates that the applicant's goods have been recognized as of a superior quality by the representation of a prize or trophy.

The decision is within the principle governing former decisions of this court, and others. (See *in re National Photographic Co.*, 29 App. D. C., 142; *Worcester Brewing Corporation* v. *Reuter & Co.*, 30 App. D. C., 428; *in re Meyer Bros. Coffee and Spice Co.*, 32 App. D. C., 277; *in re New South Brewing Co.*, 32 App. D. C., 591; *Taylor* v. *Gillies*, 59 N. Y., 331; *Standard Paint Co.* v. *Trinidad Asphalt Co.*, 220 U. S., 446–453.)

The decision will be affirmed and this decision certified to the Commissioner of Patents.

Affirmed.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The charge of the court, in an action to recover damages for infringement of Cheatham patents, No. 612,702 and No. 917,541, for electric railway-switches, resulting in a verdict finding validity and infringement, considered and *Held* not erroneous. *Transit Development Co.* v. *Cheatham Electric Switching Device Co.*, 194 Fed. Rep., 963.

(U. S. C. C. A.) The McCaskey patent, No. 783,126, for a credit-accounting appliance, construed and *Held* not infringed. *McCaskey Register Co.* v. *Divens*, 194 Fed. Rep., 967.

(U. S. C. C. A.) The Myers patent, No. 670,902, for a power force-pump, *Held* void for lack of invention. *F. E. Myers & Bro.* v. *Fairbanks, Morse & Co.*, 194 Fed. Rep., 971.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 3, 1912.

John L. Rodgers & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Southwestern Milling Company, No. 83 Montgomery street, Jersey City, N. J., and Commerce Building, Kansas City, Mo., for registration of a trade-mark and trade-mark registered July 14, 1891, No. 19,879, to John L. Rodgers & Co., 218 Spear's Wharf, Baltimore, Md., and a notice of such declaration sent by registered mail to said John L. Rodgers & Co. at the said address having been returned by the post-office undelivered, notice is hereby given that unless said John L. Rodgers & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 29, 1912.

Henry Denny & Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Louis Pfaelzer & Sons, 3927–43 South Halsted street, Chicago, Ill., for registration of a trade-mark and trade-mark registered May 30, 1882, No. 9,420, to Henry Denny & Sons, Chicago, Ill., and a notice of such declaration sent by registered mail to said Henry Denny & Sons at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Henry Denny & Sons, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

Changes in Classification.

(ORDER No. 1,982.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 31, 1912.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division XXXI, class 48, Gas, Heating and Illuminating, change number and title of subclass—

Generators—
Cupola—
88. Stirrer,

to read—

Generators—
Cupola—
Fuel-agitating—
88.2. Stirrer.

In same division, same class, change number and title of subclass—

Generators—
Retort—
91. Portable,

to read—

Generators—
116.5. Portable.

In same division, same class, establish the following subclass and definition, the patents placed in this subclass being taken from class 48, subclass 66:

Generators—
Cupola—
Fuel-agitating—
85.1. Movable wall.

85.1. GENERATORS, CUPOLA, FUEL-AGITATING, MOVABLE WALL. Cupola generators in which the cupola body or a section thereof is movable for the purpose of agitating the fuel to prevent "scaffolding" and the like.

Note.—This subclass is not intended to include structures of the cupola or cylindrical type wherein the bottom or the cover *per se* is caused to rotate, such as are found in this class, subclasses 66 and 68.

Search Classes—

48—GAS, HEATING AND ILLUMINATING, subclasses 66, Generators, Cupola, Rotary-bottom, and 68, Generators, Cupola, Water-jacket, Rotary-bottom; 23, CHEMICALS, subclass 10, Metalloids; 34, DRIERS, subclasses 5, Cylinder, Internal, Rotary horizontal, and 6, Cylinder, Internal, Rotary inclined; 75, METALLURGY, subclasses 138, Roasters, Revolving, Cylinders, and 139, Roasters, Revolving, Retorts, and 222, HYDRAULIC CEMENT AND LIME, subclass 7, Kilns, Rotary.

In Division XXXVI, class 95, Photography, abolish the following subclasses, with their definitions, most of the patents therein having been transferred to class 88, Optics, subclass 24, Projecting apparatus:

Cameras—
43. Copying and enlarging.

Camera supports—
87. Copy-holding.

EDWARD B. MOORE,
Commissioner.

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Alabama	2	....	North Carolina	4	....
Arizona	2	....	North Dakota	4	....
Arkansas	6	1	Ohio	46	2
California	32	1	Oklahoma	8	....
Colorado	10	1	Oregon	6	....
Connecticut	21	....	Pennsylvania	68	4
Delaware	2	....	Rhode Island	5	1
Florida	4	....	South Carolina	1	....
Georgia	4	....	South Dakota	1	....
Idaho	2	....	Tennessee	5	1
Illinois	69	5	Texas	6	....
Indiana	9	1	Utah	2	....
Iowa	5	....	Vermont	3	....
Kansas	4	1	Virginia	2	....
Kentucky	4	....	Washington	7	3
Louisiana	2	8	West Virginia	3	....
Maine	3	....	Wisconsin	24	1
Maryland	5	3	Wyoming	1	....
Massachusetts	54	1			
Michigan	24	3	Alaska, District of	....	....
Minnesota	12	8	Canal Zone	....	....
Mississippi	1	....	District of Columbia	11	1
Missouri	20	3	Hawaii Territory	....	....
Montana	4	....	Philippine Islands	....	....
Nebraska	8	1	Porto Rico	....	....
Nevada	....	....	U. S. Army	....	....
New Hampshire	1	....	U. S. Navy	....	....
New Jersey	38	2			
New Mexico	....	....	Total to citizens of the United States	638	64
New York	83	12			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	....	....	Mexico	....	....
Austria-Hungary	....	1	Netherlands	2	....
Belgium	2	....	Newfoundland	....	....
Bermuda	....	....	New South Wales	1	....
Brazil	....	....	New Zealand	1	....
British West Indies	....	....	Norway	....	....
Canada	19	....	Peru	....	....
Canary Islands	1	....	Queensland	1	....
Chile	....	....	Russia	1	....
China	....	....	Scotland	....	....
Costa Rica	....	....	Spain	1	....
Cuba	....	....	Sweden	3	....
Denmark	2	....	Switzerland	2	4
Ecuador	....	....	Tasmania	....	....
Egypt	1	....	Transvaal, South Africa	....	....
England	20	5	Victoria	....	....
France	4	1	Western Australia	....	....
Germany	34	4			
Guatemala	1	....	Total to citizens of foreign countries	98	15
Italy	1	....			
Japan	1	....			

Drawings.

PRECAUTIONS TO BE OBSERVED IN FORWARDING DRAWINGS TO THE UNITED STATES PATENT OFFICE.

Where drawings are to be filed in connection with an application for Letters Patent in the United States Patent Office, each sheet, before it can be accepted by the Office as a part of the application, must be signed in the name of the inventor at the lower right-hand corner, either by him or by an attorney whose written authorization from the applicant is filed in connection with the application. This signature must also be attested by two witnesses, each of whom should sign the drawing at the lower left-hand corner of the sheet. The signatures should never be written on a line parallel with the longer edges of the sheet, one of the shorter edges being always regarded, for the purpose of locating the signatures, as the lower edge of the sheet. The signatures must all be within the margin-lines of the sheet and below the lines of the drawing. The title of the invention should be written with pencil on the back of each sheet of drawings.

When there are filed on the same day two or more applications by the same inventor, each of the documents and drawings belonging to the same application should have placed thereon the same letter or number, which should be different from the letter or number placed upon those of any other of the applications.

It is desirable that all parts of the complete application, including the drawings, be deposited in the Office at the same time. Should, however, the other parts of the application be filed before the drawings are sent, the latter when forwarded should be accompanied by a letter stating the number of sheets inclosed, and that the drawings are to be filed with the other parts of the application, giving the date at which such other parts were filed in the Office, the name of the inventor, and title of the invention. If the application has received a serial number, that should also be given, and it should be indorsed with pencil on the back of each sheet of drawings. The letter should also state, if such be the case, that the new drawings are to be substituted for those previously filed.

dicates that the goods to which it is applied had been recognized as of superior quality.

Mr. J. A. Carr for the appellant.

Mr. W. S. Ruckman for the Commissioner of Patents.

SHEPARD, *C. J.:*

Applicant appeals from a decision of the Commissioner of Patents (170 O. G., 705) denying registration of a trade-mark for coffee, which consists of the representation of a loving-cup in connection with the word "Trophy."

The Commissioner held that the mark is descriptive, in that it indicates that the applicant's goods have been recognized as of a superior quality by the representation of a prize or trophy.

The decision is within the principle governing former decisions of this court, and others. (See *in re National Photographic Co.*, 29 App. D. C., 142; *Worcester Brewing Corporation* v. *Reuter & Co.*, 30 App. D. C., 428; *in re Meyer Bros. Coffee and Spice Co.*, 32 App. D. C., 277; *in re New South Brewing Co.*, 32 App. D. C., 591; *Taylor* v. *Gillies*, 59 N. Y., 331; *Standard Paint Co.* v. *Trinidad Asphalt Co.*, 220 U. S., 446–453.)

The decision will be affirmed and this decision certified to the Commissioner of Patents.

Affirmed.

ADJUDICATED PATENTS.

(U. S. C. C. C. A.) The charge of the court, in an action to recover damages for infringement of Cheatham patents, No. 612,702 and No. 917,541, for electric railway-switches, resulting in a verdict finding validity and infringement, considered and *Held* not erroneous. *Transit Development Co.* v. *Cheatham Electric Switching Device Co.*, 194 Fed. Rep., 963.

(U. S. C. C. C. A.) The McCaskey patent, No. 783,126, for a credit-accounting appliance, construed and *Held* not infringed. *McCaskey Register Co.* v. *Divens*, 194 Fed. Rep., 967.

(U. S. C. C. C. A.) The Myers patent, No. 670,902, for a power force-pump, *Held* void for lack of invention. *F. E. Myers & Bro.* v. *Fairbanks, Morse & Co.*, 194 Fed. Rep., 971.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 3, 1912.

John L. Rodgers & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Southwestern Milling Company, No. 83 Montgomery street, Jersey City, N. J., and Commerce Building, Kansas City, Mo., for registration of a trade-mark and trade-mark registered July 14, 1891, No. 19,879, to John L. Rodgers & Co., 218 Spear's Wharf, Baltimore, Md., and a notice of such declaration sent by registered mail to said John L. Rodgers & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John L. Rodgers & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 29, 1912.

Henry Denny & Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Louis Pfaelzer & Sons, 3027–43 South Halsted street, Chicago, Ill., for registration of a trade-mark and trade-mark registered May 30, 1882, No. 9,420, to Henry Denny & Sons, Chicago, Ill., and a notice of such declaration sent by registered mail to said Henry Denny & Sons at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Henry Denny & Sons, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

Changes in Classification.

(ORDER No. 1,982.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 31, 1912.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division XXXI, class 48, Gas, Heating and Illuminating, change number and title of subclass—

Generators—
Cupola—
88. Stirrer,

to read—

Generators—
Cupola—
Fuel-agitating—
85.2. Stirrer.

In same division, same class, change number and title of subclass—

Generators—
Retort—
91. Portable,

to read—

Generators—
118.5. Portable.

In same division, same class, establish the following subclass and definition, the patents placed in this subclass being taken from class 48, subclass 66:

Generators—
Cupola—
Fuel-agitating—
85.1. Movable wall.

85.1. GENERATORS, CUPOLA, FUEL-AGITATING, MOVABLE WALL. Cupola generators in which the cupola body or a section thereof is movable for the purpose of agitating the fuel to prevent "scaffolding" and the like.

Note.—This subclass is not intended to include structures of the cupola or cylindrical type wherein the bottom or the cover *per se* is caused to rotate, such as are found in this class, subclasses 66 and 68.

Search Classes—

48—GAS, HEATING AND ILLUMINATING, subclasses 66, Generators, Cupola, Rotary-bottom, and 68, Generators, Cupola, Water-jacket, Rotary-bottom; 23, CHEMICALS, subclass 10, Metalloids; 34, DRIERS, subclasses 5, Cylinder, Internal, Rotary horizontal, and 6, Cylinder, Internal, Rotary inclined; 75, METALLURGY, subclasses 138, Roasters, Revolving, Cylinders, and 139, Roasters, Revolving, Retorts, and 222, HYDRAULIC CEMENT AND LIME, subclass 7, Kilns, Rotary.

In Division XXXVI, class 95, Photography, abolish the following subclasses, with their definitions, most of the patents therein having been transferred to class 88, Optics, subclass 24, Projecting apparatus:

Cameras—
43. Copying and enlarging.
Camera supports—
87. Copy-holding.

EDWARD B. MOORE,
Commissioner.

THE
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OF THE
United States Patent Office.

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Printed copies of patents are furnished by the Patent Office at 5 cents each. For the latter, address the Commissioner of Patents, Washington, D. C.

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ISSUE OF JUNE 18, 1912.

Patents	600	No. 1,029,580 to No. 1,030,269,	inclusive.
Designs	46	No. 42,616 to No. 42,661,	inclusive.
Trade-Marks	53	No. 66,973 to No. 67,025,	inclusive.
Labels	20	No. 16,396 to No. 16,415,	inclusive.
Prints	6	No. 3,060 to No. 3,065,	inclusive.
Reissues	2	No. 13,429 to No. 13,430,	inclusive.
Total	817		

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	2	....	North Carolina	4	....
Arizona	2	....	North Dakota	4	....
Arkansas	6	1	Ohio	46	2
California	32	1	Oklahoma	8	....
Colorado	10	1	Oregon	6	....
Connecticut	21	....	Pennsylvania	68	4
Delaware	2	....	Rhode Island	5	1
Florida	4	....	South Carolina	1	....
Georgia	4	....	South Dakota	1	....
Idaho	2	....	Tennessee	5	1
Illinois	80	5	Texas	6	....
Indiana	9	1	Utah	2	....
Iowa	5	....	Vermont	3	....
Kansas	4	1	Virginia	2	....
Kentucky	4	....	Washington	7	3
Louisiana	2	8	West Virginia	3	....
Maine	3	....	Wisconsin	24	1
Maryland	5	3	Wyoming	1	....
Massachusetts	54	1			
Michigan	24	3	Alaska, District of	....	....
Minnesota	12	8	Canal Zone	....	....
Mississippi	1	....	District of Columbia	11	1
Missouri	20	3	Hawaii Territory	....	....
Montana	4	....	Philippine Islands	....	....
Nebraska	8	1	Porto Rico	....	....
Nevada	....	....	U. S. Army	....	....
New Hampshire	1	....	U. S. Navy	....	....
New Jersey	38	2			
New Mexico	....	....	Total to citizens of the United States	638	64
New York	83	12			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	....	....	Mexico	....	....
Austria-Hungary	....	1	Netherlands	2	....
Belgium	2	....	Newfoundland	....	....
Bermuda	....	....	New South Wales	1	....
Brazil	....	....	New Zealand	1	....
British West Indies	....	....	Norway	....	....
Canada	19	....	Peru	....	....
Canary Islands	1	....	Queensland	1	....
Chile	....	....	Russia	1	....
China	....	....	Scotland	....	....
Costa Rica	....	....	Spain	1	....
Cuba	....	....	Sweden	3	....
Denmark	2	....	Switzerland	2	4
Ecuador	....	....	Tasmania	....	....
Egypt	1	....	Transvaal, South Africa	....	....
England	20	5	Victoria	....	....
France	4	1	Western Australia	....	....
Germany	34	4			
Guatemala	1	....			
Italy	1	....	Total to citizens of foreign countries	98	15
Japan	1	....			

Drawings.

PRECAUTIONS TO BE OBSERVED IN FORWARDING DRAWINGS TO THE UNITED STATES PATENT OFFICE.

Where drawings are to be filed in connection with an application for Letters Patent in the United States Patent Office, each sheet, before it can be accepted by the Office as a part of the application, must be signed in the name of the inventor at the lower right-hand corner, either by him or by an attorney whose written authorization from the applicant is filed in connection with the application. This signature must also be attested by two witnesses, each of whom should sign the drawing at the lower left-hand corner of the sheet. The signatures should never be written on a line parallel with the longer edges of the sheet, one of the shorter edges being always regarded, for the purpose of locating the signatures, as the lower edge of the sheet. The signatures must all be within the margin-lines of the sheet and below the lines of the drawing. The title of the invention should be written with pencil on the back of each sheet of drawings.

When there are filed on the same day two or more applications by the same inventor, each of the documents and drawings belonging to the same application should have placed thereon the same letter or number, which should be different from the letter or number placed upon those of any other of the applications.

It is desirable that all parts of the complete application, including the drawings, be deposited in the Office at the same time. Should, however, the other parts of the application be filed before the drawings are sent, the latter when forwarded should be accompanied by a letter stating the number of sheets inclosed, and that the drawings are to be filed with the other parts of the application, giving the date at which such other parts were filed in the Office, the name of the inventor, and title of the invention. If the application has received a serial number, that should also be given, and it should be indorsed with pencil on the back of each sheet of drawings. The letter should also state, if such be the case, that the new drawings are to be substituted for those previously filed.

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business June 15, 1912.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Apr. 26	Apr. 11	603
128	2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	Apr. 4	May 9	467
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	May 17	June 3	193
232	4. Bridges; Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	May 1	Apr. 26	566
167	5. Bookbinding; Harvesters; Jewelry; Music.	Mar. 16	Apr. 26	497
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	May 10	May 10	311
312	7. Educational Appliances: Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Feb. 19	Apr. 15	825
131	8. Beds; Chairs; Furniture; Kitchen and Table Articles; Store Furniture; Supports.	Apr. 29	May 15	560
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels.	Apr. 27	Apr. 25	395
235	10. Carriages and Wagons.....	Apr. 24	Apr. 22	744
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Apr. 8	Apr. 22	467
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	Apr. 15	May 1	697
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Apr. 18	May 1	514
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	Apr. 22	May 16	462
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Mar. 26	Apr. 6	1124
109	16. Telegraphy; Telephony.....	Apr. 26	May 7	265
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	May 7	May 15	310
327	18. Injectors and Ejectors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Apr. 15	Apr. 16	282
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	May 7	Apr. 9	437
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Sales; Undertaking.	May 4	May 6	275
112	21. Brakes and Gins; Carding; Cloth Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 21	Apr. 12	459

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention	Oldest new application and oldest action by applicant awaiting office action. New.	Amended	No. of applications awaiting action.
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	May. 1	May 15	220
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Apr. 12	Apr. 20	481
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	Apr. 27	May 1	564
315	25. Butchering; Milk; Threshing; Vegetable Cutters and Crushers.	May 20	May 21	224
106	26. Electricity, Generation; Motive Power.	Feb. 1	Feb. 3	622
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	May 9	May 10	461
65	28. Internal-Combustion Engines..	Mar. 18	Mar. 20	808
147	29. Coopering; Fire-Escapes; Ladders; Rods; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Apr. 9	May 8	536
182	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 18	May 6	441
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Apr. 15	Apr. 19	361
278	32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	Apr. 15	May 2	379
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents; Canopies, Umbrellas, and Canes.	Mar. 20	May 1	511
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Apr. 5	Apr. 8	380
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Apr. 15	May 10	350
264	36. Drafting; Dyers; Engraving; Measuring Instruments; Photography.	May 8	Apr. 22	582
107	37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Apr. 5	May 13	540
378	38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working.	Mar. 23	May 9	701
321	39. Water Distribution.....	Mar. 1	Apr. 1	684
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 15	May 23	372
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	Apr. 22	May 1	611
279	42. Electric Railways; Electric Signaling; Railway Signaling; Signals.	Apr. 19	Apr. 18	501
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	May 16	May 15	349

Oldest new case, Feb. 1: oldest amended, Feb. 3.

Total number of applications awaiting action..... 21,839

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Apr. 1	Apr. 27	1251
	Designs.....	Apr. 11	Apr. 25	300
	Labels and Prints.....	June 3	May 29	54

PATENTS

GRANTED JUNE 18, 1912.

1,029,580. COUNTERACTING DEVICE FOR PUMPS. JAMES O. BANE, Waseca, Minn. Filed Jan. 18, 1912. Serial No. 671,802. (Cl. 74—71.)



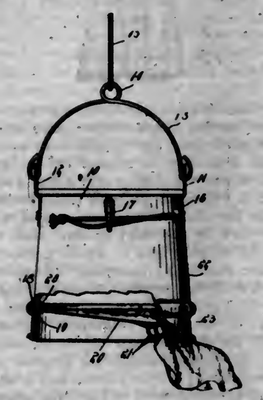
1. A base beam; a rod mounted to reciprocate across the line of the beam; levers adapted to be adjustably connected with the rod, and two springs connecting each lever with the base beam, one of the two springs being adapted to act by compression and the other by extension.

2. A base beam; a rod mounted to reciprocate across the line of the beam; levers adapted to be adjustably connected with the rod; two springs connecting each lever with the base beam, one of the springs being adapted to act by compression and the other by extension, and one of the springs provided with means for tensional adjustment.

3. A reciprocating rod; levers, and jaws for connecting them with the rod; and counterbalancing springs; the jaws having each a hole midway to receive the end of the lever, and having bolt holes transverse to the line of the rod, with an opening to one face part way across and an opening to the other face the rest of the way across in the direction of the said bolt holes.

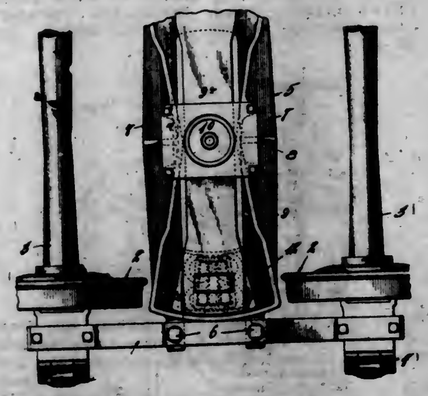
1,029,581. FRUIT-PICKER'S RECEPTACLE. JOHN S. BARNETT, Central Point, Oreg. Filed Sept. 18, 1911. Serial No. 649,834. (Cl. 56—99.)

A fruit picker's receptacle comprising a rigid tubular member open at its ends and provided with a pair of openings in its wall, a tubular member of fabric material open at its ends and having its upper end detachably secured within the rigid tubular member in expanded position between said openings and the top of the tubular member, a plurality of rings secured to said fabric member near the lower end thereof and a draw cord extending through said



rings and through the openings respectively in the rigid tubular member.

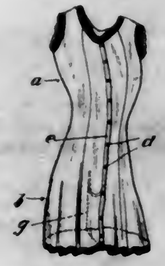
1,029,582. CAR-TRUCK. ARTHUR BEASLEY, East St. Louis, Ill. Filed Nov. 15, 1911. Serial No. 660,539. (Cl. 105—243.)



1. In a car truck, two separate side frames in combination with a transom, a truck-bolster seat fan-shaped at its ends and mounted within said transom, a truck bolster rotatively mounted within said seat, and anti-friction devices supporting said bolster within said seat.

2. In a car truck, two separate side frames in combination with a transom, a truck-bolster seat fan-shaped at its ends and mounted within said transom, a truck bolster mounted to rotate in said seat, anti-friction devices supporting the ends of said bolster, and springs supporting said anti-friction devices.

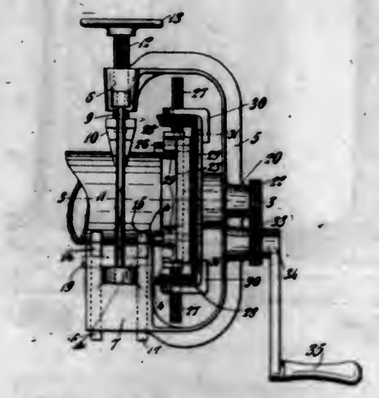
1,029,583. LADY'S UNDERWEAR. BARROW BENNETT, New York, N. Y., assignor to Howard H. Hamilton, New York, N. Y. Filed June 8, 1911. Serial No. 631,876. (Cl. 2—144.)



1. A triple-combination underwear garment of the character described having a corset-cover and a skirt which are integral with each other and formed with a central opening extending from top to bottom of the garment and provided with means for closing said opening and for opening the same at will; said garment being further provided with a flap or partition member one end of which is fastened to the back of the skirt portion near the mid-line thereof and the opposite end of which is free and formed with means for detachably fastening it to an edge of said opening; said partition member being shielded from view within said skirt portion and being arranged to pass between the legs of the wearer lengthwise thereof and to divide said skirt portion and form therewith drawers-legs.

2. A triple-combination underwear garment of the character described having a corset-cover and a skirt integral therewith and provided with a partition member having its ends connected to the lower part of the skirt; said partition member lying shielded from view within said skirt portion and being arranged to pass between the legs of the wearer lengthwise thereof and to divide said skirt portion and form therewith drawers-legs.

1,029,584. MACHINE FOR REMOVING BURS FROM METAL PIPES. GEORGE BERGHAUSEN, Cincinnati, Ohio. Filed Apr. 9, 1909. Serial No. 488,960. (Cl. 82—4.)

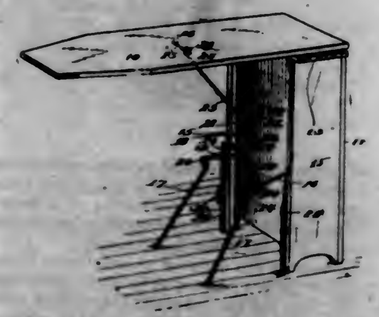


1. In a device of the character specified, the combination with the frame, of a plate mounted to rotate therein, means to rotate the same, a clamp on the frame, one member of which has fixed relation with the axis of rotation of the plate, and the other member adjustable to clamp and hold the pipe to be treated, with the axis of the pipe and the axis of rotation of the plate coincident, and a pair of tool holders mounted to move radially on said plate, and means to adjust simultaneously the tool holders in the same direction to bring them into operative position.

2. In a device of the character specified, the combination with the frame, of a plate mounted to rotate therein, means to rotate the same, a clamp on the frame, one member of which has fixed relation with the axis of rotation of the plate, and the other member adjustable to clamp and hold the pipe to be treated, with the axis of the pipe and the axis of rotation of the plate coincident, and a pair of tool holders mounted to move radially on said plate, a pair of pinions, one for each tool holder, with gearing connecting said pinions whereby the actuation of said gearing will simultaneously adjust said tool holders to bring the same into operative position, and means for locking the gear and pinions together.

3. In a device of the character specified, the combination with the frame, of a plate mounted to rotate therein, means to rotate the same, a clamp on the frame, one member of which has fixed relation with the axis of rotation of the plate, and the other member adjustable to clamp and hold the pipe to be treated, with the axis of the pipe and the axis of rotation of the plate coincident, and a pair of tool holders mounted to move radially on said plate, said tool holders having screws loosely secured thereto, with beveled pinions in screw-threaded engagement, one for each screw, and a beveled gear in mesh with said pinions whereby the rotation of the beveled gear will adjust said tool holders simultaneously in the same direction to bring the tool holders into operative position, and angle plates to lock said pinions and gear together.

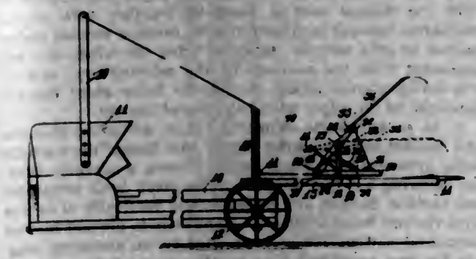
1,029,585. LAUNDRY-CABINET. JOHN B. BROCHU, Bridgewater, Mass., assignor of one-half to Albert Brouillard, Bridgewater, Mass. Filed Jan. 29, 1912. Serial No. 674,023. (Cl. 68—10.)



1. The combination with a support; of an ironing board hinged to the top thereof, and adjustable to extend vertically behind the support, links pivoted to the rear portion of the support, legs carried by the links, a holder on the back of the support for the inner ends of the legs, with which holder the legs are removably engageable, and a folding prop carried by the under side of the ironing board and removably engagable with the legs.

2. The combination with a support; of an ironing board hinged to the top thereof, and adjustable to extend vertically behind the support, a folding prop carried by the under side of the ironing board, links pivoted to the rear portion of the support, a holder on the back of the support, and legs comprising a member removably engageable at one of its ends with the holder, and having lateral bends at its other end in opposite directions, and downward bends at the extremity of the lateral bends to form the lower portions of the legs, the links being loosely connected to the extremity of the lateral bends, and the aforesaid prop being removably engageable with the aforesaid member.

1,029,586. POWER-WHIP FOR HAY-PRESSES. HARRY BROWN, Elvaston, Ill. Filed July 11, 1911. Serial No. 637,956. (Cl. 185—24.)



1. In a power whip, the combination with a draft member and draft attaching means adapted to be extended to either side thereof; of a base member rotatably supported on the draft member and adapted to be held in an adjusted position independent of the draft member, a pivoted lever supported upon the base member, means for normally retaining the lever with its forward end upwardly, a whip carried by the forward end, means for moving said lever to an opposite position for actuating the whip and means for limiting the return movement of the lever to its initial position.

2. In a power whip, the combination with a draft member; of a base member swivelly mounted thereon, a whipping mechanism supported on said base member and means for actuating the whipping member, said base being capable of being held in an adjusted position.

3. In a power whip, the combination with a draft member; of a base member swivelly mounted thereon, a whipping mechanism supported on said base member and means for actuating the whipping member, said base being capable of being held in an adjusted position, said whipping device being disposed in a normally raised position and adapted to be lowered when operated.

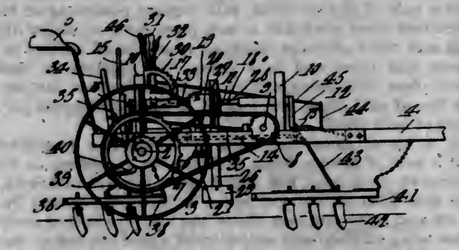
4. In a power whip, a base, vertical uprights carried by the base and spaced apart, a rocking lever pivoted between the upper ends of the uprights to one side of the center thereof to provide a long and short arm, a weight carried by the long arm, an elastic connection between the longer arm and base for holding the same downward in connection with the weight, a whip member extending from the opposite extremity and normally raised and a cable connected to said extremity and extending rearwardly for lowering the same.

5. In a power whip, a base, vertical uprights carried by the base and spaced apart, a rocking lever pivoted between the upper ends of the uprights to one side of the center thereof to provide a long and short arm, a weight carried by the long arm, an elastic connection between the longer arm and base for holding the same downward in connection with the weight, a whip member extending from the opposite extremity and normally raised, said base having a longitudinal groove, pulleys mounted in the extremities of said groove, a cable secured to the extremity of the shorter arm of the lever and adapted to pass around said pulley and means to limit the upward movement of the longer arm when the lever is actuated.

1,029,587. COTTON-CHOPPER. JAMES N. CAIN, Hawley, Tex. Filed Oct. 11, 1911. Serial No. 653,996. (Cl. 97—45.)

1. A cotton chopper including a wheel supported frame, upstanding guides thereon, a member slidably mounted within the guides, means for raising and lowering the member within the guides, a chopping blade mounted for oscillation and suspended from said member, and means for shifting the blade longitudinally of the member.

2. In a cotton chopper a wheel supported frame, upstanding guides, a member slidably mounted within the guides, means for raising and lowering the member, a chopping blade mounted for oscillation and suspended from said member, means for adjusting the blade toward or away from the said member, and means for shifting the blade longitudinally of the member.



3. A cotton chopper including a wheel supported frame, upstanding guides thereon, a member mounted to slide within the guides, a block mounted to slide and rotate upon said member, a shank adjustably connected to and depending from the block, opposed chopping blades upon the shank, means operated by one of the supporting wheels for oscillating the block and shank, and means under the control of the driver for shifting the block longitudinally of the member during the oscillation of the shank.

4. A cotton chopper including a wheel supported frame, upstanding guides, a member slidably mounted within the guides, a chopping blade connected to and supported below said member, means for oscillating the blade, a shaft, arms extending therefrom, a link connections between the arms and the end portions of the member, means for actuating said shaft to raise or lower said member, an actuating lever movable with said member, and means operated by said lever for shifting the blade longitudinally of the member in either direction.

5. A cotton chopper including a wheel supported frame, upstanding guides, a member mounted to slide upwardly and downwardly within the guides, a block mounted for rotation upon said member, a chopping blade connected to and movable with the block, means operated by one of the supporting wheels for oscillating the blade, a lever supported by said member, and means actuated by the lever for shifting the block longitudinally of the member during the oscillation of the blade.

1,029,588. TOY OR GAME. DONALD CAMPBELL, New York, N. Y., assignor to The White Knight Company, a Corporation of New York. Filed Sept. 30, 1911. Serial No. 652,130. (Cl. 46—41.)



1. A toy or game comprising in combination an apertured cover piece and a plurality of picture disks pivotally mounted behind said cover piece, contiguous portions of both said disks showing behind the aperture of said cover piece.

2. A toy or game comprising in combination an apertured cover piece, a back piece, and a plurality of picture disks pivotally mounted between said back piece and said cover piece, contiguous portions of both said disks showing behind the aperture of said cover piece.

3. A toy or game comprising in combination a support and a pair of picture disks, said support consisting of an

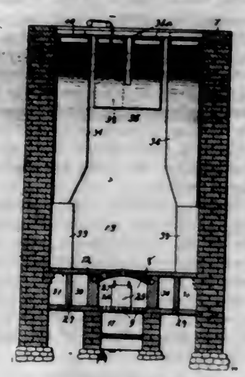
apertured cover piece and a back piece integral therewith, and said disks pivotally mounted at separated centers between said cover and back pieces.

4. A toy or game comprising in combination a support and a pair of picture disks, said support consisting of an apertured cover piece and a back piece integral therewith, and said disks pivotally mounted at separated centers between said cover and back pieces, the aperture in said cover piece being substantially symmetrical about the center line of said disks, and located to show contiguous portions of both disks.

5. A toy or game comprising in combination a support and a pair of picture disks, said support consisting of an apertured cover piece and a back piece integral therewith, and said disks pivotally mounted at separated centers between said cover and back pieces, the aperture in said cover piece being substantially symmetrical about the center line of said disks, arranged to extend at one side entirely to the border of said cover piece, and located to show contiguous portions of both disks.

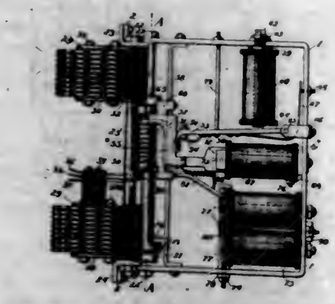
[Claims 6 to 12 not printed in the Gazette.]

1,029,589. OVEN. PHILIP F. CARROLL, Joliet, Ill. Filed May 16, 1907. Serial No. 374,030. (Cl. 107—59.)



A baking oven, including a baking chamber, means for heating said chamber and a chimney, a series of inner and outer flues for the products of combustion, said flues being arranged in a semicircular arch spanning said chamber from front to rear, the inner flues communicating with each other at one end and with the outer flues at the other end, and one of said inner flues communicating with said chimney.

1,029,590. AUTOMATIC SWITCH. EDWARD E. CLEMENT, Washington, D. C. Filed Oct. 26, 1907. Serial No. 399,284. (Cl. 179—27.5.)



1. In an automatic switch, a frame, actuating magnets secured thereto, contact banks secured within said frame having the contacts arranged in parallel vertical rows each row consisting of horizontally opposed parallel vertical contacts, a movable member bearing a wiper, and means for rotating said member with the wiper out of engagement with any contact so as to bring said wiper into alinement with the desired row of contacts, together with means thereafter brought into operation to produce vertical linear motion of said member, so as to bring the wiper into engagement with the contacts of the selected row, and by continuing motion along the row to bring about the engagement of the wiper with any desired contact.

2. In an automatic switch, a frame, actuating magnets and contact banks secured within this frame, the contacts being arranged in vertical parallel rows, a movable member carrying a wiper adapted to be given both horizontal and vertical motion, and when moving vertically to engage with the row contacts in such manner as to prevent further horizontal motion, means controlled by an actuating magnet for first producing horisontal motion of the wiper to bring it into alinement with any desired row of contacts, means controlled by another actuating magnet for moving the wiper vertically into engagement with and along the selected row, means for retaining said wiper in engagement with any desired contact in the row, means for releasing the same, and means for restoring the wiper to its normal initial or zero position by reversing its previous movements.

3. In an automatic switch, a frame, actuated magnets and contact banks secured within said frame, the contacts being arranged in vertical, parallel rows, each row consisting of a plurality of pairs, and each pair composed of horisontally opposed projecting parallel vertical contacts, a movable member bearing wipers adapted to engage said contacts, means actuated by certain of said magnets for effecting rotation of said movable member, and other means for effecting a longitudinal movement of said movable member, thereby effecting the engagement of the wipers with the contacts in a vertical row successively.

4. In an automatic switch, a frame, actuating magnets and contact banks secured within said frame, the contacts being arranged in vertical, parallel rows, each row consisting of a plurality of pairs, and each pair composed of horizontally opposed projecting parallel vertical contacts, a movable member bearing wipers adapted to engage said contacts, means actuated by certain of said magnets for rotating said movable member, together with its wipers, other means for stepping up said movable member to effect the engagement of said wipers with the contacts of a vertical row successively, and means actuated by other magnets for restoring the movable member to its original position, thereby effecting the disengagement of the wipers and the contacts.

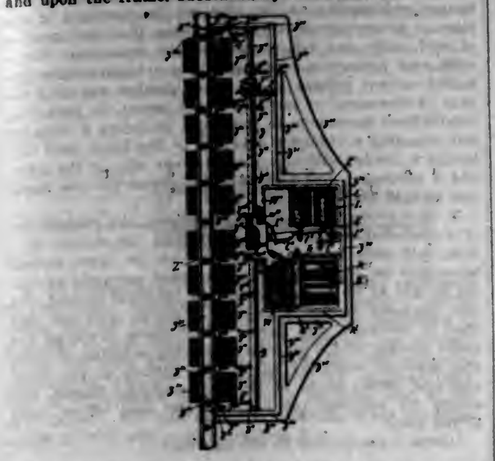
5. In an automatic switch, a frame consisting of a U-shaped bar, contact banks and actuating magnets secured within the arms of said frame, a spindle connecting the ends of said bar and having its ends secured thereto, a movable member bearing wipers mounted on said spindle, and means actuated by said magnets for effecting engagement of the wipers with any desired contact.

[Claims 6 to 18 not printed in the Gazette.]

1,029,591. ELECTRICAL SWITCHING APPARATUS FOR TELEPHONE SYSTEMS. EDWARD E. CLEMENT, Washington, D. C. Filed Jan. 6, 1906. Serial No. 294,977. Renewed Dec. 31, 1910. Serial No. 600,277. (Cl. 179—27.5.)

1. A switch for automatic telephone systems comprising a flat open frame having projecting ends, a straight strip of contacts extending parallel to the body of said frame between the ends thereof, an operating member mounted in the frame longitudinally thereof and parallel with the strip of contacts, and electro-magnetic means for actuating the operating member mounted upon the frame, substantially as described.

2. A switch for automatic telephone systems comprising a flat frame having projecting ends, a strip of contacts secured between the ends parallel to the body of the frame, an operating member for said contacts extending parallel thereto and carried upon the frame, and electro-magnets for actuating said member also mounted within and upon the frame, substantially as described.



3. A switch for automatic telephone systems comprising a flat open frame, stiffening flanges upon said frame, a contact strip connected to said frame, an operating member for the contact strip carried in the frame, and electro-magnetic actuating means for said member supported in and upon the frame, substantially as described.

4. A switch for automatic telephone systems comprising a flat open frame, a straight strip of contacts mounted lengthwise of the frame, an operating member mounted in the frame parallel thereto, and electro-magnetic actuating means for the operating member also mounted in and upon the frame, the dimensions and arrangement of all the parts being such as to constitute a structure having relatively greater length than thickness, substantially as described.

5. A switch for automatic telephone systems comprising a flat frame of considerable length relative to its thickness, with stiffening flanges and projecting ends, a straight strip of contacts and an operating member therefor secured to the frame within the ends, and electro-magnetic actuating means for the operating member carried upon and within an intermediate portion of the frame, all the parts being so proportioned and arranged as to lie substantially within the thickness of the frame, substantially as described.

[Claims 6 to 35 not printed in the Gazette.]

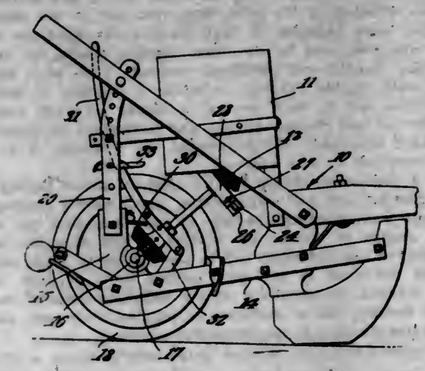
1,029,592. DRIVING MECHANISM FOR PLANTERS. EUGENE MACON COLE, Charlotte, N. C. Filed June 8, 1911. Serial No. 631,966. (Cl. 111—32.)

1. In a planter, a distributing mechanism, a shaft arranged to impart movement to said distributing mechanism, a second shaft, a plurality of spaced covering wheels mounted on said second shaft, the central portions of said wheels being pressed outwardly to form a housing for the end portion of the first mentioned shaft.

2. In a planter, a distributing mechanism, a shaft arranged to drive said distributing mechanism, a second shaft, a plurality of covering wheels arranged on said second shaft, a plurality of supporting beams secured to the frame of the planter, said beams extending between said wheels, a plurality of spaced brackets supporting the second mentioned shaft, and a plurality of adjustable arms secured to said brackets.

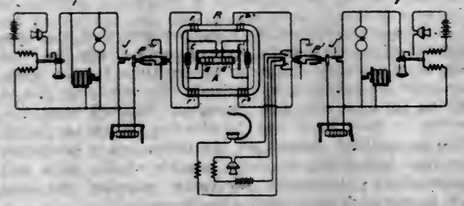
3. In a planter, a distributing mechanism, a shaft arranged to drive said distributing mechanism, a plurality of spaced covering wheels, said shaft extending between said wheels, a pinion arranged on the end portion of said shaft, teeth arranged on the inner face of one of said wheels, said pinion being in mesh with said teeth, a slotted block supporting the other end of said shaft, and means for imparting longitudinal movement to said shaft.

4. In a planter, a distributing mechanism, a shaft arranged to drive said distributing mechanism, a second shaft, a plurality of spaced covering wheels arranged on said second shaft, gears carried by one of said wheels, a



pinion arranged on the first mentioned shaft and in mesh with said gear, a slotted block supporting the other end of said shaft, a plurality of depending arms supporting said block, and a pivotally supported lever capable of imparting longitudinal movement to said shaft.

1,029,593. CONNECTING-CIRCUIT FOR MAGNETO TELEPHONE-EXCHANGE SYSTEMS. EDWIN HENRY COLPITTS, East Orange, N. J., assignor to Western Electric Company, New York, N. Y., a Corporation of Illinois. Filed Sept. 15, 1910. Serial No. 582,248. (Cl. 179—75.)



1. A connecting circuit in a plurality of sections, induction coils having their primaries connected in series in one section and their secondaries connected in series in another, the relation of the direction of winding of one secondary to the other being opposite to that between the primaries, and shunt paths for telephonic current around the respective windings of one induction coil, said paths offering comparatively high resistance to the ringing current.

2. A connecting circuit in a plurality of sections, a pair of induction coils with their corresponding windings in each section serially connected together, the inductive relation between the windings of the respective devices being opposite, thereby creating upon the passage of ringing current through the primary section electromotive forces of opposite polarity in the secondary section, and means for shunting telephonic current around the respective windings of one induction coil, said means offering comparatively high resistance to the ringing current.

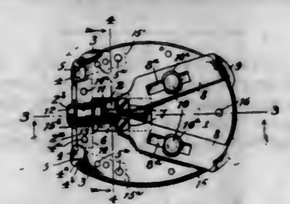
3. A connecting circuit comprising sections united through a plurality of induction coils having their corresponding windings in each section connected together and in such a manner that due to their inductive relation the passage of ringing current through the primary section creates electromotive forces of opposite polarity in the secondary section, and condensers for shunting telephonic current around the respective windings of one induction coil.

4. A connecting circuit in two sections united inductively through two induction coils, each section leading through corresponding windings of the respective induction coils in each section in series, the relation of the direction of winding of one induction coil in one section to the winding of the other induction coil in the same section being opposite to that between the windings of the induction coils in the other section, means for impressing ringing and telephonic currents upon each section, said ringing current traversing a winding of each induction coil in each section, a signal actuated upon the flow of said ringing current, and condensers for shunting said telephonic current around the windings of one induction coil in both sections.

5. A connecting circuit in two sections united through a repeating coil and annunciator, each section leading through corresponding windings of each induction coil in each section in series, the relation of the direction of winding of one induction coil in one section to the winding of the other in the same section being opposite to that between the windings of the induction coils of the other section, and a condenser in parallel with each annunciator winding in the respective sections.

[Claims 6 and 7 not printed in the Gazette.]

1,029,594. HORSE BOOT OR SHOE. CHARLES W. CONKLIN, Stony Brook, N. Y. Filed Feb. 2, 1912. Serial No. 675,090. (Cl. 168—3.)



1. In a horse boot of the character described, the combination of a body part or plate of substantially the same size of an ordinary shoe so as to constitute a cover therefor, said plate having a longitudinally extending slot, a sliding block in said slot, oppositely disposed arms connected to said block and terminating in shoe-engaging flanges, auxiliary flanges on the plate, and a protective covering underlying the lower surface of the plate and substantially coextensive therewith, whereby the shoe will be spaced from contact with the surface.

2. In a horse boot of the character described the combination of a metallic plate of substantially the outline of a horse hoof, said plate having a longitudinally extended slot, a slidable block positioned in said slot and having an interlocking engagement with the side walls of said slot, elongated arms connected at their inner ends to said block and terminating at their forward ends in shoe engaging flanges, coöperating flanges adjacent the rear end of the plate, and a protective covering underlying the lower surface of said plate.

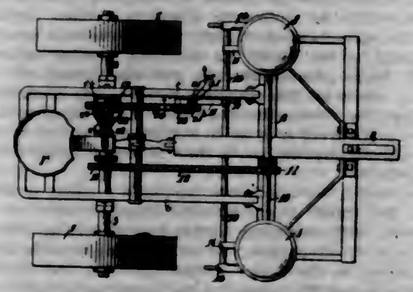
3. In a horse boot of the character described, the combination of a metallic plate of substantially the outline of a horse hoof, said plate having a longitudinally extended slot, a slidable block positioned in said slot and having an interlocking engagement with the side walls of said slot, elongated arms connected at their inner ends to said block and terminating at their forward ends in shoe-engaging flanges, coöperating flanges adjacent the rear of the plate, a protective covering underlying the lower surface of said plate and being substantially coextensive therewith, and said protective covering having a longitudinally extended cut-out portion in its upper portion overlying the path of movement of said block.

4. In a horse boot of the character described, the combination of a metallic plate of substantially the outline of a horse hoof, said plate having a longitudinally extended slot, a slidable block positioned in said slot and having an interlocking engagement with the side walls of said slot, elongated arms connected at their inner ends to said block and terminating at their forward ends in shoe engaging flanges, coöperating flanges adjacent the rear end of the plate, a protective covering underlying the lower surface of said plate and being substantially coextensive therewith, said protective covering having a longitudinally extended cut-out portion in its upper portion overlying the path of movement of said block, and means for imparting longitudinal movement to the block including a threaded bolt engaging a threaded aperture in the block, said bolt having a headed end overlying the rear edge of the plate, and a protective covering having a recess for the reception of said headed end of the bolt.

5. In a protecting boot for horseshoes, the combination of a disk-shaped plate of substantially the outline of a shoe, said plate having projecting from its upper surface adjustable toe engaging flanges and fixed upwardly extending flanges at its sides adjacent the rear end thereof, and heel engaging flanges projecting upwardly over the rear edge of the plate and having off-set parts overlying the under surface of the plate, a protecting covering of yieldable material overlying said under surface of the plate, and said off-set parts of the heel engaging flanges, and means for securing the covering and said off-set parts to the plate.

[Claim 6 not printed in the Gazette.]

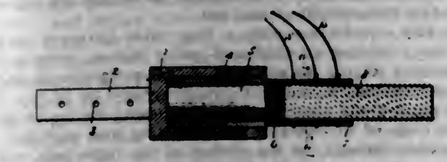
1,029,595. WIRELESS CHECK-ROWER. WARDNER N. CORBIT, Farragut, Iowa. Filed Oct. 12, 1910. Serial No. 586,762. (Cl. 111—6.)



In a planter, a frame, seed boxes mounted on the frame and provided with means for releasing the seed therefrom, arms extending rearwardly from the seed boxes and connected with the releasing means thereof, a rock shaft journaled on the frame and connected to the rear ends of the arms, a crank arm rigid with the rock shaft and depending therefrom at one side of the frame, a U-shaped bracket having one of its side walls secured to the frame and depending therefrom, a trip lever having an enlarged upwardly extending head pivotally mounted between the side walls of the bracket and a reduced forwardly extended arm pivoted to the depending crank arm, a sprocket rotatably mounted between the side walls of the bracket, a pin projecting from the sprocket to engage the forward upper portion of the lever and move the forwardly extended arm upwardly, a wheeled axle journaled to the rear end of the frame, a sprocket wheel mounted on said axle, a sprocket chain engaged around the said sprocket wheels, means normally keying the sprocket wheel to the axle for rotating the pin carrying sprocket wheel and means for disengaging the latter means.

1,029,596. DEVICE FOR PREVENTING SPREAD OF EXPLOSIONS IN COAL-MINES. JOSEPH COSAVELLO, Moyie, British Columbia, Canada. Filed June 20, 1911. Serial No. 634,232. (Cl. 102—5.)

1. An actuating device for use in preventing explosions in coal mines, comprising a cylindrical member having provision thereon for attachment to a suitable support, a pipe within the cylinder, another pipe containing an explosive compound, means being positioned within the pipe within the cylinder so that the said explosive may be held in suitable position, the said device being adapted to be connected to operating wires for holding the doors open and the said explosive being adapted for operation by an explosion outside thereof, whereby the member to which the wires are connected will be shattered.



2. An actuating device for use in preventing explosions in coal mines comprising a cylindrical member having means thereon whereby it may be suitably supported in position, a pipe within the said chamber, an element within the said pipe having a threaded end extending therebeyond, another pipe containing an explosive mixture in engagement with the said threaded end of the said element, the said explosive mixture, when actuated, shattering the said pipe containing it.

1,029,597. WHIFFLETREE. GUSTAVE F. DANIELSON, Youngstown, Ohio. Filed July 7, 1911. Serial No. 637,256. (Cl. 21—78.)



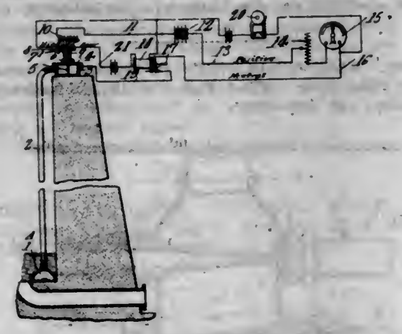
1. A swingle-tree comprising a sheet metal strip folded along its longitudinal axis with its outer marginal portions inturned and abutted, the sides of the formed body having longitudinal ribs and substantially parallel end portions from which the web and abutting marginal portions are removed, and a centrally disposed sheet metal enforcing strip interposed between the sides of the body against whose inner faces it bears throughout its length.

2. A swingle tree comprising a sheet metal strip folded along its longitudinal axis with its outer edges inturned and abutted, the sides of the formed body having a pair of alined clevis bolt apertures and embossed longitudinal ribs and substantially parallel end portions beyond the ribs from which the web and abutting margins are removed, and a centrally disposed sinuous strip of sheet metal interposed on edge between the sides of the body against whose inner faces it bears throughout its length, the strip being adapted to form a clevis bolt bearing adjacent the apertures.

3. A swingle tree comprising a sheet metal strip folded along its longitudinal axis into a hollow body, of substantially rectangular cross-section, symmetrically tapered longitudinally from the center, the sides of the body extending beyond the marginal portions in substantially parallel relation, and having a pair of centrally disposed alined clevis bolt holes, and a sinuous reinforcing strip of sheet metal bent transversely between its ends to form a bearing between the clevis bolt holes.

4. A swingle tree comprising a sheet metal strip folded along its longitudinal axis into a hollow body symmetrically tapered longitudinally from the center, the sides of the body extending beyond the marginal end portions in substantially parallel relation, longitudinal ribs formed up on the sides of the body and a reinforcing strip of sheet metal centrally disposed between the middle portions of the body sides adjacent alined clevis bolt openings in said sides, the strip bearing throughout its length along its margins against the inner faces of the sides and ribs and forming a clevis bolt bearing between and adjacent the clevis bolt openings.

1,029,598. LIQUID-LEVEL INDICATOR. DAVID G. DAVIES, Spokane, Wash. Filed Apr. 28, 1911. Serial No. 623,840. (Cl. 73—117.)



1. In an apparatus of this character, the combination with a reservoir containing liquid, a source of electrical energy, and an electrically operated indicator to indicate the fluctuations of the liquid level within the reservoir, of means for actuating said electrically operated indicator through the source of electrical energy, comprising a tube extending above the water level mounted to have liquid rise therein to seek the level of the liquid in the reservoir, a receptacle containing a liquid circuit maker operably connected with the outer end of said tube, and a series of co-acting contacts adapted to co-act with the liquid circuit maker to operate the indicator.

2. In an apparatus of this character, the combination with a reservoir containing liquid, a source of electrical energy, and an electrically operated indicator to indicate the fluctuations of the liquid level within the reservoir, of means for actuating said indicator by forming electrical circuits, comprising a tube mounted in the reservoir and having an open end to permit the liquid to seek its level in the tube, the upper end of the tube being above the reservior, a receptacle containing a liquid circuit maker operably connected with the upper end of the tube, and a series of contacts of graduated lengths positioned to co-act with the liquid circuit maker to operate the indicator.

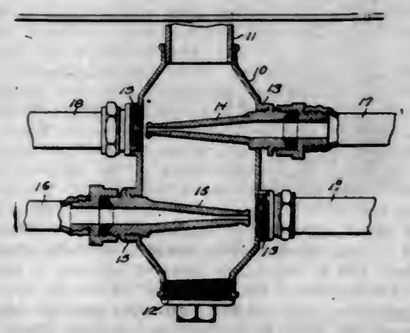
3. In an apparatus of this character, the combination with a reservoir, a source of electrical energy, and an electrically operated indicator to indicate the fluctuations of the liquid levels in the reservoir, of a tube having its lower end open and immersed in the reservoir to permit the liquid in the reservoir to seek its level in the tube, the upper end of said tube extending above and exterior of the reservoir, a receptacle containing a liquid circuit maker operably connected with the upper end of said tube, said liquid being actuated by the fluctuations of the liquid level within the tube, and a series of different length contacts disposed above to co-act with the liquid circuit maker to complete electrical circuits and operate the indicator.

4. In an apparatus of this character, the combination with a reservoir, a source of electrical energy, and an electrically operated indicator to indicate the fluctuations of the liquid levels in the reservoir, a tube having a lower open end immersed in the liquid of the reservoir and having its upper end projecting above the water level and exteriorly of the reservoir, a liquid circuit maker operably connected to the upper end of said tube and actuated by the fluctuations of the liquid level of the reservoir through said tube, and a series of graduated contacts disposed above to co-act with the said liquid circuit maker to make electrical circuits to operate the indicator.

5. In an apparatus of this character, the combination with a reservoir, a source of electrical energy, and an electrically operated indicator to indicate the fluctuations of the liquid levels in the reservoir, a tube having a lower open end immersed in the reservior and having its upper end projecting above the reservoir, a reservoir pro-

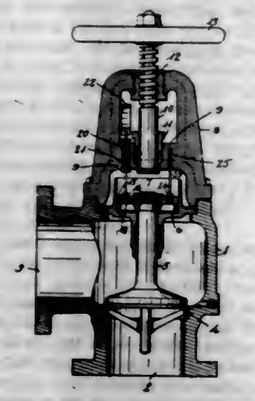
vided with a spring tensioned cover in communication with the upper end of the tube, a receptacle containing a liquid circuit maker carried by said cover, and a series of contacts adapted to co-act with the liquid circuit maker to form electrical circuits to operate the indicator.

1,029,599. SANDING DEVICE. LE BERTEN T. DUNCAN, Long Pine, Nebr. Filed Mar. 30, 1911. Serial No. 617,954. (Cl. 105—263.)



A sanding device including a vertically disposed open-ended casing having laterally extending interiorly threaded bosses projecting from the side wall thereof, a sand supply pipe communicating with the interior of the casing at the top thereof, a detachable plug forming a closure for the lower end of the casing, air nozzles extending inwardly from the opposite sides of the casing and having flanges bearing against the adjacent bosses and threaded portions for engagement with the threads on said bosses, said nozzles being arranged in overlapped relation and disposed in vertical alinement with each other, air conductors connected with the outer ends of the nozzles, and discharge pipes arranged opposite the free ends of the air nozzles and provided with threaded terminals engaging the threaded walls of the adjacent bosses.

1,029,600. INDICATOR FOR STOP-VALVES. JOHN M. FOSTER, New York, N. Y. Filed Sept. 27, 1911. Serial No. 651,482. (Cl. 137—4.)



1. The combination with a stop valve having a body portion providing an inlet and outlet with a valve seat between, a clapper for said seat, a dash-pot piston on said clapper, a dash-pot for said piston, and a yoke closing the top of the valve body, of an indicator rod projecting from said dash-pot piston through the top closure of the valve body, outside the same and adapted to move longitudinally with said piston, and a packing for said indicator rod to prevent leakage.

2. The combination with a stop valve having a body portion providing an inlet and outlet with a valve seat between, a clapper for said seat, a dash-pot piston on said clapper, a dash-pot for said piston, and a yoke closing the top of the valve body, of an indicator rod projecting from said dash-pot piston through the top closure of the valve body, and means connecting said rod to said piston to move longitudinally therewith while permitting the piston to rotate independent of said rod.

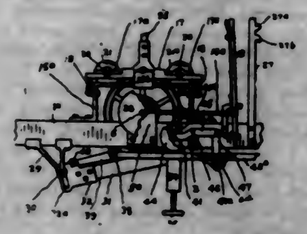
3. The combination with a stop valve having a body portion providing an inlet and outlet with a valve seat between, a clapper for said seat, a dash-pot piston on said clapper having an undercut annular groove in its top, a dash-pot for said piston, and a yoke closing the top of the valve body, of an indicator rod projecting from said dash-pot piston through the top closure of the valve body, and means on the lower end of said indicator rod projecting laterally into the undercut portion of said groove and causing said rod to move longitudinally with the piston while permitting said piston to rotate independent of the rod.

4. The combination with a stop valve having a body portion providing an inlet and outlet with a valve seat between, a clapper for said seat, a dash-pot piston on said clapper having an annular T-slot in its top, a dash-pot for said piston, and a yoke closing the top of the valve body, of an indicator rod projecting from said dash-pot piston through the top closure of the valve body, and a flange on the lower end of said indicator rod slidable in the undercut part of the T-slot.

5. The combination with a stop valve having a body portion providing an inlet and outlet with a valve seat between, a clapper for said seat, a dash-pot piston on said clapper having in its top an annular T-slot with a branch slot leading therefrom, a dash-pot for said piston, and a yoke closing the top of the valve body, of an indicator rod projecting from said dash-pot piston through the top closure of the valve body, and flanges on the lower end of said indicator rod one in the undercut part of the T-slot and the other adjacent to the top surface of the piston.

[Claims 6 to 9 not printed in the Gazette.]

1,029,601. MOTOR-PLOW. JESSE W. FULLER, Muncie, Ind. Filed Sept. 25, 1911. Serial No. 651,020. (Cl. 97—30.)



1. In a cultivating machine comprising a main frame, an axle bar and traction wheels on the axle bar, a motor driven shaft journaled on the frame, a first and second standard carried by the frame, a beam trunnioned on the second standard, countershafts journaled parallel with and at each side of the axial center of the driven shaft, their ends being journaled in boxings carried by the first standard and in the beam trunnioned on the second standard, a friction wheel on the driven shaft, a friction wheel on each of the countershafts of diameter to make contact with the first named friction wheel when the said trunnioned beam is moved, gear wheels secured on the ends of the countershafts and intermeshing with each other, connections between the motor and one of these gear wheels, secondary friction wheels on the driven shaft, a draw bar carried by the frame, guideway stirrups carried by the frame, tool carrier beams carried loosely in said stirrups and having their heads connected loosely to the draw bar, adjustment screws in the stirrups to vary the heights at which the tool carrier bars are carried, a jointed shaft having its ends journaled in bearings carried by the frame, arms secured to the ends of said jointed shaft and having loose connection with heads of the tool carrier beams, foot levers having their forward ends secured to said jointed shaft, a beam shaft centrally jointed and having its ends carried loosely in oblong holes therefor in the frame, chains wound on the beam shaft and having connection with the tool carrier beams, friction wheels secured to the beam shaft, lift levers fulcrumed on a cross member of the frame and having their forward ends connected to the beam shaft, vertical links connected to the rear ends of said lift levers and having slots in their bottom ends, and pins carried by the foot levers to engage said slots.

2. In a machine of the kind described, the combination of a frame, a motor driven shaft journaled on the frame, a first and second standard carried by the frame, a beam trunnioned on the second standard, countershafts journaled parallel with and at each side of the axial center of the driven shaft, their ends being journaled in boxings carried by the first standard and in the beam trunnioned on the second standard, a friction wheel on the driven shaft, a friction wheel on each of the countershafts of diameter to make contact with the first named friction wheel when the said trunnioned beam is moved, gear wheels secured on the ends of the countershafts and intermeshing with each other, a gear wheel secured on the motor driven shaft and intermeshing with one of the aforesaid gear wheels, a secondary friction wheel on the driven shaft, a draw bar carried by the frame, a guideway stirrup carried by the frame, a tool carrier beam carried loosely in said stirrup and having its head connected loosely to the draw bar, adjustment means in the stirrup to vary the height at which the tool carrier beam is carried, a shaft having its end journaled in bearings carried by the frame, an arm secured to the said shaft and having loose connection with the head of the tool carrier beam, a foot lever having its forward end secured to said shaft, a beam shaft having its ends carried loosely in oblong holes therefor in the frame, a chain wound on the beam shaft and having connection with the tool carrier beam, a friction wheel secured to the beam shaft, a lift lever fulcrumed on a cross member of the frame and having its forward end connected to the beam shaft, a vertical link connected to the rear end of the lift lever and having a slot therein, and a pin carried by the foot lever to engage said slot.

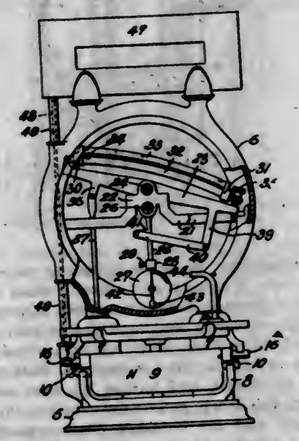
3. In a machine of the kind described, the combination of a driven shaft carried by the frame, a friction wheel secured on the said shaft, a draw bar carried by the frame, a guideway stirrup carried by the frame, a tool carrier beam carried loosely in the said stirrup and having its head connected loosely to the draw bar, a shaft having its ends journaled in bearings carried by the frame, an arm secured to the said shaft and having loose connection with the head of the tool carrier beam, a foot lever having its forward end secured to the said shaft, a beam shaft having its ends carried in oblong holes therefor in the frame, a chain wound on the beam shaft and having connection with the tool carrier beam, a friction wheel secured to the beam shaft, devices operable by the foot lever to raise the beam shaft, a toothed wheel secured to the beam shaft, and a pawl carried by the frame capable of being moved into and out of coöperative engagement with the said toothed wheel.

4. In a machine of the kind described, a frame, a draw bar carried by the frame, a tool carrier beam, a head on the tool carrier beam provided with a slot to engage loosely the said draw bar, a shaft having its ends journaled in bearings carried by the frame, an arm secured to the said shaft and having loose connection with the head of the tool carrier beam, a foot lever having its end secured to said shaft, a beam shaft having its ends carried loosely by the frame, devices operable by the foot lever to raise the beam shaft, a chain wound on the beam shaft and having connection with the tool carrier beam, a hand wheel secured on the beam shaft, a toothed wheel secured on the beam shaft, and a pawl carried by the frame capable of being moved into and out of coöperative engagement with the toothed wheel.

5. In a machine of the kind described, a frame, a driven shaft, tool carrier beams supported by the frame, friction wheels secured to the driven shaft, a beam shaft disposed above the tool carrier beams and divided centrally and having its outer end portions carried loosely by the vehicle frame, a coupling member to hold loosely the proximate ends of the sections of said beam shaft, friction wheels secured to the beam shaft, flexible members wound on the beam shaft and having connections with the tool carrier beams, and means for shifting the beam shaft to cause contact of its wheels with the wheels of the driven shaft whereby the beam shaft is rotated and the tool carrier beams are thereby raised.

[Claim 6 not printed in the Gazette.]

1,029,602. AUTOMATIC WEIGHING-SCALE. AVILA GAUVIN, Montreal, Quebec, Canada. Filed Sept. 15, 1910. Serial No. 582,208. (Cl. 73—29.)



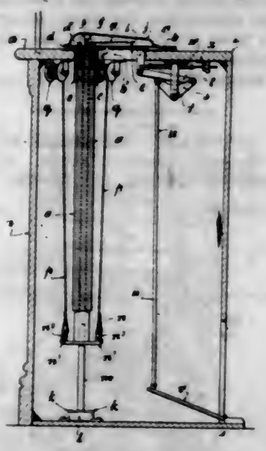
1. In a weighing scale, a scale beam, a platform, means connecting the scale beam and platform, a counterpoise, a lever suspending the counterpoise below the scale beam, an arm on said lever, a link connecting the extremity of said arm with the scale beam, and a small adjusting weight slidably mounted on the lever between the counterpoise and the lever arm.

2. In a weighing scale, a scale beam, a platform, means connecting the scale beam and platform, a circular counterpoise having a scale formed thereon, a needle pivoted on the counterpoise having one end thereof weighted and the opposite end thereof adapted to indicate weights on said scale, a lever suspending the counterpoise below the scale beam, an arm on said lever, a link connecting the extremity of said arm with the scale beam, and a small adjusting weight slidably mounted on the lever between the counterpoise and the lever arm.

1,029,603. APPARATUS FOR ISSUING METAL CHECKS AND THE LIKE. WILLIAM GEO. GILMORE, Stockport, England. Filed Nov. 3, 1911. Serial No. 658,337. (Cl. 235—91.)

1. In combination in a check-issuing machine, a rod adapted to carry a column of checks, a fixed plate having an opening and against which plate the endmost check of the column of checks presses, a slidable plate or ejector by which the endmost check of the column next the said fixed plate may be ejected, such slidable plate or ejector at that end next the check having an open ended slot, means for operating such slide or ejector to eject the check and return the slide to its normal position, a counter secured to the said fixed plate, a lever arm on the counter axis, the free end of which normally projects through the opening in the plate and into the hole in the endmost check while in the column, the said opening being large enough to allow the arm to be moved to operate the counter, and a spring by which the said arm is nor-

mally held against one edge of the said opening and by which, after being moved by the check to operate the counter and released by the check, it is also returned, and caused to again abut against the edge of the opening in the fixed plate ready to project into the hole of the next check in the column as such check is moved forward against the plate, as set forth.

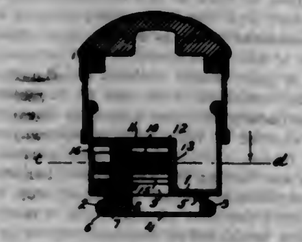


2. In combination, in a check-issuing machine, a rod adapted to carry a column of checks, a fixed desk having an orifice in it through which the checks may pass, a plate secured to the said desk and in which is also an opening, the plate and its opening overlying the said orifice in the desk, a slide or ejector for ejecting the endmost check of the column of checks, and having an open-ended slot at that end next the check, means for pressing the column of checks toward and the endmost check against the said fixed plate, a counter above and secured to the said fixed plate, a lever arm on the counter axis, the free end of which normally projects through the opening in the plate and into the opening in the endmost check while in the column, and a spring by which the said arm is normally held against one edge of the said opening and by which it is also returned, after being moved by the check to operate the counter and released by the check, and caused to again abut against the edge of the opening in the plate ready to project into the opening of the next check in the column as such check is moved forward against the plate, as set forth.

3. In combination in a check-issuing machine a fixed plate having an opening in it and against which plate the endmost check of the column of checks presses, a slidable plate or ejector for ejecting the checks one by one and said plate having an open-ended slot at that end next the check, a counter secured to the fixed plate, a lever arm on the axis of the counter the free end of which extends through the opening in the fixed plate and into the hole in the endmost check while in the column the said opening being large enough to allow the lever arm to be moved to operate the counter, and a spring whereby the said arm is held normally against one edge of the said opening and, after being moved by the check to operate the counter and released by the check, is returned to its normal position, the slot in the slide or ejector being such as to allow the lever arm to resume its normal position immediately the arm leaves the check, as set forth.

4. In combination in a check issuing machine, a rod adapted to carry a column of checks, means for detachably holding such rod in position, a fixed desk, an orifice in such desk through which the checks on the rod may pass, a plate secured to the desk having an opening, helical springs and drums secured to the desk, a sleeve on the said check carrying rod, cords secured at one end to the drums and to the said sleeve at the other end whereby the column of checks is pressed toward and the endmost checks against the said fixed plate, a slide or ejector having an open-ended slot at that end next the check guides for said ejector, a bell-crank lever below the desk, a link connecting one arm of such lever to the ejector, a foot-treadle and a rod connecting such foot treadle to the other arm of the bell-crank lever, a spring for returning the ejector after being moved to eject a check, a counter above and secured to the fixed plate, a lever arm on the axis of such counter the free end of which extends through the opening in the plate and into the endmost check of the column of checks while in the column, a spring for holding the lever arm normally against one edge of the opening in the plate, which opening is large enough to allow of the movement of the arm to operate the counter, and a plate with slot for covering in the counter except the numerals and the spring, as set forth.

1,029,604. TIRE-SECURING MECHANISM. LUTHER L. GAMGG, Jr., Lonejack, Mo. Filed July 14, 1911. Serial No. 638,489. (Cl. 152—21.)



1. In tire securing mechanisms, a ring adapted to be mounted in a groove of a clencher rim, an annular tire member encircling the ring and having a slot, securing means adapted to be mounted in the other groove of the clencher rim and against which the tire member bears, a locking member extending through the slot and having means for lockingly engaging with the ring, and a screw rotatively mounted on the tire member and having threaded engagement with the locking member for moving the locking member laterally to and from the locking position.

2. In tire securing mechanisms, a ring adapted to be mounted in a groove of a clencher rim, an annular tire member encircling the ring and having a slot, securing means adapted to be mountel in the other groove of the clencher rim and against which the tire member bears, a housing on the tire member over the slot, a casing rotatively mounted in the housing and having a longitudinal slot adapted to register with the slot in the tire member, a locking member slidable in the slot of the casing and movable therewith to and from a position in which it will extend through the slot in the tire member, and movable in the slot in the tire member into and out of locking engagement with the ring, and a screw rotatively mounted in the casing and having a threaded engagement with the locking member for moving the locking member to and from the locking position.

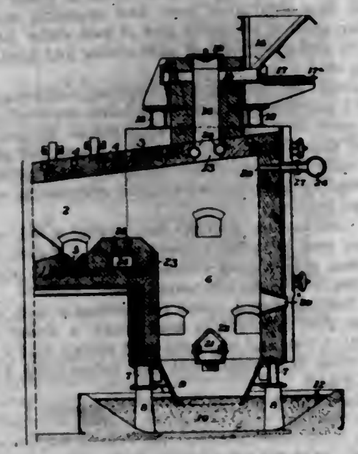
3. In tire securing mechanisms, two rings adapted to be respectively mounted in the grooves in a clencher rim, an annular tire member encircling the rings and having a slot and provided with a projection for engaging the inner side of one of the rings, a locking member extending through the slot and having means for lockingly engaging with the other ring, and a screw rotatively mounted on the tire member for moving the locking member to and from the locking position.

4. In tire securing mechanisms, two rings adapted to be respectively mounted in the grooves of a clencher rim, one of the rings having an annular groove in its inner side, an annular tire member encircling the rings and having a slot and provided with a projection for engaging the inner side of the other ring, a locking member extending through the slot and having a projection for entering said annular groove, and a screw rotatively mounted on the tire member for moving the locking member to and from the locking position in which the projection of the locking member is in the annular groove.

5. In tire securing mechanisms, two rings adapted to be respectively mounted in the grooves of a clencher rim, an annular tire member encircling said rings and having a plurality of slots, the tire member having a projection for engaging the inner side of one of the rings, a plurality of locking members respectively extending through said slots and having each means for lockingly engaging with the other ring, and a plurality of screws rotatively mounted on the tire member and having threaded engagement with the locking members respectively for moving said locking members to and from the locking positions.

[Claim 6 not printed in the Gazette.]

1,029,605. CONTINUOUS HEATING-FURNACE. ASA W. GRIFFITH, Youngstown, Ohio. Filed Sept. 22, 1909. Serial No. 519,066. (Cl. 110—72.)

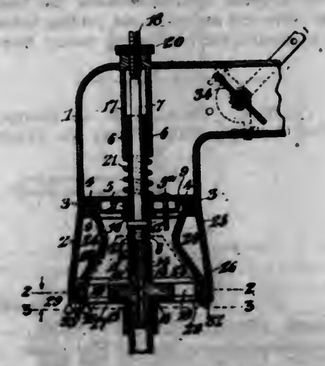


1. A heating furnace including an upright combustion chamber, a substantially horizontal heating chamber leading from the upper portion of the combustion chamber throughout the width thereof, and a wind box in the lower portion of the combustion chamber substantially midway between the front and back thereof and below the heating chamber and extending the full width of the combustion chamber, said wind box having upwardly converging front and rear perforate sides, the roof of the combustion chamber having a charging opening therethrough extending the full width of said chamber and located in alinement with the wind box, substantially as described.

2. A heating furnace including an upright combustion chamber, a substantially horizontal heating chamber leading from the upper portion of the combustion chamber throughout the width thereof, a wind box in the lower portion of the combustion chamber substantially midway between the front and back thereof and below the heating chamber and extending the full width of the combustion chamber, said wind box having upwardly converging front and rear perforate sides, the roof of the combustion chamber haing a charging opening therethrough extending the full width of said chamber and located in alinement with the wind box, and means for maintaining a sheet of air against the under side of the roof of the furnace, substantially as described.

3. A heating furnace including an upright combustion chamber, a substantially horizontal heating chamber leading from the upper portion of the combustion chamber throughout the width thereof, a wind box in the lower portion of the combustion chamber substantially midway between the front and back thereof and below the heating chamber and extending the full width of the combustion chamber, said wind box having upwardly converging front and rear perforate sides, the roof of the combustion chamber having a charging opening therethrough extending the full width of said chamber and located in alinement with the wind box, a charging chute communicating with the charging opening throughout the length thereof, a feed hopper at one side of the chute, there being a passage leading from the hopper through one side of the chute throughout the horisontal length thereof, and a mechanical charger working in the passage, substantially as described.

1,029,606. VALVE MECHANISM FOR CARBURETERS. WILLIAM S. GUTHRIE, Terrell, Tex. Filed June 25, 1910. Serial No. 568,905. (Cl. 48—154.1.)



1. A valve mechanism for carbureters including a fuel valve, means for opening the same, adjusting means for limiting the travel of the fuel valve, and a suction controlled fluid valve arranged in closing to actuate the fuel valve to positively close the same, said fluid valve having a free opening movement independent of the length of travel of the fuel valve and unresisted by the adjustments of the latter, whereby the stroke of the fuel valve may be shortened to any extent without retarding the fluid valve as influenced by suction.

2. A valve mechanism for carbureters including a valve casing having an air passage and provided therein with a fuel passage, a fuel valve arranged to seat itself on the end of the fuel passage and having a stem, an adjusting device for limiting the movement of the fuel valve, a suction controlled fluid valve having a tubular stem receiving and guiding the stem of the fuel valve, said fluid valve being arranged to actuate the fuel valve in the closing movement thereof and being unrestricted in its opening movement by the adjustment of the fuel valve, whereby the stroke of the fuel valve may be shortened to any desired extent without retarding the fluid valve as influenced by suction, guiding means for the fluid valve, and a spring for actuating the fluid valve in the closing movement thereof.

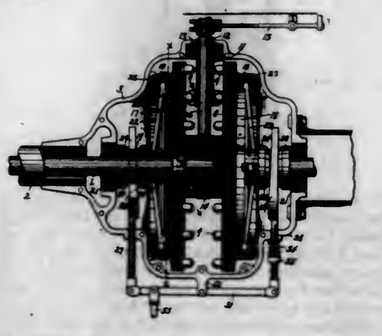
3. A valve mechanism for carbureters including a valve casing having an air passage and provided therein with a fuel passage, a fuel valve arranged to seat itself on the end of the fuel passage and having a vertical stem, a stop located above the stem of the fuel valve for limiting the opening movement of the latter, a suction controlled fluid valve having a vertical tubular stem receiving and guiding the stem of the fuel valve, said tubular stem being extended below the fluid valve and arranged to actuate the fuel valve in the closing movement thereof, and a tubular guide located between the fluid valve and the end of the fuel passage and receiving and guiding the lower portion of the stem of the fuel valve.

4. A valve mechanism for carbureters including a valve casing having an air passage and provided therein with a fuel passage, a fuel valve arranged to seat itself on the end of the fuel passage and having a stem, a suction controlled fluid valve having a tubular stem receiving and guiding the stem of the fuel valve, said fluid valve being arranged to actuate the fuel valve in the closing movement thereof, a tubular guide extending from the wall of the casing and receiving one end of the tubular stem of the fluid valve, an adjusting device mounted at the outer end of the tubular guide and forming a stop for the stem of the

fuel valve to limit the opening movement of the latter, and a separate guide located between the fluid valve and the end of the fuel passage and guiding the lower end of the said tubular stem.

5. A valve mechanism for carbureters including a valve casing having an air passage and provided therein with a fuel passage, a fuel valve arranged to seat itself on the end of the fuel passage and having a stem, a suction controlled fluid valve having a tubular stem receiving and guiding the stem of the fuel valve, said fluid valve being arranged to actuate the fuel valve in the closing movement thereof, a guide located between the fuel passage and the fluid valve and receiving and guiding the said tubular stem, and means for preventing rotary movement of the latter.

1,029,607. CLUTCH. CHARLES E. O. HAGER, Toledo, Ohio. Filed July 16, 1910. Serial No. 572,237. (Cl. 192—8.)



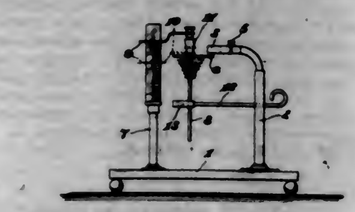
1. In combination, a shaft, a member mounted for rotation on said shaft and having an annular laterally and inwardly projecting flange, a friction clutch part secured to the shaft for rotation therewith, a plurality of levers radially carried by said clutch part, said levers being fulcrumed to the clutch part adjacent its outer edge and having their outer ends positioned to act with the inturned portion of said flange to draw said member and clutch part together when the inner ends of the levers are moved in one direction, and means shiftable to impart clutch engaging movements to said levers.

2. In combination, a shaft, two coöperative clutch members mounted on said shaft and one having a laterally projecting annular flange with a portion at least of the other member disposed therein, one of said members being loose on the shaft, a plurality of levers radially carried by the inner member with their fulcrums in loose thrust contact with said inner member adjacent the outer edge thereof and their outer ends adapted to coact with said flange to effect a drawing together of the clutch members when the levers are oscillated in one direction and means for controlling the movements of said levers.

3. In combination, a pair of clutch members, one being secured to the shaft for rotation therewith and having an annular flange which overhangs the other member, the inner member being provided with notches adjacent its outer edge, levers radially carried by the notched member and having fulcrum lugs adjacent their outer ends loosely seating in said notches and their ends disposed to coact with said flange to effect a drawing together of the clutch members when the inner ends of the levers are moved in one direction and means for controlling the movements of the levers.

1,029,608. HAIR-SPRING TESTER. ABRAHAM G. HAMM and ABRAHAM ABR. HAMM, Rosthern, Saskatchewan, Canada. Filed Oct. 2, 1911. Serial No. 652,337. (Cl. 73—51.)

1. In combination, a crane for holding a hair spring, a graduated post adjacent to said crane and independent thereof, and a sinker coöperating with said graduating post and adapted to engage said spring by the action of gravity.



2. In combination, a crane for holding a hair spring, a graduated post adjacent to said crane, a sinker coöperating with said graduated post, and engaging said spring means for guiding the lower end of said sinker and means carried by the upper end of said sinker and guiding it by engaging said post.

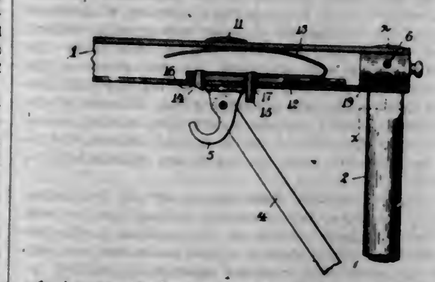
3. A crane for holding a hair-spring comprising a fixed jaw and a movable jaw, said jaws being provided with contiguous ears, in combination with means for holding the said ears together on said spring, a graduated post adjacent to said crane, a sinker engaging said spring and a loop extending from said sinker and coöperating with said graduated post.

4. In combination, a crane for holding a hair spring, a graduated post adjacent to said crane, a sinker engaging said spring, and a loop extending from said sinker and coöperating with said graduated post.

5. In combination, a crane for holding a hair spring, a graduated post adjacent to said crane, a sinker rod provided with a hub and engaging said spring, and a loop extending from said sinker rod and coöperating with said graduated post.

[Claims 6 and 7 not printed in the Gazette.]

1,029,609. HAMMOCK-SUPPORTER. WILLIAM P. HAMMOND, Rockland, Mass. Filed Sept. 16, 1911. Serial No. 649,733. (Cl. 5—32.)

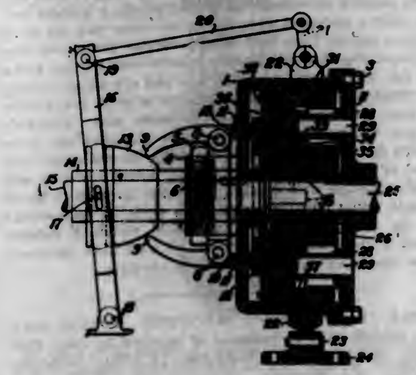


1. A supporter for hammocks and the like, comprising a horizontal tubular bar, legs pivoted thereto, collars slidable on said bar, braces pivoted to said legs and collars, and a latch for each collar consisting of a member loose within said bar, a spring pressing said member downward, and two pins projecting from said member, said bar being apertured for the extrusion of said pins, the latter being adapted for both locking a collar in place and for the releasing together of.

2. A supporter for hammocks and the like, comprising a tubular bar, legs pivoted thereto, collars slidable thereon, braces pivoted to said legs and collars, and a latch for each collar consisting of a member loose within the bar, said bar having two holes where the collar is to remain when its associated legs are at right angles with said bar, a leaf spring for pressing said member toward said holes, and two pins serving to fasten said spring to said member and adapted to reach loosely through said holes at each side of said collar, one of said pins being terminally beveled.

3. The combination with a tubular bar and a collar slidable thereon, of a catch therefor comprising a member loose within said bar, a doubled leaf spring, and a pair of rivets penetrating said member and one leg of said leaf spring and fastening the latter to said member, said tubular bar being formed with holes to permit said rivets to project through to the exterior thereof, said collar being adapted to be engaged by said rivets and held in place on said bar.

1,029,610. REVERSE-GEAR MECHANISM. ALFRED B. HARRINGTON, Danvers, Mass. Filed Sept. 7, 1911. Serial No. 648,200. (Cl. 74—34.)



1. In a device of the class described a driving shaft and a driven shaft, gearing rotatable as a whole with one of said shafts for indirectly connecting said shafts, means for holding said gearing against rotation to secure indirect drive and means for directly coupling said shafts for direct drive.

2. In a device of the class described a driving shaft and a driven shaft a rotatable casing, an indirect gear train in said casing for indirectly connecting said shafts, means for holding said casing against rotation to secure indirect drive and means for directly coupling said shafts to said casing when free to rotate for direct drive.

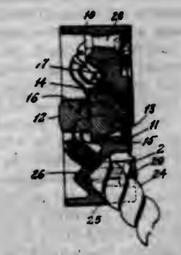
3. A reverse gear mechanism comprising a rotatable casing, means for holding said casing against rotation, a gear in said casing, a driven shaft, a driving shaft, said casing being slidably mounted with reference thereto, a disk in said casing having an annular flange and a rack about the inner face thereof and connected to the driven shaft, intermediate gearing mounted on said casing and operatively intermeshing with said driving gear and said rack, a slidable friction member rotatably connected with said casing, slidable interposed friction members rotatably connected with said gear and means for moving said casing to engage said friction members.

4. A reverse gear mechanism comprising a rotatable casing, means for holding said casing against rotation, a gear in said casing, a driven shaft, a driving shaft, said casing being slidably mounted with reference thereto, a disk in said casing having a sleeve extending beyond said casing and an annular rack and connected to the driven shaft, intermediate gearing mounted on said casing and operatively intermeshing with said driving gear and said rack, a friction ring connected to said casing, interposed friction members rotatably connected with said gear and disk and held against rotation thereon respectively and means on said sleeve for drawing said casing toward said disk to compress the interposed friction members between said disk and said friction ring.

5. In a device of the class described a driving shaft and a driven shaft, a casing, reversing gearing in said casing and operatively connecting said shafts to turn said driven shaft at a slower speed than and in an opposite direction to said driving shaft, friction members on said driven shaft and on said casing, a friction member on said driving shaft and means to compress said friction members to lock said shafts directly together independent of said reversing gearing.

[Claims 6 and 7 not printed in the Gazette.]

1,029,611. ELECTRICAL OUTLET-BOX. WILLIAM F. IRISH, Denville, N. J. Filed May 23, 1911. Serial No. 628,960. (Cl. 240—85.)



1. An electrical outlet-box comprising a body formed with a through aperture adapted for the passage of a gas-pipe, a stud removably mounted in said aperture and having a projecting front end formed with coupling means for the attachment of a lighting fixture, and a clamping device having screw-threaded engagement with the wall of said aperture and adapted to exert lateral pressure on said stud to hold the same in said aperture and also adapted to attach the outlet-box to a gas-pipe when the stud is removed.

2. Means for adapting an outlet box for a combination gas and electric fixture to be employed for a plain-electric fixture, said means comprising a stud formed with an externally screw-threaded portion at one end, an intermediate shoulder, and a plain stem at the opposite end provided with a notch in its side for receiving the end of a set-screw.

3. An electrical outlet-box comprising a body formed with a through aperture and a seat surrounding the same, a stud having a rear portion in said aperture, an intermediate shoulder and a screw-threaded front portion, and a set-screw projecting diagonally through the wall of said aperture to engage the rear portion of the stud and force its shoulder against said seat, said set-screw being also adapted to connect the outlet-box with a gas-pipe when the stud is removed.

4. An electrical outlet-box comprising a body formed with a through aperture, a set-screw projecting through the wall of said aperture, and a stud having a rear portion located in said aperture and formed with a circumferentially elongated notch with shoulders at its ends, for the reception of the end of the set-screw, and a front end-portion provided with coupling means for the attachment of a lighting fixture.

1,029,612. SECURING-CLIP FOR ROOF AND WALL STRUCTURES. ALBERT L. JOHNSON, Hamburg, N. Y., assignor to Corrugated Bar Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 29, 1911. Serial No. 652,015. (Cl. 72—118.)



1. A clip comprising a flat body portion having one end rebent to form a hood, the body portion having a hole therethrough and a slot in a side margin communicating with said hole said hood being open at its bottom and ends and offset laterally from the body portion, whereby said

hood can be made to engage a rib by the endwise movement of the clip and when so engaged the clip can be slid along the rib without becoming disengaged.

2. A clip comprising a body portion pointed at one end and having a hood at its opposite end, the body portion having a hole therethrough and a slot in a side margin communicating with said hole said hood being open at its bottom and ends and offset laterally from the body portion, whereby said hood can be made to engage a rib by the endwise movement of the clip and when so engaged the clip can be slid along the rib without becoming disengaged.

3. A clip comprising a body portion having one end offset and rebent to constitute a hood, the body having a longitudinally elongated hole therethrough and an outwardly widening slot in a side margin communicating with said hole said hood being open at its bottom and ends and offset laterally from the body portion, whereby said hood can be made to engage a rib by the endwise movement of the clip and when so engaged the clip can be slid along the rib without becoming disengaged.

4. A clip comprising a flat metal member one of whose end portions is pointed and the other offset and rebent to form a tapered hood, the body having a hole therethrough and a slot in a side margin communicating with said hole said hood being open at its bottom and ends and offset laterally from the body portion, whereby said hood can be made to engage a rib by the endwise movement of the clip and when so engaged the clip can be slid along the rib without becoming disengaged.

1,029,613. SPARK-PLUG. CHARLES E. JOHNSON, Denver, Colo. Filed Jan. 27, 1911. Serial No. 605,059. (Cl. 123—169.)



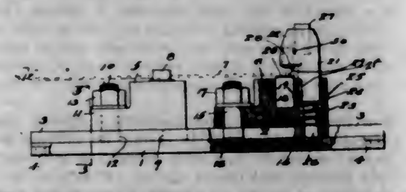
1. A spark-plug comprising a core having a non-conductive portion provided with one terminal, a bushing provided with a threaded aperture at its outer end, its inner end being spaced from said non-conductive portion to form an exhaust-chamber and having a valve-seat portion between its threaded end and exhaust-chamber portion and a spark-gap wire attached to said core and extending through said chamber, said bushing having one or more gas-exhaust apertures therethrough located outside said valve-seat, said core having a threaded member engaging the outer threaded end of the bushing, and a valve formed by said core arranged to coöperate with said valve seat to close the outer end of said exhaust-chamber.

2. A spark-plug comprising a core having a non-conductive portion provided with one terminal, a bushing provided with a threaded aperture at its outer end, its inner end being spaced from said non-conductive portion to form an exhaust-chamber and having a valve-seat portion between its threaded end and exhaust-chamber portion and a spark gap wire attached to said core and extending through said chamber, said bushing having one or more gas-exhaust apertures therethrough located outside said valve-seat, said core having a threaded member engaging the outer threaded end of the bushing arranged to carry said non-conductive portion and adapted to coöperate at its inner end with said valve-seat to close the outer end of said exhaust-chamber.

3. A spark-plug comprising a core having a non-conductive portion provided with one terminal, a bushing provided with a threaded aperture at its outer end, its inner end being spaced from said non-conductive portion to form an exhaust-chamber and having a valve-seat portion between its threaded end and exhaust-chamber portion and a spark-gap wire attached to said core and extending through said chamber, said bushing having one or more gas-exhaust apertures therethrough located outside said valve-seat, said core having a threaded member engaging the outer threaded end of the bushing, an annular plug movable within said threaded member and arranged to maintain the non-conductive portion in carrying engagement therewith, and said threaded member adapted to coöperate at its inner end with said valve-seat to close the outer end of said exhaust-chamber.

4. A spark-plug comprising a core having a non-conductive portion provided with one terminal, a bushing provided with a threaded aperture at its outer end, its inner end being spaced from said non-conductive portion to form an exhaust-chamber and having a valve-seat portion and a spark-gap wire attached to said core and extending through said chamber, said bushing having one or more gas-exhaust apertures therethrough located outside said valve-seat, said core having a threaded member engaging the outer threaded end of the bushing, a collar on the non-conducting portion of said core, an annular plug movable within said threaded member and against the collar portion to maintain said non-conductive portion in carrying engagement with the threaded member, and said threaded member adapted to coöperate at its inner end with said valve-seat to close the outer end of said exhaust-chamber.

1,029,614. SAW-SETTING MACHINE. EDWARD JOHNSON, Hawthorn, Pa., assignor of one-half to John Finkbeiner, Hawthorn, Pa. Filed Dec. 11, 1911. Serial No. 665,032. (Cl. 76—70.)



The combination with a base plate of an anvil block, and an anvil, a setting tool comprising a spring pressed shank movable within a recess in the block and a head on the shank, and a locking key engaging the anvil and said shank to lock the anvil in place and to prevent dislodgment of the shank.

1,029,615. SLIDING STOP-VALVE. CARL GEORG KLEINSCHMIDT, Herne, Germany. Filed Aug. 19, 1911. Serial No. 644,995. (Cl. 137—5.)

1. In a slide valve, a casing having a seat, combined with a valve body adapted to be forced against said seat by the pressure of the medium to be controlled by the valve, a yoke straddling said body, a spindle carrying the valve body and yoke, means intermediate said body, yoke and spindle for rectangularly withdrawing the body from its seat upon a rotation of the spindle, and additional means intermediate the spindle and valve body for raising the latter upon a continued rotation of the spindle.

2. In a slide valve, a casing having a seat, combined with a valve body adapted to engage said seat and having tapering guides, a yoke having tapering shanks that straddle the body and engage the guides thereof, a threaded grooved spindle carrying said body and yoke, a bridge having a threaded perforation into which the spindle is tapped, a hand wheel threaded upon the spindle, and means for locking the spindle either to the bridge or to the hand wheel.

3. In a slide valve, a casing having a seat, combined with a spindle rotatable and axially slidable in said casing a valve body carried by the spindle and adapted to engage the seat, said body having a radial play with respect to said spindle and being provided with tapering guides, a yoke also carried by the spindle and having tapering shanks that straddle the valve body and engage the guides, a first means for locking the spindle against axial movement, a rotation of the spindle effecting an engagement between the shanks and guides to rectangularly withdraw the valve body from its seat, and second means for locking the spindle against rotation, an axial displacement thereof effecting a rising of the valve body and yoke.



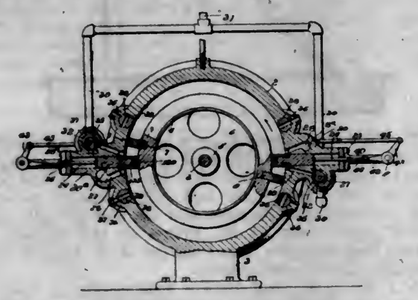
4. In a slide valve, a casing having a seat, combined with a spindle rotatable and axially slidable in said casing, a valve body carried by the spindle and adapted to engage the seat, said body having a radial play with respect to said spindle and being provided with tapering guides, a yoke also carried by the spindle and having tapering shanks that straddle the valve body and engage the guides, a bridge having a threaded perforation engaged by the spindle, a hand wheel threaded upon the spindle, a key slidable in the spindle-groove and adapted to couple the spindle either to the bridge or to the wheel, and means for locking the key in position.

5. In a slide valve, a casing having a seat, combined with a spindle rotatable and axially slidable in said casing, a valve body carried by the spindle and adapted to engage the seat, said body having a radial play with respect to said spindle and being provided with tapering guides, a yoke also carried by the spindle and having tapering shanks that straddle the valve body and engage the guides, a bridge having a threaded perforation engaged by the spindle, a hand wheel threaded upon the spindle, a key slidable in the spindle-groove and adapted to couple the spindle either to the bridge or to the wheel, and a pair of stops fulcrumed to the key and adapted to respectively engage the bridge and wheel.

1,029,616. REVERSIBLE ROTARY ENGINE. FLOYD D. LAMBERT and RALPH R. RESCH, Trinidad, Colo. Filed May 8, 1911. Serial No. 625,833. (Cl. 121—70.)

1. In a rotary engine, a bladed rotor, a casing therefor, oppositely disposed abutments mounted in the casing to contact with the face of the rotor, a cam driven by the rotor, a connecting rod reciprocated by the cam, and bell crank levers supported on the rotor casing and engaging the said abutments and said connecting rod whereby the abutments are moved simultaneously with each other.

2. In a rotary engine, a bladed rotor, a rotor casing, oppositely disposed sliding abutments mounted in the casing to contact with the face of the rotor, means for shifting the abutments as each blade comes into proximity thereto, the rotor casing being provided with oppositely disposed pairs of admission ports, each pair being located on each side of one of the abutments, a pair of exhaust ports also located on each side of the abutment but beyond the admission ports, oscillating valves controlling the passage of steam through the admission ports, said valves being shiftable to move them into coaction with one or the other of said admission ports, oscillatable valves controlling the passage of exhaust fluid through the exhaust ports, a rock shaft mounted upon the rotor casing, manually actuated means for rocking the said shaft, an arm projecting from the shaft, links connecting all of said exhaust valves to said arm, means for oscillating the admission valves and means connected to said rock shaft for shifting both of said admission valves simultaneously with the shifting of the exhaust valves to cause each valve to coact with one or the other of its corresponding parts.



3. In a rotary engine, a bladed rotor, an inclosing casing, oppositely disposed sliding abutments mounted in the casing to contact with the face of the rotor, means for shifting the abutments outward as each blade comes into proximity thereto, spaced fluid supply ducts located on each side of each abutment, diametrically opposed valves coacting with one or the other of said ducts, a connecting rod operatively connected to the valves, means for oscillating the connecting rod to oscillate the valves and to admit or cut off steam through one or the other of the passages, and means for changing the length of the connecting rod so as to cause the valves to coact with one or the other of the ducts and thus reverse the engine.

4. In a rotary engine, a bladed rotor, an inclosing casing, a sliding abutment in the casing contacting with the face of the rotor, means for shifting the abutment outward as each blade come into proximity thereto, the rotor casing being provided with a pair of fluid supply ducts located one on each side of the abutment, an oscillating valve for permitting or cutting off the passage of steam through either of said passages, said valve being rotatably shiftable to coact with one of said passages and cut off the other passage, a cam driven by the rotor, an arm reciprocated by the cam, a connecting rod operatively connected to said valve to oscillate the same, a sliding connection between the reciprocating member and said rod, and means for shifting the connecting rod relative to the reciprocating member to shift the valve.

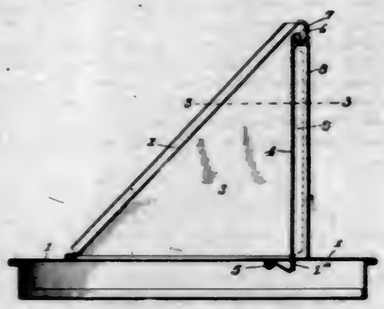
5. In a rotary engine, a rotor, a rotor casing, opposed pairs of fluid supply ducts, oscillating valves, one for each pair of ducts and controlling the passage of steam therethrough, said valves being shiftable to coact with one or the other of the ducts of each pair, a connecting rod extending between the valves for oscillating the same, a reciprocating arm, means operated by the rotor for reciprocating the arm, a screw carried on the arm, said screw engaging the connecting rod, a reversing lever, and means connected to the reversing lever for operating said screw to reverse the valves.

[Claims 6 to 18 not printed in the Gazette.]

1,029,617. CAN-COVER. AUGUST H. LANDWEHR, Holland, Mich. Filed Sept. 5, 1911. Serial No. 647,551. (Cl. 220—115.)

1. A can cover, comprising a cover having a hood open at one side, the top of the hood above the opening being turned downward and thence inward and upward and a closure for said opening having its upper edge turned

outward and downward and pivotally supported directly on said edge in the concave inwardly and upwardly turned portion of the top and otherwise out of contact with said portion.



2. A can cover, comprising a hood having an opening in one side, the top of the hood above said opening being curved outward and downward and thence inward and upward and a closure for said opening curved outward and downward directly upon said top and pivotally supported at the edge at the bottom of the concave inwardly and upwardly turned portion of the top and outside the plane of said closure.

3. A can cover, comprising a hood having an opening in one side, the top of the hood above said opening being turned downward and thence inward and upward, a closure for said opening having its upper edge turned outward and downward and pivotally resting with its edge engaging the bottom of the inwardly turned portion of the top and also having its lower edge extended inward to form a weight and strengthen the said edge.

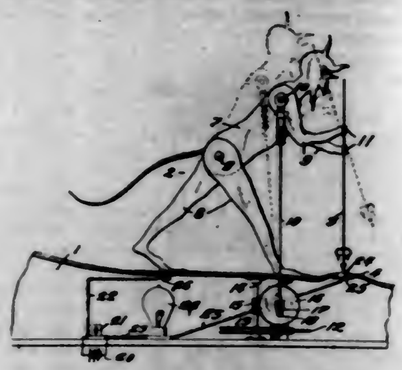
4. A can cover, comprising a hood having an opening in one side, the sides of the hood being turned inward and rearward forming a hollow casing open at the rear, the top of the hood being turned downward and inward forming a support for the closure and a closure for said opening turned outward and downward at the top and pivoted directly upon its downwardly turned edge, and also having its side edges turned outward and projecting into said casings when the closure is in normal position.

5. A can cover, comprising a cover having a rectangular opening, the edge of the cover at the front side of said opening being folded downward, a hood above said opening, having an inclined top and triangular ends secured to the top at the other three sides of the opening, the top being prolonged at the front and turned downward and thence inward and upward and having its edge spaced apart from the top, the triangular ends being turned inward at the front edges and thence rearward forming hollow casings open at the rear, a closure having its upper edge turned outward and downward and pivotally resting in the concave inwardly turned part of the top and having its lower edge turned inward and also having its side edges turned outward and normally extending into the casings.

1,029,618. ADVERTISING DEVICE. JOHN JAY LEPPER, Milwaukee, Wis. Filed Nov. 13, 1911. Serial No. 659,912. (Cl. 46—40.)

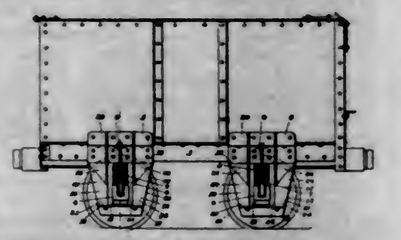
1. In a device of the described class, the combination of a stationary member, a movable image connected with said member, a spear carried by said image, an electrical terminal carried by said spear, a source of electrical energy, an electric circuit, one branch of said circuit being connected with the moving terminal carried by said spear and the other branch with the stationary terminal, and means for automatically moving the body of said image and the movable terminal toward and from said stationary terminal.

2. In a device of the described class, the combination of a stationary hollow member, a movable image connected with said member, a spear carried by said image, an electrical terminal carried by said spear, a source of electrical energy, an electric circuit located in said hollow member, one branch of said circuit being connected with the moving terminal carried by said spear and the other branch with the stationary terminal, and means located in said hollow member for automatically moving the body of the image and the movable terminal toward and from said stationary terminal.



3. In a device of the described class, the combination of a stationary member, a movable image connected with said member, a spear carried by said image, an electrical terminal carried by said spear, a source of electrical energy, an electric circuit, one branch of said circuit being connected with a moving terminal carried by said spear and the other branch with a stationary terminal, an electric lamp located in said electric circuit, and means for automatically moving the body of the image and the movable terminal toward and from said stationary terminal, whereby as said electric circuit is closed by the movement of said image, an electric spark is produced between said terminals and an electric light is produced in said lamp, all substantially as and for the purpose specified.

1,029,619. JOURNAL-BOX PEDESTAL. BURNS D. LOCKWOOD, Bellevue, Pa., assignor to Pressed Steel Car Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 17, 1911. Serial No. 644,501. (Cl. 105—113.)



1. In a journal box pedestal for a car, the combination with securing members and leg members, of guard members integral therewith and extending outwardly beyond the outside face of the journal box; substantially as described.

2. In a journal box pedestal for a car, securing members, back members, and a pair of guard members integral with said securing and back members and extending outwardly beyond the outside face of the journal box; substantially as described.

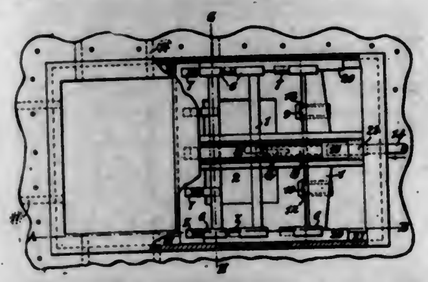
3. In a journal box pedestal for a car, the combination of securing members, leg members depending downwardly therefrom, said leg members each comprising flat back portions and front wedge shaped guard portions, said guard portions extending outwardly beyond the outside face of the journal box; substantially as described.

4. In a journal box pedestal for a car, securing members, a pair of leg members depending downwardly therefrom, a journal box mounted between said leg members, and means integral with said leg members and extending outwardly beyond the outside face of the journal box to guard said journal box; substantially as described.

5. In a journal box pedestal for a car, securing members, a pair of leg members depending downwardly therefrom, a journal box mounted between said leg members and means integral with said leg members and extending outwardly beyond the outside face of the journal box to guard said journal box and leg members; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,029,620. DOOR, HATCH, OR LIKE CLOSING DEVICE. GIUSEPPE MAZZOLINI, Naples, Italy. Filed Feb. 6, 1909. Serial No. 476,554. (Cl. 114—119.)



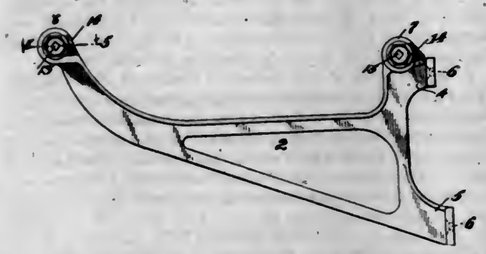
1. In apparatus of the class described, in combination, a frame provided with wedges, said frame being directly connected to a driving motor, a sliding door movably connected to said frame, said door being provided with recesses and counter-wedges, the wedges on said frame being adapted to enter said recesses, the inclined surfaces of the wedges on the frame being adapted to engage the inclined surfaces of the counter-wedges upon the door, means for moving said frame to bring the door in registry with the opening, and means to arrest the movement of said door relatively to said frame to cause the inclined surfaces of the wedges of the frame to leave the recesses and slide along the inclined surfaces of the counter-wedges on the door, whereby the door will be forced to move in a direction substantially at right angles to its first direction of movement.

2. In apparatus of the class described, in combination, a frame provided with wedges, a sliding door movably connected to said frame, said door being provided with recesses and with associated counter-wedges, the angle of inclination of the inclined surfaces of said counter-wedges being less than that of the inclined surfaces of the recesses, the wedges on the frame being adapted to enter into the recesses, the inclined surfaces of the wedges on the frame being adapted to engage the inclined surfaces of the counter-wedges on the door, means to move the said frame to bring the door in registry with the opening, and means to arrest the movement of the door whereby the movement of the frame relatively to the door will produce a sliding of the inclined surfaces of the wedges along the inclined surfaces of the counter-wedges, thereby causing the door to move in a direction substantially at right angles to its first direction of movement.

3. In apparatus of the class described, in combination, a door frame, a sliding door associated therewith and provided with recesses having inclined surfaces, a frame movably connected to said door and provided with wedges adapted to enter said recesses, the inclined surfaces of the wedges being adapted to engage the inclined surfaces of the recesses, means for moving said frame to move said door into registry with the door frame and means for arresting the movement of the door, whereby movement of said frame relatively to said door, will cause the inclined surfaces of the wedges to slide along the inclined surfaces of the recesses thereby forcing the door to move in a direction substantially at right angles to its first direction of movement.

4. In apparatus of the class described, in combination, a door frame, a sliding door associated therewith and provided with recesses having inclined surfaces, said door being provided with wedges in registry with said recesses and adjacent the inclined surfaces thereof, the inclination of the surfaces of said wedges being less than the inclination of the surfaces of said recesses, a frame movably connected to said door and provided with wedges adapted to enter said recesses, the inclined surfaces of the wedges being adapted to engage the inclined surfaces of the recesses, means for moving said frame to move said door into registry with the door frame, and means for arresting the movement of the door, whereby movement of said frame relatively to said door will cause the inclined surfaces of the wedges to slide along the inclined surfaces of the recesses and into engagement with the wedges on said door, thereby forcing the door to move in a direction substantially at right angles to its first direction of movement.

1,029,621. BASKET-RACK. WILLIAM H. MUSSEY, Richmond Hill, N. Y. Filed Feb. 21, 1912. Serial No. 679,184. (Cl. 105—5.)



1. In a basket rack, the combination of a pair of wall brackets, each bracket having a pair of eyes, and each eye having a slot leading thereto, a unitary shelf-structure comprising rods provided at their ends with flanges which are adapted to enter said eyes through said slots, and lock-nuts carried by said rods for engaging the inner walls of said eyes and the flanges of said rods.

2. In a basket rack, the combination of a pair of wall brackets, each bracket having a pair of eyes, and each eye having a slot leading thereto, a unitary shelf-structure comprising rods provided at their ends with flanges, which are adapted to enter said eyes through said slots, and means encircling and movable longitudinally of said rods for engaging the inner walls of said eyes and the flanges of said rods.

3. In a basket rack, the combination of a pair of wall brackets, each bracket having a pair of openings, a spacer adjustably positioned in each opening, a unitary shelf-structure comprising terminally flanged rods, said flanges being designed to enter said eyes, and means for locking the flanges against said spacer.

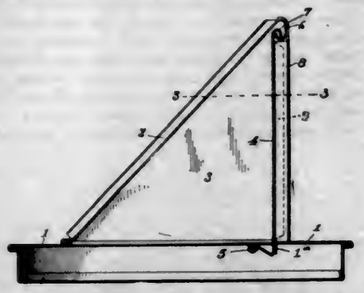
4. In a basket rack, a bracket provided with slots, terminal flanges carried by the main rails of the rack, said slots constituting a passage for said flanges, and fastening means for securing said flanges in the slots, said flanges being adapted to be inserted in said slots independently of the fastening means.

5. In a basket rack, a bracket provided with slots, flanges carried by the main rails of the rack adapted to enter said slots, and means designed to engage the outer walls of said flanges for securing the rails in said slots.

1,029,622. SUSPENSION MEANS FOR MOTOR-GENERATORS. WILLIAM H. MUSSEY, Richmond Hill, N. Y. Filed Feb. 21, 1912. Serial No. 679,178. (Cl. 105—238.)

1. In a support for generators, the combination of a truck, an adjustable bed-plate mounted on said truck, a pair of suspension links pivoted to said bed-plate, a generator connected to said links, and an adjustable tensioning means connected to one of said links and said bed-plate.

outward and downward and pivotally supported directly on said edge in the concave inwardly and upwardly turned portion of the top and otherwise out of contact with said portion.



2. A can cover, comprising a hood having an opening in one side, the top of the hood above said opening being curved outward and downward and thence inward and upward and a closure for said opening curved outward and downward directly upon said top and pivotally supported at the edge at the bottom of the concave inwardly and upwardly turned portion of the top and outside the plane of said closure.

3. A can cover, comprising a hood having an opening in one side, the top of the hood above said opening being turned downward and thence inward and upward, a closure for said opening having its upper edge turned outward and downward and pivotally resting with its edge engaging the bottom of the inwardly turned portion of the top and also having its lower edge extended inward to form a weight and strengthen the said edge.

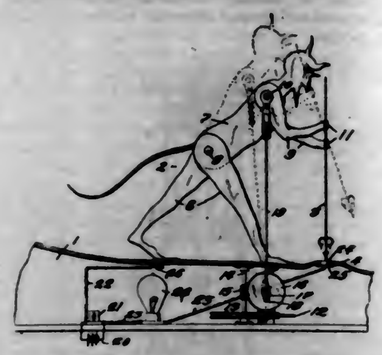
4. A can cover, comprising a hood having an opening in one side, the sides of the hood being turned inward and rearward forming a hollow casing open at the rear, the top of the hood being turned downward and inward forming a support for the closure and a closure for said opening turned outward and downward at the top and pivoted directly upon its downwardly turned edge, and also having its side edges turned outward and projecting into said casings when the closure is in normal position.

5. A can cover, comprising a cover having a rectangular opening, the edge of the cover at the front side of said opening being folded downward, a hood above said opening, having an inclined top and triangular ends secured to the top at the other three sides of the opening, the top being prolonged at the front and turned downward and thence inward and upward and having its edge spaced apart from the top, the triangular ends being turned inward at the front edges and thence rearward forming hollow casings open at the rear, a closure having its upper edge turned outward and downward and pivotally resting in the concave inwardly turned part of the top and having its lower edge turned inward and also having its side edges turned outward and normally extending into the casings.

1,029,618. ADVERTISING DEVICE. JOHN JAY LEPPER, Milwaukee, Wis. Filed Nov. 13, 1911. Serial No. 659,912. (Cl. 46—40.)

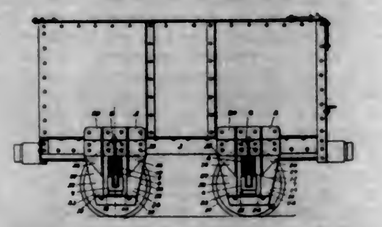
1. In a device of the described class, the combination of a stationary member, a movable image connected with said member, a spear carried by said image, an electrical terminal carried by said spear, a source of electrical energy, an electric circuit, one branch of said circuit being connected with the moving terminal carried by said spear and the other branch with the stationary terminal, and means for automatically moving the body of said image and the movable terminal toward and from said stationary terminal.

2. In a device of the described class, the combination of a stationary hollow member, a movable image connected with said member, a spear carried by said image, an electrical terminal carried by said spear, a source of electrical energy, an electric circuit located in said hollow member, one branch of said circuit being connected with the moving terminal carried by said spear and the other branch with the stationary terminal, and means located in said hollow member for automatically moving the body of the image and the movable terminal toward and from said stationary terminal.



3. In a device of the described class, the combination of a stationary member, a movable image connected with said member, a spear carried by said image, an electrical terminal carried by said spear, a source of electrical energy, an electric circuit, one branch of said circuit being connected with a moving terminal carried by said spear and the other branch with a stationary terminal, an electric lamp located in said electric circuit, and means for automatically moving the body of the image and the movable terminal toward and from said stationary terminal, whereby as said electric circuit is closed by the movement of said image, an electric spark is produced between said terminals and an electric light is produced in said lamp, all substantially as and for the purpose specified.

1,029,619. JOURNAL-BOX PEDESTAL. BURNS D. LOCKWOOD, Bellevue, Pa., assignor to Pressed Steel Car Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Aug. 17, 1911. Serial No. 644,501. (Cl. 105—113.)



1. In a journal box pedestal for a car, the combination with securing members and leg members, of guard members integral therewith and extending outwardly beyond the outside face of the journal box; substantially as described.

2. In a journal box pedestal for a car, securing members, back members, and a pair of guard members integral with said securing and back members and extending outwardly beyond the outside face of the journal box; substantially as described.

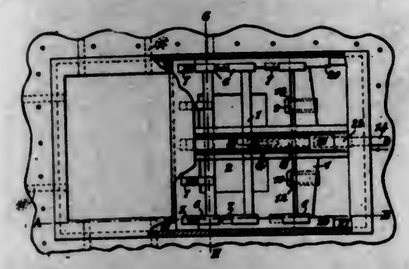
3. In a journal box pedestal for a car, the combination of securing members, leg members depending downwardly therefrom, said leg members each comprising flat back portions and front wedge shaped guard portions, said guard portions extending outwardly beyond the outside face of the journal box; substantially as described.

4. In a journal box pedestal for a car, securing members, a pair of leg members depending downwardly therefrom, a journal box mounted between said leg members, and means integral with said leg members and extending outwardly beyond the outside face of the journal box to guard said journal box; substantially as described.

5. In a journal box pedestal for a car, securing members, a pair of leg members depending downwardly therefrom, a journal box mounted between said leg members and means integral with said leg members and extending outwardly beyond the outside face of the journal box to guard said journal box and leg members; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,029,620. DOOR, HATCH, OR LIKE CLOSING DEVICE. GIUSEPPE MAZZOLINI, Naples, Italy. Filed Feb. 6, 1909. Serial No. 476,554. (Cl. 114—119.)



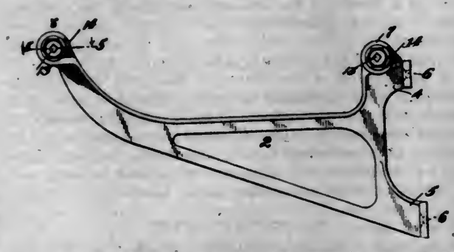
1. In apparatus of the class described, in combination, a frame provided with wedges, said frame being directly connected to a driving motor, a sliding door movably connected to said frame, said door being provided with recesses and counter-wedges, the wedges on said frame being adapted to enter said recesses, the inclined surfaces of the wedges on the frame being adapted to engage the inclined surfaces of the counter-wedges upon the door, means for moving said frame to bring the door in registry with the opening, and means to arrest the movement of said door relatively to said frame to cause the inclined surfaces of the wedges of the frame to leave the recesses and slide along the inclined surfaces of the counter-wedges on the door, whereby the door will be forced to move in a direction substantially at right angles to its first direction of movement.

2. In apparatus of the class described, in combination, a frame provided with wedges, a sliding door movably connected to said frame, said door being provided with recesses and with associated counter-wedges, the angle of inclination of the inclined surfaces of said counter-wedges being less than that of the inclined surfaces of the recesses, the wedges on the frame being adapted to enter into the recesses, the inclined surfaces of the wedges on the frame being adapted to engage the inclined surfaces of the counter-wedges on the door, means to move the said frame to bring the door in registry with the opening, and means to arrest the movement of the door whereby the movement of the frame relatively to the door will produce a sliding of the inclined surfaces of the wedges along the inclined surfaces of the counter-wedges, thereby causing the door to move in a direction substantially at right angles to its first direction of movement.

3. In apparatus of the class described, in combination, a door frame, a sliding door associated therewith and provided with recesses having inclined surfaces, a frame movably connected to said door and provided with wedges adapted to enter said recesses, the inclined surfaces of the wedges being adapted to engage the inclined surfaces of the recesses, means for moving said frame to move said door into registry with the door frame and means for arresting the movement of the door, whereby movement of said frame relatively to said door, will cause the inclined surfaces of the wedges to slide along the inclined surfaces of the recesses thereby forcing the door to move in a direction substantially at right angles to its first direction of movement.

4. In apparatus of the class described, in combination, a door frame, a sliding door associated therewith and provided with recesses having inclined surfaces, said door being provided with wedges in registry with said recesses and adjacent the inclined surfaces thereof, the inclination of the surfaces of said wedges being less than the inclination of the surfaces of said recesses, a frame movably connected to said door and provided with wedges adapted to enter said recesses, the inclined surfaces of the wedges being adapted to engage the inclined surfaces of the recesses, means for moving said frame to move said door into registry with the door frame, and means for arresting the movement of the door, whereby movement of said frame relatively to said door will cause the inclined surfaces of the wedges to slide along the inclined surfaces of the recesses and into engagement with the wedges on said door, thereby forcing the door to move in a direction substantially at right angles to its first direction of movement.

1,029,621. BASKET-RACK. WILLIAM H. MUSSEY, Richmond Hill, N. Y. Filed Feb. 21, 1912. Serial No. 679,184. (Cl. 105—5.)



1. In a basket rack, the combination of a pair of wall brackets, each bracket having a pair of eyes, and each eye having a slot leading thereto, a unitary shelf-structure comprising rods provided at their ends with flanges which are adapted to enter said eyes through said slots, and lock-nuts carried by said rods for engaging the inner walls of said eyes and the flanges of said rods.

2. In a basket rack, the combination of a pair of wall brackets, each bracket having a pair of eyes, and each eye having a slot leading thereto, a unitary shelf-structure comprising rods provided at their ends with flanges, which are adapted to enter said eyes through said slots, and means encircling and movable longitudinally of said rods for engaging the inner walls of said eyes and the flanges of said rods.

3. In a basket rack, the combination of a pair of wall brackets, each bracket having a pair of openings, a spacer adjustably positioned in each opening, a unitary shelf-structure comprising terminally flanged rods, said flanges being designed to enter said eyes, and means for locking the flanges against said spacer.

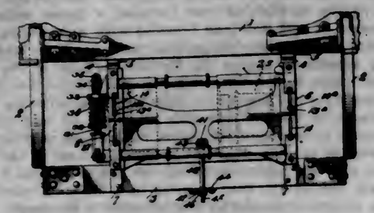
4. In a basket rack, a bracket provided with slots, terminal flanges carried by the main rails of the rack, said slots constituting a passage for said flanges, and fastening means for securing said flanges in the slots, said flanges being adapted to be inserted in said slots independently of the fastening means.

5. In a basket rack, a bracket provided with slots, flanges carried by the main rails of the rack adapted to enter said slots, and means designed to engage the outer walls of said flanges for securing the rails in said slots.

1,029,622. SUSPENSION MEANS FOR MOTOR-GENERATORS. WILLIAM H. MUSSEY, Richmond Hill, N. Y. Filed Feb. 21, 1912. Serial No. 679,178. (Cl. 105—238.)

1. In a support for generators, the combination of a truck, an adjustable bed-plate mounted on said truck, a pair of suspension links pivoted to said bed-plate, a generator connected to said links, and an adjustable tensioning means connected to one of said links and said bed-plate.

2. In a support for generators, the combination of a truck, a slidable bed-plate mounted on said truck beneath the generator, suspension links carried by said bed-plate, and tensioning means connected to one of said links and said bed-plate.



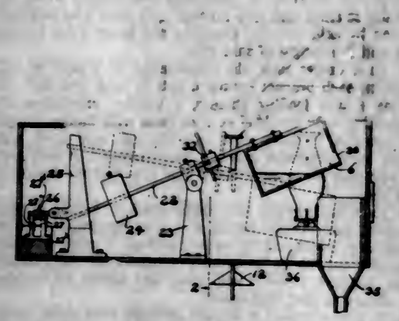
3. In a device of the character described, the combination of a truck, a generator, and a pair of arched links for supporting said generator, said links permitting the removal of the generator laterally from the truck.

4. In a device of the character described, the combination of a truck, a swinging support, and a generator connected at the top of said support, said support permitting the removal of the generator laterally from the truck.

5. In a device of the character described, the combination of a truck, a slidable bed-plate mounted on said truck, suspension means carried by said bed-plate, tensioning means connected to said suspension means, means for adjusting said tensioning means, and means independent of the last mentioned means for regulating said tension.

[Claims 6 to 14 not printed in the Gazette.]

1,029,623. CHICKEN-FEEDER. GEORGE ALBERT NIEMAN, Sayler Park, Ohio. Filed [illegible], 1911. Serial No. 620,527.



1. In an animal feeder, a feed tank, a water tank, means for receiving water from the water tank and for delivering it from the feeder, and means actuated by said first-mentioned means for delivering feed from the feed tank.

2. In an animal feeding device, a feed tank, a water supply tank and delivery tank actuated by the weight of water in the delivery tank, means for delivering a regulable flow of water from the supply tank to the delivery tank, and means actuated by the delivery tank for delivering feed from the feed tank.

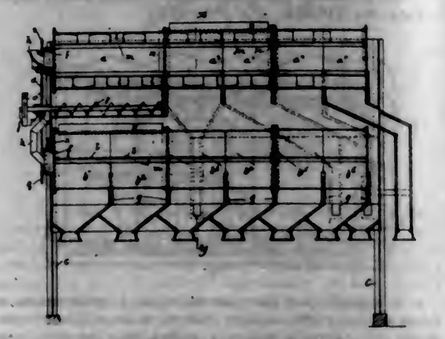
3. In an animal feeding device, a feed tank, a water supply tank, a swinging delivery tank actuated by the weight of water in it for delivering water from the feeder, means for delivering a regulable flow of water from the supply tank to the delivery tank, and means actuated by the delivery tank for delivering feed from the feed tank.

4. In a feeder, a feed tank, a water supply tank, a pivotally mounted delivery tank for receiving water from said supply tank and delivering it from said feeder, means actuated by said delivery tank for delivering feed from the feed tank, and means for warming the water and the feed in the water supply and feed tanks.

5. In a feeder, a feed tank, a supply tank, a pivotally mounted delivery tank, means for delivering regulable amounts of water from said supply tank to said delivery tank, adjustable means for counter-balancing the weight of water in said delivery tank for controlling the delivery of feed from said feed tank.

[Claims 6 and 7 not printed in the Gazette.]

1,029,624. COFFEE-SEPARATOR. ROBERTO OKRASSA, Antigua, Guatemala. Filed Aug. 10, 1911. Serial No. 643,346. (Cl. 130—16.)



[illegible] coffee separator, the combination with two [illegible] mounted cylinders, one arranged above the other [illegible] revolving on rollers, said cylinders being divided [illegible] tments, having perforations of different sizes, [illegible] plates which permit the successive discharge [illegible] from one compartment to the next, and the [illegible] compartment of the upper cylinder being so [illegible] as to discharge about half of the incoming [illegible] eiving compartment below said first or inlet [illegible] of said upper cylinder, a conveyer in said [illegible] partment, and a chute connecting said re- [illegible] artment with the first or inlet compartment of the lower cylinder.

2. In a coffee separator, the combination with two loosely mounted cylinders, one arranged above the other and both revolving on rollers, said cylinder being divided into compartments, having perforations of different sizes, by division plates which permit the successive discharge of the coffee from one compartment to the next, and the first or inlet compartment of the upper cylinder being so perforated as to discharge about half of the incoming coffee, a receiving compartment below said first or inlet compartment of said upper cylinder, a conveyer in said receiving compartment, a chute connecting said receiving compartment with the first or inlet compartment of the lower cylinder, and connections whereby the coffee discharged from certain sections of the upper cylinder may be mingled with the coffee discharged from certain sections of the lower cylinder.

1,029,625. PNEUMATIC AUTOMOBILE-WHEEL. OSCAR C. OLNEY, Cincinnati, Ohio, assignor of one-fourth to Henry Ostholthoff and one-fourth to Earl W. Hersog, Cincinnati, Ohio, and one-fourth to Joseph Braukmann, Covington, Ky. Filed Dec. 26, 1911. Serial No. 667,717. (Cl. 152—42.)

1. In a pneumatic automobile wheel, a hub having radial ears thereon, transmission disks, bolts and nuts securing said transmission disk in place upon said hub, roller bearing upon said bolts between said radial ears, a rim, a ring between said hub and said rim and having its inner surface concaved, spokes connecting said rim and said ring, a pneumatic cushion mounted upon said roller bearings and engaging said ring, driving boxes secured to said ring and said rim respectively and each having a transverse opening therethrough, shouldered driving bolts secured to and between said transmission disks and extending through the transverse opening in said driving box whereby free movement of the same is obtained therein, and roller bearings on said driving bolts, substantially as set forth and for the purposes specified.

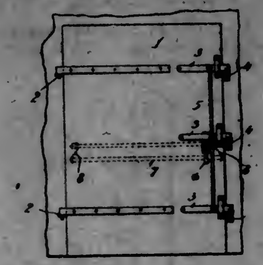
2. In a pneumatic automobile wheel, a hub having integral radial ears thereon, transmission disks secured to said ears, roller bearings upon said hub, a rim, a ring between said hub and said rim, spokes connecting said rim and said ring, a pneumatic cushion mounted upon said roller bearings and engaging said ring, driving boxes secured to said ring and said rim respectively and each having a transverse opening therethrough, shouldered driving bolts secured to and between said transmission disks and extending through the transverse opening in said driving box whereby free movement of the same is obtained therein, and roller bearings on said driving bolts, substantially as set forth and for the purposes specified.

3. In a pneumatic automobile wheel, a hub having integral radial ears thereon, transmission disks secured to said ears, movable bearings mounted upon said hub, a rim, a ring between said hub and said rim and having its inner surface concaved, spokes connecting said rim and said ring, a pneumatic cushion mounted upon said movable bearings, driving boxes dovetailed to said ring and bolted to said rim, said boxes each having a transverse opening therethrough and driving means connected to said transmission disks and extending through said openings respectively, substantially as set forth and for the purposes specified.

4. In a pneumatic automobile wheel, a hub, detachable transmission disks mounted upon said hub, bolts and nuts adapted to secure said disks thereon, roller bearings upon said bolts, a metallic clencher ring mounted upon said roller bearings, a pneumatic cushion mounted upon said roller bearings and engaging said ring, means for securing said cushion in place, a wood ring surrounding and engaging the periphery of said cushion, a metallic band surrounding and engaging said wood ring, spokes secured to said band and to said ring, a rim secured to said spokes, driving boxes secured to said rim and said ring respectively, and shouldered driving bolts extending through said driving boxes and secured to said transmission disks, substantially as set forth and for the purposes specified.

5. In a pneumatic automobile wheel, a hub having radial ears thereon, detachable transmission disks mounted upon said hub, bolts and nuts adapted to secure said disks thereon, roller bearings upon said bolts, a metallic clencher ring mounted upon said roller bearings, a pneumatic cushion comprising an inner flexible tube and an outer flexible casing, means for securing said cushion in place, a concave wood ring surrounding said cushion, a metallic band surrounding said ring, spokes secured to said band and to said ring, a rim secured to said spokes, driving boxes between said rim and said ring, bolts adapted to secure said boxes to said rim, a dove-tail adapted to secure said box to said band, and driving bolts extending through said driving boxes and secured to said transmission disks, for the purposes set forth.

1,029,626. EMERGENCY-EXIT-DOOR FASTENER. ROBERT L. G. PALM, Verona, N. J. Filed Sept. 15, 1911. Serial No. 649,452. (Cl. 70—120.)



1. A door latch mechanism comprising in combination one or more latches adapted to be raised to release a door, and operating means therefor comprising a pivoted member extending transversely beneath one of said latches, and an operating member connected to said pivoted member and arranged when moved in the direction of opening of the door to raise said pivoted member and thereby the latch or latches, and another operating member upon the opposite side of the mechanism pivotally supported and having a cam portion engaging said transversely extending pivoted member and arranged, when said second operating member is moved in the direction of opening of the door, to raise said transversely extending pivoted member, and thereby the latch or latches.

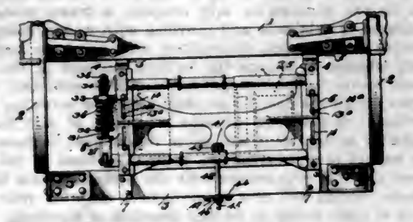
2. A latch operating mechanism comprising a latch adapted to be raised to release a door, a shaft adapted to be mounted upon a door and having mounted upon it a latch-operating member projecting transversely with respect to said shaft and adapted to engage said latch to raise the same, and an operating bar secured to said shaft and constituting a lever extension therefrom and adapted when moved to rock said shaft and thereby operate said latch-operating member.

3. A latch operating mechanism comprising a latch adapted to be raised to release a door, a shaft adapted to be mounted upon a door and having mounted upon it a latch-operating member projecting transversely with respect to said shaft and adapted to engage said latch to raise the same, and an operating bar secured to said shaft and constituting a lever extension therefrom and adapted when moved to rock said shaft and thereby operate said latch-operating member, and another operating member likewise pivotally mounted and having a cam portion engaging the underside of said latch-operating member and arranged when moved about its pivot to raise said latch-operating member.

4. A door-latch mechanism comprising a latch-lever adapted to be pivoted to the outside of a door and to be raised to release the door, a rock shaft, a latch-operating member thereon extending transversely with respect to said shaft and latch-lever, beneath said latch-lever, and adapted to be raised, by rotation of said shaft, to raise said latch lever, and an operating bar extending longitudinally with respect to said shaft and constituting a lever extension therefrom, and adapted to be moved to rock said shaft and thereby operate said latch-operating member.

5. A door-latch mechanism comprising a latch-lever adapted to be pivoted to the outside of a door and to be raised to release the door, a rock shaft, a latch-operating member thereon extending transversely, with respect to

2. In a support for generators, the combination of a truck, a slidable bed-plate mounted on said truck beneath the generator, suspension links carried by said bed-plate, and tensioning means connected to one of said links and said bed-plate.



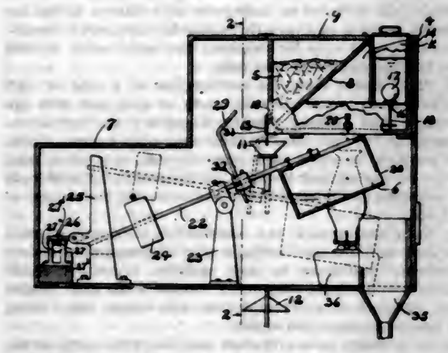
3. In a device of the character described, the combination of a truck, a generator, and a pair of arched links for supporting said generator, said links permitting the removal of the generator laterally from the truck.

4. In a device of the character described, the combination of a truck, a swinging support, and a generator connected at the top of said support, said support permitting the removal of the generator laterally from the truck.

5. In a device of the character described, the combination of a truck, a slidable bed-plate mounted on said truck, suspension means carried by said bed-plate, tensioning means connected to said suspension means, means for adjusting said tensioning means, and means independent of the last mentioned means for regulating said tension.

[Claims 6 to 14 not printed in the Gazette.]

1,029,623. CHICKEN-FEEDER. GEORGE NIEMAN and ALBERT NIEMAN, Sayler Park, Ohio. Filed Apr. 12, 1911. Serial No. 620,527. (Cl. 119—56.)



1. In an animal feeder, a feed tank, a water tank, means for receiving water from the water tank and for delivering it from the feeder, and means actuated by said first-mentioned means for delivering feed from the feed tank.

2. In an animal feeding device, a feed tank, a water supply tank and delivery tank actuated by the weight of water in the delivery tank, means for delivering a regulable flow of water from the supply tank to the delivery tank, and means actuated by the delivery tank for delivering feed from the feed tank.

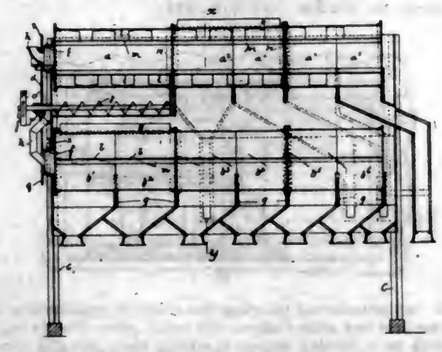
3. In an animal feeding device, a feed tank, a water supply tank, a swinging delivery tank actuated by the weight of water in it for delivering water from the feeder, means for delivering a regulable flow of water from the supply tank to the delivery tank, and means actuated by the delivery tank for delivering feed from the feed tank.

4. In a feeder, a feed tank, a water supply tank, a pivotally mounted delivery tank for receiving water from said supply tank and delivering it from said feeder, means actuated by said delivery tank for delivering feed from the feed tank, and means for warming the water and the feed in the water supply and feed tanks.

5. In a feeder, a feed tank, a supply tank, a pivotally mounted delivery tank, means for delivering regulable amounts of water from said supply tank to said delivery tank, adjustable means for counter-balancing the weight of water in said delivery tank for controlling the delivery of feed from said feed tank.

[Claims 6 and 7 not printed in the Gazette.]

1,029,624. COFFEE-SEPARATOR. ROBERTO OKRASSA. Antigua, Guatemala. Filed Aug. 10, 1911. Serial No. 643,346. (Cl. 130—16.)

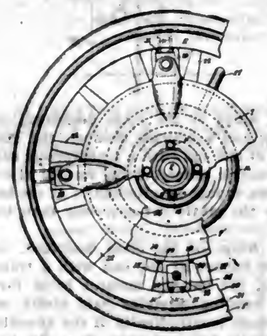


1. In a coffee separator, the combination with two loosely mounted cylinders, one arranged above the other and both revolving on rollers, said cylinders being divided into compartments, having perforations of different sizes, by division plates which permit the successive discharge of the coffee from one compartment to the next, and the first or inlet compartment of the upper cylinder being so perforated as to discharge about half of the incoming coffee, a receiving compartment below said first or inlet compartment of said upper cylinder, a conveyer in said receiving compartment, and a chute connecting said receiving compartment with the first or inlet compartment of the lower cylinder.

2. In a coffee separator, the combination with two loosely mounted cylinders, one arranged above the other and both revolving on rollers, said cylinder being divided into compartments, having perforations of different sizes, by division plates which permit the successive discharge of the coffee from one compartment to the next, and the first or inlet compartment of the upper cylinder being so perforated as to discharge about half of the incoming coffee, a receiving compartment below said first or inlet compartment of said upper cylinder, a conveyer in said receiving compartment, a chute connecting said receiving compartment with the first or inlet compartment of the lower cylinder, and connections whereby the coffee discharged from certain sections of the upper cylinder may be mingled with the coffee discharged from certain sections of the lower cylinder.

1,029,625. PNEUMATIC AUTOMOBILE-WHEEL. OSCAR C. OLNEY, Cincinnati, Ohio, assignor of one-fourth to Henry Ostholthoff and one-fourth to Earl W. Hersog, Cincinnati, Ohio, and one-fourth to Joseph Braukmann, Covington, Ky. Filed Dec. 26, 1911. Serial No. 667,717. (Cl. 152—42.)

1. In a pneumatic automobile wheel, a hub having radial ears thereon, transmission disks, bolts and nuts securing said transmission disk in place upon said hub, roller bearing upon said bolts between said radial ears, a rim, a ring between said hub and said rim and having its inner surface concaved, spokes connecting said rim and said ring, a pneumatic cushion mounted upon said roller bearings and engaging said concaved surface, guard disks secured to said ring and projecting between said transmission disks and pneumatic cushion to protect the latter, driving boxes secured to said ring and to said rim respectively and each having a transverse opening therethrough, shouldered driving bolts secured to and between said transmission disks and extending through the transverse opening in said driving box whereby free movement of the same is obtained therein, and roller bearings on said driving bolts, substantially as set forth and for the purposes specified.



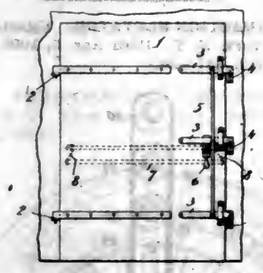
2. In a pneumatic automobile wheel, a hub having fixed radial ears thereon, transmission disks, bolts and nuts securing said transmission disks in place upon said hub, roller bearings upon said bolts between said radial ears, a rim, a ring between said hub and said rim, spokes connecting said rim and said ring, a pneumatic cushion mounted upon said roller bearings and engaging said ring, driving boxes secured to said ring and said rim respectively and each having a transverse opening therethrough, shouldered driving bolts secured to and between said transmission disks and extending through the transverse opening in said driving box whereby free movement of the same is obtained therein, and roller bearings on said driving bolts, substantially as set forth and for the purposes specified.

3. In a pneumatic automobile wheel, a hub having integral radial ears thereon, transmission disks secured to said ears, movable bearings mounted upon said hub, a rim a ring between said hub and said rim and having its inner surface concaved, spokes connecting said rim and said ring, a pneumatic cushion mounted upon said movable bearings, driving boxes dovetailed to said ring and bolted to said rim, said boxes each having a transverse opening therethrough and driving means connected to said transmission disks and extending through said openings respectively, substantially as set forth and for the purposes specified.

4. In a pneumatic automobile wheel, a hub, detachable transmission disks mounted upon said hub, bolts and nuts adapted to secure said disks thereon, roller bearings upon said bolts, a metallic clencher ring mounted upon said roller bearings, a pneumatic cushion mounted upon said roller bearings and engaging said ring, means for securing said cushion in place, a wood ring surrounding and engaging the periphery of said cushion, a metallic band surrounding and engaging said wood ring, spokes secured to said band and to said ring, a rim secured to said spokes, driving boxes secured to said rim and said ring respectively, and shouldered driving bolts extending through said driving boxes and secured to said transmission disks, substantially as set forth and for the purposes specified.

5. In a pneumatic automobile wheel, a hub having radial ears thereon, detachable transmission disks mounted upon said hub, bolts and nuts adapted to secure said disks thereon, roller bearings upon said bolts, a metallic clencher ring mounted upon said roller bearings, a pneumatic cushion comprising an inner flexible tube and an outer flexible casing, means for securing said cushion in place, a concave wood ring surrounding said cushion, a metallic band surrounding said ring, spokes secured to said band and to said ring, a rim secured to said spokes, driving boxes between said rim and said ring, bolts adapted to secure said boxes to said rim, a dove-tail adapted to secure said box to said band, and driving bolts extending through said driving boxes and secured to said transmission disks, for the purposes set forth.

1,029,626. EMERGENCY-EXIT-DOOR FASTENER. ROBERT L. G. PALM, Verona, N. J. Filed Sept. 15, 1911. Serial No. 649,452. (Cl. 70—120.)



1. A door latch mechanism comprising in combination one or more latches adapted to be raised to release a door, and operating means therefor comprising a pivoted member extending transversely beneath one of said latches, and an operating member connected to said pivoted member and arranged when moved in the direction of opening of the door to raise said pivoted member and thereby the latch or latches, and another operating member upon the opposite side of the mechanism pivotally supported and having a cam portion engaging said transversely extending pivoted member and arranged, when said second operating member is moved in the direction of opening of the door, to raise said transversely extending pivoted member, and thereby the latch or latches.

2. A latch operating mechanism comprising a latch adapted to be raised to release a door, a shaft adapted to be mounted upon a door and having mounted upon it a latch-operating member projecting transversely with respect to said shaft and adapted to engage said latch to raise the same, and an operating bar secured to said shaft and constituting a lever extension therefrom and adapted when moved to rock said shaft and thereby operate said latch-operating member.

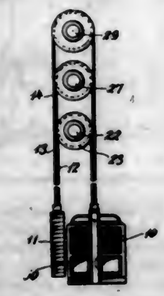
3. A latch operating mechanism comprising a latch adapted to be raised to release a door, a shaft adapted to be mounted upon a door and having mounted upon it a latch-operating member projecting transversely with respect to said shaft and adapted to engage said latch to raise the same, and an operating bar secured to said shaft and constituting a lever extension therefrom and adapted when moved to rock said shaft and thereby operate said latch-operating member, and another operating member likewise pivotally mounted and having a cam portion engaging the underside of said latch-operating member and arranged when moved about its pivot to raise said latch-operating member.

4. A door-latch mechanism comprising a latch-lever adapted to be pivoted to the outside of a door and to be raised to release the door, a rock shaft, a latch-operating member thereon extending transversely with respect to said shaft and latch-lever, beneath said latch-lever, and adapted to be raised, by rotation of said shaft, to raise said latch lever, and an operating bar extending longitudinally with respect to said shaft and constituting a lever extension therefrom, and adapted to be moved to rock said shaft and thereby operate said latch-operating member.

5. A door-latch mechanism comprising a latch-lever adapted to be pivoted to the outside of a door and to be raised to release the door, a rock shaft, a latch-operating member thereon extending transversely, with respect to

said shaft and latch-lever, beneath said latch-lever, and adapted to be raised, by rotation of said shaft, to raise said latch-lever, an operating bar extending longitudinally with respect to said shaft, connected to said shaft and constituting a lever extension therefrom, and adapted to be moved to rock said shaft and thereby operate said latch-operating member, and a pivoted hand lever located beneath said latch-lever and said latch-operating member, said hand lever having a cam portion engaging the underside of said latch-operating member and arranged when moved about its pivot to raise said latch-operating member and thereby the latch-lever.

1,029,627. TRACTION-ELEVATOR. CHARLES O. PEARSON, New York, N. Y. Filed Apr. 5, 1909. Serial No. 487,866. (Cl. 187—20.)



1. A driven member, a plurality of flat over-lapping metallic strips affixed thereto, and separate rotary driving means for each of the strips.

2. A driven member, a plurality of flat over-lapping metallic strips affixed thereto, a rotary driving sheave for each of said strips and an independent motor for each sheave.

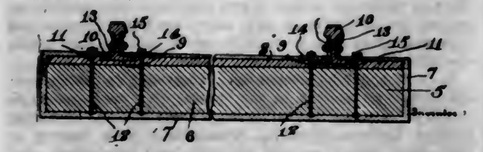
3. A driven member, a plurality of flat over-lapping metallic strips affixed thereto, a plurality of motors and a plurality of rotary sheaves independently driven by said motors, said sheaves being arranged to drive said strips.

4. A driven member, a plurality of overlapping flat metallic strips affixed thereto, a plurality of motors, a plurality of sheaves independently driven by said motors, and a facing for said sheaves of yieldable material, each of said sheaves being arranged to drive one or more of said strips.

5. A driven member, a plurality of overlapping flat metallic strips affixed thereto, a plurality of driving sheaves, a separate electric motor for each of said sheaves, said motors being mechanically connected by said strips, and electrical connections between the motors.

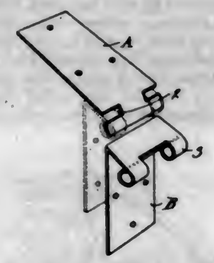
[Claims 6 to 11 not printed in the Gazette.]

1,029,628. RAILROAD-TIE. ALFRED W. PETERSON, Albertville, Wis. Filed Aug. 25, 1911. Serial No. 645,940. (Cl. 238—5.)



The combination in a railroad tie, of a flexible body portion, a plate secured to the upper side thereof, a plastic coating engaging the opposite sides, ends and bottom of the body portion and sides and ends of the plate, rail engaging means extending transversely of the plate, and a coating of plastic material engaging the upper side of the plate and adjacent portions of the rail engaging means, and attached to the adjacent portions of the first mentioned coating, whereby the said rail engaging means will be held rigidly upon said plate and body portion.

1,029,629. HINGE. RUDOLPH C. PLEINS, St. Paul, Minn. Filed Sept. 27, 1911. Serial No. 651,523. (Cl. 16—104.)

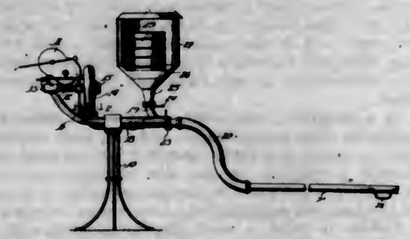


1. A strap hinge of the class described, comprising a pintle member and a knuckle member, the pintle member being formed at one end with a transversely extending pintle and the knuckle member being formed at one end with an opening long enough longitudinally of the knuckle member to receive the pintle but narrower than the length of the pintle.

2. A strap hinge of the class described, comprising a pintle member formed at one end with a transversely extending pintle, the knuckle member being formed at one end with an opening receiving said pintle, said opening being long enough longitudinally of the knuckle member to receive the pintle but narrower than the length of the pintle, the end of the knuckle member being rolled over said pintle when the parts are interlocked.

3. In combination with a box and cover, comprising a strap hinge of the class described, a flat pintle member to be secured to the underside of the box cover and formed at its outer end with a transversely extending pintle, a knuckle member bent at right angles to fit over the top edge of the adjacent wall of the box and against the inner face of the side wall, the outer end of said knuckle member extending beyond the wall of the box and being formed with an opening long enough longitudinally of the knuckle member to receive the pintle lengthwise, said opening being narrower than the length of the pintle.

1,029,630. METHOD OF AND APPARATUS FOR CHARGING POWDER. WILLIAM H. PLUMMER and JOHN TRESIDER, Coleraine, Minn. Filed Sept. 22, 1911. Serial No. 650,836. (Cl. 86—20.)



1. The method of charging powder into a hole which consists in inserting a tube into the hole, placing a quantity of powder in a receptacle protected from sparks, then generating a blast of air and blowing the powder into the hole, substantially as described.

2. The method of charging powder into a hole which consists in inserting a tube into the hole to the end thereof, then withdrawing the tube a short distance, then placing a quantity of powder in a receptacle protected from sparks, then generating a blast of air and blowing powder into the hole, substantially as described.

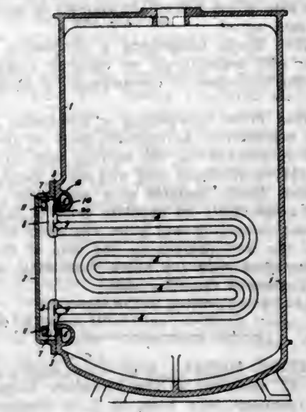
3. The method of charging powder into a hole which consists in inserting a tube into the hole to the end thereof, then withdrawing the tube a short distance, then placing a quantity of powder in a receptacle protected from sparks, then generating a blast of air and blowing the powder into the hole, then blowing sand against the powder, then withdrawing the tube and filling the remainder of the hole with earth, substantially as described.

4. A device for charging powder comprising, in combination, a blower, a rigid tube connected to said blower, and a powder receptacle, said receptacle being so arranged that sparks are kept from contact with the powder, substantially as described.

5. A device of the class described comprising, in combination, a blower, a rigid tube adapted to project into an opening, a flexible tube connecting said rigid tube to said blower, and a powder can shield, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,029,631. APPARATUS FOR EVAPORATING OR HEATING WATER BY STEAM. DANIEL ARTHUR QUIGGIN, Liverpool, England. Filed Sept. 8, 1909. Serial No. 516,112. (Cl. 62—30.)



1. In apparatus for evaporating or heating water by steam, in combination; a casing with an opening and a door therefor with a plane joint face, transverse steam inlet and outlet passages on the casing adjacent to the margins of the door opening, and a series of heating units individually and detachably connected at their ends to said passages by joint faces substantially in the plane of the door joint face, each unit consisting of a number of parallel tubular zigzags permanently fixed to a single inlet and to a single outlet, substantially as described.

2. In apparatus for evaporating or heating water by steam, a tubular heating unit consisting of a pair of parallel tubular zigzags with their adjacent ends facing in the same direction and permanently fixed to junction pieces forming a single inlet and a single outlet for the pair of tubes and also facing in the same direction; said inlet and outlet being adapted to be detachably connected to the steam supply and discharge, substantially as described.

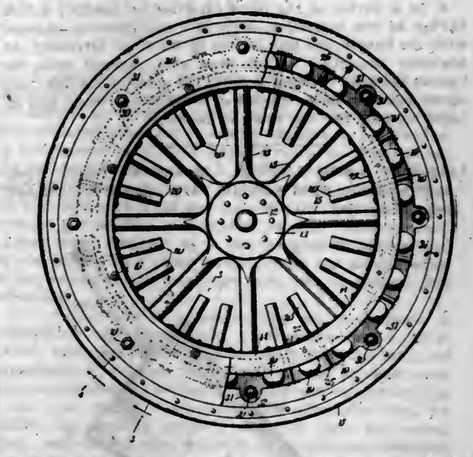
1,029,632. VEHICLE WHEEL-TIRE. WILLIAM WEST REVELL, Walden, N. Y. Filed Jan. 27, 1911. Serial No. 604,966. (Cl. 152—1.)

A vehicle tire, comprising a plurality of ring sections separated and flanked by reinforcing wooden rings, said ring sections being composed of a plurality of laminated composition rings impervious to water and interleaved by a suitable cement; metal clamping rings embedded in the outer wooden rings; and fastening devices connecting the said clamping rings and passing through the reinforcing



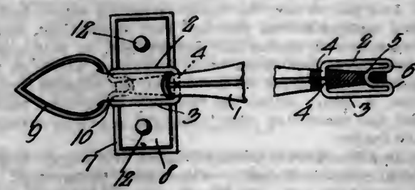
and composition rings to bind the whole into a single structure.

1,029,633. VEHICLE-WHEEL. WILLIAM W. REVELL, Walden, N. Y. Filed May 6, 1911. Serial No. 625,495. (Cl. 152—36.)



In a vehicle wheel having a rigid body portion and a rigid tire loosely connected therewith, a pneumatic cushion member having a cylinder the length whereof is variable; a piston mounted in said cylinder and having an intake valve; a plunger connected with said piston to bear against the inner surface of said tire; a spiral spring mounted in said cylinder to normally force outward therefrom the said piston and plunger; a cup to receive the end of said plunger said cup being suitably mounted on said tire; and an air supply duct for said cylinder opening into the lower end thereof.

1,029,634. SUIT-CASE HANDLE. CHARLES E. RILEY, Charlestown, Ind. Filed Oct. 26, 1911. Serial No. 656,819. (Cl. 190—58.)



1. In a device of the class described, a handle; an attaching member comprising a body extended transversely of the handle, and a tongue projecting from the body in alinement with the handle; and a link connected at both

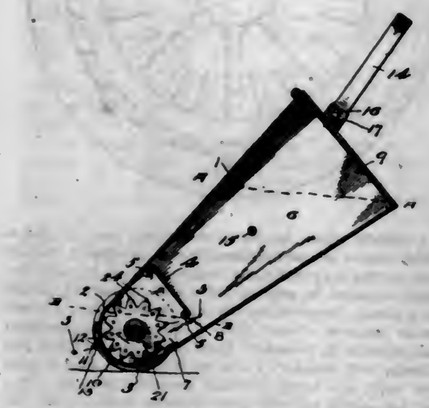
ends with the handle and extended across the body, the tongue projecting beyond one end of the link and housing the end of the handle.

2. In a device of the class described, a handle; a link connected at one end with the handle and provided at the other end with an inwardly projecting, arched head also engaged with the handle, the head defining loops at the sides of the link; and an attaching member comprising a body extended transversely of the handle, the body being located between the link and the handle and in the loops, there being a tongue outstanding from the body beyond the ends of the loops.

3. In a device of the class described, a handle; a link having at one extremity, separable end portions engaged with the handle, the link having at its other extremity, an inwardly projecting arched head also engaged with the handle, the head defining loops at the sides of the link, projecting beyond the end of the handle; and an attaching member comprising a body threaded through the loops and located between the link and the handle, there being a tongue outstanding from the body, beyond the loops.

4. In a device of the class described, a handle; a link having at one extremity, separable end portions engaged with the handle, the link having at its other extremity, an inwardly projecting arched head also engaged with the handle, the head defining loops at the sides of the link; and an attaching member threaded through the loops and located between the link and the handle.

1,029,635. LAND-MARKER. EDWIN G. ROSE, Washington, D. C. Filed Sept. 16, 1911. Serial No. 649,647. (Cl. 111—41.)

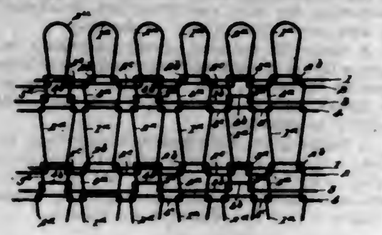


1. In a line marker, the combination of a hopper formed with a rounded bottom provided with perforations, an axle passed through the hopper, imperforate supporting wheels on the axle of slightly larger diameter than the rounded hopper bottom, a rotary stirrer in the hopper bottom, and a handle attached to said hopper.

2. In a line marker, the combination of a hopper formed with a rounded bottom provided with perforations, means for opening and closing said perforations, an axle passed through the hopper, imperforate supporting wheels on the axle of slightly larger diameter than the rounded hopper bottom, a rotary stirrer on the axle comprising spaced plates and connecting cross rods, and a handle attached to the hopper.

3. In a line marker, the combination of a hopper formed with a rounded bottom provided with perforations, an axle passed through the hopper, imperforate supporting wheels of slightly larger diameter than the rounded hopper bottom, a rotary stirrer in the hopper, a handle comprising slotted side arms pivoted to the hopper, and a cross bar adjustable in said slotted arms for supporting the upper end of the hopper.

1,029,636. KNITTED FABRIC. MORRIS G. ROSENTHAL, Mentor, Ohio. Filed Oct. 23, 1911. Serial No. 656,339. (Cl. 66—4.)



1. A knitted fabric comprising a succession of one walled welts one set of which is exclusively on one side of the fabric and another set of which is exclusively on the opposite side of the fabric, and rib courses connecting said welts.

2. A knitted fabric comprising a succession of one-walled welts some of which are knit exclusively on one side of the fabric and others of which are knit exclusively on the other side of the fabric, and courses of one-and-one rib uniting said welts.

3. A knitted fabric comprising a succession of one-course welts knit respectively on opposite sides of the fabric, and single courses of one-and-one rib uniting said welts.

4. A knitted fabric comprising a succession of welt courses knit respectively on opposite sides of the fabric, and courses of one-and-one rib uniting said welts, said rib courses having alternate long and short loops.

5. A knitted fabric comprising a succession of welt courses knit respectively on opposite sides of the fabric, and rib courses connecting said welts, the wales containing the loops of the welt courses on one side of the fabric being in alternation with the wales containing the loops of the welt courses on the other side.

[Claims 6 to 10 not printed in the Gazette.]

1,029,637. STEEL METAL. AUGUSTE J. ROSSI, Niagara Falls, N. Y., assignor to The Titanium Alloy Manufacturing Company, New York, N. Y., a Corporation of Maine. Original application filed Oct. 10, 1911, Serial No. 653,784. Divided and this application filed Jan. 4, 1912. Serial No. 669,433. (Cl. 75—1.)

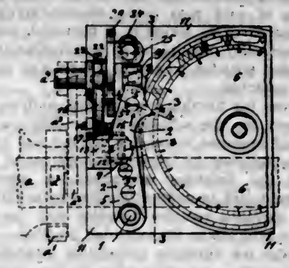
1. As a new article of manufacture, steel containing, by chemical analysis, titanium in amount not to exceed two per cent., manganese in amount not to exceed 0.2 per cent. and characterised as substantially devoid of other metals.

2. As a new article of manufacture, steel containing, by chemical analysis, silicon in amount not to exceed 0.02 per cent., also titanium in amount not to exceed two per cent. and manganese in amount not to exceed 0.2 per cent. and characterised as substantially devoid of other metals.

1,029,638. SPEED-RECORDING APPARATUS FOR VEHICLES. JAKOB SCHLENKER, Schwenningen, Germany. Filed June 8, 1911. Serial No. 631,948. (Cl. 234—30.)

1. In a speed-recording apparatus for vehicles, the combination of a support for a record-disk, marking devices between which the record-disk is moved, and comprising an oscillating marking lever and a pressure-spring on the same, a motion transmitting mechanism interposed between the axle of the vehicle and the marking devices for oscillating the latter, and a guide-device for the inner end of the marking lever.

2. In a speed-recording apparatus for vehicles, the combination of a support for a record-disk, marking devices between which the record-disk is moved, and comprising an oscillating marking lever and a pressure-spring on the same, a motion-transmitting mechanism interposed between the axle of the vehicle and the marking devices for oscillating the latter, a guide-device for the inner end of the marking lever, and a spring for pressing the marking lever toward the center of the record-disk.



3. In a speed-recording apparatus for vehicles, the combination of a support for a record-disk, oscillating marking devices consisting of a marking lever provided with a pointed marker and a pressure-spring on the same provided with a corresponding indentation above the marker, a motion-transmitting mechanism between the axle of the vehicle and the marking lever, and a guide-device for the inner end of the marking lever.

4. In a speed-recording apparatus for vehicles, the combination of a support for a record-disk, marking devices between which the record-disk is moved and consisting of a marking lever having a pointed marker, and a pressure-spring having an indentation above the marker, a crank-shaft, the crank-pin of which engages the marking lever, and a motion-transmitting mechanism between the axle of the vehicle and the crank-shaft, a spring pressing the marking lever toward the center of the record-disk, and a grooved post for guiding the inner end of the marking lever.

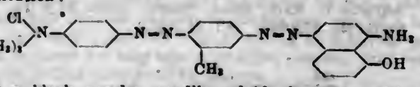
1,029,639. BLACK DISAZO DYESTUFFS AND PROCESS OF MAKING SAME. FRANZ SCHOLL, Höchst-on-the-Main, Germany, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany, a Corporation of Germany. Filed Sept. 20, 1911. Serial No. 650,323. (Cl. 8—1.)

1. As new products, the basic disazo dyestuffs of the constitution:



wherein "R" stands for a heteronuclear aminooxynaphthalene, being black powders, readily soluble in water, with a reddish-violet color, soluble in alcohol, insoluble in ether, benzene and ligroin, dyeing artificial silk black tints.

2. As a new product, the basic disazo dyestuff of the constitution:



being a black powder, readily soluble in water with a reddish-violet color which turns red on addition of a mineral acid and greenish-blue on addition of ammonia, soluble in concentrated sulfuric acid with a greenish-blue, and in alcohol with a blue color, insoluble in ether, benzene and ligroin, dyeing artificial silk a greenish-black tint.

3. The process of manufacturing basic disazo dyestuffs which consists in diazotising trimethylammoniumphenyl-azo-m-toluidin and causing it to act upon heteronuclear α-α-amino-oxy-naphthalenes.

1,029,640. ADJUSTABLE SUPPORT FOR TELEPHONE-RECEIVERS. HENRY G. SCHWAGER, Omaha, Nebr. Filed Dec. 16, 1911. Serial No. 666,139. (Cl. 179—147.)

1. A support for a telephone receiver, comprising, in combination with a standard, a telephone rest, a transmitter, and the pivot-pin connecting the standard and transmitter, a brace-bar having a first wing mounted upon said pivot-pin, and having a second wing disposed in angular relation to the first wing; a supporting-arm arranged to hold said receiver and mounted upon the second wing of the brace-bar; said second wing adapted to be normally disposed in a vertical plane the supporting-arm being in engagement with the telephone rest; said arm adapted to have a vertical movement to cause its disengagement from the telephone rest, and to have a rotatable movement to dispose the second wing of the brace-bar in a horizontal plane.



2. A support for a telephone receiver, comprising, in combination with a standard and the telephone rest and transmitter mounted thereon; a brace having a first wing mounted upon the standard adapted to have swinging movements in a plane parallel with the longitudinal axis of the transmitter, and having a second wing disposed in angular relation to said first wing; a supporting-arm provided with a lug and formed with terminal, curved members for holding a telephone receiver; said supporting-arm being mounted upon and adapted to have swinging movements in a plane parallel with the second wing, its lug engaging the telephone rest, during one of said movements.

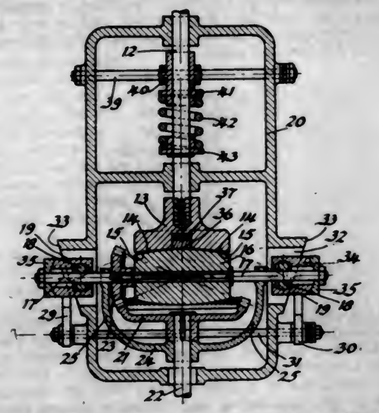
3. A support for a telephone receiver, comprising, in combination with a standard, a telephone rest, a transmitter, and the pivot-pin connecting the standard and transmitter, a brace-bar having a first wing mounted upon said pivot-pin and a second wing disposed at right angles to the first wing; a longitudinally adjustable arm for holding the receiver hingedly mounted upon the second wing; said second wing adapted to be normally disposed in a vertical plane, said arm engaging the telephone rest; said arm adapted to have a vertical movement to cause its disengagement from the telephone rest and to have a rotatable movement to dispose the second wing of the brace in a horizontal plane above the pivot-pin; said arm, after said rotatable movement, being disposed in a horizontal plane.

4. A device for the purpose described, comprising, in combination with a support and with a telephone rest and telephone transmitter mounted upon the support, said transmitter being adapted to move in a vertical plane; a brace-plate providing a pair of angularly-disposed wings, one of said wings being pivotally mounted upon the support and adapted to have swinging movements in a plane parallel with the movement of the transmitter; a supporting-arm provided with a transverse lug and having curved, terminal prongs of unequal length for holding a telephone receiver, said arm being mounted upon and adapted to have swinging movements in a plane parallel with the movement of the other angularly-disposed wing, the lug of said arm, during one of its movements, making engagement with said telephone rest.

1,029,641. TRANSMISSION MECHANISM. EDWARD SEAVER, Jr., Pittsburgh, Pa. Filed Sept. 17, 1908. Serial No. 453,545. (Cl. 74—26.)

1. In friction gearing, two rotatable elements one of which is concave while the other is convex, and the bearings of one of which are fixed and means for rolling the other element on the contacting face of the first mentioned element without sliding, whereby the effective angular velocity of said gearing is changed.

2. In friction gearing, driving and driven elements one of which is concave while the other is convex, shafts on which said elements are mounted, the bearings for one of said shafts being fixed, means for changing the angularity of the other shaft whereby one of said elements is caused to roll upon the other element without sliding, to change the effective angular velocity of said gearing.



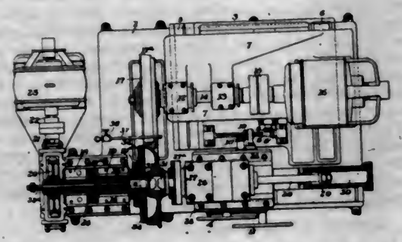
3. In friction gearing, driving and driven elements, mounting shafts for each element, movable bearings for one of said shafts, means for shifting said bearings to rock said shaft in such a manner that the element it carries is rolled across the other element without sliding whereby the effective angular velocity of said gearing is changed and means for causing said bearing to move in a straight line during the shifting operation.

4. In friction gearing, contacting friction elements, one of which is provided with a concave friction face and the other with a convex friction face the radius of curvature of which is twice that of the concave face and means for varying the angular velocity ratio.

5. In friction gearing, a disk-shaped friction element provided with a concave frictional driving face and a barrel-shaped element contacting therewith and provided with a convex frictional driving face.

[Claims 6 to 32 not printed in the Gazette.]

1,029,642. APPARATUS FOR FINISHING CAR-WHEELS AND SIMILAR METAL ARTICLES. EDWIN E. SLICK, Pittsburgh, Pa. Filed Oct. 26, 1909. Serial No. 524,724. (Cl. 82—40.)



1. Apparatus for finishing cylindrical articles, comprising a rotary support having opposing shafts, centering pins on the adjacent ends of said shafts, means for positively rotating at least one of said shafts, and means for relatively moving said shafts longitudinally into and out of supporting position, said centering pins being arranged to move longitudinally and simultaneously in one and the same direction, when the shafts are moved into and out of supporting position.

2. Apparatus for finishing cylindrical articles, comprising a rotary support for the articles having opposing shafts, centering pins on the adjacent ends of said shafts, at least one of said pins being longitudinally movable relative to the shaft on which it is mounted, and yielding means for normally holding said longitudinally movable pin in extended position when the shafts and support are in retracted position.

3. Apparatus for finishing cylindrical articles having a rotary support for the articles, a flat disk on said support, and fluid pressure means for moving and holding the articles being finished in frictional engagement with said disk during the finishing operations, a centering pin mounted in said disk in axial alinement therewith and longitudinally movable relative thereto, and means yieldingly holding said pin in its extended position.

4. Apparatus for finishing cylindrical articles, comprising opposing shafts, centering pins on the adjacent ends of said shafts, means for rotating said shafts, at least one of said shafts being positively rotated, and means for relatively moving said shafts longitudinally into and out of supporting position, said pins being arranged to move longitudinally in one and the same direction when the shafts are relatively moved to separate the shafts.

5. Apparatus for finishing cylindrical articles, comprising opposing shafts, centering pins on the adjacent ends of said shafts, means for rotating said shafts, at least one of said shafts being positively rotated, and means for relatively moving said shafts longitudinally into and out of supporting position, said pins being arranged to move longitudinally in one and the same direction when the shafts are relatively moved toward each other.

1,029,643. WATERPROOF PORTLAND CEMENT AND PROCESS OF MAKING IT. MAXIMILIAN TOCH, New York, N. Y., assignor of one-half to Henry M. Toch, New York, N. Y. Filed Sept. 21, 1911. Serial No. 650,546. (Cl. 106—43.)

1. Waterproof cement, containing a water-insoluble organic ammonia compound.

2. Waterproof cement, containing a water-insoluble fatty-acid amid.

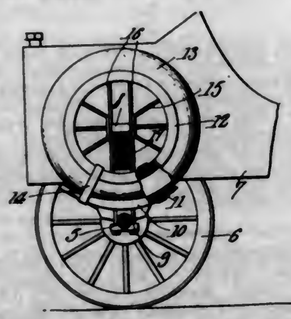
3. Waterproof cement, containing a water-insoluble fatty-acid amid and a finely-divided mineral carrier therefor.

4. Waterproof cement, containing a water-insoluble fatty-acid amid and a finely-divided aluminum silicate carrier therefor.

5. An ingredient for waterproofing cement, comprising a fatty-acid amid and a finely-divided mineral carrier therefor.

[Claims 6 to 10 not printed in the Gazette.]

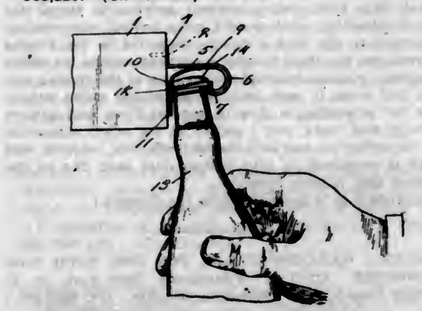
1,029,644. PNEUMATIC SPRING FOR VEHICLES. ARTHUR C. VAIL, Selah, Wash. Filed July 18, 1910. Serial No. 572,627. (Cl. 21—50.)



1. In a device of the character described, the combination with a vehicle-body and an axle, of a saddle having an upper curved surface and borne by said axle, a pneumatic cushion secured upon said saddle, the exterior diameter of said cushion being less than that of the circle of which the line of curvature of said upper surface of said saddle is an arc, an annular frame arranged within said cushion, parallel vertical guides fixed in said frame, a slide projecting from said vehicle-body, and working between said guides, and a resilient member intermediate said guides and supporting said slide.

2. A device of the character described, including a vehicle-body, an axle for the latter, a saddle fixed to said axle, a circular pneumatic cushion resting upon said saddle, a circular frame arranged within said pneumatic cushion, parallel vertical guide-bars fixed within said frame, an outstanding arm fixed to said vehicle-body and received and slidable between parallel vertical guide-bars, a resilient member forming a cushion for said outstanding arm, braces secured within said circular frame and to said guide bars, and clips engaging said circular frame, said pneumatic cushion and said saddle.

1,029,645. BOTTLE-OPENER. HARRY LOCKWOOD VAUGHAN, Chicago, Ill. Filed Oct. 3, 1910. Serial No. 585,125. (Cl. 65—46.)



1. A bottle cap remover consisting of a base having a resilient depending cap engaging member, the edge of said depending member being upturned, and a resilient brace for said depending member.

2. A bottle cap remover consisting of a base having a resilient depending cap engaging member, the edge of said depending member being upturned, a brace for said depending member, said brace having a groove therein.

3. A bottle opener consisting of a fixed base having a right angular extension, said extension having a semi-cylindrical end adapted to engage the cap of a bottle and a resilient brace therefor.

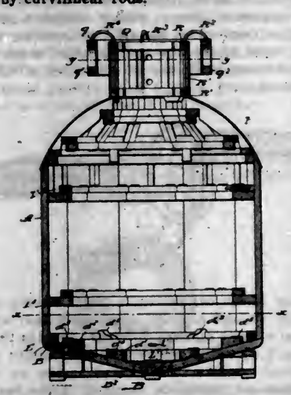
4. A bottle opener consisting of a fixed base, having a right angular extension, said extension having a semi-cylindrical member adapted to engage the cap of a bottle, said semi-cylindrical member having an upturned portion, a brace for said semi-cylindrical member, said brace having sliding movement on its base.

5. A bottle opener consisting of a fixed base having a right angular extension, said extension having a semi-cylindrical member adapted to engage the cap of a bottle, said semi-cylindrical member having a right angular upturned portion, an integral brace for said cap engaging portion, said brace having a groove therein adapted to engage the edge of a bottle cap.

[Claims 6 to 9 not printed in the Gazette.]

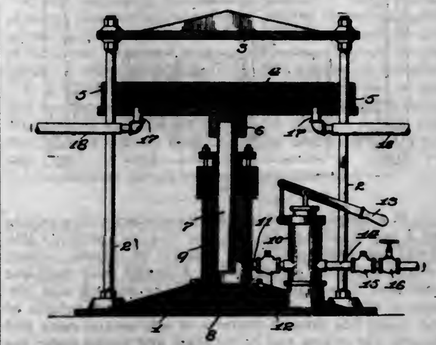
1,029,646. FORMER OR MOLD FOR FORMING CONCRETE CISTERNS. GUSTAVUS A. WAGNER, Jasper, Mich. Filed Mar. 11, 1911. Serial No. 613,689. (Cl. 25—124.)

1. A mold or former for cement or concrete cisterns, comprising a cylindrical body portion consisting of separable sections, means for detachably securing said sections together consisting of clamping bands and horizontally arranged serrated levers, a neck supported upon the upper end of the body portion and consisting of concentric annuli connected by curvilinear rods.



2. A mold or former for cement or concrete cisterns, comprising a body portion consisting of a series of vertically disposed sections, means for securing said sections together detachably, consisting of clamping bands and serrated horizontally operating tensioning levers for said bands, a bottom consisting of a series of triangular sections provided with securing cleats, and a neck supported upon the upper end of said body portion.

1,029,647. STEREOTYPER'S STEAM-TABLE. ANDREW WALDT, St. Louis, Mo. Filed Sept. 25, 1911. Serial No. 651,267. (Cl. 34—16.)



The herein described stereotyper's steam table, comprising in combination a hollow steam table arranged to support a type form, matrix and blanket; flexible means for connecting the table with a source of heating medium, a cap secured in a fixed position over the steam table, and means for raising and lowering the steam table, substantially as shown and for the purposes stated.

1,029,648. ROPE-BUCKLE. EDWARD L. WALLACE, Rochester, N. Y. Filed July 18, 1911. Serial No. 639,138. (Cl. 24—132.)

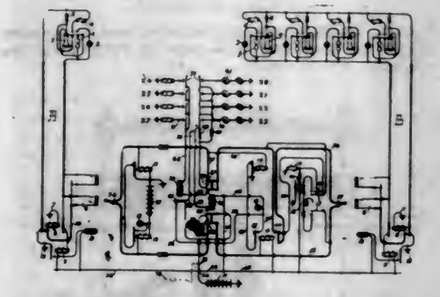
1. In a rope buckle, the combination with a frame having a loop slot and an eye to one side of the slot at a point between the ends thereof, of a free retainer having a bar for bridging the slot and an eye at one end of the bar alined with the eye of the frame and said retainer being entirely located on the same side of the frame and its eye.

2. In a rope buckle, the combination of a frame having a loop slot and an eye to one side of the longitudinal axis of the slot at a point between the ends thereof, said eye having a segmental flange; with a retaining bar having a depending projection on one side coöperating at its ends with side walls of the slot and also having an eye at one end in alinement with the bar, received within the segmental flange.



3. A rope buckle comprising a frame having a loop slot and an eye to one side of the longitudinal axis of the loop slot at a point midway between the ends thereof, said eye having a curved shoulder about the same; and a free retaining bar bridging the slot and having an eye at one end in alinement therewith, engaged by the curved shoulder.

1,029,649. AUTOMATIC RINGING SYSTEM. ALFRED H. WEISS, Wilmette, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 17, 1910, Serial No. 577,657. Renewed Nov. 10, 1911. Serial No. 659,640. (Cl. 179—58.)



1. In a telephone system, the combination with a calling and a called subscriber's telephone line, an operator's link circuit connecting said lines, a source of ringing current, a disconnect relay, a ringing key, a control relay energized responsive to actuation of said key to connect said disconnect relay and ringing current in separate bridges of said called line through contacts of said control relay and disunite the calling and called lines, and means under the control of the called subscriber to energise said disconnect relay, whereby said bridges are removed and the continuity of said connection is established.

2. In a telephone system, the combination with a calling and a called subscriber's telephone line, a cord circuit connecting said lines, a source of ringing current, a disconnect relay, means for connecting said current and said relay in separate permanent bridges of said called line until a response of the called subscriber is secured, a source of battery current, and means actuated upon response of the called subscriber to include said battery current in said relay bridge whereby said relay is energised, and means effective upon the energisation of said relay to disconnect said ringing current.

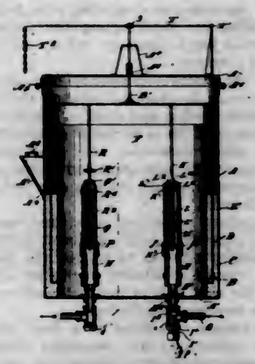
3. A telephone system comprising a called subscriber's telephone line, a link circuit for connection thereto, a source of ringing current, a source of battery current, means for simultaneously connecting said currents in separate brides of said called line, a relay included in said battery bridge, a signal for said subscriber's line actuated responsive to said ringing current bridge, and means controlled by the called subscriber to render the battery bridge effective to energise said relay, whereby said ringing current bridge is disconnected.

4. In a telephone system, the combination with a called subscriber's telephone line, of a cord circuit connected thereto, a supervisory signal actuated responsive to said connection, a ringing key actuated to signal the called subscriber, a control relay energised responsive to said actuation to disunite the answering and calling ends of said cord circuit while the called line is being signaled, a battery, a supervisory relay disconnected from the calling end of said cord circuit, means actuated upon the response of the called subscriber to deënergise said control relay to establish the continuity of said cord circuit, said supervisory relay being thereupon connected to the calling end of said cord circuit and energized by battery over said line, said signal being effaced upon the energisation of said supervisory relay

5. In a telephone system, the combination with a cord circuit, a calling and a called subscriber's telephone line connected thereby, a grounded source of ringing current and a grounded source of battery current having their ungrounded terminals connected to opposite limbs of the called line, said ringing current serving to signal the called subscriber, a disconnect relay having one terminal connected to the limb which is connected to the ringing current and the other terminal to ground, means for simultaneously maintaining said connections of the ringing current and relay to said limb, means at the called substation for preventing a flow of current from said battery through said relay, and a switch at the called substation for rendering the last said means ineffective, whereby said relay is energized by said battery over said line to disconnect said ringing current.

[Claims 6 to 8 not printed in the Gazette.]

1,029,650. GAS-CONTROLLER FOR USE WITH GAS-ENGINES. OTTO H. WENDEROTH, New York, N. Y. Filed June 3, 1911. Serial No. 631,109. (Cl. 48—191.)



1. A gas controller comprising a casing, valve mechanism for controlling the inflow and outflow of gas from said casing, and means for operating said valve mechanism, so as to stop the inflow of gas into said casing, when the pressure inside the casing rises above the predetermined point, and means for stopping the outflow of gas from said casing, when the pressure inside the casing falls below a predetermined point.

2. A gas controller comprising a casing, valve mechanism for controlling the inflow and outflow of gas from said casing, a floating bell within the casing, said bell being adapted to operate said valve mechanism so as to stop the outflow of gas from said casing when the pressure inside the casing falls below a predetermined point, and means for operating the valve mechanism for stopping the inflow of gas into said casing, when the pressure inside the casing rises above a predetermined point.

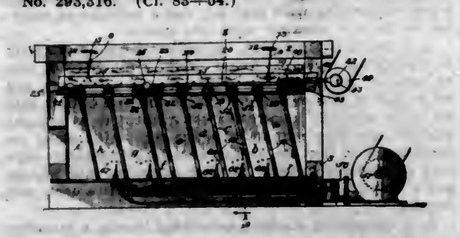
3. A gas controller comprising a casing, an inlet for admitting the inflow of gas into said casing, and an outlet for the gas from said casing, a valve located in said inlet and another valve located in said outlet, means for automatically operating the valve controlling the inflow of gas, so as to stop said inflow when the pressure inside the casing rises above a predetermined point, and means for controlling the valve in the outlet for stopping the outflow of gas from said casing when the pressure inside the casing falls below a predetermined point.

4. A gas controller comprising a casing, and a gas inlet and a gas outlet for said casing, a valve located in said inlet and a valve located in said outlet, a floating bell in said casing, said bell being adapted to operate the outlet valve for stopping the outflow from said casing when the pressure in the casing falls below a predetermined point, and means for operating the inlet valve, so as to stop the inflow of gas into said casing when the pressure within the casing rises above a predetermined point.

5. A gas controller comprising a casing, a gas inlet and a gas outlet for said casing, a valve located in said inlet, a spring operating on said valve so as to normally keep it closed, a valve in said outlet and a spring operating on said outlet valve to normally keep it open, a floating bell within the casing, said bell being adapted to open said inlet valve when the pressure within the casing falls below a predetermined point, and to close said outlet valve when the pressure falls below a predetermined point lower than the first mentioned predetermined point.

[Claims 6 to 8 not printed in the Gazette.]

1,029,651. DRY-PLACER SEPARATOR AND CONCENTRATOR. NEWTON C. WESTERFIELD, Chicago, Ill., assignor to International Manufacturing & Mining Co., a Corporation of Arizona. Filed Dec. 26, 1905. Serial No. 293,316. (Cl. 83—54.)



1. In a machine of the character described, the combination of a shaker frame, a sieve thereon adapted to pass material therethrough, means for vibrating the same, and an inclosed trap revolubly mounted in said shaker frame below the plane of the sieve and having an upper face open to receive material passing over, but not through the screen.

2. In a machine of the character described, the combination of a shaker frame, a sieve thereon adapted to pass material therethrough, means for vibrating the same, and an inclosed trap revolubly mounted in said shaker frame transversely to its line of motion and having an upper face open to receive material passing over, but not through the screen.

3. In a machine of the character described, a shaker frame, means for vibrating the same, said shaker frame being fitted with a sieve and having an inclosed trap revolubly mounted therein transversely to its line of motion, and depressed to or below the general level of the sieve and having an upper face open to receive material passing over, but not through the screen.

4. In a machine of the character described, a shaker frame provided with a screen, means for vibrating the same, a rotatory trap comprising the continuous arc of a circle mounted in the shaker frame depressed to or below the level of said shaker frame and open to receive material passing over but not through the screen, and means for locking the trap in place.

5. In a machine of the character described, a shaker frame, screens carried thereby, a trap revolubly mounted on the shaker frame transversely to the line of motion and having its upper edges substantially flush with the upper plane of the screens and having an upper face open to receive material passing over, but not through the screen.

[Claims 6 to 9 not printed in the Gazette.]

1,029,652. INSULATING MATERIAL. JOHN HENRY WHITE, Pittsburgh, Pa. Filed June 30, 1911. Serial No. 636,284. (Cl. 154—44.)



1. An insulating material comprising a body portion of hair felt having a thick coating of flexible waterproof material intermeshed with the outer portions only of such felt, thereby leaving a thick flexible center in said insulating material.

2. An insulating material comprising a body portion of cattle hair felt having a thick coating of flexible waterproof material intermeshed with the outer portions only of such felt, thereby leaving a thick flexible center in said insulating material.

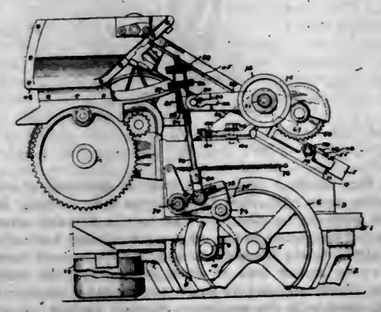
3. An insulating material comprising a body portion of hair felt having a thick coating of flexible hydro-carbon material intermeshed with the outer portions only of such felt to form a waterproof facing thereon, thereby leaving a thick flexible center in said insulating material.

4. An insulating material comprising a body portion of cattle hair felt having a thick coating of flexible hydro-carbon material intermeshed with the outer portions only of such felt to form a waterproof facing thereon, thereby leaving a thick flexible center in said insulating material.

5. A pipe covering comprising a body portion of hair felt having a thick coating of flexible waterproof material intermeshed with the inner and outer portions only of such felt, thereby leaving a thick flexible center in said covering.

[Claims 6 to 16 not printed in the Gazette.]

1,029,653. SLOTTING-MACHINE. RICHARD LESTER WILCOX, Waterbury, Conn., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn., a Corporation of Connecticut. Filed May 11, 1910. Serial No. 560,708. (Cl. 10—6.)



1. In combination; an operating tool; a delivery chute; a carrier dial, having blank receiving means thereon; a gripping dial, both of said dials lying in a plane at an

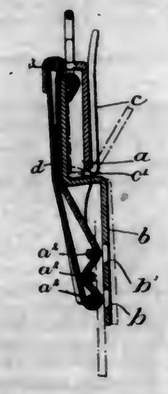
angle to both the horizontal and vertical, with their lower ends away from said delivery chute; means for imparting an intermittent rotary movement thereto, so that during the rest periods of said dial, one of said blank receiving means will register with said chute; and two discharge chutes, for separating the oil and chips and the finished work as delivered from said dials.

2. In combination; an operating tool; a delivery chute; a carrier dial, having blank receiving means thereon; a gripping dial, both of said dials lying in a plane at an angle to both the horizontal and vertical, with their lower ends away from said delivery chute; means for imparting an intermittent rotary movement thereto; and two discharge chutes for separating the oil and chips and the finished work as delivered from said dials.

3. In combination; a delivery chute; a carrier dial, having peripheral blank carrying means; a gripping dial, having peripheral blank holding means; means for intermittently rotating said dials so that one of the said blank carrying means of the carrier dial will register with the holding means in the gripping dial, and another of said blank carrying means will register with said chute, when said dials are in their rest positions; yielding means for moving one of said dials toward the other; and two discharge chutes for separating the oil and chips and the finished work as delivered from the said dials, said chutes being so arranged that one of said dials is in line with one of said chutes and the other dial in line with both of said chutes.

4. In combination; an operating tool; a fixed part, having two discharge chutes leading therefrom; a carrier dial, with blank receiving means thereon, mounted in said fixed part and rotatable in a path at an angle to both the vertical and horizontal, with points upon its periphery diametrically opposite each other in line with each of said discharge chutes; a delivery chute arranged to successively deliver blanks by gravity into the blank receiving means of said carrier dial; a gripping dial rotatable in the same plane as said carrier dial and in line with only one of said discharge chutes; and means for imparting an intermittent rotary movement to each of said dials.

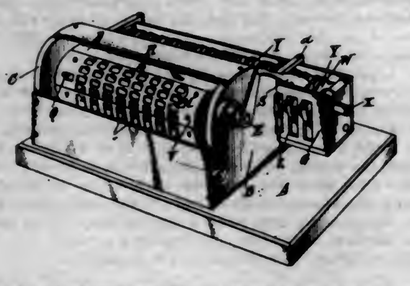
1,029,654. CLASP. LAFAYETTE A. WILKINSON, Philadelphia, Pa. Filed Aug. 18, 1910. Serial No. 577,799. (Cl. 24—250.)



1. In a clasp, a stationary member provided at its respective ends with ribs and a cross-bar, webbing interposed between the ribs and cross-bar, a movable member, pivotally connected to the stationary member and adapted to hold a fabric between it and the stationary member and to be moved into an open position by the webbing and a clamp adapted to press the movable member into engagement with the stationary member against the action of the webbing.

2. In a clasp of the character described, a stationary jaw, a supporting loop, a movable jaw hinged at its upper end to the corresponding portion of the stationary jaw and slotted at its lower end, a cross bar located at the upper end of the stationary jaw, a series of cross-bars located at the lower end of the stationary jaw, a strip of webbing interposed between the upper cross bar and the lower cross-bars and passing over and under the lower cross-bars to form humps adapted to register with the slots formed in the lower end of the movable jaw, said webbing being also adapted to engage the movable jaw of the clasp to hold the same with yielding pressure in an open position, and a clamping lever fulcrumed to the stationary jaw and adapted to lock the movable jaw in a closed position.

1,029,655. AUTOMATIC ABACUS. DOICHI YADU, Sudamura, Japan. Filed Feb. 11, 1911. Serial No. 608,152. (Cl. 235—75.)



1. A calculating machine, embodying therein a plurality of registering wheels, a rotary drum, a plurality of sets or banks of indicating keys mounted upon said drum, one set to each of said registering wheels, the keys of each said set being normally inoperative but adapted to be brought into the operative relation with the registering wheel coöperating with that set, and a transfer or carrying mechanism operative upon said wheels.

2. A calculating machine, embodying therein a plurality of registering wheels, a rotary drum, a plurality of sets or banks of indicating keys mounted upon said drum, one set to each of said registering wheels, the keys of each said set being normally inoperative but adapted to be brought into the operative relation with the registering wheel cooperating with that set, means whereby all operative keys may be rendered inoperative after actuating said wheels, and a carrying or transfer mechanism operative upon said wheels.

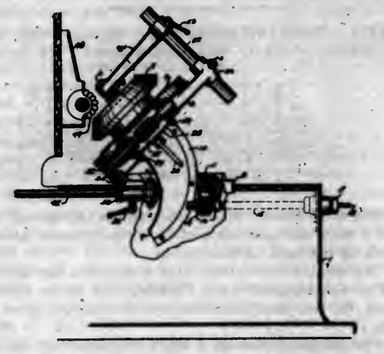
3. A calculating machine embodying therein a plurality of registering wheels, a rotary drum, a plurality of sets or banks of laterally movable indicating keys mounted upon said drum, one to each wheel, said keys of each set being normally inoperative but adapted to be deflected laterally into the operative relation to its registering wheel, and a transfer or carrying mechanism operative upon said wheels.

4. A calculating machine embodying therein a plurality of registering wheels, a rotary drum, a plurality of sets or banks of laterally movable indicating keys mounted upon said drum, one to each wheel, said keys of each set being normally inoperative but adapted to be deflected laterally into the operative relation to its registering wheel, a slidable plate adapted to engage any deflected key and restore it to normal, and a transfer or carrying mechanism operative upon said wheels.

5. A calculating machine embodying therein a plurality of registering wheels, a rotary drum, a plurality of sets or banks of laterally movable indicating keys mounted upon said drum, one to each wheel, said keys of each set being normally inoperative but adapted to be deflected laterally into the operative relation to its registering wheel, a slidable plate adapted to engage any deflected key and restore it to normal, a keeper plate adapted to temporarily hold an indicating key in its deflected position, and a transfer or carrying mechanism operative upon said wheels.

[Claims 6 to 19 not printed in the Gazette.]

1,029,656. WORK-TABLE FOR METAL-WORKING MACHINES. WILLIAM F. ZIMMERMANN, Newark, N. J., assignor to Gould & Eberhardt, Newark, N. J., a Corporation of New Jersey. Filed May 5, 1909. Serial No. 494,020. (Cl. 90—58.)



1. The combination with a slide of an angularly adjustable bed attached thereto, a work table rotatably mounted in said bed, an index wheel connected thereto, an index shaft connected to said index wheel, said index wheel and shaft carried by said bed, and means to angularly adjust and support said work table, index wheel and shaft at any desired angular positon.

2. The combination with a slide, of an angularly adjustable bed attached thereto, a work table rotatably mounted in said bed, an index wheel connected thereto, an index shaft connected to said wheel, means to angularly adjust said work table, index wheel and index shaft to any desired angular position, a drive shaft and gearing between said index and drive shafts forming a pivotal connection to transmit motion from said drive shaft to said work table.

3. The combination with an adjustable slide, of an angularly adjustable bed attached thereto, a work table rotatably mounted in said bed, an index wheel connected thereto, an index shaft connected to said wheel, said index wheel and shaft carried by said bed, means to angularly adjust said work table, index wheel and index shaft to any angular position, a drive shaft mounted parallel with the movement of said slide, and gearing carried by said slide connecting said drive and index shafts.

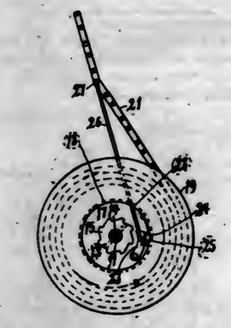
4. The combination with a slide, of an angularly adjustable bed attached thereto, a work-table rotatably mounted in said bed, a worm wheel secured thereto, a worm meshing with said worm wheel, said worm wheel and worm carried by said bed, means to angularly adjust and support said work table, worm wheel and worm to any angular position, a drive shaft, and gear connections between said worm and drive shaft.

5. The combination with a slide, of a tilting bed hinged thereto, a hinge shaft therefor, means to angularly adjust said bed, a work table rotatably mounted in said tilting bed, a worm wheel secured thereto, a worm engaging said wheel, mounted in a different plane from and at right angles to said hinge shaft, a drive shaft, and gearing between said worm and drive shaft to rotate said work table when in any angular position.

[Claims 6 to 21 not printed in the Gazette.]

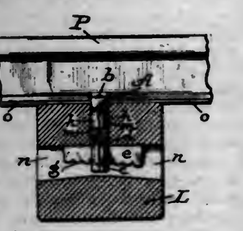
1,029,657. ENGINE-STOPPING DEVICE. HENNING ALSTERBERG, St. Paul, Minn., assignor of one-half to Charles Johnson, St. Paul, Minn. Filed Oct. 7, 1911. Serial No. 653,427. (Cl. 136—11.)

The combination with the stem of the throttle valve of an engine, of a hand-wheel and a ratchet wheel fixed on the stem, a drum rotatably mounted on the stem adjacent the ratchet wheel, and having an aperture a spring-pressed pawl carried by the drum in position to engage the ratchet wheel, and having a pocket a chain or similar means wound on the drum and extending remote from the engine, a trip rod carried by the chain and extending through the aperture in the drum and into the pocket to hold the pawl normally disengaged from the ratchet wheel, and means connected with the remote portion of the chain



for pulling the same and thereby cause it to disengage the trip rod from the pawl and from the aperture in the drum, so that the pawl may engage the ratchet wheel, and the chain may rotate the drum and valve stem so as to close the valve.

1,029,658. COMBINED LOCKING-CLAMP AND RAILWAY-TIE FOR TRACK-RAILS. RALPH A. ARGABRIGHT, Dayton, Ohio. Filed Aug. 26, 1911. Serial No. 646,177. (Cl. 238—4.)



1. In a combined locking-clamp and railway-tie for track rails; the combination of a locking-clamp comprising clamping-hooks uniting in a single shank having a slotted opening therein and of approximate T-shape; a wedge shaped key adapted to rest in said opening; and a tie formed with a recess, and socket of the same contour as said shank, and having transverse-ways therein,—for the reception of said clamp and key;—all substantially in the manner and for the purposes described.

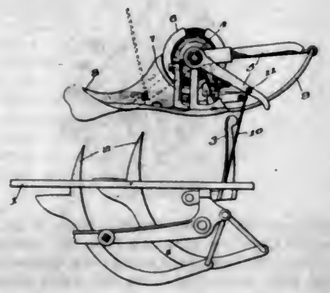
2. The combination in the herein referred to railway device; of a clamp provided with a locking-joint, and having clamping hooks and a key opening; a key adapted to be inserted and removed from said opening; and a crosstie having a recess, a vertical socket also transverse passages therein adapted to removably receive and lock said clamp and key in position therein; all substantially as and for the purposes described.

3. The herein referred to fastening device for railways, comprising a locking-clamp provided with a shank having a key opening therein and formed in sections, each section having a clamping-hook; a key having a straight and an inclined edge thereto and adapted for said opening; and a tie formed with a recess and a socket of the same contour as said hooks and shank for holding same, also having transverse ways constituting passages for said key, all substantially as described.

4. The combination in a fastening means for track-rails; of a locking clamp provided with clamping-hooks and an angular shaped shank having a slot therein, and formed in halves connected by a locking joint; a wedge shaped key having a ragged edge adapted to rest in said

slot; and a railway tie provided with a recess adapted to receive said clamping hooks, an angular shaped socket adapted to receive said shank, and transverse passages adapted for the reception and removal of said key; all substantially as and for the purposes described.

1,029,659. GRAIN-BINDER. BERT R. BENJAMIN, Oak Park, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed Jan. 15, 1912. Serial No. 671,323. (Cl. 56—126.)



1. A grain binder having, in combination, a deck, a knotter, a rotatable knotter actuating shaft, a discharge arm secured to said shaft, and a grain retainer carried by said discharge arm.

2. A grain binder having, in combination, a deck, a knotter, a rotatable knotter actuating shaft, a discharge arm secured to said shaft, and a grain retainer having one end secured to said discharge arm and the opposite end thereof engaging with said deck when said discharge arm has reached the limit of its sheaf discharging movement.

3. A grain binder having, in combination, a deck, a knotter, a rotatable knotter actuating shaft, a discharge arm secured to said shaft, a grain retainer having an open-ended slot at one end thereof and eye portions upon opposite sides of said slot, a bolt received by said eye portion whereby said retainer is pivotally connected with said discharge arm in a manner having a limited swinging movement thereon, the opposite end of said retainer engaging with said deck when said discharge arm has reached the limit of its sheaf discharging movement.

1,029,660. FEED-HOPPER. FRANK. BLANCHETT, Massena, N. Y. Filed Apr. 28, 1911. Serial No. 623,888. (Cl. 119—52.)



1. A feed hopper comprising front and rear wall members, the latter being extended to form a receiving trough, end members and intermediate partition members spacing and connecting the wall members and extended into the trough to form separate compartments; the bottom of one compartment being slitted and bent to form a supporting flange, and the front wall associated with said compartment being provided with an aperture; in combination with a door member supported hingedly adjacent to the upper edge of said aperture and having downwardly extending arms supported upon the front edge of the trough.

2. A feed hopper comprising front and rear wall members, the latter being extended to form a receiving trough, end members and intermediate partition members spacing and connecting the wall members and extended into the trough to form separate compartments, the bottom of one compartment being slitted and bent to form a horizontal supporting flange and the front wall associated with said compartment being provided with an aperture; in combination with a door member supported hingedly adjacent to the upper edge of said aperture and having downwardly extending arms supported upon the front edge of the trough, and a drinking vessel supported upon the horizontal supporting flange, said drinking vessel being provided with a bail or handle lying beneath the door member.

1,029,661. HAULING-SLED. CARL BLOCK, Plato, Minn. Filed Sept. 30, 1911. Serial No. 652,050. (Cl. 21—48.)



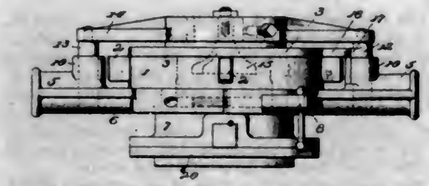
1. The combination with a sled and stakes carried thereby, of a rack mounted upon the sled, and means pivotally connecting the rack to said stakes.

2. The combination with a sled and stakes carried thereby, of a rack mounted upon the sled, and means pivotally secured to the rack and removably engaged upon said stakes.

3. The combination with a sled and stakes carried thereby, of a rack mounted upon said sled, and means carried by the rack and engaging said stakes to permit of the movement of the sled in a vertical plane with relation to the rack.

4. The combination with a sled including spaced bolsters and stakes secured upon the ends of said bolsters, of a rack extending at its ends between the stakes on the respective bolsters, and sleeves pivotally secured to the rack and removably engaged upon said stakes.

1,029,662. PIPE-THREADING TOOL. BRADFORD BORDEN, Toronto, Ontario, Canada. Filed Sept. 21, 1910. Serial No. 583,097. (Cl. 10—122.)



1. In combination with a rotatable and longitudinally-movable chaser carrier, a series of radially-arranged chasers, and a cam plate rotatable with and independently of said chaser carrier for engaging the chasers, a post engaging said cam plate to control its axial turning independently of its rotation with the chaser carrier, said post being rotatable with said chaser carrier but not partaking of its longitudinal movement, a member carrying said post, said member having handle sockets, and means for detachably locking said member to the chaser carrier.

2. In combination with a rotatable and longitudinally-movable chaser carrier, a series of radially-arranged chasers, and a cam plate rotatable with and independently of said chaser carrier for engaging the chasers, a post engaging said cam plate to control its axial turning independently of its rotation with the chaser carrier, means connected to said post for engaging the object being threaded to prevent the post from partaking of the longitudinal movement of the chaser carrier, a member carrying said post, said member having handle sockets, and means for detachably locking said member to the chaser carrier.

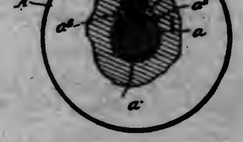
3. In combination with a rotatable and longitudinally-movable chaser carrier, a series of radially-arranged chasers, and a cam plate rotatable with and independently of said chaser carrier for engaging the chasers, a post engaging said cam plate to control its axial turning independently of its rotation with the chaser carrier, said post being rotatable with said chaser carrier but not partaking of its longitudinal movement, a member carrying said post comprising a split ring encircling a portion of the chaser carrier, means for clamping said split ring, and handle-sockets carried by said split ring.

4. In combination with a rotatable and longitudinally-movable chaser carrier, a series of radially-arranged chasers, and a cam plate rotatable with and independently of said chaser carrier for engaging the chasers, a post engaging said cam plate to control its axial turning independently of its rotation with the chaser carrier, a second post, a transverse member connecting said posts, a stop carried by said member for engaging the object being threaded to prevent the posts from partaking of the longitudinal travel of the chaser carrier, a member carrying said posts, said member having handle-sockets, and means for detachably locking said member to the chaser carrier.

5. In combination with a rotatable and longitudinally-movable chaser carrier, a series of radially-arranged chasers, and a cam plate rotatable with and independently of said chaser carrier for engaging the chasers, a post engaging said cam plate to control its axial turning independently of its rotation with the chaser carrier, a second post, a transverse member connecting said posts, a stop carried by said member for engaging the object being threaded to prevent the posts from partaking of the longitudinal travel of the chaser carrier, a member carrying said posts comprising a split ring encircling a portion of the chaser carrier, means for clamping said split ring, and handle-sockets carried by said split ring.

[Claim 6 not printed in the Gazette.]

1,029,663. KEY. WILBUR E. BOWMASOCK, Lawrence, Kans., assignor to Irving Hill, Lawrence, Kans. Filed Dec. 19, 1911. Serial No. 666,849. (Cl. 74—6.)

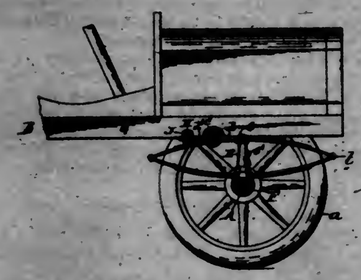


1. In a device such as described, the combination with a rotary shaft, of a driven member mounted thereon, having a cylindrical key way therein at one side of and parallel with the shaft, an axially rotatable key fitting in the key seat and adapted to be positively rotated into and out of contact with the shaft, and means carried by the driven member and engaging the key intermediate its ends for preventing endwise movement of the key.

2. In a device such as described the combination with a shaft, of a driven member provided with a central bore through which the shaft passes, and having a cylindrical key seat parallel with the central bore and open at one side to said central bore, an axially rotatable key mounted in said key seat and formed with a circumferential groove intermediate its ends and a retainer carried by said driven member and extending into the groove in the key to prevent endwise movement of said key.

3. In a device such as described, the combination with the rotary member having two parallel substantially cylindrical openings extending therethrough and in communication throughout their length, and a transverse slot formed in the adjacent walls of said openings, of a substantially cylindrical key journaled in one of said openings and having a cut away portion at one side and a circumferential groove in the plane of said slot and a retainer located in the slot and passing into the groove, said retainer having one edge substantially flush with the other opening.

1,029,664. SHOCK-ABSORBER FOR VEHICLES. CHARLES CABANA, Buffalo, N. Y., assignor to Buffalo Specialty Company, Buffalo, N. Y., a Corporation of New York. Filed Jan. 17, 1910. Serial No. 538,378. (Cl. 21—105.)



1. The combination with a vehicle having an axle in its running gear and a frame bar which has a lower horizontal flange and a vertical web, of a shock absorber comprising a spring provided with arms at its ends, means for loosely connecting one arm of the spring with the axle, and means for connecting the other arm of the spring with said bar comprising a horizontal transverse bracket to one end of which the last mentioned spring arm is connected while its opposite end is adapted to engage with said horizontal flange of the body bar, two clips each provided at one end with a jaw adapted to bear against one side of said bar web, at its other end with a coupling lug, and between its ends with an opening which receives said bracket, and a clamping bolt which connects said coupling lugs.

2. The combination with a vehicle having an axle in its running gear and a frame bar which has a lower horizontal flange and a vertical web, of a shock absorber comprising a spring provided with arms at its ends, means for loosely connecting one arm of the spring with the axle, and means for connecting the other arm of the spring with said bar comprising a horizontal transverse bracket to one end of which the last mentioned spring arm is connected while its opposite end is adapted to engage with said horizontal flange of the body bar, two clips each of which has a horizontal shank adapted to bear against the side of the bracket opposite to the horizontal flange of the body bar, a jaw at one end of said shank adapted to bear against one side of the vertical web of said bar, and a coupling lug at the other end of said shank, and a clamping bolt for connecting the coupling lugs of both clips.

1,029,665. CAN. CHARLES H. CAMPBELL, Chelsea, Mass. Filed May 24, 1911. Serial No. 629,169. (Cl. 221—11.)



1. The combination with a can having an externally threaded nozzle, of a pouring lip having a threaded neck rotatably engaged with the nozzle, being thereby capable of rotating until flush with the end of the nozzle, and cooperating abutments on the nozzle and lip for locking the latter when thus flush with the nozzle.

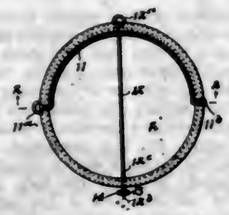
2. In a can, a nozzle having an externally threaded sleeve extending less than the distance between the end of the nozzle and the can body and having a shoulder on the end next to the body, and a lip surrounding the nozzle, having a threaded neck rotatively engaging said

sleeve and a flange underlying said shoulder, arranged to be arrested thereby when turned into pouring position.

3. A can having a nozzle provided with an external thread, a pouring lip surrounding the nozzle, being movable thereon toward its outer end into pouring position, toward its base to expose the nozzle end, and a screw cap separate from the lip adapted to be engaged with the threads of the nozzle when the latter is thus exposed.

4. A can having a nozzle, a threaded sleeve on the outside of said nozzle extending from the outer end of the nozzle to a point between such end and the can body, and a pouring lip surrounding the nozzle having a threaded neck engaged with the threads of the sleeve and adjustable thereon, and a flange underlying the end of the sleeve, such neck being of substantially the same length as the sleeve.

1,029,666. CAN-LOCK. CHARLES H. CAMPBELL, Chelsea, Mass. Filed June 2, 1911. Serial No. 630,871. (Cl. 220—61.)



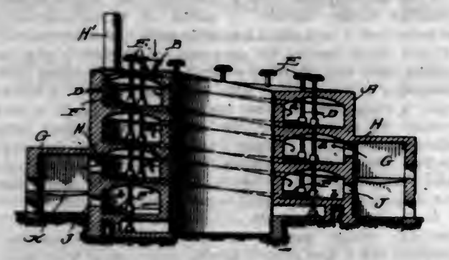
1. The combination with a can and its cover, having overlapping rims provided with registering slots at an angle to the plane of the cover, of a locking device having ends so formed as to be passed through the slots when in one position and to be prevented from thus passing through when in another position, said member being offset between its ends and adapted to lie against the cover, and a second locking device passing through slots intermediate those in which the first member is contained, and overlying the offset part of said first member, whereby the latter is prevented from being swung into such a position that its ends may be withdrawn from the containing slots.

2. The combination with a can and cover, the latter having a flange fitting within the lip of the can, and both having registering slots, of two locking members crossing one another and each passing at its ends through two of such slots, one of said members having an offset part underlying the other member and being widened at the ends in the plane of said offset part, and the slots being otherwise than parallel with the plane of the cover.

3. The combination with a can and its cover, having concentric overlapping rims provided with slots, of a locking member extending across the cover and projecting at its ends through two of the slots, being offset between its ends, and a second locking device extending across the offset part of the first device through another two of the slots, such slots being of greater length than width, and the ends of the first member being of greater width than the slots and extending across the same on the outside of the can.

4. In combination with a friction-top can having concentric lips or flanges on its body and cover, such flanges being provided with registering slots, a locking member having an offset central portion within the flange of the cover, and ends passing through certain of the slots and widened on the outside of the flanges to an extent greater than the width of the slots, the plane of such widened portion being transverse to the longest dimension of the slots when the offset part of the member lies within the cover flange, a second locking member crossing the offset part of the first member and extending through intermediate slots in the flanges, one end of said member being widened to prevent withdrawal inward, and a seal attached to the opposite end of the said member on the outside of the flanges.

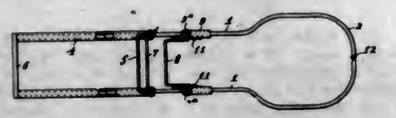
1,029,667. HELIXOIDAL COMBINED ORE-ROASTING FURNACE AND COOLING-HEARTH. ELLSWORTH A. CLARK and WILLIAM H. DAVIS, Boulder, Colo. Filed Sept. 27, 1910. Serial No. 584,104. (Cl. 75—143.)



1. An ore roasting furnace and cooling hearth comprising a structure having a continuous helixoidal passage said passage comprising upper and lower portions, furnaces each having communication with said upper and lower portions, means for causing ore to travel through said passages, and means for admitting cold air from the exterior of the structure into the lower portion of said passage, a part of said cold air passing into the furnaces.

2. A device of the kind described comprising a structure having a continuous spiral passage therein, a feed hopper communicating with the upper portion of the passage, the lower end of the passage terminating in a discharge opening, means for producing an irregular, zig-zag passage of ore along the floor of said passage, the lower portion of the passage forming a cooling hearth, and the upper portion a roasting chamber, the said passage having an opening for the admission of cold air in its lower portion, furnaces arranged adjacent said structure, said furnaces having an opening communicating with the roasting portion of the passage and having an opening in communication with the cooling hearth portion of said passage, and a suitable stack leading upwardly from the upper end portion of the passage, as and for the purpose set forth.

1,029,668. BOOK-HOLDER. ISABELLA M. CLARK, Cleveland, Ohio. Filed Aug. 3, 1911. Serial No. 642,054. (Cl. 45—59.)

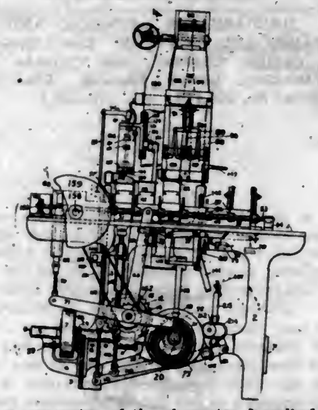


1. A book holder, comprising a longitudinally foldable supporting frame, a book supporting frame adjustably and detachably connected therewith, a book supporting member pivotally and foldably connected to said book supporting frame, a foldable spring actuated clamping member adjustably mounted on said supporting frame, and means for holding said clamping member in an open position.

2. A book holder, comprising a supporting frame provided with side bars, a book supporting frame including tubular side members receiving said side bars, a book supporting loop member pivotally carried by said tubular side bars, a spring actuated clamping loop member, bearing sleeves adjustably mounted on said side bars of said supporting frame and carrying said clamping loop member, and means for holding the latter in an open position.

3. A book holder, comprising side bars terminating in a supporting yoke provided with a hinged joint whereby said side bars may be longitudinally folded upon each other when detached, a book supporting frame adjustably connected to said side bars, and a book clamping member carried by the latter in coöperative relation to said book supporting member.

1,029,669. FILLING, WEIGHING, AND PACKING APPARATUS. NEWTON B. CONVERSE, Fresno, Cal., assignor to Newton B. Converse, J. E. Dickinson, Francis M. Wright, B. W. Newton, L. Z. Ickes, and K. Arakelian, trustees. Filed May 19, 1906, Serial No. 317,842. Renewed Nov. 6, 1911. Serial No. 658,879. (Cl. 100—57.)



1. In an apparatus of the character described, the combination of a weighing device having a scale platform, a spout for discharging material above said platform, and a gate for said spout having facings of absorbent material, substantially as described.

2. In an apparatus of the character described, the combination of a weighing device having a scale platform, a spout for discharging material above said platform, and a gate for said spout having facings of absorbent material, and means for supplying said absorbent material with moisture, substantially as described.

3. In an apparatus of the character described, the combination, with means for filling a carton, of means for compressing the material therein, an extractor for extracting a funnel from the carton, and means for moving vertically said extractor relatively to said compressing means, substantially as described.

4. In an apparatus of the character described, the combination, with means for filling a carton, of a support for the carton, means for compressing the material therein, an extractor for extracting a funnel from the carton, and means for moving vertically said extractor relatively to said support, substantially as described.

5. In an apparatus of the character described, the combination of a support for the carton, an extractor for a funnel in said carton, a compressor for the material in the carton, means for producing a relative approach of said support and compressor, means for simultaneously separating the funnel and the compressor from the carton, and means for laterally moving the compressor and funnel from the carton and for separating the funnel from the compressor, substantially as described.

[Claims 6 to 29 not printed in the Gazette.]

1,029,670. NUT-LOCK. WENDELL P. DALLY, Hope, Ark. Filed Sept. 27, 1911. Serial No. 651,621. (Cl. 151—13.)

1. A nut lock including a longitudinally grooved bolt, a nut mounted for rotation on the bolt and having ratchet teeth upon one face thereof, a washer upon the bolt, said washer including a split central section having a pawl on one end normally projecting beyond one face of the washer, there being a recess within the washer for the reception of the pawl carrying end of the split section when the pawl is retracted into the washer, and another recess for the reception of means for retracting the pawl, and means upon the washer for entering the groove in the bolt.

2. A nut lock including a longitudinally grooved bolt, a nut mounted for rotation on the bolt and having ratchet teeth upon one face thereof, a washer upon the bolt, said washer including a split central section having a pawl on one end normally projecting beyond one face of the washer, there being a recess within the washer for the reception of the pawl carrying end of the split section when the pawl is retracted into the washer, and another recess for the reception of means for retracting the pawl, said pawl being formed upon the inner corner of said end portion of the split section and all portions of the outer periphery of said split section being normally parallel with the faces of the washer, and means upon the washer for entering the groove in the bolt.



3. A nut lock including a bolt, a nut thereon and having a toothed face, and a washer mounted on the bolt, said washer including a base section having a recess in one face, a top section having a recess in one face and a slot opening into the recess, a split intermediate section interposed between the recessed faces of the top and bottom sections and having a pawl extending from the inner corner of one end portion thereof and through the slot in the top section, and means upon the sections for engaging the bolt to hold the sections against rotation independently of the bolt.

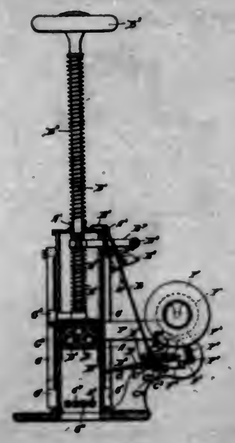
4. A lock washer including a base section having a recess in one face, a top section having a recess in one face and a slot opening into the recess, a split intermediate section interposed between the recessed faces of the base and top sections, the ends of said split section being located adjacent one end of the recesses, a pawl extending from the inner corner portion of one end of the split section and normally extending through the slot in the top section, the pawl carrying end of said split section being depressible into the recess in the base section to retract the pawl into the slot in the top section, and means upon one of the sections for engaging a bolt and to hold the section against rotation thereon, all of said sections being fixedly connected.

1,029,671. MACHINE FOR SUPPLYING AND AFFIXING STAMPS. PERCY GORDON ECKERSLEY DANIEL, Clevedon, and CHARLES ASHTON HENRY BULLOCK, London, England. Filed June 23, 1909. Serial No. 503,940. (Cl. 216—28.)

1. In machines for supplying and affixing stamps, the combination of a casing, a plunger sliding within the casing, a stamp strip guide proceeding from the casing, a stamp strip feeding carriage, sliding in the stamp strip guide, a spring controlled flexible feed arm pivoted at its upper end to the casing and engaging the feed slide at its lower end, a pivoted spring controlled catch carried by the feed arm, an obstruction carried by the plunger and coöperating with the pivoted catch to move the feed slide forward, an adaptable stop to limit the forward travel of the feed carriage, a damping device adapted to spray moisture on to the surface to which the stamp is to be affixed, a cutting device and an affixing device, substantially as specified.

2. In machines for supplying and affixing stamps, the combination of a casing, a plunger sliding within the casing, a stamp strip guide proceeding from the casing, a stamp strip feeding carriage, sliding in the stamp strip guide, a spring controlled flexible feed arm pivoted at its upper end to the casing and engaging the feed slide at its lower end, a pivoted spring controlled catch carried by the feed arm, an obstruction carried by the plunger

and coöperating with the pivoted catch to move the feed slide forward, a safety catch carried upon the flexible feed arm, an obstruction carried by the plunger and coöperating with the safety catch to insure the rapid return of the feed carriage, an adjustable stop to limit the forward travel of the feed carriage, a damping device adapted to spray moisture on to the surface to which the stamp is to be affixed, a cutting device and an affixing device, substantially as specified.



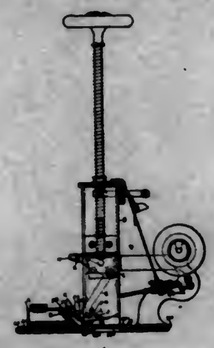
3. In machines for supplying and affixing stamps, the combination of a casing, a plunger sliding within the casing, a stamp strip guide proceeding from the casing, a stamp strip feeding carriage, sliding in the stamp strip guide, a spring controlled flexible feed arm pivoted at its upper end to the casing and engaging the feed slide at its lower end, a pivoted spring controlled catch carried by the feed arm, an obstruction carried by the plunger and coöperating with the pivoted catch to move the feed slide forward, an adaptable stop to limit the forward travel of the feed carriage, duplicate damping devices, means for operating said damping devices to spray moisture in diametrically opposed directions on to the surface to which the stamp is to be affixed, a cutting device and an affixing device, substantially as specified.

4. In machines for supplying and affixing stamps, the combination of a casing, a plunger sliding within the casing, a stamp strip guide proceeding from the casing, a stamp strip feeding carriage, sliding in the stamp strip guide, a spring controlled flexible feed arm pivoted at its upper end to the casing and engaging the feed slide at its lower end, a pivoted spring controlled catch carried by the feed arm, an obstruction carried by the plunger and coöperating with the pivoted catch to move the feed slide forward, a safety catch carried upon the flexible feed arm, an obstruction carried by the plunger and coöperating with the safety catch to insure the rapid return of the feed carriage, an adjustable stop to limit the forward travel of the feed carriage, duplicate damping devices, means for operating said damping devices to spray moisture in diametrically opposed directions on to the surface to which the stamp is to be affixed, substantially as specified.

5. In machines for supplying and affixing stamps, the combination of a casing, a plunger sliding within the casing, a stamp strip guide proceeding from the casing, a stamp strip feeding carriage, sliding in the stamp strip guide, a spring controlled flexible feed arm pivoted at its upper end to the casing and engaging the feed slide at its lower end, a pivoted spring controlled catch carried by the feed arm, an obstruction carried by the plunger and coöperating with the pivoted catch to move the feed slide forward, an adaptable stop to limit the forward travel of the feed carriage, a spring controlled pawl device for preventing retrograde movement of the stamp strip after it has been fed forward, a damping device adapted to spray moisture on to the surface to which the stamp is to be affixed, a cutting device and an affixing device, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

1,029,672. MACHINE FOR APPLYING AND AFFIXING STAMPS AND THE LIKE. PERCY GORDON ECKERSLEY DANIEL, Clevedon, and CHARLES ASHTON HENRY BULLOCK, London, England. Filed Dec. 27, 1910. Serial No. 599,415. (Cl. 216—47.)



1. In combination with movable means for applying a stamp upon a moistened surface, of a device communicating with a source of moistening fluid, moistening mechanism actuated by said means and movable from engagement with said device to and over the surface to be moistened, and a cam for guiding said mechanism in one direction and provided with a flexible trip portion for preventing return of the said mechanism in wiping engagement with said surface.

2. In combination with means for applying a stamp upon a moistened surface, of a receptacle containing a moistening fluid, a wick protruding from said receptacle, moistening mechanism actuated by said means from a contacting position with said wick to and over the surface to be moistened, and adjusting means for varying the extent of contact of said mechanism with said wick.

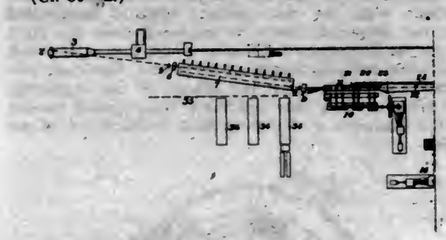
3. In combination with means for applying a stamp to a moistened surface, of a device communicating with a source of supply of moistening fluid, and mechanism actuated by said means from a contacting position with said device to and over said surface, said mechanism including a pivotally mounted spring controlled wiper, a cam for controlling the position of said wiper during movement thereof, and means disengaging said mechanism from said device at the starting movement of said mechanism.

4. In combination with means for applying a stamp to a moistened surface, of a device communicating with a source of supply of moistening fluid, mechanism actuated by said means from a contacting position with said device to and over said surface, said mechanism including a pivotally mounted spring controlled wiper, means disengaging said wiper from said device during the starting movement of the wiper, and a cam for holding said wiper in contact with said surface during its movement abreast thereof.

5. In combination with means for applying a stamp upon a moistened surface, of a receptacle containing the moistening liquid and provided with slots therein, a wick with one end immersed in the liquid and the other end projecting through one slot and extending across a portion of the receptacle and projecting back into the receptacle through the other slot, means engaging the exposed portion of the wick to regulate the degree of moisture thereof, and means engaging the wick to moisten said surface.

[Claims 6 to 9 not printed in the Gazette.]

1,029,673. ROD-MILL. FRED H. DANIELS, Worcester, Mass., assignor to The American Steel & Wire Company of New Jersey, Hoboken, N. J., a Corporation of New Jersey. Filed May 16, 1906. Serial No. 317,072. (Cl. 80—2.)



1. The combination in a rod mill system of a continuous billet mill, a mill arranged to receive metal therefrom, switch devices arranged to divert the billet from at least one of the intermediate sets of rolls of the continuous billet mill and another mill arranged to receive the diverted billet; substantially as described.

2. In a rod mill, rotary heating reels and means for driving and reversing them, rolls arranged to deliver metal to and receive it from the reels, said reels being geared to rotate at a less speed than the rolls from which they receive the metal, and at a greater speed than the rolls to which they deliver the same; substantially as described.

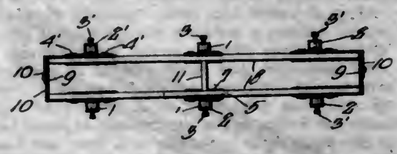
3. In a rod mill, rotary heating reels and means for driving and reversing them, rolls arranged to deliver metal to and receive it from the reels, said reels being geared to rotate at a less speed than the rolls from which they receive the metal, and at a greater speed than the rolls to which they deliver the same, and repeaters between the rolls and the reels; substantially as described.

4. In a rod mill system, a blooming mill, shears, and a long reheating furnace located conveniently thereto, and mechanism arranged to carry the metal from the blooming mill either through the shears or to the long reheating furnace; substantially as described.

5. In a rod mill system, a blooming mill, a long reheating furnace arranged to receive metal therefrom, a continuous billet mill arranged conveniently to receive the metal from the reheating furnace, a second reheating furnace arranged to receive metal from the continuous billet mill, an intermediate finishing mill beyond the second reheating furnace, a finishing mill for said intermediate mill, and another finishing mill arranged to receive metal from the billet mill without passing through the second mentioned reheating furnace; substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,029,674. MOLD. MARION DUNAGIN, Waco, Tex. Filed Sept. 13, 1911. Serial No. 649,305. (Cl. 25—131.)



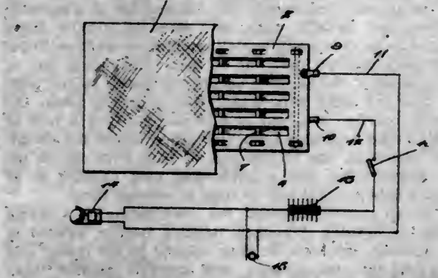
1. A mold for plastic material, having a plurality of vertically disposed posts alined in pairs, said posts being at the ends and intermediate of the length of the mold, parallel mold boards disposed between the posts, vertically slidable mold board carrying devices mounted upon the intermediate posts, and combined mold carrying devices and end mold plates mounted slidably upon the end posts, the alined pairs of said devices having their end mold forming plates overlapping to close the space between the mold boards.

2. The combination with longitudinally disposed and parallel mold boards, posts disposed exterior of the ends thereof, of means for closing the space between the ends of the mold boards and supporting the mold boards, one means to each post, and each means comprising a yoke, a plate having an outer flange adapted to abut the outer face of its respective mold board, said plate having formed integral therewith and at right angles thereto a flange adapted to project beyond the end of the mold board to span the space between said mold boards, the projecting ends of the respective plates overlapping to seal the end of the mold board, and means for securing said yoke to the corner post.

3. The combination with a longitudinally disposed and parallel mold board, posts disposed exterior of the ends thereof, of means for closing the space between the ends of the mold boards and supporting the mold boards, one means to each post, and each means comprising a yoke, a plate having an outer flange adapted to abut the outer face of its respective mold board, said plate having formed integral therewith and at right angles thereto a flange adapted to project beyond the end of the mold board to span the space between said mold boards, the projecting ends of the respective plates overlapping to seal the end of the mold boards, a vertically disposed plate abutting the ends of the respective mold boards between their ends and the inner face of the overlapping plates, and means for securing said yoke to their respective posts.

4. A mold board holding device comprising a plate formed with two parallel and spaced flanges, one of said flanges being shorter than the other flange and providing a mold board receptacle, a yoke connected to the outer face of the long flange, a screw fitted in said yoke for locking the yoke at the desired adjustment, and a plate formed at right angles to one end of the longer flange and abutting the end of the shorter flange.

1,029,675. FLOOR-TREAD. FRANK ERLACH, Iron Mountain, Mich. Filed Mar. 23, 1912. Serial No. 685,789. (Cl. 177—318.)

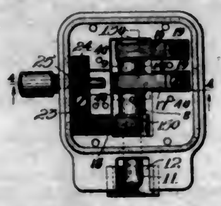


A device of the class described comprising a pair of metallic plates, one of which is provided with a plurality of longitudinal slots and also provided with a plurality of slits adjacent the side edges thereof to provide depending integral keepers, an insulating spacing strip secured to said plates at one end thereof, additional insulating spacing strips extending transversely of the slotted plate and engaged with the depending keepers thereon, and electrical connecting means between said plates.

1,029,676. ELECTRICAL SWITCH. ALBERT J. GIFFORD, Worcester, Mass., assignor to W. H. Leland & Company, Worcester, Mass., a Firm. Filed Mar. 5, 1909. Serial No. 481,466. (Cl. 175—282.)

1. In an electrical switch, the combination of an insulating casing having a ledge thereon at a distance inside its surface, a plurality of metallic clips secured to said ledge and projecting inwardly from it in the same plane, said casing having an opening at the end of the ledge, an oscillatable member mounted on the casing in said opening and having eccentric surfaces at different points thereabout adapted to engage said clips in certain positions of the oscillatable member, a handle on said member for turning it,

and integral means on the casing for limiting the turning motion of said member to two positions in one of which one clip is in contact with one of said eccentric surfaces, and in the other another clip is in contact with another.



2. In an electrical switch, the combination of a movable member, two metallic clips projecting toward the movable member, said movable member having conducting surfaces thereon in such position that one of them will engage one of the clips when the movable member is moved to one position, and the other will engage the other clip when the movable member is moved to a second position, a third metallic clip constantly in engagement with the movable member in all positions thereof, another pair of clips on the casing separated from each other, and a movable conducting plug adapted to be inserted between said pair of clips.

3. In an electrical switch, the combination of a movable member adapted to turn on an axis, two metallic clips projecting toward the movable member, said movable member having conducting surfaces thereon in such position that one of them will engage one of the clips when the movable member is turned to one position, and the other will engage the other clip when the movable member is turned to a second position, a third metallic clip constantly in engagement with the movable member in all positions thereof, said third clip having means for yieldingly holding the movable member in each one of its positions after it is brought thereto, another pair of clips on the casing separated from each other, and a removable conducting plug adapted to be inserted between said pair of clips.

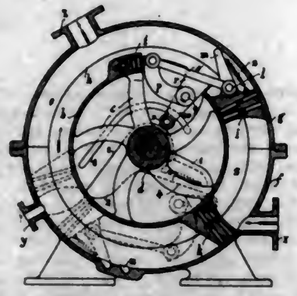
4. In an electrical switch, the combination of a movable member, two metallic clips, said movable member being adapted to be moved and having conducting surfaces thereon in such position that one of them will engage one of the clips when the movable member is moved to one position and the other will engage the other clip when the movable member is moved to a second position, a pair of metallic clips separated from each other, means for electrically connecting one of said pair of clips with one of the first named clips, and a conducting plug adapted to be inserted between said pair of clips to connect them.

5. In an electrical switch, the combination of a casing having an opening therein, a movable member located in said opening, two metallic clips secured to the casing and projecting into the opening, said movable member being adapted to be turned on an axis and having conducting surfaces thereon adapted to engage the clips when the movable member is turned to certain positions, a pair of metallic clips mounted on the casing and separated from each other, a conducting plug adapted to be inserted into the casing to connect said pair of clips, and means whereby when said plug is inserted into the casing to connect said pair of clips, and the movable member is in one position, the insertion of said plug will cause one of the first named clips to be moved positively out of contact with the movable member.

[Claims 6 to 10 not printed in the Gazette.]

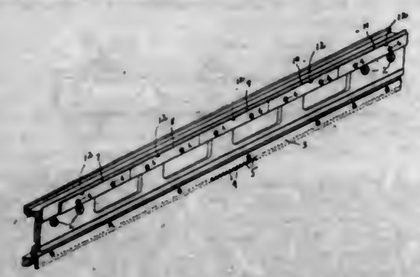
1,029,677. ROTARY ENGINE. CLEMENS GILSBACH, Bonzeler-Hammer, near Grevenbrück, Germany. Filed June 26, 1911. Serial No. 635,465. (Cl. 123—11.)

1. In a rotary engine of the character described, the combination with a rotatable body carrying one rigid and one adjustable piston, of a stationary frame forming, together with the body, a ring-shaped working space for said pistons, a shaft rotatably held by said body, a lever connected to said shaft so as to project, through a slot in the body, into the working space, a rod pivoted to the free end of the lever and to the adjustable piston, levers connected to the ends of said shaft, rollers on the free ends of the latter levers, and cam elements for guiding said rollers so as to control the position of the adjustable piston relative to the rigid one during the movement of the rotatable body, the cam elements being so constructed that the adjustable piston is retracted from the rigid one for the admission of the motive fluid, then approached thereto for the compression of such fluid, then held stationary for transmitting the energy of the expanding fluid to the rotating body and finally reapproached thereto for the expulsion of the spent fluid, substantially as set forth.



2. In a rotary engine of the character described, the combination with a rotatable body carrying one rigid and one adjustable piston, of a stationary frame forming, together with the body, a ring-shaped working space for said pistons, a shaft rotatably held by said body, a lever connected to said shaft so as to project, through a slot in the body, into the working space, a rod pivoted to the free end of the lever and to the adjustable piston, levers connected to the ends of said shaft, rollers on the ends of the latter levers, and cam elements for guiding said rollers so as to control the position of the adjustable piston relative to the rigid one during the movement of the rotatable body, the cam elements being so constructed that the adjustable piston is retracted from the rigid one for admitting the motive fluid between them, then approached thereto for the compression of such fluid, then held stationary for transmitting the energy of the expanding fluid to the rotating body, and finally reapproached thereto for the expulsion of the spent fluid, the cam element which controls the adjustable piston at the commencement of the expansion being hinged and spring-actuated so as to relieve the shock of such expansion, substantially as set forth.

1,029,678. CALCULATING-MACHINE. HYMAN ELI GOLDBERG, Chicago, Ill., assignor to Goldberg Calculating Machine Company, Chicago, Ill. Filed Aug. 2, 1911. Serial No. 642,031. (Cl. 235—59.)



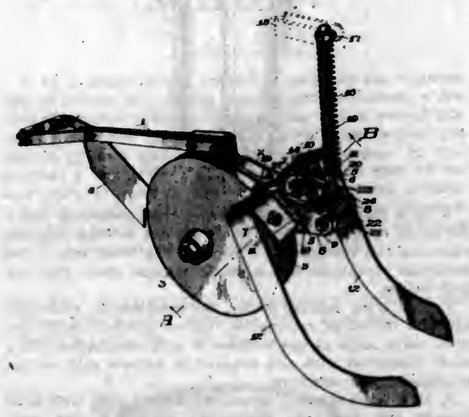
1. In a calculating-machine totalizer-holding bar, the combination of the bar, and a set of independently removable holding plates, said holding plates being provided with holding spaces for the reception of a totalizer latch, said holding spaces being dissimilarly located upon said holding plates.

2. In a calculating-machine totalizer-holding-bar, a holding plate provided with a space for the reception of the totalizer latch, and means for fastening said holding plate to said bar in either of two or more positions to thereby change the relative location of said holding space in reference to said bar.

3. In a calculating-machine totalizer-holding-bar, a holding plate provided with two or more spaces therein for the reception of the totalizer latch, and means for fastening said plate to said bar in a plurality of positions to thereby locate said holding space on said bar in a corresponding plurality of positions.

4. In a calculating-machine totalizer-holding-bar; a holding plate provided with two spaces therein for the reception of the totalizer latch, and means for fastening said plate to said bar in any of four positions, to thereby locate said holding space on said bar, in any of said four corresponding positions.

1,029,679. CORN-PLANTER. ALBERT GRIEVES, Springfield, Ohio, assignor to International Harvester Company, a Corporation of New Jersey. Filed Dec. 11, 1911. Serial No. 664,921. (Cl. 111—6.)

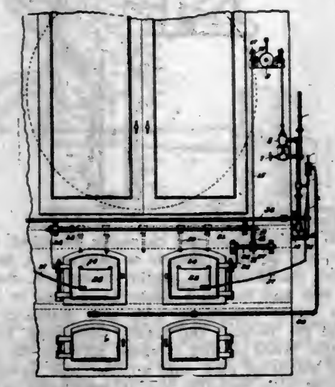


1. A corn planter including, in combination, furrow openers, a seed conduit, independently rising and falling covering blades trailing in rear of said furrow openers, and spring pressure mechanism operative to yieldingly press said blades in contact with the soil, said mechanism including means whereby the pressure is distributed in a differential manner upon the two rising and falling blades, less upon the higher and greater upon the coacting blade.

2. A corn planter including, in combination, furrow openers, a seed conduit, independently rising and falling covering blades trailing in rear of said furrow openers and upon opposite sides thereof, a spring pressure mechanism operative to yieldingly press said blades in contact with the soil, said mechanism including a rocking bracket having opposite ends thereof loosely connected with said blades, and a spring-pressed link connected with said bracket in a plane above the connection thereof with said blades, whereby a rising or falling movement of said blades independently will cause the axis of the connection of said link with said bracket to move from side to side of a longitudinal vertical plane and thereby cause differential pressure to be directed upon the independently movable blades.

3. A corn planter including, in combination, a seed conduit, furrow openers connected with said seed conduit, arms pivotally connected with said seed conduit, extending in rear thereof and adapted to rise and fall independently at their rear ends, covering blades secured to said arms, a rocking bracket having opposite ends thereof loosely connected with the rear ends of said arms, and a spring-pressed link pivotally connected with the middle portion of said bracket above the pivotal connection thereof with said arms, whereby a rising or falling movement of said arms independently will cause the axis of the pivotal connection of said link with said bracket to move from side to side of a longitudinal vertical plane in a manner to cause a differential pressure to be directed toward the independently movable arms.

1,029,680. STEAM AND AIR FEEDING DEVICE FOR FURNACES. GUSTAF A. GUSTAFSON, Chicago, Ill. Filed Mar. 7, 1911. Serial No. 612,967. (Cl. 110—55.)



1. In a steam and air feeding device for furnaces, the combination of steam and air pipes, leading to the combustion chamber of the furnace, a controlling valve in the steam pipe, a valve in the air pipe, a cylinder communicating with the said steam pipe, beyond said controlling valve, whereby said valve controls the steam supply to the combustion chamber and also the steam supply to the cylinder, and a piston in the cylinder connected to the valve in the air pipe and adapted to open the same when steam pressure is admitted through said controlling valve.

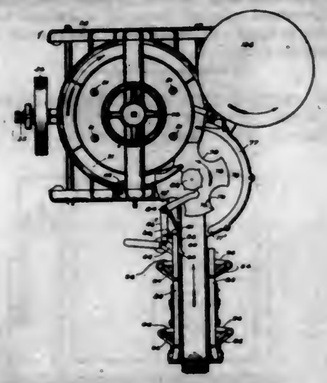
2. In a steam and air feeding device for furnaces, the combination of steam and air pipes leading to the combustion chamber of the furnace, controlling valves in said pipes, a cylinder communicating with said steam pipe between the valve and the furnace, a piston in the cylinder, connected to the air valve and adapted to be advanced by admission of steam pressure through said steam valve, and an outlet leading from the cylinder to the ash pit of the furnace, said piston being normally between the inlet to the cylinder and the said outlet pipe and adapted to be advanced beyond said outlet pipe and to admit steam thereto from the cylinder.

3. In a steam feeding device for furnaces, the combination of a valve controlling the flow of steam to the furnace, a tilting vessel connected to the valve and adapted to delay the closure thereof, an operating rod connected to said tilting vessel, levers located in position to be struck by respective fire doors of the furnace, each lever being loosely connected to the operating rod, and a spring coiled around said rod between said levers.

1,029,681. CAN-FILLING MACHINE. JAMES P. HAIGHT, Hoopeston, Ill., assignor to Sprague Canning Machinery Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 10, 1908. Serial No. 426,320. (Cl. 226—9.)

1. In a machine of the character described, the combination of a liquid receptacle or reservoir, a downwardly-extended discharge pipe leading therefrom, closed at its lower end, and having a discharge opening in one side, a sliding sleeve associated with said discharge pipe and adapted for vertical and rotary movement, and an air-vent pipe inside of and extended through the closed end of said discharge pipe, said air-vent pipe having an open lower end, said discharge and air-vent pipe having registering

air outlets in their sides, said discharge and registering air outlets being arranged to be opened and closed by said sliding sleeve, substantially as described.



2. In a machine of the character described, the combination of a liquid receptacle or reservoir, a downwardly-extended discharge pipe leading therefrom, closed at its lower end, and having a discharge opening in one side, a sliding sleeve associated with said discharge pipe and adapted for vertical and rotary movement, and an air-vent pipe inside of and extended through the closed end of said discharge pipe, said air-vent pipe having an open lower end, said discharge and air-vent pipes having registering air outlets in their sides, the top of the uppermost of said air-outlets being substantially on a level with the top of said discharge opening in said discharge pipe, said discharge and registering air outlets being arranged to be opened and closed by said sliding sleeve, substantially as described.

3. In a machine of the character described, the combination of a liquid receptacle or reservoir, a downwardly-extended discharge pipe leading therefrom, closed at its lower end, and having a discharge opening in its side, means to raise and lower an open top can to project said discharge pipe into the same and withdraw it therefrom, a sliding sleeve associated with said discharge pipe and adapted for vertical and rotary movement, and an air-vent pipe inside of and extended through the closed end of said discharge pipe, said discharge and air-vent pipes having registering air outlets substantially on a level with the discharge opening of said discharge pipe, said discharge and registering air outlets being arranged to be opened and closed by said sliding sleeve, substantially as described.

4. In a machine of the character described, the combination of a liquid receptacle or reservoir, a downwardly-extended discharge pipe leading therefrom, closed at its lower end, and having a discharge opening in its side, means to raise and lower an open top can to project said discharge pipe into the same and withdraw it therefrom, a sliding sleeve on said discharge pipe adapted to open and close said discharge opening, said sleeve being controlled by the movements of the can and being rotatable with relation to said discharge pipe, and an air-vent pipe inside of, in contact with the inner surface of, and extended through the closed end of said discharge pipe, said air-vent pipe having an open lower end, said discharge and air-vent pipes having registering air outlet openings in their sides on substantially the same level as said discharge opening, said air outlet opening being controlled by the movement of said sleeve, substantially as described.

5. In a machine of the character described, the combination of an endless conveyer belt on which cans are adapted to be transported, a stationary shelf or table on which the cans are adapted to travel, a shaft, a notched revoluble wheel on said shaft above said table and adapted to receive the cans in its notches and move the same on said shelf or table, a stop lever adapted to be projected into and withdrawn from the path of travel of the cans on said belt to control their travel to the notched wheel, a spring-pressed arm, teeth or projections on said shaft with which said arm coöperates, and a connection between said arm and stop lever whereby the stop lever is operated in proper timed relation so that each can will be received in one of said notches, substantially as described.

[Claim 6 not printed in the Gazette.]

1,029,682. TRACK-SANDING MECHANISM FOR TROLLEY-CARS AND LOCOMOTIVES. HOWARD HAWTHORNE, Philadelphia, Pa., assignor of one-half to William W. Evans, Hamilton, Va. Filed Apr. 1, 1912. Serial No. 687,740. (Cl. 105—177.)



1. In a track sanding device a storage receptacle and a discharge receptacle below same, a valve located intermediate the two receptacles, a valve at the lower end of the discharge receptacle and a single vertical shaft carrying both valves.

2. In a track sanding device, the combination with storage and discharge receptacles, valves located inside and upon valve seats at the bottoms of said receptacles and a shaft connected with and adapted to actuate said valves, substantially as set forth.

3. In a track-sanding device, the combination with sand storage and discharge receptacles, valves located upon valve seats at the bottoms of said receptacles, and a shaft connected with and adapted to actuate said valves, of a spring for retaining all of said valves against their seats.

4. In a track-sanding device, the combination with sand storage and discharge receptacles, valves located upon valve seats inside of said receptacles and provided with prongs or projections for loosening the sand therein, of a shaft for actuating said valves, substantially as set forth.

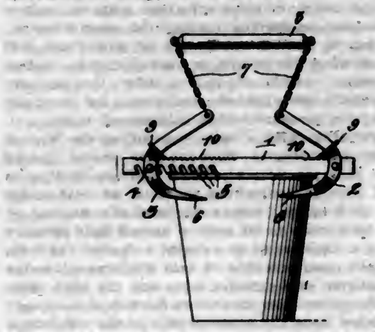
5. The combination with storage and discharge receptacles, of an intermediate valve seat provided with an outwardly projecting flange to which the storage receptacle is secured and with a downwardly projecting flange to which the discharge receptacle is secured, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,029,683. LIFTING DEVICE. TRENTON THOMAS HAYS, Sunnyside, Ky. Filed Sept. 9, 1911. Serial No. 646,556. (Cl. 57—109.)

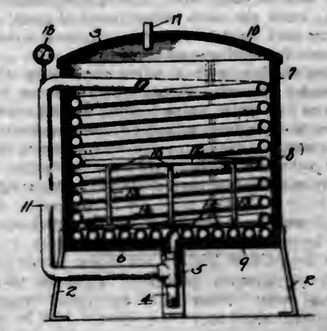
1. In a device of the character described, the combination of a cross bar having transverse notches formed therein at one end, a jaw pivoted to said bar at one end, a second jaw slidably mounted on the other end of said bar, a pivot pin carried by said second jaw adapted to engage in the notches formed in the bar, a cross piece secured in said jaws to prevent spreading when applied to small objects, chains secured to the upper free ends of said jaws, a handle secured to the upper free end of said chains to operate the jaws, and means for locking said jaws against movement when applied to an object.

2. In a device of the character described the combination of a cross bar, a jaw pivotally mounted on one end of said cross bar, a second jaw slidably mounted on the other end of said bar, means for adjusting said second jaw on the bar, chains secured to the upper free end of said jaws, a handle secured to the free ends of said chains to operate the said jaws, locking links slidably mounted on said jaws, and serrations formed on the upper side of the bar in which the links engage to lock said jaws against movement when applied to an object.



3. In a device of the character described the combination of a cross bar, having notches formed therein, a jaw pivotally mounted on said bar at one end, a second jaw slidably mounted on the other end of said bar, a pivot pin carried by said second jaw adapted to engage in said notches, a handle secured to the upper free ends of the said jaws to operate the same, locking links slidably mounted on said jaws, and serrations formed on the upper side of the bar in which the links engage to lock said jaws against movement when applied to an object.

1,029,684. VULCANIZER. ALEXANDER C. HOPKINS and HORACE M. MORGAN, Princeton, Ind. Filed Aug. 7, 1911. Serial No. 642,757. (Cl. 18—7.)

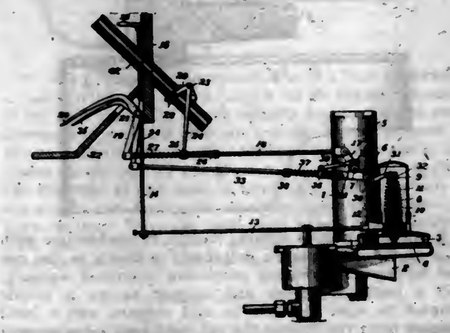


1. In a device of the kind described, a cylindrical receptacle, a spiral coil arranged upon the bottom of the receptacle and having its inner end extending downwardly through said bottom, a vertical coil arranged adjacent the sides of the receptacle and connected to the first mentioned coil, and a supply steam pipe having communication with the inner end of the first mentioned coil and the upper end of the second mentioned coil.

2. In a vulcanizer, a cylinder, a removable top, a steam coil covering the bottom and extending around the sides of the cylinder, an asbestos lining spacing said coil from the cylinder, a steam pipe having communication with said coil at each end, removable supporting legs adapted to rest upon the bottom portion of the coil, and a removable platform adapted to rest upon said supporting legs.

3. In a vulcanizer, a steam coil comprising a bottom and side portions, a receptacle inclosing said coil, removable supporting legs adapted to stand upon the bottom section of the coil, and provided at their outer ends with heads, and a tire supporting platform adapted to fit within the side portion of the coil and rest upon said heads.

1,029,685. CONTROLLING MECHANISM FOR MOTOR-VEHICLES. RUSSELL HUFF, Detroit, Mich., assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich., a Corporation of Michigan. Filed Nov. 20, 1908. Serial No. 463,666. (Cl. 123—98.)



1. In a motor vehicle including an internal combustion engine, the combination with a carbureter provided with an air inlet, of a valve for said inlet, yielding means tending normally to close said valve, an operating arm adjacent the driver's seat on said vehicle, and means including a spring connection from said arm for positively opening and holding open said valve.

2. In a motor vehicle including an internal combustion engine, the combination with a carbureter provided with an air inlet, of an inwardly opening valve for said inlet, a weak spring tending to close said valve, a stronger spring in position to serve as a stop to limit the opening of the valve, an operating arm adjacent the driver's seat on said vehicle, and means including a spring connection from said arm for positively opening and holding open said valve.

3. In a motor vehicle including an internal combustion engine, the combination with a carbureter, of an air inlet valve therefor, a throttle valve for controlling the supply of combustible mixture from said carbureter to the engine, and means for positively opening said air inlet valve adapted to be brought into operation when a predetermined amount of combustible mixture is being supplied to the engine, and means whereby said throttle valve may be independently operated.

4. In a motor vehicle, including an internal combustion engine, the combination with a carbureter, of a normally closed air inlet valve therefor, a throttle valve for regulating the supply of combustible mixture from said carbureter to the engine cylinder, means for controlling said throttle valve, and means for positively opening said air inlet valve adapted to be automatically brought into operation when the throttle valve has opened a predetermined amount.

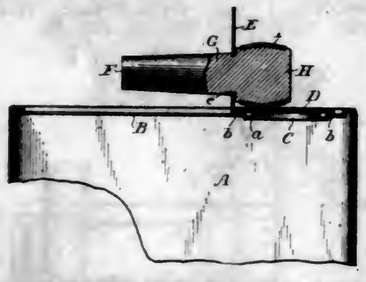
5. In a motor vehicle including an internal combustion engine, the combination with a carbureter, of an air inlet valve therefor adapted to be automatically opened by the engine suction, a throttle valve for regulating the supply of combustible mixture from said carbureter to the engine cylinder, a lever adjacent the driver's seat of the vehicle for controlling said throttle valve, and a lever adjacent said first mentioned lever for positively opening said air inlet valve.

[Claims 6 to 13 not printed in the Gazette.]

1,029,686. CAN OPENER AND STOPPER. ROBERT HULME, Memphis, Tenn. Filed Sept. 19, 1911. Serial No. 650,162. (Cl. 220—67.)

1. A can having an opening therein, in combination with a cover for said opening detachably soldered to the can

and having an upwardly projecting integral apertured support; and a combined opener and stopper having a tapered reduced handle adapted to enter the hole in said support, and an enlarged head adapted to fit the hole in the can, said head being tapered with a surrounding yielding packing ring, and the opener and stopper having an annular recess or groove where the handle and head join to engage with the margin of the hole in the support.



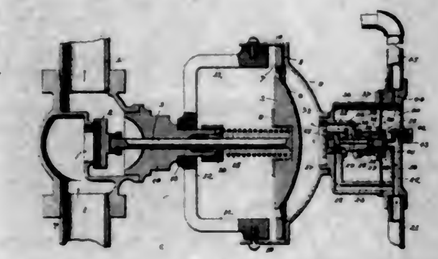
2. A can having an opening therein, in combination with a cover for said opening detachably soldered to the can and having an upwardly projecting apertured support; and a combined opener and stopper having a handle adapted to enter the hole in said support, and a head adapted to fit the hole in the can, said head being tapered with a surrounding yielding packing ring.

3. A can having an opening therein, in combination with a cover for said opening detachably soldered to the can and having an upwardly projecting apertured support, and a combined opener and stopper having a handle adapted to enter the aperture or hole in said support, and a head adapted to fit the hole in the can, and the opener and stopper having an annular recess or groove where the handle and head join to engage with the margin of the hole in the support.

4. A can having an opening therein, in combination with a cover for said opening detachably soldered to the can and having an upwardly projecting apertured support; and a combined opener and stopper having a handle adapted to enter the aperture or hole in said support, and a head adapted to fit the hole in the can.

5. A can having an opening therein, in combination with a cover for said opening soldered to the can and having an upwardly projecting apertured support; and a combined opener and stopper having a handle adapted to enter the aperture or hole in said support, and a tapered enlarged head adapted to fit the hole in the can.

1,029,687. FLUSHING DEVICE. CARL F. JOHNSON, Milwaukee, Wis. Filed Nov. 13, 1908. Serial No. 462,511. (Cl. 137—93.)



1. In combination with a valve controlling the flow of liquid under pressure; a fluid-pressure motor acting to close the same; a source of fluid pressure leading to said motor; a second motor likewise in communication with said source of pressure; a valve mechanism controlled by said second motor to alternately vent and to place the first motor in communication with the source of fluid pressure; means for quickly venting said second motor; means for gradually restoring the pressure in said second motor; and means for establishing full pressure within said motor after it has been partially restored.

2. In combination with a valve controlling the flow of liquid under pressure; a fluid-pressure motor acting to close the same; a source of fluid pressure leading to said motor; a second motor likewise in communication with said source of pressure; a valve mechanism controlled by said second motor to alternately vent and to place the first motor in communication with the source of fluid pressure; means for venting the second motor; a valve acting to cut off the supply of fluid from said second motor when the motor is vented and to restore the full pressure within the motor after the pressure has been partially reëstablished; and means for gradually reëstablishing the pressure within said second motor.

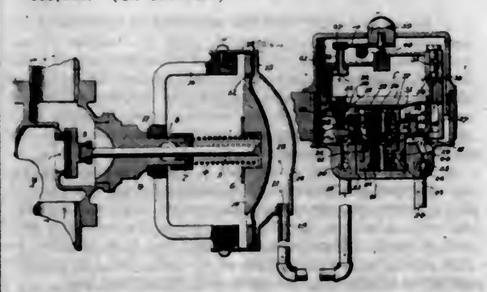
3. In combination with a valve controlling the flow of liquid under pressure; a fluid-pressure motor acting to close the same; a source of fluid-pressure leading to said motor; a valve controlling the inlet of fluid under pressure to said motor; means for normally holding or urging said inlet valve to its seat; a second fluid-pressure motor having a diaphragm; an exhaust valve for the main motor mounted upon one side of said diaphragm; means interposed between said exhaust valve and the inlet valve for moving the latter from its seat as the former is closed; a valve mounted upon the opposite side of the diaphragm and serving when the second motor is exhausted to close the main supply port leading to said motor; means for gradually recharging the second motor; and means for venting said second motor.

4. In combination with a valve controlling the flow of liquid under pressure; a fluid-pressure motor acting to close the same; a source of fluid pressure leading to said motor; an inlet valve controlling the flow of fluid to said motor; a spring acting to seat said inlet valve; a stem extending outwardly from said inlet valve; a second motor having a movable diaphragm; an exhaust valve mounted upon one face thereof; a stem extending outwardly from said exhaust valve toward the stem upon the inlet valve; a spring acting to unseat said exhaust valve; a valve mounted upon the opposite side of the diaphragm and serving, when said second motor is exhausted, to close the main supply port thereof; an adjustable feed port for said second motor; and a manually-actuated vent for said second motor.

5. In combination with a valve controlling the flow of liquid under pressure; a fluid-pressure motor for closing the same; an inlet valve leading to the motor; an exhaust valve therefor; a second fluid-pressure motor acting to close the exhaust valve and to open the inlet valve; and means for causing said second motor to operate quickly during the latter part of its valve-actuating movement.

[Claims 6 and 7 not printed in the Gazette.]

1,029,688. FLUSHING DEVICE. CARL F. JOHNSON, Milwaukee, Wis. Filed Nov. 19, 1908. Serial No. 463,444. (Cl. 137—93.)



1. In combination with a valve controlling the passage of fluid through a pipe; a fluid-pressure motor acting to close the valve; a source of fluid pressure in communication with the motor; an inlet valve controlling the supply of fluid pressure to said motor; a spring urging said inlet valve toward its seat; an exhaust valve, said valve being provided with a hollow stem, the lower end of which, when closed, is seated upon the inlet valve and serves to move said latter valve from its seat; a second fluid-pressure motor for operating said exhaust valve; means for venting said second fluid-pressure motor; and means for feeding air gradually into said motor.

2. In combination with a valve controlling the passage of fluid through a pipe; a fluid-pressure motor acting to close the valve; a source of fluid pressure; an inlet valve controlling the passage of fluid under pressure to the motor; a spring urging said inlet valve toward its seat; an exhaust valve provided with a hollow stem, the lower end of which seats itself upon the inlet valve and serves, when closed, to unseat said inlet valve; a diaphragm located above said exhaust valve; a chamber formed above the diaphragm; a valve for venting said chamber; and a valve for controlling the flow of fluid under pressure through an opening into said chamber.

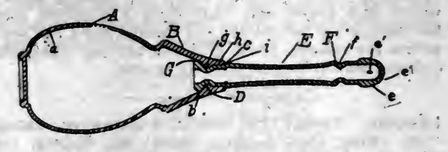
3. In combination with a valve controlling the passage of fluid through a pipe; a fluid-pressure motor acting to close the valve; a source of fluid pressure in communication with the motor; an inlet valve serving to control the passage of fluid to the motor; a spring acting to force said inlet valve to its seat; an exhaust valve comprising a cylindrical member mounted and movable upon the outer face of the housing for the inlet valve and likewise provided with a tubular extension the lower end of which seats itself when said valve is closed upon the head of the inlet valve, said exhaust valve being provided with a series of combined feed and exhaust ports in the lower portion thereof and with exhaust ports in the upper portion thereof which are in communication with the tubular member; a spring serving to elevate said exhaust valve; a diaphragm located above the exhaust valve and forming the lower wall of a chamber; an exhaust valve controlling the exhaust port for said chamber; and a valve for controlling the passage of fluid under pressure into said chamber.

4. In combination with a valve controlling the passage of fluid through a pipe; a fluid-pressure motor for operating the same and serving to close the valve, a source of fluid pressure connected to said motor; a reciprocating inlet valve controlling the passage of fluid into the motor; a spring serving to move the inlet valve to its seat; a reciprocating exhaust valve, said valve having a series of ports arranged adjacent to its lower end for the inlet and outlet of air therethrough and likewise provided with a series of ports in its upper end communicating with the interior of the valve for permitting exhaust air to pass therethrough; a diaphragm secured at its inner edge to said exhaust valve and at its outer edge to a fixed portion of the apparatus; a spring serving to elevate the exhaust valve; a second fluid-pressure motor located above the exhaust valve; means for venting said second motor; and means for admitting fluid under pressure to said motor.

5. In combination with a valve adapted to control the passage of fluid through a pipe; a fluid-pressure motor for closing the valve; a source of fluid pressure in communication with said motor; an inlet valve serving to cut off the passage of fluid to the motor; an exit valve supported by a flexible diaphragm which permits the valve to move endwise; a second fluid-pressure motor having a flexible diaphragm which serves to move the exit valve so as to close the same and at the same time cause said exit valve to open the inlet valve; means for venting said second fluid-pressure motor; and means for permitting the said second fluid pressure motor to be gradually recharged when the exit is closed.

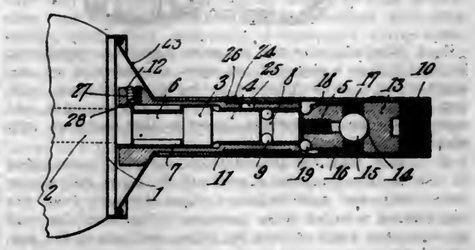
1,029,689. VAGINAL SYRINGE. GEORGE J. KELLEY, Attleboro, Mass. Filed July 31, 1911. Serial No. 641,551. (Cl. 128—25.)

1. In a syringe, the combination of a bulb comprising a body portion and a retracted elastic neck portion, an internal shoulder upon the neck portion, a nozzle located in the neck portion provided with perforations in its outer end, a shoulder upon the inner end of the nozzle behind the first mentioned shoulder, and means near the perforated end of the nozzle for engaging the first mentioned shoulder.



2. In a syringe, the combination with a bulb comprising a body portion and a neck portion, of an annular shoulder in the neck portion, a nozzle slidably mounted in the neck portion and provided with an annular groove adapted to receive said shoulder, a shoulder upon the inner end of the nozzle in the rear of the groove adapted to abut against the shoulder in the neck, a head upon the outer end of the nozzle and an annular shoulder upon the nozzle at a little distance from the head, said nozzle being provided with an annular groove adjacent the last mentioned shoulder adapted to receive the shoulder upon the neck portion.

1,029,690. WHEEL-BEARING FOR VEHICLES. GEORGE W. KENEASTER, Gage, Okla. Filed Dec. 21, 1909, Serial No. 534,286. Renewed Jan. 20, 1912. Serial No. 672,477. (Cl. 21—153.)



1. The combination with an axle having a tubular end portion, of a sleeve removably mounted within said end portion a spindle mounted for rotation within the sleeve, an element detachably engaging the spindle and interposed between the sleeve and the inner end of said tubular portion of the axle, a thrust bearing for said element, and a combined key and thrust bearing movably mounted between the sleeve and element.

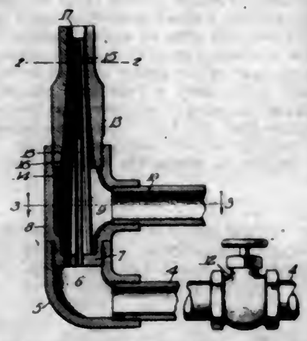
2. The combination with an axle having a tubular end portion, of a sleeve removably mounted within said end portion, a spindle mounted for rotation within the sleeve, an element removably engaging one end of the spindle and interposed between the sleeve and the inner end of the tubular portion of the axle, said element having an annularly reduced end, a thrust bearing for said element, and a ball movably mounted within the axle and between said reduced portion and the end of the sleeve, said ball constituting a combined thrust bearing and retaining key.

3. The combination with an axle having a tubular end portion, of a sleeve removably mounted within said end portion and normally fixed relative thereto, a spindle having one end portion for fixedly engaging a wheel, said spindle being mounted for rotation within the sleeve, an element detachably engaging the spindle and interposed between the sleeve and the inner end of the tubular portion of the axle, a combined thrust bearing and retaining key interposed between said sleeve and element, and a ball interposed between said inner end and said element and constituting a thrust bearing, there being seats for the ball within said end and in the element.

4. The combination with an axle having a tubular end portion and a screw plug within said end portion said

plug having a recess, of a sleeve removably mounted within said end portion of the axle, a spindle having one end portion adapted to fixedly engage a wheel, said spindle being mounted for rotation within the sleeve, a threaded stud extending from the spindle, a nut detachably engaging the stud and having a recess in one end and an annular groove at its other end, a ball movably mounted within said groove and constituting a combined thrust bearing and key for the nut and spindle, and a ball seated within the recesses in the plug and nut and constituting a thrust bearing for the nut and spindle.

1,029,691. BLOWPIPE. WILLIAM KIRKWOOD, Chicago, Ill. Filed Mar. 6, 1911. Serial No. 612,664. (Cl. 158—100.)



1. A blow pipe for the purposes described, comprising in combination a series of jet pipes, a number of jet passages between and inclosed by the walls of said pipes, separate receiving chambers for said pipes and passages, and means for supplying different gases to said chambers, substantially as described.

2. A blow pipe for the purposes described, comprising in combination a nozzle, a series of jet pipes inclosed by said nozzle and terminating a short distance from the end thereof, a series of jet passages between and inclosed by the outer walls of said jet pipes, and means for supplying different gases to said pipes and passages, substantially as described.

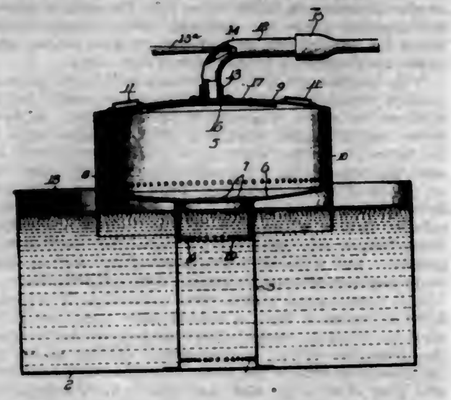
3. A blow pipe for the purposes described, comprising in combination a nozzle, a plurality of jet pipes within said nozzle, contacting with each other and terminating toward the outer end thereof, a series of jet passages between and inclosed by the outer walls of the jet pipes, and separate supply chambers for said pipes and passages for containing different gases simultaneously discharged and intermingled in spray-like streams in the presence of each other about the end of the nozzle, substantially as described.

1,029,692. GAS-GENERATOR. WILLIAM KIRKWOOD, Chicago, Ill. Filed Mar. 15, 1911. Serial No. 614,624. (Cl. 48—114.)

1. A gas generator comprising in combination a tank for a liquid, a holder, a bell, and a removable hollow perforated support for the holder and bell substantially as described.

2. A gas generator comprising in combination a tank, a holder, and a hollow post supporting said holder from the bottom of the tank being provided with outlets discharging liquid therefrom into the contents of the tank, a series of outlets in the holder surrounded by said post, said holder being further provided with inlets thereto in a plane above the outlets thereof, substantially as described.

3. A gas generator comprising in combination a liquid holding tank, a holder provided with inlets above its bottom for conducting liquid from the tank through the holder in contact with the contents thereof, means for producing a vacuum in the holder, a series of outlets in the bottom of said tank, a hollow post supporting the holder and surrounding the bottom perforations therein, and means for discharging the liquid contents of the post into that of the tank, whereby a continuous circulation of liquid may be maintained in, through and out of the holder in the presence of a vacuum, substantially as described.

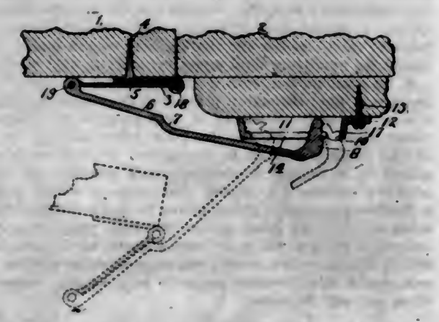


4. A gas generator comprising in combination a tank, a holder, means for producing a vacuum therein, a removable hollow post supporting the holder from the bottom of the tank, a collar secured to the holder and telescoping into said post, said collar and post being provided with perforations respectively toward their lower ends, a series of outlets in the holder surrounded and inclosed by the posts and collar, and a series of inlets in the holder above the bottom thereof, whereby a circulation of liquid is maintained continuously in one direction through the holder, the collar and post and the tank in the presence of a vacuum, substantially as described.

5. A gas generator comprising in combination a liquid holding tank, a holder for solids, means for supporting said holder above the normal level of the liquid in the tank, a bell projecting below the level of said liquid and surrounding the holder, the top of which bell forms a cover for the holder, and means connected with the bell whereby a vacuum is produceable in the holder, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

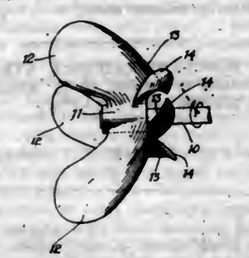
1,029,693. LINK DOOR-CHECK. GEORGE C. KLEIN, Akron, Ohio. Filed Oct. 9, 1911. Serial No. 653,658. (Cl. 16—81.)



1. The combination with a swinging element and a fixed element such as a door and its jamb, of a link pivotally connected with one of said elements, and provided with a T-shaped head, a complementary member mounted on the other of said elements and provided with a T-shaped opening, and cooperating means embodying a lug carried by one of said parts adapted to engage in a suitable opening in the other part for preventing the engagement and disengagement of said parts unless they are in approximate parallelism and one of said members is longitudinally shifted with respect to the other during the operation.

2. The combination with a swinging element and a fixed element such as a door and its jamb, of a member secured to one of said elements, provided with a pin-carrying portion, a pivot-pin carried by said member, a swinging arm mounted on said pin, a pivot-pin carried at the opposite end of said arm, a link mounted on said second pivot-pin and provided at its opposite end with a T-shaped head, said link further provided intermediate its ends with an offset portion arranged to receive the pin-carrying portion of said first member, a complementary member mounted on the other of said elements and provided with a T-shaped opening adapted to receive the T-head of said link, said arm and link arranged to co-act when said door is swung to its initial position to receive the pin-carrying portion of said first member in said offset and beyond a line drawn between said second pivot-pin and the T-head of said link whereby the offset portion of said link constitutes an abutment for preventing further opening of said door, said mechanism adapted to permit the shifting of said door to a more open position when the pin-carrying portion of said first member is not seated in the offset in said link.

1,029,694. SCREW-PROPELLER. JACOB KOBUS, Bridgeport, Conn. Filed Feb. 17, 1912. Serial No. 678,389. (Cl. 115—46.)



1. A screw propeller comprising a hub and blades extending therefrom, said blades being provided with forwardly projecting extensions of the character described, and said extensions being provided with curved fins on the sides opposite to their working faces and lying at an angle thereto.

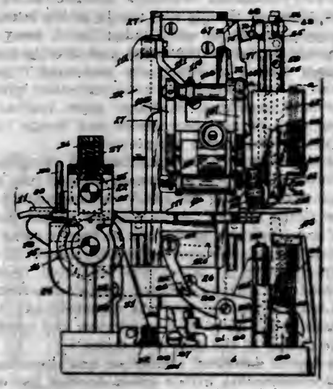
2. A screw propeller comprising a hub and blades extending therefrom, said blades being provided with forwardly projecting extensions of the character described, and said extensions being provided with curved fins on the sides opposite to their working faces, which lie at an acute angle to the extensions and project forward beyond the outer edges thereof.

3. A screw propeller comprising a hub, blades extending therefrom and provided with extensions of the character described, and curved fins secured to the extensions and lying at an acute angle thereto.

4. A screw propeller comprising a hub, blades extending therefrom and provided with extensions of the character described and curved fins secured to the extensions and projecting forward from the outer edges thereof.

1,029,695. PIN-TICKETING MACHINE. FREDERICK KOHNLE, Dayton, Ohio, assignor to The Ohio Safe Deposit & Trust Company, trustee, Dayton, Ohio. Filed Apr. 30, 1906. Serial No. 314,456. (Cl. 93—30.)

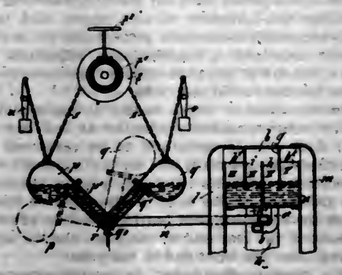
1. In a machine of the class described, a main reciprocating member, wire feeding rolls, means for applying tension thereto, means in connection with said reciprocating member for operating said rolls during one movement of said reciprocating member, in combination with wire severing mechanism, comprising a stationary member, through which the wire is fed, a vertically movable cutter engaging said stationary member, tension means for maintaining said cutter in engagement with said stationary member, and lever mechanism connected to said cutter, and means in connection with said reciprocating member, for operating and controlling the movements of said lever and cutter at predetermined points in the reciprocation of said reciprocating member.



2. In a pin ticketing machine, a main actuating member, wire and tag feeding mechanism, ticket stapling mechanism, tag cutting mechanism, in combination with wire cutting mechanism, comprising a stationary cutter member having an orifice, through which the wire is fed, a movable cutter member maintained under tension against said stationary member, and moving across said orifice, connections interposed between said movable cutter and main actuating member, operated at a predetermined interval in a movement of said main actuating member, and means carried by said actuating member, to release said cutter mechanism, after a wire severing operation.

3. In a pin ticketing machine, a main actuating member, wire feeding mechanism, wire cutting mechanism, comprising a stationary member, an orifice through said member, through which the wire is fed, and provided with a cutter surface, a movable cutter in engagement with the cutter surface of the stationary member, a bell crank lever connected to said cutter, provided with cam surfaces adapted to engage with said main actuating member during an interval in the movement of said main actuating member, and means for disengaging said connection during the continued movement of said actuating member, after a wire severance.

1,029,696. REGULATING AND REVERSING APPARATUS FOR P_GENERATING GAS-FURNACES. HEINRICH KOPPER, Mülheim-on-the-Ruhr, Germany. Filed Sept. 26, 1911. Serial No. 651,361. (Cl. 75—124.)



1. In the herein described regulating and reversing apparatus, the combination with a vessel divided into a plurality of water-containing chambers communicating with

one another partly at the top and partly at the bottom, of conduits supplying gas to and conducting it away from the said chambers, rigidly connected and tiltable receptacles, the inner spaces of which are separated from one another and have discharge openings, each of said receptacles communicating with certain of the said chambers and means for enabling the tilting of the said receptacle.

2. In the herein described regulating and reversing apparatus, the combination with a vessel divided into a plurality of water-containing chambers communicating with one another partly at the top and partly at the bottom, of conduits supplying gas to and conducting it away from the said chambers, rigidly connected and tiltable receptacles, the inner spaces of which are separated from one another, each of said receptacles communicating with certain of the said chambers, discharge pipes leading outwardly from each of said receptacles and means for enabling the tilting of the said receptacles.

3. In the herein described regulating and reversing apparatus, the combination with a vessel divided into a plurality of water-containing chambers communicating with one another partly at the top and partly at the bottom, of conduits supplying gas to and conducting it away from the said chambers, rigidly connected and tiltable receptacles, the inner spaces of which are separated from one another and have discharge openings, pipes communicating at one end with certain of the said chambers and at the other end each with one of said receptacles and means for enabling the tilting of the said receptacles.

4. In the herein described regulating and reversing apparatus, the combination with a vessel divided into a plurality of water-containing chambers communicating with one another partly at the top and partly at the bottom, of conduits supplying gas to and conducting it away from the said chambers, rigidly connected and tiltable receptacles, the inner spaces of which are separated from one another, discharge pipes leading outwardly from each of said receptacles, pipes communicating at one end with certain of the said chambers and at the other end each with one of said receptacles and means for enabling the tilting of the said receptacles.

5. In the herein described regulating and reversing apparatus, the combination with a vessel divided into a plurality of water-containing chambers communicating with one another partly at the top and partly at the bottom, of conduits supplying gas to and conducting it away from the said chambers, rigidly connected receptacles capable of tilting around a central axis and the inner spaces of which are separated from one another and have discharge openings, means for conductively connecting each of said receptacles with certain of the said chambers and means for enabling the tilting of the said receptacles.

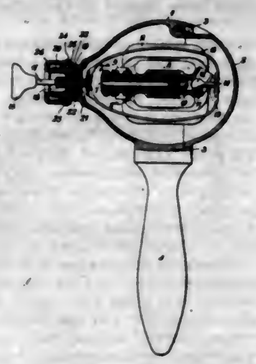
[Claims 6 to 11 not printed in the Gazette.]

1,029,697. MASSAGE APPARATUS. FRED R. KUNKEL, Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed July 28, 1909. Serial No. 509,969. (Cl. 128—16.)

1. The combination with an electric motor, of a yoke surrounding the armature of said motor, and having a laterally adjustable connection between one of its ends and the motor armature, a longitudinally adjustable bearing for the other end of the yoke and an applicator projecting from the bearing end of said yoke.

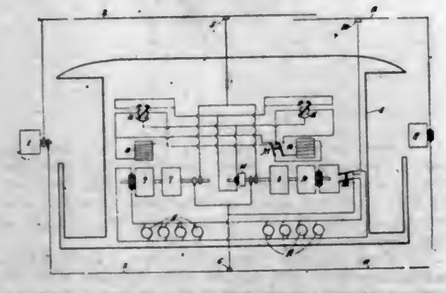
2. The combination with a casing having a slotted and externally screw-threaded projection at one end and an internal field magnet structure, of an armature, a yoke surrounding said armature and having a laterally adjustable connection with its rear end, a pivot bearing block for the front end of the yoke, a screw-cap on the casing extension for adjusting said bearing block to effect lateral adjustment of the rear end of the yoke, and an applicator projecting from the front end of the yoke.

3. In a massage implement, the combination with an inclosed electric motor, and an applicator, of a yoke having a ball and socket connection to the front end of the motor casing and a laterally adjustable connection to the rear end of the motor armature, and means for adjusting said ball and socket connection longitudinally to effect lateral adjustment of said rear end connection.



4. A massage implement comprising an inclosed electric motor, a pivotally mounted applicator at the front end of the implement, a yoke or frame having a rigid connection to the applicator and a ball and inclined socket connection to the rear end of the motor armature, and means for moving the applicator, its pivotal support and the yoke or frame longitudinally to effect adjustment of the rear end ball in its inclined socket.

1,029,698. ELECTRIC-RAILWAY SYSTEM. HARRY WARD LEONARD, Bronxville, N. Y. Filed Apr. 1, 1905. Serial No. 253,276. (Cl. 172—179.)



1. The combination of a high tension supply circuit, a low tension supply circuit, an electric vehicle, and means on the vehicle whereby the same can be propelled by connection through moving contacts to either the high tension supply or the low tension supply, said means comprising a winding exterior to the driving motor which delivers electric energy while the vehicle is being propelled by energy received from one of the supply circuits and which receives electric energy while the vehicle is being propelled by energy received from the other supply circuit.

2. The combination of a high tension alternating current supply circuit, a low tension direct current supply circuit, an electric vehicle, and means on the vehicle for transforming independently of the propelling motors energy received from either of said supply circuits.

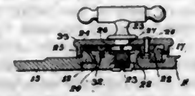
3. The combination of a high tension supply circuit, a low tension supply circuit supplying unidirectional energy, an electrically propelled vehicle, means for supplying energy from each of said circuits to the propelling motors, and means for varying the voltage of the energy supplied to the motors at the will of the operator independently of variation of resistance in the armature circuit of the motor.

4. The combination of an alternating current supply circuit, a direct current supply circuit, a vehicle, electric motors for propelling said vehicle, means on the vehicle for controlling the voltage of the energy supplied to at least one element of the propelling motors, and means on the vehicle whereby either the alternating current supply or direct current supply may be used for propelling the vehicle.

5. The combination of a high tension alternating current supply circuit, an electrically propelled vehicle, a moving contact for leading energy from the high tension circuit upon the vehicle, means on the vehicle for transforming such high tension energy into lower tension energy at a controllable electromotive force propelling electric motors aving at least one element supplied with such low tension energy at a variable electromotive force for carying the speed of the vehicle, a source of direct current energy, and means whereby the vehicle may be moved by electric energy from said source of direct current energy, said means comprising an additional moving contact.

[Claims 6 to 107 not printed in the Gazette.]

1,029,699. HINGE-JOINT. JOSEPH LILLY, Birmingham, England. Filed May 16, 1911. Serial No. 627,640. (Cl. 21—81.)



1. An adjustable hinge joint comprising two main members hingedly engaging with each other, a locking block, a flat surface on one side of said block adapted to engage a corresponding surface on one of said members, a toothed surface on the other side of the block facing in the opposite direction to said flat surface and adapted to engage a corresponding surface on the other of said members, means for moving said block axially of the joint to cause said corresponding surfaces to lockingly engage and means for permitting play of said block in a plane at right angles to the axis of the joint.

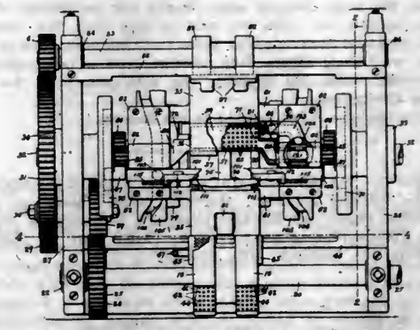
2. An adjustable hinge joint comprising two main members hingedly engaging with each other, a locking plate movable axially of the joint, a locking block mounted on said plate but adapted to move laterally thereon, an inner surface on said block adapted to lockingly engage a surface on one of said members, an outer surface on said block adapted to lockingly engage a surface on the other of said members, and means for moving said locking plate and block axially of the joint.

3. An adjustable hinge joint comprising two main members hingedly engaging with each other, a locking plate movable axially of the joint, a plurality of locking blocks mounted movably on said plate, a flat surface on one side of each of said blocks adapted to engage a corresponding surface on one of said members, a conical surface on the other side of each of the blocks adapted to engage a corresponding surface on the other of said members, and means for moving said locking plate and blocks axially of the joint.

4. An adjustable hinge joint comprising two main members hingedly engaging with each other, a locking plate movable axially of the joint, a plurality of locking blocks mounted movably on said plate, a flat surface on one side of each of said blocks adapted to engage a corresponding surface on one of said members, a toothed surface on the other side of each of the blocks adapted to engage a corresponding surface on the other of said members, and means for moving said locking plate and block axially of the joint.

5. An adjustable hinge joint comprising two main members hinged to each other by means of a flanged boss on one entering a corresponding recess on the other, a locking plate arranged concentrically with said boss, a plurality of blocks movably mounted on said locking plate, a retaining plate fixed to said boss and overlapping a part of the other main member so as to prevent relative axial movement between said main members, a flat surface on the inner side of each of said blocks adapted to engage a corresponding surface on the boss of the said main member, a toothed, conical surface on the outer side of each of said blocks adapted to engage a corresponding surface on the other main member, and a centrally arranged screw for moving said locking plate so as to force said engaging surfaces into locking engagement.

1,029,700. PAPER-BAG MACHINE. WILLIAM A. LORENZ, Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Nov. 9, 1903. Serial No. 180,826. (Cl. 93—32.)



1. The combination in devices for forming the described triangular folds in the mouth ends of bellows-sided bag blanks of a rotary blank support, suction devices for separating the ends of the opposite side walls, gripping means for sustaining the upper side wall of the blank substantially at the rotary path of the blank support, a suction device provided with a defining edge and mounted to swing upon an axis substantially in line with the said defining edge, and means for swinging the said suction device upon its axis to fold back the lower side wall of the blank inside of the rotary path of the blank support.

2. The combination in devices for forming the described triangular folds in the mouth end of bellows-sided bag blanks of a rotary blank support, gripping means carried by the blank support for sustaining the end of the upper side wall of the blank substantially in coincidence with the rotary path of the blank support, a suction box carried with the blank support provided with a cross-fold defining edge, and mounted to swing upon an axis substantially in line with the said defining edge and adjacent to the rotary path of the blank support, and means for oscillating the said suction box upon its axis to fold the lower wall of the blank downwardly and forwardly inside of the rotary path of the blank support to form the triangular folds therein.

3. The combination in devices for forming the described triangular folds in the mouth ends of bellows-sided bag blanks, of a traveling blank support, gripping means carried by the support for sustaining the upper side wall of the blank, a defining edge carried by the blank support, a suction box carried by the support for holding the lower side wall, mounted to swing upon an axis substantially coincident with the said defining edge, and means for oscillating the said suction box upon its axis to fold back the lower ply and form the described triangular folds.

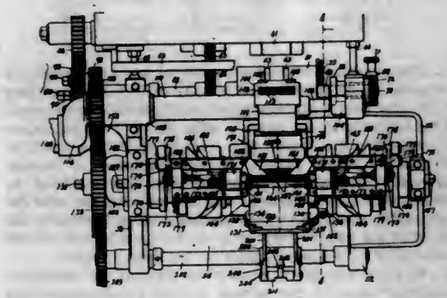
4. The combination in devices for forming the described funnel folds in the mouth ends of bellows-sided bag blanks of a rotary blank support, gripping means carried thereon for sustaining the upper side wall of the blank in substantial coincidence with the rotary path of the blank support, a suction box carried by the support provided with pincers for holding the lower side wall and with a transverse fold defining edge and mounted to swing upon the axis substantially in line with the said defining edge

and adjacent to the rotary path of the blank, means for oscillating the said suction box upon its axis to fold the lower side wall of the blank inwardly away from the said rotary path of the blank support to form triangular folds therein and then unfold the said side wall back to its first position of substantial coincidence with the rotary path of the blank support, and a coöperating reversing blade for doubling the said triangular folds upon themselves.

5. The combination in devices for forming the described funnel folds in the mouth ends of bellows-sided bag blanks, of a traveling blank support, means carried on the support for gripping the upper side wall of the blank, a defining edge carried by the blank support, a suction box carried on the support for holding the lower side wall, mounted to swing upon an axis substantially coincident with the said defining edge, means for oscillating the said suction box upon its axis to fold back the lower side wall into flat triangular folds, and then unfold the said side wall back to its first position, and a coöperating reversing blade for doubling the said triangular folds upon themselves.

[Claims 6 to 8 not printed in the Gazette.]

1,029,701. PAPER-BAG MACHINE. WILLIAM A. LORENZ and JOSEPH MERRITT, Hartford, Conn., assignors to Union Paper Bag Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 10, 1907. Serial No. 383,083. (Cl. 93—32.)



1. Means for forming the described funnel folds in the mouth end of a bellows sided bag blank, including a rotary blank support provided with a suction surface, a pair of feed rolls for feeding the blanks to the said blank support with the mouth end of the blank in register with the said suction surface, one of the said feed rolls being also provided with a suction surface registering with the mouth end of the blank, a pair of sustaining blades mounted to move into the side tucks of the blank, to bend down and hold down the lower ply thereof, and a pair of folding blades also mounted to move into the side tucks of the blank and fold the upper ply upwardly, the said sustaining blades and folding blades coacting with the said suction surface of the blank support and of the feed roll to open the mouth end of the blank and form the said triangular folds therein.

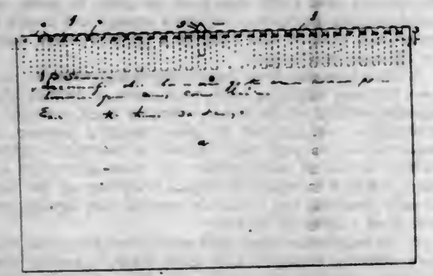
2. Means for forming the described funnel folds in the mouth end of a bellows-sided bag blank, including a rotary blank support, means for turning the mouth end of the lower ply of the blank inwardly within the rotary path of the blank, means for folding the mouth end of the upper ply outwardly from the rotary path of the blank to form the triangular folds between the said plies, and retaining fingers for moving the upper ply downwardly to close the said plies together adjacent to the said triangular folds.

3. Means for forming the described funnel folds in the end portions of a bellows-sided bag blank, including a rotary blank support, means for turning the mouth end of the lower ply of the blank inwardly within the rotary path of the blank, means for folding the mouth end of the upper ply outwardly from the rotary path of the blank to form the triangular folds between the said plies, retaining fingers for moving the upper ply downwardly to close the plies together adjacent to the said triangular folds, and means for operating the retaining fingers in proper time relation to the operation of lifting the mouth end of the upper ply.

4. Means for forming the described funnel folds in the mouth end of a bellows sided bag blank, including a rotary blank support, means for turning down the mouth end of the lower ply of the blank inside the rotary path of the blank, means including a pair of folding blades for turning the mouth end of the upper ply of the blank outwardly from the rotary path of the blank to form the described triangular folds between the said upper and lower plies, and a pair of retaining fingers mounted to swing backwardly toward the said folding blades to close the said upper and lower plies together substantially adjacent to the said triangular folds.

5. Means for forming the described funnel folds in the mouth end of a bellows-sided bag blank, including a rotary blank support, means for turning down the mouth end of the lower ply of the blank inside the rotary path of the blank, means including a pair of folding blades for turning the mouth end of the upper ply of the blank outwardly from the rotary path of the blank to form the described triangular folds between the said upper and lower plies, and a pair of retaining fingers mounted to swing backwardly toward the said folding blades to close the said upper and lower plies together substantially adjacent to the said triangular folds, and driving means connecting the said blades and the said fingers to move them coincidently.

1,029,702. RECORD-CARD. EDWARD S. MADDOCK, Kenosha, Wis., and JOSEPH M. COBB, Chicago, Ill. Filed Sept. 26, 1911. Serial No. 651,379. (Cl. 129—16.)



1. A record card, in combination with an index adapted to be secured at any of a number of predetermined positions on said card, said index when in operative position lying wholly between the planes of the sides of the card.

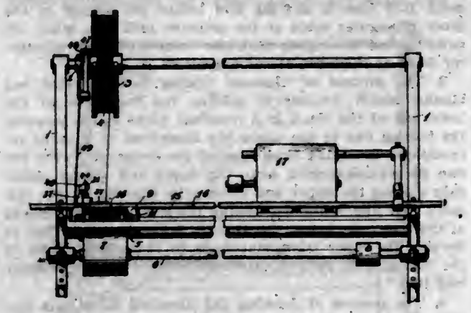
2. A record card having a plurality of pockets formed in one edge thereof, in combination with an index adapted to fit in any one of said pockets.

3. A record card having a plurality of pockets formed in one edge thereof, in combination with an index of a thickness not exceeding that of said card and adapted to fit in any one of said pockets.

4. A record card having a plurality of pockets formed in one edge thereof, in combination with a thin index adapted to slidingly fit any one of said pockets and projecting above the upper edge thereof, said index lying wholly between the planes of the opposite sides of the card in which said pockets are formed.

5. A record card formed with three plies of paper adhered together, the intermediate ply being formed along its upper edge with a plurality of parallel tongues, thereby creating between the outer plies and between adjacent tongues a plurality of pockets, in combination with indexes slidably engaging and at their upper ends projecting above said pockets.

1,029,703. WINDING-MACHINE. HENRY J. MARX, Holyoke, Mass., assignor to The American Thread Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 10, 1910. Serial No. 586,169. (Cl. 242—36.)



1. In a machine of the character described, the combination of a spool, a swift for holding thread to be wound thereon, a brake for said spool, a brake for said swift and strain actuated means controlled by the thread being wound for applying said brakes to stop said spool and swift when the tension on the thread being wound becomes abnormally great.

2. In a machine of the character described, the combination of a thread holder for the thread to be wound, a spool on which the thread is to be wound, means for driving the spool and a strain actuated stop mechanism engaging said thread between said holder and said spool, said stop motion having a brake engaging said spool and a brake engaging said holder, one of said brakes having a lost motion connection relatively to the other, and means for applying said brakes.

3. In a machine of the character described, the combination of a thread holder for the thread to be wound, a spool on which the thread is to be wound, means for driving the spool, positive brakes for engaging said spool and said holder, means normally tending to move said brakes toward braking position, a detent for restraining said brakes in off position, and a strain actuated trip for releasing said detent, engaged by said thread between said holder and said spool and normally tending toward non-releasing position.

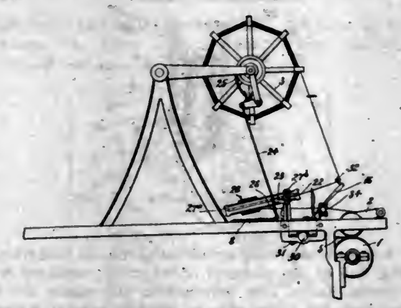
4. In a machine of the character described, the combination of a thread holder for the thread to be wound, a spool on which the thread is to be wound, means for driving the spool, brakes for engaging said spool and said holder, means normally tending to move said brakes toward braking position, a detent for restraining said brakes in off position, and a strain actuated trip for releasing said detent engaged by said thread between said holder and said spool and normally tending toward non-releasing position, one of said brakes having lost motion relatively to the other.

5. In a winding machine, the combination of a driving drum, a spool normally contacting therewith, a shoe for separating said spool and said drum, having portions adapted to engage said spool at a point between said drum and said spool and at another point at least substantially ninety degrees from the point where the drum normally engages said spool, and means for moving said shoe toward said spool.

[Claim 6 not printed in the Gazette.]

1,029,704. WINDING MECHANISM. HENRY J. MARX, Holyoke, Mass., assignor to The American Thread Company, New York, N. Y., a Corporation of New Jersey. Filed July 24, 1911. Serial No. 640,117. (Cl. 242—36.)

1. In a winding apparatus, the combination of a driving drum, a bobbin holder, a stop motion frame, a slide in said frame having a movement in a vertical plane substantially at right angles to the vertical plane passing through the axis of said bobbin holder, a detent for said slide, a releaser for said detent, a lever for actuating said releaser, a guide on said releaser lever engaged by the thread to be wound, a brake carried by said slide and adapted to engage a bobbin in said bobbin holder, means normally tending to move said slide toward the bobbin holder, a swift for the thread to be wound, a brake for said swift released by said slide when said detent is released, and means normally tending to apply said swift brake.



2. In a winding apparatus, the combination of a driving drum, a bobbin holder, a stop motion frame, a slide in said frame having a movement in a vertical plane substantially at right angles to the vertical plane passing through the axis of said bobbin holder, a detent for said slide, a releaser for said detent, a lever for actuating said releaser, a guide on said releaser lever engaged by the thread to be wound, a brake carried by said slide and adapted to engage a bobbin in said bobbin holder, means normally tending to move said slide toward the bobbin holder, and a yielding slack holding guide engaging the thread between the guide on the releaser lever and the bobbin.

3. In a winding apparatus, the combination of a driving drum, a bobbin holder, a stop motion frame, a slide in said frame having a movement in a vertical plane substantially at right angles to the vertical plane passing through the axis of said bobbin holder, a detent for said slide, a releaser for said detent, a lever for actuating said releaser, a guide on said releaser lever engaged by the thread to be wound, a brake carried by said slide and adapted to engage a bobbin in said bobbin holder, means normally tending to move said slide toward the bobbin holder, a swift for the thread to be wound, a brake for said swift released by said slide when said detent is released, means normally tending to apply said swift brake, and a yielding slack holding guide engaging the thread between the guide on the releaser lever and the bobbin.

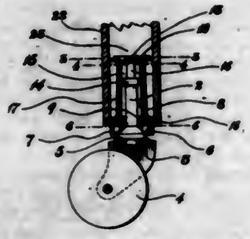
4. In a winding apparatus, the combination of a driving drum, a bobbin holder, a stop motion frame, a slide in said frame having a movement in a vertical plane substantially at right angles to the vertical plane passing through the axis of said bobbin holder, a detent for said slide, a releaser for said detent, a lever for actuating said releaser, a guide on said releaser lever engaged by the thread to be wound, a brake carried by said slide and adapted to engage a bobbin in said bobbin holder, means normally tending to move said slide toward the bobbin holder, a swift for the thread to be wound, and a brake for said swift released by said slide when said detent is released, said bobbin brake having lost motion relatively to said swift brake.

5. In a winding apparatus, the combination of a driving drum, a bobbin holder, a stop motion frame, a slide in said frame having a movement in a vertical plane substantially at right angles to the vertical plane passing through the axis of said bobbin holder, a detent for said slide, a releaser for said detent, a lever for actuating said releaser, a guide on said releaser lever engaged by the thread to be wound, a brake carried by said slide and adapted to engage a bobbin in said bobbin holder, means normally tending to move said slide toward the bobbin holder, a swift, a brake for said swift, means normally tending to

apply said swift brake, and a projection on said slide holding said swift brake in off position when said detent restrains said slide.

[Claims 6 to 9 not printed in the Gazette.]

1,029,705. CASTER. WILLIAM J. MCINTYRE, Hartford, Conn. Filed June 30, 1911. Serial No. 636,202. (Cl. 16—76.)



1. A caster comprising a wheeled pintle, an anti-friction bearing, one of the members of which is connected with said pintle, and a tube surrounding the pintle, slit upwardly from its lower edge to produce several resilient fingers, said resilient fingers yieldingly engaging the other member of said anti-friction bearing and being also adapted to yieldingly engage the inner wall of a socket or equivalent part into which said tube is fitted.

2. A caster comprising a pintle provided with a ball bearing portion, a thimble, a series of balls between said ball bearing portion and said thimble, each ball engaging the thimble at two points and the ball bearing portion at one point, and a tube provided with a resilient portion, the thimble having an upwardly extending flange yieldingly embraced by said resilient portion and said resilient portion being also adapted to yieldingly engage the inner surface of a socket or equivalent part in which said tube is fitted.

3. A caster comprising a bearing sleeve, and a locking plate surrounding said sleeve, said plate having a plurality of corners constituting barbs for holding the said sleeve in a socket and said sleeve being provided with means for rigidly holding said plate in position.

1,029,706. ART OF MAKING PAPER BAGS. JOSEPH MERRITT, Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed July 10, 1907. Serial No. 383,043. (Cl. 93—27.)



1. The process of diamond folding a bellows sided bag blank, which consists in separating the upper and lower plies and spreading the bellows sides thereof from the bottom end of the blank to a point above the location of the primary fold line of the blank, and continuing the opening movement of the bottom end of the blank while closing both the upper and lower plies of the blank toward each other at the location of the primary fold line, to restore the bellows sides of the blank to their initial closed condition at that line, continuing the opening movement of the bottom ends of the upper and lower plies until the inner triangular folds are fully developed from the bellows sides of the blank.

2. The process of diamond folding bellows sided bag blanks, which consists in separating the upper and lower plies of the blank in diverging planes, extending from the bottom ends of the blank beyond the location of the primary fold line to expand the bellows sides of the blank, then closing those plies toward each other at the primary fold line, while continuing the opening and diverging movement of the bottom end of the plies, thereby returning the bellows sides to their folded flattened condition at the primary fold line to develop and locate the apexes of the inner triangular folds at the primary fold line, while expanding and developing the outer corners of those triangular folds at the sides of the bag blank.

3. The process of diamond folding bellows sided bag blanks, which consists in holding the front end of the lower ply of the blank in a constant plane and separating the bottom end of the upper ply therefrom in a plane increasingly diverging from that of the lower ply, with the two planes converging near the upper end of the blank, then closing the upper and lower plies together at the primary fold line, while continuing the separating movement of the upper ply below the primary transverse fold line, to develop the inner triangular folds in the bellows sides of the blank, with their apexes coincident with the primary fold line.

4. The process of forming the diamond folds in a bellows sided bag blank, which consists in maintaining the bottom end of the lower ply of the blank in a constant plane while separating the upper ply and the bellows sides of the blank therefrom in planes and lines converging toward the upper end of the blank beyond the position of the primary fold line, to develop the outer corners of the inner triangular folds of the diamond, then closing the upper and lower plies toward each other at the primary fold line, to develop the apexes of the said triangular folds at that point, while continuing the backwardly turning movement of the bottom forming portion of the upper ply until the folds of the diamond and its inner triangular folds are developed in a common plane.

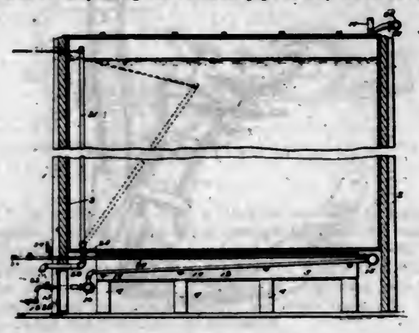
1,029,707. PERMUTATION-LOCK. HARRY R. MITCHELL, North Yakima, Wash. Filed Nov. 17, 1910. Serial No. 592,930. (Cl. 70—53.)



In a device of the class described, a box having a lid; dials mounted for independent rotation upon the box; tumblers connected with the dials and provided with openings adapted to be brought into registration by a rotation of the dials; a push button slidable in the box at an angle to the plane of rotation of the tumblers, and adapted to protrude through the openings in the tumblers, when the openings are alined; a lever fulcrumed upon the box, to swing at an angle to the plane of rotation of the tumblers, the lever engaging the lid to hold the lid closed, the lever being engageable by the push button, when the openings in the tumblers are alined, thereby to move the lever out of engagement with the lid.

1,029,708. APPARATUS FOR TREATING CLAY. JOHN L. MUSSER, Lancaster, Pa. Filed Mar. 3, 1911. Serial No. 612,113. (Cl. 34—30.)

1. An apparatus for treating clay, having in combination a tank provided with hinged covers, a heater arranged beneath said tank, a drain-pipe comprising a pipe fixed in the bottom of the tank and provided with an elbow, and a pipe rockable on said elbow, said rockable-pipe being adjustable in the direction of the length of the tank, and means for adjusting the rockable-pipe to any water level.

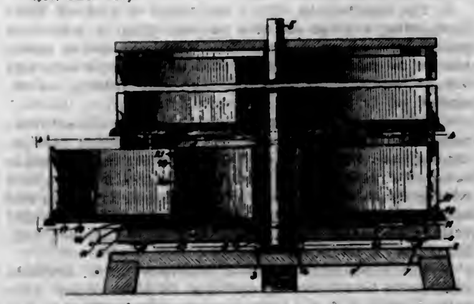


2. An apparatus for treating clay, having in combination a tank provided with hinged covers, a heater arranged beneath said tank, a drain-pipe comprising a pipe fixed in the forward portion of the bottom of the tank and provided with an elbow, and a pipe rockably-connected to said elbow, said rockable-pipe being adjustable in the direction of the length of the tank, means for adjusting the rockable-pipe to any water level, and means for withdrawing the moisture from the tank.

3. An apparatus for treating clay, comprising a plurality of tanks having suitable covers, a heater situated beneath each tank, the several heaters being coupled up together, valves for throwing out of action the heater of any particular tank, a drain-pipe for each tank, each drain-pipe consisting of a pipe fixed in the bottom of its tank and provided with an elbow, and a pipe rockable on said elbow, said rockable-pipe being adjustable in the direction of the length of the tank, and means for adjusting the rockable-pipe to any water level.

4. An apparatus for treating clay, comprising a plurality of tanks having hinged covers, a heater arranged beneath each tank, the several heaters being coupled up together, valves for throwing out of action the heater of any particular tank, a drain-pipe for each tank, each drain-pipe consisting of a pipe fixed in the forward portion of the bottom of the tank and provided with an elbow, and a pipe rockably-connected with said elbow, said rockable-pipe being adjustable in the direction of the length of the tank, means for adjusting the rockable-pipe to any water level, and means for withdrawing the moisture from each tank.

1,029,709. GROCER'S CABINET. VERNER NORRLANDER, Rockford, Ill. Filed Apr. 17, 1912. Serial No. 691,495. (Cl. 211—9.)



1. A grocer's cabinet comprising a platform, a base located over the platform, a ball bearing between the base and platform, a center support, a spider arm encircling the support and forming guide-ways, a drawer for each guide-way, and means for holding the drawer against withdrawal.

2. A grocer's cabinet comprising a platform, a base located over the platform, a ball bearing between the base and platform, a center support, a plurality of spider arms encircling the support, a tubular section separating the arms, a drawer for each of the spider arms and guided in connection therewith.

1,029,710. AMUSEMENT DEVICE. WILLIAM Q. OLDEN, Joliet, Ill. Filed Aug. 3, 1911. Serial No. 642,089. (Cl. 46—40.)



1. The combination of a plate having thereon a representation of a man standing in a boxing attitude, at the shoulder of which the plate is provided with an opening for the insertion of an operator's finger to represent the arm, and a boxing-glove-like device adapted to be placed upon the end of said finger.

2. An amusement device comprising a plurality of plates, said plates having thereon a representation of a man, the plate having the shoulder of the figure being provided with an opening for the insertion of an operator's finger to represent the arm of the figure, one of said plates being movable relative to another to provide for movement of parts of said figure relative to other parts thereof.

3. An amusement device comprising a plurality of plates having thereon a representation of two men standing facing each other in a boxing attitude, at the shoulder of each of which there is provided an opening for the insertion of an operator's finger to represent the arm, said plates being movable relative to each other to provide for movement of the body of one figure relative to that of the other.

4. In an amusement device, the combination of a plate having thereon a representation of the lower part of the body and the legs of a man, and a second plate pivotally connected thereto having thereon a representation of the trunk and the head of the man, an opening being provided in said second plate for the insertion of an operator's finger to represent the arm of said figure.

5. In an amusement device, the combination of a plate having thereon a representation of the lower part of the body and the legs of a man, a second plate pivotally connected thereto and having thereon a representation of the trunk and the head of the man, and guiding means for holding said two plates against spreading away from each other as said second plate is swung relative to said first plate, an opening being provided at the shoulder for the insertion of an operator's finger to represent the arm of said figure.

[Claims 6 and 7 not printed in the Gazette.]

1,029,711. CORN-PLANTER. FRANK R. PACKHAM, Springfield, Ohio, assignor to The American Seeding Machine Company, Springfield, Ohio, a Corporation of Ohio. Filed Jan. 20, 1912. Serial No. 672,469. (Cl. 111—6.)

1. In a seeding machine, an oscillatory seed tube having a continuous passageway, and permanently-arranged

means in said passageway for retarding the movement of the seed, the construction and arrangement of said retarding means being such as to permit the continuous movement of said seed through said tube.



2. In a seeding machine, an oscillatory seed tube, a primary valve at the upper end of said tube and a secondary valve at the lower end of said tube, said tube having a continuous passageway, and permanently-arranged means in said tube for baffling or retarding the passage of said seed, the construction and arrangement of such retarding means being such as to permit the continuous movement of said seed through said tube.

3. In a seeding machine, an oscillatory seed tube, and baffling or retarding surfaces in said tube, said tube being formed with an open space between said surfaces.

4. In a seeding machine, an oscillatory seed tube, valves at the upper and lower ends of said tube, and baffling or retarding surfaces in said tube, said tube being formed with a continuous space between said surfaces.

5. In an oscillatory seed tube for seeding machines, the combination of the tube having a passageway, the valve near the discharge end of said tube, projections from the walls of the tube intermediate the inlet and discharge ends of said tube for changing the direction of the passageway and thereby retarding the movement of the seed in said passageway.

[Claims 6 to 11 not printed in the Gazette.]

1,029,712. SEEDING-MACHINE. FRANK R. PACKHAM, Springfield, Ohio, assignor to The American Seeding Machine Company, Springfield, Ohio, a Corporation of Ohio. Filed Jan. 29, 1912. Serial No. 674,106. (Cl. 111—5.)

1. In a seeding machine, a support, a valve pivoted to said support, and a valve seat also pivoted to said support independently of said valve, the pivotal point of said valve seat being between its ends whereby it will be caused to aline itself with said valve.

2. In a seeding machine, a distributer comprising a pivoted valve, together with means for opening and closing the same, in combination with a valve seat pivoted between its ends independently of said valve to permit the same to aline itself with said valve.

3. In a seeding machine, a distributer comprising a pivoted tubular-shaped valve having an inclined face, together with means for opening and closing the same, and a valve seat coöperating with said valve, said valve seat being pivoted independently of said valve so as to cause the same to aline itself with the inclined face of said valve.

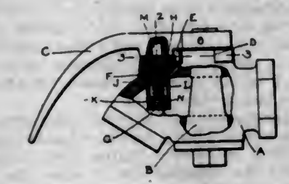
4. In a seeding machine, a distributer comprising a pivoted tubular-shaped valve having an inclined face, together with means for opening and closing the same, and a valve seat coöperating with said valve, said valve seat being pivoted between its ends independently of said valve to cause the same to aline itself with the inclined face of said valve.



5. In a seeding machine, an attachment comprising a pivoted valve, and a self-alining valve seat pivoted independently of said valve, a spring for normally holding said valve against said valve seat, and means for opening said valve.

[Claims 6 to 13 not printed in the Gazette.]

1,029,713. LOCKING MECHANISM FOR FLUID-CONTAINERS. LEMUEL MATHEW PARMLEY, Knoxville, Tenn. Filed Nov. 25, 1910. Serial No. 594,195. (Cl. 188—14.)



1. The combination with a container, of a shiftable member, a removable piston cage extending into said container, and a piston located in said cage and adapted to be moved into and out of engagement with said shiftable member, substantially as described.

2. The combination with a container, of a shiftable member, a removable piston cage extending into said container, and a piston located within said cage and adapted to be moved into engagement with said shiftable member by the pressure of fluid within said container, substantially as described.

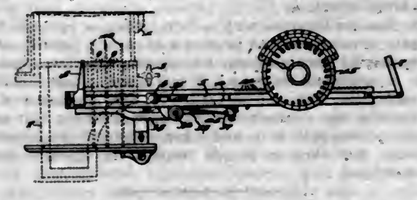
3. The combination with a container, of a cut-off valve comprising a plug, an arm on said plug, a removable piston cage extending into said container, and a piston located in said cage and adapted to be moved into and out of engagement with said arm, substantially as described.

4. The combination with a container, of a cut-off valve comprising a plug, an arm on said plug, a piston cage extending into the interior of the container and having a removable plug, and a piston located within said cage and having its stem extending slidably through said plug and adapted to be moved into operative relation with said arm by the pressure of fluid within said container, substantially as described.

5. The combination with a container, of a shiftable member, a removable piston cage communicating with said container, and a piston located in said cage and adapted to be moved into and out of engagement with said shiftable member, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,029,714. LINOTYPE-MACHINE. WILLIAM M. RAFF, Philadelphia, Pa. Original application filed Aug. 17, 1910, Serial No. 577,640. Divided and this application filed Sept. 21, 1911. Serial No. 650,511. (Cl. 199—7.)



1. In combination with a linotype machine and an assembler slide, a brake lever pivoted between its ends, a bifurcated bracket having notches receiving the slide, the opposed walls of said notches beveled where they engage the slide, and one end of said lever projecting into said bracket and constructed to tilt the same when the lever is moved, substantially as described.

2. In combination with a linotype machine and an assembler slide, a brake lever pivoted between its ends, a bifurcated bracket having notches receiving the slide, the opposed walls of said notches beveled where they engage the slide, one end of said lever projecting into said bracket and constructed to tilt the same when the lever is moved, the other end of said lever bifurcated, and a brake operating lever located in the bifurcated end of said brake lever, substantially as described.

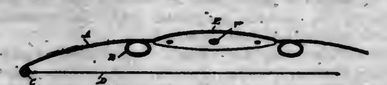
1,029,715. HOSE-COUPLING. HARRY B. ROBINSON, Muskegon, Mich. Filed Nov. 4, 1911. Serial No. 658,558. (Cl. 137—28.)



1. A coupling comprising a female member having a primary and a secondary socket and a bore extending from the secondary socket, a compressible ring in the female member seating against the end of the primary socket and having a projecting nipple fitting snugly in the secondary socket and seating against the end thereof, and a male member insertible into the primary socket to seat against and compress the said ring and engageable in the female member, the male member having a nipple projecting therefrom of smaller diameter than the said secondary socket and adapted to enter the said ring and its nipple and having a bore of equal diameter with the former bore and extending from the end of the nipple and adapted to coincide with the former bore.

2. A coupling comprising a female member having a primary and a secondary socket and a bore extending from the secondary socket, and having an inner lug at its inner end, a compressible ring fitting snugly within the female member and seating against the outer end of the primary socket and having a nipple projecting therefrom and fitting snugly in the said secondary socket and seating against the end of the secondary socket, and a male member having a head insertible snugly into the primary socket of the female member, the said head having a longitudinal channel for the passage of the said lug and having a spiral shoulder on its outer end provided with lug receiving notches, and the said head having a nipple of smaller diameter than the said secondary socket adapted to enter the said ring and its nipple and the said head being adapted to coincide with and compress the said ring, the male member having a bore of equal diameter with the former bore and extending from the end of its nipple and adapted to coincide with the former bore.

1,029,716. METALLIC BOW FOR ARCHERY. ERNEST S. ROE, Plymouth, Mich., assignor to Markham Air Rifle Company, Plymouth, Mich., a Corporation of Michigan. Filed Jan. 9, 1912. Serial No. 670,175. (Cl. 124—7.)



1. A bow comprising a resilient metallic rod having means at its ends for engaging the bow string and having a laterally bent portion adjacent to the center thereof and a comparatively flat hand-hold permanently secured to and extending longitudinally of the rod, engaging the laterally bent portion and held thereby against rotary movement.

2. A bow comprising a resilient metallic rod having means at its ends for engaging the bow string and having a bent portion adjacent the center thereof, a hand-hold extending longitudinally of the rod embracing said bent portion and held thereby against rotary movement, and means for permanently and rigidly securing the hand-hold to the bent portion of the rod.

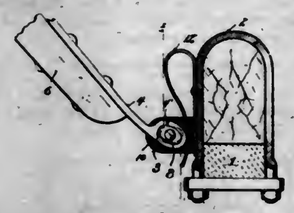
3. A bow comprising a resilient metallic rod having means at its ends for engaging the bow string, said rod having a laterally bent portion adjacent the center thereof and provided with coil portions upon opposite sides of said laterally bent portion, and a comparatively flat hand-hold extending longitudinally of the bow and rigidly secured to the laterally bent portion against both longitudinal and rotary movement.

4. A bow comprising a resilient metallic rod having means at its ends for engaging the bow string and having a laterally bent portion adjacent to center thereof and a comparatively flat hand-hold extending longitudinally of the rod and rigidly secured to the laterally bent portion against movement, said hand-hold being apertured to form an arrow guide.

5. A bow comprising a resilient metallic rod having means at its ends for engaging the bow string, said rod having a laterally bent portion adjacent the center thereof, and rebends at the ends of said laterally bent portion, comparatively flat plates arranged upon opposite sides of said laterally bent portion, and means for securing said plates together, said means engaging the rebends whereby the plates are held against longitudinal movement in relation to the rod.

[Claims 6 and 7 not printed in the Gazette.]

1,029,717. THILL-COUPLING. HERMAN ROEBER, Milwaukee, Wis. Filed Aug. 29, 1911. Serial No. 646,640. (Cl. 21—57.)



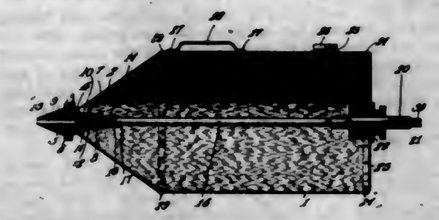
1. A thill-coupling comprising a thill-iron head and clip ears, each being provided with oblong apertures adapted to register when the thill-iron is at a predetermined elevation, a bolt fitted through the ear and head apertures, the bolt being provided with oblong rigid end-heads for engagement with the ear apertures, and an intermediate loose bushing for matched engagement with the thill-iron head aperture, the bushing being oblong in cross-section and provided with beveled end faces that intersect the bolt end heads.

2. A thill-coupling comprising a thill-iron head and clip ears therefor, each being provided with oval apertures adapted to register when the thill-iron is at a predetermined elevation, a bolt fitted through the ear apertures

and head aperture having rigid oval end-heads in nested engagement with the ear apertures, and an intermediate oscillatory oval beveled end bushing in nested engagement with the thill-iron head aperture, whereby locking engagement between the inner faces of the ears and the ends of the oscillatory bushing is effected when the thill-iron is raised to a predetermined position.

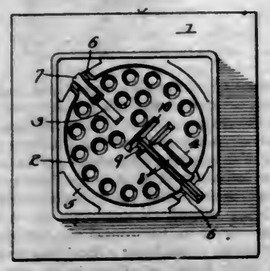
3. A thill-coupling comprising a thill-iron head and clip ears therefor, each being provided with oblong apertures adapted to register when the thill-iron is at a predetermined elevation, a bolt fitted through the ear and thill-iron head apertures, the bolt being provided with oblong end-heads for nested engagement with the ear apertures and a correspondingly oblong intermediate beveled end bushing-section loosely mounted upon the bolt for engagement with the thill-iron head aperture and ear apertures, the oblong end-heads being of the same width as the clip-ears and the bushing being of the same width as the thill-iron head.

1,029,718. LUBRICATING-GUN. EDWARD J. ROHRBACHER, Portland, Oreg. Filed May 22, 1911. Serial No. 628,657. (Cl. 221—32.)



In a device of the class described, an oil tank; a plug rigidly engaged intermediate its ends in one end wall of the tank, the inner end of the plug projecting into the tank and being spaced from the side wall of the tank, to permit the oil to surround the inner end of the plug, the plug having a restricted bore at its discharge end, and an enlarged chamber at its inner end, there being a tapered valve seat at the juncture of the chamber and the bore, the inner end of the plug having a lateral opening through its side wall, forming a communication between the chamber and the interior of the tank; a packing gland in the other end wall of the tank; a pipe rotatable in the gland and accessible from the outside of the tank; a tubular valve secured to the inner end of the pipe and having a restricted bore, the valve being threaded into the chamber, to constitute a closure for the inner end of the plug, the valve being reduced in diameter within the chamber, to permit oil at all times to enter the chamber, through the opening, the valve having a tapered end, adapted to engage the valve seat, when the valve is rotated, by the manipulation of the outer end of the pipe.

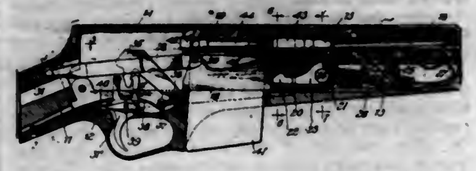
1,029,719. SIDEWALK-BOX COVER. MARSHALL SAUCEDO, San Francisco, Cal. Filed Aug. 9, 1911. Serial No. 643,203. (Cl. 137—13.)



1. The combination with a box, a cover for said box, said cover being provided with two offset slots, a guide way carried by the under side of the cover, a bolt slidable in the guide way and adapted to be moved in one direction to engage a portion of the box, and a key adapted when inserted in one slot to move the bolt in one direction and when inserted in the other slot to move the bolt in the other direction.

2. The combination with a box having a cut out top portion, a cover adapted to close said cut out portion, said cover having slots adjacent its opposite margins, a guide way in alinement with one of said slots, a bolt slidable in said guide way and adapted to engage the under side of the box top, a transverse head carried by the bolt and lying between said slots, and a key adapted to be inserted through said slots to engage respectively opposite sides of said head.

1,029,720. AUTOMATIC FIREARM. NEWTON C. SCHELLENGER, Salt Lake City, Utah. Filed June 25, 1908. Serial No. 440,290. (Cl. 42—3.)



1. In a firearm, the combination of a barrel, a breech-block, a frame supporting the breech-block and barrel, and a locking member mounted on the frame and connected with and acted upon by barrel and breech-block.

2. In a firearm, the combination of a barrel, a breech-block, a frame in which the breech-block is slidably mounted, a locking member fulcrumed upon the frame and adapted when in its normal position to lock the breech-block to the barrel, and means whereby the forward pressure of the barrel during discharge acts upon the locking member to maintain the breech-block in its normal position.

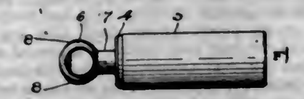
3. In a firearm, the combination of a non-rotatable barrel, a breech-block, and means controlled by the forward pressure of the barrel during discharge to lock the breech-block to the barrel.

4. In a firearm, the combination of a non-rotatable barrel, a reciprocating breech-block, and means controlled by the forward pressure of the barrel during discharge to lock the breech block to the barrel.

5. In a firearm, the combination of a barrel, a breech-block, a frame in which both barrel and breech-block are slidably mounted, and a locking member fulcrumed upon the frame and connected with the barrel, said breech-block being locked in the firing position by the locking member when in its normal position, the disposition of the points of connection with the locking member being such that the forward pressure of the barrel acts during the traverse of the bullet through a portion of the length of the barrel to maintain the locking member in normal position in opposition to the backward pressure of the breech-block.

[Claims 6 to 34 not printed in the Gazette.]

1,029,721. TERMINAL FASTENING. ALBERT SCHMIDT, Flint, Mich., assignor to Champion Ignition Company, Flint, Mich., a Corporation of Michigan. Filed Nov. 27, 1911. Serial No. 662,570. (Cl. 173—269.)



1. A terminal fastening comprising an eye to receive a member having a groove, said eye being cut transversely to the axis of the opening of said eye to form a yielding portion and said portion being bent to project into the opening of said eye and engage the said groove.

2. A terminal fastening comprising an eye member to receive a member having a groove, said eye being cut transversely to the axis of the opening of said eye along parallel lines to form a yielding portion integral with the eye member at one end and said portion being severed at the outer side of the eye to form like spring arms, the free ends of which said arms are bent inward to project into the opening of said eye and engage said groove.

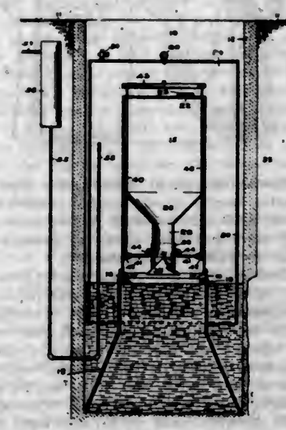
3. The combination with a member having an annular groove, of a plug having an eye portion and a shank portion connecting the eye and plug, said eye being cut transversely of the axis of the opening thereof along parallel lines to form a portion integral with the shank and said portion being severed at the outer side of said eye to form like spring arms with the free ends of said arms bent inwardly to engage said groove, and an insulating sleeve secured to the plug and adapted to receive an electrical conductor.

4. A terminal fastening comprising an eye to receive a member to which it is adapted to be attached and formed with an integral yielding portion to engage said member and of substantially the same size as the eye portion.

5. A terminal fastening comprising an eye to receive a member to which it is adapted to be attached and spring fingers of substantially the same size as the portion formed integral with the latter and adapted to engage said member.

[Claims 6 to 8 not printed in the Gazette.]

1,029,722. ACETYLENE-GAS GENERATOR. EDWIN SCOTT, Newberry, Ind. Filed Dec. 19, 1911. Serial No. 666,815. (Cl. 48—53.1.)

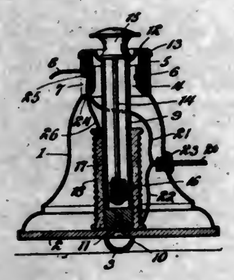


1. An acetylene gas generator comprising a water holding generating chamber, a carbid-receptacle located within and above the water in said chamber and provided with a discharge opening, a spreader located below and in line with said discharge opening, a hollow valve extending around said discharge opening in said carbid-receptacle, a vertically disposed rod arranged at each side of said valve and actuated by said gas-holder, and levers pivotally engaging the rods and with the opposite sides of said valve for exerting a uniform pull on said valve.

2. An acetylene gas generator comprising a water holding generating chamber, a carbid-receptacle located within and above the water in said chamber and provided with a discharge opening, a spreader located below and in line with said discharge opening, a hollow valve extending around said discharge opening in said carbid-receptacle, a vertically disposed rod arranged at each side of said valve and actuated by said gas-holder, and levers pivotally engaging the rods and with the opposite sides of said valve for exerting a uniform pull on said valve, an open bottom gas-holder inclosing said carbid-receptacle, and a skirt encompassing the entire area of the pit and extended up above the water and adapted to direct the gas into said gas-holder.

3. An acetylene gas generator comprising a water holding generating chamber, a carbid-receptacle located within and above the water in said chamber and provided with a discharge opening, a spreader located below and in line with said discharge opening, a hollow valve extending around said discharge opening in said carbid-receptacle, a vertically disposed rod arranged at each side of said valve and actuated by said gas-holder, levers pivotally engaging said rods, and links interposed and pivotally connecting the ends of the levers and valve to provide compensating adjustment between said levers and valve.

1,029,723. ELECTRIC CIGAR-LIGHTER. DAVID E. SHEA, Williamsport, Pa., assignor to Drew S. Tinsman, Williamsport, Pa. Filed Oct. 17, 1910. Serial No. 587,569. (Cl. 175—296.)

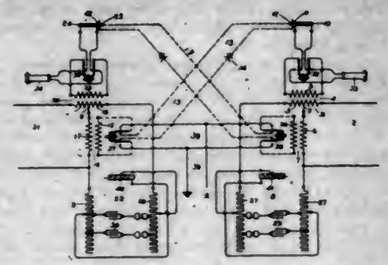


1. A cigar lighter comprising a body member, a reservoir for ignitible liquid therein, a carrier for ignitible liquid normally housed in the reservoir, exposed circuit terminals on the body member, a resistance also housed in the body member in surrounding relation to the reservoir, and electric conductors including the resistance and connected to the exposed circuit terminals and adapted to be included in a commercial power circuit, the resistance being sufficient to cut down the power current to permit short circuiting of exposed circuit terminals.

2. A cigar lighter comprising an outer shell terminating at one end in a neck, an insulating sleeve on said neck, spaced contact brushes carried by the neck, a reservoir also carried by the neck and extending into the body member, a torch adapted to said reservoir, and having at one end a handle accessible at the open end of the reservoir, another insulating sleeve within the body member in surrounding relation to the reservoir, a coil of resistance wire on said second named sleeve, a double conducting cord at one end entering the body member, one conductor of the cord being carried through the body member and connected to one of the terminals carried by said body member and the other conductor of the cord being connected to one end of the resistance coil and the other end of the resistance coil being connected to the other terminal carried by the body member.

3. A cigar lighter having a body portion with an expanded base, a reservoir axially disposed therein, a bottom member for the expanded base, to which bottom member the corresponding portion of the reservoir is secured, a resistance coil in encircling relation to the reservoir and having its convolutions in inductive relation, spaced brushes carried by the body member exterior thereto, a torch having a conducting end capable of carrying liquid and adapted to be inserted in the reservoir, and conductors at one end leading to the terminal brushes of the body member, one of said conductors being connected to a terminal member through the resistance coil.

1,029,724. TELEPHONE-REPEATER. FRANK JOSEPH SHUBERT, Portland, Oreg. Filed Jan. 27, 1911. Serial No. 605,032. (Cl. 179—170.)



1. In a telephone repeater system, a telephone line divided into two sections; a telephone relay, an induction coil having one winding in one of said line sections and its other winding in a local circuit including the receiving magnet of said relay, whereby said relay may receive energy from said section of the line; an artificial line associated with the other section of said line, and means for passing the relayed currents from said relay into said other section and said artificial line in multiple.

2. In a telephone repeater system, two sections of a telephone line extending from a relay station; a telephone relay; an induction coil having one winding connected to the receiving magnet of said relay and its other winding in one of said line sections; an artificial line associated with the other section of said line and having similar electrical characteristics; and means for passing the relayed currents from said relay into said other section and said artificial line in multiple.

3. In a telephone repeater system, two sections of a telephone line joined at a relay station; a telephone relay; an induction coil associating said relay with one of said line sections; an artificial line associated with the other section of said line; means for passing the relayed currents from said relay into said other section and said artificial line in multiple; and a second relay having its receiving coil associated with said other line section and said artificial line, whereby relayed currents from said first relay do not affect the receiving element of said second relay.

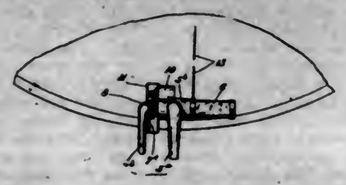
4. In a telephone repeater system, a telephone line divided into two sections; a telephone relay; an induction coil having one of its windings connected in the circuit of one of said line sections and its other winding connected with the receiving magnet of said relay; an artificial line associated with the other section of said line; a local circuit for the transmitting element of said relay; a source of current in said local circuit, and an induction coil having its primary in said local circuit and its secondary in a common path in said artificial line and said other section of said telephone line.

5. In a telephone repeater system, a telephone line divided into two sections; a telephone relay; an induction coil connected to inductively transmit energy from one of said line sections to the receiving magnet of said relay; an artificial line associated with the other section of said line; a local circuit for the transmitting element of said relay; a source of current in said local circuit; an induction coil having its primary in said local circuit and its secondary in a common path in said artificial line and said other secton of said telephone line; and a second relay having its receiving coil differentially associated with said other line section and said artificial line, whereby relayed currents from said first relay do no affect the receiving element of said second relay.

[Claims 6 to 9 not printed in the Gazette.]

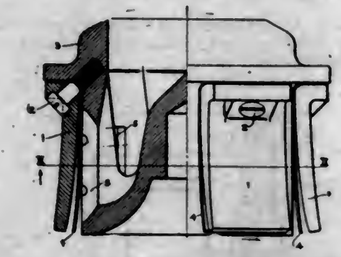
1,029,725. MEASURING-FAUCET. PAUL H. SMITH, Columbus, Ohio. Filed Nov. 10, 1911. Serial No. 659,465. (Cl. 73—158.)

A measuring faucet comprising, in combination, a measuring device provided with a vent, a faucet body having an inlet and a discharge passage, with valve chamber between them, a rotary valve in said chamber, said valve having an axial passage permanently communicating with the measuring device and said valve also having a radial passage connected with said axial passage and adapted to be moved to direct fluid through the aforesaid inlet passage into the measuring device or from the meas-



uring device into the aforesaid discharge passage, a registering mechanism including an arm, an arm in connection with the rotary valve for actuating the arm of the registering mechanism and means for preventing the movement of the valve except in one direction comprising a ratchet on the rotary valve and a pawl on the faucet body to engage said ratchet, substantially as shown and described.

1,029,726. DISCHARGE-VALVE. CARL G. SPRADO, Milwaukee, Wis., assignor to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Oct. 27, 1911. Serial No. 657,173. (Cl. 103—66.)



1. In a blowing engine, a valve, and a seat for said valve, said valve having at one portion thereof an initial set away from said seat whereby a free passage exists between said valve and seat when the pressures on opposite sides of the valve are equalized.

2. In a blowing engine, a curved valve, and a plane seat for said valve, said valve having its curved portion free from engagement with said seat whereby a free passage exists between said valve and seat when the pressures on opposite sides of the valve are equalized.

3. In a blowing engine, a sheet metal valve, and a seat spaced from said valve, said valve having a portion free from engagement with said seat whereby a free passage exists between said valve and seat when the pressures on opposite sides of the valve are equalized.

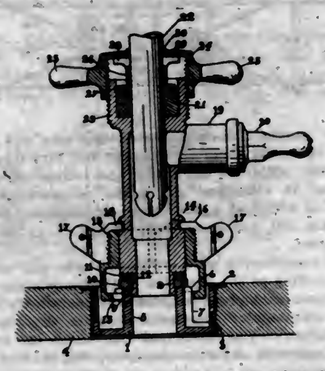
4. In a blowing engine, a curved valve, and a plane seat for said valve, said valve at one end being fastened to said seat and having its curved portion free from engagement with said seat when the pressures on opposite sides of the valve are equalized.

5. In a blowing engine, a valve, and a seat for said valve, said valve being fastened to said seat at one portion thereof and having at another portion thereof an initial set away from the seating surface.

[Claim 6 not printed in the Gazette.]

1,029,727. TAP. GEORGE STROH, Detroit, Mich. Filed June 18, 1910. Serial No. 567,552. (Cl. 225—3.)

1. The combination with a barrel-bushing having a coupling-nipple, of a tap having a neck adapted to enter the nipple and provided with an annular retaining-bead, a metal washer loose on the neck, a packing washer loose on the neck between the washer and said bead, a coupling sleeve non-rotatable and longitudinally-movable on the tap-body and adapted to interlock with said coupling nipple, a clamping ring rotatable on the tap and in screw-threaded engagement with said sleeve.



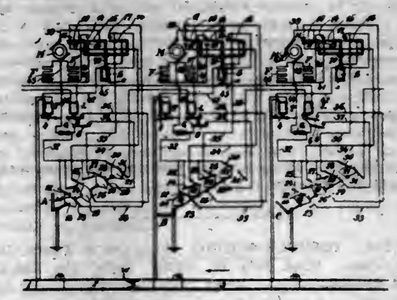
2. The combination with a barrel-bushing having a coupling nipple, of a tap having a neck adapted to enter the nipple, a retaining bead on the lower extremity of the neck, a metal washer rotatable on the neck, a packing washer loose on the neck between the washer and said bead, a coupling sleeve non-rotatable and longitudinally reciprocable on the tap body and adapted to interlock with the nipple flange, a clamping ring rotatably secured on the tap and adapted to reciprocate the sleeve relatively thereto.

3. The combination with a barrel-bushing having a countersunk coupling-nipple, the outer end of which is substantially flush with the outer face of the bushing, an annular notched flange on the nipple, and stops on the underside of the flange between the notches, of a tap having at its lower end a neck adapted to enter the nipple, a metal washer on the neck rotatable against the lower end of the tap, a retaining bead on the lower end of the neck, a packing washer loose on the neck between the bead and washer, a coupling sleeve non rotatable on the tap and adapted to interlock with the nipple flange, and clamping means on the tap for securing the sleeve in interlocked relation with the nipple flange and compressing said packing washer.

4. The combination with a barrel-bushing having a recess and a coupling-nipple, of a tap having a recess in its upper end and a neck on its lower end adapted to enter the nipple, a washer on the neck, a coupling sleeve on the tap adapted to interlock with the coupling nipple, a clamping ring adapted to hold the sleeve in interlocked relation with the nipple and compressing said washer, a packing-ring seated in the recess of the tap, a cap in screwthreaded engagement with the upper end of the tap body, a spacer-member between the cap and the packing ring, and having a neck on its upper end rotatable in the cap, a bead on the upper margin of the neck for retaining it in the cap, the lower end of the spacer member being adapted to bear against the adjacent washer.

1,029,728. RAILWAY-SIGNAL. JOHN D. TAYLOR, Edgewood Park, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed July 16, 1910. Serial No. 572,231. (Cl. 246—34.)

1. In combination, a signal device biased to danger position of indication, a motor operatively connected with the signal device and comprising two independent field windings one of which is connected in shunt with the armature for moving the signal device from its biased position to another position of indication and the other of which is connected in shunt with the armature for moving the signal device toward its biased position when necessary, and electro-magnetic means for holding the signal device in the said other position to which it is moved by the motor.



2. In combination, a signal device biased to danger position of indication, a motor operatively connected with the signal device and comprising two independent field windings one of which is connected in shunt with the armature for moving the signal device from its biased position to other positions of indication and the other of which is connected in shunt with the armature for moving the signal device from said other positions toward the biased position when necessary, and electro-magnetic means for holding the signal device in the said other positions to which it is moved.

3. In combination, a signal device biased to one position of indication, a motor for moving it to another position of indication and for cushioning its return movement toward the biased position; and mechanism interposed between the motor and the signal device, said mechanism comprising a threaded shaft operatively connected with one of said members, a collar rigidly secured to said shaft, a nut free to travel on the threads of the shaft, a rotatable disk operatively connected with the other of said members and having a portion located between the nut and the collar, a shoulder on the nut and a pawl pivoted to the disk and adapted to engage the shoulder to rotate the nut toward the collar, whereby the disk is rigidly clamped between the nut and the collar when the motor rotates in the direction to move the signal device away from its biased position, and whereby the disk may be disengaged from between the nut and the collar by a shock when the signal device is moving toward its biased position in case the motor fails to cushion such last-mentioned movement.

4. In combination, a signal device biased to danger position of indication, a motor operatively connected therewith and comprising two independent field windings, means for connecting one of said windings in shunt with the armature for moving the signal from its biased position to another position of indication, and for connecting the other winding in shunt with the armature to act as a buffer throughout the return movement of the signal toward its biased position.

5. In combination, a signal device biased to danger position of indication, a motor operatively connected therewith and comprising two independent and reversely wound field windings, means for connecting one of the windings in shunt with the armature for moving the signal away from its biased position and for connecting the other winding in shunt with the armature to act as a buffer throughout the return movement of the signal toward its biased position and to drive the signal toward its biased position if necessary.

[Claim 6 not printed in the Gazette.]

1,029,729. LIFE-SAVING DEVICE. RICHARD TERVISAN, Baltimore, Md. Filed Apr. 29, 1912. Serial No. 693,959. (Cl. 9—11.)

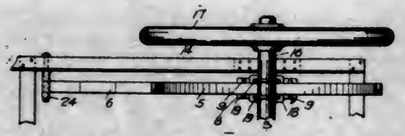
The hereindescribed float comprising a plurality of hollow inflatable sections joined end to end, conical end sections, means for attaching inflating means separately to

each section, longitudinal ropes extending along the complete float, tow-lines at each end flexible strips on each



side of the float and means for securing life preservers to the ends of the strips.

1,029,730. VEHICLE-SPRING. ROLLAND S. TROTT, Denver, Colo. Filed July 19, 1909. Serial No. 508,415. (Cl. 21—50.)



1. The combination with a vehicle frame and a therewith associated wheel axle, of a spring interposed between the same and pivotally connected with the frame, said spring adapted to move circularly about the pivotal axis on the said frame, and a non-supporting alinement spring connected with the frame and with the first named spring in such a manner that it resiliently opposes the said circular movement.

2. The combination with a vehicle frame and a therewith associated wheel axle, of an interposed spring secured to the latter and pivotally connected with said frame at a point normally in approximately vertical alinement with the axle, a normally horizontal, rectilinear spring connected with the first named spring at a point intermediate the pivotal axis thereof on the vehicle frame and the wheel axle and an oscillatory member movably connecting the outer extremity of the said rectilinear spring with the vehicle frame.

3. The combination with a vehicle frame and a therewith associated wheel axle, of a spring interposed between the same, said spring being pivotally connected with the vehicle frame, and a non-supporting alinement spring connected with said vehicle frame and with the first named spring, said last-named spring adapted to resiliently oppose any endwise movement of the load bearing spring.

4. The combination with a vehicle frame and axle, of an interposed spring secured to the latter and pivotally connected with said frame, and a normally unstrained spring attached to the first-named spring and connected to the frame.

5. The combination with a vehicle frame and axle, of a spring interposed between the same, said spring being pivotally connected to the vehicle frame, and a non-supporting alinement spring connected with said vehicle frame and with the first named spring, said last-named spring adapted to resiliently oppose any circular movement of the axle about the pivot.

1,029,731. VEHICLE-SPRING. ROLLAND S. TROTT, Denver, Colo. Filed Mar. 29, 1911. Serial No. 617,715. (Cl. 21—00.)

1. The combination with a vehicle frame and axle, of means extending inwardly from the axle and connected with the frame adapted to maintain an approximately right-angular alinement between the frame and axle, and acting to resiliently oppose longitudinal movement of the axle.

2. The combination with a vehicle frame and axle, of a brace extending inwardly from the axle and connected with the frame, said brace adapted to maintain an approximately right-angular alinement between the frame and axle, and means adapted to resiliently oppose longitudinal movement of the brace.



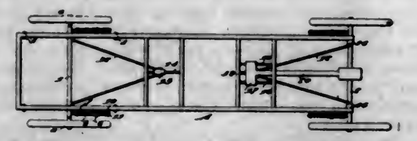
3. The combination with a vehicle frame and axle, of a brace extending from the axle in the direction of the longitudinal center of the frame and connected with the latter and an alinement spring, so connected with the brace as to admit of a horizontal longitudinal movement of the axle, but acting to preclude lateral or side movement thereof.

4. The combination with a vehicle frame and axle, of a brace extending in the direction of the longitudinal center of the frame, said brace adapted to maintain an approximately right-angular alinement between the frame and axle, a rod secured to the frame with which the brace has sliding connection and an alinement spring bearing against the brace.

5. The combination with a vehicle frame and axle of a brace extending in the direction of the longitudinal center of the frame, said brace adapted to maintain an approximately right-angular alinement between the frame and axle, a rod secured to the frame with which the brace has sliding connection and an alinement spring bearing against the brace, and means for adjusting the tension of the alinement spring.

[Claims 6 and 7 not printed in the Gazette.]

1,029,732. VEHICLE-SPRING. ROLLAND S. TROTT, Denver, Colo. Filed July 20, 1911. Serial No. 639,625. (Cl. 21—105.)



1. The combination with a vehicle frame of an axle, springs each connected to said frame and axle in such a manner that they absorb the vertical and longitudinal shock, and means secured to the axle for holding it in a position at right angles to the line of draft.

2. The combination with a vehicle frame, of an axle, springs each connected to said frame and axle in such a manner that they resiliently oppose vertical or horizontal movement of the axle, and means connected with the axle and frame for holding the axle in a position at right angles to the line of draft.

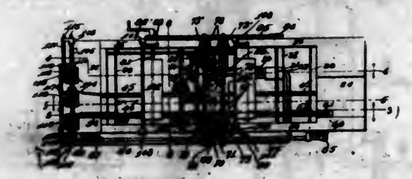
3. The combination with a vehicle frame, of an axle, load springs mounted between the frame and axle in such a manner that they absorb the vertical shock, endwise shock springs connected to the axle and frame in such a manner that they absorb the longitudinal shock, and a brace secured to the axle and connected with the frame for holding the axle in a position at right angles to the line of draft.

4. The combination with a vehicle frame, of an axle, load springs mounted between the frame and axle in such a manner that they absorb the vertical shock, endwise shock springs connected to the axle and frame in such a manner that they absorb the longitudinal shock, and a V-shaped brace secured to the axle near the extremities thereof and slidably connected to the frame at its other end.

5. The combination with a vehicle frame, of an axle, a spring interposed between the axle and a point of pivot on said frame to receive the vertical shock, a rectilinear spring connected at one end with the axle spring and at its opposite end with the frame, whereby to receive the endwise shock, and means for holding the axle in a position at right angles to the line of draft.

[Claims 6 to 9 not printed in the Gazette.]

1,029,733. UTENSIL CLEANING AND GREASING MACHINE. CHARLES VOLLMER, St. Louis, Mo., assignor of one-third to George N. Hoffmann, St. Louis, Mo. Filed June 8, 1911. Serial No. 632,024. (Cl. 107—7.)



1. A utensil cleaning and greasing machine comprising a frame, a guide way supported on the frame, means for adjusting the width of the guide way for the accommodation of various sizes of utensils, revolving endless brushes operating above the guide way for contacting with the bottom or exterior of the utensil, a rotating brush operating below the guide way for contacting with the top of the utensil, a pair of vertical rotating brushes located on the sides of the guide way for contacting with the sides of the utensil, an auxiliary brush located on the frame for primarily cleansing the interior of the utensil before the same is placed on the guide way, and an atomizer mechanism controlled by the movement of the utensil by which a coating of grease is applied to the interior of the utensil, substantially as specified.

2. A utensil cleaning and greasing machine comprising a suitable frame, an adjustable guide way formed in the frame, a pair of endless revolving brushes located above the frame and operating across the guide way, the rotating brush located beneath the guide way, a pair of vertical rotating brushes located on the sides of the guide way, a grease tank, atomizers located in the grease tank and an air blast for operating the atomizers spraying a coat of grease on the interior of the utensil conveyed on the guide way, and means for controlling the air blast by the operation of the utensil on the guide way, substantially as specified.

3. A utensil cleaning and greasing machine comprising a frame, an adjustable passage way, a carrier operated in the passage way by which the utensil to be cleaned is conveyed, a plurality of rotating and revolving brushes located in the path of travel, means for adjusting the tension of the revolving brushes, a grease tank located in the line of travel of the utensil, atomizers located in the grease tank, an air blast for operating the atomizers for spraying grease on the inner surface of the utensil, an auxiliary brush located on the frame for primarily cleaning the interior of the utensil before the same is placed on the guide way and a valve operated by the utensil in its travel for controlling the manipulation of atomizers, and shields located above the passage way contacting with the utensil holding the same against the guide way, substantially as specified.

4. A utensil cleaning and greasing machine comprising a frame, endless carriers supported in the frame, a guide way on which a utensil is located and conveyed by the endless carriers, a plurality of rotating and revolving brushes located in the path or guide way between which the utensil is conveyed, means for adjusting the width of the guide way, means for adjusting the tension of the revolving brushes, an atomizer mechanism, and means for automatically controlling the atomizer mechanism by the travel of the utensil for supplying a coat of grease to the interior of the receptacle, substantially as specified.

5. A device of the class described comprising a frame, endless carriers mounted in said frame, a guide way in which the endless carriers operate, an adjusting means for operating one side of the guide way for regulating the width of same, a vertical rotating brush supported on the stationary member of the guide way, a vertical revolving brush supported on the adjustable member of the guide way, a horizontal rotating brush located beneath the guide way, a pair of endless revolving brushes located above the guide way, means for operating all of the brushes simultaneously, a grease tank, atomizers communicating with the grease tank, an air pipe connection communicated with the atomizers for supplying a coat of grease against the interior of a utensil after having been conveyed through the brushes and cleaned, an air blast for blowing into the utensil and removing all loose particles prior to the admission of the grease, and a valve operated by the utensil for controlling the air supply, substantially as specified.

1,029,734. ILLUMINATED SIGN. PENDLETON G. WATMOUGH, Jr., New Brighton, N. Y. Filed June 17, 1911. Serial No. 633,645. (Cl. 40—130.)



1. An illuminated sign comprising the combination of a hollow sheet metal frame having a frame-opening, the inside edge of said frame being open all around to permit access to the hollow interior of the frame, removable pan-means fitting into the frame-openings and when removed, serving to uncover the aforesaid open inside edge of the frame, a plurality of conical reflectors outlining the display matter and supported on the pan means with their apices directed outwardly, electric lighting means supported on the frame in position to illuminate all parts of the conical exteriors of the reflectors.

2. In an illuminated sign the combination of a back-board, a plurality of conical reflectors outlining the display matter on the back-board, said reflectors being conical members with their conical surfaces exteriorly reflecting, said members being secured to the back-board with their apices directed outwardly, said apices having openings therethrough, securing means received through said openings securing the reflectors to the back-board, and lighting means illuminating the conical reflectors.

3. In an illuminated sign the combination of a plurality of exteriorly reflecting conical members supported with their apices directed outwardly outlining the display matter of the sign, and lighting means illuminating the reflectors, which consist each of a hollow transparent member having a conical interior coated with reflecting material.

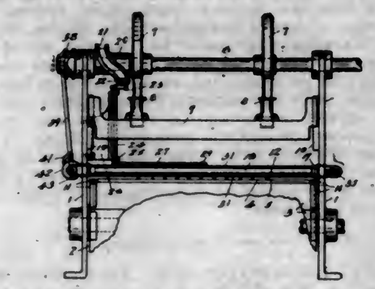
4. In an illuminated sign the combination of a back-board, a plurality of conical reflectors outlining the display matter on the back-board, said reflectors consisting of exteriorly reflecting conical members which are supported on the back-board with their apices directed away from the back-board and toward the front of the sign, said reflectors being independent of one another and each being supported in any desired location on the back-board, and lighting means on the same side of the back-board as the conical reflectors and at the edges thereof so as to illuminate all parts of the conical exteriors of the reflectors.

1,029,735. BUTTONHOLE-MARKING MACHINE. PETER K. WILLIAMS and JOHN F. LA BORDE, Columbus, Ohio. Filed July 1, 1911. Serial No. 636,461. (Cl. 12—56.)

1. The combination with a reciprocable hammer in a machine as described, of an endless ribbon and supports therefor comprising a roller, a pair of brackets, trunnions on said brackets supporting the roller, and springs bearing on said trunnions.

2. The combination with a supported pattern plate and a reciprocable hammer, of a work carrier comprising a

slotted plate, a slotted clamp plate thereon, and means for moving said carrier to and from position between the pattern plate and the reciprocable hammer.



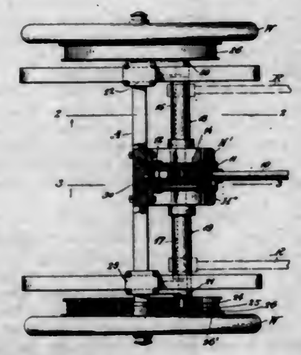
3. The combination with a supported pattern and a reciprocable hammer, of a slotted reciprocable carrier plate a slotted clamp plate connected thereto, an impression ribbon, rollers supporting said ribbon, and one of said rollers having a yielding bearing, for the purpose specified.

4. The combination with a supported pattern plate and a reciprocable hammer, of a work carrier comprising a slotted plate, a slotted plate spring pressed and hinged thereon, and means for moving said carrier to and from position between the pattern plate and the reciprocable hammer.

5. The combination in a machine as described with a frame, a supported pattern plate and a reciprocable hammer, of a work carrier comprising a slotted plate, side arms attached thereto, guiding means for said arms attached to the machine frame, a slotted plate spring pressed and hinged on said carrier plate, and means for reciprocating the carrier.

[Claim 6 not printed in the Gazette.]

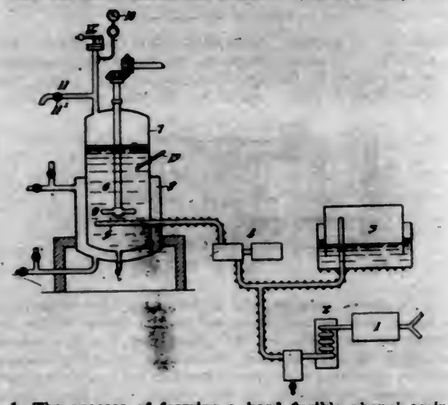
1,029,736. DRIVE MECHANISM. JAMES H. APP, Detroit, Mich. Filed July 5, 1911. Serial No. 636,902. (Cl. 21—90.)



1. The combination with a stationary axle, and wheels journaled thereon, of a differential shaft journaled on said axle for driving said wheels, a worm gear on said shaft, a motor shaft in direct thrust-line with the axle, a worm thereon engaging said worm gear, and a thrust member between said motor shaft and front side of the axle.

2. The combination with a stationary axle, and wheels journaled thereon, of brackets carried by the opposite ends of said axle, a housing secured thereto intermediate its ends, tubular connections between the brackets and housing, a differential shaft journaled therein, a motor-shaft in direct thrust-line against the axle, a worm and gear connection between said shafts and disposed in said housing, a thrust bearing between the motor shaft and the axle, and means for connecting said wheels and the differential shaft.

1,029,737. FUSIBLE PHENOL RESIN AND METHOD OF FORMING SAME. JONAS W. AYLSWORTH, East Orange, N. J. Original application filed May 14, 1909, Serial No. 496,060. Divided and this application filed Jan. 25, 1912. Serial No. 673,362. (Cl. 106—22.)



1. The process of forming a hard fusible phenol resin, consisting in heating phenol or an equivalent in a closed chamber, forcing compressed formaldehyde gas into the liquid phenol as fast as it combines therewith, and discontinuing the operation when only a very small percentage of phenol or equivalent remains uncombined, opening the chamber and heating the contents thereof sufficiently to completely dehydrate the same, and removing the dehydrated product, substantially as described.

2. The process of forming a hard fusible phenol resin, consisting in heating phenol or an equivalent in a closed chamber to the proper temperature for reaction with formaldehyde, forcing compressed formaldehyde gas into the liquid phenol as fast as it combines therewith, carrying off the excess heat above the proper reaction temperature, and discontinuing the operation when only a very small percentage of phenol or equivalent remains uncombined, substantially as described.

3. The process of forming a hard fusible phenol resin, consisting in heating phenol or an equivalent in a closed chamber to the proper temperature for reaction with formaldehyde, forcing compressed formaldehyde gas into the liquid phenol as fast as it combines therewith, carrying off the excess heat above the proper reaction temperature, and discontinuing the operation when only a very small percentage of phenol or equivalent remains uncombined, opening the chamber for the escape of steam, and heating the contents thereof sufficiently to completely dehydrate the same, and removing the dehydrated product, substantially as described.

4. The process of forming a hard fusible phenol resin, consisting in forcing gaseous formaldehyde into liquid phenol or equivalent maintained at a temperature between 280 degrees and 340 degrees F. as fast as it combines therewith, and discontinuing the operation when only a small percentage of the phenol remains uncombined, substantially as described.

5. The process of forming a hard fusible phenol resin, consisting in causing a condensation reaction with application of heat between a phenol and formaldehyde, or equivalents, and so regulating the proportions of the reacting substances and the temperature of the reaction that in the product formed all of the formaldehyde is combined with the phenol, there is a small amount of uncombined phenol and no portion of the product has been hardened to the infusible state, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,029,738. BOTTLE-SEAL. SAMUEL BARUCH, New York, N. Y. Filed Feb. 20, 1911. Serial No. 609,691. (Cl. 215—23.)

In combination a bottle having an external, annular flange spaced from the mouth by a cylindrical neck portion, said neck portion having a plurality of recess portions extending lengthwise thereof and each terminating in a shoulder adjacent to but spaced from the mouth, a cork within the neck and terminating substantially flush with the mouth thereof, and a non-removable cap having an end wall covering said cork and said mouth, a peripheral



wall encircling said neck and seating on said flange, and a plurality of resilient fingers extending inwardly and upwardly into said recesses from the free edge of said peripheral wall and engaging with the sides of said recesses to prevent rotation of the cap and engaging with said shoulder to prevent removal of said cap.

1,029,739. SOFT-METAL HAMMER. WILLIAM T. BAUSMITH, Bellevue, Ky. Filed Oct. 19, 1910. Serial No. 587,948. (Cl. 145—36.)

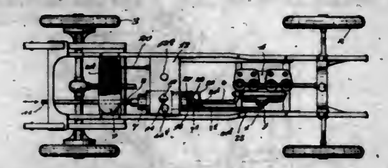


1. In a soft metal hammer, a body portion of comparatively hard metal cored out to form a hollow shell with reduced projecting ends having central and lateral openings therethrough, and a homogenous lead filling for the body portion formed into striking heads for the hammer and inclosing the reduced projecting ends of the body portion.

2. In a soft metal hammer, a body portion of comparatively hard metal cored out to form a hollow shell with reduced projecting ends having central and lateral openings therethrough, and a handle opening through the body portion, with a homogenous lead filling for the body portion surrounding the handle and formed into striking heads for the hammer and inclosing the reduced projecting ends of the body portion.

1,029,740. CARBURETING APPARATUS FOR EXPLOSIVE-ENGINES. MICHAEL BECK, Minneapolis, Minn. Filed Nov. 20, 1911. Serial No. 661,368. (Cl. 123—127.)

1. The combination with an explosive engine, of an automatic controller valve, two tanks for containing relatively light and heavy liquid hydrocarbons, means for vaporising said heavy hydrocarbon, a conduit connecting the tank containing the lighter hydrocarbon to said valve, a conduit extending from the tank containing the heavy hydrocarbon to said valve, and a conduit connecting said valve to the said engine, said valve being arranged for cutting off the supply of lighter hydrocarbon, when the heavier hydrocarbon is vaporized to create a sufficient pressure on said valve to keep it closed.



2. The combination with an explosive engine having an extended exhaust conduit, of an automatic controller valve, two tanks for containing relatively light and heavy liquid hydrocarbons, means for vaporising said heavy hydrocarbon, a conduit connecting the tank containing the lighter hydrocarbon to the said valve, a pipe extending from the tank containing the heavy hydrocarbon, through said exhaust conduit to the said valve, and a pipe connecting said valve to said engine, said valve being arranged for cutting off the supply of lighter hydrocarbon, when the heavier hydrocarbon is vaporized to create a sufficient preasure on said valve to keep it closed.

3. The combination with an explosive engine having an extended exhaust conduit, of an automatic controller valve, two tanks for containing relatively light and heavy liquid hydrocarbons, means for vaporizing said heavy hydrocarbon, a conduit connecting the tank containing the lighter hydrocarbon to said valve, a pipe extending from the tank containing the heavy hydrocarbon, through said exhaust conduit to the said valve, a pipe connecting said valve to said engine, said valve being arranged for cutting off the supply of lighter hydrocarbon when the heavier hydrocarbon is vaporized to create a sufficient pressure on said valve to keep it closed, and a valved conduit connecting the said conduit for relatively light vapor to the conduit pipe for the relatively heavy vapor, substantially as described.

4. The combination with an explosive engine, of a tank for a liquid hydrocarbon, and a conduit connecting said tank to said engine, having an inverted U-shaped intermediate section provided with an air inlet valve in its crown kept closed under a light pressure, said crown being located at a point above said tank, substantially as described.

5. The combination with an explosive engine having an extended exhaust conduit, of a tank for a liquid hydrocarbon, and a conduit connecting said tank to said engine, including a coil or manifold located in said exhaust conduit, the said conduit having an inverted U-shaped intermediate section provided with an air inlet valve in its crown kept closed under a light pressure, said crown being located at a point above the said tank, substantially as described.

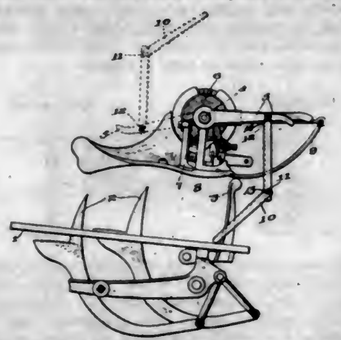
[Claim 6 not printed in the Gazette.]

1,029,741. GRAIN-BINDER. BERT R. BENJAMIN, Oak Park, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed Jan. 15, 1912. Serial No. 671,304. (Cl. 56—126.)

1. A grain binder having, in combination, a deck, a knotter, a rotatable knotter actuating shaft, a discharge arm secured to said shaft, and a two-part grain retainer having the adjacent ends thereof flexibly connected and provided with shoulder portions that engage in a manner to limit a turning movement of one part upon the other and having the opposite end of one of the parts thereof flexibly connected with said discharge arm.

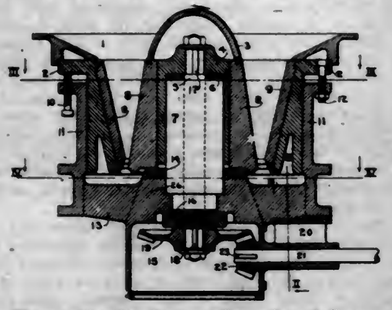
2. A grain binder having, in combination, a deck, a knotter, a rotatable knotter actuating shaft, a discharge arm secured to said shaft, and a two-part grain retainer

having the adjacent ends thereof flexibly connected and provided with shoulder portions that engage in a manner to limit a turning movement of one part upon the other, the opposite end of one of the parts thereof being pivotally connected with said discharge arm and provided with a



shoulder portion that engages therewith in a manner to limit a swinging movement thereon, the opposite end of the remaining part thereof engaging with said deck when said discharge arm has reached the limit of its discharging movement.

1,029,742. GYRATORY CRUSHER. THOMAS W. CAPEN, Milwaukee, Wis., assignor to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Nov. 13, 1909. Serial No. 527,767. (Cl. 83—10.)



1. The combination in a crusher, of a shell, a crusher head within said shell, said head having a through bore, a rotatable shaft, a bearing for said shaft supported only from underneath said shell, and a cylindrical eccentric rigid with said shaft and located within said bore in said head, and means for rotating said shaft.

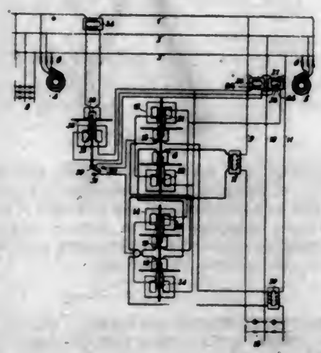
2. The combination in a crusher, of a shell, a crusher head within said shell, a rotatable shaft, a bearing for said shaft supported only from underneath said shell, a standard supported from underneath said shell, a single cylindrical eccentric rigid with said shaft and bearing on said standard and located within said head, and means for rotating said shaft.

3. The combination in a crusher, of a shell, a concave support within said shell, concaves within said support, a crusher head within said shell, support and concaves, a rotatable shaft, a bearing supported only from underneath said shell, a means eccentrically rigid with said shaft and located within said head, means for rotating said shaft and means for vertically adjusting said concaves and support.

4. The combination in a crusher, of a shell, a concave support within said shell, concaves within said support; a crusher head within said shell, support, and concaves; a rotatable shaft, a bearing supported only from underneath said shell, a means eccentrically rigid with said shaft and located within said head, means for rotating said shaft, means for vertically adjusting said concaves and support, and means for holding said concaves and support in adjusted position.

5. In a crusher, concaves, a fixed standard within said concaves, a rotatable cylindrical eccentric bearing on said standard, a crusher head having a through bore within which said eccentric is located, and a shaft in said standard for rotating said eccentric.

1,029,743. METERING SYSTEM. FRANK CONRAD, Swissvale, and WILLIAM M. BRADSHAW, Wilkinsburg, Pa., assignors to Westinghouse Electric & Manufacturing Company, a Corporation of Pennsylvania. Filed June 4, 1906. Serial No. 320,129. (Cl. 171—264.)



1. The combination with a plurality of sources of electrical energy, a transmission circuit extending between them, and a distributing circuit connected to the transmission circuit, of a measuring instrument corresponding to each of the sources and adapted to be operatively connected to the distributing circuit, and means for automatically selecting that instrument for measuring the energy of the circuit which corresponds to the active source.

2. The combination with two sources of electrical energy, and a distributing circuit therefor, of two measuring instruments adapted to be connected to the said circuit and having windings, and means for so controlling the circuits of said windings that the one or the other of the instruments shall be selected to measure the energy of said circuit in accordance with the source from which it is received.

3. The combination with two sources of polyphase electrical energy, and a distributing circuit therefor, of two polyphase electrical measuring instruments, and a single-phase selective device for connecting the one or the other of the instruments in circuit to measure the energy thereof in accordance with the source from which it is received.

4. The combination with a plurality of sources of electrical energy, a main circuit, means adapted to connect one or more of the sources thereto, and a branch circuit connected to the main circuit between the sources, of a measuring instrument corresponding to each source and associated with the branch circuit, and means whereby that instrument may be automatically selected to measure the energy supplied to the branch circuit which corresponds to the source from which it is supplied.

5. The combination with a plurality of sources of electrical energy, and a circuit supplied therefrom, of a measuring instrument corresponding to each source, a single set of auxiliary devices interposed between the circuit and the instruments, and means whereby that instrument may be automatically selected to measure the energy supplied to the branch circuit which corresponds to the source from which it is supplied.

1,029,744. COMBINATION-LEVEL. AZADE DIONIS DESILETS, Sherbrooke East, Quebec, Canada. Filed May 17, 1911. Serial No. 627,844. (Cl. 73—70.)

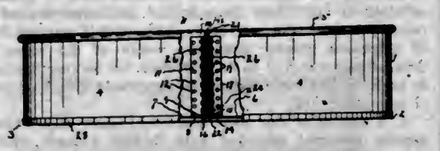
1. A device of the character described, comprising two pivotally connected level beams each provided with a recess in its inner face extending downwardly from its upper edge, said recesses being adapted to be alined, a cover plate for each recess and provided with a notch, said notches being adapted to be alined, and a horizontal level mounted in one of the aforesaid recesses and adapted to project into the other of said recesses when the level beams are closed together, the bubble of said level being readable through the aforesaid notches.



2. A device of the character described, comprising two pivotally connected level beams each provided with a recess in its inner face extending downwardly from its upper edge, said recesses being adapted to be alined, a cover plate for each recess and provided with a notch, said notches being adapted to be alined, a horizontal level mounted in one of the aforesaid recesses and adapted to project into the other of said recesses when the level beams are closed together, the bubble of said level being readable through the aforesaid notches, and means for adjustably securing said level.

3. A device of the character described, comprising two level beams pivotally connected together and each provided with a recess, said recesses being adapted to be alined when the level beams are closed together, a cover plate for each recess and provided with a notch, said recesses being adapted to be alined when the level beams are closed together, a block adjustably mounted in one of said recesses, means for securing said block in adjusted positions, and a level mounted in said block.

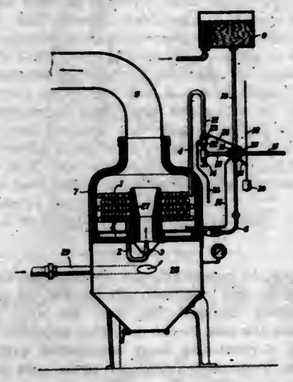
1,029,745. SECTIONIZED TANK. ALBERT N. EATON, Omaha, Nebr. Filed Apr. 3, 1911. Serial No. 618,660. (Cl. 220—125.)



1. A two part open top tank comprising a pair of semicircular sections, a pair of L shaped angle bars, one of said bars extending across the bottom and up each side of each of the tank sections, upon the inside thereof, one of the angular portions of each of said bars being fastened to its corresponding tank section, a packing between the other angular portions of said bars and means traversing said last named portions of said bars to draw them toward each other and to compress the packing between them, a roll rim around the upper edge of each of the tank sections, and reinforcing elements in said rim, the reinforcing element in the rim of one of the tank sections being adapted to enter the reinforcing element in the rim of the other tank section when said sections are drawn toward each other.

2. A two part open top tank comprising a pair of semicircular sections, a pair of L shaped angle bars, one of said bars extending across the bottom and up each side of each of the tank sections, one of the angular portions of each of said bars being fastened to its corresponding tank section, a packing between the other angular portions of said bars and means traversing said last named portions of said bars to draw them toward each other and to compress the packing between them, a roll rim around the upper edge of each of the tank sections, and reinforcing elements in said rim, the reinforcing element in the rim of one of the tank sections being adapted to enter the reinforcing element in the rim of the other tank section when said sections are drawn toward each other, and the bottom and sides of one of the tank sections being extended beyond its L shaped bar to cause it to overlap the bottom and sides of the other tank section when the tank sections are drawn toward each other.

1,029,746. VACUUM APPARATUS. LOUIS W. G. FLYNT, Rochester, N. Y., assignor to Domestic Appliances Company, a Corporation of New York. Original application filed Aug. 9, 1909, Serial No. 512,095. Divided and this application filed May 4, 1910. Serial No. 559,426. (Cl. 122—447.)



1. The combination of a source of supply of water, a steam-generator, connections between said source and the generator including a portion having an outlet higher than its inlet and with a capacity between said outlet and inlet sufficient to substantially delay the introduction of water into the generator while the water is rising to said outlet, means for heating the generator, means for controlling simultaneously the flow of water and the operation of the heating-means, and means for draining water from said connections when the flow of water from the source of supply is interrupted.

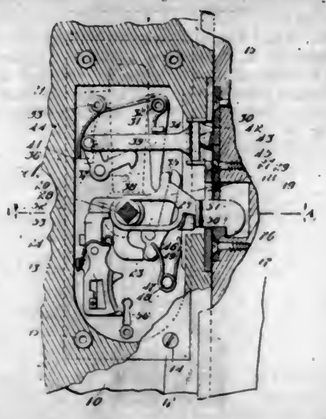
2. The combination of a steam-generator, a feed-water valve, a gas-burner for heating the generator, a gas-valve for controlling the flow of gas to the burner, means for opening the feed-water valve and the gas-valve simultaneously to admit feed-water and start the heating of the generator, connections between the feed-water valve and the generator including a portion having its outlet to the generator higher than its inlet from the feed-water valve and having a capacity, between said inlet and outlet, sufficient to substantially delay the introduction of water to the generator, and means operating automatically to drain the water from said portion when the feed-water valve is closed.

1,029,747. LOCK. JAMES A. GIESE, Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Dec. 31, 1909. Serial No. 535,807. (Cl. 70—31.)

1. In a lock for sliding doors and the like, in combination, a casing, a jamb plate having a shoulder, a stud projecting from the face of the jamb plate, an oscillatable and reciprocable bolt having a hooked end carried by the casing and movable between positions in which it is concealed within the casing and in which its hooked end projects from the casing to engage the shoulder of the jamb plate, respectively, a projecting spring acting on the bolt, a latch for securing the bolt in the retracted position, a trip engageable with the stud on the jamb plate for releasing the latch, means for oscillating and retracting the bolt, and key-controlled means for preventing the oscillation of the bolt.

2. In a latch, in combination, a casing, a reciprocable and oscillatable hooked bolt housed within the casing having a backwardly facing shoulder, a fixed abutment

carried by the casing and engageable with the shoulder when the bolt is advanced, and a retracting lever engageable with a laterally-extending arm on the bolt.

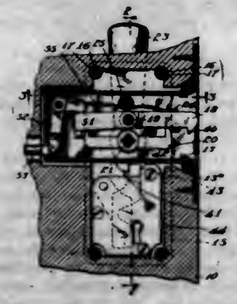


3. In a lock, in combination, a reciprocable hooked bolt having its inner end longitudinally slotted, an oscillatable pivot extending through the slot, an arm projecting laterally from the bolt in the direction opposite from that of the hook, a retracting lever engageable with the arm and an arm projecting from the pivot and engageable with the retracting lever.

4. In a lock, in combination, a hooked bolt having its inner end longitudinally slotted and having a backwardly facing shoulder projecting in the same direction as its hook, a pivot extending through the slot, an arm projecting laterally from the bolt oppositely from the shoulder and hook, a retracting lever engageable with the arm, and a fixed abutment engageable with the shoulder when the bolt is advanced.

5. In a lock, in combination, a reciprocable and oscillatable hooked bolt, a socketed keeper having an inwardly directed shoulder, an arm projecting laterally from the bolt oppositely from the hook thereof, a retracting lever engageable with the arm, and a key-controlled detent for preventing the oscillation of the bolt.

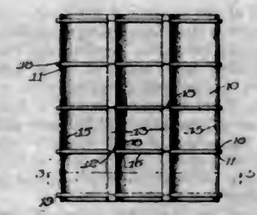
1,029,748. SLIDING-DOOR LATCH. JAMES A. GIESE, Chicago, Ill., assignor to The Adams & Westlake Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 22, 1911. Serial No. 622,771. (Cl. 70—31.)



1. In a door securing device, in combination, a forwardly directed pivoted latch, a rearwardly directed pivoted latch, a lever, a link connecting the lever with the second named latch, a two armed oscillatable follower, the arms thereof coöperating in alternation with the first named latch and the lever, and a hand controlled spindle for oscillating the follower.

2. In a door securing device, in combination, a forwardly directed pivoted latch, a rearwardly directed pivoted latch, a lever, a link connecting the lever with the second named latch, a two armed oscillatable follower, the arms thereof coöperating in alternation with the first named latch and the lever, a hand controlled spindle for oscillating the follower, and a locking bolt for holding the follower against action on first named latch.

1,029,749. EGG CARRIER OR RECEPTACLE. ESSINGTON N. GILFILLAN, Chicago, Ill.; Emma Gilfillan executrix of said Essington N. Gilfillan, deceased. Filed July 15, 1908. Serial No. 443,603. (Cl. 229—28.)



1. A device of the class described comprising a single piece of flexible material bent to form the parallel walls and partitions of an egg carrier, said walls and partitions being provided with slotted edges, said slots being alined transversely to said walls and partitions, and fastening strips removably seated in said slots, said strips being of a thickness greater than the width of the slots and provided with grooves adapting them to be inserted edgewise into said slots.

2. A device of the class described comprising a single piece of material provided with creases to form the bottom and side walls of a receptacle, and a plurality of partitions intermediate of said side walls, each of said partitions comprising two spaced walls provided with a plurality of slots in the edges thereof, and fastening devices extending transversely of the receptacle, said devices being of thickness greater than the width of the slots and transversely grooved to fit said slots for locking the parts in position and for dividing the receptacle into a plurality of compartments.

3. A device of the class described, made of a sheet of flexible material provided with folding creases whereby it is adapted to form an egg carrier in sections, each of said sections comprising walls and partitions for separating the eggs, said partitions and walls being provided with slots opening from the edges thereof, fastening strips of a thickness greater than the width of the slots and provided with grooves adapting them to be inserted edgewise into said slots, the portions of said sections forming said offset bend being provided with enlarged openings communicating with the slots adjacent thereto to permit the passage of the ends of said fastening strips.

1,029,750. ELECTRICAL PENDANT SWITCH. HENRY D. GORTNER, Colorado Springs, Colo. Filed July 12, 1911. Serial No. 638,097. (Cl. 175—282.)



1. A switch comprising a body proper, consisting of a plurality of sections, said sections being of a similar form and provided with a plurality of recesses therein, a plurality of posts frictionally held in corresponding recesses in said sections to hold the sections together, binding screws disposed on some of said posts and arranged to take the circuit wires and a plate for making contact between the last mentioned posts, and means for moving said plate into contact with said latter posts.

2. A switch comprising a body consisting of mating sections provided with recesses, dowels disposed frictionally in said recesses and adapted to hold the sections together, binding posts mounted on sundry of said dowels and arranged for the attachment of the circuit wires thereto, a plate secured to one of said posts and arranged for making contact between the posts, and a push rod movable in said sections and arranged to push said plate in a direction to make contact between the posts.

3. A pendant switch comprising a body proper, consisting of a plurality of sections, said sections having a plurality of recesses therein, a plurality of posts, said posts being disposed in recesses in adjacent sections so as to hold said sections frictionally together, means disposed on some of said posts for electrically connecting circuit wires thereto, a member connected to one of said last mentioned posts, and means for moving said member into contact with another of the last mentioned posts.

4. A switch comprising a body proper having a plurality of symmetrical sections, said sections being provided with a plurality of recesses therein, a plurality of posts disposed in the recesses of adjacent sections so that the same will be held frictionally together, means for securing circuit wires to said posts, and means for electrically connecting said posts together.

5. A switch comprising a body proper having a plurality of sections, said sections being provided with a plurality of recesses therein, a plurality of posts disposed in the recesses of adjacent sections, binding screws disposed on a pair of said posts and arranged to secure circuit wires thereto, and a member for making electrical contact with the last mentioned posts, and means for causing said member to make contact with the last mentioned posts.

[Claim 6 not printed in the Gazette.]

1,029,751. CHIROPRACTIC TABLE. ALBERT A. GRIFFIN, Lansing, Mich. Filed Aug. 23, 1911. Serial No. 645,514. (Cl. 128—16.)



1. In a device of the character described, a head portion provided with a stationary top, said top having a shelf hinged thereto and releasable means for supporting said shelf, and a foot portion, also supplied with a stationary top, and having a movable slide adapted to form an extension to said top.

2. In a device of the character described, a head portion provided with a stationary top, said top having a shelf hinged thereto, and releasable means for supporting said shelf, said means comprising a toggle having its outer extremities hinged respectively to said shelf and the base of said head portion, and a releasable lock for said toggle, and a foot portion, also supplied with a stationary top, and having a movable slide adapted to form an extension to said top.

3. In a device of the character described, a head portion provided with a stationary top, said top having a shelf hinged thereto, and releasable means for supporting said shelf, said means comprising a toggle having its outer extremities hinged respectively to said shelf and the base of said head portion, and a releasable lock for said toggle; a foot portion, also supplied with a stationary top, and having a movable slide adapted to form an extension to said top, and means for operating said slide.

4. In a device of the character described, a head portion provided with a stationary top, said top having a shelf hinged thereto, and releasable means for supporting said shelf, said means comprising a toggle having its outer extremities hinged respectively to said shelf and the base of said head portion, and a bar hinged at one extremity with a notch adapted to engage with a partition in said head member so as to lock said toggle; a foot portion, also supplied with a stationary top, and having a movable slide adapted to form an extension to said top, and means for operating said slide.

5. In a device of the character described, a head portion provided with a stationary top, said top having a shelf hinged thereto, and releasable means for supporting said shelf, said means comprising a toggle having its outer extremities hinged respectively to said shelf and the base of said head portion, and having a bar hinged at one extremity to said toggle, said bar being provided near the other extremity with a notch adapted to engage with a partition in said head member so as to lock said toggle; a foot portion, also supplied with a stationary top, and having a movable slide adapted to form an extension to said top; means for operating said slide, and a base for said table, said base being divided into two parts connected by hinges.

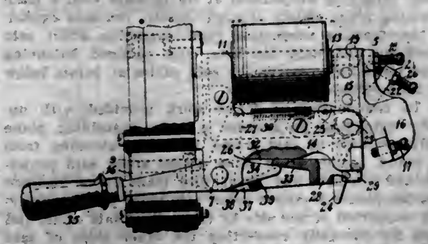
[Claims 6 to 8 not printed in the Gazette.]

1,029,752. INK-WELL. DAVID HARDIE, Edmonton, Alberta, Canada. Filed June 2, 1910. Serial No. 564,564. (Cl. 120—61.)



An ink stand comprising a base having a cylindrical reservoir provided upon the center of its bottom with an upstanding hump, a float located in the reservoir having converging side walls and having at its center a throat with converging side walls located vertically above the hump, the smaller end of said throat being at the bottom of the float, said float having a flat bottom and a concaved top, said float being of greatest diameter at its top and the edge of the concavity in the top terminating at the greatest diameter of the float.

1,029,753. CIRCUIT-INTERRUPTER. FORD W. HARRIS, Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company, a Corporation of Pennsylvania. Filed Aug. 15, 1911. Serial No. 644,164. (Cl. 175—269.)



1. A tripping device for circuit interrupters comprising a stationary magnetizable core, a winding therefor, a coöperating movable armature, an operating lever, a latch to restrain said lever and adapted to be released by said armature, and a power spring disposed between said latch and said operating lever for maintaining said members in

engagement and for actuating said lever when released from said latch.

2. A tripping device for circuit interrupters comprising a stationary magnetizable core, a winding therefor, a movable armature, an operating lever, means for restraining said lever and adapted to be released by said armature, means associated with said restraining means and said operating lever for holding the same in engagement, said means being adapted to actuate said lever, and means associated with said lever for tripping said interrupter.

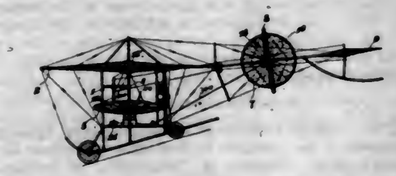
3. A tripping device for circuit interrupters comprising a stationary magnetizable core, a winding therefor, a movable armature associated therewith, a restraining latch adapted to be released by said armature, an operating shaft, a lever loosely mounted thereon, a power spring disposed between said latch and said lever for maintaining both of said members in engagement and for actuating said lever when released from said latch, and a projecting arm fixed to said shaft and adapted to be engaged by said lever.

4. The combination with a stationary magnetizable core, a winding therefor, a movable armature associated therewith, an operating shaft, an operating lever loosely mounted thereon, a latch for restraining said operating lever and adapted to be released by said armature, and a coil spring located between said latch and said operating lever and adapted to actuate said lever, of means for transmitting the movement of said operating lever to said operating shaft, and means associated with said shaft for resetting the parts.

5. In a circuit interrupter, the combination with an electromagnet comprising a stationary core, a movable core, and an energizing winding, of an operating member, means dependent upon the movement of said operating member for tripping said interrupter, means for restraining said operating member, and a power spring for maintaining said restraining means in engagement with said operating member and for actuating said operating member when released from said restraining means.

[Claims 6 and 7 not printed in the Gazette.]

1,029,754. AEROPLANE. JOHN R. HENDRICKSON, Edmonton, Alberta, Canada. Filed Mar. 11, 1911. Serial No. 613,763. (Cl. 244—29.)

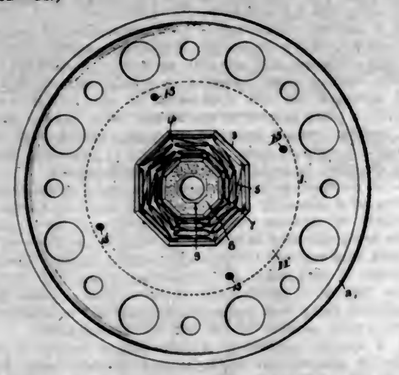


1. In combination, a frame work provided with upwardly extending projections at its forward end, a main sustaining plane rigidly secured therein, brackets extending therefrom, a supporting cable extending about said projections and said brackets, and inclined balancing planes pivotally supported by said cables at points below said main sustaining plane.

2. In combination, a frame work provided with upwardly extending projections, a main sustaining plane rigidly mounted in said frame, brackets extending from said plane, a supporting cable passed about said projections and brackets and about said main plane, inclined balancing planes arranged below said main plane and pivotally supported at one side by the ends of said cable, and means for pivotally connecting the other sides of said balancing planes to the frame.

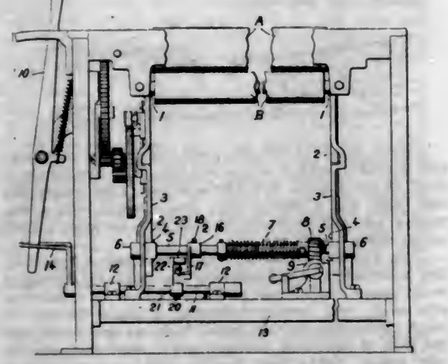
3. An aeroplane plane comprising a hub, a rim, a plurality of spokes arranged in two sets spaced apart by said hub and rim and connecting the same, means for adjusting each individual spoke, a fabric arranged between said sets of spokes, and tightening wires adapted to hold said fabric in place.

1,029,755. SPRING-WHEEL. ROBERT HOOD, Cedarville, Ohio. Filed July 24, 1911. Serial No. 640,355. (Cl. 152—44.)



A vehicle wheel comprising a disk having a central opening, said disk having a tread portion and an integral annular flange of octagonal formation, a tubular member of octagonal formation within said opening spaced from said flange, a tubular octagonally formed axle sleeve within said tubular member but spaced therefrom, a rubber ring of octagonal formation disposed betwen said sleeve and said tubular member, a plurality of conical springs between said flange and said tubular member, and side plates secured to said disk.

1,029,756. LOOM. ROBERT JAMIESON, Hopedale, Mass., assignor to Draper Company, Hopedale, Mass., a Corporation of Maine. Filed Mar. 29, 1912. Serial No. 687,104. (Cl. 139—52.)

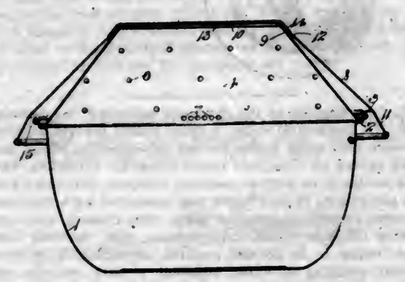


1. In a loom having vertically movable supports for the cloth roll, a shaft revolved by movement of the supports as the cloth is wound upon the roll, and the knock-off rod for the shipper, in combination, a tripping finger fixedly mounted on and extended radially from the shaft, and an arm secured to said rod and having a projection in the path of movement of said finger, whereby a predetermined rotative movement of said shaft will effect engagement of the tripping finger and the arm and cause operative rotation of the knock-off rod.

2. In a loom having means to support the cloth roll, including a shaft revolved proportionally to the increase in the diameter of the cloth wound upon the roll, and a knock-off rod for the shipper, in combination, a radially extended tripping finger angularly adjustable upon said shaft, and an arm fixed on the said rod and having a part in the path of the finger, to be struck thereby after a predetermined rotative movement of the shaft, whereby the knock-off rod is turned.

3. In a loom having means to support the cloth roll, including a shaft revolved slowly as the cloth is wound upon the roll, and a knock-off rod for the shipper, in combination, a radially extended tripping finger angularly adjustable on said shaft and having an offset cam portion, and an arm secured on the knock-off rod and provided with a lateral projection in the path of and to be struck by the cam portion of the tripping finger, to operate the knock-off rod.

1,029,757. HEATER. WILLIAM R. JEAVONS, Cleveland, Ohio. Filed Jan. 11, 1911. Serial No. 602,043. (Cl. 158—91.)



1. In a device of the character described, the combination of a receptacle for liquid fuel, a perforated tapered air distributer above the fuel in said receptacle and arranged to receive all the vapors generated from such fuel, and a tapered hood mounted on the upper end of the distributer and extending below the lower end thereof and forming therewith an air space decreasing in width from bottom to top.

2. The combination, with an oil receptacle having an outwardly projecting ledge at its upper end, said ledge having an upwardly projecting peripheral flange, of a perforated air distributer having its lower edge resting on said ledge, and a projecting hood over said air distributer and having its lower end extending below said flange and spaced therefrom.

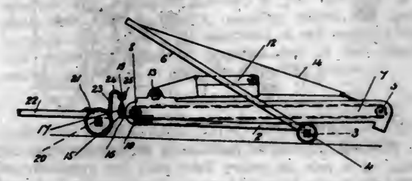
3. The combination, with an oil receptacle having an outwardly projecting ledge at its upper end, said ledge having an upwardly projecting peripheral flange, of a tapered air distributer having its lower edge resting on said ledge and being provided with perforations in the body thereof, and a protecting hood over said air distributer and having its lower end extending below said flange and spaced therefrom, there being one or more apertures provided near the lower edge of said distributer for maintaining a vaporising flame in proximity to the fuel in said receptacle.

4. In a device of the character set forth, the combination of a liquid fuel receptacle, an open top perforated air distributer which is wider at the bottom than at the top having its lower portion supported by the upper portion of the receptacle at a point above the surface of the liquid therein and forming therewith a chamber embracing the entire surface of the liquid in said receptacle, and a hood adapted to be supported above the air distributer and to protect the perforations thereof and arranged to direct air through said perforations.

5. In a device of the character set forth, the combination of a liquid fuel receptacle, a perforated air distributer which is wider at the bottom than at the top having its lower portion supported by the upper portion of the receptacle at a point above the surface of the liquid therein and forming therewith a chamber embracing the entire surface of the liquid in said receptacle and providing an air supply for combustion within such chamber through such perforations, said chamber being provided with one or more special perforations located in closer proximity to the surface of the oil in the receptacle than the other perforations for the purpose of maintaining a larger supply of flame at such point.

[Claims 6 and 7 not printed in the Gazette.]

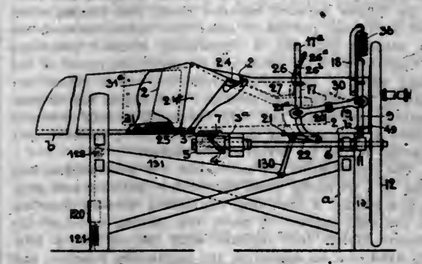
1,029,758. ELEVATOR-TRUCK. CHARLES F. LADWIG, Macon, Mo. Filed July 15, 1911. Serial No. 638,774. (Cl. 21—65.)



1. In an elevator truck, the combination, with longitudinal truck sills, and a rear axle and wheels at one end portion of the sills; of a crossbar arranged at the other end portion of the sills, a jointed coupling device arranged in a vertical plane and pivotally connected with the middle part of the crossbar, a front axle provided with wheels, a draft-pole secured to the front axle, and an arm which projects upwardly from the rear part of the draft-pole and which has a coupling device at its free end for engaging pivotally with the coupling device on the crossbar.

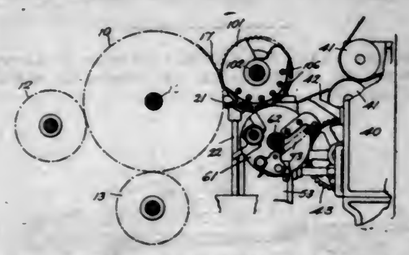
2. In an elevator truck, the combination, with longitudinal truck sills, and a rear axle and wheels at one end portion of the sills; of a crossbar arranged at the other end portion of the sills, a clevis pivoted to the middle part of the crossbar, a coupling-ring engaging with the clevis, said clevis and coupling-ring being arranged in a vertical plane, a front axle provided with wheels, a draft-pole secured to the front axle, and an arm which projects upwardly from the rear part of the draft-pole and which has a rearwardly projecting end portion terminating in a coupling-hook for engaging with the said ring.

1,029,759. FEEDER FOR STRAW AND TOBACCO CUTTERS. MAGNUS LARSSON, Helsingborg, Sweden. Filed June 8, 1911. Serial No. 632,027. (Cl. 83—25.)



In a feed cutting machine, the combination of a supporting structure, a trough fixed thereto and having the greater portion of its bottom cut away, a feeder loosely mounted in said trough and comprising a trough shaped lower jaw mounted to reciprocate in said fixed trough, means for raising and lowering the front end of said jaw, a plate secured at its rear edge to the bottom of said fixed trough with its free front end positioned to overlap the rear end of said jaw for covering and guiding it in its rearward movement, plates similarly secured to the sides of the fixed trough, and an upper jaw pivotally connected with said lower jaw.

1,029,760. FEED MECHANISM. WILLIAM A. LORENZ and JOSEPH MERRITT, Hartford, Conn., assignors to Union Paper Bag Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Original application filed July 10, 1907, Serial No. 383,083. Divided and this application filed Sept. 28, 1909. Serial No. 519,983. (Cl. 101—36.)



1. The combination, in mechanism for transporting bag blanks, of a pair of rotary feed rolls for gripping and feeding the blanks forward between them, having a relieved portion to admit the blanks between them without gripping, and adjustable driving means extraneous to said rolls to enable the latter to be adjusted circumferentially to vary the position of the gripping surfaces relative to the driving means.

2. The combination, in mechanism for transporting bag blanks, of a pair of rotary feed rolls for gripping and feeding the blanks forward between them, having a relieved portion to admit the blanks between them without gripping, driving means adjustably connected with the said rolls to enable their gripping surfaces to be adjusted circumferentially, and a registering member coacting with the said rolls to retard the travel of the leading ends of the blanks and register them with the gripping surfaces of the rolls.

3. The combination, in mechanism for transporting bag blanks, of a pair of rotary feed rolls for gripping and feeding the blanks forward between them, having a relieved peripheral portion to admit the blanks between the rolls without gripping, a registering member coacting with the said rolls to retard the travel of the leading ends of the blanks, means for operating the said registering member, and means for adjusting the said operating means to vary its time of operation relative to the gripping surfaces of the rolls.

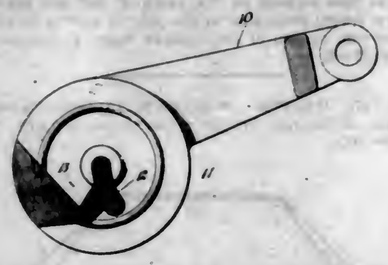
4. The combination, in mechanism for transporting bag blanks, of a pair of rotary feed rolls for gripping and feeding the blanks forward between them, and having a relieved peripheral portion to admit the blanks between the rolls without gripping, a registering member revolving and coacting with the said rolls to retard the travel of the leading ends of the blanks, relatively fixed means for operating the registering member, and means for circumferentially adjusting the said operating means, whereby the time of operation of the said registering member may be varied during its revolving movement.

5. The combination, in mechanism for transporting bag blanks, of a traveling blank carrier for receiving and gripping the blanks, a revolving registering member coacting with the said carrier to move the leading ends of the successive blanks into register with the carrier, a relatively fixed cam for operating the registering member, and means for adjusting the cam circumferentially to vary the time of the registering movement.

[Claims 6 to 17 not printed in the Gazette.]

1,029,761. WINDING-MACHINE. HENRY J. MARX, Holyoke, Mass., assignor to The American Thread Company, New York, N. Y., a Corporation of New Jersey. Original application filed Oct. 10, 1910, Serial No. 586,169. Divided and this application filed Jan. 24, 1911. Serial No. 604,324. (Cl. 242—130.)

1. In a machine of the character described, the combination of a horisontal drum, a spool holder pivoted adjacent thereto, said spool holder having two opposing heads, each head having an elongated recess upwardly extending when said holder is in normal position, channels extending from the peripheries of said heads and connected with their said recesses at points above the lower ends thereof, and a removable rod having its ends within said recesses, said channels entering said recesses obliquely and slanting downward near said recesses when said holder is in normal position.



2. In a machine of the character described, the combination of a horizontal drum, a spool holder pivoted adjacent thereto, said spool holder having two opposing heads, each head having an elongated recess upwardly extending when said holder is in normal position, channels extending from the peripheries of said heads and connected with their said recesses at points above the lower ends thereof, and a rod having its ends within said recesses, said channels when said holder is in normal position extending in a downwardly slanting direction adjacent to said recesses, and extending upwardly toward said peripheries, the lowest point of the upper wall of said channel being approximately in line with the point where the lowest wall thereof meets the wall of said elongated recess.

3. In a machine of the character described, the combination of a horizontal drum, a spool holder pivoted adjacent thereto, said spool holder having two opposing heads, each head having an elongated recess upwardly extending when said holder is in normal position, channels extending from the peripheries of said heads and connected with their said recesses at points between the ends of said recesses, and a removable rod having its ends within said recesses, said channels entering said recesses obliquely and slanting downward near said recesses when said holder is in normal position, the lowest point of the upper wall of said channel being approximately in line with the point where the lowest wall thereof meets the wall of said elongated recess.

1,029,762. WHEEL AND JOURNAL. LOUIS MAYER, Mankato, Minn. Filed May 5, 1910. Serial No. 559,542. (Cl. 21—90.)

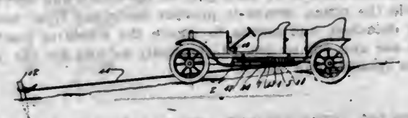


1. The combination with a wheel provided with a hub having an integrally formed disk-like flange and an integrally formed cylindrical flange projecting from the latter and surrounding said hub, of a hollow trunnion surrounding said hub, spaced apart therefrom and having an integrally formed lock flange, an anti-friction journal interposed between said trunnion and the cylindrical flange of said hub, and a lock ring detachably secured to said cylindrical flange and engageable with the flange of said trunnion and serving to hold said wheel on said trunnion while permitting rotation thereof, substantially as described.

2. The combination with a wheel provided with a hub plate having a cylindrical flange, of a trunnion located within said cylindrical flange, an anti-friction journal interposed between said trunnion and cylindrical flange, said trunnion having a lock flange outward of said journal and a segmental cylindrical knuckle box outward of said lock flange, and a split lock ring screwed into the projecting end of said cylindrical flange, overlapping the said lock flange and serving to hold said wheel on said trunnion while permitting rotation thereof, substantially as described.

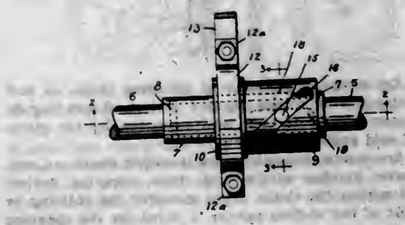
3. The combination with a wheel including a hub with a disk-like flange and a cylindrical flange projecting from the latter and spaced apart from and surrounding said hub, the said hub in its projecting end having an angular seat for connection to a driving knuckle, a hollow trunnion surrounding said hub, a ball bearing journal interposed between said trunnion and the cylindrical hub flange, said trunnion having a lock flange outward of said ball bearing device, and a segmental cylindrical knuckle box outward of said lock flange, and a split lock ring screwed into the projecting end of said cylindrical flange, overlapping the lock flange of said trunnion and serving to hold said wheel on said trunnion while permitting rotation thereof, substantially as and for the purposes set forth.

1,029,763. ATTACHMENT FOR MOTOR-VEHICLES. HERBERT ANTON NESS, Silverton, Oreg. Filed Dec. 11, 1911. Serial No. 665,173. (Cl. 21—90.)



A device of the character described comprising the motor shaft, a bevel gear fixed thereon, a shaft at a right angle to and in the same horizontal plane as the motor shaft secured at its ends and downwardly curved to pass by the motor shaft, a drum loosely mounted on the curved shaft provided at one end with bevel gear teeth to engage the teeth of the bevel gear on the motor shaft, said drum having also a recess in the toothed end surrounding its shaft, a spring coiled around said shaft in said recess, a collar fixed on said shaft affording a resistance to cause said spring to normally hold the drum teeth out of mesh with the bevel gear, and means, operable by the driver, to slide the drum, against the resistance of the spring, into engagement with the bevel gear on the motor shaft.

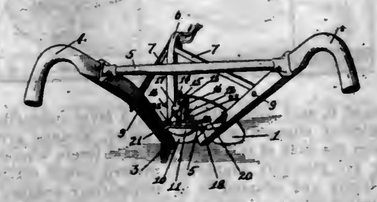
1,029,764. MECHANICAL MOVEMENT. TIDEMAND OPSAHL, Fillmore, Cal., assignor of thirty one-hundredths to W. E. McCampbell and G. E. Harpham, Los Angeles, Cal. Filed Feb. 20, 1912. Serial No. 678,952. (Cl. 74—14.)



1. A mechanical movement comprising a driven shaft; a coupling sleeve secured to the driven shaft and projecting beyond the end thereof, said sleeve having a transverse slot in its projecting portion; a driving shaft projecting into said coupling sleeve in alinement with the driven shaft; an adjusting sleeve slidably mounted upon said coupling sleeve, said adjusting sleeve having a longitudinal slot crossing the transverse slot of the coupling sleeve, and a diagonal slot opposite the longitudinal slot; a pin mounted in the driving shaft and projecting into the transverse slot of the coupling sleeve and the longitudinal slot of the adjusting sleeve; and means to shift the adjusting sleeve upon the coupling sleeve whereby the power of the driving shaft may be applied to the driven shaft at different points.

2. A mechanical movement comprising a driving and a driven shaft in alinement; a coupling sleeve secured upon one of said shafts and surrounding the end of the other shaft, said sleeve having a slot therein; an adjusting sleeve mounted and slidable on said coupling sleeve, said adjusting sleeve having a slot therein at right angles to the slot in the coupling sleeve and crossing the same, and another slot diagonal thereto; a pin mounted in the shaft not secured to the coupling sleeve and passing through said slots; a pin mounted in the coupling sleeve and projecting into the diagonal slot of the adjusting sleeve; and means to move the adjusting sleeve.

1,029,765. VINEYARD-PLOW. JAMES PORTEOUS, Fresno, Cal. Filed Feb. 8, 1911. Serial No. 607,223. (Cl. 97—21.)



1. In a plow body having a mold board, frog and land side, handles connected to the body, a beam, tie braces extending between the handles and beam and adjustably connected thereto, a bearing on the frog, a sleeve having a socket foot fitted on said bearing, a bracket on the mold board overlying said sleeve, and a pivot bolt passing through said bracket sleeve and foot, the said beam being secured to an extension of said sleeve.

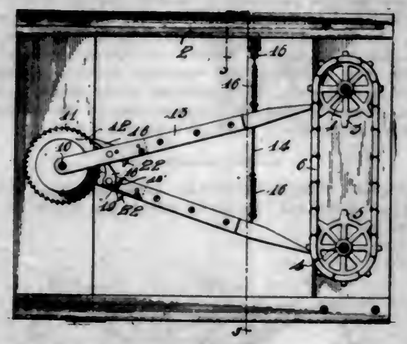
2. In a plow body having a mold board, frog and land side, handles connected to the body, a beam, tie braces extending between the handles and beam and having an adjustable connection at one end with one of said parts, a bearing on the frog, a sleeve having a socket foot fitted on said bearing, a bracket on the mold board overlying said sleeve, a pivot bolt passing through said bracket sleeve and foot, the said beam being secured to an extension of said sleeve, and a transversely extending curved rod secured at one end to the plow body and adjustably connected at its opposite end to the beam.

3. In a plow body having a mold board, frog and land side, handles connected to the body, a beam, tie braces extending between the handles and beam and adjustably connected thereto, a bearing on the frog, a sleeve having a socket foot fitted on said bearing, a bracket on the mold board overlying said sleeve, a pivot bolt passing through said bracket sleeve and foot, the said beam being secured to an extension of said sleeve, and a transversely extending curved rod rigidly connected at one end to the mold board and loosely passing through an integral extension of the sleeve, and securing nuts for said rod.

1,029,766. MECHANICAL MOVEMENT. JOHN C. RAMSAY, St. Louis, Mo. Filed Jan. 3, 1911. Serial No. 600,625. (Cl. 74—54.)

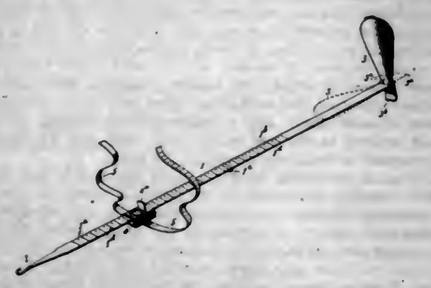
In a mechanical movement, a supporting frame, a drive shaft revolubly mounted therein, a series of sprocket gears fixedly mounted on said shaft, a counter-shaft revolubly mounted in said frame, a series of sprocket gears fixedly mounted on said counter-shaft, a series of sprocket chains to operatively connect said gears, trip bars arranged between and connected to the adjacent sides of said chains, the trip bars on one side of the sprocket gearing being arranged opposite to the spaces between the trip bars on the

opposite sides of the gearing, anti-friction sleeves arranged on said trip bars, a driven shaft revolubly mounted in said frame, a series of ratchet gears fixedly mounted on said shaft, said gears comprising a center or intermediate gear having its teeth arranged in one direction and side gears having their teeth arranged in the opposite direction, power transmitting levers pivotally connected at one end with said driven shaft and having their opposite ends tapered and arranged in position to be successively engaged by the trip bars on said sprocket chains, a pulley



arranged in said supporting frame, a lever supporting cable slidably engaged with said pulley, springs arranged between the ends of said cable and said levers whereby the latter are yieldably supported, pivoted pawls carried by said levers and adapted to be successively engaged with said intermediate ratchet gear, springs to hold said pawls in and out of operative positions, reversing pawls carried by said levers and adapted to engage said side ratchet gears, and springs adapted to hold said reversing pawls in and out of operative position.

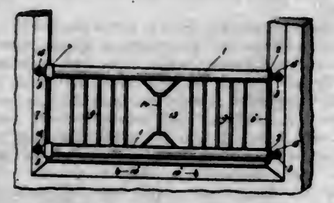
1,029,767. COMBINATION-TOOL. THOMAS A. REMINGTON, Crystal Lake, Ill. Filed June 14, 1911. Serial No. 633,166. (Cl. 7—1.)



1. The tool comprising a graduated member, a shoe horn pivoted at one end thereof and adapted to fold down upon the member and also adapted to be swung outwardly at an angle thereto, and a stop-device between the member and the plate and coöperating therewith to limit the outward movement of the plate relative to the member whereby said shoe horn serves as a heel-stop when said graduated member is used as a measuring device.

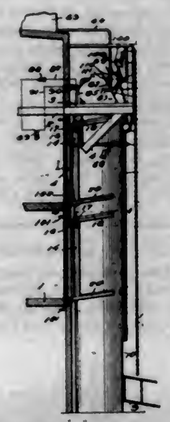
2. The tool comprising a graduated member including a plurality of sections movably connected together so as to fold one upon the other, a shoe horn hinged to one of the sections to fold down thereon in substantially parallel relation thereto and adapted to be swung outwardly in angular relation to said graduated member, a stop-device adapted to limit the outward movement of the plate relative to the member whereby said plate may constitute a heel-stop when the tool is used as a measuring device, and a sleeve slidable on the graduated member to serve as a toe-stop and also adapted to engage the shoe horn and said graduated member to hold the same in closed position.

1,029,768. FIRE-ESCAPE. FRITZ SCHNEIDER, Madretsch, near Bienne, Switzerland. Filed May 15, 1911. Serial No. 627,214. (Cl. 37—11.)



In a fire escape, the combination, of two slotted tubes, caps securely locking one end of said tubes, detachable caps fitted at the other ends, all the caps having ring shaped extensions, bars whereby the corresponding caps are rigidly connected with each other, rungs guided in the slotted tubes, cleats, arranged in pairs, at each end of the rungs and inside the tubes, U-shaped plates at both ends of each pair of cleats, the said plates terminating the openings which are formed by each pair of the cleats and serve to guide the rungs, means to prevent the rungs from becoming detached, and means to secure the whole in position for use and out of use, substantially as and for the purpose specified and shown.

1,029,769. FIRE-ESCAPE. WILLIAM H. SMITH, Gayhead, N. Y. Filed May 16, 1911. Serial No. 627,472. (Cl. 227—7.)



1. A fire escape, comprising an inclosing chute, an endless carrier moving within the said chute, and spraying devices automatically thrown into operation by the movement of said endless carrier.

2. A fire escape, comprising an inclosing chute, an endless carrier moving within said chute, spraying devices disposed within the chute, a rod mounted for shifting by movement of the endless carrier, a valve for the spraying devices, and connections between the rod and said valve for causing the opening of the valves upon moving of the carrier.

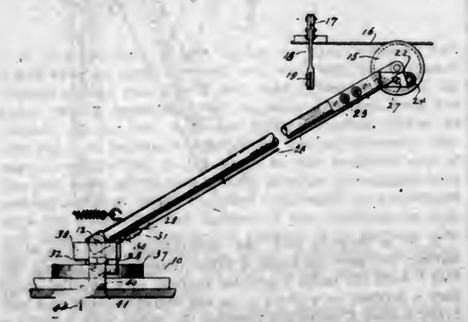
3. A fire escape, including an endless carrier, devices for spraying the carrier, an alarm, and a rod shifted by movement of the endless carrier and serving to turn on the spraying devices and cause the sounding of the alarm.

4. A fire escape, comprising a chute, spraying devices surrounding the chute, a valve for controlling said spraying devices, an endless carrier mounted within the chute, and means operated by the movement of said carrier for opening the controlling valve of the spraying devices.

5. A fire escape comprising an inclosing chute, an endless carrier mounted in the chute, a spraying device surrounding the chute, weight controlled means controlling the spraying device, and means operated by the movement of the carrier for releasing the weight to operate the spraying devices.

[Claims 6 to 14 not printed in the Gazette.]

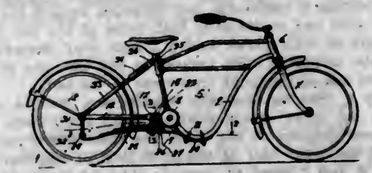
1,029,770. OPERATING-DEVICE FOR STREET-INDICATORS. PERRY T. SPINDLER, Chicago, Ill., assignor to American Street and Station Indicator Company, Chicago, Ill., a Partnership. Filed July 3, 1911. Serial No. 636,761. (Cl. 246—55.)



1. The combination with a trolley wire structure having a projecting spring contact piece, of a trolley pole, and an elastic contact member projecting therefrom and arranged to strike the contact piece, said contact member comprising a coiled spring.

2. The combination with a trolley wire structure having a projecting spring contact piece, of a trolley pole, and an elastic contact member projecting therefrom and arranged to strike the contact piece, said contact member comprising a coiled spring and a recessed sleeve of insulating material covering the rear side of said spring.

1,029,771. SPRING-FRAME FOR MOTOR-CYCLES. CHARLES G. STEPHENSON, Denver, Colo. Filed July 3, 1911. Serial No. 636,783. (Cl. 208—103.)



1. A spring frame for motorcycles and other similar machines, comprising in combination with a frame having upper and lower rear forks, the upper rear fork having a telescopic connection with the seat post, a spring whose forward extremity is secured to the framework of the machine and whose rear extremity is suspended by hanger links supported by the rear axle, substantially as described.

2. The combination with the framework of a machine of the class described, of a spring located below the lower rear fork of the machine, its forward extremity being connected with the frame, links depending from the opposite extremities of the rear axle with which they are pivotally connected, the rear extremity of the spring being connected with said links, substantially as described.

3. The combination with the framework of a motorcycle or similar machine, of a plate secured to the framework of the machine below the crank hanger and to the lower rear fork in the rear of the crank hanger, and a spring whose forward extremity is secured to the said plate, the rear extremity of the spring having a link connection with the rear axle of the machine, substantially as described.

4. The combination with the framework of a machine, of the class described, of a plate secured to the framework and located below the crank hanger, and a spring composed of two separated members, whose forward extremities are connected with the said plate and whose rear extremities have a link connection with the opposite extremities of the rear axle, substantially as described.

1,029,772. OVERSHOE. WILMOT N. STEUART, Brookfield, Ohio. Filed Nov. 2, 1910. Serial No. 590,307. (Cl. 36—5.)



1. In an overshoe, an approximately V-shaped vent formed in the upper rear portion of the counter, one side of said overshoe extending over said V-shaped vent and providing an overlapping portion therefor, a folded fabric connecting the two sides of said V-shaped vent, a tape connected at one end to said extended portion and extending down and across in front of the heel and up to the other side of said vent and means for fastening said extended portion to the opposite side of the vent, substantially as described.

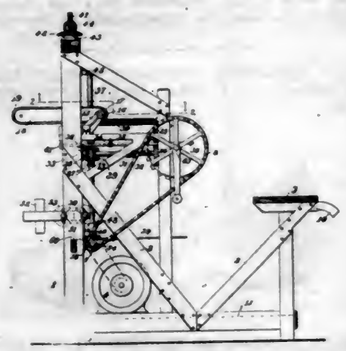
2. In an overshoe, an approximately V-shaped vent formed in the upper rear portion of the counter, one side of said overshoe being provided with an overlapping portion adapted to extend across said vent, a folded fabric connecting the two sides of said V-shaped vent, a tape having one end secured to the overlapping portion between the fabric and water proof material and extending down the heel across the instep and up to the other side of said vent, being secured its entire length between the fabric and water proof material and means for fastening the extended portion of the overshoe to the opposite side of the vent whereby the overshoe is held firmly against the shoe, as and for the purpose set forth.

1,029,773. MORTISING-MACHINE. LEE A. SUNDAY, Richmond, Va. Filed Feb. 24, 1911. Serial No. 610,541. (Cl. 144—72.)

1. In a mortising machine, the combination of an upright frame, a clamp at the front end thereof, a vertically adjustable carriage in the frame, and above the clamp, a horizontally movable cutter carriage mounted on said carriage and slidable thereon toward and from the front end of the frame, a cutter mounted on said cutter carriage and projecting beyond the end of the frame and above the clamp, in position to operate on work held by the clamp, said clamp having members at opposite sides of the plane of vertical movement of the cutter, whereby lateral displacement of the work is prevented, and being open at the front to receive the work therebetween.

2. In a mortising machine, the combination of an upright frame, a vertical shaft supported in bearings therein, means to drive said shaft, a horizontally movable cutter carriage mounted in the frame, a cutter carried thereby, gearing between the said shaft and the cutter to drive the latter, including a horizontal shaft and a gear movable along the same as the carriage is advanced or retracted, and gearing between the vertical shaft and the carriage, to feed the latter, said gearing including a horizontal shaft, and a feed screw operated thereby.

3. In a mortising machine, the combination of an upright frame, a shaft therein, means to drive said shaft, a supporting carriage in the frame, adjustable longitudinally of said shaft, a movable cutter carriage mounted on said supporting carriage, a cutter carried by the cutter carriage, gearing between the shaft and the cutter carriage to feed the latter, and gearing between the vertical shaft and the cutter, to drive the latter, each of said gearings including a wheel shiftable along the shaft according to the adjustment of the supporting carriage.



4. In a mortising machine, the combination of a frame, a vertical shaft mounted therein, means to drive said shaft, a vertically adjustable supporting carriage in the frame, a horizontally movable cutter carriage on the supporting carriage, a cutter carried by the cutter carriage, gearing between the vertical shaft and the cutter, said gearing including a worm wheel slidable up and down on the shaft as the supporting carriage is raised or lowered, a worm geared to said worm wheel and extending horizontally parallel to the line of movement of the cutter carriage, gearing between said worm and the cutter, and feed gearing between the vertical shaft and the cutter carriage, including a screw engaging the cutter carriage to advance or retract the same, a horizontal shaft geared to said screw, a worm wheel slidable up and down on the vertical shaft and a worm gear and clutch on the horizontal shaft, said worm gear meshing with said worm wheel.

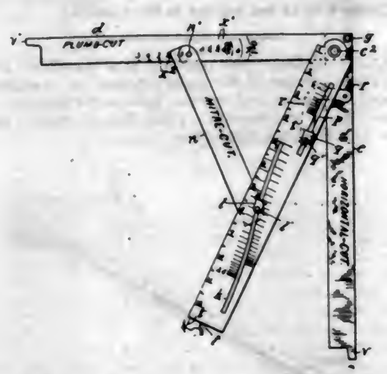
5. In a mortising machine, the combination of a feed carriage and means to advance and retract the same, a chain cutter mounted on said carriage and movable back and forth therewith, and means to drive the cutter including a worm extending parallel to the line of movement of the carriage, and a cross shaft supported by the carriage and operatively connected to the chain, and a worm gear on the cross shaft, engaging said worm to drive the shaft.

[Claim 6 not printed in the Gazette.]

1,029,774. FRAMING-TOOL. CHARLES C. TAINTOR, Elizabeth, N. J. Filed Aug. 17, 1911. Serial No. 644,658. (Cl. 73—80.)

1. In a framing-tool, the combination, with the stock and the marking blade *d* pivoted thereto, of an index movable upon the stock and a link connecting the index and marking blade the stock having a series of scale-marks in the path of such index with separate numbers and figures applied to each of said scale-marks, the numbers indicating the rise per unit of base for rafters and the figures indicating the gain in length per foot run for the designated rise of such rafters, each scale-mark thus performing a double function in conjunction with a single index.

2. A framing-tool for marking the angles of common-rafters and hip-rafters and gaging or marking the backing of hip-rafters, comprising the stock having the slot *k* with the index *l* fitted movably thereto, the marking-blades *d* and *e* connected together and to the stock by pivot c^3, the link *n* connecting the blade *d* with the index *l*, scale-marks at opposite sides of the slot *k* for setting the blade *d* at suitable angles for marking the bevels upon the common-rafters and hip-rafters, the slot *p* adjacent to the pivot c^3 with the index *q* fitted movably therein, the link *r* connecting the marking-blade *e* with the said index, and scale-marks adjacent the slot having numbers thereon indicating various rises per unit of base and disposed to set the blade *e* at a suitable angle for gaging or marking the backing of hip-rafters having the designated rise.



3. In a framing tool, the combination, with the stock having the marking-blade *d* fitted thereto and having the slot *k* with the index *l* movable therein, of a parallel edged link *n* jointed by a pivot *n'* to the marking-blade and carrying a stud *l'* extended through the index with a nut for clamping the index upon the stock, the link *n* setting at 45 degrees to the stock and marking-blade when they are at right angles to one another, the stock having scale-marks *o* by the slot *k* uniting numbers indicating various rises of rafters per unit of base, and the rule *t* having the open notch *x* in its end adapted to engage the index-stud, the blade *d* having a scale adjacent its linked pivot *n'* by which to set the edge of the rule *t* for marking the beveled joints of jack-rafters with deflected hip-rafters.

4. A framing tool having a stock provided with the slot *k* having two diverse sets of scale-marks at opposite edges of the slot with numbers and figures upon each indicating respectively the rise and gain of common rafters and hip-rafters, the clamp-stud *l'* movable in the slot, the blade *d* jointed to the stock with the link *n* pivoted to the blade and carrying the clamp-stud, a nut applied to the stud over the index to clamp it upon the slot and the index having a transverse end extended beyond the side of the stud and overlapping both sides of the slot to fit both sets of scale-marks, and a tongue bent downwardly from the middle of such transverse end into the slot to hold the end of the index transverse to the slot.

5. In a framing tool, the combination, with a stock having the outer cheeks *a* and *b* with pivot-holes *c* in each near one end of the same, and the cheek *a* curving around the outer half of the pivot-hole, of the marking-blades *d* and *e* fitted to opposite sides of the stock one over the other, having each a pivot-hole near its inner edge and secured movably between the cheeks by the pivot c^2, the bolt-hole *f* in the blade *e* outside the curved end of the cheek *a*, the tubular boss *g'* secured to the blade *d* with the bolt *g* fitted movably in said boss and having the spiral spring *h* to hold it normally clear of the bolt-hole *f* in the blade *e*, and the bayonet lock formed of the pin *i* upon the bolt and the slot *j* in the side of the boss to hold the bolt in engagement with the bolt-hole *f* when desired.

1,029,775. NUT-LOCK. JAMES TOBIN, St. Bonifacius, Pa. Filed Nov. 27, 1911. Serial No. 662,668. (Cl. 151—2.)

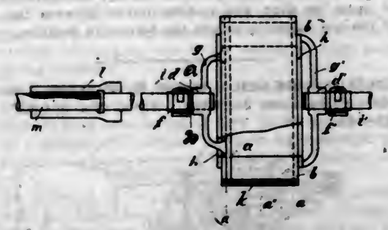
1. A nut lock comprising a bolt, a nut adapted to be screwed onto the bolt, said nut having on one end an extension, said extension being threaded on its outer surface in an opposite direction from the threads of the bolt, and a locking member having a sliding non-rotating engagement with the bolt, said member having its inner surface threaded to correspond with the outer threaded surface of the extension on the nut whereby the latter is screwed into the locking member thus locking the nut in its adjusted position.



2. In a nut lock, a bolt having an irregular outer end a nut adapted to be screwed onto said bolt, an extension formed on one end of said nut, said extension having its outer surface threaded in an opposite direction from the threads of the nut, a hollow locking member closed at one end and having in said closed end an irregular passage corresponding to the shape of the irregular end of the bolt with which said locking member is engaged, said locking member being threaded internally to correspond with the outer threaded surface of the extension on said nut whereby said extension is adapted to be screwed onto the locking member and the latter thus drawn inwardly on the irregular end of the bolt thereby locking the nut in its adjusted positions.

3. In a nut lock a bolt having a squared outer end, a nut adapted to be screwed onto the bolt, said nut having on one end a reduced cylindrical extension, said extension being interiorly threaded to correspond with the threads in the nut and having its outer surface threaded in an opposite direction, a locking member comprising a thimble having in its closed outer end a squared passage adapted to fit the squared end of the bolt when the latter is engaged therewith and having its inner surface threaded to correspond with the threaded outer surface of the extension on the nut, said extension being adapted to be screwed onto the end of the thimble thereby drawing the latter onto the squared end of the bolt and locking the nut in its adjusted positions.

1,029,776. PROPELLING DEVICE FOR WATER AND AIR VESSELS. CORNELIUS WILHELMUS VAN DEURSEN, Nimwegen, Netherlands. Filed Oct. 13, 1911. Serial No. 654,546. (Cl. 115—14.)



1. A propelling device for water and air vessels, comprising an open-ended cylinder mounted on a propeller shaft, internal ribs arranged in axial direction on the cylinder wall so as to set the fluid in the cylinder in motion and expel it by centrifugal force through the ends of said cylinder, and a disk fitted in the cylinder so as to obstruct the axial movement of the fluid, the cylinder and disk being capable of relative adjustment so as to direct the flow toward either or both ends of the cylinder and so to regulate the movement of the vessel, substantially as set forth.

2. A propelling device for water and air vessels, comprising an open-ended cylinder mounted on a propeller shaft, internal ribs arranged in axial direction on the cylinder wall so as to set the fluid in the cylinder in motion and expel it by centrifugal force through the ends of said cylinder, a disk loosely held in said cylinder so as to obstruct the axial movement of the fluid, and means for adjusting the position of said disk in the cylinder so as to direct the flow toward either or both ends of the same and so to regulate the movement of the vessel, substantially as set forth.

3. A propelling device for water and air vessels, comprising an open-ended cylinder mounted on a propeller shaft, internal ribs arranged in axial direction on the cylinder wall so as to set the fluid in the cylinder in motion and expel it by centrifugal force through the ends of the cylinder, and a ring-shaped disk fitted in the cylinder so as to obstruct the axial movement of the fluid at the circumference of the cylinder but allow such movement in the center thereof, the cylinder and disk being capable of relative adjustment so as to direct the flow toward either or both ends of the cylinder and so to regulate the movement of the vessel, substantially as set forth.

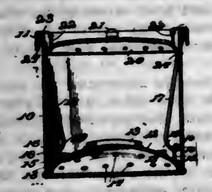
4. A propelling device for water and air vessels, comprising an open-ended cylinder mounted on a propeller shaft, internal ribs arranged in axial direction on the cylinder wall so as to set the fluid in the cylinder in motion and expel it by centrifugal force through the ends of the cylinder, a ring-shaped disk fitted in said cylinder so as to obstruct the axial movement of the fluid at the circumference of the cylinder but allow such movement in the center thereof, the disk having open-ended slots to accommodate said ribs, and means for adjusting the disk in the cylinder so as to direct the flow toward either or both ends of the cylinder and so to regulate the movements of the vessel, substantially as set forth.

1,029,777. PROCESS OF MANUFACTURING WAX FLOWERS. MARIE WERBATUS, Elster, Germany. Filed Sept. 13, 1911. Serial No. 649,070. (Cl. 41—13.)



A process of making wax flowers, consisting in molding wax petals of suitable shape by immersing a moistened wooden mold in a bath of melted wax, removing the wax coating from the mold after it has cooled, shaping the wax petals thus formed into the desired shape, attaching a wire stem to each of such petals and assembling such petals to form a flower.

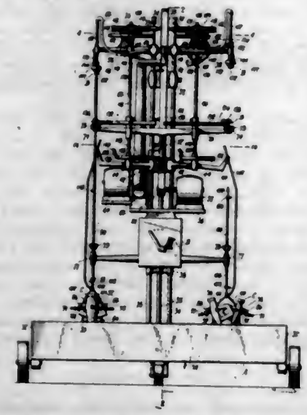
1,029,778. WASHBOILER. LEWIS WEST, Monett, Mo. Filed Oct. 7, 1910. Serial No. 585,844. (Cl. 68—30.)



The combination with a wash boiler having an outwardly projecting rim, of a cover removably fitted within the boiler and lying in a plane below the said rim, and

means for supporting the cover and for holding it against upward displacement, said means comprising loops secured upon the cover at opposite sides thereof and keepers pivotally connected one with each of the loops, each of the keepers comprising a plate bent to form a right angularly projecting flange having an extension bent to form a pivot lug connected with the respective loop, the said flange being arranged to project over the said rim with the body of the plate extending down beside the rim exterior to the boiler, and the said plate having a lug stamped to project at an angle from the inner side thereof and engaging beneath the said rim.

1,029,779. GLASS-BLOWING APPARATUS. ALBERT C. WILCOX, Wheeling, W. Va. Filed Jan. 25, 1912. Serial No. 673,418. (Cl. 49—19.)



1. In a glass blowing apparatus the combination of an air supply, a mold, a blow pipe, a blow pipe holder removably supporting said blow pipe, a vertically movable slip joint adapted during its downward movement to pass into operative connection with the upper end of the blow pipe, means for adjusting said blow pipe holder toward and away from the limit of the upward movement of said slip joint whereby the latter may be brought into operative connection with the upper end of the blow pipe at different points in the descent of said slip joint, connections between the slip joint and the air supply and means operated by the application of the blow pipe to said holder for successively moving said slip joint into and out of operative connection with the blow pipe.

2. In a glass blowing apparatus, the combination of a frame, a two part mold having each section thereof carried by a pivoted operating arm, a spring yoke connecting said arms, a vertically-reciprocatory rod connected to said yoke and operating to open and close the sections of the mold through the reciprocation thereof, an arm fixed on said frame having an opening therein through which said rod slides, a lever pivotally mounted on said frame for oscillation in a vertical plane, an arm having one end pivotally connected to the lower end of said rod and its other end secured to said lever whereby the oscillation of the latter will reciprocate the rod to effect the opening and closing of the mold sections, and means for oscillating said lever.

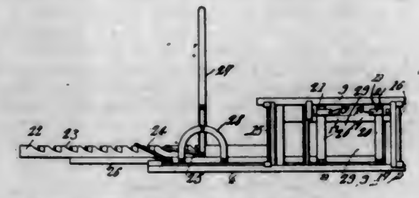
3. In a glass blowing apparatus, the combination of an air supply, molds, blow pipes, a blow pipe holder removably supporting each blow pipe and adjustable toward and away from its mold, rotatable shafts, a segmental gear mounted for rotation with each shaft and adjustable longitudinally of the latter, a gear on each blow pipe meshing with a respective segmental gear when the blow pipe is disposed in its holder whereby the rotation of the shaft carrying said segmental gear will effect the rotation of the blow pipe, and a common means for simultaneously adjusting all of said segmental gears longitudinally of said shafts and said blow pipe holders toward and away from the molds whereby said segmental gears and blow pipes may be maintained in the same relation to each other.

4. In a glass blowing apparatus, the combination of an air supply, a mold, a blow pipe, a blow pipe holder removably supporting said blow pipe, means for connecting the blow pipe with the air supply, a driving shaft and means for rotating same, a driven shaft, a clutch connection between the driving and driven shaft adapted to be thrown in by partial rotation of the driven shaft, a segmental gear mounted on said driven shaft for rotation therewith, a gear on said blow pipe adapted to mesh with said segmental gear when said blow pipe is fully inserted in the holder and an arm carried by and connected to said gear adapted to be engaged by the blow pipe in its application to the holder whereby a partial rotation will be imparted to the driven shaft to throw in the clutch connection, said connection being arranged to be thrown in simultaneously with the full insertion of the blow pipe in the holder.

5. In a glass blowing apparatus, the combination of an air supply, a mold, a blow pipe, a blow pipe holder removably supporting said blow pipe holder, a rotatable shaft, a segmental gear mounted on said shaft for rotation therewith, a gear on said blow pipe meshing with said segmental gear when the blow pipe is disposed within the holder whereby the rotation of said shaft will effect the rotation of the blow pipe, a pair of spaced bearings carried by said blow pipe holder disposed above and below said segmental gear respectively and means for adjusting the uppermost of said bearings horizontally.

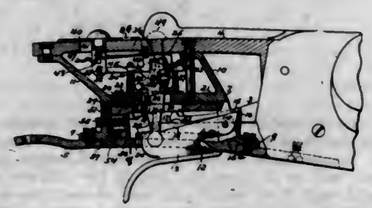
[Claims 6 and 7 not printed in the Gazette.]

1,029,780. HAY-BALING PRESS. WILLIAM P. WILSON, Shelby, N. C., assignor to John C. Beam, Shelby, N. C. Filed Oct. 18, 1910. Serial No. 587,746. (Cl. 100—6.)



In a hay press, a baling chamber having a top provided with a door, a pair of uprights disposed at each end and externally of the chamber, a plurality of top beams, cleats having terminal shoulders to embrace the exterior of the uprights to brace the chamber against spreading and to rest upon the door, and wedges driven between the cleats and the top beams to secure the former in position.

1,029,781. FIREARM. ALFRED H. WORREST, Lancaster, Pa. Filed June 25, 1909. Serial No. 504,327. (Cl. 42—42.)



1. In firing mechanism for double barrel guns, the combination of a frame and a complete single trigger mechanism including devices for locking the firing mechanism against action, carried by said frame, whereby the said frame and its operative mechanism may be applied as a unit to a double trigger gun for converting the latter into a single trigger gun.

2. In a firing mechanism for double barrel guns, the combination of a frame, single trigger alternating mechanism including two tumblers, each controlling a firing mechanism of one barrel, and means for retaining said tumblers against accidental movement, the said trigger mechanism as a whole and the retaining means being self contained in said frame, whereby the latter may be applied to a double barrel gun.

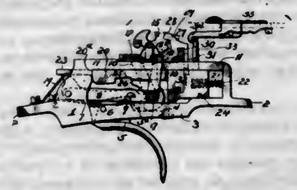
3. In a multi-barrel gun, the combination of a frame adapted to be inserted into a multi-barrel gun, complete single-trigger alternating mechanism carried by said frame and including alternating tumblers and spring actuated means coöperating with said tumblers to retain them in the position to which they may be moved.

4. In a multi-barrel gun, the combination with a slotted trigger plate, of a frame secured thereto and having a member lying in and closing the slot of the trigger plate and overlapping the latter at the ends, means for securing said frame in place, and a complete single trigger alternating mechanism carried by said frame for controlling the firing of the gun.

5. In a multi-barrel gun, the combination with the tang and a slotted trigger plate, of a frame secured to the tang and having a member closing the slot in the trigger plate and overlapping said slot at both ends, and a complete single trigger alternating mechanism carried by said frame and adapted to be applied bodily with said frame into the gun for controlling the firing thereof.

[Claims 6 to 11 not printed in the Gazette.]

1,029,782. SINGLE-TRIGGER MECHANISM FOR DOUBLE-BARREL GUNS. ALFRED H. WORREST, Lancaster, Pa. Filed Oct. 16, 1911. Serial No. 654,861. (Cl. 42—42.)



1. In a double barrel single trigger gun, the combination with a trigger and firing means actuated thereby, of means actuated by the rebound of the gun after recoil for locking the firing means of both barrels during the rebound.

2. In a double barrel single trigger gun, the combination with a trigger and firing means actuated thereby, of a sliding locking bolt actuated by the rebound of the gun after recoil for locking the firing means of both barrels during the rebound.

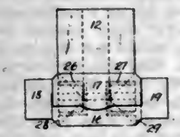
3. In a double barrel, single trigger gun, the combination with a trigger and firing means actuated thereby, of a sliding locking bolt normally held in its forward position by a spring and adapted when in its rearward position to lock the firing means of both barrels against movement.

4. In a double barrel, single trigger gun, the combination with a trigger and firing means actuated thereby, of a sliding locking bolt normally held in its forward position by a spring, and adapted when in its rearward position to engage a projection on the firing mechanism of both barrels and lock the latter against movement.

5. In a double barrel single trigger gun, the combination with a trigger and firing means actuated thereby, of a sliding locking bolt actuated by the rebound of the gun, after recoil, for locking the firing means during the rebound, and a second safety lock for preventing any movement of the firing means during the time the sliding locking bolt is out of its normal position.

[Claims 6 and 7 not printed in the Gazette.]

1,029,783. PAPER BAG. DANIEL APPEL, East Cleveland, Ohio, assignor to Union Paper Bag Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Oct. 26, 1911. Serial No. 656,824. (Cl. 229—59.)



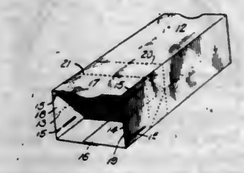
1. As a new article of manufacture, a paper bag of the class specified, having its bottom forming side flaps folded upon the outside of its end flaps, the said side flaps having a plurality of plies crossing their respective hinge portions, forming safety sealing flaps, and terminating in single ply portions pasted flatly upon the end plies.

2. As a new article of manufacture, a paper bag of the class specified, having end flaps folded and interlapping to form the inner portion of the bottom, the outer portion of the bottom being formed by side flaps each having a plurality of plies across its hinge portion, terminating in single ply tabs of a width greater than the interlapping portion of the end flaps.

3. As a new article of manufacture, a paper bag of the class specified having its bottom formed of end flaps and side flaps, the end flaps overlapping each other across the bottom of the bag and extending beyond the hinge lines of the side flaps, the said side flaps terminating in single ply tabs pasted upon the outside of the end flaps.

4. As a new article of manufacture, a paper bag of the class specified having its bottom formed of end flaps overlapping each other and pasted together across substantially the entire width of the bag, the said end flaps extending into and forming reinforcing plies for the side flaps, and the said side flaps terminating in single ply tabs pasted flatly upon the outside of the end flaps.

1,029,784. MANUFACTURE OF PAPER BAGS. DANIEL APPEL, East Cleveland, Ohio, assignor to Union Paper Bag Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 21, 1911. Serial No. 667,120. (Cl. 93—35.)



1. The process of making a flat bottomed paper bag from a bellows-sided tube, which consists in making a longitudinal slit in the bottom forming end of each of the four bellows sided plies between the inner and outer fold lines of those plies; then opening the bottom end of the tube and flattening the bellows sides thereof outwardly to form single ply side flaps; then folding down the remaining portion of the bottom end of the tube to form the end flaps of the bottom, and marginal extensions thereof overlapping the bases of the side flaps; then folding the said side flaps with the said overlapping marginal portions down upon the end flaps to complete the bottom of the bag.

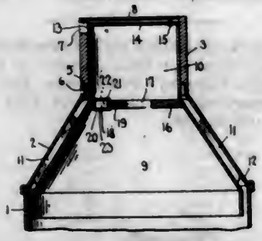
2. The process of making a flat bottomed paper bag from a bellows-sided tube, which consists in forming two longitudinal slits in the bottom forming ends of each of the bellows sides of the tube, then opening the said bottom ends of the tube and spreading the bellows sides thereof outwardly to develop the inclined sides of the triangular folds and form bottom-forming side flaps terminating in single ply tabs consisting of the paper lying between the slits of the respective bellows sides, then folding the remaining

portions of the bottom end of the tube toward each other to form interlapping end flaps, having marginal extensions which project beyond the sides of the bag and partly overlap the side flaps, and then folding the said side flaps over upon the said end flaps to complete the bottom.

3. The process of making a flat bottomed paper bag from a bellows-sided tube, which consists in forming a longitudinal slit in the bottom end of each of the four plies of the bellows sides, then opening the bottom end of the blank, and spreading the said bellows side plies outwardly and flattening them to form the inner inclined sides of the characteristic triangular folds and the side flaps for the bottom, the said side flaps each terminating in a flat, single-ply tab the sides of which are defined by the said slits, then folding and pasting the end flaps together to form connected inner plies for the bottom, then folding and pasting the side flaps with their single-ply tabs flatly down upon the end flaps to form the outer sides of the triangular folds and complete the flat bottom of the bag.

4. The process of making a flat bottomed bellows-sided paper bag from a bellows-sided tube, which consists in making a longitudinal slit in the bottom forming end of each of the four bellows-sided plies between the inner and outer fold lines of those plies; then opening the bottom end of the tube and flattening the bellows sides thereof outwardly to define the inner inclined sides of the triangular folds and develop flat side flaps for the bottom, terminating in single-ply tabs formed of the portions of the bellows plies situated between the said slits; then folding down and pasting together the end flaps to form the inside plies of the bottom; then folding and pasting the side flaps upon the said end flaps, to define the outer sides of the triangular folds and form the outside plies of the bottom.

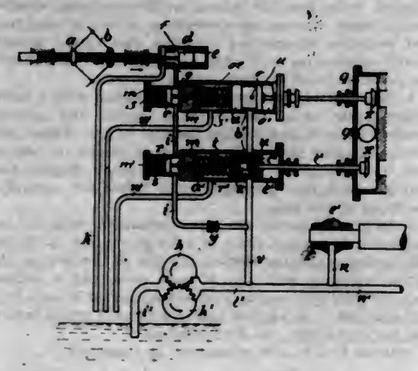
1,029,785. CREAM-SEPARATOR. EDGERLY R. BAILEY, Clarinda, Iowa. Filed Aug. 17, 1911. Serial No. 644,596. (Cl. 127—20.)



1. In a cream separator, a main cylindrical body, an extension in the form of a conic frustum removably secured on the top thereof, a cylindrical extension of reduced diameter at the top of the frustum, said reduced cylindrical extension having thickened walls with a discharge opening in one side at the top thereof, the increase of said wall extending inwardly, and a flat top with a central receiving opening, a skimming cone within the frusto conical portion of the body having outwardly projecting ribs whereby it is spaced apart from said frusto-conical portion, an upper cylindrical extension fitted in the upper vertical extension of the body between its thickened walls having a discharge opening registering with that of the body extension and having a flat top secured to the top of the cylindrical extension of the body and a receiving opening registering with the receiving opening in the top of the body extension, said vertical extension of the body being provided with a milk discharge outlet at the upper end of the space between it and the skimming cone, and a baffle plate at the junction of the skimming cone with its cylindrical extension having a receiving opening registering with those of the two flat tops, and an opening for the discharge of cream into the cylindrical extension of the skimming cone.

2. In a cream separator having a skimming cone with a vertical extension, a baffle plate at the junction of the cone and its extension having an opening near its periphery, and a rotatable plug in said opening provided with annular flanges at top and bottom bearing on the top and bottom of the baffle plate and having an eccentrically located opening for the discharge of cream adjustable toward and away from the axis of the cone by turning the plug.

1,029,786. VALVE-GEAR FOR STEAM-TURBINES. OTTO BANNER, Sterkrade, Germany. Filed Feb. 27, 1911. Serial No. 611,187. (Cl. 121—118.)



1. Valve gear for steam turbines, comprising in combination, a main piston, means to supply a liquid of constant pressure to said main piston, an auxiliary piston, a speed governor, and means to adjust the passage of a liquid to said auxiliary piston and adapted to be controlled by said governor, substantially as, and for the purpose, set forth.

2. Valve gear for steam turbines, comprising in combination, a main piston, an auxiliary piston, a speed governor to regulate the admission of a liquid to said auxiliary piston, substantially as, and for the purpose, set forth.

3. Valve gear for steam turbines, comprising in combination, a plurality of principal pistons, a plurality of auxiliary pistons, a governor, and means controlled by said governor to regulate the admission of a liquid to said pistons, substantially as, and for the purpose, set forth.

4. A valve gear for turbines, comprising in combination, a steam valve, means for actuating said steam valve, said actuating means being controlled by fluid pressure, a circuit including said actuating means in which said fluid pressure is constantly maintained, and means governed by the speed of the engine for interrupting said constant pressure, whereby said actuating means is caused to open said steam valve.

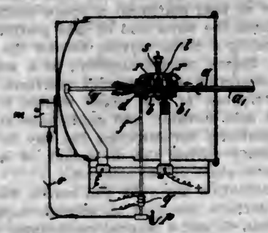
5. A valve gear for turbines, comprising in combination, a steam valve, means for actuating said steam valve, a circuit including said actuating means in which a constant fluid pressure is maintained, a governor controlled device also in said circuit for interrupting said constant fluid pressure to actuate said valve actuating mechanism, the result of said interruption being such that the constant fluid pressure is directed wholly to actuating said valve actuating mechanism.

[Claim 6 not printed in the Gazette.]

1,029,787. ELECTRIC-ARC LAMP FOR SEARCH-LIGHTS, PROJECTORS, AND THE LIKE. HEINRICH BECK, Meiningen, Germany. Filed Dec. 12, 1911. Serial No. 665,328. (Cl. 176—51.)

1. The herein described method of working electric arc-lamps for search-lights or projectors comprising a positive and a negative electrode, the positive electrode containing light-emitting admixtures of metal, metallic salts or carbids, which consists in subjecting the positive electrode to the influence of a jet of an indifferent gas or vapor during the working of the lamp, for the purpose specified.

2. The herein described method of working electric arc-lamps for search-lights or projectors comprising a positive and a negative electrode, the positive electrode containing light-emitting admixtures of metal, metallic salts or carbids, which consists in subjecting both the electrodes to the influence of a jet of an indifferent vapor or gas, for the purpose specified.



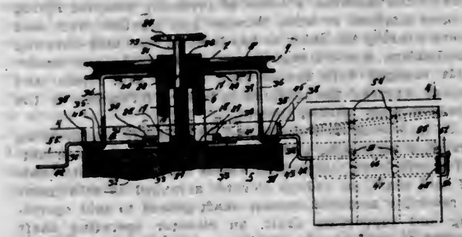
3. In an electric arc-lamp, the combination of a positive electrode, a negative electrode, the positive electrode containing light-emitting admixtures of metal, metallic salts or carbids, and having a diameter smaller than the diameter of the crater for the same current in an arc-lamp comprising a positive electrode without a light-emitting admixture, means for concentrating the current density at the end of the crater of the positive electrode and for limiting the oxidation of the remainder of the end of the positive electrode, and means for supplying an electric current to the electrodes, substantially as described, for the purpose specified.

4. In an electric arc-lamp, the combination of a positive electrode, a negative electrode, the positive electrode containing light-emitting admixtures of metal, metallic salts or carbids, and having a diameter smaller than the diameter of the crater for the same current in an arc-lamp comprising a positive electrode without a light-emitting admixture, a nozzle near the tip of the positive electrode for supplying a jet of an indifferent gas or vapor to the positive electrode, and means for supplying an electric current to the electrodes, substantially as described, for the purpose specified.

5. In an electric arc-lamp, the combination of a positive electrode, a negative electrode, the positive electrode containing light-emitting admixtures of metal, metallic salts or carbids, a metallic tube surrounding the positive electrode for supplying an electric current thereto, said tube having a cavity at the front end thereof, a nozzle opening into said cavity for supplying an indifferent gas or vapor to the positive electrodes, substantially as described, for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,029,788. WAVE AND CURRENT MOTOR. MARION E. BOOTS, Leadville, Colo. Filed July 17, 1911. Serial No. 638,903. (Cl. 138—12.)



1. In a wave or current motor, the combination with a stationary structure mounted in the water, including a column projecting upwardly above the level of the water, of a power wheel journaled on the column, brackets connected with the power wheel, sweeps carried by the brackets and extending outwardly beyond the stationary structure, the said sweeps being equipped with blades adapted to close, whereby their area is exposed to the action of the moving water, when traveling in one direction, while the water causes them to open whereby their edges only are exposed thereto, when traveling in the opposite direction, and suitable means connected with the sweeps for raising them above the water, when it is desired to stop the motor, substantially as described.

2. The combination with a stationary structure located in the body of water where the motor is to be placed, a power wheel journaled in the structure, brackets carried by the power wheel, sweeps connected with the brackets, their inner portions being off-set in a vertical direction from their outer portions, whereby the outer portions may occupy a position below the surface of the water, while their inner portions are located above the water, blades hinged to the outer portions of the sweeps and arranged to overlap each other, the action of the water upon the blades serving to close them, whereby the action of the water serves to move the sweeps in one direction, while the blades are caused to open when the sweeps are traveling in the opposite direction, the inner extremities of the sweeps being equipped with cranks, and means acting upon the cranks for imparting a partial rotation to the sweeps, whereby their outer blade-carrying portions are lifted above the surface of the water, substantially as described.

3. A motor of the class described, comprising in combination with a stationary structure and a power wheel mounted thereon, depending means attached to the power wheel, sweeps whose inner extremities are connected with the said means and whose outer portions are equipped with blades hinged thereto and adapted to close and open by the action of the water thereon in opposite directions, substantially as described.

4. The combination with a suitable stationary structure having a central column extending above the surface of the water, of a power wheel mounted on the upper portion of the column, depending brackets attached to the power wheel, sweeps movably connected with the brackets and equipped with hinged blades, a screw journaled in the column and having a nut at its lower extremity, a ring connected with the nut and engaging the inner extremities of the sweeps, which are provided with cranks whereby, as the screw is raised, the sweeps are actuated to lift their blades above the water for the purpose of stopping the motor, substantially as described.

5. A motor of the class described, comprising in combination with a stationary structure and a power wheel mounted thereon, sweeps whose inner extremities are connected with the power wheel and whose outer portions are equipped with blades hinged thereto and adapted to close and open by the action of the water thereon in opposite directions, a cable being connected with the outer extremities of the sweeps, the latter being connected to turn in the cable, substantially as described.

[Claim 6 not printed in the Gazette.]

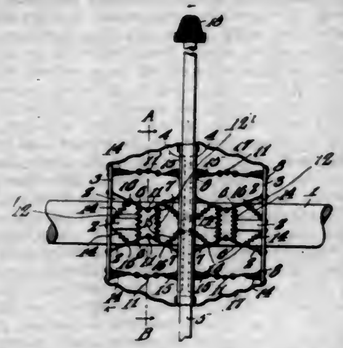
1,029,789. SPRING-WHEEL. VICTOR E. CAMPBELL, Berkeley, Cal. Filed Sept. 12, 1911. Serial No. 648,940. (Cl. 152—39.)

1. In a device of the class described, an axle; a spoke holder surrounding and spaced from the axle; a set of secondary links pivoted to the spoke-holder; a set of primary links; means for connecting the primary links with the axle; connections between the adjacent ends of the primary and secondary links; and a spring uniting the links of one set.

2. In a device of the class described, an axle; a spoke holder surrounding and spaced from the axle; secondary links pivoted to the spoke-holder; primary links; means for connecting the primary links with the axle; connections between the adjacent ends of the primary and secondary links; springs uniting the intermediate portions of the primary links with said means; and springs uniting the intermediate portions of the secondary links with the spoke holder.

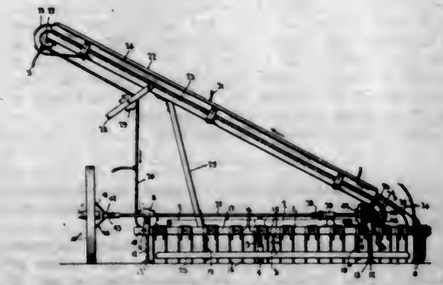
3. In a device of the class described, an axle; a spoke holder surrounding and spaced from the axle; a set of secondary links pivoted to the spoke holder; a set of

primary links; means for connecting the primary links with the axle; connections between the adjacent ends of the primary and secondary links; a spring uniting the links of one set; springs uniting the intermediate portions of the primary links with said means; and springs uniting the intermediate portions of the secondary links with the spoke holder.



4. A device of the class described comprising an axle; spaced hub plates secured to the axle; a spoke holder surrounding the axle and spaced therefrom; a set of converging primary links connected with the hub plates; a set of converging secondary links connected with the spoke holder; connections between the ends of the primary and secondary links; retractile springs uniting the links of both sets; retractile springs united with the intermediate portions of the secondary links, said springs converging toward the spoke holder, and being connected therewith; and retractile springs connected with the intermediate portions of the primary links, said springs converging toward the plates, and being connected therewith.

1,029,790. HAY RAKE AND LOADER. CHRISTIAN CHRISTIANSEN, Kenmare, N. D. Filed Apr. 10, 1911. Serial No. 620,056. (Cl. 56—61.)



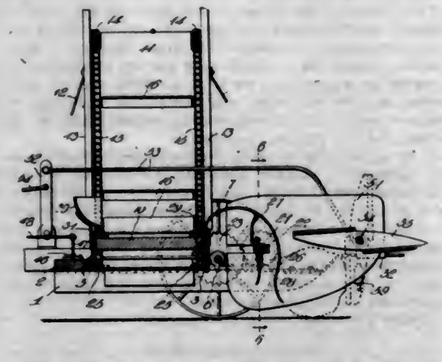
1. A combined hay rake and loader comprising a platform having suitable supports, rake teeth depending from the rear edge and outer end of said platform, a chute leading upward and inward from the outer end of said platform, and an elevator including a chain moving around the chute and platform and fingers carried thereby; combined with a wagon, draft mechanism connecting it with said platform, and a flexible shaft connecting one of the wagon wheels with one of the wheels of the elevator mechanism.

2. A combined hay rake and loader comprising a platform having suitable supports, rake teeth depending from the rear edge and outer end of said platform, a chute leading upward and inward from the outer end of said platform, and an elevator including a chain moving around the chute and platform and fingers carried thereby; combined with a wagon, a draft rod connecting its body with the forward portion of said platform, a wheel clamp engaging one of the rear wheels of the wagon, and a shaft including universal joints within its length connecting said clamp with one of the wheels of said elevator.

3. A combined hay rake and loader comprising a platform having suitable supports, rake teeth depending from the rear edge of said platform, a chute leading upward and inward from the outer end of said platform, and an elevator including a chain moving around the chute and platform and fingers carried thereby; of a wagon, draft mechanism connecting it with said platform, a flexible shaft connecting one of the wagon wheels with one of the wheels of said elevator, and guide bars at the outer end of said platform for directing the hay to the lower end of the chute during the movement of said fingers around the outer shaft of the elevator.

4. In a combination hay rake and loader, the combination with a platform mounted on suitable supports, connections between it and a wagon, an elevator having its inlet end disposed at the outer end of said platform, and means for driving the elevator; of clamping plates secured along the rear edge and outer end of said platform, rake teeth of inverted U-shape whose centers are engaged by said plates and whose arms are formed into coils, a drag bar extending across in rear of the series of rearmost teeth, and links loosely supporting said drag bar from certain of said coils.

1,029,791. HAY AND SHOCK LOADER. CHRISTIAN CHRISTIANSEN, Kenmare, N. D., assignor of one-half to Louie Fredrickson, Kenmare, N. D. Filed June 12, 1911. Serial No. 632,646. (Cl. 56—61.)



1. In a combined shock and hay loader a wheeled supporting frame, an elevator operatively mounted in said frame, a series of guide teeth arranged on the forward end of the machine, a series of revolubly mounted lifting fingers adapted to work between and together with said teeth whereby the shock or hay is lifted onto said elevating mechanism, a shock engaging reel adjustably and removably engaged with the forward end of said frame, and means whereby the machine is pushed forwardly by the draft animals hitched thereto.

2. In a combined shock and hay loader, a supporting frame, a supporting and operating shaft revolubly mounted in said frame, supporting wheels fixed on the outer ends of said shaft, an endless elevator arranged on said frame a revolubly mounted counter shaft geared to said operating and supporting shaft, an elevator operating shaft geared to said counter shaft, a series of forwardly projecting downwardly curved guide teeth, a series of lifting fingers fixedly mounted on said counter shaft and adapted to work between said guide teeth whereby the grain or hay is lifted and thrown onto said elevator, bearing brackets adjustably and detachably engaged with the forward end of the supporting frame, a reel shaft revolubly mounted in said brackets, means to operatively connect said shaft with said counter shaft whereby said reel shaft is driven in the proper direction, means to throw the same out of gear, a reel fixedly mounted on said shaft, means to bring the blades of the reel to a horizontal position when the reel shaft is thrown out of gear, and means whereby said reel shaft is adjusted.

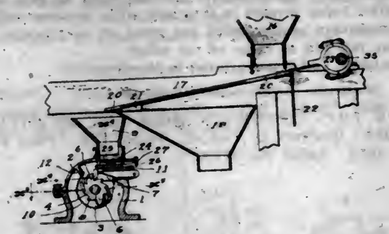
3. A combined shock and hay loader comprising a wheeled supporting frame, an endless elevator operatively mounted thereon, a shock and hay lifting mechanism whereby the shocks and hay are lifted and thrown onto said elevating mechanism, bearing brackets adjustably and detachably engaged with the frame of the machine, a reel shaft revolubly mounted in said brackets, means whereby said shaft is driven, a reel fixedly mounted on said shaft, said reel comprising oppositely disposed blades, a weighted crank arm fixed on one end of said shaft and adapted to swing the reel blades to a horizontal position when the reel is thrown out of operation, fender plates secured to the shaft of the reel adjacent to the opposite ends of said blades, a reel adjusting lever, reel adjusting rods connected to said reel shaft and to said lever whereby when the latter is rocked in one direction or the other the bearing brackets of said reel shaft will be adjusted and the shaft and reel thereby shifted, and a hand lever connected to said reel adjusting lever whereby the latter may be operated by the driver on the rear end of the machine.

4. In a combined shock and hay loader, a supporting frame, a supporting and operating shaft revolubly mounted on said frame, supporting and operating wheels fixed on said shaft, a tongue connected to the rear end of the frame, a caster wheel bracket fixed on the rear end of the tongue, a caster wheel standard revolubly mounted in said bracket, a steering lever operatively mounted on said standard whereby the latter and said caster wheel may be turned to steer the machine, means to lock said lever, a raising and lowering mechanism, said mechanism comprising a nut operatively mounted on said standard, a raising and lowering screw operatively mounted on said bracket and adapted to engage said nut, a notched head fixed on the upper end of said screw, an operating lever pivotally connected to the upper end of the screw, a tooth formed on said lever and adapted to be engaged with the notches in said head whereby the screw may be turned in the desired direction in said nut thereby raising or lowering the tongue and thus adjusting the forward end of the machine.

5. In a combined shock and hay loader a supporting frame comprising side bars, and a series of cross bars, said side bars having forwardly and upwardly extended ends, a supporting and operating shaft revolubly mounted in said frame, supporting and operating wheels fixedly mounted to said shaft, a counter shaft also revolubly mounted in said frame and geared to said supporting and operating shaft, an elevating mechanism geared to said counter shaft, a lifting mechanism mounted on said counter shaft, bearing boxes removably and adjustably mounted on the extended ends of the side bars of the frame, a reel shaft revolubly mounted in said bearing boxes and thereby adjustably secured to the frame, reel blades fixedly mounted on said shaft, means to gear said shaft to said counter shaft, means to throw said reel shaft out of gear, a weighted arm fixed to one end of said reel shaft whereby when the latter is thrown out of gear the blades thereon will be swung to and held in horizontal position and a series of shifting rods and levers connected with said shaft whereby the latter and the reel blades thereon may be adjusted forwardly and backwardly with respect to said lifting mechanism.

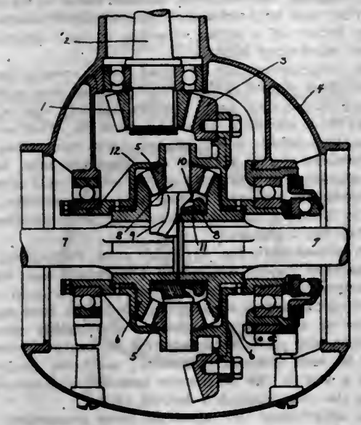
1,029,792. SPICE-MILL. ROBERT F. CLINE, Moneta, Cal. Filed June 21, 1911. Serial No. 634,626. (Cl. 83—6.)

1. A shaft, a series of cutter plates on said shaft, each of said cutter plates having cutting teeth, the cutting edge of each tooth being substantially radial of the shaft, and the cutting edge of each tooth having a series of serrations, a series of dies lying within the spaces between the said cutting plates, the cutting edges of said dies having a series of serrations.



2. A shaft, a series of cutter plates on said shaft, each of said cutter plates having cutting teeth, the cutting edge of each tooth being substantially radial of the shaft, and the cutting edge of each tooth having a series of serrations, a series of dies lying within the spaces between the said cutting plates, the cutting edges of said dies having a series of serrations, each cutter plate having shorter teeth intervening between its cutting teeth.

1,029,793. DIFFERENTIAL GEARING. DE WITT C. COOKINGHAM and JOHN H. HERTNER, Cleveland, Ohio, assignors to The Rauch and Lang Carriage Company, Cleveland, Ohio, a Corporation of Ohio. Filed Oct. 20, 1910. Serial No. 588,035. (Cl. 74—34.)



1. In a differential gearing, the combination with its gears, of a spider provided with a plurality of pairs of arms, said spider comprising complementary two-arm sections, and pinions mounted on said arms and meshing with said gears.

2. In a differential gearing, the combination with its gears, of a spider provided with four arms equally spaced from each other, said spider comprising two complementary two-arm sections, and pinions mounted on said arms and meshing with said gears.

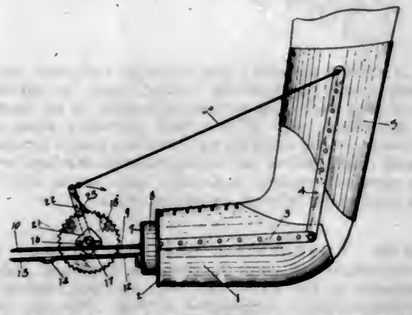
3. In a differential gearing, the combination with its gears, of a spider provided with four arms equally spaced from each other, said spider comprising two complementary sections each formed with two diametrically opposite arms, and pinions mounted on said arms and meshing with said gears.

4. In a differential gearing, the combination with its gears, of a spider provided with four arms equally spaced from each other, said spider comprising two complementary sections, each section being formed with two diametrically opposite arms, and with a recess on one face of its hub, the hub of one section fitting into the recess of the other section, and pinions mounted on said arms and meshing with said gears.

5. A spider section for a differential gearing of the class described, said section comprising a hub and two oppositely-extending pinion-receiving arms borne by said hub, the latter being formed to interlock with another similar complementary section with the arms of one section in angular relation to those of the other.

[Claims 6 and 7 not printed in the Gazette]

1,029,794. AUTOMATIC HOOK FOR ARTIFICIAL ARMS. QUENTIN D. CORLEY, Dallas, Tex. Filed Feb. 15, 1912. Serial No. 677,827. (Cl. 3—1.)



1. An attachment for artificial arms comprising two hook members rigidly secured to a common base, having their supporting ends slightly spaced, one of said members having the nature of a spring, tending to bear against the other or stationary member.

2. An attachment for artificial arms comprising two hook members rigidly secured to a common base and having their supporting ends slightly spaced, one of said members being normally deflected toward the other member.

3. An attachment for artificial arms comprising two hook members rigidly secured to a common base, having their supporting ends slightly spaced, one of said members being normally deflected toward the other member, and means by which a spaced relation may be established between the two members.

4. An attachment for artificial arms comprising two hook members rigidly secured to a common base, having their supporting ends slightly spaced, one of said members having the nature of a spring, tending to bear against the other or stationary member, a cam rigidly mounted on a pintle said pintle being adapted to rotate in bearings carried by said stationary member, said cam projecting through a slot in the stationary member, and means for rotating the cam through a desired arc.

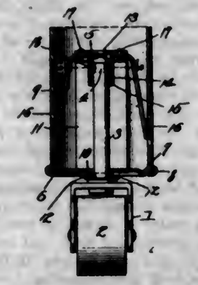
5. An attachment for artificial arms comprising two hook members rigidly secured to a common base, having their supporting ends slightly spaced, one of said members having the nature of a spring tending to bear against the other or stationary member, a cam and a ratchet wheel rigidly mounted on a pintle, said pintle adapted to rotate in bearings carried by said stationary member, said cam projecting through a slot in the stationary member and the ratchet wheel projecting through the slot in the stationary member also a slot in the spring member, and means for rotating said cam and ratchet wheel through a desired arc.

[Claims 6 to 10 not printed in the Gazette.]

1,029,795. CENTERING AND RETAINING MEMBER FOR CASTERS. NATHAN S. COVEY, Corry, Pa., assignor to Corry Castor Company, Corry, Pa. Filed June 19, 1911. Serial No. 633,975. (Cl. 16—4.)

1. A centering and retaining member for caster pintles comprising a base, an inverted U-shaped standard arranged upon said base having a bearing upon said pintle for centering the base upon a tubular leg, and spring arms carried by said standard and adapted to engage the inner wall of the tubular leg.

2. A centering and retaining member for caster pintles comprising a base, an inverted U-shaped standard mounted upon said base having a bearing upon the upper end of said pintle, and a retaining member carried by said standard comprising a spring bent centrally to form a substantially U-shaped portion having an opening to receive the pintle and provided with outwardly extending free ends, said U-shaped portion being provided with pintle engaging members.



3. A centering and retaining member for caster pintles comprising a base having an annular flanged edge, an inverted U-shaped standard arranged on said base and spaced from said flange to receive the leg between said flange and standard, said standard having a bearing resting upon the upper end of the pintle, and spring arms carried by said standard having outwardly extending free ends.

4. A centering and retaining member for caster pintles comprising a base having an annular shoulder and a marginal flange, an inverted U-shaped standard secured upon said base and adapted to rest upon said pintle and support the base, the legs of said stndard being spaced from said flange, and depending outwardly extending arms carried by said standard for engaging the inner face of the leg to which the member is attached.

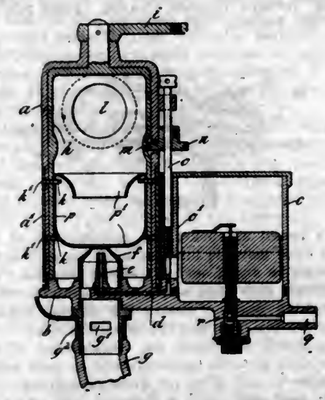
5. In a centering and retaining member for caster pintles, the combination with a tubular leg, of a base having an inverted U-shaped standard for centering the base on the leg, a pintle extending through said base upon which said standard is mounted, means for retaining the pintle in said base, and outwardly extending spring arms carried by said standard for engaging the inner face of the tubular leg.

[Claims 6 to 16 not printed in the Gazette.]

1,029,796. APPARATUS FOR PRODUCING AN EXPLOSIVE OR COMBUSTIBLE MIXTURE OF LIQUID FUEL AND AIR. CHARLES ERNEST DAWSON, Teddington, England. Filed Mar. 5, 1912. Serial No. 681,796. (Cl. 48—155.1.)

1. In a carbureter, the combination of a chamber having an outlet near one end, a jet for delivering liquid fuel centrally into said chamber near the opposite end thereof, a convergent nozzle for delivering heated air into the chamber around and in advance of said jet, a series of annular baffles projecting in succession inward from the wall of the chamber in advance of and concentrically with said nozzle and each having the form of a hollow truncated cone whose diameter increases in the direction of the flow of fluid through the chamber, said chamber being provided with annular series of lateral air-inlets for coacting with the respective annular baffles and each situated in advance of the central opening of the corresponding baffle.

2. In a carbureter, the combination of a chamber having an outlet near one end, a jet for delivering liquid fuel centrally into said chamber near the opposite end thereof, a convergent nozzle for delivering heated air into the chamber around and in advance of said jet, an annular baffle projecting inward from the wall of the chamber in advance of and concentrically with said nozzle, said annular baffle being in the form of a hollow truncated cone whose diameter increases in the direction of the flow of fluid through the chamber and having the profile of its operative surface convexly curved, a similar annular baffle situated in advance of the first mentioned baffle but having the profile of its operative surface concavely curved, said chamber being provided with annular series of lateral air-inlets for coacting with the respective annular baffles, each series being situated in advance of the central opening of the corresponding baffle.



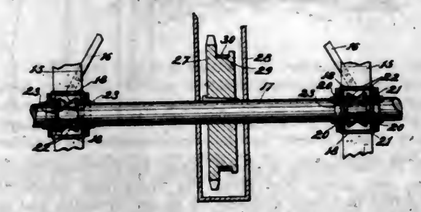
3. In a carbureter, the combination of a chamber having an outlet near one end, a jet for delivering liquid fuel into said chamber near the opposite end thereof, a convergent nozzle for delivering heated air into the chamber around and in advance of said jet, a series of annular baffles projecting in succession inward from the wall of the chamber in advance of and concentrically with said nozzle and each having the form of a hollow truncated cone whose diameter increases in the direction of the flow of fluid through the chamber, said chamber being provided with annular series of lateral air-inlets for coacting with the respective annular baffles and each situated in advance of the central opening of the corresponding baffle, and means for regulating the effective area of said air-inlets.

4. In a carbureter, the combination of a chamber having an outlet near one end, a jet for delivering liquid fuel into said chamber near the opposite end thereof, a convergent nozzle for delivering heated air into the chamber around and in advance of said jet, a series of annular baffles projecting in succession inward from the walls of the chamber in advance of and concentrically with said nozzle and each having the form of a hollow truncated cone whose diameter increases in the direction of the flow of fluid through the chamber, said chamber being provided with annular series of lateral air-inlets for coacting with the respective annular baffles and each situated in advance of the lateral opening of the corresponding baffle, and means for concurrently varying the effective area of said air-inlets and the quantity of liquid fuel delivered through the aforesaid jet.

5. In a carbureter, the combination of a chamber having an outlet near one end, a jet for delivering liquid fuel into said chamber near the opposite end thereof, a convergent nozzle for delivering heated air into the chamber around and in advance of said jet, a series of annular baffles projecting in succession inward from the wall of the chamber in advance of and concentrically with said nozzle and each having the form of a hollow truncated cone whose diameter increases in the direction of the flow of fluid through the chamber, said chamber being provided with annular series of lateral air-inlets for coacting with the respective annular baffles and each situated in advance of the central opening of the corresponding baffle, and means for concurrently varying the effective area of said air inlets and of the outlet from the chamber and also the quantity of liquid fuel delivered through the aforesaid jet.

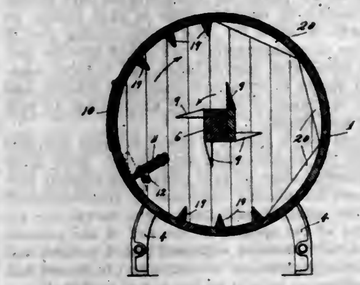
[Claims 6 to 9 not printed in the Gazette.]

1,029,797. ROLLER-BEARING. EZRA DEDERICK, Wisconsin Veterans Home, Wis. Filed Apr. 27, 1908. Serial No. 429,312. (Cl. 64—62.)



A roller bearing comprising a rotary axle having a reduced portion forming opposite shoulders, a casing surrounding the reduced portion of the axle and having bosses formed thereon, pins extending across the casing and through the bosses, and pairs of conical rollers on the pins with their smaller ends together and with their other ends bearing against the bosses on the sides of the casing and against the shoulders of the axle to prevent longitudinal movement thereof.

1,029,798. COMBINED CHURN AND BUTTER-WORKER. REUBEN B. DISBROW, Owatonna, Minn. Filed Dec. 27, 1909. Serial No. 535,193. (Cl. 31—25.)

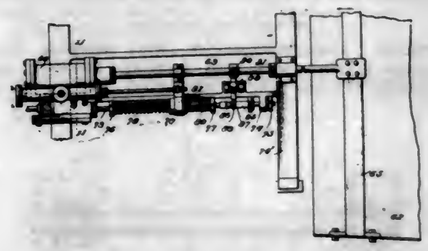


1. The combination with a horizontal rotary drum and a working roller within said drum, the said drum having a normally closed peripheral door, of a shelf pivotally mounted within said drum close to one side of said door and located radially outward from said roller, and means for securing said shelf in different positions, substantially as described.

2. The combination with a horizontally disposed rotary drum provided with internal lifting flights and internal circumferentially extended divider bars, of a working roller axially disposed within said drum and provided with projecting blades adapted to continuous action on the butter under rotation of the drum, and means for rotating said drum and roller in reverse directions, substantially as described.

3. The combination with a horizontal rotary drum and a working roller axially disposed therein, said drum having a normally closed peripheral door and a shelf pivotally mounted within said drum in the vicinity of said door, and means extending to the exterior of the drum for moving said shelf from an operative position into an inoperative position and vice versa, substantially as described.

1,029,790. MUCK-SHOVEL. NORMAN EBBLEY, Wallace, Idaho. Original application filed Apr. 26, 1910, Serial No. 557,667. Divided and this application filed July 8, 1910. Serial No. 551,062. (Cl. 37—16.)



1. In combination, a shovel, means for reciprocating the same, and means controlling the first-named means for imparting increased acceleration in one direction and decreased acceleration in the opposite direction, and a conveyer in operative relation to the shovel for removing material from the shovel.

2. In combination, a shovel, a power cylinder provided with a reciprocating piston for reciprocating said shovel, and means controlling the exhaust port of said cylinder for enabling said piston to move faster on one stroke than on the opposite stroke.

3. In combination, a shovel, a power cylinder provided with a reciprocating piston for reciprocating said shovel, inlet and exhaust ports in said cylinder, valves controlling said ports, and spring-pressed means for throwing the inlet valve in either direction, power being stored in said springs by movement of said piston.

4. In combination, a shovel, a power cylinder provided with a reciprocating piston for reciprocating said shovel, inlet ports opening on opposite sides of said piston, an exhaust passage, a valve for alternately placing one of said inlet ports in communication with said exhaust passage and the other with said cylinder, and a valve working with said piston to open and close said exhaust and thereby effect increased or decreased acceleration of said piston and of said shovel.

5. In combination, a shovel, a power cylinder provided with a piston for reciprocating said shovel, inlet ports opening on opposite sides of said piston, an exhaust passage and means for placing the same in communication with one or the other of said inlet ports, means for adjusting the size of the opening at the end of the exhaust passage, and a valve working with said piston to open and close said exhaust passage and thereby effect increased and decreased acceleration of said piston and of said shovel.

[Claim 6 not printed in the Gazette.]

1,029,800. WOOD-OIL PUTTY. CARLETON ELLIS, Larchmont, N. Y., assignor to Ellis-Foster Company, a Corporation of New Jersey. Filed Nov. 16, 1907. Serial No. 402,513. (Cl. 106—8.)

1. A self-setting putty comprising an inert pulverulent mineral filler in predominating amount, said filler consisting mainly of whiting, and being substantially free of metallic particles and a vehicle comprising wood oil in sufficient amount to cause the composition to be self-setting throughout.

2. As a self-setting putty, a plastic, doughlike composition comprising wood oil and an inert filler consisting mainly of whiting, and being substantially free of metallic particles, said wood oil being in amount sufficient to cause the composition to be self-setting.

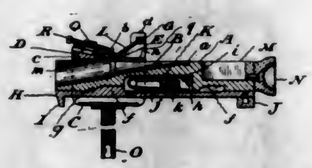
3. As a self-setting putty, a plastic, doughlike composition comprising wood oil, mineral oil and an inert filler comprising a substantial amount of whiting, and being substantially free of metallic particles, said wood oil being in amount sufficient to cause the composition to be self-setting.

4. A putty consisting of a plastic doughlike composition comprising mineral oil, rosin, wood oil and a finely powdered mineral thickener.

5. A putty consisting of a plastic doughlike composition comprising as the oil stock, about eighty (80) parts of mineral oil, and about twenty (20) parts of wood oil; and as the mineral thickener, about four hundred (400) parts of whiting.

[Claims 6 to 8 not printed in the Gazette.]

1,029,801. PENCIL-SHARPENER. ALEXANDER D. FISHER, Toronto, Ontario, Canada. Filed July 8, 1909. Serial No. 506,613. (Cl. 120—94.)



1. In a pencil sharpener the combination of a pencil holder; a slide movable longitudinally on said holder and also movable to and from its working position; a cutter carried by said slide; and means for holding the slide down to its working position during the cutting stroke; and means for freeing it at the end of said stroke.

2. In a pencil sharpener the combination of a pencil holder; a slide movable longitudinally on said holder and also movable to and from its working position; a cutter carried by said slide; and a tightener bar adapted to be automatically moved at the end of the return stroke of the slide to hold the slide down to its working position and at the end of the cutting stroke to release it automatically from said working position.

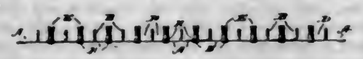
3. In a pencil sharpener the combination of a pencil holder; a slide movable longitudinally on said holder and also movable to and from its working position; a cutter carried by said slide; and a tightener bar movable by the slide at the end of its return stroke to hold the slide down to its working position and at the end of the cutting stroke to release it from said working position.

4. In a pencil sharpener the combination of a pencil holder; a slide movable longitudinally on said holder and also movable to and from its working position; a cutter carried by said slide; a tightener bar movable by the slide at the end of its return stroke to hold the slide down to its working position at the end of the cutting stroke to release it from said working position; and a spring tending to hold the said bar in its slide releasing position.

5. In a pencil sharpener the combination of a pencil holder; a slide movable longitudinally on said holder and also movable to and from its working position; a cutter carried by said slide; a tightener bar longitudinally movable; and means for moving said bar to and from the holder comprising inclined planes formed on the pencil holder and said bar respectively.

[Claims 6 to 11 not printed in the Gazette.]

1,029,802. DOOR-MAT. LOUIS GICLAS, Washington, D. C. Filed Mar. 14, 1912. Serial No. 683,821. (Cl. 15—62.)



1. A door mat of the character described comprising a metallic base of flexible sheet metal and a series of upstanding rigid scraping ribs separated suitable distances apart by intermediate yieldable portions of said base free to bend to loosen accumulations within the spaces between the ribs.

2. A door mat of the character described formed of flexible sheet metal having a base, and a series of upstanding rigid scraping ribs separated suitable distances apart by intermediate yieldable portions of said base, free to bend to loosen accumulation within the spaces between the ribs, said ribs being formed by bending the metal upon itself at approximately right angles to the base.

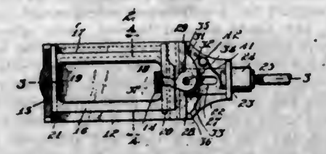
3. A door mat of the character described comprising a base provided with a series of rigid scraping ribs, secured along their lower margins to project upwardly from said base and a series of brushes intermediate of said ribs projecting at their ends outwardly beyond the scraping edges of the ribs.

4. A door mat of the character described comprising a metallic base of flexible sheet metal and a series of upstanding rigid scraping ribs, separated suitable distances apart by intermediate yieldable portions of said base in combination with a series of brushes secured to the base projecting at their ends outwardly beyond the scraping edges of the ribs.

5. A door mat of the character described comprising a base provided with a series of rigid scraping ribs, and a series of brushes intermediate of said ribs projecting at their ends outwardly beyond the scraping edges of the ribs, said brushes being arranged in staggered relation.

[Claims 6 and 7 not printed in the Gazette.]

1,029,803. SASH LOCK AND LIFT. JAMES A. GIESE, Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Mar. 23, 1911. Serial No. 616,504. (Cl. 16—53.)



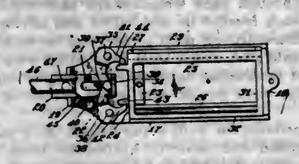
1. In a sash fastener, in combination, a reciprocating bolt, a pair of oppositely disposed pressure bars movable laterally and in paths transverse to the path of the bolt, each bar having a pair of lateral arms, the arms of each bar being in sliding engagement with the arms of the other bar, and a pair of angle levers each having one arm in engagement with the bolt and its other arm in engagement with a lateral arm of one of the pressure bars.

2. In a sash fastener, in combination, a reciprocating bolt, a pair of oppositely disposed pressure bars movable laterally and in paths tranverse to the path of the bolt, each bar having a pair of lateral arms, the arms of each bar being in sliding engagement with the arms of the other bar, and means for operatively connecting one of the arms of each bar with the bolt.

3. In a sash fastener, in combination, a casing having an apertured face plate and having longitudinal and transverse slideways, a bolt reciprocating in the longitudinal slideway, a pair of reciprocating pressure bars within the casing, such bars being respectively adjacent each side of the plate aperture, lateral arms projecting from the ends of each bar and running in the transverse slideways, a pair of angle levers each having one arm in engagement with the bolt and one arm in engagement with one of the lateral arms of one of the pressure bars, and a spring for advancing the bolt.

4. In a sash fastener, in combination, a casing having an apertured face plate and having longitudinal and transverse slideways, a bolt reciprocating in the longitudinal slideway and having its tail piece longitudinally slotted, a pair of reciprocating pressure bars within the casing, such bars being respectively adjacent each side of the plate aperture, lateral arms projecting from the ends of each bar and running in the transverse slideways, a pin fixed in the casing and setting through the slot in the bolt tail piece, a pair of angle levers pivoted on the pin and each having one arm in engagement with a shoulder on the bolt tail piece, and one arm in engagement with one of the lateral arms of the pressure bars, and a spring for advancing the bolt.

1,029,804. LOCK FOR WINDOW-SASH. JAMES A. GIESE, Chicago, Ill., assignor to The Adams & Westlake Company, a Corporation of Illinois. Filed Aug. 7, 1911. Serial No. 642,637. (Cl. 16—51.)



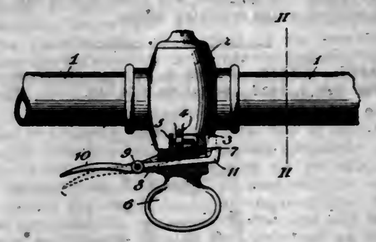
1. In a sash and lock therefor, in combination, a chambered sash rail having a lateral aperture, a lock casing adapted to fit within the chamber of the rail and being of greater length than the lateral aperture and having a shoulder for engaging one end wall thereof, and a retaining plate removably attached to the lock casing and engaging the opposite end wall of the aperture.

2. In combination, a chambered sash rail having a lateral aperture, a lock fitted within the rail and comprising a reciprocating bolt-head, sliding rectangular bolt-operating elements, one thereof being superposed upon the other, one side member of each of such elements constituting an operating plate and their ends being in sliding engagement, and levers interposed between the controlling elements and the bolt-head.

3. A sash lock comprising a base plate, a bolt-head reciprocating upon such plate, a rectangular controlling element slidingly mounted upon the base plate, one of its sides constituting a pressure plate, its rearward face being rabbeted and its opposite side being at the edge of and in line with the base plate, a second rectangular controlling element, one side of which constitutes a pressure plate opposed to the first-named pressure plate, the remaining side of the second controlling plate being adapted to enter the rabbet of the first-named pressure plate, and levers engaged, respectively, by the two controlling elements and each engaging the bolt-head.

4. In combination, a chambered sash rail having a lateral aperture, a lock fitted within the rail and comprising a reciprocating bolt-head, sliding rectangular bolt-controlling elements, one thereof being superposed upon the other, one side member of each of such elements constituting a pressure plate and their ends being in sliding engagement, and means interposed between the controlling elements and the bolt-head for retracting the latter.

1,029,805. PILOT-LIGHT. GEORGE GILCHER, Ridgefield Park, N. J. Filed July 1, 1909. Serial No. 505,452. (Cl. 137—7.)



1. The combination of a gas-fixture, a gas-cock turning axially therein, a pivotally-adjustable stop carried by said cock, a stationary stop on said fixture and located in the path of said stop in only one of the adjustments thereof, and a second stationary stop on said fixture and located out of the path of said stop in its first-named adjustment and in its path in the second adjustment thereof.

2. A gas-fixture comprising a stationary barrel having a wing with a set-screw therein, a gas-cock mounted to turn axially in said barrel and having a transverse slot, and a

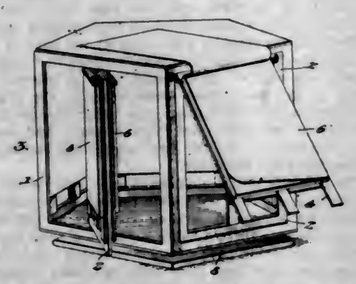
lever protruding from said slot and adjustable to abut against either the wing or the set-screw.

3. A gas-fixture comprising the hollow barrel having a cut-away portion between two radial wings, a set-screw projecting through each wing toward said cut-away portion, a gas-cock located in said barrel and having a transverse slot therethrough with projections on either side of one end of said slot, and a lever pivoted between said projections and protruding through said slot for engagement at will either with one of said wings or one of said set-screws.

4. The combination with a gas-fixture, of a pair of oppositely-disposed and relatively-stationary stops, a second pair of oppositely-disposed and relatively-stationary stops, and a relatively movable stop that is adjustable to co-act at will with either member of one pair only of said stationary stops to the exclusion of possible engagement with either member of the other pair, and vice versa.

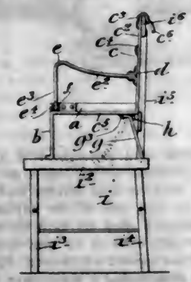
5. The combination, in a gas-fixture, of a barrel having a wing with a set-screw therein, a gas-cock turning axially in said barrel, and a stop carried by said cock that is adjustable to co-act with the wing to the exclusion of the set-screw and vice versa.

1,029,806. COMBINATION REEL AND RACK FOR THE EXHIBITION OF WALL-PAPER. JAMES A. HALL, Detroit, Mich., assignor of one-half to Joseph C. Kunz, Detroit, Mich. Filed Mar. 14, 1912. Serial No. 683,902. (Cl. 211—22.)



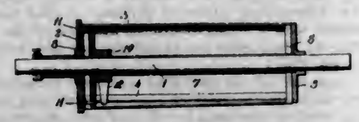
In a rack for the exhibition of wall paper, a casing mounted for rotation, said casing having a plurality of open sides, a reel mounted for rotation on a vertical axis in each of the open sides of the casing, each reel having a plurality of faces, racks hingedly mounted on the faces of the reels, said racks normally lying in a vertical plane, means to adjust each rack at an angle to the face of the reel in which it is mounted, and locks to hold the reels in fixed relation to the revolving casing.

1,029,807. CHAIR. FRANZ A. HINSKY, Hoboken, N. J. Filed Feb. 1, 1912. Serial No. 674,746. (Cl. 155—26.)



A chair comprising a seat, and front and back legs, the front legs being rigidly connected with the seat, and the back legs being adapted to fold forwardly, and being provided with means for holding them in operative position, the back of the chair being provided at the top thereof with backwardly and downwardly directed hooks, and L-shaped spring arms pivoted to the back of the chair, and adapted to swing laterally, and detachably connected with the front side portion of the seat.

1,029,808. SUPPORT FOR CYLINDRICAL SOUND-RECORDS. FRANK X. HOFBAUER, East Orange, N. J., assignor to George S. Iddings, Cleveland, Ohio. Filed Nov. 3, 1910. Serial No. 590,468. (Cl. 181—13.)



1. A support for a cylindrical sound-record, comprising a shaft, two heads secured thereon, rods extending between said heads, parts pivotally mounted on said rods and presenting a substantially cylindrical tapered exterior surface, a cross-head loosely mounted on said shaft within said parts and coacting at each end with one of said parts, and a spring engaging said cross-head and acting thereon to turn the cross-head upon said shaft and thus actuate said pivotally mounted parts, substantially as set forth.

2. A support for a cylindrical sound-record comprising a shaft, two heads secured thereon, rods extending between said heads, parts pivotally mounted on said rods presenting a substantially cylindrical tapered exterior surface, a cross-head loosely mounted on said shaft within said parts and provided with projections each engaging one of said parts and a single flat spring coacting with the cross-head and one of said rods and acting to turn the cross-head upon said shaft, substantially as set forth.

1,029,809. NON-REFILLABLE BOTTLE. JOHN LALLI, Newark, N. J. Filed Mar. 21, 1912. Serial No. 685,189. (Cl. 215—69.)

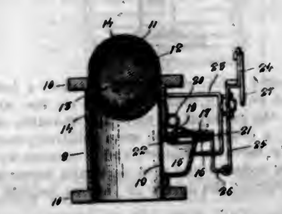


1. A non-refillable bottle consisting of a body portion and a neck having an outlet thereon, the neck having a valve-seat therein, a valve on the seat and movable therefrom, the neck having an opening above the valve-seat, and a closure for the opening, said closure being formed on its inner face so that it conforms to the neck of the bottle so that they coöperate to guide the valve, the inner wall of the neck having channels.

2. A non-refillable bottle consisting of a body portion and neck having an outlet thereon, the neck having an opening in its side and having a valve-seat below the opening, a closure in the opening, the closure and the neck having their inner walls coöperating to form a guide for a valve, a valve guided by said walls, said walls having channels therein, and a plug extending across the neck and above the opening to limit the movement of the valve.

3. A non-refillable bottle consisting of a body portion and neck having an outlet thereon, the neck having an opening in its side and having a valve-seat below the opening, a closure in the opening, the closure and the neck having their inner walls coöperating to form a guide for a valve, a rigid valve guided by said walls, said walls having channels therein, a plug extending across the neck and above the opening to limit the movement of the valve, said opening permitting the installation of the plug and the valve, and a seal for said closure.

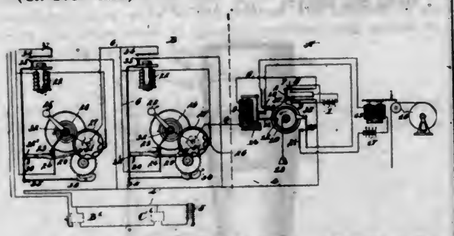
1,029,810. FLUID-MIXER FOR GASOLENE-ENGINES. SAMUEL LA MONT, Trenton, N. J., assignor to La Mont Power Producer and Economising Device Company, Trenton, N. J., a Corporation of Delaware. Filed Feb. 25, 1911. Serial No. 610,796. (Cl. 48—180.)



1. In a device of the character described, an inlet pipe leading from a carbureter, and a homogenizing device comprising a series of nested hemispherical foraminous shells having their convex sides directed toward said inlet.

2. In a device of the character described, an inlet pipe leading from a carbureter, and a homogenizing device comprising a series of nested hemispherical wire gauze shells having their convex sides directed toward said inlet.

1,029,811. SIGNALING APPARATUS. EDWARD H. LONG, Los Angeles, Cal. Filed May 24, 1909. Serial No. 497,840. Renewed Mar. 19, 1912. Serial No. 684,808. (Cl. 178—163.)



1. A signaling system including a transmission line extending from a signal-receiving station to a plurality of signal-transmitting stations, a source of unidirectional current in closed circuit with the line, signal-transmitting mechanisms at the signal-transmitting stations for operating the signal-receiving apparatus at the signal-receiving station, switching devices at the transmitting stations, each serving to exclude other transmitting stations from the line, polarized electro-magnets at the transmitting stations for operating said switching devices, means governed by the signal-sending mechanisms at the transmitting stations serving normally to exclude the polarized electro-magnets from operative relation with the line and serving, upon the transmission of signals, to bring the polarized electro-magnet at a sending station into circuit relation with the line to operate the associate switching device, the normal connection of the source of unidirectional current with the line being such that current from said source of unidirectional current will operate the electromagnet at a transmitting station whose signal-sending mechanism has brought said electro-magnet into circuit relation with the line, an electro-magnet at the receiving station normally in circuit relation with the line, mechanism governed by the latter electro-magnet and serving, when the circuit is altered at a transmitting station, to connect unidirectional current in reverse direction with the line, means for holding the armature of the polarized electro-magnet at the transmitting station from which signals are being sent, in order to maintain the switching mechanism governed by the armature of said polarized electro-magnet in the condition in which said armature has placed said switching mechanism, and means whereby the signal-sending mechanism may release the armature of said polarized electro-magnet when said signal-sending mechanism has been restored to normal.

2. A signaling system including a transmission line extending from a signal-receiving station to a plurality of signal-transmitting stations, a source of unidirectional current in close circuit with the line, signal-transmitting mechanisms at the signal-transmitting stations for operating the signal-receiving apparatus at the signal-receiving station, switching devices at the transmitting stations, each serving to exclude other transmitting stations from the line, polarized electro-magnets at the transmitting stations for operating said switching devices, means governed by the signal-sending mechanisms at the transmitting stations serving normally to exclude the polarized electro-magnets from operative relation with the line and serving, upon the transmission of signals, to bring the polarized electro-magnet at a sending station into circuit relation with the line to operate the associate switching device, the normal connection of the source of unidirectional current with the line being such that current from said source of unidirectional current will operate the electro-magnet at a transmitting station whose signal-sending mechanism has brought said electro-magnet into circuit relation with the line, an electro-magnet at the receiving station normally in circuit relation with the line, and mechanism governed by the latter electro-magnet and serving, when the circuit is altered at a transmitting station, to connect unidirectional current in reverse direction with the line.

3. A signaling system including a transmission line extending from a signal-receiving station to a plurality of signal-transmitting stations, a source of unidirectional current in closed circuit with the line, signal-transmitting mechanisms at the signal-transmitting stations for operating the signal-receiving apparatus at the signal-receiving station, switching devices at the transmitting stations, each serving to exclude other transmitting stations from the line, polarized electro-magnetic mechanisms at the transmitting stations for operating said switching devices and serving to control the relation of the signal-transmitting mechanisms with the line, and serving, when energized, to cause operative association of said signal-transmitting mechanisms with the line, means governed by the signal-sending mechanisms at the transmitting stations serving normally to exclude the polarized electro-magnetic mechanisms from operative relation with the line and serving, upon the transmission of signals, to bring the polarized electro-magnetic mechanism at a sending station into circuit relation with the line to operate the associate switching device, the normal connection of the source of unidirectional current with the line being such that current from said source of unidirectional current will operate the electro-magnet at a transmitting station whose signal-sending mechanism has brought said electro-magnet into circuit relation with the line, an electro-magnet at the receiving station normally in circuit relation with the line, mechanism governed by the latter electro-magnet and serving, when the circuit is altered at a transmitting station, to connect unidirectional current in reverse direction with the line, means for holding the armature of the polarized electro-magnet at the transmitting station from which signals are being sent, in order to maintain the switching mechanism governed by the armature of said polarized electro-magnetic mechanism in the condition in which said armature has placed said

switching mechanism, and means whereby the signal-sending mechanism may release the armature of said polarized electro-magnetic mechanism when said signal-sending mechanism has been restored to normal.

4. A signaling system including a transmission line extending from a signal-receiving station to a plurality of signal-transmitting stations, a source of unidirectional current in closed circuit with the line, signal-transmitting mechanisms at the signal-transmitting stations for operating the signal-receiving apparatus at the signal-receiving station, switching devices at the transmitting stations, each serving to exclude other transmitting stations from the line, polarized electro-magnetic mechanisms at the transmitting stations for operating said switching devices and serving to control the relation of the signal-transmitting mechanisms with the line, and serving, when energized, to cause operative association of said signal-transmitting mechanisms with the line, means governed by the signal-sending mechanisms at the transmitting stations serving normally to exclude the polarized electro-magnetic mechanisms from operative relation with the line and serving, upon the transmission of signals, to bring the polarized electro-magnetic mechanism at a sending station into circuit relation with the line to operate the associate switching device, the normal connection of the source of unidirectional current with the line being such that current from said source of unidirectional current will opperate the electro-magnet at a transmitting station whose signal-sending mechanism has brought said electro-magnet into circuit relation with the line, an electro-magnet at the receiving station normally in circuit relation with the line, and mechanism governed by the latter electromagnet and serving, when the circuit is altered at a transmitting station, to connect unidirectional current in reverse direction with the line.

5. A signaling system including a transmission line extending from a signal-receiving station to a plurality of signal-transmitting stations, a source of unidirectional current in closed circuit with the line, signal-transmitting mechanisms at the signal-transmitting stations for operating the signal-receiving apparatus at the signal-receiving station, polarised electro-magnets at the transmitting stations, means governed by the signal-sending mechanisms at the transmitting stations serving normally to exclude the polarised electro-magnets from operative relation with the line and serving, upon the transmission of signals, to bring the polarized electro-magnet at a sending station into circuit relation with the line, the normal connection of the source of unidirectional current with the line being such that current from said source of unidirectional current will operate the electro-magnet at a transmitting station whose signal-sending mechanism has brought said electro-magnet into circuit relation with the line, an electro-magnet at the receiving station normally in circuit relation with the line, and mechanism governed by the latter electro-magnet and serving, when the circuit is altered at a transmitting station, to connect unidirectional current in reverse direction with the line.

[Claims 6 to 43 not printed in the Gazette.]

1,029,812. DRESSING-TABLE. JOHN LUETZ, Chicago, Ill. Filed Aug. 5, 1911. Serial No. 642,451. Cl. 45—100.)

1. A dressing table, comprising a table, an adjustable mirror mounted on the table to rotate about a perpendicular axis, light bulbs on the mirror, means providing an electric circuit for said bulbs, coacting electrical contacts in the circuit, and means for simultaneously raising and lowering said contacts.

2. A dressing table, comprising a table, a hollow pedestal therefor, means in the pedestal providing an electrical socket connection, a mirror, means on the mirror providing an electrical plug connection adapted to coact with the socket connection, and means for adjusting the mirror vertically and simultaneously adjusting said connections therewith.

3. A dressing table, comprising a table, a mirror rotatively mounted on the table, a vertically movable electrical contact in the table, a rotatively and vertically movable contact on the mirror rotatively mounted on the first contact and means for adjusting the mirror and contacts vertically with respect to the table.

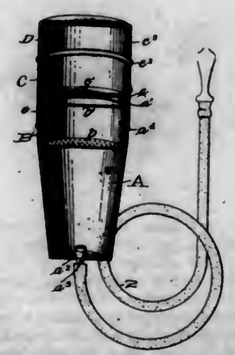


4. A dressing table, comprising a table, a hollow pedestal for the table, a mirror, a stem on the mirror projecting into the pedestal, a vertically movable contact in the pedestal, a contact on the stem rotatively mounted on the vertically movable contact, and a counter-weight connected to the pedestal and said vertically movable contact adapted to support the mirror at varying heights from the table.

5. A dressing table, comprising a table, a hollow pedestal for the table, a guide in the pedestal, a socket slidably mounted in said guide, means adapted to support the socket at varying heights, a mirror, a stem on the mirror journaled in the socket and coacting electrical contacts in the socket and on the stem, the contact on the stem being rotatively mounted on the contact in the socket.

[Claims 6 to 8 not printed in the Gazette.]

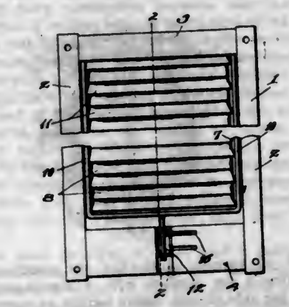
1,029,813. NASAL DOUCHE. JAMES E. MACWILLIAM, Hubbardston, Mass., assignor to Frederick A. MacWilliam, Hubbardston, Mass. Filed June 30, 1911. Serial No. 636,179. (Cl. 128—17.)



1. As an article of manufacture, a device of the character described, comprising a bottom container having an outlet at the bottom thereof and provided with an open flange at the top, a strainer contained entirely within said flange, and a receptacle having an imperforate bottom and a flange projecting below said imperforate bottom adapted to cover the top flange of the container and the strainer.

2. As an article of manufacture, a device of the character described, comprising a lower conical container having an outlet at the bottom and provided with an open flange at the top, a cylindrical strainer contained in the upper part and resting on the conical inner surface thereof, and a receptacle having an imperforate bottom and a flange extending below the bottom adapted to fit over the flange of the container so as to cover the same and the strainer.

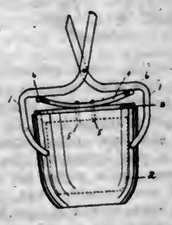
1,029,814. WINDOW-BLIND. LOUIS H. MANNING, Parmele, N. C. Filed Jan. 13, 1912. Serial No. 670,998. (Cl. 20—60.)



1. A device of the class described, comprising a main frame having channel-shaped slats therein, and a movable frame mounted in the main frame also provided with channel-shaped slats disposed between the slats of said main frame, said latter slats partly overlapping the first mentioned slats when the movable frame is in its raised position and adapted to receive the same when said frame is in its lowered position.

2. A shutter of the class described, comprising a main frame, the side panels of which are provided with longitudinal strips, a plurality of channel-shaped slats secured to said strips, the channel portions of which are disposed downwardly, a movable frame, the side bars of which are straddled over said longitudinal strips, additional channel-shaped slats secured to the side bars of the movable frame and disposed between the slats of the main frame, said latter slats partly overlapping the first mentioned slats when in one position and adapted to receive the same when in another position, and means to operate said movable frame.

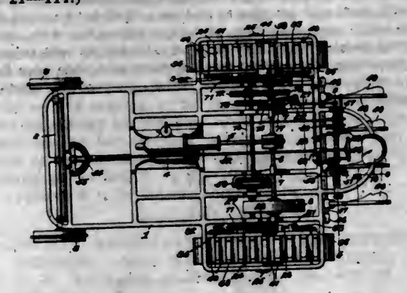
1,029,815. CRUCIBLE-COVER. THOMAS MCGRATH, Springfield, Mass. Filed Sept. 25, 1911. Serial No. 651,105. (Cl. 75—182.)



1. A crucible cover having attached thereto on its upper surface an arched spring with the ends of its member forming such arch extending vertically above the surface of the cover.

2. A crucible cover having attached thereto on its upper surface an arched spring with the ends of its member forming such arch extending vertically above the surface of the cover, and said vertically extending ends having lateral extensions attached thereto.

1,029,816. TRACTION-PLOW. SILAS J. MILLION, Rogers, Nebr. Filed Oct. 16, 1911. Serial No. 654,936. (Cl. 21—114.)



1. A traction plow, comprising a main frame, a shaft rotatably mounted thereon and provided at its ends with enlarged gears, means for the rotation of said shaft in both directions, auxiliary frames carried on the sides of said main frame, a non-rotatable shaft mounted on each of the auxiliary frames, a combined spur and bevel gear rotatably mounted on the last referred to shaft, a portion of which engages a gear on the end of the first referred to shaft, additional shafts rotatably mounted in the ends of each of said auxiliary frames, said latter shafts being provided on their inner ends with bevel gears, connecting means between the last referred to bevel gears and a portion of said combined spur and bevel gear, and traction belts supported over the shafts at the ends of said auxiliary frames.

2. A traction plow, comprising a main frame, auxiliary frames carried on the sides thereof, traction belts rotatably mounted on said auxiliary frames, rollers supported in the lower portions of said auxiliary frames over which said belts extend, said rollers being adapted to retain the belts in position to engage the surface of the ground, and additional rollers adjustably mounted in the upper portions of said auxiliary frames for tightening said belts.

3. A traction plow comprising a main frame, auxiliary frames carried thereon, traction belts operatively carried on said auxiliary frames, a plurality of rollers carried on the lower portions of said auxiliary frames and adapted to engage the traction belts to retain the same in effective engagement with the ground, additional rollers carried on the upper portions of said frames and adapted for vertical movement with respect thereto for engagement with the upper reaches of said traction belts, and means for the adjustment of said last mentioned rollers on the auxiliary frames.

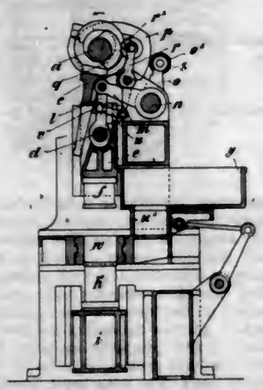
4. A traction plow comprising a main frame, auxiliary frames carried thereon, shafts extending transversely of the central portions of said frames, traction belts operatively mounted on said auxiliary frames, a combined bevel gear and pinion rotatably carried on each of said shafts, means in connection with the bevel gear portions of said last mentioned members and extending in opposite directions therefrom for the rotation of said traction belts therefrom, means in connection with the pinion portions of said combined gears and pinions for the rotation of the latter on said shafts, supporting wheels carried on said frame, and steering means for the same.

1,029,817. PRESS FOR MAKING BRIQUETS AND THE LIKE. WALTER MÜLLER, Grube Ilse, Lausitz, Germany. Filed Jan. 20, 1909. Serial No. 473,312. (Cl. 25—93.)

1. The combination of a stamp-carrying slide, means for lifting the slide, a forcing bar, extraneous to said lifting means and movable into and out of engagement with the slide, means for actuating the forcing bar to exert downward pressure on the slide, and means for controlling the engagement of the forcing bar with the slide.

2. In a press of the character described, the combination, with the press-standards, and a shaft having ec-

centric portions journaled therein, of a slide carrying a stamp able to reciprocate vertically between said standards, a forcing member journaled on the eccentric portions of said shaft and adapted to rest on said slide, a tappet on said shaft, and a system of levers connected with said forcing member and adapted to be actuated by said tappet for removing said forcing member from said slide once for each revolution of the shaft which carries the forcing member.



3. The combination of a stamp-carrying slide, an operating shaft, a forcing bar movable into and out of engagement with the slide, mechanism operated by the said shaft and extraneous to said forcing bar, for lifting the slide, means operated by the shaft, for exerting a downward pressure on the slide through the forcing bar, and means, operated by the shaft, for controlling the engagement of the forcing bar with the slide.

4. In a press of the character described, the combination, with the press-standards and a shaft having eccentric portions journaled therein, of a slide carrying a stamp able to reciprocate vertically between said standards, a forcing bar journaled on the eccentric portions of said shaft and adapted to rest on said slide, means actuated by said shaft and connected with said forcing bar for removing the latter from said slide, a cam on said shaft, and a system of levers, independent of said forcing bar connected with said slide and adapted to be actuated by said cam for reciprocating said stamp.

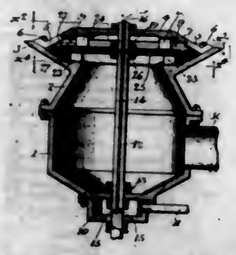
5. In a press of the character described, the combination, with the press-standards, and a shaft having eccentric portions journaled therein, of a slide carrying a stamp able to reciprocate vertically between said standards, a flat-topped pin journaled in said slide, a forcing member journaled on the eccentric portions of said shaft and adapted to rest on said pin, and means actuated by said shaft and connected with said forcing member for positively removing the latter from said pin.

[Claims 6 to 13 not printed in the Gazette.]

1,029,818. OIL-BURNING APPARATUS. WILLIAM C. H. NOBLE, Los Angeles, Cal. Filed June 17, 1911. Serial No. 633,842. (Cl. 158—28.)

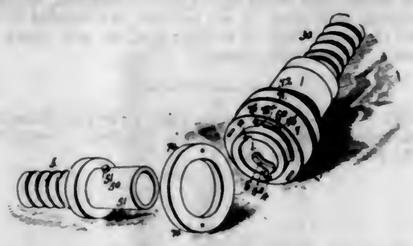
1. In an oil burning apparatus, the combination of a casing having a top member with a downwardly flaring flange and the side of said casing having an upwardly flaring flange said flanges being separated to form an annular outlet, a shaft mounted to rotate in said casing, a fan-wheel carried by said shaft and provided with passages having outlets opening at the periphery of the fan wheel, blades on said fan wheel above and below said openings of the oil passages for forcing air against the upper and lower flanges aforesaid, means for supplying oil to said passages in the fan-wheel, and means for rotating said shaft.

2. In an oil burning apparatus, the combination of a casing having a top member with a downwardly flaring flange and the side of said casing having an upwardly flaring flange said flanges being separated to form an annular outlet, a shaft mounted to rotate in said casing, a fan-wheel carried by said shaft and comprising a rim portion, arms connecting said rim portion to said shaft, said arms and rim portion being provided with passages having outlets facing the said annular outlet of the casing, blades on said fan-wheel above and below said rim for forcing air against the upper and lower flanges aforesaid, means for supplying oil to said passages in the fan-wheel, and means for rotating said shaft.



3. In an oil burning apparatus, the combination of a casing having a top member with a downwardly flaring flange and the side of said casing having an upwardly flaring flange said flanges being separated to form an annular outlet, a shaft mounted to rotate in said casing, a fan-wheel carried by said shaft and comprising a rim portion, arms connecting said rim portion to said shaft, said arms and rim portion being provided with passages having outlets facing the said annular outlet of the casing, blades on said fan-wheel above and below said rim for forcing air against the upper and lower flanges aforesaid, means for supplying oil to said passages in the fan-wheel, and means for rotating said shaft, the lower blades of said fan-wheel being at a greater distance from the center of rotation than the upper blades.

1,029,819. HOSE-COUPLING. JOHN NYLANDER, Muskegon, Mich. Filed Oct. 23, 1911. Serial No. 656,280. (Cl. 137—28.)



1. In a hose coupling, the combination with a tubular member, a nipple insertible into the tubular member, a bayonet joint for holding the said nipple and the tubular member together; of a spring latch for holding the bayonet joint locked, said latch being mounted on the tubular member, and a ring encircling the tubular member, and rotatable thereon and a wedge device carried by said ring for engaging and releasing the spring latch from the bayonet joint when turned in one direction.

2. In a hose coupling, the combination with a tubular member, a nipple insertible into the tubular member, a bayonet joint for holding the said nipple and the tubular member together; of a spring latch for holding the bayonet joint locked, said latch being mounted on the tubular member, and a ring encircling the tubular member, and rotatable thereon, a wedge device carried by and in said ring for releasing the spring latch from the bayonet joint when turned in one direction, and a spring device for returning the said ring to its normal position.

3. In a hose coupling, two coupling members, having a bayonet joint connection between the same, a leaf spring mounted on one of said sections, and having a lug to engage the bayonet lug of the other section to lock said bayonet joint, a ring rotatably mounted on said spring carrying section and having a chamber to inclose said spring, said ring having a wedge portion to engage the free end of said spring when said ring is turned in one direction, to move said spring to release said bayonet joint, substantially as shown and described.

4. In a hose coupling, two coupling members, having a bayonet joint connection between the same, a leaf spring mounted on one of said sections, and having a lug to engage the bayonet lug of the other section to lock said bayonet joint, a ring rotatably mounted on said spring carrying section and having a chamber to inclose said spring, said ring having a wedge portion to engage the free end of said spring when said ring is turned in one direction, to move said spring to release said bayonet joint, means for limiting the turning movement of said ring in one direction, and a second leaf spring mounted on first mentioned coupling section and engaging said ring to move said ring in a direction to normally hold said wedge out of contact with said first mentioned spring.

5. In a hose coupling, a male and a female section, said male section having a lug, and said female section having a slot, a ring-like member mounted on said female section, and having two distinct chamber portions, a spring latch mounted on said female section in one of said chamber portions, and having a lug to project into said slot and lock said male section lug, said ring-like member having a portion normally disengaged from said latch for engaging and lifting said latch to release said coupling when said ring-like member is moved in one direction, and means mounted in the other chamber of said ring-like member for continuously tending to turn said ring-like member to its non-releasing position.

[Claims 6 and 7 not printed in the Gazette.]

1,029,820. PUZZLE-BANK. JAMES OBLEIN and HENRY OBLEIN, Lynn, Mass. Filed Dec. 12, 1911. Serial No. 665,327. (Cl. 46—41.)



1. An article comprising a body element and a cover element relatively movable while locked together, one element carrying a bolt slidable into and out of locking relation to the other element by gravity upon the tilting of the article.

2. An article comprising a body element and a cover element relatively movable while locked together, one element carrying a bolt slidable into and out of locking relation to the other element by gravity upon the tilting of the article, and baffle means on the said other element for engaging with the bolt to obstruct free relative movement of the elements.

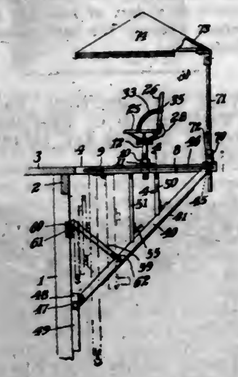
3. An article comprising relatively movable body and cover elements, a bolt-engaging means on one element, and a plurality of bolts on the other element and movable into and out of engagement with said means, one bolt being movable gravitationally by the tilting of the article.

4. An article comprising a body element and a cover element relatively movable, a bolt on one element and normally spring-pressed to locking position, a member on the other element with which the bolt interlocks in a manner to permit relative movement of the elements while they are locked together, and a key baffle with which the bolt is engaged to be thrown to unlocking position for permitting the elements to be unlocked.

5. An article comprising a body element and a cover element relatively movable, a bolt on one element and normally spring-pressed to locking position, a member on the other element with which the bolt interlocks in a manner to permit relative movement of the elements while they are locked together, a key baffle with which the bolt is engaged to be thrown to unlocking position for permitting the elements to be unlocked, and a sliding bolt on the bolt-carrying element to gravitate into and out of locking engagement with the said member by the tilting of the body.

[Claims 6 to 34 not printed in the Gazette.]

1,029,821. OBSERVATION-CHAIR AND EXTENSION-SUPPORT. JOHN WALTER PATTERSON, Atlantic City, N. J. Filed July 15, 1911. Serial No. 638,726. (Cl. 155—22.)

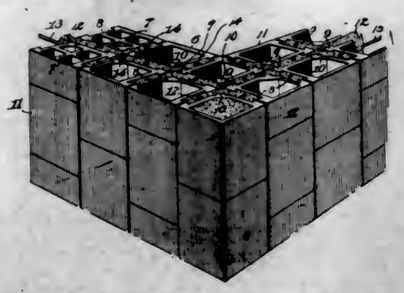


1. In a device of the character described, the combination of a stationary supporting means having an overhanging portion which portion is provided with grooves or slots in its opposite edges, a support for an observation chair pivotally connected to the said overhanging portion and being in alinement therewith, the said chair support being provided with slots or grooves in its opposite edges which are in alinement with the grooves in the said overhanging portion, a bracing structure having side pieces connected with lugs at their upper ends which project into the said slots which bracing structure is adapted to be detachably connected to the said stationary support at a point below the said overhanging portion and the said upper ends of the said bracing structure being adapted to be moved inwardly until the said lugs occupy positions in the slots in the opposite edges of the said overhanging portion whereby the chair support may be permitted to move about its pivotal support so as to overlie the said bracing structure.

2. In a device of the character described, the combination of a stationary support having an overhanging portion provided with grooves in the opposite edges thereof, a floor structure for supporting an observation chair, the said structure being of the same width as the said overhanging portion and being provided with slots or grooves in its opposite edges which are in alinement with the slots or grooves in the said overhanging portion, a bracing structure having side members the upper ends of which are provided with lugs which enter the said grooves and the lower ends of which are connected to a part of the stationary support, means for disconnecting the lower ends of the said bracing structure from the said stationary support whereby the upper ends thereof may be moved inwardly to bring the said lugs into engagement with the slots in the edges of the said overhanging portion, whereby the said floor structure for supporting the observation chair may be moved about its pivotal support into substantially vertical position and overlying the said bracing structure.

3. In a device of the character described, the combination of a stationary support including a flooring provided with an overhanging portion which portion is provided with grooves in its opposite edges, a floor structure pivotally connected to the outer edge of the said overhanging portion which structure is adapted to support an observation chair or seat and the said floor being provided with slots or grooves which extend from a point adjacent to the outer edge of the said floor structure inwardly throughout the entire length of the said edges, the said slots being in alinement with the slots in the opposite edges of the said overhanging portion, a bracing structure having lugs at the opposite sides of its upper end which enter the said slots or grooves, braces pivotally connected to the said bracing structure and being in contact with and detachably connected with the said floor structure, a brace pivotally connected to a part of the stationary supporting structure and detachably connected to the said bracing structure, and means for detachably connecting the lower end of the said bracing structure to a part of the said stationary supporting structure whereby the said device may be collapsed as described.

1,029,822. WALL CONSTRUCTION. CHARLES EDMUND RAFFERTY, Washington, D. C. Filed Jan. 25, 1909, Serial No. 474,138. Renewed Nov. 10, 1911. Serial No. 659,642. (Cl. 72—41.)



1. In a wall structure, a plurality of tubular tiles arranged vertically one upon the other and in double rows, said tiles being provided in opposing faces with single undercut tie receiving seats, and with outstanding double shouldered corner ribs, the said tiles of the separate rows being so arranged as to expose said seats and said ribs for engagement by the bonding material and also arranged so as to permit continuous horizontal and vertical bonding communication throughout the wall, and bonding material filled into said seats.

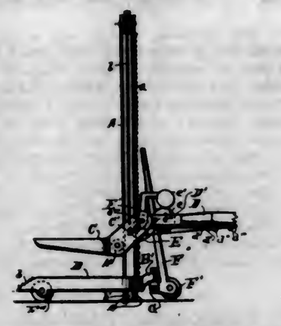
2. In a wall structure, a plurality of tubular tiles, arranged vertically one upon the other, and in double rows, said tiles being provided in opposing faces with single undercut tie receiving seats and with outstanding double shouldered corner ribs, the said tiles of the separate rows being so arranged as to present said corner ribs in opposing relation and to provide continuous horizontal bonding communication throughout the wall, and a continuous bond of the filling material.

3. In a wall structure, a plurality of tubular tiles arranged in vertical relation, each of said tiles having single broad undercut tie-receiving seats in different faces, forming outstanding substantially triangular ribs at the corners, certain of said tiles being disposed in diagonal relation in the wall, with the points or edges of the ribs in opposing relation, others of said tiles having substantially dove-tailed ribs at their corners, said latter ribs being also disposed in opposing relation and at the opposite sides of the triangular ribs, and bonding material located between the tiles and filling the undercut seats, thereby bonding together said various tiles.

4. In a well structure, a plurality of tubular tiles, arranged vertically one upon the other, and in double rows, said tiles being provided in opposing faces with single undercut tie-receiving seats, with outstanding arrowhead corner ribs, and also with truncated corners having dovetailed ribs, the said tiles of the separate rows being so arranged as to present groups of the arrowhead and dovetailed ribs in diagonally opposite relation and said truncated corners permitting continous communication throughout the wall for a continuous bond of the filling material.

5. In a wall structure, a plurality of tubular tiles arranged vertically one upon the other, said tiles being provided in opposing faces with single undercut tie-receiving seats forming shouldered ribs at the corners, the said tiles being arranged in double rows and spaced apart so as to expose said seats and said ribs for engagement by the bonding material and so as to provide continuous horizontal bonding communication throughout the wall, and bonding material filled into said seats.

1,029,823. LIFTING IMPLEMENT. EDWIN C. RICHARDSON, Grand Rapids, Mich. Filed June 24, 1911. Serial No. 635,226. (Cl. 57—100.)



1. In an implement for raising and lowering packages, a supporting platform, a standard supported on said platform and having upwardly inclined teeth on one surface, a vertically movable platform having arms projecting by said standard, wheels journaled between said arms to travel upon the front and back surfaces of the standard, a lever pivotally mounted concentric with one set of said wheels, and pawls mounted in said lever in position to alternately engage the teeth on the standard and raise or lower the platform at the pleasure of the operator.

2. In an implement for raising and lowering packages, a supporting platform, a standard supported on said platform and having upwardly inclined teeth on one surface, a vertically movable platform having arms to project by the standard, an anti-friction roller to travel on one surface of the standard and two antifriction rollers to travel on the other surface of the standard one on each side of the teeth, a lever pivotally mounted between the arms concentric with the wheels, a pawl mounted on said lever concentric with the wheels, a pawl pivotally mounted on the lever some distance from the wheels, counter weights to hold said pawls normally in engagement with the teeth, rods for manipulating said pawls to disengage them from the teeth, said pawls so arranged that when the free end of the lever is raised one pawl will engage the teeth and the other pawl will be raised, and when the free end of the lever is carried downward the other pawl will engage the teeth and the first pawl and the platform will be raised, carrying the lever and platform together.

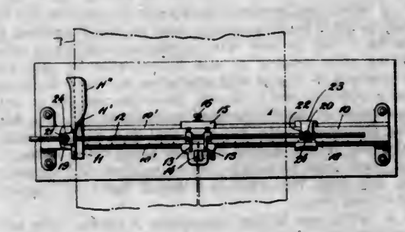
1,029,824. TOOL FOR BORING HOLES. MANUEL R. RODRIGUES, Brooklyn, N. Y. Filed Aug. 17, 1908, Serial No. 448,796. Renewed Nov. 25, 1911. Serial No. 662,467. (Cl. 125—10.)

A tool comprising a cylinder having a non-rotatable, vertically movable cam, and a power actuated rotary means surrounding the cam and formed with means located at one end thereof to engage the cam, and a hammer head positioned below the said cam and located at the lower end of the cylinder, a reciprocatory hammer pis-



ton located above the hammer head, and connected with the cam, a guide rod located interiorly of the cam, a spring surrounding the guide rod and located above the cam to actuate the same, the whole being contained within the said cylinder.

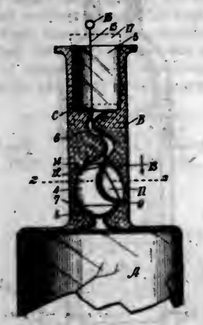
1,029,825. CUTTING APPARATUS. JOHN C. RUST, Detroit, Mich. Filed Nov. 16, 1911. Serial No. 660,616. (Cl. 164—36.)



1. The combination with a stationary bed having ways, of a flared-mouth margin guide secured to one end thereof and comprising a pair of ledges extending from one side thereof, a support bracket and a cutter-slide independently movable on said ways, a cutter in said slide, a keeper extending longitudinally of the bed, adjustable means for holding said keeper on said bracket, and independent means carried by said margin guide disposed on the side opposite to said ledges for adjustably supporting said keeper on said margin guide.

2. The combination with a stationary bed having ways, of a flared-mouth margin guide secured to one end thereof and comprising a pair of ledges extending from one side thereof, a support bracket and a cutter-slide independently movable on said ways, a cutter in said slide, a keeper extending longitudinally of the bed, adjustable means for holding said keeper on said bracket, independent means carried by said margin guide disposed on the side opposite to said ledges for adjustably supporting said keeper on said margin guide and a pair of fingers adjacent the opposite sides of the cutter and adjustable in a vertical plane around said keeper for holding the stock to be cut against rising at that point.

1,029,826. NON-REFILLABLE BOTTLE. LOUIS SCHAFFERT, New York, N. Y., assignor of two-thirds to Annie Schaffert, New York, N. Y., and one-third to Samuel G. Conkling, Ridgewood, N. J. Filed Aug. 8, 1911. Serial No. 643,033. (Cl. 215—69.)



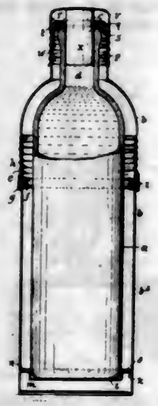
1. In an all-glass molded non-refillable bottle, comprising a body portion and a solid neck integral therewith, said solid neck having a bore extending therethrough, a portion of said bore adjacent its entrance to the body of the bottle being enlarged to form a substantially semi-spherical recess, said bore above said recess being substantially S-shaped and entering said recess at the apex thereof, a flap valve hinged within and at the bottom of said recess, and a flexible lift passing through said S-shaped bore to engage said valve and maintain the same in raised position, said valve having a stud projecting from the top thereof at a point farthest removed from its hinge, adapted to be engaged by said flexible lift, and constituting, when the valve is raised, the most advanced portion of said valve, said valve when so raised by tension on said lift, being pocketed adjacent to but slightly spaced from the wall of said recess, and adapted to be rigidly maintained in this position by said lift while maintaining practically an unobstructed passage for the inflowing liquid.

2. A bottle, comprising a body portion and a neck integral therewith, said neck having a bore extending therethrough, to afford an entrance to the body of the bottle, a portion of said bore, adjacent its entrance to the body of the bottle, being enlarged to form a substantially semi-spherical recess, said bore above said recess entering said recess at the apex thereof, and a flap valve hinged within and at the bottom of said recess, said valve being circular in plan and having a marginal rim with a diameter less than the shortest distance between the hinge of the valve and the entrance of the bore to the recess, whereby when pouring liquid from the bottle, said valve is pocketed with the portion of the edge of the rim farthest removed from the hinge contacting with the side of the recess adjacent the hinge, whereby a clear, unobstructed passage is obtained through said bore.

1,029,827. HEAT-INSULATING CASING FOR BOTTLES. PERCIVAL RAYMOND SCHUYLER, Paterson, N. J. Filed Aug. 3, 1911. Serial No. 642,110. (Cl. 62—23.)

1. In combination, a bottle, a shell receiving and shaped to conform substantially to the shape of the bottle and having an opening coinciding with that at the bottle-mouth but being otherwise closed at substantially all points, said shell being spaced from the bottle at substantially all points and being divided horizontally into two sections separably interlocked together, an upper annular seat above the mouth of the bottle around the opening therein and interposed between the mouth and the shell and bearing down on the former and sealing the space between the bottle and shell from the exterior, and another seat under the bottle and supported by the shell, one of said seats being elastic and said shell-sections holding said

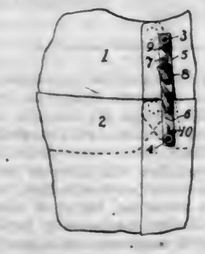
seats in pressing contact with the bottle interposed between them, substantially as described.



2. In combination, a bottle, a shell receiving and shaped to conform substantially to the shape of the bottle and having an opening coinciding with that of the bottle but being otherwise closed at substantially all points, said shell being spaced from the bottle at substantially all points, means, between the bottle and shell, for maintaining them in spaced relation to each other, said shell being divided horizontally into two sections having an interlocking connection between them and one of said sections having a cylindrical lip and the other a groove coinciding with said lip, and an elastic ring arranged in said groove and bearing continuously against said lip, substantially as described.

3. In combination, a bottle, a shell receiving and shaped to conform substantially to the shape of the bottle and having an opening coinciding with that of the bottle but being otherwise closed at substantially all points, said shell being spaced from the bottle at substantially all points and having an internal horizontally arranged projection near its bottom, and seats interposed one between the top portion of the bottle and shell and around the opening of the former and the other under the bottle and resting on said projection, the latter seat being a disk of stiff material having its middle portion drawn downwardly and forming a socket receiving and fitting the bottom of the bottle, substantially as described.

1,029,828. GARMENT-CONNECTING DEVICE. MORRIS SCHWARTZ, New York, N. Y. Filed July 25, 1908. Serial No. 445,311. (Cl. 2—97.)



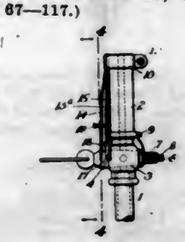
The combination with a vest and a pair of trousers, of a connecting device for connecting the said garments together to prevent separation of the two, comprising a narrow strip of pliable material buttoned to the lower portion of the vest on the inside thereof, a similar strip buttoned to the upper portion of the trousers on the inside thereof, a series of fastening devices carried by one of said strips, and a series of complementary fastening devices on the other strip, substantially as shown and described and for the purpose set forth.

1,029,829. CLIP. HENRY W. STAMPS, Rome, Ga. Filed June 20, 1911. Serial No. 634,377. (Cl. 24—153.)



A clip including a stem having a point at one end, an extension projecting at an obtuse angle from the other end of the stem, and an arm projecting from the extension and normally contacting at one end with the stem.

1,029,830. SAFETY GAS-BURNER. WILLIAM B. STOUDT, Bernhardts, Pa. Filed Nov. 16, 1911. Serial No. 660,686. (Cl. 67—117.)



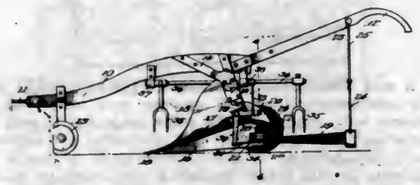
1. A safety gas burner comprising a burner tube having a plug valve therefor normally held in closed position by a spring, a stop on said valve, a clip on said burner tube, a spring plate secured to said burner tube by said clip and arranged to engage said stop when the valve is turned to open position, and a thermal plate also secured to said burner tube by said clip and arranged to displace said spring plate and to itself engage said stop when expanded by the heat of the lighted jet, said plates being forked at their lower ends to engage the valve stem and normally lying one upon the other and spaced apart on opposite sides of said stop.

2. A safety gas burner comprising a burner tube having a plug valve therefor normally held in closed position by a spring, a stop on said valve, a clip on said burner tube, a spring plate secured to said burner tube by said clip and arranged to engage said stop when the valve is turned to open position, and a thermal plate also secured to said burner tube by said clip and arranged to displace said spring plate and to itself engage said stop when expanded by the heat of the lighted jet, said plates being forked at their lower ends to engage the valve stem and normally lying one upon the other and spaced apart on opposite sides of said stop, said thermal plate being shorter than said spring plate.

3. A safety gas burner comprising a burner tube having a plug valve therefor normally held in closed position by a spring, a stop on said valve, a forked spring plate secured to said burner tube and arranged to engage said stop when the valve is turned to open position, and a forked thermal plate also secured to said burner tube and arranged to displace said spring plate and to itself engage said stop when expanded by the heat of the lighted gas jet, said thermal plate being composed of plates of differing hardness and expanding values, and a contact tip of hard metal secured to the softer metal of one of said forked ends.

4. A safety gas burner comprising a burner tube having a plug valve therefor normally held in closed position by a spring, a stop on said valve, a spring plate secured to said burner tube and arranged to engage said stop when the valve is turned to open position, and a thermal plate also secured to said burner tube and arranged to displace said spring plate and to itself engage said stop when expanded by the heat of the lighted gas jet, and adjustable means to regulate the spacing apart of said plates.

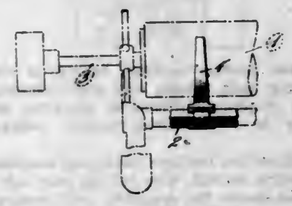
1,029,831. POTATO-DIGGER. RALPH L. TEED, Augusta, Me. Filed Jan. 15, 1912. Serial No. 671,192. (Cl. 55—143.)



1. The combination of a plow, a screen mounted behind the same, wheels on which the plow is mounted, a rock shaft mounted above the plow and the screen, and extending lengthwise thereof, forks carried by the rock shaft and operating transversely above the plow and the screen when the rock shaft is operated, and wheel-driven means for operating the rock shaft.

2. The combination of a plow, wheels on which the plow is mounted, one of the wheels having a cam groove, a screen mounted behind the plow, a rock shaft mounted above the plow and the screen, and extending lengthwise thereof, forks carried by the rock shaft and operating transversely above the plow and the screen, an arm fixed to the rock shaft and extending outward therefrom, a bell-crank lever carried by the plow, one of the branches of said lever being connected to the aforesaid arm, and a roller carried by the bell-crank lever, said roller working in the aforesaid cam groove.

1,029,832. ADJUSTABLE PAPER-GUIDE FINGER FOR TYPE-WRITING MACHINES. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation of Missouri. Filed Sept. 23, 1910. Serial No. 583,432. (Cl. 197—139.)

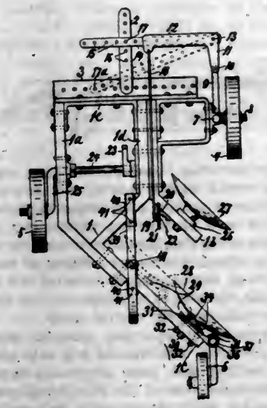


1. In a typewriting machine the combination with a platen and a bar square in cross section mounted on the carriage of the machine in front of the platen, of a paper guide comprising a single integral member having an inverted U-shaped portion the lower portions of the legs of which are adapted to engage an opposite pair of corners of the square bar and a curved arm extending downwardly and forwardly from one of the legs, which arm is adapted to bear against the platen.

2. A paper guide finger comprising an integral sheet metal piece bent to form a spring loop having a notch in one side thereof and two notches in the opposite side, and a curved portion adapted to engage the platen.

3. The hereindescribed guide finger for typewriting machines comprising a single piece of resilient sheet metal one end portion of which is bent into inverted U-shape and the legs of which bent portion are provided with oppositely disposed notches adapted to engage a bar of the typewriter carriage, there being an auxiliary notch formed in one of the legs and the opposite end portion of which section of sheet metal is bent downwardly and curved so as to engage the periphery of the typewriter platen.

1,029,833. PLOW. GUSTAV A. THODE, Grover, Colo. Filed Dec. 9, 1910. Serial No. 596,534. (Cl, 97—40.)



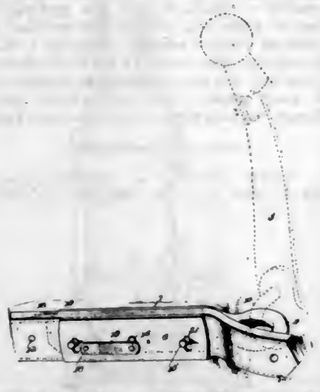
1. In a disk plow, the combination with a frame and wheels supporting it, of two disks mounted one directly rearward of the other on the frame, said rear disk being movable on the frame from a position directly rearward of the front disk, to a position in which it may make a second furrow; said rear disk being also adjustable vertically on the frame, for the purposes set forth.

2. In a disk plow, the combination with a frame and wheels supporting it, of two disks mounted on the frame one directly rearward of the other, said rear disk being adjustable vertically and to different oblique directions on the frame and movable from a position directly rearward of the front disk to a position in which it makes a second furrow.

3. In a disk plow, the combination with a frame and wheels supporting it, of two disks mounted on the frame one rearward of the other, said rear disk being adjustable as to its oblique position on the frame and also adjustable vertically on the frame and movable from directly rearward of the front disk to a position for making a second furrow; the mounting of said rear disk involving a horizontally curved plate forming a movable bracket on the frame, a similarly curved journal plate adjustably secured to the bracket plate and carrying the journal of the disk, and a vertically disposed journal bearing on the bracket plate, and a caster having its stem journaled in said bearing and arranged to support the frame.

4. In a disk-plow, the combination with a frame and wheels supporting it, of two disks mounted on the frame one rearward of the other, said rear disk being adjustable vertically and to different oblique directions on the frame, and movable from a position directly rearward of the front disk to a position in which it may make a second furrow, a mold-board plow detachably secured to the frame in a position to make a second and shallow furrow when the rear disk is directly rearward of the front disk, whereby the two disks are able to make an extra deep furrow while the mold-board plow makes a shallow furrow preparatory to operation by the disks.

1,029,834. HARNESS-BUCKLE. WILLIAM UTECH, Sanford, Fla. Filed July 28, 1911. Serial No. 641,068. (Cl. 24—166.)



1. A buckle including co-acting clamping members, one of which is provided with a locking slot and another slot having a contracted portion, pins projecting from the other member, one of said pins fitting within the locking slot and another pin being provided with means for engagement with the walls of the contracted portion of the overlying slot, and a locking device adapted to enter the locking slot and abut against the side of the adjacent pin for clamping said members in engagement with a strap.

2. A buckle including co-acting clamping members, one of which is provided with spaced key-hole slots and an intermediate locking slot, pins projecting laterally from one of said members, some of the pins being provided with reduced necks for engagement with the contracted portions of the overlying key-hole slots in the other member, and a locking device carried by the slotted member and having a lug fitting within the locking slot and abutting against the side of the adjacent pin for clamping said members in engagement with a strap.

3. A buckle including co-acting clamping members, one of which is provided with spaced transversely disposed key-hole slots and an intermediate transverse locking slot, pins projecting from one of the members, some of which are provided with reduced necks for engagement with the contracted portions of the overlying key-hole slots, one of the pins being shorter than the others and having its outer face disposed substantially flush with the outer face of the slotted member when said members are assembled, and a locking device pivotally mounted on the slotted member and having a lug fitting within the locking slot and bearing against the side of the short pin for clamping said members in engagement with a strap.

1,020,835. LITHOGRAPHIC STONE. HUBERT WAGNER, Munich-Schwabing, Germany, assignor to Charlottenburger Farbwerke Aktien Gesellschaft, Charlottenburg, Germany, a Corporation of Germany. Continuation of application Serial No. 409,596, filed Jan. 6, 1908. This application filed Feb. 21, 1911. Serial No. 610,062. (Cl. 101—173.)

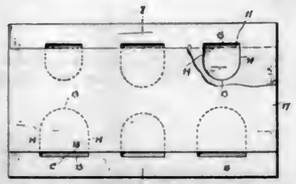
1. A lithographic plate or roller comprising a plurality of lithographic stones united together by a cementing material comprising Sorel cement, powdered lithographic stone, and comminuted metal.

2. A lithographic plate or roller comprising a plurality of lithographic stones united together by a cementing material comprising burnt magnesite, magnesium chlorid, powdered lithographic stone and comminuted iron.

3. A lithographic plate or roller comprising a plurality of lithographic stones united together by a mixture of cement, powdered lithographic stone and comminuted metal.

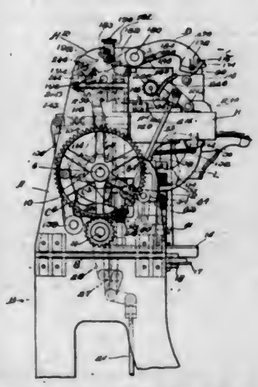
4. A lithographic plate or roller comprising a plurality of lithographic stones united together by a mixture of powdered lithographic stone, comminuted metal, and a binder.

1,029,836. COIN-MAILING CARD. CICERO J. WARNE, Auburn, N. Y. Filed Jan. 26, 1912. Serial No. 673,586. (Cl. 229—69.)



A coin holding card including a blank of material having substantially U-shaped openings each comprising an arcuate wall, spaced parallel walls tangential to said arcuate wall, and a straight wall connecting and substantially perpendicular to said parallel walls, a closure on one side of said blank concealing said openings, and a closure on the other side of said blank concealing the rounded walls of said openings and exposing portions of said openings most remote from said rounded walls with resultant straight slots for permitting of the insertion of coins into the pockets formed by the rounded portions of said openings and both closures.

1,029,837. WELT-BUTTING MACHINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed Oct. 25, 1909. Serial No. 524,373. (Cl. 12—67.)



1. A welt butting machine, having, in combination, welt locating, welt butting and welt fastening devices, and means affording provision for operating said devices successively in the sequence named, substantially as described.

2. A welt butting machine, having, in combination, welt locating, stitch cutting, welt butting and welt fastening devices, and means for operating said devices, substantially as described.

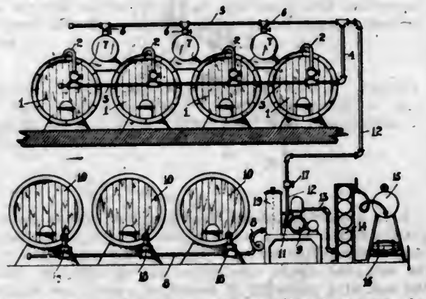
3. A welt butting machine, having, in combination, separately mounted welt locating, butting and fastening devices, and independent actuating means for operating each of said devices, substantially as described.

4. A welt butting machine, having, in combination, welt locating, welt butting and welt fastening devices normally held withdrawn from the work, and means affording provision for bringing said devices into operative position at different times, substantially as described.

5. A welt butting machine, having, in combination, devices engaging the welt crease to force the welt end inward over the insole into cutting position, welt butting cutters, means for operating said cutters, and a tacking device operating to drive a tack through the butted welt end to secure it to the insole, substantially as described.

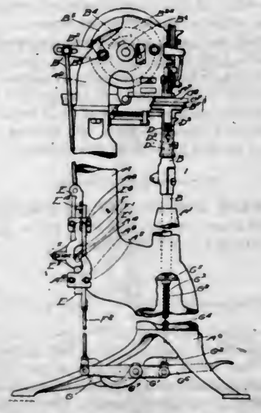
[Claims 6 to 77 not printed in the Gazette.]

1,029,838. METHOD OF FINISHING AND PREPARING BEVERAGES. JACOB FREDERIC WITTEMANN, Lakewood, N. J. Filed May 2, 1911. Serial No. 624,549. (Cl. 209—1.)



The method of finishing and preparing beverages for the market, which consists in conducting into a liquid forcing mechanism, in the nature of a pump, in predetermined proportions, natural fermentation gas and a beverage, the temperature of the beverage being lower than that of the natural fermentation gas and forcing this mixture of natural fermentation gas and beverage under pressure through a device for cooling the mixture of such natural fermentation gas and beverage, and conducting this mixture directly into storage or shipping packages while under the pressure exerted by the said liquid forcing mechanism in one continuous operation, substantially as set forth.

1,029,839. ACTUATING MECHANISM FOR WORK-SUPPORTS. GEORGE A. AMBLER, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 30, 1905. Serial No. 267,842. (Cl. 1—41.)



1. In a machine provided with a work abutment, a work support movable into and out of work clamping relation to said abutment, a spring tending normally to maintain said work support in operative relation to the work abutment, means for intermittently depressing the work support against said spring to permit the work to be fed constructed to restore the work support to the control of the spring at a point between its extreme depression and its operative position, means for locking the work support in operative position comprising a roll spring-pressed into locking position, and means for preventing said roll from acting until after the work support controlling spring has been permitted to adjust the work support to the thickness of the work.

2. In a machine provided with a work abutment, a work support movable into and out of work clamping relation to said abutment, a spring tending normally to maintain said work support in operative relation to the work abutment, intermittently operated means for positively depressing the work support against said spring to permit the work to be fed constructed to restore the work support to the control of the spring at a point between its extreme depression and its operative position, means for bringing a positive clamping pressure to bear upon the work and to lock the work support in its work clamping position comprising a roll arranged in a tapered pocket between said means and a part connected with the work support, and means for preventing said roll from locking said parts together until after the spring has been permitted to adjust the work support to the thickness of the work.

3. In a machine of the class described, a power shaft, a work support and mechanism for actuating it, comprising a movable member connected with the work support, a second member positively reciprocated from said shaft, constructed and arranged to transmit movement to said first-named member, and clutching devices for connecting and disconnecting said members, comprising respectively a pawl and ratchet and a roll coacting with the walls of a tapering pocket located between said members, said devices when operative acting to move the work support respectively in opposite directions, and stops for controlling the operation of said clutching devices.

4. In a machine of the class described, a carrier, a reciprocable member positively connected to the carrier, a coöperating member one side of which slides against one side of the first member, a plurality of clutching devices carried upon the side of one of said members and adapted to engage the adjacent side of the other member to lock said members together, means coöperating with each of said devices for throwing them automatically into and out of operation successively and a spring acting to move the carrier so as to compensate for different thicknesses of work.

5. In a machine of the class described, a carrier, a spring acting normally to maintain the carrier in raised position, a pivoted lever connected to the carrier, a reciprocating member connected to said lever, a coöperating member having one side only in sliding engagement with the reciprocating member, a clutching device acting normally to lock said members together when the said coöperating member is moved in one direction, a second clutching device which may be actuated to lock said members together when said coöperating member is moved in the opposite direction, and adjustable automatic means for first disconnecting one of said devices and then after said spring has raised the carrier, for rendering the other device operative to lock said members together, whereby the carrier is raised positively a predetermined distance to clamp and firmly to sustain the work.

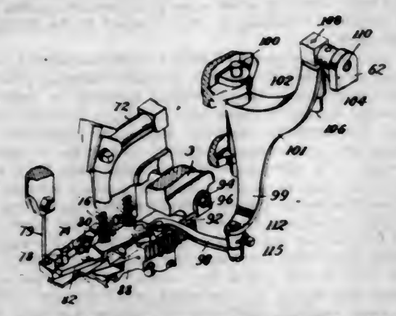
[Claim 6 not printed in the Gazette.]

1,029,840. LASTING-MACHINE. ARTHUR BATES, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 18, 1910. Serial No. 567,663. (Cl. 12—2.)

1. A machine of the class described having means for working into lasted position successive portions of an upper by repeated operations and comprising a wiper and continuously reciprocating actuating means to carry the wiper bodily toward and from the edge of a shoe and to cause the wiper to move in a path inclined laterally with relation to the median vertical plane of the machine.

2. A step-by-step type of lasting machine having, in combination, a wiper, a continuously reciprocating carrier

to move the wiper bodily toward and from a shoe and means to cause the wiper to move in a direction inclined laterally with relation to the median vertical plane of the machine.



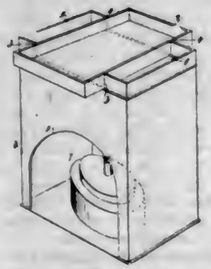
3. A machine of the class described having means for working into lasted position successive portions of an upper by repeated operations and comprising a continuously reciprocating wiper, and means to move the wiper bodily toward and from a shoe and to cause it to swing as it approaches and recedes from the shoe.

4. A machine of the class described having means for working into lasted position successive portions of an upper by repeated operations and comprising a continuously reciprocating carrier, a wiper supported for bodily movement therewith, and means to cause the wiper to swing laterally during the reciprocatory movements of the carrier.

5. A machine of the class described having means for working into lasted position successive portions of an upper by repeated operations and comprising a continuously reciprocating carrier, a wiper pivotally supported for bodily movement therewith, and means to cause the wiper to swing laterally during the reciprocatory movements of the carrier.

[Claims 6 to 47 not printed in the Gazette.]

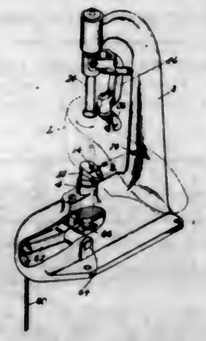
1,029,841. EVAPORATING AND FUMIGATING APPARATUS. JOSEPH WILLIAM BATES, Hastings, New Zealand. Filed Jan. 12, 1911. Serial No. 602,320. (Cl. 167—3.)



The herein described evaporating or fumigating apparatus, comprising a casing having an opening in its top and a pair of notches formed in the upper edges of its side walls, a cover adapted to close said opening or to be seated in said notches and provide a support for the substance to be heated, and a lamp within the casing.

1,029,842. MACHINE FOR OPERATING ON BOOTS AND SHOES. LEWIS J. BAZZONI, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 11, 1908. Serial No. 426,516. (Cl. 12—85.)

1. In a machine of the class described, means for supporting a last with an insole attached thereto and a cutting device, said last and device being relatively movable to trim the sole and said device being tilted automatically by the last which thus determines the inclination or bevel of the cut.



2. In a machine of the class described, means for supporting a last with a sole attached thereto, a cutting device, said last and device being relatively movable to trim the sole, and means constructed and arranged to engage the last at a plurality of separated points, one adjacent to and one at a distance from the bottom of the last, and thereby to determine the inclination or bevel of the cut from the contour of the last.

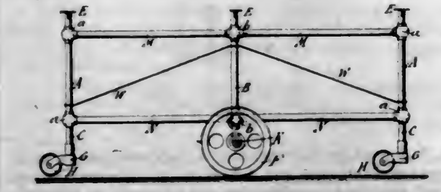
3. In a machine of the class described, means for supporting a last with a sole attached thereto, a support and a cutting device pivoted to said support and constructed and arranged to tilt about an axis lying adjacent to the last and substantially parallel to the general plane of the sole and to be controlled in position wholly by the last as the latter is moved relatively to the cutting device to trim the sole.

4. In a machine of the class described, means for supporting a last with a sole attached thereto, a knife support and a trimming knife operating with a drag cut movable about two axes with reference to said support, and controlled in position wholly by the last, said last and knife being relatively movable both to trim the sole and, by movement about the said axes, to adjust their relative position according to both the horizontal and the vertical contours of the last.

5. In a machine of the class described, means for supporting a last with a sole attached thereto, a flat trimming knife, said last and knife being relatively movable to trim the sole, and a pivoted block in which said knife is fixed, said block having a plurality of separated bearing points constructed and arranged to engage the last for positioning the knife angularly, one of said points lying adjacent and one at a distance from the bottom of the last.

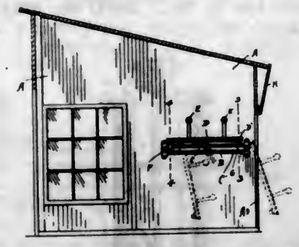
[Claims 6 to 21 not printed in the Gazette]

1,029,843. TRUCK FOR AUTOMOBILE-BODIES. REINHOLD BETTERMANN, Johnstown, Pa. Filed Mar. 28, 1911. Serial No. 617,371. (Cl. 21—65.)



A truck for automobile-bodies, comprising two oblong horizontal frames, upright corner-posts, side-posts midway between the corner-posts and extending below the lower frame, end-posts midway between the corner-posts and extending below the lower frame, L's and crosses connecting said frames with the corner-posts and side-posts, all of said posts and the members of said horizontal frames being screwed at their ends in said L's and crosses, an axle extending transversely beneath the lower horizontal frame and secured to the lower ends of the intermediate side-posts, truck-wheels on said axle, casters at the lower ends of the end-posts, the wheels of said casters being arranged slightly above the truck-wheels, truss-rods, one at each side of the truck, connecting the lower part of the corner-posts with the upper part of the intermediate side-posts, and transverse T-bars attached to the upper ends of said corner-posts and side-posts and end-posts, said posts and the members of the frame being formed of tubing.

1,029,844. POULTRY-HOUSE EQUIPMENT. ARTHUR F. BLECHSCHMIDT, Connersville, Ind., assignor of one-half to Adam J. Roth, Connersville, Ind. Filed June 3, 1911. Serial No. 630,994. (Cl. 119—22.)



In a poultry house, the combination of a wall thereof, supporting members spaced apart and disposed at a right angle to the wall, slotted bars secured to the supporting members and so positioned that there is a space between their ends and the inner face of the wall, a dropping-board, a pair of stubs for the front side of the board one being secured at each end thereof, a pair of stubs for the rear side of the board one being secured at each end thereof, the front pair of stubs being disposed in the slots of said slotted bars, and the rear pair of stubs being disposed on the tops of said slotted members, and there being a door-opening in the wall adjacent the dropping-board and adapted to permit the dropping-board to be passed therethrough, and a door for said opening.

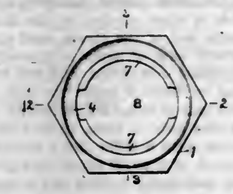
1,029,845. TRUNK-FASTENER. EDWARD BUCKNALL, Jr., and PERCY NEVILL, Willenhall, England. Filed Sept. 19, 1911. Serial No. 650,219. (Cl. 70—5.)



1. A fastener, comprising a case formed of a back plate, a cap-plate, and a rim between them, a partially rotating arm having a ring-shaped inner end for turning around the rim, a spring-pressed latching bolt which is slidingly fitted within the case in position within the ring of the arm and which automatically engages with a notch in the inner edge of the ring when the arm is turned into its fastened position.

2. A fastener, comprising a case formed of a back plate, a cap-plate, and a rim between them, a partially rotating arm having a ring-shaped inner end for turning around the rim, a spring-pressed latching bolt which is slidingly fitted within the case in position within the ring of the arm and which automatically engages with a notch in the inner edge of the ring when the arm is turned into its fastened position, and locking means, also situated within the ring of the partially rotating arm, by which the spring-pressed bolt may be locked in engagement with the arm.

1,029,846. NUT-LOCK. JAMES H. BULLARD and EDWIN W. BULLARD, Springfield, Mass., assignors to Alfred C. Fairbanks, Springfield, Mass. Filed June 20, 1910. Serial No. 567,763. (Cl. 151—15.)



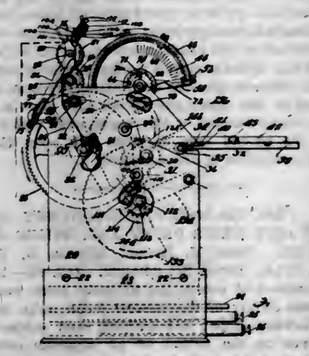
1. A nut lock consisting of a rigid plate having a bolt-receiving opening through it at right-angles to the plane of the face of the plate and having a plurality of spiral projections arranged in the bolt opening, all lying between two imaginary parallel planes at right-angles to the axis of the bore and each touching such planes at two points.

2. A nut lock consisting of a rigid plate having a bolt-receiving opening through it, the latter having inwardly projecting oppositely-arranged spirally-formed ridges each being of less length than one-half the circumference of the opening and each touching and located between two imaginary parallel planes at right-angles to the axis of the bore.

3. A nut lock consisting of a rigid plate having a bolt-receiving opening, the latter being provided with a plurality of internally projecting spiral thread-sections, corresponding points of each thread section lying in the same plane, parallel to the general plane of the device, substantially as shown.

4. A nut locking device comprising a rigid body, having a bolt-receiving opening through it, and having rigid spirally formed inwardly projecting thread engaging members separated from each other by a gap between their ends, said members being so disposed as to cause the face of the device adjacent the nut to occupy a position on the bolt other than at right angles to the bolt axis.

1,029,847. ROTARY PRINTING-MACHINE. MILLARD R. BUNTING and JEROME MULDOON, Baltimore, Md., and LEWIS S. SPRINGER, Washington, D. C. Filed May 25, 1911. Serial No. 629,835. (Cl. 101—115.)



1. The combination with a feeding table and a rotary platen at the inner edge thereof, of a shaft below the

platen, arms pivoted to said shaft, a clamp embodying a fixed and a movable jaw carried at the top of said arms adjacacent to the upper surface of the platen, means for oscillating said arms to carry the clamp backward and pass the paper over the platen, and means for operating the clamp, comprising a second pair of arms pivoted to the first pair, carrying the movable jaw of the clamp, a roller on an arm of the second pair, and a cam on said shaft to engage said roller.

2. The combination with a table and a rotary platen at the inner edge thereof, of a shaft below and parallel with the platen, a clamp embodying a fixed and a movable jaw, arms pivoted to the shaft carrying the fixed jaw of the clamp adjacent to the inner edge of the table, a cam on the shaft, a second pair of arms pivoted on the first pair and carrying the movable jaw of the clamp, said cam adapted to engage said second pair of arms to operate the movable jaw, a semi-cylinder concentric with the first pair of arms and arranged to form a guide for the clamp and paper when the first pair of arms are oscillated, and means for oscillating the first pair of arms around the shaft.

3. The combination with a table and a rotary platen at the inner edge thereof, of a shaft below and parallel with the platen, a clamp embodying a fixed and a movable jaw, arms pivoted to the shaft carrying the fixed jaw of the clamp adjacent to the inner edge of the table, a cam on the shaft, a second pair of arms pivoted on the first pair and carrying the movable jaw of the clamp, said cam adapted to engage said second pair of arms to operate the movable jaw, a semi-cylinder concentric with the first pair of arms and arranged to form a guide for the clamp and paper when the first pair of arms are oscillated, means for oscillating the first pair of arms around the shaft, said means comprising a gear wheel on the shaft, and means for automatically engaging the first pair of arms with the gear wheel.

4. The combination with a table and a rotary platen at the inner edge thereof, of a shaft below and parallel with the platen, a clamp embodying a fixed and a movable jaw, arms pivoted to the shaft carrying the lower fixed jaw of the clamp adjacent to the inner edge of the table, a cam on the shaft, a second pair of arms pivoted on the first pair and carrying the movable jaw of the clamp, said cam adapted to engage said second pair of arms to operate the movable jaw, a semi-cylinder concentric with the first pair of arms and arranged to form a guide for the clamp and paper when the first pair of arms are oscillated, means for oscillating the first pair of arms around the shaft, said means comprising a gear wheel on the shaft, and means for automatically engaging the first pair of arms with the gear wheel, comprising a disk rigidly secured concentrically with the shaft and provided with a periphera. cam groove, a hub on the arms loose on the shaft and provided with a radially projecting hook, and a pin passing through the gear wheel, projecting in the path of the hook and having a hooked end engaging in the cam groove.

5. The combination, with a roller platen and a table having its inner edge adjacent to the top of the platen, of a semi-cylindrical guide or guard secured below the platen, a shaft mounted concentrically with the guide or guard, an arm pivoted on the shaft, a lower jaw of a clamp carried by the top of the arm and resting on the platen at the edge of the table, means for oscillating the arm, a second arm pivoted to the upper end of the first arm, a movable jaw of the clamp carried by the second arm, and a cam for operating the second arm to close and open the clamp during the oscillation of the first arm.

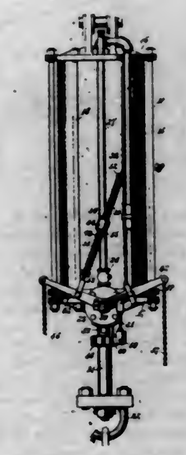
1,020,848. PROCESS FOR THE RECOVERY OF PULP FROM WASTE NEWS PRINT AND OTHER GRADES OF PAPER. JOHN M. BURBY, Astoria, N. Y. Filed July 25, 1911. Serial No. 640,389. (Cl. 92—14.)

1. The process of recovering all pulp from waste print papers, made partly of mechanical wood pulp, consisting of the following steps: (1) pulping and subjecting the waste papers to the action of an aqueous solution of borax; (2) draining and washing the material in fresh water; and (3) separating the pulp fibers from the impurities and collecting the clean pulp, substantially as herein set forth.

2. The process of recovering all pulp from waste print papers, made partly of mechanical wood pulp, consisting of the following steps: (1) pulping the waste papers in an aqueous solution of borax; (2) draining and washing the material in fresh water; and (3) separating the pulp fibers from the impurities and collecting the clean pulp, substantially as herein set forth.

3. The process of recovering all pulp from waste print papers, made partly of mechanical wood pulp, consisting of the following steps: (1) subjecting the waste papers to the action of an aqueous solution of borax; (2) draining, washing and pulping the papers in fresh water; and (3) separating the pulp fibers from the impurities ad collecting the clean pulp, substantially as herein set forth.

1,029,849. FLUID-OPERATED HOIST. WALTER H. BUTZ, North Plainfield, N. J., assignor to The Q M S Company, Plainfield, N. J., a Corporation of New Jersey. Filed July 3, 1911. Serial No. 636,644. (Cl. 137—26.)



1. In a fluid operated hoist, a valve for controlling the flow of fluid; means for moving said valve in either direction from an initial central position; a spring adapted to oppose movement of said valve in one direction; a second spring separate from and independent of said first mentioned spring and adapted to oppose movement of said valve in a reverse direction; and means for relieving said valve from the action of one of said springs when the other is acting thereupon.

2. In a fluid operated hoist, a valve for controlling the flow of fluid; a lever for moving said valve in each direction from an initial central position; two springs acting upon said valve to oppose movement thereof in the two directions aforesaid, said springs being separate from one another and each adapted to operate independent of the other; and means whereby each of said springs is rendered inactive when the other is acting upon said valve.

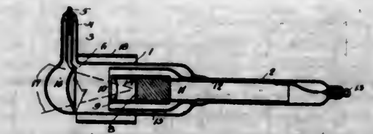
3. In a fluid operated hoist, a valve for controlling the flow of fluid; means for moving said valve in each of two directions from an initial central position; a spring adapted to oppose movement of said valve in one direction; a second spring separate from and independent of said first mentioned spring and adapted to oppose movement of said valve in a reverse direction; and means whereby one only of said springs is permitted to act upon said valve at a time.

4. In a fluid operated hoist, a valve for controlling the flow of fluid; means for moving said valve in each of two directions from an initial central position; a spring adapted to oppose movement of said valve in one direction; a second spring separate from and independent of said first mentioned spring and adapted to oppose movement of said valve in a reverse direction; a stationary element against which either of said springs may bear in opposing movement of said valve as aforesaid; and means whereby either of said springs may be prevented from acting upon said valve when the other is acting thereupon.

5. In a fluid operated hoist, a valve for controlling the flow of fluid; a lever for moving said valve in each direction from an initial central position; a rod connected with said lever; a guide member through which said rod moves; two springs surrounding said rod one located upon one side of said guide member and one located upon the other side of said guide member; abutments for the outer ends of said springs; washers adapted to rest upon said guide member and against which the inner ends of said springs abut; and a collar secured to said rod and located between said washers and slidable through the guide member.

[Claim 6 not printed in the Gazette.]

1,029,850. X-RAY TUBE. EUGENE W. CALDWELL, New York, N. Y. Filed Mar. 13, 1909. Serial No. 483,182. (Cl. 175—314.)



1. The X-ray tube having a massive target of material substantially impervious to X-rays and provided with a deep recess to receive the cathode stream entering said target, there being a resistant lining in said recess upon which said cathode stream strikes, a cathode to coöperate with said target, said tube having a substantially cylindrical glass body closely surrounding said target and said cathode, intercepters formed on said target to minimize the discharge of undesirable radiation through the opening in said target through which the cathode stream enters, a window of material substantially transparent to X-rays mounted on said target to cover a lateral opening therein through which the X-ray cone passes before striking the body of said tube and a jacket of material substantially impervious to X-rays closely surrounding the cylindrical portion of said tube body.

2. The X-ray tube having a massive target of material substantially impervious to X-rays and provided with a deep recess to receive the cathode stream entering said target, a cathode mounted in said tube to coöperate with said target, said tube being formed with a substantially cylindrical glass body closely surrounding said target and cathode, intercepters formed on said target to minimize the discharge of undesirable radiation therefrom and a window substantially transparent to X-rays mounted on said target over a lateral discharge opening therein through which the X-rays pass before striking the body of said tube.

3. The X-ray tube having a target substantially impervious to X-rays and provided with a deep recess to receive the cathode stream entering said target, a cathode mounted in said tube to coöperate with said target, said tube having a small glass body closely inclosing said target and said cathode and a window of material substantially transparent to X-rays and intercepting undesirable radiation mounted within said tube and through which the X-rays pass before striking the body of said tube.

4. The X-ray tube having a target provided with a resistant lining to receive the cathode stream, a cathode mounted within said tube to coöperate with said target, said tube having a substantially cylindrical glass body in close lateral engagement with said target and said cathode, means mounted within said tube to intercept the undesirable radiation from said target and a window of material substantially transparent to X-rays and intercepting undesirable radiation mounted within said tube and through which the useful X-rays pass before striking the body of said tube.

5. The X-ray tube having a target provided with a resistant lining upon which the cathode stream strikes, a cathode mounted within said tube to coöperate with said target, said tube having a glass body of small lateral dimensions to closely engage said target and said cathode, means on said target to intercept undesirable radiation therefrom and a window mounted within said tube and substantially transparent to X-rays and impervious to undesirable radiation through which the useful X-rays pass before striking the body of said tube.

[Claims 6 and 7 not printed in the Gazette.]

1,029,851. INCANDESCENT MULTIPLE-CIRCUIT ELECTRIC LAMP. CONSTANTIN CARANGELO, Delta Barrage, near Cairo, Egypt. Filed Sept. 14, 1910. Serial No. 581,994. (Cl. 176—39.)



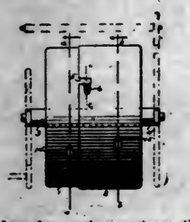
1. In an incandescent lamp having metal filaments, a glass supporting rod and insulating disks which are formed with a central opening in which is inserted a cork ring or washer through which passes the glass rod of the lamp, the elasticity of the cork being sufficient to hold the disks on the stem.

2. An incandescent electric lamp, comprising filaments, insulating disks for suuporting said filaments, a support for said disks and a resilient packing between said support and disks.

3. An incandescent electric lamp, comprising filaments, insulating disks having projections for supporting said filaments, a support for said disks and a resilient packing between said support and disks.

4. An incandescent electric lamp, comprising filaments, insulating disks having projections for supporting said filaments, argentan bonds between said projections and filaments, a support for said disks and a resilient packing between said projections and filaments.

1,029,852. SPRING-BOX FOR SPRING-MOTORS. PLINY CATUCCI, Newark, N. J., assignor to A. F. Meisselbach & Brother, a Corporation of New Jersey. Original application filed Nov. 17, 1910, Serial No. 592,818. Divided and this application filed Apr. 10, 1911. Serial No. 619,934. (Cl. 185—37.)



1. In a spring box for spring motors, the combination of a sectional box, a spring secured within and to each sec-

tion of said box, and means for detachably connecting said box sections by a relatively twisting motion of said box sections.

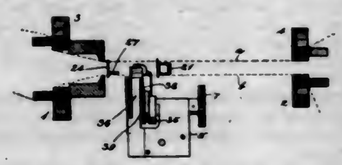
2. In a spring box for spring motors, the combination of a box comprising a pair of telescoping sections, a hook upon the inner section and a corresponding slot upon the other section for engagement to lock said sections together.

3. In a spring box for spring motors, the combination of a sectional shaft, a pair of telescoping spring cups mounted upon said shaft, means for interlocking said cups together comprising an L-shaped slot in one section and a hook upon the other section for engagement with said slot.

4. In a spring box structure for spring motors, the combination of a sectional shaft, a separate spiral spring secured at its inner end to each of said shaft sections, a spring cup inclosing each of said springs, and loosely mounted upon said shaft, and means for interlocking said spring cups by a relatively twisting motion.

5. In a spring box structure for spring motors, the combination of a shaft composed of alined and independently rotatable sections, a sectional spring barrel composed of a pair of telescoping spring cups, said barrel being rotatably and concentrically mounted upon said shaft, and means for detachably connecting said cups together by a relatively twisting motion, spiral springs located within and having their outer ends connected respectively to each of said cup sections, and their inner ends connected respectively to said shaft sections, a plurality of L-shaped slots upon one of said cup sections, a plurality of hooks upon the other of said cup sections, whereby said cups may be connected together by a relatively twisting motion.

1,029,853. KNOT-TYING MECHANISM. HOWARD D. COLMAN, Rockford, Ill., assignor to Howard D. Colman, Luther L. Miller, and Harry A. Severson, Copartners trading as Barber-Colman Company, Rockford, Ill. Filed Dec. 9, 1909. Serial No. 532,226. (Cl. 139—37.)



1. In a warp-tying machine, the combination of a rotatory tying bill, a clamp for the threads to be operated upon by the bill, which clamp comprises a stationary member and a movable member, and means for moving said movable clamp member to place the threads out of the path of the tying bill and to subsequently place them in the path of the tying bill.

2. In a warp-tying machine, the combination of a rotatory tying bill, a clamp for the threads to be operated upon by said bill, which clamp comprises a stationary member and a movable member, means for opening and closing said bill in each revolution thereof, and means for moving the movable clamp member to permit the threads to enter the open bill after the bill has completed one revolution.

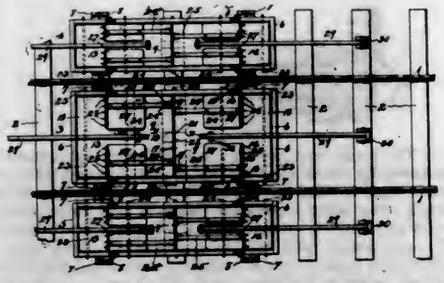
3. In a warp-tying machine, the combination of a rotatory tying bill, a clamp for the threads to be operated upon by said bill, which clamp comprises an air tube having a throatway therein to receive the threads, and a pivoted clamping finger arranged to bear against said tube and clamp threads extending through said throatway, means for opening and closing said bill in each revolution thereof, and means for swinging said finger to withdraw the threads from the path of the open bill until after said bill has completed one revolution.

4. In a warp-tying machine, the combination of a rotatory tying bill, a shaft, a driving connection between said shaft and said bill, a rotatory stripper device, a driving connection between said shaft and said stripper device, said driving connections being so proportioned that the tying bill makes three revolutions in each revolution of the stripper device, means for opening and closing said bill in each revolution thereof, and means for placing the threads in the open bill after the bill has completed one revolution.

5. In a warp-tying machine, the combination of a rotatory tying bill, a shaft, a driving connection between said bill and said shaft, a stripper device, a driving connection between said shaft and said stripper device, said driving connections being so proportioned that the tying bill makes three revolutions in each complete movement of the stripper device, means for opening and closing the bill in each revolution thereof, a clamp for the threads to to be knotted, said clamp comprising a stationary member and a pivoted finger, and means for swinging said finger comprising a cam on said shaft, said swinging means being adapted to swing said finger to permit the threads to enter the open bill after the bill has completed one revolution.

[Claim 6 not printed in the Gazette.]

1,029,854. CATTLE-GUARD. JOHN W. COOPER, Brinkley, Ark. Filed July 8, 1911. Serial No. 637,562. (Cl. 39—42.)



1. In a cattle guard, pivoted gates, and pivoted platforms arranged end to end and operatively connected together longitudinally, adapted to be elevated simultaneously by the depression of one of the platforms, substantially as described.

2. In a cattle guard pivoted gates and pivoted platforms arranged end to end and means for operatively connecting the platforms, said gates and one end of each of the platforms adapted to be elevated simultaneously by the depression of the end of one of the platforms, substantially as described.

3. In a cattle guard, pivoted gates and pivoted platforms below said gates and arranged end to end, said platforms and gates simultaneously operatable by the depression of the outer end of one of the platforms to elevate the inner ends of said platforms and the gates, substantially as described.

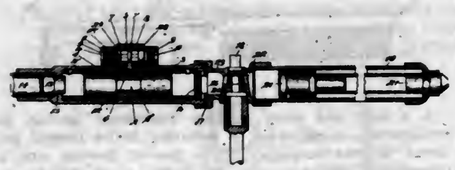
4. In a cattle guard, pivoted gates and pivoted platforms arranged end to end and means for causing the inner ends of said platforms to be elevated and the gates to be elevated by depressing the outer ends of one of said platforms, substantially as described.

5. In a cattle guard, pivoted gates, pivoted platforms and levers engaging the platforms for causing said platforms to operate simultaneously by the depression of the outer end of either of said platforms to elevate the inner ends of the platforms and operate the gates, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

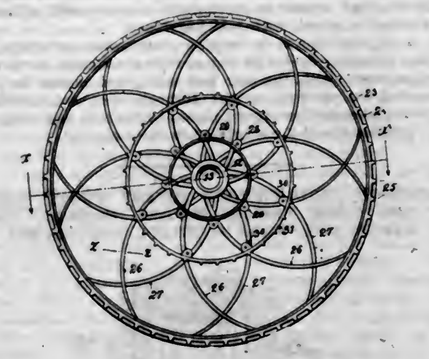
1,029,855. ROCK-DRILL. DAVID C. DEMAREST, San Francisco, Cal. Filed Nov. 1, 1910. Serial No. 590,120. (Cl. 121—20.)

1. In a rock drill, a cylinder, a reversible bushing having external ducts terminating in ports leading inward near the ends of the bushing and having passage ways in its central part registering with openings in the cylinder, a piston therein, a valve chest with ports registering with said ducts and with said passage ways, a valve movable in the chest by fluid pressure to control flow to the ports, a disk fitting one end of the bushing and having channels on one side registering with a duct in the bushing, a coupling holding the disk against the bushing and fitting the cylinder, and a cock in said coupling regulating the flow of fluid past the disk and duct.



2. In a rock drill, a cylinder having a plurality of openings in its side, an interchangeable bushing fitting the cylinder and having ducts extending endwise along its surface and terminating in openings leading inward, a central passage in the bushing wall and passage ways on each side of said passage registering with openings in the cylinder, a piston in the bushing having a central annular recess forming a chamber communicating with the central passage, a valve chest mounted on and approximate the center of the bushed part of the cylinder, a piston valve controlling the flow of fluid to said ports, a live air chamber on the chest communicating with a channel on the bushing, a backhead washer holding the bushing in place and having passage ways leading to said channel, and a fluid controlling cock secured to the cylinder.

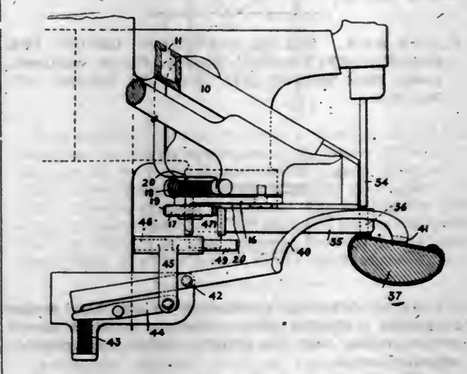
1,029,856. METALLIC VEHICLE-WHEEL. HEDLEY JOHN DONAHOE, Chicago, Ill., assignor of one-half to Theodore C. Tiedebohl, Chicago, Ill. Filed Dec. 12, 1910. Serial No. 596,841. (Cl. 21—69.)



1. A vehicle wheel, comprising, a hub, a double set of curved spokes, and an outer tread, one set of said curved spokes being approximately tangent to said hub and projecting in one direction therefrom, the other set of said curved spokes being likewise approximately tangent to said hub but projecting in the opposite direction therefrom, said spokes intersecting one another at a multiplicity of points between the hub and the tread and gradually merging into one another, the wheel being formed in one integral piece of casting.

2. A vehicle wheel formed integrally in one piece of cast metal, comprising, a fixed rim or tread, a double series of curved spokes, and a central hub, one series of said spokes being curved in one direction, and the other series of spokes being curved in the opposite direction, one set of said spokes radiating from said hub on one side of the center thereof, the other set of said spokes radiating from the said hub on the other side of the center thereof, said spokes gradually merging into one another and finally all terminating at the tread in the same plane, said spokes intersecting one another at a plurality of points between the hub and the tread.

1,029,857. TACK-SAVING DEVICE. ARVID L. ENGBERG, Lynn, Mass., assignor, by direct and mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 15, 1907. Serial No. 379,165. (Cl. 1—18.)



1. In a tacking machine constructed and arranged to drive a plurality of tacks in succession, in combination, mechanism for separating loose tacks from one another and feeding the tacks one at a time including a driving member and a driven member, these two members being normally in non-operative relation; means for their movement into operative relation; and a movable part normally positioned in the operative position of the work and arranged to maintain said members in operative relation during the insertion of a plurality of tacks.

2. In a tacking machine, in combination, tack feed mechanism including a driving member and a driven member normally not in alinement with each other; means for their movement into alinement; and a part controlling said movement normally positioned in the operative position of the work.

3. In a tacking machine, in combination, tack feed mechanism including a continuously operating part, a tack separator actuated thereby, said machine being organized to drive an indefinite number of tacks in succession, and means to throw said separator and said operating part into and out of operative relation, said means including an element normally occupying the position of the work.

4. In a tacking machine, in combination, tack feed mechanism including a continuously operating part and a tack separator having an operative connection comprising mutually contacting parts one of which is movable to make and break the contact, and a lever arranged to be engaged by the work and connected with said movable part.

5. In a machine organized to insert an indefinite number of tacks in succession, the combination with tack feeding devices and tack driving means, of means for actuating said devices comprising a continuously moving cam member and means additional to the tack driving means and controlled by the position of the work for rendering said cam member operative or inoperative for actuating the feeding devices.

[Claims 6 to 21 not printed in the Gazette.]

1,029,858. FUR. EMILE ERNST EVERS, New York, N. Y., assignor of one-fourth to Gustave A. Sauer and one-half to Henry Siede, New York, N. Y. Filed Nov. 13, 1909. Serial No. 527,789. (Cl. 38—12.)



A fur consisting of a face-layer of tanned, dyed and curled skin waterproofed both in the fur and in the flesh side, a backing of split waterproofed leather, and a backing of waterproof cement uniting the face-layer and split-leather backing.

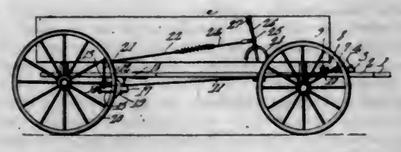
1,029,859. STAPLE-ATTACHING DEVICE FOR MOLDED FENCE-POSTS. FRED L. FLACK, Oskaloosa, Iowa. Filed Sept. 27, 1911. Serial No. 651,660. (Cl. 39—12.)



1. As an article of manufacture an attaching anchor comprising a straight tubular stem and a return curved portion uniting with the straight portion approximately midway thereof.

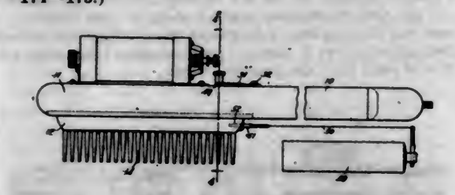
2. The combination with a molded structure, of an integral attaching anchor, comprising a straight tubular stem and a return curved portion uniting therewith approximately midway the stem, and a headed fastener driven into and conforming to the shape of the anchor.

1,029,860. AUTOMATIC BRAKE FOR VEHICLES. JOHN T. FLIGHT, Cleveland, Okla. Filed Oct. 10, 1911. Serial No. 653,881. (Cl. 21—9.)



The combination with a vehicle running gear, of an automatic brake for the rear wheels thereof, comprising a brake beam disposed for swinging movement to and from the rear wheels, a transversely disposed rock shaft mounted to the rear of the brake beams, three depending arms carried by said rock shaft, a link connecting the center arm to the brake beam, an arm carried upon one end of the rock shaft and extending in an opposite direction to the three arms, a ratchet-and-pawl-locked and manually operated lever, a connection between said lever and last arm of the rock shaft, said connection being provided with a spring forming a portion thereof, said spring normally actuating the rock shaft to hold the brake beam in wheel engagement, tongue mounted in the forward hounds of the running gear, a double tree supporting means slidably carried by the tongue, a bar pivoted intermediate of its ends to the tongue through said means, and two rods having their forward ends connected to the ends of said bar and their rear ends connected to the outer depending arm of the rock shaft.

1,029,861. ELECTRICAL HAIR AND SCALP TREATING INSTRUMENT. HENRY C. FOLGER, Somerville, Mass., assignor to Nu-Vo M'f'g. Co., a Corporation of Maine. Filed Sept. 29, 1910. Serial No. 584,482. (Cl. 174—173.)



1. A hair and scalp treating instrument having, in combination, a resistance, a radiating device located adjacent to said resistance to be heated thereby, and a transformer having a primary winding in electrical connection with said resistance, and a secondary winding in electrical connection with said radiating device.

2. A hair and scalp treating instrument having, in combination, a resistance, a radiating device located adjacent to said resistance to be heated thereby, a transformer having a primary winding and a secondary winding, said secondary winding being in electrical connection with said radiating device, and a switch to connect said primary winding in circuit with said resistance.

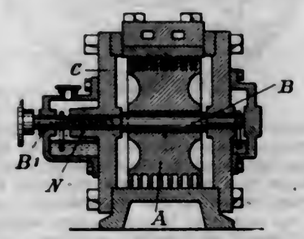
3. A hair and scalp treating instrument having, in combination, a resistance, a radiating device located adjacent to said resistance to be heated thereby, a transformer having a primary winding in electrical connection with said resistance, and a secondary winding in electrical connection with said radiating device, and a conducting handle in electrical connection with said secondary winding.

4. A hair and scalp treating instrument having, in combination, a handle, a radiating device located on one side of and forming together with said handle a chamber, a transformer mounted on the opposite side of said handle and having a primary winding and a secondary winding, a resistance located in said chamber to heat the raditing device, and means to electrically connect said primary winding in circuit with said resistance.

5. A hair and scalp-treating instrument comprising a heat-radiating device having electric-conducting teeth for engagement with the hair and scalp, and means for directing an electric current through the heat-radiating device whereby the current passes to the hair and scalp.

[Claims 6 and 7 not printed in the Gazette.]

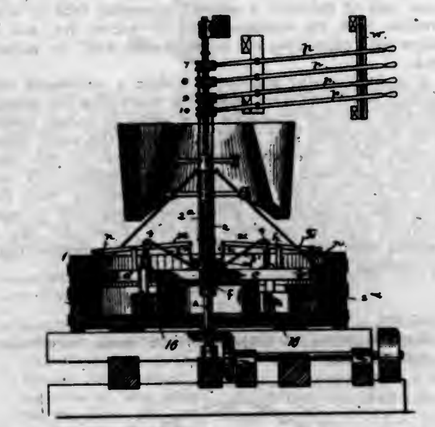
1,029,862. HIGH-VACUUM ROTARY PUMP. WOLFGANG GAEDE, Freiburg, Breisgau, Germany. Filed Mar. 13, 1912. Serial No. 683,518. (Cl. 230—30.)



1. In high vacuum pumps consisting of a casing, and a body of circular section journaled to be rotated in said casing by means of a shaft projecting through the wall of the casing, a helical groove fashioned in the bearing surface of said shaft and having an inclination toward the axis of the shaft to outwardly displace lubricating oil introduced between the shaft and the bearing.

2. In high vacuum pumps consisting of a casing and a body of circular section journaled to be rotated in said casing by means of a shaft projecting through the wall of the casing a helical groove formed on the surface of that part of the said shaft which forms the bearing journal passing through the wall of the casing, said groove being inclined toward the axis of the shaft to displace outward oil introduced between the shaft and the bearing.

1,029,863. LIFTING MECHANISM FOR MULLERS OF ORE-GRINDING PANS. GUSTAVE A. GELIEN, San Francisco, Cal. Filed Nov. 16, 1909. Serial No. 528,390. (Cl. 83—45.)

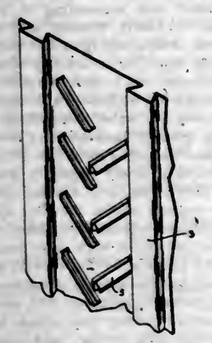


1. In an ore grinding-pan having traveling mullers arranged for movement around an upright driving-shaft, the combination with the mullers, of a plurality of slidable collars on the shaft having limited vertical movement thereon, one over another, a rod to each collar extending vertically downward therefrom, a flexible connection between the lower end of each rod and one of the mullers, guide-pulleys arranged to carry the connection from the said rod to the muller, the rods connected to the upper collars being carried loosely through the collars below in a direction generally parallel with the shaft, fixed stops on the shaft for limiting the movement of the collars, and means attached to each collar for moving the same and thereby raising or lowering the mullers.

2. In a grinding-pan of the character described, having an upright driving shaft, a plurality of mullers arranged to travel on the bottom of the pan around the driving-shaft from which they receive their motion, of means for regulating the contact of the mullers with the bottom of the pan, comprising a plurality of slidable collars on the shaft placed one above another, adjustable stops between the collars for regulating their extent of movement, a connecting means between each collar and a particular collar composed partly of a stiff rod and partly of a flexible connection, the rod being attached directly to its collar and extending downward therefrom parallel with the shaft through all the collars below, and guide pulleys arranged between the lower end of the rod and the muller for carrying the flexible connection in proper working position to transform the perpendicular upward movement of the rod into a lifting movement of the mullers.

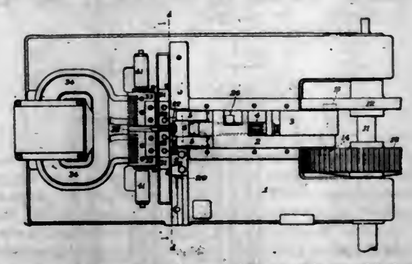
1,029,864. METALLIC LATH. MAX S. GOLDSMITH, Cincinnati, Ohio, assignor, by mesne assignments, to The Cellular Metal Company, St. Bernard, Ohio, a Corporation of Ohio. Filed Oct. 27, 1910. Serial No. 589,401. (Cl. 72—116.)

1. A metallic lath provided with longitudinally extending stiffening ribs between which are a plurality of longitudinally extending series of elongated holes with flanges along the edges of the holes, the holes in a series being parallel to each other, at an angle to the holes of an adjacent series, in staggered relation thereto, and crossing a straight line joining the ends of said adjacent series.



2. A metallic lath provided with a plurality of series of elongated holes with flanges along the edges of the holes, the holes in the series being parallel to each other, at an angle to the holes of an adjacent series, in staggered relation thereto, crossing a straight line joining the ends of said adjacent series, and the edge of a hole in one series and the edge of a hole adjacent thereto in the same series being on a line normal to the width of the lath.

1,029,865. MACHINE FOR AUTOMATICALLY MANUFACTURING WELDED WIRE CHAINS, RINGS, &c. CHARLES L. GRAVES, Milford, Conn., assignor to The Automatic Welding Machine Company, Bridgeport, Conn., a Corporation of Connecticut. Filed Aug. 23, 1910. Serial No. 578,529. (Cl. 59—18.)



1. In a machine for automatically making welded wire articles, the combination with the welding devices and the gripper formers, of mechanism for forming the article from a blank with the ends meeting at one side of the article and subsequently inserting said article first between the welding devices and afterward between the gripper formers.

2. In a machine for automatically manufacturing welded wire chain, the combination of a vertical slide carrying outer and inner mandrels of different heights, a primary horizontal slide for cutting off the blanks and bending the ends of the latter around the outer mandrels, means for depressing said vertical slide to withdraw the outer mandrels, a secondary horizontal slide for finally bending and forming the partially completed link around the inner mandrels and simultaneously connecting said link with a previously completed link, welding devices to which the partially completed link is delivered by the partial advancement of said secondary slide, a pair of gripper formers for shaping the welded portions of a completed link and holding said link in position to receive the partially completed link, and means for operating said slides in a cycle of operations.

3. In a machine for automatically making welded wire chain, the combination with welding devices adapted to

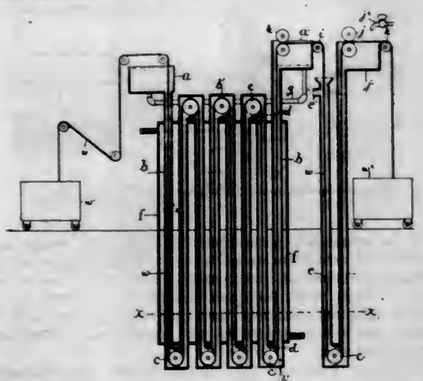
receive and weld the ends of a partially formed link and a pair of gripper formers adapted to receive and shape the completed welded link and to hold the same in position to receive the ends of a succeeding partially formed link, of mechanisms for forming said succeeding link from a blank and connecting it with a previously completed link, for bodily turning said succeeding link a quarter turn and delivering it to the welding devices and for withdrawing said link from the welding devices and delivering it between the gripper formers.

4. In a machine for automatically making welded wire chain, the combination of welding devices and means for operating them, gripper formers that receive and shape a completed welded link and hold the latter in position to receive the ends of a newly partially formed link, means for operating said formers, a vertical slide carrying vertical mandrels around which the link blank is bent and formed, primary and secondary slides carrying forming tools adapted to coöperate with said mandrels in forming a succeeding link and connecting it with a previously completed link held by the gripper formers, and means for operating said vertical, primary and secondary slides in a proper sequence whereby the blank is formed into a partially completed link around said mandrels, the latter withdrawn the link then given a quarter turn and delivered to the welding devices, the latter relaxed and the completed welded link delivered to the gripper formers.

5. In a machine for automatically making welded wire chain, the combination with the welding devices and the gripper formers, of mechanisms for forming a link from a blank with the ends meeting at one side of the link, turning the link bodily and then inserting it first between the welding devices and afterward between the gripper formers, and means for operating said mechanisms in the sequence described.

[Claims 6 to 9 not printed in the Gazette.]

1,029,866. WARP-DYEING MACHINE. WALTER F. HASKELL, Westbrook, Me. Filed Feb. 17, 1912. Serial No. 678,201. (Cl. 8—18.)



1. A warp dyeing machine including a continuous coil through which the warp passes for containing the dye solution, said coil consisting of a series of hollow heads, guide rolls within said heads for guiding the warp, tubes through which the warp passes from roll to roll connecting said heads and means for supplying dyeing solution to said coil.

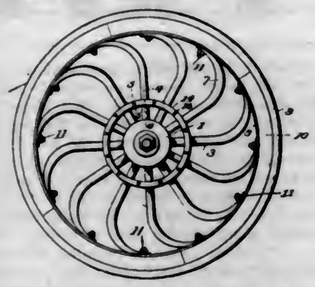
2. A warp dyeing machine including a continuous coil through which the warp passes for containing the dyeing solution, said coil consisting of a series of hollow heads, guide rolls within said heads for guiding the warp, tubes through which the warp passes from roll to roll connecting said heads and a supply tank for dyeing solution connecting with said coil.

3. A warp dyeing machine including a continuous coil through which the warp passes for containing the dyeing solution, said coil consisting of a series of hollow heads, guide rolls within said heads for guiding the warp, tubes through which the warp passes from roll to roll connecting said heads, a supply tank for dyeing solution connecting with one end of said coil, an overflow tank connected with the other end of the coil and a pair of squeezing rolls in said overflow tank for squeezing out the excess dye.

4. A warp dyeing machine including a continuous coil through which the warp passes for containing the dyeing solution, said coil consisting of a series of hollow heads, guide rolls within said heads for guiding the warp, tubes through which the warp passes from roll to roll connecting said heads, a supply tank connecting with one end of said coil, an overflow tank connected with the other end of the coil, a pair of squeezing rolls in said overflow tank for squeezing out the excess dye, and a return pipe connecting the overflow tank with the supply tank.

5. A warp dyeing machine including a continuous coil through which the warp passes for containing the dyeing solution, said coil consisting of a series of hollow heads, guide rolls within said heads for guiding the warp, tubes through which the warp passes from roll to roll connecting said heads, a supply tank connecting with one end of said coil, an overflow tank connected with the other end of the coil, a pair of squeezing rolls in said overflow tank for squeezing out the excess dye, and a washing tank and squeeze rolls beyond said overflow tank for washing the warp.

1,029,867. SPRING-WHEEL. FREDERICK HOMOLYA, Kenosha, Wis. Filed Apr. 11, 1911. Serial No. 620,431. (Cl. 152—51.)

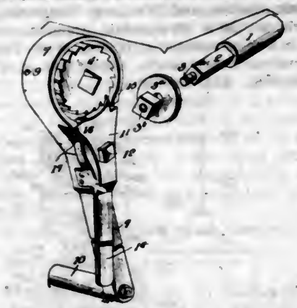


1. In a vehicle wheel, a hub, a rim, resilient spokes secured at their inner ends to the hub and disposed at their outer ends against the rim, bolts secured through the rim and the outer ends of the spokes, the rim being formed with sockets and studs upon the spokes, inwardly of the bolts, seating in the said sockets.

2. In a vehicle wheel, a hub, a rim, said hub being provided with threaded sockets, spokes having reduced threaded inner ends fitted in said sockets, the said spokes being secured at their outer ends to the rim and being rectangular in cross-section, rings disposed against opposing sides of the spokes and concentric to the hub and spaced therefrom and formed with rectangular notches receiving the spokes, and means securing the rings together between the spokes.

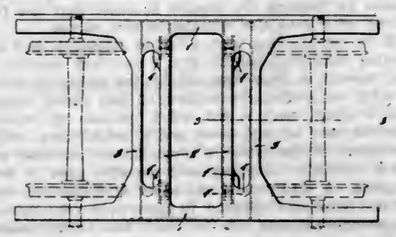
1,029,868. MOTOR-CRANKING DEVICE. FREDERICK HOMOLYA, Kenosha, Wis. Filed May 16, 1911. Serial No. 627,616. (Cl. 123—185.)

1. In a device of the class described, a shaft-carried ratchet, a crank-handle rotatable upon the ratchet independently thereof, a pawl comprising a head pivoted to the crank-handle and having at one side a tooth arranged to coöperate with the ratchet, and a handle extending from the head beside the crank-handle, and a spring bearing against that side of the head opposite the side at which the tooth is located and normally holding the pawl with its tooth disengaged from the ratchet and with the end of its handle projecting laterally beyond the crank-handle.



2. In a device of the class described, a shaft-carried ratchet, a crank-handle rotatable upon the ratchet independently thereof and having a flange partly surrounding the ratchet, a pawl comprising a head pivoted upon the crank-handle and having at one side a tooth arranged to coöperate with the ratchet and having at its opposite side a toe arranged to abut against one end of said flange surrounding the ratchet, and a spring carried by the crank-handle and bearing against the said toe and tending to move the pawl to position with its tooth out of engagement with the ratchet and its toe in engagement with said end of the flange.

1,029,869. CAR-TRUCK FRAME. CLARENCE H. HOWARD and HARRY M. PFLAGER, St. Louis, Mo., assignors to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Dec. 13, 1911. Serial No. 665,579. (Cl. 105—242.)



1. A cast metal truck frame provided with transoms having openings in their bottom flanges adapted to receive the upper ends of swing hangers, and inverted L-shaped reinforcing members integral with said transoms immediately over said openings.

2. A cast metal truck frame provided with transoms having the bottom flanges widened at the ends and which widened end portions are provided with openings adapted to receive the upper ends of the swing hangers, vertically disposed webs integral with the widened portions of the bottom flanges of the transoms and there being openings formed through said webs and through the webs of the transoms, which openings are adapted to receive the pins on which the swing hangers are journaled.

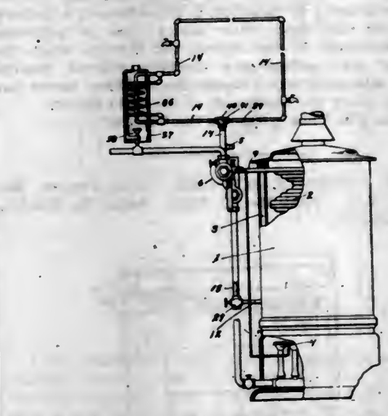
3. The herein described truck frame having channel shaped transoms in the end portions of the bottom flanges of which are formed openings for the swing hangers, webs integral with the bottom flanges adjacent the swing hanger openings and there being alined openings formed through said webs and through the webs of the transoms, which alined openings are adapted to receive pins from which the swing hangers are suspended.

4. The herein described cast metal truck frame having transoms in the end portions of the bottom flanges of which are formed openings for the swing hangers of the truck, webs integral with the bottom flanges of the transoms adjacent the openings therein, there being alined openings in said webs and the webs of the transoms for the pins from which the swing hangers are suspended and horizontally disposed webs connecting the upper portions of the vertically disposed webs of the webs of the transoms.

5. The herein described cast metal truck frame provided with transoms having widened end portions through which are formed openings for the swing hangers, vertically disposed webs integral with the widened end portions of the transoms adjacent the openings therein, there being openings formed in said webs and in the webs of the transoms, which openings receive the pins from which the swing hangers are suspended and horizontally disposed webs integral with and connecting the upper portions of the vertically disposed webs and the webs of the transoms.

[Claims 6 to 11 not printed in the Gazette.]

1,029,870. WATER-HEATER. HERBERT S. HUMPHREY, Kalamazoo, Mich. Filed Mar. 7, 1910. Serial No. 547,830. (Cl. 126—351.)



1. The combination of a main water heater; a heating means therefor comprising a fuel valve; a delivery system for said main heater; a fuel valve actuating member actuated by the drawing of water from said system to open the fuel valve, there being means for automatically closing the fuel valve when the drawing of water is discontinued; an auxiliary heater controlled independently of the said water actuated control means of the main heater and interposed in said system and connected to permit the water in said system to circulate therethrough without passing through said main heater; and means for directing the water passing from said main heater to said system through said auxiliary heater.

2. The combination of a main water heater; a heating means therefor comprising a fuel valve; a delivery system for said main heater; a fuel valve actuating member actuated by the drawing of water from said system to open the fuel valve, there being means for automatically closing the fuel valve when the drawing of water is discontinued; and an auxiliary heater controlled independently of the said water actuated control means of the main heater and interposed in said system and connected to permit the water in said system to circulate therethrough without passing through said main heater.

3. The combination of the main water heater; a water inlet connected thereto; heating means for said main water heater comprising a fuel valve; a member for opening said fuel valve actuated by the drawing of water from said heater, there being means for automatically closing said fuel valve when the drawing of water is discontinued; a water delivery system for said main water heater; an auxiliary heater controlled independently of the

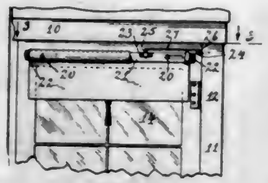
said water actuated control means of the main heater and interposed in said delivery system; and a circulation connection for said delivery system to said auxiliary heater arranged so that the water of the system may circulate through said auxiliary heater without passing through said main heater.

4. The combination of the main water heater; heating means therefor; a water supply connected to said main water heater; a control member for said heating means actuated by the drawing of water to turn on said heating means, said heating means being automatically cut off when the drawing of the water is discontinued; a delivery system for said main water heater; an auxiliary heater interposed in said system and through which the water of said system may circulate without passing through said main water heater, the auxiliary heater not being cut off by the cutting off of the main heater; and means for directing the water passing from said main water heater through said auxiliary heater.

5. The combination of the main water heater; heating means therefor; a water supply connected to said main water heater; a control member for said heating means actuated by the drawing of water to turn on said heating means, said heating means being automatically cut off when the drawing of the water is discontinued; a delivery system for said main water heater; and an auxiliary heater interposed in said system and through which the water of said system may circulate without passing through said main water heater the auxiliary heater not being cut off by the cutting off of the main heater.

[Claims 6 to 8 not printed in the Gazette.]

1,029,871. CURTAIN-SUPPORT. CARL JOSEPH, Bayonne, N. J. Filed Mar. 7, 1912. Serial No. 682,151. (Cl. 156—23.)



1. The combination of a window frame and swinging window sash, of supports secured to the sash, a bracket mounted to slide thereon and means for automatically causing the bracket to slide when the window panel is swung.

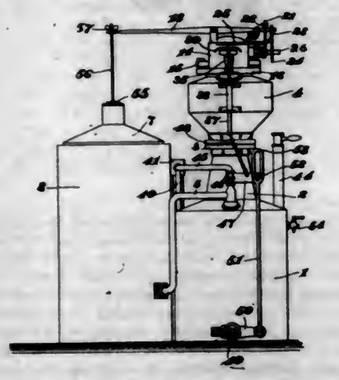
2. The combination of a window frame and swinging window sash, of supports secured to the sash, a bracket mounted to slide thereon and means for automatically causing the bracket to slide when the window panel is swung comprising two bearings, one on the window frame and one on the window sash, and a rod adapted to engage with both bearings.

3. The combination of a window frame and swinging window sash, of supports secured to the sash, a bracket mounted to slide thereon and means for automatically causing the bracket to slide when the window panel is swung comprising two bearings, one on the window frame and one on the window sash, and a rod adapted to engage with both bearings, the bearings being fixed and the rod inextensible.

4. The combination with a window sash of a curtain bracket slidably mounted thereon, means for swinging the sash with respect to a relatively fixed wall, and a rod loosely hinged to the bracket and the wall.

5. The combination with a window sash of a curtain bracket slidably mounted thereon, means for swinging the sash with respect to a relatively fixed wall, and a rod loosely hinged to the bracket and the wall whereby when the sash is swung with respect to the wall, the bracket is pushed along the sash away from the wall.

1,029,872. GAS-GENERATOR. JOHN KILBURN, JOHN WESLEY FAIRLEY, THOMAS BESSELL KIDNER, WILLIAM HERBERT IRVINE, and WILLIAM TURNBULL CHESTNUT, Fredericton, New Brunswick, Canada, assignors to Monitor Gas Generator Company, New York, N. Y., a Corporation of New York. Filed Feb. 9, 1911. Serial No. 607,708. (Cl. 48—36.)



1. A carbid receptacle having a charging opening, in combination with a generating tank supplied by said tank and having a drain outlet, a gas pipe and by-pass leading from said generating tank, a valve governing the flow through said pipe or by-pass at will, a valve for said drainage outlet, a closure for the charging opening, means for holding said closure in operative position, but adapted to free the same at will and a rod operatively connected to the valves for the by pass and the drainage outlet and provided with fingers extending over said means for holding the closure in order that the freeing of the latter may also operate the said valves.

2. In combination with a carbid receptacle and a generating tank supplied thereby, a gas tank having a gas bell therein, a lever operated by the rising of said bell, a valve controlling the outflow of said carbid receptacle and provided with a rod which extends up between a movable part of said lever and a neighboring relatively fixed part of the latter, a pivoted yoke provided with a notch normally engaging said movable part to hold it in place on said rod, a rock-shaft arranged over a part of said yoke and adapted to move said yoke out of engagement when said yoke is raised into contact therewith, and means connecting said rock-shaft to said lever to cause such rocking motion, the said yoke rising and falling with one of the arms of said lever, substantially as set forth.

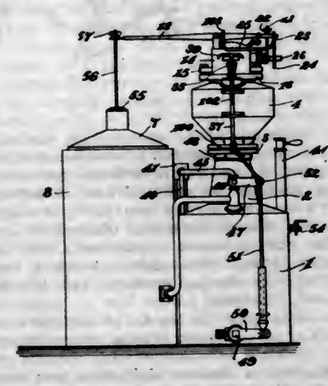
3. A carbid receptacle, a generating tank and a feed valve between them, in combination with releasable means for suspending said valve, a movable yoke controlling such means and provided with an offset arm, stationary means adapted to engage and operate said yoke to release said valve, a sliding rod adapted to move said yoke into position to be thus actuated and means for raising said sliding rod into such position substantially as set forth.

4. In combination with a carbid receptacle, a generator tank supplied thereby and a valve adapted to cut-off communication between them, a gas tank supplied by said generator tank and having a rising and falling bell and provided with a relatively fixed part and a relatively movable part, a lever moving with said bell, a pivoted yoke provided with an offset mounted on said lever and normally holding said parts to grip the stem of said valve, an adjustable part which acts on said yoke to move it into a different position, a rock-shaft arranged for contact with said offset in such position and adapted to act thereon for tilting said yoke and freeing said valve in order that it may fall and seat itself, said adjustable part also simultaneously freeing the closure of the carbid receptacle.

5. In combination with a carbid receptacle, a generator tank supplied thereby and a valve adapted to cut off communication between them, a gas tank supplied by said generator tank and provided with a bell, a lever rising and falling with said bell and provided with separable gripping means for the rod of said valve, a yoke normally holding said parts together, a rock-shaft operated by said lever, a vertically adjustable screw, a vent valve and drain valve for said generator tank, a rod connected to these latter valves and arranged to be lifted by said screw for operating them, the said screw being arranged to move said yoke into position for contact with said rock-shaft in order that the latter may operate it to free the first mentioned valve.

[Claims 6 and 7 not printed in the Gazette.]

1,029,873. ACETYLENE-GAS GENERATOR. JOHN KILBURN, JOHN WESLEY FAIRLEY, THOMAS BESSELL KIDNER, WILLIAM HERBERT IRVINE, and WILLIAM TURNBULL CHESTNUT, Fredericton, New Brunswick, Canada, assignors to Monitor Gas Generator Company, New York, N. Y., a Corporation of New York. Filed July 6, 1911. Serial No. 637,097. (Cl. 48—36.)



1. In combination with a gas generating tank having a vent valve and a drain valve, devices connecting said valves to make them operate together, a sliding rod connected to said devices and having fingers at its upper end, and a screw overlapped by said fingers and adapted to engage them and raise said rod at will opening said vlaves simultaneously as set forth.

2. In combination with a gas generating tank having a vent and vent valve, a carbid receptacle supplying said tank, a vertically adjustable screw for opening said receptacle to charge the same, a sliding rod having a part overlapping said screw so as to be lifted thereby and connections between said valve and said rod in order that the act of opening said receptacle for charging it may simultaneously vent said tank.

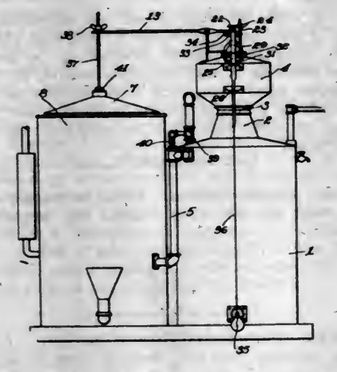
3. In combination with a gas generating tank having a vent, vent valve and drain valve, a carbid receptacle supplying said tank, a vertically adjustable screw for opening said receptacle to charge the same, a sliding rod having a part overlapping said means so as to be lifted thereby and connections between said valves and said rod in order that the act of opening said receptacle may simultaneously vent and drain said tank.

4. In combination with a gas generating tank having a vent tube, an escape pipe communicating with said tube near the outer end of the latter and having its lower end submerged within said tank, a gas delivery pipe from said tank communicating with said vent tube near the inner end of the latter, a valve arranged in said vent tube between said escape pipe and said gas delivery pipe, a carbid receptacle, a movable device mounted thereon and means connected to said valve and arranged to be acted on by said device for opening the same.

5. In combination with a gas generating tank having a vent tube, an escape pipe communicating with said tube near the outer end of the latter and having its lower end submerged within said tank, a gas delivery pipe from said tank communicating with said vent tube near the inner end of the latter, a valve arranged in said vent tube between the points of junction of these two pipes, means for normally keeping said valve closed, a drain valve for said tank, means connecting the vent valve and drain valve and means for actuating both of said valves simultaneously for the purpose set forth.

[Claims 6 to 15 not printed in the Gazette.]

1,029,874. ACETYLENE-GAS GENERATOR. JOHN KILBURN, JOHN WESLEY FAIRLEY, THOMAS BESSELL KIDNER, WILLIAM HERBERT IRVINE, and WILLIAM TURNBULL CHESTNUT, Fredericton, New Brunswick, Canada, assignors to Monitor Gas Generator Company, New York, N. Y., a Corporation of New York. Filed Sept. 28, 1911. Serial No. 651,792. (Cl. 48—53.1.)

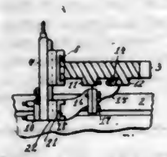


1. In combination with a carbid receptacle and a generating chamber supplied thereby, a valve for cutting off said supply, a lever, a gas-bell with which the long arm of said lever moves up and down, an arm pivoted on said lever, and provided with a valve-suspending hook extending under it, a yoke, attached to and moving with said valve, which receives the end of said hook for the suspension of said valve, but allows the withdrawal of said hook to free said valve for falling and closing and relatively fixed adjustable means arranged to be engaged by the said arm to automatically withdraw said hook as said arm rises.

2. In combination with a carbid receptacle and a generating chamber supplied thereby, a valve for cutting off said supply, a lever, a gas bell acting on one arm of said lever to lower it by the descent of said bell, an arm pivoted on the other arm of said lever and provided with a valve-suspending hook, a yoke attached to said valve and receiving said hook, but permitting the withdrawal of the latter by the rocking of said pivoted arm and a device arranged to engage and rock the latter as the shorter end of said lever rises by the descent of the bell.

3. A generator of the character described comprising a generating chamber, a carbid receptacle mounted above the generating chamber and adapted to deliver carbid thereto, valves for controlling the delivery of carbid, a gas chamber, a gas bell movably mounted therein, means for delivering gas from the generating chamber to the gas chamber, a lever mounted on said carbid receptacle, connections between said lever and sad gas bell an arm pivotally mounted on said lever, separable connections between said arm and the aforesaid valves, a filling-opening closure for said carbid receptacle, means for forcing the closure to operative position, and an angle bar actuated by said means and adapted to engage and operate said arm to separate said connections.

1,029,875. METAL-WORKING PLANER. GEORGE LANGEN and CHARLES MEIER, Cincinnati, Ohio, assignors to The Cincinnati Planer Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Oct. 30, 1908. Serial No. 460,314. (Cl. 90—34.)



1. In a metal working planer the combination of a housing formed with a vertical guide on its face, an inwardly projecting bracket adjustably secured thereto and terminating in a vertical guide in the plane of the former guide, similar swiveled saddles slidably mounted on the respective guides, and a side head slidably supported on the saddles.

2. In a metal working planer the combination of a housing, a side head adjustable on the face thereof, an inwardly projecting bracket adapted to be secured in different positions of vertical adjustment on the housing, said bracket terminating in a vertical guide face, and a saddle slidably mounted on said guide face and movably engaging with the side head for resisting the working thrust thereon

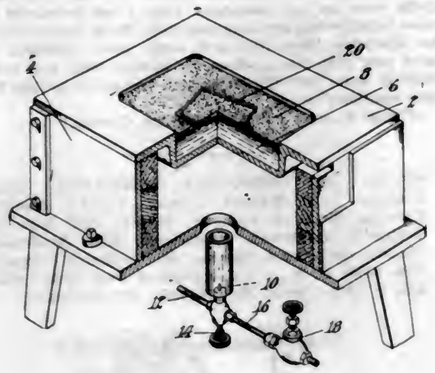
1,029,876. SPRING-HINGE. SWAN LUNDBERG, Chicago, Ill. Filed Mar. 1, 1911. Serial No. 611,686. (Cl. 16—25.)



1. In a spring hinge, a fixed leaf adapted to be secured to a suitable support, and having a cylindrical knuckle, a pintle rotatably mounted in said knuckle, a coil-spring having one end connected with said pintle, and the opposite end secured to said support, a swinging leaf having a knuckle adapted to register with and be supported by the knuckle of the fixed leaf, and means adjustably connecting said pintle with the knuckle of the swinging leaf, whereby the tension of the spring may be increased or diminished.

2. In a spring hinge, a fixed leaf adapted to be secured to a door frame, and having a cylindrical knuckle, a pintle rotatably mounted in said knuckle having radial holes and having a portion extending below the knuckle, a coil-spring having one end connected with said extended portion of the pintle, and the other end secured to the support, a movable leaf adapted to be secured to a swinging closure said leaf having a cylindrical knuckle adapted to rest upon and register with said first named knuckle, and having holes adapted to register with the holes in said pintle, and means engaging said holes to adjustably connect said knuckle, and pintle whereby the tension of the spring may be increased or diminished.

1,029,877. METHOD OF HARDENING AND TEMPERING STEEL. JOHN M. LYNCH, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 23, 1909. Serial No. 491,732. (Cl. 148—37.)



1. That improvement in the art of hardening and tempering tools which consists in simultaneously heating different parts of the tool in different contiguous heat conducting mediums so arranged and of such relative conductivity that the part of the tool to be hardened is heated to the desired hardening temperature and that the adjacent part is heated decrementally from the part to be hardened, and then entirely removing said tool from the heat conducting mediums and immersing it forthwith in a hardening bath.

2. That improvement in the art of hardening and tempering tools of substantially uniform composition throughout which consists in simultaneously heating different parts of the tool in different contiguous heat conducting mediums so arranged and of such relative conductivity that the part of the tool to be hardened is heated to the highest transforming point of the steel of which the tool is composed and that the adjacent part is heated decrementally from said first mentioned part, and then entirely removing said tool from the heat conducting mediums and immersing it forthwith in a hardening bath.

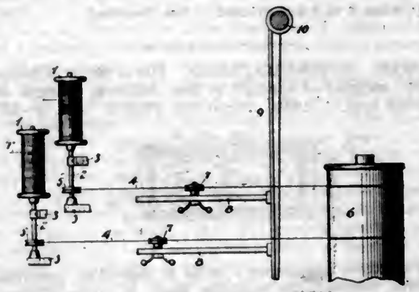
3. That improvement in the art of hardening and temperiug tools of uniform composition throughout which consists in immersing the part of the tool to be hardened in a metallic heating bath covered with a layer of heat conducting material of a depth and of a conductivity so related to the size and carbon content of the particular tool to be hardened that said tool will be heated decrementally from the immersed portion and then immersing said tool in a hardening bath.

4. That improvement in the art of hardening and tempering tools of substantially uniform composition throughout, which consists in immersing the part of the tool to be hardened in a lead heating bath covered with a layer of charcoal of a depth sufficient to conduct the heat of the bath to the tool decrementally from the part immersed and then immersing the entire tool in a hardening bath.

5. That improvement in the art of hardening and tempering tools which consists in immersing the part of the tool to be hardened in a lead heating bath covered with a layer of charcoal extending to the upper edge of the part of the tool not immersed whereby said tool is heated decrementally from the immersed portion, and then quenching said tool by immersing it in a hardening bath.

[Claims 6 to 10 not printed in the Gazette.]

1,029,878. TENSION CONTROL FOR THREAD-DRESSING MACHINES AND THE LIKE. HENRY J. MARX, Holyoke, Mass., assignor to The American Thread Company, Jersey City, N. J., a Corporation of New Jersey. Filed Dec. 6, 1911. Serial No. 664,215. (Cl. 118—24.)



1. In a machine of the character described, a spindle for carrying a spool to be wound, a pulley thereon, a driving drum, a tension pulley, a driving band extending from said drum to both of said pulleys, automatic means to move said tension pulley in a direction to increase the tension of said driving band as thread is being wound on the spool, said automatic means including a device resting against the surface of the thread on said spool during the winding process, a swinging arm carrying said tension pulley, a shaft carrying said arm, a lever carried by said shaft, another lever operatively connected with the first mentioned lever but independently mounted at one end, means between said second mentioned lever and said trolley for imparting movement to said second mentioned lever, said means including a train of gears, a rotatable link shaft, a support for one end thereof, the other end being operatively connected with said second mentioned lever, one end of said shaft being screw-threaded whereby the rotation of the link shaft will impart movement to said second mentioned lever, one of said gears being mounted on said link shaft, and means for periodically driving said gears.

2. In a machine of the character described, a spindle for carrying a spool to be wound, a pulley thereon, a driving drum, a tension pulley, a driving band extending from said drum to both of said pulleys, automatic means to move said tension pulley in a direction to increase the tension of said driving band as thread is being wound on the spool, said automatic means including a device resting against the surface of the thread on said spool during the winding operation, a swinging arm carrying said tension pulley, a shaft carrying said arm, a lever carried by said shaft, another lever overlapping and operatively connected with the first mentioned lever but independently mounted at one end, means between said second mentioned lever and said trolley for imparting movement to said second mentioned lever, said means including a train of gears, a rotatable link shaft, a support for one end thereof, the other end being operatively connected with said second mentioned lever, one end of said shaft being screw-threaded whereby the rotation of the link shaft will impart movement to said second mentioned lever, a pawl and ratchet mechanism for said train of gears with means for oscillating said pawl mechanism, and means for holding said pawl mechanism out of operative engagement with the ratchet excepting at such times as it is desired to vary the tension of said band.

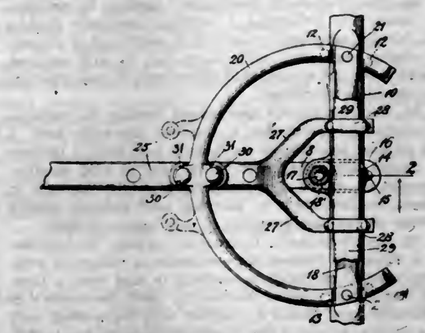
3. In a machine of the character described, a spindle for carrying a spool to be wound, a pulley thereon, a driving drum, a tension pulley, a driving band extending from said drum to both of said pulleys, automatic means to move said tension pulley in a direction to increase the tension of said driving band as thread is being wound on the spool, said automatic means including a device resting against the surface of the thread on said spool during the winding process, a swinging arm carrying said tension pulley, a shaft carrying said arm, a lever carried by said shaft, another lever overlapping and operatively connected with the first mentioned lever but independently mounted at one end, means between said second mentioned lever and said trolley for imparting movement to said second mentioned lever, said means including a train of gears, a rotatable link shaft, a support for one end thereof, the other end being operatively connected with said second mentioned lever, one end of said shaft being screw-threaded whereby the rotation of the link shaft will impart movement to said second mentioned lever, a pawl and ratchet mechanism for said train of gears with means for oscillating said pawl mechanism, means for holding said pawl mechanism out of operative engagement with the ratchet excepting at such times as it is desired to automatically vary the tension of said band, and a connection between the device bearing against said spool and said blocking-out means.

4. In a machine of the character described, a rotatable spindle arranged to carry a spool to be wound, a pulley thereon, a driving drum, a movable tension pulley, a driving band leading from said drum to both of said pulleys, automatically operable means arranged between a spool mounted on said pulley during the winding operation and said tension roll to cause a movement of said tension roll in a direction to vary the tension of said band periodically as the diameter of said spool varies during the winding operation.

5. In a machine of the character described, a plurality of rotatable spindles, a plurality of spools to be wound, a pulley thereon, a driving drum, a movable tension pulley, a driving band leading from said drum to all of said pulleys by separate loops, automatically operable means arranged between a spool mounted on one of said pulleys during the winding operation and said tension roll to cause a movement of said roll in a direction to vary the tension of said band periodically as the diameter of said spool varies during the winding operation.

[Claims 6 to 12 not printed in the Gazette.]

1,029,879. PERCH ATTACHMENT FOR VEHICLES. CHARLES T. MCCUE, Hartford, Conn., assignor to Frank E. Wilcox and Lester E. Hickok, Mechanicsburg, Pa. Filed Mar. 25, 1908. Serial No. 423,125. (Cl. 21—24.)



1. An axle, a body part having an integral strap embracing the axle, said body part being located in the rear of the axle, bolts integrally formed on opposite ends of the body part, and a running gear including a perch plate connected with the bolts at the top and bottom of said body part.

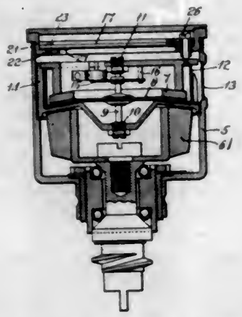
2. An axle, a fifth wheel supported thereon and with ears projecting laterally of the circle of the fifth wheel, a perch plate including a stem passing across the fifth wheel and secured to said ears, said stem branching into arms, a head block plate passing across said arms, means for securing the head block plate to the axle, and means for securing the head block plate and arms together.

3. An axle, a fifth wheel supported thereon, a perch passing across the fifth wheel, a head-block plate separately

formed from the fifth wheel and having a socket intermediate its ends, clips having their ends passing through said arms and securing the head-block plate thereto, a body-part having an integral strap embracing the axle, said body-part being located in the rear of the axle, bolts integrally formed on opposite ends of said body-part, one of said bolts engaging said socket, and a brace extending from the perch and secured to the other bolt.

4. An axle, a fifth wheel supported thereon, a perch passing across the fifth wheel and having branching arms, a head-block plate separately formed from the fifth wheel and having a socket intermediate its ends, a clip passing through said arms and securing the head-block plate and arms together, a body-part having a clip integrally formed and extending to embrace an axle, said body-part being located in the rear of the axle, bolts integrally formed with the body-part and projecting from opposite ends, one of said bolts engaging said socket, a yoke uniting said clip and bolt at the lower end of the body-part, and a brace extending from the perch and in engagement with said bolt at the bottom of the body-part.

1,029,880. ELECTROMAGNETIC INSTRUMENT. WALTER K. MENNS, Malden, Mass., assignor to Charles H. Pearson, Brookline, Mass. Filed Mar. 24, 1911. Serial No. 616,640. (Cl. 73—123.)



1. An electro-magnetic instrument having, in combination, means for producing a rotating magnetic field, a metal member mounted to oscillate in said field, a thermostat, means connecting said thermostat to said member, and means for restraining said thermostat in one direction of its operative movement.

2. An electro-magnetic instrument having, in combination, means for producing a rotating magnetic field, a metal member mounted to oscillate in said field, a thermostat, means connecting said thermostat to said member, and means to impose a restraint upon said thermostat in its operative movement in carrying said member toward the point of greatest intensity of said magnetic field.

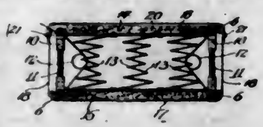
3. An electro-magnetic instrument having, in combination, a rotatable magnet for producing a magnetic field, a metal member mounted to oscillate in said field, a laminated thermostat, means connecting said thermostat to said member, and means to support said thermostat, said means having provision for restraining said thermostat in its operative movement in carrying said member toward the point of greatest intensity of said magnetic field.

4. An electro-magnetic instrument having, in combination, a rotatable magnet for producing a magnetic field, a metal member mounted to oscillate in said field, a laminated thermostat, means connecting said thermostat to said member, and means engaging one face of said thermostat and restraining the same in its operative movement in one direction.

5. An electro-magnetic instrument having, in combination, a rotatable magnet for producing a magnetic field, a metal member mounted to oscillate in said field, a laminated thermostat connected to said member for changing the relative location of said member and said magnet to compensate for changes of temperature, means to hold one end of said thermostat in fixed position, said means engaging one face of said thermostat adjacent to said end for restraining said thermostat in its operative movement in one direction, and means forming an operative connection between the other end of said thermostat and said member.

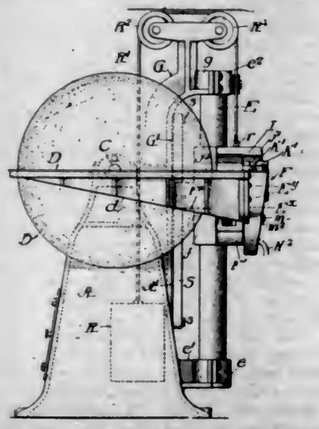
[Claims 6 to 8 not printed in the Gazette.]

1,029,881. SPRING-MATTRESS. DAVID MICON, Chicago, Ill., assignor of one-half to Ben Goldman, Chicago, Ill. Filed Sept. 1, 1910. Serial No. 579,973. (Cl. 5—13.)



A mattress comprising a series of individual uncovered springs forming the mattress body, a frame disposed around the periphery of the upper face of said body, a second frame disposed around the periphery of the lower face of said body, a removable pad disposed over the upper face of the body and over the upper frame but unconnected with said body and frame, a second removable pad disposed over the opposite face of said body and over the other frame but unconnected with said body and frame, and a removable tick surrounding and inclosing said spring body, surrounding frames and removable pads and forming the sole means for holding said independently constructed body, frames and pads together, said tick being separable to permit its ready removal and the subsequent separation of the springs, pads and frames, whereby the springs, pads, frames and tick may be readily cleaned and separately packed.

1,029,882. DISK GRINDER. JOHN MILLER, Jr., Beloit, Wis., assignor to Charles H. Besly & Company, Chicago, Ill., a Corporation of Illinois. Filed Apr. 8, 1911. Serial No. 619,749. (Cl. 51—7.)



1. In a machine of the class described, in combination with a grinding disk, a work-table, an arm rigidly secured to one end of said work-table and a support for holding said table in operative relation with said grinding disk, means for rotatively mounting said arm on said support comprising an arcuate tongue made rigid with one of the two members, the said arm and the said support, and extending at right angles to the plane of movement of said arm, an arcuate member made rigid with the other of said two members and embracing radially spaced flanges extending parallel with said tongue and a web connecting the outer ends of said flanges, said arcuate tongue engaging between the flanges of said arcuate member to support the said arm on the said support, means adapted for locking said tongue to said arcuate member to prevent longitudinal movement of one with reference to the other while permitting free rotative movement between the two and means for clamping said arm in fixed relation with said support.

2. In a machine of the class described, in combination with a grinding disk, a work-table, an arm rigidly secured to one end of said work-table and a support for holding said table in operative relation with said grinding disk, means for rotatively mounting said arm on said support comprising a horizontally extending arcuate tongue made rigid with said support, an arcuate member made rigid with said arm and embracing radially spaced flanges extending at right angles to the plane of movement of said arm, and a web connecting the outer ends of said flanges, said arcuate tongue engaging between the flanges of said arm to support the same, one of said arcuate members being provided with a slot extending parallel to the plane of movement of said arm, a bolt extending through said slot and rigidly secured to the other arcuate member, and means for clamping said arm in fixed relation with said support.

3. In a machine of the class described, in combination with a grinding disk, a work-table, an arm rigidly secured to one end of said work-table and a support for holding said table in operative relation with said grinding disk, means for rotatively mounting said arm on said support, comprising a horizontally extending arcuate tongue made rigid with said support, an arcuate member made rigid with said arm, and comprising radially spaced horizontally extending flanges, and a web connecting the outer ends of said flanges, the flange of smaller radius being provided with a slot extending parallel to the plane of movement of said arm, a semi-cylindric block bearing within said arcuate tongue, a bolt extending through said slot and rigidly connecting said arcuate tongue with said block, and means for clamping said arm in fixed relation with said support.

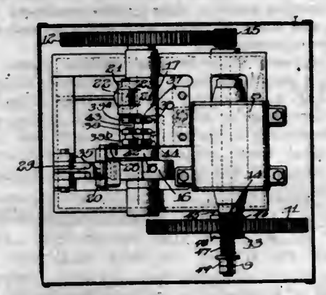
4. In a machine of the class described, the combination of a grinding disk having a flat vertically arranged grinding face, a work-table, an arm rigidly attached to one end of said work-table, a carriage for supporting said arm, a fixed upright cylindric shaft, means providing endwise sliding and rotative bearing for said carriage on said shaft, means for clamping said carriage to said shaft, means providing a rotative bearing between said arm and said carriage, adapted for swinging said table about the line of intersection of its plane with the flat face of the grinding disk as an axis, and means for holding said table in various adjusted positions relatively to the carriage.

5. In a machine of the class described, the combination of a grinding disk having a flat vertically arranged grinding face, a work-table, an arm rigidly attached to one end of said work-table, a carriage for supporting said arm, a fixed upright cylindric shaft, means providing endwise sliding and rotative bearing for said carriage on said shaft, means for clamping said carriage to said shaft, a counterbalance weight connected and moving with said carriage, means providing a rotative bearing between said arm and said carriage, adapted for swinging said table about the line of intersection of its plane with the flat face of the grinding disk as an axis, and means for holding said table in various adjusted positions, relatively to the carriage.

[Claims 6 to 10 not printed in the Gazette.]

1,029,883. MOTOR-OPERATED BRAKE MECHANISM. SAMUEL F. NICHOLS, Chicago, Ill. Filed May 23, 1910. Serial No. 562,863. (Cl. 74—13.)

1. In a device of the class described, the combination with a shaft and a source of power communicating therewith, a ratchet wheel rigidly mounted on said shaft, a brake crank loosely mounted on said shaft, means for throwing said crank into locking engagement with said ratchet, means mounted on said crank for transmitting power from said shaft, and means for throwing said crank and ratchet out of engagement, whereby said power transmitting mechanism is instantly returned to its normal position.



2. In a device of the class described, the combination with a source of power, a frame, a shaft mounted thereon, a ratchet wheel rigidly mounted on said shaft, a brake crank loosely mounted on said shaft, and means mounted on said crank, whereby said crank and shaft may be held in locking engagement, means mounted on said crank for transmitting power from said shaft, and means for throwing said crank and shaft out of locking engagement and causing said power transmitting mechanism to resume its normal position when the source of power is shut off.

3. In a device of the class described, a frame, a shaft mounted thereon, a source of power connected to said shaft, a ratchet wheel rigidly mounted thereon, a brake crank loosely mounted on said shaft, a T swingingly mounted on said crank, a brake connection secured thereto, a pawl mounted on said crank and normally held in engagement with said ratchet, whereby said brake connection is moved, and means for tripping said pawl when the source of power is shut off.

4. In a device of the class described, a frame, a shaft mounted thereon, a source of power connected to said shaft, a ratchet wheel rigidly mounted thereon, a brake crank loosely mounted on said shaft, a T swingingly mounted on said crank, a brake connection secured thereto, a pawl mounted on said crank and normally held in engagement with said ratchet, whereby said brake connection is moved, and means for tripping said pawl when the source of power is cut off, whereby said brake connection is instantly returned to normal position.

5. In a device of the class described, a frame, a shaft mounted thereon, a source of power connected to said shaft, a ratchet wheel rigidly mounted thereon, a brake crank loosely mounted on said shaft, a T swingingly mounted on said crank, a brake connection secured thereto, a pawl mounted on said crank and normally held in engagement with said ratchet, whereby said brake connection is moved, and a spring mounted ratchet lever for tripping said pawl when the source of power is for any reason cut off.

[Claims 6 to 9 not printed in the Gazette.]

1,029,884. COMPOUND FOR RAILWAY TIME SIGNAL-FUSEES. ISADORE NIDITCH, Dorchester, Mass. Filed Mar. 25, 1912. Serial No. 686,142. (Cl. 52—6.)

1. An improved time burning railway signal fusee, comprising a metallic nitrate, a carbobydrate, sulfur, perchlorate, and a small quantity of chlorate, producing a readily ignitible and free burning railway time signal fusee compound having brilliancy and force of flame, and which is not subject to spontaneous combustion.

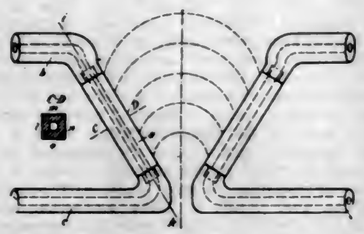
2. An improved time burning railway signal fusee, comprising a metallic nitrate, a carbohydrate, sulfur, perchlorate, and a small quantity of potassium chlorate, producing a readily ignitible and free burning railway time signal fusee compound having brilliancy and force of flame, and which is not subject to spontaneous combustion.

3. An improved time burning railway signal fusee, comprising a metallic nitrate, a carbohydrate, a per-

chlorate, sulfur, and a percentage of potassium chlorate less than the perchlorate, producing a readily ignitible and free burning railway signal fusee compound having brilliancy and force of flame and which is not subject to spontaneous combustion.

4. An improved time burning railway signal fusee, comprising a metallic nitrate, a carbohydrate, sulfur, perchlorate, and a percentage of potassium chlorate less than the percentage of either the nitrate, sulfur, or perchlorate, producing a readily ignitible and free burning railway signal fusee compound having brilliancy and force of flame, and which is not subject to spontaneous combustion.

1,029,885. ELECTRODE FOR PRODUCING GAS REACTIONS BY MEANS OF THE ELECTRIC ARC. HARRY PAULING, Gelsenkirchen, Germany, assignor to The Firm of Salpetersäure-Industrie-Gesellschaft G. M. B. H., Cologne, Germany. Filed Oct. 24, 1911. Serial No. 656,470. (Cl. 204—31.)



1. A water cooled electrode for producing endothermic gas reactions, comprising in combination, several electrode parts, means to connect said parts together and adapted to enable the part mostly exposed to the heat of the flame to be turned, substantially as, and for the purpose, set forth.

2. A water cooled electrode for producing endothermic gas reactions, comprising in combination, several electrode parts, and means to connect said parts together and adapted to enable the part mostly exposed to the heat of the flame to be turned about its longitudinal axis, substantially as, and for the purpose, set forth.

3. A water cooled electrode for producing endothermic gas reactions, comprising in combination, several electrode parts, clamping devices adapted to connect said parts together and enabling the part mostly exposed to the heat of the flame to be turned, substantially as, and for the purpose, set forth.

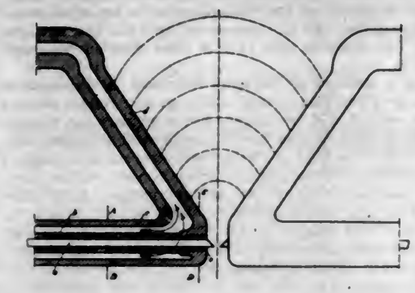
1,029,886. ELECTRIC FURNACE FOR PRODUCING GAS REACTIONS. HARRY PAULING, Gelsenkirchen, Germany, assignor to The Firm of Salpetersäure-Industrie-Gesellschaft G. M. B. H., Cologne, Germany. Filed Oct. 24, 1911. Serial No. 656,471. (Cl. 204—31.)

1. An electric furnace comprising, in combination, hollow main electrodes provided with annular water supply conduits leading thereinto and forming integral extensions thereof, and longitudinally adjustable igniting electrodes jacketed by said annular conduits.

2. An electric furnace comprising in combination, main electrodes, pipes to supply water to cool said main electrodes, igniting electrodes passing through said pipes, pipes inclosing said igniting electrodes in said water supply pipes, and a sleeve attached to the end of each said igniting electrode, substantially as, and for the purpose, set forth.

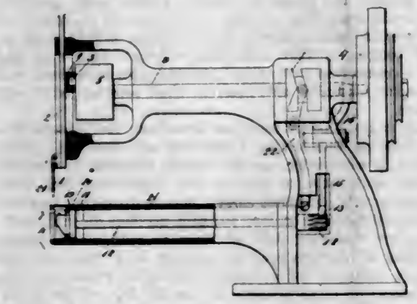
3. An electric furnace comprising, in combination, hollow main electrodes, water supply conduits leading to the interior of said electrodes, and igniting electrodes arranged within said conduits.

4. An electric furnace comprising, in combination, diverging hollow main electrodes, water supply conduits leading to the interior of said electrodes, and igniting electrodes adjustably arranged within said conduits.



5. In an electric furnace, in combination, a hollow main electrode, a water supply conduit leading to the interior of said electrode, a tube arranged within said conduit to form a water jacket therewith, and an igniting electrode arranged within said tube, said igniting electrode being adjustable longitudinally within said tube.

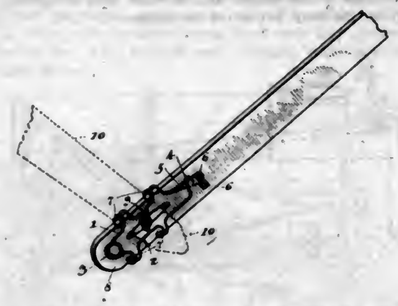
1,029,887. SEWING-MACHINE. MARSHALL HENRY PEARSON, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 4, 1909. Serial No. 511,215. (Cl. 112—28.)



1. A sewing machine, having, in combination, an eye-pointed needle, a shuttle arranged to rotate in a plane substantially parallel to that of the loop of thread forced through the work by the needle and to pull the thread through the eye of the needle in substantially the direction in which the thread leads through the eye, a deflector hook, and mechanism for actuating the hook arranged to move the hook from one side of the needle path to the other while the needle is out of the work and to return the hook to original position after the needle has entered the work to thereby engage the loop of needle thread and move it into a position to be engaged by the shuttle.

2. A sewing machine, having, in combination, an eye-pointed needle, a holder for the locking thread, a device moving in a plane substantially parallel to that of the loop of thread forced through the work by the needle and arranged to engage the needle thread loop and pull thread from the supply through the needle eye in substantially the direction in which the thread leads through the eye and pass the loop thus formed around the locking thread holder a deflector hook, and mechanism for actuating the hook arranged to move the hook from one side of the needle path to the other while the needle is out of the work and to return the hook to original position after the needle has entered the work to thereby engage the loop of needle thread and move it into a position to be engaged by the shuttle.

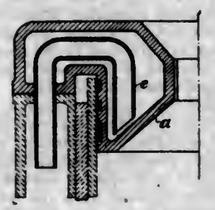
1,029,888. TUG-FASTENER. ANDREW E. QUANSTROM, Chicago, Ill. Filed Mar. 8, 1911. Serial No. 613,146. (Cl. 54—53.)



1. A device of the class described comprising a member formed of a single piece of wire bent to form separable portions, each of said portions being provided with two hooks adapted to embrace the edges of a tug and one of said portions being provided with a projection located between said loops and adapted to be passed through the perforation in the end of a whiffle-tree, said portions being connected together at one end by a spring coil, and at the other end by means of a hook on one end of the wire embracing the other end of the wire, substantially as described.

2. A device of the class described comprising a member formed of a single piece of spring wire bent to form separable portions, each of said portions being provided with two hooks adapted to embrace the edges of a tug and one of said portions being provided with a projection located between said loops and adapted to be passed through the perforation in the end of a whiffle-tree, said portions being connected together at one end by a spring coil, at the other end by means of a hook on one end of the wire embracing the other end of the wire, said other end being provided with an eye adapted to serve as a finger piece, substantially as described.

1,029,889. WATER-COOLED HEAT-POWER ENGINE. OSKAR REISSIG, Charlottenburg, Germany. Filed Mar. 15, 1911. Serial No. 614,539. (Cl. 123—173.)



1. In a water cooled vertical heat power engine, a water cooled cylinder cover having an inwardly projecting part forming a pocket adapted to contain water, a U-shaped connection member between the water pocket of the cover and the cooling water space of the cylinder, the shorter end of said member projecting to the bottom of the water pocket, the longer end of the U-shaped member projecting into the water space of the cylinder, said member emptying the water pocket in the manner of a siphon when the water jacket is drained.

2. In a water cooled vertical heat power engine, a water cooled cylinder cover having an inwardly projecting part forming a pocket adapted to contain water, a U-shaped connection member between the water pocket of the cover and the cooling space of the cylinder, the shorter end of the U-shaped member being cast in the interior of the cover and projecting to the bottom of the water pocket, the longer end of the U-shaped member projecting from the water space of the cover into the water space of the cylinder, said member emptying the water pocket in the manner of a siphon when the water jacket is drained.

1,029,890. CURTAIN-POLE. ANDREW REWI, Baltimore, Md. Filed Nov. 20, 1911. Serial No. 661,431. (Cl. 156—19.)



1. In a curtain pole the combination of a member cut away at a part intermediate its ends to form a recess and having perforations, a clamping member within such recess, latches secured to said clamping member, and projecting through the perforations, with spring-pressed bolts carried by the said first named member and adapted to cooperate with the latches, substantially as described.

2. In a curtain pole the combination of a member having its body cut away at a point intermediate its ends to form a recess, and provided with perforations, a clamping member within said recess, latches secured to said clamping member and projecting through said perforations, a plurality of fingers carried by the latches, with spring-pressed bolts carried by the said first named member and adapted to coöperate with any pair of fingers, substantially as described.

1,029,891. COLLAR. MARIE R. RICE, Chicago, Ill., assignor to Günther Keitel, New York, N. Y. Filed Sept. 23, 1908. Serial No. 454,406. (Cl. 2—91.)



1. As an article of manufacture, a collar having in flattened form a general upwardly curved conformation, and a plurality of spaced stiffening elements secured to said collar in upwardly converging position, each of said stiffening elements comprising a strip of fabric provided at its end portions with a pair of pockets of unequal depth and a resilient member having its ends removably fitted in said pockets.

2. A collar support comprising a stay-member in the form of a thin flat strip of resilient material, and a carrying or holding-member therefor in the shape of a fabric-strip provided at its end portions with pockets removably confining the ends of said stay-member, the lower of said pockets having a depth less than half the length of said stay-member, and the upper of said pockets being shallower than the lower, and of only sufficient depth to cover and prevent the springing out of the upper end of said stay-member in service.

1,029,892. CANT-HOOK. JAMES H. RITTER, Topeka, Ind. Filed May 14, 1910. Serial No. 561,400. (Cl. 145—22.)

A cant hook, comprising a handle having a slot formed therein, a hook member having a slotted shank slidably engaged in the slot of the handle, a bolt extending transversely of the slot of the handle and slidably engaged in the slot of the shank of the hook member, and said shank having a plurality of inclined notches formed therein at

one side of and in communication with its slot, whereby the hook may be shifted to engage the bolt in any of said



notches to secure the shank and hook in adjusted position relative to the handle.

1,029,893. PAPER BAG. CHARLES B. SANDERS, Montclair, N. J., assignor to Union Paper Bag Machine Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Sept. 8, 1910. Serial No. 581,010. (Cl. 229—55.)

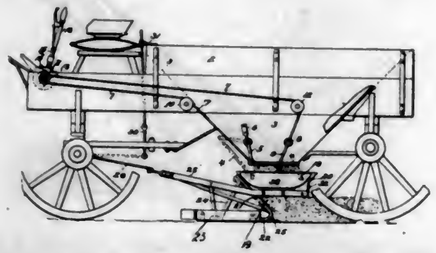


1. A double paper bag with bellows sides and a flat bottom, having separate body portions disposed one within the other, and having separate single body seams, one of which is disposed at the approximate center of the width of the bag, and the other of which is disposed adjacent to an edge of the bag, the flaps which form the flat bottom of the bag consisting of the interfolded material of the inner and outer bags.

2. A lined paper bag having the body portion of the lining loosely disposed within the outer bag, and independently pasted by separate and independent body seams, one of which is disposed at the approximate center of the bag, and the other of which is disposed adjacent to the edge of the bag, the flaps forming the flat bottom of the bag being formed of the interfolded plies of the bag and its lining.

1,029,894. DISTRIBUTER FOR DUMPING WAGONS AND CARS. ELMER E. SCHELLENGER, Riverside, Cal. Filed Nov. 14, 1910. Serial No. 592,399. (Cl. 21—20.)

1. A distributing attachment for dumping wagons including a hopper into which the dumping wagon is adapted to be discharged, supporting members on which the hopper is mounted, means for connecting the hopper and supporting members to said wagon, said means permitting the hopper and supporting means to rise and fall independently of the wagon, and hinged side boards attached to the sides of the hopper and movable into a vertical position in line with but above the hopper.



2. A distributing attachment for dumping vehicles including a hopper open at the top and bottom and comprising opposed sides, a rearwardly and downwardly inclined front and a rear end, the front end of said hopper extending downward and rearward below the sides and rear end of the hopper, runners disposed beneath the forward end of the hopper, angular supports extending down against the front side of the front end of the hopper and extending along and attached to said runners, and draft bars attached to the sides of the hopper and to said runners and extending forward and adapted to be connected to a wagon to permit free vertical movement of the distributing attachment independent of the wagon.

3. A distributing attachment for dumping vehicles, including a hopper open at top and bottom, supporting members attached to the forward ends of the hopper extending below the bottom of the same and adapted to support the hopper with its mouth above the ground, means whereby said supporting members and hopper may be pivotally connected to a vehicle for free vertical movement, and clearing scrapers carried by and disposed in front of said supporting members.

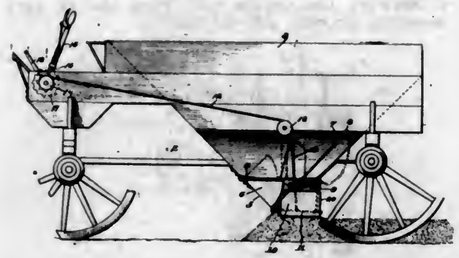
4. The combination with a dumping wagon having a discharge opening extending transversely across it and opposed members extending longitudinally of the wagon and having rearwardly extending hooked terminal ends formed each with an open hook opening toward the front of the wagon, of a distributer disposed beneath the discharge end of the wagon and including a supporting frame, a transversely extending distributing member, upwardly and forwardly extending members on the frame, and a transverse bar attached to the forward ends of said members and adapted to be loosely and detachably engaged by the hooks beneath the wagon.

5. The combination with a dumping wagon having a discharge opening extending transversely across it, opposed members extending longitudinally of the wagon and having rearwardly extending hooked terminal ends formed each with an open hook opening toward the front of the wagon, and means disposed upon the wagon whereby the said hooked members may be raised and lowered, of a distributer disposed beneath the discharge end of the wagon and including a supporting frame, a transversely extending distributing member, upwardly and forwardly extending draft members on the frame, and a transverse member adapted to be loosely and detachably engaged by the hooked members beneath the wagon.

1,029,895. DUMPING-WAGON. ELMER E. SCHELLENGER, Riverside, Cal. Filed Dec. 10, 1910. Serial No. 596,725. (Cl. 21—20.)

1. A dumping wagon having a discharge opening extending transversely across it, a distributing blade supported upon the bottom of the wagon rearward of the discharge opening and extending entirely across it, said blade being independently adjustable vertically at each end thereof.

2. A dumping wagon having a discharge opening extending transversely across it, a gate pivoted to the bottom of the wagon at the rear end of said discharge opening, said gate being adapted to swing into a position to partially close the discharge opening, or into a vertical position, and a distributer mounted upon said gate and projecting below the free edge thereof and vertically adjustable with relation thereto.



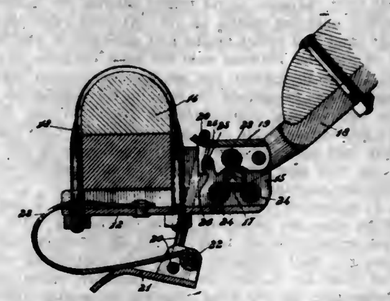
3. A dumping wagon having a discharge opening extending transversely across it, a gate pivoted to the bottom of the wagon at the rear end of said discharge opening, said gate being adapted to swing into a horizontal position to partially close the discharge opening, or into a vertical position, and a distributing blade adjustably mounted upon the free edge of the gate, said blade having forwardly extending wings.

4. A dumping wagon having a hopper-shaped body, and a discharge opening in the hopper-shaped body extending transversely across the wagon and having a rearwardly and downwardly extending front wall, a gate pivoted to the bottom of the hopper-shaped body forward of the discharge opening, means for limiting the opening movement of said gate to a position in alinement with the forward wall of the hopper, a gate pivoted to the bottom at the rear end of the discharge opening, a flexible connection between the free ends of both of said gates, an actuating means, and a flexible connection extending from said first named flexible connection to said actuating mechanism whereby the gates may be raised or lowered and a distributer blade mounted upon the lower edge of the rear gate for independent vertical adjustment.

5. A dumping wagon having a hopper-shaped body formed with a discharge opening at its lower end extending transversely to the wagon, a gate hingedly mounted upon the bottom of the body forward of the discharge opening, said gate being provided with lateral upwardly projecting wings, means for limiting the opening movement of the gate, a gate pivoted to the body rearward of the discharge opening and adapted to swing into a vertical position, a distributing blade adjustably mounted upon said gate and having laterally and forwardly projecting inclined wings, oppositely disposed flexible connections between the free ends of both gates, pulleys mounted upon the hopper-shaped body on opposite sides thereof and above the discharge opening, flexible connections on opposite sides of the body extending down to the flexible connections connecting the gates, said connections passing over the pulleys, a windlass over which the flexible connections pass, and means for actuating the windlass.

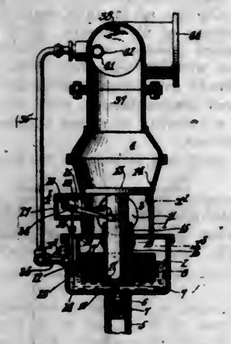
1,029,896. THILL-COUPLING. AUGUSTUS G. SNYDER, Utica, N. Y. Filed Jan. 16, 1912. Serial No. 671,508. (Cl. 21—57.)

In a thill coupling, the combination with a draft iron having a fixed jaw or part comprising side flanges having open-topped notches and provided with anti-friction bearing rollers arranged between said flanges adjacent said notches, of a thill iron having a pin or cross bar adapted to be received in said notches, and to bear against said rollers, a swinging latch or jaw provided with an anti-friction roller bearing against the upper side of said cross bar or pin and having side flanges between which said last-



named roller is mounted, and yielding means for securing said swinging latch or jaw in place.

1,029,897. CARBURETER. ALFRED C. STEWART, Los Angeles, Cal. Filed Apr. 27, 1908. Serial No. 429,563. (Cl. 48—155.1.)



1. A carbureter comprising an oil chamber, means for maintaining a definite level of oil therein, an oil cup communicating with the outer air and having means of communication with said oil chamber, said means of communication being below said definite level of oil, an oil control valve controlling communication between the oil chamber and the cup, an air inlet chamber, a throttle controlling admission of outer air to said air inlet chamber, outlet means for connecting the air inlet chamber to suction applying means, and a communication from said outlet means to said cup at a part of the cup below the point of communication with the outer air whereby the suction from the outlet means sucks oil together with air from said cup.

2. A carbureter comprising an oil chamber, means for maintaining a definite level of oil therein, an oil cup communicating with the outer air and having means of communication with said oil chamber, said means of communication being below said definite level of oil, an oil control valve controlling communication between the oil chamber and the cup, an air inlet chamber, a throttle controlling admission of outer air to said air inlet chamber, outlet means for connecting the air inlet chamber to suction applying means, and air controlled valve between the inlet and the outlet means, and operated by the suction at the outlet, said valves being connected to operate in correspondence, and a communication from said outlet means to said cup at a part of the cup below the point of communication with the outer air, whereby the suction from the outlet means sucks oil together with air from said cup.

3. A carbureter comprising an oil chamber provided with means for maintaining a definite oil-head therein, a cup exposed to outer air pressure, a valve controlling com-

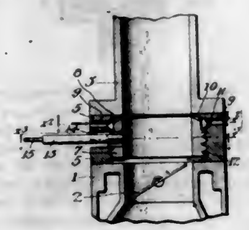
munication between the oil chamber and the cup, an air-inlet chamber, a throttle controlling admission of air to the air inlet chamber, outlet means adapted for connection to suction applying means, an air controlled valve between the air inlet and outlet means and operated by the difference of pressure between said air inlet chamber and the outlet means to operate the valve, a connection between the said valves to operate the same in correspondence, and means establishing communication from the cup to the outlet means consisting of a pipe having its inlet end extending into said cup to draw oil together with air from said cup, said pipe terminating in an enlargement with a constricting opening into the outlet means.

4. A carbureter comprising an oil chamber, a cup exposed to outer air pressure, an oil controlling valve controlling communication between the oil chamber and the cup, an air inlet chamber, a throttle controlling admission of outer air to said air inlet chamber, outlet means for connecting the air inlet chamber to suction applying means, and a means for communication from said cup to said outlet means consisting of a pipe having its inlet end extending into said cup to draw oil together with air from said cup, said pipe terminating in an enlargement with a constricting opening into the outlet means.

5. A carbureter for a multiple cylinder engine, comprising oil supply means, an oil cup exposed to outer air pressure, a valve controlling admission of oil from the oil supply means to the cup, an air inlet chamber, a throttle controlling admission of air thereto, outlet means for said air inlet chamber provided with a plurality of outlets for communication with the respective cylinders, and oil communicating means extending into the oil cup to draw oil therefrom, and communicating with the respective outlet means at a plurality of points adjacent to the respective outlets thereof.

[Claims 6 to 10 not printed in the Gazette.]

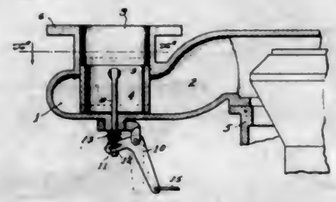
1,029,898. AUXILIARY AIR DEVICE FOR CARBURETERS. ALFRED C. STEWART, Los Angeles, Cal. Filed Jan. 5, 1911. Serial No. 600,944. (Cl. 137—4.)



1. An auxiliary air valve for carbureters consisting of an inlet member having an inlet opening, an outlet member having an outlet opening, and an intermediate member between said inlet and outlet members, and comprising an outer annular member, a ring supported therein, said annular member being provided with a continuous annular chamber extending around said ring and with perforations establishing communication from the outer air to said annular chamber, said outer annular member and ring being provided with opposing portions forming an annular air inlet, and said outer annular member and ring being provided with interengaging screw threaded portions.

2. An auxiliary air valve for carbureters consisting of an inlet member having an inlet opening, an outlet member having an outlet opening, and an intermediate member between said inlet and outlet members, and comprising an outer annular member, a ring supported therein, said annular member being provided with a continuous annular chamber extending around said ring and with perforations establishing communication from the outer air to said annular chamber, said outer annular member and ring being provided with opposing portions being inwardly convergent and said outer annular member and ring being provided with interengaging screw threaded portions and the internal diameter of said ring being the same as the internal diameter of the said inlet member, and handle means on said ring extending through the outer annular member, said outer annular member having an opening for receiving and enabling adjustment of said handle means.

1,029,899. THROTTLE FOR CARBURETERS. ALFRED C. STEWART, Los Angeles, Cal. Filed Apr. 17, 1911. Serial No. 621,682. (Cl. 137—32.)



1. A throttle for carbureters comprising a casing formed with a throttle chamber having a closed bottom, and provided with an inlet at one side located above said bottom, said inlet being provided with means for connection to the outlet of a carbureter, said casing provided with an upwardly extending tubular outlet, a tubular valve member open at its upper end to communicate with the outlet, the lower end of said tubular valve member being movable to and from the closed bottom of the throttle chamber to control the passage of mixture between said closed bottom and the interior of the valve member, said valve member sliding and fitting in said tubular outlet to continually shut off direct communication from the throttle chamber to the outlet.

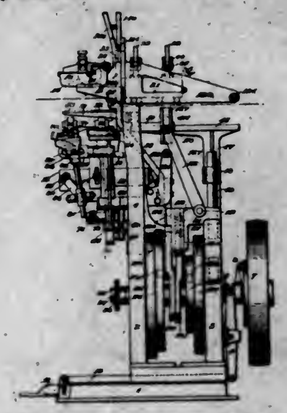
2. A throttle for carbureters comprising a casing formed with a throttle chamber having an inlet at one side provided with means for connection to the outlet of a carbureter, said throttle chamber being provided with a closed bottom located below the level of said inlet to allow condensed oil to collect on the bottom of said chamber, and said throttle chamber being provided with an outlet, a tubular valve member slidably mounted within the casing and communicating interiorly with said outlet, the lower edge of said tubular valve member being movable vertically to and from the bottom of the throttle chamber to control the passage of mixture between said bottom and the interior of said tubular valve member, and to cause the oil condensed on the bottom of the throttle chamber to be sucked into the outlet through the valve member when the said tubular valve member is in nearly closed position.

1,029,900. LABELING-MACHINE. ALBERT T. WEISS, Rochester, N. Y., assignor to Yawman & Erbe Manufacturing Company, Rochester, N. Y., a Corporation of New York. Filed Aug. 1, 1910. Serial No. 574,871. (Cl. 216—2.)

1. In a labeling machine, the combination with a main frame, of a rearwardly arranged overhanging bottom delivery label holder, a forwardly arranged work support, a picker reciprocating horizontally from front to rear of the machine and means for reciprocating the picker in vertical alinement with both the label holder and work support.

2. In a labeling machine, the combination with a main frame, of a rearwardly arranged overhanging bottom delivery label holder, a forwardly arranged work support, a rising and falling bed beneath the label holder and a picker arranged to reciprocate horizontally on the bed into vertical alinement with first the label holder and then the work support.

3. In a labeling machine, the combination with a work support and a label holder, one arranged in rear of and above the other, of a rising and falling bed and a picker reciprocating horizontally on the bed into vertical alinement with first one and then the other of said supporting and holding members.

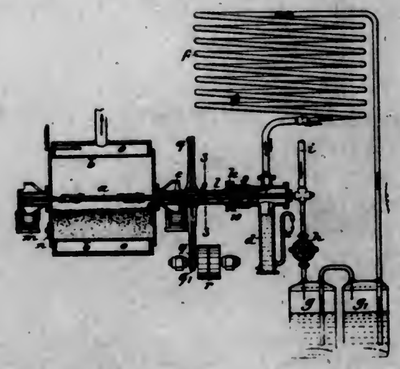


4. In a labeling machine, the combination with a pasting device, a bottom delivery label holder in rear thereof and a work support beneath the pasting device, of a picker arranged to reciprocate horizontally from a position between the latter and the work support to a position beneath the label holder, and means for distributing adhesive from the pasting device to the picker.

5. In a labeling machine, the combination with a main frame embodying a standard, of a forwardly extending bracket and a rearwardly extending bracket on said standard, a work support arranged beneath one of said brackets, an adhesive receptacle supported by one of the brackets, a bottom delivery label holder supported by the other, a picker arranged to reciprocate between positions in one of which it is beneath one of the brackets and in the other of which it is between the other bracket and the work support and means for distributing adhesive from the paste receptacle to the picker.

[Claims 6 to 39 not printed in the Gazette.]

1,029,901. PROCESS OF MANUFACTURING CATALYSTS. MOSE WILBUSCHEWITSCH, Nischninovgorod, Kanavino, Russia. Original application filed Jan. 12, 1911, Serial No. 602,322. Divided and this application filed July 19, 1911. Serial No. 639,451. (Cl. 23—28.)



1. The herein described process of producing a catalyst which consists in dissolving a suitable metallic contact-substance in an acid, admixing therewith an insoluble porous inorganic substance, transforming the metal-salt into the carbonate by means of carbonate of soda, heating the base impregnated with carbonate of the catalytic metal to a temperature sufficient to convert the carbonate into oxid, and reducing the oxid obtained thereby to form a base and a pyrophoric metal which envelops the inorganic carrier, and grinding the said pyrophoric metal with oil to form a mixture similar in character to an emulsion.

2. The herein described process of producing a catalyst which consists in dissolving a suitable metallic contact-substance in an acid, admixing therewith about double the amount of an insoluble porous inorganic substance, transforming the metal salt into the carbonate, heating the base impregnated with carbonate of the catalytic metal to a temperature sufficient to convert the carbonate into oxid, and reducing the oxid obtained thereby to form a base and a pyrophoric metal which envelops the inorganic carrier, and grinding the said pyrophoric metal with oil to form a mixture similar in character to an emulsion.

3. The herein described process of producing a catalyst which consists in dissolving a suitable metallic contact-substance in an acid, admixing therewith a solid inorganic substance, transforming the metal-salt into the carbonate, heating the base impregnated with carbonate of the catalytic metal to a temperature sufficient to convert the carbonate into oxid, reducing the oxid obtained thereby by means by hydrogen to form a base and a pyrophoric metal which envelops the inorganic carrier, and grinding the said pyrophoric metal with oil to form a mixture similar in character to an emulsion.

1,029,902. EGG-SEPARATOR. OTTO H. WILLARD, Chicago, Ill. Filed Oct. 19, 1910. Serial No. 587,827. (Cl. 65—12.)



1. An egg separator comprising a separable frame, a receptacle adapted to be supported on said frame in an inclined position, said receptacle having a bottom concave at one end and inclined upward at the other, a spout for the receptacle, and means for varying the inclination of the receptacle.

2. An egg separator comprising an oblong receptacle having a bottom provided with a concavity at one end and inclined upward at the other, a spout for the receptacle, a handle, a frame adapted to support the receptacle in an inclined position, said frame consisting of sections separably connected, and cross members supporting said receptacle.

3. An egg separator comprising an oblong receptacle having a concavity at one end and an inclined flat surface at the other, a spout forming an outlet adjacent the said concavity, a handle, a frame adapted to support the receptacle said frame composed of wire bent to form rectangular sections, eyes on one of said sections adapted to be removably engaged by the other section, a cross-bar fixed on one section, and a movable cross bar on the other section.

4. A device of the character described comprising an oblong receptacle open throughout its entire area and having a handle at one end and a spout at the opposite end, and having its bottom gradually inclined downwardly from the handle end to a point near the spout, and with its wall from the deepest point to the spout at an abrupt angle with the bottom of said spout.

1,029,903. SPARKING DEVICE FOR INTERNAL-COMBUSTION ENGINES. CHARLE C. WILLIAMS, Cleveland, Ohio, assignor to The G. H. Williams Company, Cleveland, Ohio, a Corporation of Ohio. Filed Dec. 11, 1909. Serial No. 532,527. (Cl. 123—166.)

1. In a sparking device for internal combustion engines, the combination of an oscillatory contact member ar-

ranged to have a neutral position and movable in both directions laterally from said position; a second contact member normally out of contact with said oscillatory member; and a member adapted to intermittently engage and disengage said oscillatory member, whereby said two contact members are caused to engage each other, the engagement of said engaging member with said oscillatory member being such as to effect the movement of the latter away from said second contact member; said oscillatory member being free from electrical connection during such last-described movement.



2. In a sparking device for internal combustion engines, the combination of an oscillatory contact member arranged to normally occupy a neutral position, movable in both directions laterally from said position, and provided with a yielding portion; a second and stationary contact member normally out of contact with said oscillatory member, and lying in the path of oscillation of said yielding portion of the oscillatory member; and a member adapted to intermittently engage and disengage said oscillatory member to effect its oscillation in both directions laterally of said neutral position, whereby said yielding portion is caused to intermittently engage said stationary contact member; said oscillatory member being free from electrical connection during its oscillatory movement away from said latter member; said engaging means being adapted to effect the positive movement of said oscillatory contact member away from said stationary contact member, the latter being always out of engagement with said oscillatory contact member during such movement.

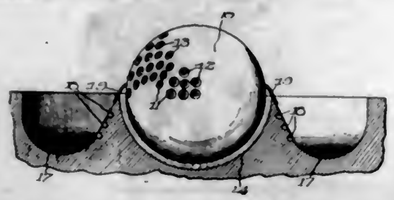
3. In a sparking device for internal combustion engines, the combination of an oscillatory contact member, spring means tending to impart to said member a neutral position, and arranged to permit it to move in both directions laterally of said neutral position and against the action of said spring means; a member adapted to intermittently engage and disengage said oscillatory member; and a stationary contact member lying in the path of said oscillatory member, normally out of engagement therewith, the movement imparted to the oscillatory member by the engagement of the engaging member being in a direction away from said stationary member; said oscillatory member being free from electrical connection during its movement away from said stationary member.

4. In a sparking device for internal combustion engines, the combination of an oscillatory contact member; means tending to impart to said member a neutral position while allowing it to move in both directions laterally of said position and in opposition to said means; a member adapted to intermittently engage and disengage said oscillatory member, whereby such movement in both directions is effected; and a second contact member lying in the path of oscillation of said oscillatory contact member; one of said contact members being provided with a yielding member comprising the contact portion thereof; said oscillatory member being free from electrical connection during its movement away from such second contact member; said engaging means being adapted to effect the positive movement of said oscillatory contact member away from said stationary contact member, the latter being always out of engagement with said oscillatory contact member during such movement.

5. In a sparking device for internal combustion engines, the combination of a suitable housing member; an oscillatory contact member mounted on said member; a coil-spring having one of its ends secured to said housing member and its other end secured to said oscillatory member; a second contact member; said spring adapted to impart to said oscillatory member a normal position in which it is out of contact with said second contact member, and whereby it may be moved toward and from the latter in opposition to such spring; and a member adapted to intermittently engage said oscillatory member to move same away from said second-named contact member, whereby such oscillatory member is intermittently released and impelled toward said second-named contact member by the action of said spring.

[Claim 6 not printed in the Gazette.]

1,029,904. AMUSEMENT DEVICE. NICHOLAS W. ALLEGRETTI, Chicago, Ill. Filed July 10, 1911. Serial No. 637,698. (Cl. 46—72.)



1. An amusement device comprising a freely rotatable member provided with means to rotate it in any direction.

2. An amusement device comprising a body free to rotate in any direction and provided with means whereby it may be rotated in any direction.

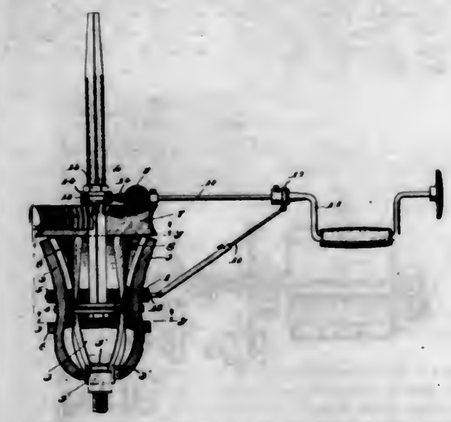
3. An amusement device comprising a body confined as to location and free to rotate in any direction, and provided with means to rotate it in any direction.

4. An amusement device of the class described, comprising a spherical body, and confining means therefor, the said body being freely rotatable in all directions in said confining means.

5. An amusement device of the class described comprising a spherical body provided with engaging devices, and confining means to retain the body in a given location and at the same time to permit it to be freely rotated in any direction.

[Claims 6 to 20 not printed in the Gazette.]

1,029,905. WRENCH. GEORGE ANDERSEN, Chicago, Ill. Filed Sept. 20, 1911. Serial No. 650,432. (Cl. 81—113.)



1. In a wrench, the combination of a circular fulcrum member; a plurality of longitudinally curved jaw members arranged about said fulcrum member and adapted to be tilted thereon; and means arranged around said jaw members for maintaining the latter in various tilted positions, substantially as described.

2. In a wrench, the combination of a fulcrum member; a plurality of jaw members arranged about said fulcrum member and adapted to be tilted thereon; and means arranged around said jaw members and in screw-threaded connection therewith for maintaining said jaw members in various tilted positions, substantially as described.

3. In a wrench, the combination of a fulcrum member; a plurality of jaw members arranged about said fulcrum member and adapted to be tilted thereon; and two nuts arranged around and in screw-threaded connection with said jaw members for adjustably maintaining said jaw members in various tilted positions, substantially as described.

4. In a wrench, the combination of a disk having an axial stem; jaw members arranged about said disk and adapted to be tilted thereon; means arranged around and in threaded connection with said jaw members for adjustably maintaining the latter in various tilted positions; and means adapted for engagement between adjacent of said jaw members for connecting the latter with said stem, substantially as described.

5. In a wrench, the combination of a disk having an axial stem; jaw members arranged about said disk and adapted to be tilted thereon; means arranged around and in threaded connection with said jaw members for adjustably maintaining the latter in various tilted positions; and tapering means adapted for engagement between adjacent of said jaw members for conpecting the latter with said stem, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

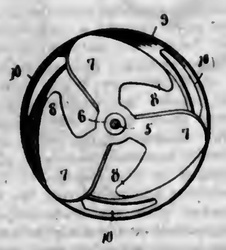
1,029,906. DISH-DRAINER. CHARLES ANDREWS, Jr., Rockford, Ill., assignor to Andrews Wire & Iron Works, Rockford, Ill., a Corporation of Illinois. Filed Mar. 9, 1911. Serial No. 613,667. (Cl. 141—11.)



1. A dish drainer, having an open top and comprising a frame and a bottom secured to the frame and composed of crossed interwoven wires, the wires that extend in one direction having their central portions upwardly bowed and their terminal portions substantially flat, each bowed portion constituting a dish stop or abutment both at the ends and sides of said bowed portion.

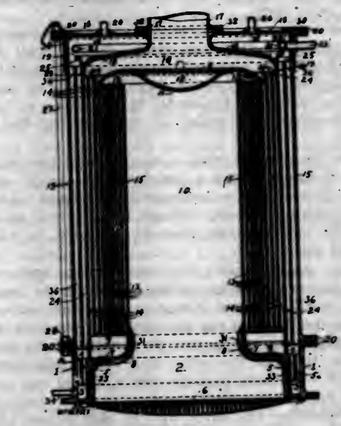
2. A dish drainer, having an open top and comprising a frame and a bottom secured to the frame and composed of longitudinal wires, the central longitudinal wires being spaced farther apart than the remaining longitudinal wires, and transverse wires crossing the longitudinal wires and interwoven therewith, said transverse wires having their central portions bridging the space between the central longitudinal wires upwardly bowed above the plane of said wires, each bowed portion constituting a dish stop or abutment both at the ends and sides of said bowed portion.

1,029,907. PROPELLER-WHEEL. JOHN F. ARNOLD, Waterbury, Conn. Filed Feb. 12, 1912. Serial No. 677,061. (Cl. 115—48.)



The combination in a propeller of the class described, of a hub and series of blades having extended rear end portions and a conical shaped annular band surrounding and engaging the edge portion of the blades, and having an opening through the said band between each of the said blades and in line with the operative engaging face of each of said blades.

1,029,908. STEAM-BOILER OR FLUID-HEATER. ISRAEL BENJAMINS, New York, N. Y. Filed July 18, 1911. Serial No. 639,254. (Cl. 122—4.)



1. A boiler or fluid heater having multiple passages formed in a block or casting the said passages being adapted to act as heat absorbing surfaces.

2. A boiler or fluid heater having multiple passages formed in a block or casting the said passages being adapted to act as heat emitting surfaces.

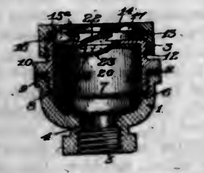
3. A boiler or fluid heater consisting of sections secured together and having multiple passages honeycombed in one or more of the said sections, the said passages being adapted to act as heat absorbing surfaces.

4. A boiler or fluid heater consisting of sections secured together, and having multiple passages honeycombed in one or more of the said sections, the said passages being adapted to act as heat emitting surfaces.

5. A boiler or fluid heater consisting of sections secured together, and having a set or sets of passages honeycombed in one or more of the said sections the said set or sets of passages being adapted to act as heat absorbing surfaces, and another set or sets of passages adapted to act as heat emitting surfaces.

[Claims 6 to 25 not printed in the Gazette.]

1,029,909. SPRAY-NOZZLE. EDWARD C. BROWN, Rochester, N. Y. Filed Jan. 3, 1910. Serial No. 536,096. (Cl. 137—86.)



1. In a spray nozzle, the combination with an annular chamber having a concentric discharge orifice in one wall thereof and an intake passage in the opposite wall, a portion of a wall of said passage being extended to project within the chamber at an angle to direct the flow therethrough substantially at a tangent to the chamber, of a closure for the passage, the said closure and chamber wall being relatively movable to increase or diminish the flow through the passage.

2. In a spray nozzle, the combination with an annular chamber having a concentric discharge orifice in one wall thereof, a direct intake passage extending in substantially the same direction as the first in the opposite wall and a second intake passage in the latter, a portion of a wall of which is extended to project within the chamber at an angle to direct the flow therethrough substantially at a tangent to the chamber, of a closure for both passages, the said closure and chamber wall being relatively movable to increase or diminish the flow through either passage, selectively.

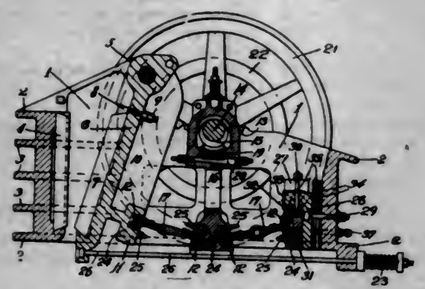
3. A spray nozzle comprising an annular chamber having a concentric discharge orifice in one wall thereof, and a tangentially arranged intake passage extending obliquely through the opposite wall, the walls of said passage being relatively adjustable in the plane of the wall of the chamber to increase or diminish the flow therethrough.

4. The combination with a spray nozzle comprising an annular chamber having a concentric discharge orifice in one wall thereof and a tangentially arranged intake passage extending obliquely through the opposite wall, of a closure for said passage pivotally mounted on said last mentioned wall.

5. In a spray nozzle, the combination with a body member having a supply passage entering the same and provided with an inner flange or shoulder, of a screen seated on the flange, a cap threaded into the body member and exerting pressure against the margin of the screen to hold it on its seat, the outer wall of the cap being provided with a diagonal passage, and a second cap having a threaded engagement with the first to form therewith an annular chamber, the outer wall of said second cap having a discharge orifice concentric to the chamber and the passage in the corresponding wall of the first being arranged to enter the chamber at a tangent.

[Claim 6 not printed in the Gazette.]

1,029,910. CRUSHING-MACHINE. CHARLES G. BUCHANAN, Brooklyn, N. Y. Filed Oct. 30, 1907, Serial No. 399,882. Renewed Sept. 28, 1910. Serial No. 584,309. (Cl. 83—53.)



1. In combination with a frame of a crushing machine, an abutment block, means for adjustably supporting said block relative to said frame including one or more shims disposed in a substantially vertical plane, one or more shims disposed in a plane transverse to the vertical, and an angle plate for retaining the latter shim or shims, crushing means, and means for operating said crushing means and bearing against said abutment block.

2. In a crushing machine, the combination with a frame having sides and front and rear ends about an interior opening, lugs extending from opposite sides of said frame into the interior thereof, a movable crushing jaw mounted on said frame, means for moving said jaw to perform the crushing operation, an abutment block against which said means bears, said block being beneath said lugs and thrusting against said lugs and the rear end of said frame, said block having a vertical rear bearing-surface so that it may slide vertically on the surface against which it contacts, and one or more shims interposed between said block and said lugs, substantially as described.

3. In a crushing machine, the combination with a rectangular open frame having interior abutment projections adjacent the rear end, and a vertical face on the rear end adjacent and below said projections, of a relatively stationary jaw mounted at the front end of said frame, an intermediately mounted swinging jaw, toggle means for actuating said swinging jaw disposed between said swinging jaw and the rear end of the frame, an adjustable abutment block engaged by the rear end of the toggle and located adjacent said vertical face of the rear end of the frame and below said abutment projections, and shims interposed between the upper surface of the block and the interior abutment projections and the rear surface of the block and the vertical face of the rear end of the frame for independently adjusting the block and toggle vertically and horizontally.

4. The combination with a frame of a crushing machine, of an abutment block, an L shaped block interposed between said abutment block and said frame, and means for adjustably supporting said abutment block by said frame comprising shims interposed between one leg of said L shaped block and said frame and shims interposed between said abutment block and the other leg of said L shaped block.

5. The combination with a frame of a crushing machine, of an abutment block, an L shaped block interposed between said abutment block and said frame, said L shaped block having one leg vertical and the other leg horizontal, lugs extending from the sides of said frame, bolts extending through the end of said frame and into the vertical leg of said L shaped block, bolts extending through said lugs and into said abutment block, shims between the horizontal leg of said L shaped block and said abutment block and shims between the vertical leg of said L shaped block and said frame.

1,029,911. RAZOR-STROPPING MACHINE. ISIDOR BUCHLER, New York, N. Y. Filed Jan. 17, 1912. Serial No. 671,693. (Cl. 51—16.)



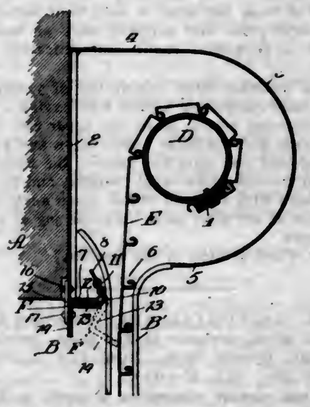
1. A razor stropping machine comprising a main frame, a spirally grooved shaft therein, a rockable friction roller mounted in said frame, an endwise movable pivotally mounted blade-holder having a part engaged in the spiral groove of said shaft, a strop folded over said roller, shaft and holder, means for transmitting motion from said roller to said shaft during the alternate outward movements of the reaches of the strop actuating said roller, and a pivotally mounted transverse plate extending between and engaged by the reaches of the strop and having a slot receiving and permitting the travel therein of a part connected with the blade-holder, said plate serving on the actuation of the strop to rock said blade holder toward the reach thereof moving outwardly.

2. A razor stropping machine comprising a main frame, a spirally grooved shaft therein, a rockable friction roller mounted in said frame, an endwise movable pivotally mounted blade-holder having a part engaged in the spiral groove of said shaft, a strip folded over said roller, shaft and holder, means for transmitting motion from said roller to said shaft during the alternate outward movements of the reaches of the strop actuating said roller, and a transverse plate having upwardly extending end ears freely hung on the shaft ends of said roller and said plate extending between and being engaged by the reaches of the strop and having a slot receiving and permitting the travel therein of a part connected with the blade-holder, said plate serving on the actuation of the strop to rock said blade holder toward the reach thereof moving outwardly.

3. A razor stropping machine comprising a main frame, a spirally grooved shaft therein, a rockable friction roller mounted in said frame, an endwise movable blade holder having a shank portion provided with a sleeve encompassing said shaft and having a stud engaged in the spiral groove thereof to effect endwise travel of said holder during the motion of said shaft, a strop folded over said roller, shaft and holder, means for transmitting motion from said roller to said shaft during the alternate outward movements of the reaches of the strop actuating said roller, means to be actuated by the strop for turning the blade-holder to the reach of the strop pulled outwardly, springs (30) connected with the blade-hloder, and rods (31) connected with said main frame and serving as stops and guides for said springs and blade-holder.

4. A razor stropping machine comprising a main frame, a spirally grooved shaft therein, a rockable friction roller mounted in said frame, an endwise movable blade holder having a shank portion provided with a sleeve encompassing said shaft and having a stud engaged in the spiral groove thereof to effect endwise travel of said holder during the motion of said shaft, a strop folded over said roller, shaft and holder, means for transmitting motion from said roller to said shaft during the alternate outward movements of the reaches of the strop actuating said roller, a pivotally mounted transverse plate extending between and engaged by the reaches of the strop and having a slot receiving and permitting the travel therein of a part connected with said blade-holder, springs (30) connected with the blade-holder, and rods (31) connected with said main frame and serving as stops and guides for said springs and blade-holder, said plate serving on the actuation of the strop to rock said blade-holder toward the reach thereof moving outwardly.

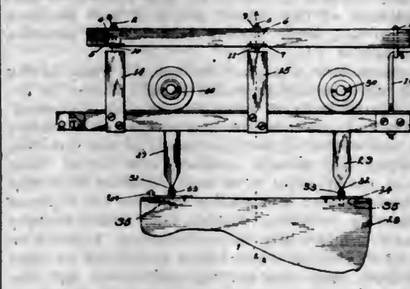
1,029,912. FIRE-DOOR. THOMAS E. COLLINS, Chicago, Ill. Filed Aug. 1, 1910. Serial No. 574,861. (Cl. 189—45.)



1. In means of the character set forth, the combination with a fire-wall provided with an opening, of a housing mounted at one side of said wall above said opening, said housing having its rear wall provided at its lower portion with an inwardly projecting flange and said housing having a fire-curtain passage in front of said flange, an angle-form shutter having a downwardly turned flange and having also a forwardly projecting flange pivotally connected with said first-named flange adjacent the curtain-passage, a fusible link attached at one end to the downwardly extending flange of the shutter and at the other end to the rear wall of the housing, whereby said shutter is normally restrained from moving to the closing position, a roll mounted in said housing, and a fire-curtain connected with said roll and extending through said curtain-passage.

2. In means of the character set forth, the combination with a fire-wall provided with an opening, of a housing mounted at one side of said wall above said opening, said housing having its rear wall provided at its lower portion with an inwardly projecting flange and having an upwardly and rearwardly inclined flange carried thereby, and said housing having a fire-curtain passage in front of said flanges, an angle-form shutter having a downwardly projecting flange and having also a forwardly projecting flange, hinges connected with the last-named flange of said housing and with the forwardly projecting flange of said shutter, a fusible link attached at one end to the downwardly extending flange of the shutter and at the other end to the rear wall of the housing, whereby said shutter is normally restrained from moving to the closing position, a roll mounted in said housing, and a fire-curtain connected with said roll and extending through said curtain-passage.

1,029,913. DOOR-HANGER. ZACHARY TAYLOR CREGO, Columbus, Ohio. Filed Feb. 16, 1911. Serial No. 608,994. (Cl. 16—90.)

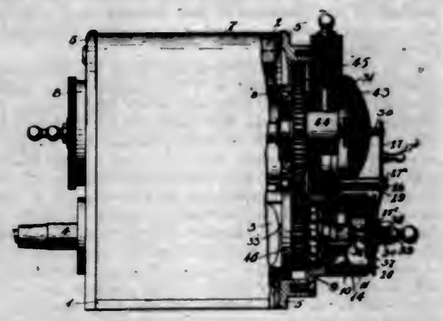


A door hanger comprising a track supporting element, spaced vertically adjustable pins, a staple adjustably supported at one end of the track supporting element, a trackway, inverted U-shaped hanger straps supporting said trackway at their lower ends and supported from said spaced vertically adjustable pins, a vertically adjustable hook carried upon the extreme inner end of said track and adapted for detachable support from said staple, rollers operating on said trackway, a sliding door, hook members detachably grasping the axles of said rollers, and collars rotatably mounted on said door and having a threaded adjustment connection with said hook members.

1,029,914. MAGNETO INTERRUPTER AND TIMER. CHARLES CUNO, Meriden, Conn., assignor to The Connecticut Telephone & Electric Company, Incorporated, Meriden, Conn., a Corporation of Connecticut. Filed Jan. 11, 1910. Serial No. 537,412. (Cl. 123—149.)

1. An interrupter for ignition mechanism, comprising in combination a fixed contact member, a movable contact member, means for actuating said movable member, a shiftable carrier for said members having an open front, means whereby said contact members may be shifted on said carrier to adapt said interrupter for right and left drive, and a cap covering the open front of said carrier removable to permit inspection of the entire interrupter mechanism when in operative position.

2. An interrupter for ignition mechanism, comprising a fixed contact member, a movable contact member, means for operating said movable member, a ring carrier for said members having an open central shaft passage, said members being located on the exposed side of said carrier, a bearing for said carrier, said carrier, together with said contact members, being adapted to be removed bodily from said bearing.



3. An interrupter for ignition mechanism, comprising in combination a fixed contact member, a movable contact member, means for operating said movable member, a carrier for said members, a bearing for said carrier constructed and arranged to permit the removal of said carrier and members bodily therefrom, and apertures in the side wall of said carrier normally covered by said bearing and rendered accessible by such removal to permit adjustment of the contact points of said members relatively to each other without removing the members from said carrier.

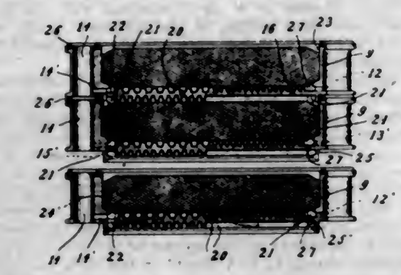
4. In combination, a magneto including a frame having a bearing, an armature journaled in said frame, an interrupter carrier mounted in said bearing and surrounding the shaft of said armature and carrying two contact members, one of which is movable, means on said armature for operating said movable member, said carrier being constructed and arranged to be bodily removed from said bearing together with said contact members and replaced in said bearing in reverse position, and means whereby said contact members may be simultaneously adjusted on said carrier to adapt said interrupter mechanism for right and left drive, means for shifting said carrier and contact members in either position, with respect to said shaft, for timing purposes, and means for limiting such shifting movement in either position.

5. In combination, a magneto including a frame having a bearing and an armature, a carrier having an open front mounted in said bearing and surrounding the shaft of said armature, a support shiftable in said carrier, a fixed contact member and a movable contact member carried on the outer side of said support, means on said shaft for operating said movable member, and means to establish the position of said shiftable support on said carrier for either a right or left drive, said carrier being constructed and arranged to permit the inspection of the interrupter mechanism when in operative position.

[Claims 6 to 21 not printed in the Gazette.]

1,029,915. FILTER. BENNO DANZIGER, Mannheim, Germany, assignor to Nathan H. Heyman, New York, N. Y. Filed July 12, 1911. Serial No. 638,062. (Cl. 210—13.)

1. In a sectional filter, a filter element consisting of a shell wall with a liquid passage and a bottom plate permanently secured thereto and provided on both sides with ribs in direct contact with the pulp affording a multiplicity of narrow conducting channels in its surfaces, and peripheral canals serving said channels, the upper rim of said wall formed with an exterior rabbet-tenon and an interior rabbet-groove or recess and jog and the lower rim thereof formed with an interior rabbet-tenon of materially less depth than the said rabbet-groove and adapted to fit inside the exterior rabbet-tenon of a similar juxtaposed filter element to form a filter drum, said jog and interior rabbet-tenon being respectively in planes above and below the opposite ribbed sides of the bottom plate and constituting clamps for the marginal portions of filter layers which are thus compressed between planes removed from the ribbed sides of the plates.



2. In a sectional filter, two filter elements constituting sections thereof and each consisting of a shell wall having a bottom plate permanently secured thereto and provided with ribs affording a multiplicity of narrow conducting channels in its surface, the upper rim of said wall formed with an exterior tenon and an interior recess and the lower rim thereof formed with an interior rabbet-tenon of materially less depth than the said recess, in combination with a layer of filtering material filling the chamber between said plates and contacting directly with both, the interior rabbet-tenon of one shell fitting inside the exterior tenon of the other shell, and the margin of said filter layer being compressed between said interior rabbet-tenon and the bottom of said recess to a thickness materially less than the body of the layer so as to be offset from said ribs and rendered practically impervious.

3. In a sectional filter, a pap-shaped filter element consisting of a shell wall having a bottom plate ribbed in its central portion and provided with a peripheral liquid canal, the upper rim of the shell formed with an outer rabbet-tenon and an inner rabbet groove providing a jog above the said canal, and the lower rim formed of an inner rabbet-tenon of less depth than said groove and adapted to fit in the upper rabbet grooves of other like elements.

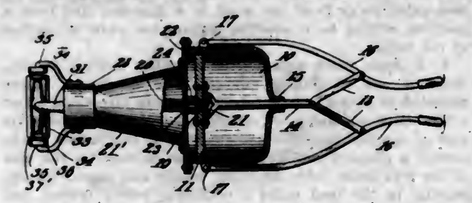
4. In a sectional filter, a pulp-containing filter element comprising a bottom plate having non-uniform bearing upon the pulp, thereby providing channels for conducting liquid to or from the same, a shell wall surrounding the edge of said plate and supplied with an under-cut jog providing a peripheral canal communicating with said channels.

5. In a sectional filter, a plurality of juxtaposed filter elements each comprising a shell wall having a permanent liquid-conducting bottom plate, the upper rim of said wall being formed with an outer rabbet-tenon and an inner jog projecting over the marginal face of the bottom-plate to form a liquid-conducting canal therefor, and the lower rim being formed with an inner rabbet tenon adapted to clamp the margin of the filter mass upon the jog of an adjacent like element.

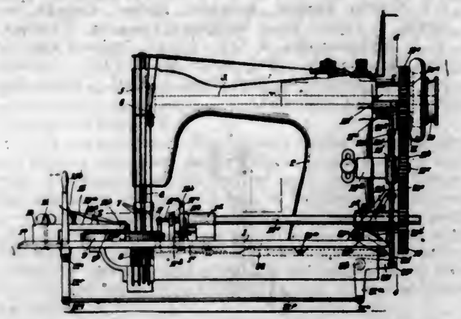
[Claim 6 not printed in the Gazette.]

1,029,916. VACUUM-CLEANER. CONSTANT DE MATTIA, Detroit, Mich., assignor to Red Cross Vacuum Cleaner Company, Detroit, Mich. Filed July 7, 1911. Serial No. 637,280. (Cl. 15—60.)

A vacuum cleaner comprising a pump, a filter casing connected to and communicating with said pump, a cap forming a removable closure for the lower end of said filter casing, a pair of spaced arms extending from said cap, their lower ends being inwardly extended, a roller journaled on each of said ends, a nozzle, and a flexible pipe connecting said nozzle with said cap, said nozzle being provided with uprights having slots which receive the ends of said arms.



1,029,917. SEWING-MACHINE ATTACHMENT. WILLIAM G. DUNHAM, East Lansdowne, Pa. Filed Feb. 16, 1911. Serial No. 608,968. (Cl. 112—32.)



1. In a sewing machine, a revoluble holder comprising a pair of engaging members having a circular slot therein, in combination with a reciprocating needle adapted to act in said slot.

2. In a sewing machine, a revoluble card holder having one or more circular slots therein and said holder comprising a detachable disk, in combination with sewing mechanism comprising one or more needles adapted for registration with said slot or slots and sewing through said card.

3. In a sewing machine, a revoluble holder having a circular slot therein and means for clamping articles in engagement with a support therefor, in combination with mechanism for revolving said holder, sewing mechanism adapted for stitching said articles to said support, and means for operating said mechanisms in unison.

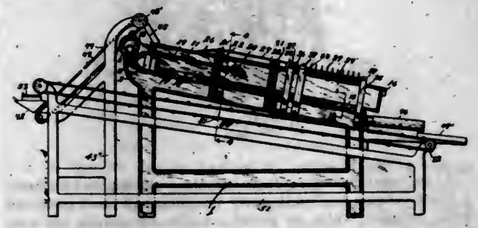
4. In a sewing machine, a revoluble holder provided with circular slots, seats for holding articles, and means for engaging a card in conjunction with said articles, in combination with sewing mechanism comprising needles adapted to act in said slots whereby said card and articles are sewed together.

5. In a sewing machine, a holder having a circular slot and a journal bearing, a movable arbor adapted to engage said bearing, and means whereby said arbor can be inserted and withdrawn, in combination with means for revolving said holder and means for stitching together articles carried by said holder.

[Claims 6 to 13 not printed in the Gazette.]

1,029,918. MACHINE FOR STEMMING CHERRIES. MELVILLE E. DUNKLEY, Kalamazoo, Mich. Filed Oct. 16, 1911. Serial No. 655,027. (Cl. 130—30.)

1. In a machine for stemming fruit, such as cherries, the combination of a suitable frame; pairs of inclined stripper rolls disposed longitudinally thereof; a driving means therefor; a shaker table disposed above such rolls divided into longitudinal troughs with open bottoms in line with the meeting surfaces of said stripper rolls; guide means for said shaker table; suitable connections for shaking the said table by longitudinal reciprocation to advance the fruit; transverse revoluble shafts above said shaker table with striking fingers for upsetting the fruit to throw the stems between the stripper rolls; and longitudinal shafts disposed above the contact line of a portion of the length of said stripper rolls with rotary cutters thereon transverse to said rolls, and combs associated with said cutters for snipping the stems to divide any passing bunches of fruit, all coacting substantially as described and for the purpose specified.



2. In a machine for stemming fruit, such as cherries, the combination of a suitable frame; pairs of inclined stripper rolls disposed longitudinally thereof; a driving means therefor; a shaker table disposed above such rolls divided into longitudinal troughs with open bottoms in line with the meeting surfaces of said stripper rolls; guide means for said shaker table; suitable connections for shaking the said table by longitudinal reciprocation to advance the fruit; and transverse revoluble shafts above said shaker table with striking fingers for upsetting the fruit to throw the stems between the stripper rolls, all coacting substantially as described and for the purpose specified.

3. In a machine for stemming fruit, such as cherries, the combination of a suitable frame; pairs of inclined stripper rolls disposed longitudinally thereof; a driving means therefor; a shaker table disposed above such rolls divided into longitudinal troughs with open bottoms in line with the meeting surfaces of said stripper rolls; guide means for said shaker table; and suitable connections for shaking the said table by longitudinal reciprocation to advance the fruit, all coacting substantially as described and for the purpose specified.

4. In a machine for stemming fruit, such as cherries, the combination of a suitable frame; pairs of inclined stripper rolls disposed longitudinally thereof; a driving means therefor; a shaker table disposed above such rolls divided into longitudinal troughs with open bottoms in line with the meeting surfaces of said stripper rolls; guide means for said shaker table; suitable connections for shaking the said table by longitudinal reciprocation to advance the fruit; and longitudinal shafts disposed above the contact line of a portion of the length of said stripper rolls with rotary cutters thereon transverse to said rolls, and combs associated with said cutters for snipping the stems to divide any passing bunches of fruit, all coacting substantially as described and for the purpose specified.

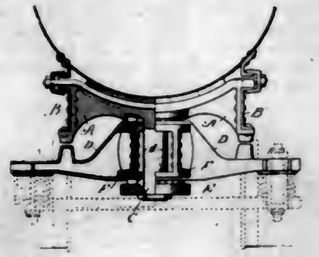
5. In a machine for stemming fruit, such as cherries, the combination of a suitable frame; pairs of inclined stripper rolls disposed longitudinally thereof; a driving means therefor; a shaker table disposed above such rolls divided into longitudinal troughs with open bottoms in line with the meeting surfaces of said stripper rolls; guide means for said shaker table; suitable connections for shaking the said table by longitudinal reciprocation to advance the fruit; and rotary cutters disposed above said troughs adapted to snip the upwardly projecting stems, all coacting substantially as described and for the purpose specified.

[Claims 6 to 19 not printed in the Gazette.]

1,029,919. CAR. MAX EPSTEIN, Chicago, Ill., assignor to The German American Car Company, Chicago, Ill., a Corporation of West Virginia. Filed Mar. 23, 1911. Serial No. 616,359. (Cl. 105—243.)

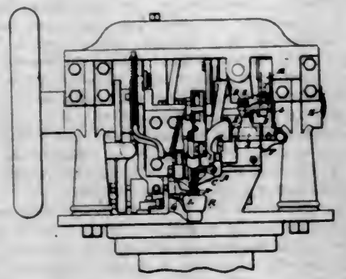
1. In combination a body-bolster, a truck-bolster pivoted thereto and having webs of metal parallel to each other

on the two sides of the pivots, parallel metal beams fastened to said webs and extending therefrom to the end of the car, and draft mechanism mounted between the ends of said beams.



2. In combination a body-bolster carrying a king-bolt, a truck-bolster mounted upon the king-bolt and provided with parallel webs of metal on the two sides thereof, beams attached to said parallel webs and extending therefrom to the end of the car and draft mechanism carried between said beams.

1,029,920. SHOE-SEWING MACHINE. ALFRED B. FOWLER, Duxbury, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Jan. 13, 1902, Serial No. 89,585. Divided and this application filed Apr. 8, 1909. Serial No. 488,597. (Cl. 112—20.)



1. A chain stitch shoe sewing machine, having, in combination, an oscillating curved hook needle, a looper, a tension, an oscillating feed point having its axis of oscillation parallel to the axis of oscillation of the needle, a channel guide engaging the channel on the side of the feed point away from the needle and means for moving the feed point and channel guide while in engagement with the work to feed the same and for moving said feed point away from the work while the channel guide is stationary in a diagonal line from a position within to a position beyond the path of motion of the looper, substantially as described.

2. A chain stitch shoe machine, having, in combination, an oscillating curved hook needle, a looper, a tension, an oscillating feed point having its axis of oscillation parallel to the axis of oscillation of the needle, a channel guide engaging the channel on the side of the feed point away from the needle and means for imparting to the feed point a combined bodily lateral and oscillating movement while the channel guide is stationary to cause it to move away from the work in a diagonal line from a position within to a position beyond the path of motion of the looper, substantially as described.

3. A chain stitch shoe sewing machine, having, in combination, a curved hook needle, a looper, a tension, a feed slide, a channel guide mounted on the feed slide and having a bodily lateral movement therewith, an oscillating feed point mounted upon and movable with the feed slide and having its axis of oscillation parallel to the axis of oscillation of the needle, and means for imparting to said feed point a bodily lateral movement independent of the feed slide and an oscillating movement to move the feed point away from the work in a diagonal line from a position within to a position beyond the path of motion of the looper.

4. A chain stitch shoe sewing machine, having, in combination, an oscillating curved hook needle, a looper mounted to rotate alternately in opposite directions about a fixed axis, a tension, an oscillating feed point having its axis of oscillation parallel to the axis of oscillation of the needle, a channel guide engaging the channel on the side of the feed point away from the needle and means for imparting to the feed point a combined bodily lateral and oscillating movement while the channel guide is stationary to cause it to move away from the work in a diagonal line from a position within to a position beyond the path of motion of the looper.

1,029,921. TAKE-UP FOR SEWING-MACHINES. FRANCIS JOSEPH FREESE, Montreal, Quebec, Canada, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Mar. 31, 1897, Serial No. 630,187. Divided and this application filed June 4, 1901. Serial No. 63,158. (Cl. 112—26.)



1. A take-up operating during the latter part of its take-up motion to set the stitch, and provided with means for locking the thread during such motion, and adjustable means for operating the locking means during a variable portion of the later part of the take-up motion.

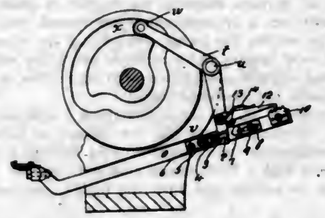
2. A take-up operating during the later part of its take-up motion to set the stitch, and comprising a lever, a thread truck carried thereby, means for oscillating the lever, means carried by the lever for locking the thread, and connections between the locking means and a fixed part of the machine acting to operate the locking means during the take-up motion of the take-up.

3. A stitch-setting take-up comprising a lever carrying a thread truck, means for oscillating the lever, a thread clamp mounted on the lever, and means acting during the take-up movement of the lever to cause the thread clamp and the thread truck to engage and lock the thread between them.

4. A take-up operating during the later part of its take-up motion to set the stitch, and comprising a single vibrating lever carrying a thread truck operating directly upon the thread running to the needle, and means operating during a part of the take-up motion to lock the thread against the thread truck, substantially as described.

1,029,922. WELT-GUIDE FOR SEWING-MACHINES. FRANCIS JOSEPH FREESE, Montreal, Quebec, Canada, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Mar. 31, 1897, Serial No. 630,187. Divided and this application filed June 4, 1901. Serial No. 63,159. (Cl. 112—9.)

1. A welt-guide consisting of a forwardly extending and upwardly curved rigid welt supporting section having its forward end set diagonally of the line of feed and rearwardly off-set, an adjustable gage consisting of a plate, the forward end whereof is set at an angle to the work and upwardly off-set, a gage consisting of an adjustable plate located between said first mentioned gage and the rigid welt supporting section and having its forward end beveled, means for retaining said gages in place and means for adjusting said gages, substantially as described and for the purpose set forth.



2. An adjustable and reciprocating welt-guide consisting of a forwardly extending and upwardly curved rigid welt supporting section having its forward end set diagonally of the line of feed and rearwardly off-set, an adjustable gage consisting of a plate the forward end whereof is set at an angle to the work and upwardly off-set, a gage consisting of an adjustable plate located between said first mentioned gage and the welt supporting section, means for retaining said gages in place, means for adjusting said gages, means for adjusting said welt-guide, and means for reciprocating same, substantially as described and for the purpose set forth.

3. In a sewing machine a suitably supported reciprocating slide, a welt-guide carried by the forward end of said slide, a suitably mounted vertical lever, means for vibrating said lever, the forward face of the lower end of said lever being horizontally recesses, a horizontally recessed stop carried by said slide, a helical spring having its ends located in the recesses in said lever and stop, and a stop carried by said slide and adapted to be engaged by the rear side of said lever, substantially as and for the purposes set forth.

4. In a sewing machine, a suitably supported reciprocating slide, a laterally adjustable welt-guide carried by the forward end of said slide, a suitably mounted vertical lever, means for vibrating said lever, the forward face of the lower end of said lever being horizontally recessed, a horizontally recessed stop carried by said slide, a helical spring having its ends located in the recesses in said lever and stop, and an adjustable stop carried by said slide and adapted to be engaged by the rear side of said lever, substantially as and for the purpose set forth.

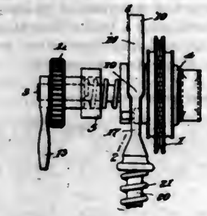
5. In a sewing machine, a welt guide having its rear side of semi-circular convex form and slotted, a welt guide carrying part having its forward side of semi-circular concave form and slotted at right angles to the slot in said guide, said semi-circular concavity adapted to receive said semi-circular convex side of the welt guide, said slots registering with one another and a screw-bolt adapted to take through said slots and into a retaining nut, substantially as and for the purpose set forth.

[Claims 6 to 21 not printed in the Gazette.]

1,029,923. TENSION DEVICE FOR SEWING-MACHINES. FRANCIS JOSEPH FREESE, Montreal, Quebec, Canada, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Mar. 31, 1897, Serial No. 630,187. Divided and this application filed June 4, 1901. Serial No. 63,160. (Cl. 112—39.)

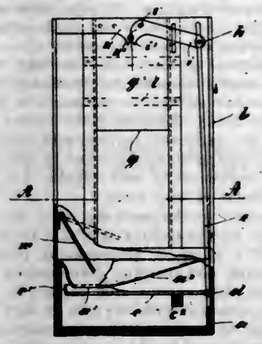
1. A tension device, having, in combination, a thread truck, a spring for applying resistance to the rotation thereof, and a member interposed between the truck and the spring and provided with two distinct portions of different but each of uniform thickness connected by a tapered portion, said member being movable to interpose either of said portions between the truck and the spring to increase or diminish the effect of the spring on the truck, substantially as described.

2. A tension device, having, in combination, a thread truck, friction washers mounted on opposite sides thereof, wedge members, a reciprocating wedge member located between them, said wedge members being provided with coöperating inclined faces and means for holding them from rotational movement with relation to each other, a spring for pressing the thread truck, washers and wedge members against each other, and means for reciprocating the wedge to release the action of the spring, substantially as described.



3. A tension device, having, in combination, a thread truck, a spring for applying rotational resistance thereto, and a wedge member interposed between the truck and the spring provided with a thinner portion and a thicker pressure-applying portion of uniform thickness, said member being movable to interpose the thinner portion or the thicker portion to diminish or increase the rotational resistance of the spring, substantially as described.

1,029,924. TRAP-NEST. HERRMANN GÜNZEL, Lodz, Prussia, Germany. Filed May 18, 1910. Serial No. 562,108. (Cl. 119—47.)

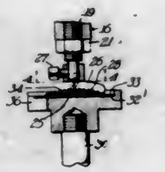


1. A trap-nest comprising a housing having an opening in one side, a self-closing door for the opening, a stud on the door, a detent for engaging said stud and holding the door in its open position, a nest within the housing and having an inclined bottom and an opening therethrough at the lowest point, a plate extending across and above the nest opening and spaced apart from the bottom of said nest, a movable receptacle underlying the nest opening and adapted to be operated by the weight of an egg which may be deposited in the nest and connections between said receptacle and detent for tripping the detent and allowing the door to close when the receptacle is operated.

2. A trap-nest comprising a housing having an opening for the passage of a fowl, a door for the opening, means for holding the door in its open position, a drawer in the bottom of the housing, a nest supported on said drawer and provided with an inclined bottom having an opening therein for the passage of an egg therethrough, a plate extending across and above the nest opening and spaced apart from the bottom thereof, a movable receptacle underlying the nest opening and adapted to be operated by the weight of an egg which may be deposited thereon and means brought into action by the movement of said receptacle for operating the door holding means to release the door and allow the latter to close by its own gravity.

3. A trap-nest comprising a housing having an opening in one side thereof for the passage of the fowl, a self-closing door for said opening, a stud on the door, a pivoted detent for engaging the stud and holding the door in its open position, a nest within the housing having an inclined bottom provided with an opening therethrough at its lowest point, a rocker arm having a receptacle underlying the nest opening and adapted to be operated by the weight of an egg therein, and a link connecting the rocker-arm to the detent for tripping the latter and releasing the door when the receptacle is depressed.

1,029,925. MACHINE FOR FORMING PAINT OR OTHER SIMILAR MATERIAL. JOHN W. HASBURG, Chicago, Ill. Filed Apr. 14, 1911. Serial No. 621,048. (Cl. 18—5.)



1. In a machine of the class described, the combination of a rotatable spindle, a tool secured to one end and projecting laterally from the axis thereof, a plate holder, carrying a plate, or palette, means for relatively moving said tool and plate, and axially adjustable means carried by said spindle controlled by the confronting surface of said plate, for limiting said movement.

2. In a machine of the class described, the combination of a rotatable spindle, longitudinally fixed, a tool secured to one end and projecting laterally from the axis thereof, a vertically movable plate holder, carrying a paite, means for vertically moving said plate holder and plate, and an adjustable stop carried by and coaxially arranged with reference to said spindle for limiting the vertical movement of said plate.

3. In a machine of the class described, the combination of a rotatable tool projecting laterally from its axis, in the nature of a sweep, a plate-bearing part, means for relatively moving said tool and plate-bearing part toward and from each other, and a stop carried by said spindle and coaxially arranged with the axis of said tool to limit said movement by contact with the confronting face of the plate to be carried by the plate bearing part.

4. In a machine of the class described, a rotatable tool projecting laterally from its axis and provided with a working edge, a plate bearing part for carrying a flat plate, means for relatively moving said tool and plate bearing part toward and from each other, whereby said tool will form in a mass deposited upon said flat plate, a circumferentially uniform, but radially uneven, surface, and an adjustable stop controlled by the upper surface of the plate for varying the approach of said tool and plate to determine the thickness of the mass deposited on said plate.

1,029,926. PAINT-PACKAGE. JOHN W. HASBURG, Chicago, Ill. Filed Feb. 29, 1912. Serial No. 680,673. (Cl. 41—4.)



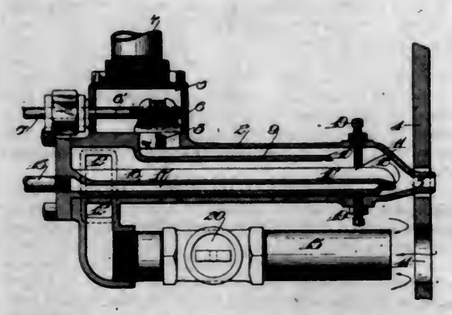
1. A package of the class described, comprising a box, a palette of vitreous material for deposit of paint thereon within said box, a transparent cover for said palette in contact with the edges thereof, a retainer engaging said cover and extending to the top of said box and a closure for said box, and cover.

2. A package of the class described comprising a box, a palette of vitreous material for deposit of paint thereon, within said box, a transparent cover raised near its middle zone to overlie the paint and having its edges in contact with said palette and a retainer overlying said palette and having friction association with the sides of the said box to retain the contents therein.

3. A package of the class described comprising a box, a palette of vitreous material for deposit of paint thereon, a transparent cover within said box and overlying said palette and a frictionally engaged retainer overlying said cover in association with the inside surfaces of said box.

4. A package of the class described comprising a box, a palette of vitreous material for deposit of paint thereon, within said box, an outwardly deflected cover for inclosing the said paint having its edges in contact with said palette, a retainer having an inwardly turned flange at its lower edge and in frictional contact with the inner surfaces of said cover to retain said palette in said box and engaging means for the removing of said retainer.

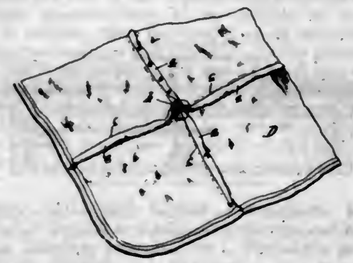
1,029,927. OIL-BURNER. JOSEPH J. HASKIN, Tucson, Ariz. Filed May 4, 1911. Serial No. 624,933. (Cl. 158—74.)



1. A hydrocarbon burner, comprising a casing having a tapering discharge mouth, and having an extended inclosed valve chest at one side, said casing having a port connecting with the valve chest, a valve controlling said port, a steam head extending longitudinally through the casing, the upper surface of said head being trough-shaped in cross section and the forward end of the head forming a contracted steam outlet back of the contracted mouth of the casing, means for sustaining and adjusting the forward end of the steam head, a steam pipe entering the rear portion of the steam head, said casing having a diaphragm spaced from a wall thereof and from the upper surface of the steam head, and leading from the oil port, and having its front end adapted to deliver oil onto the trough-shaped upper surface of the steam head, said casing having, also, a connection which leads into its rear portion above the steam head, and means for conducting the hot products of combustion from a furnace to said connection.

2. In a hydrocarbon burner, the combination of a casing having a tapering discharge mouth, valve controlled means for admitting oil to said casing, a steam head extending longitudinally through the casing, the upper surface of said head being trough-shaped in cross section and the forward end of the head forming a contracted steam outlet back of the contracted mouth of the casing, means for sustaining and adjusting the forward end of the steam head, a steam pipe entering the rear portion of the steam head, said casing having a diaphragm spaced from a wall thereof and from the upper surface of the steam head, said diaphragm having its front end adapted to deliver oil onto the trough shaped upper surface of the steam head, and means for conducting hot products of combustion from a furnace to the space at the rear portion of the steam head.

1,029,928. MATTRESS. JOHN L. HEFFNER, Peoria, Ill. Filed Jan. 18, 1912. Serial No. 671,801. (Cl. 5—13.)

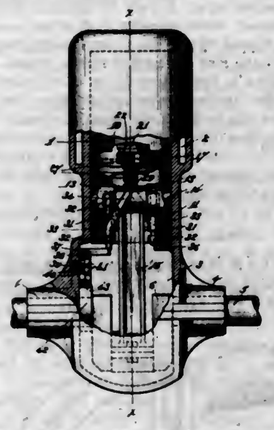


1. In a mattress, top and bottom coverings folded at intervals longitudinally and transversely intermediate its sides and ends, each fold being stitched to the covering its entire length except short interruptions in the stitches at the crossing points sufficient to provide a fullness adapted to be drawn down into the filler of the mattress.

2. In a mattress, top and bottom coverings folded at intervals longitudinally and transversely, said folds being sewed together with short interruptions in the stiches at the centering points sufficient to provide a fullness adapted to be drawn down into the filler of the mattress, said folds being stitched on a gradually curved line, gradually digressing from the edge of the fold from the centering points to the intermediate point between said centers.

3. In a mattress, a top and bottom covering provided with a plurality of transverse and longitudinal folds intermediate its sides and ends stitched their entire lengths except short interruptions at the crossing points to provide tufting centers, said tufting centers being adapted in both coverings to match exactly, side walls, and a suitable filler.

1,029,929. INTERNAL-COMBUSTION ENGINE. LUI F. HELLMANN, Indianapolis, Ind. Filed May 15, 1911. Serial No. 627,095. (Cl. 123—47.)

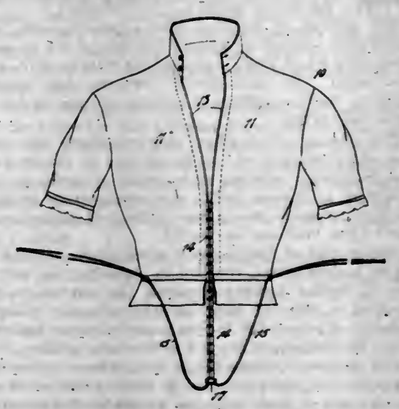


1. In a two-cycle internal combustion engine, a cylinder having an exhaust port and an inclosed crank case, in combination with a piston in said cylinder covering said exhaust port at all times, said piston being provided with an exhaust passage way opening through the top and one side thereof whereby communication may be established between said cylinder and said exhaust port, an exhaust valve controlling said passage way, an inlet port formed in said piston whereby communication may be established between said cylinder and said crank casing, an inlet valve controlling said port, means for opening said exhaust port toward the end of the power stroke and for closing the same before the end of the power stroke is reached and means for opening said inlet valve after said exhaust valve is closed, substantially as described.

2. In a two-cycle internal combustion engine, a cylinder having an exhaust port and an inclosed crank case, a fuel supply pipe leading to said case, a check valve in said pipe, a piston in said cylinder, said piston being provided with an exhaust passage way extending through the top and one side thereof adapted to form a communication between said cylinder and said exhaust port, and also with an inlet port adapted to form a communication between said cylinder and said crank case, an exhaust valve controlling said exhaust passage way, an inlet valve controlling said inlet port, depending valve stems on said valves and reciprocating members engaging said valve stems to operate said valves, and means for actuating said reciprocating members whereby the exhaust valve is opened toward the end of the power stroke and closed before reaching the end of said stroke to scavenge the cylinder and create a partial vacuum therein and whereby said inlet valve is opened after said exhaust valve is closed, substantially as described.

3. In a two-cycle internal combustion engine a cylinder provided with an exhaust port and an inclosed crank case, in combination with a fuel supply pipe leading to said case, a check valve in said pipe, a piston in said cylinder provided with an exhaust passage way adapted to form a communication between said cylinder and said exhaust port, said piston being also provided with an inlet port adapted to form a communication between said cylinder and said crank case, an exhaust valve controlling said exhaust passage way and an inlet valve controlling said inlet port, a pair of vertically disposed rods mounted in said piston for vertical reciprocation, depending valve stems on said valves, means on said rods for engaging said valve stems, a fixed abutment for the rod controlling the inlet valve, a reciprocating abutment for engaging the rod controlling the exhaust valve and means for reciprocating the last mentioned abutment, substantially as described.

1,029,930. GARMENT-CLOSER. JOSEPH HUGHES, New York, N. Y. Filed Oct. 6, 1911. Serial No. 653,115. (Cl. 24—207.)

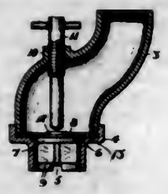


1. Closing means for garments and the like comprising beadings for the adjacent sections thereof and an elongated flexible clasp having grooves at its lateral ends to engage and slide on said beadings and being open at their outer edges to admit the thickness of the fabric carrying said beadings, and operating cords connected with said beadings to receive said clasp in its inoperative position and slide the same onto said beadings to its operative position.

2. Closing means for garments and the like comprising beadings for the adjacent sections thereof and an elongated flexible clasp having grooves at its lateral ends to engage and slide on said beadings and being open at their outer

edges to admit the thickness of the fabric carrying said beadings, operating cords connected with said beadings to receive said clasp in its inoperative position and slide the same onto said beadings to its operative position, and a follower strung on said cords at the lower end of said clasp to force the clasp to its operative position on the lateral pull of said cords in opposite directions.

1,029,931. CHECK-VALVE. AAGE JENSEN, Eureka, Cal. Filed Jan. 4, 1910. Serial No. 536,402. Renewed June 21, 1911. Serial No. 634,452. (Cl. 137—32.)



In a check valve, an upper casing section, the central line of which has an ogee curve, a lower casing section, said lower section being formed with a cylindrical upper portion for attachment to the upper section, a mediate portion forming a valve seat and a reduced lower portion, formed in its lower edges with notches for facilitating the screwing of said section and the entrance thereinto of liquid, a valve on said valve seat having a beveled face and depending vertical ribs adapted to engage the reduced portion of the lower section to guide the valve in its movement to and from said seat, the upper section being formed with an apertured boss in line with the axis of the lower section and the center of the valve seat, and a screw stop for the valve, screwed in said aperture, substantially as described.

1,029,932. PROCESS OF TREATING ZINC-BEARING ORE. JAMES O. JOHNSTONE, Buffalo, N. Y. Filed July 20, 1911. Serial No. 639,474. (Cl. 75—18.)

1. The process of treating ores containing zinc and barites which consists in heating the ore in the presence of a reducing agent which converts the barium sulfate to barium sulfid, and subsequently leaching the mixture whereby the barium sulfid will go into solution and leave insoluble zinc sulfid.

2. The process of treating ores containing zinc and barites which consists in heating the ore in the presence of a carbonaceous reducing agent which converts the barium sulfate to barium sulfid, and subsequently leaching the mixture whereby the barium sulfid will go into solution and leave insoluble zinc sulfid.

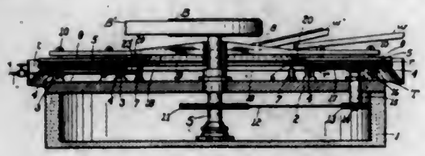
3. The process of treating ores containing a mixture of zinc and barites which consists in reducing the barium sulfate to barium sulfid by heating the mixture in the presence of a reducing agent and subsequently leaching the mixture, whereby the barium compounds are dissolved and the zinc compounds are left as insoluble sulfids.

4. The process of treating ores containing a mixture of zinc and barites which consists in heating the mixed ore to a red heat, or hotter, in the presence of a reducing agent which converts the barium sulfate to barium sulfid, and subsequently leaching the mixture with water whereby the barium sulfid goes into solution and the zinc content may be recovered in the form of insoluble zinc sulfid.

5. The process of treating ore containing a mixture of zinc and barites which consists in heating the mixture in the presence of a reducing agent which converts the barium sulfate to barium sulfid, then leaching the mixture, whereby the barium sulfid goes into solution, and then removing any barium carbonate present in the original ore or produced during the treatment by dissolving it in a dilute acid.

[Claims 6 to 9 not printed in the Gazette.]

1,029,933. ORE-CONCENTRATOR. LABAN E. JONES, Anaconda, Mont. Filed Apr. 10, 1912. Serial No. 689,845. (Cl. 83—87.)



1. In a concentrator, a pair of members provided with pulp distributing surfaces spaced vertically apart and permitting a free flow of the pulp over the lower member through said space, and means for advancing one of the members relatively over the other member and causing certain portions of the pulp to participate in such movement.

2. In a concentrator, a pair of members provided with pulp distributing surfaces spaced vertically apart, and permitting a free flow of the pulp over the lower member through said space, and means for advancing one member relatively over the other member and causing portions of the pulp adjacent to the moving member to participate in said movement.

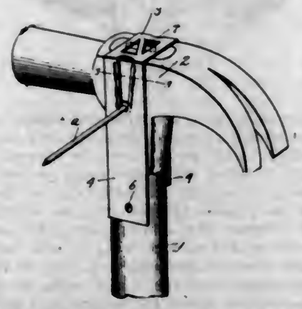
3. In a concentrator, a pair of disks disposed about a common vertical axis and spaced apart, the pulp flowing freely through said space over the lower disk, and means for rotating one of the disks about the opposite disk whereby the layers of the pulp adjacent the rotating disk participate in such rotation.

4. In a concentrator, a pair of disks disposed about a common vertical axis and spaced apart, means for imparting simultaneous rotation to the disks about said axis in opposite directions, and means disposed about said axis for feeding pulp into the space between the disks and directing the same outwardly toward the peripheries of the disks, the layers of pulp in contact with the disks participating in the respective directions of rotation of the disks and the concentrates depositing on the lower disk.

5. In a concentrator, a pair of annular disks disposed about a common vertical axis and superposed over one another and spaced apart, the bottom disk overlapping the upper disk on the side toward the axis, means for imparting to the disks a simultaneous rotation about said axis, in opposite directions, means for feeding pulp, an apron disposed above the inner overlapping portion of the bottom disk for directing the pulp into the space between the disks, means for washing the separated materials, and circumferentially spaced means for collecting the separated components of the pulp.

[Claims 6 to 15 not printed in the Gazette.]

1,029,934. CLAW-HAMMER ATTACHMENT. JAMES R. KIDD, Feeding Hills, Mass. Filed July 5, 1910. Serial No. 570,303. (Cl. 145—30.)



As a new article of manufacture, the herein described attachment for hammers, comprising a yoke formed from a single strip of sheet metal and adapted to be applied to the head of a hammer with the cross bar thereof extending across the end of the hammer and the arms extending along opposite sides of the handle to hold the device in position upon the handle, spurs being stamped from the cross bar and bent inwardly so as to be embedded in the end of the handle when the device is applied to a hammer, while the arms are provided with flared and longitudinally disposed slots which open through the ends of the before mentioned cross bar and have raised side flanges adapted to engage the head of the nail or like member.

1,029,935. TAG AND LABEL. FREDERICK KOHNLE, Dayton, Ohio, assignor to Theodore Meuche and Harry H. Prugh, trustees, Dayton, Ohio. Filed July 18, 1910. Serial No. 572,506. (Cl. 40—23.)



1. A tag provided with fastening means comprising a wire looped to bring the ends parallel with each other with said ends secured to the tag, the looped end formed with a hook bend adapted to receive the material to be tagged and to be folded therewith into bends, the loop forming the innermost bend.

2. A tag provided with fastening means comprising a bendable member, having an end secured to the tag, with its opposite end arranged to receive a material to be tagged and folded therewith into lapped bends upon the reverse side of the tag, with the fastening means secured and folded so as to conceal its ends.

1,029,936. METHOD OF ROLLING IRON OR STEEL SHEETS. ARTHUR J. MASKREY, Canton, Ohio, assignor of one-half to John E. Carnahan, Canton, Ohio. Filed Dec. 26, 1911. Serial No. 667,585. (Cl. 29—18.)

1. In hot rolling a pack of metal sheets, the process which consists in coating the sheets with a metallic oxid forming substance.

2. In hot rolling a pack of metal sheets, the process which consists in coating the sheets with a ferric oxid forming substance.

3. In hot rolling a pack of metal sheets, the process which consists in coating the sheets with a metallic salt to form a metallic oxid thereon.

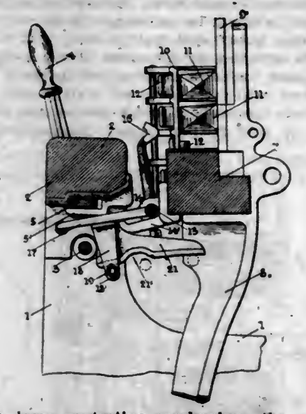
4. In hot rolling a pack of metal sheets, the process which consists in coating the sheets with a ferrous salt to form an iron oxid thereon.

5. In hot rolling a pack of metal sheets, the process which consists in dipping the sheets in a metallic salt solution and subsequently heating the sheets to form a coating of metallic oxid thereon.

[Claims 6 to 8 not printed in the Gazette.]

1,029,937. LOOM PROTECTING MECHANISM. BENJAMIN F. MCGUINESS, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Aug. 1, 1906. Serial No. 328,699. (Cl. 139—51.)

1. In a loom protecting mechanism, the combination with the protector rod, a binder finger fast thereon, and a dagger fast thereon, which is adapted to be moved to engage a bunter to knock off the loom, of means for positively relieving the pressure of the binder finger on a shuttle binder, said means comprising a stationary plate having an engaging surface with a recess or offset therein intermediate its ends and an arm connected to the dagger, and carrying a stud or roll to engage said plate.



2. In a loom protecting mechanism, the combination with the protector rod, a binder finger fast thereon, and a dagger fast thereon, which is adapted to be moved to engage a bunter to knock off the loom, of means for positively relieving the pressure of the binder finger on a shuttle binder, said means comprising a stationary plate having an engaging surface with two substantially straight portions, and a recessed portion intermediate said straight portions and an arm connected with the protecting mechanism, and carrying a stud or roll to engage said plate.

3. In a loom protecting mechanism, the combination with a protector rod, a binder finger fast thereon, a dagger fast thereon, to be moved to engage a bunter to knock off the loom, and said bunter, of means for positively relieving the pressure of the binder finger on a shuttle binder, said means comprising a stationary plate or stand extending inwardly toward the lay, and having an engaging surface, comprising two substantially straight portions with a recessed portion intermediate said straight portions, a downwardly extending arm secured to the dagger, and a roll on said arm adapted to travel on said engaging surface.

4. In a loom protecting mechanism, the combination with the protector rod, a binder finger fast thereon, and a dagger fast thereon, which is adapted to be moved to engage a bunter to stop the loom, of means for holding the binder finger in its inoperative position, and positively relieving its pressure on the shuttle binder, when the lay is in its rear position, and also when it is in its extreme forward position.

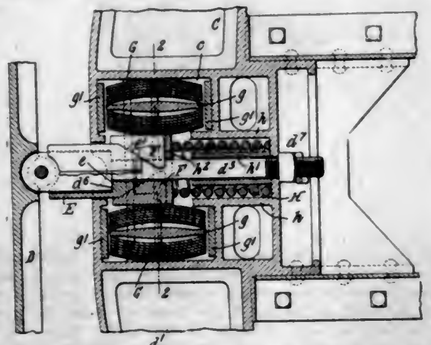
5. In a loom protecting mechanism, the combination with the protector rod, a binder finger fast thereon, and a dagger fast thereon, which is adapted to be moved to engage a bunter to stop the loom, of means for holding the binder finger in its operative position, and positively relieving its pressure on the shuttle binder when the lay is in its rear position, and also when it is in its extreme forward position, said means comprising a stationary plate or stand having an engaging surface with two substantially straight portions, and a recess or indentation intermediate said straight portions, said engaging surface adapted to be engaged by means on the dagger, for the purpose stated.

[Claims 6 and 7 not printed in the Gazette.]

1,029,938. PLATFORM-BUFFER FOR RAILWAY PASSENGER-CARS. THOMAS L. MCKEEN, Easton, Pa. Filed Aug. 9, 1909. Serial No. 511,880. (Cl. 213—39.)

1. The combination with a platform buffer head and a stationary part having a buffer chamber therein, of a wedge which is moved inwardly in said buffer chamber by

said buffer head, friction blocks which are arranged at the opposite sides of said wedge and are movable both inwardly with said wedge and also laterally in said buffer chamber, springs in said buffer chamber at opposite sides of said friction blocks for opposing the lateral movement of the friction blocks, said springs being held from movement in the direction of movement of the wedge, and a spring in said buffer chamber which projects into the space between said first mentioned springs and holds the friction blocks against said wedge and permits the inward movement of said friction blocks, substantially as set forth.

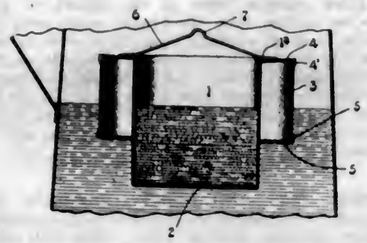


2. The combination with a platform buffer head, and a platform end sill having a buffer chamber therein, of a wedge which is moved inwardly in said buffer chamber by said buffer head, friction blocks which are arranged on opposite sides of said wedge and are movable inwardly with said wedge and also laterally in said buffer chamber, bowed leaf springs arranged in said buffer chamber lengthwise relative to the movement of the buffer head at opposite sides of said friction blocks for opposing the lateral movement of the friction blocks, a coil spring which projects into the space between said first mentioned springs in said buffer chamber and which holds said friction blocks against said wedge and permits the inward movement of the friction blocks, means for limiting the inward movement of the friction blocks, and means for holding the springs from movement in the direction of movement of said wedge, substantially as set forth.

3. The combination with a platform buffer head, and a platform end sill having a buffer chamber therein, of a wedge which is moved inwardly in said buffer chamber by said buffer head, friction blocks which are arranged on opposite sides of said wedge and are movable both inwardly and laterally in said buffer chamber, a spring in said buffer chamber in rear of said friction blocks which holds the friction blocks against said wedge, means for limiting the inward movement of said friction blocks, and springs in said buffer chamber at opposite sides of said friction blocks for opposing the lateral movement thereof, said last mentioned springs having greater resistance than said spring in rear of said friction blocks, whereby said friction blocks are first moved rearwardly against the action of said first mentioned spring and then laterally, against the action of the springs at their opposite sides, substantially as set forth.

4. The combination with a platform buffer head, and a platform end sill having a buffer chamber, of a center stem for said buffer head, a two-part wedge which embraces said stem and is provided with parts engaged by parts on said stem whereby said wedge is moved inwardly in said buffer chamber by said stem, friction blocks which are arranged on opposite sides of said wedge and are movable inwardly and laterally in said buffer chamber, a spring which holds said friction blocks against said wedge and permits the inward movement of the friction blocks, means for limiting the inward movement of the friction blocks, and springs in said buffer chamber at opposite sides of said friction blocks for opposing the lateral movement of the friction blocks, substantially as set forth.

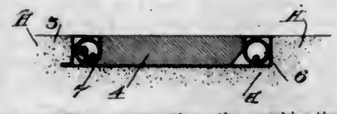
1,029,939. PERCOLATOR. EDWARD S. MCLEAN, Marissa, Ill. Filed Dec. 4, 1911. Serial No. 663,736. (Cl. 53—3.)



1. A percolator comprising a central container, and a float surrounding said container; said container comprising a leg extension with an imperforate wall extended beneath the bottom of said float.

2. A percolator comprising a central container, and a float surrounding said container; said container comprising a leg extension with an imperforate wall extended beneath the bottom of said float, and a perforate bottom at the lower end of said leg extension.

1,029,940. REMOVABLE FLOORING-STRIP. WALTER S. MITCHELL, San Francisco, Cal. Filed Dec. 5, 1910. Serial No. 595,581. (Cl. 20—6.)



1. In a building construction, the combination with a concrete floor having a mortise, of a flooring strip insertible into the mortise, and means to prevent the lifting of the strip by pressure exerted in an upward direction by a floor covering, said means including a conduit lying in the mortise and engaging the edge of said strip.

2. In a building construction, the combination with a concrete floor having a mortise, of a flooring strip insertible into the mortise, and means to prevent the lifting of the strip by pressure exerted in an upward direction by a floor covering, said means including a conduit lying in the mortise, and said strip having a concaved edge to engage the conduit, said strip coöperating with the walls of the mortise to inclose conduits for electric wires or the like.

3. In a building construction, the combination with a concrete floor having a mortise, of means forming chambers to receive conduits between the walls of the mortise, and a strip with edges conforming to the conduits and serving as a key to prevent the tension of a nailed covering from lifting the conduit from the mortise.

4. In a building construction, the combination with a floor of concrete having mortises with undercut walls, of flooring strips adapted to be seated in said mortises and having undercut edges engaging conduits laid against the walls of the mortise.

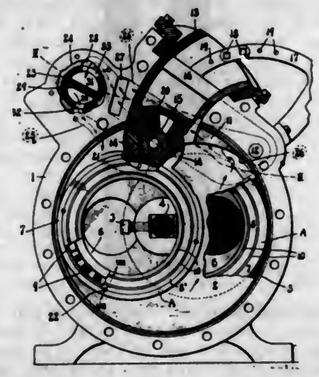
5. In a building construction, the combination of a floor of concrete, of flooring strips with grooved edges adapted to be seated in said mortises, said edges engaging the outer surfaces of conduits laid against the walls of the mortises whereby the strip is locked against accidental removal.

[Claims 6 to 9 not printed in the Gazette.]

1,029,941. ROTARY ENGINE. GEORGE FREDERICK MOORS, Mount Vernon, Ill. Filed June 19, 1911. Serial No. 634,068. (Cl. 121—94.)

1. In a rotary engine, a cylinder, a piston in said cylinder, an abutment pivoted to said cylinder and connected with the piston so as to oscillate in response to movements of said piston, and a shock absorber for said abutment, said shock absorber including a rigid piston adjustably connected to said cylinder.

2. In a rotary engine, a cylinder, a piston in said cylinder, a hollow abutment passing through a wall of said cylinder and connected with the piston so as to move in response to movements of said piston, and a piston in said abutment, the last named piston being rigidly connected to the cylinder.



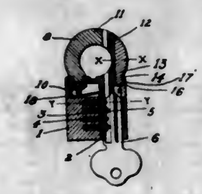
3. In a rotary engine, a cylinder, a piston in said cylinder, a valve housing, a valve in said housing for controlling the passage of fluid to and from the cylinder, a stem fixed to said valve, and an end thrust resisting member on said stem, said valve housing having an inlet opening for admitting fluid under pressure at a point between said valve and end thrust resisting member.

4. In a rotary engine, a cylinder, a piston in said cylinder, a valve housing, a valve in said housing for controlling the passage of fluid to and from the cylinder, a stem fixed to said valve, and a collar on said stem, said valve housing having an inlet opening for admitting fluid under pressure at a point between said valve and collar.

5. In a rotary engine, a cylinder, a piston in said cylinder, a valve housing, a rockable valve in said housing for controlling the passage of fluid to and from said cylinder, means for operating said valve, a clutch member connected with said operating means and provided with two sets of clutch teeth, and a member connected with said valve adapted to interlock with either of said sets of clutch teeth.

[Claims 6 to 9 not printed in the Gazette.]

1,029,942. PADLOCK. ALBERT A. PAGE, East Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Aug. 3, 1911. Serial No. 642,127. (Cl. 70—96.)



1. In a padlock, the combination with a shackle having an integral cylindrical portion constituting a pin tumbler plug and having a continuous key-way slot cut through the plug and shackle, of an insert piece filling said slot in the shackle and permanently secured therein, substantially as described.

2. In a padlock, the combination of a casing having a notch, a shackle having an integral tumbler plug entering said casing adjacent said notch, and a separate piece fitting a slot in the shackle, and having a shoulder coöperating with said notch, substantially as described.

3. In a padlock, the combination of a casing, a longitudinally movable tumbler plug therein, a shackle carried by the tumbler plug and having a key-way slot in line with the key-way slot of the tumbler plug, an insert piece fitted in the slotted portion of the shackle, and a shoulder on said insert piece coöperating with a notch in the casing to prevent the return of the tumbler plug into normal position after the padlock has been opened, except when said shoulder is in registry with said notch; substantially as described.

1,029,943. MEANS FOR SECURING TIPS TO BILLIARD-CUES. LOUIS PELOQUIN, Southbridge, Mass. Filed Mar. 6, 1912. Serial No. 682,041. (Cl. 46—6.)



1. Means for applying tips to billiard cues, comprising a casing provided with means for attachment to a wall or other vertical surface and with a slot in its front side, a downwardly spring-pressed plunger therein, having an extension projecting through said slot, a presser-head mounted on the end of said projection, arms extending upwardly and downwardly from said extension and a presser head on the end of each arm.

2. Means for applying tips to billiard cues, comprising a casing, having a slot in its front side, a spring-pressed plunger within said casing having an extension passing through said slot, a vertical rod secured to the outer end of said extension, a series of presser heads rotatably mounted on said rod one above the other and a support for the butt of the cue connected to said casing.

1,029,944. WRENCH. FRANK W. PRINGLE, Mears, Mich. Filed Nov. 7, 1910. Serial No. 591,201. (Cl. 81—134.)

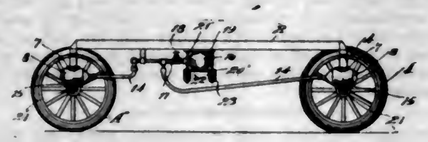


In a wrench, the combination with a shank provided with a fixed jaw at one end, and a handle at the other, of a jaw slidably mounted on said shank, said shank being provided with notched sides out of transverse alinement, eyes formed on the sliding jaw carrying pintle pins, dogs mounted on said pintle pins adapted to engage the notches of said shank, handles extending rearwardly and toward each other from said dogs, a coiled spring connecting said handles, and knobs carried by the ends of said handles extending in opposite directions.

1,029,945. PNEUMATIC VEHICLE-SPRING. THOMAS D. QUIGLEY, San Francisco, Cal. Filed Apr. 11, 1910. Serial No. 554,783. (Cl. 21—50.)

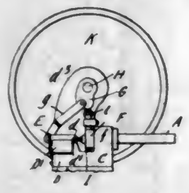
A pneumatic cushion spring for vehicles, including flexible air-containing cylinders supported upon the front and

rear axles, valve controlled connections between said cylinders, an intermediate flexible air-containing cushion cylinder with which the pipes are also connected, plates



between which said cushion is supported, guide rods upon which one plate is movable, and springs acting upon said plate to normally compress the cushion.

1,029,946. MACHINE FOR BENDING AND TWISTING BARS. FRANK R. ROGERS, Buffalo, N. Y., assignor to Barcalo Manufacturing Company, Buffalo, N. Y. Filed July 26, 1911. Serial No. 640,577. (Cl. 153—6.)



1. In a machine for bending and twisting bars, the combination of a bending device and a twisting device arranged in line one in advance of the other with reference to the direction in which the bars are fed into the machine, and mechanism for simultaneously moving said bending device to bend the bar and turning said twisting device to twist the bar, substantially as set forth.

2. In a machine for bending and twisting bars, the combination of a bending die, an open ended twisting device which is arranged in advance of said bending die with reference to the direction in which the bars are fed into the machine and through which the bar is passed endwise to the bending die, a bearing for said twisting device, said twisting device having a side opening which registers with an opening in the bearing after the device has been turned to twist the bar whereby the twisted bar can be removed sidewise from the twisting device, and means for operating said bending die and turning said twisting device, substantially as set forth.

3. In a machine for bending and twisting bars, the combination of a device for bending the bar, a twisting device having an axial hole through which the bar is passed to the bending device, internal parts which engage the bar for twisting it and a side opening which registers with an opening in the bearing after the device has been turned to twist the bar whereby the twisted bar can be removed sidewise from the twisting device, and means for operating said bending device and turning said twisting device, substantially as set forth.

4. In a machine for bending and twisting bars, the combination of a device for bending the bar, a twisting device arranged to turn about an axis extending in a direction toward said bending device, and means for simultaneously operating said bending device and turning said twisting device, substantially as set forth.

5. In a machine for bending and twisting bars, the combination of a stationary bending die, a coöperating movable bending die, a twisting device through which the bar is passed endwise to said bending dies and which is arranged to turn about an axis extending substantially in the direction of the line of feed of the bars to the bending dies, and means for operating said movable bending die and turning said twisting device, substantially as set forth.

[Claims 6 to 9 not printed in the Gazette.]

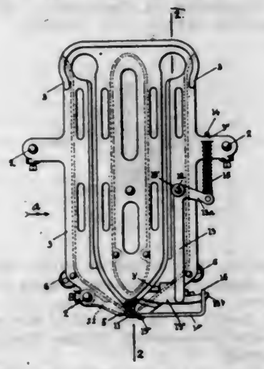
1,029,947. FABRIC-ROLL PROTECTOR. CURTIS J. ROTHEAMEL, Philadelphia, Pa. Filed Dec. 12, 1911. Serial No. 665,320. (Cl. 206—59.)



1. A fabric-roll protector comprising a pair of head-plates adapted to engage the ends of the roll and consisting of a dish-shaped disk, one of which is provided in its base at one side of its center with an inwardly-projecting hollow ridge and an outwardly-projecting hollow ridge at each end thereof with insertion-openings at said ends, said ridges forming a bearing extending crosswise of said base, and a tie-rod having a single laterally-bent end-section adapted to pass through said openings for confinement in the bearing, said rod being adapted to extend lengthwise through the roll and protrude at its upper end through the head thereon and be fastened thereat.

2. A fabric-roll protector comprising a pair of head-plates adapted to engage the ends of the roll and consisting of dish-shaped disks each provided in its base at one side of its center with an inwardly-projecting concavo-convex ridge and a similar outwardly-projecting ridge at each end thereof with insertion-openings at said ends, and a tie-rod having one end-section bent to extend at a right-angle to the straight length of the rod and adapted to pass through said openings in one head for confinement in the bearing thereon, said rod being adapted to extend lengthwise through the roll and protrude through the other head to be fastened thereat.

1,029,948. WEFT-REPLENISHING LOOM. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Nov. 27, 1911. Serial No. 662,537. (Cl. 139—85.)



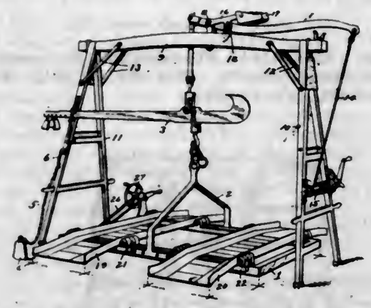
1. The combination with a stationary magazine for a weft replenishing loom having a plurality of guide-ways or compartments for bobbins, of a yielding support for the head of the bobbin, comprising a pivoted arm having its fulcrum adjacent the central part of the magazine, and having an extension on its lower end adapted to extend under the tip of the bobbin, and a spring for actuating said arm, to yieldingly hold it in normal position.

2. The combination with a stationary magazine for a weft replenishing loom, having a plurality of guide-ways or compartments for bobbins, of a yielding support for the head of the bobbin, and a yielding support for the tip of the bobbin, said last mentioned support, comprising a pivoted arm having its fulcrum adjacent to or above the central part of the magazine, and normally held stationary by a spring on the normal transfer of a bobbin.

3. The combination with a stationary magazine for a weft replenishing loom, having a plurality of guide-ways or compartments for bobbins, of a yielding support for the head of the bobbin, and a yielding support for the tip of the bobbin, and a second yielding support for the tip of the bobbin, said last mentioned support, comprising a pivotally mounted arm having its fulcrum adjacent to or above the central part of the magazine, and normally held stationary by a spring on the normal transfer of a bobbin, and a guide-wire for the filling thread, pivotally mounted on the lower end of said last mentioned support, and adapted to move back with said support, against the action of said spring.

4. The combination with a stationary magazine for a weft replenishing loom, having a plurality of guide-ways or compartments for bobbins, of a yielding support for the head of the bobbin, and a yielding support for the tip of the bobbin, comprising a pivoted arm having its fulcrum adjacent the central part of the magazine, and having an extension on its lower end adapted to extend under the tip of the bobbin, and a spring for actuating said arm, to yieldingly hold it in normal position, and a guide-wire for the filling thread, pivotally mounted on the lower end of said last mentioned support, and adapted to move back with said support against the action of said spring.

1,029,949. RAISING BEAM-SCALE. HARRY SCHNEIDER, New York, N. Y. Filed Dec. 4, 1911. Serial No. 663,806. (Cl. 73—3.)



1. In a weighing device, in combination, a scale beam, a platform suspended from said scale beam, two sets of guides slidably mounted upon said platform, a separable connection between said sets of guides whereby one or both may be adjusted in position relative to the point of suspension of said platform, and means for adjusting the position of said guides.

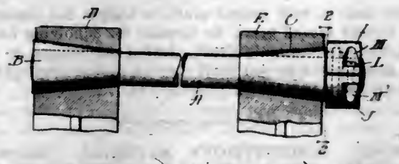
2. In a weighing device, in combination, a scale beam, a platform suspended from said scale beam, two sets of guides mounted upon said platform each adapted to receive a load, means for sliding one of said guides toward or away from the other of said guides to compensate for the difference in weight of the respective loads.

3. In a weighing device, in combination, a scale beam, a platform suspended from said scale beam, two sets of guides mounted upon said platform each adapted to receive a load, means for simultaneously moving both of said guides on said platform to compensate for the difference in weight of the respective loads.

4. In a weighing device, in combination, a scale beam, a platform suspended from said scale beam, two sets of guides mounted upon said platform each adapted to receive a load, means for moving one or both of said guides on said platform to compensate for the difference in weight of the respective loads.

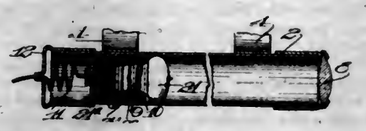
5. In a weighing device, in combination, a scale beam, a platform suspended from said scale beam, a plurality of guides on said platform, a threaded member on one of said guides, a screw threaded shaft passing through said threaded member, means for connecting said guides together, and means for rotating said threaded shaft to move said guides on said platform.

1,029,950. SPLIT COLLAR. FRITZ A. SCHULZ, Chicago, Ill. Filed Mar. 20, 1911. Serial No. 615,763. (Cl. 74—8.)



The combination with a shaft having a threaded portion and a member longitudinally-movable on said shaft and provided adjacent one end with an annular groove, of a split collar internally threaded to engage the threaded portion of said shaft and provided at one end with an overhanging flange coextensive with said collar and adapted to engage in said annular groove in said member and a set screw adjustably engaging said collar with said shaft, said collar comprising two members hinged together at a point diametrically opposite the ends connected together by said set screw, each of said members being slightly less than semi-cylindrical and providing an open space between the last-named ends thereof spanned by said set screw and permitting contact of said collar to firmly clamp the same against rotation on said shaft, substantially as and for the purpose set forth.

1,029,951. NIGHT-SIGHT FOR FIREARMS. GEORGE A. SEELY, San Francisco, Cal., assignor, by mesne assignments, of one-half to J. Salsbury, San Francisco, Cal. Filed Oct. 2, 1911. Serial No. 652,346. (Cl. 42—81.)



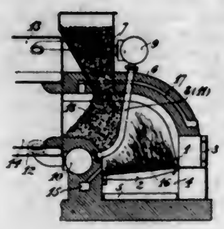
1. An illuminating sight for firearms, including a lens-carrying tube, means for securing the same upon the arm, an electric lamp yieldably supported in the tube to be protected from shock, a source of electrical energy connected to the lamp, and a controlling switch.

2. An illuminating sight for firearms, including a tube, means for adjusting it upon a firearm, a lens in said tube a circumferentially adjustable bushing mounted in the tube and having a yieldable lamp and socket, a source of electricity related to the socket and bushing, and a switch controlling the energization of the lamp.

1,029,952. APPARATUS FOR CONSUMING SMOKE IN BOILER-FURNACES. VALDEMAR GUSTAV SMITH, Copenhagen, Denmark. Filed Apr. 15, 1911. Serial No. 621,230. (Cl. 110—23.)

In combination with a boiler having a draft flue, of a furnace having a main combustion passage leading to such flue and provided with a vertical and a horizontal por-

tion, a substantially horizontal grate disposed in said vertical portion of said passage, a substantially vertical grate disposed near the horizontal portion and in advance of said first named grate with respect to the direction of draft, said furnace having a wall portion supporting a part



of the fuel in said second grate, a hopper for supplying fuel to said second grate, an opening for supplying fuel to said first grate, a main draft opening discharging to said first grate, and a second draft opening discharging between said grates, substantially as described.

1,029,953. CEMENTITIOUS MATERIAL. HENRY S. SPACKMAN, Ardmore, Pa., and ELLIS W. LAZELL, Wilmington, Del., assignors, by mesne assignments, to Henry S. Spackman, Ardmore, Pa. Filed Mar. 29, 1909. Serial No. 486,432. (Cl. 106—25.)

1. The slow-setting hydraulic highly cementitious material having sand strengths considerably greater than and fulfilling the constant volume requirements for standard Portland cement comprising large proportions of slow-setting, highly cementitious, strength accelerating earthy alkali compounds rich in alumina-like material and comprising coöperating cementitious material including earthy alkali material.

2. The hydraulic highly cementitious material having sand strengths considerably greater than and fulfilling the constant volume requirements for Portland cement comprising large proportions of cementitious, composite, strength accelerating earthy alkali compounds rich in alumina-like material.

3. The hydraulic highly cementitious material having sand strengths considerably greater than and fulfilling the constant volume requirements for hydraulic cement comprising considerable proportions of composite, strength accelerating earthy alkali compounds rich in alumina-like material including earthy alkali compounds of alumina-like material comprising considerable silica and including diversely prepared earthy alkali compounds of alumina-like material.

4. The highly cementitious material having sand strengths considerably greater than and fulfilling the constant volume requirements for hydraulic cement comprising considerable proportions of composite, strength accelerating earthy alkali compounds rich in alumina-like material and comprising coöperating cementitious material.

5. A highly cementitious material fulfilling the sand strength and constant volume requirements for hydraulic cement comprising considerable proportions of slow-setting, composite, strength accelerating earthy alkali compounds of albumina-like material and comprising considerable proportions of coöperating earthy alkali or silicious material.

[Claims 6 to 82 not printed in the Gazette.]

1,029,954. CEMENTITIOUS MATERIAL. HENRY S. SPACKMAN, Ardmore, Pa., and ELLIS W. LAZELL, Wilmington, Del.; said Lazell assignor to said Spackman. Filed July 11, 1911. Serial No. 637,903. (Cl. 106—25.)

1. The hydraulic quick setting highly cementitious cement material capable of developing and accelerating the cementitious properties and early strengths of coöperating cementitious material containing available lime when incorporated therewith and formed by calcining a mixture of lime and bauxite, the lime being present in amounts slightly more than sufficient to be capable of combining in dicalcic proportions with the alumina in addition to combining with any silica and other coöperating materials.

2. The hydraulic quick setting highly cementitious cement material capable of developing and accelerating the cementitious properties and early strengths of coöperating cementitious material containing available lime when incorporated therewith and formed by calcining a mixture of lime and material rich in alumina, the lime being present in amounts slightly more than sufficient to be capable of combining in dicalcic proportions with the alumina in addition to combining with any silica and other coöperating materials.

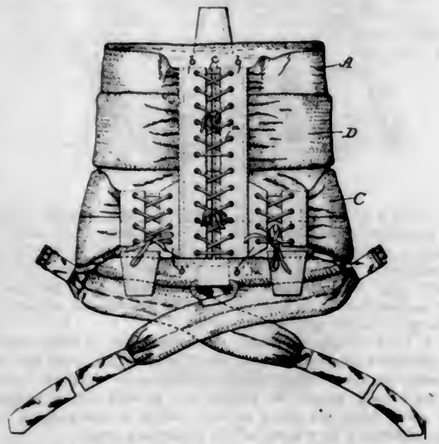
3. The cement material capable of developing or accelerating the cementitious properties and early strengths of coöperating cementitious material containing available lime when incorporated therewith and formed by uniting at high heat a mixture of lime and material rich in alumina, the lime being present in amounts slightly more than sufficient to be capable of combining in dicalcic proportions with the alumina in addition to combining with any silica or other coöperating materials.

4. The cement material capable of developing or accelerating the cementitious properties and early strengths of coöperating cementitious material containing available lime when incorporated therewith and formed by uniting at high heat a mixture of lime and material rich in alumina, the lime being present in amounts more than sufficient to be capable of combining in dicalcic proportions with the alumina in addition to combining with any silica and other coöperating materials.

5. The cement material capable of developing or accelerating the cementitious properties of coöperating cementitious materials containing available lime when incorporated therewith and formed by uniting a mixture of lime and material rich in alumina, the lime being present in amounts more than sufficient to be capable of combining in dicalcic proportions with the alumina in addition to combining with any silica and other coöperating materials.

[Claims 6 to 20 not printed in the Gazette.]

1,029,955. ABDOMINAL SUPPORTER. KATHERINE L. STORM, Philadelphia, Pa. Filed Mar. 22, 1911. Serial No. 616,247. (Cl. 2—188.)

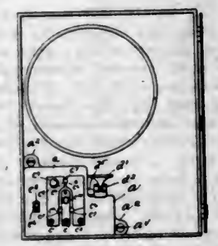


1. An abdominal supporter comprising a body portion of elastic material substantially encircling the body, means for securing the ends of the body portion together detachably, a non-elastic section located in the front of the supporter and secured to the body portion, and an auxiliary supporter connected with the non-elastic section having its ends passing to the rear of the body, and adjustably secured to the means for securing the ends of the body portion, substantially as described.

2. An abdominal supporter comprising a body portion of elastic material passing around the body, said body portion having end portions; fastening means between the end portions of the body; a non-elastic front section, an auxiliary supporter connected with the non-elastic front section and extending to the rear, and an adjustable connection between the ends of the auxiliary supporter and the end portion of the body portion, substantially as described.

3. An abdominal supporter comprising a body portion extending to the rear, terminals therefor with connections between, a non-elastic front portion, an auxiliary elastic supporter connected with the non-elastic section and extending to the rear, connections between the rear ends of said elastic auxiliary supporter and the terminals of the body portion, and a second layer of elastic material extending between the non-elastic front section and the rear of the body belt, substantially as described.

1,029,956. SIGNAL-BOX. NATHAN H. SUREN, Needham, Mass., assignor to The Gamewell Fire-Alarm Telegraph Company, New York, N. Y., a Corporation of New York. Filed July 22, 1910. Serial No. 573,290. (Cl. 178—50.)

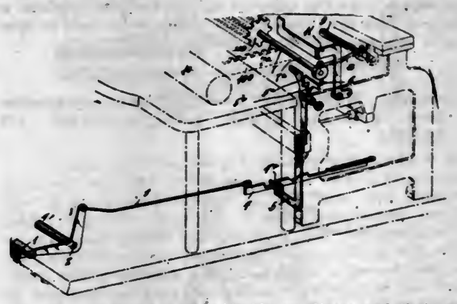


1. In a signal-box, the combination with a metallic case adapted to contain a signal-transmitter, of a hollow insulating support having a front wall and a side wall, the front wall of which has a recess in its front side, lightning-arrester plates arranged on the front wall in said recess and attaching-screws for said plates extending through the front wall having binding-nuts arranged on their inner projecting ends for the circuit-wires, said front wall also having holes back of holes in said plates, and one of said plates and the front wall back of it having a hole therethrough for a switch-plug, and a contact-arm attached to another plate, which extends across said hole, to be engaged by a switch-plug contained in said hole, substantially as described.

2. In a signal-box, the combination with a metallic case adapted to contain a signal-transmitter, of a hollow support of insulating material having a hole through its front wall, and a hole through its side wall, a testing-switch arranged in said support, all of the parts of which are attached to the interior of its side wall, being thereby inclosed, the actuating-lever of said switch projecting through the hole in the front wall and the circuit-wires leading from said switch passing through the hole in the side wall, substantially as described.

3. In a signal-box, the combination with a metallic case adapted to contain a signal-transmitter, of a hollow insulating support having a front wall and a side wall, said side wall having a shoulder, and a key-lever pivoted to a block mounted on said shoulder, bearing a contact-point, and a plug secured to said side wall by a screw extending through the wall, bearing a contact-point which is arranged to be engaged by the contact-point on the key-lever, the inner end of said screw having thereon a binding-nut to provide for connection therewith of a circuit-wire, substantially as described.

1,029,957. MOTOR-KEY LOCK FOR CALCULATING-MACHINES. OTTO THIEME, St. Louis, Mo., assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo., a Corporation. Filed Aug. 7, 1911. Serial No. 642,887. (Cl. 235—62.)



1. The combination of shiftable totalizers and their actuating devices, means for engaging said totalizers and said actuating devices and means for preventing the engagement between said totalizers and said actuating devices when said totalizers are in other than correct position.

2. The combination of groups of totalizer wheels and single set of actuating devices therefor, means for shifting said groups of totalizer wheels into and out of operative relation to said actuating devices, means for engaging said totalizers and said actuating devices and means for preventing the engagement between said actuating devices and said totalizer wheels when said totalizer wheels are in other than correct position.

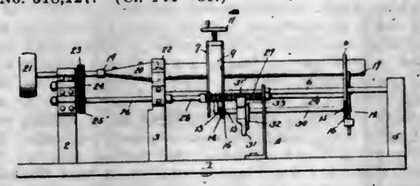
3. The combination of groups of totalizer wheels actuating devices therefor, means for shifting said totalizer wheels into and out of operative relation to said actuating devices, means for operating said actuating devices and means for preventing the operation of said actuating devices when said totalizer wheels are in other than correct position.

4. The combination of laterally shiftable totalizers and their actuating devices, means for engaging said totalizers and said actuating devices and means for preventing the engagement between the said totalizers and actuating devices when said totalizers are in other than correct position.

5. The combination of laterally shiftable totalizers and their actuating devices, means for operating said actuating devices and means for preventing the operation of said actuating devices when said totalizers are in other than correct position.

[Claims 6 to 15 not printed in the Gazette.]

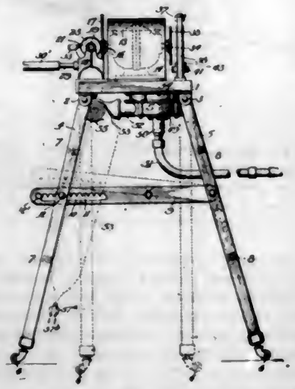
1,029,958. POST-POINTING MACHINE. HARRY THOMPSON, Pelican Rapids, Minn. Filed Mar. 31, 1911. Serial No. 618,127. (Cl. 144—30.)



In a fence post pointing machine, the combination of a supporting frame, a cutter mounted thereon, a carriage movable longitudinally of said supporting frame and comprising spaced bars, a feed screw mounted in the supporting frame for advancing the carriage and work thereon to the cutter, and means for operatively connecting the carriage with said feed screw consisting of a rocker arm pivoted at one end to one of the spaced bars of the carriage and having a handle at its other end, the interme-

diate portion of the rocker arm being formed with a threaded part for engagement with the feed screw, and a locking lever pivoted between its ends to the rocker arm and having at one end a handle arranged adjacent to that of the rocker arm and at its opposite end a hook adapted to engage with the other of the bars of the carriage to thereby hold the threaded part of the rocker arm in operative engagement with the feed screw.

1,029,959. GEARING. HENRY TIDEMAN, Menominee, Mich. Filed Aug. 8, 1910. Serial No. 576,083. (Cl. 74—26.)



1. In a household device, the combination of a vertically adjustable supporting table, a motor on said table having a driving shaft, a friction disk mounted at each end of said shaft, a cup-shaped bearing frame mounted on said table adjacent one end of said motor, a counter-shaft journaled in said bearing frame, a gear wheel supported by said countershaft, vertical bearing extensions on said bearing frame, a transmission shaft journaled in said bearings, a worm on said transmission shaft meshing with said gear wheel, said transmission shaft extending diametrically in front of one of the friction disks on the motor shaft, a friction pinion slidable on said transmission shaft but keyed to rotate with said shaft and engaging with said friction disk, a slide rod secured at one end to said bearing frame and carrying a grip member, said grip member being connected with said friction pinion so that sliding of said grip member on said sliding rod will cause shifting of the friction member across the face of said friction disk, and coupling mechanism carried at the end of said transmission shaft for adapting said shaft for connection with devices to be operated.

2. In a household device, the combination of a vertically adjustable supporting table, a motor on said table having a driving shaft, a friction disk mounted at each end of said shaft, a cup-shaped bearing frame mounted on said table adjacent one end of said motor, a counter-shaft journaled in said bearing frame, a gear wheel supported by said countershaft, vertical bearing extensions on said bearing frame, a transmission shaft journaled in said bearings, a worm on said transmission shaft meshing with said gear wheel, said transmission shaft extending diametrically in front of one of the friction disks on the motor shaft, a friction pinion slidable on said transmission shaft but keyed to rotate with said shaft and engaging with said friction disk, a slide rod secured at one end to said bearing frame and carrying a grip member, said grip member being connected with said friction pinion so that sliding of said grip member on said sliding rod will cause shifting of the friction member across the face of said friction disk, coupling mechanism carried at the end of said transmission shaft for adapting said shaft for connection with devices to be operated, mechanism to be driven rigidly mounted on the under side of said table, a vertical transmission shaft connected with said mechanism and extending diametrically in front of the other friction disk driven by the motor, a friction pinion slidable on said vertical shaft to be slid across said friction disk and thereby control the speed of the vertical shaft and the mechanism connected therewith, a vertical slide rod, and a grip member slidable on said slide rod and having connection with said friction pinion on said vertical transmission shaft.

1,029,960. HAT-CARTON. GUSTAVE WALTERS, Chicago, Ill., assignor of one-third to J. W. Galvin, San Francisco, Cal., and one-third to Arnold Weismann, Chicago, Ill. Filed Apr. 24, 1911. Serial No. 622,975. (Cl. 229—48.)



A fastening for holding cartons having a body strip, comprising a single flap co-extensive with the height of the body strip of the carton and rigidly secured thereto, a coextensive metallic member substantially U-shaped in cross section and provided with a plurality of inclined slots extending from the edge thereof rigidly secured to said flap and near one vertical edge of said body strip, said flap being adapted to fold over the other vertical edge of said body strip, a second metallic member substantially U-shaped in cross-section secured by one leg thereof to said body strip, near said overlapped vertical edge, said last mentioned metallic member embracing a portion of said first mentioned metallic member and adapted to be bent tightly thereupon; and a plurality of projections on said second mentioned metallic member adapted to engage the inclined slots of the first described member, substantially as described.

1,029,961. SHUTTLE-CHECK. HORACE WYMAN, Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed June 15, 1911. Serial No. 633,423. (Cl. 139—29.)

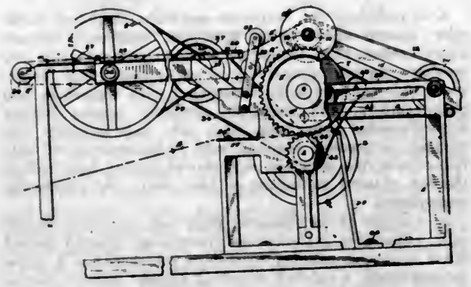


1. In a shuttle check mechanism, a check lever pivotally mounted on the end of the lay and having an inwardly extending surface contacting with the shuttle, a binder lever pivotally mounted on the lay and having a contacting surface for the shuttle, and an extended end beyond its pivotal support to engage the check lever between its ends, the pivotal end of said check lever having means, yielding inwardly from its pivot, to relieve undue pressure of said check lever on the shuttle.

2. In a shuttle check mechanism for looms, a check lever pivotally mounted on the end of the lay and having at one end a contacting surface for the shuttle, and at the other end a split hub for its pivotal stud, said hub formed partially on the main lever and partially on a plate yieldingly retained on said main lever, a binder pivotally mounted on the lay and having a shuttle contacting surface at one side of its pivot, and an extension on the opposite side of its pivot, contacting with said shuttle check between its ends, whereby the pressure of a shuttle on one surface re-acts yieldingly upon the other surface.

3. In a shuttle check mechanism, the combination with the protector rod, a binder finger fast thereon to engage a shuttle binder, and said binder pivotally mounted, and having an extension beyond its pivotal support, and an adjusting screw or bolt in said extension, of a lever, pivotally mounted on the end of the lay, and extending inwardly, and having an engaging surface to engage the shuttle, and having a recess therein on the inner side of said lever, and an expansion spring within said recess encircling a bolt, and said bolt, yieldingly holding a plate against the main body of said lever.

1,029,962. MACHINE FOR FOLDING, IRONING, AND SPOOLING CLOTH STRIPS. ABRAHAM L. ADAMS, Bridgeport, Conn. Filed Sept. 23, 1907. Serial No. 394,040. (Cl. 26—2.)



1. In a machine of the character described, a rotatable open ended heating drum, means for applying heat to the interior thereof, a winding arbor, a non-rotatable heat protector for said arbor, for the purpose set forth.

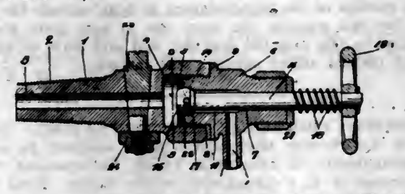
2. In a machine of the character described, a rotatable open ended heating drum, means for applying heat to the interior thereof, a rotatable and vertically movable arbor adapted to carry a flanged spool about which folded strips are wound, a non-rotatable heat protector partially closing the open mouth of the drum, and a shield projecting from said protector adapted to partially embrace one of the flanges of the spool, for the purpose set forth.

3. In a machine of the character described, a driving shaft carrying a roll, an open ended heating drum, means for applying heat to the interior thereof, means for rotating said drum from said shaft, a guide roll adjacent to said drum, an endless belt running between said roll and the driving shaft roll and contacting with the drum, a gravity arm, a rotatable arbor journaled therein adapted to carry a winding spool, a heat protector partially closing the open mouth of the drum, an adjustable laterally traversing and strip laying arm, means for vibrating the same, a roll located at the rear of said arm, strip guiding blocks on the forward end or head of said arm, upper and lower strip tension rolls, a folder, all combined so that a strip of cloth is fed through the folder and carried from thence between the endless belt and drum, and from said drum under the lower tension roll and around the guide roll to the traversing arm guide blocks, and from thence under the upper tension roll to the arbor, for the purpose set forth.

4. The combination, with the laterally traversing arm 25, of the vertically movable folder carrying arm 60 flexibly secured to the arm 25, for the purpose set forth.

5. In a machine of the character described, a rotatable heating drum, a rotatable strip winding spool in workable relation therewith and having flanges embracing the sides of the drum, a laterally traversing strip laying arm and means for adjusting the throw of the arm to wind a roll of different widths of tape on the same spool.

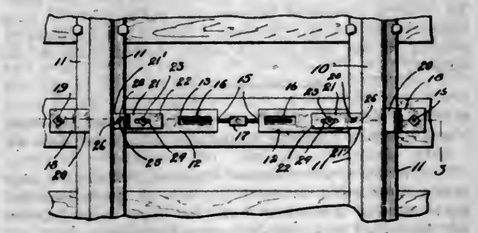
1,029,963. GAGE-COCK. CARL EDWARD ANGIER, Beardstown, Ill. Filed Dec. 16, 1911. Serial No. 666,223. (Cl. 136—3.)



1. A gage cock comprising a casing provided with a longitudinal bore and having a chamber formed at one end thereof in communication with said bore, said chamber being internally threaded, an additional casing having an externally threaded portion thereon in engagement with the threaded portion of the referred to casing, said additional casing having a portion of the bore thereof enlarged in diameter and provided with a valve seat at the inner end thereof, the inner peripheral edge of said additional casing adjacent said valve being provided with notches and cam surfaces, a valve adapted to be mounted in the valve seat, a stem for said valve extending through the bore of said additional casing and provided with a handle member at the free end thereof, a spring member encircling said stem between the handle member and the additional casing, a pin extending through said valve, the projecting portions of which are adapted to be seated in the notches on the peripheral edge of said additional casing and also adapted to coöperate with the cam surfaces, and an outlet in communication with the enlarged bore portion of the additional casing.

2. A gage cock comprising a pair of sleeve portions in threaded engagement with one another, the one sleeve portion being provided with a chamber at the engaged end thereof, the other of said sleeve portions having a portion of the bore enlarged and provided with a valve seat at one end thereof, said last mentioned sleeve portion also having its inner peripheral edge provided with notches at diametrically opposite points thereon and the opposed walls of said notches formed into cam surfaces, a valve adapted to be mounted in the seat referred to, a stem for the valve extending longitudinally through the bore of the last mentioned sleeve portion and having its outer end provided with a handle member, a spring encircling said stem between the handle member and the referred to sleeve, and a pin extending transversely through the valve, the projecting portions of which are adapted to be seated in said notches and coöperate with the cam surfaces in the positioning of said valve.

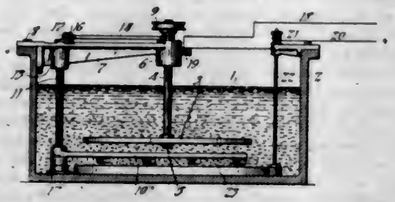
1,029,964. RAIL-CLAMP. GEORGE F. AUSBURN, Vera, Tex. Filed Nov. 29, 1911. Serial No. 663,039. (Cl. 238—5.)



The combination with a pair of railway rails, of a pair of bars each extending transversely under one of the rails and having their inner ends meeting at a point midway the rails, and connected by turn buckle, a clamp plate secured to the outer end of each of the bars and engaging over the base of the rail, a second clamp-plate on each of the bars disposed on the inner side of the rail, said plate

having an elongated slot, and a bolt passing through said slot and bar, a nut on the upper end of the bolt engaging the upper face of the plate, and a screw in the rail engaging portion of the plate adapted to bear against the face of the rail whereby the inner end of said plate will be caused to bite into the said bar, and said plate to engage with the nut at the opposite side thereof.

1,029,965. PROCESS OF ELECTROPLATING. JONAS W. AYLSWORTH, East Orange, N. J., assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Filed Nov. 15, 1910. Serial No. 592,455. (Cl. 204—11.)



1. The process of electroplating an object which consists in immersing the object in a suitable electrolytic bath containing pulp suspended therein, and causing an electrolytic deposit of metal to be formed on said object from said bath, while causing relative movement between the object and the pulp suspended in the bath to cause a continual burnishing or rubbing of the pulp on the object, substantially as described.

2. The process of electroplating an object which consists in immersing the object in a suitable electrolytic bath containing pulp suspended therein, and causing an electrolytic deposit of metal to be formed on said object from said bath, while agitating the bath and moving the object therein to cause a burnishing of the metal as it is deposited and a wiping away of any bubbles formed on the object by the pulp in the bath, substantially as described.

3. The process of electroplating an object which consists in immersing the object in a suitable electrolytic bath containing finely divided wood pulp suspended therein, and causing an electrolytic deposit of metal to be formed on said object from said bath, while causing relative movement between the object and the wood pulp to cause a continual burnishing or rubbing of the wood pulp on the object, substantially as described.

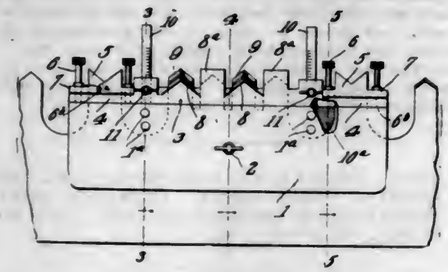
4. The process of electroplating an object which consists in treating wood pulp or like cellular material with caustic alkali and with acid solution, placing a considerable quantity of the purified pulp in a suitable electrolytic bath, immersing an object to be plated in said bath and causing an electrolytic deposit of metal to be formed on said object therefrom, while agitating the bath and causing relative movement between the object and the pulp suspended in the bath to cause a continual burnishing or rubbing of the pulp on the object, substantially as described.

1,029,966. SAW-FILING GAGE. JOSEPH BEARDEN, and CHARLIE BEARDEN, Hermitage, Ark. Filed Oct. 18, 1911. Serial No. 655,346. (Cl. 76—81.)

1. A device of the character described, including a gage having alternating saw-tooth like beveled projections and guard-forming projections upon its upper edge between and spaced off from said beveled projections.

2. A device of the character described, comprising a gage including opposed spaced off members having upon their upper edges alternating saw-toothed like beveled projections and projections adapted to serve as guards and arranged between said beveled projections.

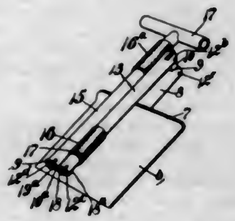
3. A device of the character described including duplicate spaced-apart gage-members, duplicate spaced-apart raker-tooth like members adapted to be superposed with respect to said gage-members and manually actuated screws having screw-threaded connection with said gage-members and passing unthreaded through said raker-tooth like members, said screws having fixed collars thereon, adapted to engage the upper surface of the latter.



4. A device of the character described, including duplicate spaced-apart gage members, duplicate spaced-apart raker-like members having reduced end extensions having connecting cross-pieces, said raker-tooth like members being superposed with respect to said gage-members, and manually actuated screws having screw-threaded connection with said gage-members and passing unthreaded through said end-extensions of said raker-tooth like members, said screws having fixed collars thereon adapted to engage or bear upon said connecting cross-pieces.

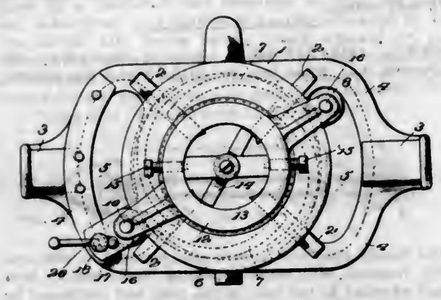
5. A device of the character described, including a vertically adjustable gage-member comprising opposed spaced apart members, adapted to receive therebetween a cross-cut saw-blade, a notched or gained upright member having a lower-end enlargement, with a lower rounded or convex edge received within the throat between the saw-blade teeth, and adjusting means for said gage member, adapted to engage said upright notched or gained member.

1,029,967. SHOVEL. SIMON BOLIN and AXEL JANSON, Menominee, Mich. Filed Jan. 24, 1912. Serial No. 673,203. (Cl. 55—116.)



In a shovel, a shovel blade, an outer inwardly tapered tubular handle section secured thereto, an intermediate and an inner tubular handle section, the outer and intermediate handle sections having slots in their adjoining ends lying in a longitudinal plane at right angles to the plane of the shovel blade and the intermediate and inner handle sections having slots in their adjoining ends lying in a longitudinal plane at right angles to the plane of the former slots, links pivoted in the said slots to connect the sections together and whereby the intermediate and inner handle sections are foldable over the shovel blade and in a plane parallel thereto, and the said links being adapted to abut against the inner ends of the slots when the handle sections are in alinement, the handle sections being spaced apart at their adjoining ends when in alinement, a collar secured to the intermediate handle section adjacent its inner end, and sleeves slidable on the intermediate and inner handle sections to slide over the joints between the respective sections when the sections are in alinement and adapted to bind on the tapered onter handle section and strike the said collar, respectively, when slid over the joints.

1,029,968. PIPE-THREADING TOOL. BRADFORD BORDEN, Toronto, Ontario, Canada. Filed Sept. 30, 1910. Serial No. 584,736. (Cl. 10—122.)



1. In a pipe threading tool, the combination with a rotatable and longitudinally movable chaser-carrier, a series of radially arranged chasers, and a chaser engaging plate rotatable with, and movable relatively to, the chaser-carrier, of a post engaging with said plate for controlling the relative movement thereof independently of its rotation with the chaser-carrier, said post being rotatable with said chaser-carrier but not partaking of its longitudinal movement, means for causing said post to revolve with the chaser-carrier, and means for detachably connecting the last mentioned means to the chaser-carrier.

2. In a pipe threading tool, the combination with a rotatable and longitudinally movable chaser-carrier, a series of radially arranged chasers, and a chaser engaging plate rotatable with, and also relatively to, the chaser-carrier, of a post engaging with said plate for controlling the rotation thereof independently of its rotation with the chaser-carrier, means carried by said post for engaging the pipe to be threaded to hold said post from partaking of the longitudinal movement of the chaser-carrier, means for causing said post to revolve with the chaser-carrier, and means for detachably connecting the last mentioned means to the chaser-carrier.

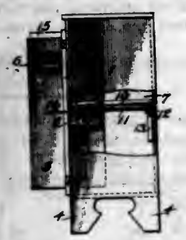
3. In combination with a rotatable and longitudinally movable chaser-carrier, a series of radially arranged chasers, and a cam plate mounted on said chaser-carrier for engaging the chasers, a post engaging said cam plate to control its axial turning independently of its rotation with the chaser-carrier, said post being rotatable with said chaser-carrier but not partaking of its longitudinal movement, an adjuster engaging the post for changing the position thereof and of the cam plate concentrically to the carrier, and means for detachably locking the adjuster to the chaser-carrier.

4. In combination with a rotatable and longitudinally movable chaser-carrier, a series of radially arranged chasers, and a cam plate mounted on said chaser-carrier for engaging the chasers, a post engaging said cam plate to control its axial turning independently of its rotation with the chaser-carrier, an adjuster engaging the post for changing the position thereof and of the cam plate concentrically to the carrier, means for detachably locking the adjuster to the chaser-carrier, and means connected to the post for preventing it from partaking of the longitudinal movement of the chaser-carrier.

5. In combination with a rotatable and longitudinally movable chaser-carrier having a slot, a series of radially arranged chasers, and a cam plate mounted on said chaser-carrier for engaging the chasers, a post engaging said cam plate to control its axial turning independently of its rotation with the carrier, said post being extended through said slot, an adjuster carried by the chaser-carrier for controlling the position of said post and the cam plate concentrically to the chaser-carrier, and means for preventing the post from partaking of the longitudinal movement of said chaser-carrier.

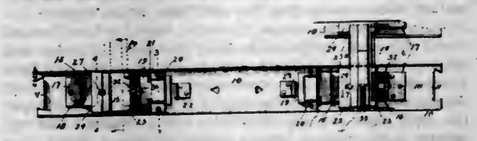
[Claims 6 to 13 not printed in the Gazette.]

1,029,969. PHONOGRAPH-RECORD CABINET. ARTHUR A. BOTTEMILLER, Ridgefield, Wash. Filed Feb. 26, 1912. Serial No. 679,965. (Cl. 211—16.)



A phonograph record cabinet, a door therefor, a record holder secured thereto and provided with a plurality of inclined recesses to receive records, said holder being received within the cabinet when the door is closed, a second record holder having a plurality of inclined recesses to receive records and movably mounted within the cabinet, roller bearings secured at each side of the last mentioned holder centrally thereof, ways secured to the inner walls of the cabinet upon which said rollers are mounted, a flexible connecting member secured to the movably mounted holder adjacent its bearings, whereby the latter may be drawn from within the cabinet when the door is opened, a pulley secured to the inner walls of the cabinet, and a weighted member also fastened at one end to the movably mounted holder adjacent the bearings thereof and passing over said pulley, whereby said holder may be retracted as the door of the cabinet is closed.

1,029,970. METALLIC RAILROAD-TIE. WILLIAM S. BOYCE, Chicago, Ill. Filed Jan. 15, 1912. Serial No. 671,286. (Cl. 238—5.)



1. In a railroad tie, the combination of a metal tie body, and separate supports for the rails consisting each of a pedestal fixed to the tie body at the outer side of the rail and movably resting on the tie body at the inner side of the rail, and having between the tie-engaging portions a rail receiving table that is elevated and spaced from the body.

2. In a railroad tie, the combination of a metal tie body, and separate supports for the rails consisting each of a pedestal fixed to the tie body at the outer side of the rail and movably resting on the tie body at the inner side of the rail, and having between the tie-engaging portions a rail receiving table that is elevated and spaced from the body, the connection between the table and the tie-engaging portions being formed by downwardly and outwardly diverging legs.

3. In a railroad tie, the combination of a metal tie body, a pedestal for each rail consisting of a rail-engaging table, inclined legs extending downwardly from the table, the outer one of said legs being rigidly secured to the tie body, and the other leg being in slidable engagement with the tie body, and a strap overlying the foot of the inner leg.

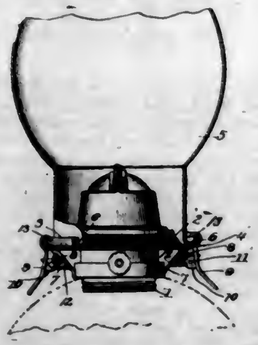
4. In a railroad tie, the combination of a metal tie body, a pedestal for each rail consisting of a rail-engaging table, inclined legs extending downwardly from the table, the outer one of said legs being rigidly secured to the tie body, and the other leg being in slidable engagement

with the tie body, and a strap overlying the foot of the inner leg, said foot being notched at opposite sides to receive portions of said strap.

5. In a railroad tie, the combination of a metal tie body, a pedestal for each rail consisting of a rail-engaging table, inclined legs extending downwardly from the table, the outer one of said legs being rigidly secured to the tie body, and the other leg being in slidable engagement with the tie body, a strap overlying the foot of the inner leg, and means to limit the sliding movement of said inner leg.

[Claims 6 to 12 not printed in the Gazette.]

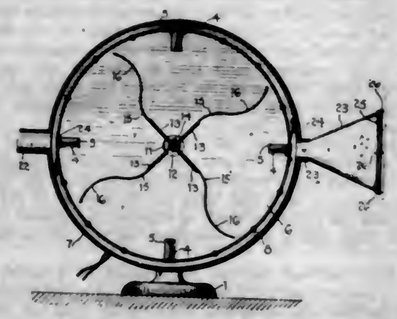
1,029,971. LAMP BURNER AND CHIMNEY. Moscow E. Bridges, Shubuta, Miss. Filed May 16, 1911. Serial No. 627,605. (Cl. 240—99.)



1. In a lamp, a burner having a neck, a base located above the neck, strips connecting the neck and base and bracing the same and supporting the base, spring-pressed chimney-engaging fingers mounted upon the said strips and having chimney engaging ends projecting above the said base, and a chimney having its lower end disposed upon the said base and provided with an outwardly projecting flange engaged by the said ends of the fingers.

2. In a lamp, a burner having a neck, a base located above the neck, strips connecting the neck and base and bracing the same and supporting said base, the said base being formed with an upwardly and outwardly curved flange, a lamp chimney having its lower end disposed upon the said base and provided with an outwardly and upwardly curved flange fitting within the flange of the base of the burner, and spring-pressed chimney-engaging fingers mounted upon the said strips and having hooked upper ends engaging over the flange of the chimney.

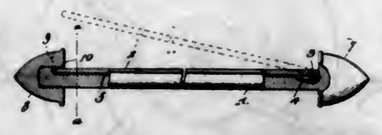
1,029,972. ELECTRIC SUCTION INSECT-TRAP. Francis M. Britton, Minot, N. D. Filed July 1, 1911. Serial No. 636,320. (Cl. 43—1.)



1. A trap comprising a motor, a fan mounted upon the shaft of said motor, a housing inclosing said fan, an inlet leading from said housing, a plurality of outlets leading from said housing, guiding plates secured to the inner face of the said housing and adjacent said outlets for directing air through said outlets and receptacles adapted to be connected with said outlets.

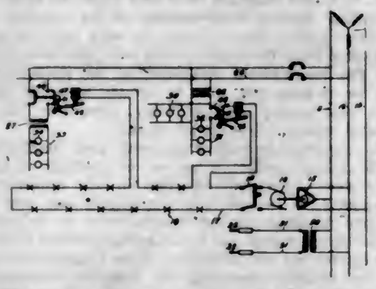
2. A trap comprising a housing provided with an inlet and with outlets, a fan in said housing, and guiding plates mounted upon said housing adjacent said outlets for directing air through said outlets, and receptacles connected with said outlets.

1,029,973. CURTAIN-POLE. Earl A. Brockway, Marienville, Pa. Filed Dec. 24, 1910. Serial No. 599,062. (Cl. 156—19.)



The herein described curtain pole having one side concavely recessed, said recess extending longitudinally from points adjacent to the ends of the pole, and positioned beneath the center of the same, a clamping bar having one side convexed and arranged to fit into said recess, means for pivotally securing one end of said bar to said pole, a spring adjacent to said means tending to move said bar to an open position, a knob integrally secured to one end of said pole and adjacent to said means so as to form a stop for the bar in its radial movement, another knob arranged to fit over the other end of said pole and lock on the free end of said bar to hold the same securely to said pole, substantially as described.

1,029,974. CONTROLLING MEANS FOR ELECTRIC CIRCUITS. George A. Burnham, Saugus, Mass., assignor to Sears B. Condit, Jr., Brookline, Mass. Filed Dec. 22, 1911. Serial No. 667,320. (Cl. 171—97.)



1. The combination of two circuits, a switch to control one of said circuits, electro-magnetic means arranged in the other circuit and responsive to a current of one character to close the switch and responsive to a current of another character to open the switch, substantially as described.

2. The combination of two circuits, a switch to control one of said circuits, electro-magnetic means arranged in the other circuit and responsive to a current of one character to close the switch and to hold said switch closed after said current is removed and responsive to a current of another character to open said switch, substantially as described.

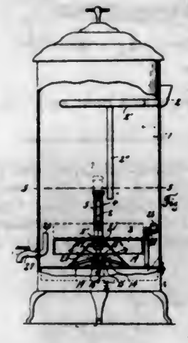
3. The combination of a constant current circuit and a constant potential circuit, a switch to control said constant potential circuit, electro-magnetic means arranged in the constant current circuit and responsive to a current of one character to close the switch and to a current of another character to open the switch, substantially as described.

4. The combination of two circuits, a switch to control one of said circuits and an electro-magnetic operating-device for said switch controlled by the other circuit and energized by a current of one character to close the switch and to hold the switch closed in case its controlling-circuit is interrupted, thereby to maintain the continuity of the controlled-circuit during periods of interruption of the controlling-circuit, and deënergized by a current of another character to open the switch, substantially as described.

5. The combination of two circuits, a switch to control one of said circuits, an electro-magnetic operating-device for said switch controlled by the other circuit and energized by a current of one character to close the switch and deënergized by a current of another character to open the switch, said device having means whereby its magnetic-circuit remains closed in case the controlling-circuit is interrupted, thus maintaining the continuity of the controlled-circuit, substantially as described.

[Claims 6 to 14 not printed in the Gazette.]

1,029,975. REGULATOR FOR LIQUID-BOILERS. Adam Carpenter, Tacoma, Wash. Filed Nov. 15, 1910. Serial No. 592,501. (Cl. 236—4.)



1. In combination, a liquid boiler and a regulator therefor comprising a pressure operated device arranged in the boiler, a heater, means controlling the operation of the heater connected with said pressure operated device, and means for locking the pressure operated device in inoperative position when the liquid in the boiler falls to a predetermined level.

2. In combination, a boiler, a heater therefor, a regulator comprising a pressure operated device in the boiler, controlling means for the heater operably connected with the pressure operated device, said pressure operated device consisting of a bell immersed in the boiler, and a float operated device for preventing movement of the bell in one direction when the level of the liquid in the boiler reaches a predetermined point.

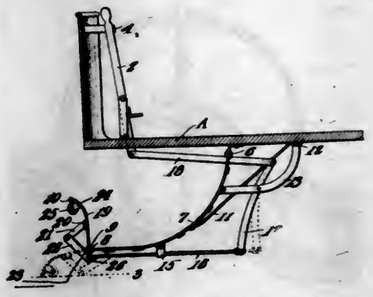
3. In combination, a boiler, a heater therefor, an automatic regulator comprising a bell arranged in the boiler and adapted to receive and confine vapor generated in the boiler by the heater, means permitting movement of the bell according to the varying pressure of the vapor confined thereby, and a liquid inlet entering the boiler and comprising a terminal above the bell and slightly spaced from the upper limit of its movement, and means connecting the bell operably with the heater for controlling the operation of the latter.

4. In combination, a boiler, a heater therefor, controlling means for the heater, a regulator in the boiler comprising a bell connected to said controlling means, an air pipe leading into the boiler and having a vertical extension, a guide receiving said extension and connected with the bell for directing its movement, and a valve for said air pipe permitting the passage of air from beneath the bell to a point exterior to the boiler.

5. In combination, a boiler, a heater therefor, a bell vertically movable in the boiler and operably connected with the heater for controlling the latter, an air pipe leading into the boiler and having an extension passing beneath the bell, and a valve for said air pipe.

[Claim 6 not printed in the Gazette.]

1,029,976. CAR-FENDER. William E. Crews, Terre Haute, Ind. Filed June 7, 1911. Serial No. 631,778. (Cl. 105—127.)



1. A car fender including a body portion, an extension, a pivot rod engaging said body portion and extension, a link pivotally connected to the extension, said link having a recessed portion, and manually operated means for shifting the recessed portion of the link into engagement with the pivot rod and for swinging said link with the rod as its fulcrum to lower the extension relative to the body portion.

2. A car fender including a body portion, an extension, a pivot rod engaging the extension and body portion, rollers carried by the extension for contacting with the rails on which the car is mounted, a link pivotally connected to the extension, means for shifting the link against the rod and for swinging said link to lower the extension, and stop devices upon the extension and movable against the body portion.

3. A car fender including a slotted angle iron for attachment to a car platform, a fender body secured to and depending from said angle iron, an extension hingedly connected to the fender body, a brace secured to an intermediate portion of the body and adapted to be connected to a car platform, a lever fulcrumed upon the brace, a connection between said lever and the extension, and lever operating means guided within the slotted angle iron.

4. A car fender including a body portion, an extension hingedly connected to the forward end thereof, means on the extension and coöperating with said body portion for limiting the swinging movement of the extension in one direction relative to the body portion, a recessed link movably connected to the extension, a slidable member connected to the link, a guide therefor and upon the body portion, and means for actuating the member in one direction to shift the recessed portion of the link into engagement with the body portion and to swing the link to lower the extension relative to said portion.

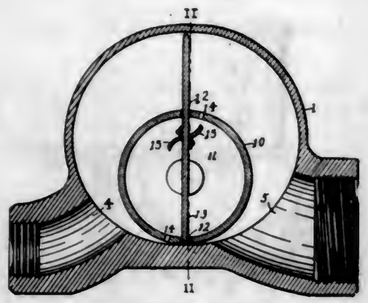
5. A car fender including a body portion, an extension hingedly connected to the forward end thereof, a rearwardly extending brace upon said body portion, a brace for connecting the body to a car structure, a lever fulcrumed within the brace, means for actuating the lever, a link connected to the hinged extension, a rod connection between the lever and link, and a guide upon the body portion within which said connection is mounted.

[Claim 6 not printed in the Gazette.]

1,029,977. PUMP. Robert C. Dawson, East McKeesport, Pa., assignor of one-third to Thomas F. Wiley and one-third to Lewis N. Morgan, McKeesport, Pa. Filed Dec. 29, 1911. Serial No. 668,506. (Cl. 103—44.)

1. In a pump, a casing having a cylindraceous bore and provided with an inlet port and an outlet port, a rotary

drum eccentrically mounted in said casing and having its perimeter bearing upon the perimeter of said casing between said ports, a blade slidingly mounted in said drum and rotating therewith, means for admitting water to said drum, and means co-acting with the water in said drum for maintaining the ends of said blade out of contact with the perimeter of said casing while said blade is rotating.



2. In a pump, a casing having a cylindraceous bore and provided with an inlet port and an outlet port, a rotary water containing drum eccentrically mounted in said casing and having its perimeter bearing upon the perimeter of said casing between said ports, a blade slidingly mounted in said drum and rotating therewith, and members mounted on said blade within said drum and co-acting with said water to maintain the ends of said blade out of contact with the perimeter of said casing while said blade is rotating.

3. In a pump, a casing having a cylindraceous bore and provided with an inlet port and an outlet port, a rotary drum eccentrically mounted in said casing and having its perimeter bearing upon the perimeter of said casing between said ports, said drum being provided with ports for the admission of water into the interior thereof, a blade slidingly mounted in said drum and rotating therewith, and vanes mounted on said blade within said drum and co-acting with the water in the latter to maintain the ends of said drum out of contact with the perimeter of said casing while said blade is rotating.

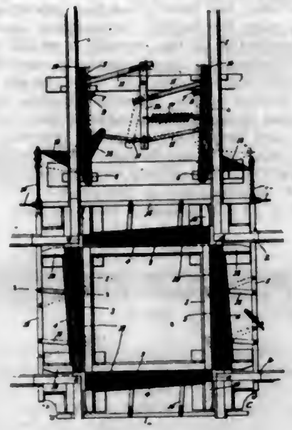
4. In a pump, a cylindraceous casing provided with an inlet port and an outlet port, a water filled drum eccentrically mounted in said casing and having its perimeter bearing upon the perimeter of said casing between said ports, a blade slidingly mounted in said drum and rotating therewith, vanes curved in opposite directions fixed on opposite sides of said blade adapted to be acted upon by the water in said drum to cushion the movement of said blade, and means for rotating said drum.

5. In a pump, a casing provided with an inlet and outlet port, a water-containing drum revoluble within said casing, a blade slidingly carried by and movable with said drum and projecting thereinto, and means disposed within said drum and co-acting with the water therein for overcoming centrifugal force upon said blade.

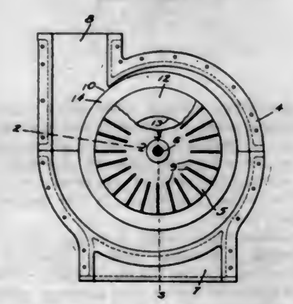
[Claim 6 not printed in the Gazette.]

1,029,978. RAILWAY-CROSSING. CHARLES DIEDREACH, Stockton, Cal. Filed Nov. 14, 1911. Serial No. 660,186. (Cl. 104—116.)

A device of the character described comprising the combination with a railway intersection, of two blocks pivotally mounted on each side of the intersection and being held in normal contact with the sides of the rails, two sliding rails on each side of the inside of the intersection, levers connected with each of said sliding rails, rods connected with said levers, bell cranks connected with said rods, links connected with said bell cranks, and links connected with said last named links and with said blocks, as described.



1,029,979. FLUID-TRANSLATING DEVICE. RAYMOND N. EHRHART, Edgewood Park, Pa., assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Oct. 1, 1910. Serial No. 584,848. (Cl. 230—11.)



1. A blower, compressor or exhauster comprising an exterior casing, an impeller and an interior casing having interchangeable side walls.

2. A blower, compressor or exhauster comprising an exterior casing, an impeller and a removable interior casing having interchangeable side walls.

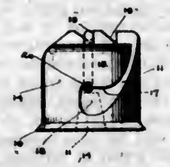
3. A blower, compressor or exhauster comprising an exterior casing, an impeller and removable partitions located on each side of the impeller to form a casing for the impeller.

4. A blower, compressor or exhauster comprising an exterior casing, an impeller and removable partitions located on each side of the impeller providing an impeller chamber, and provided with coöperating flanges for varying the effective cross-sectional area of the volute chamber of the apparatus.

5. A blower, compressor or exhauster comprising an exterior casing, an impeller and removable partitions secured in place on each side of the impeller provided with flanges which coöperate with the exterior casing to form fluid passages within the casing.

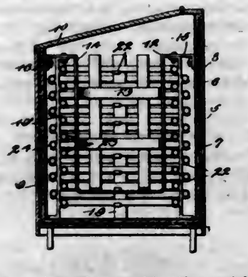
[Claims 6 to 8 not printed in the Gazette.]

1,029,980. INSULATOR. JOHN ELLIS, Salem, Mo. Filed Dec. 23, 1911. Serial No. 667,543. (Cl. 173—317.)



An insulator comprising a cylindrical base having the opposite sides thereof beveled upwardly to an apex, and a cylindrical extension of the base formed adjoining said beveled or tapered portion, the apex of said beveled or tapered portion being provided with a plurality of angular recesses, and arms formed upon said cylindrical extension of the base and extending over the faces of said beveled or tapered portion, said arms resting in spaced parallel relation thereto, and the lower sides thereof being straightened to be parallel to the plane of the base to form wire receiving recesses.

1,029,981. LIQUID-COOLER. WILLIAM FAHRMAN, FRANK FAHRMAN, and DANIEL BOLTON, Joplin, Mo. Filed Feb. 24, 1912. Serial No. 679,789. (Cl. 62—2.)



1. In a liquid cooler, the combination with a tank or reservoir, of an ice container arranged within said reservoir and rigidly secured to the walls thereof, a plurality of hanger bars connected at their upper ends to the container and resting at their lower ends upon the bottom of the reservoir to serve as additional means of support for the container, and a plurality of pipe coils extending through the walls of said reservoir and mounted upon the hanger bars.

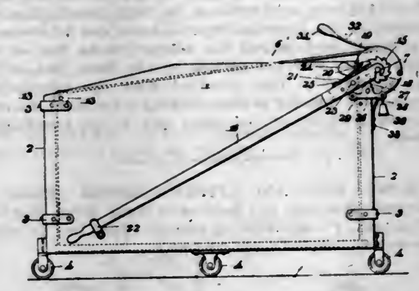
2. In a liquid cooler, the combination with a tank or reservoir, of an ice container arranged within said reservoir and spaced from the walls thereof, means to rigidly secure said container at its upper end to the side and end walls of the reservoir, a plurality of vertically disposed hanger bars connected at their upper ends to the container and resting at their lower ends upon the bottom of the reservoir, and a plurality of pipe coils mounted upon said hanger bars and having their end portions extended through the walls of the reservoir.

3. In a liquid cooler, the combination with a tank or reservoir, of an open-work ice basket arranged within said reservoir and spaced from the walls thereof, means to rigidly secure said basket at its upper end to the reservoir walls, a plurality of hanger bars connected at their upper ends to said basket and disposed between the same and the walls of the reservoir, said hanger bars resting at their lower ends upon the bottom of the reservoir and serving as additional means of support for the basket, and a plurality of pipe coils mounted upon said hanger bars and having their ends extended through the walls of the reservoir.

4. In a liquid cooler, the combination with a tank or reservoir, of an open-work ice containing basket arranged within said reservoir in spaced relation to the walls thereof, means to rigidly secure said basket at its upper end to the reservoir walls, a plurality of hanger bars arranged between the basket and the side and end walls of the reservoir and fixed at their lower ends to the bottom of the reservoir, the upper ends of said hanger bars being rigidly secured to the reservoir walls, additional hanger bars connected at their upper ends to the basket and resting at their lower ends upon the bottom of the reservoir, and a plurality of pipe coils mounted upon said hanger bars.

5. In a liquid cooler, the combination with a tank or reservoir, of an open-work basket arranged therein and spaced from the walls of the reservoir, said basket having lateral extensions at its upper end rigidly fixed to the side and end walls of the reservoir, hanger bars connected to certain of said extensions and resting at their lower ends upon the bottom of the reservoir, additional hanger bars arranged between the basket and the walls of the reservoir and rigidly secured at their ends to the reservoir walls, each of said hanger bars being provided upon its opposite sides with a vertical series of rack plates, the plates of one series being disposed alternately with relation to the plates of the other series, and spaced pipe coils arranged within said reservoir, the convolutions of the respective coils being supported upon the respective series of rack plates on the hanger bars.

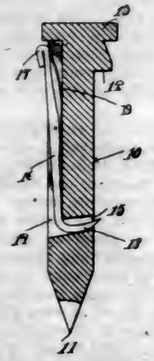
1,029,982. TRUCK. CHARLES F. FAULKNER, Birmingham, Ala., assignor of one-half to Lura B. Faulkner, Corey, Ala. Filed Dec. 18, 1911. Serial No. 666,395. (Cl. 187—11.)



1. A textile box comprising fixed sides and ends mounted upon casters, a vertically movable bottom, a shaft extending transversely of the box at the upper portion of one end thereof, sheaves fixed to said shaft adjacent its ends, cables extending from said sheaves to said bottom, a ratchet wheel on said shaft, a lever loosely mounted on said shaft, a dog on said lever adapted to engage said ratchet wheel, a spring for normally holding said dog in engagement with said ratchet wheel and adapted to be disengaged from said dog, a weighted arm on said dog, a pawl mounted adjacent said ratchet wheel and adapted to engage the same and means for holding said pawl out of engagement with said ratchet, substantially as described.

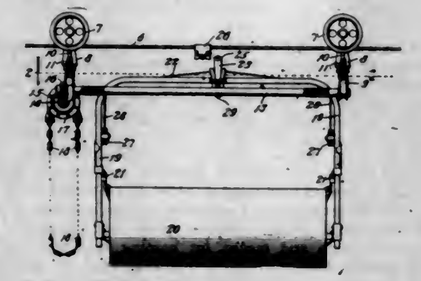
2. A textile box comprising fixed sides and ends mounted upon casters, a vertically movable bottom, a shaft extending transversely of the box at the upper portion of one end thereof, sheaves on said shaft, cables extending from said sheaves to said bottom, one end of said shaft being extended beyond the sides of the box, a ratchet wheel on said extended end, a lever loosely mounted on said shaft, a dog on said lever adapted to engage said ratchet, means for normally holding said dog in engagement with said ratchet, said means being adapted to be thrown into inoperative position, means for disengaging said dog from said ratchet when the last said means is in inoperative position and the lever lowered, a pawl mounted adjacent said ratchet and having oppositely extending arms and means for detachably engaging either of said arms to throw said pawl into or out of operative position as desired, substantially as described.

1,029,983. RAILROAD-SPIKE. OSCAR B. FELTS, Hickory Point, Tenn. Filed Sept. 15, 1911. Serial No. 649,432. (Cl. 85—23.)



A spike comprising a body having an enlarged head on its upper end and a pointed lower end, said body having a longitudinal groove in its front face and a transverse opening extending therethrough and communicating with the longitudinal groove at the lower end of the latter, a lever pivotally mounted in said longitudinal groove having its lower end directed laterally through said transverse opening, a spring constantly tending to force the upper end of said lever outwardly of the body whereby the free terminal of the laterally directed lower end of the lever is normally held beyond the adjacent front face of the body, and an enlarged portion on the front face of the body opposite to that provided with the longitudinal groove, said enlarged portion forming a resultant shoulder disposed inwardly of the upper end of the longitudinal groove.

1,029,984. FEED AND LITTER CARRIER. HENRY L. FERRIS, Harvard, Ill., assignor to Hunt, Helm, Ferris & Company, a Corporation of Illinois. Filed Dec. 10, 1910. Serial No. 596,614. (Cl. 214—4.)



1. The combination with a track and wheels thereon, of a pair of brackets carried by the wheels, a fixed bar and a rotating shaft carried by the brackets beneath and to the two sides of the track, means for rotating the shaft, a tub-supporting frame and a tub pivoted therein, and means operated by the shaft for elevating the tub-frame between the shaft and bar.

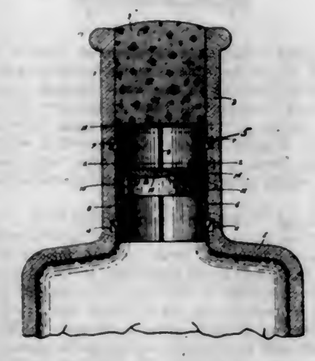
2. In combination a track and a tripping device thereon, a pair of brackets, wheels supporting the brackets and running upon the track, a fixed bar and a rotating shaft parallel therewith connecting the brackets and lying below the level of the track and to the front and rear thereof, a tub-frame, a tub pivoted therein, a latch-operating device secured to the tub-frame and means operated by the rotating shaft for elevating the tub-frame to bring the latch-operating device into engaging relation with the tripping device on the track.

3. In combination a pair of brackets, rollers supporting the brackets and a track upon which the rollers run, a bar and a shaft in parallel relation to each other and beneath the track to the front and rear thereof, bights of flexible material adapted to be shortened as the shaft is rotated, a tub-frame, sheaves on the tub-frame below its upper ends, a tub pivoted in the tub-frame whereby as the shaft is rotated the tub-frame will be raised, its upper part passing between the shaft and bar into proximity with the track.

4. In combination a pair of brackets, rollers supporting the brackets and a track upon which the rollers run, a bar and shaft in parallel relation to each other and beneath the track to the front and rear thereof, bights of flexible material adapted to be shortened as the shaft is rotated, a tub-frame, sheaves on the tub-frame below its upper ends, a tub pivoted in the tub-frame whereby as the shaft is rotated the tub-frame will be raised, its upper part passing between the shaft and bar into proximity with the track, and means for limiting the upward movement of the tub-frame.

5. In combination a tub-frame, a tub pivoted therein, latches for the tub and a latch-operating device carried by the tub-frame, all said parts being movable as a whole, a track, wheels running upon the track, brackets carried by wheels, a bar and a shaft connected by brackets extending longitudinally of and beneath the track, one to each side of the track, bights one end of each of which is attached to the shaft, sheaves on the tub-frame below its upper portion supported by said bights and means for rotating the shaft whereby, by rotating the shaft, the tub-frame and its associated parts can be elevated, the upper part of the tub-frame with the tripping device passing between the shaft and bar into close proximity with the track.

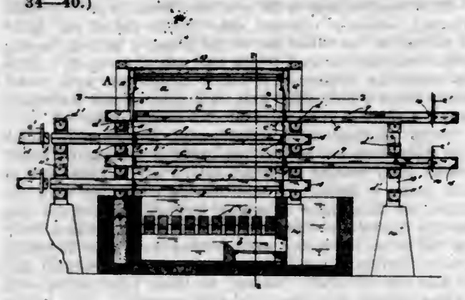
1,029,985. NON-REFILLABLE BOTTLE. BARTHOLOMEW H. FOLEY and ZELLA J. FOLEY, Stockton, Cal. Filed May 8, 1911. Serial No. 625,689. (Cl. 215—69.)



1. A non-refillable bottle comprising a bottle having a neck, a metallic tubular member secured in said neck, an inner lining of cork disposed within said tubular member, said tubular member being provided with two vertical slots, a trap member having lugs fitting into said slots, a spring pressed cap hinged to said trap member and fitting over the opening therein, and a perforated cap screwed on to the top of said tubular member, as described.

2. A non-refillable bottle comprising a bottle having a neck provided with two annular grooves spaced apart in its inner surface, a metallic tubular member disposed in said neck and having a projecting spring clip extending downwardly into the upper one of said annular grooves and a similar spring clip projecting upwardly into the lower one of said annular grooves, and a trap member disposed in said metallic member, as described.

1,029,986. CORE-OVEN. CHARLES F. FREDE and HARRY M. PFLAGER, St. Louis, Mo., assignors to Commonwealth Steel Company, St. Louis, Mo., a Corporation of Missouri. Filed May 5, 1911. Serial No. 625,361. (Cl. 34—40.)



1. In a core oven, a drying chamber having opposite door openings, a series of racks arranged one above the other and adapted respectively to support a core, and to be moved in opposite directions through the said openings, roller supports for the racks, vertically disposed members projecting upward from the racks for closing the said openings in the different positions of the racks, and hinged flaps depending from each rack for engagement with the upper edges of the vertically disposed members of the lower succeeding rack.

2. In a core oven, a drying chamber having openings formed in two opposite walls, a series of racks arranged one above the other and movable in opposite directions through the door openings, and means carried by each rack for closing the openings in the different positions of the rack, which means comprises a series of vertically disposed plates projecting upwardly from each rack and a corresponding series of hinged flaps depending from each rack which flaps are arranged beneath the vertically disposed walls.

3. In a core oven, a drying chamber having oppositely disposed door openings, a rack adapted to support a core and movable in opposite directions through the openings, means carried by the rack for closing the openings in the different positions of the rack, which means comprises a series of vertically disposed walls projecting upwardly from the rack and a corresponding series of hinged flaps depending from the rack, and roller bearings arranged on opposite sides of the chamber at suitable distances therefrom for supporting the outer end of the rack.

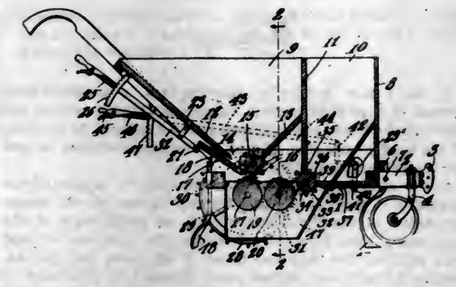
4. In a core oven, a drying chamber having door openings formed in two opposite walls, a rack adapted to support a core and movable in opposite directions through the openings in the chamber and means carried by said rack for closing the openings in the different positions of the rack, which means comprises parts rigidly fixed to the rack and corresponding parts hinged to the rack.

5. In a core oven, the combination with a drying chamber having door openings in two opposite walls, of a rack movable in opposite directions through said openings and a series of members hinged to and depending from said rack for partially closing the door openings in the different positions of the rack.

[Claim 6 not printed in the Gazette.]

1,029,987. COTTON-SEED CRUSHER AND DISTRIBUTER. JOHN A. GARDNER, Grifton, N. C. Filed Feb. 20, 1912. Serial No. 678,804. (Cl. 111—15.)

1. In a seed crusher and distributer, a wheeled frame, a two compartment hopper carried thereby, each compartment being provided with a discharge outlet, a feed roll provided with a plurality of radial teeth mounted within each outlet of the compartments, a pair of feed crushing rolls disposed below the outlet of one of the compartments, one of said rolls being operated by a traction wheel, and means for operably connecting the crushing rolls and the feeding rolls thereto, and an adjustable plate one to each outlet disposed in coactive relation with its feed roll for regulating the feed of the material through the outlet of its respective compartment.



2. In a seed crusher and distributer, a wheeled frame, a two compartment hopper carried thereby, each compartment being provided with a discharge outlet, a feed roll provided with a plurality of radial teeth mounted within each outlet of the compartments, a pair of feed crushing rolls disposed below the outlet of one of the compartments, one of said rolls being operated by a traction wheel, means for operably connecting the crushing rolls and the feeding rolls thereto, an adjustable plate one to each outlet disposed in coactive relation with its feed roll for regulating the feed of the material through the outlet of its respective compartment, and manually controlled means one to each of said plates for adjusting the plate and retaining the same in adjustment.

1,029,988. RAKE. ANNA K. GILSON, Quechee, Vt. Filed Aug. 7, 1911. Serial No. 642,683. (Cl. 55—10.)



1. The combination of a rake head having oppositely projecting series of teeth that extend in a curved or arc shaped line, and a handle attached to the rake head at the inner side of the arc at mid length thereof and extending therefrom at an angle to the chord of the arc so that the angle formed by the handle with the head is acute on one side and obtuse on the other.

2. The combination with a curved or arc shaped rake head having teeth on both sides thereof, of a handle attached on the inner side of the arc at its center and extending therefrom at an angle of approximately seventy-five degrees to the chord of the arc so that the angle formed by the handle with the head is acute on one side and obtuse on the other.

1,029,989. GARMENT-HOOK. HARRIOTT GRANT, Syracuse, N. Y., assignor to The De Long Hook & Eye Company, Philadelphia, Pa., a Corporation of West Virginia. Filed Sept. 4, 1900. Serial No. 28,894. (Cl. 24—228.)



1. As a new article of manufacture, a garment-hook formed of wire bent to form thread-engaging means at the bight of the hook, and a thread-guard arranged in the loop of the hook at the rear of said means, substantially as and for the purpose specified.

2. As a new article of manufacture, a garment-hook formed of a single piece of wire and having thread-engaging means at the bight of the hook, an end-portion of the wire being bent forwardly between the portions of said wire forming the shank-portions of the hook, and the extremity of said end-portion being disposed in proximity to the bight of the hook and being bent at an angle to said shank-portions to project into and across the loop of the hook and thereby form a thread-guard at the rear of the thread-engaging means, substantially as and for the purpose described.

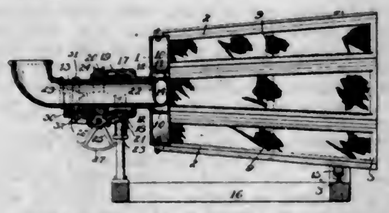
3. A garment hook embodying a shank and a bill, and a plurality of bends existing at different points longitudinally of the structure and extending from said shank to said bill, the innermost bend serving to engage an eye and being in the normal operation of the hook impassable to said eye, and an inner and outer bend adapted to confine in position a shank securing thread passed between them.

4. A garment hook having a shank and a bill existing in approximately parallel planes, and having an eye passage between them, a strain receiving bend extending across the distant end of said eye passage, and impassable to an eye entering said passage, and a member extending approximately perpendicular to the planes of the shank and bill, and arranged at a point longitudinally of the hook a sufficient distance to the front of said bend to afford space between itself and said bend for a shank securing stitch, substantially as set forth.

5. A garment hook having a shank and a bill, existing in approximately parallel planes, and having an eye passage between them, a strain receiving bend extending across the distant end of said eye passage and impassable to an eye entered in said passage, and a member extending approximately perpendicular to the planes of the shank and bill, and arranged at a point a sufficient distance, longitudinally of the hook, to the front of said bend to afford space between itself and said bend for a shank securing stitch, the respective ends of said last named member merging into the hook structure.

[Claims 6 to 10 not printed in the Gazette.]

1,029,990. APPARATUS FOR SCREENING OR WASHING FIBROUS MATERIAL AND THE LIKE. BERNARD GRANVILLE, New York, N. Y., assignor to National Fibre Products Company, a Corporation of Delaware. Filed Aug. 31, 1911. Serial No. 647,113. (Cl. 141—12.)

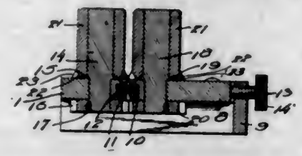


1. In apparatus of the class described, a rotary drum carrying screen material, a pair of anti-friction rollers at opposite sides of one end of the drum for supporting the same, a journal at the other end of the drum, a bearing in which said journal rotates, said bearing having movement about a horizontal and also about a vertical axis to allow the drum to oscillate, substantially as described.

2. In combination with a screen drum, a pair of anti-friction rollers at opposite sides of one end of the drum, a journal at the other end of the drum, a housing having roller bearings through which the journal extends, a yoke in which the housing is pivotally mounted to have movement about a horizontal axis, said yoke having movement about a vertical axis, substantially as described.

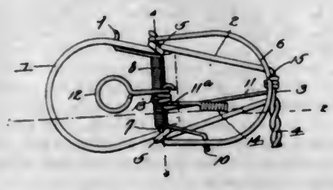
3. In combination, a screen drum, anti-friction rollers for supporting one end of the drum, a substantially universal joint bearing arranged axially at the other end of the drum, a journal in said bearing connected with the drum, an inlet pipe extending through the journal and having a laterally directed discharge mouth, buckets within the drum to receive the material from said discharge mouth, driving means connected with the journal, and means for adjustably holding the inlet pipe independent of the journal, substantially as described.

1,029,991. SAW-SET. WILLIAM L. HAMPTON, Stowe, Pa. Filed Aug. 16, 1911. Serial No. 644,284. (Cl. 76—59.)



The combination with a base plate having a recess formed therein, said plate having supporting side flanges formed with undercut grooves adjacent the recess, of a slide plate having beveled edges fitting in the grooves of the flanges, a spring for holding the slide plate outward in the recess, a cap plate secured to the ends of the flanges for retaining the slide plate in the recess, a set screw engaged in the cap plate for forcing the slide plate inward, a post rotatably supported by the side plate, a second post rotatably mounted on the main plate, sleeves secured on the posts, both of said sleeves having interengaging teeth and beveled portions for bending and receiving saw teeth, and means for causing the posts and sleeves to rotate in unison.

1,029,992. ANIMAL-TRAP. CLYDE M. HARRINGTON, Chrisman, Ill. Filed Sept. 29, 1911. Serial No. 651,995. (Cl. 43—21.)



1. In a trap, the combination of a frame provided with a fixed jaw, a movable jaw pivoted upon the frame for coöperation with the fixed jaw, a spring for actuating the movable jaw, a treadle carrying arm pivoted upon the frame and provided with a hook member adapted to engage the movable jaw, and a treadle mounted upon the treadle carrying arm and formed with a hook member adapted to engage a fixed portion of the trap.

2. In a trap, the combination of a frame formed with a fixed jaw, a movable jaw pivoted upon the frame for coöperation with the fixed jaw, a spring for actuating the movable jaw, a treadle carrying arm pivoted upon the frame and formed with a spring hook adapted to engage the movable jaw, and a treadle mounted upon the treadle carrying arm for engagement with some fixed portion of the trap, the spring hook member of the treadle carrying arm being adapted to yield a sufficient amount to admit of the movable jaw being forced into engagement therewith after the treadle has been set.

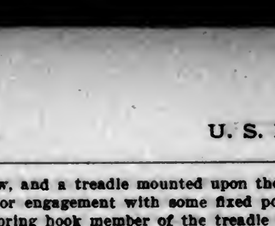
3. In a trap, the combination of a frame formed with a fixed jaw, a movable jaw pivotally mounted upon the frame for coöperation with the fixed jaw, a spring for actuating the movable jaw, a treadle carrying arm pivoted upon the frame and formed with a hook member adapted to engage the movable jaw, and a counterweighted treadle member mounted upon the treadle carrying arm and formed with a pendent hook member adapted to engage some fixed portion of the trap.

4. In a trap, the combination of a frame formed with a fixed jaw, a movable jaw pivoted upon the frame for coöperation with the fixed jaw, a spring for actuating the movable jaw, a treadle carrying arm pivoted upon the frame and formed at the pivot end thereof with a spring hook member adapted to engage the movable jaw, and a counter balanced treadle mounted upon the free end of the treadle carrying arm, the said treadle being formed with a pendent hook member adapted to engage a fixed portion of the trap and the spring hook of the treadle carrying arm being adapted to yield a sufficient amount to admit of the movable jaw being forced into engagement therewith after the treadle mechanism has been set.

5. In a trap, the combination of a frame formed with a fixed jaw, a movable jaw pivoted upon the frame for coöperation with the fixed jaw and having a cross bar at the pivot end thereof, a spring for actuating the movable jaw, a treadle carrying arm pivoted upon the frame and formed with a hook member adapted to engage the movable jaw, and a treadle mounted upon the free end of the treadle carrying arm and formed with a hook member adapted to extend under the before mentioned bar.

[Claim 6 not printed in the Gazette.]

1,029,993. AUTOMOBILE-JACK. CHARLES A. HART, Findlay, Ohio. Filed Oct. 16, 1911. Serial No. 654,870. (Cl. 57—15.)



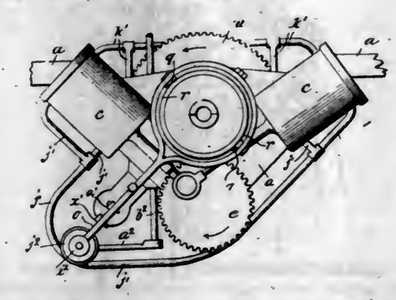
1. An automatic jack for automobiles comprising fulcrum members, lifting standards carried by said members and adapted to be engaged by an axle to elevate the latter on tilting of the fulcrum members, runners to receive thereon the wheels of a vehicle, and links each connected at opposite ends with a fulcrum member and its adjacent runner.

2. An automobile jack for automobiles comprising fulcrum members, lifting standards carried by said members and adapted to be engaged by an axle to elevate the latter on tilting of the fulcrum members, runners to receive thereon the wheels of a vehicle, and links each connected at opposite ends with a fulcrum member and its adjacent runner, the connection of each link to its fulcrum member being located at the fulcrum point of the latter.

3. An automatic jack for automobiles comprising fulcrum members, lifting standards carried by said members and adapted to be engaged by an axle to elevate the latter on tilting of the fulcrum members, runners to receive thereon the wheels of a vehicle, and links each connected at opposite ends to the outer side and inner side respectively, of a fulcrum member and its adjacent runner.

4. An automobile jack comprising a tiltable frame, fulcrums therefor, runners, and connecting links between the fulcrums and runners, said links comprising swivel joints to permit the runners to be moved alongside the fulcrum and then rotated to extend beneath the latter.

1,029,994. PNEUMATIC ENGINE-STARTER. JOHN ALLEN HEANY, Washington, D. C. Filed July 17, 1911. Serial No. 638,875. (Cl. 123—179.)



1. In an apparatus of the class described, the combination of a storage tank, a convertible air motor and pump, differential gearing between the same and the engine shaft, and automatic means for converting the apparatus from a pump to a motor upon the attainment of a predetermined pressure in the tank.

2. In an apparatus of the class described, the combination of a pressure tank, a convertible air motor and pump between the tank and the engine shaft, differential gearing between the same and the engine shaft, automatic clutches for the gearing, and means for automatically throwing out the pumping gearing and locking it out of action and converting the apparatus into a motor upon the attainment of a predetermined pressure in the tank.

3. In an apparatus of the class described, a storage tank, a pneumatic appliance convertible from the motor to a pump and vice versa, means connecting it to the engine shaft, and means operable by excess pressure in the tank for automatically converting the appliance from a pump to a motor and locking the parts in that position, and manual means for starting the motor and simultaneously unlocking the aforesaid locking means, whereby upon release of the manual means for starting the motor the parts will be restored to pumping position.

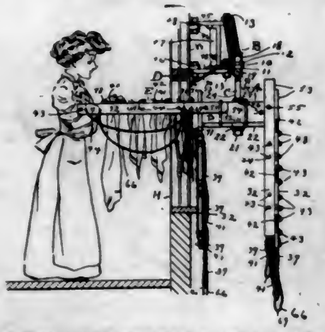
4. In an apparatus of the class described, a storage tank, a pneumatic appliance convertible from a pump to a motor and vice versa, means connecting the shaft thereof to the shaft of the engine, valve mechanism for said pneumatic appliance, automatic means for shifting this valve mechanism to motor position and locking it in that position, manual means for starting the motor and simultaneously unlocking the parts, and means for restoring the parts to pumping position when said manual means is released.

1,029,995. CLOTHES-DRIER. HENRY HERSTEIN, Brooklyn, N. Y. Filed Mar. 28, 1910. Serial No. 551,840. (Cl. 68—34.)

1. In a clothes drier having a reel comprising a central plate provided with lateral arms for supporting clothes hanging means, each of said arms pivotally mounted on said plate, and a slide ring 57 adapted to slide on said frame and to engage and disengage with the said arms adjacent said pivot.

2. A clothes drier comprising a reel pivotally mounted on a swinging arm, the said reel comprising a set of four bays spaced at 90 degree intervals and each of the said bays comprising a pair of parallel arms cross-connected by clothes-hanging means, the said bays individually being capable of being bodily received for their entire length within a window space while rigidly connected by their inner ends.

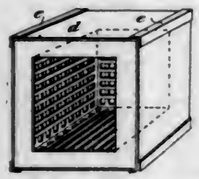
3. A clothes drier comprising a reel pivotally mounted on a swinging arm, the said reel comprising a set of four bays spaced at 90 degree intervals, and each of the said bays comprising a pair of parallel arms, and the said arms of each bay cross-connected by clothes-hanging means, and the said means comprising a multiple of units, each of which is removable, whereby when the outer units are removed, a free operating space is provided between the arms.



4. A clothes drier comprising a reel pivotally supported on a swinging arm, the said arm comprising an elbow-jointed structure having two arm sections pivotally connected whereby the said reel may be brought into operating position at a window space and the point of support for the said swinging arm may be relatively close to the said window space.

5. In a clothes drier comprising a reel pivotally supported on a swinging arm B, the said arm comprising a V shaped fore arm 10 having the inner ends pivotally supported in vertical alinement by a pair of swinging arms 45, which latter are pivotally mounted by their rear ends to a fixed support.

1,029,996. BURGLAR-PROOF SAFE. JAMES H. HOWARD, Medford, Mass. Filed Aug. 24, 1910. Serial No. 578,647. (Cl. 109—1.)



1. In combination with a safe having continuous fireproof walls, a vented lining contained within the top, bottom, back and sides of the safe.

2. In combination with a safe having continuous fireproof walls, a burglar proof vented inner cage forming five sides of a parallelepiped and set into the interior of the safe.

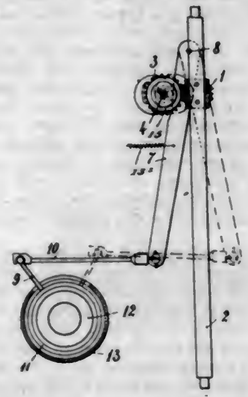
3. A safe having a door adapted to be secured in closed position and being constructed so that the fastening between the door and walls of the safe is stronger than the weakest portion of the safe, and a burglar-resisting inner cage set within the safe and having an open side toward the door, said cage being constructed with vents, so as to permit escape through its vents of gases generated by explosives, whereby the weakest point of the safe will fail and the cage with the door may form a complete burglar proof container for valuables.

4. In a safe an outer shell of material refractory to heat a cage set within the interior thereof, and lining the top, bottom, back and sides, said cage having one or more of its walls vented to permit free escape of the gases of an explosive charge, and being constructed of material resistant to shock and cutting tools.

5. A safe having walls and a door of fire proof material including a filling of cement or simair material, and a lining for said safe comprising a box or cage-like structure of material resistant to shock and cutting tools, embedded to a greater or less extent in the cement, and being vented to permit escape of the gases of explosive compounds.

[Claim 6 not printed in the Gazette.]

1,029,997. LENS-DIAPHRAGM-CONTROLLING DEVICE FOR KINEMATOGRAPHIC APPARATUS. ERNEST ALBERT IVATTS, Paris, France, assignor to Society Compagnie Generale De Phonographes, Cinematographes Et Appareils De Precision, Paris, France. Filed Sept. 1, 1910. Serial No. 580,000. (Cl. 88—16.)



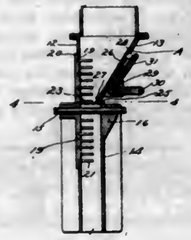
1. In a kinematographic apparatus, the combination of a lens-diaphragm with an automatic controlling device therefor, said device comprising a driving member and a driven member, mechanism for operatively connecting said members, said mechanism including engageable and disengageable parts, a cam carried by said driven member, and means actuated by said cam for opening and closing said lens-diaphragm.

2. In a kinematographic apparatus, the combination of a lens-diaphragm with an automatic controlling device therefor, said device comprising a driving member and a driven member, mechanism for operatively connecting said members, said mechanism including an engageable and disengageable gear and screw, a cam carried by said driven member and a lever actuated by said cam for opening and closing said lens-diaphragm.

3. In a kinematographic apparatus, the combination of a lens-diaphragm with an automatic controlling device therefor, said device comprising a driving shaft and a driven shaft, a gear on said driven shaft and an endless screw on said driving shaft, said gear and screw being engageable and disengageable, a cam shaped part carried by said driven shaft having a portion of the operative face thereof substantially in parallelism with said driven shaft and having another portion of said face inclined to the axis of said shaft, and a lens-diaphragm controlling part actuated by said cam-shaped part, one of said parts being laterally displaceable with respect to the other of said parts, the amount of displacement determining the maximum opening of the diaphragm during a determined rotary movement of the driven shaft.

4. In a kinematographic apparatus, the combination of a lens-diaphragm with an automatic controlling device therefor, said device comprising a driving member and a driven member, mechanism for operatively connecting said members, said mechanism including engageable and disengageable elements, a cam shaped part carried by said driven member having a portion of the operative face thereof inclined to the axis of said driven member and having another portion of said face at an angle to said first mentioned portion, and a lens-diaphragm controlling part actuated by said cam-shaped part, one of said parts being laterally displaceable with respect to the other of said parts, the amount of displacement determining the maximum opening of the diaphragm during a determined movement of the driven member.

1,029,998. FEED ATTACHMENT FOR HOPPERS. WILLIAM A. JOPLIN, Lawrence, Mass., assignor to Pneumatic Scale Corporation Limited, Quincy, Mass., a Corporation of Maine. Filed Dec. 5, 1910. Serial No. 595,575. (Cl. 146—9.)

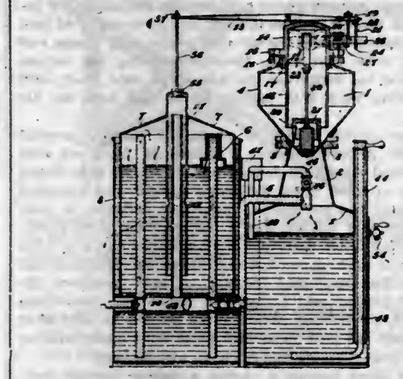


1. In combination with a hopper having a circular opening in one wall, a rotary disk mounted in said circular opening and having a plurality of pins projecting from the face thereof in a transverse direction of the passage through the said hopper but of less length than the width of the narrowest part of the passage, a plate projecting from the wall opposite the pin disk and extending transversely of said passage, the portion of the plate which extends into the part of the passage traversed by the pins on the upward movement extending substantially the full width of that portion of the passage and formed with parallel sided slots in alinement with the path of the pins on the upstroke to permit passage of the pins, that portion of the plate which extends toward the part of the passage traversed by the pins on the downstroke being of a lesser width than the other portion whereby the portion traversed on the down stroke is entirely unobstructed by the plate.

2. In combination with a hopper having a circular opening in one wall, a rotary disk mounted in said circular opening and having a plurality of pins projecting from the face thereof in a transverse direction of the passage through the said hopper but of less length than the width of the narrowest part of the passage, a plate projecting from the wall opposite the pin disk and extending transversely of said passage, the portion of the plate which extends into the part of the passage traversed by the pins on the upward movement extending substantially the full width of the passage and formed with parallel sided slots in alinement with the path of the pins on the upstroke to permit passage of the pins.

1,029,999. ACETYLENE-GENERATOR. JOHN KILBURN, JOHN WESLEY FAIRLEY, THOMAS BESSELL KIDNER, WILLIAM HERBERT IRVINE, and WILLIAM TURNBULL CHESTNUT, Fredericton, New Brunswick, Canada, assignors to Monitor Gas Generator Company, New York, N. Y., a Corporation of New York. Original application filed Feb. 8, 1911, Serial No. 607,708. Divided and this application filed July 6, 1911. Serial No. 637,098. (Cl. 48—53.1.)

1. In combination with an acetylene gas generator comprising a carbid receptacle, a cap for said receptacle, a flanged ring having an outer annular flange for supporting said cap and also an inner annular flange, a guard tube having at its upper end an exterior annular flange for suspending said tube detachably within the said carbid receptacle, a valve for cutting off the outflow of carbid from the latter, means arranged within said guard tube for suspending said valve and devices for raising said means within said guard tube and permitting it to descend within the same for the purpose set forth, substantially as set forth.



2. In combination with an acetylene gas generator comprising a carbid receptacle, a flanged ring resting on the top of said receptacle, a cap resting on said flanged ring, means for detachably fastening said cap and ring together, and a rockshaft journaled in said cap, whereby the removal of said cap will remove the rock-shaft also, without disturbing the ring or any other part.

3. In combination with an acetylene gas generator comprising a carbid receptacle, a cap for said receptacle having at its base an exterior annular flange, a depending tube having at its upper end an exterior annular flange, a flanged ring supported by said receptacle and having two flanges, one being for the first mentioned flange to rest on in supporting the cap, the other for the second flange to rest on in supporting the tube, means for detachably fastening together the contiguous flanges of the cap and ring and a rock-shaft journaled in said cap and removable therewith, leaving the said ring, receptacle and tube all undisturbed.

4. In combination with a generator of the character described, a cap, a rock-shaft journaled therein, a flanged ring supporting said cap, a guard tube supported by said ring, a valve in said guard tube, connections between said valve and said rock-shaft and means for operating said rock-shaft.

1,030,000. GAS-STOVE. LOUIS LEBOVITZ, Pittsburgh, Pa. Filed Mar. 23, 1911. Serial No. 616,526. (Cl. 126—127.)



1. A gas stove having a casing, a burner in said casing, a frame in front of said casing, a hood extending down from the top of said casing and frame and out from the front thereof and provided with a closed upper portion, an auxiliary deflector in said casing above said burner, and a substantially horizontally disposed plate located above and extending forward of said auxiliary deflector and beyond said casing and frame, thereby covering the bottom of said hood for deflecting the heat from said hood, said plate forming with the casing, frame and hood an air chamber.

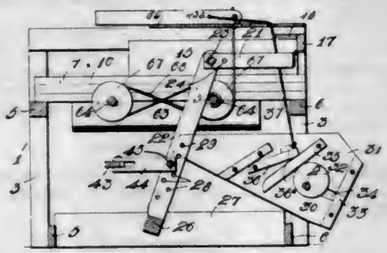
2. A gas stove having a casing, a burner in said casing, a frame in front of said casing, a hood extending down from the top of said casing and frame and out from the

front thereof and provided with a closed top portion, an auxiliary deflector in said casing above said burner, and a plate having a back portion extending up from said burner and a portion located above said burner and auxiliary deflector, said last named portion extending forward of said auxiliary deflector and beyond said casing and frame and connecting with said hood, thereby covering the bottom of said hood for deflecting the heat from said hood, said plate forming with said casing, frame and hood an air chamber.

3. A gas stove having a casing, a burner located horizontally in said casing, a frame in front of said casing, a hood extending down from the top of said casing and frame and out from the front thereof and provided with a closed top portion, an auxiliary deflector in said casing above said burner, and a plate having a back portion extending below and back of said burner and a portion located above said burner and auxiliary deflector, said last named portion extending forward of said auxiliary deflector and beyond said casing and frame and connecting with said hood, thereby covering the bottom of said hood for deflecting the heat from said hood, said plate forming with said casing, frame and hood an air chamber.

4. A gas stove having a casing, a burner located horizontally in said casing, a frame in front of said casing, a hood extending down from the top of said casing and frame and out from the front thereof and provided with a closed top portion, an auxiliary deflector in said casing above said burner, and a plate having a portion extending below and back of said burner and a portion located above said burner and auxiliary deflector, said last named portion extending forward of said auxiliary deflector and beyond said casing and frame and connecting with said hood in substantially a horizontal line, thereby covering the bottom of said hood for deflecting the heat from said hood, said plate forming with said casing, frame and hood an air chamber.

1,030,001. OPERATING MECHANISM FOR SHOE-POLISHING MACHINES. LEWIS LEVIN, New Castle, Pa. Filed June 23, 1910. Serial No. 568,500. (Cl. 74—14.)



1. In a shoe polishing machine, the combination of a reciprocatory member, a vibratory lever connected therewith, an operating shaft, a cam on said shaft, a link pivoted to the lever and extending therefrom toward and past the shaft, devices mounted on said link to engage opposite sides of said cam and thereby actuate the lever, and means to release some of said devices from the cam whereby the shaft may continue to rotate without actuating the lever.

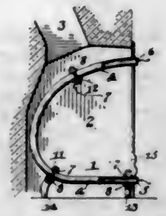
2. In a shoe polishing machine, the combination of a reciprocatory member, a vibratory lever connected therewith, an operating shaft, a cam on said shaft, a link pivoted to the lever and extending therefrom to and beyond the shaft, a bearing block fixed on said link and engaging the cam, gravity devices on the link adapted to engage the cam at the side opposite the bearing block, and means for releasing said gravity devices to render the link inoperative.

3. In a shoe polishing machine, the combination of a reciprocatory member, a vibratory lever connected therewith, an operating shaft, a cam on said shaft, a link pivoted to the lever and extending beyond the shaft, a fixed bearing block on said link engaging the cam, a second bearing block pivoted on the link and bearing against the cam at the side opposite the fixed bearing block, a gravity latch pivoted on the link and adapted to rest upon the pivoted bearing block to hold the same in engagement with the cam to effect movement of the link and lever, and means to release said latch from the bearing block and thereby render the link and lever inoperative.

4. In a shoe polishing machine, the combination of an operating shaft, a cam on said shaft, a reciprocatory member, a lever connected therewith, a link pivoted to and depending from said lever, a swinging bearing block on said link adapted to bear against said cam, gravity actuated means for holding said bearing block to the cam, and means for releasing said holding means.

5. In a shoe polishing machine, the combination of a reciprocatory member, a vibratory lever connected therewith, a link pivoted to the lever, an operating shaft, a cam on said shaft, a swinging bearing block carried by the link and arranged to bear against the cam, a gravity latch carried by said link and bearing against said bearing block to hold it against the cam, and means for releasing said latch.

1,030,002. GRATE. FRANK S. LIVINGSTON, Los Angeles, Cal. Filed Feb. 12, 1908. Serial No. 415,575. (Cl. 126—164.)



The combination with a fire place, of a grate made up of tubular bars extending continuously beneath the bed of the fire, thence upwardly around and over the same, so that the air entering the tubes at the bottom and passing upwardly through them collects and diverts many heat units from the chimney flue and carries the same into the building, a plurality of transverse clamping bars for holding the grate bars together, supports projecting from some of said bars, and a grate front independent of the grate bars and secured to one of the said transverse clamping bars.

1,030,003. SOLE AND HEEL PLATE. ENOCH P. MEAD, Salt Lake City, Utah. Filed June 20, 1911. Serial No. 634,310. (Cl. 36—74.)



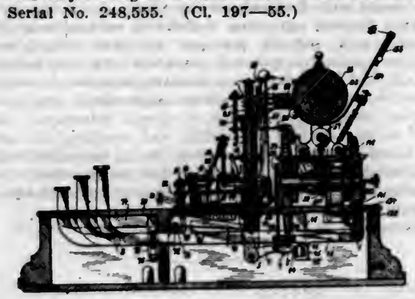
A sole and heel plate comprising a metal disk bent to form a semi-cylindrical annulus having securing points formed integrally on the outer edge thereof and having the inner edge bent to form a suction chamber between said metal annulus and the tread of a shoe when said securing points are driven into said tread.

1,030,004. FLY-KILLER. CHARLES W. MERRIFIELD, Springvale, Me. Filed Feb. 6, 1912. Serial No. 675,809. (Cl. 43—1.)



A fly-killer comprising a handle terminating in two prongs, a flap consisting of wire mesh secured thereto, reinforcing caps of flexible material secured to said prongs and mesh, said caps extending beyond the ends of said prongs for preventing the latter from breaking through said wire mesh, and a binder for the edges of said mesh, said binder inclosing said caps.

1,030,005. TYPE-WRITING MACHINE. PETER MEYER, Cologne-Nippes, and KARL NUESE, Altona, Germany; said Meyer assignor to said Nuese. Filed Mar. 6, 1905. Serial No. 248,555. (Cl. 197—55.)



1. In a typewriter, the combination of two groups of pivoted key-levers, two bell-crank levers one pivoted below each key-lever group and operated by the key-levers thereof but not by the levers of the other group, a type-carrier shaft, a type-carrier mounted thereon, a hollow shaft containing the said shaft and rocked in opposite directions by the two bell-crank levers, and means for transmitting the vibratory motion of the hollow shaft to the type-carrier, substantially as described.

2. In a typewriter, the combination of two groups of pivoted parallel single-armed key-levers, two independent bell-crank levers one pivoted below each key-lever group and each presenting a cross-bar located obliquely to the key-levers of the group and possessing adjustable stops one below each such key-lever and depressed by it on its actuation, a type-carrier shaft, a type-carrier mounted thereon, and means for transmitting the motion of the bell-crank levers to the type-carrier, substantially as described.

3. In a type-writer, the combination of a type-carrier shaft, a plurality of segmental type-carriers loosely mounted on said shaft, a hollow shaft surrounding the carrier shaft, a forked member connected to said hollow shaft adapted to rotate one of the type-carriers, and means for locking the remaining carrier.

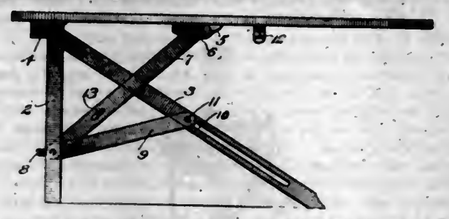
4. In a typewriter, the combination of a type-carrier, a hollow shaft, means for connecting the said carrier with the shaft, a perforated sector rigidly connected with the latter, a spring-actuated locking-pin for engaging the holes in the sector, carriage feed-mechanism comprising a ratchet-wheel and a locking-pawl, and means for connecting said locking-pin and pawl, substantially as described.

5. In a typewriter, the combination of a type-carrier shaft, a spindle, levers mounted thereon at their one end and connected at their other end to the bottom of said shaft, key-levers operating said spindle-levers, and means for locking the spindle-levers in any desired position, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

1,030,006. IRONING-BOARD. ADRIAN MILES, Quartz, Mont. Filed Nov. 24, 1911. Serial No. 662,183. (Cl. 68—10.)

A device of the class described comprising a body, a supporting member therefor, brace means carried by said member and detachably engaging said body, a catch member on said body and adapted to engage said brace means for holding the latter and said supporting member against said body in an inoperative position, a second supporting member adapted to fold against said brace means when the latter are in an inoperative position, a brace member movably carried by said second supporting member, and means connecting said brace member to said first mentioned supporting member, said last mentioned means being offset to receive said second supporting member for retaining the latter against said brace means.

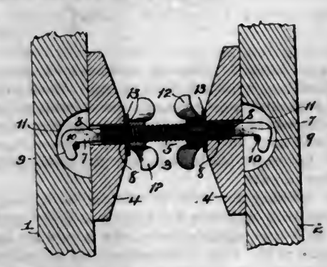


1,030,007. LIGHT-FIXTURE TRIPOD. WILLIAM R. MILLER, Southington, Conn. Filed July 24, 1911. Serial No. 640,101. (Cl. 248—30.)



In a device of the character described a cup-shaped hanger having a lateral flange by means of which it is secured to a suitable supporting surface, and an evenly curved inner wall, the hanger having an elongated aperture in its bottom, a carrier adapted to be introduced into said hanger through said aperture and curved to fit the inner wall thereof and when turned at right angles to the aperture adapted to be supported by said hanger, said carrier being adjustable in any direction on the curved inner surface of said hanger, and ears formed integrally with said hanger and adapted to engage the ends of said carrier to hold it in adjusted position.

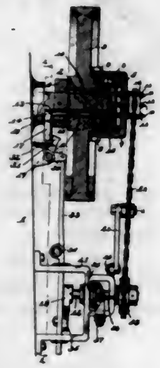
1,030,008. LOCKING DEVICE FOR BEDS. HENRY J. MONTGOMERY, Silver Creek, N. Y. Filed Apr. 27, 1912. Serial No. 693,674. (Cl. 5—41.)



1. In locking devices for beds, the combination of a threaded rod provided at its ends with hook portions, blocks loosely mounted on said threaded rod, and nuts on the threaded rod to clamp said blocks against bed members.

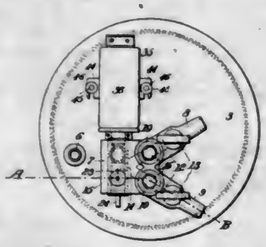
2. In locking devices for beds, the combination with two clamping blocks, a rod passing through said blocks and provided at its ends with hooks, of means mounted on the rod between the clamping blocks for forcing the latter outwardly.

1,030,009. CONTROLLING MECHANISM FOR PUNCH-PRESSES AND LIKE MACHINERY. NATHANIEL NELSON, Chicago, Ill. Filed Aug. 24, 1910. Serial No. 578,697. (Cl. 192—6.)



In a controlling mechanism for punch presses and the like, a bell crank lever having one arm arranged to engage a depending portion of a rock pin clutch, a rod pivoted to the other arm thereof, a knuckle hinge in said rod, the lower portion of said rod being mounted in a frame for vertical reciprocation, a friction roller on said rod, a shaft mounted in said frame for horizontal reciprocation, a cam on said shaft arranged to be moved into and out of engagement with said roller, substantially as described.

1,030,010. COW-MILKING MACHINE. FRED ELTON NEWELL, Westminster, Vt., assignor to Vermont Farm Machine Company, Bellows Falls, Vt., a Corporation of Vermont. Filed May 27, 1907. Serial No. 376,015. (Cl. 31—99.)



1. In a milking machine, a vacuum milk receptacle, a cover therefor, a pulsator fixed on said cover and having vacuum, milk and air passages, and a sliding piston extending outwardly and constituting the movable core of an electro-magnet and having a disk thereon forming an armature for said electro-magnet, in combination with said electro-magnet.

2. In a milking machine, a vacuum milk receptacle, a cover therefor, a pulsator fixed on said cover and having vacuum, milk and air passages, and a sliding piston extending outwardly and constituting the movable core of an electro-magnet and having a disk thereon forming an armature for said electro-magnet, said disk squared off at its bottom to prevent the piston from turning, in combination with an electro-magnet.

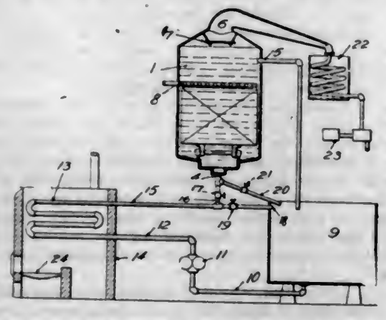
3. In a milking apparatus, a vacuum milk receptacle, an air and milk passage for said receptacle, an electro-magnetically operated pulsator for controlling said air and milk passage, an electric generator, electric connections between said electric generator and said pulsator, a circuit interrupter included in said connections for making and breaking the circuit to said pulsator, and a resistance coil interposed between said circuit interrupter and the generator for unloading the current from the interrupter contacts when the circuit is broken.

4. In a milking apparatus, a series of vacuum milk receptacles, milk and air passages for said receptacles, electro-magnetically operated pulsators for controlling said milk and air passages, an electric generator, a series of circuits connecting said electro-magnetically operated pulsators with said generator, and a circuit interrupter included in said circuits for making and breaking the circuits to said pulsators successively.

5. In a milking apparatus, a series of vacuum milk receptacles, milk and air passages for said receptacles, electro-magnetically operated pulsators for controlling said milk and air passages, an electric generator, a series of circuits connecting said electro-magnetically operated pulsators with said generator, a circuit interrupter included in said circuits for making and breaking the circuits to said pulsators successively, and a resistance coil interposed between the interrupter and the generator for unloading the current from the interrupter contacts when the circuits are broken.

[Claims 6 to 13 not printed in the Gazette.]

1,030,011. APPARATUS AND METHOD FOR DISTILLING WOOD. FREDERICK POPE, New York, N. Y., and GEORGE M. POPE, Mount Pleasant, Ga.; said George M. Pope assignor to Ella M. Pope, Boston, Mass. Filed June 1, 1910. Serial No. 564,344. (Cl. 203—6.)



1. Apparatus for obtaining products from wood, comprising a vessel for holding the wood to be treated with a bath, provided with an inlet for the bath at the bottom, an outlet for the bath near the top, and an outlet for the products above the outlet for the bath, and perforated steam pipes located in said vessel above the level of the wood and below the level of the bath therein with the perforations arranged to direct the steam upwardly, whereby all currents in the vessel are upwardly.

2. Apparatus for obtaining products from wood, comprising a vessel for holding the wood to be treated with a bath, provided with an inlet for the bath at the bottom, an outlet for the bath near the top, and an outlet for the products above the outlet for the bath, perforated steam pipes located in said vessel above the level of the wood and below the level of the bath therein, and circulating and heating means for the bath.

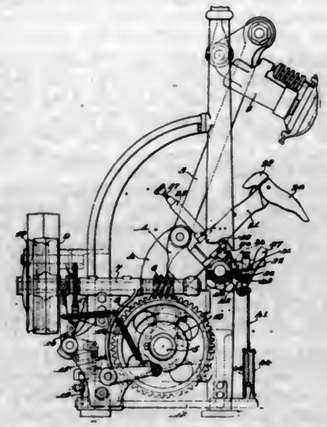
3. Apparatus for obtaining products from wood, comprising a vessel for holding the wood to be treated with a bath, provided with an inlet for the bath at the bottom, an outlet for the bath near the top, and an oulet for the products above the outlet for the bath, perforated steam pipes located in said vessel above the level of the wood and below the level of the bath therein with the perforations arranged to direct the steam upwardly, whereby all currents in the vessel are upwardly, and circulating and heating means for the bath.

4. Apparatus for obtaining products from wood, comprising a vessel for holding the wood to be treated with a bath, provided with an inlet for the bath at the bottom, an outlet for the bath near the top, and an outlet for the products above the outlet for the bath, perforated steam pipes located in said vessel above the level of the wood and below the level of the bath therein, connections and means for circulating the bath from the outlet of said vessel to the inlet thereto, and means in said circulating connections for heating the bath.

5. Apparatus for obtaining products from wood, comprising a vessel for holding the wood to be treated with a bath, provided with an inlet for the bath at the bottom, an outlet for the bath near the top, and an outlet for the products above the outlet for the bath, perforated steam pipes located in said vessel above the level of the wood and below the level of the bath therein, a condenser connected to the outlet for the products, and an exhauster connected to said condenser.

[Claim 6 not printed in the Gazette.]

1,030,012. JACK FOR SHOE-MACHINES. JOHN PENNELL PRIDE, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 25, 1907. Serial No. 399,075. (Cl. 12—35.)



1. A machine for operating upon shoes having, in combination, a shoe supporting jack including an expansible last movable toward and from a position of presentation, means for operating on a shoe supported on the jack, mechanism connected with the last, and means under the control of the operator acting on said mechanism to contract the last automatically when the jack moves to its position of presentation.

2. A machine for operating upon shoes having, in combination, a shoe supporting jack including an expansible last movable toward and from a position of presentation, means for operating on a shoe supported on the jack, mechanism connected to the last and a stop acting on said mechanism to contract the last when the jack moves to its position of presentation and means for moving the stop into and out of operative position.

3. A machine for operating upon shoes having, in combination, a shoe supporting jack including an expansible last movable toward and from a position of presentation, means for operating on a shoe supported on the jack, mechanism connected to the last, a stop movable into and out of operative position and acting on said mechanism when in operative position to contract the last when the jack moves to its position of presentation and means under the control of the operator for actuating the stop.

4. A machine for operating upon shoes having, in combination, a shoe supporting jack including an expansible last movable toward and from a position of presentation, means for operating on the shoe supported on the jack, mechanism connected to the last, a stop movable into and out of operative position and adapted to actuate said mechanism to contract the last when the jack moves to its position of presentation, mechanism for actuating the jack, a treadle and suitable connections for controlling the jack actuating mechanism and connections between the treadle and the stop for actuating the stop.

5. A machine for operating upon shoes having, in combination, a shoe supporting jack including an expansible last movable toward and from a position of presentation, means for operating on a shoe supported on the jack, mechanism connected to the last, a stop movable into and out of operative position and adapted to act on said mechanism to contract the last when the jack moves to its position of presentation, mechanism for actuating the jack, a treadle and suitable connections for controlling the jack actuating mechanism, connections between the treadle and stop for actuating the stop and means under the control of the operator for actuating the stop independently of said connections.

[Claim 6 not printed in the Gazette.]

1,030,013. DYNAMO-ELECTRIC MACHINE. HOWARD H. RALSTON, Norwood, Ohio, assignor to Allis-Chalmers Company, a Corporation of New Jersey, and The Bullock Electric Manufacturing Company, a Corporation of Ohio. Filed May 31, 1907. Serial No. 376,479. (Cl. 171—211.)



1. In combination, a commutator bar slotted at one end, a commutator neck fitting into said slot, and means also fitting into said slot and arranged to engage said neck and a wall of said slot to lock the neck in place in the slot, said means including a resilient portion adapted to prevent the withdrawal of said means when once in place.

2. In combination, a slotted commutator bar, a commutator neck adapted to be inserted in the slot in said bar, and a resilient member for locking said neck in place and being adapted to fit in said slot between a wall of said slot and said neck.

3. In combination, a slotted commutator bar, a commutator neck adapted to be inserted in the slot in said bar, a member for locking said neck in place, said member including a latch for preventing said locking member from being withdrawn after it is once in locking position.

4. In combination, a commutator bar slotted at one end, a pin extending transversely across said slot, a commutator neck provided with a notch arranged to fit over said pin, and a locking member for holding said neck against said pin.

5. In combination, a commutator bar slotted at one end, pins extending transversely across said slot, a commutator neck provided with notches arranged to fit over said pins, a key for holding said neck against said ping, and means for preventing the withdrawal of said key when once in place.

[Claims 6 to 11 not printed in the Gazette.]

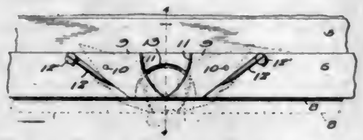
1,030,014. PAPER-CUTTER ATTACHMENT. MARSHALL O. ROSE, Portland, Oreg. Filed Mar. 22, 1912. Serial No. 685,545. (Cl. 211—32.)

1. In a device of the kind described, the combination of a notched cutter blade having resiliently-controlled, outwardly-opening members pivotally mounted thereon.

2. The combination of a notched cutter blade, pivotally mounted plates so positioned as to provide a cutting edge across the notched portion of the blade, resilient mechanism actuating the aforesaid plates, and means for attaching the mechanism to a roll holder rack.

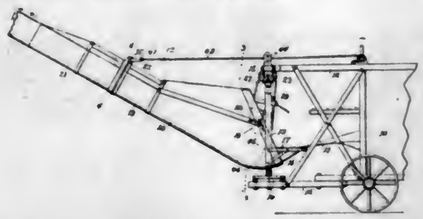
3. The combination of a guide bar, an indented cutter blade, clamps holding the guide bar and cutter blade in a parallel position, members pivotally mounted on the cutter

blade and positioned over its notched portion, means for attaching said plates to the cutter blade, resilient mechanism



actuating the plates, and means for attaching the paper cutting device to a roll holder.

1,030,015. STRAW ELEVATOR AND STACKER. AUGUST ROSENTHAL, West Allis, Wis. Filed Oct. 16, 1908. Serial No. 458,044. (Cl. 193—16.)



1. An elevator and stacker, comprising a tube formed of two sections hinged together and arranged to permit one section to be folded on the other section, movable bars hinged together endwise and associated with said tube and provided with fingers for moving material within the tube, and a guide positioned below the plane of the tube hinge when said tube is in horizontal position for guiding said movable bars, the hinge connection of the bars permitting said bars to be folded with the tube sections.

2. An elevator and stacker, comprising a tube formed of two sections hinged together and arranged to permit one section to be folded on the other section, movable bars associated with said tube and provided with fingers for moving material within the tube, a curved hinge connecting the ends of the bars together, and a guide positioned below the plane of the tube hinge when said tube is in horizontal position for guiding said movable bars, the curved hinge connection of the bars permitting said bars to be folded with the tube sections.

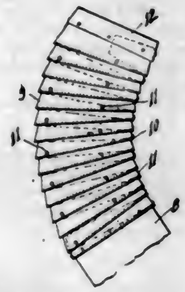
3. An elevator and stacker, comprising a tube formed of two sections hinged together, movable bars associated with said tube and provided with means for moving material within said tube, channeled guide bars positioned below the plane of the tube hinge for guiding the movable bars, a cranked shaft for moving the movable bars, and means connecting the bars together whereby said bars may be folded with the tube sections.

4. An elevator and stacker comprising a tube provided with a slot and formed of two sections hinged together at a point outside of their circumferential diameters, channeled guide bars positioned below the plane of the tube hinge, a cranked shaft adjacent to said tube, an oscillating bar provided with means for engaging material within the tube connected to said cranked shaft, a pivotal and slidable connection between one end of the oscillating bar and the channeled guide bars, a reciprocating bar associated with said tube and provided with material engaging fingers, means connected to said reciprocating bar and guided by the slot of the tube, and means connecting the bars together whereby said bars may be folded with the tube sections.

5. An elevator and stacker, comprising a tube formed of two sections hinged together at a point outside of their circumferential diameters, guiding means positioned below the plane of the tube hinge, a cranked shaft adjacent to said tube, bars provided with means for engaging material within said tube moved by said cranked shaft, and means connecting the bars together whereby when said bars are folded with the tube sections one of said bars will be above the plane of the tube hinge.

[Claims 6 to 22 not printed in the Gazette.]

1,030,016. DISCHARGE-SPOUT. AUGUST ROSENTHAL, West Allis, Wis. Filed Sept. 29, 1910. Serial No. 584,407. (Cl. 193—22.)

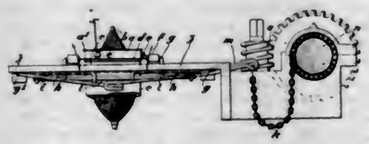


1. A discharge spout, comprising a flexible tube formed of a spirally wound strip of material with overlapping portions, and means pivotally connecting the overlapping portions together at a plurality of points circumferentially, said means pivotally connecting the overlapping portions together being alternately staggered circumferentially with relation to each other.

2. A discharge spout, comprising a flexible tube formed of a spirally wound strip of metal with overlapping portions, the outer edge of each convolution being of larger diameter than the inner edge, and rivets extending through the overlapping portions at a plurality of points circumferentially to pivotally connect said portions together, said rivets being staggered circumferentially with relation to each other and spaced equi-distant spirally from each other.

3. A discharge spout, comprising a flexible tube formed of a spirally wound strip of metal with overlapping portions, and longitudinal lines of rivets extending through the overlapping portions at a plurality of points circumferentially to pivotally connect said portions together, said rivets being staggered with relation to each other and spaced equi-distant spirally from each other.

1,030,017. THREAD-WINDING APPARATUS FOR SPINNING AND DOUBLING MACHINES. JOHANN FRANZ ROTH, Basel, Switzerland. Filed July 14, 1911. Serial No. 638,441. (Cl. 118—10.)



1. In a thread winding apparatus for spinning and doubling machines, the combination of a revolving winding ring capable of up and down motion under alterations of the thread tension, means on said winding ring for guiding the thread and horizontally balancing brake levers adapted to grip said winding ring like pincers, in such a manner that on the adjustment of the height of the winding ring resulting from the alteration of the thread tension, the brake levers are rocked within narrow limits so as to brake the winding ring with more or less strong gripping pressure.

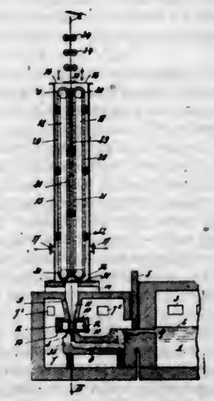
2. In a thread winding apparatus for spinning and doubling machines, the combination of a revolving winding ring capable of up and down motion under alterations of the thread tension, means on said winding ring for guiding the thread, horizontally balancing brake levers adapted to grip said winding ring like pincers for the purpose of braking said winding ring more or less strongly in conformity with its up and down motion resulting from the alteration of the thread tension, and means to allow said brake levers of adjusting themselves sidewise to the winding ring.

3. In a thread winding apparatus for spinning and doubling machines, the combination of a carrier ring, a revolving winding ring capable of up and down motion thereon, means on said winding ring for guiding the thread, horizontally balancing brake levers adapted to grip said winding ring like pincers for the purpose of braking said winding ring more or less strongly in conformity with its up and down motion resulting from the alteration of the thread tension, movable bearings for said brake levers and adjusting means interconnecting said bearings for the purpose of altering, by means of the brake levers, the position of the winding ring relatively to the carrier ring in the axial direction thereof.

4. In a thread winding apparatus for spinning and doubling machines, the combination of a revolving winding ring capable of up and down motion under alterations of the thread tension, means on said winding ring for guiding the thread and horizontally balancing brake levers adapted to grip said winding ring for the purpose of braking said winding ring more or less strongly in conformity with its up and down motion resulting from the alteration of the thread tension, and a regulable counterweight for adjusting the weight relations on the brake lever system.

5. In a thread winding apparatus for spinning and doubling machines, the combination of a revolving winding ring capable of up and down motion, means on said winding ring for guiding the thread and horizontally balancing brake levers adapted to grip said winding ring for the purpose of braking said winding ring more or less strongly in conformity with its up and down motion resulting from the alteration of the thread tension, a counter-weight arm connected with one of said brake levers, a weighting chain connected by one of its ends to said counterweight arm and by the other to a rotatable shaft, and means adapted for turning said shaft in order to wind the chain up and from said shaft.

1,030,018. APPARATUS FOR THE MECHANICAL MANUFACTURE OF GLASS IN CONTINUOUS SHEETS. EUGÈNE ROWART, Auvelais, near Namur, Belgium. Filed Dec. 15, 1908. Serial No. 467,599. (Cl. 49—17.)



1. In combination a melting furnace, a heated chamber adjacent said furnace, a deliverer arranged in said chamber, a formation chamber partly inclosed in said heated chamber, circulation tubes arranged at the lower part of said formation chamber, circulation channels arranged in the walls of said formation chamber, means for bringing the upper part of the formation chamber into communication with the atmosphere, means for drawing up a glass-sheet leaving the deliverer after its passage through the formation chamber, and means for cooling the glass-sheet out of contact with the air.

2. In combination, a melting furnace, a heated chamber, adjacent this furnace, a deliverer placed in this heated chamber, a formation chamber partly inclosed in the heated chamber, means for varying the temperature in the formation chamber at different points of its height, means for transporting a glass-sheet, furnished by the deliverer and after its passage through the formation chamber, and a chamber isolated from the atmosphere for the regular cooling of the glass-sheet.

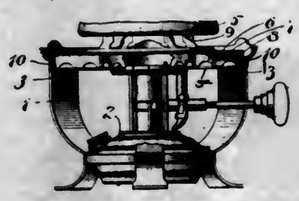
3. In combination, a melting furnace, a heated chamber adjacent this furnace, a deliverer arranged in this heated chamber, means for accelerating the circulation of the molten glass in the deliverer, a formation chamber partly inclosed in the heated chamber, means for varying at will the temperature at different points of the height of the formation chamber, forwarding mechanism for the glass-sheet furnished by the deliverer, after said sheet has traversed the formation chamber, and coöperating mechanism forming a central chimney isolated with regard to the atmosphere.

4. In combination, a melting furnace, a heated chamber adjacent said furnace, a deliverer arranged in this heated chamber, means for accelerating the circulation of the glass in the deliverer, and for deflecting of the glass to the lateral parts thereof, a formation chamber partly inclosed in the heated chamber, means for varying the temperature at different points of this chamber at will, forwarding mechanism for the glass-sheet coming from the deliverer and having traversed the formation chamber, and an isolated chimney, arranged in the prolongation of the axis of the formation chamber, and coöperating with the forwarding mechanism for raising the sheet and causing regular cooling of said sheet.

5. In combination, a melting furnace, a heated chamber adjacent this furnace, a deliverer arranged in this chamber, a conduit connecting the deliverer with the melting furnace, means for facilitating the formation of the glass-sheet at the surface of the deliverer, a formation chamber partly inclosed in the heated chamber, means for varying the temperature at different points of the height of this chamber, a transporting device placed above the formation chamber and in the axis of the latter, said transporting device comprising coöperating asbestos plates forming between themselves a chamber isolated from the atmosphere, and used for the cooling of the glass-sheet.

[Claims 6 and 7 not printed in the Gazette.]

1,030,019. CHAFING-DISH STAND. GEORGE E. SAVAGE, Meriden, Conn., assignor to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed Dec. 26, 1911. Serial No. 667,983. (Cl. 126—44.)



1. In a device of the character described, a stand having a seat thereon, a burner adjacent thereto, a reversible dish-supporting member arranged to be supported on and above said seat having two utensil seats arranged on opposite sides thereof, and having a central flame opening therethrough.

2. In a device of the character described, a stand having a seat thereon, a burner adjacent thereto, a reversible dish-supporting member arranged to be supported on and above

said seat having two utensil seats arranged on opposite sides thereof, and having a central flame opening therethrough, the utensil seat portion on one side being sufficiently wide to rest upon said stand seat when said reversible member is in one position.

3. In a device of the character described, a stand having a seat thereon, a burner adjacent thereto and a reversible dish-supporting element coöperating with said seat and arranged to support a cooking utensil at two different elevations relatively to said seat and burner.

4. In a device of the character described, a stand having a seat thereon, a burner adjacent thereto a reversible dish-supporting element coöperating with said seat and arranged to support a cooking utensil at two different elevations relatively to said seat and burner, and centering means for said reversible dish-supporting element.

5. In a device of the character described, a stand having a seat thereon, a burner adjacent thereto, and a reversible dish-supporting frame having projections above the same forming a seat for a cooking utensil, and having projections below the same forming a second seat for a cooking utensil, the width of one seat being less than the width of the other seat.

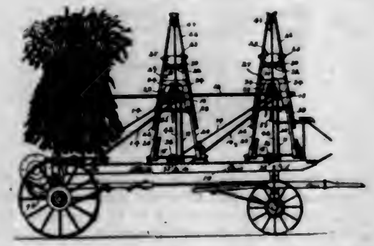
[Claims 6 to 8 not printed in the Gazette.]

1,030,020. TYPE-WRITER KEYBOARD. JOSEPH A. SCHMITT, Cleveland, Ohio. Filed Oct. 23, 1911. Serial No. 656,097. (Cl. 197—98.)



In a commercial typewriter key-board, the combination with the main keys respectively having an upper and lower case character arranged thereon, the characters of the upper case being of uniform color and the characters of the lower case being of a different uniform color, certain of the keys also having an auxiliary character arranged thereon, the auxiliary characters being of a color different from both the upper and lower case characters, and a plurality of shift keys receptively having a designation arranged thereon, the color of one designation being identical with the color of the upper case characters, and the designation of the other shift key being of a color identical with the color of the auxiliary characters.

1,030,021. SHOCK LOADER AND UNLOADER. JAMES B. SCHUMAN, Indianapolis, Ind., assignor to The Schuman Company, Indianapolis, Ind., a Corporation of Maine. Filed Dec. 29, 1909. Serial No. 535,517. (Cl. 214—2.)



In a commercial typewriter key-board, the combinatherewith, a beam connecting said standards, bearing rods at the lower ends of said standards, and shock lifters connected to said rods comprising lower members and upper shock-guiding members.

2. In a shock loader, a shock lifter comprising a base member provided with means for pivotally connecting the same to a bearing, a shock guide pivotally mounted on said member, and means for releasing said guide from said base member to permit said guide to stand in vertical position.

3. In a shock loader, a shock lifter comprising a pivotally mountable base member, a shock guide pivotally mounted on said member, a shock support mounted in said base member, and means for releasing said guide from said base member to permit said guide to stand in vertical position.

4. In a shock loader, a shock lifter comprising two pivotally connected members, means for locking said members to produce a substantially rigid structure, means for suspending a shock therefrom, and means for swinging said lifter transversely to elevate and lower a shock.

5. A shock loader comprising a medianly mounted upright frame portion, shock lifters mounted at opposite sides thereof having pivotally mountable legs, means for supporting and guiding a shock, and means for swinging said lifters transversely to elevate shocks upon said loader at each side of said frame.

[Claims 6 to 15 not printed in the Gazette.]

1,030,022. SIDE-REIN CHECKING DEVICE. OBEY DILLMAN SHANK, Philadelphia, Pa. Filed Feb. 9, 1911. Serial No. 607,642. (Cl. 54—16.)



1. In a harness, the combination with a bridle, of a checking-bit, a chin strap having its ends attached to said bit, a nose-band having its extremities passing freely through the opposite sides of said bit to form checking-reins arranged to extend upwardly and rearwardly on the sides of the head of a horse, and runners attached to the opposite sides of said bridle through which said reins pass and freely slide, said runners being located in substantial alinement with the axis upon which the head of the horse turns vertically, the ends of said reins being attached together, to form a continuous strap passing slidably through said bit and runners.

2. In a harness, the combination with a bridle, of a checking-bit, a chin strap having its ends attached to said bit, a nose-band having its extremities passing freely through the opposite sides of said bit to form checking-reins arranged to extend upwardly and rearwardly on the sides of the head of a horse, runners attached to the opposite sides of said bridle through which said reins pass and freely slide, said runners being located in substantial alinement with the axis upon which the head of the horse turns vertically and the ends of said reins being attached together to form a continuous strap passing slidably through said bit and runners, and means for attaching said checking-reins to a saddle, through which means said reins also freely slide.

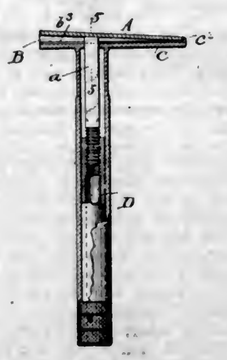
3. In a harness, the combination of a checking-bit, a nose-band having its extremities passing freely through the opposite sides of said bit to form checking-reins arranged to extend upwardly and rearwardly on the sides of a horse's head, and runners through which said reins pass and freely slide, the ends of said reins being attached together to form a continuous strap freely slidable through said bit and runners.

4. In a bridle, the combination of a checking bit, a chin strap, having its ends connected to said bit, a nose-band

in slidable contact with the ends of said bit and adjustable side reins operative through pivotally supported runners and attached to said nose-band through said bit.

5. In a bridle, the combination of a checking bit, a chin strap, having its ends connected to said bit, a flexible nose-band in slidable contact with the ends of said bit and adjustable side reins slidable through pivotally supported runners operative to control the tension of said nose-band.

1,030,023. SAFETY-RAZOR. HARRIS C. SHANNON, Cleveland, Ohio, assignor to John F. Murray, Chicago, Ill. Filed Sept. 20, 1909. Serial No. 518,683. (Cl. 30—12.)



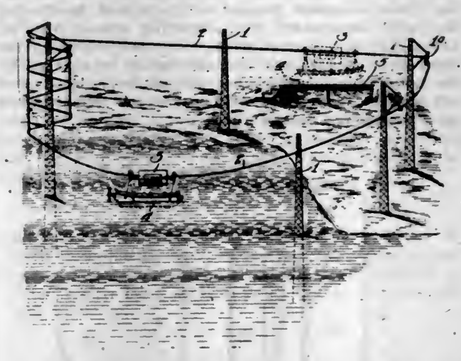
1. In a safety razor, the combination of a clamping plate having a flat sided shank, and a blunt corner at which is a flange, a razor blade having a slot extended into the same from one side, and having a blunt end for engagement with said flange, a toothed guard plate having a blunt corner for engagement with said flange, and means engaging said shank for drawing the clamping plate and guard plate together upon said blade.

2. In a safety razor, the combination of a guard plate having converging sides; projecting teeth on said sides, inclined relatively thereto, respectively, and away from the converging point of the sides; a razor blade having cutting edges which converge at a similar angle; a clamping plate; means for drawing the guard plate and clamping plate together upon the interposed blade; said blade being formed to permit of its adjustment for wear, between said plates, in the direction of a line which bisects the angle between the cutting edges and to prevent it from moving therebetween otherwise.

3. In a safety razor, the combination of a guard plate having converging sides on which are projecting teeth inclined relatively to their respective sides and away from the converging point of the sides, a razor blade having cutting edges which converge at a similar angle, a clamping plate, means for drawing the guard plate and clamping plate together upon the interposed blade, said clamping plate being provided with the flat-sided shank, and the blade having a slot cut in from the base end toward the angle at which the cutting edges converge said slot being of such width as to nicely embrace the flat shank.

4. In a safety razor, the combination of a toothed guard-plate the sides of which converge toward a blunt point, an integral flange on said point projecting outwardly, an aperture in the guard plate, a clamping plate with converging sides and a blunt point adapted to lie behind said flange, and provided with a flat sided shank adapted to pass into the aperture of the guard plate, a razor blade having converging edges and a blunt end adapted to lie behind said flange and provided with a longitudinal slot extending into the broad end of the blade with its sides embracing the flat sides of the clamping-plate shank, with means for clamping the guard plate and the clamping plate together upon said blade.

1,030,024. CABLE OR TRACK CONTROLLED HYDRO-AEROPLANE. HARVEY M. SMITH, San Diego, Cal., assignor of one-half to Joseph W. O'Connell, San Diego, Cal. Filed Oct. 16, 1911. Serial No. 654,848. (Cl. 104—111.)



1. In a cable or track controlled hydroaeroplane, the combination of a plurality of supports, extended brackets mounted thereon, a track mounted on said brackets, rollers mounted on said track, an aeroplane composed of three cylindrical members mounted side by side and spaced apart, mounted on said rollers, and a boat attached to said rollers and suspended thereon below said track adapted to travel along said track and in the water adjacent thereto, all substantially as set forth.

2. In a cable or track controlled hydroaeroplane, the combination of a plurality of supports provided with extended brackets, downwardly extending brackets mounted on said before mentioned brackets, a cable mounted on said latter mentioned brackets, rollers mounted on said cable adapted to travel thereon, a hydroaeroplane having three cylindrical members mounted side by side and spaced apart, mounted on said rollers, and a means for propelling said hydro-aeroplane along said cable, all substantially as set forth.

3. In a cable or track controlled hydroaeroplane, the combination of an aeroplane composed of three cylindrical members mounted side by side and spaced apart, planes to fit said spaces, a frame supporting said cylinders, rollers mounted on a cable or track adapted to travel thereon supporting said frame, a boat suspended from said rollers, a means for supporting said track or cable, and a platform adapted for said boat when not in operation, all substantially as set forth.

4. In a cable or track controlled hydro-aeroplane, the combination of an aeroplane composed of three cylindrical members mounted side by side and spaced apart, planes to fit said spaces, a frame supporting said cylinders, rollers mounted on a cable or track adapted to travel thereon, supporting said frame, and a boat adapted for passengers and to float in the water suspended from said rollers, all substantially as set forth.

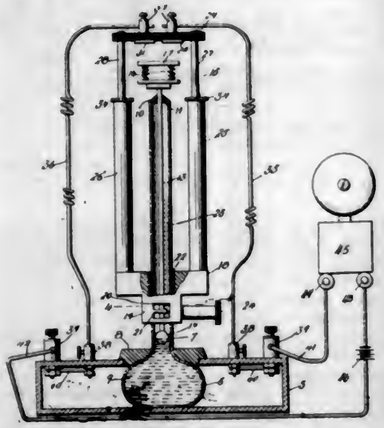
5. In an amusement device, the combination of a power-propelled hydro-aeroplane, having three cylindrical members spaced apart side by side, planes to fit said spaces, a cable upon which said hydro-aeroplane is mounted and a plurality of supports adapted to support said cable, all substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,030,025. THERMOSTATIC DEVICE. THURSTON H. SMITH, Peekskill, N. Y. Filed Sept. 9, 1910. Serial No. 581,263. (Cl. 177—302.)

1. A thermostatic device comprising a thermometer tube having indications thereon, a supporting member slidable on the tube and having an opening therein, means engaged through the supporting member to hold the same at any adjusted position, a movable contact member ex-

tending into the tube, a pointer projecting from one wall of the opening formed in the supporting member and coacting with the indications on the tube, a fluid contained in the tube to operate the contact member under the temperature changes, rods slidably carried by the supporting member, springs engaged with the rods for forcing the same downwardly and permitting upward yielding action thereof, a pair of contact members carried by the upper ends of said rods and adapted to be engaged by the first contact member upon upward movement thereof and an electrical circuit closed thereby and including said contact members and an alarm.

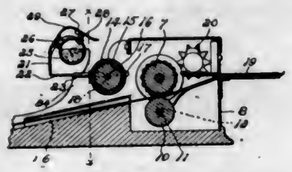


2. A device of the class described comprising in combination, a vertical container, an expansible body in said container, a spring contact member movable in the container under the action of said expansible body, an electrical circuit including an alarm, an insulating block and a pair of contact members carried by the block, said block being adjustably and resiliently mounted upon the vertical container whereby when the spring contact member is moved to engage the said pair of contacts, the circuit will be closed and the engagement cushioned.

3. In a thermostatic device, a base, a thermometer tube having an enlarged lower end mounted in the base, an expansible fluid in the tube, said tube having a restricted upper end, a packing arranged therein, a float having a rod portion movable in the tube and through said restricted end, a contact member supported resiliently on the upper end of the rod, a block having a reduced portion, said block being slidably mounted upon the tube, a clamping member engaged through said reduced portion to hold the block in an adjusted position, an indicator carried by the block for coaction with graduations upon the tube, a pair of rods supported upon the block, means holding said rods normally downward and permitting resilient upward movement thereof, contact members mounted upon said rods for engagement with the first named contact member and an electrical circuit including an alarm device and said contact members upon the rods and closed by said engagement.

4. In a thermostatic device, a thermometer tube, a float member movable in the thermometer tube, springs mounted on the float member, a contact member mounted on the springs, a block clamped on the thermometer tube, an indicator on said block, vertical casings mounted on the block, springs disposed in the casings, rods movable in the casings against the tension of the springs and extending above said casings, a non-conducting member mounted on the ends of the rods, contact members mounted on the non-conducting member to engage with the contact member of the float member and an alarm circuit connected with the contact members mounted on the non-conducting member.

1,030,026. INKING MECHANISM. NELSON E. SPRINGSTEEN, Royal Oak, Mich., assignor of one-half to James H. Moore, Detroit, Mich. Original application filed Apr. 7, 1910, Serial No. 553,960. Divided and this application filed Oct. 23, 1911. Serial No. 656,141. (Cl. 101—71.)



1. In a device of the character described comprising a casing, a printing roll mounted in bearings in said casing, an inking roll yieldingly held in contact with said printing roll, an ink fountain rotatably supported adjacent to said inking roll and having a discharge opening adapted to be brought into operative position adjacent to the inking roll by the turning of the fountain, and a spring member adapted to engage the fountain and hold the same in both operative and inoperative positions.

2. A device of the character described comprising a casing, a printing roll mounted in bearings in said casing, an inking roll adjacent to the printing roll, a holder detachably attached to the casing and formed with bearings at its ends, a rotatable ink fountain mounted in said bearings in said holder, said ink fountain being provided with a discharge opening adapted to be brought into operative position relative to the inking roll by the turning of the fountain, a filler cap engaging a fill opening in one side of the fountain, and a spring member on the holder extending over the fountain and adapted to engage the cap to yieldingly hold the fountain in both operative and inoperative position.

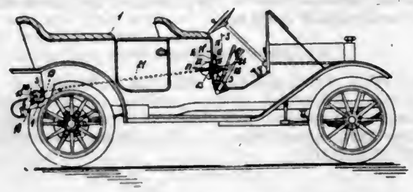
3. A device of the character described comprising a casing, a printing roll mounted in bearings in the casing, an inking roll in the casing, adjacent to the printing roll, a holder detachably engaging the casing to slide thereon toward and from the inking roll and having bearings in its ends, a rotatable ink fountain mounted in said bearings in the holder and provided with a discharge opening, a filling of fibrous material in the discharge opening projecting therefrom and adapted to engage the inking roll to deliver ink thereto when the ink fountain is turned to bring said discharge opening toward the lower side thereof, a cap for closing the fill opening in the fountain, and a spring tongue on the holder extending over the fountain and adapted to engage the cap.

4. The combination with a casing, a printing roll in said casing, and an inking roll to engage the printing roll, of a holder, inwardly extending flanges on the ends of the holder, guides on the casing adjacent to the inking roller to receive the said flanges, a horizontally disposed cylindrical ink fountain rotatively mounted in said holder and provided with a discharge opening along one side, means for turning the fountain to bring its discharge opening adjacent to the lower side thereof to discharge ink upon the inking roll, ribs upon the cylindrical outer surface of the fountain with one end adjacent to the ends of the discharge opening and converging toward their opposite ends, and means for yieldingly holding the fountain turned to operative and to inoperative position.

5. The combination of a casing having guideways, a printing roll in said casing, an inking roll adjacent to the end of said ways to engage the printing roll, a holder formed of sheet metal with inturned end flanges to engage the guide ways and provided with a spring tongue extending over and forming the top of said holder, a cylindrical inking fountain pivotally mounted in said holder and provided with a longitudinal discharge slot in one side and a fill opening, absorbent material in said slot, a cap to close the fill opening adapted to engage the spring tongue of the holder and yieldingly hold the fountain turned with its discharge slot adjacent to the lower side of the fountain and also turned with said slot at the upper side of said fountain, and ribs upon the outer cylindrical surface of the fountain converging downwardly around the same from the ends of said discharge slot.

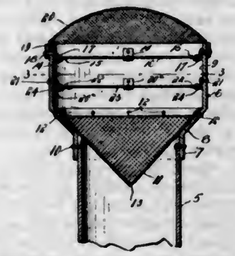
[Claim 6 not printed in the Gazette.]

1,030,027. VEHICLE-SIGNAL. FLOYD L. STAGE, Hamburg, N. Y. Filed Jan. 4, 1912. Serial No. 669,408. (Cl. 40—68.)



In a visual signaling device the combination with a vehicle, of a plurality of brackets secured to the rear thereof, a shaft rotatably mounted in the brackets, a polygonal drum rigidly connected to the shaft and between a pair of the brackets, visual signals upon the faces of the drum, a polygonal block secured to one end of the shaft, a spring having one of its ends connected to the block and its other end to one of the brackets, a strap having one end secured to the block, a rod having its inner end secured to the free end of the strap, said rod having formed upon its outer end a plurality of notches, said notched end passing through the front board of the vehicle seat, means mounted upon said front board for successively engaging said notches, whereby when said rod is moved forwardly the block and drum will be simultaneously operated against the tension of the spring upon the unwinding of the strap or chain from the block to display a signal, said spring acting to return the drum to its normal position.

1,030,028. SPARK-ARRESTER. JOSEF IVAN STAMPAHAR and JOSEPH FRANK ROM, Red Lodge, Mont. Filed Aug. 25, 1911. Serial No. 645,960. (Cl. 110—141.)

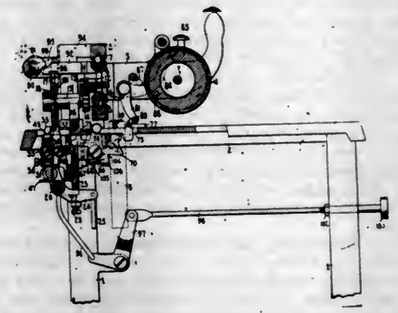


1. The combination with a smoke stack, of a spark arrester consisting of a casing having a reduced lower end disposed around and secured to the upper end of the stack, said casing being flared outwardly above the stack and thence upwardly to form a wall, an inverted wire mesh cone resting upon the flared portion of the casing and having its apex disposed centrally within the stack, a plurality of spaced screens of graduating meshes secured within the casing and disposed above the first mentioned screen.

2. The combination with a smoke stack, of a spark arrester consisting of a casing having a reduced lower end disposed around and secured to the upper end of the stack, said casing being flared outwardly above the stack and thence upwardly to form a wall, an inverted wire mesh cone resting upon the flared portion of the casing and having its apex disposed centrally within the stack, and a convexed screen disposed at the upper end of the casing and having a rim disposed around said casing.

3. The combination with a smoke stack, of a spark arrester consisting of a casing having a reduced lower end disposed around and secured to the upper end of the stack, said casing being flared outwardly above the stack and thence upwardly to form a wall, an inverted wire mesh cone resting upon the flared portion of the casing and having its apex disposed centrally within the stack, a convexed screen disposed at the upper end of the casing and having a rim disposed around said casing, brackets disposed within the casing between said screens, bolts respectively connecting the brackets, casing and rim of the first mentioned screen for securing said parts together, and a screen supported upon said brackets.

1,030,029. TYPE-WRITING MACHINE. HERBERT H. STEELE, Marcellus, N. Y., assignor to The Monarch Typewriter Company, Syracuse, N. Y., a Corporation of New York. Filed Mar. 2, 1910. Serial No. 546,943. (Cl. 197—82.)



1. In the carriage escapement of a type-writing machine, the combination with an escapement rack, of three dogs, means for vibrating said dogs together relative to said rack, and means for bringing either one of two of said dogs into use, the third dog being, in all adjustments of the parts, the normally engaged dog, and the first two dogs being usable alternately as holding dogs.

2. In the carriage escapement of a type-writing machine, the combination with an escapement rack, of three dogs, means for vibrating said dogs together relative to said rack, and means for adjusting one of said dogs with relation to the others to bring said adjustable dog into or out of use.

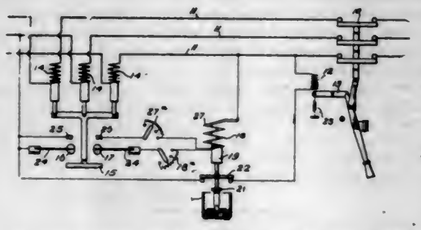
3. In the carriage escapement of a typewriting machine, the combination with an escapement rack, a dog rocker, three dogs mounted on said dog rocker, the first of said dogs being adjustable on said dog rocker into and out of position to take the place of the second of said dogs, and the third dog being unaffected by the adjustment of the first dog and arranged to coöperate with the first dog or with the second dog to control the rack, depending on the adjustment of said first dog.

4. In the carriage escapement of a typewriting machine, the combination with an escapement rack, of a plurality of feed dogs, a support for said dogs, one of said dogs being slidable relative to the others on said support into position to coöperate with said rack and into an inoperative position, and means for retaining said slidable dog in either of said positions.

5. In the carriage escapement of a typewriting machine, the combination with an escapement rack, of a dog normally engaging said rack, two other dogs normally out of engagement with said rack, and means settable to render said two other dogs operative alternatively as holding dogs, one of said two dogs when operative affording an ordinary carriage feed, and the other when operative affording a reverse feed.

[Claim 6 to 16 not printed in the Gazette.]

1,030,030. TIME-ELEMENT CIRCUIT-BREAKER. HALFDAN A. STEEN, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Feb. 1, 1911. Serial No. 605,869. (Cl. 175—270.)



1. In combination, an electric circuit, a circuit-breaker in said circuit, a coil responsive to electrical conditions therein, a switch which is closed upon sufficient energization of said coil, a pair of consecutively acting coils adapted to be energized upon the complete closing of said switch, a second switch which is operated by said last mentioned coils, means for retarding the operation of said second switch, and a third coil controlled by said switch and controlling the tripping of said circuit-breaker.

2. In combination, an electric circuit, a circuit-breaker therein, a coil responsive to the current in said circuit, a switch which is closed by said coil upon sufficient energization thereof, a pair of consecutively acting coils adapted to be energized upon the complete closing of said switch, means operated by said last mentioned coils and controlling the tripping of said circuit-breaker, and a time-element device for retarding the operation of said last-named means.

3. In combination, an electric circuit, a circuit-breaker therein, a coil responsive to the current in said circuit, switching apparatus operated by said coil, two coils which coöperate when both are energized and which are energized by said switching mechanism when the current in said circuit reaches two predetermined values respectively, means operated by said coöperating coils or either of them when energized for causing the tripping of said circuit-breaker, and a time-element device for retarding the operation of said last-named means.

4. In combination, an electric circuit, a circuit-breaker therein, one or more current coils connected to said circuit, switching apparatus operated by said coils, two coils which coöperate and the circuits of which are closed by said switching apparatus when said current coils carry currents of two predetermined values respectively, a switch which is operated by said two coöperating coils or either of them when energized, means for retarding the operation of said switch, and an electromagnet the circuit of which is controlled by said switch and which controls the tripping of said circuit-breaker.

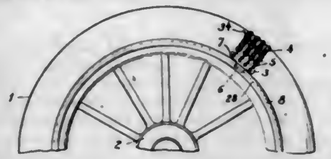
1,030,031. ADVERTISING DISPLAY DEVICE. JULIEN STRANDERS, New York, N. Y., assignor to Harry B. Kruger.. Filed Aug. 31, 1911. Serial No. 646,991. (Cl. 211—24.)



1. An advertising display-device comprising a collapsible supporting frame having steps and bent-over flaps at the forward portions of said steps, a smaller display-face attached to the flaps of the foremost, and larger display-faces provided with openings for the steps of the supporting frame and attached to the bent-over flaps of the intermediate and rear steps.

2. An advertising display-device, comprising a collapsible supporting frame, provided with forwardly-extending steps decreasing in height and an inwardly-folding portion on its rear-wall, bent-over flaps arranged at the forward front portions of each of the steps of the frame, a front display-face of smaller size, and intermediate and rear display-faces of larger size attached to the bent-over flaps of the intermediate and rear steps, said larger display-faces being provided with openings for the passage of the intermediate and front steps of the frame.

1,030,032. TIRE-REPAIR DEVICE. FREDERICK A. STRONG, Bridgeport, Conn., assignor to Weed Chain Tire Grip Company, New York, N. Y., a Corporation of New York. Filed Mar. 1, 1912. Serial No. 680,965. (Cl. 152—24.)



1. The tire repair device comprising a pair of rigid anchor plates curved to conform to the sides of the tire and each provided with a central holding hook and with a series of curved dumb bell attaching slots, a series of securing chains and closed attaching link members permanently secured at the ends of each of said securing chains and having flattened narrowed bearing portions coöperating with the enlarged bearing apertures at each end of said attaching slots to normally hold each of said attaching link members in adjusted position while permitting said attaching link members to be moved into the opposite bearing portions of each of said attaching slots to adjust the effective length of said securing chains.

2. The tire repair device comprising a pair of rigid anchor plates curved to conform to the sides of the tire and each provided with a central holding hook and with a series of curved dumb bell attaching slots, a series of securing chains and attaching link members secured at the ends of each of said securing chains and coöperating with the enlarged bearing apertures at each end of said attaching slots to normally hold each of said attaching link members in adjusted position while permitting said attaching link members to be moved into the opposite bearing portions of each of said attaching slots to adjust the effective length of said securing chains.

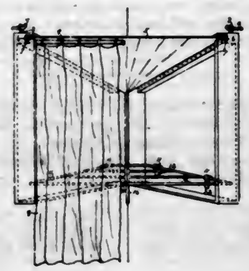
3. The tire repair device comprising a pair of rigid anchor plates curved to conform to the sides of the tire and each provided with a central holding hook and with a series of substantially closed curved attaching slots, a series of securing chains and attaching link members secured at the ends of each of said securing chains and coöperating with bearing apertures at each end of said attaching slots while permitting said attaching link members to be moved into the opposite bearing portions of each of said attaching slots to adjust the effective length of said securing chains.

4. The tire repair device comprising a pair of anchor plates curved to conform to the sides of the tire and each provided with a holding member adapted to be secured to the wheel rim adjacent the sides of a pneumatic tire, one at least of said anchor plates being formed with curved dumb bell attaching slots, curb securing chains, and attaching link members permanently connecting the ends of each of said securing chains to said anchor plates, said attaching link members comprising bearing portions coöperating with the enlarged bearing apertures in said attaching slots and comprising narrow adjusting portions to pass edgewise through the narrow connecting portions of said attaching slots to adjust the effective length of said securing chains.

5. The tire repair device comprising a pair of anchor plates each provided with a central holding hook adapted to be secured to the wheel rim adjacent the sides of a pneumatic tire, one at least of said anchor plates being formed with dumb bell attaching slots, curb securing chains, and attaching link members permanently connecting the ends of each of said securing chains to said anchor plates, said attaching link members comprising bearing portions coöperating with the enlarged bearing apertures in said attaching slots and comprising narrow adjusting portions to pass edgewise through the narrow connecting portions of said attaching slots to adjust the effective length of said securing chains.

[Claims 6 to 8 not printed in the Gazette.]

1,030,033. FOLDING CABINET. JOSEPH H. TALLMAN, Houston, Tex., assignor, by mesne assignments, of one-half to T. J. Rock, Houston, Tex. Filed Apr. 21, 1911. Serial No. 622,478. (Cl. 45—118.)

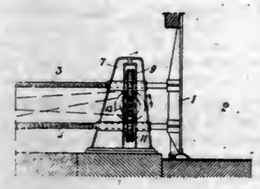


1. A device of the character described including a cabinet casing composed of two members hingedly secured together, a flexible apron extending from one member to the other and secured upon the inside of each casing member and arranged to be folded within the casing when the members are closed together, a hanger detachably secured to said casing, a support therefor hingedly attached to one of the casing members and detachably secured to the other of said members said hanger serving as a support for the free sides of the supporting frames when they are in their unfolded or extended position.

2. A device of the character described including a cabinet casing composed of two members hingedly secured together, a detachable, foldable, apron extending from one member to the other and secured to each of said members and forming a top for said cabinet when the casing members are in their open position and folding within the members when closed, a supporting frame hingedly secured upon the inner side of each casing member and arranged to be folded within the casing when the members are closed together, lugs carried by the side of each supporting frame adjacent to the casing members and rigid with said frame and resting against the casing members when the frames are in their extended position, a hanger detachably secured to said casing and forming a support for said frames, and a support for said hanger hingedly attached to one of the casing members and detachably secured to the other of said members.

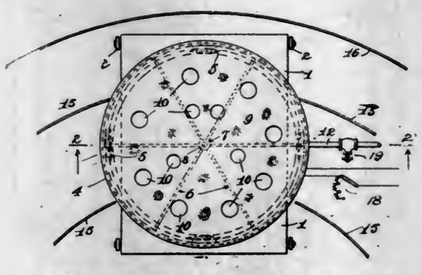
1,030,034. GEARING. CARL THEODOR THORSSELL and NILS KRISTIAN EMIL MALMSTEN, Malmö, Sweden. Filed Nov. 10, 1910. Serial No. 591,536. (Cl. 74—40.)

In apparatus of the class described, in combination, two pairs of horizontally disposed screws, each pair comprising vertically arranged upper and lower screws, the upper screws of each pair being in the same horizontal plane, one of said upper screws being provided with a left hand thread, and the other of said upper screws being provided with a right hand thread, the lower screws of each pair being in the same horizontal plane, one of said lower screws being provided with a right hand thread, and the other of said lower screws being provided with a left hand thread, the upper screw of each pair being threaded in the same direction as the lower screw of the other pair, a rotatable nut upon each screw and engaging the thread thereof, means for preventing said nuts from moving in the direction of the length of the screws, whereby rotation of



said nuts will cause said screws to move in a longitudinal direction, and means for rotating said nuts, said parts being so arranged that the nuts associated with the upper screws will rotate in opposite directions, the nuts associated with the lower screws will rotate in opposite directions, and the nut associated with the upper screw of each pair will rotate in the same direction as the nut associated with the lower screw of the other pair.

1,030,035. STAGE APPARATUS FOR PRODUCING VOLCANO EFFECT. RICHARD W. TULLY, Alma, Cal. Filed Jan. 12, 1912. Serial No. 670,747. (Cl. 46—70.)

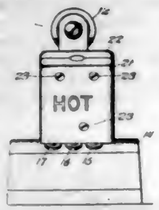


1. A stage apparatus for producing volcano effects comprising two horizontally disposed members arranged one over the other, one of which is rotatable; a scenically decorated horizontally disposed loose, flexible covering having a series of holes through it and being supported by the upper member; air blast delivering means and steam jets on the lower member disposed so as to deliver against the under side of the aforesaid covering and at intervals to deliver up through the holes therein as one or the other of said lower and upper members is rotated.

2. A stage apparatus for producing volcano effects comprising a rotatable horizontally disposed frame: a scenically decorated flexible covering having a series of holes through it and being supported loosely across said frame, and air blast delivering means and steam jets disposed underneath the aforesaid covering to deliver against its underside and at intervals up through its holes as the covering rotates.

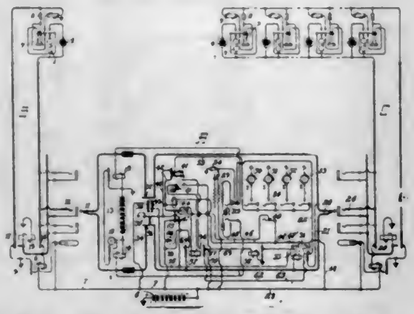
3. A stage apparatus for producing volcano effects comprising a rotatable horizontally disposed frame; a flexible covering having a series of holes through it and being supported loosely across said frame, said covering having its upper side scenically decorated and supporting upwardly extending peaks located between said holes; and air blast delivering means and steam jets disposed underneath the aforesaid covering to deliver against its underside and at intervals up through its holes as the covering rotates.

1,030,036. SAD-IRON. ALVIN H. WAAGE and CLARENCE P. WAAGE, Chicago, Ill. Filed July 28, 1911. Serial No. 641,113. (Cl. 219—25.)



In an electric flat iron, a heating unit having provision for division into a plurality of sections, one section, of lower resistance, in the toe of the iron, and another section, of higher resistance, in the heel of the iron, insulated terminals for said sections fixed to said iron, a separable switching block having terminals for engaging said iron terminals and for connection to a source of electric supply, and means associated with said block terminals for varying the circuit relations of said heating sections by reversing the block thereby changing the contact relation of said iron and said block terminals.

1,030,037. AUTOMATIC RINGING SYSTEM. ALFRED H. WEISS, Wilmette, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 17, 1910. Serial No. 577,663. (Cl. 179—58.)



1. In a telephone system, the combination with a cord circuit, of a called subscriber's telephone line, a ringing control relay for said cord circuit, means for closing a circuit through said relay responsive to a connection between said line and cord circuit, a source of ringing current, a ringing key, means actuated responsive to the operation of said key whereby said ringing relay is energized by said circuit to apply the ringing current to said line, and means for automatically disconnecting said ringing current upon response of the called subscriber.

2. In a telephone system, the combination with a cord circuit connected with a called subscriber's telephone line, a ringing control relay having a circuit closed therethrough, a ringing key, means actuated upon operation of said key whereby said relay is energized by said circuit, a supervisory relay and a source of ringing current, a flip-flop relay operated responsive to the energization of said ringing relay to alternately connect said supervisory relay and said ringing current to said line, and means actuated upon response of said called subscribers to deënergize said ringing control relay, whereby said flip-flop relay is rendered inoperative.

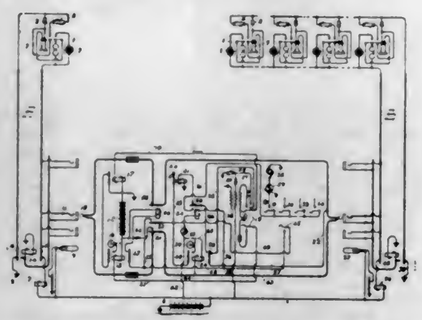
3. In a telephone system, the combination with a cord circuit connected with a called subscriber's telephone line, a ringing control relay having a closed battery circuit including its winding but ineffective to energize said ringing relay, a source of ringing current, a ringing key, means actuated responsive to the operation of said key whereby said battery circuit is rendered effective to energize said relay, and means actuated responsive to said energization to apply said ringing current to said line.

4. In a telephone system, the combination with a cord circuit, of a called subscriber's telephone line, a control relay energized responsive to a connection between said cord circuit and said line, a source of ringing current, a ringing key, means actuated, responsive to the operation of said key to apply the ringing current to said line, a slow relay included in said ringing circuit and unresponsive to said ringing current, a source of direct current, means actuated upon the response of the called subscriber to connect said direct current to said slow relay, whereby said relay is actuated, and means actuated responsive to the energization of said relay to deënergize said control relay, whereby said ringing current is disconnected.

5. In a telephone system, the combination with a cord circuit connected with a called subscriber's telephone line, of a control relay, means for energizing said control relay to disunite the talking conductors of said circuit, a source of ringing current, a source of direct current, means for alternately bridging said currents across the limbs of said line, and means actuated upon response of the called subscriber while either source of current is connected to said line to deënergize said control relay.

[Claims 6 to 12 not printed in the Gazette.]

1,030,038. AUTOMATIC RINGING SYSTEM. ALFRED H. WEISS, Wilmette, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 17, 1910. Serial No. 577,664. (Cl. 179—58.)



1. A telephone system comprising a calling and a called line, an operator's link circuit uniting said lines, a ringing key, normally open contacts therefor, a control relay, an initial energizing circuit for said relay closed responsive to actuation of said key and contacts, a supervisory relay, a locking circuit for said control relay including contacts of said supervisory relay and effective upon energization of said control relay, a flip-flop relay operated responsive to the energization of said control relay, the energizing circuit of said flip-flop relay also including contacts of said supervisory relay.

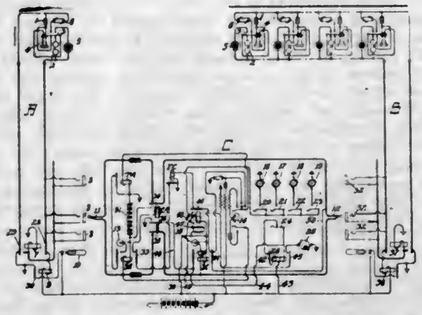
2. In a telephone system, the combination with a called subscriber's telephone line, of an operator's link circuit connected thereto, a ringing key, a control relay, means for energizing said relay responsive to actuation of said key, talking strands of said link circuit disunited upon energization of said control relay, a supervisory relay, a source of ringing current, a flip-flop relay operated responsive to the energization of said control relay, the energizing circuit of said flip-flop relay being jointly controlled through contacts on said control and supervisory relays, the said flip-flop relay in its operation alternately bridging said ringing source and supervisory relay across the called line, and means controlled by the called subscriber to energize said supervisory relay, whereby said control relay is deënergized to restore the continuity of the link

circuit strands, and said flip-flop relay is rendered inoperative.

3. In a telephone system, the combination with a calling and a called telephone line, of a link circuit establishing connection between said line, an operator's ringing key actuated to call the desired subscriber, a control relay energized responsive to said actuation to disunite the two lines, a supervisory relay, a flip-flop relay, a locking circuit for said control relay and an energizing circuit for said flip-flop relay effective upon energization of said control relay, said circuits including contacts of said supervisory relay, said supervisory relay being energized upon response of the called subscriber to render said locking and energizing circuits ineffective, whereby said control and flip-flop relays are restored.

4. A telephone system comprising a called substation telephone line, a link circuit connected thereto, a control relay, a flip-flop relay and a source of ringing current, a ringing key having contacts adapted to be closed when said ringing key is operated to close an initial energizing circuit for said control relay whereby said flip flop relay is operated to connect said ringing current with the called line, a tip supervisory relay, a substitute locking circuit for said control relay effective upon its actuation including normal contacts of the tip relay, and means controlled at the substation for energizing said tip relay to cause the restoration of said control and flip flop relays whereby said ringing current is disconnected.

1,030,039. AUTOMATIC RINGING SYSTEM. ALFRED H. WEISS, Wilmette, Ill., assignor to Kellogg Switchboard and Supply Company, Chicago, Ill., a Corporation of Illinois. Filed Aug. 17, 1910. Serial No. 577,665. (Cl. 179—58.)



1. A telephone system comprising a calling and a called subscriber's telephone line, a link circuit establishing connection between said lines, a control relay actuated responsive to said connection, a differential relay having its windings energized responsive to said actuation, a ringing key, a source of ringing current, means controlled by actuation of said key to unbalance said differential relay to attract its armature, a flip-flop relay operated responsive to the attracted armature of said differential relay to apply said ringing current to said called line, and means actuated upon the response of the called subscriber to restore all of said relays.

2. In a telephone system, the combination with a calling and a called subscriber's telephone line, a link circuit connecting said lines, a differential relay having its windings energized responsive to said connection, a ringing key, a source of ringing current, means effective upon the actuation of said key to unbalance said differential relay to attract its armature, whereby said ringing current is applied to the called line.

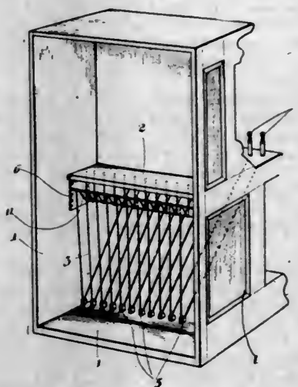
3. In a telephone system, the combination with a called subscriber's telephone line, a link circuit connected thereto, a differential relay, means for energizing the windings thereof, a flip-flop relay, a source of ringing current, a ringing key, means effective upon the actuation of said key to render said differential relay operative to attract its armature, an intermittent energizing circuit closed through said flip-flop relay upon the attraction of said armature to connect said ringing source to said called line, and means controlled by the called subscriber to disconnect said ringing current from said line.

4. In a telephone system, the combination with a called subscriber's telephone line, an operator's link circuit connected thereto, a differential relay, means for energizing the windings thereof, a source of ringing current, a ringing key, means effective upon the actuation of said key to render the windings of said relay operative to attract the armature of said relay, means controlled by the attraction of said armature to apply said ringing current to said line, a locking circuit for said relay effective upon the attraction of said armature, and means actuated upon the response of the called subscriber to open said locking circuit, whereby said ringing current is disconnected.

5. In a telephone system, the combination with a calling and a called subscriber's telephone line, an operator's link circuit having tip and sleeve conductors connecting said lines, a sleeve supervisory relay energized responsive to said connection, a tip supervisory relay, a relatively slow relay, means for energizing said slow relay, a supervisory signal, an energizing circuit therefor closed through series contacts of said sleeve supervisory and said slow relays upon their energization, means for signaling the called subscribers, and means actuated upon the response of said called subscriber to energize said tip relay and thereafter deënergize said slow relay, the said energizing circuit for said signal being rendered ineffective thereby.

[Claims 6 and 7 not printed in the Gazette.]

1,030,040. SWITCHBOARD. WILLIAM F. WEYRAUCH, Chicago, Ill. Filed Oct. 16, 1911. Serial No. 655,039. (Cl. 179—91.)



1. The combination with a telephone switch board cord rack having a plurality of cords depending therefrom, of a rod hanger secured to said rack, and a rod arranged adjacent said cords and removably secured in said hanger, substantially as described.

2. The combination with a telephone switch board cord rack having a plurality of telephone cords depending therefrom, of a rod hanger secured to said rack, and a plurality of rods removably secured in said hanger and arranged adjacent said cords, substantially as described.

3. The combination with a telephone switch board cord rack having a plurality of cords depending therefrom and arranged in a line, a rod hanger secured to said rack adjacent each end of the line of cords, and a plurality of rods arranged parallel with said line of cords and removably secured in said hanger, substantially as described.

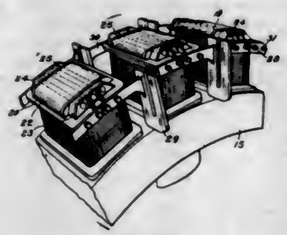
4. The combination with a telephone switch board cord rack having a plurality of cords depending therefrom and arranged in a line, rod hangers secured to said rack at each end of said line of cords, and a plurality of paral-

lel rods removably secured in said hangers and arranged parallel with said line of cords, substantially as described.

5. The combination with a telephone switch board cord rack having a plurality of equally spaced cords depending therefrom and arranged in a line, of a rod hanger depending from said rack at each end of said line of cords, a plurality of rods adapted to be removably secured in said hangers and be arranged parallel with said line of cords, and means for securing a tension on said cords, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,030,041. DYNAMO-ELECTRIC MACHINE. ROBERT B. WILLIAMSON, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Nov. 20, 1909. Serial No. 529,008. (Cl. 172—279.)



1. In a synchronous dynamo-electric machine, a rotary member having a plurality of field magnets consisting of field poles and coils, a secondary circuit carried by the rotary member for rendering the machine self-starting comprising conductors extending transversely of the plane of rotation, and means for short circuiting said transversely extending conductors comprising sectional conductors connected to the same and having enlarged radially extending resistance portions intermediate the portions connected to said conductors.

2. In a synchronous motor, a rotary member provided with field magnets comprising field poles and field coils, a closed secondary on the rotary member comprising conductors at the ends of the field magnets and extending transversely of the same, and means for short circuiting said conductors comprising short circuiting sections each secured to the conductors on adjacent field magnets and having elongated resistance portions between the field magnets.

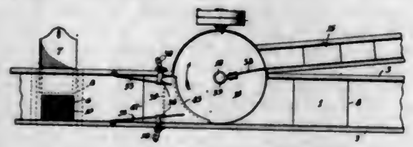
3. In a synchronous dynamo-electric machine, a rotary member having a plurality of field magnets consisting of field poles and field coils, a closed secondary carried by said rotary member comprising collars and bars at the outer ends of the field poles, and means for short circuiting said collars and bars comprising metal sections having portions secured to the bars on adjacent field magnets, and intermediate elongated resistance portions.

4. In a synchronous dynamo-electric machine, a rotary member having a plurality of field magnets consisting of field poles and coils, a closed secondary carried by said rotary member, said secondary comprising conductors carried by the field magnets and extending transversely thereof, and means for short circuiting said conductors comprising short circuiting sections each having a fan-blade portion with projections secured to the conductors on adjacent field magnets.

5. In a synchronous dynamo-electric machine, a rotary member having a plurality of field magnets each composed of a field pole and coil, a closed secondary provided on the rotary member and consisting of conductors carried by the field magnets and extending transversely thereof, and means for short circuiting said conductors comprising short circuiting sections each having a radially arranged flat U-shaped portion and arms extending in opposite directions from the sides of said portion and secured to the conductors carried by a pair of adjacent field magnets.

[Claims 6 and 7 not printed in the Gazette.]

1,030,042. APPARATUS FOR SEPARATING REFUSE FROM COAL. GEORGE W. WILMOT, Hazleton, and ROBERT L. HINKLE, Upper Lehigh, Pa. Filed Mar. 23, 1910. Serial No. 551,214. (Cl. 83—54.)

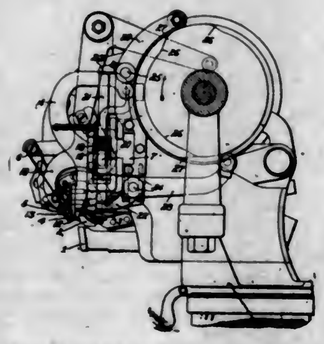


1. In an apparatus of the character described, the combination of a coal breaker chute having an inclined bottom, a disk having a portion extending across and in substantial alinement with the bottom of the said chute, means for causing revolution of the said disk in the direction opposite to the movement of coal in the said chute, whereby the refuse matter such as stone and slate is removed from the coal, and means for causing the admixture of coal and refuse matter to strike the said disk at varying points with respect to the axis of revolution of the said disk.

2. In an apparatus of the character described, the combination of a coal breaker chute having an inclined bottom, a disk having a portion extending across and in substantial alinement with the bottom of the said chute, means for causing revolution of the said disk in the direction opposite to the movement of coal in the said chute, whereby the refuse matter such as stone and slate is removed from the coal, and adjustable deflectors for causing the coal to travel over the said disk at different distances from its axis of revolution.

3. In an apparatus of the character described, the combination of a coal breaker chute having an inclined bottom a portion of which is removed, a revoluble disk, one half portion of which extends into the space formed by the removal of the said portion of the bottom and the said bottom having a section located at the upper edge of the said disk which is hinged and the lower edge of which overlaps the adjacent edge of the said disk, means for causing revolution of the said disk, means for adjusting the angular position of the said disk, and means for supporting the said hinged section of the bottom of the said chute in adjusted position with its lower edge above the upper edge of the said disk.

1,030,043. INSEAM SEWING-MACHINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed Mar. 26, 1910. Serial No. 551,656. (Cl. 112—20.)



1. An inseam sewing machine, having, in combination, stitch forming mechanism, and means operating during the sewing of the shoe to automatically find the base of the channel or rib and if inaccurately positioned and to correctly position it with relation to the needle, substantially as described.

2. An inseam sewing machine, having, in combination, stitch forming mechanism including a needle, and means operating to engage the shoe sole and correct inaccuracies in the position of the channel or rib with relation to the needle during the sewing of the shoe, substantially as described.

3. An inseam sewing machine, having, in combination, stitch forming mechanism and a sole positioning device arranged to engage the shoe sole mounted for movement in a direction substantially at right angles to the surface of the sole, and means operating to uniformly position said device previous to each work piercing stroke of the needle, substantially as described.

4. An inseam sewing machine, having, in combination, stitch forming mechanism and a sole engaging device mounted for movement to accommodate itself to variations in the plane of the sole, and means for uniformly positioning said device during the formation of each stitch to determine the position of the seam, substantially as described.

5. An inseam sewing machine, having, in combination, stitch forming mechanism, a sole engaging device mounted for movement to accommodate itself to the position of the surface of the sole, means for uniformly positioning the said device during the formation of each stitch, and means for holding said device clear of the surface of the sole during its relative travel along the sole, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,030,044. INSIDE-ANGLE BEAD. WILLIAM A. WITTBECKER, St. Paul, Minn. Filed Apr. 20, 1910. Serial No. 556,631. (Cl. 72—121.)



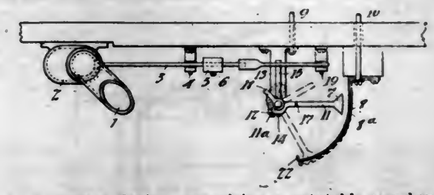
1. An inside continuous angle bead comprising attaching flanges standing in relative position corresponding to that of the walls forming the angle to be covered, plaster abutment walls standing apart and at acute angles to the respective attaching flanges and thereby providing undercut plaster keying spaces, and a concave reëntrant wall providing the corner face, joining the said plaster abutment walls; each of said attaching flanges and each of said plaster-abutment walls being connected by an offsetting wall; each of said plaster-abutment walls being separated from said reëntrant face by a guiding edge by which to determine the surface of the plaster coating.

2. An inside continuous angle bead comprising attaching flanges standing in relative position corresponding to that of the walls forming the angle to be covered, plaster abutment walls standing apart and at acute angles to the respective attaching flanges and thereby providing undercut plaster keying spaces, and a concave reëntrant face joining the said plaster abutment walls, one of said attaching flanges and one of said plaster-abutment walls being connected by an offsetting wall.

3. An inside continuous angle bead comprising attaching flanges standing in relative position corresponding to that of the walls forming the angle to be covered, plaster abutment-walls standing apart and at acute angles to the respective attaching flanges and thereby providing undercut plaster keying spaces, and a concave reëntrant face joining the said plaster abutment walls, each of said attaching flanges and each of said plaster-abutment walls being connected by an offsetting wall.

4. An inside continuous angle bead comprising attaching flanges standing in relative position corresponding to that of the walls forming the angle to be covered, plaster abutment walls standing apart and at acute angles to the respective attaching flanges and thereby providing undercut plaster keying spaces, and a concave reëntrant face joining the said plaster abutment walls, one of said attaching flanges and one of said plaster-abutment walls being connected by an offsetting wall, said plaster abutment walls and the reëntrant face being separated by a guiding edge or margin by which to determine the surface of the plaster coating.

1,030,045. CONTACT DEVICE. EDWARD L. AIKEN, East Orange, N. J., assignor, by mesne assignments, to Thomas A. Edison, Incorporated, West Orange, N. J., a Corporation of New Jersey. Original application filed July 16, 1904, Serial No. 216,781. Divided and this application filed Apr. 5, 1909. Serial No. 488,120. (Cl. 175—288.)



1. A contact device, comprising a rotatable member, a contact projecting outwardly therefrom, a yielding contact strip located in the same plane as the path of said contact and concave thereto and gradually approaching and crossing the same, a releasable means normally biased to hold said contact in an open circuit position, and spring means for rotating said rotary member when released from said holding means into contact with said yielding contact, and causing it to sweep along said yielding contact against the increasing spring resistance thereof, substantially as set forth.

2. A contact device, comprising a vertical rock shaft, a contact arm projecting outwardly therefrom, a yielding contact strip in the path of said arm and concave thereto and gradually approaching and crossing the same, a pawl normally biased to hold said rock shaft in an open circuit position, and a spring for rotating said rock shaft when the pawl is released to carry the end of said contact arm into contact with said yielding contact, and causing it to sweep along said yielding contact against the increasing spring resistance thereof, substantially as set forth.

3. A contact device, comprising a rotatable member, a contact projecting outwardly therefrom, a yielding contact located in the same plane as the path of said contact, concave thereto and gradually approaching and crossing the same, means normally biased to hold said member in open circuit position, spring means for rotating said member along its path into contact with said yielding contact against the increasing spring resistance thereof to close the circuit, and means carried by said member by which the latter may be rotated in the opposite direction against the tension of the spring so as to permit the means for holding said member in open circuit position to become effective, substantially as described.

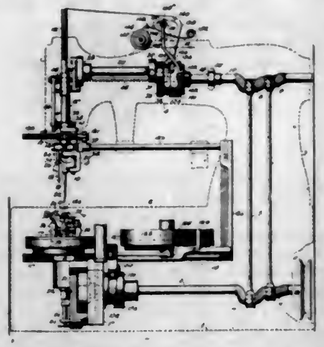
4. A contact device comprising a rotatable member, a contact projecting outwardly therefrom, a yielding contact located in the same plane as the path of said contact, concave thereto and gradually approaching and crossing the same, gravity actuated means for holding said member in open circuit position, spring means for rotating said member along its path into contact with said yielding contact against the increasing spring resistance thereof to close the circuit, and means carried by said member by which the latter may be rotated in the opposite direction against the tension of the spring so as to permit the gravity actuated means to operate to hold said member in open circuit position, substantially as described.

5. A contact device, comprising a vertical rock shaft, a contact arm projecting outwardly therefrom, a yielding contact strip in the path of said arm concave thereto and gradually approaching and crossing the same, a pawl

adapted to hold said rock shaft in open circuit position, a spring for rotating said rock shaft when the pawl is released to carry the end of said contact arm into contact with said yielding contact and causing it to sweep along said yielding contact against the increasing spring resistance thereof to close the circuit, and means carried by said rock shaft by which the latter may be rotated in the opposite direction against the tension of the spring, so that it may be reëngaged by the pawl, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,030,046. STITCH-FORMING MECHANISM. EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed Nov. 2, 1910. Serial No. 590,269. (Cl. 112—4.)



1. Overseaming sewing mechanism comprising the combination with means operating successively in each stitch-forming cycle to pass primary and secondary thread-loops respectively through the work in different paths, of a looper adapted to pass a looper-thread loop through a primary thread-loop and exterior to the secondary thread-loop of the same cycle, a loop-detainer adapted to engage and hold said looper-thread loop upon the side of the work adjacent the looper for passage of a secondary thread-loop while the looper recedes from the primary thread-loop, means acting after the recession of the looper from the primary thread-loop for drawing up said primary thread-loop upon the looper-thread loop embraced thereby while the looper-thread loop is engaged by the loop-detainer, and actuating means for imparting operative movements to the several thread-handling members.

2. In a sewing machine, the combination with means operating successively in each stitch-forming cycle to pass primary and secondary thread-loops respectively through the work in two different substantially parallel paths, of a looper adapted to pass a looper-thread loop through a primary thread-loop and exterior to the secondary thread-loop of the same cycle, a loop-detainer adapted to engage and hold said looper-thread loop upon the side of the work adjacent the looper for passage of the secondary thread-loop while the looper recedes from the primary thread-loop, means acting after the recession of the looper from the primary thread-loop for drawing up the latter upon the looper-thread loop embraced thereby while the looper-thread loop is detained for passage of the secondary thread-loop, and actuating means for imparting operative movements to the several thread-handling members.

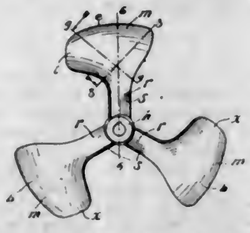
3. In a sewing machine, the combination with means operating successively in each stitch-forming cycle to pass primary and secondary thread-loops respectively through the work in two different substantially parallel paths, of an eyed looper adapted to pass a looper-thread loop through a primary thread-loop and exterior to the secondary thread-loop of the same cycle, a loop-detainer movable independently of said looper and adapted to engage and hold said looper-thread loop upon the side of the work adjacent the looper for passage of the secondary thread-loop while the looper recedes from the primary thread-loop, means acting after the recession of the looper from the primary thread-loop for drawing up the latter upon the looper-thread loop while said looper-thread loop is detained for passage of the secondary thread-loop, and actuating means for imparting operative movements to the several thread-handling members.

4. In a sewing machine, the combination with a thread-carrying needle, a needle-bar in which the same is mounted, and a rotary support in which said needle-bar is journaled to reciprocate, of complemental stitch-forming mechanism comprising a reciprocating thread-carrying looper adapted to pass a loop of looper-thread through a loop of needle-thread, a looper-carrier, a rotary support upon which said looper-carrier is mounted to reciprocate, a loop-detainer mounted upon the rotary looper-support independently of said looper-carrier and adapted to engage and hold said looper-thread loop while the looper recedes from the needle-thread loop for passage of a subsequently formed thread-loop, means for imparting turning movements in unison to said rotary supports, and a needle-thread controller adapted to draw up the first-named needle-thread loop after the recession therefrom of said looper and while the looper-thread loop is engaged by said loop-detainer.

5. In a sewing machine, the combination with means for passing primary and secondary thread-loops successively through the work in different paths, of a reciprocating loop-carrier, oppositely directed thread-carrying and non-thread-carrying loopers mounted upon said carrier and adapted to engage respectively said primary and secondary thread-loops, a spreader overlying the non-thread-carrying looper and adapted for lateral movement relatively to the same, a loop-detainer supported independently of said looper-carrier and adapted to engage and hold said looper-thread loop for passage of the secondary thread-loop while the looper recedes from the primary thread-loop, means acting after the recession of the looper from the primary thread-loop for drawing up the latter upon the looper-thread loop while said looper-thread loop is detained for passage of the secondary thread-loop, and actuating means for imparting operative movements to the several thread-handling members.

[Claims 6 to 12 not printed in the Gazette.]

1,030,047. PROPELLER. BYRON S. AMES, Newberry, Pa. Filed Nov. 26, 1910. Serial No. 594,264. (Cl. 115—46.)



1. A propeller comprising a stem and a blade portion, the stem extending radially outward with the edges substantially parallel and being substantially flat on the rear side and curved on the forward side, the blade portion being curved in its radial direction with the center of the curve at the rear, the blade having an extension on the outer end of the blade, the blade and extension having a helical twist beyond the stem.

2. A propeller comprising a stem and a blade portion, the stem extending radially outward and being substantially flat on one side, the blade portion being curved in the radial direction with the center of the curve at the rear, the blade having an extension at the rear side, the blade and extension having a helical twist beyond the stem, the blade and extension at the outer edge being substantially in a straight plane, the extremity of the extension being curved in a radial direction with the center of the curve at the rear.

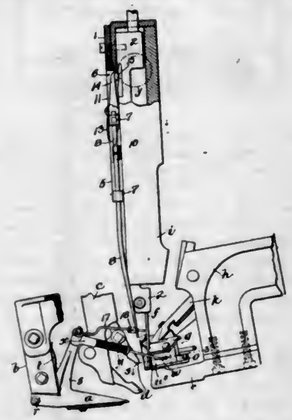
3. A propeller comprising a stem and a blade portion, the blade portion being curved in its radial or longitudinal direction with the center of the curve at the rear, the blade having an extension at the rear side, the blade and extension having a helical twist beyond the stem, the blade and extension at the outer edge being substantially in a straight plane, the extremity of the extension being curved in a radial direction with the center of the curve at the rear.

4. A propeller comprising a stem and a blade portion, the stem extending radially outward with its edges substantially parallel and being substantially flat on the rear side and curved on the forward side, the blade portion being curved in its radial or longitudinal direction with the center of the curve at the rear, the blade having an extension at the outer edge, the blade and extension having a helical twist beyond the stem, the blade and extension at the outer edge being substantially in a straight plane, the extremity of the extension being curved in a radial direction with the center of the curve at the rear.

5. A propeller comprising a stem and a blade portion, the stem extending radially outward with its edges substantially parallel and being substantially flat on the rear side and curved on the forward side, the blade portion being curved in its radial or longitudinal direction with the center of the curve at the rear, the blade having a helical twist beyond the stem, the blade and extension at the outer edge being substantially in a straight plane, the extremity of the extension being curved in a radial direction with the center of the curve at the rear, the blade on a line from the outer end of the extension to the cutting edge of the blade at its outer portion of the stem being curved and convex on the rear side.

[Claims 6 and 7 not printed in the Gazette.]

1,030,048. LASTING-MACHINE. JOSEPH M. BARTON and PETER J. LANDRY, Danvers, Mass., assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 11, 1908. Serial No. 437,867. (Cl. 1—18.)



1. In combination, a race-way formed with a slot for the tacks; a device for feeding the tacks, said device being formed with a slot adapted to register with the slot in said race-way; and mechanism for locking said device against movement when said slots are out of register with each other.

2. In combination, a movable work-rest; a race-way formed with a slot for the tacks; a device for feeding the tacks, said device being formed with a slot adapted to register with the slot in said race-way; and mechanism controlled by said work-rest for locking said device when said slots are out of register with each other.

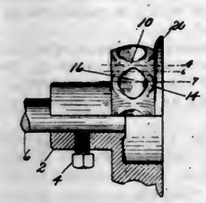
3. In combination, a movable work-rest; a tack-feed slide; and a detent for locking said slide, said detent having one end connected with said work-rest and its other end free to be thrown into and out of the path of said slide by the movements of said work-rest.

4. In combination, a movable work-rest; a hammer-carrying bar; a pawl which by its engagement with the said bar locks the same against movement; and movable mechanism actuated by said work-rest and controlling said pawl, said mechanism forcing said pawl into engagement with said bar to hold the latter against movement.

5. In combination, a movable work-rest; a hammer-carrying frame movable to and from the same; a hammer-carrying bar movably mounted in said frame; a locking device carried by said frame and adapted to be thrown into locking engagement with said bar to lock the latter against movement; and movable mechanism carried by said frame into engagement with said work-rest, said mechanism forcing said device into locking engagement with said bar by its said engagement with said work-rest.

[Claims 6 to 20 not printed in the Gazette.]

1,030,049. BURNISHING-TOOL. ZOTIQUE BEAUDRY, Lynn, Mass., assignor to United-Xpedite Finishing Company, Berwick, Me., a Corporation of Maine. Filed Oct. 13, 1906. Serial No. 338,827. (Cl. 12—105.)



1. A burnishing tool having a work-rubbing surface comprising a longitudinal series of differently-shaped faces alternately arranged and formed to engage respectively different contours of surfaces being burnished.

2. A burnishing tool having a work-rubbing surface comprising a longitudinal series of differently-shaped faces formed to engage respectively, during the advance of the tool, with different portions of the width of the surface being burnished, combined with means by which the tool may be actuated.

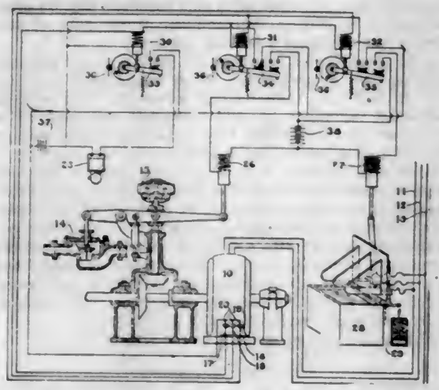
3. A burnishing tool having a work-rubbing surface including a convex face for engaging a concave portion of the surface being burnished, and a flattened face provided with diverging rubbing members extending substantially across said acting face and arranged to engage simultaneously a less concave or straight portion of the surface being burnished.

4. A burnishing tool having a work-rubbing surface comprising a longitudinal series of differently-shaped faces formed to engage, during the advance of the tool, with different portions of a surface being burnished, said work-rubbing surface including a convex face to engage a concave portion of the work and a depressed face the edges of which form rubbing members diverging from the middle of said acting face outwardly toward the margin thereof, combined with means by which the tool may be actuated.

5. A burnishing tool having a work-rubbing surface comprising projecting convex portions to engage the middle portion of a concave surface being polished, and relatively depressed portions having rubbing faces extending from the middle of said acting face toward the marginal edges thereof to act on the surface being polished from its middle portion toward its edges.

[Claims 6 to 26 not printed in the Gazette.]

1,030,050. SYSTEM OF CONTROL. LOUIS E. BOGEN, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Apr. 19, 1909. Serial No. 490,962. (Cl. 175—294.)



1. In combination, a machine to be protected, a vibratory body arranged to be set into sympathetic vibration by the vibrations of the machine when the speed of the latter reaches a predetermined value, and an electrically controlled indicating or protective device for said machine the circuit of which is controlled by said vibratory body.

2. In combination, a machine, a vibratory body arranged to be set into sympathetic vibration by the vibrations of the machine when the speed of the latter is at a predetermined value, and an electric circuit controlled by said vibratory body.

3. In combination, a machine to be protected, a plurality of vibratory bodies having different frequencies of vibration and mounted on such machine to be set into sympathetic vibration when the machine rotates at speeds corresponding to such frequencies, and a plurality of protective devices for such machines which are controlled by the vibrations of the respective vibratory bodies.

4. In combination, a machine to be protected, a plurality of vibratory bodies having different frequencies of vibration and mounted on such machine to be set into sympathetic vibration when the machine rotates at speeds corresponding to such frequencies, a signal controlled by one of said vibratory bodies, and a protective device for the machine controlled by another of such vibratory bodies with a higher frequency of vibration.

5. In combination, a dynamo-electric machine, a vibratory body mounted on such machine so as to be set into sympathetic vibration when such machine rotates at a predetermined speed, an electrically operated speed-limiting device for such machine, and means for controlling such speed-limiting device by the vibration of said vibratory body.

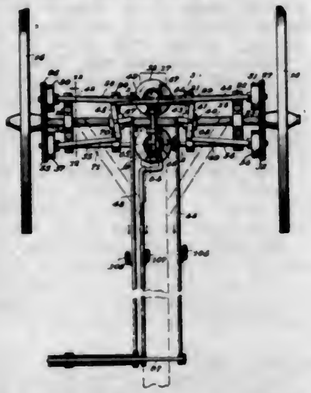
[Claims 6 and 7 not printed in the Gazette.]

1,030,051. REGENERATIVE BRAKE SYSTEM FOR VEHICLES. ROZIER E. BRUNDEGE, St. Louis, Mo. Filed Dec. 9, 1911. Serial No. 664,814. (Cl. 105—27.)

1. In a vehicle brake system, the combination with opposite independently rotatable vehicle wheels, of a single energy storing spring, and mechanism connecting said spring with said wheels constructed to cause both wheels to simultaneously wind said spring to store energy therein.

2. In a vehicle brake system, the combination with opposite independently rotatable vehicle wheels, of a single energy storing spring, and mechanism connecting one wheel with one end of said spring and another wheel with the other end of said spring constructed to cause both wheels to simultaneously wind said spring to store energy therein.

3. In a vehicle brake system, the combination with the opposite vehicle wheels, of a single energy storing spring, and mechanism connecting said wheels with the ends of said spring constructed to cause both said wheels to wind said spring to store energy therein, and means for applying the stored energy to both wheels.

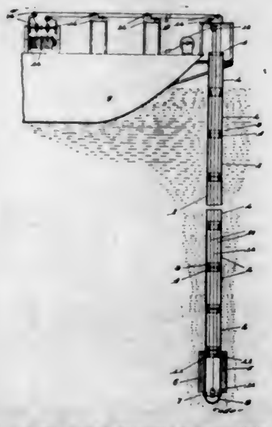


4. In a vehicle brake system, the combination with the vehicle wheels, of an energy storing spring, mechanism connecting said spring with a pair of said wheels constructed to cause both wheels to wind up said spring to store energy therein, and means for applying the stored energy to a pair of said wheels.

5. In a vehicle brake system, the combination with the vehicle wheels, of an energy storing spring, mechanism connecting said spring with opposite wheels constructed to cause both wheels to wind up said spring and store energy therein, and means for connecting the spring to said wheels constructed to apply the energy stored in said spring for driving said wheels.

[Claims 6 to 22 not printed in the Gazette.]

1,030,052. SUBMARINE ILLUMINATING APPARATUS. PATRICK J. BYRNE, Cleveland, Ohio, assignor of one-third to Catherine V. Watson Walsh, Cleveland, Ohio. Filed Nov. 16, 1910. Serial No. 592,750. (Cl. 240—26.)



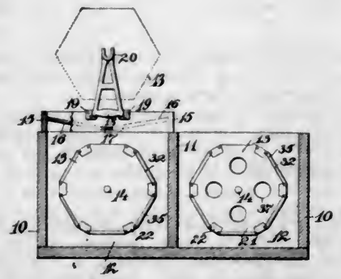
1, A device of the class described comprising a tube the body of which is formed of sections of flexible water proof material, each of said sections being provided with an internally threaded metallic ring at one end and a metallic ring at the other end having a reduced threaded portion projecting from said section and adapted to engage said first-mentioned ring; a metallic end section for said tube having a transparency therein; and a light in said end section, substantially as described.

2. A device of the class described comprising a tube the body of which is formed of sections of flexible water proof material, each of said sections being provided with an internally threaded metallic ring at one end and a metallic ring at the other end having a reduced threaded portion projecting from said section and adapted to engage said first-mentioned ring; a weighted metallic end section for said tube having a transparency therein; and a light in said end section, substantially as described.

3. A device of the class described comprising a tube the body of which is formed of sections of flexible water proof material, each of said sections being provided with an internally threaded metallic ring at one end and a metallic ring at the other end having a reduced threaded portion projecting from said section and adapted to engage said first-mentioned ring; a metallic end section for said tube having a transparency therein; a light in said end section; and cables secured to the interior of said end section and extending upwardly within said tube, substantially as described.

4. A device of the class described comprising a tube the body of which is formed of sections of flexible water proof material, each of said sections being provided with an internally threaded metallic ring at one end and a metallic ring at the other end having a reduced threaded portion projecting from said section and adapted to engage said first-mentioned ring; a weighted metallic end section for said tube having a transparency therein; a light in said end section; and cables secured to the interior of said section and extending upwardly within said tube, substantially as described.

1,030,053. PLATING-MACHINE. SETH C. CATLIN, Bloomfield, N. J. Filed Sept. 19, 1911. Serial No. 650,111. (Cl. 204—11.)



1. The combination of a plating machine comprising a tank, a basket rotatably arranged in the tank, with a drain-tray supported on the tank having a strainer in the bottom, and bearings on the drain-tray for rotatably supporting the basket above the bottom of the drain-tray.

2. The combination of a plating machine comprising a tank, a rotatable basket in the tank, said basket being removable, with a drain-tray removably supported on the tank, the tray having a strainer in its bottom, and handles on the tray, the handles providing bearings for rotatably supporting the basket thereon to drain it and permit the dumping of its contents.

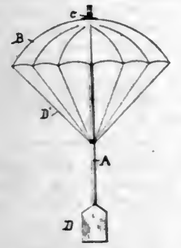
3. The combination of a plating machine comprising a tank, a removable rotatable basket in the tank, with a drain-tray above the tank, the tray having an inclined bottom, a strainer in the bottom, and bearings to rotatably support the basket above the bottom of the tray whereby the basket can be drained and dumped.

4. The combination of a plating machine comprising a tank, a rotatable basket removably supported in the tank, with a drain-tray adapted to rest on the tank, the drain-tray having an inclined bottom, a perforated strip at the lowest point of the bottom, and handles on the tray, the handles having bearing portions to rotatably support the basket whereby the basket can be drained and dumped.

5. In a plating machine, a basket having openings in its sides, the basket and the side walls of the openings being provided with grooves wider on their inside portions, fabric panels having stiffened and enlarged edges, said stiffened and enlarged edges being adapted to fit the grooves of the basket, and means for securing the panels in the grooves.

[Claims 6 and 7 not printed in the Gazette.]

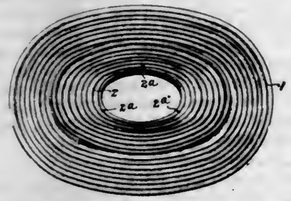
1,030,054. COMBINATION TOY PARACHUTE AND SHOVEL. SEWARD CHARLES, Washington, D. C. Filed Feb. 28, 1912. Serial No. 680,467. (Cl. 46—37.)



1. A toy comprising a collapsible parachute operatively attached to one end of a shaft or handle and a blade for guiding the toy in its upward and downward movements.

2. A toy comprising a handle or shaft, a collapsible parachute operatively attached to one end of said handle or shaft, and a blade attached to the other end of the handle, whereby the toy is guided in its ascent and descent.

1,030,055. GASKET. JESSE DARLINGTON, Jr., Westville, N. J., assignor of one-half to Adolph M. Plummer, Westville, N. J. Filed Jan. 19, 1910. Serial No. 538,862. (Cl. 137—28.)



1. As a new article of manufacture, a gasket made of a plurality of apertured disks of different diameters and of substantially the same thickness, and with central openings of substantially the same size, the inner portion of such gasket being thicker than the outer portion of the same.

2. As a new article of manufacture, a metal gasket made of a pair of apertured disks of different diameters, both disks being of substantially the same thickness and with central openings substantially the same size, the inner portion of such gasket being thicker than the outer portion of the same.

3. As a new article of manufacture, a gasket made of a pair of apertured disks of corrugated material of substantially the same thickness, one disk being larger than the other, both of said disks being provided with central apertures of substantially the same area, and the thickest part of said gasket being adjacent the apertured portion of the same.

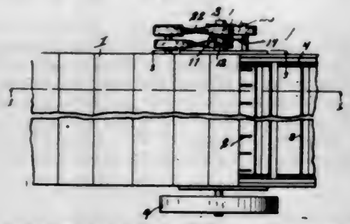
4. As a new article of manufacture, a metal gasket made of two apertured disks of corrugated material having the same thickness, one disk being larger than the other and both of said disks being provided with central apertures of substantially the same area, the thickest part of said gasket being adjacent the apertured portion of the same.

1,030,056. MEDICATED NEST-EGG. ANDREW F. DICE, Joliet, Ill. Filed Sept. 5, 1911. Serial No. 647,625. (Cl. 119—46.)



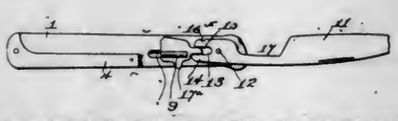
The ventilated and medicated nest egg made of rigid material having its axis bored out from end to end and also having removable thimbles with perforated ends inserted at each end of such bore, the perforated ends of the thimbles being located within the bore at a considerable distance from the orifices so that they serve to ventilate the bore while confining and regulating the discharge of the powder.

1,030,057. BAND-CUTTER AND FEEDER. ARTHUR DODD, Howard township, Cass county, Mich. Filed Nov. 25, 1911. Serial No. 662,335. (Cl. 130—1.)



In a band cutter and feeder, the combination of a cutter and cutter shaft with driving connections therefor; a feed conveyer; a pulley and star ratchet wheel with double beveled obtuse teeth revolubly mounted on said cutter shaft and joined together; driving connections from said pulley to said feed conveyer; an arm fixed on said cutter shaft; a pawl pivoted on said cutter shaft arm to cooperate with said ratchet wheel having an arm extension; a weight carried on said arm; and a tension spring tending to hold said pawl out of engagement with said ratchet wheel and resist the centrifugal action of said weight, coacting as specified.

1,030,058. POCKET-KNIFE. ELIJAH DOLES, Pine Bluff, Ark. Filed July 19, 1911. Serial No. 639,408. (Cl. 30—9.)



In a pocket knife, the combination of a handle having grooves on the inner sides thereof, a locking block slidable in the grooves and having a stem projecting therefrom, a knife blade pivoted in the handle adjacent to said grooves and having a cut-out in the cutting edge thereof, a pair of prongs projecting from the blade, and a notch in one of said prongs, the cut-out of the blade fitting the block in closed position and the notched prong engaging the block stem for holding the blade in partially open position, substantially as shown and described.

1,030,059. FLUSH-TANK COVER. SAMUEL DRUGAN and JOHN SCHOENTHALER, Trenton, N. J., assignors to Cochran, Drugan & Co., Trenton, N. J., a Corporation of New Jersey. Filed Apr. 16, 1910. Serial No. 555,956. (Cl. 4—5.)

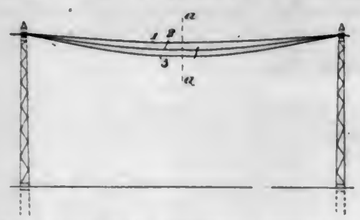
1. A hollow cover having top, bottom and rear walls integrally connected together, the bottom wall having a depending edge following the contour of the front and ends of the structure, and the rear wall having a portion of its surface cut away.



2. A hollow cover having top, bottom and rear walls integrally connected together, the bottom wall having a depending edge following the contour of the front and ends of the structure and a plurality of lugs paralleling said depending edge to afford positioning means for said cover, and the top wall merging with the bottom wall at the front and ends of the same.

3. A hollow cover having top, bottom and rear walls integrally connected together, the bottom wall having a depending edge following the contour of the front and ends of the structure, and the bottom wall having a depending portion affording positioning means for said cover.

1,030,060. AERIAL ELECTRIC LINE. WILHELM ELLINGEN, Cologne-Lindenthal, Germany. Filed Mar. 9, 1912. Serial No. 682,736. (Cl. 173—28.)



1. Aerial electric lines, comprising a plurality of wires, the sag of which is of different height according to the distance between the various wires.

2. Aerial electric lines, comprising a plurality of wires of different sags arranged so that the circular ways through which the wires are moved, do not cross one another, substantially as set forth.

1,030,061. DYNAMO-ELECTRIC MACHINE. BERNARD ELSHOFF, Cincinnati, Ohio, assignor to The Bullock Electric Manufacturing Company, a Corporation of Ohio. Filed Sept. 14, 1905. Serial No. 278,515. (Cl. 171—211.)

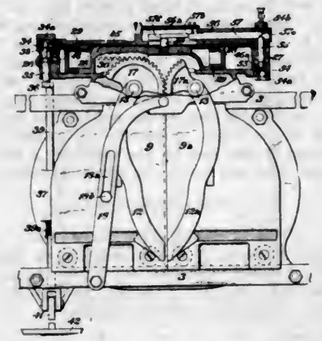


1. In combination, a commutator bar having a rectangular depression in one side thereof, and an integral lug or projection in said depression, and a connector fitting snugly in said rectangular depression and having an opening receiving the lug, said lug being expanded or riveted to hold the segment and connector together.

2. In combination, a commutator bar having a depression in one side thereof and an integral lug or projection in said depression, and a connector, fitting snugly in said depression and having a countersunk opening receiving the lug, said lug being expanded or riveted to hold the segment and connector together.

3. A step in the method of fastening a commutator connector to a commutator segment, which consists in simultaneously forming in one side of a segment a depression and an integral lug and on the other side of the segment opposite the lug a recess whereby the length of the lug will be increased.

1,030,062. FLUID-PRESSURE MOTOR. ALBERT G. ELVIN, East Orange, N. J. Filed Mar. 10, 1910. Serial No. 548,357. (Cl. 121—29.)



1. The combination of a fluid pressure cylinder having a lateral opening, a differential piston working in said cylinder and having a rack on its side adjacent to said opening in position to engage a gear extending thereinto; an operating valve controlling the supply and exhaust of fluid to and from the larger end of the piston, a valve controlling the supply and exhaust of fluid to and from the smaller end of the piston, and a trip rod adjacent to the cylinder and actuated by the movement of the piston, for opening said last recited valve.

2. The combination of a fluid pressure cylinder, a differential piston working therein, an operating valve which, when unseated, admits fluid pressure to the larger end of the piston, and, when seated, exhausts fluid pressure therefrom, and which is continuously subject to fluid supply pressure, means for unseating the operating valve, and a trip rod adjacent to the cylinder and actuated by the movement of the piston, for effecting the supply and exhaust of fluid to and from the smaller end thereof.

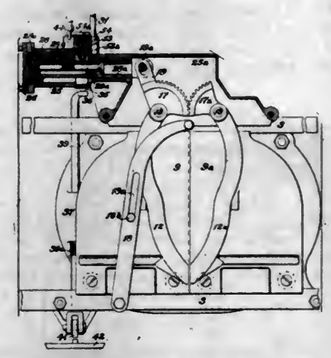
3. The combination of a fluid pressure cylinder, a differential piston working therein, an operating valve which, when unseated, admits fluid pressure to the larger end of the piston, and, when seated, exhausts pressure therefrom, and which is continuously subject to fluid supply pressure, means for unseating the operating valve, a valve controlling the supply and exhaust of fluid to and from the smaller end of the piston, a trip rod normally adjoining the stem of said last recited valve, and a trip carried by the piston and abutting in opposite directions on the trip rod in opposite directions of movement of the piston.

4. The combination of a fluid pressure cylinder, a differential piston working therein, heads closing the ends of said cylinder, a valve chamber in the head adjoining the larger end of the piston, a fluid pressure supply pipe open continuously to the valve chamber, supply and exhaust ports leading into the cylinder through the head, a valve normally seated, under supply pressure, in the pressure chamber, and controlling communication between said chamber and the adjacent end of the cylinder and between said end and the exhaust port, means for unseating said valve, a valve chamber in the head adjoining the smaller end of the piston, a port connecting said chamber with the supply pipe, supply and exhaust ports leading into the cylinder through said head, a valve normally seated in said pressure chamber and controlling communication between said chamber and the adjacent end of the cylinder and between said end and the exhaust port, and a trip rod adjacent to the cylinder and actuated by the movement of the piston, for unseating said valve.

5. The combination of a fluid pressure cylinder, a differential piston working therein, an automatically seating operating valve controlling the supply and exhaust of fluid to and from the larger end of the piston, means for unseating said operating valve, an automatically seating valve controlling the supply and exhaust of fluid to and from the smaller end of the piston, and a trip rod adjacent to the cylinder and actuated by the movement of the piston, for unseating said last recited valve.

[Claims 6 and 7 not printed in the Gazette.]

1,030,063. FLUID-PRESSURE MOTOR. ALBERT G. ELVIN, East Orange, N. J. Filed Mar. 10, 1910. Serial No. 548,358. (Cl. 121—45.)



1. The combination of a fluid pressure cylinder which is open at one of its ends, a differential piston working in said cylinder, a piston rod passing through the open end of said cylinder, a gear coupled detachably to said piston rod, an operating valve controlling the supply and exhaust of fluid to and from the larger end of the piston, a valve controlling the supply of fluid to the smaller end of the piston, and means projecting into the path of and actuated by the movement of the piston, for opening said last recited valve.

2. The combination of a fluid pressure cylinder, a differential piston working therein, an operating valve which, when unseated, admits fluid pressure to the larger end of the piston, and, when seated, exhausts fluid pressure therefrom, and which is continuously subject to fluid supply pressure, means for unseating the operating valve, and means projecting into the path of and actuated by the movement of the piston, for effecting the supply of fluid to the smaller end thereof.

3. The combination of a fluid pressure cylinder, a differential piston working therein, an operating valve which, when unseated, admits fluid pressure to the larger end of the piston, and when seated, exhausts pressure therefrom, and which is continuously subject to fluid supply pressure, means for unseating the operating valve, a valve controlling the supply of fluid to the smaller end of the piston, and a recessed shoe carried by the rod of the piston and adapted to unseat, and hold unseated, said last recited valve during the major portion of the traverse of the piston in each direction.

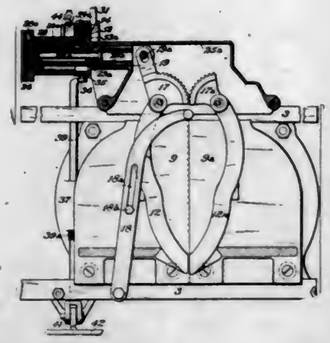
4. The combination of a fluid pressure cylinder, a differential piston working therein, a valve chamber in the cylinder, adjoining the larger end of the piston, a fluid pressure supply pipe open continuously to the valve chamber, supply and exhaust ports leading into and out of the cylinder on the larger end of the piston, a valve normally seated under supply pressure, in the valve chamber, and controlling communication between said chamber and the cylinder and between the cylinder and the exhaust port, means for unseating said valve, a second pressure chamber in the cylinder, a port connecting said chamber with the supply pipe, a supply port leading into the cylinder from said second pressure chamber, a valve normally seated in said pressure chamber and controlling communication between said chamber and the cylinder, and means

projecting into the path and actuated by the movement of the piston, for unseating said valve.

5. The combination of a fluid pressure cylinder, a differential piston working therein, an automatically seating operating valve controlling the supply and exhaust of fluid to and from the larger end of the piston, means for unseating said operating valve, an automatically seating valve controlling the supply and exhaust of fluid to the smaller end of the piston, and means projecting into the path and actuated by the movement of the piston, for unseating said last recited valve.

[Claims 6 and 7 not printed in the Gazette.]

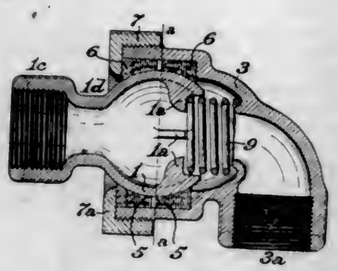
1,030,064. FLUID-PRESSURE MOTOR FOR FIRE-BOX DOORS OR OTHER RECIPROCATING MEMBERS. ALBERT G. ELVIN, Somerville, N. J. Filed July 3, 1911. Serial No. 636,701. (Cl. 110—177.)



1. The combination of a fluid pressure operating cylinder, a piston and rod working therein, a gear casing fixed to one end of the cylinder, intermeshing segment gears journaled in said gear casing, a detachable pin coupling one of said segment gears to the piston rod, and a door closing a lateral opening in the gear casing for the insertion and removal of the coupling pin.

2. The combination of a fluid pressure operating cylinder, a piston and rod working therein, a gear casing fixed to one end of the cylinder, intermeshing segment gears journaled in said gear casing, a detachable pin coupling one of said segment gears to the piston rod, a lateral receptacle in the gear casing for the reception of the pin when detached, and a chain connecting the pin to the gear casing.

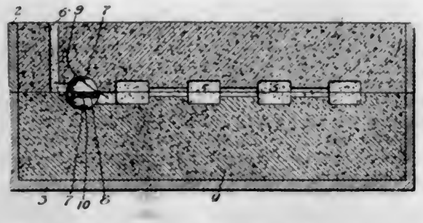
1,030,065. PIPE-JOINT. ALBERT G. ELVIN, Somerville, N. J. Filed July 18, 1911. Serial No. 639,082. (Cl. 137—88.)



1. In a pipe joint, the combination of a ball member having a plurality of radially extending ribs on the inner side of its wall, a socket member free of said ball member and having a recess, each of said members being fitted for connection to a section of pipe, a gasket fitting between the recess in the socket and the periphery of the ball, a coil spring abutting, at one end, on the wall of the socket, and, at the other, on the ribs of the ball substantially adjacent to the shell of the ball, and a nut engaging the socket and bearing on the gasket.

2. In a pipe joint, the combination of a ball member having a plurality of radially extending ribs on the inner side of its wall, a socket member free of said ball member and having a recess, each of said members being fitted for connection to a section of pipe, packing gaskets and soft metal wear gaskets fitting between the recess in the socket and the periphery of the ball, one of each being located on each side of the transverse central plane of the ball, a coil spring abutting, at one end, on the wall of the socket, and, at the other, on the ribs of the ball substantially adjacent to the shell of the ball, and a nut engaging the socket and bearing on the outermost gasket.

1,030,066. POURING-GATE FOR CASTINGS. AUGUST ERLANDSON, Chicago, Ill. Continuation of application Serial No. 589,957, filed Oct. 31, 1910. This application filed Oct. 17, 1911. Serial No. 655,200. (Cl. 22—134.)



1. In a device of the class described in combination, a mold having a pocket therein, said pocket being comprised of two substantially hemispherical openings, a pouring gate communicating with one of said hemispherical openings, an outlet leading from the other one of said openings, and a strainer placed with one of its faces on the line of division between said hemispherical openings.

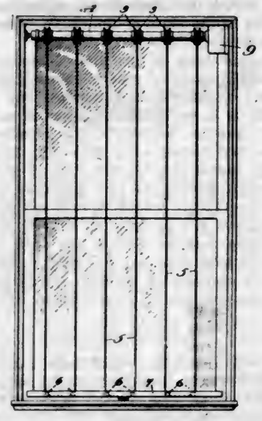
2. In a device of the class described in combination, a mold having a pocket therein of substantially spherical form, a gate communicating with said pocket, an outlet opening also communicating with said pocket and a strainer placed in said pocket and forming a partition between said gate and said outlet.

3. In a device of the class described in combination, a mold having a pocket therein provided with sloping walls, and a strainer placed in said pocket, said strainer having its edges beveled to correspond with the slope of said walls, said strainer being supported in the mold solely by the engagement between its beveled surfaces and the sloping walls of the pocket.

4. In a device of the class described in combination, a mold having a pocket therein, said pocket being substantially spherical in form, a pouring gate communicating with said pocket, an outlet from said pocket, the outlet being on a lower level than the connection between the gate and the pocket, and a strainer placed in said pocket at the level of the lower edge of said gate.

5. The combination of a mold having a pocket, a gate and an outlet therein, said pocket being formed by two hemispherical portions, the upper of said portions having a lesser diameter than the lower, said gate communicating with said upper portion and said outlet with said lower portion, and a strainer carried within said pocket with its upper face on the line of division between said portions, said strainer having its edge beveled to correspond with the slope of the wall of said pocket and being suspended in said pocket solely by the engagement between said wall and said beveled edge.

1,030,067. AUTOMATIC BURGLAR-ALARM. WILLIAM W. ERWIN, New York, N. Y. Filed Nov. 26, 1909. Serial No. 529,991. (Cl. 177—314.)



1. A burglar alarm comprising a suitable roller, a normally closed electric alarm circuit a portion of the wire of which is secured longitudinally to said roller and is divided at suitable points along its length into sections, depressible means carried by said roller that connect the adjacent ends of said sections, and cords wound upon said roller that depress said means when taut, and release the same and break said circuit when slack.

2. A burglar alarm comprising a suitable automatically rewinding roller, a clutch consisting of an electro-magnet permanently secured to one end of said roller, and an independent armature member for said magnet, a normally closed electric alarm circuit connecting the terminals of the coils of said magnet, and contact members in said circuit which are electrically connected through said armature to hold said armature member and magnet relatively stationary, and are disconnected by the movement of said armature and roller to open said circuit to sound the alarm and release said armature and magnet.

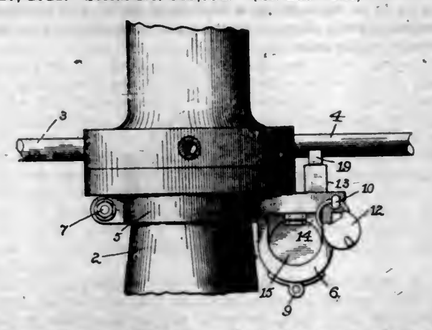
3. A burglar alarm comprising a suitable roller, having a longitudinal groove, a normally closed electric alarm circuit a portion of the wire of which is secured in said groove and is divided at suitable points along its length into sections, the ends of which are bent out of said groove, depressible means carried by said roller that connect the adjacent ends of said sections, and cords wound upon said roller that depress said means when taut, and release the same and break said circuit when slack.

4. A burglar alarm comprising a suitable automatically rewinding roller, having sheaves at intervals along its length each made by securing a pair of collars thereto having opposing circumferential flanges, a normally closed electric alarm circuit a portion of the wire of which is secured longitudinally to said roller and is divided between the collars of said sheaves into sections, depressible means secured to and carried by said roller that connect the adjacent ends of said sections, and cords wound upon said roller in said sheaves that depress said means when taut and release the same and break said circuit when slack.

5. A burglar alarm comprising a suitable automatically rewinding roller, a clutch consisting of an electro-magnet permanently secured to one end of said roller and a metallic clutch disk attracted by said magnet and having a lug projecting therefrom, a normally closed electric alarm circuit connecting the terminals of the coils of said magnet and contact members which normally embrace said lug and hold said disk stationary, but which when disconnected by the movement of said disk open said circuit to sound the alarm and release said disk.

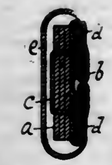
[Claims 6 to 15 not printed in the Gazette.]

1,030,068. REGISTERING DEVICE FOR TURNSTILES. JAMES CARROLL EWING, San Francisco, Cal. Filed July 27, 1911. Serial No. 640,954. (Cl. 235—96.)



In combination with a turnstile having a rotatable head and radial arms, of a hinged clamp encircling the turnstile and secured thereto beneath said head by means of nut and bolt; a register case having a pocket recess for holding the register, a hinged trap at one side and means for fastening same, a hinged door in the front plate and a hinged lever so secured in the register case as to be in contact with a curved head plunger, which is operated by the arms of the turnstile and also rest upon a push pin of the register as and for the purpose specified.

1,030,069. LOOP FOR STRAPS OF BAGS, &c. SAMUEL FLAXBAUM, New York, N. Y. Filed Mar. 26, 1912. Serial No. 686,324. (Cl. 190—57.)



1. A loop for the strap handles of bags comprising a plate secured to the strap, a loop adapted to encircle the strap, said plate having winged members for engagement with and for clamping the end portions of the loop.

2. A loop for strap handles of bags comprising a plate secured to the strap, a loop adapted to encircle the strap, said plate having winged members extending from adjacent sides of the plate for clamping and engagement with the end portions of the loop.

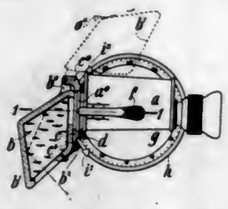
3. A loop for uniting the end portions of a strap handle for satchels comprising a plate arranged on the strap, a staple for fastening the plate to the strap, a loop adapted to encircle the strap, said plate having winged members extending from adjacent sides of the plate for clamping and securing the end portions of the loop between the members and the plate.

4. A loop for straps of bags and belts comprising a plate arranged on the strap, a staple for fastening the plate to the strap, a loop adapted to encircle the strap, said plate having winged members extending toward each other from adjacent sides of the plate with the end portions of the loop lapped about the members and thereby clamped.

1,030,070. TELESCOPIC SIGHT FOR ORDNANCE. OTTO FORSTMANN, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Feb. 28, 1908. Serial No. 418,255. (Cl. 88—33.)

1. In a telescopic gun sight for ordnance a telescopic system the front part of which is reflecting, means for setting this front part in three positions, each of which

differs from either of the two others by an inclination of less than 180° between the entrance axes, a carrier for the telescopic system, a base on which the carrier is mounted so as to be rotatable in a horizontal plane, and means for indicating the angular position of the entrance axis relatively to the base.

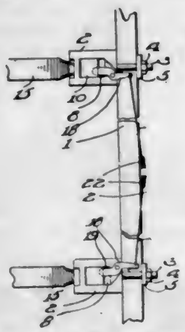


2. In a telescopic gun sight for ordnance a telescopic system consisting of a telescope and a reflecting prism placed in front of it, means for setting this prism in three positions, in one of which positions the entrance axis of the telescopic system coincides with that of the telescope, and in either of the other two of which positions the entrance axis of the telescopic system is deflected from that of the telescope by more than 90° and less than 180° to the left and right hand respectively, a carrier for the telescopic system, a base on which the carrier is mounted so as to be rotatable in a horizontal plane, and means for indicating the angular position of the entrance axis relatively to the base.

3. In a telescopic gun sight for ordnance a telescopic system consisting of a telescope and a double reflecting prism of more than 90 and less than 180° deflection, means for setting this prism in front of the telescope in three different positions: with the entrance surface toward the left, with this surface toward the right and thirdly aside from the entrance opening of the telescope, a carrier for the telescopic system, a base on which the carrier is mounted so as to be rotatable in a horizontal plane, and means for indicating the angular position of the entrance axis relatively to the base.

4. In a telescopic gun sight for ordnance a telescope, a ring rotatably mounted on the front part of the telescope, means for securing the ring in two opposite positions, a casing hinged to the ring, a double reflecting prism of more than 90 and less than 180° deflection fitted in the casing, a carrier for the telescope, a base on which the carrier is mounted so as to be rotatable in a horizontal plane, and means for indicating the angular position of the entrance axis relatively to the base.

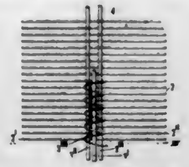
1,030,071. HORSE-RELEASER. JULIUS GEORGE FRANCIS, New Iberia, La. Filed Sept. 12, 1911. Serial No. 648,930. (Cl. 21—75.)



1. In an apparatus of the kind described, an axle, a shaft connecting member secured to said axle and formed with a chamber having an open front end, and a slot in each side of said chamber having an open front end, an oscillatable member located in said chamber and having a lip, a trigger normally engaging said lip to lock said oscillatable member, means adapted to be connected with the driver's seat for operating said trigger, and a shaft having its rear end seated in said oscillatable member, and having pivot pin projections engaging said member and said slots in the sides of the shaft connecting member and detachable therefrom.

2. In an apparatus of the kind described, an axle, a shaft connecting member secured thereto, and having a chamber open at its top and forward end and provided with an opening in its bottom, a longitudinal slot in each side of said chamber, an oscillatable member mounted in said chamber and having a lip projecting from its bottom, and an open ended slot in each end of said oscillatable member, a shaft having its rear end projecting into said chamber, and rotatably seated in said oscillatable member, and having pivot pin projections located in the slots of said oscillatable member and in the open ended grooves in the sides of said chamber, a trigger normally engaging the lip of said oscillatable member, and means for operating said trigger adapted to be connected with the driver's seat.

1,030,072. ARTIFICIAL-FEATHER CONSTRUCTION. NATHAN GARFINKLE, Paterson, N. J., assignor to Standard Textile Co., a Corporation of New Jersey. Filed July 17, 1911. Serial No. 638,807. (Cl. 41—16.)



1. An artificial feather-flue comprising, a central rib; laterally projecting filaments of a size and texture substantially identical with the filaments of a natural flue and lying closely side by side in the same plane; said filaments being firmly secured to said rib.

2. An artificial woven ostrich-plume-flue comprising, a central rib formed of warp threads; and laterally projecting weft filaments interlocked at their middle portions with said warp threads, said flue substantially duplicating a natural flue in size, texture and appearance.

3. An artificial woven ostrich-plume-flue comprising, a central rib formed of warp threads; and laterally and obliquely projecting weft filaments interlocked at their middle portions with said warp threads, said flue substantially duplicating a natural flue in size, texture and appearance.

4. An artificial plume comprising, a quill; a number of flues, each continuous, and fixed at its mid-portion to said quill to lie by the side of its neighbor and to extend out laterally from said quill; each flue comprising a central rib throughout its length and a multitude of filaments projecting obliquely from said rib and fixed thereto.

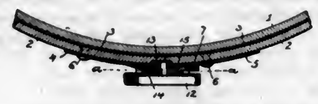
5. An artificial plume comprising a quill, a number of flues, each continuous and fixed at its mid-portion to said quill and extending laterally from said quill, each flue comprising a central rib and a multitude of filaments fixed to said rib, and some of said filaments being arranged to project obliquely from said rib.

[Claims 6 to 11 not printed in the Gazette.]

1,030,073. EMBROIDERY-HOOP. LEWIS GIBBS, Canton, Ohio, assignor to The Gibbs Manufacturing Company, Canton, Ohio, a Corporation of Ohio. Filed Aug. 31, 1908. Serial No. 450,969. (Cl. 45—24.)

1. A split embroidery hoop having at its opposite ends tip plates, one provided with a pocket and the other having its end portion fitted to and free to slide longitudinally in said pocket, in combination with an inelastic adjusting device mounted on said pocket and engaging the member which slides therein.

2. A split embroidery hoop having its opposite ends provided with tip plates, one having a pocket and the other having a slotted end fitted to said pocket and free to slide longitudinally therein, and an operating device pivotally mounted on said pocket and having an eccentric member engaging the slot in the tip plate.



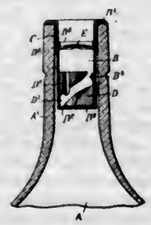
3. A split embroidery hoop having its opposite ends provided with tip plates, one having a pocket thereon, and the other a slotted end portion fitted to and free to slide longitudinally in said pocket, and an operating device bearing against the outer face of said pocket and having an eccentric member engaging said slot, and a hub which engages the inner member of the pocket.

4. A split embroidery hoop having its opposite ends provided with tip plates, one having a pocket thereon, and the other a slotted end portion fitted to and free to slide longitudinally in said pocket, and an operating device bearing upon the outer member of said pocket and having a concentric disk adapted to an opening in said outer member, an eccentric portion engaging the slot, and a hub in engagement with the inner member of the pockets.

5. A split embroidery hoop having at one end a tip plate, with wings bent or folded toward each other to constitute a pocket, and at the other end a tip plate fitted to and free to slide longitudinally in said pocket, in combination with an adjusting device having one member fitted to an opening in the bent wings of the pocket and another member adapted to an opening in the sliding tip plate.

[Claim 6 not printed in the Gazette.]

1,030,074. NON-REFILLABLE BOTTLE. WILLIAM EUGUNE GIROUD, New York, N. Y. Filed Apr. 24, 1912. Serial No. 692,845. (Cl. 215—69.)



1. A non-refillable bottle provided with a valve casing held in the neck of the bottle and having an apertured bottom, and a valve mounted to travel spirally in the said casing and having a spiral groove, the lower end of the said groove being closed by the casing bottom at the time the valve is seated on the said bottom and the groove being open for the passage of the liquid at the time the valve is off the bottom

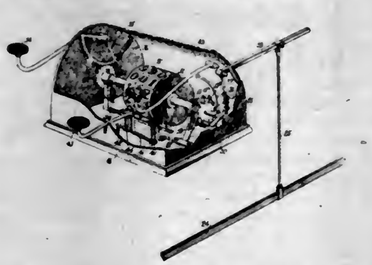
2. A non-refillable bottle provided with a valve casing held in the neck of the bottle and having an apertured bottom, a valve mounted to travel spirally in the said casing and having a spiral groove, the lower end of the said groove being closed by the casing bottom at the time the valve is seated on the said bottom and the groove being open for the passage of the liquid at the time the valve is off the bottom, and a projection on the said casing and engaging the said spiral valve groove to cause the valve to travel in a spiral path.

3. A non-refillable bottle provided with a valve casing held in the neck of the bottle and having an apertured bottom, and a valve mounted to travel spirally in the said casing and having a spiral groove, the lower end of the said groove being closed by the casing bottom at the time the valve is seated on the said bottom and the groove being open for the passage of the liquid at the time the valve is off the bottom, the said valve having an air vent extending from the top of the valve downward into the groove at a point near the lower end thereof.

4. A non-refillable bottle provided with a valve casing having a projection at the inside and provided with an opening at the bottom, a valve adapted to be seated on the said casing bottom and mounted to slide and to turn in the said valve casing, the valve having a spiral groove on its peripheral face, the groove extending from the bottom of the valve to the top thereof and the lower end of the groove being closed by the said casing bottom at the time the valve is seated on the bottom, the said projection extending into the said groove to cause the valve to turn on moving inward or outward in the casing, the said valve having a vent hole extending downward from the top of the valve into the groove near the lower end thereof.

5. A non-refillable bottle provided with a valve casing having a projection at the inside and provided with an opening at the bottom, a valve adapted to be seated on the casing bottom and mounted to slide and to turn in the said valve casing, the valve having a spiral groove on its peripheral face, the groove extending from the bottom of the valve to the top thereof and the lower end of the groove being closed by the said casing bottom at the time the valve is seated on the bottom, the said projection extending into the said groove to cause the valve to turn on moving inward or outward in the casing, the said valve having a vent hole extending downward from the top of the valve into the groove near the lower end thereof, and a perforate stop plate in the upper portion of the valve casing to limit the sliding movement of the valve in the said casing.

1,030,075. WORD-COUNTING ATTACHMENT FOR TYPE-WRITERS AND TYPE-SETTING MACHINES. ELMER FRANCIS GOIN, Nardin, Okla. Filed June 21, 1910. Serial No. 568,107. (Cl. 235—102.)



1. In combination with a typewriter machine having a spacer, a word counter operatively connected to the spacer, having a depressible key to throw the counter out of operation, said counter having a catch arranged to automatically engage the key and hold the latter in a depressed position, and provided with a second depressible key to release the said catch.

2. The combination with a typewriter machine having a spacer, of a word counter operatively connected to said spacer so as to be operated thereby, said word-counter having depressible engaging, releasing and setting keys adapted to respectively throw said counter out of operation, release the same for operation, and to set said counter.

3. In a word counter for typewriter machines, a series of registering disks, a ratchet wheel operatively connected with each disk, a pawl normally forced into engagement with the ratchet wheel, a depressible key to throw the pawl out of operation, operatively connected thereto, a catch to hold the key in a depressed position, and a depressible key to release the catch.

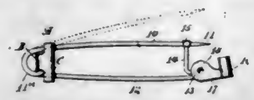
4. In combination with a typewriter machine having a spacer, a word counter operatively connected to the spacer, and independently actuated devices to respectively throw

the counter out of operation and release the same for operation.

5. In a word counter for typewriter machines, a series of registering disks, each having a setting projection, and a setting arm yieldingly forced toward the disk and mounted to swing into engagement with the projections and return the disks to initial position.

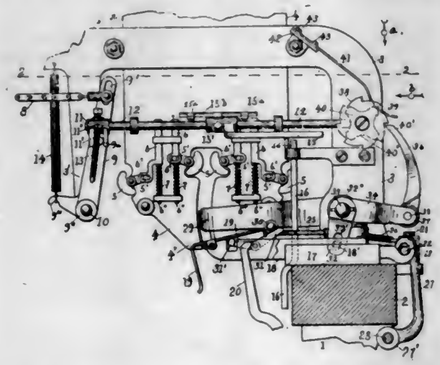
[Claims 6 to 9 not printed in the Gazette.]

1,030,076. COIL-GUARD FOR SAFETY-PINS. MARCUS T. GOLDSMITH, Newark, N. J. Filed Mar. 3, 1911. Serial No. 612,037. (Cl. 24—57.)



The combination with a safety pin formed from a piece of wire bent to provide two arms and a coil spring between said arms, of a coil guard extending transverse to the arms aforesaid and having a recess at each end within which said arms lie, said coil guard being provided with means engaging the coil aforesaid for securing said guard in position and to said pin.

1,030,077. WEFT-REPLENISHING LOOM. ALBERT A. GORDON, Jr., Worcester, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Nov. 11, 1911. Serial No. 659,697. (Cl. 139—85.)



1. In a weft replenishing loom, a stationary magazine with a plurality of compartments for bobbins, supports for said bobbins, a device to operate said supports, connections from said device to pattern mechanism, and mechanism, independent of said pattern mechanism, to control the position of said device.

2. In a weft replenishing loom, a stationary magazine with a plurality of compartments for bobbins, supports for said bobbins, a device to operate said supports, connections from said device to pattern controlled devices, and mechanism, independent of said pattern mechanism, to control the position of said device which operates said supports.

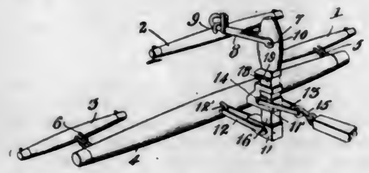
3. In a weft replenishing loom, a stationary magazine, with a plurality of compartments for bobbins, supports for said bobbins, a device for operating said supports, connections for said device to pattern controlled devices, and a separate device, independent of said pattern mechanism, to control the position of said device which operates said supports, and filling detecting mechanism for operating said separate device.

4. In a weft replenishing loom, a stationary magazine with a plurality of compartments for bobbins, supports for said bobbins, a device for operating said supports, connections from said device to pattern controlled devices, and a separate device, independent of said pattern controlled devices to control the position of said device which operates said supports, and means for operating said separate device at each transfer of a bobbin of a certain color.

5. In a weft replenishing loom, the combination with the filling fork slide, and a bobbin selecting mechanism having a longitudinal sliding rod, of a rotating cam to engage and move said rod, and connections, intermediate said cam and the filling fork slide, to cause the rotation of said cam on the movement of said slide.

[Claims 6 and 7 not printed in the Gazette.]

1,030,078. DRAFT-EQUALIZER. ROBERT G. GOSE, Upton, Wyo. Filed Apr. 29, 1911. Serial No. 624,139. (Cl. 21—76.)



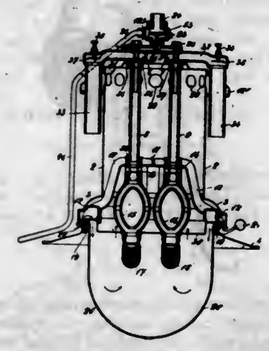
1. In a draft equalizer, the combination of a bar having draft attaching means secured to its upper and lower portions, a movable element disposed on said bar, other draft connecting means connected thereto, said element being provided with a threaded hole therein, threaded means securely fastened to said bar and arranged to actuate within said threaded hole for adjusting the relative position of said element with respect to the first mentioned attaching means.

2. In a draft equalizer, the combination of a bar having a draft attaching means secured to its upper and lower portions, a movable element disposed on said bar, other draft connecting means connected thereto, said element being provided with a threaded hole therein, threaded means securely fastened to said bar and arranged to actuate within said threaded hole for adjusting the relative position of said element with respect to the first mentioned attaching means and means for locking said threaded member against rotation.

3. In a draft appliance, the combination of a bar having its upper portion enlarged and provided with a bolt therethrough and having its lower portion enlarged so that one portion of the same will extend outwardly relatively far on one side thereof, a bifurcated arm disposed on said bolt and having its outer end curved so as to engage with the central swingle-tree of the draft appliance, means for locking said swingle-tree to said curved portion, a member adjustable vertically on said bar and provided with a plurality of holes therein, one of said holes being threaded, a screw disposed in said threaded hole and provided with a knurled knot thereon, said screw being arranged to adjust said member, a bolt or the like disposed in another of said holes, a U-shaped member pivotally disposed on said bolt and holding said member thereby, said U-shaped member having means provided thereon to secure it to a plow or the like, another U-shaped member disposed on said lower portion of the bar and adapted to be secured to the main tree of the draft appliance and means for locking said knurled knot, so that said adjustable member will be held securely in position.

1,030,079. INVERTED INCANDESCENT GAS-LAMP. MAX GRAETZ, Berlin, Germany. Filed Jan. 5, 1910. Serial No. 536,510. (Cl. 67—94.)

1. In combination with an inverted incandescent gas lamp having an outer casing, a cover therefor, means for admitting air to and for the exit of hot gases from the interior of the outer casing, a mixing chamber to which air is supplied, and a mixing tube depending vertically from the mixing chamber and communicating therewith and with the burner; a hollow casting mounted above said cover and connected with the gas service pipe, and a vertically arranged gas nozzle intermediate and communicating with said mixing chamber and service pipe, said gas nozzle being screwed, from above, into said casting in alinement with said mixing tube so as to deliver the gas thereinto and so as to be directly accessible for removal purposes from above the lamp without displacing any of the other parts of the lamp.



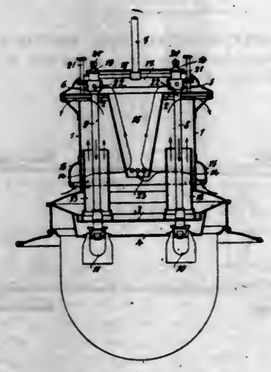
2. In combination with an inverted incandescent gas lamp having an outer casing, a cover therefor, means for admitting air to and for the exit of hot gases from the interior of the outer casing, a mixing chamber to which air is supplied, and a mixing tube depending vertically from the mixing chamber and communicating therewith and with the burner; a hollow casting mounted above said cover and connected with the gas service pipe, said mixing chamber being located in said casting, vertical air supply tubes communicating at one end with said mixing chamber and open at the other end to the atmosphere and a vertically arranged gas nozzle intermediate and communicating with said mixing chamber and service pipe, said nozzle being screwed, from above, into said casting in alinement with said mixing tube.

3. In combination with an inverted incandescent gas lamp having an outer casing, a cover therefor, means for admitting air to and for the exit of hot gases from the interior of the outer casing, a mixing chamber to which air is supplied, and a mixing tube depending vertically from the mixing chamber and communicating therewith and with the burner; a hollow casting mounted above said cover and connected with the gas service pipe, said mixing chamber being located in said casting, vertical air supply tubes passing through the interior of the lamp so as to be heated by the hot gases therein and communicating at one end with said mixing chamber and open at the other end to the atmosphere and a vertically arranged gas nozzle intermediate and communicating with said mixing chamber and service pipe, said gas nozzle being screwed, from above, into said casting in alinement with said mixing tube.

4. In combination with an inverted incandescent gas lamp having an outer casing, a cover therefor, means for admitting air to and for the exit of hot gases from the interior of the outer casing, a mixing chamber to which air is supplied, and a mixing tube depending vertically from the mixing chamber and communicating therewith and with the burner; a hollow casting mounted above said cover and within which said mixing chamber is located, a cock barrel integral with said casting, gas passages in said cock barrel and casting and communicating with said mixing chamber, and an annular adjustable valve surrounding said cock barrel for controlling the supply of gas to said passages.

5. In combination with an inverted incandescent gas lamp having an outer casing, a cover therefor, means for admitting air to and for the exit of hot gases from the interior of the outer casing, a mixing chamber to which air is supplied, and a mixing tube depending vertically from the mixing chamber and communicating therewith and with the burner; a hollow casting mounted above said cover and within which said mixing chamber is located, a cock barrel integral with said casting, gas passages in said cock barrel and casting and communicating with said mixing chamber, an annular adjustable valve surrounding said cock barrel for controlling the supply of gas to said passages and a vertically arranged gas nozzle intermediate and communicating with said mixing chamber and gas passages, said gas nozzle being screwed, from above, into said casting in alinement with said mixing tube.

1,030,080. OUTSIDE LAMP FOR INVERTED INCANDESCENT GAS-LIGHT. MAX GRAETZ, Berlin, Germany. Filed Feb. 4, 1910. Serial No. 542,096. (Cl. 67—94.)



1. In an incandescent gas lamp the combination of a chimney casing, an air collecting chamber above said casing and from which the air for the burner is drawn, a transverse partition separating the interior of said air collecting chamber from the chimney a tube concentrically arranged in said casing and opening at its upper end through said partition into said air-chamber, and opening at its lower end direct into the lower part of the chimney, air inlets in the lower part of said chimney casing and means whereby the waste gases from the burner are conducted direct from the burner sa as to exit into the upper part of the chimney above the lower end of said tube and so as to entirely surround the latter.

2. In an incandescent gas lamp the combination of a chimney casing, an air collecting chamber above said casing and from which the air for the burner is drawn, a frusto-conical tube centrally arranged in said casing and connected with said air chamber, said frusto-conical tube opening into the lower part of the chimney at a point below the exit of the waste gases from the burner into the chimney, and air inlets in the lower part of said chimney casing.

3. In an incandescent gas lamp the combination of a chimney casing, an air collecting chamber above said casing and from which the air for the burner is drawn, a tube centrally arranged in said casing and connected with said air chamber, said tube increasing in diameter toward its upper end and opening into the lower part of the chimney at a point below the exit of the waste gases from the burner into the chimney and air inlets in the lower part of the said chimney casing.

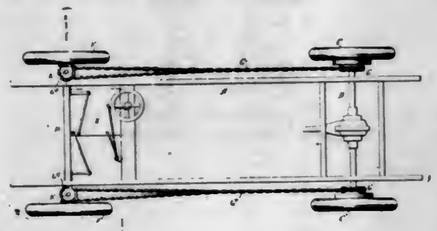
4. In an incandescent gas lamp, the combination of a chimney casing, an air collecting chamber above said casing and from which the air for the burner is drawn, a tube centrally arranged in said casing and connected with said air chamber, said tube opening into the lower part of the chimney at a point below the exit of the waste gases from the burner into the chimney, air inlets in the lower part of said chimney casing and a tube surrounding

the burner tube for conducting the hot gases from the burner to the upper part of the chimney.

5. In an incandescent gas lamp, the combination of a chimney casing which is closed at its upper and lower ends; an air collecting chamber from which the air for the burners is drawn, and which chamber is arranged above the chimney casing; a plurality of waste gas conducting tubes, connecting the part below the lower cover of the chimney casing to the upper part within the chimney casing, said upper part of the chimney casing having a direct connection to the outer atmosphere; and a centrally arranged frusto-conical tube, connecting the air collecting chamber to the lower part within the chimney casing below the upper end of the waste gas conducting tubes, said lower part of the chimney casing having likewise a direct connection with the outer atmosphere and said centrally arranged tube being narrower at its lower part.

[Claims 6 and 7 not printed in the Gazette.]

1,030,081. DRIVING-GEAR FOR MOTOR-VEHICLES. OLAUS J. GRAN, Callahan, Cal. Filed Oct. 4, 1910. Serial No. 585,233. (Cl. 21—90.)

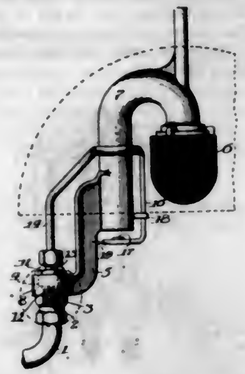


1. A driving gear for power vehicles, comprising a driven rear axle, wheels on the axle, sprocket wheels on the said axle adjacent to the wheels, a fixed front axle having pivoted stub axles, the pivots of the axles being extended, front wheels on the stub axles, gear wheels mounted to turn on the stub axles, and having a lost motion clutch connection with the hubs of the said front wheels, gear wheels mounted on the extended portions of the pivots of the stub axles and meshing with the gear wheels on the stub axles, sprocket wheels secured to the gear wheels on the pivots of the stub axles, and sprocket chains passing around the said sprocket wheels.

2. A driving gear for power vehicles, comprising a driven rear axle, wheels on the axle, sprocket wheels on said axle adjacent to the wheels, a fixed front axle having pivoted stub axles, the pivots of the axles being extended above the upper face of the front axle, front wheels on the stub axles, gear wheels mounted to turn on the stub axles and connected with the said front wheels, gear wheels mounted on the extended portions of the pivots of the stub axles and meshing with the gear wheels on said stub axles, sprocket wheels on the upper face of and integral with the gear wheels on the pivots of the stub axles, and sprocket chains passing around the said sprocket wheels.

1,030,082. LAMP. JOSEPH GRANZ, Chicago, Ill., assignor to The Nagel-Chase Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed July 29, 1911. Serial No. 641,263. (Cl. 67—50.)

1. A hydro-carbon gas lamp comprising an inverted substantially U-shaped mixing-chamber the branches of which are of unequal length and the end of the longer branch of which is open and the end of the shorter branch of which is in a plane above the opposite open end, a burner closing the end of the shorter branch of said chamber, a feed-pipe terminating below and to one side of the lowermost open end of said mixing chamber, and a vaporizer extending up from said feed-pipe on the side of the longer branch of said mixing-chamber opposite said burner and extending partly around said longer branch to a point substantially between said burner and longer branch and then extending downward below said longer branch across the lower open end of the same into which it discharges.



2. A hydro-carbon gas lamp comprising an inverted substantially U-shaped mixing-chamber the branches of which are of unequal length and the end of the longer branch of which is open and the end of the shorter branch of which is in a plane above the opposite open end, a burner closing the end of the shorter branch of said chamber, a feed-pipe terminating below and to one side of the lowermost open end of said mixing-chamber, and a vaporizer of less diameter than and extending up from said feed-pipe on the side of the longer branch of said mixing-chamber opposite said burner and extending partly around said longer branch to a point substantially between said burner and longer branch and then extending downward below said longer branch across the lower open end of the same into which it discharges.

3. A hydro-carbon gas lamp comprising an inverted substantially U-shaped mixing-chamber the branches of which are of unequal length and the end of the longer branch of which is open and the end of the shorter branch of which is in a plane above the opposite open end, a burner closing the end of the shorter branch of said chamber, a feed-pipe terminating below and to one side of the lowermost open end of said mixing-chamber, a valve controlling said feed-pipe, a bracket surrounding said valve and made integral with and supporting said mixing-chamber, and a vaporizer of less diameter than and extending up from said feed-pipe on the side of the longer branch of said mixing-chamber opposite said burner and extending partly around said longer branch to a point substantially between said burner and longer branch and then extending downward below said longer branch across the lower open end of the same into which it discharges.

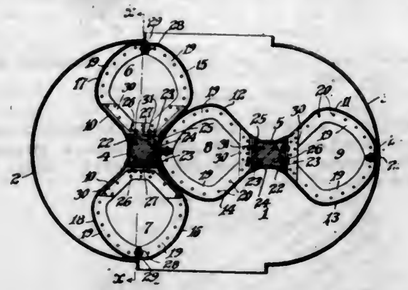
4. A hydro-carbon gas lamp comprising an inverted substantially U-shaped mixing-chamber the branches of which are of unequal length and the end of the longer branch of which is open and the end of the shorter branch of which is in a plane above the opposite open end, a burner closing the end of the shorter branch of said chamber, a feed-pipe terminating below and to one side of the lowermost open end of said mixing-chamber, a valve controlling said feed-pipe the end of the discharge end of which is countersunk, a vaporizer the inlet end of which is truncated and removably clamped by a sleeve-nut in the countersunk opening in said valve, said vaporizer extending up from said feed-pipe on the side of the longer branch of said mixing-chamber opposite said burner and extending partly around said longer branch to a point substantially between said burner and longer branch and then extending downward below said longer branch across the lower open end of the same into which it discharges.

5. A hydro-carbon gas lamp comprising an inverted substantially U-shaped mixing-chamber the branches of which

are of unequal length and the end of the longer branch of which is open and the end of the shorter branch of which is in a plane above the opposite open end, a burner closing the end of the shorter branch of said chamber, a feed-pipe terminating below and to one side of the lowermost open end of said mixing-chamber, a valve controlling said feed-pipe, a bracket surrounding said valve and made integral with and supporting said mixing-chamber, and a vaporizer of less diameter than and extending up from said feed-pipe on the side of the longer branch of said mixing-chamber opposite said burner and extending partly around said longer branch to a point substantially between said burner and longer branch and then extending downward below said longer branch across the lower open end of the same into which it discharges, and has the end of its horizontal member engaging and held by a portion of said bracket.

[Claims 6 to 9 not printed in the Gazette.]

1,030,083. DIVIDED IMPELLER FOR BLOWERS. THOMAS W. GREEN, Philadelphia, Pa. Filed Aug. 26, 1911. Serial No. 646,110. (Cl. 230—30.)



1. In a device of the character stated, in combination, a polygonal shaft, a pair of duplicate impeller halves, each flanged radially at its ends and extended laterally near the middle to overlap the other for a portion of the width of the shaft, means for securing the flanges together and means for securing the halves to the shaft.

2. In a device of the character stated, in combination, two pairs of impeller blade halves, the two of each pair being upon the same side of the impeller, a polygonal shaft and a connection between the impeller blade halves of each pair, said connection lying in contact with the farther portion of the shaft, being that portion lying directly between the halves of the other pair.

3. In a device of the character stated, in combination, a shaft, a pair of duplicate substantially radially-divided impeller halves, one of each pair extending into and being overlapped by the other in proximity to the shaft and a connection between the halves where they overlap.

4. In a device of the character stated, in combination, a square shaft and longitudinally divided impeller parts, each, comprising halves of impeller blades upon the same side of the impeller and an intermediate part forming part of the waist between the other halves, each intermediate part making contact with three sides of the shaft.

5. In a device of the character stated, in combination, two impeller parts divided radially, longitudinally of the wings, each part carrying the wing halves for one side of the impeller and the shaft-engaging member for the opposite side of the impeller, and a shaft embraced by the two parts when fitted together.

[Claims 6 to 12 not printed in the Gazette.]

1,030,084. WELL-TUBING SAFETY APPLIANCE. SAMUEL ALLEN GUIBERSON, Jr., Coalinga, Cal. Filed Dec. 20, 1911. Serial No. 666,949. (Cl. 103—65.)

1. A well-tubing safety-appliance comprising a hollow stock adapted to pass into the well casing and having means for connecting it with the tubing; gripping devices carried by the stock for engaging the well casing; and means for holding said gripping devices inoperative and releasing them for action, consisting of hinged trip arms within the stock, their ends projecting through and adapted to be withdrawn from holes in the stock walls, members connected with the gripping devices, with which the ends of the trip arms engage, and a liftable head stem within the stock to which the trip arms are hinged.

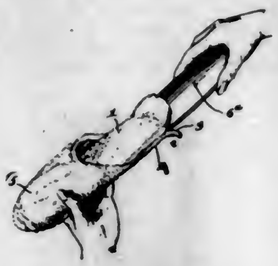


2. A well-tubing safety-appliance comprising a hollow stock adapted to pass into the well casing and having means for connecting it with the tubing; gripping devices carried by the stock for engaging the well casing and means for holding said gripping devices inoperative and releasing them for acting, consisting of hinged trip arms within the stock, their ends projecting through and adapted to be withdrawn from holes in the stock walls, members connected with the gripping device, with which the ends of the trip arms engage, a liftable head stem within the stock to which the trip arms are hinged; and a bendable guide upon said head stem to hold it upright.

3. A well-tubing safety appliance comprising a stock adapted to pass into the well casing, and having means for connecting it with the tubing, said stock having inclined-plane seats in its outer wall deepening downward; gripper slips slidably mounted on said seats and so proportioned as to clear or to engage its casing walls according as they move down or up on their seats; and means for releasably holding said gripper slips down, and moving them up when released, consisting of rods connected with the slips, a liftable head stem within the stock, trip arms hinged to said head stem and having their outer ends passing through holes in the stock and engaging the lower end of the slip rods, and springs around said slip rods to throw the slips up when released.

4. A well-tubing safety appliance comprising a stock adapted to pass into the well casing and having means for connecting it with the tubing, said stock having its outer face formed with bosses adapted to fit the inner wall of the casing, the rest of said face being of smaller circumference whereby channels are left between said face on each side of the bosses and the well casing, the bosses of said stock having their faces formed with inclined plane seats deepening downward; gripper slips slidably mounted on said seats and so proportioned as to clear or to engage the casing walls according as they move down or up on their seats; and means for releasably holding said gripper slips down, and moving them up when released, consisting of rods connected with the slips, a liftable head stem within the stock, trip arms hinged to said head stem and having their outer ends passing through holes in the stock and engaging the lower end of the slip rods, and springs around the slip rods to throw the slips up when released.

1,030,085. SANITARY FOOTWEAR. ARTHUR HALE, New York, N. Y. Filed May 29, 1911. Serial No. 630,248. (Cl. 36—10.)



1. A shoe or slipper of the character described comprising an upper and a base portion, said base portion consisting of an inner and an outer sole connected together along their edges to form a pocket, and being disconnected at the heel portion to provide an opening for said pocket; and a removable and substantially rigid stiffening member adapted to be fitted within said pocket, substantially as described.

2. A shoe or slipper constructed of washable material, and comprising an upper and a base portion consisting of an inner and an outer sole connected together along their edges substatially their whole length providing a rearwardly opening pocket between the inner and outer soles, a forwardly opening pocket being arranged on the rear face of one of said soles, in combination with a removable stiffening member substantially of the contour of said soles, adapted to be inserted in the pocket between said inner and outer soles, said forwardly opening pocket being adapted to incase the rear end of said stiffening member and the rear end of one of said soles, substantially as described.

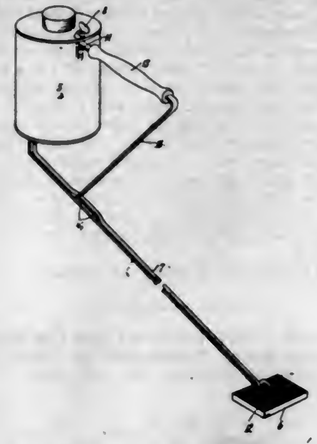
3. A shoe or slipper of the character described comprising inner and outer soles of less width at their instep than at their ball portions; said soles being connected together along their edges to form a pocket having a narrow portion corresponding to the narrow portions of said soles; and the said soles being disconnected at the heel portion to provide an opening for said pocket, substantially as described.

4. A shoe or slipper of the character described comprising inner and outer soles of less width at their instep than at their ball portions; said soles being connected together along their edges to form a pocket having a narrow portion corresponding to the narrow portions of said soles; the said soles being disconnected at the heel portion to provide an opening for said pocket; and a readily removable stiffening member adapted to fit the wide and narrow portions of said pocket, substantially as described.

1,030,086. TORCH. JOHN ZACIOUS HANSON and RUDOLPH THORP, Aberdeen, Idaho. Filed Jan. 9, 1912. Serial No. 670,253. (Cl. 158—33.)

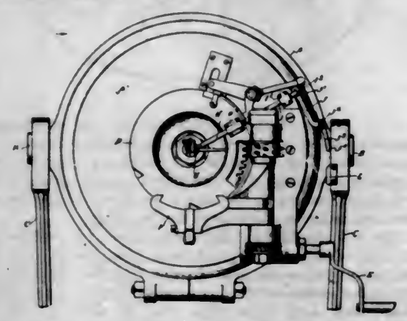
1. In a hand burner for clearing the ground of brush and underwood, a forwardly- and downwardly-extending frame, a liquid fuel reservoir carried by the upper end of said frame, a fire plate at the opposite forward end of said frame, a handle rigidly attached to and extending forwardly from said reservoir, and a brace connecting the forward end of said handle with said frame, where by grasping the torch by the handle, the torch is balanced to facilitate handling.

2. In a torch, a fire plate comprising a box, an asbestos pad carried by said box, and a fuel conduit leading to said box, a portion of said conduit adjacent its outlet being disposed within the asbestos pad so as to vaporize the fluid passing through said conduit, the outlet of said conduit



disposed above said pad, to direct the vaporized fluid on to the same.

1,030,087. SAFETY FIRING ATTACHMENT FOR BREECH-LOADING RIFLES. FREDERICK HARTNEY, Higginsville, Mo. Filed July 25, 1911. Serial No. 640,415. (Cl. 89—27.)



1. In a safety firing attachment for a breech-loading disappearing gun, a carriage on which the gun is mounted, a movable member mounted on the breech block of the gun for holding the firing mechanism thereof against operation, a lever mounted on the gun, means operated by the lever and connected with the movable member when the breech block is in closed position, and means for operating the lever from the carriage at the time the gun is elevated in firing position.

2. In a safety firing attachment for a breech-loading disappearing gun, a carriage upon which the gun is mounted, a movable member on the breech block of the gun for holding the firing mechanism thereof against operation, a second movable member on the breech of the gun and engaging the first member when the breech block is closed, a lever mounted on the gun and connected with the said second member, and means on the carriage for operating the lever at the time the gun is elevated in firing position.

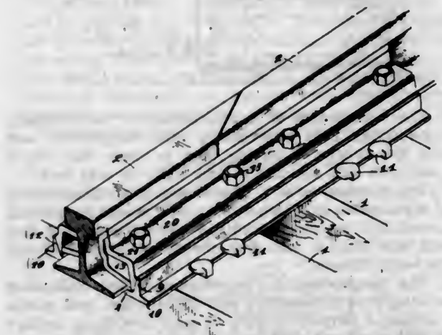
3. A safety firing attachment for a breech-loading rifle mounted on a disappearing carriage and provided with a firing leaf on the breech block, a safety bar on the breech block for holding the firing leaf against operation, a slide mounted on the breech plate of the rifle and adapted to engage the said safety bar at the time the breech block is in closed position, an operating lever fulcrumed on the gun, and a cam on the carriage for engagement with the said lever at the time the gun is elevated to firing position.

4. In a safety firing attachment for a breech-loading disappearing gun, a carriage upon which the gun is mounted, a movable member on the breech block of the gun for locking the firing mechanism thereof in inoperative position at the time the gun is lowered in loading position, a second movable member on the breech of the gun, the said members having interlocking engagement when the breech block is in closed position and being out of engagement when the breech block is in open position, and means for operating the said second member from the carriage when the gun is elevated in firing position.

5. A breech-loading rifle mounted on a disappearing carriage and provided with a firing mechanism having a firing leaf and a safety bar for holding the firing leaf against release, the safety bar being slidably mounted on the breech block, a slide mounted on the breech, the said slide and safety bar having engaging means to connect them with each other at the time the breech block is in closed position in the breech of the gun, a lever fulcrumed on the gun, and connected with the said breech slide, and a cam on the carriage adapted to engage the said lever at the time the carriage is elevated to firing position.

[Claims 6 and 7 not printed in the Gazette.]

1,030,088. JOINT-FASTENING. JOHN W. HAWKINS, Portland, Oreg. Filed May 31, 1911. Serial No. 630,534. (Cl. 239—6.)



1. A joint for T rails comprising, in combination, a bed plate having a longitudinal channel adapted to receive the ends of adjacent rails, plates adapted to overlap the sides of said rails and spaced from the sides of said channel, vertical wedge members adapted to be interposed between said side plates and the sides of said channel, the upper parts of said wedge members being braced against the lower sides of the head of the rail.

2. A joint for T rails comprising, in combination, a bed plate having a longitudinal channel on its upper face adapted to receive the abutting ends of adjacent rails, the sides of said channel flaring outwardly at a less angle to the vertical than the bottom of the rail head, plates adapted to overlap the ends of said rails at the side of the web and spaced from the sides of said channel, and wedge members interposed between said plates and the sides of said channel, the upper parts of said wedge members being braced against the lower side of the head of the rail.

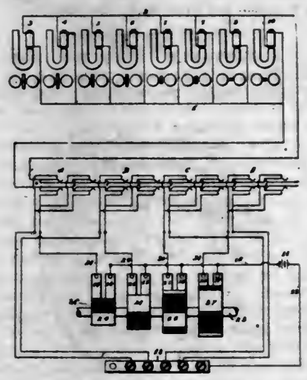
3. A joint for T-rails comprising, in combination, a bed plate having a longitudinal channel on its upper face adapted to receive the abutting ends of adjacent rails, the sides of said channel flaring outwardly at a less angle to the vertical than the bottom of the rail head, plates adapted to overlap the ends of said rails at the side of the web and spaced from the sides of said channel, the upper edges of said plates being in engagement with the bottom of the rail head and wedge members interposed between said plates and the sides of said channel, the upper part of said wedge members being in engagement with the sides of said plates.

4. A joint for T rails comprising, in combination, a bed plate having a longitudinal channel on its upper face adapted to receive the abutting ends of adjacent rails, plates adapted to overlap the ends of said rails at the side of the web and spaced from the sides of said channel, the upper edges of said plates being in engagement with the bottom of the rail head, and the outer faces of said plates having longitudinal recesses therein, and wedge members interposed between said plates and the sides of said channel, the upper parts of said wedge members being braced against the upper walls of said recesses.

5. A joint for T rails, comprising, in combination, a bed plate having a longitudinal channel on its upper face adapted to receive the abutting ends of the adjacent rails, the sides of said channel being outwardly flared, plates adapted to overlap the ends of said rails at the side of the web and spaced from the sides of said channel, the upper edges of said plates being in engagement with the bottom of the rail head, and the outer faces of said plates being formed with downwardly facing abutments which project outwardly at a greater angle from the vertical than the corresponding side of said channel, and wedge members interposed between said plates and the sides of said channel, the upper part of said wedge members being braced against said abutments.

[Claim 6 not printed in the Gazette.]

1,030,089. PARTY-LINE TELEPHONE SYSTEM. WILLIAM W. HAWKINS, Cleveland, Ohio. Filed May 10, 1906. Serial No. 316,182. (Cl. 179—87.)



1. In a party line telephone system, the combination, with a telephone line, of a pair of sub-stations having each a ringing or signaling device comprising a permanent magnet, a portion of said magnet consisting of a soft iron member forming a pole piece, a coil surrounding each of said members, said coils being wound in opposite directions, a ringing polarized armature for each magnet, said armatures being tuned to respond to pulsations of the same frequency, and means for impressing on said line pulsations of a frequency corresponding to that of said armatures, substantially as specified.

2. In a party line telephone system, the combination, with a telephone line, of a pair of sub-stations having, each a ringing or signaling device comprising a permanent magnet, a portion of said magnet being formed of soft iron which forms a portion of the pole piece, a coil surrounding each soft iron pole, said coils being wound in opposite directions and being in circuit with said line, a ringing polarized armature for each magnet, said armatures being tuned to respond to pulsations of the same frequency, means for impressing on said line pulsations of a frequency corresponding to that of said armatures, and means for reversing the direction of said pulsations, substantially as specified.

3. In a party line telephone system, the combination, with a telephone line, of a pair of sub-stations having each a ringing or signaling device comprising a perma-

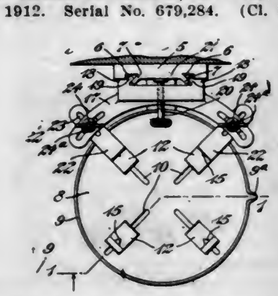
nent magnet, a portion of said magnet being of soft iron forming a pole piece, a coil surrounding each of said members, said coils being wound in opposite directions, a ringing polarized armature for each magnet, said armatures being tuned to respond to pulsations of the same frequency, means for impressing on said line pulsations of a frequency corresponding to that of said armatures, and means for maintaining substantially constant the frequency of pulsations on said line, substantially as specified.

4. In a party line telephone system, the combination, with a telephone line, of a pair of sub-stations having each a ringing or signaling device comprising a permanent magnet, a portion of said magnet being of soft iron which forms a part of a pole, a coil surrounding each soft iron pole, said coils being wound in opposite directions and being in circuit with said line, a ringing polarized armature for each magnet, said armature being tuned to respond to pulsations of the same frequency, means for impressing on said line pulsations of a frequency corresponding to that of said armatures, means for reversing the direction of said pulsations, and means for maintaining substantially constant the frequency of pulsations impressed upon the line.

5. In a selective party line telephone system, the combination of a ringer, said ringer comprising a permanent magnet, a portion of said magnet being of soft iron forming a pole piece, a coil surrounding said pole piece, a ringing polarized armature adjacent the poles of the magnet, said armature being tuned to respond to pulsations of a certain frequency, and means for transmitting through the coil pulsations of corresponding frequency, substantially as specified.

[Claims 6 and 7 not printed in the Gazette.]

1,030,090. ADJUSTABLE SUPPORT FOR RECEPTACLES. HARRIE H. JOHNSON, New York, N. Y. Filed Feb. 23, 1912. Serial No. 679,284. (Cl. 248—41.)



1. A device of the class described embodying a wall fixture, a receptacle-supporting platform rigidly attached to said wall fixture at the lower part thereof, a clamp-carrier supported on the wall fixture above said platform, and a plurality of separated clamps attached to said clamp-carrier, each clamp having a jaw for embracing the edge of a receptacle adapted to be placed upon the platform.

2. A device of the class described embodying a vertically positioned wall fixture, a receptacle-supporting platform supported at the lower part of the wall fixture, a clamp-carrier supported on the wall fixture above the platform, said clamp-carrier being adjustable vertically with reference to said platform, means for retaining the clamp-carrier in different operative positions upon the wall fixture, and a plurality of clamps supported on the clamp carrier.

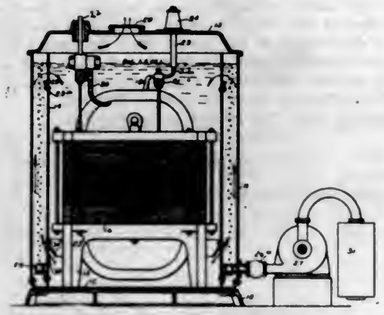
3. A device of the class described embodying a vertically positioned wall fixture, a receptacle-supporting platform supported on the lower part of said wall fixture, a clamp-carrier supported on the wall fixture, said clamp-carrier being adjustable vertically with respect to said platform, and a plurality of clamps being pivotally attached to the clamp-carrier.

4. A device of the class described embodying a wall fixture, a receptacle-supporting platform carried thereby, a clamp-carrier supported on the wall fixture, a plurality of edge-engaging clamps shiftable with reference to the clamp-carrier, and means for attaching each clamp to the clamp-carrier.

5. A device of the class described embodying a wall fixture, a receptacle-supporting platform carried thereby, a clamp-carrier supported on the wall fixture, a plurality of edge-engaging clamps slidably and pivotally movable with relation to the clamp-carrier, and means for retaining each clamp in fixed relation to the clamp-carrier.

[Claims 6 to 8 not printed in the Gazette.]

1,030,091. TRANSFORMER. JOHN L. JOHNSON, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Sept. 24, 1910. Serial No. 583,685. (Cl. 171—124.)



1. The combination of a transformer, a tank containing insulating fluid surrounding said transformer, and means for causing a cooling fluid to come into direct contact with said insulating fluid while in said tank.

2. The combination of a transformer, a tank containing fluid surrounding said transformer, and means for causing a second fluid to come into direct contact with said first named fluid while in said tank, the specific gravity of said fluids being different.

3. The combination of a transformer, a tank containing insulating fluid surrounding said transformer, and means for causing a dehydrated fluid to come into direct contact with said insulating fluid while in said tank.

4. The combination of a transformer, a tank containing insulating fluid surrounding said transformer, a pump for supplying a dehydrated fluid, and means within said tank and connected to said pump for permitting said dehydrated fluid to pass through and cool said insulating fluid.

5. The combination of a transformer, a tank containing insulating fluid in which said transformer is immersed, and means for causing a cooling fluid to pass through and in direct contact with said insulating fluid while in said tank.

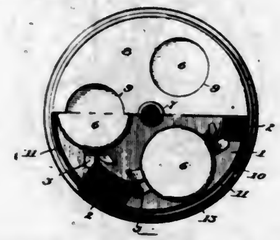
[Claims 6 to 15 not printed in the Gazette.]

1,030,092. COIN-HOLDER. LOUIS L. JOSEPH, Chicago, Ill. Filed Dec. 20, 1911. Serial No. 667,004. (Cl. 133—6.)

1. A coin-holder, comprising a base-disk having projections, a top-plate spaced away from said disk and centrally united thereto, coin-elevators between said disk and plate, and a spring beneath each elevator, having its ends engaged with two of said projections, said holder having marginal coin-passages and said top-plate having openings exposing said coin-elevators.

2. A coin-holder, comprising a base-disk having tongues cut and flanged upward therefrom, a top-plate spaced away from said disk, coin-elevators between said disk and plate, and a spring beneath each coin-elevator, said springs having bifurcated ends engaging said tongues, said holder having marginal coin-passages and said top-plate having openings exposing said coin-elevators.

3. A coin-holder, comprising a base-disk having tongues cut and flanged upward therefrom, a top-plate spaced away from said disk, coin-elevators between said disk and plate, a spring beneath each coin-elevator, said springs having bifurcated ends engaging said tongues, and a bottom-plate secured to said top-plate, said holder having marginal coin-passages and said top-plate having openings exposing said coin-elevators.

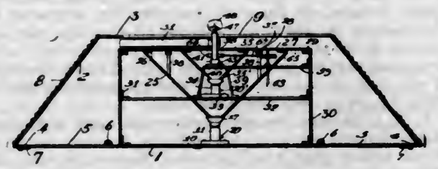


4. A coin-holder, comprising a base-disk having tongues cut and flanged upward therefrom, a top-plate spaced away from said disk, coin-elevators between said disk and plate, a spring beneath each coin-elevator, said springs having bifurcated ends engaging said tongues, and a bottom-plate secured to said top-plate, said top-plate having its marginal flange slotted to provide coin-passages and having openings exposing said coin-elevators.

5. A coin-holder, comprising a base-disk, a top plate, and a coin-elevator between the base-disk and top-plate; the base-disk having integral tongues projecting upward therefrom, and limiting the side motion of a coin, a central rivet uniting the base-disk to the top-plate, the coin-elevators supported on springs and normally pressing against a perforation in the top-plate.

[Claims 6 to 8 not printed in the Gazette.]

1,030,093. ELECTRIC RAT-TRAP. LEON KARPÓW, Winnipeg, Manitoba, Canada. Filed July 15, 1911. Serial No. 638,666. (Cl. 43—44.)

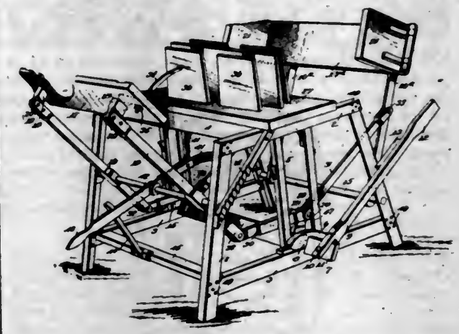


1. In an electric rat trap, a housing having a bottom plate provided with door openings, and the top plate thereof provided with an opening, a pedestal located centrally of said housing, a circular platform movably supported by said pedestal, a spider arranged in said housing, a pedestal carried thereby, a circular platform movably supported by said pedestal, a platform arranged above the last mentioned pedestal, a post revolubly mounted upon said platform, an arm carried by the upper end of said post and adapted to swing over said circular platforms, a motor located in said housing and adapted to revolve said post, and means actuated by a movement of said circular platforms and adapted to control the operation of said motor during the passage of an electric current through the rat.

2. In an electric rat trap, a housing having the top thereof provided with an opening, a circular outer platform supported below said opening, a circular inner platform supported in a plane horizontal with said outer circular platform, an arm adapted to swing above said platforms, a motor located within said housing and adapted to operate said arm, and means actuated by a movement of said circular platforms and adapted to control the operation of said motor during the passage of an electric current through the rat positioned between said platforms.

3. In an electric rat trap, a housing having the top thereof provided with an opening, pedestals arranged in said housing, movable circular platforms supported by said pedestals, a revoluble post located centrally of said platforms, an arm carried by said post and adapted to swing above said platforms, an electric-motor arranged in said housing and adapted to revolve said post, and means actuated by a movement of said platforms to complete a circuit through said motor and to electrically charge said arm during the passage of an electric current through the rat positioned between said platforms.

1,030,094. CEMENT BLOCK AND BRICK MACHINE. WILLIAM I. KENNEDY, Minnewaukan, N. D. Filed Mar. 9, 1910. Serial No. 548,213. (Cl. 25—41.)



1. A machine of the class described, comprising a frame, a rod at each side of the frame, a pair of levers on each rod, the levers on one rod extending below the same, a shaft between and below the rods, arms on the shaft, links connecting the arms with the extended ends of the levers on one rod and with the levers on the other rod above the said rod, a lever for oscillating the shaft, a mold side connected with the upper ends of each pair of arms, end walls hinged to the ends of one of the sides, springs normally holding said ends at right angles to the sides, a core block, a lever connected at one end to the block, said lever being journaled on one of the rods, a pallet support on the frame and having openings through which the cores on the block pass when moved into position by the lever, means engaging the lever for holding the block in position against the pallet on the support, and means engaging the lever of the shaft for locking the mold walls in closed position.

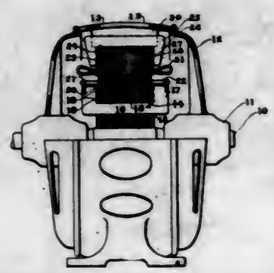
2. A machine of the class described, comprising a frame, a mold comprising a pallet support provided with openings for the passage of core blocks, a plurality of sides, and ends hinged to one of the sides, springs engaging the ends for normally holding them in closed position at right-angles to the sides, guide plates connected with the opposite side for engaging the ends to guide them into proper engagement with the said side, said plates being curved outwardly toward their free ends, pivotally mounted levers at each side of the frame for supporting the said sides, means for simultaneously moving the said sides toward and from each other and into position on the pallet support, a plurality of core blocks, means for simultaneously moving the said blocks through the openings of the support and into the mold, and means for locking the sides, ends and core blocks in position.

3. A machine of the character specified, comprising a bottom plate having openings for core blocks, oppositely arranged sides, ends hinged to one of the sides, springs engaging the ends for normally holding them in closed position at right-angles to the sides, guide plates connected with the opposite side for engaging the ends to guide them into proper engagement with the said side, said plates being curved outwardly toward their free ends.

means for simultaneously moving the sides into and out of position on the bottom plate, a plurality of core blocks, and means for moving the said core blocks through the openings into and out of the mold.

4. A machine of the character specified, comprising a bottom plate, a plurality of sides coöperating with the plate, ends hinged to one of the said sides, springs engaging the ends for normally holding them in closed position at right-angles to the sides, guide plates connected with the opposite side for engaging the ends to guide them into proper engagement with the said side, said plates being curved outwardly toward their free ends, means for simultaneously moving the sides into position on the bottom plate, and means for locking them in position.

1,030,095. CORE STRUCTURE FOR DYNAMO-ELECTRIC MACHINES. EARLE R. KNIGHT, Norwood, Ohio, assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed June 7, 1909. Serial No. 500,654. (Cl. 172—120.)



1. In a dynamo-electric machine, the combination of a laminated core including disks having notches and being adjacent to said core, and plates passing through said core and provided with end projections coöperating with the notches in said end disks to prevent movement of said disk and the laminæ of said core.

2. In a dynamo-electric machine, the combination of a laminated core, a support therefor, conductors carried by said core, short-circuiting rings to which said conductors are secured, and removable reinforcing plates independent of said support and provided with end projections and passing around a portion of said core, said short-circuiting rings being supported and centered by said end projections of said reinforcing plates.

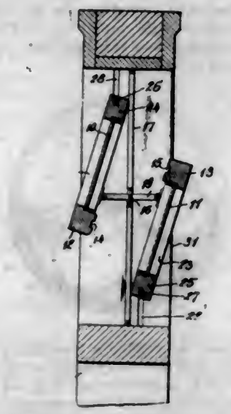
3. In a dynamo-electric machine, the combination of a laminated core including disks having notches and being adjacent said core, reinforcing plates provided with end projections and passing around a portion of said core, said end projections engaging said notches in said disks to mutually clamp said laminæ and plates, conductors carried by said core, and short-circuiting rings supported and centered by said end projections and to which said conductors are connected.

4. In a dynamo-electric machine, the combination of a slotted and laminated core provided with a plurality of apertures, a support therefor, removable reinforcing plates independent of said support and provided with end projections and passing through said apertures, said end projections engaging the ends of said core, short-circuiting rings supported and centered by said end projections, and conductors occupying the slots in said core and secured to said short-circuiting rings.

5. In a dynamo-electric machine, the combination of a core, a yoke provided with a plurality of projections for supporting and centering said core, and reinforcing plates arranged alternately with respect to said supporting projections and provided with end projections and passing around said core to prevent movement of the laminæ of said core.

[Claims 6 to 11 not printed in the Gazette.]

1,030,096. TRANSOM. ALEXANDER KNOX, Brisbane, Queensland, Australia. Filed June 21, 1911. Serial No. 634,563. (Cl. 20—42.)



1. In a transom, the combination of a pivotally and vertically movable sash, actuating levers at the sides of the sash to move the same, and means for actuating the levers in unison.

2. In a transom, the combination of a pivotally and vertically movable sash, actuating levers at the sides of the sash to move the same, a rock shaft on which the levers are mounted, and manual means for rocking the shaft.

3. In a transom, the combination of a pivotally and vertically movable sash, a shaft extending across the sash, levers mounted on the shaft and pivotally connected to the sash at the sides thereof, and manual means for rocking the shaft.

4. In a transom, the combination of a frame, a pivotally and vertically movable sash therein, a shaft journaled in the sides of the frame and extending across the sash, levers mounted on the shaft and pivotally connected to the sash at the sides of the same, an actuating arm on the end of the shaft, a reciprocatory rod connected to the arm to actuate the same, said arm and rod being concealed in the side of the frame, and manual means associated with the rod to reciprocate the same.

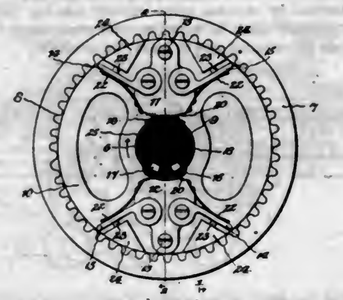
5. In a transom, the combination with upper and lower sashes movable pivotally and vertically, levers at the sides of the sashes, each lever fulcrumed between its ends and connected at its ends to the sashes, means connecting the levers to actuate the same in unison, and manual means to operate said means.

[Claims 6 to 8 not printed in the Gazette.]

1,030,097. COMBINATION DRIVING MECHANISM AND DIFFERENTIAL. PETER G. LEDEBOER, Chicago, Ill. Filed Mar. 11, 1911. Serial No. 613,858. (Cl. 21—90.)

1. The combination with a wheel and its shaft, of a frame secured to the wheel and having a toothed ring, levers movable to engage the toothed ring, a support upon which said levers are mounted, a driven member having connection with said levers, connections between said driven member and said support to drive the latter and permit relative movement thereof, and means to lock said driven member and said support against relative movement, said means being movable to and from an operative position.

2. The combination of a member to be driven, and its shaft, said member including a toothed ring, pawls engageable with the toothed ring, a pivoted member carrying the pawls, a support for the pivoted member, a driving member operatively connected to the pivoted member to swing the same and effect engagement of the pawls with the toothed ring, stops on the support adjacent to the teeth of the ring, said stops being engageable with the pawls when the latter engage the teeth of the ring.



3. The combination of a member to be driven, and its shaft, said member including a toothed ring, pawls engageable with the toothed ring, a pivoted member carrying the pawls, a support for the pivoted member, a driving member operatively connected to the pivoted member to swing the same and effect engagement of the pawls with the toothed ring, stops on the support adjacent to the teeth of the ring, said stops being engageable with the pawls when the latter engage the teeth of the ring, and spring plungers carried by said stops and projecting therefrom into engagement with the pawls.

4. The combination of a member to be driven, and its shaft, said member including a toothed ring, pawls engageable with the toothed ring, a pivoted member carrying the pawls, a support for the pivoted member, a driving member operatively connected to the pivoted member to swing the same and effect engagement of the pawls with the toothed ring, and a lock to prevent reverse motion of the driving member after the pawls have engaged the toothed ring.

5. The combination of a member to be driven, and its shaft, said member including a toothed ring, pawls engageable with the toothed ring, a pivoted member carrying the pawls, a support for the pivoted member, a driving member operatively connected to the pivoted member to swing the same and effect engagement of the pawls with the toothed ring, and a lock to prevent reverse motion of the driving member after the pawls have engaged the toothed ring, said lock being adjustable into inoperative position.

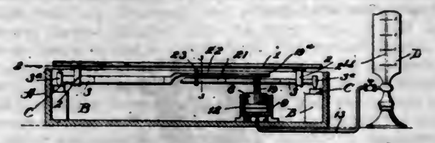
[Claims 6 and 7 not printed in the Gazette.]

1,030,098. GARMENT-CLASP. JOSEPH LEMAY, New York, N. Y. Filed Nov. 18, 1910. Serial No. 593,052. (Cl. 24—246.)



A garment clasp comprising a gripping loop-member; a flexible tab depending from the top of said loop-member; and a flat button-member secured to said tab so as to hang adjacent to but outside of the gripping portion of said gripping loop-member and comprising, two superimposed thin, stiff disks inclosing the free end of said tab and riveting means passing through said disks and the said tab-end to clamp the said disks together and against opposite sides of said tab-end.

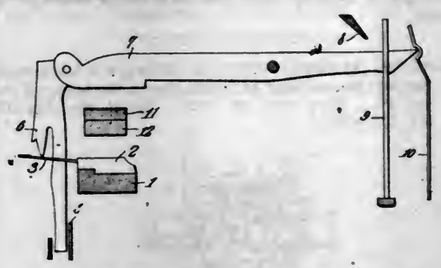
1,030,099. SELF-ACTING WATER-BALANCE. MIGUEL LLOBET, Barcelona, Spain. Filed Apr. 20, 1911. Serial No. 622,330. (Cl. 73—23.)



1. In an automatic water balance, the combination of a cylinder, a piston mounted in the cylinder, a collapsible vessel filled with a liquid and arranged in the cylinder, a manometer connected to the collapsible vessel, a rod projecting from the piston, a pair of levers pivotally supported at one of their ends, one of the levers being pivotally supported on said rod, a ring connecting the other lever to the first lever, and a platform carried by the levers for sustaining a weight, substantially as described.

2. In an automatic water balance, the combination of a cylinder, a collapsible vessel filled with a liquid and arranged in the cylinder, a manometer connected to the collapsible vessel, a pair of levers pivotally supported at one of their ends, one of the levers being pivotally supported at its other end by the piston and the other lever being pivotally suspended from the first mentioned lever, and a platform carried by the levers for sustaining a weight, substantially as described.

1,030,100. STITCH-LENGTH MECHANISM FOR STRAIGHT-BAR KNITTING-MACHINES. JOHN L. MACADAMS, Philadelphia, Pa., assignor, by mesne assignments, to William H. Horn, William H. Horn, Jr., and Walter J. Horn, Copartners trading as William H. Horn & Brother, Philadelphia, Pa. Filed Mar. 6, 1908. Serial No. 419,555. (Cl. 66—28.)



1. A knitting machine including needles and a series of coöperating sinkers arranged to mesh with the needles, and means for causing a gradually varying depth of mesh throughout the series of sinkers from the ends toward the middle of a course of knitting.

2. A knitting machine including needles and a series of coöperating sinkers arranged to mesh with the needles, and means for causing a gradually increasing depth of mesh throughout the series of sinkers from the ends toward the middle of a course of knitting.

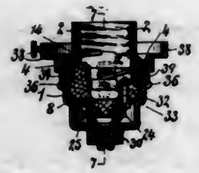
3. A knitting machine having a series of sinker-carrying jacks and means for relatively varying the extent of vibration of the jacks of the series comprising a faller bar the operative face of which is longitudinally curved.

4. A knitting machine having a series of sinker-carrying jacks and means for relatively varying the extent of vibration of the jacks of the series comprising a faller bar the operative face of which is longitudinally concaved.

5. The combination in a straight knitting machine of a series of sinker-jacks, means for operating said jacks, a series of sinkers actuated by the jacks, a series of needles arranged to coöperate with the jacks to form a fabric, and a design cam coöperative with the sinker jacks for varying the amount of intermesh between the sinkers and the needles.

[Claims 6 to 11 not printed in the Gazette.]

1,030,101. LAMP-SOCKET. WILLIAM S. MACLEWEE, Yardley, Pa., assignor to Carrie Howell MacLewee, Yardley, Pa. Filed Oct. 28, 1910. Serial No. 589,516. (Cl. 173—351.)

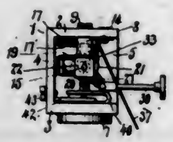


1. In a lamp socket, the combination of a body portion of insulating material, a lamp sleeve of insulating material adapted to receive the plug end of an electric lamp, contact plates adapted to contact with the end of the plug of a lamp, and a cap secured to the said insulating sleeve adapted to rigidly hold said body portion against said insulating sleeve.

2. In a lamp socket, the combination of a body portion of insulating material, a lamp sleeve of insulating material adapted to receive the plug end of a lamp, a cap secured to said sleeve adapted to hold said body portion in said sleeve, a central contact plate upon said body portion adapted to contact with the central contact plate of a lamp plug, and a contact plate upon said body portion having bifurcated arms adapted to contact with the metal shell of the lamp plug.

3. In a lamp socket, the combination of a body portion of insulating material, a lamp sleeve of insulating material, a flange formed upon said sleeve, a cap secured to said sleeve and embracing said body portion, a flange upon said cap, a lamp shade embracing said cap, said flange upon said sleeve and the said flange upon said cap adapted to securely hold said lamp shade between the same.

1,030,102. ELECTRIC SWITCH. WILLIAM S. MACLEWEE, Yardley, Pa., assignor to Carrie Howell MacLewee, Yardley, Pa. Filed Oct. 28, 1910. Serial No. 589,517. (Cl. 173—355.)

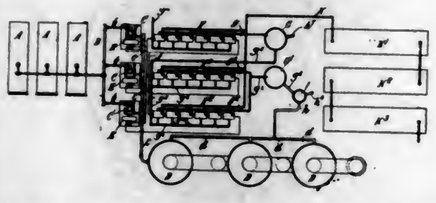


1. In a switch having a housing and switch mechanism, the combination of a bearing member for said switch mechanism consisting of a base plate and arms depending from said base plate, a shaft mounted in said arms, a lug formed upon said base plate for attaching a spring thereto, a projecting lug formed upon one of said arms and a plate spring secured to said lug to retard the movement of said shaft.

2. In a switch, the combination of a housing of insulated material formed of top and bottom portions and two rectangular side walls, a circular flange formed upon the bottom portion of said housing, a lamp socket secured to said flange, and switch mechanism secured within said housing.

1,030,103. TREATMENT OF BRINE. GEORGE W. MALCOLM, Davenham, and FREDERICK T. MUNTON, Winsford, England, assignors to The Salt Union Limited, Liverpool, England. Filed Oct. 26, 1908. Serial No. 459,564. (Cl. 204—58.)

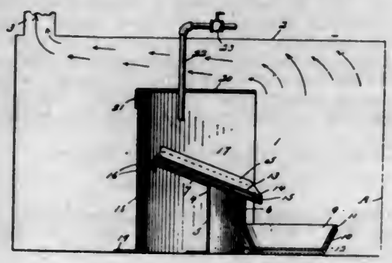
1. In the manufacture of salt from natural brine by the vacuum process of evaporation, the herein described method of carrying on the said process continuously consisting in subjecting the brine to a preliminary treatment in an electrolytic cell so as to secure the desired alkalinity, separating the magnesium precipitate from the brine, subjecting the brine to a further treatment in an electrolytic cell, passing gases containing carbon dioxid through the brine to form sodium carbonate and effect the precipitation of calcium salts thereby leaving the equivalent of sodium salts in solution, and separating the purified brine by exhaust steam from the engines.



2. The process of purifying brine consisting in electrolyzing the brine to an extent sufficient to precipitate the magnesium salts then effecting the precipitation of the calcium salts by treating the remaining brine solution with gases containing carbon dioxid, then conducting the purified brine to the evaporating pans which are heated by the exhaust steam from the engines.

3. In the continuous process of manufacturing salt from natural brine by the vacuum evaporation process the method of purifying the brine and successively eliminating the magnesium and calcium salts therefrom, consisting in causticizing the brine by electrolysis, separating the magnesium hydrate formed thereby, then treating the brine solution with gases containing carbon dioxid to precipitate the calcium salts, sodium sulfate being left in solution and finally conducting the purified brine to the evaporating pans which are heated by exhaust steam from the engines.

1,030,104. CRUDE-OIL BURNER. SYLVESTER A. MANTONYA, Yates Center, Kans. Filed June 16, 1910. Serial No. 567,323. (Cl. 158—91.)

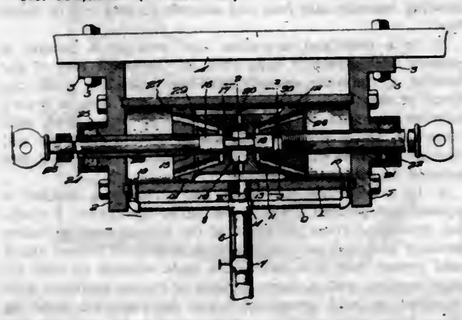


1. A crude oil burner comprising a bracket, drip pans carried thereon, said drip pans nesting one in the other, catch basins arranged under the lower edge of said drip pans, said catch basins nesting one in the other in such manner as to be interchangeable, a hood encompassing said drip pans, and means for introducing the oil on the surface of the uppermost drip pan on said bracket.

2. A crude oil burner comprising drip pans arranged angularly to receive the oil to be burned, said drip pans nesting one in the other, catch basins arranged under the lower edge of said drip pans, said catch basins nesting one in the other and being interchangeable, and a hood encompassing the said drip pans.

3. A crude oil burner comprising drip pans arranged angularly to receive the oil to be burned, said drip pans nesting one in the other, and interchangeable catch besins arranged under the lower edge of said drip pans, said catch basins nesting one in the other and being interchangeable.

1,030,105. FLUID-PRESSURE CONTROL. FREDERICK E. MARTIN, Bonami, La. Filed Oct. 13, 1911. Serial No. 654,559. (Cl. 138—2.)

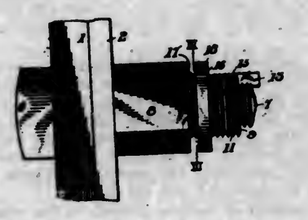


1. In a control device, the combination of a cylinder, an admission pipe communicating with the ends only of said cylinder, an exhaust pipe leading from the medial portion of said cylinder, a piston in said cylinder provided with a central bore having closed ends and with ports communicating with the cylinder ends and said exhaust pipe, respectively, a valve slidably mounted in said bore, and means for shifting said valve for controlling said ports and for actuatingly engaging said closed ends of the bore.

2. In a control device, the combination of a cylinder, an admission pipe communicating with the ends only of said cylinder, an exhaust pipe leading from the medial portion of said cylinder, a piston in said cylinder provided with a central bore having closed ends and ports spaced from said closed ends and communicating with the cylinder ends and said exhaust pipe, respectively, said piston being provided with ports leading from the end portions of said bore to the exhaust pipe, a valve slidably mounted in said bore, and means for shifting said valve for controlling said ports and for actuatingly engaging said closed ends of the bore.

3. In a control device, the combination of a cylinder, admission and exhaust pipes communicating respectively with the end and medial portions of said cylinder, a piston within said cylinder provided with a circumferential recess communicating with said exhaust pipe, and with a central bore having closed ends and with its medial and end portions communicating with such recess, said piston being also provided with ports extending from the respective heads into communication with such central bore, a valve slidably mounted in such bore for controlling the ports, and means for shifting said valve.

1,030,106. NUT-LOCKING DEVICE. GEORGE MATHEWS, New Castle, Pa. Filed Dec. 26, 1911. Serial No. 667,669. (Cl. 151—19.)



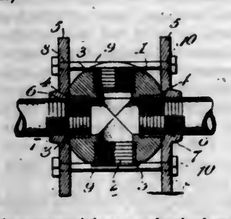
1. In a nut locking device, the combination with a bolt, of a nut screwed upon said bolt, a sleeve carried by said nut and having exterior threads, said sleeve having a slot formed therein extending from the outer face of said nut to the end of said sleeve, a toothed tapering locking member arranged in the slot of said sleeve, a head carried by the inner end of said member and engaging the outer face of said nut, and a jam nut screwed upon said sleeve and engaging the outer edge of said member for binding said member in engagement with the threads of said bolt.

2. In a nut locking device, a bolt, a nut screwed upon said bolt, an interiorly and exteriorly screw threaded sleeve formed integral with the outer face of said nut, said sleeve having a longitudinal slot formed therein, a toothed tapering locking member arranged in the slot of said sleeve, a head carried by the inner end of said member and engaging the outer face of said nut, and a jam nut screwed upon said sleeve and adapted to engage the outer edge of said member and bind said member in engagement with said bolt.

3. In a nut locking device, a threaded bolt, a nut mounted thereon, a sleeve projecting from the nut and provided with interior and exterior threads and further having a longitudinal slot, a tapering locking member arranged in said slot and having teeth on one edge engaging with the threads of the bolt and further having teeth on its outer edge, a semicircular flat head carried by the inner end of said member and capable of engaging the exterior peripheral face of the sleeve to prevent radial inward movement of the locking member previous to the application of the device to a bolt, and a nut mounted upon said sleeve and engaging the teeth on the outer edge of said member thereby binding the latter in engagement with the bolt.

4. A nut locking device compriging the combination with a threaded bolt, of a nut mounted thereon, a sleeve projecting therefrom and having interior and exterior threads, said interior threads engaging with the threads of the bolt, said sleeve further having a longitudinal slot, a toothed tapering locking member arranged in said slot and having its inner end offset, a semi-circular head carried by said offset portion of said member and engaging the exterior peripheral face of the sleeve to prevent the radial inward movement of the key previous to the application of the device to the bolt, and a nut engaging said sleeve and further engaging the outer edge of said member for binding the latter in engagement with the threads of the bolt.

1,030,107. PIPE-COUPLING. WARREN L. MCCORMICK, Sapulpa, Okla. Filed Nov. 21, 1910. Serial No. 593,491. (Cl. 137—28.)



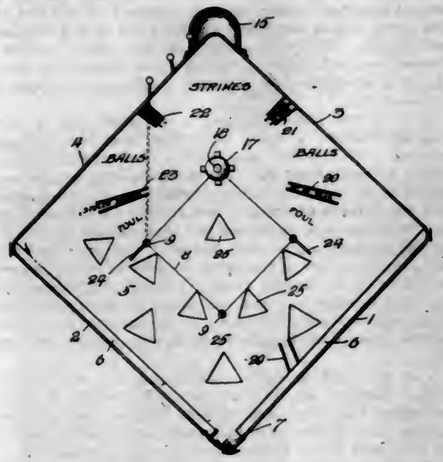
A pipe coupling comprising a spherical member provided with radial openings, bushings fitting said openings and having their outer ends provided with outturned annular flanges, flanges for engaging opposite sides of the spherical member and provided with central openings for the reception of pipe ends, said openings being surrounded by countersunk portions for the reception of the end flanges of the bushings, and means for clamping the oppositely disposed flanges to the spherical member.

1,030,108. GAME APPARATUS. STEWART L. MCCURDY, Pittsburgh, Pa. Filed Oct. 14, 1911. Serial No. 654,595. (Cl. 46—62.)

1. A game apparatus comprising a rectangular frame, a field plate carried thereby and having edges cut away to provide openings, a return plate arranged in said frame below said field plate and inclined toward the rear end of said field plate, and a revoluble receptacle arranged upon said field plate and provided with spouts adapted to project a ball upon said field plate.

2. A game apparatus comprising a rectangular frame, a field plate arranged within said frame and provided with

openings, a revoluble receptacle mounted upon said field plate and provided with spouts adapted to project a ball upon said field plate, and means arranged below said field plate for conveying the projected ball to the rear end of said field plate.



3. A game apparatus comprising a rectangular frame, a field plate arranged within said frame and provided with openings, a cup carried by the rear end of said field plate and in communication with the under side of said field plate, and a receptacle revolubly mounted upon said field plate and adapted to be spun to project a ball upon said field plate.

4. A game apparatus comprising a rectangular frame, a field plate arranged within said frame and provided with openings, a cup carried by the rear end of said field plate and in communication with the under side of said field plate, a receptacle revolubly mounted upon said field plate and adapted to be spun to project a ball upon said field plate, and levers arranged below said field plate and adapted to project into some of the openings thereof.

5. A game apparatus comprising a rectangular frame, a field plate arranged within said frame and provided with openings, an inclined return plate arranged in said frame below said field plate, a cup carried by the rear end of said frame and in communication with the space between said field plate and said return plate, and means including a receptacle arranged upon said field plate for projecting a ball upon said field plate.

[Claims 6 and 7 not printed in the Gazette.]

1,030,109. COMBINED MOP STICK AND WRINGER. VIRGINIA C. MCINTOSH, Sharpsburg, Pa. Filed Mar. 18, 1912. Serial No. 684,450. (Cl. 15—43.)

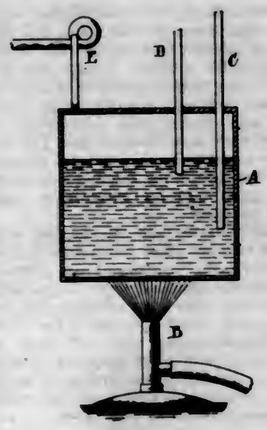


1. In a combined mop-stick and wringer, a handle, a presser foot pivotally supported on the lower end of the handle, a convexly curved cloth-bar extending from the front of said foot, a rotary member mounted on the handle, and a mop-cloth looped about said cloth-bar, extending beneath said foot and secured to said rotary member.

2. In a combined mop-stick and wringer, a handle, a presser foot pivotally supported on the lower end of the handle, a convexly curved cloth-bar extending from the front of said foot, a clamp carried by said foot, a rotary member mounted on the handle, and co-acting with said cloth-bar, and a mop-cloth looped about said cloth-bar and engaged by said clamp, extending beneath said foot and secured to said rotary member.

3. In a combined mop-stick and wringer, a handle, a presser-foot pivoted to the lower end of the handle, a cloth-bar extending from the front of the presser-foot, a rotary member mounted on the handle, a mop-cloth looped about said presser-foot and having its ends secured to said rotary member, and a finger formed of looped resilient wire mounted on said presser-foot and holding said cloth in place upon said cloth-bar, substantially as and for the purpose described.

1,030,110. METHOD OF PRODUCING CHLORIDS OF TIN. ROBERT J. MCNITT, Niagara Falls, N. Y., assignor to The Chlorine Products Company, New York, N. Y., a Corporation of New York. Filed Apr. 28, 1908. Serial No. 429,611. (Cl. 23—13.)

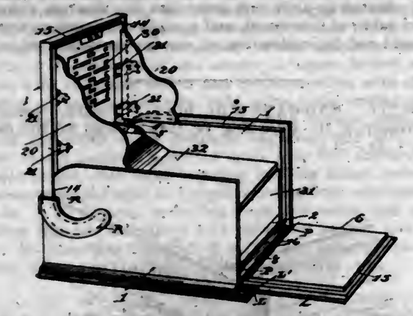


1. The method of making chlorids of tin consisting in passing chlorin gas directly into a concentrated solution of chlorids of tin in the presence of metallic tin at a temperature above approximately 80° C., and admitting water in such proportion as to produce the desired product and to prevent the presence of anhydrous stannic chlorid.

2. The method of making stannic chlorid consisting in passing chlorin gas directly into a concentrated solution of chlorids of tin in the presence of metallic tin at a temperature above approximately 80° C., and admitting water in such proportion as to produce the desired product and to prevent the presence of anhydrous stannic chlorid, and continuing the passing of chlorin gas until the tin is all converted into tin chlorid.

3. The method of making chlorids of tin consisting in passing chlorin gas directly into a solution of chlorids of tin in the presence of metallic tin at a temperature above approximately 80° C., and admitting water in such proportion as to produce the desired product and to prevent the presence of anhydrous stannic chlorid, so that when the metallic tin has been dissolved and not replenished there shall remain a solution of stannic chlorid of the desired strength.

1,030,111. CABINET. ISADORE H. MILLER, Cleveland, Ohio, assignor to Joseph Miller, Cleveland, Ohio. Filed Aug. 7, 1911. Serial No. 642,659. (Cl. 45—91.)



1. In a cabinet in combination, a bottom wall and rigid side walls, a flat rigid cover having an extremity curved in the form of a cylindrical segment insertible at one end in said case when the cover is raised, a wall separating said rear extremity from the interior of said case, an outer rear wall lower than the side walls, arms on said cover extending into said case, and pivotally connected with said case at their lower ends, said walls and cover having shouldered overlapping edges, the rear edges of said side walls curved to correspond to the segments.

2. In a cabinet, side, rear, and front and bottom walls, a rigid cover and a rigid integral curved rear extremity for said cover, a chamber in the rear of said case adapted to receive said curved extremity when the cover is raised, said side walls provided with curved recesses adapted to receive the edges of said curved extremity, the meeting edges of said cover and front and side walls overlapping, and an overhanging flange on the front and side walls of said cover.

3. In a cabinet, side, rear, and bottom and front walls, a rigid cover, said cover provided with a rigid integral rear extremity curved in the form of a segment, and pivotal points of attachment for said cover and side walls in the center line of said segment, and intermediate between the ends of said cover, whereby the curved extremity of said cover will enter the rear of said cabinet when the cover assumes a vertical position, and curved guides for said cover in said side walls, said guides extending below said pivotal points.

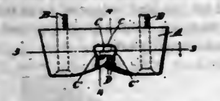
4. In a case for the preservation of records, rigid bottom, side, and rear walls, a disappearing front wall, and a rigid cover having a rigid integral rear extremity curved in the form of a segment, said cabinet provided with a recess adapted to receive said curved rear extremity, arms secured to the cover and pivoted to the side walls on the center line of said segment, said cover thereby permitted to assume a vertical position when the curved extremity enters said recess, said side walls provided with recesses extending below said pivotal points, in which the edges of said curved extremity enter.

5. In a cabinet, side and bottom walls and rear walls forming an inclosed recess in the body of said cabinet, the side walls curved in the arc of a circle at their rear upper corners, a horizontal cover overlapping said side walls and provided with an integral rear extremity curved in the form of a segment of a cylinder, the curved portion having a bearing upon the curved edges of said side walls, said walls recessed to permit the said curved portion of the cover to enter the same below the said curved edges and permitting the cover to assume a vertical position, the inner ends of said recesses serving as stops for said cover.

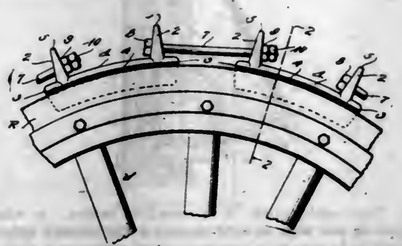
[Claims 6 to 10 not printed in the Gazette.]

1,030,112. THREAD-GUIDE. JOHN R. MITCHELL, Montclair, N. J. Filed Dec. 19, 1911. Serial No. 666,700. (Cl. 28—20.)

A thread guide consisting of a block having an elongated narrow slot arranged diagonally across one face and extending a substantial distance into said block, and a cross slot at the bottom of said first-mentioned slot extending straight across said block from the ends of said diagonal slot.



1,030,113. DETACHABLE TREAD. ORLANDO MOORE, Visalia, Cal. Filed Feb. 15, 1912. Serial No. 677,728. (Cl. 152—2.)



The herein described detachable tread made up of a series of metal plates each rectangular in contour and curved in one direction, an integral inwardly projecting fin on the dished side of each plate extending from end to end thereof along the line of its curvature about midway between its edges, and a pair of radially projecting ribs extending integrally from the outer side of the plate near those edges thereof which are adjacent the ends of said fin, each rib being pierced with two holes; and a pair of bolts extending through alined holes in the adjacent ribs of contiguous plates, the length of the bolts being such that contiguous ribs on adjacent plates will be spaced about the same as the two ribs on any one plate, for the purpose set forth.

1,030,114. BINDER OR CEMENTING MATERIAL. JAMES MILLAR NEIL, Toronto, Ontario, Canada, assignor to Alexander M. Hay, Toronto, Canada. Filed Sept. 5, 1911. Serial No. 647,472. (Cl. 106—30.)

1. A binding material comprising a mixture of silicate of soda and glucose, substantially as described.

2. A material comprising a mixture of silicate of soda and glucose, and a calcium compound, substantially as described.

1,030,115. FASTENING DEVICE FOR STORM-WINDOWS OR THE LIKE. LEWIS P. NELSON, Kenosha, Wis. Filed June 13, 1910. Serial No. 566,511. (Cl. 16—22.)

1. The combination of a fixed part; a movable part; a folding link having its ends hinged to said fixed part and said movable part to swing in one plane, one of the sections of said link being jointed to swing in a plane substantially at right angles to the first mentioned plane; and means for locking said sections together to secure said movable part to said fixed part.

2. The combination of a fixed part; a movable part; a folding link having its ends permanently pivoted to said fixed part and said movable part, said link comprising two sections pivotally connected together to fold in one plane, one of said sections being jointed to permit relative movement of its parts in a plane at an angle to the first mentioned plane; and means carried by said link for bracing said sections to hold them in their extended position.

3. The combination of a fixed part; a movable part; a jointed link connecting said parts, the sections of said link being arranged to fold together and lie alongside of said movable part, said sections having openings therein which

are adapted to coincide when the sections are in their folded position; an eye on said movable part arranged to extend through said openings when said link is folded; and means carried by the link adapted to enter said eye, to lock said sections in their folded position and secure said movable part to said fixed part.

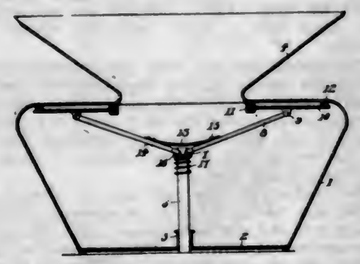


4. The combination of a window casing; a window hinged at one edge in said casing; a flat jointed link having its ends pivoted to said window and said casing, the sections of said link being adapted to fold together flatly alongside each other and lie alongside the free edge of said window; a latch pivotally mounted on the link section which is connected to said casing; and a member carried by the free edge of said window and adapted to coöperate with said latch to lock said link sections together in their folded position, the point of operative engagement of said locking members being adjacent to the points of attachment of said link sections to said window and said casing.

5. The combination of a fixed part; a movable part; a jointed link connecting said parts; a latch pivoted to one section of said link; an eye on the other section of said link, said latch being arranged to lie across the joint between said sections to brace said sections and hold them in their extended position, said sections being adapted to fold together and lie alongside said movable part; and means carried by said movable part arranged to project past said sections when folded, said latch being adapted to engage said means to prevent unfolding movement of said link.

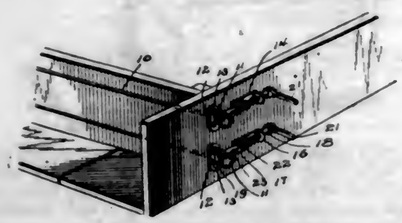
[Claims 6 to 11 not printed in the Gazette.]

1,030,116. CUSPIDOR. JOE NOGA, Pittsburgh, Pa. Filed Mar. 19, 1912. Serial No. 684,843. (Cl. 4—38.)



In a cuspidor, the combination with a receptacle having a flat bottom, a flat top, and a funnel-shaped mouth piece carried by said flat top and in communication with said receptacle, of a vertical rod arranged in the flat bottom of said receptacle, arms pivotally connected to the inner end of said rod, horizontal shutters pivotally connected to the upper ends of said arms, contact pieces carried by the confronting edges of said shutters, sealing stripe carried by the outer edges of said shutters, a normally V-shaped spring having one end thereof connected to one arm and the opposite end loosely connected to the other arm and adapted to shift said arms and the shutters thereof when said rod is released, and a cushioning spring carried by said rod for cushioning an opening movement of said rod.

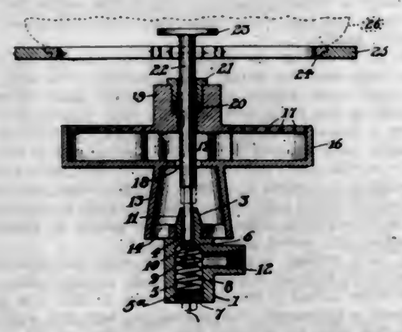
1,030,117. END-GATE-ROD LOCK. JOSEPH NOHAVA, Gregory, S. D. Filed Aug. 14, 1911. Serial No. 643,988. (Cl. 21—21.)



1. The combination with an end gage rod having a multi-angular portion, of a plate mounted adjacent the rod and provided with an ear having a notch, a rod mounted to reciprocate through the ear and having a bifurcated end proportioned to engage over the multi-angular portion of the rod, and a hook carried by the bolt adapted to pass through the notch and engage the ear.

2. The combination with an end gage rod having a multi-angular portion, ears outstanding adjacent the rod, one of which is provided with a notch, a bolt mounted to reciprocate within the ears, a spring adapted to hold the bolt yieldingly in engagement with the end gate rod, and a hook rigidly carried by the bolt adapted to pass through the notch in the ear and when the bolt is turned to engage behind such ear.

1,030,118. GAS-BURNER. CHARLEY O'NEIL, Point Marion, Pa., assignor of one-half to John W. Evans, Point Marion, Pa. Filed Jan. 20, 1912. Serial No. 672,324. (Cl. 126—52.)



1. In a gas burner comprising a valve body having a bore threaded at its lower end and further having means for connecting it to a source of gas supply, a screw plug engaging the threads of said bore, an exteriorly screw threaded nipple formed integral with the upper end of said valve body, said valve body at one end of said bore having the wall thereof beveled to provide a valve seat, a mixer casing mounted upon said valve body and detachably connected to said nipple, said nipple projecting above the bottom of and into the mixer casing, a burner of spider-like construction formed integral with the upper end of and communicating with said mixer, a valve within the valve body, a spring interposed between said valve and plug, a stem projecting from the valve and extending through said nipple into said mixer casing, and a push rod of greater diameter than said stem, said rod extending through said burner and into said mixer and connected to said stem, the lower end of said rod engaging the nipple for limiting the opening movement of the valve.

2. In a gas burner, a valve body having means for connecting it to a source of gas supply, a nipple formed integral with the upper end of and communicating with the interior of said valve body, said valve body having its inner face at its upper end formed with a valve seat, a spring controlled valve normally engaging said seat, a mixer casing mounted upon the valve body and connected to said nipple, said nipple opening into the mixer casing, a burner mounted upon and communicating with said mixer casing, a valve stem projecting from the valve and extending through the nipple into the mixer casing, and a push rod extending through the burner and into the mixer casing and connected to the upper end of said stem.

1,030,119. SPRAYER. JOHN OVERBEKE, Cleveland, Ohio. Filed Oct. 25, 1911. Serial No. 656,592. (Cl. 137—67.)

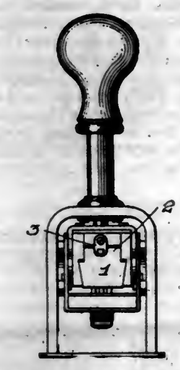


1. A sprayer comprising a chargeable cylinder having each of its end members provided with a collar, one of which collars is adapted for connection with a source of fluid supply, the portion of the end member inclosed by that collar being formed with a central aperture, and with a series of apertures arranged therearound; a spraying nozzle connected with the other collar; a sleeve fitted in the second-named collar and having its inner end projecting into the interior of the cylinder and formed with apertures; a pipe fitted at one end in said central aperture for conducting the fluid passing therethrough into the sleeve, and at the other end fitted in said sleeve, the apertures in the sleeve extending outwardly beyond the terminal of said pipe; and a piston slidable upon said pipe and operated by the fluid admitted back of it through said series of apertures, for forcing the contents of the cylinder through the sleeve apertures into said sleeve to mix therein with the fluid passing thereinto through said pipe.

2. A sprayer comprising a chargeable cylinder provided at one end with an outlet, and a sprayer nozzle connected thereto; a sleeve fitted in said outlet, said sleeve having its inner end projecting into the interior of the cylinder and formed with apertures; a fluid supply pipe arranged within said cylinder and having its outlet end fitted in said sleeve, the apertures in the sleeve extending outwardly beyond the terminal of the pipe; and a piston slidable upon said pipe for forcing the contents of the cylinder through said apertures into the sleeve, to mix in said sleeve with the fluid passing thereinto through the pipe.

1,030,120. STAMP. WILLIAM J. PANNIER, Jr., Pittsburgh, Pa. Filed Dec. 26, 1911. Serial No. 667,806. (Cl. 101—169.)

1. A type holder having a rectangular opening, the end walls of said opening being provided with spaced parallel slots, spaced parallel bars having their ends mounted in said slots, each of said bars having one face thereof provided with a series of parallel sockets, said sockets arranged in the upper portions of said bars, type bars arranged between said bars, tongues carried by one side of said type bars and extending into said sockets, and heads integral with the upper ends of said tongues and engaging the tops of the said bars provided with sockets.



2. A type holder having a rectangular opening, the end walls of said opening being provided with spaced parallel slots, spaced parallel bars having their ends mounted in said slots, each of said bars having one face thereof provided with a series of parallel sockets, said sockets arranged in the upper portions of said bars, type bars arranged between said bars, tongues carried by one side of said type bars and extending into said sockets, and heads integral with the upper end of said tongues and engaging the tops of the said bars provided with sockets, the bottom wall of each of said sockets being beveled and the lower end of each of said tongues being beveled for engagement with the beveled wall of its respective socket.

1,030,121. METALLIC RECEIPTACLE. FERDINAND C PANTHER, Burlington, Iowa. Filed Jan. 9, 1911. Serial No. 601,755. (Cl. 220—111.)



In a device of the class described, a case; a plate secured to the inner wall of the case, parallel to said wall, and provided intermediate its longitudinal edges with a longitudinal bead projecting at right angles to the wall of the case, the plate engaging the case above and below the bead, there being a notch in the lower edge of the plate, extended into the bead; and a partition having its end mounted in the notch, the bead overhanging the upper edge of the partition.

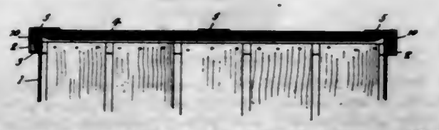
1,030,122. PROCESS FOR THE RECOVERY OF SILICA, ALUMINA, AND POTASH FROM FELDSPAR. SAMUEL PEACOCK, Baltimore, Md., assignor to American Acid Company, Baltimore, Md., a Corporation of Maine. Filed Apr. 8, 1911. Serial No. 619,828. (Cl. 23—13.)

1. The process of obtaining silica, alumina and potash from feldspar, which consists in converting said feldspar into the amorphous form; adding to said amorphous feldspar a solution of an alkali in such proportions that there will be present in the mixture not more than two chemical equivalents of alkali to each equivalent of silica; heating the mixture and subjecting the same to the action of steam to form soluble alkali silicates; separating said silicates from the insoluble alumina present; treating said

alumina with carbon dioxid to convert any alkali it may contain into a carbonate, and dehydrating the substantially pure alumina thus obtained; treating said soluble silicates with carbon dioxid to convert their contained alkalis into carbonates; and finally separating said carbonates from the silica present, substantially as described.

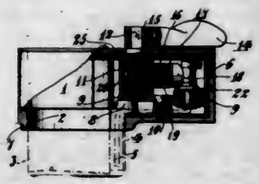
2. The steps in the art of obtaining silica, alumina and potash from feldspar, which consists in converting the feldspar into the amorphous form; adding sufficient alkali to cause the mixture to contain not more than two and not less than one equivalent of alkali to each equivalent of silica; treating the material with superheated steam to form therein soluble alkali silicates; separating from said silicates the alumina contained in the mixture; separating out any alkali that may be contained in the alumina; and suitably decomposing said silicates forming alkali carbonates and recovering the contained alkali, substantially as described.

1,030,123. COVER FOR PEACH-BASKETS. IRVING W. PECK, Bradentown, Fla. Filed Aug. 3, 1910. Serial No. 575,219. (Cl. 217—52.)



In combination with a crate of the character specified and the cover for the crate, of a cushion for the cover, said cushion comprising a sheet of flexible material having its side edges folded over upon the body of the sheet and lapped upon each other to form a receptacle, a filling of cushioning material in the receptacle, said cushion being arranged with the body of the sheeet adjacent to the cover and strips arranged transversely of the cover and engaging the ends of the cushion to hold the said cushion on the cover.

1,030,124. STEERING-POST SWITCH. JOHN G. PERRIN, Plattsburg, N. Y. Filed Jan. 3, 1911. Serial No. 600,379. (Cl. 175—282.)

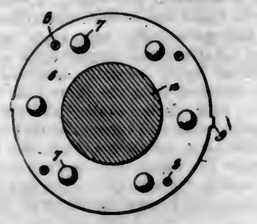


1. A steering post switch comprising a casing, means for securing the casing to a support, a bearing plate in said casing, a binding post supported by said plate and insulated therefrom, a shaft movably mounted in the bearing plate, a horizontal sleeve carried by said shaft, and a plunger movably mounted in said sleeve adapted to engage said binding post.

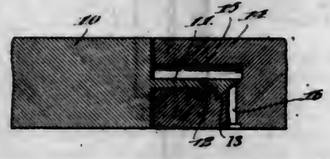
2. A steering post switch comprising a casing, means for supporting the casing, a bearing plate mounted in said casing and detachably secured thereto, a plurality of binding posts supported by said plate and insulated therefrom, a shaft movably mounted in said plate provided with a yielding plunger adapted to engage with said binding posts.

1,030,125. BALL-BEARING WASHER. JASPER N. PRESLEY, Sardis, Tenn. Filed Nov. 11, 1911. Serial No. 659,768. (Cl. 64—40.)

A washer of the character described, comprising a body portion formed in one face with a plurality of semi-spherical recesses arranged at equal intervals and with curved passages connecting said recesses, said body being provided with an oil duct communicating with said passages and with a drain duct leading from said passages, a cover for said body and connected thereto, said cover being formed with a plurality of apertures with beveled edges, the apertures registering with said recesses, a plurality of bearing balls disposed in said recesses and retained therein by said cover and protruding through said apertures, lugs formed on said cover, the body portion being formed with notches for the reception of said lugs, for the purpose specified, and sharpened projections formed on said body portion for engagement with a journal washer.



1,030,126. RAIL-JOINT. JOSEPH REBOLIGE, Donora, Pa. Filed Jan. 3, 1912. Serial No. 669,200. (Cl. 239—8.)

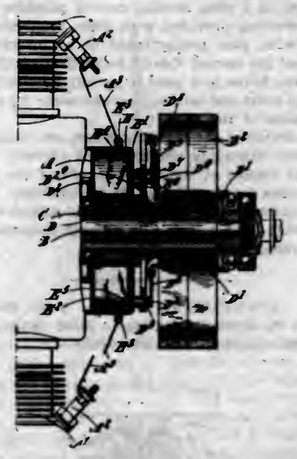


In a rail joint, the combination with a rail end provided with a horizontally extending opening and a vertically extending opening terminating at the inner end of the horizontally extending opening, of a second rail end, a spring-like horizontally extending gripping member extended from an end of the said second rail end, and locking lugs formed on the said gripping member with the outermost locking lug of greater length than the innermost locking lug, the said gripping member being adapted to extend into the mentioned horizontal opening of the first mentioned rail end with the locking lugs depending in recesses formed in the first mentioned rail end, the free end of the said gripping member being adapted to extend across the said vertically extending opening.

1,030,127. MAGNETO IGNITION DEVICE FOR INTERNAL-COMBUSTION ENGINES. CHARLES BENJAMIN REDRUP, Canton, Cardiff, England. Filed June 15, 1911. Serial No. 633,332. (Cl. 123—149.)

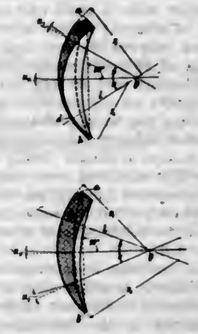
1. In an ignition device for multi-cylinder engines of a rotary reciprocating-piston type, the combination of a distributer plate provided with duplicate groups of contacts, a brush for engaging said contacts, means for rotating said plate and brush at different speeds in the direction of rotation of the engine cylinders, an electric generator having its armatures in electrical connection with said brush, means for rotating the armature of said generator with said brush, and connections to the engine shaft for rotating the field of said generator in a reverse direction.

2. In an ignition device for multi-cylinder engines of a rotary reciprocating-piston type, the combination of a distributer plate provided with duplicate groups of contacts and with a series of depressions, a brush for engaging said contacts, a plunger for engaging said depressions, means for rotating said plate in the direction of rotation of the engine cylinders, means for rotating said brush and plunger in the same direction at a different speed from that of said plate, a magneto generator having the secondary winding of its armature in electrical connection with said brush, means controlled by said plunger for opening and closing the primary winding of said armature, and means for rotating said armature with said brush and plunger.



3. In an ignition device for rotary reciprocating-piston engines having sets of power cylinders, the combination of a distributer plate having duplicate groups of contacts for each set of cylinders, a brush for engaging said contacts, means for rotating said plate and brush at different speeds in the direction of rotation of the engine cylinders, an electric generator having its armatures in electrical connection with said brush, means for rotating the armature of said generator with said brush, and connections to the engine shaft for rotating the field of said generator in a reverse direction.

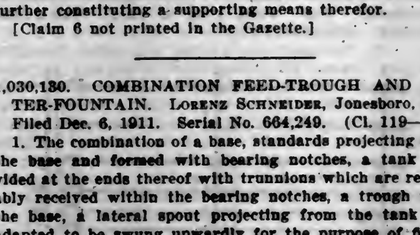
1,030,128. SPECTACLE-GLASS. MORITZ VON ROHR, Jena, Germany, assignor to The Firm of Carl Zeiss, Jena, Germany. Filed Aug. 25, 1910. Serial No. 578,861. (Cl. 88—54.)



An astigmatically corrected spectacle glass, having a convex front surface and a concave hinder surface and cut out eccentrically for obtaining prismatic effect, the power of the convex surface amounting to not less than 16 and not more than 21 dptr.

1,030,129. LUBRICATING OR OILING DEVICE. TIMOTHY BERNARD SAGEFIELD, Penns Station, Pa., assignor of one-half to William C. Kent, Pittsburgh, Pa. Filed Mar. 6, 1912. Serial No. 681,985. (Cl. 184—15.)

1. An oiling device comprising a vertically movable oil receptacle, an oil containing trough carried by said receptacle and movable to a position with respect to a traveling cable for oiling the latter during the travel thereof, and means carried by said receptacle and capable of being operated by the traveling cable for feeding oil from the receptacle to said trough.



2. An oiling device comprising a vertically movable oil receptacle, an oil containing trough carried by said receptacle and movable to a position with respect to a traveling cable for oiling the latter during the travel thereof, means carried by said receptacle and capable of being operated by the traveling cable for feeding oil from the receptacle to said trough, and a cam and lever mechanism for elevating said receptacle and further constituting a supporting means therefor.

3. An oiling device for traveling cables comprising a vertically movable oil receptacle, an oil-containing trough carried thereby and capable of being positioned when the receptacle is elevated in such relation to the traveling cable as to oil the same during the travel thereof, a revoluble shaft mounted upon said oil receptacle and provided with means capable of engaging with the traveling cable causing a rotation of the shaft, and an oil-feeding means carried and operated by the shaft and capable of supplying oil from the receptacle to the trough.

4. An oiling device for traveling cables comprising a vertically movable oil receptacle, an oil-containing trough carried thereby and capable of being positioned when the receptacle is elevated in such relation to the traveling cable as to oil the same during the travel thereof, a revoluble shaft mounted upon said oil receptacle and provided with means capable of engaging with the traveling cable causing a rotation of the shaft, and an oil-feeding means carried and operated by the shaft and capable of supplying oil from the receptacle to the trough, said trough provided with oil conducting means and further having means for discharging the surplus oil back into the receptacle.

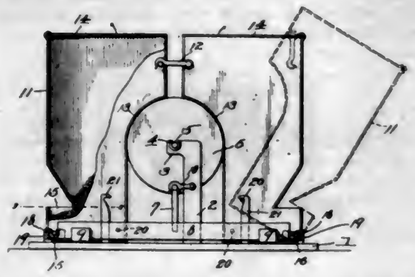
5. An oiling device for traveling cables comprising a vertically movable oil receptacle, an oil-containing trough carried thereby and capable of being positioned when the receptacle is elevated in such relation to the traveling cable as to oil the same during the travel thereof, a revoluble shaft mounted upon said oil receptacle and provided with means capable of engaging with the traveling cable causing a rotation of the shaft, and an oil-feeding means carried and operated by the shaft and capable of supplying oil from the receptacle to the trough, and a cam and lever mechanism for elevating said receptacle and further constituting a supporting means therefor.

[Claim 6 not printed in the Gazette.]

1,030,130. COMBINATION FEED-TROUGH AND WATER-FOUNTAIN. LORENZ SCHNEIDER, Jonesboro, Ark. Filed Dec. 6, 1911. Serial No. 664,249. (Cl. 119—52.)

1. The combination of a base, standards projecting from the base and formed with bearing notches, a tank provided at the ends thereof with trunnions which are removably received within the bearing notches, a trough upon the base, a lateral spout projecting from the tank and adapted to be swung upwardly for the purpose of filling the tank, the said spout being normally swung downwardly so as to project into the trough and cause the water in the tank to feed automatically to the trough, and feed hoppers mounted upon the base on each side of the tank, the said feed hoppers projecting from the tank and fric-

tionally engaging the same to hold it in position and prevent accidental rotation thereof.



2. The combination of a base, standards projecting from the base and formed with bearing notches, a tank provided at the ends thereof with trunnions which are loosely received within the bearing notches, a water trough upon the base, a lateral spout projecting from the tank, the tank being adapted to be turned to bring the spout to the top of the tank for the purpose of filling the same, and the said spout normally projecting into the trough so as to cause the water in the tank to automatically feed into the trough as it is exhausted therefrom, feed hoppers pivoted upon the base on each side of the water tank, the said feed hoppers normally projecting over the water tank and engaging the same to hold the water tank in position, and being adapted to be swung outwardly away from the water tank when it is desired to remove the water tank from position, and means for limiting the outward swinging movement of the feed hoppers.

3. The combination of a base, standards projecting from the base and formed with bearing notches, a substantially cylindrical water tank provided at the ends thereof with axially disposed trunnions which are loosely received within the bearing notches, a trough at each end of the water tank, clips upon the base for detachably engaging the troughs, lateral spouts projecting from opposite ends of the cylindrical tank at points near the periphery thereof, the tank being adapted to be turned to bring the spouts to the top thereof when filling the tank and the spouts normally projecting from the bottom of the tank into the water troughs so that the water feeds automatically from the tanks to the trough as it is exhausted from the troughs, ears projecting from the base on each side of the tank, feed hoppers formed with trunnions which are journaled upon the ears, the said feed hoppers normally projecting from the water tank and engaging the same to hold it against displacement and being adapted to be swung outwardly when it is desired to remove the water tank, stop pins upon the feed hoppers, and hook members projecting from the base for engaging the stop pins to limit the outward swinging movement of the feed hoppers.

1,030,131. FENCE-WIRE SUPPORT. HUGO A. SCHULTZ, Dorchester, Wis. Filed June 7, 1911. Serial No. 631,857. (Cl. 39—12.)

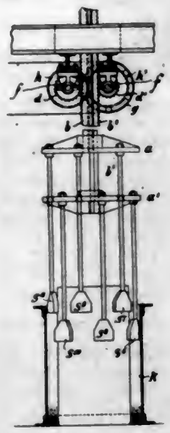


1. In a device of the class described, a plate provided at opposite ends with outwardly curved portions with slots formed through such outwardly curved portions, pins insertible through the curved portions to secure a wire therein, and means to secure the plate to a post to permit longitudinal movement.

2. In a device of the class described, the combination with a wire of a plate having curved portions offset outwardly therefrom provided with slots proportioned to receive the wire, pins proportioned to be inserted between the wire and the curved side of such offset portions, means to secure the plate to a post to permit longitudinal movement of the plate and means to compensate for contraction and expansion of the wire.

3. In a device of the class described, an elongated plate having a slot extending longitudinally thereof, curved offset portions formed at the opposite ends of the plate, such offset portions being provided with auxiliary slots, pins insertible through the curved portions adapted to secure a wire therein, and a fastening member insertible through the longitudinal slot.

1,030,132. STAMPING-MACHINE. PAUL SCHWENZOW, Unkel-on-the-Rhine, Germany. Filed Aug. 28, 1911. Serial No. 646,329. (Cl. 25—103.)



1. In combination with a mold and core for a hollow body, a plurality of adjacent stamps arranged side by side to close in the gap between the core and the mold, means for raising groups of adjacent stamps to varying heights and means for releasing said stamps so that they all fall to rest simultaneously on the material in the mold, substantially as and for the purpose described.

2. In combination with a mold and core for a hollow body, groups of stamps arranged closely side by side and movable between said mold and core, means for articulating together the stamps of a group, means operable on said articulating members for raising said groups to different heights and means for releasing said articulating members to allow them to fall.

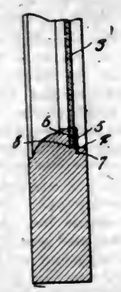
3. In a stamping machine in combination, a plurality of stamps arranged closely together side by side, means for raising adjacent stamps to different heights and means for lowering said stamps to lie simultaneously with their stamping faces in substantially the same plane.

4. In a stamping machine in combination, a plurality of stamps arranged closely side by side, two freely falling bodies, each articulated to alternate stamps, means for raising said falling bodies through different heights and means for releasing said falling bodies to rest simultaneously in their lowest positions.

5. In a stamping machine in combination, a plurality of stamps arranged closely side by side, two freely falling bodies, each articulated to alternate stamps, means for raising sand falling bodies through different heights and means for separately releasing said falling bodies to rest simultaneously in their lower positions.

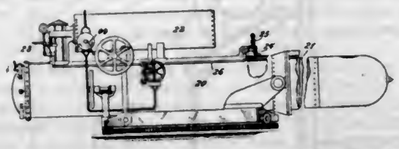
[Claim 6 not printed in the Gazette.]

1,030,133. GLASS-FASTENER. CHARLES W. SEGO, Ira, Iowa. Filed Mar. 7, 1911. Serial No. 612,783. (Cl. 20—56.4.)



The combination with a sash rabbeted to form vertically and horizontally disposed walls, of a pane of glass seated against the said walls, and a fastening device adapted to hold the glass against said walls, said fastening device comprising a blank of sheet metal bent upon itself at its intermediate transverse portion to form substantially parallel members of equal length and of a height equal to the height of said vertical wall, prongs disposed on the edge of said parallel members throughout their entire length, the prongs carried by one of said members engaging the horizontal wall of the rabbeted portion of said sash and securing the fastening device in spaced upright parallel relation from the vertical wall of the rabbeted sash portion forming a glass space, the prongs of the other parallel member being bent in a horizontal plane to the said horizontal wall and lying flush against said horizontal wall throughout the entire width of said glass space, and the said prongs engaging the lower portion of the said vertical walls, the said pane when in applied position contacting with a vertical and horizontal portion of said fastening device and the vertical wall of said rabbeted portion.

1,030,134. AUTOMATIC STEERING DEVICE FOR TORPEDOES. HAROLD W. SHONNARD, East Orange, N. J. Filed Feb. 21, 1910. Serial No. 545,019. (Cl. 114—24.)



1. A submarine torpedo body, propelling and steering mechanism therefor within the same, a launching tube, and ejecting means associated with said tube, in combination with a gyroscope within the torpedo body, movable independently of the propelling mechanism, for controlling said steering mechanism, and means for conveying and controlling energy from outside of the launching tube for spinning said gyroscope, substantially as described.

2. A submarine torpedo body, propelling and steering mechanism therefor within the same, a launching tube, ejecting means associated with said tube, and a controlling device for said ejecting means; in combination with a gyroscope within the torpedo body movable independently of the propelling mechanism for controlling said steering mechanism, means for spinning said gyroscope, and a second controlling device, capable of operation independently of operation of said ejecting means, for governing the action of said gyroscope-spinning means, substantially as described.

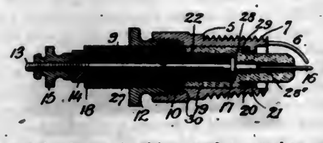
3. A submarine torpedo body, a gyroscope within the same, automatic steering mechanism associated with said gyroscope, propelling means within said torpedo body independent of said gyroscope; in combination with a launching tube, means for launching the torpedo from said tube, spinning means for said gyroscope, means for energizing said spinning means, a controlling device for said launching means, and a second controlling device, capable of operation independently of operation of said launching means, for governing the action of the energizing means of the gyroscope, substantially as described.

4. In combination with a torpedo body, propelling mechanism within said body, a gyroscope independent of said propelling mechanism within said body, and automatic steering mechanism associated with said gyroscope; a launching tube, a prime mover outside of said launching tube, and connecting means between said prime mover and said gyroscope for spinning the latter, substantially as described.

5. A torpedo body, propelling mechanism within said body, a gyroscope independent of said propelling mechanism within said body, and automatic steering mechanism associated with said gyroscope; in combination with a launching tube, ejecting means associated therewith, a controlling device for said ejecting means, spinning means for said gyroscope, locking means for holding the gyroscope while being spun, means for releasing the gyroscope from said locking means, and a second controlling device independent of said ejecting means, for controlling operation of said releasing means, substantially as described.

[Claims 6 to 44 not printed in the Gazette.]

1,030,135. SPARK-PLUG. BELISARIO SILFA, New York, N. Y. Filed May 13, 1911. Serial No. 626,980. (Cl. 123—169.)



1. In a spark plug, a bushing, and a member positioned therein and removable as a unit therefrom, said member comprising an electrical conductor, an electrical insulation composed of laminated material and held on said conductor and incasing the latter for a part of its length, an insulating sleeve composed of refractory material and incasing the electrical insulation for a part of its length, said sleeve incasing the electrical conductor for part of its length and extending beyond the electrical insulation, and cement uniting the conductor and the electrical insulation directly to the insulating sleeve.

2. In a spark plug of the class described, an incased electrical conductor comprising a metallic member provided intermediate its ends with a retaining shoulder, an electrical insulation composed of laminated material and positioned in contact with said shoulder, and insulating sleeve composed of refractory material and incasing the metallic member and the electrical insulation for a part of the length thereof, said sleeve incasing the shoulder and extending forwardly thereof, and cement uniting the incased parts of said insulation and the metallic member directly to said sleeve.

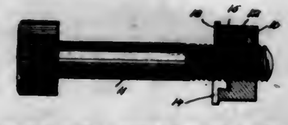
3. In a spark plug, a bushing, an incased conductor positioned within the bushing and removable as a unit therefrom, and means for retaining the incased conductor within the bushing, said incased conductor comprising a central metallic member composed of a single piece and extending continuously through the bushing, an electrical insulation composed of mica and incasing the conductor for a part of its length, and a sleeve composed of refractory material and incasing the metallic member and the electrical insulation for a part of the length thereof, said sleeve protruding beyond one end of the bushing and said metallic member extending beyond the sleeve; said metallic member, the mica insulation and the refractory sleeve being rigidly secured together.

4. In a spark plug, a bushing provided with an internal shoulder positioned near the inner end thereof, an incased electrical conductor positioned within the bushing and

removable as an entity therefrom, and means for clamping said incased electrical conductor within the bushing, said incased electrical conductor comprising a central metallic member, an electrical insulation composed of laminated material and incasing said member for a part of its length, and an insulating sleeve composed of refractory material and united to and incasing the electrical insulation and the metallic member for a part of the length thereof, said sleeve being provided intermediate its ends with an external shoulder which coöperates with the internal shoulder of the bushing, and said sleeve extending beyond the inner end of said bushing.

5. In a spark plug, a bushing provided with a plurality of internal shoulders, a continuous metallic conductor, an electrical insulation composed of laminated material and incasing said metallic conductor, said electrical insulation being provided with an external shoulder which coöperates with one internal shoulder, an insulating sleeve composed of refractory material and incasing the metallic conductor and the electrical insulation for a part of the length thereof, said sleeve being provided with an external shoulder which coöperates with another of the internal shoulders of the bushing, means for clamping the shoulder of the electrical insulation against one shoulder of the bushing, said sleeve extending beyond the inner end of the bushing, and a packing between the shoulder of the sleeve and one internal shoulder of the bushing.

1,030,136. NUT-LOCK. JOHN H. SKELTON, Bayonne, N. J. Filed June 6, 1910. Serial No. 565,269. (Cl. 151—15.)



The combination with a bolt of a nut having a central bore threaded for application to the bolt and with a recess formed in the underside of the nut concentric therewith and with converging side walls and a washer having a central bore threaded for application to the bolt and with a boss having converging sides proportioned to be seated in the socket of the nut, such boss being no longer than the depth of the socket and a flange formed about the base of the washer positioned to engage the bottom of the nut, said washer being slitted from the central bore to its circumference.

1,030,137. BRUSH. HARRISON B. SMITH, Bayside, N. Y. Filed June 16, 1911. Serial No. 633,615. (Cl. 15—66.)



1. In a fountain brush, the combination of a conveying tube comprising a tube-like body provided at its discharge end with diametrically opposed notches and with bearing surfaces adjacent to said notches, and a brush having a stem disposed within said tube and provided with a flattened, wedged-shaped outer end engaging said notches and bearing portions.

2. In a fountain brush, the combination of a conveying tube comprising a tube-like body, a stem comprising a folded strip of material disposed within said body and having an expanded socketed end projecting through the discharge end of the body, and a brush held in said expanded socketed end of the stem, said discharge end of the body and expanded end of the stem having interengaging and spaced surfaces whereby the brush stem is frictionally held in said body and discharge passages are formed between the surfaces of the engaging portions.

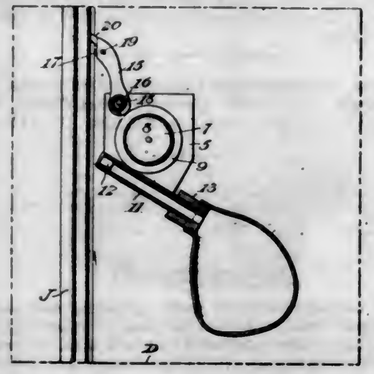
3. A conveying tube for fountain brushes comprising a tube-like body formed at the discharge end with an inturned lip, said lip being formed with diametrically opposed notches, and a brush having the stem or handle portion thereof flattened and wedge-shaped to frictionally engage said discharge end of the body and coöperate with the notches.

4. In a fountain brush, the combination of a conveying tube comprising a tube-like body provided with an inturned flange at its discharge end, and a brush having a stem provided with a flattened wedge-shaped portion projecting through the discharge end of the body, said flanged end of the body and the flattened end of the stem being provided with diametrically opposed engaging surfaces, whereby the stem is frictionally held in the body, and formed at right angles to said engaging surfaces with passages for the flow of fluid outwardly along the projecting portion of the stem.

5. In a fountain brush, the combination of a conveying tube comprising a tube-like body, a brush having flat sides and provided with a stem fitted within said body and having flattened conducting surfaces leading to the flat sides of the brush, said body and stem being formed with coacting contacting surfaces detachably holding the stem within the body and coacting spaced surfaces forming channels leading to said conducting surfaces.

[Claim 6 not printed in the Gazette.]

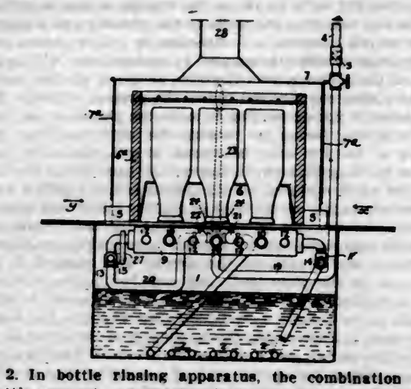
1,030,138. BURGLAR-ALARM. WILLIAM GEORGE SPIEGEL, New York, N. Y., assignor to Fred Oppenheimer, New York, N. Y. Filed Mar. 31, 1910. Serial No. 552,656. (Cl. 116—42.)



A burglar alarm comprising a base having supporting means for engagement with a flat surface at any point, an open-ended barrel carried by said base and arranged to receive a cartridge in one end, a combustion and flame-smothering bag fitted to the other end of said barrel, and a spring actuated hammer pivoted to said base and arranged to have a movement over that end of the barrel which holds the cartridge.

1,030,139. BOTTLE RINSING AND STERILIZING APPARATUS. ALFRED G. STEER, Lansdowne, Pa., assignor to Dairymen's Supply Co., Lansdowne, Pa., a Corporation of Pennsylvania. Filed May 26, 1911. Serial No. 629,650. (Cl. 141—7.)

1. In bottle rinsing and sterilizing apparatus, the combination of a bottle support; a plurality of jetting devices placed to deliver fluid to bottles carried by said support; a water conduit connected to said jetting devices; a source of steam supply; valves controlling the flow of steam from said source whereby steam may be delivered to the conduit to force water therefrom through said jetting devices and subsequently deliver steam directly to said devices; and means for automatically supplying water to said conduit while steam is being delivered through said jetting devices.



2. In bottle rinsing apparatus, the combination of a bottle support; an apertured pipe placed to deliver fluid to the bottles on the support; a conduit; means for automatically permitting the flow of water into the conduit upon the formation of a vacuum therein; means for delivering steam directly to the apertured pipe or to said conduit to discharge the water therein through said apertured pipe; means for controlling the delivery of such steam, and a check valve placed to prevent the passage of fluid to said conduit from said apertured pipe.

3. In bottle rinsing apparatus, the combination of a bottle support; a plurality of apertured pipes placed to deliver fluid to the bottles on said support; a plurality of manifolds connected to said apertured pipes; a conduit opening to a source of water supply, and connected to the manifolds; a check valve connected to automatically admit water from the source through said conduit under predetermined conditions; means for delivering steam to said conduit to discharge the contents thereof through the apertured pipes; a valve controlling the delivery of such steam through the conduit; means for delivering steam to the manifolds independently of the conduit; and means for preventing the passage of steam from the manifolds to the conduit.

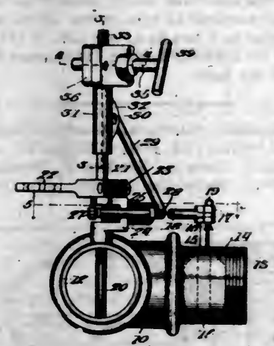
4. The combination of a water containing tank; a jetting device; a conduit submerged in the water of the tank and connected to the jetting device; a source of steam supply connected both to the conduit and to the jetting device; means for automatically admitting water from the tank to the conduit upon the formation of a vacuum in the latter; means for preventing the flow of fluid from the jetting device to the conduit; and means for delivering steam to the pipe or to the jetting device at will.

5. The combination of a water containing tank; a jetting device; a conduit submerged in the water of the tank and connected to the jetting device; a source of steam supply connected both to the conduit and to the jetting device; a check valve connected to the conduit to admit water thereto from the tank; means for preventing the flow of fluid from the jetting device to the conduit; and means for delivering steam to the pipe or to the jetting device at will.

[Claim 6 not printed in the Gazette.]

1,030,140. ENGINE-THROTTLE. ALDEN A. STEWARD and GEORGE H. STEWARD, Rutland, Vt. Filed Dec. 28, 1910. Serial No. 599,697. (Cl. 137—26.)

1. In a throttle control, a mixing chamber having air and fuel inlets, air and throttle valves controlling communication with said chamber provided with valve stems, a crank carried by each of said stems, a connecting member carried by one of said cranks, a member adjustably mounted in the other crank to which said connecting member is connected, and means for adjusting said member to effect relative different movements of said valves.



2. In a throttle valve control, a mixing chamber having air and fuel inlets, air and throttle valves controlling communication with said chamber provided with valve stems, a connection between said valve stems adjustably carried by one of said valve stems, and slidably mounted means upon the stem of one of said valves to vary the relative movement of the other valve.

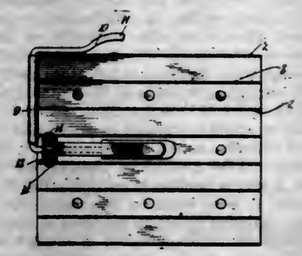
3. In a throttle control a mixing chamber having air and fuel inlets, air and throttle valves controlling communication with said chamber, a connection between said valves, and slidably mounted means for shifting said connection relative to the axis of one of said valves.

4. In a throttle control, a mixing chamber having air and fuel inlets, air and throttle valves controlling communication with said chamber, a connection between said valves comprising a crank carried by the stem of one valve, said crank comprising a sleeve, a member of said connection carried by a sleeve, and means for shifting said member within said sleeve.

5. In a throttle control, a mixing chamber having air and fuel inlets, air and throttle valves controlling communication with said chamber, a connection between said valves comprising a crank carried by the stem of one valve, said crank comprising a sleeve, a member of said connection carried by the sleeve, a link pivoted to said member, and means carried by the stem of the valve provided with a crank for longitudinally shifting said link.

[Claims 6 to 14 not printed in the Gazette.]

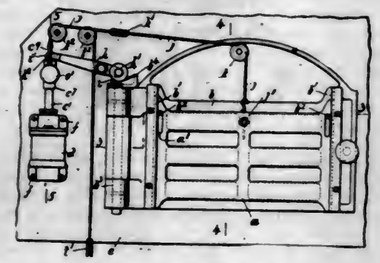
1,030,141. CURRYCOMB. WILLIAM ERNEST STEYDING, Lockport, N. Y. Filed Oct. 30, 1911. Serial No. 657,399. (Cl. 119—88.)



1. A curry comb provided with parallel toothed ribs extending from the working face thereof, a hammer pivotally mounted at one edge of the curry comb and fitting between a pair of adjacent ribs, a spring normally supporting the hammer and holding it in contact with the inner face of the back plate, and a handle for rocking said hammer against the tension of said spring, said handle extending from one end of the pivot of the hammer along a side of the back plate.

2. A curry comb, comprising a back having a sleeve at one edge and provided with parallel toothed ribs projecting from its working face, a hammer arranged between a pair of the ribs and from which extends an arm having a bail portion mounted to turn in the sleeve of the back and terminating in a handle at one side of the said back, and a spring for normally holding the hammer against the inner face of the back.

1,030,142. SMOKE-CONSUMING AND FUEL-ECONOMIZING APPARATUS FOR FURNACES AND THE LIKE. JOHN THOMAS, Kenilworth, England. Filed June 10, 1911. Serial No. 632,330. (Cl. 110—55.)



1. In smoke consuming and fuel economizing apparatus for furnaces and the like, in combination, a grid-like fire door, a grid adapted to slide vertically on the fire door and tending to close by its own weight, a cylinder adapted to be charged with liquid, a cup leather piston mounted within the cylinder and adapted to be moved freely in one direction, a hollow piston rod the interior of which is adapted to communicate with both ends of the cylinder, an adjustable needle or similar valve in the piston rod for controlling the passage through the piston rod, a spring tending to move the piston to one end of its stroke, a lever engaging the piston rod, a cam on the fire door adapted to act on the lever so that as the fire door is opened the piston is forced to one end of its stroke against the action of the spring, and so that when the fire door is closed the spring tends to return the piston to the other end of its stroke, pulleys respectively arranged vertically above or in line with the grid, the fire door hinge, and the axis of the piston rod or approximately so, the first of such pulleys being mounted on the fire door and flexible means connecting the grid to the piston and guided over said pulleys, so that as the fire door is opened the grid is opened by the piston pulling on the flexible connection, and when the fire door is closed and the piston is moved by the spring, the grid is allowed to close, substantially as described.

2. In smoke consuming and fuel economizing apparatus for furnaces and the like, in combination, a grid-like fire door, a grid adapted to slide vertically on the fire door and tending to close by its own weight, a cylinder adapted to be charged with liquid, a cup leather piston mounted within and engaging the walls of the cylinder and adapted to be moved freely in one direction, a hollow piston rod the interior of which is adapted to communicate with both ends of the cylinder, an adjustable needle or similar valve in the piston rod for controlling the passage through the piston rod, a spring tending to move the piston to one end of its stroke, a lever engaging the piston rod, a cam on the fire door adapted to act on the lever so that as the fire door is opened the piston is forced to one end of its stroke against the action of the spring, and so that when the fire door is closed the spring tends to return the piston to the other end of its stroke, pulleys respectively arranged vertically above or in line with the grid, the fire door hinge, and the axis of the piston rod, or approximately so, the first of such pulleys being mounted on the fire door, and flexible means connecting the grid to the piston and guided over said pulleys, so that as the fire door is opened the grid is opened by the piston pulling on the flexible connection, and when the fire door is closed and the piston is moved by the spring, the grid is allowed to close, substantially as described.

3. In smoke consuming and fuel economizing apparatus for furnaces and the like, in combination, a grid-like fire door, a grid adapted to slide vertically on the fire door and tending to close by its own weight, a cylinder adapted to be charged with liquid, a cup leather piston mounted within and engaging the walls of the cylinder and adapted to be moved freely in one direction, a hollow piston rod the interior of which is adapted to communicate with both ends of the cylinder, an adjustable needle or similar valve in the piston rod for controlling the passage through the piston rod, a spring tending to move the piston to one end of its stroke, means for moving the piston against the spring as the fire door is opened, means connecting the piston to the grid, a draft door at the back of the fire pit adapted to be operated off the piston rod to admit a secondary air supply at the back of the fire bridge and adapted to commence and finish closing at the same times as the grid does and when shut to lie in an inclined position, a spindle, and a cam, on the spindle and adapted to be operated off the piston-rod, said cam having its working face extending in a curve outwardly from adjacent to said spindle so as to have a variable throw whereby the draft door opens quicker during the latter part of its stroke than during the earlier part and to allow the draft door to close quicker during the earlier part of its stroke than during the latter part, substantially as described.

4. In smoke consuming and fuel economizing apparatus for furnaces and the like, in combination, a grid-like fire door, a grid adapted to slide on the fire door, a cylinder adapted to be charged with liquid, a piston mounted within the cylinder and adapted to be moved freely in one direction, a passage connecting the ends of the cylinder, means for controlling the passage, a spring tending to move the piston to one end of its stroke, a lever engaging the piston rod, a cam on the fire door adapted to act on the lever so that as the fire door is opened the piston is forced to one end of its stroke against the action of the spring, and so that when the fire door is closed the spring tends to return the piston to the other end of its stroke, pulleys respectively arranged vertically above or in line with the grid, the fire door hinge, and the axis of the piston rod, or approximately so, the first of such pulleys being mounted on the fire door, and flexible means connecting the grid to the piston and guided over said pulleys, so that as the fire door is opened the grid is opened by the piston pulling on the flexible connection, and when the fire door is closed and the piston is moved by the spring, the grid is allowed to close, substantially as described.

1,030,143. SPRING-JOINT. WALTER D. TUSTEN, New York, N. Y. Filed Sept. 11, 1911. Serial No. 648,716. (Cl. 88—42.)



1. A spring joint comprising a cup-shaped bearing member having a projection extending from the bottom thereof and forming a space between said projection and the inner surface of the bearing, a spring surrounding said projection and received within the space between the projection and the interior lateral surface of the cup, said cup and said spring having means for providing interfitting engagement between the inner end of the spring and the cup when the spring is inserted into the space between the projection and the inner wall of the cup, whereby the inner end of the spring will be secured against movement, and means pivotally secured to the cup-shaped member in position to be engaged by the other end of the spring and actuated by the same.

2. A spring joint, comprising a cup-shaped member having a projection extending upward from its bottom, a spring surrounding said projection, having its inner end secured to a recess in the side of said cup, and having its outer end projecting laterally beyond the rim of said cup, and means pivotally connected to said cup-shaped member in position to be engaged by the projecting end of said spring and actuated by the same.

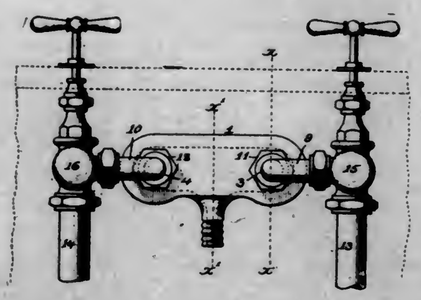
3. A spring joint, comprising a cup-shaped member having a projection extending upward from its bottom, a spiral spring surrounding said projection and located within the space between said projection and the interior lateral surface of said cup, the inner end of said spring being engaged, to be held against movement with respect to the cup, and the outer end of said spring projecting through an elongated circumferential notch formed in the rim of said cup, and means pivotally connected to said cup-shaped member in position to be engaged by the projecting end of said spring, to be actuated thereby.

4. A spring joint, comprising a cup-shaped bearing member having a perforated projection extending upward from its bottom, a spiral spring surrounding said projection and located within the annular space between said projection and the interior lateral surface of the cup, the inner end of the spring being held fast with respect to the cup, and the outer end of said spring projecting beyond the rim of said cup, a pivot pin passing through the perforation in said projection, and means mounted on said pivot pin and engaged by the projecting end of said spring, to be actuated by the same.

5. A spring joint, comprising a cup-shaped bearing member having a projection extending upward from its bottom, a spring surrounding said projection and located within the annular space between said projection and the interior lateral surface of the cup, the inner end of said spring being secured against movement with respect to said cup, and the outer end of said spring projecting beyond the rim of said cup, said projection having a longitudinal bore therethrough, a pivot pin mounted in said bore, and a movable member having a socket which receives the cup-shaped member, the ends of said socket being perforated to receive said pivot pin, and the outer end of said spring engaging one of the edges of said socket, whereby said socket-bearing member will be pivotally connected to the cup-shaped member, and will be actuated by said spring.

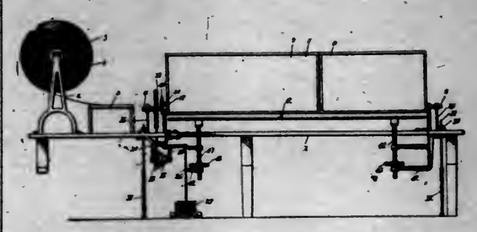
[Claims 6 to 9 not printed in the Gazette.]

1,030,144. WATER-COMMINGLING HEAD. JOHN J. TYNE, Chicago, Ill. Filed Feb. 9, 1912. Serial No. 676,613. (Cl. 4—24.)



In a commingling head for bath tubs, a single piece head formed with an elongated horizontal chamber, a pair of inlet orifices in inturned necks on the rear wall of said chamber adjacent to the ends thereof, and a depending discharge neck arranged centrally of the head and in a plane forward of the main body of the head, a pair of branch supply pipes adapted to pass through orifices in a vertical wall of a bath tub and screw into said orifices, and holding nuts mounted on said branch pipes, substantially as set forth.

1,030,145. CLOTH-LAYING MACHINE. ABRAM H. VAN DEVANDER and JAMES E. MOORE, Cedartown, Ga. Filed May 4, 1911. Serial No. 624,988. (Cl. 223—3.)



1. The combination with a cloth-holder, of a swinging cloth-stacker adapted to receive a strip of cloth laid out in its extended position, and a cloth receiving member disposed to one side of said stacker and adapted to receive the strip of cloth from said stacker, said stacker being swingingly mounted, so as to deposit said strip of cloth on said receiving member in its extended position after said strip of cloth has been laid on the stacker.

2. The combination with a cloth-holder, of a swinging cloth-stacker adapted to receive a strip of cloth laid out in its extended position, and a cloth receiving member juxtaposed to said stacker and adapted to receive the strip of cloth from said stacker, said stacker being swingingly mounted, so as to deposit said strip of cloth on said receiving member in its extended position after said strip of cloth has been laid on the stacker, said cloth receiving member being adjustably mounted so as to vary its position relative to said stacker.

3. The combination with a cloth-holder, of a cloth receiving member adapted to receive stretched-out strips of cloth, a pivotally-mounted swinging stacker adapted to receive stretched-out strips of cloth from said holder and adapted to swing to deposit said strips of cloth on said cloth receiving member, and means for swinging said stacker from a receiving position to a position in which it deposits the stretched-out strip of cloth onto said cloth receiving member.

4. The combination with a cloth-holder, of a cloth receiving member adapted to receive a plurality of strips of cloth to be piled in stacks, a swinging stacker for depositing the stretched-out strips of cloth on said cloth receiving member, and a treadle for controlling the swinging movement of said stacker.

5. The combination with a cloth-holder, of a cloth receiving member adapted to receive a series of strips of cloth to form a pile or stack, a stacker swingingly mounted so as to swing from a substantially upright horizontal position to a substantially inverted horizontal position, whereby a strip of cloth deposited thereon from said holder can be inverted and relaid onto said cloth receiving member.

[Claims 6 to 12 not printed in the Gazette.]

1,030,146. NUT-LOCK. LEMUEL D. WADE, Paul, Ala. Filed Aug. 26, 1911. Serial No. 646,104. (Cl. 151—2.)

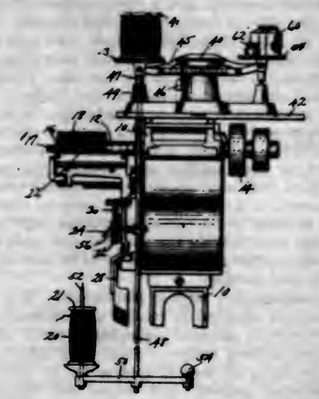


1. In a nut lock, in combination with a bolt, a washer, and coöperating interlocking structures associated with the parts; of a grooved nut adapted to be screwed onto the bolt and further adapted to harbor the washer, and a locking dog carried by the washer and adapted to be received by the groove of the nut.

2. In a nut lock, in combination with a bolt, a washer, and coöperating interlocking structures associated with the parts; of a grooved nut adapted to be screwed onto the bolt and further adapted to harbor the washer, and a spring-pressed locking dog carried by the washer and adapted to be received by the groove of the nut.

3. In a nut lock, in combination with a grooved bolt; of a toothed washer having means to be received by the groove of the bolt, a grooved nut adapted to be screwed onto the bolt and further adapted to harbor the washer and interlock with the teeth thereof, and a rotatable spring pressed locking dog carried by the washer and adapted to be received by the groove of the nut.

1,030,147. CONTROLLING DEVICE FOR WINDING-MACHINES. JOHN W. WEST, Braintree, Mass. Filed May 19, 1911. Serial No. 628,154. (Cl. 73—9.)



1. The combination with a winding machine having means for winding thread upon a holder, a stop-motion device for stopping the machine comprising an actuator and a controlling lever for the stop-motion adapted to be brought into engagement with said actuator to operate the stop-motion, of a weight-controlled device having an arm adapted to engage said lever when a predetermined weight of thread has been wound upon the holder, to bring said lever into engagement with said actuator.

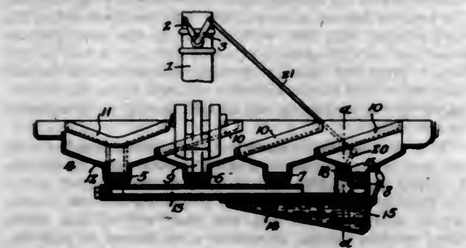
2. The combination with a winding machine having means for winding thread upon a holder, a stop-motion device for stopping the machine comprising a rotating actuator and a controlling lever for the stop-motion adapted to be brought into engagement with said actuator to operate the stop-motion, of a weight-controlled device having an arm adapted to engage said lever when a predetermined weight of thread has been wound upon the holder, to bring said lever into engagement with said rotating actuator.

3. The combination with a winding machine having means for winding thread upon a holder, a stop-motion device for stopping the machine comprising a disk having a corrugated rim and a lever adapted to be brought into engagement with said rim to operate the stop-motion, of a weight-controlled device having an arm adapted to engage said lever when a predetermined weight of thread has been wound upon the holder, to operate said stop-motion device.

4. The combination with a winding machine having means for winding a supply of thread upon a holder, and a stop-motion device for stopping the machine, of a balancing device comprising a pair of scale pans, a rod depending from one of said scale pans and provided with a support for a supply of thread, an arm on said rod adapted to coöperate with said stop-motion device, and means for counterbalancing the balancing device including one or more thread weights supported by the other scale pan, each thread weight being equal to the weight of thread to be wound on the holder, said arm being arranged to operate the stop-motion device when a predetermined amount of thread has been wound on the holder.

5. The combination with a winding machine having means for winding thread upon a holder, and a stop-motion device for stopping the machine, of a balancing device comprising a balancing beam, a rod depending from one end portion of said beam and provided with a support for a supply of thread, means arranged on said rod to control the operation of said stop-motion device, and means for counterbalancing the balancing device including a plurality of separately removable thread weights supported by the other end portion of the beam, each thread weight being equal to the weight of the thread to be wound on the holder.

1,030,148. SPLASH SYSTEM OF LUBRICATION. ERNEST M. WHITE, Globe, Ariz. Filed Jan. 4, 1912. Serial No. 669,308. (Cl. 184—11.)



1. A lubricating device consisting of an oil container having an overflow opening; a movable member for taking oil from said container; means for supplying oil to the container; with means for varying the position of the bottom edge of the overflow opening to vary the depth of oil in the container.

2. The combination of an oil reservoir having an overflow opening; a member periodically entering the reservoir for removing oil therefrom; means for supplying oil to the reservoir faster than it is removed therefrom by said member; and means for adjusting the overflow to vary the depth of oil in the reservoir.

3. The combination with the throttle of an engine, of an oil reservoir; a movable member mounted to enter the reservoir for removing oil therefrom; means for supplying oil to the reservoir; and a device for varying the depth of oil in the reservoir operatively connected to the throttle so as to be adjustable therewith.

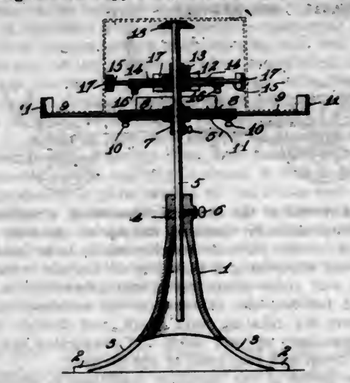
4. The combination with the throttle of an engine, of an oil reservoir having an overflow opening provided with an adjustable member for varying the depth of oil in said reservoir; means for connecting said member with the engine throttle to cause it to be adjusted with said throttle; and means for supplying oil to the reservoir.

5. The combination of an engine crank case having a series of reservoirs formed to be entered respectively by portions of the engine; means for transmitting to certain reservoirs the oil splashed up from other reservoirs; a storage reservoir connected to an end one of said reservoirs; means for delivering oil from the storage reservoir to the other end reservoir; said last reservoir having an overflow opening discharging into the storage reservoir; and means for adjusting the depth at which the oil in said last reservoir discharges through said overflow opening.

[Claim 6 not printed in the Gazette.]

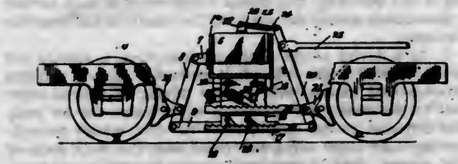
1,030,149. WORK-HOLDER. DORA LEE AITCHESON, Burtonsville, Md. Filed Mar. 23, 1912. Serial No. 685,822. (Cl. 211—24.)

In a milliner's work holder, the combination with a supporting standard of a plurality of hat supporting elements, positioned in different horizontal planes, and adjustable with reference to each other and the standard, each hat supporting element including a plurality of radially disposed adjustable arms, the arms of the lower element terminating in brim supporting members and the arms of the



upper hat supporting element terminating in members shaped to engage the interior of the hat.

1,030,150. BRAKE-SHOE ADJUSTER. JAMES SAVILLE ASHWORTH, Cuyahoga Falls, Ohio. Filed June 9, 1911. Serial No. 632,145. (Cl. 188—50.)



1. In a brake shoe adjuster, a support, a member movable relatively to the support, a lever pivoted at one end to the support, means connecting the member and the other end of the lever, a brake shoe mounted on the lever between the support and the said means, a rack, a pawl on the member for engaging the rack and preventing the movement of the rack in the direction of the brake shoe, an operating lever pivoted at one end to the rack, and a second brake shoe mounted on the operating lever.

2. In a brake shoe adjuster, a support, a member movable relatively to the support, a lever pivoted to the support, means connecting the member and the lever, a brake shoe mounted on the lever, two racks spaced apart, pawls mounted on the member and engaging the racks, a lever articulated to the racks, and a brake shoe mounted on the last-mentioned lever.

3. In a brake shoe adjuster, a support, a member movable relatively to the support, a lever pivoted at one end to the support, means connecting the member and the other end of the lever, a brake shoe mounted on the lever between the support and the said means, a rack, a pawl on the member for engaging the rack and preventing the movement of the rack in the direction of the brake shoe, an operating lever pivoted at one end to the rack, a second brake shoe mounted on the operating lever, and a spring connecting the operating lever with the support.

4. In a brake shoe adjuster, a support, a member movable relatively to the support, a lever pivoted to the support, means connecting the member and the lever, a brake shoe mounted on the lever, a rack, a pawl on the member for engaging the rack, an operating lever pivoted to the rack, and a second brake shoe mounted on the operating lever.

5. In a brake shoe adjuster, a support, a member movable relatively to the support, a lever pivoted to the support, means connecting the member and the lever, a brake shoe mounted on the lever, a rack, a pin secured to the member, a pawl for engaging the rack and having a slot in which the pin is disposed and a threaded orifice extending to the slot, a screw in the threaded orifice for limiting the movement of the pin in the slot, an operating lever pivoted to the rack, and a second brake shoe mounted on the operating lever.

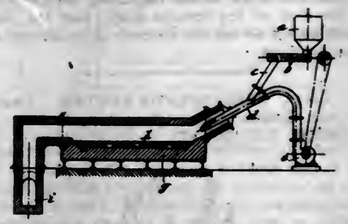
[Claims 6 to 10 not printed in the Gazette.]

1,030,151. HOSE-CLAMP. FRANK H. BALDWIN, Ticonderoga, N. Y. Filed Sept. 19, 1911. Serial No. 650,087. (Cl. 137—28.)



A hose clamp comprising clamping jaws having opposed curved gripping surfaces conforming to the curvature of a hose, one of said jaws being stationary and slotted to receive the other jaw which is movable, a yoke having a rotatable arm and forming a guide for the movable jaw, the arms of said yoke extending through the slot in the said stationary jaw and having their free end portions turned outward and forming a support for the said stationary jaw, and an adjusting screw carried by the yoke for the purpose specified.

1,030,152. OPEN-HEARTH PROCESS OF REFINING STEEL. GASTON BARBANSON and MAX LEPERSONNE, Brussels, Belgium. Filed Apr. 26, 1910. Serial No. 557,754. (Cl. 75—27.)



1. In the manufacture of steel, the process which consists in subjecting the materials to be treated in a bath to the action of an open hearth furnace, causing the combustion of fuel dust in said furnace and causing the flame of combustion to impinge directly against the surface of said bath.

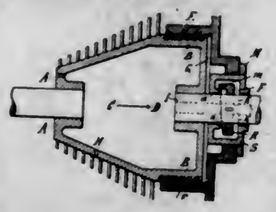
2. In the process of manufacturing steel by the open hearth furnace the method of heating the bath consisting in forming a short flame by directing an air blast onto the surface of the bath through a tube the nozzle of which is at a point adjacent to the surface of said bath and showering coal dust directly and continuously into said air blast at a point immediately exterior to the furnace.

3. In the process of manufacturing steel by the open hearth furnace, the method of heating the bath consisting in mixing air and fuel dust at a point immediately external to the furnace, causing the combustion of such mixture at a point immediately over the bath and directing the flame of combustion into direct impingement against said bath.

4. In a method of obtaining steel in open hearth furnaces a process of treating the bath consisting in highly heating the same, mixing homogeneously a powdered combustible with air at a temperature below that at which the combustible would become gasified, and then directing the said homogeneous mixture against the bath, the combustion of the mixture being effected instantly and completely by the high temperature in the interior of the furnace.

5. In an open hearth process for the manufacture of steel, a method of treating the bath consisting in mixing air and fuel dust prior to admission to the furnace, and feeding such air and fuel dust mixture to the furnace at a point from the surface of the bath not greater than the length of the flame of combustion and in a direction to impinge on said surface.

1,030,153. DEVICE TO BALANCE THRUST IN TURBINES. ALFRED BARBEZAT, Lesquin, near Lille, France. Filed July 10, 1911. Serial No. 637,766. (Cl. 121—57.)



In a steam turbine, an automatic device to balance the axial thrust comprising, in combination, an automatically working throttling device located behind the rear of the turbine-drum and consisting of a rotating collar-ring with a screw-like or inclined face keyed on the turbine shaft and of a fixed circular part of smaller external diameter than the inner diameter of the collar-ring, means for regulating the axial distance between said fixed part and the rotating collar-ring, means for admitting steam under pressure in the annular space between the fixed part and the rotating collar-ring of said automatic throttling device and a constant steam throttling device located between the rear of the turbine-drum, and the automatic throttling device all for the purpose specified and substantially as set forth.

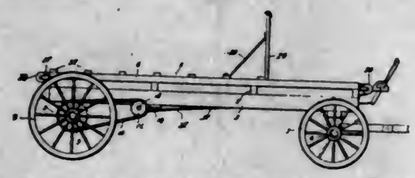
1,030,154. SEED-POTATO CUTTER. CHARLIE M. BARNEBEY, Mullen, Nebr. Filed June 3, 1911. Serial No. 630,992. (Cl. 146—7.)



1. A potato cutting machine including a ring, intersecting cutting blades therein, spring arms upstanding from the ring, the space surrounded by the arms being at all times of such size as to receive a potato loosely between the arms, and downwardly converging spring fingers integral with the arms and extending from the upper ends thereof, said fingers coöperating to support a potato loosely between the arms and to center it above the knives.

2. A potato cutter including a ring, intersecting cutting blades therein and having their cutting edges in the same plane with the upper edge of the ring, normally parallel spring arms secured to the outer face of the ring and upstanding therefrom, and straight spring fingers converging toward the centers of the knives from the upper ends of the arms, said fingers constituting means for supporting a potato loosely and centered above the knives, a lever, a presser carried by the free end portion of the lever and a diameter less than that of the space between the free ends of the fingers, and means for oscillating the lever to reciprocate the presser between the fingers without contacting with the ends thereof.

1,030,155. HAY-LOADING DEVICE. LLOYD W. BARNHART, Middle Point, Ohio. Filed Sept. 20, 1911. Serial No. 650,311. (Cl. 214—2.)

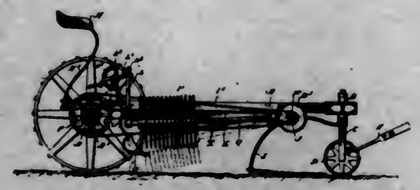


1. In a device of the character described, a vehicle bed having longitudinally disposed flanges at the side edges thereof, a carrier movable longitudinally upon said bed, said carrier comprising a plurality of flexible connecting members and cross pieces associated therewith, a shaft supported for rotation adjacent to the underside of the bed, means for rotating said shaft, and flexible means wound oppositely on said shaft and connecting the same with the front and rear ends of the carrier.

2. In a device of the character described, a vehicle bed, a carrier movable longitudinally upon said bed, a shaft supported for rotation adjacent to the underside of the bed, a drum upon said shaft, suitably guided flexible members connecting said drum with the front and rear ends of the carrier, said flexible member being oppositely wound on the drum, means for transmitting motion from a transporting wheel of the vehicle to the shaft to rotate the latter in one direction, and means independent of said motion transmitting means for rotating the shaft in the opposite direction.

3. In a device of the character described, a vehicle bed having guides at the side edges thereof, a carrier movable between said guides, said carrier having standards adjacent to the front ends thereof, a shaft supported for rotation adjacent to the underside of the bed, means for connecting said shaft with the front and the rear ends of the carrier, said means being suitably guided over the front and rear ends of the vehicle bed, means for transmitting motion from the supporting means of the vehicle to the shaft to rotate the latter in one direction, and means for manually rotating the shaft in the opposite direction.

1,030,156. PLOW AND CHOPPER. CHARLES PHILIP BERMES, Carrollton, Ill. Filed Apr. 4, 1911, Serial No. 618,802. Renewed Apr. 22, 1912. Serial No. 692,543. (Cl. 55—118.)



1. A combined plow and chopper, comprising a pair of revoluble cutters between which the stalks and stubs are cut into small pieces, the said cutters having their axes extending lengthwise of the machine, and a plow immediately below the said cutters for plowing up the stubs and lifting the same and their stalks up and between the said revoluble cutters.

2. A combined plow and chopper, comprising a pair of revoluble cutters having their axes parallel and arranged lengthwise of the machine, and a plow immediately below and between said cutters and at the rear ends thereof to plow up the stubs and raise the same between the cutters.

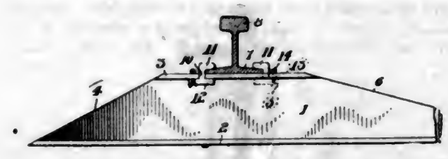
3. A combined plow and chopper, comprising a pair of revoluble cutters having their axes parallel and arranged lengthwise of the machine, each cutter having a plurality of knives, the knives of the two cutters overlapping each other to cut the stalks and stubs between them, and a plow immediately below and between the cutters at the rear ends thereof to plow up the stubs and raise the latter and the stalks between the said cutters.

4. A combined plow and chopper, comprising a pair of revoluble cutters having their axes parallel and arranged lengthwise of the machine, a plow immediately below and between the said cutters at the rear ends thereof, and means for driving said revoluble cutters at different rates of speed with relation to each other.

5. A combined plow and chopper, comprising a pair of revoluble cutters having their axes parallel and arranged lengthwise of the machine, a frame in which the cutters are journaled, a plow carried by the frame and extending immediately below and between the cutters at the rear ends thereof, means for driving said cutters, and a fender secured at its forward end to said frame, the rear end of said fender extending adjacent to the forward ends of said cutters and below the axes thereof.

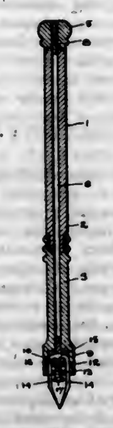
[Claims 6 and 7 not printed in the Gazette.]

1,030,157. TIE AND RAIL-FASTENER. HENRY F. BESENBERG, West Newton, Pa. Filed Apr. 16, 1912. Serial No. 691,102. (Cl. 238—5.)



In a metallic tie and rail fastener, the combination with a rail, of a tie of the I-beam construction having a web, base flanges and top flanges, said web and said top flanges having the ends thereof beveled and cut away intermediate the ends, said top flanges supporting the base flanges of a rail and having transverse slots formed therein adjacent to the base flanges of said rail, and hook-shaped members retained within the slots of the top flanges of said tie and engaging the base flanges of said rail.

1,030,158. DRAFTING-PEN. LOUIS BOSI, Hawthorne, N. Y. Filed Feb. 5, 1912. Serial No. 675,634. (Cl. 33—17.)



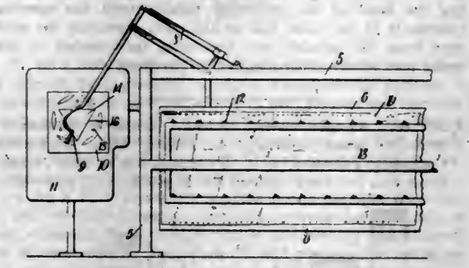
1. In a drafting pen, the combination with a tubular holder, of a longitudinally movable pen supporting member therein, the ends of which being bifurcated, a transverse bar connecting said bifurcated ends, a movable block supported between said bifurcated ends, a pen consisting of two blades flexibly connected together, mounted on said block, and a screw mounted in said transverse bar for raising and lowering said block whereby the said pen may be clamped in the operating position, substantially as described.

2. In a drafting pen, the combination with a tubular handle, of a movable pen supporting stem mounted therein, a bifurcated enlargement formed at the lower end of said stem, a transverse stationary bar interposed between the arms of said bifurcated enlargement, and a clamping block adjustably mounted on said bar.

3. In a drafting pen, the combination with a tubular handle, of a movable pen supporting stem mounted therein, a bifurcated enlargement at the lower end of said stem, a transverse bar interposed between the arms of said enlargement, said bar being of less width than the width of the arms, and a pen blade carried by said enlargement and spanning said bar.

4. In a drafting pen, the combination with a tubular handle, of a pen supporting stem mounted therein, a bifurcated enlargement formed at the lower end of said stem, a transverse bar interposed between the arms of said enlargement, a screw threaded in said bar, a movable block swiveled to said screw and adjustable between the arms of the enlargement aforesaid, and a pen blade adapted to be clamped between the enlargement and said block.

1,030,159. METHOD OF PERFORMING OPERATIONS INCIDENTAL TO MACHINE-EMBROIDERY. HENRY BOSSHARDT, Sr., West Hoboken, N. J. Filed July 26, 1911. Serial No. 640,610. (Cl. 2—147.)



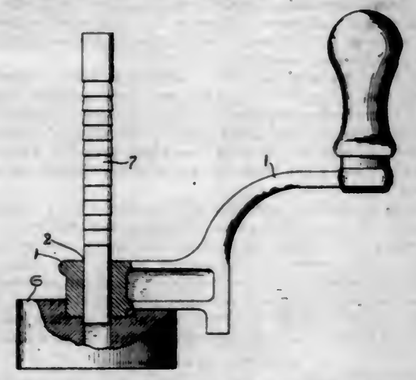
1. In the production of designs on a fabric mounted on a pantograph embroidering machine, the method consisting of temporarily fastening a blank stencil card on the fabric; placing the pantograph pointer at an origin on the pattern carried by the embroidering machine; actuating the embroidering needles of the machine to mark corresponding points on the stencil; actuating the pantograph pointer step by step to shift the stencil card relative to the needles; intermittently actuating the needles to puncture the stencil at the points thus presented to the needles; removing the stencil card from the machine and removing the punched areas from the card; re-locating the fabric relative to the needles by positioning the pointer at the origin on the pattern; forcing the needles through the fabric; re-locating the stencil with its marked origin on the needles, and finally stenciling in the design represented by the removed portions.

2. In the production of color filled embroidered figures, the method consisting of pantographically actuating a stencil blank to cause embroidering needles to delineate in said stencil, the outlines of figures to be produced on the fabric; removing from the stencil blank the areas within the figures thus delineated; stenciling on the fabric the figures represented by said stencil, and stitching the embroidered outlines by causing the embroidering needles to again go over the paths previously traversed thereby in pantographically delineating the figures in the stencil blank.

1,030,160. METHOD OF RE-FORMING CONTROLLER-HANDLES. FREDRICK BROSTROM, San Francisco, Cal. Filed Jan. 6, 1912. Serial No. 669,756. (Cl. 29—148.)

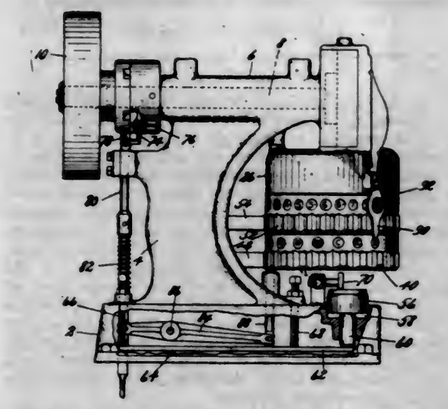
1. A method for re-forming the enlarged openings in controller or other handles, consisting of compressing

the head of the controller handle until the opening therein is smaller than the diameter of the shaft adapted to fit thereinto, and broaching said opening to the exact size of the shaft adapted to fit thereinto.



2. A method for re-forming the enlarged openings in controller or other handles, consisting of inserting a core in the enlarged opening, said core being of a size smaller than the shaft adapted to fit into said opening, compressing the head of the controller handle until the opening therein is of the same size as the core, removing the said core from the opening and broaching the opening to the exact size of the shaft adapted to fit thereinto.

1,030,161. STAMPING-MACHINE. LOUIS A. CASGRAIN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 20, 1907. Serial No. 358,447. (Cl. 101—83.)



1. In a machine of the class described the combination of a plurality of independently rotatable, concentric, die-carrying members, a plurality of axially movable stamping dies carried by each member and means controlled by the operator for moving certain predetermined dies simultaneously to cause them to mark the work.

2. In a machine of the class described the combination of a die carrying member, a plurality of stamping dies carried by said member, mechanism for moving a die to mark the work, power driven means for operating said mechanism and positive means coöperating with said member to prevent the actuation of said mechanism when none of the dies are in operative relation thereto.

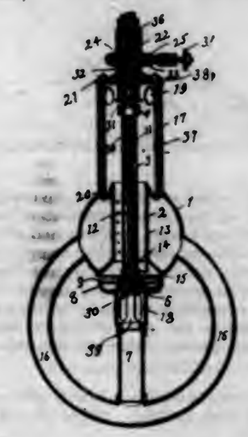
3. In a machine of the class described, the combination with two rotatable concentric members, of means for supporting said members independently of each other, a plurality of stamping dies carried by each of said members, and means for simultaneously actuating certain predetermined ones of the dies carried by different members.

4. In a machine of the class described, the combination with two rotatable members, of a head, an axle secured directly to said head and supporting one of said members, a sleeve also secured to said head and by which the other of said members is supported, stamping dies carried by each of said members, and means for actuating said dies.

5. In a machine of the class described, the combination with two rotatable members, of a head, an axle secured to said head, an enlarged portion upon said axle upon which one of said members is supported, a sleeve secured to said head concentrically with said axle, a flange on said sleeve upon which the other of said members is supported, stamping dies carried by each of said members, and means for actuating said dies.

[Claims 6 to 16 not printed in the Gazette.]

1,030,162. VAPOR-BURNER. HERSCHEL M. CONNER, Chicago, Ill., assignor, by mesne assignments, to Standard Light Company, Wilmington, Del., a Corporation of Delaware. Filed June 26, 1909. Serial No. 504,556. (Cl. 67—50.)



1. In a vapor burner, the combination with a casing inclosing a chamber, of a vapor generator passing through the said chamber, a perforated cylinder surrounding said vapor generator, constituting a heater for vaporizing the oil in the generator, vapor conduits connecting said casing with the discharge end of the vapor generator, an oil supply pipe, and a hollow arm communicating directly with said casing and provided with a burner tip, substantially as described.

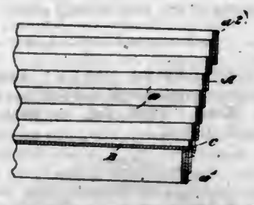
2. In a vapor burner, the combination with a casing inclosing a chamber, of a removable perforated cylinder within said casing, a vapor generator passing through the latter, an air-mixing chamber into which said generator discharges, vapor conduits connecting the air-mixing chamber with said central chamber or casing, and a hollow arm having a burner tip communicating with said chamber or casing, substantially as described.

3. In a vapor burner, the combination with a casing inclosing a chamber constituting a vapor reservoir, a cylindrical casing provided with perforations supported within said chamber, a vapor generator connected to a source of supply extending through said cylindrical casing, an air-mixing chamber into which the generator discharges, a vapor conduit connecting said air-mixing chamber with the vapor reservoir, and means for detachably connecting the generator and the air-mixing chamber, substantially as described.

4. In a vapor burner, the combination with a centrally disposed chamber forming a vapor reservoir, a hollow arm having a burner tip communicating with the reservoir, a perforated cylinder extending centrally through said reservoir forming a heating chamber, a vapor generator extending vertically through said heating chamber and communicating at one end with a source of fluid supply, and terminating at the other end in a contracted discharge orifice, an air-mixing chamber into which said orifice discharges the vapor, and a vapor conduit connecting said air mixing chamber with opposite sides of said reservoir, substantially as described.

5. In a vapor generator, the combination with a centrally disposed casing or chamber forming a reservoir for the vapor, a hollow arm supported thereby and provided with a burner tip communicating with the reservoir through said arm, a fixed element for supporting the burner structure, a vapor generator secured at one end to said fixed element and passing through the reservoir and having a discharge orifice at the other end, an air-mixing chamber into which the orifice discharges the vapor, a perforated cylinder surrounding the vapor generator within and supported by the reservoir, a vapor conduit connecting the air-mixing chamber to the reservoir, and adjustable tie rods connecting the fixed element and reservoir structure, substantially as described.

1,030,163. RECEPTACLE MADE OF PAPER AND SIMILAR SHEET MATERIAL. JOHN C. CORAM, Lowell, Mass. Filed Jan. 24, 1912. Serial No. 673,145. (Cl. 229—3.)



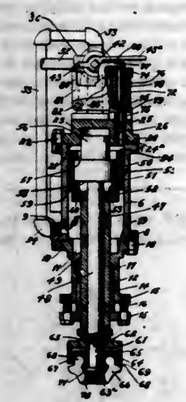
1. A vessel having an upwardly flaring body formed of a single strip of sheet material of uniform width wound at the bottom in one or more parallel annular courses and above said annular courses wound in spiral overlapping courses secured to each other by adhesive material and having a bottom resting on said annular course or courses.

2. A vessel having an upwardly flaring body formed of a single strip of sheet material of uniform width wound at the bottom in one or more parallel annular courses and above said annular courses wound in spiral overlapping courses secured to each other by adhesive material and having a bottom resting on said annular courses and having an annular crease at the top of said annular courses to receive the margin of said bottom.

1,030,164. BOTTLE-CAPPING MACHINE. ROSS V. CRAGGS, Baltimore, Md., assignor, by mesne assignments, to The National Exchange Bank of Baltimore, a Corporation of Maryland. Filed Sept. 29, 1909, Serial No. 520,087. Renewed Jan. 9, 1912. Serial No. 670,132. (Cl. 113—4.)

1. In a fluid pressure operated bottle capping machine, a pair of fluid pressure operated reciprocatory pistons, a crimping die carried by one of said pistons and adapted to be operated by the other of said pistons for crimping a cap on a bottle neck, one of said pistons arranged within the other and with the outer independent of the inner and a fluid pressure operated trip mechanism adapted when operated to cause a deflection of the course of the incoming motive fluid to return the pistons to inoperative position and with the inner piston shifted by the outer piston.

2. A bottle capping machine comprising a cylinder, a pair of pistons arranged therein and extending therefrom and provided with motive fluid impact surfaces, and further arranged one within the other, one of said pistons operating in advance of the other when the pistons are shifted in one direction, valvular means whereby motive fluid is supplied to one end of the cylinder for shifting the pistons in one direction, one of said pistons carrying a cap holding means and the other of said pistons carrying a cap crimping die operating means, a cap crimping die arranged in operative relation with respect to said pistons, and a fluid pressure operated trip mechanism adapted when operated to shift said valvular means whereby the motive fluid will be supplied to the other end of the cylinder for shifting said pistons in the opposite direction.



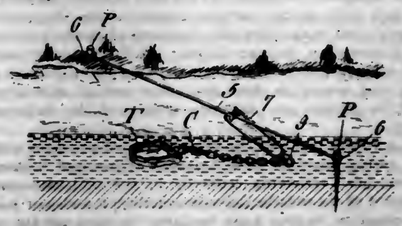
3. In a fluid pressure operated bottle capping machine, a pair of fluid pressure operated reciprocatory pistons, a cap crimping die carried by one of said pistons and adapted to be operated by the other of said pistons for crimping a cap on a bottle neck, and a fluid pressure operated means for changing the direction of flow of motive fluid for returning the pistons to inoperative position.

4. In a fluid pressure operated bottle capping machine, a pair of fluid pressure operated reciprocatory pistons, a cap crimping die carried by one of said pistons and adapted to be operated by the other of said pistons for crimping a cap on a bottle neck, a fluid pressure, operated means for changing the direction of flow of motive fluid for returning the pistons to inoperative position, and means for regulating the application of pressure to said piston.

5. In a fluid pressure operated bottle capping machine, a pair of fluid pressure operated reciprocatory pistons, a cap crimping die carried by one of said pistons and adapted to be operated by the other of said pistons for crimping a cap on a bottle neck, a fluid pressure operated means for changing the direction of flow of the motive fluid for returning the pistons to inoperative position, means for providing a fluid cushion for the pistons when moving in one direction, and means for providing a fluid cushion when the pistons are moving in the opposite direction.

[Claims 6 to 20 not printed in the Gazette.]

1,030,165. TRAP-HOLDER. VALENTINE CRITES, Tanner, W. Va. Filed Dec. 2, 1911. Serial No. 663,556. (Cl. 43—23.)



1. A device of the character described comprising a trap holding device formed from a single length of wire bent intermediate of its ends to provide a loop for attachment

to one end of a trap chain, one end of said wire being coiled and extended intermediate of the coils to form an open loop, the other end of said wire extending through the coils to close said loop, in combination with an anchored rod extending through the loop beneath the last named end of the wire, said wire binding upon the rod in the efforts of an animal caught in the trap to escape and preventing the movement of said holding member on said rod.

2. In a device of the character described, the combination of a rod anchored at its ends, a holding device constructed from a single length of wire twisted intermediate of its ends to form a loop, an animal trap, a chain connected at its ends to said trap and the loop in said wire, means for connecting the ends of the wire, one end of said wire being bent into substantially U-shaped form beneath the other end thereof to receive said rod whereby the latter will bind on the rod in the efforts of an animal caught in the trap to escape by moving the trap.

1,030,166. ROTARY PUMP. RALPH HAYS DANNER, Los Angeles, Cal. Filed Sept. 12, 1911. Serial No. 648,845. (Cl. 103—43.)



1. A rotary pump of the class described, provided with a central bearing post, a series of pumping elements having tubular portions circumjacent said post, tubular members also circumjacent said post and connecting said pumping elements in spaced relation, said tubular members and said tubular portions of said pumping elements being spaced from the said post and forming a tubular driving shaft, means for driving said shaft, and means for closing the lower end of said driving shaft to prevent the entrance of any of the fluid being pumped.

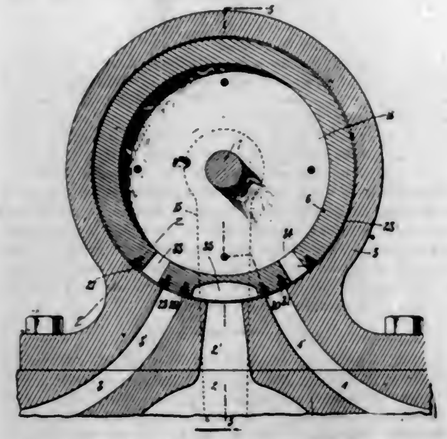
2. A rotary pump of the class described, comprising a well casing, a bearing post extending centrally in the said well casing and fixed at its ends, a series of pumping elements mounted circumjacent the said bearing post within the said well casing, tubular members also circumjacent the post and connecting the pumping elements and forming therewith a tubular driving shaft, the said bearing post extending loosely through the said driving shaft sections and means to close the lower end of said driving shaft to prevent the entrance of any of the fluid being pumped.

3. A rotary pump of the class described provided with a well casing provided with brackets at top and bottom, a bearing post extending centrally in the said well casing and fixed at its ends in the said brackets, a series of pumping elements having hubs mounted to turn on the said bearing post, a tubular driving shaft made in sections secured to the said hubs, the said bearing post extending loosely through the said driving shaft sections, and driving means at the upper end of the driving shaft for driving the latter and with it the pump elements.

4. A rotary pump of the class described provided with a well casing provided with brackets at top and bottom, a bearing post extending centrally in the said well casing and fixed at its ends in the said brackets, a series of pumping elements having hubs mounted to turn on the said bearing post, a tubular driving shaft made in sections secured to the said hubs, the said bearing post extending loosely through the said driving shaft sections, a bearing on the bottom bracket for the lower end of the hub of the lowermost pumping element adapted to close the latter in fluid tight relation, and a bearing at the top bracket for the uppermost driving shaft section to turn in, and driving means on the upper end of the driving shaft.

5. A rotary pump of the class described, comprising a well casing, a bracket secured on the lower end of the said well casing and projecting below the same, the said bracket having water inlet openings and a central portion, a bracket at the upper end of the said well casing, a bearing post fixed in the said top and bottom brackets and extending centrally through the casing, a series of pumping elements having hubs journaled on the said post, a sectional driving shaft secured to the hubs of the pumping elements and through which extends loosely the said fixed bearing post, said central portion of said lower bracket forming a bearing step to engage the hub of the lowermost pumping element in fluid tight relation and thus close the lower end of the shaft, and upper bearings on the said bracket for the upper end of the said driving shaft.

1,030,167. OSCILLATING VALVE. JOHN W. DAVIS, Whitefish, Mont., assignor of one-half to Charles G. Hall, Whitefish, Mont. Filed Jan. 9, 1912. Serial No. 670,165. (Cl. 136—7.)



1. In an oscillating valve, the combination with a cylinder and operating means for the valve, of a valve structure formed with a housing having ports registering with the ports of the cylinder, an oscillating valve member in said housing connected with said operating means, said valve member being smaller than said housing and thereby providing a space between the housing and the valve member, means mounted on said oscillating valve member for making a tight joint on each side of each of said ports when the steam pressure is applied, springs for actuating said means for raising the same when the pressure has been removed whereby all of said ports are in communication through the space between said valve structure and said housing.

2. In an oscillating valve the combination with a cylinder and operating means for the valve, of a valve structure formed with a housing having ports registering with the ports of said cylinder, an oscillating valve member

arranged in said housing and spaced therefrom, a radially movable plate arranged on each side of each of the ports in said valve member, a spring for normally holding said valve member out of contact with said housing, and a piston construction connected with each of said plates for being actuated by pressure when the same has been turned on to said valve member whereby there will be a tight joint on each side of each of said ports when the steam pressure is applied and a passageway will be provided between all of said valves and all of said ports when said pressure has been relieved.

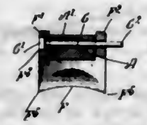
3. In a valve, a housing formed with a plurality of intake ports and an exhaust port, a rotating valve member arranged in said housing formed with a plurality of ports designed to register with said intake ports and an exhaust arranged to register alternately with said intake ports, a bearing plate on each side of each of the ports in said valve member normally held against said housing by the steam pressure in the valve member, and means for automatically raising the bearing plates from contact with said housing for providing a path from both of said intake ports to said first mentioned exhaust port when the steam pressure is relieved.

4. In an oscillating valve, the combination with a cylinder, of a valve casing mounted on said cylinder formed with ports registering with the ports of the cylinder, a cylindrical valve member arranged in said casing formed with a pair of ports registering with the intake ports of said cylinder and an exhaust port registering alternately with said intake ports and continuously with the exhaust port, a bearing plate arranged on each side of each of the ports in said valve member, means connected with each of said plates extending to a position in communication with the interior of said valve member for being operated by the pressure therein for holding said plates in a predetermined lowered position, and a spring for each of said plates for raising the plates when said pressure has been removed.

5. In an oscillating valve, a housing formed with a plurality of intake ports and a single exhaust port, an oscillating cylindrical valve member arranged in said housing and spaced from said housing for defining an annular opening, said valve member being formed with an exhaust passageway and a pair of ports registering alternately with said intake ports, a bearing plate arranged on each side of each of the ports in said valve member for preventing communication between said ports and said annular opening between the housing and the valve member, and a spring for each of said plates for retracting the plates, whereby all of said intake ports and all of said exhaust ports are thrown into free communication.

[Claim 6 not printed in the Gazette.]

1,030,168. HORSESHOE. AUGUST M. H. DE BRUYCKER, New York, N. Y. Filed Feb. 20, 1912. Serial No. 678,754. (Cl. 168—40.)

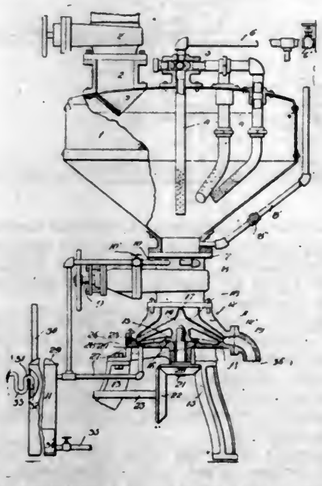


1. A horseshoe provided with detachable anti-slipping calks extending transversely on the under side of the shoe, each calk being provided with upwardly-extending lugs fitting against the outer and inner sides of the shoe and each calk being concave at the under side and beveled to form transversely-extending cutting edges terminating in points, and fastening devices engaging the said lugs and the shoe to fasten the calks in place on the shoe.

2. A horseshoe provided with transversely-extending apertures, detachable anti-slipping calks extending transversely on the under side of the shoe and having upwardly-extending apertured lugs fitting against the outer and inner sides of the shoe, the lugs of each calk being provided with apertures in register with a corresponding aperture in the shoe and the aperture in the outer lug being countersunk, and fastening pins engaging the horseshoe apertures and the apertures in the calk lugs, each fastening pin having a head at its outer end seated in the corresponding countersink of the aperture in the outer lug and the inner end of the pin being split to permit of spreading the split members to hold the pin in place.

3. A horseshoe provided with transversely-extending apertures, and detachable anti-slipping calks extending transversely on the underside of the shoe and having upwardly-extending apertured lugs fitting against the outer and inner sides of the shoe, the calks being concave at the under side and beveled to form transversely-extending concave cutting edges terminating in points at the outer and inner sides of the calks and cross pins engaging the said horseshoe apertures and the said apertured lugs for fastening the calks in place on the shoe.

1,030,169. APPARATUS FOR TREATING WASTE. EDWARD C. EMERY, Los Angeles, Cal. Filed Dec. 13, 1911. Serial No. 665,561. (Cl. 99—2.)



1. An apparatus for converting waste products into food, comprising a vat in which the products are adapted to be sealed, means to supply steam in jets to said vat to subject the products to pressure and agitation, a housing to receive the material from said vat, and means in said housing to grind the mass and centrifugally discharge it therefrom.

2. An apparatus for converting waste products into a homogeneous food, comprising a vat in which the waste products are adapted to be sealed, means to supply steam in jets to said vat to subject the mass to pressure and agitation, and macerate the same, a housing to receive the material from said vat, and a cone in said housing provided with means to grind the mass and centrifugally expel the same from the housing.

3. An apparatus for converting waste products into a homogeneous food, comprising a vat into which the waste products are adapted to be deposited, a plurality of perforated pipes in said vat to deliver steam in jets in said vat and subject the products to pressure, agitate and macerate the same, a valved housing to receive the material from said vat, said housing having a constricted outlet, a cone in said housing provided with means to grind and expel the products from said housing, and a fluid receiving tray in said housing.

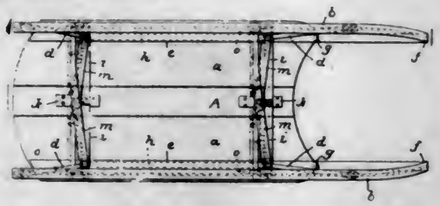
4. An apparatus for converting waste products into food, comprising a vat in which the products are adapted to be sealed, a plurality of perforated pipes within said vat to deliver steam therein and macerate the products while under pressure, and in agitation, a housing, a cas-

ing between said vat and said housing, a conical member in said housing provided with means to grind and centrifugally expel the products from said housing, a fluid receiving tray in said housing, and a drain pipe attached to said tray.

5. An apparatus for converting waste products into food, comprising a vat having a valve controlled inlet and a valve controlled outlet, said valves serving to seal the products in said vat, means to supply steam in jets to said vat to agitate and macerate the products, a housing to receive the products from said vat, said housing being provided with acuminate ribs and a fluid receiving tray, a cone revoluble in said housing and provided with vanes arranged to coöperate with the acuminate ribs of said housing in reducing the products to a pulpous condition and expelling the ground material from said housing, and means to collect the fluids exuding from the products.

[Claim 6 not printed in the Gazette.]

1,030,170. COLLAPSIBLE SLED. JAMES M. EVANS, Westport, Conn. Filed June 5, 1911. Serial No. 631,339. (Cl. 21—94.)



1. A collapsible sled comprising a fixed seat section, runner sections pivotally connected thereto and adapted to be moved bodily inwardly toward each other, folding seat sections, and means for holding the parts extended, substantially as described.

2. A collapsible sled comprising a fixed seat section, folding seat sections hinged thereto, laterally movable runner sections connected with said fixed seat section and bodily movable laterally thereof independently of the folding seat sections, and means for inclining the runner sections outwardly when in their unfolded position, substantially as described.

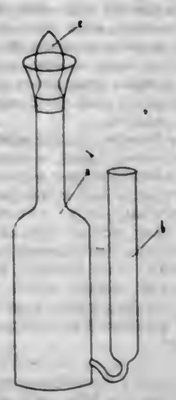
3. A collapsible sled comprising a fixed seat section, folding seat sections hinged to the opposite sides thereof, runner sections having parallel link connections with said fixed seat section whereby they are capable of being moved bodily laterally into a position in proximity to each other, operating levers pivotally connected with the seat sections, and also connected to the runner sections, and means for locking said levers when the runner sections are in their outer positions, substantially as described.

4. A collapsible sled comprising a fixed seat section, folding seat sections hinged thereto, runner sections, pairs of links hinged at their outer ends to the upper parts of the runner sections, a pivotal connection between the opposite ends of each pair of links and the seat section, a pair of levers pivotally connected to the seat section at a point in rear of the pivotal connection of one of the pairs of links thereto, said levers having downwardly curved portions pivotally connected to the lower portion of the runner sections, substantially as described.

1,030,171. PROCESS OF TESTING THE FRESHNESS OF MILK. ARNOLD FAITELOWITZ, Halensee, near Berlin, Germany. Filed Nov. 1, 1911. Serial No. 658,045. (Cl. 73—51.)

1. The hereindescribed process of testing the freshness of milk which consists in mixing with a relatively large quantity of milk a small quantity of a weak solution of methylene blue in absolute alcohol.

2. The hereindescribed process of testing the freshness of milk which consists in mixing with a relatively large quantity of milk a small quantity of a solution composed of one-tenth of a cubic centimeter of a saturated solution of methylene blue in absolute alcohol, seventy cubic centimeters of distilled water and thirty cubic centimeters of absolute alcohol.

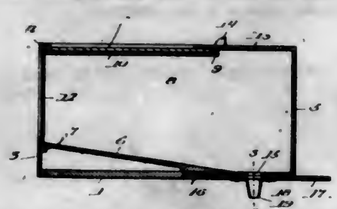


3. The hereindescribed process of testing the freshness of milk which consists in mixing fifty cubic centimeters of milk with one cubic centimeter of a solution composed of one-tenth of a cubic centimeter of a saturated solution of methylene blue in absolute alcohol, seventy cubic centimeters of distilled water and thirty cubic centimeters of absolute alcohol.

4. The hereindescribed process of testing the freshness of milk which consists in mixing with a relatively large quantity of milk a small quantity of a weak solution of methylene blue in absolute alcohol, and in keeping the mixture thus obtained at a temperature of thirty-seven degrees centigrade.

5. The hereindescribed process of testing the freshness of milk which consists in mixing with a relatively large quantity of milk a small quantity of a weak solution of methylene blue in absolute alcohol, and in keeping the mixture thus obtained at a temperature of thirty-seven degrees centigrade for a period of at least thirty minutes.

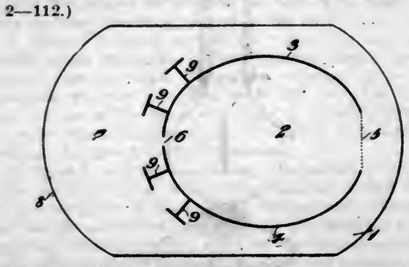
1,030,172. GROCERY-CABINET. WILLIAM F. FARLE, and THOMAS H. FARLEY, Eldorado, Okla. Filed Feb. 26, 1912. Serial No. 679,912. (Cl. 211—7.)



1. In a grocery cabinet, a bin comprising a back wall, and a bottom wall having an opening in its rear portion and a guideway formed in its underside and extending to its back edge, a front transparent panel, a top transparent panel having its rear edge spaced from the back wall of the frame and arranged in a horizontal plane slightly below the upper edge of said back wall, a false bottom inclined downward and backward from the front panel to a point adjacent the opening in the bottom wall, a closure lid slidable forward from the back wall and on the top panel, and a valve slide arranged in the said guideway of the bottom wall and having an opening adapted to be placed in and out of registration with the opening in the bottom wall.

2. In a grocery cabinet, a plurality of bins arranged in a unitary structure and side by side and having a common bottom wall provided with openings in its rear portion and also provided with guideways formed in its underside and extending to its back edge and also having a common front transparent panel and a common top transparent panel and a common back wall; the rear edge of the top transparent panel being spaced from said back wall, partitions between the bins, a false bottom inclined downward and backward from the front panel to a point adjacent the openings in the bottom wall, a closure lid common to the several bins and slidable forward from the back wall and on the top transparent panel, and valve slides, one to each bin, arranged in the said guideways of the bottom wall and having openings adapted to be placed in and out of registration with the openings in the bottom wall.

1,030,173. SUN-VIZOR, EYE-SHADE, AND ADVERTISING DEVICE. FRANCIS M. HAGGERTY, Philadelphia, Pa. Filed Mar. 20, 1912. Serial No. 685,133. (Cl. 2—112.)



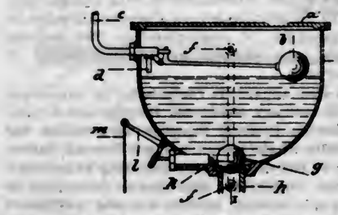
1. As a new article of manufacture, a combined eye shade and neck protector, comprising a blank having an opening adapted to fit the head and a section movably connected to said blank and normally located within said opening and adapted to be turned outward to constitute a neck protector.

2. As a new article of manufacture, a combined eye shade and neck protector formed from a single piece of material having a section partially cut therefrom and adapted to be detached at one point and bent outwardly at an angle to the body of the device.

3. As a new article of manufacture, a combined eye shade and neck protector consisting of a blank formed from a single piece of material and having a section partially cut therefrom adapted to be detached at one side and turned outward at an angle to the body of the blank, and the opening formed by said section communicating with slots extending into the body portion of the blank.

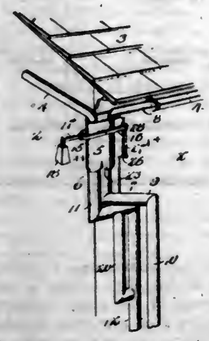
4. In a device of the character stated, a flat blank of material having a section partially cut therefrom and secured thereto at its front and rear edges and adapted to be detached at its front portion to form a neck protector for the wearer, the forward portion of said blank forming a vizor and eye shade for the wearer and having T-shaped slots therein communicating with the opening formed by said section.

1,030,174. FLUSHING-TANK. HUGO HARTMANN, Berlin, Germany. Filed July 31, 1909. Serial No. 510,547. (Cl. 4—5.)



The combination of a flush tank having an outlet leading from the bottom thereof, such outlet being formed with a valve seat, and all portions of the bottom of the tank sloping downwardly toward said seat, a free buoyant ball valve within the tank adapted to be held on said seat by hydrostatic pressure of water in the tank and also capable of floating in such water after removal from said seat, and a pusher movable within the tank horizontally above the valve seat and having an end operative against one side of said ball valve at a point above its seat to pry the valve from its seat by a movement of the valve diagonally in a direction upwardly and laterally and causing the buoyant valve to rise at one side of the tank.

1,030,175. AUTOMATIC RAIN-WATER-CUT-OFF DEVICE. LE ROY HEFLIN, JAMES LEONARD HEFLIN, and CHARLES ELWIN PENISTEN, Fairfax, Okla. Filed Mar. 8, 1911. Serial No. 613,198. (Cl. 137—9.)



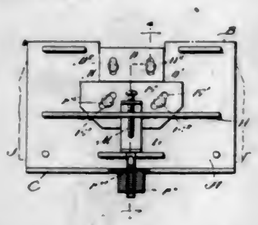
1. A device of the class described, comprising a body having branch outlets, an inlet trough extending from the body, a rocking chute pivoted within said body and adapted for alternate communication with the outlets, weighted means normally holding the chute in communication with one of the outlets, a receptacle for receiving a predetermined amount of water from the trough and connected with the weighted means for automatically shifting the chute to the other outlet when the said receptacle has been filled with water, a valve mounted at the bottom of the said receptacle for permitting a gradual exhaust of water therefrom when the same has been filled, adjustable means controlling said valve, and a receptacle communicating with one of the outlets for receiving a predetermined amount of water and having connection with the first-named receptacle to assist the same in overcoming the weighted means.

2. A device of the class described, comprising a body having branch outlets, an inlet trough extending from the body, a rocking chute pivoted within said body and adapted for alternate communication with the outlets, weighted means normally holding the chute in communication with one of the outlets, a receptacle for receiving a predetermined amount of water from the trough and connected with the weighted means for automatically shifting the chute to the other outlet when the said receptacle has been filled with water, a valve mounted at the bottom of the said receptacle for permitting a gradual exhaust of water therefrom when the same has been filled, adjustable means controlling said valve, a receptacle communicating with one of the outlets for receiving a predetermined amount of water and having connection with the first-named receptacle to assist the same in overcoming the weighted means, and means for permitting the discharge of water from the last-named receptacle.

3. The combination with a body, of elbow pipes leading therefrom and adapted for communication with a cistern and sewer, respectively, a rocking chute pivoted within the body for alternately directing water to each of said pipes, a trough extension on the body, a casing depending from said extension and communicating therewith, a water bucket slidably fitted within the casing and adapted to

receive a predetermined amount of water, means normally holding the chute in position for opening into the pipe communicating with the sewer and having connection with said bucket, whereby on the filling of the latter, the chute will, be automatically shifted for communication with the other pipe, means in the bottom of said bucket for permitting the discharge of water therefrom, means for regulating the last-named means, and an auxiliary bucket connected with the first-named bucket and communicating with the elbow pipe leading to the cistern for receiving water therefrom for assisting in shifting the chute.

1,030,176. CROSSCUT-SAW-FILING TOOL. MINOR J. HENDERSON, Tladaghton, Pa., assignor to E. C. Atkins & Company, (Inc'p't'd,) Indianapolis, Ind., a Corporation of Indiana. Filed Aug. 25, 1910. Serial No. 578,926. (Cl. 76—46.)



1. A saw filing tool comprising a plate provided with an angled flange at one edge having a notch registering with a notch formed in the plate, a slotted angled gage plate slidably mounted on one side of said plate the angled portion extending into said notches, means for locking said plate, a third plate arranged under said raker gage plate provided with oblique slots, screws extending through said oblique slots working in bores formed in the first mentioned plate whereby said raker gage plate can be adjusted by moving said second plate longitudinally with respect to the first mentioned plate.

2. A device of the kind described comprising a plate having a flange along one edge at right angles to the plate, said flange and plate being centrally notched, a raker gage plate having the angled end portion resting in the notch of the flange of the first mentioned plate, said raker gage plate having a vertical movement, and a third plate having an oblique sliding movement upon the first mentioned plate, the raker gage plate resting upon the upper edge of the last mentioned plate, together with means for locking the said last mentioned plate in adjusted position.

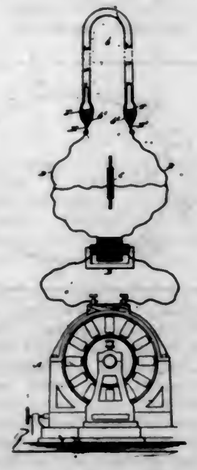
1,030,177. PROCESS OF PRODUCING KETONES OF HIGH BOILING-POINTS FROM ACETONE AND HOMOLOGUES THEREOF. JOSEF HERTKORN, Hattershiem, Germany. Filed Feb. 26, 1912. Serial No. 679,941. (Cl. 23—24.)

1. The process of producing ketones of high boiling points from ketones of the homologous series of which acetone is the lowest member which comprises treating such ketones with the oxid of an alkaline earth metal and maintaining the reaction liquid in constant circulation throughout the process, and in separating the resulting condensation products from the reaction mass before, and at a temperature below that at which, the formation of the objectionable impurities and by-products takes place.

2. The process of producing mesityl oxid from acetone which comprises treating acetone with the oxid of an alkaline earth metal in the proportion of about one molecule of such oxid to two molecules of acetone and maintaining the reaction liquid in constant circulation throughout the process, and in separating the resulting mesityl oxid from the reaction mass before, and at a temperature below that at which, the formation of objectionable impurities and by-products takes place.

3. The process of producing mesityl oxid from acetone which comprises treating acetone with calcium oxid in the proportion of about one molecule of such oxid to two molecules of acetone and maintaining the reaction liquid in constant circulation throughout the process, and in separating the resulting mesityl oxid from the reaction mass before, and at a temperature below that at which, the formation of objectionable impurities and by-products takes place.

1,030,178. APPARATUS FOR THE ELECTRICAL PRODUCTION OF LIGHT. PETER COOPER HEWITT, New York, N. Y., assignor to Cooper Hewitt Electric Company, a Corporation of New York. Filed Apr. 11, 1898. Serial No. 677,190. (Cl. 176—42.)



1. A mercury vapor lamp comprising an inverted U shaped exhausted container with an enlargement at each end partly filled with mercury constituting electrodes.

2. A mercury vapor lamp comprising an inverted U shaped exhausted container with an enlargement at each end partly filled with mercury, and also provided with a regulating chamber communicating with the interior of the main chamber cut out of the path of the current therein.

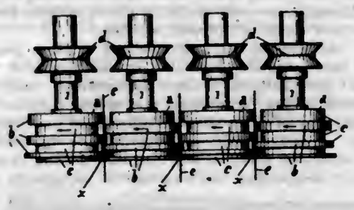
3. A vapor electric lamp having a highly exhausted chamber formed in the shape of an inverted U, having a main light giving portion of uniform diameter expanded at each end into enlargements, said enlargements being partly filled with mercury constituting electrodes and a condensing chamber centrally located along said tubular portion whereby the vapor pressure within the container is regulated.

4. The combination with a mercury vapor lamp including a highly exhausted container having a curved tubular light giving portion, two enlargements of said tubular portions located at lower extremities in said container, and mercury electrodes at the extremities of said tubular portion, together with an electric source therefor adjusted to maintain a temperature of approximately 300 degrees centigrade in said tube whereby an efficient source of illumination is secured.

5. A mercury vapor apparatus comprising an exhausted container, suitable mercury electrodes therein and a light giving tubular portion thereof, together with means for adjusting the density of the mercury vapor therein during normal operation to the density corresponding to approximately 300 degrees centigrade, said means consisting of bulbs terminating said tubular portion whereby additional condensing surface is obtained for said vapor.

[Claims 6 and 7 not printed in the Gazette.]

1,030,179. MACHINE FOR TWISTING THREADS. WILHELM HILDEN, Aix-la-Chapelle, Germany. Filed July 18, 1911. Serial No. 639,147. (Cl. 118—14.)

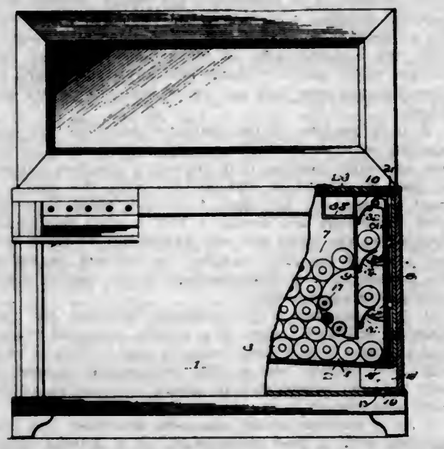


1. Thread twisting mechanism comprising a plurality of rotating elements formed with flanges and grooves which intermesh, the flanges forming seats to receive thread, and means for rotating the rolls in the same direction to cause thread supported in the seats to be twisted.

2. Thread twisting mechanism comprising moving elements which intermesh to form tapering thread receiving seats, means to rotate the moving elements in the same direction whereby the surfaces of the elements forming the bottoms of the seats will move in opposite directions to twist thread supported in said seats, and means for guiding the thread through the seats.

3. Thread twisting mechanism comprising a series of rolls, each roll being of the same size and having formed on its periphery a plurality of flanges and grooves, the flanges and grooves of adjacent rolls intermeshing to form tapering thread receiving seats on the flanges, all of the rolls being arranged in the same plane and rotating at the same speed, means for rotating the rolls, means for feeding thread through the tapering thread receiving seats and means for frictionally holding the thread in contact with the surfaces of the flanges forming the seats, whereby to impart a twisting action to the thread.

1,030,180. BOTTLE-DELIVERING MECHANISM. GEORGE HENRY HILLYER, Plattsburg, N. Y., assignor of one-third to Edward A. Connell, Plattsburg, N. Y. Filed May 11, 1911. Serial No. 626,623. (Cl. 211—8.)



1. In a device of the character described, the combination with a receptacle, of an elevator extending into said receptacle, said elevator comprising a plurality of brackets spaced apart and arranged in different horizontal planes, a reciprocating bar, a guide for said bar in its reciprocatory movement, and a plurality of flights, said brackets being designed to engage and support the articles being raised from said receptacle during the reverse movement of said reciprocating member and said flights.

2. In a device of the character described, a receptacle, a depending wall arranged to divide said receptacle into a storage chamber and a well, said depending wall falling short of the bottom of the receptacle for defining a discharge opening for the storage chamber, means for adjusting the position of said depending wall, rotatable means supported by said wall and arranged to engage the articles previous to their passage through said discharge opening for preventing the articles from clogging, and an elevator arranged in said well for elevating successively the articles discharged through said discharge opening, said discharge opening permitting a free communication between said well and said storage chamber and defining a water seal for said storage chamber.

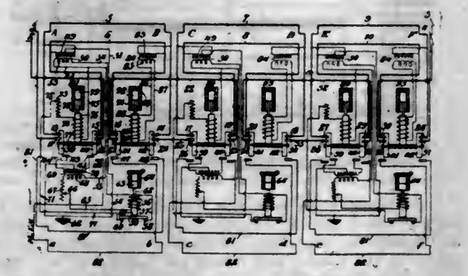
3. In a device of the character described, a receptacle, a depending wall arranged to divide said receptacle into a storage chamber and a well, said depending wall falling short of the bottom of the receptacle for defining a discharge opening for the storage chamber, means supported by said wall and arranged to engage the articles previous to their discharge through said discharge opening for preventing the articles from clogging, said means comprising a support, and a plurality of spaced rollers grouped in the arc of a circle and designed to engage the articles as the same move toward the discharge opening for causing the same to line up in a single line before passing through the discharge opening, and an elevator arranged in said well for elevating the articles discharged through said discharge opening.

4. In a device of the character described, the combination with a receptacle, of an elevator extending into said receptacle, said elevator comprising a plurality of spring supports spaced apart, a reciprocating bar, means for guiding said bar in its reciprocatory movement, and a plurality of pivotally mounted flights, said spring supports being designed to engage and support the articles being raised from said receptacle during a reverse movement of said reciprocating member and said flights.

5. In a device of the character described, a receptacle, means for forming a discharge opening defining a water seal for said receptacle, and an elevator for raising articles discharged through said discharge opening, said elevator comprising a plurality of spring supports, a plurality of pivotally mounted flights for lifting articles successively to the lowermost spring support, and from thence successively to the uppermost spring support, a reciprocating rod for supporting and moving said flights, means for guiding said rod in its movement, and a hand hold for operating said rod.

[Claim 6 not printed in the Gazette.]

1,030,181. AUTOMATIC SIDE-TRACKING SECTIONALIZER FOR ELECTRIC TRANSMISSION SYSTEMS. FAIRBANKS C. HIRDLER, Oklahoma, Okla. Filed Dec. 13, 1910. Serial No. 597,107. (Cl. 175—294.)



1. In a system of electrical distribution, main line sections, means at each end of each main line section for coupling the sections in series to normally maintain the electrical continuity of the system, said means being active on the maintenance of the normal voltage in the system, companion auxiliary sections individual to the main sections, and means responsive to abnormal voltage conditions

in the system for causing the coupling means for the sections to include an auxiliary section to the total electrical exclusion of its companion main line section.

2. In a system of electrical distribution, a main line sectionalized at predetermined points, auxiliary sections individual to the main line sections, means at each end of each main line section responsive to the normal voltage of the line for maintaining the main line sections in the line and operable to include corresponding auxiliary sections in the line, and means responsive to abnormal changes in the main line voltage for causing the operation of the first named means to totally electrically exclude main line sections from the line and include companion auxiliary sections in said main line.

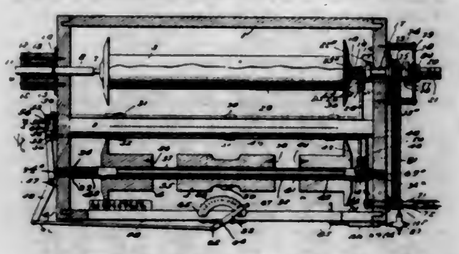
3. In a system of electrical distribution, main line sections, auxiliary sections individual to the main line sections, switches in each main line section at the ends thereof and having electric means maintained active to include the respective main line sections in the power circuit by the maintenance of the normal voltage of the line, and another switch for each section inactive to normal conditions on the main line and responsive to abnormal changes in the voltage conditions to cut out the electric means of one of the first named switches of the respective section.

4. In a system of electrical distribution, line conductors in sections, switches for coupling the line conductors together to establish the continuity of the system, electric means for actuating the switches to maintain the continuity of the conductors, each switch being responsive to current due to the maintenance of a predetermined voltage upon the line conductors, an auxiliary section of line conductors for each of the first named sections and individual thereto, and means for causing a switch to exclude a main section and couple into the system an auxiliary section on an abnormal sustained change of voltage in the first named section.

5. In a system of electrical distribution, a sectionalized main line, auxiliary sections individual to the main line sections, means for maintaining the continuity of the section through the main line sections under normal conditions, and means for excluding a main line section and including a companion auxiliary section on a maintained abnormal change in the electrical conditions on the line, the auxiliary section being included in the line prior to the exclusion of the companion main line section.

[Claims 6 to 26 not printed in the Gazette.]

1,030,182. KEY-CHANGING DEVICE FOR PIANO-PLAYERS AND PLAYER-PIANOS. MARION F. HOLDERMAN, Washington, D. C. Filed July 9, 1909. Serial No. 506,837. (Cl. 84—165.)



1. In combination with the well of a piano player, a tracker board therein, rotatable spools mounted in said well means for imparting independent longitudinal movements to the spools, and means for moving at will the spools simultaneously in longitudinal direction.

2. In combination with the well of a piano player, a tracker board therein, rotatable spools mounted in said well and means for causing independent longitudinal movements to be imparted to the spools, means for moving at will the spools together longitudinally and indicating means showing the adjustments of the spools.

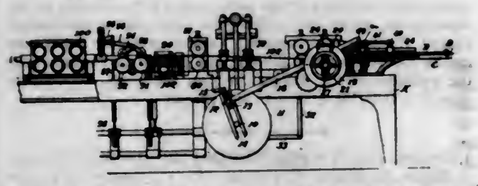
3. In combination with the well of a piano player, a tracker board therein, rotatable spools journaled within said well and adapted to have independent longitudinal movements, means for moving said spools together longitudinally, one of said spools made up of independently movable, adjustable sections adapting the apparatus for playing sheets of music of different widths.

4. In combination with the well of a piano player, a tracker board therein, rotatable spools journaled within said well and adapted to have independent longitudinal movements, means for moving said spools together longitudinally, one of said spools made up of independently movable, adjustable sections adapting the apparatus for playing sheets of music of different widths, and indicating means for designating the longitudinal movements of the spools.

5. In combination with the well of a piano player, a tracker board therein, rotatable spools journaled within said well and adapted to have independent longitudinal movements, means for moving said spools together longitudinally, one of said spools made up of independently movable, adjustable sections adapting the apparatus for playing sheets of music of different widths, lever-actuated mechanism for moving the spools longitudinally, and indicating means for designating the longitudinal movements of the spools.

[Claims 6 to 27 not printed in the Gazette.]

1,030,183. PAPER-FEEDING MECHANISM FOR PAPER-BOX MACHINES. HORACE INMAN, Amsterdam, N. Y. Filed Jan. 16, 1906. Serial No. 296,305. (Cl. 101—42.)



1. In a machine of the character described, the combination with feeding rollers, of a reciprocating pinion, a rack constructed to reciprocate the pinion throughout a complete rotation, a toothed wheel connected to said feeding rollers, a pawl connected to be operated in accordance with the reciprocations of the pinion to engage said toothed wheel, and frictionally-held adjustable means for throwing said pawl into and out of engagement with said wheel.

2. In a machine of the character described, the combination with the feed rollers, of a reciprocating pinion, and means for rotating it throughout a complete rotation or less as desired, a disk moving with the pinion, a pawl mounted on the disk, a toothed wheel connected with the rollers and having a hub, a plate frictionally clamped to the wheel hub and having an elongated slot, and a pin on the pawl engaging the slot and controlling the engagement and disengagement of the toothed wheel, substantially as described.

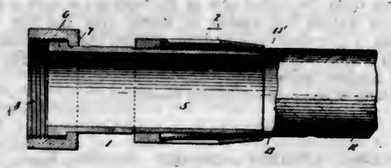
3. In a machine of the character described, the combination with feed rollers, of a ratchet connected thereto and having a hub, a pawl engaging said ratchet, a movable pawl carrier, and a plate frictionally clamped on said hub and constructed to govern the position of the pawl with respect to the ratchet.

4. In a machine of the character described, the combination with a feed roller shaft, of a driving pinion loosely mounted thereon, a rack engaging said pinion, a toothed wheel connected to said shaft, a pawl connected to said pinion and engaging said wheel, a plate on said shaft constructed to move said pawl into and out of engagement with said wheel, and a hand wheel on the end of said shaft.

5. In a machine of the character described, the combination with the feed rollers, and a reciprocating disk carrying a pawl and adapted to be rotated to the extent of a complete rotation in either direction, of a toothed wheel connected with the rollers, a plate frictionally mounted on said toothed wheel, the plate having an elongated axially-inclined slot, and a pin on the pawl engaging said slot, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,030,184. HOSE-LOCK. ORIN V. JACKSON, Jacksonville, Fla., assignor to Romain B. McCullough and Roland L. Philips, Brunswick, Ga. Filed Feb. 3, 1911. Serial No. 606,294. (Cl. 137—28.)



1. A hose lock comprising a nipple, and a clamping sleeve mounted upon said nipple, said nipple being movable longitudinally with respect thereto, said nipple having an exterior conical surface and said sleeve having a corresponding interior surface, whereby the end of a hose can be tightly clamped between said sleeve and nipple, said sleeve also having spring fingers projecting inside the same and passing into the end of the hose when the sleeve is slipped on the same.

2. A hose lock comprising a nipple, and a clamping sleeve mounted upon said nipple, said nipple having an exterior conical surface and said sleeve having a corresponding interior surface, whereby the end of a hose may be held between the said sleeve and nipple, said sleeve also having spring fingers struck from its side walls and projecting inside the same to engage the end of the hose when the sleeve is slipped thereon, said sleeve and nipple having screw-threaded engagement, by means of which the conical surface of the nipple and the corresponding surface of the sleeve can be brought closer together in order to clamp the end of the hose between them.

3. A hose lock comprising a clamping sleeve adapted to be slipped over the end of a hose, said sleeve having fingers projecting inside the same in position to engage the end of the hose to spread the same when the clamping sleeve is slipped thereon, and a nipple passing into said sleeve and the end of the hose and gripping the same between the outer surface of the nipple and the inside surface of said sleeve.

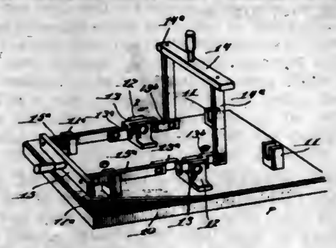
4. A hose lock comprising a clamping sleeve adapted to be slipped over the end of a hose and having fingers projecting inside the same and passing inside the end of the hose to spread the same when the clamping sleeve is slipped thereon, and a nipple passing into said clamping sleeve and engaging the hose to grip the same between the outer surface of the nipple and the inside surface of said sleeve.

5. A hose lock comprsing a clamping sleeve adapted to be slipped over the end of a hose, said sleeve having spring fingers struck from its sides and projecting inside the same in position to pass inside the end of the hose when the sleeve is slipped thereon, and a nipple passing into said sleeve and the end of the hose and gripping the hose securely between the outer surface of the nipple and the inside surface of said sleeve.

[Claims 6 and 7 not printed in the Gazette.]

1,030,185. ELECTRIC SWITCH. ABRAM JACOBSON, Lanesville, Mass. Filed Dec. 4, 1911. Serial No. 663,687. (Cl. 175—282.)

In a switch, the combination with a base constructed of insulating material, contact members located centrally and adjacent to the longitudinal sides of said base, a bar carried by each central contact member substantially parallel to the longitudinal sides of said base having the terminals thereof offset inwardly, a contact post located adjacent to each corner of said base, each pair thereof along the longitudinal sides of the base being in direct alinement with one of the central contact members, and



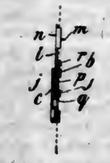
independently operating switches carried by the offset terminals of said bars, each switch adapted to coöperate with one pair of corner contact posts.

1,030,186. GRINDING-MACHINE. HERSCHEL V. JOSEPH, Doxey, Okla. Filed Feb. 24, 1910. Serial No. 545,561. (Cl. 146—29.)



A grinding mill including a chopping roll mounted for rotation and having spiral shearing ribs, crushing rolls, a casing housing the rolls and having opposed slots, a cutter bar triangular in cross sectional contour, the flat upper and lower faces of the bar converging to an edge located within the pass between the crushing rolls, said bar being reversible to bring either of said faces uppermost, the third longitudinal face of the bar coöperating at all times with the ribs on the chopping roll, trunnions extending from the ends of the bar and shiftable longitudinally of the slots in the housing, and means engaging the trunnions and outside of the casing for holding the bar against movement longitudinally of the slots.

1,030,187. FASTENING DEVICE FOR ENVELOPS, BAGS, BOXES, AND OTHER ARTICLES. WILLIAM JOSEPH and WALTER LINCOLN JOSEPH, Highgate, London, England. Filed Jan. 12, 1912. Serial No. 670,908. (Cl. 229—78.)



A fastener of the class specified comprising a pair of interlocking members, each of which is provided with means for attaching it to the article to be fastened, one of said members consisting of a dish part provided with a downwardly-extending substantially U-shaped pocket opening at its top through the edge of said part, and a disk connected to said dished part and disposed at the back thereof, said disk being provided with a depending spring tongue projecting into said pocket and with an upstanding lip arranged directly above said tongue, the other member consisting of a plate provided with a depending tongue introduced into said pocket between the body of said dished part and the first-named tongue, the second-named tongue being provided adjacent its upper end with a downturned hook engaged with said lip and having its lower end upturned and engaged with the lower end of said first-named tongue.

1,030,188. MEANS FOR SUPPORTING THE LIDS OF BOXES AND THE LIKE. ALFRED STEPHEN KING, Norwich, England. Filed Sept. 30, 1911. Serial No. 652,033. (Cl. 217—61.)

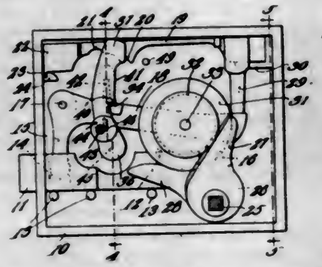


1. The combination with a box and its lid, of an L-shaped piece pivotally secured to the back of the box and having an upper part on which the lid rests and a lower part having an inner edge which bears against the outside of the back of the box.

2. The combination with a box having a lid, of an L-shaped lid support having an upper part formed with a hole, a pivot passing through the hole into the top of the back of the box, and a lower part of the edge of which bears against the outside of the back of the box when the lid is open.

3. The combination with a box and its lid, of an L-shaped lid support comprising a horizontal upper part pivotally connected with the upper edge of the back of the box and upon which the lid rests and a vertical lower part the inner edge of which bears against the outside of the back of the box when the lid is open.

1,030,189. LOCK. JACOB CHESLEY KINNEY, Prairie Grove, Ark. Filed Oct. 11, 1911. Serial No. 653,993. *(Cl. 70—51.)



1. In a lock, a casing, a bolt mounted therein, a lever pivoted in the casing and having one arm in operative engagement with the bolt, a wheel pivoted on the other arm of the said lever and serving as a weight to swing the said arm downwardly to force the bolt outwardly, a knob spindle passing through the casing, and a barrel thereon having wipers coöperating with the said wheel to raise same upon the knob spindle being rotated.

2. In a lock, a casing, a bolt mounted therein, a lever pivoted in the casing and having one arm in operative engagement with the bolt, a stepped wheel pivoted on the other arm of the lever and serving as a weight to swing the said arm downwardly to force the bolt outwardly, a knob spindle passing through the casing, and a barrel thereon having wipers coöperating with the respective stepped portions of the said wheel to raise the same upon the knob spindle being rotated.

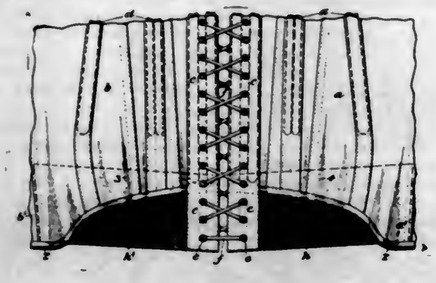
3. In a lock, a casing, a bolt mounted therein, a lever pivoted in the casing and having one arm in operative engagement with the bolt, a wheel pivoted on the other arm of the said lever and serving as a weight to swing the said arm downwardly to force the bolt outwardly, a knob spindle passing through the casing, a barrel thereon having wipers coöperating with the said wheel to raise same upon the knob spindle being rotated, and a key actuated tumbler within the said casing adapted to lock the said lever against movement.

4. In a lock, a casing having keyholes therein, a bolt mounted in the casing, a lever pivoted in the casing and having one arm in operative engagement with the bolt, a knob spindle passing through the casing and operatably connected to the other arm of the said lever, a key actuated tumbler within the casing, and a guard pivoted within the casing and operable from one side of the casing to swing over the said key holes and having means to lock the said lever against movement.

5. In a lock, a casing having key holes therein, a bolt mounted in the casing, a lever pivoted in the casing and having one arm in operative engagement with the bolt, a knob spindle passing through the casing and operatively connected with the other arm of the said lever, a lug projecting from the latter arm of the said lever, and a guard pivoted within the casing to swing over the key holes having a shoulder adapted to engage the said lug, the guard being swung over the key holes to lock the said lever against movement.

[Claim 6 not printed in the Gazette.]

1,030,190. APPAREL-CORSET. DANIEL KOPS, New York, N. Y. Filed Dec. 12, 1911. Serial No. 665,305. (Cl. 2—73.)

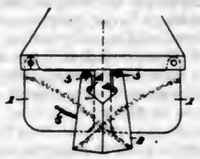


1. In an apparel corset, the combination with the fabric body halves and the skirts, of lacing fabric members continued to the lower edge of the skirts, and the skirts at the back removed from the lower edge upward from each side of the lacing fabric members and forward toward the sides of the corset, and elastic fabric members inserted therein, at one end connected to the lacing fabric members and at their other or opposite ends and at right angles to the line of tension connected to the skirts from their lower edges upward and at their upper edges appreciably overlying the skirts.

2. In an apparel corset, the combination with the fabric body halves and the skirts, of lacing fabric members continued to the lower edges of the skirts, and the skirts at the back removed from the lower edge upward from each side of the lacing fabric members and forward toward the sides of the corset, and elastic fabric members inserted therein, at one end connected to the lacing fabric members and at the other or opposite ends secured to the skirts and the lower portions of the corset overlying and extending directly above the elastic fabric members formed loose so as to permit of the stretch or elongation of the elastic fabric members appreciably before the skirts are drawn taut.

3. In an apparel corset, the combination with the fabric body halves and the skirts, of lacing fabric members continued to the lower edge of the skirts, and the skirts at the back removed from the lower edge upward from each side of the lacing fabric members and forward toward the sides of the corset, and elastic fabric members inserted therein, at one end connected to the lacing fabric members and at their other or opposite ends and at right angles to the line of tension connected to the skirts from their lower edges upward and at their upper edges appreciably overlying the skirts, and said elastic fabric members, where connected to the lacing fabric members, also overlying and secured thereto, and lacing eyelets also passing through both of said parts in order to impart stiffness and rigidity thereto.

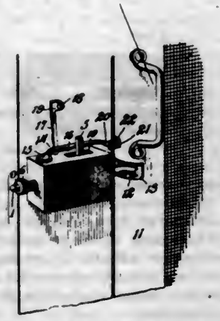
1,030,191. AUTOMATIC GRAB. EDUARD KRAEMER, Cologne Germany. Filed Oct. 17, 1911. Serial No. 655,239. (Cl. 37—30.)



1. In an automatic grab of the class described, the combination with the usual cups arranged to leave an open slot between them in their closed position, of yokes suspended from said cups and made of such width that they form a cover-plate for said open slot when the grab is closed, substantially as set forth.

2. In an automatic grab of the class described, the combination with the usual cups arranged to leave an open slot between them in their closed position, of yokes suspended from said cups and capable of forming a cover-plate for said open slot when the grab is closed, and means for moving said yokes laterally when the grab is opened, substantially as set forth.

1,030,192. DOOR-FASTENER. ELMER A. KUTZ, Reading, Pa. Filed Aug. 9, 1911. Serial No. 643,164. (Cl. 70—64.)



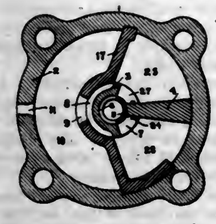
1. A door fastener of the class described comprising a casing provided with a slot, a spring actuated bolt mounted within the casing and having an arm projecting through the slot to a point exteriorly of the casing, a spring actuated catch pivoted to the exterior of the casing and arranged to swing into and out of engagement with the projecting arm of the bolt and engaging the said arm to retain the latter in the bolt retracted position, and a tripping device arranged to engage with the catch lever for moving the same out of engagement with the projecting arm of the bolt to release the latter.

2. A door fastener of the class described including a casing having an opening and provided with a slot, a spring actuated bolt mounted in the casing and having an arm extending through the slot, a catch lever pivotally mounted on the casing and provided with an engaging portion located adjacent to the slot and arranged in the path of the arm and engaging the same to hold the bolt in a retracted position, a spring for urging the catch lever toward the arm of the bolt, a strike designed to be mounted on a door to engage with the bolt, and a tripping member also carried by the door and having a projecting arm arranged to engage the catch lever to release the same after the strike has passed the bolt.

3. A door fastener of the class described including a casing provided in its top with a slot, a spring actuated bolt mounted within the casing and having a vertically disposed arm projecting through the slot of the casing, said bolt being provided at its front end with a beveled face, a spring actuated catch arranged upon the top of the casing and extending longitudinally of the same and pivoted at its rear end to the casing and engaging the arm of the bolt to hold the same retracted, a strike designed to be mounted on a door and presenting a beveled face to the bolt, and a tripping plate also carried by the door and arranged above the strike to engage the catch to release the bolt after the strike has passed the latter.

4. A door fastener of the class described including a casing designed to be mounted on a door frame and provided with a slot, a bolt guided in the casing and having an arm extending through the slot to the exterior of the casing, a spring arranged within the casing and engaging the arm for urging the bolt outwardly, a catch pivoted to the exterior of the casing and engaging the said arm to hold the same in a retracted position, a strike designed to be mounted on a door, and a tripping device also carried by the door and located above the strike and arranged to engage the catch to release the bolt after the strike has passed the latter.

1,030,193. ENGINEER'S VALVE. WILLIAM H. LIEBER, Milwaukee, Wis., assignor to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Oct. 20, 1911. Serial No. 655,719. (Cl. 188—7.)



1. In an engineer's valve, a common casing, a valve within said casing, and fluid pressure actuated means for returning said valve to normal from any other position, said fluid pressure actuated means lying entirely within said common casing and adjacent said valve.

2. In an engineer's valve, a common casing, a valve adapted to control ports within said casing, means for shifting said valve to either side of a mid-position, and fluid pressure actuated means for returning said valve to mid-position, said fluid pressure actuated means lying entirely within said common casing and adjacent said valve.

3. In an engineer's valve, a common casing, a valve within said casing, means for operating said valve, and fluid pressure actuated means tending to retain said valve in lap-position, said fluid pressure actuated means lying entirely within said common casing and adjacent said valve.

4. In an engineer's valve, a common casing, a valve for controlling ports in said casing, means for shifting said valve relative to said ports, and fluid pressure actuated means for retaining said valve in lap-position, said fluid pressure actuated means lying entirely within said common casing and adjacent said valve.

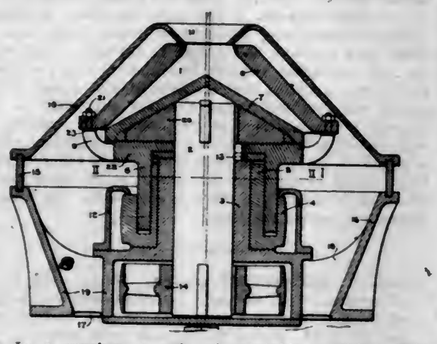
5. In an engineer's valve, a common casing, a valve for controlling ports in said casing, a stem for operating said valve, and fluid pressure actuated means for retaining said valve in lap-position, said fluid pressure actuated means lying entirely within said common casing and adjacent said valve.

[Claims 6 to 9 not printed in the Gazette.]

1,030,194. CRUSHER. WILLIAM H. LIEBER, Milwaukee, Wis., assignor to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Dec. 29, 1911. Serial No. 668,407. (Cl. 83—10.)

1. In a crusher, a pair of rotatable crushing disks, inner and outer shafts by which said disks are carried, an eccentric for gyrating said outer shaft, and means for rotating said eccentric.

2. In a crusher, a pair of rotatable crushing disks, inner and outer shafts by which said disks are carried, an eccentric for gyrating said outer shaft, and means for rotating said eccentric independently of said disks and shafts.



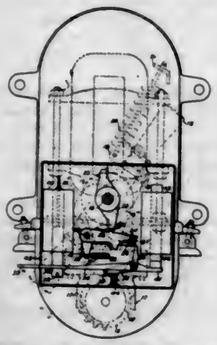
3. In a crusher, a pair of rotatable crushing disks, shafts by which said disks are carried, a rotatable eccentric for gyrating one of said shafts, and a fixed bearing on which said eccentric is rotatable, said eccentric being located near said disks.

4. In a crusher, a pair of rotatable crushing members one internal of the other, a flange connected to one of said members and extending toward its axis of rotation, a plane engagement between said flange and the other of said members, and rotary means positioning said members eccentrically of each other.

5. In a crusher, a rotatable concave member, a rotatable convex member internal of the concave member, rotary means eccentrically positioning said members with the crushing surfaces nowhere in contact with each other, and means for causing rotation of said members to positively feed material from end to end of the members by centrifugal force.

[Claims 6 to 18 not printed in the Gazette.]

1,030,195. MOTOR-CONTROLLER. ALEXANDER J. LOGUIN, West Allis, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Mar. 27, 1911. Serial No. 617,212. (Cl. 172—179.)



1. In a controller, a movable switch member, a member movable therewith, a latch adapted to prevent movement of said second mentioned member, and another latch relatively movable to said first latch and tending to render said first latch ineffective to permit movement of said members.

2. In a controller, a movable switch member, a member movable therewith, a latch adapted to prevent movement of said members, a spring-pressed latch separated from the first latch and tending to render said first latch ineffective to permit movement of said members, and means for rendering said second latch effective.

3. In a controller, a movable switch member, a member movable therewith, a latch adapted to prevent movement of said members, and a coöperating relatively movable latch separated from said first latch and tending to render said first latch ineffective, and manually operated means for rendering said second latch effective for releasing said movable members.

4. In a controller, a movable switch member, a member movable therewith, a latch adapted to prevent movement of said members, and a coöperating relatively movable latch separated from said first latch and tending to render said first latch ineffective, and automatically operated means for rendering said second latch effective for releasing said movable members.

5. In a controller, a movable switch member, a member movable therewith, a latch adapted to prevent movement of said members, and a coöperating latch separated from said first latch and tending to render said first latch ineffective, and means responsive to a reduction in voltage below a predtermined value for rendering said second latch effective for releasing said movable members.

[Claims 6 to 17 not printed in the Gazette.]

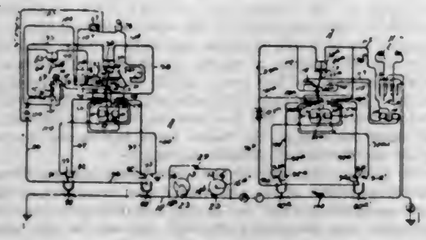
1,030,196. BURGLAR-ALARM. GEORGE H. LUCIER, St. Paul, Minn. Filed June 2, 1911. Serial No. 630,858. (Cl. 177—203.)



1. The combination with a lock having a lock bolt equipped with an insulating block, said insulating block adapted to be moved into and out of said lock, of an alarm circuit including a pair of spring contacts normally pressed together but adapted to be separated by engagement with the insulating block on said lock bolt, said pair of spring contacts being secured to the door frame, substantially as described.

2. The combination with a door lock having a lock bolt equipped with a wedge-shaped insulating block, said insulating block adapted to be moved into and out of said door lock, of an alarm circuit comprising a pair of spring contacts normally sprung into contact at their free ends but adapted to be separated by engagement with the wedge-shaped insulating block of said lock bolt, when said lock bolt is moved into an operative position, said pair of spring contacts being secured to the door frame, substantially as described.

1,030,197. SELECTIVE SIGNALING SYSTEM. JUDSON MCFELL, Chicago, Ill. Filed May 17, 1909. Serial No. 496,522. (Cl. 177—343.)



1. In a selective signaling system, a line; means for energizing said line with either polarity; and, at each station, means for initiating signals on the line, a plurality of signal-responsive means, and polarized means controlling the signal-responsive means for operation according to the line polarity to condition certain signal-responsive means for operation in response to signals initiated in the line, and to disable other signal-responsive means for operation in response to such signals.

2. In a selective signaling system, a line; a single source of current supply, a pole changer therefor; at each station, a signal initiating switch, a plurality of signal-responsive means, and means for alternatively conditioning different signal-responsive devices for operation and disabling other signal-responsive devices under each polarity condition of the line.

3. In a selective signaling system, a line; means for energizing the line; pole changing means; and, at each station, means for initiating a plurality of impulse-group signals, a plurality of signal-responsive means, and means responsive to the polarity of the line for conditioning different ones of said signal-responsive means for operation in response to signals initiated in the line, the signal-initiating and pole-changing means being relatively timed in operation to change the polarity of the line during the intervals between different signaling operations thereby to insure response from different signal-responsive means to the different impulse groups occasioned by the signal initiator.

4. In a selective signaling system, a line; a single energizing means for said line; pole changing means for varying the polarity of the line; at each station, a signal initiator for transmitting in succession a plurality of impulse groups, a plurality of signal-impulse-responsive devices adapted for response to different impulse groups transmitted by the signal initiator, and polarized means, responsive to the line polarity conditions, for conditioning different responsive devices at each station for operation under different line polarities, the signal-initiating devices and the pole-changing means being timed to operate in appropriate relation to each other to secure the conditioning of certain responsive devices at each station to respond to different groups of impulses transmitted by the signal initiator.

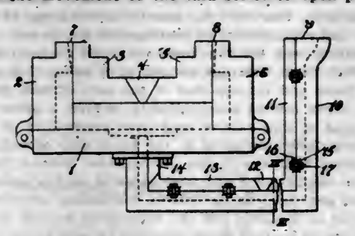
5. In a selective signaling system, a line circuit common to a plurality of stations; local circuit connections for each station; means of current supply for the line; independent means of current supply for the several local circuits; pole changing means connected with the source of current supply of the line; a circuit-controlling signal initiator at each station; different signal-responsive devices at each station; and means, at each station, including polarized devices responsive to the polarity of the line to condition for operation different signal-responsive devices under different polarity conditions, and responsive to changes in continuity of the line circuit to effect the operation of the properly conditioned signal-responsive devices.

[Claims 1 to 21 not printed in the Gazette.]

1,030,198. CASTING APPARATUS. GEORGE F. MCKEE and WILLIAM F. SCHILLING, Aspinwall, Pa., assignors to McKee-Schilling Permanent Mold Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 10, 1909. Serial No. 482,510. Renewed Nov. 11, 1911. Serial No. 659,843. (Cl. 22—155.)

1. A permanent casting apparatus comprising in combination, a supporting mold member, opposing mold sections mounted thereon for relative movement, a series of mold sections mounted between the opposing sections for free relative movement, and a recess formed in one or more of the mold sections to form a projection on the casting, some of said series being provided with their adjacent ends beveled in such manner as to permit the movement of the said series to open position from between the opposing sections, and the opposing sections being adapted to move outwardly thereby fully releasing the casting.

2. A casting apparatus comprising in combination, a supporting mold portion, opposing mold portions thereon, a series of mold portions mounted between the opposing portions, and a recess formed in one or more of the mold portions to form a projection on the casting, some of said series of mold portions having adjacent ends beveled to permit the movement of the said series to open position.



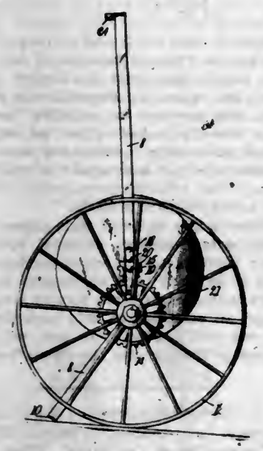
3. A casting apparatus comprising in combination, opposing mold sections, a series of mold sections therebetween, and recesses in the mold portions to form projections on the casting, one of said series of sections being substantially V shaped in cross section to permit the successive movement of the said series of the sections to open position.

4. In combination in a casting apparatus, a supporting mold member, opposing mold members formed thereon, a series of mold members pivotally mounted therebetween on the supporting member, and recesses in the mold members for forming projections on the casting, some of said series of mold members having their adjacent ends beveled to permit the movement of the series to open position.

5. In combination in a casting apparatus, a supporting member, opposing mold members pivotally mounted thereon, a series of mold members pivotally mounted on the supporting member and between the opposing members, and recesses formed in the mold members to form projections on the casting, some of the series of sections having their adjacent ends beveled to permit of the successive movement of the mold members to open position.

[Claims 6 to 11 not printed in the Gazette.]

1,030,199. GARDEN-HOSE REEL. EDWARD D. MERIKLE, Passaic, N. J. Filed July 14, 1911. Serial No. 638,503. (Cl. 242—88.)

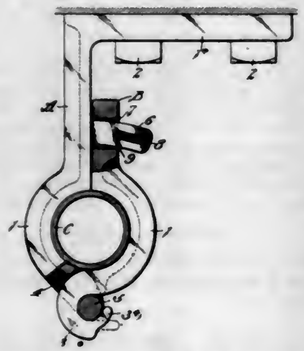


1. A reel such as described, having a rectangular frame arranged to form a bar, and side members provided with carrying wheels at the separated ends thereof, in combination with a reel having an axle shaft, the one end thereof being rotatably mounted in one of the side members of said frame; a yielding member mounted on said frame having bearings therein disposed lengthwise thereof for the end of said axle shaft, said member adapted to normally hold said shaft in adjusted position; and engaging means mounted on said shaft and one of said carrying wheels

adjacent said yielding member for rotating said shaft in unison with the rotation of said carrying wheel.

2. A hose reel, comprising a reel frame having a supporting axle, two carrying wheels, each having short stud axles, and a quadrilateral rectangular frame bent to form a standing rest for the hose reel, said frame being perforated to form bearings for the stud axles of said carrying wheels and for one end of the axle of said reel, said frame being slotted longitudinally to form a guide for the other end of said axle of said reel; a plurality of bearing brackets rigidly mounted at the inner side of said frame, perforated in line with the perforations formed therein to provide bearings for the stud axles of said wheels, transmission gear wheels operatively connecting the stud axles of one of said wheels and the supporting axle of said reel; and a spring bearing plate mounted on said frame to cover said slot, said plate having bearings for the end of the supporting axle of said reel, said bearings being longitudinally disposed in said plate to hold said transmission gears in engagement and out of engagement, respectively.

1,030,200. TRAIN-PIPE CLAMP. WILLIAM MILLER, St. Louis, Mo., assignor to Acme Pipe Clamp Company, St. Louis, Mo., a Corporation of Illinois. Filed Jan. 2, 1912. Serial No. 668,917. (Cl. 211—31.)



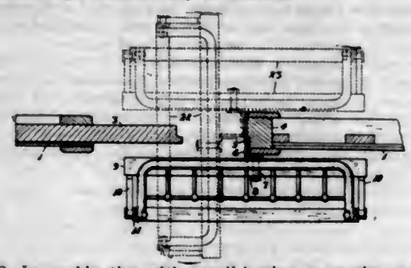
1. A combined angle cock and train pipe clamp comprising two members hinged together at one end and provided with coöperating semi-ring-shaped portions that embrace the pipe, oppositely disposed lugs projecting forwardly from said portions for engaging the head of the angle cock, a laterally projecting part on one member that passes through an opening in the other member at a point above the train pipe, and a removable key in said laterally projecting part that extends transversely across the member through which the part projects.

2. A combined angle cock and train pipe clamp comprising two cast metal members provided with coöperating pipe-engaging portions and integral portions for embracing the head of an angle cock, an integral hook on one of said members that engages a pin formed integral with the other member, an extension on said hook that is adapted to be bent over said pin so as to lock said members together, and means that prevent the clamp from opening.

1,030,201. DISAPPEARING BED. WILLIAM L. MURPHY, San Francisco, Cal., assignor to Murphy Wall Bed Company, a Corporation of California. Filed Apr. 8, 1911. Serial No. 619,776. (Cl. 5—18.)

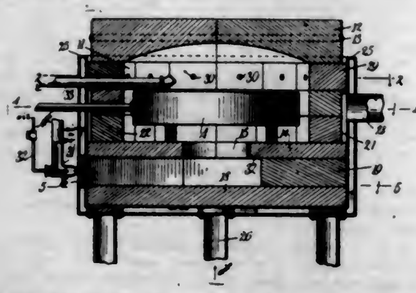
1. In combination with a wall having an opening, a bed, of greater width than the width of said opening, pivotally secured to said wall on one side of said opening by pivots located sufficiently near the central vertical axis of the head of the bed to permit the bed to swing horizontally therethrough, substantially as described.

2. In combination with a wall having an opening, a bed, of greater width than the width of said opening, having a pivotal support at one side of said opening by pivots located sufficiently near the central vertical axis of the head of the bed to permit the bed to swing horizontally therethrough, substantially as described.



3. In combination with a wall having an opening, a bed, and hinges upon which said bed can swing horizontally, said hinges having pintles located substantially in the middle portion of an edge of said opening and having loose leaves arranged to extend alternately to opposite sides of said wall, substantially as described.

1,030,202. FURNACE FOR GAS-GENERATORS. FRANCIS J. ORR, Buffalo, N. Y. Filed Aug. 18, 1911. Serial No. 644,829. (Cl. 48—102.)



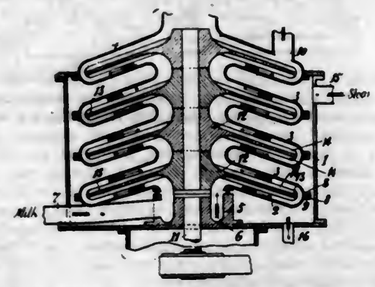
1. A furnace of the character described, comprising a totally inclosed heating chamber; a hollow walled jacket for said chamber having ducts opening into said chamber; two semicircular outlet passages in open communication with and encircling said chamber and connected by cross passages beneath said chamber; an outlet flue in open communication with one of the said outlet passages; and means for introducing and consuming a suitable combustible in said chamber.

2. A furnace of the character described, comprising a totally inclosed heating chamber constructed from refractory material; a hollow walled jacket surrounding said chamber and separated therefrom to form two semicircular passages therebetween, said passages being in open communication with said chamber; a connecting passage beneath said chamber in open communication with said semicircular passages; and a delivery flue connected with one of said semicircular passages to convey off the products of combustion, and means for introducing and consuming a suitable combustible in said chamber.

3. A furnace of the character described, comprising a totally inclosed heating chamber constructed of refractory material; a gas generator mounted within said chamber, said generator constructed to admit gas into said chamber; a heat starting passage extended under said chamber and having an opening centrally located therein; a torch to inject a flame into said starting passage; a double walled hollow cup-shaped jacket to hold and bind in place the said refractory material; an air supply opening into said jacket; passages between said jacket and said chamber for the introduction of air therein above said generator; delivery passages opening from said chamber, and a flue to receive the contents of said delivery passages for conveyance away from said furnace.

4. In a furnace of the character described, a structure formed from refractory material disposed to form an inclosed retort chamber, a metal gas generator mounted within said chamber having means connected therewith for delivering gas therefrom into the body of said chamber, and a series of passages leading from said chamber on one side of the diametric center under said chamber to the other side of said diametric center to form a circulation of the heated gas to infold said refractory material.

1,030,203. PASTEURIZING APPARATUS. CHRISTEN PAULSEN, Copenhagen, Denmark. Filed July 31, 1911. Serial No. 641,620. (Cl. 210—20.)



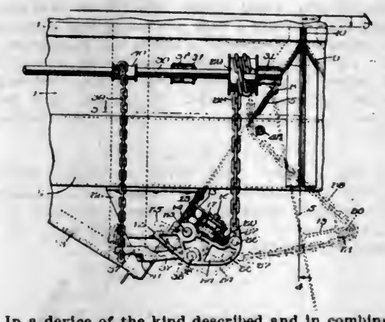
1. In a device of the character described, an outer chamber, means for supplying a heating medium to the same, a stationary container mounted within said chamber, and consisting of sections each formed of saucer like members provided at their edges with flanges and fitted together to form a corrugated cylinder, packing between the said flanges for rendering the container steam sight, a revoluble shaft extending centrally in said container, disks carried by said shaft and extending between the members of the sections of the container, and an inlet and an outlet for said container.

2. A device of the character described, comprising a steam chamber, a steam inlet and an outlet connected with said chamber, a stationary container disposed within said steam chamber and consisting of separate members fitted together so as to form a corrugated cylinder, a pipe communicating with the central portion of said container at the bottom thereof for admitting milk into the container, a rotatable shaft extending centrally in said container, hubs on said shaft and engaging each other, disks integral with said hubs and extending outwardly between the said members of the container, ribs on the top and bottom faces of said disks, the upper surface of said container extending out of the steam chamber, and a discharge pipe connected with the top of said container near the periphery thereof for discharging milk therefrom.

1,030,204. DOOR MECHANISM FOR HOPPER-CARS OR THE LIKE. JOHN PEARSON, Chicago, Ill. Filed Dec. 6, 1909. Serial No. 531,655. (Cl. 105—185.)

1. In a device of the kind described and in combination, a car body, a dumping door hinged to the car body, controlling means for said door, comprising a holding member pivotally mounted on the car body and arranged to coöperate with the free edge of the door when closed to maintain the same in closed position, a rotatable shaft, a flexible connecting member connected with said shaft and holding member, and arranged to coact with the free edge of the door, and means for controlling said holding member comprising a gravity locking latch pivotally carried by said member and arranged to coöperate with the car body, and a flexible connecting member secured to said rotatable shaft and to said latch.

2. In a device of the kind described and in combination, a car body, doors carried thereby, means for closing said doors and maintaining them in closed position including a hook shaped holding member, a winding shaft and a flexible member co-acting with the doors and secured to said shaft and holding member, and means for maintaining said holding member in operative engagement with the doors, or positively disengaging the same, comprising a gravity latch member pivotally carried by said holding member and arranged to coöperate with the car body, and means for operatively connecting said latch with said winding shaft.



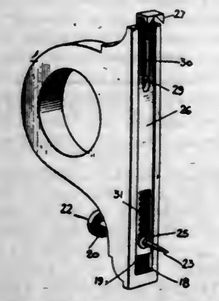
3. In a device of the kind described and in combination, a car body, doors carried thereby, means for closing said doors, including a hook shaped holding member, a winding shaft and a flexible member arranged therebetween, and a gravity latch carried by said holding member, said latch connected to and controlled by said winding shaft and arranged to positively force said holding member out of operative position upon the unwinding of said flexible member or positively retain the same in operative position.

4. In a device of the kind described and in combination, a car body, a plurality of doors carried thereby, a holding member carried by said car body, a winding shaft, and flexible means connecting said winding shaft and said holding member and an auxiliary flexible controlling member secured to said shaft and operatively connected to said holding member and arranged to work supplemental to said first mentioned flexible member in the opposite direction.

5. In a device of the kind described and in combination, a car body, having inwardly inclined ends terminating proximate to the center of the car, a pair of doors arranged at the termination of each of said ends, means for closing said doors and holding the same in their closed position, and auxiliary means for positively locking the door holding means in operative position comprising a gravity latch, and means for operating said latch to release the holding means when desired.

[Claims 6 to 14 not printed in the Gazette.]

1,030,205. BRACKET. WLADYSLAW PEPLOWSKI, New York, N. Y. Filed Oct. 21, 1911. Serial No. 655,893. (Cl. 156—22.)

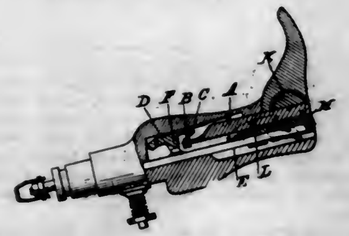


1. A curtain pole bracket comprising a member having a perforation to receive a curtain pole, and having fasten-

ing mechanism for said bracket embodying a manually operative screw extended through the lower end of said bracket, said screw provided with a gear wheel disposed adjacent the concealed edge of said bracket; and a plate slidingly mounted on the concealed edge of said bracket, said plate having an overturned spur, and having a gear toothed rack portion to engage said gear wheel.

2. In a curtain hanger, and in the suspension bracket therefor, a bracket fastening mechanism comprising a screw; a gear wheel fixedly mounted on said screw; a sliding plate having a rack toothed section adjacent said gear wheel and adapted to be moved into engagement therewith; an extension of said plate having formed on the end thereof spurs for embedding in the woodwork of a standing structure; means for guiding said plate in relation to the bracket; and means for turning said screw.

1,030,206. LAST AND SHOE-TREEING MACHINE. EDWIN J. PRINDLE, East Orange, N. J., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 22, 1910. Serial No. 588,516. (Cl. 12—117.)



1. The combination of a last having a detachable forepart, and a boot tree leg having means for attaching said fore-part thereto.

2. The combination of a last having a detachable forepart and a boot tree leg, having means for attaching said fore-part thereto, and having means whereby a movement of the back of the tree leg and the fore-part relative to each other can be produced while the fore-part is connected to the tree leg, which movement in one direction causes the back of the tree leg to be above the level of the counter of the shoe.

3. The combination of a last having a detachable forepart, and a tree leg, means for detachably connecting said fore-part to said tree leg, and means whereby said fore-part and said connected tree part can be moved in a direction longitudinal of the leg.

4. The combination of a last having a detachable forepart, and a tree leg, said tree leg having means for fastening said fore-part thereto, said means comprising a locking piece movable in a direction at an angle to the direction of movement in engaging said fore-part.

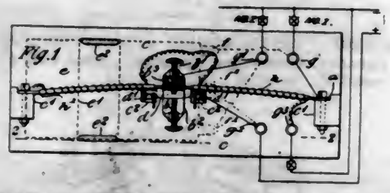
5. The combination of a last having a detachable forepart, and a tree leg, said tree leg having means for fastening said fore-part thereto, said means comprising a locking piece movable in a direction perpendicular to the direction of movement in engaging said fore-part.

[Claims 6 to 9 not printed in the Gazette.]

1,030,207. ELECTRIC SWITCH. JOHN JOSEPH RAWLINGS, Putney, London, and GEORGE SWEETSER, Upper Norwood, London, England. Filed Feb. 25, 1911. Serial No. 610,748. (177—347.)

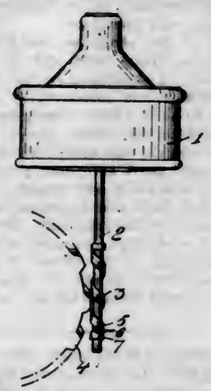
1. In an automatic electric switch, the combination of a bow-shaped expanding element, a bracket mounted thereon, and carrying an adjustable contact, a second bracket mounted on said expanding element but insulated therefrom and carrying a second contact, a snap-over contact of the buckled spring type arranged between said contacts, and yielding spring-fingers supporting the ends of said spring contact, substantially as described.

2. In an automatic electric switch, the combination of a bow-shaped expanding element, an open-wound heating coil of naked wire mounted on same but insulated therefrom, a bracket mounted on said expanding element and carrying an adjustable contact, a second bracket mounted on said expanding element but insulated therefrom and carrying a second contact, a snap-over contact of the buckled spring type arranged between said contacts, and yielding spring-fingers supporting the ends of said spring contact, substantially as described.



3. In an automatic electric switch, the combination of a bow-shaped expanding element provided with a contact in electrical communication therewith, channel shaped strips of insulating material laid along the top and bottom edges of said element, a naked heating wire coiled around said expanding element and kept apart therefrom by said strips, a second contact mounted on said expanding element but insulated therefrom, a snap-over contact of the buckled spring type arranged between said contacts, and yielding means supporting the ends of said spring contact, substantially as described.

1,030,208. GEARING. ANDERS GUSTAF GUNNAR SALENIUS, Stockholm, Sweden, assignor to Separator Aktiebolaget Fama, Stockholm, Sweden. Original application filed Jan. 5, 1910, Serial No. 536,490. Divided and this application filed July 5, 1911. Serial No. 636,967. (Cl. 74—36.)



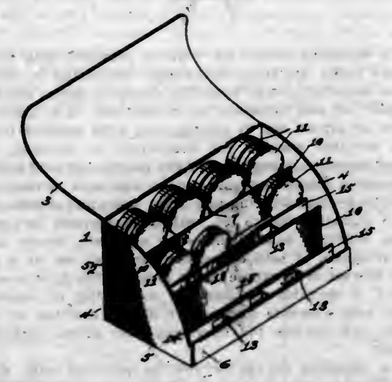
1. In combination with a spindle to be driven, a spiral spring loosely disposed on said spindle to form a worm, and a driving worm wheel having teeth meshing with winds of said spring to drive the spindle, said spring and spindle having coacting ratchet members arranged for engagement to lock the spring to the spindle when the latter is being driven, substantially as described.

2. In combination with a spindle to be driven, a spiral spring rotatable and longitudinally movable on said spindle and forming a worm thereon, and a driving worm wheel having teeth meshing with the winds of said spring to drive said spindle, said spring and spindle having coacting ratchet members arranged for engagement to lock the spring to the spindle when the latter is driven and permit release of the spindle for free rotation, substantially as described.

3. In combination with a spindle to be driven, a spring loosely disposed on said spindle and forming a worm, and a driving worm wheel having connection with the winds of said spring and shifting the same longitudinally of the spindle in one direction when driving the latter, said spring and spindle having coacting devices arranged to lock the spring on the spindle upon driving thrust being imparted by the wheel, substantially as described.

4. In combination with a substantially vertically disposed spindle to be driven, a spiral spring loosely disposed on said spindle and forming a worm and adapted to be shifted downwardly on said spindle, and a driven worm wheel having teeth meshing with the winds of said spring and shifting the spring longitudinally downwardly on the spindle when driving the latter, said spring and spindle having coacting devices, at the lower end of the spring, arranged to lock the spring on the spindle upon driving thrust being imparted by said wheel, substantially as described.

1,030,209. DISPLAY-BOX. HARRY SCHANDEIN and MONROE P. LIND, Philadelphia, Pa. Filed Nov. 25, 1911. Serial No. 662,405. (Cl. 206—45.)



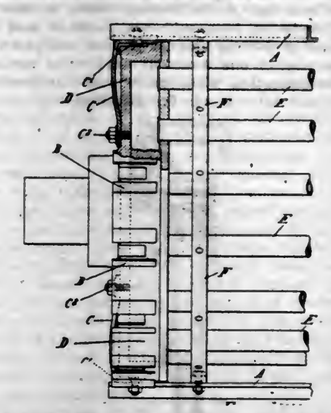
1. The combination, with a box having terraced pockets for displaying articles of merchandise therein, of means for forming an inner bottom for the pockets and for converting each pocket into a pair of pockets, comprising a flexible section, one portion thereof being secured and the other portion being bendable from flat position to vertical position, and a plurality of braces partially cut out of the said bendable portion and adapted to be projected therefrom into engagement with the pocket fronts for bracing the said bendable portion in vertical position.

2. The combination, with a display box having terraced pockets, of a partition having a portion secured to and covering part of the bottom of the pockets, and a bendable portion free from and covering the other part of the pocket bottoms and adapted to stand at right angles to said bottoms for longitudinally dividing each of said pockets into two pockets, and a plurality of braces struck out of and foldable flush with said bendable portion and adapted to have free engagement with the pocket fronts for holding the bendable portion in vertical position.

1,030,210. ROTARY DRIER. RICHARD SIMON, WILLIAM GEORGE SIMON, and FREDERICK RICHARD SIMON, Basford, Nottingham, England. Filed Oct. 4, 1911. Serial No. 652,807. (Cl. 34—44.)

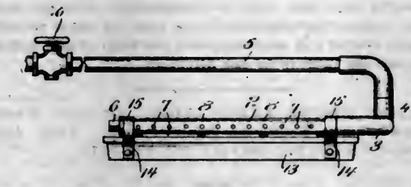
1. In a rotary drier, the combination, with a plurality of tubes, and a pair of hollow heads to which the ends of said tubes are fixed; of a plurality of connected bars arranged parallel with said tubes and having their ends loosely supported upon said heads; and a plurality of springs secured at their inner ends to said heads and at their outer ends to the ends of said bars, to compensate for expansion and contraction of said tubes.

2. In a rotary drier, the combination, with a plurality of tubes, and a pair of hollow heads to which the ends of said tubes are fixed, said heads being provided with pairs of spaced peripheral lugs; of a plurality of bars arranged parallel with said tubes and having their ends loosely fitted between said lugs; and a plurality of springs secured at their inner ends to said heads and at their outer ends to the ends of said bars, to compensate for expansion and contraction of said tubes.



3. In a rotary drier, the combination, with a plurality of tubes, and a pair of hollow heads to which the ends of said tubes are fixed; of a plurality of connected bars arranged parallel with said tubes and having their ends loosely supported upon said heads; and a plurality of leaf springs having their inner ends secured to said heads and their outer ends bent laterally inward and introduced between the peripheral walls of said heads and said bar ends and fastened to said bar ends.

1,030,211. OIL-BURNER. SAMUEL W. STATTON, Minneola, Kans. Filed May 12, 1911. Serial No. 626,682. (Cl. 158—63.)



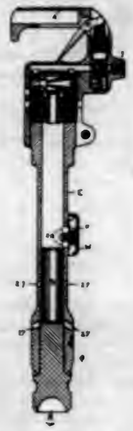
An oil burner comprising a pair of parallel burner pipes, connected at one end by a return bend and each closed at its opposite end, said pipes being provided with rows of lateral orifices and top orifices, the latter communicating with enlarged retaining recesses in the top wall of the pipe, each burner pipe having an opening in its bottom in line with each top orifice and recess, a closure for said opening, and an oil supply pipe extending above and centrally between the burner pipes and connected at one end with the return portion.

1,030,212. PNEUMATIC HAND-HAMMER. CLEMENT HENRY STEVENS, Las Palmas, Gran Canaria, Canary Islands. Filed July 8, 1909. Serial No. 506,633. (Cl. 121—20.)

1. The barrel portion provided with a threaded part at one end, an enlargement at the other end, atmospheric communicating apertures in the lower half of said barrel, relief holes mid-way of the length of said barrel, and a relief valve controlling said relief aperture, substantially as shown and for the purpose specified.

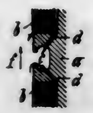
2. A relief valve comprising a valve seat portion and a movable thin sheet of metal, a guiding pin passing through said metal sheet and inserted into the valve seat portion, and a light spring holding said metal sheet in place against the seat portion, substantially as shown and for the purpose specified.

3. A pneumatic hammer comprising in combination, a cylinder provided with a bore, a piston in said bore, a cap on said cylinder having admission ports, a valve in said cap communicating with said bore and comprising a plurality of juxtaposed sections having ports communicating with said cap admission ports and with said bore, an ejector in said box, and a distributing valve in said box controlling admission from said box ports to said bore and ejector and projecting into the path of said piston for actuation thereby in one direction, said valve having a port for communication with one of said box ports for actuation of said valve in another direction.



4. A pneumatic hammer comprising in combination, a cylinder provided with a bore, a piston in said bore, a cap on said cylinder having admission ports, a valve box in said cap communicating with said bore and comprising a plurality of juxtaposed sections having ports communicating with said cap admission ports and with the bore, an ejector in said box, and a distributing valve in said box for controlling admission from said box ports to said bore and ejector and projecting into the path of said piston for actuation thereby in one direction.

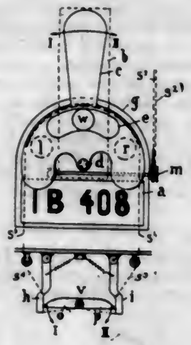
1,030,213. PISTON LUBRICATION. GUSTAVE HENRI TRÊMOLIÈRES, Neuilly-sur-Seine, France. Filed July 1, 1911. Serial No. 636,463. (Cl. 121—115.)



1. In a piston for explosion motors provided with segments, circular channels between each of the segments and between the segments and the two extremities of the piston and small capillary conduits connecting each of said circular channels with the housings of said segments in such a manner that the lubricant which is collected by the channels circulates freely and successively from one segment to the other between the two extremities of the piston.

2. In a piston for explosion motors provided with segments, circular channels between each of the segments and between the segments and the two extremities of the piston, said circular channels being provided with chamfered edges facilitating the collection of the lubricant, and small capillary conduits connecting each of said circular channels with the housings of said segments in such a manner that the lubricant which is collected by the channels circulates freely and successively from one segment to the other between the two extremities of the piston.

1,030,214. SIGNALING DEVICE FOR AUTOMOBILES AND THE LIKE. ALEXANDER VOGT, Wilmersdorf, Germany. Filed Mar. 29, 1909. Serial No. 486,533. (Cl. 116—31.7.)



1. A signaling device for vehicles provided with steering and brake operating mechanism comprising in combination, different colored signaling elements, means movable alongside of said elements to conceal one or a plurality thereof or expose one in combination with another thereof, a movable member for concealing or exposing one of said elements irrespective of the position of said means, and devices connecting said means and said member for operation by said steering and brake operating mechanism.

2. A signaling device for vehicles comprising in combination, different colored signaling elements, means movable alongside of said elements to conceal one or a plurality thereof or to expose one in combination with another thereof, a movable member for concealing or exposing one of said elements irrespective of the position of said means, and devices for operating said means and said member.

3. A signaling device for vehicles provided with steering and brake operating mechanisms, comprising in combination, different colored signaling elements, means movable alongside of said elements to conceal one or a plurality thereof or expose one in combination with another thereof and operated by said steering mechanism to indicate deviation of the vehicle from a straight course, and a movable member operated by said brake mechanism for concealing or exposing one of said elements irrespective of the position of said means.

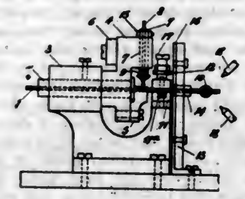
4. A signaling device for vehicles provided with steering and brake operating mechanisms, comprising in combination, a plurality of signaling elements, means movable alongside of said elements in one plane to conceal one or a plurality thereof or expose one in combination with another thereof, a member movable in another plane for concealing or exposing one of said elements irrespective of the position of said means, and connections whereby said means and said member are operated by said mechanisms.

5. A signaling device comprising in combination, a plurality of signaling elements, a signal arm movable alongside of said elements to expose or conceal certain thereof, and a member for concealing or exposing at least one of said elements and said arm.

[Claims 6 to 8 not printed in the Gazette.]

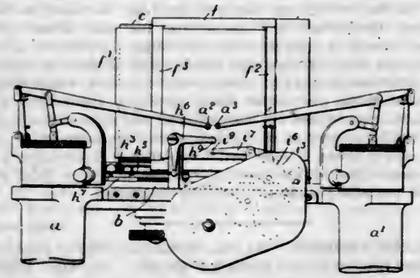
1,030,215. FEED APPARATUS FOR USE IN THE MANUFACTURE OF CORD-CHAINS. KARL WACKER and EMIL HILDENBRAND, Pforzheim, Germany. Filed July 24, 1911. Serial No. 640,156. (Cl. 113—59.)

1. Apparatus for the purpose set forth comprising two members having screw-threaded channels adapted to collectively embrace and engage a cord-chain, means for imparting relative movement to said members so that they are enabled to alternatively tightly grip and loosely engage a cord-chain in said channels, a device adapted to loosely engage a cord-chain ontside said channels, and means for rocking said chain engaging device so that a cord-chain engaged with the latter and with the channeled members is rotated by said chain engaging device unless tightly gripped by said channeled members.



2. Apparatus for the purpose set forth comprising a soldering appliance, two members having screw-threaded channels adapted to collectively embrace and engage a cord-chain, means for imparting relative movement to said members so that they are enabled to alternatively tightly grip and loosely engage a cord-chain in said channels, a device adapted to loosely engage a cord-chain outside said channels, and means for rocking said chain engaging device so that a cord-chain engaged with the latter and with the channeled members is rotated by said chain engaging device unless tightly gripped by said channeled members.

1,030,216. INDICATOR FOR STEAM, GAS, AND OTHER ENGINES. JAMES NEILSON WALLACE, West Didsbury, Manchester, England. Filed Nov. 26, 1910. Serial No. 594,288. (Cl. 234—21.)



1. Means for obtaining continuous and superimposed indicator diagrams, comprising in combination, an indicator (*a*), a paper receiving drum (*c*) adapted to be continuously rotated in one direction, means for operatively connecting the said drum to a reciprocating part moving into the engine piston to actuate said drum with a speed at all times proportionate to that of the engine piston, a second engine indicator (*a'*), a paper carrying drum (*f*), a strip of paper carried by said paper carrying drum and operatively connected to said paper receiving drum so as to be positively wound upon the latter and arranged so that the tracing pencils of the two indicators move in closely adjacent planes on the paper and substantially parallel to the axis of the carrying drum, and means for connecting the said indicators to the opposite ends of the main engine cylinder.

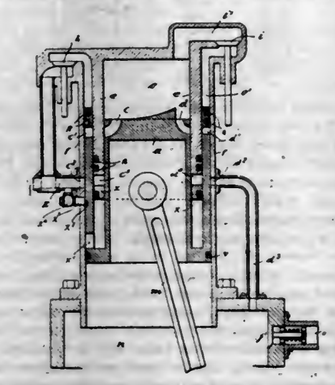
2. Means for obtaining continuous and superimposed indicator diagrams, comprising in combination, an indicator (*a*), a paper receiving drum adapted to be continuously rotated in one direction, means for operatively connecting the said drum to a reciprocating part moving in unison with the engine piston to actuate the drum with a speed at all times proportionate to that of the engine piston, a second or paper carrying paper drum (a^6), a third or paper carrying drum (*f*), a strip of paper carried by said third mentioned and first mentioned drums to be positively wound upon the latter and arranged so that the tracing pencils of the two indicators moving closely adjacent planes on the paper substantially parallel to the axis of the third mentioned drum, a second engine indicator (*a'*), adapted to be rotated in a reciprocating manner and its pencil capable of being moved to an operative position with respect to said second mentioned drum, or to be swung to coöperate with said first mentioned engine indicator whereby the tracing pencil thereof moves in a closely adjacent plane with respect to the pencil of the first mentioned indicator and in parallel relation to the axis of the third mentioned drum, and means for connecting the two indicators to the opposite ends of the main engine cylinder.

3. In apparatus of the character described, the combination of a paper receiving drum; means for continuously rotating the paper receiving drum in one direction, comprising two cord drums concentrically mounted on the drum spindle, a cord connected to a reciprocating part of the engine and oppositely wound around said cord drums, a spring connected to both cord drums so as to reversely rotate them simultaneously, clutches on said cord drums, and a concentric rotatable sleeve mounted on the drum spindle and adapted to be engaged alternately by the clutches carried by the two cord drums to cause said sleeve to rotate continuously in one direction; and a clutch on the paper receiving drum whereby it may be positively connected with the rotatable sleeve and the said paper receiving drum positively locked against movement when disengaged.

4. In apparatus of the character described, means for recording each reversal of the motion of the engine piston automatically on the same continuous strip of paper and in the same plane simultaneously with the pressure diagrams, comprising in combination an engine indicator paper receiving drum, a cord drum thereon, a pivoted lever maintained in frictional contact with said cord drum, and a second lever carrying a tracing pencil and operatively connected with the first lever as to give a vertical movement to the pencil at every reversal of the engine, substantially as described.

5. In apparatus of the character described, means for automatically recording various intervals of time on the same continuous paper strip and in the same plane, simultaneously with the pressure diagrams, comprising in combination a clock train carrying a ratchet wheel, a lever pivoted to the indicator with one arm in the path of the ratchet wheel so as to be actuated thereby, and an indicating pencil on the other arm of the lever, substantially as described.

1,030,217. INTERNAL-COMBUSTION ENGINE. LEWIS S. WATRES and REYBURN WATRES, Scranton, Pa. Filed Jan. 21, 1910. Serial No. 539,265. (Cl. 123—53.)



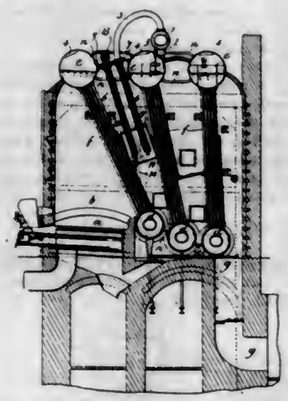
1. An internal combustion engine comprising concentric pistons one surrounding the other and so connected as to move simultaneously in the same direction, corresponding concentric cylinders, coöperating inlet ports formed in the inner piston, through the body of the outer

piston and in the shell or outer wall of the outer cylinder, corresponding coöperating exhaust ports similarly located, a valve connecting the inner cylinder and the outer cylinder and adapted to be appropriately operated by a moving part of the engine and an exhaust valve for the outer cylinder adapted also to be appropriately operated by a moving part of the engine.

2. An internal combustion engine, comprising concentric cylinders one surrounding the other, concentric pistons operating in such cylinders and so connected as to move simultaneously in the same direction, ports in the cylinder wall for admission of fuel to the interior cylinder when the piston of said cylinder is at the end of its outward stroke, ports also in the cylinder wall and controlled by the piston for at about the same time opening the interior cylinder to the exhaust, a valve connecting the interior cylinder and the outer cylinder and adapted to be appropriately operated by a moving part of the engine, and an exhaust valve for the outer cylinder also adapted to be appropriately operated by a moving part of the engine.

3. An internal combustion engine, comprising concentric cylinders one surrounding the other, and pistons so connected as to move simultaneously therein, ports for admitting fuel to one of said cylinders when the pistons are at the end of their outward stroke, ports for exhausting the same cylinder, a valve connecting the two cylinders and adapted to be appropriately operated by a moving part of the engine, and a valve for exhausting that cylinder to which the fuel is not directly admitted and also adapted to be appropriately operated by a moving part of the engine.

1,030,218. STEAM-BOILER. WILLIAM ARMSTRONG WOODESON, Gateshead, England. Filed July 19, 1909. Serial No. 508,477. (Cl. 122—301.)



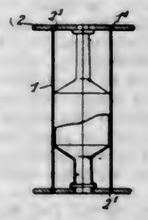
1. In a steam boiler, water drums arranged one behind the other, the rear water drum being at a lower level than the front water drum, steam and water drums corresponding in number to said water drums and located at the top of the boiler, a furnace grate arranged in front of the foremost of said water drums, groups of straight water tubes of equal length connecting said water drums to said steam and water drums, circulating tubes connecting the said water drums, circulating tubes connecting the said steam and water drums, a steam drum extending parallel to said steam and water drums, and tubes connecting said steam drum to one only of said steam and water drums.

2. In a steam boiler, water drums arranged one behind the other the rear water drum being at a lower level than the front water drum, steam and water drums corresponding in number to said water drums and located at the top of the boiler, a furnace grate arranged in front of the foremost of said water drums, groups of straight water tubes of equal length connecting said water drums to said steam and water drums, circulating tubes connecting the said water drums, circulating tubes connecting the said steam and water drums, a steam drum extending parallel to said steam and water drums, and steam tubes inclined in opposite direction to that of said groups of tubes, connecting the said steam and water drum to which the groups of straight water tubes are connected at one side of the central vertical plane to said steam drum, the connection of said steam tubes to said steam and water drum being at the same side of the central vertical plane as that at which the said groups of tubes are connected.

3. In a steam boiler, water drums arranged one behind the other the rear water drum being at a lower level than the front water drum, steam and water drums corresponding in number to said water drums and located at the top of the boiler, a furnace grate arranged in front of the foremost of said water drums, groups of straight water tubes of equal length connecting said water drums to said steam and water drums, the connection of said groups of tubes to one of said steam and water drums being mainly at one side of the central vertical plane of said drum, circulating tubes connecting the said water drums, circulating tubes connecting the said steam and water drums, a steam drum extending parallel to said steam and water drums, and steam tubes connecting the said steam and water drum to which the groups of straight water tubes are connected at one side of the central vertical plane to said steam drum, the connection of said steam tubes to said steam and water drum being at the same side of the central vertical plane as that at which the said groups of tubes are connected.

4. In a steam boiler, water drums arranged one behind the other the rear water drum being at a lower level than the front water drum, steam and water drums corresponding in number to said water drums and located at the top of the boiler, a furnace grate arranged in front of the foremost of said water drums, inclined groups of straight water tubes of equal length connecting said water drums to said steam and water drums, the connection of said groups of tubes to one of said steam and water drums being mainly at one side of the central vertical plane of said drum, circulating tubes connecting the said water drums, circulating tubes connecting the said steam and water drums, a steam drum extending parallel to said steam and water drums, and steam tubes inclined in opposite direction to that of said groups of tubes, connecting the said steam and water drum to which the groups of straight water tubes are connected at one side of the central vertical plane to said steam drum, the connection of said steam tubes to said steam and water drum being at the same side of the central vertical plane as that at which the said groups of tubes are connected.

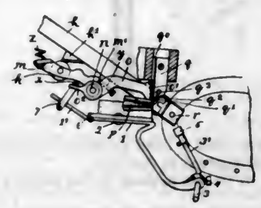
1,030,219. BOBBIN. ALFRED WORMSER, Paris, France. Filed Dec. 12, 1910. Serial No. 596,905. (Cl. 242—119.)



1. A bobbin having its body constructed of a sheet metal blank rolled into the form of a cylinder and provided at its end edges with a plurality of integral projecting tongues, sheet metal heads having on their inner faces circular recesses to receive the edge portions of the body and having slots coincident with the recesses and through which the said tongues project, the ends of the tongues being flattened to provide a positive rivet-like connection between the body and the heads, and an inclosed reinforcing part which has a cylindrical portion corresponding to the internal diameter of the body and extended stem portions provided adjacent their ends with beads, the heads having central openings to receive the extremities of the extended stem portions and the said beads bearing against the heads.

2. A bobbin comprising a body constructed of a sheet metal blank rolled into the form of a cylinder and provided at its ends with projecting tongues, sheet metal heads having slots through which the tongues pass, the tongues serving to lock the heads and the body, the heads having central openings, and a hollow sheet metal reinforcing part inclosed in the body and comprising a cylindrical portion which corresponds to the internal diameter of the body and extended stem portions, the extremities of which pass through the central openings of the heads, the said stem portions having beads which bear against the heads.

1,030,220. TACK-SAVER FOR LASTING-MACHINES. EDWARD J. YOUNG, Haverhill, Mass., assignor, by direct and mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 20, 1908. Serial No. 428,012. (Cl. 1—18.)



1. In a lasting machine, the combination of a main shaft, the driver, the tack holder, and tack feeding devices comprising a tack race-way and tack separator, said separator being movable in opposite directions to feed the tacks separately from the race-way to the tack-holder, an operating device movable back and forth to operate said separator, a spring located between said shaft and said operating-device, means operated by said shaft for compressing said spring to move said operating device in one direction, a locking device having an abutment and means for normally holding said abutment in the path of movement of said operating device to prevent movement thereof upon compression of said spring, and an arm connected to said locking device and disposed to be engaged by the shoe when placed in position in the machine to move said abutment out of engaging position, substantially as described.

2. In a lasting machine, the combination of the main shaft, the driver, the tack holder, and the tack feeding devices comprising a tack race-way, and a tack separator movable to deliver the tacks separately from the race-way to the holder, connections between said shaft and said separator for operating the separator as the shaft rotates, locking means for the separator normally acting to prevent operation thereof by the shaft, an engaging device having a horizontally and vertically adjustable arm connected thereto, adapted to be engaged by the shoe when held in position in the machine and to be moved thereby to cause the engaging device to release the separator and permit the same to be operated by the shaft, substantially as described.

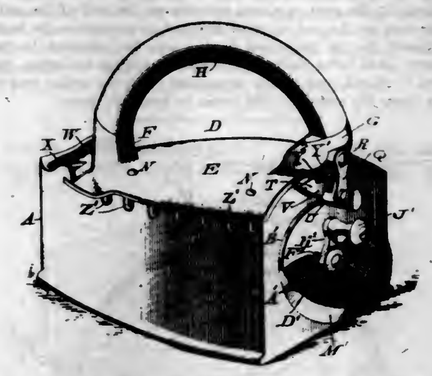
3. In a machine of the class described, the combination with tack-delivering devices and means for actuating said devices, of means controlled by the position of the work for locking the delivering devices with a tack therein ready to be delivered when the devices are unlocked.

4. In a machine of the class described, the combination with tack delivering devices, a spring, and means, acting through said spring, for actuating said devices, of means, controlled by the position of the work, for locking the delivering devices with a tack therein ready to be delivered when the devices are unlocked.

5. In combination, a movable work rest, a tack feed slide, and means for controlling the movement of said slide, said means having one end connected with the work rest and its other end free to be thrown into position to lock the feed slide in tack delivering position.

[Claims 6 to 12 not printed in the Gazette.]

1,030,221. SAD-IRON. HARRY ABRAMSON, Philadelphia, Pa. Filed Mar. 31, 1911. Serial No. 618,119. (Cl. 68—26.)



1. In a sad iron, a chambered body having a draft inlet therein, a damper mounted on said body, an axial bolt for said damper connected with the wall of said body, a handle on said damper, a resilient device on said bolt intermediate said damper, and wall, said damper having an outturned flange, and a resiliently held screen seated on said flange and covering the opening in the damper.

2. In a sad iron, a chambered body, a fuel support therein, said body having a draft inlet therein, a damper mounted in said body over said inlet and having an opening adapted to register with said inlet, and an outturned flange and a pivotally mounted screen over said opening provided with resilient retaining means holding said screen closed on said flange.

3. In a sad iron, a chambered body, a fuel support therein, said body having a draft inlet therein, a movable damper over said inlet, said damper having a draft inlet adapted to register with that of said body, and a screen over the draft inlet of said damper, said screen having a frame, and said damper having eyes, the cross bar of said frame having bearings in said eyes, said cross bar constituting resilient means for retaining the screen in closed position.

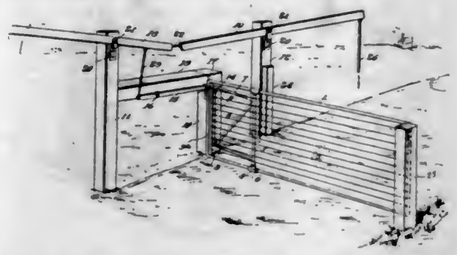
4. In a sad iron, a chambered body, a fuel support therein, a draft inlet in said body, a rotatable damper having a draft opening therein, said inlet and opening being adapted to register, a screen pivotally connected with said damper adapted to cover the opening therein, and a spring member on said screen adapted to retain the latter in operative position.

5. In a sad iron, a chambered body, a fuel support therein, an adjustable draft device for the air inlet of said body, a screen adapted to cover said device, resilient retaining means carried by the screen and engageable with the hub of said draft device for holding the screen in position and an outwardly extending flange on said device adjacent to said screen the latter being pivotally mounted on said device and extending obliquely therefrom to and over said flange.

1,030,222. GATE. HERMAN CARL ANDERSON, Mount Vernon, Wash. Filed Sept. 7, 1911. Serial No. 648,029. (Cl. 39—5.)

1. In combination with a post, a gate, a rod arranged vertically near one end of the gate and pivoted at each end to the gate, arms extending laterally from the rod and hinged to the post, a sleeve slidable on the end of the gate adjacent to the rod, a lever pivoted intermediate its ends adjacent to the gate and having one end pivoted to the sleeve, said lever being substantially horizontal when the gate is closed, a post at each side of the gate post, an operating lever pivoted intermediate its ends to each post, a connection between the inner ends of the operating levers, and a link connecting the inner end of one operating lever to the other end of the first named lever.

2. In combination with the post, a gate, a rod arranged vertically near one end of the gate and pivoted at each end to the gate, arms extending laterally from the rod and hinged to the post, a sleeve slidable on the end of the gate adjacent to the rod, a lever pivoted intermediate its ends adjacent to the gate and having one end pivoted to the sleeve, said lever being substantially horizontal when the gate is closed, and means connected with the other end of the lever for swinging the same to open the gate.



3. In combination, a gate, a rod arranged transversely of the gate intermediate its ends, a pivotal connection between the gate and the rod, arms extending laterally from the rod, a support to which the free ends of the arms are hinged, a lever pivoted intermediate its ends near the gate, a slidable connection between one end of the lever and one end of the gate, an operating lever pivoted intermediate its ends on each side of the gate, and a connection between the inner end of each operating lever and the gate.

4. In combination, a gate, a rod pivoted transversely of the gate near one end, an arm extending laterally from the rod near each end thereof, a fixed support to which the arms are hinged, a normally horizontal lever pivoted intermediate its ends near the gate, a slidable connection between one end of the lever and the end of the gate adjacent to the rod, and means engaging the other end of the lever for swinging the same to open and close the gate.

5. In combination, a gate, a rod pivoted transversely of the gate near one end, an arm extending laterally from the rod near each end thereof, a fixed support to which the arms are hinged, a lever pivoted intermediate its ends near the gate, a slidable connection between one end of the lever and the end of the gate adjacent to the rod, and means engaging the other end of the lever for swinging the same to open and close the gate.

[Claims 6 to 8 not printed in the Gazette.]

1,030,223. CARRIER FOR INTRENCHING-TOOLS. FRANK R. BATCHELDER, Worcester, Mass. Filed Mar. 4, 1911. Serial No. 612,320. (Cl. 224—2.)

1. A carrier for intrenching tools comprising a woven fabric body or sheath to receive the tool having receptacles upon its interior, and protective material arranged in said receptacles to prevent abrasion of the walls of the sheath by the tool.

2. A carrier for intrenching tools comprising a woven fabric sheath or body to receive the tool having woven receptacles upon its inner surface, and protective means arranged in said receptacles to prevent abrasion of the walls of the sheath by the tool.

3. A carrier for intrenching tools comprising a woven fabric sheath or body to receive the tool, a series of tubes woven upon the interior of the sheath, and strips of protective material inserted in said tubes to protect the walls of the sheath from abrasion by the tool.

4. A carrier for intrenching tools comprising a fabric sheath woven in substantially tubular form to receive the tool and having upon its interior an added ply or plies woven integral with receptacles at the side edges of the sheath, and strips of protective material arranged in said receptacles for preventing abrasion of the walls of the sheath by the tool.

5. A carrier for intrenching tools comprising a woven fabric sheath or body open at both ends and adapted to



receive the tool, and a fixed support arranged at the bottom end to be engaged by the tool.

[Claims 6 to 10 not printed in the Gazette.]

1,030,224. CONVERTIBLE SUSPENSORY AND SUPPORTER. ALECK BAUER, Chicago, Ill., assignor to Bauer & Black, Chicago, Ill., a Corporation of Illinois. Filed Apr. 16, 1908. Serial No. 427,313. (Cl. 128—38.



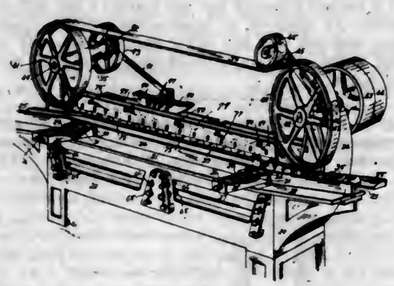
1. The combination of a bandage provided with an opening, and means for securing the bandage in place, of a flap secured at its upper edge to said bandage and adapted to hang down freely behind the bandage to cover the said opening, and means to secure the end of said flap to the outer side of said bandage, thereby leaving the opening exposed.

2. A combined suspensory and supporter comprising a bandage provided with an opening and a flap secured to the bandage above the opening on the inner side of the bandage, adapted to either hang down back of the opening closing the same, or to be folded back and secured to the bandage leaving the opening clear, and means adapted to secure the flap in the said folded back position.

3. The combination with a bandage having a penis opening and means for securing the bandage in place, of a flap fashioned to the bandage at the back thereof above the penis opening and adapted to hang down freely at the back of the bandage to cover said opening or be folded forwardly over the upper edge of the bandage to leave said opening clear, and means at the free end of the flap and at the front of the bandage above the penis opening for securing the flap in folded position.

1,030,225. MACHINE FOR SOLDERING SHEET-METAL VESSELS. GEORGE H. BENNETT, Sydney, New South Wales, Australia, assignor to British-American Tobacco Company Limited, London, England. Filed June 6, 1911. Serial No. 631,526. (Cl. 113—68.)

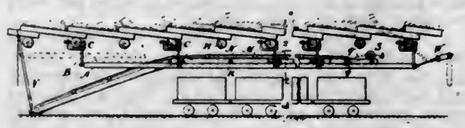
1. In machines for soldering the end or ends of cylindrical sheet metal vessels the combination with fluxing and soldering apparatus of a belt conveyer provided with superimposed weighted rollers for moving the vessels over said apparatus and an initial roller of greater diameter and weight for the purpose of controlling the preliminary spacing of the cans substantially as described and as illustrated.



2. In a machine of the type set forth, a channel along which a series of cans are continuously rolled and which has its tractive surface provided with a longitudinal slot, a weighted belt for feeding the cans along the channel, a soldering apparatus including a compartment which has an extended discharge mouth disposed within the slot, a second compartment serving as a solder reservoir and a reciprocatory cradle constructed to transfer solder to the first compartment from the second, belt driving means and operative connections between an element of the belt driving means and the cradle to positively operate the latter from the former.

3. In machines for soldering the end or ends of cylindrical metal vessels a belt conveyer bearing downwardly against the cylindrical sides of the cans and weighted rollers rotating in slotted bearings taking against the upper face of the conveyer and an initial roller of greater diameter and weight for the preliminary spacing of the cans substantially as described and as illustrated.

1,030,226. CONVEYER FOR USE IN MINES. FRANK BILLINGS, Cleveland, Ohio. Filed Mar. 10, 1910. Serial No. 548,467. (Cl. 193—4.)



1. In conveyer mechanism for use in mines, the combination of a track support made up of separable sections connected end to end and adapted to be so connected in any order, swinging links by which said track support is sustained, tracks on said support, a conveyer frame having wheels which run on said tracks, an endless belt conveyer mounted on said frame, and mechanism also mounted on said frame for driving said belt conveyer.

2. In conveyer mechanism for use in mines, the combination of a track-carrying support, parallel swinging links, to the lower ends of which said support is pivotally connected, means for drawing said support endwise, whereby its height is varied, and a conveyer movably supported on said track.

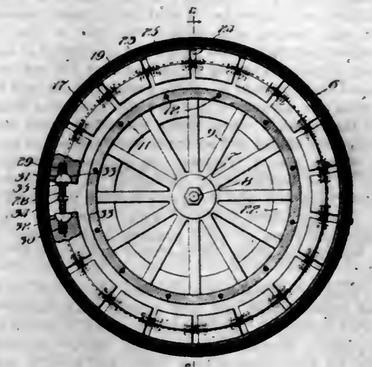
3. In conveyer mechanism for use in mines, the combination of suspended tracks, a conveyer frame having wheels which ride on said tracks, conveyer mechanism mounted on said frame, and conveyer driving mechanism also mounted on said frame.

4. In a conveyer, the combination of frame sections hinged together on horizontal pivots, wheels mounted on said frame sections, supporting tracks on which said wheels may ride, and a carrier movably mounted on the sectional frame.

5. In a conveyer, the combination of a support having parallel track bars, a conveyer composed of a plurality of sectional frame members which are hinged together and are severally provided with wheels adapted to run on said track bars, and means supporting the front section of said conveyer frame in any required angular relation to the remainder of said conveyer frame.

[Claims 6 to 10 not printed in the Gazette.]

1,030,227. RESILIENT WHEEL. WALTER BLACK, Mendota, Ill. Filed July 1, 1911. Serial No. 636,413. (Cl. 152—37.)



1. A wheel, comprising a channeled rim held against diametrical movement with respect to the axle of the wheel, a series of circumferentially arranged blocks slidably mounted in said rim and adapted to have a movement toward each other and toward the axle of the wheel, said rim terminating in inwardly extending flanges, said blocks having shoulders adapted to engage said flanges, said shoulders having grooves adapted to engage with the lower faces of said flanges, whereby said blocks are held in centralized position with respect to the rim, and in a condition of circumferential alinement with one another, the inner face of the tread having a groove therein, the outer face of the blocks being configured to engage said groove, whereby the blocks are centralized with respect to the tread and maintained in a condition of circumferential alinement, and a circumferentially extending tension member between said blocks tending to force them apart, substantially as described.

2. A wheel, comprising a channeled rim held against diametrical movement with respect to the axle of the wheel, a series of circumferentially arranged blocks slidably mounted in said rim and adapted to have a movement toward each other and toward the axle of the wheel, said rim terminating in inwardly extending flanges, said blocks having shoulders adapted to engage said flanges, said shoulders having grooves adapted to engage with the lower faces of said flanges, whereby said blocks are held in centralized position with respect to the rim, and in a condition of circumferential alinement with one another, the inner face of the tread haing a groove therein, the outer face of the blocks being configured to engage said groove, whereby the blocks are centralized with respect to the tread and maintained in a condition of circumferential alinement, a circumferentially extending tension member between said blocks tending to force them apart, and means for adjusting the initiatory strength of the tension members, substantially as described.

3. A wheel, comprising a channeled rim, a hub, and connections therebetween, all held against diametrical movement with respect to the axle of the wheel, a series of unattached blocks arranged in said rim to have a movement toward one another and toward the axle of the wheel, shock-absorbing mechanism consisting of a series of springs arranged circumferentially of the axle of the

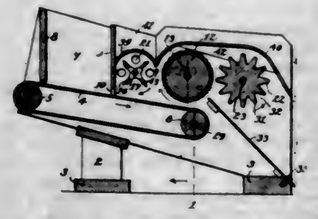
wheel, and interposed between said blocks said springs tending to hold said blocks away from one another and outwardly projected from the axle of the wheel, and a continuously extending tread member overlying said blocks and movable diametrically with respect to the axle of the wheel, the inner face of said tread member being configured to provide a trackway adapted to receive the outer face of said blocks to maintain the blocks in centralized position with respect to the tread member, and maintain them in such position during their movement circumferentially of said tread member, substantially as described.

4. A wheel, comprising a channeled rim, a hub, and connections therebetween, all held against diametrical movement with respect to the axle of the wheel, a series of unattached blocks arranged in said rim to have a movement toward one another and toward the axle of the wheel, shock-absorbing mechanism consisting of a series of springs arranged circumferentially of the axle of the wheel, and interposed between said blocks to normally hold said blocks away from one another and outwardly projected from the axle of the wheel, a continuously extending tread member overlying said blocks and movable with respect to the axle of the wheel, and a trackway on the rim member, the surface of the blocks being configured in correspondence with said trackway, said trackway serving to maintain the blocks in centralized position with respect to the rim and maintain them in such position during their movements circumferentially of the rim, substantially as described.

5. A wheel, comprising a channeled rim, a hub, and connections therebetween, all held against diametrical movement with respect to the axle of the wheel, a series of circumferentially arranged unattached blocks mounted in said rim to move toward each other and toward the axle of the wheel, resilient members interposed between said blocks, said members extending circumferentially of the wheel, and tending to force said blocks away from one another and outwardly from the axle of the wheel, a continuously extending tread overlying said blocks and movable with respect to the axle of the wheel, and outer and inner configured trackways for the blocks, holding said blocks during their sliding movements upon the tread and rim in centralized position with respect to the tread and rim, and in circumferential alinement with one another, said blocks being configured in correspondence to the configuration of the trackways, substantially as described.

[Claim 6 not printed in the Gazette.]

1,030,228. MACHINE FOR SEPARATING LEAF AND SEED COTTON. BENJAMIN CRABTREE CALDERWOOD, Valley Falls, R. I., assignor to Price-Campbell Cotton Picker Corporation, Wilmington, Del., a Corporation of Delaware. Filed Aug. 30, 1911. Serial No. 646,913. (Cl. 13—12.)

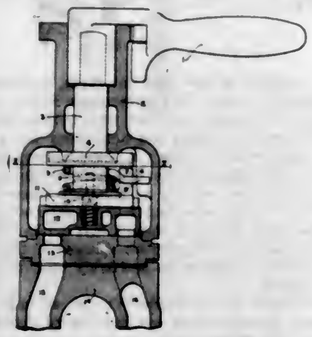


1. The combination, in a leaf and seed cotton separating machine, of a frame; a conveyer mounted in the frame; a fan mounted above and over the conveyer; a card roll mounted in the frame and rotatable in a direction opposite to the direction of rotation of the fan; and a doffer mounted in close proximity to the conveyer, the card roller being between the doffer and fan and an inclined discharge plate.

2. The combination, in leaf and seed cotton separating machine, of a frame; a conveyer mounted in the frame; a fan mounted above the conveyer; a card roll mounted in the frame; a transverse bar forming a trash-breaker and located between the fan and the card; a fan doffer parallel with the card; a housing for the fan, card roller and fan doffer and a separate plate.

3. In a leaf and seed cotton separating machine, a frame; a conveyer leading into the frame; a fan and card roll above the conveyer in combination with a housing over the card roll and fan doffer parallel therewith and adjacent thereto; and an inclined separating plate under the fan doffer.

1,030,229. ENGINEER'S VALVE. HERBERT W. CHENEY, Milwaukee, Wis., assignor to Allis-Chalmers Company, Milwaukee, Wis., a Corporation of New Jersey. Filed Oct. 20, 1911. Serial No. 655,691. (Cl. 188—7.)



1. In an engineer's valve, a casing, a valve within said casing, means for operating said valve, and a spring having end portions directly engaging a portion of the inner wall of said casing and adapted to return said valve to normal from any other position.

2. In an engineer's valve, a casing, a valve within said casing, means for operating said valve, a single stop on said casing, and a spring having ends directly engaging opposite sides of said stop and adapted to return said valve to normal from any other position.

3. In an engineer's valve, a casing, a valve within said casing, a stem for operating said valve, means for operating said stem, and a spring for automatically returning said valve and stem to normal from any other position, said spring surrounding said stem and having end portions directly engaging a portion of the inner wall of said casing.

4. In an engineer's valve, a casing, a valve within said casing, means for operating said valve, a stop on said casing, and a helical spring having end portions directly engaging said stop, the engagement between said spring ends and stop being such that movement of said valve away from normal position will cause said spring to coil up.

1,030,230. CROSS-TIE. WILLIAM G. CHIPLEY, Atlanta, Ga. Filed Dec. 18, 1911. Serial No. 666,534. (Cl. 238—3.)



1. In a device of the class described, a tie provided with a transverse recess, a reinforcing member extending longitudinally of the tie and cut away to afford an opening conforming to the lower portion of the recess, and rail engaging devices for insertion within the recess on opposite sides of the rail, said devices each cushioning the head and base of the rail.

2. In a device of the class described, a tie provided with a channel-shaped reinforcing member the flanged sides of which project toward the upper side of the tie, said flanged sides being cut away, the tie being provided with a transverse recess, the walls of the lower portion of which coincide with the cut away portion of the channel member, and means for insertion within the recess on opposite sides of the rail for engaging the reinforcing member, cushioning the head of the rail.

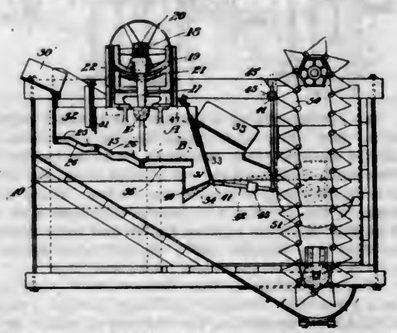
3. In a device of the class described, a tie provided with a transverse recess and a reinforcing member having a cut away portion conforming in part to the configuration of the recess, and means for insertion within the recess and engaging the flange and web of the rail and the said reinforcing member and for cushioning the head of the rail.

4. In a device of the class described, a tie provided with a reinforcing member and a transverse recess, and means for insertion within the recess and engaging the reinforcing member, the sides of the recess and adapted to engage a rail received within said recess and to cushion and partially support the head thereof.

5. In a device of the class described, a tie provided with a reinforcing member and a transverse recess, and wedge shaped devices for insertion within the recess and engaging the reinforcing member, the sides of the recess, and adapted to engage a rail received within said recess and to cushion and partially support the head thereof.

[Claims 6 to 8 not printed in the Gazette.]

1,030,231. SEPARATING APPARATUS. ISAAC CHRIST, Tamaqua, and HENRY K. CHRIST, Mahanoy City, Pa. Filed July 6, 1911. Serial No. 637,218. (Cl. 83—80.)



1. A jig pan provided with a discharge pocket adjacent its forward end, the bottom of said pan being provided with a forwardly extended portion overhanging said pocket, a gate forming the bottom of said pocket and mounted to effect a rearward discharge of the contents of said pocket, and means for compensating for the weight of material to be supported by said gate.

2. A jig pan provided with a discharge opening, a pivoted gate normally closing said opening, said gate being mounted to effect a rearward discharge when open, and means for counterbalancing said gate.

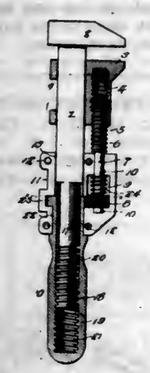
3. A jig pan provided with a discharge opening, a rearwardly extended gate normally closing said discharge opening, means for pivotally supporting said gate at its forward end, the rear end of said gate being free, and means for counterbalancing said gate.

4. A jig pan provided with a discharge pocket, a gate forming the bottom of said pocket, means for pivotally supporting said gate to effect a rearward discharge of the contents of said pocket, and counterbalancing means connected with said gate.

5. A jig pan provided with a bottom formed of sections in different planes united by inclined sections and a discharge pocket adjacent its forward end, said bottom having a forwardly extended portion overhanging said pocket, a discharge chute for the lighter material, and a gate mounted to effect a rearward discharge of the material within said pocket.

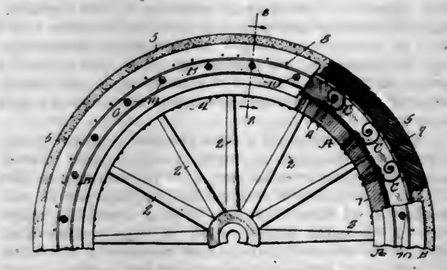
[Claims 6 to 8 not printed in the Gazette.]

1,030,232. WRENCH. WILLIAM C. COLE, Baltic, Mich. Filed Oct. 26, 1910. Serial No. 589,167. (Cl. 81—171.)



In a wrench of the class described, including a pair of jaws, one of said jaws having a shank which is provided with an inner threaded portion, a handle having a threaded bore which is adapted to engage with the threaded extension of the shank, the second jaw being mounted for slidable movement upon the shank of the first named jaw, said second jaw having a threaded bore, a housing comprising a pair of elements upon the shank and surrounding the outer portion of the handle, said housing being provided with pockets, the upper portion of the handle being formed with a toothed annular element arranged within one of the pockets of the housing, a threaded element also arranged within the housing and co-acting with the threaded bore of the movable jaw, said member having its portion arranged within the housing non-threaded and being provided with a toothed annular member which is adapted to co-act with the toothed portion of the handle, and a spring member adapted to exert a pressure to normally force the threaded member co-acting with the jaw to bring its annular toothed element into coöperation with the annular toothed element provided upon the handle.

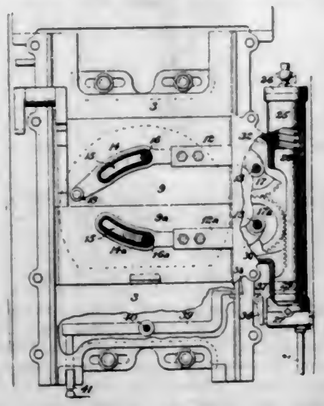
1,030,233. SPRING-TIRE FOR VEHICLES. STEPHEN ROSS CREWS, Tampa, Fla., assignor of one-half to Josiah Richardson, Tampa, Fla. Filed Sept. 2, 1911. Serial No. 647,393. (Cl. 152—37.)



In a spring wheel of the type indicated, the combination, with a fixed inner wheel rim and an outer concentric movable rim including parallel, annular, side plates extending radially inward and overlapping the fixed rim, said plates being provided with a series of polygonal apertures, of coiled springs interposed between the two rims and secured to the inner one, polygonal bolts passing transversely through the free ends of the springs, said bolts having two adjacent squared portions and a reduced rounded portion at one end, and a screw tenon at the other end, the inner one of the adjacent squared portions being adapted to fit in the polygonal apertures of the side plates, whereby the bolts are

adapted to be adjusted lengthwise and rotated when it is required to change the tension of the springs, but in normal position and relation lock the springs with the side plates and hold them under any required degree of tension, substantially as described.

1,030,234. FLUID-PRESSURE MOTOR FOR FIRE-BOX DOORS. ALBERT G. ELVIN, East Orange, N. J. Original application filed Feb. 5, 1907, Serial No. 355,877. Divided and this application filed Sept. 28, 1909. Serial No. 519,998. (Cl. 121—45.)



1. The combination of a fluid pressure cylinder having a lateral opening and a closing head provided with supply, exhaust, and auxiliary exhaust ports, a piston working in said cylinder and having a rack on its side adjacent to said opening in position to engage a gear extending thereinto, an operating piston valve in the closing head of the cylinder controlling the supply, exhaust, and auxiliary exhaust of fluid to and from said cylinder, and a spring bearing on said piston and acting to effect its traverse in a direction opposite to that effected by the action of fluid pressure.

2. The combination of a fluid pressure cylinder having a lateral opening and a closing head provided with a direct supply and exhaust port, a piston working in said cylinder and having a rack on its side adjacent to said opening in position to engage a gear extending thereinto, an operating piston valve in the closing head which, when unseated, admits fluid pressure to the cylinder, and, when seated, exhausts fluid pressure therefrom, and which is continuously subject to fluid supply pressure, a lever for unseating the operating valve, and a spring bearing on the piston and acting to effect its traverse in a direction opposite to that effected by the action of fluid pressure.

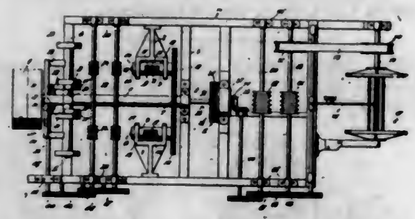
3. The combination of a fluid pressure cylinder having a lateral opening and a closing head provided with a direct supply and exhaust port, a piston working in said cylinder and having a rack on its side adjacent to said opening in position to engage a gear extending thereinto, an operating piston valve in said closing head which, when unseated, admits fluid pressure to the cylinder, and, when seated, exhausts pressure therefrom, and which is continuously subject to fluid supply pressure, a lever system, one member of which contacts with the operating valve, means, for unseating the operating valve through the lever system, and a spring bearing on the piston and acting, when the operating valve is seated, to effect the traverse of the piston in a direction opposite to that effected by the action of fluid pressure.

4. The combination of a fluid pressure cylinder having a lateral opening and a closing head, a piston working in said cylinder and having a rack on its side adjacent to said opening in position to engage a gear extending thereinto, a direct supply and exhaust port leading into the cylinder through the closing head, a preliminary exhaust port leading into the cylinder adjacent to the limit of traverse of the piston, a final exhaust port through the closing head, an operating piston valve controlling all of said ports and continuously subject to fluid supply pressure, and means for unseating the operating valve to admit fluid pressure to the cylinder and permitting it to be reseated by fluid pressure to exhaust fluid pressure from the cylinder.

5. The combination of a fluid pressure cylinder having a lateral opening and a closing head provided with a direct supply and exhaust port, a piston working in said cylinder and having a rack on its side adjacent to said opening in position to engage a gear extending thereinto, an automatically seating operating piston valve in said closing head and controlling the supply and exhaust of fluid to and from the piston through the supply and exhaust port, an adjustable valve in said head and port and interposed between the piston and valve, and means for unseating said operating valve.

[Claims 6 to 8 not printed in the Gazette.]

1,030,235. ROPE-MAKING MACHINE. WILLIAM FINLAY, Xenia, Ohio. Filed Apr. 29, 1910. Serial No. 558,343. (Cl. 28—21.)



1. The combination of a plurality of twisters relatively fixed to each other and spaced around a common axis, means for mounting each twister to rotate on its own axis, capstan rollers disposed in line with each twister and rotatable on fixed axes extending transversely to the axis of rotation of the twister, and bobbins arranged with their axes parallel with the capstan rollers and from which the latter draw the strands and a strand-laying device into which the twister strands from the twister pass.

2. The combination of four twisters fixed with respect to each other and arranged stationary around a common axis, means for supporting the twisters to rotate on their own axes, shafts extending transversely to the axes of the twisters, capstan rollers on each shaft and each arranged in line with the twister, and bobbins arranged with their axes parallel with the capstan rollers and from which the latter draw the strands, fixed bearings in which the shafts are mounted, means for turning the shafts, means for rotating the twisters, and a strand laying device arranged to receive the twisted strands from the twisters.

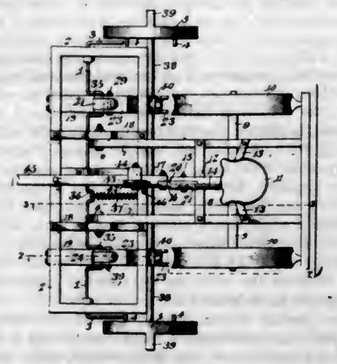
3. The combination of four twisters, fixed bearings in which the twisters are mounted to turn on their individual axes, two pairs of shafts extending transversely to the axes of the twisters and each pair of shafts being disposed in line with a pair of twisters, capstan rollers mounted on the shafts in alinement with the twisters, and bobbins arranged with their axes parallel with the capstan rollers and from which the latter draw the strands, a gearing for turning all the shafts in the same direction, and a gearing for turning all the twisters in the same direction.

4. The combination of a frame, brackets secured to the sides of the frames and extending inwardly, a pair of twistera arranged with their axes parallel and spaced apart in each bracket, the twisters being arranged about a common axis, a gear wheel on each twister, a driving gear wheel meshing with the first-mentioned gear wheel, a plurality of capstan rollers arranged in alinement with the axis of each twister and having their axes transverse to the latter and arranged for turning the capstan rollers.

5. The combination of a frame, an upright rack at one end, horizontally-disposed bobbins on the rack, drags operating on the bobbins, a set of capstan rollers for the strand from each bobbin, said rollers being disposed with their axes parallel with the bobbins, a twister arranged in proximity to each set of capstan rollers to receive the strand direct therefrom for imparting a twist to the fiber, and a laying device for receiving the strands directly from the twisters.

[Claims 6 to 11 not printed in the Gazette.]

1,030,236. WIRELESS CHECK-ROW CORN-PLANTER. SEBASTION L. GOODIN, Farber, Mo. Filed June 29, 1911. Serial No. 636,079. (Cl. 111—6.)



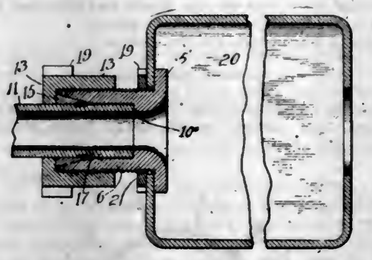
1. The combination with a front or runner frame, of a transverse rotary marker shaft extending across the frame, marker wheels mounted on the marker shaft and provided with markers and having tappets, seed dropping mechanism carried by the front or runner frame, a transverse rock shaft extending entirely across the front or runner frame and mounted thereon and provided with arms at both ends arranged in the path of the tappets of the marker wheels, said rock shaft being also provided at points intermediate of its ends with arms connected with the seed dropping mechanism for actuating the same.

2. The combination with a front or runner frame, of a transverse marker shaft extending across the frame, marker wheels mounted on the marker shaft and provided with markers and having tappets, seed dropping mechanism carried by the front or runner frame, a transverse rock shaft extending entirely across the front or runner frame and mounted thereon and provided with end arms and arranged in the path of the tappets of the marker wheels, said rock shaft being also provided with arms connected with the seed dropping mechanism for actuating the same, and operating mechanism for rotating the marker shaft including a lower pulley mounted on the marker shaft, an upper pulley mounted on the runner frame, and a belt connecting the upper and lower pulleys.

3. The combination of a front or runner frame provided at its rear portion with a standard, a transverse marker shaft extending across the rear portion of the front or runner frame and carried by the same, marker wheels mounted on the ends of the marker shaft and provided with tappets and having markers, seed dropping mechanism carried by the front or runner frame, a transverse rock shaft extending across the front or runner frame and having arms arranged in the path of the tappets of the marker wheel, said rock shaft being also provided with means for connecting it with the seed dropping mechanism, a lower pulley mounted on the marker shaft, an upper pulley supported by the said standard and provided with an actuating handle, and a belt connecting the upper and lower pulleys.

4. The combination of a runner frame, seed dropping mechanism including a grain spout, an upper pivoted cut-off provided with a bifurcated arm having opposite notches, a lower valve, a link connected with the lower valve and provided with a head arranged in the bifurcation of the arm of the upper cut-off and having a notch alined with the said notches, a rock shaft mounted on the runner frame and provided with an arm extending into the said notches and connecting the link and the arm of the upper cut-off, and means for actuating the rock shaft.

1,030,237. PIPE-JOINT. CHESTER P. HALL, Chicago, Ill., assignor to Delta-Star Electric Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 29, 1910. Serial No. 540,798. (Cl. 137—28.)



1. In a pipe joint, the combination, with a pipe having a normally non-threaded end of a sleeve to receive the pipe end, said sleeve exteriorly threaded and interiorly tapered near its end, a ring of soft malleable metal adapted to surround the pipe and tapered for coaction with said tapered sleeve upon the application of pressure thereto to hold the pipe, and a cap threaded for engagement with said sleeve and for forcing said tapered ring into contact therewith, said pipe having cut therein at approximately the inner edge of the taper of said sleeve a sharp edged groove for reception of a sharp thread of said ring to be forced thereinto upon operation of said threaded cap.

2. In a pipe joint, the combination with a pipe, having a normally non-threaded end, of a sleeve to receive the pipe end, said sleeve exteriorly threaded and interiorly tapered near its end, an interior shoulder against which the pipe end abuts, a ring of soft malleable metal surrounding the pipe and tapered by the application of pressure thereto to wedge between said tapered portion of the sleeve, and pipe, and a cap threaded for engagement with said sleeve and forcing said tapered ring into contact therewith, said pipe having cut therein a groove adjacent the small edge of said tapered ring for reception of the extreme edge of said tapered malleable ring forced thereinto upon operation of said cap.

3. In a pipe joint, the combination of a pipe end having made therein (as by a single turn of a pipe cutter) a sharp edged groove at a suitable distance from the end thereof, a sleeve for fitting over said pipe end providing a shoulder to receive in contact therewith the end of said pipe, the interior surface of said sleeve providing a flaring portion extending outwardly from said groove in the pipe end and the exterior surface of said sleeve being screw-threaded, an interiorly screw-threaded cap for engagement with said screw threads of the sleeve, and a wedge ring of soft malleable metal tapering to provide on one side a pointed annular edge, said wedge ring lying with its pointed edge within the tapering space between the sleeve and pipe end, said ring being by turning of the cap, forcibly wedged into said space, and the pointed edge lying in the groove of said pipe end as, and for the purpose described.

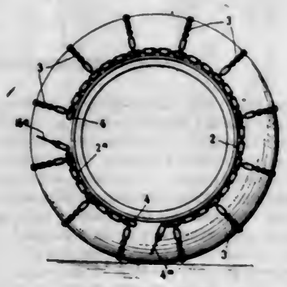
4. In a pipe joint, the combination with a pipe end having a groove therein and a non-threaded portion adjacent said groove, of a sleeve providing an interior surface for coaction along the outer surface of the pipe, and a surface flaring outwardly to overlie said non-threaded portion, whereby there is included between said flaring surface of the sleeve and said non-threaded portion of the pipe an inwardly tapering space said space ending substantially at

the groove in said pipe, a ring of malleable metal, and a cap adapted to be moved toward said ring to press the latter into said tapering space and groove, as described.

5. In a pipe joint, the combination, with a pipe end having a groove therein and a non-threaded portion adjacent said groove, of a sleeve providing an interior surface for coaction along the outer surface of the pipe end, and a surface flaring outwardly to overlie said non-threaded portion, whereby there is included between said flaring surface of the sleeve and non-threaded portion of the pipe an inwardly tapering space said space ending substantially at the groove in said pipe, a ring of malleable metal tapering toward one side to provide a pointed annular edge and having adjacent its edge an enlargement, and a cap adapted to be moved toward said ring to press the latter into said tapering space between the sleeve and pipe and to press said enlargement down into said groove.

[Claim 6 not printed in the Gazette.]

1,030,238. ANTISKID DEVICE. RIKICHY HIMENO, New York, N. Y. Filed Dec. 21, 1911. Serial No. 667,186. (Cl. 152—14.)



An anti-skid device for wheels comprising two side-chains with means for connecting the ends thereof, a plurality of cross-links connecting said side-chains at intervals, one of said side-chains being separable at a point intermediate its length to divide said side-chain into two sections, and means to connect and disconnect said intermediate separated ends.

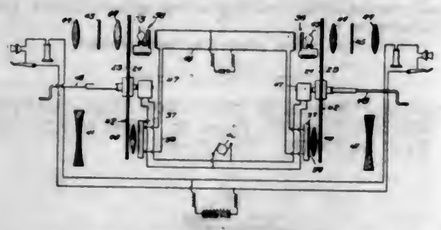
1,030,239. PROCESS OF PRODUCING ALIPHATIC HYDROCARBONS WITH MORE THAN ONE DOUBLE BOND. FRITZ HOFMANN and CARL COUTELLE, Elberfeld, Germany, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany, a Corporation of Germany. Filed Feb. 3, 1910. Serial No. 541,762. (Cl. 23—24.)

1. Process of producing aliphatic hydrocarbons with more than one double bond which consists in completely alkylating saturated poly acid bases containing at least 4 carbon atoms, converting the products thus obtained into the quaternary ammonium bases and decomposing the quaternary ammonium bases, substantially as described.

2. Process of producing methyl-divinyl which process consists in completely alkylating beta-methyltetramethylenediamin with methyl halide, converting the tetramethylenehexamethyldiamin halide thus obtained into the corresponding quaternary ammonium base and subsequently decomposing the ammonium base into methyl-divinyl and trimethylamin, substantially as described.

3. Process of producing methyl-divinyl which process consists in completely alkylating beta-methyltetramethylenediamin with methyl iodid, converting the tetramethylenehexamethyldiamin iodid thus obtained into the corresponding quaternary ammonium base and subsequently decomposing the ammonium base into methyldivinyl and trimethylamin, substantially as described.

1,030,240. MECHANISM FOR ELECTRICALLY TRANSMITTING AND REPRODUCING IMAGES. GUSTAV E. HOGLUND, Chicago, Ill., assignor of one-half to William N. Selig, Chicago, Ill. Filed Apr. 18, 1910. Serial No. 556,089. (Cl. 178—310.)



1. In a device of the class described, the combination of a transmitting instrument and a receiving instrument, the transmitting instrument comprising a selenium cell and a shutter, the receiving instrument comprising a luminous center and a shutter, means for operating the shutters in synchrony with one another, each of the shutters comprising companion disks lying adjacent to one another and rotated in opposite directions, one of the disks being provided with arcuate slots, and the other disks being provided with a plurality of slots extending in a stepped line outwardly from the center of the disk, adapted to register successively with the arcuate slots, and an electrical connection between the selenium cell and the luminous center, substantially as described.

2. In a device of the class described, the combination of transmitting instruments, each comprising a selenium cell and a shutter, receiving instruments, each comprising a luminous center and a shutter, means for operating the shutters in synchrony with one another, each of the shutters comprising companion disks adjacent to one another and rotated in opposite directions, one of the disks being provided with arcuate slots, and the other disk being provided with a plurality of slots extending in a stepped line outwardly from the center of the disk and adapted to register successively with the arcuate slots, one of said transmitting instruments and one of said receiving instruments being located at each end of the line, and an electrical connection between the receiving instruments and transmitting instruments at opposite terminals of the line, substantially as described.

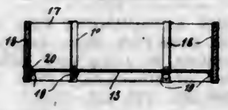
3. In a device of the class described, the combination of a transmitting instrument and a receiving instrument, the transmitting instrument comprising a selenium cell and a shutter, the receiving instrument comprising a luminous center and a shutter, means for operating the shutters in synchrony with one another, each of the shutters being in the form of disks lying adjacent to one another and rotated in opposite directions, one of the shutters being provided with arcuate slots of equal width and arranged in spiral stepped relation, and the other disk being provided with a plurality of slots extending in a stepped line outwardly from the center of the disk and adapted to register successively with the arcuate slots, and an electrical connection between the selenium cell and the luminous center, substantially as described.

4. In a device of the class described, the combination of transmitting instruments, each comprising a selenium cell and a shutter, receiving instruments, each comprising a luminous center and a shutter, means for operating the shutters in synchrony with one another, each of the shutters being in the form of disks lying adjacent to one another and rotated in opposite directions, one of the disks being provided with arcuate slots of equal width and arranged in spiral stepped relation, and the other disk being provided with a plurality of slots extending in a stepped line outwardly from the center of the disk and adapted to register successively with the arcuate slots, one of said transmitting instruments and one of said receiving instruments being located at each end of the line, and an electrical connection between the receiving instruments and transmitting instruments at opposite terminals of the line, substantially as described.

5. In a device of the class described, the combination of a transmitting instrument and a receiving instrument, the transmitting instrument comprising a selenium cell and a shutter, the receiving instrument comprising a luminous center and a shutter, means for operating the shutters in synchrony with one another, each of the shutters being in the form of disks lying adjacent to one another and rotated in opposite directions, one of the disks being provided with arcuate slots of equal width and arranged in spiral stepped relation, and the other disk being provided with a plurality of slots extending in a stepped line outwardly from the center of the disk, mechanism operatively connected to the disks for revolving them at different speeds, the ratio of speed of the disk having the stepped slots to the speed of the disk having the arcuate slots being as the number of slots is to one, and an electrical connection between the selenium cell and the luminous center, substantially as described.

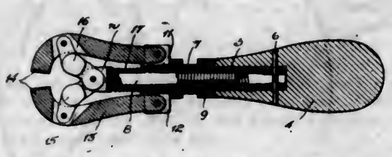
[Claims 6 to 9 not printed in the Gazette.]

1,030,241. RIDDLE. JOHN A. ISLIN, Newport News, Va. Filed Nov. 25, 1911. Serial No. 662,432. (Cl. 83—60.)



A riddle comprising an annular band, reinforcing bands passing around the same endwise, and having internal shoulders, a screen removably supported on the shoulders, and screen retaining-means on the reinforcing bands.

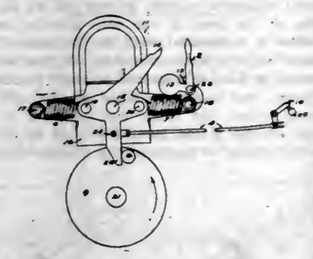
1,030,242. HAND-VISE AND HOLDER THEREFOR. HELMER KINDSTRAND, Rockford, Ill. Filed Nov. 7, 1911. Serial No. 658,931. (Cl. 81—18.)



1. In a device of the class described, the combination of a hand vise, and a holder for said vise, comprising upwardly extending end portions and an intermediate body portion, said intermediate portion being adapted to be clamped in a bench vise, the extremities of said end portions being configured, said vise having a portion thereof configured in correspondence to the configuration of the extremity of one of said end portions, the extremity of the other end portion being configured to engage the work held by the hand vise, said configured ends forming seats for the hand vise, which permit of its free removal from its holder, and said ends extending upwardly a distance to permit the body of the hand vise to lie clear of the intermediate portion, substantially as described.

2. In a device of the class described, the combination of a hand vise, comprising a handle, jaws, an actuating mechanism for the jaws, and a holder for said vise, comprising upwardly extending end portions and an intermediate body portion, said intermediate portion being adapted to be clamped by a bench vise, the extremity of one end portion being in the form of a fork constituting a semi-circular seat, the handle of the hand vise having a circular groove adapted to receive said fork, the extremity of the other end portion being configured to engage the work held by the hand vise, said ends extending upwardly a distance to permit the hand vise to be clear of the intermediate portion, and said ends forming bearings to permit rotation of the hand vise while said holder is clamped in the bench vise, substantially as described.

1,030,243. IGNITION DEVICE FOR EXPLOSIVE-ENGINES. CHARLES T. MASON, Sumter, S. C. Filed Nov. 23, 1910. Serial No. 593,810. (Cl. 123—149.)



1. An ignition device for explosive engines comprising an oscillating dynamo, a trip lever on the armature of said dynamo, a make and break spark gap actuated by said trip lever, springs for restraining the trip lever, means for holding the trip lever against the tension of said springs, and means for releasing the trip lever manually.

2. In an ignition device for explosive engines, the combination of an oscillating dynamo, a trip lever carried thereby, springs for restraining said trip lever, a make and break spark gap actuated by said springs, means operated by the engine for moving the trip lever to the firing position, means for holding the trip lever at the firing position, and means for releasing the trip lever to cause an oscillation of the armature and the operation of said make and break igniter in unison, independently of movement of the engine.

3. An ignition device for explosive engines comprising an electric generator having an oscillating armature, a trip lever for said generator, springs restraining said trip lever, a firing rod oscillated by said trip lever, sparking mechanism actuated by said rod, means for holding the trip lever against the tension of said springs, and means for releasing the trip lever to produce a spark substantially as described.

4. In an ignition device for explosive engines, the combination of a suitable dynamo, an oscillating armature in said dynamo, plates for supporting the armature, a trip lever carried by the armature shaft, springs connected to the trip lever, means for moving said trip lever against the tension of said springs, a trigger positioned near the trip lever so as to engage and hold same under tension, and means for releasing the trigger.

5. In an ignition device for explosive engines, the combination of a suitable dynamo, an oscillating armature in said dynamo, end plates supporting the armature, a trip lever carried by the armature shaft, springs between the trip lever and one end plate, means for moving said trip lever against the tension of said springs, and trigger mechanism for holding the armature under tension and releasing it at will.

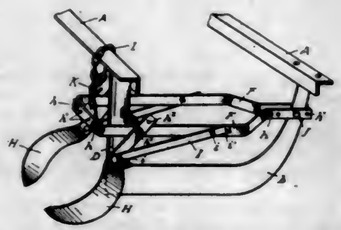
[Claims 6 to 8 not printed in the Gazette.]

1,030,244. CORN-COVERER. THOMAS F. PAYNE, Nodaway county, Mo. Filed Feb. 5, 1912. Serial No. 675,476. (Cl. 111—6.)

1. A corn coverer comprising a frame composed of sections united by bolts said frame being thereby rendered adjustable in width, curved soil cutting and dragging knives their handle ends connected by bolts adjustably to the rear part of the sides of the frame, said knives being adapted to cut into and drag the soil toward each other forming a single ridge below the frame on a line central between the sides thereof.

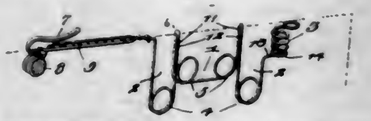
2. In a corn coverer the combination with a corn planter, of a frame its front end pivotally connected therewith and curved knives adjustable in height connected with the sides of the coverer frame bearing toward each other downwardly and rearwardly to a horizontal plane that is below said runners.

3. In a corn coverer the combination with the frame, heel and runners of a corn planter, of a coverer frame pivotally connected at its front end to a runner of the corn planter, opposite curved knives set at an angle on either side of the heel of the corn planter on a plane slightly below a horizontal with the bottom of said heel and fastened adjustably to the sides of the corn coverer frame, braces to hold said knives in rigid position on the coverer frame, and a chain looped at one end over the corn planter frame, the other end fastened to the rear of the corn coverer frame, having a hook to engage with a link of the chain to regulate the cutting depth of the knives.



4. In a corn coverer the combination with a corn planter runner, of an adjustable frame constructed in sections and pivotally attached at the front to the front of said runner, knives with handle ends attached to the sides of the frame near the rear thereof the blades curved outwardly from each other in the body portion and inwardly toward each other at their ends, said knives bearing rearward from top to bottom the blades thereof extending rearward of and below the horizontal plane of the bottom of the runner.

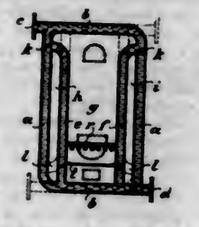
1,030,245. COMBINATION REIN-HOLDER AND SAFETY WHIP-SOCKET. MICHAEL J. QUINN, Hibernia, N. J. Filed May 25, 1911. Serial No. 629,375. (Cl. 21—131.)



The herein described rein holder and whip socket consisting of a spring rod bent to form a middle substantially U-shaped loop adapted to bear on the front of a dash-board, a pair of U-shaped loops at the opposite sides respectively of the middle loop to bear against the rear side of the dash-board, the opposing sides of said loops forming inverted U-shaped jaws to clamp the dash-board between them, the terminal arm of one of the pair of loops being formed with a vertically disposed coiled extremity, and the terminal arm of the other pair of loops being extended longitudinally in a relatively horizontal direction away from the loops and formed into an inwardly relatively horizontally facing hook and thence extended longitudinally again toward the terminal arm of the last named loop, substantially as shown and described.

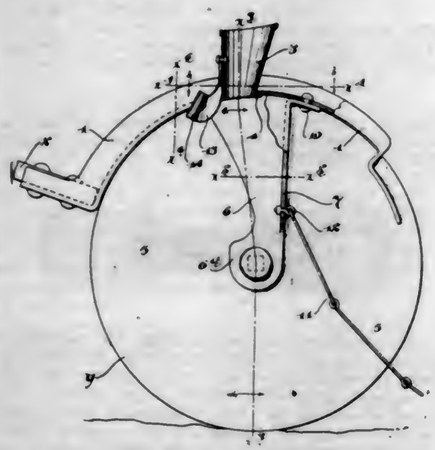
1,030,246. SECTIONAL HEATER. JOHANN JOSEF REINARTZ, Troisdorf, Germany. Filed Aug. 17, 1911. Serial No. 644,681. (Cl. 122—225.)

1. An element for a sectional heater, comprising a set of interconnected tubes arranged as a complete quadrilateral structure, flanged connections at two diagonally opposite corners of said structure, and branch pipes located within the space inclosed by the structure and arranged parallel to the vertical tubes thereof, each of said branch pipes having a vertical connection with one of the horizontal tubes of the structure and a lateral connection with the concurrent vertical tube, and said branch pipes in conjunction with the vertical and horizontal tubes inclosing side flue spaces and a central fire space, substantially as hereinbefore set forth.



2. A sectional heater comprising a series of similar elements located adjacent to one another but oppositely arranged, said elements being composed of interconnected hollow limbs, arranged in substantially rectangular form, two branch pipes, each located near a corner of said rectangle and extending parallel to one of the concurrent limbs from said corner and a bend on the end of each of said branch pipes connecting it to said concurrent limb.

1,030,247. DISK ATTACHMENT FOR DRILLS. OTTO G. RIESKE, St. Louis Park, Minn., assignor to The Monitor Drill Company, St. Louis Park, Minneapolis, Minn., a Corporation of Minnesota. Filed Nov. 28, 1910. Serial No. 594,534. (Cl. 111—11.)



1. In a double disk attachment, the combination with a channel-shaped boot body having a seed passage opening therethrough, of a channel-shaped leg structure secured to the said boot body at points both at the front and rear of said seed passage, thereby reinforcing said boot body, and disks journaled to the lower portion of said leg structure.

2. In a double disk attachment, the combination with a channel-shaped pressed metal boot body having a seed passage opening therethrough, of a channel shaped leg structure secured to said boot body at points both at the front and rear of said seed passage, thereby reinforcing said boot body, and disks journaled to the lower portion of said leg structure.

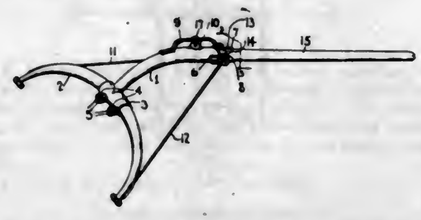
3. In a double disk attachment, the combination with a channel-shaped pressed sheet metal boot body having upwardly extended flanges and a seed pasage opening therethrough, of a channel-shaped pressed sheet metal leg structure secured to said boot body at points both in front and rear of said seed passage and depending therefrom, and disks journaled to the lower portion of said leg structure.

4. A double disk attachment comprising a seed boot body having a seed passage opening therethrough, a channel shaped leg structure rigidly secured at its upper portion to said boot body in the vicinity of said seed passage and having laterally spaced leg portions at its lower extermity, and disks journaled to the said lower leg portions of said leg structure.

5. In a double disk attachment, the combination with a channel-shaped pressed metal boot body having upwardly projecting flanges and having a seed passage opening through its upper portions, of a channel shaped leg structure secured to said boot body and having its back cut away at the lower portion to afford laterally spaced depending legs, and converging disks journaled to the said depending legs.

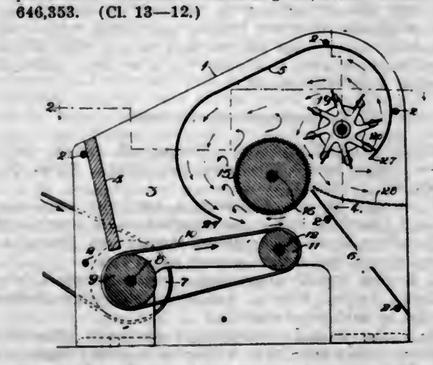
[Claims 6 to 14 not printed in the Gazette.]

1,030,248. VEHICLE POLE OR SHAFT. JESSE C. SCOGGINS, Wichita, Kans. Filed Jan. 22, 1912. Serial No. 672,668. (Cl. 21—36.)



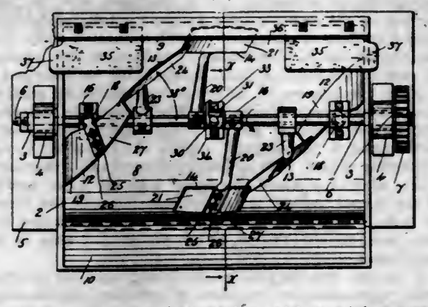
A vehicle draft device comprising a draft iron, a tubular boot connected thereto and having its front end slit longitudinally to form clamping jaws, a longitudinally extending tubular member having one end inserted within the slit end of said boot, a reinforcing filling element arranged in the rear portion of said tubular member and extending beyond the end of said boot when the parts are assembled, a split clamping band encircling said slit boot end and having laterally extending apertured ears, draw bolts passing through said apertured ears to pull said jaws together and clamp said tubular member between the parts of the boot, a double tree securing bolt passing through the boot and tubular member, and braces extending from said draft iron to the draw bolts.

1,030,249. SEED-COTTON CLEANER. BRUCE CLARK WHITE, Woonsocket, R. I., assignor to Price-Campbell Cotton Picker Corporation, Wilmington, Del., a Corporation of Delaware. Filed Aug. 28, 1911. Serial No. 646,353. (Cl. 13—12.)



In a machine for separating cotton from leaf and trash a conveyer, a cotton collecting roll, a fan doffer, a partition plate between said fan and said conveyer and a casing extending about said fan to direct a portion of the air current produced by it over and about said roll, while the remaining portion of the said air current is directed tangentially upon the surface of said roll in the direction of its rotation and away from said roll.

1,030,250. MORTAR-MIXER. PERRY L. BLYSTONE, Cambridge Springs, Pa., assignor to Blystone Manufacturing Company, Cambridge Springs, Pa. Filed Jan. 15, 1912. Serial No. 671,195. (Cl. 83—73.)



1. In a mixer, the combination, with a mixing vessel, and a driving shaft journaled therein; of a spiral conveyer secured on the said shaft and provided with a series of blades arranged at an angle to the axis of the said shaft, each blade being also arranged at an angle to a line drawn radially of the said shaft, with its outer edge projecting forwardly in the direction of its motion, and each blade being arranged at a different angle to the radial line in regular order, whereby the motion of the material is accelerated as it is moved longitudinally in the said vessel.

2. In a mixer, the combination, with a mixing vessel, and a driving shaft journaled therein; of a series of paddles secured in spiral form to the said shaft and provided with blades and radial arms, all the blades being arranged at an angle to the axis of the driving shaft, and each blade being also arranged at an angle to the arm which supports it, with its outer edge projecting forwardly in the direction of its motion, each blade being arranged at a different angle to its arm in regular order, whereby the motion of the material is accelerated as it is moved longitudinally in the said vessel.

3. In a mixer, the combination, with a mixing vessel, and a driving shaft journaled therein; of two series of paddles arranged in the opposite end portions of the said vessel, and operating to work the material in reverse directions, said paddles being secured to the said shaft and provided with blades and radial arms, all the said blades being arranged at an angle to the axis of the shaft, and the blades of each series of paddles being arranged at different angles to their arms in regular order, whereby the motion of the material is accelerated as it is moved by the paddles from the ends of the said vessel toward its middle part.

4. In a mixer, the combination, with a mixing vessel, and a driving shaft journaled therein; of two series of paddles arranged in the opposite end portions of the said vessel, and operating to work the material in reverse directions, each series of paddles being secured spirally to the said shaft, and ejector or separator arms secured on the middle part of the said shaft between the two series of mixing paddles and provided with angle-shaped blades the side faces of which are arranged right and left.

5. In a mixer, the combination, with a mixing vessel, and a driving shaft journaled therein; of two series of paddles arranged in the opposite end portions of the said vessel, and operating to work the material in reverse directions, each series of paddles being secured spirally to the said shaft and the paddles at the middle part of the said vessel being arranged to overlap each other in the same circular path, and ejector or separator arms secured to the said shaft and working in the same circular plane at the overlapping portions of the middle paddles.

[Claims 6 and 7 not printed in the Gazette.]

1,030,251. PROCESS FOR PRODUCING CELLULOSE PRODUCTS. EMIL BRONNERT, Niedermorschweiler, near Mülhausen, and MAX FREMERY, Oberbruch, Germany. Filed Dec. 24, 1907. Serial No. 407,972. (Cl. 18—54.)

1. In the process of manufacturing cellulose products from cuprammonium solutions of cellulose, the introduction of the latter in suitable form into a precipitating bath containing caustic soda as the precipitant and a saccharíferous substance which combines with at least portion of the copper present in the precipitated cellulose thread to form a compound, which is carried away from the thread and then immediately reduced in the presence of soda in the alkaline bath, substantially as described.

2. In the process of manufacturing cellulose products from cuprammonium solutions of cellulose, the introduction of the latter in suitable form into a precipitating bath having a temperature of from 45° C. to 75° C. and containing caustic soda as the precipitant and a saccharíferous substance which combines with at least portion of the copper present in the precipitated cellulose thread to form a compound carried away from the thread and then immediately reduced in the presence of soda in the bath, substantially as described.

3. In the process of manufacturing cellulose products from cuprammonium solutions of cellulose, the introduction of the latter in suitable form into a precipitating bath containing caustic soda as the precipitant and a saccharíferous substance which combines with at least portion of the copper present in the precipitated cellulose thread to form a compound carried away from the thread and then immediately reduced in the presence of soda in the bath, and thereafter washing the thread to remove the soda and then drying under tension.

4. In the process of manufacturing cellulose products from cuprammonium solutions of cellulose, the introduction of the latter in suitable form into a precipitating bath containing caustic soda as the precipitant and a saccharíferous substance which combines with at least portion of the copper present in the precipitated cellulose thread to form a compound dissolved out from the thread and then immediately reduced in the presence of soda in the bath, and thereafter washing the thread to remove the soda and then eliminating the remaining copper and sugar from the thread by washing in dilute (say 2%) sulfuric acid and drying under tension.

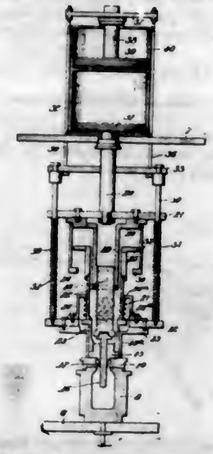
5. A filament of the character described, precipitated from a cuprammonium solution of cellulose by introduction into a bath of caustic soda containing sugar and having its copper content subsequently removed, substantially as described.

1,030,252. MOLDING-PRESS. JOHN A. BURLEIGH, Olean, N. Y. Filed June 8, 1911. Serial No. 632,060. (Cl. 49—38.)

1. In a press for molding bottles or the like, the combination of an outer neck ring, adapted to fit upon the top of a mold body, an inner neck former movable into and out of the outer ring, a plunger movable through the inner former, a movable clamping device adapted to clamp the outer ring against the mold body when advanced and to release the same when retracted, a spring pressure connection between the clamping device and the inner former, whereby the inner former is advanced when the clamping device is advanced, and a connection between the plunger and the inner former operative to retract the latter against the tension of said spring when the plunger is retracted.

2. In a molding press, the combination of a reciprocating mold-clamping member, a piston connected thereto, to advance and retract the same, an inner former movable to and from the mold, and having a spring connection to said piston to advance said former to the mold, a plunger movable in and out through said former, another piston connected to the plunger to advance and retract the plunger, and a pick-up device connected to the last mentioned piston, to pick up and retract the inner former, independently of said clamping member, and against the tension of said spring.

3. In a molding press, the combination of a reciprocating mold-clamping member, an inner former movable to and from the mold, a plunger and its operating devices, the plunger working through the said former, connections between the clamping member and the inner former operative when the clamping member is advanced, to also advance the said former, and yieldable when the said former is retracted, and connections between the plunger operating devices and the inner former, engaged when the plunger is retracted, to also retract the former, and disengaged when the plunger is advanced.



4. In a molding press, the combination of a mold-clamping member, a piston connected thereto, a plunger and a piston connected thereto, an inner former surrounding the plunger, a tube connected to said former, said tube having a projecting flange, a pick-up member connected to the plunger piston and adapted to engage said flange and lift the said tube and former when the plunger is raised, and a connection between the clamping member and said tube, adapted to advance the tube and former, said connection being yieldable, to permit the said lift of the tube when the plunger is retracted.

5. In a molding press, the combination of a piston, a lower plate 12 connected thereto, a clamping sleeve 13 attached to the plate, another piston, an upper plate 21 attached thereto, springs between the upper and lower plates, a plunger connected to the upper plate and movable within said sleeve, a tubular neck former through which the plunger works and movable within said sleeve, a yielding connection between the plate 12 and the tubular neck former, adapted to advance the neck former and to permit retraction thereof, and lifting devices between the upper plate and the neck former, said devices being engaged when the upper plate is lifted and disengaged when it is lowered.

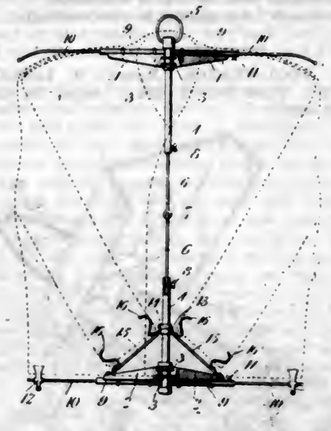
1,030,253. COAT-HANGER. ASHTON H. DOYLE, Johnson City, Tenn. Filed Oct. 11, 1911. Serial No. 653,987. (Cl. 211—13.)

1. A coat hanger comprising a vertically adjustable support hinged to fold in the direction of its length, and adjustable side supports carried thereby and pivoted to swing around the vertical support as an axis.

2. A coat hanger comprising a vertical support, side supports carried thereby, and sleeve-distending devices carried by said side supports.

3. A coat hanger comprising a vertically adjustable member, upper and lower horizontal members supported thereby, said upper and lower horizontal members being hinged to fold together around the vertical member as an axis.

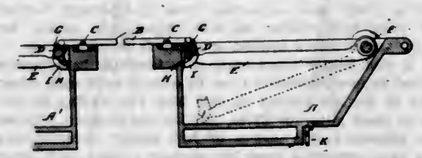
4. A coat hanger comprising horizontal side supports, a vertical support for said side supports, and strips between the lower side supports and vertical support carrying sleeve-distending devices.



5. A coat hanger comprising a vertical member, oppositely extending upper and lower side supports pivoted to swing around the vertical member, clips carried on the lower side supports, and sleeve-distending devices also carried by said side supports and swinging therewith.

[Claim 6 not printed in the Gazette.]

1,030,254. BOX-GLUING APPARATUS. GEORGE R. FOSDICK, Winchester, N. H. Filed Mar. 16, 1912. Serial No. 684,336. (Cl. 144—280.)



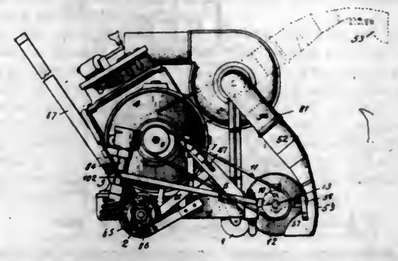
1. In apparatus of the class described, the combination with a glue receptacle and means for supporting a board adjacent to the receptacle, as long as the board, normally beneath the glue in said receptacle, and means for periodically moving said bar to position for bringing the glue in its channel against both faces of the lower angle of the marginal portion of said board.

2. In apparatus of the class described, the combination with a glue receptacle and means for supporting adjacent thereto a board to receive glue, of a pivoted bar normally lying below the surface of the glue in said receptacle and provided with a lip in position to project alongside the edge face of the board when the body of the bar closely approaches the marginal side face thereof, means for moving the body of the bar into close proximity to said side face, and means for moving said lip toward the edge face alongside which it is brought.

3. In apparatus of the class described, the combination with a glue receptacle wider than the boards to be glued, of means for supporting above said receptacle a board to be glued, a bar provided with a marginal lip and extending across the receptacle below the surface plane of glue therein, a rock-shaft parallel to said bar and provided with rigid arms pivoted to the bar, means for actuating the rock-shaft to raise said bar to the margin of said board, and means whereby the raised bar is rocked to force its lip toward the edge face of the board.

4. The combination with a glue receptacle and means for bringing box boards to position above the same, of a rock-shaft having rigid arms normally extending below the surface of glue in the receptacle, a bar, parallel to said shaft and to the margin of a board in position, arranged to swing toward said margin and return, as said rock-shaft moves back and forth, and means for varying the degree of the bar's approach to said margin.

1,030,255. FLOOR-SURFACING MACHINE. JOHN HERR, Philadelphia, Pa., assignor to Floor Sanding and Polishing Machine Company, Inc., Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 31, 1908. Serial No. 470,175. (Cl. 51—13.)



1. In a floor surfacing machine, the combination of a carriage, and an abrading roll connected therewith, said roll having a shaft which is loose relative to the roll, a securing means on the roll for one end of the abrading material, a securing means on the shaft for the other end of the abrading material, and devices for automatically permitting the turning of the shaft relative to the roll in one direction to take up the slack of the abrading material, said devices operating to prevent relative turning of the roll and shaft in the other direction and thereby operating to keep the abrading material taut, substantially as set forth.

2. In a floor surfacing machine, the combination of a carriage, a hollow shaft connected therewith, an abrading roll on the hollow shaft, an extension shaft fitting within the hollow shaft, means for connecting the extension shaft fixedly with the hollow shaft, and an extension roll fixed on the extension shaft.

3. In a floor surfacing machine, the combination of a carriage, a hollow shaft connected therewith having its end enlarged interiorly, an abrading roll on the hollow shaft, an extension shaft within the hollow shaft and having a convex enlargement to fit the interior enlargement of the shaft, means for clamping the extension shaft to the hollow shaft, and an extension roll on the extension shaft, substantially as set forth.

4. In a floor surfacing machine, the combination of a carriage, an abrading roll movably connected therewith, a motor on the carriage, a fan and casing therefor on the carriage connected with said motor to be driven thereby, an air duct having a pivotal connection with the fan casing to turn in the vertical longitudinal planes of the machine, and a hood carried by the duct and extending along the roll in front thereof, substantially as set forth.

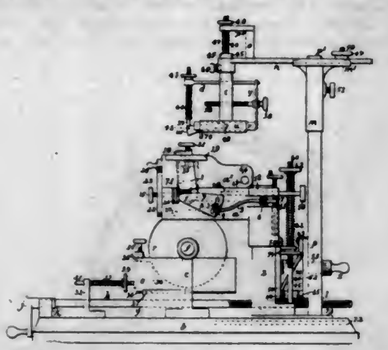
5. In a floor surfacing machine, the combination of the carriage, an abrading roll connected with the carriage and having means whereby it may be raised and lowered, a fan and casing therefor on the carriage, an air duct having a pivotal connection on a horizontal axis with the fan casing on an axial line parallel with the abrading roll, a hood connected with the said duct and extending along the abrading roll, and an extensible joint in the air duct, substantially as and for the purposes described.

[Claims 6 to 14 not printed in the Gazette.]

1,030,256. RAZOR-HONING MACHINE. JOHN KAYETAN, Cold Spring, N. Y. Filed Feb. 8, 1911. Serial No. 607,284. (Cl. 51—16.)

1. In a razor honing machine the combination of a revoluble stone mounted on the machine base, a movable

base upon the said machine base slidable between the supports of the said stone, means on the slidable base at each side of the stone for holding a razor for engagement with the stone, means attached to the movable base and extended above the stone for pressing the razor down upon the stone, and means as a hand screw for moving the movable base to and away from the stone.



2. In a razor honing machine the combination comprising a revoluble stone mounted on the machine base, a movable base on the machine base between the supports of the stone movable by means of a hand screw, means on the movable base on each side of the stone for reversibly holding a razor, and a post on the movable base with an extensible arm above the roller with adjustable means supported on the arm for regulating a downward pressure on the roller.

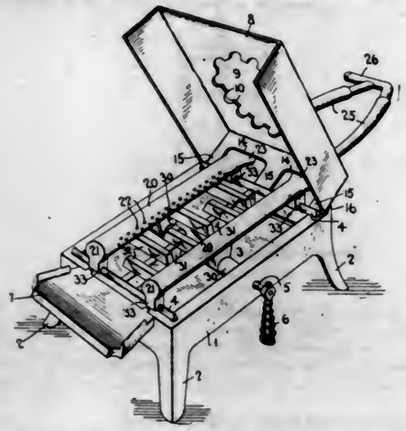
3. The combination in a razor honing machine of a revoluble stone mounted upon the machine base, a movable base on the machine base between the supports of the stone and movable by means of a hand screw, posts on the movable base, vertically slidable brackets on the posts embodying means for holding a razor, and means for simultaneously raising and lowering both brackets comprising a central bearing on the movable base, a shaft in said bearing, a handle and rocker arm on said shaft, cams on the bracket posts to act against the brackets on the posts, and bars connecting the cams with the said rocker arms.

4. A machine for sharpening razors comprising a base, a revolving sharpening roller supported on the base, clamping arms at each end of the roller comprising two parts hinged and clampable together with means near their ends for adjustably holding a razor, the clamping arms vertically slidable on standards, standards for the clamping arms attached to a movable base, a movable base within the machine base supporting said clamping arms, a screw having a bearing on the machine base and a threaded connection with the movable base, and a shaft in a bearing on the movable base, a handle and cross-arm on the shaft, crank-levers pivoted on the clamping arm standards contiguous to the sliding arms, and connections between the cross-arm and the crank levers.

5. The combination in a razor sharpening machine of razor holding means comprising an arm adapted to be raised and lowered on a standard, a member hinged to the top of the arm, a hook for clamping the two together, a semicircular anvil seated in the lower member, a sector lever fast to the anvil and swingable at the side of the arm, a lever pivoted to the side of the arm with its long arm engaging with the said sector-lever, a screw to actuate the short arm of the lever, a spring to keep the short arm of said lever against the said screw, a pivoted jaw in front of the anvil, a screw to move the jaw and a spring to maintain contact of the jaw with the said screw, centrally of the arm a sliding clamp, a screw swiveled to said clamp for moving the clamp; and means in the top member comprising a guide socketed in the said member, a semicircular anvil hinged in said guide, a spring within the member to force the guide outward, a lever on the end of the anvil and a guard on the member to limit the movement of the lever, and a set screw in the member to engage with the top of said guide.

[Claims 6 and 7 not printed in the Gazette.]

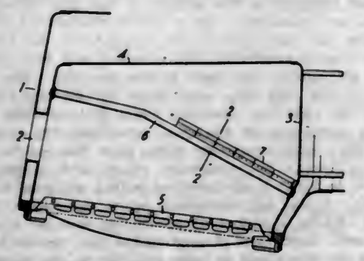
1,030,257. TOOL-HEATER. NATHAN W. LUNDY, Waukegan, Ill. Filed Oct. 14, 1911. Serial No. 654,785. (Cl. 126—237.)



1. A tool heater comprising a rectangular base having internal fingers projecting from its ends toward each other, a pair of burners resting on said base and having jet orifices in their adjacent faces, flexible connections between these burners and a source of fuel supply, intermeshing grate bars projecting from the burners toward each other and resting on said fingers, and means for moving said burners toward or away from each other.

2. A tool heater comprising a rectangular base having internal fingers projecting from its ends toward each other, a pair of burners resting on said base and having jet orifices in their adjacent faces, flexible connections between these burners and a source of fuel supply, intermeshing grate bars projecting from the burners toward each other and resting on said fingers, a hood resting on said base over the burners and having one end open for the insertion of a tool and the other end provided with notches to permit the lateral movements of said burners, and means for adjusting the latter toward or away from each other.

1,030,258. BAFFLE-WALL FOR LOCOMOTIVE FIRE BOXES. HARLOW DOW SAVAGE, Ashland, Ky. Filed June 1, 1911. Serial No. 630,582. (Cl. 110—87.)

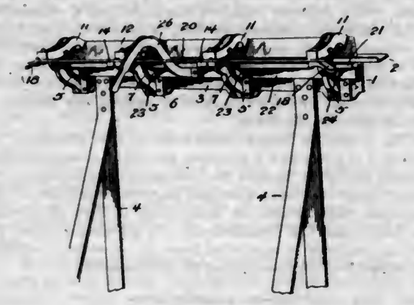


1. A locomotive fire box comprising in combination, side plates, longitudinally inclined circulating tubes between the side plates, two side rows of brick having flat upper and lower faces, each row thereof resting on two of the longitudinal tubes, and an intermediate row of brick having flat bottom faces at their ends overlapping

the ends of the brick of the side rows and resting on the upper faces thereof and having portions extending downwardly between the ends of said side brick and adapted to abut against the ends of said side brick to prevent lateral movement of said intermediate and said side brick, the brick of said side rows being adapted to be used with either flat face up.

2. A locomotive fire box comprising in combination, side plates, longitudinally inclined circulation tubes between the side plates, two rows of rectangular flat-faced brick resting on two of said longitudinal tubes and each brick thereof extending laterally of the fire box to the side plates thereof, and an intermediate row formed of brick having flat-faced end portions, said intermediate brick being located end to end with said side brick and having their ends overlapping and resting on the upper faces of the side brick and having a portion between the ends extending downwardly between the inner ends of the side brick and adapted to contact therewith and prevent lateral movement of said intermediate and said side brick, said side brick being interchangeable with each other and adapted to be used with either side up and with either end inwardly and supporting said intermediate brick.

1,030,259. MACHINE FOR BENDING METALLIC PLATES. GEORGE W. WELLS, Amesbury, Mass., assignor of one-half to The Walker-Wells Company, Amesbury, Mass., a Copartnership. Filed Feb. 9, 1912. Serial No. 676,482. (Cl. 153—16.)



1. The combination in a bending machine, of a bed plate with a flange at right angles thereto, a series of separate brackets each having a bearing with a curved surface and secured at one end to the flange of the bed plate, the other ends of the brackets being free, a series of levers pivoted to the free ends of the brackets, a clamping plate secured to one arm of each lever, means in connection with the opposite ends of the levers and the brackets for forcing the clamping plate against the bed plate, a bodily movable bending element movable about its edge as an axis and guided by the curved surfaces of the brackets, and means for moving said bending element.

2. The combination in a bending machine, of a bed plate with a flange at right angles thereto, a series of separate brackets each having a bearing with a curved surface and secured at one end to the flange of the bed plate, the other ends of the brackets being free, a series of levers pivoted to the free ends of the brackets, a clamping plate secured to one arm of each lever, means in connection with the opposite ends of the levers and the brackets for forcing the clamping plate against the bed plate, a bodily movable bending element, comprising a plate 21 with a flange 22 and having a series of convex bearing surfaces, movable about its edge as an axis and guided by the curved surfaces of the brackets, and means for moving said bending element.

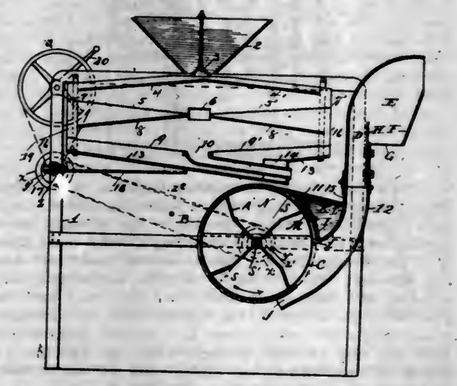
3. The combination in a bending machine, of a series of brackets each with a curved bearing surface, a bed plate secured to the adjacent ends of the series of brackets, a clamping plate, a series of levers secured to the clamping plate and pivoted to the ends of the brackets opposite the bed plate, a rotary bending element angular in cross section movable about one edge as an axis and guided by the curved bearing surfaces of the brackets, means for actuating the levers and forcing the clamping plate upon the bed plate, and means for moving the said bending element.

4. The combination in a bending machine, of a bed plate; a plurality of brackets, each having a curved bearing surface, a lug, and a free end; a clamping plate; a plurality of slotted levers carrying the clamping plate and journaled to the brackets; a plurality of locking levers pivoted to the slotted levers and adapted to engage the lugs upon the brackets; and a bending plate engaging the curved surfaces of the brackets.

5. The combination in a bending machine, of a bed plate; a plurality of brackets, each having a curved bearing surface, a lug, and a free end; a clamping plate; a plurality of slotted levers carrying the clamping plate and journaled to the brackets; a plurality of locking levers pivoted to the slotted levers and adapted to engage the lugs upon the brackets; a bar pivotally connecting all the levers so they may be moved simultaneously; and a bending plate engaging the curved surfaces of the brackets.

[Claims 6 and 7 not printed in the Gazette.]

1,030,260. SEED-CLEANER. PETER L. WILLET, Shiloh, Ohio. Original application filed Apr. 14, 1911, Serial No. 621,074. Divided and this application filed Dec. 14, 1911. Serial No. 665,859. (Cl. 130—17.)



1. In a seed cleaner, a drum and rotatable fan therein, a blast pipe communicating with the drum at one side, at a point below the center of said fan, an air inlet chute having an opening located above and closely adjacent to the blast opening into said pipe, means for supplying an additional volume of air to the fan from the ends of the drum above the center of the fan and for regulating the amount of air thus supplied and means for regulating the direction from which the air is supplied to the fan.

2. In a seed cleaner, a drum, a fan therein, a blast pipe leading from said drum at one side, means for supplying the fan with a volume of air, means for controlling the volume of air supplied, adjustable means for preventing a backward flow of air from the blast pipe into the drum, and means for regulating the direction from which the air is supplied to the fan.

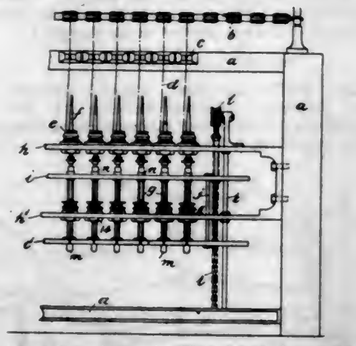
3. In a seed cleaner, a drum provided with a blast opening at one side located below a plane on the horizontal center line of said drum, said drum also provided with an air inlet opening above and closely adjacent to said blast opening, and located closely adjacent to said horizontal plane, and means for adjusting the width of said inlet opening.

4. In a seed cleaner, a drum and fan therein, a blast pipe communicating with said drum at one side, below the center of the fan, means for supplying a volume of air to the drum, said means preventing a backward flow of air into the drum from the blast pipe.

5. In a seed cleaner, a drum, a fan therein, a blast pipe communicating with the side of said drum, said drum having an opening at each end thereof above the center of said fan for air admission to the drum, independent closures for said openings, an air inlet chute having an inlet opening for air admission to the drums above said blast opening, the lower edge of said opening being closely adjacent to a plane on the horizontal center of said fan, and means for supplying the material to be cleaned in a constant widely distributed stream of uniform thickness into said blast pipe, whereby the force of the blast will affect all grains uniformly.

[Claims 6 and 7 not printed in the Gazette.]

1,030,261. APPARATUS AND MEANS FOR SPINNING, DOUBLING, AND FORMING COPS. ALBERT EDWARD DREW, JOSEPH ARKINSTALL, and WILLIAM DEAN, Bolton, England. Filed Mar. 11, 1911. Serial No. 613,834. (Cl. 118—10.)



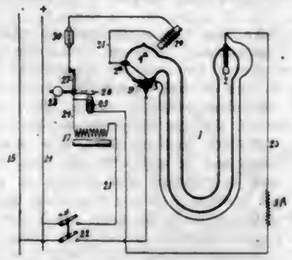
1. In a ring spinning or doubling frame, in combination, driven rising and falling tubes or sockets carried in lifting rails; spindles yieldingly mounted in the driven sockets; driving wharves; means for effecting driving engagement with and disengaging the spindle sockets from their driving wharves; driven rings or twisters surrounding said spindles, said rings being carried in a stationary rail, and provided with travelers, the sockets with the yieldingly mounted spindles being driven at a slightly quicker rate than the ring twisters through which the spindles are moved up and down by the lifting rails, all substantially as and for the purposes herein set forth.

2. In a ring spinning or doubling frame, in combination, the yieldingly mounted spindles *f*; the driven slotted sockets *g*; driving wharves 11 and bands 12; means for effecting driving engagement between the spindle sockets and the driving wharves through which the said sockets slide up and down; controlling means such as the slotted caps g^2 and spring clips *o* embracing said spindles *f*; lifting rails *i i'*, provided with bearings such as *m* and *n* for supporting and carrying the driven sockets and spindles; driven ring twisters *e* surrounding said spindles, through which the spindles rise and fall, the sockets *g* with the said spindles *f* being driven at a quicker rate of speed than the ring twisters, all substantially as and for the purposes herein set forth.

1,030,262. GAS OR VAPOR ELECTRIC APPARATUS. PETER COOPER HEWITT, New York, and NELSON W. ROGERS, Mount Vernon, N. Y., assignors, by mesne assignments, to Cooper Hewitt Electric Company, a Corporation of New York. Filed Mar. 23, 1901. Serial No. 52,499. (Cl. 176—46.)

1. In a gas or vapor apparatus, the combination of two working electrodes, a starting electrode, and means for connecting the starting electrode with and disconnecting it from, one only of the working electrodes.

2. In a gas or vapor apparatus of the character described, the combination with a negative electrode, of two positive electrodes, means for closing and opening the circuit from one of the positive electrodes to the negative electrode, and means brought into operation by the opening of the said circuit for automatically substituting the other positive electrode.



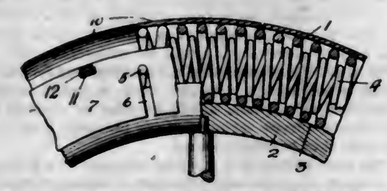
3. In a gas or vapor apparatus of the character described, the combination of a negative electrode, a movable positive electrode, a working positive electrode, means for placing the movable positive electrode in contact with the negative electrode, means for automatically separating the same when current flows through the apparatus, and simultaneously causing a current to pass between the negative electrode and the working positive electrode.

4. In a gas or vapor apparatus of the character described, a suitable container, two or more positive electrodes, and a common negative electrode, and a conducting gas or vapor, in combination with a circuit-closing device for connecting the negative electrode in a circuit including one of the positive electrodes, and means for opening the circuit at the circuit closing device, and thereafter interposing the gas or vapor path as a part of the circuit to another positive electrode.

5. In a gas or vapor apparatus of the character described, a positive and a negative electrode, a supplemental starting electrode, means for temporarily connecting the supplemental electrode with the negative electrode of the apparatus, and means for impressing a high electro-motive-force upon the terminals of the apparatus when the starting electrode is separated from the negative electrode.

[Claims 6 to 58 not printed in the Gazette.]

1,030,263. TIRE. STEPHEN A. MATARAZZO, Wilmerding, Pa. Filed Sept. 18, 1911. Serial No. 649,955. (Cl. 152—8.)

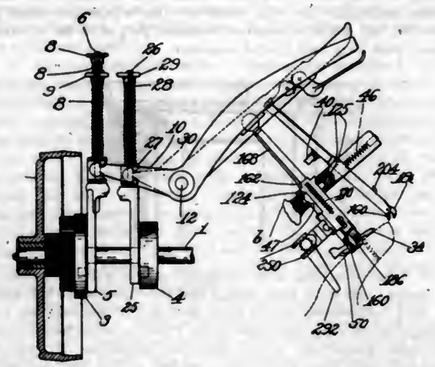


1. A tire comprising coiled springs arranged circumferentially, one within the other, shoes arranged upon the outer spring, pins carried by said outer spring, and side plates arranged upon said pins and engaging said shoes.

2. A tire comprising coiled springs, one arranged within the other, pins carried by the outer spring, slotted side plates arranged upon said pins, and shoes arranged upon the outer spring and having connection with said side plates.

3. A tire comprising coiled springs circumferentially arranged one within the other, oppositely disposed pins carried by some of the convolutions of the outer spring, slotted side plates arranged upon said pins and each plate having hook-shaped interlocked ends, shoes arranged upon the outer spring, and hooks carried by the longitudinal edges of said shoes and engaging in said side plates.

1,030,264. MACHINE FOR WORKING AN UPPER OVER A LAST. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 26, 1910. Serial No. 540,221. (Cl. 12—4.)



1. A pulling-over machine having, in combination, last bottom resting means, pulling-over means, a toe end abutment for the last, means for indicating at each side of the shoe the correct position for the toe tip seam, and means for automatically returning said indicating means to the same longitudinal position in the machine after each pulling-over operation.

2. A pulling-over machine having, in combination, last bottom resting means, pulling-over means, tip seam position indicating means movable lengthwise of the shoe from normal position to effect adjustment of the upper, and means for automatically reguiding said means to normal position.

3. A pulling-over machine having, in combination, last bottom resting means, pulling-over means including side grippers movable longitudinally of the last, and means for automatically reguiding the side grippers to normal position.

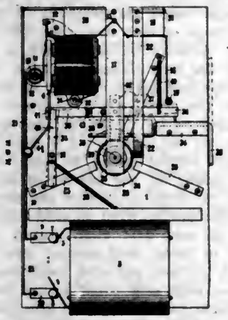
4. A pulling-over machine having, in combination, last bottom resting means, pulling-over means including side grippers movable longitudinally of the last, and means including slots having inclined side walls into which the grippers are forced as they approach gripping position, for automatically reguiding the side grippers to normal position.

5. A pulling-over machine having, in combination, last bottom resting means, pulling-over means including side grippers movable longitudinally of the last, a seat for the side grippers, oppositely inclined shoulders thereon to rest in said seat, and means for forcing the grippers into their seats preparatory to the pulling-over operation.

[Claims 6 to 66 not printed in the Gazette.]

1,030,265. PORTABLE CASH-BOX. JOSEPH PALLWEBER, Mannheim, Germany. Filed Mar. 28, 1911. Serial No. 617,372. (Cl. 177—316.)

1. A portable cash-box comprising, in combination, a suitable source of electric current and an electric bell mechanism arranged in the circuit of said source of current, a metallic member mounted in the bottom of the cash-box having a portion thereof projecting slightly beyond the bottom of the cash-box when the latter is raised, a metallic plate having a metallic cap arranged thereon adapted to contact with said metallic member, a pin attached to said metallic plate passing through said metallic cap and said metallic member and also adapted to project slightly beyond the bottom of the cash-box when the latter is raised, said pin being capable of oscillating movement so as to make electrical contact with the walls of the said metallic member, a second metallic plate having one end making contact with said metallic member, both of said metallic plates having electrical connections with said source of electric current, and the circuit through said electric bell mechanism, said metallic member, and said two metallic plates being closed when said pin projects beyond the bottom of the cash-box or when it makes electrical contact with the walls of said metallic member after it has been oscillated, means for maintaining the circuit through said bell mechanism closed when once said first named circuit has been closed, and means for breaking the electric circuit.



2. A portable cash box comprising in combination a galvanic dry cell and an electric bell mechanism arranged in the circuit of said cell, a board secured to the inside of the bottom of the cash box and supporting said cell and said bell mechanism, the bottom of the cash box and said board being provided with holes in alinement with each other, a metal ring provided with a flange and inserted into the hole in said board, a second metal ring fixed to the first ring and loosely passing through said holes, a flat spring fixed to said board, a metal cap secured to the free end of said spring above and co-axial with said rings and adapted to come into contact with the flange of said first ring, an oscillating pin suspended from the free end of said spring and adapted to come into contact with said second ring, and a second flat spring also fixed to said board and adapted to come into contact with the flange of said first ring, the said rings, flat springs, cap and pin being arranged in the circuit of said cell and said bell mechanism so as to close this circuit when the cash box is raised from its support or moved thereon, substantially as described.

3. A portable cash box comprising in combination a galvanic dry cell and an electric bell mechanism arranged in the circuit of said cell, a board secured to the inside of the bottom of the cash box and supporting said cell and said bell mechanism, the bottom of the cash box and said board being provided with holes in alinement with each other, a metal ring provided with a flange and inserted into the hole in said board, a second metal ring fixed to the first ring and loosely passing through said holes, a flat spring fixed to said board, a metal cap secured to the free end of said spring above and co-axial with said rings and adapted to come into contact with the flange of said first ring, an oscillating pin suspended from the free end of said spring and adapted to come into contact with said second ring, a second flat spring also fixed to said board and adapted to come into contact with the flange of said first ring, and further flat springs all secured to said board and resting with their free ends on the flange of said first ring so as to press said flange upon said board and to cause said second ring to project slightly beyond the bottom of the cash box when the latter is raised, the said rings, first and second flat springs, cap and pin being arranged in the circuit of said cell and said bell mechanism so as to close this circuit when the cash box is raised from its support or moved thereon, substantially as described.

4. A portable cash box comprising in combination a galvanic dry cell and an electric bell mechanism arranged in the circuit of said cell, a board secured to the inside of the bottom of the cash box and supporting said cell and said bell mechanism, the bottom of the cash box

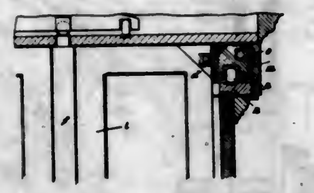
and said board being provided with holes in alinement with each other, a metal ring provided with a flange and inserted into the hole in said board, a second metal ring fixed to the first ring and loosely passing through said holes, a flat spring fixed to said board, a metal cap secured to the free end of said spring above and co-axial with said rings and adapted to come into contact with the flange of said first ring, an oscillating pin suspended from the free end of said spring and adapted to come into contact with said second ring, a second flat spring also fixed to said board and adapted to come into contact with the flange of said first ring, two double armed levers pivotally mounted on said board, a helical spring tending to hold the first of said levers in its normal position, a pin provided on the second of said levers normally engaging the first, a pin provided on said first lever and adapted to be struck by the hammer of said bell mechanism so as to cause the first lever, against the action of said helical spring, to move out of the path of said pin provided on the second of said levers normally engaging the first, a contact pin provided on said board, a third flat spring fixed to said board and resting on the flange of said first ring, and a second helical spring tending to bring said second lever into engagement with said contact pin and electrically connecting said second lever with said third named flat spring, said rings, flat springs, cap, oscillating pin and contact pin in the circuit of said cell and said bell mechanism for closing this circuit when the cash box is raised from its support or moved thereon and holding it closed when the cash box is replaced or moved into its original position or when the oscillating pin is raised by hand, substantially as described.

5. A portable cash box comprising in combination, a galvanic battery and an electric bell mechanism in circuit with said battery, a board secured to the inside of the bottom of the cash box and supporting said battery and said bell mechanism, the bottom of the cash box and said board being provided with alined holes, a metal ring inserted into the hole of said board and provided with a flange, a second metal ring fixed to the first ring and loosely passing through said holes, a flat spring fixed to said board, a metal cap secured to the free end of said spring above and coaxial with said rings and adapted to come into contact with the flange of said first ring, an oscillating pin suspended from the free end of said spring and adapted to come into contact with said second ring, a second flat spring also fixed to said board and adapted to come into contact with the flange of said first ring, additional flat springs also secured to said board and resting with their free ends on the flange of said first ring and serving to press said flange upon said board and causing said second ring to project slightly beyond the bottom of the cash box when the latter is raised, two double armed levers pivotally mounted on said board, a helical spring tending to hold the first of said levers in a normal position, a pin provided on the second of said levers and normally engaging the first lever, a pin provided on the first lever and adapted to be struck by the hammer of said bell mechanism to cause the first lever, against the action of said helical spring, to move out of the path of the said pin on the second of said levers, a contact pin provided on said board and a second helical spring tending to bring said second lever into engagement with said contact pin to electrically connect said second lever with one of said last-named flat springs, said rings, first, second and last-named springs, cap, oscillating pin and contact pin, being in circuit with said battery and bell mechanism and closing said circuit upon altered position of the cash box with respect to its support, substantially as and for the purposes set forth.

1,030,266. REVOLVING DOOR. KAREL OTTO SLINGERVOET RAMONDT, Haarlem, Netherlands. Filed Jan. 12, 1910. Serial No. 538,228. (Cl. 20—18.)

1. In a revolving door the combination with a casing of a central rotatable axis, wings hingedly secured to the axis, a ring encircling the wings and means for connecting the wings to the ring to hold them in position but under excessive pressure permitting the wings to be released therefrom and folded together.

2. In a revolving door the combination with a casing of a central rotatable axis, wings hingedly secured to the axis, a ring encircling the wings and a catch on each wing engaging the ring whereby the wings are held in postion but under excessive pressure they will be released from said ring and folded together.

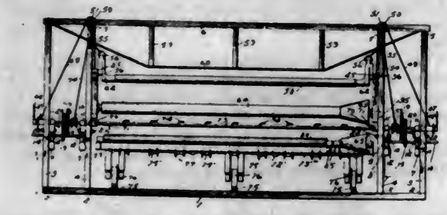


3. In a revolving door the combination with a casing of a central rotatable axis, wings movably secured to the axis, a ring encircling the wings, means for connecting the wings to the ring and permitting them to be automatically released therefrom under excessive pressure, a support beneath said ring and rollers seated in the ring adapted to travel on the support.

4. In a revolving door the combination with a casing of a central rotatable axis, wings movably secured to the axis, a ring encircling the wings, means for connecting the wings to the ring and permitting them to be automatically released therefrom under excessive pressure, a support beneath said ring, rollers rotatably mounted in the ring adapted to travel on the support and other rollers seated in the outer face of said ring adapted to travel on the casing.

5. The combination in a revolving door, of a casing, an axis rotatable within the casing, wings hingedly supported on the axis, a ring encircling the wings, and supporting the axis, a support under the ring, means for detachably connecting the wings to the ring, and rollers intervening the ring and the support, whereby the ring may travel around the support.

1,030,267. CONCRETE-PILE-MAKING MACHINE. HENRY A. RIEMANN, Hannibal, Mo. Filed Dec. 22, 1909. Serial No. 534,454. (Cl. 25—1.)



1. A pile making machine having in combination, a supporting standard, a core shaft, a horizontally traveling platform, a pivotally held finishing roller, a vertically reciprocating former roller, means for rotating said core shaft and synchronously moving said platform in a horizontal plane, said finishing roller in an arc and the former roller in a vertical plane.

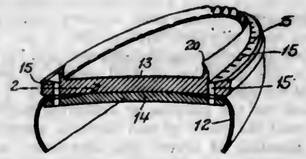
2. The combination with a suitable supporting frame, of an adjustably held driving shaft, a stub shaft, means to connect said driving shaft with said stub shaft, a core shaft, means to connect said core shaft to said stub shaft, a slidably held former roller, oppositely positioned swinging cranks, a finishing roller carried by said cranks, a platform movably held below said core shaft, and means for synchronously moving said former roller, finishing roller and platform from their normal position.

3. In combination, a supporting standard, a driving shaft, a drum shaft, means to connect said shaft, a stub shaft, means to connect said stub shaft to said drum shaft, a core shaft detachably secured to said stub shaft, a traveling platform held below said core shaft, vertically sliding bearings, means to connect said bearings to said drum shaft, a former roller carried by said bearings, two pivotally held arms, a finishing roller carried by said arms, means to connect said arms to said drum shaft, a platform, pliable members extending from said platform and secured to said core shaft.

4. The combination with a supporting standard, of a driving shaft, a drum shaft, gears connecting said shafts, a stub shaft, a gear carried by said stub shaft to mesh with a gear carried by said drum shaft, a core shaft detachably secured to said stub shaft, means to raise and lower said core shaft, a traveling platform, rollers carried by said platform, pliable connections extending from said core shaft to said platform, vertically sliding bearings, a former roller carried by said sliding bearings, two pivotally held arms, a finishing roller carried by said arms, a hoisting line extending from said sliding bearings to said drum shaft, and a hoisting line extending from said pivotally held arms to said drum shaft.

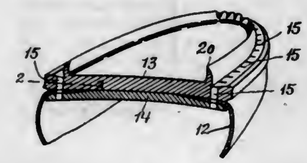
5. The combination with a suitable supporting frame, of a driving shaft, a drum shaft, means to connect said shaft, a stub shaft, means to connect said stub shaft to said drum shaft, a core shaft, means to detachably connect said core shaft to said stub shaft, vertically sliding bearings held proximal to said core shaft, an idler roller carried by said sliding bearings, hoisting lines extending from said sliding bearings to said drum shaft, two pivotally held arms, an idler roller carried by said arms, hoisting lines extending from said idler roller to said drum shaft, a horizontally movable platform, two adjustably held idler rollers carried by said platform, and pliable connections extending from said core shaft and secured to said platform.

1,030,268. SEWED SHOE. CHARLES BALCOM, Beverly, Mass., assignor, by direct and mesne assignments, to Harry F. Sommer, Newark, N. J. Filed Oct. 25, 1910. Serial No. 588,939. (Cl. 36—21.)



A shoe in which the edge of the upper is turned inwardly between the outer and inner soles and united thereto by chain stitches passing straight through said parts, the stitch-receiving holes being elongated substantially at right angles with the edge of the outer sole and formed with substantially flat parallel sides, the two lengths of the thread in each hole being side by side in the plane of the greatest diameter of the hole.

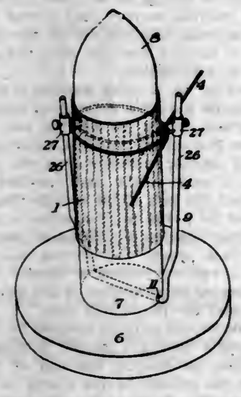
1,030,269. METHOD OF MAKING SEWED SHOES. CHARLES BALCOM, Beverly, Mass., assignor, by direct and mesne assignments, to Harry F. Sommer, Newark, N. J. Filed Jan. 31, 1911. Serial No. 605,677. (Cl. 12—142.)



The method of making sewed boots and shoes by enchained stitch seams, consisting in first temporarily connecting the upper, inner sole and outer sole, then providing all of those portions which are to be united by threads, and before the introduction of such threads, with a series of stitch-receiving holes elongated substantially at right angles with the edge of the outer sole, the sides of said holes being substantially flat and parallel, and finally drawing loops of thread through said holes and successively through each previously formed loop placing the two lengths of the thread of each loop side by side in the direction of the greatest diameter of the hole and tightening said loops to hold the upper, inner sole and outer sole securely together.

REISSUES.

13,429. MANTLE-TYING MACHINE. SAMUEL COHN, New York, N. Y., assignor to Machine Mantle Sewing Company, New York, N. Y., a Corporation of New York. Filed May 14, 1911. Serial No. 614,459. Original No. 918,011, dated Apr. 13, 1909, Serial No. 427,164. (Cl. 67—100.)



1. In a device of the class described, a stocking supporting spindle, means thereon for holding a mantle ring in a stocking when the device is in use, and means for guiding a string when a stocking is secured to a ring.

2. In a device of the class described, means for holding a mantle stocking, in combination with means for holding a mantle ring, and means for guiding the application of a securing string to the stocking to secure it to the ring.

3. In a device of the class described means for holding a stocking, means for holding a ring and means for indicating the correct position of the stocking with regard to the ring, so that when the string is tied around the stocking the ring and stocking will be held together in proper relation.

4. In a device of the class described, means for holding a stocking, means for holding a ring, said ring holding means having devices capable of adjustment so that when a string is tied about said stocking and secures the same to the ring, the ring and stocking will be held in proper relation.

5. In a device of the class described, means for holding a stocking, means for holding a ring, and means for guiding a string, said string guiding means including a mechanism for holding the said string guiding means in a vertical or in an inclined position.

6. In a device of the class described, a spindle and cap and means for holding a ring between said spindle and cap.

7. In a mantle tying device, a spindle having a mantle ring recess in its upper end, a guide to guide the securing string around the mantle ring and a cap provided with a ring recess corresponding to the recess in the spindle.

8. In a device of the class described, a spindle, a cap resting on said spindle, means for holding said cap and

spindle in proper relation and a string guide having eyes with openings opposite the top of the spindle and the bottom of the cap.

9. In a device of the class described, a spindle, a cap resting on said spindle, a string guide adjacent to said spindle and recesses between said cap and spindle adapted to receive a ring, said cap and spindle being so shaped as to form a groove on their exterior surfaces where one rests on the other.

10. In a device of the class described, a cap and spindle, each provided with means to receive a portion of a ring, one resting on the other and both circular in cross section and shaped to form a groove on their exterior surfaces where the cap rests on the spindle so that when a string is secured around a mantle webbing, the same is contracted evenly between said cap and spindle.

11. A hand tool for use in tying mantles to mantle rings, comprising a spindle, and means for holding one end of the spindle, the free end of said spindle of less depth than a mantle ring to receive and hold a mantle ring in projecting relation to the spindle.

12. A hand tool for use in tying mantles to mantle rings comprising a spindle having an external cylindrical mantle holding and guiding surface, and means for holding one end of the spindle, the free end of the spindle ring, said seat being of smaller diameter than the guiding and holding portion of said spindle.

13. A hand tool for use in tying mantles to mantle rings, comprising a spindle having a cylindrical mantle holding and guiding surface, means for holding one end of the spindle, the other free end of the spindle having a seat for a mantle ring of smaller diameter than the guiding and holding portion of said spindle and provided with slots to receive and hold the legs of the mantle ring.

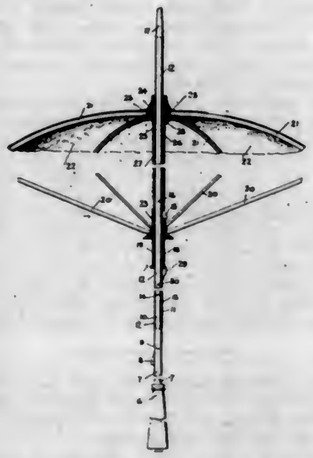
14. A hand tool for use in tying mantles to mantle rings comprising a spindle having a cylindrical mantle holding and guiding surface, means for holding one end of the spindle having a seat to receive a mantle ring, and a movable cap engaging an extension of the spindle and co-acting with the seat for the mantle ring.

15. A hand tool for use in tying mantles to mantle rings comprising a spindle having a mantle holding and guiding surface, means for holding one end of the spindle, the other end of the spindle having a seat to receive the mantle ring of smaller diameter than the spindle proper, a central projecting pin of smaller diameter than the seat, and a cap arranged to movably engage the pin and aid in guiding the mantle as it is drawn over the spindle.

16. A hand tool for use in tying mantles to mantle rings, comprising a cylindrical spindle having a mantle holding and guiding surface, means for holding one end of the spindle, its other free end having a seat to receive a mantle ring of smaller diameter than the spindle body, a central projecting pin of smaller diameter than the seat, and a cap arranged to movably engage the pin and aid in guiding the mantle as it is drawn and stretched over the spindle, said cap also being arranged to hold the mantle ring against endwise displacement.

17. A hand tool for use in tying mantles to mantle rings, comprising a spindle having a mantle holding and guiding surface, means for holding one end of the spindle, its other free end having a seat to receive a mantle ring, a pin projecting centrally from said seat, and a removable cap engaging the pin.

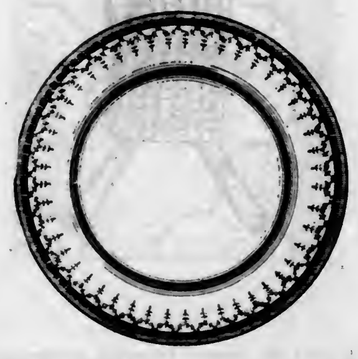
13,430. UMBRELLA. THEODOR SUSEMIHL and CHARLES P. CARRINGTON, New York, N. Y. Filed May 11, 1912. Serial No. 696,821. Original application filed Nov. 26, 1910, Serial No. 594,294. Renewed Nov. 7, 1911, Serial No. 659,058. Original No. 1,024,292, dated Apr. 23, 1912. (Cl. 135—20.)



An umbrella, comprising a staff, a sleeve slidably mounted thereupon and provided with a slot, a pin mounted upon said staff and extending through said slot for limiting the travel in one direction of said sleeve on said staff, a latch mounted upon said staff and disposed in registry with said slot for the purpose of extending therethrough in order to limit the travel of said sleeve in a direction opposite the direction of travel first mentioned, a runner slidably mounted upon said staff and adapted to engage the adjacent end of said sleeve, another latch mounted upon said staff for normally preventing said runner from moving away from said sleeve, ribs pivotally connected with said sleeve, stays pivotally connected with said runner and with said ribs, and a cover mounted upon said ribs.

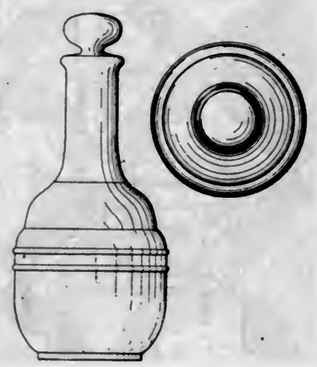
DESIGNS.

42,616. PLATE. MARCUS AARON, Pittsburgh, Pa. Filed Mar. 20, 1912. Serial No. 687,239. Term of patent 3½ years.



The ornamental design for a plate, as shown.

42,617. CARAFE. GEORGE P. ALTENBERG, Cincinnati, Ohio. Filed Apr. 3, 1912. Serial No. 688,307. Term of patent 14 years.



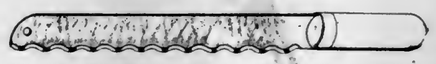
The ornamental design for a carafe, as shown.

42,618. CHAIR. GEORGE W. COLLINS, Holyoke, Mass. Filed June 4, 1910. Serial No. 565,118. Term of patent 7 years.



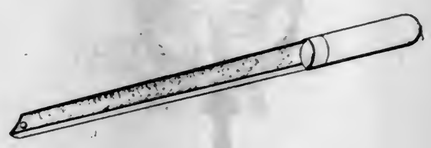
The ornamental design for a chair, as shown.

42,619. KNIFE. LEONIDAS H. CRESS, West Newton, Mass., assignor to Federal Tool Company, Everett, Mass., a Corporation of Massachusetts. Filed Feb. 17, 1912. Serial No. 678,371. Term of patent 7 years.



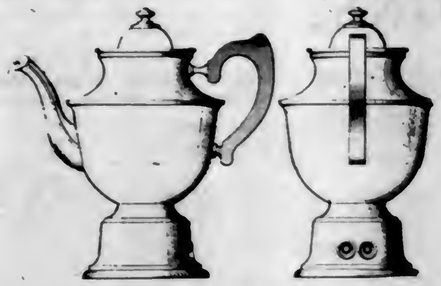
The ornamental design for a knife as shown.

42,620. KNIFE. LEONIDAS H. CRESS, West Newton, Mass., assignor to Federal Tool Company, Everett, Mass., a Corporation of Massachusetts. Filed Feb. 17, 1912. Serial No. 678,372. Term of patent 7 years.



The ornamental design for a knife as shown.

42,621. PERCOLATOR COFFEE-POT. EDWARD A. FARR, Meriden, Conn., assignor to Manning, Bowman & Company, Meriden, Conn., a Corporation of Connecticut. Filed Apr. 3, 1912. Serial No. 688,308. Term of patent 7 years.



The ornamental design for a percolator coffee pot, as shown.

42,622. COMBINED KNIFE AND FORK. GOODMAN GAFINOWITZ, Lawrence, Mass Filed Oct. 31, 1911. Serial No. 657,861. Term of patent 3½ years.



The ornamental design for a combined knife and fork, as shown.

42,623. FAN. WILLIAM B. GARRISON, Washington D. C. Filed Apr. 20, 1912. Serial No. 692,131. Term of patent 3½ years.



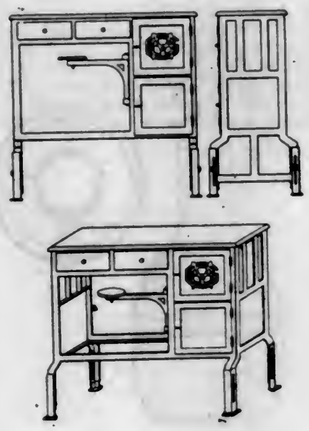
The ornamental design for a fan, as shown.

42,624. STATUETTE. FRANK H. HALL, Yonkers, N. Y., assignor to Strauss Manufacturing Company, New York, N. Y., a Corporation of New Jersey. Filed Apr. 4, 1912. Serial No. 688,553. Term of patent 7 years.



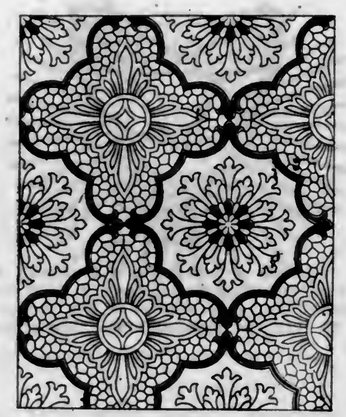
The ornamental design for a statuette as shown.

42,625. MACHINE-STAND. GUSTAF HOLMBERG, Omaha, Nebr. Filed Jan. 2, 1912. Serial No. 669,101. Term of patent 14 years.



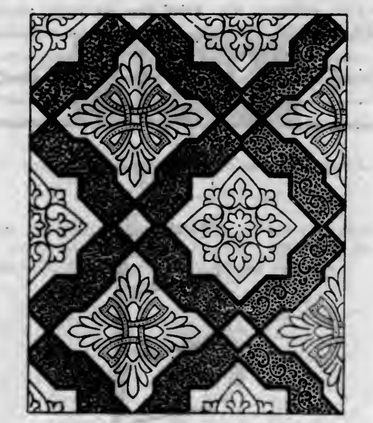
The ornamental design for a machine stand, as shown.

42,626. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 7, 1912. Serial No. 682,269. Term of patent 7 years.



The ornamental design for linoleum, oil cloth, or floor covering as shown.

42,627. LINOLEUM, OIL-CLOTH, OR FLOOR-COVERING. CHARLES F. HUMPHREYS, Lancaster, Pa., assignor to Armstrong Cork Company, Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 9, 1912. Serial No. 682,815. Term of patent 7 years.



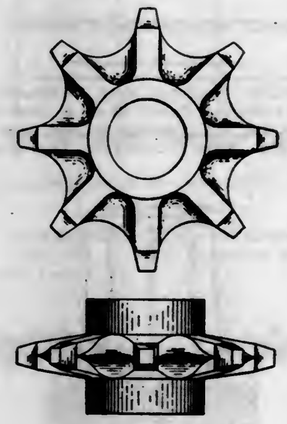
The ornamental design for linoleum, oil cloth, or floor covering as shown.

42,628. VASE. GEORGE H. JANES, Philadelphia, Pa. Filed Apr. 13, 1912. Serial No. 690,610. Term of patent 7 years.



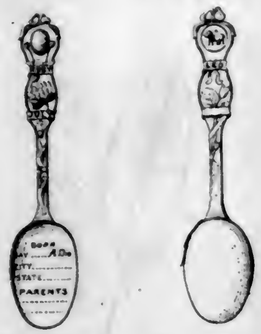
The ornamental design for a vase, as shown.

42,629. SPROCKET-WHEEL. WILLIAM H. KISSEL, Omaha, Nebr. Filed Mar. 8, 1912. Serial No. 682,534. Term of patent 7 years.



The ornamental design for a sprocket wheel, as shown.

42,630. BIRTH-SPOON. GUSTAVE F. KOLB, Mount Vernon, N. Y. Filed Nov. 29, 1909. Serial No. 530,521. Term of patent 3½ years.



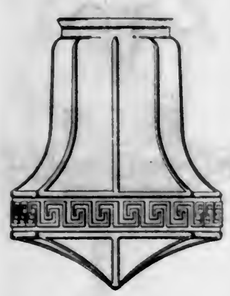
The ornamental design for a birth spoon, as shown.

42,631. SHADE. NICHOLAS KOPP, Pittsburgh, Pa., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 25, 1912. Serial No. 686,163. Term of patent 3½ years.



The ornamental design for a shade as shown.

42,632. SHADE. NICHOLAS KOPP, Pittsburgh, Pa., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 25, 1912. Serial No. 686,164. Term of patent 3½ years.



The ornamental design for a shade as shown.

42,633. SHADE. NICHOLAS KOPP, Pittsburgh, Pa., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 25, 1912. Serial No. 686,165. Term of patent 3½ years.



The ornamental design for a shade as shown.

42,634. SHADE. NICHOLAS KOPP, Pittsburgh, Pa., assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa., a Corporation of New Jersey. Filed Mar. 25, 1912. Serial No. 686,166. Term of patent 3½ years.



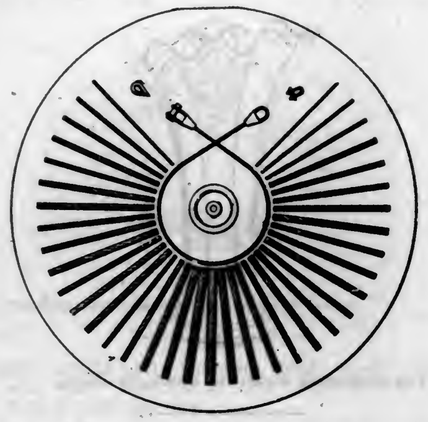
The ornamental design for a shade as shown.

42,635. HARNESS-RACK. FINIS E. LACK and ERNEST LACKEY, Paducah, Ky. Filed Jan. 23. 1912. Serial No. 672,971. Term of patent 7 years.



The ornamental design for a harness rack, as shown and described.

42,636. SIGN. HARRY J. LESCHEN, St. Louis, Mo., assignor to A. Leschen & Sons Rope Company, St. Louis, Mo., a Corporation. Filed Jan. 18, 1912. Serial No. 671,997. Term of patent 14 years.



The ornamental design for a sign, as shown.

42,637. WALL-PAPER. ROBERT W. MACKINTOSH, Buffalo, N. Y., assignor to M. H. Birge & Sons Company, Buffalo, N. Y., a Corporation. Filed Apr. 24, 1912. Serial No. 692,987. Term of patent 7 years.



The ornamental design for wall paper, as shown.

42,638. WALL-PAPER. ROBERT W. MACKINTOSH, Buffalo, N. Y., assignor to M. H. Birge & Sons Company, Buffalo, N. Y., a Corporation. Filed Apr. 24, 1912. Serial No. 692,988. Term of patent 7 years.



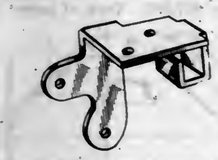
The ornamental design for wall paper, as shown.

42,639. KEYHOLE-FINDER. ALLAN LEONARD MARSHALL, St. John, New Brunswick, Canada. Filed Feb. 24, 1912. Serial No. 679,764. Term of patent 14 years.



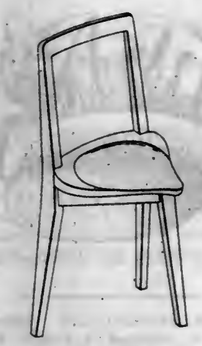
The ornamental design for a keyhole finder, as shown.

42,640. CURTAIN-HANGER. FRANCIS J. MCKENNA, Valley Falls, R. I. Filed Feb. 10, 1912. Serial No. 676,828. Term of patent 14 years.



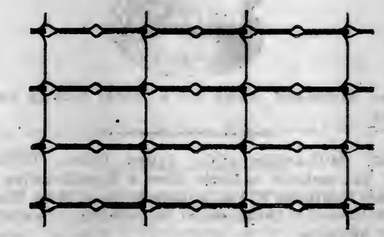
The ornamental design for a curtain hanger, as shown.

42,641. CHAIR. WALTER M. MCLEAN, Pittsburgh, Pa., assignor to W. B. McLean Mfg. Co., Pittsburgh, Pa., a Corporation of Pennsylvania. Filed Mar. 11, 1912. Serial No. 683,109. Term of patent 14 years.



The ornamental design for a chair, as shown.

42,642. WIRE FABRIC. GEORGE A. MELLON, St. Louis, Mo. Filed Dec. 7, 1911. Serial No. 664,497. Term of patent 14 years.



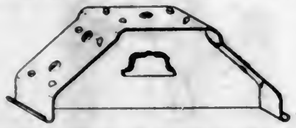
The ornamental design for a wire fabric, as shown.

42,643. GEM-SETTING. HARRY H. MEYERS, New York, N. Y. Filed Oct. 11, 1911. Serial No. 654,159. Term of patent 7 years.



The ornamental design for a gem-setting, as shown.

42,644. DISPLAY-STAND. OSCAR MOBERG, New Britain, Conn., assignor to Landers, Frary & Clark, New Britain, Conn., a Corporation of Connecticut. Filed Dec. 26, 1911. Serial No. 667,996. Term of patent 7 years.



The ornamental design for a display stand as shown.

42,645. RUBBER BATHING-CAP. RUSSELL PARKER, New York, N. Y., assignor to Parker, Stearns & Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 12, 1912. Serial No. 683,339. Term of patent 7 years.



The ornamental design for a rubber bathing cap, as shown.

42,646. RUBBER BATHING-CAP. EMMA M. PARKER, New York, N. Y., assignor to Parker, Stearns & Company, Brooklyn, N. Y., a Corporation of New York. Filed Mar. 12, 1912. Serial No. 683,340. Term of patent 7 years.



The ornamental design for a rubber bathing cap, as shown.

42,647. MOLASSES-JUG. JAMES PAULL, Wellsburg, W. Va., assignor to Eagle Glass & Manufacturing Company, Wellsburg, W. Va., a Corporation of West Virginia. Filed Feb. 24, 1912. Serial No. 679,629. Term of patent 14 years.



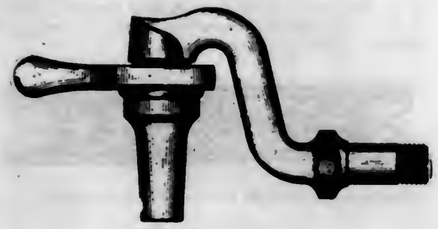
The ornamental design for a molasses jug, as shown and described.

42,648. VASE. ANDREW J. SANFORD, Newark, Ohio, assignor to A. H. Heisey & Co., Newark, Ohio, a Corporation of West Virginia. Filed Feb. 12, 1912. Serial No. 677,255. Term of patent 14 years.



The ornamental design for a vase, as shown.

42,649. BIB. THOMAS M. SAVILL, Philadelphia, Pa. Filed May 15, 1911. Serial No. 627,378. Term of patent 14 years.



The ornamental design for a bib, substantially as shown.

42,650. HORN. LEO SCHLESINGER, New York, N. Y. Filed Apr. 1, 1912. Serial No. 687,859. Term of patent 3½ years.



The ornamental design for a horn, as shown.

42,651. BADGE. MARY F. SLATTERY, New York, N. Y. Filed May 4, 1912. Serial No. 695,288. Term of patent 14 years.



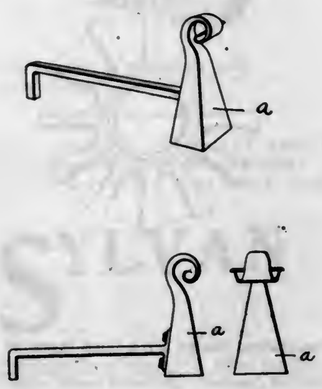
The ornamental design for a badge as shown.

42,652. STOVE-LEG. ELIZABETH BAILEY SPRAGUE, Spokane, Wash. Filed Feb. 27, 1912. Serial No. 680,329. Term of patent 14 years.



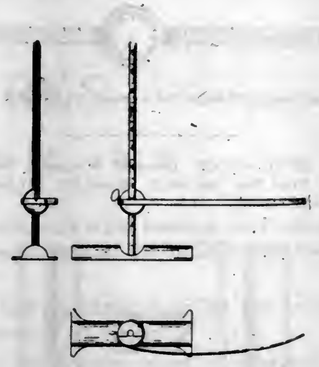
The ornamental design for a stove leg as shown.

42,653. ANDIRON. GUSTAV STICKLEY, Morris Plains, N. J. Filed Jan. 29, 1912. Serial No. 674,221. Term of patent 14 years.



The ornamental design for andirons as shown and described.

42,654. SKIRT-GAGE. REED A. TERRY, Omaha, Nebr. Filed Nov. 22, 1911. Serial No. 661,871. Term of patent 7 years.



The ornamental design for a skirt gage, as shown.

42,655. DISPLAY-STAND FOR JEWELRY. JOHN C. WACHA, Providence, R. I., assignor to George H. Cahoone Company, a Corporation of Rhode Island. Filed Mar. 12, 1912. Serial No. 683,344. Term of patent 3½ years.



The ornamental design for a display stand for jewelry, as shown.

42,656. DISPLAY-STAND FOR JEWELRY. JOHN C. WACHA, Providence, R. I., assignor to George H. Cahoone Company, a Corporation of Rhode Island. Filed Mar. 12, 1912. Serial No. 683,346. Term of patent 3½ years.



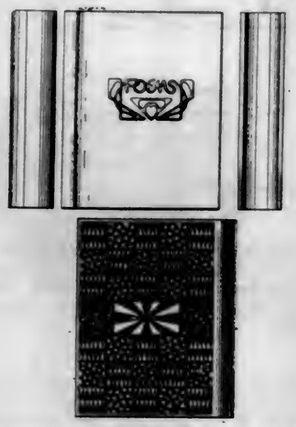
The ornamental design for a display stand for jewelry, as shown.

42,657. WRIST-WATCH AND HOLDER. LOUIS E. F. WACHTER, Hartford, Conn. Filed Apr. 12, 1912. Serial No. 690,365. Term of patent 7 years.



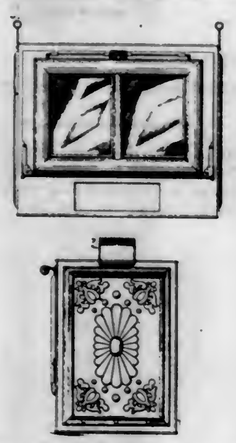
The ornamental design for a wrist watch and holder as shown.

42,658. JEWEL-CASE. RICHARD WALDRON, Brightwood, D. C. Filed Mar. 30, 1912. Serial No. 687,508. Term of patent 7 years.



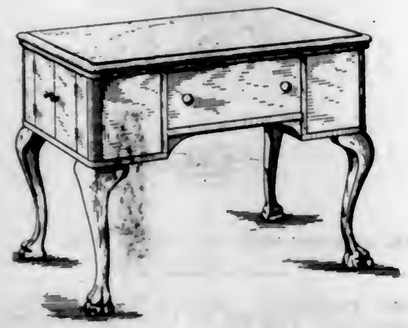
The ornamental design for a jewel case as shown and described.

42,659. OVEN. WILLIAM H. WILDER and FRED E. WHITE, Gardner, Mass., assignors to Central Oil & Gas Stove Company, a Corporation of Massachusetts. Filed Feb. 19, 1912. Serial No. 678,745. Term of patent 14 years.



The ornamental design for an oven, as shown.

42,660. PHONOGRAPH-TABLE. STEPHEN M. WIRTS, Detroit, Mich. Filed Mar. 18, 1911. Serial No. 615,442. Term of patent 7 years.



The ornamental design for a phonograph table as shown.

42,661. LAMP-SHADE. LORIN W. YOUNG, New York, N. Y. Filed Mar. 15, 1912. Serial No. 684,001. Term of patent 7 years.

The ornamental design for a lamp shade as shown.

TRADE-MARKS

PUBLISHED JUNE 18, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 13,427. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE RELIANCE GAUGE COLUMN CO., Cleveland, Ohio. Filed Oct. 9, 1905. Under ten-year proviso.

RELIANCE

Particular description of goods.—Gages.
Claims use since July, 1888.

Ser. No. 34,468. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) UNION WHOLESALE LIQUOR CO., Chicago, Ill. Filed Apr. 29, 1908.

Kapuziner Kloster

Particular description of goods.—Bitters.
Claims use for over one year.

Ser. No. 50,764. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN P. SCHARPENTER, Aurora, Ill. Filed July 9, 1910.

SYLVAN

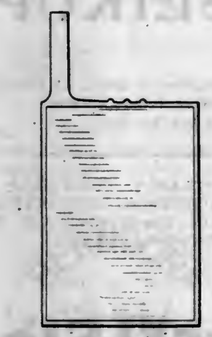
Particular description of goods.—A Salve for the Relief of Open Wounds, Blood-Poisoning, Bruises, Sprains, Abscesses, Piles, Burns, Gout and Rheumatism, and Foot Soreness.
Claims use since Mar. 31, 1910.

Ser. No. 51,199. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) KREFELD STEEL WORKS COMPANY, Krefeld, Germany, and New York, N. Y. Filed Aug. 1, 1910.

„Goliath"

Particular description of goods.—Steel.
Claims use since November, 1900.

Ser. No. 51,398. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE ELECTRIC STORAGE BATTERY COMPANY, Philadelphia, Pa. Filed Aug. 15, 1910.



No claim being made to the representation of those portions of the storage-battery plate other than the small protuberances on the top thereof.

Particular description of goods.—Storage-Battery Plates.
Claims use since July 1, 1910.

Ser. No. 51,535. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE DAISY MF'G. CO., South Bend, Ind. Filed Aug. 24, 1910.

DAISY

Particular description of goods.—Floor-Scrapers; Clamps for Scraper-Blades, Sharpening-Machines for Scraping-Blades; Edge-Turners for Scraper-Blades and Lawn-Edge Trimmers.
Claims use since Apr. 2, 1910.

Ser. No. 52,306. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) EMPRESS MANUFACTURING COMPANY, Newark, N. J. Filed Oct. 17, 1910.



Particular description of goods.—Stove-Polish.
Claims use since September, 1910.

Ser. No. 52,587. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) NELSON B. ARNOLD, New York, N. Y. Filed Nov. 3, 1910.

SLIKUP

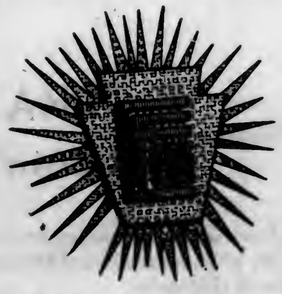
Particular description of goods.—A Liquid Composition to be Used for Coating Rubber Articles.
Claims use since Oct. 14, 1910.

Ser. No. 52,694. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) GOLDBERG, BOWEN & CO., San Francisco, Cal. Filed Nov. 10, 1910. Under ten-year proviso.

EXCELSIOR

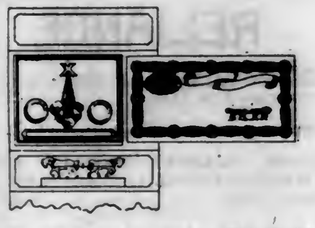
Particular description of goods.—Baking-Powder.
Claims use since Jan. 1, 1884.

Ser. No. 53,215. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ELLIOTT-FISHER COMPANY, Harrisburg, Pa. Filed Dec. 10, 1910.



The monogram being shown in red, with the keystone and radiating rays in yellow or gold.
Particular description of goods.—Type-Writing Machines, Combined Writing-Adding Machines, and Platens.
Claims use since March, 1909.

Ser. No. 54,960½. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) IVAN AUGUST MAURITZ LARSSON, Stockholm, Sweden. Filed Mar. 9, 1911.



Particular description of goods.—Wall-Hooks for Display Articles.
Claims use since Oct. 1, 1910.

Ser. No. 55,006. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) AUTO STROP SAFETY RAZOR CO., New York, N. Y. Filed Mar. 11, 1911.

AutoStrop

Particular description of goods.—Strops and Soaps.
Claims use since October, 1906, on strops, and since January, 1911, on soaps.

Ser. No. 55,313. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) NEW JERSEY MOTOR EQUIPMENT COMPANY, Elizabeth, N. J. Filed Mar. 25, 1911.

THE AGITATOR

Particular description of goods.—Carbureters and Parts of Carbureters.
Claims use since January, 1911.

Ser. No. 55,784. (CLASS 50. MERCHANDISE NOT OTHERWISE CLASSIFIED.) TILDEN-THURBER CO., Providence, R. I. Filed Apr. 15, 1911.



Particular description of goods.—Garment-Hangers.
Claims use since January, 1905.

Ser. No. 55,930. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) GEORGE H. MASON COMPANY, Portland, Me., and Boston, Mass. Filed Apr. 24, 1911.



The circular disk being chocolate colored and the ornamental scroll surrounding the disk being blue. No claim is made to the words "Quality Has Kept the Mason Factory Running Since 1851, Ask for Mason's Tin and Copper Ware."
Particular description of goods.—Coffee-Boilers, Washboilers, Rice-Boilers, Pudding-Boilers, Tea-Kettle Boilers, Washbowls, Flour-Dredges, Drinking-Cups, Colanders, Cake, Pastry, and Dough Cutters, Milk, Cream, and Water Dippers, Graters, Glue-Kettles, Vegetable-Kettles, Candle-Molds, Oil-Cans, Cake, Bread, Pudding, Candy, and Pastry Pans, Refrigerator-Pans, Milk-Pans, Saucepans, Stew-Pans, Coffee and Tea Pots, Paint and Varnish Pots, Meat and Soup Boilers, Scoops, Culinary Sieves, Clothes-Sprinklers, Meat and Vegetable Steamers, Funnels, Metallic Pitchers, Dust and Crumb Pans, Watering-Pots, Dish and Tumbler Drainers, Foot-Tubs, Bath-Tubs, and Sitz-Tubs.
Claims use since Jan. 1, 1910.

Ser. No. 56,247. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) OSBORNE GARRETT & CO., London, England. Filed May 8, 1911. Under ten-year proviso.

KROPP

Particular description of goods.—Razors.
Claims use since the year 1883.

Ser. No. 56,401. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) FRANK C. WILLIAMS, Easton, Pa. Filed May 17, 1911.

HARVESTER

Particular description of goods.—Wheat-Flour.
Claims use since December, 1910.

Ser. No. 56,552. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) LOGAN L. MALLARD, Dallas, Tex. Filed May 23, 1911.



The words "The Best" and "Made by Mallard" being disclaimed.
Particular description of goods.—A Flavoring-Syrup for Soda-Fountain Drinks.
Claims use since May 15, 1911.

Ser. No. 56,599. (CLASS 15. OILS AND GREASES.) STANDARD OIL CO. OF NEW YORK, New York, N. Y. Filed May 26, 1911.



Particular description of goods.—Illuminating-Oils.
Claims use since 1879.

Ser. No. 56,642. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BERNDORF METAL WORKS ARTHUR KRUPP, Berndorf, Austria. Filed May 27, 1911.



The words "Berndorf Rein-Nickel" being disclaimed.
Particular description of goods.—Table-Knives.
Claims use since May 25, 1903.

Ser. No. 56,954. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN OPTICAL COMPANY, Southbridge, Mass. Filed June 10, 1911.

AMOPTICO

Particular description of goods.—Eyeglasses, Spectacles, Lenses, Goggles, Optometers, Refractometers, Opthalmoscopes, Pupilometers, Astigmoscopes, Nose-Gages, Face-Measures, Frame-Measures, Temple-Measures, Trial-Frames, Lens-Testing Instruments, Lens-Measuring Instruments, Periscopes, Stereoscopes, Magnifying-Glasses, Reading-Glasses, and Loupes.
Claims use since Jan. 28, 1911.

Ser. No. 57,313. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) JOHN J. MARTIN, Detroit, Mich. Filed June 26, 1911.

ORTO

Particular description of goods.—Cameras, Projecting-Machines, and Photographic Negatives, Prints, and Films.
Claims use since November, 1908.

Ser. No. 57,314. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) JOHN J. MARTIN, Detroit, Mich. Filed June 26, 1911.



Particular description of goods.—Cameras, Projecting-Machines, and Photographic Negatives, Prints, and Films.
Claims use since November, 1908.

Ser. No. 57,706. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UKANEAT SPECIALTY COMPANY, Nashville, Tenn. Filed July 19, 1911.



Particular description of goods.—Salted Peanuts and Peanut-Butter Sandwiches.
Claims use since June 1, 1911.

Ser. No. 57,778. (CLASS 17. TOBACCO PRODUCTS.) S. S. PIERCE COMPANY, Boston, Mass. Filed July 22, 1911.



Which is fanciful.
Particular description of goods.—Cigars.
Claims use since July 17, 1911.

Ser. No. 57,994. (CLASS 37. PAPER AND STATIONERY.) RHINELANDER PAPER COMPANY, Rhinelander, Wis. Filed Aug. 2, 1911.

King William

Particular description of goods.—Wrapping-Paper.
Claims use since Apr. 20, 1910.

Ser. No. 58,253. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) SOCIÉTÉ LE DIORADIN, Geneva, Switzerland. Filed Aug. 17, 1911.

Dioradin

Particular description of goods.—A Liquid Radium-Iodin-Terpene Preparation for Treating Tuberculosis.
Claims use since May 27, 1911.

Ser. No. 58,413. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) STANDARD EARTH AUGER CO., Chicago, Ill. Filed Aug. 28, 1911.



Particular description of goods.—Earth-Augers.
Claims use since Sept. 1, 1910.

Ser. No. 58,498. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOSEPH W. BRANICKI, Newark, N. J. Filed Sept. 1, 1911.



Particular description of goods.—A Foot-Powder.
Claims use since July 1, 1908.

Ser. No. 58,962. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) IGNITION STARTER COMPANY, Grand Rapids, Mich. Filed Oct. 2, 1911.

DISCO

Particular description of goods.—Starting Devices for Internal-Combustion Engines.
Claims use since Aug. 5, 1911.

Ser. No. 58,975. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) THE HOWE SCALE CO., Rutland, Vt. Filed Oct. 3, 1911. Under ten-year proviso.

HOWE

Particular description of goods.—Scales.
Claims use for more than fifty years.

Ser. No. 59,200½. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) CHAMBERLAIN & SCHROEDER, Grand Rapids, Mich. Filed Oct. 17, 1911.



Particular description of goods.—Gas-Hose Attachments.
Claims use since Dec. 10, 1908.

Ser. No. 59,351. (CLASS 33. GLASSWARE.) UNITED STATES GLASS COMPANY, Pittsburgh, Pa. Filed Oct. 26, 1911.



Particular description of goods.—Vases, Dishes, Bowls, Plates, Tumblers, Pitchers, and Glass Articles Not Specifically Enumerated, but Comprised in the Trade Name or Term "Table-Glass."
Claims use since Oct. 16, 1911.

Ser. No. 59,717. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) UNITED SHOE MACHINERY COMPANY, Paterson, N. J., and Boston, Mass. Filed Nov. 14, 1911.

CIRCLETTE

Particular description of goods.—Protectors Adapted to be Inserted in the Heels and Soles of Boots and Shoes.
Claims use since July 15, 1894.

Ser. No. 59,831. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) CALMON ASBESTOS & RUBBER WORKS OF AMERICA, New York, N. Y. Filed Nov. 21, 1911.

ETERNITE

Particular description of goods.—Packing Material Made of Compressed Asbestos.
Claims use since about September, 1909.

Ser. No. 59,929. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE COLLINS COMPANY, Collinsville, Conn. Filed Nov. 25, 1911. Under ten-year proviso.

BUSHMAN'S CHOICE

Particular description of goods.—Axes, Hatchets, Adzes, Bush-Hooks, Machetes, Saws, Chisels, Knives, Swords, Sickles, Mattocks, Pickaxes, Shovels, Spades, Crowbars, Picks, Hoes, Mill-Picks, Sledges, Hammers, Wedges, Wrenches, Augers, Boring-Bits, Earth and Rock Drills, Cavadores, Barretones, Tarpalas, Palas, Tercados, Jincolas, Barras, Lanzas, Lancitas, Arpones, Cleavers, and Bayonets.
Claims use since September, 1894.

Ser. No. 59,935. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE COLLINS COMPANY, Collinsville, Conn. Filed Nov. 25, 1911.

BONANZA

"Bonanza."
Particular description of goods.—Plows of All Kinds and Parts Thereof.
Claims use since September, 1877.

Ser. No. 59,936. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE COLLINS COMPANY, Collinsville, Conn. Filed Nov. 25, 1911.

AA

Particular description of goods.—Plows of All Kinds and Parts Thereof.
Claims use since February, 1876.

Ser. No. 59,937. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE COLLINS COMPANY, Collinsville, Conn. Filed Nov. 25, 1911.

ND

Particular description of goods.—Plows of All Kinds and Parts Thereof.
Claims use since February, 1876.

Ser. No. 60,209. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AUGUSTUS M. HENRY, New York, N. Y. Filed Dec. 13, 1911.

BASEBALLEON

Particular description of goods.—Projecting-Machines and Slides Therefor.
Claims use since Dec. 9, 1911.

Ser. No. 60,628. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) GETZ BROS. & Co., San Francisco, Cal. Filed Jan. 4, 1912.

Royal Taste

Particular description of goods.—Spices.
Claims use since January, 1890.

Ser. No. 60,788. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) PHILIP G. H. BENNET, Boston, Mass. Filed Jan. 13, 1912.

REGENT

Particular description of goods.—Punches, Shears, Rod-Cutters, Valve-Grinders, and Breast-Drills.
Claims use since Jan. 17, 1910.

Ser. No. 61,064. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) JOHN S. MILERICK, Yonkers, N. Y. Filed Jan. 26, 1912.

CORA OIL

No claim being made to the word "Oil."
Particular description of goods.—A Liniment for External Use.
Claims use since Nov. 1, 1909.

Ser. No. 61,134. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) NICHOLAUS VRAGASSY, East St. Louis, Ill. Filed Jan. 30, 1912.



Representing fanciful pictures.
Particular description of goods.—A Liniment.
Claims use since June 5, 1911.

Ser. No. 61,225. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMERICAN OPTICAL COMPANY, Southbridge, Mass. Filed Feb. 2, 1912.

WELLSWORTH

Particular description of goods.—Eyeglasses, Spectacles, Lenses, Frames, Bridges, Guards, Springs, Finger-Piece Levers, Rimless Mountings, End Pieces, Temples, and Bearing-Pads for Goggles, Optometers, Refractometers, Opthalmoscopes, Pupilometers, Astigmoscopes, Nose-Gages, Face-Measures, Frame-Measures, Temple-Measures, Trial-Frames, Lens-Testing Instruments, Lens-Measuring Instruments, Periscopes, Stereoscopes, Magnifying-Glasses, Reading-Glasses, and Loupes.
Claims use since Jan. 1, 1911.

Ser. No. 61,267. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHAS. MORRILL, New York, N. Y. Filed Feb. 5, 1912.

APEX

Particular description of goods.—Saw-Sets, Nail-Pullers, Spike-Pullers, Box-Openers, Bench-Stops, Seal-Presses, Hand-Punches, and Liquid-Soap Dispensers.
Claims use since Feb. 1, 1912.

Ser. No. 61,342. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) S. R. WHITE'S SONS, Norfolk, Va. Filed Feb. 7, 1912. Under ten-year proviso.

STONEWALL

S

Particular description of goods.—Plows, Plowshares, Moldboards, Plow-Points, Sweeps, Heels, Standards, Plow-Beams, and Plow-Handles.
Claims use since about the 1st of January, 1882.

Ser. No. 61,357. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) STEPHEN E. COMSTOCK, Newark, N. Y. Filed Feb. 8, 1912.

RED RING

The ring being printed in red.
Particular description of goods.—Canned Vegetables.
Claims use since Oct. 10, 1911.

Ser. No. 61,404. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) STEPHEN J. BIRCKHEAD, Baltimore, Md. Filed Feb. 10, 1912.

AKAN

Particular description of goods.—A Remedy for Cancer, Eczema, and All Skin Diseases.
Claims use since September, 1911.

Ser. No. 61,421. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEORGE E. CHANDLER COMPANY, Providence, R. I. Filed Feb. 12, 1912.



A monogram upon a black background of the letters "G. E. C.," the said letters being colored red.
Particular description of goods.—Handkerchiefs.
Claims use since Jan. 1, 1912.

Ser. No. 61,482. (CLASS 6. CHEMICALS, MEDICINES AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Feb. 15, 1912.

UNEKA

Particular description of goods.—Perfumes; Sachet Powder; Toilet Water; Cologne-Waters; Smelling-Salts; Toilet and Face Powders, Liquid and Dry Powder and Rice-Powder, Cold-Cream, Toilet Cerate, Almond-Meal, Benzoin, Milk of Cucumber, Camphor-Ice, Mutton-Tallow, Cocoa-Butter, Lotions and Bay-Rum; Bath-Powder; Depilatories, Hair-Tonic, Hair-Dressing, Alkenna-Powder, Shampoo Preparations, Tooth-Powder, Tooth-Paste, Tooth-Washes, Nail-Polish, Nail-Enamel, Pomade-Rouge, Cuticle-Acid; Eyebrow-Pencils; and Troches for the Breath.
Claims use since Nov. 22, 1911.

Ser. No. 61,666. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) CORNEL PARTOS, New York, N. Y. Filed Feb. 23, 1912.



The portraits shown therein being fanciful.

Particular description of goods.—A Remedy for Diseases of the Kidneys, Liver, Urinary Organs, and for Pain in the Back.

Claims use since January, 1911.

Ser. No. 61,694. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) KLENSALL MFG. CO., Reading, Pa. Filed Feb. 23, 1912.



Particular description of goods.—Washing-Powder.

Claims use since Oct. 1, 1911.

Ser. No. 61,763. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) WILLIAM H. MALETTE, Pittsburgh, Pa. Filed Feb. 27, 1912.

VAN-X CEL

Particular description of goods.—Flavoring Extracts.

Claims use since Nov. 1, 1910.

Ser. No. 61,794. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) THE HOFFMANN-LA ROCHE CHEMICAL WORKS, New York, N. Y. Filed Feb. 28, 1912.

IODOSTARIN

Particular description of goods.—An Organic Iodin Preparation for Medicinal Uses.

Claims use since about Dec. 1, 1911.

Ser. No. 61,812. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) JOHN W. GRUMIAUX, Rochester, N. Y. Filed Feb. 29, 1912.

O-TAK-A TIRE REMOVER

No claim being made to the words "Tire Remover."

Particular description of goods.—Automobile Wheel-Tire Removers.

Claims use since Jan. 1, 1911.

Ser. No. 61,945. (CLASS 39. CLOTHING.) WOODBURY SHOE COMPANY, Beverly, Mass. Filed Mar. 5, 1912.

Dr. Woodbury's H. O. SHOE

Consisting of a facsimile of the signature of H. O. Woodbury, its president, no claim being made to the words "Dr. Woodbury's Shoe."

Particular description of goods.—Leather and Cloth Boots, Shoes, and Slippers.

Claims use since Dec. 22, 1911.

Ser. No. 62,129. (CLASS 48. MALT EXTRACTS AND LIQUORS.) CLAUSSEN BREWING ASSOCIATION, Seattle, Wash. Filed Mar. 13, 1912.



Particular description of goods.—Beer.

Claims use since February, 1912.

Ser. No. 62,189. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MALDUBMIN IMPORTING CO., New York, N. Y. Filed Mar. 15, 1912.

VIENNETS

Particular description of goods.—Candy.

Claims use since Feb. 1, 1912.

Ser. No. 62,206. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) REDLANDS CHEMICAL COMPANY, Redlands, Cal. Filed Mar. 16, 1912.

HEMESIA

Particular description of goods.—Anesthetics.

Claims use since Jan. 10, 1912.

Ser. No. 62,239. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) CAMMEYER, New York, N. Y. Filed Mar. 18, 1912.

Boule Crymols

Particular description of goods.—Preparations Consisting of a Hard Solid White Cake Composed of Polishing Materials for Cleaning White Kid, White Buckskin, White Calfskin, White Canvas, and All Sorts of White Goods.

Claims use since Dec. 1, 1911.

Ser. No. 62,252. (CLASS 17. TOBACCO PRODUCTS.) SOSSIDI FRÈRES DE CONSTANTINOPLE, Hamburg, Germany. Filed Mar. 18, 1912.



The words "Cigarettes" and "Sossidi Frères" being disclaimed.

Particular description of goods.—Smoking and Chewing Tobaccos, Cigarettes, and Cigars.

Claims use since 1884.

Ser. No. 62,292. (CLASS 37. PAPER AND STATIONERY.) ALBANY PERFORATED WRAPPING PAPER COMPANY, Albany, N. Y. Filed Mar. 20, 1912.

BOB WHITE

Consisting of the words "Bob White."

Particular description of goods.—Toilet-Paper.

Claims use since Dec. 16, 1911.

Ser. No. 62,307. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) FAIRVIEW FLUOR SPAR & LEAD COMPANY, Fairview Landing, Ill. Filed Mar. 21, 1912.



No claim being made to the words and figures "99% Pure, Ground Fluor Spar, Brand."

Particular description of goods.—Ground Fluor Spar.

Claims use since Aug. 1, 1905.

Ser. No. 62,356. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) AMMEX MOTION PICTURE MANUFACTURING COMPANY, San Diego and National City, Cal. Filed Mar. 23, 1912.



Particular description of goods.—Exposed Motion-Picture Film or Moving-Picture Film or Kinematograph.

Claims use since Dec. 1, 1911.

Ser. No. 62,388. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) THOMAS GEORGE, Baltimore, Md. Filed Mar. 25, 1912.

Rozena

Particular description of goods.—Syrup for Soda-Water.

Claims use since Mar. 1, 1912.

Ser. No. 62,410. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) FREDERICK HAMILTON, Providence, R. I. Filed Mar. 25, 1912.

ZENITH

Particular description of goods.—Spectacles, Eyeglasses, Mountings, Lenses, and Guards.

Claims use since Feb. 19, 1912.

Ser. No. 62,411. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) CHARLES F. GULDE, Beach, N. D. Filed Mar. 25, 1912.



Particular description of goods.—Well-Drilling Machines.

Claims use since Feb. 1, 1912.

Ser. No. 62,445. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BATJER & COMPANY, New York, N. Y. Filed Mar. 27, 1912.



Particular description of goods.—Sardines.
Claims use since Mar. 11, 1912.

Ser. No. 62,542. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) CENTURY ELECTRIC COMPANY, St. Louis, Mo. Filed Mar. 30, 1912.

"Invincible"

Particular description of goods.—Alternating-Current Electric Motors.
Claims use since Mar. 1, 1911.

Ser. No. 62,621. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) BUFFALO GASOLENE MOTOR CO., Buffalo, N. Y. Filed Apr. 3, 1912.



No claim being made for the representation of an explosion-engine.
Particular description of goods.—Explosion-Engines.
Claims use since Mar. 1, 1912.

Ser. No. 62,657. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE ELECTRENE COMPANY, New York, N. Y. Filed Apr. 4, 1912.

ELECTRENE

Particular description of goods.—Fire-Extinguishers.
Claims use since Feb. 1, 1912.

Ser. No. 62,675. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) NATIONAL TUBE COMPANY, Pittsburgh, Pa. Filed Apr. 5, 1912. Under ten-year proviso.

MATHESON JOINT

Particular description of goods.—Pipes, Tubes, and Casings.
Claims use since Mar. 5, 1888.

Ser. No. 62,738. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) INTERSTATE COMMERCE CO., INC., Richmond, Va. Filed Apr. 8, 1912.



The picture being fanciful.
Particular description of goods.—Root-Beer and Cherry-Punch Used as a Soda-Fountain Drink.
Claims use since July, 1911.

Ser. No. 62,748. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) THE WESTERN INSPECTION COMPANY, Buffalo, N. Y. Filed Apr. 8, 1912.



Particular description of goods.—Hand Chemical Fire-Extinguishers.
Claims use since Jan. 1, 1912.

Ser. No. 62,802. (CLASS 15. OILS AND GREASES.) D. MEYER & C., Bahia Blanca, Argentina. Filed Apr. 10, 1912.



Particular description of goods.—Kerosene.
Claims use since Apr. 12, 1911.

Ser. No. 62,804. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) D. MEYER & C., Bahia Blanca, Argentina. Filed Apr. 10, 1912.



Particular description of goods.—Corrugated Sheet-Iron.
Claims use since Apr. 12, 1911.

Ser. No. 62,879. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) THE EMPIRE BRASS MANUFACTURING CO., Cleveland, Ohio. Filed Apr. 13, 1912.

PORTALITE

Particular description of goods.—Electric Lamps.
Claims use since about Mar. 10, 1912.

Ser. No. 62,919. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) KEUFFEL & ESSER COMPANY, Hoboken, N. J. Filed Apr. 16, 1912. Under ten-year proviso.

EXCELSIOR

Particular description of goods.—Measuring-Tapes.
Claims use since Apr. 10, 1882.

Ser. No. 62,927. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) CHICAGO STEEL RAILWAY TIE COMPANY, Chicago, Ill. Filed Apr. 16, 1912.

SIMPLEX

Particular description of goods.—Railway-Ties and Rail-Fastenings.
Claims use since January, 1912.

Ser. No. 63,031. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) DEFIANCE BUTTON MACHINE CO., New York, N. Y. Filed Apr. 20, 1912. Under ten-year proviso.

DEFIANCE

D

Particular description of goods.—Buttons and Parts of Buttons.
Claims use since Apr. 6, 1893.

Ser. No. 63,044. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) SOLOMON MAYER, Boston, Mass. Filed Apr. 22, 1912.

Footograph

Particular description of goods.—Foot-Measuring Charts.
Claims use since on or about Apr. 10, 1912.

Ser. No. 63,066. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) SIMONDS MANUFACTURING COMPANY, Fitchburg, Mass.; Chicago, Ill.; New York and Lockport, N. Y.; New Orleans, La.; Portland, Oreg.; Seattle, Wash.; San Francisco, Cal.; Montreal and St. John, New Brunswick, Canada, and London, England. Filed Apr. 23, 1912.



Particular description of goods.—Saws.
Claims use since 1876.

Ser. No. 63,068. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) SCOVILL MANUFACTURING COMPANY, Waterbury, Conn. Filed Apr. 23, 1912.

QUEEN ANNE

Particular description of goods.—Lamp-Burners.
Claims use since Aug. 15, 1880.

Ser. No. 63,105. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) MAX M. LEVY, Denver, Colo. Filed Apr. 24, 1912. Under ten-year proviso.



Particular description of goods.—Blue-Print Paper.
Claims use since about Feb. 1, 1885.

Ser. No. 63,161. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) NATIONAL CARBON COMPANY, Cleveland, Ohio. Filed Apr. 26, 1912.

BLUE SPARK

Particular description of goods.—Dry Cells.
Claims use since Apr. 9, 1912.

Ser. No. 63,171. (CLASS 37. PAPER AND STATIONERY.) CHAS. E. PERRY CO., Boston, Mass. Filed Apr. 27, 1912.



Particular description of goods.—Paper in Sheets, Strips, and Rolls.
Claims use since Jan. 1, 1885.

Ser. No. 63,175. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) TILLSON & CO. INC., Salem, Oreg. Filed Apr. 27, 1912.

RAVEN

Particular description of goods.—Evaporated Fruits.
Claims use since 1906.

Ser. No. 63,213. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) AMERICAN PIANO CO., New York, N. Y. Filed Apr. 30, 1912.

RYTHMODIK

Particular description of goods.—Piano-Players, Player-Pianos, and Note-Sheets for the Same.
Claims use since Jan. 5, 1912.

Ser. No. 63,262. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) FAIRBANKS, MORSE & COMPANY, Chicago, Ill. Filed May 2, 1912.

F & M C O

Particular description of goods.—Internal-Combustion Engines, Pumps, and Feed-Grinders.
Claims use since about January, 1899.

Ser. No. 63,312. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE ANSTED & BURK CO., Springfield, Ohio. Filed May 4, 1912.

GOLDEN FLEECE

Particular description of goods.—Wheat-Flour.
Claims use since 1885.

Ser. No. 63,321. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING CO., Eastport, Me. Filed May 4, 1912.

HOME-RUN



Particular description of goods.—Sardines.
Claims use since October, 1909.

Ser. No. 63,337. (CLASS 39. CLOTHING.) O. MARKS & SON, Newbern, N. C. Filed May 4, 1912.

The JACKRABBIT SHOE

No exclusive claim to the use of the word "Shoe" as a part of our trade-mark is made.
Particular description of goods.—Leather Shoes.
Claims use since March, 1912.

Ser. No. 63,344. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) KOENIGSMARK MILL CO., Waterloo, Ill. Filed May 4, 1912. Under ten-year proviso.

GARDNER

Particular description of goods.—Wheat-Flour.
Claims use since 1876.

Ser. No. 63,432. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GRIMME, NATALIS & CO., COMMANDITGESELLSCHAFT AUF ACTIEN, Brunswick, Germany. Filed May 9, 1912.

Brains of Steel

Particular description of goods.—Calculating and Adding Machines.
Claims use since April, 1909.

Ser. No. 63,433. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) GRIMME, NATALIS & CO., COMMANDITGESELLSCHAFT AUF ACTIEN, Brunswick, Germany. Filed May 9, 1912.

Brains of Steel

Particular description of goods.—Calculating-Machines.
Claims use since April, 1909.

Ser. No. 63,478. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) VIRGINIA SILK CO., INCORPORATED, Richmond, Va. Filed May 11, 1912.

L'Impératrice

Particular description of goods.—Satin Taffeta.
Claims use since Apr. 17, 1912.

Ser. No. 63,493. (CLASS 39. CLOTHING.) THE POWELL KNITTING CO., Philadelphia, Pa. Filed May 11, 1912.

PILGRIM

Particular description of goods.—Hosiery.
Claims use since November, 1906.

Ser. No. 63,502. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) PATTON PAINT COMPANY, Milwaukee, Wis. Filed May 13, 1912.

SHUFLI

Particular description of goods.—A Ready-Mixed Paint for Use as a Protective Coating for Metal Screens and other Surfaces.
Claims use since July 8, 1904.

Ser. No. 63,521. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) SELMAN BROS., Cleveland, Ohio. Filed May 13, 1912.

MOR-LITE

Particular description of goods.—Water-Paints.
Claims use since Apr. 22, 1912.

TRADE-MARKS

REGISTERED JUNE 18, 1912.

86,973. PORTLAND CEMENT. THE ATLAS PORTLAND CEMENT COMPANY, Northampton, Pa.
Filed May 19, 1911. Serial No. 56,483. PUBLISHED APRIL 9, 1912.

86,974. SUBSTITUTE FOR IODIN AND IODIDS. PLACIDE ALEXANDRE ASTIER, Paris, France.
Filed January 8, 1912. Serial No. 60,674. PUBLISHED APRIL 9, 1912.

86,975. CERTAIN PHARMACEUTICAL PREPARATIONS. DAVID E. BEECHAM, Lapeer, Mich.
Filed October 11, 1911. Serial No. 59,100. PUBLISHED APRIL 9, 1912.

86,976. STRAIGHT RYE WHISKY. C. BERRY & Co., Boston, Mass.
Filed February 12, 1912. Serial No. 61,436. PUBLISHED APRIL 16, 1912.

86,977. MINERAL AND AERATED WATERS, NATURAL AND ARTIFICIAL, INCLUDING GINGER-BEER. THE CAMBRUNNEN TABLE WATER COMPANY, London, England.
Filed September 21, 1911. Serial No. 58,778. PUBLISHED APRIL 16, 1912.

86,978. SOUND-RECORD BLANKS. COLUMBIA PHONOGRAPH COMPANY, GENERAL, Washington, D. C.
Filed January 4, 1912. Serial No. 60,604. PUBLISHED APRIL 16, 1912.

86,979. HAIR-WATER. GEORG DRALLE, Hamburg, Germany.
Filed September 7, 1911. Serial No. 58,565. PUBLISHED JANUARY 30, 1912.

86,980. FRICTION-TAPE. THE M. W. DUNTON COMPANY, Providence, R. I.
Filed January 26, 1912. Serial No. 61,053. PUBLISHED APRIL 16, 1912.

86,981. CERTAIN FANCY GOODS AND NOTIONS. ELY & WALKER DRY GOODS COMPANY, St. Louis, Mo.
Filed January 8, 1912. Serial No. 60,679. PUBLISHED MARCH 26, 1912.

86,982. WOUND-POWDER. FABRIK PHARMACEUTISCHER PRÄPARATE KARL ENGELHARD, Frankfort-on-the-Main, Germany.
Filed September 7, 1911. Serial No. 58,569. PUBLISHED APRIL 9, 1912.

86,983. REMEDIES FOR CERTAIN DISEASES. CECELIA A. FRANK, Lincoln, Nebr.
Filed October 2, 1911. Serial No. 58,967. PUBLISHED APRIL 9, 1912.

86,984. CERTAIN MUSICAL INSTRUMENTS AND SUPPLIES. FRANKFURTER MUSIKWERKE-FABRIK, J. D. PHILIPPS & SÖHNE A.-G., Frankfort-on-the-Main, Germany.
Filed November 6, 1911. Serial No. 59,561. PUBLISHED APRIL 16, 1912.

86,985. GIN COMPOUND. GOLDEN GATE Co., Baltimore, Md.
Filed February 5, 1912. Serial No. 61,259. PUBLISHED APRIL 16, 1912.

86,986. WHISKY-BLEND. GOLDEN GATE Co., Baltimore, Md.
Filed February 5, 1912. Serial No. 61,260. PUBLISHED APRIL 16, 1912.

86,987. LAXATIVE PILLS. W. T. HANSON Co., Schenectady, N. Y.
Filed September 30, 1911. Serial No. 58,951. PUBLISHED NOVEMBER 21, 1911.

86,988. CERTAIN CHEMICAL PREPARATION. ARTHUR EDMUND HAWKER, London, England.
Filed December 30, 1911. Serial No. 60,522. PUBLISHED APRIL 9, 1912.

86,989. HANDKERCHIEFS. HELLER & LONG, New York, N. Y.
Filed February 14, 1912. Serial No. 61,470. PUBLISHED APRIL 16, 1912.

86,990. PREPARATION FOR AN ANTISEPTIC DOUCHE. REUBEN A. HINE, New York, N. Y.
Filed January 8, 1912. Serial No. 60,682. PUBLISHED APRIL 16, 1912.

86,991. SALT. THE HUTCHINSON-KANSAS SALT COMPANY, Hutchinson, Kans.
Filed February 1, 1912. Serial No. 61,178. PUBLISHED APRIL 16, 1912.

86,992. STEEL CARRIAGE, WAGON, AND BUGGY AXLES. ILLINOIS IRON & BOLT Co., Carpentersville, Ill.
Filed March 6, 1911. Serial No. 54,856. PUBLISHED AUGUST 29, 1911.

86,993. WRITING FLUID. INTERNATIONAL INK Co., Los Angeles, Cal.
Filed February 6, 1912. Serial No. 61,310. PUBLISHED APRIL 16, 1912.

86,994. HOSIERY. INTERWOVEN STOCKING COMPANY, New Brunswick, N. J.
Filed October 7, 1911. Serial No. 59,041. PUBLISHED APRIL 16, 1912.

86,995. CORSETS. JACKSON CORSET COMPANY, Jackson, Mich.
Filed September 30, 1909. Serial No. 45,026. PUBLISHED JANUARY 25, 1910.

86,996. CERTAIN KINDS OF FABRICS. KENT MANUFACTURING COMPANY, New York, N. Y.
Filed December 21, 1911. Serial No. 60,399. PUBLISHED APRIL 16, 1912.

86,997. CERTAIN PHARMACEUTICAL PREPARATIONS. LEGGETT & BROTHER, New York, N. Y.
Filed December 6, 1911. Serial No. 60,104. PUBLISHED APRIL 9, 1912.

86,998. MEDICINE FOR CERTAIN AILMENTS. EMILY C. MCRAE, Spokane, Wash.
Filed December 20, 1911. Serial No. 60,378. PUBLISHED APRIL 16, 1912.

86,999. PORT-WINE. ALBERT CHARLES FREDERICK MORGAN, London, England.
Filed April 8, 1911. Serial No. 55,636. PUBLISHED APRIL 16, 1912.

87,000. OINTMENT, POMADE, BLOOD REMEDY, AND REMEDY FOR MALARIA. THE MORGAN DRUG Co., Brooklyn, N. Y.
Filed February 12, 1912. Serial No. 61,434. PUBLISHED APRIL 16, 1912.

87,001. BEER. OLYMPIA BREWING Co., Olympia, Wash.
Filed November 13, 1907. Serial No. 31,154. PUBLISHED APRIL 9, 1912.

87,002. HOSIERY. PARAMOUNT KNITTING COMPANY, Chicago, Ill.
Filed November 11, 1911. Serial No. 59,656. PUBLISHED APRIL 16, 1912.

87,003. CARBON-PAPERS, PEN COPYING-PAPER, AND TYPE-WRITER RIBBONS. THE PENCARBON CO. LTD., Leicester, England.
Filed September 1, 1911. Serial No. 58,504. PUBLISHED APRIL 16, 1912.

87,004. PIANOS AND ORGANS. PEOPLE'S OUTFITTING COMPANY, Detroit, Mich.
Filed July 26, 1911. Serial No. 57,829. PUBLISHED JANUARY 30, 1912.

87,005. STARTING DEVICES FOR EXPLOSIVE-ENGINES. THE PREST-O-LITE COMPANY, Indianapolis, Ind.
Filed January 27, 1912. Serial No. 61,089. PUBLISHED APRIL 16, 1912.

87,006. PRINTING-PRESSES. THE REGINA COMPANY, Rahway, N. J.
Filed December 16, 1911. Serial No. 60,294. PUBLISHED APRIL 16, 1912.

87,007. PAPER TABLETS AND NOTE-BOOKS. THE REYNOLDS & REYNOLDS COMPANY, Dayton, Ohio.
Filed March 7, 1912. Serial No. 61,987. PUBLISHED APRIL 16, 1912.

87,008. MEDICINAL TONICS, PILLS, AND OINTMENTS. CARL HEINRICH FRANZ RICHTER, London, England.
Filed April 14, 1911. Serial No. 55,758. PUBLISHED APRIL 9, 1912.

87,009. MADE-TO-ORDER OUTER SUITS FOR MEN. SIGMUND ROSENBLATT & SON, Baltimore, Md.
Filed January 27, 1911. Serial No. 54,122. PUBLISHED NOVEMBER 21, 1911.

87,010. CERTAIN ARTICLE OF CLOTHING. RIFF & Co., Berne, Switzerland.
Filed July 15, 1911. Serial No. 57,724. PUBLISHED APRIL 16, 1912.

87,011. NATURAL MINERAL SPRING-WATERS. SCT. LUCASBADER BRUNNEN ACTIEN-GESELLSCHAFT, Budapest, Austria-Hungary.
Filed July 1, 1910. Serial No. 50,656. PUBLISHED APRIL 16, 1912.

87,012. SHERRY-WINE. ALEX. D. SHAW & CO., New York, N. Y.
Filed November 25, 1911. Serial No. 59,925. PUBLISHED APRIL 16, 1912.

87,013. PERFUME AND TALCUM POWDER. SMITH, KLINE & FRENCH COMPANY, Philadelphia, Pa.
Filed February 15, 1912. Serial No. 61,529. PUBLISHED APRIL 16, 1912.

87,014. COAL-TAR COLORS. SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland.
Filed August 10, 1911. Serial No. 58,115. PUBLISHED APRIL 16, 1912.

87,015. CERTAIN PHARMACEUTICAL PREPARATION. SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland.
Filed August 10, 1911. Serial No. 58,117. PUBLISHED APRIL 16, 1912.

87,016. CERTAIN PHARMACEUTICAL PREPARATIONS. SOCIETY OF CHEMICAL INDUSTRY IN BASLE, Basel, Switzerland.
Filed August 10, 1911. Serial No. 58,120. PUBLISHED APRIL 16, 1912.

87,017. NAPHTHA. STANDARD OIL COMPANY OF NEW YORK, New York, N. Y.
Filed June 15, 1910. Serial No. 50,323. PUBLISHED APRIL 16, 1912.

87,018. ILLUMINATING-OILS. STANDARD OIL CO. OF NEW YORK, New York, N. Y.
Filed November 21, 1911. Serial No. 59,839. PUBLISHED APRIL 16, 1912.

87,019. NON-ALCOHOLIC BEVERAGE. MARK B. TISDALE, Bentonville, Ark.
Filed May 2, 1911. Serial No. 56,125. PUBLISHED APRIL 16, 1912.

87,020. NON-ALCOHOLIC BEVERAGES PREPARED OF FRUIT-JUICE. HEINRICH TÜSHAUS, Borken, Germany.
Filed October 13, 1911. Serial No. 59,146. PUBLISHED APRIL 16, 1912.

87,021. OVERALLS, JUMPERS, COATS, AND TROUSERS. VOLUNTEER MFG. COMPANY, Nashville, Tenn.
Filed June 8, 1910. Serial No. 50,195. PUBLISHED APRIL 16, 1912

87,022. CERTAIN MEDICINE AND PHARMACEUTICAL PREPARATIONS. HENRY K. WAMPOLE AND COMPANY INCORPORATED, Philadelphia, Pa.
Filed February 1, 1911. Serial No. 54,246. PUBLISHED APRIL 9, 1912.

87,023. LINIMENTS. GEORGE O. WELLMAN, Jr., Chicago, Ill.
Filed January 12, 1912. Serial No. 60,774. PUBLISHED MARCH 5, 1912.

87,024. LAXATIVE AND CATHARTIC REMEDY. GEO. C. WHITMORE, Leadville, Colo.
Filed December 9, 1910. Serial No. 53,197. PUBLISHED APRIL 9, 1912.

87,025. FLANNEL PIECE GOODS. WICK NARROW FABRIC COMPANY, Philadelphia, Pa.
Filed February 14, 1912. Serial No. 61,468. PUBLISHED APRIL 16, 1912.

LABELS

REGISTERED JUNE 18, 1912.

16,396.—*Title:* "SOLIDIFIED HONEY." (For Honey.) FREDERICK C. AMEISS, St. Louis, Mo. Filed March 4, 1912.

16,397.—*Title:* "EL DOMAR." (For Cigars.) C. B. HENSCHEL MFG. CO., Milwaukee, Wis. Filed May 31, 1912.

16,398.—*Title:* "DOCTORS PORT." (For Wines.) C. HASCALL & CO., INC., Seattle, Wash. Filed May 7, 1912.

16,399.—*Title:* "LE ROUGE'S AUTHENTIC-HAIR-AUXILIARY SOAP." (For Soap.) LE ROUGE CO., Chicago, Ill. Filed May 18, 1912.

16,400.—*Title:* "LE ROUGE'S AUTHENTIC-HAIR-AUXILIARY." (For Hair-Pomade.) LE ROUGE CO., Chicago, Ill. Filed May 18, 1912.

16,401.—*Title:* "FLAXBLOOM." (For Handkerchiefs.) MAXWELL-MCCLURE-FITTS D. G. CO., Kansas City, Mo. Filed March 23, 1912.

16,402.—*Title:* "EVERYBODY'S." (For Sugar-Syrup and Corn-Syrup.) NEW ORLEANS COFFEE CO., LTD., New Orleans, La. Filed May 28, 1912.

16,403.—*Title:* "NEW SOUTH." (For Cane-Syrup.) NEW ORLEANS COFFEE CO., LTD., New Orleans, La. Filed May 28, 1912.

16,404.—*Title:* "CRACKER." (For Cane-Syrup.) NEW ORLEANS COFFEE CO., LTD., New Orleans, La. Filed May 28, 1912.

16,405.—*Title:* "SWEETLAND." (For Sugar-Cane Products and Corn-Syrup.) NEW ORLEANS COFFEE CO., LTD., New Orleans, La. Filed May 28, 1912.

16,406.—*Title:* "ALLIGATOR." (For Molasses.) NEW ORLEANS COFFEE CO., LTD., New Orleans, La. Filed May 28, 1912.

16,407.—*Title:* "GOOSE NECK." (For Imitation Sorghum.) NEW ORLEANS COFFEE CO., LTD., New Orleans, La. Filed May 28, 1912.

16,408.—*Title:* "SPARKLE." (For Table-Syrup.) NEW ORLEANS COFFEE CO., LTD., New Orleans, La. Filed May 28, 1912.

16,409.—*Title:* "SNOW WHITE." (For Corn-Syrup and Cane-Sugar Syrup.) NEW ORLEANS COFFEE CO., LTD., New Orleans, La. Filed May 28, 1912.

16,410.—*Title:* "I. C. PREVENTION." (For a Medicinal Preparation.) PARIS CHEMICAL CO., New York, N. Y. Filed February 14, 1912.

16,411.—*Title:* "SUCCESS." (For Wheat-Flour.) H. H. WHITING, Minneapolis, Minn. Filed May 28, 1912.

16,412.—*Title:* "MINNESOTA BELLE." (For Wheat-Flour.) H. H. WHITING, Minneapolis, Minn. Filed May 28, 1912.

16,413.—*Title:* "LA FARINE BLANCHE." (For Wheat-Flour.) H. H. WHITING, Minneapolis, Minn. Filed May 28, 1912.

16,414.—*Title:* "CHANCELLOR." (For Wheat-Flour.) H. H. WHITING, Minneapolis, Minn. Filed May 28, 1912.

16,415.—*Title:* "KAREX BLEND GOLDEN SUN COFFEE." (For Coffee.) THE WOOLSON SPICE COMPANY, Toledo, Ohio. Filed May 28, 1912.

PRINTS

REGISTERED JUNE 18, 1912.

3,050.—*Title:* "FRUIT DISPATCH COMPANY IMPORT THE BEST." (For Bananas.) FRUIT DISPATCH COMPANY, New York, N. Y. Filed June 1, 1912.

3,051.—*Title:* "WOLFE'S SCHNAPPS." (For Schnapps.) UDOLPHO WOLFE COMPANY, New York, N. Y. Filed May 29, 1912.

3,052.—*Title:* "LA FARINE BLANCHE." (For Wheat-Flour.) H. H. WHITING, Minneapolis, Minn. Filed May 28, 1912.

3,053.—*Title:* "SUCCESS." (For Wheat-Flour.) H. H. WHITING, Minneapolis, Minn. Filed May 28, 1912.

3,054.—*Title:* "CHANCELLOR." (For Wheat-Flour.) H. H. WHITING, Minneapolis, Minn. Filed May 28, 1912.

3,055.—*Title:* "MINNESOTA BELLE." (For Wheat-Flour.) H. H. WHITING, Minneapolis, Minn. Filed May 28, 1912.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

WALKER *v.* LEDERER.

Decided October 21, 1911.

INTERFERENCE—PRIORITY—REDUCTION TO PRACTICE—DELAY—FILING APPLICATION.

Where W. reduced the invention to practice prior to the earliest date of invention claimed by L., *Held* that W. did not forfeit his right to a patent in favor of L. by delay in filing his application where there was no suppression or concealment of the invention.

APPEAL from Examiners-in-Chief.

CELLULOSE ESTERS.

Messrs. Noyes & Harriman and *Mr. Guy Cunningham* for Walker.

Messrs. Fairfax & Wetter and *Messrs. Delmas, Towne & Spellman* for Lederer.

MOORE, *Commissioner:*

This is an appeal by Lederer from the decision of the Examiners-in-Chief affirming the decision of the Examiner of Interferences awarding priority of invention to Walker on the following issue:

1. The process for the manufacture of solutions suitable as lacquers or varnishes and for other industrial purposes, which consists in dissolving a suitable organic compound in acetylene tetra-chlorid, substantially as described.

2. The process for the manufacture of solutions suitable as lacquers or varnishes and for other industrial purposes, which consists in dissolving suitable organic compounds in acetylene tetra-chlorid and another solvent of the said compound, substantially as described.

3. The process for the manufacture of solutions suitable as lacquers or varnishes and for other industrial purposes, which consists in dissolving an acidilized cellulose in acetylene tetra-chlorid, substantially as described.

4. The process for the manufacture of solutions suitable as lacquers or varnishes and for other industrial purposes, which consists in dissolving acetyl cellulose in acetylene tetra-chlorid, substantially as described.

5. A composition of matter consisting of a solution of acidilized cellulose in acetylene tetra-chlorid, substantially as described.

6. A composition of matter consisting of a solution of acidilized cellulose in acetylene tetra-chlorid and another solvent, substantially as described.

7. A composition of matter consisting of a solution of acetyl cellulose in acetylene tetra-chlorid, substantially as described.

8. A composition of matter consisting of a solution of acetyl cellulose in acetylene tetra-chlorid and another solvent, substantially as described.

Lederer, the senior party, is a foreigner. His application was filed in this country April 10, 1905, about six months prior to that of Walker. A patent was subsequently issued to Lederer; but he secures no advantage thereby in this proceeding, since the issue of the patent was after Walker had filed his application. Lederer also filed several foreign applications; but under the circumstances of this case, as will appear hereinafter, the date of the earliest of these would serve him no better than his filing date in this country, and it is therefore unnecessary to discuss Lederer's proofs regarding the foreign applications.

It is admitted by Lederer that Walker has shown that he conceived the invention in September, 1901, and reduced it to practice in October, 1901, as alleged in his preliminary statement. (Lederer's brief, p. 2.) Furthermore, there is no contention by either party that the other derived the invention from him.

The case presents the sole question whether, under the circumstances, the delay by Walker for four years between his reduction to practice and the filing of his application works a forfeiture of his right to a patent in favor of his opponent. Even this question is somewhat narrowed by Lederer's admission that Walker never abandoned the invention nor the intention of patenting it and that his delay was not for the purpose of unlawfully extending his monopoly. Page 5 of Lederer's brief states that—

> the doctrine upon which we rely is based neither upon the idea of abandonment, nor that of immoral intent. Laches constitutes its sole foundation.

Many cases have been cited in behalf of Lederer to support the proposition that such delay as Walker's in and of itself is fatal to an applicant's claim to a patent. In some of these cases language is used which, removed from its context and considered apart from the facts, would seem broad enough to sustain appellant's theory; but no case has been cited, and I know of none, where a patent has been refused or held invalid solely on the ground of delay in filing the application after a reduction to practice by the inventor. In some of the cases cited abandonment was clearly established, either intentional or constructive, which is statutory bar under section 4886, and, as pointed out above, is a ground upon which Lederer does not rely in this instance.

In several of the cases cited by appellant there had been no actual reduction to practice, and the statements therein made concerning delay and diligence obviously have no applicability to the present case.

In most of the cases cited the earlier inventor had purposely or through indifference suppressed and concealed the invention. Another had produced and

given it to the public, either commercially or by securing the issuance of a patent thereon, and the delinquent inventor had thereafter been stirred into activity by the success of his rival. Such were the facts in *Gray* v. *Hale*, (C. D., 1871, 129;) *Consolidated Fruit Jar Co.* v. *Wright*, (94 U. S., 92;) *Mason* v. *Hepburn*, (C. D., 1898, 510; 13 App. D. C., 86;) *in re appeal of Mower*, (C. D., 1899, 395; 15 App. D. C., 144;) *Thomson* v. *Weston*, (C. D., 1902, 521; 19 App. D. C., 373;) *Matthes* v. *Burt*, (C. D., 1905, 574;) *Universal Adding Machine* v. *Comptograph Co.*, (146 Fed. Rep., 981,) and *Curtain Supply Co.* v. *National Lock Washer Co.*, (174 Fed. Rep., 45.) That under such a condition of affairs the one who gave the invention to the public is to be considered the true inventor in the eye of the law is a proposition that these cases fully establish; but it is also well settled that this doctrine will not be extended to cases not falling clearly within it. (*McBerty* v. *Cook*, C. D., 1900, 248; 16 App. D. C., 133,) and in a number of instances the Court of Appeals of the District of Columbia has refused to apply the doctrine to cases superficially resembling those above mentioned, because the evidence did not show a "concealment or suppression" by the first inventor or some other of the elements essential to the doctrine of estoppel. (*Esty* v. *Newton*, C. D., 1899, 284; 14 App. D. C., 50; *McBerty* v. *Cook*, *supra*; *Oliver* v. *Felbel*, C. D., 1904, 565; 20 App. D. C., 255; *Brown* v. *Blood*, C. D., 1903, 617; 22 App. D. C., 216.)

In the case now under consideration there was admittedly no stimulation of Walker into activity by the entry of Lederer into the field. Lederer's patent had not issued when Walker's application was filed, and it does not appear that Lederer ever made the invention public.

Furthermore, so far from suppressing and concealing the invention during the four years between reduction to practice and the date of filing, the testimony shows that Walker disclosed it to at least two men, Buchanan and Callan, besides those associated with him in his work. Buchanan was connected with the Fort Hill Chemical Company and Callan with the General Electric Company. Neither of them was a business associate of Walker nor bound to secrecy, and both were men well able to appreciate the nature and value of the invention.

Walker also had samples of films, etc., made in accordance with the invention and submitted them to certain commercial concerns, which made use of such material, with a view of having the new substance adopted by them as a substitute for that then in use.

In view of the fact that Walker did not conceal or suppress the invention and was not stimulated into applying for a patent by any knowledge of Lederer's claim to inventorship, I am clearly of the opinion that the case does not fall under the doctrine of estoppel by concealment established by the line of cases above referred to.

Walker was admittedly the first to perfect the invention, and priority was properly awarded to him.

The decision of the Examiners-in-Chief is affirmed.

W. A. ROSS & BROTHER, LTD., *v.* THE LOUIS BERGDOLL BREWING COMPANY *v.* THE GREENWAY BREWING COMPANY.

Decided June 5, 1912.

TRADE-MARKS—FOREIGN APPLICANT—PRIMA FACIE SHOWING OF USE IN THIS COUNTRY PREREQUISITE TO INTERFERENCE WITH PRIOR REGISTRANT.

Where a foreigner applies for registration for a trade-mark subsequent to the registration by a citizen of this country of the same mark, *Held* that in order to be entitled to an interference with such registration the foreign applicant must make a *prima facie* showing of use in this country.

ON APPEAL.

TRADE-MARK FOR LAGER-BEER.

Mr. A. Parker-Smith for W. A. Ross & Brother, Ltd.

Messrs. Wiedersheim & Fairbanks for The Bergdoll Brewing Company.

Messrs. Parsons, Hill & Bodell for The Greenway Brewing Company.

BILLINGS, *First Assistant Commissioner:*

This is an appeal by The Greenway Brewing Company from a decision of the Examiner of Trade-Marks refusing to dissolve the above-entitled interference.

The motion alleges that there has been such irregularity in declaring the interference as to preclude the proper determination of the question of the right to the registration, and that the party, W. A. Ross & Brother, Ltd., has no right to the registration for which it made application and that it has not made a *prima facie* showing of the use of the trade-mark in question in this country at any date prior to the registration of any of the trade-marks to The Greenway Brewing Company, referred to in the declaration of the interference.

The record shows that the registrations to The Greenway Brewing Company involved in this interference are Nos. 14,520 and 14,521, registered June 14, 1887, and No. 13,006, registered February 9, 1886. In accordance with the provisions of the statute these registrations are *prima facie* evidence of ownership on their respective dates. The record further shows that W. A. Ross & Brother, Ltd., is a foreign applicant and that its application for registration was filed in this office June 10, 1910. It also appears that this applicant has obtained a foreign registration on an application filed more than four months prior to June 10, 1910. The provisions set forth in section 4 of the Trade-Mark Act do not, therefore, apply to this case.

The Examiner of Trade-Marks refused to dissolve the interference for the reason that a foreign applicant is not required, under provisions of section 2 of the Trade-Mark Act, to allege use of the trade-mark in this country. While this is true, it is believed that a *prima facie* showing at least of use in this country must be made by a foreign applicant before he is entitled to be placed in interference with a United States registrant, whose registration has been obtained in this country prior to the filing date in this country of the application for registration by the foreign applicant. No opinion is expressed herein as to what other effect the filing of an application for registration of a trade-mark by a foreign applicant under section 4 of the Trade-Mark Act would have, in view of the fact that those conditions are not present in this case. It is held that the interference should not be declared until W. A. Ross & Brother, Ltd., make a *prima facie* showing of a right to register the mark, notwithstanding the registrations which had been granted to The Greenway Brewing Company.

The decision of the Examiner of Trade-Marks is reversed.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

IN RE META MATTULLATH, ADMINISTRATRIX OF HUGO MATTULLATH.

Decided April 1, 1912.

1. ABANDONMENT OF APPLICATION—APPEAL FROM DECISION OF COMMISSIONER—JURISDICTION OF COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

Where the Commissioner decides that the showing made is not sufficient to establish that the delay in the prosecution of an application was unavoidable within the meaning of section 4894, Revised Statutes, *Held* that his action is subject to review on direct appeal to the Court of Appeals of the District of Columbia.

2. SAME—DELAY UNAVOIDABLE.

Record reviewed and delay in the prosecution of the application *Held* "unavoidable" within the meaning of that term as used in section 4894, Revised Statutes. (Ruling in *ex parte Pratt*, 89 O. G., 1549, approved.)

Mr. W. H. Swenarton for the appellant.

Mr. W. S. Ruckman for the Commissioner of Patents.

SHEPARD, *C. J.:*

On January 8, 1900, Hugo Mattullath filed an application for a patent for a flying-machine. His home was then in the city of New York, where his family then, and has since resided. At the time of filing the application he was in the city of Detroit, Mich., and gave a power of attorney to Barthel & Barthel, patent solicitors, having an office in that city, to represent him. The power of attorney was filed with the application and the same was prosecuted by the solicitors in connection with their associate in the city of Washington. On March 10, 1900, objections were made by the Examiner, in which he pointed out many formal defects, suggesting changes, amendments, etc. In the body of this communication he said:

The construction is regarded as inoperative for the purpose intended and therefore not useful within the meaning of the patent law. No successful attempt has yet been made to rise from the earth's surface by means of an aerial vessel unprovided with a balloon. The results of previous experimentation indicate that even if the rising could be successfully accomplished, the vessel would be uncontrollable through inability to maintain its normal position or balance. Minor difficulties lie in the apparent inadequacy of the propelling means acting against the air, to insure such speed either in the air or in water as is needed to give the aeroplanes sufficient lifting power. Applicant has disclosed no new principle or construction which would on its face exempt his device from the difficulties by his predecessors in this line. However plausible applicant's theory may be, in view of the present state of the mechanic arts and the results of previous experimentation the step is so long from the theory to actual use, and the practicability of his apparatus is so problematical that actual demonstration of operativeness will be required before the grant of a patent.

The communication was responded to April 9, 1900, by the Washington solicitor in a communication proposing amendments, and arguing in favor of general patentability. A communication from the Examiner, dated May 16, 1900, objected to certain claims, allowing one, and suggesting amendments to others. In conclusion he added:

The former criticisms as to the showing, etc., are repeated.

Other amendments were offered during 1901 and 1902, and the Examiner, on October 1, 1902, sent a communication, rejecting claims 1 and 2 on references, suggesting amendments to claims 15 and 16, and that claims 21–22 and 23 appear to be allowable. In conclusion he said:

The rejection on the ground of inoperativeness and consequent lack of utility is adhered to.

The correspondence took place between the Washington solicitor and the Examiner. September 18, 1903, the solicitor filed formal amendments in an attempt to comply with the last notice of objections. September 29, 1903, the Examiner made the following indorsement on the application for amendment, signing his name thereto officially:

This application as amended September 18, 1903, has been considered. An amendment has been received in this case, but no action can be taken upon the merits thereof for the reason that the applicant's death operates as revocation of the power of attorney to Barthel & Barthel and there is no one of record authorized to prosecute the case.

There is no suggestion of the death of the applicant in the record, and how knowledge thereof came to the Examiner is not shown. The transcript of the proceedings in the Office does not show the fact, but it appears from the affidavits filed in the prosecution renewal that a letter was addressed to Barthel & Barthel notifying them of the revocation of their power of attorney by the death of the applicant. It appears in the same way that Hugo Mattullath died in Washington December 30, 1902. It appears from the Office transcript that a letter was filed August 14, 1909, from the Washington solicitor giving permission to Professor Zahm to inspect the application and drawings on file.

October 19, 1909, Meta Mattullath who had received letters of administration upon the estate of her deceased husband, Hugo Mattullath, executed a power of attorney to one R. H. E. Starr of New York, authorizing him to represent her in the Patent Office, which was filed and accepted November 5, 1909, and Starr was so notified November 6. September 16, 1910, she executed another power of attorney to Joseph F. O'Brien, which was filed in the Office. On November 22, 1910, O'Brien filed a short amendment of the original application canceling claims 1 and 2 and formally amending claims 15 and 16 by inserting the "of" as suggested in the before-mentioned communication of the Examiner dated October 1, 1902. The application was entered on the Office records as abandoned October 3, 1903. On November 23, 1910, Meta Mattullath filed a petition to revive. In this she alleged that her husband lived in New York and died in Washington December 30, 1902, leaving petitioner, his widow, and three daughters. That she had been duly ap-

pointed administratrix of his estate. That while she and other members of his family knew that intestate had worked on an invention of flying-machines, none of them had knowledge of the existence of the said application until about October 13, 1909, when informed by an attorney in New York, who called to request her to sign an instrument authorizing him to have access to said file. Said authority was given to Mr. Newell, but subsequently she executed a power of attorney to R. H. E. Starr, revoking the former one. That intestate left no estate whatever, and petitioner was destitute, and being supported by her children. Mr. Starr consented to act for her without fee, if she could advance money for necessary disbursements. That she managed to pay him forty-one dollars for the purpose, and he agreed to make application to revive the application for patent. That petitioner believed that application had been made. She has since learned that no application was made by Mr. Starr on account of severe illness, which finally resulted in his death. Shortly before his death she wrote to him to return her papers in case his illness was so serious that he could not prosecute the business promptly. Receiving word that he was unable to proceed, petitioner undertook to recover her papers, among them copies of Patent Office proceedings which Starr had obtained with the money advanced by her. That these papers were scattered and could not be obtained. Petitioner then undertook to procure the services of others and among them considered Barthel & Barthel, but learning that they had written to Mr. Starr wanting $100 per day, she did not communicate with them. After some delay she succeeded in securing the services of Mr. O'Brien, who agreed to represent her without compensation. That she is informed that an amendment to the application was prepared by Barthel & Barthel, or their Washington associate, after the death of her husband and that the same was refused on the ground that his death had revoked their authority. That she was never notified by said attorneys of said action; and had she been would certainly have ratified the act of said attorneys in filing the amendment and have endeavored to prosecute the application. That neither she nor her children knew that her husband had an application pending, and in fact did not know that there was a difference between an application for a patent, and a patent. That they thought, from his efforts in the matter of airships that her husband had some kind of a patent, but upon investigation found that such patents as he had had been assigned to other parties. This petition to revive the application was sworn to by the petitioner and supported by affidavits of each of the children of intestate, and a son-in-law. An affidavit by the confidential clerk of Mr. Starr, Rose V. Finn, corroborated petitioner as regards the employment of Mr. Starr, and gave the details of his sickness, of his attempt to attend to the revival of the application, of his being compelled to leave his office, and removal of some of his papers to his father's home; of the communications from petitioner regarding the business, and Mr. Starr's expression of the belief that he would soon be strong enough to prosecute the business. She also stated that when a suggestion was made to him to give the business up, his reply was that petitioner had no money to employ another attorney, and that he would soon be able to attend to it. A few days before his death, he realized his condition, and then notified petitioner and instructed that her papers be surrendered. Affiant searched for copy of the application and file-wrapper, but was unable to find them. Mr. Starr died of tuberculosis and neuritis on September 8, 1910. The affidavit of Joseph F. O'Brien, the succeeding attorney, was to the effect that as soon as employed he began the search for papers supposed to have been in Starr's possession, and succeeded in obtaining a letter of Wilbur F. Wright from Mr. Starr's father. The certified copy of the application and file-wrapper could not be found and he was compelled to obtain the same from the Patent Office, which he received about ten days or two weeks before filing the petition to revive. To this affidavit is attached the following letter from Wilbur F. Wright:

COLLEGE PARK, MARYLAND,
14 October, 1909.

Miss ALICE MATTULLATH, *New York.*

DEAR MADAM:—I thank you for your very kind letter of 29th Sept., which I have found it impossible to answer hitherto. I had already arranged a canoe to float the machine in case of coming down, so could not try the raft you were so kind as to suggest and offer, but I very much appreciate the friendly spirit which prompted you.

I knew a little of your father's work through conversation with Professor Zahm and others, but he had died before my brother and I had really begun our work.

With many thanks and best respects,

Yours truly,

WILBUR WRIGHT.

The following letter from Barthel & Barthel, to Mr. Starr, was also attached:

DETROIT, MICH., *Nov. 20, 1909.*

Mr. R. H. E. STARR, *280 Broadway, New York, N. Y.*

DEAR SIR:—In reply to your favor of November 13, re Mattullath, would say that we believe the same discloses at least some of the fundamental principles of the aeroplane.

In reference to the various points covered in your letter would say, first, when we received the Patent Office letter notifying us that the death of the applicant had operated as a revocation of our power, we believed that we notified no one, as we did not know the address or whereabouts of the widow. Second, as far as we know there was no agreement in existence between the applicant and other parties unless it might possibly have been parties in Pittsburgh or Prof. Langley or Zahm with whom he had consulted considerably while in Washington. Third, we have no copy of any agreement or other document which could show any interest in any outside party.

We could verify the above points fully upon making a proper search through our office records.

It is our recollection that at the time of Mr. Mattullath's death he was in or near Washington and we had given him the address of our Washington associate, and that at the time of his leaving here he gave us no address where we could reach him.

We received a notice from the Patent Office revoking our power of attorney and do not believe that the family knew anything of the existence of this application as Mr. Mattullath was very secretive in connection with work on this invention. Our charge as attorneys would be $100.00 per day and expenses. * * * Mr. Mattullath was a frequent caller upon us during the preparation of this application and might state that he spent weeks at a time in and about our office in connection with this matter.

(Signed.) BARTHEL & BARTHEL.

The petition came before Assistant Commissioner Tennant, who denied it in a decision entered March 25, 1911. The grounds of his decision are fairly represented in the following extract from his opinion:

It is urged in support of the petition that the delay in amending this application within the period allowed by law was unavoidable, for the reason that the administratrix was wholly unaware of the pendency of the application until October 13, 1909, and that thereafter she did all within her power and financial means to obtain the revival of this application and resumption of its prosecution. It is urged that the ground of inoperativeness or lack of utility which was the basis of the objection was removed at the time it was first demonstrated that aeroplanes could be successfully flown and managed in flight, and it is insisted that the Mattullath machine embodies the same principles as those machines which are in successful flight at the present time.

Although the path of the administratrix of the estate of Hugo Mattullath, as appears from the affidavits, has since October, 1909, been strewn with obstacles, I am clearly of the opinion that the showing is insufficient to establish unavoidable delay for the entire period since October, 1903, in the circumstances attending this case. The application was filed in the early part of 1900, and a patent was refused upon the ground that no heavier than air machines of this character had ever been successfully flown and that therefore the invention lacked utility. There is no showing in the record that any attempt was ever made by this applicant to overcome this ground of rejection, although the case was pending over two years before the death of the applicant. It appears from the affidavit of the administratrix, Mrs. Mattullath that as early a date as her marriage with Hugo Mattullath, which occurred in the year 1868, she was aware that her husband was studying aeronautics and intended to build a flying machine.

(It is to be observed that while this required demonstration of operativeness was insisted upon, the Office had been commendably permitting and aiding in the formal perfection of the claims, preliminary to the final demonstration of utility, which formal perfection had not been completed and was attempted in the last amendment filed September 18, 1908.)

Petitioner renewed her petition for hearing before the Commissioner. It is in the nature of an application for a rehearing. In support of this petition she filed an elaborate affidavit stating particularly, her efforts to obtain information. She said that her husband left Detroit on May 10, 1900, for Washington and only occasionally visited New York city. Unable to learn anything about his interests, she consulted Kaufman Simon, an attorney and friend, who advised her to communicate with all parties known to have been closely associated with her husband, who might know anything of his affairs. Accordingly in January, 1903, she wrote to Charles H. McKee and Frank Moore of Pittsburgh, and Professor Zahm and Mr. Brown of Washington, who were believed to know something of her husband's work, inquiring if he had left any patents or anything in any shape or form of value. No reply was received from McKee or Moore; the letter to Brown was returned from the Washington post-office. Professor Zahm replied that he did not know of Mattullath's having any patent on flying-machines, and so far as he knew there was nothing of value left by him. Affiant did not know of the Detroit attorneys, had never heard of or from them, and hence could not apply to them. She further said that she knew nothing of patent procedure, and supposed that matters in the Office were inviolably secret; and did not know that she could have access to the records. Nor did she have any information that suggested any inquiry, or any means to employ any one to make inquiries; and that she had no idea that a patent application was pending. A supporting affidavit by petitioner's son-in-law corroborated her affidavit respecting the letters, and the want of knowledge, etc.

An affidavit by Kaufman Simon supported petitioner's statement as regards his advice and the letters that were written. The Commissioner denied the petition July 13, 1911. After reciting the proceedings in the Office preceding the entry of abandonment, the Commissioner said:

No other action was taken by or on behalf of the applicant until November, 1910, over seven years after the period allowed by law for such action had expired, when the original petition to revive was filed. In the meantime dynamic flight, the age long dream of man, had become an accomplished fact. Others had succeeded in actually flying in heavier-than-air machines, had obtained patents on their inventions, and were reaping the just rewards of their efforts. But for this fact the present application would doubtless have remained neglected for all time, since it appears that the present petitioner, Meta Mattullath, the administratrix of the applicant, learned of it only through parties who sought to use it in connection with the defense of a suit brought by Wilbur and Orville Wright on their Patent No. 821,393.

Under these circumstances, it might well be held that the presumption is conclusive against the existence of acceptable excuse for such delay as occurred in this instance; certain it is that an application so long dead can be revived, if at all, under the provisions of section 4894 of the Revised Statutes only upon a showing of most unusual and compelling circumstances, rendering it impossible to have earlier prosecuted the case. To hold otherwise, would be to encourage those who had slept upon their rights while others struggled on to success to now enter the field and wrest from them the fruits of their labor.

In this statement he treats the last action in the Office as having been taken October 2, 1902, instead of October 1, 1903, which made the delay seven years instead of six.

From this decision the appeal has been prosecuted.

1. The right to appeal from a final decision of the Commissioner of Patents is determinable by its substance and effect, rather than its form. (*Moore v. Heany*, 34 App. D. C., 31–39; *in re Selden*, 36 App. D. C., 428–431.) The appeal in Selden's case was from a decision holding that the application had been abandoned for lack of prosecution within two years. The right to appeal was maintained. Discussing the point, Mr. Justice Robb, delivering the opinion of the court, said:

The question, then, is whether the striking down of an application on the ground of abandonment amounts to a rejection of the claims thereof within the meaning of the statute. Of course, if such action on the part of the Commissioner is in effect a rejection of the claims of the application, the court will look to such result rather than to the manner in which it is reached. Substance should not be sacrificed to form.

In that case, as in this, the lapse of time rendered the order tantamount to a complete rejection of the claims, as a new, original application would be practically unavailing.

2. Section 4894, Revised Statutes, governs the abandonment and renewal of applications for patents. It requires that all applications for patents shall be completed and prepared for examination within one year after filing, and in default thereof, or upon failure to prosecute the same within one year after any action therein, of which notice shall have been given to the applicant, they shall be regarded as abandoned by the parties thereto, unless it be shown to the satisfaction of the Commissioner of Patents that such delay was unavoidable.

It is contended on behalf of the Commissioner that the question of unavoidable delay is one for the exclusive determination of the Commissioner and his decision is conclusive. The decisions relied on were made in infringement suits where the

Commissioner's decision that delay was unavoidable was the subject of collateral attack. On direct appeal from his decision denying renewal, and therefore, substantially rejecting the application, the situation is very different. While, ordinarily, the exercise of discretion in matters arising in the course of the litigation will not be disturbed unless it has been abused, nevertheless it is subject to review along with other rulings affecting the rights of the parties and will be disturbed where the error in its exercise is plainly shown, and works material hardship and injustice. (*Kinsman v. Strohm*, 31 App. D. C., 581–585.) In that case, it is true, the exercise of discretion in reviewing an application was not disturbed, for the reasons given, but the opinion recognizes the power to do so upon sufficient grounds. Section 4894, Revised Statutes, does not, in terms, limit that power of review as was the case in some decisions cited. But it is not necessary to discuss this particular question further. In view of the opinion expressed in Selden's case, (36 App. D. C., p. 435) it is admitted by counsel for the Commissioner, that where the question of abandonment is one of law and not of fact, the action of the Commissioner is not conclusive. In this case the facts are specifically presented in the supporting affidavits. They are clear in their application to every point, and have not been denied. They are, in fact, substantially admitted to be true in both of the decisions heretofore quoted. It appears from the record of proceedings in the Office that the objections to the claims of the application were formal and might it is reasonable to believe, have been met by amendment. The substantial ground of rejection was inoperativeness, because it was then seriously doubted, if not generally denied, that aerial flight could be accomplished in heavier-than-air machines. During the time that has elapsed since that objection was made the doubt has been removed. As said by the Commissioner:

> In the meantime dynamic flight, the age long dream of man, had become an accomplished fact. Others had succeeded in actually flying in heavier than air machines, had obtained patents on their inventions and were reaping the just rewards of their efforts.

In view of this statement it is not probable that the objection to operativeness, on the ground urged, would now be permitted to stand. The date of the application, and the description therein demonstrate that the deceased Mattullath was, if not the first, one of the very first to devise means to accomplish the realization of this "age long dream." That others have, in the meantime, entered the field, obtained patents, and are reaping the rewards of their efforts, is no bar to this earlier application, unless the delay in reviewing the application was avoidable. The Commissioner was in error, we think, in saying that the presumption is conclusive against the existence of acceptable excuse for delay, under the circumstances, on the ground that—

> to hold otherwise would be to encourage those who had slept upon their rights while others struggled on to success, to now enter the field and wrest from them the fruits of their labors.

The purpose and policy of the patent law are to give the patent to the first inventor unless he has, by his own fault subordinated his right to a more diligent inventor. The question upon which the right of renewal depended was whether the representatives of Mattullath had "slept upon their rights." The delay in reviewing the application would, in reasonable probability, not have occurred but for the strange action of the Office in acting upon some unexplained source of knowledge of the death of the applicant, and holding that the death absolutely and at once revoked the power of attorney of his solicitors. The amendments proposed by them, presumably without knowledge of their client's death, were formal; they contained no amplification of the original application and required no additional oath. That the power to make such an amendment had not been revoked by death, and that action could have been taken upon it lawfully, had been declared by the Supreme Court in a decision rendered in January, 1893. (*De La Vergne Machine Co. v. Featherstone*, 147 U. S., 209–229.) This decision ought to have been well known in the Office. Strange to say, that notwithstanding this determination of the revocation of the authority of the solicitors duly entered of record, the order of the former Washington representative of the original solicitors, dated August 14, 1909, to permit a person, having no relation to the interested parties, to inspect the application and drawings, was accepted, filed and, presumably acted upon.

Why the solicitor should have undertaken to exercise an authority which he knew had been declared revoked, or why, in view of the former order of revocation, he should have been permitted to exercise it are facts that are unexplained, and seem inexplicable on any reasonable ground. Instead of declaring the authority of the solicitors revoked and refusing to recognize them for any purpose, it would have been eminently proper to notify them of the death of their client and suggest the propriety of obtaining a renewal from his legal representatives, meanwhile suspending action for a reasonable time for the purpose. Had this been done, the solicitors would have been under obligation to inquire for, and notify the intestate's representatives of the situation. They have attempted in the letter of November 20, 1909, to relieve themselves of the moral obligation to give notice by saying that they did not know the address of their client's family. It is contended that notice to the solicitors was the equivalent of notice to the representatives; and that their negligence is to be imputed to petitioner. We do not agree with this. Their negligence in conducting the proceedings, while the relation of client and attorney continued to be recognized in the Office, could be imputed to the applicant. But it is unreasonable to argue that their neglect was the neglect of the petitioner, when the Office had declared their authority ended. Moreover, they were never the attorneys of the deceased applicant's representatives. Notwithstanding this express revocation, no attempt was made by the Office to notify the widow, which it is said by the Commissioner it was under no obligation to do even if aware of her name and address. Rule 20 is the only Office rule regarding notice in case of the revocation of a power of attorney, and this the Commissioner held did not require notice to the applicant. The rule, construed literally, does not seem to require notice to the applicant's representatives, but such construction is within its spirit. At any rate, the widow and children of the deceased applicant had no notice, and it clearly appears that they had no knowledge of the pending application, and were in possession of no facts or circumstances sufficient to put them upon inquiry.

Mattullath left no property whatsoever, and his widow, a woman of sixty-two years of age, was dependent upon one of her children. The family was without means. Seeking the advice of a friendly attorney—not a patent solicitor—the widow was advised to write to such persons as might be aware of her husband's interests. This was promptly done. The only reply received was from Washington, and gave no information; nor did the writer suggest inquiry at the Patent Office. That he was interested in the subject-matter, and doubtless knew that inquiry at the Office might obtain certain knowledge, appears from the fact that he is the same person, who in 1909 obtained the permit to examine the Office files in this case. The attorney, upon whose advice the letter of inquiry had been addressed, evidently did not know that information might be had at the Patent Office. That she was then acting with diligence and in good faith cannot be denied. All sources of information seeming fully exhausted she remained quiet until stirred into renewed activity by the information of the representative of some other patentee of a flying-machine who was engaged in an infringement suit. Probably his information had been obtained through access obtained to the application-file; for it was that person who informed the party of the fact. However, that may be, she began in good faith to ascertain her rights. Unable to pay attorney's fees, she procured the services of a charitable attorney who exacted no charge; and managed to raise the sum of forty-one dollars to pay the actual cost of correspondence, copies, etc. The lingering illness of this charitable attorney prevented his filing the petition for renewal. With reasonable diligence she procured the services of another attorney who proceeded with diligence to file the petition and prosecute the same. It is argued that there was utter failure in the exercise of diligence in that petitioner failed to make inquiry at the Patent Office, because it is a matter of law with knowledge of which she must be charged. It is said in the printed argument: "It is academic that ignorance of the law excuses no one." Without pausing to consider the many exceptions to the rule that ignorance or mistake of law excuses no one, it is sufficient to say that there is no just foundation for the application of the general rule in this case. There is no statutory, or other rule of law requiring parties to apply for information at the Office. It is a fact that information concerning applications for patents will be furnished to the applicant or his legal representatives or assigns. It is not at all wonderful that a woman like the petitioner should have been ignorant of this fact, especially as it seems not to have been known to the lawyer who advised her where to seek information. Nor is it at all remarkable that she should not have known, in making her inquiries, that there was an essential difference between an application and a patent. It plainly appears from her sworn statements that she did not know this difference, or that she could obtain information of the application by applying to the Office. It was ignorance of a fact, not of law.

3. The next question is upon the intention of Congress in enacting section 4894, and the meaning to be given to the word "unavoidable" therein.

In the argument on behalf of the Commissioner it is said:

> The decisions of the various Commissioners of Patents upon the meaning to be attached to the words "unavoidable delay" in the statute have not been always uniform or altogether consistent.

As an instance of the extreme view of strict construction he cites the decision of Commissioner Butterworth in *ex parte Klenha*, (28 O. G., 1272; 1884, C. D., 39.) He declares it a statute of limitation to be enforced with all the rigidity of the old statute of limitations at common law. This construction would render it practically impossible to show any delay that would be unavoidable. On the other hand Commissioner Hall has given the statute a liberal construction. We quote from his opinion in *ex parte Pratt*, (39 O. G., 1549; 1887, C. D., 31:)

> The word "unavoidable" as used in section 4894, Revised Statutes, is of very broad significance. In its application to many relations it would exclude everything but the "King's enemies" or an act of God. I do not believe such a construction would be a fair interpretation of the statute. The statute is one regulating a mere practice in the Office, and is not intended to affect substantial rights as between different persons or between persons and the Government. It is rather a provision by which a statutory limitation may be removed. Its purpose is to encourage diligence in proceedings before the Office. If the broad and unlimited meaning of the word unavoidable were to prevail, it is difficult to conceive when an abandoned case could be reinstated under this section. In my opinion, the word is used in a more limited sense. It is applicable to ordinary human affairs, and requires no more or greater care or diligence than is generally used and observed by prudent and careful men in relation to their most important business. It permits them in the exercise of this care to rely upon the ordinary and trustworthy agencies of mail and telegraph, worthy and reliable employees, and such other means and instrumentalities as are usually employed in such important business. If unexpectedly, or through the unforeseen fault or imperfection of these agencies and instrumentalities, there occurs a failure, it may properly be said to be unavoidable, all the other conditions of good faith and promptness in its ratification being present.

The Commissioner seems to have leaned toward the strictness of the construction first mentioned. We approve, in general, the doctrine expressed by Commissioner Hall. The first construction is technical, hard and narrow. The second is broad and liberal, breathing the spirit of equity, and more in accord with the general policy of our patent laws. (See *Smith v. Goodyear Dental Co.*, 93 U. S., 486, 491.) Tested by the standard of diligence above declared, we are of the opinion that the delay in this case has been shown to be unavoidable in the proper sense of the statute. The petitioner has not "slept

upon her rights," and is entitled to the relief which she seeks. Its denial would work a great hardship, unjustified by her conduct, upon the penniless widow of a deceased inventor of merit who died almost at the point of success, leaving the invention as his only property.

The decision will be reversed. As heretofore suggested it is improbable that the objection to operativeness will now be insisted upon; but there may be particulars in which the interests of both public and the inventor may be conserved by reasonable amendment. As in the case of Selden, *supra*, the reversal will be with direction to set aside the order of abandonment and reinstate the application. It is so ordered and the clerk will certify this decision to the Commissioner of Patents.

Reversed.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Ferry patent, No. 574,894, for a hat-packing ring, *Held* not infringed. *Orange Hat Box Co.* v. *Ferry-Hallock Co.*, 195 Fed. Rep., 71.

(U. S. C. C. A.) The Burnham patent, No. 583,247, for a metal eave, *Held* valid and infringed. *Lord & Burnham Co.* v. *Payne*, 195 Fed, Rep., 75.

(U. S. C. C. A.) The Davis patent, No. 521,104, for a separator for liquids, claim 1 *Held* not infringed. *Davis* v. *A. H. Reid Creamery & Dairy Supply Co.*, 195 Fed. Rep., 80.

(U. S. C. C. A.) The Layne patent, No. 821,653, for improvements in well mechanism, claim 13 *Held* valid and infringed. *El Campo Mach. Co.* v. *Layne*, 195 Fed. Rep., 83.

(U. S. D. C.) The Carleton patent, No. 481,254, for a hair-clipper, *Held* valid, but not infringed. *Brown & Sharpe Mfg. Co.* v. *Coates Clipper Mfg. Co.*, 195 Fed. Rep., 84.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 3, 1912.

John L. Rodgers & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Southwestern Milling Company, No. 83 Montgomery street, Jersey City, N. J., and Commerce Building, Kansas City, Mo., for registration of a trade-mark and trade-mark registered July 14, 1891, No. 19,879, to John L. Rodgers & Co., 218 Spear's Wharf, Baltimore, Md., and a notice of such declaration sent by registered mail to said John L. Rodgers & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John L. Rodgers & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., May 29, 1912.

Henry Denny & Sons, their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Louis Pfaelzer & Sons, 3027-43 South Halsted street, Chicago, Ill., for registration of a trade-mark and trade-mark registered May 30, 1882, No. 9,420, to Henry Denny & Sons, Chicago, Ill., and a notice of such declaration sent by registered mail to said Henry Denny & Sons at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Henry Denny & Sons, their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

Changes in Classification.

(ORDER No. 1,986.)

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 11, 1912.

The following changes in the classification of inventions are hereby directed, to take effect immediately:

In Division VIII, class 248, Supports, establish subclass—

42. Tree ornament type,

the patents therein being taken from class 240, Illumination, subclass 56, Light supports, Christmas-tree, hereinafter abolished.

In Division XV, class 91, Coating, give to the subclass title Implements the number 62.5, and establish the following definition therefor:

62.5. IMPLEMENTS. Instruments and accessories thereof adapted for use in applying coating material solely by manipulation.

Note.—Instruments which while applied to the surface to be coated by hand are also provided with machine parts for spreading the coating are classified in the appropriate machine subclass.

In Division XXIX, class 20, Wooden Buildings, establish the following subclasses and definitions:

Windows—
Sliding sash—
52.4. Joint closures—
52.5. Positive—
52.6. Wedge,
52.1. Pocketed,
52.2. Removable—
52.3. Supplemental stile.

52.1. WINDOWS, SLIDING SASH, POCKETED. Windows having sashes arranged to slide into a recess or pocket.

52.2. WINDOWS, SLIDING SASH, REMOVABLE. Sliding sashes provided with members which can be withdrawn from engagement with the frame to permit the removal of the sash.

52.3. WINDOWS, SLIDING SASH, REMOVABLE, SUPPLEMENTAL STILE. Sliding sashes provided with supplemental stiles which are movable to permit the removal of the sash.

52.4. WINDOWS, SLIDING SASH, JOINT CLOSURES. Sliding sashes having means for providing a weather-tight joint, such means having some further function than that of a mere weather-strip.

52.5. WINDOWS, SLIDING SASH, JOINT CLOSURES, POSITIVE. Sliding sash windows having joint closing means adapted to be moved by a positively acting element.

52.6. WINDOWS, SLIDING SASH, JOINT CLOSURES, POSITIVE, WEDGE. Sliding sash windows having joint closing means adapted to be actuated by a wedging element.

In Division XXX, class 240, Illumination, abolish the following subclass, with its definition, the patents contained therein having been placed in class 248, Supports, subclass 42, Tree ornament type, hereinbefore established:

Light supports—
56. Christmas-tree.

EDWARD B. MOORE,
Commissioner.

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Patents	586	No. 1,030,270	to No. 1,030,855,	inclusive.
Designs	20	No. 42,662	to No. 42,681,	inclusive.
Trade-Marks	108	No. 87,026	to No. 87,133,	inclusive.
Labels	15	No. 16,416	to No. 16,430,	inclusive.
Prints	2	No. 3,056	to No. 3,057,	inclusive.
Reissues	5	No. 13,431	to No. 13,435,	inclusive.
Total	736			

TO CITIZENS OF THE UNITED STATES.

States.	Patents and Designs.	Trade-Marks, Labels, and Prints.	States.	Patents and Designs.	Trade-Marks, Labels, and Prints.
Alabama	3	2	North Carolina	3	1
Arizona	1	.....	North Dakota	3	1
Arkansas	2	.....	Ohio	25	4
California	35	2	Oklahoma	4	.....
Colorado	3	2	Oregon	7	1
Connecticut	17	2	Pennsylvania	24	4
Delaware	3	.....	Rhode Island	4	.....
Florida	.....	2	South Carolina	1	1
Georgia	3	1	South Dakota	2	.....
Idaho	2	1	Tennessee	1	1
Illinois	44	8	Texas	7	1
Indiana	6	3	Utah	3	.....
Iowa	9	1	Vermont	1	1
Kansas	7	1	Virginia	2	2
Kentucky	3	1	Washington	9	1
Louisiana	2	.....	West Virginia	.....	.....
Maine	3	2	Wisconsin	19	2
Maryland	9	.....	Wyoming	.....	.....
Massachusetts	115	6	Alaska, District of	.....	.....
Michigan	17	4	Canal Zone	.....	.....
Minnesota	15	3	District of Columbia	2	1
Mississippi	3	.....	Hawaii Territory	.....	.....
Missouri	20	6	Philippine Islands	.....	.....
Montana	.....	.....	Porto Rico	.....	.....
Nebraska	2	2	U. S. Army	.....	.....
Nevada	.....	.....	U. S. Navy	.....	.....
New Hampshire	2	.....			
New Jersey	25	6	Total to citizens of the United States	550	114
New Mexico	1	.....			
New York	81	38			

TO CITIZENS OF FOREIGN COUNTRIES.

Countries.	Patents and Designs.	Trade-Marks.	Countries.	Patents and Designs.	Trade-Marks.
Argentina	.....	.....	New South Wales	1	.....
Austria-Hungary	2	.....	New Zealand	1	.....
Belgium	.....	.....	Norway	.....	.....
Brazil	.....	.....	Russia	2	.....
Canada	10	.....	Scotland	.....	.....
Chile	.....	.....	Spain	1	.....
China	.....	.....	Straits Settlements	1	.....
Cuba	.....	.....	Sweden	.....	.....
Denmark	.....	.....	Switzerland	.....	1
Ecuador	.....	.....	Tasmania	1	.....
England	23	1	Transvaal, South Africa	.....	.....
France	5	.....	Uruguay	1	.....
Germany	7	5	Western Australia	.....	1
Ireland	.....	1		.....	.....
Italy	.....	1		.....	.....
Japan	.....	.....	Total to citizens of foreign countries	56	10
Mexico	1	.....			

Disclaimer.

976,443.—*Charles Doering, Jr.*, Chicago, Ill. APPARATUS FOR COATING ARTICLES WITH PULVERULENT MATERIAL. Patent dated November 22, 1910. Disclaimer filed June 13, 1912, by the assignee, *Adams & Elting Co.*

Enters this disclaimer—

"To that part of the claim in said specification which is in the following words, to wit:

"1. A machine of the kind specified comprising a closed chamber adapted to receive articles to be coated, means for creating air currents in said chamber to impinge upon all portions of the surfaces of said articles, means for introducing coating material into said air currents for transmission to the surfaces to be coated, and means for clarifying the chamber of unapplied coating material after the article has been coated.

"2. A machine of the kind specified comprising a closed chamber adapted to receive articles to be coated, means for creating air currents in said chamber to impinge upon all portions of the surfaces of said articles, means for introducing coating material into said air currents for transmission to the surfaces to be coated, and means for clarifying the chamber of unapplied coating material after the article has been coated and during circulation of air around the coated article.

"3. A machine of the kind specified comprising a closed chamber adapted to receive articles to be coated, means for setting the air contained in said chamber in motion to impinge upon the surfaces of the articles to be coated, means for introducing coating material into said air for transmission thereby to the surfaces of said articles, and manually controlled means operable from the exterior of the casing for clarifying the chamber of unapplied coating material after the articles have been coated and during maintenance of air in motion within said chamber.

"4. A machine of the class specified comprising a coating material supply, means for creating currents of air to take up the coating material in suspension and apply it to the article to be coated, means for closing the material supply to the air currents, and means for simultaneously removing the unapplied material from the air and the surplusage from the article after the latter has been coated."

APPLICATIONS UNDER EXAMINATION.

Condition at Close of Business June 22, 1912.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
313	1. Fences; Harrows and Diggers; Plows; Seeders and Planters; Trees, Plants, and Flowers.	Apr. 30	Apr. 27	592
128	2. Bee Culture; Dairy; Label Pasting and Paper Hanging; Paper Files and Binders; Pneumatic Despatch; Pneumatics; Presses; Store-Service; Tobacco.	Apr. 4	May 9	485
175	3. Annealing and Tempering; Electric Heating and Rheostats; Electrochemistry; Metal-Founding; Metallurgy; Shaping Fluid Metal.	May 24	June 10	191
232	4. Bridges: Conveyers; Cranes and Derricks; Excavating; Hoisting; Hydraulic Engineering; Loading and Unloading; Metallic Building Structures.	May 1	May 8	527
167	5. Bookbinding; Harvesters; Jewelry; Music.	Mar. 16	May 1	457
318	6. Bleaching and Dyeing; Chemicals; Explosives; Fertilizers; Medicines; Preserving; Sugar and Salt.	May 10	May 23	309
312	7. Educational Appliances: Clutches; Games and Toys; Mechanical Motors; Nut and Bolt Locks; Optics; Velocipedes.	Feb. 19	Apr. 15	842
131	8. Beds; Chairs; Furnitur ; Kitchen and Table Articles; Store Furniture; Supports.	May 6	May 20	530
142	9. Air and Gas Pumps; Fluid-Pressure Regulators; Hydraulic Motors; Pumps; Wind-Wheels.	Apr. 27	May 4	405
235	10. Carriages and Wagons.....	May 1	Apr. 29	718
154	11. Boot and Shoe Making; Boots, Shoes, and Leggings; Button, Eyelet, and Rivet Setting; Harness; Leather Manufactures; Nailing and Stapling; Whips and Whip Apparatus.	Apr. 9	May 2	458
324	12. Elevators; Journal-Boxes, Pulleys, and Shafting; Lubrication; Machine Elements.	May 1	May 15	670
329	13. Arms, Projectiles, and Explosive Charges, Making; Bolt, Nail, Nut, Rivet, and Screw Making; Boring and Drilling; Button Making; Chain, Staple, and Horseshoe Making; Driven, Headed, and Screw-Threaded Fastenings; Gear Cutting, Milling, and Planing; Metal Drawing; Metal Forging and Welding; Metal Rolling; Metal Tools and Implements, Making; Metal Working; Needle and Pin Making; Turning.	Apr. 22	May 1	542
307	14. Compound Tools; Cutting and Punching Sheets and Bars; Farriery; Metal-Bending; Metal-Ornamenting; Sheet-Metal Ware, Making; Tools; Wire Fabrics and Structure; Wire-Working.	May 3	May 23	444
308	15. Bread, Pastry, and Confection Making; Coating; Fuel; Glass; Laminated Fabrics and Analogous Manufactures; Liquid Coating Compositions; Paper-Making and Fiber Liberation; Plastic Block and Earthenware Apparatus; Plastic Compositions; Plastics.	Apr. 1	May 1	1095
109	16. Telegraphy; Telephony.....	May 1	May 8	281
303	17. Matrix-Making; Paper Manufactures; Printing; Type-Bar Making.	May 14	May 17	327
327	18. Injectors and Ejectors; Miscellaneous Heat-Engine Plants; Steam and Vacuum Pumps; Steam-Boilers; Steam-Engines; Steam-Engine Valves.	Apr. 25	Apr. 29	273
236	19. Dampers, Automatic; Furnaces; Heat-Distributing Systems; Stoves and Furnaces.	May 17	May 4	423
179	20. Artificial Limbs; Builders' Hardware; Dentistry; Locks and Latches; Safes; Undertaking.	May 11	May 15	290
112	21. Brakes and Gins; Carding; Cloth-Finishing; Cordage; Felt and Fur; Knitting and Netting; Silk; Spinning; Weaving; Winding and Reeling.	Mar. 21	Apr. 26	448

Applications Under Examination—Continued.

Room No.	Divisions and subjects of invention.	Oldest new application and oldest action by applicant awaiting office action.		No. of applications awaiting action.
		New.	Amended	
249	22. Aeronautics; Air-Guns, Catapults, and Targets; Ammunition and Explosive Devices; Boats and Buoys; Firearms; Marine Propulsion; Ordnance; Ships.	May 22	May 22	213
379	23. Acoustics; Coin-Handling; Horology; Recorders; Registers; Time-Controlling Mechanism.	Apr. 12	Apr. 24	536
144	24. Apparel; Apparel Apparatus; Sewing-Machines.	May 3	May 1	526
315	25. Butchering; Mills; Threshing; Vegetable Cutters and Crushers.	May 23	May 27	237
106	26. Electricity, Generation; Motive Power.	Feb. 7	Feb. 6	648
372	27. Brushing and Scrubbing; Grinding and Polishing; Laundry; Washing Apparatus.	May 13	May 14	439
65	28. Internal-Combustion Engines..	Mar. 25	Mar. 19	787
147	29. Coopering; Fire-Escapes; Ladders; Roofs; Wheelwright-Machines; Wooden Buildings; Wood-Sawing; Wood-Turning; Woodworking; Woodworking-Tools.	Apr. 9	May 16	525
152	30. Illuminating-Burners; Illumination; Liquid and Gaseous Fuel Burners; Type-Writing Machines.	Mar. 26	May 20	451
172	31. Alcohol; Ammonia, Water, and Wood Distillation; Charcoal and Coke; Gas, Heating and Illuminating; Hides, Skins, and Leather; Hydraulic Cement and Lime; Mineral Oils; Oils, Fats, and Glue.	Apr. 27	Apr. 26	346
278	32. Carbonating Beverages; Curtains, Shades, and Screens; Dispensing Beverages; Dispensing-Cans; Ornamentation; Packaging Liquids; Refrigeration.	Apr. 15	May 10	371
71	33. Cutlery; Domestic Cooking Vessels; Masonry and Concrete Structures; Paving; Tents, Canopies, Umbrellas, and Canes.	Mar. 28	May 13	439
304	34. Railways; Railway-Brakes; Railway Rails and Joints; Railway Rolling-Stock; Railway Ties and Fasteners.	Apr. 11	Apr. 13	575
244	35. Buckles, Buttons, Clasps, Etc.; Card, Picture, and Sign Exhibiting; Garment-Supporters; Toilet.	Apr. 25	May 17	842
264	36. Drafting; Driers; Engraving; Measuring Instruments; Photography.	May 14	May 2	560
107	37. Electric Lighting; Electricity, Conductors; Electricity, Conduits; Electricity, General Applications.	Apr. 30	May 15	501
378	38. Animal Husbandry; Artesian and Oil Wells; Fishing and Trapping; Stationery; Stone-Working.	Apr. 12	May 17	667
321	39. Water Distribution.....	Mar. 1	Apr. 15	664
280	40. Baggage; Bottles and Jars; Check-Controlled Apparatus; Cloth, Leather, and Rubber Receptacles; Deposit and Collection Receptacles; Metallic Shipping and Storing Vessels; Package and Article Carriers; Paper Receptacles; Special Receptacles and Packages; Wooden Receptacles.	May 22	May 27	348
125	41. Railway Draft Appliances; Resilient Tires and Wheels.	May 6	May 9	590
279	42. Electric Railways; Electric Signaling; Railway Signaling; Signals.	Apr. 23	Apr. 26	496
382	43. Baths and Closets; Electricity, Medical and Surgical; Fire-Extinguishers; Sewerage; Surgery; Water Purification.	May 22	May 22	325

Oldest new case, Feb. 7; oldest amended, Feb. 6.

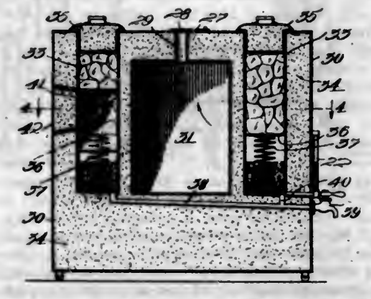
Total number of applications awaiting action..... 21,403

161	TRADE-MARKS, DESIGNS, LABELS AND PRINTS:			
	Trade-Marks.....	Apr. 1	May 7	848
	Designs.....	Apr. 20	Apr. 25	315
	Labels and Prints.....	June 10	June 8	93

PATENTS

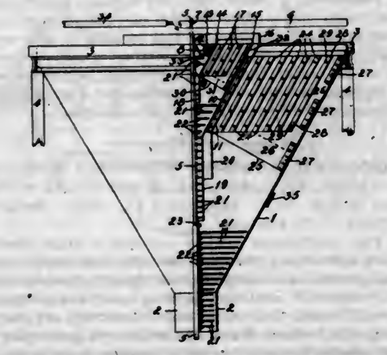
GRANTED JUNE 25, 1912.

1,030,270. REFRIGERATING DEVICE. JOHN A. ANDERSON, Worcester, Mass. Filed Oct. 4, 1909. Serial No. 520,939. (Cl. 62—10.)



As an article of manufacture, a refrigerating device, comprising a casing, a compartment within said casing for receiving articles to be cooled, a receptacle for ice, located at the side of said compartment and extending from the bottom thereof to a level higher than the top of said compartment, and spaced therefrom, a small compartment at the side of said ice receptacle communicating therewith at the bottom, an opening in the casing at the side of the last named compartment above the top of its communication with said ice receptacle, whereby the water collected from the melted ice will stand in the ice receptacle and in said small compartment, a closure for said opening, and heat insulating material within said casing surrounding said compartment and ice receptacles and covering the top and bottom thereof and the spaces between them, and having a comparatively thin layer separating the first named compartment from the receptacle.

1,030,271. FEED AND DISTRIBUTING MEANS FOR SEPARATORS. ALEXANDER JOHN ARBUCKLE, Johannesburg, Transvaal. Filed Mar. 19, 1910. Serial No. 550,386. (Cl. 83—82.)



1. In means for introducing and distributing mixtures of solids and liquid in settling or other vats or vessels, the combination with the vat or vessel, of an inner inverted cone arranged in the upper portion of the vessel and provided with a downward extension, an upright cone arranged inside said inner inverted cone and forming at its base an annular passage leading to the downward extension aforesaid, one or a plurality of inverted conical rings arranged inside said inner inverted cone and around said upright cone, a larger intermediate cone surrounding the aforementioned inverted inner cone and its extension, said larger intermediate cone having a downward extension and an outer and still larger cone surrounding the intermediate cone and forming at the outside thereof a conical passage, said outer cone having a downward extension terminating at a point above the lower end of the extension of the intermediate cone, as set forth.

2. In means for introducing and distributing mixtures of solids and liquid in settling or other vats or vessels, the combination with the vat or vessel, of an inner inverted cone arranged in the upper portion of the vessel and provided at its lower end with a downward extension and at its upper end with an upward extension, an upright cone arranged inside said inner inverted cone and forming at its base an annular passage leading to the downward extension aforesaid, one or a plurality of inverted conical rings arranged inside said inner inverted cone and around said upright cone, the innermost conical ring having an upward vertical extension, a larger intermediate cone surrounding the aforementioned inverted inner cone and its extension, said larger intermediate cone having a downward extension and an outer and still larger cone surrounding the intermediate cone and forming at the outside thereof a conical passage, said outer cone having a downward extension terminating at a point above the lower end of the extension of the intermediate cone, as set forth.

3. In means for introducing and distributing mixtures of solids and liquid in settling or other vats or vessels, the combination with the vat or vessel, of an inner inverted cone arranged in the upper portion of the vessel and provided at its lower end with a downward extension and at its upper end with an upward extension, an upright cone arranged inside said inner inverted cone and forming at its base an annular passage leading to the downward extension aforesaid, one or a plurality of inverted conical rings arranged inside said inner inverted cone and around said upright cone, the innermost conical ring having an upward vertical extension, a larger intermediate cone surrounding the aforementioned inverted inner cone and its extension, said larger intermediate cone having a downward extension at its lower end and an upward vertical extension at its upper end, a plurality of truncated settling cones between said inner and intermediate inverted cones, an outer and still larger cone surrounding the intermediate cone and forming at the outside thereof a conical passage, said outer cone having at its lower end a downward extension terminating at a point above the lower end of the extension of the intermediate cone and a vertical upward extension at its upper end extending to a greater height than the vertical upward extension on the intermediate cone, as set forth.

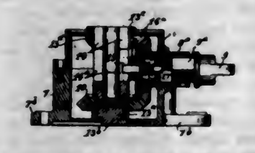
4. In means for introducing and distributing mixtures of solids and liquid in settling or other vats or vessels, the combination with the vat or vessel, of an inner inverted cone arranged in the upper portion of the vessel and provided with a downward extension, a larger intermediate cone surrounding the aforementioned inverted inner cone

and its extension, said larger intermediate cone having a downward extension and an outer and still larger cone surrounding the intermediate cone and forming at the outside thereof a conical passage, said outer cone having a downward extension terminating at a point above the lower end of the extension of the intermediate cone, a central vertical shaft and helically disposed arms or blades upon said shaft for conveying the settled solids from the inner inverted cone through its extension to the interior of the intermediate cone and from the latter through its extension to the lower regions of the vessel and thence through the outlet at the bottom of the vessel, as set forth.

5. In means for introducing and distributing mixtures of solids and liquid in settling or other vats or vessels, the combination with the vat or vessel, of an inner inverted cone arranged in the upper portion of the vessel and provided with a downward extension, a larger intermediate cone surrounding the aforementioned inner cone and its extension, said larger intermediate cone having a downward extension, a plurality of inverted truncated settling cones arranged between said inner and intermediate inverted cones, a plurality of wide and narrow wing plates for supporting said inverted truncated settling cones from the intermediate cone, and an outer and still larger cone surrounding the intermediate cone and forming at the outside thereof a conical passage, said outer cone having a downward extension terminating at a point above the lower end of the extension of the intermediate cone, as set forth.

[Claim 6 not printed in the Gazette.]

1,030,272. GEARING. WILLIAM J. O. ASTRUP, Cleveland, Ohio. Filed Sept. 8, 1911. Serial No. 648,300. (Cl. 74—7.)



1. A gearing, comprising a gear housing, a driving shaft, a gear within said housing, a second gear meshing therewith and provided with a crank-key receiving opening, a plunger member normally engaging said second gear, and a crank-key adapted to be inserted in said receiving opening and to engage and release said plunger member.

2. In a gearing, a gear housing, a driving shaft, a gear wheel connected to said shaft, a second gear wheel provided with a hub member having a crank key receiving opening, a plunger normally engaging said second gear, and a crank key having an inclined projection adapted to enter said crank key receiving opening and engage and release said plunger.

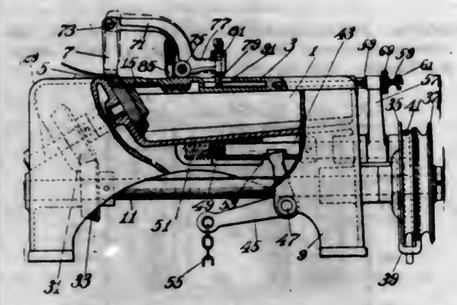
3. A gearing, comprising a gear housing, a gear therein, a driving shaft connected to said gear, a second gear provided with a hub member mounted in said housing and having guide slots, a plunger member normally engaging one of said guide slots, and a crank key provided with an inclined projection adapted to enter one of said guide slots and engage and release said plunger member.

4. In a gearing, the combination with a gear housing, a gear wheel, and a driving shaft connected to the latter; of a second gear wheel provided with a hub member mounted in said housing, said hub member being provided with guide slots, a plunger member normally extending in one of said guide slots, and a crank-key provided with a crank arm, said crank-key being provided with guide members adapted to extend into said guide slots and to engage and release said plunger member.

5. In a gearing, a gear housing, a bevel gear mounted in said housing, a second bevel gear meshing therewith, a hub member connected to the latter and intersecting the face side of said housing, said hub member being provided with a crank-key receiving opening provided with oppositely disposed openings, a plunger member carried by said first mentioned bevel gear and adapted to enter one of said openings whereby said gears are locked, and a crank-key provided with an inclined projection adapted to engage and release said plunger member whereby said bevel gears may be operated.

[Claims 6 and 7 not printed in the Gazette.]

1,030,273. CEMENTING-MACHINE. ARTHUR BATES and WILLIAM THOMAS BUCKINGHAM ROBERTS, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 25, 1910. Serial No. 557,579. (Cl. 91—51.)



1. A machine of the class described having, in combination, a reservoir provided with an opening, a cement applying member arranged to receive cement from said reservoir, means independent of the work for applying power to said member and automatic means becoming operative upon withdrawal of said power for closing said opening.

2. A machine of the class described having, in combination, a reservoir provided with an opening, a cement applying member arranged to receive cement from said reservoir, means for applying power to said member, automatic means becoming operative upon withdrawal of said power for closing said opening, and means for timing the operation of said closing means with respect to the withdrawal of power from said cement applying member.

3. A machine of the class described having, in combination, a reservoir, a cement applying member, sealing means for said reservoir, and a single member movable independently of the work to cause actuation of said applying member and opening of said sealing means.

4. A machine of the class described having, in combination, a reservoir, a cement applying member, sealing means for said reservoir, a single member movable to cause actuation of said applying member and opening of said sealing means, and means for timing the opening of said sealing means with respect to the actuation of said cement applying member.

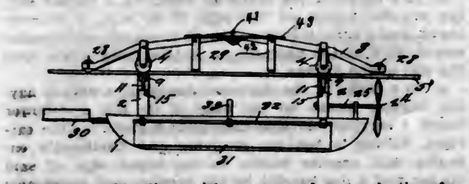
5. A machine of the class described having, in combination, a reservoir, a cement applying member, sealing means for said reservoir, a single member movable to cause actuation of said applying member and opening of said sealing means, and automatic means becoming operative upon release of said single member for stopping the actuation of said applying member and for closing said sealing means.

[Claims 6 to 26 not printed in the Gazette.]

1,030,274. RAPID-TRANSIT CAR. JOHN B. BARNETT, Fort Worth, Tex., assignor of one-half to John W. Davis, Fort Worth, Tex. Filed July 10, 1911. Serial No. 637,788. (Cl. 104—4.)

1. The combination with a car and a track therefor, hangers and wheels journaled in said hangers for engaging said track, said hangers being rigidly attached to said car, a motor on said car, gearing operatively connected with said motor and with said wheels for driving the wheels, guard wheels below said track, yokes carrying said guard wheels mounted on said hangers and having depending shanks and worm-gearing engaging said shanks for vertically adjusting said yoke.

2. The combination with a car and a track therefor, hangers rigidly connected with said car and wheels journaled in said hangers for engaging said track, a bearing beam above said track attached to said hangers, guards attached to said bearing beam, a motor on said car, and gearing operatively connected with said motor and with said wheels for driving the car.



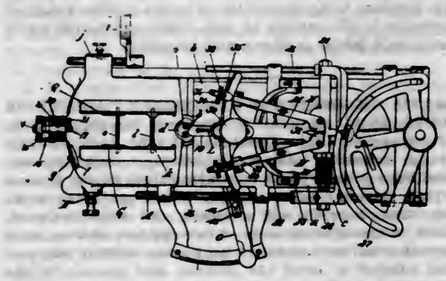
3. The combination with a car and a track therefor, hangers rigidly connected with said car on one side, supplemental hangers attached to the other side of said car and to said hangers, wheels journaled in said hangers for engaging said track, a motor on said car, gearing operatively connected with said motor, idle guard wheels cooperating with said first named wheels for preventing said wheels from leaving said track, and yokes carried by said supplemental hangers for vertical adjustment of said guard wheels.

4. The combination with a car and a track therefor, hangers rigidly connected with said car and wheels provided with shafts journaled in said hangers for engaging said track to propel said car, a motor on said car, a driving shaft journaled in one of said hangers and in said car, gearing operatively connected with said wheels and with said driving shaft to drive said wheels, a motor on said car, gearing operatively connecting said motor and said driving shaft, and a propeller provided with gearing operated by said driving shaft and coöperating with said wheels for driving the car.

5. The combination with a car and a track therefor, a bearing beam above said track provided with a bearing wheel in front and a bearing wheel in the rear of the car, hangers rigidly connected with said car and with said beam, and wheels journaled in said hanger for engaging said track to drive the car, planes hingedly connected with said car, and means for holding said planes at different angles, and a motor mounted on said car and provided with gearing for driving said wheels.

[Claims 6 to 8 not printed in the Gazette.]

1,030,275. VAMP-MARKING MACHINE. CHARLES H. BAYLEY, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 17, 1906. Serial No. 312,218. (Cl. 12—56.)



1. A vamp marking machine having a vamp-supporting table and marking devices arranged for indicating the line of attachment of a tip, in combination with provision for varying the angular relation of table and markers so that the latter may be positioned to mark right or left vamps.

2. A vamp marking machine having a vamp-supporting table and marking devices arranged for indicating the line of attachment of a tip in combination with means whereby the angular relation of the longitudinal median line of the table and the line connecting corresponding markers may be varied.

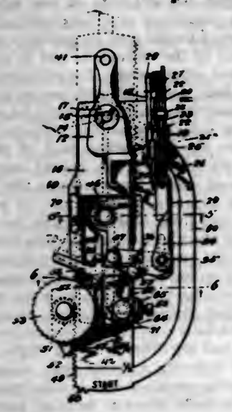
3. A vamp marking machine having a vamp-supporting table and marking devices arranged for indicating the line of attachment of a tip, in combination with provision for effecting relative motion of a vamp and said marking devices so that the former may be marked at the proper angle.

4. A vamp marking machine having a vamp-supporting table and marking devices arranged for indicating the line of attachment of a tip, in combination with means for varying the angular relation of the table and markers without varying the relation of the markers to each other.

5. A vamp marking machine having a vamp-supporting table and marking devices arranged for indicating the line of attachment of a tip in combination with means for varying the angular relation of said indicated line to said table.

[Claims 6 to 31 not printed in the Gazette.]

1,030,276. BUTTONHOLE ATTACHMENT FOR SEWING-MACHINES. EMANUEL J. BOYLES, PERCY J. GREIST, and HUBERT M. GREIST, New Haven, Conn., assignors to The Greist Manufacturing Company, New Haven, Conn., a Corporation of Connecticut. Filed Sept. 3, 1910. Serial No. 580,401. (Cl. 112—4.)



1. In a sewing machine buttonhole attachment, the combination with a work-holder comprising a vibrating plate provided with a guide slot having two straight portions and a connecting semi-circular portion, of a longitudinally movable rack plate having a stud engaging said guide slot, said rack plate being pivotally connected to said vibrating plate and being provided at its opposite outer edges and at its opposite ends with toothed portions, a pinion arranged to engage the toothed portions of said rock plate, and means, adapted to be operated from the needle-bar of a sewing machine, for intermittingly rotating said pinion and for operating said vibrating plate.

2. In a sewing machine button-hole attachment, the combination with a base plate, of a work-holder comprising a vibrating plate pivotally connected with said base plate, a feeding plate provided on its lower side with teeth or serrations for engagement with the work, said feeding plate being connected with said vibrating plate so as to partake of the lateral movements thereof but being longitudinally movable relative thereto by having a guiding connection therewith, and means, operated from the needle-bar of a sewing machine, for actuating said vibrating plate and for moving said feeding plate longitudinally thereof, said feeding plate having a central pivotal connection with said vibrating plate so that it may be turned thereon for 180° or thereabout, to reverse it endwise or bring it end for end, so as to stitch the second side of a

buttonhole after the stitching of the first side thereof has been completed.

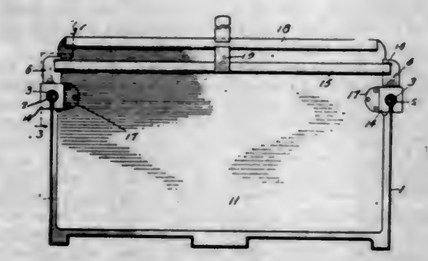
3. A sewing machine buttonhole attachment provided with means for securing the same to the presser-bar of a sewing machine, and comprising a pivotally mounted work-holder movable back and forth laterally, for the formation of buttonhole stitches, and one portion of which work-holder is adapted to be fed longitudinally, the said longitudinally movable portion of said work-holder being pivotally connected with the laterally movable portion thereof so that when the stitching of one side of the buttonhole has been completed said longitudinally movable portion of work-holder may be partially rotated to stitch around the end of the buttonhole and to reverse the direction of the feed of the work, for stitching the other side of the bottonhole, combined with means for operating the said work-holder from the needle-bar of a sewing machine, said operating means comprising an intermittingly rotating pinion, for the longitudinal feed of the work, and a bell-crank lever for effecting the lateral movements of the work-holder.

4. A sewing machine buttonhole attachment provided with means for securing the same to the presser-bar of a sewing machine, and comprising a pivotally mounted work-holder movable back and forth laterally, for the formation of buttonhole stitches, and one portion of which work-holder is adapted to be fed longitudinally, the said longitudinally movable portion of said work-holder being pivotally connected with the laterally movable portion thereof so that when the stitching of one side of the button hole has been completed said longitudinally movable portion of said work-holder may be partially rotated to stitch around the end of the buttonhole and to reverse the direction of the feed of the work, for stitching the other side of the buttonhole, combined with means for operating the said work-holder from the needle-bar of a sewing machine, said operating means comprising an intermittingly rotating pinion, for the longitudinal feed of the work, a bell-crank lever for effecting the lateral movements of the work-holder, and means for regulating the vibrating movements of said laterally movable part of said work-holder imparted thereto from said bell-crank lever.

5. A sewing machine buttonhole attachment adapted to be secured to the presser bar of the machine and comprising a pivotally mounted work-holder roughened or serrated on its lower face for engagement with the work, said work-holder consisting of two portions one of which is movable back and forth laterally, for the formation of the buttonhole stitches, and the other of which is pivotally connected with the said laterally movable part, so as to be capable of a semi-circular rotation, and is also longitudinally movable relative to said laterally movable part, so as to feed the work lengthwise of the buttonhole, combined with means for operating said work-holder from the needle-bar of the sewing machine.

[Claims 6 to 17 not printed in the Gazette.]

1,030,277. FOLLOWER-BOARD. HENRY K. BROOKS, Topeka, Kans. Filed Oct. 12, 1911. Serial No. 654,392. (Cl. 129—29.)



1. In a device of the character described, a follower board, a carriage, a friction lock for the follower board movable with said carriage, and a pivoted member for actuating said lock, said member being mounted on the follower board above said lock, and a carriage guide with which said lock is engageable.

2. In a device of the character described, a follower board, a friction lock therefor, and means for actuating said lock, the movable member of said lock being birfurcated for the passage of the side of a drawer.

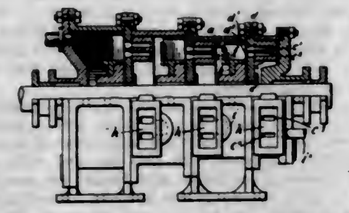
3. In a device of the character described, a drawer having angular means on the edge if its side, a follower board, and a guide therefor adapted to engage said angular means with spring pressure for holding said guide upon the side of the drawer.

4. In a device of the character described, a drawer having angular means on the edge of its side a follower board, a carriage movable therewith, a guide for the carriage, having a slot for receiving and frictionally engaging said angular means on the upper edge of said drawer and a dog carried by the carriage and engageable with said guide.

5. In a device of the character described, a drawer having angular means on the edge of its side a follower board, a carriage movable therewith, a guide for the carriage, having a slot for receiving and frictionally engaging said angular means on the upper edge of said drawer a dog carried by the carriage and engageable with said guide, and a spring acting on said dog.

[Claims 6 to 13 not printed in the Gazette.]

1,030,278. STEAM-TURBINE. JOHN BROWN, Plaistow, England, and JAMES EDWARD SCOTT, Greenock, Scotland. Filed Nov. 12, 1910. Serial No. 591,940. (Cl. 121—58.)



1. In a multi-stage steam turbine a nozzle plate having two sets of nozzles and two separate circular chambers, and rotors into which said steam is discharged from said nozzles, said chambers being provided with separate inlets externally to the casing at such stage, and connected valves which control said inlets, substantially as herein described and shown with reference to the accompanying drawing.

2. In a multi-stage steam turbine, a nozzle plate having a plurality of sets of nozzles and a plurality of chambers, and rotors into which steam is discharged by said nozzles, said chambers being provided with separate inlets arranged externally to the casings at each stage, and valves which control said inlets, as shown and described.

1,030,279. KNOCKDOWN EXTENSIBLE CABINET OR SHELVING. RICHARD H. BROWNE, Muskegon, Mich. Filed Apr. 20, 1911. Serial No. 622,183. (Cl. 45—78.)

1. An extensible cabinet or shelving, comprising sectional shelves, superposed vertical members having grooves in their adjacent ends, coupling plates projecting oppositely from between said members, and respectively attached to the adjacent ends of two opposite shelves, each plate also having oppositely projecting vertical end portions adapted to enter the grooves, said grooves in the intermediate vertical members being of sufficient width to receive two of said vertical end portions, whereby a single series of vertical members support oppositely projecting shelves.

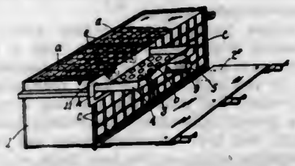
2. An extensible cabinet or shelving, comprising sectional shelves, superposed vertical members having grooves in their adjacent ends, and coupling plates secured to the under side of each shelf each plate having a portion extending upward opposite the end of the shelf, a portion extending outward between the vertcial members and an end portion divided and turned vertically in opposite directions to enter the grooves in the vertical members.



3. An extensible cabinet, comprising two or more sections of different depth from front to rear, and a vertically shallow reducing section between said sections having a horizontal reducing portion adapted to connect the front closures of the sections arranged in different vertical planes, and coupling members connecting the reducing sections and the vertical sections.

4. An extensible cabinet, comprising sectional shelves, vertically disposed end sections and intermediate sections having grooves in their adjacent ends, a reduced section having shallow end members adapted to be interposed between two end sections of different widths from front to rear and having grooves corresponding to the grooves in the end sections and coupling plates on the shelves and reducing section, adapted to extend between the end sections and engage the said grooves.

1,030,280. EGG-CANDLER SCOOP. ANTON BRUNNERT, Old Monroe, Mo., assignor of one-half to Henry F. Freise, Old Monroe, Mo. Filed Feb. 5, 1912. Serial No. 675,478. (Cl. 99—1.)

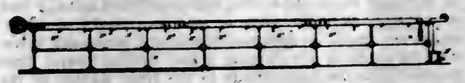


1. A scoop having a bottom provided with openings for receiving and supporting eggs, a flange bounding the sides and rear edge of said bottom, a handle projecting from the rear member of the flange, a spring-controlled clasp hinged to the handle and adapted to be manipulated by the finger of the operator, the clasp being provided with a member adapted to grip an egg-filler partition sheet between said member and the bottom of the scoop, for the purpose set forth.

2. In combination with a scoop adapted to pick up a filler of eggs, and provided with side and rear marginal up-turned flanges, the bottom of the scoop being provided with openings for the support of eggs to be candled, a discharge plate composed of a member having an opening through which the scoop may be inserted, the upper ends of the opening terminating in vertical recesses for the reception of the side flanges of the scoop, the plate projecting above and below the egg-supporting surface of the scoop for simultaneously engaging two superposed fillers of eggs.

3. In combination with a scoop adapted to pick up a filler of eggs, and provided with side and rear marginal up-turned flanges, a handle on the rear flange, a spring-controlled hand-manipulated clasp having one end operating opposite the bottom of the scoop, said bottom being provided with openings for the support of eggs to be candled, a discharge plate having an opening for the free insertion of the scoop, the upper corners of the opening being provided with recesses for the reception of the side flanges of the scoop, the plate projecting above and below the scoop to simultaneously engage two superposed egg-fillers.

1,030,281. DRYING-TABLE. FRANCIS I. BURGHER, New York, N. Y., assignor to Acme Cloth Shrinking Machinery Company, New York, N. Y., a Corporation of New York. Filed June 2, 1910. Serial No. 564,610. (Cl. 34—48.)



1. A drying frame for a cloth shrinking and finishing apparatus, comprising a sectional frame having a heating chamber provided with a sectional top, a coil of pipe extending lengthwise in the said chamber and having the inlet and outlet at one end of the chamber, a valved supply pipe connected with the said coil inlet and a steam trap connected with the said coil outlet.

2. A drying frame for a cloth shrinking and finishing apparatus, comprising a main frame, a top made in sections, each formed of a rectangular frame, and a sheet metal covering stretched over the top of the said rectangular frame and secured to the sides and ends thereof.

3. A drying frame for a cloth shrinking and finishing apparatus, comprising a main frame, a top made in sections, each formed of a frame made of an angle iron, and a sheet metal covering stretched over the said top frame and bent around the members of the frame to hold the covering in place.

4. A drying frame for cloth shrinking and finishing apparatus, comprising a plurality of sections each having sides of angle iron, a bottom secured to the horizontal members of the sides, and a top formed of a frame of angle iron and a sheet metal cover having its sides and ends bent around the horizontal members of the frame.

5. In a drying frame for a cloth shrinking and finishing apparatus, a heating chamber, a coil of pipe in the chamber, and a sectional top for the chamber, each section consisting of a rectangular frame of angle iron, and a sheet metal cover secured upon the horizontal members of the frame, the vertical members of the frame at the adjacent ends of the sections resting upon the coil.

[Claims 6 and 7 not printed in the Gazette.]

1,030,282. PLOW. PETER CLANCY, St. Paul, Minn. Filed Nov. 25, 1911. Serial No. 662,258. (Cl. 97—14.)

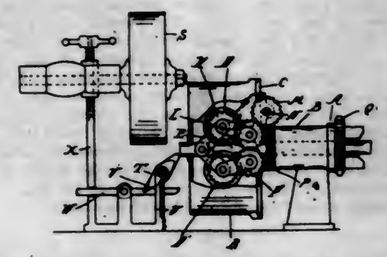


1. In combination, a plow having a beam and a rigid hanger depending from the rear portion thereof, a two-armed rear lever fulcrumed to the hanger and having its lower arm normally inclined rearwardly and provided with a roller arranged to contact with the ground, and the other arm extended above the beam, a vertically disposed front lever pivoted near its middle to the front end of the plow beam and having two downward arms, a link connecting the upper end of said two levers, a wheel-supported truck, a draw-head pivotally connected therewith to swing in a horizontal plane, two horizontal links pivoted with their front ends to the front portion of the draw-head and having their rear ends provided with slots, studs secured in the lower arms of the front lever and slidable in said slots, two upper link rods guided to slide horizontally upon the draw head and having their front ends pivoted to the lower arms of the front lever above the slotted rods, a pair of short links extending upwardly and rearwardly from the front ends of the slidable link rods, a hand-lever fulcrumed with its lower end upon the

draw head and having above its fulcrum a pivot engaging the rear ends of said short links, and means on the draw head for holding the lever in the desired position.

2. In combination, a plow having a beam and a rigid hanger depending from the rear portion thereof, a two armed rear lever fulcrumed to the hanger and having its lower arm normally inclined rearwardly and provided with a roller arranged to contact with the ground, and the other arm extended above the beam, a vertically disposed front lever pivoted near its middle to the front end of the plow beam and having two downward arms, a link connecting the upper ends of said two levers, a wheel-supported truck, a draw-head pivotally connected therewith to swing in a horizontal plane, two horizontal links pivoted with their front ends to the front portion of the draw-head and having their rear ends provided with slots, studs secured in the lower arms of the front lever and slidable in said slots, two upper link rods guided to slide horizontally upon the draw head and having their front ends pivoted to the lower arms of the front lever above the slotted rods a pair of short links extended upwardly and rearwardly from the front ends of the slidable link rods, a hand lever fulcrumed with its lower end upon the draw head and having above its fulcrum a pivot engaging the rear ends of said short links, and means on the draw head for holding the lever in the desired position, and a pulling coil spring having one end attached to the upper arm of the rear lever and the other end to the front portion of the plow beam.

1,030,283. REVOLUBLE WORK-FEEDING CHUCK. CHRISTOPHER F. CODA, Detroit, Mich. Filed July 31, 1911. Serial No. 641,559. (Cl. 51—4.)



1. The combination with a revoluble hollow mandrel, of a pair of feed rolls mounted thereon and movable toward and from the axis of said mandrel, a pair of toggle levers connecting said rolls, a guide parallel with the axis of said mandrel, and a slidable connection between the pivot of said toggle levers and said guide.

2. The combination with a revoluble hollow mandrel, of a pair of feed rolls mounted thereon and movable toward and from the axis, toggle links connecting said rolls, a guide parallel with the axis of said mandrel, a slide engaging said guide connected with the pivotal point of said links, and a spring for resiliently yieldably resisting the movement of said slide upon said guide.

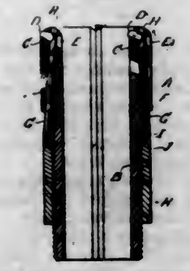
3. The combination with a revoluble hollow mandrel, of a pair of feed rolls mounted thereon and movable toward or from the axis of the mandrel, a pair of toggle links connecting said feed rolls, a guide parallel with the axis of said mandrel, a slide engaging said guide and connected to the pivotal point of said toggle links, and an adjustable stop for limiting the movement of said slide upon said guide.

4. The combination with a revoluble hollow mandrel, of a pair of feed rolls mounted thereon and adjustable toward or from the axis thereof, a pair of toggle links connecting said feed rolls, a guide parallel to the axis of the mandrel, a slide engaging said guide and connected with the pivotal point of said toggle links, a stop for said slide adjustable on said guide, and a spring for yieldably pressing said slide against said stop.

5. The combination with a revoluble hollow mandrel, of a pair of feed rolls mounted thereon, a pair of toggle links connecting said rolls, a guide parallel with the axis of said mandrel, a slide upon said guide engaging the pivotal connection of said toggle links, and a member adjustable on said guide provided with a stop for said slide, and an opposed abutment, and a spring engaging said abutment and yieldably pressing said slide against said stop.

[Claims 6 to 11 not printed in the Gazette.]

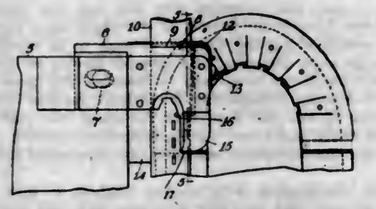
1,030,284. DIAMOND-SET TOOL. FERDINAND JULES CORVILAIN, Bilbao, Spain. Filed Aug. 17, 1911. Serial No. 644,644. (Cl. 125—4.)



1. A hollow boring tool provided with an annular tubular crown piece having an externally screw-threaded stem and having a plurality of conical or outwardly tapering sockets, a plurality of diamonds artificially shaped to conical or outwardly tapering form to fit said sockets, an internally screw-threaded element adapted to engage the screw-threaded stem of the crown piece, and means adapted to have a wedging adjusting and holding action on the several diamonds and arranged to be forced toward the rear faces of the diamonds to maintain them tightly in their sockets on the rotation of the said internally screw-threaded element.

2. A hollow boring tool provided with an annular crown having longitudinal orifices and a plurality of conical or outwardly tapering sockets disposed at an inclination to the axis of the crown, diamonds artificially shaped to conical or outwardly tapering form to fit said sockets, a plurality of adjustable holding pins located in said orifices and having inclined outer end faces bearing with a wedging action on the rear faces of the diamonds to hold them tightly in their sockets, and a common adjusting and holding means acting against the inner ends of the several holding pins, to maintain them firmly in holding positions.

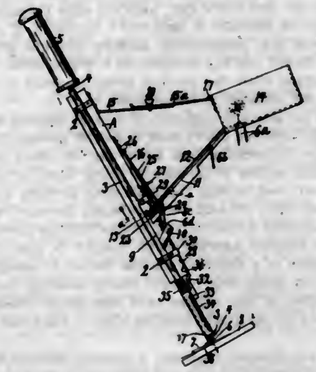
1,030,285. WELT-GUIDE. PETER A. COUPAL, South Boston, Mass., assignor to Buffalo Shoe Co., Buffalo, N. Y., a Corporation of West Virginia. Filed July 28, 1911. Serial No. 641,169. (Cl. 12—67.)



1. A device of the class described having, in combination, a throat having a passage therethrough adapted to guide the top, bottom and one edge of the welt, an edge-guide disposed in a plane at an angle to said throat, a second edge-guide also disposed in said plane and separated from the first-mentioned edge-guide by a slot, a lip extending from said second-mentioned edge guide toward the other and constituting a presser to bear upon the top of the welt, and a U-shaped spring having one arm thereof extending longitudinally of the passage in said throat and terminating at a point adjacent to the starting point of said second-mentioned edge-guide, the other arm of said spring being secured to the onter forward face of said throat.

2. A device of the class described having, in combination, a throat having a passage therethrough adapted to guide the top, bottom and one edge of the welt, an edge-guide disposed in a plane at an angle to said throat, a second edge-guide also disposed in said plane and separated from the first-mentioned edge-guide by a slot, a lip extending from said second-mentioned edge-guide toward the other and constituting a presser to bear upon the top of the welt, and a flat spring secured to said throat, extending longitudinally of the passage in said throat and terminating in a face oblique to the opposite edges of said spring and substantially parallel and in alinement with the lower edge of said second-mentioned edge-guide.

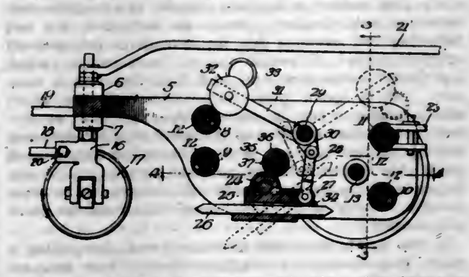
1,030,286. NAIL-DRIVING DEVICE. FRANCIS A. DEVERBAUX, Minneapolis, Minn., assignor of one-half to Frank M. Donnelly, Minneapolis, Minn. Filed Mar. 20, 1911. Serial No. 615,776. (Cl. 1—46.)



1. In a nail driving device, the combination of a portable frame, a tube secured on the frame and having a side opening and a chute adjacent thereto for guiding nails into the tube, a nail-driving plunger slidable in the tube, a nail hopper secured to the frame by an upper and a lower arm, one of said arms constituting a race for conducting nails from the hopper to the chute and being pivotally connected with the frame, the other arm constituting a brace pivoted to the hopper and having near its middle a lap-joint with a clamping screw, whereby the hopper and race may be adjusted to different inclined positions relative to the frame.

2. In a nail-driving device, a portable frame, a tube secured on the frame and provided with a lateral opening, a nail hopper mounted on the frame and having an inclined chute arranged to guide nails into the side opening of the tube, a nail driving plunger in the tube, a sleeve slidable on the lower end of the tube, a bar having a limited sliding movement on the frame, the lower end of said bar being secured to the sleeve and the upper end having an angular lug with two holes through it, a nail escapement mounted on the frame at the lower end of the chute and comprising two inclined spring arms, each slidably inserted in one of the holes in the lug and formed with an angular end portion or finger, one finger as the lug is moved up and down permitting a single nail to pass out of the chute while the other finger retains the other nails, and a spring acting on said sleeve and bar to hold the same normally downward on the tube.

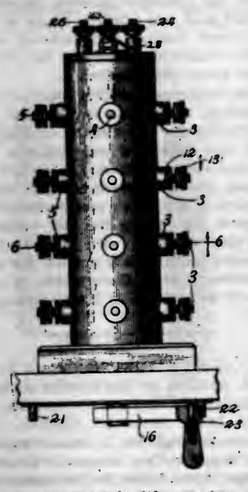
1,030,287. ROAD-SCARIFIER. NORMAN DE WIND, Chicago, Ill., assignor to Austin Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Oct. 30, 1911. Serial No. 657,396. (Cl. 37—50.)



1. In a road scarifier, the combination of a frame, a plurality of tool holders pivotally mounted in said frame, tools carried by said holders, means for tilting the holders on their pivots to raise and lower the ends of the tools, and buffers positioned in the path of said holders to limit the lowering movement of the tools, each of said buffers comprising a plurality of cylindrical sections of different diameters, said buffers being adjustably mounted to permit a desired cylindrical section to be interposed in the path of a holder.

2. In a road scarifier, the combination of a frame, a plurality of tool holders pivotally mounted in said frame, tools carried by said holders, means for tilting the holders on their pivots to raise and lower the ends of the tools, a shaft mounted in the said frame adjacent the said holders, and a plurality of buffers, each formed of a number of cylindrical sections of different diameters mounted on the said shaft and adjustable longitudinally thereof whereby the cylindrical section of desired diameter may be positioned in the path of a holder to limit its tilting movement.

1,030,288. IGNITION SYSTEM FOR GAS-ENGINES. WILLARD E. DOW, Braintree, Mass. Filed Sept. 13, 1907. Serial No. 392,797. (Cl. 123—148.)



1. The herein described ignition system, comprising an induction coil contact, a magneto contact, a spark plug contact, a battery contact, and a ground contact, combined with means including circuit connections and an induction coil, a magneto, a spark plug, and a battery, operating in one position to close connection between said coil contact and spark plug contact, and between said battery contact

and said ground contact, and in another position to break both of the aforesaid connections and make connection between said spark plug contact and magneto contact.

2. The herein described ignition system, comprising a spark plug contact, a magneto circuit, two magneto contacts for said magneto circuit, an induction coil, two induction coil contacts for the secondary and primary circuits thereof, a ground contact, and means including circuit connections and said induction coil, a magneto, and a spark plug coöperating with the aforesaid contacts, when in one position, to close connection between coil contact and the spark plug contact, and, when in another position, to close connection between said spark plug contact and the magneto circuit, said means, in passing from its first mentioned position to the other position, cutting off all circuit connection from the spark plug contact.

3. The herein described ignition system, comprising a spark plug contact, a magneto circuit, two magneto contacts for said magneto circuit, an induction coil, two induction coil contacts for the secondary and primary circuits thereof, a ground contact, and means including circuit connections and said induction coil, a magneto, and a spark plug coöperating with the aforesaid contacts, when in one position, to close connection between a coil contact and the spark plug contact, and, when in another position, to close connection between said spark plug contact and the magneto circuit, said means, in passing from its first mentioned position to the other position, breaking the first mentioned closed circuit and closing connection between said ground contact and the magneto circuit until after said breaking of said first mentioned closed circuit.

4. The herein described ignition system, comprising a spark plug contact, a magneto circuit, two magneto contacts for said magneto circuit, a ground contact to operate in connection with one of said magneto contacts, an induction coil, two induction coil contacts for the secondary and primary circuits of an induction coil, and means including circuit connections and said induction coil, a magneto, and a spark plug coöperating with the aforesaid contacts, when in one position, to cut a coil contact into efficient operative relation with the spark plug contact, and to close connection between said ground contact and one magneto contact, and, in moving from said position to another position, to sever the aforesaid relation between the spark plug contact and said coil contact, break said connection between the ground contact and adjacent magneto contact and make connection between the other magneto contact and the spark plug contact.

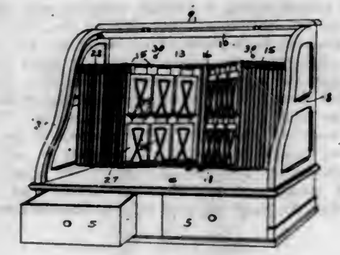
5. The herein described ignition system, comprising a spark plug contact, a magneto having two circuits, two magneto contacts for the two circuits of said magneto, an induction coil, two induction coil contacts for the secondary and primary circuits thereof, a ground contact, and means including circuit connections and said induction coil, said magneto, and a spark plug coöperating with the aforesaid contacts for cutting the coil contacts into efficient closed circuit position with relation to the spark plug contact and simultaneously putting the magneto contacts in inoperative relation thereto, and vice versa.

[Claims 6 to 9 not printed in the Gazette.]

1,030,289. ACCOUNT-REGISTER. JOHN L. DULIN, Noblesville, Ind., assignor to The Hoosier Account Register Company, Noblesville, Ind., a Corporation of Indiana. Filed Apr. 13, 1911. Serial No. 620,931. (Cl. 45—2.)

1. In an accocunt register, a book comprising a plurality of metal sheets having means for temporarily holding account slips, wires bound in the inner edges of said sheets the ends of said wires projecting beyond the sheets, a rectangular frame comprising top and bottom bars with sockets which receive the projecting wire ends whereby the sheets are hinged to the frame the said frame binding the sheets together into a book which is readily transportable as a whole and means for adjusting the distance between said bars and for removing the upper bar.

2. In an account register, a book comprising a plurality of metal sheets having means for temporarily holding account slips, wires bound in the inner edges of said sheets the ends of the wires projecting beyond the sheets and a frame comprising a pair of horizontal bars having sockets to receive the projecting wire ends, and vertical rods connecting the bars and holding them in fixed relation to each other.



3. In an account register, a cabinet having a top member with an underside recess in combination with one or more books each comprising a pair of horizontal bars, vertical rods seated in one bar and having threaded-ends passing through the other bar, nuts on said threaded-ends between which said bar is held and a plurality of sheets having means for temporarily holding account slips hinged to said frame, the top member of a frame when the frame is assembled with the cabinet being inserted in the recess in said top member of the cabinet.

4. In an account register, a cabinet having a table-top and a top member above said table-top having frame holding stops in combination with one or more books each comprising a pair of horizontal bars, vertical rods seated in one bar and having threaded-ends passing through the other bar, nuts on said threaded-ends between which said bar is held and a plurality of sheets having means for temporarily holding account slips hinged to said frame, the top member of a frame when the frame is assembled with the cabinet being held by said frame holding means in the top member of the cabinet and the lower frame member being held by the frame holding stop of the table-top of the cabinet.

5. In an account register, a cabinet having a table-top and a top member above said table-top having an underside recess, said table top having frame holding stops, in combination with one or more books each comprising a pair of horizontal bars and rods rigidly connecting said bars, and a plurality of sheets having means for temporarily holding account slips hinged to said frame, the top bar of said frame when the latter is assembled with the cabinet being inserted in the recess in the top member of the cabinet and the lower bar of the frame bearing against the stops of said table-top, the height of the frame being such as to compel an oblique position of the book when assembled in the cabinet.

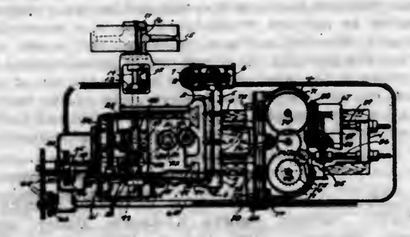
1,030,290. COMPOSITION OF MATTER FOR USE IN REMOVING GREASE, &c., FROM MOLDS USED IN THE ART OF ELECTROTYPING. GEORGE E. DUNTON, New York, N. Y. Filed July 22, 1910. Serial No. 573,294. (Cl. 87—5.)

1. A composition the constituent ingredients of which are methyl alcohol, sodium chlorid, chlorin and hydrochloric acid, substantially as described.

2. A composition the constituent ingredients of which are methyl alcohol, a saturated solution of sodium chlorid dissolved in water, free chlorin gas dissolved in water and hydrochloric acid, substantially as described.

3. A composition the constituent ingredients of which are methyl alcohol 8 quarts, chlorin water 3 pints, saturated solution of sodium chlorid 1 quart and ¼ of a pint of hydrochloric acid, substantially as described.

1,030,291. MULTIPLE-GEAR-CUTTING MACHINE. FREDERICK L. EBERHARDT, Newark, N. J., assignor to Gould & Eberhardt, Newark, N. J., a Corporation of New Jersey. Filed Dec. 3, 1910. Serial No. 595,358. (Cl. 90—5.)



1. In a gear cutting machine, the combination with a revoluble cutter spindle, a series of cutters mounted thereon, an angularly adjustable work carriage, a series of work spindles rotatably mounted therein, means to reciprocate said cutters and means to index said work spindles after each excursion of said cutters.

2. In a gear cutting machine, the combination with a revoluble cutter spindle, a series of cutters mounted thereon, an angularly adjustable work carriage, a series of work spindles rotatably mounted therein, means to reciprocate said cutters, and means to index said work spindles after each excursion of said cutters, comprising an index shaft, a shaft at right angles thereto, connections between shafts and other connections between said shaft and work spindles.

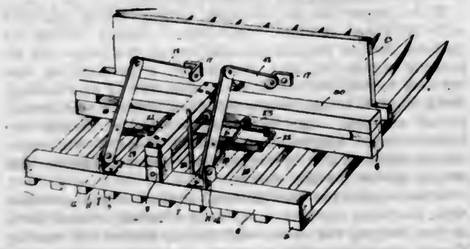
3. In a gear cutting machine the combination with a revoluble cutter spindle, a series of cutters mounted thereon, means to reciprocate said cutters, an angularly adjustable work carriage, a series of work spindles rotatably mounted therein, an indexing mechanism and connections therefrom to said work spindles.

4. In a gear cutting machine the combination with a revoluble cutter spindle, a series of cutters mounted thereon, means to reciprocate said cutters, a work slide, an angularly adjustable bed hinged to said slide, a hinged shaft, a series of work spindles rotatably mounted in said hinged bed, an indexing mechanism, a shaft, connections therefrom to said work-holders and other connections to said hinge shaft, and connections from said hinge shaft to said indexing mechanism.

5. In a gear cutting machine, the combination with a revoluble cutter spindle, a series of cutters mounted thereon, means to reciprocate said cutters, an angularly adjustable work carriage, a series of work spindles rotatably mounted therein, an indexing mechanism, an index shaft, driving connections therefrom to said indexing mechanism and other driving connections therefrom to said work spindles.

[Claims 6 to 8 not printed in the Gazette.]

1,030,292. PUSHER ATTACHMENT FOR SWEEP-RAKES. PAUL J. ENGLUND, Falun, Kans. Filed Jan. 12, 1911. Serial No. 602,329. (Cl. 56—137.)



1. In combination with a sweep rake including spaced transverse bars, of a centrally disposed guide-rod secured to said bars and projecting over the rake teeth, a pusher-board transversely disposed above the teeth and slidably mounted on the guide-bar, spaced links pivotally connected to the pusher-board, spaced links pivotally connected at one end to one of the bars and at their other ends to the free end of the first mentioned links, a rock-shaft rotatably mounted on the other of said bars and provided with projecting arms, coil springs respectively connecting the arms and one of the links, and means for operating said rock-shaft.

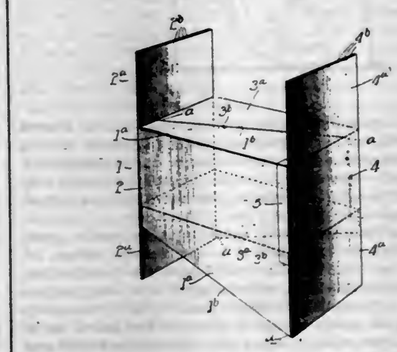
2. In combination with a sweep rake including spaced transverse bars, of a centrally disposed guide-rod secured to said bars and projecting over the rake teeth, a pusher-board transversely disposed above the teeth and slidably mounted on the guide-bar, spaced links pivotally connected to the pusher-board, spaced links pivotally connected at one end to one of the bars and at their other ends to the free end of the first mentioned links, a rock-shaft rotatably mounted on the other of said bars and provided with projecting arms, coil springs respectively connecting the arms and one of the links, a lever-arm secured to the rock-shaft, a hand lever, and a link connecting the lever-arm and the hand-lever.

1,030,293. OUTLET-BUSHING. FREDERIC WM. ERICKSON, New York, N. Y. Filed Oct. 5, 1911. Serial No. 652,942. (Cl. 247—1.)



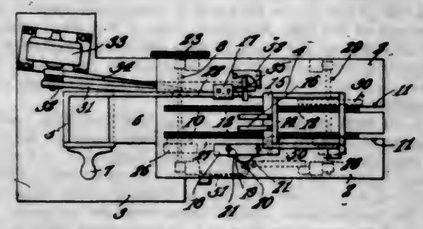
An outlet bushing comprising a cylindrical shell having one end turned inwardly at a substantial right angle and the other end rolled inwardly to form a resilient abutment, and a resilient coil confined between said ends and held under compression thereby, the inner surfaces of the coil being formed to present a screw thread.

1,030,294. FOLDING PAPER BOX. JEFFREY T. FERRES, Anderson, Ind., assignor to The Sefton Manufacturing Company, Anderson, Ind., a Corporation of Indiana. Filed Sept. 5, 1911. Serial No. 647,749. (Cl. 229—37.)



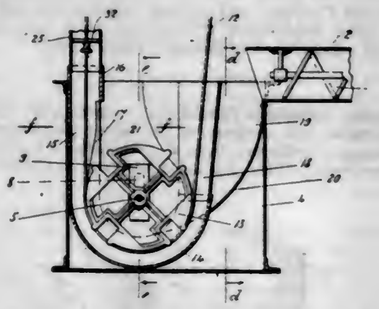
A folding box made of double faced corrugated paper board and comprising side walls hinged together each having end extensions foldable to form cover flaps for the ends of the box, the extensions on two opposite walls having complementary adjacent edges which run at an angle to the corrugations of the other set of extensions the sets of extensions with the complementary edges being foldable inwardly and the remaining sets of extensions being foldable thereupon and secured thereto; substantially as described.

1,030,295. AUTOMATIC BOX-BOARD-BEVELING MACHINE. LOUIS S. FLETCHER, Redlands, Cal. Filed Jan. 16, 1911. Serial No. 602,994. (Cl. 144—134.)



In a machine for beveling box shooks, a table; a cutter thereon; a shook receptacle upon the table; a conveyer for advancing a shook out of the receptacle and against the cutter; a rigid extension upon the receptacle adapted to hold down the shook upon the conveyer before the shook engages the cutter and to prevent a binding of the shook against the lower edge of the receptacle by the action of the conveyer; a spring secured to the extension and adapted to hold the shook yieldably upon the table while the shook is being engaged by the cutter; a member slidably held upon the table by the extension; and spring means engaging said member to move the same transversely of the conveyer and to advance the shook against the cutter while the shook is being held down upon the table by the first specified spring.

1,030,296. CONVEYER. HOWARD S. GARDNER, East Orange, N. J. Filed Aug. 3, 1911. Serial No. 642,076. (Cl. 193—5.)



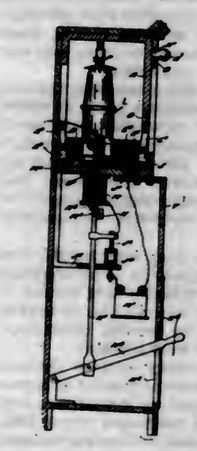
1. The combination, with a lower casing, of a curved trough arranged in the said casing and provided with a vertical extension at one end having a converging slot, a conveyer pipe connected to the said extension, and a conveyer provided with an endless cable and flights and working in the said trough and pipe.

2. The combination, with a lower casing, and a spout for delivering material into it; of a curved trough arranged in the casing and provided with a vertical extension at one end having a converging slot, a conveyer pipe connected to the said extension, a curved shield secured to the other end of the trough in front of the spout, guide plates for conducting the material around the shield and into the trough, and a conveyer provided with an endless cable and flights and working in the said trough, shield and conveyer pipe.

3. The combination, with a lower casing, and a spout for delivering material into it; of a curved trough arranged in the casing, a conveyer pipe operatively connected with one end of the said trough, a curved shield secured at the other end of the trough in front of the said spout, a longitudinal partition plate secured under the spout between the shield and the adjacent side of the casing, guide plates secured on each side of the partition plate and operating to conduct the material around it and into the trough, and a conveyer provided with an endless cable and flights and working in the said trough and shield.

4. The combination, with a lower casing, of a curved trough arranged in the said casing and having a vertical extension at one end which terminates in a connecting pipe, said extension having a converging slot in one side between the pipe and the trough, guide plates secured in the casing at the sides of the slot and at the top of the trough and extending to the adjacent sides of the casing, and a conveyer provided with an endless cable and flights and working in the said trough, extension and connecting pipe.

1,030,297. APPARATUS FOR IGNITING MINERS' LAMPS. ERNEST ARTHUR HAILWOOD, Morley, near Leeds, England. Filed Dec. 8, 1908. Serial No. 466,520. (Cl. 240—18.)



1. In apparatus for igniting miners' lamps, each having an opening and provided with a frictional igniter, the combination of a casing inclosing the lamp and provided with a doorway for inserting the lamp, said casing having an opening registering with the opening in the lamp, means for closing the doorway, and means registering with the opening in the casing when the doorway is closed for operating the frictional igniter.

2. An apparatus for igniting miners' safety lamps provided with frictional igniters, comprising a casing adapted to receive the lamp, a second casing surrounding the first casing, both of the casings having openings therein through which the lamp may pass and one of said casings being movable in relation to the other, said casings also having openings therein, registering with each other when the the lamp chamber is closed, and means passing through said last-mentioned openings when the lamp chamber is closed for operating the frictional igniter.

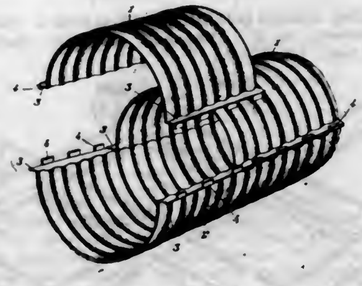
3. An apparatus for igniting miners' lamps provided with frictional igniters, comprising a casing having an opening therein for the introduction of the lamp and an opening registering with the igniter, a surrounding casing also having like openings therein, one of said casings being movable in relation to the other, and the second mentioned openings registering only when the casings are closed, means adapted to be passed through said registering openings for operating the frictional igniter, and locking means for the casings.

4. An apparatus for igniting miners' lamps provided with frictional igniters, comprising a casing, means therein for holding the lamp, said casing having an opening therein through which the lamp is introduced, a second casing surrounding the lamp casing, one of said casings being movable in relation to the other to close the lamp

casing, and means for operatively engaging the frictional igniter only when the lamp casing is closed.

5. An apparatus for igniting miners' lamps provided with frictional igniters, comprising a casing having an opening therein through which the lamp is introduced, a second casing surrounding said first named casing, means for moving one of said casings in relation to the other for closing said opening, said casings having igniting openings therein, registering with each other when the first named opening is closed, whereby access can be had to the igniter, an electro-magnet M, a magnet rod passing through the same, and adapted to pass through the igniting openings in the casings to engage with the igniter in the lamp, contacts brought into engagement when the first named opening in the lamp casing is closed, a source of electric current connected with one of said contacts, and means for moving the magnet rod and for connecting the source of current with the electro-magnet.

1,030,298. CULVERT. CHARLES HAINES, Canton, Ohio, assignor to The Canton Culvert Company, Canton, Ohio, a Corporation of Ohio. Filed Nov. 13, 1911. Serial No. 659,905. (Cl. 61—9.)



1. A culvert comprising complementary sections having seam flanges provided with interjacent lugs folded over said flanges for fastening the sections together.

2. A culvert comprising complementary sections having seam flanges provided with integral, oppositely disposed interjacent lugs folded over said flanges for fastening the sections together.

3. A culvert comprising complementary sections having outstanding seam flanges provided with oppositely, disposed interjacent lugs folded over said flanges for fastening the sections together.

4. A culvert comprising complementary sections having outstanding, abutting seam flanges provided at their marginal edges with integral, oppositely, disposed interjacent lugs folded over said flanges for fastening said sections together.

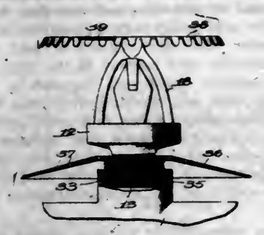
5. A culvert comprising complementary sections, each section having seam flanges provided at their marginal edges with spaced lugs formed integrally with said flanges, said lugs bent over the flanges of the complementary section for fastening said sections together.

[Claim 6 not printed in the Gazette.]

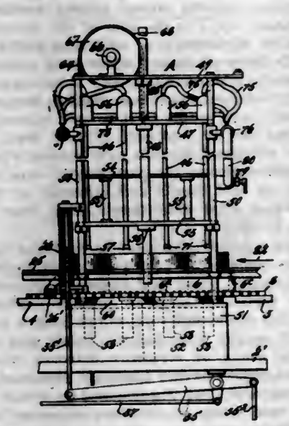
1,030,299. AUTOMATIC SPRINKLER-HEAD. WILBERFORCE B. HAMMOND, Boston, Mass. Filed Oct. 22, 1909. Serial No. 524,080. (Cl. 169—5.)

1. A metallic sprinkler-head adapted to be connected with a water-supply conduit and having a thermostatic controlling member, combined with means carried by the head to diffuse the heat transmitted thereto by conduction from the supply conduit.

2. A sprinkler-head adapted to be connected with a supply conduit arranged for the circulation of hot water, said head having a controlling member operative upon a predetermined rise in the temperature of the adjacent air, combined with means carried by the head and normally acting to diffuse the heat transmitted to the head by conduction from said conduit, to thereby prevent improper operation of said controlling member.



1,030,300. CAN-MANIPULATING MACHINE. BERNARD HAUSHEER, Norwich, N. Y., assignor to Borden's Condensed Milk Company, New York, N. Y., a Corporation of New Jersey. Filed June 28, 1910. Serial No. 569,270. (Cl. 113—114.)



1. In a can-manipulating machine having a runway for the cans the combination of the following elements, viz: a carrier comprising a bottom adapted to loosely carry an even numbered group of like shaped cans of a like diameter; under said runway an endless conveyer on which said carrier loosely rides; means to impart to said conveyer continuous motion in parallelism with said runway; on each side of said runway parallel lateral alining members spaced apart a distance equal to the sum of the said diameters of an aliquot part of the number of said cans, and disposed to contact with some of said cans; transverse said runway in the path of said cans a movable normally closed stop disposed to contact with some of said cans; on said carrier a rear member disposed transversely of said runway to contact with some of said cans and, coacting with said alining members, and said stop, to force and ultimately hold said group stationary in positions in which their centers are equally spaced apart and the cans lined up in mutually contacting ranks; and means to raise said stop out of the path of said cans in said runway.

2. In a can-manipulating machine having a runway for the cans the combination of the following elements, viz: supported normally above said runway a plurality of like manipulating devices having downwardly presented operating members whose centers are equally spaced apart; a carrier comprising a bottom adapted to loosely carry a group of like-shaped cans each of diameter equal to the interspace between centers of said manipulating devices; under said runway a conveyer on which said carrier loosely rides, means to impart to said conveyer motion in parallelism with said runway toward and beyond

said manipulating devices; on each side said runway parallel lateral alining members spaced and disposed to contact with some of said cans and coacting with said conveyer to guide said group toward positions in which their centers register with said centers of said manipulating devices; transverse said runway in the path of said cans a movable normally closed stop disposed to contact with some of said cans and coacting with said conveyer and said lateral members to crowd said group toward said positions; and on said carrier a rear member disposed to contact with some of said cans and, coacting with said conveyer said lateral members and said stop, to ultimately force and hold said group stationary in said positions.

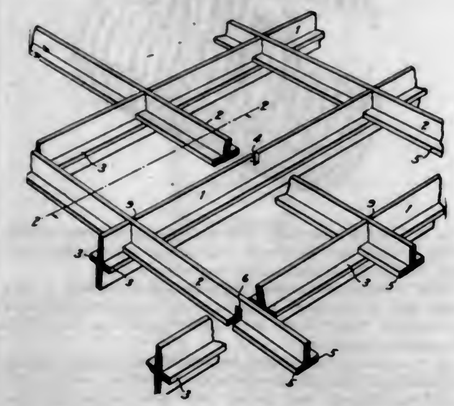
3. In a can manipulating machine having a runway for the cans, the combination of the following elements, viz: normally held down by gravity in and transverse the path of the can in said runway a vertically movable stop having downwardly projecting rollers; a carrier adapted to loosely carry an even numbered group of like shaped cans of like diameter and comprising a bottom member having therefrom upwardly extending lateral flanges disposed as treads for said rollers and a rear member transversely disposed to contact with some of said cans; on each side of said runway parallel lateral alining members spaced apart a distance equal to the sum of the diameters of an aliquot part of the number of said cans and disposed to contact with some of them; under said runway a conveyer on which said carrier loosely rides; means to impart to said conveyer continuous motion toward and beyond said stop; and means to raise and momentarily support said stop out of said path of said cans until said treads have advanced beneath said rollers whereby said stop is supported out of the path of said cans while said rollers bear on said treads and returned by gravity to normal position after said treads have been advanced beyond said rollers.

4. In a can manipulating machine having a runway for the cans the combination of the following elements, viz: supported normally above said runway a plurality of independently vertically movable tubular pneumatic like spindles having downwardly presented mouths the centers of which are equally spaced-apart; below said runway a corresponding group of vertically disposed tubular cap-containing magazines having upwardly presented openings positioned, centered, and dimensioned to admit insertion thereinto of said group of spindles; means to lower said group of spindles simultaneously transverse said runway into said magazines to independently contact with and bear upon the caps therein contained; means to exhaust air from said spindles simultaneously whereby one of said caps is caused to adhere to each of said spindles; means to raise said spindles carrying said caps simultaneously above said runway; means to feed simultaneously through said runway a group of as many like cans as there are spindles each said can having a similarly located uncapped opening; means to stop said group of cans beneath said group of spindles; means to aline said cans in positions in which each of their said openings registers with one of said mouths of said spindles; and means to cut off said exhaust from said spindles whereby said caps are released to rest respectively upon said openings of said cans.

5. In a can manipulating machine having a runway for the cans the combination of the following elements, viz: supported normally above said runway an even-numbered plurality of independently vertically movable tubular pneumatic spindles having downwardly presented mouths, the centers of which are equally spaced-apart; below said runway a corresponding group of vertically disposed tubular cap-containing magazines having upwardly presented openings positioned, centered, and dimensioned to admit insertion thereinto of said group of spindles; means to lower said group of spindles simultaneously transverse said runway into said magazines to independently contact with and bear upon the caps therein contained; means to exhaust air from said spindles simultaneously whereby one of said caps is caused to adhere to each of said spindles; means to lift said spindles carrying said caps simultaneously above said runway; a carrier comprising a bottom adapted to loosely carry as many like cans as said spindles, each said can having a similarly located uncapped opening and a diameter equal to the distance between said centers of said mouths; under said runway an endless conveyer on which said carrier loosely rides; means to impart to said carrier continuous motion in parallelism with said runway; on each side of said runway parallel lateral alining members spaced apart a distance equal to the sum of the said diameters of an aliquot part of the number of said cans and disposed to contact with some of them and coacting with said conveyer guide said group toward positions in which said openings register with said mouths; transverse said runway in the path of said cans a movable normally closed stop disposed to contact with some of said cans and, coacting with said conveyer and said lateral members to crowd said group toward said positions; on said carrier a rear member disposed to contact with some of said cans and, coacting with said conveyer said lateral members and said stop, to ultimately force and hold said group stationary in said positions; and means to cut off said exhaust from said spindles whereby said caps are released to rest respectively upon said openings of said cans.

[Claims 6 to 15 not printed in the Gazette.]

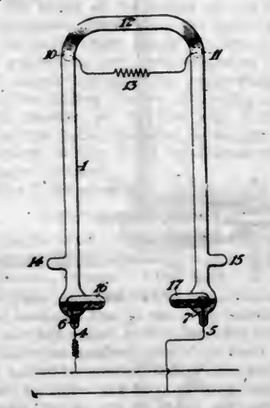
1,030,301. SIDEWALK-LIGHT. FREDERICK L. HUGHES, Rochester, N. Y. Filed Aug. 12, 1911. Serial No. 643,809. (Cl. 94—7.)



1. In a sidewalk light, the combination of parallel main bars, each of said bars having a relatively wide vertical flange and a narrow transverse side-supporting and stiffening flange on the opposite sides thereof adjacent the neutral axis thereof, the main bars being solid from the bottom up to a line above and parallel to the transverse flanges, cross-bars interlocked or halved with said main bars, said cross-bars having supporting flanges on each side thereof resting on the transverse flanges of the main bars, said main bars and said cross bars forming pockets between them having inwardly projecting flanges at the bottom thereof, glass lenses supported by said flanges and projecting above said bars, and a cement filler filling in the spaces between said lenses and said bars.

2. In a sidewalk light, the combination of parallel main bars, each of said bars having a relatively wide vertical flange and a narrow transverse side-supporting and stiffening flange on the opposite sides thereof adjacent the neutral axis thereof, the main bars being solid from the bottom up to a line above and parallel to the transverse flanges, cross-bars interlocked or halved with said main bars, said cross-bars having supporting flanges on each side thereof resting on the transverse flanges of the main bars, said main bars and said cross-bars forming pockets between them having inwardly projecting flanges at the bottom thereof, glass lenses supported by said flanges and projecting above said bars, and a cement filler filling in the spaces between said lenses and said bars, the tops of the cross-bars resting normally slightly below the tops of said main-bars so that the ends of said main-bars may be battered down at said recesses to lock the cross-bars in said recesses.

1,030,302. GAS OR VAPOR ELECTRIC LAMP. PETER COOPER HEWITT, New York, N. Y., assignor to Cooper Hewitt Electric Company, New York, N. Y., a Corporation of New York. Filed Apr. 9, 1904. Serial No. 202,286. (Cl. 176—48.)



1. In a vacuum electric apparatus, a suitable container, electrodes therein, a vapor path between the electrodes, the said path being short circuited during the starting operation for a certain distance by liquid conductors at each electrode, and a solid conductor shunting the remainder of the vapor path.

2. In a vacuum vapor electric apparatus, a suitable container, electrodes therein, a vapor path between the electrodes, the said path being short circuited during the starting operation for a certain distance by liquid conductors at each electrode, and a solid conductor shunting the remainder of the vapor path containing a resistance.

3. A vacuum vapor electric apparatus comprising a container, electrodes therein, and an inclosed vapor in combination with a conductor shunting a portion only of said vapor, connections between the terminals of said shunt circuit and the electrodes, and means whereby the container can be moved to rupture the said connection.

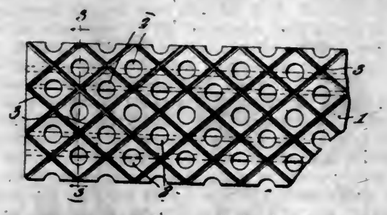
4. A vacuum vapor electric apparatus comprising a container, electrodes therein, and an inclosed vapor in combination with a conductor shunting a portion only of the said vapor, the said shunt circuit containing a resistance, connections between the terminals of said shunt circuit and the electrodes, and means whereby the container can be moved to rupture the said connections.

5. A vacuum vapor electric apparatus comprising a pivoted container, electrodes therein, and an inclosed vapor, in combination with a conductor shunting a portion only of the said vapor, the said shunt circuit containing a resistance, connections between the terminals of said shunt circuit and the electrodes, and means for rupturing the connections.

[Claims 6 to 26 not printed in the Gazette.]

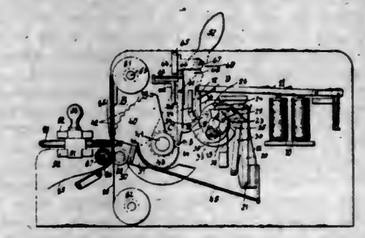
1,030,303. GRATE-BAR. GEORGE LINTON HOFFER, Hattiesburg, Miss. Filed Dec. 24, 1910. Serial No. 599,094. (Cl. 126—168.)

1. A grate bar including an apertured plate, a flange extending throughout the width of the plate and extending downwardly from one end of the plate, said flange having a groove in its inner face and perpendicular to the plate, and a rib extending longitudinally under, and supporting the plate, said rib having a tongue upon one end of the rib and detachably seated within the groove, said plate being liftable off of the tongue.



2. A grate bar including a rib having a tongue upon one end of the rib and extending from the top to the bottom thereof, an apertured plate normally resting upon the rib and extending longitudinally thereof, and a flange extending transversely of and depending from one end of the plate and having a groove perpendicular to the plate, said grooves being adapted to receive the tongue, the flange and plate being liftable off of the tongue.

1,030,304. REGISTERING APPARATUS. HERMAN HOLLERITH, Garrett Park, Md., assignor to The Tabulating Machine Company, a Corporation of New Jersey. Filed Aug. 26, 1905. Serial No. 275,897. (Cl. 235—92.)



1. In apparatus of the class described, positioning members, indicators therefor normally disconnected therefrom, and means normally disengaged from the indicators interposed between said members and said indicators for positioning the latter from the positions of said members.

2. In apparatus of the character described, positioning members, indicators therefor normally disconnected therefrom, and an intermediate device normally disengaged from the indicators and means for effecting the engagement of the complemental parts of said members and said indicators to determine the positions of the latter.

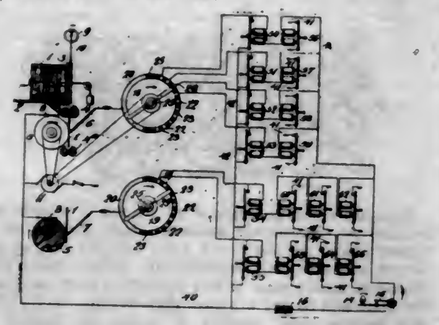
3. In apparatus of the class described, positioning members, indicators therefor normally disconnected therefrom, intermediate devices engaging complemental parts of said members and indicators, to determine the position of the latter from the former, means for releasing the indicators to effect their engagement with said intermediate devices, and means for holding the indicators inactive during the operation of the positioning members.

4. In apparatus of the class described, positioning members, result indicators therefor, indicator stops normally disconnected from the indicators arranged to provide an operative connection between the positioning members and the indicators and means for normally holding the indicators inactive.

5. In apparatus of the class described, a plurality of positioning members, an indicator for each of said members, an indicator stop providing operative connection between each of said members and its indicator, a lever controlled device for normally holding the indicators inactive during the operation of the positioning members and for releasing them to engage the indicator stops.

[Claims 6 to 14 not printed in the Gazette.]

1,030,305. APPARATUS FOR USE IN TABULATING SYSTEMS. HERMAN HOLLERITH, Garrett Park, Md., assignor to The Tabulating Machine Company, a Corporation of New Jersey. Filed July 27, 1906. Serial No. 328,076. (Cl. 235—92.)



1. In a system such as described, the combination of a tabulating device, a magnet which controls its operation, a plurality of contacts in circuit with said magnet, a record having index-point positions arranged in column, the different positions of a column representing different characteristics, a record controlled circuit controlling device which is common to the index-point positions of a column and means, including said circuit controlling device for actuating each contact in said magnet circuit according to the location of the index-point in its column, to permit the actuation of said tabulating device when the contacts controlling the same have been actuated.

2. In a system such as described, the combination of a tabulating device, a magnet which controls its operation, a plurality of contacts in circuit with said magnet, a record-card having index-point positions arranged in columns, a circuit controlling device which is common to the index-point positions of a column and means, including said circuit controlling device for actuating each contact in said magnet circuit according to the location of the index-point in its column, and means independent of said circuit controlling device for controlling the circuit through said contacts in the magnet circuit.

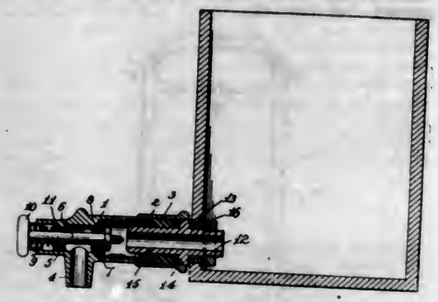
3. In a system such as described, the combination of a tabulating device, a magnet which controls its operation, a plurality of contacts in circuit with said magnet, a record-card having index-point positions arranged in column, the different positions of a column representing different characteristics, a record-controlled circuit controlling device which is common to the index-point positions of a column, means for presenting the index-point positions of a column successively to said circuit controlling device, and means, including said circuit controlling device for actuating each contact in said magnet circuit according to the location of the index-point in its column, to permit the actuation of said tabulating device when the contacts controlling the same have been actuated.

4. In a system such as described, the combination of a tabulating device, a magnet which controls its operation, a plurality of contacts in circuit with said magnet, a record-card having index-point positions arranged in columns, a circuit controlling device which is common to the index-point positions of a column, means for presenting the index-point positions of a column successively to said circuit controlling device, means, including said circuit controlling device for actuating each contact in said magnet circuit according to the location of the index-point in its column, and means independent of said circuit controlling device for controlling the magnet circuit through said contacts.

5. In a system such as described, the combination of a tabulating device, a magnet which controls the operation of said device, a plurality of contacts in said magnet circuit, a relay magnet for operating each of said contacts, a record having index-point positions arranged in column the different positions of a column representing different characteristics, a record-controlled circuit controlling device which is common to all the index-point positions of a column, means for presenting the index-point positions of a column successively to said circuit controlling device, and means for successively connecting the relay magnets with said circuit controlling device.

[Claims 6 to 33 not printed in the Gazette.]

1,030,306. FAUCET AND SUPPORT THEREFOR. WOLCOTT A. HULL, New York, N. Y. Filed Sept. 28, 1911. Serial No. 651,750. (Cl. 137—27.)



1. The combination of two members comprising a faucet and a supporting part, one of said members having a tubular extension provided with a collar and the other having a socket, a piece of tubular packing material fitting inside of said socket, the tubular extension fitting into the bore of the tubular packing, and the collar of the tubular extension fitting the inside of the socket, when the faucet is on the supporting part.

2. The combination of two members comprising a faucet and a supporting part, one of said members having a tubular extension provided with a collar and the other having a socket, a piece of tubular packing material tightly fitting the inside of said socket, the tubular extension slidably fitting into the bore of the tubular packing, and the collar of the tubular extension fitting the inside of the socket, when the faucet is on the supporting part.

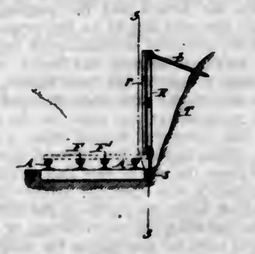
3. The combination of a faucet and a supporting part adapted for use in connection with a water cooler, the faucet having a socket at its rear end and a piece of tubular packing material fitting the inside of said socket, and the supporting part consisting of a tubular body that projects through the outlet hole in the wall of the cooler, and further consisting of a piece of rubber tubing snugly surrounding the tubular body within said hole, said tubing being longer than said hole, a collar on the tubular body in front of the piece of rubber tubing, a tubular extension from the tubular body in front of the collar, said collar fitting the inside of the socket on the faucet, and said tubular extension fitting into the bore of the packing material in said socket, when the faucet is in position on the supporting part, and means on the tubular body of said supporting part for compressing endwise the piece of rubber tubing thereon.

4. The combination of a faucet and a supporting part adapted for use in connection with a water cooler, the faucet having a socket at its rear end and a piece of tubular packing material fitting the inside of said socket, and the supporting part consisting of a tubular body that projects through the outlet hole in the wall of the cooler, and further consisting of a piece of rubber tubing snugly surrounding the tubular body within said hole, said tubing being longer than said hole, a collar on the tubular body in front of the piece of rubber tubing, a tubular extension from the tubular body in front of the collar, said collar fitting the inside of the socket on the faucet, and said tubular extension fitting into the bore of the packing material in said socket when the faucet is in position on the supporting part, and means on the tubular body of said supporting part for compressing endwise the piece of rubber tubing thereon, said means consisting of a nut on the free end of the tubular body, said free end being screw-threaded to receive said nut.

5. The combination of a faucet and a supporting part adapted for use in connection with a water cooler, the faucet having a socket at its rear end and a piece of tubular packing material fitting the inside of said socket, and the supporting part consisting of a tubular body that projects through the outlet hole in the wall of the cooler, and further consisting of a piece of rubber tubing snugly surrounding the tubular body within said hole, said tubing being longer than said hole, a collar on the tubular body in front of the piece of rubber tubing, a tubular extension from the tubular body in front of the collar, said collar fitting the inside of the socket on the faucet, and said tubular extension fitting into the bore of the packing material in said socket, when the faucet is in position on the supporting part, and means on the tubular body of said supporting part for compressing endwise the piece of rubber tubing thereon consisting of an internally threaded member on the free end of the tubular body, said free end being threadcd to engage therewith, and the periphery of the above mentioned collar being flatted to engage a wrench.

[Claims 6 and 7 not printed in the Gazette.]

1,030,307. TRAIN SIGNALING MECHANISM. HAROLD JARVIS, Buffalo, N. Y., and LOUIS RAYMOND JARVIS, Toronto, Ontario, Canada. Filed Sept. 10, 1909. Serial No. 517,024. (Cl. 246—26.)



A train signaling mechanism comprising a railroad track upon which the train runs, an electric conductor arranged lengthwise of said track, an electric translating device arranged on the train and electrically connected with said track and conductor, and means for electrically connecting said conductor and track adapted to be operated by a landslide or avalanche and comprising a grid normally arranged upright adjacent to the side of the track and provided with vertical contact members which electrically connect said conductor and track upon moving said grid into a horizontal position over the track and conductor, posts supported on the ground at the side of the track and pivotally supporting the grid at its lower end and retaining stakes pivotally connected with the upper part of the grid and entering the bank of earth at the side of the road bed.

1,030,308. TELEPHONE INSTALLATION. HERMANN OSWALD KABITZSCH, Hamburg, Germany, assignor to The Firm of Gustav A. Meyer-Henniger, Hamburg, Germany. Filed Sept. 11, 1911. Serial No. 648,756. (Cl. 179—51.)



1. In a telephone system a transmitting apparatus a receiving apparatus an adjustable resistance a plurality of numbered keys at the transmitting station adapted to vary said resistance a voltmeter in the line circuit a fixed wall and a displaceable plate in the receiving apparatus each provided with a plurality of segmental slots, a plurality of segmental numeral bars adapted to be successively adjusted in said slots by the successive oscillations of the index of said voltmeter and means for locking said numeral bars in their adjusted position to give visible indication of the number required.

2. In a telephone system a transmitting apparatus a receiving apparatus an adjustable resistance a plurality of numbered keys at the transmitting station adapted to vary said resistance a voltmeter in the line circuit a fixed wall and a displaceable plate in the receiving apparatus each provided with a plurality of segmental slots arranged concentrically with the axis of the voltmeter index, a plurality of rotatable yoke pieces loosely mounted on a shaft concentric with the axis of said voltmeter index and passing through said slots a plurality of segmental numeral bars adapted to be successively adjusted in said slots by the successive oscillations of said voltmeter index and means for locking said numeral bars in their adjusted position to give visible indication of the number required.

3. In a telephone system a transmitting apparatus a receiving apparatus an adjustable resistance a plurality of numbered keys at the transmitting station adapted to vary said resistance a voltmeter in the line circuit a fixed wall and a displaceable plate in the receiving apparatus each provided with a plurality of segmental slots arranged concentrically with the axis of the voltmeter index, a plurality of rotatable yoke pieces loosely mounted on a shaft concentric with the axis of said voltmeter index and passing through said slots a resilient hook bar arranged on the free end of said voltmeter index a plurality of segmental numeral bars carried by said yoke pieces and adapted to be successively adjusted in said slots by the successive oscillations of said voltmeter index and means for locking said numeral bars in their adjusted position to give visible indication of the number required.

4. In a telephone system a transmitting apparatus a receiving apparatus an adjustable resistance a plurality of numbered keys at the transmitting station adapted to vary said resistance a voltmeter in the line circuit a fixed wall and a displaceable plate in the receiving apparatus each provided with a plurality of segmental slots arranged concentrically with the axis of the voltmeter index, a plurality of rotatable yoke pieces loosely mounted on a shaft concentric with the axis of said voltmeter index and passing through said slots a resilient hook bar arranged on the free end of said voltmeter index a plurality of segmental numeral bars carried by said yoke pieces and adapted to be successively adjusted in said slots by the successive oscillations of said voltmeter index and means for locking said numeral bars in their adjusted position to give visible indication of the number required and means for releasing said bars.

5. In a telephone system a transmitting apparatus a receiving apparatus and means for giving visible indication at the exchange of the number required and means under the control of the exchange for giving a subscriber a visible signal of permission to notify the number required or a visible sign that the desired connection cannot be made.

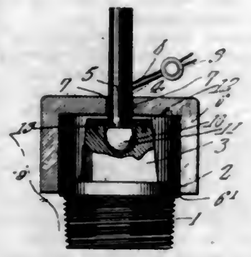
[Claims 6 to 13 not printed in the Gazette.]

1,030,309. SEAL-PLUG. JACOB B. KITTS, Sr., Darby, Pa. Filed June 13, 1911. Serial No. 632,976. (Cl. 137—76.)

1. A seal plug, comprising a body having a wrench engaging shouldered portion, and a threaded end, a casing fitting over said shouldered portion and provided with a central aperture and a stem having its lower end rotatably mounted in said shouldered portion extending exterior of the casing, said extended end forming a seal attaching stem.

2. A seal plug, comprising a body having a wrench engaging shouldered portion, and a threaded end, a casing

fitting over said shouldered portion and provided with a central aperture, said shouldered portion being provided with a centrally disposed socket, and a stem having a globular lower end fitted within the socket of the shouldered portion, the body of the stem extending through the central aperture of the casing and forming a seal attaching portion.



3. A seal plug, comprising a body having a wrench engaging shouldered portion provided with a globular socket centrally thereof, the other end thereof being threaded, a cylindrical stem provided with a globular end rotatably mounted in the socket of the shouldered portion, a plate mounted upon the said shouldered portion and about the stem to lock the globular end of the stem within the socket, and a casing fitting over said shouldered portion and provided with a central aperture through which said stem passes, said extended end of the stem forming a seal attaching portion.

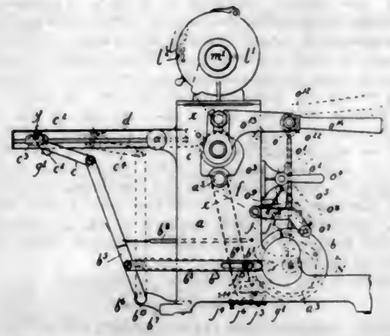
4. A seal plug, comprising a body having a wrench engaging shouldered portion, and a threaded end, a casing fitting over said shouldered portion and provided with a central aperture, a stem provided with a seal attaching portion, said stem being adapted to project through the central aperture of the casing, and coacting means carried by the shouldered portion and the lower end of the stem for rotatably mounting the stem within the shouldered portion.

5. A seal plug having a body provided with a wrench engaging shouldered portion, and a threaded end, a casing fitting over said shouldered portion and provided with a concentric aperture therethrough, a cylindrical stem provided with a seal attaching portion and with a ball upon its lower end, said body portion being provided with a globular socket to receive the ball of the stem, said stem being disposed to pass through the concentric aperture of the casing, as the seal attaching portion thereof projects without the casing, a plate having a concentric aperture fitted upon the outer face of the body and fitting about the stem above the ball upon the end thereof, and means for securing the plate to the shouldered portion of the body to permit the rotation of the stem and to retain the ball within the socket.

1,030,310. LETTER-COPYING APPARATUS. AUGUSTUS DAVID KLABER, London, England. Filed Jan. 31, 1911. Serial No. 605,768. (Cl. 100—67.)

1. A letter copying apparatus comprising frames supporting a roll of copying paper, a table for the letters to be copied, pressure rolls between which the copying paper and the letters are passed, fingers feeding said letters to said rolls, said fingers during their noneffective movement being disposed beneath the surface supporting the letters, a take up roller for the copying paper, a knife for cutting the copying paper when coiled upon the take up roll, means for preventing the drying of the copying paper when in the apparatus and means for securing the convolutions of the copying paper before it is cut.

2. Letter copying apparatus comprising frames supporting a roll of copying paper, means for keeping said paper moist, a table for the letters to be copied, pressure rolls between which the letters and the copying paper pass, fingers feeding the said letters to the pressure rolls, the said fingers being pivotally mounted upon supports sliding upon guides arranged beneath the letter table, an arm connected to the pivots of the feed fingers, a lever connected at one end to the arm upon the feed finger pivots and pivotally mounted at the other to the frame of the apparatus, a link connected to said lever, a guide for the link, a spring acting against the outward movement of the lever, a roller upon the end of said link, a take up roll for the copying paper, a cam upon the spindle of the take up roller upon which bears the roller on the feed finger lever link, means for securing the convolutions of the paper on the take up roll together and means for cutting the paper upon the take up roll.



3. Letter copying apparatus comprising frames supporting a roll of copying paper, means for keeping said paper moist, a table for the letters to be copied, pressure rolls between which the letters and the copying paper pass, fingers feeding the said letters to the pressure rolls, the said fingers being pivotally mounted upon supports sliding upon guides arranged beneath the letter table, an arm connected to the pivots of the feed fingers, a lever connected at one end to the arm upon the feed finger pivots and pivotally mounted at the other to the frame of the apparatus, a link connected to said lever, a guide for the link, a spring acting against the outward movement of the lever, a roller upon the end of said link, a take up roll for the copying paper, a cam upon the spindle of the take up roller upon which bears the roller on the feed finger lever link, means for securing the convolutions of the paper on the take up roll together and means for cutting the paper upon the take up roll.

4. Letter copying apparatus comprising frames supporting a roll of copying paper, means for keeping said paper moist, a table for the letters to be copied, pressure rolls between which the letters and the copying paper pass, fingers feeding the said letters to the pressure rolls, the said fingers being pivotally mounted upon supports sliding upon guides arranged beneath the letter table, an arm connected to the pivots of the feed fingers, a lever connected at one end to the arm upon the feed finger pivots and pivotally mounted at the other to the frame of the apparatus, a link connected to said lever, a guide for the link, a spring acting against the outward movement of the lever, a roller upon the end of said link, a take up roll for copying paper, a cam upon the spindle of the take up roller upon which bears the roller on the feed finger lever link, means for applying an adhesive to the convolutions of the paper as they are coiled upon the take up roller, and means for cutting the paper on the take up roll.

5. Letter copying apparatus comprising frames supporting a roll of copying paper, means for keeping said paper moist, a table for the letters to be copied, pressure rolls between which the letters and the copying paper pass, fingers feeding the said letters to the pressure rolls, the said fingers being pivotally mounted upon supports sliding upon guides arranged beneath the letter table, an arm connected to the pivots of the feed fingers, a lever connected at one end to the arm upon the feed finger pivots and pivotally mounted at the other to the frame of the apparatus, a link connected to said lever, a guide for the link, a spring acting against the outward movement of the lever, a roller upon the end of said link, a take up roll for the copying paper, a cam upon the spindle of the take up roller upon which bears the roller on the feed finger lever link, means for applying an adhesive to the convolutions of paper as they are coiled upon the take up roller, such means comprising a gum reservoir, a roller rotating in said reservoir, a lever carrying a second roller, means for intermittently causing said roller to contact with the gum roller and the copying paper, and means for cutting the paper on the take up roller.

[Claims 6 to 8 not printed in the Gazette.]

1,030,311. ACETYLATION OF CELLULOSIC MATERIALS. JOSEPH KOETSCHET and MAX THEUMANN, Lyon, France, assignors to Société Chimique Des Usines Du Rhone, anciennement Gillard, P. Monnet et Cartier, Paris, France. Filed Dec. 8, 1911. Serial No. 664,673. (Cl. 23—24.)

1. A process for acetylizing a cellulosic body, comprising subjecting the same to the action of acetic anhydrid vapors.

2. A process for acetylizing a cellulosic body, comprising subjecting the same to the action of acetic anhydrid vapors at reduced pressure.

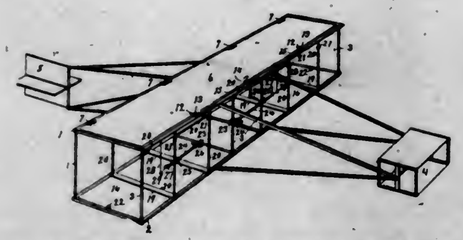
3. A process for acetylizing a cellulosic body, comprising subjecting the same in a heated state to the action of acetic anhydrid vapors.

4. A process for acetylizing a cellulosic body, comprising treating the same with an acetylation promoting agent and subjecting the material so treated to the action of acetic anyhdrid vapors.

5. A process for acetylizing a cellulosic body, comprising treating the same with an acid, and subjecting the material so treated to the action of acetic anhydrid vapors.

[Claims 6 to 12 not printed in the Gazette.]

1,030,312. AEROPLANE. HENRY LAPRISE, Holyoke, Mass. Filed Aug. 21, 1911. Serial No. 645,274. (Cl. 244—21.)



1. An aeroplane provided with storage places for collapsed floats, and collapsible floats having bottom openings, said floats being adapted to be packed in the spaces provided therefor and to be released from such spaces and expanded and filled with air from below.

2. An aeroplane provided with a storage place for a collapsible parachute and with storage places for collapsed floats, a parachute adapted to be packed in the space provided therefor and to be released therefrom for action, and collapsible floats having bottom openings, said floats being adapted to be packed in the spaces provided for them and to be released therefrom and expanded and filled with air from below.

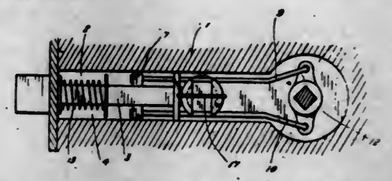
3. The combination with a recessed aeroplane top, such top being provided over the recess therein with a cover which has one longitudinal edge articulated to said top adjacent to one longtudinal edge of the latter, and further provided adjacent to the other longitudinal edge with fastening means for the corresponding longitudinal edge of such cover, of a parachute attached to said top and adapted to be packed into the recess under said cover, and manually-operated means to unfasten said cover to release said parachute.

4. The combination with a recessed aeroplane top, such top being provided over the recess therein with a cover and further provided with pivotally mounted members capable of locking and releasing said cover, of a parachute and flexible means for attaching said parachute to said top, said parachute and said flexible means being adapted to be packed into the recess under said cover, a rotatable member mounted on said top, and flexible members connecting said pivotally mounted members with said rotatable member, the arrangement being such that said cover may be unfastened and released upon turning said rotatable member.

5. The combination with a recessed aeroplane top, such top being provided over the recess therein with a cover, of means to fasten and unfasten said cover, flexible members secured to said top and certain of such members being slidingly connected with said cover, and a parachute secured to said flexible members, such flexible members and parachute being adapted to be packed into the recess under said cover.

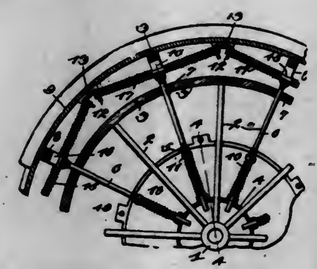
[Claims 6 to 14 not printed in the Gazette.]

1,030,313. DOOR-LOCK. WILLIAM D. MARKLEY, Harrisburg, Pa. Filed May 9, 1910. Serial No. 560,240. (Cl. 70—29.)



A lock consisting of a casing, a bolt slidable therein, a cylinder with an opening therein in said casing, means for engaging and disengaging said bolt and said cylinder, a shaft, rods connecting said shaft and said bolt, and guides on said cylinder for said rods.

1,030,314. SPRING-WHEEL. ALVIN R. MCENTIRE, Folsom, Ga. Filed Feb. 15, 1912. Serial No. 677,681. (Cl. 152—28.)

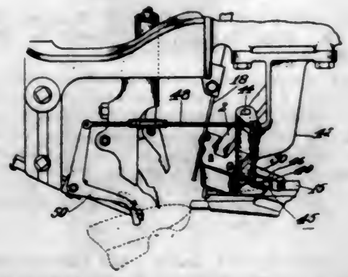


1. In a vehicle wheel, the combination of a hub, a plurality of radial spokes projecting therefrom, a felly secured to the outer end of said spokes, a hub casing secured to said hub, having a plurality of radial openings formed therein, auxiliary spokes having their inner ends slidably mounted in said openings, an adjusting nut threaded on said auxiliary spokes, coil springs arranged between said hub casing and nuts, an enlarged end formed on the outer end of said auxiliary spokes, having elongated openings therein, an outer rim supported by the outer ends of said auxiliary spokes, brackets secured to the inner side of said rim, rods having their ends mounted in said brackets and disposed through the elongated openings in the ends of the auxiliary spokes, and coil springs mounted on said rods and arranged between the ends of the auxiliary spokes and said brackets.

2. In a vehicle wheel, the combination of a hub, a casing therefor, spokes having their inner ends slidably mounted in said casing, adjusting nuts threaded on said spokes, coil springs mounted on the spokes and arranged between said casing and adjusting nuts, a dust guard inclosing said

casing and springs, enlarged ends formed on said spokes, having elongated openings formed therein, a rim supported by the outer ends of said spokes, brackets secured to the inner side of said rim, having openings formed therein, rods having their ends mounted in said openings and disposed through the elongated opening in the ends of the spokes, coil springs mounted on said rods and arranged between the ends of the spokes and said brackets, and a dust guard secured to the outer rim of the wheel and adapted to inclose said springs.

1,030,315. TACK-FEEDING MECHANISM. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 16, 1908. Serial No. 433,274. (Cl. 1—18.)



1. In a machine of the class described, the combination with tack separating and delivering devices and means for actuating said devices to feed a plurality of tacks in uninterrupted succession during continued operation of the machine, of means under control of the operator for interrupting the delivery of tacks with a tack in the separating devices without interrupting the operative connection of the actuating mechanism with said devices.

2. In a machine of the class described, the combination with a raceway, tack delivering devices including a tack separator, and means for actuating said devices, of means controlled by the position of the work for locking the delivering devices with the separator in tack receiving relation to the raceway and a tack therein ready to be delivered when the devices are unlocked.

3. In a machine of the class described, the combination with tack separating devices, of actuating means therefor including a yielding element which moves a member of the separating devices in the direction to effect the separation of the tacks, and a latch arranged to be positioned for preventing that operation of the said devices which is normally effected by said yielding element.

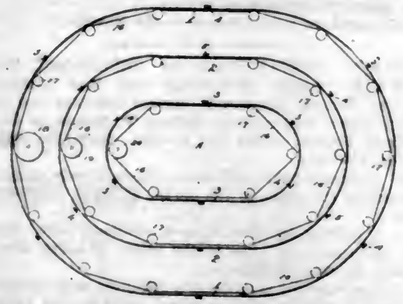
4. In a machine of the class described, the combination with tack delivering devices, of means for actuating said devices in one direction, means for yieldingly actuating said devices in another direction, and means arranged to be engaged by the work to control the movement of said devices by the yielding means.

5. In a machine of the class described, the combination with the tack delivering devices 6, 4, 40, the spring 35 for actuating said devices in one direction, means for reversely actuating said devices, the swinging latch 45, the spring 46 arranged to swing the latch 45 into locking engagement with the shoulder 40 substantially as described, and the controlling device 50 arranged to be engaged by the shoe for withdrawing the latch from holding relation to the shoulder 40.

[Claims 6 to 9 not printed in the Gazette.]

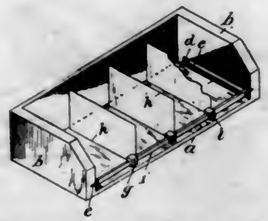
1,030,316. AMUSEMENT APPARATUS. JOHN E. MCREYNOLDS, Seattle, Wash. Filed June 14, 1911. Serial No. 633,036. (Cl. 104—111.)

1. An amusement apparatus comprising a platform, a trackway thereon, an endless cable traveling adjacent to said trackway, guide sheaves for said cable, a drive wheel engaging with the cable, a shaft connected to said wheel, a second shaft, gearing between the first-named shaft and the second shaft, means for varying the speed of the revolution of the shaft, a carriage traveling on the trackway, and connections between said carriage and cable.



2. An amusement apparatus comprising a platform, a plurality of trackways arranged thereon and located one within the other, a traveling cable for each of said trackways, guide sheaves for the cables, carriages traveling on said trackways, and flexible connections with the carriages and the cables, each connection comprising a socket member secured to the carriage and sleeve of the cable and a short cable between the socket and sleeve, a support carried by the carriage, means for driving the endless cables and means for varying the speed of the drive of the cables.

1,030,317. SEPARATING-CASE. CARLISLE H. MIDDAUGH, Lawrenceville, Pa. Filed Oct. 26, 1911. Serial No. 656,908. (Cl. 45—53.)



1. The combination, with a holder having ends provided with grooves, of bars fitted movably to the grooves, a guide-rod connecting the bars, and partitions having a movable connection with the guide-rod, whereby the rod and partitions can be simultaneously removed from the holder.

2. The combination, with a holder having ends provided with grooves, of bars fitted movably to the grooves, a guide-rod connecting the bars, and partitions having a movable connection with the guide-rod, such partitions being formed of a thin flexible elastic metal to facilitate the removal of the papers.

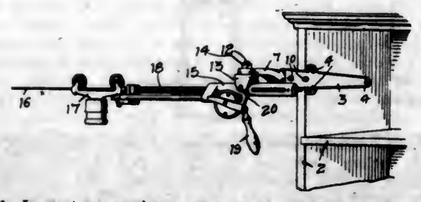
3. The combination, with a holder having ends provided with grooves, of bars fitted movably to the grooves and connected by a guide-rod, blocks fitted movably to the guide-rod, and partitions attached to the blocks and projected therefrom between the bars.

4. The combination, with a cabinet having a vertical series of holders for papers with a door at the rear end of each holder, and each holder having grooves at the bottom of its ends, of bars fitted removably to the grooves, a guide-rod connecting such bars and having blocks movable thereon and partitions attached thereto with space between the rear ends of such partitions and the rear doors of the cabinet, whereby the papers can be grasped at the rear end without interference from the partitions when the rear doors are opened.

5. A cabinet having a series of holders, guide-rods mounted removably at the front edge of each holder with partitions projected part way to the back of the cabinet, doors upon the front of the cabinet exposing all of the holders, and a series of doors at the back of the cabinet for exposing each holder separately.

[Claim 6 not printed in the Gazette.]

1,030,318. STORE-SERVICE APPARATUS. CHARLES J. MILLER, Minneapolis, Minn. Filed Nov. 21, 1910. Serial No. 593,429. (Cl. 186—34.)



1. In a store service apparatus, a bracket having means for atachment to a shelf or riser, a pin journaled in said bracket and adapted to rotate therein and provided with means for locking it against premature rotation, said pin having an attaching plate offset from its axis, a yoke having a pivot pin fitting within a socket in said plate, a line wire connected with said yoke, the pivot of said yoke being substantially vertical and the rotation of said plate and pin allowing the level of said line wire to be changed with respect to said bracket.

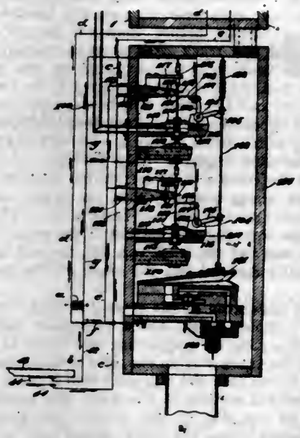
2. In a store service apparatus, a line station support comprising a bracket having means for attachment to a horizontal shelf or riser, a pin fitting within a socket in said bracket and capable of rotation therein and having a locking means, said pin having a plate that is offset from the axis of said pin, means for connecting a line wire to said plate, the partial rotation of said plate and pin raising or lowering the point of connection of the line wire to said plate to vary the degree of elevation of said line wire.

3. In a store service apparatus, a horizontal bracket having means for attachment to a horizontal or upright support, a pin having a bearing on said bracket and capable of rotation therein and provided with a locking means, said pin having a part that is offset with respect to the axis of said pin and provided with a socket, a yoke having a stud swiveled in said socket, a barrel carried by said yoke and having means for attaching a line wire thereto, the rotation of said pin in its bearing operating to raise or lower said yoke and said line wire.

1,030,319. SOSTENUTO ATTACHMENT FOR ELECTROPNEUMATIC INSTRUMENTS. LORENZO E. MOREL, St. Hyacinthe, Quebec, Canada. Filed Apr. 16, 1910. Serial No. 555,827. (Cl. 84—95.)

1. An electro-pneumatic musical instrument comprising a wind-chest and a bellows controlling the sounding of a note, an electro-magnet and valve controlling the supply of air from said wind-chest to said bellows and its escape from the latter, a key, contacts and conductors making circuit through said electro-magnet at will, a movable part and tubular connections between the same and said bellows whereby said bellows and movable part are moved simultaneously, also a primary bellows and its wind-chest, an electro-magnet controlling the action of said bellows, means operated by said movable part to make a brief circuit through the latter magnet and circuit-closing devices operated by said bellows to maintain circuit through the first-mentioned magnet, thus sustaining the note, substantially as set forth.

2. An electro-pneumatic musical instrument comprising a series of bellows 6, each controlling the sounding of a note, a primary bellows 101, a series of electro-magnets 34, each arranged to control a bellows 6, conductors making circuit through each of said magnets at will, an electromagnet 122 and its electrical connections controlling the primary bellows 101, and circuit-closing devices actuated by the exhaust of any bellows 6 for making circuit through magnet 122, the said devices including a movable part actuated by said primary bellows and adapted to hold the circuit closed through the magnet 34 of said bellows 6 while said part is in actuated position and electrical connections making circuit independently through each of the magnets 34 as its circuit is thus closed, said part being freed by the closing of the circuit through the next magnet 34 which is operated for the purpose set forth.



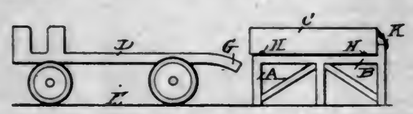
3. An electro-pneumatic musical instrument comprising a series of bellows 6, each controlling the sounding of a note, a primary bellows 101, a series of electro-magnets 34, each arranged to control a bellows 6, conductors making circuit through each of said magnets at will, an electromagnet 122 and its electric connections controlling the primary bellows 101 and circuit-closing devices actuated by any bellows 6 and making momentary circuit through magnet 122, said circuit-closing devices comprising a spring actuated rock shaft and two contacts held together thereby for maintaining circuit through any one of said magnets 34 until the next note is sounded, said rock shaft being connected to and actuated by bellows 101 for freeing said finger and contacts on the deflation of the latter bellows.

4. An electro-pneumatic musical instrument comprising a series of bellows each controlling the sounding of a note, a series of electro-magnets 34 and their armatures governing said bellows respectively, a bellows and circuit-closing devices actuated thereby for sustaining in each instance the energy of the magnet and the sounding of the note, a magnet controlling the action of the latter bellows, circuit-closing devices for energizing the latter magnet and means operated as the result of the exhaust of the first named bellows for actuating these circuit closing devices.

5. An electro-pneumatic musical instrument comprising pneumatic means for causing the sounding of a note, a valve which governs the exhaust of said pneumatic means, an electro-magnet which operates the said valve, sostenuto mechanism comprising a pneumatic device, an electro-magnet governing the same, circuit-closing devices for the latter magnet, a conduit connected with the exhaust outlet of the first-mentioned pneumatic means, a diaphragm at the end of said conduit arranged to operate said circuit-closing devices, and additional circuit-closing devices operated by the sostenuto pneumatic devices to make and sustain the circuit through the first mentioned magnet.

[Claims 6 to 10 not printed in the Gazette.]

1,030,320. MEANS FOR LOADING AND UNLOADING MOTOR-TRUCKS. RALPH L. MORGAN, Worcester, Mass. Filed Feb. 16, 1911. Serial No. 609,036. (Cl. 214—1.)



1. In an apparatus of the class described, the combination with a motor truck, and a removable crate or body therefor, of a slip for supporting the crate or body into which slip the truck may be run, the platform of said truck being slightly higher than the top of said slip, whereby when the truck with a crate thereon runs into the slip the crate will be supported on the truck over the slip so that if the crate is fastened at its rear end and the truck run out the crate will be deposited on the slip.

2. In an apparatus of the class described, the combination with a motor truck having a relatively fixed platform, and a removable crate or body therefor, of a slip for supporting the crate or body into which slip the truck may be run, and means whereby when the truck with a crate thereon runs into the slip the crate will be supported on the platform over the slip so that if the crate is fastened at its rear end and the truck run out, the end of the crate will gradually descend and the crate will be deposited on the slip.

3. In an apparatus of the class described, the combination with a motor truck, and a removable crate or body therefor, of a slip for supporting the crate or body into which slip the truck may be run, and means whereby when the truck is run into the slip on which a crate is located, the longitudinal motion of the truck will gradually raise the crate off the slip, so that it will rest wholly on the truck, whereby when the truck moves out it will carry the crate with it.

4. In an apparatus of the class described, the combination with a motor truck having a relatively fixed platform, and a removable crate or body therefor, of a slip for supporting the crate or body into which slip the truck may be run, and means whereby when the truck is run into the slip on which a crate is located, the longitudinal motion of the platform truck will gradually raise the end of the crate off the slip.

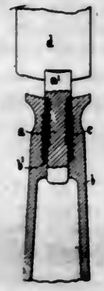
5. In an apparatus of the class described, the combination with a motor truck having a relatively fixed platform, and a removable crate or body therefor, of a slip for supporting the crate or body into which slip the truck may be run, and means on the crate whereby when the truck with a crate thereon runs into the slip the longitudinal motion of the truck will cause the crate to be supported on the platform over the slip so that if the crate is fastened at its rear end and the truck runs out, the crate will be deposited on the slip.

[Claims 6 to 8 not printed in the Gazette.]

1,030,321. PROCESS OF FIXING THE TANGS OF TABLE-CUTLERY, TOOLS, AND THE LIKE IN THEIR HANDLES. ARTHUR MÜLLER and ERNST MÜLLER, Berlin, Germany. Filed Sept. 26, 1911. Serial No. 651,365. (Cl. 76—104.)

1. The hereindescribed process of fixing the tangs of table-cutlery, tools and the like in their handles, which consists in first assembling the handle, the shouldered tang, and a liner thereon in a cavity in the handle, and then applying to the liner force of such a nature that the liner will be upset and expanded into binding contact with the tang and with the wall of the cavity, thereby forming a key.

2. The hereindescribed process of fixing the tangs of table-cutlery, tools and the like in their handles, which consists in first assembling the handle, the shouldered tang and a liner thereon in a cavity having a shoulder, and then applyng to the liner force of such a nature that the liner will be upset between the shouldered tang and the shoulder in the cavity and thus expanded into binding contact with the tang and with the wall of the cavity, thereby forming a key.

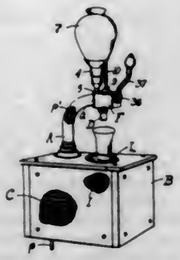


3. The hereindescribed process of fixing the tangs of table cutlery, tools and the like in their handles, which consists in first assembling the handle, the shouldered tang, partly notched, and a liner thereon in a cavity, having a shoulder and a notched wall, in the handle and then applying to the liner force of such a nature that the liner will be upset between the shoulder of the tang and the shoulder in the cavity and thus expanded into binding contact with the notches in the tang and in the cavity, thereby forming a key.

4. The hereindescribed process of fixing the tangs of table cutlery, tools and the like in their handles, which consists in first assembling the handle, the shouldered tang, having a reduced notched portion, and a soft metal liner thereon in a cavity having a shoulder in the handle, and then applying to the liner force of such a nature that the liner will be upset between the shoulder of the tang and the shoulder in the cavity and thus expanded into binding contact with the notches in the tang and with the wall of the cavity, thereby forming a key.

5. The hereindescribed process of fixing the tangs of table cutlery, tools and the like in their handles, which consists in first assembling the handle, the shouldered tang, having a reduced notched portion, and a soft metal liner thereon in a cavity, having a shoulder and a notched wall, in the handle, and then applying to the liner force of such a nature that the liner will be upset between the shoulder of the tang and the shoulder in the cavity and thus expanded into binding contact with the notches in the tang and in the wall of the cavity, thereby forming a key.

1,030,322. FAUCET. DAVID E. J. NOONAN, St. Louis, Mo. Filed Feb. 28, 1910. Serial No. 546,392. (Cl. 225—26.)



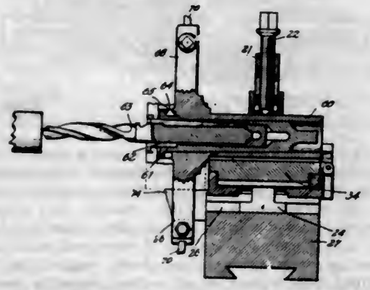
1. A faucet comprising a body portion chambered for the passage of water and syrup from suitable sources of supply and having a discharge opening, suitable fine and coarse stream water-passage-ways spaced apart and connecting said water-supply source with the discharge opening, a movable valve-piece provided with a valve or formation for releasing the water from the supply source to the fine stream passage-way with a definite range of movement of the valve-piece, with a second formation or valve spaced from the first valve for releasing the water from the supply source to the coarse-stream passage way with a further range of movement of the valve-piece in the same direction, with a third valve or formation for releasing the syrup from the supply source with a still further range of movement in the same direction, a seat on the faucet body for the first mentioned valve, the water being adapted to flow through the coarse-stream passage-way upon a movement of the second valve past the valve-seat aforesaid, and during the flow of the syrup.

2. A faucet comprising a body portion chambered for the passage of water and syrup from suitable sources of supply, and having a discharge opening, suitable fine and coarse stream water- passage-ways spaced apart and connecting said water-supply source with the discharge opening, a reciprocating valve-piece provided with a valve for releasing the water from the supply source to the fine stream passage-way with a definite range of stroke of the valve-piece, with a second valve spaced from the first valve for releasing the water to the coarse-stream passage-way with a further range of stroke in the same direction, with a third valve for releasing the syrup with a still further range of stroke in the same direction, a seat on the faucet body for the first mentioned valve, the water being adapted to flow through the coarse-stream pasage-way upon a movement of the second valve past the valve-seat aforesaid, and during the flow of the syrup.

3. A faucet comprising a body portion chambered for the passage of water and syrup from suitable sources of supply, and having a discharge opening, suitable fine and coarse stream water-passage-ways spaced apart and connecting said water-supply source with the discharge opening, a reciprocating valve-piece provided with a valve for releasing the water from the supply source to the fine-stream passage-ways with a definite range of stroke of the valve-piece, with a second valve spaced from the first valve for releasing the water to the coarse-stream passage-way with a further range of stroke in the same direction, with a third valve for releasing a measured quantity of the syrup with a still further range of stroke in the same direction, a seat on the faucet-body for the first mentioned valve, the water being adapted to flow through the coarse-stream passage-way upon a movement of the second valve past the valve-seat aforesaid, and during the discharge of the syrup.

4. In combination with a faucet having a reciprocating control-valve, an oscillating lever having a basal portion provided with a cavity terminating in outwardly inclined walls of different depths, said walls engaging the valve, whereby with an oscillation of the lever in one direction the valve is actuated a distance in excess of that to which it is moved by an oscillation of the lever in the opposite direction.

1,030,323. LATHE ATTACHMENT. JOHN M. PALMER, Chicago, Ill., assignor to Universal Tool Company, Chicago, Ill., a Corporation of Illinois. Filed July 17, 1907. Serial No. 384,167. (Cl. 29—48.)

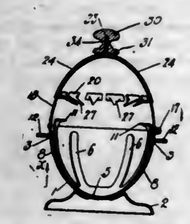


1. In combination, a lathe carriage, a tool post, a turret head carrying a plurality of lathe tools and having a spindle substantially parallel with the shears of the lathe and rotatably mounted in said tool post, and a latch mounted on said lathe carriage, said latch permitting the rotation of the turret head in one direction but supporting and engaging the turret head to prevent rotation in the reverse direction, substantially as described.

2. In combination a lathe carriage, a tool post, a turret head carrying a plurality of salient arms for the reception of lathe tools and having a spindle substantially parallel with the shears of the lathe and rotatably mounted in said tool post, and a latch mounted on said lathe carriage, said latch being movable to permit the rotation of the turret head in one direction but supporting and engaging said arms to prevent rotation in the reverse direction, substantially as described.

3. In a lathe attachment, a turret head for carrying a plurality of lathe tools, and a substantially concentric shank extending therefrom, said head and shank having a tool receiving socket therein.

1,030,324. EGG-CUP. JAMES E. P. PENDER, Providence, R. I., assignor to Bristol Jewelry Company, Incorporated, a Corporation of Rhode Island. Filed Feb. 7, 1912. Serial No. 675,925. (Cl. 65—22.)



1. In an egg cup, the combination with a hollow body, of a hollow cover pivotally connected with said body and resilient means within the body following the contour of said body and having inwardly extended upper ends and outwardly disposed portions rigid with said resilient means extended through the walls of said body.

2. In an egg cup, the combination with a hollow body, of a hollow non-rotatable cover pivotally connected with the body and provided with openings, yielding means in the body adapted to embrace an egg, plates pivotally mounted at their ends to the exterior of the cover and conforming to the curvature thereof, and teeth upon the plates extending through the openings.

3. In an egg cup, the combination with a hollow body, of a non-rotatable cover pivotally connected to the body and provided with openings intermediate its length, plates pivotally connected at their upper ends to the exterior of the cover and curved to conform with the surface of the cover, and teeth projecting inwardly from the plates and extending through the openings into the interior of the cover.

4. In an egg cup, the combination of a hollow body provided with diametrically opposite openings, a non-rotatable cover pivotally connected with the body, a plate in the body provided with upwardly directed, radially disposed, resilient fingers, inwardly directed teeth upon the free ends of two of the fingers, and projections upon the toothed fingers extending loosely through the openings.

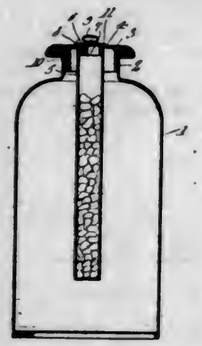
5. In an egg cup, the combination with a hollow body provided with openings in its side, of a cover pivotally connected to the body, a plate in the body provided with upwardly directed, resilient fingers, and projections upon the fingers extending through the openings.

[Claims 6 to 8 not printed in the Gazette.]

1,030,325. MILK-CAN. CHARLES B. PEOPLES and ALBERT E. YELTON, Butler, Ky. Filed Feb. 28, 1912. Serial No. 679,433. (Cl. 31—82.)

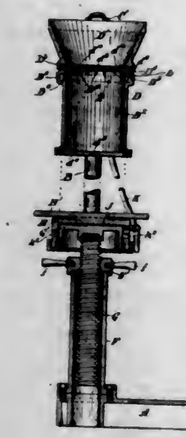
In combination with a milk can embodying a contracted neck and its cover seatable on the neck and having a flange

adapted to fit in the neck and provided with an axial opening, of a tubular receptacle passing through the said opening, depending axially within the can in a spaced relation to its body, bottom and neck, having its upper end out-turned to provide a flange seating on and soldered to



the cover for solely supporting the receptacle by the cover, and adapted for the reception of a cooling agent, and a stopper insertible in the upper end of the receptacle and having an upper flange seatable on the former flange so that the stopper lies approximately flush with the cover.

1,030,326. CORE-MAKING MACHINE. CHARLES C. PETERSON, Oil City, Pa. Filed May 4, 1911. Serial No. 625,103. (Cl. 22—36.)



1. In a core-making machine, the combination of a sand-holder; pneumatically operated means for establishing communication between the interior of said holder and a core-box; means for introducing air under pressure into said holder, whereby the sand therein may be discharged therefrom; a common source of pneumatic pressure connected with said means for establishing communication and said means for introducing air under pressure; and means for controlling the flow of air through said two means, whereby the air-pressure is introduced into said holder after communication between said holder and core-box has been established.

2. In a core-making machine, the combination of a sand-holder; pneumatically operated means for establishing communication between the interior of said holder and a core-box; means for introducing air under pressure into said holder whereby the sand therein may be discharged therefrom into said sand-box; a common source of pneumatic pressure connected with the means for establishing communication and the means for introducing air under pressure; and means for controlling the flow of air from said source whereby said first-named means are first actuated and said second-named means actuated subsequently thereto.

3. In a core-making machine, the combination of a sand-holder; pneumatically operated means for establishing communication between the interior of said holder and a core-box; means for introducing air under pressure into said holder whereby the sand therein may be discharged therefrom into said sand-box; a common source of pneumatic pressure connected with the means for establishing communication and the means for introducing air under pressure; and means for automatically controlling the flow of air from said source whereby said first-named means are first actuated and said second-named means actuated subsequently thereto.

4. In a core-making machine, the combination of a sand-holder having a discharge opening therein; a table for receiving the core-box and movable toward and from said holder, whereby the said box may be brought into contact with said holder and into communication with said opening; a source of pneumatic pressure; means connecting such source with said holder and said table; and means for controlling such connection and arranged to first effect the movement of the table toward said holder, and subsequently automatically connect said holder with such source.

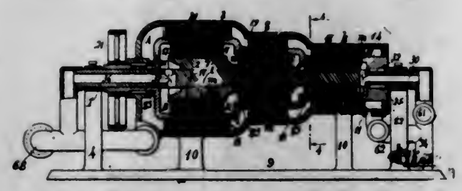
5. In a core-making machine, the combination of a sand-holder having a discharge opening therein; a table for receiving the core-box and movable toward and from said holder, whereby the said box may be brought into contact with said holder and into communication with said opening; a source of pneumatic pressure; means connecting said source with said holder and with said table, and communicating with the atmosphere; and means for controlling such connection, adapted first to effect the movement of said table, and subsequently automatically and successively connect said source with said holder and with the atmosphere.

[Claims 6 to 10 not printed in the Gazette.]

1,030,327. CARBOSILICON. HENRY NOEL POTTER, New Rochelle, N. Y., assignor to George Westinghouse, Pittsburgh, Pa. Filed Mar. 22, 1904. Serial No. 199,507. (Cl. 204—62.)

The process of producing carbo-silicon which consists in pressing powdered silicon carbid and a binding material into a compact form and then bringing it into contact with molten silicon.

1,030,328. TURBINE. WILLIAM ROBINSON, Brooklyn, N. Y. Filed Dec. 7, 1909. Serial No. 531,871. (Cl. 121—58.)



1. In a turbine embodying a rotor and a stator forming a working chamber, and blades therein coöperating to drive the rotor, the stator formed with peripheral channels for the reception of working elements, and a series of carrying plates following one another therein in succession, thus forming a series of sectional stationary blade-bearing rings, the carrying plates, respectively, being provided with a plurality of working elements consisting of driving or guide blades and obstruction vanes or plates, impervious to the passage of steam, alternating at suitable intervals with said guide blades, the succeeding carrying plates locking the preceding in position in said channels, the last plate therein locking the preceding series of plates in position, and an independent locking device for locking the last carrying plate in position.

2. In a turbine embodying a rotor and a stator forming a working chamber, and blades therein coöperating to drive the rotor, the stator formed with peripheral dovetailed channels for the reception of working elements, and a series of carrying plates following one another therein in succession, thus forming a series of sectional stationary blade bearing rings, the carrying plates, respectively, being provided with a plurality of working elements consisting of driving or guide blades and obstruction vanes or plates, impervious to the passage of steam, alternating at suitable intervals, with said guide blades, the succeeding carrying plates locking the preceding in position in said channels, the last plate therein locking the preceding series of plates in position, and an independent locking device for locking the last carrying plate in position, the fixed blade ring nearest the entrance end of the turbine having fewest driving or guide blades and the driving blades in the succeeding fixed rings gradually increasing in number toward the exhaust end of the turbine.

3. In a turbine engine comprising a rotor and a stator forming a working chamber, and blades therein coöperating to drive the rotor, the stator provided with a series of peripheral dove-tailed channels, a series of carrying plates fitting closely in said channels, following one another in succession therein and provided with driving blades alternating at intervals with obstruction vanes impervious to the passage of steam, said driving blades and obstruction vanes being arranged in pre-determined relative succession upon said carrying plates, the succeeding carrying plates locking the preceding in position in said channels, the last plate therein locking the preceding series of plates in position, and an independent locking device for locking the last carrying plate in position.

4. In a turbine engine comprising a rotor and a stator provided with peripheral dove tailed channels, the stator thereof embodying a series of working elements consisting of independent carrying plates following one another in succession in said channels, said plates being provided with a plurality of driving blades and obstruction vanes for obstructing the passage of steam said blades and obstruction vanes being arranged in pre-determined alternate sets, the succeeding plates in said channels locking the preceding in position, and an independent locking device for anchoring the final plate and the whole series in position.

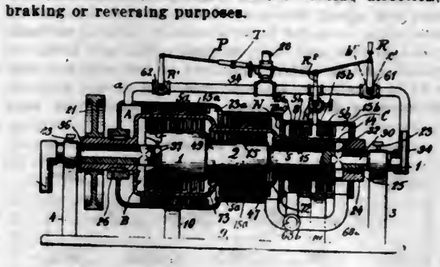
5. In combination, in a turbine engine embodying a blade supporting working member provided with a peripheral dovetailed channel, a series of blade-carrying plates, each provided with a plurality of working blades, means for inserting said plates in succession in said channels and causing them to lock or secure one another in position, the last plate inserted in said channel operating to interlock the series of plates preceding it in position, and an independent locking device for locking said last blade-carrying plate in position.

[Claims 6 to 11 not printed in the Gazette.]

1,030,329. TURBINE. WILLIAM ROBINSON, Brooklyn, N. Y. Filed June 13, 1910. Serial No. 566,567. (Cl. 121—58.)

1. A turbine engine embodying two concentric working chambers, each provided with co-acting blades or buckets arranged to drive the rotor in the same direction, and a third or supplemental working chamber provided with co-acting blades arranged to apply motive pressure to said rotor in the reverse direction, for braking or reversing purposes.

2. A turbine engine embodying two concentric working chambers, each provided with co-acting blades or buckets arranged to apply driving pressure to drive the rotor in the same direction, and a supplemental working chamber embodying a portion of the exterior surface of the rotor and provided with co-acting blades arranged to apply motive pressure to said rotor in the reverse direction, for braking or reversing purposes.



3. A turbine embodying a rotor provided on both sides with blades coöperating with an internal and also with an external stator, thereby forming two independent working chambers through which steam may be passed either simultaneously or in succession for unidirectional driving, and a supplemental working chamber embodying a portion of the surface of the rotor and provided with coöperating blades having their surfaces inclined at a reverse angle from those in the main driving chamber, whereby steam admitted to said supplemental chamber will exert a reversing or braking pressure upon the blades therein, thereby operating to brake or to reverse the direction of rotation of the engine.

4. A turbine comprising a rotor provided on both sides with blades coöperating with an internal and also with an external stator, thereby forming two independent working chambers through which steam may be passed either simultaneously or independently for unidirectional driving, and a supplemental working chamber embodying a portion of the outer surface of the rotor and of the inner surface of the outer stator, and provided with coöperating reversing blades for braking or reversing the forward driving direction of the rotor when steam is admitted to said supplemental chamber.

5. A turbine comprising a rotor provided on both sides with blades coöperating with an internal and also with an external stator, thereby forming two independent working chambers through which steam may be passed either simultaneously or independently for unidirectional driving, and a supplemental working chamber embodying a portion of the outer surface of the rotor and of the inner surface of the outer stator, and provided with coöperating reversing blades for braking or reversing the forward driving direction of the rotor when steam is admitted to said supplemental chamber, the coöperating blades in said supplemental chamber being grouped in two sets at opposite sides of the center thereof, whereby steam admitted to said supplemental chamber will divide and pass in opposite directions through said groups of blades to the exhaust, thereby balancing and neutralizing the end thrust of the rotor when under braking or reversing conditions.

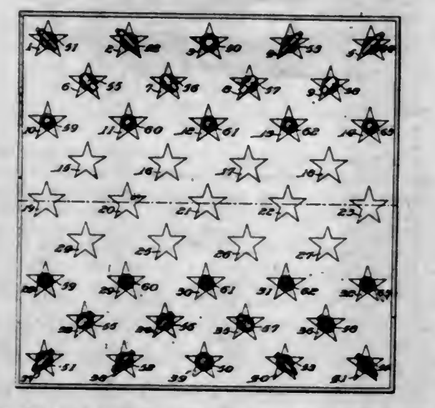
[Claims 6 to 10 not printed in the Gazette.]

1,030,330. GAME APPARATUS. BENJAMIN P. ROGERS, Millville, N. J. Filed Dec. 1, 1911. Serial No. 663,303. (Cl. 46—21.)

1. A game board having forty-one playing stations indicated thereon, in combination with game-pieces adapted for use thereon, said game-pieces comprising duplicate sets of fourteen game-pieces each, and each set being composed of four distinct kinds of "players" and including one of one kind, four of another kind, four of the third kind and five of the fourth kind.

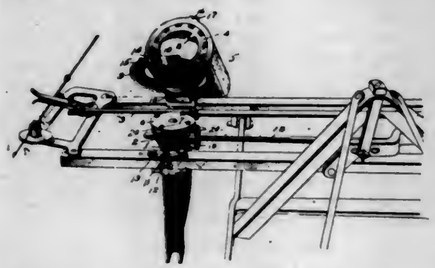
2. A game board having forty-one playing stations indicated thereon, in combination with game-pieces adapted for use thereon, said game-pieces comprising duplicate sets of fourteen game-pieces each, and each set being composed of four distinct kinds of "players" and including one "player" representing a "general," four "players" representing "cannon," four "players" representing "mortars" and five "players" representing "musketeers."

3. A game board having playing stations indicated thereon, and spaced over a substantially square field, said stations being arranged in substantially parallel alternating rows of five and four stations each, and being arranged to read in alternating rows of five and four stations each, parallel to any marginal edge of said field, all in intersecting diagonal rows and in combination with



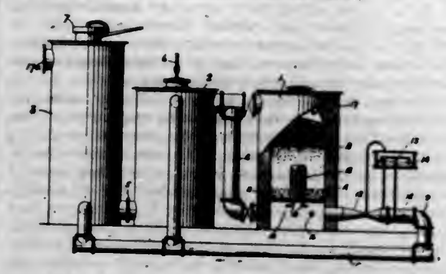
game-pieces adapted for use thereon, said game pieces comprising duplicate sets of fourteen game-pieces each, and each set being composed of four distinct kinds of "players" and including one "player" representing a "general," four "players" representing "cannon," four "players" representing "mortars" and five "players" representing "musketeers."

1,030,331. PLANTING DEVICE FOR CORN-PLANTERS. HENRY F. RUBL, Kankakee, EMILE ST. AUBIN, Ganeer township, and WAYNE H. DYER and CLIFFORD B. SAWYER, Kankakee, Ill. Filed Mar. 31, 1911. Serial No. 618,182. (Cl. 111—5.)



In a corn planter, a hopper, a dropping plate in the bottom of the hopper, a turning disk for the dropping plate, an operating shaft for the turning disk, a gear on the shaft, teeth on the turning disk to engage those of the gear, a slide in the dropping channel, a check rower bar for operating the slide to permit the kernels to fall on the ground, a turning disk for the shaft provided at diametrically opposite points with stop lugs, a clamp carried by the check rower bar and provided with an inwardly projecting portion normally disposed in the path of the lugs, and means for transmitting power to the turning disk on the shaft to turn the latter, the lugs on the turning disk and the projecting portion of the clamp permitting the shaft to make but a half-revolution to each operation of the check rower bar whereby the number of kernels permitted to drop on the slide in the dropping channel at each operation of the check rower bar is regulated.

1,030,332. MANUFACTURE OF CARBURETED WATER-GAS. JOHN M. RUSBY, Philadelphia, Pa., assignor to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Feb. 27, 1911. Serial No. 611,070. (Cl. 48—206.)



1. The improvement in the process of making carbureted water gas which consists in extending the region of gas making activity of a burning fuel bed and increasing the rate of storage of heat in the fuel bed and the rate of production of fuel gas by blasting air in the interior portions of the fuel bed, leading the fuel gas so produced in contact with and through the fuel bed to the end thereof to store heat in the comparatively cool fuel, leading off and burning the partially cooled fuel gas with air to internally heat a separate chamber, then introducing steam to the extended region of gas making activity at the interior portion of the fuel bed and producing blue water gas in increased quantity, leading the blue water gas to the previously heated chamber and carbureting it by the addition of suitable hydrocarbons and fixing the carbureted water gas by passing it through the previously heated chamber.

2. The improvement in the process of making carbureted water gas which consists in extending the region of gas making activity of a burning fuel bed and increasing the rate of storage of heat in the fuel bed and the rate of production of fuel gas by blasting air in the interior portions of the fuel bed, maintaining the quantity of air constant, leading the fuel gas so produced in contact with and through the fuel bed to the end thereof to store heat in the comparatively cool fuel, leading off and burning the partially cooled fuel gas with air to internally heat a separate chamber, then introducing steam to the extended region of gas making activity at the interior portion of the fuel bed and producing blue water gas in increased quantity, and carbureting the blue water gas by the addition of suitable hydrocarbons and fixing it by passing it through the previously heated chamber.

3. The improvement in the process of making carbureted water gas which consists in extending the region of gas making activity of a burning fuel bed and increasing the rate of storage of heat in the fuel bed and the rate of production of fuel gas by blasting air in the interior portions of the fuel bed, adjusting the point of application of the air blast in the interior of the fuel bed with regard to the quality or condition of the fuel bed, leading the fuel gas so produced in contact with and through the fuel bed to the end thereof to store heat in the comparatively cool fuel, leading off and burning the partially cooled fuel gas with air to internally heat a suitable chamber, then introducing steam to the extended region of gas making activity at the interior portion of the fuel bed and producing blue water gas in increased quantity, carbureting the blue water gas by the addition of a suitable hydrocarbon, and fixing the carbureted water gas by passing it through the previously heated chamber.

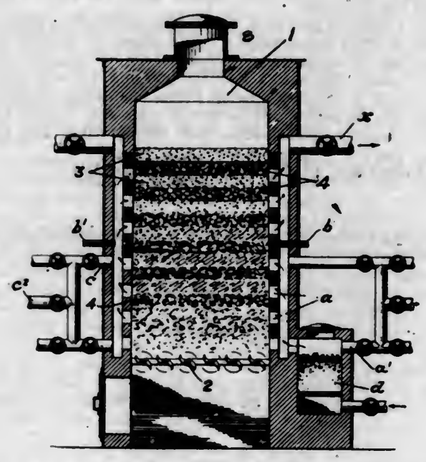
4. The improvement in the process of making carbureted water gas which consists in extending the region of gas making activity of a burning fuel bed and increasing the rate of storage of heat in the fuel bed and the rate of production of fuel gas by blasting air into the interior portions of the fuel bed, leading the fuel gas so produced in contact with and through the fuel bed to the end thereof to store heat in the comparatively cool fuel, leading off

and burning the partially cooled fuel gas with air to internally heat a suitable chamber, then introducing steam to the extended region of gas making activity at the interior portions of the fuel bed and producing blue water gas in increased quantity, adjusting the point of application of the steam in the interior of the fuel bed with regard to the quality or condition of the fuel bed, carbureting the blue water gas by the addition of a suitable hydrocarbon, and fixing the carbureted water gas by passing it through the previously heated chamber.

5. The improvement in the process of making carbureted water gas which consists in extending the region of gas making activity of a burning fuel bed and increasing the rate of production of fuel gas by blasting air in the interior portions of the fuel bed above the ash level, leading the fuel gas so produced in contact with and through the fuel bed to the end thereof to store heat in the comparatively cool fuel, leading off and burning the partially cooled fuel gas with air to internally heat a suitable chamber, then introducing steam to the extended region of gas making activity at the interior portion of the fuel bed and producing blue water gas in increased quantity, carbureting the blue water gas by the addition of a suitable hydrocarbon, and fixing the carbureted water gas by passing it through the previously heated chamber.

[Claim 6 not printed in the Gazette.]

1,030,333. DISTILLATION OF BITUMINOUS COAL AND THE LIKE. JOHN M. RUSBY and OWEN B. EVANS, Philadelphia, Pa., assignors to The United Gas Improvement Company, Philadelphia, Pa., a Corporation of Pennsylvania. Filed Dec. 4, 1911. Serial No. 663,809. (Cl. 48—203.)



1. The method of distilling bituminous coal or other combustible carbonaceous material which consists in preparing and maintaining a stratiform bed of the material and of permeable refractory substance, and converting the material into coke by heating the material throughout the mass by direct internal combustion in contact with it.

2. The method of distilling bituminous coal or other combustible carbonaceous material which consists in preparing and maintaining a stratiform bed of the material and permeable refractory substance, and converting the material into coke by heating the material throughout the mass by intermittently blasting the permeable strata of refractory material to produce internal combustion and store heat throughout the mass in direct contact with the layers of the material

3. The method of distilling bituminous coal or other carbonaceous material which consists in arranging the material and a refractory substance in the form of separate ducts extending continuously through the material from top to bottom thereof and converting the material into coke by passing hot gas through the ducts of refractory substance.

4. The method of distilling bituminous coal or other carbonaceous material which consists in arranging the material and a refractory substance in the form of separate yielding ducts extending continuously through the material from face to face thereof and converting the material into coke by passing hot gas through the ducts of refractory substance.

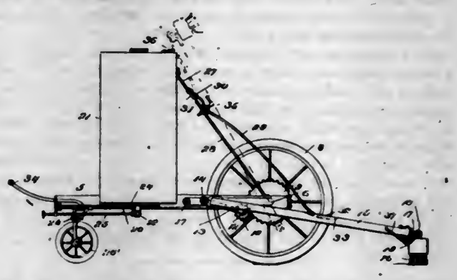
5. The method of distilling bituminous coal or other carbonaceous material which consists in preparing and maintaining a stratiform bed of the material and of permeable refractory substance, and converting the material into coke by passing hot gases through the strata of refractory substance.

1,030,334. PROCESS OF MANUFACTURING CAMPHENE. JACOB SCHMITZ and GERHARD STALMANN, Dusseldorf, Germany, assignors to The Firm of Dr. Schmitz & Co., G. M. B. H. Filed Nov. 27, 1907. Serial No. 404,149. (Cl. 23—24.)

1. The process for the manufacture of camphene which comprises heating pinene hydrohaloid to temperatures above 160° centigrade with inorganic oxygen compounds of basic reaction leaving pinene haloid hydrate undissolved in the presence of water in the absence of substances dissolving pinene hydrohaloid while stirring and then separating the formed camphene from the product.

2. The process for the manufacture of camphene which comprises heating pinene hydrochlorid above 160° centigrade with lime and chlorid of calcium in the presence of water alone while stirring and then separating the formed camphene from the product.

1,030,335. SCRUBBING-MACHINE. ROBERT L. SESSOM, Thyatira, Miss. Filed Feb. 28, 1911. Serial No. 611,480. (Cl. 15—14.)



1. A scrubbing machine, including a truck, a plunger, a scrubbing device carried by the plunger, a drive shaft provided with a crank operatively connected to the plunger to reciprocate the same, means for actuating said drive shaft, a spring having one end detachably bearing upon and pressing downwardly on said plunger, a support to which the other end of said spring is pivotally connected, and means for detachably connecting said spring intermediate of its ends to said support, whereby the spring may be held in an operative position against the plunger, or be swung outwardly to an inoperative position, so as to permit the plunger to be also swung upwardly and rearwardly to an inoperative position.

2. A scrubbing machine, including a truck, a plunger, a scrubbing element carried by the plunger, a liquid receiving tank mounted on the truck, a brace connected to the tank and truck and extending forwardly and downwardly from the former to the latter, a drive shaft provided with a crank to which the plunger is operatively connected, a spring pivotally connected at one end to said brace to swing outwardly and downwardly thereon, said spring normally extending forwardly and downwardly from the brace, and detachably bearing down upon the

plunger, and a tension screw detachably connecting said spring to the brace below the pivot point of the spring, whereby, upon the detachment of said screw, the spring and plunger may be swung upwardly and rearwardly to rest in an inoperative position upon the tank.

1,030,336. MACHINE FOR TURNING TUBULAR FABRICS. HARRY A. SHIELDS, Grand Rapids, Mich. Filed Dec. 15, 1911. Serial No. 665,908. (Cl. 26—16.)



1. A machine for turning tubular fabrics comprising a tubular structure, means for turning the fabric over the end of said structure, feed rollers within the structure adapted to move the fabric longitudinally within said structure and means for rotating said rollers.

2. A machine for turning tubular fabrics comprising a tubular structure, means for moving the fabric in one direction upon the outside of the structure, and means within the structure for moving the fabric in the opposite direction in the interior of said structure.

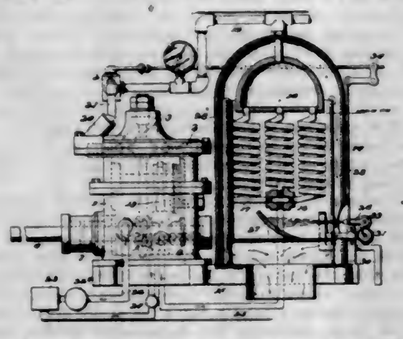
3. A machine for turning tubular fabrics comprising a tubular structure supported at one end, a pair of rollers within the same to engage the fabric therebetween and move the same toward the unsupported end of the structure, and a pair of rollers on the outside of the structure to engage the fabric and move the same away from said end.

4. A machine for turning tubular fabrics, comprising means over which the fabric is reversed, a pair of feed rollers adapted to engage the outside of the fabric and move the same toward the said means, means for pressing the fabric against the outer sides of said feed rollers after it had been turned to move the same away from the means over which the fabric has been turned, means for supporting all of said rollers in operative position and means for rotating said feed rollers.

5. A machine for turning tubular fabrics, comprising a series of four rollers arranged substantially in a row side by side and in close relation, the two inner rollers engaging one side of the fabric and moving the same in one direction and also engaging the same side of the fabric after it has been reversed to move the same in the opposite direction, means for pressing the outer roller toward the outer sides of the inner rollers, means for supporting the rollers in place over the end of which means the fabric is turned and means for rotating the rollers.

[Claims 6 to 13 not printed in the Gazette.]

1,030,337. MOTOR. ALBERT J. SHINN, Wilmington, Del., assignor of one-half to John G. Gray, Wilmington, Del. Filed Sept. 26, 1911. Serial No. 651,400. (Cl. 60—4.)



1. In combination with a rotary motor and a fluid-tight casing therefor, a vaporizer communicating with said casing, said vaporizer being designed to contain ether or other highly volatile liquid, a pump located within said casing and actuated by said motor, said pump being in communication with said vaporizer, and a condenser in communication with said casing and through which the vapors after acting on the motor, are drawn by said pump.

2. In combination with a rotary motor and a fluid-tight casing therefor designed to contain an oil bath, a pump located within said casing and actuated by said motor, said pump being in communication with said vaporizer, a shaft extending into said casing and driven by said motor, said pump and shaft being lubricated by said oil bath, and a condenser in communication with said casing and through which the vapors, after acting on the motor, are drawn by said pump.

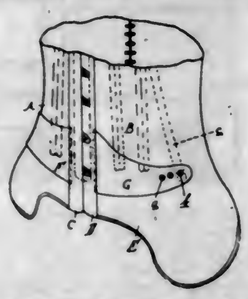
3. In combination with a rotary motor and a fluid-tight casing therefor designed to contain an oil bath, a pump located within said casing and actuated by said motor, said pump being in communication with said vaporizer, a shaft extending into said casing and driven by said motor, said pump and shaft being lubricated by said oil bath, a condenser in communication with said casing and through which the vapors, after acting on the motor, are drawn by said pump, and an oil separator intermediate said condenser and pump for separating any of the oil from the vapors.

4. A motor comprising a vaporizer designed to contain ether or other highly volatile liquid, means for heating the vaporizer, a horizontally disposed rotor, a vertically disposed shaft therefor, a fluid-tight casing for said rotor and shaft, a circulating pump within the casing designed to be actuated by said rotor shaft, a condenser for the vapors after acting on the rotor, and means connecting said condenser with the pump, which latter is also connected with the vaporizer.

5. A motor comprising a vaporizer designed to contain ether or other highly volatile liquid, means for heating the vaporizer, a horizontally disposed rotor, a vertically disposed shaft therefor, a fluid-tight casing for said rotor and shaft, a circulating pump within the casing, a second shaft located within and extending from said casing, and worm gearing intermediate said second shaft and the rotor shaft.

[Claims 6 to 10 not printed in the Gazette.]

1,030,338. CORSET. JOSEPH SIEGEL, Detroit, Mich. Filed Apr. 21, 1910. Serial No. 556,794. (Cl. 2—73.)

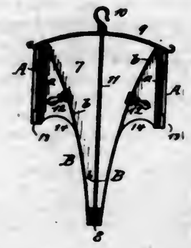


1. In a corset, the combination of a stiffened body portion including clasps, an unstiffened skirting secured to and extending from the clasps around the body portion, and a pair of tabs, each being secured at one end by a line of stitches to the front section and the skirting immediately adjacent the clasps and extending rearwardly to the body side, said tabs being positioned at the junction of the body and skirting and of a width to extend upon opposite sides of the junction of said members, for the purpose described.

2. In a corset, the combination of a stiffened body portion including clasps, an unstiffened skirting secured to and extending from the clasps around the body portion, a pair of tapered adjusting tabs for the body each being

in the form of an elongated triangular strip, the smaller end being formed with a series of eyelets therein, the tabs being connected at their wide ends by a line of stitches to the front section and the skirting immediately adjacent the clasps and extending rearwardly to the body side, and studs fixed upon stiffening members of the body portion at the sides of the latter with which the tab ends are adapted to connect, said tabs being positioned at the junction of the body and skirting and of a width to extend upon opposite sides of the junction of said members for the purpose described.

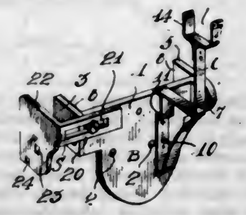
1,030,339. SIGN. CHARLES W. SMITH, Cincinnati, Ohio, assignor to Thomas Cusack Company, Jersey City, N. J., a Corporation of New Jersey. Filed Mar. 18, 1911. Serial No. 615,246. (Cl. 40—130.)



1. In a sign-structure, the combination of a hood, having front and rear sides which meet at their respective upper edges and from whence they diverge downwardly, the rear side being extended below the front-side to form a sign-face, the front side including a translucent plate, the outer surface of which serves as a sign-face while its inner surface serves as a reflector, and illuminating means supported within the hood and on the rear-side thereof whereby the sign on the front-side of the hood and the sign on the lower part of its rear-side are both rendered visible.

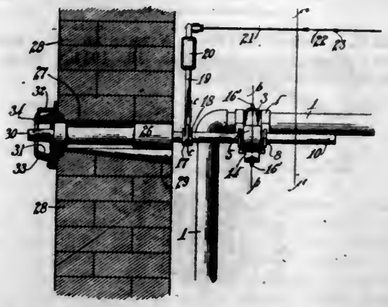
2. A sign-structure which consists of two opposite sides curved outwardly from their lower edges and forming sign-faces on their outer sides, end-pieces between the upright edges of these sides which close the space between them and are edgewise extended beyond them at their upper portions, a roof which covers the structure, a panel of translucent material having reflecting qualities provided at the upper edge of each of the curved sides and partly overhanging the sign-faces on these sides, a sign being produced on this panel by rendering parts of its outer side opaque and illuminating means seated on the upper part of the curved sign-faces and in the space in front of them and back of the panels which space is closed at the ends of the panels by the edgewise extension of the ends of the structure so as to prevent lateral escape of light.

1,030,340. CURTAIN AND SHADE HOLDER. GEORGE L. SMITH, South Kaukauna, Wis. Filed May 17, 1911. Serial No. 627,770. (Cl. 156—24.)



A curtain pole and shade roller holder made in duplicate members whereof each comprises a flat base plate having a series of holes in the body and ears at its upper corners projecting to the rear and adapted to engage the edges of the window jamb, means for adjusting one ear, a roller bracket comprising a longitudinally slotted arm and a foot standing in a plane at right angles thereto and united at one of its corners with the outer end of said arm, the foot being pierced with openings for the roller-fixtures, a screw passing through the slot into one of the holes in said base plate, and a pole bracket mounted on the latter and having an opening of a size to receive said arm and disposed in alinement with it.

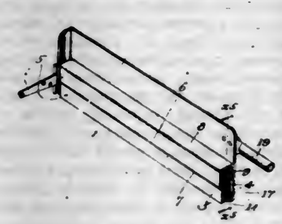
1,030,341. CUT-OFF FOR GAS-PIPES. JACOB JAMES STALEY, Dayton, Ohio. Filed July 1, 1911. Serial No. 636,476. (Cl. 137—92.)



1. In a device of the type specified, a cable having a fusible portion, a member constituting a weighted lever to which said cable is attached, a valve, a member constituting a stem for said valve, one of said members being provided with a recess and the other with a pin received by said recess, whereby said valve is adapted to be manually operated without disturbing the automatically valve closing connections, substantially as described.

2. In a device of the type specified, a cable having a fusible portion, a weighted lever to which said cable is attached, a pin projected from said lever, a member constituting an extended valve stem having a recess therein; a shiftable curved member in said recess of less length than the recess forming a stop for said pin, and a valve casing having right and left pockets either of which is adapted to receive said stem, substantially as shown and described.

1,030,342. ORANGE-BOXING DEVICE. GEORGE THEODORE STAMM, Upland, Cal. Filed Sept. 25, 1911. Serial No. 651,283. (Cl. 100—57.)



1. An orange boxing device comprising a collapsible guard provided with guard plates to hold the oranges away from the end pieces of the box as the box cover is moved down.

2. An orange boxing device comprising a plate, a stationary guard member secured to the plate, another guard member slidably secured to the plate and overlapping the first guard member.

3. An orange boxing device comprising a plate, a stationary guard member secured to the plate, another guard member slidably secured to the plate and overlapping

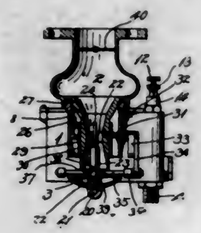
the first guard member, and yielding means for normally holding the slidable guard member in extended position from the stationary guard member.

4. An orange boxing device comprising a slotted plate, a stationary guard member secured to the plate, another guard member overlapping the first guard member, studs extending from the first guard member through the slots in the plate, and compression springs between the stationary and movable guard members.

5. An orange boxing device comprising a plate, a stationary guard member secured to the plate, another guard member slidably secured to the plate and overlapping the first guard member, a hinge at one end of the plate, and a handle at the other end of the plate.

[Claims 6 to 9 not printed in the Gazette.]

1,030,343. CARBURETER. NATHANIEL C. STAMPS, Ocean Park, Cal. Filed Feb. 13, 1911. Serial No. 608,392. (Cl. 48—154.)



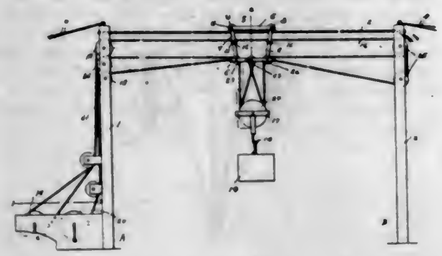
1. A carbureter comprising a mixing chamber having inner and outer air inlet passages, a movable air controlling thimble mounted in said chamber and having a central air passage and adapted to control the passage of air through said inner and outer passages, the said outer passage having inclined air directing partitions therein, a gasolene valve mechanism projecting into said inlet, and adjustable means for connecting the same with the movable air controlling thimble for increasing the feed of gasolene when the air supply is increased.

2. A carbureter mechanism comprising a mixing chamber having an air inlet formed with a central air passage and an outer air passage surrounding the same, a movable air controlling thimble mounted in the inner passage and adapted to control the entrance of air through the outer air passage, a needle valve projecting downwardly into said thimble, and having connections with the gasolene supply, a lever mechanism adapted to open the needle valve to a greater or less degree, and means for adjustably connecting the said lever mechanism with the movable thimble whereby the valve is opened to supply an amount of gasolene corresponding with the amount of air introduced through the movement of said thimble.

3. A carbureter mechanism comprising a mixing chamber having an air supply passage-way, and a hollow movable thimble mounted therein capable of permitting the entrance of air through its hollow portion and also capable of controlling the entrance of additional air outside its hollow portion, a needle valve mechanism projecting into said air inlet comprising a tubular portion, a sleeve mounted thereon, a tapering valve carried by said sleeve and adapted to enter the end of the tubular portion, a rock shaft for moving said sleeve, a lever for rocking said shaft, and an adjustable member carried by the thimble and capable of actuating the said lever for controlling the supply of gasolene through the valve mechanism in accordance with the movement of the thimble.

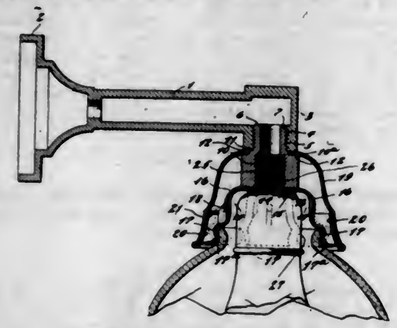
4. A carbureter mechanism comprising a mixing chamber, an air inlet casing mounted thereon, a movable hollow thimble arranged within said casing and controlling the air supply, a float chamber mounted upon said casing for introducing a gasolene supply to the carbureter, a priming pan mounted on the float chamber, and having a passage-way formed therein communicating with said float chamber, a needle valve mechanism carried by the priming pan and connected with the said passage-way therein, said needle valve mechanism projecting into the air inlet of the carbureter, a valve carrying sleeve movably mounted on the valve mechanism provided with a depending tapering needle for lifting or depressing the needle, an arm for rocking said shaft, an adjustable loop secured to the said thimble and engaging said arm, the movement of the thimble in introducing more air under the suction of the engine thus being capable of operating the needle valve to introduce a corresponding quantity of gasolene.

1,030,344. CONVEYER. ARTHUR C. STARKWEATHER and JOHN NAGEL, Amherst, Ohio. Filed Jan. 18, 1911. Serial No. 603,319. (Cl. 214—14.)



The combination in a conveyer, of a pair of uprights, an inclined cable connecting said uprights, a wheeled frame movable upon said cable, a drum, pulleys supported upon the uprights, a cable attached to the drum and extending over said pulleys and attached to the wheeled frame, a bucket supporting frame, a second drum, pulleys journaled in the said wheeled frame, pulleys journaled in the bucket supporting frame, a cable attached to the second drum and passing over the pulleys journaled upon the wheeled frame and engaging the bucket supporting frame, means for rotating the drums, the said wheeled frame adapted to be propelled to the lower end of the cable by its weight and the weight of the bucket supporting frame.

1,030,345. LAMP SOCKET AND SHADE HOLDER. MERTON P. STEVENS, East Orange, N. J. Filed Dec. 2, 1911. Serial No. 663,608. (Cl. 240—114.)



1. In combination, a support adapted to support a lamp socket, an interposed coupler or union on the support, spring fingers rigidly mounted at the lower end of the coupler, a rotatable member surrounding the fingers and supported from the coupler, and a cam between said rotatable member and said spring fingers, said cam having its engaging face arranged circumferentially of said fingers and adapted upon rotation of said member to compress a spring finger inwardly to engage a shade or reflector.

2. In combination, a support, a lamp socket, an interposed coupler or union, spring fingers rigidly mounted at the lower end of the coupler, a rotatable member surrounding the fingers and supported by the coupler, and cams between the said member and said spring fingers, said cams having their faces arranged circumferentially of said fingers and adapted upon rotation of said member to compress said fingers.

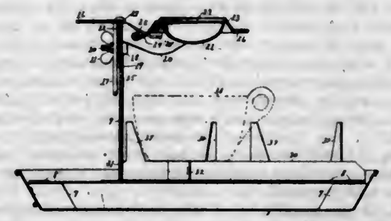
3. In combination, a support, a lamp socket, an interposed coupler or union, spring fingers rigidly mounted at the lower end of the coupler, a rotatable member surrounding the fingers and supported by a shoulder on the coupler, and a cam between the said member and said spring fingers adapted upon rotation of said member to compress said fingers.

4. In combination, a support, a lamp socket, an interposed coupler, spring fingers rigidly mounted on the coupler, a housing surrounding the fingers and supported on the coupling, a ring supported at the lower end of the housing and projecting upwardly within the same, said ring being provided with cams adapted upon rotation of the ring to compress the spring fingers.

5. In combination, a support, a lamp socket, an interposed coupler, spring fingers rigidly mounted on the coupler, a housing surrounding the fingers and supported on the coupling, a ring supported at the lower end of the housing and projected upwardly within the same, the innermost edge of the said ring being provided with an inwardly disposed circumferentially cammed flange adapted upon the rotation of the ring to compress the spring fingers.

[Claims 6 to 10 not printed in the Gazette.]

1,030,346. SANITARY EGG-SEPARATOR. CARL L. SVENSSON and HARRY A. PERRY, Topeka, Kans. Filed Sept. 21, 1911. Serial No. 650,516. (Cl. 65—12.)



1. In combination, a pan capable of supporting a rack above its bottom; a rack comprising a frame supportable in the pan, two standards on the frame, a threaded bolt secured in the upper end of each standard, and a thumb-nut for each screw, a bar extended between the standards and having slots to engage the respective bolts, one end of the bar extending beyond the standard, a series of thin sheet metal bars set on edge and supported on the frame and provided with upwardly projecting standards to support a number of receptacles; a bracket detachably secured to the first-named bar capable of movement longitudinally of said bar, a bowl secured to the bracket above one of said receptacles, and a cutting ring pivoted to the bracket and adapted to engage with the upper edge of the bowl.

2. In combination, a pan, a rack removably supported in the pan and having an elevated egg-breaking and bracket-supporting bar, a bracket having a slot and fitting over said bar so as to be removable therefrom and movable longitudinally thereon, a bowl supported on the bracket, and a cutting ring pivoted to the bracket and engaging the upper edge of the bowl.

3. In combination, a frame having elevated egg-breaking and bracket-supporting bar, a bracket having a slot and fitting over said bar so as to be removable therefrom and movable longitudinally thereon, a bowl supported on the bracket, and a cutting ring pivoted to the bracket and engaging the upper edge of the bowl.

4. In combination, a bowl of a size holding the yolk of an egg and having its entire upper edge sharpened, a bracket having a laterally-extending arm secured to the bowl under its said upper edge, and a ring engaging against said upper edge and pivoted to the bracket so as to be movable in a vertical plane.

5. In combination, a bowl having its upper edge sharpened, a bracket having laterally-extending arms supporting the bowl, and a ring engaging against said upper edge and having a laterally-extending arm pivoted to the bracket so as to be movable in a vertical plane.

[Claim 6 not printed in the Gazette.]

1,030,347. EXHAUST-SILENCER. ZACHARIAH SWEARINGEN, Osceola, Iowa. Filed Jan. 27, 1912. Serial No. 673,791. (Cl. 121—116.)



1. A muffler comprising a cylindrical member having removable heads thereon, said heads being provided respectively with inlet and outlet ports, tie rods extending through said cylinder to secure the heads in position thereon, a substantially conical deflector member carried within the cylinder, the apex of said member being disposed immediately adjacent the inlet port of the cylinder, a pair of additional deflector plates within said cylinder, one of said plates having the peripheral edge thereof contacting with the inner wall of the cylinder and provided with a central opening, the other plate being of concavo convex design, and means to removably secure all of said deflector members to the tie rods.

2. A muffler comprising a cylindrical member having removable heads thereon, said heads being provided respectively with inlet and outlet ports, tie rods extending through said cylinder and securing the heads in position thereon, said tie rods being threaded at predetermined points thereon, a conical deflector disposed within the cylinder and having an annular flange formed on the flared portion thereof through which said tie rods extend, the apex of said conical deflector being disposed immediately adjacent the inlet port and the outer periphery of the aforesaid flange on said deflector being slightly spaced from the inner wall of said cylinder, an additional deflector member of concavo-convex design disposed within the cylinder adjacent the outlet port thereof, said latter deflector also having an annular flange thereon through which said tie rods extend and arranged to dispose the concaved portion of the same toward the outlet of the cylinder, the peripheral edge of said concavo-convex deflector being also spaced from the inner wall of said cylinder, an intermediate deflector plate of circular design having a central slot therein, the aforesaid tie rods extending through said latter plate and the peripheral edge of said plate being disposed in contact with the inner wall of said cylinder and means engaging the threaded portions of said tie rods and said deflector members to removably and adjustably secure the latter to the former at the predetermined points thereon.

1,030,348. PROTECTIVE COVERING FOR PNEUMATIC TIRED WHEELS. LEWIS J. TETLOW, West Springfield, Mass. Filed July 14, 1911. Serial No. 638,517. (Cl. 152—17.)

1. An annular protective tire covering having links pivotally connected with and inwardly extending from the inner edges thereof, curved rods engaged through the links, and having nuts screw threading thereon at opposite sides of the links and detachably binding against the latter, whereby oscillatory movement relatively between the links and curved rods is prevented.

2. A protecting tire covering having eye members extending inwardly beyond its opposite edges, curved rods engaged through the eye members and having links engaged thereon, other curved rods engaged through the links and having pairs of nuts screw threading thereon at opposite sides of the links and binding against the latter, said second named curved rods being adapted to have confined positions against the opposite flank portions of the tire.



3. An annular protective tire covering having a series of plates made with eye-lugs riveted to the inner edge portions thereof, the eye-lug portions extending inwardly from such edge portions, curved rods extending through the eye-lugs and having nuts screw engaged on the ends thereof and in confinement against the eye-lugs which are adjacent thereto, a plurality of links pivotally hung to the curved rods and inwardly extended therefrom, and held against displacement between pairs of the eye-lugs, other curved rods engaged through the inner extremities of the links, and having the end portions thereof which are extended through the links which are adjacent thereto screw threaded, and having nuts engaged thereon and adapted to be set against the opposite faces of the links.

1,030,349. METALLURGY OF ZINC. CHARLES V. THIERRY, Paris, France. Filed Oct. 6, 1911. Serial No. 653,248. (Cl. 204—63.)

1. In metallurgy, the method which consists in reducing, by electrically developed heat, a commercially pure metallic oxid mixed with a commercially pure carbon in such relative proportions that the reaction will completely convert them into the forms of fumes, gases, vapors and an ashy or sintered residue, the volatilized substances continuously escaping as and when produced.

2. In metallurgy, the method which consists of maintaining in an electric furnace, from which air is excluded from the reducing zone, a composite charge composed of commercial metallic oxids and carbon, the said elements being electrically heated and the nature of the oxid being such that, when subjected to an adequate temperature in the presence of carbon, it will volatilize; the oxid and the carbon being charged in such relative proportions that the reaction will convert the entire charge to the forms of fumes, gases, vapors and a relatively small proportion of ashy or sintered residue, said volatilized products continuously escaping from the reaction chamber as and when produced.

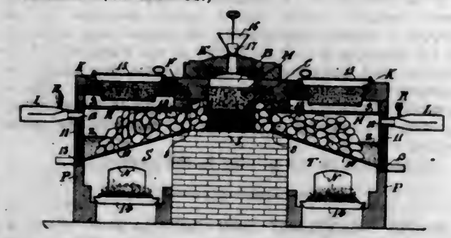
3. In metallurgy, the method of reducing commercially pure zinc oxid which consists in heating the same, mixed with a commercially pure carbonaceous material, in an electric furnace from whose reducing zone air is excluded, the materials being in such proportions as will effect, when heated to or above the temperature of reaction, their complete conversion into fumes, gases, vapors, and an inert ashy or sintered residue, the volatilized products being continuously evacuated as and when produced.

4. In metallurgy, the method of reducing commercial zinc oxid which consists in heating the same, mixed with commercially pure coke or coal, in an electric furnace from whose reducing zone air is excluded, the materials being in such proportions as will effect, when heated to or above the temperature of reaction, their complete conversion into fumes, gases, vapors and an inert ashy or sintered residue, the volatilized products being continuously evacuated as and when produced.

5. In the metallurgy of zinc the method which is comprised in progressively charging an electric furnace with oxid of zinc of commercial purity and carbon and heating the mixture of said oxid and carbon in the furnace to produce zinc fumes and withdrawing zinc fumes as and when produced, the carbon and oxid of zinc being in such proportion that substantially the entire charge will be changed into gaseous form.

[Claim 6 not printed in the Gazette.]

1,030,350. METALLURGY OF ZINC. CHARLES V. THIERRY, Paris, France. Filed Oct. 6, 1911. Serial No. 653,249. (Cl. 204—64.)



1. In the metallurgy of zinc, the placing and maintaining of a composite charge of commercially pure oxid of zinc and of carbon directly upon a separate carbon resistor of an electric furnace, from which air is excluded, the relative proportions of the charged materials being such that when a sufficient current is passed through the resistor to produce reaction in the superimposed oxid of zinc and the carbon they will be completely transmuted into fumes, gases, vapors and an inert ashy or sintered residue; the volatilized products automatically passing from the reducing zone, as and when produced, but the residue remaining upon in or beneath the resistor until otherwise removed.

2. In the metallurgy of zinc, the placing and maintaining of a composite charge of commercially pure oxid of zinc and of carbon directly upon a separate carbon resistor of an electric furnace, from which air is excluded, passing a current through the resistor to produce reaction in the charged materials and from time to time increasing or decreasing the separate elements of the charged materials whereby their averaged relative proportions will be such that they will be entirely transmuted into volatilized products and a modicum of inert ashy or sintered residue, the volatilized elements escaping, as and when produced, but the residue remaining at the resistor until removed.

3. An electric zinc furnace having therein agglomerated oxid-of-zinc and carbon directly sustained by a porous carbon resistor, electrically heated to transform the charge into volatile forms, and a condenser or condensers constructed and disposed so that at least a part of the evolved fumes and gases pass through the said resistor before entering the said condenser or condensers.

4. In an electric zinc furnace of the character herein described the combination with the carbon resistor of carbon portions contiguous to or forming part of its sides and of carbon-filled condensers whose inlet ends are connected to the said carbon side portions and whose contained carbon connects with the resistor whereby the fumes and gases produced by the reaction are continuously and uninterruptedly maintained in contact with, or contiguous to, a carbon reducing medium.

5. In an electric zinc furnace of the character herein described, the combination therewith of a series of tubular condensers, a chamber built along the outside of said furnace whose outer wall is thinner than the end walls and whose outer walls are thin enough to permit the transfer of heat through the same, and means for heating or cooling the chamber, the condensers being contained within the chamber and whose ends are mounted, respectively in the wall of the furnace and the outside wall of said chamber, as and for the purpose specified.

[Claims 6 to 12 not printed in the Gazette.]

1,030,351. METALLURGY OF ZINC. CHARLES VICTOR THIERRY, Paris, France. Filed Nov. 2, 1911. Serial No. 658,142. (Cl. 75—28.)

1. A process for the extraction of zinc from blue-powder produced during zinc smelting which comprises treating the said powder with a substance, which acts on the covering of the particles thereof to form a compound soluble in water or other liquid and subsequently consolidating said particles.

2. A process for the extraction of zinc from blue-powder produced during zinc smelting which comprises treating the said powder with a substance which acts on the covering of the particles thereof to form a compound soluble in water or other liquid and separating the solution from the solid particles of zinc and consolidating said particles.

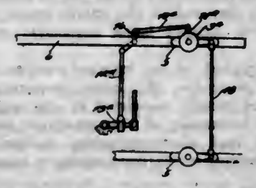
3. A process for the extraction of zinc from blue-powder produced during zinc smelting which comprises treating or washing the said powder with a substance which acts on the covering of the particles thereof to form a compound soluble in water or other liquid, separating the solution from the solid particles of zinc, thereafter washing the solid particles of zinc with water to remove any acid or soluble compound remaining and assembling said particles in a mass sufficiently compact to prevent an oxidation of the particles in the interior thereof.

4. A process for the extraction of zinc from blue-powder produced during zinc smelting which consists in treating the said powder with a substance which acts on the covering of the particles thereof to form a compound soluble in water or other liquid, separating the solution from the solid particles of zinc, washing the solid particles of zinc with water to remove any acid or soluble compound remaining, treating the solid zinc particles to remove moisture therefrom, and compressing and submitting them to fusion out of contact with air.

5. A process for the extraction of zinc from blue-powder produced during zinc smelting which comprises treating the said powder with a substance which acts on the covering of the particles thereof to form a compound soluble in water or other liquid, separating the solution from the solid particles of zinc washing the solid particles of zinc with water to remove any acid or soluble compound remaining, treating the solid zinc particles to remove moisture therefrom, compressing and submitting them to fusion out of contact with air, and treating the solution separated for the extraction of the compound therefrom.

[Claims 6 to 9 not printed in the Gazette.]

1,030,352. PIVOT LAMP ATTACHMENT FOR AUTOMOBILES. ARTHUR GALE THOMSON, San Francisco, Cal., assignor to Pivot Auto Light Co., San Francisco, Cal., a Corporation. Filed July 12, 1909. Serial No. 507,141. (Cl. 240—62.)



1. The combination with an automobile frame, of an independent lamp supporting member, means for securing said member upon the front of the frame, a turn-table carried by said member, a lamp supported by and turnable with said table, steering mechanism having a crank arm connected with the steering knuckles of the front bearing-wheels, and connections between said crank-arm and the lamp turn-table, said connections including a vertical lever fulcrumed between its ends on the part of the vehicle which carries the lamp supporting member.

2. An attachment for an automobile frame, said attachment consisting of an independent plate having formed upon it a lamp turn-table base, means whereby it may be detachably secured to the frame, a lamp on said turn-table base, steering mechanism, said plate having an integrally formed downwardly extending projection, a horizontally projecting arbor on said projection, a lever fulcrumed between its ends on said arbor and articulated connections with the opposite ends of said lever for actuating the lamp.

3. An attachment for automobile frames, said attachment consisting of a detachable plate and a base, and the lamp carrying turntable mounted thereon, means for detachably securing said plate to the frame, a support carried by the plate, a rocker-arm pivoted to said support intermediate of its ends, connections between one of its ends and the lamp turntable, and a steering-gear crank with which the opposite end is connected.

4. In an operating mechanism for automobile lamps, a bell-crank lever connected to one of said lamps, a crank arm connected to the other lamp, a connecting rod to operatively connect said crank arm to one arm of said bell crank lever, a bell crank operating lever pivotally mounted on the frame of the machine, an operating rod to connect one arm of said lever with the free arm of the bell crank lever on said lamp, and an operating rod loosely connected at one end to the free end of the bell crank lever on said frame and at its opposite end to a part of the steering mechanism of the automobile.

5. In an operating mechanism for automobile lamps, and in combination with an automobile having the usual steering wheels and steering mechanism, a lamp mounted on the vehicle to turn about a vertical pivot, a crank arm connected to the lamp, a rod extending from the crank arm in the direction of the steering mechanism, direction changing means mounted on the vehicle body and connected with said rod, and other connections between said direction changing means and the steering mechanism.

1,030,353. DISPENSING-FOUNT. JOHN M. TRAVIS, St. Louis, Mo. Filed Sept. 10, 1910. Serial No. 581,458. (Cl. 72—159.)



1. A dispensing fount comprising a vertically disposed circular casing having a receiving chamber in its upper portion and a measuring chamber in its lower portion, said two mentioned chambers being normally in communication with each other, said measuring chamber having an opening in its bottom, a vertical reciprocatory valve slidably fitted in said opening in the measuring chamber and projecting below the bottom of the same, said valve having an axial bore in its lower portion and lateral

ports communicating with said axial bore and being located normally below the bottom of said measuring chamber, said ports being arranged and adapted to open communication between said measuring chamber and said axial bore when the valve is raised, said valve being also arranged and adapted to close communication between said receiving chamber and said measuring chamber before said ports are raised to a position above the bottom of said measuring chamber, a tubular extension on the bottom of the casing surrounding said valve, said tubular extension having oppositely disposed vertical slots therein, and horizontal arms projecting from said valve and slidably fitted through said slots.

2. A dispensing fount comprising a casing which is divided by a horizontal partition to provide a receiving chamber in the upper portion of said casing and a measuring chamber in the lower portion thereof, said partition having an opening therethrough whereby communication is normally established between said two mentioned chambers, said measuring chamber having a vertical opening in its bottom and a tubular extension surrounding said opening, a valve slidable vertically in said opening and adapted to exhaust the contents of said measuring chamber, said valve being also arranged and adapted to close the opening in said partition prior to exhausting the contents of said measuring chamber, said valve being extended through the bottom of said measuring chamber and having oppositely extending lateral arms on its lower end portion, said tubular extension having vertical slots through which said parallel arms project so that the edge portion of a receptacle may be pressed thereagainst to actuate said valve, and a spring for restoring said valve when said lateral arms are relieved of pressure.

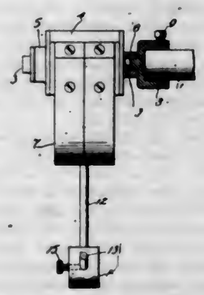
3. A dispensing fount comprising a casing which is provided with a receiving chamber and a measuring chamber, said two mentioned chambers being normally in communication with each other, said measuring chamber having a vertical bore and a vertical reciprocatory valve having a tubular lower portion which is slidably fitted in said vertical bore, said valve having lateral ports which are arranged and adapted to establish communication between its tubular portion and said measuring chamber when said valve is in raised position, said ports being arranged so as to lie below the bottom of said measuring chamber when the valve is in lower position, said valve being also arranged and adapted to cut off communication between said receiving chamber and said measuring chamber before its port openings are raised above the bottom of said measuring chamber, means for resiliently holding said valve in normal lower portion, a tubular extension on said casing surrounding said valve, said extension having vertical slots therein, and lateral extensions on the lower end of said valve arranged so that the edge portion of a receptacle may be pressed thereagainst to raise said valve.

4. A dispensing fount comprising a vertically disposed casing having a receiving chamber in its upper portion and a measuring chamber in its lower portion, said two mentioned chambers being separated by a horizontal partition having a central perforation therein, a vertical reciprocatory valve arranged and adapted to exhaust the contents of said measuring chamber, said valve also being arranged and adapted to close the perforation in said horizontal partition prior to exhausting the contents of said measuring chamber, an inverted cupped strainer mounted on said horizontal partition over the central perforation therein, a detachable reservoir comprising an inverted bottle mounted on said casing and having its neck portion extended into said receiving chamber so that the liquid contents of the latter will seal the mouth of the bottle, and an inwardly opening valve in said bottle, said valve having a stem portion arranged and adapted to rest on the apex portion of said strainer when the bottle is in position on the casing so as to raise said valve and establish communication between said reservoir and said receiving chamber.

5. A dispensing fount comprising a vertically disposed casing having a cylindrical middle portion, the upper portion of said casing being of larger diameter than said cylindrical portion and the lower portion being of smaller diameter and having a depending tubular extension, the bottom of the casing having a vertical opening communicating with said tubular extension, a horizontal partition in said cylindrical middle portion of the casing whereby the upper portion constitutes a receiving chamber and the lower portion a measuring chamber, said partition having an opening through which communication is normally established between said two mentioned chambers, a valve member slidably fitted in the opening in the bottom of said casing, the lower portion of said valve member being tubular and open ended and extending into said tubular extension, said valve member also having a lateral opening communicating with the upper part of its tubular portion, the middle portion of said valve member being of larger diameter than the portion which works in the opening in the bottom of the casing so as to provide an annular portion adapted to rest on the bottom of the casing, said valve member also having an upward extension adapted to slidably fit the opening in said horizontal partition, the end portion of said upward extension which fits in the opening in the horizontal partition and the lateral openings in the tubular portion of the valve being so correlated with respect to the enlarged portion of said valve that when said enlarged portion is seated on the bottom of the casing, the end of the upper extension of said valve is below said partition and when the valve is raised said upward extension closes the opening in the partition before the lateral openings in the valve move above the bottom of the casing.

[Claims 6 and 7 not printed in the Gazette.]

1,030,354. MEANS FOR SUPPORTING AND DRIVING ELECTRIC GENERATORS. GILES M. TURNER, Madison, Wis., assignor to Holm's Machine Manufacturing Company, Sparta, Mich., a Corporation of Michigan. Filed Aug. 28, 1911. Serial No. 646,459. (Cl. 123—149.)



1. The combination of an internal combustion engine and a current-generator comprising an armature with its journals and a field structure, one of the armature journals being fixed to one end of the engine crank shaft, and the field structure being suspended from the armature journals.

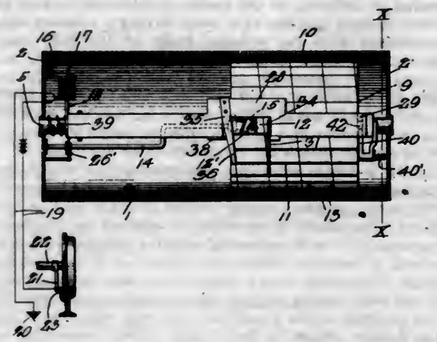
2. The combination of an internal-combustion engine; a magneto comprising a housing, an armature rotatably mounted in the housing, and a field magnet attached to the housing; and means for fixing the armature to and supporting it by one end of the engine crank shaft, the housing and field magnet being suspended in inverted position.

3. The combination of an internal-combustion engine and a current-generator, the latter comprising a portion fixed to and wholly supported by the engine crank-shaft, and the remainder of the generator being freely suspended from said shaft-supporting portion, the suspended portion having a relatively shiftable mass attached thereto.

4. The combination of an internal-combustion engine and a current-generator, the latter comprising a portion fixed to and wholly supported by the engine crank-shaft, and the remainder of the generator being freely suspended from said shaft-supported portion, a member attached to said suspended portion and located below the axis of the crank shaft, and a weight adjustably attached to said member.

5. The combination of an internal-combustion engine, a magneto comprising an armature attached to the engine crank shaft, a housing supported by the armature, a circuit-breaker lever carried by the housing, a circuit-breaker cam having a driving connection with the armature, and a field magnet attached to the housing; and means for adjusting the housing about the axis of the engine crank shaft.

1,030,355. STREET-INDICATOR. CHARLES H. VICKERY, Attica, N. Y., assignor of one-fourth to Jerome M. Slater and one-fourth to Lillian M. Slater, Attica, N. Y. Filed June 19, 1911. Serial No. 633,950. (Cl. 40—59.)



1. In an indicator, the combination of a surrounding casing, a stationary shaft mounted therein, a drum mounted thereon carrying a series of peripherally disposed exhibits and having a toothed surface, coacting means carried by the shaft and drum to impart to the drum a spiral movement when the said drum is rotated upon the shaft, electromagnetically operated and spring-returned means disposed upon the shaft in operable relation with the surface of said drum for imparting to the drum a rotary movement, a spring disposed upon the shaft and operably connected to the drum, said spring being wound as the drum is rotated and has a spiral movement imparted thereto, and means for releasing the electromagnetically operated and spring-returned means to permit the drum to be rotated in a reverse direction and returned to "reset" position.

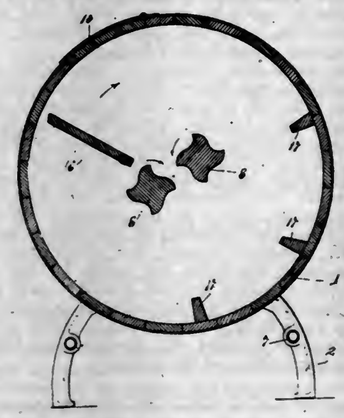
2. In an indicator, the combination of a surrounding casing provided with an exhibiting aperture, a shaft fixedly mounted concentrically thereof, a drum mounted for rotation upon said shaft, coacting means carried by said drum and shaft for causing the drum to move spirally upon the shaft when rotated, said drum being provided with a series of peripheral shoulders, an electro-mechanically operated frame disposed upon the shaft and having means engaging the shouldered portion of the drum to rotate said drum, means for releasing said electro-mechanically operated means to permit the drum to return to "reset" position, and means for returning the drum to "reset" position when released.

3. In an indicator, the combination of a surrounding casing provided with an exhibiting aperture, a shaft fixedly mounted concentrically thereof, a drum mounted for rotation upon said shaft, co-acting means carried by said drum and shaft for causing the drum to move spirally upon the shaft when rotated, said drum being provided with a series of peripheral shoulders, an electro-mechanically operated U-shaped frame having its terminals disposed upon the shaft and its intermediate portion provided with means for engaging the shouldered portion of the drum to rotate said drum, means for releasing said electromechanically operated means to permit the drum to return to "reset" position, and a spring mounted upon the shaft and connected to the drum for returning the drum to "reset" position when released.

4. In an indicator, the combination with a source of electrical energy, and means for completing a circuit, of an indicator having a casing, a shaft mounted therein, a drum mounted for rotation upon said shaft within the casing, co-acting means carried by the shaft and drum for imparting to the drum a spiral movement when rotated, an electro-magnet in said circuit, a frame pivoted upon the shaft, means carried thereby operably engaged with the drum, a spring for actuating said frame in opposition to the electromagnet, said spring and electromagnet operating the frame to rotate the drum, a series of exhibits carried upon the periphery of the drum, means for releasing the frame to permit the drum to return to "reset" position, and means for returning the drum to "reset" position when released.

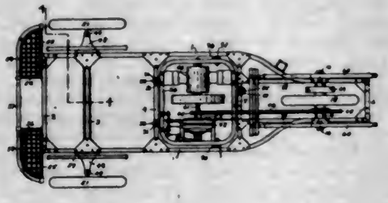
5. In an indicator, the combination with a source of electrical energy, and means for completing a circuit, of an indicator having a casing, a shaft mounted therein, a drum having a series of peripheral teeth mounted for rotation upon said shaft within the casing, co-acting means carried by the shaft and drum for imparting to the drum a spiral movement when the drum is rotated, a frame pivoted upon the shaft, and spanning the drum, said frame being capable of a radial and oscillatory movement with relation to the drum, a pawl carried thereby operably engaged with the teeth of the drum, an electromagnet in said circuit and operably connected for moving the frame, a spring for actuating said frame in opposition to the electromagnet, said spring and electromagnets operating the frame, to rotate the drum, a series of exhibits carried upon the periphery of the drum, means for releasing the frame to permit the drum to return to "reset" position, and a spring mounted upon the shaft and connected to the drum for returning the drum to "reset" position.

1,030,356. COMBINED CHURN AND BUTTER-WORKER. DENNIS E. VIRTUE, Owatonna, Minn. Filed Aug. 11, 1910. Serial No. 576,658. (Cl. 31—25.)



In a combined churn and butter worker, the combination with a horizontal rotary drum provided within with a single wide lifting shelf and with a plurality of narrow flights, a pair of coöperating working rollers journaled to the heads of said drum and carried thereby, the axes of said rollers being equidistant from the axes of said drum and diametrically opposite to each other, the said rollers being located between said wide shelf and narrow flights, means for rotating said drum in a continuous direction, and means for continuously and positively rotating said rollers in opposite directions, at the same speed but at a higher speed than said drum.

1,030,357. CHASSIS. WILLIAM G. WAGENHALS, Detroit, Mich. Filed May 19, 1911. Serial No. 628,259. (Cl. 21—90.)



1. In an automobile chassis, the combination of a main frame comprising side bars and cross bars connecting the same, a motor-supporting frame mounted on the main frame intermediate its ends, the side bars of the main frame extending parallel to each other from their front ends to a transverse line at the rear of the motor frame, and then bending inwardly and extending rearwardly parallel to each other, and knuckles for the front wheels mounted on the side bars near their front ends.

2. In an automobile chassis, the combination of the main frame comprising cross bars, and side beams parallel to each other at their front ends and separated sufficiently to receive a motor-supporting frame, and also parallel to each other but a less distance apart at their rear ends, supports secured to the rear end of the frame, an axle carried by the supports, and a main driving wheel mounted on the axle between the side beams, that portion of the main frame at the rear of the motor-supporting frame being higher than the remainder of the main frame.

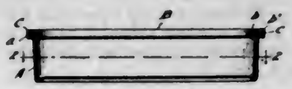
3. In an automobile chassis, the combination of the main frame comprising side beams parallel to each other at their ends and braces between them, adjustable supports mounted on the lower sides of said beams at their rear ends, a driving wheel carried by and between the supports, and brackets secured to said beams at the outer sides adapted to receive the knuckles of the front wheels of the automobile, said frame extending forward of the knuckles to form a support for a front step.

4. In an automobile chassis, the combination of a frame comprising side beams parallel to each other at their front ends and also parallel to each other but a less distance apart at their rear ends, braces for the side beams, outwardly extending brackets secured to said frame near its front end and provided with pivots adapted to receive the knuckles of the front wheels of the automobile, said brackets having downwardly extending projections, and a tie rod extending across beneath the frame and connecting to said projections.

5. In an automobile chassis, the combination of a frame comprising side beams and braces for the same, and outwardly extending brackets secured to said frame near its front end and provided with pivots adapted to receive the knuckles of the front wheels of the automobile, said brackets provided with apertures and seats to receive the front springs of the vehicle.

1,030,358. SARDINE-CAN. GEORGE W. WEBER, New York, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed June 29, 1907. Serial No. 381,500. (Cl. 220—86.)

1. A rectangular sardine can having rounded corners, and comprising a one piece seamless drawn tin plate body having an externally projecting seaming flange furnished with a solid impervious soft metal packing fusibly united to the tin plate coating thereof, said seaming flange being partially annealed or softened by the fusible application of said soft metal packing thereto, and a countersunk tin plate cover having a seaming flange interfolded with the seaming flange of the body into a double seam, said seaming flange of the body having the customary puckers and irregularities incident to its formation and said soft metal packing fusibly united to said flange filling, smoothing out and obliterating said puckers and irregularities to enable a tight joint to be formed therewith, substantially as specified.



2. The combination with a seamless drawn can body having an externally projecting seaming flange furnished with a solid impervious soft metal packing fusibly united thereto, said seaming flange being partially annealed or softened by the fusible application of said soft metal packing thereto, of a cover having a seaming flange interfolded with the seaming flange of the body into a hermetically tight seam, said seaming flange of the body having the customary puckers and irregularities incident to its formation and said soft metal packing fusibly united to said flange filling, smoothing out and obliterating said puckers and irregularities to enable a tight joint to be formed therewith, substantially as specified.

3. In a double seam can, the combination with a body having a seaming flange furnished with a solid impervious soft metal packing fusibly united thereto, said seaming flange being partially annealed or softened by the fusible application of said soft metal packing thereto, of a cover having a seaming flange interfolded with the seaming flange of the body into a double seam, said seaming flange of the body having the customary puckers and irregularities incident to its formation and said soft metal packing fusibly united to said flange filling, smoothing out and obliterating said puckers and irregularities to enable a tight joint to be formed therewith, substantially as specified.

4. A tin plate can body having a seaming flange adapted for double seaming with a cover flange and furnished with a solid impervious soft metal packing fusibly united to the tin coating of the upper surface of said flange, said seaming flange being partially annealed or softened by the fusible application of said soft metal packing thereto, said seaming flange of the body having the customary puckers and irregularities incident to its formation and said soft metal packing fusibly united to said flange filling, smoothing out and obliterating said puckers and irregularities to enable a tight joint to be formed therewith, substantially as specified.

5. A tin plate seamless drawn rectangular can body having rounded corners and a projecting flange adapted for double seaming with a cover flange and furnished with a solid impervious soft metal packing fusibly united to the tin coating on the upper surface of said flange, said seaming flange being partially annealed or softened by the fusible application of said soft metal packing thereto, said seaming flange of the body having the customary puckers and irregularities incident to its formation and said soft metal packing fusibly united to said flange filling, smoothing out and obliterating said puckers and irregularities to enable a tight joint to be formed therewith, substantially as specified.

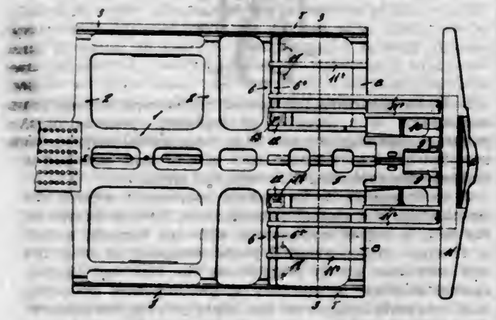
1,030,359. SARDINE-CAN COVER. GEORGE W. WEBER, New York, N. Y., assignor to American Can Company, New York, N. Y., a Corporation of New Jersey. Filed June 29, 1907. Serial No. 381,501. (Cl. 220—65.)

A rectangular sardine can roll-top cover having a central countersunk portion surrounded by a marginal soldering flange parallel with said central portion, and provided with rounded corners and an integral tongue projecting from said marginal flange at one of the corners, said tongue lying entirely within the transverse and longitudinal marginal edges of said flange and said tongue having concavely curved edges merging into the convexly



curved edges of the rounded corner of said flange from which said tongue projects, substantially as specified.

1,030,360. CAR-UNDERFRAME. CHARLES T. WESTLAKE and CHARLES F. FREDE, St. Louis, Mo., assignors to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 6, 1911. Serial No. 658,815. (Cl. 105—76.1.)



1. A car underframe comprising a double body bolster, a center sill extension integral therewith, an end sill integral with said extension, a vestibule platform supporting sill integral with said extension and a buffer beam fixed to the outer end of the center sill extension.

2. A car underframe comprising a double body bolster, a center sill extension integral therewith, an end sill integral with the said extension, a horizontally disposed bottom flange on said end sill, a vestibule platform supporting sill integral with the center sill extension and a buffer beam fixed to the outer end of said extension.

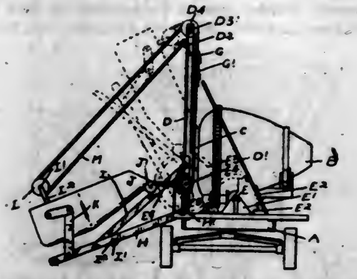
3. A car underframe comprising a double body bolster, a center sill extension integral therewith, an end sill integral with said extension, a vestibule platform supporting sill integral with said extension, a buffer beam fixed to the outer end of the center sill extension and floor beams integral with the end sill and vestibule platform supporting sill and extending between said end sill and the buffing sill.

4. A car underframe comprising a double body bolster, a center sill extension integral therewith, an end sill integral with said extension, a horizontally disposed bottom flange on said end sill, a vestibule platform supporting sill integral with the center sill extension, a buffer beam fixed to the outer end of said extension and floor beams integral with the end sill and vestibule platform supporting sill and extending between said end sill and the buffing sill.

5. In a car underframe the combination with a double body bolster, of a center sill extension, an end sill, an end post supporting flange integral with said sill a vestibule platform supporting sill and longitudinally disposed floor beams all of which are formed in a single piece.

[Claims 6 to 12 not printed in the Gazette.]

1,030,361. FEEDING APPARATUS FOR CONCRETE-MIXING MACHINES. JOHN LEWIS WETTLAUFER, Toronto, Ontario, Canada. Filed May 19, 1910. Serial No. 562,148. (Cl. 214—3.)



1. In a mixing machine or the like carried on a suitable support, a feeding apparatus comprising standards suitably supported, struts supported near the bottom of the standard, a feeding hopper supported on the struts, a cross shaft secured at the front end of the hopper and wheel on the cross shaft, a cross bar extending between the standards, a rope connected to the cross bar and extending around the pulley on the cross shaft of the hopper, a grooved wheel suitably journaled at the top of the standards and over which the rope extends, and guiding pulleys located behind the standards, a winding drum and clutch located on a shaft journaled in suitable bearings and around which winding drum the rope extends as and for the purpose specified.

2. In a mixing machine or the like carried on a suitable support, feeding chute and truck, the combination with the standards and a lower strut pivoted at the top in proximity to the standards, grooved wheels journaled on pins in the lower strut, upper struts pivotally connected to the standards and resting on the grooved wheels, of a hopper having grooved wheels resting on the upper strut, means for supporting the hopper at the front and means connected to the front of the hopper and extending over the top of the standard for simultaneously moving the hopper longitudinally on the struts and raising it as and for the purpose specified.

3. In a mixing machine or the like carried on a suitable support, feeding chute and truck, the combination with the standards and a lower strut pivoted at the top in proximity to the standards, grooved wheels journaled on pins in the lower strut, upper struts pivotally connected to the standards and resting on the grooved wheels, of a hopper having grooved wheels resting on the upper strut, toggle jointed bars pivotally connected to the front of the hopper and to the lowermost struts, and means connected to the front of the hopper and extending over the top of the standard for simultaneously moving the hopper longitudinally on the struts and raising it as and for the purpose specified.

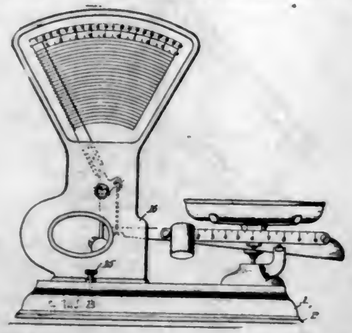
4. In a mixing machine or the like carried on a suitable support, feeding chute and truck, the combination with the standards and a lower strut pivoted at the top in proximity to the standards, grooved wheels journaled on pins in the lower strut, upper struts pivotally connected to the standards and resting on the grooved wheels, of a hopper having grooved wheels resting on the upper strut, toggle jointed bars pivotally connected to the front of the hopper and to the lowermost struts, a rope connected to the top of the standard and passing over suitable guid-

ing wheels on the hopper and on the top of the standard for simultaneously moving the hopper longitudinally toward the feeding opening and raising it as and for the purpose specified.

5. A feeding apparatus for mixing machines comprising struts designed to form run ways extending from the ground to the feeding opening, a hopper supported on the run ways, toggle-jointed bars connecting the hopper to the struts and means for raising the hopper as and for the purpose specified.

[Claim 6 not printed in the Gazette.]

1,030,362. WEIGHING-SCALE. LEWIS C. WETZEL, Toledo, Ohio, assignor to The Toledo Computing Scale Company, Toledo, Ohio, a Corporation of New Jersey. Filed June 12, 1906. Serial No. 321,369. (Cl. 73—121.)



1. The combination with base and sub-base, of means for relatively adjusting the same for the purpose of leveling the former, said means comprising a rocking member extending laterally of the base, abutments laterally spaced with relation to the base, and a finger piece for operating said rocking member.

2. The combination with base and sub-base, of means for relatively adjusting the same for the purpose of leveling the former, said means comprising a rocking member extending laterally of the base, abutments laterally spaced with relation to the base, and a single finger piece located at the front of the base for operating said rocking member.

3. The combination with base and sub-base, of means for relatively adjusting the same to level the former, said means comprising transversely or laterally spaced lugs on the sub-base, a rock shaft journaled in the base and having arms engaging said lugs respectively and an operating arm, and a finger piece connected with the latter.

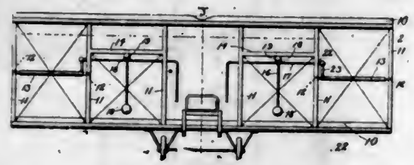
4. The combination with base and sub-base, of means for relatively adjusting the same to level the former, said means comprising transversely or laterally spaced lugs on the sub-base, a rock shaft journaled in the base and having arms engaging said lugs respectively and an operating arm, and a finger piece connected with the latter and located at the front of the base.

5. The combination with base and sub-base, of means for relatively adjusting the same to level the former, said means comprising transversely or laterally spaced lugs on the sub-base, a rock shaft journaled in the base and having arms engaging said lugs respectively and an operating arm, and a bolt carrying a nut engaging the latter said bolt having a head outside the base.

[Claims 6 to 14 not printed in the Gazette.]

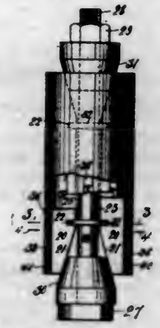
1,030,363. AEROSTRUCTURAL BALANCE. FLOYD E. WHITLATCH, Windsor, Ill. Filed Mar. 18, 1911. Serial No. 615,223. (Cl. 244—29.)

A balancing mechanism for aeroplanes, consisting of a pendulum rod having a weight at its lower end and a cross bar at its upper end extending at right angles, said cross bar being connected at its center to a cross bar of the aeroplane by means of a ball and socket connection, a swinging rod having one end secured to an arm carried by one of the standards of the machine and its opposite end connected with one end of the said cross bar, and a lifting



rod connected to said swinging rod and the balancing plane of the machine for automatically operating said balancing plane.

1,030,364. APPARATUS FOR MAKING PHONOGRAPH-RECORDS. JAMES ALBERT WHITMAN, Grantwood, N. J. Filed Sept. 28, 1910. Serial No. 584,189. (Cl. 181—16.)



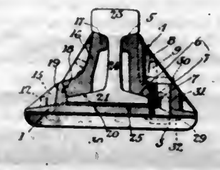
1. In an apparatus for making phonograph records the combination of a, plurality of segmental pressing bars, pressing plugs engaging said bars, longitudinal cover strips over the adjacent sides of each pair of said bars and a cushion tube encircling said bars and strips.

2. In an apparatus for making phonograph records the combination of a central clamping bolt, threads formed on the bolt, a nut in engagement with the threads, a pair of frustum shaped pressing plugs connected up with the bolt with one axially slidable on the bolt and bearing against said nut, a plurality of pressing bars encircling said bolt, cover strips over the joints between the adjacent sides of said pressing bars and a cushion tube encircling said bars and strips, to bear against a tube to force the latter against a matrix.

3. In an apparatus for making phonograph records the combination of a central clamping bolt, threads formed on the bolt, a nut in engagement with the threads, a pair of plugs connected up with the bolt with one axially slidable on the bolt and bearing against said nut, a plurality of pressing bars encircling said bolt, cover strips over the joints between the adjacent sides of said pressing bars, a cushion tube encircling said bars and strips, and a cover for said cushion tube.

4. In an apparatus of the character described the combination of a central clamping bolt, a pair of collars on the bolt, a pair of frustum shaped pressing plugs connected up with the bolt, a plurality of segmental pressing bars having indentations on their outer surfaces and with grooves extending from their inner surfaces, the latter to register with the collars on the bolt, tapered ends on the bars to register with the pressing plugs, threads on the bolt, a nut engaging said threads to bear against one of the pressing plugs, longitudinal cover strips in the indentations of the pressing bars to cover the joints between the adjacent sides of the pressing bars, a cushion tube encircling said bars and strips, and a cover over said cushion tube to bear against a pliable tube to force the latter against a matrix to form impressions on the pliable tube.

1,030,365. RAIL-JOINT. WILLIS D. WILLIAMS, Kirkland, Ariz. Filed June 27, 1911. Serial No. 635,675. (Cl. 239—6.)



1. A base plate, a clamp on one side thereof, a removable clamp on the other side thereof, said clamps having flanges at their upper ends for supporting the head of the rail, there being a space between the lower flange of the rail and the base plate, said base plate having ribs on the underside adapted to bear against the inner edges of the supporting ties and having ribs between said first ribs, said base plate having orifices over the ties.

2. A base plate, a clamp on one side thereof, a removable clamp on the other side thereof, said clamps having flanges at their upper ends for supporting the head of the rail, there being a space between the lower flange of the rail and the base plate, said base plate having ribs on the underside adapted to bear against the edges of the supporting ties, that portion of said base plate between the ties having orifices near the center for the escape of water and dirt.

3. A base plate, a clamp on one side thereof, a removable clamp on the other side, said clamps having flanges at their upper ends for supporting the head of the rail, there being a space between the lower flange of the rail and the base plate, the first clamp having a clearance space to receive the edge of the base flange of the rail, the removable clamp having a beveled side edge, and a retaining abutment on the base plate having a beveled edge coacting with the beveled edge of the side clamp, said abutment having recesses and lugs formed on said removable clamp engaging said recesses, there being a clearance between said lugs and the base plate.

4. A base plate, a clamp on one side thereof, a removable clamp on the other side, said clamps having flanges at their upper ends for supporting the head of the rail, there being a space between the lower flange of the rail and the base plate, said flanges being formed with a rail aperture smaller than the actual rail, whereby the joint is forced on, and the rail cuts its own way.

5. A base plate, a clamp on one side thereof, a removable clamp on the other side, said clamps having flanges at their upper ends for supporting the head of the rail, there being a space between the lower flange of the rail and the base plate, the first clamp having a perforated boss, a pin extending through said boss, the lower base flanges of adjoining rails having beveled corners to engage said pin.

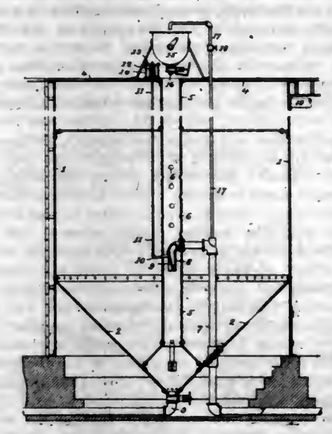
[Claim 6 not printed in the Gazette.]

1,030,366. WATER-PURIFYING APPARATUS. DAVID L. WINTERS, Chicago, Ill. Filed Aug. 21, 1911. Serial No. 645,110. (Cl. 210—1.)

1. In a water purifying apparatus, the combination of a tank, a water supply pipe for the same, means surrounding the outlet end of said supply pipe and formed with openings to the front and rear of the outlet of the supply pipe in communication with the water of the tank, and adapted to cause a circulation of the water in the tank toward the supply pipe for remixing, and means for supplying a purifying reagent to the water undergoing treatment.

2. In a water purifying apparatus, the combination of a tank, a water supply pipe for the same, means surrounding the outlet end of said supply pipe to effect a circulation of the water in the tank, said means being formed with a multiplicity of openings a distance below the normal water line of the tanks to effect an intermixture of the water being circulated, and means for supplying a purifying reagent to the water undergoing treatment.

3. In a water purifying apparatus, the combination of a tank, a water supply pipe for the same, means for constricting the outlet end of said pipe, means surrounding the outlet end of said pipe to effect a circulation of the water in the tank, and means for supplying a purifying reagent to the water undergoing treatment.

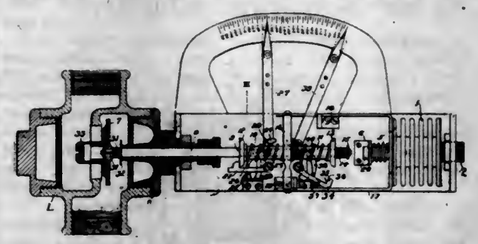


4. In a water purifying apparatus, the combination of a tank, a water supply pipe for the same, means for constricting the outlet end of said pipe, means surrounding the outlet end of said pipe to effect a circulation of the water in the tank, said means being formed with a multiplicity of openings to effect an intermixture of the water being circulated, and means for supplying a purifying reagent to the water undergoing treatment.

5. In a water purifying apparatus, the combination of a tank, a water supply pipe for the same, automatic means for constricting the outlet end of said pipe, means surrounding the outlet end of said pipe to effect a circulation of the water in the tank, and means for supplying a purifying reagent to the water undergoing treatment.

[Claims 6 to 9 not printed in the Gazette.]

1,030,367. THERMOSTATIC VALVE-CONTROLLING MECHANISM. NATHAN WISE, New York, N. Y. Filed Feb. 9, 1911. Serial No. 607,668. (Cl. 126—351.)



1. In combination, a thermostatic element, a valve, a detent for holding the valve in open position, yielding means operated by the thermostatic element and tending to close the valve, means operated by the movement of the thermostatic element whereby the detent is moved to release the valve after the yielding means has been energized by the thermostatic element, a second detent for holding the valve in closed position, yielding means operated by the thermostatic element and tending to open the valve, and means operated by the movement of the thermostatic element whereby such second detent is moved to release the valve, after the last mentioned yielding means has been energized by the thermostatic element.

2. In combination, a thermostatic element, a valve, a detent for holding the valve in open position, yielding

means operated by the thermostatic element and tending to close the valve, means operated by the movement of the thermostatic elemept whereby the detent is moved to release the valve after the yielding means has been energized by the thermostatic element, a second detent for holding the valve in closed position, yielding means operated by the thermostatic element and tending to open the valve, means operated by the movement of the thermostatic element whereby such second detent is moved to release the valve, after the last mentioned yielding means has been energized by the thermostatic element, and yielding means for normally moving the detents to position to engage the valve when it reaches its extreme positions.

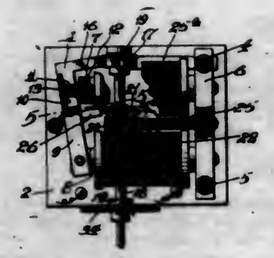
3. In combination, a valve, a thermostatic element, and quick operating mechanism intermediate the valve and thermostatic element comprising means for holding the valve in closed position during a predetermined movement of the thermostatic element, and opening means acting in conjunction with the holding means whereby the valve is first moved suddenly to partially open position, stopped, and then moved suddenly again to fuller open position.

4. In combination, a valve, a thermostatic element, and quick operating mechanism intermediate the valve and thermostatic element comprising yielding opening means for the valve means for holding the valve in closed position during a predetermined movement of the thermostatic element, during which movement the yielding opening means is energized, and means operated by the thermostatic means whereby the means for holding the valve in closed position is actuated to permit a two stage quick opening of the valve.

5. In combination, a thermostatic element, a valve, a detent provided with two holding surfaces for maintaining the valve in closed position, yielding means operated by the thermostatic element and tending to open the valve, and means operated by the thermostatic element whereby the detent is moved to release the valve after yielding means has been energized by the thermostatic element, the said detent being first moved to release the valve from one holding surface permitting a partial opening of the valve and then being moved to release the valve from the second holding surface to permit a fuller opening of the valve.

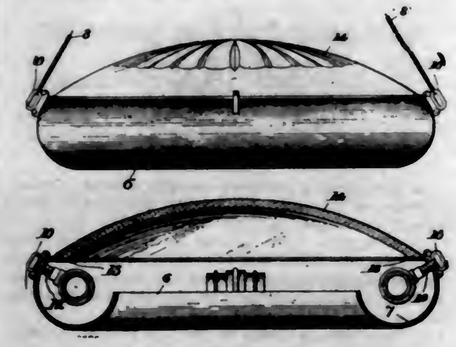
[Claims 6 to 10 not printed in the Gazette.]

1,030,368. SECONDARY ELECTRIC CLOCK. THEODORE H. WURMB and ROBERT BAUMANN, St. Louis, Mo., assignors to National Clock & Electric Manufacturing Co., St. Louis, Mo., a Corporation of Missouri. Filed Aug. 29, 1910. Serial No. 579,459. (Cl. 58—26.)



In an electric clock, an electro-magnet, an armature, an L-shaped spring-pawl having one of its arms fixed to and carried by the armature so that the pawl will be moved bodily therewith but permit the free arm to "give" toward and from said armature and also to be warped, a shaft to be rotated, a pair of oppositely-arranged ratchet wheels, one of which is positioned to be actuated by said free arm of said spring-pawl, and a rigid member also carried and actuated by the armature and arranged to contact with the other ratchet wheel.

1,030,369. INVISIBLE LIGHTING UNIT. LORIN W. YOUNG, New York, N. Y. Filed Nov. 2, 1911. Serial No. 658,196. (Cl. 240—41.)



1. A lighting fixture comprising a frame having a front opening, lamp holders supported on the frame, and a combined light reflector and transmitter mounted on the frame and extending across the same, behind the lamp holders, in position to reflect light forwardly through said opening, and to transmit light rearwardly.

2. A lighting fixture comprising a trough shaped frame having a central opening, lamp holders supported within the trough of the frame, the inner rim of the trough projecting rearwardly around said opening, so that the lamps will be out of sight through said opening, and a reflector extending across the frame, behind the opening therein, and arranged to reflect light from the lamps through said opening.

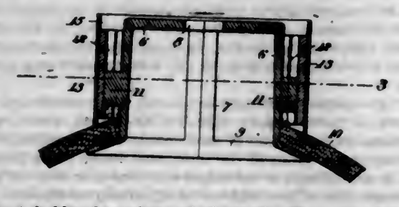
3. A lighting fixture comprising a trough shaped frame having an inner reflective surface and a central opening, lamp holders supported in the trough of the frame, and concealed behind its inner edge, and a reflector extending across the frame, behind said opening and lamp holders, and arranged to reflect light through said opening.

4. A lighting fixture comprising an annular channeled frame, the rims of which project rearwardly, lamp holders supported on said frame in position to hold lamps in the channel, between said rims, said frame having a central opening, and a reflector mounted on the outer rim of the frame and extending across the same, behind the lamp holders, and adapted to reflect light from the lamps through said opening.

5. A lighting fixture comprising a channeled annular frame with a central opening, lamp holders fastened to said frame and adapted to hold lamps in the channel, said frame having an inner reflecting surface, and a glass cover resting on the outer rim of the frame and extending across the same behind the lamps and the opening and adapted to transmit light rearwardly, and also to reflect light forwardly through said central opening.

[Claim 6 not printed in the Gazette.]

1,030,370. HOLDER FOR SHADES OR GLOBES. LORIN W. YOUNG, New York, N. Y. Filed Nov. 2, 1911. Serial No. 658,197. (Cl. 240—115.)



1. A holder for a lamp shade or the like, comprising an inner member made in separable sections and provided at its lower end with a supporting flange for the shade, and a collar fitting around said sections and binding the same together.

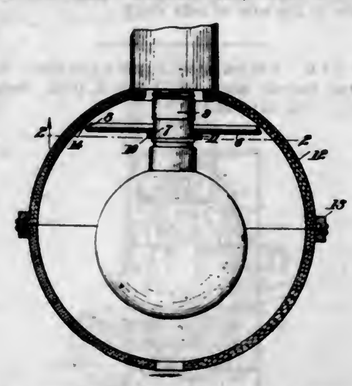
2. A holder for a lamp shade or the like, comprising an inner member made in separable sections and provided at its lower end with a supporting flange for the shade, and a collar fitting around said sections and binding the same together, said collar and sections having interlocking parts respectively engaging each other.

3. A holder for a lamp shade or the like, comprising an inner member made of a plurality of rigid segmental sections and having an outwardly projecting flange to support the shade, and a collar fitting around said sections to hold the same together, said collar and sections having, respectively, interlocking projections and recesses adapted to prevent relative movement of the sections and collar.

4. A holder for a lamp shade or the like, comprising an inner shade-supporting member divided lengthwise into sections to permit the same to be passed separately into the opening in the shade, and a collar adapted to be slipped over the end of said member when said sections are assembled, and having sliding engagement with the various sections thereof, to hold said sections against relative movement.

5. A holder for a lamp shade or the like, comprising an annular shade-supporting member, divided lengthwise into sections, each section having a tongue extending lengthwise thereon, and a collar adapted to fit around said member, to hold the sections together, and having grooves in which said tongues fit.

1,030,371. DUST-COLLECTOR FOR LAMP-GLOBES. LORIN W. YOUNG, New York, N. Y. Filed Nov. 2, 1911. Serial No. 658,198. (Cl. 240—92.)



1. The combination with a suspended electric lamp bulb and its socket, and a globe inclosing the same, of a dust collector comprising a plate attached to the socket above the bulb and inclosed within the globe, said plate projecting at its outer edge toward the globe and forming an air draft space between said edge and the inner surface of the globe.

2. The combination with a suspended electric lamp bulb and its socket, and a globe inclosing the same, of a dust collector comprising a plate attached to the socket above the bulb and inclosed within the globe, said plate projecting at its outer edge toward the globe and forming an air draft space between said edge and the inner surface of the globe, the outer edge of the plate having an upwardly projecting rim to hold dust collected on the plate.

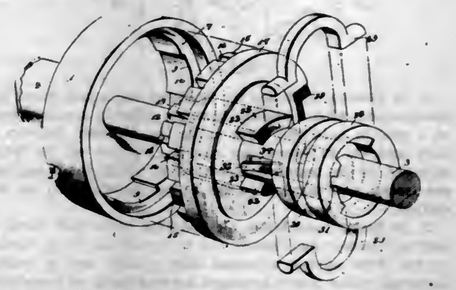
3. The combination with a suspended electric lamp bulb and globe, of a dust collector comprising a plate made of material having a reflective surface, mounted upon the lamp above the bulb and within the top part of the globe, the edge of the plate being spaced from the side of the globe to form an air passage between the outer edge of the globe and the inner surface of the globe, the plate acting as a dust collector, and also as a reflector of light.

1,030,372. METHOD OF PREPARING DEHYDRATED MIXTURES. EDWARD GOODRICH ACHESON, Stamford township, Ontario, Canada. Filed Aug. 25, 1909. Serial No. 514,553. (Cl. 87—9.)

1. The method of preparing dehydrated mixtures containing deflocculated graphite and oil, which consists in mixing the moist deflocculated graphite with oil, agitating the mixture, and evaporating the water therefrom.

2. The method of preparing dehydrated mixtures containing deflocculated graphite and oil, which consists in suspending moist deflocculated graphite in oil, agitating the mixture, and evaporating the water therefrom.

1,030,373. CLUTCH MECHANISM. FRANK B. ALLEN, Salt Lake City, Utah. Filed May 15, 1911. Serial No. 627,354. (Cl. 192—13.)



1. A clutch mechanism including in combination, a transmission ring, a split gripping ring located within the same and having cam faces, a hub, means for rotating the hub relative to the transmission ring, a plurality of toggle levers intermediate said hub and said gripping ring and adapted to engage cam faces on said gripping ring and means for supporting said toggle levers intermediate the ends thereof.

2. A clutch mechanism including in combination, a transmission ring, a split gripping ring located within the same and having cam faces, a hub, means for rotating the hub relative to the transmission ring, a plurality of toggle levers intermediate said hub and said gripping ring and adapted to engage cam faces on said gripping ring and means for supporting said toggle levers intermediate the ends thereof, and means for varying the position of the gripping ring relative to the hub, whereby the frictional contact between the gripping ring and transmission ring may be varied.

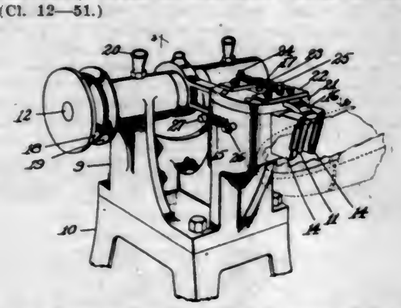
3. A clutch mechanism including in combination, a transmission ring, a split gripping ring located within the same and having cam faces, a hub, a sleeve, a plate carried by said sleeve and connected with said gripping ring, means for rotating the hub relative to the plate, toggle levers engaging said hub and said gripping ring for forcing the gripping ring into contact with the transmission ring and means for supporting said toggle levers intermediate the ends thereof.

4. A clutch mechanism including in combination, a transmission ring, a split gripping ring located within the same, a hub, a sleeve, a plate carried by said sleeve and connected with said gripping ring, means for rotating the hub relative to the plate, toggle levers engaging said hub and said gripping ring and forcing the gripping ring into contact with the transmission ring, and means for adjusting the position of the gripping ring relative to said plate.

5. A clutch mechanism including in combination, a transmission ring, a gripping ring located within the same, a hub having recesses formed in its outer face, a plate having an inwardly projecting flange formed with slots corresponding to the recesses in said hub, toggle levers mounted at one end in said recesses in the hub, and at the other ends in the slots in said flange, the outer ends of said toggle levers engaging said gripping ring, and means for rotating said hub relative to said plate.

[Claims 6 to 9 not printed in the Gazette.]

1,030,374. BEATING-MACHINE FOR FINISHING BOOTS AND SHOES. FREDERICK L. ALLEY, Sydney, New South Wales, Australia, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 27, 1908. Serial No. 464,543. (Cl. 12—51.)



1. In beating machines for finishing boots and shoes the combination with a sliding hammer suitably reciprocated, of a rest to hold the work while the hammer delivers a blow and aid in smoothing out the surface of the work adjacent to the hammer, and a guide which takes against the lasted over portion of the upper substantially as described.

2. In beating machines for finishing boots and shoes, a sliding hammer and means for reciprocating it in combination with spring actuated side guides and a spring actuated crease guide arranged substantially as described.

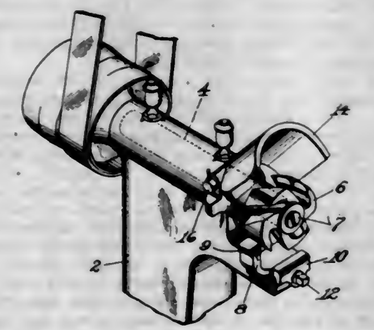
3. In beating machines for finishing boots and shoes the combination with hammers 11 of side guides 14 having springs 15, and a crease guide 16 provided with a spring 17 arranged substantially as described and as illustrated.

4. A shoe beating machine having having in combination a hammer for beating the side of a shoe, a guide arranged to engage in the welt crease or over the shoe bottom, and means for supporting said guide to permit it to yield oppositely to the direction of the blow of the hammer.

5. A shoe beating machine haivng in combination a hammer for beating the side of a shoe, a guide arranged to engage in the welt crease or over the shoe bottom, and guide supporting means arranged to permit the guide to yield backwardly and otherwise to hold the guide unyieldingly.

[Claims 6 to 17 not printed in the Gazette.]

1,030,375. TRIMMING-MACHINE. ORRELL ASHTON, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 4, 1909. Serial No. 511,111. (Cl. 12—82.)



1. A machine of the class described, comprising in combination, a rotary cutter having a plurality of blades, the cutting edges of said blades being arranged in a cylindrical surface, the axis of which coincides with the axis of said cutter, and a stationary shearing blade coöperating with the blades of said cutter.

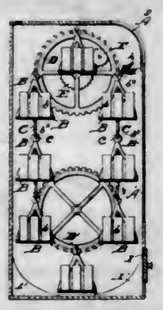
2. A machine of the class described, comprising in combination, a rotary cutter having a plurality of blades, the cutting edges of said blades being arranged in a cylindrical surface, the axis of which coincides with the axis of said cutter, and a stationary shearing blade coöperating with said cutter, the cutting edge of each of said rotary blades when positioned adjacent to said stationary blade being arranged to form an oblique angle with the shearing edge of said stationary blade.

3. In a trimming machine, the combination with a rotary cutter of a stationary shearing blade coöperating with said cutter, said blade having a protruding lip to engage the insole of a shoe being trimmed and constructed and arranged to permit the shoe to be rocked thereon into position to cause the vamp and lining to be trimmed more or less closely to the insole and having a work engaging face tapered in the direction opposite to that in which the work is fed.

4. A machine of the class described, comprising in combination, a rotary cutter having a plurality of blades, the cutting edges of said blades being arranged in a cylindrical surface, the axis of which coincides with the axis of said cutter, an adjustable shearing blade coöperating with said cutter, and a pivoted guide for said cutter having a portion extending between the cutter and the body of the shoe being trimmed.

5. A machine of the class described, comprising in combination, a frame, a shaft supported thereby, means for rotating said shaft, a cutter rigidly mounted on said shaft, a stationary shearing blade supported by said frame and coöperating with said cutter, and means whereby said blade may be adjusted in a horizontal plane in a direction transverse to the axis of said shaft.

1,030,376. RECORD-HOLDING CABINET. ALFRED BAECKER, Detroit, Mich. Filed Nov. 5, 1910. Serial No. 590,811. (Cl. 211—21.)



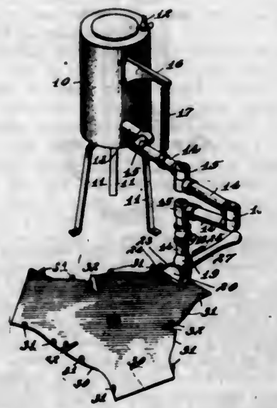
1. The combination of a cabinet having endless chains mounted therein with each chain provided with projections, the projections of one chain being opposite the projections of the other chain, brackets swingingly mounted on the projections of the chains with each bracket provided with a slot, a shelf supported by the opposite brackets, a dog confined within the cabinet and pivoted intermediate its ends with one end adapted to pass into and out of the slot of each of the brackets interchangeably, to lock the chains against movement and also to hold the bracket engaged thereby and the shelf supported by the bracket against swinging movement.

2. In a device of the class described, a cabinet, chains mounted in the cabinet, pairs of brackets swingingly secured to the chains, a shelf mounted in each pair of brackets, one bracket of each pair having a slot, means for raising and lowering said chains to raise and lower the brackets and shelves, and a locking dog pivotally mounted within the cabinet and adapted to engage one bracket of each pair, interchangeably, to lock the chains against movement and also to hold the bracket engaged thereby together with the shelf supported by said bracket from swinging movement.

3. In a device of the class described, a cabinet, a pair of sprocket chains mounted in the cabinet, means for operating the chains, pairs of brackets swingingly secured to the chains, a shelf supported by each pair of brackets, and a locking means confined within the cabinet and adapted for engagement with one of the brackets to lock the chains against the raising and lowering operating means and to hold the shelf whose bracket is engaged by the locking means against swinging movement, said locking means having that portion thereof which engages said bracket disposed out of the path of movement of the chains.

4. In a device of the class described, a cabinet, chains mounted in the cabinet, pairs of brackets swingingly secured to the chains, a shelf mounted in each pair of brackets, means for raising and lowering said chains to raise and lower the brackets and consequently the shelves, and a locking dog mounted and confined within the cabinet and adapted to engage one bracket of each pair, interchangeably, so that the chains may be locked against movement step by step by engagement of the locking dog with one bracket of each pair as the pairs of brackets are brought opposite the locking dog and by the engagement of the dog with said brackets hold the bracket engaged by the dog together with the shelf supported by said bracket from swaying movement.

1,030,377. CEMENTING APPARATUS. JOSEPH W. BARNA, Chicago, Ill., assignor of one-half to Boston Machine Works Company, Lynn, Mass., a Corporation of Massachusetts. Filed June 18, 1909. Serial No. 502,934. (Cl. 12—80.)



1. In a device of the class described, a cement tank, a cement-applying member having a guide, flexible connections between said member and tank, and a table having its edge shaped to the pattern of the material to be cemented and with which said guide co-acts.

2. In a device of the class described, a cement tank, a cement-applying member having a guide, flexible connections between said member and tank, and a revolving table having its edge shaped to various sizes of the pattern of the materials to be cemented and with which said guide co-acts.

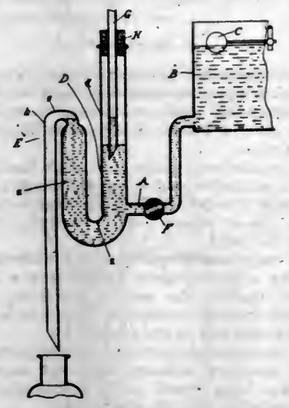
3. In a device of the class described, a cement tank, a cement-applying member having a guide, flexible connections between said member and tank, and a revolving table having its edge shaped to the pattern of a pair of shoe members and with which the said guide co-acts.

4. In a device of the class described, a cement tank, a cement-applying member having a guide, flexible connections between said member and tank, and a revolving table having its edge shaped to the pattern of a right and left shoe-quarters and with which said guide co-acts.

5. In a device of the class described, a cement tank, a cement-applying member having a guide, flexible connections between said member and tank, a pedestal in juxtaposition to said tank, and a removable top on said pedestal having its edge shaped to the pattern of the material to be cemented and with which said guide co-acts.

[Claims 6 to 8 not printed in the Gazette.]

1,030,378. APPARATUS FOR DISCHARGING LIQUIDS IN MEASURED QUANTITIES. CHARLES P. BECKWITH, Detroit, Mich., assignor to Parke, Davis & Company, Detroit, Mich., a Corporation of Michigan. Filed July 23, 1908. Serial No. 444,982. (Cl. 73—153.)



1. A device for successively filling receptacles with a predetermined volume of liquid comprising a siphon having a discharge leg registerable with the receptacle to be filled, a measuring receptacle communicating with said siphon, of predetermined capacity between the levels for starting and breaking the flow, and an inlet for said measuring receptacle having a lesser rate of flow than the discharge from the siphon.

2. A device for successively filling receptacles with a predetermined volume of liquid comprising a siphon having a discharge leg registerable with the receptacle to be filled, a measuring receptacle communicating with said siphon and of predetermined capacity between the levels for starting and breaking the flow, an inlet for said measuring receptacle having a lesser rate of flow than the discharge from the siphon, and means for varying the quantity of liquid discharged.

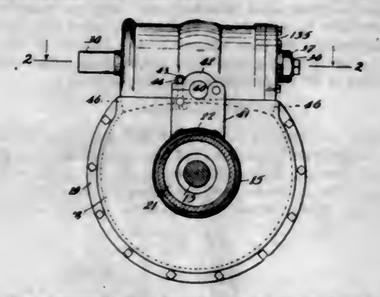
3. A device for successively filling receptacles with a predetermined volume of liquid comprising a siphon having a discharge leg registerable with the receptacle to be filled, a measuring receptacle communicating with said siphon of predetermined capacity between the level for starting and breaking the flow, an inlet for said receptacle, having a lesser rate of flow than the discharge of the siphon, and means by which the relation between the inlet, discharge and the capacity of the measuring receptacle may be varied to alter the measurement of the quantity discharged.

4. The combination of a series of measuring receptacles, means for continuously supplying liquid thereto and for equalizing the levels in the several receptacles, and siphonic discharge connections for said receptacles automatically and synchronously operating between predetermined levels of the liquid therein.

5. A measuring device comprising a siphon having its short leg terminating in a rebent portion of greater length than said leg, a supply connection communicating with said rebent portion, and means for continuously supplying liquid to said connection.

[Claims 6 to 8 not printed in the Gazette.]

1,030,379. TRANSMISSION-GEARING. ANDREW BENSON, Chicago, Ill., assignor, by mesne assignments, to Benson Gear Company. Filed Sept. 5, 1911. Serial No. 647,623. (Cl. 74—36.)



1. In a transmission gearing, a shaft having a worm thereon, a worm-gear meshing with said worm, the axis of the worm being angularly movable relatively to the worm-gear about a pivotal axis located intermediate the ends of the worm.

2. In a transmission gearing, a shaft having a worm thereon, a housing for said worm and shaft, a worm-gear and a housing therefor, the two housings with their corresponding gears therein being relatively movable to compensate for wear.

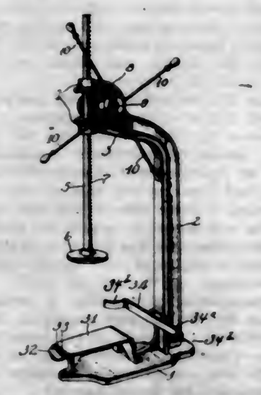
3. In a transmission gearing, the combination of a shaft having a driving gear thereon and a coöperating gear driven thereby, the axis of one being freely and automatically movable relatively to and in a plane perpendicular to the axis of the other.

4. In a transmission gearing, a shaft having a worm thereon, a worm-gear meshing with said worm, the axis of the worm being freely and automatically angularly adjustable relatively to the worm-gear.

5. In a transmission gearing, a shaft having a worm thereon, a housing in which said shaft and worm are mounted, a worm-gear and a housing therefor, the two housings with their corresponding gears therein being freely and automatically movable relatively to each other to compensate for wear.

[Claims 6 to 13 not printed in the Gazette.]

1,030,380. DAMPENING APPARATUS. GEORGE H. BISHOP, Chicago, Ill. Filed Dec. 5, 1910. Serial No. 595,546. (Cl. 68—9.)



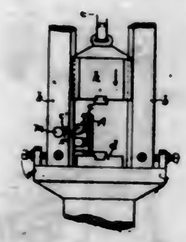
1. A dampening apparatus comprising a base; a standard; a spindle supported by said standard for vertical movement; a shaft rotatably mounted in said standard and geared to said spindle; means for rotating said shaft; a platform on said base; a wheeled container, said platform being adapted to support said container directly beneath said spindle with the wheels of the container clear of the floor; and a cover for said container arranged to receive the pressure of said spindle and distribute the pressure to the contents of the container.

2. A dampening apparatus comprising a base; a standard rising from the rear portion of said base; a platform mounted upon said base forwardly of the standard; positioning stop means on said standard rearwardly of said platform, said stop means comprising a back member and side guides; and pressure-applying means carried by said standard directly above said platform.

3. In an apparatus for dampening clothes; a container adapted to receive clothes in a dampened condition; means including a vertically movable spindle positioned directly above the container for applying pressure to the clothes therein; a member arranged to rest upon the clothes and adapted to be engaged by the lower end of said spindle, said member acting to distribute the pressure of said spindle to the clothes; and follow-up locking means arranged to hold said member in the lowest position to which it has been moved by said spindle.

4. In an apparatus for dampening clothes; a supporting platform sloping downwardly at its forward portion; a wheeled container adapted to be guided upwardly by said sloping portion on to said platform with the wheels of the container clear of the floor; means positioned directly above said platform for applying pressure to the contents of said container; and means arranged to guide said container into proper position beneath said pressure-applying means and acting as a stop for the container.

1,030,381. SAFETY ATTACHMENT FOR DROP-HAMMERS, &c. BEN BREARLEY, Providence, R. I. Filed Jan. 27, 1912. Serial No. 673,856. (Cl. 78—25.)

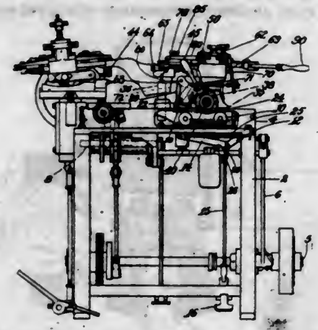


1. In a safety-stop device for drop hammers or analogous machine, a movable stop member disposed with relation to the hammer, means for holding the stop in the normally retracted position, means, capable of being actuated by the hammer in its descent, for tripping or releasing the stop, and means provided for automatically moving the released stop inward between the anvil and hammer.

2. In a drop-hammer or analogous machine, the combination with the anvil and a guided, vertically movable hammer disposed above the top face of the anvil, of a safety-stop device having a laterally movable, spring-pressed member, constituting the stop proper, means for normally locking it in position with relation to the hammer, and tripping means adapted to be engaged by the hammer for releasing the said stop, whereby it is adapted to move under the hammer automatically when the latter is raised a distance exceeding the height of the stop.

3. In a drop-hammer machine, the combination with its anvil, uprights, and vertically guided hammer, of a safety-stop device fixed to said machine, said device including a vertically disposed stop proper, A, means for locking the latter in the normal outward or retracted position, means capable of being tripped by the hammer for releasing the stop from said retracted position, whereby it is adapted to automatically move inward under the hammer while the latter is being elevated, and manually controlled means for returning and locking the stop in the said normal retracted position.

1,030,382. LASTING-MACHINE. MAURICE V. BRESNAHAN, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 2, 1912. Serial No. 669,016. (Cl. 12—14.)



1. In a lasting machine a heel lasting mechanism, a carriage therefor, a table on which said carriage is movable from and to operative position, a catch to hold the carriage in operative position, a return spring for moving the carriage toward inoperative position, a toggle connecting the table and carriage, and means for actuating the toggle to advance the carriage and tension the return spring.

2. In a lasting machine a heel lasting mechanism, a carriage therefor, a table on which said carriage is movable from and to operative position, a catch to hold the carriage in operative position, a return spring for moving the carriage toward inoperative position, a toggle connecting the table and carriage, means for actuating the toggle to advance the carriage and tension the return spring, and means to move the toggle reversely when the catch is released for the purpose described.

3. In a lasting machine a heel lasting mechanism, a carriage therefor, a table on which said carriage is movable from and to operative position, a catch to hold the carriage in operative position, a return spring for moving the carriage toward inoperative position, a toggle connecting the table and carriage, a treadle, a treadle rod, a link pivotally connecting the rod to one toggle member, a lug 28 on the link arranged to engage the toggle near its knuckle, and a spring 30 extending from the toggle to the rod and put under tension by the treadle rod when pressure on the treadle is relieved, and operating to flex the toggle so that the return spring can act freely when the catch is released.

4. In a lasting machine a heel lasting mechanism, a carriage therefor, a table on which said carriage is movable from and to operative position, actuating means to advance the carriage, a catch to secure the carriage, a return spring for the carriage, and a separate return actuator for said actuating means.

5. In a lasting machine a heel lasting mechanism including a carriage and a heel embracing band, a heel post for supporting the last, a rack slide in which the heel post is mounted and which is movable longitudinally of the machine in the carriage to draw the shoe backward into the band, a pinion in engagement with the rack slide, a hand lever for turning the pinion, a segment ratchet, a pawl on the hand lever to engage the ratchet and lock the heel post retracted, and a pawl operating lever extending adjacent to the hand lever to lift the pawl.

[Claims 6 to 16 not printed in the Gazette.]

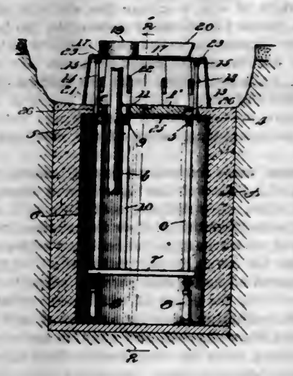
1,030,383. FOUNTAIN-BRUSH. EDWARD BUSCHMAN, Milwaukee, Wis., assignor to Frederick S. Hunt, Milwaukee, Wis. Filed May 10, 1909. Serial No. 495,111. (Cl. 15—51.)

1. A reservoir brush construction providing a plurality of tufts and a separable detachable reservoir provided with independently restricting means for separately supplying variable quantities of fluid to each of a selected number of tufts.



2. In a reservoir brush, a base having bristle-receiving apertures therethrough, bristles secured in said apertures and extending only partially through the base, a reservoir mounted upon the said base having nipples provided with an opening extending into said apertures, and an independent absorbent body interposed between the bristles and the nipples, in each aperture.

1,030,384. APPARATUS USED IN THE CONSTRUCTION OF FIRE-HYDRANTS AND THE LIKE. MICHAEL CLARKSON, Chicago, Ill. Filed Apr. 24, 1909. Serial No. 492,047. (Cl. 25—124.)



1. Apparatus for building hydrant basins comprising a temporary platform located below the top of the basin and consisting of several plates arranged side by side, one of which is provided with an opening therethrough, and with a hatchway, and templets supported by said platform for defining said opening and hatchway and means for supporting said plates.

2. Apparatus for building hydrant-basins comprising a knockdown temporary platform adapted to be located below the top of the basin, and having an opening therein for the passage of the supply pipe of the hydrant and a hatchway therethrough, a templet conforming to and extending said opening through the finished platform and a templet for defining the edges of said hatchway therein.

3. Apparatus for building hydrant basins comprising a circular shaped collapsible former consisting of several longitudinally disposed sections removably connected together, a temporary knockdown platform adapted to be located in said basin below the lower edges of said collapsible former and a temporary knockdown platform at the upper end of said former.

4. Apparatus for building hydrant basins comprising a circular shaped collapsible former consisting of several longitudinally disposed sections removably connected together, a temporary knockdown platform adapted to be located in said basin below the lower edges of said collapsible former and a temporary knockdown platform at the upper end of said former and removable means supported by said lower platform for holding up said upper platform.

5. Apparatus for building hydrant basins comprising a circular shaped collapsible former consisting of several longitudinally disposed sections removably connected together, a temporary knockdown platform adapted to be

located in said basin below the lower edges of said collapsible former, removable means for supporting said platform, and a temporary knockdown platform at the upper end of said former.

[Claims 6 to 9 not printed in the Gazette.]

1,030,385. BURIAL-VAULT. MICHAEL CLARKSON, Chicago, Ill. Filed Feb. 6, 1911. Serial No. 606,952. (Cl. 72—7.)



1. A burial vault comprising several compartments each consisting of a floor-slab having rabbeted edges, side-walls the lower edges of which are seated in said rabbets and have their ends rabbeted on their inner sides, end-walls the end edges of which engage the rabbeted edges of the side-walls, means for normally preventing the lateral movement of the engaged edges of said parts, a suitable cover, horizontal partitions the edges of which are rabbeted on both sides, studs projecting from the surface of said walls adjacent the end edges thereof, and brackets having converging slots in their edges that engage said studs for securing the contacting edges of the side and end walls together.

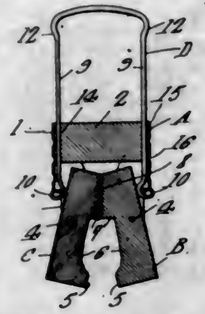
2. A burial vault comprising several compartments each consisting of a floor-slab having rabbeted edges, side-walls the lower edges of which are seated in said rabbets and have their ends rabbeted on their inner sides, end-walls the end edges of which engage the rabbeted edges of the side-walls means for normally preventing the lateral movement of the engaged edges of said parts, a suitable cover, horizontal partitions the edges of which are rabbeted on both sides, studs projecting from the surface of said walls adjacent the end edges thereof, and angular corner-plates having converging slots in their longitudinal edges that engage said studs and move the contacting edges of the side and end walls together when forced down on the studs.

3. A burial vault comprising a floor-slab, side-walls and end-walls, and a top, dowels projecting from the longitudinal edges of said side-walls, recesses in said floor-slab and top into which said dowels project, packing interposed between the contacting edges of said side and end-walls studs projecting from the surfaces of said walls adjacent the corners, and angular corner-plates having converging slots in their longitudinal edges that engage said studs and move said walls together and compress said packing when forced down on the studs.

1,030,386. CLOTHES-PIN. FRANK COMEAU, Louisburg, Nova Scotia, Canada. Filed Apr. 26, 1911. Serial No. 623,540. (Cl. 24—251.)

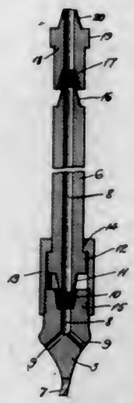
1. A clothes pin comprising a body, a pair of jaws pivoted thereon, a U-shaped spring slidable on the body and extending above the body to form a handle for manipulating the spring, the free ends of said spring being slidable on the outer faces of the jaws from points on one side of the pivots thereof to points on the other side of said pivots, said spring serving to hold the jaws positively in open or closed position, and means for limiting the sliding movements of said spring, said limiting means engaging the spring when the spring is holding the jaws open.

2. A clothes pin comprising a body made up of a casing and a filling member, the casing and filling member being formed in their sides with registering grooves, said casing being provided with downwardly extending wings, a pair of clamping jaws pivoted in said downwardly extending wings, said jaws having upper and lower sets of faces arranged at an angle to each other, the lower set of faces being adapted to contact when the jaws are closed and the upper set of faces being adapted to contact when the jaws are open, said jaws also having cut away inner faces formed at their upper portions with square shoulders adapted to aline with each other when the jaws are open to form a stop, and an approximately U-shaped operating



spring extending through the grooves in said casing and filling member, and slidable therein, said spring having limiting means at the upper and lower ends thereof to limit its sliding movement with relation to said casing, the free ends of said spring bearing against the outer faces of said jaws and slidable thereon to move said jaws from one position to another.

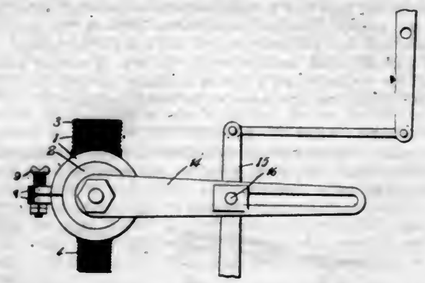
1,030,387. DRILL. WILLIAM H. CRITTON, Fellows, Cal. Filed Oct. 10, 1911. Serial No. 653,877. (Cl. 166—3.)



A drill mechanism comprising a hollow stem having upper and lower sections removably connected, the said sections having annular limiting shoulders formed thereon, a coupling sleeve adapted to be slipped upon said hollow stem when the sections are separated, the annular limiting shoulders preventing the coupling from slipping from the stem, a bit having a neck portion adapted to be screwed into the lower end of said coupling, the said bit also having a socket adapted to be screwed onto the lower end of said stem, the structure being such that the coupling will prevent the loss of the bit if it becomes unscrewed or broken from the stem.

1,030,388. MOTIVE-FLUID MIXER FOR INTERNAL-COMBUSTION ENGINES. WILLIAM G. CROSS, Seneca Falls, N. Y. Filed Oct. 24, 1908. Serial No. 459,333. (Cl. 123—123.)

1. A motive-fluid mixer formed with a transfer passage for the fluid to be mixed with gas to form a charge of motive fluid and with a passage for the gas, said passages having inlets and exits, and means operable once during the formation of each charge for opening the exits of said passages and closing said exits simultaneously, and for opening and closing the inlet of the transfer passage alternately with the opening and closing of said exits, substantially as and for the purpose described.



2. A motive-fluid mixer for internal combustion engines having a mixing chamber, inlet passages for the combustible fluid and gas to be mixed to form the motive fluid, a transfer passage interposed between the inlet passage for the combustible fluid and the mixing chamber, and means operable once during the formation of each charge for simultaneously opening and closing the gas passage and the outlet end of the transfer passage and for opening and closing the inlet end of the transfer passage alternately with the opening and closing of the outlet end thereof, substantially as and for the purpose described.

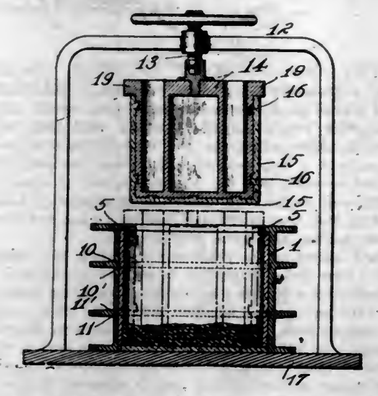
3. A motive-fluid mixer for internal combustion engines having a mixing chamber, and an inlet passage for the combustible fluid, and a movable member movable between the inlet passage and the mixing chamber and formed with a gas passage and with a transfer passage for the combustible fluid, said member being movable once during the formation of each charge for carrying the transfer passage first into registration with the inlet passage for the combustible fluid then out of registration with said inlet passage and into communication with the mixing chamber, the gas and transfer passages being relatively arranged to be carried into and out of communication with the mixing chamber at the same time, substantially as and for the purpose specified.

4. A motive-fluid delivering device for internal combustion engines having outlet passages for the air and combustible fluid to be mixed with air and inlet passages for the air and such fluid, a transfer passage interposed between the inlet and outlet passages for the combustible fluid, and means for opening and closing said outlet passages alternately with the opening and closing of the inlet passage for the combustible fluid whereby the combustible fluid flows into the transfer passage and after the inlet passage for the fluid has been closed, the fluid in the transfer passage is drawn from the transfer passage through the outlet passage for combustible fluid, substantially as and for the purpose set forth.

5. A motive-fluid delivering device for internal combustion engines, such device having inlet and outlet passages for the air and for the combustible fluid, and the device including relatively fixed and movable members, the fixed member being formed with such outlet passages and with the inlet passage for the motive fluid and the movable member being movable between said outlet and inlet passages for opening and closing said passages and said movable member being formed with an air passage and with a transfer passage arranged to register simultaneously with the air outlet and fluid outlet passages respectively, the air passage communicating with the air inlet passage of the device and the transfer passage being also adapted to register with the inlet passage for the motive fluid, when out of registration with the outlet passage for the motive fluid, the transfer passage being carried by the movable member alternately into and out of registration with the inlet and outlet passages for the motive fluid, and means for moving said member once during the formation of each charge, substantially as and for the purpose specified.

[Claims 6 to 12 not printed in the Gazette.]

1,030,389. MOLD FOR CERAMIC WARE. DAVID CROSSLEY, Trenton, N. J. Filed Feb. 19, 1912. Serial No. 678,718. (Cl. 25—129.)



1. A metallic flask or case, a mold of absorbent material engaging the inner surface of the wall of the flask and having the contour of the exterior of an article to be molded, a plunger adapted to enter said mold and having the contour of the interior of said article, and means for operating said plunger for gradually displacing clay and filling the space between the mold and the plunger with the clay, and for applying pressure to the upper part of the article to produce equalization of density throughout said article.

2. A two part metallic flask or case separably secured together, a sectional plaster mold engaging the interior of the flask and having the contour of the exterior of an article to be molded, a movable plunger having the contour of the interior of said article and adapted to enter said mold, and means for operating said plunger for gradually displacing clay, filling the space between the mold and the plunger with clay and for equalizing the density throughout the article.

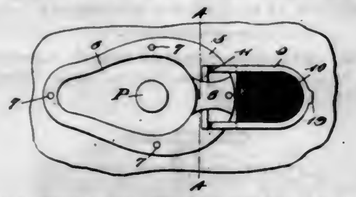
3. A metallic flask or case, a sectional mold of absorbent material engaging the inner surface of the wall of the flask and having the contour of the exterior of an article to be molded, bands surrounding and securing the sections of the mold, a plunger having the contour of the interior of said article and adapted to enter the mold, and means for operating said plunger for gradually displacing clay, filling the space between the mold and the plunger with clay and for equalizing the density throughout the article.

4. A metallic flask or case machined or finished on its interior, a mold of plaster engaging the inner surface of the wall of the flask and having the contour of the exterior of an article to be molded, a plunger having the contour of the interior of said article provided with a shoulder at its upper end adapted to enter the end of the flask, and means for applying pressure to said plunger for gradually displacing clay in the mold, filling the space between the mold and the plunger with clay and for equalizing the density throughout the article.

5. A metallic flask or case, a plaster mold engaging the inner surface of the wall of the flask and having the contour of the exterior of an article to be molded, a plunger having the contour of the interior of said article and provided with a porous covering or outer surface, and means for applying pressure to the plunger for displacing clay and filling the space between the mold and the plunger with clay for equalizing the density throughout the article.

[Claims 6 to 10 not printed in the Gazette.]

1,030,390. PROTECTING-CAP FOR STOP-PLUGS. KITTIE EDITH CUNNINGHAM, Steele, N. D. Filed Jan. 27, 1912. Serial No. 673,878. (Cl. 217—114.)



1. In a device of the character described, the combination of a base plate adapted to be secured to the wall of the receptacle over a stop plug therein, said plate having an opening surrounding the plug and through which the same projects, a loop fulcrumed upon one end of the base plate and movable into the opening thereof to closely engage the wall of the receptacle, and a reticulated housing carried by said loop to receive said stop plug and protect the same against accidental displacement.

2. In a device of the character described, the combination of a base plate adapted to be secured to the wall of a receptacle over a closure plug therein, said plate being provided with an opening through which the plug projects, and a spring held protecting cap for the plug fulcrumed upon said base and including a loop the side bars of which are longitdinally bent adjacent to its fulcrum point whereby the major portion of the loop is disposed within the opening in the base plate and closely engages the wall of the receptacle when the cap is in its effective position.

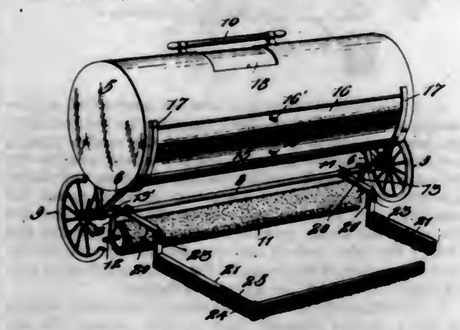
3. In a device of the character described, the combination of a base plate adapted to be secured to the wall of a receptacle and having an opening therein to receive a closure plug in the wall of said receptacle, said plate having a reversely bent portion extending from one edge of the opening and in spaced relation to the base plate and fixed at its free end thereto, a protecting cap including an elongated loop having a cylindrical end portion extending between the base of the plate and the reversely bent portion thereof and rotatable therebetween, a spring secured between said base plate and the fixed end of said reversely bent portion and bearing at its free end upon said cylindrical end of the loop, the side bars of said loop being longitudinally curved adjacent to the fulcrumed end thereof and adapted to extend into the opening of the base plate so that the major portion of the loop closely engages the wall of the receptacle when the cap is in its effective position, and a protecting housing carried by the loop to receive the stop plug.

1,030,391. MAIL-BOX. ROY L. DAVIS, Defiance, Ohio. Filed Jan. 13, 1910. Serial No. 537,893. (Cl. 232—40.)



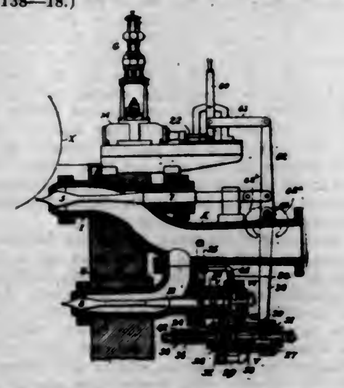
The combination with a support, of an upwardly extending rod secured to the support, an arm pivotally connected with the support at its lower end at a point below the rod, said arm having an opening therein, a member connected with the support and engaged through the opening of the arm and arranged to limit the movement of the arm away from the support a rod pivoted to the upper end of the first named rod and extending downwardly and outwardly, a mail box secured to the upper end of the arm, a top for the mail box pivoted thereto at the edge adjacent to the support, pivotal connections between the second named rod and the free edge of the top for movement of the top into open position when the arm is moved away from the support, and a spring arranged to hold the arm yieldably against movement away from the support.

1,030,392. SCRUBBING-MACHINE. ABBIE DEGRAW, Provo, Utah. Filed Apr. 19, 1911. Serial No. 622,076. (Cl. 15—14.)



The combination with a wheel supported axle, arms rigidly attached to the axle, a scrubbing brush removably attached to each of said arms at one end and provided with elongated slots at the other end, a scrubbing brush provided at each end with a bolt adjustably mounted in the slots, and clamping nuts on the bolts whereby the scrubbing brushes are rigidly held together.

1,030,398. IMPACT WATER-MOTOR. WILLIAM A. DOBLE, San Francisco, Cal., assignor to May E. Doble, Alameda, Cal. Filed Feb. 27, 1906. Serial No. 303,219. (Cl. 138—18.)



1. The combination in an impact water motor, of a casing having two nozzles and valves therefor, a motor and lever connections for operating the main valve, a separate motor for the second valve, a control device for the latter motor, and means for actuating the control device from the motor that actuates the main valve, substantially as set forth.

2. The combination in an impact water motor, of a casing having two nozzles and two valves, a motor for the second valve, a control device for said motor, and a motor connected to actuate said control device and also to shift the main valve, substantially as set forth.

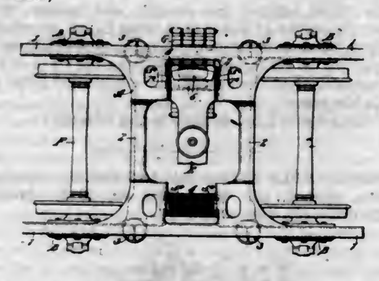
3. The combination in an impact water motor, of a casing having two nozzles and valves, a governor provided with a motor, a motor for the second valve, a control device for the latter motor, and connections whereby the first valve and the control device are both actuated from said governor motor, substantially as set forth.

4. In an impact water motor, the combination of a casing having two nozzles and valves, a governor provided with a motor, connections whereby the main valve is controlled from the said motor, a motor for actuating the valve of the other nozzle, a control device for the latter motor, and means for operating the control device from the governor motor, substantially as set forth.

5. The combination with the casing, main and compensating nozzles and valves of an impact water motor, of a motor for actuating the compensating valve, a control device for said motor, a lever connected with the stem of the main valve and with a valve of the control device, and a motor for operating said lever, substantially as set forth.

[Claims 6 to 28 not printed in the Gazette.]

1,030,394. FOUR-WHEEL TRUCK. HARRY E. DOERR, St. Louis, Mo., assignor to Scullin-Gallagher Iron & Steel Company, St. Louis, Mo., a Corporation of Missouri. Filed Mar. 11, 1912. Serial No. 682,996. (Cl. 105—243.)



1. A car truck having a frame that comprises wheel-pieces, transoms integrally connected to said wheel-pieces and spaced apart to receive a bolster, spring seats integrally connected to said transoms and constructed to receive the springs that support the bolster of the truck, and a lateral-motion device arranged between the bolster and the springs.

2. A car truck having a frame which comprises wheel-pieces and transoms integrally connected together, a bolster arranged between said transoms, stationary spring seats forming part of said frame, springs carried by said spring seats, and roller devices interposed between said springs and bolster.

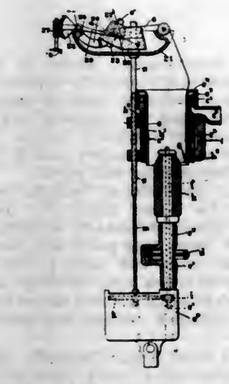
3. A car truck having a frame which comprises wheel-pieces and transoms that are integrally connected together, a bolster arranged between said transoms, stationary spring seats forming part of said frame, springs carried by said spring seats, roller devices interposed between said springs and bolster, and means on said spring seat members for guiding the roller seat members of said roller devices and holding them in position.

4. A four-wheel truck having a frame comprising two wheel-pieces and two single transoms integrally connected together, the end portions of said transoms being relatively wider than the intermediate portions of same, a bolster arranged between said transoms and guided by the relatively wide end portions of same, spring seat members integrally connected to the end portions of said transoms and each consisting of a horizontally disposed part and two vertically disposed side parts, springs mounted on the horizontally disposed parts of said spring seat members, roller devices consisting of rollers and roller seat members arranged between said springs and bolster, and ribs on the vertically disposed side parts of said spring seat members which guide the roller seat members of said roller devices.

5. A four-wheel truck having a frame which comprises a single casting consisting of wheel-pieces and two single transoms integrally connected together, and spring seats forming part of said casting and comprising vertically disposed portions integrally connected to said transoms and a cross-piece on which the spring rests.

[Claim 6 not printed in the Gazette.]

1,030,395. SPINNING, DOUBLING, AND TWISTING MACHINE. SEBASTIAN ZIANI DE FERRANTI, Grindleford Bridge, near Sheffield, England. Original application filed May 12, 1905, Serial No. 260,120. Divided and this application filed May 20, 1909. Serial No. 497,298. (Cl. 118—13.)



1. In combination in a machine for twisting fibrous material, a rotatable twisting element and conical thread-transferring means co-acting therewith to impart a certion degree of twist to said material together with means co-acting with said conical thread-transferring means for varying said degree of twist.

2. In combination in a machine for twisting fibrous material, a rotatable twisting element; conical thread-transferring means; a driving connection between said element and said transferring means; together with means co-acting with said conical thread-transferring means for varying the degree of twist imparted to the material.

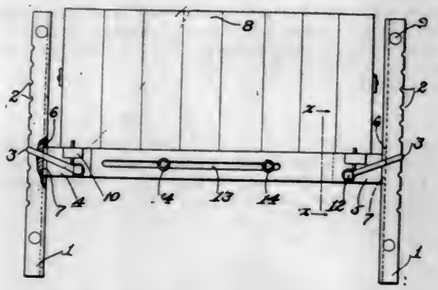
3. In combination in a machine for twisting fibrous material, a plurality of twisting units, each including a rotatable twisting element and conical thread-transferring means co-acting therewith to impart a certain degree of twist to said material together with means co-acting with said conical thread-transferring means for simultaneously varying said degree of twist in said units.

4. In combination in a machine for twisting fibrous material, a plurality of twisting units each including a rotatable twisting element and conical thread-transferring means co-acting therewith to impart a certain degree of twist to said material, means co-acting with said conical thread-transferring means for varying said degree of twist, together with means common to a plurality of said units for actuating said twist-varying means.

5. In combination in a machine for twisting fibrous material, a rotatable twisting element and conical thread-transferring means co-acting therewith to impart a certain degree of twist to said material together with means co-acting with said conical thread-transferring means for varying said degree of twist, said means comprising guiding means disposed in operative relationship to said thread-transferring means and means for varying the position of said guiding means longitudinally of said transferring means.

[Claims 6 to 9 not printed in the Gazette.]

1,030,396. DINKING-BLOCK SUPPORT. WILLIAM R. FORSYTH, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 2, 1911. Serial No. 630,954. (Cl. 164—78.)

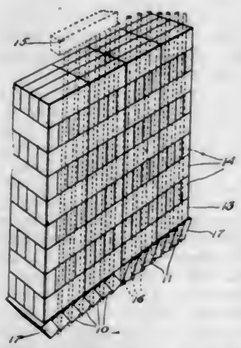


1. A dinking block support, having in combination, means for clamping said support in various positions of vertical adjustment, means for securing said block upon said support, and means for clamping said support in various adjustments of horizontal length, said device being so constructed and arranged that it may be collapsed without disconnecting said parts.

2. In a dinking block support uprights, longitudinally extensible transverse beams, means for clamping said beams to said uprights, and means for securing said clamping means to said beams, said parts being so constructed and arranged that while said parts are still connected said uprights may be drawn down relatively to said beams and turned about the clamp securing means until the said uprights reach a position beneath and parallel to said beams.

3. In a dinking block support, uprights, longitudinally extensible transverse beams, and a clamp at each end of each beam, said clamp being attached to said beam at a point near the bottoms of said beam and in such manner that said clamp may serve as a hinge on which the associated upright may be turned about said point of attachment to a position beneath and parallel to said beam.

1,030,397. BRICK-HANDLING METHOD AND STACK. WILLIAM H. FRANCIS, Cherryvale, Kans. Filed July 8, 1911. Serial No. 637,576. (Cl. 57—9.)



1. The herein described method of lifting bricks, which consists in forming a brick stack with the bottom row arranged to leave spaces for lifting fingers, and with individual bricks of said bottom row arranged to interengage so as to be lifted by vertical lifting action of a mechanical lifter applied beneath the same, and bodily lifting the stack so formed by a lifter engaging beneath said bottom row in said spaces and acting to hold the bricks thereof intergripped for lifting without disarrangement.

2. The herein described method of lifting bricks, which consists in forming a brick stack with the bottom row arranged to leave "V" shaped spaces along the bottom of the stack to receive the fingers of a mechanical lifter, the individual bricks of said bottom row being arranged to interchange so as to be lifted with the stack by vertical lifting fingers, and in bodily lifting the stack so formed, by means of vertically acting lifting fingers engaging beneath said bottom row in said spaces and operative to hold the bricks thereof intergripped for lifting without disarrangement.

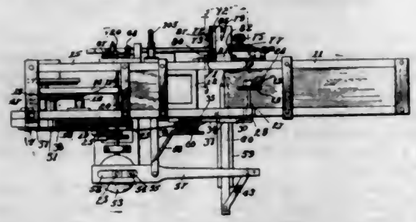
3. The herein described method of lifting bricks, which consists in forming a brick stack with the bricks at the bottom thereof tilted to leave finger spaces along the base of the stack, engaging the stack by the fingers of the mechanical lifter applied at said spaces in a manner to lift the entire stack vertically and to intergrip the bottom row of bricks with each other, and lifting the stack so engaged by the mechanical lifter.

4. The herein described method of lifting bricks, which consists in forming a brick stack with the bricks of the bottom row tilted against one another and resting on their edges to leave "V" spaces along the bottom, engaging the fingers of a mechanical lifter with said spaces to lift the stack bodily and cause intergripping of the bricks in the bottom row with one another and with the next row, and lifting the stack so engaged by the mechanical lifter.

5. The herein described method of lifting bricks, which consists in forming a brick stack, with the bottom row of bricks tilted against one another and resting on their edges, the bricks at either side being tilted oppositely, depositing the next layer at right angles to the bottom layer, completing the stack, and bodily lifting the stack so formed by engagement of the fingers of a mechanical lifter underneath the same.

[Claims 6 and 7 not printed in the Gazette.]

1,030,398. SELF-TYING BALING-PRESS. CLAUD GOBELL, Quincy, Ill. Filed July 30, 1910. Serial No. 574,701. (Cl. 100—20.)



1. A device of the character described having a baling chamber, a driving shaft, a toothed wheel hung in the upper part of said chamber and adapted to be actuated by the moving contents thereof, a resiliently balanced lever, the shaft of said wheel being provided with a crank adapted to engage one arm of said lever, a bell-crank, one arm of which is adapted to be engaged by the other arm of said lever, a latch, means of connection between said latch and said bell-crank, a trip having one end normally held by said latch, said trip and latch being resiliently connected, a gear wheel having a lateral projection, said trip also having a lateral projection engaging the aforesaid projection, said gear-wheel having its shaft geared to said driving shaft, bale-band-applying means, and means controlled by said trip and latch for operating said bale-band-applying means from the driving shaft.

2. A device of the character described having a baling chamber, a driving shaft, a latch, means periodically operated by the moving contents of the baling chamber for retracting said latch, a trip having one end normally held by said latch, said trip and latch being resiliently connected a gear-wheel having a lateral projection, said trip also having a lateral projection engaging the aforesaid projection, said gear-wheel having its shaft geared to said driving shaft, bale-band-applying means, a latch-bar carrying said latch, guiding means for one end of said latch-bar, resilient means of connection between said guiding means and said latch-bar, said latch bar being engaged at one end by said trip when the latter is disengaged from said latch, a link having said latch-bar pivoted thereto and having a lateral projection thereon, an arm carried by said driving shaft, a pawl carried by said arm and itself having an arm adapted to engage the last referred to projection, a gear-wheel on said driving shaft carrying rollers, said pawl having a lateral projection adapted to engage said rollers, and means for actuating said bale-band-applying means from the driving shaft through the latter named gear-wheel.

3. In a device of the character described having a baling chamber, a driving shaft, a toothed wheel arranged to be actuated by the moving contents of said chamber, a needle-frame carrying a pivoted needle, a pair of rotary wire-gripping disks, a stationary wire-bending member arranged intermediate said disks and offset with respect to their perimeters, a deflector relatively arranged to said wire-gripping disks and said wire-bending members for deflecting the direction of travel of the needle and bringing the wire carried by said needle on the side of the needle toward the completed bale into engagement with said disks for grasping, means for actuating said needle-frame from said toothed wheel through said driving shaft, and means for actuating said wire-bending disks from said driving shaft.

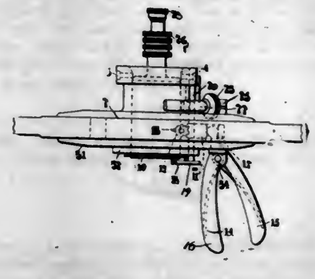
4. In a device of the character described having a baling chamber, a driving shaft, a toothed wheel arranged to extend into said chamber and be actuated by the moving contents of said chamber, a needle-frame carrying a pivoted needle, a pair of rotary wire gripping disks, a wire-bending member arranged intermediate said gripping disks and offset with respect to their perimeters, a deflector relatively arranged to said wire-gripping disks and said wire-bending member for deflecting the direction of movement of the needle, a twister juxtaposed to said wire gripping disks, a shaft carrying said twister and bearing a notched disk, a pivoted arm provided with a pin adapted to engage the notch of said disk, means for actuating said needle-frame from said toothed wheel through said driving shaft, means for actuating said wire-gripping disks, and means for actuating said twister from said driving shaft.

5. In a device of the character described having a baling chamber, a driving shaft, a toothed wheel arranged to extend through the upper surface of said chamber to be actuated by the moving contents of said chamber, a needle-frame carrying a pivoted needle, a pair of rotary wire-gripping disks, a wire-bending member arranged intermediate the gripping disks and offset with respect to their perimeters, a deflector relatively arranged to said wire-gripping disks and said wire-bending member for deflecting the direction of movement of said needle, a wire twister juxtaposed to said wire-gripping disks, a shaft carrying said twister and bearing a notched disk, a pivoted arm provided with a pin adapted to engage the notch of said disk, means for actuating said twister from said driving shaft provided with a lug adapted to engage at the suitable time said arm for lifting its pin from the notch of said disk, means for actuating said wire-gripping disks from said driving shaft, and means for actuating said needle-frame from said toothed wheel through said driving shaft.

[Claims 6 to 9 not printed in the Gazette.]

1,030,399. MACHINE FOR CUTTING PUNCHES AND LIKE MASTER METAL SURFACES. JOHN CAMERON GRANT, Kensington, and LUCIEN ALPHONSE LEGROS, Watford, England. Filed Oct. 27, 1910. Serial No. 589,437. (Cl. 159—7.)

1. In a punch-cutting machine means for holding the punch blank comprising in combination a chuck, a plane surface on said chuck, a chuck-holder, a plane surface on said chuck-holder coöperating with said plane surface of said chuck, a plane surface on said chuck-holder adapted to make a line contact with said chuck and a spherical surface on said chuck-holder adapted to make a point contact with said chuck.



2. In a punch-cutting machine means for holding the punch blank comprising in combination a chuck, two trued faces at right angles on said chuck, means for holding a punch in said chuck with two sides in contact with said two faces at right angles, a plane surface on said chuck, a chuck-holder, a plane surface on said chuck-holder coöperating with said plane surface of said chuck, a plane surface on said chuck-holder adapted to make a line contact with said chuck and a spherical surface on said chuck-holder adapted to make a point contact with said chuck.

3. In a punch-cutting machine means for holding the punch blank comprising in combination a chuck, a plane surface on said chuck, a chuck-holder, a plane surface on said chuck-holder coöperating with said plane surface of said chuck, a plane surface on said chuck-holder adapted to make a line contact with said chuck, a spherical surface on said chuck-holder adapted to make a point contact with said chuck against said spherical surface.

4. In a punch-cutting machine means for holding the punch blank comprising in combination a chuck, a plane surface on said chuck, a chuck-holder, a plane surface on said chuck-holder coöperating with said plane surface of said chuck, a plane surface on said chuck-holder adapted to make a line contact with said chuck, a spherical surface on said chuck-holder adapted to make a point contact with said chuck, and a member carrying said spherical surface said member being adjustable in a line parallel to said line of contact.

5. In a punch-cutting machine means for holding the punch blank comprising in combination a cylindrical chuck, a flat on the curved surface of said chuck, a chuck-holder having a cylindrical aperture, a positioning piece having a plane surface in said chuck-holder said plane surface coöperating with said flat on said chuck, a plane surface on said chuck-holder adapted to make a line contact with said chuck and a spherical surface on said chuck-holder adapted to make a point contact with said chuck.

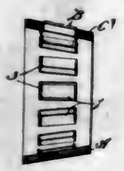
[Claims 6 to 8 not printed in the Gazette.]

1,030,400. CAGE FOR ROLLER-BEARINGS. CHESTER A. HEINZELMAN, Belleville, Ill. Filed July 25, 1911. Serial No. 640,436. (Cl. 64—62.)

1. A roller bearing cage consisting of a substantially cylindrical-shaped cast metal body portion provided with longitudinally extending roller openings, and a ring-shaped metallic reinforcing member permanently connected to said body portion so as to strengthen same and provided with portions which project into said roller openings so as to form bearing surfaces for the rollers arranged in said openings.

2. A roller bearing cage consisting of a one-piece cast metal body portion of approximately sleeve form provided

with roller openings for receiving rollers that extend longitudinally of said body portion, and a cylindrical-shaped reinforcing member of relatively stronger metal embedded in said cast metal body portion and permanently combined with same and provided with portions which lap over the ends of said roller openings so as to form bearing surfaces for the ends of the rollers.



3. A roller bearing cage consisting of a substantially tubular-shaped sheet metal member having longitudinally extending openings for receiving rollers and provided with laterally projecting integral portions that form bearing surfaces for the ends of the rollers, and a cast metal body portion combined with said sheet metal member and provided with alining openings through which the rollers project.

4. A cage for roller bearings consisting of a one-piece cylindrical-shaped body portion formed of cast metal and provided with longitudinally extending roller openings, and a metallic reinforcing and strengthening member of corresponding shape embedded in said body portion and provided with portions that extend over the ends of the roller openings in said body portion so as to form bearing surfaces for the ends of the rollers.

1,030,401. ROLLER-BEARING. CHESTER ARTHUR HEINZELMAN, Belleville, Ill. Filed Nov. 6, 1911. Serial No. 658,793. (Cl. 64—39.)

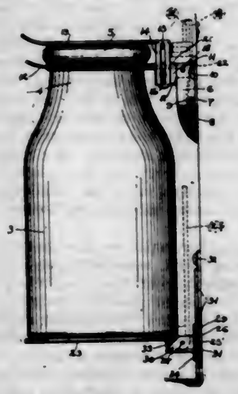


1. A roller bearing comprising an inner member on which the rollers travel and provided at one end with a flange for preventing longitudinal movement of the rollers, and a removable roller-retaining device arranged adjacent the opposite end of said member and provided with fingers that lie between said inner member and the spindle of the bearing, said fingers being so shaped that said device cannot be removed when the spindle is arranged in operative position.

2. A roller bearing comprising an inner member mounted on the spindle of the bearing and provided at one end with an undercut recess and a beveled surface which tapers oppositely to the sides of said recess, and a roller-retaining ring provided with yielding fingers which have lugs that project into said undercut recess.

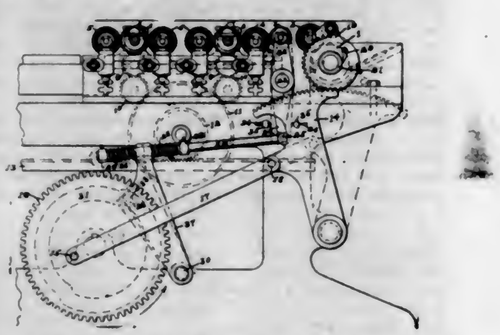
1,030,402. MILK-BOTTLE HOLDER. JOHN HERBER and FRANK SLATER, Cleveland, Ohio. Filed May 26, 1911. Serial No. 629,528. (Cl. 248—30.)

The combination with a hollow recessed bracket and a spring incased therein, of a forked member pivoted in the bracket and fashioned with a shoulder to engage the front wall of the recessed bracket when the member is in horizontal position, a squared rear end to the member



in contact with the spring, and a cover plate having slotted side arms connected with said member.

1,030,403. INKING APPARATUS FOR PRINTING-PRESSES. WILLIS K. HODGMAN, Taunton, Mass., assignor to Huber-Hodgman Printing Press Co., Taunton, Mass., a Corporation of Massachusetts. Filed Feb. 1, 1911. Serial No. 606,020. (Cl. 101—78.)



1. In an inking apparatus for a bed and cylinder printing press, the combination of a reciprocating bed and ink table, a group of continuously contacting ink table rollers and vibrating rollers, means for continuously driving said group of rollers to conform to the direction and speed of said reciprocating bed and ink table, means for vibrating said vibrating rollers endwise, a fountain roller, a feed roller continuously contacting with said fountain roller, and a ductor roller alternately contacting with said feed roller and one of said ink table rollers.

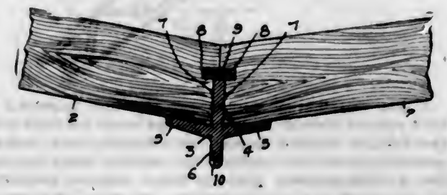
2. In an inking apparatus for a bed and cylinder printing press, the combination of the following instrumentalities, a reciprocating bed and ink table, a group of continuously contacting ink table rollers and vibrating rollers, means for continuously driving said group of rollers to conform to the direction and speed of said reciprocating bed and ink table, means for vibrating said vibrating rollers endwise, a fountain roller, a feed roller continuously contacting with said fountain roller, and a ductor roller alternately contacting with said feed roller and one of said ink table rollers; said instrumentalities so located and timed in relation to each other that each fresh supply of ink is fed to said group of rollers by said ductor roller during a part of the departing and returning strokes of said bed and ink table and distributed upon said group of rollers only until said ink table contacts with said ink table rollers on its returning stroke.

3. In an inking apparatus for a bed and cylinder printing press, the combination of an ink table carried by the reciprocating bed, a fountain roller located substantially in the path of but beyond the reach of the ink table, a feed roller continuously contacting with said fountain roller, an ink table distributing roller and a ductor roller mounted and actuated to alternately contact with the feed roller and with the ink table distributing roller.

4. In an inking apparatus for a bed and cylinder printing press, the combination of a reciprocating bed and ink table, an ink fountain located substantially in the path of but beyond the reach of said ink table, an ink fountain roller, an ink table distributing roller, a feed roller continuously contacting with said ink fountain roller, and a ductor roller mounted and actuated to alternately contact with said feed and said ink table distributing rollers, with means to actuate said ductor roller to make and break contact with said ink table distributing roller at times when said reciprocating bed is practically on dead centers and said ink table distributing roller practically at rest.

5. In an inking apparatus for a bed and cylinder printing press, the combination of a reciprocating bed and ink table, an ink fountain located substantially in the path of but beyond the reach of said ink table, an ink fountain roller, a feed roller continuously contacting with said ink fountain roller, an ink table distributing roller, a ductor roller mounted to alternately contact with said feed roller and said ink table distributing roller, and means to actuate the said ductor roller to make and break contact with said ink table distributing roller when said reciprocating bed is practically on dead centers and said ink table distributing roller practically at rest, the location of the several rollers being such that the distance around the said ink table distributing roller from said ductor roller to said reciprocating ink table is greater than the length of said reciprocating ink table inked by said ink table distributing roller.

1,030,404. SILO. ARTHUR O. HUBBARD, Minneapolis, Minn. Filed Nov. 4, 1910. Serial No. 590,702. (Cl. 20—1.4.)



1. A silo composed of upright panels having abutting vertical edges, upright metal bars having inner and outer vertical webs, said inner webs projecting into the joints between the edges of abutting panels but extending only partially therethrough, the inner portions of said joints preventing contact of the acids in the silo with said bars, side webs extending laterally from said inner and outer webs and coöperating with said inner webs to form seats for the outer portions of the abutting edges of said panels, said outer webs projecting outwardly beyond said side webs, and hoops seated on said outer webs.

2. A silo composed of upright panels having abutting vertical edges, the outer portions of said vertical edges having rabbets formed therein, upright metal bars having inner webs seated in said rabbets, the inner portions of said vertical edges forming a close, acid-tight joint between said webs and the interior of the silo, side webs extending laterally from said inner web and forming angles therewith to receive the outer portions of the vertical edges of said panels, outer webs forming outward extensions of said inner webs and projecting beyond said side webs, and hoops inclosing the silo and seated on the edges of said outer webs.

3. A silo composed of upright panels placed edge to edge, upright metal bars, star-shaped, substantially, in cross section, bridging the joints between said panels on the outside of the silo, one of the webs of each bar extending into the joint between the panels and forming, with other webs, a seat for the edges of the panels, another web projecting outwardly and having notches therein, and hoops seated in said notches.

1,030,405. SILO. ARTHUR O. HUBBARD, Minneapolis, Minn. Filed Sept. 5, 1911. Serial No. 647,653. (Cl. 20—1.4.)



1. The combination, with the upright silo panels having abutting vertical edges, of vertically arranged metal bars composed of sections placed end to end, one above another, said bars comprising outwardly projecting flanges and side flanges adapted to bear on the panels of the silo, rail plates seated on said outwardly projecting flanges and having their edges bearing on said side flanges and bridging the joints between the abutting sections of said bars, and tongues passing through said plates and outwardly projecting flanges and locking said sections in vertical alinement.

2. A silo composed of upright panels having vertical abutting edges, metal bars provided at the joints between abutting panels, said bars being composed of sections placed end to end and having outwardly projecting flanges and side flanges adapted to bear on the walls of said panels, coupling rails bent to fit over said outwardly projecting flanges and having edges that are seated upon said side flanges, said rails bridging the joints between the sections of said bars, hoops inclosing the silo and seated on said rails, and means for securing said rails to the outwardly projecting flanges of said bars.

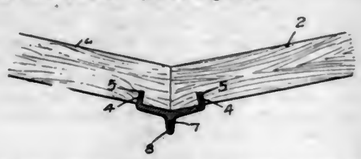
3. In a silo, upright metal bars provided at the joints between the vertical sections of the silo, said bars being composed of sections placed end to end, each section being provided with laterally projecting flanges adapted to bear on the outer surfaces of the silo sections, said sections also having outwardly projecting flanges, and rails, U-shaped substantially in cross section, fitting said outwardly projecting flanges and bridging the joints between said sections, and having upwardly turned edges seated on said laterally extending flanges, and means securing said rails to said sections.

4. In a silo, upright bars composed of sections placed end to end, each section having laterally extending flanges adapted to bear on the walls of the silo and also having outwardly projecting flanges, rails bridging the joints between the abutting sections, and locking keys passing through slots in said rails and said outwardly projecting flanges.

1,030,406. SILO. ARTHUR O. HUBBARD, Minneapolis, Minn. Filed Oct. 27, 1911. Serial No. 657,096. (Cl. 20—1.4)

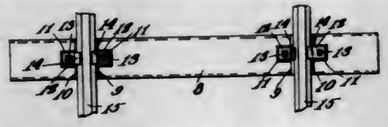
1. A silo composed of upright panels having abutting vertical edges, upright metal bars seated over the joints between the abutting vertical edges of the panels and having side webs projecting laterally on each side of said joints, said webs having inwardly turned edges adapted to enter vertical grooves in the staves of the panels and

said bars also having strengthening ribs or webs intermediate to said side webs and projecting outwardly therefrom, and hoops seated on said projecting webs and binding them and said panels together.



2. A silo composed of upright panels having abutting vertical edges, upright metal bars seated over the joints between the abutting vertical edges of the panels and having side webs projecting laterally on each side of said joints, means for holding said upright bars in vertical alinement with said joints, said bars also having strengthening ribs or webs intermediate to said side webs and projecting outwardly beyond the plane thereof, and hoops seated on said projecting webs and binding said upright bars and said panels securely together.

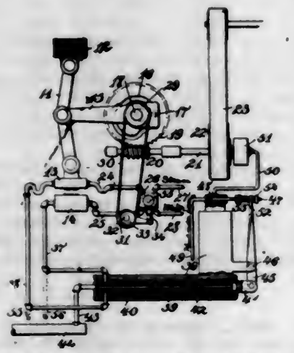
1,030,407. RAILROAD-TIE AND CLAMP. CLAIR LEROY INMAN, Seneca, Nebr. Filed Nov. 24, 1911. Serial No. 662,231. (Cl. 238—2.)



1. In combination, a tie, a cruciform cushion having a thickened portion embedded in the tie, a rail passing over the thickened portion of the cushion, and rail clamps arranged on the other portions of the cushion.

2. In combination, a tie having a channel across its face, a cruciform cushion having a thickened portion fitting in the said channel and the other portions projecting over the face of the tie at the sides of the channel, a rail resting on and passing over the said thickened portion, and clamps arranged on the portions of the cushion projecting over the face of the tie and engaging the base flange of the rail.

1,030,408. PRESS. EMIL G. JEGGE, Newark, N. J. Filed Sept. 22, 1911. Serial No. 650,691. (Cl. 18—16.)



1. A press having dies adapted to receive heating and cooling mediums, mechanism for alternately feeding said mediums, and thermostatically operated means actuated by said mediums for regulating the operation of the dies.

2. A press having dies adapted to receive heating and cooling mediums, mechanism for alternately feeding said mediums to the dies, means for operating the dies, and thermostatically operated means actuated by said mediums for regulating the die-operating means.

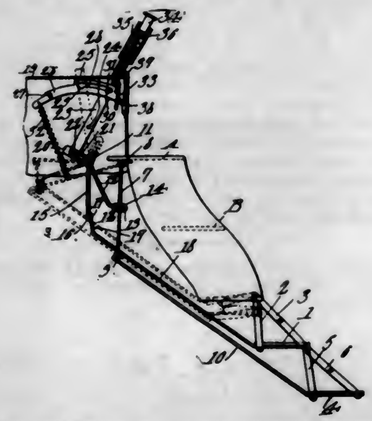
3. A press having dies adapted to receive heating and cooling mediums, means for operating the dies, mechanism for alternately feeding the mediums to the dies, said mechanism being operated from the die-operating means, and thermostatically operated means actuated by said mediums for regulating the die-operating means.

4. A press having dies adapted to receive heating and cooling mediums, means for operating the dies toward and from each other, mechanism for alternately feeding the heating mediums to the dies, thermostatic means actuated by said mediums for regulating the die-operating means, and means for conducting the mediums from the dies to the thermostatic means.

5. A press having dies and operating means therefor, the dies being adapted to receive cooling and heating mediums, means for alternately feeding said mediums to the dies, an operative connection between the feeding means and the die-operating means, means for starting and stopping the die-operating means, and a thermostatic means operated by the mediums for actuating the starting and stopping means.

[Claims 6 to 8 not printed in the Gazette.]

1,030,409. FOLDING CAR-STEP. GEORGE KAPP and BENJAMIN S. HYATT, Vinita, Okla. Filed Mar. 7, 1912. Serial No. 682,133. (Cl. 105—86.)



1. The combination with a car structure including a fixed step, of movable steps suspended below the fixed step and foldable relative thereto, an actuating lever, means operated thereby for shifting the movable steps into or out of active position, yieldable means engaging the lever for holding it at either limit of its movement, and means carried by the lever for shifting said yielding means out of engagement with the lever.

2. The combination with a car structure including a fixed step, of movable steps suspended below the fixed step and foldable relative thereto, an actuating lever, means operated thereby for shifting the movable steps into or out of active position, yieldable means engaging the lever for holding it at either limit of its movement, means carried by the lever for shifting said yielding means out of engagement with the lever, and means engaging said yielding means for holding it against movement out of engaging position.

3. The combination with a car structure and a step fixedly connected thereto, of movable steps foldable against said fixed step, a rock shaft, separate means actuated by the shaft for moving the respective movable steps into or out of active position, an arm extending from the shaft, a lever slidably engaging the arm, yieldable means for engaging the lever to hold it at either limit of its movement, and means carried by the lever for depressing said

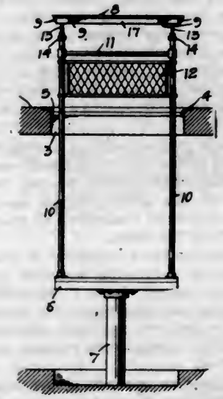
means to release the lever, said slotted arm and lever cooperating to direct pressure against the fulcrum of the lever when the movable steps are subjected to weight.

4. The combination with a car structure and a step fixedly connected thereto, of movable steps foldable against said fixed step, a rock shaft, separate means actuated by the shaft for moving the respective movable steps into or out of active position, an arm extending from the shaft, a lever slidably engaging the arm, yieldable means for engaging the lever to hold it at either limit of its movement, and means carried by the lever for depressing said means to release the lever.

5. The combination with a car structure having a fixed step, of steps movably connected to and foldable against the fixed step, members fixedly connected to the respective movable steps and extending upwardly from the back portions thereof, a hanger suspended from the structure and connected to one of said members, said hanger being mounted to swing, a rock shaft, means movable with the rock shaft and movably engaging the hanger for swinging said hanger during the actuation of the rock shaft, to move one of said members and its step, arms extending from the rock shaft and engaging the other members to move them and the other step, and means for actuating the rock shaft.

[Claims 6 to 8 not printed in the Gazette.]

1,030,410. SIDEWALK-COVER. FREDERICK KEES, Minneapolis, Minn. Filed Apr. 29, 1910. Serial No. 558,484. (Cl. 187—66.)



1. A cover adapted to fit an opening in the sidewalk, an elevator platform, standards mounted on said elevator platform at the corners thereof and supporting said cover, said elevator platform, when raised, lifting said cover above the level of the sidewalk, and a guard device carried by said standards and arranged to project above the level of the sidewalk between said cover and said opening when the cover is raised for ventilating purposes.

2. A cover adapted to fit an opening in the sidewalk, an elevator platform, standards mounted on said elevator platform, rods secured to said cover and slidable in said standards, and springs carried by said rods and adapted to be put under tension when said standards have descended past a predetermined point, substantially as described.

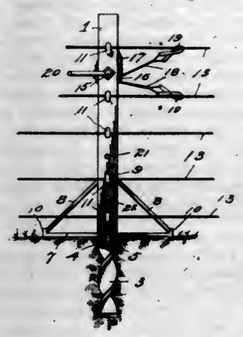
3. A cover adapted to close an opening in the sidewalk or floor, an elevator, telescoping means connecting said cover with said elevator, and means yieldingly resisting the separation of said telescoping means past a predetermined point.

4. A cover adapted to fit an opening in a sidewalk or floor, an elevator, standards mounted thereon, rods secured to said cover and slidable in said standards and yielding means connecting said rods and standards and adapted to be put under tension when said standards have descended past a predetermined point.

5. A cover adapted to fit an opening in a floor or sidewalk, an elevator platform, standards mounted on said elevator platform and adapted to lift said cover above the level of said opening when the elevator platform is raised, and yielding means connecting said standards and said cover and operating when said elevator platform is lowered to draw said cover down upon its seat in said opening with a yielding pressure.

[Claims 6 and 7 not printed in the Gazette.]

1,030,411. METAL FENCE-POST. JOHN C. LARSEN, Medford, Wis. Filed Aug. 24, 1911. Serial No. 645,720. (Cl. 39—67.)



A fence post comprising a pair of metal side pieces and fastening means for the wires consisting of a vertical series of bolts passing through the side pieces and provided at adjacent ends with wire engaging hooks bent alternately in opposite directions, and means for removably mounting a stretching device between each adjacent pair of bolts adapted to simultaneously stretch a pair of fence wires.

1,030,412. IMPULSE-TRANSMITTER. JACOB W. LATTIG, Rochester, N. Y., assignor to American Automatic Telephone Co., Rochester, N. Y., a Corporation of New York. Filed May 16, 1907. Serial No. 374,029. (Cl. 179—90.)



1. In an impulse transmitter, the combination with circuit terminals, a movable controller coöperating with them, each complete movement of which successively breaks and makes an electric circuit leading through the terminals and means for operating the controller, of an adjustable device for actuating said means to cause the controller to be operated a predetermined number of times, a stop on said device engaging the controller to limit the movement of the device in one direction ad means for restoring the latter to its normal position after each operation.

2. In an impulse transmitter, the combination with circuit terminals and a movable controller coöperating with them, each complete movement of which successively

breaks and makes an electric circuit leading through the terminals, of a setting device adjustably supported and movable relatively to the controller for governing its operation for a predetermined number of movements, coöperating stops on the controller and setting devices for arresting both of said parts in their normal positions and mechanism for operating the controller and restoring the setting device.

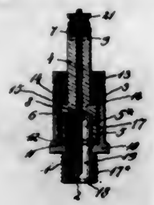
3. In an impulse transmitter, the combination with circuit terminals and a revoluble controller for making and breaking a circuit leading through them once for each complete rotation, of a setting device movable relatively to the controller and capable of being adjusted in various positions to cause the controller to be rotated one or more times, devices for driving the controller and coöperating stops on the controller and setting device for arresting both of said parts in their initial positions.

4. In an impulse transmitter, the combination with the circuit terminals and a movable controller coöperating with said terminals to interrupt an electric circuit leading through said terminals, of an operating mechanism together with means for setting said operating mechanism to varying positions, means for returning said mechanism to initial position, means for connecting said controller with said operating mechanism during the return movement thereof, and coöperating stops movable with said controller and operating mechanism respectively for arresting said operating mechanism in its initial position.

5. In an impulse transmitter, the combination with the circuit terminals and a revoluble controller for interrupting a circuit leading through said terminals, of an operating mechanism, together with means for setting said mechanism at varying positions, said operating mechanism being movable relatively to the controller in one direction of movement but adapted to be operatively connected therewith upon its return movement to rotate said controller varying distances, means for returning said operating mechanism to normal position, and coöperating stops movable with the controller and with said operating mechanism for arresting said operating mechanism in its initial position.

[Claims 6 to 15 not printed in the Gazette.]

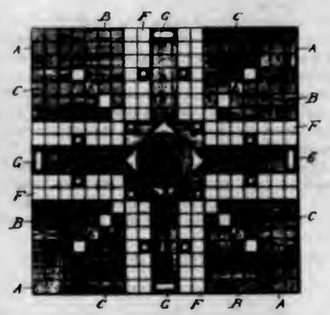
1,030,413. ELECTRIC IGNITION DEVICE. JOSEPH J. LOMBARDI, New York, N. Y. Filed Oct. 26, 1907. Serial No. 399,262. (Cl. 123—169.)



1. An electric ignition device comprising a hollow base portion, an insulating block fitted therein, a conducting wire rotatably mounted in the insulating block, the said base portion being provided with a true circular opening in its inner end eccentric to the axis of the said conducting wire, and a sparking point secured to the inner end of the said conducting wire and projecting at an angle to the axis of the latter.

2. An electric ignition device comprising a hollow base portion, a hollow insulating block fitted therein and provided with a cup-shaped portion, a cap for holding the block in the base, a conducting wire of relatively small diameter rotatably mounted in said block, and a sparking point fixed in the inner end of the conducting wire and projecting at an angle to the axis thereof, said base portion being provided in its inner end with a true circular opening eccentric to the axis of the said wire, whereby the rotation of the said wire will cause the said point to approach or recede from the walls of said opening at an even rate while the conducting wire proper remains the same axial distance from the walls of the said openings, and the said recesses in the block and base being so arranged as to form a continuous hollow chamber of uniform diameter about the conducting wire proper.

1,030,414. EDUCATIONAL GAME APPARATUS. RICHARD WAYLAND MANSFIELD, New London, Conn. Filed July 11, 1905. Serial No. 269,146. (Cl. 46—64.)



1. A board for a game apparatus, having its surface provided with homes in the corners, fields around the homes, a goal in the center, spaced paths leading diagonally from the homes through the fields, and a spaced track running around the borders of the fields.

2. A board for a game apparatus, having its surface provided with homes in the corners, fields around the homes, a goal in the center, a double spaced track running around the border of the fields, and paths leading to the goal from the track.

3. A board for a game apparatus, having its surface provided with homes in the corners, fields around the homes, a goal in the center, spaced paths leading diagonally from the homes through the fields, a double spaced track running around the border of the fields, and spaced paths leading to the goal from the track.

4. Game apparatus for a plurality of players comprising a board having a drawing field and a problem field for each player, a spaced track, a plurality of numbered pieces for drawing and placing in the drawing field and removing to the problem field for displaying problems solved and men for moving on the track in accordance with the problems solved.

5. A game apparatus comprising a board with homes, two fields adjacent each home, a goal, spaced paths, numbered pieces for drawing and playing on the fields, and men for moving on the paths in accordance with the numbers drawn and the problems solved.

[Claims 6 to 15 not printed in the Gazette.]

1,030,415. RELAY AND CIRCUITS THEREFOR. RAY H. MANSON, Elyria, Ohio, assignor to The Dean Electric Company, Elyria, Ohio, a Corporation of Ohio. Filed Apr. 25, 1907. Serial No. 370,255. (Cl. 178—304.)



1. In a drop relay, a pair of electromagnets in parallel arrangement, a pair of pivoted armatures one for each magnet, and means actuated by one armature for dropping the other armature.

2. In a drop relay, a pair of electromagnets in parallel arrangement, a pair of pivotally mounted armatures one for each magnet, a contact, and means actuated by one armature for dropping the other armature against the contact.

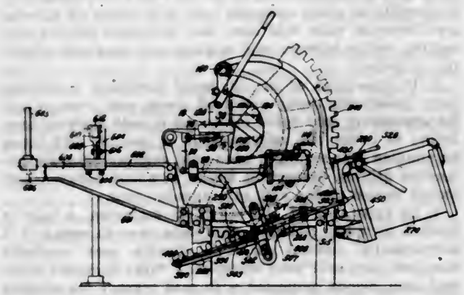
3. In a relay, a pair of electromagnets in parallel arrangement, a frame upon which said magnets are mounted, a pair of armatures mounted on said frame and in permanent relation to said magnets, an electric switch contact controlled by one of said armatures, and means actuated by one armature to force the other armature to control a circuit through said contact.

4. In a relay, a pair of electromagnets in parallel arrangement, a pair of pivotally mounted armatures at one end thereof, a contact, and means actuated by one armature to force the other armature to control a circuit through said contact.

5. In a drop relay, a pair of electromagnets in parallel arrangement, a pair of pivotally mounted armatures one for each magnet, a contact, a retaining hook adapted to be actuated by one armature to release the other armature and to drop it against the contact.

[Claims 6 to 21 not printed in the Gazette.]

1,030,416. FLANGING-MACHINE. HUGH MCCABE, Lawrence, Mass. Filed Sept. 20, 1911. Serial No. 650,465. (Cl. 153—16.)



1. A flanging machine, having, in combination, means for clamping the work, a bender, and means for oscillating the bender through a predetermined angle to bend a flange and for shifting the position of the bender forward through a predetermined angle to re-position the bender preparatory to again oscillating the bender to further bending the flange, comprising mechanism acting automatically to limit the angle through which the bender is shifted to an angle less than the angle of its flange bending oscillation, substantially as described.

2. A flanging machine, having, in combination, means for clamping the work, a bender, means for actuating the bender to bend a flange in a plurality of steps operating to impart to the bender a number of flange-bending oscillations of predetermined amplitude during each flange-bending step and to shift the position of the bender forward between the successive steps to re-position the bender and comprising mechanism acting automatically to limit the distance through which the bender is shifted to a distance less than the amplitude of the flange-bending oscillation of the next preceding step, so that the flange-bending oscillations of proximate steps will overlap, substantially as described.

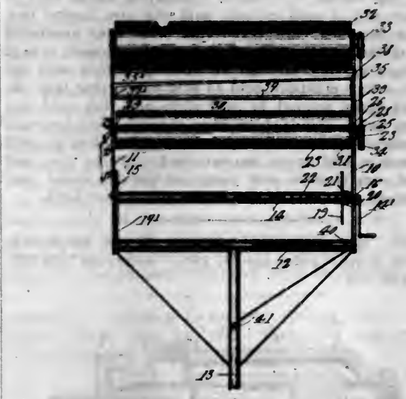
3. A flanging machine, having, in combination, a work clamp arranged to clamp the work while the material is being bent and to release the work so that it may be fed to present other portions of the material to the bending mechanism, and bending mechanism comprising a bender and means for repeatedly oscillating the bender to operate on different portions of the material to partially bend the flange and for shifting the bender forwardly having provision for automatically limiting the distance through which the bender is shifted to less than the amplitude of the bending oscillations for the purpose of re-positioning the bender preparatory to again oscillating the bender to further bend the flange, substantially as described.

4. A flanging machine, having, in combination, means for clamping the work, a bender, and means for shifting the bender angularly forward an aliquot part of the angle through which the flange is to be set and for angularly oscillating the bender while in its successive shifted positions, comprising mechanism acting automatically to so limit the angles through which the bender is shifted and oscillated, that the angle through which the bender is shifted is less than the angle through which it is oscillated, substantially as described.

5. A flanging machine having, in combination, means for clamping the work, a bender, a segmental gear on the bender, a rack, means for engaging and disengaging the rack and gear, means for reciprocating the rack comprising a cylinder and a piston, a motive fluid supply, means for admitting the motive fluid to the cylinder including a valve, and valve-operating means comprising a member adapted to be engaged by the rack when the rack and gear are engaged for closing the valve and a member adapted to be engaged by the rack when the rack and gear are disengaged for closing the valve before the rack is reciprocated sufficiently to bring it into engagement with the first-named member, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,030,417. PAPERING-MACHINE. JOHN W. MCCRARY, Ethan, S. D. Filed Apr. 10, 1911. Serial No. 620,045. (Cl. 91—14.)

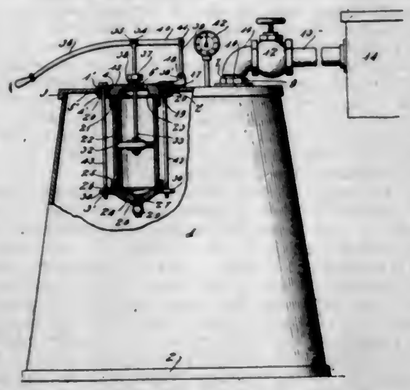


1. In a machine for applying wall paper, a frame, a roll holder supported by said frame, a paste supplying roller, a cylindrical reservoir arranged above said paste supplying roller, said reservoir being formed with a longitudinal slot and a member arranged to gradually decrease the length of said slot.

2. In a machine for applying wall paper, a frame, a roll holder supported by said frame, a paste supplying roller, a cylindrical reservoir arranged above said paste supplying roller, said reservoir being formed with a longitudinal aperture and provided with a plurality of elongated slots, and a shutter arranged within and concentric to said reservoir, said shutter being formed with a tapered edge portion, and pins carried by said shutter and extending through the elongated slots formed in the reservoir.

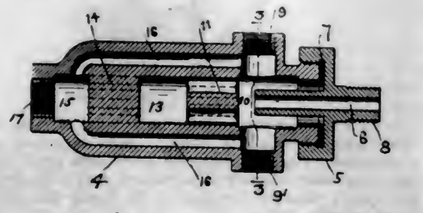
3. In a machine for applying wall paper, a frame, a roll holder supported by said frame, a paste supplying roller, a cylindrical reservoir arranged above said paste supplying roller, said reservoir being formed with a longitudinal slot and a member arranged within the reservoir for gradually decreasing the length of said slot.

1,030,418. AIR-BLOWER FOR FORGES. JOHN T. MCINTYRE, Jackson, Ala. Filed Oct. 31, 1911. Serial No. 657,788. (Cl. 230—27.)



In a device of the character described, the combination with a tank having a circular aperture with communicating access openings and bolt openings between said access openings, of a pump including an upper cylindrical cap with a base flange having outstanding apertured ears, a bracket being continued from said cap having supporting lugs a threaded circumscribing flange extending from said cap, a pump cylinder held within said threaded flange, a bottom cap having a threaded cylindrical flange held to the lower end of said cylinder said cap also having outstanding threaded ears registering with said apertured ears, a piston within said cylinder, a stem secured to said piston and passing through an opening within said upper cap, a link pivotally held to said supporting lugs, an operating lever secured to said stem and link said cap and ears being arranged to pass through said aperture and access openings, and stay bolts passing through said bolt openings said upper cap ears and screwing into said threaded ears to force said pump against the under face of the top of said tank, as and in the manner set forth.

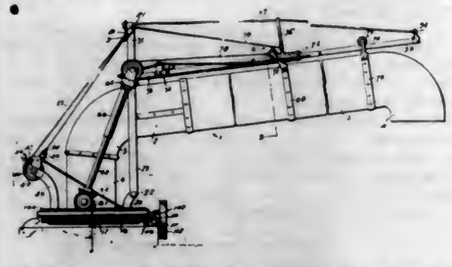
1,030,419. OIL-BURNER. ROBERT BURNS MCLELLAN, Seattle, Wash. Filed Apr. 3, 1911. Serial No. 618,757. (Cl. 158—74.)



In an oil burner of the class described, a feed pipe for oil, inlets adapted each for connection with an independent source of compressed gaseous fluid, a receiving chamber, an intermediate chamber, an outlet chamber adapted to connect with a burner tip, independent side passages communicating directly between the receiving chamber and the outlet chamber, a plurality of passages extending between the receiving chamber and the intermediate chamber, in combination with a plurality of passages extending between the intermediate chamber and the outlet chamber.

1,030,420. STACKER. RODDY F. MEYERS, Troy, Ill. Filed June 20, 1910. Serial No. 568,014. (Cl. 193—21.)

1. In apparatus of the character described, a base, a bracket pivotally mounted upon said base to swing in a substantially vertical plane, a driving gear rotatably mounted upon said base, telescoping tubes arranged above said base, means connected with said bracket for suitably supporting said telescoping tubes, means supported by said bracket for effecting reciprocatory movement of one of the telescoping tubes, the distance between the last named means and the driving gear being changed when said bracket and telescoping tubes are swung in a substantially vertical plane, and extensible driving connecting means between said gear and the last named means.



2. In apparatus of the character described, a base, telescoping tubes arranged above said base, supporting means for said tubes swingingly mounted upon said base, means to cause the reciprocation of one of said tubes comprising a plurality of gears arranged near said tubes, an annular gear mounted upon said base, and extensible driving connecting means between said annular gear and said plurality of gears.

3. In apparatus of the character described, a shifting base, telescoping tubes arranged above said base, means for supporting said tubes connected to said shifting base, means to cause the reciprocation of one of said tubes, an annular gear arranged upon said shifting base, and extensible driving connecting means arranged between said second named means and said annular gear.

4. In apparatus of the character described, a base, a bracket pivotally mounted upon said base to swing in a substantially vertical plane, a driving gear rotatably mounted upon said base, telescoping tubes arranged above said base, means connected with said bracket for suitably supporting said telescoping tubes, means supported by said bracket for effecting reciprocatory movement of one of the telescoping tubes, the distance between the last named means and the driving gear being changed when said bracket is swung in a substantially vertical plane to raise or lower said telescoping tubes, and extensible driving connecting means between said driving gear and last named means, including telescoping shafts.

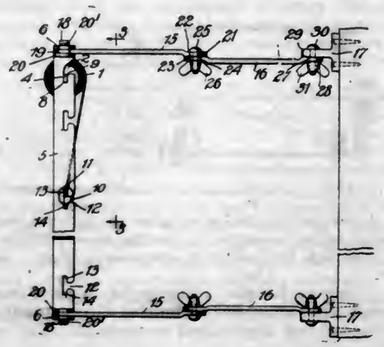
5. In apparatus of the character described, a suitably supported rail, a tube, wheels connected to said tube and disposed to travel upon said rail, a driven shaft arranged near said rail, bevel gears loosely mounted upon said driven shaft, means for rotating said gears in opposite directions, a clutch device for alternately locking said gears to said driven shaft, a bell crank lever for moving said clutch device, an actuating lever connected to said bell crank lever and provided with projections, means connected to said tube arranged to engage said projections to move said actuating lever, a drum mounted upon said driven shaft, a pulley mounted upon said rail, an endless cable trained about said pulley and said drum, and connecting means between said endless cable and said tube.

[Claims 6 to 22 not printed in the Gazette.]

1,030,421. AWNING STRUCTURE. WILLIAM H. MEYST, Champaign, Ill. Filed Oct. 26, 1908. Serial No. 459,655. Renewed June 17, 1911. Serial No. 633,841. (Cl. 156—10.)

1. In an awning structure, the combination of an awning, a frame supporting said awning, means for supporting said frame from a wall and adapted for inclining anyone of the sides of said frame toward a window in said wall.

2. In an awning structure, the combination of an awning, a rectangular frame supporting said awning frame, adjustable means for supporting said frame from a wall and which is adapted for drawing anyone of the sides of said frame toward a window.



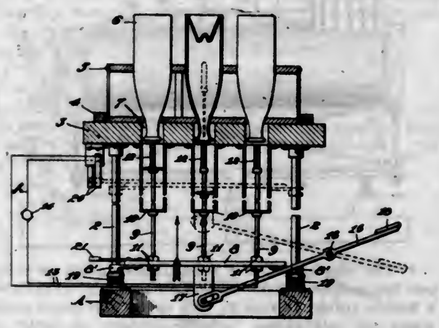
3. In an awning structure, the combination of an awning, a frame supporting said awning, means for supporting said frame from a wall and adapted for inclining anyone of the sides of said frame toward a window in said wall, and means for locking said frame in anyone of said positions.

4. In an awning structure, the combination of an awning, a rectangular frame supporting said awning frame, adjustable means for supporting said frame from a wall and which is adapted for drawing either one of the sides of said frame toward a window, and means for locking said frame in anyone of said positions.

5. In an awning structure, the combination of an awning, a frame supporting said awning, mechanism for permitting a plurality of adjustments to be made of anyone of the sides of the frame with respect to a given surface.

[Claims 6 to 8 not printed in the Gazette.]

1,030,422. APPARATUS FOR INSPECTING BOTTLES. HERMAN G. MUENCH, San Francisco, Cal. Filed June 20, 1911. Serial No. 634,365. (Cl. 88—14.)



1. In a bottle inspecting machine, a series of electric lamps, vertically disposed, adjustable standards on which said lamps are mounted, a table having a series of perforations disposed above said lamps, said perforations registering with the lamps and adapted to register with the mouths of a series of bottles in a crate, and means for supporting a number of bottles at various elevations.

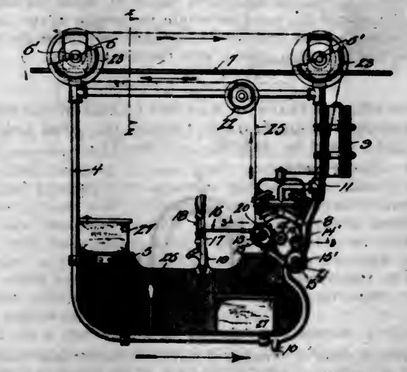
2. In a bottle inspecting machine, a series of electric lamps, vertically disposed, adjustable standards on which said lamps are mounted, a table having a series of perforations disposed above said lamps, said perforations registering with the lamps and adapted to register with the mouths of a series of bottles in a crate, and open hangers on the table for insuring the mouths of bottles inverted in a crate registering with said perforations, and adjustable members on the standards for supporting a number of bottles at various elevations.

3. In a bottle inspecting machine, a series of electric lamps, vertically disposed, adjustable standards on which said lamps are mounted, a table having a series of perforatons disposed above said lamps, said perforations registering with the lamps and adapted to register with the mouths of a series of bottles in a crate, guide means on the table for insuring the mouths of bottles inverted in a crate registering with said perforations, means for causing the lamps to pass through said perforations and enter the mouths of the bottles, automatic means for withdrawing the lamp from the bottles, and adjustable means on said standards for supporting a number of the bottles at various levels.

4. In a bottle inspecting machine, a series of electric lamps, vertically disposed, adjustable standards on which said lamps are mounted, a table having a series of perforations disposed above said lamps, said perforations registering with the lamps and adapted to register with the mouths of a series of bottles in a crate, guide means on the table for insuring the mouths of bottles inverted in a crate registering with said perforations, means for causing the lamps to pass through said perforations and enter the mouths of the bottles, automatic means for withdrawing the lamp from the bottles, adjustable means on said standards for supporting a number of the bottles at various levels, and open hangers for guiding the lamps and standards into the perforations in the table, said adjustable means being disposed within said hangers.

5. In a bottle inspecting machine, a series of electric lamps, vertically disposed, adjustable standards on which said lamps are mounted, a table having a series of perforations disposed above said lamps, said perforations registering with the lamps and adapted to register with the mouths of a series of bottles in a crate, guide means on the table for insuring the mouths of botles inverted in a crate registering with said perforations, means for causing the lamps to pass through said perforations and enter the mouths of the bottles, automatic means for withdrawing the lamp from the bottles, adjustable collars on said standards for supporting a number of the bottles at various levels, means for guiding the lamps and standards into the perforations in the table, and automatic means for directing an electric current through the lamps when the latter are in the bottles and for cutting off the current when the lamps are withdrawn from the bottles.

1,030,423. AERIAL CARRIER. PETER NEIS, Calvary Wis. Filed Mar. 18, 1912. Serial No. 684,512. (Cl 104—146.)

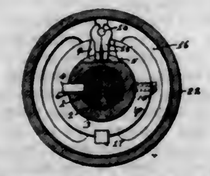


1. The combination with an overhead track, of an aerial trolley-car in suspension from the track, a motor with the car to be controlled by an occupant of the same, a gear-wheel fast on a shaft of the motor, a lever-controlled

rocker carrying a pair of gear-wheels to be one or the other thereof engaged with the one on said shaft according to the direction of travel desired for the car, and sheave and belt mechanism for transmitting power from either of the rocker-carried gear-wheels to the trolley-wheels of the car.

2. The combination with an overhead track, of an aerial trolley-car in suspension from the track, an internal-combustion engine with the car to be controlled by an occupant of the same and having a gear-wheel fast on its shaft, a lever-controlled rocker carrying a pair of gear-wheels to be one or the other thereof engaged with the one on the engine-shaft according to the direction of travel desired for the car, and sheave and belt mechanism for transmitting power from either of the rocker-carried gear-wheels to the trolley-wheels of said car.

1,030,424. FRICTION-CLUTCH. HENRY M. NORRIS, Cincinnati, Ohio, assignor to The Cincinnati Bickford Tool Company, Cincinnati, Ohio, a Corporation of Ohio. Filed Aug. 17, 1910. Serial No. 577,615. (Cl. 192—13.)



1. In a friction clutch the combination with a shaft formed with a spline groove, a sleeve slidable thereon and formed with a radial slot, a stepped collar encircling the sleeve and formed with a key seat, a key secured at one end in the key seat and terminating at the other end through the slot in the sleeve and in slidable engagement with the spline groove, of a flanged idle member on the sleeve concentric with the collar, a contractile friction ring secured to said collar, and lever mechanism for expanding said ring into frictional engagement with the idle member.

2. In a friction clutch the combination of a shaft, a sleeve splined thereon, a collar secured on the sleeve, a contractile ring secured on the collar, an idle member on the sleeve concentric with the collar, twin levers carried by the collar and engaging with the ring, and a movable wedge for simultaneously actuating the levers with the ring into frictional engagement with the idle member.

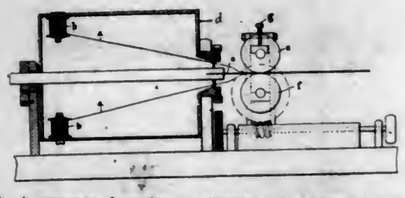
3. In a friction clutch the combination of a shaft, a sleeve splined thereon and formed with a longitudinal groove, a collar secured on the sleeve, a contractile split ring secured thereon, twin levers carried by the collar engaging with the respective ends of the ring, a member mounted to turn on the sleeve concentric with the collar, and a tapered key movable within the groove in the sleeve for actuating the levers simultaneously to expand the ring into frictional engagement with the idle member.

1,030,425. METHOD OF MAKING LEATHER-COVERED HOOKS. HUGH W. OWEN, Chicago, Ill. Filed Aug. 12, 1911. Serial No. 643,752. (Cl. 69—21.)



The process of forming a leather covered hook consisting of applying a suitable section of leather to a straight metal bar and bending said bar into hook form after the leather is applied to compress and thicken said leather at the inner diameter of the hook.

1,030,426. PROCESS OF MANUFACTURING CABLES. CHARLES ALGERNON PARSONS, JOHN HENRY GREAVES, and ALFRED RUSTAT HEMSTED, Newcastle-on-Tyne, England; said Greaves and Hemsted assignors to said Parsons. Filed Apr. 9, 1909. Serial No. 488,956. (Cl. 28—5.)



1. A process for the production of flattened coreless stranded cables consisting in forming them initially as a flat tube and then slightly compressing them; as set forth.

2. A process for the production of flattened coreless stranded cables consisting in forming them initially on a flat mandrel and then slightly compressing them; as set forth.

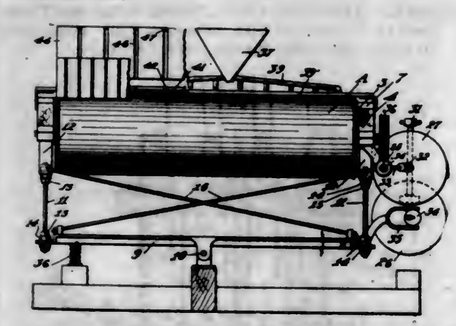
3. A process for the production of flattened coreless stranded cables consisting in forming them initially on a flat temporary dummy core and then passing them between rollers whereby they are slightly compressed; as set forth.

4. A process for the production of flattened coreless stranded cables consisting in forming them initially on a flat temporary dummy core, passing them between rollers whereby they are slightly compressed and drawn off the temporary core; as set forth.

5. A process for the production of flattened coreless multi-wire cables consisting in forming them initially on a flat temporary core and then passing them through reducing means; as set forth.

[Claims 6 and 7 not printed in the Gazette.]

1,030,427. BELT CONCENTRATOR. JOSEPH W. PINDER, Oakland, Cal. Filed Oct. 3, 1910. Serial No. 584,072. (Cl. 83—83.)



1. The combination in a concentrator having an endless belt inclined longitudinally and horizontally transversely, a flexible frame, a drum at each end of the frame around which the belt passes, rockable supports on which the frame is carried to admit of longitudinal movement thereof, and means for imparting a quick longitudinal vibratory motion of the frame and belt, of means for imparting a transverse rocking motion to the upper end of the frame and belt, twisting the frame laterally and producing a warping motion crosswise of the upper surface of the belt simultaneous with the longitudinal vibratory movement.

2. The combination in a concentrator having an endless belt inclined longitudinally and horizontal transversely, a flexible frame, a drum at each end of the frame around which the belt passes, rockable supports on which

the frame is carried to admit of longitudinal movement thereof, means for imparting a quick longitudinal vibratory motion of the frame and belt, of means for imparting a transverse rocking motion to the upper end of the frame and belt, twisting the frame laterally and producing a warping motion crosswise of the upper surface of the belt simultaneous with the longitudinal vibratory movement, said means including a rocking beam on which the rockable supports of the upper end of the frame are mounted, and means acting on said beam to impart a rocking movement thereto.

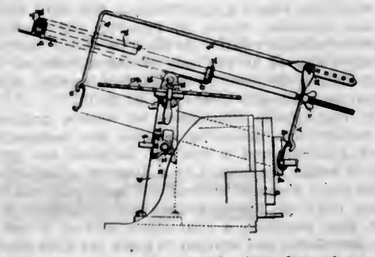
3. The combination in a concentrator having an endless belt inclined longitudinally and horizontal transversely, a flexible frame, a drum at each end of the frame around which the belt passes, rockable supports on which the frame is carried to admit of longitudinal movement thereof, means for imparting a quick longitudinal vibratory motion of the frame and belt, of means for imparting a transverse rocking motion to the upper end of the frame and belt, twisting the frame laterally and producing a warping motion crosswise of the upper surface of the belt simultaneous with the longitudinal vibratory movement, said means including a rocking beam on which the rockable supports of the upper end of the frame are mounted, said beam adapted to rock at right angles to said supports, means for rocking said beam, and means for cushioning the beam.

4. In a belt concentrator, the combination of a lengthwise movable frame, an endless traveling belt movable thereover, supports at the lower end of the frame, a centrally pivoted, horizontal rocking beam at the upper end of the machine, threaded vertical rods adjustably connecting the ends of said beam to the frame, means for rocking the beam to rock the frame transversely, nuts on the rods and resilient washers disposed between said nuts and the beam and frame serving as shock absorbers to prevent jarring the frame and belt as it is rocked from side to side on the pivot of said beam.

5. In a belt concentrator, the combination of a lengthwise movable frame, an endless traveling belt movable thereover, supports at the lower end of the frame, a centrally pivoted, horizontal rocking beam at the upper end of the machine, threaded vertical rods adjustably connecting the ends of said beam to the frame, means for rocking the beam to rock the frame transversely, nuts on the rods and resilient washers disposed between said nuts and the beam and frame serving as shock absorbers to prevent jarring the frame and belt as it is rocked from side to side on the pivot of said beam, and stay rods extending diagonally from each end of the beam to the opposite end of the frame.

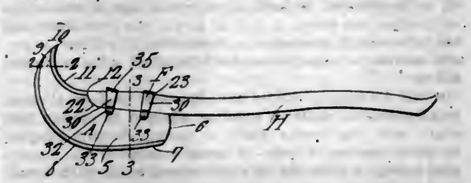
[Claims 6 to 10 not printed in the Gazette.]

1,030,428. PROCESS FOR THE MANUFACTURE OF WIRE-SPOKED RIMS. JOHN V. PUGH, Allesley, England. Filed Mar. 6, 1909. Serial No. 481,636. (Cl. 113—1.)



The process of making metal rims for wire spoked wheels, in which the spokes are to be inclined at various angles consisting in forming substantially hemispherical concave indentations at the points of location of the spokes, perforating the same in the direction of the required angle of the spokes on lines radial to the concave surface of the indentations and providing recesses for the heads of the spoke nipples without substantially reducing the thickness of metal at the edges of the holes.

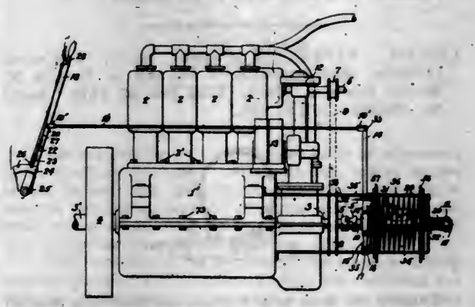
1,030,429. BRUSH-AX. JOHN TIMOTHY REEVES, Grant, Okla. Filed Mar. 7, 1911. Serial No. 612,758. (Cl. 145—107.)



1. In a handle fastening for brush axes and the like, the combination with the head having a longitudinal groove, and a handle made elliptical at its front end and one edge resting in said groove and its other edge having a hump, of two loops pivotally connected to the said head and astride of the groove thereof and adapted to be moved in line with the groove thereof, said loops and groove forming a receptacle for the handle and adapted to be canted in either direction upon each side of the hump to clamp the handle within the groove of the head, and prevent the sliding movement thereof.

2. A brush ax comprising a head; a pair of spaced loops pivoted to the head and extended across the outer edge of the head; a handle removably inserted through the loops and provided in its outer edge with an outstanding hump; the loops being canted to engage the outer edge of the handle upon opposite sides of the hump, to bind the inner edge of the handle against the outer edge of the head, the loops constituting the sole means for holding the handle assembled with the head.

1,030,430. ENGINE-STARTER. JUDSON O. ROBERTS, Cripple Creek, Colo. Filed Sept. 6, 1910. Serial No. 580,682. (Cl. 185—41.)



1. In an automatic starter for gas engines and the like, a supporting member, a starter shaft, a pair of rotatable members centered on said shaft, a resilient member supported between said rotatable members and loosely centered on said shaft, a plurality of guide members attached to said frame adapted to retain said rotatable members in fixed longitudinal axial position with respect to said frame, a plurality of rotation-controlling members, part of which are controlled by longitudinal movement of said shaft, and means for engaging said starter shaft with an engine shaft.

2. In a starting device for explosion engines, a starter shaft capable of engagement with a crank shaft, a metallic spring centered about said starter shaft, a pair of rotatable ratchet wheels adapted to support said spring, a stationary pawl coacting with each wheel, a rotatable pawl coacting with one wheel, a rotatable dog coacting

with the other wheel, and means for engaging said starter shaft with an engine shaft.

3. In a starting device for explosion engines, a reciprocating starter shaft, a coupling adapted to engage said shaft with the engine shaft, a spring element adapted to store energy, a pair of wheels adapted to support said spring, a plurality of guide elements for each wheel, a permanently coacting stationary pawl and a shaft-mounted dog adapted to be released by said spring when highly wound for controlling one wheel, a pair of pawls, one stationary and the other shaft-mounted, for controlling the other wheel, and means for engaging said starter shaft with an engine shaft.

4. In a starting device for explosion engines a reciprocable starter shaft, a coupling adapted to engage said shaft with the engine shaft, a spring element adapted to store energy, a pair of wheels adapted to support said spring, a plurality of guide elements for each wheel, a plurality of pawls, a dog adapted to control rotation of said wheels, an auxiliary spring adapted to keep the said coupling normally open, and a lever arm for controlling one of said ratchets, said lever arm being adapted to control the engagement of said starter shaft with the engine shaft.

5. In a device of the class described, a framework, a reciprocable starter shaft journaled in said framework, a pair of wheels having ratchet webs in their outer periphery, said wheels having hubs rotatably mounted on said shaft, pawls carried by and pivoted to said framework permitting each of said wheels to rotate in one direction, a spring element carried between said wheels, a block mounted on and secured to said shaft between said wheels, a spring detent carried in one end of said block and adapted to coact with notches in one of said hubs, a pivoted dog member carried by said block and having one end adapted to engage the notches in the other of said hubs and thereby key the corresponding ratchet wheel to said reciprocable shaft, said dog having an upwardly and rearwardly extending arm, said arm being adapted to be depressed by the contraction of said spring element, whereby the last named hub and detachable wheel may be released from engagement with said reciprocable shaft when said spring element is fully compressed; and means for engaging said starter shaft with an engine shaft.

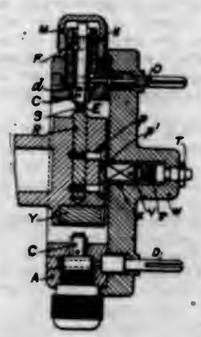
[Claims 6 to 8 not printed in the Gazette.]

1,030,431. SAFETY-PIN. JAMES HENRY ROBINSON, Lewiston, Idaho, assignor of one-half to Frances M. Moxley, Lewiston, Idaho. Filed Dec. 27, 1910. Serial No. 599,553. (Cl. 24—86.)



A safety pin made from a single length of wire doubled together and twisted to form a rigid back member with two loops, each formed of a single twist of wire extending upwardly therefrom, one near each end thereof, said loops having their horizontal diameters extending in the same direction as the back, a coiled spring formed integral with one end of said back, a pin extending from said spring and integral therewith, said pin extending the length of said back, a guard member integral with the back and at the opposite end thereof from the spring, a centrally-disposed lock or guard for said pin comprising parallel members terminating in a hook, said lock or guard extending downwardly from said back and integral therewith, and a chain provided with a pivoted cross-bar upon one end thereof, the opposite end of said chain being permanently attached to the loop nearest the spring, said pivoted cross bar adapted to be detachably connected to the other loop.

1,030,432. ELECTRIC IGNITER. FREDERICK HENRY ROYCE, Derby, England. Filed Nov. 18, 1911. Serial No. 661,018. (Cl. 123—167.)



1. In an electric igniter, the combination, with a stationary body portion, and a revoluble block; of electrodes carried by the said body portion and block and provided with tapering knife-like end portions arranged at a right angle to each other and having grooves in their ends, and sparking wires secured in the said grooves and forming the apices of the said tapering end portions.

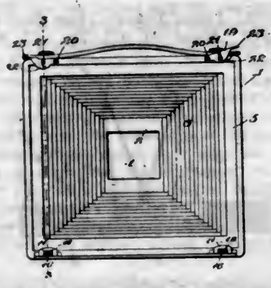
2. In high-tension distributers for electric ignition systems for internal combustion engines, the combination of a fixed electrode and a rotating electrode, the sparking points of which have a knife-edge or line formation and said points being relatively arranged so that one lies or moves at right angles to the other, a split sleeve carried by the body of the distributer and adapted to carry the fixed electrode, and means for contracting said split sleeve to grip said electrode, as set forth.

3. In high-tension distributers for electric ignition systems for internal combustion engines, the combination of a fixed electrode and a rotating electrode, the sparking points of which have a knife-edge or line formation and said points being relatively arranged so that one lies or moves at right angles to the other, a split sleeve carried by the body of the distributer and adapted to carry the fixed electrode, means for contracting said split sleeve to grip said electrode, and means for retaining the electrode in its correct position relative to the axis of the distributer, as set forth.

4. In high-tension distributers for electric ignition systems for internal combustion engines, the combination of a fixed electrode and a rotating electrode the sparking points of which have a knife-edge or line formation and said points being relatively arranged so that one lies or moves at right angles to the other, a split sleeve carried by the body of the distributer and adapted to carry the fixed electrode, means for contracting said split sleeve to grip said electrode, means for retaining the electrode in its correct postion relative to the axis of the distributer, a terminal carried by the body of the distributer, and a spring contact for establishing contact between the said terminal and the split sleeve, as set forth.

5. In high-tension distributers for electric ignition systems for internal combustion engines, the combination of a fixed electrode and a rotating electrode the sparking points of which are formed by a piece of wire and which are relatively arranged so that the sparking point of the rotating electrode lies or moves at right angles to that of the fixed electrode, a split sleeve carried by the body of the distributer and adapted to carry the fixed electrode, means for contracting said split sleeve to grip said electrode, means for retaining the electrode in its correct position relative to the axis of the distributer, a terminal carried by the body of the distributer, and a spring contact for establishing electrical contact between said terminal and the split sleeve, as set forth.

1,030,433. SECURING DEVICE FOR CAMERA-BACKS. ALFRED A. RUTTAN and CHARLES E. HUTCHINGS, Rochester, N. Y., assignors to Eastman Kodak Co., Rochester, N. Y., a Corporation of New York. Filed Jan. 11, 1911. Serial No. 602,048. (Cl. 95—49.)



1. The combination with a camera body having an opening in the rear to receive a back, of a securing device for the back comprising a pair of hinged leaves, one of which is attached to the camera body and the other of which is spring actuated and normally projects over the edge of the opening to detachably engage the back at one edge, said last mentioned leaf being adapted to yield rearwardly as the back is tilted on that edge during removal.

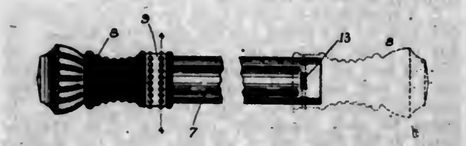
2. The combination with a camera body having an opening in the rear to receive a back, of a spring actuated securing device mounted on the body to normally project over the edge of the opening and detachalby engage the back at one edge, said device being adapted to yield rearwardly as the back is tilted on that edge during removal.

3. The combination with a camera body having an opening in the rear provided with a rabbeted edge to receive a back, of a spring actuated securing device mounted on the body to normally project over and against the edge of the rabbet and detachably engage the back at one edge, said device being adapted to yield rearwardly as the back is tilted on that edge during removal.

4. The combination with a camera body having an opening in the rear to receive a back, of a spring actuated securing device pivoted to the body to normally project over the edge of the opening and detachably engage the back at one edge, said device being adapted to yield rearwardly on its pivot as the back is tilted rearwardly on substantially the same center during removal.

5. The combination with a camera body having an opening in the rear to receive a back and a seat for the latter surrounding the opening, of a spring actuated securing device pivoted to the rear of the body to normally overhang the seat in spaced relation to the bottom thereof and a back having a portion adapted to engage between the seat and securing device, the latter being adapted to yield rearwardly as the back is tilted rearwardly during removal.

1,030,434. CASKET-HANDLE. EDWARD R. SARGENT, New Haven, Conn., assignor to Sargent & Company, New Haven, Conn., a Corporation of Connecticut. Filed Mar. 2, 1912. Serial No. 681,147. (Cl. 16—103.)



1. The combination with a tube, of a tip fitting over one end of said tube, and pins extending transversely across said tip and supported between opposite walls thereof, said pins being interlocked with the walls of the tube; substantially as described.

2. A bar for casket handles, comprising a tube having a portion struck out from the wall thereof, and a tip fitting over the end of said tube and carrying a pin interlocked with said struck out portion; substantially as described.

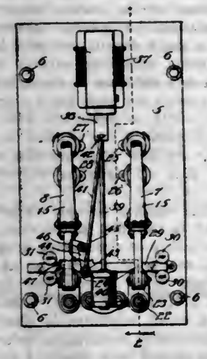
3. A bar for casket handles, comprising a sheet metal tube having perforated depressions struck out from the wall thereof, and a tip fitting over said tube and carrying a pin interlocked with said depressions; substantially as described.

4. A bar for casket handles, comprising a tube of sheet metal having a perforated depression struck out from its wall to form a transverse passage, a tip fitting over the tube, and a pin anchored in the tip and passing through said transverse passage in the tube wall; substantially as described.

5. A bar for casket handles, comprising a sheet metal tube having a portion struck up from its wall and perforated, in order to form a pin passage directed transversely of said tube, a tip fitting over the tube, and a transverse pin carried by said tip and passing through said pin passage; substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,030,435. ELECTRICAL STARTING DEVICE. JACOB L. SCHUREMAN, Chicago, Ill., assignor to J. L. Schureman Co., Chicago, Ill., a Corporation of Illinois. Filed Aug. 21, 1908, Serial No. 449,580. Renewed Sept. 24, 1909. Serial No. 519,410. (Cl. 172—288.)



1. The combination of a switch adapted to be interposed in an electrical circuit, a sliding member, means on the sliding member for operating the switch, a solenoid, a rack on the sliding member, a pinion engaging with the rack, and a crank connection between said solenoid and pinion, for the purpose set forth.

2. The combination of a series of switches, a sliding member, means on the sliding member for operating the switches in succession, a solenoid, a rack on the sliding member, a pinion engaging with the rack, and a crank-connection between said solenoid and pinion, for the purpose set forth.

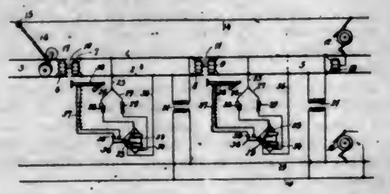
3. In combination, a movable switch-member, a toggle-operating lever therefor, and a sliding member having an inclined portion for engaging and actuating said toggle-lever to operate said switch-member.

4. In combination, a movable switch-member, a toggle-operating lever therefor having a roller thereon, and a sliding member having an inclined portion for engaging said roller to actuate said toggle-lever.

5. In combination, a pivoted switch, a toggle-operating lever therefor having a roller thereon, a sliding member having an inclined portion for engaging said roller to actuate said toggle-lever to close said switch, and an electro-magnet for operating said sliding member.

[Claims 6 to 10 not printed in the Gazette.]

1,030,436. RAILWAY SIGNALING SYSTEM. LOUIS HENRY THULLEN, Edewood Park, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed May 16, 1904. Serial No. 208,171. (Cl. 246—36.)



1. In a signaling system for an electric railway the trackway of which is included in the circuit for the propulsion current, a source of alternating propulsion current, a track circuit, a source of alternating signaling current connected with said track circuit and differing in character from the propulsion current, a relay having two windings each of which is connected with the track circuit, and means included in the circuits of the said windings for balancing the flow of propulsion current and for unbalancing the flow of signaling current in the two windings.

2. In a signaling system for an electric railway the trackway of which is included in the circuit for the propulsion current, a plurality of block sections formed by insulations in the rails of the trackway, a source of alternating propulsion current, means connecting the block sections for permitting the passage thereover of the propulsion current, a track circuit for each block section, a source of alternating signaling current connected with each track circuit and differing in character from the propulsion current, a relay for each track circuit having two windings each of which is connected with the track circuit, and means included in the circuits of the said windings for balancing the flow of propulsion current and for unbalancing the flow of signaling current in the two windings.

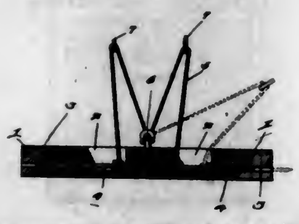
3. In a signaling system for an electric railway the trackway of which is included in the circuit for the propulsion current, a source of alternating propulsion current, a track circuit, a source of alternating signaling current connected with said track circuit and differing in frequency from the propulsion current, a relay having two windings, each of which windings is connected with the track circuit, and means comprising inductance and capacity included in circuit with the said windings for balancing the flow of current of the propulsion frequency and for unbalancing the flow of current of the signaling frequency in the two windings.

4. In a signaling system for an electric railway the trackway of which is included in the circuit of the propulsion current, a source of alternating propulsion current, a source of alternating signaling current differing in frequency from the propulsion current, a track circuit, a transformer having its primary connected with the source of signaling current and its secondary with the rails of the track circuit, a relay having two windings, each of which is connected with the track circuit, and means comprising inductance and capacity included in circuit with the said windings for balancing the flow of current of the propulsion frequency and for unbalancing the flow of current of the signaling frequency in the two windings.

5. In a signaling system for an electric railway the trackway of which is included in the circuit of the propulsion current, a source of alternating propulsion current, a source of alternating signaling current differing in frequency from the propulsion current, a track circuit, a transformer having its primary connected with the source of signaling current and its secondary with the rails of the track circuit, a relay having two windings each of which is connected with the track circuit, and means comprising inductance and capacity interposed between the said windings and the track circuit for balancing the flow of current of the propulsion frequency and for unbalancing the flow of current of the signaling frequency of the two windings.

[Claims 6 to 13 not printed in the Gazette.]

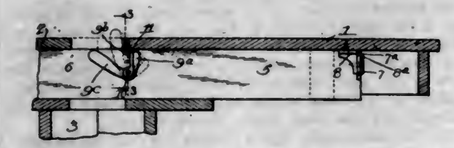
1,030,437. TOY. EMORY TURNER, Peace Dale, R. I. Filed Feb. 14, 1912. Serial No. 677,479. (Cl. 46—70.)



1. A toy comprising a holder having a pair of sockets therein and also provided with longitudinal channels extending from the ends of the holder to the sockets, pins slidably mounted in said channels and adapted to project beyond the ends of the holder, and a flexible connection carried by the holder and having the ends thereof engaged with the inner ends of said pins.

2. A toy comprising a holder having a pair of sockets in one face thereof, and also provided with a pair of longitudinal channels extending from the ends of the device to said sockets, pins slidably mounted in said channels and adapted to project beyond the ends of said holder, an eye secured to the holder between said sockets, a flexible connection looped about said eye and having the free ends thereof engaged with the inner ends of said pins, and ring members slidably engaged with the flexible connection between the eye and the free ends thereof to operate said pins.

1,030,438. KNOCKDOWN EXTENSION-TABLE. EMIL TYDEN, Hastings, Mich. Filed Feb. 20, 1911. Serial No. 609,583. (Cl. 45—9.)



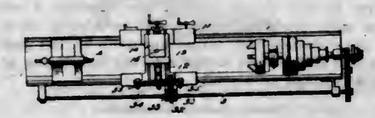
1. A knock-down extension table comprising, in combination with the top halves and the supporting member, two sets of slides mounted on the supporting member, one slide of each set being disengageably engaged rigidly with one top half, and another slide of each set being disengageably engaged rigidly with the other top half, the means for such engagement consisting of an engaging couple at the outer end of the slide whose two members are rigid respectively with the slide and table top; an engaging couple at the inner edge of the table top consisting of a hook pivoted upon the slide and an eye mounted on the under side of the top half, the pivoted hook having an arm which at disengaged position of the hook stands up across the inner edge of the top half.

2. A knock-down extension table comprising, in combination with the top halves and the supporting member, two sets of slides mounted on the supporting member, one slide of each set being disengageably engaged rigidly with one top half, and another slide of each set being disengageably engaged rigidly with the other top half, the means for such engagement consisting of an engaging couple at the outer end of the slide whose two members are rigid respectively with the slide and table top; an engaging couple at the inner edge of the table top consisting of a hook pivoted upon the slide and an eye mounted on the under side of the top half, the pivoted hook having an arm which at disengaged position of the hook stands up across the inner edge of the top half, the other arm of the hook being weighted to overbalance said first-mentioned arm and cause it normally to assume said upstanding position.

3. A knock-down extension table comprising in combination with the top halves and the supporting member, two sets of slides mounted on the supporting member, one slide of each set being disengageably engaged rigidly with one top half, and another slide of each set being disengageably engaged rigidly with the other top half; a fitting mounted rigidly upon the outer end of the slide comprising a vertically elongated eye and a bracket hook mounted rigidly upon the under side of the top half having a correspondingly elongated hook nose for entering the eye, and a pivoted hook mounted upon the side of the slide under the inner edge of the top half, and an eye rigid with the top half for engaging said hook, said pivoted hook having a handle arm which at disengaged position of the hook projects upward across the inner edge of the top half.

4. A knock-down extension table comprising, in combination with the top halves and the supporting member, two sets of slides mounted on the supporting member, one sets of slides mounted on the supporting member, one slide of each set being disengageably engaged rigidly with one top half, and another slide of each set being disengageably engaged rigidly with the other top half; a fitting mounted rigidly upon the outer end of the slide comprising a vertically elongated eye and a bracket hook mounted rigidly upon the under side of the top half having a correspondingly elongated hook nose for entering the eye, and a pivoted hook mounted upon the side of the slide under the inner edge of the top half, and an eye rigid with the top half for engaging said hook, said pivoted hook having a handle arm which at disengaged position of the hook projects upward across the inner edge of the top half and having the opposite end weighted to overbalance said handle end and hold it normally in said upstanding position.

1,030,439. LATHE ATTACHMENT. GEORGE WALKER, Raton, N. Mex. Filed Nov. 23, 1911. Serial No. 662,012. (Cl. 82—18.)



1. A lathe attachment comprising a lathe bed provided with a lathe carriage having a cross feed mounted thereon, a long shaft extending in rear of said bed and mounted in brackets, a gear wheel mounted centrally of said shaft, a short shaft supported in brackets on said carriage, said short shaft provided with a gear wheel in mesh with the gear wheel on said long shaft, a double eccentric splined to said short shaft to rotate therewith, said double eccentric comprising an inner member inclosed within an outer perforated eccentric member consisting of two sections secured together by screws or bolts, said inner member provided with a peripheral rib provided with a series of threaded perforations which may be brought into coincidence with any of the perforations in the said outer member, a threaded pin to engage the coinciding perforations for holding the said double eccentric in adjusted position, said double eccentric inclosed by an eccentric strap consisting of two members held together by bolts, and a connecting member attached at one end to the said eccentric strap and pivoted at the other end to a bracket provided upon the inner end of the said cross feed, said connecting member conveying the motion from the eccentric to the cross feed for operating the latter.

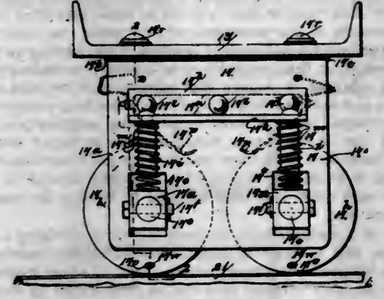
2. A lathe attachment comprising a lathe bed provided with a lathe carriage having a cross feed mounted thereon, a long shaft extending in rear of said bed and mounted in brackets, a gear wheel mounted centrally of said shaft, a short shaft supported in brackets on said carriage, said short shaft mounted in front of said long shaft and on a level therewith, said short shaft provided with a gear wheel in mesh with the gear wheel on said long shaft, a double eccentric splined to said short shaft to rotate therewith, said double eccentric inclosed by an eccentric strap, a connecting member attached at one end to said strap and pivoted at the other end to a bracket provided upon the inner end of said cross feed, and means for regulating the throw of the eccentric.

1,030,440. SOAP-FEEDING SHAVING-BRUSH. RICHARD BURTON WATERMAN, Athol, Mass. Filed Aug. 17, 1911. Serial No. 644,031. (Cl. 15—50.)



A fountain brush comprising a bulb shaped handle having a finger opening formed therein, bristles carried by the lower end of the handle, a tubular member composed of two sections, a measuring valve located in the upper detachable section, a section forming the lower portion of said member and having a contracted discharge end and an upper annular flanged end, all of which is embedded in the bristles confined within the handle, a flexible bulb located within the latter with its lower end removably secured to the upper section of the tubular member, and means for detachably closing the filling end of the flexible bulb immediately above the valve located in the tubular member.

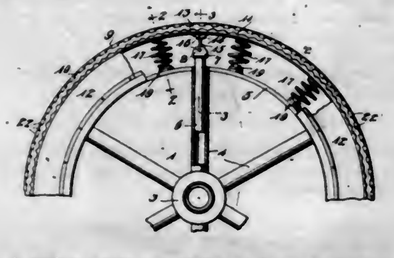
1,030,441. CONTACT-MAKER. JEAN F. WEBB, Jr., New York, N. Y., assignor to The Electric Signagraph and Semaphore Company, Incorporated, New York, N. Y. Original application filed Jan. 27, 1910, Serial No. 540,394. Divided and this application filed May 17, 1911. Serial No. 627,702. (Cl. 191—32.)



1. A contact maker comprising a pair of angle irons secured together, and having depending parts spaced apart, said depending parts having bearing slots, bearing boxes, a shaft passing through said depending parts and secured from rotation in said bearing boxes, angle irons secured to said depending parts, spring holding lugs carried by said angle irons, springs on said lugs to engage said bearing boxes to tend to move said bearings in one direction, and a contact wheel rotatable on said shaft, all being arranged substantially as shown and described.

2. A contact maker comprising a pair of angle irons, secured together and having depending parts spaced apart, said depending parts having vertical slots, bearings mounted in said vertical slots, a shaft mounted in said bearings, means continuously tending to hold said bearings in one position, a contact wheel rotatable on said shaft, and means insuring good electrical connection between said wheel and said angle irons.

1,030,442. SPRING-WHEEL. JOHN HENRY WELDON, Comanche, Okla., assignor of one-half to Charles Sam Wade, Comanche, Okla. Filed June 5, 1911. Serial No. 631,209. (Cl. 152—38.)



1. A spring wheel comprising an inner stationary section having arranged therein a plurality of tubular inner spoke sections, a series of outer spoke sections telescopically engaged with said inner section, cross heads arranged on the outer ends of said outer spoke sections, said cross heads having formed thereon apertured bearing lugs, an outer rim arranged around said inner stationary section of the wheel, brackets secured to the inner side of said rim, said brackets having apertured bearing lugs, links arranged between said brackets and cross heads of said outer spoke sections, said links having on their opposite ends laterally extending pivot studs adapted to engage the apertured lugs on said cross head and bracket whereby a double hinge connection is provided between the outer rim and said outer spoke sections, and springs arranged between said outer rim and stationary section of the wheel whereby said outer rim is yieldingly supported.

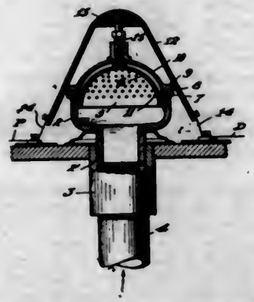
2. In a spring wheel an inner section comprising a hub, a rim, a series of tubular spoke sections fixedly connected at their inner ends to said hub and opening through and connected at their outer ends with said rim, a series of outer spoke sections having a telescopic engagement with said inner sections, said outer spoke sections having on their outer ends cross heads, apertured bearing lugs formed on said cross heads, an outer section comprising a rim arranged around and spaced a suitable distance from the rim of said inner section, a series of spoke attaching brackets secured to the inner side of said outer rim, apertured bearing lugs formed on said brackets, links having on their side edges at their opposite ends laterally extending pivot studs adapted to engage the bearing lugs on said cross heads and said brackets whereby a double hinge connection is provided between said outer spoke sections and the outer rim of the wheel, coiled springs arranged between said inner and outer rims whereby the outer section of the wheel is yieldingly supported, and studs secured to said inner and outer rims and adapted to receive the ends of the springs.

3. In a spring wheel, an inner section comprising a hub, a rim, and a series of spoke sections rigidly connecting these members; combined with a series of outer spoke sections movable through said rim on lines radial to the hub and having bearings at their outer ends, an outer rim also having bearings, all said bearings standing parallel with the axis of the hub, links pivotally connecting the inner and outer bearings, and expansive springs between the rims at either side of the several links.

1,030,443. AUTOMATIC SPRINKLER AND ALARM. THOMAS WILLIAMS and ALFRED LEWIS, San Francisco, Cal. Filed June 28, 1911. Serial No. 635,851. (Cl. 169—5.)

1. In an automatic sprinkler and alarm, a sprinkler comprising a casing, a sprinkler head mounted therein, a cap for closing said sprinkler head, means for holding said cap in place, consisting of an electrical conductor on an electric circuit, and fusible members attached to said conductor adapted to fuse on the passage of current therethrough to release the cap on the sprinkler head.

2. In an automatic sprinkler and alarm, a sprinkler comprising a casing, a sprinkler head mounted therein, a cap for closing said sprinkler head, means for holding said cap in place, consisting of an electrical conductor on an electric circuit, fusible members attached to said conductor adapted to fuse on the passage of current therethrough to release the cap on the sprinkler head, and means operative by the action of heat for directing a current through said conductor.



3. In an automatic sprinkler and alarm, a sprinkler comprising a casing, a sprinkler head mounted therein, a cap for closing said sprinkler head, means for holding said cap in place, consisting of an electrical conductor on an electric circuit, fusible members attached to said conductor adapted to fuse on the passage of current therethrough to release the cap on the sprinkler head, and means operative by the action of heat for directing a current through said conductor, said means consisting of a normally open switch, and means operated by heat for closing said switch.

4. In an automatic sprinkler and alarm, a sprinkler comprising a casing, a sprinkler head mounted therein, a cap for closing said sprinkler head, means for holding said cap in place, consisting of an electrical conductor on an electric circuit, fusible members attached to said conductor adapted to fuse on the passage of current therethrough to release the cap on the sprinkler head, means operative by the action of heat for directing a current through said conductor, said means consisting of a normally open switch and means operated by the heat for closing said switch, and means whereby the closing of said switch will sound an alarm.

1,030,444. CORNER-POST FOR BOX-LIKE STRUCTURES. WILLIAM ZABEL, Edgewood Park, Pa., assignor to The Union Switch & Signal Company, Swissvale, Pa., a Corporation of Pennsylvania. Filed Apr. 17, 1912. Serial No. 691,482. (Cl. 211—25.)



1. A corner post for box-like structures comprising a stud, a side-piece supporting member, means for securing said member to the stud, a spring member supported also by the stud, and side-pieces held between the two said members.

2. A corner post for box-like structures comprising a stud, a side-piece supporting member and a spring member, means embodied in said members for interlocking them and for securing them to the stud, and side-pieces held between the two said members.

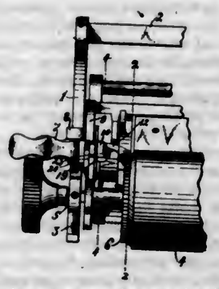
3. A corner post for box-like structures comprising a stud, a side-piece supporting member shaped to partially encircle the stud and provided with bands encircling the remainder of the stud, a spring member partially encircling the stud and located between the stud and the body of the said supporting member and having apertures to accommodate the said bands, and side-pieces held between the two said members.

4. A corner post for box-like structures comprising a stud, a side-piece supporting member provided with bands adapted to secure the member to the stud, a spring member located between the stud and the said supporting member and provided with apertures to accommodate the said bands, and side-pieces held between the two said members.

5. A corner-post for box-like structures comprising a stud, a side-piece supporting member shaped to partially encircle the stud and provided with pairs of slits the material between the slits of each pair being bent outwardly to form bands which encircle the remainder of the stud, a spring member partially encircling the stud and located between the stud and the body of the supporting member and provided with apertures to accommodate the said bands, and side-pieces held between the two said members.

[Claim 6 not printed in the Gazette.]

1,030,445. TYPE-WRITER LINE-SPACING. JESSE ALEXANDER, Brooklyn, N. Y., assignor of one-half to D. N. Thayer, New York, N. Y. Filed Nov. 17, 1908. Serial No. 462,992. (Cl. 197—114.)



1. A typewriter line spacing mechanism comprising a platen having a spacing ratchet, a spacing lever, a spacing dog pivotally mounted thereon, an adjustable stop member to determine the initial position of the dog on said lever to vary the spacing movement thereof, said stop member having means to limit the throw of said dog, and a stop adjacent the spacing lever coöperating with said limiting means to vary the throw of said dog.

2. A typewriter line spacing mechanism comprising a platen having a spacing ratchet, a spacing lever pivoted upon the carriage frame, a spacing dog pivotally mounted on said lever, an adjustable stop member overstanding said lever and having means to determine the upward and downward throw thereof, and having means also to adjustably determine the initial position of said dog, and a stop surface on the machine frame to permit varied movement of the spacing dog corresponding with the adjustment of the stop member.

3. A typewriter line spacing mechanism, comprising a platen having a spacing ratchet, a spacing lever, a spacing dog, adjusting means arranged to vary the initial position of said dog relatively to said ratchet, and having means to limit the throw of said dog, and a stationary stop arranged in an inclined position transversely of the path of the dog, to vary the throw of said dog in conjunction with said adjusting means.

4. A typewriter line spacing mechanism comprising a platen having a spacing ratchet, a spacing lever pivoted to the carriage frame, a spacing dog pivoted on said lever, an adjusting lever mounted on said carriage frame and adapted to engage the tail of said dog to adjust the initial position of the latter to and from said ratchet, a shoulder on said lever for variably limiting the throw of said dog in different positions of said lever, and a coöperating stop surface on the platen frame also for variably limiting the throw of said dog in conjunction with said stop shoulder.

1,030,446. TAPED SEAM FOR SEWED ARTICLES. EDWARD B. ALLEN, Bridgeport, Conn., assignor to The Singer Manufacturing Company, a Corporation of New Jersey. Filed July 8, 1911. Serial No. 637,407. (Cl. 112—34.)



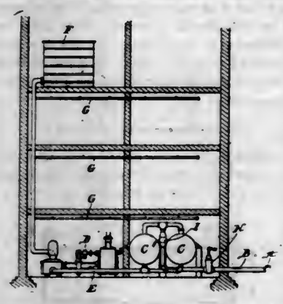
1. A seam for sewed articles comprising two body fabrics with abutted edges, an elastic tape overlying said abutted edges, and a uniting line of stitching passing through said body fabrics and across their abutted edges and through the opposite margins of the tape.

2. A seam for sewed articles comprising two inelastic body fabrics with abutted edges, an elastic tape overlying said abutted edges, and a uniting line of stitching passing through said body fabrics and across their abutted edges and through the opposite margins of the tape.

3. A seam for sewed articles comprising two body fabrics with abutted edges, an elastic tape overlying said abutted edges, and a uniting line of stitching passing once through each of said body fabrics and twice through said tape.

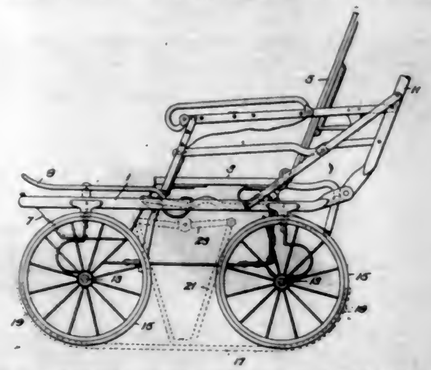
4. A seam for sewed articles comprising two body fabrics with abutted edges, a stretched elastic tape overlying said abutted edges, and a line of stitching for uniting together said abutted edges and the overlying tape, said stitching passing through the body fabrics and across their abutted edges and through the margins of the tape.

1,030,447. SERVICE-PIPE FOR WATER-STORAGE SYSTEMS, &c. WILLIAM H. ALLEN, Detroit, Mich. Filed Oct. 9, 1905. Serial No. 281,918. (Cl. 137—78.)



The combination with a water supply system adapted to supply the water under pressure and a storage system in communication therewith through a supply pipe and adapted to store the water at a height above that to which it will be supplied by the supply system, of a stop cock in the supply pipe and an automatic check valve in the supply pipe between the stop cock and the storage system, said check valve comprising two co-acting valve disks of equal area spaced apart and forming in conjunction with their casing a chamber intermediate said valve disks, and a drainage pipe forming an unrestrainable outlet from said chamber into the atmosphere.

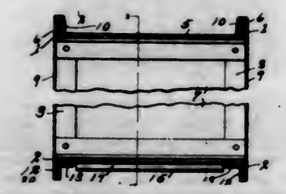
1,030,448. DETACHABLE RUNNER FOR VEHICLES. GEORGE B. AMBLER, Leominster, Mass., assignor to F. A. Whitney Carriage Co., Leominster, Mass., a Corporation of Massachusetts. Original application filed Apr. 8, 1909, Serial No. 488,562. Divided and this application filed Mar. 17, 1911. Serial No. 615,033. (Cl. 21—96.)



1. A detachable runner apparatus for wheeled vehicles comprising, in combination, a runner strip having a straight runner portion to be positioned tangentially to a front and a rear wheel, and having also upturned ends constructed for peripheral engagement with a front portion of the front wheel and a rear portion of the rear wheel, said upturned ends terminating each below the horizontal plane of the axis of its corresponding wheel; an attached strip, bent in U shape, secured to said runner strip and having upright resilient legs to be interposed between the front and rear wheels and to engage the same peripherally at points above the horizontal planes of the wheel axles respectively; and a toggle interposed between said legs of the attaching strip for spreading the latter into clamping engagement with the wheels.

2. A detachable runner apparatus for wheeled vehicles comprising, in combination, a runner strip having a substantially straight runner portion to be positioned tangentially to a front and a rear wheel, and having upturned ends constructed for peripheral engagement with the front portion of the front wheel and the rear portion of the rear wheel; attaching means secured to the runner strip and having upright resilient legs to be interposed between the front and the rear wheels to engage the same respectively by peripheral contact, each said leg engaging one of the wheels in opposition to an upturned end of the runner strip; and a toggle interposed between said legs of the attaching means for spreading the latter into clamping engagement with the wheels.

1,030,449. SIGN. EDWARD BAMBECK, Canton, Ohio, assignor to American Sign Company, Kalamazoo, Mich. Filed June 5, 1911. Serial No. 631,257. (Cl. 40—125.)



1. A casing comprising horizontal angle iron top and bottom members and upright angle iron corner members arranged in pairs with their angles opposed and facing outwardly; angle iron corner cross pieces arranged on the inner sides of said top and bottom and upright members, with their angles facing inwardly, the inner flanges of the top and bottom members being secured to the horizontal flanges of the cross pieces, the inner flanges of the upright members being secured to the vertical flanges of the cross pieces; top and end walls having outturned flanges at their edges arranged in the angles of said top and upright members; side walls having their upper and end edges folded inwardly over the projecting flanges of the top and upright members to embrace the said flanges of said top and end walls, the lower edges of said side walls being folded over the projecting flanges of the bottom members and having inwardly-projecting portions disposed in a spaced relation to the horizontal flanges thereof to provide slide ways; and a bottom formed of sections arranged in said ways to telescope upon each other.

2. A casing comprising angle iron top and bottom members and angle iron corner members arranged in pairs with their angles opposed and facing outwardly; corner cross pieces connecting said members; top and end walls having outturned flanges at their edges arranged in the angles of the said top and corner members; side walls having their upper and end edges folded inwardly over the projecting flanges of the top and corner members to embrace the said flanges of said top and end walls, the lower edges of said side walls being folded over the projecting flanges of the bottom members and having inwardly-projecting portions disposed in a spaced relation to the horizontal flanges thereof to provide slide ways; and a bottom member slidably arranged in said ways.

3. A casing, comprising angle iron top and bottom members and upright corner members arranged in pairs with their angles opposed and facing outwardly; corner cross pieces connecting said members; intermediate cross pieces for said top and bottom members; an intermediate upright connecting said intermediate cross pieces arranged in a plane between the pairs of top and bottom members of the frame; top and end walls having outturned flanges at their edges arranged in the angles of the said top and corner members; side walls having their upper and end edges folded inwardly over the projecting flanges of the top and corner members to embrace the said flanges of said top and end walls.

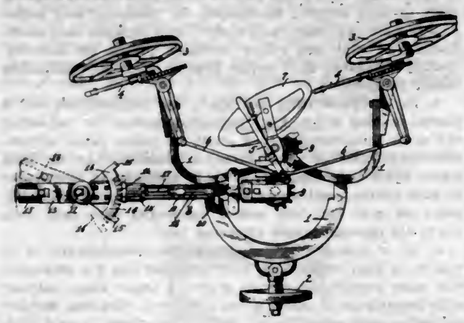
4. A casing comprising angle iron top and bottom members arranged in pairs with their angles opposed and facing outwardly; a top wall arranged in the angles of said top members; side walls having their upper edges folded inwardly over the projecting flanges of the top members and upon said top wall, the lower edges of said side walls being folded over the projecting flanges of the bottom members and having inwardly projecting portions disposed in a spaced relation to the horizontal flanges thereof to provide slide ways, and a bottom member slidably arranged in said ways.

5. A casing comprising a pair of angle iron bottom members with their angles opposed and facing downwardly, side walls having their lower edges folded over the projecting flanges of the bottom members and having inwardly projecting portions disposed in a spaced relation to the horizontal flanges thereof to provide slide ways, and a bottom member slidably arranged in said ways.

[Claims 6 and 7 not printed in the Gazette.]

1,030,450. ADJUSTABLE PLOW-TONGUE. EDWARD CARL BANK, Berkeley, Cal., assignor to Benicia Iron Works, San Francisco, Cal., a Corporation of Nevada. Filed Feb. 15, 1911. Serial No. 608,760. (Cl. 97—40.)

1. In a plow in combination with its tongue, a draft extension pivotally connected with the forward end of the tongue and adapted to be turned out of line therewith, a locking segment carried by the draft extension behind its pivotal connection, said segment having a series of notches in its arc face and end projections extending rearwardly beyond said notched face and constituting stops, a spring held slidable latch on the tongue, a guide member for the latch, said guide member overlying at its sides the sides of the tongue and constituting abutment members to engage said stops, and said guide also having a forward extension overlying the upper surface of the segment, a lever pivoted to the tongue, and an arm having a pivotal connection at one end with the lever and at its opposite end with said latch.



2. In a plow, a tongue, a draft extension plate positioned upon the tongue adjacent its end and projecting therebeyond, a pivot bolt projecting through the plate and tongue, a locking segment secured directly to the rear end of said plate, the segment having in its arc face a series of closely associated notches and terminal extensions projecting rearwardly beyond said arc face, a guide member on the tongue to the rear of said segment having upwardly projecting apertured ends, a sliding bolt extending between said upward projections and loosely fitting in said recesses, one end of the bolt terminating in a latch to engage any of said notches, a spring secured to the bolt at one end and engaging at its opposite end one of said upward projections, a link connected to the rear end of the bolt at a point beyond said guide, and a trip lever pivoted to the tongue and connected to said link.

3. In a plow, a tongue, a draft extension plate positioned upon the tongue adjacent its end and projecting therebeyond, a pivot bolt projecting through the plate and tongue, a locking segment secured directly to the rear end of said plate, the segment having in its arc face, a series of closely associated notches and terminal extensions projecting rearwardly beyond said arc face, a guide member on the tongue to the rear of said segment having upwardly projecting apertured ends, a sliding bolt extending between said upward projections and loosely fitting in said recesses, one end of the bolt terminating in a latch to engage any of said notches, a spring secured to the bolt at one end and engaging at its opposite end one of said upward projections, a link connected to the rear end of the bolt at a point beyond said guide, a trip lever pivoted to the tongue and connected to said link, and an auxiliary locking means associated with said segment.

4. In a plow, a tongue, a draft extension plate positioned upon the tongue adjacent its end and projecting therebeyond, a pivot bolt projecting through the plate and tongue, a locking segment having in its arc face a series of closely associated notches and terminal extensions projecting rearwardly beyond said arc face, a guide member on the tongue to the rear of said segment having upwardly projecting apertured ends, a sliding bolt extending between said upward projections and loosely fitting in said recesses, one end of the bolt terminating in a latch to engage any of said notches, a spring secured to the bolt at one end and engaging at its opposite end one of said upward projections, a link connected to the rear end of the bolt at a point beyond said guide, a trip lever pivoted to the tongue and connected to said link, and the said segment having a series of holes extending therethrough to the rear of said notches, substantially as and for the purpose described.

1,030,451. CONVEYING APPARATUS. PATRICK R. BANNON, Joliet, Ill. Filed Aug. 8, 1907. Serial No. 387,599. (Cl. 193—1.)

1. In conveying and dumping apparatus, a series of connected frames each frame supported in part on a wheeled-truck secured thereto, and in part by the frame next in advance thereof, means for flexibly coupling said frames together, and independent means for supporting the forward end of the front frame of the series.



2. In a conveying and dumping apparatus, a series of connected frames, each consisting of side, vertical and cross timbers rigidly connected and suitably braced, the forward portion of each frame adapted to be supported by the rear portion of the frame adjacent thereto, wheeled trucks supporting the rear portion of said frames, means for flexibly coupling said frames together, an endless conveyer mounted to travel on said frames, and means for driving said conveyers.

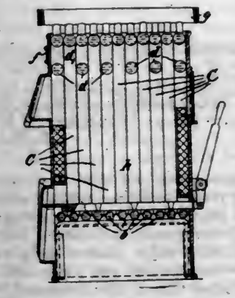
3. In a conveying and dumping apparatus, a series of connected frames each consisting of side, vertical and cross-timbers rigidly connected and suitably braced, the forward end of each frame adapted to be flexibly and slidably supported by the rear portion of the adjacent forward frame, trucks supporting the rear portions of said frames, an endless sectional conveyer arranged to travel on said frames, means on said frames for antifrictionally supporting said conveyer sections in their upright and in their inverted positions, and means for driving said conveyers.

4. In conveying and dumping apparatus, a conveyer section or unit, consisting of a frame composed of side timbers, front and rear cross-timbers, and front and rear uprights suitably connected and braced, means connecting the forward cross-timber with the lower end of the rear uprights, a box composed of side, bottom and end plank suitably connected and braced, and means mounted on said frame and adapted to antifrictionally support said box when in upright and inverted positions.

5. In conveying and dumping apparatus, a series of connected frames, each composed of side, and cross-timbers and uprights rigidly connected and suitably braced, trucks supporting the rear portion of each frame, braces connecting said trucks with the forward cross-timbers, and means for taking up the stretch in said conveyer apparatus.

[Claims 6 to 9 not printed in the Gazette.]

1,030,452. WATER-TUBE SECTIONAL BOILER. HANS BARLACH, Charkow, Russia. Filed July 27, 1910. Serial No. 574,166. (Cl. 122—223.)



1. In a water-tube boiler, the combination of a plurality of sections provided with inlet and outlet means, said sections comprising a plurality of upright conducting members arranged to form the jacketing of the boiler, and intermediate conducting members in communication with said upright conducting members, and arranged in contact with each other to form a wall of a flue separate from the fire-box, said intermediate conducting members being alternately branched in different directions to form a communication between the fire-box and the said flue.

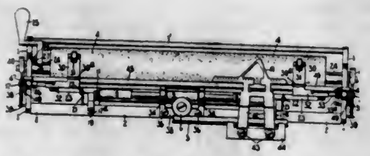
2. In a water-tube boiler, the combination of a plurality of sections provided with inlet and outlet means, said sections comprising a plurality of pairs of upright conducting members forming the jacketing of the boiler, cross conducting members, spaced apart, connecting the said upright conducting members of each pair and arranged below the fire-box of the boiler, and conducting members intermediate the said upright conducting members, in communication with said cross members, and in contact with each other to form a wall of a flue adjacent to the fire-box, said intermediate conducting members being alternately branched in different directions to form a communication between the fire-box and the said flue.

3. In a water-tube boiler, the combination of a plurality of sections provided with inlet and outlet means, said sections comprising a plurality of tubular conducting members arranged to form the jacketing of the boiler, and conducting members in communication with said tubular conducting members and provided with longitudinal channels formed by longitudinal hollow ribs which, arranged in abutting relation to each other, form a plurality of flues in communication with the fire-box, said ribs being in height substantially two and one half to three times the diameter of said conducting members they are formed integral with.

4. In a water tube boiler, the combination, of a plurality of sections provided with inlet and outlet means, said sections comprising a plurality of upright conducting members disposed to form jacketing of the boiler, and intermediate conducting members in communication with said upright conducting members and arranged in contact with each other to form a wall of a flue separate from the fire box, said intermediate conducting members being alternately branched to extend in different planes, at their upper portions, to form a communication between the fire box and said flue.

5. In a water tube boiler, the combination, a boiler jacketing for containing fluid, a plurality of conducting members in communication with said jacketing and arranged in contact with each other to form a wall of a flue separate from the fire box, said conducting members being alternately branched to extend in different planes from each other, at their upper portions, to form a communication between the fire box and said flue.

1,030,453. TYPE-WRITING MACHINE. WALTER J. BARRON, New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed Aug. 23, 1910. Serial No. 578,539. (Cl. 197—127.)



1. In a typewriting machine, the combination of a platen, a feed roller, releasing means for said feed roller, a plurality of paper fingers, key controlled devices for releasing said paper fingers separately and independently of each other, said paper fingers being adjustable independently of said devices, and automatic means for releasing said paper fingers simultaneously.

2. In a typewriting machine, the combination of a platen, a plurality of paper fingers coöperative therewith, key controlled devices for separately and independently releasing said paper fingers, said paper fingers being adjustable independently of said devices, and key controlled means for releasing said paper fingers simultaneously.

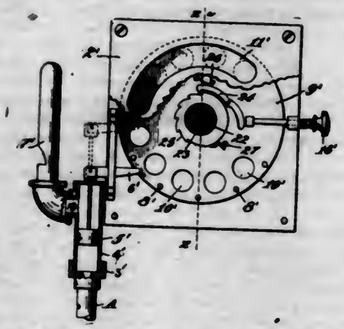
3. In a typewriting machine, the combination of a platen, a feed roller, releasing means for said feed roller, a plurality of paper fingers, key controlled devices for releasing said paper fingers separately and independently of each other, said paper fingers being adjustable independently of said devices, mechanism for releasing said paper fingers simultaneously, and connections between said mechanism and said feed roller releasing means for simultaneously releasing said paper fingers when said releasing means is operated.

4. In a typewriting machine, the combination of a platen, a feed roller, key controlled devices for releasing the same comprising a rock shaft; a paper finger adjustable lengthwise of said platen, a releasing bar for said paper finger extending transversely thereof and lengthwise of said platen, said paper finger being mounted independently of said bar, and means connected with said rock shaft for operating said releasing bar.

5. In a typewriting machine, the combination of a platen, a feed roller, key controlled devices for releasing the same comprising a rock shaft; a paper finger adjustable lengthwise of said platen, a pivoted releasing bar for releasing said paper finger, and an arm fixed to said rock shaft and operative on said releasing bar.

[Claims 6 to 24 not printed in the Gazette.]

1,030,454. TRAIN-AIR-SIGNAL INDICATOR. THOMAS F. BELLHOUSE, Sacramento, Cal., assignor of one-half to L. S. Pratt, Sacramento, Cal. Filed Dec. 2, 1909. Serial No. 531,044. (Cl. 116—19.)

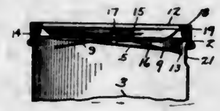


1. A signaling appartaus consisting of a vertical cylinder having an inlet at the bottom for air under pressure, a discharge passage and whistle connection in the side, a plunger within the cylinder, normally depressed and cutting off the discharge passage from the inlet, a pivoted, transversely projecting arm carried by the plunger, means for preventing the arm turning in one direction, a horizontally pivoted disk having pins projecting from the face and adapted to be engaged by the arm with each rise of the plunger, and openings through the disk spaced to correspond to the length of the stroke of the plunger and capable of being successively exposed by each lift of the plunger.

2. A signaling apparatus consisting of a vertical cylinder having an inlet at the bottom for air under pressure, a discharge passage and whistle connection in the side, a plunger within the cylinder normally depressed and cutting off the discharge passage from the inlet, a pivoted, transversely projecting arm carried by the plunger, means for preventing the arm turning in one direction, a horizontally pivoted disk having pins projecting from the face and adapted to be engaged by the arm with each rise of the plunger, openings through the face of the disk spaced to correspond to the length of the stroke of the plunger and capable of being successively exposed by each lift of the plunger, a retaining pawl and ratchet for resisting the reverse movement of the disk, and a releasing pin for said pawl.

3. A signaling apparatus consisting of a vertical cylinder having an inlet at the bottom for air under pressure, a discharge passage and whistle connection in the side, a plunger within the cylinder normally depressed and cutting off the discharge passage from the inlet, a pivoted, transversely projecting arm carried by the plunger; means for preventing the arm turning in one direction, a horizontally pivoted disk having pins projecting from the face and adapted to be engaged by the arm with each rise of the plunger, audible signals being given with each rise of the plunger, said disk having openings which are successively exposed in unison with each audible signal.

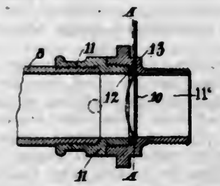
1,030,455. SHEET-METAL CAN. DAVID BLOOM, Berkeley, Cal. Filed May 23, 1911. Serial No. 628,907. (Cl. 220—75.)



1. In a sheet metal can, an annular member attached thereto at the upper edge and lying within the can, inclined edges on said member, a cover having a depressed central portion lying in line with the upper ends of said inclined edges and provided with a recess on its under face, and a flat spring having its intermediate portion attached to the under surface of said depressed portion of the cover within said recess and having its end portions lying within the can and engaging said inclined edges when the cover is in place on the can.

2. A receptacle having internally arranged inclined edges adjacent to its mouth, in combination with a cover adapted to seat on the upper edges of the receptacle and a flat spring attached at its central portion to the cover and having its end portions adapted to engage the inclined edges when the cover is seated on the receptacle, whereby rotation of the cover causes the spring to bend to vary the pressure of the cover on the receptacle.

1,030,456. MEANS FOR CLEANING CHIMNEY-FLUES. CHARLES F. BROADHURST, Vancouver, British Columbia, Canada. Filed Dec. 12, 1911. Serial No. 665,282. (Cl. 137—97.)



1. As a means for freeing a chimney or flue from soot, the combination with a reservoir charged with an elastic fluid under pressure, of a duct from that reservoir delivering into the flue or chimney and a diaphragm of thin tearable material secured across the duct.

2. As a means for freeing a chimney or flue from soot, the combination with a reservoir charged with an elastic fluid under pressure, an outlet from that reservoir controlled by a valve, a flexible pipe connection from the outlet delivering into the flue in the approximate direction of the draft, and a diaphragm of tearable material secured across the outlet aperture outside of the valve.

3. As a means for freeing a chimney or flue from soot, the combination with a reservoir which may be charged with an elastic fluid under pressure, an outlet aperture from that reservoir closable by means of a valve, a flexible connection attached to the outlet aperture and delivering into the flue, said flexible connection attached to the valve by means of a screwed union wherein the screwed end seats against an inserted fabric or rubber washer, said union having a slit through one side in the plane of the joint seat and a diaphragm of paper or similar material inserted through the slit, the edge of which diaphragm is secured in the joint.

1,030,457. SNAP-SEAL. EDWARD J. BROOKS, East Orange, N. J. Filed Apr. 1, 1912. Serial No. 687,616. (Cl. 70—99.)



1. An improved snap seal having, in combination, a bulb-shaped seal part constructed with a downwardly pressing inturned edge surrounding a central hole in its top, and a flexible shackle constructed with a tubular sheath end provided with a circumferential bead adapted to coöperate with said edge to preliminarily fasten this shackle end within the seal part; said sheath end being further constructed with end portions adapted to contact internally with the bottom of the seal part, and notches separating said end portions, and the respective shackle ends being provided with catch portions including catch portions within said notches adapted to interlock with each other within the seal part immediately above said bottom when the seal is snap fastened.

2. The combination, in a snap seal, of a bulb-shaped seal part and a flexible shackle having tubular ends, one of which is a sheath end, connected by a flat body portion; said sheath end being preliminarily fastened within said seal part and constructed with an end notch and a catch portion within said notch, and the other tubular shackle end being slidably insertible endwise into the said sheath end and constructed with a hook-shaped catch portion at its extremity adapted to interlock with said catch portion of the sheath end at the snap fastening operation.

3. The combination, in a snap seal, of a bulb-shaped seal part and a flexible shackle having tubular ends, one of which is a sheath end, connected by a flat body portion; said sheath end being preliminarily fastened within said seal part and constructed with an end portion adapted to contact with the bottom of said seal part internally, an end notch and a catch portion within said notch, immediately above said bottom of the seal part, and the other tubular shackle end being slidably insertible endwise into said sheath end and constructed with a hook-shaped catch portion at its extremity adapted to interlock with said catch portion of the sheath end at the snap-fastening operation.

4. The combination, in a snap seal, of a bulb-shaped seal part and a flexible shackle having tubular ends, one of which is a sheath end, connected by a flat body portion; said sheath end being preliminarily fastened within said seal part and constructed with a plurality of end portions adapted to contact with the bottom of said seal part internally, deep end notches between said end portions and a relatively short catch portion within each of these notches, and the other tubular shackle end being slidably insertible endwise into said sheath end and constructed with a hook-shaped catch portion arranged to interlock with each of said catch portions of the sheath end at the snap-fastening operation.

5. The combination, in a snap seal, of a bulb-shaped seal part and a flexible shackle having tubular ends, one of which is a sheath end, connected by a flat body portion; said sheath end being preliminarily fastened within said seal part and constructed with one member of a snap fastening device located within the seal part and the other tubular shackle end being slidably insertible endwise into said sheath end and constructed with the other member

of said snap fastening device and with an inwardly projecting bead adapted to prevent access to said fastening device through the tubular shackle ends.

[Claim 6 not printed in the Gazette.]

1,030,458. SNAP-SEAL. EDWARD J. BROOKS, East Orange, N. J. Filed Apr. 23, 1912. Serial No. 692,617. (Cl. 70—99.)



1. An improved sheet-metal snap seal having, in combination, a bulb-shaped seal part constructed with two bulb pieces united by a circumferential joint, and with an inlet hole in its top and alining means in its sides, a flexible shackle having each end provided with a pair of normally flat resilient snap catches separated by a central longitudinal slit and a T-shaped embossed inlet guard the stem of which adjoins said slit, and a slotted catch-engaging center piece within said seal part adapted to be guided into place by said alining means and to interlock with said snap catches of the shackle, said top of the seal part and said center piece being provided with notches adapted to admit said stems of said inlet guards.

2. The combination, in a snap seal, of a bulb-shaped seal part provided with an inlet hole, a flexible shackle having both ends provided with resilient snap catches, and a double center piece within said seal part having a pair of depending catch portions the bottom of each being slotted and adapted to interlock with said snap catches of the shackle and a rigid tongue protruding through said inlet hole and forming a guide adapted to facilitate inserting one of the shackle ends into the appropriate catch portion.

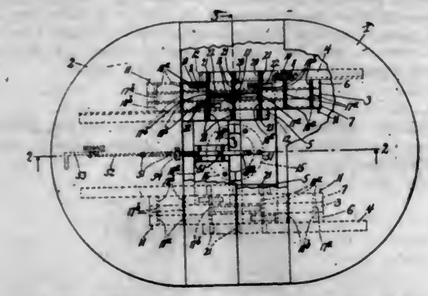
3. The combination, in a snap seal, of a bulb-shaped seal part provided with an inlet hole, a flexible shackle having both ends provided with resilient snap catches, and a double center piece within said seal part having a pair of depending catch portions the bottom of each being provided with a slot and bent so as to deflect the ends of said slot from the plane of its middle portion; said snap catches of the shackle being normally flat and adapted to be temporarily deflected in passing through said slots and to interlock with the slotted bottoms of said catch portions.

4. The combination, in a snap seal, of a bulb-shaped seal part of sheet metal composed of upper and lower bulb pieces united by a circumferential joint, said upper bulb-piece being constructed with an inlet hole in its top and with indented guide ribs in its sides alined with said inlet hole, a flexible shackle both ends of which are provided with snap catches, and a center piece within said seal part adapted to interlock with both shackle ends and constructed with depending U-shaped catch portions open at the top and at the edges of said center piece and fitted to said guide ribs as means for alining said catch portions with said inlet hole.

5. The combination, in a snap seal, of a bulb-shaped seal part of sheet-metal composed of upper and lower bulb pieces united by a circumferential joint, said upper bulb piece being constructed with an inlet hole in its top, a flexible shackle having both ends provided with snap catches and with T-shaped inlet guards, and a slotted catch-engaging center piece within said seal-part formed by folding a flat sheet-metal blank and adapted to interlock with both shackle ends; said top of the seal part and said center piece being provided with notches adapted to admit the stems of said inlet guards, as means for preventing the displacement of said center piece.

[Claim 6 not printed in the Gazette.]

1,030,459. EXTENSION-TABLE. CHARLES S. BURTON, Oak Park, Ill., assignor to Emil Tyden, Hastings, Mich. Filed Oct. 25, 1909. Serial No. 524,299. (Cl. 45—112.)



1. In an extension table, in combination with the table top members and the slides by which they are connected for extension; adjacent slides throughout the sets having notches which are registered with each other at the several stages of extension and keys for lodgment in the registered notches to engage the slides with each other resisting extension, the slides to which one of the table-top members is attached having their notches wider than the keys; a bridge connecting the next adjacent slides; co-operating devices mounted respectively on said table-top member and bridge for engagement when the table-top members are spread to any pre-determined stage of extension, one of said devices being movable on the part on which it is mounted for drawing the table member inward relatively to the bridge, and means for operating said movable element and for locking it at advanced position of the table-top member.

2. In an extension table, in combination with the table top members, the slides by which they are connected for extension, such slides having notches extending across their upper edges, those of adjacent slides being adapted for registration with each other at the several stages of extension; keys adapted to be lodged in the notches of the middle slide of suitable length to extend into the notches of the two opposite adjacent slides, and keys adapted to be lodged in the notches of the slides attached to the table-top members respectively, extending into the registered notches of the intermediate slides adjacent thereto respectively.

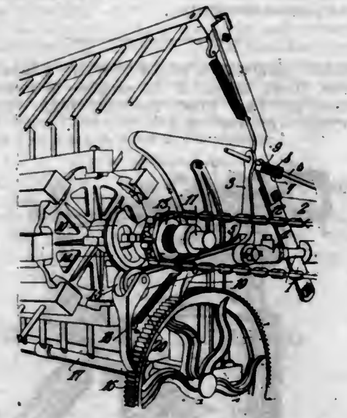
3. In an extension table, in combination with the table top members, the slides by which they are connected for extension having notches extending across their upper edges, those of adjacent slides being adapted for registration with each other at the several stages of extension; keys adapted to be lodged in said notches extended across two or more slides for locking them together, certain of the slides having longitudinal pockets in their upper edges for accommodating the keys when out of service for locking.

4. In an extension table, in combination with the table-top members, slides by which they are connected for extension having notches extending across their upper edges, those of adjacent slides being adapted for registration with each other at the several stages of extension; a key in the form of a cross having one of its arms long enough to engage simultaneously a notch of the middle slide and registered notches of the extreme slides and of all the intermediate slides and having the shorter arm of suitable length to engage the middle slide and the two opposite adjacent slides only, said middle slide having a longitudinal pocket crossing its middle notch long enough to accommodate the longer arm of said cross key.

5. In an extension table, in combination with table top members and slides by which they are connected for extension; withdrawable keys for connecting adjacent slides, the slides having means for engaging such keys positioned in the respective slides for registration with each other at the several stages of extension; a bridge connecting corresponding slides of the two sets on the support and co-operating devices mounted respectively on one table top member and on the bridge for engagement when the table top members are spread to any predetermined stage of extension, one of said devices being movable on the part on which it is mounted for drawing the table members inward relatively to the bridge, and means for operating said movable element and for locking it at advanced position of the table top members.

[Claim 6 not printed in the Gazette.]

1,030,460. INTERMITTENT-GRIP DEVICE. CLINTON C. BUTLER, Waterloo, Iowa. Filed Feb. 29, 1908. Serial No. 418,501. (Cl. 74—54.)

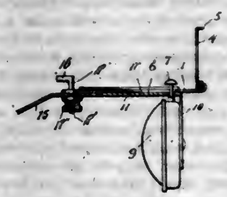


1. In combination with a wagon body having a rotatable shaft journaled thereon and a cam mounted upon said shaft, a second shaft jornaled upon said body, a ratchet wheel fixed to said second shaft, a bar mounted upon said body, a collar adjustably mounted upon said bar, a lever fulcrumed upon said collar and projecting between the cam and ratchet wheel, and adapted to be operated by the cam, a pawl pivotally mounted upon the lever and engaging the ratchet wheel for actuating the same, a retrograde preventng pawl engaging the ratchet wheel for holding the ratchet wheel against reverse movement, said pawls being located at points upon the lever which have movements with relation to the fulcrum point of the lever and which movements differ in scope with relation to each other.

2. In combination, a ratchet wheel, a bell crank lever, an adjustable means to regulate the swing of said bell crank lever, a wheel carried in the extreme end of one of the arms of said bell crank lever, a cam in operable relation with said wheel of the bell crank lever for causing the same and the end of the bell crank lever to be dipped, a pawl pivotally connected to the bell crank lever and having the same axis as said wheel, the free end of said pawl being in operable relation with the ratchet wheel, a retrograde movement preventing pawl having its free end in engagement with the ratchet wheel, and a single spring for yieldingly holding said pawls upon the teeth of the ratchet wheel.

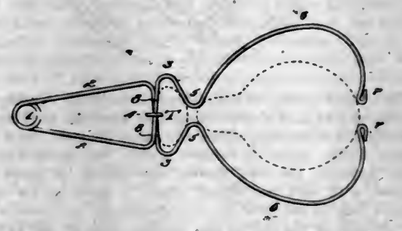
1,030,461. BURGLAR-ALARM. JOHN ALFRED CARLSON, Erie, Pa. Filed May 12, 1911. Serial No. 626,685. (Cl. 116—44.)

1. In a device for the purpose set forth, the combination with a plate, a hinged member connected with the plate, said hinged member having one of its ends off-set and provided with teeth, a slidable member mounted upon the plate, an alarm carried by the slidable member and a hook also carried by the slidable member, and adapted to be inserted within the key hole of a door after the teeth of the hinged member have been forced into engagement with the jamb of the door when the door has been swung closed.



2. In a device for the purpose set forth, a plate, a member hingedly connected with the plate, said member having one of its ends off-set and formed with teeth, the plate being provided with an elongated opening, a headed push button within said opening, a slidable member mounted upon the plate, an alarm carried by the slidable member and adapted to be actuated by the push button, the said slidable member having elongated openings, a hook bit having a shank adapted to engage with the walls of one of the openings, means for securing the shank upon the slidable member, and a finger hold for the slidable member.

1,030,462. COW-TAIL HOLDER. FRANK E. CONANT, Townsend Harbor, Mass. Filed May 26, 1911. Serial No. 629,545. (Cl. 119—105.)



1. A cow-tail holder comprising a spring at one end of the holder, two holding jaws, each consisting of a tail-engaging bend and a leg-engaging bend, two handle arms, extending from the spring to the holding jaws, and normally distended by the spring, said jaws crossing each other where the tail-engaging bends join their respective handle arms, the handles and their respective holding jaws movable on the spring as a pivot, whereby separation of the handle arms by the spring causes closure of the jaws.

2. A cow-tail holder comprising the spring 1, handle arms 2, holding jaws consisting of extensions from the handle arms, said extensions bent as at 3 and 6, reverse bends 5, converging ends 7, and crossed off-sets 8, the spring constituting the pivot on which the handle arms and jaws move to separate and close, the spring normally separating the handle arms 2 and closing the holding jaws.

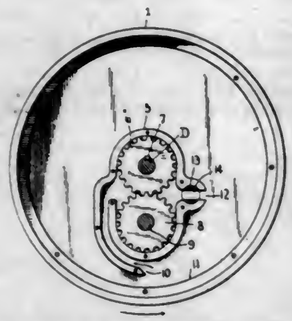
3. A cow tail holder comprising a spring at one end of the holder, two holding jaws each consisting of a tail-engaging bend and a leg-engaging bend, two handle arms extending from the spring to the holding jaws, and normally distended by the spring, said jaws crossing each other where the tail engaging bends join their respective handle arms, a ring embracing the two crossing jaws, the handles and their respective holding jaws movable on the spring as a pivot and the crossed portions of the jaws slidable one on the other, whereby separation of the handle arms by the spring causes closure of the jaws.

4. A cow tail holder comprising the spring 1, handle arms 2, holding jaws consisting of extensions from the handle arms, said extensions bent as at 3 and 6, reverse bends 5, converging ends 7, crossed offsets 8, holding ring 4, the spring constituting the pivot on which the handle arms and jaws move to separate and close, the spring nor-

mally separating the handle arms 2 to close the holding jaws.

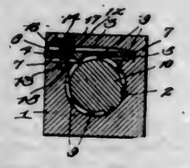
5. A cow tail holder comprising a spring at one end of the holder, two jaws each consisting of a tail-engaging bend and a leg-engaging bend, the ends of the leg-engaging bends normally overlapping, handle arms extending from the spring to the holding jaws, and normally distended by the spring, said jaws crossing each other where the tail-engaging bends join their respective handle arms, the handles and their respective holding jaws movable on the spring as on a pivot, and the crossed portions of the jaws slidable one on the other, whereby separation of the handle arms by the spring causes closure of the jaws.

1,030,463. FLUID-CLUTCH. GUY G. CRANE, Rockford, Ill. Filed Dec. 14, 1911. Serial No. 665,635. (Cl. 192—18.)



In a fluid clutch, the combination with the driving and driven shafts, and a drum connected with one of them and having a hub through which the other projects; of a gear pump whose casing is secured within the drum with its inlet adjacent the wall thereof and one of its gears connected with said last-named shaft, a valve in its outlet whose plug is extended to the exterior of the drum, a collar splined on the hub of the latter, a rack on the exterior of the collar, a toothed pinion meshing therewith, a shaft journaled in bearings across the exterior of the drum and carrying said pinion, and gear wheels connecting said shaft with the extended end of the plug for turning the latter more or less.

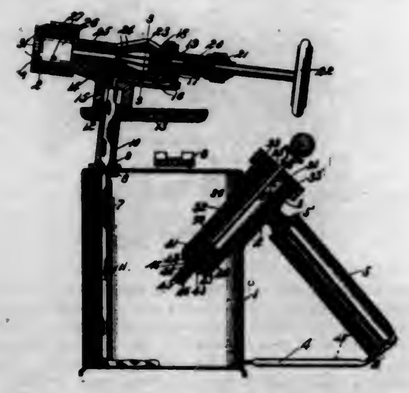
1,030,464. LOCK-NUT. GEORGE O. DOUTHIT, Summers, Ark., assignor to M. M. McCoy, Westville, Okla. Filed Mar. 2, 1912. Serial No. 681,066. (Cl. 151—10.)



1. A lock nut formed with a bolt receiving opening and a recess opening into said bolt receiving opening intermediate of the opposite faces of the nut, the nut being further formed at the inner end of said recess with a socket and at the outer end of said recess with a chamber opening into one side of the nut, a locking pawl adapted to be slipped in through said chamber into the recess and socket and having its inner end fitted in the socket and formed intermediate of its ends with a tooth adapted to project through the recess into the bolt receiving opening of the nut, the outer end of the detent being housed within said chamber and being formed with an aperture extending therethrough, the nut being further formed with an opening extending at right angles to the chamber and intersecting the same, the inner end of said opening forming a socket, a plug screwing into said opening and provided with a stem passing through the aperture of the detent into the socket, and a spring encircling said stem and adapted to bear against the plug and the detent, for the purpose specified.

2. The herein described lock nut provided with a bolt receiving opening with a recess extending into said opening and with a chamber at one end of said recess, a detent mounted in said recess and provided with a tooth adapted to project therethrough into the bolt receiving opening of the nut and formed with a handle end mounted in said chamber, the nut being further formed with an opening intersecting said chamber, a plug mounted in said opening, and a spring interposed between said plug and the detent, for the purpose specified.

1,030,465. GASOLENE BLOW-TORCH. JAMES E. FLITCROFT, Ocean Grove, N. J., assignor to Patrick Wall, Pittsburgh, Pa. Filed Dec. 26, 1911. Serial No. 667,730. (Cl. 158—33.)



1. A blow torch, having a burner provided with an enlarged double cone-shaped fluid and air mixing chamber provided with longitudinally disposed air inlet slots in the walls thereof, a valve controlled fluid nozzle projecting concentrically of and within said chamber, an induction tube of lesser diameter than the mixing chamber leading from said mixing chamber, an enlarged cylindrical combustion chamber at the opposite end of the induction tube, and a flame directing disk removably mounted in the outer end of the combustion chamber.

2. A blow torch, having a burner provided with a fluid and air mixing chamber having an enlarged intermediate portion and reduced end and provided with longitudinally disposed air inlet slots in the walls thereof, a valve controlled fluid nozzle concentrically of and projecting into said chamber, an induction tube leading from said chamber, an enlarged cylindrical combustion chamber at the opposite end of the tube and a removable flame forming baffle disk disposed in the extreme outer end of the combustion chamber, said disk having a concentric aperture and radiating slots, said aperture being of substantially the same diameter as the induction tube.

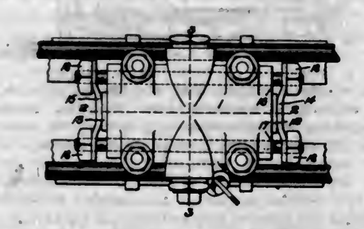
3. A blow torch, having a burner provided with a fluid and air mixing chamber having an intermediate enlarged portion and oppositely disposed reduced ends and provided with longitudinally disposed air inlet slots in the walls thereof, a valve controlled fluid nozzle concentrically of said chamber, an induction tube leading from said chamber, an enlarged cylindrical combustion chamber at the opposite end of the tube, and a flame forming baffle disk removably disposed in the extreme outer end of the combustion chamber, said baffle disk being provided with a concentric flame emitting aperture having a plurality of radially disposed slots leading therefrom.

4. A blow torch, having a fluid reservoir provided with an angularly disposed hollow boss, and an air supplying means removably insertible within the bore of the boss and comprising a pump cylinder, a plunger reciprocatingly mounted therein, a stem connected to the plunger and projecting exteriorly of the body, a removable cap surrounding the stem for locking the pump body within the boss, and a ball pivotally connected to said boss and disposed to engage the outer end of the stem to lock the same in in-stroke position.

5. A blow torch, having a fluid reservoir provided with an angularly disposed hollow boss, and an air supply means removably insertible within the bore of the boss and comprising a pump cylinder, a plunger reciprocatingly mounted therein, a stem connected to the plunger and projecting exteriorly of the body, a removable cap surrounding the stem for locking the pump body within the boss, a ball pivotally connected to said boss and disposed to engage the outer end of the stem to lock the same in in-stroke position, and a spring coil carried by said ball and disposed to yieldingly engage the outer face of the stem to yieldingly hold the stem in in-stroke position.

[Claims 6 to 8 not printed in the Gazette.]

1,030,466. VALVE. GEORGE H. GILMAN, Claremont, N. H., assignor to Sullivan Machinery Company, Claremont, N. H., a Corporation of Maine. Original application filed Jan. 3, 1911, Serial No. 600,403. Divided and this application filed June 20, 1911. Serial No. 634,283. (Cl. 121—11.)



1. In an engine the combination with a pressure-actuated valve of buffer members for the opposite ends of said valve and a rigid movable connecting member for said buffer members passing from end to end but outside of said valve.

2. In an engine the combination with a pressure-actuated valve of movable buffers for the opposite ends of said valve, resilient means to receive the shock of said buffer members and a rigid movable connection between the opposite resilient means.

3. In an engine the combination with a pressure-actuated valve of movable buffers for the opposite ends of said valve, springs against which said buffer members rest, abutting members for said springs, and a connecting rod for the springs of opposed buffer members.

4. In an engine the combination with a pressure-actuated valve of movable buffer members for the opposite ends of said valve, a spring for each buffer member, an abutting member for each end of each spring, and a pair of rods connecting together the corresponding end of opposite springs.

5. In an engine having a valve chamber, the combination with a pressure-actuated valve, of movable buffer members seated in the opposite ends of the valve chamber, and means including resilient connections connecting said buffer members to cause the outward movement of one to more firmly seat the other.

[Claims 6 to 8 not printed in the Gazette.]

1,030,467. CORN-HUSKING ROLLERS. BARNEY GRONKE, Chicago, Ill., assignor to International Harvester Company, a Corporation of New Jersey. Filed Mar. 28, 1912. Serial No. 686,941. (Cl. 130—5.)

1. A pair of coacting corn husking rolls including, in combination, one cylindrical roll having two rows of pockets spaced apart in the direction of the length of said roll, upon opposite sides thereof and in lines parallel with the axis thereof, said pockets being arranged in alternating relation in the two rows and having a gradually increasing depth along a chordal line in a direction opposite that of the rotation of said roll, and two rows of pins extending beyond the periphery of said roll, spaced apart in the direction of the length of said roll and in lines parallel with the axis thereof and intermediate said rows of pockets, a companion roll having two pairs of oppositely disposed flattened portions arranged longitudinally thereon, one of said pairs being provided with pins that register with the pockets in the companion roll and the remaining pair registering with the pins carried by the companion roll.



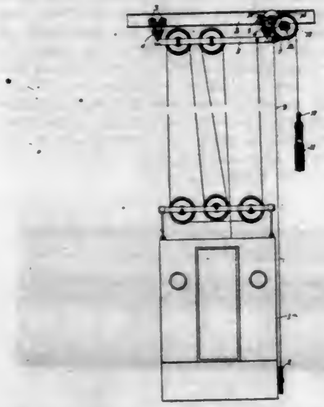
2. A pair of coacting corn husking rolls including, in combination, one cylindrical roll having two rows of pockets spaced apart in the direction of the length of said roll, upon opposite sides thereof and in lines parallel with the axis thereof, said pockets being arranged in alternating relation upon the two rows and having a gradually increasing depth along a chordal line in a direction opposite that of the rotation of said roll, and two rows of pins extending beyond the periphery of said roll, spaced apart in the direction of the length of said roll and in lines parallel with the axis thereof and interminate said rows of pockets, a companion roll having two pairs of oppositely disposed flattened portions arranged longitudinally thereon equidistant apart circumferentially, one of said pairs being provided with pins that register with the deeper portions of the pockets in the companion roll, and the remaining pair having circumferentially arranged pockets adapted to register with the pins upon the companion roll.

3. A pair of coacting corn husking rolls including, in combination, one cylindrical roll having two rows of pockets elongated circumferentially and spaced apart in the direction of the length of said roll, upon opposite sides thereof and in lines parallel with the axis thereof, said pockets being arranged in alternating relation upon the two rows and having a gradually increasing depth along a chordal line in a direction opposite that of the rotation of said roll, and two rows of pins extending beyond the periphery of said roll spaced apart in the direction of the length thereof and in lines parallel with the axis thereof and intermediate said rows of pockets, a companion roll having two pairs of oppositely disposed flattened portions arranged longitudinally thereon equidistant apart circumferentially, one of said pairs being provided with pins that register with the pockets in the companion roll and the remaining pair having circumferentially arranged pockets adapted to register with the pins upon the companion roll, said flattened portions having a series of raised portions adjacent a number of said pockets and between the pins at the delivery end of said roll.

1,030,468. FIRE-FIGHTING ELEVATOR. EDWIN H. HANEY, Stockton, Cal., assignor to Haney Fire Apparatus Company, Stockton, Cal., a Corporation. Filed Dec. 19, 1911. Serial No. 666,735. (Cl. 227—14.)

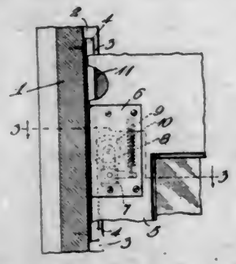
A device of the character described comprising a rail, rollers mounted on said rail, hangers on said rollers, a frame mounted on said hangers and having a pair of projecting arms at one end, an elevator swung from said frame and being capable of being raised or lowered, a

pulley on said elevator, a pulley journaled in each of said arms and at right angles to said first named pulley, an independent pulley disposed at right angles to said pulleys in said arms and carrying a flexibly hung weight, an end-



less cable disposed through all of said pulleys, a gear connected with one of said pulleys in one of said arms, a gear connected with one of said rollers, said last named gear intermeshing with said first named gear, as described.

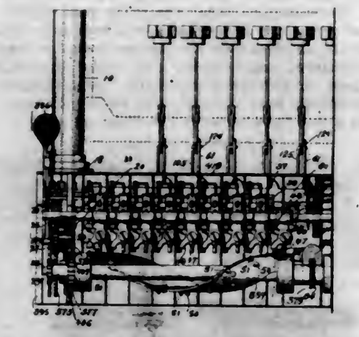
1,030,469. SASH-HOLDER. WILLIAM A. HELL, Davenport, Iowa. Filed June 23, 1910. Serial No. 568,530. (Cl. 16—54.)



In combination with a window frame having a vertical track secured thereto and projecting into a recess in one side of the sash frame, of a plate secured to one side of the recess having an angular bracket thereon, a bell crank lever having a base provided with a rearwardly extended horizontal arm and also having upwardly spaced arms provided with a roller journaled therebetween, said base of the bell crank lever pivoted to the bracket, a lug on the plate, a spring having one end secured to the lug and its other end connected to the lever, said bell crank lever adapted to having a rocking movement within the bracket when the roller travels over the track the spring permitting of the rocking movement, and said spring also keeping the roller in contact with the track during its travels over the same.

1,030,470. CALCULATING-MACHINE. JOHN T. HOWIESON, New York, N. Y. Filed Dec. 6, 1907, Serial No. 405,389. Renewed Nov. 21, 1911. Serial No. 661,615. (Cl. 235—62.)

1. In a calculating machine, a group of index wheels, means normally disconnected from the index wheels for rotating them, separate connecting devices for connecting each of the index wheels to the rotating means, a selector provided with studs adapted to operate the connecting devices, means for moving the selector to bring a stud into position to operate a connecting device, means for shifting the selector to cause the stud to operate the connecting device, means for operating the rotating means to rotate the index wheel so connected through a predetermined movement of rotation, means for returning the selector to the position from which it was shifted to release the connecting means, spring devices for returning the connecting device operated to normal position to disconnect the index wheel operated, from the rotating means, and means carried by the selector operating on its return movement for positively actuating the connecting device to disconnect the index wheel operated, from the rotating means.



2. In a calculating machine, a group of index wheels, means normally disconnected from the index wheels for rotating them, separate connecting devices for connecting each of the index wheels to the rotating means, a rotary selector provided with studs adapted to operate the connecting devices, means for rotating the selector to bring a stud into position to operate a connecting device, means for shifting the selector longitudinally of its axis to cause the stud to operate the connecting device, means for operating the rotating means to rotate the index wheel so connected through a predetermined movement of rotation, means for returning the selector to the position from which it was shifted to release the connecting means, spring devices for returning the connecting device operated to normal position to disconnect the index wheel operated, from the rotating means, and means carried by the selector operating on its return movement for positively actuating the connecting device to disconnect the index wheel operated from the rotating means.

3. In a calculating machine, a group of index wheels, means normally disconnected from the index wheels for rotating them, separate connecting devices for connecting each of the index wheels to the rotating means, a selector provided with a series of studs for operating the connecting devices, the studs being so arranged that only one of them at a time can be brought in position to operate a connecting device, means for moving the selector to bring a stud into position to operate a connecting device, means for shifting the selector to cause the stud to operate the connecting device, means for operating the rotating means to rotate the index wheels so connected through a predetermined movement of rotation, means for returning the selector to the position from which it was shifted to release the connecting means, spring devices for returning the connecting device operated to normal position to disconnect the index wheel operated, from the rotating means, and means carried by the selector operating on its return movement for positively actuating the connecting device to disconnect the index wheel operated from the rotating means.

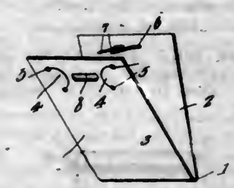
4. In a calculating machine a group of index wheels, means normally disconnected from the index wheels for rotating them, separate connecting devices for connecting each of the index wheels to the rotating means, a rotary

selector provided with studs adapted to operate the connecting devices, the studs being so arranged that any one of them at a time can be brought in position to operate a connecting device, means for rotating the selector to bring a stud into position to operate a connecting device, means for shifting the selector longitudinally of its axis to cause the stud to operate the connecting device, means for operating the rotating means to rotate the index wheel so connected through a predetermined movement of rotation, means for returning the selector to the position from which it was shifted to release the connecting means, spring devices for returning the connecting device operated to normal position to disconnect the index wheel operated, from the rotating means, and means carried by the selector operating on its return movement for positively actuating the connecting device to disconnect the index wheel operated from the rotating means.

5. In a calculating machine, a group of index wheels arranged in line, means normally disconnected from the index wheels for rotating them, separate connecting devices for connecting each of the index wheels to the rotating means, also arranged in line, a rotary selector having its axis parallel with the line of the connecting devices provided on its periphery with a spirally arranged series of studs each adapted to operate one of the connecting devices, means for rotating the selector to successively bring the studs into position to operate the connecting devices of the several index wheels, means for shifting the selector longitudinally of its axis to operate the connecting device, means for operating the rotating means to rotate the index wheel so connected through a predetermined movement of rotation, means for returning the selector to the position from which it was shifted to release the connecting means, spring devices for returning the connecting device operated to normal to disconnect the index wheel operated, from the rotating means, and means carried by the selector operating on its return movement for positively actuating the connecting device to disconnect the index wheel operated from the rotating means.

[Claims 6 to 42 not printed in the Gazette.]

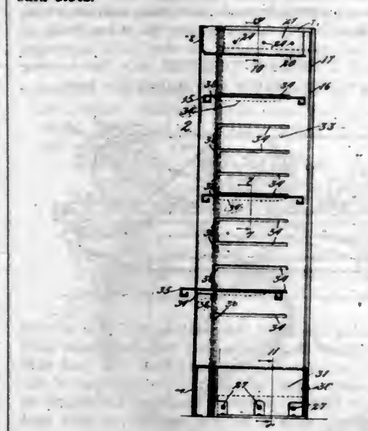
1,030,471. PIN-TICKET. IRVING KAUFMAN, Baltimore, Md. Filed Jan. 22, 1912. Serial No. 672,650. (Cl. 40—25.)



A ticket of the character described comprising two members having an aperture and a fastening device respectively, said fastening device having a pair of terminals which are adapted to pass through the aperture, and means for housing the terminals, said means consisting of suitable slits cut in one member to form oppositely disposed flaps, adapted to open upon the ticket being pressed in convexed position and receive said terminals, and close when the pressure upon the ticket is released thereby forming a housing for the said terminals, substantially as described.

1,030,472. METALLIC BOOK-STACK. ERIK L. KRAG, Chicago, Ill., assignor to R. W. Paltridge and W. L. Proper, Chicago, Ill. Filed May 31, 1907, Serial No. 376,596. Renewed Feb. 21, 1912. Serial No. 679,188. (Cl. 45—78.)

1. In a book stack, a standard formed of sheet metal and bent to form two panels, one raised relatively to the other, the raised panel being formed with a plurality of transverse slots for the reception of shelves, said slots extending to the part of said raised panel at which it is bent down to join the other panel and being enlarged at this point to enable the shelves to be inserted endwise into said slots.



2. In a book stack, a standard formed of sheet metal and bent to form two vertical panels, one raised relatively to the other, the raised panel being formed with a plurality of horizontal slots for the reception of shelves, said slots extending to the part of said raised panel at which it is bent down to join the other panel and being extended downwardly at this point to form short vertical slots to enable the shelves to be inserted endwise into said horizontal slots.

3. The combination with a standard having a hollow raised panel, said panel being provided with a horizontal slot, a shelf adapted to rest upon the lower side of said slot and having a downwardly extending portion within said panel, said panel having a notch to permit the insertion of said shelf into said slot, said notch being of such dimensions as to normally prevent removal of said shelf and to permit such removal upon the raising of said shelf from the lower side of said slot.

4. The combination of a standard having a hollow panel, the face of said panel having a horizontal slot, a shelf resting upon the lower side of said slot, the edge of said panel being provided with a notch having its bottom below the lower side of said slot, and said shelf having a downwardly extending portion within said panel extending below the bottom of said notch, whereby said shelf is normally held from withdrawal from said slot.

5. In a book stack, the combination of a standard having a raised panel provided with horizontal slots, and a sheet metal shelf having its end bent downwardly and adapted to enter a slot, said standard having also short vertical slots intersecting said horizontal slots to permit the insertion of said downwardly bent ends into said horizontal slot.

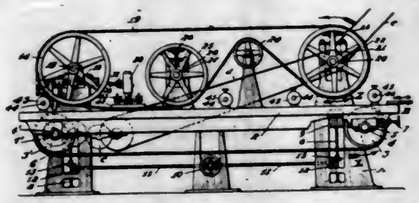
[Claims 6 to 11 not printed in the Gazette.]

1,030,473. SANDING-MACHINE. JOHN W. KROEZE, Burlingame, Cal. Filed Jan. 31, 1912. Serial No. 674,598. (Cl. 51—13.)

1. In a sanding machine, the combination of a slatted feed belt, a continuous abrasive belt disposed above said slatted belt, means for rotating said feed belt and said abrasive belt, and means for moving the lower wing of the abrasive belt at various points throughout its length in and out of contact with a surface carried on said feed belt, and said last named means including a vertically adjustable pulley under which the lower wing of the abrasive belt passes and a vertically adjustable shoe adapted to operate against the lower wing of said abrasive belt.

2. In a sanding machine, the combination of a slatted feed belt, a continuous abrasive belt disposed above said

slatted belt, means for rotating said feed belt and said abrasive belt, and means for moving the lower wing of the abrasive belt at various points throughout its length in and out of contact with a surface carried on said feed belt, including an idler pulley under which the lower wing of the abrasive belt passes, means for vertically adjusting said pulley, and a vertically adjustable shoe for bearing the lower wing of the abrasive belt against the work.



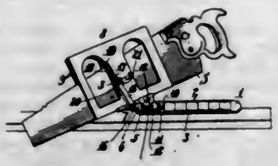
3. In a sanding machine, the combination of a slatted feed belt, a continuous abrasive belt disposed above said slatted belt, means for rotating said feed belt and said abrasive belt, means for moving the lower wing of the abrasive belt at various points throughout its length in and out of contact with a surface carried on said feed belt, including an idler pulley under which the lower wing of the abrasive belt passes, and means for vertically adjusting said pulley, a shoe disposed over the lower wing of the abrasive belt adjacent the idler pulley, and means for vertically adjusting said shoe.

4. In a sanding machine, the combination of an endless, slatted, feed belt, a support for the upper wing of said feed belt, means for rotating said feed belt continuously, means for adjusting said feed belt vertically, an endless abrasive belt having its lower wing disposed over the upper wing of said feed belt in alinement therewith, a pair of pulleys around which said abrasive belt passes, means for adjusting one of said pulleys horizontally to tension the abrasive belt, and means for adjusting the other pulley vertically to throw the abrasive belt in and out of contact with a surface carried on said feed belt.

5. In a sanding machine, the combination of an endless, slatted, feed belt, a support for the upper wing of said feed belt, means for rotating said feed belt continuously, means for adjusting said feed belt vertically, an endless abrasive belt having its lower wing disposed over the upper wing of said feed belt in alinement therewith, a pair of pulleys around which said abrasive belt passes, means for adjusting one of said pulleys horizontally to tension the abrasive belt, means for adjusting the other pulley vertically to throw the abrasive belt in and out of contact with the surface carried on said feed belt, and separate means for depressing the lower wing of the abrasive belt toward the feed belt at various points between the pulleys.

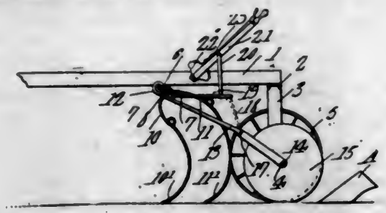
[Claims 6 to 8 not printed in the Gazette.]

1,030,474. MITER-BOX. ROBERT L. MACEY, Kansas City, Mo. Filed June 9, 1911. Serial No. 632,150. (Cl. 143—88.)



A saw guide comprising an attaching plate having a graduated scale thereon, a hinged member having a clamped pivot connection with said attaching plate and formed with a finger coöperating with a scale thereof, a saw guide member consisting of a plate folded upon itself to provide confronting saw plate engaging walls hingedly connected by one of said walls with said hinged member, a tubular member having loose connection at its lower end to said hinged member and having a split end member loosely connected with the saw guide and movable through the split end of said tubular member, said tubular member being rectangular in shape, a screw extending through the confronting walls of the split end of said tubular member, and a nut threaded on said screw and adapted to clamp said split end on the member slidable therein.

1,030,475. POTATO-VINE ARRANGER. JOSEPH P. MANSON, Hartland, Me. Filed May 31, 1911. Serial No. 630,357. (Cl. 55—9.)



1. A potato vine arranger having two series of spring actuated vine engaging fingers, and a weighted roller straddling the row in the rear of said fingers.

2. A potato vine arranger having two series of spring actuated vine engaging fingers, and a spool shaped roller mounted in the rear of said fingers adapted to straddle the row.

3. A potato vine arranger, having two series of spring actuated vine engaging fingers, a weighted roller straddling the row in the rear of said fingers, and means for raising and lowering said fingers and roller.

4. A potato vine arranger, having two series of spring actuated vine engaging fingers, a spool shaped weighted roller straddling the row in the rear of the fingers, and means for raising and lowering the said fingers and roller.

5. A potato vine arranger, having a wheeled yoke, a draft bar connected thereto, a frame pivotally connected to the draft bar, two series of vine gathering fingers carried by said bar, means for raising and lowering the same, and a weighted vine crowding roller mounted in the rear of and in the path of the vine gathering fingers.

[Claim 6 not printed in the Gazette.]

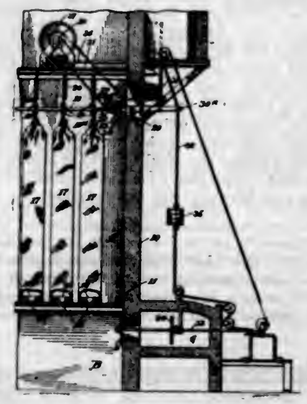
1,030,476. CAR-BOLT APPLIANCE. JAMES H. MCMANAMAN, Correctionville, and EMIL GREINER, Sioux City, Iowa. Filed Dec. 4, 1911. Serial No. 663,722. (Cl. 85—1.)



1. A car bolt appliance consisting of a solid head adapted to be secured to the inside of a car frame, said head having a round central chamber opening outward into a channel in the car wall, a sleeve secured to said head, a bolt in the sleeve with head secured in said chamber and a nut adjustable to the projecting end of said bolt.

2. A car bolt appliance consisting of a solid head adapted to be secured to the inside of a car frame, a sleeve integral with the head adapted to extend outward through a channel in the car wall and being internally threaded at the outer end, a bolt with head adapted for adjustment in said sleeve, a loose sleeve on the headed end of said bolt, a sleeve externally threaded adapted to be secured in the threaded end of the external sleeve and having a cap integral therewith, and a nut adjustable to the outer end of the bolt.

1,030,477. BAG-HOUSE. ALBERT J. MEIER, Glendale, Mo. Filed May 19, 1911. Serial No. 628,341. (Cl. 75—30.)



1. In an apparatus of the class described, a structure having a bag chamber and a plurality of cellars below said bag chamber and separated one from the other by transverse partitions, a plurality of bags suspended in rows in said bag chamber and opening from said cellars, one section from each cellar, dampers for said cellars, and interconnected means for closing said dampers in succession and for shaking the bag sections connected to the cellars which the dampers control in the same order as said dampers are operated.

2. In an apparatus of the class described, a structure having a perforated horizontal partition therein to form a bag chamber, a plurality of transverse partitions dividing the space below said perforated partition into a plurality of cellars, a plurality of bags suspended in rows in said bag chamber and opening from said cellar, a main flue connected to said cellars, dampers between said flue and cellars, and interconnected means for closing said dampers in succession and for shaking the bag sections connected to the cellars which the dampers control in the same order as said dampers are operated.

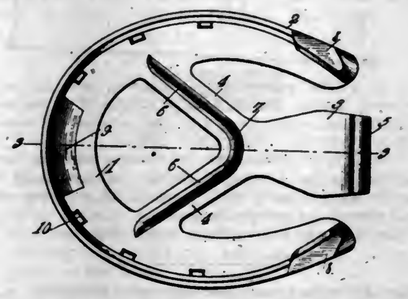
3. In an apparatus of the class described, a structure having a bag chamber and a plurality of cellars below said bag chambers and separated one from the other by transverse partitions, a plurality of bars movably supported in said bag chamber, a row of bags suspended from each bar and opening from one of said cellars, a plurality of rows of bags opening from each cellar and forming a bag section, and interconnected means for closing said dampers in succession and for shaking the bag sections connected to the cellars which the dampers control in the same order as said dampers are operated.

4. In an apparatus of the class described, the combination of a support, a row of bags suspended therefrom, and means for imparting a movement to said support and the bags thereon in a direction along the row to shake the bags.

5. In an apparatus of the class described, the combination of a movably supported bar, a row of bags suspended therefrom, and means for moving said bar in the direction of its length to shake the bags thereon.

[Claims 6 to 13 not printed in the Gazette.]

1,030,478. HORSESHOE. WILLIAM E. MESSACAR, Albion, Mich., assignor to The Apex Horseshoe Co., Albion, Mich. Filed Oct. 11, 1911. Serial No. 654,185. (Cl. 168—24.)



1. A horseshoe comprising a body having a depending, relatively thin, gripping flange about its entire periphery, the shoe being provided with a spring support located between the heels and having bifurcations united with the body, the support being extended beyond the heels of the shoe and being terminally provided with a calk depending below the flange, to elevate the heels, the bifurcations being equiped with longitudinal stiffening ribs, and the heels being rigid, there being reinforcing lugs located at the toe and at the heels, in the angles defined by the body and the flange.

2. A horseshoe comprising a body having a depending, relatively thin, gripping flange about its entire periphery, the shoe being provided with a spring support located between the heels and having bifurcations united with the body, the support being terminally provided with a calk depending below, the flange, and adapted to elevate the heels, the bifurcations being equipped with longitudinal stiffening ribs, and the heels being rigid, there being reinforcing lugs located at the toe and at the heels, in the angles defined by the body and the flange.

3. A horseshoe comprising a body having a depending, relatively thin, gripping flange about its entire periphery, the shoe being provided with a spring support located between the heels and having bifurcations united with the body, the support being extended beyond the heels, and being terminally provided with a calk extending below the flange and adapted to elevate the heels, the bifurcations being equipped with longitudinal stiffening ribs, and the heels being rigid.

4. A horseshoe comprising a body having a spring support located between the heels, the support having bifurcations united with the body, the support being terminally provided with a calk adapted to elevate the heels clear of the ground, the heels being rigid, and the bifurcations being provide with longitudinal stiffening ribs.

1,030,479. FRUIT-GRADER. NICHOLAS J. OFSTAD, Riverside, Cal. Filed June 21, 1911. Serial No. 634,419. (Cl. 130—32.)

1. In a fruit grader, the combination with an imperforate endless conveyer; of fruit turning means located in the path of the conveyer and extending coextensive with one surface of the conveyer.

2. In a fruit grader, the combination with an endless conveyer; of adjustable fruit turning means located in the path and extending substantially coextensive with one surface of the conveyer.

3. In a fruit grader, the combination with an endless conveyer; of rigidly held adjustable fruit turning means located in the path of and extending substantially coextensive with the conveyer.

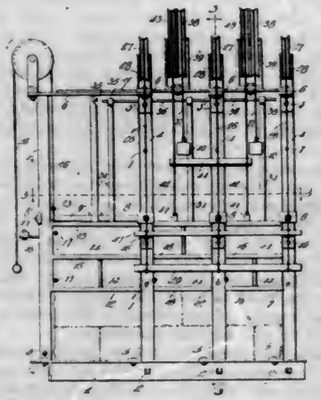


4. In a fruit-grader, the combination with an endless conveyer having an interrupted surface; of stationary fruit turning means located in the path of the conveyer and in the break of the surface thereof.

5. In a fruit grader, the combination with an endless conveyer having a stepped surface; of adjustable fruit turning means located in the path of the conveyer and in the break of the surface thereof.

[Claims 6 and 7 not printed in the Gazette.]

1,030,480. HOLLOW-CONCRETE-WALL MOLD. FRANK H. PACKARD, Ceylon, Minn. Filed July 10, 1911. Serial No. 637,806. (Cl. 25—131.)

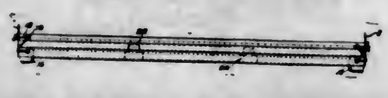


1. In a hollow wall mold, a series of sills spaced apart and secured together in proper position to form the base members of the mold, a plurality of uprights secured at their lower ends to said sills and adapted to form supports for the sections of the mold, cross bars connected to the upper ends of said uprights whereby said upper ends are spaced apart and secured together, connecting plates secured to said cross bars, a series of mold supporting tie bars secured at their outer ends to said uprights, spacing sleeves arranged on said rods, a series of inner and outer mold sections adapted to be secured together at their engaging edges, supporting lugs secured to said sections and adapted to receive the ends of said tie rods whereby said sections are secured to and supported by said uprights, dead air space molds arranged between said mold sections whereby the wall is divided into inner and outer sections and a dead air space formed between said sections, means to support said dead air space molds, and counter balancing weights secured to said inner and outer mold sections whereby the same are raised and held in position while being adjusted to form the successive layers of the wall.

2. In a hollow concrete wall mold, inner and outer series of suitably supported uprights, a series of outer mold sections adjustably secured to said uprights, a series of inner mold sections, said sections comprising flat metal plates having secured thereto a series of brace bars, interlocking fingers formed on the engaging edges of said plates whereby the latter are connected together to form an unbroken surface, means to adjustably secure said mold sections to the inner series of uprights, and shifting bars secured to said uprights whereby the latter when released may be shifted to permit the mold sections to be adjusted for forming the successive layers of the wall.

3. A hollow concrete wall mold comprising inner and outer series of suitably supported uprights, a series of outer mold sections, a series of inner mold sections, means to adjustably secure said sections to said uprights whereby said mold sections may be adjusted to form the successive layers of the wall, a series of dead air space mold sections, said sections comprising pairs of plates arranged between said inner and outer mold sections, means to space said plates apart to form an air space in the wall, means to close the space between the upper edges of said plates whereby the material is prevented from entering said space, spacing pins adapted to be engaged between said plates whereby the latter are spaced apart, lifting lugs secured to said plates, spacing members secured thereto and adapted to engage said inner and outer mold sections, raising cables connected to the lugs on said mold plates, guiding and supporting pulleys adapted to receive said cables, counter balancing weights secured to the outer ends of the cables whereby the mold plates are held in position, and lifting and supporting plates and cables connected to the spacing pins between said mold plates.

1,030,481. COUCH-HAMMOCK. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Filed Feb. 18, 1911. Serial No. 609,500. (Cl. 5—61.)



1. A couch hammock comprising in combination a frame, suspension ends and upstanding sides, said frame having substantially vertical stay-members spaced from the corners, to engage and position said sides.

2. A couch hammock comprising in combination a frame, suspension ends and upstanding sides, said frame having substantially vertical stay-members inserted in frame sockets spaced from the corners, to engage and position said sides.

3. A couch hammock comprising in combination a frame, composed of end and side members, the upper faces of the latter having sockets spaced from their ends, frame suspension ends, upstanding sides, and detachable, substantially vertical stay-members inserted in said sockets, to engage and position said sides.

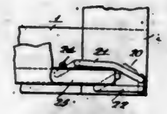
4. A couch hammock comprising in combination a frame having side and end members, suspension ends therefor, upstanding sides attached to said suspension ends and provided with pockets intermediate their ends and brackets extending upward from said frame and received within said pockets.

5. A couch hammock comprising in combination a frame, suspension means and upstanding side strips therefor, and side positioning looped brackets socketed into the frame and engaged with said side strips.

[Claim 6 not printed in the Gazette.]

1,030,482. COUCH-HAMMOCK. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Filed Feb. 27, 1911. Serial No. 611,207. (Cl. 5—61.)

1. A couch hammock comprising in combination a frame, end suspension means therefor, a bracket extending from the frame and having spaced receiving members and a strip extending along the frame and having an edge portion positioned between the said spaced members of said bracket.



2. A couch hammock comprising in combination a frame, end suspension means therefor, a mattress or covering having a stiff edge strip extending therefrom, and a holder carried by and protruding from said frame and having spaced members receiving said edge strip between them.

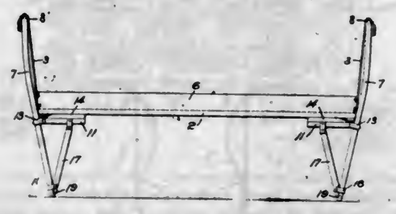
3. A couch hammock comprising in combination a frame, end suspension means therefor, brackets protruding from the frame and having spaced spring members, and a mattress or covering having portions engaged and held by said spring members.

4. A couch hammock comprising in combination a frame, end suspension means therefor, a mattress overlying said frame and having at one or both ends a transverse securing strip by which it may be attached to the frame, said mattress having at one or both ends a prolongation adapted to overlie the adjacent securing strip, the outer transverse edge of said prolongation being adapted to lie loosely adjacent the respective suspension means.

5. A couch hammock comprising in combination a frame, end suspension means therefor, a mattress or covering overlying the frame and having at one end a transverse securing strip, the upper and lower surfaces of the mattress or covering being extended along the faces of said strip, and means to attach said strip to the frame.

[Claims 6 to 10 not printed in the Gazette.]

1,030,483. BEDSTEAD-SUPPORT FOR COUCH-HAMMOCKS. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Filed Sept. 11, 1911. Serial No. 648,682. (Cl. 5—32.)



1. Means for supporting a couch hammock frame as a bed structure consisting of independent head and foot bedstead members, a couch hammock frame independent thereof and consisting of side and end members detachably supported by said bedstead members and constituting the sole means for connecting the latter and frame securing means carried by one of said parts at each end of the frame.

2. A couch hammock frame and an end support therefor and independent thereof, said end support consisting of an upright portion having a ledge-like frame-end receiving member, and frame securing means carried by one of said parts and coacting with said frame and said ledge-like member.

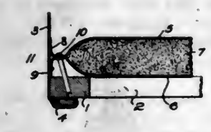
3. An end support for a couch hammock frame consisting of an upright portion having a ledge like member to receive the end of a couch hammock frame and provided with means detachably to secure said couch hammock frame in position.

4. Means for supporting a couch hammock frame as a bed structure consisting of opposite end supports to receive a couch hammock frame, and means detachably to lock said frame thereto.

5. Means for supporting a couch hammock frame as a bed-structure, consisting of head and foot bedstead or end members, and a couch hammock frame, said members being collapsible and having means for detachably securing said frame thereto.

[Claims 6 to 10 not printed in the Gazette.]

1,030,484. REVERSIBLE-MATTRESS-SECURING MEANS FOR COUCH-HAMMOCKS. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Filed Sept. 16, 1911. Serial No. 649,645. (Cl. 5—61.)



1. In combination, a couch hammock having a frame provided with sockets adjacent one or more edges thereof, a mattress or other covering having two acceptable faces and reversible, staple-like members pivotally secured to said covering and having free ends adapted to penetrate the sockets of the frame.

2. A reversible couch hammock mattress or other covering having two acceptable faces, and upper and lower transversely extending end flaps or strips at one or both ends thereof, and pin like members connected to said mattress ends between said flaps or strips to secure the mattress to the frame with either face uppermost.

3. A reversible couch hammock mattress or other covering having two acceptable faces, and upper and lower transversely extending end flaps or strips at one or both ends thereof and reversible staple-like members secured to the mattress ends between said flaps or strips, and adapted to be received by the couch hammock frame, thereby to secure the mattress upon the frame with either face uppermost.

4. In combination, a couch hammock having a frame provided with sockets in its upper face at one or more edges thereof, a mattress or other covering having two acceptable faces and reversible staple-like members pivotally secured to one or more edges of the mattress or other covering and having free ends adapted to penetrate the sockets of the frame.

1,030,485. COUCH-HAMMOCK AND FRAME THEREFOR. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Original application filed Dec. 27, 1910, Serial No. 599,387. Divided and this application filed Sept. 25, 1911. Serial No. 651,128. (Cl. 5—61.)



1. A substantially rectangular frame for couch hammocks, etc., having upstanding, resilient corner guards or members.

2. A substantially rectangular frame for couch hammocks, etc., having adjacent each corner an upstanding wire guard or member provided with a coiled, resilient portion permitting inward resilient yielding of said guards or members.

3. A corner guard for a couch hammock frame or the like consisting of a bracket having provisions for attaching it to said frame adjacent a corner thereof, said bracket having a spring like portion permitting resilient yielding of said bracket toward the opposite corner of said frame.

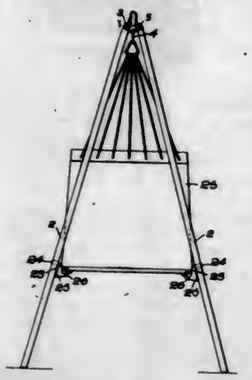
4. A corner guard for a couch hammock frame or the like consisting of a corner bracket having provisions for attaching it to said frame adjacent a corner thereof, said

bracket having one or more coils permitting inward, resilient yielding of said bracket.

5. A couch hammock comprising in combination a frame, suspension means therefor, upstanding, flexible sides and resilient corner guards or members upstanding from said frame.

[Claims 6 to 10 not printed in the Gazette.]

1,030,486. BEDSTEAD-SUPPORT FOR COUCH-HAMMOCKS. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Original application filed Sept. 11, 1911, Serial No. 648,682. Divided and this application filed Dec. 1, 1911. Serial No. 663,260. (Cl. 5—32.)



1. As an article of manufacture, a bracket adapted for attachment to an upright portion of a couch hammock support, said bracket having a support-penetrating web or arm 14, and a frame-corner-supporting or positioning portion.

2. As an article of manufacture, a bracket adapted for attachment to an upright portion of a couch hammock support, said bracket having a support-penetrating web provided with a support-engaging foot, said bracket also having a frame-corner-supporting or positioning portion.

3. As an article of manufacture, a bracket adapted for attachment to an upright portion of a couch hammock support, said bracket having a support engaging portion and connected, spaced members adapted to extend along both the upper and the lower faces of a couch hammock frame end.

4. As an article of manufacture, a bracket adapted for attachment to an upright portion of a couch hammock support, said bracket having a support-engaging portion, a substantially horizontal frame positioning portion provided with an upright pin member to enter a hammock frame corner, and an angularly extending portion to overlie the couch hammock frame.

5. In combination, a couch hammock supporting leg split from its upper end downwardly for a portion of its length, and a frame-supporting bracket having a web adapted to be inserted in said split portion of the leg and having a projection to receive and position an end portion of the couch hammock frame.

[Claim 6 not printed in the Gazette.]

1,030,487. REVERSIBLE-FACE COUCH-HAMMOCK. ISAAC E. PALMER, Middletown, Conn., assignor to The I. E. Palmer Co., Middletown, Conn., a Corporation of Connecticut. Filed Feb. 20, 1911. Serial No. 609,617. (Cl. 5—61.)

1. As an article of manufacture, a flexible couch hammock suspension end terminating at its upper edge in suspension means and terminating at its lower edge in frame-supporting hook devices, said hook devices being detachably engageable with the frame, with either face of the suspension end outermost.



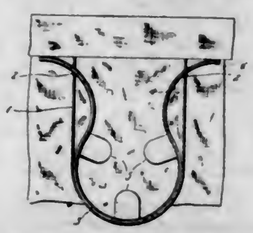
2. A couch hammock comprising, in combination, a frame having side and end members, a seating therefor, transverse suspension ends distinct from said seating and disconnected from each other and discontinuous between the end members of the frame, and brackets connecting the lower portions of said ends to the end members of the frame, said brackets being readily detachable both from the frame and from said suspension ends.

3. A couch hammock comprising, in combination, a frame having side and end members, suspension ends having strips at their lower edges, said suspension ends being disconnected from each other and discontinuous between the end members of the frame and clips slidable onto and along said strips and detachably engaging said end frame members.

4. A couch hammock comprising, in combination, a frame having side and end members, suspension ends having strips at their lower edges and brackets detachable to connect said strips and end members, said brackets each being of a general loop form to loop about both said strips and end members.

5. A couch hammock comprising in combination a frame composed of side and end members, suspension ends structurally distinct from each other and discontinuous between the end members of the frame, a spreader at the lower end of each suspension end, and hooks upon and movable longitudinally along said spreaders and detachably connecting them to the frame.

1,030,488. SAFETY ATTACHMENT FOR WATCH-POCKETS. EDWIN R. PENNEBAKER, Rome, Ga. Filed Dec. 3, 1910. Serial No. 595,444. (Cl. 2—153.)



In a device of the class described, a substantially U-shaped unitary spring clip adapted to be mounted in a pocket, a plurality of pairs of laterally and inwardly projecting fingers on opposite sides of the clip adapted to prevent lateral displacement of an article from the clip, longitudinally and outwardly extending fingers adapted to pass through the walls of a pocket to prevent accidental displacement of the clip from said pocket, and a cushioning lining secured on the inner surface of the clip and fingers.

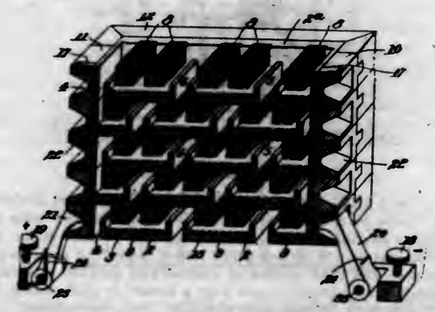
1,030,489. ROTARY PLOW. JAMES PETERSON, American Fork, Utah. Filed Feb. 18, 1911. Serial No. 609,353. (Cl. 97—38.)

1. In a plow of the character described, a supporting frame, a rotary digging mechanism revolubly mounted therein, said mechanism comprising a series of rings, combined fastening and tooth holding devices adapted to be secured to said rings whereby the latter are spaced apart and fastened together, said devices each being of substantially T-shape, the head being secured to one ring, the stem forming a spacing member and extending toward the next adjacent ring, the base flanges extending laterally from the stem and being secured to said next adjacent ring, and the junction between the atem and base flanges being formed into a socket to receive a digging tooth.



2. In a plow of the character described, a supporting frame, a rotary digging mechanism revolubly mounted therein, said mechanism comprising a series of rings, combined fastening and tooth holding devices adapted to be secured to said rings whereby the latter are spaced apart and fastened together, said devices comprising frames formed from flat metal strips bent midway between their ends to form a transverse flattened loop, said ends being bent at right angles to said loop, said right angular portions of the ends being again bent to form tooth receiving sockets and laterally projecting lugs said lugs and the flat loops at the opposite ends of the frames having formed therein bolt holes adapted to receive fastening bolts whereby said parts are bolted to said rings, and digging teeth secured in the sockets of said frames.

1,030,490. APPARATUS FOR THE RECOVERY OF PRECIOUS METALS. HENRY NOEL POTTER, Hollywood, Cal. Filed June 7, 1911. Serial No. 631,811. (Cl. 204—15.)



1. In apparatus for the recovery of gold, a series of separable, vertically superposed pans, each adapted to contain one or more bodies of mercury or mercuric amalgam and each providing a tortuous stream path or paths, the inlet and discharge orifices of said pans registering throughout the series to provide a continuous inclosed path or set of paths.

2. In electrolytic apparatus for the recovery of gold, a series of separable, vertically superposed pans, each adapted to contain one or more bodies of mercury or mercuric amalgam and each providing a tortuous stream path or paths, the inlet and discharge orifices of said pans registering throughout the series to provide a continuous inclosed path or set of paths, cathode connections to said bodies of mercury, and anodes disposed above and in proximity to said bodies.

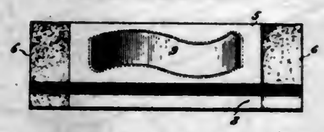
3. In apparatus for the recovery of gold, a series of interchangeable, separable, superposed pans each adapted to contain one or more bodies of mercury or mercuric amalgam, a support for the lowermost pan of the series, and means carried by each pan of the series whereby it may engage said support.

4. In apparatus for the recovery of gold, a molded container for amalgam comprising an inert filling material and an inert synthetic organic binder for said filling material.

5. In apparatus for the recovery of gold, a molded container for amalgam presenting interior surfaces of an insoluble and infusible condensation product of phenolic bodies and formaldehyde or a composition thereof.

[Claims 6 to 15 not printed in the Gazette.]

1,030,491. COMPOSITE-FACE BRAKE-SHOE. FITZ WILLIAM SARGENT, Mahwah, N. J., assignor to Edward H. Fallows, New York, N. Y. Filed Aug. 19, 1911 Serial No. 644,939. (Cl. 188—27.)



1. A brake shoe the ends of which are chilled, said shoe having a recess in the wearing face thereof, extending between said chilled portions and longitudinally of the shoe, and filled with a non-metallic substance, the side walls of said recess being irregular in outline.

2. A brake shoe comprising a cast metal body the end portions of which are chilled, said body having a recess in its face extending between said chilled portions and longitudinally of the face of the shoe, and filled with a non-metallic substance, the side walls of said recess being curved.

3. A brake shoe comprising a cast metal body having a recess extending longitudinally of the shoe and longitudinally of the face thereof, said recess being filled with a non-metallic substance composed of pulverized iron ore, pitch, asphalt, and fire-clay in substantially the proportions stated.

1,030,492. NAIL-FILE. JOHN L. SOMMER, Newark, N. J., assignor to J. L. Sommer Manufacturing Co., a Corporation of New Jersey. Filed Jan. 20, 1912. Serial No. 672,467. (Cl. 30—23.)



In an implement of the character described, the combination of a wire handle having end portions arranged side by side and their extremities headed, of a blade overlapping said end portions and having opposite lateral ears bent over said wires back of the headed extremities, said blade having a lateral offset adjacent to said headed extremities of the handle forming a shoulder to engage said extremities and prevent their movement away from the ears and bringing the outer portion of the blade into substantial alinement with said handle.

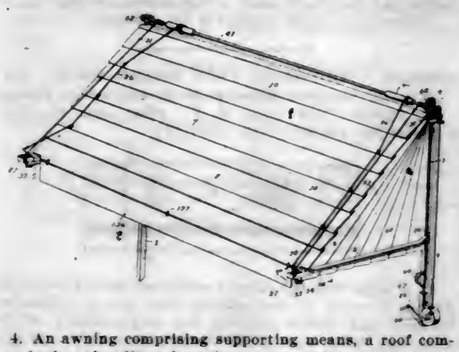
1,030,493. FOLDING METALLIC AWNING. EDWIN SORENSON, Los Angeles, Cal., assignor of one-half to Lawrence L. Stevens, Los Angeles, Cal. Filed May 18, 1911. Serial No. 628,129. (Cl. 156—15.)

1. In an awning, a roof composed of a plurality of sections formed as plates, each plate being hinged to the section next above the same, and hinged to the section next below the same to form a continuous chain of plates folding on one another, the hinged connections between the sections consisting of sleeves formed on adjacent sections and in alinement with one another and placed end to end to form a continuous hinged joint along the sections, and pintle rods extending in said sleeves.

2. In an awning, a roof comprising a plurality of sections formed as plates hinged together to fold on one another, forming a continuous chain of plates, alternate plates having eaves extending over the connecting hinges.

3. In an awning, a roof comprising a plurality of sections formed as plates hinged together to fold on one another, forming a continuous chain of plates, alternate

plates having eaves extending over connecting hinges, said eaves being provided with flanges extending vertically to engage the adjacent roof plate.

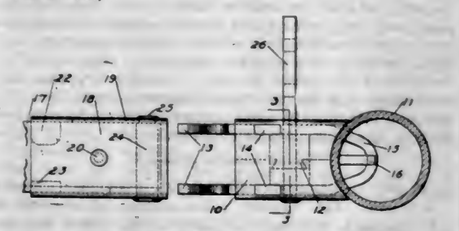


4. An awning comprising supporting means, a roof composed of a plurality of sections connected to fold on one another, arms mounted to fold on said supporting means and connected to the lowermost of said roof sections, and means for closing the space between the roof and the supporting means at each end of the roof, comprising a plurality of sectors pivotally mounted on supporting means, one of said sectors being adapted to engage under said roof, when extended, to serve as a rafter therefor, and means connected to said roof and supporting means to raise and lower said roof, and means connected to said sectors to move the same to open or closed position.

5. An awning comprising supporting means, a roof composed of a plurality of sections connected to fold on one another, the uppermost section being pivotally connected to said supporting means, arms mounted to fold on said supporting means and pivotally connected to the lowermost of said roof sections, rafters mounted to fold on said supporting means, and means connected to said supporting means and to the lower ends of said rafters to raise the rafters into extended position beneath the roof.

[Claims 6 to 11 not printed in the Gazette.]

1,030,494. CORNER-POST FASTENING. LEON SUSSMAN, Bayonne, N. J., assignor to Fannie Wolf, New York, N. Y. Filed Mar. 15, 1912. Serial No. 684,064. (Cl. 5—55.)



1. The combination with a corner post, and a side rail of a sleeve abutting against said post and a member within said sleeve said member having a loop projecting from one end of said sleeve into said post and two hooks extending outwardly beyond the other end of said sleeve and means on said side rail for engagement with said hooks.

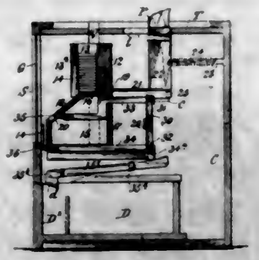
2. The combination with a corner post, and a side rail, of a sleeve open at opposite ends and abutting against said post, a loop secured within said post and having its ends extending into one end of said sleeve a hook disposed beyond the opposite end of said sleeve and supported within the latter and means carried by said side rail for detachable engagement with said hooks.

3. The combination with a corner post, and a side rail, of a sleeve abutting against said post, two plates within said sleeve in engagement with the opposite side walls thereof, means for spacing said plates apart and preventing relative longitudinal movement of said plate and said sleeve, means for connecting said plates to said post and means for detachably connecting said plate to said side rail.

4. The combination with a corner post having an opening in the wall thereof, and a side rail, of a sleeve abutting against said post, two plates within said sleeve and secured to opposite sides thereof, said plates terminating in a loop integral therewith and projecting through said opening and also terminating in hooks disposed beyond the opposite end of said sleeve, a member rigidly secured to said side rail and including plate portions in alinement with the sides and top of said sleeve, and a transversely extending bar mounted between the side walls of said last-mentioned member.

5. The combination with a corner post, and a side rail, of a sleeve abutting against said post and formed of a metal plate bent to tubular form, dove-tailed connections between the abutting edges of said plate, two plates within said sleeve and in engagement with the opposite sides thereof and each having a projection in the edge thereof entering a corresponding recess in said sleeve, said last-mentioned plates extending beyond said sleeve at each end and connected to said post at one end and detachably connected to said side rail at the opposite end.

1,030,495. CASH-REGISTER. REUBEN TREBER, Portland, Oreg. Filed Oct. 10, 1910. Serial No. 586,370. (Cl. 235—17.)

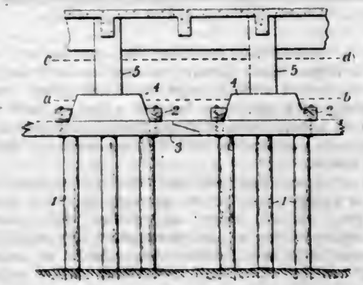


1. In a cash register employing denominational tablets or checks to record transactions, the combination with a casing having a sight-opening at one of its sides, a horizontal slot in its top plate, and a drawer or receptacle for cash and used tablets or checks, and capable of being opened automatically,—and with a holder or chute adapted to contain a superposed plurality of such tablets or checks of like denomination,—of an ejector positioned for lateral movement against the edge of the lowermost of such tablets or checks,—a pull-button denominationally-marked to correspond with the tablets, such pull-button being exposed above the top plate of the casing in the line of the slot therein and having a vertical stem so connected through the slot with the ejector as to insure a joint movement therewith,—means for effecting a coincident opening of the drawer,—means for temporarily holding each tablet discharged from the holder or chute in view of the operator through the sight-opening pending the release of the pull-button,—and means simultaneously operated by the movement of said pull-button whereby the tablet representing a previous transaction may be first finally discharged into the drawer or receptacle, and a support immediately afterward afforded for the tablet indicating the present transaction through the sight glass, which support and exposure shall continue pending another positive movement of the pull-button by the operator and the ejection of another tablet from the holder.

2. In a cash register of the class described, the combination with a casing having a sight-opening in its front wall, a slidable slotted top plate, and a drawer or receptacle for cash and used tablets below,—of a vertically-removable holder having a plurality of chutes for containing pluralities of superposed tablets of differing denominational values—one value for each chute—such chutes being open at their fronts adjacent to the sight-opening,—a corresponding plurality of horizontally-movable ejectors, finding ways in said holder and adapted to contact the rear edges of the lowermost tablets in the respective chutes and having vertical extensions beyond the rear of said holder projecting through the slots in the top-plate of the casing and having lugs depending at their rear ends,—a plurality of pull-buttons marked to correspond numerically with the tablets in the different chutes and mounted upon said extensions of the ejectors above said top-plate, and each in alinement with its own slot therein,—a rock-shaft journaled transversely in the casing,—levers fixed to and moving with such rock shaft, whereby the movement of any pull-button along its slot will cause the ejector connected to such pull-button to move simultaneously and in the same direction and plane.

3. In a cash register, the combination with the casing and a drawer therein adapted to be automatically unlocked by the operation of the keys or buttons, said casing having a gong fixed to its rear wall, a support and a spring upon said support contacting but not affixed to the end wall of the drawer, and normally in compression,—of a block fixed to the casing behind the drawer, a resilient plate fastened at its lower end to said block and having an off-set at its upper free end and a gong-striker carried by said off-set,—a spring plate laid along and fastened at one end to a side wall of the drawer, and having a latch at its free end adapted for interlatching engagement with the off-set of the resilient plate.

1,030,496. DOCK OR BULKHEAD CONSTRUCTION. MAXWELL M. UPSON, Englewood, N. J. Filed Nov. 18, 1911. Serial No. 660,989. (Cl. 61—31.)



1. In a dock, the combination of wooden piles that are substantially submerged at low water, means mounted upon said piles, premolded concrete pillars mounted upon said beams and extending upward to high water mark, and flooring supported by said pillars, substantially as described.

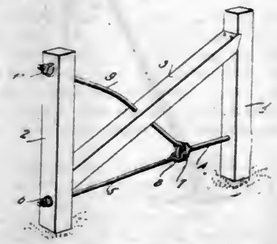
2. In a dock, the combination of wooden piles that are substantially submerged at low water, longitudinal wooden beams mounted upon and connecting piles in each row, cross beams of wood connecting piles in adjacent rows, premolded concrete pedestals seated upon the piles between the cross-beams, premolded concrete columns upon said pedestals and extending upward to high water mark, and flooring supported by said pillars, substantially as described.

3. A unit for dock construction comprising a group of wooden piles substantially submerged at low water, longitudinal and transverse beams secured to the tops of said piles and arranged to form a saddle or seat, premolded concrete piers mounted in said saddle or seat and extending to high water mark, said piers being arranged to support the dock or flooring.

4. In a dock, the combination of wooden piles substantially submerged at low water, said piles being arranged in groups spaced symmetrically and capped with wooden beams, a premolded concrete member mounted upon each group of piles, and a flooring supported by said concrete member, substantially as described.

5. In a dock, the combination of wooden piles substantially submerged at low water, longitudinal and transverse beams secured to the tops of said piles and arranged to form a saddle or seat, premolded concrete pedestals seated upon the piles between the cross-beams, means for preventing longitudinal and vertical displacement of said pedestals, premolded concrete columns upon said pedestals and extending upward to high water mark, and flooring supported by said pillars, substantially as described.

1,030,497. BRACE FOR FENCE-POSTS. HENRY WAGNER, Louisa county, Iowa. Filed Jan. 25, 1912. Serial No. 673,379. (Cl. 39—90.)



1. The combination with a fence post of a brace comprising a bracing post spaced a suitable distance from said fence post, a bracing bar arranged between said post and having one end engaged with the fence post near the upper end thereof and its opposite end engaged with the bracing post near the lower end thereof, a tie rod arranged between and having its ends adjustably connected with said fence post and bracing post near the lower ends thereof, said tie rod being formed in sections, and a bracing rod connected with said tie rod and extending upwardly at an angle through said bracing bar and having its upper end adjustably connected with the bracing post near the upper end thereof.

2. The combination with a fence post of a brace comprising a bracing post spaced a suitable distance from said fence post, a bracing bar arranged obliquely between said posts, said bar having its upper end engaged with the fence post near the upper end thereof and having its opposite end engaged with the bracing post near the lower end thereof, a tie rod arranged between and connected with said posts near the lower ends thereof, said rod comprising a short section and a long section, said sections being connected together at their inner ends by eyes formed thereon and having their outer ends inserted through the posts near the lower ends thereof, adjusting nuts arranged on the ends of said rod sections and adapted to be screwed into engagement with said posts whereby the sections of the rod are tightened, a bracing and connecting bar having in its lower end an eye engaged with the eye in the short section of the tie rod, said bracing and connecting rod extending upwardly through said bracing bar and having its upper end threaded and inserted through said bracing post near its upper end, and an adjusting nut arranged on the threaded end of the bracing rod and adapted to be screwed into engagement with said bracing post to tighten said rod.

1,030,498. DECORATOR'S STENCIL-HOLDER. GUSTAVE WEIDE, Sr., St. Paul, Minn. Filed Aug. 11, 1910. Serial No. 576,673. (Cl. 101—132.)

1. A stencil holder comprising a tube, a rod telescoped into the same, a collar adjustably secured on said rod, a spring reacting against said adjustable collar and against the said tube, a clamping head adjustably connected to the upper end of said rod, and a bearing foot adjustably connected to the lower end of said tube.

2. A stencil holder comprising a leg provided with a bail at its lower end, a bearing foot having a threaded

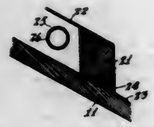
trunnion engageable with said bearing, said trunnion having a socket embracing said ball and adapted to secure said leg in different adjustments, and a clamping head adjustably connected to the upper end of the said leg.



3. A stencil holder comprising a leg, a clamping head, and a projecting arm pivotally connected to the upper end of said leg, and a flexible stencil engaging bar applied to said arm and forming an extension thereof, substantially as described.

4. A stencil holder comprising a leg and a longitudinally adjustable stencil clamping bar, pivotally secured to said leg, and common means for adjustably securing said bar to said leg, and for holding the same in different longitudinal adjustments, substantially as described.

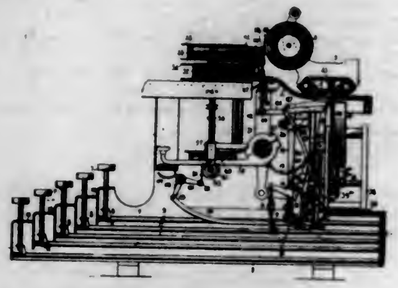
1,030,499. GOLD-SAVING MACHINE. JAMES MCDONALD WISHART, Pasadena, Cal. Filed Feb. 14, 1910. Serial No. 543,814. (Cl. 83—54.)



1. A gold saving machine comprising a floor for receiving the gold bearing material, said floor being inclined to cause said material to pass therealong by gravity, riffle strips extending transversely of said floor, said floor being exposed for a portion of its length above each riffle, to allow longitudinal travel of the material along the floor between the riffles, the riffles acting as obstructions to such travel to cause temporary retardation of the movement of the material along said floor, a pipe extending transversely of the floor in the angle at the rear of said riffle strips, and means for supplying compressed air to said pipe, said pipe having an imperforate top and being perforated along its bottom to discharge and direct air onto the floor in the angle at the rear of said riffle strips, said perforations being near the riffle strips and below the top thereof so that the air issuing from the perforations and directed downwardly against the floor will return upwardly through the material at the rear of and above the riffle strips, thereby maintaining separation and mobility of the material during the time of retardation, to prevent packing of the material and allow separation of the gold therefrom and passage of the lighter material over the riffle strips.

2. A gold saving machine comprising a floor for receiving the gold bearing material, said floor being inclined to cause said material to pass therealong by gravity, riffle strips extending transversely of said floor, said floor being exposed for a portion of its length above each riffle, to allow longitudinal travel of the material along the floor between the riffles, the riffles acting as obstructions to such travel to cause temporary retardation of the movement of the material along said floor, a flange on said strip extending rearwardly over said floor from each riffle strip forming a pocket at the rear of each riffle strip and an air supply pipe extending transversely of said floor within said pocket and beneath said flange, said pipe having an imperforate top and being provided with perforations along its bottom located adjacent to the floor for directing the air onto said floor, whereby said air in returning from the floor passes upwardly through said pocket and prevents the material from packing therein.

1,030,500. TYPE-WRITING MACHINE. ALEXANDER T. BROWN, Syracuse, N. Y. Filed Nov. 25, 1905. Serial No. 289,098. (Cl. 197—156.)



1. In a typewriting machine, the combination of a shaft; a ribbon spool loosely mounted on said shaft; a clutch connection between said spool and shaft; means for shifting said clutch; a ratchet wheel on said shaft adapted to operate said shifting means; and means for automatically connecting said shifting means with said ratchet wheel.

2. In a typewriting machine, the combination of a shaft; a ribbon spool driven by said shaft; a ratchet wheel fixed on said shaft; and ribbon feed reversing mechanism including a pawl arranged to be moved into engagement with said ratchet wheel and to be operated by said ratchet wheel, and a shiftable device operated by said pawl.

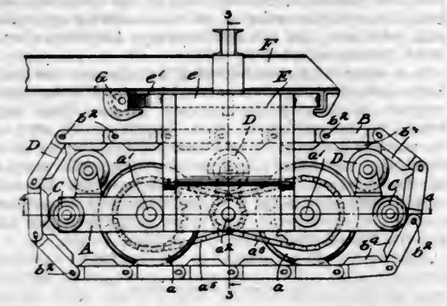
3. In a typewriting machine, the combination of ribbon spools; a train of mechanism for driving said spools to feed the ribbon; a ratchet wheel constantly connected to be turned by said train of mechanism; and automatic feed reversing mechanism including a pawl arranged to be moved into engagement with said ratchet wheel and to be operated by said ratchet wheel, and a shiftable device operated by said pawl.

4. In a typewriting machine, the combination with ribbon spools, of feed devices for operating said ribbon spools and feed reversing mechanism, including a member which is shiftable to reverse the feed; a rotary toothed wheel; and means for connecting said shiftable member with said toothed wheel on one side thereof to shift said member in one direction and for connecting said shiftable member with said toothed wheel on the other side thereof to shift said member in the other direction.

5. In a typewriting machine, the combination of two spools for an ink ribbon; means for turning said spools to feed the ribbon; a member which is shiftable to reverse the feed of the ribbon; a toothed wheel constantly connected to be driven by said spool-turning means; and means for automatically connecting said shiftable member with said toothed wheel, whereby said member is shifted.

[Claims 6 to 39 not printed in the Gazette.]

1,030,501. WHEEL-SUPPORT. MORTON G. BUNNELL, Chicago, Ill., assignor to Frederick C. Austin, Chicago, Ill. Filed Sept. 14, 1908. Serial No. 452,877. (Cl. 21—64.)



1. In a structure of the class set forth, an endless link belt adapted to travel along the ground, wheels adapted to travel upon and be supported by said link belt, means whereby only the lower horizontal portion of the belt is in contact with said wheels, a pivot above said belt, and means for causing the wheels and belt to swing laterally about said pivot to change the direction of travel thereof.

2. In a structure of the class set forth, an endless belt adapted to travel on the ground, supporting wheels adapted to roll upon and be supported by said endless belt, means whereby only the lower horizontal portion of the belt is in contact with said wheels, a driving shaft between said wheels, and a power transmitting connection from each wheel to said shaft.

3. In a structure of the class set forth, an endless link belt adapted to travel on the ground, wheels supported by said belt and adapted to travel thereon, means whereby only the lower horizontal portion of the belt is in contact with said wheels, a driving shaft intermediate said wheels, power transmitting connection from said shaft to said wheels, and a vertical axis intersecting said shaft, about which the said wheels and belt swing laterally to change the direction of travel thereof.

4. In a structure of the class set forth, an endless link belt adapted to travel along the ground, wheels supported by said link belt and adapted to roll along thereon, means whereby only the lower horizontal portion of the belt is in contact with said wheels, and means including a worm gearing for swinging the wheels and belt laterally about a vertical axis to change the direction of travel thereof.

5. In a structure of the class set forth, a rectanguler truck frame, wheels on said frame, an endless link belt inclosing said wheels and supporting the same on the ground, means whereby only the lower horizontal portion of the belt is in contact with said wheels, a yoke of substantially inverted U-shape embracing said belt and having the lower ends thereof secured to said truck frame, and a pivot for the upper end of said yoke whereby the wheels and belt are free to swing laterally to change the direction of travel thereof.

[Claims 6 to 19 not printed in the Gazette.]

1,030,502. FOUNTAIN-PEN. GEORGE HEBER CARTER, Richmond Hill, N. Y. Filed Oct. 17, 1910. Serial No. 587,532. (Cl. 120—40.)

1. In a fountain pen, a barrel provided with a tapered bore at its rear end, a tapered valve adapted to close said bore, a stem on said valve of less size than said bore, and a support on said stem, a seal recessed to receive said stem and a seat therefor in said barrel, and means for holding said seal to its seat.

2. In a fountain pen, a barrel provided with a tapered bore at its rear end, a tapered valve adapted to close said bore, a stem on said valve of less size than said bore, and a support on said stem, a float carrying said valve, an automatically acting seal adapted to close the outer end of said bore, and a seat therefor in said barrel at the smaller end of said bore, and means for holding said seal to its seat.

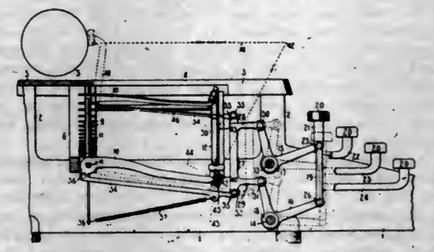


3. In a fountain pen, a barrel provided with a tapered bore at its rear end, a tapered valve adapted to close said bore, and means for preventing the withdrawal of said valve from said bore, a float carrying said valve, an automatically acting seal adapted to close the outer end of said bore and a seat therefor surrounding the reduced end of said bore, and means for holding said seal to its seat.

4. In a fountain pen, a barrel provided with a tapered bore at its rear end, a tapered valve adapted to close said bore, a float carrying said valve, and a support for said valve adapted to prevent its withdrawal from said bore, a seal adapted to close the outer end of said bore and a seat therefor at the reduced end of said bore, and a screw plug adapted to close the rear end of the barrel and hold the seal to its seat.

5. In a fountain pen, a barrel having a tapered bore, a tapered valve, a stem thereon and an enlargement on said stem adapted to prevent the withdrawal of the valve from said bore, a float attached to said valve, a seal and an expansible packing between same and said bore, and a threaded plug adapted to close the end of the barrel and hold said seal to its seat.

1,030,503. TYPE-WRITING MACHINE. ARTHUR W. CLAUDER, Bridgeport, Conn., assignor to Union Typewriter Company, Jersey City, N. J., a Corporation of New Jersey. Filed July 8, 1905. Serial No. 268,777. (Cl. 197—22.)



1. In a typewriting machine, a type action comprising a pivoted type bar, a pair of parallel levers, a link pivoted to each of said levers and provided with an extension on which is a finger key, another link pivoted to each of said levers, and means connecting the latter link with the type bar.

2. In a typewriting machine, a type action comprising a pivoted type bar, a link pivoted to the type bar, a pair of parallel levers, a link pivoted to each of said levers and provided with an extension on which is a finger key, and another link pivoted to each of said levers and to the first-mentioned link.

3. In a typewriting machine, a type action comprising a pivoted type bar, a pair of parallel levers whose pivotal axes are at different elevations and in a vertical plane parallel to the axis of the platen, an upright link pivoted to each of said levers in front of said plane and provided

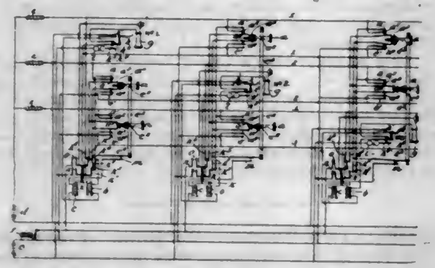
with an extension on which is a finger key, another upright link pivoted to each of said levers behind the first mentioned link, and means connecting the rear link with the type bar.

4. In a typewriting machine, a type action comprising a pivoted type bar, a link pivoted to the type bar, a pair of parallel levers whose pivotal axes are at different elevations and in a vertical plane parallel to the axis of the platen, an upright link pivoted to each of said levers in front of said plane and provided with an extension on which is a finger key, and another upright link pivoted to each of said levers and lying behind said plane and pivoted to the first mentioned link.

5. In a typewriting machine, the combination with a rotary platen, of a type action comprising a pivoted type bar, a pair of parallel levers whose pivotal axes are at different elevations and in a vertical plane parallel to the axis of the platen, an upright link pivoted to each of said levers and lying behind said plane, a conuection between said upright link and the type bar, and key-actuated means operative on said levers in front of said plane.

[Claims 6 to 48 not printed in the Gazette.]

1,030,504. TELEPHONY. ELMER R. CORWIN, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill., a Corporation of Illinois. Filed Jan. 13, 1910, Serial No. 537,846. Renewed June 2, 1911. Serial No. 630,920. (Cl. 179—39.)



1. A telephone system including three or more telephone lines, each extending to the stations of the other lines, switches at each station of each of said lines individual to the remaining lines, apparatus at each of the stations governed by said switches for bringing about telephonic connuection between the telephone stations of the different lines, such apparatus at the called station when in normal condition coöperating with apparatus at a calling station when actuated to permit telephonic communication between the calling and called stations, and a talking battery common to said lines.

2. A telephone system including three or more telephone lines, each extending to the stations of the other lines, switches at each station of each of said lines individual to the remaining lines, electro-magnetic apparatus at each of the stations governed by said switches for bringing about telephonic connection between the telephone stations of the different lines, such apparatus at the called station when in normal condition coöperating with apparatus at a calling station when actuated to permit telephonic communication between the calling and called stations and a talking battery common to said lines.

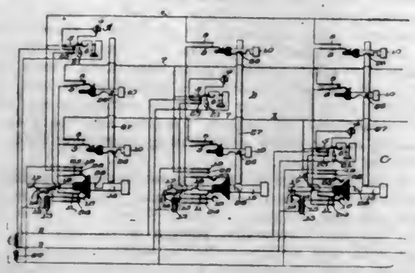
3. A telephone system including three of more telephone lines, each extending to the stations of the other lines, switches at each station of each of said lines individual to the remaining lines, apparatus at each of the stations governed by said switches for bringing about telephonic connection between the telephone stations of the different lines, and means jointly controlled by the equipment of a busy line and the equipment of a line seeking connection with such busy line for establishing a busy test which is independent of the lines.

4. A telephone system including three or more telephone lines, each extending to the stations of the other lines, switching at each station of each of said lines individual to the remaining lines, apparatus at each of the stations governed by said switches for bringing about telephonic connection between the telephone stations of the different lines, and means jointly controlled by the equipment of a busy line, and the equipment of a line seeking connection with such busy line for establishing a busy test circuit which is independent of the lines.

5. A telephone system including three or more telephone lines, each extending to the stations of the other lines, switches at each station of each of said lines individual to the remaining lines, apparatus at each of the stations governed by said switches for bringing about telephonic connection between the telephone stations of the different lines, and means governed by each switch when actuated at a calling station for establishing a busy test condition in association with the calling line and the line selected by the calling line.

[Claims 6 to 20 not printed in the Gazette.]

1,030,505. TELEPHONE SYSTEM. ELMER R. CORWIN, Chicago, Ill., assignor to Corwin Telephone Manufacturing Company, a Corporation of Illinois. Filed May 18, 1911. Serial No. 628,084. (Cl. 179—40.)



1. An intercommunicating telephone system including telephone lines extending between stations of the system; switches at each station individual to the lines extending thereto from other stations and for connecting the telephone at the same station therewith with said telephone lines; an additional switch at each station coöperating with any of the aforesaid switches in establishing connection between the telephone at the same station therewith and the selected line; means coöperatively related with and set by the operation of the additional switches upon establishment of telephone connections to prevent the former switches at the same stations from being subsequently operated; and means for occasioning the operation of the additional switches to permit the former switches to be operated and to open the previously established telephone circuits, said latter means being operated, when its station is a seeking station, by the switch hook at the same station therewith when restored to normal by the receiver placed thereupon.

2. An intercommunicating telephone system including telephone lines extending between stations of the system; switches at each station individual to the lines extending thereto from other stations and for connecting the telephone at the same station therewith with said telephone lines; an additional switch at each station coöperating with any of the aforesaid switches in establishing connection between the telephone at the same station therewith and the selected line; means coöperatively related with and set by the operation of the additional switches upon establishment of telephone connections to prevent the former switches at the same stations from being subsequently operated; and means for occasioning the operation of the additional switches to permit the former switches to be operated and to open the previously established telephone circuits, said latter means being operated, when its station is a seeking station, by the switch hook at the seeking station.

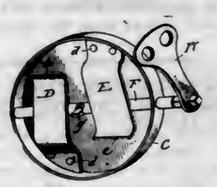
3. An intercommunicating telephone system including telephone lines extending between stations of the system; switches at each station individual to the lines extending thereto from other stations and for connecting the telephone at the same station therewith with said telephone lines; an additional switch at each station coöperating with any of the aforesaid switches in establishing connection between the telephone at the same station therewith and the selected line; means coöperatively related with and set by the operation of the additional switches upon establishment of telephone connections to prevent the former switches at the same stations from being subsequently operated; and means for occasioning the operation of the additional switches to permit the former switches to be operated and to open the previously established telephone circuits, said latter means being operable at a seeking station.

4. An intercommunicating telephone system including telephone lines extending between stations of the system; switches at each station individual to the lines extending thereto from other stations and for connecting the telephone at the same station therewith with said telephone lines; a line testing device at each station serving by its movement to denote the condition of the tested line; and an electromagnet associated with each testing device for permitting and obstructing its movement, the circuit of the magnet at each station being changeable by apparatus at each of the other stations.

5. An intercommunicating telephone system including telephone lines extending between stations of the system; switches at each station individual to the lines extending thereto from other stations and for connecting the telephone at the same station therewith with said telephone lines; a line testing device at each station serving by its movement to denote the condition of the tested line; and an electromagnet associated with each testing device for permitting and obstructing its movement, the circuit of the magnet at each station being changeable by the switch hook at each of the other stations.

[Claims 6 to 14 not printed in the Gazette.]

1,030,506. SASH LOCK AND ANTIRATTLER. JOSEPH DE MARS, San Francisco, Cal., assignor of two-fifths to Frank Minitree Johnson, Cheyenne, Wyo., one-fifth to Authony J. Walker, Niagara Falls, N. Y., and one-fifth to Arthur J. De Mars, San Francisco, Cal. Filed Feb. 9, 1912. Serial No. 676,524. (Cl. 16—18.)



1. A sash lock comprising a flanged casing having a rock shaft journaled in the flanges and bent into two loops and provided with a stop projection adapted to engage the back of the casing and two flat spring detents each connected at one end to the casing and offset therefrom and extending transversely across the rock shaft in front of the loops and lying tangentially against the loops and having their free ends projecting in opposite directions and turned outwardly away from the rock shaft to engage the edge of the sash.

2. A sash lock comprising a flanged casing having a rock shaft journaled in the flanges and bent into two loops and provided with a stop projection adapted to engage the back of the casing and two flat spring detents each connected at one end to the casing and offset therefrom and extending transversely across the rock shaft in front of the loops and having their free ends projecting in opposite directions and turned outwardly away from the rock shaft to engage the edge of the sash, the stop projection on the rock shaft being set at an angle in relation to the loops to strike the back of the casing after the loops have passed the dead center line of contact against the detents.

3. A sash lock comprising a circular cup-shaped casing with right angular flange stamped up in a single piece without joints, a rock shaft journaled in said flange in diametrical position and having two cams on the same with a stop projection engaging the back of the casing, two flat spring detents, each connected at one end to the back of the casing and offset therefrom and extending transversely across the rock shaft in front of the cams and having their free ends projecting in opposite directions and turned away from the rock shaft.

4. A sash lock comprising a circular cup-shaped casing with right angular flange stamped up in a single piece without joints, a rock shaft journaled in said flange in diametrical position and having two cams on the same with a stop projection engaging the back of the casing, two flat spring detents each connected at one end to the back of the casing and offset therefrom and extending transversely across the rock shaft in front of the cams and having their free ends projecting in opposite directions and turned away from the rock shaft, in combination with the window frame, and its inner bead strip slotted through the middle vertically, the sash lock casing being seated in the runway of the frame with the rock shaft projecting to the said inner bead strip and a turning key at right angles to the shaft extending through the slot in the bead strip to its interior face and an escutcheon on the face of the bead strip at right angles to the sash.

5. A sash lock comprising a detent adapted to be projected against the edge of the sash and a horizontal rock shaft with cam operating on the detent, combined with a window frame, an inner removable bead strip having a middle vertical slot through it opposite the inner end of the rock shaft, and a turning key at right angles to the shaft extending through the slot of the bead strip past its inner face, and an escutcheon for said slot.

[Claim 6 not printed in the Gazette.]

1,030,507. ENVELOP-FASTENER. ALFRED E. EDMONDSON, Chicago, Ill. Filed July 19, 1911. Serial No. 639,383. (Cl. 229—78.)



An envelop fastener, comprising a piece of stiffening material having a perforation therein and having secured thereto at a distance from said perforation a metal tongue, said piece being weakened between said tongue and aperture, whereby the piece may be readily separated into two parts for the purpose specified, said piece being gummed for attaching the parts thereof respectively.

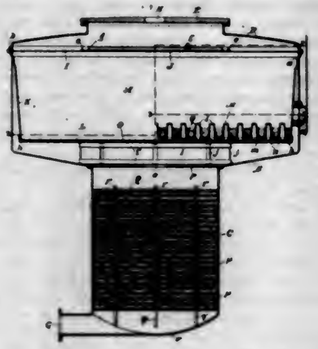
1,030,508. CONTACT-CHAMBER. GEORG ESCHELLMANN and ALBERT HARMUTH, St. Petersburg, Russia, assignors to General Chemical Company, New York, N. Y., a Corporation of New York. Filed Nov. 26, 1909. Serial No. 529,933. (Cl. 23—1.)

1. In a contact chamber, interposed in the path of the gases being transformed, a layer of catalytic material having a relatively large superficial area, a layer of said material subsequent thereto having a relatively small superficial area, and a centrally perforated plate between said layers, as and for the purpose described.

2. In a contact chamber, interposed in the path of the gases being transformed, a relatively thick layer of catalytic material, a plurality of relatively thin layers of said material subsequent thereto, and a centrally perforated plate between said thick layer and the plurality of thin layers, as and for the purpose described.

3. In a contact chamber, means comprising a plurality of identical separable elements adapted to support a layer of catalytic material, each of said elements includ-

ing an upwardly and centrally tapered portion and a laterally extending portion, said laterally extending portion being provided with perforations as and for the purpose described.

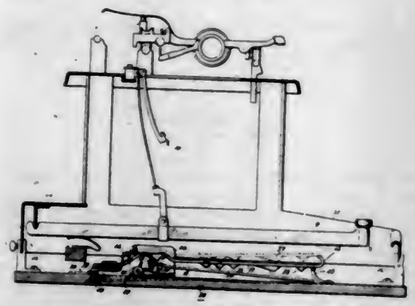


4. In a contact chamber, a system of identical separable units adapted to support a layer of catalytic material, the said unit comprising an upwardly extending pyramid joined at its base to laterally extending perforated flanges, as and for the purpose described.

5. In a contact chamber, a system of identical separable units adapted to support a layer of catalytic material and a perforated plate adjacent to, but spaced from said system and adapted to support the same, as and for the purpose described.

[Claims 6 to 10 not printed in the Gazette.]

1,030,509. TELEGRAPHING INSTRUMENT. CLAYTON C. FERGUSON, New York, N. Y. Filed Apr. 4, 1911. Serial No. 618,800. (Cl. 178—69.)

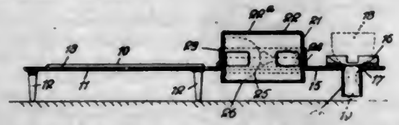


1. In a telegraphing instrument, the combination with a typewriting machine having depressible key bars, of a plurality of auxiliary key bars disposed beneath said depressible key bars to be depressed thereby, each of said auxiliary key bars having projections formed thereon and disposed concordantly with the electric telegraphic alphabet; and an electric circuit making mechanism extending across said auxiliary key bars and movable lengthwise thereunder to be rocked by said projections when said auxiliary key bars are depressed.

2. In a telegraphing instrument, the combination with a typewriting machine having depressible key bars, of a plurality of auxiliary key bars disposed beneath said depressible key bars to be depressed thereby, each of said auxiliary key bars having projections formed thereon and disposed concordantly with the electric telegraphic alphabet; an electric circuit making mechanism extending across said auxiliary key bars and movable lengthwise thereunder to be rocked by said projections when said auxiliary key bars are depressed; and a supporting base for said auxiliary key bars, said base providing supports for holding the typewriting machine and the key bars thereof in register with said auxiliary key bars.

3. A telegraphing instrument, comprising a platform having a plurality of electric circuit terminals; a pivoted member to normally connect said terminals; a reciprocating carriage movable under said pivoted member to discontinue the engagement of said member with one of said terminals; a rocking mechanism mounted on said carriage for completing a telegraph circuit; and a series of selective keys each individually formed to rock said rocking mechanism when said carriage is reciprocated.

1,030,510. STAND FOR SAD-IRONS. OTTO H. FRANK, New York, N. Y. Filed Dec. 26, 1911. Serial No. 667,975. (Cl. 68—27.)



1. A device of the character described, comprising a supporting plate, an extension formed upon one end of the supporting plate and having an opening therethrough, an inverted receptacle secured in the opening and having a portion extending above and below the extension, means adapted to permit a wiper to be removably applied upon the top of the receptacle, and a lid to close said receptacle.

2. A device of the character described, comprising a supporting plate, an extension formed upon one end of the supporting plate and having an opening therethrough, an inverted receptacle secured in the opening and having a portion extending above and below the extension, a ring removably held upon the portion of the receptacle above the extension whereby a wiper may be removably held upon the receptacle, a lid to close said receptacle, and a pocket provided in said extension so that a piece of wax may be carried therein.

3. A device of the character described, comprising a supporting plate, an extension formed upon one end of the supporting plate and having an opening therethrough, an inverted receptacle secured in the opening and having a portion extending above and below the extension, a ring removably held upon the portion of the receptacle above the extension whereby a wiper may be removably held upon the receptacle, a lid to close said receptacle, and means provided upon the extension and adapted to securely hold a piece of wax upon the upper surface of said extension.

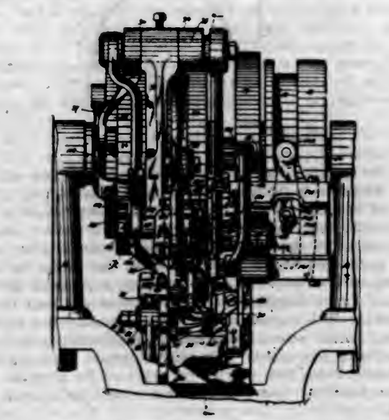
1,030,511. PORTABLE BACK-REST. JOHN A. FREEMAN, Montgomery, Ala. Filed Oct. 6, 1911. Serial No. 653,217. (Cl. 155—26.)



1. A portable back rest comprising a strip of flexible material, springs attached to the upper end of the flexible strip for supporting the same vertically, an adjustable strap connected to the upper ends of the springs, a ring on the strap adapted for detachable engagement over a fixed pin, a seat portion on the lower end of the back adapted to stretch over a seat, a flap depending from the back at the inner edge of the seat portion, and a strap on the flap adapted to extend beneath the underside of the seat and engage the forward edge of the seat portion to hold the same to the seat.

2. A portable back rest comprising a strip of flexible material adapted to be folded, suspension means attached to one end of the strip for supporting the same vertically to provide a back, the lower end of said strip being folded upon itself to provide a seat portion for engagement across a seat and a flap at the lower end of the back for engagement around the inner edge of the seat, a buckle carried on the outer end of the seat portion, and a strap carried on the end of the flap adapted to pass beneath the seat and engage with the buckle to hold the seat portion to the seat, said strap and buckle being also adapted to hold the device together when folded.

1,030,512. SEWING-MACHINE. FRANCIS JOSEPH FREESE, Montreal, Quebec, Canada, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 9, 1[illegible]. Serial No. 705,134. (Cl. 112—20.)



1. A chain-stitch shoe sewing machine, having, in combination, a curved hook needle, an oscillating pivotally supported looper lever, an auxiliary looper lever having engagement with the looper lever proper, and means for actuating the parts, substantially as described.

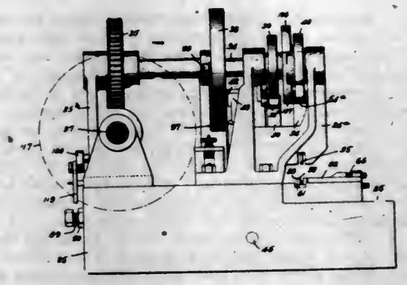
2. A chain-stitch shoe sewing machine, having, in combination, a curved hook needle, a looper, a thread finger mounted to move rectilinearly backward and forward in timed relation to the movements of the needle, said thread finger having its operating end extended forward and laterally under the eye of the looper, and means for actuating the parts, substantially as described.

3. A chain-stitch shoe sewing machine, having, in combination, a curved hook needle, a looper, a welt guide, a welt guide slide, a back rest, a back rest slide, springs for moving the slides forward, locking means for the slides comprising a clamping plate provided with wedge surfaces, a lever having wedges coöperating with said wedge surfaces on said clamping plate, and means for actuating the lever in timed coöperation with the needle to clamp and hold the slides in position and to release them, substantially as described.

4. In looper-mechanism for hooked-needle sewing machines, in combination, a looper, a looper carrier provided with a cam-follower, a universal-joint mounting for the said looper carrier on which the latter may swing in all directions, an actuating cam having radial grades and also transverse throws engaging the said cam-follower to traverse the delivery-eye of the looper in an orbital path around the needle, and a complementary cam in separate engagement with the looper carrier acting positively to restrain the latter from radial overthrow and to produce the return movement thereof.

5. A sewing machine, having, in combination, a hook-needle, an oscillating, pivotally supported looper lever carrying a looper, a cam for actuating said lever, an auxiliary looper lever for maintaining the looper lever proper in contact with its cam, and a cam for actuating said auxiliary lever.

1,030,513. MACHINE FOR TIPPING LACES. ERNEST A. GALLISON, Portland, Me., assignor to Colonial Fast Color Tipping Company, Kittery, Me., a Corporation of Maine. Filed June 12, 1911. Serial No. 632,736. (Cl. 18—1.)



1. A lacing tipping machine comprising opposed faces forming the sides of a channel, means coöperating therewith for first forming a tip blank into a trough adapted to receive a portion of a lacing fabric and then bending the edges of the blank successively to form a tube embracing the fabric, one of said edges overlapping the other, and means for heating said faces.

2. A lacing tipping machine comprising opposed faces forming the sides of a channel, means coöperating therewith for first forming a tip blank into a trough adapted to receive a portion of a lacing fabric and then bending the edges of the blank successively to form a tube embracing the fabric, one of said edges overlapping the other, and means for applying a liquid solvent to the blank during the edge bending operation.

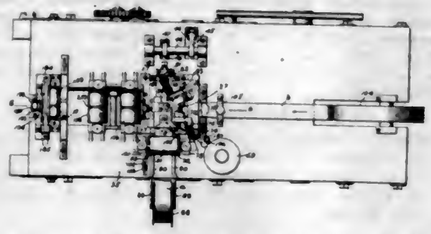
3. A lace tipping machine comprising opposed faces forming the sides of a channel, means coöperating therewith for first forming a tip blank into a trough adapted to receive a portion of a lacing fabric and then bending the edges of the blank successively to form a tube embracing the fabric, one of said edges overlapping the other, the edge-bending means including a folding blade and means for applying a liquid solvent to said blade.

4. A lace tipping machine comprising opposed members having faces forming the sides of a channel, means independent of said members but coöperating with said faces for first forming a tip blank into a trough adapted to receive a portion of a lacing fabric and additional means for bending the edges of the blank successively to form a tube embracing the fabric, said additional bending means being structurally independent of the channel forming members.

5. A lace tipping machine comprising, in combination, a primary folding blade, a carrier having opposed faces forming a channel, a secondary folding blade, both of said blades being structurally independent of the carrier and said faces and movable in planes substantially perpendicular to the plane of said carrier, and mechanism for operating said parts to first cause the primary folding blade to coöperate with the channel faces in forming a blank of sheet material into a trough adapted to receive a portion of a lacing fabric, then causing the secondary blade to coöperate with the channel faces in bending the edges of the blank inwardly to form a tube embracing the fabric.

[Claims 6 to 18 not printed in the Gazette.]

1,030,514. MACHINE FOR TIPPING LACES. ERNEST A. GALLISON, Everett, Mass., assignor to Colonial Fast Color Tipping Company, Boston, Mass., a Corporation of Maine. Filed Oct. 6, 1911. Serial No. 653,204. (Cl. 153—1.5.)



1. A machine for tipping laces, having means for feeding the ribbon, means for applying tubes to said ribbon at predetermined intervals, means for severing the tubes and the ribbon inclosed therein at the mid-length of the tubes, and means for coöperating with one end of the tube for determining the accuracy of the location of the cut.

2. A machine for tipping laces, having means for feeding the ribbon, means for applying tubes to said ribbon at predetermined intervals, a knife for severing the tubes and the ribbon inclosed therein, a stop, and means for holding each tube with one end against the stop in position for the knife to operate at the mid-length of the tube.

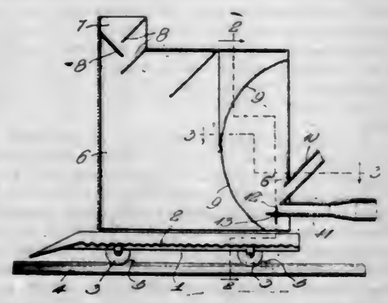
3. A machine for tipping laces, having means for feeding the ribbon, means for applying tubes to said ribbon at predetermined intervals, a knife for severing the tubes and the ribbon inclosed therein, a stop, and means for holding each tube with one end against the stop in position for the knife to operate at the mid-length of the tube, said holding means comprising a pair of rolls between which the ribbon and applied tubes are fed, said rolls being adapted to slip on a tube while the latter is arrested by the stop.

4. In a machine of the character described, a stop, means for applying tubes to a ribbon, feed devices for pushing the product of the machine toward the stop, and a knife between said feed devices and stop for severing said product, said means for applying the tubes being located in position to perform the applying before a tube reaches said feed devices.

5. A machine of the character described, comprising means for applying a tube to a ribbon, a stop, feed devices for pushing the tube endwise to the stop, and a knife to sever the tube while arrested by the stop.

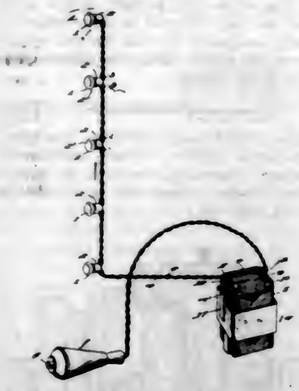
[Claims 6 to 30 not printed in the Gazette.]

1,030,515. DRIER. AUSTIN LA MOURE GRIFFIN, Scranton, Pa., assignor of one-half to Frederick H. Emery, Scranton, Pa. Filed June 17, 1911. Serial No. 633,831. (Cl. 83—56.)



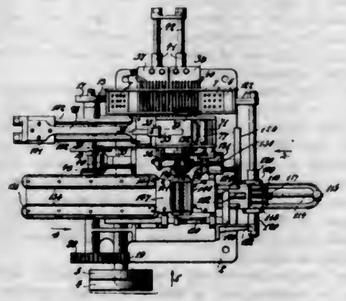
A drier comprising a hood having at the lower portion of its side an opening and provided in its top with a flue, a concaved screen located in the hood over the said opening and having its intermediate portion spaced from the side of the hood having the opening, a chute arranged to deliver material through the opening of the hood against the screen, an air blast pipe arranged to deliver air against the screen and having its discharge end located under the delivery end of the chute, and a fan located at the delivery ends of the air blast pipe and the chute.

1,030,516. ILLUMINATED VEST OR COAT BUTTONS. EVERETTE S. LAGARDE and PETER A. ANGENEND, Jr., Houston, Tex. Filed Apr. 13, 1911. Serial No. 620,868. (Cl. 240—8.4.)



In an apparatus of the kind described, a number of electric lamps each formed with a cylindrical shank and a rim at one end thereof encircling the outer end of the bulb of the lamp and adapted to serve as a button, electrical conductors on which said lamps are located at intervals apart and which serve to retain the lamps in position in the button holes of a garment, a portable battery adapted to be attached to the person of the user of the apparatus and connected with said conductors, and an electric switch connected with said conductors, said apparatus being adapted to be mounted upon a garment with the lamps located in the button holes of the garment and the conductors, battery and switch concealed beneath the same.

1,030,517. PACKAGING-MACHINE. FRANK W. LEY, New York, N. Y., assignor to International Packing Machine Company, New York, N. Y., a Corporation of New York. Filed Feb. 15, 1909, Serial No. 477,950. Renewed Oct. 27, 1911. Serial No. 657,046. (Cl. 93—4.)



1. In a machine of the character described, the combination with a hopper provided with depending chambers to receive articles in rows, and with lateral walls adapted to be agitated to cause the articles to descend into the chambers, of means attachable to said lateral walls for varying the number of articels to a package, an assembling chamber adjacent said hopper, means for advancing the lowermost row of articles from the hopper into the assembling chamber, feeding mechanism for feeding a wrapper blank into the path of the articles in the assembling chamber, a folder reciprocable at one side of the machine into and out of the path of the assembling chamber, means whereby the capacity of said folder may be varied to accommodate different sized articles or a varying number of articles and means for assembling and compacting the articles and forcing them against the wrapper blank and into the movable folding mechanism.

2. In a machine of the character described, the combination with a hopper having depending chambers, the floor of the hopper being arranged in different horizontal planes, means for causing articles to pass into said chambers, means for varying the number of articles passing into the group of chambers, an assembling chamber arranged to correspond to the planes of the lowermost rows of articles in the hopper chambers, means for forcing articles from the hopper chambers into the assembling chamber, means for feeding a wrapper blank into the path of the articles lying in the assembling chamber, folding mechanism reciprocable at one side of the machine, means whereby the capacity of said folding mechanism may be varied to accommodate different sized articles or a varying number of articles, means for assembling and compacting the articles in the assembling chamber, and means for advancing compacted articles against the wrapper and into the movable folding mechanism.

3. In a machine of the character described the combination with article feeding mechanism, of means for feeding a wrapper blank into the path of the articles, side flap folding means reciprocable at one side of the machine and movable into and out of line with the wrapper blank feeding mechanism, means for advancing the articles against the wrapper blank into the side flap folding means and combined end flap folding and pasting means arranged to operate upon a package in transit in the movable side flap folding means.

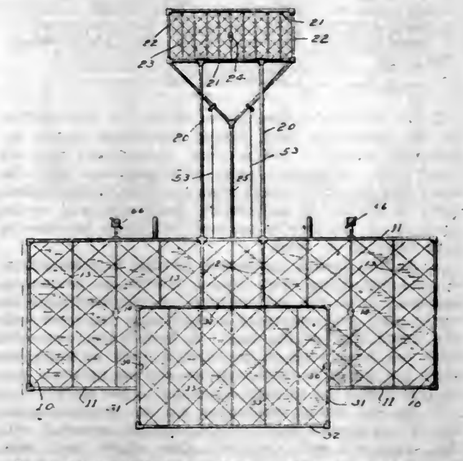
4. In a device of the character described, the combination with article feeding means, of wrapper blank feeding mechanism, a movable side flap folder reciprocable at one side of the machine, means for advancing the articles against the wrapper blank and into the folder, leaving the end flap projecting, and a stationary end flap folder spaced from the machine bed and arranged adjacent the line of travel of the side flap folder.

5. In a machine of the character described, the combination with article assembling mechanism, of wrapper blank feeding mechanism, a sliding carriage adapted to receive articles from the assembling mechanism, a plunger arranged transversely within said sliding carriage, a pair of threaded rods adapted to adjustably fix the position of said plunger in the sliding carriage to thereby determine the capacity of the latter, means for advancing articles against a wrapper blank into the sliding carriage and means for operating said plunger to eject articles from the sliding carriage.

[Claims 6 to 13 not printed in the Gazette.]

1,030,518. AEROPLANE. JOSEPH R. MACHADO, Vallejo, Cal. Filed Feb. 1, 1912. Serial No. 674,656. (Cl. 244—14.)

1. In an aeroplane, a frame consisting of an upper rectangular frame work of pipe, a lower rectangular framework of pipes having its sides terminating short of the sides of the upper rectangular framework, supporting wheels attached to the lower framework, diagonal struts connecting the corners of the upper and lower frameworks, other struts connecting the frameworks intermediate the diagonal struts, a pair of parallel brace bars extending across the upper frame, tail bars extending backward in line with the last-mentioned brace bars, a rectangular pipe frame carried by said tail bars, and a tail bar extending from the center line of the lower frame, diverging branch members extending rearwardly and outwardly from the rear end of the last mentioned member, a rectangular frame carried by the diverging members, and struts connecting the rectangular frame carried by the tail members with the last-mentioned rectangular frame.



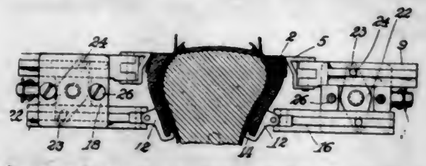
2. In an aeroplane, a frame, consisting of an upper rectangular frame work of pipe, a lower rectangular framework of pipes having its sides terminating short of the sides of the upper rectangular framework, supporting wheels attached to the lower framework, diagonal struts connecting the corners of the upper and lower frameworks, other struts connecting the frameworks intermediate the diagonal struts, a pair of parallel brace bars extending across the upper frame, tail bars extending backward in line with the last-mentioned brace bars, a rectangular pipe frame carried by said tail bars, and a tail bar extending from the center line of the lower frame, diverging branch members extending rearwardly and outwardly from the rear end of the last mentioned member, a rectangular frame carried by the diverging members, struts connecting the rectangular frame carried by the tail members with the last-mentioned rectangular frame, a supporting plane carried by the upper rectangular frame, power means carried by the lower rectangular frame, vertical shafts provided with helices rotatably supported by the upper and lower rectangular frames, horizontal shafts provided with helices carried by the upper and lower rectangular frames, operative connections between the power means and said shafts, planes carried by the rectangular frames supported by the tail bars, a rudder between the last-mentioned frames, a horizontally disposed rudder supported by the upper rectangular frame, and righting means carried between the upper and lower rectangular frames.

1,030,519. LASTING MECHANISM. ALBERT A. MACLEOD, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 8, 1911. Serial No. 659,181. (Cl. 12—14.1.)

1. An end lasting mechanism having, in combination, an end embracing band, closing mechanism having engagement with the end portions of the band near its upper edge, and additional closing devices having engagement with the end portions of the band near its lower edge.

2. An end lasting mechanism having, in combination, an end embracing band, closing mechanism having engagement with the end portions of the band near its upper edge, and separate devices connected with said

mechanism and with the end portions of the band near its lower edge to cause said band to clamp the heel stiffener to the last at its edge remote from the last bottom.



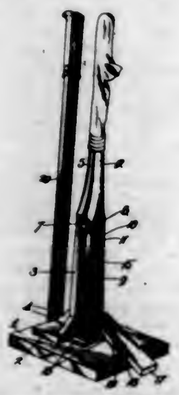
3. An end lasting mechanism having, in combination, an end embracing band, closing mechanism having engagement with the end portions of the band near its upper edge, a separate point of engagement with the band near its lower edge, and an equalizer through which force is applied to conform the band widthwise to the countour of the side of the last and clamp the shoe by both edges of the band.

4. An end lasting mechanism having, in combination, an end embracing band, closing mechanism having engagement with the end portions of the band near its upper edge, and comprising a chain arm connected with the upper edge of the band; a second arm connected with the lower edge of the band, a block in which the arms are guided to slide endwise, and an equalizer connecting said arms to each other and to the block.

5. An end lasting mechanism having, in combination, an end embracing band, closing devices connected with the upper and with the lower parts of the band ends, an actuator for said devices, and an equalizer connecting said devices together and to the actuator for the purpose described.

[Claims 6 and 7 not printed in the Gazette.]

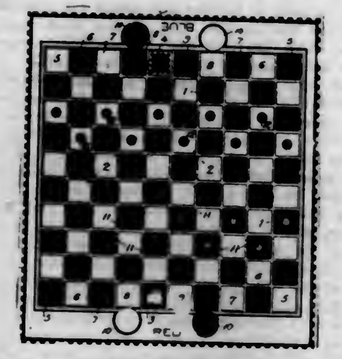
1,030,520. HOSIERY-TURNER. CHARLES H. MATTHEWS, Topeka, Kans. Filed Mar. 22, 1912. Serial No. 685,556. (Cl. 223—20.)



1. A hosiery turner, comprising a pair of upright standards pivoted together and constituting semi-cylindrical jaws above the pivotal points, said jaws terminating at their upper ends in enlargements forming segment-shaped heads, a spring for normally holding the heads of the jaws together, and a foot lever for overcoming the resistance of said spring and imparting a relative pivotal operation to the standards for separating the said heads.

2. A hosiery turner, comprising a base, a fixed standard mounted on the base, a second standard pivoted to the first and both standards above the pivotal point being of semi-cylindrical form in cross section and terminating at their upper extremities in segment-shaped heads, a spring interposed between said standards below the pivotal point to hold their heads in engagement and a foot lever hinged to the base and adapted when pressed downward to force the lower end of the pivoted standard toward the corresponding end of the fixed standard and thus effect separating movement of the heads of said standards.

1,030,521. GAME OF SKILL. HUDSON MAXIM, Hopatcong, N. J. Filed Nov. 24, 1909. Serial No. 529,767. (Cl. 46—64.)



1. A game apparatus comprising a checkered board divided into one hundred squares, arranged in transverse rows of ten squares each and having the squares of two contrasting colors alternating with each other, and two stations exterior to the checkered surface of the board on one side thereof one being colored to correspond with one set of squares and the other to correspond with the other set of squares, two stations of like positions and colors on the opposite side of the board, and two sets of pieces, the two sets being of contrasting colors and each set being arranged with some of its pieces in the squares of the checkered surface and some of its pieces on the stations exterior to said checkered surface.

2. A game apparatus comprising a checkered board divided into one hundred squares arranged in transverse rows of ten squares each, and having the squares of two contrasting colors alternating with each other, and two stations exterior to the checkered surface of the board on one side thereof one being colored to correspond with one set of squares and the other to correspond with the other set of squares, two stations of like positions and colors on the opposite side of the board, and two sets of pieces, the two sets being of contrasting colors and each set being arranged with two of its pieces on said stations, eight of its pieces on the rear or first row of squares and ten of its pieces on the third and fourth rows of squares of its side of the board, the second or next to rear row being left vacant.

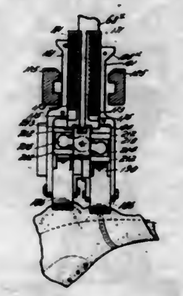
3. A game apparatus comprising a checkered board divided into one hundred squares arranged in transverse rows of ten squares each, and having the squares of two contrasting colors alternating with each other, and two stations exterior to the checkered surface of the board on one side thereof one being colored to correspond with one set of squares and the other to correspond with the other set of squares, two stations of like positions and colors on the oppoite side of the board, and two sets of pieces, the two sets being of contrasting colors and each set being arranged with two of its pieces on said stations, eight of its pieces on the rear or first row of squares and ten of its pieces on the third and fourth rows of squares of its side of the board, the second or next to rear rows being left vacant, and the pieces on the third and fourth rows all being arranged on squares of the same color.

4. A game apparatus comprising a checkered board divided into squares arranged in right lines or rows with the alternating squares of two contrasting colors, and four perches or stations arranged outside the checkered surface

two on each of two opposite sides of the board, said stations being arranged adjacent to squares in the first or rear rows of the opposing sides and each station being colored to correspond to the color of the square immediately in front of it in said first or rear row.

5. A game apparatus comprising a checkered board divided into one hundred squares, arranged in transverse rows of ten squares each and having the squares of two contrasting colors alternating with each other and four stations of contrasting colors associated with the two outside transverse rows of squares, said two outside rows each having a square characterized as a citadel, the third and fourth rows on each side of the board having their alternate squares characterized as troop stations and pieces equal in number to the last-named stations, and other pieces equal in number to said outside stations and other pieces four less than the squares in the front and rear rows of squares.

1,030,522. PULLING-OVER MACHINE. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Mar. 28, 1903, Serial No. 149,966. Divided and this application filed Mar. 28, 1904. Serial No. 200,342. (Cl. 12—4.)



1. In a pulling-over machine, the combination with grippers arranged to engage opposite sides of a shoe, of means for positioning the grippers comprising the positioning block 346, the slide 344 on which said block is mounted, the bipck 327, the adjustable connection between said block and slide, and power driven means for actuating the latter block.

2. In a pulling-over machine, the combination with grippers arranged to engage opposite sides of a shoe, of means for positioning the grippers comprising the positioning block 346, the rack slide 344 on which said block is mounted, the rack block 327, pinions normally locked together and turning on the same axis for engaging said racks, means whereby relative adjustment of the two pinions may be effected, and means acting directly upon the block 327 for driving the positioning block through said pinions and racks.

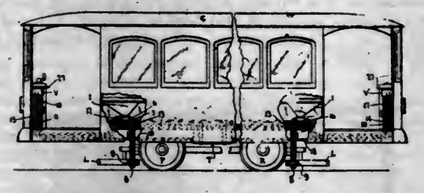
3. In a pulling-over machine, the combination with grippers arranged to engage opposite sides of a shoe, of the positioning block 346, driving connections including the lugs 840^x and 826^x held in continuous engagement, and an adjustable connection including the hand wheel 336 between the lug 826^x and the positioning block 346 to spread the grippers more or less independently of their driving mechanism.

4. In a pulling-over machine, the combination with grippers arranged to engage opposite sides of a shoe, of gripper spread adjusting mechanism including parallel rack bars, pinions on the same axis engaging said bars, means for locking said pinions normally together, and means arranged for movement in one direction to unlock said pinions and for movement in a different direction to adjust the pinions relatively.

5. In a pulling-over machine, a plurality of grippers for engaging the upper at the sides and at the toe of the last and an actuator for spreading said grippers apart, said actuator having a uniform movement, in combination with means for simultaneously varying the relation of the several grippers to the actuator whereby the grippers may be given different initial positions to accommodate shoes of different sizes.

[Claims 6 to 49 not printed in the Gazette.]

1,030,523. TRACK-SANDING DEVICE. GEORGE C. MILLER and WILLIAM J. BEATTIE, Fitchburg, Mass. Filed Mar. 11, 1912. Serial No. 683,017. (Cl. 105—263.)



1. In a track sanding device, the combination with a car mounted on wheels, a nozzle in front of the forward wheel and another in rear of the rearmost wheel, sand hoppers for said nozzles, and a tank containing a fluid under pressure, of a three-way valve at each end of the car, a supply pipe leading from the tank to the valve, two other pipes leading from the valve to the two hoppers respectively, and means connected with each pipe whereby a blast therethrough will force sand out of one nozzle.

2. In a track sanding device, the combination with a car mounted on wheels, nozzles adjacent the foremost and rearmost wheels, means for supplying sand to the nozzles, and devices for respectively controlling the supply of sand to each nozzle, of a tank containing a fluid under pressure, a three-way valve at each end of the car, supply pipes leading from the tank to the valves, and two other pipes leading from each valve, one of them to the controlling device for one nozzle and thence onward to the other valve, and the other pipe past said controlling device and nozzle and to the controlling device for the other nozzle and thence onward to the other valve.

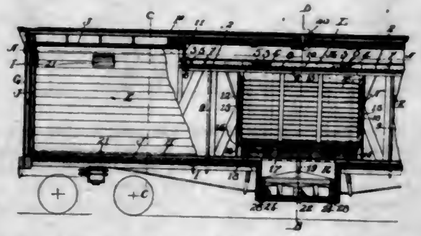
3. In a track sanding device, the combination with a car mounted on wheels, nozzles adjacent the foremost and rearmost wheels, independent hoppers for the nozzles, a tank on the car containing a fluid under pressure, and a device in each hopper for controlling the supply of sand to its nozzle, of a three-way valve at each end of the car, supply pipes leading from the tank to the valves, two other pipes connecting the valves and leading past the hoppers, and a branch from each of these pipes leading to the controlling device in one hopper only.

4. In a track sanding device, the combination with a car mounted on wheels, hoppers carried by the car above the foremost and rearmost wheels and having inclined bottoms pierced with holes through their opposite walls, a fluid jet nozzle in one hole and a pipe in the opposite hole of each hopper, a coil spring nozzle leading from the outer end of the pipe to the adjacent wheel, and a tank carried by the car and containing a fluid under pressure, of a three-way valve at each end of the car whose casing has three ports communicating with its bore and whose plug has an angular port adapted to establish communication between the intermediate port in the casing and either of the others, a supply pipe leading from said tank to the intermediate port of each casing, two other pipes respectively connecting the other ports in the casing with the corresponding ports in the casing of the other valve, and a branch from each of these pipes leading to the jet nozzle in one hopper only.

1,030,524. REFRIGERATOR-CAR. CHARLES A. MOORE, St. Paul, Minn., assignor to Moore Patent Car Co., a Corporation of Minnesota. Filed June 14, 1907. Serial No. 379,094. (Cl. 62—12.)

1. A refrigerator car, comprising, in combination, a car body having a roof substantially straight throughout the

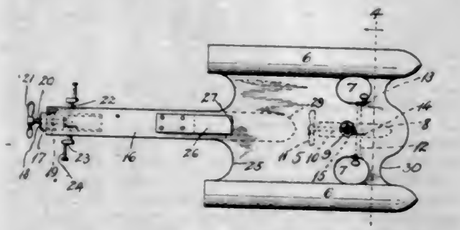
length of the car and a provision chamber extending entirely from end to end thereof, an ice bunker immediately below the roof and having ends remote from the ends of the car opening into the top of the provision chamber for the circulation of air, said bunker having a longitudinal upper portion and an auxiliary lower portion extending from the floor of the provision chamber to the floor of the upper portion of said bunker, an ice grate in the lower portion of said bunker, a hatchway entering said bunker through the roof of the car and a removable tray section in the floor of said bunker between the upper and lower portions of said bunker, whereby the ice can be confined to the upper portion of said bunker adjacent the roof of the car or by the removal of said tray section held in the entire bunker.



2. A refrigerator car, comprising, in combination, a car body having a roof substantially straight throughout its length and a provision chamber extending entirely from end to end thereof, an ice bunker immediately below the roof of the car having ends remote from the ends of the car and opening directly into the top of the provision chamber for the free circulation of air and having an apertured floor, a removable tray section fitted to the aperture in said floor, and a second ice bunker below said floor and in said provision chamber adapted to receive ice from said first bunker in the open position of said tray.

3. A refrigerator car, comprising, in combination, a car body having a roof substantially straight throughout its length and a provision chamber extending entirely from end to end thereof, an ice bunker immediately below the roof of the car having both ends remote from the ends of the car and extending the entire inside width of the car body and provided with upright ends opening directly into the top of the provision chamber for the free circulation of air, a hatchway in the roof of the car over said ice bunker, and a second ice bunker having a median position in said provision chamber below said first bunker and communicating therewith through an aperture in the floor thereof.

1,030,525. LIFE-SAVING DEVICE. ISAAC N. MYERS, Los Angeles, Cal. Filed Sept. 19, 1910. Serial No. 582,686. (Cl. 9—18.)



1. A buoy consisting of a horizontal rest, a swivel block attached to the under side thereof, a propeller carried thereby, a crank shaft mounted in said swivel block, and means for actuating said propeller from said crank shaft.

2. A buoy comprising a rest for the body having a tail extending rearwardly therefrom, a block mounted on said tail, means for adjusting said block in a front and rear direction, a propeller carried by said block, and foot pedals for actuating said propeller.

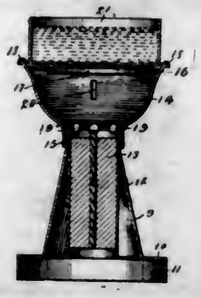
3. A buoy consisting of a buoyant rest for the body having elongated floats at the sides thereof having a centrally disposed rearwardly extending tail, and a horn near the rear edge of the said rest and projecting forwardly over the rump of a body supported on the said rest.

4. A buoy consisting of a rest having elongated floats at the sides thereof, said rest having openings therethrough through which the arms may be thrust downwardly, a tail extending rearwardly from said rest, an adjustable propeller near the rear end of said tail, and pedals for actuating said propeller by the feet.

5. A buoy consisting of a rest in the form of a hollow flat plate having openings therethrough, floats at the sides of said plate and formed integral therewith, a propeller attached to said buoy on the under side of said plate, means for actuating said propeller disposed below said openings, a rearwardly extending tail, a propeller near the end of said tail, pedals for actuating said last named propeller, and a bracket attached to said tail near said rest and having a horn projecting upwardly and adapted to project over the rump of the body lying on said rest.

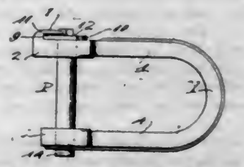
[Claims 6 and 7 not printed in the Gazette.]

1,030,526. WATER-HEATER FOR SHAVING OUTFITS. CHARLES AUGUST NEARMAN, Oakland, Cal. Filed Mar. 2, 1910. Serial No. 546,902. (Cl. 126—38.)



A shaving outfit comprising a base having a downwardly projecting flange, a candle holder extending over the base, a flaring support mounted upon the candle holder and having an apertured top and vented sides, a conical sleeve surrounding the candle holder and connected to the same adjacent the top thereof and to the base, and a water container removably mounted upon the top of the support, said base and flange adapted to act as a cover for said container and said support adapted to be inverted on the candle holder, the walls of the aperture fitting the conical sleeve.

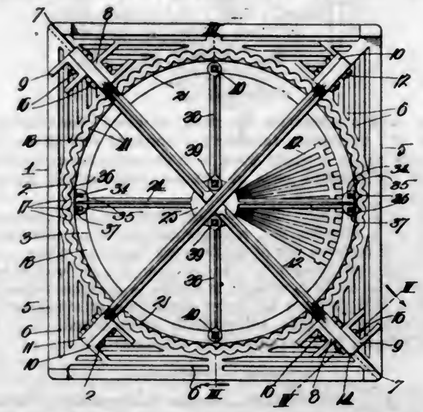
1,030,527. CLEVIS-LOCK. MILFORD A. NELSON, Fowler, Colo. Filed Jan. 25, 1912. Serial No. 673,396. (Cl. 97—4.)



1. In a clevis, the combination with a yoke whose arms have registering elongated eyes, a flange across part of the lower eye, and a transverse shoulder on the upper arm; of a pin rotatably mounted in said eyes and having a button at its lower extremity shaped to pass said flange only when the pin is turned axially to a certain position, and a head on the pin shaped to strike said shoulder when the pin is moved into one end of the upper eye and turn and move the pin out of said certain position.

2. In a clevis, the combination with a yoke whose arms have registering eyes elongated in the direction of their length, a flange along one side and across the rear end of the lower eye, and a transverse shoulder on the upper arm and crossing it in rear of the upper eye; of a round pin rotatably and removably mounted in said eyes and having a groove around its body producing a button at its lower extremity shaped to pass said flange only when the pin is moved forward in the lower eye and turned to a certain position, and a head on the pin resting on the upper arm and having at one side a tongue with converging edges whose point is adapted to strike said shoulder when the clevis is put under tension and turn and hold the pin out of said certain position.

1,030,528. GRATE. THOMAS W. NICOL, Kansas City, Mo. Filed Mar. 27, 1911. Serial No. 617,283. (Cl. 126—182.)



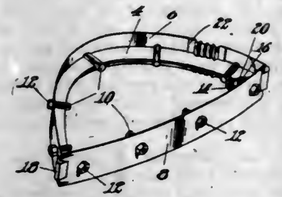
1. A grate, comprising an outer member having a circular opening and crossed bars bridging said opening below the plane thereof, and a pin projecting upwardly beyond the upper bar axially of said opening, in combination with a circular inner member fitting rotatably in said opening and consisting of segmental sections abutting together endwise, a cross bar secured at its ends to the abutting ends of the segmental sections and provided with an enlargement midway its length having an opening through which said pin projects and supported by said crossed bars, braces secured at their inner ends to said enlargement and at their outer ends to different segments of the inner member, and slotted segments resting at their inner ends upon the enlargement of said cross bar and provided with tongues at their outer ends interlocked with the said segments.

2. A grate, comprising an outer member having a circular opening and crossed bars bridging said opening below the plane thereof, and a pin projecting upwardly beyond the upper bar axially of said opening, in combination with a circular inner member fitting rotatably in said opening and consisting of segmental sections abutting together endwise, a cross bar secured at its ends to the abutting ends of the segmental sections and provided with an enlargement midway its length having an opening through which said pin projects and supported by said crossed bars, braces secured at their inner end to said enlargement, and at their outer ends to different segments of the inner member, slotted segments resting at their inner ends upon the enlargement of said cross bar and provided with tongues at their outer ends interlocked with the said segments, a cap fitting over the pivot and upon the inner ends of the segments resting upon the enlargement of the said cross bar, and fastening devices extending through the cap, said underlying segments, and the enlargement of said cross bar.

3. In a grate, an outer member having a circular opening and consisting of a plurality of sections abutting and lap-jointed together at their side edges and each provided near its abutting edge with a pair of depending lugs, and each provided about midway its length with a third lug, a cross bar extending diametrically of the member below the opening thereof and secured at its opposite ends to the said third lugs, a cross bar extending at right angles to the first-named cross bar and overlying the same and secured at its opposite ends to the lugs adjacent to the abutting edges of the sections, the said overlying cross bar having an upwardly projecting pivot pin axially of the opening of the member and a circular fuel supporting member pivoted on said pin and rotatable in the said circular opening of the outer member.

4. In a grate, a circular member consisting of a pair of semi-circular segments of a ring abutting together endwise and provided with grooves, a cross bar abutting at each end against the inner edges of the abutting ends of the semi-circular segments, a plurality of bolts securing each semi-circular segment to the ends of said cross bar, and a plurality of inwardly-tapering slotted segments fitting at their inner ends on said cross bar and provided at their outer ends with tongues engaging the grooves of the semi-circular segments, and means for securing the inner ends of said inwardly tapering segments to the said cross bar.

1,030,529. CUTTING-DIE. LUDGER PAINCHAUD, Salem, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 25, 1909. Serial No. 524,494. (Cl. 164—29.)



1. A die of the class described, comprising a frame of sheet metal having the outline desired in the blanks to be cut and cutting blades of flexible material attached to said frame about its edge, the edge of the frame engaging the inner surfaces of the blades between the edges of the blades.

2. A die of the class described, comprising a frame of sheet metal having the outline desired in the blanks to be cut, cutting blades of flexible material, and fastening devices engaging said blades at points on both sides of said frame.

3. A die of the class described, comprising a frame of sheet metal having an open center and an outline corresponding to that desired in the blanks to be cut, cutting blades of flexible material, and means for attaching said cutting blades to the frame and maintaining them perpendicular to said frame with the edge of the frame engaging the inner surfaces of the blades between their edges.

4. A die of the class described, comprising a skeleton frame, cutting blades of flexible material, and fastening devices straddling said frame and connecting said blades thereto.

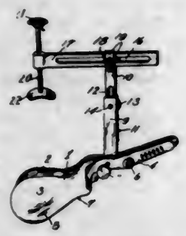
5. A die of the class described, comprising a skeleton frame, cutting blades of flexible material, and means for maintaining said blades in engagement with the contour of said frame, said means having portions extending on opposite sides of said frame and a portion for engaging said blades.

[Claims 6 to 14 not printed in the Gazette.]

1,030,530. SPECULUM. DON H. PALMER, Seattle, Wash. Filed July 17, 1911. Serial No. 638,877. (Cl. 128—24.)

1. A speculum consisting of a pair of laterally separable members, an upright extensible post fixedly secured to one of said members, an arm in substantial parallelism

with the axes of said members arranged to be adjustably secured to said post, a screw threaded vertically disposed rod mounted in a threaded aperture in the forward end of said rod and adapted for reciprocal movement relative to the forward ends of said members, and a pressure plate upon the lower end of said rod.



2. A speculum consisting of a pair of laterally separable members, an upright extensible post fixedly secured to one of said members, a horizontally disposed arm slidably mounted on said post and arranged to be adjustably secured thereto, a vertically disposed rod operatively connected to the forward end of said arm, for reciprocal movements relative to the forward ends of said members, and a pressure plate at the lower end of said rod.

3. In combination with the separable blade members of a speculum, each blade thereof having a depression its exterior surface in proximity of its lower edge, of an upright post fixedly secured to one of said members, an arm in substantial parallelism with the axes of said members and arranged to be adjustably secured to said post, and a screw threaded rod provided with a pressure plate at its lower end mounted within the forward end of said arm and adapted to be adjusted toward or away from said blade members.

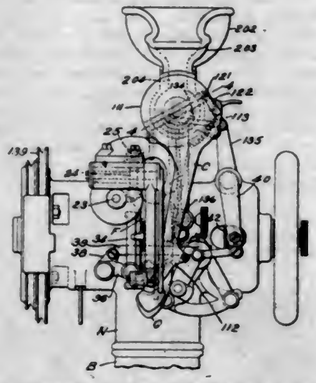
4. A speculum comprising, in combination, a pair of laterally separable blade members, each blade having a depression in its exterior surface in proximity of its lower edge, devices for adjusting the blades in operative positions, an upright extensible post fixedly secured to one of said members, an arm in substantial parallelism with the axes of said members and arranged to be adjustably secured to said post at predetermined forwardly or rearwardly positions, a screw-threaded vertically disposed rod mounted in a threaded aperture in the forward end of said arm and having reciprocal movement relative to the forward ends of said members, and a pressure plate mounted for independent rotary movements upon the lower end of said rod.

1,030,531. FASTENER SUPPLYING AND DELIVERING MECHANISM. MARSHALL HENRY PEARSON, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed May 18, 1903, Serial No. 157,555. Divided and this application filed Feb. 7, 1911. Serial No. 607,159. (Cl. 218—15.1.)

1. In a machine for inserting fasteners, the combination of a fastener pot provided with a lateral opening, a chute for delivering fasteners from the fastener pot to the fastener inserting means, means for oscillating the fastener pot about its center to present fasteners in the chute in position to be inserted, and a stationary fastener supplying vessel having a nose leading to the opening in the fastener pot, substantially as described.

2. In a machine for inserting fasteners, the combination of a fastener pot mounted to oscillate upon its center and provided with a fastener chute for delivering fasteners, means for oscillating the fastener pot about its center, a fastener brush in the fastener pot, and means for actuating the fastener brush, substantially as described.

3. In a machine for inserting fasteners, the combination of a cylindrical fastener pot having a contracted waist to divert the fasteners toward the ends of the pot, and chutes at the ends of the pot, substantially as described.

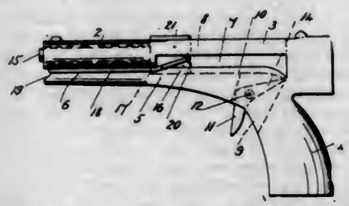


4. In a machine for inserting fasteners, the combination of a cylindrical fastener pot provided with discharge outlets at its opposite ends, and fastener chutes leading from the opposite ends of the pot, substantially as described.

5. In a machine for inserting fasteners, the combination of a fastener pot, a chute for delivering fasteners from the fastener pot to the fastener inserting means, and actuating mechanism for the fastener pot for oscillating it and the chute to present fasteners in position to be inserted, said fastener pot being removably attached to its actuating mechanism, substantially as described.

[Claims 6 to 8 not printed in the Gazette.]

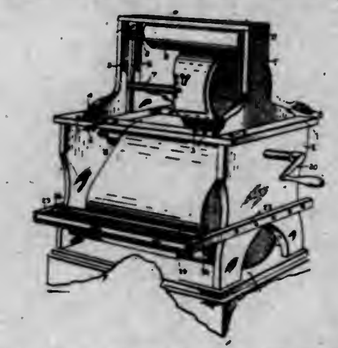
1,030,532. TOY PISTOL. PEDER T. PEDERSON, Willow Lake, S. D., assignor of one-half to Hans A. Rekstad, Willow Lake, S. D. Filed Apr. 26, 1912. Serial No. 693,495. (Cl. 124—14.)



In a toy pistol, the combination, with a frame having a rectangular guide channel provided with longitudinal slots in its sides, said frame having a recess or slot extending vertically through it below the rear part of the guide channel, and having also a barrel at its front end; of a plunger slidable in the barrel and having at its rear end a rectangular block which is slidable in the said guide channel and adapted to engage with the upper part of the said recess, a spring band working in the said longitudinal slots and operating to propel the plunger and block, and a trigger pivoted in the said recess with its lower part projecting from the bottom end thereof and adapted to release the said block.

1,030,533. WRAPPING-PAPER-PRINTING MACHINE. SAMUEL H. PINE and LOUIS SCHNEIDER, Baltimore, Md. Filed Oct. 7, 1911. Serial No. 653,374. (Cl. 211—30.)

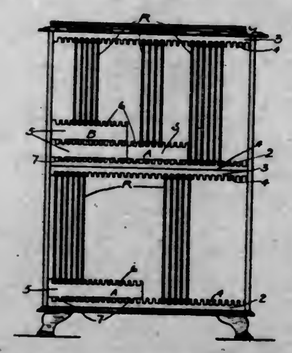
1. A paper printing device of the class described comprising a table, a printing roller, an inking roller, frames carried by said table and supporting said rollers, a channel frame connecting the upper ends of said roller supporting frames, casing carried thereby, said casing comprising an enlarged head traveling in said channel member and being provided with a depending portion, a coil spring placed within said depending portion and engaging the ball at its lower end, and means for holding said ball in said depending portion and said ball being adapted to coöperate with said inking roller for yieldably holding the same in engagement with said printing roller.



2. A paper printing device of the class described comprising a table, roll supporting frames adjustably mounted thereon, a printing roller, an inking roller, said roller supporting frames being provided with vertically extending grooves, shafts supporting said inking roller and said supporting roller, and having their ends working in said grooves, a channel member carried by the upper ends of said roll supporting frames, depending frames carried by said channel member, spring pressed means carried by said frames for engaging said shaft carrying said inking roller for yieldably holding said inking roller in engagement with said printing roller.

3. A paper printing device of the class described, comprising a printing roller, a contact roller, a cutting knife, a feeding table, comprising a primary and an auxiliary section hinged together, shaft engaging hooks carried by the upper end of said primary section, a reinforcing strip carried by the lower edge of said auxiliary section for engaging said cutting knife whereby said feeding table will be firmly supported in connection with said contact roller for facilitating the passing of paper bags between said contact roller and said printing roller.

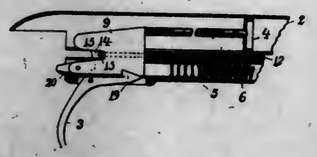
1,030,534. FILLING-BLOCK FOR PHONOGRAPH-RECORD CABINETS. EARL POOLER, Seattle, Wash. Filed Sept. 12, 1911. Serial No. 648,992. (Cl. 211—21.)



1. In a phonograph record cabinet provided with grooved top and bottom shelves for the reception of disk records, identical filling blocks each provided with parallel grooves upon its upper face and corresponding with the said shelf grooves, each of said blocks being also provided with downwardly directed projections upon the lower side thereof and in vertical alinement with some of said upper face grooves, said downward projections adapted for engagement within some of the grooves of said bottom shelf and another similar block when assembled in superposed relations upon said bottom shelf.

2. A filling block for phonographic record cabinets being of a width equal to the difference in diameters of different sized regulation records, said block provided with equally spaced parallel grooves upon its upper face, downward projections provided upon the lower face of said block in vertical alinement with some of said top grooves and said downward projections adapted for engagement within grooves of similar blocks when placed in a superposed relation therewith.

1,030,535. SPRING-GUN. GEORGE PREIS, Cambridge, Mass. Filed Feb. 19, 1912. Serial No. 678,741. (Cl. 124—10.)



1. A spring gun comprising two parallel barrels, a plunger in one thereof, a tension spring in the other barrel, a slide connecting said plunger and spring, both barrels being slotted for the passage of said slide, means for forcibly moving said slide and tensioning said spring, a dog carried by the slide adapted to be engaged by said means and to release the latter when the slide is in its set position, and a trigger for holding the slide in its set position.

2. A spring gun comprising two parallel barrels, a plunger in one thereof, a tension spring in the other barrel, a slide connecting said plunger and spring, both barrels being slotted for the passage of said slide, a hand piece slidable on the spring-containing barrel, a looped wire having its ends held by said hand piece and embracing said slide, a dog carried by said slide and adapted to lock said looped wire in the control of said slide, and a trigger for holding the slide in its set position.

3. A spring gun comprising two parallel barrels, a plunger in one thereof, a tension spring in the other barrel, a slide connecting said plunger and spring, both barrels being slotted for the passage of said slide, a hand piece slidable on the spring-containing barrel, a looped wire having its ends held by said hand piece and embracing said slide, a dog carried by said slide and adapted to lock said looped wire in the control of said slide, and a trigger adapted for holding said slide in its set position, said dog being adapted to release said looped wire when the parts are in their set position.

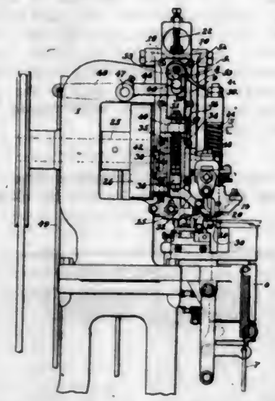
4. A spring gun comprising two parallel barrels, a plunger in one thereof, a tension spring in the other barrel, a slide connecting said plunger and spring, both barrels being slotted for the passage of said slide, and a hand piece adapted for setting said slide and connected parts, said hand piece being loosely pierced by the spring-containing barrel and having a concave surface loosely fitting the exterior of the other barrel.

1,030,536. CHANNELING-MACHINE. ADAM H. PRENZEL, Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 20, 1911. Serial No. 622,227. (Cl. 12—27.)

1. A channeling machine, having, in combination, means for supporting and feeding a sole, an edge knife movable toward and from the sole, an edge presser foot movable toward and from the sole independently of the edge knife, means operatively connected to one of said parts for lifting it out of operating position, and a device for operatively connecting said other part to the lifting means at the will of the operator, substantially as described.

2. A channeling machine, having, in combination, means for supporting and feeding a sole, two parallel, independ-

ently mounted, spring pressed slides carrying an edge knife and an edge presser foot respectively, means for lifting one of said slides away from the sole, and an adjustable device carried by the other slide for connecting and disconnecting said slide from said lifting means, substantially as described.



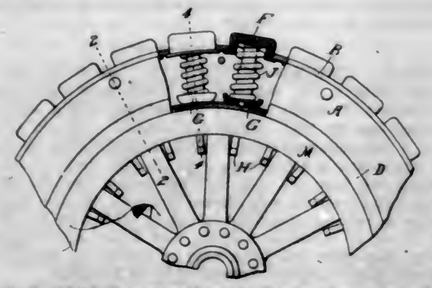
3. A channeling machine, having, in combination, means for supporting and feeding a sole, an edge knife, means for lifting said edge knife out of operating position at the will of the operator, an independently mounted edge presser foot normally unaffected by the knife lifting means, and provision for connecting said foot to the knife lifting means to be lifted with the knife, substantially as described.

4. A channeling machine, having, in combination, means for supporting and feeding a sole, a slide carrying an edge knife, an edge presser foot carried by an independent, yieldingly supported slide, means for lifting the knife slide to withdraw the knife from the sole, and means operatively connecting the presser foot slide to the knife slide to be lifted simultaneously therewith while permitting the presser foot to yield at all times relatively to the knife, substantially as described.

5. A channeling machine, having, in combination, means for supporting and feeding a sole, a slide having an edge knife mounted at its lower end, a second, independently mounted slide carrying an edge presser foot, a pin projecting from the first slide, means for engaging the under side of said pin and movable to lift the edge knife from the sole, and means carried by the second slide arranged to engage the upper side of said pin at the will of the operator, thereby causing the foot to be lifted with the knife, substantially as described.

[Claim 6 not printed in the Gazette.]

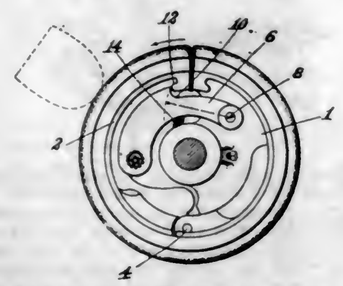
1,030,537. VEHICLE-TIRE. LEWIS QUINTAL, Cleveland, Ohio. Filed Sept. 21, 1910. Serial No. 583,063. (Cl. 152—8.)



1. A wheel tire embodying in its construction a hollow tire casing consisting of sections with cross plates at the ends thereof, the sides of the casing being exteriorly recessed adjacent to said plates, and bolts connecting the plates, to couple the sections together, said bolts being accessible from the outside, in said recesses.

2. The combination of a wheel felly, a rim thereon, a hollow casing on said rim, tread plungers working in said casing, cups in the casing, each cup having a plurality of sockets receiving the inner ends of the plungers, springs between said cups and plungers, and a plurality of adjusting bolts extending through the felly and rim and bearing against the cups, under the sockets respectively.

1,030,538. ABRADING DEVICE. WILLIAM A. REED, Chelsea, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 13, 1907. Serial No. 373,469. (Cl. 51—1.)



1. A rotary device for sustaining a cover of abrading material, having means for gripping the cover to retain it in position, and means for retaining said gripping means in operative engagement with the cover arranged to be maintained in effective relation to said means by the rotative movement of the device.

2. A rotary device for sustaining a cover of abrading material, having a plurality of relatively movable cover-supporting sections arranged to grip between them the two ends of the cover, and means for retaining the sections from relative separating movement, arranged to be maintained in effective relation to said sections by the rotative movement of the device.

3. A rotary device for sustaining a cover of abrading material, having a plurality of relatively movable cover-supporting sections arranged to receive between them the two ends of the cover, and means for moving relatively said sections to exert pressure upon the ends of the cover, arranged to be actuated by the rotative movement of the device.

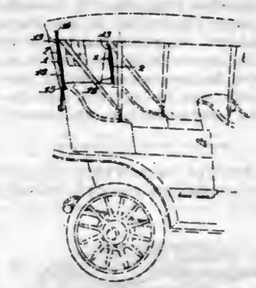
4. A rotary device for sustaining a cover of abrading material, having a plurality of relatively movable cover-supporting sections arranged to receive between them the two ends of the cover and means for moving relatively said sections to exert pressure upon the ends of the cover arranged to be centrifugally actuated during the rotation of the device.

5. A rotary device for sustaining a cover of abrading material, having two relatively movable sections arranged to receive between them the two ends of the cover and forming in their closed position a cover-supporting surface, a locking member movably mounted upon one of said sections, the other section having a surface arranged for engagement with said member to hold the sections from relative separating movement, said member being arranged to be pressed into locking engagement with said surface by the rotative movement of the device.

[Claims 6 to 11 not printed in the Gazette.]

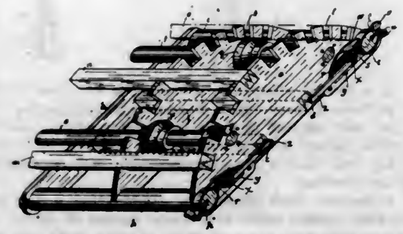
1,030,539. AUTOMOBILE STAY-STRAP. GEORGE E. ROBINSON, Medford, Oreg. Filed Apr. 27, 1911. Serial No. 623,705. (Cl. 21—62.)

A device of the character described comprising a plurality of bars, each of said bars having an opening near one end, a reinforcing plate mounted upon the end of each bar, independent securing means for said plate, tongues extending from said plate through said opening to hold said plate in engagement with said bar independently of said securing means, a link mounted upon the reinforced end of said bar and having one end portion passed through



said opening and engaging said tongues to hold said tongues in engagement with the walls of said opening, the ends of said link holding said bars in spaced relation, and means for securing said bars together.

1,030,540. PHOTO PRINTING-FRAME. ROY ROBINSON, Portland, Oreg. Filed Jan. 22, 1910. Serial No. 539,608. (Cl. 95—77.)



1. A printing frame comprising a fixed side plate and an opposite side bar; transverse bars connecting the front and rear sides; rollers in the ends of the frame, one of said rollers being rotatable, and such rollers being provided with means for fastening the ends of a sheet thereon; an intermediate adjustable plate and guiding means therefor, the top faces of said fixed side plate, and the intermediate plate being convexed on arcs of equal radii, for the purpose specified; and means for rotating one roller.

2. A printing frame comprising a fixed side plate and an opposite side bar; transverse bars connecting the front and rear sides; rollers in the ends of the frame, one of said rollers being rotatable, and such rollers being provided with means for fastening the ends of a sheet thereon; an intermediate adjustable plate and guiding means therefor, the top faces of said fixed side plate, and the intermediate plate being convexed on arcs of equal radii, for the purpose specified; and an arm on said rotatable roller.

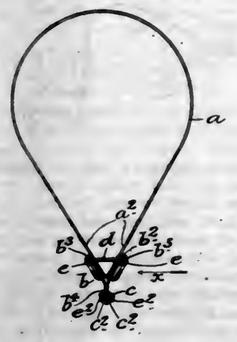
3. A printing frame comprising a fixed side plate and an opposite side bar; transverse bars connecting the front and rear sides; rollers in the ends of the frame, one of said rollers being rotatable, and such rollers being provided with means for fastening the ends of a sheet thereon; an intermediate adjustable plate and guiding means therefor, the top faces of said fixed side plate, and the intermediate plate being convexed on arcs of equal radii, for the purpose specified; and an arm on said rotatable roller, such arm provided with a concaved bottom face.

4. A printing frame comprising a fixed side plate and an opposite side bar; transverse bars connecting the front and rear sides; rollers in the ends of the frame, one of said rollers being rotatable, and such rollers being provided with means for fastening the ends of a sheet thereon; an intermediate adjustable plate and guiding means therefor, the top faces of said fixed side plate, and the intermediate plate being convexed on arcs of equal radii, for the purpose specified; an arm on said rotatable roller; said arm being circumferentially adjustable on said rotatable roller and provided with a concaved bottom face; and a pivoted cam arm and lever, said cam arm being adapted to engage with said concaved bottom face of the arm on said roller.

5. A printing frame comprising a fixed side plate and an opposite side bar; transverse bars connecting the front and rear sides; rollers in the ends of the frame, one of said rollers being rotatable, and such rollers being provided with means for fastening the ends of a sheet thereon; an intermediate adjustable plate and guiding means therefor, the top faces of said fixed side plate and the intermediate plate being convexed on arcs of equal radii, for the purpose specified; an arm on said rotatable roller; said arm including a split clamping collar by which it is fixed circumferentially adjustable on one end of said rotatable roller; and a pivoted cam arm and lever, said cam arm being adapted to engage with said roller arm.

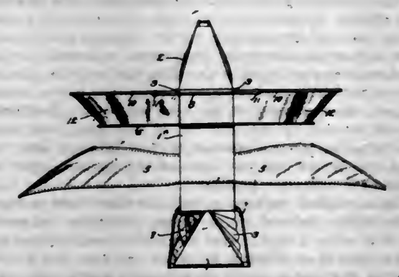
[Claims 6 to 8 not printed in the Gazette.]

1,030,541. CUFF-BUTTON. JACOB ROSENMAN, New York, N. Y. Filed Aug. 22, 1911. Serial No. 645,389. (Cl. 24—102.)



A cuff button comprising two jaw members connected in the form of a Y and having parallel shank portions connected by a pin passed therethrough and on which said jaws are adapted to turn at a right angle to the plane of the jaws in their connected position, one of said jaws being provided in its inner face with a socket and the shank of said jaw being elastic, and the other end jaw being provided with a pin which is adapted to be passed through the button holes of a cuff and the free end of which is adapted to enter the socket in the other jaw.

1,030,542. AEROPLANE. JOHN T. RYDBERG, Garwood, N. J. Filed June 29, 1911. Serial No. 635,984. (Cl. 244—29.)

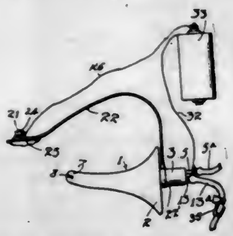


1. In a machine for aerial navigation, the combination of a supporting frame, a rigid beam secured to said frame and having its ends projecting from opposite sides there-

of, a rocking beam mounted on the frame in spaced relation to the rigid beam, levers, each pivoted between their ends to an end portion of the rocking beam, brackets connecting the inner ends of the levers to the frame, said levers having their intermediate portions curving upwardly and their outer ends curved downwardly and upwardly, and plane sections supported by and between the rigid beam and the levers.

2. In a machine for aerial navigation, the combination of a frame, plane sections supported thereon, movable levers supporting the front edge portions of the plane sections, and means whereby said levers may move simultaneously, the plane sections being inclined upwardly from their rear to their front ends, and the levers curving upwardly at their central portions and having their outer ends curving downwardly and upwardly, as described.

1,030,543. SYRINGE WITH ELECTRIC ATTACHMENT. LESLIE R. SAUNDERS, Los Angeles, Cal. Filed Feb. 16, 1909. Serial No. 478,315. (Cl. 174—89.)



1. In a vaginal syringe, a body of insulating material, said body being provided with a nozzle, an internal reinforcing member united to and forming an internal reinforcement for both said body and nozzle, said reinforcing member being of conducting material and projecting from the end of said body opposite said nozzle, there being an extension of insulating material which projects from said body and surrounds the projecting portion of said reinforcing member, an electrode adapted to engage the body of the patient, and means for supporting said electrode, said supporting means being mounted upon said extension and thereby insulated from said reinforcing member.

2. In a device of the character described, the combination, with the tapering body of the syringe, of a shank extending outwardly from the large end of said body, said shank being provided with an upper inlet passage extending longitudinally therethrough and a lower outlet passage also extending longitudinally of said shank, a metallic tube fitted into said upper passage and projecting outwardly therefrom, an arm carried by said shank, said arm being adapted to engage the body of the patient to aid in holding said syringe in place, an indifferent electrode carried by said arm, said tube in connection with the liquid forming the other electrode, and a means for causing an electric current to flow through said electrodes.

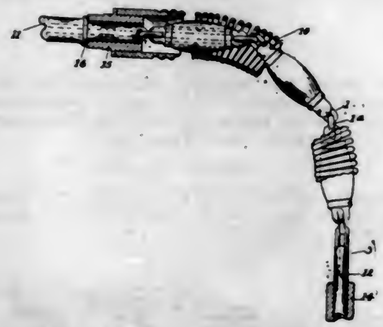
3. In a device of the character described, the combination, with a syringe body having an expanded portion adapted to seal the opening of the vaginal cavity, of a shank extending outwardly from said expanded portion, said shank being provided with a longitudinal inlet passage and longitudinal outlet passage, a conductor in one of said passages, an arm carried by said shank, an indifferent electrode carried by the free end of said arm, and means for causing an electric current to flow through said conductor, the liquid and the body of the patient when the syringe is in operative position.

4. In a vaginal syringe, a body provided with a tapering, upwardly inclined tip, a shank projecting outwardly from said body, a spring arm mounted on said shank and thereby held in a position in which the free end thereof is held at the side of the syringe toward which said tip is inclined, an electrode mounted on the free end of said arm, and means for making said electrode part of an electric circuit.

5. In a device of the character described, a syringe body, a shank projecting outwardly therefrom, a spring arm carried by said shank, said shank and body being composed of insulating material, an inlet tube of conducting material extending longitudinally through said shank, an indifferent electrode carried by the free end of said spring arm, said inlet tube being adapted to be connected with one of the terminals of an electric circuit at its outer end, means for passing an electric current through said electrode and tube, and outlet means for the syringe.

[Claims 6 and 7 not printed in the Gazette.]

1,030,544. FLEXIBLE SHAFTING. JAMES D. SCOVEL, Detroit, Mich. Filed July 22, 1911. Serial No. 639,888. (Cl. 64—30.)

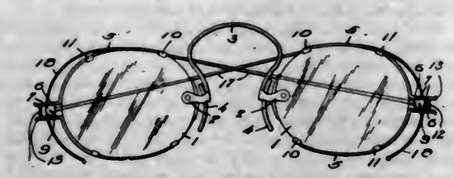


1. In a flexible shaft, the combination of a bar having hook portions at each end, a two-part casing engaging over said bar and adapted to close the hook openings, each of the parts thereof being provided with collars, and a shell engaging over said casing between said collars, substantially as described.

2. A flexible shaft having in combination a bar provided with hooked ends, a two-part casing of which the parts are halved together at their meeting ends and provided with perforated dome-shaped terminals for the engagement therethrough of the hooked ends of the bar as loops, and a shell bulging at its middle part engaging on said two-part casing between the terminals thereof, substantially as described.

3. A flexible shaft having in combination a series of interengaging bars having hooked ends, a two-part guard for forming each bar into a loop at each end, a shell engaging over the meeting line of said two-part guard, and means on the two-part guard for preventing longitudinal movement of the shell, substantially as described.

1,030,545. EYEGLASS ATTACHMENT. OSCAR SCHWIMMER, Los Angeles, Cal. Filed June 20, 1911. Serial No. 634,330. (Cl. 88—53.)



1. The combination with a pair of lens engaging arms having inwardly projecting flanges, of a pivot post passing through the flanges for connecting the same, a spring interposed between the outer ends of the arms for forcing them into engagement with the a lens, and an ear bow pivoted to the outer end of the pivot post.

2. The combination with a pince-nez lens, of a pair of arms fitting against the edges of the lens, a post intermediately pivotally connecting the said arms, a spring interposed between the outer ends of the arms for forcing the same into engagement with the lens, and means pivoted to one end of the post for retaining the glasses in correct position relative to the eyes of the wearer.

3. An attachment for eyeglasses, comprising arms of a curvature to fit around the lenses of the glasses, said arms having inwardly projecting ears between which the lenses fit, the arms being further formed with straight outwardly projecting portions having inwardly extending flanges, a pivot post passing through the flanges and pivotally securing the flanges and thus the arms together, springs for forcing the arms toward each other to cause the same to clampingly engage the lenses, the pivot post having a projecting bifurcated end, and an ear engaging bow having one end pivoted between the furcations of the pivot post.

1,030,546. WINDOW-CLEANING DEVICE. EVERETT W. SHARKEY, Brooklyn, N. Y. Filed Jan. 13, 1912. Serial No. 671,031. (Cl. 15—59.)



1. A window cleaning device, comprising a bar attached to a window casing, a frame swingingly mounted on the bar, a cleaning member carried by the frame, and a weight connected to the frame for pressing the cleaning member against the window.

2. A window cleaning device, comprising a bar attached to a window casing, a frame swingingly mounted and laterally movable on the bar, a cleaning member secured to the frame, and a weight carried by the frame for pressing the cleaning member against the window.

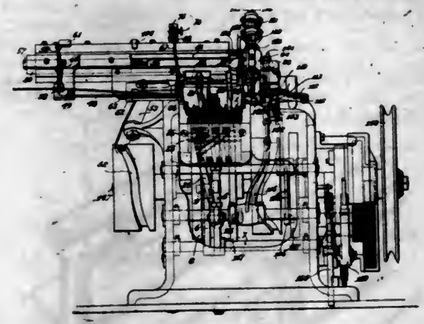
1,030,547. MACHINE FOR LACING SHOE-UPPERS. WILLARD A. SMITH, Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 31, 1908. Serial No. 424,318. (Cl. 112—24.)

1. A machine for lacing shoe uppers, having in combination, means for forming a series of loops of lacing cord, and thereafter inserting said series of loops in the eyelet holes of an upper, and additional means for varying the amount of slack in the completed lacing, substantially as described.

2. A machine for lacing shoe uppers, having, in combination, means for inserting a lacing cord in the eyelet holes of an upper adjustable to vary the slack in the completed lacing, and a slack thread device for further increasing the slack in the lacing, substantially as described.

3. A machine for lacing shoe uppers, having, in combination, means for inserting a lacing cord in the eyelet holes of an upper, and a slack thread device arranged to engage the cord and supply slack in the completed lacing in addition to the slack produced by the lace inserting means, substantially as described.

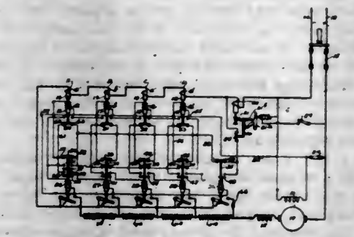
4. A machine for lacing shoe uppers, having, in combination, means for inserting a lacing cord in the eyelet holes of an upper, a slack thread device arranged to engage the cord and supply slack in the completed lacing in addition to the slack produced by the lace inserting means, and means for varying the amount of slack supplied by the slack thread devices, substantially as described.



5. A machine for lacing shoe uppers, having, in combination, means for inserting a lacing cord in the eyelet holes of an upper, and a slack thread device adjustable to render it effective or ineffective to increase the slack in the lacing cord, substantially as described.

[Claims 6 to 46 not printed in the Gazette.]

1,030,548. MOTOR-CONTROL SYSTEM. HALFDAN A. STEEN, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Sept. 6, 1910. Serial No. 580,534. (Cl. 172—288.)



1. In a controller, a series of switches arranged to close in automatic progression, a separate relay for each switch for controlling the operation of a succeeding switch, each of said relays having a plurality of windings for controlling the operations of said relays, and means associated with each switch coöperating with each relay for controlling the operation of the succeeding switch, none of said switches being operative until all of said relays have been operated.

2. In a controller, a series of switches arranged to close in automatic progression, a relay having a shunt lifting coil and a series holding coil in the motor circuit and associated with each switch for controlling the operation of a succeeding switch, and means associated with each switch coöperating with its corresponding relay for controlling the operation of the succeeding switch, none of said switches being operative until all of said relays have been operated.

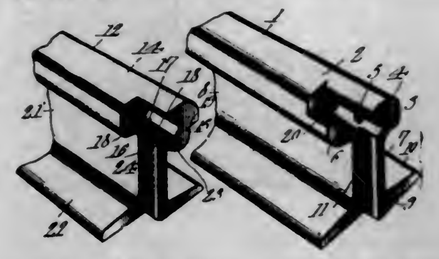
3. In a controller, a series of switches arranged to close in automatic progression, and a relay having a shunt coil and a series coil and associated with each switch for controlling the operation of a succeeding switch, none of said switches being operative until a plurality of said relays have been operated.

4. In a controller, a series of switches arranged to close in automatic progression, and a double coiled relay associated with each switch for controlling the operation of a succeeding switch, none of said switches being operated until a plurality of said relays have been operated.

5. In a controller adapted to start a motor, a series of switches arranged to close in automatic progression, and a current responsive device having a shunt lifting coil and a series holding coil and associated with each switch for controlling the operation of another switch, the motor being inoperative until a plurality of current responsive devices have been operated.

[Claims 6 to 8 not printed in the Gazette.]

1,030,549. RAIL-JOINT. FRANK L. STROUSE, Williamsport, Pa. Filed Feb. 26, 1912. Serial No. 679,994. (Cl. 239—8.)



1. In a rail joint, a primary rail provided in its ball with a transverse recess, there being a bead overhanging the recess and a lug located in the recess, the ball having a lip disposed opposite to the recess, a portion of the web of the rail and a portion of the flange of the rail projecting beyond the lip to define a shoulder in the web; and a secondary rail provided in its ball with a transverse recess adapted to receive the bead of the primary rail, there being a finger below the recess of the secondary rail, adapted to fit within the lip of the primary rail and to engage with the lug, the ball of the secondary rail having a shoulder in its outer face, arranged to engage the lip of the primary rail; the web of the flange of the secondary rail being set back from the end of the ball of the secondary rail, and the web and the flange of the secondary rail being shouldered to engage with the shoulder of the primary rail.

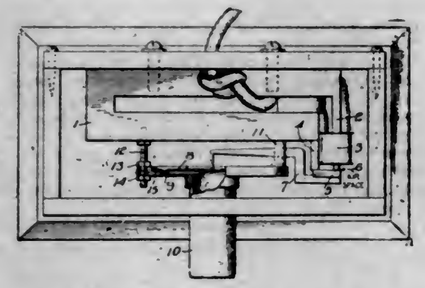
2. In a rail joint, a primary rail provided within its ball with a transverse recess, there being a bead overhanging the recess and a lug located in the recess, the ball having a lip disposed opposite the recess; and a secondary rail provided in its ball with a transverse recess adapted to receive the bead of the primary rail, there being a finger below the recess of the secondary rail, adapted to fit within the lip of the primary rail and to engage with the lug, the ball of the secondary rail having a shoulder in its outer face arranged to receive the lip of the primary rail.

3. In a rail joint, a primary rail provided within its ball with a transverse recess, there being a bead overhanging the recess and a lug located in the recess; and a secondary rail provided in its ball with a transverse recess adapted to receive the bead of the primary rail, there being a finger below the recess of the secondary rail adapted to inter-engage with the lug of the primary rail, upon relative transverse rotatory movement between the primary and secondary rails.

4. In a rail joint, a primary rail provided in its ball with a transverse recess, there being a lug projecting into the recess; and a secondary rail having a finger adapted to register in the recess, and to engage behind the lug, upon relative transverse rotatory movement between the rails.

1,030,550. TELEPHONE INSTRUMENT. WILLIAM PRESTON STUNZ, Lansdowne, Md., assignor to George Regester Webb, Baltimore, Md. Filed Sept. 29, 1910. Serial No. 584,570. (Cl. 179—115.)

1. In a telephone instrument including electro-magnetic means, a diaphragm free at its periphery, a seat therefor, and an arm or lever at all times under magnetic stress for exerting a constant pressure on the diaphragm, said lever and diaphragm being responsive in their movements one to the other.



2. In a telephone instrument, a diaphragm free at its periphery, a seat therefor, an arm or lever exerting at all times a constant pressure on the diaphragm, and means exerting magnetic pull on the arm or lever to impart said pressure to the diaphragm.

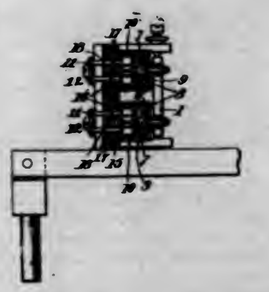
3. In a telephone instrument, a diaphragm free at its periphery, a seat therefor, a magnet, and means for transmitting at all times a constant pull of the magnet on the diaphragm to hold it in operative position.

4. In a telephone instrument, a diaphragm free at its periphery, a seat therefor, an elbow lever connected with the diaphragm, and a magnet actuating the lever to exert at all times a constant magnetic stress on the lever through which it is transmitted to the diaphragm.

5. In a telephone instrument, a diaphragm, and a lever resting freely upon a magnetic fulcrum and having one end in free contact with the diaphragm and normally under magnetic stress for pressing it against the diaphragm to hold the diaphragm in operative position by such pressure.

[Claims 6 to 8 not printed in the Gazette.]

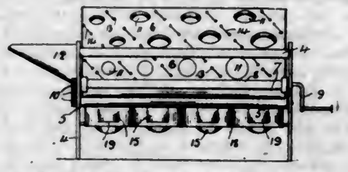
1,030,551. TELEPHONIC INSTRUMENT, INCLUDING TRANSMITTERS. WILLIAM PRESTON STUNZ, Lansdowne, Md., assignor to George Regester Webb, Baltimore, Md. Filed Apr. 13, 1911. Serial No. 620,960. (Cl. 179—124.)



1. In an instrument employing granular carbon as a resistance, the combination with the granular carbon, of a cooling chamber, and means forming a circuitous passageway within the chamber.

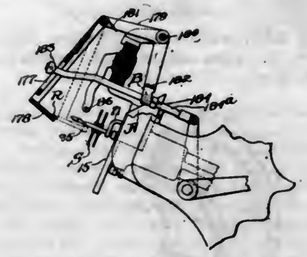
2. An instrument employing granular carbon as a resistance, comprising a carbon retaining chamber, electrodes on opposite sides of the carbon, a cooling chamber at one face of one of the electrodes, a circuitous passageway within said chamber and means for supplying and withdrawing a cooling agent from said chamber.

1,030,552. FRUIT-GRADER. CHARLES WATSON, Glen Huon, Tasmania, Australia. Filed Mar. 8, 1912. Serial No. 682,521. (Cl. 130—32.)



In a machine of the kind described, an open rotating cylinder in which rows of perforations are spirally arranged and graduated in size, said cylinder having smaller perforations located between the first mentioned graduated perforations, and cords woven through said smaller perforations and extending diametrically through said cylinder.

1,030,553. MACHINE FOR LACING UPPERS. CHARLES STONEHALL WELLS and WALTER WILFRID DARNILL, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 7, 1909. Serial No. 511,732. (Cl. 112—24.)



1. A machine for lacing uppers, having, in combination, looper needles, means coöperating therewith to insert a lacing in the eyelet holes of an upper, and means for returning a displaced needle to normal position with relation to the coöperating means, substantially as described.

2. A machine for lacing uppers, having, in combination, looper and cord feeding needles, and means for returning a displaced looper needle into position to coöperate with the cord feeding needle, substantially as described.

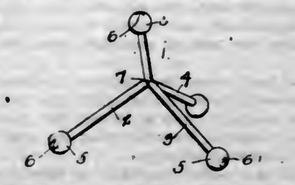
3. A machine for lacing uppers, having, in combination, looper needles, means coöperating therewith to insert a lacing in the eyelet holes of an upper, and means for bending the looper needles into coöperative relation to said means, substantially as described.

4. A machine for lacing uppers, having, in combination, looper and cord feeding needles, and means for bending the looper needles into coöperative relation to the cord feeding needle, substantially as described.

5. A machine for lacing uppers, having, in combination, looper needles, and a needle positioning device relatively movable transversely of the needles to force the needles into a predetermined position, substantially as described.

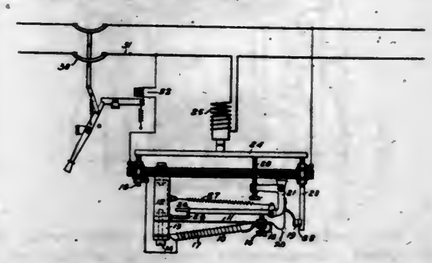
[Claims 6 to 12 not printed in the Gazette.]

1,030,554. GAME. SAMUEL E. WHARTON, Everett, Wash. Filed Mar. 22, 1911. Serial No. 616,258. (Cl. 46—65.)



A game implement consisting of four arms of equal length united at their inner ends and radiating from the point of junction in such directions that a plane joining the outer ends of any three arms is at right angles to the direction of the fourth arm.

1,030,555. THERMOSTATIC TIME-ELEMENT DEVICE. NATHAN WILKINSON, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Original application filed Apr. 17, 1911, Serial No. 621,665. Divided and this application filed July 28, 1911. Serial No. 641,157. (Cl. 175—270.)



1. In combination, a switch normally biased to one position, a latch for holding said switch in the other position, a thermostat for tripping said latch, and automatic means for resetting the switch in the latched position.

2. In combination, a switch biased to open position, a latch for holding said switch in closed position, a thermostat for tripping said latch, a heating coil for said thermostat, said coil being in series with said switch, a second switch which when closed short-circuits said heating coil, and means for opening said second switch upon the occurrence of predetermined abnormal conditions.

3. In combination, a switch biased to open position, a latch for holding said switch in closed position, a thermostat for tripping said latch, a heating coil for said thermostat, said coil being in series with said switch, a second switch which when closed short-circuits said heating coil, means for opening said second switch upon the occurrence of predetermined abnormal conditions, and means operated by the closing of said second switch for resetting the first switch in closed position.

4. In combination, a switch biased to open position, a latch for holding said switch in closed position, a thermostat which when heated trips said latch, a heating coil for said thermostat, said heating coil being connected in series with said switch, and a second switch which when closed short-circuits said heating coil.

5. In combination, a switch biased to open position, a latch for holding said switch in closed position, a thermostat which when heated trips said latch, a heating coil for said thermostat, said heating coil being connected in series with said switch, a second switch which when closed short-circuits said heating coil, a circuit-breaker, a no-voltage tripping magnet therefor, the circuit of said tripping magnet being broken when said two switches are open at the same time, and means for opening the second switch upon the occurrence of abnormal conditions in the circuit supplied through said circuit-breaker.

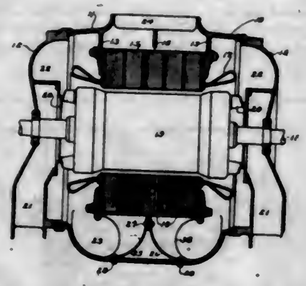
[Claims 6 to 11 not printed in the Gazette.]

1,030,556. DYNAMO-ELECTRIC MACHINE. ROBERT B. WILLIAMSON, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Oct. 6, 1909. Serial No. 521,384. (Cl. 171—252.)

1. In a dynamo-electric machine, a stator having axially spaced ventilating passageways, removable means for grouping said passageways, a rotor, fans or blowers on the ends of the rotor for supplying air to the passageways in the end portions of the stator core, and means external to the machine for supplying air to the passageways at the middle portion of the stator core.

2. In a dynamo-electric machine, a stator having axially spaced circumferential passageways, removable de-

flectors for grouping said passageways, a rotor, blowers on the ends of the rotor, a housing inclosing said stator and rotor and adapted to conduct the air from said blowers to the passageways in the end portions of the stator core, and means for supplying air from a source external to the machine to the passageways in the middle portion of the stator core.



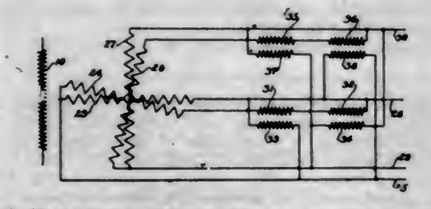
3. In a dynamo-electric machine, a stator having axially spaced circumferential ventilating passageways, a rotor having blowers at its ends, a housing inclosing the stator and rotor and provided with an air chamber at the lower portion thereof, removable deflectors for dividing said chamber into compartments which communicate with different groups of ventilating passageways in the stator, the end compartments receiving the air from said blowers, and means external to the machine for supplying air to the middle compartment.

4. In a dynamo-electric machine, a stator provided with axially spaced circumferential ventilating passageways, a rotor having blowers at its ends, a housing inclosing the stator and rotor and provided with an air receiving chamber at the lower portion thereof, removable curved air deflectors in said air chamber and dividing the same into compartments, the end compartments receiving the air from the blowers on the ends of the rotor, and means external to the machine for supplying air to the middle compartment.

5. In a dynamo-electric machine, a stator having axially spaced circumferential passageways, removably fixed means for grouping said passageways, a rotor provided at its ends with fan blades, means for conducting the air from said fan blades to the passageways in the end portions of the stator, means external to the machine for supplying air to the passageways in the middle portion of the stator, and means for varying the relative proportions of air supplied by said external means and by the fans on the rotor.

[Claims 6 to 8 not printed in the Gazette.]

1,030,557. DYNAMO-ELECTRIC MACHINE. ROBERT B. WILLIAMSON, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed June 27, 1910. Serial No. 569,003. (Cl. 171—252.)



1. In a dynamo-electric machine, two parallel connected windings developing dissimilar electromotive forces, and means including a two-winding transformer one winding only of which is in the local circuit formed by such two parallel connected windings for producing therein an electromotive force tending to prevent such dissimilarity from producing a local current.

2. In a dynamo-electric machine, two parallel connected windings which develop unequal electromotive forces, and means including a transformer having a plurality of windings only one of which is in the local circuit formed by such two parallel connected windings for producing therein a third electromotive force which boosts the lesser of the first two electromotive forces into substantial equality with the larger of said first two electromotive forces.

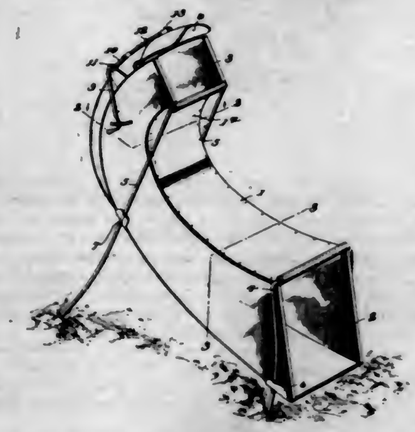
3. In a dynamo-electric machine, two parallel-connected windings which develop electromotive forces of different phase, and means for producing in the local circuit formed by said two windings an electromotive force which tends to prevent such difference in phase from producing a local current.

4. In a dynamo-electric machine, two parallel-connected windings which develop electromotive forces of different phase, and means for bringing such electromotive forces into phase by adding to one of them an electromotive force of suitable phase and value.

5. In a dynamo-electric machine, two parallel-connected windings which develop electromotive forces of different phase, and means including a transformer for adding to one of said electromotive forces an electromotive force tending to prevent such difference in phase from producing a local current.

[Claims 6 to 20 not printed in the Gazette.]

1,030,558. BALL-RETURNING DEVICE. FRED H. WOOD, Elgin, N. D. Filed Aug. 8, 1911. Serial No. 643,015. (Cl. 46—4.)



1. A base ball return including a curved tubular casing provided at opposite ends thereof with inlet and discharge openings respectively, the bottom of the casing having a longitudinal depression therein leading toward the discharge opening for directing the ball in its passage through the casing.

2. A base ball return including a curved tubular casing provided at opposite ends thereof with inlet and discharge openings, the sides of the casing being bulged outwardly adjacent the inlet opening to make the necessary provision for laterally curved balls.

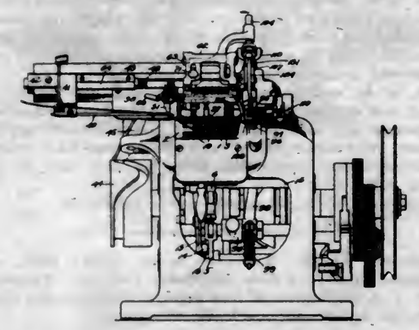
3. A base ball return including a tubular casing provided at opposite ends thereof with inlet and discharge openings respectively, and means for regulating the angle at which the ball is projected from the discharge opening.

4. A base ball return including a tubular casing provided at opposite ends thereof with inlet and discharge openings respectively, and a hinged flap arranged over the discharge opening for regulating the angle at which the ball is projected therefrom.

5. A base ball return including a tubular casing arranged in an inclined position, the lower end of the casing being flared and terminating in a substantially vertically disposed inlet opening, while the upper end of the casing is curved upwardly and forwardly and terminates in a discharge opening, and a hinged flap over the discharge opening for regulating the angle at which the ball is projected therefrom.

[Claims 6 and 7 not printed in the Gazette.]

1,030,559. LACING-MACHINE. ALEXANDER M. ALEXANDER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 7, 1909. Serial No. 516,551. (Cl. 112—24.)



1. A machine for lacing shoe uppers, having, in combination, a plurality of looper needles arranged to pass a series of loops of lacing cord through the eyelet holes of an upper, means for passing a locking cord through said loops, a carrier for the looper needles, actuating mechanism for moving the carrier from the position where the upper is applied to the needles into position for passing the locking cord through the loops, and devices for locking the carrier in the latter position, substantially as described.

2. A machine for lacing shoe uppers, having, in combination, a plurality of looper needles arranged to pass a series of lacing cord through the eyelet holes of an upper, a carrier therefor, an actuating lever connected to raise and lower the carrier, a shuttle needle arranged to pass a locking cord through the loops when the carrier is raised, and a locking lever arranged to engage the actuating lever to rigidly support the needle carrier in its raised position, substantially as described.

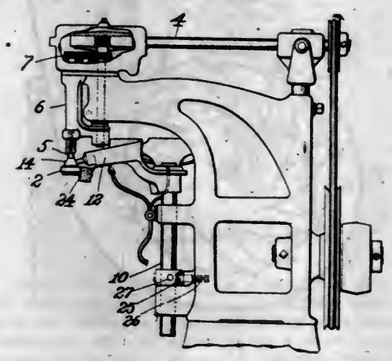
3. A machine for lacing shoe uppers, having, in combination, a plurality of looper needles arranged to pass a series of loops of lacing cord through the eyelet holes of an upper, a carrier therefor, an actuating lever connected to raise and lower the carrier, a shuttle needle arranged to pass a locking cord through the loops when the carrier is raised, a cam surface on the actuating lever, a locking lever, and means for forcing the locking lever under the cam surface as the carrier is raised, substantially as described.

4. A machine for lacing shoe uppers, having, in combination, a plurality of looper needles arranged to pass a series of loops of lacing cord through the eyelet holes of an upper, a carrier therefor, an actuating lever for raising and lowering the carrier provided with a cam surface, a locking lever pivoted above the actuating lever and having a projection on its lower end for engaging said cam surface, and means for forcing said projection under the cam surface as the carrier is raised, substantially as described.

5. A machine for lacing shoe uppers, having, in combination, a plurality of looper needles, looper fingers coöperating therewith to form a series of loops of lacing cord, a shuttle needle for carrying the lacing cord through the loops, a thread finger arranged to engage the cord between the loop forming devices and the shuttle needle, and a plate moving with the shuttle needle for engaging and operating said finger to draw a loop of cord, substantially as described.

[Claims 6 to 44 not printed in the Gazette.]

1,030,560. SHOE-FINISHING AND OTHER MACHINE. ARTHUR BATES, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 8, 1909. Serial No. 476,786. (Cl. 12—77.)



1. A top ironing machine having in combination, a wax holder, a top ironing tool, arranged to have a working movement and an additional movement, means for effecting the working movement and means whereby said additional movement is made to control the delivery of wax from the holder.

2. A top ironing machine having in combination, a wax holder, a top ironing tool having a work rubbing face and a face to make operative engagement with the wax holder for controlling the delivery of wax to the tool.

3. A machine of the class described having a working tool, a holder for finishing material, means to actuate the tool to do its work, said machine having also provision for permitting additional movement of the tool relatively to the holder at the will of the operator by pressure of the work against the tool during the operation of the tool thereon, and means whereby said additional movement controls the delivery of the finishing material to the work.

4. A machine of the class described having a working tool, a holder for finishing material, and means to actuate the tool to do its work, and a wedge face on the tool operatively connected with the holder said machine having provision for movement of the tool to wedge the holder open for delivering finishing material.

5. A machine of the class described having in combination, a rotary tool having a working surface on one end face, and having a beveled face on its other end, a holder for finishing material arranged for engagement by said beveled face, means for actuating the tool to do its work and provision whereby the tool may be actuated endwise to control the delivery of finishing material.

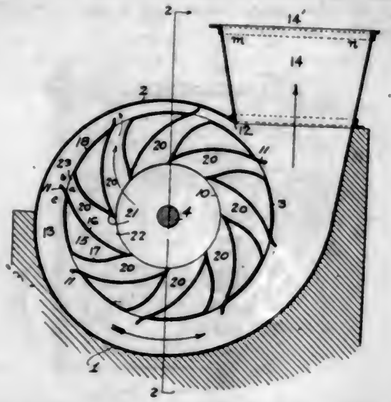
[Claims 6 to 19 not printed in the Gazette.]

1,030,561. FAN. ERNEST E. BLACKMER and ERIC W. JOHNSON, Monongahela, Pa. Filed Sept. 2, 1910. Serial No. 580,158. (Cl. 230—11.)

1. A fan having vanes provided with outer walls forming the outer circumferential wall of the fan proper, forward blades inclined backwardly from radii to the fan center and each joining the forward end of one of said outer walls at an obtuse angle to form the rear wall of each outlet orifice, and propeller blades projecting outwardly from said outer wall forward of said outlet orifices.

2. A fan having vanes provided with outer walls forming the outer circumferential wall of the fan proper, forward blades inclined backwardly from radii to the fan center and each joining the forward end of one of said outer walls at an obtuse angle to form the rear wall of each outlet orifice, and a propeller blade projecting outwardly from said outer wall forward of said outlet orifice, the inner ends of said forward blades being sepa-

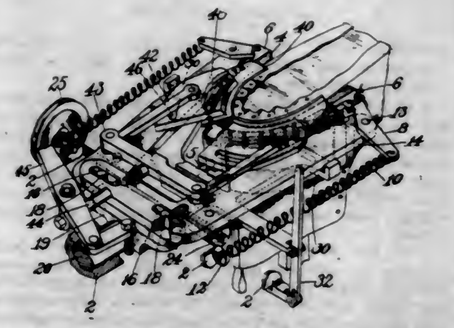
rated by throat orifices larger in cross section than said outlet orifices.



3. A fan having vanes provided with separated outer walls forming the interrupted circumferential wall of the fan proper, blades joining said outer walls at their ends and forming air channels having their throat orifices between the inner ends of said blades of greater cross section than their outlet orifices between the ends of said outer walls, and an outwardly projecting propeller blade arranged at the forward side of each outlet orifice, the outer ends of said blades being inclined backwardly from radii to the fan center, and the inner ends being separated by spaces forming throat orifices greater in cross section than said outlet orifices.

4. A fan having vanes of substantially triangular shape and provided with outer walls forming collectively the interrupted circumferential wall of the fan proper and forward and rear blades joining the forward and rear ends respectively of each of said outer walls and meeting at an acute throat angle, said forward blades being inclined backwardly from radii to the fan center and meeting said outer walls at an obtuse angle, said forward and rear blades forming backwardly inclined air channels having outlet orifices between the outer ends of said blades, and forwardly curved propeller blades extending outwardly from said outer walls at the forward sides of said outlet orifices.

1,030,562. END-LASTING MECHANISM. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 25, 1910. Serial No. 573,706. (Cl. 12—14.1.)



1. In an end lasting mechanism an end embracing band which is supported at its rear end and supports for the free front ends of the band constructed and arranged for right line adjustment together transversely of the shoe relatively to the rear end of the band.

2. In an end lasting mechanism an end embracing band which is supported at its rear end, and forwardly actuated supports for the free front end of the band which are mounted for right line adjusting movements transvrsely of the shoe relatively to the rear end of the band.

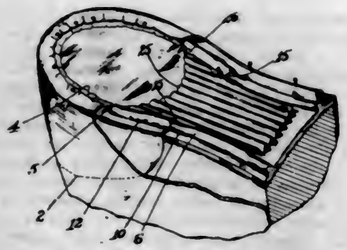
3. In an end lasting mechanism an end embracing band which is supported at its rear end, slide bars mounted for right line forward operating movements to tigthen the band against a heel end and for right line lateral self adjusting movementa relatively to the rear end of the band to equalize the action at the two sides of the heel.

4. In an end lasting mechanism an end embracing band which is supported at its rear end, and supporting mechanism for the free front ends of the band which is freely movable bodily in a direction transverse of the shoe and relatively to the rear end of the band.

5. In an end lasting mechanism and end embracing band, and supporting mechanism for the band comprising a plunger and slide bars secured to the plunger against pivotal movement while permitting right line lateral movement, and connections from the slide bars to the bend ends.

[Claims 6 to 25 not printed in the Gazette.]

1,030,563. SHOE. MATTHIAS BROCK, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 22, 1910. Serial No. 588,473. (Cl. 36—68.)



1. A heel stiffner having a flange to overlie the feather of an innersole and a claw to engage over a rib of the innersole.

2. A shoe end stiffener having wings each of which is provided with means for embracing a rib of an innersole for attaching the stiffener to the innersole.

3. A shoe end stiffener having wings each of which is provided with a claw to hook over a rib of an innersole to hold the wings from spreading.

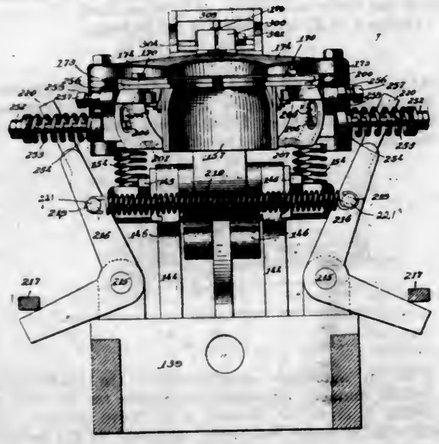
4. A shoe end stiffener having wings each of which is provided with a narrow flange formed with an upstanding lip 12 and an inwardly and downwardly directed member 15 to engage with a rib of an innersole.

5. A heel stiffener having wings each of which is provided with a flange, and a shank stiffener, the said heel stiffener and the shank stiffener being attached together in normal relation to one another, and the flange of one wing of the heel stiffener being formed with an innersole rib engaging member.

[Claims 6 to 13 not printed in the Gazette.]

1,030,564. LASTING-MACHINE. MATTHIAS BROCK, Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 19, 1898. Serial No. 686,319. (Cl. 12—14.)

1. In a lasting machine, the combination with end wipers and means for operating the wipers; of an end embracing clasp mounted for actuation independently of the wipers, and end supports for the clasp; combined with operating levers swinging in a plane substantially parallel with the plane of movement of the wipers for moving the end supports together and relatively to the wipers, and fulcra for said levers which are normally stationary during the actuation of the levers and which extend substantially perpendicularly to the plane of the wipers and are located relatively to the median line of the machine to direct movement of the clasp ends toward the opposite end of the last when the clasp is closed and reversely when the clasp is opended.



2. In a lasting machine, a normally open end clasp having movable ends to open and close about the end of a last, means coöperating with said movable clasp ends and directing movement of the latter about axes located at opposite sides of the middle line of the clasp from the sides on which their respective clasp ends are located, and means to press said clasp end to and about said last end.

3. In a lasting machine, a normally open end clasp having movable ends to open and close about the end of a last, levers coöperating with said movable clasp ends and directing movement of the latter about axes located at opposite sides of the middle line of the clasp from the sides on which their respective clasp ends are located, and means to press said clasp ends to and about said last end.

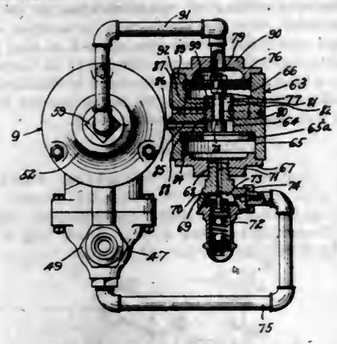
4. In a lasting machine, a normally open end clasp having movable ends to open and close about the end of a last, and levers connected respectively with the ends of said clasp and crossing between their respective fulcra and their ends connected with the clasp, to operate said clasp ends.

5. In a last machine, an end clasp having movable ends to open and close about the end of a last, a support for said clasp, and levers connected at one of their ends with the free ends of said clasp and fulcrumed remotely from the said clasp, lasting devices and actuating means therefor arranged vertically between the said clasp and the fulcra of the said levers.

[Claims 6 to 71 not printed in the Gazette.

1,030,565. TRAIN-BRAKE. JAMES G. BUCHANAN, Cananea, Mexico, and JOHN W. KELKER, Los Angeles, Cal. Filed Dec. 7, 1910. Serial No. 595,999. (Cl. 188—15.)

1. A pneumatic brake mechanism, comprising means for directing the flow of air from the train pipe to the brake cylinder through the usual brake controlling valve mechanism, means for controlling the flow of air to said brake cylinders, means for directing some of the air into the auxiliary reservoirs, the reduction of pressure in the train pipe due to filling the brake cylinders and charging the auxiliary reservoirs, producing sufficient excess of pressure in the auxiliary reservoirs to catch and hold the air pressure in the brake cylinders until it is desired to release the same.



2. In a brake mechanism, the combination of a main valve controlled by air pressure, an auxiliary valve operable by an increasing pressure, a piston valve controlled in accordance with the action of the auxiliary valve for directing the pressure through a different channel and directly to the braking cylinder of the brake mechanism.

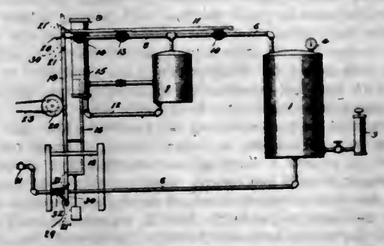
3. A brake mechanism comprising a main valve, controlled by the relative pressures in the train pipe and the auxiliary reservoir of the braking mechanism, a pressure controlled auxiliary valve actuated by difference in pressure upon each side thereof for directing the air pressure immediately to the brake cylinder, and a spring actuated valve operable by an increased pressure for admitting the pressure to one side of said auxiliary valve.

4. A brake mechanism, comprising a triple valve adapted to control the admission of pressure from an auxiliary cylinder to the brake cylinder in the braking system, a reciprocating piston valve adapted to direct the train pipe pressure into the braking cylinder without the action of the triple valve, and a spring actuated valve operable only by an excess pressure in the train pipe, for causing the movement of said piston valve when direct air pressure from the train pipe is to be admitted to the braking cylinder.

5. A brake mechanism comprising in combination with a triple valve, auxiliary reservoir and braking cylinder, of an auxiliary valve controlling the exhaust port from the valve mechanism and also operable for directing the air pressure to the brake cylinder without the operation of the triple valve, and a pop valve adapted to be operated for admitting pressure to the said auxiliary valve for causing the air pressure to pass directly to the braking cylinder.

[Claims 6 to 11 not printed in the Gazette.]

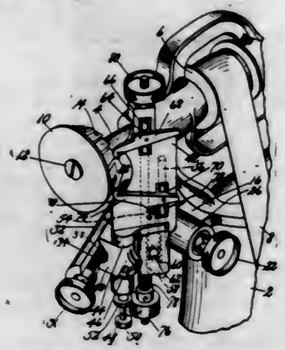
1,030,566. MECHANICAL MOTOR. GEORGE W. BUNTING, Ocean City, Md. Filed Dec. 7, 1910. Serial No. 596,118. (Cl. 230—32.)



In a motor of the class described, an air reservoir, a liquid reservoir connected to said air reservoir, a cylinder having double communication with said liquid reservoir a piston carrying a piston rod slidably mounted in said cylinder, an operating member rigidly secured to said piston rod, said operating member being provided with slots.

valves interposed between said cylinder and said liquid reservoir, and the latter and said air reservoir, means for opening and cutting off communication of the inside of said cylinder with the atmosphere, a member secured to said last mentioned means and located in said slotted portion of the operating member adapted to be operated by the latter, a gear adapted to be operated by said operating member, and means carried by the piston rod for drawing the piston downwardly, as herein set forth.

1,030,567. MACHINE FOR CONCAVING HEELS OF BOOTS AND SHOES. JOHN N. BUSELL, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 8, 1906. Serial No. 329,732. (Cl. 12—47.)



1. A machine for concaving the breast portion of a heel, having in combination, a rotary cutter, a work rest arranged to receive a heel against its face and to permit movement of the heel breast foremost over said face toward the cutter, gages arranged to engage oppcsite sides of the heel and to guide the heel in a predetermined path toward the cutter, and means for holding the gages yieldingly in contact with the heel constructed to cause the movement of said gages to be equal and in opposite directions.

2. A machine for concaving the breast portions of a heel, having in combination, a rotary cutter, a work rest arranged to receive a heel against its face and to permit movement of the heel breast foremost over said face toward the cutter, gages converging toward the cutter arranged to engage opposite sides of the heel and to guide the heel in a predetermined path toward the cutter, and means for holding the gages yieldingly in contact with the heel constructed to maintain a predetermined angle between said gages.

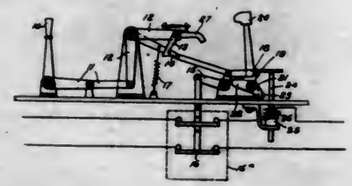
3. A machine for concaving the breast portion of a heel, having in combination, a rotary cutter, a work rest arranged to receive a heel against its face and to permit movement of the heel breast foremost over said face toward the cutter, gages arranged to engage opposite sides of the heel and to guide the heel in a predetermined path toward the cutter and constructed to be moved away from each other by the movement of the heel between them, and means for holding the gages yieldingly in contact with the heel constructed to cause the movement of said gages to be equal and in opposite directions.

4. A machine for concaving the breast portion of a heel, having in combination, a rotary cutter, a work rest arranged to receive a heel against its face and to permit movement of said heel breast foremost over said face toward the cutter, gages arranged to engage opposite sides of the heel and to guide the heel in a predetermined path toward the cutter and constructed to be moved away from each other by the movement of the heel between them, and means for holding the gages yieldingly in contact with the heel arranged to impart an increasing pressure to said gages in the movement of the heel toward the cutter.

5. A machine for concaving the breast portion of a heel, having in combination, a rotary cutter, a work rest arranged to receive a heel against its face and formed to permit movement of the heel breast foremost over said face toward the cutter, gages arranged to engage opposite sides of the heel and to guide the heel in a predetermined path over the work rest toward the cutter, means for holding the gages yieldingly in contact with the heel constructed to cause movement of said gages toward and from each other to be equal and in opposite directions, and means for varying the amount of separation of said gages before the insertion of the work between them.

[Claims 6 to 17 not printed in the Gazette.]

1,030,568. CIRCUIT-BREAKER. HERBERT W. CHENEY, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Feb. 1, 1911. Serial No. 605,853. (Cl. 175—267.)



1. In an automatic circuit-breaker, the combination of switch contacts, operating mechanism for the switch including a latch for holding it in closed position, an energy-storing device releasably connected to the switch-operating mechanism, said energy-storing device being put in energy-storing condition by the closing of the switch and operating to release said latch when said releasable connection is released, and means for releasing said releasable connection.

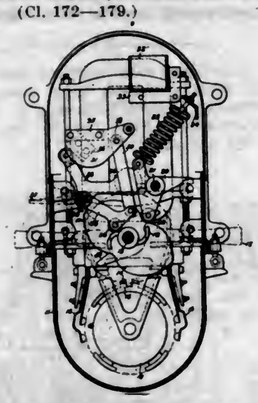
2. In an automatic circuit-breaker, the combination of switch contacts, operating mechanism for the switch including a latch for holding it in closed position, an energy-storing device releasably connected to the switch-operating mechanism, said energy-storing device being put in energy-storing condition by the closing of the switch and operating to release said latch when said releasable connection is released, and means responsive to an overload for releasing said releasable connection.

3. In an automatic circuit-breaker, the combination of switch contacts, operating mechanism for the switch including a latch for holding it in closed position, an energy-storing device which when released from energy-storing condition releases said latch to allow the opening of the switch, means operated by the closing of the switch for putting said energy-storing device in energy-storing condition and mechanically dependent upon the closed condition of the switch for holding said device in such condition, and means for releasing said energy-storing device from said holding means.

4. In an automatic circuit-breaker, the combination of switch contacts, operating mechanism for the switch including a latch for holding it in closed position, an energy-storing device which when released from energy-storing condition releases said latch to allow the opening of the switch, means operated by the closing of the switch for putting said energy-storing device in energy-storing condition and mechanically dependent upon the closed condition of the switch for holding said device in such condition, and means responsive to an overload for releasing said energy-storing device from said holding means.

5. In an automatic circuit-breaker, the combination of switch contacts, operating mechanism for the switch including means for holding it in closed position, an energy-storing device releasably connected to the switch operating mechanism, said energy-storing device being put in energy storing condition by the closing of the switch and operating to release said means when said releasable connection is released, and means for releasing said releasable connection.

1,030,569. CONTROLLER. HERBERT W. CHENEY, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Mar. 4, 1911. Serial No. 612,415. (Cl. 172—179.)



1. In a controller the movable member of which is biased backward to off position when in starting position and biased forward to off position when in running position, means for normally locking said movable member against forward movement when it is in running position, and means including an armature separable from said locking means responsive to "no-voltage" and being adapted to engage said locking means for releasing said movable member from said locking means.

2. In a controller the movable member of which is biased backward to off position when in starting position and biased forward to off position when in running position, means for normally locking said movable member against forward movement when it is in running position, and means including an armature separable from said locking means responsive to an abnormal circuit condition and being adapted to engage said locking means for releasing said movable member from said locking means.

3. In a controller, contact fingers, a rotatable drum cooperating therewith, said drum having off and running positions, means for normally locking said drum in running position, and means including an armature separable from said locking means responsive to "no-voltage" and being adapted to engage said locking means for releasing said drum from said locking means.

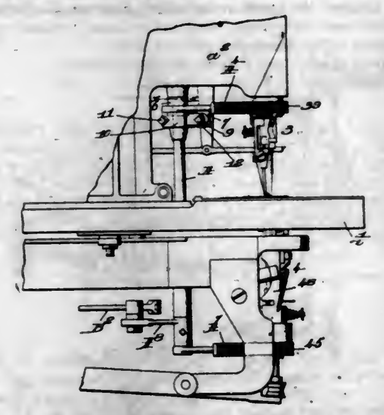
4. In a controller, coöperating movable and stationary switch members having off and running positions, a magnet the armature of which is brought into engagement with the core of said magnet when said movable switch member is moved from off to running position, and means mechanically disconnected from said armature for normally locking said movable member in running position, said armature upon the occurrence of "no-voltage" circuit conditions being adapted to engage said locking means to permit said movable switch member to move into off position.

5. In a controller, contact fingers, a rotatable drum having off and running positions, a magnet having an armature, means for moving said armature into engagement with the core of said magnet when said drum is moved from off to running position, and a latch independent of the armature for normally locking said drum in running position, said armature upon the occurence of abnormal circuit conditions engaging said latch to release said drum.

[Claims 6 to 12 not printed in the Gazette.]

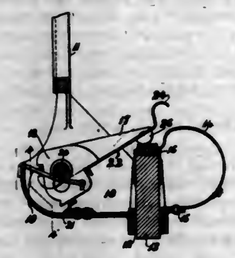
1,030,570. BUTTONHOLE-SEWING MACHINE. JOHN W. CONNORS, Dedham, Mass., assignor to The Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed Apr. 1, 1912. Serial No. 687,657. (Cl. 112—4.)

In a buttonhole sewing machine, the combination with a stitch frame carrying upper and under complemental stitch-forming mechanisms, a pinion associated with each stitch-forming mechanism, a rock-shaft, two toothed sectors thereon meshing with the two pinions, one of said



sectors being loosely sustained by said shaft and provided with a laterally-extending lug, a collar fast to the shaft provided with arms embracing the lug, and adjusting screws carried by said arm and engaging the lug.

1,030,571. BRUSH-HOLDER. CLARENCE T. CROCKER, Norwood Ohio, assignor to Allis-Chalmers Company, a Corporation of New Jersey, and The Bullock Electric Manufacturing Company, a Corporation of Ohio. Filed June 16, 1906. Serial No. 322,002. (Cl. 171—210.)



1. In a brush-holder, a frame, a brush, a pressure device for said brush, said pressure device including a spring-pressed plate having a positive stop, and a stationary catch for engaging and supporting the pressure device through said plate when the latter is lifted from the brush but disengageable from the pressure device by pressure upon the latter toward the brush.

2. In combination, a current collecting brush for dynamo-electric machines, a pressure device for said brush, and stationary means for holding said pressure device away from said brush, said pressure device including means for rendering said holding means inoperative.

3. In combination, a current collecting brush for dynamo-electric machines, a pressure device for said brush, and a stationary catch for holding said pressure device away from said brush, said pressure device including means for releasing itself from the catch upon a downward pressure on said pressure device.

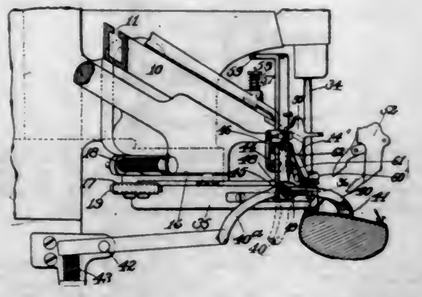
4. In a brush-holder, a frame or casting, a brush, a pressure finger, a pivotal support for said finger, a pressure spring coiled about the pivotal support and tending to move the pressure finger toward the brush at all times, and means for supporting the pressure finger in an inoperative position against such tendency when such finger is lifted away from the brush, said means being releasable by additional pressure on the finger toward the brush.

5. In a brush-holder, a frame or casting, a brush, a pressure finger having a locking portion, a pivotal support for

said finger, a pressure spring coiled about the pivotal support and tending to move the pressure finger toward the brush, and a stationary catch for supporting the pressure finger against the pressure of said spring when the finger is lifted from the brush, said catch being released by a movement of the finger toward the brush.

[Claims 6 to 17 not printed in the Gazette.]

1,030,572. MECHANISM FOR INSERTING FASTENINGS. ARVID L. ENGBERG, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed June 15, 1907, Serial No. 379,165. Divided and this application filed Aug. 3, 1908. Serial No. 446,649. (Cl. 1—18.)



1. A machine of the class described having, in combination, an inclined raceway in which tacks are suspended by their heads and down which they are advanced, a driver, means for delivering tacks from the raceway into the path of the driver, means movable perpendicularly to the head of the tack for stopping the advance of the tack in the raceway, and means governed by the position of the work in the machine for lifting the tack-stopping means.

2. A machine of the class described having, in combination, an inclined raceway in which tacks are suspended by their heads and down which they are advanced, a driver, means for delivering the tacks from the raceway into the path of the driver, means for clamping the head of the endmost tack upon the supporting face of the raceway, and means arranged to be shifted in presenting the work in tack-receiving position for causing the clamp to release the tack.

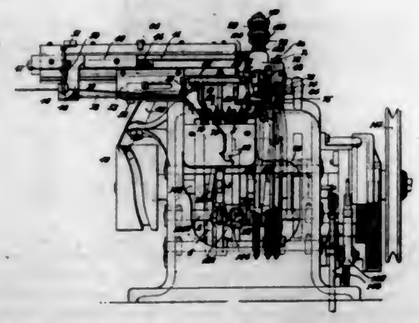
3. A machine of the class described having, in combination, an inclined raceway in which tacks are suspended by their heads and down which they are advanced, a driver, means for delivering the tacks from the raceway into the path of the driver, and additional means for stopping the feeding of tacks while the delivering means may continue in motion, said additional means including a clamp movably supported over the tacks and having a beveled edge adapted to be forced downwardly between two adjacent tacks, and a face to engage the heads of the tacks.

4. A machine of the class described having, in combination, an inclined raceway in which tacks are suspended by their heads and down which they are advanced, a driver, means for delivering the tacks from the raceway into the path of the driver, and additional means to be used at times to stop the delivery of tacks and comprising a clamp having a portion to extend in front of the first tack in the raceway and a portion to overlie the heads of a plurality of adjacent tacks and prevent them from overriding one another.

5. A machine of the class described having, in combination, an inclined raceway in which tacks are suspended by their heads and down which they are advanced, a driver, means for delivering the tacks from the raceway into the path of the driver, a cover to overlie the heads of the tacks in the raceway and prevent them from overriding one another, said cover having a recess, and additional means adapted to be used at times to stop the delivery of tacks and comprising a tack stop movable in said recess in the cover to control the delivery of tacks.

[Claims 6 to 51 not printed in the Gazette.]

1,030,573. MACHINE FOR LACING SHOE-UPPERS. HERBERT E. ENSLIN, Malden, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 30, 1908. Serial No. 413,343. (Cl. 112—24.)



1. A machine for lacing shoe uppers, having, in combination, a plurality of needles, means coöperating therewith to form a series of loops in a lacing cord, and a single adjusting mechanism acting when actuated to change the relative lateral position of the needles to space the needles in accordance with the spacing of the eyelet holes in the upper to be laced and to simultaneously maintain the cooperating means in proper relation to the needles, substantially as described.

2. A machine for lacing shoe uppers, having, in combination, a plurality of needles, means coöperating therewith to form a series of loops in the lacing cord, and means for simultaneously adjusting said needles and cooperating means to space the same in accordance with the spacing of the eyelet holes in the upper to be laced, substantially as described.

3. A machine for lacing shoe uppers, having, in combination, a plurality of needles, a plurality of looper fingers coöperating therewith to form a series of loops in a lacing cord, and means for simultaneously adjusting the needles in accordance with the spacing of the eyelet holes in the upper to be laced and automatically maintaining the looper fingers in proper relation thereto, substantially as described.

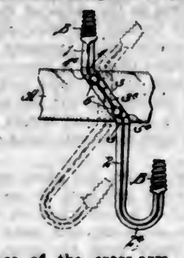
4. A machine for lacing shoe uppers, having, in combination, a plurality of needles, a plurality of looper fingers coöperating therewith to form a series of loops in the lacing cord, and adjusting mechanism acting when actuated to change the relative lateral position of the needles and of the looper fingers in accordance with the spacing of the eyelet holes in the upper to be laced, substantially as described.

5. A machine for lacing shoe uppers, having, in combination, a plurality of needles, a plurality of looper fingers coöperating therewith to form a series of loops in the lacing cord, and adjusting mechanism common to the needles and looper fingers for adjusting the same in accordance with the spacing of the eyelet holes in the upper to be laced, substantially as described.

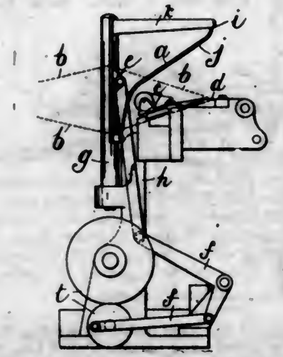
[Claims 6 to 59 not printed in the Gazette.]

1,030,574. INSULATOR-SUPPORTING DEVICE. CHARLES G. ETTE, St. Louis, Mo., assignor to Ette Investment Company, St. Louis, Mo., a Corporation of Missouri. Filed May 25, 1911. Serial No. 629,351. (Cl. 173—321.)

An insulator-supporting device consisting of a central cross arm engaging portion which comprises a vertically-disposed diagonal part that bears against one of the side faces of the cross-arms and horizontally-disposed parts projecting laterally therefrom above and below the cross-arm and provided with integral flanges that engage the opposite side face of the cross-arm, and insulator-pins projecting in opposite directions from said horizontally-disposed parts and arranged out of vertical alinement with each other.



1,030,575. REED AND BEATING-UP MECHANISM FOR LOOMS. ROBERT FARNWORTH and THOMAS TROUGHTON JACKSON, Bolton, England. Filed Oct. 28, 1911. Serial No. 657,249. (Cl. 139—19.)

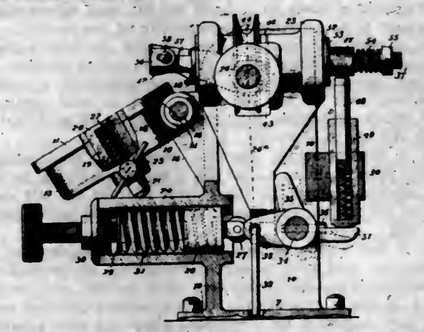


1. A beating-up mechanism for a loom, comprising a guide, a slidable frame carried by the said guide and provided with an arm arranged above the shed of the loom, a series of reed plates having their upper ends secured to the said arm over the fell of the cloth and in front of the shuttle, said reed plates being curved downwardly and rearwardly at their upper or beating-up parts and having their middle parts inclined downwardly and rearwardly to clear the shuttle and having their lower parts projecting through the shed behind the shuttle, and means for sliding the said frame to move the reed plates up and down crosswise of the shed.

2. A beating-up mechanism for a loom, comprising a stationary support, a guide pivoted to the said support, a slidable frame carried by the said guide and provided with an arm arranged above the shed of the loom, a series of reed plates having their upper ends secured to the said arm over the fell of the cloth and in front of the shuttle, said reed plates being curved downwardly and rearwardly at their upper or beating-up parts and having their middle parts inclined downwardly and rearwardly to clear the shuttle and having their lower parts projecting through the shed behind the shuttle, and means for sliding the said frame to move the reed plates up and down crosswise of the shed.

1,030,576. ECCENTRIC WHEELER. LOUIS W. G. FLINT, Rochester, N. Y., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 7, 1906. Serial No. 325,095. (Cl. 12—32.)

1. The combination with a tool formed to indent the edges of soles of shoes, of means for supporting and driving the same whereby the tool will be shifted laterally in a predetermined plane including a support within which the tool is eccentrically mounted, said support being held against movement in said lateral direction.



2. In combination with a pivoted support, a tool formed for the treatment of soles of shoes eccentrically mounted in said support, and means for driving the tool.

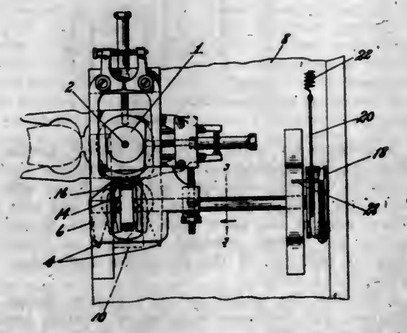
3. In combination with a tool formed for the treatment of soles of shoes, driving means for said tool surrounding the same and within which the tool is eccentrically mounted.

4. In combination with a tool formed for the treatment of soles of shoes, a carrier therefor within which the tool is eccentrically mounted, and operating means for the tool including a sleeve interposed between said carrier and the tool, and antifriction bearings between the tool and sleeve and between the sleeve and carrier.

5. In combination with a tool formed for the treatment of soles of shoes, a carrier therefor within which the tool is eccentrically mounted, and operating means for the tool including a sleeve interposed between said carrier and the tool, and antifriction bearings between the tool and sleeve and between the sleeve and carrier, in combination with means for pivoting said carrier on an axis transverse to the axis of said tool.

[Claims 6 to 36 not printed in the Gazette.]

1,030,577. HEEL-ATTACHING MACHINE. MINOT F. FOLLANSBEE, Whitman, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 2, 1907, Serial No. 350,393. Renewed Jan. 30, 1912. Serial No. 674,379. (Cl. 1—32.



1. A heel attaching machine, having in combination, means for sustaining a heel lift in stationary position, a movable cement carrying device for applying cement to the lift while held in said position, and means manipulated by the operator for moving said device into contact with the lift and thereafter along the face of the lift.

2. A heel attaching machine, having in combination, a carrier for heel lifts arranged for movement from a re-

ceiving position into an attaching position, a movable cement carrying device for applying cement to a lift sustained by the carrier and means manipulated by the operator for moving said device into contact with the lift and thereafter along the face of the lift, said means being arranged to be actuated independently of the carrier.

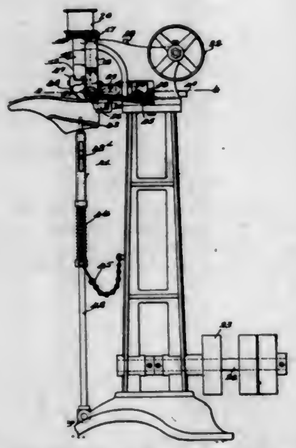
3. A heel attaching machine, having, in combination, means for sustaining a heel lift in stationary position, a cement carrying device for applying cement to a predetermined part of the lift while held in said position and means permitting the area of contact of said device with the lift to be varied.

4. A heel attaching machine, having, in combination, means for sustaining a heel lift, a cement carrying device for applying cement to the central part of the lift and means for varying the area of contact of said device with the lift.

5. A heel attaching machine, having in combination, a carrier for heel lifts, a cement receptacle, an oscillatory cement-applying device between said carrier and receptacle, having a cylindrically curved, cement-carrying surface and arranged for movement about an axis parallel to the axis of said surface, and vertically below a lift sustained by the carrier, and means for moving said device from the receptacle into engagement with said lift and thereafter along the face of the lift.

[Claims 6 to 17 not printed in the Gazette.]

1,030,578. MACHINE FOR BEATING OUT SHOE-UPPERS. WILLIAM GORDON, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 23, 1905. Serial No. 251,618. (Cl. 12—51.)



1. A machine for beating out shoe uppers, having, in combination, two independent series of rotating beaters arranged to act simultaneously upon the lower edge of a shoe upper at opposite sides of the shoe and beat out the lower edge of the upper upon the insole, means for supporting the beaters arranged to permit a change in the relative positions of the two series and means for actuating said beaters.

2. A machine for beating out shoe uppers, having, in combination, two independent series of rotating beaters acting simultaneously to beat out the lower edge of a shoe upper upon the insole at opposite sides of the shoe and to draw the upper over the edge of the insole toward the medial line of the insole, means for supporting the beaters arranged to permit a change in the relative positions of the two series and means for actuating said beaters.

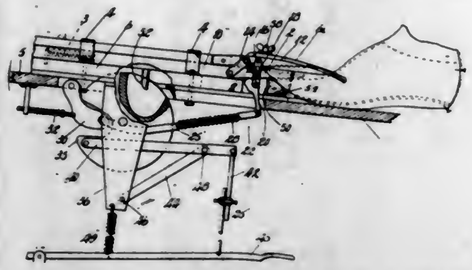
3. A machine for beating out shoe uppers, having, in combination, two series of rotating beaters arranged to act respectively upon the lower edge of a shoe upper at opposite sides of the shoe and beat out the lower edge of the upper upon the insole, and means for supporting said beaters having provision for allowing said beaters to accommodate themselves to the shape of the sole.

4. A machine for beating out shoe uppers, having, in combination, two rotary tools arranged to act simultaneously upon the lower edge of a shoe upper at opposite sides of the shoe, each of said tools being provided with a series of beaters for beating out the lower edge of the shoe upper upon the insole, and means for varying the angular position of said tools with relation to the medial line of the sole.

5. A machine for beating out shoe uppers, having, in combination, two tools arranged to act simultaneously upon the lower edge of a shoe upper at opposite sides of the shoe, means for actuating said tools to beat out the lower edge of the upper upon the insole and means for moving said tools toward and from the medial line of the sole.

[Claims 6 to 14 not printed in the Gazette.]

1,030,579. VAMP-PULLING APPARATUS. GEORGE J. GORSUCH, Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 1, 1910. Serial No. 590,130. (Cl. 12—7.)



1. A machine of the class described having, in combination, a table to receive and sustain a shoe sole face downward in a single vertical position during operation thereon, an abutment for the toe of the last shaped to center the last laterally, a pair of pincers extending forwardly over the abutment and over the toe of the last and having one jaw reaching inside the upper to seize the vamp back of the tip seam, and means to actuate said pincers to seize and pull the vamp lengthwise.

2. A machine of the class described having, in combination, a table to receive and sustain a shoe sole face downward, a toe end abutment shaped to center the last laterally, a pair of pincers arranged to extend over said abutment and substantially parallel with the last bottom into position to grip the toe portion of the upper, and manually operated means for actuating said pincers to stretch the vamp lengthwise.

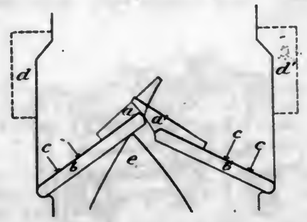
3. A machine of the class described having, in combination, a table to receive and sustain a shoe right side up, an abutment for the toe end of the last, a pincer to seize the upper, and means for manually actuating the pincer and the abutment relatively to pull the vamp lengthwise and hold it under tension, said parts being arranged to permit the operator to grip the vamp to the last with his hand to hold it under tension while the pincers are released and he transfers the shoe to a pulling over machine.

4. A machine for preliminarily stretching the vamp of an assembled shoe preparatory to presentation of the shoe to a pulling over machine having, in combination, a support for the shoe right side up, a toe abutment, a pincer, and means for manually actuating the pincer and the abutment lengthwise of the shoe to stretch the vamp, said parts being arranged to permit the workman to seize the shoe with one hand and present it therewith to the pulling over machine while retaining the vamp pulled forwardly by such seizure.

5. A machine for preliminarily stretching the vamp of an assembled shoe preparatory to presentation of the shoe to a pulling over machine having, in combination, a support for the shoe right side up having provision for holding the shoe against lengthwise movement, and a manually operated pincer arranged to seize the vamp back of the tip seam and pull it forwardly on the last, said support and pincers being arranged to permit the operator to seize the shoe and with his thumb and fingers retain the vamp in its forwardly pulled condition while inverting the shoe and presenting the edges thereof to the toe and side grippers of a pulling over machine.

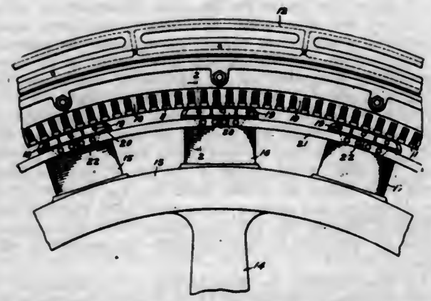
[Claims 6 to 28 not printed in the Gazette.]

1,030,580. DEVICE OR APPLIANCE FOR THE PROTECTION OF CANAL-LOCK GATES. NASSAU WILKINSON GOWAN, St. Catharines, Ontario, Canada, assignor of three-fifths to James Battle, Thorold, Canada. Filed Mar. 9, 1911. Serial No. 613,460. (Cl. 61—21.)



The combination with canal lock-gates of guide fingers secured to the meeting edges thereof and overlapping each other, whereby said gates are prevented from being carried away by pressure or rush of water when they have been accidentally forced apart by the impact of a vessel and are guided to normal position when such impact is removed.

1,030,581. DYNAMO-ELECTRIC MACHINE. ALEXANDER M. GRAY, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Oct. 8, 1910. Serial No. 585,930. (Cl. 172—120.)



1. A synchronous dynamo-electric machine comprising an armature having a slotted core, a field member, and conducting rods fixed relatively to the field member and having their corresponding ends interconnected, the rods being spaced in groups so that a plurality of groups less than the whole number of groups each have rods all of which simultaneously come opposite armature slots.

2. A synchronous dynamo-electric machine comprising an armature having a slotted core, a field member having field poles, conducting rods extending through each field pole transverse to the plane of rotation, and means for interconnecting corresponding ends of said rods, the rods in each pole being spaced so that they come opposite armature slots simultaneously and those in some poles do so at different times from those in others.

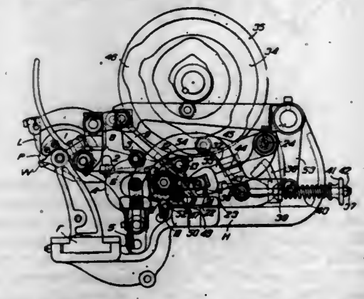
3. A synchronous dynamo-electric machine comprising an armature having a slotted core, a field member, and conducting rods extending transversely through the field member and having their corresponding ends interconnected, the rods being arranged in groups so that the rods in each group all come opposite armature slots simultaneously while those in adjacent groups do so dis-simultaneously.

4. A synchronous dynamo-electric machine comprising an armature having a slotted core, a field member having field poles, and conducting rods extending transversely through the field poles and having their corresponding ends interconnected, the rods in each field pole being spaced apart so that they come opposite armature slots at the same time and the rods in adjacent field poles come opposite armature slots at different times.

5. A synchronous dynamo-electric machine comprising an armature, a field member having field poles, and conducting rods extending transversely through each field pole and having their corresponding ends interconnected, rods in each pole being spaced dissymmetrically with respect to the center line of such pole.

[Claims 6 to 11 not printed in the Gazette.]

1,030,582. PRESSER-FOOT MECHANISM FOR SEWING-MACHINES. JOHN B. HADAWAY, Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 29, 1904. Serial No. 226,421. (Cl. 112—20.)



1. Presser foot mechanism for sewing machines, having, in combination, a work support, a presser foot, means for holding the presser foot yieldingly against the work, yielding means for moving the presser foot toward the work support to clamp the layers of material together, and means for thereafter exerting a positive predetermined uniform action on the presser foot regardless of variations in the thickness of the work, substantially as described.

2. Presser foot mechanism for sewing machines, having, in combination, a work support, a presser foot, yielding means for moving the presser foot toward the work support to clamp the layers of material together and means for positively moving the presser foot a predetermined farther distance toward the work support regardless of variations in the thickness of the work, substantially as described.

3. Presser foot mechanism for sewing machines, having, in combination, a work support, a presser foot movable toward and from the work support to accommodate stock of varying thickness, and means for positively moving the presser foot a predetermined uniform distance toward the work support from any position which it assumes in accommodating stock of varying thickness, substantially as described.

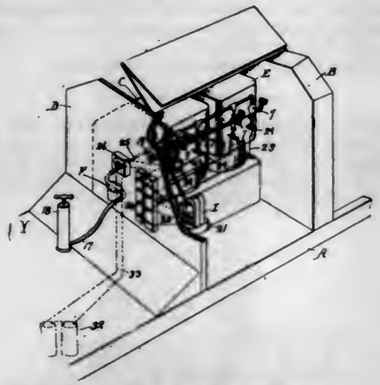
4. Presser foot actuating mechanism for sewing machines, having, in combination, a work support, a presser foot, a spring for moving the presser foot toward the work support, mechanism connected to the presser foot including a yielding and a positive connection, and a cam for actuating said mechanism to move the presser foot yield-

ingly toward the work support to clamp the layers of material together and thereafter to move the presser foot positively toward the work support a farther predetermined distance regardless of variations in the thickness of the work, substantially as described.

5. Presser foot actuating mechanism for sewing machines, having, in combination, a work support, a presser foot, a spring normally acting to move the presser foot toward the work support to cause the work support to bear upon the work, a positively acting mechanism to move the presser foot toward the work support a uniform distance, and a stop spring operating to prevent the above named spring from moving the presser foot into engagement with the work support, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,030,583. SELF-STARTER FOR AUTOMOBILES. FREDERICK G. S. HEWITT, Detroit, Mich. Filed May 8, 1911. Serial No. 625,699. (Cl. 123—180.)



1. A self-starter for gas engines, having in combination with a plurality of cylinders, a fuel supply and connections therefrom with each cylinder, an ignition system for firing the cylinders, the said ignition system having electric circuits which have gaps through which the current is adapted to arc, means for preventing the current arcing said gaps when desired, means for preventing one gaining access to said last mentioned means, and means for opening said fuel connections only into one cylinder shown by the said arcing current to be ready for firing, substantially as described.

2. A self-starter for gas engines, having in combination with a plurality of cylinders, a fuel supply and connections therefrom with each of said cylinders, an ignition system for firing the cylinders, the said ignition system having electric circuits which have gaps through which the current is adapted to arc, means for opening said fuel connections only into the one cylinder shown by the said arcing current to be ready for firing, and means for connecting the terminals of each circuit forming the gaps after the engine has been started, substantially as described.

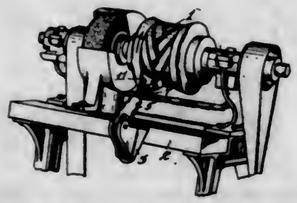
3. A self-starter for gas engines, having in combination with a plurality of cylinders, a fuel supply and connections therefrom with each cylinder, an ignition system for firing the cylinders, the said ignition system having electric circuits which have gaps through which the current is adapted to arc, means for opening said fuel connection only into the one cylinder shown by the said arcing current to be ready for firing, means for preventing the current arcing said gaps, means for preventing access to said last mentioned means, and means for connecting electrically the terminals forming said gaps after the engine has been started, the said last mentioned means being interchangeable with the means preventing arcing on said gaps, substantially as described.

4. In a self-starter for gas engines, the combination of a plurality of cylinders, an ignition system therefor comprising a circuit connecting with each cylinder, each circuit having a gap adapted to be arced by the current whereby the cylinder ready for firing is indicated, means for furnishing a charge to said one cylinder ready for firing and a circuit completing bar adapted to be inserted between the terminals of each circuit and complete the said circuits after the engine has been started, substantially as described.

5. In a self-starter for gas engines, a plurality of cylinders, an ignition system having spaced terminals for each circuit, adapted to allow an arcing of the current at the gap of the circuit connecting the cylinder ready for firing, means for introducing a charge into such cylinder alone, an insulating bar adapted to be inserted in said gaps, and means for locking said insulating bar in place, substantially as described.

[Claim 6 not printed in the Gazette.]

1,030,584. SHOE-BEATING MACHINE. JACK HOUSHOLDER, Coldwater, Mich., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 26, 1908. Serial No. 459,531. (Cl. 12—51.)



1. A shoe beating machine having, in combination, a rotary beating tool and means for turning it forwardly and upwardly, and a toe rest mounted for movement relatively to the beater to carry the toe of the shoe under the beater, said rest and associated parts being constructed and arranged to permit the shoe to be fulcrumed on the rest to control the pressure as the shoe is advanced to present different portions of the toe bottom successively to the action of the beater.

2. A shoe beating machine having, in combination, a rotary beating tool and means for turning it forwardly and upwardly, and a toe rest pivotally supported in front of and below the beater for swinging movement to carry the toe of the shoe under the beater, said rest being formed and arranged to permit the operator to fulcrum the shoe thereon for maintaining the bottom of the shoe substantially tangential to the portion of the beater engaging it as the shoe is advanced under the beater.

3. A shoe beating machine having, in combination, a rotary beater, means for turning it forwardly and upwardly, and a toe rest pivoted below and in front of the beater, the axis of revolution of the beater and the pivot of the rest being so related that the toe portion of a shoe carried on and moving backwardly with the rest will be wedged between the rest and beater with the engaged portion of the bottom substantially tangential to the beater.

4. A shoe beating machine having, in combination, a rotary circumferential beater having beating members inclined forwardly and inwardly from opposite ends to work the upper inwardly from opposite sides of the shoe bottom, and a toe rest pivoted in front of and below the beater to swing backwardly with the shoe thereon under the beater and arranged to permit the shoe to be fulcrumed on the rest to control upward pressure thereof against the beater as the shoe is advanced to subject different longitudinal portions of the shoe bottom successively to the action of the beater.

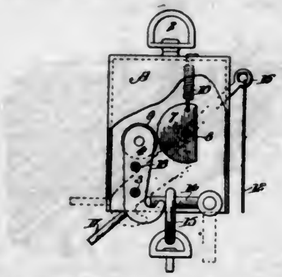
5. A shoe beating machine having, in combination, a rotary beating tool and means for turning it forwardly and upwardly, a toe rest arranged relatively to the beater to permit the toe of the shoe to be inserted under the beater and the shoe to be fulcrumed on the rest to force the bottom of the toe against the revolving beater, a support for the rest, and a spring arranged to render the said fulcrum rest yielding, said machine having provision for rendering the fulcrum rest rigid after a limited depression thereof.

1,030,585. CORSET. ELIZABETH FERGUSON HUME, Dunedin, New Zealand. Filed May 20, 1910. Serial No. 562,420. (Cl. 2—74.)



A corset busk having fasteners thereon said busk being provided with a skirt band retainer, the surface of said retainer being flush with the surface of the busk.

1,030,586. RELEASING DEVICE. JAMES IRWIN, San Francisco, Cal. Filed Dec. 14, 1911. Serial No. 665,736. (Cl. 9—23.)

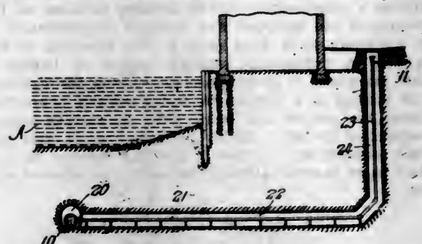


1. In a releasing apparatus, a casing open at the bottom, a weight supporting bar pivoted in the opening and adapted to swing from a horizontal to a vertical position, a bill fulcrumed intermediate of its length, with the curved tip adapted to support the bar, a segment pivoted to contact with the upper end of the bill, said segment having a part cut away to form a chord, and means to turn the segment until the chord registers with and releases the upper end of the bill.

2. In a releasing apparatus, an open bottomed casing, a bar pivoted at one end, a bill by which the bar may be supported in a horizontal position, a fulcrum pin upon which the bill may turn, a roller in the upper end of the bill shank, a pivoted turnable segment by which the bill may be retained in position, said segment having a portion cut away to allow the bill to turn and release the bar, means by which the segment may be turned to a release position, and a spring by which it may be turned to its normal holding position.

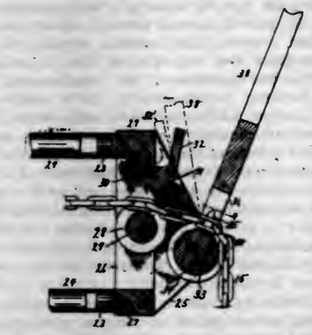
1,030,587. HIGH-PRESSURE WATER-DISTRIBUTING SYSTEM. GEORGE W. JACKSON, Chicago, Ill. Filed July 6, 1908. Serial No. 442,034. (Cl. 137—78.)

1. A high pressure water system comprising a main tunnel located beneath a water way, a high pressure main located in said main tunnel, lateral tunnels leading from said main tunnel, vertical shafts leading to said lateral tunnels, distributing pipes leading from said high pressure main located in said lateral tunnels and extending up through said vertical shafts and street mains connected with said distributing pipes.



2. A high pressure water system comprising a main tunnel located beneath a water way, a high pressure main located in said main tunnel, auxiliary tunnels leading from said main tunnel, vertical shafts leading to said auxiliary tunnels, distributing pipes leading from said high pressure main located in said auxiliary tunnels and extending up through said vertical shafts and street mains connected with said distributing pipes.

1,030,588. WIRE-STRETCHER. ELIJAH D. JONES, near Valencia, Kans. Filed July 28, 1909. Serial No. 510,140. (Cl. 39—51.)

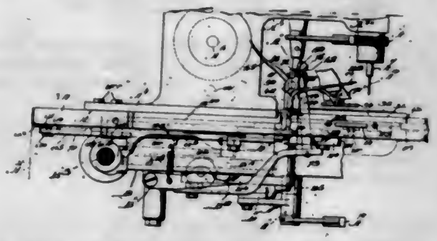


In a wire stretcher, the combination of a frame, a wheel mounted therein having a smooth peripheral groove, a chain passing over said wheel in the groove, a pawl pivoted in the frame adjacent to said wheel, having a tail-piece and adapted to bear against the chain upon the wheel and to coöperate with the wheel in holding the chain against rearward movement, another wheel pivoted in the frame in advance of the first-named wheel, having a smooth peripheral groove and formed with two shoulders on opposite sides of the groove to engage the links of the chain in said groove, and a lever, rigidly secured to the sides of the second-named wheel, positioned between the wheel pivots and provided with an opening above said shoulders to permit the free passage of the chain therethrough, said shoulders being between the wheel pivots and the handle of said lever, said wheel and lever being capable of an oscillating motion to pull the chain forward, and said lever being adapted on extreme rearward movement to move said tail-piece and release said pawl from the chain and to bring said shoulders to a rearwardly slanting position.

1,030,589. BUTTONHOLE-SEWING MACHINE. JOHN KIEWICZ, Hyde Park, Mass., assignor to Reece Button Hole Machine Company, Boston, Mass., a Corporation of Maine. Filed Apr. 10, 1911. Serial No. 619,940. (Cl. 112—4.)

1. In a buttonhole sewing machine, a stationary bedplate having a fixed guideway on its underside, a stitch-

forming instrumentality supported by the bed-plate, a work-clamp movable upon the upper side of the bed-plate into and out of position with relation to said stitch-forming instrumentality, actuating means for said work-clamp, including a reciprocating carrier slidably mounted on the underside of the bed-plate and movable longitudinally in said guideway in a fixed path in the direction of the length of a buttonhole, separate means to impart a lateral movement to said work-clamp during the stitching of the eye-end of a buttonhole, and a positive connection between the carrier and work-clamp permitting lateral movement of the latter relatively to the carrier, said connection comprising a laterally yielding member on one of said parts to enter a lateral socket in the other of said parts.



2. In a buttonhole sewing machine, a stationary bed-plate having an opening therein, a stitch-forming instrumentality, supporting means therefor fixedly attached to the bed-plate, a work-clamp movable inward and outward on said bed-plate over the opening therein, said opening providing for the operation of the complemental parts of the stitch-forming instrumentality above and below the bed-plate, a clamp-carrier, means to reciprocate it to effect the fore and aft movement of the work-clamp during the formation of a buttonhole, a fixed guideway on the bed-plate, in which said carrier is reciprocated, a detachable connection between the work-clamp and said carrier, said connection comprising a spring-controlled member on one of said parts to enter a lateral socket in the other part, and means independent of the carrier-reciprocating means to effect periodical lateral movement of the work-clamp relatively to the clamp-carrier.

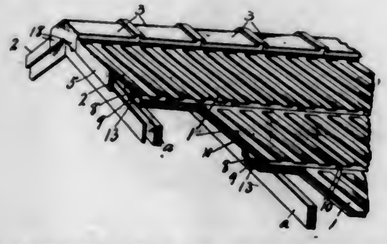
3. In a buttonhole sewing machine, a stationary bed-plate having an elongated opening, a stitch-forming instrumentality mounted on said bed-plate and adapted to form stitches at a substantially fixed point relatively thereto, a laterally movable guideway mounted on and beneath the bed-plate within the opening thereof and parallel to the length of the buttonhole to be stitched, mechanism to move the guideway laterally and periodically, a work-clamp having a lower member grooved longitudinally on its underside to slidably engage the guideway, a device to prevent accidental disconnection of the latter and the work-clamp, and mechanism positively connected directly with the lower member of the work-clamp to move it bodily upon and lengthwise of the guideway, to position the work with respect to the stitch-making point during the stitching of the opposite sides of the buttonhole, the lateral movement of the guideway causing bodily lateral movement of the work-clamp in unison therewith.

4. In a buttonhole sewing machine provided with a stitch-forming instrumentality adapted to make overedge stitches, a stationary bed-plate on which said instrumentality is supported, a work-clamp comprising upper and lower members, the lower member being slidable upon the bed-plate in the direction of the length of a buttonhole and also at right angles thereto, a reciprocating carrier slidably mounted on the bed-plate and connected with the work-clamp, a fixed guideway on the underside of said bed-plate in which the carrier is movable longitudinally and by which the carrier is held from lateral movement, an actuating cam for the carrier, a guide-bar movably mounted in the bed-plate and parallel to the length of the buttonhole to be stitched and in direct and continuous sliding engagement with the lower member of the work-clamp adjacent one side thereof, and means to move said guide-bar, and through it the work-clamp, in a lateral direction bodily when the eye-end of the buttonhole is being stitched, the connection between the carrier and the work-clamp comprising a lateral member on one of said parts to enter freely a lateral socket in the other part, thereby permitting lateral movement of the work-clamp relatively to the carrier.

5. In a buttonhole sewing machine provided with a stitch-forming instrumentality adapted to make overedge stitches, a stationary bed-plate on which said instrumentality is supported, a work-clamp movable upon said bed-plate longitudinally and laterally with respect to the stitch-making point, said clamp having a lower member provided with a longitudinal groove in its under side, a guide-bar mounted on the bed-plate and laterally movable thereon, to enter the groove in said clamp member, means to lock said member and the guide-bar in sliding engagement, mechanism to effect periodical lateral movement of the guide-bar, a longitudinally reciprocating carrier slidably mounted on the bed-plate, a separable, laterally yielding connection between said carrier and the lower member of the work-clamp, whereby the latter is moved longitudinally by the carrier when the sides of the buttonhole are being stitched, the said connection permitting lateral movement of the clamp when the eye-end of the buttonhole is being stitched, and a manually operated device to separate said carrier and the work-clamp.

[Claims 6 to 21 not printed in the Gazette.]

1,030,590. CONCRETE ROOF-TILE. FRED LATULIP, Syracuse, N. Y., assignor of one-half to Antoine F. Vadebonceur, Syracuse, N. Y. Filed Mar. 6, 1911. Serial No. 612,436. (Cl. 108—10.)

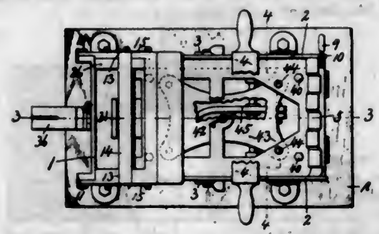


An edge finishing tile having one end thereof provided with a transverse groove in its upper face and its other end provided with a transverse rib upon its lower face, both the said groove and rib being spaced from the ends of the tile, a length-wise flange provided upon one longitudinal edge of the tile and extending from a point at the inner side of the groove to a point beyond the rib, the said flange tapering from the rib and toward the said groove, a longitudinal groove extending the entire length of the tile edge upon the side thereof opposite to the flange, a longitudinally-positioned depending lug upon the under side of said tile and slightly spaced from the depending flange thereof, a terminal shoulder upon the lower face of said tile at the end thereof opposite to the said rib, and said tile adapted to interlock with other similar tiles when positioned in assembled relations.

1,030,591. MACHINE FOR MAKING TILE. FRED LATULIP, Syracuse, N. Y., assignor of one-half to Antoine Vadebonceur, Syracuse, N. Y. Filed Mar. 6, 1911. Serial No. 612,437. (Cl. 25—44.)

In a machine for making concrete tile, a substantially rectangular frame including side and end walls side plates and a hinged end, means for locking the end plate, said plates hinged to the top of said walls to the hinged side plates, and a pallet movable into and out of the frame and having its sides and ends abutting against

the corresponding sides and ends of the frame when adjusted for use, the hinged side and end plates con-



stituting guides, and a surface forming device mounted upon and movable along said guides.

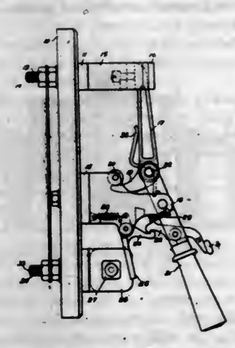
1,030,592. TELESCOPIC EXTENSION-ROD. JOHN A. LELAND, Montague, Mass., assignor to Millers Falls Company, Millers Falls, Mass., a Corporation of Massachusetts. Filed Mar. 6, 1912. Serial No. 682,048. (Cl. 74—47.)



1. A telescopic extension rod comprising a member having a longitudinal groove and a plurality of recesses at the bottom of said groove, a tubular member slidingly engaged with the grooved member, a complemental movable clutch part movably engaged with the tubular member and composed of a tilting lever fulcrumed in said groove and provided on one arm with an inclined face and with a clutch projection which is yieldingly projected into locking engagement with a recess in the grooved member, the opposite arm of the lever being provided with a push piece whereby the clutch projection may be manually retracted, and a longitudinally adjustable sleeve on the tubular member adapted to coöperate with said inclined face in locking and unlocking the clutch projection.

2. A telescopic extension rod comprising a longitudinally grooved member having a plurality of recesses at the bottom of its groove, a tubular member slidably engaged with the grooved member and having a longitudinal slot, a tilting lever fulcrumed in said groove and engaging with the sides of said slot, said lever being provided on one arm with a clutch projection and with an inclined face, and on the other arm with a push piece occupying one end of said slot, a casing sleeve covering portions of said slot and lever, a spring interposed between the casing sleeve and the lever and adapted to press the clutch projection into engagement with a recess in the grooved member, and a longitudinally adjustable sleeve engaged with the tubular member and adapted to coöperate with said inclined face in locking and unlocking the clutch projection.

1,030,593. SWITCH. ALEXANDER J. LOGUIN, West Allis, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Jan. 11, 1911. Serial No. 601,961. (Cl. 175—282.)



1. In a switch, the combination of a support, an actuating member pivotally mounted on said support, a bearing member also mounted on said support, a member actuated by said actuating member and carrying a contact, said member having a cam surface engaging said bearing member, and another contact coöperating with the first.

2. In a switch, the combination of a support, an actuating member pivotally mounted on said support, a bearing member also mounted on said support, a member pivotally secured to said actuating member and carrying a contact, said member having a cam surface engaging said bearing member, and another contact coöperating with the first.

3. In a switch, the combination of a support, a bearing member secured thereto, an actuating member pivotally secured to said support, a member carrying a contact and having a portion engaging said bearing member, said actuating member and contact-carrying member being pivotally secured to each other, and another contact coöperating with the first.

4. In a switch, the combination of relatively movable contacts, a member having a cam surface and supporting one of said contacts, a support, a bearing member associated with said support and engaged by said cam surface, and an actuating member pivotally secured to said support and also to said first member at a point intermediate said support and contacts.

5. In a switch, the combination of relatively movable contacts, an arm carrying one of said contacts at one end and having a cam surface at the other end, a rigidly fixed bearing member engaged by said cam surface, and means connected to said arm for actuating said arm.

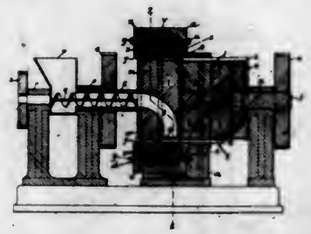
[Claims 6 to 9 not printed in the Gazette.]

1,030,594. PRESS FOR EXTRACTING LIQUID FROM MATERIALS. ALEXANDER S. MACKENZIE, Elizabeth, N. J., assignor of one-half to Frank Phelps, Little Rock, Ark. Filed June 23, 1910. Serial No. 568,440. (Cl. 100—47.)

1. A press comprising an inclosed continuous annular compression chamber having a section or portion gradually decreasing in width in radial directions which is followed by another section or portion of uniform width in radial directions and means for changing in circular direction the relative position of the circumferential walls of the chamber.

2. A press comprising an inclosed continuous annular compression chamber having a section or portion gradually decreasing in width in radial directions which is followed by another section or portion of uniform width in radial directions and a third section or portion connecting the end of the narrow section to the wide end of the variable width section and means for changing in

circular direction the relative position of the circumferential walls of the chamber, whereby the material in said annular chamber is compressed in the variable width section, held compressed in the uniform width section and released in compressed condition in the connecting enlarged section.



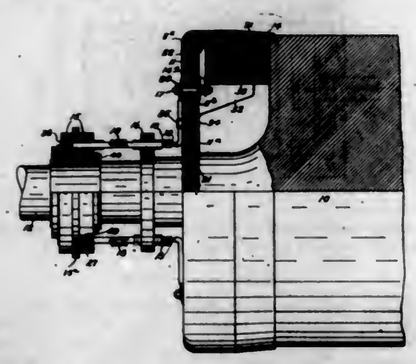
3. A press comprising an inclosed continuous annular compression chamber having a section or portion gradually decreasing in width in radial directions which is followed by another section or portion of uniform width in radial directions and a third section or portion connecting the end of the narrow section to the wide end of the variable width section, means for changing in circular direction the relative position of the circumferential walls of the chamber, whereby the material in said annular chamber is compressed in the variable width section, held compressed in the uniform width section and released in compressed condition in the connecting enlarged section and means for feeding the material to be compressed at its widest part.

4. A press comprising an inclosed continuous annular compression chamber having a section or portion gradually decreasing in width in radial directions which is followed by another section or portion of uniform width in radial directions and a third section or portion connecting the end of the narrow section to the wide end of the variable width section, means for changing in circular direction the relative position of the circumferential walls of the chamber, whereby the material in said annular chamber is compressed in the variable width section, held compressed in the uniform width section and released in compressed condition in the connecting enlarged section, means for feeding the material to be compressed at its widest part, gates or partitions slidably extending through one of the circumferential walls and abutting against the other wall of the chamber and so dividing the chamber into pockets or compartments, means for controlling the partitions to keep their extended edges against the said other wall of the chamber, and means for discharging the compressed material from the third section of the chamber or portion thereof connecting the end of the narrow section to the wide end of the variable width section.

5. A press comprising an inclosed continuous annular compression chamber having a section or portion gradually decreasing in width in radial directions which is followed by another section or portion of uniform width in radial directions and a third section or portion connecting the end of the narrow section to the wide end of the variable width section, one of said walls being perforated for the escape of the liquid constituent of the material being compressed, means for feeding pulpous material to the widest part of the chamber, means for changing in circular direction the relative position of the circumferential walls of the chamber, whereby the material in said chamber is compressed in the variable width section, held compressed in the uniform width section and released in compressed condition in the connecting enlarged section, sliding partitions extending through one of the circumferential walls, means for holding their free extending edges against the other circumferential wall and means for discharging the compressed material from that portion of the annular chamber connecting the end of the narrow section to the wide end of the variable section.

[Claims 6 to 26 not printed in the Gazette.]

1,030,595. TURBO CONSTRUCTION. EMIL MATTMAN, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Dec. 21, 1908. Serial No. 468,626. (Cl. 171—211.)



1. In a dynamo-electric machine, the combination of collector rings, insulation separating said rings, and a collector lead having a resilient end and a plurality of horizontally alined sections separably connected, said collector rings and said insulation being provided with apertures, said lead passing into one of said apertures and insulated from one of said collector rings, the resilient end of said lead being screw-connected to the other collector ring.

2. In combination, in a dynamo-electric machine, two collector rings, insulation between said rings, said rings and insulation provided with apertures, a lead passing into one of said apertures and insulated from one of said rings, the end of said lead being tapered and slotted, and a clamping plug having a threaded portion engaging one of said collector rings and a recessed portion receiving the tapered-slotted portion of said lead, said lead being tightly clamped in position by said plug.

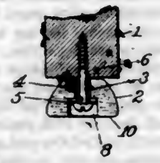
3. In combination, in the rotor of a dynamo-electric machine, a core, coils having projecting end turns and carried by said core, a coil retaining and protecting end cover for said projecting end turns, a collector ring, and a connection between said coils and ring, said end cover comprising a plurality of separable parts some of which can be removed over said ring without disturbing the latter.

4. In a dynamo-electric machine, the combination of a collector ring provided with a tapped aperture, a screw threaded plug in said aperture, and a collector lead provided with a tapered slotted end, said plug being provided with a tapered recess which receives the tapered slotted lead and in which said lead is clamped by a longitudinal movement of said plug in said aperture.

5. In a dynamo-electric machine, the combination of a winding, a collector ring having a tapped aperture, a hollow plug secured in said tapped aperture, and a collector lead connecting said winding and said collector ring, said lead having a resilient end portion adapted to be secured in the hollow portion of said plug.

1,030,596. CONTACT-PIECE FOR FURNITURE. BENJAMIN F. MAYO, Salem, Mass. Filed Dec. 11, 1908. Serial No. 467,074. (Cl. 155—33.)

1. A device of the class described having, in combination, a contact piece for a furniture leg provided with an axial hole, a bushing for said axial hole of substantially less diameter and of greater length than such hole, washers arranged to bear upon the top and bottom of said bushing, and a screw attaching the washers, bushing and contact piece to the leg in such manner that the contact piece is free to adjust itself to a slight inclination of the leg but upon increasing the inclination of the leg the attaching means will coöperate with the bushing to tip the contact piece upon its periphery so that it may roll thereon as it is moved.

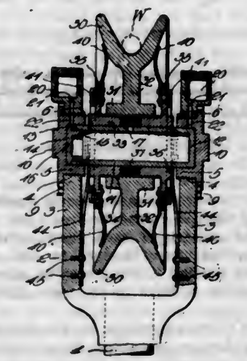


2. A device of the class described having, in combination, a supporting contact piece for furniture, provided with an axial hole, an extended lower bearing surface on said contact piece adapted to slide over floors with a minimum amount of friction, means coöperating with said axial hole to attach said contact piece to furniture, said means comprising a bearing for the contact piece of substantially less diameter and of greater length than said hole, said parts coöperating so that said supporting piece will adapt itself to slight inclinations of the floor but upon tilting the article of furniture to which it is attached it will be tipped from the floor and will serve as a wheel.

3. A device of the class described, a contact piece formed with a substantially flat bearing surface, with a substantially circular edge and with a hole substantially perpendicular to the bearing surface, and means for securing said contact piece to furniture, said means comprising a bearing portion of smaller diameter and greater length than the hole in the contact piece, to permit limited tipping movement of the contact piece with relation to said securing means.

4. In a device of the class described, a contact piece formed with a substantially flat bearing surface, with a substantially circular edge and with a hole perpendicular to said surface, said hole being enlarged adjacent to said surface, and securing means comprising a head to be received in the enlarged end of the hole and a bearing portion of substantially less diameter and greater length than the smaller portion of the hole, to permit limited tipping movement of the contact piece on the securing means.

1,030,597. TROLLEY-WHEEL. JOHN S. MCCABE, Bridgeville, Pa., assignor to Montclair Manufacturing and Machine Company, Bridgeville, Pa. Filed June 12, 1911. Serial No. 632,650. (Cl. 191—39.)



1. In a trolley, the combination with the pole and its fork, supports carried by the fork-arms, contact plates carried by the supports, and the wheel comprising a rim, hub-members having flanges upon which said plates rest, and connections betwen the rim and hub-members; of fingers secured to said flanges and bearing against the rim, an axle through said members, cup-bearings in the fork-arms in which the ends of the axle are journaled, and means for lubricating said bearings.

2. In a trolley, the combination with the pole and its fork, supports carried by the fork-arms, contact plates carried by the supports, and the wheel comprising a rim, hub-members having flanges upon which said plates rest, and screw-connections between the rim and hub-members; of fingers secured to said flanges and bearing against the rim, an axle journaled through said members, means for lubricating its exterior, and supports in the fork-arms for the extremities of the axle.

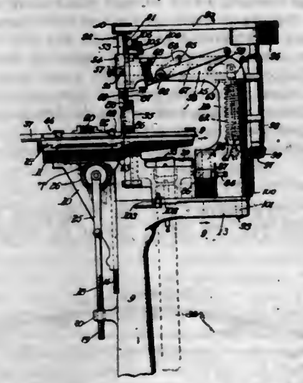
3. In a trolley, the combination with the pole and its fork, supports carried at their lower ends by the fork-arms, contact plates carried by the upper ends of the supports, and an axle carried by the fork-arms out of contact with said plates; of the wheel comprising outer and inner rims connected by spokes, the inner rim being internally threaded, two hub-members each having an externally threaded sleeve to engage the inner rim and a radial flange upon which rests one of said contact plates, the sleeves being mounted on said axle, and fingers making electrical connection between said flanges and the outer rim.

4. In a trolley, the combination with the pole and its fork, a tubular axle carried by the latter and having a radial oil-hole, and a contact plate carried by one of the fork-arms; of the wheel comprising a rim, two hub-members having sleeves journaled upon said axle and separated at their inner ends so as to stand astride said oil-hole, and flanges on said sleeves upon one of which said contact rests, and electrical connections between this flange and the rim.

5. In a trolley, the combination with the pole and its fork, an axle mounted in the latter, and a wheel carried by the axle and having a flange on its hub; of a curved contact plate resting against said flange and having two upbent ears provided with slots, and a spring support secured at its lower end within said fork and having its upper end provided with crimps adapted to removably engage said ears when the support passes through the slots in them.

[Claims 6 and 7 not printed in the Gazette.]

1,030,598. SAWING AND TRIMMING MACHINE WITH ROUTER AND JIG-SAW ATTACHMENT. HARRY G. MILLER, Milwaukee, Wis., assignor to Miller Saw-Trimmer Company of Michigan, Alma, Mich., a Corporation of Michigan. Filed July 13, 1908. Serial No. 443,402. (Cl. 29—26.)



1. A machine of the character described comprising, in combination, a common work supporting table, a shaft mounted substantially parallel with said table, a rotary edge cutting tool carried by said shaft, a rotary tool holder and a reciprocating tool holder carrying rotary and reciprocating tools and arranged at right angles to the table, and a gage common to all of said tools mounted on said table and having a fixed zero point with respect to all of the tools, all of said tools being arranged in a definite re-

lation to the zero point to cause the work performed by each tool to have a definite relation to the work performed by the other tools.

2. A machine of the character described comprising, in combination, a common work supporting table, a shaft mounted substantially parallel with said table, a rotary edge cutting tool carried by said shaft and comprising a combined saw and trimmer, a rotary tool holder and a reciprocating tool holder carrying rotary and reciprocating tools and arranged at right angles to the table, and a gage common to all of said tools mounted on said table and having a fixed zero point with respect to all of the tools, all of said tools being arranged in a definite relation to the zero point to cause the work performed by each tool to have a definite relation to the work performed by the other tools.

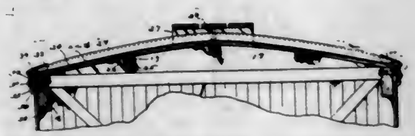
3. A machine of the character described comprising, in combination, a common work supporting table, a shaft mounted substantially parallel with said table, a rotary edge cutting tool carried by said shaft, a rotary tool holder and a reciprocating tool holder carrying rotary and reciprocating tools and arranged at right angles to the table, and a gage comprising a relatively stationary member and a movable member common to all of said tools mounted on said table and having a fixed zero point with respect to all of the tools, all of said tools being arranged in a definite relation to said zero point to cause the work performed by each tool to have a definite relation to the work performed by the other tools.

4. A machine of the character described comprising, in combination, a common work supporting table, a shaft mounted substantially parallel with said table, a rotary edge cutting tool carried by said shaft, a rotary tool holder and a reciprocating tool holder carrying rotary and reciprocating tools arranged at right angles to the table, all of said tools being operative in substantially the same vertical plane, and a gage common to all of said tools mounted on said table and having a fixed zero point with respect to all of the tools, all of said tools being arranged in a definite relation to said zero point to cause the work performed by each tool to have a definite relation to the work performed by the other tools.

5. A machine of the character described comprising, in combination, a common work supporting table, a shaft mounted substantially parallel with said table, a rotary edge cutting tool carried by said shaft, a rotary tool holder and a reciprocating tool holder carrying rotary and reciprocating tools and arranged at right angles to the table, and a gage common to all of said tools mounted on said table and having a fixed zero point with respect to all of the tools and pivoted to move in the arc of a circle having its center on the vertical plane in which all of said tools operate, all of said tools being arranged in a definite relation to the zero point of said gage to cause the work performed by each tool to have a definite relation to the work performed by the other tools.

[Claims 6 to 14 not printed in the Gazette.]

1,030,599. CAR-ROOF. WALTER P. MURPHY, St. Louis, Mo. Filed Jan. 13, 1910. Serial No. 537,950. (Cl. 108—5.)



1. A car roof including a metal carline of inverted T-shape with its web terminating short of its ends forming notches, movable roof sheets having upturned flanges arranged on each side of said carline, a seam cover positioned over said web and roof sheet flanges and flexibly engaging the latter to retain the roof sheets in position, and a roof clip covering the end of the carline and seam cap at the eaves of the car and having a fastening means secured to the web of the carline in longitudinal alinement therewith.

2. A car roof including a metal carline of inverted T-shape with its web terminating short of its ends forming notches, movable roof sheets having upturned flanges arranged on each side of said carline, a seam cover positioned over said web and roof sheet flanges and flexibly engaging the latter to retain the roof sheets in position, and a roof clip covering the end of the carline and seam cap at the eaves of the car and having a projection extending into the notch left at the end of the web, and having a fastening means secured to the web of the carline in longitudinal alinement therewith.

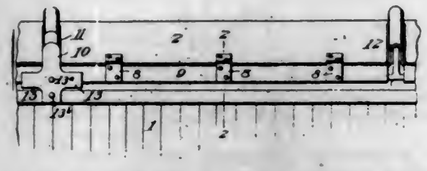
3. In a car roof, sheets having downturned end flanges overhanging the eaves, openings in said flanges, roof clips spaced from said sheets, said clips having spacing projections on their inner sides bearing against the car body above and below the lower edge of said sheet flanges, and means passing through said clips and said openings for securing said clips to the car body.

4. In a car roof, sheets having downturned end flanges overhanging the eaves, openings in said flanges, roof clips, a spacing member at the lower end of said roof clips bearing upon the car body below the lower edge of the said flanges, and a spacing member intermediate the ends of said clips projecting through the openings in the downturned end flanges of the sheets and bearing on the car body, and means passing through said clips and said openings for securing the clips to the car body.

5. A car roof comprising carlines having a web and laterally extending base flanges, the base flanges extending beyond the ends of the web and bent down and secured to the side plate of the car, roof sheets having upturned side edges which are disposed alongside of the carline, a cap extending from eaves to eaves of the car and covering the carline and upturned edges of the roof sheets, a seam clip having a hood housing the end of the seam, a tongue projecting within the hood to engage the carline, and an apron depending from said hood below the eaves of the car, a fastening passing through the apron and the side of the car to secure the clip to the car below the eaves, and a fastening securing the hood to the carline above the eaves to prevent the hood from tilting.

[Claims 6 and 7 not printed in the Gazette.]

1,030,600. CAR-ROOF. WALTER P. MURPHY, Chicago, Ill. Filed Aug. 10, 1910. Serial No. 576,546. (Cl. 108—5.)



1. A car roof comprising metal sheets flexibly connected by interlocking flanges extending from the eaves to the ridge, the outer portion of each sheet being bent down over the eaves, and means secured to each sheet in the outer bent down portion to maintain the angular relation of the bent portion relative to the main body portion of the sheet.

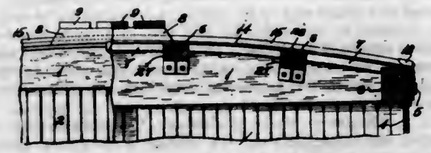
2. A car roof comprising metal sheets flexibly connected by interlocking flanges extending from the eaves to the ridge, the outer portion of each sheet being rounded and bent down over the eaves, a fascia having a rounded upper corner, braces secured in the rounded and bent down portion of the sheets to maintain the shape of this portion as said portion works up and down over the rounded corner of the fascia.

3. The combination with a car roof sheet, the outer portion of which is bent down to form an eaves bend at right angles to the main portion of the sheet, of brackets secured in said bend to stiffen the bent portion and maintain the angular relation between said bent portion and the main portion of the sheet.

4. In a car roof comprising roof sheets movably secured thereon having downturned ends overhanging the eaves, eaves clips arranged at the joint between adjacent roof sheets to overlie the same, said eaves clips comprising base portions and wing portions extending from the outer edges of the base portions and overlapping the downturned ends of adjacent roof sheets, said base portions being of greater thickness than the wing portions, whereby the wing portions are spaced from the roof sheets and loosely secure the latter at the eaves corners thereof.

5. In a car roof comprising roof sheets movably secured thereon having down-turned ends overhanging the eaves, eaves clips arranged at the joints between adjacent roof sheets to overlie the same, said eaves clips comprising base portions secured to the car at the eaves between the down-turned ends of the sheets, and wing portions extending from the outer edges of said base portions and overlapping the down-turned ends of adjacent roof sheets, said base portions being of greater thickness than the wing portions whereby the wing portions are spaced from the roof sheets and loosely secure the latter at the eaves corners thereof.

1,030,601. CAR-ROOF. WALTER P. MURPHY, Chicago, Ill. Filed Jan. 23, 1911. Serial No. 604,084. (Cl. 108—5.)



1. In a car roof, the combination with side plates, of carlines having side and slightly tapering vertical flanges secured to said side plates, and purlins composed of superimposed strips, some of said strips extending continuously beneath the carlines, and other strips fitting between the vertical flanges of adjacent carlines and above the horizontal flanges of said carlines and secured to the first mentioned strips by means adapted to draw said upper strips downwardly toward the lower strip.

2. In a car roof, the combination with side plates and carlines extending between the side plates, of built up purlins transverse to the carlines, said purlins each having one section extending continuously past the carlines and other sections fitting between adjacent carlines and forming braces therefor and secured to the first named section by means adapted to draw said upper sections downwardly toward the lower section, and the vertical member of the carlines being thicker at the bottom than at the top.

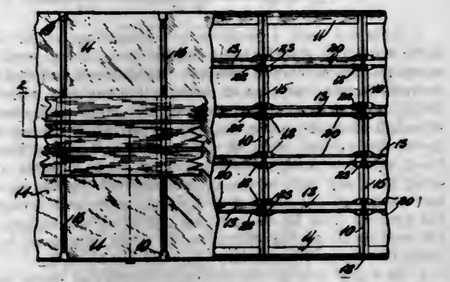
3. In a car roof, the combination with side plates and flanged metal carlines extending between the side plates, of built up wooden purlins transverse to the carlines, said purlins each having a lower section extending continuously past the carlines and upper sections fitting between adjacent carlines and forming braces therefor and secured lengthwise to the first named section by means adapted to draw said upper sections downwardly toward the lower section, and the vertical member of the carlines being thicker at the bottom than at the top, and roof sheets extending from eaves to eaves of the car and supported on the last mentioned sections of the purlins.

4. In a car roof, the combination with notched side plates, of metal carlines having vertical and horizontal flanges secured in the said notches and having end lugs embracing the side plates, said vertical flanges tapering upwardly, wooden purlins supported by the carlines and composed of upper and lower sections secured together by means adapted to draw the upper sections downwardly toward the lower section, the upper sections extending between the vertical flanges of the carlines and resting on the horizontal flanges of the carlines to provide lateral braces therefor.

5. In a car roof, the combination with a substructure of metal roof sheets movably supported thereon and spaced apart, and metal seam-caps covering the margins of adjacent sheets and clips secured to the substructure beyond the sheets, a roof sheet having upturned side flanges and downturned end flanges and having notches in its ends extending throughout the downturned portions, and longitudinal corrugations extending the full distance from the notch at one end of the sheet to a notch on the other end, whereby said corrugations stiffen the sheet longitudinally and adapt it to yield transversely.

[Claims 6 to 18 not printed in the Gazette.]

1,030,602. CAR-ROOF. WALTER P. MURPHY, Chicago, Ill. Filed Sept. 28, 1911. Serial No. 651,717. (Cl. 108—5.)



1. In a car roof, the combination with carlines having vertical webs, of metal purlins of flanged channel section extending betwen said carlines, the channel and flanges being merged into the same plane at the ends of the respective purlins and bent up against the vertical webs of the carlines, and fastening means passed through said bent up ends of the purlins and webs of the carlines to secure them together.

2. In a car roof, the combination with carlines having vertical webs, of metal purlins of flanged channel section extending between said carlines, the channel and flanges being spread out into a plane section at either end of the respective purlins and bent up against the vertical webs of the carlines, and bolts passed through said laterally spaced bent up ends of the purlins and the webs of the carlines to secure said purlins and carlines together, said bolts being spaced apart, thereby securing a bracing effect.

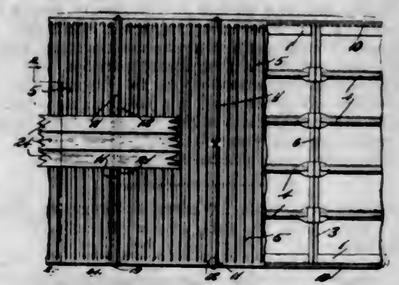
3. In a car roof, the combination with carlines having vertical webs, of metal purlins of flanged channel section adapted to receive a wooden filler extending between said carlines, the channel and flanges being merged into the same plane at the ends of the respective purlins and bent up against the vertical webs of the carlines, and fastening means passed through said bent up ends of the purlins and webs of the carlines to secure them together.

4. In a car roof, the combination with carlines having vertical webs, of metal purlins of flanged channel section adapted to receive a wooden filler extending between said carlines, the channel and flanges being merged into the same plane at the end of the respective purlins and bent up against the vertical webs of the carlines, filler strips positioned in the channel section of said purlins, the upper surface of said filler strips lying above the flanges of the purlins and below the top of the webs of the carlines, and fastening means passed through said bent up ends of the purlins and webs of the carlines to secure them together.

5. A car roof comprising carlines provided with vertical webs and lateral flanges along the bottom edges thereof, metal purlins of flanged channel section extending between the carlines and resting at the ends on the said lateral flanges, the flanged channel section of the purlins merging into wide spreading plane sections at the ends extending laterally beyond the body lines of the purlins and terminating in transverse flanges, and means for securing said transverse flanges to the vertical webs of the carlines.

[Claims 6 to 11 not printed in the Gazette.]

1,030,603. METAL CAR-ROOF. WALTER P. MURPHY, Chicago, Ill. Filed Dec. 4, 1911. Serial No. 663,755. (Cl. 108—5.)



1. In a car roof, a substructure comprising metal carlines extending from eaves to eaves and having vertical webs, purlins extending between the carlines and rigidly secured thereto, the tops of said purlins being at a lower elevation than the tops of the carlines, metal roof sheets arranged on said purlins and having marginal flanges adjacent the vertical webs of the carlines and spaced therefrom, said roof sheets extending from eaves to eaves and being provided with terminal flanges overlying the eaves, and seam caps extending from ridge to eaves and covering the vertical webs of the carlines and marginal flanges of the roof sheets and spaced from the latter, said seam caps being loosely secured at the ridge and eaves.

2. In a car roof, a substructure comprising metal carlines extending from eaves to eaves and having vertical webs, purlins extending between the carlines and rigidly secured thereto, the tops of said purlins being at a lower elevation than the tops of the carlines, corrugated metal roof sheets arranged on said purlins and having marginal flanges adjacent the vertical webs of the carlines and spaced therefrom, said roof sheets extending from eaves to eaves and being provided with terminal flanges overhanging the eaves, and seam caps extending from ridge to eaves and covering the vertical webs of the carlines and marginal flanges of the roof sheets and spaced from the latter, said seam caps being loosely secured at the ridge and eaves and provided with horizontal side flanges along their lower edges bearing upon the roof sheets between the corrugations and marginal flanges thereof.

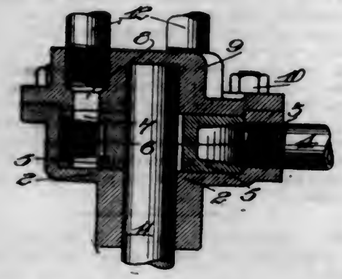
3. In a car roof, a substructure comprising metal carlines extending from eaves to eaves and having vertical webs, and horizontal base flanges, purlins extending between the carlines and rigidly secured thereto, the tops of said purlins being at a lower elevation than the tops of the carlines, said purlins being supported on the base of the flanges of the carlines, corrugated metal roof sheets arranged on said purlins and having marginal flanges adjacent the vertical webs of the carlines and spaced therefrom, said roof sheets extending from eaves to eaves and being provided with terminal flanges overhanging the eaves, and seam caps extending from ridge to eaves and covering the vertical webs of the carlines and marginal flanges of the roof sheets and spaced from the latter, said seam caps being loosely secured at the ridge and eaves and provided with horizontal side flanges along their lower edges bearing upon the roof sheets between the corrugations and marginal flanges thereof.

4. In a car roof, a substructure comprising metal carlines extending from eaves to eaves, purlins extending between the carlines and rigidly secured thereto, corrugated metal roof sheets arranged on said purlins and having marginal flanges, said roof sheets extending from eaves to eaves and being provided with terminal flanges overhanging the eaves, and seam caps extending from ridge to eaves and covering the marginal flanges of the roof sheets and spaced from the latter, said seam caps being loosely secured at the ridge and eaves and provided with horizontal side flanges along their lower edges bearing upon the roof sheets between the corrugations and marginal flanges thereof.

5. In a car roof, end roof sheets arranged transversely of the car and extending from eaves to eaves, said roof sheets being provided with downturned marginal side and end flanges, said end flanges overhanging the eaves in contact therewith, and said side flanges overhanging the ends of the car and spaced therefrom.

[Claims 6 to 16 not printed in the Gazette.]

1,030,604. DISTRIBUTING-VALVE. OLE E. NILSEN, Seattle, Wash. Filed Oct. 2, 1911. Serial No. 652,324. (Cl. 137—26.)



1. A distributer valve, including a suitable casing, a ported cap attachable to the casing, a rotatable valve member inclosed in the casing by said cap, said valve member having spaced flanges and a circumferential chamber, and having a port adapted to register with the ports in the cap, and means for delivering fluid into the chamber of the valve.

2. A distributer valve, including a suitable casing, a ported cap attachable to the casing, a rotatable valve member inclosed in the casing by said cap, said valve member having spaced flanges and a circumferential chamber, and having a port adapted to register with the ports in the cap, means for delivering fluid into the chamber of the valve, and means for rotating said valve member.

3. A distributer valve, including a substantially circular casing, a rotary disk-shaped valve mounted in the casing, said valve having a circumferential chamber formed by flanges at top and bottom thereof, a cap for the casing above said valve, a shaft connected to the valve, for rotating the latter, a series of fluid conductors connected to the cap, and means for conveying fluid to the valve chamber, one of said flanges having a port adapted to register with the said fluid conductors.

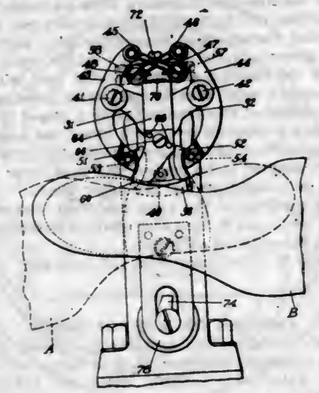
1,030,605. TRIMMING-MACHINE. FREDERICK H. PERRY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 10, 1910. Serial No. 543,071. (Cl. 12—85.)

1. In a machine of the class described the combination with means for trimming the edge of a shoe sole to the line of the heel breast, of additional means operating at the same presentation of the shoe to the machine to detach the trimmed material from the sole in a line with said heel breast.

2. In a machine of the class described, the combination with means for trimming the edge of a shoe sole to the line of the heel breast, of means for positioning the shoe for the operation of said trimming means, and means for detaching the trimmed material from the sole edge in a line with said heel breast while the shoe is positioned by said positioning means.

3. In a machine of the class described, the combination with an edge trimming knife arranged to cut along the edge of a shoe sole, of a knife arranged to cut transversely into the edge of the sole at the end of the cut made by the edge trimming knife.

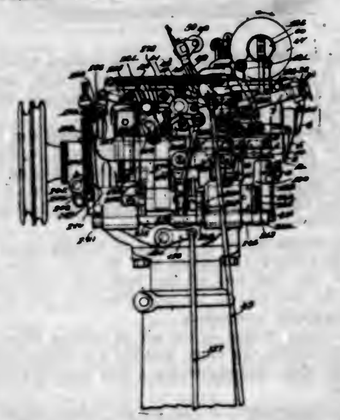
4. In a machine of the class described the combination with an edge trimming knife, of another knife having a cutting movement in a path transverse to that of said edge trimming knife, and means to move said knives alternately to the line of intersection of their paths.



5. In a machine for cutting in shoe shanks, a knife adapted to be moved along the edge of the shank of a shoe toward and away from the heel, and a second knife movable transverse of the path of said first knife.

[Claims 6 to 75 not printed in the Gazette.]

1,030,606. MACHINE FOR OPERATING ON SHOE-SOLES. FREDERICK H. PERRY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 4, 1910. Serial No. 559,832. (Cl. 12—18.)



1. A machine for operating on the soles of shoes, having, in combination, a tool, a pattern mechanism for determining the path along which the tool operates, and means for shifting the pattern mechanism to bring it into time with the tool during the relative travel of the tool about the shoe, substantially as described.

2. A machine for operating on the soles of shoes, having, in combination, a tool, a pattern mechanism for determining the path along which the tool operates, and means for shifting the pattern mechanism in either direction to bring it into time with the tool during the relative travel of the tool about the shoe, substantially as described.

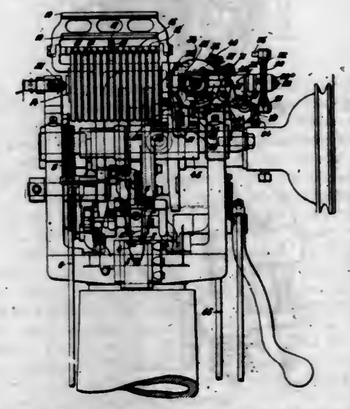
3. A machine for operating on the soles of shoes, having, in combination, a tool, a pattern mechanism for determining the path along which the tool operates, means for feeding the pattern mechanism in opposite directions for right and left shoes, and means for shifting the pattern mechanism in either direction to bring it into time with the tool during the relative travel of the tool about the shoe, substantially as described.

4. A machine for operating on the soles of shoes, having, in combination, a tool, a pattern mechanism for determining the path along which the tool operates, and mechanism under the control of the operator for shifting the pattern mechanism at intervals during the relative travel of the tool about the shoe to correct the position of the pattern mechanism, substantially as described.

5. A machine for operating on the soles of shoes, having, in combination, a tool, a pattern mechanism for determining the path along which the tool operates, and mechanism under the control of the operator for shifting the pattern mechanism in either direction at intervals during the relative travel of the tool about the shoe to correct the position of the pattern mechanism, substantially as described.

[Claims 6 to 61 not printed in the Gazette.]

1,030,607. MACHINE FOR OPERATING ON THE SOLES OF SHOES. FREDERICK H. PERRY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 11, 1908, Serial No. 466,930. Renewed Feb. 24, 1912. Serial No. 679,765. (Cl. 12—18.)



1. A machine for operating on the soles of shoes, having, in combination, a tool, a gage, means for throwing the gage into action during the relative travel of the tool about the shoe, a plurality of means for relatively actuating the tool and gage, constructed and arranged to impart different relative movements to the gage and tool for shoes of different styles, and means for rendering any one of said means operative, substantially as described.

2. A machine for operating on the soles of shoes, having, in combination, a tool, a gage, means for throwing the gage into action during the relative travel of the tool about the shoe, means for relatively actuating the gage and tool comprising a plurality of cams and intermediate connections, constructed and arranged to impart different relative movements to the gage and tool for shoes of different styles, and means for rendering any one of said cams operative, substantially as described.

3. A sole rounding or channeling machine, having, in combination, a knife, a gage, means for throwing the gage into action during the relative travel of the knife about the shoe, a plurality of means for relatively actuating the tool and gage constructed and arranged to impart different relative movements to the gage and knife for shoes of different styles, and means for rendering any one of said means operative, substantially as described.

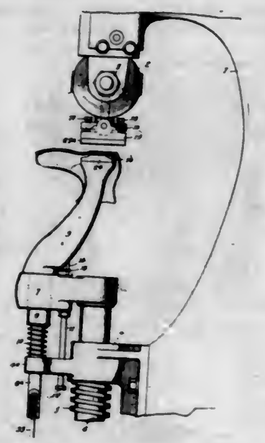
4. A sole rounding or channeling machine, having, in combination, a knife, a gage, means for throwing the gage into action during the relative travel of the knife about the shoe, means for relatively actuating the gage and knife comprising a plurality of cams and intermediate

connections constructed and arranged to impart different relative movements to the gage and knife for shoes of different styles, and means for rendering any one of said cams operative, substantially as described.

5. A machine for operating on the soles of shoes, having, in combination, a tool, a gage, means for relatively actuating the tool and gage comprising a plurality of cams and intermediate connections constructed and arranged to impart different relative movements to the gage and knife for shoes of different styles, a rotary carrier on which the cams are arranged in series side by side, mechanism for rotating the carrier during the relative travel of the tool about the shoe, and means for bringing any one of the cams into operative engagement with said connections, substantially as described.

[Claims 6 to 31 not printed in the Gazette.]

1,030,608. MACHINE FOR EMBOSSING HEELS ON SHOES. ADAM H. PRENZEL, Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 5, 1910. Serial No. 575,801. (Cl. 12—17.)



1. In a machine for embossing heels on shoes, a laterally shiftable support, a lower die mounted on said support and provided with a heel shaped surface arranged to enter the inside of an inverted shoe, an upper die having a heel shaped recess larger than the heel shaped surface on the lower die, and a spring for moving said lower die and the shoe against said upper die for adjusting the position of the shoe upon the lower die, the said support being capable of further movement for embossing a heel upon said shoe.

2. In a machine for embossing heels on shoes, a frame, a post slidably mounted in the frame and provided with an arm having a bore, a die support having a reduced portion extending through the bore in said arm for pivotally mounting the support, a spring arranged to bear on said frame for keeping said support in a normally raised position, a lower die carried by said support, said lower die having a heel shaped surface and provided with a recess around the edge of said surface, a pivotally mounted upper die having a heel shaped recess, and means for tilting said upper die on its pivot and for retaining it in its tilted position.

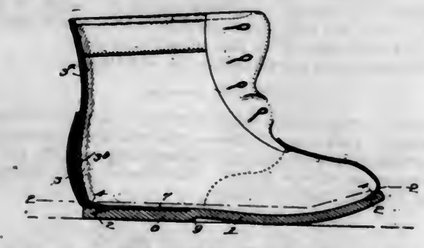
3. In a machine for embossing heels on shoes, a frame, a rotary die holder carried thereby, said die holder being provided with sockets, means for setting said die holder to bring all of said sockets successively into operating position, a die having a tongue adapted to enter said sockets, said die having an upper part integral with said tongue and a lower part pivotally mounted upon said upper part, means carried by said upper part for adjusting said lower part, the lower part having a heel shaped recess therein, and a lower die having a raised heel shaped surface and a groove around the edge of said surface.

4. In a machine for embossing heels on shoes, an upper die comprising two parts, a supporting part and a working part pivoted thereto, said supporting part having at its ends set screws adapted to bear on said working part for regulating the position of said working part with respect to said support, said working part being provided with a heel shaped recess, a lower die having a raised heel shaped surface, and a channel or groove along the edge of said heel shaped surface and being provided with spring pressed guide pins adapted to be pushed into said lower die when the latter is brought against the upper die.

5. In a machine of the class described, means for embossing a heel upon a shoe and means for simultaneously thickening the edges of said heel.

[Claims 6 to 11 not printed in the Gazette.]

1,030,609. PROCESS OF MAKING SHOES. ADAM H. PRENZEL, Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 5, 1910. Serial No. 575,802. (Cl. 12—142.)



1. That improvement in the art of making shoes which consists in uniting the upper and the sole, and then embossing a heel upon the heel end of the sole after the shoe is otherwise substantially completed.

2. That improvement in the art of making shoes which consists in uniting the upper and the sole, embossing a heel upon the heel end of the sole, and inserting a filler to fill the depression upon the inside of the shoe formed by the heel embossing operation after the shoe is otherwise substantially completed.

3. That improvement in the art of making shoes which consists in uniting the upper and the sole, embossing a heel upon the heel end of the sole and thickening the edges of the heel end of the sole after the shoe is otherwise substantially completed.

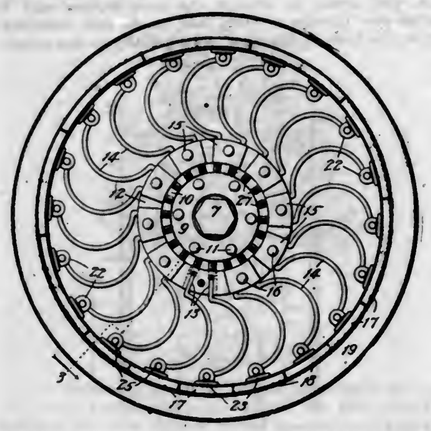
4. That improvement in the art of making shoes which consists in uniting the upper and the sole wrong side out, turning the shoe, and embossing a heel upon the heel end of the sole.

5. That improvement in the art of making shoes which consists in uniting the upper to the sole wrong side out, turning the shoe, embossing a heel upon the heel end of the sole, and locating a filler upon the inside of the shoe between the inturned edges of the upper.

[Claims 6 to 8 not printed in the Gazette.]

1,030,610. VEHICLE-WHEEL. AUGUSTUS F. PRIEST, Chicago, Ill. Filed Mar. 17, 1911. Serial No. 615,036. (Cl. 152—29.)

1. In a spring-wheel, the combination of a hub-portion, a rim formed of a circumferential series of relatively movable, laterally-overlapping sections each of said sections being of less width than said rim, and the overlapping portions of said sections being of different widths, whereby the line of overlap is non-coincident with the center line of the rim, a tire confined about said rim, springs connecting together said hub-portion and rim, and a cable, held against expansion, confined about said rim and overlapped by each of said rim-sections, said cable being embedded in said tire.



2. In a spring-wheel, the combination of a hub-portion, a rim formed of a circumferential series of relatively-movable, laterally-overlapping sections, each of which is of less width than the rim, the overlapping portions of said sections being of different widths, whereby the line of overlap is non-coincident with the center line of the rim, a tire confined about said rim, springs connecting together said hub-portion and rim, and a cable extending about said rim and anchored at opposite ends to one of said rim-sections, a portion of each of said rim-sections overlapping said cable, said cable being embedded in said tire, for the purpose set forth.

3. In a spring-wheel, the combination of a hub-portion, a rim formed of a circumferential series of relatively-movable laterally-overlapping sections each of less width than said rim, the overlapping portions of said sections being of different widths whereby the line of overlap is non-coincident with the center line of the rim, a band extending about the periphery of said rim, a tire confined about said rim, springs connecting together said hub-portion and rim, and a cable extending about the rim and against said band and held against expansion in a position to be overlapped by each of said rim-sections, said cable being embedded in said tire.

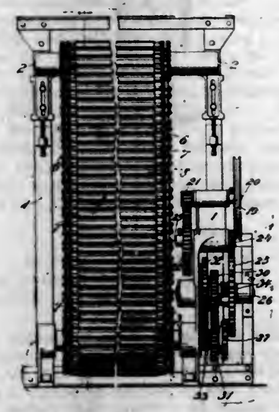
4. A spring-wheel comprising, in combination, a hub-portion, a rim formed of a circumferential series of relatively-movable, laterally-overlapping, sections, a tire confined about said rim, lugs carried on the inner sides of said sections with the lugs on adjacent sections opposing each other, links connecting together opposing lugs for preventing said rim-sections from spreading apart laterally, and springs connecting together said hub-portion and rim, for the purpose set forth.

5. A spring-wheel comprising, in combination, a hub-portion, a rim formed of a circumferential series of relatively-movable, laterally-overlapping, sections, a tire confined about said rim, lugs carried on the inner sides of said sections with the lugs on adjacent sections opposing each other, links connecting together opposing lugs for preventing said rim-sections from spreading apart laterally, studs carried by said lugs and overlapping said links, and springs engaging with said hub-portion and held to said rim by said studs, for the purpose set forth.

[Claims 6 to 11 not printed in the Gazette.]

1,030,611. PICTURE-DISPLAY MACHINE. HOMER S. ROGERS, East Orange, N. J., assignor to Kinetoplane Display Company, New York, N. Y., a Corporation of New York. Filed Nov. 20, 1908. Serial No. 463,613. (Cl. 40—84.)

1. In a picture display machine, a plurality of rollers arranged to travel in a common path, picture display aprons wound thereon, means for moving the rollers intermittently along said path for producing changing stationary picture effects, means for moving the rollers continuously along said path for producing moving picture effects and a cam device arranged to bring the last-named means into and out of operation at predetermined intervals.



2. In a picture display machine, a plurality of rollers arranged to travel in an endless path, picture display aprons wound thereon, means for moving the rollers intermittently along said path for producing changing stationary picture effects, means for moving the rollers continuously along said path for producing moving picture effects and a cam device arranged to bring the last-named means into and out of operation at predetermined intervals.

3. In a picture display machine, small upper and large lower sprocket wheels, chains arranged to travel over the same, rollers carried by said chains, picture display aprons wound on said rollers and means for moving the chains and thereby the rollers to produce different picture effects, said chains being composed of links arranged to receive the journals of the rollers so as to lock the rollers during their travel except when they are passing over the small sprocket wheels, in which latter position they may be inserted and removed.

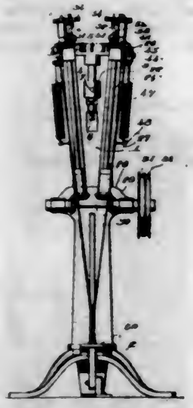
4. In a picture display machine, small upper and large lower sprocket wheels, chains arranged to travel over the same, rollers carried by said chains, picture display aprons wound on said rollers and means for moving the chains and thereby the rollers to produce different picture effects, each of said chains being composed of two sets of alternate links, the links of one set being slotted for receiving the angular journals of the rollers and the links of the other set having a bearing for the rounded journals of the rollers and provided with fingers adapted to overlap the angular journals except when the rollers are passing over the small sprocket wheels.

1,030,612. MACHINE FOR BUTTING WELTS. GEORGE L. ROLLINS, Bridgewater, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 18, 1910. Serial No. 556,169. (Cl. 12—67.)

1. A machine for butting welts comprising means for supporting the welt end of an unsoled welt shoe, a rotary cutter, means for rotating said cutter in a plane inclined to said supporting means, and means for bodily moving said cutter transversely of said supporting means to bevel the welt end.

2. A machine for butting welts comprising means for positioning an unsoled welt shoe, welt supporting plates extending beneath the welt ends to protect the upper and support the welt ends in position to be cut, a pair of rotary cutters, means for rotating said cutters in planes

inclined to said plates, and means for bodily moving said cutters transversely of said plates to bevel the welt ends.



3. A machine for butting welts comprising means for positioning an unsoled welt shoe, welt supporting plates extending beneath the welt ends to protect the upper and support the welt ends in position to be cut, a pair of rotary cutters, means for rotating said cutters in planes inclined to said plates, means for bodily moving said cutters transversely of said plates to bevel the welt ends, and pressers mounted to move with the cutters and acting to hold the welt ends against the plates during the cutting action.

4. A machine for butting welts comprising shoe supporting means composed of two pivotally mounted simultaneously-movable, yieldingly-separable parts adapted to grasp and hold an unsoled welt shoe, welt supporting plates carried by said means extending between the upper and the welt ends to protect the upper and support the welt ends in position to be cut, a pair of cutters, and means for moving said cutters transversely of said plates with the cutting planes inclined thereto to bevel the welt ends.

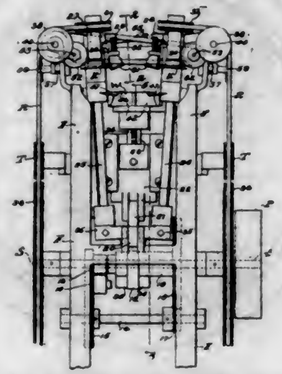
5. A machine for butting welts comprising shoe supporting means composed of two simultaneously-movable, yieldingly-separable parts adapted to grasp and hold an unsoled welt shoe, welt supporting plates carried by said means extending between the upper and the welt ends to protect the upper and support the welt ends in position to be cut, a pair of rotary cutters, means for rotating said cutters in planes inclined to said plates, and means for bodily moving said cutters transversely of said plates to bevel the welt ends.

[Claims 6 to 30 not printed in the Gazette.]

1,030,613. WELT-BUTTING MACHINE. GEORGE L. ROLLINS, Bridgewater, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 5, 1911. Serial No. 631,376. (Cl. 12—67.)

1. A welt butting machine, having, in combination, a welt pressing device, a shoe support including a welt supporting device engaging the welt crease of a welted, unsoled shoe, normally in retracted position relative to the welt pressing device, a welt cutting knife, and means for preliminarily advancing the shoe support with the welted shoe thereon toward the welt pressing device until the welt end is clamped between the welt pressing and welt supporting devices in position to be operated upon by said knife, and means for thereafter relatively moving the support and knife to butt the welt, substantially as described.

2. A welt butting machine, having, in combination, a shoe support having a plate arranged to extend under the free end of the welt of a welted, unsoled shoe, a welt butting knife, means to advance said knife across said supporting plate in a plane parallel to the plane of its surface, and means to advance the shoe support and the welted shoe thereon to bring said planes into coincidence before the knife is advanced, substantially as described.



3. A welt butting machine, having, in combination, a shoe support having a plate arranged to extend under the free end of the welt of a welted, unsoled shoe, a welt butting knife, means to advance said knife across said supporting plate in a plane parallel to the plane of its surface, means to advance the shoe support and the welted shoe thereon to bring said planes into coincidence before the knife is advanced, and means to hold the free welt ends at an angle to the surface of said plate during the advance of the knife, substantially as described.

4. A welt butting machine, having, in combination, a welt pressing device, a shoe support, including a welt supporting device engaging the welt crease of a welted, unsoled shoe, normally in retracted position relative to the welt pressing device, a welt cutting knife, means for advancing the shoe support and the welted shoe thereon toward the welt pressing device until the welt end is clamped between the welt pressing and welt supporting devices and is held in a plane at an angle to the cutting plane of the knife, and means for advancing the knife through the welt end and the pressing device over the welt end in advance of the knife, substantially as described.

5. A welt butting machine, having, in combination, a welt butting knife, a welt presser located in advance of said knife, a shoe support beneath said device and normally lowered to a position to permit a welted, unsoled shoe to be placed thereon without engaging the presser or knife, means for moving the shoe vertically into engagement with the presser, and means for thereafter advancing the presser along the welt and the knife across and through the welt, substantially as described.

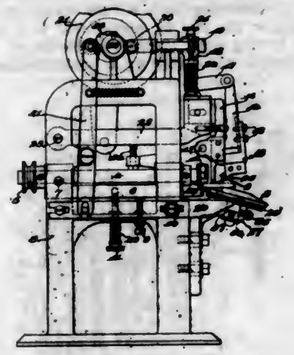
[Claims 6 to 15 not printed in the Gazette.]

1,030,614. CHANNELING-MACHINE. JOHN G. ROSS, South Easton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 3, 1905. Serial No. 272,529. (Cl. 12—27.)

1. A channeling-machine, having, in combination, means engaging the upper and lower surfaces of a sole for holding and feeding a sole, and a rotating shoulder cutter cutting the work in the direction of feed, substantially as described.

2. A channeling machine, having, in combination, means engaging the upper and lower surfaces of a sole for holding and feeding a sole, a channeling knife, and an independently mounted rotating shoulder cutter, substantially as described.

3. A channeling machine, having, in combination, means engaging the upper and lower surfaces of a sole for holding and feeding a sole, a channeling knife, and a rotating shoulder cutter cutting in the direction of feed, substantially as described.

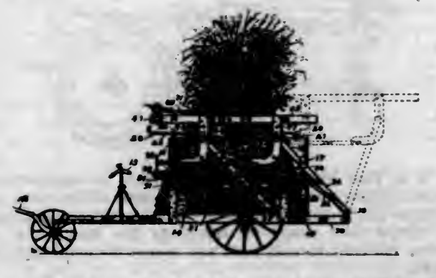


4. A channeling machine, having, in combination, a rotary work support for supporting a flat sole, means for rotating the work support to feed the sole, and a rotating shoulder cutter cutting in the direction of the feed, substantially as described.

5. A channeling machine, having, in combination, a rotary work support, a constantly rotating shoulder cutter, a channeling cutter vibrating transversely with respect to the line of feed, and means for rotating the work support intermittently during the return movements of the channeling knife to feed the work, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

1,030,615. CORN-HARVESTING MACHINE. CLYDE A. SATTLEY, Indianapolis, Ind., assignor to Sattley Machinery Company, Indianapolis, Ind., a Corporation of Maine. Filed Oct. 26, 1911. Serial No. 656,877. (Cl. 56—104.)



1. A corn harvesting machine comprising a platform, inclosing walls at opposite sides of the same, gates at the rear end thereof, means for opening and closing said gates, a shock discharger embodying a stalk spreader mounted upon said platform and adapted to be moved rearwardly beyond the edge of said platform and returned to shock building position, means associated with said discharger for securing a shock thereto, and means for propelling said discharger to lift a shock from said platform and deposit the same on the ground behind said machine and for arresting the movement of said discharger as it is being returned to shock building position.

2. A corn harvesting machine comprising a frame, a shock retaining wall thereon, a gate associated with said wall, means for opening and closing said gate, a shock discharger embodying a stalk spreader mounted to swing longitudinally on said frame, and means for actuating said discharger to lift a shock from said frame and deposit the same on the ground behind said machine.

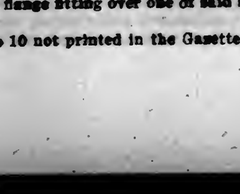
3. The combination, in a corn harvesting machine, of a frame, and a shock discharger mounted thereon comprising a pivoted bar, means arranged transversely of said bar for dividing stalks, stalk spreading means associated with said discharger and positioned below said dividing means, a windlass on said bar, and a cord attached to said windlass and adapted to encircle and compress a shock.

4. In a corn harvesting machine, a shock discharger comprising a pivoted member adapted to shift longitudinally of said machine, a stalk spreader communicating with and positioned below said pivoted member, means associated with said discharger for securing a shock thereto, and means for propelling said discharger and spreader rearwardly to deposit a shock on the ground.

5. The combination, with a corn harvesting machine, of a shock discharger embodying a stalk spreader and means for securing a shock thereto, a propeller embodying a roller adapted to contact with said discharger, and means for actuating said propeller to advance said discharger from normal to shock depositing position.

[Claims 6 to 34 not printed in the Gazette.]

1,030,616. AUTOGRAPHIC REGISTER. JEREMIAH J. SHEEHY, Everett, Mass. Filed May 24, 1909. Serial No. 497,972. (Cl. 11—36.)



1. In an autographic register, the combination of a frame comprising front and rear end pieces, parallel side pieces each divided longitudinally to form a stationary section and a movable section, a plurality of paper reels mounted in the stationary sections, and means carried on one of the movable sections for exerting endwise pressure against the reels.

2. In an autographic register, the combination of a frame comprising front and rear end pieces, parallel side pieces each divided longitudinally to form a stationary section and a movable section, a plurality of paper reels mounted in the stationary sections, and spring presser plates mounted on one of the movable sections for exerting endwise pressure against the reels.

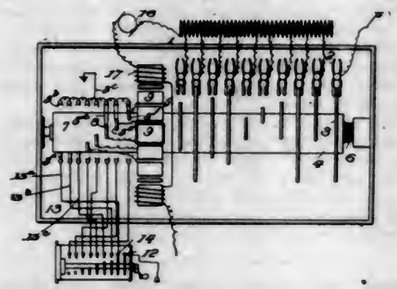
3. In an autographic register, a frame comprising front and rear end pieces, and parallel side pieces each divided longitudinally to form a stationary section and a movable section, oppositely disposed slots in the stationary sections, a plurality of paper reels mounted in said slots, and spring presser plates on one of the movable sections for exerting endwise pressure against the reels.

4. In an autographic register, a frame comprising front and rear end pieces and parallel side pieces each divided longitudinally to form a stationary section and a section hinged thereto, the lower edges of the hinged sections being adapted to rest on the upper edges of the stationary sections, oppositely disposed slots in the stationary sections, a plurality of paper reels having spindles mounted in said slots, the spindles of said reels being wholly within the slots and below the plane of the upper edges of the stationary sections, and spring presser plates carried on one of the hinged sections for exerting endwise pressure against the reels.

5. In an autographic register, the combination of a frame comprising front and rear end pieces and parallel side pieces each divided longitudinally lengthwise of the machine to form a stationary section and a section hinged thereto, the lower edges of the hinged sections being adapted to rest on the upper edges of the stationary sections, a paper support or bed having side flanges adapted to fit over the upper edges of the hinged section, and a cover having a flange fitting over one of said side flanges of the bed.

[Claims 6 to 10 not printed in the Gazette.]

1,030,617. ELECTRIC CONTROLLER. RICHARD VAN R. SILL, Newark, N. J., assignor of two-thirds to Alphonzo E. Pelham, New York, N. Y. Filed Sept. 5, 1907. Serial No. 391,474. Renewed Oct. 6, 1910. Serial No. 585,706. (Cl. 172—179.)



1. A circuit controlling mechanism comprising a pilot motor having permanent fields and a rotary armature, sectional windings upon said armature, a master switch, and independent electric connections between successive sections of said windings and successive contact surfaces on said master switch, whereby the polarity of the armature may be progressively shifted as the master switch is operated.

2. A circuit controlling mechanism comprising a pilot motor having sectional windings upon its rotary member or armature, and having commutator sections each separately connected to one section of the windings, a master switch, and independent conductors for connecting the successive contacts on the master switch with successive commutator sections.

3. The combination with a power motor and a controller therefor, of a pilot motor for operating the controller, said pilot motor having sectional windings and having a series of commutator sections connected, respectively, to said windings, a series of contact brushes adapted to be engaged successively by said commutator sections as the pilot motor rotates, and a master switch arranged to connect said brushes successively with the supply circuit.

4. A circuit controlling mechanism comprising a pilot motor having sectional windings and having commutator sections each separately connected to one section of said windings, brushes or contacts adapted to engage said commutator sections in succession as the motor rotates, a master switch, and electrical connections between said brushes or contacts and said master switch.

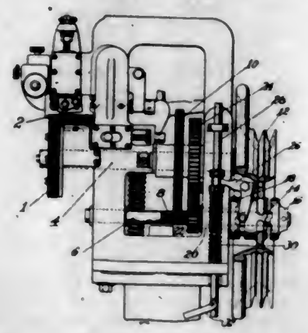
5. A circuit controlling mechanism comprising a pilot motor having sectional windings upon its rotary member or armature and having commutator sections each separately connected to one section of the windings, brushes or contacts adapted to engage said commutator sections in succession as the motor rotates, a master switch, and electrical connections between said brushes or contacts and said master switch.

[Claims 6 to 20 not printed in the Gazette.]

1,030,618. MACHINE FOR OPERATING UPON SOLES. RALPH C. SIMMONS, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 22, 1908. Serial No. 458,999. (Cl. 12—27.)

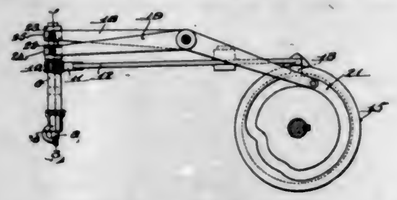
1. A machine for operating upon soles, having in combination, an operating tool, a feed wheel for advancing the sole against the tool by engagement with its marginal portion, a driving shaft, means for transmitting rotary movement from the driving shaft to said feed wheel, a sleeve rotatably mounted upon said driving shaft, means for transmitting rotary movement from said sleeve to said feed wheel and a power driven member rotatably mounted upon the shaft constructed to transmit rotary movement to either the sleeve or the shaft at the will of the operator.

2. A machine for operaing upon soles, having in combination, an operating tool, a feed wheel for advancing the sole against the tool by engagement with its marginal portion, a driving shaft operatively connected to the feed wheel to rotate the latter at a predetermined speed, a



rotatable member for imparting movement to the feed wheel at a slower rate of speed and a power driven member rotatably mounted upon the shaft constructed and arranged to impart rotary movement to either the shaft or said rotatable member at the will of the operator.

1,030,619. KNOT-TYING MECHANISM. WILLARD A. SMITH, Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Jan. 16, 1906. Serial No. 296,388. Divided and this application filed Nov. 15, 1907. Serial No. 402,249. (Cl. 112—24.)



1. A knot tying mechanism, having, in combination, cord grippers arranged to grasp the ends of the cord, rotatable and reciprocating jaws adjacent the cord grippers, a thread arm, means for actuating the thread arm to place the cord in said jaws and means for actuating the jaws.

2. A knot tying mechanism, having, in combination, a looping post provided with an eye through which the cord passes, gripping devices for holding the end of the cord, jaws at the lower end of the post, means for rotating and reciprocating the post and operating the jaws, and means for opening the eye to release the cord.

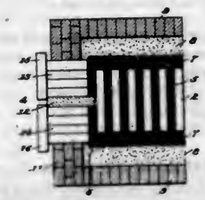
3. A knot tying mechanism, having, in combination, rotatable and reciprocating jaws, a cord retainer mounted to rotate with the jaws and arranged to retain a cord upon the jaws during their rotation and to release the cord after it has been seized by the working faces of the jaws and means for actuating the jaws.

4. A knot tying mechanism, having, in combination, a rotatable and reciprocating looping post, cord gripping jaws moving with said post, a cord retainer arranged to retain a cord upon the post during its rotation and to release the cord after it has been seized by the jaws, and means for actuating the cord retainer and jaws.

5. A knot tying mechanism, having, in combination, a rotatable and reciprocating looping post about which the cord is looped, cord gripping jaws moving with said post, a thread arm, means for actuating the thread arm to carry the cord between the jaws, and means for actuating the jaws.

[Claims 6 to 15 not printed in the Gazette.]

1,030,620. METHOD OF TREATING CARBON ARTICLES OF LOW INITIAL CONDUCTIVITY. EDMUND C. SPRAGUE and ARTHUR M. WILLIAMSON, Niagara Falls, N. Y., assignors to International Acheson Graphite Company, Niagara Falls, N. Y., a Corporation of New Jersey. Filed Mar. 20, 1912. Serial No. 684,990. (Cl. 204—64.)



1. The method of treating carbon articles of low initial conductivity in an electric resistance furnace, which consists in disposing said articles between the electrodes in a series of piles with interposed resistance material, and electrically heating said piles chiefly from the opposite ends thereof until the articles are rendered electrically conductive.

2. The method of treating carbon articles of low initial conductivity in an electric resistance furnace, which consists in disposing said articles between the electrodes in a series of piles with interposed resistance material, electrically heating said piles chiefly from the opposite ends thereof until the articles are rendered electrically conductive, and thereafter heating said piles throughout their length by heat developed in said interposed resistance material.

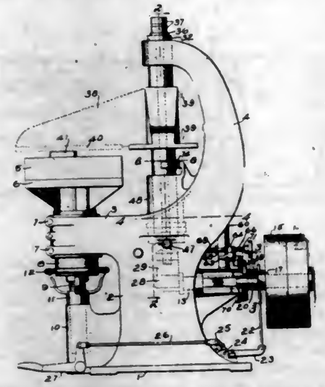
3. The method of treating carbon articles of low initial conductivity in an electric resistance furnace, which consists in disposing said articles between the electrodes in a series of piles with interposed resistance material, electrically heating said piles chiefly from the opposite ends thereof, until the articles are rendered electrically conductive, thereafter heating said piles throughout their length by heat developed in said interposed resistance material, and maintaining throughout the greater part of the heating stage a higher temperature in the ends of the piles than in the interior portions thereof.

4. The method of treating carbon articles of low initial conductivity in an electric resistance furnace, which consists in disposing said articles between the electrodes in a series of piles with interposed resistance material, electrically heating said piles chiefly from the opposite ends thereof, until the articles are rendered electrically conductive, thereafter heating said piles throughout their length by heat developed in said interposed resistance material, maintaining throughout the greater part of the heating stage a higher temperature in the ends of the piles than in the interior portions thereof, and finally bringing all portions of said piles to approximately the same maximum temperature.

5. The method of treating carbon articles of low initial conductivity in an electric resistance furnace, which consists in disposing said articles between the electrodes in a series of piles with interposed resistance material, electrically heating said piles chiefly from the opposite ends thereof, until the articles are rendered electrically conductive, thereafter heating said piles through their length by heat developed in said interposed resistance material, maintaining throughout the greater part of the heating stage a higher temperature in the ends of the piles than in the interior portions thereof, and finally bringing all portions of said piles at approximately the same time to approximately the same maximum temperature.

[Claims 6 to 11 not printed in the Gazette.]

1,030,621. MACHINE FOR CUTTING LEATHER. WILLIAM C. STEWART, Lynn, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 8, 1909. Serial No. 526,760. (Cl. 164—23.)



1. In a machine for dying out sheet material, the combination with a bed and a presser member freely movable into operative position over the bed, of means for automatically moving the presser member toward the nearer side of the bed into inoperative position.

2. In a machine for dying out sheet material, the combination of a bed, a presser member freely movable to operative position over the bed, and means for automatically moving the presser member toward the nearer side of the bed into inoperative position.

3. In a machine for dying out sheet material, the combination of a bed, a presser member freely movable to operative position over the bed, and means made operative during the dying out operation for automatically moving the presser member toward the nearer side of the bed into inoperative position.

4. In a machine for dying out leather for boots and shoes, the combination with a cutting bed and a presser member freely movable laterally over said bed into operative position, of means for automatically moving the presser member laterally into inoperative position constructed and arranged to store up power from the source from which the machine is operated and to apply said power gradually in effecting said lateral movement.

5. In a machine for dying out leather for boots and shoes, the combination with a cutting bed and a presser member freely movable laterally over said bed into operative position, of means for automatically moving the presser member laterally into inoperative position arranged to be put into operative condition through temporary connections with the power by which the machine is operated and constructed to operate beyond the time when said connections are interrupted.

[Claims 6 to 25 not printed in the Gazette.]

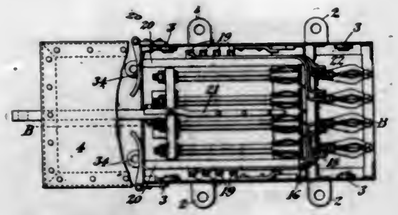
1,030,622. CIRCUIT-CONTROLLER. THOMAS GEORGE STILES, Arlington, N. J. Filed May 25, 1910. Serial No. 563,269. (Cl. 173—332.)

1. In a sliding circuit controller, the combination with a contact-rod angular in cross section, of a coöperating spring contact comprising contact-fingers making sliding contact with the edges of said rod.

2. In a sliding circuit controller, the combination with a contact-rod rectangular in cross section, of a coöperating spring contact through which said rod slides, said contact comprising four contact fingers each in sliding contact with one of the edges of said rod.

3. In a sliding circuit controller, the combination with a contact-socket, of a sliding contact-rod, and a spring contact angular in cross-section secured to said rod and slidable into and out of said socket and comprising a

plurality of contact fingers each outwardly bowed substantially throughout its length in a direction lengthwise of the contact-rod and supported at both ends by said contact-rod and adapted to make contact at its angular edges only with said socket.

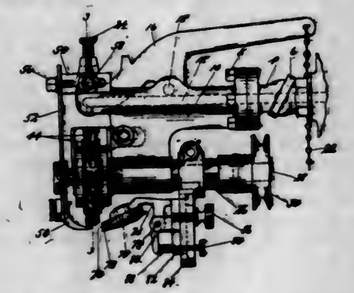


4. In a sliding circuit controller, the combination with a tubular contact-socket, of a sliding contact-rod, and a spring contact angular in cross-section secured to said rod and slidable into and out of said socket and comprising a plurality of contact-fingers each outwardly bowed lengthwise of the contact-rod and making contact at its opposite edges only with the tubular socket.

5. In a sliding circuit controller, the combination with a contact-socket, of a sliding contact-rod, a spring contact angular in cross-section secured to said rod and slidable into and out of said socket and comprising a plurality of contact-fingers adapted to make contact at their angular edges only with said socket, and a contact device with which said contact-rod is in constant sliding engagement.

[Claims 6 to 17 not printed in the Gazette.]

1,030,623. CEMENTING-MACHINE. FRANK H. WARREN, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 9, 1904. Serial No. 223,850. (Cl. 12—80.)



1. In a cement-applying machine, the combination with means for applying cement to one face of a shoe sole, of guiding means arranged to be engaged by the edge of the sole, and guiding means arranged to be engaged by the face of the sole opposite to that on which cement is being applied.

2. In a cement-applying machine, the combination with means for applying cement to the sole of a shoe, of independently movable devices arranged to be engaged by the edge and face of the shoe sole for guiding and supporting the shoe with relation to the cement-applying means.

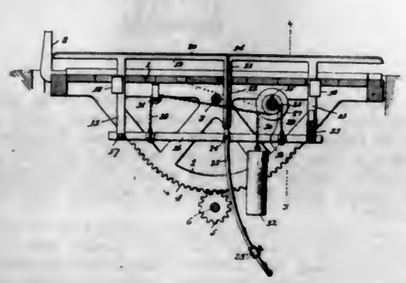
3. In a cement-applying machine, the combination with rotatable means for applying cement to a shoe sole, of guiding means to engage the sole when presented to the cement-applying means, said guiding means being arranged to position the shoe with the face of the sole in a plane oblique to the axis of rotation of the cement-applying means.

4. In a cement-applying machine, the combination with means for applying cement to a shoe sole, of means arranged to engage the face of the sole and to guide the shoe with relation to the cement-applying means the point of engagement being so located that the face of the sole will occupy a plane oblique to the plane of the acting face of said applying means while being coated with cement.

5. In a machine of the class described, the combination with means for applying cement to the marginal portion of the bottom of a shoe, of means arranged to engage the shoe upon opposite sides of the cement-applying means, for guiding the shoe with the face of the shoe bottom in the desired plane with relation to the acting face of the cement-applying means.

[Claims 6 to 20 not printed in the Gazette.]

1,030,624. ICE-CUTTING APPARATUS. WALTER T. WEAVER, Alexandria county, Va., and GEORGE L. BEARD, Washington, D. C. Filed July 23, 1908. Serial No. 444,944. (Cl. 62—6.)



1. In apparatus for cutting ice, a tilting table to support the ice-plate, a blade movably mounted in the tilting table, mechanism for moving the blade upwardly from the tilting table to force the blade upwardly through the ice-plate supported on the table, and means for conducting a heating medium to the blade operating to accommodate the tilting of the table and also the movement of the blade upward from the table.

2. In apparatus for cutting ice, a tilting table to support the ice-plate, a hollow blade movably mounted in the tilting table, mechanism for moving the hollow blade upwardly from the tilting table to force the blade upwardly through the ice-plate supported on the table, and means for supplying a heating fluid to the hollow blade operating to accommodate the tilting of the table and also the movement of the blade upward from the table.

3. In apparatus for cutting ice, a tilting table to support the ice-plate, a blade movably mounted in the tilting table, yielding mechanism carried by the tilting table for moving the blade upwardly from the tilting table to force the blade upwardly through the ice-plate supported on the table, and yielding means for conducting a heating medium to the blade operating to accommodate the tilting of the table and also the movement of the blade upward from the table.

4. In apparatus for cutting ice, a tilting table to support the ice-plate, a hollow blade movably mounted in the tilting table, mechanism for moving the hollow blade upwardly from the tilting table to force the blade upwardly through the ice-plate supported on the tilting table, and yielding means for supplying a heating fluid to the hollow blade operating to accommodate the tilting of the table and also the movement of the blade upwardly from the table.

5. In apparatus for cutting ice, a tilting table to support the ice-plate, a blade movably mounted in the tilting table, means for conducting a heating medium to the blade, and yielding mechanism for moving the blade upwardly from the tilting table to force the blade through the ice-plate supported on the tilting table so as to be checked by an obstruction in the ice meeting the blade.

[Claims 6 to 31 not printed in the Gazette.]

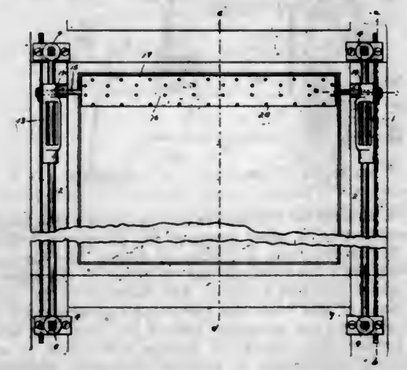
1,030,625. FILE BOX OR DRAWER. WILLIAM C. WEIS, Monroe, Mich., assignor to The Weis Manufacturing Company, Monroe, Mich., a Corporation. Filed Sept. 9, 1910. Serial No. 581,290. (Cl. 129—31.)



1. In a device of the described character, a substantially rectangular metal plate having midway of its lower margin a downwardly projecting lip, a tongue struck from the body of said plate and bent backwardly and downwardly with its lower extremity in substantially the same horizontal plane with the lower edge of said lip, there being coincident holes through said downwardly projecting portions, the hole through said tongue being elongated and narrowed upwardly.

2. In a device of the described character, a receptacle having a longitudinally slotted bottom, a rod disposed in the slot, and a follow-plate comprising a metal sheet having two portions which project downwardly into the slot and which have coincident holes therethrough for the reception of the rod, one of said holes being elongated and narrowed vertically.

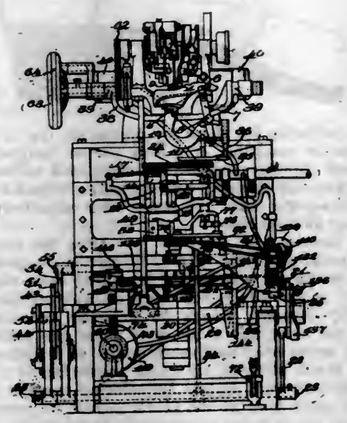
1,030,626. WINDOW-CLEANER. FREDERICK E. WHITAKER and THOMAS H. COX, New Haven, Conn. Filed Aug. 31, 1911. Serial No. 647,125. (Cl. 15—59.)



1. A window cleaner comprising vertically arranged rods on opposite sides of the outside and inside of the window frame, bearing blocks for the ends of said rods, springs in the blocks on the outside of the window frame and bearing on the rod mounted therein, slides mounted on said rods, a rock shaft mounted in the slides on the outside of the window frame, an operating bar mounted in the slides on the inside of the window frame, a wiper carried by the rock shaft, and cords connecting the slides on the outside and inside of the window frame.

2. A window cleaner comprising vertically arranged rods on opposite sides of the outside and inside of the window frame, bearing blocks for the ends of said rods, springs in the blocks on the outside of the window frame and bearing on the rods mounted therein, slides mounted on said rods, a rock shaft mounted in the slides on the outside of the window frame, said rock shaft having outwardly turned ends, an operating bar mounted in the slides on the inside of the window frame, a wiper carried by the rock shaft, and cords connecting the slides on the outside and inside of the window frame and connected with the ends of the rock shaft.

1,030,627. MACHINE FOR OPERATING UPON BOOTS AND SHOES. ERASTUS E. WINKLEY, Lynn, Mass. Filed Feb. 17, 1906. Serial No. 301,578. (Cl. 112—20.)



1. An automatic shoe machine, having, in combination, means for operating on a shoe, a support for said operating means and a shoe supporting jack relatively movable and rotatable to transfer the point of operation of said means around the shoe, and mechanism acting automatically to move said support with relation to the jack about the point of operation of the operating means as a center as such point is transferred around the shoe, to correct the relative position of the shoe and the operating means.

2. An automatic shoe machine, having, in combination, means for operating on a shoe, a support for said operating means and a shoe supporting jack relatively movable and rotatable to transfer the point of operation of said means around the shoe, and mechanism acting automatically to tip said support with relation to the jack about the point of operation of the operating means as a center as such point is transferred around the shoe to correct the relative position of the shoe and the operating means.

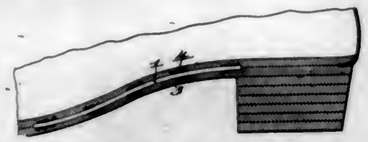
3. An automatic shoe machine, having, in combination, means for operating on a shoe, a support for said operating means and a shoe supporting jack relatively movable and rotatable to transfer the point of operation of said means around the shoe, and mechanism acting automatically as the point of operation of the operating means is transferred around the shoe to tip the support with relation to the jack about said point as a center, and to turn the jack about said point as a center to correct the relative position of the shoe and the operating means.

4. An automatic shoe machine, having, in combination, means for operating on a shoe, a shoe supporting jack longitudinally movable and rotatable to transfer the point of operation of said means around the shoe, feeding mechanism acting directly upon the shoe, and mechanism acting automatically to change the relative position of the jack and operating means as the point of operation of the operating means is transferred around the shoe, said mechanism cooperating with the feeding mechanism to present the shoe properly to the operating means.

5. An automatic shoe machine, having, in combination, means for operating on a shoe, a shoe supporting jack longitudinally movable and rotatable to transfer the point of operation of said means around the shoe, feeding mechanism acting directly upon the shoe, and means controlled by the movement of the jack for changing the relative position of the operating means and shoe as the point of operation of the operating means is transferred around the shoe.

[Claims 6 to 56 not printed in the Gazette.]

1,030,628. SHANK-STIFFENER. ERASTUS E. WINKLEY, Lynn, Mass. Filed Jan. 24, 1912. Serial No. 673,030. (Cl. 36—76.)



1. A fastening for shoes for preventing the ripping of the outseam consisting of a body portion adapted to be interposed between the inner and outer soles at the shank of the shoe and provided with oppositely disposed prongs for entering the inner and outer soles respectively, substantially as described.

2. A fastening for shoes for preventing the ripping of the outseam consisting of a body portion adapted to be loosely interposed between the inner and outer soles preliminary to the sole laying operation and provided with oppositely disposed prongs for entering and clenching within the inner and outer soles under the pressure of the sole laying operation, substantially as described.

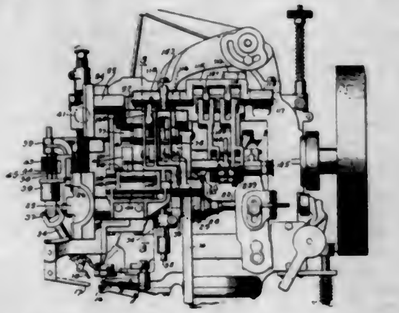
3. A shank stiffener for shoes consisting of a metal strip provided with devices for securing together the inner and outer soles at the shank thereof to prevent the ripping of the outseam, substantially as described.

4. A shank stiffener for shoes consisting of a metal strip provided with prongs constructed and arranged to enter and clench within the inner and outer soles, substantially as described.

5. As an article of manufacture, a shank stiffener consisting of a metal strip provided with a plurality of bifurcated distensible prongs, substantially as described.

[Claim 6 not printed in the Gazette.]

1,030,629. LASTING-MACHINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed Oct. 24, 1910, Serial No. 588,628. Renewed May 18, 1912. Serial No. 698,323. (Cl. 12—2.)



1. A lasting machine, having, in combination, pincers, means for imparting pulling movements and lateral movements to the pincers, and mechanism operating automatically to vary the amplitude of said lateral movements at successive operations of the pincers, substantially as described.

2. A lasting machine, having, in combination, pincers, means for imparting pulling movements and turning movements to the pincers, and mechanism operating automatically to vary the amplitude of said turning movements at successive operations of the pincers, substantially as described.

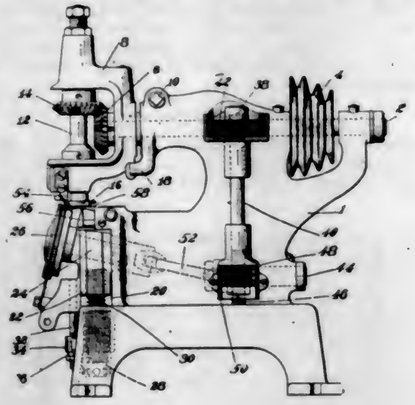
3. A lasting machine, having, in combination, pincers, means for imparting pulling, turning and lateral movements to the pincers, and mechanism operating automatically to vary, independently, the amplitude of the turning movements and the amplitude of the lateral movements, at successive operations of the pincers, substantially as described.

4. A lasting machine, having, in combination, pincers, means for imparting pulling movements and lateral movements to the pincers, adjusting mechanism operating automatically to vary the amplitude of the lateral movements at successive operations of the pincers, and manually-operable means for throwing the adjusting mechanism into operation, substantially as described.

5. A lasting machine, having, in combination, pincers, means for imparting pulling movements and turning movements to the pincers, adjusting mechanism operating automatically to vary the amplitude of the turning movements at successive operations of the pincers, and manually-operable means for throwing the adjusting mechanism into operation, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,030,630. LIP-TURNING MACHINE. HENRY W. WINTER, Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 3, 1908. Serial No. 424,922. (Cl. 12—30.)



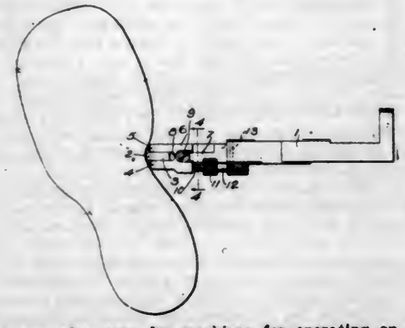
1. A machine for turning the channel lip of a sole, having in combination, a wiper arranged for rotatory movement in a horizontal plane, a stationary presser foot arranged to press down upon the sole the lip raised by the wiper, a feed wheel rotatable about an axis inclined to the operative plane of said wiper for sustaining and advancing the work arranged for movement toward and from said wiper and presser foot, means for guiding said wheel in said movement constructed to prevent horizontal movement thereof transverse to the line of feed, and to maintain the upper surface of the wheel in positions of parallelism during said movements, means for yieldingly supporting said wheel and means for rotating said wheel constructed to accommodate its vertical movement.

2. A machine for turning the channel lip of a sole, having in combination, a power-driven member, a wiper arranged for rotatory movement in a horizontal plane, a presser foot formed and arranged to press down upon the sole the lip raised by the wiper, a channel gage formed to enter the channel of the sole, a vertical guideway arranged beneath said channel gage, a head arranged for vertical sliding movement in said guideway, a rotary feed wheel mounted in an inclined position on said head, means for yieldingly supporting said head, means for transmitting rotary movement from said member to said wheel constructed to accommodate vertical movement of the head, and means for transmitting rotary movement from said member to said wiper.

3. A machine for turning the channel lip of a sole having in combination a wiper arranged for rotatory movement about a substantially vertical axis, a stationary presser foot arranged to press down upon the sole the lip raised by the wiper and impart the final contour to said lip, a vertical guideway arranged beneath the wiper, a head arranged for vertical sliding movement in said guideway, a rotary feed wheel mounted upon said head, and movable therewith into various parallel positions at an angle to the plane of said wiper, means for yieldingly supporting the head, and means for rotating said wheel constructed to accommodate vertical movement of the head.

4. A machine of the class described comprising a slide, means for guiding said slide in a vertical path, a rotary feed wheel mounted in said slide and movable therewith into various parallel positions at an angle to the horizontal, a power-driven member, driving mechanism between said member and said wheel, a wiper and a head by which said wiper is carried, the construction and arrangement being such that said head is movable angularly about the axis of the power-driven member to bring said wiper into one position for operative rotation and into another position to facilitate inspection and adjustment.

1,030,631. EDGE GAGE FOR STOCK-FITTING MACHINES. GEORGE F. WOLFE, New York, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 15, 1911. Serial No. 608,811. (Cl. 12—27.)



1. An edge gage for machines for operating on soles having a plurality of sole edge engaging points adjustable to conform to the concaved portions of the sole edge, substantially as described.

2. An edge gage for machines for operating on soles having sole engaging rolls and means for relative adjustment thereof to present a longitudinal contact surface substantially parallel to the concaved portions of the sole edge, substantially as described.

3. An edge gage for machines for operating on soles having a fixed sole engaging roll, a movable sole engaging roll on each side of the fixed roll, means for adjusting the last named rolls with respect to the first, and means for holding the rolls in fixed relation during the operation on the sole, substantially as described.

4. An edge gage for machines for operating on soles having three alined sole engaging points, and means for adjusting the two outer points relative to the central point to present a curved longitudinal contact surface for engaging the sole edge, substantially as described.

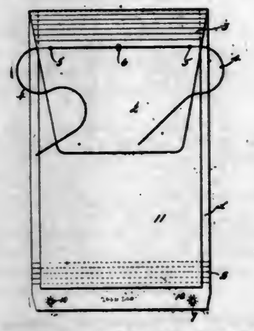
1,030,632. BUCKLE. LOUIS W. WRIGHT, New Haven, Conn., assignor to The W. & E. T. Fitch Co., New Haven, Conn., a Corporation. Filed July 3, 1911. Serial No. 636,741. (Cl. 24—194.)

A slide buckle comprising a frame having side bars, a front bar, a rear bar, an upper transverse bar and a lower transverse bar, the central portion of the under face of the front bar made thicker than at the ends forming a support, a slide formed in its outer end with a slot and having the outer bar of the slot transversely bowed corresponding to the support on the under face of the front bar, said slide passed beneath the front bar over the lower bar and under the upper bar, the inner end of the slide turned upward in rear of the said upper bar with which it is adapted to



engage to interlock the slide with the frame and to limit the outward movement of the slide.

1,030,633. MAILING-WRAPPER. HENRY J. WYATT, New York, N. Y., assignor to The Wyatt Company, New York, N. Y., a Corporation of New York. Filed May 6, 1911. Serial No. 625,513. (Cl. 229—92.)

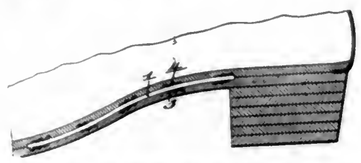


A mailing wrapper comprising an elongated sheet, friction disks secured to the underside of the sheet near one end and adjacent to the opposite edges thereof, a flap carried on the opposite end of the sheet and being adapted to be turned over upon the upper side of the sheet, said flap being provided with openings near its opposite edges, a cord engaging across the upper side of the flap and having its ends passing down through the openings and out between and beyond the edges of the flap and the sheet, a fastener carried upon the flap between the openings and engaging the cord to hold the latter to the flap, said sheet being adapted to receive sheets of material to be mailed upon its upper face, the flap being adapted to receive therebeneath the ends of the sheets of material to be mailed, said elongated sheet being adapted to be rolled upon itself and upon the sheets of material to be mailed, said ends of the cord being adapted to be drawn about the edges of the sheets when rolled and passed beneath the friction disks, the ends of the cords being further adapted to be passed entirely around the opposite ends of the rolled sheets back to the disks and to be secured thereto whereby the entire mailing wrapper is held in rolled position.

1,030,634. APPARATUS FOR SCRAPING AND CLEANING WATER MAINS, PIPES, AND THE LIKE. RICHARD A. ADAMSON, Rivington, near Bolton, England. Filed May 27, 1910. Serial No. 563,693. (Cl. 137—70.)

1. In an apparatus for scraping or cleaning water mains *in situ*, in combination rails adapted to be placed in position between the exposed ends or breaks of the mains near the bottom of the trench, a transverse member at each end of said pair of rails and connected thereto, a member adapted to travel on said rails, a main shaft journaled in said traveling member so as to be centered with respect to the rails, and in line with the pipe, scraping means coupled to the main shaft, mechanism supported by the traveling member for revolving the main shaft and scraping means, a longitudinal rod adapted to be fixed at its ends to the transverse members which

1,030,628. SHANK-STIFFENER. ERASTUS E. WINKLEY, Lynn, Mass. Filed Jan. 24, 1912. Serial No. 673,030. (Cl. 36—76.)



1. A fastening for shoes for preventing the ripping of the outseam consisting of a body portion adapted to be interposed between the inner and outer soles at the shank of the shoe and provided with oppositely disposed prongs for entering the inner and outer soles respectively, substantially as described.

2. A fastening for shoes for preventing the ripping of the outseam consisting of a body portion adapted to be loosely interposed between the inner and outer soles preliminary to the sole laying operation and provided with oppositely disposed prongs for entering and clenching within the inner and outer soles under the pressure of the sole laying operation, substantially as described.

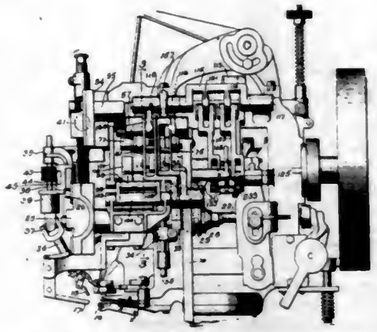
3. A shank stiffener for shoes consisting of a metal strip provided with devices for securing together the inner and outer soles at the shank thereof to prevent the ripping of the outseam, substantially as described.

4. A shank stiffener for shoes consisting of a metal strip provided with prongs constructed and arranged to enter and clench within the inner and outer soles, substantially as described.

5. As an article of manufacture, a shank stiffener consisting of a metal strip provided with a plurality of bifurcated distensible prongs, substantially as described.

[Claim 6 not printed in the Gazette.]

1,030,629. LASTING-MACHINE. ERASTUS E. WINKLEY, Lynn, Mass. Filed Oct. 24, 1910, Serial No. 588,628. Renewed May 18, 1912. Serial No. 698,323. (Cl. 12—2.)



1. A lasting machine, having, in combination, pincers, means for imparting pulling movements and lateral movements to the pincers, and mechanism operating automatically to vary the amplitude of said lateral movements at successive operations of the pincers, substantially as described.

2. A lasting machine, having, in combination, pincers, means for imparting pulling movements and turning movements to the pincers, and mechanism operating automatically to vary the amplitude of said turning movements at successive operations of the pincers, substantially as described.

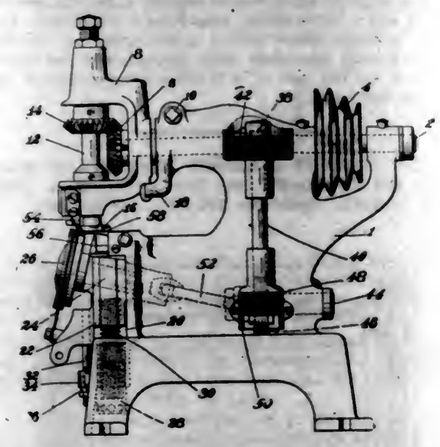
3. A lasting machine, having, in combination, pincers, means for imparting pulling, turning and lateral movements to the pincers, and mechanism operating automatically to vary, independently, the amplitude of the turning movements and the amplitude of the lateral movements, at successive operations of the pincers, substantially as described.

4. A lasting machine, having, in combination, pincers, means for imparting pulling movements and lateral movements to the pincers, adjusting mechanism operating automatically to vary the amplitude of the lateral movements at successive operations of the pincers, and manually-operable means for throwing the adjusting mechanism into operation, substantially as described.

5. A lasting machine, having, in combination, pincers, means for imparting pulling movements and turning movements to the pincers, adjusting mechanism operating automatically to vary the amplitude of the turning movements at successive operations of the pincers, and manually-operable means for throwing the adjusting mechanism into operation, substantially as described.

[Claims 6 to 15 not printed in the Gazette.]

1,030,630. LIP-TURNING MACHINE. HENRY W. WINTER, Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 3, 1908. Serial No. 424,922. (Cl. 12—30.)



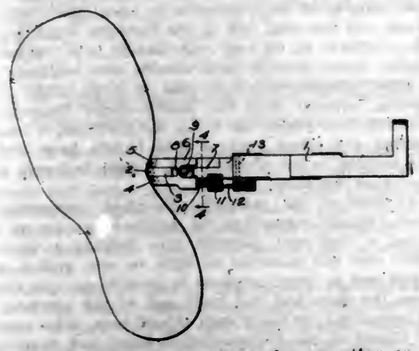
1. A machine for turning the channel lip of a sole, having in combination, a wiper arranged for rotatory movement in a horizontal plane, a stationary presser foot arranged to press down upon the sole the lip raised by the wiper, a feed wheel rotatable about an axis inclined to the operative plane of said wiper for sustaining and advancing the work arranged for movement toward and from said wiper and presser foot, means for guiding said wheel in said movement constructed to prevent horizontal movement thereof transverse to the line of feed, and to maintain the upper surface of the wheel in positions of parallelism during said movements, means for yieldingly supporting said wheel and means for rotating said wheel constructed to accommodate its vertical movement.

2. A machine for turning the channel lip of a sole, having in combination, a power-driven member, a wiper arranged for rotatory movement in a horizontal plane, a presser foot formed and arranged to press down upon the sole the lip raised by the wiper, a channel gage formed to enter the channel of the sole, a vertical guideway arranged beneath said channel gage, a head arranged for vertical sliding movement in said guideway, a rotary feed wheel mounted in an inclined position on said head, means for yieldingly supporting said head, means for transmitting rotary movement from said member to said wheel constructed to accommodate vertical movement of the head, and means for transmitting rotary movement from said member to said wiper.

3. A machine for turning the channel lip of a sole having in combination a wiper arranged for rotatory movement about a substantially vertical axis, a stationary presser foot arranged to press down upon the sole the lip raised by the wiper and impart the final contour to said lip, a vertical guideway arranged beneath the wiper, a head arranged for vertical sliding movement in said guideway, a rotary feed wheel mounted upon said head, and movable therewith into various parallel positions at an angle to the plane of said wiper, means for yieldingly supporting the head, and means for rotating said wheel constructed to accommodate vertical movement of the head.

4. A machine of the class described comprising a slide, means for guiding said slide in a vertical path, a rotary feed wheel mounted in said slide and movable therewith into various parallel positions at an angle to the horizontal, a power-driven member, driving mechanism between said member and said wheel, a wiper and a head by which said wiper is carried, the construction and arrangement being such that said head is movable angularly about the axis of the power-driven member to bring said wiper into one position for operative rotation and into another position to facilitate inspection and adjustment.

1,030,631. EDGE GAGE FOR STOCK-FITTING MACHINES. GEORGE F. WOLFE, New York, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 15, 1911. Serial No. 608,811. (Cl. 12—27.)



1. An edge gage for machines for operating on soles having a plurality of sole edge engaging points adjustable to conform to the concaved portions of the sole edge, substantially as described.

2. An edge gage for machines for operating on soles having sole engaging rolls and means for relative adjustment thereof to present a longitudinal contact surface substantially parallel to the concaved portions of the sole edge, substantially as described.

3. An edge gage for machines for operating on soles having a fixed sole engaging roll, a movable sole engaging roll on each side of the fixed roll, means for adjusting the last named rolls with respect to the first, and means for holding the rolls in fixed relation during the operation on the sole, substantially as described.

4. An edge gage for machines for operating on soles having three alined sole engaging points, and means for adjusting the two outer points relative to the central point to present a curved longitudinal contact surface for engaging the sole edge, substantially as described.

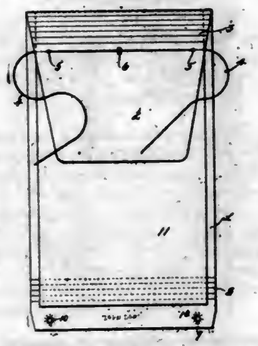
1,030,632. BUCKLE. LOUIS W. WRIGHT, New Haven, Conn., assignor to The W. & E. T. Fitch Co., New Haven, Conn., a Corporation. Filed July 3, 1911. Serial No. 636,741. (Cl. 24—194.)

A slide buckle comprising a frame having side bars, a front bar, a rear bar, an upper transverse bar and a lower transverse bar, the central portion of the under face of the front bar made thicker than at the ends forming a support, a slide formed in its outer end with a slot and having the outer bar of the slot transversely bowed corresponding to the support on the under face of the front bar, said slide passed beneath the front bar over the lower bar and under the upper bar, the inner end of the slide turned upward in rear of the said upper bar with which it is adapted to



engage to interlock the slide with the frame and to limit the outward movement of the slide.

1,030,633. MAILING-WRAPPER. HENRY J. WYATT, New York, N. Y., assignor to The Wyatt Company, New York, N. Y., a Corporation of New York. Filed May 6, 1911. Serial No. 625,513. (Cl. 229—92.)



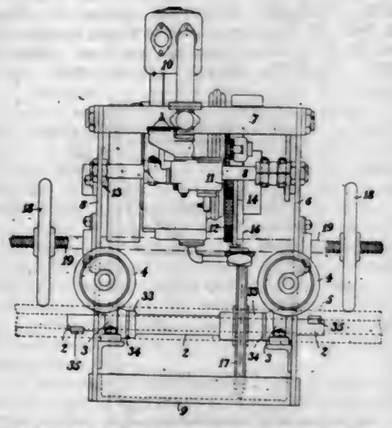
A mailing wrapper comprising an elongated sheet, friction disks secured to the underside of the sheet near one end and adjacent to the opposite edges thereof, a flap carried on the opposite end of the sheet and being adapted to be turned over upon the upper side of the sheet, said flap being provided with openings near its opposite edges, a cord engaging across the upper side of the flap and having its ends passing down through the openings and out between and beyond the edges of the flap and the sheet, a fastener carried upon the flap between the openings and engaging the cord to hold the latter to the flap, said sheet being adapted to receive sheets of material to be mailed upon its upper face, the flap being adapted to receive therebeneath the ends of the sheets of material to be mailed, said elongated sheet being adapted to be rolled upon itself and upon the sheets of material to be mailed, said ends of the cord being adapted to be drawn about the edges of the sheets when rolled and passed beneath the friction disks, the ends of the cords being further adapted to be passed entirely around the opposite ends of the rolled sheets back to the disks and to be secured thereto whereby the entire mailing wrapper is held in rolled position.

1,030,634. APPARATUS FOR SCRAPING AND CLEANING WATER MAINS, PIPES, AND THE LIKE. RICHARD A. ADAMSON, Rivington, near Bolton, England. Filed May 27, 1910. Serial No. 563,693. (Cl. 137—70.)

1. In an apparatus for scraping or cleaning water mains *in situ*, in combination rails adapted to be placed in position between the exposed ends or breaks of the mains near the bottom of the trench, a transverse member at each end of said pair of rails and connected thereto, a member adapted to travel on said rails, a main shaft journaled in said traveling member so as to be centered with respect to the rails, and in line with the pipe, scraping means coupled to the main shaft, mechanism supported by the traveling member for revolving the main shaft and scraping means, a longitudinal rod adapted to be fixed at its ends to the transverse members which

are connected with the rails, and means operating on said rod for moving the traveling member upon the rails.

2. Apparatus for scraping or cleaning water mains and the like *in situ*, comprising in combination a pair of rails adapted to be clamped to the exposed ends or breaks of the main near the bottom of a trench, a moving member adapted to travel upon the rails; a main shaft so journaled in the moving member as to be central with respect to the rails and in line with the pipes, scraping means coupled to said main shaft, mechanism supported by the moving member for revolving the main shaft and scraping means, a fixed longitudinal rod, and manually actuated means operating on said rod for traversing the moving member upon the rails.



3. In apparatus for scraping or cleaning water mains and the like *in situ*, a moving member adapted to travel upon rails and mechanism for traversing the moving member upon the rails, said mechanism consisting of a rod having a screw thread thereon clamped at the ends so as to be a fixture and passing freely through the moving member, hand wheels threaded on to said rod and adapted to be brought up to the moving member, so that by turning them the moving member is fed longitudinally.

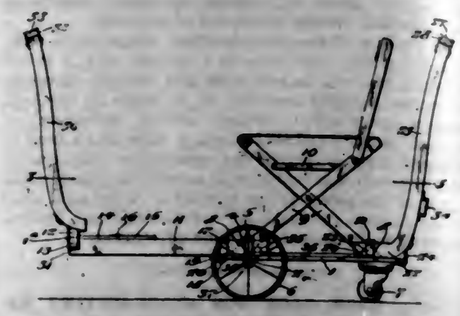
4. Apparatus for scraping or cleaning water mains and the like *in situ*, comprising in combination a pair of rails adapted to be located near the bottom of a trench, a member adapted to travel on said rails, a main shaft journaled in said member, scraping means coupled to said shaft, means carried by said member for rotating said shaft, a longitudinal rod, means operating on said rod for moving said traveling member on said rails, a pair of end plates each having an opening adapted to receive the end of a pipe, said plates supporting the rails and the longitudinal rod, clamping blocks located within the openings in said plates and set pins working in said plates and acting upon said blocks to bind them against the pipes.

5. Apparatus for scraping or cleaning water mains and the like *in situ*, comprising in combination longitudinal guiding means adapted to be located near the bottom of a trench, a member adapted to travel on said guiding means, a main shaft journaled in said member, a rotary scraper coupled to each end of said shaft, mechanism supported by the traveling member for revolving the main shaft and scrapers, a fixed longitudinal rod, and means operating on said rod for positively moving the traveling member in both directions along the longitudinal guiding means.

[Claim 6 not printed in the Gazette.]

1,030,635. COMBINATION WHEEL AND CARRYING CHAIR. TOWNSEND B. BALDWIN, Edgewater Park, N. J. Filed Feb. 14, 1912. Serial No. 677,550. (Cl. 155—11.)

1. A chair of the character described, comprising a platform, wheels supporting the platform, guides on the platform, a foot rest, parallel bars forming a part of the foot rest and mounted to slide in said guides, said foot rest so constructed as to provide an open space between the same and the front end of the platform, socket pieces on said platform, and a folding chair having its legs removably positioned in said socket pieces, substantially as described.



2. A chair of the character described, comprising a platform, wheels supporting the platform, guides on the platform, a foot rest, parallel bars forming a part of the foot rest and mounted to slide in said guides, said foot rest so constructed as to provide an open space between the same and the front end of the platform, angle guides on the platform at its rear end, handle bars, forwardly projecting lower ends on said handle bars positioned in said angle guides, removable pins in said handle bars preventing removal from the guides, angle brackets on said handle bars projecting under the platform, a handle connecting the upper ends of said handle bars, and a handle secured to the forward end of said foot rest, substantially as described.

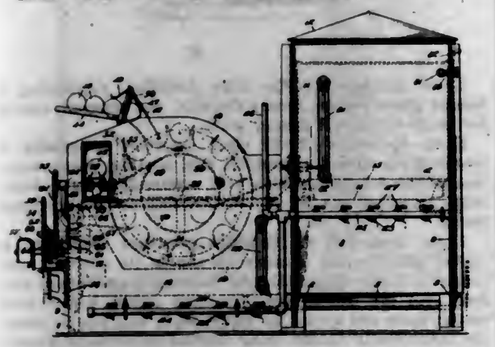
3. A chair of the character described, comprising a platform, wheels supporting the platform, guides on the platform, a foot rest, parallel bars forming a part of the foot rest and mounted to slide in said guides, and said foot rest so constructed as to provide an open space between the same and the front end of the platform, a board connecting the outer ends of said bars, and a second board hinged to the first-mentioned board and supported on the bars when the platform is projected and upon the first-mentioned board when the platform is moved inwardly, substantially as described.

4. A chair of the character described, comprising a platform, wheels supporting the platform, guides on the platform, a foot rest, parallel bars forming a part of the foot rest and mounted to slide in said guides, said foot rest so constructed as to provide an open space between the same and the front end of the platform, angle guides on the platform at its rear end, handle bars, forwardly projecting lower ends on said handle bars positioned in said angle guides, removable pins in said handle bars preventing removal from the guides, angle brackets on said handle bars projecting under the platform, a handle connecting the upper ends of said handle bars, a handle secured to the forward end of said foot rest, handle bars removably secured to said last-mentioned handle, a handle bar connecting the upper ends of said last-mentioned handle bar, and angle brackets on the rear face of the first-mentioned handle bars adapted to receive said last-mentioned handle, substantially as described.

5. A chair of the character described, comprising a platform, wheels supporting the platform, guides on the platform, a foot rest, parallel bars forming a part of the foot rest and mounted to slide in said guides, said foot rest so constructed as to provide an open space between the same and the front end of the platform, socket pieces on said platform, a folding chair having its legs removably positioned in said socket pieces, angle guides on the platform at its rear end, handle bars, forwardly projecting lower ends on said handle bars positioned in said angle guides, removable pins in said handle bars preventing removal from the guides, angle brackets on said handle bars projecting under the platform, a handle connecting the upper ends of said handle bars, a handle secured to the forward end of said foot rest, handle bars removably secured to said last-mentioned handle, a handle bar connecting the upper ends of said last-mentioned handle bar, and angle brackets on the rear face of the first-mentioned handle bars adapted to receive said last-mentioned handle, substantially as described.

[Claim 6 not printed in the Gazette.]

1,030,636. MACHINE FOR COATING CARTONS. GEORGE W. BEADLE, Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed Oct. 24, 1911. Serial No. 656,438. (Cl. 91—46.)



1. In a machine for coating cartons the combination of a coating bath; a means for forcing cartons to pass through said bath; means operated by said forcing means for permitting cartons one at a time to pass to said forcing means; and means to strip said cartons from said forcing means after they have been coated, substantially as described.

2. In a machine for coating cartons the combination of a coating bath; a means comprising a wheel for forcing cartons to pass through said bath; means operated by said forcing means for permitting cartons one at a time to pass to said forcing means; means to strip said cartons from said forcing means after they have been coated; and conveying means adapted to receive said cartons from said stripping means, substantially as described.

3. In a machine for coating cartons the combination of a coating bath; a means comprising a wheel for forcing cartons to pass through said bath; means comprising a rock shaft and plate carried by said shaft operated by said forcing means for permitting cartons one at a time to pass to said forcing means; means to strip said cartons from said forcing means after they have been coated; and conveying means adapted to receive the cartons from said stripping means, substantially as described.

4. In a machine for coating cartons the combination of a coating bath; a wheel provided with pockets located in said coating bath; a chute adapted to convey cartons to said wheel; means controlled by said wheel for permitting cartons to pass one at a time to the pockets of said wheel; means for rotating said wheel; and a stripping means associated with said wheel adapted to force said cartons out of said pockets, substantially as described.

5. In a machine for coating cartons the combination of a coating bath; a wheel provided with pockets located in said coating bath; a chute adapted to convey cartons to said wheel; means comprising an operating rod, a rock shaft and plate carried by said shaft controlled by said wheel for permitting cartons to pass one at a time to the pockets of said wheel; means for rotating said wheel; and a stripping means associated with said wheel adapted to force said cartons out of said pockets, substantially as described.

[Claims 6 to 11 not printed in the Gazette.]

handle bars projecting under the platform, a handle connecting the upper ends of said handle bars, a handle secured to the forward end of said foot rest, handle bars removably secured to said last-mentioned handle, a handle bar connecting the upper ends of said last-mentioned handle bar, and angle brackets on the rear face of the first-mentioned handle bars adapted to receive said last-mentioned handle, substantially as described.

[Claim 6 not printed in the Gazette.]

1,030,637. DRINKING-CUP. GEORGE W. BEADLE, Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y., a Corporation of New Jersey. Filed Oct. 24, 1911. Serial No. 656,439. (Cl. 229—1.)

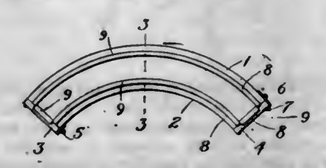


1. A drinking cup composed of a single piece of paper having a bottom formed solely from overlapping folds of such single piece of paper and sealed fluid tight by a cone formed from the overlapping ends of such several folds.

2. A drinking cup composed of a single piece of paper having an upwardly-extended bottom formed solely from overlapping folds of such single piece of paper and sealed fluid tight by a cone positioned above the base of said cup and formed from the overlapping ends of such several folds.

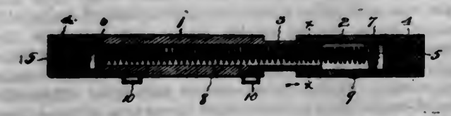
3. A drinking cup composed of a single piece of paper having a stiffened drinking rim and a corrugated bottom formed solely from overlapping folds of such single piece of paper and sealed fluid tight by a cone formed from the overlapping ends of such several folds.

1,030,638. MOLD. WOOD BINNING, Grand River, Iowa. Filed Feb. 23, 1911. Serial No. 610,281. (Cl. 25—121.)



A mold for concrete blocks, comprising a pair of concentrically curved wooden frame members, a radially inwardly projecting wooden end member secured to the outer curved frame member, a hinge member having one end secured to said end section and the other to the adjacent end of the inner curved frame member for pivotally connecting the same, a radially outwardly extending wood end section fixedly secured to the free end of the inner frame member, a latch member carried by the outer frame member for engaging the latter end section to lock the outer frame member thereto, and galvanized iron face plates, said plates having angular flanges clampingly engaging all of the wooden members upon the opposing faces to secure the face plates thereto.

1,030,639. PUSH-BAR. JOSIAH W. BODIE, Greenwood, S. C. Filed June 3, 1911, Serial No. 631,022. Renewed May 2, 1912. Serial No. 694,714. (Cl. 116—1.)



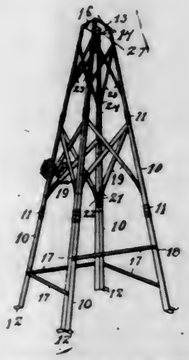
1. In a push-bar for railway cars, the bar formed of two slidably engaging parts, and a signal on the bar that is operated by the movement of the parts of the bar relatively to one another, substantially as shown and described.

2. A push-bar for railway cars, formed in two slidably engaging parts, and a whistle on one section that is operated by the movements of the parts of the bar relatively to one another, substantially as shown and described.

3. A push-bar for railway cars formed in two parts slidably engaging one another, said parts being tubular and having air-tight connection, a spring connecting the two parts and normally tending to separate the parts, and a whistle on one of the parts adapted to be sounded by the escape and resumption of air-pressure within the bar caused by the movement of the parts on one another, substantially as shown and described.

4. A push-bar for railway cars formed of two tubular parts, a tubular plunger secured to one part and slidably engaging the bore of the other part, an air-tight partition in each part, an expansible coil-spring connecting said partitions, and a whistle on one part adapted to be sounded by the escape and resumption of air-pressure within the bar caused by the movement of the parts on one another, substantially as shown and described.

1,030,640. DERRICK. HENRY A. BOWERS, Jamestown, N. Y. Filed Apr. 15, 1912. Serial No. 690,704. (Cl. 189—13.)

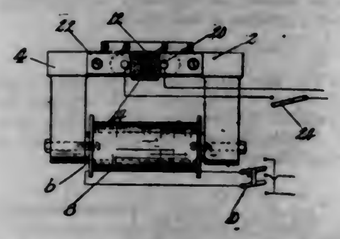


1. A derrick comprising a crown plate, a plurality of columns hinged to said crown plate, a plurality of diagonally crossed braces to connect said columns, said braces pivotally attached to said columns at one end and the other ends having slots to engage the attaching bolts, and a series of removable horizontal cross braces around said columns near their lower ends to aid in holding said columns in the set-up position.

2. A derrick comprising a crown plate, an angle iron column hinged to each corner of said crown plate to move to and from one another, two series of diagonally crossed braces extending around said derrick to connect said columns, said series of crossed braces pivotally attached at their upper and lower ends to the wings of said angle iron columns, said lower ends of said crossed braces having lengthwise slots therein to receive the attaching bolts, curved lower ends on the lower series of said crossed braces to adapt said braces to the movement of said columns, and a series of removable horizontal braces connecting said columns near their lower ends.

3. A collapsible derrick comprising a crown plate, four angle iron columns hinged diagonally across the corners of said crown plate to permit movement to and from one another, said columns formed in sections with bolts and angle iron connecting plates, an upper series of diagonally crossed braces having slotted lower ends bolted to the wings of said angle iron columns, a lower series of diagonally crossed braces bolted to the wings of said angle iron columns, curved lower ends on said lower diagonally crossed braces having curved slots lengthwise of the curved portions to receive the attaching bolts therethrough, horizontal cross bars having notches on their under sides to receive the attaching bolts therein and brace the lower ends of said columns, and feet on the lower ends of said columns, substantially as and for the purpose specified.

1,030,641. APPARATUS FOR SOLDERING METAL PIECES. ALBERT R. BRADEN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Dec. 9, 1909, Serial No. 532,152. Divided and this application filed Jan. 19, 1911. Serial No. 603,525. (Cl. 219—12.)



1. An apparatus of the class described, comprising a master plate, heating means therefor, and separate means for magnetizing said master plate.

2. An apparatus of the class described comprising a master plate having a magnetic gap, heating means, separate means for magnetizing said master plate, and separate controlling devices for the heating and magnetizing means.

3. An apparatus of the class described comprising a master plate having a magnetic gap in its surface, non-magnetic filling means therefor forming a continuous surface with the master plate, heating means within said master plate and means for magnetizing said master plate, the magnetizing means being located at a point remote from the heating means.

4. An apparatus of the class described comprising a master plate having a continuous plane surface, a section to which solder will not stick, and heating means contained within said master plate.

heating means, and means for magnetizing said master plate.

[Claims 6 to 12 not printed in the Gazette.]

1,030,642. ELECTRIC-LIGHT ARM. SIDNEY D. R. BRAUN, Chicago, Ill. Filed Dec. 11, 1911. Serial No. 665,123. (Cl. 240—73.)

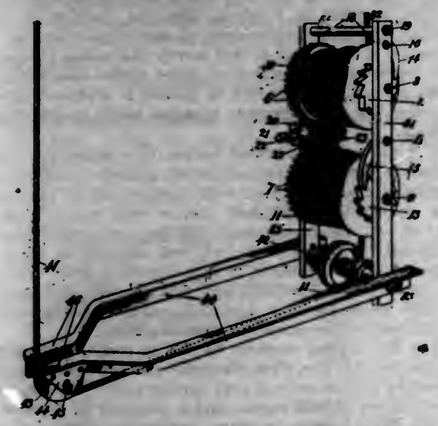


1. An electric light arm, comprising in combination a conduit pipe, provided at one end with an enlargement and a reduced portion projecting therefrom, a lamp socket screwed on said reduced portion, a one piece socket cover shiftable over said enlargement upon the pipe to a position entirely uncovering the socket, and means for securing said socket cover in its operative position covering the socket.

2. An electric light arm comprising in combination a conduit pipe, a lamp socket, a screw-threaded enlargement and means connecting said pipe and socket, a socket cover, means for locking said cover in its operative position inclosing the lamp socket, whereby said cover may be unlocked and shifted over upon the conduit pipe to a position uncovering the lamp socket.

3. An electric light arm comprising in combination a conduit pipe, a lamp socket, a screw-threaded enlargement, a reduced portion thereof connecting said socket and pipe, a socket cover, a support therefor, and means for locking said cover in operative position upon its support, substantially as described, whereby the cover may be shifted on the pipe to a position uncovering the socket.

1,030,643. SCAFFOLD-SUPPORT. EUGENE M. CAVANAGH and DANIEL F. CAVANAGH, Brooklyn, N. Y., assignors to New York Scaffolding Co., New York, N. Y., a Corporation of New York. Filed Aug. 3, 1908. Serial No. 446,540. (Cl. 20—82.)



1. In a scaffold-support, the combination of a drum supporting frame and an open platform-supporting frame pivoted to the drum-supporting frame at the bottom and movable into the same plane therewith.

2. In a scaffold-support, the combination of a drum-supporting frame embodying side-bars and a platform-supporting frame embodying side bars pivoted at their ends to the side bars of the drum-supporting frame, and, unlocked and shifted over upon the conduit pipe to a position uncovering the lamp socket.

3. A scaffold-support comprising a drum-supporting frame and a platform-supporting frame, said platform supporting frame being adapted to be brought into operative position substantially at right angles to said drum-frame and to be brought into closed position substantially in the same plane with the drum-frame.

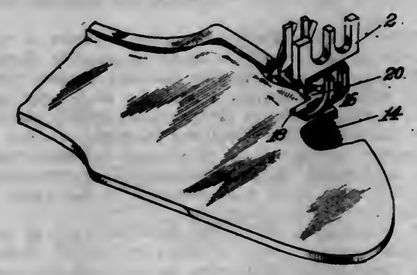
4. In a scaffold-support the combination of a drum frame, a platform frame hinged thereto, and means for locking said frames substantially at right angles to each other or substantially in the same plane.

5. In a scaffold-support, the combination of a drum supporting frame, a platform supporting frame hinged thereto and having an operative position at right angles to the drum-supporting frame and an inoperative position in the position in the same plane with said drum supporting frame, and means for automatically locking the frames in fixed relation when the platform supporting frame reaches either of said positions.

[Claims 6 to 11 not printed in the Gazette.]

1,030,644. MACHINE FOR OPERATING UPON SOLES. WILFRID CHAPUT, Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 19, 1909. Serial No. 528,970. (Cl. 12—27.)

1. A machine for operating upon soles, having in combination, a channeling knife, a grooving knife for cutting a groove within the channel formed by the channeling knife, a second grooving knife for cutting a groove along the edge of the sole outside the said channel, means for engaging the sole adjacent to the cutting edge of said second grooving knife and means for feeding a sole against said knives.



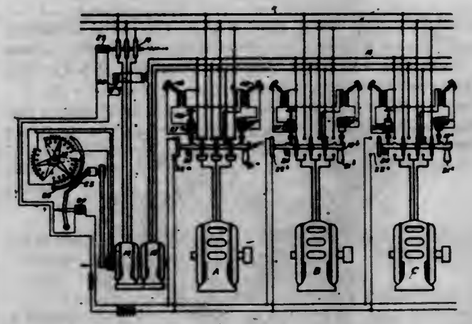
2. A machine for operating upon soles, having in combination, a channeling knife, a grooving knife for cutting a groove in the channel formed by the channeling knife, a second grooving knife offset from the blade of the channeling knife whereby it may cut a groove along the edge of the sole outside of the channel, a feed wheel for pressing a sole into engagement with said knives, and a presser foot arranged in advance of the channeling knife to press the sole toward the feed wheel, said presser foot having an extension arranged at one side of the cutting edge of the knife for engagement with the edge of the sole in close proximity to said second grooving knife.

3. A machine for operating upon soles having in combination a channeling knife, a grooving knife offset from the blade of the channeling knife, a feed mechanism for advancing a sole to said knives, and a presser foot adapted to press said sole against said feed mechanism, said presser foot having an extension arranged at one side of the edge of the channeling knife.

4. A machine of the class described having a channeling knife and a feed mechanism in combination with a presser foot provided with a cut-away portion to receive the edge of said knife.

5. A machine of the class described having a channeling knife and a feed mechanism in combination with a presser foot provided with a portion to engage the stock along a line in proximity to the edge of said knife and with an extension to engage the stock at one side of said knife.

1,030,645. MOTOR-CONTROL SYSTEM. HERBERT W. CHENEY, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Sept. 30, 1909. Serial No. 520,331. (Cl. 171—118.)



1. In combination, a motor, a source of constant electro-motive force, a source of variable electro-motive force, means for preventing the motor from being connected to the second source if the value of the electro-motive force thereof exceeds a predetermined value, and means for first connecting the motor to the source of variable electro-motive force, raising the electro-motive force of such source until it is substantially equal to the electro-motive force of the source of constant electro-motive force, and dis-

connecting the motor from the source of variable electro-motive force and connecting it to the source of constant electro-motive force, and for requiring the operation to be in that order.

2. In combination, an electric motor, a source of constant electro-motive force, a source of variable electro-motive force, means for varying the electro-motive force of said second source from a minimum to a value substantially equal to that of the source of constant electro-motive force, means for connecting the motor to either of said sources, and means for preventing the motor from being connected to the source of constant electro-motive force until after it has been connected to the source of variable electro-motive force.

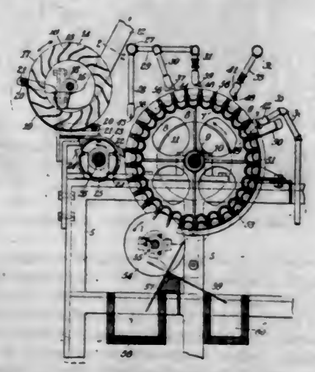
3. In combination, an electric motor, a source of constant electro-motive force, a source of variable electro-motive force, means for varying the electro-motive force of said second source from a minimum to a value substantially equal to that of the source of constant electro-motive force, means for connecting the motor to either of said sources, and means for preventing the motor from being connected to the source of constant electro-motive force until after it has been connected to the source of variable electro-motive force and the value of the electro-motive force of said last mentioned source has been brought substantially up to the value of the electro-motive force of said source of constant electro-motive force.

4. In combination, an electric motor, a source of constant electro-motive force, a source of variable electro-motive force, means for varying the electro-motive force of said second source from a minimum to a value substantially equal to that of the source of constant electro-motive force, means for connecting the motor to either of said sources, means for preventing the motor from being connected to the source of constant electro-motive force until after it has been connected to the source of variable electro-motive force, and means for preventing the motor from being connected to said source of variable electro-motive force if the electro-motive force of said source exceeds a predetermined value.

5. In combination, an electric motor, a source of constant electro-motive force, a source of variable electro-motive force, means for varying the electro-motive force of said second source from a minimum to a value substantially equal to that of the source of constant electro-motive force, means for connecting the motor to either of said sources, and means for preventing the motor from being connected to said source of variable electro-motive force if the electro-motive force of said source exceeds a predetermined value.

[Claims 6 to 31 not printed in the Gazette.]

1,030,646. MACHINE FOR HANDLING AND CUTTING FISH. FRANCIS D. CLEVELAND, Winchester, Mass. Filed Dec. 13, 1911. Serial No. 665,435. (Cl. 17—10.)



1 A fish cutting machine having, in combination, a fish carrier movable in a given direction, pockets in said carrier extending transversely of said carrier and of the direction of movement of said carrier and means, consisting of a water conveyer, having an outlet orifice elongated transversely thereof and adapted to direct a flattened stream of water into said pockets at an angle to the length of said pockets.

2. A fish cutting machine having, in combination, a fish carrier movable in a given direction, pockets in said carrier extending transversely of said carrier and of the direction of movement of said carrier and means, consisting of a water conveyer, having an outlet orifice constituting a slot and adapted to direct a flattened stream of water into said pockets at an angle to the length of said pockets.

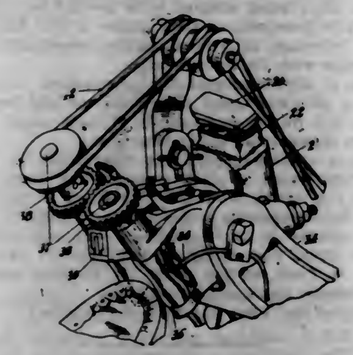
3. A fish cutting machine having, in combination, a fish carrier movable in a given direction, pockets in said carrier extending transversely of said carrier and of the direction of movement of said carrier and means consisting of a water conveyer having an outlet orifice constituting a V-shaped slot and adapted to deliver a V-shaped stream of water into said pockets at an angle to the length of said pockets.

4. A fish cutting machine having, in combination, a fish carrier movable in a given direction, pockets in said carrier extending transversely of said carrier and of the direction of movement of said carrier and means consisting of a water conveyer having an outlet orifice elongated transversely thereof and adapted to direct a flattened stream of water into said pockets at an angle to the length of said pockets, and means to set that portion of said water conveyer containing said elongated orifice at different angles relatively to said pockets.

5. A fish cutting machine having, in combination, a fish carrier movable in a given direction, pockets in said carrier extending transversely of said carrier and of the direction of movement of said carrier and a plurality of water conveyers, each having an outlet orifice constituting a slot adapted to direct a plurality of flattened streams of water into said pockets at an angle to the length of said pockets, said slots arranged at different angles relatively to each other.

[Claims 6 to 16 not printed in the Gazette.]

1,030,647. SHOE-IRONING APPARATUS. GEORGE S. COVELL, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 26, 1907. Serial No. 380,939. (Cl. 12—51.)



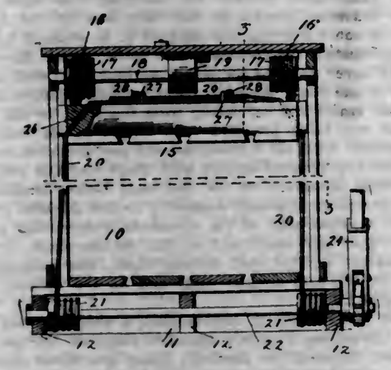
1. In an apparatus of the class described, the combination with means for pounding-up a lasted shoe, of an ironing device, means to heat said device, and means to actuate said device for ironing that portion of the side of a shoe at and adjacent to the edge of the bottom which is inaccessible for such treatment after the outer sole is attached.

2. In an apparatus of the class described, the combination with pounding-up means and mechanism for actuating it to beat the bottom face of a lasted shoe, of ironing means arranged with relation to the pounding-up means to iron the shoe upper at and along the edge adjacent to the bottom while the shoe is in position to be treated by the pounding-up means to shrink the upper to obliterate wrinkles, and mechanism for actuating the ironing means.

3. In an apparatus of the class described, the combination with a device for pounding-up a shoe, of a rotary ironing device positioned and shaped for treating the enamel on the side of the upper at and adjacent to the edge of the bottom to soften and shrink the enamel to obliterate wrinkles and to smooth the upper to facilitate subsequent operations, means for heating the ironing device, and mechanism for actuating the said device.

4. In an apparatus of the class described, the combination with means for pounding-up a shoe, of ironing rollers arranged with relation to the pounding-up means to form rests for engagement with the side of the shoe being pounded-up, means for heating said rollers, and means for actuating the rollers with relation to the shoe and to the heating means.

1,030,648. BALING-PRESS. FREDERICK B. CRAMER, Bascom, Ohio. Filed Feb. 24, 1912. Serial No. 679,555. (Cl. 100—12.)



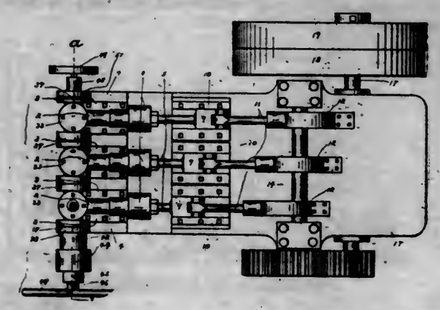
1. In a baling press, the combination of a box or chamber, a follower or plunger vertically movable within the box, means to move the follower or plunger downwardly through the chamber, a shaft above the follower or plunger, pulleys on the shaft, flexible connections from the pulleys to the follower, and a spiral spring coiled around the shaft and attached thereto at one end and connected at the other end to the box.

2. In a baling press, the combination of a box or chamber, a follower or plunger vertically movable within the box, a spring actuated shaft above the follower or plunger acting automatically to lift the same, a windlass at the bottom of the press, ropes extending from the windlass through slots in opposite sides of the box and passing through holes in the plunger to the top thereof and across the top of the plunger through eyes thereon, and a block secured to adjacent portions of both ropes.

3. In a baling press, the combination of a box or chamber, a follower or plunger vertically movable within the box, a shaft beneath the bottom of the box, pulleys on the shaft, flexible connections extending from the pulleys to the follower, said flexible connections passing through slots in the box sides, a shaft above the follower or plunger, pulleys on the shaft, flexible connections from the pulleys to the follower, and a spiral spring coiled around the shaft and attached thereto at one end and connected at the other end to the box.

4. In a baling press, the combination of a baling chamber, a plunger movable vertically therein, a windlass for moving the plunger in the direction for forming a bale, a shaft, pulleys on the shaft, flexible connections between the pulley and the plunger, and a spring applied to the shaft for retracting the plunger after a baling operation.

1,030,649. MACHINE FOR HOMOGENIZING MILK, CREAM, &c. FRANK P. CRIBBINS, Derby, Conn. Filed May 31, 1911. Serial No. 630,540. (Cl. 99—2.)



In a machine for homogenizing milk, the combination with a plurality of horizontally arranged cylinders each provided with an upright chambered head formed on opposite sides with alined assembling-flanges, whereby the said cylinders may be bolted directly together to form a gang of cylinders internally traversed and connected by a continuous passage leading laterally through all of the said chambered heads and assembling-flanges with which latter the said passage is concentric; of a piston for each cylinder, means for actuating the said pistons in sequence for subjecting milk introduced into the said heads to pressure, a pressure-box containing globule-breaking devices attached to the outer assembling-flange of the outer head at one end of the said gang of cylinders, and means for supplying milk to the several cylinders for condensation in them by their respective pistons by which the pressure is generated within the cylinders for forcing milk through the said globule-breaking devices.

1,030,650. ELECTRIC BATTERY. HORACE DE MARTIS, London, England. Filed Aug. 14, 1909. Serial No. 513,198. (Cl. 204—29.)



1. In a secondary electric battery, plates or electrodes, and a separating medium between said plates or electrodes consisting of a vegetable woven fabric which has been treated, after weaving, so as to leave only a woven cellulose fabric the strands of which are porous.

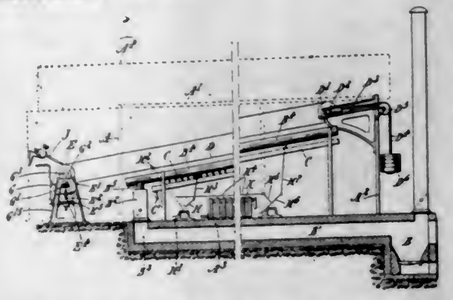
2. In a secondary electric battery, plates or electrodes, and a separating medium between and independent of said plates or electrodes consisting of a vegetable woven fabric which has been treated, after weaving, so as to leave only a woven cellulose fabric the strands of which are porous.

1,030,651. CURING OF INDIA-RUBBER. ROBERT DERRY, Singapore, Straits Settlements. Filed Apr. 1, 1911. Serial No. 618,372. (Cl. 18—2.)

1. In an apparatus for curing latex, the combination of a supply receptacle; means to draw said latex from said supply in a thin film; means to apply smoke to said film; means to apply heat to said film; and a closed chamber in which said heat and smoke means are located and into which said film may be drawn during treatment, substantially as described.

2. In an apparatus for curing latex, the combination of a supply receptacle; means having a motion of rotation and translation for drawing said latex from said supply in a thin film; means to apply smoke to said film

while it is receiving its translating movement; means to heat said film while it is receiving its smoke treatment; and a closed chamber in which said smoke and heat means are located and through which said film may be drawn, substantially as described.



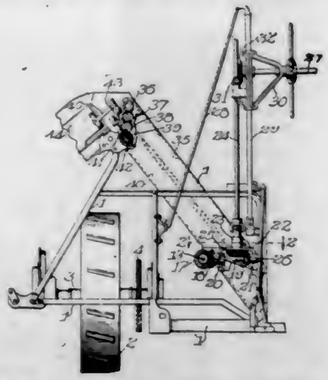
3. Apparatus for curing latex wherein it is exposed in a thin film to the action of smoke and comprising in combination an endless band, a latex-containing receptacle through which the band passes, means for adjusting said receptacle in its relation to the band, and means for directing heat and smoke on to the latex picked up on the surface of the band.

4. Apparatus for curing latex wherein it is exposed in a thin film to the action of smoke and comprising in combination a latex-containing receptacle, a heat and a smoke-chamber, means for supplying heat and smoke to said chamber, an endless band passing through said receptacle and chamber, pulleys supporting the endless band, means for directing heat and smoke on to the latex picked up on the surface of the band, and means for expelling water from the coagulated latex.

5. Apparatus for curing latex wherein it is exposed in a thin film to the action of smoke and comprising in combination a heating and a smoke chamber a supply of latex situated outside thereof, an endless flexible band adapted to convey a thin film of material into said chamber, and a driving means for imparting motion to the band.

[Claims 6 to 15 not printed in the Gazette.]

1,030,652. HARVESTER. JOHN H. DOWNING, Stillwater, Minn., assignor to the State of Minnesota. Filed Apr. 13,1911. Serial No. 621,248. (Cl. 56—124.)



1. In a harvester, in combination, a single driving element comprising a driving sprocket chain at the rear of the main frame of the machine, upper and lower elevator frames provided with rollers at the upper and lower extremities thereof for carrying the usual elevator canvases, a sprocket wheel secured to the rear end of the upper roller of the lower elevator and driven by the said driving element, means for driving the upper roller of the upper elevator from the said upper roller of the lower elevator, a reel, a shaft journaled in the machine frame and extending from the front to the rear thereof, said shaft having a driving sprocket secured to the rear end thereof in engagement with the driving element, and operative means interposed between the forward end of said shaft and the reel for imparting movement to the reel.

2. In a harvester, in combination, a single driving element at the rear of the machine frame, upper and lower elevator frames provided with rollers at the upper and lower extremities thereof for carrying the usual elevator canvases, means on the rear end of the upper roller of the lower elevator adapted to be engaged by the driving element for operating said roller, means for driving the upper roller of the upper elevator from said upper roller of the lower elevator, a reel, a shaft journaled in the machine frame and extending from the front to the rear thereof and being provided with means at the rear for engagement with the driving element, and operative means interposed between the forward end of said shaft and the reel for imparting movement to the reel.

3. In a harvester, in combination, a single driving element at the rear of the machine frame, upper and lower elevator frames provided with rollers at the upper and lower extremities thereof for carrying the usual elevator canvases, means on the rear end of the upper roller of the lower elevator adapted to be engaged by the driving element for operating said roller, means for driving the upper roller of the upper elevator from said upper roller of the lower elevator, a reel, a shaft journaled in the machine frame and extending from the front to the rear thereof and being provided with means at the rear for engagement with the driving element and operative means between the forward end of said shaft and the reel for imparting movement to the reel, said means comprising a counter-shaft rotatably supported on the machine frame at the forward side of the elevators, coöperating gears on the first said shaft and on the counter-shaft, an approximately vertical reel driving shaft, and coöperating gears on the said counter-shaft and on the vertical reel driving shaft.

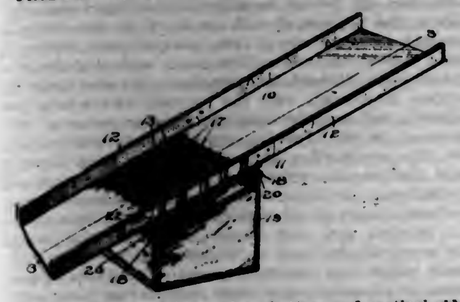
4. In a harvester, in combination, a single driving element comprising a driven sprocket chain at the rear of the main frame of the machine, upper and lower elevator frames provided with rollers at the upper and lower extremities thereof for carrying the usual elevator canvases, a sprocket wheel secured to the rear end of the upper roller of the lower elevator and driven by the said driving element, means for driving the upper roller of the upper elevator from the said upper roller of the lower elevator, a reel, a shaft journaled in the machine frame and extending from the front to the rear thereof, said shaft having a driving sprocket secured to the rear end thereof in engagement with the driving element, and operative means interposed between the forward end of said shaft and the reel for imparting movement to the reel.

5. In a harvester, in combination, a single driving element comprising a driving sprocket chain at the rear of the main frame of the machine, upper and lower elevator frames provided with rollers at the upper and lower extremities thereof for carrying the usual elevator canvases, a sprocket wheel secured to the rear end of the upper roller of the lower elevator and driven by the said driving element, means for driving the upper roller of the upper elevator from the said upper roller of the lower elevator, a reel, a shaft journaled in the machine frame and extending from the front to the rear thereof, said shaft having a driving sprocket secured to the rear end thereof in engagement with the driving element, and operative means interposed between the forward end of said shaft and the reel for imparting movement to the reel, said means comprising a counter-shaft journaled at the forward side of the elevators, coöperating gears on the

forward end of the first said shaft and on the counter-shaft, and means for imparting movement from said counter-shaft to the reel.

[Claim 6 not printed in the Gazette.]

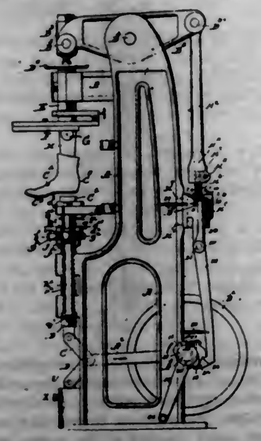
1,030,653. COAL-CHUTE. RALPH A. DYER, Bangor, Me. Filed Dec. 28, 1911. Serial No. 668,200. (Cl. 83—56.)



1. A chute comprising a plane bottom and vertical sides, cleats extending transversely across and extending beyond the sides of the chute and turned upwardly into hooks, wires extending longitudinally of the chute bound in position by the cleats and bent upwardly flush with the inner surface of the bottom, and other wires extending transversely across under the first mentioned wires and spaced apart.

2. A chute comprising a substantially plane bottom and vertical sides and provided with an opening, cleats extending transversely across the chute at the upper and lower margins of the opening, such cleats extending laterally beyond the sides of the chute and turned upwardly to form hooks, wires extending longitudinally of the chute bound in position by the cleats, such wires being bent upwardly to produce surfaces substantially flush with the inner surface of the bottom, other wires spaced apart and extending transversely across under the first mentioned wires, and cleats extending longitudinally along the outer surface of the sides and clamping the upturned ends of the transverse wires between said cleats and sides.

1,030,654. NAILING-MACHINE. ALVIN D. ELLIOTT, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 13, 1902, Serial No. 98,071. Renewed Mar. 27, 1912. Serial No. 686,622. (Cl. 1—32.)



1. In a machine of the class described, mechanism for attaching a heel and for attaching a top-lift, said mechanism in said attaching operations imparting pressure to the heel and to the top-lift, and means for regulating the amount of pressure imparted in the top-lift attaching operation irrespective of the amount of pressure imparted in the heel-attaching operation.

2. A heel attaching machine, having in combination, a shoe holder, a nail block, means for effecting relative movement of said devices to press successively a heel and a top lift upon a shoe, said means comprising mechanism for automatically controlling the position of one of said devices in accordance with the thickness of the parts to be subjected to pressure and for thereafter moving the other of said parts to impart pressure to the heel or top lift to be attached, and means for varying automatically the pressures applied in the successive operations of attaching the heel and the top lift.

3. A heel attaching machine, having in combination, a movable shoe holder, a movable nail block, means to impart movement to said parts in the same direction, a screw connected with the shoe holder and a clutch cooperating with the screw to control the movement of said shoe holder and a plurality of devices for actuating said clutch arranged to permit the movements of the shoe holder during the operations of attaching a heel and a top lift to be independently controlled.

4. In a machine of the class described, a shoe holder, a nail block, means to drive nails from the nail block in attaching a heel to the sole of a shoe, means to change the relative positions of said shoe holder and nail block to clamp and release the stock while attaching both the heel to the shoe and the top lift to the heel, said means including a clutch, and automatic means co-acting therewith to arrest the movement of one of said parts at predetermined periods during successive clamping operations, thereby to effect a compression of the stock while attaching the heel, which is different in degree from the compression effected while attaching the top lift.

5. A machine for attaching heels, having in combination, means for supporting a shoe, means for pressing a heel upon the shoe and for thereafter pressing a top lift upon the attached heel arranged to limit the respective pressures employed in said operations independently of the thickness of the heel or top lift and constructed to permit different limits of pressure to be provided for heel and top lift respectively.

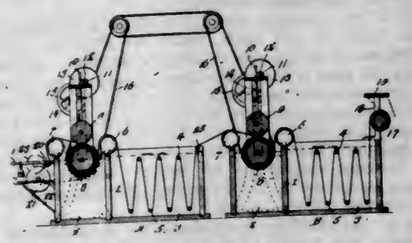
[Claims 6 to 54 not printed in the Gazette.]

1,030,655. CIGAR CELL OR POCKET. EDWIN H. ELLIS, Cincinnati, Ohio. Filed May 9, 1911. Serial No. 626,097. (Cl. 229—53.)



A cell of the character described, comprising a rectangular body and an elongated extension formed from a single piece of flexible material, the body being provided with longitudinally plaited portions at opposite sides of its center, adhesive substance inserted in the folds of the plaited portions, for temporarily uniting the folds, but permitting the same to separate from each other when a cigar is inserted in the cell, the extension being folded inwardly toward the body and secured at its longitudinal edges to said plaited portions of the body, substantially as described.

1,030,656. CRABBING-MACHINE. HENRY A. FRETTS, Hyde Park, Mass. Filed Oct. 15, 1909. Serial No. 522,812. (Cl. 26—2.)

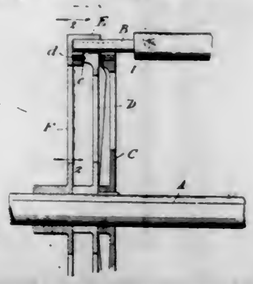


1. In a crabbing machine, the combination of a tank, a vertical partition subdividing the tank into compartments each adapted to receive a bath, upper and lower sets of rolls arranged in one of the compartments for the fabric to be treated to pass around in a zigzag or tortuous path, a stretching roll located at the top of the partition, a roll located in the upper portion of the second compartment and dipping into the bath contained therein, and a pressure roll in contact with the aforesaid roll.

2. In a crabbing machine, the combination of a tank, a vertical partition subdividing the tank into two compartments each adapted to receive a bath, upper and lower sets of rolls located in one of the compartments to cause the fabric to be treated to pass through the bath in a zigzag direction, stretching rolls located the one above the said partition and the other above the rear wall of the tank, a roll located in the upper portion of the second compartment between the stretching rolls, and a pressure roll coöperating with the said roll.

3. In combination a series of tanks, a partition dividing each of the tanks into two compartments which are adapted to receive a bath, upper and lower rolls arranged in the first compartment of each of the tanks to cause the fabric to travel in a zigzag direction, stretcher rolls above the partition and rear roll of the second compartment of each of the tanks, rolls adapted to transport the fabric or to roll the fabric thereon mounted in the upper portion of the second compartment, pressure rolls coöperating with the last mentioned rolls, and means located in the rear of the last tank of the series for forming the fabric into a small package for convenience of handling.

1,030,657. PLANETARY NAPPING-MACHINE DRUM. HARRY S. GREENE, Woonsocket, R. I. Filed Feb. 14, 1912. Serial No. 677,439. (Cl. 26—19.)



1. The combination of a suitably supported shaft, a head fixed on and adapted to turn with the shaft and having boxes and also having openings in the bottoms of said boxes, carriers movable rectilinearly in said boxes and having openings in their bottoms, a circular series of journals disposed one in each carrier, a wheel loosely mounted on the shaft, alongside the head, and extending through the openings in the said boxes and carriers, a wheel loosely mounted on the shaft alongside the first-named wheel, and a hoop carried by the second-named wheel and surrounding and movable about the circular series of journals and adapted to receive the contact of said journals.

2. The combination of a suitably supported shaft, a head fixed on and adapted to turn with the shaft; said head having spaced boxes open at the perimeter of the head and each having side walls and a bottom wall in which is an opening, carriers movable rectilinearly in said boxes and having journal-receiving spaces and openings in the bottoms of said spaces, a circular series of journals arranged one in the space of each carrier, a wheel loosely mounted on the shaft, alongside the head and extending through the openings in the said boxes and carriers for contact with the journals, and a hoop surrounding and movable about the circular series of journals and adapted to receive the contact of said journals.

3. The combination of a suitably supported shaft, a head fixed on and adapted to turn with the shaft and having boxes, carriers movable rectilinearly in said boxes, a circular series of journals disposed one in each carrier and movable with said carrier away from and toward the center of the head, anti-friction bearing means disposed within and adapted to contact with the circular series of journals, and a hoop surrounding the circular series of journals; said hoop being movable about the series of journals and adapted to receive the contact thereof.

4. The combination of a rotatable body having boxes, carriers disposed one in each box and movable therein away from and toward the center of movement of the body, a circular series of journals disposed one in each carrier and movable with said carrier away from and toward the center of movement of the body, and a hoop surrounding the circular series of journals; said hoop being movable about the series of journals and arranged to receive the contact thereof.

5. The combination of a rotatable body having boxes, carriers disposed one in each box and movable therein away from and toward the center of movement of the body, a circular series of journals disposed one in each carrier and movable with said carrier away from and toward the center of movement of the body, and a bearing wheel arranged within the circular series of journals; said wheel being arranged to receive the contact of the journals and to be rotated thereby.

[Claims 6 to 9 not printed in the Gazette.]

1,030,658. EXTENSIBLE TABLE-LEG. JAMES T. GREGORY, Washington, D. C. Filed Feb. 2, 1912. Serial No. 674,879. (Cl. 46—13.)



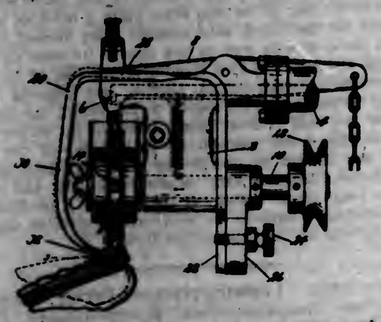
1. In an extensible table leg, the combination with the block of a table, of a threaded socket secured to the block, said block being provided with a longitudinally extending open, a screw mounted to threadedly extend through the said socket with an end of the screw extending into the said opening, a tubular turning member slidably mounted on the said screw, means on said screw and engaging the said turning member for rotating the screw when the turning member is rotated, a tubular filler member slidably mounted on the said screw, a tubular foot member and a socket secured to the foot member and threadedly engaged by the said screw, the said screw being adapted to normally extend beyond the lower end of the said foot member.

2. In an extensible table leg, the combination with the block of a table, of a screw threadedly mounted thereon, a turning member slidably mounted on the said screw, means on the said screw and engaging the said turning member for rotating the screw when the turning member is rotated, a filler member mounted on the said screw and a foot member threadedly mounted on the lower end of the said screw.

3. In an extensible table leg, the combination with a screw for threaded engagement with the block of the table, of a foot member threadedly mounted on the said screw, a turning member mounted to slide on the screw and interposed between the said block and the said foot member and means for rotating the said screw when the said turning member is rotated.

4. In an extensible table leg, the combination with a screw for threaded engagement with the block of the table, of a foot member threadedly mounted on the said screw, a turning member mounted to slide on the screw and interposed between the said block and the said foot member and a locking lug formed on the said screw and extending into grooves on the said turning member for imparting rotation to the said screw when the said turning member is rotated.

1,030,659. CEMENTING-MACHINE. CHARLES E. HOWE, Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 17, 1905. Serial No. 260,840. (Cl. 12—80.)



1. A machine for applying cement to the margin of a sole having in combination a cement applying member and a guide, said guide comprising a flat bar having two bends of approximately ninety degrees each, a portion of said bar being of reduced cross section to provide resiliency.

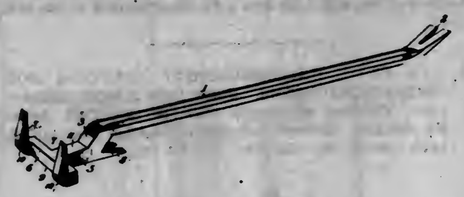
2. A machine for applying cement to a channeled sole having in combination a cement applying member, and a guide for engaging the base of the channel flap, said guide comprising a curved resilient bar.

3. A machine for applying cement to a channeled sole having in combination a cement applying member, a guide for engaging the base of the channel flap, said guide comprising a curved resilient bar, and means whereby said bar may be adjusted to move its operative portion toward and from the cement applying member.

4. A machine for applying cement to a channeled sole having, in combination, a cement applying member and a guide for engaging the channel flap, said guide comprising a base attached to the frame on one side of the cement applying member and a portion extending around said member to the other side thereof.

5. A machine for applying cement to a channeled sole having, in combination, a cement applying member and a guide for engaging the channel flap, said guide comprising a bar having a resilient portion extending obliquely downward whereby upward pressure of the shoe against the channel-flap engaging end of said guide causes said end to move laterally as well as upwardly.

1,030,660. TOOL FOR REMOVING FLOORS, SIDING, SCAFFOLDS, &c. HENRY C. HUNT, Palacios, Tex. Filed Oct. 12, 1911. Serial No. 654,387. (Cl. 145—1.)



1. A tool of the class described including a straight bar or body portion provided at one end with a downwardly inclined or angularly disposed neck, a short shank extending outwardly from the outer end of the neck in a plane approximately parallel with that of the straight bar or body portion, a cross head or bar centrally connected to the outer end of the shank and extending from opposite sides of the same to form laterally projecting arms, and bills or fingers located at the ends of the cross head or bar and extending upwardly therefrom at a point below the plane of the straight bar or body portion at right angles thereto and forming laterally off-set fulcrums arranged in the plane of the straight bar or body portion.

2. A tool of the class described including a straight bar or body portion provided at one end with a downwardly inclined or angularly disposed neck, a short shank extending outwardly from the outer end of the neck in a plane approximately parallel with that of the straight bar or body portion, a cross head or bar centrally connected to the outer end of the shank and extending from opposite sides thereof to form laterally projecting arms, a nail extracting claw extending inwardly from the outer end of the neck and off-set by the same from the bar or body portion, and bills or fingers located at the ends of the cross head and extending upwardly therefrom at a point below the plane of the straight bar or body portion and forming laterally off-set fulcrums in the plane of the said bar or body portion.

1,030,661. SOCKET FOR CONNECTING PACKAGE-TIERS. BENJAMIN F. INGE, Roanoke, Va. Filed Feb. 17, 1912. Serial No. 678,177. (Cl. 24—201.)



A socket comprising a hollow member constructed of a single piece of material and provided with a bent portion forming a loop at one end of the member and having its terminal extended into the member and formed therewithin to provide an eye.

1,030,662. TOOL-SHARPENING IMPLEMENT. GEORGE H. JOHNSON, Rose Hill, N. Y. Filed Oct. 24, 1911. Serial No. 656,394. (Cl. 51—7.)

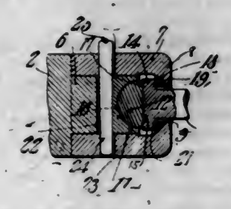


1. A device of the class described comprising a body provided with peripherally extending grooves and having

a V-shaped slot formed in one end thereof, the other end of the said body terminating in a beveled portion and a beveled head integrally formed on the said other end of the body, the said head being offset from the longitudinal axis of the body to present a portion of the flat end of the body and a portion of the flat end of the head.

2. A device of the class described comprising a body provided with a beveled portion at one end thereof and a head integrally formed on the body to present a flattened surface of the said body and a flattened surface of the said head.

1,030,663. UNIVERSAL-JOINT COUPLING FOR DRILLING-MACHINES. JOHN PRUE KARNS, Boulder, Colo. Original application filed May 25, 1909, Serial No. 498,246. Divided and this application filed Apr. 8, 1910. Serial No. 554,224. (Cl. 74—17.)



1. A universal coupling comprising a member formed at one end with a substantially semi-spherical pocket, a sleeve surrounding the pocketed end of said member and provided with an inwardly directed terminal flange, said flange being provided with a partially spherical seat, a bearing block adapted to the pocket in the said member, a bearing ring adapted to the seat in the flange of the sleeve, and another member extending through the flanged end of the sleeve and at the end within the sleeve provided with a head lodged between the bearing block seated in the end of the first named member and the bearing ring seated in the flanged end of the sleeve.

2. A universal coupling comprising a member provided with a substantially semi-spherical seat at one end, a substantially semi-spherical block adapted to said seat and formed on one side with a plane face, a headed member having a plane face engaging the plane face of the said block, a bearing ring for the head of the headed member engaging the face thereof remote from the block, said bearing ring having a partly spherical face curved from the same center as the semi-spherical block, and a connecting member carried by the first named member and provided with a partly spherical seat for the bearing ring.

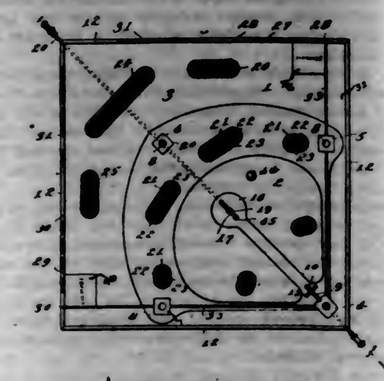
3. A universal coupling comprising a member having a cylindrical head with opposite plane faces, a plano-convex block having the plane face engaging one plane face of the headed member, a member provided with a concave seat for the convex side of the block, a plano-convex bearing ring having the plane face engaging the other plane face on the headed member, and a sleeve provided with concave seat for the convex side of the bearing ring.

4. A universal coupling comprising a member terminating in a cylindrical head with opposite faces plane and parallel one to the other, a plano-convex block having its plane face engaging the outer plane face of the headed member, a member provided with a concave seat for the plano-convex block, a plano-convex bearing ring having the plane face in engagement with the other plane face of the headed member, and a connecting sleeve fast to the member with the concave seat for the block and provided with a tapered end formed with a concaved seat for the ring and housing the cylindrical head of the first named member.

5. A universal coupling comprising two members, a block supported for movement by one of said members, a head carried by the other member, said head being formed with two plane faces one of said faces contacting with said block, a sleeve inclosing the ends of said members, said sleeve being formed with a curved inner wall adjacent one of its ends and a member spacing said head from said curved inner wall, said member having a plane surface contacting with the other plane surface of said head, and a curved surface contacting with said curved wall.

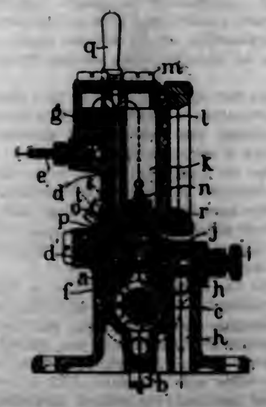
[Claim 6 not printed in the Gazette.]

1,030,664. GAME APPARATUS. HERMANN K. KIRCH and OTTO E. CLAUSS, Chicago, Ill. Filed Jan. 7, 1911. Serial No. 601,307. (Cl. 46—61.)



In a game apparatus, a board of a rectangular formation representing a base ball field, a home plate, bases, and pockets formed on the board corresponding to positions of the fielders, an elongated slot formed on the board and disposed immediately in advance of the said home plate, a substantially V-shaped slot formed in the board and disposed at the rear of the said home plate, a movable batting element for the board, said element being formed from a single piece of wire and having one of its ends extended through the said V-shaped opening at the rear of the plate to provide a manipulating portion and adapted to be moved horizontally with respect to the board, the opposite end of the said element being extended up through the said elongated slot immediately in advance of the home plate and formed to provide an elongated head portion transversely disposed with respect to the slot and adapted for longitudinal movement therein and a pitching element arranged opposite the said batting element substantially as and for the purpose set forth.

1,030,665. LUBRICATING-OIL PUMP. RICHARD KLINGER, Gumpoldskirchen, Austria-Hungary. Filed Dec. 30, 1910. Serial No. 600,174. (Cl. 184—31.)



In a lubricant supply device, in combination, a casing having an oil delivery passage through which oil normally flows in a column and having also a by-pass liquid containing sight feed passage communicating at its discharge end with the oil delivery passage and through which the oil may flow drop-by-drop, the oil delivery passage terminating in a discharge pipe, a pump for forcing oil at a constant rate through the casing to either of the passages aforesaid, a valve operable to cause the oil delivered by the pump to flow through either of said passages, the casing also having a return passage leading to the source of oil supply and having another passage which communicates at one end both with the oil delivery passage and with the sight feed passage and at its other end both with the pump chamber and with the return passage, and a valve for controlling the flow of oil through the return passage and thereby regulating the rate at which the oil flows through either the sight feed or the oil delivery passage, the valve last named being operated to regulate the flow as desired during the period that the oil is allowed to flow through the sight feed passage and serving to maintain the flow at the rate to which it is thus regulated during the period of normal operation in which the oil is caused to flow through the oil delivery passage.

1,030,666. PROCESS OF MANUFACTURING INCANDESCENT-LAMP FILAMENTS. HANS KUŽEL, Baden, near Vienna, Austria-Hungary, assignor to General Electric Company, a Corporation of New York. Filed Dec. 15, 1905, Serial No. 291,909. Renewed Mar. 19, 1912. Serial No. 684,813. (Cl. 176—131.)

1. A process of manufacturing an incandescent lamp filament, consisting in making a mixture of colloidal material with material in a finely powdered state, the mixture containing a described metalloid, working the mixture into a plastic mass, bringing the mass to the desired wire-like shape, drying the latter and heating it to a white heat in the absence of gases capable of attacking the same.

2. The process of manufacturing an incandescent lamp filament, consisting in making a mixture of colloidal material with material in a finely powdered state, the mixture containing a described metalloid and a nitrogen compound as described, working the mixture into a plastic mass, bringing the mass to the desired wire-like shape, drying the latter and heating it to a white heat in the absence of gases capable of attacking the same.

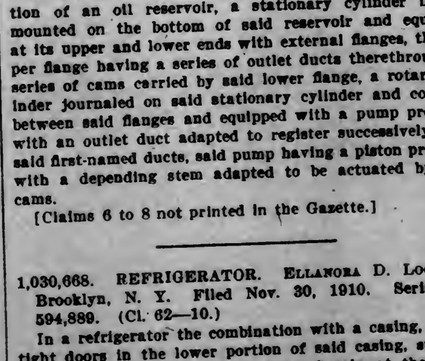
3. A process of manufacturing an incandescent lamp filament, consisting in making a mixture of colloidal material with material in a finely powdered state, the mixture containing the described two metalloids, working the mixture into a plastic mass, bringing the mass to the desired wire-like shape, drying the latter and heating it to a white heat in the absence of gases capable of attacking the same.

4. A process of manufacturing an incandescent lamp filament, consisting in making a mixture of colloidal material with material in a finely powdered state, the mixture containing a described metalloid and a metal melting at a very high temperature, working the mixture into a plastic mass, bringing the mass to the desired wire-like shape, drying the latter and heating it to a white heat in the absence of gases capable of attacking the same.

1,030,667. LUBRICATOR. IVERT LARSEN, Chicago, Ill. Filed Nov. 20, 1911. Serial No. 661,443. (Cl. 184—33.)

1. In a device of the character set forth, the combination of a stationary member having a series of outlet ducts, a rotary member equipped with a pump having an outlet duct adapted to be brought into registration successively with said first-named ducts, said pump having a valve-equipped piston through which oil may be taken, and means for reciprocating said piston.

2. In a device of the character set forth, the combination of an oil reservoir, and a pumping device mounted therein, comprising a stationary member provided with a series of outlet ducts, a rotary member equipped with a pump having an outlet duct adapted to be brought into registration successively with said first-named ducts, said pump having a piston provided with a longitudinal passage and with an inlet duct adapted to admit oil from the reservoir, and means for reciprocating said piston as the pump is carried by said rotary member.



3. In a device of the character set forth, the combination of a stationary member having a flange at its upper portion and a flange at its lower portion, the upper flange having a series of outlet ducts therein, an encircling annular rotary member encompassing said first-named member and confined between said flanges, a pump carried by said rotary member and having an outlet duct adapted to register successively with said first-named ducts, said pump having a hollow piston provided at its lower end with an inlet duct, means for guarding the intake of oil through said last named duct, and cams projecting above the lower flange of the stationary member and adapted to actuate said piston.

4. In a device of the character set forth, the combination of an oil reservoir, a stationary cylinder fixedly secured to the bottom of said reservoir and provided at its upper end with an external flange having a series of outlet ducts opening at its lower surface, an encompassing rotary cylinder journaled on said stationary cylinder and having its upper end abutting against the lower surface of said flange, said rotary cylinder equipped with a pump having an outlet duct adapted to register successively with said first-named ducts, said pump having a piston provided with a depending stem, and a series of cams arranged about the lower end of said stationary cylinder and adapted to actuate said piston.

5. In a device of the character set forth, the combination of an oil reservoir, a stationary cylinder fixedly mounted on the bottom of said reservoir and equipped at its upper and lower ends with external flanges, the upper flange having a series of outlet ducts therethrough, a series of cams carried by said lower flange, a rotary cylinder journaled on said stationary cylinder and confined between said flanges and equipped with a pump provided with an outlet duct adapted to register successively with said first-named ducts, said pump having a piston provided with a depending stem adapted to be actuated by said cams.

[Claims 6 to 8 not printed in the Gazette.]

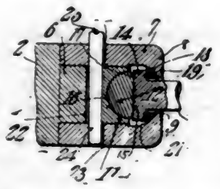
1,030,668. REFRIGERATOR. ELLANORA D. LOCHNER, Brooklyn, N. Y. Filed Nov. 30, 1910. Serial No. 594,889. (Cl. 62—10.)

In a refrigerator the combination with a casing, of airtight doors in the lower portion of said casing, supporting frames having sliding baskets therein at the upper corners of the refrigerator, a basket for receiving ice supported by said supporting frames and an airtight door

a V-shaped slot formed in one end thereof, the other end of the said body terminating in a beveled portion and a beveled head integrally formed on the said other end of the body, the said head being offset from the longitudinal axis of the body to present a portion of the flat end of the body and a portion of the flat end of the head.

2. A device of the class described comprising a body provided with a beveled portion at one end thereof and a head integrally formed on the body to present a flattened surface of the said body and a flattened surface of the said head.

1,030,663. UNIVERSAL-JOINT COUPLING FOR DRILLING-MACHINES. JOHN PRUE KARNS, Boulder, Colo. Original application filed May 25, 1909, Serial No. 498,246. Divided and this application filed Apr. 8, 1910. Serial No. 554,224. (Cl. 74—17.)



1. A universal coupling comprising a member formed at one end with a substantially semi-spherical pocket, a sleeve surrounding the pocketed end of said member and provided with an inwardly directed terminal flange, said flange being provided with a partially spherical seat, a bearing block adapted to the pocket in the said member, a bearing ring adapted to the seat in the flange of the sleeve, and another member extending through the flanged end of the sleeve and at the end within the sleeve provided with a head lodged between the bearing block seated in the end of the first named member and the bearing ring seated in the flanged end of the sleeve.

2. A universal coupling comprising a member provided with a substantially semi-spherical seat at one end, a substantially semi-spherical block adapted to said seat and formed on one side with a plane face, a headed member having a plane face engaging the plane face of the said block, a bearing ring for the head of the headed member engaging the face thereof remote from the block, said bearing ring having a partly spherical face curved from the same center as the semi-spherical block, and a connecting member carried by the first named member and provided with a partly spherical seat for the bearing ring.

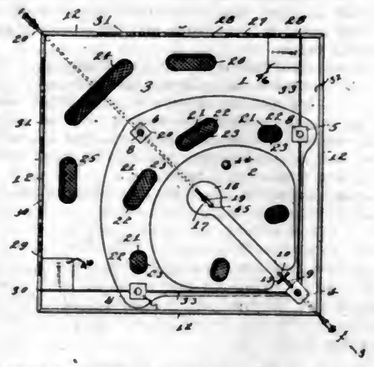
3. A universal coupling comprising a member having a cylindrical head with opposite plane faces, a plano-convex block having the plane face engaging one plane face of the headed member, a member provided with a concave seat for the convex side of the block, a plano-convex bearing ring having the plane face engaging the other plane face on the headed member, and a sleeve provided with concave seat for the convex side of the bearing ring.

4. A universal coupling comprising a member terminating in a cylindrical head with opposite faces plane and parallel one to the other, a plano-convex block having its plane face engaging the outer plane face of the headed member, a member provided with a concave seat for the plano-convex block, a plano-convex bearing ring having the plane face in engagement with the other plane face of the headed member, and a connecting sleeve fast to the member with the concave seat for the block and provided with a tapered end formed with a concaved seat for the ring and housing the cylindrical head of the first named member.

5. A universal coupling comprising two members, a block supported for movement by one of said members, a head carried by the other member, said head being formed with two plane faces one of said faces contacting with said block, a sleeve inclosing the ends of said members, said sleeve being formed with a curved inner wall adjacent one of its ends and a member spacing said head from said curved inner wall, said member having a plane surface contacting with the other plane surface of said head, and a curved surface contacting with said curved wall.

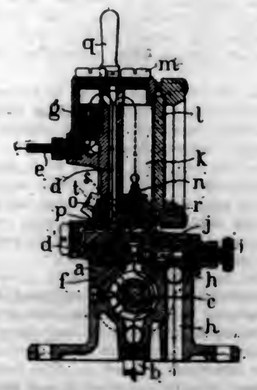
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1,030,664. GAME APPARATUS. HERMANN K. KIRCH and OTTO E. CLAUSS, Chicago, Ill. Filed Jan. 7, 1911. Serial No. 601,307. (Cl. 46—61.)



In a game apparatus, a board of a rectangular formation representing a base ball field, a home plate, bases, and pockets formed on the board corresponding to positions of the fielders, an elongated slot formed on the board and disposed immediately in advance of the said home plate, a substantially V-shaped slot formed in the board and disposed at the rear of the said home plate, a movable batting element for the board, said element being formed from a single piece of wire and having one of its ends extended through the said V-shaped opening at the rear of the plate to provide a manipulating portion and adapted to be moved horizontally with respect to the board, the opposite end of the said element being extended up through the said elongated slot immediately in advance of the home plate and formed to provide an elongated head portion transversely disposed with respect to the slot and adapted for longitudinal movement therein and a pitching element arranged opposite the said batting element substantially as and for the purpose set forth.

1,030,665. LUBRICATING-OIL PUMP. RICHARD KLINGER, Gumpoldskirchen, Austria-Hungary. Filed Dec. 30, 1910. Serial No. 600,174. (Cl. 184—31.)



In a lubricant supply device, in combination, a casing having an oil delivery passage through which oil normally flows in a column and having also a by-pass liquid containing sight feed passage communicating at its discharge end with the oil delivery passage and through which the oil may flow drop-by-drop, the oil delivery passage terminating in a discharge pipe, a pump for forcing oil at a constant rate through the casing to either of the passages aforesaid, a valve operable to cause the oil delivered by the pump to flow through either of said passages, the casing also having a return passage leading to the source of oil supply and having another passage which communicates at one end both with the oil delivery passage and with the sight feed passage and at its other end both with the pump chamber and with the return passage, and a valve for controlling the flow of oil through the return passage and thereby regulating the rate at which the oil flows through either the sight feed or the oil delivery passage, the valve last named being operated to regulate the flow as desired during the period that the oil is allowed to flow through the sight feed passage and serving to maintain the flow at the rate to which it is thus regulated during the period of normal operation in which the oil is caused to flow through the oil delivery passage.

1,030,666. PROCESS OF MANUFACTURING INCANDESCENT-LAMP FILAMENTS. HANS KUŽEL, Baden, near Vienna, Austria-Hungary, assignor to General Electric Company, a Corporation of New York. Filed Dec. 15, 1905, Serial No. 291,909. Renewed Mar. 19, 1912. Serial No. 684,813. (Cl. 176—131.)

1. A process of manufacturing an incandescent lamp filament, consisting in making a mixture of colloidal material with material in a finely powdered state, the mixture containing a described metalloid, working the mixture into a plastic mass, bringing the mass to the desired wire-like shape, drying the latter and heating it to a white heat in the absence of gases capable of attacking the same.

2. The process of manufacturing an incandescent lamp filament, consisting in making a mixture of colloidal material with material in a finely powdered state, the mixture containing a described metalloid and a nitrogen compound as described, working the mixture into a plastic mass, bringing the mass to the desired wire-like shape, drying the latter and heating it to a white heat in the absence of gases capable of attacking the same.

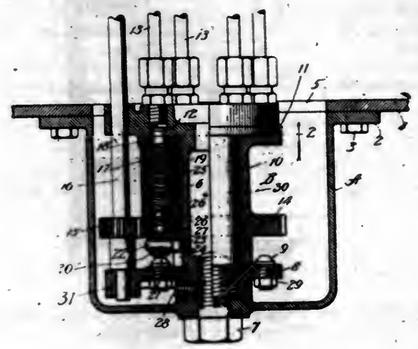
3. A process of manufacturing an incandescent lamp filament, consisting in making a mixture of colloidal material with material in a finely powdered state, the mixture containing the described two metalloids, working the mixture into a plastic mass, bringing the mass to the desired wire-like shape, drying the latter and heating it to a white heat in the absence of gases capable of attacking the same.

4. A process of manufacturing an incandescent lamp filament, consisting in making a mixture of colloidal material with material in a finely powdered state, the mixture containing a described metalloid and a metal melting at a very high temperature, working the mixture into a plastic mass, bringing the mass to the desired wire-like shape, drying the latter, and heating it to a white heat in the absence of gases capable of attacking the same.

1,030,667. LUBRICATOR. IVERT LARSEN, Chicago, Ill. Filed Nov. 20, 1911. Serial No. 661,443. (Cl. 184—33.)

1. In a device of the character set forth, the combination of a stationary member having a series of outlet ducts, a rotary member equipped with a pump having an outlet duct adapted to be brought into registration successively with said first-named ducts, said pump having a valve-equipped piston through which oil may be taken, and means for reciprocating said piston.

2. In a device of the character set forth, the combination of an oil reservoir, and a pumping device mounted therein, comprising a stationary member provided with a series of outlet ducts, a rotary member equipped with a pump having an outlet duct adapted to be brought into registration successively with said first-named ducts, said pump having a piston provided with a longitudinal passage and with an inlet duct adapted to admit oil from the reservoir, and means for reciprocating said piston as the pump is carried by said rotary member.



3. In a device of the character set forth, the combination of a stationary member having a flange at its upper portion and a flange at its lower portion, the upper flange having a series of outlet ducts therein, an encircling annular rotary member encompassing said first-named member and confined between said flanges, a pump carried by said rotary member and having an outlet duct adapted to register successively with said first-named ducts, said pump having a hollow piston provided at its lower end with an inlet duct, means for guarding the intake of oil through said last named duct, and cams projecting above the lower flange of the stationary member and adapted to actuate said piston.

4. In a device of the character set forth, the combination of an oil reservoir, a stationary cylinder fixedly secured to the bottom of said reservoir and provided at its upper end with an external flange having a series of outlet ducts opening at its lower surface, an encompassing rotary cylinder journaled on said stationary cylinder and having its upper end abutting against the lower surface of said flange, said rotary cylinder equipped with a pump having an outlet duct adapted to register successively with said first-named ducts, said pump having a piston provided with a depending stem, and a series of cams arranged about the lower end of said stationary cylinder and adapted to actuate said piston.

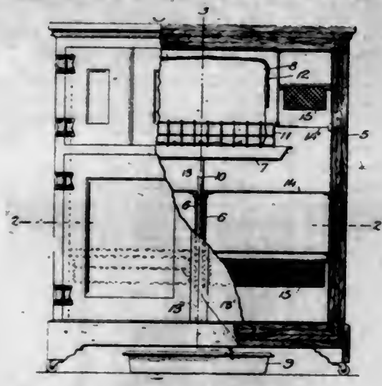
5. In a device of the character set forth, the combination of an oil reservoir, a stationary cylinder fixedly mounted on the bottom of said reservoir and equipped at its upper and lower ends with external flanges, the upper flange having a series of outlet ducts therethrough, a series of cams carried by said lower flange, a rotary cylinder journaled on said stationary cylinder and confined between said flanges and equipped with a pump provided with an outlet duct adapted to register successively with said first-named ducts, said pump having a piston provided with a depending stem adapted to be actuated by said cams.

[Claims 6 to 8 not printed in the Gazette.]

1,030,668. REFRIGERATOR. ELLANORA D. LOCHNER, Brooklyn, N. Y. Filed Nov. 30, 1910. Serial No. 594,889. (Cl. 62—10.)

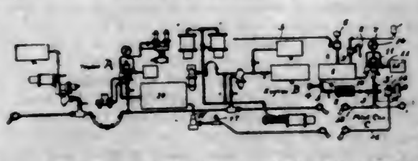
In a refrigerator the combination with a casing, of airtight doors in the lower portion of said casing, supporting frames having sliding baskets therein at the upper corners of the refrigerator, a basket for receiving ice supported by said supporting frames and an airtight door

for the ice compartment and a partition with upper and lower openings, and cleats on the front and rear walls of



said refrigerator above said partition, and a tray beneath said ice basket and supported by said cleats.

1,030,669. SYSTEM OF OPERATING STEAM-RAILWAY TRAINS. GEORGE H. LUTZ, Kansas City, Mo. Filed Apr. 21, 1910. Serial No. 556,895. (Cl. 188—1.)



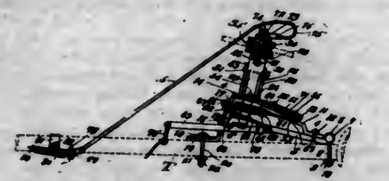
1. In a system of steam locomotive railway propulsion, the combination with a standard train equipment including a fluid pressure braking system, throughout the train and a steam locomotive at the rear end of the train, said locomotive having steam power-controlling and brake pressure developing and supplying mechanism; of a pilot car at the front end of the train having means through which to both apply and release brakes throughout the train.

2. In a system of steam locomotive railway propulsion, the combination with a standard train equipment including a fluid pressure braking system, througout the train and a steam locomotive at the rear end of the train, said locomotive having steam power-controlling and brake pressure developing and supplying mechanism; of a pilot car at the front end of the train having means through which to both apply and release brakes throughout the train and also means for arresting the supply of steam to the propelling locomotive.

3. In a system of steam locomotive railway propulsion, the combination with a standard train equipment including a fluid pressure braking system, throughout the train and a steam locomotive at the rear end of the train, said locomotive having steam power-controlling and brake pressure developing and supplying mechanism; of a pilot car at the front end of the train having means through which to both apply and release brakes throughout the train, said pilot car also having a brake pressure developing apparatus located thereon.

1,030,670. TROLLEY-WIRE-CLEANING DEVICE. NELS MALMGREN, LUTHER N. TODD, and SAMUEL J. WATSON, Canton, Ill. Filed May 6, 1911. Serial No. 625,436. (Cl. 191—38.)

1. In a trolley wire cleaning device, two series of wire cleaning members each consisting of upper and lower members extending over and beneath the trolley wire and engaging therewith and intermediate members disposed between the upper and lower members and engaging upon one side of the wire, each of the members of each series being independently movable on the wire.



2. A trolley wire cleaning device comprising a support, two series of cleaning wheels rotatably mounted thereon in opposed relation, and means for moving each of said series of wheels as a unit, the units moving in opposite directions, one wheel of each series being of less diameter than the remaining wheels, said latter wheels being adapted to receive the wire between their opposed peripheral portions and engage the same at opposite points.

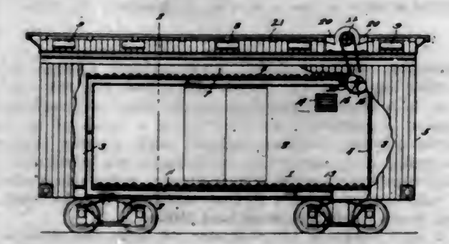
3. A trolley wire cleaning device comprising opposed series of wire cleaning members, each of said series consisting of upper and lower corrugated cleaning wheels extending over and beneath the trolley wire and engaging therewith, and intermediate wheels, the latter wheels of the respective series having their peripheries engaged upon opposite sides of the trolley wire, each wheel of each series having rotative movement independently of the remaining wheels of the same series.

4. A trolley wire cleaning device comprising a support, two series of rotatable wheels mounted on said support for bodily movement and arranged in opposed relation, one wheel of each series being of less diameter than the remaining wheels, said latter wheels being disposed in the same plane with the trolley wire in the operative position of the device and engaging said wire on opposite sides thereof, means for holding said series of wheels in engagement with the wire, and means for bodily moving the respective series of wheels in opposite directions to disengage the same from the wire.

5. A trolley wire cleaning device comprising two series of cleaning wheels arranged in opposed relation, each of said series consisting of upper and lower wheels having their opposed faces corrugated, the corresponding wheels of the respective series having their corrugated faces engaged with the wire, and an intermediate wheel arranged between the upper and lower wheels of the respective series, the peripheries of said intermediate wheels being corrugated and engaging opposite sides of the trolley wire, each of the wheels in each series being rotatable independently of the remaining wheels of said series.

[Claims 6 to 21 not printed in the Gazette.]

1,030,671. REFRIGERATOR-CAR. SYLVESTER MASON, Willisville, Ill.; W. L. Mason administrator of said Sylvester Mason, deceased. Filed Nov. 12, 1907, Serial No. 401,877. Renewed Aug. 15, 1911. Serial No. 644,184. (Cl. 98—20.)



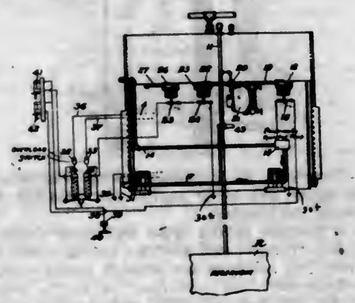
1. A refrigerator car comprising a body provided with a storage compartment, a fan casing mounted wholly within the body and extending from one side thereof to the other with both ends open to the atmosphere, a fan arranged within the casing, means for distributing air delivered by the fan into the storage compartment, a ventilator leading out of the storage comparment and independent of the fan casing, and means mounted on the body for operating the fan.

2. A refrigerator car comprising a body provided with a storage compartment, a fan casing mounted wholly within the body and formed in part by one of the walls of the storage compartment, both ends of the fan casing being open to the atmosphere, a reversible fan mounted in the casing to draw air into the latter through both ends, air conduits extending from the casing to and discharging into the storage compartment, and a reversible motor mounted on the body at the outside thereof and operatively connected with the fan.

3. A refrigerator car comprising a body provided with a storage compartment, a fan receiving air direct from the atmosphere and delivering it to the compartment, a motor shaft mounted on the top of the body and extending transversely thereto in a horizontal plane, an operating connection between the shaft and fan, separate wind wheels secured to the shaft, and a hood over each wheel and open at opposite sides to cause rotation of the wheels in either direction by the curents of air induced by the movement of the car.

4. A refrigerator car comprising a body provided with a storage compartment, a fan casing extending entirely through the body and open to the atmosphere, means for conducting air from the fan casing to the compartment, a fan rotatably mounted in the casing, a shaft mounted above the body and extending from one side thereof to the other and substantially parallel with the axis of rotation of the fan, driving means between the shaft and fan located outside the car body, wind wheels mounted on the shaft at opposite sides of the longitudinal center of the car, and a hood secured to the roof of the car and disposed over each wind wheel and having openings at opposite sides for permitting wind currents to rotate the wheels in either direction.

1,030,672. ELECTRIC HEATING SYSTEM FOR BOILERS. JAMES F. MCELROY, Albany, N. Y., assignor to Consolidated Car Heating Company, a Corporation of West Virginia. Filed Sept. 16, 1908. Serial No. 453,252. (Cl. 219—20.)



1. Means for controlling electrically heated boilers comprising an electric heating circuit, electric heaters therein, electrically operated means independent of said circuit for controlling the latter, and means operated by the level of the water for controlling said electrically operated controlling means.

2. Means for controlling electrically heated boilers comprising an electric heating circuit, electric heaters therein, electrically operated means independent of said circuit for controlling the latter, a switch for controlling said electrically operated controlling means, and means operated by the level of the water for controling said switch.

3. Means for controlling electrically heated boilers comprising an electric heating circuit, electric heaters therein, means governed by the water level in said boiler for controlling said circuit, and means governed by the steam pressure in said boiler also controlling said circuit.

4. Means for controlling electrically heated boilers comprising an electric heating circuit, electric heaters therein, switches controlling said circuit, means controlled by the water level in said boiler for operating one switch, and means controlled by the steam pressure in said boiler for operating another one of said switches.

5. In controlling mechanism for an electrically heated boiler, the combination of a heating circuit, electric heaters therein, steam operated means in said circuit, and means operated by the level of the water in said circuit in series with said steam operated means, for controlling the current in said circuit.

[Claims 6 to 13 not printed in the Gazette.]

1,030,673. SIEVE. MARGARET MCILVAINE, Irwin, Pa. Filed July 22, 1911. Serial No. 639,932. (Cl. 83—60.)



A sieve comprising a substantially elongated cylindrical member provided at its upper end with an outwardly extending flange and provided at its lower end with an inwardly extending flange, said flanges being disposed at right angles to the outer and inner walls of the elongated cylindrical member, rods disposed radially upon the bottom of said cylindrical member and bisecting each other at the central portion of said cylindrical member, said rods having their ends secured to the underneath portion of said bottom flange and offset from the underneath portion of said flange so that the major portions of the rods lie in the same general plane with the said bottom flange, a sieve removably mounted in the said cylindrical member and diametrically opposed means on the inner flange and positioned within the member for holding the sieve confined against the rods and the inwardly extending flange respectively.

1,030,674. PROCESS FOR THE MANUFACTURE OF EDIBLE PRODUCTS FROM BASSIA SEEDS. MAX MONHAUPT, Altona-Ottensen, Germany. Filed Nov. 17, 1911. Serial No. 660,807. (Cl. 99—11.)

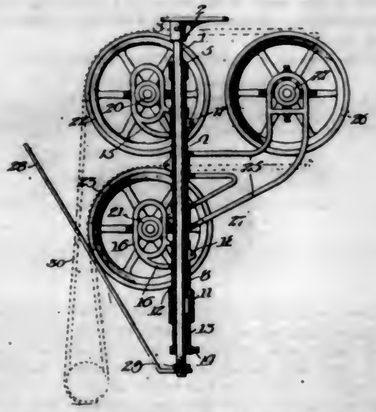
The herein described process for the extraction of edible substances from Bassia seeds from which a portion of the oil has been extracted, which consists in treating the seeds with strong hot spirits, distilling off the spirits from the extract, immersing the extract in hot water, then acidulating with acid and heating, then neutralising and finally concentrating the same.

1,030,675. BINDER-FRAME. EARL C. MOSS, Chicago, Ill. Filed Oct. 26, 1908. Serial No. 459,457. (Cl. 74—51.)

1. A device of the character specified, comprising a pair of sheaves or pulleys arranged one above the other, adapted to carry a power-transmitting belt or cable, adjustable members on opposite sides of said pulleys, each member supporting one side of each pulley, and each member being a rigid structure so that a movement of said member will move one side of both pulleys equally in the same direction, and means for adjusting said members.

2. A device of the class specified, comprising a frame having upright members, adjustable sleeves arranged upon said upright members, means for adjusting said sleeves, a pair of power transmitting sheaves or pulleys adapted to carry a power transmitting belt or cable mounted upon said sleeves, each sleeve carrying one side of each sheave or pulley, whereby an adjustment of either sleeve moves one side of both sheaves or pulleys equally in one direction, and means for attaching the device.

3. A device of the class specified, comprising a frame having two supporting members, adjustable members mounted upon said supporting members, and adjustable longitudinally of the same, means for adjusting said adjustable members on the supporting members, bearing brackets carried by the adjustable members, independently mounted power transmitting wheels or sheaves carried on said brackets, an adjustment of either adjustable member moving both of said pulleys in the same direction, and means for attaching said supporting members.



4. A device of the class specified, comprising a frame having two supporting members, adjustable members mounted upon said supporting members and adjustable longitudinally of the same, means for adjusting said adjustable members on the supporting members, bearing brackets carried by the adjustable members, said bearing brackets being adapted to support pulleys or sheaves, means for attaching said supporting members, and supplementary supporting brackets also carried by said adjustable members, and adapted to support an idler.

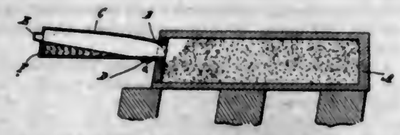
5. A device of the class specified, comprising upright supporting members 1—1, a cross ceiling member, 2, secured to the upper ends of the upright members 1—1, a cross piece 29 secured to the ends of said members 1—1, sleeves 4—4 arranged for sliding adjustment upon the members 1—1, collars 5—5 having set screws 6—6 adapted to engage members 1—1 and also having set screws 7—7 adapted to engage the tubular members 4—4, collars 8—8 at the lower ends of the tubular members 4—4, said collars 8—8 having set screws 9—9 and 10—10 for engaging the tubes 4—4 and members 1—1 respectively, and rotatable nuts 11—11 on the members 1—1 below the collars 8—8, threaded plugs 13—13 below the nuts 11—11, said plugs 13—13 being provided with means for holding them rigid with the members 1—1 means whereby said plugs may be adjusted longitudinally along said members 1—1, brackets 28—28 secured to the lower ends of the members 1—1, and adapted for exterior connection to hold the lower end of the device in place, and brackets 15—16 carried by the tubes 4—4 and adapted to support shafts for sheaves or pulleys.

[Claims 6 to 10 not printed in the Gazette.]

1,030,676. ZINC DISTILLATION. JOHN COLLETT MOULDEN and HAROLD WOLSTAN WEBSTER, Seaton Carew, England, assignors to Central Zinc Company Limited, Seaton Carew, England. Filed Dec. 29, 1910. Serial No. 590,832. (Cl. 75—153.)

1. The herein-described step in the process of zinc distillation which consists in bringing into contact with retort vapors a haloid salt to prevent the formation of zinc oxid.

2. The herein-described step in the process of zinc distillation which consists in bringing into contact with retort vapors common salt to prevent the formation of zinc oxid.



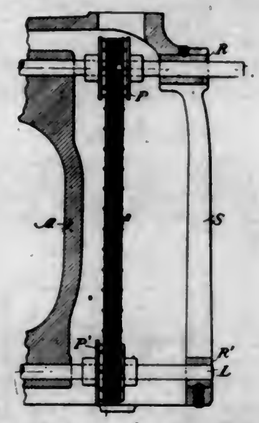
3. The herein-described process for the production of substantially pure zinc from oxidized ore which consists in heating the oxidized ore with a reducing agent to generate zinc vapor therefrom, bringing the vapor into contact with a haloid salt to prevent the formation of zinc oxid, and condensing metallic zinc.

4. The herein-described process for the production of substantially pure zinc from oxidized ore which consists in heating the oxidized ore with a reducing agent to generate zinc vapor therefrom, bringing the vapor into contact with common salt to prevent the formation of zinc oxid, and condensing metallic zinc.

5. The herein-described step in the process of zinc distillation from retorts which consists in placing common salt in the path of the retort vapors for the purpose described.

[Claims 6 to 9 not printed in the Gazette.]

1,030,677. GEAR-CASING. LANSING ONDERDONK, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill., a Corporation of Illinois. Filed June 20, 1907. Serial No. 379,904. (Cl. 74—56.)



1. A framework for machines having removable bushings for upper and lower shafts, and provided with a slot between the bushings.

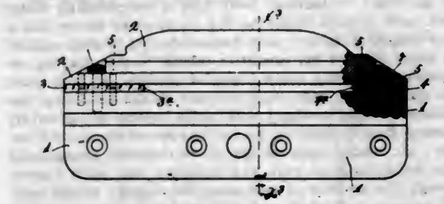
2. In a machine having upper and lower shafts, bearing bushings therefor, said machine having a slot extending between the bushings and suitable timing marks.

3. A framework for machines, having a removable bushing for the driving shaft, said bushing having a head and an elongated recess in V shape, and a screw engaging said recess for holding said bushing in said frame.

1,030,678. LINOTYPE-MOLD. HANS PETERSEN, Minneapolis, Minn., assignor to The Linograph Manufacturing Company, Minneapolis, Minn., a Corporation of Minnesota. Filed May 1, 1911. Serial No. 624,511. (Cl. 199—13.)

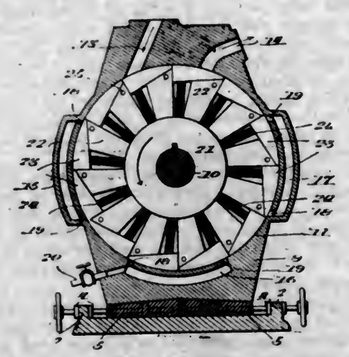
1. A linotype mold comprising main body members and interposed liners, the latter having dowel pin seats and the said body members having axially alined dowel pins engageable in opposing pairs with the seats of said liners, and means clamping the said parts together, substantially as described.

2. A linotype mold comprising main body members and interposed liners, the latter having dowel pin seats and the said body members having axially alined dowel pins engageable in opposing pairs with the seats of said liners, and clamping screws loosely seated in one of the body members and having screw threaded engagement with the other body member and the said liners having notches through which the said screws are passed.



3. In a linotype mold, the combination with main body members having smooth parallel faces, of liners having their working edges made slightly thicker than the main body portions thereof, the said thickened working edges of the said liners being directly clamped between the opposing smooth faces of the said body members, whereby the greatest pressure is produced at the extreme working edges of the said liners.

1,030,679. ENGINE. CHARLES HENRY PIERCE, New Marshfield, Ohio, assignor of one-half to William Sturgill, New Marshfield, Ohio. Filed Mar. 26, 1912. Serial No. 686,403. (Cl. 121—56.)



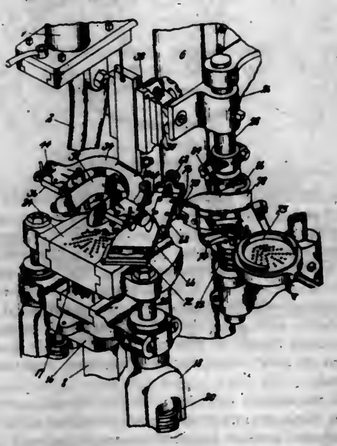
1. In an engine, the combination of a casing having a circular piston-receiving chamber and also having expansion chambers grouped about the piston-receiving chamber and each connected through ports with the said piston-receiving chamber; said casing also having supply and exhaust ports in communication with the piston-receiving chamber, a rotary piston body disposed in the piston-receiving chamber of the casing and having a hub and radial spokes in the outer ends of which are recesses, pan-shaped blades interposed between the spokes and the circular wall of the piston-receiving chamber and having portions pivoted in the recesses of the spokes and also having packing entirely surrounding their interiors and bearing against the circular wall of the piston-receiving chamber; said blades being increased in depth from their rear ends to their forward ends, with reference to the direction in which the piston is rotated, and springs interposed between the forward portions of the blades and the hub and held against lateral displacement and tending to force the forward portions of the blades radially outward.

2. In an engine, the combination of a casing having a circular piston-receiving chamber and also having supply and exhaust ports in communication with the piston-receiving chamber, a rotary piston body disposed in the piston-receiving chamber of the casing and having a hub and radial spokes in the outer ends of which are recesses, pan-shaped blades interposed between the spokes and the circular wall of the chamber and having portions pivoted in the recesses of the spokes and also having packing entirely surrounding their interiors and bearing against the circular wall of the chamber; said blades being increased in depth from their rear ends to their forward ends, with reference to the direction in which the piston is rotated, and springs interposed between the forward portions of the blades and the hub and held against lateral displacement and tending to force the forward portions of the blades radially outward.

3. In an engine, the combination with a casing having a circular piston-receiving chamber and also having expansion chambers grouped about the piston-receiving chamber and each connected through ports with the said piston-receiving chamber; said casing also having supply and exhaust ports in communication with the piston-receiving chamber, of a rotary piston body disposed in the piston-receiving chamber of the casing, pan-shaped blades pivoted to said body and having packing surrounding their interiors and opposed to the circular wall of the piston-receiving chamber, and expansion springs interposed between the piston body and the forward portions of said blades.

4. In an engine, the combination of a bed, wedge-shaped blocks movable longitudinally on the bed and having their higher ends opposed and also having lateral lugs and upstanding lugs in all of which are threaded apertures, an engine casing disposed on said blocks and having its under side shaped conformably thereto, longitudinal screws bearing and held against endwise movement in portions of the bed and extending through and engaging the threaded apertures in the lateral lugs of the blocks, and screws bearing in the threaded apertures in the upstanding lugs of the blocks and also bearing at their inner ends against opposite sides of the casing.

1,030,680. MACHINE FOR ATTACHING HEELS. JOSEPH H. POPE, Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 9, 1906. Serial No. 329,895. (Cl. 1—32.)



1. In a machine of the class described, the combination with means for sustaining a shoe, and a pressure device, said sustaining means and pressure device being relatively movable to press upon the shoe a heel carried by the shoe, of a support carried by said device for engaging the breast of the heel, said support being arranged for adjustment longitudinally of the shoe.

2. In a machine of the class described, the combination with means for supporting a shoe and a pressure de-

vice, said supporting means and pressure device being relatively movable to press upon the shoe a heel carried by the shoe, and said device having a flat face to engage the tread of the heel, of a shaping device carried by said pressure device for engaging the breast of the heel, said shaping device being arranged for adjustment longitudinally of the shoe.

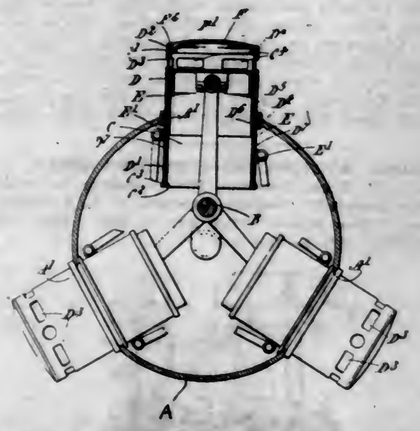
3. A machine for attaching the heels of spring heel shoes, having in combination, mechanism for attaching a heel to a shoe and means for simultaneously shaping the inclined breast of the heel arranged for adjustment to accommodate heels of different sizes.

4. In a machine of the class described, the combination of nail drivers for driving nails for a portion of their length into a heel, and means for simultaneously spanking the nails farther into the heel, until they are flush with the face of the heel, and molding another portion of said heel.

5. A machine for nailing spring-heel shoes having in combination, mechanism for driving nails for a portion of their length into a heel, and means for spanking the nails even with the face of the outersole and for simultaneously pressing the outersole into close relation to the wedge of the heel.

[Claims 6 to 8 not printed in the Gazette.]

1,030,681. CYLINDER FOR FLUID-PRESSURE ENGINES OR PUMPS. CHARLES BENJAMIN REDRUP, Canton, Cardiff, England. Filed Aug. 10, 1911. Serial No. 643,456. (Cl. 121—64.)



1. In an engine cylinder, the combination of an inner cylinder open at either end; a shell surrounding said cylinder and spaced therefrom to provide a valve working chamber, said shell having an inwardly disposed annular flange at one end thereof overlying the edge at one end of said inner cylinder; a head closing one end of said inner cylinder, said head having a screw-threaded flange in engagement with said inner cylinder, and engaging with the inturned flange at the end of said shell; and a valve mounted in said valve working chamber, substantially as described.

2. In an engine cylinder, the combination of an inner cylinder open at either end, and provided with a screw-threaded end portion; a shell surrounding said inner cylinder and spaced therefrom to provide a valve working chamber, said shell having an annular flange at the end opposite the screw-threaded end of the inner cylinder engaging with said inner cylinder and holding said shell and said inner cylinder in concentric relation, and having at its opposite end an inwardly disposed flange overlying the screw-threaded portion of said inner cylinder; a head closing one end of said inner cylinder, said head having a screw-threaded flange engaging with the screw threads of said inner cylinder, and having a peripheral shoulder overlying the annular inturned flange of said shell; and a valve mounted in said valve working chamber, substantially as described.

3. In a fluid-pressure engine, the combination of a revoluble casing provided with apertures; a plurality of radially disposed cylinders located within said body and projecting therethrough, each of said cylinders comprising an inner cylindrical body and a surrounding outer shell, each of said shells having an annular flange and a screw-threaded portion, said flange adapted to abut against the inner edge of the revoluble casing; a ring having engagement with the screw-threaded portion of each shell and coöperating with said annular flange to clamp the cylinder to said casing; said shell having an inwardly disposed flange overlying the outer edge of the cylindrical body; a cylinder head having screw-threaded engagement with the cylindrical body and clamping said shell thereto through the medium of said overlying flange; valves operable between said shell and said cylindrical body; pistons operable in said cylinders; and operative connections between said valves and said pistons, substantially as described.

1,030,682. POWER-TRANSMISSION BELT. JOSEPH EDGAR RHOADS, Wilmington, Del. Filed Apr. 19, 1912. Serial No. 691,813. (Cl. 74—62.)



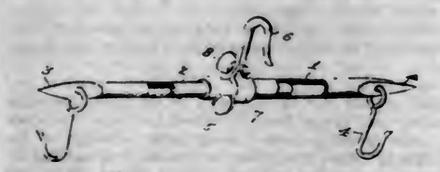
1. The combination in a power transmission belt of an endless body portion; a series of blocks mounted on one face of said body portion; and a band extending between and connecting the summits of said blocks; said band varying in width between each pair of blocks.

2. The combination in a power transmission belt of a body portion having a series of blocks on its inner face; and a structure mounted adjacent said blocks and formed to have its edges engage the divergent walls of a pulley groove when in a corrugated form.

3. The combination in a power transmission belt of a body portion; a series of projections mounted on the inner face thereof; and a band extending between said projections; said belt being substantially trapezoidal in section adjacent each projection and the band increasing in width from each projection to points midway between it and the adjacent projection.

4. The combination in a power transmission belt of a body portion; a series of blocks mounted on one face thereof; an endless band connecting said blocks; and a series of rivets respectively passing through the body, the band and the blocks; said band increasing in width from a minimum adjacent each rivet to a maximum midway between each pair of rivets.

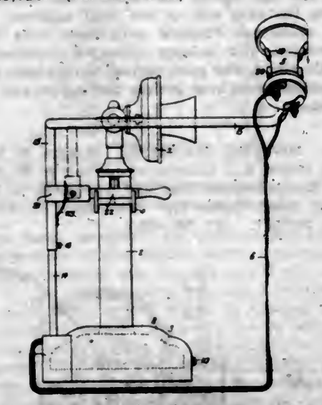
1,030,683. GAMBREL. PHILIP ROSKOPF, Bryan, Ohio. Filed Dec. 15, 1911. Serial No. 666,024. (Cl. 17—30.)



1. A gambrel, comprising two members one adapted to telescope within the other, means for retaining the same in any adjusted position, and means for supporting said members mounted and shiftable longitudinally thereon.

2. A gambrel, comprising two members one adapted to telescope within the other, a set-screw for retaining the same in any adjusted position, and a supporting hook embodying a clamping ring permanently engaging one of said members and adapted to be shifted longitudinally with respect to said members.

1,030,684. TELEPHONE-STAND. HERMAN W. SCHUSSLER, Philadelphia, Pa. Filed May 4, 1911. Serial No. 625,016. (Cl. 179—147.)



1. A telephone stand consisting of a casing formed of two parts hinged together and shaped to inclose the base of a desk telephone; and means mounted on said casing for supporting a telephone receiver in a predetermined position relatively to the transmitter of the instrument whose base is inclosed by said casing.

2. A telephone stand consisting of a casing made in two movably connected parts formed to inclose the base of a desk telephone; with a bracket mounted on said casing having a holder for supporting in a substantially horizontal position, the telephone receiver of an instrument mounted in the casing.

3. A telephone stand consisting of a casing made in two movably connected parts formed to inclose the base of a desk telephone, and a structure mounted on said casing having a holder for supporting in a substantially horizontal position the receiver of an instrument mounted in the casing; said holder being free to turn on a vertical axis and being mounted in a predetermined position relatively to the receiver of the telephone.

4. A telephone stand consisting of a structure formed to receive the base of a desk telephone; a bracket mounted on said structure; an arm pivoted to said bracket in position to be brought into engagement with the hook of the telephone; a spring mounted to engage either one side of said arm or the end adjacent its pivot; the arm being placed to maintain the hook of the telephone depressed when the spring is operative on its end and to hold said arm in a raised position independently of the hook when the spring engages its side; with a holder on said bracket for supporting the receiver of the telephone in a position adjacent the transmitter thereof.

5. A telephone stand consisting of a casing made in two connected relatively movable parts formed to inclose the base of a desk telephone; a bracket mounted on said casing consisting of an upwardly extending bar having a horizontally extending portion; a holder for a telephone receiver mounted on said extended portion of the bracket and free to turn on a substantially vertical axis; with a mechanical device also carried by the bracket for maintaining the hook of a telephone instrument in a depressed position; said device being movable at will to release said hook.

1,030,685. RUG-STIFFENER. WALKER A. SCOTT, Evansville, Ind. Filed Feb. 12, 1912. Serial No. 677,179. (Cl. 16—70.)

1. The herein described rug stiffener comprising stiffening strips, a plurality of sockets each adapted to receive one end of one strip and having an internal stop against which it abuts, other sockets having tubular bodies through which said strips pass freely, and means for securing all the sockets to the under side of a rug.



2. A rug stiffener comprising four right-angular corner sockets and a stop within each near its angle, other sockets disposed between the right-angular sockets, means for securing all the sockets to the under side of a rug, and stiffening strips whereof each has one end mounted in a corner socket against the stop therein and its other end mounted in another socket.

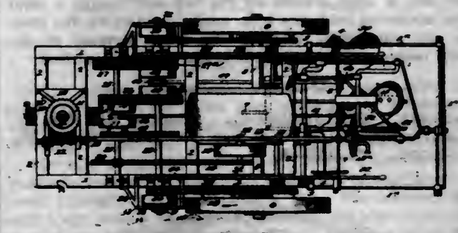
3. A rug stiffener comprising stiffening strips, and a set of right-angular metal sockets whereof each has a flattened tubular body with open ends adapted to receive the extremities of two of said strips, the lower side of the body being provided with means whereby the socket may be attached to a rug, and the body also having a stop for the inner ends of said strips.

4. A rug stiffener comprising stiffening strips, and a plurality of metal sockets whereof each has a flattened tubular body with open ends adapted to receive the extremities of two of said strips and provided between its ends with a stop for the purpose set forth, and fastening devices connected with said body for attaching it to the under side of a rug.

5. A rug stiffener comprising stiffening strips, and a set of right-angular metal sockets whereof each has a flattened tubular body with open ends adapted to receive the extremities of two of said strips, the lower side of the body being stamped with three ears pierced with eyes whereby the socket may be attached to the rug, and the body also having a stop for the inner ends of said strips.

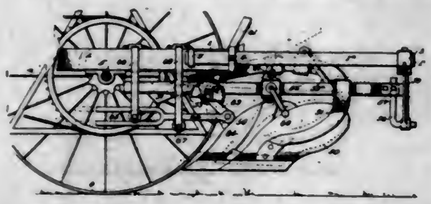
[Claim 6 not printed in the Gazette.]

1,030,686. GEARING FOR MOTOR-DRIVEN PLOWS. EDMOND B. SELLARD, Mexico, Mo. Filed June 9, 1910. Serial No. 565,925. (Cl. 74—59.)



The combination with the frame, axle, and wheels loose on the latter, of the motor shaft, the supplemental drive shaft (28) and counter-shaft (25), all arranged parallel, sprocket gearing connecting said motor shaft with counter-shaft and the latter with the supplemental drive-shaft, and said drive-shaft with the wheels, two gears mounted loose on the drive shaft and a slidable clutch arranged between said gears, a fast gear (27) and a loose gear (26) on countershaft which gears mesh respectively with the loose gears on the drive shaft, a sprocket mechanism operatively connecting the counter shaft with the drive shaft, and a slidable clutch on said countershaft for engaging the said sproket mechanism or the adjacent loose gear, as described.

1,030,687. GANG AND MOTOR PLOW. EDMOND B. SELLARD, Mexico, Mo. Original application filed June 9, 1910, Serial No. 565,925. Divided and this application filed Oct. 4, 1910. Serial No. 585,181. (Cl. 97—30.)



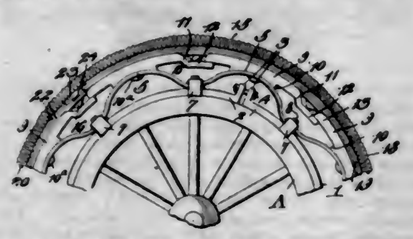
1. The combination with the wheel-supported main frame having a rearward extension, and a pendent hanger comprising rods extending inward and downward from the corners of said frame, a vertical stem supported at the apex of said hanger, a plow-carrying frame mounted upon such stem and adapted for vertical adjustment, and means connected with the front end of the plow frame for adjusting it higher or lower, substantially as described.

2. The combination with the wheel supported frame, a plow frame arranged within and below the same, bails pivoted on such frame and plows pivotally connected with the bails, a swinging hanger arranged on one side of the main frame, a device supported in the hanger and having a vertical arm or stem, the plow frame having at its adjacent corner a cuff adapted to slide on such arm, a lever and means for locking it in any vertical adjustment, the same being operatively connected with the plow frame whereby it may be raised and lowered and locked in any vertical adjustment, substantially as described.

3. The combination with a plow frame, a swinging hook hanger mounted thereon, a device supported in the hook of said hanger and having a vertical arm, the plow frame having a cuff adapted to slide on the arm, a toothed segment fixed on the cuff, a lever pivotally connected with the segment and a link connecting it with the upper end of the arm, and a pawl for locking it with the segment in any required adjustment, substantially as described.

4. The combination with the main frame, and the plow frame arranged within and below the same, of adjusting means arranged on one side of the two frames and comprising hangers pendent from the main frame, a slidable fork supported on the rear hanger and the fork proper engaging the front hanger whereby the fork is held horizontal while adapted to slide lengthwise, a bent bail journaled in the plow frame, and plow beams pivoted on the bail, a lever pivoted on the bail and having a rigid arm connected with the fork, means for locking the lever in any adjustment whereby the front portions of the plow beams may be adjusted, in the manner described.

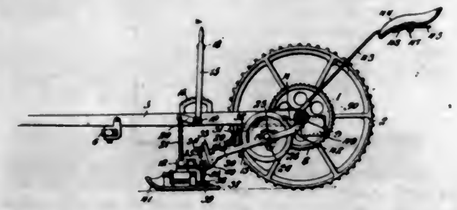
1,030,688. SPRING-WHEEL. HERMAN M. STRAWN, Marysville, Cal. Filed May 25, 1911. Serial No. 629,379. (Cl. 152—8.)



1. A wheel of the class described, in combination with a rim member, springs thereon, segment shoes carried by the said springs and disposed with their ends in overlapping relation, each segment shoe having a longitudinal channel in its outer side, and also having an offset portion at one end, and a tire fitted in the channels of the said shoes and having inwardly extending stop devices engaging the offset portions of said shoes.

2. In combination with a rim element of a wheel, springs on said rim element, segment shoes carried by the said springs and each provided at one end with an inwardly extending off-set and a longitudinal arm projecting from the said off-set, the opposite end of each shoe bearing on the said arm of the next adjacent shoe so that the shoes are disposed with their ends in overlapping relation and slidably connected together, a tire on the said shoes, and stop devices with which the said tire is provided, said stop devices bearing on the arms of the said shoes.

1,030,689. MOWING-MACHINE. MARTIN E. THOMAS, Bowling Green, Ky., assignor of one-half to W. F. Toops & Son, Bowling Green, Ky., and one-fourth to John W. Peryman, South Union, Ky. Filed Sept. 12, 1910. Serial No. 581,557. (Cl. 56—75.)

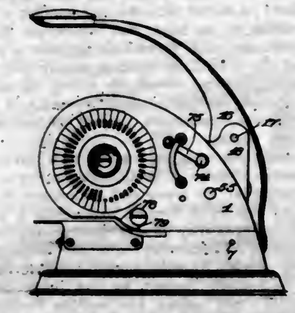


1. In a mowing machine provided with supporting wheels and an axle, a frame carried by the axle and adjacent the latter bent toward the ground to there constitute a drop frame, the remainder of the frame being in operative position declined from the bent portion toward the front of the machine, a gear wheel mounted on the axle, a counter-shaft mounted on the frame and provided with a pinion meshing with the gear wheel at a point lower than the level of the axle, a cam groove wheel carried by the counter-shaft, a rock shaft carried by the frame and provided at one end with a rock arm engaging the cam wheel and provided with a wrist pin disk at the end remote from the cam wheel, double reciprocatory cutters for the machine, and pitmen extending from the wrist pin disk to the respective cutters.

2. In a mowing machine provided with supporting wheels and an axle, a pole carried by and projecting from the axle, a frame carried by the axle and adjacent the latter bent toward the ground to there constitute a drop frame and from the bent portion declining when in operative position toward the front of the machine, a cam drive wheel for the cutters of the machine mounted in the frame in front of the drop portion and having its axis of rotation in front of and at a lower level than the axle of the machine, oppositely movable reciprocating cutters, a rock shaft carried by the frame and provided at one end with a rock arm engaging the cam wheel and at the other end with a wrist pin disk having wrist pins on opposite sides of the axis of the shaft, pitmen one for each wrist pin extending to the respective cutters, gear connections between the axle and the cam wheel, and adjustable supporting means carried by the pole and connected to the front end of the frame.

1,030,690. CHECK-PROTECTOR. LIBANUS M. TODD and CHARLES G. TIEFEL, Rochester, N. Y., assignors to G. W. Todd & Company, Rochester, N. Y., a Firm. Filed May 15, 1911. Serial No. 627,306. (Cl. 101—57.)

1. In a check protector, the combination with a die, of a movable platen for bringing the paper into contact with the die, an inking member for the die arranged in spaced relation to the printing point, an actuating device for causing movement of the platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device for moving the die from the inking member to the printing point prior to the engagement of the paper with the die.



2. In a check protector, the combination with a die holder, of a series of dies on the holder, a movable platen for bringing the paper into contact with a die, an inking member for the dies arranged in spaced relation to the printing point, an actuating device for causing movement of the platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device for operating the die holder to move a die from the inking member to the printing point prior to the engagement of the paper with the die holder.

3. In a check protector, the combination with a die, of a movable platen for bringing the paper into contact with the die, an inking member for the die arranged in spaced relation to the printing point, an actuating device for causing movement of the platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device for moving the die from the inking member to the printing point prior to the movement of the platen.

4. In a check protector, the combination with a die holder, of a series of dies on the holder, a movable platen for bringing the paper into contact with a die, an inking member for the dies arranged in spaced relation to the printing point, an actuating device for causing movement of the platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device for operating the die holder to move a die from the inking member to the printing point prior to the movement of the platen.

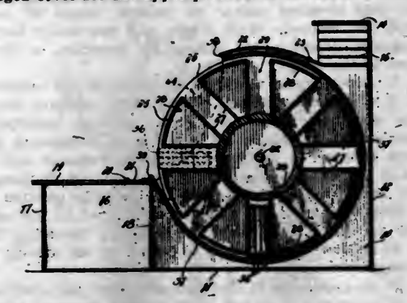
5. In a check protector, the combination with a die, of a movable platen for bringing the paper into contact with the die, an inking member for the die arranged in spaced relation to the printing point, an actuating device for causing movement of the platen, the actuating device having initial movement independently of the platen, and means controlled by the actuating device for moving the die from the inking member to the printing point prior to the engagement of the paper with the die and for returning the die to the inking member after the paper is released.

[Claims 6 to 28 not printed in the Gazette.]

1,030,691. REVOLVING CASE AND ACCOUNT-REGISTER. ALBERT E. TRENTON, San Antonio, Tex. Filed Dec. 7, 1911. Serial No. 664,339. (Cl. 45—4.)

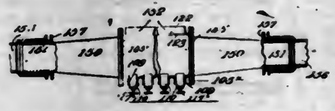
1. In a revolving case and account register, a casing having an opening, a circular cabinet rotatably mounted within the casing and provided with a series of peripheral opening compartments and a removable and flexible shield within the casing spaced from the periphery of the cabinet to prevent displacement of account books within the compartments and to automatically project the same from the cabinet when disposed at the opening.

2. In a revolving case and account register, a casing having side walls, said walls having recesses communicating with the edge portions thereof, a shaft, bearings removably mounted in the recesses and engaged by the shaft, a back wall and a bottom wall, a circular cabinet rotatably supported on the shaft and comprising spaced circular side walls, a series of parallel partitions forming compartments extending radially around the cabinet, a circular partition between said side walls forming end walls for the compartments, each compartment being provided with a suitable indicia, a shield within the casing spaced from the periphery of the cabinet, said sides having arcuate recesses between which said cabinet projects to provide gripping portions for rotating the cabinet and a hinged cover for the upper portions of the sides.



3. In a revolving case and account register, a casing having side walls, a back wall and a bottom wall, a circular cabinet rotatably supported in the opposite side walls and comprising spaced circular side walls, a series of parallel partitions forming compartments extending radially around the cabinet, a circular partition between said side walls forming end walls for the compartments, each compartment being provided with a suitable indicia, a shield within the casing spaced from the periphery of the cabinet, said sides having recesses between which said cabinet projects, a cover for the upper portions of the sides, a vertical extension at the rear portion of the casing divided into a series of compartments, a forward extension at the lower portion of the casing, a wall separating said last named extension from the cabinet and supporting said shield and a lid for said forward extension.

1,030,692. APPARATUS FOR STERILIZING LIQUIDS BY MEANS OR ULTRA-VIOLET RAYS. PAUL GABRIEL TRIQUET, Paris, France. Filed Apr. 19, 1911. Serial No. 622,116. (Cl. 210—20.)



1. An apparatus for sterilizing water comprising in combination with the water duct, a receptacle, means for inserting said receptacle in said water duct so as to allow its being rotated and to cause the water to pass through it, the said receptacle comprising a body, a plurality of openings provided in one of the side walls of said body, a cover having as many sockets as there are openings in said body, means for tightly securing the said cover to the side of the body opposite of said openings so as to cause the said sockets to face the said openings, a cap for each opening, means for tightly applying said cap to its opening, a mercury vapor lamp for each pair of openings and sockets, and means for supporting said lamps, these means comprising a stirrup having a hollow body and means for adjustably holding the lamps between the branches of said stirrup and conductors for conveying current to said lamp, one of said conductors passing through said hollow body of the stirrup, means for securing said stirrup at one end to the inside of said cap, and means for holding the opposite end of said stirrup in the corresponding socket, substantially as and for the purpose set forth.

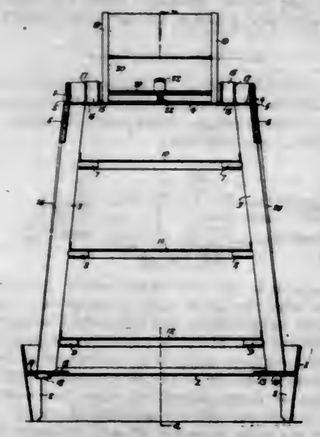
2. An apparatus for sterilizing water by ultra-violet rays comprising a receptacle having reduced ends and formed with inlet and outlet openings, the portion of the receptacle between the reduced ends having sockets on one side and openings on the opposite side in alinement with said sockets, mercury vapor lamps mounted in said sockets and openings, covers for the openings, and means for securing the covers.

3. An apparatus for sterilizing water by ultra-violet rays comprising a receptacle formed with a plurality of oppositely disposed sockets, mercury vapor lamps having their ends mounted within the sockets, means for supporting the mercury vapor lamps, and detachable means for gaining access to the sockets for insertion, or withdrawal of the lamps.

4. In an apparatus of the class described, the combination of a receptacle formed with sockets, mercury vapor lamps detachably mounted in the sockets, detachable means on the receptacle for covering or uncovering the sockets to insert or withdraw the lamps, yokes in the receptacle and extending in the sockets to support the lamps, means in the sockets for holding the yokes in position in the receptacle, inlet and outlet flues secured to the ends of the receptacle and means for revolubly mounting the inlet and outlet flues whereby to permit of the turning of the receptacle.

5. In an apparatus of the class described, the combination of a receptacle formed with sockets, mercury vapor lamps detachably mounted in the sockets, detachable means on the receptacle for covering or uncovering the sockets to insert or withdraw the lamps, inlet and outlet flues at the ends of the receptacle, an inlet pipe communicating with the inlet flue, an outlet pipe communicating with the outlet flue and means for revolubly mounting the inlet and outlet flues on the inlet and outlet pipees, whereby to permit the receptacle being turned.

1,030,693. EVAPORATIVE COOLER. JOHN A. WALKUP and CHARLES W. WALKUP, Waco, Tex. Filed May 10, 1911. Serial No. 626,171. (Cl. 62—10.)



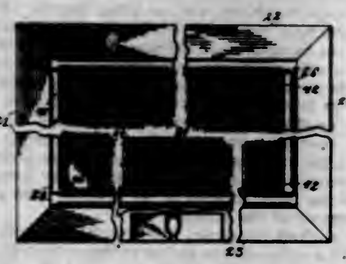
1. A cooler consisting of a supporting structure having sockets each opening at one side; a series of posts having laterally extending portions removably fitting said sockets; a cover removably mounted on said posts; shelves carried by the posts; a fabric casing for the frame formed by the aforesaid parts; and means for supplying cooling liquid to said fabric casing.

2. A cooler consisting of a supporting base structure having substantially flat sockets open at one side; a series of posts each having a base plate, removably fitting said sockets; said posts being provided with sockets at their upper ends; a cover member having projections removably fitting said sockets; shelves carried by the posts; a fabric casing surrounding the frame formed by the aforesaid parts; and means for feeding liquid to said fabric casing.

3. The combination of a supporting tray having a plurality of sockets; a series of posts each having a laterally projecting portion at its lower end removably fitting one of said sockets and each formed to provide a socket at its upper end; a cover tray having downwardly extending projections placed to removably enter the sockets of said posts; shelves carried by said posts; and a fabric casing inclosing the framework formed by the posts and their associated parts.

4. The combination of a supporting tray having a plurality of sockets; a series of posts each having a laterally projecting portion at its lower end removably fitting one of said sockets and each formed to provide a socket at its upper end; a cover tray having downwardly extending projections placed to removably enter the sockets of said posts; shelves carried by said posts; a fabric casing inclosing the framework formed by the posts and their associated parts; and means for feeding liquid to the cover tray.

1,030,694. METALLIC SCREEN. HENRY W. WATSON and WILLIAM W. WATSON, Jamestown, N. Y. Filed Nov. 24, 1911. Serial No. 662,144. (Cl. 156—14.)



1. In a screen, a frame consisting of tubular side and end pieces, a lengthwise flange on the inner edge of said frame forming a lengthwise recess on said tubular side and end pieces, a folded strip of sheet metal over the edge of said flange, screen wire, and means for holding said screen wire in said recess over said folded strip.

2. In a screen, a sheet metal frame consisting of side and end pieces having a lengthwise recess on the inner edges formed by the edges of the sheet metal, a folded strip of sheet metal fitting over said edges, screen wire, and means for holding said screen wire in said recess over said folded strip.

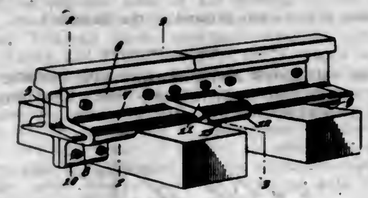
3. In a screen, a frame comprising tubular side pieces having a lengthwise recess on their inner edges, screen wire and means for holding said screen wire in said recess, a tubular folded strip of sheet metal fitting against said edge adjacent to said screen wire, said tubular strip having a beveled face extending away from the screen wire.

4. In a screen, a frame composed of sheet metal tubular sides, the corners of said frame mitered, an internal corner brace composed of connected sheet metal side plates spaced to fit against the opposite inner sides of the mitered tubular ends of the frame sides and connect the same, said mitered ends attached to said internal corner brace.

5. In a screen, a frame composed of tubular side and end pieces mitered at the corners, said tubular side pieces having lengthwise grooves inturned in the outer edge, an internal brace consisting of triangular sheet metal plates connected for a portion of one side to provide triangular ends to fit within the tubular frame ends each side of the sheet metal sides of said lengthwise grooves, said tubular frame sides soldered to said internal brace at said mitered joint.

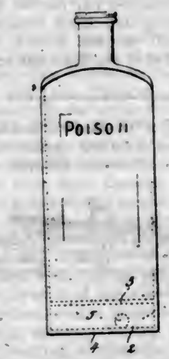
[Claims 6 and 7 not printed in the Gazette.]

1,030,695. RAIL-JOINT. WILLIAM EDGAR WEEKES, Ashton, Idaho. Filed Oct. 7, 1911. Serial No. 653,362. (Cl. 239—9.)



In combination with the meeting ends of a pair of railway rails, of angular fish plates for said rails, the said fish plates having their horizontal faces each provided with a depending portion, means for connecting the depending portions of the fish plates, the central portion of each of the fish plates being enlarged and cut away to provide a pocket, a chair member adapted to be received within each of the pockets of each of the fish plates, each of said chair members comprising a vertical member having an integrally formed horizontal wall, and the said horizontal walls each being provided with an angular overlying portion, the said overlying portion adapted to pass between the wall provided by the cut away portion and the horizontal member adapted to underlie the base flanges of the rail, so that the vertical members of the chairs are brought one against the other, and means for connecting the said vertical walls of the chairs, the horizontal member and the overlying portion adapted to engage with the base flanges of the rails, and means for securing the filler members, substantially as and for the purpose set forth.

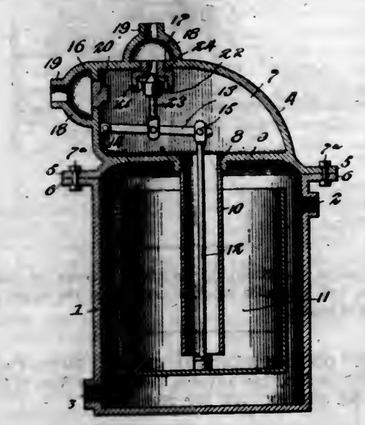
1,030,696. BOTTLE-INDICATOR. JAMES M. WHITE, Danville, Va. Filed Oct. 27, 1910. Serial No. 589,475. (Cl. 116—58.)



1. A new article of manufacture, consisting of a bottle having a main holding compartment, a supplementary compartment arranged below said holding compartment and having transparent sides, a spherical body loosely disposed within said supplementary compartment and adapted to freely roll against the sides thereof so that it may produce an audible signal, and said spherical body being formed so as to have a glittering appearance whereby it may attract the eye through said transparent sides and thus serve as a visible signal.

2. A new article of manufacture, consisting of a bottle having a main holding compartment and a supplementary compartment, the latter consisting of an integrally formed extension below the bottom of said holding compartment, said supplementary compartment having transparent sides, a spherical body loosely disposed within said supplementary compartment and adapted to freely roll against the sides thereof so that it may produce an audible signal, and said spherical body being formed so as to have a glittering appearance and a color to contrast with the transparent sides of the compartment whereby it may attract the eye through said transparent sides and thus serve as a visible signal.

1,030,697. STEAM-TRAP. THOMAS R. WHITTAKER and GEORGE W. LEITH, Methuen, Mass. Filed May 25, 1909. Serial No. 498,216. (Cl. 137—103.)



A steam trap comprising a hollow body provided with an inlet, a head for the body provided with a chamber having an outlet opening in one wall thereof, a casing formed on the outer side of said wall about said outlet opening and provided with a threaded nipple, a combined valve seat and casing located within the chamber and having threaded engagement with the wall of said outlet opening, a valve slidably mounted in said casing, a horizontal lever pivotally secured at its outer end to one wall of the chamber at a point below said outlet opening, a sleeve adjustably mounted upon said lever, a set screw carried by the sleeve and engaging said lever, a vertical stem secured at its lower end to said sleeve and having its upper end secured to the inner end of said valve, a rod pivotally secured at its upper end to the inner end of said lever and extending into the body, a float secured to the rod and located within the body, and a tube secured to the head and extending into the body, said tube establishing communication between the body and the chamber and surrounding said rod.

1,030,698. CORK-EXTRACTOR. ROBERT L. WILSON, Chicago, Ill. Filed Jan. 27, 1912. Serial No. 673,781. (Cl. 65—47.)

1. A stopper extractor, comprising a shank having a threaded portion thereon and provided with a handle member at one end thereof, a blade secured to the shank adjacent the opposite end thereof and depending therefrom, a pair of spring arms also secured to the shank and depending therefrom, said spring arms being provided with clamping members at the free ends thereof, and a collar threaded in engagement with the threaded portion of said shank and adapted to coöperate with said springs and force the clamping members thereon into engagement with the outer periphery of a bottle neck.

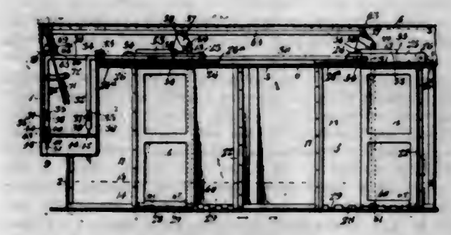
2. A stopper extractor comprising a shank threaded for a portion of its length, spring arms secured to the lower portion of said shank at diametrically opposite points thereon, said arms having portions thereof flared outwardly and provided with clamping members at the free ends thereof, a blade secured to the lower end of the shank and extended therebelow, a collar disposed in threaded

engagement with the threaded portion of the shank and having the lower portion thereof flared outwardly and adapted to contact with the flared portions of the spring



arms to cause the clamping members thereon to engage an object, and a handle member carried on the upper portion of said shank.

1,030,699. DOOR-OPERATING MEANS. DAVID FRANKLIN YOUNGBLOOD, San Antonio, Tex. Filed Nov. 8, 1911. Serial No. 659,199. (Cl. 39—94.)



1. In mechanism of the class described, the combination with a plurality of sliding doors, a horizontal traveler, means for slidably mounting the same, horizontal door actuating bars connected with the doors and having depending arms terminating above the plane of the traveler, and devices carried by the depending arms and movable into and out of the plane of the traveler and provided with means for engaging the same, whereby one or more door actuating bars may be connected with the traveler.

2. In mechanism of the class described, the combination of a plurality of slidable doors, spaced rack bars, a slidable traveler guided at spaced points by the rack bars, pinions carried by the traveler and meshing with the rack bars, and means for detachably connecting the doors with the traveler.

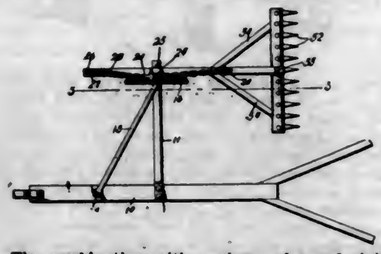
3. In mechanism of the class described, the combination of a plurality of slidable doors, spaced rack bars, a traveler having wheels arranged to run on the rack bars, a shaft mounted on the traveler and located beneath the rack bars, pinions fixed to the shaft and meshing with the teeth of the rack bars, and means for connecting the doors with the traveler.

4. In mechanism of the class described, the combination of a plurality of doors, spaced rack bars, a traveler guided by the rack bars and provided between the same with an operating handle, connected gears mounted on the traveler and meshing with the rack bars, and means for connecting the doors with the traveler.

5. In mechanism of the class described, the combination of a plurality of doors, actuating bars connected with the doors, a slidable traveler having a slot, and means mounted on the door actuating bars for detachably engaging the slot of the traveler to connect the doors therewith.

[Claims 6 to 10 not printed in the Gazette.]

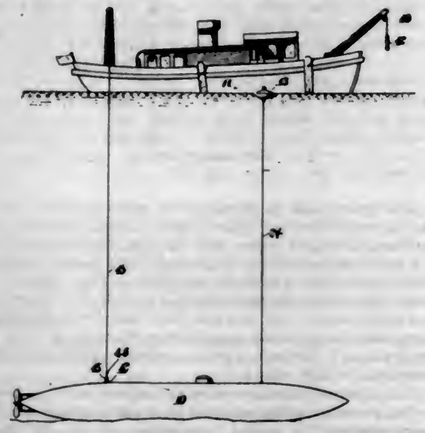
1,030,700. HARROW ATTACHMENT FOR PLOWS. ALBERT S. ACHENBACH, Winnetoon, Nebr. Filed Aug. 17, 1911. Serial No. 644,648. (Cl. 97—44.)



1. The combination with a plow; of a rod rigidly secured thereto at one side thereof, a draft bar pivotally mounted intermediate its ends upon the rod, a rock bar also mounted upon the rod, a lever coacting with said rack bar, a harrow device at the rear end of the draft bar and connections between the lever and the bar upon opposite sides of its pivot point, said lever being capable of adjustment through the medium of the rack bar.

2. A harrow attachment for plows comprising the combination with a plow beam; of a tubular bar rigidly secured thereto and extending laterally therefrom, a brace bar between the beam and tubular bar forwardly thereof, a rack bar formed of a section of strip metal having its end portions secured to the tubular bar in connection with the brace bar, a lever having a sleeve portion pivotally engaged upon the tubular bar and having a latch coacting with the rack bar, a draft bar similarly mounted intermediate its ends, a toothed bar carried by and braced to the draft bar, a spring detachably engaged with the forward end of the draft bar and a chain connected to the spring and rear portion of the draft bar and intermediately to the lever.

1,030,701. DEVICE FOR RAISING SUNKEN SUBMARINE VESSELS. HALFDAN ARONSEN, Oakland, Cal. Filed Dec. 16, 1911. Serial No. 666,088. (Cl. 114—16.5.)



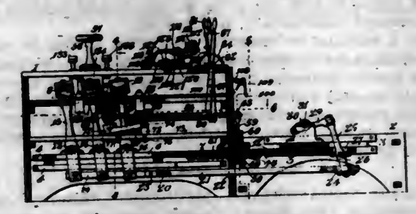
1. The combination with a vessel having a counter-seat formed in its deck and also having an opening centrally of said counter seat, of a wrecking device comprising a buoyant element normally engaged in the counter seat, winding and unwinding means located within the vessel and having a let out cable connected with said buoyant element, catch devices pivotally mounted in the vessel on opposite sides of the opening in the counter seat, standards rising from the bottom of the vessel and having T-shaped heads, hook-like extensions formed on the catches and engageable with the T-shaped heads of the standard, manually operated cam devices engaging said catches for moving the same to engaging or releasing position, and a coupling element engageable with said cable on the detachment of the buoyant element therefrom and adapted to be guided by said cable through the opening in the counter seat for automatic engagement of the catch devices therewith, whereby said coupling element will be locked in the vessel.

2. The combination with a vessel having a counter seat formed in its deck and also having an opening centrally of said counter seat, of a wrecking device comprising a buoyant element normally engaged in the counter seat, winding and unwinding means located within the vessel and having a let out cable connected with said buoyant element, catch devices pivotally mounted in the vessel on opposite sides of the opening in the counter seat, standards rising from the bottom of the vessel and having T-shaped heads, hook-like extensions formed on the catches and engageable with the T-shaped heads of the standard, manually operated cam devices engaging said catches for moving the same to engaging or releasing position, a coupling element engageable with said cable on the detachment of the buoyant element therefrom and adapted to be guided by said cable through the opening in the counter seat for automatic engagement of the catch devices therewith, whereby said coupling element will be locked in the vessel, means on the coupling element for permitting a hoisting device to be connected therewith.

3. The combination with a vessel having a counter seat formed in its deck and also having an opening centrally of said counter seat, of a wrecking device comprising a buoyant element normally engaged in the counter seat, winding and unwinding means located within the vessel and having a let out cable connected with said buoyant element, catch devices pivotally mounted in the vessel on opposite sides of the opening in the counter seat, standards rising from the bottom of the vessel and having T-shaped heads, hook-like extensions formed on the catches and engageable with the T-shaped heads of the standard, manually operated cam devices engaging said catches for moving the same to engaging or releasing position, a coupling element engageable with said cable on the detachment of the buoyant element therefrom and adapted to be guided by said cable through the opening in the counter seat for automatic engagement of the catch devices therewith, whereby said coupling element will be locked in the vessel, means on the coupling element for permitting a hoisting device to be connected therewith, and a water tight box closing connection between the opening and the interior of the vessel.

4. The combination with a vessel having a counter seat formed in its deck and also having an opening centrally of said counter seat, of a wrecking device comprising a buoyant element normally engaged in the counter seat, winding and unwinding means located within the vessel and having a let out cable connected with said buoyant element, catch devices pivotally mounted in the vessel on opposite sides of the opening in the counter seat, standards rising from the bottom of the vessel and having T-shaped heads, hook-like extensions formed on the catches and engageable with the T-shaped heads of the sandard, manually operated cam devices engaging said catches for moving the same to engaging or releasing position, a coupling element engageable with said cable on the detachment of the buoyant element therefrom and adapted to be guided by said cable through the opening in the counter seat for automatic engagement of the catch devices therewith, whereby said coupling element will be locked in the vessel, means on the coupling element for permitting a hoisting device to be connected therewith, a water tight box closing connection between the opening and the interior of the vessel, and spring means acting upon the catch devices to normally sustain the same in position for automatic engagement with the coupling element.

1,030,702. SHOE BLACKING AND POLISHING MACHINE. JESSE ALFONSO BEAN, Texarkana, Tex. Filed Dec. 9, 1910. Serial No. 596,549. (Cl. 15—61.)



1. An apparatus of the class described including a foot rest, separate sets of simultaneously reciprocatable brushes arranged in alinement, and means for adjusting the series to present any set of brushes to the foot rest.

2. An apparatus of the class described including a foot rest, separate sets of simultaneously reciprocatable brushes arranged in alinement, a support common to all of the brushes, and means for adjusting the support to present any set of brushes to the foot rest.

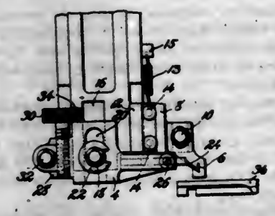
3. An apparatus of the class described including a casing, a foot rest arranged in the casing, a plurality of brushes arranged in longitudinal alinement and disposed in coöperative relation with the foot rest, a common adjustable carrier operating in the casing below the plane of the brushes for moving the same to different positions, and actuating means connected with all the brushes for operating the same.

4. An apparatus of the class described including a relatively fixed foot rest, separate sets of brushes arranged in alinement, the brushes of each set being spaced apart to operate at opposite sides of the foot rest, means for simultaneously adjusting the brushes to present any set to the foot rest, and means for actuating the brushes.

5. An apparatus of the class described including a relatively fixed foot rest, separate sets of brushes arranged in alinement, the brushes of each set being spaced apart to operate at opposite sides of the foot rest, means for simultaneously adjusting the brushes to present any set to the foot rest, and means for simultaneously reciprocating the brushes.

[Claims 6 to 29 not printed in the Gazette.]

1,030,703. MACHINE FOR OPERATING UPON SOLES. FREDERIC E. BERTRAND, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 24, 1909. Serial No. 485,486. (Cl. 12—27.)



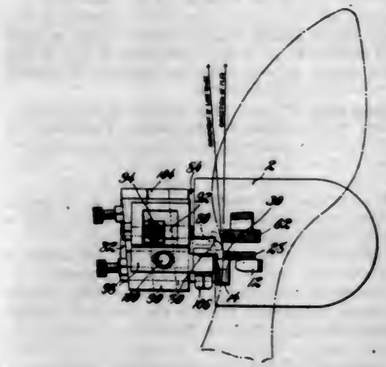
1. A machine for operating upon soles, having, in combination, a knife block carrier, a knife block removably mounted thereon, a headed screw threaded into one of said parts, the other of said parts having a groove, the screw head and groove being adapted to engage each other when the knife block is in working position on its

carrier, and means for locking the screw in any desired position of adjustment whereby a proper replacement after temporary separation is insured, substantially as described.

2. A machine for operating upon soles, having, in combination, a knife block carrier having a horizontal groove, a knife block, a screw threaded vertically into the knife block having a head adapted to engage in said groove when the knife block is in working position on its carrier, and means to lock the screw in any desired position of adjustment, substantially as described.

3. A machine for operating upon soles, having, in combination, a knife block carrier, a knife block, a tongue and groove connection between said parts one of the elements of said connection being adjustable on the part which carries it, and means for locking the adjustable element in any desired position of adjustment, substantially as described.

1,030,704. CHANNELING-MACHINE. FREDERIC ELI BERTRAND, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 10, 1909. Serial No. 495,091. (Cl. 12—27.)



1. A channeling machine, having, in combination, work feeding means including a work retainer movable into and out of engagement with the sole face, a sole edge gage, and means for imparting a relative movement to the gage and retainer both in the direction of feed and across the line of feed, substantially as described.

2. A channeling machine, having, in combination, work feeding means including a work retainer movable toward and from the sole, a channeling cutter, an edge gage, means for reciprocating said cutter and gage toward and from the work retainer in the direction of feed, and means permitting a relative movement, across the line of feed, between the edge gage and retainer during the movement of the gage toward the retainer, substantially as described.

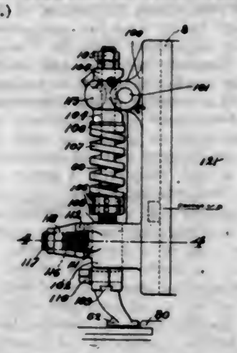
3. A channeling machine, having, in combination, a reciprocatory channeling cutter, a reciprocatory sole edge gage, and provision for reciprocating said cutter and gage in unison but in paths at an angle to each other, substantially as described.

4. A channeling machine, having, in combination, a reciprocatory channeling cutter, a reciprocatory sole edge gage, provision for reciprocating said cutter and gage in unison, and means for causing said gage to move toward and from the sole edge during its reciprocations, substantially as described.

5. A channeling machine, having, in combination, a reciprocating channeling cutter, operating means therefor, a sole edge gage mounted for movement with the cutter, and means for causing the gage to move in a path inclined to the path of movement of the cutter, substantially as described.

[Claims 6 to 22 not printed in the Gazette.]

1,030,705. CHANNELING-MACHINE. FREDERIC E. BERTRAND, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 19, 1909. Serial No. 528,868. (Cl. 12—27.)



1. A channeling machine, having, in combination, means for supporting a flat sole, a sole edge gage, and work feeding means adapted to engage the sole so constructed and arranged that an excessive pressure of the edge of the sole against the edge gage during the feed will cause a movement of the sole outward from the edge gage across the line of feed, substantially as described.

2. A channeling machine, having, in combination, a work support, an edge gage, and means to hold the work at times against movement in the line of feed but permit its movement at such times relative to the edge gage across the line of feed, substantially as described.

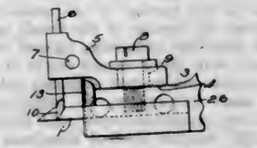
3. A channeling machine, having, in combination, a work support, an edge gage, and work feeding means comprising a reciprocatory feeding device and a vertically movable work retainer, said work retainer having a work engaging portion movable toward and from the edge gage across the line of feed, substantially as described.

4. A channeling machine, having, in combination, an edge gage, means for imparting a movement to the gage in the line of feed, and work feeding means comprising a reciprocatory feeding device and a work retainer movable into and out of engagement with the work, said work retainer being constructed to permit a movement of the work across the line of feed while engaged by said retainer, substantially as described.

5. A channeling machine, having, in combination, an edge gage, work feeding means comprising a reciprocatory feeding device and a work retainer said work retainer comprising a work engaging portion mounted for both vertical and in and out movement relative to the edge gage, and means for holding said retainer yieldingly in its inner position, substantially as described.

[Claims 6 to 10 not printed in the Gazette.]

1,030,706. SOLE-CHANNELING TOOL. FREDERIC E. BERTRAND, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 15, 1911. Serial No. 621,333. (Cl. 12—27.)



1. A lip forming knife, having, in combination, an edge knife block, a lip trimming knife block adjustably secured to the edge knife block, and means for permitting an adjustment of the trimming knife block in the direction of the line of feed of the work while preventing movement of said block in a direction across the line of feed, substantially as described.

2. A lip forming knife, having, in combination, an edge knife block, a lip trimming knife block adjustably carried by the edge knife block, interlocking teeth extending in the direction of the line of feed of the work on the adjacent surfaces of the blocks, and means for engaging the teeth and clamping the two blocks together, substantially as described.

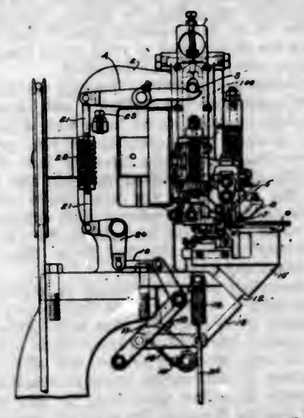
3. A lip forming knife, having, in combination, a block carrying a projecting edge knife, a second block adjustably mounted on the edge knife block and overhanging the edge knife, a lip trimming knife carried by the second block, and a chip guide fixed to the end of the edge knife block between the edge knife and lip trimming knife block and projecting above and in advance of the cutting edge of the edge knife, substantially as described.

4. A lip forming knife, having, in combination, a block carrying an edge knife, a block carrying a lip trimming knife, and means for securing the trimming knife block to the edge knife block, permitting adjustment both longitudinally and transversely of the edge knife, substantially as described.

5. A lip forming knife, having, in combination, an edge slitting knife, a lip trimming knife coöperating therewith to determine the width of the lip produced by the edge slitting knife, and means permitting an adjustment of the lip trimming knife longitudinally and transversely of the edge slitting knife and toward and from the face of said knife, substantially as described.

[Claim 6 not printed in the Gazette.]

1,030,707. CHANNELING-MACHINE. FREDERIC E. BERTRAND, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 5, 1911. Serial No. 625,134. (Cl. 12—27.)



1. A channeling machine, having, in combination, a channel knife to enter the face of the sole and cut a lip therefrom, an edge gage, a work table, and means to simultaneously move the gage and table toward and from the knife in substantially the line of the cutting edge of the knife, substantially as described.

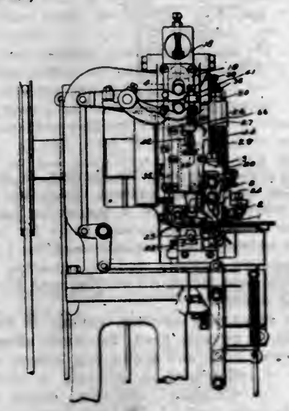
2. A channeling machine, having, in combination, channel-forming devices, a work table, an edge gage, and means for moving the work table and edge gage diagonally toward and from the channel-forming devices, substantially as described.

3. A channeling machine, having, in combination, a shoulder knife, a channel knife, a work table, an edge gage, and means under control of the operator to lift the shoulder knife and simultaneously move the work table and edge gage diagonally away from the knives, substantially as described.

4. A channeling machine, having, in combination, a channel knife, a spring-actuated presser foot to engage the margin of the sole being channeled, a work table, an edge gage carried by the work table, and means for moving the work table and edge gage diagonally away from the knife so that the sole on the knife is free to be forced from the knife by the presser foot, substantially as described.

5. A channeling machine, having, in combination, a work table, an edge gage, a channel knife extending at an angle to the surface of the table, and a single means for moving the work table up and down and the edge gage in and out relatively to the channel knife, substantially as described.

1,030,708. CHANNELING-MACHINE. FREDERIC E. BERTRAND, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 24 1911. Serial No. 635,084. (Cl. 12—27.)



1. A channeling machine, having, in combination, a lip forming knife, a presser gage therefor and a hold down foot continuously engaged with the sole arranged to apply pressure on the marginal portion of the sole, substantially as described.

2. A channeling machine, having, in combination, a lip forming knife, a presser gage therefor, an edge gage, and means continuously engaged with the sole for applying pressure on the marginal portion of the sole at the point where the edge of the sole drags past the edge gage to prevent curling up of the edge of the sole, substantially as described.

3. A channeling machine, having, in combination, an edge knife, an edge knife presser gage and a smoothing tool for evening the sole surface at its margin to maintain the feather flap of even thickness, substantially as described.

4. A machine for operating upon welt insoles, having, in combination, a channel knife, a channel knife presser gage, an edge knife, an edge knife presser gage, a work-retaining foot, an edge gage, and an ironing foot, substantially as described.

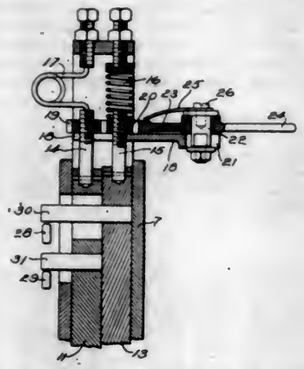
5. A machine for operating upon welt insoles, having, in combination, a lip forming knife, a presser gage therefor and an ironing foot rounded on both sides of its bottom to provide for evening the sole as the sole is swung to the right or left to bring the reversely curved portions of the edge of the sole in the line of feed, substantially as described.

[Claims 6 to 12 not printed in the Gazette.]

1,030,709. CHANNELING-MACHINE. FREDERIC E. BERTRAND, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 17, 1911. Serial No. 638,896. (Cl. 12—27.)

1. A turn channeling machine, having, in combination, a work table, edge and channeling knives, movable to-

ward and from the table, adjustable stops for determining the distance between the work table and the knives when in their operative positions, and means for simultaneously adjusting the stops to vary said distance, substantially as described.



2. A turn channeling machine, having, in combination, a work table, two spring pressed slides, an edge knife carried by one of said slides, a channeling knife carried by the other slide, means on each slide for determining the distance between the work table and the knives when in their operative position, and an adjusting device cooperating with said means for varying said distance, substantially as described.

3. A turn channeling machine, having, in combination, a work table, a movable head, two knife slides movable therein carrying edge and channeling knives, means for raising one of said slides in the head to withdraw its knife from the work, and additional means acting on said slides to raise them in the head simultaneously and vary the distance between the work table and both of said knives when in their operative position, substantially as described.

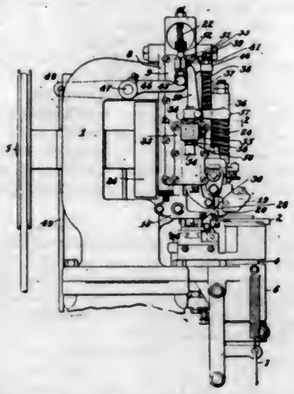
4. A turn channeling machine, having, in combination, a work table, a movable head, a channeling knife, a slide to carry the channeling knife, an edge knife, a slide to carry the edge knife, said slides being movable in the head, means providing for independent relative movement of the slides in the head toward and from the work table, and means for adjusting the operative position of the knives in the head and with relation to the work table without changing their relative positions, substantially as described.

5. A turn channeling machine, having, in combination, a work table, a channeling knife, a slide to carry the channeling knife, an edge knife, a slide to carry the edge knife, studs projecting from the upper ends of the slides, intermeshing spur gears threaded upon the studs, a gear segment meshing with one of the spur gears, means to turn said segment to rotate the gears and raise the slides from the table simultaneously, and a fixed pointer to indicate by graduations on the gear segment the thickness of the sole edge to which the knives are adjusted, substantially as described.

1,030,710. CHANNELING-MACHINE. FREDERIC E. BERTRAND, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 24, 1911. Serial No. 640,240. (Cl. 12—27.)

1. A channeling machine, having, in combination, means for supporting and feeding a sole, an edge knife movable toward and from the sole, an edge presser foot movable toward and from the sole independently of the edge knife, means operatively connected to one of said parts for lifting it out of operating position, and a pin for operatively connecting said other part to the lifting means at the will of the operator, substantially as described.

2. A channeling machine, having, in combination, means for supporting and feeding a sole, two parallel, independently mounted spring pressed slides carrying an edge knife and an edge presser foot respectively, means for lifting one of said slides away from the sole, and an adjustable pin carried by the other slide for connecting and disconnecting said slide from said lifting means, substantially as described.



3. A channeling machine, having, in combination, means for supporting and feeding a sole, a slide carrying an edge knife, an edge presser foot carried by an independent, yieldingly supported slide, means for lifting the knife slide to withdraw the knife from the sole, and a pin operatively connecting the presser foot slide to the knife slide to be lifted simultaneously therewith while permitting the presser foot to yield at all times relatively to the knife, substantially as described.

4. A channeling machine, having, in combination, means for supporting and feeding a sole, a slide having an edge knife mounted at its lower end, a second, independently mounted slide carrying an edge presser foot, a pin projecting horizontally from the first slide, means for engaging the under side of said pin and movable to lift the edge knife from the sole, and a vertically arranged pin carried by the second slide adjustable to engage the upper side of the first pin at the will of the operator, thereby causing the foot to be lifted with the knife, substantially as described.

5. A channeling machine, having, in combination, an edge knife slide, a retaining plate therefor a presser foot slide mounted to overlap the edge knife slide and slide parallel thereto, upon the retaining plate and a spring arranged to bear upon the presser foot slide, the point of application of said spring lying substantially in the vertical plane extending from front to rear of the machine and passing through the point of operation of the presser foot, substantially as described.

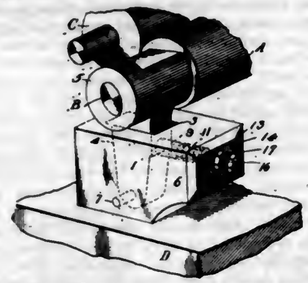
[Claims 6 and 7 not printed in the Gazette.]

1,030,711. CEREAL COFFEE AND PROCESS OF MAKING SAME. FRANK W. BORTNER, Augusta, Ohio. Filed Jan. 26, 1912. Serial No. 673,613. (Cl. 99—11.)

1. Cereal coffee composed of the outer coatings of wheat grains secured by passing said grains through the first break roll of a short process mill mixed with molasses and roasted to a brown color.

2. That process of making a coffee substitute which consists in passing scoured wheat grains through the first break roll of a short process mill, scalping the resulting product on a sixteen to twenty wire sieve, to remove fine particles, flour, flour dust, germs and gluten, mixing the scalped product with molasses and roasting said mixture.

1,030,712. ADJUSTABLE SUPPORT FOR INKING-ROLLERS OF PRINTING-PRESSES. CHARLES H. BRETT, Carthage, Mo. Filed June 29, 1910. Serial No. 569,541. (Cl. 101—71.)

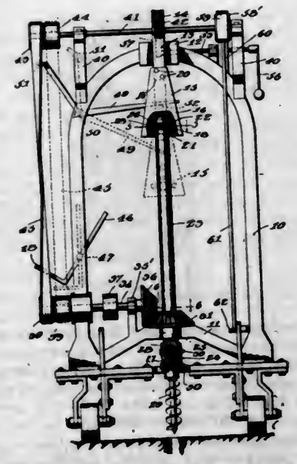


1. In a printing machine, the combination with an inking roller, of a bearing therefor having a radius arm, a recessed holder in which the arm of the bearing is pivotally supported arranged to be supported by the framework of the machine, and means mounted in the said holder for engaging with the said arm and holding the roller in yielding engagement with another roller, substantially as set forth.

2. In a bearing for ink rollers, the combination of a bearing having a radius arm, a recessed holder into which the radius arm extends and to which it is pivoted, a spring supported in the said holder and acting upon the said arm, and means for adjusting the tension of the spring, the said holder being arranged to be easily applied to or removed from a printing machine.

3. In a bearing for inking rollers, the combination of a bearing having a radius arm, a recessed holder to which the arm is pivoted, a plunger seated in the holder and bearing upon the said arm, a spring acting upon the plunger, and means for adjusting the tension of the spring.

1,030,713. POST-HOLE DIGGER. SAMUEL E. BROOMALL, Wilmington, Del. Filed July 12, 1911. Serial No. 638,195. (Cl. 166—11.)

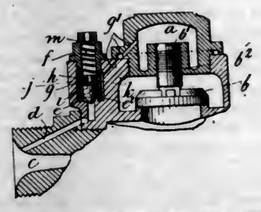


1. A post hole digger including a frame, a drill mounted for combined rotary and reciprocating movement on said frame, means for reciprocating said drill, means for manually controlling sliding movement of said drill in one direction, means for automatically stopping said reciprocating means upon a predetermined sliding movement of said drill in an opposite direction, and means for automatically locking said drill in stationary position after the last named means has operated.

2. In a post hole digger, a frame, a drill mounted for combined revoluble and reciprocating movement on said frame, means for rotating said drill, means for reciprocating said drill, an operative connection coupling said means for simultaneous actuation, a bell crank shifting lever pivoted on said frame and operatively connected to said coupling means and to said drill, said lever operating to move said coupling means out of operative position during sliding movement of said drill in one direction to a predetermined position, and means locking said drill against reciprocating movement after said lever has operated.

3. A post hole digger including a frame, a drill mounted for combined rotary and reciprocating movement on said frame, a driving shaft operatively connected to said drill for rotating the drill, a rack forming an extension of said drill, a driving shaft operatively connected to said rack for reciprocating the rack, juxtaposed loose and fixed pulleys on both shafts, a belt selectively engageable with corresponding pulleys on said shaft, a manually operatable means for shifting said belt, an angular bell crank shifting lever pivoted on said frame and having one leg operatively engaging said drill, said drill rocking said bell crank lever on its pivot whereby to shift said belt to said loose pulleys upon movement of said drill in one direction to a predetermined position, and a weighted pawl automatically locking said rack stationary after said bell crank lever has operated.

1,030,714. STEAM-INJECTOR. ROBERT GRUNDY BROOKE, Macclesfield, England. Filed Feb. 27. 1912. Serial No. 680,204. (Cl. 162—1.)



1. In a steam injector, the combination with an overflow valve, means for closing said valve, a fluid pressure chamber in communication with the valve closing means and a connection for conducting fluid from the delivery of the injector to the pressure chamber, of a mechanically loaded fluid intercepting valve adapted, when closed, to vent the pressure chamber.

2. In a steam injector, the combination with an overflow valve, means for closing said valve, a fluid pressure chamber in communication with the valve closing means and a connection for conducting fluid from the delivery of the injector to the pressure chamber, of a spring loaded valve adapted in one position to intercept fluid tending to pass from the delivery to the pressure chamber with momentary increase of pressure in the delivery, prior to formation of the jet, to values equal to the maximum derivable after the formation of the jet, and simultaneously vent the pressure chamber.

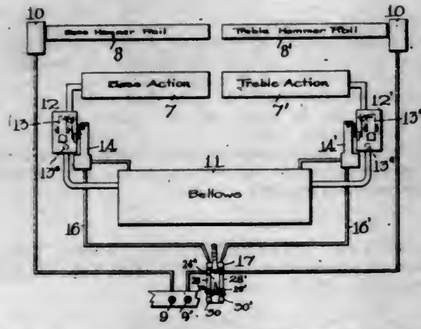
3. In a steam injector, the combination with an overflow valve, means for closing said valve, a fluid pressure chamber in communication with the valve closing means and a connection for conducting fluid from the delivery of the injector to the pressure chamber, of a spring loaded valve in such connection adapted in one position to intercept passage of fluid from the delivery to the pressure chamber and simultaneously establish communication between the latter and the overflow of the injector.

4. In a steam injector, the combination with an overflow valve, means for closing said valve, a fluid pressure chamber in communication with the valve closing means and a connection for conducting fluid from the delivery of the injector to the pressure chamber, of a mechanically

loaded fluid intercepting valve arranged in such passage and having ports adapted to permit fluid from the pressure chamber to be vented through one end of the valve.

5. In a steam injector, the combination with an overflow valve, means for closing said valve, a fluid pressure chamber in communication with the valve closing means and a connection for conducting fluid from the delivery of the injector to the pressure chamber, of a mechanically loaded fluid intercepting valve arranged in such passage and adapted in one extreme position to vent the pressure chamber and in the other extreme position to arrest the venting.

1,030,715. MUSICAL INSTRUMENT. THEODORE P. BROWN, Worcester, Mass., assignor to Simplex Player Action Co., Worcester, Mass., a Corporation of Massachusetts. Filed May 15, 1911. Serial No. 627,231. (Cl. 84—160.)



1. In a pneumatic musical instrument, the combination with the bellows or feeder and the action, of a choker for connecting the bellows or feeder with the action and reducing the degree of exhaust, means for directly connecting the bellows or feeder with the action at full exhaust, a pneumatic for operating said means, a push button, and adjustable means whereby when the push button is operated with said means in one adjusted position atmospheric air will be cut off from the pneumatic, and whereby when in another adjusted position the operation of the push button will admit air to the pneumatic.

2. In a pneumatic musical instrument, the combination with the bellows or feeder and the action, of a choker pneumatic having a port for connecting the bellows or feeder with the action at full exhaust and a port for connecting them at a reduced degree of exhaust, a release valve for the first named port, a second pneumatic for operating said valve, a controlling device movable to two positions, and means whereby when the controlling device is operated in one of its positions the second pneumatic is caused to operate the release valve to connect the bellows or feeder directly with the action at full exhaust through the first named port and when the controlling device is operated in the other of its positions the bellows or feeder is connected with the action at reduced and regulated exhaust through the second port.

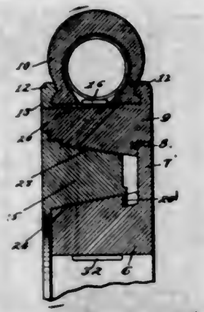
3. In a musical instrument, the combination with a bellows or feeder and the action, of means for connecting the bellows or feeder with the action and reducing the degree of exhaust transmitted to the action, means for directly connecting the bellows or feeder with the action at full exhaust, a pneumatic for operating the last named means, and means for controlling the operation of said pneumatic comprising a channel or conductor leading from the pneumatic and having two opposite inlet ports, a push button, a movable device for controlling said ports, and means whereby when said movable device is in one extreme position said ports will normally be closed and the depression of the push-button will open one of them, and whereby when the movable device is in the other extreme position one of said ports will normally be opened and the depression of the button will close it.

4. In a pneumatic musical instrument, the combination with the bellows and action, of means for connecting the bellows with the action and reducing the degree of exhaustion or pressure transmitted to the action, means whereby the bellows can be connected directly with the action without such reduction, and means for controlling the last named means comprising a plate having a duct therein opening to the atmosphere on opposite sides of the plate, a movable valve member having two parts, one movable over one of said openings in position to keep it closed, and the other movable over the other opening and being adapted to open it when in one extreme position and to close it when in another, and a resilient member having a push-button for operating it and provided with means for closing the opening opened by said movable valve when the resilient member is pushed toward the surface of the plate, and having means for engaging the other portion of said valve when in one extreme position, so that when the push button is pushed down it will move said valve bodily away from the other opening.

5. In a device of the character described, the combination with a regulating pneumatic, of a channel or conductor connected therewith for conducting atmospheric air thereto, a channel plate having two opposite ports both connected with said channel or conductor, a flat resilient regulating member mounted on the surface of said channel plate, adapted to swing on a pivot perpendicular to the surface of said channel plate, and adapted to cover one of said ports in one position and open it in another position, said member having an extension on the other side of the channel plate movable with it and adapted to cover the other of said ports in all of its positions on its pivot, a push-button, a spring on the channel plate for normally holding the push button in one extreme position over the flat member, and means connected with the spring for closing the port in that side of the channel plate when the push button is operated, said extension being arranged to be operated by the push button when in one extreme position and to be cleared by the push button when in the other extreme position.

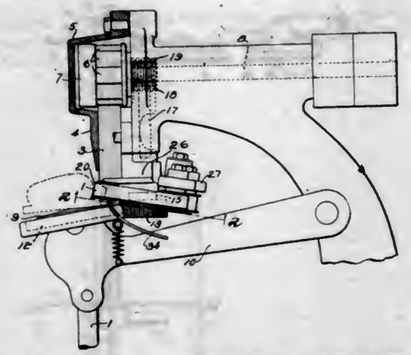
[Claims 6 to 8 not printed in the Gazette.]

1,030,716. DETACHABLE WHEEL-RIM. JOE J. BURNEY, Shreveport, La. Filed Dec. 19, 1911. Serial No. 666,698. (Cl. 152—21.)



In a demountable wheel rim, the combination with a fixed annular rim member having an inner edge outstanding flange and having its outer peripheral face inclined away from said flange and toward the axis of the wheel, said beveled face being cut away to form a plurality of cam faces, an annular demountable rim having its inner peripheral face oppositely inclined from that of the fixed rim member and having a portion extending inwardly of and bearing laterally against the outstanding flange of the said fixed member, members forming a driving connection between said flange and said inwardly extending portion, shoulders formed at the outer portion of the inner peripheral face of the demountable rim and a locking ring of wedge shape in cross section, bearing between the fixed and demountable rims, said locking ring having upon its outer periphery shoulders coacting with the shoulders of the demountable rim and having upon its inner periphery an inwardly extending annular flange which overlaps the outer face of the fixed rim member, and means carried by said locking ring for engaging said cams.

1,030,717. MACHINE FOR OPERATING UPON SHOE-SOLES. LOUIS A. CASGRAIN, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 17, 1911. Serial No. 638,889. (Cl. 12—32.)



1. A machine for operating upon the marginal portion of the sole of a lasted shoe, having, in combination, an indenting tool, means for heating the tool, a movable guard arranged in position to prevent contact of the upper with said tool, and means operated by the machine to move said guard with relation to the tool during operation of the tool to change the portion of the guard in proximity to the tool.

2. A machine for operating upon the marginal portion of the sole of a lasted shoe, having, in combination, an operating tool, a traveling belt arranged to prevent contact of the upper with said tool, and means to operate the belt.

3. A machine for operating upon the marginal portion of the sole of a lasted shoe, having, in combination, an operating tool, a traveling belt arranged to prevent contact of the upper with said tool, guide rolls supporting said belt, and means to adjust certain of said rolls to tighten and loosen said belt.

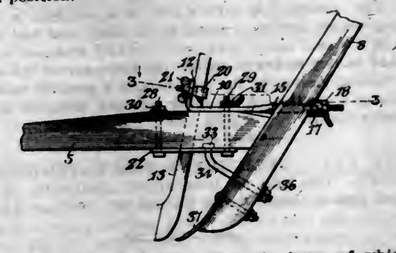
4. A machine for operating upon the marginal portion of the sole of a lasted shoe, having, in combination, an operating tool, a guard belt arranged to prevent contact of the upper with the tool, guide rolls supporting said belt, a rotary work support, a shaft, and mechanism operated by said shaft arranged to rotate said support to feed the shoe and to rotate said rolls to move the belt in the direction of the feed movement of the shoe.

5. A machine for operating upon the marginal portion of the sole of a lasted shoe, having, in combination, an operating tool, a guard belt arranged to prevent contact of the upper with said tool, and means to operate said belt to move the portion thereof in proximity to the tool in the general direction of the feed movement of the shoe.

[Claims 6 and 7 not printed in the Gazette.]

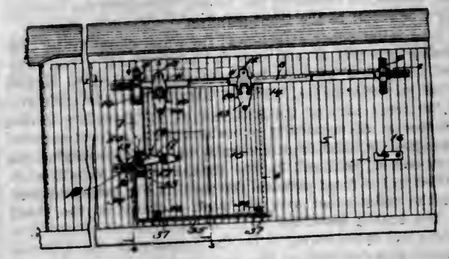
1,030,718. PLOW-COLTER. CHRISTOPHER C. CHAPPEL, Bono, Ark., assignor of one-half to James D. Stringer, Bono, Ark. Filed Mar. 26, 1912. Serial No. 686,389. (Cl. 97—6.)

1. In combination with a plow, the beam of which is provided with a slot extending through said beam from its upper to its lower face, a colter positioned in said slot, said slot being of sufficient width in cross section with respect to said colter to permit of a vertical as well as a forward and backward movement of said colter, a longitudinally-adjustable plate mounted on the upper face of said beam, said adjustable plate being provided with a slot through which said colter extends, an upwardly-extending support at the front end of said adjustable plate contiguous said slot and forming a rest for the front edge of said colter, a hook bolt carried by said support and engaging the rear edge of the colter for securing the latter in adjusted vertical positions, means for moving said adjustable plate longitudinally of said beam to move the cutting part of said colter forwardly or backwardly and means for locking said adjustable plate to the beam in the desired position.



2. In combination with a plow, the beam of which is provided with a slot extending through said beam from its upper to its lower face, said slot having a forward inclination, a rigidly mounted plate bolted to the underside of the beam, a bolt having its head connected to said plate and then passed through the plow standard below the beam, a longitudinally movable plate mounted on the upper side of the beam, said plate having two spaced slots, the front slot receiving the upper end of the colter while the rear slot has passed through it one of the bolts that connects the rigid plate to the bottom of the beam, said plate also having its front end bent upwardly and clamped to the upper end of the colter and its rear end passed through the plow standard above the beam and provided with means substantially as described for moving the plate along the beam and carrying the colter in its movement.

1,030,719. CAR-DOOR. JOHN F. CONNER, Oxford, Miss. Filed Apr. 20, 1912. Serial No. 691,999. (Cl. 20—22.)



1. The combination with a car, of a rail, hinge hangers slidably engaging the rail, a door having portions of the hangers secured to the upper end thereof and also provided with a locking hasp, a two-part keeper comprising a movable member adapted to be engaged by the hasp, and a lower movable rail having guards to engage the lower end of the door and an arm with an angular end which is held closed by the movable member of the keeper.

2. The combination with a car, of a door movably suspended at its upper end and having a swinging operation inwardly and outwardly, a hasp secured to the door, a keeper on a part of the car, and a lower movable rail having means to engage the lower end of the door and normally locked closed by a part of the keeper.

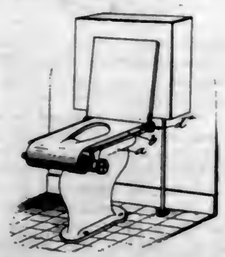
3. The combination with a car, of an upper rail thereon, hangers slidably engaging the said rail and having depending hinge portions, a door having its upper end secured to said hinge portions of the hangers, a locking means

for the door, a lower rail movably applied to the car and having means to engage the lower end of the door and also provided with an angular portion for engagement with the said locking means, and means for holding the locking means against opening movement.

4. The combination with a car door, of a top rail, a door having hinged sliding devices engaging the said rail, a lower rail movably applied to the car and having means to engage the lower end of the door, and locking means for the door, a portion of the lower rail being normally engaged by a part of the locking means to hold the said rail closed.

5. The combination with a car, of a top rail, a door having hinged devices secured to its upper end and movable on the said rail, a lower rail movably attached to the car and having means to engage the lower end of the door, and locking means for the door having a movable member to engage a portion of the lower rail and hold the latter normally closed.

1,030,720. ATTACHMENT FOR WATER-CLOSET SEATS. CHARLES DE QUILLFELDT, Amityville, N. Y. Filed Feb. 7, 1911. Serial No. 607,188. (Cl. 4—18.)



1. A toilet paper attachment for water-closet seats, comprising brackets at the rear-end of the seat, a rear-mandrel supported by said brackets and adapted to receive a roll of toilet-paper, brackets at the underside of the front part of the seat, a front-mandrel supported by said front-brackets, means for applying the front end of the roll to the front-mandrel, a button for turning the front-mandrel, means for locking the button to one of the front-brackets, and means for releasing the button therefrom for connecting a new roll to the front-mandrel.

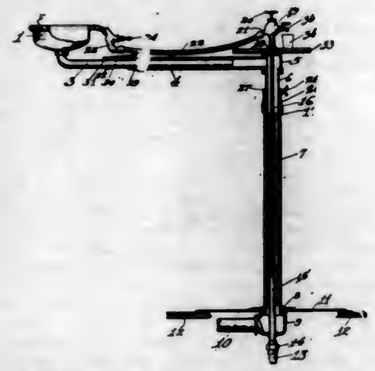
2. A toilet paper attachment for water-closet seats, comprising brackets at the rear-end of the seat, a rear-mandrel supported by said brackets and adapted to receive a roll of toilet-paper, brackets attached to the underside of the front part of the seat, one of said brackets having recesses at diametrically opposite points, a front-mandrel supported in said front-brackets, means for applying the front-end of said roll to the front-mandrel, a button attached to the front-mandrel for turning the same and feeding the toilet-paper over the seat, a sleeve on the shank of the button provided with screw-studs at diametrical points for interlocking with the recesses of the adjacent bracket and for turning the same and placing it into locking or releasing position with the bracket.

1,030,721. WELT-GUIDE FOR SHOE-SEWING MACHINES. ANDREW EPPLER, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 11, 1909. Serial No. 482,687. (Cl. 112—9.)



A welt guide for shoe sewing machines, having, in combination, a body portion provided with a guiding surface curved transversely to the lead of the welt, and a correspondingly curved guide piece attached to said body portion and arranged to be moved bodily nearer to or farther from said surface in a direction substantially normal to said surface in proximity to the front end of the body portion to provide for welts of different thickness, substantially as described.

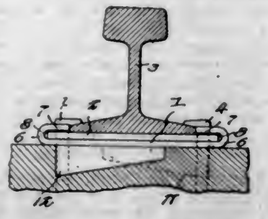
1,030,722. ADJUSTABLE FLUSHING CUSPIDOR. JAMES T. FOWLER, Wetumpka, Ala., assignor of one-half to Charles Mardis, Wetumpka, Ala. Filed Jan. 29, 1912. Serial No. 674,132. (Cl. 4—40.)



1. In an apparatus of the character described, a drain pipe beneath the floor, a hollow standard connected with said drain pipe, a pipe which is telescoped in and rotatably supported by said standard and has a horizontal portion, a cuspidor, a longitudinally adjustable drain pipe therefor adapted to support the cuspidor and to telescope into the horizontal portion of the drain pipe, an adjustable spring connection between the horizontal telescoping pipes which is adapted to yieldingly hold the cuspidor upright, a water supply pipe comprising a flexible portion, a flushing means for the cuspidor, and valve controlled means to supply water from said pipe to said flushing means, substantially as described.

2. In an apparatus of the character described, a standard formed of telescoping sections of piping, the upper section having a horizontal pipe extension, a cuspidor having a drain pipe adjustably connected to said horizontal pipe to both slide lengthwise of and to turn about a horizontal axis, and a spring connection between said latter telescoping pipes which yieldingly holds the cuspidor in upright position.

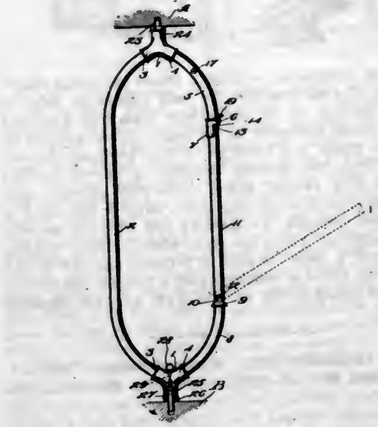
1,030,723. RAILWAY-TIE PLATE. JAMES S. FOX, Jackson, Mich. Filed Dec. 20, 1910. Serial No. 598,327. (Cl. 238—2.)



1. A device of the class described comprising a tie plate having downwardly projecting ribs punched out of the plate and forming apertures, means formed on the tie plate for preventing lateral movement of the rail, said means forming groove, and a rail wear plate removably mounted in said grooves and having spike receiving openings adapted to register with the apertures.

2. A device of the class described comprising an integral wear plate, angular extending parallel flanges formed upon said plate and having notches therein, downwardly projecting tie engaging ribs struck up from the plate and forming apertures registering with the notches in the flanges, said flanges forming grooves, and an apertured wear plate reversibly mounted in the grooves and having apertures to register with the apertures in the tie plate and with the notches in the flanges thereof, together with spikes passing through said notches and apertures to hold a rail seated upon the wear plate between the inner edges of the flanges.

1,030,724. CATTLE-STANCHION. GEORGE GLEASON, Auburn, N. Y. Filed Jan. 25, 1912. Serial No. 673,389. (Cl. 119—149.)

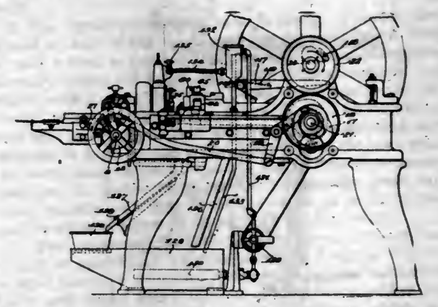


In a cattle stanchion, the combination of two end members oppositely disposed; a continuous bar connecting said end members on one side; a sectional bar connecting said end members on the opposite side; said sectional bar comprising parts secured to the end members, a part pivotally mounted on one of the first mentioned parts and adapted to engage with the other of said parts, and said engaging parts having alining openings; a locking bolt mounted within the opening of one of said parts and adapted to move bodily into engagement with the opening of the adjacent part, said bolt having a beveled surface; means for holding said bolt in raised position and the beveled surface thereof at an angle to its normal position; said pivoted bar section adapted to engage with said beveled surface to lift said bolt and effect the turning thereof to normal position; and a spring associated with said bolt adapted to move the bolt into bodily engagement with the pivoted section to secure the latter, substantially as described.

1,030,725. MACHINE FOR MAKING LACING-HOOKS. GEORGE GODDU, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 30, 1905. Serial No. 284,072. (Cl. 29—12.)

1. A machine for making lacing hooks, having, in combination, blank holding and upsetting dies and means for actuating the same, wire feeding mechanism, a cut-off slide provided with a cutting block, mechanism for actuating the slide to sever a blank and transfer it to a position in line with a blank holding die, the mechanism for actuating the slide including a yielding connection, and a stop for stopping the slide with the cutting block in position to receive the wire.

2. A machine for making lacing hooks, having, in combination, a blank holding die, an upsetting die coöperating therewith comprising a body portion provided with a die cavity and a plunger operating therein, means for actuating the dies to upset the end of the blank to form a collar and tubular shank and means for holding the plunger in contact with the blank until the blank has been released by the body portion of the upsetting die.



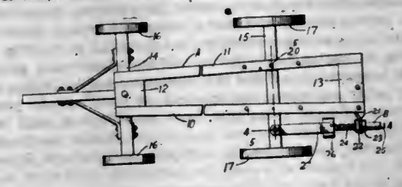
3. A machine for making lacing hooks, having, in combination, blank holding and upsetting dies and means for actuating the same, wire feeding mechanism, a cut-off slide provided with a cutting block, and with a wire clamping jaw, mechanism for moving the slide from a position in which the wire receiving opening between the cutting block and jaw is in line with the wire to a position in which the opening is in line with a blank holding die, and a yielding abutment arranged to engage the jaw and force it against the wire while the blank is being severed.

4. A machine for making lacing hooks, having, in combination, blank holding and upsetting dies and means for actuating the same, wire feeding mechanism, a cut-off slide provided with a cutting block, and with a wire clamping jaw, mechanism for moving the slide from a position in which the wire receiving opening between the cutting block and jaw is in line with the wire to a position in which the opening is in line with a blank holding die, and an abutment arranged to force the jaw against the wire while the blank is being severed and be out of engagement with the jaw when the jaw and cutting block are at the limit of their movement in each direction.

5. A machine for making lacing hooks, having, in combination, a blank holding die, an upsetting die coöperating therewith provided with a die cavity and a plunger operating therein to form a hole in the end of the blank and the collar, and means for actuating the dies to upset the end of the blank to form a collar and tubular shank.

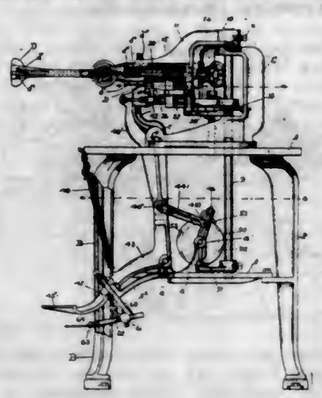
[Claims 6 to 10 not printed in the Gazette.]

1,030,726. RUNNING-GEAR FOR VEHICLES. FRED I. D. HAGENAH, Stover, Mo. Filed June 26, 1911. Serial No. 635,508. (Cl. 21—93.)



In a running gear for vehicles, the combination of a vehicle frame, a wheeled front axle pivotally connected to the frame, a wheeled rear axle also pivotally connected to the frame, a journal bracket supported by the frame and projecting laterally therefrom, a threaded rod rotatably mounted in said bracket, a head threaded on said rod, and straps having corresponding ends pivotally connected to said axle on opposite sides of the latter and their other ends secured respectively to opposite sides of the head, whereby the rotation of said rod will move the head longitudinally of the rod and swing the rear axle on its pivot.

1,030,727. TREEING-MACHINE. JOHN S. HANSEN, Medford, Mass., assignor to O. A. Miller Treeing Machine Company, Portland, Me., a Corporation of Maine. Filed Jan. 9, 1905. Serial No. 240,336. (Cl. 12—69.)



1. In a treeing machine, the combination with an expansible tree, an actuator for expanding the tree, spring actuated means for contracting the tree, means for locking the tree in expanded condition and adapted to be actuated for unlocking the tree, of means for insuring the gradual contraction of the tree by said spring actuated means.

2. In a treeing machine, an expansible tree, means for moving the tree to and from operative position, an actuator for expanding the tree, spring actuated means for contracting the tree, means for locking the tree in expanded condition, means for automatically unlocking the tree as it is moved toward operative position, and means for insuring the gradual contraction of the tree by said spring actuated means.

3. In a treeing machine, an expansible tree, an actuator for expanding the tree, a spring for effecting the contraction of the tree, means for locking the tree in expanded condition, means for unlocking said tree, and a buffer arranged to receive the impact caused by said spring and to insure the gradual contraction of the tree.

4. In a treeing machine, a movable tree, an actuator for expanding the tree, spring actuated means for contracting the tree, means for locking the tree in expanded condition, means for releasing the lock and permitting the spring actuated means to contract the tree, and a buffer comprising a pivoted lever arranged to receive the impact caused by said spring actuated means at a point opposite its pivot and to permit the tree to move along said lever and turn it about its pivot to insure the gradual contraction of the tree.

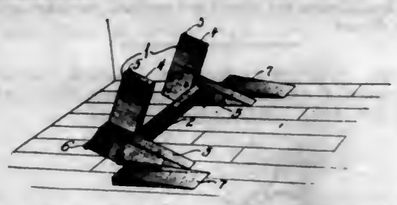
5. In a treeing machine, a movable tree, an actuator for expanding the tree, a spring for effecting the contraction of the tree, means for locking the tree in expanded condition, means for releasing the lock and permitting the spring to contract the tree, a buffer comprising a pivoted lever arranged to receive the impact caused by said spring at a point approximately opposite its pivot and to permit the tree to move along said lever past its end, said lever turning about its pivot to insure the gradual contraction of the tree, and means for reversely moving said lever to cause it to serve as a stop for preventing backward movement of the tree.

[Claims 6 to 25 not printed in the Gazette.]

1,030,728. AUTOMOBILE-JACK. CHARLES A. HART, Findlay, Ohio. Filed Jan. 18, 1912. Serial No. 671,917. (Cl. 57—15.)

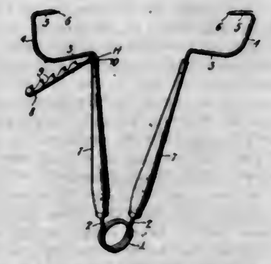
1. A jack comprising a tiltable frame, a runner, a lever pivoted between its ends to the frame and provided with a slot adjacent one terminal, a link connecting the opposite terminal of the lever to the runner, and a pin carried by the frame and operable in the slot in said lever.

2. A jack comprising a tiltable frame including standards, base fulcrum members for said standards adapted to support the standards in tilted and vertical positions, runners associated with the base fulcrum members, and connections between said runners and the fulcrum members each comprising a lever pivoted between its ends to the fulcrum member, a loose connection between one end of the lever and its fulcrum member, and a pivotal connection between the opposite end of the lever and the adjacent runner.



3. A jack comprising a tiltable frame including standards, base fulcrum members for said standards, each of the latter having on its under side main and auxiliary bearing surfaces extending at an angle to one another to support the frame in a tilted or vertical position, runners associated with the fulcrum members to receive thereon the wheels of a vehicle, and a connection between each fulcrum member and its adjacent runner comprising a lever pivoted between its ends to the fulcrum member near the angle at which its main and auxiliary bearing surfaces meet, a loose connection between one end of the lever and its fulcrum member, and a pivotal connection between the opposite end of said lever and the adjacent runner.

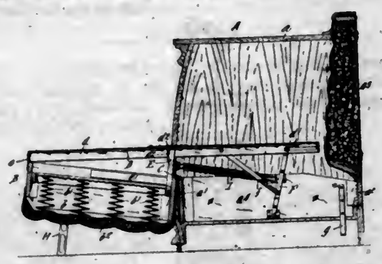
1,030,729. CORN-HOLDER. HENRY HORTON, Cleveland, Tenn. Filed Feb. 21, 1912. Serial No. 679,083. (Cl. 30—5.)



A corn holder consisting of a single length of wire having coils formed intermediate its ends, the helices of certain of the coils terminating in arms having grip sleeves thereon, said arms terminating at their upper ends in horizontal portions which in turn terminate in short vertical arms having their ends bent inwardly to form pointed projections for engaging an ear of corn, a latch member having an eye formed at one end and adapted to pivotally engage one of the first named arms, said latch member having notches formed upon one edge for adjustably engaging the other of the first named arms, whereby an ear of corn is held against accidental removal.

1,030,730. SOFA-BED. HENRY J. JACOBS, Buffalo, N. Y., assignor to Buffalo Lounge Company, Buffalo, N. Y. Filed Jan. 26, 1912. Serial No. 673,512. (Cl. 5—51.)

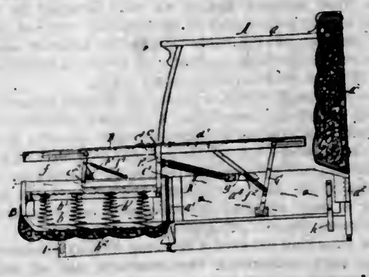
1. The combination of a couch frame, a couch seat hinged to said frame and adapted to be swung to and supported in an inverted inclined position in front of the frame, a two-part folding bed bottom comprising outer and inner frame sections hinged together, said outer section being fixed on said seat at an inclination thereto so as to be supported in a horizontal plane above the inverted seat, and connections between said inner bed bottom section and the couch frame which support said inner section in the horizontal plane of said outer section when the bed bottom is extended and permit the inner section to lower in the couch frame when the bed bottom is folded, substantially as set forth.



2. The combination of a couch frame, a couch seat hinged to said frame and adapted to be swung to and supported in an inverted inclined position in front of the frame, a two-part folding bed bottom comprising outer and inner frame sections hinged together, said outer section being fixed at one side to rigid end standards on said seat and at its opposite side to the adjacent side of said seat and extending at an inclination to the seat so as to be supported in a horizontal plane above the inverted seat, and connections between said inner bed bottom section and the couch frame which support said inner section in the horizontal plane of said outer section when the bed bottom is extended and permit the inner section to lower in the couch frame when the bed bottom is folded, substantially as set forth."

3. The combination of a couch frame, a couch seat hinged to said frame and adapted to be swung to and supported in an inverted inclined position in front of the frame, a two-part folding bed bottom comprising movably connected outer and inner frame sections, said outer section being rigidly mounted on said seat so as to be supported in a horizontal plane above the inverted seat and at an inclination beneath the seat when the seat is in its normal position, and means which support said inner section in the horizontal plane of said outer section when the bed bottom is extended and permit the inner section to assume a position in which it is below and diverges from the outer section when the bed bottom is folded, substantially as set forth.

1,030,731. SOFA-BED. HENRY J. JACOBS, Buffalo, N. Y., assignor to Buffalo Lounge Company, Buffalo, N. Y. Filed Feb. 7, 1912. Serial No. 676,148. (Cl. 5—51.)



1. The combination of a couch frame, a couch seat hinged to said frame so that it can be inverted in front of said frame, a two-part folding bed bottom comprising movably connected outer and inner frame sections which movably connect said outer section to said seat and support said section above and spaced from the seat when the latter is inverted and permit said section to assume an inclined position beneath the seat when the latter is in its normal position, and means which support said inner section in the horizontal plane of said outer section when the bed bottom is extended and permit the inner section to assume a position below the outer section when the bed bottom is folded, substantially as set forth.

2. The combination of a couch frame, a couch seat hinged to said frame so that it can be inverted in front of said frame, a two-part folding bed bottom comprising movably connected outer and inner frame sections, and means which movably connect said inner and outer bed bottom sections respectively to said couch frame and to said seat and support said inner and outer sections horizontally in a plane above and spaced from the seat when the latter is inverted and permit said sections to assume positions in which they diverge rearwardly from each other beneath said seat when the latter is in its normal seat-forming position, substantially as set forth.

3. The combination of a couch frame, a couch seat hinged to said frame so that it can be inverted in front of said frame, a two-part folding bed bottom comprising inner and outer frame sections which are movably connected to each other and to said seat, links which connect said outer section to said seat and support said section in a horizontal position above and spaced from the seat when the seat is inverted and permit said section to swing to an inclined position relative to the seat when the seat is moved to its normal position, and means which support said inner section in the horizontal plane of said outer section when the bed bottom is extended and permit the inner section to assume a position below the outer section when the bed bottom is folded, substantially as set forth.

4. The combination of a couch frame, a couch seat hinged to said frame so that it can be inverted in front of said frame, said seat having rigid bed bottom supports at its ends, a two-part folding bed bottom comprising inner and outer frame sections hinged to each other and to said rigid supports on the seat, links which connect said outer section to said seat and support said section in a horizontal position above and spaced from the seat when the seat is inverted and permit said section to swing to an inclined position relative to the seat when the seat is moved to its normal position, and means which support said inner section in the horizontal plane of said outer section when the bed bottom is extended and permit the inner section to assume a position below the outer section when the bed bottom is folded, substantially as set forth.

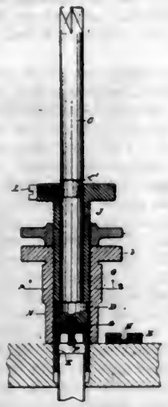
5. The combination of a couch frame, a couch seat hinged to said frame, so that it can be inverted in front of said frame, a two-part folding bed bottom comprising inner and outer frame sections which are movably connected to each other and to said seat, links which connect said outer section to said seat and support said section in a horizontal position above and spaced from the seat when the seat is inverted, parts on said couch frame which engage said links and swing said outer section to an inclined position relative to the seat when the seat is moved to its normal position, and means which support said inner section in the horizontal plane of said outer section when the bed bottom is extended and permit the inner section to assume a position below the outer section when the bed bottom is folded, substantially as set forth.

[Claim 6 not printed in the Gazette.]

1,030,732. TOOL FOR INSERTING AND WITHDRAWING SCREWED FERRULES. EDWARD COTTRELL JENKINS and JOSEPH JENKINS, Birkenhead, England. Filed Dec. 15, 1911. Serial No. 665,941. (Cl. 29—84.)

1. A tool for inserting and withdrawing screwed ferrules, comprising a shank, a cross bar mounted in one end of said shank and adapted to engage a screw driver notch formed in the end of a ferrule, an externally screwed spindle mounted to rotate on said shank, and an internally screw threaded socket arranged to screw on

said screwed spindle and adapted to embrace the cross bar.



2. A tool for inserting and withdrawing screwed ferrules, comprising a shank, a cross bar mounted in one end of said shank and adapted to engage a screw driver notch formed in the end of a ferrule, an externally screwed spindle mounted to rotate and move endwise to a limited extent on said shank, and an internally screw threaded socket arranged to screw on said screwed spindle and adapted to embrace the cross bar.

3. A tool for inserting and withdrawing screwed ferrules, comprising a shank, a cross bar mounted in one end of said shank and adapted to engage a screw driver notch formed in the end of a ferrule, an externally screwed spindle mounted to rotate on said shank, an internally screw threaded socket arranged to screw on said screwed spindle and adapted to embrace the cross bar and a lock nut on said screwed spindle.

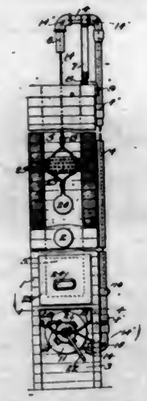
4. A tool for inserting and withdrawing screwed ferrules, comprising a shank, a cross bar mounted in one end of said shank and adapted to engage a screw driver notch formed in the end of a ferrule, an externally screwed spindle mounted to rotate on said shank, a milled head on said spindle, means for limiting endwise movement of said spindle relatively to said shank, and an internally screw threaded socket arranged to screw on said screwed spindle and adapted to embrace the cross bar.

5. A tool for inserting and withdrawing screwed ferrules, comprising a shank, a cross bar mounted in one end of said shank and adapted to engage a screw driver notch formed in the end of the ferrule, an externally screwed spindle mounted to rotate on said shank, a milled head on said spindle, means for limiting endwise movement of said spindle relatively to said shank, an internally screw threaded socket arranged to screw on said screwed spindle and adapted to embrace the cross bar, a milled head on said socket and a lock nut on said spindle adapted to bear on said socket.

1,030,733. CHIMNEY-CLEANER. DANIEL JOHNSTON, Marquette, Mich. Filed Feb. 8, 1912. Serial No. 676,409. (Cl. 15—41.)

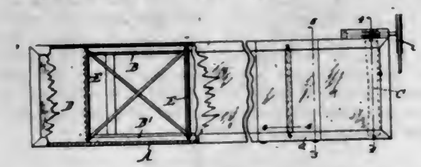
1. In a chimney cleaning apparatus, the combination of a rope supporting member, an arm secured thereto adapted to extend over the top of the opening in the chimney, a standard connected with the arm and adapted to rotatably support the member aforesaid on the chimney, a brush adapted to be received in said chimney, a rope carried by said supporting member and arm and connected with the brush, a handle pivotally connected to the supporting member, and a connecting member adapted to be secured to the chimney and handle to limit the rotation of the rope supporting member.

2. In a chimney cleaning apparatus, the combination of a vertical supporting member adapted to be secured to the chimney, a horizontal arm secured to the supporting member and adapted to extend over the opening at the top of said chimney, a depending supporting standard secured to the arm aforesaid, roller bearings mounted on the standard and adapted to rest upon said chimney, a handle se-



cured to the supporting member aforesaid whereby the arm may be moved from over the opening in the chimney, a rope mounted in the supporting member, a brush secured to the end of said rope and adapted to be received in the chimney, a winding drum about which the rope aforesaid is adapted to be wound, and a crank connected with the drum whereby the brush may be caused to move upward and downward in the opening aforesaid.

1,030,734. ADVERTISING OR DISPLAY DEVICE. THEODORE KHARAS, Buffalo, N. Y. Filed June 19, 1911. Serial No. 634,162. (Cl. 40—96.)



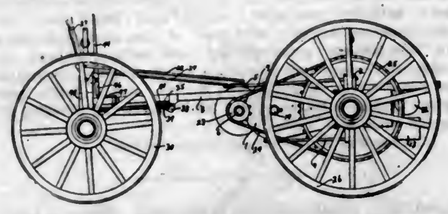
1. A fastening device for securing display elements on a moving conveyer comprising a relatively fixed member secured to said conveyer, and a pivoted member, said relatively fixed member having an edge adapted to be embraced by the folded edge of said display element, and the other member having parts adapted to embrace said edge of the relatively fixed member and secure said display element thereon, substantially as set forth.

2. A fastening device for securing display elements on a moving conveyer, comprising a member provided with a longitudinally grooved portion and with opposite fastening ends which extend beyond the grooved portion, and a pivoted member, said grooved portion being adapted to receive the edge of the display element, and said pivoted member having a part adapted to enter said groove and secure said element therein, substantially as set forth.

3. A fastening device for securing display elements on a moving part, comprising two members, one of which is movably mounted with regard to the other, one of said members having a groove to receive the edge of said display element, and the other having a portion which is adapted to enter said groove to hold said display element, said movably mounted member being arranged to move into holding engagement with said display element in a direction opposite to the direction of movement of said moving part, substantially as set forth.

4. A fastening device for securing a sheet to another part, comprising a metal strip of U-shaped cross section secured to said part and adapted to receive the folded edge of said sheet, and a metal strip of U-shaped cross section which is pivoted at one end, said strips being adapted to be pressed together with one wall of each strip entering the groove of the other strip for securing said sheet, substantially as set forth.

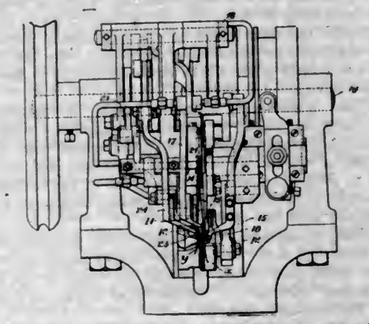
1,030,735. MOTOR-WAGON. HENRY M. KINNEY, Winona, Minn., assignor to Winona Wagon Company, Winona, Minn., a Corporation. Filed Aug. 12, 1911. Serial No. 643,764. (Cl. 21—90.)



1. A motor wagon comprising a transverse frame member formed with means for receiving a wagon box directly upon the upper surface thereof, depending arms formed integrally on and adjacent the ends of said transverse member, rigid axle stubs extending outwardly from said arms, traction wheels on said axle stubs, a power plant positioned below the transverse member and rigidly connected thereto and to the depending arms, said power plant including connections to each of said wheels for rotating the same.

2. A motor wagon comprising a transverse frame member formed with means for receiving a wagon box directly upon the upper surface thereof, depending arms formed integrally on and adjacent the ends of said transverse member, axle stubs extending outwardly from said arms intermediate the ends thereof, traction wheels on said axle stubs, a frame system secured to said depending arms by longitudinal bolts, a power plant secured to said frame system and to the transverse member, said power plant including connections to each of said wheels for rotating the same.

1,030,736. ATTACHMENT FOR CHAIN-STITCH SEWING-MACHINES. FRED LA CHAPELLE, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed July 18, 1906. Serial No. 326,687. (Cl. 112—20.)



1. In a shoe sewing machine, stitch forming mechanism including a hooked needle for successively drawing loops of sewing thread through the work, and means for forming about the bases of said loops on the side of the work away from the needle relatively tight encircling loops of an auxiliary or extra thread, equal in number to the loops of the needle thread.

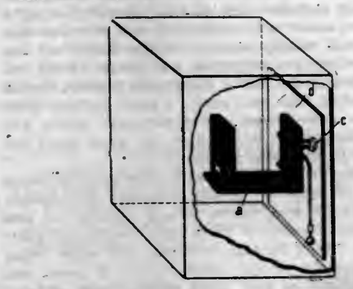
2. In a chain stitch sewing machine, the combination with the chain stitch forming mechanism, including a hooked needle and a main looper for the needle thread, of an auxiliary looper for forming loops or coils of an auxiliary or extra thread on the main looper side of the work, through which the hooked needle may draw the loops of the needle thread, and means for operating said auxiliary looper to form loops to encircle the loops of needle thread.

3. In a chain stitch shoe sewing machine, the combination with the stitch forming mechanism, including a hooked needle, of an auxiliary looper and its operating mechanism for causing said looper to form a coil or loop encircling the end of the needle projected through the work through which coil or loop the hooked needle may draw a loop of needle thread.

4. In a wax thread shoe sewing machine, the combination with the stitch-forming mechanism, including a main looper and its operating mechanism, of an auxiliary looper for an extra thread and its operating mechanism, said operating mechanism being constructed and arranged to move said loopers in opposite directions about the needle to lay the loops on the hooked end of said needle after the hooked end has passed through the work.

5. In a wax thread shoe sewing machine, the combination with the chain stitch-forming mechanism, including a hooked curved needle and a main looper and its operating mechanism, of an auxiliary looper for an extra thread and its operating mechanism, said operating mechanisms being constructed and arranged to operate said loopers to lay their respective threads about the hooked end of the needle with the loop of extra thread between the work and the loop of sewing thread in position to encircle the loop of sewing thread when the needle is retracted.

1,030,737. PHOTOGRAPHIC APPARATUS. HUBERT LILL, Mannheim, Germany. Filed July 25, 1910. Serial No. 573,770. (Cl. 95—82.)



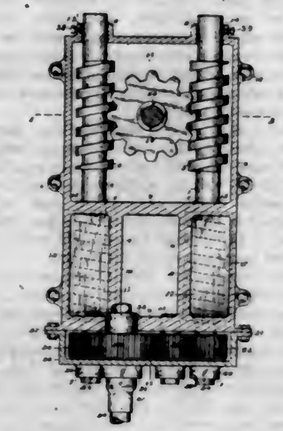
1. A photographic apparatus comprising a closed cabinet, a camera within the cabinet having its objective extending through one wall of the cabinet, and an opaque mirror mounted on the wall of the cabinet and fixed to and surrounding the objective of the camera.

2. A photographic apparatus comprising a cabinet having vertical grooves in one wall, an opaque mirror engaging said grooves and movable vertically therein, and a camera within the cabinet having its objective extending through and fixed to the mirror.

1,030,738. GEARING. PETER LORD, Montreal, Quebec, Canada, assignor of nine thirty-seconds to Joseph Antoine Hilaire Hebert, five thirty-seconds to Charles Leluan, five thirty-seconds to Louis Adhemar Delorme, and five thirty-seconds to Gustave Itzweire, Montreal, Canada. Filed May 22, 1911. Serial No. 628,884. (Cl. 74—40.)

1. In gearing, a pair of shafts suitably journaled and longitudinally movable in opposite directions and parallelly arranged, each of said shafts having toward one end thereof a right hand thread and toward the other end thereof a left hand thread, the thread at one end forming the worm and at the other end a screw thread, a pair of screw

boxes, each of said screw-boxes being mounted on one of said screw threads and fixedly held independent of said shafts, means for simultaneously turning said shafts in said screw boxes, a worm gear wheel between said worm threads, and a shaft suitably journaled and fixedly secured in said worm wheel whereby said worms and worm wheel coact also as rack and pinion on the turning of said pair of shafts.



2. In gearing, a pair of shafts suitably journaled, longitudinally movable in opposite directions and parallelly arranged, each of said shafts having toward one end thereof a right hand thread and toward the other end thereof a left hand thread, one of said threads forming a combined worm and rack and the other of said threads forming a screw, a pair of screw boxes mounted on said screw threads respectively and fixedly secured independently of said shafts, gears slidably arranged on said shafts at one end thereof and held from rotation in relation thereto, operating gears coacting with said gears, a shaft suitably journaled between said worms, and a combined pinion and worm gear wheel fixedly mounted on the latter shaft and coacting directly with said worms.

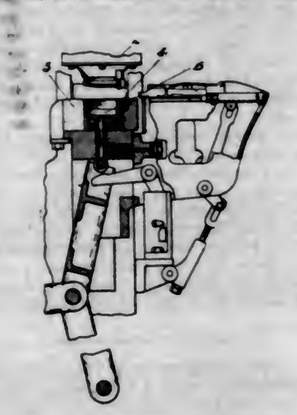
3. In gearing, a pair of shafts parallelly arranged longitudinally movable in opposite directions and suitably journaled, each of said shafts having toward one end thereof a thread forming a worm and toward the other end thereof a thread forming a screw, said screw being opposite in direction to said worm, a pair of gears, one mounted at the end of each shaft longitudinally slidable thereon and fixedly held from rotation in relation thereto, a main operating gear suitably journaled coacting directly with one of the aforesaid gears, an intermediate gear forming transmission means between said main gear and the other of the aforesaid gears, a shaft suitably journaled between said worms, and a worm gear wheel fixedly mounted on the latter shaft and coacting directly with said worms to receive a simultaneous worm and rack drive.

4. In a device of the class described, in combination, a casing having in the interior thereof a gear box and a pair of screw box chambers and in the walls thereof a plurality of bearings, a pair of screw boxes contained in said chambers respectively and a pair of shafts journaled in the end wall bearings and extending through said screw boxes, each of said shafts having a thread forming a worm at one end thereof and contained in said gear box compartment and a thread forming a screw turning in said screw boxes, a shaft journaled in the bearing in said casing between said worms, a worm gear wheel fixedly mounted on said shaft coacting with said worms, and means at the other ends of said shafts for simultaneously moving them longitudinally in opposite directions in their bearings through said screw boxes.

5. In a device of the class described, in combination, a casing having bearings in the end walls thereof, a cross partition therewithin, journal orifices through said cross partition and longitudinal partitions inclosing with said cross partition screw box compartments, screw boxes contained within said compartments and fixedly held from rotation, a pair of shafts journaled in the end wall and bearings extending therethrough at each end thereof and longitudinally movable therein, each of said shafts having toward one end thereof a thread forming a worm and toward the other end thereof a thread forming a screw, said screw being opposite in direction to said worm and said screw turning in said screw boxes, a head forming a gear box fixedly secured to one end wall and having bearings for said pair of shafts, a pair of gears fixedly held from rotation and longitudinally slidable on said shafts within said gear box in the head, a main operating gear suitably journaled within said head gear box and coacting directly with one of the aforesaid gears, an intermediate gear between said main gear and the other of the aforesaid gears, a shaft suitably journaled in said casing between said worms, and a worm gear wheel fixedly mounted on the latter shaft and coacting directly with said worms.

[Claims 6 to 8 not printed in the Gazette.]

1,030,739. COMPRESSING-MACHINE. THOMAS LUND, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 16, 1907. Serial No. 362,767. (Cl. 12—48.)



1. A heel compressing machine having, in combination, a mold provided with a heel-receiving cavity, a heel seat former arranged to enter the mold and to have rubbing contact with the breast wall of the mold and a lubricating device arranged for automatic movement over the breast end of the former prior to the entrance of the former into the mold cavity.

2. A heel compressing machine, having, in combination, a heel-receiving mold, a former arranged to enter the mold and to have engagement with the breast wall of said mold, and a lubricating device of absorbent material arranged to cover normally the breast end of the former and constructed to be removed from contact with said end by engagement with the mold.

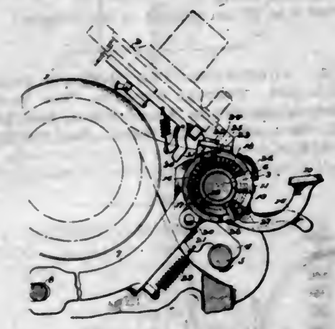
3. A heel compressing machine, having in combination, a heel-receiving mold, a heel-seat former arranged to enter said mold, and means whereby the mold in its movement causes lubricant to be delivered across the breast end of the heel-seat former.

4. A heel compressing machine, having in combination, a heel-receiving mold, a former arranged to enter said mold and to have frictional contact with the breast wall of said mold, and means movable independently of said former for lubricating the contacting faces of said former and breast wall.

5. A heel compressing machine, having in combination, a heel-receiving mold, a heel seat former arranged to enter said mold, and means for intermittently applying lubricant to the breast end of the heel-seat former.

[Claims 6 to 8 not printed in the Gazette.]

1,030,740. BACK-SPACER FOR DICTAPHONES. THOMAS H. MACDONALD, Bridgeport, Conn., assignor to American Graphophone Company, Bridgeport, Conn., a Corporation of West Virginia. Filed Aug. 29, 1911. Serial No. 646,719. (Cl. 181—9.)



1. In a talking machine, the combination of a reproducer, a carriage therefor, a track or way for said carriage, a sleeve on said carriage, a collar on said sleeve, a hub mounted to turn on said sleeve and projecting into said collar, a lever attached to said hub to actuate the same, a toggle-pawl on said hub and a rack on the frame of the machine in position to be engaged by said pawl when the hub is turned by the lever.

2. In a talking machine, the combination of a carriage way, a reproducer-carriage moving on said way, a carriage propelling nut and screw, a collar mounted on said carriage, a hub mounted to turn on said carriage and projecting into said collar, a lever for turning the hub in one direction, a spring for turning said hub in the other direction, a stop limiting the turning movement of the hub, a rack on said machine and a pawl on said hub engaging said rack when turned in one direction only.

3. In a talking machine, the combination of a reproducer, a carriage therefor, a track or way for said carriage, a sleeve on said carriage, a collar fixedly mounted on said sleeve, a hub mounted to turn on said sleeve and projecting into said collar, a spring interposed and reacting between said collar and hub, a lever attached to said hub to operate the same, a toggle-pawl on said hub, and a rack on the frame of the machine in position to be engaged by said pawl when the hub is turned by the lever.

4. In a talking machine, the combination of a reproducer, a carriage therefor, a track or way for said carriage, a sleeve on said carriage, a collar fixedly mounted on said sleeve, a hub mounted to turn on said sleeve and projecting into said collar, a compression spring interposed and reacting between said collar and hub, a lever attached to said hub to operate the same, a toggle-pawl on said hub, means for limiting the movement of said pawl, and a rack on the frame of the machine in position to be engaged by said pawl when the hub is turned by the lever.

5. In a talking machine, the combination of a reproducer, a carriage therefor, a track or way for said carriage, a feed screw, a sleeve on said carriage, a hub mounted to turn on said sleeve and provided with a slot, a lever attached to said hub to operate the same, a toggle-pawl on said hub, a rack on the frame of the machine in position to be engaged by said pawl when the hub is turned by the lever, an arm engaging the reproducer at one end and the feed screw at the other, a pivot for said arm, a lever mounted on said pivot and engaging said slot whereby depression of the lever attached to the hub removes the stylus from the record, disengages the arm from the feed screw and moves the carriage rearward.

1,030,741. WELT-GUIDE. JOHN T. MCISAAC, East Weymouth, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 4, 1909. Serial No. 470,704. (Cl. 112—9.)



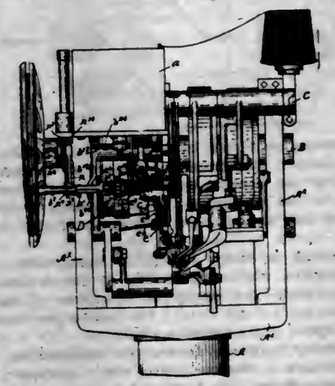
1. A welt guide for curved hook needle shoe sewing machines, having, in combination, members arranged to form a welt guiding opening curved transversely to the lead of the welt and mounted for movement with relation to each other during the sewing operation to contract the welt guiding opening and hold the welt in proper position with relation to the needle and to expand the welt guiding opening and permit the welt to pass freely therethrough during the feeding of the shoe.

2. A welt guide for curved hook needle shoe sewing machines, having, in combination, a frame consisting of a metal block and a shield consisting of a thin sheet metal plate having a welt guiding opening between them curved transversely to the lead of the welt, said frame and shield being mounted for relative movement to contract and expand said opening during the sewing operation.

3. A welt guide for curved hook needle shoe sewing machines, having, in combination, a frame consisting of a metal block having a welt guiding surface curved transversely to the lead of the welt and a shield consisting of a thin sheet metal plate correspondingly curved and mounted thereon to move toward and from the welt guiding surface of the frame during the sewing operation to contract and expand the welt guiding opening.

4. A welt guide for curved hook needle shoe sewing machines, having, in combination, a frame having a welt guiding surface curved transversely to the lead of the welt, a shield correspondingly curved, a pivotal connection between the rear end of the shield and the frame and a connection between the front end of the shield and the frame permitting movement of the shield toward and from the welt guiding surface during the sewing operation.

1,030,742. TENSION MECHANISM FOR SEWING-MACHINES. WILLIAM C. MEYER, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 16, 1902, Serial No. 111,806. Renewed Dec. 9, 1904. Serial No. 236,240. (Cl. 112—39.)



1. In a sewing machine, a thread-wheel, a friction-disk bearing upon it, two concentrically disposed springs acting in the same direction to exert their combined pressures upon said disk and means for operating one or both

of said springs to respectively partially or wholly relieve the tension, substantially as described.

2. In a sewing machine, a thread-wheel, a friction-disk bearing upon it, two concentrically disposed springs acting in the same direction to exert their combined pressures upon said disk, a cam-lever and means operated by it for operating one or both of said springs to respectively partially or wholly relieve the tension, and means for operating said cam-lever, substantially as described.

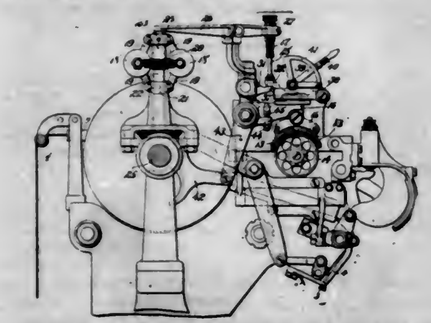
3. In a sewing machine, a thread-wheel, a friction-disk adapted to bear upon it, a spring which exerts its pressure upon said friction-disk, a ring adapted to engage said friction-disk, a spring which exerts its pressure upon said ring, a pin passing through a slot in the hub of the friction-disk which is connected with said ring and means for moving said pin, substantially as described.

4. In a sewing machine, a thread-wheel, a friction-disk adapted to bear upon it, a spring which exerts its pressure upon said friction-disk, a ring adapted to engage said friction-disk, a spring which exerts its pressure upon said ring, a pin passing through a slot in the hub of the friction-disk which is connected with said ring, a rod contained in the shaft bearing the thread-wheel to which said pin is rigidly connected and means for moving said rod longitudinally, substantially as described.

5. In a sewing-machine, a thread-wheel, a friction disk bearing upon it, two concentrically disposed springs acting in the same direction to exert their combined pressures upon said disk, an axially movable hand-wheel and a ring axially movable on said hand-wheel against which said springs bear respectively, and means movable in the same direction to operate one or both of said springs according to the distance moved to partially or wholly relieve the friction, substantially as described.

[Claims 6 to 18 not printed in the Gazette.]

1,030,743. TENSION DEVICE FOR SEWING-MACHINES. WILLIAM C. MEYER, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 1, 1909. Serial No. 515,673. (Cl. 112—39.)



1. A sewing machine, having, in combination, stitch forming devices, and means responsive to variations in the speed of the machine operating during the continued operation of the machine in sewing a seam to vary the tension on the thread when the speed of the machine varies.

2. A sewing machine, having, in combination, stitch forming devices, and means driven by the machine and operating during the continued operation of the machine in sewing a seam to vary the tension on the thread when the speed of the machine varies.

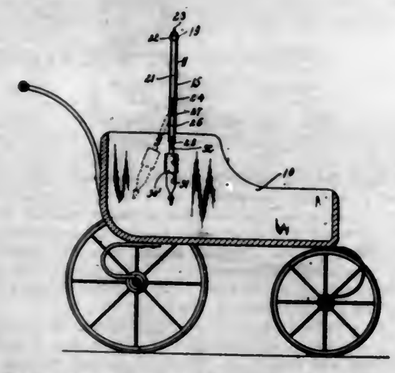
3. A sewing machine, having, in combination, stitch forming devices, a tension device, and a governor therefor operating during the continued operation of the machine in sewing a seam to vary the tension on the thread when the speed of the machine varies.

4. A sewing machine, having, in combination, stitch forming devices, a tension device including a brake, a spring acting on the brake and means responsive to variations in the speed of the machine operating during the continued operation of the machine in sewing a seam to vary the tension of the spring when the speed of the machine varies.

5. A sewing machine, having, in combination, a tension device including a brake, a spring for actuating the brake, means whereby the tension of the spring can be adjusted manually and a governor operating during the continued operation of the machine in sewing a seam to vary the tension of the spring when the speed of the machine varies.

[Claims 6 to 18 not printed in the Gazette.]

1,030,744. NURSING-BOTTLE HOLDER FOR BABY-CARRIAGES. ELENORA NEUMANN, New York, N. Y., assignor of one-half to Arnold Zukor, New York, N. Y. Filed Mar. 12, 1912. Serial No. 683,362. (Cl. 215—116.)

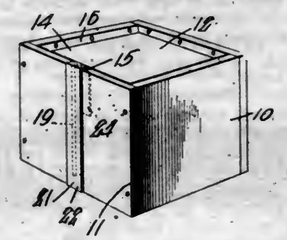


1. In a nursing bottle-holder, the combination with two clamps adapted to be attached to the sides of a baby carriage, of a frame comprising two upwardly extending bars pivotally fastened to said two jaws and connected at their upper ends by a cross member, a supporting bar depending from said cross member, said supporting bar being shiftably arranged upon said cross member and provided at its lower end with a longitudinal slot, an arm provided upon its upper end with an aperture, a screw threaded bolt passing through said aperture and said longitudinal slot meshing with a nut, whereby the relative positions of said supporting bar and said arm may be changed and so also the angle of inclination of said arm to said bar, and bottle-holding jaws carried by said arm, said frame and the parts carried thereby being adapted to be tilted forward into the body of the carriage around the pivots which connect it with said clamps.

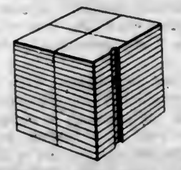
2. In a nursing bottle-holder, the combination with two clamps adapted to be attached to the sides of a baby carriage, of a frame comprising two upwardly extending bars pivotally fastened to said two jaws and connected at their upper ends by a cross member, a supporting bar depending from said cross member, said supporting bar being shiftably arranged upon said cross member, an arm, means for adjustably connecting said arm with said supporting bar both as to angular position and height, and bottle-holding jaws carried by said arm, said frame and the parts carried thereby being adapted to be tilted forward into the body of the carriage around the pivots which connect it with said clamps.

1,030,745. CONTAINER FOR PLUG-TOBACCO. HARRY J. PENN, Madison, N. C. Filed Dec. 12, 1911. Serial No. 665,380. (Cl. 131—11.)

A container for plug tobacco which comprises side walls and end heads and wherein the plugs are arranged in layers parallel with the planes of the heads, said container having its heads within the space bounded by the side walls, and one of the side walls having a channel, opening internally of the container extending in a direction transverse to the plane of the head, and terminating between the planes of the inner and outer surfaces of the head, whereby when the head is removed the extremity of the channel is exposed beyond the outermost layer of the plugs.



1,030,746. METHOD OF FORMING CADDIES OF PLUG-TOBACCO. HARRY J. PENN, Madison, N. C. Filed Dec. 12, 1911. Serial No. 665,381. (Cl. 131—14.)



1. A method of treating plug tobacco to insure ready removal of one plug without interfering with adjacent plugs while in a container, which consists in assembling plugs of tobacco in layers, disposing the layers one upon the other, placing the plugs thus assembled within a press, applying pressure to the same to form a chunk, and simultaneously applying extra pressure to one side of the chunk to form a groove which extends transversely of the plug.

2. A method of treating plug tobacco to insure ready removal of one plug without interfering with an adjacent plug, while in a container which consists in assembling the plugs of tobacco in layers, disposing the layers one upon the other, placing the plugs thus assembled within a press and applying pressure to the same to form a chunk, and simultaneously applying excess pressure to certain of the plugs to form a groove transversely of the same.

3. As an article of manufacture, a chunk of tobacco consisting of plugs disposed in layers in superposed relation, each of said layers including a plurality of plugs, said chunk being formed with a groove arranged to extend transversely of the plugs, said groove passing through a plug of each layer.

1,030,747. METHOD OF PRODUCING WATER-SOLUBLE CRYSTALLINE ALUMINUM FORMATE AND PRODUCT OBTAINED THEREBY. FRITZ QUADE, Berlin, Germany, assignor to The Firm of Johann A. Wülfing, Berlin, Germany. Filed July 25, 1910. Serial No. 573,769. (Cl. 23—24.)

1. The method of producing a water-soluble crystalline aluminum formate which comprises evaporating a solution of aluminum formate in the presence of an excess of formic acid and allowing the same to crystallize.

2. The method of producing a water-soluble crystalline aluminum formate which comprises preparing a concentrated solution of aluminum formate, evaporating to incipient crystallization in the presence of an excess of formic acid, and allowing the same to crystallize.

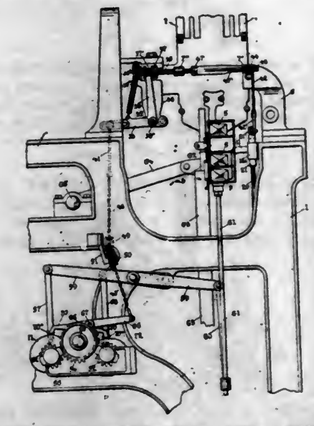
3. The method of producing a water-soluble crystalline aluminum formate which comprises preparing a concentrated solution of aluminum formate, evaporating to incipient crystallization in the presence of an excess of formic acid, and crystallizing at a temperature of 25 to 30° C.

4. The hereindescribed method of producing a water-soluble crystalline aluminum formate which comprises dissolving wet aluminum hydroxid in concentrated formic acid in excess to form a concentrated solution of aluminum formate in formic acid, evaporating to the formation of a crust and crystallizing at a temperature of 25 to 30° C.

5. In the manufacture of aluminum formate the process which comprises crystallizing aluminum formate from its solutions in the presence of an excess of formic acid.

[Claim 6 not printed in the Gazette.]

1,030,748. WEFT-REPLENISHING LOOM. EPPA H. RYON, Waltham, Mass., assignor to Crompton & Knowles Loom Works, a Corporation of Massachusetts. Filed Sept. 10, 1910. Serial No. 581,387. (Cl. 139—85.)



1. In a weft replenishing loom, a lay, shifting shuttle boxes, means to operate the same, a magazine having two or more compartments for spare weft carriers, a support for the weft carriers in each compartment, a device adapted to rock about a pivotal center, and to coöperate with said supports, and connections intermediate said device and said supports, means to shift said device into operative position for the different supports, according to indications of pattern surfaces, and means to operate said device to impart a movement to said supports in one direction, to start a weft carrier toward a position to be transferred, and means to operate said device to impart a movement to said supports in the opposite direction to allow said weft carrier to complete its movement to a position to be transferred into the active shuttle.

2. In a weft replenishing loom of the class described, a magazine having two or more compartments for weft carriers, a movable support for said carriers in each compartment, shifting shuttle boxes, a shifting shuttle box operating mechanism, a device adapted to rock about a pivotal center to cause the movement of said supports in a forward and backward direction, and connections intermediate said device and said supports, means connected with said shifting shuttle box operating mechanism, to move said device in unison with said shifting shuttle boxes, and means to cause the coöperation of said device with said supports.

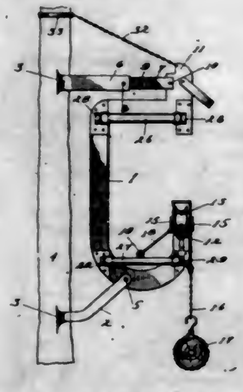
3. In a weft replenishing loom of the class described, a lay, shifting shuttle boxes, mechanism for operating the same, a magazine having two or more compartments for weft carriers, supports for said weft carriers, a device to operate said supports, and connections intermediate said device and said supports, cams arranged on said shifting shuttle box mechanism, and connections from said cams to said device to move said device longitudinally.

4. In a weft replenishing loom of the class described, a magazine having two or more compartments for weft carriers, supports for the weft carriers, movable slides connected with said supports, a device adapted to rock about a pivotal center, and means for operating the same to positively move said slides and said carriers in a forward and backward direction.

5. In a magazine of a weft replenishing loom, having two or more compartments for spare weft carriers, supports for said carriers, movable slides operatively connected to said supports, a device to coöperate with said slides, and means to impart a longitudinal motion to said device, and means to rock said device about a pivotal center, to move said slides positively in two directions.

[Claims 6 to 11 not printed in the Gazette.]

1,030,749. CONVEYING APPARATUS. GUSTAF SAUVOLA, Astoria, Oreg. Filed June 26, 1911. Serial No. 635,507. (Cl. 104—146.)



1. In a device of the character described, the combination with a fixed track cable, of a movable draft cable, a trolley mounted upon the track cable, connections between said trolley and the draft cable, a bracket by which the track cable is carried, a support pivotally connected to the lower portion of said bracket, and a longitudinally adjustable support, one end of which is pivotally connected to the upper portion of said bracket.

2. In a device of the character described, the combination with a bracket, of a fixed track cable supported by said bracket, a pair of substantially horizontal rollers located one at the top and the other at the bottom of said bracket, a vertical roller journaled adjacent the inner side of said bracket, and means for supporting said bracket.

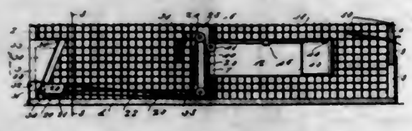
3. In a device of the character described, the combination with a bracket, of a fixed track cable supported by said bracket, a pair of substantially horizontal rollers located one at the top and the other at the bottom of said bracket, a vertical roller journaled adjacent the inner side of said bracket, means for supporting said bracket, a fixed supporting member pivotally connected to the lower portion of the bracket, and a longitudinally adjustable supporting member, one end of which is pivotally connected to the upper portion of the bracket.

4. In a device of the character described, the combination with a substantially C-shaped bracket member, of a fixed track cable supported by the lower terminal of said bracket member, and a pair of horizontally disposed rollers journaled upon said bracket member, one adjacent the top thereof and the other adjacent the bottom thereof.

5. In a device of the character described, the combination with a substantially C-shaped bracket member, of a fixed track cable supported by the lower terminal of said bracket member, a pair of horizontally disposed rollers journaled upon said bracket member, one adjacent the top thereof, and the other adjacent the bottom thereof, and a vertically disposed roller journaled upon said bracket member adjacent its inner side.

[Claims 6 and 7 not printed in the Gazette.]

1,030,750. RAT-TRAP. EDWARD K. SCHWING, Middletown, Ohio. Filed Mar. 14, 1912. Serial No. 683,798. (Cl. 43—26.)



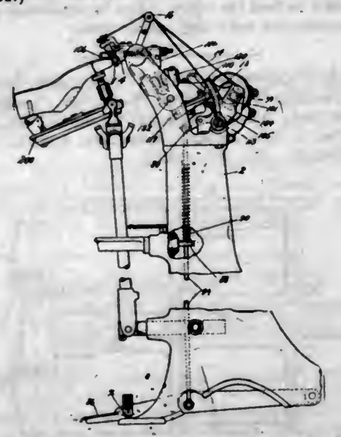
1. In a trap, the combination with the body having a cross partition producing an ante-chamber and a cage and pierced with an opening, the front of the body also having an opening, a front door hinged across the latter, and a false bottom within said ante-chamber operatively connected with the front door so as to close it when said bottom is depressed; of a chute rectangular in cross section and leading to the rear from the opening in said partition, a leg supporting the chute above the bottom of said cage, a door hinged on a vertical line within said chute and extending obliquely across the same to the rear, a wire leading from the free edge of this door to the false bottom, and means for holding said door normally closed.

2. In a trap, the combination with the body having a cross partition producing an ante-chamber and a cage and pierced with an opening, a pulley pivoted therein, the front of the body also having an opening, a front door hinged across the latter, and a false bottom within said ante-chamber operatively connected with the front door so as to close it when said bottom is depressed; of a chute rectangular in cross section and leading to the rear from the opening in said partition, a door hinged on a vertical line within said chute and extending obliquely across the same to the rear, a wire leading from the free edge of this door over said pulley to the false bottom, a weight hung on the wire between the pulley and door, and an upright rod fixed across the chute just in rear of the free edge of said door in its closed position, for the purpose set forth.

3. In a cage, the combination with the body including three cross members having openings, a manually controlled door closing the rearmost opening, an automatically closed door controlling the opening in the intermediate member, and a metallic shield surrounding the opening in the front member and made widest at its top; of a front door hinged across its bottom within said shield with its lower edge depending a short distance beyond the hinge line and bent to the rear, a cross strip within the body in rear of the door, a false bottom hinged at its front edge on said strip with its rear edge movable vertically beneath said opening in the intermediate cross member, connections between said last-named edge and the lower edge of the door for closing the latter when the false bottom is depressed and for permitting such door to fall open when the free edge of the false bottom is raised, and connections between such free edge and the automatically closed door, for the purpose set forth.

4. In a cage, the combination with the body including three cross members having openings, a manually controlled door closing the rearmost opening, an automatically closed door controlling the opening in the intermediate member, and a metallic shield surrounding the opening in the front member and made widest at its top; of a front door hinged across its bottom within said shield with its lower edge depending a short distance beyond the hinge line and bent to the rear, a cross strip within the body in rear of the door, a false bottom hinged at its front edge on said strip with its rear edge movable vertically beneath said opening in the intermediate cross member, a standard secured to the front face of the intermediate cross member, pulleys therson, a wire leading from the free edge of the false bottom over one of said pulleys, down under the other, and thence forward and connected with the lower edge of the front door, and other connections between the free edge of the false bottom and said automatically closed door, for the purpose set forth.

1,030,751. POUNDING-UP MACHINE. CHARLES E. SHATTUCK, Nashua, N. H., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 17, 1906, Serial No. 348,187. Renewed Nov. 22, 1910. Serial No. 593,721. (Cl. 12—51.)



1. In a machine for treating a shoe prior to the application of the sole, the combination with a stationary support, and means mounted thereon constructed and arranged for engaging the side of the shoe at and adjacent to the edge of the shoe bottom, of means for actuating the engaging means to rub the edge of the shoe.

2. In a machine of the class described, the combination with a roller having its working face on its periphery, mechanical means for supporting the roller in predetermined relation to the work, and means for supporting the shoe in position for the upper on the side of the shoe to be engaged by the roller at and adjacent to the edge of the shoe bottom, of means for driving the roller to rub the upper.

3. In a machine of the class described, the combination with a stationary support, a roller mounted thereon and formed and arranged to engage the side of a shoe adjacent to its edge, of means for actuating the roller to remove wrinkles or surface inequalities from the upper at and adjacent to the edge of the shoe.

4. In a machine of the class described, the combination with a stationary support, a roller mounted thereon and formed and arranged to engage the side of a shoe and provided with a grooved working surface, and means for supporting the shoe adapted for universal movement to present the shoe in position for the roller to engage the shoe upper adjacent to the edge of the shoe, of means for turning the roller to rub the upper.

5. In a machine of the class described, the combination with means for pounding-up the bottom of a shoe, of a blocking roller arranged to engage the side of the shoe, and mechanism for actuating the roller to remove wrinkles or surface inequalities from the upper adjacent to the edge of the shoe.

[Claims 6 to 33 not printed in the Gazette.]

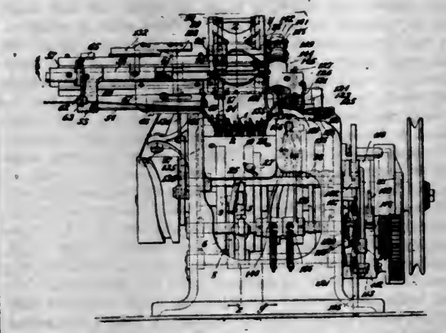
1,030,752. TEA-BREWING APPARATUS. CHARLES A. SHERMAN, New York, N. Y. Filed Oct. 31, 1911. Serial No. 657,785. (Cl. 53—3.)

In an urn, a pair of superimposed receptacles, each receptacle being an independent urn in itself, each of said receptacles having spaced-apart supporting legs depending therefrom, each of said receptacles having a cover, the cover of the lower of said receptacles supporting the legs of the upper receptacle, said lower cover having



an inlet therethrough and a cap adapted to cover said inlet, the bottom of said upper receptacle having a valve-controlled nipple depending therefrom adapted to fit in the inlet in the cover of said lower receptacle.

1,030,753. LACING-MACHINE. WILLARD A. SMITH, Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 8, 1908. Serial No. 452,058. (Cl. 112—24.)



1. A machine for lacing shoe uppers, having, in combination, means for passing a series of loops of lacing cord through the eyelet holes of an upper, means for passing a portion of the cord through the loops, and a slack thread device arranged to engage the cord between the loop passing means and the means for passing a cord through the loops and to draw slack thread during the passage of the cord through the loops, substantially as described.

2. A machine for lacing shoe uppers, having, in combination, a plurality of needles, looper fingers coöperating therewith to form a series of loops in the lacing cord, a shuttle needle for carrying the lacing cord through the loops, a thread finger arranged to engage the cord between the loop forming devices and the shuttle needle and to draw slack thread as the shuttle needle advances, substantially as described.

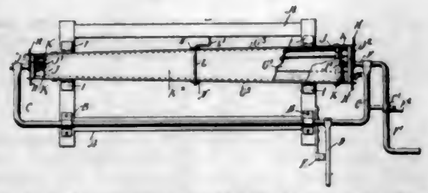
3. A machine for lacing shoe uppers, having, in combination, means for passing a series of loops of lacing cord through the eyelet holes of an upper, means for passing a portion of the cord through the loops, and a slack thread device arranged between the loop passing means and the means for passing the cord through the loops and in engagement with which the cord is drawn by the advance of the means for passing the cord through the loops, substantially as described.

4. A machine for lacing shoe uppers, having, in combination, a plurality of needles, looper fingers coöperating therewith to form a series of loops in the lacing cord, a shuttle needle for carrying the lacing cord through the loops, and a slack thread finger arranged to be engaged by the cord by the advance of the shuttle needle, substantially as described.

5. A machine for lacing shoe uppers, having, in combination, a plurality of needles, looper fingers coöperating therewith to form a series of loops in the lacing cord, a shuttle needle for carrying the lacing cord through the loops, and a slack thread finger having provision for adjustment into position in front of the cord between the loop forming devices and the shuttle needle, or into position where it will not engage the cord, substantially as described.

[Claims 6 to 31 not printed in the Gazette.]

1,030,754. MOLD. HENRY W. STRIETELMEIER, Linton, Ind. Filed Aug. 8, 1911. Serial No. 642,987. (Cl. 25—121.)



1. A mold comprising a mold body having sides adapted to be opened and closed, a shaft on which the said mold body is mounted to turn with, provided with a crank at one end for turning the same, a swing frame on which the said mold shaft is journaled, a lever having a pivotal connection with said swing frame, latches with which said crank and lever engage, and a drying board for removable engagement with the open top of the mold body.

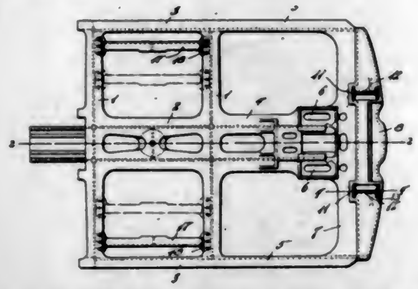
2. A mold comprising a mold body having sides adapted to be opened and closed, a shaft on which the said mold body is mounted to turn with, provided with a crank at one end for turning the same, a swing frame on which the said mold shaft is journaled, a lever having a pivotal connection with said swing frame whereby it may move laterally with respect thereto, a stationary latch with which said laterally movable lever may engage, a drying board for removable engagement with the open top of the mold body, and means for locking the mold body and said swing frame against relative movement during the swing of the latter, comprising a latch carried by the swing frame and with which said shaft crank engages.

3. A mold comprising a mold body having sides adapted to be opened and closed, a shaft extending longitudinally beneath said mold body and beyond the ends thereof, and to which said mold body is secured, said shaft being provided at one end with an extending crank, a stationary frame, a U-shaped swing frame journaled on said stationary frame and having bearings at its ends through which said shaft extends, a drying board for removable engagement with the open top of the mold body, a latch secured to the stationary frame, a handle for swinging said swing frame, said handle being pivoted to said swing frame to move laterally with respect thereto, whereby it may engage said latch, and a latch carried by one of the extensions of said swing frame and adapted to removably engage said shaft crank.

4. A mold having a mold body comprising a bottom, sides hinged on the said bottom, ends fixed on the said bottom, locking means for locking the sides in closed position, beveled lugs carried by the said sides and movable end pieces having pins slidably engaging the said fixed ends and adapted to be engaged by the said lugs to move the end pieces inward toward each other and springs coiled about said pins and extending between the movable and fixed ends to move the former toward the latter when the sides are moved to release the lugs therefrom.

5. A mold comprising a main frame, a swing frame fulcrumed on the said main frame and having a pivoted laterally movable handle, a mold body having a bottom journaled on the said swing frame, the mold being provided with ends fixed to the bottom and sides hinged on the bottom, the sides being adapted to be locked to the said ends, legs held on the said sides and adapted to rest on the said main frame, a drying board for closing the open top of the mold body, means for detachably holding the said drying board in place on the mold body, a crank arm on the front of the said bottom to turn the mold body, a locking device on the swing frame for engagement with the said crank arm, and a retaining device on the said main frame for engagement by the said laterally movable handle to hold the swing frame in uppermost position while turning the mold body upside down.

1,030,755. CAR-UNDERFRAME. CHARLES T. WESTLAKE and CHARLES F. FREDE, St. Louis, Mo., assignors to Double Body Bolster Company, St. Louis, Mo., a Corporation of New Jersey. Filed Nov. 6, 1911. Serial No. 658,816. (Cl. 105—76.1.)



1. A car underframe comprising a double body bolster, an end sill and a buffer beam, the rear wall of which buffer beam is extended inwardly for the accommodation of extra wide car end posts.

2. A car underframe comprising a double body bolster, an end sill and a buffer beam, the rear wall of which buffer beam is recessed for the reception of the rear portions of the car end posts.

3. The combination with a car underframe, of a buffer beam integral with said underframe, in the top of which buffer beam is formed openings adapted to receive the lower portions of the car end posts, and the rear wall of which buffer beam extends inwardly at the rear of said openings.

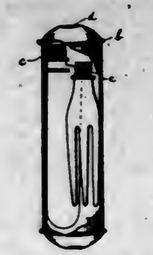
4. The combination with a car underframe, of a buffer beam integral with said underframe, in the top of which buffer beam is formed openings adapted to receive the lower portions of the car end posts, and the rear wall of which buffer beam is recessed at the rear of said openings to accommodate the rear flanges of the car end posts.

5. The combination with a car underframe of a buffer beam integral therewith, which buffer beam is provided with openings adapted to receive the lower portions of the car end posts, and the rear wall of which buffer beam is extended inwardly around the rear portions of said openings.

[Claims 6 to 10 not printed in the Gazette.]

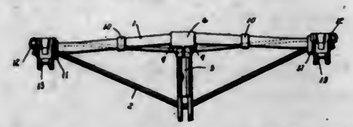
1,030,756. COMBINATION POCKET KNIFE AND FORK. JAMES YAKLIOIAN, Fresno, Cal. Filed Mar. 7, 1912. Serial No. 682,157. (Cl. 30—10.)

The combination of a containing case constructed of tubes of approximately equal lengths, having slightly different diameters so the one will slide approximately its entire length snugly into the other, each of such tubes being open at one end, and the inside diameter of the other end being reduced and threaded, in combination with a knife blade and fork blade of a less width than the inside diameter of the smaller tube and of approximately the same length, so said knife blade and fork blade can be easily inserted therein, said knife blade and fork blade



each terminating at one end with a screw fitted to the threads in the reduced ends of either of said tubes, all substantially as described.

1,030,757. BRAKE-BEAM. HENRY ZIEMSS, Jr., Chicago, Ill., assignor to Chicago Railway Equipment Company, Chicago, Ill., a Corporation of Illinois. Filed Feb. 21, 1912. Serial No. 679,177. (Cl. 188—22.)



1. A brake beam comprising a compression member, a tension member, a strut extending between said members, said compression member comprising a body portion having a longitudinal portion divided therefrom, said longitudinal portion being bowed away from said body portion, and means for holding said longitudinal portion in such bowed position.

2. A brake beam comprising a compression member having a longitudinal portion bowed away from the body of said member, a tension member, truss means extending between said tension and said compression members, and means carried by said truss means for holding said longitudinal portion in its bowed position.

3. A brake beam comprising a tension member, a compression member having a longitudinal strip bowed therefrom, truss means extending between said tension and said compression members, and lugs on said truss means for holding said strip in its bowed position.

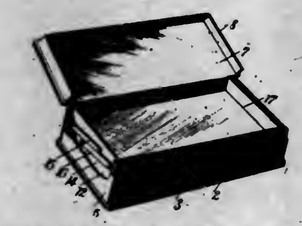
4. A brake beam comprising a compression member formed by cutting a longitudinal strip from the body of said member, bowing said strip out of its normal plane, and spreading the portions at opposite sides of said strip, a tension member, truss means extending between said tension member and said compression member, and means carried by said truss means for holding said strip in its bowed position and for holding said portions spread apart.

5. A brake beam comprising a compression member, a tension member, a truss extending between said members, said compression member being formed from a channel bar, the back of which has a longitudinal strip bowed laterally out of the plane of said back, and means for holding said strip in such bowed position.

[Claims 6 to 11 not printed in the Gazette.]

1,030,758. BOX. WILLIAM S. ADLER, Atlanta, Ga. Filed June 22, 1911. Serial No. 634,663. (Cl. 206—45.)

A box comprising a body portion embodying a front and sides having reduced upper portions, and a bottom having its edge extended beyond the said front and sides and the open back of the body portion, a lower shelf secured within said body portion, an upper shelf pivotally connected to the lower shelf, a body back rigidly secured to the said upper shelf and extending downwardly from, and at right-angles, thereto, and a cover pivotally connected to said back, said back being adapted to close the open rear body portion and to rest upon the rearwardly extended edge of the said bottom, when closed, and the said cover being engageable over the reduced upper portions of the front and sides of the body, whereby to lock the parts against displacement when said cover is disclosed, all for the purpose of forming a candy container which will be substantially air-tight and capable of preserving its contents to a necessary extent.



1,030,759. PLANTER. RALPH ALLEN, Welty precinct, Okfuskee county, Okla. Filed Jan. 10, 1911. Serial No. 601,790. (Cl. 111—32.)



1. A planter provided with a furrow opener, means for raising and lowering the said opener while in the ground to form a furrow of irregular depth, means for feeding seed to the said furrow, and means for covering the seed.

2. In a planter a frame having a bearing, a wheel mounted to rotate in the bearing, a furrow opener secured in the frame for opening a furrow, a seed spout mounted on the frame and disposed behind the furrow opener, additional bearings in the frame in the rear of the seed spout, and an eccentric press wheel journaled in the last-mentioned bearings for traveling on the ground, over the furrow and adapted for reciprocating the rear of the frame vertically as the planter is operated.

3. A planter provided with a furrow opener, a cam member, means connecting the cam member with the opener for raising and lowering the said opener while in the ground to form a furrow of irregular depth, a seed spout for depositing seed in the furrow, and means for covering the seed.

4. A planter provided with a frame, a furrow opener carried by the frame, an eccentric member mounted on the frame at the rear of the furrow opener, and disposed for traveling on the ground, for raising and lowering the said opener while in the ground to form a furrow of irregular depth, and means for feeding seed to said furrow.

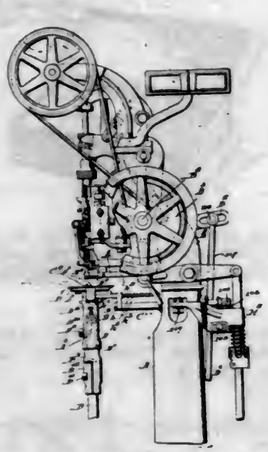
5. A planter provided with a furrow opener, supporting means for said planter adapted to automatically raise and lower the opener while in the ground to form a furrow of irregular depth, means for feeding seed to the said furrow, and a seed coverer, disposed in the rear of the planter for covering the seed.

[Claim 6 not printed in the Gazette.]

1,030,760. MACHINE FOR INSERTING PROTECTORS. GEORGE A. AMBLER, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Nov. 9, 1903, Serial No. 180,296. Divided and this application filed Sept. 18, 1907. Serial No. 393,477. (Cl. 1—41.)

1. In a machine of the class described, a stock-carrying pattern plate, a mechanism for feeding said plate, a work

support, upon which said pattern plate is carried, means for actuating the work-support to clamp and to release the stock, and means whereby the feeding mechanism is operated by the work support actuating means to effect a step by step feeding of said plate between the work clamping operations.



2. An angularly movable pattern plate having at its under side a plurality of rows of similarly directed shoulders, said rows presenting different contours, and a reciprocating feeding device adapted to engage the shoulders in any one of said rows to feed the plate, said feeding device and said plate being relatively shiftable to bring any one of said rows into operative relation to said feeding device.

3. In a machine of the class described, an angularly movable stock-carrying pattern plate having at its under side a plurality of open-ended grooves of different contours which determine the path of movement of said plate, a support for the plate having a guide to enter either of said grooves, and means arranged to operate in said grooves to feed the plate.

4. In a machine of the class described, a stock carrying pattern plate having a groove and means for feeding, for locking and for guiding said pattern plate, all operating in said groove.

5. In a machine of the class described, an angularly movable stock-carrying pattern plate, a support therefor, a pivoted feeding block located below said support, and a feeding device carried by said block and adapted to engage and move the pattern plate over said support.

[Claims 6 to 33 not printed in the Gazette.]

1,030,761. SHEET-PILING. AUGUSTUS R. ARCHER, Pittsburgh, Pa. Filed Mar. 25, 1912. Serial No. 685,914. (Cl. 61—52.)



1. A metal sheet piling comprising interlocked piling members, the interlocked members having hook flanges connected by an integral web, and a projection on at least one of the opposed faces of said interlocked members whereby a line contact between said faces is obtained when the piling members are assembled in interlocking position.

2. A metal sheet piling comprising in combination interlocked and interlocking members, said interlocking members having a projection thereon engaging with the opposed face of the interlocked members to form a line contact therewith when the piling members are assembled in interlocking position.

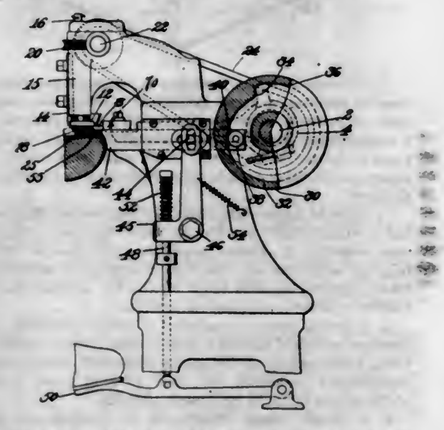
3. A metal sheet piling comprising in combination rolled flanged beams forming interlocked and interlocking members, said interlocking members having hook flanges connected by an integral web and the web of said interlocking members having projections thereon engaging with the opposed faces of the interlocked members to form a line contact therewith when the piling members are assembled in interlocking position.

4. A metal sheet piling comprising in combination interlocked and interlocking members, said interlocking members having hook flanges connected by an integral web, longitudinally extending ribs on the opposite faces of said web, said ribs having curved surfaces whereby a line contact with the interlocked members is obtained when the piling members are assembled in interlocking engagement.

5. A metal sheet piling comprising in combination flanged metal beams forming interlocked and interlocking members, said interlocking members having hook flanges connected by an integral web member, the opposed faces of the interlocked and interlocking members having means whereby a line contact is obtained when the piling members are assembled in interlocking position.

[Claims 6 to 9 not printed in the Gazette.]

1,030,762. MACHINE FOR USE IN THE MANUFACTURE OF BOOTS AND SHOES. ORRELL ASHTON, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 30, 1908. Serial No. 424,225. (Cl. 12—51.)



1. A machine of the class described, having in combination means for removing surplus material from the projecting edges of the vamp of a lasted shoe, a blocking tool, and connected mechanism for actuating the tool and said means.

2. A machine of the class described, having in combination means for removing surplus material from a lasted shoe, a tool for beating the side of the shoe to block it while it is being trimmed, means for actuating said means, connected mechanism for actuating the blocking tool, and means under control of the workman for controlling the force of the blows of the blocking tool.

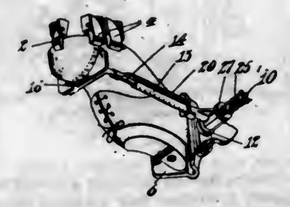
3. A machine of the class described, having in combination vamp trimming knives arranged to trim the projecting edges of the vamp of a lasted shoe, a blocking tool, connected mechanism for actuating the tool and the knives, and means for rendering the blocking tool operative or inoperative while the knives continue in operation.

4. A machine of the class described, having in combination means for removing surplus material from a lasted shoe, a blocking tool, a spring for actuating the tool toward the shoe, a cam for reversely actuating the tool and putting the spring under compression, means for normally maintaining the tool out of operative relation to the cam, and means under control of the operator for causing the tool to be operated by the cam.

5. A machine of the class described, having in combination vamp trimming knives arranged to trim the projecting edges of the vamp of a lasted shoe, a blocking tool, a cam, a spring, and means under control of the operator for putting the tool into operative relation to the cam and for varying the tension of the spring to control the force with which the tool is actuated.

[Claims 6 to 10 not printed in the Gazette.]

1,030,763. PULLING-OVER MACHINE. ORRELL ASHTON, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 17, 1911. Serial No. 621,513. (Cl. 12—4.)



1. A pulling-over machine having, in combination, upper pulling grippers, a heel rest movable lengthwise of the shoe into operative position, a tip gage movable automatically therewith and also having a movement toward the plane of the top face of the shoe and presenting a tip seam gaging member extending transversely across the shoe.

2. A pulling-over machine having, in combination, upper pulling grippers, a heel rest movable lengthwise of the shoe into operative position, a tip gage pivotally connected with the heel rest and movable about said pivot in a plane perpendicular to the plane of the shoe bottom, and means for holding the gage in the position to which it is moved about said pivot.

3. A pulling-over machine having, in combination, upper pulling grippers, a heel rest movable lengthwise of the shoe into operative position, a tip gage pivotally connected with the heel rest and movable about said pivot in a plane perpendicular to the plane of the shoe bottom, said gage comprising a plate shaped to present an edge extending across the forepart of the shoe in predetermined angular relation thereto and an extensible carrier by which said plate can be adjusted for shoes of different lengths.

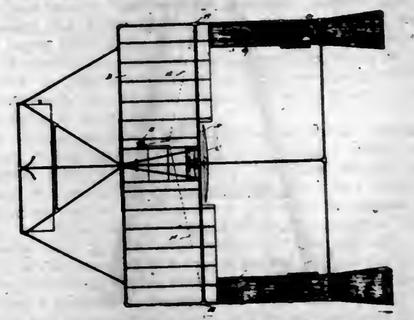
4. A pulling-over machine having, in combination, upper pulling grippers, a heel rest movable lengthwise of the shoe into operative position, a tip gage pivotally connected with the heel rest and movable about said pivot in a plane perpendicular to the plane of the shoe bottom, said gage comprising a plate shaped to present an edge extending across the forepart of the shoe in predetermined angular relation thereto, an extensible carrier including a carrier member having a scale, and an indicator by which to effect predeterminate adjustments of the plate for shoes of different lengths.

5. A pulling-over machine having, in combination, upper pulling grippers, a heel rest, means for automatically moving the rest against the heel end of the shoe after the grippers have tensioned the upper, a tip gage carried forwardly by the heel rest and comprising a tip position indicating member manually movable separately from the heel rest into operative position.

[Claims 6 to 28 not printed in the Gazette.]

1,030,764. AEROPLANE. LOUIS F. BANCROFT, Hartford, Conn. Filed Mar. 16, 1911. Serial No. 614,835. (Cl. 244—14.)

1. In an aeroplane, a supporting surface, angularly-disposed stabilizing surfaces rigidly affixed to said supporting surface and extending rearwardly therefrom in the direction of the line of flight, tails pivoted to said stabilizing devices, and means limiting the angular disposition of said tails with reference to said aeroplane when the same is falling.



2. In an aeroplane, a transversely-disposed main supporting plane, and a stabilizing device disposed in the rear of said supporting plane, said stabilizing device comprising two spaced apart downwardly and inwardly inclined supporting surfaces rigidly affixed relatively to said main supporting plane.

3. In an aeroplane, a transversely-disposed main supporting plane, and a stabilizing device disposed in the rear of said supporting plane, said stabilizing device comprising two spaced apart downwardly and inwardly inclined supporting surfaces rigidly affixed relatively to said main supporting plane, the rear part of each of the planes comprising the stabilizing device adapted to swing out of the plane containing the other part of the plane comprising the stabilizing device.

4. In an aeroplane having a main supporting surface, an angularly disposed stabilizing device rigidly affixed to said supporting surface and extending rearwardly therefrom in the direction of the line of flight, a framework extending to the rear of said stabilizing device, a tail section pivotally attached to said framework at its front edge and adapted to normally lie on said framework, and means attached to said tail section limiting its movement away from said framework.

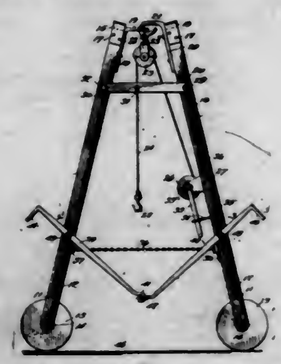
5. In an aeroplane, a transversely-disposed main supporting surface, a stabilizing device extending from the rear of said surface and rigidly attached thereto, said stabilizing device comprising a pair of transversely spaced apart downwardly and inwardly-inclined supporting planes, a framework supporting each of said planes and extending to the rear thereof, a supplemental tail section pivoted to said framework immediately in rear of each of said inclined planes and adapted to normally rest upon said framework, and means attached to the rear free end of each of said tail sections limiting the upward swing of said tail sections away from said framework.

1,030,765. PORTABLE DERRICK. MATHIAS G. BEAN, Bluegrass, N. D. Filed Mar. 25, 1911. Serial No. 616,791. (Cl. 212—140.)

1. A portable derrick, comprising a post provided at the end thereof with an eye, another post provided at its ends with a hook engaging said eye, a chain extending across from one post to the other to prevent the posts from moving apart at the bottom, mechanism connected with said posts for turning them to different angles relatively to each other, and lifting mechanism supported by said post.

2. A portable derrick, comprising two posts, mechanism for flexibly connecting the same together at their upper ends, a hand lever mounted upon one of said posts and provided with an eye, a hand lever mounted upon the other post and provided with a hook, said hook extending through said eye and forming therewith a swivel connection for enabling said posts to turn slightly in relation to

each other, and lifting mechanism supported by said of said posts and said swivel connection.



3. The combination of a pair of posts, a swivel connection from the end of one of said posts to the end of the other in order to enable said posts to be turned slightly in relation to each other, a pair of hand levers each pivotally mounted upon said posts, said hand levers being provided with portions whereby they may be flexibly connected together, a flexible connection extending from the inner face of one of said posts to the inner face of the other of said posts, and lifting mechanism supported by said posts.

4. A portable derrick, comprising a pair of posts, a swivel connection from the end of one of said posts to the end of the other for enabling said posts to turn relatively to each other, a flexible connection from the inner face of one post to the inner face of the opposite post in order to facilitate said turning, and a pair of hand levers pivotally connected together, each hand lever being mounted upon one of said posts and controllable by the operator for turning the post upon which it is mounted.

5. The combination of a pair of posts, a swivel connection from the end of one of said posts to the end of the other for the purpose of allowing a limited turning movement as between the posts, a flexible connection extending from one post to the other, a pair of hand levers, each being journaled upon one of said posts, one of said hand levers having a swivel connection with the other in order to facilitate said turning movement.

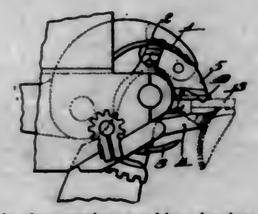
[Claim 6 not printed in the Gazette.]

1,030,766. HOTEL ROOM-RACK. DAVID B. BEATSON, Asbury Park, N. J. Filed Feb. 2, 1909. Serial No. 475,649. (Cl. 40—63.)



A hotel room rack comprising a plate having a plurality of rows of horizontally extending and vertically spaced ribs projecting from its forward face, the ribs of each row being separated and spaced laterally to form rows of opposed horizontally spaced card-receiving pockets, vertically extending strips applied to the forward edges of the ribs and closing the front of each pocket formed thereby, and a frame surrounding the periphery of said plate and having recessed or undercut portions to receive the periphery of the plate and the edges of said strips to secure said strips and plate in proper relation and within the frame.

1,030,767. GROOVING DEVICE FOR SHOE-SEWING MACHINES. FRANK ELIAS BECKMAN, Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 18, 1910. Serial No. 550,276. (Cl. 112—20.)



1. An outsole shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a work support, a presser foot arranged to engage the tread surface of the sole, a grooving knife mounted on the presser foot in advance of the needle in position to form a groove in the tread surface of the sole to receive the stitches, and means for directing the strip of leather removed by the knife upwardly and forwardly outside of the circular path of the needle.

2. An outsole shoe sewing machine, having, in combination, stitch forming devices including a needle, a work support, a presser foot arranged to engage the tread surface of the sole, and a grooving knife mounted on the presser foot in advance of the needle in position to form a groove in the tread surface of the sole to receive the stitches, said knife and presser foot being provided with deflecting surfaces to direct the strip of leather removed by the knife away from the sole at an angle to the direction of feed.

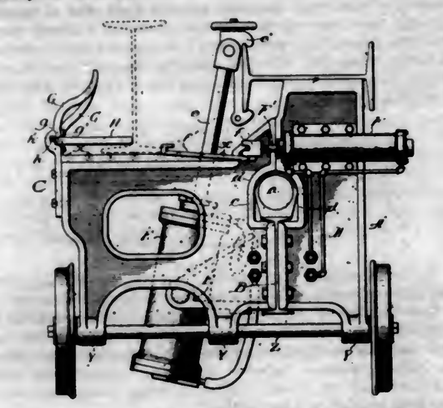
3. An outsole shoe sewing machine, having, in combination, stitch forming devices including a curved hook needle, a work support, a presser foot arranged to engage the tread surface of the sole, a grooving knife mounted on the presser foot in advance of the needle in position to form a groove in the tread surface of the sole to receive the stitches, said knife and presser foot being provided with deflecting surfaces to direct the strip of leather removed by the knife upwardly and forwardly outside of the circular path of the needle.

1,030,768. FEEDING-TRUCK FOR HYDRAULIC PRESSES. WILLIAM P. BETTENDORF, deceased, Bettendorf, Iowa, by Joseph W. Bettendorf, administrator, Bettendorf, Iowa. Original application filed Dec. 18, 1909, Serial No. 533,817. Divided and this application filed Jan. 5, 1912. Serial No. 669,660. (Cl. 28—96.)

1. In a machine of the kind specified, a truck comprising a reach consisting of a rolled metal beam, and bolsters comprising two vertically disposed sections each provided with seats in their opposing edges in which said beam rests, and the bolster at one end of said beam being adjustable thereon.

2. In a machine of the kind specified, a truck consisting of a reach made of a rolled metal beam, supporting bolsters therefor each comprising two vertically disposed sections the upper surfaces of which are of an irregular shape, and one of which bolsters is adjustable on said reach, and a device carried by the fixed bolster for shifting the work laterally.

3. In a machine of the kind specified, a truck consisting of a reach, supporting bolsters therefor each comprising two vertically disposed sections the upper surfaces of which are of an irregular shape, and one of which bolsters is adjustable longitudinally on said reach, and a device carried by the fixed bolster for shifting the work transversely on its support.

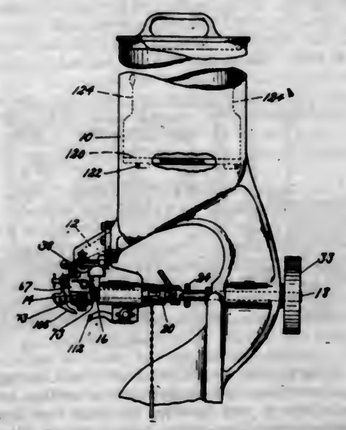


4. In a machine of the kind specified, a truck consisting of a reach, supporting bolsters therefor each comprising two vertically disposed sections the upper surfaces of which are of an irregular shape, and one of which bolsters is adjustable longitudinally on said reach, a horizontally disposed transverse cylinder rigidly secured to the fixed bolster, and a piston reciprocable therein the outer end of which is adapted to engage the work and shift the same laterally on its support.

5. In a machine of the kind specified, a truck comprising a suitable reach, and bolsters therefor each comprising two vertically disposed sections the upper surfaces of which are of an irregular shape, in combination with a horizontally disposed transverse cylinder, a piston therefor for shifting the work laterally, and means carried thereby for engaging and moving the work laterally and on said bolsters, and a guard secured to the side of the truck opposite said cylinder.

[Claims 6 to 10 not printed in the Gazette.]

1,030,769. CEMENTING-MACHINE. MICHAEL FRANK BROGAN, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Oct. 27, 1906. Serial No. 340,866. (Cl. 12—80.)



1. A shoe cementing machine having, in combination, a cement-applying member and a cement-supplying means having an unobstructed opening communicating directly with the upper face of the applying member and formed to hold in contact with said applying member a quantity of cement substantially equivalent to that required for coating one shoe.

2. A shoe cementing machine arranged to permit shoes to be presented in the hands of the operator and having, in combination, a continuously rotating cement-applying member, and a cement receptacle opening directly upon the upper edge of the applying member and formed relatively thereto to cause the discharge of cement to be controlled by the continuously rotating applying member according to the amount taken from said member intermittently by the work.

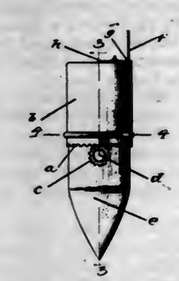
3. A shoe cementing machine, having, in combination, a rotary cement applying member, a conduit for cement, said conduit being of less diameter than said member and means for accumulating and holding in contact with the upper surface of said member a supply of cement the face of which as it contacts with said member is of greater area than a cross section of said conduit.

4. A shoe cementing machine having, in combination, a rotary cement-applying brush and cement-supplying means having a conduit leading directly to the upper part of the brush and terminating thereat in a flaring portion adapted to hold against the brush a thin wide body of cement.

5. The combination with a rotatable cement-applying member, of means for supplying cement thereto from a direction counter to the direction of rotation of the applying member.

[Claims 6 to 47 not printed in the Gazette.]

1,030,770. MECHANISM FOR WINDING LINES. WILLIAM N. CAVILEER, Los Angeles, Cal. Filed Aug. 28, 1911. Serial No. 646,350. (Cl. 242—96.)



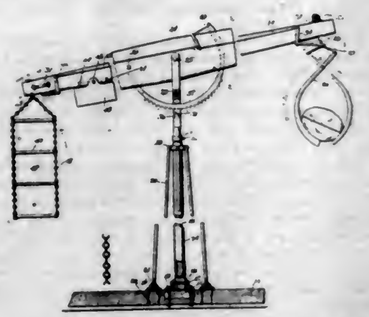
1. In a line holder the combination of an inner casing provided with a gear actuated shaft rotatably mounted thereon, and an outer casing provided with a gear edge running in mesh with said gear actuated shaft when said outer casing is revolved axially around the inner casing; the top of said outer casing being provided with a pivotally mounted disk with a hole at its outer edge for a line to pass through, said disk being arranged to swing said line from the center of said casing to the outer edge, so when the inner and outer casing are revolved axially, the gears being in mesh, they will cause the shaft to revolve and wind up the line and traverse it across the shaft.

2. In a mechanism for winding lines the combination of a gear actuated shaft rotatably mounted in suitable bearings, and a cupped shaped casing with a gear edge and a disk with a hole in its outer edge for a line to pass through pivotally mounted on the top thereof, arranged to swing the line from the center of the top to its circumference, so when said gear edge is held in mesh with said gear actuated shaft and revolved, the line being in the outer edge of said top of said cupped shaped casing will cause the line to wind up rapidly and evenly as the shaft passes rotatably and reciprocally opposite the hole in the disk, all as shown and described.

3. An inner casing, a gear actuated shaft rotatably mounted therein, an outer casing with gear teeth cut in its lower edge to engage the gear on the shaft, said outer casing having a hole in one end and being axially mounted on

the inner casing so that rotary movement of either casing will impart a rotary movement to the shaft on its center and a revoluble movement of the shaft on a horizontal plane with respect to the hole, as described.

1,030,771. HOISTING APPARATUS. FRANK M. DAUGHERTY, Byron, Wash. Filed Apr. 21, 1911. Serial No. 622,475. (Cl. 212—62.)



1. Apparatus of the class described, comprising a beam, means associated therewith for holding a load, means for gravitationally operating said beam to raise the load, and automatic means controlled by said load-holding means for locking said beam against movement in one direction.

2. Apparatus of the class described, comprising a movable beam adapted to be gravitationally operated, means associated therewith for holding a load, and an automatic safety device and means whereby said device is controlled by said load-holding means for locking said beam against movement when the load is released.

3. Apparatus of the class described, comprising a beam mounted to swing, means associated therewith for holding a load, means for applying a weight to said beam to raise the load, means controlled by said load-holding means for automatically locking said beam against movement in one direction, and means for manually operating said last-mentioned means.

4. Apparatus of the class described, comprising a base, a telescopic post, a beam pivotally mounted thereon, load-holding means associated with said beam, an adjustable weight mounted upon said beam, means for applying an additional weight to said beam, and an automatic safety device controlled by said load-holding means for securing said beam against movement in one direction when the load is released.

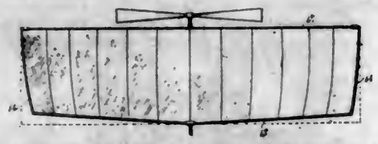
5. Apparatus of the class described, comprising a support, a beam pivotally mounted thereon, load-holding means associated with said beam, means for applying a weight to said beam to raise the load, a movable ratchet bar, a fixed lug adapted to coöperate with said ratchet bar to hold said beam against movement in one direction, and means controlled by said load-holding means for moving said ratchet bar.

[Claims 6 and 7 not printed in the Gazette.]

1,030,772. AEROPLANE. DAVID RICHARD DAVIS, Eau Claire, Wis. Filed Aug. 13, 1910. Serial No. 576,957. (Cl. 244—14.)

1. An aeroplane having a main plane, and means for supporting the same at three points only, two of said points being on the forward edge of the plane adjacent to the opposite corners thereof and the other point being upon the rear edge midway between the rear corners whereby the movement of one rear corner of the plane in one direction by a current of air automatically moves the opposite rear corner of the plane in the opposite direction.

2. An aeroplane having a main plane including a peripheral frame and a cover, the said frame having a front edge member, a rear edge member, and ribs connecting the front and rear edge members, means for supporting the front edge member of the frame at two points only adjacent to the ends of the said edge member, and a support for the rear edge member of the frame, at a single point between the outer ends thereof, the said support having a hinge connection with the said rear edge member at said point, the hinge connection forming a fulcrum for said rear edge member.



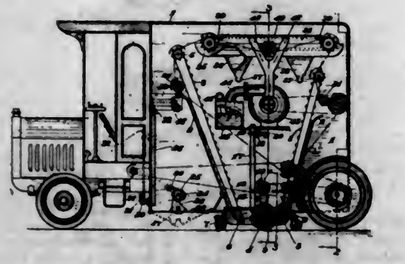
3. An aeroplane comprising two superposed supporting planes, each including a peripheral frame and a cover, means for rigidly supporting the planes at the front side thereof with respect to each other, and a support for the rear sides of the planes and connecting the said rear sides at points midway between the ends thereof, the said rear sides of the planes having a hinge connection with the said support at said points.

4. An aeroplane having a main plane including a peripheral frame and a cover, means for rigidly supporting the said frame at the front edge portion, and means for pivotally supporting the said frame at the rear edge at a single point midway between the ends thereof, the said pivotal connection permitting the ends of said rear edge member of the frame to move forward, the said connection also acting as a fulcrum so that if one of the ends of the rear edge member of the frame is forced down the opposite end is raised.

5. An aeroplane, comprising two superposed main supporting planes, means for holding the front edge of one plane rigid with respect to the front edge of the other plane, the said means including vertical braces at the ends of the said front edges of the planes, and a single vertically disposed brace connecting the rear edge of one plane with the rear edge of the other plane, the said brace being located intermediate the ends of the planes, and acting as a fulcrum, whereby an upward movement of the rear edge of one of the planes at one end automatically depresses the rear edge of the said plane at the other end.

[Claims 6 to 9 not printed in the Gazette.]

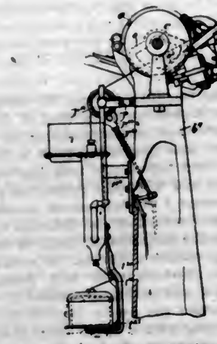
1,030,773. DUST-COLLECTING TANK FOR STREET-SWEEPERS. EUSTACE SENIOR ESTLIN, Winnipeg, Manitoba, Canada. Original application filed June 2, 1910, Serial No. 564,623. Divided and this application filed Jan. 6, 1911. Serial No. 601,203. (Cl. 83—47.)



1. In a dust collector for use in a street sweeping machine, a quenching tank, a partition extending longitudinally therethrough and dividing the tank into upper and lower compartments, an endless traveling belt of screening material mounted with its lower run in the lower compartment which is filled with water and its upper run in the upper compartment, and a suction device operating within the upper of said compartments and upon the upper run of the aforesaid apron to draw fine dust through said belt and remove it from said compartment.

2. In a dust collector for use in street sweeping machines, a quenching tank, a partition extending longitudinally through said tank and dividing the same into an upper and a lower compartment the latter being filled with water, an endless traveling belt of screening material mounted with its lower run in the lower of said compartments and its upper run in the upper of said compartments, a frame work for supporting the upper run of said belt, a suction device between said frame work and the aforesaid partition and operating within the upper compartment and upon the upper run of said belt, and a beater mounted within the lower compartment between the aforesaid partition and said lower run of said belt and operating upon said belt.

1,030,774. SEWING-MACHINE. FRANCIS JOSEPH FREESE, Lowell, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 31, 1897. Serial No. 630,187. (Cl. 112—20.)



1. A shoe sewing machine, having, in combination, a curved hooked needle, a needle guide embracing the needle, a shuttle, shuttle actuating mechanism, and means for actuating the needle in timed relation to the movements of the shuttle to cause the needle after having drawn a loop of thread through the materials to advance slightly so as to buckle the loop of thread to receive the hook of the shuttle, substantially as described.

2. A shoe sewing machine, having, in combination, a curved hooked needle, a stationary thread guide located alongside of and in advance of the needle, a looper normally located upon the opposite side of the needle from the thread guide, and means for actuating the looper to move it into engagement with the thread between the work and the needle and to move it from its normal position to a position between the needle and the thread guide, to lay the thread in the hook of the needle, substantially as described.

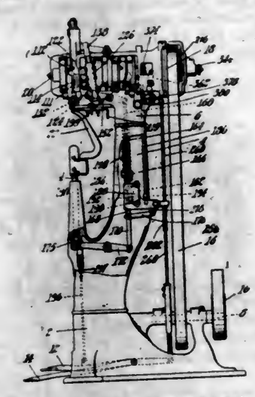
3. In a sewing machine, the combination with stitch forming instrumentalities, of a shuttle consisting of a solid disk formed with an opening eccentric thereof and having a portion of its periphery cut away to form a hook; a bobbin case supported by the wall of said eccentric opening; means for actuating said disk, means for retaining said bobbin case against rotation and means for reciprocating said bobbin case through said eccentric opening substantially as described and for the purpose set forth.

4. A sewing machine, having, in combination, a curved needle having a hook upon its side, a thread guide located on the side of the needle opposite the hook, a looper movable first from a point on the hook side of the needle to a point on the opposite side of the needle to lay the thread in the hook of the needle and measure off thread and thereafter toward the work to give up thread to the retracting needle, and means for actuating the parts, substantially as described.

5. A lock-stitch, wax-thread, shoe-sewing machine, having, in combination, a curved hook needle, a looper, a take-up, a shuttle hook operating in a fixed plane, a thread case greater in thickness than the hook and movable from a position with one of its ends lying in the plane of one side of the hook to a position with its other end lying in the plane of the other side of the hook, and means for actuating the parts, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,030,775. MACHINE FOR INSERTING FASTENINGS. GEORGE GODDU, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Feb. 8, 1909. Serial No. 476,649. (Cl. 1—18.)



1. A machine of the class described having, in combination, fastening inserting mechanism, an awl, means for operating said awl to cause it to form a fastening receiving opening in the work and then to feed the work, a movable fastening receiving throat normally located within the path of the work feeding movement of said awl, means for moving said throat transversely to said path to place it out of the way of the awl during its work feeding movement, and means associated with said throat and its moving means for delivering a fastening to said throat.

2. A machine of the class described having, in combination, fastening inserting mechanism, an awl and a fastening receiving throat, means for moving said awl to feed the work and to bring the awl hole into position to receive a fastening inserted by said inserting mechanism, means for moving said throat transversely of the path of movement of the awl to place it out of the way of the awl during the work feeding movement of the latter, and means for delivering a fastening to said throat upon its return into the path of said awl.

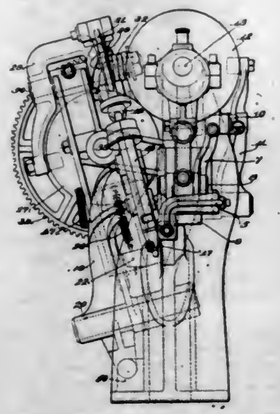
3. In a machine of the class described, the combination with fastening inserting mechanism and an awl arranged to feed the work to bring the awl hole into position to receive a fastening inserted by said inserting mechanism, of a fastening-receiving throat normally located within the path of the work feeding movement of the awl and movable transversely of said path to place it out of the way of the awl during the work feeding movement of the latter, and means to deliver a fastening to the fastening receiving throat when in its normal position.

4. In a machine of the class described, the combination with fastening inserting mechanism and an awl arranged to feed the work to bring the awl hole into position to receive a fastening inserted by said inserting mechanism, of a fastening raceway in substantial alinement with the work feeding path of the awl, and a fastening-receiving throat located when in operative position in the work feeding path of said awl, and movable transversely of said path to place it out of the way of said awl during the work feeding movement of the latter.

5. In a machine of the class described, the combination with fastening inserting mechanism and an awl arranged to feed the work to bring the awl hole into position to receive a fastening inserted by said inserting mechanism, of a stationary fastening raceway arranged to deliver fastenings at a point within the plane of the feed movement of said awl, a fastening-receiving throat normally in coöperative relation to said raceway, means for moving said throat transversely to the path of feed movement of said awl out of the way of the latter and means for delivering a fastening from said raceway to said throat.

[Claims 6 to 46 not printed in the Gazette.]

1,030,776. TACK-PULLING AND TACK-DRIVING MACHINE. JOHN B. HADAWAY, Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 7, 1907. Serial No. 391,821. (Cl. 12—16.)



1. A machine for pulling lasting tacks from a lasted shoe and driving stay tacks therein, having, in combination, a tack puller, and a tack driver movable toward and from a shoe presented to the tack puller along a fixed path terminating in close proximity to the point of operation of the tack puller.

2. A machine for pulling lasting tacks from a lasted shoe and driving stay tacks therein, having, in combination, a tack puller, and a tack driver movable toward and from the point of operation of the tack puller along a fixed path terminating in close proximity to the point of operation of the tack puller.

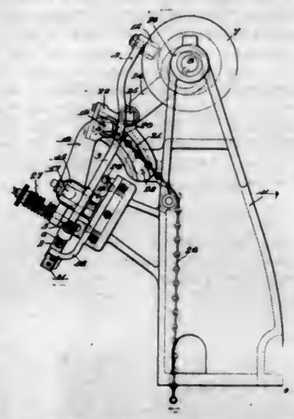
3. A machine for pulling lasting tacks from a lasted shoe and driving stay tacks therein, having, in combination, a tack puller, and a tack driver located at one side of the tack puller and movable laterally toward and from the tack puller along a fixed path terminating in close proximity to the point of operation of the tack puller.

4. A machine for pulling lasting tacks from a lasted shoe and driving stay tacks therein, having, in combination, a tack puller, and a tack driver located at one side of the tack puller and movable obliquely to the direction of feed of the shoe toward and from the point of operation of the tack puller.

5. A machine for pulling lasting tacks from a lasted shoe and driving stay tacks therein, having, in combination, a tack puller, a tack driver normally away from the shoe and movable toward the shoe along a fixed path terminating in close proximity to the point of operation of the tack puller, and means controlled by the operator for moving the tack driver toward the shoe and for actuating the driver to drive a stay tack.

[Claims 6 to 8 not printed in the Gazette.]

1,030,777. TACK-PULLING MACHINE. JOHN B. HADAWAY, Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Jan. 10, 1908. Serial No. 410,240. (Cl. 12—16.)



1. A tack pulling machine, having, in combination, a tack pulling device, means for imparting to the device a tack pulling movement and means for actuating the device to engage a lasting tack projecting from a lasted shoe, and to release the tack before the tack has been wholly pulled from the shoe and when the projecting part of the tack has been increased a predetermined amount regardless of the length of the tack or the distance to which it has been driven into the last, substantially as described.

2. A tack pulling machine, having, in combination, a tack pulling device provided with tack gripping jaws, means for imparting a tack pulling movement to the device and means for actuating the device to grip the shank of a lasting tack projecting from a lasted shoe, and to release the tack before it is pulled wholly from the shoe and when the projecting part of the tack has been increased a predetermined amount regardless of the length of the tack or the distance to which it has been driven into the last, substantially as described.

3. A tack pulling machine, having, in combination, a tack pulling device, mechanism for actuating the device to engage a lasting tack projecting from a lasted shoe and pull the tack and means for causing the device to pull the tack either wholly or partially from the shoe, substantially as described.

4. A tack pulling machine, having, in combination, a tack pulling device, means for actuating the device to engage a tack projecting from a lasted shoe and pull the tack, and means for varying the tack pulling movement of the device, to pull the tack either wholly or partially from the shoe, substantially as described.

5. A tack pulling machine, having, in combination, cooperating tack gripping jaws, means for actuating the jaws to grip the shank of a lasting tack projecting from a lasted shoe and pull the tack, and means for varying the tack pulling movement of the jaws to pull the tack either wholly or partially from the shoe, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,030,778. ABRADING DEVICE. HARRY HALLAM, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 23, 1908. Serial No. 422,822. (Cl. 51—1.)

1. An abrading device comprising, in combination, a spindle, a resilient sleeve surrounding said spindle and provided with a longitudinal slit, and means carried by said spindle and arranged to hold said sleeve in spaced relation to said spindle.

2. An abrading device, comprising in combination, an abrasive cover inturned at its ends, a longitudinally slitted sleeve of elastic material, the slit in said sleeve being adapted to receive between its edges the inturned ends of said abrasive cover, and means for contracting said sleeve to cause said edges to clamp said inturned ends between them, said means being constructed and arranged to overlap and confine the lateral edges of said cover upon said sleeve.



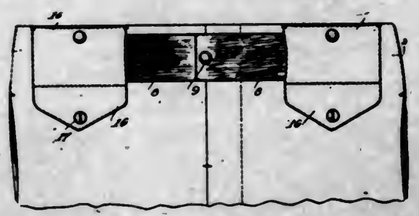
3. An abrading device, comprising in combination, an abrasive cover inturned at its ends, a longitudinally slitted sleeve of elastic material, the slit in said sleeve being adapted to receive between its edges the inturned ends of said abrasive cover and being enlarged at one end to permit the ready insertion of the edges of said inturned ends and means for contracting said sleeve to cause said edges to clamp said inturned ends between them.

4. In an abrading device the combination with a hollow cover support provided with a longitudinal slit the width of which may be varied, of yielding means for holding the edges of said slit in a predetermined relation to each other and positive means for bringing said edges into a different relation to each other, said edges when in one of the before-mentioned relations being spaced to receive readily between them the inturned ends of an abrasive cover and when in the other of said before-mentioned relations effecting a clamping between them of said inturned ends of said cover.

5. An abrasive roll, having in combination, an abrasive cover, a substantially cylindrical support for said cover, said support being provided with a longitudinal slit the edges of which are yieldingly held in a predetermined relation to each other, and means for bringing said edges into a different relation.

[Claims 6 and 7 not printed in the Gazette.]

1,030,779. BELT. TOBIAS. HERSHKOWITZ, New York, N. Y. Filed July 6, 1911. Serial No. 637,242. (Cl. 2—143.)

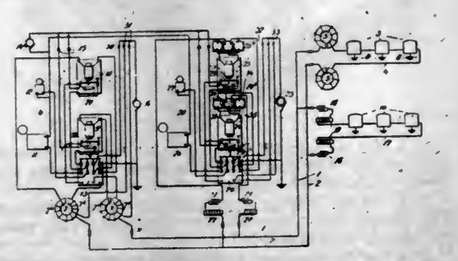


1. In combination with a belt, comprising a plurality of non-resilient strap sections; a plurality of short resilient devices mounted on said strap sections to contract the length of said sections; and a garment having a plurality of pocket structures permanently mounted on said garment to which are secured said strap sections said pocket structures covering said resilient sections and extending to the outside thereof to avoid the pressure of the strap sections.

2. In combination with a belt, comprising a plurality of non-resilient strap sections; a plurality of springs mounted on said strap sections to gather a portion thereof to contract the length thereof; and a garment having a plurality of sections to cover said springs and to form openings for the guidance of said strap sections.

3. In combination, trousers having a waistband provided with inner and outer sections united above and below to form a hollow space, the outer wall of said waistband having openings adjacent the front of said trousers; a plurality of resilient belt sections permanently secured to the waist-band adjacent the side seam of said trousers and extended through said openings in the outer wall thereof; pockets mounted on said trousers and at the outer side of said outer wall, said pockets arranged to conceal the openings in said waistband; and means provided at the end of said belt sections for uniting the same to form an exposed belt section.

1,030,780. MULTIPLEX TELEGRAPH SYSTEM. JOSEPH F. D. HOGE, New York, N. Y., assignor to American District Telegraph Company, a Corporation of New Jersey. Original application filed Apr. 11, 1910, Serial No. 554,668. Divided and this application filed July 27, 1911. Serial No. 574,204. (Cl. 178—51.)



1. A telegraph system comprising in combination a line conductor, a source of supply of alternating current, a transmitter, a line relay and a current rectifier interposed between said relay and the line, whereby the alternating current of the line is transformed, as to said relay, into a direct current.

2. A telegraph system comprising in combination a line conductor, a source of supply of alternating current, a transmitter, a line relay and an electrolytic rectifier interposed between said relay and the line, whereby the alternating current of the line is transformed, as to said relay, into a direct current.

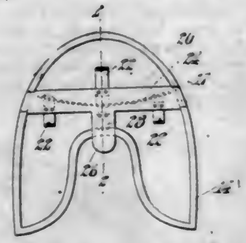
3. A multiplex telegraph system, comprising in combination a direct current signaling system and an alternating current signaling system, said two systems comprising a common line conductor, said systems each comprising transmitting and receiving means and a source of current supply, and each comprising means for substantially isolating itself from the other system, the receiving means of the alternating current system comprising a neutral relay and a current rectifier interposed between such neutral relay and the line, whereby the alternating current of such alternating current system is converted, as to the said receiving relay of the alternating current system, into a direct current.

4. A multiplex telegraph system, comprising in combination a direct current signaling system and an alternating current signaling system, said two systems comprising a common line conductor, said systems each comprising transmitting and receiving means and a source of current supply, and each comprising means for substantially isolating itself from the other system, the receiving means of the alternating current system comprising an electrolytic rectifier interposed between such neutral relay and the line, whereby the alternating current of such alternating current system is converted, as to the said receiving relay of the alternating current system, into a direct current.

5. A telegraph system comprising in combination a main metallic return circuit, a plurality of transmitters included in said circuit, and each comprising in addition to its connections to said circuit, a ground connection, a source of alternating current for said system, two neutral receiving relays, at least one of which is normally connected to said circuit, a switch and connections therefor arranged at will to convert the normal metallic return circuit including at least one of said relays, into two independent ground return circuits, each including one of said

relays, and current rectifying means interposed between each such relay and the line connections thereof, whereby the alternating current of the line is converted, as to each such relay, into a direct current.

1,030,781. CUTTING AND MARKING DIE. SVEN G. HOLLANDER, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 16, 1910. Serial No. 549,722. (Cl. 164—29.)



1. A die for cutting sheet material having a detachable tracing device and a yielding catch for locking said device and said die together.

2. A die for cutting sheet material having a detachable tracer and a spring catch mounted on said tracer for locking it to said die.

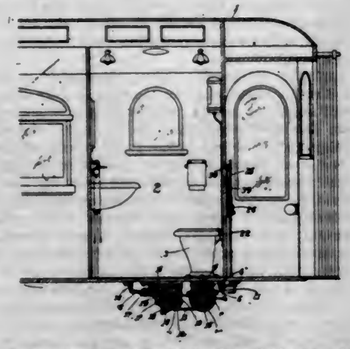
3. A die for cutting sheet material having a detachable tracer comprising a supporting member, a marking member mounted thereon and a catch for automatically locking said supporting member to said die.

4. A die for cutting sheet material having a detachable tracer comprising a supporting member, a marking member yieldingly mounted thereon, means for holding said supporting member rigidly against movement transversely of the die and a spring catch normally preventing detaching movement in a direction perpendicular to the plane of said die.

5. A tracer for an upper cutting die, comprising a flat bar having a transverse projection for engaging one side of a die, die-engaging means mounted on said projection and a marking member mounted on said bar.

[Claims 6 to 20 not printed in the Gazette.]

1,030,782. RAILWAY-TOILET. HANS O. JOHNSON and JAMES H. NICHOLSON, Sacramento, Cal. Filed Feb. 12, 1912. Serial No. 677,182. (Cl. 4—20.)

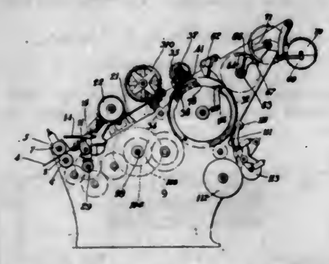


1. A device of the character described comprising the combination with a railway toilet having an outlet, of a flexible sleeve secured around the lower end of said outlet, a weighted collar on the lower end of said sleeve, a washer in said collar, a bowl adapted to fit over the lower end of said outlet and engage said washer and means for moving said bowl away from or toward said outlet, as described.

2. A device of the character described comprising the combination with a railway toilet having an outlet, of a bowl adapted to fit over said outlet, an arm on said bowl, a shaft fixed independently of said bowl and being connected with said arm, a gear wheel on said shaft, another shaft fixed independently of said first named shaft, a geared quadrant mounted on said second named shaft and engaging said gear wheel, a resilient means connected between said quadrant and a point independent of said quadrant and a lever mechanism connected with said second named shaft to move said quadrant, as described.

3. A device of the character described comprising the combination with a railway toilet having an outlet, of a bowl adapted to fit over said outlet, an arm on said bowl, a shaft fixed independently of said bowl and being connected with said arm, a gear wheel on said shaft, another shaft fixed independently of said first named shaft, a geared quadrant mounted on said second named shaft and engaging said gear wheel, a resilient means connected between said quadrant and a point independent of said quadrant, a lever mechanism connected with said second named shaft to move said quadrant, such lever mechanism comprising a crank on said shaft, a bell crank fixed independently of said lever, a link connecting said bell crank and said crank, a rod on said bell crank, said rod being provided with a slot in its upper end and a recess opening into said slot, a lever fixed independently of said rod, a spring pressed arm on said lever, such arm being provided with a pin movable in said slot and adapted to fit into said recess, as described.

1,030,783. PAPER-BAG MACHINE. JAMES D. KING and HENRY IRVING, New York, N. Y., assignors to Continental Paper Bag Company, New York, N. Y., a Corporation of Maine. Filed Mar. 9, 1911. Serial No. 613,412. (Cl. 93—24.)



1. A paper bag machine including in combination, a rotatable folding-bed, means for holding a bag-blank thereon, creasing means in said folding-bed comprising a transverse channel in said bed, a cylindrical member in said channel, a creasing groove in the cylindrical member, said cylindrical member being rotatable for shifting the creasing groove lengthwise the periphery of said folding-bed, and a binding screw for tangentially engaging the periphery of said movable member for holding it in any rotative position relative to said folding-bed.

2. A paper bag machine including in combination a rotatable folding-bed, means for holding a bag blank thereon, creasing means in the folding-bed, comprising a transverse channel in said bed, a rotatable cylindrical rod in said channel, a creasing groove in the rod and a tapered binding screw for tangentially engaging the periphery of said rod for holding it in any rotative position relative to said folding-bed.

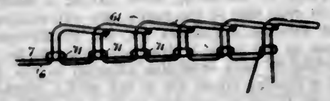
3. Creasing means including in combination, a rotatable cylindrical rod, a creasing member lengthwise thereof and binding means for tangentially engaging the periphery of said rod for holding it in any chosen rotative position.

4. A paper bag machine including in combination, a rotatable folding-bed, means for holding a bag blank thereon, a rotatable member above the folding-bed, and oppositely disposed yieldable angular ironing blades mounted on said rotatable member.

5. A paper bag machine including in combination, a rotatable folding-bed, means for holding a bag blank thereon, a rotatable member above the folding-bed, a pair of oppositely disposed yieldable angular ironing blades and a pair of oppositely disposed yieldable parallel ironing blades mounted on said rotatable member.

[Claims 6 to 9 not printed in the Gazette.]

1,030,784. CHAIN-STITCH SEAM AND METHOD OF MAKING CHAIN-STITCHES. FRED LA CHAPELLE, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Sept. 1, 1906. Serial No. 332,970. (Cl. 112—34.)



1. A sewed seam for leather articles comprising a compound article or piece of work composed of two or more layers, a series of loops drawn through the work and connected at their bases by stretches of thread integral with the loops and bearing against one face of the work, loops tightly encircling the bases of the first-mentioned loops at the points where the loops enter the work, and substantially taut stretches of an extra thread integral with the second-mentioned loops.

2. A sewed seam comprising a compound or piece of work such as a shoe composed of two or more layers, a series of loops drawn through the work and connected at their bases by stretches of thread integral with the loops and bearing against one face of the work, said loops being enchained on the other faces of the work, loops tightly encircling the bases of the first-mentioned loops at the points where the loops enter the work, and substantially taut stretches of an extra thread integral with the second-mentioned loops.

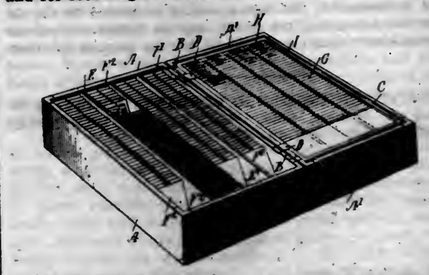
3. A method of forming a seam, which consists in inserting a hooked needle through the material from one side thereof, forming a loop of an extra thread about said needle on the other side of said material, drawing a loop of needle thread through said loop of extra thread and through said material, and repeating said steps to leave each loop of extra thread tightly encircling a loop of needle thread, substantially as set forth.

4. A method for forming a chain stitch seam, consisting in repeatedly forming a loop of an extra thread on one side of the work, drawing a loop of a main or needle thread from said side of the work through said loop of extra thread and through a previously formed loop of said main or needle thread and repeating said steps in the order named so that the base of each loop of needle thread is tightly inclosed by a closed loop of the auxiliary thread.

5. A method of making chain stitches consisting in forming a loop of an extra thread on one side of the work, drawing a loop of a main or needle thread through said loop of extra thread and through the materials from said side of the work, forming a second loop of said extra thread, and drawing a second loop of said main or needle thread through said second loop of extra thread, through said materials and through the first loop of main or needle thread, substantially as described, so that the base of each completed loop of needle thread is tightly encircled by a closed loop of the extra thread.

1,030,785. CREDIT-ACCOUNTING APPLIANCE. ANTOINE LOUIS LAMBERT, Concordia, Kans. Filed Aug. 15, 1911. Serial No. 644,158. (Cl. 129—15.)

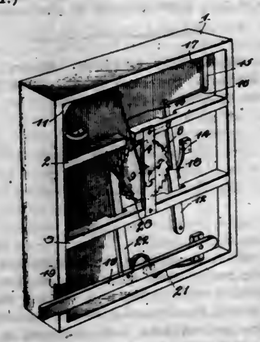
1. A credit-accounting appliance, comprising a receptacle made in sections hinged together to close one on the other, an index hinged on one of the sections and adapted to form a cover for either section, the said index containing the names of the customers and indicating characters opposite the said names, and a rack in each of the said sections and comprising a corrugated base and bill holders hinged on the said base and provided with indicating characters corresponding to those on the said index, each bill holder being provided at its upper free end with an angular flange for holding the bill holders spaced apart and for retaining sales slips in position.



2. A credit-accounting appliance, comprising a receptacle, an index hinged on the said receptacle and adapted to form a cover for the same, the index containing the names of the customers and indicating characters opposite the said names, and a rack in the said receptacle and comprising a corrugated bottom, and bill holders hinged at their lower ends to the upper edges of the corrugations of the said base, the free ends of the said bill holders being provided with angular flanges for holding the bill holders spaced apart and for retaining the sales slips in position.

3. A credit-accounting appliance, comprising a receptacle made in sections hinged together to close one on the other, the sections having partitions forming separate compartments, an index in the form of a cover hinged on one of the sections and adapted to be swung into the open top of either section when the sections are in open position, each face of the index having a series of columns corresponding to the number of compartments in the corresponding section, and each column being provided with indicating characters, and a rack held in each compartment and comprising a corrugated base and bill holders hinged on the base, each bill holder having an angular flange at the rear of its free end and an indicating character at its front face.

1,030,786. POOL-REGISTER. ERNEST F. MANCHESTER, Randolph, Vt. Filed Dec. 18, 1911. Serial No. 665,499. (Cl. 235—91.)



A pool register, including a casing, cleats mounted in said casing and arranged one above the other, another cleat secured to the first named cleats and extending transversely thereof, a ratchet wheel mounted between said last named cleat and the adjoining face of the casing

and also between the first named cleats, a spool movable with said ratchet wheel and disposed between the ratchet wheel and the said transversely extending cleat, a cord connected to said spool to wind thereon, a spring connected to the cord and secured within the casing, a spring pressed detent confined between the cleats and the adjoining face of the casing adapted to engage the ratchet wheel, a pawl mounted between one of said cleats and the adjoining face of the casing and also adapted to engage the ratchet wheel, an actuating lever connected to said pawl and fulcrumed in the casing, means connected to the detent for retracting the latter, and an indicating pointer movable with said ratchet wheel, for the purpose specified.

1,030,787. INCANDESCING ELEMENT. DAVID J. MONOSMITH, Spencer, Ohio. Filed Sept. 29, 1911. Serial No. 651,946. (Cl. 67—89.)



1. An incandescing element made up of a plurality of separate plate-like members of incandescing material, the said members being disposed in the form of a pile and pressed together.

2. An incandescing element comprising a plurality of plate-like members, each weakened along a predetermined line, said members being disposed parallel with and in contact with each other and arranged in the form of a pile.

3. An incandescing element, consisting of incandescing material arranged in flat layers one on top of the other to form a pile, the said layers being parallel with each other, the edges of said layers at one end of the element being shaped to form a rounded face at said end for exposure to a flame.

4. An incandescing member built up in layers of material arranged in contact with each other in the form of a pile and pressed together, the edges of the layers at one end of the member being arranged for exposure to a flame, the said layers being parallel with each other and extending in a direction approximately at right angles to the end to which the flame is applied.

5. An incandescing element, comprising incandescing material arranged in flat layers, the layers being disposed parallel with and in contact with each other and pressed together, so that under action tending to break the element the breakage will occur between the layers, the element having a face for exposure to a flame and the layers extending in a direction substantially at right angles to the face to which the flame is applied.

[Claims 6 and 7 not printed in the Gazette.]

1,030,788. ELECTRIC SWITCH. HARRY J. MOREY and FAY A. BROGDEN, Syracuse, N. Y. Filed Mar. 29, 1911. Serial No. 617,766. (Cl. 175—293.)



1. In a switch mechanism the combination with a block of insulating material for supporting the parts, said block being provided with a recess and a notch therein forming a fulcrum for a circuit-closer, of the circuit-closer set in said fulcrum and adapted to be snapped in alternate directions to make and break the circuit, a rocking part, means to secure the rocking part in position, hand operated means to rock said part back and forth, and a spring connection between the rocking part and the circuit-closer, the spring of said connection being compressed by the movement of the rocking part until the latter has passed a certain point when the spring is free to expand and impart a quick movement to the circuit-closer.

2. In a quick-make, quick-break switch mechanism, the combination with a supporting block of insulating material having a cavity and recess in said cavity forming a fulcrum for a circuit-closer and limiting the movement thereof, of the circuit-closer set on said fulcrum, a rocking part set in the recess, means to secure the rocking part in position, hand operated means to rock the rocking part back and forth and a spring connection between the rocking part and the circuit-closer, the spring of said connection being compressed during the first part of the movement of the rocking part and until the latter has rocked past a certain point when it is free to expand and impart a snap movement to the circuit-closer in the reverse direction to the movement of the rocking part.

3. In a switch mechanism for producing a quick-make and a quick-break at two points in the circuit, the combination with an insulating block having a cavity and a recess on each side of the cavity, the extremities of said recesses forming a fulcrum for the circuit-closer, wire terminals on the block, a circuit-closer set in the fulcrum and having its ends extending adjacent to the wire terminals, a rocking frame set in the cavity, means for securing the frame in position so that it will rock, push-buttons hinged to the frame to rock the latter from one side to the other, a connection between the frame and the circuit-closer, said connection being loosely connected to each part, and a spring on said connection arranged to be compressed by the movement of the frame till the frame has passed a certain point.

4. In a pendent switch the combination with an insulating block having a cavity and a V shaped recess on each side of the cavity, the extremities of said recess forming a fulcrum for the circuit-closer, wire terminals on the block, a U shaped circuit closer set in the fulcrum and having its ends extending adjacent to the respective wire terminals, a frame set in the cavity transversely of the circuit-closer, means for securing the frame in position so that it will rock, push-buttons hinged to opposite ends of the base bar of the frame to rock said frame from one side to the other, a connection between the frame and the circuit-closer loosely connected to both parts and a spring on said connection arranged to be compressed by the movement of the frame till the frame has passed a certain point, when the spring is free to expand and snap the circuit-closer in a direction opposite to the direction of movement of the frame.

5. In a mechanism of the character described, a supporting block having a cavity for the operating parts and a slot in its lower wall, an operating part and an operated part arranged in the cavity, said operating part having an ear extending through said slot, a piece engaging with said ear and arranged on the opposite side of the wall from the operating part to maintain said part in position, and a spring connection between the operating part and the operated part, to maintain the latter in position and to communicate a quick movement thereto from the former.

[Claims 6 to 9 not printed in the Gazette.]

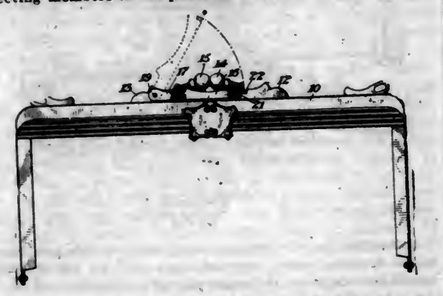
1,030,789. BAG-FASTENER. LOUIS B. PRAHAR, Massapequa, N. Y. Filed Apr. 22, 1912. Serial No. 692,287. (Cl. 70—116.)

1. The combination with a pair of pivoted jaws having fastening members projecting therefrom, of an auxiliary fastening member pivoted to one of said projecting members and swinging in the plane of the jaws.

2. The combination with a pair of pivoted jaws having fastening members projecting therefrom, of an auxiliary fastening member pivoted to one of said projecting members and swinging in the plane of the jaws into engagement with the top surface of said jaws.

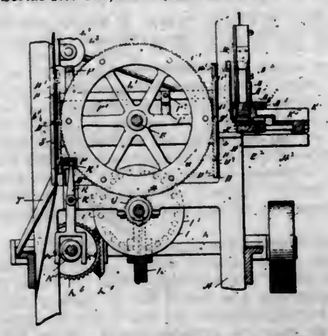
3. The combination with a pair of pivoted jaws having fastening members projecting therefrom, of a pivoted auxiliary fastening member carried by one jaw and having a recess adapted to receive the projecting member of the other jaw.

4. The combination with a pair of pivoted jaws having fastening members projecting therefrom, of a pivoted sheet metal loop carried by one jaw and having a recess adjacent to its free end adapted to receive the projecting member of the other jaw and prevent movement of said projecting members in the plane of the jaws.



5. The combination with a pair of pivoted jaws having projecting members carried thereby and coacting to hold said jaws together, of an auxiliary locking member formed of a strip of sheet metal adapted to be bent to form a loop encircling the engaging portions of said first mentioned members and having its ends pivotally secured on opposite sides of one of said projecting members one edge of said strip lying in a single plane adapted to engage with the top surface of said jaw.

1,030,790. MATCH-MAKING MACHINE. SAMUEL E. RAHE, New York, N. Y., assignor to Rahe Match Company, New York, N. Y., a Corporation. Filed May 23, 1911. Serial No. 629,072. (Cl. 144—64.)



1. In a match-making machine having an endless chain of carrier plates and a slotted frame, a reciprocating delivery slide provided with grooves for the splints, and a reciprocating cleaning comb having its teeth extending over the rear ends of the splints at the time the forward ends of the splints enter the said plates, said comb having pins extending into the frame slots, arms connected to the pins, and rocking levers engaging the arms to cause the said comb to move into the grooves on the receding of the slide to clean the grooves.

2. In a match-making machine having an endless chain of carrier plates, a reciprocating ejecting device having punches, punch holder frame, a series of clamping bars held one above the other and bearing against opposite sides of a portion of the said holder frame, and between which bars and said frame portion the punches are clamped, and screws on the said holder frame engaging the top and bottom bars.

3. In a match-making machine having an endless chain of carrier plates, a reciprocating ejecting device having punches, a punch holder frame provided at its back with apertures in alinement with the said punches, a series of clamping bars held one above the other and bearing against opposite sides of a portion of the said holder frame and between which bars and said frame portion the punches are clamped, and screws on the said holder frame engaging the top and bottom bars.

4. In a match-making machine having an endless chain of carrier plates, a reciprocating ejecting device having punches, a punch holder frame, a series of clamping bars held one above the other and bearing against opposite sides of a portion of the said holder frame and between which bars and said frame portion the punches are clamped, screws on the said holder frame engaging the top and bottom bars, supporting brackets for the said punch holder frame, a bar carrying the said brackets and provided with a bearing, and a rocking lever engaging the said bearing for imparting a reciprocating motion to the said bar and the parts carried thereby.

5. In a match-making machine having an endless chain of carrier plates provided with toothed racks and hinge joints, a driven shaft, a quick pitch cam thereon, a shaft parallel with said driven shaft and connected therewith in spaced relation, a slow pitch cam on said last named shaft, upper and lower shafts in the same vertical plane, both arranged above and at right angles to said first named shafts, pin wheels mounted on the lower of said last named shafts and adjacent their respective cams, and mutilated gears connecting said upper and lower shafts, the gear wheel of the upper shaft being enlarged and extending between the sides of the said endless chain of carrier plates to engage on opposite sides the outgoing and return portions of said chain.

1,030,791. TROLLEY-CATCHER. JAMES R. RICKETTS, Longbeach, Cal., assignor to Los Angeles Trolley Catcher Company, Los Angeles, Cal. Filed July 27, 1909. Serial No. 509,899. (Cl. 191—35.)



1. A trolley catcher comprising a drum, a reel rotatable in the drum, a spring for actuating the reel in one direction, a pair of dogs slidable radially on the reel, interlocking means on the ends of the dogs and projecting means on the drum adapted to engage and interlock with said interlocking means of either of said dogs and prevent them from rotary or radial movement when the reel moves faster than a definite speed.

2. A trolley catcher comprising a drum, a shaft in the drum, a reel rotatable on said shaft, a spring secured at one end to the shaft and at the other end to the reel, a pair of dogs slidable diametrically on said reel, each dog having a curved hooked shaped end, and a stud elliptical in cross section projecting from the drum and adapted to be engaged by either of the dogs.

3. A trolley catcher comprising a drum, a shaft therein, a reel rotatable on the shaft, a spring within the reel, one end of the spring being secured to the shaft, the other end of the spring being secured to the reel, a pair of studs projecting from the reel, each stud having a pair of grooves, a pair of dogs mounted on the studs, each dog having slots which engage a groove in each stud, and a projection on the drum adapted to be engaged by either dog.

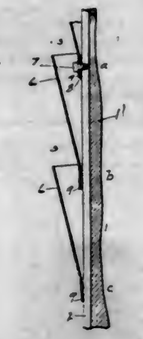
4. A trolley catcher comprising a drum, a reel rotatable in the drum, a shaft supporting said reel, a spring for actuating the reel in one direction, a pair of grooved studs on the reel, a pair of dogs on the reel, each dog comprising

a plate with a large central slot which receives said shaft and with two narrower slots which engage grooves in said studs, the outer end of each plate having a hook, and a stud elliptical in cross section projecting from the drum and adapted to be engaged by either hook.

5. A trolley catcher comprising a drum, a reel rotatable in the drum, a shaft supporting said reel, a spring for actuating the reel in one direction, a pair of grooved studs on the reel, a pair of dogs on the reel, each dog comprising a plate with a large central slot which receives said shaft and with two narrower slots which engage grooves in said studs, the outer end of each plate having a hook, a stud elliptical in cross section projecting from the drum and adapted to be engaged by either hook, the front of said reel comprising a disk revoluble on said shaft and extending to the edge of the drum, said disk being secured to the body of the reel, a handle projecting from said disk, and means on the drum for securing the same to a car.

[Claims 6 to 8 not printed in the Gazette.]

1,030,792. FURNACE-COOLING. FRANK C. ROBERTS, Wynnewood, Pa. Filed Feb. 29, 1912. Serial No. 680,601. (Cl. 75—116.)



1. In a furnace cooling device, a metal strip forming one side of a spiral trough, a furnace wall forming the other side of the trough, means for attaching the strip between its edges at intervals to the furnace wall and means at the points of attachment for holding the strip from contact with the furnace wall and allowing the portion of the strip below the line of attachment to be adjusted toward or from the furnace wall.

2. In a furnace cooling device, a spiral trough carrying the cooling medium surrounding the furnace and resting against the furnace wall and an adjustable lip for letting more or less of the cooling medium exit along the bottom of the trough against the furnace wall.

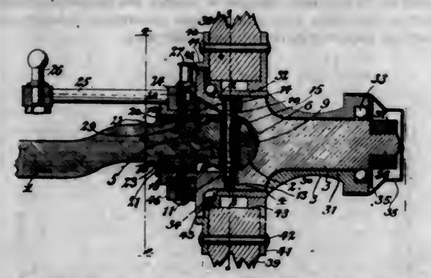
3. In combination a furnace in-wall comprising a metal sheath inclosing the brick lining, bolts entering the sheath but not passing through it, washers surrounding the bolts, a spiral strip of metal, supported between its edges at intervals on the bolts between their heads and washers, the upper portion of the metal strip being bent out to form a trough carrying a cooling medium between it and the sheath, the lower portion of the metal strip being adjustable so as to permit a variable amount of the cooling medium to pass between it and the sheath.

4. In a furnace cooling device, a spiral trough having an adjustable opening along its bottom.

5. In combination a furnace in-wall comprising a metal sheath inclosing the brick lining, bolts entering the sheath but not passing through it, washers surrounding the bolts, a spiral strip of metal, supported between its edges at intervals on the bolts between their heads and the washers, the upper portion of the metal strip being bent out to form a trough carrying a cooling medium between it and the sheath.

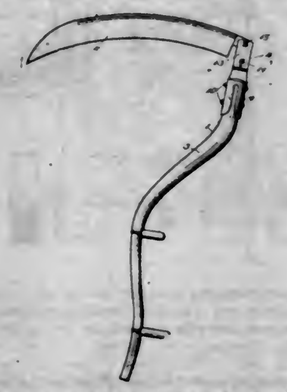
[Claims 6 to 9 not printed in the Gazette.]

1,030,793. STEERING-GEAR FOR VEHICLES. HENRY SCHUMACHER, Buffalo, N. Y. Filed Aug. 12, 1911. Serial No. 643,699. (Cl. 21—90.)



A steering gear for vehicles comprising an axle arm having a spherical socket at its inner end, an unthreaded opening arranged on the upper side of said socket and having a cylindrical lower part and a conical upper part, and an opening arranged on the lower side of said socket and having an upper unthreaded cylindrical part and a lower threaded cylindrical part which is of smaller diameter than said lower unthreaded cylindrical part, an axle having a spherical knuckle seated in said socket and having a vertical pivot opening, and an upright pivot pin having a cylindrical body which has its central part arranged in the pivot opening of the knuckle while its upper and lower ends fit the unthreaded cylindrical parts of said upper and lower openings, a conical head at the upper end of said body fitting the conical part of said upper opening, and a lower reduced threaded end engaging with the threaded part of said lower opening.

1,030,794. SCYTHE. HENRY E. SCOTT, Goldsboro, N. C. Filed Oct. 23, 1911. Serial No. 656,155. (Cl. 56—27.)



1. A scythe comprising a snathe and a snathe handle, a socket into which the snathe handle enters, fastening means to secure the socket rigidly on the handle, a flattened shank formed on said socket a portion of which is bifurcated, the portion of said shank between the bifurcated portion and the socket proper being reduced in thickness to provide for bending at the shank in order to throw the bifurcated portion out of normal alinement with the socket proper, the said bifurcated portion of the socket being provided with three transverse perforations, an extension formed on the handle end of the snathe, said extension being adapted to enter the said bifurcated portion of the socket, said extension being provided with four transverse perforations to register with the perforations in the bifurcated portion of the socket one perforation in the said extension and one perforation in the bifurcated portion of the socket registering with each other to allow the snathe to pivot in the said bifurcated portion of the socket, the other perforations in the said extension and in the said bifurcated portion of the socket registering to receive means to maintain the said snathe in proper position in relation to the said bifurcated portion of the socket, the whole arranged in such manner as to adjust the angularity of the snathe in relation to the handle, substantially as described and for the purposes set forth.

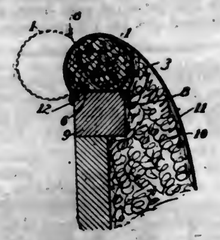
2. A scythe comprising a snathe and a snathe handle, a socket into which the snathe handle enters, fastening means to secure the socket rigidly on the handle, a flattened shank formed on said socket, a portion of which is bifurcated, the portion of said shank between the bifurcated portion and the socket proper being reduced in thickness to provide for bending at the shank in order to throw the bifurcated portion thereof out of normal alinement with the socket proper, the said bifurcated portion of the socket being provided wtih a plurality of transverse perforations, an extension formed on the handle end of the snathe, said extension being adapted to enter the said bifurcated portion of the socket, said extension being provided with a plurality of perforations, one perforation in said extension and one perforation in said bifurcated portion of the socket being adapted to register with each other to allow the said snathe to pivot in the said bifurcated portion of the socket, the other perforations in said extension and in said bifurcated portion of the socket being adapted to register with each other to maintain the said snathe in proper position in relation to the snathe handle, the whole arranged in such manner as to alter the angularity of the snathe in relation to the handle, substantially as described and for the purposes set forth.

3. A scythe comprising a snathe and a snathe handle, a socket into which the snathe handle enters, fastening means to secure the socket rigidly on the handle, a flattened shank formed on said socket, a portion of which is bifurcated, the portion of said shank between the bifurcated portion and the socket proper being reduced in thickness to provide for bending at the shank to throw the bifurcated portion thereof out of normal alinement with the socket proper, an extension formed on the handle end of the snathe, said extension being adapted to enter the said bifurcated portion of the socket, and means for pivoting the said snathe within the bifurcated portion of the socket, and means for securing the said snathe within the bifurcated portion of the socket in such manner as to hold said snathe in proper relative position to the snathe handle, substantially as described and for the purposes set forth.

4. A scythe comprising a snathe and a snathe handle, a socket into which the snathe handle enters, fastening means to secure the socket rigidly on the handle, a bifurcated shank formed on said socket and extending therefrom beyond the said handle, an extension formed on the handle end of the snathe adapted to enter the bifurcated shank on said socket, and means for pivoting the said extension within the bifurcated shank on said socket and for securing the said bifurcated shank within the said socket against movement, the whole arranged for the purpose of altering the angularity of the said snathe in relation to the said handle, substantially as described and for the purposes set forth.

1,030,795. CUSHION EDGE PAD. WATSON R. SMITH, Jackson, Mich., and FRANK H. HAMPTON, Pullman, Ill., assignors to Jackson Cushion Edge Company, Jackson, Mich. Filed Nov. 9, 1908. Serial No. 461,742. (Cl. 155—43.)

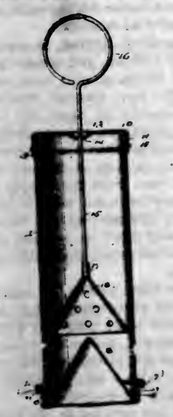
1. A cushion edge pad comprising a strip of flexible material having a longitudinal fold extending lengthwise of and inward of one edge of said material stitched to form a bearing surface for said pad, the other edge of said strip having a longitudinal fold into which said first mentioned edge extends, both laps of said fold being stitched together and through the inclosed edge, said strip forming a flexible tubular casing and being filled with flexible padding material.



2. A cushion edge pad comprising a strip of flexible material folded lengthwise with the laps of the fold secured together inward of the folding line so as to form an outstanding flexible flap, having one of the side edges of said strip folded upon itself and over the other edge of the strip with the laps of such fold secured together inward of the folding line and upon and inclosing said other edge, and thereby forming a second outstanding flexible flap, the casing thus formed between said outstanding flaps being stuffed with flexible padding material.

3. A cushion edge pad comprising a flexible tubular casing filled with a flexible padding material and having two flexible outstanding attaching flaps extending lengthwise of the casing with one wall of the casing of greater width between said flaps than the opposite wall, said walls being united along their side edges to form a casing complete in itself, said pad and attaching flaps being adapted to be bent bodily in any direction in compound curves while the pad remains in complete filled and tubular form.

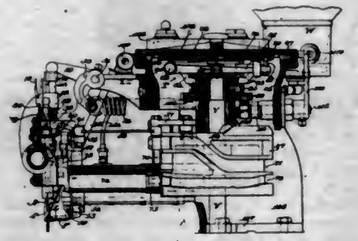
1,030,796. EGG-BEATER. ROSE RICE TURNER, Spokane, Wash., assignor to Edna Rice Prather, Spokane, Wash. Filed Jan. 31, 1912. Serial No. 674,449. (Cl. 107—42.)



A vessel of the nature described consisting of a body, preferably cylindrical in shape having near its upper end a bead; a cap provided with a central depression and a perforation through said depression, said cap adapted to fit closely on the upper end of said body, its flange part fitting closely down on said head; a rod provided with a handle working up and down through said perforation, a perforated cone-shaped dasher secured at its apex to the lower end of said rod; a flange integral with and extending outwardly from near the lower end of said body; a screw-thread extending from the lower end of said body; a flexible washer encircling the lower end of said body and fitting up against said flange, a cup having a flange corresponding with the flange just mentioned and adapted to fit up against the lower face of said washer, and a thread

integral with the lower end of said cup and adapted to screw into the thread just mentioned, and press said washer against the flange of said body, substantially as shown and described and for the purposes set forth.

1,030,797. SEWING-MACHINE. GEORGE E. WARREN, Boston, Mass., assignor to Campbell Bosworth Machinery Company, Portland, Me., a Corporation of Maine. Filed Mar. 16, 1903. Serial No. 147,888. (Cl. 112—26.)



1. A sewing machine, having, in combination, a reciprocating hook-needle and means for actuating it, a rotary shuttle on the same side of the work as the needle, a rotary take-up and means for actuating the shuttle and take-up to make a plurality of rotations in the same direction to each reciprocation of the needle, and to engage the thread once during each reciprocation of the needle, substantially as described.

2. A sewing machine, having, in combination, a reciprocating hook-needle and means for actuating it, a rotary shuttle on the same side of the work as the needle, a rotary take-up, and means for imparting a regular or uniform rotary motion to said shuttle and take-up to cause the shuttle and take-up to make a plurality of rotations in the same direction to each reciprocation of the needle and to engage the thread once during each reciprocation of the needle, substantially as described.

3. A sewing machine, having, in combination, a needle, a shuttle, a rotary take-up, and means for causing the take-up to engage the thread to pull upon the same to take up the thread of the loop through which the shuttle has passed, then to slacken up upon the thread and then to disengage itself therefrom, substantially as described.

4. A sewing machine, having, in combination, a needle, a shuttle, a rotary take-up, a take-up plate across which the needle thread runs from the supply to the needle, said take-up plate being provided with a slot, a take-up pin, means for moving the take-up pin through the slot and for raising it up and down in the slot so that it shall engage the thread when raised and take up thread, substantially as described.

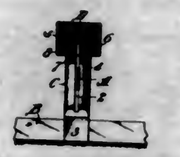
5. A sewing machine, having, in combination, a needle, a shuttle, a take-up plate over which the thread leads to the needle, said plate being provided with a segmental circular slot, a take-up pin, means for rotating the pin under the slot, and means for projecting the pin up through the slot to engage the thread upon alternate rotations of the take-up, substantially as described.

[Claims 6 to 13 not printed in the Gazette.]

1,030,798. BUS-BAR-CONNECTING DEVICE. FREDERICK B. ADAM, St. Louis, Mo., assignor to Frank Adam Electric Company, St. Louis, Mo., a Corporation of New York. Filed July 3, 1911. Serial No. 636,650. (Cl. 175—301.)

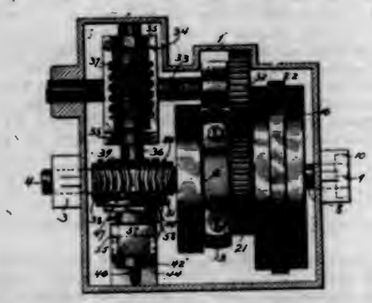
1. A bus bar connecting device consisting of a rod provided with a bifurcated portion which is adapted to receive a bus bar, said bifurcated portion having a tapered or conical surface on the exterior thereof, and an adjustable member coöperating with said conical surface for causing the side wings of said bifurcated portion to be pressed tightly against the bus bar with which the device is used.

2. A bus bar connecting device consisting of a rod provided with a bifurcated portion which is adapted to receive a bus bar, a clamping member adjustably mounted on said bifurcated portion, and a shoulder on said clamping member which coöperates with an inclined surface on said bifurcated portion to force the side wings thereof toward each other when said clamping member is moved in one direction.



3. A bus bar connecting device consisting of a rod provided with bifurcated portions which are adapted to receive bus bars arranged at approximately right angles to each other, one of said bifurcated portions being so proportioned that the device can be moved into such a position that the other bifurcated portion thereon will pass out of engagement with the bus bar with which it coöperates, a clamping member of insulating material adjustably mounted on one end of said rod so as to close the end of the bifurcated portion which permits the adjustment of the device previously mentioned, a tapered or conical-shaped part on said rod, and a shoulder on said clamping member which coöperates with said tapered part.

1,030,799. STARTING MECHANISM FOR INTERNAL-COMBUSTION ENGINES. JOHN L. BARKER, Racine, Wis., and FREDERIC A. BARKER, Toledo, Ohio. Filed May 25, 1911. Serial No. 629,462. (Cl. 123—187.)



1. In starting mechanism, the combination with a shaft, a drum secured thereto, a gear loose on the shaft, a spring secured at its outer end to said drum and at its inner end to said gear, an engine shaft and clutch devices for connecting said first-mentioned shaft with and disconnecting it from the engine shaft, of means for controlling the operation of said drum to propel the shaft to which it is secured, mechanism operable by the engine to impart motion to said gear to rewind the motor spring, and automatically operating devices for throwing said mechanism out of action.

2. In starting mechanism, the combination with a shaft, a drum secured thereto, a gear loose on the shaft, a spring secured at its outer end to said drum and at its inner end to said gear, means for controlling the rotation of the drum, an engine shaft, and clutch devices for connecting said first-mentioned shaft with and releasing it from the engine shaft, of gearing operable by the engine for imparting motion to said first mentioned gear to rewind the spring, means permitting said gearing to be normally inoperative, means for moving the gearing into operative relation, and means operating automatically to move said gearing out of operative relation.

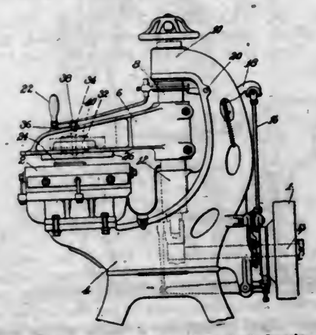
3. In starting mechanism, the combination with two shafts, mountings therefor, a spring motor secured to one of said shafts, a gear mounted on the same shaft and connected with one end of the spring of the motor, means for controlling the operation of the motor, and clutch devices connecting said shafts, of a shaft carrying a gear meshing with said first mentioned gear, a yoke mounted on the last mentioned shaft, a worm wheel also on said last mentioned shaft, a shaft mounted in said yoke and carrying a worm meshing with the said worm wheel, gearing operable by the engine for driving said last mentioned shaft, and means for moving said gearing into mesh and permitting it to be moved out of mesh when the said yoke is rocked by the action of the spring of the motor.

4. In starting mechanism, the combination with two shafts, mountings therefor, clutch devices connecting said shafts, one of said shafts constituting a continuation of an engine shaft, and a motor drum secured to the other shaft, of a spring secured at its outer end to said motor drum, a gear loose on the same shaft and having the inner end of the spring secured thereto, a worm on the engine shaft extension, a shaft parallel with said first mentioned shafts, a yoke mounted thereon, a worm wheel also mounted thereon, a shaft mounted in the yoke and carrying a worm meshing with said last mentioned worm wheel, a worm wheel on the shaft mounted in the yoke and adapted to mesh with the worm on the engine shaft extension, and a gear secured to the shaft carrying the first mentioned worm wheel and meshing with the gear to which the inner end of the spring is secured.

5. In starting mechanism, the combination with an engine shaft extension, a motor shaft, and clutch devices connecting said shafts, of a drum secured to the motor shaft, a gear loose on the motor shaft, a spring secured at its outer end to said drum and at its inner end to said gear, a shaft at an angle to the motor shaft extension, gearing between this shaft and the motor shaft extension, means permitting disengagement of said gears, cam devices for throwing said gearing into mesh and gearing between the gear to which the inner end of the spring is secured, and the shaft which is disposed at an angle to the engine shaft extension.

[Claims 6 to 9 not printed in the Gazette.]

1,030,800. PRESS. ARTHUR BATES, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed June 23, 1909. Serial No. 503,946. (Cl. 164—25.)



1. A machine of the class described having, in combination, presser-members arranged for relative angular movement into different operative relations to each other and a platen angularly adjustable upon one of said members to bring the pressure surfaces of said members into still different operative relations to each other.

2. A machine of the class described having, in combination, a bed, a presser member angularly movable into different operative relations to said bed, and a pressure surface carrying member angularly adjustable upon said presser member to bring the pressure surfaces of said members into different operative relations to each other.

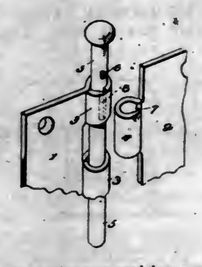
3. A machine of the class described, comprising presser members of different pressure surface areas and relatively movable into different operative relations to each other in such manner that pressure may be applied at any point upon the pressure surface of either member, one of said members having provision for adjustment whereby the greatest dimension of its pressure surface may be caused to assume any desired angular relation to a defined dimension of the pressure surface of the other member.

4. A machine of the class described, comprising presser members relatively movable into different operative relations to each other and having pressure surfaces of different areas and a platen upon which the pressure surface of one of said members is formed angularly adjustable upon said member to bring the pressure surfaces of said members into still different operative relations to each other.

5. A machine of the class described having, in combination, a bed, a presser member movable relatively to said bed into different operative relations thereto, and a platen angularly and bodily adjustable upon said member.

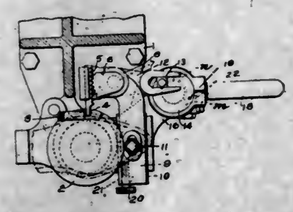
[Claims 6 to 20 not printed in the Gazette.]

1,030,801. HINGE. EDWIN J. BERAULT, New Orleans, La. Filed Feb. 27, 1912. Serial No. 680,330. (Cl. 16—107.)



A loose pin butt or hinge comprising a plurality of leaves each leaf having a knuckle, and a pin engaging in said knuckles, said pin being provided with a lug or projection and one of said knuckles having a seat to receive said lug and hold the pin from turning while the other knuckle is arranged to permit the passage therethrough of said lug.

1,030,802. SOLE-MACHINE. FREDERIC E. BERTRAND, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 16, 1910. Serial No. 561,606. (Cl. 12—27.)



1. A sole machine, having, in combination, means for feeding a sole, an edge gage, means under control of the operative for adjusting the gage across the line of feed to any one of four positions, and stops for determining said positions, at least three of said stops being adjustable to vary the range of movement of the gage.

2. A sole machine, having, in combination, sole feeding means, an edge gage mounted for movement across the line of feed and adjustable to determine its extreme outward position, and adjustable stops for variably determining three other positions of the edge gage.

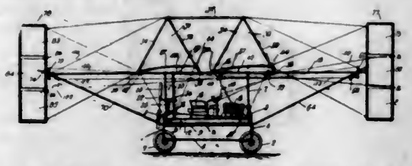
3. A sole machine, having, in combination, sole feeding means, an adjustable edge gage, a reciprocatory member having operative connections with the gage to move it across the line of feed, means for reciprocating said member, and three independently adjustable stops cooperating with said means, by virtue of which construction four positions of the gage may be predetermined.

4. A sole machine, having, in combination, sole feeding means, an edge gage, a reciprocatory member having operative connections with the gage to move it across the line of feed, means for reciprocating said member, a support for said means, four separate stops on said support, and a plurality of stops carried by said means arranged to engage said first named stops at different times and determine different positions of the edge gage.

5. A sole machine, having, in combination, sole feeding means, an edge gage, a reciprocatory member having operative connections with the gage to move it across the line of feed, means for reciprocating said member, a support for said means, two rigid and two adjustable stops on said support, two stops carried by said means to engage the rigid stops, and an additional stop carried by said means to engage the adjustable stops, whereby four different positions of the gage are determined.

[Claims 6 to 8 not printed in the Gazette.]

1,030,803. FLYING-MACHINE. SYDNEY BORMAN, Attleboro, Mass. Filed May 24, 1910. Serial No. 563,046. (Cl. 244—14.)



1. In a flying machine, the combination with the frame and main plane, of vertical balancing blades pivotally mounted upon the frame in advance of said plane and adapted to swing laterally, and means upon the frame for swinging the blades, blades between said balancing blades, and vibratory means for causing said intermediate blades to serve as rudders.

2. In a flying machine, the combination with the supporting frame and main plane, of balancing blades pivotally mounted in the frame one above the other, blades between said balancing blades and vibratory connections controlled from the frame whereby said blades may be laterally distended in opposite directions.

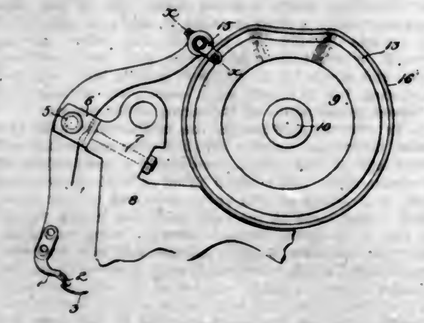
3. In a flying machine, the combination with the frame and main plane, of upright balancing blades pivotally mounted upon the frame in vertical alinement with each other and at substantially right angles to the main plane, a rudder blade upon the frame between the balancing blades, vibratory means for actuating said rudder blades, and means upon the frame for laterally distending the balancing blades independently of the rudder blade.

4. In a flying machine, the combination with the frame and main plane, of a plurality of vertical balancing blades pivotally mounted upon the frame one above the other and at substantially right angles to the main plane, means in the frame for swinging one balancing blade in one direction, and means actuated by the first mentioned means for simultaneously swinging another balancing blade in another direction, a rudder blade intermediate said balancing blades and in the same frame.

5. In a flying machine, the combination with the supporting frame and main plane, of vertically disposed balancing blades, pintles in the frame one above the other to which the blades are fixed, means to turn the pintles to vary the angles of presentation of the blades, and a rudder blade upon the frame intermediate the balancing blades and vibratory means for actuating said rudder blades independent of the balancing blades.

[Claims 6 to 17 not printed in the Gazette.]

1,030,804. LOOPER MECHANISM FOR SEWING-MACHINES. HENRY BRIGGS, Hasbrouck Heights, N. J., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 5, 1905. Serial No. 272,818. (Cl. 112—20.)

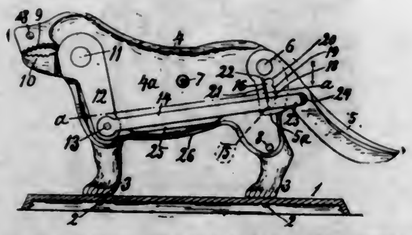


1. A looper mechanism for sewing machines, having, in combination, a looper carrier mounted upon a universal fulcrum, and mechanism for imparting a compound oscillating movement to the looper carrier comprising two closed cams for positively oscillating the looper carrier in different directions, and cam rolls carried by the looper carrier and engaging the cams, substantially as described.

2. A looper mechanism for sewing machines, having, in combination, a looper carrier mounted upon a universal fulcrum, a cam disk having a peripheral cam groove for oscillating the looper carrier in one direction and a lateral cam groove for oscillating the looper carrier in another direction, and cam rolls mounted on the looper carrier and engaging the cam grooves, substantially as described.

3. A looper mechanism for sewing machines, having, in combination, a looper carrier mounted on a universal fulcrum, a cam disk for actuating the looper carrier having a peripheral cam groove, a peripheral cam surface, and a lateral cam groove, and cam rolls mounted on the looper carrier and engaging the cam surface and the cam grooves, substantially as described.

1,030,805. NUTCRACKER. ANDREW M. CARLSEN, St. Paul, Minn., assignor to Frank H. Heinen, Shakopee, Minn. Filed Sept. 1, 1911. Serial No. 647,173. (Cl. 146—3.)

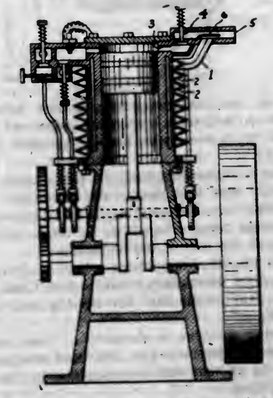


1. A nut-cracker comprising a hollow frame resembling the body of an animal, the same having in each end an opening and adjacent the front opening a stationary upper jaw, a movable lower jaw pivotally mounted in the front end of the body and having an integrally formed lever hanging downward from it within the body; an operating lever pivotally mounted in the rear end of the body to resemble a tail to the animal, and having a pivot hole, a connecting rod having in one end a pivot engaging in said pivot hole and its other end pivoted to the lower end of the lever of the movable jaw; said pivot hole in the operating lever being slotted vertically, and means arranged to be reached by a finger for raising the connecting rod with its pivot to any desired point in said slotted hole.

2. A nut-cracker comprising a hollow frame resembling the body of an animal, the same having in each end an opening and adjacent the front opening a stationary upper jaw, a movable lower jaw pivotally mounted in the front end of the body and having an integrally formed lever hanging downward from it within the body; an operating lever pivotally mounted in the rear end of the body to resemble a tail to the animal and having a pivot hole, a connecting rod having in one end a pivot engaging in said pivot hole and its other end pivoted to the lower end of the lever of the movable jaw, said pivot hole in the operating lever being slotted vertically and in the rear side provided with one or more notches, and means for reaching the connecting rod and raising it with the pivot into engaging position with said notch or notches.

3. A nut-cracker comprising a hollow frame resembling the body of an animal, the same having in each end an opening and adjacent the front opening a stationary upper jaw, a movable lower jaw pivotally mounted in the front end of the body and having an integrally formed lever hanging downward from it within the body; an operating lever pivotally mounted in the rear end of the body to resemble a tail to the animal and having a pivot hole, a connecting rod having in one end a pivot engaging in said pivot hole and its other end pivoted to the lower end of the lever of the movable jaw, said pivot hole in the operating lever being slotted vertically and in the rear side provided with one or more notches and means for reaching the connecting rod and raising it with the pivot into engaging position with said notch or notches, and a spring arranged to press the pivot into the notch or notches to support the rod in raised position.

1,030,806. INTERNAL-COMBUSTION ENGINE. CHARLES LEE COOK, Louisville, Ky. Filed Sept. 17, 1910. Serial No. 582,510. (Cl. 123—17.)



1. Means for cooling the cylinder of a double-action gas engine, comprising exhaust passages at opposite ends thereof, conductors leading from said exhaust passages to the central portion of the cylinder, and helical passages surrounding the cylinder and leading from the ends thereof to said central portion thereof and adapted to connect respectively with said conductors.

2. Means for cooling the cylinder of a double-action gas engine, comprising exhaust passages at opposite ends thereof, chambers in the central portion of said cylinder opening into the outer air, hollow conductors leading from said exhaust passages to said chambers respectively, and helical hollow conductors surrounding the cylinder and leading from the ends of said cylinder respectively into said chambers.

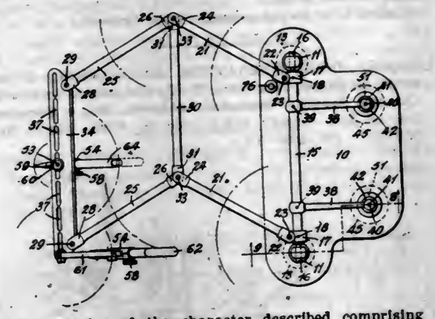
3. In combination with the cylinder of a gas engine having an exhaust passage, a helical hollow member surrounding said cylinder and leading into said exhaust passage obliquely in the direction of the movement of the exhaust.

4. In combination with the cylinder of a gas engine having an exhaust passage, a helical hollow member surrounding said cylinder and leading into said exhaust passage; said helical member being of smaller inside diameter than the outer surface of said cylinder and being adapted to bear against it resiliently.

5. In combination with the cylinder of a gas engine provided with an exhaust passage, a helical hollow member surrounding the cylinder, leading into said exhaust passage, provided with a main air inlet passage and with auxiliary inlet passages near said exhaust passage.

[Claims 6 to 8 not printed in the Gazette.]

1,030,807. WRITING-MACHINE. HUBERT S. FREW and FREDERICK P. SEXTON, Montreal, Quebec, Canada. Filed Nov. 27, 1908. Serial No. 464,588. (Cl. 33—6.)



1. A device of the character described comprising a suitable support, a pivotally mounted shaft carried by said support, a pair of arms pivotally connected to said shaft, a second pair of arms pivotally secured to said first arms, a pen bar pivotally connected to the second arms, a plurality of writing members adjustably mounted upon said pen bar, means for maintaining said writing members in parallel relation, spring actuated arms for balancing said writing members, and adjustable means for limiting vertical movement of the writing members, substantially as described.

2. A device for simultaneously writing a plurality of signatures comprising a suitable base, a shaft pivotally mounted upon said base, a pair of arms pivotally connected to said shaft, a second pair of arms pivotally connected to the outer extremities of said first arms, connecting bars between said arms, writing members adjustably secured to the outer of said connecting bars, means for maintaining said writing members in parallel relation, spring actuated arms for raising the writing members, and adjustable tubes in the path of said arms for limiting the vertical movement of the writing members, substantially as described.

3. A device for simultaneously writing a plurality of signatures comprising a suitable support, an axially pivoted shaft carried upon said support, a pair of latticed arms pivotally connected to said shaft, a connecting member between said arms, a second pair of arms pivotally connected to the outer extremities of said first arms, a pen bar pivotally connected to the free extremities of said second arms, a plurality of writing members adjustably mounted at the outer extremities of said second arms, means for maintaining said arms in parallel relation, and a pair of spring actuated arms secured to said shaft, springs connected to said arms adapted to balance said writing members and means for regulating the tension of said springs, substantially as described.

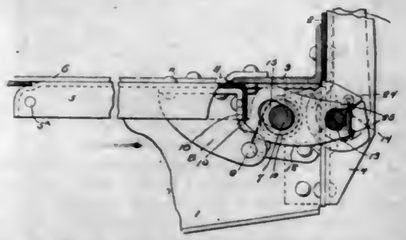
4. A device for simultaneously writing a plurality of signatures comprising a base, posts fixed to said base, a shaft axially pivoted between said posts, hinge posts fixed to said shaft, a pair of latticed arms pivoted to said

hinge posts, a second pair of arms pivoted to the extremities of said first pair, a latticed connecting member pivoted between said arms at the junction thereof, a slotted pen bar connecting the extremities of said second arms, a master pen carried by said pen bar, a plurality of duplicating pens carried by said bar, means for automatically raising said arms and pens and means for regulating said raising means.

5. A device for simultaneously writing a plurality of signatures comprising a base, posts fixed to said base, a shaft axially pivoted between said posts, hinge posts fixed to said shaft, a pair of latticed arms pivoted to said hinge posts, a second pair of arms pivoted to the extremities of said first pair, a latticed connecting member pivoted between said arms at the junction thereof, a slotted pen bar connecting the extremities of said second arms, a master pen carried by said bar, a plurality of duplicating pens carried by said bar, arms fixed to said shaft, springs connected to said arms, means for adjusting the tension of said springs, and means for limiting the dip of said arms.

[Claims 6 to 10 not printed in the Gazette.]

1,030,808. DOOR-OPERATING MECHANISM. FREDERICK H. GIBBS, New York, N. Y., assignor to American Car and Foundry Company, St. Louis, Mo., a Corporation of New Jersey. Filed June 28, 1910. Serial No. 569,406. (Cl. 105—14.)



1. In a flush door operating device, a swinging door, a door operating shaft, means for closing said door through rotation of said shaft and a supplemental locking means carried on said shaft when the door is open.

2. In a flush bottom car, a swinging door, a winding shaft, a longitudinally slidable cam supported on said winding shaft when the door is open and means for sliding said cam to locking position below said door.

3. In a flush door operating device, a swinging door, a door operating shaft, means for closing said door through rotation of said shaft, a locking shaft, door tightening means operated by said locking shaft and rockable on said door operating shaft.

4. In a flush bottom car, a swinging door, closing means therefor, including a door operating shaft, a supplemental shaft and longitudinally slidable means, resting on said operating shaft when the door is open, said means being adapted to be projected inwardly and upwardly to tighten said door in closed position.

5. In a device of the character described, a swinging door, means for closing said door comprising a door operating shaft, a supplemental crank shaft substantially parallel with the first mentioned shaft, and slidable locking means actuated by both said shafts, said locking means impinging said door.

[Claims 6 to 29 not printed in the Gazette.]

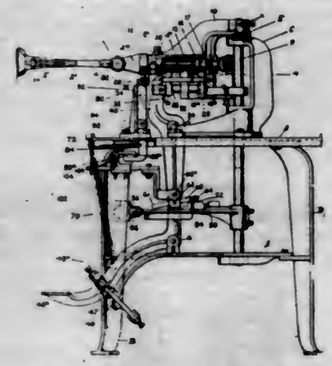
1,030,809. RESILIENT VEHICLE-TIRE. ERA M. GREEN, San Diego, Cal. Filed Apr. 17, 1911. Serial No. 621,585. (Cl. 152—8.)

In a device of the character described the combination with a rim member of channel form having diagonally disposed grooves formed in its face, of a tire formed from a spirally wound wire, the thread portion of the spirals being of zigzag form and inter-engaged with each other, the inner portion of the spirals lying within the diagonal grooves of the rim, an angular clamping member, the inner face of which conforms to the curvature of the rim both longitudinally and transversely, said clamping member resting upon the inner portion of the said spirals and



clamping them firmly into the diagonally extending grooves of the rim member, and a fastening device passing through both the rim member and the clamping member to bind these parts together, one of said members being formed of a plurality of curved sections.

1,030,810. TREEING-MACHINE. JOHN SEVERIN HANSEN, Medford, Mass., assignor to O. A. Miller Treeing Machine Company, Brockton, Mass., a Corporation of Maine. Filed Sept. 16, 1902. Serial No. 123,639. (Cl. 12—69.)



1. A treeing machine comprising a tree arranged for movement toward and from a specified point and yieldingly acting means for moving the tree to present it at said specified point.

2. A treeing machine comprising a tree, means for operating upon the tree, and means for removing said tree from the position occupied by it while being operated upon, said latter means being adapted to be rendered operative or inoperative at the will of the workman.

3. A treeing machine comprising a tree and a manually controlled treeing mechanism, and connections between said tree and said mechanism for moving said tree into operative position.

4. In a treeing machine, a plurality of trees, means for operating upon the trees one at a time and mechanism acting yieldingly to present the trees successively in position to be operated upon.

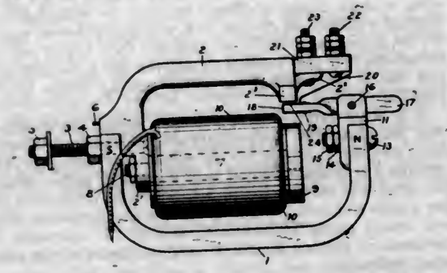
5. A treeing machine, comprising a plurality of trees, means for operating upon the trees, and mechanism for moving said trees to present them successively in position to be operated upon, said mechanism being constructed and arranged to be rendered operative or inoperative at the will of the workman.

[Claims 6 to 48 not printed in the Gazette.]

1,030,811. POLARIZED RELAY. WILLIAM S. HENRY, Rochester, N. Y., assignor to General Railway Signal Company, Gates, N. Y., a Corporation of New York. Filed May 6, 1911. Serial No. 625,490. (Cl. 178—304.)

1. In a polarized relay, a permanent magnet approximating the form of the letter U, a soft iron extension bolted to one leg of the permanent magnet, and extending

in the plane of the magnet nearly to the other leg of the magnet, a downwardly extending lug on the soft iron extension in proximity to that end fastened to the permanent magnet, a hole therethrough, a soft iron rod having a reduced screw threaded end passing through said hole and clamped thereto by means of a nut screwed upon said reduced screw threaded end, and extending nearly to the far leg of the U magnet and in the plane thereof, and enlarged pole piece of soft iron affixed to a reduced portion of the other end of said rod, a coil of wire wound about said rod in such a direction that normal current flowing therethrough causes said pole piece to be of the same polarity as the adjacent leg of the U magnet, and abnormal current causes it to be of the opposite polarity, a pivot support fastened to the free leg of the U magnet, an armature supported by said pivot approximately midway of its length, one end extending between the pole piece on the said rod and the near end of the U magnet extension piece, the other end extending outwardly from the leg of the U magnet, the said inner end bearing a contact strip, a spring contact adapted to bear against said contact strip when said armature bears against said soft iron extension piece, an insulating block borne by the end of said soft iron extension supporting said contact spring, a binding post passing through said insulating block and through said soft iron extension, and a binding post passing through said insulating block and said contact spring, out of contact with said soft iron extension piece.



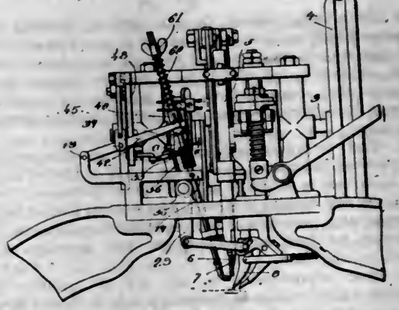
2. In a relay, a permanent magnet, an electromagnet and a movable armature, a flow of current in said electromagnet in a normal direction assisting said permanent magnet to hold said armature in one position, a flow of current in said electromagnet in a reverse direction causing in conjunction, with said permanent magnet said armature to assume another position, either of said currents in said electromagnet causing said armature to assume said other position if said permanent magnet loses its permanent magnetism, said permanent magnet causing said armature to remain in said other position when moved thereto and contacts controlled by said armature, adapted to move said armature from the first mentioned position if said permanent magnet loses its permanent magnetism.

3. In a polarized relay, a U shaped permanent magnet, an iron core attached to one limb of the permanent magnet and terminating adjacent the other limb of the permanent magnet having a metallic wire wound thereon, an iron member fastened to the first mentioned limb and terminating just above the end of the said iron core adjacent the other limb, an iron armature pivoted to the said other limb of the permanent magnet and oscillatable between the end of the said iron core and the end of the said iron member, means for manually placing said armature in contact with either said iron core or said iron member, the magnetic force of said magnet holding said armature in the moved position, and a contact engaged by said armature when resting against the end of the said iron member exerting a force to move said armature from in contact with said member.

4. In a polarized relay, a U shaped permanent magnet, an iron core attached to one limb of the permanent magnet and terminating adjacent the other limb of the permanent magnet having a metallic wire wound thereon, an iron member fastened to the first mentioned limb and terminating just above the end of the said iron core adjacent the other limb, an iron armature pivoted to the said other limb of the permanent magnet and oscillatable between the end of the said iron core and the end of the said iron member, means for manually placing said armature in contact with either said iron core or said iron member, the magnetic force of said magnet holding said armature in the moved position, resilient contacting means engaged by said armature when resting against the end of said iron member adapted to force said armature away from contacting position when said permanent magnet loses its permanent magnetism.

5. In a polarized relay, a U shaped permanent magnet having two iron members attached to one limb, both terminating adjacent the other limb of the permanent magnet, a metallic wire wound on one of said iron members, a contact, an iron armature pivoted on the other limb of the permanent magnet oscillatable between the two iron members and held against said contact by the force of the permanent magnetism of said magnet, said contact adapted to force said armature from contacting position when said permanent magnet loses its permanent magnetism, a flow of electricity through said wire in one direction breaking said connection between said contact and said armature, a flow of electricity in the other direction through said wire assisting to maintain said connection.

1,030,812. SEWING-MACHINE. CHARLES P. HOLMES, Lynn, Mass., assignor to Sidney W. Winslow, Beverly, Mass. Filed July 23, 1906. Serial No. 327,256. (Cl. 112—20.)



1. In a chain stitch sewing machine, stitch forming mechanism including means to draw a loop through a previously-formed loop, means to act on said first-named loop to first pull the same backwardly and thereby take up the slack in the previously-formed loop and to draw the bight thereof back of the hole through which the first-named loop is drawn, and then to draw forwardly on said first-named loop thereby to set the previously-formed stitch.

2. In a sewing machine, stitch forming mechanism including means to form the loops of a chain stitch, and means to act on one side only of the last-formed loop, thereby to take up the slack in the previously-formed stitch and draw the bight thereof back of the hole through which the last-formed loop is inserted, and to thereafter act equally on both sides of said last-formed loop, thereby to set the previous stitch.

3. In a sewing machine, stitch forming mechanism including means to form the loops of a chain stitch, and means to draw backwardly on one side only of the last-formed loop, thereby to take up the slack in the previously-formed stitch and draw the bight thereof back of the hole through which the last-formed loop is inserted, and to draw on both sides of said last-formed loop, thereby to set the previously-formed stitch.

4. In a sewing machine, stitch forming mechanism including means to form the loops of a chain stitch, and means to draw backwardly on one side only of the last-

formed loop, thereby to take up the slack in the previously-formed stitch and draw the bight thereof back of the hole through which the last-formed loop is inserted, and to draw forwardly on said loop, thereby to draw the loop of the last-formed stitch forwardly and set the same.

5. In a sewing machine, a needle, a cast-off, and stitch-setting mechanism acting to draw on one side of the last-formed loop, thereby to take up the slack in the loop of the previously-formed stitch and draw the bight thereof back of the hole through which the last-formed loop is inserted, and means to cause the needle to enter the stock, said stitch-setting mechanism acting on both side of said last-formed loop while the needle is in the stock, thereby drawing the loop around the cast-off and pulling the loop of the previously-formed stitch forwardly to set the same.

[Claims 6 to 32 not printed in the Gazette.]

1,030,813. METHOD OF FORMING CHAIN-STITCHES. CHARLES P. HOLMES, Lynn, Mass., assignor to Sidney W. Winslow, Beverly, Mass. Filed Aug. 13, 1908. Serial No. 448,294. (Cl. 112—34.)



1. That improvement in the art of forming chain stitches which consists in drawing a loop of thread through the materials to be sewed and through a previously formed loop, pulling on one side only of the last formed loop to shorten the previous loop and pulling said previously formed loop forward to exert a stitch setting strain on the seam.

2. That improvement in the art of forming chain stitches which consists in drawing a loop of thread through the materials to be sewed and through a previously formed loop, pulling on one side only of the last formed loop to shorten the preceding loop, and then pulling on both sides of the last formed loop to exert a stitch setting strain on the seam.

3. That improvement in the art of forming chain stitches which consists in drawing a loop of thread through the materials to be sewed and through a previously formed loop, pulling on the last formed loop to shorten the preceding loop, passing an instrument through the last formed loop and through the materials at the point where the next loop is to be drawn, and engaging and pulling on the last formed loop while the instrument is in the work to exert a stitch setting strain on the seam.

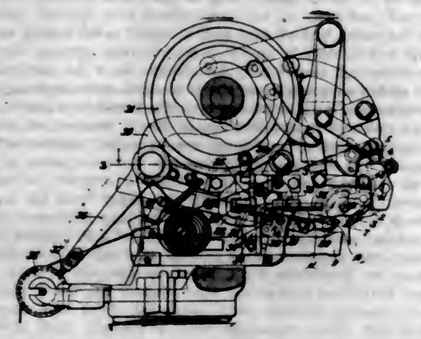
4. That improvement in the art of forming chain stitches which consists in drawing a loop of thread through the materials to be sewed and through a preceding loop, gripping the last formed loop and exerting a pull thereon to shorten the preceding loop, and thereafter setting the stitch of which the preceding loop forms a part.

5. That improvement in the art of forming chain stitches which consists in drawing a loop of thread through the materials to be sewed and through a previously formed loop, gripping the thread between the end of the last formed loop and the preceding loop and exerting a pull thereon to shorten said preceding loop, and thereafter setting the stitch of which the preceding loop forms a part.

[Claims 6 to 8 not printed in the Gazette.]

1,030,814. SEWING-MACHINE. CHARLES P. HOLMES, Lynn, Mass., assignor to Sydney W. Winslow, Beverly, Mass. Filed Mar. 3, 1909. Serial No. 481,158. (Cl. 112—20.)

1. A chain stitch sewing machine, having, in combination, stitch forming devices, including a hook needle operating to draw a loop of thread through the materials and through a previously formed loop, a gripping device, and means for actuating said device to grip the loop drawn out by the needle and pull thereon before the work is fed to shorten the preceding loop and provide slack in the needle loop and means for feeding the work while said slack remains in the needle loop.



2. A chain stitch sewing machine, having, in combination, stitch forming devices including a hook needle operating to draw a loop of thread through the materials and through a previously formed loop, a gripping device, means for actuating said device to grip the loop drawn out by the needle and pull thereon to shorten the preceding loop and means for varying the thread pulling stroke of the gripping device.

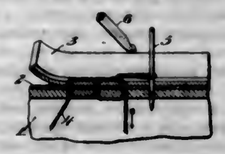
3. A chain stitch sewing machine, having, in combination, stitch forming devices including a hook needle operating to draw a loop of thread through the materials and through a previously formed loop, a gripping device, means for actuating said device to grip the loop drawn out by the needle and pull thereon to shorten the preceding loop, and means acting automatically during the operation of the machine to vary the thread pulling stroke of the gripping device.

4. A chain stitch sewing machine, having, in combination, stitch forming devices including a curved hook needle operating to draw a loop of thread through the materials and through a previously formed loop, a gripping device and means for actuating said device to grip the rear side of the loop drawn out by the needle and pull thereon to shorten the preceding loop and in a direction to wrap the thread around the needle.

5. A chain stitch sewing machine, having, in combination, stitch forming devices including a curved hook needle, a take-up, an auxiliary take-up, needle actuating mechanism and means whereby said mechanism acts during the retracting stroke of the needle to raise the auxiliary take-up.

[Claims 6 to 17 not printed in the Gazette.]

1,030,815. METHOD OF FORMING CHAIN-STITCH SEAMS. CHARLES P. HOLMES, Lynn, Mass., assignor to Sidney W. Winslow, Beverly, Mass. Filed Aug. 28, 1909. Serial No. 515,059. (Cl. 112—34.)



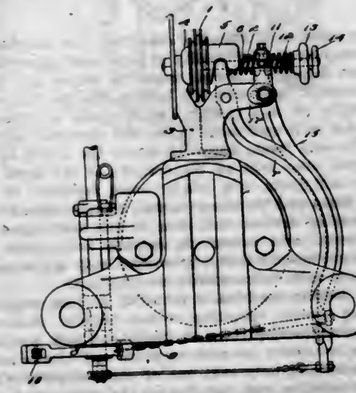
1. That improvement in the art of forming a chain stitch seam which consists in drawing a loop of thread through the materials to be sewed and through a previously formed loop, acting on the last formed loop in the general direction of the previously formed seam while the supply end of the thread is relieved of tension to shorten the preceding loop back of the point at which the last loop was drawn through the material, and thereafter pulling the preceding loop forward to exert a stitch setting strain on the seam.

2. That improvement in the art of forming a chain stitch seam which consists in drawing a loop of thread through the materials to be sewed and through a previously formed loop, acting on the last formed loop in the general direction of the previously formed seam while the supply end of the thread is relieved of tension to shorten the preceding loop, inserting an instrument through the last formed loop and through the materials at the point where the next loop is to be drawn, and pulling on the supply end of the thread to draw the last formed loop tightly around the instrument and exert a stitch setting strain on the seam.

3. That improvement in the art of forming a chain stitch, seam which consists in drawing a loop of thread through the materials to be sewed and through a previously formed loop, gripping the work side of the last formed loop and exerting a pull thereon in the general direction of the previously formed seam to shorten the preceding loop, inserting an instrument through the last formed loop and through the materials at the point where the next loop is to be drawn, and pulling on the supply end of the thread to draw the last formed loop tightly around the instrument and exert a stitch setting strain on the seam.

4. That improvement in the art of forming a chain stitch seam which consists in drawing a loop of thread through the materials to be sewed and through a previously formed loop, gripping the work side of the last formed loop and pulling thereon in the general direction of the previously formed seam while the supply end of the thread is relieved of tension to shorten the preceding loop back of the point at which the last loop was drawn through the material, and thereafter pulling the preceding loop forward to exert a stitch setting strain on the seam.

1,030,816. SEWING-MACHINE. CHARLES P. HOLMES, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed May 22, 1909. Serial No. 497,604. (Cl. 112—39.)



1. In a sewing machine, the combination with means offering a yielding resistance against which the stitch is set, of mechanism for varying said resistance when the speed of operation is varied during the continued operation of the machine in sewing a seam.

2. In a sewing machine, the combination with means offering a yielding resistance against which the stitch is set, of mechanism for increasing such resistance when the speed of the machine is reduced during the continued operation of the machine in sewing a seam.

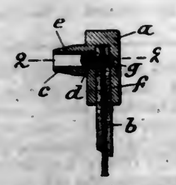
3. In a sewing machine, the combination with a tension wheel of a friction device for retarding the rotation of said wheel, and mechanism operating to increase the resistance offered by the friction device when the speed of the machine is reduced during the continued operation of the machine in sewing a seam.

4. In a sewing machine, the combination with a tension wheel of a friction surface in engagement with said wheel, a spring for holding said friction surface in engagement with the wheel, an abutment for the spring, and means for moving the abutment when the speed of the machine is varied during the continued operation of the machine in sewing a seam.

5. In a sewing machine, the combination with means for imparting a yielding resistance to the thread, of mechanism for varying said resistance when the speed of the machine is varied, and an indicator to show the variations in the amount of resistance.

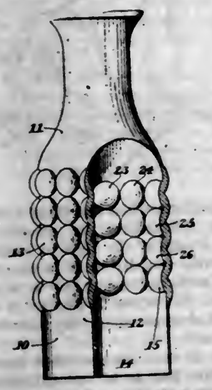
[Claims 6 to 10 not printed in the Gazette.]

1,030,817. BINDING-POST FOR CONNECTING ELECTRIC CABLES. GOTTLOB HONOLD, Stuttgart, Germany, assignor to The Firm of Robert Bosch, Stuttgart, Germany. Filed Feb. 14, 1912. Serial No. 677,596. (Cl. 173—269.)



The herein described binding post for connecting the end of an electric cable consisting of the combination with a block of insulating material having two borings disposed at right angles to each other of a metallic connecting piece fitted tightly into one of the said borings and a pointed screw threaded into the bottom of said connecting piece and adapted to pierce and thereby distend the end of a cable introduced into the other boring.

1,030,818. LAMP CHIMNEY OR GLOBE. EMIL GOTTFRIED JOHANSON, Chicago, Ill., assignor to John Martenson, Chicago, Ill. Filed Dec. 16, 1910. Serial No. 597,676. (Cl. 240—94.)



1. A light refractor or diffuser having a plurality of rows of lenses on the outer and inner surfaces thereof, the lenses of one row of the outer surface being arranged on a common axial plane and the lenses of another row being arranged on a common axial plane at an angle to the first mentioned axial plane, and the lenses on the inner surface being smaller than those of the outer surface, similarly arranged, and positioned to completely cover the interstitial spaces between the lenses on the outer

surface, whereby a common relative relation of the lenses on one surface to those of the other surface is maintained and thereby all light passing through the portion of the inclosure having lenses applied thereto is equally diffused by lenses throughout all parts of such portion.

2. A light refractor or diffuser having lenses arranged on both the inner and outer surfaces thereof, the lenses on one surface being arranged over the interstices of the lenses on the other surface.

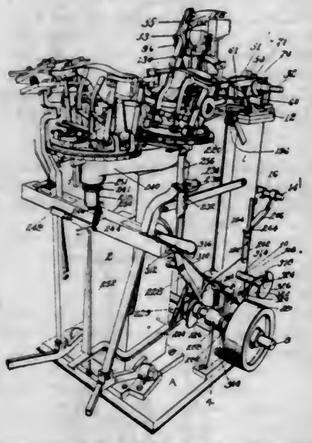
3. A light refractor or diffuser having lenses arranged on both the inner and outer surfaces thereof, the centers of the lenses of one surface of the chimney being arranged off-center relatively to the centers of the lenses on the other surface thereof, and but partly over such lenses.

4. A light refractor or diffuser having lenses arranged on both the inner and outer surfaces thereof, the axial planes of the lenses of one surface thereof being arranged substantially opposite the centers of the interstitial spaces on the other surface.

5. A light refractor or diffuser having lenses arranged on both the inner and outer surfaces thereof, the lenses of one surface being arranged approximately adjacent the centers of the interstitial spaces between the lenses of the other side thereof, whereby such interstitial spaces are completely covered.

[Claims 6 to 12 not printed in the Gazette.]

1,030,819. TACKING MECHANISM. THOMAS K. KEITH, deceased, Boston, Mass., by Harold C. Hudson, administrator, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Apr. 24, 1897, Serial No. 633,693. Divided and this application filed Oct. 29, 1910. Serial No. 589,681. (Cl. 1—18.)



1. A machine of the class described having, in combination, a tacker, mechanism for moving the tacker inwardly over the edge of the shoe to tacking position and for pressing it downwardly as it is moved inwardly, and a guide over which the tacker moves in approaching the edge of the shoe and which is shaped to allow the tacker to drop down therefrom upon the shoe bottom, substantially as described.

2. A machine of the class described having, in combination, a tacker that has an in and out reciprocating movement over the shoe, and a feeler between which and the tacker there is provision for vertical and lateral movement arranged to ascertain the lateral and the vertical position of the tacker relatively to the portion of the shoe edge over which the tacker moves and to guide the tacker in accordance therewith.

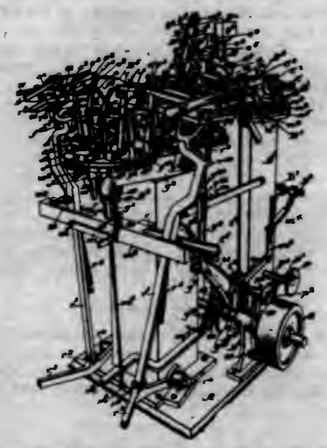
3. A machine of the class described having, in combination, means for supplying and driving tacks in succession and power driving mechanism therefor including means to move the tacker automatically along the tacking line to space the tacks and laterally thereto into and out of tacking position.

4. A machine of the class described having, in combination, means for supplying and driving tacks in succession, power driving mechanism therefor including means to reciprocate the tack inserting devices from and toward tacking position, and means to move said devices laterally to space the tacks.

5. A machine of the class described having, in combination, means for supplying and driving tacks in succession, and power driving mechanism therefor including means to advance the inserting devices to inserting position, to actuate them to drive a tack, to retract them, and to move them laterally to space for the next tack insertion.

[Claims 6 to 141 not printed in the Gazette.]

1,030,820. LASTING-MACHINE. THOMAS K. KEITH, Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Apr. 24, 1897. Serial No. 633,693. (Cl. 12—5.)



1. In a machine of the class described, the combination of a movable carrier, a plurality of jacks and upper clamping devices mounted thereon, means to rotate said jacks on said carrier, heel and toe lasting devices supported independently of said carrier and adapted to coöperate in succession with said jacks to last the shoes on the lasts mounted in said jacks, means to secure the lasted uppers to the inner soles held on the bottoms of the lasts supported on said jacks, said carrier being revoluble to present said jacks and the shoes carried thereby successively to said lasting devices and then to the said upper securing means, and means to actuate said upper securing means automatically to connect said lasted upper to said inner sole, substantially as described.

2. In a lasting machine, a plurality of shoe supports, end lasting means, operating means therefor, fastening means, means to impart to it in-and-out and traveling movements, a carrier for said supports, and means to rotate automatically only that one of said supports which occupies a position with relation to the fastening means to have the upper of the shoe held by it secured to the inner sole.

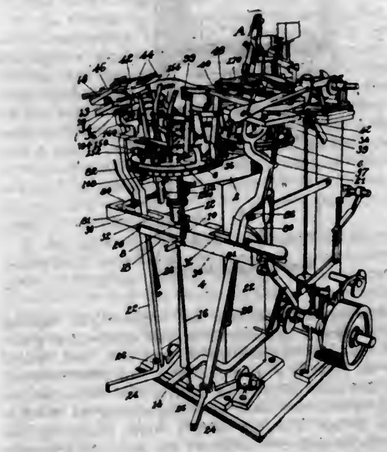
3. In a lasting machine, tacking means, lasting means comprising levers sustaining at their upper ends slides adapted to be moved over respectively the toe and heel ends of the last and to be closed in such position, and a carrier having a plurality of jack sustaining means for clamping the upper of a shoe to the sides and heel and toe of the last, said carrier being revoluble to place one or the other of the jacks in operative position under the lasting means, and means operating to partially rotate each of said jacks while tacks are being driven to last the uppers about the heel and toe ends of a shoe.

4. A machine of the class described having, in combination, lasting devices, a single automatic fastening means, a plurality of rotatable shoe supports, movable means adapted to sustain said shoe supports and present the same successively first to said lasting devices and then to said automatic fastening means for securing the lasted material in position, and means for rotating automatically said shoe supports when in position to receive fastenings.

5. A machine of the class described having, in combination, end lasting devices, a single automatic fastening means, a plurality of rotatable shoe supports, movable means adapted to sustain and present the supports successively to said end lasting devices and then to said automatic fastening means, and clamping means to clamp the lasted material to the last while each shoe support is being moved from the end lasting devices into position to have fastenings driven into the material carried by the shoe support.

[Claims 6 to 18 not printed in the Gazette.]

1,030,821. LASTING-MACHINE. THOMAS K. KEITH, deceased, Boston, Mass., by Harold C. Hudson, administrator, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Apr. 24, 1897, Serial No. 633,693. Divided and this application filed July 22, 1911. Serial No. 639,979. (Cl. 12—14.)



1. In a lasting machine a base, a swinging post pivoted on the base, a heel lasting mechanism carried by said post into and out of working positions, a treadle capable of operation for depressing said post and mechanism in any working position they may occupy and means compelling inward movement of the lasting mechanism as it is depressed.

2. In a lasting machine a post, a heel lasting mechanism carried thereby, a second post, a toe lasting mechanism carried thereby, a floor base on which both posts are pivoted, a guide for both of said posts, and independent locking means for the two posts having provision for locking each post in various working positions dependent on the sizes of the shoes to be lasted.

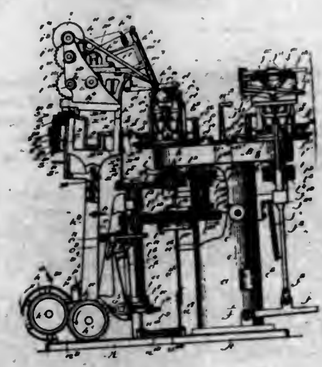
3. A machine of the class described having, in combination, a column, a table rotatsble thereon, a plurality of last supports mounted on the table and an end lasting mechanism outside of said table and movable with relation thereto into and out of operative relation to a last carried by the table.

4. A machine of the class described having, in combination, a last support, toe and heel lasting mechanisms each of which is pivoted at a substantial distance below the last for swinging movement from and toward the last to facilitate removal and introduction of the shoe, means to lock each lasting mechanism in working position and means for separately depressing each swinging lasting mechanism upon the last.

5. A machine of the class described having, in combination, a last support, toe and heel lasting mechanisms, posts pivoted near the floor and each carrying one of said mechanisms, a guide bar in which the posts are movable and which has ratchet teeth adjacent to each end, said mechanisms being arranged for outward movement by gravity, and reversely faced pawls coöperating with said ratchets for locking the lasting mechanisms in their operative positions.

[Claims 6 to 22 not printed in the Gazette.]

1,030,822. LASTING-MACHINE. THOMAS K. KEITH, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass., a Corporation of New Jersey. Filed Mar. 29, 1902, Serial No. 100,556. Renewed Nov. 9, 1910. Serial No. 591,512. (Cl. 12—5.)



1. A shoe support and fastening means, one adapted to be rotated in different directions, and the other having a traveling movement in different directions, and actuating means whereby the fastening means is enabled to insert fastenings along the opposite sides of a shoe on said support.

2. The combination with fastening means, means to impart thereto an in-and-out movement relatively to a last presented to it, a rotatable last support, and means to rotate it in one direction during presentation of the heel or toe of a shoe to said fastening means, and in different directions during presentation of the side of a shoe to said fastening means.

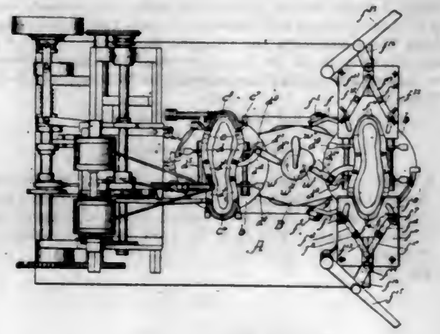
3. In an organized machine, fastening means having an in-and-out movement, a rising and falling movement, and a traveling movement along the edge of a shoe, combined with a last support, and means to move the same in different directions during presentation of a shoe by said last support to said fastening means.

4. A lasting machine comprising end lasting mechanism, a single automatic fastening means, a carrier having a plurality of shoe supports and movable to present the shoes on said shoe supports successively first to said end lasting mechanism and then to said fastening means, and means to impart automatically to said shoe supports a partial rotative movement in one, and then in the opposite direction.

5. An organized machine containing automatic upper fastening means, in combination with a gage, a flexible and extensible clamp-like guide for said gage, and means to press said clamp-like guide against the upper.

[Claims 6 to 134 not printed in the Gazette.]

1,030,823. SHOE-SUPPORT. THOMAS K. KEITH, deceased, Boston, Mass., by Harold C. Hudson, administrator, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Mar. 29, 1902, Serial No. 100,556. Divided and this application filed Oct. 29, 1910. Serial No. 589,682. (Cl. 12—127.)



1. In a machine of the class described, a circularly movable carrier and a plurality of jacks mounted thereon and provided with devices for pressing the sides and toe and heel of the upper against the lasts on said jacks, combined with means to automatically rotate said jacks on said carrier, substantially as described.

2. The combination with a movably mounted shoe upport, of toe and heel clasps and side clamping members carried by said support, means to move said clasps toward the material to be clamped, and means to release said clasps and clamping members simultaneously as the support is moved.

3. The combination with a shoe support, of a plurality of clamping members to clamp a shoe upper when on said support, and a plurality of length adjusting members connected to said clamping members and adapted to be moved into and out of operative position as required by the length of the last to be held clamped.

4. The combination with a shoe support, of a plurality of clamping members to clamp a shoe upper when on said support, a plurality of length adjusting members at each side of the last comprising fingers mounted on said clamping member, any one of which is adapted to occupy an operative or an inoperative position as and for the purpose described.

5. A machine of the class described having, in combination, a carrier having a plurality of shoe supports mounted thereon, each support having a connected shaft extended through said carrier and provided with a pinion, means for rotating successively the pinions of said supports, each shaft having coöperating with it a suitable friction device to resist rotation of the shoe support on said carrier.

[Claims 6 to 53 not printed in the Gazette.]

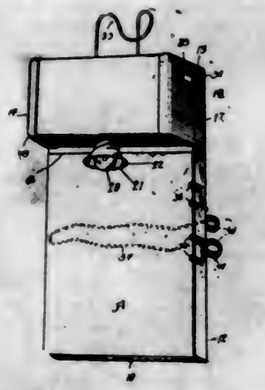
1,030,824. BURNER. THOMAS F. KENT, St. Louis, Mo., assignor of one-half to Edward L. Adreon, Jr., St. Louis, Mo. Filed Apr. 15, 1911. Serial No. 621,295. (Cl. 158—76.)

A burner consisting of a hollow member that forms a pressure chamber which is adapted to hold a fluid that is to be mixed with the fuel, a fuel-supplying device arranged inside of said member and formed integral with same, a lateral hollow boss on said member communicating with said fuel-supplying device, an integral tapered nozzle on the end wall of said member provided with a fuel duct that communicates with said device, means arranged adjacent the base of said nozzle for causing fluid to travel longitudinally of said nozzle in close proximity to the outer surface of same and converge at a point beyond the end of the nozzle, a fuel supply pipe communicating with



said boss, and a removable plug in the lower end wall of said member that closes a clean-out opening.

1,030,825. COMBINED MEMORANDUM-PAD SUPPORT AND LIGHTING DEVICE. OTTO KNOERZER and JOSEPH W. WEIS, Hammond, Ind.; said Knoerzer assignor to said Weis. Filed Apr. 17, 1911. Serial No. 621,600. (Cl. 11—11.)

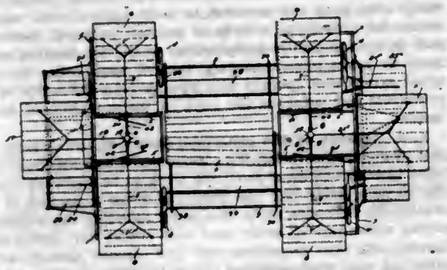


1. A combined memorandum pad support and lighting device comprising a memorandum pad supporting plate, a battery case secured thereto at one end, and spaced therefrom to receive a memorandum pad therebetween, said plate and case coöperating to grip said memorandum pad therebetween, and said case containing an electric battery, in circuit with an electric lamp, projecting out from the side of said case adjacent the pad, and arranged to illuminate said pad.

2. A combinated memorandum pad support and lighting device, comprising a memorandum pad support, a battery case secured thereto at one end and co-acting with the support to grip a memorandum pad therebetween, an electric battery within said battery case and an electric incandescent lamp in circuit with said battery and supported by said case on its outer side, said lamp being arranged in position to illuminate a pad carried by the support.

3. A combined memorandum pad support and lighting device comprising a pad supporting plate, a battery case secured thereto at one end and spaced therefrom to receive a pad therebetween, said plate and case acting to grip said pad therebetween, an electric lamp projecting out from the side of the case adjacent the pad and adapted to illuminate the latter, an electric battery contained in said case, and a push button projecting out from one end of the case and arranged to make and break an electric circuit through the battery and lamp, the parts being so arranged and proportioned that the device may be held in one hand and the push button pressed by a finger of that hand to close the circuit.

1,030,826. AIRSHIP. ANTON MAYER, Chicago, Ill. Filed Dec. 20, 1911. Serial No. 666,927. (Cl. 244—14.)



1. In an airship, a propelling mechanism; a framework supporting the same; a substantially rectangular monoplane rigidly secured to the said framework approximately over the center of the same; biplanes fastened to the said framework adjacent to the four corners of the said monoplane, the said biplanes being normally parallel to the plane of the said monoplane; manual means by which the operator can tilt the said biplanes and by which he can return the tilted biplanes to a plane parallel to that of the monoplane; and spring mechanism for aiding the operator in returning the tilted biplanes to a plane parallel to that of the monoplane.

2. An airship including a propelling mechanism; a frame work supporting the same, a substantially rectangular monoplane rigidly secured to the framework approximately over the center of the same; tandem biplanes pivoted to the said framework adjacent to the four corners of the said monoplane, the said biplanes being normally substantially parallel to the plane of the said monoplane; and a controlling mechanism for holding the said biplanes in this normal position, the controlling mechanism being adapted to release the biplanes simultaneously, whereby the upward air pressure may tilt the biplanes simultaneously to a safety position.

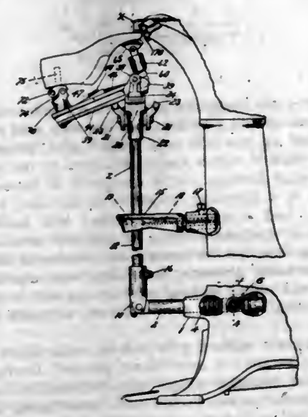
3. An airship including a propelling mechanism; a framework supporting the same; a substantially rectangular monoplane rigidly secured to the framework approximately over the center of the same; auxiliary planes pivoted to the sides and ends of the framework, the said auxiliary planes being normally held substantially parallel to the plane of the monoplane; a latching mechanism for simultaneously releasing the said pivoted planes, whereby the upward air pressure may simultaneously tilt the pivoted planes to a safety position; and stops for limiting the extent to which the pivoted planes may be tilted by the upward air pressure when the latching mechanism is released.

4. An airship including a propelling mechanism; a framework supporting the same; a substantially rectangular monoplane rigidly secured to the framework approximately over the center of the same; auxiliary planes pivoted to the sides and ends of the framework, the said auxiliary planes being normally held substantially parallel to the plane of the monoplane; a latching mechanism for simultaneously releasing the said pivoted planes, whereby the upward air pressure may simultaneously tilt the pivoted planes to a safety position; and mechanism actuated by the operator for simultaneously returning the tilted planes to their normal positions.

5. An airship including a propelling mechanism; a framework supporting the same; a substantially rectangular monoplane rigidly secured to the framework approximately over the center of the same; auxiliary planes pivoted to the sides and ends of the framework, the said auxiliary planes being normally held substantially parallel to the plane of the monoplane; a latching mechanism for simultaneously releasing the said pivoted planes, whereby the upward air pressure may simultaneously tilt the pivoted planes to a safety position; mechanism actuated by the operator for simultaneously returning the tilted planes to their normal positions; and springs for aiding the operator in actuating the said mechanism.

[Claims 6 and 7 not printed in the Gazette.]

1,030,827. JACK FOR SHOE-MACHINES. RONALD F. MCFEELY, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Aug. 15, 1904, Serial No. 220,828. Divided and this application filed June 8, 1905. Serial No. 264,260. (Cl. 12—127.)



1. In an apparatus of the class described constructed for use with mechanism for operating upon a shoe, a support for the shoe independent of said mechanism, comprising a carriage provided with guideways extending lengthwise of the shoe and inclined upwardly and inwardly from opposite ends of the carriage, combined with shoe-holding means mounted in said two inclined guideways for simultaneous adjustment in the direction of the length and also the height of the shoe.

2. In an apparatus of the class described, a shoe support, comprising a carriage provided with oppositely inclined guideways, and a heel post and a forepart rest mounted in said guideways, combined with means connecting said heel post and forepart rest whereby said parts may be moved together toward or from the center of the carriage and simultaneously adjusted vertically.

3. In an apparatus of the class described constructed for use with mechanism for operating upon a shoe, a support for the shoe independent of said mechanism, comprising a carriage provided with oppositely inclined guideways, a heel post and a forepart rest mounted in said guideways, a pinion and rack bars connected with the heel post and forepart rest and engaging opposite sides of the pinion whereby the post and rest are caused to move together in their guideways.

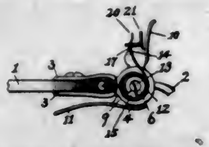
4. In a mechanism of the class described, a shoe support comprising a carriage having a heel post and a forepart rest movable longitudinally of the carriage to adapt them for supporting shoes of different lengths, a pinion arranged for endwise movement in the carriage, rack bars connecting the post and rest and engaging opposite sides of the pinion, a serrated button connected to the pinion, a stud on the carriage, and a spring for holding the button against the stud whereby the pinion is held from accidental movement but is allowed to turn when force is applied to the post and rest for adjusting said parts.

5. In mechanism of the class described, a shoe support comprising a base and a shoe carriage connected for sliding movement relatively to the base both lengthwise and transversely of the shoe, and means constructed and arranged when in one position to limit movement of the shoe carriage in one of said directions and when in

another position to lock the carriage against such movement while permitting movement in the other of said directions.

[Claims 6 to 18 not printed in the Gazette.]

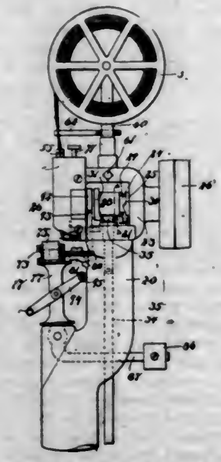
1,030,828. EYEGLASS-MOUNTING. FRANK A. PERSOHN, Baltimore, Md., assignor to Baltimore Optical Company, Baltimore, Md., a Corporation of Maryland. Filed Dec. 30, 1911. Serial No. 668,709. (Cl. 88—50.)



1. An eye-glass mounting having in combination a nose-bridge; a lens-strap; a hollow stud between said two parts and provided at one side only with a slot whose end is open—one edge of which slot is straight to its extremity the other edge having at its extremity a lateral prong that points in a direction crosswise of the slot; a pivoted nose-clamp; and a spring surrounding said hollow stud and having a bent end entered in said slot and engaging the slot-edge that has the prong—the tension of the spring itself continually pressing said bent end against that edge, and said prong locking said spring-end in position, and said spring having a free end that actuates the said nose-clamp.

2. An eye-glass mounting having in combination a nose-bridge; lens straps; a nose-clamp pivoted between said two parts and having a vertical arm provided with a hook and an undercut recess in the arm immediately back of said hook; and a spring having one end fixed and a free end that seats in the said undercut recess back of the hook and said free end kept seated by its own tension and locked or prevented from accidental disengagement by said hook.

1,030,829. MACHINE FOR MAKING AND DRIVING FASTENERS. ALBERT F. PRESTON, Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 3, 1905. Serial No. 272,558. (Cl. 1—25.)



1. A machine for driving and severing fasteners from a strip, comprising jaws adapted to feed the strip, drive it into the work and sever the fasteners therefrom, means for imparting to said jaws their feeding and driving movement, and positively-operating means for simultaneously moving the jaws toward each other to an equal extent to cause them to bite equally into the strip at the commencement of said feeding and driving movement.

2. A machine of the character described, comprising a pair of opposed severing jaws, a reciprocating carrier on which said jaws are mounted to move toward each other, means for presenting a strip of fastener material between said jaws, and positively-operating means for causing said jaws to move simultaneously toward each other to an equal extent and thereby bite equally into the strip at a predetermined point in the path of reciprocation of said carrier.

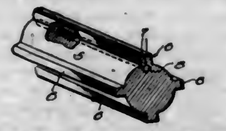
3. A machine of the character described, comprising a pair of opposed severing jaws constructed and arranged to move toward and away from the work to be operated upon and to grip, drive into the work and sever a portion of a continuous fastening strip, means for effecting the reciprocating movement of said jaws and means for positively moving said jaws simultaneously and equally toward each other at one predetermined point in their reciprocating movement to cause them to bite equally into the strip and for positively moving said jaws toward each other at another predetermined point in their reciprocating movement to cause them to sever said strip.

4. A machine of the character described, comprising a pair of opposed severing jaws, a reciprocating carrier upon which said jaws are so mounted that a relative movement of said jaws and carrier in the direction of reciprocation of said carrier effects a movement of the severing edges of said jaws toward each other, means for presenting a strip of fastener material between said jaws and positive means for effecting a relative movement of said jaws and said carrier at a predetermined point in the reciprocation of said carrier.

5. A machine of the character described, comprising a pair of opposed severing jaws, a carrier upon which said jaws are mounted in such manner that relative movement of said jaws and said carrier in one direction effects a movement toward each other of the severing edges of said jaws, means for moving said carrier positively in both directions and positive means for effecting a relative movement of said jaws and said carrier in one direction.

[Claims 6 to 23 not printed in the Gazette.]

1,030,830. BAR FOR DRILLS AND THE LIKE. WILLIAM K. RILEY, Los Angeles, Cal., assignor of one-half to Phil Marx, Tehachapi, Cal. Filed Oct. 31, 1910. Serial No. 589,901. (Cl. 76—108.)



1. A metallic bar, comprising a body portion having a longitudinal rib projecting therefrom, and having a longitudinal duct therein beneath the rib.

2. A metallic bar, comprising a body portion having a longitudinal rib projecting therefrom, and having a longitudinal duct therein located centrally beneath the rib, the rib being split on a radial plane leading outwardly from the duct.

1,030,831. PROCESS FOR THE FORMATION OF STEEL BARS AND THE LIKE. WILLIAM K. RILEY, San Bernardino, Cal., assignor of one-half to Phil Marx, Tehachapi, Cal. Original application filed Oct. 31, 1910, Serial No. 589,902. Divided and this application filed Nov. 27, 1911. Serial No. 662,636. (Cl. 76—108.)



1. The herein described process for the formation of steel bars and the like, comprising first forming a flange projecting from the bar, then forming a groove adjacent the flange, and then turning the flange over the groove to form a cover therefor.

2. The herein described process for the formation of steel bars and the like, comprising first forming a longitudinal flange projecting from the bar, then forming a longitudinal groove in the bar adjacent the flange, and then turning the flange over so that its edge engages the opposite side of the groove.

1,030,832. DRILL-ACTUATING MECHANISM. WILLIAM K. RILEY, Los Angeles, Cal., assignor of one-half to Phil Marx, Tehachapi, Cal. Filed Nov. 10, 1910, Serial No. 591,659. Renewed Dec. 19, 1911. Serial No. 666,843. (Cl. 125—10.)



1. A mechanism of the character described, comprising a supporting frame having ways thereon, a cylinder and piston mechanism slidably mounted on the ways, resilient means opposing the movement of the cylinder and piston mechanism in one direction, fluid pressure actuated means for moving the cylinder and piston mechanism in that direction, and fluid pressure operated means for frictionally holding the cylinder and piston mechanism against movement on the ways.

2. A mechanism of the character described, comprising a supporting frame having ways thereon, a cylinder and piston mechanism slidably mounted in the ways, resilient means opposing the movement of the cylinder and piston mechanism in one direction, fluid pressure actuated means for moving the cylinder and piston mechanism in that direction, frictional holding means between the supporting frame and the cylinder and piston mechanism, and means for actuating the frictional holding means from the same source of fluid pressure which operates the cylinder and piston moving mechanism.

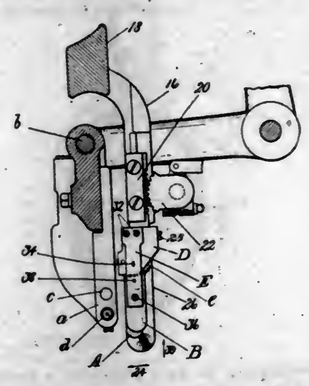
3. A mechanism of the character described, comprising a supporting frame having ways thereon, a cylinder and piston mechanism slidably mounted in the ways, yielding means for moving the cylinder and piston mechanism in one direction, a mechanism for moving the cylinder and piston mechanism in the opposite direction, a mechanism for frictionally holding the cylinder and piston mechanism from movement on the ways, and coöperating means whereby the moving and frictional holding mechanisms are operated simultaneously from the same source of power.

4. A mechanism of the character described, comprising a supporting frame of tubular section and having ways thereon, a cylinder and piston mechanism slidably mounted in the ways, a spring mounted in the frame and pressing against the cylinder and piston mechanism, fluid pressure actuated means for moving the cylinder and piston mechanism against the spring, a mechanism for frictionally holding the cylinder and piston mechanism from movement on the ways, and means for operating the friction mechanism from the source of fluid pressure which moves the cylinder and piston mechanism.

5. A mechanism of the character described, comprising a supporting frame having ways thereon, a cylinder and piston mechanism slidably mounted on the ways, a spring adapted to move the cylinder and piston mechanism rearwardly, a cylinder and plunger means for moving the cylinder and piston mechanism forwardly, the plunger being hollow and leading the fluid pressure to an air chamber in the cylinder and piston mechanism, air pressure actuated means on the cylinder and piston mechanism and frictionally engaging with the ways on the frame, the frictional mechanism being connected to the air chamber to be operated by the same air pressure which operates the cylinder and plunger mechanism.

[Claims 6 to 9 not printed in the Gazette.]

1,030,833. EYELETING-MACHINE. FRED A. RUMNEY, Somerville, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Aug. 8, 1906. Serial No. 329,722. (Cl. 218—172.)



1. In a machine of the class described having setting and feeding means, the combination of a guide plate having oppositely disposed guiding surfaces, a block mounted on said guide plate, and yieldingly supported work positioning members mounted on said block and arranged to position the work and hold it in contact with the opposite surfaces of said guide plate during the feeding movement of the work.

2. In a machine of the class described having setting and feeding means, the combination of a guide plate having oppositely disposed guiding surfaces, and oppositely disposed presser feet supported at points without the planes of said guiding surfaces and arranged to position the work and clamp it in contact with said surfaces continuously during the feeding movement of the work and the setting operations.

3. In a machine of the class described having setting and feeding means, the combination of a guide plate, an edge gage projecting therefrom, a work-engaging member substantially equal in thickness to the height of said edge gage, a spring connecting the outer sides of said edge gage and work-engaging member, and means for moving said edge gage and presser foot bodily, transversely to the direction of feed.

4. In a machine for operating on boots and shoes, having setting devices and means for feeding the work, the combination of a normally stationary guide plate mounted for reciprocation transversely to the line of feed, one or more ribs on said guide plate, and means movable with the guide plate for yieldingly pressing the work in contact with said guide plate.

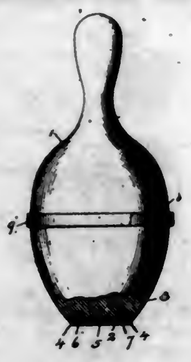
5. In a machine for operating on boots and shoes, having setting devices and means for feeding the work, the combination of an edge gage, a normally stationary guide plate mounted for reciprocation transversely to the line of feed, ribs thereupon which incline inwardly at the rear to keep the work in contact with said edge gage, and means movable bodily with said guide plate and acting to clamp the work in contact with said ribs.

[Claims 6 to 17 not printed in the Gazette.]

1,030,834. BOWLING-ALLEY PIN. EDWARD H. SAWYER, Jr., Baltimore, Md., assignor of one-fourth to Louis E. Smith and one-fourth to Henry H. Geiglein, Baltimore, Md. Filed Mar. 21, 1911. Serial No. 615,892. (Cl. 46—66.)

1. A bowling alley pin whose body is provided with an annular channel formed entirely in the under side of the body and said body having a circumferential side wall that curves downwardly and inwardly and whose lowermost edge merges into the outermost side of said annular channel and forms a ring-shaped edge which in vertical

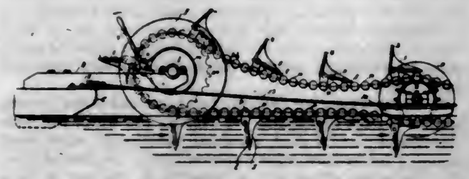
cross-section is tapered, and a ring fitted into said annular channel—the bottom surface of the ring being flush with said lowermost merged edge.



2. A bowling pin having a body with a circumferential side wall that curves downwardly and inwardly, and the said body provided in its bottom with a central arched cavity, and also having in said bottom an annular channel whose cross-section width fills the space from the base line of the arch which forms the said cavity to the lowermost edge of the said circumferential side wall, and an indurated fiber ring filling the annular channel,—the bottom surface of the ring being substantially flush with the lowermost edge of the arched cavity and also flush with the lowermost edge of the circumferential side wall.

3. A bowling pin having a body with a circumferential side wall that curves downwardly and inwardly to the bottom, and the said body provided with a circular cavity formed entirely in the under side of the body and whose outermost edge together with the bottom edge of said circumferential wall forms a tapered ring-shaped edge, and a circular indurated filling fitted into said underside cavity—the bottom surface of said filling being flush with the bottom of said tapered ring-shaped edge.

1,030,835. CURRENT-POWER TRANSMUTER. NORMAN R. SMITH, Pasco, Wash., assignor to Hydro Patent Power Co., Portland, Oreg., a Corporation of Oregon. Filed Dec. 27, 1909. Serial No. 535,179. (Cl. 138—11.)



1. A current-power transmuting device comprising a support fixed in place by means permitting its movement on a vertical axis, and a power-transmitting element including a rotatable drum mounted on such support; a companion, floating support, and a drum rotatably mounted thereon, said floating support being adrift and held down stream by the current; pontoons located between said supports and rotatable drums thereon mounted; connections between said supports, to which connections the pontoons are also attached; an endless power-belt traveling over the drums and provided with a series of impact blades; means providing a working engagement between the periphery of the driven drum and the related face of the power-belt when in contact; and means for laterally shifting the position of the floating support.

2. A current-power transmuting device comprising a support fixed in place by means permitting its movement on a vertical axis, and a power-transmitting element including a rotatable drum mounted on such support; a companion, floating support, and a drum rotatably mounted thereon, said floating support being adrift and held down stream by the current; pontoons located between said supports and rotatable drums thereon mounted; connections between said supports, to which connections the pontoons are also attached; an endless power-belt traveling over the drums and provided with a series of impact blades; means providing a working engagement between the periphery of the driven drum and the related face of the power-belt when in contact; said impact blades being adapted, when subjected to the force of the current, to assume an oblique position so as to cause the current to impel the power-belt against the periphery of the intermediate drums and thus support and drive the latter; and means for laterally shifting the position of the floating support.

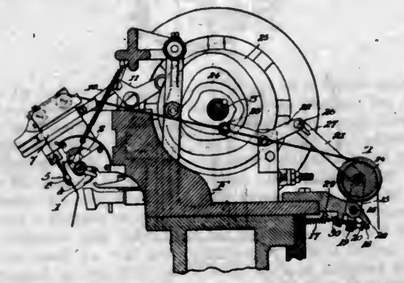
3. A current-power transmuting device comprising a support fixed in place by means permitting its movement on a vertical axis, and a power-transmitting element including a rotatable drum mounted on such support; a companion, floating support, and a drum rotatably mounted thereon, said floating support being adrift and held down stream by the current; pontoons located between said supports and rotatable drums thereon mounted; connections between said supports, to which connections the pontoons are also attached; an endless power-belt traveling over the drums and provided with a series of impact blades; means providing a working engagement between the periphery of the driven drum and the related face of the power-belt when in contact; said impact blades being adapted, when subjected to the force of the current, to assume an oblique position so as to cause the current to impel the power-belt against the periphery of the intermediate drums and thus support and drive the latter; rudders on the drifting float and the intermediate pontoons, and means adapted to operate all the rudders in unison.

4. A current-power transmuting device comprising a support fixed in place by means permitting its movement on a vertical axis, and a power-transmitting element including a rotatable drum mounted on such support; a companion, floating support, and a drum rotatably mounted thereon, said floating support being adrift and held down stream by the current; pontoons located between said supports and rotatable drums thereon mounted; cables connecting the floating support to the fixed support, and to which the pontoons are detachably secured in series, and means on one of said supports adapted to wind up the cables and thus draw the supports together; an endless power-belt traveling over drums and provided with a series of impact blades; means providing a working engagement between the periphery of the driven drum and the related face of the power belt when in contact; said impact blades being adapted, when subjected to the force of the current, to assume an oblique position so as to cause the current to impel the power-belt against the periphery of the intermediate drums and thus support and drive the latter; rudders on the drifting float and the intermediate pontoons, and means adapted to operate all the rudders in unison.

5. A current-power transmuting device comprising a support fixed in place by means permitting its movement on a vertical axis, and a power-transmitting element including a rotatable drum mounted on such support; a brake element by which to control the revolution of the drum; a companion, floating support, and a drum rotatably mounted thereon, said floating support being adrift and held down stream by the current; pontoons located between said supports and rotatable drums thereon mounted; connections between said supports, to which connections the pontoons are also attached; an endless power belt traveling over the drums and provided with a series of impact blades; means providing a working engagement between the periphery of the driven drum and the related face of the power-belt when in contact; said impact blades being adapted, when subjected to the force of the current, to assume an oblique position so as to cause the current to impel the power-belt against the periphery of the intermediate drums and thus support and drive the latter; and means for laterally shifting the position of the floating support.

[Claims 6 to 17 not printed in the Gazette.]

1,030,836. SEWING-MACHINE. WILLIAM EDWARD STONE, Marblehead, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Nov. 29, 1901. Serial No. 84,094. (Cl. 112—26.)



1. A chain-stitch shoe-sewing machine, having, in combination, stitch-forming mechanism including a curved hook needle, a movable tension wheel engaging the thread leading to the side of the work opposite to that on which the needle enters, a cam for moving the tension wheel to positively give up thread to the stitch-forming mechanism, and a spring tending to move the tension wheel and arranged to yield so as to exert an uninterrupted yielding and gradually increasing strain on the thread during the setting of the stitch, substantially as described.

2. A chain-stitch shoe-sewing machine, having, in combination, stitch-forming mechanism including a curved hook needle, a movable tension wheel engaging the thread leading to the side of the work opposite to that on which the needle enters, a cam for moving the tension wheel to positively give up thread to the needle and a spring tending to move the tension wheel and arranged to yield so as to exert a yielding and gradually increasing strain on the thread during the setting of the stitch, substantially as described.

3. A chain-stitch shoe-sewing machine, having, in combination, stitch-forming mechanism including a curved hook needle, a movable tension wheel, a cam for moving the tension wheel to positively give up thread to the thread finger, and a spring acting on the tension wheel to exert a strain on the thread during the setting of the stitch, substantially as described.

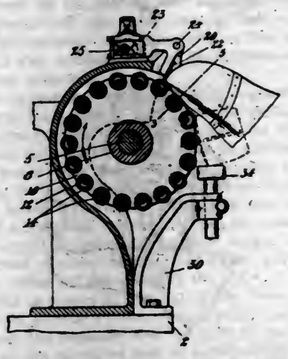
4. A chain-stitch shoe-sewing machine, having, in combination, stitch-forming mechanism including a curved hook needle, a looper and thread finger, a movable tension wheel, a cam for moving the tension wheel to positively give up thread to the looper, and a spring acting on the tension wheel to exert a strain on the thread during the setting of the stitch, substantially as described

5. A chain-stitch shoe-sewing machine, having, in combination, stitch-forming mechanism including a curved hook needle, a looper, and a thread finger, a movable tension wheel, a cam for moving the tension wheel to positively give up thread to the needle, looper, and thread finger, and a spring acting on the tension wheel to exert a strain on the thread during the setting of the stitch, substantially as described.

[Claims 6 to 9 not printed in the Gazette.]

1,030,837. SHOE-BEATING MACHINE. ORRELL ASHTON, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Dec. 12, 1907. Serial No. 406,213. (Cl. 12—51.)

1. In a machine of the class described, a rotary carrier, supporting means arranged to afford an unobstructed access to the work-engaging portion of its periphery for the presentation of the shoe thereto, and a plurality of work-engaging rings arranged about the periphery of the carrier and mounted to permit them to move radially with relation to the axis of the carrier.



2. In a machine of the class described, a rotary shoe beater comprising a carrier and a plurality of pivoted beating members arranged about the periphery of the carrier and mounted to permit them to swing about their own pivots and to yield radially with relation to their pivots.

3. In a machine of the class described, a rotary shoe beater comprising a carrier arranged to facilitate the presentation of the bottom of a shoe thereto, and beating members arranged about the periphery of the carrier, each member consisting of a plurality of relatively movable inflexible beating elements.

4. In a machine of the class described, a rotary shoe beater comprising a carrier and beating members arranged about the periphery of the carrier, each member consisting of a plurality of rings mounted for swinging movement about their connection with the carrier.

5. In a machine of the class described, a rotary shoe beater comprising a carrier and a plurality of beating members arranged about the periphery of the carrier, each member consisting of a plurality of rings loosely mounted on the carrier to permit them to turn and also to yield independently toward the axis of the carrier.

[Claims 6 to 41 not printed in the Gazette.]

1,030,838. GRIPPER MECHANISM. ORRELL ASHTON, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Original application filed Aug. 2, 1907, Serial No. 386,799. Divided and this application filed Mar. 9, 1911. Serial No. 613,325. (Cl. 12—11.1.)

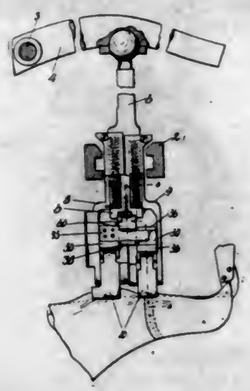
1. In a mechanism of the class described, pairs of gripper jaws and actuating mechanism for causing the jaws to engage and pull adjacent portions of stock, said actuating mechanism being constructed and arranged to impart to said jaws predetermined relative movements for pulling the portions of stock engaged by them to different extents.

2. In a mechanism of the class described, pairs of gripper jaws for engaging adjacent portions of stock, and an actuating mechanism common to said pairs of jaws and constructed and arranged to cause one of said pairs of jaws to be actuated in advance of the other pair for pulling the stock.

3. In a mechanism of the class described, pairs of gripper jaws for engaging adjacent portions of stock, and an actuating mechanism common to said pairs of jaws and constructed and arranged to insure a predetermined movement of one pair of jaws for stretching the stock before the other pair of jaws pulls the stock.

4. In a mechanism of the class described, pairs of gripper jaws for engaging and pulling adjacent portions of stock, and actuating mechanism connected with both pairs

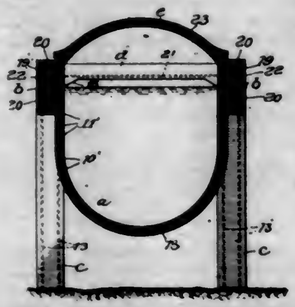
of jaws and constructed and arranged normally to lift one pair of jaws in advance of the other pair.



5. In a mechanism of the class described, pairs of gripper jaws for engaging and pulling adjacent portions of stock, and actuating mechanism connected with both pairs of jaws and constructed and arranged normally to close and lift the pairs of jaws successively.

[Claims 6 to 14 not printed in the Gazette.]

1,030,839. REINFORCED CONCRETE CONSTRUCTION FOR HYDRAULIC FLUMES. WILFRED P. BARRETON, Portland, Oreg. Filed Apr. 6, 1912. Serial No. 688,985. (Cl. 61—5.)



1. A hydraulic flume comprising suitably supported side beams and a body portion suspended in hammock-like fashion between said beams and comprising concrete coated upon a reinforcing metal mesh fabric.

2. A hydraulic flume comprising suitably supported side beams and a body portion of water-proofed, reinforced concrete, suspended between said beams in substantially the form of a hydraulic curve.

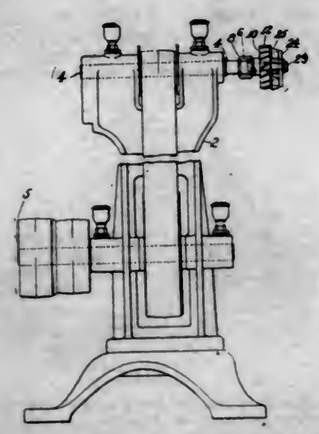
3. In a hydraulic flume, the combination with suitably supported side beams, of a flume body of curved cross section suspended between said beams and comprising a reinforcing mesh-fabric of metal plastered with a concrete composition.

4. In a hydraulic flume, the combination with suitably supported side beams, of a body portion suspended in hammock-like fashion between side beams and comprising a reinforcing mesh-fabric of steel covered with a relatively thin coating of water-proofed concrete.

5. In a hydraulic flume, the combination of suitably supported side beams formed of reinforced concrete, a reinforced concrete flume body suspended between said side beams, and rods connected to the reinforcement of said flume body and embedded within said side beams.

[Claims 6 to 10 not printed in the Gazette.]

1,030,840. SHOE-SHAPING MACHINE. GEORGE M. CARNES, Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 25, 1911. Serial No. 616,786. (Cl. 12—51.)



1. A shoe shaping machine having, in combination, a yielding beater to beat the upper material upon the side of the shoe above the rand crease, a beater to beat the edge of the sole below the rand crease, and a crease shaping device arranged between the upper beater and the sole edge beater and coöperating with said beaters to form a rand crease of predetermined shape.

2. A shoe shaping machine having, in combination, a rand crease shaping device, having oppositely inclined sides, and means positioned immediately adjacent to said inclined sides for beating the upper material and the sole edge at opposite sides of the shaping device and serving to crowd the shoe stock toward the shaping device.

3. A shoe shaping machine having, in combination, a rotary sole edge rubbing block 10, a centrifugal upper beater 25 rotating with said block, said devices treating the shoe stock at opposite sides of the rand crease, and a rand crease shaping device engaging the shoe in the rand crease between said block and beater.

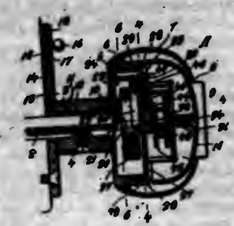
4. A shoe shaping machine, having, in combination, a shoe finishing roll, arms eccentrically pivoted on an end face of the roll, beaters mounted on the free ends of the arms to be projected outwardly by centrifugal force into position to beat a portion of the shoe adjacent to that being treated by the roll, and means for adjustably limiting the outward movement of the beaters.

5. A shoe shaping machine having, in combination, a shaft, a beater carrying block angularly adjustable on the shaft, centrifugal beaters mounted on the block and arranged to engage an extension of the shaft for adjustably limiting the outward movement of the beaters in accordance with the angular position of the block and shaft.

[Claims 6 to 14 not printed in the Gazette.]

1,030,841. ALARM DOOR-KNOB. FRANK COLOUNESE and CARMINE BOCCIA, New York, N. Y. Filed May 23, 1911. Serial No. 629,087. (Cl. 116—44.)

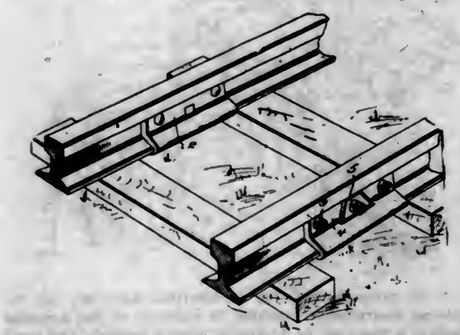
1. In a door alarm, the combination with a knob comprising a casing portion and a sleeve portion, of a spindle extending through the door and connected to the sleeve, a bell within the casing, a hammer for said bell, a rotatable power shaft, a spring for actuating said power shaft, a train of power transmitting mechanism between the shaft and the hammer, for transmitting the motion of the spring to the hammer, an escapement device connected to the shank of the hammer, a member located between the sleeve and spindle and carrying an eccentric within the casing, connections between the escapement and the eccentric, and means engaging with the opposite end of the eccentric carrying member for setting the alarm.



2. In a door alarm, a knob formed of a sleeve portion and a casing portion, a spindle extending through the door and the sleeve and connected to the latter, a bell located within the knob, a power shaft, a spring for actuating the power shaft, a hammer for said bell, a train of gearing for transmitting the motion of the shaft to the hammer, an escapement for said hammer, an angular rod having a portion extending between the sleeve and spindle, an eccentric disk carried by the portion of the rod within the knob, an arm movable by said disk, a spring arm connected to the first mentioned arm and adapted to lie beneath the shank of the hammer carrying the escapement, and means engaging with the opposite end of the rod at the door for setting the alarm.

3. In a door alarm, the combination with a knob, comprising a casing portion and a sleeve portion connected thereto, a spindle extending through the door and connected to said sleeve, a bell located within the casing portion of the knob, a hammer for said bell, an escapement for the hammer, a power shaft, a train of gearing between the power shaft and escapement and actuated from the latter, a spring for actuating the power shaft, means for winding said spring, and means for permitting the actuation of the bell when the knob is turned, said means comprising a rod extending between the spindle and the sleeve, an eccentric disk carried by said rod, an arm actuated by said disk, a spring arm connected to the first-mentioned arm, an extension on said spring arm for actuating the escapement, and means for connecting and disconnecting the alarm, said means comprising a slotted plate having a notch therein adapted to engage with an adjacent extension of the rod.

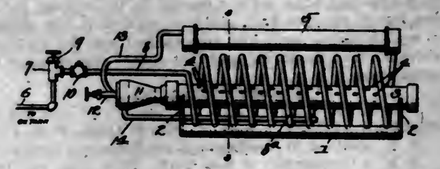
1,030,842. RAIL-JOINT. WILLIAM S. DODSON, Springfield, Mo., assignor to Humason Rail Joint Company, a Corporation of Louisiana. Filed Sept. 8, 1911. Serial No. 648,386. (Cl. 239—13.)



1. In combination with rails having registering recesses at their adjacent ends, a rail joint comprising inner and outer members which fit snugly against the opposite sides of the rails between the lower sides of the heads and the flanges thereof, the inner member having a lug which fits snugly in the said recesses and which projects beyond the outer sides of the webs of the rails, the outer member having at a position between its ends an exserted portion provided upon its inner side with a recess which snugly receives that portion of the lug which projects beyond the outer sides of the webs of the rails, a bolt passing through the members at the lug of the inner member and the exserted portion of the outer member, and bolts passing through the members and the rails at the opposite end portions of the members and at equal distances from the ends of the members.

2. In combination with rails having registering recesses at their adjacent ends, a rail joint comprising inner and outer members which fit snugly against the opposite sides of the rails between the lower sides of the heads and the flanges thereof, the inner member having a lug which fits snugly in the said recesses and which projects beyond the outer sides of the webs of the rails, the outer member having at a position betwen its ends an exserted portion provided upon its inner side with a recess which snugly receives that portion of the lug which projects beyond the outer sides of the webs of the rails, a bolt passing through the members at the lug of the inner member and the exserted portion of the outer member, and bolts passing through the members and the rails at the opposite end portions of the members and at equal distances from the ends of the members, the bolts at the end portions of the members being at a higher level in a direction longitudinally of the rails than the bolt which passes through the intermediate portions of the members.

1,030,843. HYDROCARBON-BURNER. JOHN C. DUNHAM and FRANK A. TURNER, Greenville, Ohio. Filed July 28, 1911. Serial No. 641,132. (Cl. 158—53.)



1. In a device of the kind described, a burner perforated upon its upper side and closed at one end, a funnel arranged at the open end of the burner, an inwardly directed discharge nozzle held centrally with respect to said funnel, an oil supply pipe, a portion of said pipe being coiled about said burner, a tank arranged above said coil and communicating at its rear end with the coil, a drip pan arranged beneath the coil, a feed pipe leading from the front end of the tank to the discharge nozzle and a second pipe leading from the underside of the funnel to said drip pan.

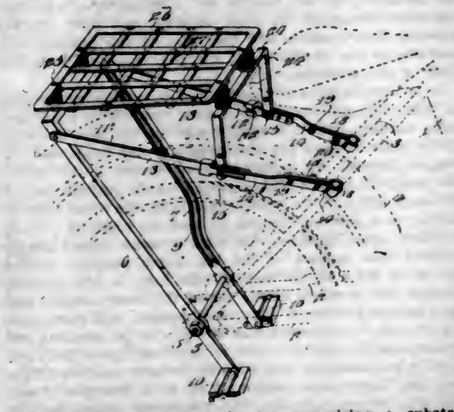
2. In a device of the kind described, a drip pan, a burner arranged above the drip pan, a tank arranged above the burner, an oil supply pipe, a regulating valve therein, a pipe connected thereto, said pipe having a portion coiled about the burner and connected with the end of the tank, a check valve arranged in said last mentioned pipe between the first mentioned valve and the coil, a funnel arranged at the front end of the burner and admitting an air thereto, a valve controlled discharge nozzle extending into said funnel, a pipe leading from the tank to said discharge nozzle, and a pipe leading from said funnel to the drip pan, as and for the purpose set forth.

1,030,844. BICYCLE ATTACHMENT. BERT L. HOWELL, Danville, Ill. Filed Sept. 12, 1911. Serial No. 648,833. (Cl. 208—24.)

1. A bicycle attachment comprising a frame adapted to straddle the wheel of the bicycle and attach to the axle thereof, longitudinally adjustable bracing arms extending between the frame and the fork stays of the bicycle, a package carrier adjustably connected to the arms and to the frame, and pedal extensions on the frame.

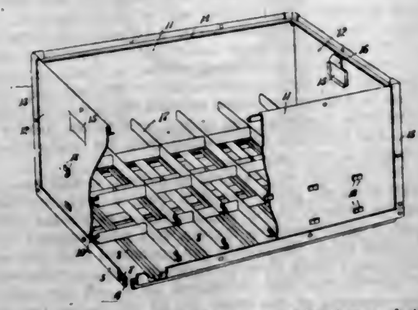
2. A bicycle attachment comprising a U-shaped frame adapted to attach to opposite sides of the rear axle of the

bicycle, longitudinally adjustable arms connecting the frame and the fork stays of the bicycle, a supporting member adjustably connected to the arms, a platform resiliently mounted upon the supporting member and the frame, and a seat adapted to be attached to the platform.



3. An attachment for bicycles comprising a substantially U-shaped frame adapted to straddle the rear wheel of the machine and attach to the axle thereof, bracing arms pivoted to the frame and adjustably connected to the fork stays of the machine, said bracing arms being longitudinally adjustable, a support adjustably connected to the bracing arms, springs carried by the support and by the frame, an open work platform secured to the springs, a seat mounted upon and removable from the platform, extensions on the frame, and foot pedals carried upon the extensions.

1,030,845. CRATE. LOU B. KAUFFMANN, New York, N. Y., assignor to Kauffmann Kase Kompany, New York, N. Y., a Corporation of New York. Filed Aug. 24, 1909. Serial No. 514,364. (Cl. 220—111.)



1. A metal crate including in combination, a bottom, side walls connected with the bottom, a frame within the top edges of the side walls extending all the way around the four sides of the crate, said frame consisting of a flat piece formed longitudinally into two parts at an angle to each other, one of such parts lying against the inner face of the side walls adjacent the upper edge thereof, and the other part extending inwardly from a point below the upper edge of the first-named part, and said side walls being bent over the part lying thereagainst, and having their bent-over portions secured to the frame.

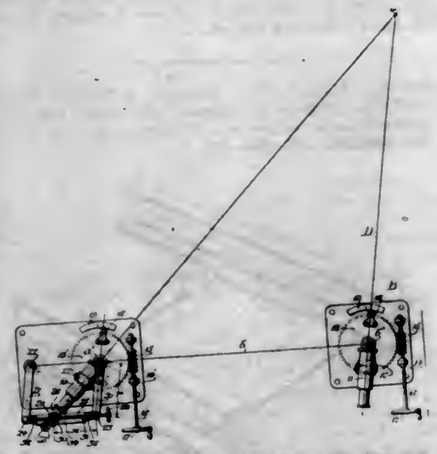
2. A metal crate including in combination, a bottom, side walls connected thereto, a single integral frame within the top edges of the side walls, and extending all the way around the four side walls, said frame consisting of two parts, one lying against and attached to the side walls, and the other projecting inwardly from the first-named part, and at substantially right angles thereto, the inwardly projecting part at each corner thereof being folded downwardly upon itself, to allow the frame to form a right-angle turn to conform to the right-angle corner between the side walls.

3. A metal crate including in combination, a bottom, side walls connected thereto, a single integral frame within the top edges of the side walls, and extending all the way around the four side walls, said frame consisting of two parts one lying against and attached to the side walls, and the other projecting inwardly from the first-named part, and at substantially right-angles thereto, the inwardly projecting part at each corner thereof being folded downwardly upon itself to allow the frame to form a right-angle turn to conform to the right-angle corner between the side walls, said side walls being bent over the part lying thereagainst, and having the bent-over portion secured to said frame.

4. A metal crate including in combination, side walls, a frame extending all around the bottom edge of the crate, said frame being bent longitudinally into three parts, one of said parts lying against and being attached to the bottom portion of the side walls, the next adjacent of said parts extending inwardly at right angles to the first-mentioned part, and the third of said parts being formed at the inner edge of the inwardly extending part, and a reinforcing member secured to said third part, said bottom being attached to said second or intermediate part at a point outside of said reinforcing member.

5. A metal crate including in combination, side walls, a bottom, a frame extending all around the bottom edge of the crate, said frame being bent longitudinally into three parts, one of said parts lying against and being attached to the bottom portion of the side walls, the next adjacent of said parts extending inwardly at right angles to the first-mentioned part, and said third part being bent downwardly and then upwardly, and a reinforcing member lying within said third part, said bottom being attached to said second or intermediate part at a point outside of said reinforcing member.

1,030,846. RANGE-FINDER. ALBERT A. MICHELSON, Chicago, Ill. Filed Feb. 24, 1912. Serial No. 679,600. (Cl. 88—6.)



1. In range finders, the combination with two ray receiving instruments mounted in azimuth at the opposite ends of a base line, of a parallel motion member, and arms whereon said member is mounted having their axes on a line coincident with or parallel to the base line, said parallel motion member being associated with one of said instruments and coöperating therewith to determine the range, substantially as described.

2. In range finders, the combination with two ray receiving instruments mounted in azimuth at the opposite ends of a base line, a swinging support for one of said instruments, a suitable base whereon said support is mounted, a parallel motion member, and arms pivoted on said base and carrying said parallel motion member, said arms and said swinging instrument support having their axes on a line coincident with or parallel to the base line, and said support being adjustable along said parallel motion member to determine the range, substantially as described.

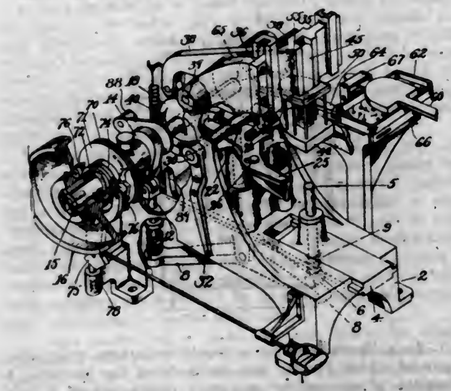
3. In range finders, the combination with two sighting instruments rotatably mounted upon vertical axes at the opposite ends of a base line, of a swinging support whereon one of said instruments is mounted, a base whereon said support is mounted, a parallel motion member, and supporting arms therefor pivoted on said base and having their axes on said base line, said swinging support intersecting said parallel motion member and having a pin and slot connection therewith, and means for adjusting said support along said parallel motion member to direct the instrument thereon upon the target, substantially as described.

4. In range finders, the combination with two sighting instruments rotatably mounted upon vertical axes at the opposite ends of a base line, of a swinging support whereon one of said instruments is mounted, a base whereon said support is mounted, a parallel motion member, and supporting arms therefor pivoted on said base and having their axes on said base line, said swinging support intersecting said parallel motion member and having a pin and slot connection therewith, means for adjusting said support along said parallel motion member to direct the instrument on the support toward the target, and a scale associated with said adjusting means for indicating the range, substantially as described.

5. In a range finding instrument, the combination with a base, of a parallel motion member, arms carrying said member and pivotally mounted on said base, a support pivoted on said base in line with the axis of one of said arms and intersecting said parallel motion member, a sliding pin connecting said support and said parallel motion member, a sighting instrument mounted on said support, a scale on said parallel motion member coöperating with said sliding pin to determine the range, substantially as described.

[Claims 6 and 7 not printed in the Gazette.]

1,030,847. ASSEMBLING AND HEEL-SEAT-LASTING MACHINE. CARL S. NORDEN, Wakefield, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., a Corporation of New Jersey. Filed Mar. 18, 1911. Serial No. 615,414. (Cl. 12—4.)



1. An assembling and heel seat lasting machine having, in combination, an assembling spindle, lasting and tacking devices, a slide by which the spindle with the shoe thereon can be moved backwardly into operative relation to said devices, and means for raising the spindle and shoe in proportion to the distance which the shoe is moved backwardly to compensate for differences in the sizes of shoes.

2. An assembling and heel seat lasting machine having, in combination, an assembling spindle, lasting and tacking devices, means for limiting backward movement and gaging the height for a shoe, a slide in which the spindle is movable endwise and which, with the spindle, is movable to carry the assembled shoe backwardly against the stop and under the height gage, and an inclined support for the spindle formed to lift the spindle toward the height gage in proportion to the backward movement of the shoe.

3. An assembling and heel seat lasting machine having, in combination, an assembling spindle, lasting and tacking devices, said lasting devices comprising a clasp having a heel embracing band, levers supporting said band and having tail arms and a double wedged cam adapted to be forced between said arms for effecting clamping of the upper materials to the side faces of the last around the edge of the heel seat.

4. An assembling and heel seat lasting machine having, in combination, an assembling spindle, lasting and tacking devices, said lasting devices comprising levers having depending flanges provided with formed inner faces to embrace the heel portion of the shoe, wipers supported on the top faces of said levers, and actuating means for said levers and wipers.

5. An assembling and heel seat lasting machine having, in combination, an assembling spindle, lasting and tacking devices, said lasting devices comprising the heel clasp levers 20, having formed inner faces and laterally extending upper faces, the band 10 lining the inner faces of the levers and formed to embrace the heel portion of the last, the wipers 25 having a pin and slot connection with the top faces of the levers, means for actuating the levers to effect clamping of the upper materials against the side faces of the last at the edge of the heel seat, and means for actuating the wipers to force the upper over upon the last bottom from the edge of the heel seat inwardly.

[Claims 6 to 31 not printed in the Gazette.]

1,030,848. AUTOMATIC GRAVITY-LOCK. FRANK DEVERE PATTEN, Portland, Oreg. Filed Sept. 20, 1911. Serial No. 650,478. (Cl. 70—14.)



1. In a lock, the combination of a case, a bolt reciprocable in the case, adapted to be projected; a gravity member pivoted in the case having engagement with said bolt and adapted to normally project it; means in the case adapted for restraining the rotation of the key of the lock, when inserted, to a fixed axis; the parts being arranged to cause the long arm of the gravity member to be lifted by the bit of the key inserted in the lock by the turning of the key, whereby the bolt is retracted; and the case of the lock being adapted to prevent the withdrawal of the key from the lock until the bolt of the latter has been projected, so that the act of withdrawing the key assures that the bolt of the lock has been projected.

2. In a lock, the combination of a case, a bolt reciprocable in the case, adapted to be projected; a gravity member pivoted in the case having engagement with said bolt and adapted to normally project it; means in the case adapted for restraining the rotation of the key of the lock, when inserted, to a fixed axis; the parts being arranged to cause the long arm of the gravity member to be lifted by the bit of the key inserted in the lock by the turning of the key, whereby the bolt is retracted; and a projection on the bolt adapted for being engaged by the bit of the key when turned in the lock, said projection being adapted to prevent the complete turning of the key on its axis to the extent required to bring it to its withdrawing position unless turned in the direction causing the projection of the bolt, so that the act of withdrawing the key assures that the bolt of the lock has been projected.

3. In a lock, the combination of a case, a bolt reciprocable in the case, adapted to be projected; a gravity member pivoted in the case; said gravity member consisting of a long arm and a short pendent arm terminating in a tongue, said tongue engaged with the bolt; means in the case adapted for restraining the rotation of the key of the lock, when inserted, to a fixed axis; the parts being arranged to cause the long arm of the gravity member to be lifted by the bit of the key inserted in the lock by the turning of the key, whereby the bolt is retracted; and the case of the lock being adapted to prevent the withdrawal of the key from the lock until the bolt of the latter has been projected.

4. In a lock, the combination of a case, a bolt reciprocable in the case, adapted to be projected, said bolt provided with a longitudinal slot; a gravity member pivoted in the case; said gravity member consisting of a long arm and a short pendent arm terminating in a tongue inserted in said slot of the bolt; means in the case adapted for restraining the rotation of the key of the lock, when inserted, to a fixed axis; the parts being arranged to cause the long arm of the gravity member to be lifted by the bit of the key inserted in the lock by the turning of the key, whereby the bolt is retracted; and a projection on the bolt adapted for being engaged by the bit of the key when turned in the lock, said projection being adapted to prevent the complete turning of the key on its axis to the extent required to bring it to its withdrawing position unless turned in the direction causing the projection of the bolt, so that the act of withdrawing the key assures that the bolt of the lock has been projected.

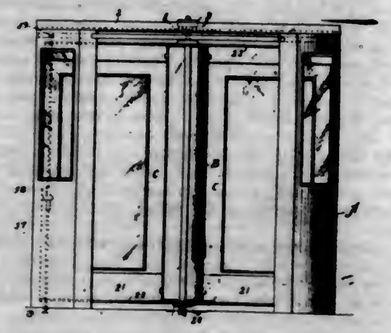
5. In a lock, the combination of a case, a bolt reciprocable in the case, adapted to be projected; a gravity member pivoted in the case having engagement with said bolt and adapted to normally project it; means in the case adapted for restraining the rotation of the key of the lock, when inserted, to a fixed axis; the parts being arranged to cause the long arm of the gravity member to be lifted by the bit of the key inserted in the lock by the turning of the key, whereby the bolt is retracted; and a projection on the bolt adapted for being engaged by the bit of the key when turned in the lock, said projection being adapted to prevent the complete turning of the key on its axis to the extent required to bring it to its withdrawing position unless turned in the direction causing the projection of the bolt, so that the act of withdrawing the key assures that the bolt of the lock has been projected.

[Claims 6 to 8 not printed in the Gazette.]

1,030,849. REVOLVING DOOR. DAVID M. QUAY, New York, N. Y., assignor, by mesne assignments, to Van Kannel Revolving Door Company, New York, N. Y., a Corporation of New Jersey. Filed Oct. 15, 1909. Serial No. 522,792. (Cl. 20—18.)

1. In a door structure and in combination, a rotary pillar, wing members carried thereby, and a central suspended hanger shaft carrying said rotary parts, said shaft and parts having a relative axial movement, said shaft being disconnectible from its support to permit a free bodily movement of the shaft and rotary parts to a position away from the support.

2. In a door structure and in combination, a rotary pillar, wing members carried thereby, and a vertically extensible central suspended hanger shaft carrying said rotary parts, said shaft and parts having a relative axial movement, said shaft being disconnectible from its support to permit a free bodily movement of the shaft and rotary parts to a position away from the support.



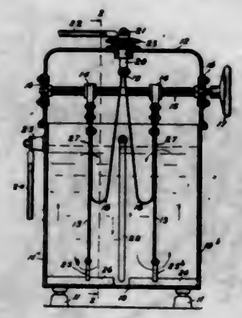
3. In a door structure and in combination, a rotary pillar, wing members carried thereby, a central suspended hanger shaft carrying said rotary parts, and means for adjusting said parts vertically on said shaft.

4. In a door structure and in combination, a rotary pillar, wing members carried by said pillar, a rotary truck-supported shaft hanger, a pillar-supporting hanger shaft detachably connected to said shaft hanger, and an adjustable connection between said pillar and wing members and said detachable hanger shaft.

5. In a door structure and in combination, a rotary door member, a two-part supporting shaft for said door member, a supporting truck from which said shaft is normally suspended and means for securing a relative longitudinal movement between the two shaft parts, the truck-supported shaft part being axially movable relative to the door-member.

[Claims 6 to 21 not printed in the Gazette.]

1,030,850. LIQUID RHEOSTAT. HALFDAN A. STEEN, Milwaukee, Wis., assignor to Allis-Chalmers Company, a Corporation of New Jersey. Filed Sept. 6, 1910. Serial No. 580,535. (Cl. 219—57.)



1. In a liquid rheostat, a liquid-containing receptacle, walls of which furnish one electrode of the rheostat, a plurality of electrically connected plates located within the receptacle and forming another electrode thereof, and transmitting means adapted to move said plates toward and away from said respective walls.

2. In a liquid rheostat, a liquid-containing receptacle, walls of which furnish one electrode of the rheostat, a plurality of electrically connected plates located within the receptacle and forming another electrode thereof, and transmitting means adapted to move said plates simultaneously toward and away from said respective walls.

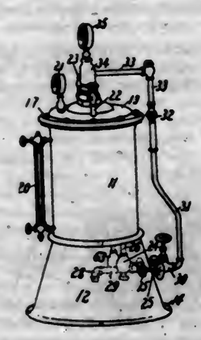
3. In a liquid rheostat, a liquid-containing receptacle, walls of which furnish one electrode of the rheostat, a plurality of electrically connected plates located within the receptacle and forming another electrode thereof, and transmitting members for moving such plates toward and away from said respective walls.

4. In the liquid rheostat, a liquid-containing receptacle, opposite walls of which form one electrode of the rheostat, a pair of electrically connected plates located within the liquid of the rheostat and forming another electrode thereof, and threaded means adapted to move said plates toward and from said opposite walls respectively.

5. In the liquid rheostat, a liquid-containing receptacle, opposite walls of which form one electrode of the rheostat, a pair of electrically connected plates located within the liquid of the rheostat and forming another electrode thereof, and transmitting means for simultaneously moving said plates toward and from said opposite walls respectively.

[Claims 6 to 22 not printed in the Gazette.]

1,030,851. CARBONATOR. FRANK M. THOMAS, Troy, N. Y., assignor, by mesne assignments, to John Liddle, Louis Haussler, G. Frank Rising, and W. I. Shaw, Hoosick Falls, N. Y. Filed May 20, 1910. Serial No. 562,390. (Cl. 209—1.)

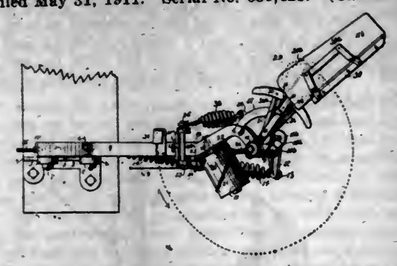


1. In a carbonator, a closed chamber; means for admitting gas at the lower part of said chamber; means for admitting water under pressure at the upper part of said chamber including a valve, a valve seat, and a movable tubular valve stem having a closed lower end and a restricted aperture for discharging a jet of water within said chamber; and a float in said chamber for moving said valve stem to unseat said valve.

2. In a carbonator, a closed chamber; means for admitting gas at the lower part of said chamber; means for admitting water under pressure to said chamber including a head secured to the top of said chamber, a pipe leading into said head, a valve and a valve seat in said head, a movable tubular valve stem extending downwardly into said chamber and having a closed lower end and a restricted aperture for discharging a jet of water within said chamber; and a float in said chamber for moving said valve stem to unseat said valve.

3. In a carbonator, a closed chamber; means for admitting gas at the lower part of said chamber; means for admitting water under pressure at the upper part of said chamber including a valve, a valve seat and a vertically movable tubular valve stem closed at its lower end and having a tubular lateral extension provided with an upwardly opening, restricted orifice for discharging a jet of water upwardly into said chamber.

1,030,852. TARGET-THROWING DEVICE. STEPHEN A. HUNTLEY, Sioux City, Iowa, assignor of one-third to J. C. Dye and one-third to J. C. Smith, Sioux City, Iowa. Filed May 31, 1911. Serial No. 630,423. (Cl. 124—5.)



1. In a target throwing device, the combination with a supporting shank and a target throwing arm carried by the shank, of a rod having a retractable end carried by the arm and adapted to retain the target on the arm when the arm is swinging, and means for retracting the rod, as and for the purpose specified.

2. In a target throwng device, the combination with a shank, a throwing arm carried by the shank and a target on the arm, of a rod having a rectractable end carried by the arm, said end being designed to retain the target on the arm when the arm is thrown, and adjustable means engageable with the rod to retract the same when the arm swings, as and for the purpose specified.

3. In a target throwing device, the combination with a shank, a throwing arm swivelly secured to the shank and a target carried by the arm, of retractable means carried by the arm preventing the escape of the target from the arm in the direction thrown, and means carried by the shank and designed to engage with the retractable means carried by the arm to retract the same and release the target, as and for the purpose specified.

4. In a target throwing device, the combination with a shank, a throwing arm carried by the shank and a target located on the arm, of a rod having a retractable end engaging with the edge of the target and retaining it on the arm when the arm swings, and means carried by the shank and designed to engage with the rod and retract the end thereof to release the target, as and for the purpose specified.

5. In a target throwing device, the combination with the shank, a spring actuated swingable arm carried by the shank, a target carried by the arm and releasable means retaining the arm in a set position, of a rod carried by the arm and having a retractable end engageable with the target restraining the same on the arm when the arm swings, means for releasing the arm to swing and rotatable means engageable with the rod to retract the end thereof, said rotating means being actuated by the releasable means aforesaid, as and for the purpose specified.

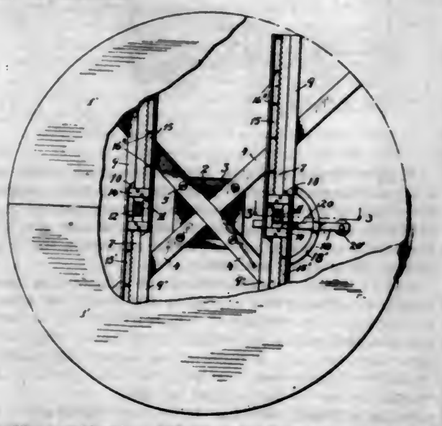
[Claims 6 and 7 not printed in the Gazette.]

1,030,853. EXTENSION-TABLE. PERRY C. MCMAHAN and ERNEST L. KING, Warren, Ohio. Filed July 7, 1911. Serial No. 637,341. (Cl. 45—9.)

1. The combination with an extensible table comprising table top sections, and a rack and pinion gearing therebetween; of means for locking said table top sections against relative movement comprising a pinion connected with the pinion of said gearing; a slidable bar provided with a rack; means for guiding said bar to bring said rack and pinion into or out of engagement; and means for securing said bar when said rack is engaging the pinion whereby to lock the rack and pinion gearing between the table sections, substantially as described.

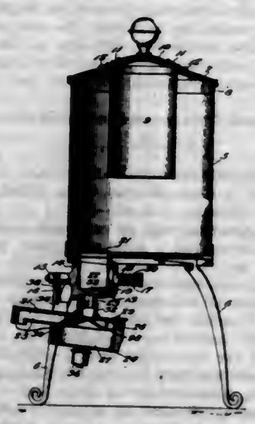
2. The combination with an extensible table comprising a suitable support; table top sections movably mounted on said support; and a rack and pinion gearing between said sections; of means for locking said table top sections

against relative movement comprising a pinion connected with the pinion of said gearing; a cleat and an arm mounted on the support; a bar movably mounted on said cleat and arm; said bar being provided with a rack adapted to engage with said second pinion whereby to hold said pinion against rotation; and a screw carried by said bar and adapted to engage with one of the table top sections whereby to hold said bar rack in locking position, substantially as described.



3. The combination with an extensible table comprising a suitable support; table top sections movably mounted on said support; and a rack and pinion gearing between said sections; of means for locking said table top sections against relative movement comprising a pinion connected with the pinion of said gearing; a cleat and an arcuate arm mounted on said support; a bar slidably mounted on said cleat and arcuate arm, said bar provided with a toothed and a straight edge adapted to engage and disengage respectively with the last named pinion; and a thumb screw carried by said movable bar and adapted to engage with one of the table top sections whereby to hold said bar in locking position, substantially as described.

1,030,854. LIQUID-DISPENSING MACHINE. FRANK T. PEACY, Rochester, N. Y., assignor to Elizabeth L. Huyck, Rochester, N. Y. Filed Dec. 10, 1910. Serial No. 596,623. (Cl. 225—21.)



1. A dispensing apparatus of the class described, comprising a tank, a measuring valve communicating with the tank, and a heated delivery element pivotally connected to and coöperative with the valve, and adapted to be rearwardly tilted when the valve is in position for receiving fluid from the tank.

2. A dispensing apparatus of the class described, comprising a tank, a measuring valve communicating with the tank, a heated delivery element pivotally connected to and coöperative with the valve, and adapted to be rearwardly tilted when the valve is in position for receiving fluid from the tank, and means for heating said delivery element.

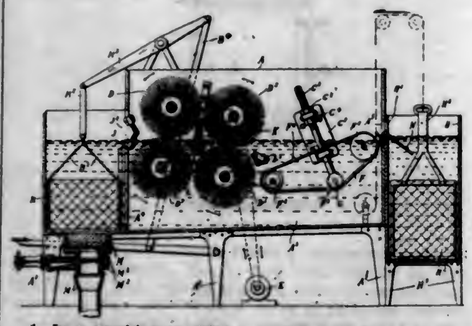
3. A dispensing apparatus of the class described, comprising a tank, a measuring valve communicating with the tank, a heated delivery element pivotally connected to and coöperative with the valve and adapted to be rearwardly tilted when the valve is in position for receiving fluid from the tank, and means for heating said delivery element, the said delivery element containing a water chamber.

4. A dispensing apparatus comprising a tank, a valve shell having communication with the tank, a measuring valve rotatably held within the shell, and a rocking delivery element coöperative with the valve and having connection with said last-named means to hold the said element at a rearward inclination to prevent dripping of the contents therefrom.

5. A dispensing apparatus comprising a tank, a valve shell having communication with the tank, a measuring valve rotatably held within the shell, a rocking delivery element coöperative with the valve and having connection with said last-named means to hold the said element at a rearward inclination to prevent dripping of the contents therefrom, and a heater carried by the said delivery element.

[Claims 6 to 9 not printed in the Gazette.]

1,030,855. WASHING-MACHINE. CARLO PINOLI, London, England, assignor of one-half to Tito Giusti, Leghorn, Italy. Filed Dec. 5, 1911. Serial No. 664,107. (Cl. 141—9.)



1. In a washing machine, a washing tank, pairs of rotary brushes between which the articles to be washed are fed, said pairs being arranged one behind the other, means for rotating the brushes of each pair in opposite directions and at different peripheral speeds and a bridge piece between adjacent pairs of brushes.

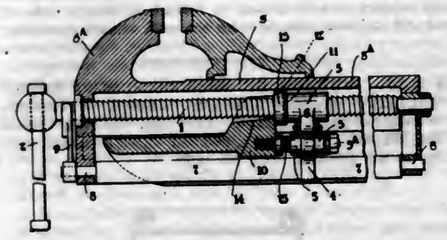
2. In a washing machine, a washing tank, pairs of rotary brushes between which the articles to be washed are fed, said pairs being arranged one behind the other, means for rotating the brushes of each pair in opposite directions and at different peripheral speeds, a bridge piece between adjacent pairs of brushes, stationary brushes arranged before said rotary brushes and a stationary brush between adjacent pairs of rotary brushes arranged above the bridge piece.

3. In a washing machine, a washing tank, pairs of rotary brushes between which the articles to be washed are fed said pairs being arranged one behind the other, means for rotating the brushes of each pair in opposite directions and at different peripheral speeds and a stationary brush between the lower brushes of adjacent pairs.

4. In a washing machine, a washing tank, pairs of rotary brushes between which the articles to be washed are fed, said pairs being arranged one behind the other, means for rotating the brushes of each pair in opposite directions and at different peripheral speeds, a stationary brush between the upper brushes of adjacent pairs of rotary brushes.

REISSUES.

13,431. VISE. RICHARD WILKINSON BATEMAN and LOFTUS HANSON BATEMAN, Leeds, England. Filed Nov. 20, 1911. Serial No. 661,395. Original No. 1,002,486, dated Sept. 5, 1911, Serial No. 588,978. (Cl. 81—36.)



1. In a vise, in combination, a stationary member, a slidable member, a screw acting between said members for operating the slidable member, a pair of crossed and pivoted arms carried by said stationary member but capable of movement relatively thereto and having nut sections thereon for embracing said screw, said arms and stationary member interacting so as to either lock or release the nut sections when the crossed and pivoted arms are moved toward or away from the stationary member by the manipulation of said screw, and a bar journaled in said slidable member and passing between said pivoted arms for actuating the same, as set forth.

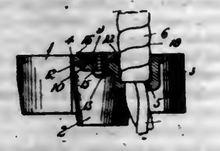
2. In a vise, in combination, a stationary member, a slidable member, a screw acting between said members for operating the slidable member, a pair of crossed and pivoted arms carried by said stationary member but capable of movement relatively thereto and having nut sections thereon for embracing said screw, said arms and stationary member interacting so as to either lock or release the nut sections when the crossed and pivoted arms are moved toward or away from the stationary member by the manipulation of said screw, a spring for holding said nut sections in their closed position, and an eccentrically pivoted rectangular bar for opening said nut sections at equal rates, as set forth.

3. In a vise, in combination, a stationary member, a slidable member, a screw acting between said members for operating the slidable member, a stud upon said stationary member, a pair of crossed and pivoted arms supported by said stud but capable of longitudinal movement thereon, nut sections upon said arms for engaging said screw, said arms and stationary member interacting so as to either lock or release the nut sections when the crossed and pivoted arms are moved toward or away from the stationary member by the manipulation of said screw, a spring surrounding said stud and acting to move said pivoted arms away from said stationary member, springs for holding said nut sections in their closed position, and a bar journaled in said slidable member and passing between said pivoted arms for actuating the same, as set forth.

4. In a vise, in combination, a stationary member, a slidable member, a screw acting between said members for operating the slidable member, a stud upon said stationary member, a pair of crossed and pivoted arms fulcrumed about said stud and capable also of longitudinal movement thereon, a spring surrounding said stud and forcing said arms away from the stationary member, a stop upon said stud for limiting the movement of said arms under the action of said spring, nut sections upon said arms for engaging said screw, said arms and stationary member interacting so as to either positively lock or release the nut sections when the crossed and pivoted arms are moved toward or away from the stationary member by the manipulation of said screw, springs for holding said nut sections in their closed position, a rectangular bar eccentrically journaled in said slidable member and passing between the ends of said crossed arms and means for partially rotating said bar, as set forth.

5. In a vise, in combination, a stationary base provided with a jaw, a hollow slide movable in said base and also provided with a jaw, said base also having a buttress portion which projects within the hollow slide, an operating screw journaled in said slide, a stud secured to said buttress portion, a pair of crossed and pivoted arms supported by, but movable longitudinally on said stud and having nut sections at their upper ends, a washer interposed between the buttress portion and said arms on the crossed arms and serving to lock said sections when the latter engage therewith, a spring pressing said crossed arms away from said washer, means for limiting the movement of said arms, under the action of said springs, springs for holding said nut sections in their closed position, a rectangular bar eccentrically journaled in said slide and passing between the lower end portions of said arms, and a thumb lever for rocking said bar, as set forth.

13,432. OUTLET-BOX FOR ELECTRIC CONDUITS. WILLIAM A. BONNELL, Brooklyn, N. Y., assignor to Hattie W. Bonnell, Brooklyn, N. Y. Filed July 20, 1910. Serial No. 572,945. Original No. 921,584, dated May 11, 1909, Serial No. 446,474. (Cl. 247—1.)



1. An outlet box having a plurality of conduit receiving bushings, depressions in the exterior of the rear of said box adjacent said bushings, clamping plates arranged in said depressions, said plates and depressions having coöperating cam faces at their rear ends, there being slots in the bases of said depressions and clamping screws extending through said slots and engaging said plates and operable from the inside of said box to move said plates to clamping position.

2. An outlet box having one or more conduit receiving bushings therein fixed to its base and conduit clamping means for the conduits located at the rear of the base of said box, to engage the conduits at points distant from the ends of said conduits when the latter are inserted in said bushings.

3. An outlet box having one or more stationary conduit receiving bushings fixed to its base, and conduit clamping plates located at the rear of the base adjacent said bushings, and means to cause said plates to engage the conduits at points substantially in the plane of the base.

4. An outlet box having one or more stationary conduit receiving bushings projecting into said box and clamping means on said box at the base of said bushings whereby said means will engage the conduits substantially at the base of said bushings.

5. An outlet box having one or more conduit receiving bushings projecting into said box, and clamping plates arranged on said box and having clamping edges located at the base of said bushings to engage the conduits substantially at the base of said bushings.

6. An outlet box having one or more conduit receiving bushings formed integral with the base and extending into the interior of the box and clamping plates arranged at the rear of the base adjacent the entrance to each bushing whereby said plates will engage the conduits substantially in the plane of the base of the box.

7. An outlet box having one or more conduit receiving sockets, clamping plates arranged adjacent said sockets,

coöperating inclined bearing surfaces upon said clamping plates and box respectively, whereby said plates may be forced to the clamping position, one of said bearing surfaces having an inclined rib and the other of said bearing surfaces having a correspondingly inclined groove whereby friction between said surfaces will be reduced to a minimum.

8. In an outlet box having one or more conduit receiving bushings, an inclined surface on the base of said box adjacent each of said bushings, and clamping plates each having an inclined surface adapted to coöperate with the first named surface whereby said plates may be drawn to clamping position and a groove in one of said coöperating surfaces and a ridge in the other of said surfaces adapted to engage said groove whereby said plate will be guided to clamping position.

9. An outlet box having one or more integral conduit receiving bushings, conduit clamping plates arranged adjacent the entrance to said bushings and knock-out disks for said bushings separate from said clamping plates, said disks having laterally extending lugs arranged to be held between said plates and the box to hold said disks in position over said bushings and adapted to be broken off in removing said disks.

10. An outlet box having one or more stationary conduit receiving bushings projecting into said box and clamping means on said box located at the base of said bushings to engage the conduits substantially at the base of said bushings, said clamping means compressing means to draw the conduits into said bushings.

11. An outlet box having one or more stationary conduit receiving bushings fixed to its base and conduit clamping wedges located at the rear of the base adjacent said bushings to engage the conduits at points substantially in the plane of the base.

12. An outlet box having one or more conduit receiving bushings projecting into said box, and clamping wedges arranged on said box at the base of said bushings and having clamping edges to engage the conduits substantially at the base of said bushings.

13. An outlet box having one or more conduit receiving bushings formed integral with the base and extending into the interior of the box and clamping wedges arranged at the rear of the base adjacent the entrance to each bushing whereby said wedges will engage the conduits substantially in the plane of the base of the box.

14. The combination with an electrical conduit box provided with a wall aperture, to pass an electrical conductor and its sheath, and with an integral housing in said wall, for said sheath, said housing having a mural recess with a wedge-engaging portion presented toward the outer side of said wall, of a wedge working in said recess, and a draft screw operable from within said box to actuate said wedge, substantially in the manner and for the purpose set forth.

15. The combination with a plate provided with an aperture to pass an electrical conductor and its sheath, of a wedge to enter between said sheath and the wall of said aperture, said wedge being capable of application after introduction of said sheath into said aperture, and actuating means for said wedge, operable from the side of said plate opposite the side of entry by said wedge, substantially as described.

16. The combination with a plate provided with an aperture to pass an electrical conductor and its sheath, of a clamping member for said sheath located on one side of said plate, and actuating means for said member, operable from the other side of said plate, and including means to cause said actuating means to draw said sheath toward said plate, substantially as described.

17. The combination with a plate provided with an integral housing to receive the end of an armor sheath, said housing having an aperture to pass the conductor leading from said sheath, and having a protective annular shoulder to surround said conductor and prevent abrasion of the insulation thereon by the end of said sheath, and an inclined wall, of an attaching member provided with a coöperating surface to slide on said inclined wall, causing movement of said attaching member to engage said sheath and force it into direct physical and electrical contact with the wall of said aperture, and means to actuate said attaching member and secure it in adjusted position.

18. The combination with a plate apertured to pass an electric conductor and an armor sheath therefor, of an attaching member comprising a wedge and means to move said wedge within said aperture along a surface co-extensive with the thickness of said plate and co-axially with respect to said sheath to force the latter into binding engagement with the opposite wall of said aperture.

19. An attaching member for the purpose set forth, comprising a wedge to enter a sheath receiving aperture in an outlet box between said sheath and the wall of said aperture, and means to drive said wedge along a surface co-extensive with the thickness of said wall and co-axially with respect to said sheath to force said sheath into direct and physical contact with the wall of said aperture.

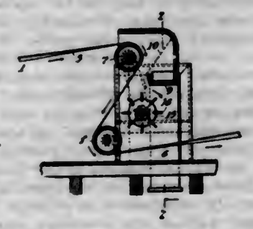
13,433. METHOD OF MANUFACTURING RECEPTACLES. WILLIAM RIGHTER COMINGS, Wharncliffe, Wimbledon Park, England. Filed May 16, 1912. Serial No. 697,802. Original No. 995,953, dated June 20, 1911, Serial No. 483,408. (Cl. 93—39.)



1. The method of fixing ends or bottoms to receptacles, which consists in first forming a roll-over part upon the tubular portion of the article, next fitting to said roll-over part internally an end having a turn-up flange adapted to enter and engage said roll-over part of the tubular body, which acts as a forming die for such end, and finally applying pressure to the combined parts so as to cause the roll and the flange to turn over and flow so as to become molded together into a locking joint.

2. The method of fixing ends or bottoms to receptacles, which consists in first forming a roll-over part upon the tubular portion of the article, next fitting to said roll-over part internally an end having a turn-up flange adapted to enter and engage said roll-over part of the tubular body, which acts as a forming die for such end, and finally applying pressure to the combined parts so as to cause the roll and the flange to turn over and flow so as to become molded together into a locking joint provided with flanges adapted to strengthen the receptacle.

13,434. DISCHARGING APPARATUS FOR BELT CONVEYERS. THOMAS A. EDISON, Llewellyn Park, Orange, N. J. Filed Nov. 30, 1907. Serial No. 404,627. Original No. 861,819, dated July 30, 1907, Serial No. 378,890. (Cl. 193—25.)



1. The combination of a traveling imperforate belt conveyer adapted to carry a stream of separate solid particles of material, a rotating drum or roller mounted adjacent the same, its upper surface moving in the same direction as said conveyer, means for feeding to said roller a stream of solid particles of the width to be carried by the conveyer, said roller having peripheral means adapted to receive said material and cause the velocity of the roller to be imparted thereto and to project the same upon the conveyer, and means for rotating the drum or roller with a surface speed substantially equal to that of the conveyer, whereby wear upon the conveyer due to the discharge thereon of the solid particles of material is minimized, substantially as set forth.

2. The combination of a traveling imperforate belt conveyer adapted to carry a stream of separate solid particles of material, a rotating drum or roller mounted adjacent the same, its upper surface moving in the same direction as said conveyer, means for feeding to said roller a stream of solid particles of the width to be carried by the conveyer, the arrangement of feeding means and roller being such as to prevent said particles from falling from said roller in a direction contrary to that of rotation, said roller being adapted to receive said material and impart its velocity thereto and to project the same upon the conveyer, and means for rotating the roller with a surface speed substantially equal to that of the conveyer whereby the wear due to the discharge thereon of the solid particles of the material is minimized, substantially as set forth.

3. In a discharging apparatus for belt conveyers of the type described, the combination with the upper and lower runs of a belt, means located between the upper and lower runs for receiving material discharged from the upper run and projecting it forwardly in the direction of travel of and upon the lower run, substantially as set forth.

4. In a discharging apparatus for belt conveyers of the type described, the combination with the upper and lower runs of a belt, of a stationary shelf for receiving the material discharged from the upper run and means located beneath the shelf for receiving material discharged therefrom and projecting it forwardly in the direction of and upon the lower run, substantially as set forth.

5. In a discharging apparatus for belt conveyers of the type described, the combination with the upper and lower runs of a belt, of a roller located between the upper and lower runs for receiving material discharged from the upper run and projecting it forwardly in the direction of and upon the lower run, substantially as set forth.

6. In a discharging apparatus for belt conveyers of the type described, the combination with the upper and lower runs of a belt, of a roller located beneath the upper and lower runs for receiving material discharged from the upper run, projecting it forwardly in the direction of and upon the lower run and means for driving said roller from the belt, substantially as set forth.

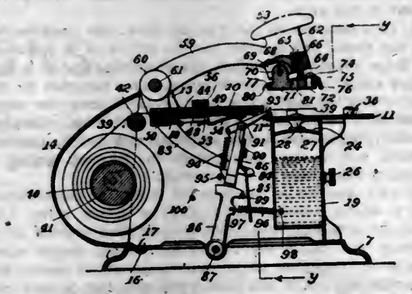
7. In a discharging apparatus for belt conveyers of the type described, the combination with the upper and lower runs of a belt, of a roller located between the upper and lower runs for receiving material discharged from the upper run and projecting it forwardly in the direction of and upon the lower run, and a plurality of radial wings carried by said roller, substantially as set forth.

13,435. STAMP-AFFIXING MACHINE. SAMUEL B. WHITE, Providence, R. I., assignor, by mesne assignments, to The Office Appliance Manufacturing Company, a Corporation of Rhode Island. Filed Sept. 7, 1911. Serial No. 648,254. Original No. 968,619, dated Aug. 30, 1910, Serial No. 520,320. (Cl. 216—33.)

1. In a machine of the type set forth, the combination with a support for the article to be stamped, of a stamp affixing device above the support, a carrier above the support adjacent the affixing device, an absorbent material in the carrier, a wick in contact with the absorbent material and located in a liquid receptacle below the support, and means actuated by the affixing device for elevating the liquid in the receptacle.

2. In a machine of the type set forth, the combination with a support for the article to be stamped provided with an opening, a stamp affixing device, a tank below the support, a flexible cover upon the tank, and a projection upon the cover extending through the opening in the path of the affixing device.

3. In a machine of the type set forth, the combination with a support for the article to be stamped, of a stamp-affixing device above the support embodying a bearing plate, a tank below the support and means carried by the tank below the bearing plate and in the path thereof for cushioning the stroke of the affixing device.



4. In a machine of the type set forth, the combination with the support for the articles to be stamped, of a vibratory operating arm above the support, oscillatory means coöperating with the arm for feeding a stamp into the path of the arm, means for clamping the stamp strip during the descent of the arm, means for coöperating with said arm to actuate said feeding means, and resilient means coöperating with said arm to insure movement of the latter to its rearmost position.

5. In a machine of the type set forth, the combination with the support for the article to be stamped, of a vibratory operating arm above the support, vibratory means for feeding a stamp to the operating arm, oscillatory means actuated by the operating arm for operating the vibratory means, means for clamping the stamp strip during the descent of the arm, means for coöperation with said arm to actuate the feeding means, and resilient means coöperating with said arm to insure movement of the latter to its rearmost position.

6. In a machine of the type set forth, the combination with a support for the article to be stamped, of a vibratory operating arm above the support, a pivotally mounted arm for feeding a stamp to the support, spring means for moving the arm in one direction, oscillatory means actuated by the operating arm for moving the stamp feeding arm in the opposite direction and a stronger spring movable with the oscillatory means for insuring the movement of the stamp feeding arm to its rearmost position.

7. In a machine of the type set forth, the combination with the frame and the support for the article to be stamped provided with a ledge to support a stamp strip, of an operating arm pivotally mounted in the frame above the support provided with a head portion, a bearing plate pivotally connected with the head portion, and a yielding member movable with said bearing plate and having a portion for engagement with said ledge during the descent of the arm.

8. In a machine of the type set forth, the combination with the frame and support for the article to be stamped, of a member pivotally mounted in the frame above the support and provided with a head portion, a bearing plate pivotally connected with the head portion, a yielding member carried by said bearing plate and a spring intermediate the bearing plate and head portion.

9. In a machine of the type set forth, the combination with the frame and support for the article to be stamped, of an operating arm pivotally mounted in the frame above the support provided with a head portion, a bearing plate pivotally connected with the head portion, a yielding plate upon the bearing plate provided with downwardly directed end portions extending below the lower face of the bearing plate.

10. In a machine of the type set forth, the combination with the frame and support for the article to be stamped, of a ledge adapted to support a stamp strip, an operating arm pivotally mounted in the frame above the support and provided with a head portion, a bearing

plate upon the head portion adapted when the arm is vibrated to pass the ledge, and a spring plate upon the top of the bearing plate provided with a downwardly extending end adapted to engage the ledge during the descent of the arm.

11. In a machine of the type set forth, the combination with the frame and support for the article to be stamped, of a ledge adapted to support the projecting end of a perforated stamp strip, a vibratory member mounted in the frame above the support, a bearing plate upon the member adapted to contact in its travel with the projecting end of the strip, and means upon the member for binding the strip end to the ledge and to the support, during a portion of the travel of the member.

12. In a machine of the type set forth, the combination with a device adapted to support a stamp strip, and means for detaching and affixing individual stamps, of a vibratory arm below the supporting device, means upon the arm for engaging the stamp strip, spring means for advancing the arm after engagement, and means actuated by the detaching means for returning the arm to original position.

13. In a machine of the type set forth, the combination with a device adapted to support a stamp strip, and means for detaching and affixing individual stamps, of a vibratory arm below the supporting device, yielding means upon the arm for engaging the strip, a spring for advancing the arm, and means operated through the detaching means for returning the arm to its original position.

14. In a machine of the type set forth, the combination with a device adapted to support a stamp strip, of means for detaching and affixing individual stamps, a vibratory arm below the supporting device, means upon the arm for engaging the strip, a spring for advancing the arm, means operated by the detaching means for returning the arm to original position, and means for binding the strip during the return movement of the arm.

15. In a machine of the type set forth, the combination with the frame and the support for the article to be stamped, of a rock shaft mounted in the frame, an operating arm upon the shaft extending over the support and provided with stamp affixing means, a second arm upon the shaft, a ledge adjacent the support adapted to support a stamp strip, a vibratory arm pivotally mounted in the frame and actuated by the second arm, yielding means upon the vibratory arm adapted to engage the strip, and a spring connecting the frame and the vibratory arm.

16. In a machine of the type set forth, the combination with a supporting device for a stamp strip and means for affixing individual stamps, of a top plate above the supporting device provided with a groove upon its under face, a vibratory arm below the plate, a lever yieldingly mounted upon the arm provided with an upturned end adapted to register in the groove, and means for positively moving the arm rearwardly.

17. In a machine of the type set forth, the combination with the frame and the support for the article to be stamped, of a shaft in the frame adjacent the support, an operating arm upon the shaft extending over the support and provided with stamp affixing means, a second arm upon the shaft, a device adjacent the support adapted to support a stamp strip, a vibratory arm pivotally mounted on the frame below said device, a spring upon the vibratory arm in the path of the second arm, means upon the vibratory arm for engaging the strip, and a spring connecting the frame and the vibratory arm.

18. In a machine of the type set forth, the combination with a rock shaft, an operating arm upon the rock shaft, means carried by said arm for affixing stamps, a second arm upon the rock shaft, a vibratory arm adapted to feed a stamp strip to the operating arm, means for actuating the vibratory arm in one direction, and a spring upon the vibratory arm in the path of the second arm.

19. In a machine of the type set forth, the combination with the frame and the support for the article to be stamped, of a ledge adapted to support the projecting end of a perforated stamp strip, a vibratory arm mounted in the frame above the support, a bearing plate upon the arm adapted to contact in its travel with the projecting end of the strip, and means for binding the strip end to the ledge and to the support during a portion of the travel of the arm.

20. In a machine of the type set forth, the combination with the frame and the support for the article to be stamped, of a ledge adapted to support the end of a perforated stamp strip, a vibratory member mounted in the frame above the support, yielding means carried by said member adapted to bind the strip to the ledge during a portion of the travel of said member, and means carried by said member adapted to bind the projecting end of the stamp to the support and to coöperate with the ledge to separate the end stamp from the strip.

21. In a stamp affixing machine, the combination with a table or support for the article to be stamped, of a fixed ledge at one side thereof above the support, means for feeding a stamp strip to project the end stamp over the support with the line between said end stamp and the succeeding stamp lying over said ledge, and an affixing device having a pivoted bearing plate adapted to press the projected stamp upon the article, the bearing plate being provided with means adapted to first engage and hold the ends of the stamp and to then coöperate with the ledge to separate the stamp from the strip.

22. In a stamp affixing machine, the combination with a table or support for the article to be stamped, of a fixed ledge at one side thereof above the support, means for feeding a stamp strip to project the end stamp over the support with the line between said end stamp and the succeeding stamp lying over said ledge, and an affixing device comprising a head having an up and down movement, a bearing plate pivotally connected to the head and in position to engage the projected stamp when the head is moved down to coöperate with the support, the bearing plate being provided with means for engaging the free end of the stamp to clamp the same to the article and being adapted to coöperate with the ledge to separate the end stamp from the strip.

23. In a stamp affixing machine, the combination with a table or support for the article to be stamped, of a fixed ledge at one side thereof above the support, means for feeding a stamp strip to project the end stamp over the support with the line between said end stamp and the succeeding stamp lying over said ledge, and an affixing device comprising a head having a bearing plate pivotally connected thereto, said head having an up and down movement and being normally sustained above the projected end stamp of the strip, a spring arranged between the head and the bearing plate and adapted to exert pressure on the forward end of the bearing plate, the said bearing plate being provided with stamp engaging means and being so connected to the head that the ends of the stamp will be engaged first and held and thereafter the plate will coöperate with the ledge to separate the projected stamp from the strip.

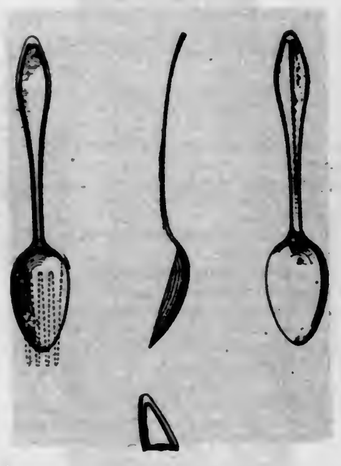
DESIGNS.

42,662. LEVERS LACE. CHARLES WILFRED BIRKIN, Nottingham, England. Filed May 4, 1912. Serial No. 695,285. Term of patent 3½ years.



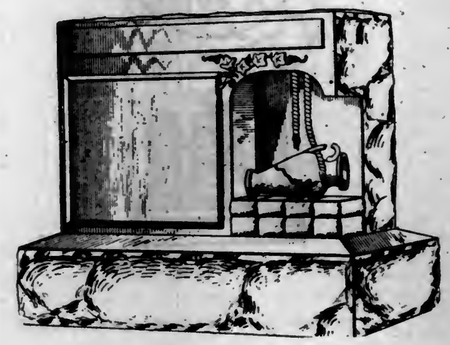
The ornamental design for Levers lace as shown.

42,663. HANDLE FOR SPOONS OR ANALOGOUS ARTICLES. EDWARD HENRY COLBY, Newburyport, Mass., assignor to Towle Manufacturing Company, Newburyport, Mass., a Corporation of Massachusetts. Filed Feb. 26, 1912. Serial No. 680,087. Term of patent 14 years.



The ornamental design for a handle for spoons or analogous articles as shown.

42,664. MONUMENT. LEWIS M. ELWELL, Zanesville Ohio. Filed May 3, 1912. Serial No. 694,967. Term of patent 7 years.



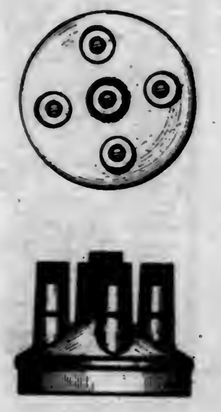
The ornamental design for a monument, as shown.

42,665. PITCHER. THOMAS CLARENCE HEISEY, Newark, Ohio, assignor to A. H. Heisey & Co., Newark, Ohio, a Copartnership. Filed May 1, 1912. Serial No. 694,586. Term of patent 14 years.



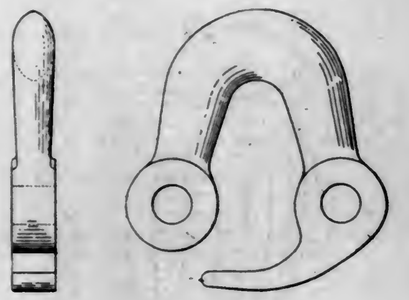
The ornamental design for a pitcher, as shown.

42,666. CAP FOR CONTACT-MAKERS. ARTHUR ATWATER KENT, Philadelphia, Pa. Filed Apr. 8, 1912. Serial No. 689,439. Term of patent 14 years.



The ornamental design for a cap for contact makers, as shown.

42,667. GUARD FOR PULLEYS. FREDERICK B. MALLORY, Portland, Oreg. Filed Dec. 16, 1911. Serial No. 666,268. Term of patent 7 years.



The ornamental design for guard for pulley as shown.

42,668. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed May 6, 1912. Serial No. 695,583. Term of patent 7 years.



The ornamental design for a rug, as shown.

42,669. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed May 6, 1912. Serial No. 695,584. Term of patent 7 years.



The ornamental design for a rug, as shown.

42,670. RUG. JOHN MERRY, New York, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed May 6, 1912. Serial No. 695,585. Term of patent 7 years.



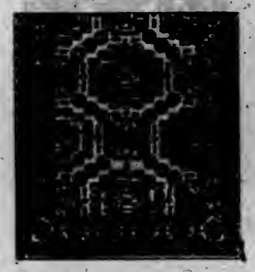
The ornamental design for a rug, as shown.

42,671. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed May 9, 1912. Serial No. 696,241. Term of patent 3½ years.



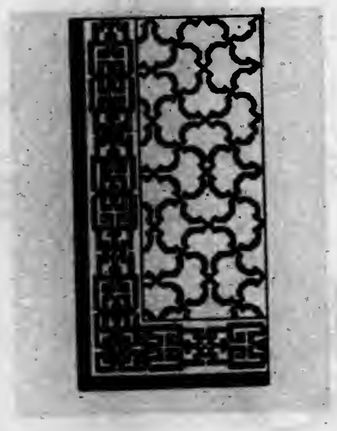
The ornamental design for a rug, as shown.

42,672. RUG. ADOLPH PETZOLD, Philadelphia, Pa., assignor to John H. Bromley and Edward Bromley, Copartners trading as John Bromley & Sons, Philadelphia, Pa. Filed May 9, 1912. Serial No. 696,242. Term of patent 3½ years.



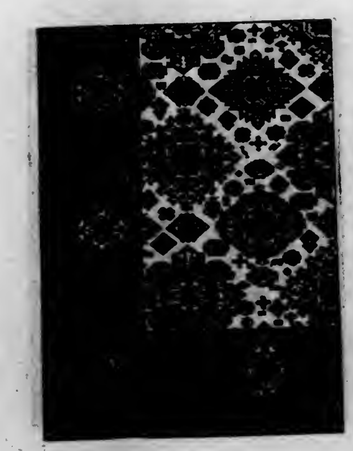
The ornamental design for a rug, as shown.

42,673. RUG. ROBERT F. RIDDELL, Flushing, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed May 6, 1912. Serial No. 695,586. Term of patent 7 years.



The ornamental design for a rug, as shown.

42,674. RUG. EMIL G. SAUER, Richmond Hill, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed May 6, 1912. Serial No. 695,580. Term of patent 3½ years.



The ornamental design for a rug, as shown.

42,675. RUG. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed May 6, 1912. Serial No. 695,582. Term of patent 7 years.



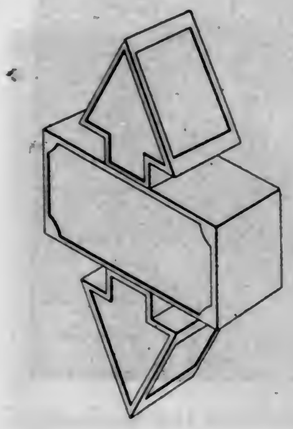
The ornamental design for a rug, as shown.

42,676. RUG. FRANCIS SCHINDLER, Scarsdale, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed May 6, 1912. Serial No. 695,581. Term of patent 7 years.



The ornamental design for a rug, as shown.

42,677. ELEVATOR-SIGNAL-LIGHT BOX. NEWTON L. SCHLOSS, New York, N. Y. Filed Apr. 19, 1912. Serial No. 691,958. Term of patent 7 years.



The ornamental design for an elevator signal light box, as shown.

42,678. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed May 6, 1912. Serial No. 695,578. Term of patent 7 years.



The ornamental design for a rug, as shown.

42,679. RUG. WILLIAM A. SPRING, Brooklyn, N. Y., assignor to Bigelow Carpet Company, a Corporation of Massachusetts. Filed May 6, 1912. Serial No. 695,579. Term of patent 7 years.



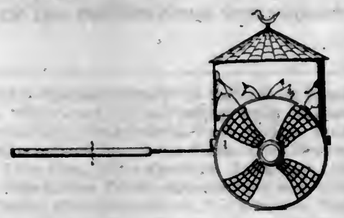
The ornamental design for a rug, as shown.

42,680. BADGE. WALTER L. TRUEBLOOD, Des Moines, Iowa. Filed Apr. 17, 1912. Serial No. 691,508. Term of patent 7 years.



The ornamental design for a badge as shown.

42,681. TOY. RICHARD L. VAN SANT, Ardmore, Pa., assignor of one-half to William A. Botts, Llanerch, Pa. Filed Mar. 27, 1912. Serial No. 686,625. Term of patent 7 years.



The ornamental design for a toy, as shown.

TRADE-MARKS

PUBLISHED JUNE 25, 1912.

The following trade-marks are published in compliance with section 6 of the act of February 20, 1905, as amended March 2, 1907. Notice of opposition must be filed within thirty days of this date.

Marks applied for "under the ten-year proviso" are registrable under the provision in clause (b) of section 5 of said act as amended February 18, 1911.

As provided by section 14 of said act, a fee of ten dollars must accompany each notice of opposition.

Ser. No. 33,998. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) HOLOPHANE GLASS CO., New York, N. Y. Filed Apr. 10, 1908.

LUMINOLIER

Particular description of goods.—Gas and Electric Apparatus or Fixtures for Holding or Supporting Light Reflectors or Shades.

Claims use since Jan. 16, 1907.

Ser. No. 35,574. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed June 17, 1908.



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.

Claims use since Feb. 27, 1905.

Ser. No. 41,355. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) ALFRED C. GILBERT, New Haven, Conn. Filed Mar. 23, 1909.

MYSTO

Particular description of goods.—Toys, Trick-Boxes, Puzzles, Trick-Coins, Trick-Cups, Trick-Glasses, Trick-Eggs, Trick-Handkerchiefs, Trick-Balls, Trick-Ropes, Trick-Chains, Trick-Vases, Trick-Flowers, Trick Smokers' Articles, Trick-Flags, Trick-Pencils, Trick-Jewelry, Trick-Locks, Trick-Slates, Trick-Dice, Trick-Corks, Trick-Bottles, Trick-Rings, Trick-Fans, Trick-Envelops, Trick-Keys, Vanishing Tricks, Fire-Eating Tricks, Handkerchief and other Pulls, Trick-Tables, Planchette-Boards, Trick-Swords, Trick-Bags, Trick Coin-Holders, Trick-Wands, Threads, String, Catgut, and Hair for Magicians' Tricks, Receptacles Used in Magicians' Tricks, Stage and Parlor Curtains for Magic Purposes, Multiplying-Tricks, Substitution Tricks, Color-Change Tricks, Transformation-Tricks, Trick-Canes, Trick Bric-A-Brac, Trick Musical Instruments, Trick Articles of Clothing, Trick-Weapons, Trick-Tubes, Trick-Candles, Trick Clocks and Watches, Trick-Skulls, Novelties, Games, Spiritualistic Tricks, Trick-Handcuffs, Sacks and Bags for Use in Various Tricks, Trunks for Magicians' Tricks, Levitation-Tricks, Trick-Balances, Trick Match-Lighters, Ventriloquist-Figures, Conjuring-Tables, Stands for Conjurers' Tricks, Chair-Servants, Paper Rolls and Throw-Out Coils for Tricks, and Trick-Cards.

Claims use since Jan. 3, 1909.

Ser. No. 41,459. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) LEWIS T. GREIST, Washington, D. C., assignor to The Federal Screens Company, a Corporation of Delaware. Filed Mar. 29, 1909.

FEDERAL

Particular description of goods.—Window-Screens.

Claims use since February, 1909.

Ser. No. 47,324. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) CONTINENTAL RADIATOR & FOUNDRY CO., St. Louis, Mo. Filed Jan. 22, 1910.

LITTLE HERCULES

Particular description of goods.—Water-Heaters.

Claims use since about Apr. 1, 1909.

Ser. No. 48,635. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) GENERAL ELECTRIC COMPANY, Schenectady, N. Y. Filed Mar. 24, 1910.

G.I.

Consisting of the letters "G. I."
Particular description of goods.—Electric Lamps.
Claims use since February, 1899.

Ser. No. 49,663. (CLASS 12. CONSTRUCTION MATERIALS.) THE ATLAS PORTLAND CEMENT COMPANY, Northampton, Pa. Filed May 12, 1910.

ATLAS

Particular description of goods.—Bricks.
Claims use since May 10, 1910.

Ser. No. 49,711. (CLASS 37. PAPER AND STATIONERY.) J. C. BLAIR COMPANY, Huntingdon, Pa. Filed May 13, 1910.



Particular description of goods.—Paper for Writing and Printing Purposes, Drawing-Paper, Pencil-Paper, Envelops, Writing-Tablets, Pencil-Tablets, Drawing-Tablets, Spelling-Tablets, and Blank Books.
Claims use since Feb. 2, 1910.

Ser. No. 51,068. (CLASS 15. OILS AND GREASES.) STANDARD OIL CO. OF NEW YORK, New York, N. Y. Filed July 26, 1910. Under ten-year proviso.

ROYAL DAY-LIGHT

Particular description of goods.—Refined Petroleum for Illuminating, Heating, and Power Purposes.
Claims use since June 23, 1904.

Ser. No. 53,381. (CLASS 39. CLOTHING.) A. M. MALOUF & BROS., New York, N. Y. Filed Dec. 20, 1910.

MALBROS

Particular description of goods.—Collars, Negligée and Dress Shirts, Hosiery, Woven and Knitted Drawers and Undershirts, Under and Top Skirts, Dress, Shirt, and Under Waists.
Claims use since about Feb. 16, 1910.

Ser. No. 53,461. (CLASS 60. MERCHANDISE NOT OTHERWISE CLASSIFIED.) CONTINENTAL-CAOUTCHOUC-UND GUTTA-PERCHA-COMPAGNIE, Hanover, Germany. Filed Dec. 24, 1910. Under ten-year proviso.

Continental

Particular description of goods.—Sheetings of Rubber-Proofed Fabrics for Use in Vessels for Navigating the Air.
Claims use since about 1891.

Ser. No. 54,068. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE RAILWAY CHEMICAL MFG. CO., Meadville, Pa. Filed Jan. 25, 1911.

A.T.V.

KLEENKO

Particular description of goods.—A Compound for Cleaning and Polishing Wood and Metal Surfaces.
Claims use since May 1, 1908.

Ser. No. 56,257. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) C. CONRADTY (INHABER PAULINE & EUGEN CONRADTY) FABRIK ELEKTRISCHER U. GALVANISCHER KOHLEN, Nuremberg, Germany. Filed May 9, 1911.

Bronskol

Particular description of goods.—Electric-Arc-Light Carbons, Galvanic Carbons, Battery Carbon Plates, Cylinders, and Briquets, Battery Plates, Cylinders, and Briquets of Manganese Dioxids, Carbons for Microphones, Commutator-Brushes of Carbon and Metal, Sliding Carbon-Contacts for Electric Purposes, and Carbons for Electrolytic Purposes.
Claims use since Nov. 21, 1910.

Ser. No. 56,258. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) C. CONRADTY (INHABER PAULINE & EUGEN CONRADTY) FABRIK ELEKTRISCHER U. GALVANISCHER KOHLEN, Nuremberg, Germany. Filed May 9, 1911.

MULTAX

Particular description of goods.—Electric-Arc-Light Carbons, Galvanic Carbons, Battery Carbon Plates, Cylinders,

and Briquets, Battery Plates, Cylinders, and Briquets of Manganese Dioxid, Carbons for Microphones, Commutator-Brushes of Carbon and Metal Wire, and Sliding Carbon-Contacts for Electric Purposes.
Claims use since Aug. 4, 1910.

Ser. No. 57,284. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) UNITED FLOUR MILLS COMPANY, Minneapolis, Minn. Filed June 24, 1911.



Particular description of goods.—Wheat-Flour.
Claims use since about June 1, 1911.

Ser. No. 57,851. (CLASS 12. CONSTRUCTION MATERIALS.) KEYSTONE HAIR INSULATOR CO., Pittsburgh, Pa. Filed July 27, 1911.

EMPIRE

Consisting of sheets of paper or cloth with felting-hair between them.
Particular description of goods.—Insulating Material.
Claims use since Apr. 18, 1911.

Ser. No. 57,852. (CLASS 12. CONSTRUCTION MATERIALS.) KEYSTONE HAIR INSULATOR CO., Pittsburgh, Pa. Filed July 27, 1911.

HOUSELIN

Consisting of sheets of paper or cloth with felting-hair between them.
Particular description of goods.—Insulating Material.
Claims use since May 3, 1911.

Ser. No. 58,370. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) THOMAS A. HARRIS, Brooklyn, N. Y. Filed Aug. 25, 1911. Under ten-year proviso.

TOOTAL'S

Particular description of goods.—Cotton, Linen, Wool, and Silk Piece Goods, Piece Goods Consisting of Mixtures of any Two or More of the Foregoing: White and Colored Shirtings, Suitings, White and Colored Voiles, Ginghams, Zephyrs, Etamines, and Handkerchiefs.
Claims use since prior to Feb. 1, 1895.

Ser. No. 59,075. (CLASS 39. CLOTHING.) THE DIEHENN MANUFACTURING CO., Massillon, Ohio. Filed Oct. 9, 1911.

JUSTO

Particular description of goods.—Corset-Covers, Drawers, Bloomers, and Petticoats, Both Textile and Woven.
Claims use since Apr. 1, 1910.

Ser. No. 59,126. (CLASS 23. CUTLERY, MACHINERY, AND TOOLS, AND PARTS THEREOF.) ROSENFIELD MANUFACTURING COMPANY, New York, N. Y. Filed Oct. 12, 1911.

MAGIC

Particular description of goods.—Suction-Cleaners and Attachments Therefor, Said Attachments Being Cleaning-Nozzles and Parts for Connecting Such Cleaning-Nozzles with the Suction-Cleaner.
Claims use since early in April, 1910.

Ser. No. 59,184. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) OGDEN, MERRILL & GEBER, St. Paul, Minn. Filed Oct. 16, 1911.

MAMMOTH AMAZON

Particular description of goods.—Fruit-Jar Rings.
Claims use since Jan. 1, 1908.

Ser. No. 59,233. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) NÜRNBERGER METALL-UND LACKIERWAARENFABRIK VORMALS GEBRÜDER BING AKTIENGESELLSCHAFT, Nuremberg, Germany. Filed Oct. 19, 1911.



Particular description of goods.—Tableware Made of Brass, Copper, Nickel, Enameled Kitchen and Table Ware, Japanned Tableware, Baking-Molds, Strainers, Metal Cooking Pots, Pans, and Trays, Enameled Cooking-Pots, Strainers, Ladles, Mugs, Tea and Coffee Pots; Graters, Potato-Mashers, Hot-Water Plates, Funnels; Metal Soap-Dishes, Cuspidors, Chamber-Pots, Egg-Cups, Butter-Dishes, Mustard-Pots, Pepper and Salt Containers and Platters; Wire Window-Screens, Metal Gas Lighters and Extinguishers, Bath-Tubs, Bath-Sprays, Sitting-Bath Tubs, Closet-Paper Holders, Comb-Holders, Tooth-Brush Holders, Sponge-Holders, Newspaper-Holders, Brush-Holders, Bottle-Holders, Towel-Holders, and Metal Drinking-Glass Holders.
Claims use since Sept. 21, 1904.

Ser. No. 59,332. (CLASS 21. ELECTRICAL APPARATUS, MACHINES, AND SUPPLIES.) HUGO SCHNEIDER AKTIENGESELLSCHAFT, Leipzig-Paunsdorf, Germany. Filed Oct. 25, 1911.

Hasag

Particular description of goods.—Electric Lamps and Lanterns, Electric Cookers, Heaters, Ovens, Hearths, Incandescent Filaments, and Electric Flat-Irons.
Claims use since Nov. 8, 1910.

Ser. No. 59,492. (CLASS 39. CLOTHING.) AUG. WRIGHT CO., Petersburg, Va. Filed Nov. 2, 1911. Under ten-year proviso.

TENNESSEE TIE

Particular description of goods.—Leather Shoes.
Claims use since 1886.

Ser. No. 59,513. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HART & HOWELL, Brooklyn, Mich. Filed Nov. 2, 1911.

H & H

Particular description of goods.—Popcorn.
Claims use since Feb. 24, 1911.

Ser. No. 59,550. (CLASS 34. HEATING, LIGHTING, AND VENTILATING APPARATUS, NOT INCLUDING ELECTRICAL APPARATUS.) C. M. MCCLUNG & CO., Knoxville, Tenn. Filed Nov. 4, 1911.

CUMBERLAND GAP — CUMBERLAND

No claim being made to the words "Cumberland" or "Cumberland Gap."
Particular description of goods.—Coal, Wood, Gas, Gasolene, and Oil Stoves, Coal, Wood, and Gas Ranges, Blacksmith and Pressure Blowers for Portable Forges, Portable Forges, and Oil-Lanterns.
Claims use since about the year 1897.

Ser. No. 59,563. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) SUN-RAY WATER CO., New York, N. Y. Filed Nov. 6, 1911.

SUN-RAY

Particular description of goods.—Sparkling Spring-Water.
Claims use since Sept. 1, 1911.

Ser. No. 59,564. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) SUN-RAY WATER CO., New York, N. Y. Filed Nov. 6, 1911.

SUN-RAY

Particular description of goods.—Still Spring-Water.
Claims use since Sept. 1, 1911.

Ser. No. 59,565. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) SUN-RAY WATER CO., New York, N. Y. Filed Nov. 6, 1911.

SUN-RAY

Particular description of goods.—Spring-Waters.
Claims use since Sept. 1, 1911.

Ser. No. 59,566. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) SUN-RAY WATER CO., New York, N. Y. Filed Nov. 6, 1911.

SUN-RAY

Particular description of goods.—Ginger-Ale.
Claims use since Sept. 1, 1911.

Ser. No. 59,957. (CLASS 10. FERTILIZERS.) ELMORE FERTILIZER COMPANY, Tallassee, Ala. Filed Nov. 27, 1911.

KI KI

Particular description of goods.—Fertilizers.
Claims use since June 1, 1911.

Ser. No. 60,081. (CLASS 14. METALS AND METAL CASTINGS AND FORGINGS.) ROBERT HEATH & SONS LIMITED, Stoke-on-Trent, England. Filed Dec. 5, 1911.

BBH

Particular description of goods.—Sheets, Plates, Bars, and Rods of Iron and Steel.
Claims use since January, 1828.

Ser. No. 60,466. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) GRA-FRU COMPANY, Punta Gorda, Fla. Filed Dec. 27, 1911.

Gra-Fru

Particular description of goods.—A Grape-Fruit Phosphate.
Claims use since February, 1911.

Ser. No. 60,546. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMMON & PERSON, Jersey City, N. J. Filed Jan. 2, 1912.

AMPEER

Particular description of goods.—Oleomargarin.
Claims use since Dec. 27, 1911.

Ser. No. 60,547. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMMON & PERSON, Jersey City, N. J. Filed Jan. 2, 1912.

MORSO

Particular description of goods.—Oleomargarin.
Claims use since Dec. 27, 1911.

Ser. No. 60,548. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) AMMON & PERSON, Jersey City, N. J. Filed Jan. 2, 1912.

PRESTO

Particular description of goods.—Oleomargarin.
Claims use since Dec. 27, 1911.

Ser. No. 60,724. (CLASS 15. OILS AND GREASES.) CENTRALENE OIL COMPANY, Galesburg, Ill. Filed Jan. 11, 1912.

Centralene OILS

No claim being made to the word "Oils."
Particular description of goods.—Oils, Greases, and Waxes Obtained from Crude Petroleum.
Claims use since May 1, 1910.

Ser. No. 60,884. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) GEO. B. CARPENTER & CO., Chicago, Ill. Filed Jan. 18, 1912. Under ten-year proviso.

KENWOOD

Particular description of goods.—Cotton Duck.
Claims use since about Jan. 1, 1895.

Ser. No. 61,045. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) KNOLL & CO., Ludwigshafen a/Rh., Germany. Filed Jan. 26, 1912.

Euresol

Particular description of goods.—A Remedy for Diseases of the Skin.
Claims use since September, 1889.

Ser. No. 61,175. (CLASS 47. WINES.) STEINHARDT BROS. & CO., New York, N. Y. Filed Feb. 1, 1912.

Particular description of goods.—Port, Sherry, Rhine, Moselle, Sauterne, Tokay, Burgundy, Claret, Malaga, Angelica, and Muscatel.
Claims use since July 1, 1911.

Ser. No. 61,188. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) BOSTON FOOD PRODUCTS COMPANY, East Boston, Mass. Filed Feb. 1, 1912.



Particular description of goods.—Codfish-Balls.
Claims use since Jan. 12, 1912.

Ser. No. 61,205. (CLASS 39. CLOTHING.) M. PHILIPS & SONS, New York, N. Y. Filed Feb. 2, 1912.

THE Princely

Particular description of goods.—Dress, Negligée, and Work Shirts, Night-Shirts, Pajamas, Underwear of Knitted and Textile Fabrics, and a Combination of Both—Namely, Undershirts, Drawers, and Union Suits—and Boys' Blouses.
Claims use since Oct. 22, 1898.

Ser. No. 61,250. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE AMERICAN FISH & OYSTER COMPANY, (a Corporation,) Stockton, Cal. Filed Feb. 5, 1912.

ECLIPSE



Particular description of goods.—Fresh Oysters.
Claims use since Dec. 1, 1910.

Ser. No. 61,502. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RICHARD HUDNUT, New York, N. Y. Filed Feb. 15, 1912.

cARDINAL

Particular description of goods.—Hair-Tonic.
Claims use since January, 1903.

Ser. No. 61,504. (CLASS 19. VEHICLES, NOT INCLUDING ENGINES.) THE CHALLENGE MANUFACTURING CO., Seneca, Ill. Filed Feb. 15, 1912.

Challenge

Particular description of goods.—Wagon-Dump Stops and Brakes.
Claims use since Oct. 21, 1911.

Ser. No. 61,530. (CLASS 12. CONSTRUCTION MATERIALS.) ELMER E. BLACKMAN, Lincoln, Nebr. Filed Feb. 15, 1912.

HYDROZO

Particular description of goods.—A Waterproofing Solution or Filler for Cement Blocks, Bricks, Tile, Natural Stone, a Filler for Woods, Shingles, and Floors.
Claims use since on or about the month of March, 1910.

Ser. No. 61,683. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) ISRAEL B. KRONBERGER, San Rafael, Cal. Filed Feb. 23, 1912.

KRONBERGER THREE

No claim being made to the words "Kronberger" and "Three."
Particular description of goods.—A Preparation for the Treatment of Gonorrhœa.
Claims use since Jan. 1, 1910.

Ser. No. 61,740. (CLASS 13. HARDWARE AND PLUMBING AND STEAM-FITTING SUPPLIES.) THE MASSACHUSETTS SANITARY APPLIANCE COMPANY, Springfield, Mass. Filed Feb. 26, 1912.

MASACO

Particular description of goods.—Sanitary Drinking-Fountains.
Claims use since on or about Dec. 29, 1911.

Ser. No. 61,776. (CLASS 32. FURNITURE AND UPHOLSTERY.) PACIFIC NOVELTY COMPANY, New York, N. Y. Filed Feb. 27, 1912.

Ivorita

Particular description of goods.—Picture-Frames.
Claims use since on or about Jan. 15, 1912.

Ser. No. 61,816. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) WILHELM BERG, Erlenstegen, Bavaria, Germany. Filed Feb. 29, 1912.



Particular description of goods.—Disci.
Claims use since June 8, 1910.

Ser. No. 61,853. (CLASS 3. BAGGAGE, HORSE EQUIPMENTS, PORTFOLIOS, AND POCKET-BOOKS.) SMITH LOCKWOOD MFG. CO., Westfield, Mass., and Omaha, Nebr. Filed Mar. 1, 1912.



Particular description of goods.—Whips.
Claims use since Jan. 1, 1900.

Ser. No. 61,854. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) HEMPHILL & CHRISTENSEN, Fullerton, Cal. Filed Mar. 2, 1912.

OLD MISSION

Particular description of goods.—Casabas.
Claims use since Aug. 1, 1910.

Ser. No. 61,903. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) VANITY MANUFACTURING COMPANY, Buffalo, N. Y. Filed Mar. 4, 1912.

VANITY

Particular description of goods.—Polish for Shoes.
Claims use since Feb. 13, 1912.

Ser. No. 61,908. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) BUHACH PRODUCING AND MANUFACTURING COMPANY, Stockton, Cal. Filed Mar. 4, 1912. Under ten-year proviso.

BUHACH



INSECT EXTERMINATOR

Particular description of goods.—Insect-Powder.
Claims use since September, 1877.

Ser. No. 61,932. (CLASS 26. MEASURING AND SCIENTIFIC APPLIANCES.) C. L. BERGER & SONS, Boston, Mass. Filed Mar. 4, 1912.

C. L. B. & SONS

Particular description of goods.—Telescopes, Transits, Tachymeters, Theodolites, Transit-Theodolites, Levels, Stride-Levels, Vernier-Levels, Spirit-Levels, Y-Levels, Dumpy-Levels, Precise Levels, Plane-Tables, Latitude Instruments, Sextants, Optical Squares, Angle-Mirrors, Pantographs, Planimeters, Compasses, Tripods, Level-Triers, Leveling Attachments, Clinometers, Solar Attachments, Equatorial Adapters, Meridian-Finders, Transit and Level Brackets, Trivets, Lateral Adjusters, Targets, Alt.-Azimuths, Reflecting-Circles, Artificial Horizon, Current-Meters, Leveling-Rods, Range-Poles, Measuring-Tapes, Surveyors' Chains and Tapes, Tape-Repair Outfits, Marking-Pins, Odometers, Pedometers, Plummet-Lamps, Lamp-Targets, Lamps for Illuminating Cross-Wires, Plumb-Bobs of Precision, Magnifiers, Anemometers, Short-Focus-Lens Attachments, Quick-Leveling Attachments, Sighting-Wire Diaphragms, Universal-Joint Mirrors for Dumpy-Levels, Steel Centers for Y-Levels, Reversion-Levels, Plane-Table Alidades, Plane-Table Lower Motions, Plane-Table Compasses, Plane-Table Boards, Y-Bearings for Transits, Latitude-Level Attachments, Combined Solar Attachments for Top Telescopes, Inclined Squares, Prisms and Colored-Glass Attachments, Detachable Side and Top Telescopes, Interchangeable Auxiliary Telescopes, Diaphragms, Penn. Arcs, Movable Arcs, Vertical Circles, Reading-Glass and Reflectors with Counterpoise for Edge Graduations, Revolving Cross-Levels, Adjustable Centers, Alining Devices, Reflecting-Circles, Magnetometers, Pendulum Apparatus, Non-Magnetic Transits and Apparatus.
Claims use since on or about Dec. 1, 1911.

Ser. No. 61,949. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) P. M. SWARTZ & SONS, Waukesha, Wis. Filed Mar. 5, 1912.

"Cornkalfa"

Particular description of goods.—Hay and Field Seeds—Namely, Timothy, Clover, Alfalfa, Barley, Wheat, Oats, and Corn.
Claims use since Nov. 1, 1910.

Ser. No. 62,098. (CLASS 45. BEVERAGES, NON-ALCOHOLIC.) ARGER ET CIE., Paris, France, and New York, N. Y. Filed Mar. 11, 1912. Under ten-year proviso.

RUBINAT LLORACH

Particular description of goods.—Mineral Water.
Claims use since Dec. 20, 1887.

Ser. No. 62,151. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) RIGHT MANUFACTURING COMPANY, Hillisburg, Ind. Filed Mar. 13, 1912.



Particular description of goods.—Carbon-Remover.
Claims use since Oct. 2, 1911.

Ser. No. 62,241. (CLASS 5. ADHESIVES.) THE M. & M. MANUFACTURING COMPANY, Akron, Ohio. Filed Mar. 18, 1912.

M. & M.

Particular description of goods.—Adhesive Cement and Adhesive Patches.
Claims use since October, 1905.

Ser. No. 62,276. (CLASS 39. CLOTHING.) WEINGARTEN BROS., INC., New York, N. Y. Filed Mar. 19, 1912.

W. B.

Particular description of goods.—Corset-Covers, Brassières, and Sanitary Aprons.
Claims use since Jan. 1, 1912.

Ser. No. 62,286. (CLASS 2. RECEPTACLES.) FLINT AND WALLING MANUFACTURING CO., Kendallville, Ind. Filed Mar. 20, 1912.

ANCHOR

Particular description of goods.—Tanks.
Claims use since 1900.

Ser. No. 62,325. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LISTMAN MILL COMPANY, La Crosse, Wis. Filed Mar. 21, 1912.

Lenape

Particular description of goods.—Wheat-Flour.
Claims use since about Mar. 10, 1912.

Ser. No. 62,347. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) BARRETT MANUFACTURING COMPANY, New York, N. Y. Filed Mar. 22, 1912.

SYNTHOL

Particular description of goods.—Tar-Distillates for Use as Detergents.
Claims use since Jan. 20, 1912.

Ser. No. 62,348. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) BARRETT MANUFACTURING COMPANY, New York, N. Y. Filed Mar. 22, 1912.

PYXOL

Particular description of goods.—Tar-Distillates for Use as Detergents.
Claims use since on or about Jan. 20, 1912.

Ser. No. 62,447. (CLASS 39. CLOTHING.) GREEN-WHEELER SHOE CO., Fort Dodge, Iowa. Filed Mar. 27, 1912.



Particular description of goods.—Leather Boots and Shoes.
Claims use since June 1, 1910.

Ser. No. 62,476. (CLASS 37. PAPER AND STATIONERY.) THE REYNOLDS & REYNOLDS COMPANY, Dayton, Ohio. Filed Mar. 28, 1912.



Particular description of goods.—Paper Tablets and Note-Books.
Claims use since Feb. 24, 1912.

Ser. No. 62,500. (CLASS 6. CHEMICALS, MEDICINES, AND PHARMACEUTICAL PREPARATIONS.) FREDERICK STEARNS & Co., Detroit, Mich. Filed Mar. 29, 1912.

ANAPYRALGIN

Particular description of goods.—Remedies for Neuralgia and Headache.
Claims use since Mar. 15, 1912.

Ser. No. 62,587. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) MIESCH MANUFACTURING COMPANY, Paterson, N. J. Filed Apr. 1, 1912.



Printed in gold.
Particular description of goods.—Ribbons Made Wholly or Partly of Silk.
Claims use since July 1, 1889.

Ser. No. 62,612. (CLASS 17. TOBACCO PRODUCTS.) JOHN J. MOECKEL, Lebanon, Pa. Filed Apr. 3, 1912.

El Greeno

Particular description of goods.—Cigars.
Claims use since about Jan. 1, 1912.

Ser. No. 62,634. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ROBINS CONVEYING BELT COMPANY, Passaic, N. J., and New York, N. Y. Filed Apr. 3, 1912. Under ten-year proviso.

ROBINS

Particular description of goods.—Conveyer-Belts of Rubber and Fabric for Belt Conveyers, Vanners, and Like Uses.
Claims use since as early as July 1, 1894.

Ser. No. 62,653. (CLASS 28. JEWELRY AND PRECIOUS-METAL WARE.) ROGERS, LUNT & BOWLEN CO., Greenfield, Mass. Filed Apr. 4, 1912.

R & L BCo

Particular description of goods.—Sterling-Silver Knives, Forks, Spoons, Tongs, Ladles, Sifters, Pins, Buckles, Brooches, Napkin-Rings, Napkin-Markers, Salt and Pepper Shakers, Muffineers, Tea-Balls, Tea Strainers, Bags, Cups, Cases, Chests, and Book-Marks and the Following-Named Goods Having Sterling-Silver Mountings: Buttons, Chains, Rings, Bowls, Pitchers, Candlesticks, Dishes, Pots, Platters, Servers, Vases, Trays, Boxes, Bottles, Mugs, Coasters, Brushes, Combs, Mirrors, Nail-Files, Scissors, Shoe-Horns, Button-Hooks, Buffers, Jars, Bottle-Openers, Corkscrews, Baby Rattles and Whistles, Bells, Cushions, Purses, Markers, and Lockets.
Claims use since Sept. 1, 1902.

Ser. No. 62,674. (CLASS 15. OILS AND GREASES.) QUIXTART CHEMICAL CO., Providence, R. I. Filed Apr. 5, 1912.

QUIXTART

Particular description of goods.—Volatile Distillates of Petroleum.
Claims use since Nov. 28, 1911.

Ser. No. 62,720. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHAS. LACEY PLUMB, New York, N. Y. Filed Apr. 6, 1912.

MOTOR

Particular description of goods.—Wheat-Flour.
Claims use since about Jan. 1, 1911.

Ser. No. 62,721. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) CHAS. LACEY PLUMB, New York, N. Y. Filed Apr. 6, 1912.

AVIATOR

Particular description of goods.—Wheat-Flour.
Claims use since about Jan. 1, 1911.

Ser. No. 62,743. (CLASS 22. GAMES, TOYS, AND SPORTING GOODS.) G. SOMMERS & CO., St. Paul, Minn. Filed Apr. 8, 1912.



Particular description of goods.—Base-Balls, Base-Ball Gloves, Base-Ball Mitts, and Base-Ball Masks.
Claims use since Feb. 1, 1912.

Ser. No. 62,744. (CLASS 37. PAPER AND STATIONERY.) HALE SPECIALTY CO., Chicago, Ill. Filed Apr. 8, 1912. Under ten-year proviso.



Particular description of goods.—Calendar-Pads, Memorandum-Files, and Paper-Weights.
Claims use since Jan. 1, 1888.

Ser. No. 62,770. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) PENINSULAR CHEMICAL CO., Detroit, Mich. Filed Apr. 9, 1912.

SYLVODORA

Particular description of goods.—Soaps.
Claims use since Mar. 20, 1912.

Ser. No. 62,798. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JOHNSON & JOHNSON, New Brunswick, N. J. Filed Apr. 10, 1912. Under ten-year proviso.

Johnson's

Particular description of goods.—Soaps.
Claims use since 1894.

Ser. No. 62,883. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) ROCCO LARAIA, New York, N. Y. Filed Apr. 13, 1912.



No claim being made to the word "Brand."
Particular description of goods.—Shoe-Polish.
Claims use since Mar. 4, 1912.

Ser. No. 62,996. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE STERLING CHOCOLATE COMPANY, Cincinnati, Ohio. Filed Apr. 19, 1912.

Princess Pat

Particular description of goods.—Candies.
Claims use since Mar. 15, 1912.

Ser. No. 62,997. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) THE STERLING CHOCOLATE COMPANY, Cincinnati, Ohio. Filed Apr. 19, 1912.



No claim is made for the word "Sterling."
Particular description of goods.—Candies.
Claims use since Mar. 15, 1912.

Ser. No. 63,007. (CLASS 7. CORDAGE.) THE UPSON-WALTON COMPANY, Cleveland, Ohio. Filed Apr. 19, 1912.



Particular description of goods.—Jute Clothes-Lines.
Claims use since Feb. 1, 1912.

Ser. No. 63,030. (CLASS 39. CLOTHING.) GREEN-WHEELER SHOE CO., Fort Dodge, Iowa. Filed Apr. 20, 1912.



Particular description of goods.—Leather, Canvas, or Fabric Boots and Shoes.
Claims use since Feb. 1, 1912.

Ser. No. 63,074. (CLASS 16. PAINTS AND PAINTERS' MATERIALS.) THE COPAL VARNISH COMPANY LIMITED, London, England. Filed Apr. 23, 1912.



The picture shown being fanciful, and no claim being made to the words "The more you wash it the better it looks" or to the words "Lacquer Enamel."
Particular description of goods.—Enamel in the Nature of Paint.
Claims use since February, 1912.

Ser. No. 63,076. (CLASS 33. GLASSWARE.) SOCIÉTÉ DU VERRE TRIPLEX, Paris, France. Filed Apr. 23, 1912.



Particular description of goods.—Reinforced Glass.
Claims use since Jan. 19, 1912.

Ser. No. 63,173. (CLASS 39. CLOTHING.) ABRAHAM ROCKOWITZ, New York, N. Y. Filed Apr. 27, 1912.

MADXAME

Particular description of goods.—Corsets.
Claims use since July 1, 1911.

Ser. No. 63,193. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) AUGUST MELOHN, Chicago, Ill. Filed Apr. 29, 1912.

Nic-O-Shyn

Particular description of goods.—A Compound for Preventing Nickel-Plating from Rusting and Tarnishing.
Claims use since Mar. 8, 1912.

Ser. No. 63,249. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) JACOB REDELHEIM, New York, N. Y. Filed May 1, 1912.



The Hebrew characters meaning "Food for the Passover" being disclaimed.
Particular description of goods.—Cane-Sugar.
Claims use since December, 1911.

Ser. No. 63,260. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) COLLINS & AIKMAN CO., Philadelphia, Pa. Filed May 2, 1912.

CANDACO

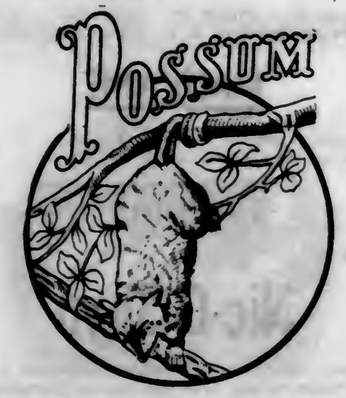
Particular description of goods.—Cotton, Mohair, Ramie, and Linen Plushes, Velours, and Velvets in the Piece.
Claims use since Jan. 1, 1899.

Ser. No. 63,323. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING CO., Eastport, Me. Filed May 4, 1912.

MIKADO

Particular description of goods.—Sardines.
Claims use since 1900.

Ser. No. 63,324. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING CO., Eastport, Me. Filed May 4, 1912.



Particular description of goods.—Sardines.
Claims use since September, 1909.

Ser. No. 63,325. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING CO., Eastport, Me. Filed May 4, 1912.

EUREKA

Particular description of goods.—Sardines.
Claims use since August, 1899.

Ser. No. 63,326. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING CO., Eastport, Me. Filed May 4, 1912.

BLACK HAWK



Particular description of goods.—Sardines.
Claims use since August, 1909.

Ser. No. 63,327. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) SEACOAST CANNING CO., Eastport, Me. Filed May 4, 1912.

CONQUEROR



Particular description of goods.—Sardines.
Claims use since September, 1909.

Ser. No. 63,335. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) MORROW-LAWTON COMPANY, New York, N. Y., and Milwaukee, Wis. Filed May 4, 1912.

STOCKING



Particular description of goods.—Rolled Oats.
Claims use since November, 1911.

Ser. No. 63,341. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) LIMONA CITRUS GROWERS' ASSOCIATION, Limona, Fla. Filed May 4, 1912.



Particular description of goods.—Oranges.
Claims use since Feb. 25, 1911.

Ser. No. 63,356. (CLASS 39. CLOTHING.) C. KURTZMANN & COMPANY, Buffalo, N. Y. Filed May 4, 1912. Under ten-year proviso.

C. Kurtzmann & Co.

Particular description of goods.—Pianos.
Claims use since 1886.

Ser. No. 63,367. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) JAMES S. KIRK & COMPANY, Chicago, Ill. Filed May 6, 1912.

HEALTH GLOW

Particular description of goods.—Toilet Soap.
Claims use since Apr. 8, 1912.

Ser. No. 63,387. (CLASS 46. FOODS AND INGREDIENTS OF FOODS.) ABEL & ASHER CO., Shreveport, La. Filed May 7, 1912.

CITY HALL

Particular description of goods.—Coffee Compound.
Claims use since Apr. 16, 1912.

Ser. No. 63,403. (CLASS 49. DISTILLED ALCOHOLIC LIQUORS.) ELDER-HARRISON COMPANY, Baltimore, Md. Filed May 8, 1912.

MO

Particular description of goods.—Gin.
Claims use since about Mar. 1, 1912.

Ser. No. 63,405. (CLASS 47. WINES.) ELDER-HARRISON COMPANY, Baltimore, Md. Filed May 8, 1912.

MARCHUDA

Particular description of goods.—Sherry-Wine.
Claims use since about Apr. 1, 1905.

Ser. No. 63,407. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) PRESCOTT & CO., Boston, Mass. Filed May 8, 1912.

WHALEBUNE

Particular description of goods.—Rubber Hose.
Claims use since April, 1903.

Ser. No. 63,408. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) PRESCOTT & CO., Boston, Mass. Filed May 8, 1912.

STORM KING

Particular description of goods.—Rubber Hose.
Claims use since February, 1897.

Ser. No. 63,411. (CLASS 39. CLOTHING.) MAX REISS, New York, N. Y. Filed May 8, 1912.

SMART SET

Particular description of goods.—Skirts and Petticoats.
Claims use since March, 1904.

Ser. No. 63,437. (CLASS 36. MUSICAL INSTRUMENTS AND SUPPLIES.) M. HOHNER, New York, N. Y. Filed May 9, 1912.

The Sport

Particular description of goods.—Harmonicas.
Claims use since October, 1907.

Ser. No. 63,438. (CLASS 36. MUSICAL INCTRUMENTS AND SUPPLIES.) M. HOHNER, New York, N. Y. Filed May 9, 1912.

BLUE RIBBON

Particular description of goods.—Harmonicas.
Claims use since October, 1907.

Ser. No. 63,469. (CLASS 17. TOBACCO PRODUCTS.) THE TRYST CIGARETTE CO., New York, N. Y. Filed May 10, 1912.

Tryst

Particular description of goods.—Cigarettes.
Claims use since on or about Mar. 15, 1912.

Ser. No. 63,515. (CLASS 17. TOBACCO PRODUCTS.) M. J. AHRENS AND CO., New York, N. Y. Filed May 13, 1912.

Daffydil

Particular description of goods.—Cigarettes.
Claims use since Nov. 1, 1911.

Ser. No. 63,552. (CLASS 1. RAW OR PARTLY-PREPARED MATERIALS.) MOORE & MUNGER, New York, N. Y. Filed May 15, 1912.



Particular description of goods.—Crude Clay for the Manufacture of Crucibles and Pots Used by Manufacturers of Glass.
Claims use since Mar. 1, 1912.

Ser. No. 63,581. (CLASS 4. ABRASIVE, DETERGENT, AND POLISHING MATERIALS.) EDWIN G. FRANK, Philadelphia, Pa. Filed May 16, 1912.



Particular description of goods.—A Washing Compound.
Claims use since about Mar. 4, 1912.

Ser. No. 63,592. (CLASS 17. TOBACCO PRODUCTS.) RODE & BRAND, INC., New York, N. Y. Filed May 16, 1912.

VANITA

Particular description of goods.—Cigars, Cigarettes, Smoking-Tobacco, and Chewing-Tobacco.
Claims use since May 1, 1912.

Ser. No. 63,600. (CLASS 35. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES.) ARCHER C. LAURENCE, New York, N. Y. Filed May 17, 1912.

LAURECO

Particular description of goods.—Leather Power-Transmitting Belting.
Claims use since on or about May 7, 1912.

Ser. No. 63,626. (CLASS 39. CLOTHING.) GOLDSTEIN & LEVIN, New York, N. Y. Filed May 18, 1912.



Comprising the words "Sunny Jim" and the picture shown, the portrait being that of Laurance Levin, a son of M. Levin, one of the partners of said firm.
Particular description of goods.—Knee-Pants and Juvenile Suits.
Claims use since Mar. 15, 1912.

Ser. No. 63,634. (CLASS 40. FANCY GOODS, FURNISHINGS, AND NOTIONS.) SAMUEL BUYER, New York, N. Y. Filed May 18, 1912.

Varsity

Particular description of goods.—Hose-Supporters.
Claims use since about May 6, 1912.

Ser. No. 63,643. (CLASS 17. TOBACCO PRODUCTS.) LAWRENCE M. CRUMP, Indianapolis, Ind. Filed May 20, 1912.

VARRO

Particular description of goods.—Cigars.
Claims use since June 1, 1907.

Ser. No. 63,662. (CLASS 39. CLOTHING.) JOSEPH SIEGEL, Detroit, Mich. Filed May 20, 1912.

LA FRO

Particular description of goods.—Corsets.
Claims use since May 1, 1912.

Ser. No. 63,679. (CLASS 39. CLOTHING.) LORD & TAYLOR, New York, N. Y. Filed May 21, 1912.

POINTEX

Particular description of goods.—Hosiery.
Claims use since Apr. 23, 1912.

Ser. No. 63,683. (CLASS 42. KNITTED, NETTED, AND TEXTILE FABRICS.) CLARENCE WHITMAN & CO., New York, N. Y. Filed May 21, 1912.

FLEET FOOT

Particular description of goods.—Flannel Goods in the Piece.
Claims use since Mar. 28, 1912.

Ser. No. 63,688. (CLASS 17. TOBACCO PRODUCTS.) JOSEPH P. COYNE, Grangeville, Idaho. Filed May 21, 1912.

La Costerina

Particular description of goods.—Cigars.
Claims use since Jan. 13, or thereabout, A. D. 1911.

Ser. No. 63,711. (CLASS 39. CLOTHING.) HOOD RUBBER COMPANY, Boston, Mass. Filed May 22, 1912.



Particular description of goods.—Rubber Boots and Shoes, Rubber Overshoes, and Rubber-Soled Canvas Boots and Shoes.
Claims use since December, 1900.

TRADE-MARKS

REGISTERED JUNE 25, 1912.

87,026. PICKLES. ALART & MCGUIRE COMPANY, New York, N. Y.
Filed February 24, 1912. Serial No. 61,702. PUBLISHED APRIL 16, 1912.

87,027. BAGGING FOR BALING COTTON. AMERICAN MANUFACTURING COMPANY, Boston, Mass., and New York, N. Y.
Filed March 9, 1912. Serial No. 62,070. PUBLISHED APRIL 23, 1912.

87,028. WOOLEN CLOTH KNOWN AS "PIECE GOODS." AMERICAN WOOLEN COMPANY, Jersey City, N. J., and Boston, Mass.
Filed February 7, 1912. Serial No. 61,334. PUBLISHED APRIL 23, 1912.

87,029. WOOLEN CLOTH KNOWN AS "PIECE GOODS." AMERICAN WOOLEN COMPANY, Jersey City, N. J., and Boston, Mass.
Filed February 7, 1912. Serial No. 61,335. PUBLISHED APRIL 23, 1912.

87,030. WOOLEN CLOTH KNOWN AS "PIECE GOODS." AMERICAN WOOLEN COMPANY, Jersey City, N. J., and Boston, Mass.
Filed February 7, 1912. Serial No. 61,337. PUBLISHED APRIL 23, 1912.

87,031. BAGGING FOR BALING COTTON. AMERICAN MANUFACTURING COMPANY, Boston, Mass., and New York, N. Y.
Filed March 9, 1912. Serial No. 62,071. PUBLISHED APRIL 23, 1912.

87,032. CANNED SALMON. APEX FISH COMPANY, Anacortes, Wash.
Filed October 25, 1909. Serial No. 45,517. PUBLISHED APRIL 11, 1911.

87,033. PAINTS AND PAINTERS' MATERIAL. BAER BROS., New York, N. Y.
Filed March 5, 1912. Serial No. 61,948. PUBLISHED APRIL 23, 1912.

87,034. GAME-SCORING BOARDS. JOHN W. BAKER, Stamford, Conn.
Filed November 21, 1911. Serial No. 59,827. PUBLISHED APRIL 23, 1912.

87,035. CERTAIN MEDICINES AND PHARMACEUTICAL PREPARATIONS. JAMES F. BALLARD, St. Louis, Mo.
Filed January 13, 1912. Serial No. 60,786. PUBLISHED APRIL 23, 1912.

87,036. MOLASSES. BOSTON MOLASSES CO., Boston, Mass.
Filed February 19, 1912. Serial No. 61,600. PUBLISHED APRIL 16, 1912.

87,037. RUBBER BOOTS AND SHOES AND RUBBER-SOLED SHOES. BOSTON RUBBER SHOE COMPANY, Boston, Mass.
Filed February 16, 1911. Serial No. 54,548. PUBLISHED APRIL 23, 1912.

87,038. WOMEN'S LEATHER, CANVAS, CLOTH, AND RUBBER SHOES. THE BROWN SHOE COMPANY, St. Louis, Mo.
Filed November 17, 1911. Serial No. 59,777. PUBLISHED APRIL 23, 1912.

87,039. CERTAIN PIECE GOODS, CARPETS, AND RUGS. CARLISLE, CROCKER & CO., Montevideo, Uruguay.
Filed January 8, 1910. Serial No. 47,002. PUBLISHED APRIL 23, 1912.

87,040. TABLE-SYRUP, SAGO, TAPIOCA, AND CORN-STARCH. F. B. CHAMBERLAIN COMPANY, St. Louis, Mo.
Filed June 15, 1911. Serial No. 57,069. PUBLISHED APRIL 16, 1912.

87,041. REMEDIES FOR THE TREATMENT OF GOUT AND RHEUMATISM. CHEMISCHE FABRIK AUF ACTIEN (VORM. E. SCHERING), Berlin, Germany.
Filed October 25, 1911. Serial No. 59,339. PUBLISHED APRIL 23, 1912.

87,042. COMPOUND LAXATIVE PREPARATIONS. CITROLAX CO., Valparaiso, Ind.
Filed October 12, 1911. Serial No. 59,120. PUBLISHED APRIL 23, 1912.

87,043. REMEDY FOR CERTAIN DISEASES. THE JOHN W. M. CLARK CO., Athol, Mass.
Filed February 9, 1909. Serial No. 40,446. PUBLISHED APRIL 23, 1912.

87,044. CERTAIN MEDICINES AND PHARMACEUTICAL PREPARATIONS. LYDIA TRATTLES COATES, Kalamazoo, Mich.
Filed June 25, 1910. Serial No. 50,571. PUBLISHED APRIL 23, 1912.

87,045. CREAM-CHEESE. SETH H. CONOVER, Plymouth, Wis.
Filed November 11, 1910. Serial No. 52,728. PUBLISHED APRIL 16, 1912.

87,046. PREPARATION FOR CERTAIN AILMENTS. FRANCIS M. CRISWELL, Washington, D. C.
Filed January 25, 1912. Serial No. 61,021. PUBLISHED APRIL 23, 1912.

87,047. RUBBER TIRES AND PNEUMATIC TIRES. CHARLES A. DANIEL, Philadelphia, Pa.
Filed February 12, 1912. Serial No. 61,437. PUBLISHED APRIL 16, 1912.

87,048. REMEDY FOR CERTAIN DISEASES. THE DELANO COMPANY, INCORPORATED, Syracuse, N. Y.
Filed December 11, 1911. Serial No. 60,166. PUBLISHED APRIL 23, 1912.

87,049. PAINTS AND PAINTERS' MATERIALS. DENNY, HILBORN & ROSENBACH, Philadelphia, Pa.
Filed March 4, 1912. Serial No. 61,913. PUBLISHED APRIL 23, 1912.

87,050. LIMONENES. ANTON DEPPE SÖHNE, Hamburg, Germany.
Filed March 9, 1911. Serial No. 54,962. PUBLISHED APRIL 23, 1912.

87,051. INSULATED ELECTRIC WIRES. DETROIT INSULATED WIRE COMPANY, Detroit, Mich.
Filed November 21, 1910. Serial No. 52,892. PUBLISHED APRIL 23, 1912.

87,052. STEEL BARS, PLATES, CASTINGS, FORGINGS, AND INGOTS. ED. DÖRRENBERG SÖHNE, Ründeroth, Germany.
Filed April 5, 1911. Serial No. 55,535. PUBLISHED APRIL 23, 1912.

87,053. WHEAT-FLOUR. DULUTH-SUPERIOR MILLING COMPANY, Duluth, Minn.
Filed June 20, 1911. Serial No. 57,181. PUBLISHED APRIL 16, 1912.

87,054. SPHYGMOMANOMETERS. EIMER & AMEND, New York, N. Y.
Filed November 15, 1911. Serial No. 59,739. PUBLISHED APRIL 23, 1912.

87,055. CERTAIN CLOTHING. CHARLES EISENMAN COMPANY, Cleveland, Ohio.
Filed October 18, 1911. Serial No. 59,221. PUBLISHED APRIL 23, 1912.

87,056. HOSIERY. ELIZABETH CITY HOSIERY CO., Elizabeth City, N. C.
Filed September 16, 1911. Serial No. 58,696. PUBLISHED JANUARY 30, 1912.

87,057. ABRASIVE, DETERGENT, AND POLISHING MATERIALS. WM. ENDERS MANUFACTURING COMPANY, Walden, N. Y.
Filed July 5, 1911. Serial No. 57,490. PUBLISHED APRIL 16, 1912.

87,058. OIL FOR FINISHING LEATHER. FARBENFABRIKEN OF ELBERFELD COMPANY, New York, N. Y.
Filed January 25, 1912. Serial No. 61,024. PUBLISHED APRIL 16, 1912.

87,059. CERTAIN PHARMACEUTICAL PREPARATION. MAURICE M. FEINBERG, New York, N. Y.
Filed November 9, 1911. Serial No. 59,633. PUBLISHED APRIL 23, 1912.

87,060. SYRUP FOR BEVERAGES. THOMAS L. FINNEY, Birmingham, Ala.
Filed August 17, 1911. Serial No. 58,247. PUBLISHED APRIL 23, 1912.

87,061. CERTAIN CHEMICAL PREPARATION. FLORASEL MANUFACTURING COMPANY, New York, N. Y.
Filed January 26, 1912. Serial No. 61,058. PUBLISHED APRIL 23, 1912.

87,062. CALCIMINES. M. EWING FOX & CO., New York, N. Y.
Filed March 7, 1912. Serial No. 61,996. PUBLISHED APRIL 23, 1912.

87,063. ITALIAN OLIVE-OIL. CALLISTO FRANCESCONI, Lucca, Italy.
Filed September 27, 1907. Serial No. 30,266. PUBLISHED APRIL 16, 1912.

87,064. TRUCK-SCALES. EDWIN L. GAGE, Portland, Oreg.
Filed December 15, 1911. Serial No. 60,241. PUBLISHED APRIL 23, 1912.

87,065. MATZOTHS, (KNOWN AS "UNLEAVENED BREAD.") A. GOODMAN & SON, New York, N. Y.
Filed August 7, 1911. Serial No. 58,060. PUBLISHED OCTOBER 31, 1911.

87,066. CANNED VEGETABLES. GRAND RIVER CANNING COMPANY, Markesan, Wis.
Filed February 26, 1912. Serial No. 61,719. PUBLISHED APRIL 16, 1912.

87,067. ICE-CREAM CONES. GRANGER & HOUGHTON, Binghamton, N. Y.
Filed February 29, 1912. Serial No. 61,823. PUBLISHED APRIL 16, 1912.

87,068. REMEDY FOR CERTAIN DISEASES. GEORGE G. GREEN, Woodbury, N. J.
Filed January 10, 1912. Serial No. 60,722. PUBLISHED APRIL 23, 1912.

87,069. [WITHDRAWN.]

87,070. REMEDY FOR CERTAIN AILMENTS. HALTIWANGER-TAYLOR DRUG CO., Atlanta, Ga.
Filed November 1, 1911. Serial No. 59,482. PUBLISHED APRIL 23, 1912.

87,071. CANTALOUP-SEEDS. JOSEPH A. HART, Rocky Ford, Colo.
Filed February 20, 1912. Serial No. 61,629. PUBLISHED APRIL 23, 1912.

87,072. LEATHER BOOTS AND SHOES. HAYNES HENSON SHOE COMPANY, Knoxville, Tenn.
Filed September 6, 1911. Serial No. 58,550. PUBLISHED APRIL 23, 1912.

87,073. SOAP, SOLID AND LIQUID. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,479. PUBLISHED APRIL 16, 1912.

87,074. SOAP, SOLID AND LIQUID. RICHARD HUDNUT, New York, N. Y.
Filed February 15, 1912. Serial No. 61,495. PUBLISHED APRIL 16, 1912.

87,075. CERTAIN MEASURING AND SCIENTIFIC APPLIANCES. ICA ACTIEN-GESELLSCHAFT, Dresden, Germany.
Filed September 23, 1910. Serial No. 51,922. PUBLISHED JUNE 27, 1911.

87,076. WASHING-SOAP. IDAHO SOAP COMPANY, LIMITED, Boise, Idaho.
Filed August 10, 1911. Serial No. 58,114. PUBLISHED DECEMBER 12, 1911.

87,077. CIGARS. JAYNES DRUG COMPANY, Boston, Mass.
Filed December 29, 1911. Serial No. 60,520. PUBLISHED APRIL 16, 1912.

87,078. WASHBOILERS. MYER KAMENSTEIN, New York, N. Y.
Filed February 6, 1912. Serial No. 61,313. PUBLISHED APRIL 23, 1912.

87,079. COTTON DUCK. KANSAS CITY COTTON MILLS COMPANY, Kansas City, Kans.
Filed January 16, 1912. Serial No. 60,852. PUBLISHED APRIL 23, 1912.

87,080. HANDKERCHIEFS AND KERCHIEFS. JAMES R. KEISER, INC., New York, N. Y.
Filed August 3, 1911. Serial No. 58,018. PUBLISHED APRIL 23, 1912.

87,081. COMPOUND OF THE RADICAL SALICYL AND CARBONIC WITH SODA. PAUL KRATZ, Louisville, Ky.
Filed December 1, 1911. Serial No. 60,039. PUBLISHED APRIL 23, 1912.

87,082. LAUNDRY AND TOILET SOAP. JACOB LANDROCK, Omaha, Nebr.
Filed December 1, 1911. Serial No. 60,029. PUBLISHED APRIL 9, 1912.

87,083. MEDICINAL TONICS. GEORGE E. LATOUR, Burlington, Vt.
Filed December 19, 1911. Serial No. 60,348. PUBLISHED APRIL 23, 1912.

87,084. CULTIVATORS, HARROWS, AND DRILLS. RODERICK LEAN MANUFACTURING COMPANY, Mansfield, Ohio.
Filed January 31, 1912. Serial No. 61,144. PUBLISHED APRIL 23, 1912.

87,085. ORANGES, GRAPE-FRUIT, TANGERINES, LEMONS, AND LIMES. MANATEE CITRUS GROWERS ASSOCIATION, Manatee, Fla.
Filed February 29, 1912. Serial No. 61,836. PUBLISHED APRIL 16, 1912.

87,086. CASTOR-OIL. J. JUDD MASON & CO., East Orange, N. J., and New York, N. Y.
Filed January 11, 1912. Serial No. 60,729. PUBLISHED APRIL 23, 1912.

87,087. TRACTION-MACHINES AND PARTS THEREOF. MCKINNEY TRACTION CULTIVATOR CO., St. Louis, Mo.
Filed January 4, 1912. Serial No. 60,601. PUBLISHED APRIL 23, 1912.

87,088. WHEAT-FLOUR. MAYFLOWER MILLS, Fort Wayne, Ind.
Filed February 29, 1912. Serial No. 61,827. PUBLISHED APRIL 16, 1912.

87,089. MINCE-MEAT, INFANT FOOD, AND PRESERVED EGGS. MERRELL-SOULE CO., Syracuse, N. Y.
Filed January 13, 1912. Serial No. 60,793. PUBLISHED APRIL 16, 1912.

87,090. TOILET SOAPS. ADOLPH L. MOCK, New York, N. Y.
Filed January 11, 1912. Serial No. 60,726. PUBLISHED APRIL 9, 1912.

87,091. CERTAIN PHARMACEUTICAL PREPARATIONS. BLANCHE W. MOE, New York, N. Y.
Filed June 28, 1910. Serial No. 50,615. PUBLISHED APRIL 23, 1912.

87,092. FOOT-POWDER. BLANCHE W. MOE, New York, N. Y.
Filed August 5, 1910. Serial No. 51,268. PUBLISHED APRIL 23, 1912.

87,093. TOILET SOAP, MEDICINALLY PREPARED, AND A SALT-WATER SOAP. THE MORGAN DRUG CO., Brooklyn, N. Y.
Filed February 12, 1912. Serial No. 61,435. PUBLISHED APRIL 16, 1912.

87,094. HAY, FEED, OR LITTER CARRIERS. MALCOLM BRIDGEMAN MOYER, Montevideo, Minn.
Filed December 28, 1911. Serial No. 60,485. PUBLISHED APRIL 23, 1912.

87,095. LEATHER, CLOTH, AND KNIT GLOVES AND MITTENS. MT. PLEASANT GLOVE MANUFACTURING CO., Mount Pleasant, Iowa.
Filed November 18, 1911. Serial No. 59,800½. PUBLISHED APRIL 23, 1912.

87,096. METAL-POLISH. HARRY T. NEWMAN, Chicago, Ill.
Filed March 7, 1912. Serial No. 61,991. PUBLISHED APRIL 16, 1912.

87,097. TOILET SOAP. NORDDEUTSCHE WOLLKÄMMEREI & KAMMGARNSPINNEREI, Bremen and Delmenhorst, Germany.
Filed December 21, 1910. Serial No. 53,399. PUBLISHED APRIL 9, 1912.

87,098. TRANSFER-PICTURES AND COLORED TRANSFER-PICTURES. NÜRNBERGER ABZIEHBILDER-FABRIK TROEGER & BÜCKING, Nuremberg, Germany.
Filed November 25, 1911. Serial No. 59,911. PUBLISHED APRIL 9, 1912.

87,099. CERTAIN PIECE GOODS. WILLIAM ODDY, Bradford, England.
Filed March 8, 1912. Serial No. 62,038. PUBLISHED APRIL 23, 1912.

87,100. CANNED FRUITS, CANNED VEGETABLES, CANNED FISH, CANNED SOUPS, AND SPICES. PARK, GRANT AND MORRIS, Fargo, N. D.
Filed January 13, 1910. Serial No. 47,103. PUBLISHED MARCH 7, 1911.

87,101. BOTTLE-CAPS. PEERLESS CORK & SEAL CO., New York, N. Y.
Filed April 15, 1910. Serial No. 49,107. PUBLISHED MAY 23, 1911.

87,102. ELECTRICAL APPARATUS AND SUPPLIES. PEORIA ELECTRIC FIXTURE CO., Peoria, Ill.
Filed July 1, 1911. Serial No. 57,437. PUBLISHED MARCH 12, 1912.

87,103. SHEETINGS AND DRILLINGS. PIEDMONT MFG. CO., Piedmont, S. C.
Filed February 7, 1912. Serial No. 61,329. PUBLISHED APRIL 23, 1912.

87,104. TOILET SOAP. ROBINSON BROS. & COMPANY, INCORPORATED, Portland, Me., and Malden, Mass.
Filed February 12, 1912. Serial No. 61,427. PUBLISHED APRIL 16, 1912.

87,105. TOILET AND LAUNDRY SOAP. ROBINSON BROS. & COMPANY, INCORPORATED, Portland, Me., and Malden, Mass.
Filed February 21, 1912. Serial No. 61,650. PUBLISHED APRIL 16, 1912.

87,106. RUBBER TIRES. MORRIS ROSENTHAL, Buffalo, N. Y.
Filed October 19, 1911. Serial No. 59,235. PUBLISHED APRIL 23, 1912.

87,107. ARTIFICIAL LIMBS. ELMER H. ROWLEY, Pittsburgh, Pa.
Filed February 23, 1912. Serial No. 61,690. PUBLISHED APRIL 23, 1912.

87,108. ICHTHYOL-SURROGATE AND MINERAL OILS. S. A. MINIERE SCISTI BITUMINOSI DI MERIDE E BESANO, Meride, Switzerland.
Filed October 17, 1911. Serial No. 59,204. PUBLISHED APRIL 23, 1912.

87,109. CIGARS. SANCHEZ & HAYA CO., Tampa, Fla.
Filed May 29, 1905. Serial No. 6,914. PUBLISHED APRIL 16, 1912.

87,110. MACHINES FOR WRITING A PLURALITY OF SIGNATURES OR INSCRIPTIONS. THE SIGNATURE COMPANY, New York, N. Y.
Filed February 5, 1912. Serial No. 61,269. PUBLISHED APRIL 23, 1912.

87,111. HAIR-NETS. SILVERBERG IMPORT CO., New York, N. Y.
Filed March 8, 1912. Serial No. 62,044. PUBLISHED APRIL 23, 1912.

87,112. HAIR-NETS. SILVERBERG IMPORT CO., New York, N. Y.
Filed March 8, 1912. Serial No. 62,045. PUBLISHED APRIL 23, 1912.

87,113. HAIR-NETS. SILVERBERG IMPORT CO., New York, N. Y.
Filed March 8, 1912. Serial No. 62,048. PUBLISHED APRIL 23, 1912.

87,114. POLISHING-CLOTHS. THE SILVEX COMPANY, Chicago, Ill.
Filed March 4, 1912. Serial No. 61,897. PUBLISHED APRIL 23, 1912.

87,115. POLISHING-CLOTHS. THE SILVEX COMPANY, Chicago, Ill.
Filed March 4, 1912. Serial No. 61,898. PUBLISHED APRIL 23, 1912.

87,116. WHEAT-FLOUR. THE SMITH MILLING AND GRAIN COMPANY, Warsaw, Ind.
Filed February 29, 1912. Serial No. 61,818. PUBLISHED APRIL 16, 1912.

87,117. REFINED PETROLEUM FOR ILLUMINATING, HEATING, AND POWER PURPOSES. STANDARD OIL COMPANY OF NEW YORK, New York, N. Y.
Filed June 15, 1910. Serial No. 50,324. PUBLISHED APRIL 23, 1912.

87,118. ILLUMINATING-OILS. STANDARD OIL CO. OF NEW YORK, New York, N. Y.
Filed May 26, 1911. Serial No. 56,601. PUBLISHED APRIL 23, 1912.

87,119. PLOWS. STARKE'S DIXIE PLOW WORKS, INCORPORATED, Richmond, Va.
Filed May 4, 1911. Serial No. 56,146. PUBLISHED NOVEMBER 14, 1911.

87,120. EVAPORATED MILK. ST. CHARLES CONDENSING COMPANY, St. Charles, Ill.
Filed September 27, 1910. Serial No. 51,982. PUBLISHED NOVEMBER 14, 1911.

87,121. BELTING, HOSE, MACHINERY PACKING, AND NON-METALLIC TIRES. NORMAN L. STEINBERG, Chicago, Ill.
Filed October 14, 1910. Serial No. 52,264. PUBLISHED APRIL 25, 1911.

87,122. LINEN GOODS IN THE PIECE. STEVENSON & SON, LTD., Dungannon, Ireland.
Filed January 10, 1912. Serial No. 60,720. PUBLISHED APRIL 23, 1912.

87,123. FURNITURE-POLISH. HARRY S. THORPE, Norfolk, Nebr.
Filed November 29, 1911. Serial No. 60,004. PUBLISHED APRIL 23, 1912.

87,124. CANDIES. NELSON L. TOWLE, Chicago, Ill.
Filed January 2, 1912. Serial No. 60,542. PUBLISHED APRIL 16, 1912.

87,125. FIRELESS COOKERS. TRAVERSE CITY REFRIGERATOR CO., Traverse City, Mich.
Filed January 29, 1912. Serial No. 61,124. PUBLISHED APRIL 16, 1912.

87,126. SANITARY WATER-CLOSETS. THE TRENTON POTTERIES COMPANY, Trenton, N. J.
Filed May 29, 1911. Serial No. 56,684. PUBLISHED APRIL 23, 1912.

87,127. CANDY. WILLIAM SHERMAN TROWBRIDGE, Meadville, Pa.
Filed January 3, 1912. Serial No. 60,582. PUBLISHED APRIL 16, 1912.

87,128. ILLUMINATING-OILS. VACUUM OIL COMPANY, Rochester, N. Y.
Filed March 16, 1912. Serial No. 62,210. PUBLISHED APRIL 23, 1912.

87,129. WHEAT-BREAD. THE VI-STIX PRODUCTS COMPANY, Denver, Colo.
Filed March 31, 1910. Serial No. 48,764. PUBLISHED APRIL 11, 1911.

87,130. CERTAIN MEDICINE AND PHARMACEUTICAL PREPARATIONS. EDWARD H. WAGNER, Mineral Wells, Tex.
Filed May 20, 1911. Serial No. 56,500. PUBLISHED APRIL 23, 1912.

87,131. CERTAIN FANCY GOODS, FURNISHINGS, AND NOTIONS. WATSON, PORTER, GILES & COMPANY, New York, N. Y.
Filed December 22, 1911. Serial No. 60,415. PUBLISHED APRIL 23, 1912.

87,132. SHEET METAL. EDWARD H. WEST, Birmingham, Ala.
Filed February 1, 1912. Serial No. 61,190. PUBLISHED APRIL 23, 1912.

87,133. SHAVING AND TOILET SOAPS. THE J. B. WILLIAMS COMPANY, Glastonbury, Conn.
Filed February 17, 1912. Serial No. 61,586. PUBLISHED APRIL 16, 1912.

LABELS

REGISTERED JUNE 25, 1912.

16,416.—*Title:* "PANAMA CREAMS." (For Crackers.) AMERICAN BISCUIT CO., San Francisco, Cal. Filed May 21, 1912.

16,417.—*Title:* "BROWN'S HIGH GRADE METAL WARE." (For Sheet-Metal Ware.) THE BROWN STAMPING COMPANY, Toledo, Ohio. Filed February 10, 1912.

16,418.—*Title:* "LITTLE CROW." (For Canned Corn.) COKATO CANNING CO., Cokato, Minn. Filed April 13, 1912.

16,419.—*Title:* "HEWITT RYE WHISKEY." (For Whisky.) THE HEWITT MERCANTILE COMPANY, St. Louis, Mo. Filed June 3, 1912.

16,420.—*Title:* "HEWITT BOURBON WHISKEY." (For Whisky.) THE HEWITT MERCANTILE COMPANY, St. Louis, Mo. Filed June 3, 1912.

16,421.—*Title:* "MOHAWK VALLEY BRAND." (For Limburger-Style Cheese.) JACOB KARLEN, Rome, N. Y. Filed June 8, 1912.

16,422.—*Title:* "KELLOGG'S TOASTED WHEAT BISCUIT." (For Biscuit.) KELLOGG TOASTED CORN FLAKE CO., Battle Creek, Mich. Filed May 21, 1912.

16,423.—*Title:* "POINCIANA CERATE." (For Preparations for the Skin.) EMIL C. F. PAARMAN, Lake Placid, N. Y., and Palm Beach, Fla. Filed April 22, 1912.

16,424.—*Title:* "GEORGE L." (For Cigars.) JOHN J. PEPPER, Addison, N. Y. Filed March 16, 1912.

16,425.—*Title:* "R-BST BRAND." (For California Fruits.) J. F. PYLE & SON, San Jose, Cal. Filed April 30, 1912.

16,426.—*Title:* "ROKEACH'S KOSHER SCOURING POWDER." (For Scouring-Powder.) I. ROKEACH & SONS INC., New York, N. Y. Filed June 5, 1912.

16,427.—*Title:* "YELLOW ROSE PURE CORN WHISKEY." (For Corn Whisky.) I. C. SHORE & CO., INC., Petersburg, Va. Filed May 25, 1912.

16,428.—*Title:* "TAYLOR'S PORK GOODIES." (For a Pork Product.) THE TAYLOR PROVISION COMPANY, Trenton, N. J. Filed May 21, 1912.

16,429.—*Title:* "DR. ULRICI'S COMPOUND CORDIAL OF CEREBRINE." (For a Pharmaceutical Preparation.) CHARLES J. ULRICI, New York, N. Y. Filed March 30, 1912.

16,430.—*Title:* "KING PHILIP." (For Cigars.) ZIMMERMAN CIGAR CO., Chicago, Ill. Filed June 4, 1912.

PRINTS

REGISTERED JUNE 25, 1912.

3,056.—*Title:* "MY WIFE KNOWS! SHE'S SOLVED MY TROUBLES FOR HEELS AND TOES." (For Hosiery.) AMERICAN ART WORKS, Coshocton, Ohio. Filed April 17, 1912.

3,057.—*Title:* "GUARANTEE, THIS GARMENT IS MADE OF MATERIAL PRINTED BY THE GARNER PROCESS." (For Garments.) GARNER PRINT WORKS AND BLEACHERY, West Haverstraw, Wappingers Falls, and New York, N. Y. Filed May 17, 1912.

DECISIONS

OF THE

COMMISSIONER OF PATENTS

AND OF

UNITED STATES COURTS IN PATENT CASES.

COMMISSIONER'S DECISIONS.

EX PARTE WARNER.

Decided March 9, 1912.

TRADE-MARKS—"BOY SCOUT" FOR LEGGINGS, GLOVES, AND MITTENS—DECEPTIVE OR DESCRIPTIVE.

The words "Boy Scout" *Held* not registrable as a trade-mark for leggings, gloves, and mittens, since as applied to such goods the mark is either deceptive or descriptive.

ON APPEAL.

TRADE-MARK FOR LEGGINGS, GLOVES, AND MITTENS.

Mr. John E. Stryker for the applicant.

MOORE, *Commissioner:*

This is an appeal from the decision of the Examiner of Trade-Marks refusing to register the words "Boy Scout" as a trade-mark for leggings, gloves, and mittens.

Registration was refused upon two grounds, first, because the mark sought to be registered is the name of an organization not distinctively displayed and because the mark is descriptive or deceptive.

It is well known that there is such an organization in the United States and in England as the Boy Scouts. The use of the mark sought to be registered, it is believed, would clearly indicate that the goods were put out with the approval of the Boy Scouts or were manufactured for the Boy Scouts. If this is true, the mark is descriptive, and if not it is deceptive. In either case the mark is not registrable.

The non-registrability of such a mark was clearly pointed out by Commissioner Hall in *ex parte M. Bloch & Co.*, (40 O. G., 443,) in which it was held that a mark containing the words "Knights of Labor" was not registrable as a trade-mark for whisky.

Applicant argues that this decision was overruled by the later case of *ex parte King*, (46 O. G., 119,) decided by the same Commissioner, in which it was held that a trade-mark consisting of the exact representation of a well-known badge of the Grand Army of the Republic was registrable as a trade-mark. In this, however, applicant is in error, since in the later case the Commissioner said:

> It is proper to say in this case that I do not find, nor does the Examiner suggest, that the design as used would be calculated to deceive, and the case is not brought within the principles announced in *ex parte M. Bloch & Co.*, (40 O. G., 443.)

The above holding makes it unnecessary to consider whether, as contended by applicant, the word "Association" as used in section 5 of the Trade-Mark Act is limited to an organization engaged in trade or commerce and that therefore the first ground of refusal by the Examiner was not well taken.

The decision of the Examiner of Trade-Marks is affirmed.

EX PARTE BOGOSLAVSKY.

Decided May 3, 1912.

APPLICATION—PROSECUTION—CHANGE OF DRAWING.

Where a proposed change in the drawing depends on what the disclosure is and not whether an undisputed disclosure is operative, *Held* that the refusal of the Examiner to permit such change is reviewable on petition.

ON PETITION.

AUTOMOBILE-TRUNK.

Messrs. Wiedersheim & Fairbanks for the applicant.

MOORE, *Commissioner:*

This is a petition that the Examiner be instructed to permit the outline of the cover 11 to be shown in Figure 1 in accordance with the sketch submitted in connection with applicant's communication of August 2, 1911.

The Examiner refused to permit the suggested change in the drawing on the ground that it constitutes new matter, and in his answer to this petition he suggests that the question is one which should be reviewed on appeal rather than a petition of this character, because the claims now stand rejected on the ground that they cover an inoperative device. The dispute here, however, seems to be as to what the disclosure of the case actually is and not as to whether an undisputed disclosure is operative.

The trunk shown in the original drawings is disk or drum shaped, and the so-called "cover" is situated in the upper half of one of the circular faces. When released, it is supposed to be drawn down into a recess occupying the lower half of this face of the disk. The Examiner held that such operation is impossible, because the lower edge of the cover is the same diameter as the trunk, and therefore could not be thus inserted in the semicircular recess provided, since this recess has its greatest width at the upper edge and is there only equal to the width of the cover itself.

The assumption of the Examiner, however, that the lower edge of the cover is of as great a diameter as the trunk seems to be unwarranted in view of the original specification, where it is stated that "the cover is drawn straight down" into the recess provided when it is released by the member 22, provided for that purpose. It is true that there is nothing in the original disclosure to indicate the exact shape or size of the cover, although the shape of the flap 15, which is provided for "covering the edges of the cover," would suggest that the cover had the outline which applicant now desires to indicate in dotted lines.

It is believed that the description of the operation when taken with the design of the flap 15 amply warrants the showing which applicant desires to introduce in dotted lines.

The petition is granted.

BRADLEY *v.* MIGGETT.

Decided July 26, 1911.

1. INTERFERENCE—PRIORITY.

Evidence reviewed and *Held* to establish that M. was the first to conceive the invention in issue and the first to reduce the same to practice, priority *Held*, therefore, properly awarded to him.

2. SAME—SAME—DILIGENCE.

Where B., who was the last to reduce the invention to practice, experimented with the invention during a period of eighteen months or two years only in a desultory way, although he had at his command every facility to promote expeditious work thereupon, *Held* that he was not diligent and that he would not be entitled to an award of priority if he had established a conception of the invention prior to that of M.

ON PRIORITY.

BOILER-TUBE CLEANER.

Mr. J. Morris Wilson for Bradley.

Messrs. Bacon and Milans for Miggett.

BILLINGS, *First Assistant Commissioner:*

This is an appeal by Bradley from a decision of the Examiners-in-Chief affirming a decision of the Examiner of Interferences awarding priority to Miggett on the following issue:

1. The boiler tube cleaner comprising a rotary body or carrier means for supplying steam thereto, a steam-delivery nozzle mounted on said body and capable of being moved into different angular positions with relation to the axis of the body, means for rotating said body, and adjusting means independent of said body-rotating means for shifting the nozzle relatively to the body.

2. The combination of a steam boiler having horizontal tubes, a wall opposite the ends of the boiler-tubes having an opening extending lengthwise of the tubes, a body or carrier rotatably arranged in said opening, means for supplying steam to said body, a steam delivery nozzle mounted on said body and capable of being moved into different angular positions relatively to the axis of the body, means exterior to said wall for rotating said body, and means independent of said body rotating means and exterior of said wall for adjusting said nozzle with reference to the body.

3. The combination of a steam boiler having horizontal tubes, a wall opposite the ends of the boiler-tubes having an opening extending lengthwise of the tubes, a body or carrier rotatably arranged in said opening, means for supplying steam to said body, a steam delivery nozzle mounted on said body and capable of being moved into different angular positions relatively to the axis of the body, means exterior to said wall for rotating said body, an adjusting shaft for said nozzle extending lengthwise of said body and provided exterior to said wall with an operating device independent of said body rotating means, and means for operatively connecting the nozzle with said shaft.

In his preliminary statement Miggett alleges conception on April 6, 1906, disclosure on April 20, 1906, drawings the following day, and a reduction to practice on May 1, 1906. His application was filed December 16, 1907.

Bradley alleges conception October 15, 1905, drawings and disclosure on April 11, 1906, and a model and reduction to practice November, 1907. His application was filed March 28, 1908.

The testimony submitted on behalf of Miggett clearly shows that he conceived the invention at least as early as April 26, 1906. This is not questioned by his opponent. It also shows that he built and successfully operated a full-sized device as early as June 15, 1906. This also is not questioned; but it is contended on behalf of Bradley that Miggett cannot be accorded this date for reduction to practice because the test at which the device was proved successful occurred at Walkerville, Ontario. This being in a country foreign to the United States, it is urged that no acts done there can avail Miggett in proving a reduction to practice. It is well settled that the making and using of an invention abroad cannot inure to the benefit of an inventor against another applicant in this country. (*Bell v. Brooks*, 1881 C. D., 8; *Tucker v. Davis*, 2 O. G., 224, and *De Kando v. Armstrong*, 169 O. G., 1185; 37 App. D. C., 314.)

In the present case, however, the circumstances were somewhat different from those in any of the cases cited. Here it is clearly proved that Miggett conceived the invention in this country and disclosed it to one Holmes, connected with the Powers Specialty Company of Detroit, Michigan, that the device which afterward proved successful was made in accordance with this conception in Detroit, and that some or all of the parties who made the test, which occurred across the river in Canada, were citizens of the United States and residing here at that time. It may well be questioned whether under these circumstances the tribunals below were in error in giving Miggett the benefit of reduction to practice by virtue of the device so tested.

It appears, however, that other blowers embodying the invention in issue were made immediately thereafter by the same company in Detroit and sold in different parts of this country and had been so made and sold up to the time of taking testimony. These devices are referred to in the testimony as the "B 10, B 12" type, the "B 27" type, and the "B 31" type, the difference between these types being in details not affecting the present issue. Of the last two types named it appears that in the neighborhood of two thousand were sold. (Holmes Qs. 84 and 85.) One sale specifically referred to was that to the United States Glass Company, Gas City, Ill. The order for this blower was received on July 24, 1906, and it was finished and installed in the August following. There are in evidence two letters from the United States Glass Company stating that the blower was satisfactory in every respect and ordering a second one. Another blower was sold to the Detroit Cold Storage Co. about August, 1906, installed the following winter, and proved satisfactory. (Stewart Q. 65 and RD. Q. 100.)

Such evidence of commercial success is sufficient to establish that the device was operative and practical. It is clear, therefore, that Miggett must be accorded a reduction to practice at least as early as the winter of 1906-7, and the relative position of the parties to this proceeding so far as conception and reduction to practice is concerned will not be changed whether Miggett be credited with a reduction to practice by virtue of the device tested in Walkerville, Ontario, or not, for Bradley alleges no earlier date than November, 1907, for reduction to practice.

As pointed out by the tribunals below, Bradley has failed to prove a conception of the invention prior to the completion of his Exhibit No. 2 some time in May, 1906. This is a full-sized device, which unquestionably embodies the issue, although its success was not at that time proved and its details afterward changed. The Bradley Exhibit No. 1, a sketch said to have been made on April 11, 1906, clearly does not disclose the whole invention. In fact, the independent movement of the jet and gear, the very gist of the present invention, is not suggested therein.

It is urged by Bradley in his brief that—

> obviously, the nozzle is not automatic, in its movement, and the independent movement thereof is so elementary that it can be inferred, whereas if the movement of the nozzle were not independent of the body rotating means some indication would appear in the drawing.

The burden of proof, however, is upon Bradley, and he cannot prevail by virtue of any mere conjectures which might be made from such an incomplete disclosure. The date of the completion of Exhibit No. 2, which was some time in May, 1906, is therefore the earliest that can be accorded to Bradley for conception. This is subsequent to that which has been proved by Miggett.

Under his preliminary statement Bradley cannot be awarded a reduction to practice earlier than November, 1907, which was several months after that to which Miggett is entitled. The latter was, therefore, the first to conceive and the first to reduce to practice, and priority was properly awarded to him on this ground.

The tribunals below have both held, further, that Bradley has no satisfactory proof of diligence which would enable him to prevail in case he were found to be the first to conceive, and that, therefore, Miggett must be awarded priority, even though Bradley were given the benefit of the earliest date alleged by him for conception. With this holding I agree. Bradley has a period of eighteen months or two years to account for, and during this time it appears that he experimented only in a desultory way, notwithstanding that he had at his command every facility to promote expeditious work upon the invention.

It is held that priority of invention was properly awarded to Miggett.

The decision of the Examiners-in-Chief is affirmed.

LEVERING COFFEE COMPANY *v.* MERCHANTS COFFEE CO.

Decided November 15, 1911.

1. TRADE-MARKS—"HYGEIA" FOR COFFEE—NOT DESCRIPTIVE.

The word "Hygeia" as a trade-mark for coffee *Held* not descriptive.

2. SAME—SAME—ABANDONMENT.

Where a firm had put out several brands of coffee, including "Hygeia," and its books offered in evidence showed not only that for several years no "Hygeia" coffee was sold, but the columns in the factory stock-book headed "Hygeia" were used to enter various other items and on some pages the word "Hygeia" was written across with the words "High Grade" and "D Rio," *Held* that not only a non-use of the mark, but an intent to abandon the same, was established.

3. SAME—INTERFERENCE—PRIORITY—ABANDONMENT.

Evidence *Held* to show that the mark in issue was abandoned by the predecessor in business of the L. Co. and priority awarded to the M. Co., which began the use of the mark subsequent to this abandonment, but prior to the use of the L. Co.

ON PRIORITY.

TRADE-MARK FOR COFFEE.

Messrs. Taylor & Hulse and *Messrs. Steuart & Steuart* for Levering Coffee Company.

Mr. Robert Watson and *Mr. John Watson, Jr.*, for Merchants Coffee Co.

TENNANT, *Assistant Commissioner:*

This is an appeal by the Merchants Coffee Co. from a decision of the Examiner of Interferences awarding priority of adoption and use to the Levering Coffee Company and holding that it was entitled to register the mark shown in its application.

The mark involved is the word "Hygeia" used as a trade-mark for coffee. The Merchants Coffee Co. registered this mark on August 20, 1907. The application of the Levering Coffee Company was filed December 15, 1909.

The Examiner of Interferences found that the Merchants Coffee Co. began to use this mark in 1898 and has continuously used it since that time. He further found that the mark was adopted by E. Levering & Company, the predecessor in business of the Levering Coffee Company, in 1881, that the mark was used by the former down to 1897, and that, while there was a lapse in its use from that date until 1902, when use was commenced by the Levering Coffee Company, it had not been established that the mark had been abandoned and that therefore the Levering Coffee Company was entitled to the benefit of the date of adoption and use of its predecessor.

The Levering Coffee Company contends that the mark as used by the Merchants Coffee Co. is descriptive and that it is also deceptive in that the picture of a hotel, which is said to be the picture of the Hygeia Hotel, formerly at Old Point Comfort, appears on the labels with the word "Hygeia," it being argued that one would naturally associate the word "Hygeia" with the Hygeia Hotel and would therefore be led to believe that there was some connection between this hotel and the coffee upon which the mark is used.

The Examiner of Interferences held that the Levering Coffee Company was not entitled to raise

this question, since the Merchants Coffee Co. was the registrant, but that the use by the Merchants Coffee Co. was a valid trade-mark use.

It is not necessary to consider whether the question of a deceptive use by a registrant can be raised by an applicant in interference therewith, for there is no evidence of such deceptive use on the part of the registrant in this case as would defeat his right to registration if he were an applicant. The word "Hygeia" is, in my opinion, a good and valid trade-mark and not descriptive. In the case of the *Consolidated Ice Co.* v. *Hygeia Distilled Water Co.* (151 Fed Rep., 10) the Court of Appeals of the Third Circuit said:

In short, "Hygeia" is not "hygienic." The two words have not the same meaning, and, while a monopoly of the latter could not be accorded to any one without depriving others of its apposite use for ascribing healthfulness to their goods, there is no more reason that the former should be exempted from appropriation than any other nominative or merely designating term which mythology or fiction has fabricated or made familiar.

The association of the word "Hygeia" on the labels with the picture of the Hygeia Hotel could, in my opinion, deceive no one.

It is not necessary to review the evidence in detail as to the dates of use established by the respective parties. This evidence was discussed in full by the Examiner of Interferences, and I agree with his holding that the Merchants Coffee Co. has established adoption of the mark in 1898 and continuous use since that time and that E. Levering & Company adopted the mark in 1881 and used the same down to 1895.

While there are some general statements of the witnesses that the mark was continuously used by E. Levering & Company and the Levering Coffee Company, the books offered in evidence, and which the witnesses themselves state would actually show what sales were made, show diminishing sales from year to year until finally there was but a single sale of coffee under the "Hygeia" brand by E. Levering & Company in 1897. It is not denied on the part of the Levering Coffee Company that no sales of coffee were made by that concern under the brand "Hygeia" until 1902.

An examination of the factory stock-book of E. Levering & Company, which is in evidence as "Levering Exhibit Factory Stock Book, No. 2," shows that E. Levering & Company sold several brands of coffee. The book is ruled in columns showing the amount of each of these brands packed and delivered, the name of the brand appearing at the head of the column. Continuously up to 1895 the book shows the packing and delivery of "E. L. C.," "Rico," "Ajax," and "Hygeia" coffee. The sales in 1895 of "Hygeia" were very small. There were but a few in 1896, and, as stated above, only one in 1897, and none thereafter until 1902.

It is true that mere non-use of the mark will not establish abandonment; but this book shows not only a non-use, but, it is believed, a clear intent to abandon the mark, since the columns headed "Hygeia" are used to enter various other items, showing apparently that the factory had been notified that no more "Hygeia" coffee would be sold, and therefore there was no more need for these columns. In some places the printed word "Hygeia" is written across with the words "High Grade" and "D Rio." In the case of *Saxlehner* v. *Eisner and Mendelson Co.* (179 U. S., 19, 31) the Supreme Court of the United States said:

To establish the defence of abandonment it is necessary to show not only acts indicating a practical abandonment, but an actual intent to abandon. Acts which unexplained would be sufficient to establish an abandonment may be answered by showing that there never was an intention to give up and relinquish the right claimed.

In the present case the books of E. Levering & Company show a non-use of the mark, and, as pointed out above, the character of the entries in this book is believed to show an intent to abandon the mark. No member of the firm of E. Levering & Company was called to explain why the books were used in this way if there was no intent to abandon the mark or to testify that the mark actually had not been abandoned. It does not appear on the record that the members of this firm were unavailable as witnesses, and, in fact, one of them was called by the Merchants Coffee Co. to testify as to another point.

It is true that the records show that certain "Hygeia" labels were kept in stock; but these appear to have been merely old labels which E. Levering & Company had on hand at the time the use of the mark was discontinued and which were transferred to the Levering Coffee Company along with the other property of E. Levering & Company. Parr and Ewing attempt to show that the use of the mark "Hygeia" by E. Levering & Company was discontinued because of a coffee war; but Parr's testimony is manifestly hearsay, and Ewing's seems to have been an afterthought, for it appears that after his original testimony was given and when he was excused as a witness to look up a certain letter which he had testified about he dictated a statement to Parr as to this so-called coffee war, although both he and Parr had been sworn as witnesses. It is also significant that Parr's subsequent testimony was practically identical with this memorandum.

For the reasons above stated it is held that the mark in issue was abandoned by E. Levering & Company prior to the time it was adopted by the Merchants Coffee Co., that the Levering Coffee Company did not commence to use the mark until a subsequent date, and since it is not entitled to any benefit from the use by its predecessor priority of adoption and use should have been awarded to the Merchants Coffee Co.

The decision of the Examiner of Interferences is reversed and it is held that the Levering Coffee Company is not entitled to register the mark shown in its application.

DECISIONS OF THE U. S. COURTS.

Court of Appeals of the District of Columbia.

COLLIS *v.* QUENZER.

Decided April 1, 1912.

INTERFERENCE—PRIORITY.

Evidence reviewed and priority *Held* properly awarded to Q. (For decision of the Commissioner see 179 O. G., 575.)

Mr. J. C. Dowell and *Mr. J. R. Littell* for the appellant.

Mr. E. C. Brown for the appellee.

SHEPARD, *C. J.*:

This is an interference case involving priority of invention of an improved ankle-supporter.

The several tribunals of the Patent Office concurred in the award of priority to Quenzer.

Collis was the first to conceive the invention. He claimed to have reduced it to practice in December, 1906, immediately after conception. The original patterns and the sample were locked up in a drawer of a private desk and the manufacture and sale was not begun until February, 1909. Quenzer conceived the invention in October, 1907, and commenced manufacture and sale to the trade in November, 1907.

The Commissioner held that the proof of Collis did not show reduction to practice as alleged; that his secretion of the invention, and the patenting and manufacture of another kind of supporter indicated that the making and test of the supporter of the issue amounted to nothing more than an abandoned experiment. He further held that even if reduced to practice, Collis had lost his right to the invention by his concealment of the same. An examination of the evidence fails to convince us that there was error in the conclusion on the first point. It is, therefore, unnecessary to consider the second one.

The decision will be affirmed. It is so ordered and that this decision be certified to the Commissioner of Patents.

Affirmed.

Court of Appeals of the District of Columbia.

H. BECKER & COMPANY *v.* C. A. GAMBRILL MANUFACTURING COMPANY.

Decided April 1, 1912.

1. TRADE-MARKS—"ORANGE GROVE"—GEOGRAPHICAL.
The words "Orange Grove" *Held* geographical, and therefore not registrable as a technical trade-mark.

2. SAME—SAME—SAME—USE NOT EXCLUSIVE.
Use by the appellee of the mark "Orange Grove" *Held* not exclusive during the ten years next preceding the passage of the Trade-Mark Act and that therefore as the mark is geographical it is not entitled to register the same.

Mr. Arthur v. Briesen for the appellant.

Mr. Arthur Steuart and *Mr. J. E. Cross* for the appellee.

VAN ORSDEL, *J.*:

This is an appeal from a decision of the Commissioner of Patents granting appellee company priority of use and registration of a trade-mark for flour, consisting of the words "Orange Grove," together with a pictorial representation of a twig bearing two oranges.

Appellee made application for the registration of its mark under the ten-year clause (sec. 5) of the Trade-Mark Act of February 20, 1905. It was thrown into interference with appellant's mark "Orange Mills," registered in 1881. On hearing, appellant directed its testimony to combating the right of appellee to register its mark, on the ground that it had not enjoyed exclusive use for the ten-year period. The Commissioner of Patents, however, held appellee's mark to be a technical trade-mark, and that its use antedated appellant's use of its mark, and awarded priority and registration to appellee.

Counsel for appellant strenuously urges that inasmuch as appellant was cited into the Patent Office to combat appellee's right to registration under the ten-year provision, and as that was the issue to which its testimony was directed, the finding is at variance with the pleadings and the evidence, and cannot, therefore, be sustained. We think, however, that the case can be disposed of without reference to this feature of the controversy.

An interference was declared under section 7 of the trade-mark law, which provides that—

whenever application is made for the registration of a trade-mark which is substantially identical with a trade-mark appropriated to goods of the same descriptive properties, for which a certificate of registration has been previously issued to another, * * *, he (the Commissioner) may declare that an interference exists.

In granting the interference the Commissioner recognized that the marks were "substantially identical."

The dominating feature of both marks is the word "Orange." The pictorial representation of the twig and the two oranges tends to emphasize the word "Orange" as the striking feature of appellee's mark. Flour bearing either of the marks would soon become known to the trade as the "Orange Brand." Stencils used by appellee in marking barrels were exhibited, which omitted the twig and oranges, indicating that these were not regarded by it as essential features of its mark.

The word "Orange" and the words "Orange Grove" are geographical, and not subject to registration as technical trade-marks. In fact, appellee's mill is located at Orange Grove, Md. This narrows appellee's right to registration to the ten-year clause of the Trade-Mark Act. It failed to establish exclusive use as against appellant, for the ten-year period prior to the enactment of the present law, and is, therefore, barred from registration.

This sufficiently disposes of the appeal. The decision of the Commissioner of Patents is reversed, and the clerk is directed to certify these proceedings as by law required.

Reversed.

Court of Appeals of the District of Columbia.

IN RE VON WELSBACH.

Decided April 1, 1912.

PATENTABILITY—INCANDESCENT FILAMENT.
Claims for an incandescent filament *Held* unpatentable in view of the prior art.

Mr. J. C. Pennie and *Mr. C. J. O'Neill* for the appellant.

Mr. W. S. Ruckman for the Commissioner of Patents.

VAN ORSDEL, *J.*:

Appellant appeals from the decision of the Commissioner of Patents (178 O. G., 1152) rejecting the following claims:

1. An incandescent filament for electric lamps, comprising a stable electrically conducting mixture of osmium and one of the described oxids.

2. An incandescent filament for electric lamps, comprising a stable electrically conducting mixture of osmium and a rare earth.

3. An incandescent filament for electric lamps, comprising a stable electrically conducting mixture of osmium and thoroxid.

4. An incandescent filament for electric lamps, comprising an electrically conducting mixture of a metal which is stable at a temperature above the incandescing temperature of the filament, and rare earth.

5. An incandescent filament for electric lamps comprising an electrically conducting mixture of a metal which is stable at a temperature above the incandescing temperature of the filament and a plurality of the oxids described.

6. An incandescent filament for electric lamps, comprising a stable electrically conducting mixture of a metal of the platinum group and thoroxid.

It was held by the Commissioner that these claims are anticipated by a patent issued to Thomas A. Edison September 16, 1879. Edison in his specification states:

The object of this invention is to produce a candle or light-giving body by the incandescence of a conductor of electricity in the form of a cylinder, prism, or other mass of a size adapted to yield the required volume of light. The invention consists in an electric-light-giving body formed of a conductor, such as finely-divided platinum, iridium, ruthenium, or other metal difficult of fusion, incorporated with non-conducting material.

Edison describes the non-conducting material in his specification as follows:

I mix with such finely-divided conductors infusible materials,—such as oxid of magnesium or zirconium—in different proportions, so as to obtain any degrees of conductivity required.

In other words, he describes his conductor as consisting of ruthenium incorporated with oxid of zirconium.

Appellant concedes in his specification that ruthenium and the oxid of zirconium are the equivalents of osmium and the oxid of thorium, and one may be used in place of the other. In appellant's device, as in Edison's, an incandescent conductor for an electric lamp or candle is disclosed composed of infusible metallic ingredients combined with an oxid.

Other references to prior patents are given, but we think that the Edison patent furnishes a complete anticipation of the claims here involved. The decision of the Commissioner of Patents is affirmed, and the clerk is directed to certify these proceedings as by law required.

Affirmed.

ADJUDICATED PATENTS.

(U. S. C. C. A.) The Forsyth patent, No. 611,782, claims 7 to 12, for a process of treating raisins, *Held* void for lack of novelty. *United States Consol. Seeded Raisin Co.* v. *Selma Fruit Co.*, 195 Fed. Rep., 264.

(U. S. C. C. A.) The Parks patent, No. 777,531, for a tent-cottage, *Held* void for lack of patentable novelty. *Colorado Tent & Awning Co. v. Parks*, 195 Fed. Rep., 275.

(U. S. C. C. A.) The Hall patent, No. 829,780, for an electrical transformer, *Held* void for lack of invention. *General Electric Co.* v. *Sutter*, 195 Fed. Rep., 280.

(U. S. D. C.) The Turner patent, No. 912,511, for a triple-valve device for automatic fluid-pressure brakes, *Held* not anticipated, valid, and infringed. *Westinghouse Air Brake Co.* v. *New York Air Brake Co.*, 195 Fed. Rep., 282.

(U. S. D. C.) The Turner and Custer patent, No. 912,512, for a valve device for automatic fluid-pressure brakes, *Held* void for lack of novelty and invention. *Westinghouse Air Brake Co.* v. *New York Air Brake Co.*, 195 Fed. Rep., 282.

Interference Notices.

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 15, 1912.

J. H. W. Huckins & Co., their assigns or legal representatives, take notice:

An interference has been declared by this Office between the application of Harry P. Strasbaugh, of Aberdeen, Md., for registration of a trade-mark and trade-mark registered November 15, 1881, No. 8,838, to J. H. W. Huckins & Co., of Boston, Mass., and a notice of such declaration sent by registered mail to the said J. H. W. Huckins & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said J. H. W. Huckins & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 14, 1912.

Blackburn-Browne Company, its assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Kroger Grocery & Baking Co., Eden Park Entrance, Florence avenue, and C. L. & N. R. R., Cincinnati, Ohio, for registration of a trade-mark and trade-mark registered July 27, 1909, No. 74,633, to the Blackburn-Browne Company, 56 South Front street, Memphis, Tenn., notice is hereby given that unless the Blackburn-Browne Company, its assigns or legal representatives, shall, within thirty days from the first publication of this order, enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 14, 1912.

Henry Wolkind, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of Rode & Brand, Inc., 200 William street, New York, N. Y., for registration of a trade-mark and trade-mark registered December 29, 1896, No. 29,364, to Henry Wolkind, Pittsburgh, Pa., and a notice of such declaration sent by registered mail to said Henry Wolkind at the said address having been returned by the post-office undeliverable, notice is hereby given that unless Henry Wolkind, his assigns or legal representatives, shall, within thirty days from the first publication of this order, enter an appearance therein the interference will be proceeded with as though by default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 14, 1912.

Gabriel Codina Mir, his assigns or legal representatives, take notice:

An interference having been declared by this Office between the applications of Lanman & Kemp, 135–137 Water street, New York, N. Y., and W. H. Crawford Co., 119 Commerce street, Baltimore, Md., for registration of a trade-mark and trade-mark registered August 26, 1890, No. 18,346, to Gabriel Codina Mir, Habana, Cuba, and a notice of such declaration sent by registered mail to said Gabriel Codina Mir at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said Gabriel Codina Mir, his assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

DEPARTMENT OF THE INTERIOR,
UNITED STATES PATENT OFFICE,
Washington, D. C., June 3, 1912.

John L. Rodgers & Co., their assigns or legal representatives, take notice:

An interference having been declared by this Office between the application of The Southwestern Milling Company, No. 83 Montgomery street, Jersey City, N. J., and Commerce Building, Kansas City, Mo., for registration of a trade-mark and trade-mark registered July 14, 1891, No. 19,879, to John L. Rodgers & Co., 218 Spear's Wharf, Baltimore, Md., and a notice of such declaration sent by registered mail to said John L. Rodgers & Co. at the said address having been returned by the post-office undeliverable, notice is hereby given that unless said John L. Rodgers & Co., their assigns or legal representatives, shall enter an appearance therein within thirty days from the first publication of this order the interference will be proceeded with as in case of default.

This notice will be published in the OFFICIAL GAZETTE for three consecutive weeks.

EDWARD B. MOORE, *Commissioner.*

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TO THE

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JUNE, 1912.

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DIGEST

OF THE

DECISIONS OF THE COMMISSIONER OF PATENTS AND OF THE UNITED STATES COURTS.

JUNE, 1912.

[Decisions of the Court of Appeals of the District of Columbia are indicated by a star (*).]

ABANDONED EXPERIMENTS.

See Priority of Invention, 3.

ABANDONMENT OF APPLICATIONS.

1. PROSECUTION.
Where at the end of the year following a proper final rejection the applicant filed an amendment complying with certain formal requirements made by the Examiner and a request that the final rejection be waived, but without any sufficient showing why such action should be taken, *Held* that the application is abandoned. [*Ex parte* Turner, 285.

2. APPEAL FROM DECISION OF COMMISSIONER—JURISDICTION OF COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.
Where the Commissioner decides that the showing made is not sufficient to establish that the delay in the prosecution of an application was unavoidable within the meaning of section 4894, Revised Statutes, *Held* that his action is subject to review on direct appeal to the Court of Appeals of the District of Columbia. [*In re* Meta Mattullath, administratrix of Hugo Mattullath, 853.

3. DELAY UNAVOIDABLE.
Record reviewed and delay in the prosecution of the application *Held* "unavoidable" within the meaning of that term as used in section 4894, Revised Statutes. (Ruling in *ex parte Pratt*, 39 O. G., 1549, approved.) [*Id.

ABANDONMENT OF TRADE-MARKS.

See Trade-Marks, 8, 9.

ACTION BY THE EXAMINER.

See Abandonment of Applications; Drawings.

AFFIDAVITS UNDER RULE 75.

FOREIGN APPLICATION—DATE OF AND IDENTITY OF INVENTIONS—HOW ESTABLISHED.
Where an applicant claims the benefit of the filing of an application in a foreign country for the purpose of overcoming a reference, his affidavit, filed under the provisions of Rule 75, "should be accompanied by a copy of the original foreign application, certified to by the Patent Office of the country in which it was filed, and if it is not in the English language, a sworn translation of the same or a translation made by the official translator of this Office. If the application was not made by the inventor himself, applicant's affidavit should also state that the application in the foreign country was filed for his benefit and that such procedure is in accordance with the procedure in the foreign country." [*Ex parte* Barthels, 574.

AMENDMENTS.

See Abandonment of Applications, 1.

ANTICIPATION.

See Construction of Claims, 1; Trade-Marks, 2.

APPEAL FROM THE COMMISSIONER OF PATENTS.

See Abandonment of Applications, 2.

CANCELATION OF TRADE-MARK REGISTRATION.

See Trade-Marks, 3.

CLAIMS.

See Construction of Claims; Interference.

COMMISSIONER OF PATENTS.

See Abandonment of Applications, 2; Interference, 1.

CONCEALMENT OF INVENTION.

See Priority of Invention, 4, 6.

CONCEPTION OF INVENTION.

See Priority of Invention, 2, 5, 7, 8.

CONSTRUCTION OF CLAIMS.

1. PATENTABILITY—PROCESS OF HEATING BY STEAM.
Claims for a process of heating by steam *Held* to state nothing more than the function of the apparatus shown and to be anticipated by the prior art. [*Ex parte* Gold, 286.

2. SAME—INCANDESCENT-LAMP-SECURING MEANS.
Claims for a device for fastening an incandescent lamp in its socket *Held* unpatentable in view of the prior art. [**In re* Morgan, 292.

3. SAME—DOUBLE USE.
Where the locking devices employed by the applicant had been used for the same purpose in nut-locks, *Held* that applicant had made merely a double use of this old instrumentality when he employed it as a means for fastening an incandescent lamp in its socket. [*Id.

4. SAME—INCANDESCENT FILAMENT.
Claims for an incandescent filament *Held* unpatentable in view of the prior art. [**In re* Von Welsbach, 1111.

CONSTRUCTION OF STATUTES.

See Abandonment of Applications, 2, 3.

CROSS-BILL.

See Trade-Marks, 3.

DELAY IN FILING APPLICATION.

See Priority of Invention, 6.

DELAY IN PROSECUTING APPLICATIONS.

See Abandonment of Applications, 2, 3.

DESCRIPTIVE TERMS.

See Trade-Marks, 4, 6, 7.

DILIGENCE.

See Priority of Invention, 8.

DISCLOSURE OF INVENTION.

See Drawings.

DOUBLE USE.

See Construction of Claims, 3.

DRAWINGS.

CHANGE OF.

Where a proposed change in the drawing depends on what the disclosure is and not whether an undisputed disclosure is operative, *Held* that the refusal of the Examiner to permit such change is reviewable on petition. [*Ex parte* Bogoslavsky, 1107.

EARLIER AND LATER APPLICATIONS.

See Interference, 2.

EVIDENCE.

See Priority of Invention, 1, 2, 3, 5, 7, 9; Trade-Marks, 8.

FOREIGN APPLICANT.

See Trade-Marks, 5.

FOREIGN APPLICATIONS.

See Affidavits Under Rule 75.

FORMER DECISIONS APPROVED.

See Abandonment of Applications, 3.

FORMER DECISIONS CITED.

See Priority of Invention, 4, 9.

FUNCTION.

See Construction of Claims, 1.

GEOGRAPHICAL TERMS.

See Trade-Marks, 10, 11.

GOODS OF SAME DESCRIPTIVE PROPERTIES.

See Trade-Marks, 1, 2.

IDENTITY OF INVENTION.

See Affidavit Under Rule 75.

INTERFERENCE.

See Priority of Invention; Trade-Marks, 5, 9.

1. FINAL DECISION ON PRIORITY—CLAIMS THEREAFTER PRESENTED BY LOSING PARTY NECESSARILY INCLUDED IN SCOPE OF DECISION—DUTY OF COMMISSIONER TO REJECT.
Where after the termination of an interference the losing party presented claims which were necessarily included in the scope of the decision in the interference and concluded thereby, it was the duty of the Commissioner to reject such claims.
[**In re* Marconi, 577.

2. SAME—SAME—CLAIMS IN APPLICATION NOT INVOLVED IN INTERFERENCE—RES ADJUDICATA.
M. filed two applications disclosing different species of the same invention; but in neither of them was the invention claimed broadly. After the declaration of an interference between the later application and an application of B. a patent was granted on the earlier application. The interference was decided in favor of B., and thereafter M. sought to reissue the patent with claims broad enough to cover the devices disclosed in both of his applications. *Held* that these claims were properly refused on the ground that M.'s right thereto was concluded by the decision in the interference. [*Id.

JURISDICTION OF THE COURT OF APPEALS OF THE DISTRICT OF COLUMBIA.

See Abandonment of Applications, 2.

OPPOSITION TO REGISTRATION.

See Trade-Marks, 3.

PATENTABILITY.

See Construction of Claims.

PETITION TO THE COMMISSIONER OF PATENTS.

See Drawings.

PRIORITY OF ADOPTION AND USE.

See Trade-Marks, 5, 9.

PRIORITY OF INVENTION.

See Interference.

1. INTERFERENCE—AWARD.
Evidence reviewed and McM. *Held* to be the "real inventor," and therefore entitled to the award of priority.
[*McManus *v.* Hammer, 288.

2. SAME—SAME.
Evidence reviewed and *Held* insufficient to establish that W. had a conception of the invention in issue prior to that of B. and T. or that he reduced the invention to practice prior to the filing of the application of B. and T., and that priority was therefore properly awarded the latter.
[Williams *v.* Barnes and Thorschmidt, 573.

3. SAME—REDUCTION TO PRACTICE.
Evidence reviewed and *Held* insufficient to establish that a device constructed by C. prior to Q.'s reduction to practice of the invention in issue amounted to anything more than an abandoned experiment. [Quenzer *v.* Collis, 575.

4. SAME—SAME—CONCEALMENT.
Held that if a device built by C. prior to Q.'s reduction to practice constituted a reduction to practice of the invention C. had so concealed the same as to justify an award of priority to Q. under the ruling in *Mason* v. *Hepburn*, (84 O. G., 147; 13 App. D. C., 86.) [Id.

5. SAME—SAME—AWARD.
Evidence reviewed and *Held* insufficient to establish beyond a reasonable doubt that H., who was the last to conceive the invention in issue, reduced the same to practice before G. filed his application, and priority *Held* properly awarded to G.
[*Huff *v.* Gulick, 579.

6. SAME—SAME—DELAY—FILING APPLICATION.
Where W. reduced the invention to practice prior to the earliest date of invention claimed by L., *Held* that W. did not forfeit his right to a patent in favor of L. by delay in filing his application where there was no suppression or concealment of the invention.
[Walker *v.* Lederer, 851.

7. SAME—SAME—AWARD.
Evidence reviewed and *Held* to establish that M. was the first to conceive the invention in issue and the first to reduce the same to practice. Priority *Held*, therefore, properly awarded to him.
[Bradley *v.* Miggett, 1108.

8. SAME—SAME—DILIGENCE.
Where B., who was the last to reduce the invention to practice, experimented with the invention during a period of eighteen months or two years only in a desultory way, although he had at his command every facility to promote expeditious work thereupon, *Held* that he was not diligent and that he would not be entitled to an award of priority if he had established a conception of the invention prior to that of M. [Id.

9. SAME—AWARD.
Evidence reviewed and priority *Held* properly awarded to Q. (For decision of the Commissioner see 179 O. G., 575.)
[*Collis *v.* Quinzer, 1110.

PROSECUTION OF APPLICATIONS.

See Abandonment of Applications; Affidavits Under Rule 75; Drawings.

REDUCTION TO PRACTICE.

See Priority of Invention, 2, 3, 4, 5, 6, 7, 8.

REFERENCES.

See Affidavits Under Rule 75.

REGISTRABILITY.

See Trade-Marks, 2, 4, 6, 10, 11.

REISSUE.

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REJECTION OF CLAIMS.

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RES ADJUDICATA.

See Interference, 2.

RESPONSIVE ACTION BY THE APPLICANT.

See Abandonment of Applications.

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STATE OF THE ART.

See Construction of Claims, 1, 2, 4.

TECHNICAL TRADE-MARK.

See Trade-Marks, 10.

TEN-YEARS CLAUSE.

See Trade-Marks, 11.

TRADE-MARKS.

1. GOODS OF THE SAME DESCRIPTIVE PROPERTIES—CANNED FISH AND CANNED SALMON.
Canned fish and canned salmon *Held* to be goods of the same descriptive properties. [*Ex parte* Sims, 285.

2. ANTICIPATION.
A trade-mark consisting of the words "Harbor Light" in association with a marine scene the prominent feature of which is the representation of a lighthouse *Held* properly refused registration in view of the prior registration of marks consisting, respectively, of the word "Harbor" and the words "Light House" associated with the picture of a lighthouse applied to goods of the same descriptive properties. [Id.

3. OPPOSITION—CROSS-BILL NOT PERMISSIBLE.
Where an opposition to the registration of a trade-mark is filed by a registrant, *Held* that a cross-bill asking for the cancelation of the opposer's registration will not be admitted.
[Burton Medicine Co. *v.* United Drug Co., 288.

4. "TROPHY"—DESCRIPTIVE.
The word "Trophy" *Held* properly refused registration on the ground that it is descriptive, in that it indicates that the goods to which it is applied had been recognised as of superior quality.
[**In re* Meyer Brothers Coffee and Spice Company, 579.

5. FOREIGN APPLICANT—PRIMA FACIE SHOWING OF USE IN THIS COUNTRY PREREQUISITE TO INTERFERENCE WITH PRIOR REGISTRANT.
Where a foreigner applies for registration for a trade-mark subsequent to the registration by a citizen of this country of the same mark, *Held* that in order to be entitled to an interference with such registration the foreign applicant must make a *prima facie* showing of use in this country.
[W. A. Ross & Brother, Ltd., *v.* The Louis Bergdol Brewing Company *v.* The Greenway Brewing Company, 852.

6. "BOY SCOUT" FOR LEGGINGS, GLOVES, AND MITTENS—DECEPTIVE OR DESCRIPTIVE.
The words "Boy Scout" *Held* not registrable as a trade-mark for leggings, gloves, and mittens, since as applied to such goods the mark is either deceptive or descriptive.
[*Ex parte* Warner, 1107.

7. "HYGEIA" FOR COFFEE—NOT DESCRIPTIVE.
The word "Hygeia" as a trade-mark for coffee *Held* not descriptive.
[Levering Coffee Company *v.* Merchants Coffee Co., 1109.

8. ABANDONMENT.
Where a firm had put out several brands of coffee, including "Hygeia," and its books offered in evidence showed not only that for several years no "Hygeia" coffee was sold, but the columns in the factory stock-book headed "Hygeia" were used to enter various other items and on some pages the word "Hygeia" was written across with the words "High Grade" and "D Rio," *Held* that not only a non-use of the mark, but an intent to abandon the same, was established. [Id.

9. INTERFERENCE—PRIORITY—ABANDONMENT.
Evidence *Held* to show that the mark in issue was abandoned by the predecessor in business of the L. Co. and priority awarded to the M. Co., which began the use of the mark subsequent to this abandonment, but prior to the use of the L. Co. [Id.

10. "ORANGE GROVE"—GEOGRAPHICAL.
The words "Orange Grove" *Held* geographical, and therefore not registrable as a technical trade-mark.
[*H. Becker & Company *v.* C. A. Gambrill Manufacturing Company, 1111.

11. SAME—SAME—USE NOT EXCLUSIVE.
Use by the appellee of the mark "Orange Grove" *Held* not exclusive during the ten years next preceding the passage of the Trade-Mark Act and that therefore as the mark is geographical it is not entitled to register the same. [*Id.

TWO APPLICATIONS, SAME INVENTOR.

See Interference, 2.

ALPHABETICAL LIST OF PATENTEES

TO WHOM

PATENTS WERE ISSUED DURING THE MONTH OF JUNE, 1912.

Abbreviations: "Sp."=Monthly Volume of Specifications; "Gaz."=Official Gazette.]

A. B. Chase Company, The. (See Cooper and Chase, assignors.)
A. F. Meisselbach & Brother. (See Catucci, Pliny, assignor.)
A. H. Fox Gun Company. (See Kremer and Fox, assignors.)
A. H. Fox Gun Company. (See Russell, Frederick T., assignor.)
A. H. Heisey & Co. (See Heisey and Sanford, assignors.)
A. R. Mosler & Co. (See Le Pontois, Leon, assignor.)
Aabel, John T., assignor to Monarch Rotary Engine Company, San Francisco, Cal. Rotary engine. No. 1,028,848; June 11; Sp. p. 1677; Gaz. vol. 179; p. 295.
Abbott, Ambrose F. (See Ellsworth and Abbott.)
Abbott, Claude H., Lisbon, N. D. Gas-purifier. No. 1,028,419; June 4; Sp. p. 781; Gaz. vol. 179; p. 118.
Abbott, Roy C. (See Ellsworth and Abbott.)
Abramson, Harry, Philadelphia, Pa. Sad-iron. No. 1,030,221; June 18; Sp. p. 4681; Gaz. vol. 179; p. 805.
Achenbach, Albert S., Winnetoon, Nebr. Harrow attachment for plows. No. 1,030,700; June 25; Sp. p. 5948; Gaz. vol. 179; p. 1016.
Acheson, Edward G., Stamford township, Ontario, Canada. Preparing dehydrated mixtures. No. 1,030,372; June 25; Sp. p. 5040; Gaz. vol. 179; p. 899.
Acme Cloth Shrinking Machinery Company. (See Burgher, Francis I., assignor.)
Acme Pipe Clamp Company. (See Miller, William, assignor.)
Adair, Charles T. (See Hardgrave and Adair.)
Adam, Frederick B., assignor to Frank Adam Electric Company, St. Louis, Mo. Bus-bar-connecting device. No. 1,030,798; June 25; Sp. p. 6225; Gaz. vol. 179; p. 1052.
Adams, Abraham L., Bridgeport, Conn. Machine for folding, ironing, and spooling cloth strips. No. 1,029,962; June 18; Sp. p. 4139; Gaz. vol. 179; p. 717.
Adams, Frederick T., Victoria, British Columbia, Canada. Variable-speed-transmission device. No. 1,028,522; June 4; Sp. p. 1005; Gaz. vol. 179; p. 153.
Adams & Westlake Company, The. (See Giese, James A., assignor.)
Adams & Westlake Company, The. (See Hamm, William S., assignor.)
Adams & Westlake Company, The. (See Hamm and Newpher, assignors.)
Adams & Westlake Company, The. (See Newpher, Alfred H., assignor.)
Adamson, Richard A., Rivington, near Bolton, England. Apparatus for scraping and cleaning water mains, pipes, and the like. No. 1,030,634; June 25; Sp. p. 5797; Gaz. vol. 179; p. 993.
Addison, William H., assignor of one-half to D. R. Jones, Seattle, Wash. Crimping appliance. No. 1,028,654; June 4; Sp. p. 1273; Gaz. vol. 179; p. 196.
Adler, William S., Atlanta, Ga. Box. No. 1,030,758; June 25; Sp. p. 6098; Gaz. vol. 179; p. 1037.
Adreon, Edward L., Jr. (See Kent, Thomas F., assignor.)
Adriance, Benjamin, and A. Calleson, Brooklyn, N. Y.; said Calleson assignor to said Adriance. Die structure. No. 1,029,333; June 11; Sp. p. 2743; Gaz. vol. 179; p. 464.
Adriance, Benjamin, and A. Calleson, Brooklyn, N. Y.; said Calleson assignor to said Adriance. Machine for making articles of sheet metal. No. 1,029,334; June 11; Sp. p. 2747; Gaz. vol. 179; p. 464.
Ahlbrecht, August, Pittsburgh, Pa. Propeller mechanism. No. 1,028,093; June 4; Sp. p. 1; Gaz. vol. 179; p. 3.
Aiken, Edward L., East Orange, assignor, by mesne assignments, to T. A. Edison, Incorporated, West Orange, N. J. Contact device. No. 1,030,045; June 18; Sp. p. 4311; Gaz. vol. 179; p. 745.
Aitcheson, Dora L., Burtonsville, Md. Work-holder. No. 1,030,149; June 18; Sp. p. 4518; Gaz. vol. 179; p. 780.
Aktiebolaget Bofors-Gullspang. (See Olsson, Emil, assignor.)
Aktiebolaget Svenska Kullagerfabriken. (See Wingquist, Sven G., assignor.)
Alcott, Edward, Manassas, Va. Paving. No. 1,028,420; June 4; Sp. p. 783; Gaz. vol. 179; p. 118.

Alexander, Alexander M., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lacing-machine. No. 1,030,559; June 25; Sp. p. 5501; Gaz. vol. 179; p. 965.
Alexander, Jesse, Brooklyn, assignor of one-half to D. N. Thayer, New York, N. Y. Type-writer line-spacing. No. 1,030,445; June 25; Sp. p. 5198; Gaz. vol. 179; p. 925.
Alford, Frank R., assignor to Wm. L. Gilbert Clock Company, Winsted, Conn. Regulating apparatus for timepieces. No. 1,029,567; June 11; Sp. p. 3244; Gaz. vol. 179; p. 544.
Alger, Arthur H. (See Alger, Joseph, assignor.)
Alger, Joseph, assignor of one-half to himself and one-half to A. H. Alger, Brockton, Mass. Box-covering machine. No. 1,028,421; June 4; Sp. p. 784; Gaz. vol. 179; p. 119.
Alger, Joseph, assignor of one-half to himself and one-half to A. H. Alger, Brockton, Mass. Box-covering machine. No. 1,028,422; June 4; Sp. p. 788; Gaz. vol. 179; p. 119.
Allegretti, Nicholas W., Chicago, Ill. Amusement device. No. 1,029,904; June 18; Sp. p. 4015; Gaz. vol. 179; p. 698.
Allen, Aaron B., assignor to Allen Switch Company, Pueblo, Colo. Electric-switch-operating mechanism. No. 1,029,250; June 11; Sp. p. 2559; Gaz. vol. 179; p. 433.
Allen, Edward B., Bridgeport, Conn., assignor to The Singer Manufacturing Company. Stitch-forming mechanism. No. 1,030,046; June 18; Sp. p. 4313; Gaz. vol. 179; p. 746.
Allen, Edward B., Bridgeport, Conn. assignor to The Singer Manufacturing Company. Taped seam for sewed articles. No. 1,030,446; June 25; Sp. p. 5200; Gaz. vol. 179; p. 925.
Allen, Edward B., and J. C. Ringe, Bridgeport, Conn., assignors to The Singer Manufacturing Company. Thread-cutting mechanism for sewing-machines. No. 1,028,655; June 4; Sp. p. 1275; Gaz. vol. 179; p. 196.
Allen, Frank B., Salt Lake City, Utah. Clutch mechanism. No. 1,030,373; June 25; Sp. p. 5041; Gaz. vol. 179; p. 899.
Allen, Friend A., assignor of one-half to J. W. Searight, Granger, Mo. Pumping apparatus. No. 1,029,413; June 11; Sp. p. 2938; Gaz. vol. 179; p. 491.
Allen, George E., Bridgeport, Conn. Key-retaining device. No. 1,028,849; June 11; Sp. p. 1686; Gaz. vol. 179; p. 295.
Allen, George W., Selma, Cal. Cling-knife. No. 1,028,175; June 4; Sp. p. 269; Gaz. vol. 179; p. 38.
Allen, Ralph. Welty precinct, Okfuskee county, Okla. Planter. No. 1,030,759; June 25; Sp. p. 6099; Gaz. vol. 179; p. 1037.
Allen Switch Company. (See Allen, Aaron B., assignor.)
Allen, William H., Detroit, Mich. Service-pipe for water-storage systems, &c. No. 1,030,447; June 25; Sp. p. 5202; Gaz. vol. 179; p. 925.
Alley, Frederick L., Sydney, New South Wales, Australia, assignor to United Shoe Machinery Company, Paterson, N. J. Beating-machine for finishing boots and shoes. No. 1,030,374; June 25; Sp. p. 5044; Gaz. vol. 179; p. 900.
Allis-Chalmers Company *et al.* (See Behrend, Bernard A., assignor.)
Allis-Chalmers Company. (See Bogen, Louis E., assignor.)
Allis-Chalmers Company. (See Capen, Thomas W., assignor.)
Allis-Chalmers Company. (See Cheney, Herbert W., assignor.)
Allis-Chalmers Company *et al.* (See Crocker, Clarence T., assignor.)
Allis-Chalmers Company. (See Frankenfield, Budd, assignor.)
Allis-Chalmers Company. (See Gray, Alexander M., assignor.)
Allis-Chalmers Company. (See Johnson, John L., assignor.)
Allis-Chalmers Company. (See Knight, Earle R., assignor.)
Allis-Chalmers Company. (See Lieber, William H., assignor.)

Allis-Chalmers Company. (See Loguin, Alexander J., assignor.)
Allis-Chalmers Company. (See Mattman, Emil, assignor.)
Allis-Chalmers Company. (See Menningen, Joseph F., assignor.)
Allis-Chalmers Company. (See Powell and Williamson, assignors.)
Allis-Chalmers Company, *et al.* (See Ralston, Howard H., assignor.)
Allis-Chalmers Company. (See Sprado, Carl G., assignor.)
Allis-Chalmers Company. (See Steen, Halfdan A., assignor.)
Allis-Chalmers Company. (See Wilkinson, Nathan, assignor.)
Allis-Chalmers Company. (See Williamson, Robert B., assignor.)
Allis-Chalmers Company *et al.* (See Wouters, Alfred H., assignor.)
Allyn, Newell O., assignor of one-half to G. W. Upton, Warren, Ohio. Rotary engine. No. 1,028,316; June 4; Sp. p. 552; Gaz. vol. 179; p. 81.
Alsterberg, Henning, assignor of one-half to C. Johnson, St. Paul, Minn. Engine-stopping device. No. 1,029,657; June 18; Sp. p. 3442; Gaz. vol. 179; p. 611.
Alwood, Hubert N., Potterville, Mich. Tail-board for bean-threshers. No. 1,029,251; June 11; Sp. p. 2562; Gaz. vol. 179; p. 434.
Ambler, George A., Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lubricating device. No. 1,028,170; June 4; Sp. p. 275; Gaz. vol. 179; p. 34.
Ambler, George A., Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Actuating mechanism for work-supports. No. 1,029,839; June 18; Sp. p. 3865; Gaz. vol. 179; p. 675.
Ambler, George A., Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for inserting protectors. No. 1,030,760; June 25; Sp. p. 6100; Gaz. vol. 179; p. 1037.
Ambler, George B., assignor to F. A. Whitney Carriage Co., Leominster, Mass. Detachable runner for vehicles. No. 1,030,448; June 25; Sp. p. 5203; Gaz. vol. 179; p. 926.
American Acid Company. (See Peacock, Samuel, assignor.)
American Automatic Telephone Co. (See Lattig, Jacob W., assignor.)
American Can Company. (See Jones, Harry W., assignor.)
American Can Company. (See Ritchell, Edward C., assignor.)
American Can Company. (See Weber, George W., assignor.)
American Car and Foundry Company. (See Frame, Robert E., assignor.)
American Car and Foundry Company. (See Gibbs, Frederick H., assignor.)
American Car and Foundry Company. (See Rohling, John M., assignor.)
American Car and Foundry Company. (See Summa, Victor M., assignor.)
American Clay Machinery Co., The. (See Cunningham, William R., assignor.)
American Creosoting Company. (See Moore, Robert H., assignor.)
American District Telegraph Company. (See Hoge, Joseph F. D., assignor.)
American Graphophone Company. (See Macdonald, Thomas H., assignor.)
American Hardware Corporation, The. (See Arens, August, assignor.)
American Hardware Corporation, The. (See Henry, William K., assignor.)
American Hardware Corporation, The. (See Voight and Hurd, assignors.)
American-La France Fire Engine Company. (See McCaslin, Harry M., assignor.)
American Lithographic Company. (See Stranders, Julien, assignor.)
American Metal Cap Co. (See Hammer, Charles, assignor.)
American Optical Company. (See Bernheim, Eugene C., assignor.)
American Pneumatic Action Company. (See Turney, Eugene T., assignor.)
American Rotary Machine Company, The. (See Sadger, Adolf, assignor.)
American Seeding Machine Company, The. (See Packham, Frank R., assignor.)
American Seeding Machine Company, The. (See Towle, Elmer E., assignor.)
American Sheet & Tin Plate Company. (See Farnham, Frederick F., assignor.)
American Sign Company. (See Bambeck, Edward, assignor.)
American Steel & Wire Company of New Jersey, The (See Harter, Noah S., assignor.)
American Steel & Wire Company of New Jersey, The. (See Daniels, Fred H., assignor.)
American Steel & Wire Company of New Jersey. (See Miller, John W., assignor.)
American Street and Station Indicator Company. (See Spindler, Perry T., assignor.)
American Thread Company, The. (See Marx, Henry J., assignor.)
American Tire Company. (See McLeod, Nelson W., assignor.)
American Tobacco Company, The. (See Palmowsky, Stanislaus, assignor.)
American Tool Works Company, The. (See Schatz, Herman W., assignor.)
Ames, Byron S., Newberry, Pa. Propeller. No. 1,030,047; June 18; Sp. p. 4321; Gaz. vol. 179; p. 746.
Ames, Owen B., Brewster, N. Y. Shock-absorber. No. 1,029,252; June 11; Sp. p. 2563; Gaz. vol. 179; p. 435.
Andersen, George, Chicago, Ill. Wrench. No. 1,029,905; June 18; Sp. p. 4018; Gaz. vol. 179; p. 698.
Anderson, Herman C., Mount Vernon, Wash. Gate. No. 1,030,222; June 18; Sp. p. 4684; Gaz. vol. 179; p. 805.
Anderson, John A., Worcester, Mass. Refrigerating device. No. 1,030,270; June 25; Sp. p. 4801; Gaz. vol. 179; p. 861.
Anderson, Nils, Omaha, Nebr. Pipe-laying machine. No. 1,028,523; June 4; Sp. p. 1007; Gaz. vol. 179; p. 153.
Andersson, Gustav M. (See Kindberg, Alfred, assignor.)
Andrews, Charles, Jr., assignor to Andrews Wire & Iron Works, Rockford, Ill. Dish-drainer. No. 1,029,906; June 18; Sp. p. 4021; Gaz. vol. 179; p. 699.
Andrews Wire & Iron Works. (See Andrews, Charles, Jr., assignor.)
Andrie, Norman E., Centerville, Md. Pneumatic hub. No. 1,028,656; June 4; Sp. p. 1280; Gaz. vol. 179; p. 197.
Angenend, Peter A., Jr. (See Lagarde and Angenend.)
Angier, Carl E., Beardstown, Ill. Gage-cock. No. 1,029,963; June 18; Sp. p. 4141; Gaz. vol. 179; p. 717.
Ansco Company. (See Bornmann, Carl, assignor.)
Apex Horseshoe Co., The. (See Messacar, William E., assignor.)
App, James H., Detroit, Mich. Drive mechanism. No. 1,029,736; June 18; Sp. p. 3631; Gaz. vol. 179; p. 640.
Appel, Daniel, East Cleveland, Ohio, assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Paper bag. No. 1,029,783; June 18; Sp. p. 3721; Gaz. vol. 179; p. 655.
Appel, Daniel, East Cleveland, Ohio, assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Manufacture of paper bags. No. 1,029,784; June 18; Sp. p. 3723; Gaz. vol. 179; p. 655.
Arakilian, K., *et al.*, trustees. (See Converse, Newton B., assignor.)
Arbuckle, Alexander J., Johannesburg, Transvaal. Feed and distributing means for separators. No. 1,030,271; June 25; Sp. p. 4802; Gaz. vol. 179; p. 861.
Arcade Manufacturing Company. (See Morgan, Charles, assignor.)
Archer, Augustus R., Pittsburgh, Pa. Sheet-piling. No. 1,030,761; June 25; Sp. p. 6108; Gaz. vol. 179; p. 1038.
Arens, August, assignor to The American Hardware Corporation, New Britain, Conn. Lock. No. 1,028,423; June 4; Sp. p. 790; Gaz. vol. 179; p. 119.
Argabright, Ralph A., Dayton, Ohio. Combined locking-clamp and railway-tie for track-rails. No. 1,029,658; June 18; Sp. p. 3443; Gaz. vol. 179; p. 611.
Arkinstall, Joseph. (See Drew, Arkinstall, and Dean.)
Armel, Alexandre. (See Legrand and Armel.)
Armstrong, Edwin J., Erie, Pa. Steam-engine. No. 1,029,253; June 11; Sp. p. 2560; Gaz. vol. 179; p. 435.
Arnold, John F., Waterbury, Conn. Propeller-wheel. No. 1,029,907; June 18; Sp. p. 4022; Gaz. vol. 179; p. 699.
Aronsen, Halfdan, Oakland, Cal. Device for raising sunken submarine vessels. No. 1,030,701; June 25; Sp. p. 5949; Gaz. vol. 179; p. 1016.
Arrow Electric Company, The. (See Hartwig, Herman T., assignor.)
Ashton, Orrell, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Trimming-machine. No. 1,030,375; June 25; Sp. p. 5047; Gaz. vol. 179; p. 900.
Ashton, Orrell, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for use in the manufacture of boots and shoes. No. 1,030,762; June 25; Sp. p. 6110; Gaz. vol. 179; p. 1038.
Ashton, Orrell, Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-beating machine. No. 1,030,837; June 25; Sp. p. 6403; Gaz. vol. 179; p. 1067.
Ashton, Orrell, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Pulling-over machine. No. 1,030,763; June 25; Sp. p. 6113; Gaz. vol. 179; p. 1039.
Ashton, Orrell, Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Gripper mechanism. No. 1,030,838; June 25; Sp. p. 6409; Gaz. vol. 179; p. 1067.
Ashworth, James S., Cuyahoga Falls, Ohio. Brake-shoe adjuster. No. 1,030,150; June 18; Sp. p. 4519; Gaz. vol. 179; p. 781.
Aspegrén, William H., Quincy, Mass. Door-check. No. 1,028,850; June 11; Sp. p. 1687; Gaz. vol. 179; p. 295.
Astrup, William J. O., Cleveland, Ohio. Gearing. No. 1,030,272; June 25; Sp. p. 4805; Gaz. vol. 179; p. 862.
Atkinson, Cyril J., Milwaukee, Wis. Gas-producer. No. 1,028,524; June 4; Sp. p. 1008; Gaz. vol. 179; p. 153.
Atkinson, George K., Cincinnati, Ohio. Lathe screw-machine. No. 1,029,485; June 11; Sp. p. 3074; Gaz. vol. 179; p. 515.
Atkinson, Harry E., Traverse City, Mich. Valve. No. 1,029,097; June 11; Sp. p. 2236; Gaz. vol. 179; p. 382.
Atlantic Punctureless Tire Co. (See Kleinatland, August, assignor.)

Aubert, Albert M. and J. M., Billancourt, France. Device for controlling from a distance the passage of gas. No. 1,028,657; June 4; Sp. p. 1282; Gaz. vol. 179; p. 197.
Aubert, Jean M. (See Aubert, Albert M. and J. M.)
Aurora Automatic Machinery Company. (See Levedahl, Axel, assignor.)
Ausburn, George F., Vera, Tex. Rail-clamp. No. 1,029,964; June 18; Sp. p. 4143; Gaz. vol. 179; p. 717.
Austin, Frederick C. (See Bunnell, Morton G., assignor.)
Austin Mfg. Company. (See De Wind, Norman, assignor.)
Auth, Joseph, assignor of one-half to E. Lushbaugh, Covington, Ky. Dumping-wagon. No. 1,028,525; June 4; Sp. p. 1009; Gaz. vol. 179; p. 154.
Automatic Typewriter Company, The. (See McCall, Thomas A., assignor.)
Automatic Welding Machine Company, The. (See Graves, Charles L., assignor.)
Avis, Braxton D., Jr., Clarksburg, W. Va. Process of and composition for coating aluminum or its alloys for soldering, &c. No. 1,029,522; June 11; Sp. p. 3144; Gaz. vol. 179; p. 527.
Axelton, Madel T. and W. C., Graettinger, Iowa; said W. C. Axelton assignor to said Madel T. Axelton. Oil-can. No. 1,028,835; June 4; Sp. p. 1648; Gaz. vol. 179; p. 257.
Axelton, William C. (See Axelton, Madel T. and W. C.)
Ayer, James I., assignor to Simplex Electric Heating Company, Cambridge, Mass. Automatic electric water-heater. No. 1,029,523; June 11; Sp. p. 3145; Gaz. vol. 179; p. 527.
Aylsworth, Jonas W., East Orange, N. J. Fusible phenol resin and forming same. No. 1,029,737; June 18; Sp. p. 3632; Gaz. vol. 179; p. 640.
Aylsworth, Jonas W., East Orange, assignor of one-half to F. L. Dyer, Montclair, N. J. Non-inflammable lubricant and preparing the same. No. 1,028,926; June 11; Sp. p. 1874; Gaz. vol. 179; p. 324.
Aylsworth, Jonas W., East Orange, assignor of one-half to F. L. Dyer, Montclair, N. J. Non-inflammable lubricating-oil. No. 1,029,254; June 11; Sp. p. 2567; Gaz. vol. 179; p. 435.
Aylsworth, Jonas W., East Orange, assignor, by mesne assignments, to T. A. Edison, Incorporated, West Orange, N. J. Electroplating. No. 1,029,965; June 18; Sp. p. 4144; Gaz. vol. 179; p. 718.
B. A. Ballou and Company. (See Morehouse, Eugene, assignor.)
Babcock & Wilcox Company. (See Smith, James, assignor.)
Badcock, Edward B., London, England. Internal-combustion liquid-pump. No. 1,029,039; June 11; Sp. p. 2114; Gaz. vol. 179; p. 363.
Badean, Charles C., Winthrop, assignor to S. B. Condit, Jr., Brookline, Mass. High-potential electric switch. No. 1,029,098; June 11; Sp. p. 2239; Gaz. vol. 179; p. 383.
Badische Anilin & Soda Fabrik. (See Bosch and Keller, assignors.)
Badische Anilin & Soda Fabrik. (See Wielgolaski and Schonherr, assignors.)
Baecker, Alfred, Detroit, Mich. Record-holding cabinet. No. 1,030,376; June 25; Sp. p. 5048; Gaz. vol. 179; p. 900.
Baerwalde, Carl, Cleveland, Ohio. Nut-tapping machine. No. 1,028,526; June 4; Sp. p. 1010; Gaz. vol. 179; p. 154.
Bailey, Alfred M., Salem, Mass. Compound. No. 1,029,165; June 11; Sp. p. 2381; Gaz. vol. 179; p. 405.
Bailey, Edgerly R., Clarinda, Iowa. Cream-separator. No. 1,029,785; June 18; Sp. p. 3725; Gaz. vol. 179; p. 656.
Baker, Frederick, Brighton, near Melbourne, Victoria, Australia. Mechanism for supplying thread to bobbins in loopers. No. 1,029,335; June 11; Sp. p. 2757; Gaz. vol. 179; p. 465.
Baker, James E., New York, N. Y. Machine for cleaning fabrics. No. 1,028,317; June 4; Sp. p. 555; Gaz. vol. 179; p. 82.
Baker, Willard D., Rogers, Ark. Automatic door-operating mechanism. No. 1,029,255; June 11; Sp. p. 2569; Gaz. vol. 179; p. 435.
Balcom, Charles, Beverly, Mass., assignor to H. F. Sommer, Newark, N. J. Sewed shoe. No. 1,030,268; June 18; Sp. p. 4790; Gaz. vol. 179; p. 823.
Balcom, Charles, Beverly, Mass., assignor to H. F. Sommer, Newark, N. J. Making sewed shoes. No. 1,030,269; June 18; Sp. p. 4792; Gaz. vol. 179; p. 823.
Baldwin, Charles E., assignor of one-fourth to E. C. Smith, Gillett, Wis. Car-stake holder. No. 1,028,836; June 4; Sp. p. 1649; Gaz. vol. 179; p. 257.
Baldwin, Frank H., Ticonderoga, N. Y. Hose-clamp. No. 1,030,151; June 18; Sp. p. 4522; Gaz. vol. 179; p. 781.
Baldwin Locomotive Works, The. (See Vauclain and Henderson, assignors.)
Baldwin, Townsend B., Edgewater Park, N. J. Combination wheel and carrying chair. No. 1,030,635; June 25; Sp. p. 5800; Gaz. vol. 179; p. 994.
Balhorn, Rudolph, Breslau, Germany. Soap-filling machine. No. 1,028,658; June 4; Sp. p. 1283; Gaz. vol. 179; p. 197.
Ball, Harold, Ball, Kans. Adjustable stub-hounds for wagon-tongues. No. 1,028,659; June 4; Sp. p. 1285; Gaz. vol. 179; p. 198.
Ballard, Virgil, Plantersville, Miss. Scrubbing-machine. No. 1,028,527; June 4; Sp. p. 1014; Gaz. vol. 179; p. 154.
Balliett, Howard H., Pittsburgh, Pa., assignor to J. H. Parker, Cliftondale, Mass. Conduit. No. 1,029,040; June 11; Sp. p. 2116; Gaz. vol. 179; p. 364.
Baltimore Optical Company. (See Persohn, Frank A., assignor.)
Baltrusch, Wilhelm, Elberfeld, Germany. Ignition apparatus. No. 1,029,256; June 11; Sp. p. 2571; Gaz. vol. 179; p. 436.
Baltzley, Edwin, Glen Echo, Md., assignor, by mesne assignments, to V. I. Richard, Washington, D. C. Desk. No. 1,028,424; June 4; Sp. p. 792; Gaz. vol. 179; p. 120.
Bambeck, Edward, Canton, Ohio, assignor to American Sign Company, Kalamazoo, Mich. Sign. No. 1,030,449; June 25; Sp. p. 5204; Gaz. vol. 179; p. 926.
Bamberger, Alfred P., New Cumberland, and G. Porter, New Market, assignors of one-fourth to W. M. Smith and one-fourth to F. N. Burns, New Cumberland, Pa. Splice-plate for rails. No. 1,029,166; June 11; Sp. p. 2381; Gaz. vol. 179; p. 405.
Bancroft, Louis F., Hartford, Conn. Aeroplane. No. 1,030,764; June 25; Sp. p. 6118; Gaz. vol. 179; p. 1039.
Bane, James O., Waseca, Minn. Counteracting device for pumps. No. 1,029,580; June 18; Sp. p. 3275; Gaz. vol. 179; p. 583.
Bank, Edward C., Berkeley, assignor to Benicia Iron Works, San Francisco, Cal. Adjustable plow-tongue. No. 1,030,450; June 25; Sp. p. 5207; Gaz. vol. 179; p. 926.
Bannard, Robert, *et al.* (See La May, Arthur C., assignor.)
Banner, Otto, Sterkrade, Germany. Valve-gear for steam-turbines. No. 1,029,786; June 18; Sp. p. 3727; Gaz. vol. 179; p. 656.
Bannon, Patrick R., Joliet, Ill. Conveying apparatus. No. 1,030,451; June 25; Sp. p. 5208; Gaz. vol. 179; p. 927.
Barbanson, Gaston, and M. Lepersonne, Brussels, Belgium. Open-hearth process of refining steel. No. 1,030,152; June 18; Sp. p. 4523; Gaz. vol. 179; p. 781.
Barber-Colman Company. (See Colman, Howard D., assignor.)
Barber, Ernest B., Brooklyn, assignor, by mesne assignments, to International Typesetting Machine Company, New York, N. Y. Type casting and composing machine. No. 1,028,660; June 4; Sp. p. 1286; Gaz. vol. 179; p. 198.
Barbezat, Alfred, Lesquin, near Lille, France. Device to balance thrust in turbines. No. 1,030,153; June 18; Sp. p. 4524; Gaz. vol. 179; p. 782.
Barbour, John F., assignor to The Dean Electric Company, Elyria, Ohio. Telephone-receiver shell. No. 1,029,524; June 11; Sp. p. 3147; Gaz. vol. 179; p. 528.
Barcalo Manufacturing Company. (See Rogers, Frank R., assignor.)
Barclay, William R., and A. Bates, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Heel-building machine. No. 1,028,528; June 4; Sp. p. 1016; Gaz. vol. 179; p. 154.
Bard, Jacob W., Peoria, assignor to Sangamo Electric Company, Springfield, Ill. Long-distance pressure-recorder. No. 1,028,851; June 11; Sp. p. 1690; Gaz. vol. 179; p. 296.
Barker, Frederic A. (See Barker, John L. and F. A.)
Barker, John L., Racine, Wis., and F. A. Barker, Toledo, Ohio. Starting mechanism for internal-combustion engines. No. 1,030,799; June 25; Sp. p. 6227; Gaz. vol. 179; p. 1052.
Barlach, Hans, Charkow, Russia. Water-tube sectional boiler. No. 1,030,452; June 25; Sp. p. 5211; Gaz. vol. 179; p. 927.
Barna, Joseph W., Chicago, Ill., assignor of one-half to Boston Machine Works Company, Lynn, Mass. Cementing apparatus. No. 1,030,377; June 25; Sp. p. 5050; Gaz. vol. 179; p. 901.
Barnaba, James E., Douglas, Ill. Ticket-handler. No. 1,028,661; June 4; Sp. p. 1294; Gaz. vol. 179; p. 198.
Barnebey, Charlie M., Mullen, Nebr. Seed-potato cutter. No. 1,030,154; June 18; Sp. p. 4526; Gaz. vol. 179; p. 782.
Barnett, John B., assignor of one-half to J. W. Davis, Fort Worth, Tex. Rapid-transit car. No. 1,030,274; June 25; Sp. p. 4812; Gaz. vol. 179; p. 862.
Barnett, John S., Central Point, Oreg. Fruit-picker's receptacle. No. 1,029,581; June 18; Sp. p. 3276; Gaz. vol. 179; p. 583.
Barnhart, Lloyd W., Middle Point, Ohio. Hay-loading device. No. 1,030,155; June 18; Sp. p. 4527; Gaz. vol. 179; p. 782.
Barnsdall, Theodore N., 2d. (See Connors and Barnsdall.)
Barron, Miles K., Coffeyville, Kans. Wheel-tire bolter. No. 1,028,662; June 4; Sp. p. 1295; Gaz. vol. 179; p. 198.
Barron, Walter J., New York, N. Y., assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,030,453; June 25; Sp. p. 5213; Gaz. vol. 179; p. 928.
Barschall, Georg P. (See Moriz and Barschall.)
Bartell Improved Shirt Company. (See Bartell, Reinhold, assignor.)

Bartell, Reinhold, Newark, N. J., assignor to Bartell Improved Shirt Company, New York, N. Y. Shirt. No. 1,029,336; June 11; Sp. p. 2762; Gaz. vol. 179; p. 465.

Bartholomew, William, assignor to Troy Laundry Machinery Company, Limited, Chicago, Ill. Bearing for vertical drive-shafts. No. 1,028,318; June 4; Sp. p. 556; Gaz. vol. 179; p. 82.

Bartlett, Walter J. R., San Francisco, Cal. Means and process for producing intaglio printing-surfaces. No. 1,028,177; June 4; Sp. p. 276; Gaz. vol. 179; p. 34.

Bartley, Charles B., Pittsburgh, assignor of one-half to G. F. Rylands and one-fourth to R. H. Rush, Charlerol, Pa. Storage-battery lamp. No. 1,028,984; June 11; Sp. p. 1991; Gaz. vol. 179; p. 343.

Barton, Joseph M., and P. J. Landry, Danvers, Mass., assignors to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,030,048; June 18; Sp. p. 4323; Gaz. vol. 179; p. 747.

Baruch, Samuel, New York, N. Y. Bottle-seal. No. 1,029,738; June 18; Sp. p. 3636; Gaz. vol. 179; p. 640.

Bassani, Laurent, Paris, France. Production of lithographic-printing plates. No. 1,029,337; June 11; Sp. p. 2763; Gaz. vol. 179; p. 466.

Batchelder, Frank R., Worcester, Mass. Carrier for entrenching-tools. No. 1,030,223; June 18; Sp. p. 4685; Gaz. vol. 179; p. 806.

Batchelor, William J., Boston, Mass. Baggage-carrying attachment. No. 1,028,178; June 4; Sp. p. 278; Gaz. vol. 179; p. 35.

Bateman, Loftus H. (See Bateman, Richard W. and L. H.) (Reissue.)

Bateman, Richard W. and L. H., Leeds, England. Vise. (Reissue.) No. 13,431; June 25; Sp. p. 6451; Gaz. vol. 179; p. 1075.

Bates, Arthur. (See Barclay and Bates.)

Bates, Arthur, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,029,840; June 18; Sp. p. 3869; Gaz. vol. 179; p. 675.

Bates, Arthur, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-finishing and other machine. No. 1,030,560; June 25; Sp. p. 6512; Gaz. vol. 179; p. 965.

Bates, Arthur, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Press. No. 1,030,800; June 25; Sp. p. 6231; Gaz. vol. 179; p. 1053.

Bates, Arthur, and W. T. B. Roberts, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Cementing-machine. No. 1,030,273; June 25; Sp. p. 4807; Gaz. vol. 179; p. 862.

Bates, Henry A., Middletown, Conn. Shuttle for sewing-machines. No. 1,029,257; June 11; Sp. p. 2572; Gaz. vol. 179; p. 436.

Bates, Joseph W., Hastings, New Zealand. Evaporating and fumigating apparatus. No. 1,029,841; June 18; Sp. p. 3876; Gaz. vol. 179; p. 676.

Battenfeld, John N., assignor to The Berkshire Manufacturing Company, Cleveland, Ohio. Molding-machine. No. 1,028,852; June 11; Sp. p. 1693; Gaz. vol. 179; p. 296.

Battle, James. (See Gowan, Nassau W., assignor.)

Bauer, Aleck, assignor to Bauer & Black, Chicago, Ill. Convertible suspensory and supporter. No. 1,030,224; June 18; Sp. p. 4687; Gaz. vol. 179; p. 806.

Bauer & Black. (See Bauer, Aleck, assignor.)

Bauermeister, Carl E., Terre Haute, Ind. Salt-shaker. No. 1,028,663; June 4; Sp. p. 1297; Gaz. vol. 179; p. 190.

Baumann, Robert. (See Wurmb and Baumann.)

Baumeister, Andrew V., Rockwood, Mich. Knockdown crate. No. 1,028,094; June 4; Sp. p. 2; Gaz. vol. 179; p. 3.

Bausmith, William T., Bellevue, Ky. Soft-metal hammer. No. 1,029,739; June 18; Sp. p. 3637; Gaz. vol. 179; p. 641.

Bayer, August V., assignor to Bayer Steam Soot Blower Company, St. Louis, Mo. Soot-blower attachment. No. 1,028,180; June 4; Sp. p. 282; Gaz. vol. 179; p. 35.

Bayer, August V., St. Louis, Mo., and G. P. Brown, Chicago, Ill. Boiler-cleaner. No. 1,028,179; June 4; Sp. p. 280; Gaz. vol. 179; p. 35.

Bayer Steam Soot Blower Company. (See Bayer, August V., assignor.)

Bayley, Charles H., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Vamp-marking machine. No. 1,030,275; June 25; Sp. p. 4814; Gaz. vol. 179; p. 863.

Bazzoni, Lewis J., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating on boots and shoes. No. 1,029,842; June 18; Sp. p. 3877; Gaz. vol. 179; p. 676.

Beadle, George W., Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Machine for coating cartons. No. 1,030,636; June 25; Sp. p. 5803; Gaz. vol. 179; p. 995.

Beadle, George W., Bayonne, N. J., assignor to Single Service Package Corporation of America, New York, N. Y. Drinking-cup. No. 1,030,637; June 25; Sp. p. 5806; Gaz. vol. 179; p. 995.

Beadles, Edward P., Danville, Va. Dental mirror. No. 1,029,258; June 11; Sp. p. 2574; Gaz. vol. 179; p. 437.

Beam, John C. (See Wilson, William P., assignor.)

Beau, Jesse A., Texarkana, Tex. Shoe blacking and polishing machine. No. 1,030,702; June 25; Sp. p. 5933; Gaz. vol. 179; p. 1017.

Bean, Mathias G., Bluegrass, N. D. Portable derrick. No. 1,030,765; June 25; Sp. p. 6120; Gaz. vol. 179; p. 1039.

Beane, Emile W., Winslow, Ariz. Signal-lantern. No. 1,029,041; June 11; Sp. p. 2117; Gaz. vol. 179; p. 364.

Beard, George L. (See Weaver and Beard.)

Bearden, Charlie. (See Bearden, Joseph and C.)

Bearden, Joseph and C., Hermitage, Ark. Saw-filing gage. No. 1,029,986; June 18; Sp. p. 4145; Gaz. vol. 179; p. 718.

Beasley, Arthur, East St. Louis, Ill. Car-truck. No. 1,029,582; June 18; Sp. p. 3277; Gaz. vol. 179; p. 583.

Beatson, David B., Asbury Park, N. J. Hotel room-rack. No. 1,030,766; June 25; Sp. p. 6122; Gaz. vol. 179; p. 1040.

Beattie, William J. (See Miller and Beattie.)

Beatty, Robert D., Cleveland, Ohio. Signal mechanism for electric railways. No. 1,028,853; June 11; Sp. p. 1695; Gaz. vol. 179; p. 297.

Beaudry, Zotique, Lynn, Mass., assignor to United-Xpedite Finishing Company, Berwick, Me. Burnishing-tool. No. 1,030,049; June 18; Sp. p. 4327; Gaz. vol. 179; p. 747.

Beck, Heinrich, Meiningen, Germany. Electric-arc lamp for searchlights, projectors, and the like. No. 1,029,787; June 18; Sp. p. 3729; Gaz. vol. 179; p. 656.

Beck, Michael, Minneapolis, Minn. Carbureting apparatus for explosive-engines. No. 1,029,740; June 18; Sp. p. 3638; Gaz. vol. 179; p. 641.

Becker, Anton, Columbus, Ohio. Tank-car. No. 1,028,181; June 4; Sp. p. 285; Gaz. vol. 179; p. 36.

Becker, Anton, assignor to The Ralston Steel Car Company, Columbus, Ohio. Floor-support and bolster for hopper-cars. No. 1,029,525; June 11; Sp. p. 3149; Gaz. vol. 179; p. 528.

Beckman, Frank E., Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Grooving device for shoe-sewing machines. No. 1,030,767; June 25; Sp. p. 6124; Gaz. vol. 179; p. 1040.

Beckwith, Charles P., assignor to Parke, Davis & Company, Detroit, Mich. Apparatus for discharging liquids in measured quantities. No. 1,030,378; June 25; Sp. p. 5052; Gaz. vol. 179; p. 901.

Beebe, Edwin J. (See Eldridge and Beebe.)

Beede, Walter E., New York, N. Y. Electrical measuring instrument. No. 1,029,042; June 11; Sp. p. 2120; Gaz. vol. 179; p. 365.

Beesley, Charles F., Jr., assignor to R. R. Donnelley & Sons Company, Chicago, Ill. Catalogue. No. 1,029,526; June 11; Sp. p. 3151; Gaz. vol. 179; p. 528.

Behrend, Bernard A., Norwood, Ohio, assignor to Allis-Chalmers Company and The Bullock Electric Manufacturing Company. Dynamo-electric machine. No. 1,028,085; June 11; Sp. p. 1993; Gaz. vol. 179; p. 344.

Behringer, Emil and H., Brooklyn, N. Y. Manufacture of radiator-tubes. No. 1,029,099; June 11; Sp. p. 2241; Gaz. vol. 179; p. 383.

Behringer, Herman. (See Behringer, Emil and H.)

Bell, Stuart E., Los Angeles, Cal. Wire nail. No. 1,029,574; June 11; Sp. p. 3254; Gaz. vol. 179; p. 546.

Belles, Frank I., Noxen, Pa. Invalid's rest. No. 1,028,664; June 4; Sp. p. 1299; Gaz. vol. 179; p. 190.

Belleville Baler Company. (See Trabue, Luther, assignor.)

Bellhouse, Thomas F., assignor of one-half to L. S. Pratt, Sacramento, Cal. Train-air-signal indicator. No. 1,030,454; June 25; Sp. p. 5218; Gaz. vol. 179; p. 928.

Bemis, Gilbert C., assignor of one-half to E. F. Fletcher, Worcester, Mass. Broom. No. 1,028,182; June 4; Sp. p. 286; Gaz. vol. 179; p. 36.

Bemis, John M. (See Tribe and Bemis.)

Bemis, Thomas, Indianapolis, Ind. Saw-gage. No. 1,028,529; June 4; Sp. p. 1021; Gaz. vol. 179; p. 155.

Benda, Ludwig. (See Ehrlich and Benda.)

Benicia Iron Works. (See Bank, Edward C., assignor.)

Benjamin, Bert R., Oak Park, Ill., assignor to International Harvester Company. Pitman connection. No. 1,029,259; June 11; Sp. p. 2575; Gaz. vol. 179; p. 437.

Benjamin, Bert R., Oak Park, Ill., assignor to International Harvester Company. Pitman connection. No. 1,029,260; June 11; Sp. p. 2576; Gaz. vol. 179; p. 437.

Benjamin, Bert R., Oak Park, Ill., assignor to International Harvester Company. Grain-binder. No. 1,029,650; June 18; Sp. p. 3445; Gaz. vol. 179; p. 612.

Benjamin, Bert R., Oak Park, Ill., assignor to International Harvester Company. Grain-binder. No. 1,029,741; June 18; Sp. p. 3640; Gaz. vol. 179; p. 641.

Benjamins, Israel, New York, N. Y. Steam-boiler or fluid-heater. No. 1,029,908; June 18; Sp. p. 4023; Gaz. vol. 179; p. 699.

Benner, Russell E. (See Vincent and Benner.)

Bennett, Barrow, assignor to H. H. Hamilton, New York, N. Y. Lady's underwear. No. 1,029,583; June 18; Sp. p. 3278; Gaz. vol. 179; p. 584.

Bennett, Edgar. (See Hackney, William F., assignor.)

Bennett, Edward R., Athol, Mass. Milk-bottle holder. No. 1,029,414; June 11; Sp. p. 2941; Gaz. vol. 179; p. 491.

Bennett, George H., Sydney, New South Wales, Australia, assignor to British-American Tobacco Company Limited, London, England. Machine for soldering sheet-metal vessels. No. 1,030,225; June 18; Sp. p. 4689; Gaz. vol. 179; p. 806.

Benson, Andrew, Chicago, Ill., assignor, by mesne assignments, to Benson Gear Company. Transmission-gearing. No. 1,030,379; June 25; Sp. p. 5054; Gaz. vol. 179; p. 902.

Benson Gear Company. (See Benson, Andrew, assignor.)

Berault, Edwin J., New Orleans, La. Hinge. No. 1,030,801; June 25; Sp. p. 6236; Gaz. vol. 179; p. 1053.

Berbecker & Rowland Manufacturing Company. (See Laun, Christian F., assignor.)

Berghausen, George, Cincinnati, Ohio. Machine for removing burs from metal pipes. No. 1,029,584; June 18; Sp. p. 3279; Gaz. vol. 179; p. 584.

Berkshire Manufacturing Company, The. (See Battenfeld, John N., assignor.)

Bermes, Charles P., Carrollton, Ill. Plow and chopper. No. 1,030,156; June 18; Sp. p. 4529; Gaz. vol. 179; p. 782.

Bernardi, Frank, and J. B. Sauve, assignors to Patent Electric Fuse Spitter Co., Mokelumne Hill, Cal. Delay-action exploder. No. 1,029,261; June 11; Sp. p. 2578; Gaz. vol. 179; p. 438.

Bernheim, Eugene C., assignor to American Optical Company, Southbridge, Mass. Finger-piece eyeglasses. No. 1,029,262; June 11; Sp. p. 2581; Gaz. vol. 179; p. 438.

Bertelli, Achille, Brescia, Italy. Pump. No. 1,028,665; June 4; Sp. p. 1300; Gaz. vol. 179; p. 200.

Bertrand, Frederic E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating upon soles. No. 1,030,703; June 25; Sp. p. 5959; Gaz. vol. 179; p. 1017.

Bertrand, Frederic E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Channeling-machine. No. 1,030,704; June 25; Sp. p. 5962; Gaz. vol. 179; p. 1018.

Bertrand, Frederic E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Channeling-machine. No. 1,030,705; June 25; Sp. p. 5969; Gaz. vol. 179; p. 1018.

Bertrand, Frederic E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-channeling tool. No. 1,030,706; June 25; Sp. p. 5973; Gaz. vol. 179; p. 1018.

Bertrand, Frederic E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Channeling-machine. No. 1,030,707; June 25; Sp. p. 5975; Gaz. vol. 179; p. 1019.

Bertrand, Frederic E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Channeling-machine. No. 1,030,708; June 25; Sp. p. 5977; Gaz. vol. 179; p. 1019.

Bertrand, Frederic E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Channeling-machine. No. 1,030,709; June 25; Sp. p. 5981; Gaz. vol. 179; p. 1019.

Bertrand, Frederic E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Channeling-machine. No. 1,030,710; June 25; Sp. p. 5983; Gaz. vol. 179; p. 1020.

Bertrand, Frederic E., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sole-machine. No. 1,030,802; June 25; Sp. p. 6237; Gaz. vol. 179; p. 1053.

Besenberg, Henry F., West Newton, Pa. Tie and rail-fastener. No. 1,030,157; June 18; Sp. p. 4531; Gaz. vol. 179; p. 783.

Besly, Charles H. (See Miller, John, Jr., assignor.)

Bessemer Gas Engine Company, The. (See Murray, Harry D., assignor.)

Best, Edward J., and C. M. Fitch, Chicago, Ill. Vehicle-signal. No. 1,028,854; June 11; Sp. p. 1698; Gaz. vol. 179; p. 297.

Bethlehem Steel Company. (See Philip, Casimir von, assignor.)

Bettendorf, Joseph W., administrator. (See Bettendorf, William P.)

Bettendorf, William P., deceased, Bettendorf, Iowa; J. W. Bettendorf, administrator. Hydraulic press. No. 1,028,986; June 11; Sp. p. 1996; Gaz. vol. 179; p. 344.

Bettendorf, William P., deceased, Bettendorf, Iowa; J. W. Bettendorf, administrator. Flipper for feed mechanism of hydraulic presses. No. 1,028,987; June 11; Sp. p. 1998; Gaz. vol. 179; p. 345.

Bettendorf, William P., deceased; J. W. Bettendorf, administrator, Bettendorf, Iowa. Feeding-truck for hydraulic presses. No. 1,030,768; June 25; Sp. p. 6126; Gaz. vol. 179; p. 1040.

Bettermann, Reinhold, Johnstown, Pa. Truck for automobile-bodies. No. 1,029,843; June 18; Sp. p. 3883; Gaz. vol. 179; p. 676.

Betts, Lewis F., New York, assignor to A. A. Low, Horseshoe, M. J. Wohl and H. Hertzberg, Brooklyn, N. Y., trustees. Gas-heater. No. 1,028,666; June 4; Sp. p. 1301; Gaz. vol. 179; p. 200.

Beyer, Emil. (See Schaefer and Beyer.)

Bianchi, Elia, Milan, Italy. Apparatus for molding concrete beams. No. 1,029,043; June 11; Sp. p. 2122; Gaz. vol. 179; p. 365.

Bien, Van Tuyl H., Quincy, Mass. Feed mechanism for punching-presses. No. 1,028,927; June 11; Sp. p. 1875; Gaz. vol. 179; p. 324.

Billau, Charles F., Cedar Rapids, Iowa. Cutting device. No. 1,028,667; June 4; Sp. p. 1302; Gaz. vol. 179; p. 200.

Billings, Frank, Cleveland, Ohio. Conveyer for use in mines. No. 1,030,226; June 18; Sp. p. 4691; Gaz. vol. 179; p. 807.

Bingham, Eugene H., and T. Tominski, San Francisco, Cal. Vehicle-tire. No. 1,029,263; June 11; Sp. p. 2582; Gaz. vol. 179; p. 438.

Binning, Wood, Grand River, Iowa. Mold. No. 1,030,638; June 25; Sp. p. 5807; Gaz. vol. 179; p. 995.

Bishop, George H., Chicago, Ill. Dampening apparatus. No. 1,030,880; June 25; Sp. p. 5056; Gaz. vol. 179; p. 902.

Bissett, Harry L., et al. (See Christman, Matthias, assignor.)

Black, Edward S., Chicago, Ill., assignor to Edgar Allen American Manganese Steel Company, Augusta, Me. Crusher-head for grinding-mills. No. 1,028,630; June 4; Sp. p. 1023; Gaz. vol. 179; p. 155.

Black, Walter, Mendota, Ill. Resilient wheel. No. 1,030,227; June 18; Sp. p. 4693; Gaz. vol. 179; p. 807.

Blackmer, Ernest E., and E. W. Johnson, Monongahela, Pa. Fan. No. 1,030,561; June 25; Sp. p. 5516; Gaz. vol. 179; p. 965.

Blaettnar, John. (See Blaettnar, Michael and J.)

Blaettnar, Michael and J., Pomeroy, Ohio. Car-coupling. No. 1,028,531; June 4; Sp. p. 1025; Gaz. vol. 179; p. 156.

Blair, Edward J., Chicago, Ill. Support for third rails. No. 1,028,668; June 4; Sp. p. 1303; Gaz. vol. 179; p. 200.

Blake, Edgar W., et al. (See Chandler, Daniel L., assignor.)

Blake, Edmund E., Saco, and W. H. Goldsmith, Jr., Biddeford, Me., assignors to Saco-Pettee Company, Newton, Mass. Belt-shifter. No. 1,029,338; June 11; Sp. p. 2764; Gaz. vol. 179; p. 466.

Blanchard, Arthur I., Islington, London, England. Vapor-burner. No. 1,029,264; June 11; Sp. p. 2583; Gaz. vol. 179; p. 439.

Blanchett, Frank, Massena, N. Y. Feed-hopper. No. 1,029,660; June 18; Sp. p. 3446; Gaz. vol. 179; p. 612.

Blassneck, Amöne. (See Blassneck, Friedrich and A.)

Blassneck, Friedrich and A., Seesen, Germany. Preserving or cooking fruits or vegetables. No. 1,028,669; June 4; Sp. p. 1304; Gaz. vol. 179; p. 201.

Blechschmidt, Arthur F., assignor of one-half to A. J. Roth, Connersville, Ind. Poultry-house equipment. No. 1,029,844; June 18; Sp. p. 3884; Gaz. vol. 179; p. 677.

Block, Carl, Plato, Minn. Hauling-sled. No. 1,029,661; June 18; Sp. p. 3448; Gaz. vol. 179; p. 612.

Block, Samuel. (See Creighton and Block.)

Blome Company, Rudolph S. (See Blome and Sinek, assignors.)

Blome, Rudolph S., and W. J. Sinek, assignors to R. S. Blome Company, Chicago, Ill. Pavement. No. 1,029,575; June 11; Sp. p. 3255; Gaz. vol. 179; p. 546.

Blomstrom, Charles, Minneapolis, Minn. Centering-tool. No. 1,028,855; June 11; Sp. p. 1699; Gaz. vol. 179; p. 297.

Bloom, David, Berkeley, Cal. Sheet-metal can. No. 1,030,455; June 25; Sp. p. 5220; Gaz. vol. 179; p. 929.

Blossom, Charles C., Wickford, R. I. Nut-lock. (Reissue.) No. 13,425; June 11; Sp. p. 3265; Gaz. vol. 179; p. 548.

Blum, Charles, New York, N. Y. Safety-chair for window-cleaners. No. 1,028,819; June 4; Sp. p. 557; Gaz. vol. 179; p. 82.

Blum, Edward W., assignor to The Bradford Machine Tool Company, Cincinnati, Ohio. Gearing. No. 1,028,095; June 4; Sp. p. 4; Gaz. vol. 179; p. 3.

Blystone Manufacturing Company. (See Blystone, Perry L., assignor.)

Blystone, Perry L., assignor to Blystone Manufacturing Company, Cambridge Springs, Pa. Mortar-mixer. No. 1,030,250; June 18; Sp. p. 4736; Gaz. vol. 179; p. 815.

Boardman, George P., Syracuse, N. Y. Pen and pencil holder. No. 1,029,415; June 11; Sp. p. 2941; Gaz. vol. 179; p. 492.

Boccia, Carmine. (See Colounese and Boccia.)

Boddy, George M. (See Carroll, William, assignor.)

Bodie, Josiah W., Greenwood, S. C. Push-bar. No. 1,030,639; June 25; Sp. p. 5808; Gaz. vol. 179; p. 995.

Boehning, Henry. (See Riehemann and Boehning.)

Bogen, Louis E., Milwaukee, Wis., assignor to Allis-Chalmers Company. System of control. No. 1,030,050; June 18; Sp. p. 4332; Gaz. vol. 179; p. 748.

Bohlinger, Henry, Gilmanton, Wis. Packer-arm for grain-binders. No. 1,029,416; June 11; Sp. p. 2942; Gaz. vol. 179; p. 492.

Boice, Mary E., Alexander, N. D. Dish-receptacle. No. 1,028,320; June 4; Sp. p. 559; Gaz. vol. 179; p. 83.

Boland, Joseph K., New Orleans, La. Gear-shifting mechanism. No. 1,028,532; June 4; Sp. p. 1026; Gaz. vol. 179; p. 156.

Bolin, Simon, and A. Janson, Menominee, Mich. Shovel. No. 1,029,967; June 18; Sp. p. 4147; Gaz. vol. 179; p. 718.

Bolton, Daniel. (See Fahrman and Bolton.)

Bonham, Charles S., Denver, Colo. Grass-catcher for lawn-mowers. No. 1,029,527; June 11; Sp. p. 3152; Gaz. vol. 179; p. 529.

Bonnell, Hattie W. (See Bonnell, William A., assignor.) (Reissue.)

Bonnell, William A., assignor to H. W. Bonnell, Brooklyn, N. Y. Outlet-box for electric conduits. (Reissue.) No. 13,432; June 25; Sp. p. 6453; Gaz. vol. 179; p. 1075.

Bonney, Wilson M., Norfolk, Va. Awning. No. 1,028,321; June 4; Sp. p. 562; Gaz. vol. 179; p. 83.

Book, William J., Earling, Iowa. Washbench. No. 1,028,533; June 4; Sp. p. 1027; Gaz. vol. 179; p. 156.

Boots, Marion E., Leadville, Colo. Wave and current motor. No. 1,029,788; June 18; Sp. p. 3732; Gaz. vol. 179; p. 657.

Booze, Harry R., Buchanan, Va. Wire-clamp. No. 1,028,183; June 4; Sp. p. 287; Gaz. vol. 179; p. 36.

Borden, Bradford, Toronto, Ontario, Canada. Pipe-threading tool. No. 1,029,662; June 18; Sp. p. 3449; Gaz. vol. 179; p. 612.

Borden, Bradford, Toronto, Ontario, Canada. Pipe-threading tool. No. 1,029,968; June 18; Sp. p. 4148; Gaz. vol. 179; p. 719.

Borden, Bradford, Toronto, Ontario, Canada, assignor to The Borden Company, Warren, Ohio. Pipe-cutting tool. No. 1,029,265; June 11; Sp. p. 2584; Gaz. vol. 179; p. 439.

Borden Company, The. (See Borden, Bradford, assignor.)

Borden's Condensed Milk Company. (See Hausheer, Bernard, assignor.)

Borden's Condensed Milk Company. (See Taylor, Burt E., assignor.)

Borgen, Oscar, Dallas, Wis. Ensilage-carrier. No. 1,028,988; June 11; Sp. p. 2001; Gaz. vol. 179; p. 345.

Borman, Sydney, Attleboro, Mass. Flying-machine. No. 1,030,803; June 25; Sp. p. 6240; Gaz. vol. 179; p. 1054.

Bornmann, Carl, assignor to Ansco Company, Binghamton, N. Y. Winding-key for photographic cameras. No. 1,029,266; June 11; Sp. p. 2586; Gaz. vol. 179; p. 440.

Bornmann, Carl, assignor to Ansco Company, Binghamton, N. Y. Pin-journal for photographic cameras. No. 1,029,267; June 11; Sp. p. 2587; Gaz. vol. 179; p. 440.

Bornmann, Carl, assignor to Ansco Company, Binghamton, N. Y. Photographic camera. No. 1,029,268; June 11; Sp. p. 2589; Gaz. vol. 179; p. 440.

Bornmann, Carl, assignor to Ansco Company, Binghamton, N. Y. Photographic camera. No. 1,029,269; June 11; Sp. p. 2591; Gaz. vol. 179; p. 440.

Bornmann, Carl, assignor to Ansco Company, Binghamton, N. Y. Photographic camera. No. 1,029,270; June 11; Sp. p. 2592; Gaz. vol. 179; p. 441.

Bortner, Frank W., Augusta, Ohio. Cereal coffee and making same. No. 1,030,711; June 25; Sp. p. 5987; Gaz. vol. 179; p. 1020.

Bosch, Carl, and H. Keller, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Absorbing oxids of nitrogen. No. 1,029,528; June 11; Sp. p. 3154; Gaz. vol. 179; p. 520.

Bosch, Firm of Robert. (See Honold, Gottlob, assignor.)

Bosi, Louis, Hawthorne, N. Y. Drafting-pen. No 1,030,158; June 18; Sp. p. 4532; Gaz. vol. 179; p. 783.

Bosserman, Joseph F., Staunton, Va. Ratchet-wrench. No. 1,029,271; June 11; Sp. p. 2595; Gaz. vol. 179; p. 441.

Bosshardt, Henry, Sr., West Hoboken, N. J. Performing operations incidental to machine-embroidery. No. 1,030,159; June 18; Sp. p. 4533; Gaz. vol. 179; p. 783.

Boston Machine Works Company. (See Barna, Joseph W., assignor.)

Boswell, David A. (See Boswell, George G. F., assignor.)

Boswell, George G. F., assignor of one-fourth to D. A. Boswell, Indianapolis, Ind. Coin-controlled lock. No. 1,029,417; June 11; Sp. p. 2943; Gaz. vol. 179; p. 492.

Both, Tonjes A. C., New York, N. Y., assignor, by mesne assignments, to The Zee Socket & Mfg. Co., Boston, Mass. Mechanical movement and electric-light socket. No. 1,029,044; June 11; Sp. p. 2124; Gaz. vol. 179; p. 365.

Bottemiller, Arthur A., Ridgefield, Wash. Phonograph-record cabinet. No. 1,029,960; June 18; Sp. p. 4151; Gaz. vol. 179; p. 719.

Bowers, Henry A., Jamestown, N. Y. Derrick. No. 1,030,640; June 25; Sp. p. 5809; Gaz. vol. 179; p. 996.

Bowersock, Wilber E., assignor to I. Hill, Lawrence, Kans. Key. No. 1,029,663; June 18; Sp. p. 3450; Gaz. vol. 179; p. 613.

Bowie, Robert E., *et al.* (See Burtnett, Everett R., assignor.)

Bowler, Michael J., *et al.* (See Paul, William G., assignor.)

Bowman, A. B. (See Finch, Adolph, assignor.)

Bowman, Henry W., Barbourville, Ky. Vending-machine. No. 1,028,096; June 4; Sp. p. 8; Gaz. vol. 179; p. 4.

Boyce, William S., Chicago, Ill. Metallic railway-tie. No. 1,029,970; June 18; Sp. p. 4152; Gaz. vol. 179; p. 719.

Boyd, J. H. (See Wilkes, Hardy T., assignor.)

Boyler, Emanuel J., P. R. and H. M. Greist, assignors to The Greist Manufacturing Company, New Haven, Conn. Buttonhole attachment for sewing-machines. No. 1,030,276; June 25; Sp. p. 4821; Gaz. vol. 179; p. 863.

Boyum, Peter E., Whalan, Minn. Can-cart. No. 1,029,045; June 11; Sp. p. 2126; Gaz. vol. 179; p. 366.

Bozarth, Frank D., Williamsburg, assignor of one-half to L. W. Brown, Berkley, Va. Nut-lock. No. 1,029,339; June 11; Sp. p. 2768; Gaz. vol. 179; p. 466.

Bradberry, Frederick J., Mitchell, S. D. Clutch mechanism for gang-plow lifters. No. 1,029,272; June 11; Sp. p. 2596; Gaz. vol. 179; p. 441.

Braden, Albert R., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Apparatus for soldering metal pieces. No. 1,030,641; June 25; Sp. p. 5811; Gaz. vol. 179; p. 996.

Bradford, Charles E., Chicago, Ill. Wrench. No. 1,029,418; June 11; Sp. p. 2945; Gaz. vol. 179; p. 492.

Bradford Machine Tool Company, The. (See Blum, Edward W., assignor.)

Bradshaw, Ira J., Waukegan, Ill. Annunciator and cabinet for barber-shops. No. 1,028,856; June 11; Sp. p. 1700; Gaz. vol. 179; p. 298.

Bradshaw, John F. W., near Overton, Tex. Airship. No. 1,029,529; June 11; Sp. p. 3156; Gaz. vol. 179; p. 529.

Bradshaw, William M. (See Conrad and Bradshaw.)

Brady, Charles C., Ezra, Ky. Insulator. No. 1,028,534; June 4; Sp. p. 1028; Gaz. vol. 179; p. 156.

Brady, William P., *et al.* (See Maloz, Walter C., assignor.)

Brainerd, Edward R., Los Angeles, Cal. Disappearing bed. No. 1,029,167; June 11; Sp. p. 2383; Gaz. vol. 179; p. 406.

Brand, Johnny. (See Hall and Brand.)

Brandau, Adam. (See Kaerschke, Robert, assignor.)

Brander, Georges de, Brussels, Belgium. Filter. No. 1,028,535; June 4; Sp. p. 1029; Gaz. vol. 179; p. 156.

Brandl, Josef, Neunuhsberg, Germany. Bevel-protractor. No. 1,028,425; June 4; Sp. p. 796; Gaz. vol. 179; p. 120.

Braren, Waldo W., Chicago, Ill. Flour-sifter. No. 1,028,322; June 4; Sp. p. 564; Gaz. vol. 179; p. 83.

Braukmann, Joseph, *et al.* (See Olney, Oscar C., assignor.)

Braun, Sidney D. R., Chicago, Ill. Electric-light arm. No. 1,030,642; June 25; Sp. p. 5814; Gaz. vol. 179; p. 996.

Bray, Eustace V., *et al.* (See McKee, Albert K., assignor.)

Braymer, Forrest V., Blooming Valley, Pa. Pump-plunger. No. 1,028,426; June 4; Sp. p. 796; Gaz. vol. 179; p. 120.

Brearley, Ben, Providence, R. I. Safety attachment for drop-hammers, &c. No. 1,030,381; June 25; Sp. p. 5058; Gaz. vol. 179; p. 902.

Brereton, Wilfred P., Portland, Oreg. Reinforced concrete construction for hydraulic flumes. No. 1,030,839; June 25; Sp. p. 6412; Gaz. vol. 179; p. 1068.

Bresnahan, Maurice V., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,030,382; June 25; Sp. p. 5060; Gaz. vol. 179; p. 903.

Brest, Albert, New Castle, Pa. Automatic tire-pump. No. 1,029,340; June 11; Sp. p. 2769; Gaz. vol. 179; p. 466.

Brett, Charles H., Carthage, Mo. Adjustable support for inking-rollers of printing-presses. No. 1,030,712; June 25; Sp. p. 5988; Gaz. vol. 179; p. 1021.

Brewer, Frederick E., Townsend, Mont. Spark-arrester. No. 1,028,323; June 4; Sp. p. 565; Gaz. vol. 179; p. 84.

Bricker, Solon B., St. Paris, Ohio. Clock. No. 1,028,427; June 4; Sp. p. 800; Gaz. vol. 179; p. 121.

Bridges, Moscow E., Shubuta, Miss. Lamp burner and chimney. No. 1,029,971; June 18; Sp. p. 4156; Gaz. vol. 179; p. 720.

Briggs, Henry, Hasbrouck Heights, assignor to United Shoe Machinery Company, Paterson, N. J. Looper mechanism for sewing-machines. No. 1,030,804; June 25; Sp. p. 6244; Gaz. vol. 179; p. 1054.

Bright, Evan D., Philadelphia, Pa., assignor to The Connecticut Telephone & Electric Company, Incorporated, Meriden, Conn. Switch for jump-spark ignition systems. No. 1,028,536; June 4; Sp. p. 1030; Gaz. vol. 179; p. 157.

Brindley, George F., San Francisco, Cal., assignor to The Roessler & Hasslacher Chemical Company, New York, N. Y. Apparatus for preparing ozone. No. 1,028,857; June 11; Sp. p. 1703; Gaz. vol. 179; p. 298.

Briscoe Manufacturing Company. (See Williams, Charles A., assignor.)

Bristol Jewelry Company. (See Pender, James E. P., assignor.)

British-American Tobacco Company Limited. (See Bennett, George H., assignor.)

Britsch, Walter H., Fayette, Ohio. Sample-folder. No. 1,028,184; June 4; Sp. p. 288; Gaz. vol. 179; p. 37.

Britton, Francis M., Minot, N. D. Electric suction insect-trap. No. 1,029,972; June 18; Sp. p. 4157; Gaz. vol. 179; p. 720.

Broadhurst, Charles F., Vancouver, British Columbia, Canada. Means for cleaning chimney-flues. No. 1,030,456; June 25; Sp. p. 5222; Gaz. vol. 179; p. 929.

Brochu, John B., assignor of one-half to A. Brouillard, Bridgewater, Mass. Laundry-cabinet. No. 1,029,585; June 18; Sp. p. 3280; Gaz. vol. 179; p. 584.

Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. End-lasting mechanism. No. 1,030,562; June 25; Sp. p. 5518; Gaz. vol. 179; p. 966.

Brock, Matthias, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe. No. 1,030,563; June 25; Sp. p. 5522; Gaz. vol. 179; p. 966.

Brock, Matthias, Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,030,564; June 25; Sp. p. 5524; Gaz. vol. 179; p. 966.

Brock, William E., and S. H. Hubbard, Chattanooga, Tenn. Packing-table. No. 1,028,670; June 4; Sp. p. 1305; Gaz. vol. 179; p. 201.

Brockschmitt, Edward, *et al.* (See Pugh, Cortez V., assignor.)

Brockway, Earl A., Marienville, Pa. Curtain-pole. No. 1,029,973; June 18; Sp. p. 4158; Gaz. vol. 179; p. 720.

Brogan, Michael F., Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cementing-machine. No. 1,030,769; June 25; Sp. p. 6129; Gaz. vol. 179; p. 1041.

Brogden, Fay A. (See Morey and Brogden.)

Bronnert, Emil, Niedermorschweiler, near Mülhausen, and M. Fremery, Oberbruch, Germany. Producing cellulose products. No. 1,030,251; June 18; Sp. p. 4739; Gaz. vol. 179; p. 816.

Bronnert, Emile, Niedermorschweiler, near Mülhausen, assignor to Vereinigte Glanzstoff-Fabriken A.-G., Elberfeld, Germany. Transforming formyl esters of cellulose or solutions of the same into stable plastic solutions. No. 1,029,341; June 11; Sp. p. 2771; Gaz. vol. 179; p. 467.

Bronson, Julius H. (See Morey, Leonard D., assignor.)

Brooke, Robert G., Macclesfield, England. Steam-injector. No. 1,030,714; June 25; Sp. p. 5991; Gaz. vol. 179; p. 1021.

Brooks, Edward J., East Orange, N. J. Snap-seal. No. 1,030,457; June 25; Sp. p. 5223; Gaz. vol. 179; p. 929.

Brooks, Edward J., East Orange, N. J. Snap-seal. No. 1,030,458; June 25; Sp. p. 5225; Gaz. vol. 179; p. 930.

Brooks, Henry K., Topeka, Kans. Follower-board. No. 1,030,277; June 25; Sp. p. 4828; Gaz. vol. 179; p. 864.

Brooks, Reuben, Gloucester, Mass. Marine harvester. No. 1,028,671; June 4; Sp. p. 1308; Gaz. vol. 179; p. 201.

Broomall, Samuel E., Wilmington, Del. Post-hole digger. No. 1,030,713; June 25; Sp. p. 5989; Gaz. vol. 179; p. 1021.

Brostrom, Fredrick, San Francisco, Cal. Re-forming controller-handles. No. 1,030,160; June 18; Sp. p. 4535; Gaz. vol. 179; p. 783.

Broughton, Winn E., assignor to The Turner Tanning Machinery Company, Peabody, Mass. Press. No. 1,028,324; June 4; Sp. p. 567; Gaz. vol. 179; p. 84.

Brouillard, Albert. (See Brochu, John B., assignor.)

Brousseard, Fernand A., Carencro, La. Stove and furnace. No. 1,028,928; June 11; Sp. p. 1878; Gaz. vol. 179; p. 324.

Brower, Abraham T. H., Chicago, Ill. Bed-and-cylinder printing-press. No. 1,029,100; June 11; Sp. p. 2244; Gaz. vol. 179; p. 383.

Brown, Alexander T., Syracuse, N. Y. Type-writing machine. No. 1,029,101; June 11; Sp. p. 2248; Gaz. vol. 179; p. 384.

Brown, Alexander T., Syracuse, N. Y. Type-writing machine. No. 1,030,500; June 25; Sp. p. 5331; Gaz. vol. 179; p. 944.

Brown, Charles, Chicago, Ill. Submarine signaling and safety device. No. 1,028,980; June 11; Sp. p. 2002; Gaz. vol. 179; p. 345.

Brown, Charles F. (See Myers, Elmer J., assignor.)

Brown, Edward C., Rochester, N. Y. Spray-nozzle. No. 1,029,909; June 18; Sp. p. 4028; Gaz. vol. 179; p. 699.

Brown, Gideon P. (See Bayer and Brown.)

Brown, Harry, Evanston, Ill. Power-whip for hay-presses. No. 1,029,586; June 18; Sp. p. 3282; Gaz. vol. 179; p. 585.

Brown, James A. (See Sutherland and Brown.)

Brown, James A., Westport, Ind. Broom-bridle. No. 1,029,046; June 11; Sp. p. 2128; Gaz. vol. 179; p. 366.

Brown, James S., Harrison, N. Y. Ash-sifter or analogous device. No. 1,028,537; June 4; Sp. p. 1032; Gaz. vol. 179; p. 157.

Brown, John, Plaistow, England, and J. E. Scott, Greenock, Scotland. Steam-turbine. No. 1,030,278; June 25; Sp. p. 4831; Gaz. vol. 179; p. 864.

Brown, L. W. (See Bozarth, Frank D., assignor.)

Brown, Levi, assignor to J. M. Lontz, Richmond, Ind. Stationary-knife mounting. No. 1,029,168; June 11; Sp. p. 2585; Gaz. vol. 179; p. 406.

Brown, Louis M., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,028,990; June 11; Sp. p. 2007; Gaz. vol. 179; p. 346.

Brown, Norton M., Aurora, Ill. Expansion-hoop. No. 1,028,325; June 4; Sp. p. 569; Gaz. vol. 179; p. 84.

Brown, Robert P., Washington, D. C. Animal-trap. No. 1,028,538; June 4; Sp. p. 1034; Gaz. vol. 179; p. 157.

Brown, Theodore P., assignor to Simplex Player Action Co., Worcester, Mass. Musical instrument. No. 1,030,715; June 25; Sp. p. 5993; Gaz. vol. 179; p. 1022.

Brown, Thomas E., New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Hydraulic-elevator safety device. No. 1,028,807; June 4; Sp. p. 1585; Gaz. vol. 179; p. 248.

Brown, Walter F., Minneapolis, Minn. Wing-carrier. No. 1,028,858; June 11; Sp. p. 1706; Gaz. vol. 179; p. 299.

Browne, Charles O., Norwood, Ohio. Shock-absorber. No. 1,028,185; June 4; Sp. p. 289; Gaz. vol. 179; p. 37.

Browne, Richard H., Muskegon, Mich. Knockdown extensible cabinet or shelving. No. 1,030,279; June 25; Sp. p. 4832; Gaz. vol. 179; p. 864.

Brundege, Rozier E., St. Louis, Mo. Regenerative brake system for vehicles. No. 1,030,051; June 18; Sp. p. 4334; Gaz. vol. 179; p. 748.

Brunello, Emilio F., Appalachia, Va. Sword and scabbard. No. 1,028,428; June 4; Sp. p. 803; Gaz. vol. 179; p. 121.

Brunnert, Anton, assignor of one-half to H. F. Freise, Old Monroe, Mo. Egg-candler scoop. No. 1,030,280; June 25; Sp. p. 4834; Gaz. vol. 179; p. 865.

Bryant, Arthur S. (See Horrell and Bryant.)

Bryant, Cyrus A., Passaic, assignor to V. M. Sales Co., Plainfield, N. J. Drinking-cup holder. No. 1,029,342; June 11; Sp. p. 2772; Gaz. vol. 179; p. 467.

Bryant Electric Company, The. (See Martin, Joseph E., assignor.)

Buchanan, Charles G., Brooklyn, N. Y. Crushing-machine. No. 1,029,910; June 18; Sp. p. 4030; Gaz. vol. 179; p. 700.

Buchanan, James G., Cananea, Mexico, and J. W. Kelker, Los Angeles, Cal. Train-brake. No. 1,030,565; June 25; Sp. p. 5539; Gaz. vol. 179; p. 967.

Buchler, Isidor, New York, N. Y. Razor-stropping machine. No. 1,029,911; June 18; Sp. p. 4032; Gaz. vol. 179; p. 700.

Bucknall, Edward, Jr., and P. Nevill, Willenhall, England. Trunk-fastener. No. 1,029,845; June 18; Sp. p. 3886; Gaz. vol. 179; p. 677.

Buell, Albert W., St. Paul, Minn., assignor to Federal Electric Company, Chicago, Ill. Swivel-plug attachment. No. 1,028,429; June 4; Sp. p. 803; Gaz. vol. 179; p. 121.

Buffalo Lounge Company. (See Jacobs, Henry J., assignor.)

Buffalo Shoe Co. (See Coupal, Peter A., assignor.)

Buffalo Specialty Company. (See Cabana, Charles, assignor.)

Bullard, Edwin W. (See Bullard, James H. and E. W.)

Bullard, James H. and E. W., assignors, by mesne assignments, to United Nut Lock Company, Springfield, Mass. Nut-locking device. No. 1,028,850; June 11; Sp. p. 1708; Gaz. vol. 179; p. 299.

Bullard, James H. and E. W., assignors to A. C. Fairbanks, Springfield, Mass. Nut-lock. No. 1,029,846; June 18; Sp. p. 3888; Gaz. vol. 179; p. 677.

Bullock, Charles A. H. (See Daniel and Bullock.)

Bullock Electric Manufacturing Company, The, *et al.* (See Behrend, Bernard A., assignor.)

Bullock Electric Manufacturing Company, The, *et al.* (See Crocker, Clarence T., assignor.)

Bullock Electric Manufacturing Company. (See Elshoff, Bernard, assignor.)

Bullock Electric Manufacturing Company, The. (See Pfau, Abraham, assignor.)

Bullock Electric Manufacturing Company, The. (See Ralston, Howard H., assignor.)

Bullock Electric Manufacturing Company, The, *et al.* (See Wouters, Alfred H., assignor.)

Bunnell, Morton G., assignor to F. C. Austin, Chicago, Ill. Wheel-support. No. 1,030,501; June 25; Sp. p. 5338; Gaz. vol. 179; p. 945.

Bunting, George W., Ocean City, Md. Mechanical motor. No. 1,030,566; June 25; Sp. p. 5544; Gaz. vol. 179; p. 967.

Bunting, Millard, R., J. Muldoon, Baltimore, Md., and L. S. Springer, Washington, D. C. Rotary printing-machine. No. 1,029,847; June 18; Sp. p. 3889; Gaz. vol. 179; p. 677.

Burby, John M., Astoria, N. Y. Recovery of pulp from waste news print and other grades of paper. No. 1,029,848; June 18; Sp. p. 3893; Gaz. vol. 179; p. 678.

Burch, Frederick W., Pueblo, Colo. Fruit-picking bag. No. 1,029,486; June 11; Sp. p. 3075; Gaz. vol. 179; p. 516.

Burchartz, Ferdinand, New York, N. Y. Blocks for building construction. No. 1,029,530; June 11; Sp. p. 3158; Gaz. vol. 179; p. 530.

Burdick, Edward N., Westerly, R. I. Photographic-print washer. No. 1,029,487; June 11; Sp. p. 3076; Gaz. vol. 179; p. 516.

Burdick, Fred F., River Forest, Ill. Collapsible cabinet. No. 1,028,326; June 4; Sp. p. 570; Gaz. vol. 179; p. 85.

Burge, James E., Lincoln, Nebr. Swinging cradle. No. 1,028,186; June 4; Sp. p. 291; Gaz. vol. 179; p. 37.

Burgher, Francis L., assignor to Acme Cloth Shrinking Machinery Company, New York, N. Y. Drying-table. No. 1,030,281; June 25; Sp. p. 4835; Gaz. vol. 179; p. 865.

Burghoff, John E., and J. B. Wilks, Leominster, Mass. Comb embossing and cutting dies. No. 1,029,488; June 11; Sp. p. 3077; Gaz. vol. 179; p. 516.

Burleigh, John A., Olean, N. Y. Molding-press. No. 1,030,252; June 18; Sp. p. 4740; Gaz. vol. 179; p. 816.

Burney, Joe J., Shreveport, La. Detachable wheel-rim. No. 1,030,716; June 25; Sp. p. 5996; Gaz. vol. 179; p. 1022.

Burnham, George A., Saugus, assignor to S. B. Condit, Jr., Brookline, Mass. Controlling means for electric circuits. No. 1,029,974; June 18; Sp. p. 4159; Gaz. vol. 179; p. 720.

Burns, Forrest N., *et al.* (See Bamberger and Porter, assignors.)

Burroughs Adding Machine Company. (See Peters, Heber C., assignor.)

Burroughs Adding Machine Company. (See Swalm, William E., assignor.)

Burroughs Adding Machine Company. (See Vincent, Jesse G., assignor.)

Burroughs Adding Machine Company. (See Vincent and Benner, assignors.)

Burtnett, Everett R., San Mateo, assignor of one-third to R. E. Bowie and one-third to T. O. Heydenfyldt, Redwood City, Cal. Internal-combustion engine. No. 1,029,419; June 11; Sp. p. 2947; Gaz. vol. 179; p. 493.

Burton, Charles S., Oak Park, Ill., assignor to E. Tyden, Hastings, Mich. Extension-table. No. 1,030,459; June 25; Sp. p 5227; Gaz. vol. 179; p. 930.

Burton, Frank F., East Haven, assignor to Winchester Repeating Arms Co., New Haven, Conn. Shotgun. No. 1,028,430; June 4; Sp. p. 806; Gaz. vol. 179; p. 122.

Buschman, Edward, assignor to F. S. Hunt, Milwaukee, Wis. Fountain-brush. No. 1,030,383; June 25; Sp. p. 5064; Gaz. vol. 179; p. 903.

Bussell, John N., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for concaving heels of boots and shoes. No. 1,030,567; June 25; Sp. p. 5546; Gaz. vol. 179; p. 966.

Butler, Clinton C., Waterloo, Iowa. Intermittent-grip device. No. 1,030,460; June 25; Sp. p. 5232; Gaz. vol. 179; p. 931.

Butler, James A., Winthrop, assignor to F. E. Nickels, Dorchester, Mass. Locking device for voting-machines. No. 1,028,837; June 4; Sp. p. 1651; Gaz. vol. 179; p. 258.

Butler, James A., Providence, R. I., assignor to F. E. Nickels, Dorchester, Mass. Voting-machine. No. 1,028,838; June 4; Sp. p. 1652; Gaz. vol. 179; p. 258.

Butler, Walter, St. Paul, Minn. Discharging device for bins. No. 1,029,273; June 11; Sp. p. 2597; Gaz. vol. 179; p. 442.

Butters, Thomas B., New York, N. Y. Anchor. No. 1,028,673; June 4; Sp. p. 1312; Gaz. vol. 179; p. 202.

Buts, Walter H., North Plainfield, assignor to The Q M S Company, Plainfield, N. J. Fluid-operated hoist. No. 1,029,849; June 18; Sp. p. 3805; Gaz. vol. 179; p. 678.

Busby, Curtis S., Frankford, Pa. Mirror-support. No. 1,029,420; June 11; Sp. p. 2940; Gaz. vol. 179; p. 493.

Byham, Charles W., Warren, Ohio. Cabinet for holding manifolding devices. No. 1,029,576; June 11; Sp. p. 3257; Gaz. vol. 179; p. 547.

Byrne, Patrick J., assignor of one-third to C. V. W. Walsh, Cleveland, Ohio. Submarine illuminating apparatus. No. 1,030,052; June 18; Sp. p. 4339; Gaz. vol. 179; p. 748.

Byron Jackson Iron Works. (See Forward, Walter L., assignor.)

C. Cowles & Co. (See Gates, Louis W., assignor.)

Cabana, Charles, assignor to Buffalo Specialty Company, Buffalo, N. Y. Shock-absorber for vehicles. No. 1,029,664; June 18; Sp. p. 3451; Gaz. vol. 179; p. 613.

Cadillac Motor Car Company. (See Wingo, Richard T., assignor.)

Cahn, Bernard, San Diego, Cal. Folding garment-form. No. 1,028,991; June 11; Sp. p. 2009; Gaz. vol. 179; p. 346.

Cain, James N., Hawley, Tex. Cotton-chopper. No. 1,029,587; June 18; Sp. p. 3284; Gaz. vol. 179; p. 585.

Calderwood, Benjamin C., Valley Falls, R. I., assignor to Price-Campbell Cotton Picker Corporation, Wilmington, Del. Machine for separating leaf and seed cotton. No. 1,030,228; June 18; Sp. p. 4696; Gaz. vol. 179; p. 808.

Caldwell, Eugene W., New York, N. Y. X-ray tube. No. 1,029,850; June 18; Sp. p. 3800; Gaz. vol. 179; p. 679.

Caldwell, John, New York, N. Y. Door-lock. No. 1,028,929; June 11; Sp. p. 1879; Gaz. vol. 179; p. 324.

Caler, David R., Beaver, Pa. Window. No. 1,029,274; June 11; Sp. p. 2599; Gaz. vol. 179; p. 442.

California Corrugated Culvert Company. (See Thorsby, Karl J., assignor.)

Calleson, Amos. (See Adriance and Calleson.)

Calver, Claude, Cerro Gordo, Ill. Closure-retaining device. No. 1,029,047; June 11; Sp. p. 2129; Gaz. vol. 179; p. 366.

Cameron, De Lancey A., Geneseo, assignor to Delac Plaster Co., Mumford, N. Y. Machine for making plaster-board. No. 1,028,930; June 11; Sp. p. 1881; Gaz. vol. 179; p. 325.

Cameron, De Lancey A., Geneseo, assignor to Delac Plaster Co., Mumford, N. Y. Plaster-board. No. 1,028,931; June 11; Sp. p. 1883; Gaz. vol. 179; p. 325.

Campbell Bosworth Machinery Company. (See Warren, George E., assignor.)

Campbell, Charles E., Portland, assignor to S. S. Keim, Newberg, Oreg. Hose-coupling. No. 1,028,187; June 4; Sp. p. 292; Gaz. vol. 179; p. 37.

Campbell, Charles H., Chelsea, Mass. Can. No. 1,029,666; June 18; Sp. p. 3454; Gaz. vol. 179; p. 613.

Campbell, Charles H., Chelsea, Mass. Can-lock. No. 1,029,666; June 18; Sp. p. 3456; Gaz. vol. 179; p. 614.

Campbell, Donald, New York, N. Y., assignor to The White Knight Company. Toy or game. No. 1,029,588; June 18; Sp. p. 3286; Gaz. vol. 179; p. 585.

Campbell, Howard S., assignor of one-third to J. Zill and one-third to P. T. De Mattos, Baltimore, Md. Means for preventing the freezing of water in the circulating systems of automobile-engines. No. 1,028,808; June 4; Sp. p. 1588; Gaz. vol. 179; p. 248.

Campbell, Robert E., Berkeley, Cal. Dental crown and backing. No. 1,028,539; June 4; Sp. p. 1036; Gaz. vol. 179; p. 158.

Campbell, Samuel M., Rock Island, Ill. Ice-harvesting machine. No. 1,028,992; June 11; Sp. p. 2011; Gaz. vol. 179; p. 346.

Campbell, Victor E., Berkeley, Cal. Spring-wheel. No. 1,029,789; June 18; Sp. p. 3735; Gaz. vol. 179; p. 657.

Candland, Arthur C., Provo, Utah. Railway-tie and fastener therefor. No. 1,028,431; June 4; Sp. p. 807; Gaz. vol. 179; p. 122.

Candland, Arthur C., Provo, Utah. Railway-tie and fastener. No. 1,028,432; June 4; Sp. p. 809; Gaz. vol. 179; p. 122.

Candland, Arthur C., Provo, Utah. Railway-tie and fastener. No. 1,028,809; June 4; Sp. p. 1590; Gaz. vol. 179; p. 248.

Cann, George W., Logansport, Ind. Sad-iron. No. 1,028,188; June 4; Sp. p. 294; Gaz. vol. 179; p. 38.

Canton Culvert Company, The. (See Haines, Charles, assignor.)

Capen, Thomas W., assignor to Allis-Chalmers Company, Milwaukee, Wis. Gyratory crusher. No. 1,029,742; June 18; Sp. p. 3641; Gaz. vol. 179; p. 642.

Carangelo, Constantin, Delta Barrage, near Cairo, Egypt. Incandescent multiple-circuit electric lamp. No. 1,029,851; June 18; Sp. p. 3801; Gaz. vol. 179; p. 679.

Carborundum Company, The. (See Tone, Frank J., assignor.)

Carhart, Charles M., *et al.* (See Clemmons, George W., assignor.)

Carlsen, Andrew M., St. Paul, assignor to F. H. Heinen, Shakopee, Minn. Nutcracker. No. 1,030,805; June 25; Sp. p. 6246; Gaz. vol. 179; p. 1054.

Carlson, Erick V., Chicago, Ill. Action for pneumatic piano-players. No. 1,029,421; June 11; Sp. p. 2951; Gaz. vol. 179; p. 494.

Carlson, John A., Erie, Pa. Burglar-alarm. No. 1,030,461; June 25; Sp. p. 5233; Gaz. vol. 179; p. 931.

Carlstedt, Johan H., Gefle, Sweden. Gravity-lock. No. 1,028,860; June 11; Sp. p. 1710; Gaz. vol. 179; p. 300.

Carnahan, John E. (See Maskrey, Arthur J., assignor.)

Carnea, George M., Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-shaping machine. No. 1,030,840; June 25; Sp. p. 6414; Gaz. vol. 179; p. 1068.

Caron, Jacob, Nampa, Idaho. Railway-tie. No. 1,028,674; June 4; Sp. p. 1313; Gaz. vol. 179; p. 202.

Carpenter, Adam, Tacoma, Wash. Regulator for liquid-boilers. No. 1,029,975; June 18; Sp. p. 4162; Gaz. vol. 179; p. 721.

Carpenter, Charles R. (See Gorton and Carpenter.)

Carrington, Charles P. (See Susemihl and Carrington.) (Reissue.)

Carroll, Philip F., Joliet, Ill. Oven. No. 1,029,589; June 18; Sp. p. 3288; Gaz. vol. 179; p. 586.

Carroll, William, West Silvertown, assignor of one-half to G. M. Boddy, London, England. Marine life-saving jacket. No. 1,028,433; June 4; Sp. p. 810; Gaz. vol. 179; p. 123.

Carscadin, Charles A., assignor of one-half to G. A. Woodman, Chicago, Ill. Weather-shield. No. 1,028,861; June 11; Sp. p. 1711; Gaz. vol. 179; p. 300.

Carson-Hubbard Mill Company. (See Carson and Hubbard, assignors.)

Carson, Wilfred P., and J. J. Hubbard, assignors to Carson-Hubbard Mill Company, Taylorsville, N. C. Grinding-mill. No. 1,028,830; June 4; Sp. p. 1654; Gaz. vol. 179; p. 258.

Carter, Edwin E., assignor to The Day-Ward Company, Warren, Ohio. Lavatory. No. 1,028,327; June 4; Sp. p. 572; Gaz. vol. 179; p. 85.

Carter, George H., Richmond Hill, N. Y. Fountain-pen. No. 1,030,502; June 25; Sp. p. 5342; Gaz. vol. 179; p. 945.

Casgrain, Louis A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Work-support mechanism for fastening-inserting or other machines. No. 1,028,434; June 4; Sp. p. 811; Gaz. vol. 179; p. 123.

Casgrain, Louis A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Stamping-machine. No. 1,030,161; June 18; Sp. p. 4536; Gaz. vol. 179; p. 784.

Casgrain, Louis A., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating upon shoe-soles. No. 1,030,717; June 25; Sp. p. 5998; Gaz. vol. 179; p. 1023.

Cashon, Henry C., Oktaha, Okla. Hay-presser. No. 1,029,422; June 11; Sp. p. 2952; Gaz. vol. 179; p. 494.

Cassella Color Company. (See Kertesz, Adolf, assignor.)

Caswell, William B., Newport, R. I. Cord-holder for window-shades. No. 1,029,169; June 11; Sp. p. 2386; Gaz. vol. 179; p. 406.

Catlin, Seth C., Bloomfield, N. J. Plating-machine. No. 1,030,053; June 18; Sp. p. 4341; Gaz. vol. 179; p. 749.

Catucci, Pliny, Newark, N. J., assignor to A. F. Meisselbach & Brother. Spring-box for spring-motors. No. 1,029,852; June 18; Sp. p. 3803; Gaz. vol. 179; p. 679.

Cavanagh, Daniel F. (See Cavanagh, Eugene M. and D. F.)

Cavanagh, Eugene M. and D. F., Brooklyn, assignors to New York Scaffolding Co., New York, N. Y. Scaffold-support. No. 1,030,643; June 25; Sp. p. 5815; Gaz. vol. 179; p. 997.

Cavileer, William N., Los Angeles, Cal. Mechanism for winding lines. No. 1,030,770; June 25; Sp. p. 6139; Gaz. vol. 179; p. 1041.

Cazin, Max, Hamilton, Cal. Pile-driving device. No. 1,029,102; June 11; Sp. p. 2250; Gaz. vol. 179; p. 384.

Cellular Metal Company, The. (See Goldsmith, Max S., assignor.)

Central Zinc Company Limited. (See Moulden and Webster, assignors.)

Cessna, John B., Pittsburgh, Pa. Animal-trap. No. 1,028,435; June 4; Sp. p. 816; Gaz. vol. 179; p. 123.

Champion Ignition Company. (See Schmidt, Albert, assignor.)

Chandler, Daniel L., Ayer, assignor of one-third to J. H. Trayne, Groton, and one-third to E. W. Blake, Pepperell, Mass. Tuft-making machine. No. 1,028,436; June 4; Sp. p. 817; Gaz. vol. 179; p. 124.

Chandler, Willard R., Branchville, S. C. Fluid-actuated lifting-jack. No. 1,029,428; June 11; Sp. p. 2957; Gaz. vol. 179; p. 494.

Chappel, Christopher C., assignor of one-half to J. D. Stringer, Bono, Ark. Plow-colter. No. 1,030,718; June 25; Sp. p. 6000; Gaz. vol. 179; p. 1023.

Chaput, Wilfrid, Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating upon soles. No. 1,030,644; June 25; Sp. p. 5818; Gaz. vol. 179; p. 997.

Charles, Seward, Washington, D. C. Combination toy parachute and shovel. No. 1,030,054; June 18; Sp. p. 4343; Gaz. vol. 179; p. 749.

Charlottenburger Farbwerke Aktien Gesellschaft. (See Wagner, Hubert, assignor.)

Chase, Burton B., and E. Van Sickle, assignors of one-third to C. N. Knapp, Port Jervis, N. Y. Screw-driver. No. 1,028,675; June 4; Sp. p. 1314; Gaz. vol. 179; p. 202.

Chase, Edward P. (See Cooper and Chase.)

Chatillon, George E., New York, N. Y. Index device. No. 1,028,540; June 4; Sp. p. 1038; Gaz. vol. 179; p. 158.

Chemische Fabrik Griesheim-Elektron. (See Hoffmann and Suchy, assignors.)

Chemische Fabrik Griesheim-Elektron. (See Zitscher and Rath, assignors.)

Cheney, Herbert W., Milwaukee, Wis., assignor to Allis-Chalmers Company. Motor-operated switch. No. 1,028,993; June 11; Sp. p. 2014; Gaz. vol. 179; p. 347.

Cheney, Herbert W., assignor, to Allis-Chalmers Company, Milwaukee, Wis. Engineer's valve. No. 1,030,229; June 18; Sp. p. 4698; Gaz. vol. 179; p. 808.

Cheney, Herbert W., Milwaukee, Wis., assignor to Allis-Chalmers Company. Circuit-breaker. No. 1,030,568; June 25; Sp. p. 5550; Gaz. vol. 179; p. 968.

Cheney, Herbert W., Milwaukee, Wis., assignor to Allis-Chalmers Company. Controller. No. 1,030,569; June 25; Sp. p. 5551; Gaz. vol. 179; p. 969.

Cheney, Herbert W., Milwaukee, Wis., assignor to Allis-Chalmers Company. Motor-control system. No. 1,030,645; June 25; Sp. p. 5819; Gaz. vol. 179; p. 997.

Cherry, Spencer A., Nashville, Tenn. Attachment for vehicle-wheels. No. 1,028,676; June 4; Sp. p. 1316; Gaz. vol. 179; p. 203.

Chessler, Harry, New York, N. Y. Sofa-bed of the davenport style. No. 1,028,541; June 4; Sp. p. 1040; Gaz. vol. 179; p. 158.

Chestnut, William T. (See Kilburn, Fairley, Kidner, Irvine, and Chestnut.)

Chicago Pneumatic Tool Company. (See Meissner, Edward C., assignor.)

Chicago Pneumatic Tool Company. (See Pickles, Charles K., assignor.)

Chicago Pneumatic Tool Company. (See Westaway, Walter C., assignor.)

Chicago Railway Equipment Company. (See Ziemss, Henry, Jr., assignor.)

Chipley, William G., Atlanta, Ga. Cross-tie. No. 1,030,230; June 18; Sp. p. 4700; Gaz. vol. 179; p. 808.

Chlorine Products Company, The. (See McNitt, Robert J., assignor.)

Christ, Henry K. (See Christ, Isaac and H. K.)

Christ, Isaac, Tamaqua, and H. K. Christ, Mahanoy City, Pa. Separating apparatus. No. 1,030,231; June 18; Sp. p. 4701; Gaz. vol. 179; p. 809.

Christian, Frederick N., Tauranga, New Zealand. Means for drawing liquid from receptacles. No. 1,028,542; June 4; Sp. p. 1042; Gaz. vol. 179; p. 158.

Christians, George W., New York, N. Y. Electric fuse. No. 1,028,328; June 4; Sp. p. 574; Gaz. vol. 179; p. 86.

Christiansen, Christian, Kenmare, N. D. Hay rake and loader. No. 1,029,790; June 18; Sp. p. 3787; Gaz. vol. 179; p. 658.

Christiansen, Christian, assignor of one-half to L. Fredrickson, Kenmare, N. D. Hay and shock loader. No. 1,029,791; June 18; Sp. p. 3740; Gaz. vol. 179; p. 658.

Christianson, William M., Portland, Oreg. Nut-lock. No. 1,029,103; June 11; Sp. p. 2252; Gaz. vol. 179; p. 384.

Christman, Matthias, assignor of one-third to H. L. Bissett and one-third to G. A. McLaughlin, Springfield, Mo. Hub-plate for wheels. No. 1,028,677; June 4; Sp. p. 1317; Gaz. vol. 179; p. 203.

Cincinnati Bickford Tool Company, The. (See Norris, Henry M., assignor.)

Cincinnati Galvanizing Company. (See Schott, Louis, assignor.)

Cincinnati Lathe & Tool Company, The. (See Perrine, John R., assignor.)

Cincinnati Planer Company. (See Langen and Meier, assignors.)

Cincinnati Shaper Co., The. (See Murray, Aristides R., assignor.)

Ciociola, Gabriel, Leavenworth, Kans. Legging. No. 1,028,329; June 4; Sp. p. 574; Gaz. vol. 179; p. 86.

Clancy, Peter, St. Paul, Minn. Plow. No. 1,030,282; June 25; Sp. p. 4837; Gaz. vol. 179; p. 865.

Clark, Edward W., Los Angeles, Cal. Stay-bolt. No. 1,029,104; June 11; Sp. p. 2252; Gaz. vol. 179; p. 385.

Clark, Ellsworth A., and W. H. Davis, Boulder, Colo. Hellxoidal combined ore-roasting furnace and cooling-hearth. No. 1,029,667; June 18; Sp. p. 3458; Gaz. vol. 179; p. 614.

Clark, Isabella M., Cleveland, Ohio. Book-holder. No. 1,029,668; June 18; Sp. p. 3460; Gaz. vol. 179; p. 614.

Clarke, Athol W., Manchester, England, assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Fluid-pressure turbine. No. 1,029,489; June 11; Sp. p. 3080; Gaz. vol. 179; p. 516.

Clarke, George L., Brooklyn, N. Y., assignor to The Eden Company. Perfume preparation. No. 1,029,105; June 11; Sp. p. 2254; Gaz. vol. 179; p. 385.

Clarkson, Michael, Chicago, Ill. Apparatus used in the construction of fire-hydrants and the like. No. 1,030,384; June 25; Sp. p. 5066; Gaz. vol. 179; p. 903.

Clarkson, Michael, Chicago, Ill. Burial-vault. No. 1,030,385; June 25; Sp. p. 5070; Gaz. vol. 179; p. 904.

Clasen, Hermann, Schmiedefeld, Germany. Smoke and gas collector for engine-houses. No. 1,028,437; June 4; Sp. p. 824; Gaz. vol. 179; p. 124.

Clauder, Arthur W., Bridgeport, Conn., assignor to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,030,503; June 25; Sp. p. 5344; Gaz. vol. 179; p. 945.

Clauss, Otto E. (See Kirch and Clauss.)

Cleghorn, Douglas H., San Diego, Cal. Amusement apparatus. No. 1,028,543; June 4; Sp. p. 1043; Gaz. vol. 179; p. 159.

Clement, Edward E., Washington, D. C. Telephone-exchange system. No. 1,029,577; June 11; Sp. p. 3258; Gaz. vol. 179; p. 547.

Clement, Edward E., Washington, D. C. Automatic switch. No. 1,029,590; June 18; Sp. p. 3289; Gaz. vol. 179; p. 586.

Clement, Edward E., Washington, D. C. Electrical switching apparatus for telephone systems. No. 1,029,591; June 18; Sp. p. 3295; Gaz. vol. 179; p. 586.

Clements, Maurice C., *et al.* (See Morral, John, assignor.)

Clemmons, George W., Scranton, Pa., assignor of one-third to C. M. Carhart, Hoboken, and one-third to E. Henneger, West New York, N. J. Float-rail lock. No. 1,028,810; June 4; Sp. p. 1592; Gaz. vol. 179; p. 249.

Cleveland, Francis D., Winchester, Mass. Machine for handling and cutting fish. No. 1,030,646; June 25; Sp. p. 5826; Gaz. vol. 179; p. 998.

Cline, Robert F., Moneta, Cal. Spice-mill. No. 1,029,792; June 18; Sp. p. 3743; Gaz. vol. 179; p. 659.

Cobb, Joseph M. (See Maddock and Cobb.)

Cochran, Drugan & Co. (See Drugan and Schoenthaler, assignors.)

Coda, Christopher F., Detroit, Mich. Revoluble work-feeding chuck. No. 1,030,283; June 25; Sp. p. 4839; Gaz. vol. 179; p. 866.

Cohn, Samuel, assignor to Machine Mantle Sewing Company, New York, N. Y. Mantle-tying machine. (Reissue.) No. 13,429; June 18; Sp. p. 4794; Gaz. vol. 179; p. 823.

Cohon, Benjamin, Westwood, N. J. Cigarette-box. No. 1,028,438; June 4; Sp. p. 825; Gaz. vol. 179; p. 124.

Cole, David S., Washington, Iowa. Mailing-tube. No. 1,028,678; June 4; Sp. p. 1319; Gaz. vol. 179; p. 203.

Cole, Eugene M., Charlotte, N. C. Driving mechanism for planters. No. 1,029,592; June 18; Sp. p. 3304; Gaz. vol. 179; p. 587.

Cole, William C., Baltic, Mich. Wrench. No. 1,030,232; June 18; Sp. p. 4704; Gaz. vol. 179; p. 809.

Coleman, Clarence, Newcastle, Ind. Base-shield for pianos. No. 1,028,544; June 4; Sp. p. 1045; Gaz. vol. 179; p. 159.

Coleman, Clarence W., Westfield, N. J., assignor to The Hall Signal Company. Railway signaling apparatus. No. 1,029,275; June 11; Sp. p. 2601; Gaz. vol. 179; p. 442.

Coleman, Robert F., Philadelphia, Pa. Spring-joint for trolley-poles. No. 1,028,189; June 4; Sp. p. 295; Gaz. vol. 179; p. 38.

Coleman, Robert J. (See McMullan, David S., assignor.)

Colleen, Ivar H. P., Stuart, Iowa. Copy-holder. No. 1,028,007; June 4; Sp. p. 9; Gaz. vol. 179; p. 4.

Collier, Oliver F., *et al.* (See Honigmann, Hans, assignor.)

Collins, Frank, Lynnville, Tenn. Whiffletree-hook. No. 1,028,545; June 4; Sp. p. 1047; Gaz. vol. 179; p. 159.

Collins, Frank J., Topeka, Kans. Invalid's table. No. 1,028,932; June 11; Sp. p. 1885; Gaz. vol. 179; p. 325.

Collins, Jacob, assignor of one-half to W. J. Travers, Olinda, Cal. Treating petroleum. No. 1,028,439; June 4; Sp. p. 826; Gaz. vol. 179; p. 125.

Collins, Thomas E., Chicago, Ill. Fire-door. No. 1,029,912; June 18; Sp. p. 4035; Gaz. vol. 179; p. 701.

Collins, Walter L., Milford, Mass. Metallic reinforcement for walls. No. 1,029,106; June 11; Sp. p. 2255; Gaz. vol. 179; p. 385.

Collins, Wilbur L., assignor to D. W. Crowley, Newark, N. Y. Dump-wagon. No. 1,029,343; June 11; Sp. p. 2774; Gaz. vol. 179; p. 467.

Colman, Howard D., assignor to Barber-Colman Company, Rockford, Ill. Knot-tying mechanism. No. 1,029,853; June 18; Sp. p. 3805; Gaz. vol. 179; p. 680.

Colonial Fast Color Tipping Company. (See Gallison, Ernest A., assignor.)

Colonial Trust Company, The, trustee. (See Clarke, Athol W., assignor.)

Colonial Trust Company, The, trustee. (See Ehrhart, Raymond N., assignor.)
Colounese, Frank, and C. Boccia, New York, N. Y. Alarm door-knob. No. 1,030,841; June 25; Sp. p. 6417; Gaz. vol. 179; p. 1068.
Colpitts, Edwin H., East Orange, N. J., assignor to Western Electric Company, New York, N. Y. Connecting-circuit for magneto telephone-exchange systems. No. 1,029,593; June 18; Sp. p. 3305; Gaz. vol. 179; p. 587.
Comeau, Frank, Louisburg, Nova Scotia, Canada. Clothespin. No. 1,030,386; June 25; Sp. p. 5072; Gaz. vol. 179; p. 904.
Comings, William R., Wharncliffe, Wimbledon Park, England. Manufacturing receptacles. (Reissue.) No. 13,433; June 25; Sp. p. 6456; Gaz. vol. 179; p. 1076.
Commercial Electric Motor Mfg. Co. (See Endorf, Charles, Jr., assignor.)
Commonwealth Steel Company. (See Frede and Pflager, assignors.)
Company Wilfing, Dahl & Co., A. G. (See Ulrichs, Ernst, assignor.)
Compress Pad & Saddle Company. (See Treece, William F., assignor.)
Compton, William H., Orleans, Ind. Knockdown chicken-coop. No. 1,028,933; June 11; Sp. p. 1886; Gaz. vol. 179; p. 326.
Comstock, Asa M. (See Folger and Comstock.)
Conant, Frank E., Townsend Harbor, Mass. Cow-tail holder. No. 1,030,462; June 25; Sp. p. 5234; Gaz. vol. 179; p. 931.
Condiet, George H., New York, N. Y. Regulating dynamo-electric machines. No. 1,029,276; June 11; Sp. p. 2607; Gaz. vol. 179; p. 443.
Condit, Sears B., Jr. (See Badeau, Charles C., assignor.)
Condit, Sears B., Jr. (See Burnham, George A., assignor.)
Conklin, Charles W., Stony Brook, N. Y. Horse boot or shoe. No. 1,029,594; June 18; Sp. p. 3308; Gaz. vol. 179; p. 588.
Conkling, Samuel G., *et al.* (See Schaffert, Louis, assignor.)
Conley Foil Company. (See Conley, John, assignor.)
Conley, John, assignor to Conley Foil Company, New York, N. Y. Closure for vessels. No. 1,029,424; June 11; Sp. p. 2958; Gaz. vol. 179; p. 495.
Connecticut Telephone & Electric Company, The. (See Bright, Evan D., assignor.)
Connecticut Telephone & Electric Company, The. (See Cuno, Charles, assignor.)
Connell, Edward A. (See Hillyer, George H., assignor.)
Conner, Herschel M., Chicago, Ill., assignor, by mesne assignments, to Standard Light Company, Wilmington, Del. Vapor-burner. No. 1,030,162; June 18; Sp. p. 4540; Gaz. vol. 179; p. 784.
Conner, John F., Oxford, Miss. Car-door. No. 1,030,719; June 25; Sp. p. 6001; Gaz. vol. 179; p. 1023.
Connors, Eugene F., and T. N. Barnsdall, 2d, Bradford, Pa. Roll-holder for labels and the like. No. 1,029,490; June 11; Sp. p. 3082; Gaz. vol. 179; p. 517.
Connors, John W., Dedham, assignor to The Reece Button Hole Machine Company, Boston, Mass. Buttonhole-sewing machine. No. 1,030,570; June 25; Sp. p. 5554; Gaz. vol. 179; p. 969.
Conrad, Frank, Swissvale, and W. M. Bradshaw, Wilkinsburg, Pa., assignors to Westinghouse Electric & Manufacturing Company. Metering system. No. 1,029,743; June 18; Sp. p. 3642; Gaz. vol. 179; p. 642.
Consolidated Car Heating Company. (See McElroy, James F., assignor.)
Conti, James T. F. (See Dusseris and Conti.)
Continental Paper Bag Company. (See King and Irving, assignors.)
Converse, Newton B., Fresno, Cal., assignor to himself, J. E. Dickinson, F. M. Wright, B. W. Norton, L. Z. Ickes, and K. Arakelian, trustees. Rapid-weighing scale. No. 1,029,170; June 11; Sp. p. 2387; Gaz. vol. 179; p. 407.
Converse, Newton B., Fresno, Cal., assignor to N. B. Converse, J. E. Dickinson, F. M. Wright, B. W. Newton, L. Z. Ickes, and K. Arakelian, trustees. Filling, weighing, and packing apparatus. No. 1,029,669; June 18; Sp. p. 3461; Gaz. vol. 179; p. 615.
Conway, James W. (See Lofton, Herbert M., assignor.)
Cook, Charles L., Louisville, Ky. Internal-combustion engine. No. 1,030,806; June 25; Sp. p. 6247; Gaz. vol. 179; p. 1055.
Cook, George W., Jr. (See Elliott and Cook.)
Cook, Stetson S., Falls City, Oreg. Set-screw guard. No. 1,028,546; June 4; Sp. p. 1048; Gaz. vol. 179; p. 160.
Cooke, Eugene B. (See Richardson and Cooke.)
Cookingham, De Witt C., and J. H. Hertner, assignors to The Rauch and Lang Carriage Company, Cleveland, Ohio. Differential gearing. No. 1,029,793; June 18; Sp. p. 3744; Gaz. vol. 179; p. 659.
Cooper, Ellis W., Bloomfield, N. J., assignor to R. Hoe and Co., New York, N. Y. Method of and apparatus for casting curved printing-plates and the like. No. 1,028,330; June 4; Sp. p. 576; Gaz. vol. 179; p. 86.
Cooper Hewitt Electric Company. (See Hewitt, Peter C., assignor.)
Cooper Hewitt Electric Company. (See Hewitt and Rogers, assignors.)
Cooper, John W., Brinkley, Ark. Cattle-guard. No. 1,029,854; June 18; Sp. p. 3908; Gaz. vol. 179; p. 680.
Cooper, William F., and E. P. Chase, Norwalk, Ohio; said Chase assignor to The A. B. Chase Company. Expression mechanism for pianos. No. 1,028,440; June 4; Sp. p. 828; Gaz. vol. 179; p. 125.
Cooper, William F., and E. P. Chase, Norwalk, Ohio; said Chase assignor to The A. B. Chase Company. Slide-valve for air-motors. No. 1,028,862; June 11; Sp. p. 1713; Gaz. vol. 179; p. 300.
Copeland, Edwin T. and E. W., New York, N. Y. Fire-extinguishing apparatus. No. 1,029,277; June 11; Sp. p. 2613; Gaz. vol. 179; p. 443.
Copeland, Edwin W. (See Copeland, Edwin T. and E. W.)
Copeland, George W., assignor of one-half to J. W. Karr, Ensley, Ala. Brush. No. 1,028,547; June 4; Sp. p. 1049; Gaz. vol. 179; p. 160.
Coppage, Benjamin D., Wilmington, Del. Combined conveyer and scraper for centrifugal machines. No. 1,028,934; June 11; Sp. p. 1887; Gaz. vol. 179; p. 326.
Copper Oil Products Company. (See Ellis, Carleton, assignor.)
Coram, John C., Lowell, Mass. Receptacle made of paper and similar sheet material. No. 1,030,163; June 18; Sp. p. 4542; Gaz. vol. 179; p. 785.
Corbin, Charles B., Grand Rapids, Mich. Bracket and case. No. 1,028,811; June 4; Sp. p. 1593; Gaz. vol. 179; p. 249.
Corbit, Wardner N., Farragut, Iowa. Wireless check-rower. No. 1,029,595; June 18; Sp. p. 3310; Gaz. vol. 179; p. 588.
Corditmeyer, Frank H., New York, N. Y. Bubble-blower. No. 1,028,994; June 11; Sp. p. 2021; Gaz. vol. 179; p. 347.
Corley, Quentin D., Dallas, Tex. Automatic hook for artificial arms. No. 1,029,794; June 18; Sp. p. 3746; Gaz. vol. 179; p. 660.
Cornellson, John H., St. Louis, Mo. Swinging window-screen. No. 1,028,679; June 4; Sp. p. 1320; Gaz. vol. 179; p. 204.
Cornelius, B. L., *et al.* (See Smith, Harold T., assignor.)
Corning Glass Works. (See Woods, William J., assignor.)
Corrugated Bar Company. (See Johnson, Albert L., assignor.)
Corry Castor Company. (See Covey, Nathan S., assignor.)
Corsi, Antonio J., Irish Town, Gibraltar. Funnel. No. 1,028,680; June 4; Sp. p. 1322; Gaz. vol. 179; p. 204.
Cortinas, Eugenio F., Breaux Bridge, La. Drill. No. 1,029,491; June 11; Sp. p. 3084; Gaz. vol. 179; p. 517.
Corvilain, Ferdinand J., Bilbao, Spain. Diamond-set tool. No. 1,030,284; June 25; Sp. p. 4841; Gaz. vol. 179; p. 866.
Corwin, Elmer R., assignor to Corwin Telephone Manufacturing Company, Chicago, Ill. Telephony. No. 1,030,504; June 25; Sp. p. 5351; Gaz. vol. 179; p. 946.
Corwin, Elmer R., Chicago, Ill., assignor to Corwin Telephone Manufacturing Company. Telephone system. No. 1,030,505; June 25; Sp. p. 5357; Gaz. vol. 179; p. 946.
Corwin Telephone Manufacturing Company. (See Corwin, Elmer R., assignor.)
Cosavello, Joseph, Moyie, British Columbia, Canada. Device for preventing spread of explosions in coal-mines. No. 1,029,596; June 18; Sp. p. 3311; Gaz. vol. 179; p. 588.
Cosgrove, Joseph J., Philadelphia, Pa. Water-closet connection. No. 1,029,425; June 11; Sp. p. 2960; Gaz. vol. 179; p. 495.
Cottler, Frank E., Mound City, Mo. Rail-joint. No. 1,029,492; June 11; Sp. p. 3085; Gaz. vol. 179; p. 518.
Couls, George R., Tacoma, Wash. Plant-watering device. No. 1,029,107; June 11; Sp. p. 2256; Gaz. vol. 179; p. 385.
Conpal, Peter A., South Boston, Mass., assignor to Buffalo Shoe Co., Buffalo, N. Y. Welt-guide. No. 1,030,285; June 25; Sp. p. 4842; Gaz. vol. 179; p. 866.
Courson, Oliver H., Memphis, Tenn. Device for securing rails to ties. No. 1,029,426; June 11; Sp. p. 2962; Gaz. vol. 179; p. 495.
Coutelle, Carl. (See Hofmann and Coutelle.)
Covell, George S., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-froning apparatus. No. 1,030,647; June 25; Sp. p. 5831; Gaz. vol. 179; p. 998.
Covey, Nathan S., assignor to Corry Castor Company, Corry, Pa. Centering and retaining member for casters. No. 1,029,795; June 18; Sp. p. 3749; Gaz. vol. 179; p. 660.
Cowper, John B., Bayonne, N. J. Oil-burner. No. 1,029,048; June 11; Sp. p. 2130; Gaz. vol. 179; p. 367.
Cox, Oscar M., Plainview, Tex. Traction-engine. No. 1,028,190; June 4; Sp. p. 296; Gaz. vol. 179; p. 38.
Cox, Thomas, Jr., *et al.* (See McKee, Albert K., assignor.)
Cox, Thomas H. (See Whitaker and Cox.)
Coyle, James R., Huntsville, Ala. Wrench. No. 1,029,171; June 11; Sp. p. 2389; Gaz. vol. 179; p. 407.
Craggs, Ross V., Baltimore, Md., assignor, by mesne assignments, to The National Exchange Bank of Baltimore. Bottle-capping machine. No. 1,030,164; June 18; Sp. p. 4543; Gaz. vol. 179; p. 785.
Craig, Robert B., Dayton, Ohio. Machine-tool holder. No. 1,029,172; June 11; Sp. p. 2390; Gaz. vol. 179; p. 407.
Cramer, Frederick B., Bascom, Ohio. Baling-press. No. 1,030,648; June 25; Sp. p. 5833; Gaz. vol. 179; p. 999.

Cramer, Stuart W., and W. B. Hodge, Charlotte, N. C.; said Hodge assignor to said Cramer. Making spray-nozzles. No. 1,028,812; June 4; Sp. p. 1595; Gaz. vol. 179; p. 249.
Cramer, Stuart W., and W. B. Hodge, Charlotte, N. C.; said Hodge assignor to said Cramer. Spray-nozzle for humidifiers. No. 1,028,813; June 4; Sp. p. 1596; Gaz. vol. 179; p. 250.
Crane, Guy G., Rockford, Ill. Fluid-clutch. No. 1,030,463; June 25; Sp. p. 5236; Gaz. vol. 179; p. 932.
Crawford, Edward H., New Orleans, La. Window-screen. No. 1,029,427; June 11; Sp. p. 2963; Gaz. vol. 179; p. 495.
Crawford, Harvey F., assignor of one-half to G. H. Snow, Brockton, Mass. Innersole for welted shoes. No. 1,029,278; June 11; Sp. p. 2615; Gaz. vol. 179; p. 444.
Crego, Zachary T., Columbus, Ohio. Door-hanger. No. 1,029,913; June 18; Sp. p. 4036; Gaz. vol. 179; p. 701.
Creighton, Elmer E. F., Schenectady, N. Y., assignor to General Electric Company. Regulating resistance for electrolytic condensers. No. 1,029,344; June 11; Sp. p. 2777; Gaz. vol. 179; p. 468.
Creighton, James S., Smithflat, Cal. Wheel-dishing device. No. 1,029,279; June 11; Sp. p. 2618; Gaz. vol. 179; p. 444.
Creighton, Nelson B., and S. Block, New York, N. Y. Valve. No. 1,028,681; June 4; Sp. p. 1323; Gaz. vol. 179; p. 204.
Creighton, Nelson B., and S. Block, New York, N. Y. Valve. No. 1,028,682; June 4; Sp. p. 1326; Gaz. vol. 179; p. 205.
Crescent Pump Works. (See Pittman, William T., assignor.)
Crews, Stephen R., assignor of one-half to J. Richardson, Tampa, Fla. Spring-tire for vehicles. No. 1,030,233; June 18; Sp. p. 4705; Gaz. vol. 179; p. 809.
Crews, William E., Terre Haute, Ind. Car-fender. No. 1,029,976; June 18; Sp. p. 4164; Gaz. vol. 179; p. 721.
Cribbins, Frank P., Derby, Conn. Machine for homogenizing milk, cream, &c. No. 1,030,649; June 25; Sp. p. 5834; Gaz. vol. 179; p. 999.
Crites, Valentine, Tanner, W. Va. Trap-holder. No. 1,030,165; June 18; Sp. p. 4549; Gaz. vol. 179; p. 785.
Critton, William H., Fellows, Cal. Drill. No. 1,030,387; June 25; Sp. p. 5073; Gaz. vol. 179; p. 904.
Crocker, Clarence T., Norwood, Ohio, assignor to Allis-Chalmers Company and The Bullock Electric Manufacturing Company. Brush-holder. No. 1,030,571; June 25; Sp. p. 5555; Gaz. vol. 179; p. 969.
Croker, Harold B., London, England. Die-printing press. No. 1,028,191; June 4; Sp. p. 299; Gaz. vol. 179; p. 39.
Cromer, Martin L., Sturgis, Mich. Adjustable chair. No. 1,028,548; June 4; Sp. p. 1051; Gaz. vol. 179; p. 160.
Crompton & Knowles Loom Works. (See Gordon, Albert A., Jr., assignor.)
Crompton & Knowles Loom Works. (See McGuiness, Benjamin F., assignor.)
Crompton & Knowles Loom Works. (See Ryon, Eppa H., assignor.)
Crompton & Knowles Loom Works. (See Wyman, Horace, assignor.)
Crosland, John S., Trenton, N. J. Rope-clip. No. 1,029,345; June 11; Sp. p. 2779; Gaz. vol. 179; p. 468.
Cross, William G., Seneca Falls, N. Y. Motive-fluid mixer for internal-combustion engines. No. 1,030,388; June 25; Sp. p. 5074; Gaz. vol. 179; p. 904.
Crossley, David, Trenton, N. J. Mold for ceramic ware. No. 1,030,389; June 25; Sp. p. 5078; Gaz. vol. 179; p. 905.
Crossley, Joseph, Trenton, N. J. Pottery-jigger. No. 1,028,549; June 4; Sp. p. 1053; Gaz. vol. 179; p. 161.
Crouch & Fitzgerald. (See Gilmore, Winfield S., assignor.)
Crouch, John P., Newton Heath, and J. Etchells, Manchester, England. Electrical distribution system. No. 1,029,428; June 11; Sp. p. 2965; Gaz. vol. 179; p. 496.
Crowley, Daniel W. (See Collins, Wilbur L., assignor.)
Cruzan, Schuyler C., Whittier, Cal. Wrench. No. 1,028,192; June 4; Sp. p. 305; Gaz. vol. 179; p. 39.
Cummings, George A., Bondville, Vt. Manufacturing fire-proof composition. No. 1,028,193; June 4; Sp. p. 306; Gaz. vol. 179; p. 40.
Cunningham, Kittie E., Steele, N. D. Protecting-cap for stop-plugs. No. 1,030,390; June 25; Sp. p. 5080; Gaz. vol. 179; p. 906.
Cunningham, Patrick E., and R. Reid, Chidlows Well, Western Australia, assignors of one-half to V. M. Fitz-Hugh, Doodlakin, Australia. Spark-arrester for locomotives. No. 1,028,683; June 4; Sp. p. 1328; Gaz. vol. 179; p. 205.
Cunningham, William J., Philadelphia, Pa. Vehicle-tire. No. 1,028,331; June 4; Sp. p. 578; Gaz. vol. 179; p. 86.
Cunningham, William R., assignor to The American Clay Machinery Co., Bucyrus, Ohio. Grinding-mill. No. 1,028,550; June 4; Sp. p. 1054; Gaz. vol. 179; p. 161.
Cuno, Charles, assignor to The Connecticut Telephone & Electric Company, Incorporated, Meriden, Conn. Magneto interrupter and timer. No. 1,029,914; June 18; Sp. p. 4037; Gaz. vol. 179; p. 701.
Cureton, Albert. (See Oliver and Cureton.)
Cutler, William C., Sawtelle, Cal. Fountain-brush. No. 1,029,173; June 11; Sp. p. 2392; Gaz. vol. 179; p. 408.
Czabor, Henry, Cleveland, Ohio. Spring-mounting for curtain and shade rollers. No. 1,028,995; June 11; Sp. p. 2022; Gaz. vol. 179; p. 347.
D'Equevilley-Montjustin, Raymond, Kiel, Germany. Soda-boiler steam-power plant. No. 1,029,180; June 11; Sp. p. 2402; Gaz. vol. 179; p. 409.
D'Urso, Vito E., New York, N. Y. Flying-machine. No. 1,028,865; June 11; Sp. p. 1719; Gaz. vol. 179; p. 301.
Daggett, Harry M., Oakland, Cal. Oil-burner. No. 1,029,174; June 11; Sp. p. 2393; Gaz. vol. 179; p. 408.
Dain, Joseph, Ottumwa, Iowa. Gearing. No. 1,028,441; June 4; Sp. p. 836; Gaz. vol. 179; p. 126.
Dain, Joseph, Ottumwa, Iowa. Gearing. No. 1,028,442; June 4; Sp. p. 842; Gaz. vol. 179; p. 126.
Dain, Joseph, Ottumwa, Iowa. Gearing. No. 1,028,551; June 4; Sp. p. 1057; Gaz. vol. 179; p. 161.
Dain Manufacturing Company of Iowa. (See Sperry, Herbert B., assignor.)
Dairymen's Supply Co. (See Steer, Alfred G., assignor.)
Daily, Wendell P., Hope, Ark. Nut-lock. No. 1,029,670; June 18; Sp. p. 3472; Gaz. vol. 179; p. 615.
Dalton, William, Schenectady, N. Y. Track-scale. No. 1,028,194; June 4; Sp. p. 306; Gaz. vol. 179; p. 40.
Daly, Michael, Maryville, Ill. Combination-check. No. 1,028,684; June 4; Sp. p. 1329; Gaz. vol. 179; p. 205.
Danenhower, Elmer U., Orange, N. J. Cover for wash-trays, &c. No. 1,029,175; June 11; Sp. p. 2394; Gaz. vol. 179; p. 408.
Daniel, Percy G. E., Clevedon, and C. A. H. Bullock, London, England. Machine for supplying and affixing stamps. No. 1,029,671; June 18; Sp. p. 3473; Gaz. vol. 179; p. 615.
Daniel, Percy G. E., Clevedon, and C. A. H. Bullock, London, England. Machine for applying and affixing stamps and the like. No. 1,029,672; June 18; Sp. p. 3478; Gaz. vol. 179; p. 616.
Daniels, Fred H., Worcester, Mass., assignor to The American Steel and Wire Company of New Jersey, Hoboken, N. J. Saving heat. No. 1,028,685; June 4; Sp. p. 1330; Gaz. vol. 179; p. 206.
Daniels, Fred H., Worcester, Mass., assignor to The American Steel & Wire Company of New Jersey, Hoboken, N. J. Rod-mill. No. 1,029,673; June 18; Sp. p. 3480; Gaz. vol. 179; p. 617.
Danielson, Gustave F., Youngstown, Ohio. Whiffletree. No. 1,029,507; June 18; Sp. p. 3313; Gaz. vol. 179; p. 589.
Danner, Ralph H., Los Angeles, Cal. Rotary pump. No. 1,030,166; June 18; Sp. p. 4551; Gaz. vol. 179; p. 786.
Danziger, Benno, Mannheim, Germany, assignor to N. H. Heyman, New York, N. Y. Filter. No. 1,029,915; June 18; Sp. p. 4042; Gaz. vol. 179; p. 702.
Darlington, Jesse, Jr., assignor of one-half to A. M. Plumer, Westville, N. J. Gasket. No. 1,030,055; June 18; Sp. p. 4344; Gaz. vol. 179; p. 749.
Darnall, Walter W. (See Wells and Darnill.)
Daugherty, Frank M., Byron, Wash. Hoisting apparatus. No. 1,030,771; June 25; Sp. p. 6140; Gaz. vol. 179; p. 1042.
Davenport, Eugene F., Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Skiving-machine. No. 1,029,176; June 11; Sp. p. 2396; Gaz. vol. 179; p. 408.
Davidson, Eli, Boston, Mass. Cover for magazines, pamphlets, sheet-music, and the like. No. 1,029,280; June 11; Sp. p. 2619; Gaz. vol. 179; p. 444.
Davidson, Frank B., Marseilles, Ill., assignor to Howe and Davidson Company, East Orange, N. J. Container. No. 1,028,195; June 4; Sp. p. 309; Gaz. vol. 179; p. 40.
Davies, David G., Spokane, Wash. Liquid-level indicator. No. 1,029,598; June 18; Sp. p. 3314; Gaz. vol. 179; p. 589.
Davis, Alpha Y., Chicago, Ill. Grip-nut. No. 1,028,196; June 4; Sp. p. 310; Gaz. vol. 179; p. 40.
Davis-Bournonville Acetylene Development Company. (See Whitford, John W., assignor.)
Davis, David R., Eau Claire, Wis. Aeroplane. No. 1,030,772; June 25; Sp. p. 6142; Gaz. vol. 179; p. 1042.
Davis, George H., Advance, Mo. Spring-hub. No. 1,029,429; June 11; Sp. p. 2970; Gaz. vol. 179; p. 497.
Davis, John W. (See Barnett, John B., assignor.)
Davis, John W., assignor of one-half to C. G. Hall, Whitefish, Mont. Oscillating valve. No. 1,030,167; June 18; Sp. p. 4553; Gaz. vol. 179; p. 786.
Davis, Nathan H., Philadelphia, Pa. Brake-beam suspension. No. 1,028,443; June 4; Sp. p. 846; Gaz. vol. 179; p. 126.
Davis, Otis L., Iowa City, Iowa. Burglar-alarm. No. 1,029,281; June 11; Sp. p. 2622; Gaz. vol. 179; p. 445.
Davis, Roy L., Defiance, Ohio. Mail-box. No. 1,030,391; June 25; Sp. p. 5081; Gaz. vol. 179; p. 906.
Davis, William H. (See Clark and Davis.)
Dawson, Charles E., Teddington, England. Apparatus for producing an explosive or combustible mixture of liquid fuel and air. No. 1,029,796; June 18; Sp. p. 3752; Gaz. vol. 179; p. 660.
Dawson, Robert C., East McKeesport, assignor of one-third to T. F. Wiley and one-third to L. N. Morgan, McKeesport, Pa. Pump. No. 1,029,977; June 18; Sp. p. 4166; Gaz. vol. 179; p. 721.
Day, Henry L., Minneapolis, Minn. Dust-collecting system. No. 1,029,531; June 11; Sp. p. 3160; Gaz. vol. 179; p. 530.
Day, Henry L., Minneapolis, Minn. Floor-sweep. No. 1,029,532; June 11; Sp. p. 3162; Gaz. vol. 179; p. 531.
Day, Henry L., Minneapolis, Minn. Separator. No. 1,029,571; June 11; Sp. p. 3250; Gaz. vol. 179; p. 545.

Day, Maxwell W., Schenectady, N. Y., assignor to General Electric Company. Automatic motor control. No. 1,028,332; June 4; Sp. p. 580; Gaz. vol. 179; p. 87.
Day-Ward Company, The. (See Carter, Edwin E., assignor.)
De Bruycker, August M. H., New York, N. Y. Noiseless ash-can. No. 1,028,672; June 4; Sp. p. 1311; Gaz. vol. 179; p. 202.
De Bruycker, August M. H., New York, N. Y. Horseshoe. No. 1,030,168; June 18; Sp. p. 4555; Gaz. vol. 179; p. 787.
De Dontney, Verkie L., Denver, Colo. Robe-rail lock for automobiles. No. 1,029,493; June 11; Sp. p. 3086; Gaz. vol. 179; p. 518.
De Laney, Charles W., Hammond, Ind. Ticket and label cabinet. No. 1,029,346; June 11; Sp. p. 2780; Gaz. vol. 179; p. 468.
De Loach, Alonzo A., Bridgeport, Ala. Sawmill-dog. No. 1,028,863; June 11; Sp. p. 1715; Gaz. vol. 179; p. 301.
De Long Hook & Eye Company, The. (See Grant, Harriott, assignor.)
De Mars, Arthur J., *et al.* (See De Mars, Joseph, assignor.)
De Mars, Joseph, San Francisco, Cal., assignor of two-fifths to F. M. Johnson, Cheyenne, Wyo., one-fifth to A. J. Walker, Niagara Falls, N. Y., and one-fifth to A. J. De Mars, San Francisco, Cal. Sash lock and antirattler. No. 1,030,506; June 25; Sp. p. 5362; Gaz. vol. 179; p. 947.
De Martis, Horace, London, England. Electric battery. No. 1,030,650; June 25; Sp. p. 5836; Gaz. vol. 179; p. 999.
De Mattia, Constant, assignor to Red Cross Vacuum Cleaner Company, Detroit, Mich. Vacuum-cleaner. No. 1,029,916; June 18; Sp. p. 4045; Gaz. vol. 179; p. 702.
De Mattos, Percy T., *et al.* (See Campbell, Howard S., assignor.)
De Quillfeldt, Charles, Amityville, N. Y. Attachment for water-closet seats. No. 1,030,720; June 25; Sp. p. 6003; Gaz. vol. 179; p. 1024.
De Sheppard, Albert C., Bloomsburg, Pa. Hat-pin guard. No. 1,029,049; June 11; Sp. p. 2132; Gaz. vol. 179; p. 367.
De Viese, McRoy, Fresno, Cal. Puncture-proof tire. No. 1,028,334; June 4; Sp. p. 586; Gaz. vol. 179; p. 88.
De Vilbiss, Allen, Jr., assignor to Toledo Computing Scale Company, Toledo, Ohio. Weighing-scale. No. 1,028,552; June 4; Sp. p. 1064; Gaz. vol. 179; p. 162.
De Wind, Norman, assignor to Austin Manufacturing Company, Chicago, Ill. Road-scarifier. No. 1,030,287; June 25; Sp. p. 4845; Gaz. vol. 179; p. 867.
De Wolfe, Charles H., New York, N. Y. Wagon-body extension. No. 1,028,100; June 4; Sp. p. 17; Gaz. vol. 179; p. 5.
Dean Electric Company, The. (See Barbour, John F., assignor.)
Dean Electric Company, The. (See Manson, Ray H., assignor.)
Dean, Harry. (See Turner and Dean.)
Dean, William. (See Drew, Arkinstall, and Dean.)
Dederick, Ezra, Wisconsin Veterans Home, Wis. Roller-bearing. No. 1,029,797; June 18; Sp. p. 3755; Gaz. vol. 179; p. 661.
Degraw, Abbie, Provo, Utah. Scrubbing-machine. No. 1,030,392; June 25; Sp. p. 5082; Gaz. vol. 179; p. 906.
Delac Plaster Co. (See Cameron, De Lancey A., assignor.)
Delaney, Joseph P., assignor to Municipal Supplies Company, Pittsburgh, Pa. Pressure-regulating valve. No. 1,028,098; June 4; Sp. p. 12; Gaz. vol. 179; p. 5.
Delorme, Louis A., *et al.* (See Lord, Peter, assignor.)
Delta-Star Electric Company. (See Hall, Chester P., assignor.)
Demarest, David C., San Francisco, Cal. Rock-drill. No. 1,029,855; June 18; Sp. p. 3909; Gaz. vol. 179; p. 680.
Deming, William L., Salem, Ohio. Game-counter. No. 1,028,935; June 11; Sp. p. 1888; Gaz. vol. 179; p. 326.
Demonte, Mario, Gorizia, Austria-Hungary. Starting device for motor-vehicles and the like. No. 1,028,686; June 4; Sp. p. 1332; Gaz. vol. 179; p. 206.
Dempster, John T. H., Schenectady, N. Y., assignor to General Electric Company. Protective covering for resistance-conductors. No. 1,028,444; June 4; Sp. p. 848; Gaz. vol. 179; p. 127.
Denaro, Vincenzo, Newton, Conn. Fire-escape. No. 1,028,687; June 4; Sp. p. 1334; Gaz. vol. 179; p. 206.
Denne, Mark T., Rushden, England. Slugging or nailing machine. No. 1,029,108; June 11; Sp. p. 2257; Gaz. vol. 179; p. 385.
Denton, Arthur, Taylorville, Ill. Harness-hook. No. 1,029,347; June 11; Sp. p. 2781; Gaz. vol. 179; p. 469.
Derry, Robert, Singapore, Straits Settlements. Curing of india-rubber. No. 1,030,651; June 25; Sp. p. 5837; Gaz. vol. 179; p. 999.
Desenberg, Edward B., Kalamazoo, and E. S. Pilsworth, Battle Creek, Mich. Propeller. No. 1,028,333; June 4; Sp. p. 583; Gaz. vol. 179; p. 87.
Desilets, Azade D., Sherbrooke East, Quebec, Canada. Combination-level. No. 1,029,744; June 18; Sp. p. 3644; Gaz. vol. 179; p. 642.
Devereaux, Francis A., assignor of one-half to F. M. Donnelly, Minneapolis, Minn. Nail-driving device. No. 1,030,286; June 25; Sp. p. 4843; Gaz. vol. 179; p. 867.
Devine, Timothy B., Waterbury, Conn. Clothes-line controller. No. 1,028,099; June 4; Sp. p. 14; Gaz. vol. 179; p. 5.
Dewey, Harper W., Sidney Center, N. Y. Feed-hopper. No. 1,028,445; June 4; Sp. p. 849; Gaz. vol. 179; p. 127.
Dice, Andrew F., Joliet, Ill. Medicated nest-egg. No. 1,030,056; June 18; Sp. p. 4345; Gaz. vol. 179; p. 750.
Dickey, Aaron F., Somerset, Pa. Transmission-gearing. No. 1,029,100; June 11; Sp. p. 2259; Gaz. vol. 179; p. 386.
Dickinson, J. E., *et al.*, trustees. (See Converse, Newton B., assignor.)
Dickinson, Joseph H., Cranford, N. J. Player-piano. No. 1,028,996; June 11; Sp. p. 2024; Gaz. vol. 179; p. 348.
Diebold, Emil, Eunethaden, Switzerland. Plaiting-machine. No. 1,028,446; June 4; Sp. p. 850; Gaz. vol. 179; p. 127.
Diedreach, Charles, Stockton, Cal. Railway-crossing. No. 1,029,978; June 18; Sp. p. 4169; Gaz. vol. 179; p. 722.
Dilks, Frank W., Philadelphia, Pa., D. Reyam and E. E. Du Pont, Wilmington, Del.; said Dilks assignor to said Reyam and said Du Pont. Automobile-heater. No. 1,028,553; June 4; Sp. p. 1068; Gaz. vol. 179; p. 162.
Dill, Harry E. (See Marsh and Dill.)
Disbrow, Reuben R., Owatonna, Minn. Combined churn and butter-worker. No. 1,029,798; June 18; Sp. p. 3756; Gaz. vol. 179; p. 661.
Doble, May E. (See Doble, William A., assignor.)
Doble, William A., assignor to M. E. Doble, San Francisco, Cal. Hydraulic apparatus and means for operating the same. No. 1,028,197; June 4; Sp. p. 312; Gaz. vol. 179; p. 41.
Doble, William A., assignor to M. E. Doble, San Francisco, Cal. Hydro-electric unit. No. 1,028,554; June 4; Sp. p. 1070; Gaz. vol. 179; p. 163.
Doble, William A., San Francisco, assignor to M. E. Doble, Alameda, Cal. Impact water-motor. No. 1,030,393; June 25; Sp. p. 5084; Gaz. vol. 179; p. 906.
Dodd, Arthur, Howard township, Cass county, Mich. Band-cutter and feeder. No. 1,030,067; June 18; Sp. p. 4346; Gaz. vol. 179; p. 750.
Dodd, John W., Lynchburg, Va. Wheel construction. No. 1,028,688; June 4; Sp. p. 1335; Gaz. vol. 179; p. 207.
Dodson, William S., Springfield, Mo., assignor to Humason Rail Joint Company. Rail-joint. No. 1,030,842; June 25; Sp. p. 6419; Gaz. vol. 179; p. 1069.
Doerr, Harry E., assignor to Scullin-Gallagher Iron & Steel Company, St. Louis, Mo. Four-wheel truck. No. 1,030,394; June 25; Sp. p. 5088; Gaz. vol. 179; p. 907.
Doles, Elijah, Pine Bluff, Ark. Pocket-knife. No. 1,030,058; June 18; Sp. p. 4347; Gaz. vol. 179; p. 750.
Domestic Appliances Company. (See Flynt, Louis W. G., assignor.)
Donahoe, Hedley J., assignor of one-half to T. C. Tiedebohl, Chicago, Ill. Metallic vehicle-wheel. No. 1,029,856; June 18; Sp. p. 3912; Gaz. vol. 179; p. 681.
Donald, Edwin S. (See Donald, Henry B. and E. S.)
Donald, Henry B. and E. S., Leeds, England. Combination-boiler for heating apparatus and hot-water supply. No. 1,028,555; June 4; Sp. p. 1072; Gaz. vol. 179; p. 163.
Donnelly, Frank M. (See Devereaux, Francis A., assignor.)
Donovan, John W. (See Merwin and Donovan.)
Doosor, Frederick M., Doncaster, England. Apparatus for cleaning and separating seeds and the like. No. 1,028,447; June 4; Sp. p. 853; Gaz. vol. 179; p. 127.
Double Body Bolster Company. (See Howard and Prager, assignors.)
Double Body Bolster Company. (See Westlake and Frede, assignors.)
Douglass, Arthur L., Tularosa, N. Mex. Pump-rod coupling. No. 1,028,689; June 4; Sp. p. 1336; Gaz. vol. 179; p. 207.
Douthit, George O., Summers, Ark., assignor to M. M. McCoy, Westville, Okla. Lock-nut. No. 1,030,464; June 25; Sp. p. 5237; Gaz. vol. 179; p. 932.
Dove, Alfred A., Los Angeles, Cal. Resilient driving mechanism for motor-cycles. No. 1,028,335; June 4; Sp. p. 587; Gaz. vol. 179; p. 88.
Dow, Willard E., Braintree, Mass. Ignition system for gas-engines. No. 1,030,288; June 25; Sp. p. 4847; Gaz. vol. 179; p. 867.
Down, Ernest U., Bowling Green, Ohio. Trolley-wheel. No. 1,029,050; June 11; Sp. p. 2133; Gaz. vol. 179; p. 367.
Downing, John H., Stillwater, Minn., assignor to the State of Minnesota. Pitman connection for harvesting-machines. No. 1,029,533; June 11; Sp. p. 3163; Gaz. vol. 179; p. 531.
Downing, John H., Stillwater, Minn., assignor to the State of Minnesota. Harvester-truck. No. 1,029,534; June 11; Sp. p. 3165; Gaz. vol. 179; p. 531.
Downing, John H., Stillwater, Minn., assignor to State of Minnesota. Harvester. No. 1,030,652; June 25; Sp. p. 5840; Gaz. vol. 179; p. 1000.
Doyle, Ashton H., Johnson City, Tenn. Coat-hanger. No. 1,030,253; June 18; Sp. p. 4742; Gaz. vol. 179; p. 816.
Drake, William, *et al.* (See Morral, John, assignor.)
Draper Company. (See Jamieson, Robert, assignor.)
Draper Company. (See Walmsley, William, assignor.)
Dreher, Phillip J., Toledo, Ohio. Type-writing machine. No. 1,028,556; June 4; Sp. p. 1073; Gaz. vol. 179; p. 163.
Dreher, Phillip J., Toledo, Ohio. Sheet-perforating machine. No. 1,028,557; June 4; Sp. p. 1078; Gaz. vol. 179; p. 164.

Dreher, Phillip J., Toledo, Ohio. Line-spacing mechanism for type-writers. No. 1,028,845; June 4; Sp. p. 1668; Gaz. vol. 179; p. 260.
Drew, Albert E., J. Arkinstall, and W. Dean, Bolton, England. Apparatus and means for spinning, doubling, and forming cops. No. 1,030,261; June 18; Sp. p. 4761; Gaz. vol. 179; p. 820.
Driver, Charles H., Racine, Wis. Swinging-fixture mounting. No. 1,028,864; June 11; Sp. p. 1717; Gaz. vol. 179; p. 301.
Drobinski, Francis J., New York, N. Y., assignor to Revere Rubber Company, Chelsea, Mass. Ventilating-cushion for footwear. No. 1,029,110; June 11; Sp. p. 2262; Gaz. vol. 179; p. 386.
Drugan, Samuel, and J. Schoenthaler, assignors to Cochran, Drugan & Co., Trenton, N. J. Flush-tank cover. No. 1,030,059; June 18; Sp. p. 4348; Gaz. vol. 179; p. 750.
Drury, Archie, Elgin, Kans. Heading device for Kafir corn and the like. No. 1,028,690; June 4; Sp. p. 1337; Gaz. vol. 179; p. 207.
Dryfoos, Alphons, New York, N. Y. Non-refillable bottle. No. 1,029,348; June 11; Sp. p. 2782; Gaz. vol. 179; p. 469.
Du Pont, Eugene C. (See Dilks, Reyam, and Du Pont.)
Dubied, Edouard, assignor to Edouard Dubied & Cie., Couvet, Switzerland. Knitting-machine. No. 1,029,494; June 11; Sp. p. 3089; Gaz. vol. 179; p. 518.
Düchting, Wilhelm, Berlin, assignor to P. Rath, Krakau, Germany. Stabilizing device for flying-machines. No. 1,028,336; June 4; Sp. p. 588; Gaz. vol. 179; p. 88.
Dulany, William T., Jr., Arlington, N. J. Spring-wheel. No. 1,029,177; June 11; Sp. p. 2398; Gaz. vol. 179; p. 409.
Dulin, John L., assignor to The Hoosier Account Register Company, Noblesville, Ind. Account-register. No. 1,030,289; June 25; Sp. p. 4849; Gaz. vol. 179; p. 888.
Dull, Raymond W., Aurora, Ill. Pulley. No. 1,029,535; June 11; Sp. p. 3171; Gaz. vol. 179; p. 532.
Dulles, William, Englewood, N. J. Tank-flushing apparatus. No. 1,028,198; June 4; Sp. p. 314; Gaz. vol. 179; p. 41.
Dun Lany, William P., assignor to E. L. Thurston, trustee, Cleveland, Ohio. Ticket-issuing machine. No. 1,028,199; June 4; Sp. p. 318; Gaz. vol. 179; p. 42.
Dunagin, Marion, Waco, Tex. Mold. No. 1,029,674; June 18; Sp. p. 3482; Gaz. vol. 179; p. 617.
Duncan, James E., Elton, La. Combined step and extension ladder. No. 1,028,691; June 4; Sp. p. 1338; Gaz. vol. 179; p. 208.
Duncan, Le Berten T., Loup Pine, Nebr. Sanding device. No. 1,029,509; June 18; Sp. p. 3316; Gaz. vol. 179; p. 590.
Dunham, John C., and F. A. Turner, Greenville, Ohio. Hydrocarbon-burner. No. 1,030,843; June 25; Sp. p. 6420; Gaz. vol. 179; p. 1069.
Dunham, William G., East Lansdowne, Pa. Sewing-machine attachment. No. 1,029,917; June 18; Sp. p. 4046; Gaz. vol. 179; p. 703.
Dunkley, Melville E., Kalamazoo, Mich. Machine for stemming cherries. No. 1,029,918; June 18; Sp. p. 4048; Gaz. vol. 179; p. 703.
Dunn, Frederick W., Chicago, Ill., assignor to G. H. Harrison and G. E. McGibney, Corning, N. Y. Building-block. No. 1,028,814; June 4; Sp. p. 1598; Gaz. vol. 179; p. 250.
Dunn, William R., Easton, Pa. Powdered-fuel-feeding apparatus. No. 1,028,997; June 11; Sp. p. 2026; Gaz. vol. 179; p. 348.
Dunton, George E., New York, N. Y. Composition of matter for use in removing grease, &c., from molds used in electrotyping. No. 1,030,290; June 25; Sp. p. 4851; Gaz. vol. 179; p. 868.
Dusseris, Henri F. E. S., and J. T. F. Conti, Paris, France. Lantern and plates therefor. No. 1,028,692; June 4; Sp. p. 1340; Gaz. vol. 179; p. 208.
Dutcher, Frank, Versailles, Pa. Parade-torch. No. 1,029,051; June 11; Sp. p. 2134; Gaz. vol. 179; p. 367.
Dutchess Tool Company. (See Van Houten, Frank H., Jr., assignor.)
Dye, J. C., *et al.* (See Huntley, Stephen A., assignor.)
Dyer, Frank L. (See Aylsworth, Jonas W., assignor.)
Dyer, Ralph A., Bangor, Me. Coal-chute. No. 1,030,653; June 25; Sp. p. 5843; Gaz. vol. 179; p. 1001.
Dyer, Wayne H. (See Ruel, St. Aubin, Dyer, and Sawyer.)
E. C. Atkins & Company. (See Henderson, Minor J., assignor.)
Eadie, John M., New York, N. Y., assignor to Eadie Vehicle Gear Company. Turning device for vehicles. No. 1,028,866; June 11; Sp. p. 1723; Gaz. vol. 179; p. 302.
Eadie Vehicle Gear Company. (See Eadie, John M., assignor.)
Eagle Lock Co. (See Murphy, James J., assignor.)
Eastlund, Edvard, and J. A. Johnson, New York, N. Y. Tool for leveling saw-teeth. No. 1,028,448; June 4; Sp. p. 854; Gaz. vol. 179; p. 128.
Eastman, George, assignor to Eastman Kodak Company, Rochester, N. Y. Plate or film for color photography. No. 1,028,337; June 4; Sp. p. 590; Gaz. vol. 179; p. 89.
Eastman, Gerard L., and A. Hicks, Roslyn, N. Y. Apparatus for generating and storing acetylene. No. 1,028,558; June 4; Sp. p. 1081; Gaz. vol. 179; p. 164.
Eastman Kodak Co. (See Ruttan and Hutchings, assignors.)
Eastman Kodak Company. (See Eastman, George, assignor.)
Eaton, Albert N., Omaha, Nebr. Fountain-tank. No. 1,028,998; June 11; Sp. p. 2028; Gaz. vol. 179; p. 348.
Eaton, Albert N., Omaha, Nebr. Sectionized tank. No. 1,029,745; June 18; Sp. p. 3645; Gaz. vol. 179; p. 643.
Eaton, William G., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Edge-chamfering machine. No. 1,029,178; June 11; Sp. p. 2400; Gaz. vol. 179; p. 409.
Ebbley, Norman, Wallace, Idaho. Muck-shovel. No. 1,029,799; June 18; Sp. p. 3758; Gaz. vol. 179; p. 662.
Eberhardt, Frederick L., assignor to Gould & Eberhardt, Newark, N. J. Multiple-gear-cutting machine. No. 1,030,291; June 25; Sp. p. 4852; Gaz. vol. 179; p. 869.
Eberhardt, Frederick L., and W. F. Zimmermann, Newark, N. J. Universal gear-cutter. No. 1,028,815; June 4; Sp. p. 1599; Gaz. vol. 179; p. 250.
Eby, John A. (See Johnson and Eby.)
Echternach, Harry S., assignor to V. A. Meck, Strasburg, Pa. Carbureter-adjusting device. No. 1,029,111; June 11; Sp. p. 2263; Gaz. vol. 179; p. 387.
Eden Company, The. (See Clarke, George L., assignor.)
Edgar Allen American Manganese Steel Company. (See Black, Edward S., assignor.)
Edison, Thomas A. (See Aiken, Edward L., assignor.)
Edison, Thomas A. (See Aylsworth, Jonas W., assignor.)
Edison, Thomas A., Llewellyn Park, Orange, N. J. Discharging apparatus for belt conveyers. (Reissue.) No. 13,434; June 25; Sp. p. 6457; Gaz. vol. 179; p. 1076.
Edmondson, Alfred E., Chicago, Ill. Envelop-fastener. No. 1,030,507; June 25; Sp. p. 5364; Gaz. vol. 179; p. 947.
Edouard Dubied & Cie. (See Dubied, Edouard, assignor.)
Edward Miller & Company. (See Homan, William C., assignor.)
Egan, Edward J., *et al.* (See Elkin, Warren, assignor.)
Eggers, Fred W., Wausau, Wis. Attachment for grindstones. No. 1,028,693; June 4; Sp. p. 1342; Gaz. vol. 179; p. 209.
Egli, Arnold, assignor to Vogtlandische Maschinen-Fabrik (vormals J. C. & H. Dietrich) A. G., Plauen, Germany. Machine for casting and finishing cylindrical stereotype-plates. No. 1,028,694; June 4; Sp. p. 1343; Gaz. vol. 179; p. 209.
Ehrhart, Raymond N., Edgewood Park, assignor, by mesne assignments, to The Colonial Trust Company, trustee, Pittsburgh, Pa. Fluid-translating device. No. 1,029,979; June 18; Sp. p. 4170; Gaz. vol. 179; p. 722.
Ehrlich, Paul, and L. Benda, Frankfort-on-the-Main, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Arseno compound. No. 1,028,101; June 4; Sp. p. 19; Gaz. vol. 179; p. 6.
Eisenhuth, John W., Brooklyn, N. Y. Reversing mechanism for motors. No. 1,029,430; June 11; Sp. p. 2971; Gaz. vol. 179; p. 497.
Eldridge, Charles C., and E. J. Beebe, Marshalltown, Iowa. Spark-plug. No. 1,028,200; June 4; Sp. p. 321; Gaz. vol. 179; p. 43.
Electric Signagraph and Semaphore Company, The. (See Webb, Jean F., Jr., assignor.)
Electrode Company of America. (See Héroult, Paul L. T., assignor.)
Eley Brothers Limited. (See Goodwin, Ernest, assignor.)
Elkin, Warren, assignor of two-ninths to G. A. Green, two-ninths to J. P. Monroe, and two-ninths to E. J. Egan, Winchester, Ky. Belt-shifter. No. 1,029,495; June 11; Sp. p. 3094; Gaz. vol. 179; p. 519.
Ellingen, Wilhelm, Cologne-Lindenthal, Germany. Aerial electric line. No. 1,030,060; June 18; Sp. p. 4350; Gaz. vol. 179; p. 750.
Elliot, Frank F. (See Knowlton and Elliot.)
Elliott, Alvin D., Lawrence, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Nailing-machine. No. 1,030,654; June 25; Sp. p. 5844; Gaz. vol. 179; p. 1001.
Elliott, Robert E., and G. W. Cook, Jr., Bainbridge, N. Y. Sugar-can. No. 1,029,431; June 11; Sp. p. 2973; Gaz. vol. 179; p. 497.
Elliott, Sterling, Newton, Mass. Addressing-machine. No. 1,029,112; June 11; Sp. p. 2265; Gaz. vol. 179; p. 387.
Ellis, Carleton, Montclair, N. J., assignor to Copper Oil Products Company, New York, N. Y. Preserving wood. No. 1,028,201; June 4; Sp. p. 323; Gaz. vol. 179; p. 43.
Ellis, Carleton, Larchmont, N. Y., assignor to Ellis-Foster Company. Wood-oil putty. No. 1,029,800; June 18; Sp. p. 3762; Gaz. vol. 179; p. 662.
Ellis, Edwin H., Cincinnati, Ohio. Cigar cell or pocket. No. 1,030,655; June 25; Sp. p. 5856; Gaz. vol. 179; p. 1001.
Ellis-Foster Company. (See Ellis, Carleton, assignor.)
Ellis, John, Salem, Mo. Insulator. No. 1,029,980; June 18; Sp. p. 4171; Gaz. vol. 179; p. 723.
Ellsworth, Augustus, Oilcenter, and A. F. and R. C. Abbott, Bakersfield, Cal. Pumping mechanism. No. 1,028,238; June 4; Sp. p. 591; Gaz. vol. 179; p. 89.
Ellsworth, Elmer E., Portland, Oreg., assignor to Ellsworth Spark Arrester Company. Spark-arrester for smoke-stacks. No. 1,028,449; June 4; Sp. p. 856; Gaz. vol. 179; p. 128.
Ellsworth, Elmer E., Palmer, Oreg., assignor to Ellsworth Spark Arrester Company. Spark-arrester. No. 1,028,450; June 4; Sp. p. 857; Gaz. vol. 179; p. 128.

Ellsworth Spark Arrester Company. (See Ellsworth, Elmer E., assignor.)
Elshoff, Bernard, Cincinnati, Ohio, assignor to The Bullock Electric Manufacturing Company. Dynamo-electric machine. No. 1,030,061; June 18; Sp. p. 4350; Gaz. vol. 179; p. 750.
Elvin, Albert G., East Orange, N. J. Fluid-pressure motor. No. 1,030,062; June 18; Sp. p. 4352; Gaz. vol. 179; p. 752.
Elvin, Albert G., East Orange, N. J. Fluid-pressure motor. No. 1,030,063; June 18; Sp. p. 4355; Gaz. vol. 179; p. 752.
Elvin, Albert G., East Orange, N. J. Fluid-pressure motor for fire-box doors. No. 1,030,234; June 18; Sp. p. 4706; Gaz. vol. 179; p. 810.
Elvin, Albert G., Somerville, N. J. Fluid-pressure motor for fire-box doors or other reciprocating members. No. 1,030,064; June 18; Sp. p. 4358; Gaz. vol. 179; p. 752.
Elvin, Albert G., Somerville, N. J. Pipe-joint. No. 1,030,065; June 18; Sp. p. 4361; Gaz. vol. 179; p. 752.
Elzas, Martin, assignor to Liberty Vending Co., New York, N. Y. Vending-machine. No. 1,029,113; June 11; Sp. p. 2267; Gaz. vol. 179; p. 387.
Emch, Garrett F., Woodville, Ohio. Automatic fire-alarm apparatus. No. 1,029,179; June 11; Sp. p. 2401; Gaz. vol. 179; p. 409.
Emerick, George S., Nazareth, Pa. Grinding-mill. No. 1,028,867; June 11; Sp. p. 1728; Gaz. vol. 179; p. 302.
Emery, Edward C., Los Angeles, Cal. Apparatus for treating waste. No. 1,030,169; June 18; Sp. p. 4556; Gaz. vol. 179; p. 787.
Emery, Frederick H. (See Griffin, Austin L., assignor.)
Endorf, Charles, Jr., assignor to Commercial Electric Motor Mfg. Co., Chicago, Ill. Massage apparatus. No. 1,029,999; June 11; Sp. p. 2030; Gaz. vol. 179; p. 349.
Engberg, Arvid L., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tack-saving device. No. 1,029,857; June 18; Sp. p. 3913; Gaz. vol. 179; p. 681.
Engberg, Arvid L., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Mechanism for inserting fastenings. No. 1,030,572; June 25; Sp. p. 5559; Gaz. vol. 179; p. 970.
Engelmann, Max, and B. Merkel, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Alkyl ether of isourea. No. 1,028,936; June 11; Sp. p. 1891; Gaz. vol. 179; p. 327.
England, Ivy H., Hendersonville, N. C. Wagon-standard. No. 1,028,816; June 4; Sp. p. 1600; Gaz. vol. 179; p. 251.
England, William, Callao, Peru. Telegram-blank. No. 1,028,695; June 4; Sp. p. 1345; Gaz. vol. 179; p. 209.
Engle, Charles J., B. W. Freeman, and D. E. Neal, Moline, Ill. Steering-gear. No. 1,029,052; June 11; Sp. p. 2135; Gaz. vol. 179; p. 368.
English, Peter, assignor to M. P. Ropp, San Francisco, Cal. Reversible hydraulic transmission. No. 1,028,451; June 4; Sp. p. 859; Gaz. vol. 179; p. 129.
Englund, Paul J., Falun, Kans. Pusher attachment for sweep-rakes. No. 1,030,292; June 25; Sp. p. 4855; Gaz. vol. 179; p. 869.
Enslin, Herbert E., Malden, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for lacing shoe-uppers. No. 1,030,573; June 25; Sp. p. 5566; Gaz. vol. 179; p. 970.
Eppler, Andrew, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-jack. No. 1,029,000; June 11; Sp. p. 2032; Gaz. vol. 179; p. 349.
Eppler, Andrew, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Welt-guide for shoe-sewing machines. No. 1,030,721; June 25; Sp. p. 6005; Gaz. vol. 179; p. 1024.
Epstein, Max, assignor to The German American Car Company, Chicago, Ill. Car. No. 1,029,919; June 18; Sp. p. 4053; Gaz. vol. 179; p. 703.
Erdale, Bernard, New York, N. Y. Single-use bottle. No. 1,028,696; June 4; Sp. p. 1346; Gaz. vol. 179; p. 210.
Erickson, Frederic W., New York, N. Y. Outlet-bushing. No. 1,030,293; June 25; Sp. p. 4857; Gaz. vol. 179; p. 869.
Erickson, John E., St. Paul, Minn. Bending-machine. No. 1,028,102; June 4; Sp. p. 20; Gaz. vol. 179; p. 6.
Erlach, Frank, Iron Mountain, Mich. Floor-tread. No. 1,029,675; June 18; Sp. p. 3484; Gaz. vol. 179; p. 617.
Erlandson, August, Chicago, Ill. Pouring-gate for castings. No. 1,030,066; June 18; Sp. p. 4362; Gaz. vol. 179; p. 752.
Erwin, William W., New York, N. Y. Automatic burglar-alarm. No. 1,030,067; June 18; Sp. p. 4364; Gaz. vol. 179; p. 753.
Eschellmann, Georg, and A. Harmuth, St. Petersburg, Russia, assignors to General Chemical Company, New York, N. Y. Contact-chamber. No. 1,030,503; June 25; Sp. p. 5365; Gaz. vol. 179; p. 947.
Escher, Gustav E., South Orange, N. J. Soffit-clip. No. 1,028,559; June 4; Sp. p. 1084; Gaz. vol. 179; p. 165.
Estes, Charles E., Medusa, assignor of one-fourth to L. B. Scutt, Livingstonville, and three-fourths to N. O. Estes, Medusa, N. Y. Railway-switch. No. 1,029,349; June 11; Sp. p. 2784; Gaz. vol. 179; p. 469.
Estes, Nellie O., *et al.* (See Estes, Charles E., assignor.)
Estlin, Eustace S., Winnipeg, Manitoba, Canada. Dust-collecting tank for street-sweepers. No. 1,030,773; June 25; Sp. p. 6145; Gaz. vol. 179; p. 1042.
Etchells, James. (See Crouch and Etchells.)
Ette, Charles G., assignor to Ette Investment Company, St. Louis, Mo. Insulator-supporting device. No. 1,030,574; June 25; Sp. p. 5581; Gaz. vol. 179; p. 970.
Ette Investment Company. (See Ette, Charles G., assignor.)
Eubank, Luther, Raymond, Cal. Milk-pail. No. 1,028,339; June 4; Sp. p. 593; Gaz. vol. 179; p. 89.
Evans, Charles A., Jr. (See Jess, Peter, assignor.)
Evans, David H. (See Taylor and Evans.)
Evans, James M., Westport, Conn. Collapsible sled. No. 1,030,170; June 18; Sp. p. 4559; Gaz. vol. 179; p. 788.
Evans, John W. (See O'Neil, Charley, assignor.)
Evans, Owen B. (See Rusby and Evans.)
Evans, Samuel W., Bloomington, Ill. Bird-trap. No. 1,029,053; June 11; Sp. p. 2137; Gaz. vol. 179; p. 368.
Evans, William W. (See Hawthorne, Howard, assignor.)
Evensen, William, assignor to The Goss Printing Press Company, Chicago, Ill. Plate-clamping mechanism for printing-presses. No. 1,028,340; June 4; Sp. p. 594; Gaz. vol. 179; p. 90.
Everitt, Cyrus, Sidney, Ill. Rail-joint. No. 1,028,817; June 4; Sp. p. 1611; Gaz. vol. 179; p. 251.
Evers, Emile E., assignor of one-fourth to G. A. Sauer and one-half to H. Siede, New York, N. Y. Fur. No. 1,029,858; June 18; Sp. p. 3917; Gaz. vol. 179; p. 682.
Ewing, James C., San Francisco, Cal. Registering device for turnstiles. No. 1,030,068; June 18; Sp. p. 4368; Gaz. vol. 179; p. 753.
F. A. Whitney Carriage Co. (See Ambler, George B., assignor.)
F. W. Webb Manufacturing Company. (See Gorman, David W., assignor.)
Fabrizi, Giuseppe, Pittsburgh, Pa. Rail-joint. No. 1,029,054; June 11; Sp. p. 2138; Gaz. vol. 179; p. 368.
Faerber, William, Chicago, Ill. Apparatus for shampooing ladies' hair. No. 1,028,341; June 4; Sp. p. 597; Gaz. vol. 179; p. 90.
Fahrman, Frank. (See Fahrman and Bolton.)
Fahrman, William and F., and D. Bolton, Joplin, Mo. Liquid-cooler. No. 1,029,981; June 18; Sp. p. 4172; Gaz. vol. 179; p. 723.
Fairbanks, Alfred C. (See Bullard, James H. and E. W., assignors.)
Fairbanks, Leonard M., assignor to The Henry G. Thompson & Son Company, New Haven, Conn. Hacksaw-machine. No. 1,028,342; June 4; Sp. p. 598; Gaz. vol. 179; p. 90.
Fairley, John W. (See Kilburn, Fairley, Kidner, Irvine, and Chestnut.)
Faitelowitz, Arnold, Halensee, near Berlin, Germany. Testing the freshness of milk. No. 1,030,171; June 18; Sp. p. 4560; Gaz. vol. 179; p. 788.
Fake, Irving L., Baltimore, Md. Signal. No. 1,029,432; June 11; Sp. p. 2975; Gaz. vol. 179; p. 498.
Fallows, Edward H. (See Sargent, Fitz William, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Engelmann and Merkel, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Hofmann and Coutelle, assignors.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Rünkel, Friedrich, assignor.)
Farbenfabriken vorm. Friedr. Bayer & Co. (See Thomaschewski, Paul, assignor.)
Farbwerke vorm. Meister Lucius & Brüning. (See Ehrlich and Benda, assignors.)
Farbwerke vorm. Meister Lucius & Brüning. (See Schmidt and Kränzlein, assignors.)
Farbwerke vorm. Meister Lucius & Brüning. (See Schmidt and Thiess, assignors.)
Farbwerke vorm. Meister Lucius & Brüning. (See Scholl, Franz, assignor.)
Fargason, Green D., Camp Hill, Ala. Cotton chopper and cultivator. No. 1,029,282; June 11; Sp. p. 2623; Gaz. vol. 179; p. 445.
Farkas, Kálmán, assignor of one-half to J. Gerbovich, New York, N. Y. Music-cabinet attachment for pianos. No. 1,028,697; June 4; Sp. p. 1347; Gaz. vol. 179; p. 210.
Farkas, Karl, Glen Ridge, assignor to J. E. Walscheid, Weehawken, N. J. Metallic-filament lamp. No. 1,029,350; June 11; Sp. p. 2785; Gaz. vol. 179; p. 470.
Farley, Thomas H. (See Farley, William F. and T. H.)
Farley, William F. and T. H., Eldorado, Okla. Grocery-cabinet. No. 1,030,172; June 18; Sp. p. 4561; Gaz. vol. 179; p. 788.
Farling, John H., Chicago, Ill. Garbage-pail holder. No. 1,028,698; June 4; Sp. p. 1349; Gaz. vol. 179; p. 210.
Farnham, Frederick F., McKeesport, assignor to American Sheet & Tin Plate Company, Pittsburgh, Pa. Hot pickling-bath. No. 1,029,351; June 11; Sp. p. 2787; Gaz. vol. 179; p. 470.
Farnworth, Robert, and T. T. Jackson, Bolton, England. Reed and beating-up mechanism for looms. No. 1,030,575; June 25; Sp. p. 5583; Gaz. vol. 179; p. 971.
Farrah, William, Gateway, Mont. Sign. No. 1,028,560; June 4; Sp. p. 1086; Gaz. vol. 179; p. 165.
Farrand, Oliver M., New York, N. Y. Combination or keyless lock. No. 1,028,868; June 11; Sp. p. 1732; Gaz. vol. 179; p. 303.
Faulkner, Charles F., Birmingham, assignor of one-half to L. B. Faulkner, Corey, Ala. Truck. No. 1,029,982; June 18; Sp. p. 4174; Gaz. vol. 179; p. 723.

Faulkner, Lura B. (See Faulkner, Charles F., assignor.)
Faultless Rubber Company, The. (See Miller, Thomas W., assignor.)
Favary, Ethelbert, New York, N. Y. Mechanism for preventing excessive speeds of automobiles. No. 1,029,181; June 11; Sp. p. 2405; Gaz. vol. 179; p. 410.
Fay, Alpheus, Louisville, Ky. Aerating butter-separator. No. 1,028,869; June 11; Sp. p. 1734; Gaz. vol. 179; p. 303.
Feaster, Earl C., Skedee, Okla. Cattle-guard. No. 1,028,457; June 4; Sp. p. 871; Gaz. vol. 179; p. 131.
Federal Electric Company. (See Buell, Albert W., assignor.)
Fejfar, Joseph G., Yankton, S. D. Husker. No. 1,029,055; June 11; Sp. p. 2139; Gaz. vol. 179; p. 368.
Fellows, Edwin R., assignor to The Fellows Gear Shaper Company, Springfield, Vt. Gear-shaping machine. No. 1,028,343; June 4; Sp. p. 601; Gaz. vol. 179; p. 91.
Fellows Gear Shaper Company, The. (See Fellows, Edwin R., assignor.)
Felt, Dorr E., Chicago, Ill. Calculating-machine. No. 1,028,344; June 4; Sp. p. 609; Gaz. vol. 179; p. 92.
Felthousen, John H., assignor to S. Morgan Smith Company, York, Pa. Turbine. No. 1,029,433; June 11; Sp. p. 2976; Gaz. vol. 179; p. 498.
Felts, Oscar B., Hickory Point, Tenn. Railway-spike. No. 1,029,983; June 18; Sp. p. 4176; Gaz. vol. 179; p. 724.
Ferguson, Clayton C., New York, N. Y. Telegraphing instrument. No. 1,030,509; June 25; Sp. p. 5368; Gaz. vol. 179; p. 948.
Fergusson, Ella M., executrix. (See Fergusson, Henry A.)
Fergusson, Henry A., deceased, St. Louis; E. M. Fergusson, Webster Groves, Mo., executrix. Vertical friction-saw. No. 1,028,103; June 4; Sp. p. 23; Gaz. vol. 179; p. 7.
Fernald, Hiram T., Lowell, Mass., assignor to Lamson Consolidated Store Service Company, Newark, N. J. Locking device for cable carriers. No. 1,028,699; June 4; Sp. p. 1350; Gaz. vol. 179; p. 210.
Ferrall, John J., and E. Mackay, New York, N. Y. Tool for removing seals. No. 1,029,578; June 11; Sp. p. 3262; Gaz. vol. 179; p. 547.
Ferranti, Sebastian Z. de, Grindleford Bridge, near Sheffield, England. Spinning, doubling, and twisting machine. No. 1,030,395; June 25; Sp. p. 5090; Gaz. vol. 179; p. 907.
Ferres, Jeffrey T., assignor to The Sefton Manufacturing Company, Anderson, Ind. Folding paper box. No. 1,030,294; June 25; Sp. p. 4858; Gaz. vol. 179; p. 869.
Ferris, Henry L., Harvard, Ill., assignor to Hunt, Helm, Ferris & Company. Feed and litter carrier. No. 1,029,984; June 18; Sp. p. 4177; Gaz. vol. 179; p. 724.
Fetty, Leon, Hutchinson, Kans. Oil-burner. No. 1,028,345; June 4; Sp. p. 615; Gaz. vol. 179; p. 92.
Fibre Container Company. (See Roenitz, Louis T., assignor.)
Fields, James T., Elgin, Ill. Ironing-table. No. 1,029,056; June 11; Sp. p. 2141; Gaz. vol. 179; p. 369.
Finch, Adolph, assignor of one-third to A. B. Bowman, San Diego, Cal. Propeller for air or water craft. No. 1,029,057; June 11; Sp. p. 2142; Gaz. vol. 179; p. 369.
Fingerhut, Hermann, Breslau, Germany. Fly-catcher. No. 1,029,001; June 11; Sp. p. 2035; Gaz. vol. 179; p. 350.
Finkbeiner, John. (See Johnson, Edward, assignor.)
Finlay, William, Xenia, Ohio. Rope-making machine. No. 1,030,235; June 18; Sp. p. 4700; Gaz. vol. 179; p. 810.
Fischer, Alex, West Kensington, London, England. Sound-conduit or amplifying device for talking-machines and the like. No. 1,029,002; June 11; Sp. p. 2036; Gaz. vol. 179; p. 350.
Fischer, Gustav A., Cleveland, Ohio. Pasteurizing-machine. No. 1,028,818; June 4; Sp. p. 1612; Gaz. vol. 179; p. 251.
Fisher, Alexander D., Toronto, Ontario, Canada. Pencil-sharpener. No. 1,029,801; June 18; Sp. p. 3764; Gaz. vol. 179; p. 662.
Fitch, Charles M. (See Best and Fitch.)
Fitz-Hugh, Valentine M. (See Cunningham and Reid, assignors.)
Flack, Fred L., Oskaloosa, Iowa. Staple-attaching device for molded fence-posts. No. 1,029,859; June 18; Sp. p. 3918; Gaz. vol. 179; p. 682.
Flaxbaum, Samuel, New York, N. Y. Loop for straps of bags, &c. No. 1,030,069; June 18; Sp. p. 4369; Gaz. vol. 179; p. 753.
Fleck, Charles. (See Schneider, Loeffler, and Fleck.)
Flegel, Harrison D., assignor to E. J. Schowalter, Racine, Wis. Adjustable dial-scale. No. 1,028,700; June 4; Sp. p. 1351; Gaz. vol. 179; p. 211.
Fletcher, Edward F. (See Bemis, Gilbert C., assignor.)
Fletcher, Edward F., Worcester, Mass. Glass-gage cutter. No. 1,028,870; June 11; Sp. p. 1737; Gaz. vol. 179; p. 304.
Fletcher, Louis S., Redlands, Cal. Automatic box-board-beveling machine. No. 1,030,295; June 25; Sp. p. 4859; Gaz. vol. 179; p. 870.
Fletcher, Olive L., assignor to Peru Electric Company, Peru, Ind. Strain-insulator. No. 1,028,104; June 4; Sp. p. 25; Gaz. vol. 179; p. 7.
Fleury, Frank S., Titusville, Pa. Door-catch. No. 1,028,561; June 4; Sp. p. 1087; Gaz. vol. 179; p. 165.
Flight, John T., Cleveland, Okla. Automatic brake for vehicles. No. 1,029,860; June 18; Sp. p. 3919; Gaz. vol. 179; p. 682.
Flink, Abe, Chicago, Ill. Sheet-metal window-screen. No. 1,029,352; June 11; Sp. p. 2788; Gaz. vol. 179; p. 470.
Flitcroft, James E., Ocean Grove, N. J., assignor to P. Wall, Pittsburgh, Pa. Gasolene blow-torch. No. 1,030,465; June 25; Sp. p. 5239; Gaz. vol. 179; p. 932.
Flood, Albert H., Bridgeport, Conn. Tooth-brush case. No. 1,029,536; June 11; Sp. p. 3172; Gaz. vol. 179; p. 532.
Floor Sanding and Polishing Machine Company. (See Herr, John, assignor.)
Flynt, Louis W. G., Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J. Snipping-machine. No. 1,029,058; June 11; Sp. p. 2144; Gaz. vol. 179; p. 369.
Flynt, Louis W. G., Rochester, N. Y., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Eccentric wheeler. No. 1,030,576; June 25; Sp. p. 5584; Gaz. vol. 179; p. 971.
Flynt, Louis W. G., Rochester, N. Y., assignor to Domestic Appliances Company. Vacuum apparatus. No. 1,029,746; June 18; Sp. p. 3647; Gaz. vol. 179; p. 643.
Foell, Otto, Newark, N. J., A. Kusebauch and R. Neckerman, Pittsburgh, Pa., assignors, by mesne assignments, to Nernst Lamp Company. Heater and glower renewal for lamps. No. 1,029,114; June 11; Sp. p. 2270; Gaz. vol. 179; p. 388.
Fogleman, Oscar L., St. Louis, Mo. Chuck. No. 1,028,562; June 4; Sp. p. 1088; Gaz. vol. 179; p. 165.
Foley, Bartholomew H. and Z. J., Stockton, Cal. Non-refillable bottle. No. 1,029,985; June 18; Sp. p. 4179; Gaz. vol. 179; p. 724.
Foley, Zella J. (See Foley, Bartholomew H. and Z. J.)
Folger, Harry S., Chicago, Ill., and A. M. Comstock, Muskegon, Mich., assignors to H. S. Folger and O. Romel, trustees, Chicago, Ill. Hand-stamp. No. 1,029,568; June 11; Sp. p. 3245; Gaz. vol. 179; p. 544.
Folger, Henry C., Somerville, Mass., assignor to Nu-Ve M'f'g. Co. Electrical hair and scalp treating instrument. No. 1,029,861; June 18; Sp. p. 3920; Gaz. vol. 179; p. 682.
Follansbee, Minot F., Whitman, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Heel-attaching machine. No. 1,030,577; June 25; Sp. p. 5590; Gaz. vol. 179; p. 971.
Follliet, Alexandre, Brussels, Belgium. Agglomerating process. No. 1,029,182; June 11; Sp. p. 2407; Gaz. vol. 179; p. 410.
Foote, James H., Cincinnati, Ohio. Sash-pulley. No. 1,029,003; June 11; Sp. p. 2037; Gaz. vol. 179; p. 350.
Foote, James H., Cincinnati, Ohio. Sash-pulley. No. 1,029,004; June 11; Sp. p. 2040; Gaz. vol. 179; p. 351.
Foote, James H., Cincinnati, Ohio. Sash-cord pulley. No. 1,029,005; June 11; Sp. p. 2043; Gaz. vol. 179; p. 351.
Foote, James H., Cincinnati, Ohio. Sash-cord pulley. No. 1,029,006; June 11; Sp. p. 2045; Gaz. vol. 179; p. 352.
Forbes, Ewing M., Chicago, Ill. Door-mat. No. 1,028,871; June 11; Sp. p. 1738; Gaz. vol. 179; p. 304.
Forbes Lithograph Manufacturing Company. (See Guillo, Harry P., assignor.)
Ford, Alex E., Divernon, Ill. Brooder. No. 1,029,537; June 11; Sp. p. 3173; Gaz. vol. 179; p. 532.
Ford, Frank W., assignor of one-third to R. B. McFerran and one-third to B. S. Hoar, Minneapolis, Minn. Gas-saving device. No. 1,028,105; June 4; Sp. p. 26; Gaz. vol. 179; p. 7.
Fordyce, John R., Little Rock, Ark. Cotton-gin. No. 1,028,701; June 4; Sp. p. 1352; Gaz. vol. 179; p. 211.
Formato, Elmerindo. (See Legnard and Formato.)
Forner, Georg, Berlin, Germany, assignor to General Electric Company. Utilizing exhaust-steam in turbine plants. No. 1,029,353; June 11; Sp. p. 2789; Gaz. vol. 179; p. 470.
Forsman, Herman, Bakersfield, Cal. Faucet. No. 1,029,354; June 11; Sp. p. 2791; Gaz. vol. 179; p. 471.
Forster, Joseph, Warrington, England. Tanning. No. 1,028,563; June 4; Sp. p. 1089; Gaz. vol. 179; p. 165.
Forstmann, Otto, assignor to The Firm of C. Zeiss, Jena, Germany. Telescopic sight for ordnance. No. 1,030,070; June 18; Sp. p. 4370; Gaz. vol. 179; p. 753.
Forsyth, Louis N., New Iberia, La. Match-box. No. 1,028,106; June 4; Sp. p. 27; Gaz. vol. 179; p. 8.
Forsyth, William R., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Drinking-block support. No. 1,030,396; June 25; Sp. p. 5082; Gaz. vol. 179; p. 908.
Forward, Walter L., Berkeley, assignor to Byron Jackson Iron Works, Inc., San Francisco, Cal. Self-cleaning bearing for submerged shafts. No. 1,028,564; June 4; Sp. p. 1090; Gaz. vol. 179; p. 166.
Fosdick, George R., Winchester, N. H. Box-gluing apparatus. No. 1,030,254; June 18; Sp. p. 4743; Gaz. vol. 179; p. 817.
Foster, George A. (See Smith, Bessie H., assignor.)
Foster, Harry W. (See Rossmeisel, Frank, assignor.)
Foster, John M., New York, N. Y. Indicator for stop-valves. No. 1,029,600; June 18; Sp. p. 3317; Gaz. vol. 179; p. 590.
Foster, William F. C., Wawanesa, Manitoba, Canada. Printing-press. No. 1,029,434; June 11; Sp. p. 2978; Gaz. vol. 179; p. 499.
Fowler, Alfred B., Central Falls, R. I., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,029,283; June 11; Sp. p. 2624; Gaz. vol. 179; p. 445.

Fowler, Alfred B., Duxbury, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-sewing machine. No. 1,029,920; June 18; Sp. p. 4054; Gaz. vol. 179; p. 704.

Fowler, James T., assignor of one-half to C. Mardis, Wetumpka, Ala. Adjustable flushing-cuspidor. No. 1,030,722; June 25; Sp. p. 6006; Gaz. vol. 179; p. 1024.

Fowler, Mack J., Roanoke, Va. Track-sander. No. 1,029,284; June 11; Sp. p. 2627; Gaz. vol. 179; p. 445.

Fox, Ansley H. (See Kremer and Fox.)

Fox, James S., Jackson, Mich. Railway-tie plate. No. 1,030,723; June 25; Sp. p. 6007; Gaz. vol. 179; p. 1024.

Foye, Don C. (See Foye, George W., assignor.)

Foye, George W., Fredericksburg, Va., assignor to D. C. Foye, Philadelphia, Pa. Electric magneto-machine. No. 1,028,202; June 4; Sp. p. 327; Gaz. vol. 179; p. 43.

Frame, Robert E., Chicago, Ill., assignor to American Car and Foundry Company, St. Louis, Mo. Car-underframe. No. 1,029,115; June 11; Sp. p. 2272; Gaz. vol. 179; p. 388.

Francis, Julius G., New Iberia, La. Horse-releaser. No. 1,030,071; June 18; Sp. p. 4372; Gaz. vol. 179; p. 754.

Francis, William H., Cherryvale, Kans. Brick-handling method and stack. No. 1,030,397; June 25; Sp. p. 5094; Gaz. vol. 179; p. 908.

Francke, William J., New Brunswick, N. J. Flexible coupling. No. 1,029,355; June 11; Sp. p. 2793; Gaz. vol. 179; p. 471.

Franco, Francesco. (See Lumello, Carlo, assignor.)

Frank Adam Electric Company. (See Adam, Fredrick B., assignor.)

Frank, Ferdinand, San Francisco, Cal. Curtain and like display device. No. 1,028,565; June 4; Sp. p. 1091; Gaz. vol. 179; p. 166.

Frank, Otto H., New York, N. Y. Stand for sad-irons. No. 1,030,510; June 25; Sp. p. 5371; Gaz. vol. 179; p. 948.

Frankenfield, Budd, Los Angeles, Cal., assignor to Allis-Chalmers Company. Frequency-responsive device. No. 1,029,007; June 11; Sp. p. 2048; Gaz. vol. 179; p. 352.

Franks, David, Glasgow, Scotland. Belt. No. 1,028,346; June 4; Sp. p. 622; Gaz. vol. 179; p. 92.

Frazee, Bowditch P., Bath, Me. Automobile sleigh attachment. No. 1,028,819; June 4; Sp. p. 1613; Gaz. vol. 179; p. 251.

Frede, Charles F. (See Westlake and Frede.)

Frede, Charles F., and H. M. Pflager, assignors to Commonwealth Steel Company, St. Louis, Mo. Core-oven. No. 1,029,986; June 18; Sp. p. 4180; Gaz. vol. 179; p. 725.

Frederick, Edwin E., Bridgeville, Pa. Globe and globe-holder. No. 1,029,356; June 11; Sp. p. 2795; Gaz. vol. 179; p. 471.

Fredrickson, Louie. (See Christiansen, Christian, assignor.)

Free, John W., West Pittsburg, assignor to Safety-Armorite Conduit Company, Pittsburgh, Pa. Clamping-band for attaching hose to coupling-nipples. No. 1,028,937; June 11; Sp. p. 1802; Gaz. vol. 179; p. 327.

Freeman, Bert W. (See Engle, Freeman, and Neal.)

Freeman, John A., Montgomery, Ala. Portable back-rest. No. 1,030,511; June 25; Sp. p. 5372; Gaz. vol. 179; p. 948.

Freeman, Victor E. (See Roder, Robert, assignor.)

Freese, Francis J., Montreal, Quebec, Canada, assignor to United Shoe Machinery Company, Paterson, N. J. Take-up for sewing-machines. No. 1,029,921; June 18; Sp. p. 4056; Gaz. vol. 179; p. 704.

Freese, Francis J., Montreal, Quebec, Canada, assignor to United Shoe Machinery Company, Paterson, N. J. Welt-guide for sewing-machines. No. 1,029,922; June 18; Sp. p. 4058; Gaz. vol. 179; p. 704.

Freese, Francis J., Montreal, Quebec, Canada, assignor to United Shoe Machinery Company, Paterson, N. J. Tension device for sewing-machines. No. 1,029,923; June 18; Sp. p. 4061; Gaz. vol. 179; p. 705.

Freese, Francis J., Montreal, Quebec, Canada, assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,030,512; June 25; Sp. p. 5375; Gaz. vol. 179; p. 949.

Freese, Francis J., Lowell, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,030,774; June 25; Sp. p. 6147; Gaz. vol. 179; p. 1043.

Freise, Henry F. (See Brunnert, Anton, assignor.)

Fremery, Max. (See Bronnert and Fremery.)

French, Alfred W., Piqua, Ohio. Oil-cake pan. No. 1,029,435; June 11; Sp. p. 2961; Gaz. vol. 179; p. 499.

Fretts, Henry A., Hyde Park, Mass. Crabbing-machine. No. 1,030,656; June 25; Sp. p. 5856; Gaz. vol. 179; p. 1002.

Freund, Joseph A., Waltham, Mass., assignor to The Keystone Watch Case Company, Philadelphia, Pa. Stem winding and setting watch. No. 1,029,116; June 11; Sp. p. 2275; Gaz. vol. 179; p. 388.

Frew, Hubert S., and F. P. Sexton, Montreal, Quebec, Canada. Writing-machine. No. 1,030,807; June 25; Sp. p. 6249; Gaz. vol. 179; p. 1055.

Fried. Krupp Aktiengesellschaft. (See Heilemann, Walter, assignor.)

Fried. Krupp Aktiengesellschaft. (See Heilemann and Kanonenberg, assignors.)

Fried. Krupp Aktiengesellschaft. (See Koch, Norbert, assignor.)

Fried. Krupp Aktiengesellschaft. (See Schwartz, Wilhelm, assignor.)

Fried. Krupp Aktiengesellschaft. (See Wieser, Karl, assignor.)

Fried. Krupp Aktiengesellschaft. (See Wilck, Ulrich, assignor.)

Friis, Harald. (See Nielsen, Andreas, assignor.)

Fritz, Julius, Petaluma, Cal. Egg-case. No. 1,028,702; June 4; Sp. p. 1355; Gaz. vol. 179; p. 211.

Fronk, Howard J. (See McGuire and Fronk.)

Fryckberg, William F., Philadelphia, Pa. Post-hole digger and shovel. No. 1,028,872; June 11; Sp. p. 1740; Gaz. vol. 179; p. 304.

Fuhrer, Paul, Denver, Colo. Combined mop holder and wringer. No. 1,029,436; June 11; Sp. p. 2983; Gaz. vol. 179; p. 499.

Fuller, Franz A., assignor to The J. E. Mergott Company, Newark, N. J. Handle-fastening for bag-frames. No. 1,028,203; June 4; Sp. p. 328; Gaz. vol. 179; p. 44.

Fuller, Jesse W., Muncie, Ind. Motor-plow. No. 1,029,601; June 18; Sp. p. 3319; Gaz. vol. 179; p. 590.

Fulton, George, Winnipeg, Manitoba, Canada. Wooden floor-covering. No. 1,028,703; June 4; Sp. p. 1356; Gaz. vol. 179; p. 212.

Furber, Frederick M., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Treadle mechanism. No. 1,029,008; June 11; Sp. p. 2050; Gaz. vol. 179; p. 353.

Furby, Jesse. (See Sternberg and Furby.)

Fynn, Valère A., St. Louis, Mo. Alternating-current motor. (Reissue.) No. 13,426; June 11; Sp. p. 3267; Gaz. vol. 179; p. 548.

G. H. Williams Company, The. (See Williams, Charlé C., assignor.)

Gaede, Wolfgang, Freiburg, Breisgau, Germany. High-vacuum rotary pump. No. 1,029,862; June 18; Sp. p. 3923; Gaz. vol. 179; p. 682.

Gagé, Severin A., Paris, France. Machine for cutting slices of buttered bread and sandwiches. No. 1,029,357; June 11; Sp. p. 2797; Gaz. vol. 179; p. 472.

Galletti, Roberto C., Rome, Italy. Method of and apparatus for producing electric oscillations. No. 1,028,204; June 4; Sp. p. 330; Gaz. vol. 179; p. 44.

Gallison, Ernest A., Portland, assignor to Colonial Fast Color Tipping Company, Kittery, Me. Machine for tipping laces. No. 1,030,513; June 25; Sp. p. 5378; Gaz. vol. 179; p. 949.

Gallison, Ernest A., Everett, assignor to Colonial Fast Color Tipping Company, Boston, Mass. Machine for tipping laces. No. 1,030,514; June 25; Sp. p. 5385; Gaz. vol. 179; p. 950.

Galloway, James M., Sunbright, Tenn. Safety railway device. No. 1,029,437; June 11; Sp. p. 2985; Gaz. vol. 179; p. 500.

Galvin, J. W., *et al.* (See Walters, Gustave, assignor.)

Gamewell Fire-Alarm Telegraph Company, The. (See Suren, Nathan H., assignor.)

Gammel, Karl, Cleveland, Ohio. Machine for cutting dried pastes. No. 1,029,069; June 11; Sp. p. 2146; Gaz. vol. 179; p. 370.

Garden City Fan Company. (See Green, William W., assignor.)

Gardner, George B., Haverhill, Mass. Guard for heel-scouring machines. No. 1,029,538; June 11; Sp. p. 3175; Gaz. vol. 179; p. 533.

Gardner, George S., Flemingsburg, Ky. Flood-gate. No. 1,028,566; June 4; Sp. p. 1092; Gaz. vol. 179; p. 166.

Gardner, Howard S., East Orange, N. J. Conveyer. No. 1,030,296; June 25; Sp. p. 4861; Gaz. vol. 179; p. 870.

Gardner, John A., Grifton, N. C. Cotton-seed crusher and distributer. No. 1,029,987; June 18; Sp. p. 4182; Gaz. vol. 179; p. 725.

Gardner, May F., Pittsburgh, Pa. Penholder. No. 1,028,704; June 4; Sp. p. 1358; Gaz. vol. 179; p. 212.

Gardinkle, Nathan, Paterson, N. J., assignor to Standard Textile Co. Artificial-feather construction. No. 1,030,072; June 18; Sp. p. 4373; Gaz. vol. 179; p. 754.

Garlock, William H., Seattle, Wash. Pump for automobile-alarms. No. 1,029,496; June 11; Sp. p. 3096; Gaz. vol. 179; p. 519.

Gatchel, Albert D., Louisville, Ky. Garbage-can holder. No. 1,028,705; June 4; Sp. p. 1359; Gaz. vol. 179; p. 212.

Gates, Louis W., West Haven, assignor to C. Cowles & Co., New Haven, Conn. Window-fastener. No. 1,028,452; June 4; Sp. p. 861; Gaz. vol. 179; p. 129.

Gaulke, William H., assignor to Independent Electric Mfg. Company, Milwaukee, Wis. Rheostat. No. 1,029,539; June 11; Sp. p. 3177; Gaz. vol. 179; p. 533.

Gauvin, Avila, Montreal, Quebec, Canada. Automatic weighing-scale. No. 1,029,602; June 18; Sp. p. 3323; Gaz. vol. 179; p. 591.

Geary, Jane, New Bedford, Mass. Window-curtain rod. No. 1,028,706; June 4; Sp. p. 1362; Gaz. vol. 179; p. 213.

Geiger, Alfred C., Glenallen, Va. Weight-motor. No. 1,029,285; June 11; Sp. p. 2629; Gaz. vol. 179; p. 446.

Geiglein, Henry H., *et al.* (See Sawyer, Edward H., Jr., assignor.)

Geiser, August P., Washington, Pa. Curtain-pole. No. 1,029,358; June 11; Sp. p. 2801; Gaz. vol. 179; p. 472.

Gellen, Gustave A., San Francisco, Cal. Lifting mechanism for mullers of ore-grinding pans. No. 1,029,863; June 18; Sp. p. 3924; Gaz. vol. 179; p. 683.

Gemmill, James L., Orrville, Ohio. Automatic graphophone of the disk-record type. No. 1,028,707; June 4; Sp. p. 1362; Gaz. vol. 179; p. 213.

General Chemical Company. (See Escuellmann and Harmuth, assignors.)

General Electric Company. (See Creighton, Elmer E. F., assignor.)

General Electric Company. (See Day, Maxwell W., assignor.)

General Electric Company. (See Dempster, John T. H., assignor.)

General Electric Company. (See Forner, Georg, assignor.)

General Electric Company. (See Hall, John L., assignor.)

General Electric Company. (See Hewlett, Edward M., assignor.)

General Electric Company. (See Kastner, Franz, assignor.)

General Electric Company. (See Knight and Lum, assignors.)

General Electric Company. (See Krub, Osias O., assignor.)

General Electric Company. (See Kuśel, Hans, assignor.)

General Electric Company. (See Metzger, Amandus, assignor.)

General Electric Company. (See Pape, Wilhelm, assignor.)

General Electric Company. (See Parkhurst, Leon F., assignor.)

General Electric Company. (See Price, Edgar, assignor.)

General Electric Company. (See Rupley, George H., assignor.)

General Electric Company. (See Tirrill, Allen A., assignor.)

General Electric Company. (See Tritle, John F., assignor.)

General Electric Company. (See Winkler, Otto, assignor.)

General Fireproofing Company, The. (See Schaffert, Adolf H., assignor.)

General Railway Signal Company. (See Henry, William S., assignor.)

Genossenschaft für Textilpatente. (See Marazzi, Adolf, assignor.)

Gerbovich, Joseph. (See Farkas, Kálmán, assignor.)

German American Car Company, The. (See Epstein, Max, assignor.)

Gesner, Louis B., Downers Grove, Ill. Rotary steam-engine. No. 1,028,873; June 11; Sp. p. 1742; Gaz. vol. 179; p. 304.

Geyer, William F., Great Falls, Mont. Smoke elevator and concentrator. No. 1,029,438; June 11; Sp. p. 2986; Gaz. vol. 179; p. 500.

Gibbs, Frederick H., New York, N. Y., assignor to American Car and Foundry Company, St. Louis, Mo. Door-operating mechanism. No. 1,030,808; June 25; Sp. p. 6252; Gaz. vol. 179; p. 1056.

Gibbs, Lewis, assignor to The Gibbs Manufacturing Company, Canton, Ohio. Embroidery-hoop. No. 1,030,073; June 18; Sp. p. 4375; Gaz. vol. 179; p. 754.

Gibbs Manufacturing Company, The. (See Gibbs, Lewis, assignor.)

Gibney, Samuel. (See Hollis and Gibney.)

Gicias, Louis, Washington, D. C. Door-mat. No. 1,029,802; June 18; Sp. p. 3767; Gaz. vol. 179; p. 662.

Giese, James A., Chicago, Ill., assignor to The Adams & Westlake Company. Lock. No. 1,029,747; June 18; Sp. p. 3650; Gaz. vol. 179; p. 643.

Giese, James A., assignor to The Adams & Westlake Company, Chicago, Ill. Sliding-door latch. No. 1,029,748; June 18; Sp. p. 3652; Gaz. vol. 179; p. 644.

Giese, James A., Chicago, Ill., assignor to The Adams & Westlake Company. Sash lock and lift. No. 1,029,803; June 18; Sp. p. 3768; Gaz. vol. 179; p. 663.

Giese, James A., Chicago, Ill., assignor to The Adams & Westlake Company. Lock for window-sash. No. 1,029,804; June 18; Sp. p. 3770; Gaz. vol. 179; p. 663.

Gifford, Albert J., assignor to W. H. Leland & Company, Worcester, Mass. Electrical switch. No. 1,029,676; June 18; Sp. p. 3485; Gaz. vol. 179; p. 617.

Glicher, George, Ridgefield Park, N. J. Pilot-light. No. 1,029,805; June 18; Sp. p. 3772; Gaz. vol. 179; p. 663.

Glichrist, David A., Belgrade, Mont. Rock-guttering and excavating machine. No. 1,029,359; June 11; Sp. p. 2802; Gaz. vol. 179; p. 472.

Gilfillan, Emma, executrix. (See Gilfillan, Essington N.)

Gilfillan, Essington N., deceased, Chicago, Ill.; E. Gilfillan, executrix. Egg carrier or receptacle. No. 1,029,749; June 18; Sp. p. 3653; Gaz. vol. 179; p. 644.

Gillespie, John J., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for beveling and fleshing soles. No. 1,029,009; June 11; Sp. p. 2053; Gaz. vol. 179; p. 353.

Gilman, George H., assignor to Sullivan Machinery Company, Claremont, N. H. Valve. No. 1,030,466; June 25; Sp. p. 5242; Gaz. vol. 179; p. 933.

Gilmore, Allen, Lyndon, Wis. Potato-picker. No. 1,028,205; June 4; Sp. p. 332; Gaz. vol. 179; p. 44.

Gilmore, Charles T., Chicago, Ill. Ironing-machine. No. 1,029,183; June 11; Sp. p. 2410; Gaz. vol. 179; p. 411.

Gilmore, William G., Stockport, England. Apparatus for issuing metal checks and the like. No. 1,029,603; June 18; Sp. p. 3325; Gaz. vol. 179; p. 591.

Gilmore, Winfield S., New York, N. Y., assignor to Crouch & Fitzgerald. Garment-receptacle. No. 1,028,206; June 4; Sp. p. 335; Gaz. vol. 179; p. 45.

Gilmore, Winfield S., New York, N. Y., assignor to Crouch & Fitzgerald. Receptacle for garments. No. 1,028,207; June 4; Sp. p. 337; Gaz. vol. 179; p. 45.

Glisbach, Clemens, Bonnsler-Hammer, near Grevenbrück, Germany. Rotary engine. No. 1,029,877; June 18; Sp. p. 3488; Gaz. vol. 179; p. 618.

Gilson, Anna K., Quechee, Vt. Rake. No. 1,029,988; June 18; Sp. p. 4184; Gaz. vol. 179; p. 725.

Giroud, William E., New York, N. Y. Non-refillable bottle. No. 1,030,074; June 18; Sp. p. 4377; Gaz. vol. 179; p. 755.

Gitzendanner, Charles, assignor of one-half to W. H. Horton, New York, N. Y. Book and pamphlet making machine. No. 1,028,708; June 4; Sp. p. 1371; Gaz. vol. 179; p. 213.

Giusti, Tito. (See Pinoli, Carlo, assignor.)

Glassner, Frederick P., Searchlight, Nev. Valve. No. 1,029,184; June 11; Sp. p. 2416; Gaz. vol. 179; p. 411.

Gleason, George, Auburn, N. Y. Cattle-stanchion. No. 1,030,724; June 25; Sp. p. 6008; Gaz. vol. 179; p. 1025.

Gleissner, August J. (See Harbison, Clifford M., assignor.)

Glover, John B., Brooklyn, N. Y. Fire-escape. No. 1,028,453; June 4; Sp. p. 862; Gaz. vol. 179; p. 129.

Gnoeth, Emil, Madisonville, Ohio. Variable-speed planetary gearing. No. 1,028,347; June 4; Sp. p. 623; Gaz. vol. 179; p. 92.

Göbel, Heinrich, Jr. (See Wieghard and Göbel.)

Gobell, Claud, Quincy, Ill. Self-tying baling-press. No. 1,030,398; June 25; Sp. p. 5096; Gaz. vol. 179; p. 908.

Goddu, George, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for making lacing-hooks. No. 1,030,725; June 25; Sp. p. 6009; Gaz. vol. 179; p. 1025.

Goddu, George, Winchester, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for inserting fastenings. No. 1,030,775; June 25; Sp. p. 6153; Gaz. vol. 179; p. 1043.

Goff, Daniel, Millville, assignor to Goff Gravity Boiler Feed Company, Camden, N. J. Smoke and gas consumer for locomotives. No. 1,028,346; June 4; Sp. p. 629; Gaz. vol. 179; p. 93.

Goff, George W., East Hampton, Conn. Bell. No. 1,029,286; June 11; Sp. p. 2630; Gaz. vol. 179; p. 446.

Goff Gravity Boiler Feed Company. (See Goff, Daniel, assignor.)

Goin, Elmer F., Nardin, Okla. Word-counting attachment for type-writers and type-setting machines. No. 1,030,075; June 18; Sp. p. 4379; Gaz. vol. 179; p. 755.

Goldberg Calculating Machine Company. (See Goldberg, Hyman E., assignor.)

Goldberg, Hyman E., assignor to Goldberg Calculating Machine Company, Chicago, Ill. Calculating-machine. No. 1,029,678; June 18; Sp. p. 3490; Gaz. vol. 179; p. 618.

Goldman, Ben. (See Micon, David, assignor.)

Goldsmith, Marcus T., Newark, N. J. Coil-guard for safety-pins. No. 1,030,076; June 18; Sp. p. 4381; Gaz. vol. 179; p. 756.

Goldsmith, Max S., Cincinnati, assignor, by mesne assignments, to The Cellular Metal Company, St. Bernard, Ohio. Metallic lath. No. 1,029,864; June 18; Sp. p. 3926; Gaz. vol. 179; p. 683.

Goldsmith, William H., Jr. (See Blake and Goldsmith.)

Goodin, Sebastion L., Farber, Mo. Wireless check-row corn-planter. No. 1,030,236; June 18; Sp. p. 4712; Gaz. vol. 179; p. 811.

Goodwin, Elmer F. (See McClung, Emory, assignor.)

Goodwin, Elmer F., Clarksburg, W. Va. Door-sign. No. 1,029,497; June 11; Sp. p. 3098; Gaz. vol. 179; p. 520.

Goodwin, Ernest, Stamford Hill, London, assignor to Eley Brothers Limited, Edmonton, London, England. Detonating composition. No. 1,029,287; June 11; Sp. p. 2631; Gaz. vol. 179; p. 446.

Goodyear Tire and Rubber Company, The. (See Hale, James E., assignor.)

Gordon, Albert A., Jr., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Weft-replenishing loom. No. 1,030,077; June 18; Sp. p. 4382; Gaz. vol. 179; p. 756.

Gordon, Clay, assignor of one-half to C. R. Patterson and Sons, Greenfield, Ohio. Sliding door. No. 1,029,288; June 11; Sp. p. 2632; Gaz. vol. 179; p. 446.

Gordon, William, Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for beating out shoe-uppers. No. 1,030,578; June 25; Sp. p. 5594; Gaz. vol. 179; p. 972.

Gordon, William, Boston, and L. E. Topham, Somerville, Mass., assignors to United Shoe Machinery Company, Paterson, N. J. Machine for stamping boots and shoes. No. 1,028,567; June 4; Sp. p. 1093; Gaz. vol. 179; p. 166.

Gorman, David W., assignor to F. W. Webb Manufacturing Company, Boston, Mass. Tank-valve. No. 1,029,300; June 11; Sp. p. 2805; Gaz. vol. 179; p. 473.

Gorman, Thomas J., Sr., Hudson Heights, N. J. Overshoe for horses. No. 1,028,709; June 4; Sp. p. 1376; Gaz. vol. 179; p. 214.

Gorsuch, George J., Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J. Vamp-pulling apparatus. No. 1,030,579; June 25; Sp. p. 5598; Gaz. vol. 179; p. 972.

Gortner, Henry D., Colorado Springs, Colo. Electrical pendant switch. No. 1,029,750; June 18; Sp. p. 3655; Gaz. vol. 179; p. 644.

Gorton, George, Racine, Wis. Rotary metal-cutting-off device. No. 1,028,710; June 4; Sp. p. 1377; Gaz. vol. 179; p. 214.

Gorton, George, and C. R. Carpenter, Racine, Wis.; said Carpenter assignor to said Gorton. Metal-cutting-off device, &c. No. 1,028,846; June 4; Sp. p. 1670; Gaz. vol. 179; p. 261.

Gose, Robert G., Upton, Wyo. Draft-equalizer. No. 1,030,078; June 18; Sp. p. 4386; Gaz. vol. 179; p. 756.

Goss Printing Press Company, The. (See Evensen, William, assignor.)

Goss Printing Press Company, The. (See Hensl, Albert A., assignor.)

Goss Printing Press Company, The. (See Menendez, Gabriel A., assignor.)

Goss Printing Press Company. (See Morgan, John D., assignor.)

Goth, Thomas R. (See Walker, Sallie B., assignor.)

Gould & Eberhardt. (See Eberhardt, Frederick L., assignor.)

Gould & Eberhardt. (See Zimmermann, William F., assignor.)

Gowan, Nassau W., St. Catharines, Ontario, assignor of three-fifths to J. Battle, Thorold, Canada. Device or appliance for the protection of canal-lock gates. No. 1,030,580; June 25; Sp. p. 5602; Gaz. vol. 179; p. 973.

Grab, Victor M., Chicago, Ill. Device for cleaning shoes. No. 1,028,208; June 4; Sp. p. 339; Gaz. vol. 179; p. 46.

Graetz, Max, Berlin, Germany. Inverted incandescent gas-lamp. No. 1,030,079; June 18; Sp. p. 4387; Gaz. vol. 179; p. 756.

Graetz, Max, Berlin, Germany. Outside lamp for inverted incandescent gas-light. No. 1,030,080; June 18; Sp. p. 4391; Gaz. vol. 179; p. 757.

Gran, Olaus J., Callahan, Cal. Driving-gear for motor-vehicles. No. 1,030,081; June 18; Sp. p. 4393; Gaz. vol. 179; p. 758.

Grand Rapids Refrigerator Co. (See Whittier, Walter H., assignor.)

Grant, Harriott, Syracuse, N. Y., assignor to The De Long Hook & Eye Company, Philadelphia, Pa. Garment-hook. No. 1,029,989; June 18; Sp. p. 4185; Gaz. vol. 179; p. 726.

Grant, John C., Kensington, and L. A. Legros, Watford, England. Machine for cutting punches and like master metal surfaces. No. 1,030,399; June 25; Sp. p. 5100; Gaz. vol. 179; p. 900.

Grant, William H., Honey Creek, Wis. Safety device for elevators. No. 1,028,454; June 4; Sp. p. 864; Gaz. vol. 179; p. 129.

Grant, Willis W. (See Olson and Grant.)

Granville, Bernard, New York, N. Y., assignor to National Fibre Products Company. Apparatus for screening or washing fibrous material and the like. No. 1,029,990; June 18; Sp. p. 4187; Gaz. vol. 179; p. 726.

Granz, Joseph, assignor to The Nagel-Chase Manufacturing Company, Chicago, Ill. Lamp. No. 1,030,082; June 18; Sp. p. 4395; Gaz. vol. 179; p. 758.

Graves, Charles L., Milford, assignor to The Automatic Welding Machine Company, Bridgeport, Conn. Machine for automatically manufacturing welded wire chains, rings, &c. No. 1,029,865; June 18; Sp. p. 3926; Gaz. vol. 179; p. 683.

Gray, Alexander M., Milwaukee, Wis., assignor to Allis-Chalmers Company. Dynamo-electric machine. No. 1,030,581; June 25; Sp. p. 5603; Gaz. vol. 179; p. 973.

Gray, James W., Tacoma, Wash. Matcher-head. No. 1,029,185; June 11; Sp. p. 2417; Gaz. vol. 179; p. 411.

Gray, John G. (See Shinn, Albert J., assignor.)

Gray, Niel, Jr. (See Wadhams, Darius T., assignor.)

Gray Telephone Pay Station Company, The. (See Long, George A., assignor.)

Greaves, John H. (See Parsons, Greaves, and Hemsted.)

Green, Charles M., Garden City, Kans. Harness attachment. No. 1,028,711; June 4; Sp. p. 1382; Gaz. vol. 179; p. 214.

Green, Era M., San Diego, Cal. Resilient vehicle-tire. No. 1,030,809; June 25; Sp. p. 6255; Gaz. vol. 179; p. 1056.

Green, George A., *et al.* (See Elkin, Warren, assignor.)

Green, Thomas W., Philadelphia, Pa. Divided impeller for blowers. No. 1,030,083; June 18; Sp. p. 4397; Gaz. vol. 179; p. 759.

Green, William W., Niles, Mich., assignor to Garden City Fan Company, Chicago, Ill. Positive blower. No. 1,029,186; June 11; Sp. p. 2419; Gaz. vol. 179; p. 412.

Greene, Harry S., Woonsocket, R. I. Planetary napping-machine drum. No. 1,030,657; June 25; Sp. p. 5858; Gaz. vol. 179; p. 1002.

Gregg, Luther L., Jr., Lonejack, Mo. Tire-securing mechanism. No. 1,029,604; June 18; Sp. p. 3328; Gaz. vol. 179; p. 592.

Gregory, Arthur, Durango, Mexico. Lid for cooking utensils. No. 1,028,712; June 4; Sp. p. 1383; Gaz. vol. 179; p. 215.

Gregory, James A., Woodville, N. C. Connecting device between a draft and a drag member. No. 1,029,430; June 11; Sp. p. 2987; Gaz. vol. 179; p. 500.

Gregory, James T., Washington, D. C. Extensible table-leg. No. 1,030,658; June 25; Sp. p. 5861; Gaz. vol. 179; p. 1002.

Greiner, Emil. (See McManaman and Greiner.)

Greist, Hubert M. (See Boyler and Greist.)

Greist Manufacturing Company, The. (See Boyler and Greist, assignors.)

Greist, Percy R. (See Boyler and Greist.)

Gribler, Arthur G. (See Gribler, Henry W. and A. G.)

Gribler, Henry W. and A. G., Van Wert, Ohio. Ditching-machine. No. 1,029,498; June 11; Sp. p. 3100; Gaz. vol. 179; p. 520.

Grieves, Albert, Springfield, Ohio, assignor to International Harvester Company, Corn-planter. No. 1,029,679; June 18; Sp. p. 3402; Gaz. vol. 179; p. 619.

Griffin, Albert A., Lansing, Mich. Chiropractic table. No. 1,029,751; June 18; Sp. p. 3657; Gaz. vol. 179; p. 645.

Griffin, Austin L., assignor of one-half to F. H. Emery, Scranton, Pa. Drier. No. 1,030,515; June 25; Sp. p. 5395; Gaz. vol. 179; p. 950.

Griffith, Asa W., Youngstown, Ohio. Continuous heating-furnace. No. 1,029,605; June 18; Sp. p. 3330; Gaz. vol. 179; p. 593.

Grinewetski, Wassily, Moscow, Russia. Carbureter for internal-combustion motors. No. 1,028,713; June 4; Sp. p. 1384; Gaz. vol. 179; p. 215.

Griscom Spencer Company, The. (See Osborne, William S., assignor.)

Gronauer, G. (See Williams, Perry H., assignor.)

Gronek, John, Philadelphia, Pa. Hinge. No. 1,028,874; June 11; Sp. p. 1745; Gaz. vol. 179; p. 305.

Gronke, Barney, Chicago, Ill., assignor to International Harvester Company. Corn-husking rollers. No. 1,030,467; June 25; Sp. p. 5243; Gaz. vol. 179; p. 933.

Grosert, Thomas, and E. Unger, New York, N. Y. Hair-steaming device. No. 1,029,361; June 11; Sp. p. 2806; Gaz. vol. 179; p. 473.

Gross, Robert, Kl. Damerau, Germany. Safety device for threshing-machines. No. 1,029,117; June 11; Sp. p. 2277; Gaz. vol. 179; p. 389.

Grunelsen, Albert. (See Morris, Grunelsen, and Hoppe.)

Gsell, Henry A., Paris, France. Machine for measuring off and packing matches in boxes, &c. No. 1,028,349; June 4; Sp. p. 634; Gaz. vol. 179; p. 94.

Guett, Monroe, assignor to Hart & Hegeman Manufacturing Company, Hartford, Conn. Electric switch. No. 1,028,350; June 4; Sp. p. 635; Gaz. vol. 179; p. 94.

Guiberson, Samuel A., Jr., Coalinga, Cal. Well-tubing safety appliance. No. 1,030,084; June 18; Sp. p. 4400; Gaz. vol. 179; p. 759.

Guillo, Harry P., Revere, assignor to Forbes Lithograph Manufacturing Company, Boston, Mass. Kite. No. 1,029,010; June 11; Sp. p. 2056; Gaz. vol. 179; p. 353.

Guise, Clifford, Toronto, Ontario, Canada. Swivel. No. 1,028,351; June 4; Sp. p. 637; Gaz. vol. 179; p. 95.

Guidemann, Arnold, Paterson, N. J. Hand-threading shuttle. No. 1,029,289; June 11; Sp. p. 2635; Gaz. vol. 179; p. 447.

Günzel, Hermann, Lodz, Prussia, Germany. Trap-nest. No. 1,029,924; June 18; Sp. p. 4062; Gaz. vol. 179; p. 705.

Gustafson, Gustaf A., Chicago, Ill. Steam and air feeding device for furnaces. No. 1,029,680; June 18; Sp. p. 3493; Gaz. vol. 179; p. 619.

Guthrie, William S., Terrell, Tex. Valve mechanism for carbureters. No. 1,029,606; June 18; Sp. p. 3331; Gaz. vol. 179; p. 593.

H. Mueller Manufacturing Company. (See Mueller, Philip, assignor.)

H. K. Miller Manfg. Co. (See Horrell and Bryant, assignors.)

H. O. Peck Automobile Wheel Company. (See Reichenbach and Peck, assignors.)

Haagn, Ernst. (See Trenzen and Haagn.)

Hackney, William F., assignor of one-half to E. Bennett, Washington, Kans. Door track and hanger. No. 1,028,714; June 4; Sp. p. 1389; Gaz. vol. 179; p. 216.

Hadaway, John B., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Rotary tack-pulling tool. No. 1,028,455; June 4; Sp. p. 866; Gaz. vol. 179; p. 130.

Hadaway, John B., Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Vamp-trimming machine. No. 1,029,187; June 11; Sp. p. 2422; Gaz. vol. 179; p. 412.

Hadaway, John B., Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Presser-foot mechanism for sewing-machines. No. 1,030,582; June 25; Sp. p. 5605; Gaz. vol. 179; p. 973.

Hadaway, John B., Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tack-pulling and tack-driving machine. No. 1,030,776; June 25; Sp. p. 6168; Gaz. vol. 179; p. 1044.

Hadaway, John B., Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tack-pulling machine. No. 1,030,777; June 25; Sp. p. 6172; Gaz. vol. 179; p. 1044.

Hadaway, William S., Jr., East Orange, N. J., and E. E. Rose, Pittsburgh, Pa., assignors to Westinghouse Electric & Manufacturing Company. Electrically-heated culinary apparatus. No. 1,028,107; June 4; Sp. p. 28; Gaz. vol. 179; p. 8.

Haefely, Emil, Basel, Switzerland, assignor to Westinghouse Electric and Manufacturing Company. Forming-press. No. 1,028,108; June 4; Sp. p. 31; Gaz. vol. 179; p. 8.

Hagenah, Fred I. D., Stover, Mo. Running-gear for vehicles. No. 1,030,726; June 25; Sp. p. 6017; Gaz. vol. 179; p. 1025.

Hager, Charles E. O., Toledo, Ohio. Clutch. No. 1,029,607; June 18; Sp. p. 3334; Gaz. vol. 179; p. 594.

Haggerty, Francis M., Philadelphia, Pa. Sun-visor, eye-shade, and advertising device. No. 1,030,173; June 18; Sp. p. 4563; Gaz. vol. 179; p. 789.

Haight, James P., Hoopeston, assignor to Sprague Canning Machinery Company, Chicago, Ill. Can-filling machine. No. 1,029,681; June 18; Sp. p. 3495; Gaz. vol. 179; p. 619.

Hallwood, Ernest A., Morley, near Leeds, England. Apparatus for igniting miners' lamps. No. 1,030,297; June 25; Sp. p. 4863; Gaz. vol. 179; p. 870.

Haines, Charles, assignor to The Canton Culvert Company, Canton, Ohio. Culvert. No. 1,030,298; June 25; Sp. p. 4866; Gaz. vol. 179; p. 871.

Hains, Peter C., Jr., Washington, D. C. Terminal clip. No. 1,029,499; June 11; Sp. p. 3103; Gaz. vol. 179; p. 521.

Haldane, Richard K., Sanford, Fla. Window-lock. No. 1,029,011; June 11; Sp. p. 2057; Gaz. vol. 179; p. 354.

Hale, Arthur, New York, N. Y. Sanitary footwear. No. 1,030,085; June 18; Sp. p. 4402; Gaz. vol. 179; p. 760.

Hale, James E., assignor to The Goodyear Tire and Rubber Company, Akron, Ohio. Vehicle wheel-rim. No. 1,028,109; June 4; Sp. p. 32; Gaz. vol. 179; p. 9.

Hall, Charles G. (See Davis, John W., assignor.)

Hall, Chester I., assignor to Minerallac Electric Company, Chicago, Ill. Maximum-indicating and watt-hour meter. No. 1,028,715; June 4; Sp. p. 1391; Gaz. vol. 179; p. 216.

Hall, Chester P., assignor to Delta-Star Electric Company, Chicago, Ill. Pipe-joint. No. 1,030,237; June 18; Sp. p. 4715; Gaz. vol. 179; p. 811.

Hall, Dwight K., Goshen, N. Y. Bedstead. No. 1,028,716; June 4; Sp. p. 1395; Gaz. vol. 179; p. 216.

Hall, Gust, and J. Brand, Princeton, Minn. Mail-bag catcher and deliverer. No. 1,029,440; June 11; Sp. p. 2989; Gaz. vol. 179; p. 500.

Hall, James A., assignor of one-half to J. C. Kunz, Detroit, Mich. Combination reel and rack for the exhibition of wall-paper. No. 1,029,806; June 18; Sp. p. 3773; Gaz. vol. 179; p. 664.

Hall, John L., Schenectady, N. Y., assignor to General Electric Company. Control system. No. 1,029,362; June 11; Sp. p. 2808; Gaz. vol. 179; p. 473.

Hall Signal Company, The. (See Coleman, Clarence W., assignor.)

Hallam, Harry, Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Abrading device. No. 1,030,778; June 25; Sp. p. 6173; Gaz. vol. 179; p. 1044.

Hallock, Elias I., Babylon, N. Y. Skimmer. No. 1,028,717; June 4; Sp. p. 1397; Gaz. vol. 179; p. 217.

Halstead, Allen H., Skidmore, Kans. Corn-planter. No. 1,028,110; June 4; Sp. p. 34; Gaz. vol. 179; p. 9.

Halstead, Charles B., Kansas City, Mo. Animal-throwing device. No. 1,028,352; June 4; Sp. p. 638; Gaz. vol. 179; p. 95.

Hamilton, Howard H. (See Bennett, Barrow, assignor.)

Hamilton, Richard F., Baltimore, Md. Cap for sash-pulleys. No. 1,029,441; June 11; Sp. p. 2990; Gaz. vol. 179; p. 501.

Hamm, Abraham A. (See Hamm, Abraham G. and A. A.)

Hamm, Abraham G. and A. A., Rosthern, Saskatchewan, Canada. Hair-spring tester. No. 1,029,608; June 18; Sp. p. 3336; Gaz. vol. 179; p. 594.

Hamm, William S., Hubbard Woods, assignor to The Adams & Westlake Company, Chicago, Ill. Window-sash. No. 1,029,189; June 11; Sp. p. 2426; Gaz. vol. 179; p. 413.

Hamm, William S., Hubbard Woods, and A. H. Newpher, assignors to The Adams & Westlake Company, Chicago, Ill. Weather-guard for windows. No. 1,029,188; June 11; Sp. p. 2425; Gaz. vol. 179; p. 413.

Hammer, Charles, assignor to American Metal Cap Co., Brooklyn, N. Y. Bottle or jar closure. No. 1,028,718; June 4; Sp. p. 1398; Gaz. vol. 179; p. 217.

Hammond, Francesco. (See Mason and Hammond.)

Hammond, Wilberforce B., Boston, Mass. Automatic sprinkler-head. No. 1,030,299; June 25; Sp. p. 4867; Gaz. vol. 179; p. 871.

Hammond, William P., Rockland, Mass. Hammock-supporter. No. 1,029,609; June 18; Sp. p. 3337; Gaz. vol. 179; p. 594.

Hampton, Frank H. (See Smith and Hampton.)

Hampton, William L., Stowe, Pa. Saw-set. No. 1,029,991; June 18; Sp. p. 4188; Gaz. vol. 179; p. 726.

Handy, Annie W., administratrix. (See Handy, Milton.)

Handy, Milton, deceased, Worcester, Mass.; A. W. Handy, administratrix. Rubber vehicle-spring. No. 1,029,190; June 11; Sp. p. 2427; Gaz. vol. 179; p. 413.

Haney, Edwin H., assignor to Haney Fire Apparatus Company, Stockton, Cal. Fire-fighting elevator. No. 1,030,468; June 25; Sp. p. 5245; Gaz. vol. 179; p. 933.

Haney Fire Apparatus Company. (See Haney, Edwin H., assignor.)

Hanna, Cyrus T., Philadelphia, Pa. Process of and apparatus for distilling. No. 1,029,363; June 11; Sp. p. 2813; Gaz. vol. 179; p. 474.

Hanna, David J., Fishkill-on-the Hudson, N. Y. Dough-working apparatus. No. 1,028,820; June 4; Sp. p. 1614; Gaz. vol. 179; p. 252.

Hansen, John S., Medford, Mass., assignor to O. A. Miller Treeing Machine Company, Portland, Me. Treeing-machine. No. 1,030,727; June 25; Sp. p. 6018; Gaz. vol. 179; p. 1026.

Hansen, John S., Medford, assignor to O. A. Miller Treeing Machine Company, Brockton, Mass. Treeing-machine. No. 1,030,810; June 25; Sp. p. 6256; Gaz. vol. 179; p. 1056.

Hansen, Peter F., Quasqueton, Iowa. Attachment for planters. No. 1,028,353; June 4; Sp. p. 640; Gaz. vol. 179; p. 96.

Hanson, John Z., and R. Thorp, Aberdeen, Idaho. Torch. No. 1,030,086; June 18; Sp. p. 4404; Gaz. vol. 179; p. 760.

Harbison, Clifford M., assignor of one-half to A. J. Gleissner, Brooklyn, N. Y. Toy wagon. No. 1,028,875; June 11; Sp. p. 1746; Gaz. vol. 179; p. 306.

Hardgrave, Robert G., and C. T. Adair, Tucumcari, N. Mex. Transmission-gearing for motor-vehicles. No. 1,028,876; June 11; Sp. p. 1749; Gaz. vol. 179; p. 306.

Hardie, David, Edmonton, Alberta, Canada. Ink-well. No. 1,029,752; June 18; Sp. p. 3659; Gaz. vol. 179; p. 645.

Harling, James and R., Rosegrove, near Burnley, England. Automatic weft-replenishing mechanism of looms for weaving. No. 1,028,456; June 4; Sp. p. 868; Gaz. vol. 179; p. 130.

Harling, Ralph. (See Harling, James and R.)

Harmuth, Albert. (See Eschellmann and Harmuth.)

Harper, Enos M., Setauket, N. Y. Cake-turner. No. 1,029,060; June 11; Sp. p. 2149; Gaz. vol. 179; p. 370.

Harpham, G. E., *et al.* (See Opsahl, Tidemand, assignor.)

Harrington, Alfred B., Danvers, Mass. Reverse-gear mechanism. No. 1,029,610; June 18; Sp. p. 3339; Gaz. vol. 179; p. 595.

Harrington, Clyde M., Chrisman, Ill. Animal-trap. No. 1,029,992; June 18; Sp. p. 4189; Gaz. vol. 179; p. 726.

Harris, Arthur W., assignor to The Harris Calculating Machine Company Limited, London, England. Type-writing and calculating machine. No. 1,029,500; June 11; Sp. p. 3105; Gaz. vol. 179; p. 521.

Harris Automatic Press Company, The. (See Smith, Walter H., assignor.)

Harris Calculating Machine Company Limited, The. (See Harris, Arthur W., assignor.)

Harris, Ford W., Wilkinsburg, Pa., assignor to Westinghouse Electric and Manufacturing Company. Circuit-interrupter. No. 1,029,753; June 18; Sp. p. 3660; Gaz. vol. 179; p. 645.

Harris, Otto E., Indianapolis, Ind. Air-lift pump. No. 1,028,209; June 4; Sp. p. 340; Gaz. vol. 179; p. 46.

Harrison, George H., *et al.* (See Dunn, Frederick W., assignor.)

Hart, Charles A., Findlay, Ohio. Automobile-jack. No. 1,029,993; June 18; Sp. p. 4191; Gaz. vol. 179; p. 727.

Hart, Charles A., Findlay, Ohio. Automobile-jack. No. 1,030,728; June 25; Sp. p. 6025; Gaz. vol. 179; p. 1026.

Hart & Crouse Company. (See Newton, John L., assignor.)

Hart, Edgar J. M., New York, N. Y. Compound for removing grease-paint, burnt cork, &c., from the face. No. 1,029,118; June 11; Sp. p. 2277; Gaz. vol. 179; p. 389.

Hart & Hegeman Manufacturing Company. (See Guett, Monroe, assignor.)

Harter, Noah S., Waukegan, Ill., assignor to The American Steel & Wire Company of New Jersey, Hoboken, N. J. Machine for coiling and cutting coil-springs. No. 1,029,540; June 11; Sp. p. 3179; Gaz. vol. 179; p. 533.

Hartmann, Hugo, Berlin, Germany. Flushing-tank. No. 1,030,174; June 18; Sp. p. 4564; Gaz. vol. 179; p. 789.

Hartney, Frederick, Higginsville, Mo. Safety firing attachment for breech-loading rifles. No. 1,030,087; June 18; Sp. p. 4405; Gaz. vol. 179; p. 760.

Harton, Ira N., Lisbon, N. D. Spring-wheel. No. 1,028,210; June 4; Sp. p. 341; Gaz. vol. 179; p. 46.

Hartwig, Herman T., assignor to The Arrow Electric Company, Hartford, Conn. Electric-lamp socket. No. 1,028,719; June 4; Sp. p. 1400; Gaz. vol. 179; p. 217.

Hartwig, Robert, assignor to Thermos-Aktiengesellschaft, Berlin, Germany. Making heat-insulated receptacles. No. 1,029,364; June 11; Sp. p. 2816; Gaz. vol. 179; p. 474.

Harvey, Harry D. (See Steele, David R., assignor.)

Harvey, John W. (See Sanders, William R., assignor.)

Hasburg, John W., Chicago, Ill. Marking gage or tram. No. 1,028,720; June 4; Sp. p. 1401; Gaz. vol. 179; p. 218.

Hasburg, John W., Chicago, Ill. Machine for forming paint or other similar material. No. 1,029,925; June 18; Sp. p. 4063; Gaz. vol. 179; p. 706.

Hasburg, John W., Chicago, Ill. Paint-package. No. 1,029,926; June 18; Sp. p. 4065; Gaz. vol. 179; p. 706.

Haskell, Walter F., Westbrook, Me. Warp-dyeing machine. No. 1,029,866; June 18; Sp. p. 3930; Gaz. vol. 179; p. 684.

Haskin, Joseph J., Tucson, Ariz. Oil-burner. No. 1,029,927; June 18; Sp. p. 4067; Gaz. vol. 179; p. 706.

Hassmann, Carl G., assignor to Mills Novelty Company, Chicago, Ill. Vending-machine. No. 1,028,458; June 4; Sp. p. 872; Gaz. vol. 179; p. 131.

Hatcher, Edmund N., Zanesville, Ohio. Mausoleum interment-crypt. No. 1,028,111; June 4; Sp. p. 37; Gaz. vol. 179; p. 10.

Haultain, Herbert E. T., Toronto, Ontario, Canada. Weight-recording mechanism. No. 1,029,119; June 11; Sp. p. 2278; Gaz. vol. 179; p. 389.

Haultain, Herbert E. T., Toronto, Ontario, Canada. Registering weighing apparatus. No. 1,029,120; June 11; Sp. p. 2280; Gaz. vol. 179; p. 389.

Hausbeer, Bernard, Norwich, assignor to Borden's Condensed Milk Company, New York, N. Y. Can-manipulating machine. No. 1,030,300; June 25; Sp. p. 4869; Gaz. vol. 179; p. 871.

Haussler, Louis, *et al.* (See Thomas, Frank M., assignor.)
Haustetter, Louis A., Chicago, Ill. Dish-washing machine. No. 1,029,541; June 11; Sp. p. 3181; Gaz. vol. 179; p. 534.
Haverhill Shoe Machinery Co. (See Webster, Edwin A., assignor.)
Hawkins, John W., Portland, Oreg. Joint-fastening. No. 1,030,088; June 18; Sp. p. 4407; Gaz. vol. 179; p. 761.
Hawkins, William W., Cleveland, Ohio. Party-line telephone system. No. 1,030,089; June 18; Sp. p. 4409; Gaz. vol. 179; p. 761.
Hawthorne, Howard, Philadelphia, Pa., assignor of one-half to W. W. Evans, Hamilton, Va. Track-sanding mechanism for trolley-cars and locomotives. No. 1,029,682; June 18; Sp. p. 3499; Gaz. vol. 179; p. 620.
Hay, Alexander M. (See Neil, James M., assignor.)
Hays, Trenton T., Sunnyside, Ky. Lifting device. No. 1,029,683; June 18; Sp. p. 3502; Gaz. vol. 179; p. 620.
Hazard, Samuel B., Peoria, Ill. Hand-cart. No. 1,029,365; June 11; Sp. p. 2818; Gaz. vol. 179; p. 475.
Heany, John A., Washington, D. C. Pneumatic engine-starter. No. 1,029,904; June 18; Sp. p. 4193; Gaz. vol. 179; p. 727.
Heap & Co., Wm. (See Lauzon and Rose, assignors.)
Heath, Ora J. (See Turner and Heath.)
Heath, Rolla M., New York, N. Y. Nail-brush. No. 1,028,211; June 4; Sp. p. 341; Gaz. vol. 179; p. 47.
Hebert, Joseph A. H., *et al.* (See Lord, Peter, assignor.)
Hedger, Harold P. F., Waseca, Saskatchewan, Canada. Stop-cock. No. 1,028,459; June 4; Sp. p. 875; Gaz. vol. 179; p. 132.
Heffelinger, Dennis, *et al.* (See Valentine, Levi J., assignor.)
Heffner, John L., Peoria, Ill. Mattress. No. 1,029,928; June 18; Sp. p. 4068; Gaz. vol. 179; p. 707.
Heflin, James L. (See Heflin and Penisten.)
Heflin, Le Roy and J. L., and C. E. Penisten, Fairfax, Okla. Automatic rain-water-cut-off device. No. 1,030,175; June 18; Sp. p. 4565; Gaz. vol. 179; p. 789.
Hegeman, Benjamin A., Jr. (See Hillman, Edward D., assignor.)
Hegewald, Julius, Waltham, Mass. Educational appliance. No. 1,028,212; June 4; Sp. p. 342; Gaz. vol. 179; p. 47.
Heil, Albrecht, Frankfort-on-the-Main, Germany. Galvanic battery. No. 1,028,354; June 4; Sp. p. 641; Gaz. vol. 179; p. 96.
Hellemann, Walter, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Fluid-brake for recoil-guns. No. 1,028,939; June 11; Sp. p. 1804; Gaz. vol. 179; p. 327.
Hellemann, Walter, and H. Kanonenberg, assignors to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Spade arrangement. No. 1,029,191; June 11; Sp. p. 2428; Gaz. vol. 179; p. 413.
Heinen, Frank H. (See Carlsen, Andrew M., assignor.)
Heinig, Wilhelmine. (See Heinig, William, assignor.)
Heinig, William, assignor to W. Heinig, Fitchburg, Mass. Fender. No. 1,028,119; June 4; Sp. p. 51; Gaz. vol. 179; p. 12.
Heinzelman, Chester A., Belleville, Ill. Cage for roller-bearings. No. 1,030,400; June 25; Sp. p. 5103; Gaz. vol. 179; p. 909.
Heinzelman, Chester A., Belleville, Ill. Roller-bearing. No. 1,030,401; June 25; Sp. p. 5104; Gaz. vol. 179; p. 910.
Heisey, Thomas C., and A. J. Sanford, assignors to A. H. Heisey & Co., Inc., Newark, Ohio. Illuminator. No. 1,028,721; June 4; Sp. p. 1402; Gaz. vol. 179; p. 218.
Heiderman, Charley A., and J. S. Russell, Gold Hill, N. C. Semaphore-pole. No. 1,029,442; June 11; Sp. p. 2091; Gaz. vol. 179; p. 501.
Hell, William A., Davenport, Iowa. Sash-holder. No. 1,030,469; June 25; Sp. p. 5246; Gaz. vol. 179; p. 934.
Hellmann, Lui F., Indianapolis, Ind. Internal-combustion engine. No. 1,029,029; June 18; Sp. p. 4070; Gaz. vol. 179; p. 707.
Hellmund, Rudolf E., Great Barrington, Mass., assignor, by mesne assignments, to Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa. Means for counteracting arcs. No. 1,028,112; June 4; Sp. p. 39; Gaz. vol. 179; p. 10.
Hellstrom, Frank O., *et al.* (See Woolen, Alfred, assignor.)
Hemsted, Alfred R. (See Parsons, Greaves, and Hemsted.)
Henderson, George R. (See Vauclain and Henderson.)
Henderson, Miner J., Tiadaghton, Pa., assignor to E. C. Atkins & Company, Indianapolis, Ind. Crosscut-saw-filing tool. No. 1,030,176; June 18; Sp. p. 4568; Gaz. vol. 179; p. 790.
Hendrickson, John R., Edmonton, Alberta, Canada. Aeroplane. No. 1,029,754; June 18; Sp. p. 3903; Gaz. vol. 179; p. 646.
Henken, Henry, Savannah, Ga. Starting device. No. 1,029,290; June 11; Sp. p. 2030; Gaz. vol. 179; p. 447.
Henley, S. M. (See Waite, William T., assignor.)
Henneger, Edgar, *et al.* (See Carhart, Charles M., assignor.)
Henriod, Charles E., Neuilly-sur-Seine, assignor to Societe Ribeyrolles & Cie., Puteaux, Seine, France. Four-phase single-piston, valveless motor. No. 1,029,192; June 11; Sp. p. 2428; Gaz. vol. 179; p. 414.
Henry G. Thompson & Son Company, The. (See Fairbanks, Leonard M., assignor.)
Henry, John, Grand Forks, N. D. Grain-door. No. 1,029,001; June 11; Sp. p. 2150; Gaz. vol. 179; p. 370.
Henry, William K., assignor to The American Hardware Corporation, New Britain, Conn. Door-check stop. No. 1,028,460; June 4; Sp. p. 877; Gaz. vol. 179; p. 132.
Henry, William S., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Electric lock. No. 1,028,568; June 4; Sp. p. 1102; Gaz. vol. 179; p. 167.
Henry, William S., Rochester, assignor to General Railway Signal Company, Gates, N. Y. Polarized relay. No. 1,030,811; June 25; Sp. p. 6266; Gaz. vol. 179; p. 1056.
Henzi, Albert A., assignor to The Goss Printing Press Company, Chicago, Ill. Roll-holder for printing-presses. No. 1,028,213; June 4; Sp. p. 844; Gaz. vol. 179; p. 47.
Herber, John, and F. Slater, Cleveland, Ohio. Milk-bottle holder. No. 1,030,402; June 25; Sp. p. 5105; Gaz. vol. 179; p. 910.
Herman, John E., Rochester, N. Y. Egg-carrier. No. 1,029,542; June 11; Sp. p. 3184; Gaz. vol. 179; p. 534.
Héroult, Paul L. T., La Praz, France, assignor, by mesne assignments, to Electrode Company of America, Niagara Falls, N. Y. Apparatus for graphitising large electrodes. No. 1,029,121; June 11; Sp. p. 2282; Gaz. vol. 179; p. 390.
Héroult, Paul L. T., La Praz, France, assignor, by mesne assignments, to Electrode Company of America, Niagara Falls, N. Y. Graphitising electrodes. No. 1,029,122; June 11; Sp. p. 2284; Gaz. vol. 179; p. 390.
Herr, John, assignor to Floor Sanding and Polishing Machine Company, Inc., Philadelphia, Pa. Floor-surfacing machine. No. 1,030,255; June 18; Sp. p. 4745; Gaz. vol. 179; p. 817.
Herrick, Paul B., assignor to Oneida Community, Limited, Oneida, N. Y. Spool-package for silk, &c. No. 1,028,877; June 11; Sp. p. 1751; Gaz. vol. 179; p. 306.
Hershberg, Isaac, Rochester, N. Y. Coat. No. 1,028,118; June 4; Sp. p. 40; Gaz. vol. 179; p. 11.
Hershkowitz, Tobias, New York, N. Y. Belt. No. 1,030,779; June 25; Sp. p. 6178; Gaz. vol. 179; p. 1045.
Hertstein, Henry, Brooklyn, N. Y. Clothes-drier. No. 1,029,995; June 18; Sp. p. 4195; Gaz. vol. 179; p. 727.
Hertkorn, Josef, Hattersheim, Germany. Producing ketones of high boiling-points from acetone and homologues thereof. No. 1,030,177; June 18; Sp. p. 4560; Gaz. vol. 179; p. 790.
Hertner, John H. (See Cookingham and Hertner.)
Hertzberg, Harry, *et al.*, trustees. (See Betts, Lewis F., assignor.
Hertsberg, Harry. (See Low and Hertzberg.)
Herzog, Earl W., *et al.* (See Olney, Oscar C., assignor.)
Hess, Edward B., assignor to Royal Typewriter Company, New York, N. Y. Type-writing machine. No. 1,028,214; June 4; Sp. p. 346; Gaz. vol. 179; p. 48.
Hess, Martin H., Davenport, Iowa. Pneumatically-controlled drain-valve. No. 1,028,722; June 4; Sp. p. 1403; Gaz. vol. 179; p. 218.
Hetlyn, Samuel, New York, N. Y. Safety-razor. No. 1,028,461; June 4; Sp. p. 878; Gaz. vol. 179; p. 132.
Heughes, Frederick L., Rochester, N. Y. Sidewalk-light. No. 1,030,301; June 25; Sp. p. 4877; Gaz. vol. 179; p. 872.
Heurtley, Ernest S., Oxford, England. Electrical means for magnifying small mechanical effects. No. 1,029,123; June 11; Sp. p. 2286; Gaz. vol. 179; p. 390.
Hewitt, Frederick G. S., Detroit, Mich. Self-starter for automobiles. No. 1,030,583; June 25; Sp. p. 5609; Gaz. vol. 179; p. 974.
Hewitt, Horace B., assignor of one-half to The North Indianapolis Cradle Works, Indianapolis, Ind. Grain-cradle. No. 1,028,215; June 4; Sp. p. 348; Gaz. vol. 179; p. 48.
Hewitt, Peter C., New York, N. Y., assignor to Cooper Hewitt Electric Company. Apparatus for the electrical production of light. No. 1,030,178; June 18; Sp. p. 4571; Gaz. vol. 179; p. 790.
Hewitt, Peter C., New York, and N. W. Rogers, Mount Vernon, N. Y., assignors, by mesne assignments, to Cooper Hewitt Electric Company. Gas or vapor electric apparatus. No. 1,030,262; June 18; Sp. p. 4764; Gaz. vol. 179; p. 820.
Hewitt, Peter C., assignor to Cooper Hewitt Electric Company, New York, N. Y. Gas or vapor electric lamp. No. 1,030,302; June 25; Sp. p. 4878; Gaz. vol. 179; p. 873.
Hewlett, Edward M., Schenectady, N. Y., assignor to General Electric Company. Electric switch. No. 1,029,306; June 11; Sp. p. 2823; Gaz. vol. 179; p. 475.
Heydenfyldt, Thomas O., *et al.* (See Burtnett, Everett R., assignor.)
Heyman, David, New York, N. Y. Automatic igniter. No. 1,028,462; June 4; Sp. p. 880; Gaz. vol. 179; p. 132.
Heyman, Nathan H. (See Damsiger, Beuno, assignor.)
Hezinger, Carl. (See Hezinger, Hugo and C.)
Hezinger, Hugo, Baldwin, and C. Hezinger, New York, N. Y. Carbureter. No. 1,028,723; June 4; Sp. p. 1405; Gaz. vol. 179; p. 219.
Hickle, Pryor H., and L. D. Spear, Choate, Tex. Plow-share attachment. No. 1,029,443; June 11; Sp. p. 2093; Gaz. vol. 179; p. 501.
Hickok, Lester E., *et al.* (See McCue, Charles T., assignor.)
Hicks, Albertson. (See Eastman and Hicks.)

Higgin, Henry, assignor of one-half to The Higgin Manufacturing Company, Newport, Ky. Cornice-brake. No. 1,029,012; June 11; Sp. p. 2058; Gaz. vol. 179; p. 364.
Higgin Manufacturing Company, The. (See Higgin, Henry, assignor.)
Higgins, Frederick L., Ridgefield, N. J., assignor to The Meyrowitz Manufacturing Co. Lens-cutting machine. No. 1,029,367; June 11; Sp. p. 2829; Gaz. vol. 179; p. 476.
Highway Advertising Company, The. (See Richardson and Cooke, assignors.)
Hilden, Wilhelm, Aix-la-Chapelle, Germany. Machine for twisting threads. No. 1,030,170; June 18; Sp. p. 4574; Gaz. vol. 179; p. 791.
Hildenbrand, Emil. (See Wacker and Hildenbrand.)
Hildreth, Alfred H., trustee. (See Prindle, Harry M., assignor.)
Hill, George D., Louisville, Ky. Rail-fastening. No. 1,028,878; June 11; Sp. p. 1752; Gaz. vol. 179; p. 307.
Hill, Irving. (See Bowersock, Wilber E., assignor.)
Hill, Joseph A. (See Stanbridge, Henry, assignor.)
Hilliard, Edward G., *et al.* (See Honigmann, Hans, assignor.)
Hillman, Edward D., Larchmont, N. Y., assignor to B. A. Hegeman, Jr., North Plainfield, N. J. Bolster for railway-cars. No. 1,029,291; June 11; Sp. p. 2638; Gaz. vol. 179; p. 448.
Hillyer, George H., assignor of one-third to E. A. Connell, Plattsburg, N. Y. Bottle-delivering mechanism. No. 1,030,180; June 18; Sp. p. 4575; Gaz. vol. 179; p. 791.
Hiltner, Michael, *et al.* (See Woolen, Alfred, assignor.)
Himeno, Rikichy, New York, N. Y. Antiskid device. No. 1,030,238; June 18; Sp. p. 4716; Gaz. vol. 179; p. 812.
Hinkle, Robert L. (See Wilmot and Hinkle.)
Hinsky, Frans A., Hoboken, N. J. Chair. No. 1,029,807; June 18; Sp. p. 3774; Gaz. vol. 179; p. 664.
Hirdler, Fairbanks C., Oklahoma, Okla. Automatic side-tracking sectionaliser for electric transmission systems. No. 1,030,161; June 18; Sp. p. 4573; Gaz. vol. 179; p. 791.
Hirsch, Julius D., Savannah, Ga. Game apparatus. No. 1,028,724; June 4; Sp. p. 1408; Gaz. vol. 179; p. 219.
Hiser, Charles H., assignor to The Springfield Metallic Casket Company, Springfield, Ohio. Coffin-fastener. No. 1,029,013; June 11; Sp. p. 2060; Gaz. vol. 179; p. 354.
Hoagland, Frank O., Bridgeport, Conn., assignor to Remington Arms and Ammunition Company, Ilion, N. Y. Ventilated sighting-rib for guns. No. 1,029,292; June 11; Sp. p. 2640; Gaz. vol. 179; p. 448.
Hoar, Blair S., *et al.* (See Ford, Frank W., assignor.)
Hockin, Robert, Pictou, Nova Scotia, Canada. Game-table. No. 1,028,463; June 4; Sp. p. 882; Gaz. vol. 179; p. 133.
Hodge, William B. (See Cramer and Hodge.)
Hodgman, Willis K., assignor to Huber-Hodgman Printing Press Co., Taunton, Mass. Inking apparatus for printing-presses. No. 1,030,403; June 25; Sp. p. 5107; Gaz. vol. 179; p. 910.
Hodgson, Ernest F., Needham, Mass. Roof construction. No. 1,028,725; June 4; Sp. p. 1409; Gaz. vol. 179; p. 219.
Hodson, Walter D. (See Russell, Henry H., assignor.)
Hofbauer, Frank X., East Orange, N. J., assignor to G. S. Iddings, Cleveland, Ohio. Support for cylindrical sound-records. No. 1,029,868; June 18; Sp. p. 3775; Gaz. vol. 179; p. 664.
Hoffer, George L., Hattiesburg, Miss. Grate-bar. No. 1,030,303; June 25; Sp. p. 4882; Gaz. vol. 179; p. 873.
Hoffmann, Berthold, and R. Suchy, Griesheim, assignors to Chemische Fabrik Griesheim-Elektron, Frankfort-on-the Main, Germany. Melting and casting magnesium and alloys thereof. No. 1,028,216; June 4; Sp. p. 350; Gaz. vol. 179; p. 48.
Hoffmann, George N. (See Vollmer, Charles, assignor.)
Hoffmann, Peter, Tarentum, Pa. Pot-filling apparatus for glass-furnaces. No. 1,029,444; June 11; Sp. p. 2094; Gaz. vol. 179; p. 502.
Hoffner, John M., Buffalo, N. Y. Transportation-ticket. No. 1,029,293; June 11; Sp. p. 2641; Gaz. vol. 179; p. 448.
Hofmann, Fritz, and C. Coutelle, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing divinyl. No. 1,028,938; June 11; Sp. p. 1803; Gaz. vol. 179; p. 327.
Hofmann, Fritz, and C. Coutelle, assignors to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Producing aliphatic hydrocarbons with more than one double bond. No. 1,030,230; June 18; Sp. p. 4717; Gaz. vol. 179; p. 812.
Hoge, Joseph F. D., New York, N. Y., assignor to American District Telegraph Company. Multiplex telegraph system. No. 1,030,760; June 25; Sp. p. 6179; Gaz. vol. 179; p. 1045.
Hoge, Max, and P. C. Riebe, assignors to Upright Grain Printing Base Company, Chicago, Ill. Base for printing-plates. No. 1,028,821; June 4; Sp. p. 1616; Gaz. vol. 179; p. 252.
Hoglund, Gustav E., assignor of one-half to W. N. Selig, Chicago, Ill. Mechanism for electrically transmitting and reproducing images. No. 1,030,240; June 18; Sp. p. 4719; Gaz. vol. 179; p. 812.
Hohn, George W., and E. G. Reisinger, Butler, Pa. Air-brake. No. 1,029,366; June 11; Sp. p. 2634; Gaz. vol. 179; p. 476.
Holcomb, Charles C., assignor to Richmond Casket Company, Richmond, Ind. Burial-garment. No. 1,028,464; June 4; Sp. p. 884; Gaz. vol. 179; p. 133.
Holden, Burtren A. (See Jantsen, Niels, assignor.)
Holderman, Marion F., Washington, D. C. Key-changing device for piano-players and player-pianos. No. 1,030,182; June 18; Sp. p. 4586; Gaz. vol. 179; p. 792.
Hollander, Sven G., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cutting and marking die. No. 1,030,781; June 25; Sp. p. 6183; Gaz. vol. 179; p. 1046.
Hollerith, Herman, Garrett Park, Md., assignor to The Tabulating Machine Company. Registering apparatus. No. 1,030,304; June 25; Sp. p. 4882; Gaz. vol. 179; p. 873.
Hollerith, Herman, Garrett Park, Md., assignor to The Tabulating Machine Company. Apparatus for use in tabulating systems. No. 1,030,305; June 25; Sp. p. 4887; Gaz. vol. 179; p. 874.
Hollis, Firm of W. G. (See Hollis and Gibney, assignors.)
Hollis, Thamos G., and S. Gibney, assignors to Firm of W. G. Hollis, Reading, Pa. Flooding device for chocolate-coating machines. No. 1,029,124; June 11; Sp. p. 2290; Gaz. vol. 179; p. 391.
Holm, Hans P., Hampton, Iowa. Cooking utensil. No. 1,028,726; June 4; Sp. p. 1411; Gaz. vol. 179; p. 220.
Holman, James M., and J. L., Camborne, England. Rock-drill. No. 1,029,294; June 11; Sp. p. 2644; Gaz. vol. 179; p. 448.
Holman, John L. (See Holman, James M. and J. L.)
Holmes, Charles P., Lynn, assignor to S. W. Winslow, Beverly, Mass. Sewing-machine. No. 1,030,812; June 25; Sp. p. 6269; Gaz. vol. 179; p. 1057.
Holmes, Charles P., Lynn, assignor to S. W. Winslow, Beverly, Mass. Forming chain-stitches. No. 1,030,813; June 25; Sp. p. 6275; Gaz. vol. 179; p. 1058.
Holmes, Charles P., Lynn, assignor to S. W. Winslow, Beverly, Mass. Sewing-machine. No. 1,030,814; June 25; Sp. p. 6277; Gaz. vol. 179; p. 1058.
Holmes, Charles P., Lynn, assignor to S. W. Winslow, Beverly, Mass. Forming chain-stitch seams. No. 1,030,815; June 25; Sp. p. 6282; Gaz. vol. 179; p. 1058.
Holmes, Charles P., Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,030,816; June 25; Sp. p. 6284; Gaz. vol. 179; p. 1059.
Holm's Machine Manufacturing Company. (See Turner, Giles M., assignor.)
Holst, Lodewyk J. R., Lansdowne, assignor to Williams, Brown and Earle, Inc., Philadelphia, Pa. Automatic focusing apparatus for photographic lenses. No. 1,029,295; June 11; Sp. p. 2645; Gaz. vol. 179; p. 449.
Holst, Lodewyk J. R., Lansdowne, assignor to Williams, Brown and Earle, Inc., Philadelphia, Pa. Means for mechanically focusing photographic lenses. No. 1,029,296; June 11; Sp. p. 2651; Gaz. vol. 179; p. 449.
Holst, Lodewyk J. R., Lansdowne, assignor to Williams, Brown and Earle, Inc., Philadelphia, Pa. Means for mechanically focusing photographic lenses. No. 1,029,297; June 11; Sp. p. 2654; Gaz. vol. 179; p. 450.
Holton, Abby T., Concord, Vt. Strainer. No. 1,028,114; June 4; Sp. p. 41; Gaz. vol. 179; p. 11.
Homan, William C., assignor to Edward Miller & Company, Meriden, Conn. Globe and shade holder. No. 1,029,298; June 11; Sp. p. 2658; Gaz. vol. 179; p. 450.
Homolya, Frederick, Kenosha, Wis. Spring-wheel. No. 1,029,867; June 18; Sp. p. 3932; Gaz. vol. 179; p. 684.
Homolya, Frederick, Kenosha, Wis. Motor-cranking device. No. 1,029,868; June 18; Sp. p. 3933; Gaz. vol. 179; p. 684.
Honess, Edwin, Cleveland Ohio. Device for promoting combustion in furnaces. No. 1,028,870; June 11; Sp. p. 1755; Gaz. vol. 179; p. 307.
Honey, Albert H., Los Angeles, Cal. Well-pumping mechanism. No. 1,028,822; June 4; Sp. p. 1617; Gaz. vol. 179; p. 252.
Honigmann, Hans, assignor of one-third to E. G. Hilliard and one-third to O. F. Collier, Duluth, Minn. Sheet-registering device for printing-presses. No. 1,029,445; June 11; Sp. p. 2099; Gaz. vol. 179; p. 502.
Honold, Gottlob, assignor to Firm of R. Bosch, Stuttgart, Germany. Binding-post for connecting electric cables. No. 1,030,817; June 25; Sp. p. 6287; Gaz. vol. 179; p. 1059.
Hood, Robert, Cedarville, Ohio. Spring-wheel. No. 1,029,755; June 18; Sp. p. 3665; Gaz. vol. 179; p. 646.
Hooper, Martin T., Midland, Tex. Corn and cotton planter. No. 1,029,125; June 11; Sp. p. 2291; Gaz. vol. 179; p. 391.
Hoosier Account Register Company, The. (See Dulin, John L., assignor.)
Hoover, David B., Elizabethtown, Pa. Concrete-mixing machine. No. 1,029,126; June 11; Sp. p. 2293; Gaz. vol. 179; p. 391.
Hoover, Guy F., Sherman, Tex. Recording device. No. 1,029,062; June 11; Sp. p. 2153; Gaz. vol. 179; p. 371.
Hopkins, Alexander C., and H. M. Morgan, Princeton, Ind. Vulcanizer. No. 1,029,684; June 18; Sp. p. 3503; Gaz. vol. 179; p. 621.
Hopkins, William G., Chicago, Ill. Mechanical account-book. No. 1,028,465; June 4; Sp. p. 885; Gaz. vol. 179; p. 133.
Hoppe, Fritz. (See Morris, Grunelsen, and Hoppe.)
Horlacher, George H., Portland, Oreg. Nozzle. No. 1,029,501; June 11; Sp. p. 3106; Gaz. vol. 179; p. 521.

Horn & Brother, William H. (See MacAdams, John L., assignor.)
Horowitz, Arthur. (See Rosenberger, Arthur, assignor.)
Horrell, John B., and A. S. Bryant, Santa Paula, assignors to H. K. Miller Manfg. Co., Glendora, Cal. Fruit-elevator. No. 1,028,823; June 4; Sp. p. 1618; Gaz. vol. 179; p. 252.
Horton, Henry, Cleveland, Tenn. Corn-holder. No. 1,030,729; June 25; Sp. p. 6026; Gaz. vol. 179; p. 1026.
Horton, William H. (See Gitzendanner, Charles, assignor.)
Horváth, Guido, assignor to T. Buettner & Co., Chicago, Ill. Fabric-marking machine. No. 1,029,543; June 11; Sp. p. 3186; Gaz. vol. 179; p. 534.
Horváth, Guido, assignor to T. Buettner & Co., Chicago, Ill. Fabric-marking machine. No. 1,029,544; June 11; Sp. p. 3188; Gaz. vol. 179; p. 535.
Hotchkiss, Charles A., assignor to The Ives Manufacturing Corporation, Bridgeport, Conn. Automatic coupling for toy railway-cars. No. 1,029,545; June 11; Sp. p. 3192; Gaz. vol. 179; p. 535.
Housh, Frank E., Winthrop, Mass. Loose-leaf book. No. 1,029,369; June 11; Sp. p. 2835; Gaz. vol. 179; p. 476.
Housholder, Frank, Guthrie, Okla. Vehicle-wheel. No. 1,028,727; June 4; Sp. p. 1413; Gaz. vol. 179; p. 220.
Housholder, Jack, Coldwater, Mich., assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-beating machine. No. 1,030,584; June 25; Sp. p. 5611; Gaz. vol. 179; p. 974.
Howard, Clarence H., and H. M. Pflager, assignors to Double Body Bolster Company, St. Louis, Mo. Car-truck frame. No. 1,029,869; June 18; Sp. p. 3934; Gaz. vol. 179; p. 685.
Howard, Henry, Boston, Mass. Making sulfuric anhydrid. No. 1,028,880; June 11; Sp. p. 1758; Gaz. vol. 179; p. 308.
Howard, James H., Medford, Mass. Burglar-proof safe. No. 1,029,996; June 18; Sp. p. 4197; Gaz. vol. 179; p. 728.
Howard-O'Keeffe, Isabel, Lake Nominingue, Quebec, Canada. Spool attachment. No. 1,029,193; June 11; Sp. p. 2430; Gaz. vol. 179; p. 414.
Howe, Charles E., Rochester, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J. Cementing-machine. No. 1,030,659; June 25; Sp. p. 5863; Gaz. vol. 179; p. 1003.
Howe and Davidson Company. (See Davidson, Frank B., assignor.)
Howell, Bert L., Danville, Ill. Bicycle attachment. No. 1,030,844; June 25; Sp. p. 6421; Gaz. vol. 179; p. 1069.
Howieson, John T., New York, N. Y. Calculating-machine. No. 1,030,470; June 25; Sp. p. 5247; Gaz. vol. 179; p. 934.
Howsley, William H., Jr., Adams, Tenn. Spring-wheel. No. 1,029,290; June 11; Sp. p. 2659; Gaz. vol. 179; p. 451.
Hoyt Metal Company. (See Tebbetts, Lewis B., assignor.)
Hubbard, Arthur O., Minneapolis, Minn. Silo. No. 1,030,404; June 25; Sp. p. 5109; Gaz. vol. 179; p. 911.
Hubbard, Arthur O., Minneapolis, Minn. Silo. No. 1,030,405; June 25; Sp. p. 5110; Gaz. vol. 179; p. 911.
Hubbard, Arthur O., Minneapolis, Minn. Silo. No. 1,030,406; June 25; Sp. p. 5111; Gaz. vol. 179; p. 911.
Hubbard, Fred W., assignor to The Kilbourne and Jacobs Manufacturing Company, Columbus, Ohio. Dump-car. No. 1,029,194; June 11; Sp. p. 2431; Gaz. vol. 179; p. 414.
Hubbard, John J. (See Carson and Hubbard.)
Hubbard, Stephen H. (See Brock and Hubbard.)
Huber-Hodgman Printing Press Co. (See Hodgman, Willis K., assignor.)
Hubert, J. M. (See Mainer, William L., assignor.)
Hudson, Harold C., administrator. (See Keith, Thomas K.)
Huelsdonk, William A. (See Roberson, Erastus E., assignor.)
Huestis, F. W. (See Lawton, Charles F., assignor.)
Huff, George T., Baltimore, Md. Tellurian. No. 1,028,355; June 4; Sp. p. 642; Gaz. vol. 179; p. 96.
Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Water-cooling system for hydrocarbon-engines. No. 1,028,115; June 4; Sp. p. 43; Gaz. vol. 179; p. 11.
Huff, Russell, assignor to Packard Motor Car Company, Detroit, Mich. Motor-vehicle. No. 1,029,063; June 11; Sp. p. 2157; Gaz. vol. 179; p. 372.
Huff, Russell, assignor, by mesne assignments, to Packard Motor Car Company, Detroit, Mich. Controlling mechanism for motor-vehicles. No. 1,029,685; June 18; Sp. p. 3503; Gaz. vol. 179; p. 621.
Hughes, Joseph, New York, N. Y. Garment-closer. No. 1,029,930; June 18; Sp. p. 4072; Gaz. vol. 179; p. 707.
Hughes, Robert, Mount Vernon, N. Y. Lathe attachment. No. 1,028,728; June 4; Sp. p. 1415; Gaz. vol. 179; p. 220.
Hull, Wolcott A., New York, N. Y. Faucet and support therefor. No. 1,030,306; June 25; Sp. p. 4897; Gaz. vol. 179; p. 874.
Hulme, Robert, Memphis, Tenn. Can opener and stopper. No. 1,029,686; June 18; Sp. p. 3506; Gaz. vol. 179; p. 621.
Humason, Granville A., assignor to Humason Rail Joint Company, Shreveport, La. Rail-joint. No. 1,028,729; June 4; Sp. p. 1419; Gaz. vol. 179; p. 221.
Humason Rail Joint Company. (See Dodson, William S., assignor.)
Humason Rail Joint Company. (See Humason, Granville A., assignor.)
Hume, Elizabeth F., Dunedin, New Zealand. Corset. No. 1,030,585; June 25; Sp. p. 5613; Gaz. vol. 179; p. 975.
Hume, James H., Glasgow, Scotland. Means for controlling the air-supply to locomotive-boiler furnaces. No. 1,028,881; June 11; Sp. p. 1759; Gaz. vol. 179; p. 308.
Humphrey, Herbert S., Kalamazoo, Mich. Water-heater. No. 1,029,870; June 18; Sp. p. 3936; Gaz. vol. 179; p. 685.
Humphreys, John C., Sutton, W. Va. Watchcase. No. 1,028,730; June 4; Sp. p. 1420; Gaz. vol. 179; p. 221.
Hunt, Frederick S. (See Buschman, Edward, assignor.)
Hunt, George G., Plano, Ill. Flat-iron stand and polisher. No. 1,029,446; June 11; Sp. p. 3003; Gaz. vol. 179; p. 502.
Hunt, Helm, Ferris & Company. (See Ferris, Henry L., assignor.)
Hunt, Henry C., Palacios, Tex. Tool for removing floors, siding, scaffolds, &c. No. 1,030,660; June 25; Sp. p. 5866; Gaz. vol. 179; p. 1003.
Hunter, Rudolph M., Philadelphia, Pa. Sprinkler-nozzle. No. 1,028,940; June 11; Sp. p. 1806; Gaz. vol. 179; p. 327.
Huntley, Stephen A., assignor of one-third to J. C. Dye and one-third to J. C. Smith, Sioux City, Iowa. Target-throwing device. No. 1,030,852; June 25; Sp. p. 6443; Gaz. vol. 179; p. 1073.
Hurd & Company, George B. (See Wolf, Otto A., assignor.)
Hurd, Norman B. (See Voight and Hurd.)
Hutchings, Charles E. (See Ruttan and Hutchings.)
Huyck, Elizabeth L. (See Percy, Frank T., assignor.)
Hyatt, Benjamin S. (See Kapp and Hyatt.)
Hyatt Roller Bearing Company. (See Lockwood, Charles S., assignor.)
Hydraulic Vacuum Cleaning Company, The. (See MacKenzie, George W., assignor.) (Reissue.)
Hydro Patent Power Co. (See Smith, Norman R., assignor.)
I. E. Palmer Co., The. (See Palmer, Isaac E., assignor.)
Ickes, L. Z., *et al.*, trustees. (See Converse, Newton B., assignor.)
Iddings, George S. (See Hofbauer, Frank X., assignor.)
Ide, Charles E. (See Johnson, Ivar, assignor.)
Ihider, John D., New York, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Controlling apparatus for electric motors. No. 1,028,731; June 4; Sp. p. 1421; Gaz. vol. 179; p. 221.
Illinois Watch Case Company. (See Zalinsky, Joseph, assignor.)
Independent Electric Mfg. Company. (See Gaulke, William H., assignor.)
Indiana Manufacturing Company, The. (See Sharpe, Joseph K., Jr., assignor.)
Inge, Benjamin F., Roanoke, Va. Socket for connecting package-tiers. No. 1,030,661; June 25; Sp. p. 5868; Gaz. vol. 179; p. 1003.
Ingoldsby Automatic Car Company, The. (See Ingoldsby, Frank S., assignor.)
Ingoldsby, Frank S., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo. Dump-car. No. 1,028,116; June 4; Sp. p. 44; Gaz. vol. 179; p. 11.
Ingoldsby, Frank S., assignor to The Ingoldsby Automatic Car Company, St. Louis, Mo. Dump-car. No. 1,028,882; June 11; Sp. p. 1760; Gaz. vol. 179; p. 308.
Inman, Clair L., Seneca, Nebr. Railway-tie and clamp. No. 1,030,407; June 25; Sp. p. 5112; Gaz. vol. 179; p. 912.
Inman, Horace, Amsterdam, N. Y. Paper-feeding mechanism for paper-box machines. No. 1,030,183; June 18; Sp. p. 4598; Gaz. vol. 179; p. 792.
International Acheson Graphite Company. (See Sprague and Williamson, assignors.)
International Harvester Company. (See Benjamin, Bert R., assignor.)
International Harvester Company. (See Grieves, Albert, assignor).
International Harvester Company. (See Gronke, Barney, assignor.)
International Harvester Company. (See Turner and Heath, assignors.)
International Manufacturing & Mining Co. (See Westerfield, Newton C., assignor.)
International Packing Machine Company. (See Lev, Frank W., assignor.)
International Typesetting Machine Company. (See Barber, Ernest B., assignor.)
Internationale Wasserstoff Aktiengesellschaft. (See Lane, Howard, assignor.)
Iring, Adalbert, Czernowitz, Austria-Hungary. Wrench. No. 1,028,883; June 11; Sp. p. 1765; Gaz. vol. 179; p. 308.
Iring, William, New York, N. Y. Railway-tie. No. 1,029,195; June 11; Sp. p. 2433; Gaz. vol. 179; p. 414.
Irish, William F., Denville, N. J. Electrical outlet-box. No. 1,029,611; June 18; Sp. p. 3341; Gaz. vol. 179; p. 595.
Irvine, William H. (See Kilburn, Fairley, Kidner, Irvine, and Chestnut.)
Irving, Henry. (See King and Irving.)
Irwin, Frank L., assignor to The Ralston Steel Car Company, Columbus, Ohio. Dump-car. No. 1,028,941; June 11; Sp. p. 1899; Gaz. vol. 179; p. 328.

Irwin, James, San Francisco, Cal. Releasing device. No. 1,030,586; June 25; Sp. p. 5614; Gaz. vol. 179; p. 975.
Isherwood, Joseph W., Middlesbrough, England. Construction of floating vessels. No. 1,029,546; June 11; Sp. p. 3194; Gaz. vol. 179; p. 536.
Islin, John A., Newport News, Va. Riddle. No. 1,030,241; June 18; Sp. p. 4724; Gaz. vol. 179; p. 813.
Itzweire, Gustave, *et al.* (See Lord, Peter, assignor.)
Ivarson, John F., Boston, Mass. Device for cutting threads and other lathe-work. No. 1,029,014; June 11; Sp. p. 2061; Gaz. vol. 179; p. 354.
Ivatts, Ernest A., assignor to Society Compagnie Generale De Phonographes, Cinematographes Et Appareils De Precision, Paris, France. Lens-diaphragm-controlling device for kinematographic apparatus. No. 1,029,997; June 18; Sp. p. 4199; Gaz. vol. 179; p. 728.
Iversen, Lorenz, West Homestead, assignor to Mesta Machine Company, Pittsburgh, Pa. Steam hydraulic press. No. 1,028,356; June 4; Sp. p. 645; Gaz. vol. 179; p. 97.
Ives Manufacturing Company, The. (See Hotchkiss, Charles A., assignor.)
J. E. Mergott Company, The. (See Fuller, Franz A., assignor.)
J. L. Schureman Co. (See Schureman, Jacob L., assignor.)
J. L. Sommer Manufacturing Co. (See Sommer, John L., assignor.)
Jackson Cushion Edge Company. (See Smith and Hampton, assignors.)
Jackson, George W., Chicago, Ill. High-pressure water-distributing system. No. 1,030,587; June 25; Sp. p. 5615; Gaz. vol. 179; p. 975.
Jackson, Orin V., Jacksonville, Fla., assignor to R. B. McCullough and R. L. Philips, Brunswick, Ga. Hose-lock. No. 1,030,184; June 18; Sp. p. 4603; Gaz. vol. 179; p. 793.
Jackson, Thomas T. (See Farnsworth and Jackson.)
Jacobs, Henry J., assignor to Buffalo Lounge Company, Buffalo, N. Y. Sofa-bed. No. 1,030,730; June 25; Sp. p. 6027; Gaz. vol. 179; p. 1026.
Jacobs, Henry J., assignor to Buffalo Lounge Company, Buffalo, N. Y. Sofa-bed. No. 1,030,731; June 25; Sp. p. 6030; Gaz. vol. 179; p. 1027.
Jacobs, Israel M., Philadelphia, Pa. Cover for bed-springs. No. 1,029,370; June 11; Sp. p. 2836; Gaz. vol. 179; p. 477.
Jacobson, Abram, Lanesville, Mass. Electric switch. No. 1,030,185; June 18; Sp. p. 4605; Gaz. vol. 179; p. 793.
Jacques, Archile, Attleboro, Mass. Chain-connector. No. 1,028,217; June 4; Sp. p. 350; Gaz. vol. 179; p. 48.
James, Joseph H., Pittsburgh, Pa. Illuminant and producing the same. No. 1,028,357; June 4; Sp. p. 648; Gaz. vol. 179; p. 97.
Jameson, Nelson W., Georgetown, Del. Water-power appliance. No. 1,029,127; June 11; Sp. p. 2298; Gaz. vol. 179; p. 392.
Jamieson, Robert, assignor to Draper Company, Hopedale, Mass. Loom. No. 1,029,756; June 18; Sp. p. 3665; Gaz. vol. 179; p. 646.
Janson, Axel. (See Bolin and Janson.)
Jantzen, Niels, assignor of one-half to B. A. Holden, Victoria, British Columbia, Canada. Lifting-jack. No. 1,029,447; June 11; Sp. p. 3005; Gaz. vol. 179; p. 503.
Jarry, Hormidas, Lawrence, assignor to The Whitin Machine Works, Whitinsville, Mass. Heilmann comber. No. 1,029,128; June 11; Sp. p. 2300; Gaz. vol. 179; p. 392.
Jarry, Hormidas, Lawrence, assignor to The Whitin Machine Works, Whitinsville, Mass. Heilmann comber. No. 1,029,129; June 11; Sp. p. 2303; Gaz. vol. 179; p. 393.
Jarvis, Harold, Buffalo, N. Y., and L. R. Jarvis, Toronto, Ontario, Canada. Train signaling mechanism. No. 1,030,307; June 25; Sp. p. 4900; Gaz. vol. 179; p. 875.
Jarvis, Louis R. (See Jarvis, Harold and L. R.)
Jaubert, George F., Paris, France. Preparation of hydrogen by autocombustion. No. 1,029,064; June 11; Sp. p. 2158; Gaz. vol. 179; p. 372.
Jeavons, William R., Cleveland, Ohio. Heater. No. 1,029,757; June 18; Sp. p. 3667; Gaz. vol. 179; p. 647.
Jegge, Emil G., Newark, N. J. Press. No. 1,030,408; June 25; Sp. p. 5113; Gaz. vol. 179; p. 912.
Jenkins, Edward C. and J., Birkenhead, England. Tool for inserting and withdrawing screwed ferrules. No. 1,030,732; June 25; Sp. p. 6033; Gaz. vol. 179; p. 1027.
Jenkins, Joseph. (See Jenkins, Edward C. and J.)
Jennings, Lillie, Lamont, Okla. Sewing-rack. No. 1,028,732; June 4; Sp. p. 1427; Gaz. vol. 179; p. 222.
Jensen, Aage, Eureka, Cal. Check-valve. No. 1,029,931; June 18; Sp. p. 4075; Gaz. vol. 179; p. 708.
Jeschke, Edward, assignor to The Jeschke Manufacturing Company, Bellevue, Ohio. Ditching-machine. No. 1,028,218; June 4; Sp. p. 352; Gaz. vol. 179; p. 49.
Jeschke Manufacturing Company, The. (See Jeschke, Edward, assignor.)
Jess, Peter, Lyons, assignor of one-half to C. A. Evans, Jr., Clinton, Iowa. Wagon hay-rack. No. 1,028,733; June 4; Sp. p. 1429; Gaz. vol. 179; p. 222.
Jessop, Earl P., U. S. Navy. Game. No. 1,029,448; June 11; Sp. p. 3007; Gaz. vol. 179; p. 503.
Johanson, Emil G., assignor to J. Martenson, Chicago, Ill. Lamp chimney or globe. No. 1,030,818; June 25; Sp. p. 6288; Gaz. vol. 179; p. 1059.
Johnson, Albert L., Hamburg, N. Y., assignor to Corrugated Bar Company, St. Louis, Mo. Securing-clip for roof and wall structures. No. 1,029,612; June 18; Sp. p. 3342; Gaz. vol. 179; p. 595.
Johnson, Arthur O., Liberty, and J. A. Eby, Excelsior Springs, Mo. Telephone-directory. No. 1,028,117; June 4; Sp. p. 46; Gaz. vol. 179; p. 11.
Johnson, Carl F., Milwaukee, Wis. Flushing device. No. 1,029,687; June 18; Sp. p. 3507; Gaz. vol. 179; p. 622.
Johnson, Carl F., Milwaukee, Wis. Flushing device. No. 1,029,688; June 18; Sp. p. 3510; Gaz. vol. 179; p. 622.
Johnson, Charles. (See Alsterberg, Henning, assignor.)
Johnson, Charles A., Boston, Mass. Steam-engine. No. 1,028,466; June 4; Sp. p. 887; Gaz. vol. 179; p. 134.
Johnson, Charles E., Denver, Colo. Spark-plug. No. 1,029,613; June 18; Sp. p. 3344; Gaz. vol. 179; p. 596.
Johnson, Edward, assignor of one-half to J. Finkbeiner, Hawthorn, Pa. Saw-setting machine. No. 1,029,614; June 18; Sp. p. 3347; Gaz. vol. 179; p. 596.
Johnson, Eric W. (See Blackmer and Johnson.)
Johnson, Frank M., *et al.* (See De Mars, Joseph, assignor.)
Johnson, George H., Rose Hill, N. Y. Tool-sharpening implement. No. 1,030,662; June 25; Sp. p. 5868; Gaz. vol. 179; p. 1003.
Johnson, Gustavus J., assignor to E. C. Tourtelot, Chicago, Ill. Secondary battery. No. 1,029,015; June 11; Sp. p. 2064; Gaz. vol. 179; p. 355.
Johnson, Hans O., and J. H. Nicholson, Sacramento, Cal. Railway-toilet. No. 1,030,782; June 25; Sp. p. 6186; Gaz. vol. 179; p. 1046.
Johnson, Harrie H., New York, N. Y. Adjustable support for receptacles. No. 1,030,090; June 18; Sp. p. 4413; Gaz. vol. 179; p. 762.
Johnson, Ivar, assignor of one-half to C. E. Ide, Redlands, Cal. Automatic firearm. No. 1,028,884; June 11; Sp. p. 1767; Gaz. vol. 179; p. 309.
Johnson, Jesse W. (See Rupp and Johnson.)
Johnson, John A. (See Eastlund and Johnson.)
Johnson, John L., Milwaukee, Wis., assignor to Allis-Chalmers Company, Transformer. No. 1,030,091; June 18; Sp. p. 4415; Gaz. vol. 179; p. 762.
Johnson, Thomas C., assignor to Winchester Repeating Arms Company, New Haven, Conn. Shotgun. No. 1,028,358; June 4; Sp. p. 648; Gaz. vol. 179; p. 97.
Johnston, Daniel, Marquette, Mich. Chimney-cleaner. No. 1,030,733; June 25; Sp. p. 6034; Gaz. vol. 179; p. 1028.
Johnston, Edward G., Columbus, Ohio. Puzzle game apparatus. No. 1,029,016; June 11; Sp. p. 2068; Gaz. vol. 179; p. 355.
Johnstone, James O., Buffalo, N. Y. Treating zinc-bearing ore. No. 1,029,932; June 18; Sp. p. 4076; Gaz. vol. 179; p. 708.
Jones, Arthur O., Whitley Bay, England, assignor of one-half to The Stettiner Chamotte-Fabrik Actien-Gesellschaft vormals Didier, Stettin, Germany. Vertical coke-oven. No. 1,028,569; June 4; Sp. p. 1105; Gaz. vol. 179; p. 167.
Jones, Chester C., Beatrice, Nebr. Means for cooling gas-engines. No. 1,028,359; June 4; Sp. p. 650; Gaz. vol. 179; p. 97.
Jones, David R. (See Addison, William H., assignor.)
Jones, Earle M., assignor of one-fiftieth to G. Kvitrud, Minneapolis, Minn. Protective check. No. 1,028,570; June 4; Sp. p. 1106; Gaz. vol. 179; p. 168.
Jones, Elijah D., near Valencia, Kans. Wire-stretcher. No. 1,030,588; June 25; Sp. p. 5616; Gaz. vol. 179; p. 975.
Jones, Gus. (See Shaffer, Ora C., assignor.)
Jones, Harry W., assignor to American Can Company, New York, N. Y. Compartment friction-top can. No. 1,029,017; June 11; Sp. p. 2069; Gaz. vol. 179; p. 356.
Jones, John R., Westernville, N. Y. Gun-sight. No. 1,028,219; June 4; Sp. p. 353; Gaz. vol. 179; p. 49.
Jones, Joseph W., New York, N. Y. Speedometer. No. 1,028,220; June 4; Sp. p. 356; Gaz. vol. 179; p. 50.
Jones, Laban E., Anaconda, Mont. Ore-concentrator. No. 1,029,933; June 18; Sp. p. 4078; Gaz. vol. 179; p. 708.
Jones, William H., Chicago, Ill. Water-heater. No. 1,029,300; June 11; Sp. p. 2660; Gaz. vol. 179; p. 451.
Joplin, William A., Lawrence, assignor to Pneumatic Scale Corporation Limited, Quincy, Mass. Feed attachment for hoppers. No. 1,029,998; June 18; Sp. p. 4202; Gaz. vol. 179; p. 729.
Jordan, William H., Knightstown, Ind. Spring-door. No. 1,028,571; June 4; Sp. p. 1108; Gaz. vol. 179; p. 168.
Jory, George W., Marysville, Cal. Ditcher and grader. No. 1,028,734; June 4; Sp. p. 1430; Gaz. vol. 179; p. 222.
Joseph, Carl, Bayonne, N. J. Curtain-support. No. 1,029,871; June 18; Sp. p. 3939; Gaz. vol. 179; p. 686.
Joseph, Herschel V., Doxey, Okla. Grinding-machine. No. 1,030,186; June 18; Sp. p. 4606; Gaz. vol. 179; p. 793.
Joseph, Louis L., Chicago, Ill. Coin-holder. No. 1,030,092; June 18; Sp. p. 4417; Gaz. vol. 179; p. 762.
Joseph, Walter L. (See Joseph, William and W. L.)
Joseph, William and W. L., Highgate, London, England. Fastening device for envelops, bags, boxes, and other articles. No. 1,030,187; June 18; Sp. p. 4607; Gaz. vol. 179; p. 793.
Juengst, Charles A., Croton Falls, N. Y. Gripper. No. 1,029,130; June 11; Sp. p. 2307; Gaz. vol. 179; p. 393.
Kabitzsch, Hermann O., assignor to Firm of G. A. Meyer-Henniger, Hamburg, Germany. Telephone installation. No. 1,030,308; June 25; Sp. p. 4901; Gaz. vol. 179; p. 875.

Kaerschke, Robert, assignor to A. Brandau, Detroit, Mich. Game. No. 1,028,467; June 4; Sp. p. 891; Gaz. vol. 179; p. 134.

Kalbfleisch, Franklin H., Babylon, N. Y. Sizing agent and making same. No. 1,029,131; June 11; Sp. p. 2308; Gaz. vol. 179; p. 393.

Kanonenberg, Heinrich. (See Hellemann and Kanonenberg.)

Kapp, George, and B. S. Hyatt, Vinita, Okla. Folding car-step. No. 1,030,409; June 25; Sp. p. 5115; Gaz. vol. 179; p. 912.

Karhan, August, New York, N. Y. Device for splitting carcasses. No. 1,028,468; June 4; Sp. p. 892; Gaz. vol. 179; p. 134.

Karns, John P., Boulder, Colo. Universal-joint coupling for drilling-machines. No. 1,030,663; June 25; Sp. p. 5869; Gaz. vol. 179; p. 1004.

Karpów, Leon, Winnipeg, Manitoba, Canada. Electric rat-trap. No. 1,030,093; June 18; Sp. p. 4418; Gaz. vol. 179; p. 763.

Karr, James W. (See Copeland, George W., assignor.)

Kassik, Henry, Yonkers, N. Y. Overshoe for horses. No. 1,029,132; June 11; Sp. p. 2310; Gaz. vol. 179; p. 304.

Kästner, Franz, Berlin, Germany, assignor to General Electric Company. Circuit-controlling device. No. 1,028,360; June 4; Sp. p. 652; Gaz. vol. 179; p. 98.

Kauffmann Kase Kompany. (See Kauffmann, Lou B., assignor.)

Kauffmann, Lou B., assignor to Kauffmann Kase Kompany, New York, N. Y. Crate. No. 1,030,845; June 25; Sp. p. 6422; Gaz. vol. 179; p. 1070.

Kaufman, Irving, Baltimore, Md. Pin-ticket. No. 1,030,471; June 25; Sp. p. 5270; Gaz. vol. 179; p. 935.

Kauth, Johannes, Wiesbaden, Germany. Furnace. No. 1,028,572; June 4; Sp. p. 1109; Gaz. vol. 179; p. 168.

Kayetan, John, Cold Spring, N. Y. Razor-honing machine. No. 1,030,256; June 18; Sp. p. 4750; Gaz. vol. 179; p. 817.

Kees, Frederick, Minneapolis, Minn. Sidewalk-cover. No. 1,030,410; June 25; Sp. p. 5118; Gaz. vol. 179; p. 913.

Keighley, Charles P., Vineland, N. J. Shoe ornament. No. 1,029,371; June 11; Sp. p. 2837; Gaz. vol. 179; p. 477.

Keim, Simon S. (See Campbell, Charles E., assignor.)

Keitel, Günther. (See Rice, Marie R., assignor.)

Keith, James, London, England. Ventilator. No. 1,028,221; June 4; Sp. p. 360; Gaz. vol. 170; p. 50.

Keith, Thadeus, New York, N. Y. Burial apparatus. No. 1,028,735; June 4; Sp. p. 1436; Gaz. vol. 179; p. 223.

Keith, Thomas K., Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,030,820; June 25; Sp. p. 6309; Gaz. vol. 179; p. 1060.

Keith, Thomas K., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass. Lasting-machine. No. 1,030,822; June 25; Sp. p. 6322; Gaz. vol. 179; p. 1061.

Keith, Thomas K., deceased, Boston; H. C. Hudson, Swampscott, Mass., administrator, assignor to United Shoe Machinery Company, Paterson, N. J. Tacking mechanism. No. 1,030,819; June 25; Sp. p. 6290; Gaz. vol. 179; p. 1060.

Keith, Thomas K., deceased, Boston; H. C. Hudson, Swampscott, Mass., administrator, assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,030,821; June 25; Sp. p. 6316; Gaz. vol. 179; p. 1061.

Keith, Thomas K., deceased, Boston; H. C. Hudson, Swampscott, Mass., administrator, assignor to United Shoe Machinery Company, Paterson, N. J. Shoe-support. No. 1,030,823; June 25; Sp. p. 6350; Gaz. vol. 179; p. 1062.

Kelker, John W. (See Buchanan and Kelker.)

Kell, Otto, Des Moines, Iowa. Fish-scaling device. No. 1,028,736; June 4; Sp. p. 1438; Gaz. vol. 179; p. 223.

Keller, Allen, Chicago, Ill. Carrier. No. 1,028,469; June 4; Sp. p. 895; Gaz. vol. 179; p. 135.

Keller, Hans. (See Bosch and Keller.)

Kellerman, Henry, Mayfield, Pa. Cop-tube. No. 1,029,065; June 11; Sp. p. 2162; Gaz. vol. 179; p. 372.

Kelley, George J., Attleboro, Mass. Vaginal syringe. No. 1,029,689; June 18; Sp. p. 3513; Gaz. vol. 179; p. 623.

Kellogg Switchboard and Supply Company. (See Weiss, Alfred H., assignor.)

Kelly, John F., Pittsfield, Mass. Machine for perforating music-sheets. No. 1,028,361; June 4; Sp. p. 655; Gaz. vol. 179; p. 98.

Kelsea, Clarence H., Lynn, Mass. Clock-bank. No. 1,028,222; June 4; Sp. p. 362; Gaz. vol. 179; p. 50.

Keneaster, George W., Gage, Okla. Wheel-bearing for vehicles. No. 1,029,690; June 18; Sp. p. 3514; Gaz. vol. 179; p. 623.

Kennedy, Guy L., assignor to National Carbonated Liquid Co., San Francisco, Cal. Liquid carbonating and dispensing apparatus. No. 1,029,196; June 11; Sp. p. 2434; Gaz. vol. 179; p. 415.

Kennedy, William I., Minnewaukan, N. D. Cement block and brick machine. No. 1,030,094; June 18; Sp. p. 4420; Gaz. vol. 179; p. 763.

Kent, Thomas F., assignor of one-half to E. L. Adreon, Jr., St. Louis, Mo. Burner. No. 1,030,824; June 25; Sp. p. 6361; Gaz. vol. 179; p. 1062.

Kent, William C. (See Sarsfield, Timothy B., assignor.)

Kertesz, Adolf, Mainkur, Germany, assignor to Cassella Color Company. Dyeing vegetable fibers with halogenated indigo and indigoid dyestuffs. No. 1,029,066; June 11; Sp. p. 2164; Gaz. vol. 179; p. 372.

Kertész, Alex, Newark, N. J. Combined lifting-jack and brake mechanism for automobiles. No. 1,029,301; June 11; Sp. p. 2664; Gaz. vol. 179; p. 451.

Kestner Evaporator Company. (See Kestner, Paul, assignor.)

Kestner, Paul, Lille, France, assignor to Kestner Evaporator Company, Philadelphia, Pa. Process of evaporation and apparatus therefor. No. 1,028,737; June 4; Sp. p. 1439; Gaz. vol. 179; p. 223.

Kestner, Paul, Lille, France, assignor to Kestner Evaporator Company, Philadelphia, Pa. Evaporating apparatus. No. 1,028,738; June 4; Sp. p. 1442; Gaz. vol. 179; p. 224.

Keyes, Eugene L., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,029,197; June 11; Sp. p. 2441; Gaz. vol. 179; p. 415.

Keystone Watch Case Company, The. (See Freund, Joseph A., assignor.)

Kharas, Theodore, Buffalo, N. Y. Advertising or display device. No. 1,030,734; June 25; Sp. p. 6036; Gaz. vol. 179; p. 1028.

Kibat, Christopher, Belvidere, Ill. Feeder for corn-shredders. No. 1,028,739; June 4; Sp. p. 1450; Gaz. vol. 179; p. 224.

Kidd, James R., Feeding Hills, Mass. Claw-hammer attachment. No. 1,029,934; June 18; Sp. p. 4082; Gaz. vol. 179; p. 708.

Kidner, Thomas B. (See Kilburn, Fairley, Kidner, Irvine, and Chestnut.)

Kiewicz, John, Hyde Park, assignor to Reece Button Hole Machine Company, Boston, Mass. Buttonhole-sewing machine. No. 1,030,589; June 25; Sp. p. 5618; Gaz. vol. 179; p. 975.

Kilbourne and Jacobs Manufacturing Company, The. (See Hubbard, Fred W., assignor.)

Kilbourne & Jacobs Manufacturing Company, The. (See Wilcox, John M., assignor.)

Kilburn, John, J. W. Fairley, T. B. Kidner, W. H. Irvine, and W. T. Chestnut, Fredericton, New Brunswick, Canada, assignors to Monitor Gas Generator Company, New York, N. Y. Gas-generator. No. 1,029,872; June 18; Sp. p. 3940; Gaz. vol. 179; p. 686.

Kilburn, John, J. W. Fairley, T. B. Kidner, W. H. Irvine, and W. T. Chestnut, Fredericton, New Brunswick, Canada, assignors to Monitor Gas Generator Company, New York, N. Y. Acetylene-gas generator. No. 1,029,873; June 18; Sp. p. 3944; Gaz. vol. 179; p. 687.

Kilburn, John, J. W. Fairley, T. B. Kidner, W. H. Irvine, and W. T. Chestnut, Fredericton, New Brunswick, Canada, assignors to Monitor Gas Generator Company, New York, N. Y. Acetylene-gas generator. No. 1,029,874; June 18; Sp. p. 3948; Gaz. vol. 179; p. 687.

Kilburn, John, J. W. Fairley, T. B. Kidner, W. H. Irvine, and W. T. Chestnut, Fredericton, New Brunswick, Canada, assignors to Monitor Gas Generator Company, New York, N. Y. Acetylene-generator. No. 1,029,999; June 18; Sp. p. 4203; Gaz. vol. 179; p. 729.

Kindberg, Alfred, Rockwell City, assignor of one-half to G. M. Andersson, Waterloo, Iowa. Speed-governor. No. 1,029,302; June 11; Sp. p. 2665; Gaz. vol. 179; p. 452.

Kindstrand, Helmer, Rockford, Ill. Hand-vise and holder therefor. No. 1,030,242; June 18; Sp. p. 4724; Gaz. vol. 179; p. 813.

Kinetoplane Display Company. (See Rogers, Homer S., assignor.)

King, Alfred S., Norwich, England. Means for supporting the lids of boxes and the like. No. 1,030,188; June 18; Sp. p. 4608; Gaz. vol. 179; p. 794.

King, Ellis B., Jeannette, Pa. Curtain-pole. No. 1,029,372; June 11; Sp. p. 2840; Gaz. vol. 179; p. 477.

King, Ernest L. (See McMahan and King.)

King, James D., and H. Irving, assignors to Continental Paper Bag Company, New York, N. Y. Paper-bag machine. No. 1,030,783; June 25; Sp. p. 6188; Gaz. vol. 179; p. 1046.

King, James M., Monett, Mo. Shade-bracket. No. 1,029,373; June 11; Sp. p. 2840; Gaz. vol. 179; p. 477.

King, Versal D., Greensboro, Vt. Shingle-bracket. No. 1,028,362; June 4; Sp. p. 658; Gaz. vol. 179; p. 90.

Kinney, Henry M., assignor to Winona Wagon Company, Winona, Minn. Transmission and control system. No. 1,029,018; June 11; Sp. p. 2070; Gaz. vol. 179; p. 356.

Kinney, Henry M., assignor to Winona Wagon Company, Winona, Minn. Motor-wagon. No. 1,030,735; June 25; Sp. p. 6037; Gaz. vol. 179; p. 1029.

Kinney, Jacob C., Prairie Grove, Ark. Lock. No. 1,030,189; June 18; Sp. p. 4609; Gaz. vol. 179; p. 794.

Kirch, Hermann K., and O. E. Clauss, Chicago, Ill. Game apparatus. No. 1,030,664; June 25; Sp. p. 5872; Gaz. vol. 179; p. 1004.

Kirk, Jesse S., assignor to W. H. Morgan, Alliance, Ohio. Metal ties for railways. No. 1,028,223; June 4; Sp. p. 365; Gaz. vol. 179; p. 51.

Kirk-Latty Manufacturing Company, The. (See Sieffel, William J., assignor.)

Kirkley, Joseph, and F. A. White, Augusta, Ga. Umbrella structure. No. 1,029,440; June 11; Sp. p. 3000; Gaz. vol. 179; p. 504.

Kirkwood, William, Chicago, Ill. Blowpipe. No. 1,029,691; June 18; Sp. p. 3516; Gaz. vol. 179; p. 624.

Kirkwood, William, Chicago, Ill. Gas-generator. No. 1,029,692; June 18; Sp. p. 3518; Gaz. vol. 179; p. 624.

Kissel, Bernard L., Joplin, Mo. Blowpipe. No. 1,028,363; June 4; Sp. p. 659; Gaz. vol. 179; p. 99.

Kitak, Joseph, Brighton, Wash. Folding chair. No. 1,029,967; June 11; Sp. p. 2164; Gaz. vol. 179; p. 372.

Kitiltschko, Frank, Milwaukee, assignor to Waverley Manufacturing Company, Jefferson, Wis. Spring-frame for velocipedes. No. 1,028,470; June 4; Sp. p. 896; Gaz. vol. 179; p. 135.

Kitts, Jacob B., Sr., Darby, Pa. Seal-plug. No. 1,030,309; June 25; Sp. p. 4906; Gaz. vol. 179; p. 875.

Klaber, Augustus D., London, England. Letter-copying apparatus. No. 1,030,310; June 25; Sp. p. 4907; Gaz. vol. 179; p. 876.

Klaber, Emile A., New York, N. Y. Letter-copying apparatus. No. 1,028,885; June 11; Sp. p. 1770; Gaz. vol. 179; p. 309.

Klein, George C., Akron, Ohio. Link door-check. No. 1,029,693; June 18; Sp. p. 3520; Gaz. vol. 179; p. 624.

Kleinatland, August, assignor to Atlantic Punctureless Tire Co., Paterson, N. J. Vehicle-tire. No. 1,029,569; June 11; Sp. p. 3247; Gaz. vol. 179; p. 545.

Kleinschmidt, Carl G., Herne, Germany. Sliding stop-valve. No. 1,029,615; June 18; Sp. p. 3348; Gaz. vol. 179; p. 596.

Klenke Cushion Axle Company. (See Klenke, Theodore A., assignor.)

Klenke, Theodore A., New York, N. Y., assignor to Klenke Cushion Axle Company. Cushioning device for vehicles. No. 1,028,740; June 4; Sp. p. 1451; Gaz. vol. 179; p. 224.

Klinger, Richard, Gumpoldskirchen, Austria-Hungary. Lubricating-oil pump. No. 1,030,665; June 25; Sp. p. 5874; Gaz. vol. 179; p. 1004.

Knapp, Charles N. (See Chase and Van Sickle, assignors.)

Knight, Charles D., Schenectady, and W. O. Lum, Amsterdam, N. Y., assignors to General Electric Company. Self-starting direct-connected generator. No. 1,028,364; June 4; Sp. p. 660; Gaz. vol. 179; p. 99.

Knight, Earle R., Norwood, Ohio, assignor to Allis-Chalmers Company. Core structure for dynamo-electric machines. No. 1,030,095; June 18; Sp. p. 4423; Gaz. vol. 179; p. 764.

Knoerzer, Otto, and J. W. Weis, Hammond, Ind.; said Knoerzer assignor to said Weis. Combined memorandum-pad support and lighting device. No. 1,030,825; June 25; Sp. p. 6363; Gaz. vol. 179; p. 1062.

Koetschet, Joseph, and M. Theumann, Lyon, assignors to Société Chimique Des Usines Du Rhone, anciennement Gilliard, P. Monnet et Cartier, Paris, France. Acetylation of cellulosic materials. No. 1,030,311; June 25; Sp. p. 4911; Gaz. vol. 179; p. 877.

Knowles, Edward R., New York, N. Y. Tubular incandescent lamp. No. 1,028,118; June 4; Sp. p. 48; Gaz. vol. 179; p. 12.

Knowles, Francis E. (See Luther, Charles J., assignor.)

Knowlton, Charles F., Pittsburgh, and F. F. Elliot, Ross township, Allegheny county, Pa., assignors to The Osborn Manufacturing Company, Cleveland, Ohio. Mechanical movement. No. 1,028,886; June 11; Sp. p. 1773; Gaz. vol. 179; p. 310.

Knox, Alexander, Brisbane, Queensland, Australia. Transom. No. 1,030,096; June 18; Sp. p. 4425; Gaz. vol. 179; p. 764.

Kobus, Jacob, Bridgeport, Conn. Screw-propeller. No. 1,029,694; June 18; Sp. p. 3522; Gaz. vol. 179; p. 625.

Koch, Norbert, Essen-Rellinghausen, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Gun to be mounted upon automobiles. No. 1,029,303; June 11; Sp. p. 2667; Gaz. vol. 179; p. 452.

Koenig, Alphonso L., San Francisco, Cal. Carbonating apparatus. No. 1,028,365; June 4; Sp. p. 663; Gaz. vol. 179; p. 100.

Koher, John D., assignor of one-half to A. Miller, Cromwell, Ind. Rail-joint. No. 1,029,068; June 11; Sp. p. 2165; Gaz. vol. 179; p. 373.

Köhler, August, assignor to The Firm of C. Zeiss, Jena, Germany. Liquid-lens system. No. 1,028,224; June 4; Sp. p. 360; Gaz. vol. 179; p. 51.

Kohnle, Frederick, Dayton, Ohio. Pin-ticketing machine. No. 1,028,225; June 4; Sp. p. 367; Gaz. vol. 179; p. 51.

Kohnle, Frederick, Dayton, Ohio. Tag-labeling machine. No. 1,028,226; June 4; Sp. p. 370; Gaz. vol. 179; p. 52.

Kohnle, Frederick, assignor to The Ohio Safe Deposit & Trust Company, trustee, Dayton, Ohio. Pin-ticketing machine. No. 1,029,695; June 18; Sp. p. 3523; Gaz. vol. 179; p. 625.

Kohnle, Frederick, assignor to T. Meuche and H. H. Prugh, trustees, Dayton, Ohio. Tag and label. No. 1,029,935; June 18; Sp. p. 4083; Gaz. vol. 179; p. 709.

Kohr, John S., Onset, assignor of one-half to R. W. Krall, York, Pa. Ice-cutting machine. No. 1,029,133; June 11; Sp. p. 2312; Gaz. vol. 179; p. 394.

Kopper, Heinrich, Mülheim-on-the-Ruhr, Germany. Regulating and reversing apparatus for regenerating gas-furnaces. No. 1,029,696; June 18; Sp. p. 3529; Gaz. vol. 179; p. 625.

Kops, Daniel, New York, N. Y. Apparel-corset. No. 1,030,190; June 18; Sp. p. 4612; Gaz. vol. 179; p. 794.

Korff, Francis, assignor to Korff Mfg. Co., Lansing, Mich. Serving apparatus. No. 1,028,942; June 11; Sp. p. 1900; Gaz. vol. 179; p. 328.

Korff Mfg. Co. (See Korff, Francis, assignor.)

Kosztotanyl, Mike, *et al.* (See Molnár, Steve, assignor.)

Kottkay, Rudolph A., Detroit, Mich. Adjustable shade-roller and window-curtain fixture. No. 1,029,196; June 11; Sp. p. 2444; Gaz. vol. 179; p. 416.

Kraemer, Eduard, Cologne, Germany. Automatic grab. No. 1,030,191; June 18; Sp. p. 4614; Gaz. vol. 179; p. 795.

Kraft, Henry J., Chicago, Ill. Aeroplane. No. 1,028,887; June 11; Sp. p. 1776; Gaz. vol. 179; p. 310.

Krag, Erik L., assignor to R. W. Paltridge and W. L. Proper, Chicago, Ill. Metallic book-stack. No. 1,030,472; June 25; Sp. p. 5271; Gaz. vol. 179; p. 935.

Krall, Raymond W. (See Kohr, John S., assignor.)

Kränslein, Georg. (See Schmidt and Kränslein.)

Kreider, Charles D., Lititz, Pa. Knockdown table. No. 1,028,741; June 4; Sp. p. 1459; Gaz. vol. 179; p. 225.

Kremer, John C., and A. H. Fox, assignors to A. H. Fox Gun Company, Philadelphia, Pa. Fore-arm lock for guns. No. 1,029,374; June 11; Sp. p. 2842; Gaz. vol. 179; p. 478.

Krnka, Sylveatre, Paris, France. Bottle-sealing device. No. 1,029,450; June 11; Sp. p. 3010; Gaz. vol. 179; p. 504.

Kroeze, John W., Burlingame, Cal. Sanding-machine. No. 1,030,473; June 25; Sp. p. 5274; Gaz. vol. 179; p. 935.

Krohn, John O. E., Chicago, Ill. Package of commodity. No. 1,028,888; June 11; Sp. p. 1777; Gaz. vol. 179; p. 311.

Krueger, Otto H., Los Angeles, Cal. Grate. No. 1,028,943; June 11; Sp. p. 1903; Gaz. vol. 179; p. 329.

Krüger, Georg, Gross-Lichterfelde, near Berlin, Germany. Combined adding apparatus and pencil-box. No. 1,028,227; June 4; Sp. p. 372; Gaz. vol. 179; p. 52.

Kruger, Harry B. (See Stranders, Julien, assignor.)

Kruh, Oslas O., Schenectady, N. Y., assignor to General Electric Company. Vapor electric apparatus. No. 1,029,375; June 11; Sp. p. 2843; Gaz. vol. 179; p. 478.

Krynock, John, Duquesne, Pa. Tie and rail-fastener. No. 1,029,376; June 11; Sp. p. 2845; Gaz. vol. 179; p. 478.

Kuhn, Charles, *et al.* (See Molnár, Steve, assignor.)

Kühtz, Friedrich, Cannstatt-Stuttgart, Germany. Baker's oven. No. 1,029,134; June 11; Sp. p. 2314; Gaz. vol. 179; p. 394.

Kunkel, Fred R., Edgewood Park, Pa., assignor to Westinghouse Electric and Manufacturing Company. Massage-apparatus. No. 1,029,607; June 18; Sp. p. 3532; Gaz. vol. 179; p. 626.

Kunz, Joseph C. (See Hall, James A., assignor.)

Kusebauch, Anton. (See Foell, Kusebauch, and Neckerman.)

Kutter, Herman L., assignor of one-half to F. C. Trowbridge, Hamilton, Ohio. Paper-making machine. No. 1,028,573; June 4; Sp. p. 1112; Gaz. vol. 179; p. 160.

Kutz, Elmer A., Reading, Pa. Door-fastener. No. 1,030,192; June 18; Sp. p. 4615; Gaz. vol. 179; p. 795.

Kužel, Hans, Baden, near Vienna, Austria-Hungary, assignor to General Electric Company. Manufacturing incandescent-lamp filaments. No. 1,030,666; June 25; Sp. p. 5876; Gaz. vol. 179; p. 1005.

Kvitrud, Gilbert. (See Jones, Earle M., assignor.)

La Borde, John F. (See Williams and La Borde.)

La Chapelle, Fred, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Attachment for chain-stitch sewing-machines. No. 1,030,736; June 25; Sp. p. 6039; Gaz. vol. 179; p. 1029.

La Chapelle, Fred, Lynn, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Chain-stitch seam and making chain-stitches. No. 1,030,784; June 25; Sp. p. 6191; Gaz. vol. 179; p. 1047.

La Follette, Joseph, Portland, Oreg. Combination bevel-protractor. No. 1,028,742; June 4; Sp. p. 1460; Gaz. vol. 179; p. 225.

La May, Arthur C., assignor to R. Bannard and T. J. Swanton, Rochester, N. Y. Currency cutting and signing machine. No. 1,029,190; June 11; Sp. p. 2445; Gaz. vol. 179; p. 416.

La Mont Power Producer and Economizing Device Company. (See La Mont, Samuel, assignor.)

La Mont, Samuel, assignor to La Mont Power Producer and Economizing Device Company, Trenton, N. J. Fluid-mixer for gasolene-engines. No. 1,029,810; June 18; Sp. p. 3778; Gaz. vol. 179; p. 665.

La Mountain, George C., assignor to R. P. Scott, Marshalltown, Iowa. Steam-trap. No. 1,028,744; June 4; Sp. p. 1463; Gaz. vol. 179; p. 226.

Ladwig, Charles F., Macon, Mo. Elevator-truck. No. 1,029,758; June 18; Sp. p. 3670; Gaz. vol. 179; p. 647.

Lagarde, Everette S., and P. A. Angenend, Jr., Houston, Tex. Illuminated vest or coat button. No. 1,030,516; June 25; Sp. p. 5396; Gaz. vol. 179; p. 950.

Lakhovsky, Georges, Paris, France. Liner for use in fixing screw-spikes in railway-sleepers. No. 1,028,743; June 4; Sp. p. 1461; Gaz. vol. 179; p. 225.

Lalli, John, Newark, N. J. Non-refillable bottle. No. 1,029,809; June 18; Sp. p. 3777; Gaz. vol. 179; p. 664.

Lambert, Antoine L., Concordia, Kans. Credit-accounting appliance. No. 1,030,785; June 25; Sp. p. 6193; Gaz. vol. 179; p. 1047.

Lambert, Floyd D., and R. R. Resch, Trinidad, Colo. Reversible rotary engine. No. 1,029,616; June 18; Sp. p. 3351; Gaz. vol. 179; p. 597.

Lamberton, Robert L., Sistersville, W. Va. Intermittent-grip device. No. 1,028,574; June 4; Sp. p. 1115; Gaz. vol. 179; p. 169.

Lampel, Vincenz, Leipa, Austria-Hungary. Combined drawing-compasses and pencil-case. No. 1,028,228; June 4; Sp. p. 373; Gaz. vol. 179; p. 52.

Lamprecht, Emil, Philadelphia, Pa. Gas-lighter. No. 1,029,135; June 11; Sp. p. 2316; Gaz. vol. 179; p. 395.
Lamson Consolidated Store Service Company. (See Fernald, Hiram T., assignor.)
Lancaster, Joe E., *et al.* (See Valentine, Levi J., assignor.)
Lance, Ora L., Corvallis, Oreg. Automatic railway-switch. No. 1,029,200; June 11; Sp. p. 2452; Gaz. vol. 179; p. 417.
Landon, Joseph M., Upper Norwood, London, England. Trumpet. No. 1,029,502; June 11; Sp. p. 3107; Gaz. vol. 179; p. 521.
Landry, Peter J. (See Barton and Landry.)
Landwehr, August H., Holland, Mich. Can-cover. No. 1,029,617; June 18; Sp. p. 3360; Gaz. vol. 179; p. 597.
Lane, Howard, Birmingham, England, assignor to Internationale Wasserstoff Aktiengesellschaft, Frankfort-on-the-Main, Germany. Apparatus for producing hydrogen gas. No. 1,028,366; June 4; Sp. p. 667; Gaz. vol. 179; p. 100.
Lang, John E., Washington, Pa. Sealing device for wrappers. No. 1,029,377; June 11; Sp. p. 2846; Gaz. vol. 179; p. 478.
Langen, George, and C. Meier, assignors to The Cincinnati Planer Company, Cincinnati, Ohio. Metal-working planer. No. 1,029,875; June 18; Sp. p. 3951; Gaz. vol. 179; p. 688.
Lansing Wheelbarrow Company. (See Stebbins, Arthur C., assignor.)
Lapointe Machine Tool Co. (See Lapointe, Ralph R., assignor.)
Lapointe, Ralph R., assignor, by mesne assignments, to Lapointe Machine Tool Co., Hudson, Mass. Broaching mechanism. No. 1,028,824; June 4; Sp. p. 1621; Gaz. vol. 179; p. 253.
Lapointe, Ralph R., assignor, by mesne assignments, to Lapointe Machine Tool Co., Hudson, Mass. Broaching-machine. No. 1,028,825; June 4; Sp. p. 1623; Gaz. vol. 179; p. 253.
Laprise, Henry, Holyoke, Mass. Aeroplane. No. 1,030,312; June 25; Sp. p. 4012; Gaz. vol. 179; p. 877.
Large, I. S. (See Walhof, Charles A., assignor.)
Larsen, Ivert, Chicago, Ill. Lubricating device. No. 1,028,745; June 4; Sp. p. 1466; Gaz. vol. 179; p. 227.
Larsen, Ivert, Chicago, Ill. Lubricator. No. 1,030,667; June 25; Sp. p. 5877; Gaz. vol. 179; p. 1005.
Larsen, John C., Medford, Wis. Metal-fence-post. No. 1,030,411; June 25; Sp. p. 5119; Gaz. vol. 179; p. 913.
Larsen, Peter A., Mount Pleasant, Utah. Slide-equalizer doubletree. No. 1,028,746; June 4; Sp. p. 1470; Gaz. vol. 179; p. 227.
Larsson, Magnus, Helsingborg, Sweden. Feeder for straw and tobacco cutters. No. 1,029,759; June 18; Sp. p. 3671; Gaz. vol. 179; p. 647.
Lattig, Jacob W., assignor to American Automatic Telephone Co., Rochester, N. Y. Impulse-transmitter. No. 1,030,412; June 25; Sp. p. 5120; Gaz. vol. 179; p. 913.
Latulip, Fred, assignor of one-half to A. F. Vadebonceur, Syracuse, N. Y. Concrete roof-tile. No. 1,030,590; June 25; Sp. p. 5630; Gaz. vol. 179; p. 976.
Latulip, Fred, assignor of one-half to A. F. Vadebonceur, Syracuse, N. Y. Machine for making tile. No. 1,030,591; June 25; Sp. p. 5632; Gaz. vol. 179; p. 976.
Latus, Elmer J. (See Schoentag and Latus.)
Laubscher, August, assignor to United States Envelope Company, Springfield, Mass. Gum-roll governor for envelop-machines. No. 1,029,304; June 11; Sp. p. 2668; Gaz. vol. 179; p. 452.
Laufer, Christopher F., assignor to R. B. Laufer, Richmond, Cal. Valve. No. 1,028,747; June 4; Sp. p. 1471; Gaz. vol. 179; p. 227.
Laufer, Rena B. (See Laufer, Christopher F., assignor.)
Laun, Christian F., assignor to Berbecker & Rowland Manufacturing Company, Waterville, Conn. Furniture-caster. No. 1,029,136; June 11; Sp. p. 2318; Gaz. vol. 179; p. 395.
Lauzon, Calvin A., and J. A. Rose, Grand Rapids, assignors, by mesne assignments, to Wm. Heap & Co., Muskegon, Mich. Fireless cooker. No. 1,029,137; June 11; Sp. p. 2320; Gaz. vol. 179; p. 396.
Lawton, Charles F., assignor to F. W. Huestis, New York, N. Y. Rendering mineral substances available as fertilizers by aid of fermentation. No. 1,029,378; June 11; Sp. p. 2848; Gaz. vol. 179; p. 479.
Layhon, Arthur J., Lowell, Mass. Spring-cushion tire for vehicle-wheels. No. 1,028,889; June 11; Sp. p. 1779; Gaz. vol. 179; p. 311.
Lazaron, Samuel L., Cincinnati, Ohio. Combined convertible souvenir and advertising postal card, puzzle, boat, and box. No. 1,029,069; June 11; Sp. p. 2167; Gaz. vol. 179; p. 373.
Lazell, Ellis W. (See Spackman and Lazell.)
Le Fevre, William D., Dover, Del. Airship. No. 1,028,891; June 11; Sp. p. 1782; Gaz. vol. 179; p. 311.
Le Gendre, Albert A., Warren, Ark. Whip-locking socket. No. 1,028,229; June 4; Sp. p. 374; Gaz. vol. 179; p. 53.
Le Mieux, Victoria M., Faribault, Minn. Brush. No. 1,029,070; June 11; Sp. p. 2170; Gaz. vol. 179; p. 373.
Le Page, Rodalph H., Chicago, Ill. Mirror-holder. No. 1,029,071; June 11; Sp. p. 2170; Gaz. vol. 179; p. 374.
Le Pontois, Leon, New Rochelle, assignor to A. R. Mosler & Co., New York, N. Y. Magnetic speed-indicator. No. 1,028,488; June 4; Sp. p. 942; Gaz. vol. 179; p. 141.
Leach, Floyd D., Chicago, Ill. Friction-gearing. No. 1,028,944; June 11; Sp. p. 1905; Gaz. vol. 179; p. 329.
Leach, John, Blackburn, England. Medical inhaler. No. 1,028,890; June 11; Sp. p. 1780; Gaz. vol. 179; p. 311.
Leavitt Machine Company. (See Smith and Williams, assignors.)
Leblanc, Maurice, Paris, France. Refrigerating-machine. No. 1,029,201; June 11; Sp. p. 2455; Gaz. vol. 179; p. 418.
Lebovitz, Louis, Pittsburgh, Pa. Gas-stove. No. 1,030,000; June 18; Sp. p. 4207; Gaz. vol. 179; p. 729.
Ledeboer, Peter G., Chicago, Ill. Combination driving mechanism and differential. No. 1,030,097; June 18; Sp. p. 4426; Gaz. vol. 179; p. 764.
Lederer, Leonhard, Sulzbach, Germany. Filaments and other products obtained from cellulose compounds. No. 1,028,748; June 4; Sp. p. 1472; Gaz. vol. 179; p. 227.
Lee, Oscar G., Jacobs Creek, Pa. Hat-pin-point protector. No. 1,029,379; June 11; Sp. p. 2850; Gaz. vol. 179; p. 479.
Leech, Leopold A., Carnegie, Pa. Flying-machine. No. 1,028,120; June 4; Sp. p. 53; Gaz. vol. 179; p. 12.
Leeper, James F., Berkeley Springs, W. Va. Dispensing and forming apparatus. No. 1,028,749; June 4; Sp. p. 1474; Gaz. vol. 179; p. 228.
Legnard, Gilbert B., and E. Formato, Pittsburgh, Pa. Insulating-panel. No. 1,028,575; June 4; Sp. p. 1118; Gaz. vol. 179; p. 170.
Legrand, Charles, and A. Armel, Paris, France. Safety-bolt to lock and release the levers serving to operate from a distance a switch, signal, &c., for railways. No. 1,029,202; June 11; Sp. p. 2456; Gaz. vol. 179; p. 418.
Legros, Lucien A. (See Grant and Legros.)
Leith, George W. (See Whittaker and Leith.)
Leland & Company, W. H. (See Gifford, Albert J., assignor.)
Leland, John A., Montague, assignor to Millers Falls Company, Millers Falls, Mass. Telescopic extension-rod. No. 1,030,592; June 25; Sp. p. 5635; Gaz. vol. 179; p. 977.
Leluau, Charles, *et al.* (See Lord, Peter, assignor.)
Lemay, Joseph, New York, N. Y. Garment-clasp. No. 1,030,008; June 18; Sp. p. 4428; Gaz. vol. 179; p. 765.
Leonard, Charles M., Hilton, N. Y. Pruning-saw. No. 1,028,230; June 4; Sp. p. 375; Gaz. vol. 179; p. 53.
Leonard, Harry W., Bronxville, N. Y. Electric-railway system. No. 1,029,698; June 18; Sp. p. 3534; Gaz. vol. 179; p. 626.
Leone, Pascal, New York, N. Y. Automatic clutch. No. 1,028,750; June 4; Sp. p. 1475; Gaz. vol. 179; p. 228.
Lepersonne, Max. (See Barbanson and Lepersonne.)
Lepper, John J., Milwaukee, Wis. Advertising device. No. 1,029,618; June 18; Sp. p. 3361; Gaz. vol. 179; p. 598.
Ley, Frank W., assignor to International Packing Machine Company, New York, N. Y. Packaging-machine. No. 1,030,517; June 25; Sp. p. 5398; Gaz. vol. 179; p. 950.
Levalley, Christopher W., Milwaukee, Wis. Conveyer. No. 1,028,751; June 4; Sp. p. 1478; Gaz. vol. 179; p. 228.
Levan, George W., Philadelphia, Pa. Heel-cushion. No. 1,029,019; June 11; Sp. p. 2073; Gaz. vol. 179; p. 356.
Levedahl, Axel, assignor to Aurora Automatic Machinery Company, Aurora, Ill. Force-feed oiler. No. 1,028,471; June 4; Sp. p. 897; Gaz. vol. 179; p. 135.
Levedahl, Axel, assignor to Aurora Automatic Machinery Company, Aurora, Ill. Force-feed oiler. No. 1,029,547; June 11; Sp. p. 3199; Gaz. vol. 179; p. 536.
Levering, Wilson K., Baltimore, Md. Core-box. No. 1,028,367; June 4; Sp. p. 668; Gaz. vol. 179; p. 100.
Levin, Lewis, New Castle, Pa. Operating mechanism for shoe-polishing machines. No. 1,030,001; June 18; Sp. p. 4208; Gaz. vol. 179; p. 730.
Lewis, Alfred. (See Williams and Lewis.)
Lewis, Harry A., Chicago, Ill. Attachment for vehicle-lamps. No. 1,028,231; June 4; Sp. p. 376; Gaz. vol. 179; p. 53.
Lewis, Jasper E., Philadelphia, Pa., assignor of one-third to W. B. Matthews, Washington, D. C. Coin-controlled circuit-closing apparatus. No. 1,028,232; June 4; Sp p. 377; Gaz. vol. 179; p. 53.
Libby, Almon G. (See Nimmo and Libby.)
Liberty Vending Co. (See Elzaa, Martin, assignor.)
Liddell, Robert, Tecumseh, Nebr. Hydrocarbon-burner. No. 1,028,892; June 11; Sp. p. 1784; Gaz. vol. 179; p. 312.
Liddle, John, *et al.* (See Thomas, Frank M., assignor.)
Lieber, William H., assignor to Allis-Chalmers Company, Milwaukee, Wis. Engineer's valve. No. 1,030,193; June 18; Sp. p. 4616; Gaz. vol. 179; p. 795.
Lieber, William H., assignor to Allis-Chalmers Company, Milwaukee, Wis. Crusher. No. 1,030,194; June 18; Sp. p. 4619; Gaz. vol. 179; p. 795.
Lieske, Alvin F., Henderson, Minn. Chimney-cap. No. 1,029,072; June 11; Sp. p. 2171; Gaz. vol. 179; p. 374.
Lill, Hubert, Mannheim, Germany. Photographic apparatus. No. 1,030,737; June 25; Sp. p. 6041; Gaz. vol. 179; p. 1029.
Lilly, Joseph, Birmingham, England. Hinge-joint. No. 1,029,699; June 18; Sp. p. 3547; Gaz. vol. 179; p. 627.
Lind, Monroe P. (See Schandein and Lind.)
Lindner, Max, Berlin, Germany. Lock. No. 1,028,368; June 4; Sp. p. 671; Gaz. vol. 179; p. 100.
Lines, William H., Ansonia, Conn. Loading apparatus. No. 1,028,576; June 4; Sp. p. 1120; Gaz. vol. 179; p. 170.
Linograph Manufacturing Company, The. (See Petersen, Hans, assignor.)

Lipp, George, Allen, Nebr. Whip-lock. No. 1,029,073; June 11; Sp. p. 2172; Gaz. vol. 179; p. 374.
Little, Walter D., *et al.* (See Little, William A., assignor.)
Little, William A., assignor of one-third to W. D. Little and one-third to W. A. McGuire, Cresson, Pa. Wrench. No. 1,029,074; June 11; Sp. p. 2173; Gaz. vol. 179; p. 374.
Livingston, Frank S., Los Angeles, Cal. Grate. No. 1,030,002; June 18; Sp. p. 4211; Gaz. vol. 179; p. 780.
Ljunggren, Carl J., Providence, R. I. Hygienic chalice. No. 1,028,752; June 4; Sp. p. 1480; Gaz. vol. 179; p. 229.
Llobet, Miguel, Barcelona, Spain. Self-acting water-balance. No. 1,030,090; June 18; Sp. p. 4429; Gaz. vol. 179; p. 765.
Lochner, Ellanora D., Brooklyn, N. Y. Refrigerator. No. 1,030,668; June 25; Sp. p. 5879; Gaz. vol. 179; p. 1005.
Lockwood, Burns D., Bellevue, assignor to Pressed Steel Car Company, Pittsburgh, Pa. Journal-box pedestal. No. 1,029,619; June 18; Sp. p. 3362; Gaz. vol. 179; p. 598.
Lockwood, Charles S., Newark, assignor to Hyatt Roller Bearing Company, Harrison, N. J. Collared spirally-wound roll. No. 1,029,075; June 11; Sp. p. 2175; Gaz. vol. 179; p. 374.
Loeffler, John H. (See Schneider, Loeffler, and Fleck.)
Loewenthal, Oscar R., Vancouver, British Columbia, Canada. Insectifuge. No. 1,029,203; June 11; Sp. p. 2460; Gaz. vol. 179; p. 419.
Lofton, Herbert M., Atlanta, Ga., assignor of one-half to J. W. Conway, Charlotte, N. C. Pneumatic water system for domestic purposes. No. 1,028,121; June 4; Sp. p. 56; Gaz. vol. 179; p. 13.
Loguin, Alexander J., West Allis, Wis., assignor to Allis-Chalmers Company. Motor-controller. No. 1,030,195; June 18; Sp. p. 4623; Gaz. vol. 179; p. 796.
Loguin, Alexander J., West Allis, Wis., assignor to Allis-Chalmers Company. Switch. No. 1,030,593; June 25; Sp. p. 5637; Gaz. vol. 179; p. 977.
Lombardi, Joseph J., New York, N. Y. Electric ignition device. No. 1,030,413; June 25; Sp. p. 5124; Gaz. vol. 179; p. 914.
Long, Edward H., Los Angeles, Cal. Signaling apparatus. No. 1,029,811; June 18; Sp. p. 3780; Gaz. vol. 179; p. 665.
Long, Frank B., Los Angeles, Cal. Piano-key. No. 1,028,753; June 4; Sp. p. 1481; Gaz. vol. 179; p. 229.
Long, George A., assignor to The Gray Telephone Pay Station Company, Hartford, Conn. Telephone pay-station. No. 1,028,945; June 11; Sp. p. 1907; Gaz. vol. 179; p. 330.
Longfeather, Nicholas, Syracuse, N. Y. Composition for treating trees. No. 1,028,233; June 4; Sp. p. 381; Gaz. vol. 179; p. 54.
Lontz, John M. (See Brown and Lontz.)
Lord, Peter, assignor of nine thirty-seconds to J. A. H. Hebert, five thirty-seconds to C. Leluau, five thirty-seconds to L. A. Delorme, and five thirty-seconds to G. Itzweire, Montreal, Canada. Gearing. No. 1,030,738; June 25; Sp. p. 6042; Gaz. vol. 179; p. 1029.
Lorenz, William A., Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Paper-bag machine. No. 1,029,700; June 18; Sp. p. 3549; Gaz. vol. 179; p. 627.
Lorenz, William A., and J. Merritt, Hartford, Conn., assignors to Union Paper Bag Machine Company, Philadelphia, Pa. Paper-bag machine. No. 1,028,701; June 18; Sp. p. 3553; Gaz. vol. 179; p. 628
Lorenz, William A., and J. Merritt, Hartford, Conn., assignors to Union Paper Bag Machine Company, Philadelphia, Pa. Feed mechanism. No. 1,029,760; June 18; Sp. p. 3673; Gaz. vol. 179; p. 648.
Los Angeles Trolley Catcher Company. (See Ricketts, James R., assignor.)
Loshbough, Anthony W., Detroit, Mich. Chart for computing-scales. No. 1,028,946; June 11; Sp. p. 1908; Gaz. vol. 179; p. 330.
Lotzing, Otto, Brunswick, Germany. Jumping-wall. No. 1,028,234; June 4; Sp. p. 381; Gaz. vol. 179; p. 54.
Louden, Robert B. (See Neller and Louden.)
Lovell, Frederick W., Cleveland, assignor to The McMyler Interstate Company, Bedford, Ohio. Coal-handling plant. No. 1,028,235; June 4; Sp. p. 382; Gaz. vol. 179; p. 54.
Lovett, Morris J., Randsburg, Cal. Permutation-padlock. No. 1,028,754; June 4; Sp. p. 1482; Gaz. vol. 179; p. 229.
Low, Abbot A., *et al.*, trustees. (See Betts, Lewis F., assignor.)
Low, Abbot A., Horseshoe, and H. Hertzberg, New York, N. Y.; said Hertzberg assignor to said Low. Means for preliminarily heating internal-combustion engines. No. 1,029,380; June 11; Sp. p. 2851; Gaz. vol. 179; p. 479.
Lowder, Matthew W., Indianapolis, Ind. Photographic-printing apparatus. No. 1,028,369; June 4; Sp. p. 672; Gaz. vol. 179; p. 101.
Lucier, George H., St. Paul, Minn. Burglar-alarm. No. 1,030,196; June 18; Sp. p. 4626; Gaz. vol. 179; p. 796.
Lucking, Frank B., Cannon Falls, Minn. Sifter-spout. No. 1,028,577; June 4; Sp. p. 1122; Gaz. vol. 179; p. 170.
Ludwig, Richard, Bous-on-the-Saar, Germany. Rolling-mill. No. 1,028,286; June 4; Sp. p. 386; Gaz. vol. 179; p. 55.
Ludwig, Thomas I., Sandusky, Ohio. Telephone attachment. No. 1,028,370; June 4; Sp. p. 674; Gaz. vol. 179; p. 101.
Luft, Walter, Elberfeld, Germany. Closure for ladies' waists and blouses. No. 1,029,204; June 11; Sp. p. 2416; Gaz. vol. 179; p. 419.
Lum, Walter O. (See Knight and Lum.)
Lumello, Carlo, assignor of one-half to F. Franco, Turin, Italy. Machine for the manufacture of wooden pins or pegs. No. 1,029,503; June 11; Sp. p. 3109; Gaz. vol. 179; p. 521.
Lund, Jens G. F., Christiania, Norway. Straight vault. No. 1,028,578; June 4; Sp. p. 1123; Gaz. vol. 179; p. 171.
Lund, Thomas, Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Compressing-machine. No. 1,030,739; June 25; Sp. p. 6045; Gaz. vol. 179; p. 1030.
Lundberg, Swan, Chicago, Ill. Spring-hinge. No. 1,029,876; June 18; Sp. p. 3952; Gaz. vol. 179; p. 688.
Lundy, Nathan W., Waukegan, Ill. Tool-heater. No. 1,030,257; June 18; Sp. p. 4754; Gaz. vol. 179; p. 818.
Lunken, Edmund H., assignor to The Lunkenheimer Company, Cincinnati, Ohio. Window-sash. No. 1,029,381; June 11; Sp. p. 2854; Gaz. vol. 179; p. 480.
Lunkenheimer Company, The. (See Lunken, Edmund H., assignor.)
Lurie, Arnold N., assignor of one-half to T. L. Lurie, Chicago, Ill. Slide-rule. No. 1,028,237; June 4; Sp. p. 388; Gaz. vol. 179; p. 55.
Lurie, Theresa L. (See Lurie, Arnold N., assignor.)
Lurtz, John, Chicago, Ill. Dressing-table. No. 1,029,812; June 18; Sp. p. 3797; Gaz. vol. 179; p. 666.
Lushbaugh, Edward. (See Auth, Joseph, assignor.)
Luther, Charles J., Elizabeth, assignor of one-half to F. E. Knowles, South Orange, N. J. Drive-chain. No. 1,028,893; June 11; Sp. p. 1785; Gaz. vol. 179; p. 312.
Lutz, George A., Plainfield, N. J. Connector for conduits and pipes. No. 1,028,579; June 4; Sp. p. 1125; Gaz. vol. 179; p. 171.
Lutz, George H., Kansas City, Mo. System of operating steam-railway trains. No. 1,030,669; June 25; Sp. p. 5880; Gaz. vol. 179; p. 1006.
Lutze, Alfred, Halle-on-the-Saale, Germany. Conveying and discharging device for use in bakeries or the like. No. 1,028,762; June 4; Sp. p. 1497; Gaz. vol. 179; p. 232.
Lux, Edwin H., Logansport, Ind. Electric sad-iron. No. 1,028,580; June 4; Sp. p. 1127; Gaz. vol. 179; p. 171.
Lux, Paul, assignor to The Waterbury Clock Co., Waterbury, Conn. Alarm-clock. No. 1,029,305; June 11; Sp. p. 2672; Gaz. vol. 179; p. 453.
Lyman, Walter M., Philadelphia, Pa. Animal-blanket. No. 1,028,581; June 4; Sp. p. 1129; Gaz. vol. 179; p. 172.
Lynch, John M., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Hardening and tempering steel. No. 1,029,877; June 18; Sp. p. 3953; Gaz. vol. 179; p. 688.
Lyon, Harry, Brockton, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Tacking mechanism. No. 1,028,238; June 4; Sp. p. 389; Gaz. vol. 179; p. 55.
Maar, Charles, White, S. D. Mail-carrier. No. 1,028,894; June 11; Sp. p. 1787; Gaz. vol. 179; p. 313.
MacAdams, John L., assignor, by mesne assignments, to W. H. Horn & Brother, Philadelphia, Pa. Stitch-length mechanism for straight-bar knitting-machines. No. 1,030,100; June 18; Sp. p. 4430; Gaz. vol. 179; p. 765.
MacKenzie, George W., Ben Avon, assignor to The Hydraulic Vacuum Cleaning Company, Pittsburgh, Pa. Vacuum cleaning apparatus. (Reissue.) No. 13,427; June 11; Sp. p. 3269; Gaz. vol. 179; p. 548.
MacLewee, Carrie H. (See MacLewee, William S., assignor.)
MacLewee, William S., assignor to C. H. MacLewee, Yardley, Pa. Lamp-socket. No. 1,030,101; June 18; Sp. p. 4433; Gaz. vol. 179; p. 766.
MacLewee, William S., assignor to C. H. MacLewee, Yardley, Pa. Electric switch. No. 1,030,102; June 18; Sp. p. 4434; Gaz. vol. 179; p. 766.
MacWilliam, Frederick A. (See MacWilliam, James E., assignor.)
MacWilliam, James E., assignor to F. A. MacWilliam, Hubbardston, Mass. Nasal douche. No. 1,029,813; June 18; Sp. p. 3798; Gaz. vol. 179; p. 666.
Macdonald, Thomas H., assignor to American Graphophone Company, Bridgeport, Conn. Back-spacer for dictaphones. No. 1,030,740; June 25; Sp. p. 6047; Gaz. vol. 179; p. 1031.
Macey, Robert L., Kansas City, Mo. Miter-box. No. 1,030,474; June 25; Sp. p. 5277; Gaz. vol. 179; p. 936.
Macfarlane, George F., assignor of one-half to Wilkes-Barre Silk Company, Wilkes-Barre, Pa. Attachment for thread doubling and twisting machines. No. 1,029,382; June 11; Sp. p. 2855; Gaz. vol. 179; p. 480.
Machado, Joseph R., Vallejo, Cal. Aeroplane. No. 1,030,518; June 25; Sp. p. 5405; Gaz. vol. 179; p. 951.
Machine Mantle Sewing Company. (See Cohn, Samuel, assignor.) (Reissue.)
Mackay, Edmund. (See Ferrall and Mackay.)
Mackenzie, Alexander S., Elizabeth, N. J., assignor of one-half to F. Phelps, LittleRock, Ark. Press for extracting liquid from materials. No. 1,030,594; June 25; Sp. p. 5639; Gaz. vol. 179; p. 977.

Macleod, Albert A., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting mechanism. No. 1,030,519; June 25; Sp. p. 5407; Gaz. vol. 179; p. 951.

Maddock, Edward S., Kenosha, Wis., and J. M. Cobb, Chicago, Ill. Record-card. No. 1,029,702; June 18; Sp. p. 3560; Gaz. vol. 179; p. 628.

Madero, Eduardo J. M., Buenos Aires, Argentina. Rotary engine. No. 1,028,371; June 4; Sp. p. 676; Gaz. vol. 179; p. 102.

Malner, William L., assignor of one-half to J. M. Hubert, Lamb, Tex. Mail-handling apparatus. No. 1,028,755; June 4; Sp. p. 1484; Gaz. vol. 179; p. 230.

Malner, William L., assignor of one-half to J. M. Hubert, Lamb, Tex. Mail-receiving apparatus. No. 1,028,756; June 4; Sp. p. 1486; Gaz. vol. 179; p. 230.

Malcolm, George W., Davenham, and F. T. Munton, Winsford, assignors to The Salt Union Limited, Liverpool, England. Treatment of brine. No. 1,030,103; June 18; Sp. p. 4436; Gaz. vol. 179; p. 766.

Malmgren, Nels, L. N. Todd, and S. J. Watson, Canton, Ill. Trolley-wire-cleaning device. No. 1,030,670; June 25; Sp. p. 5883; Gaz. vol. 179; p. 1006.

Malmsten, Nils K. E. (See Thorsell and Malmsten.)

Maloz, David H., et al. (See Maloz, Walter C., assignor.)

Maloz, Walter C., assignor of one-third to D. H. Maloz, Patterson, and one-third to W. P. Brady, New Orleans, La. Liquid-dispenser. No. 1,029,076; June 11; Sp. p. 2176; Gaz. vol. 179; p. 375.

Manchester, Ernest F., Randolph, Vt. Pool-register. No. 1,030,786; June 25; Sp. p. 6195; Gaz. vol. 179; p. 1047.

Manning, Bowman & Company. (See Savage, George E., assignor.)

Manning, Louis H., Parmele, N. C. Window-blind. No. 1,029,814; June 18; Sp. p. 3799; Gaz. vol. 179; p. 667.

Mansfield, Richard W., New London, Conn. Educational game apparatus. No. 1,030,414; June 25; Sp. p. 5126; Gaz. vol. 179; p. 914.

Manson, Joseph P., Hartland, Me. Potato-vine arranger. No. 1,030,475; June 25; Sp. p. 5278; Gaz. vol. 179; p. 936.

Manson, Ray H., assignor to The Dean Electric Company, Elyria, Ohio. Relay and circuits therefor. No. 1,030,415; June 25; Sp. p. 5128; Gaz. vol. 179; p. 914.

Mantonya, Sylvester A., Yates Center, Kans. Crude-oil burner. No. 1,030,104; June 18; Sp. p. 4438; Gaz. vol. 179; p. 766.

Marassi, Adolf, Kottern, near Kempten, Germany, assignor to Genossenschaft für Textilpatente, Basel, Switzerland. Bobbin for weaving-looms. No. 1,029,020; June 11; Sp. p. 2074; Gaz. vol. 179; p. 357.

Mardis, Charles. (See Fowler, James T., assignor.)

Margerison, Charles, Toronto, Ontario, Canada. Combined curtain-pole and shade-support. No. 1,028,757; June 4; Sp. p. 1488; Gaz. vol. 179; p. 230.

Marietti, Silvio, Alpignano, near Turin, Italy, assignor to Société Anonyme des Perfectionnements aux Lampes Electriques à Filaments Metalliques, Brussels, Belgium. Mounting and soldering electrical filaments. No. 1,029,383; June 11; Sp. p. 2857; Gaz. vol. 179; p. 481.

Marino, Pascal, Regents Park, London, England. Electrolytic deposition of metals. No. 1,028,895; June 11; Sp. p. 1789; Gaz. vol. 179; p. 313.

Markham Air Rifle Company. (See Roe, Ernest S., assignor.)

Markham, Charles F., Providence, R. I. Pin. No. 1,029,205; June 11; Sp. p. 2461; Gaz. vol. 179; p. 419.

Markley, William D., Harrisburg, Pa. Door-lock. No. 1,030,313; June 25; Sp. p. 4916; Gaz. vol. 179; p. 877.

Marsh, William P., Dayton, Ohio, and H. E. Dill, assignors to National Coning Machinery Company, Indianapolis, Ind. Cutting and printing machine. No. 1,029,021; June 11; Sp. p. 2075; Gaz. vol. 179; p. 357.

Marshall, Dale, Cheltenham, England. Display device. No. 1,028,842; June 4; Sp. p. 1663; Gaz. vol. 179; p. 250.

Marten, William F., Oakland Cal. Selective telephone system. No. 1,029,504; June 11; Sp. p. 3111; Gaz. vol. 179; p. 522.

Martenson, John. (See Johanson, Emil G., assignor.)

Martin, Frank H., San Francisco, Cal. Scale-scoop. No. 1,029,138; June 11; Sp. p. 2321; Gaz. vol. 179; p. 396.

Martin, Frederick E., Bonami, La. Fluid-pressure control. No. 1,030,105; June 18; Sp. p. 4430; Gaz. vol. 179; p. 767.

Martin, Joseph E., Kansas City, Mo., assignor to The Bryant Electric Company, Bridgeport, Conn. Globe-holder. No. 1,029,384; June 11; Sp. p. 2859; Gaz. vol. 179; p. 481.

Martin, Joseph E., Kansas City, Mo., assignor to The Bryant Electric Company, Bridgeport, Conn. Globe-holder. No. 1,029,385; June 11; Sp. p. 2860; Gaz. vol. 179; p. 481.

Martin, Lewis, Roseland, Mo. Gate. No. 1,029,306; June 11; Sp. p. 2675; Gaz. vol. 179; p. 463.

Martin, Robert L., Ocala, Fla. Canal-feeder. No. 1,029,505; June 11; Sp. p. 3115; Gaz. vol. 179; p. 522.

Marx, Henry J., Holyoke, Mass., assignor to The American Thread Company, New York, N. Y. Winding-machine. No. 1,029,703; June 18; Sp. p. 3561; Gaz. vol. 179; p. 629.

Marx, Henry J., Holyoke, Mass., assignor to The American Thread Company, New York, N. Y. Winding mechanism. No. 1,029,704; June 18; Sp. p. 3565; Gaz. vol. 179; p. 629.

Marx, Henry J., Holyoke, Mass., assignor to The American Thread Company, New York, N. Y. Winding-machine. No. 1,029,761; June 18; Sp. p. 3677; Gaz. vol. 179; p. 648.

Marx, Henry J., Holyoke, Mass., assignor to The American Thread Company, Jersey City, N. J. Tension control for thread-dressing machines and the like. No. 1,029,878; June 18; Sp. p. 3958; Gaz. vol. 179; p. 689.

Marx, Phil. (See Riley, William K., assignor.)

Maskrey, Arthur J., assignor of one-half to J. E. Carnahan, Canton, Ohio. Rolling iron or steel sheets. No. 1,029,936; June 18; Sp. p. 4084; Gaz. vol. 179; p. 709.

Mason, Carlisle. (See Schmid and Mason.)

Mason, Charles T., Sumter, S. C. Ignition device for explosive-engines. No. 1,030,243; June 18; Sp. p. 4726; Gaz. vol. 179; p. 813.

Mason, George W., Marshall, and F. Hammond, Casey, Ill. Stuffing-box. No. 1,028,758; June 4; Sp. p. 1489; Gaz. vol. 179; p. 231.

Mason, Sylvester, deceased, Willisville, Ill.; W. L. Mason, administrator. Refrigerator-car. No. 1,030,671; June 25; Sp. p. 5888; Gaz. vol. 179; p. 1006.

Mason, W. L., administrator. (See Mason, Sylvester.)

Matarazzo, Stephen A., Wilmerding, Pa. Tire. No. 1,030,263; June 18; Sp. p. 4770; Gaz. vol. 179; p. 820.

Mathews, George, New Castle, Pa. Nut-locking device. No. 1,030,106; June 18; Sp. p. 4441; Gaz. vol. 179; p. 767.

Mathews Gravity Carrier Company. (See Moore, Frank E., assignor.)

Matthews, Charles H., Topeka, Kans. Hosiery-turner. No. 1,030,620; June 25; Sp. p. 5409; Gaz. vol. 179; p. 952.

Matthews, Edwin L., Minneapolis, Minn. Adding and listing machine. No. 1,028,896; June 11; Sp. p. 1790; Gaz. vol. 179; p. 313.

Matthews, William B. (See Lewis, Jasper E., assignor.)

Mattice, Asa M., Pittsburgh, Pa., assignor to Westinghouse Electric & Manufacturing Company. Shaft-bearing. No. 1,028,122; June 4; Sp. p. 60; Gaz. vol. 179; p. 14.

Mattman, Emil, Milwaukee Wis., assignor to Allis-Chalmers Company. Turbo construction. No. 1,030,595; June 25; Sp. p. 5645; Gaz. vol. 179; p. 978.

Maxim, Hudson, New York, N. Y. War vessel. No. 1,028,472; June 4; Sp. p. 906; Gaz. vol. 179; p. 136.

Maxim, Hudson, Hopatcong borough, N. J. Torpedo-boat. No. 1,028,473; June 4; Sp. p. 909; Gaz. vol. 179; p. 136.

Maxim, Hudson, Hopatcong, N. J. Game of skill. No. 1,030,521; June 25; Sp. p. 5410; Gaz. vol. 179; p. 952.

Mayer, Anton, Chicago, Ill. Airship. No. 1,030,826; June 25; Sp. p. 6365; Gaz. vol. 179; p. 1063.

Mayer, Louis, Mankato, Minn. Wheel and journal. No. 1,029,762; June 18; Sp. p. 3678; Gaz. vol. 179; p. 648.

Mayo, Benjamin F., Salem, Mass. Contact-piece for furniture. No. 1,030,596; June 25; Sp. p. 5646; Gaz. vol. 179; p. 978.

Mayo, Benjamin F., Salem, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tension device. No. 1,028,474; June 4; Sp. p. 912; Gaz. vol. 179; p. 137.

Mays, Gilbert U., Butler, Pa. Centering tool and punch. No. 1,029,386; June 11; Sp. p. 2860; Gaz. vol. 179; p. 481.

Mazzolini, Giuseppe, Naples, Italy. Door, hatch, or like closing device. No. 1,030,620; June 18; Sp. p. 3364; Gaz. vol. 179; p. 590.

McAdams, George F., New York, N. Y. Jogger for paper-ruling machines or printing-presses. No. 1,028,475; June 4; Sp. p. 916; Gaz. vol. 179; p. 137.

McAdams, George F., New York, N. Y. Paper cutting, ruling, and assembling machine for making tablets. No. 1,028,476; June 4; Sp. p. 918; Gaz. vol. 179; p. 137.

McCabe, Hugh, Lawrence, Mass. Flanging-machine. No. 1,030,416; June 25; Sp. p. 5133; Gaz. vol. 179; p. 915.

McCabe, John S., assignor to Montclair Manufacturing and Machine Company, Bridgeville, Pa. Trolley-wheel. No. 1,030,597; June 25; Sp. p. 5648; Gaz. vol. 179; p. 979.

McCall, Thomas A., assignor to The Automatic Typewriter Company, Cleveland, Ohio. Mechanism for feeding paper to type-writers. No. 1,029,200; June 11; Sp. p. 2462; Gaz. vol. 179; p. 419.

McCampbell, W. E., et al. (See Opsahl, Tidemand, assignor.)

McCarry, William H., Pittsfield, Mass. Folding bed. No. 1,028,372; June 4; Sp. p. 678; Gaz. vol. 179; p. 102.

McCaslin, Harry M., assignor to American-La France Fire Engine Company, Elmira, N. Y. Pressure-medium container. No. 1,028,373; June 4; Sp. p. 679; Gaz. vol. 179; p. 102.

McClung, Emory, assignor to E. F. Goodwin, Clarksburg, W. Va. Door-sign. No. 1,029,506; June 11; Sp. p. 3117; Gaz. vol. 179; p. 523.

McCormick, Warren L., Sapulpa, Okla. Pipe-coupling. No. 1,030,107; June 18; Sp. p. 4442; Gaz. vol. 179; p. 767.

McCoy, M. M. (See Douthit, George O., assignor.)

McCrary, John W., Ethan, S. D. Papering-machine. No. 1,030,417; June 25; Sp. p. 5130; Gaz. vol. 179; p. 915.

McCue, Charles T., Hartford, Conn., assignor to E. B. Wilcox and L. B. Hickok, Mechanicsburg, Pa. Perch attachment for vehicles. No. 1,029,579; June 18; Sp. p. 3963; Gaz. vol. 179; p. 689.

McCullough, Romain B., et al. (See Jackson, Orin V., assignor.)

McCurdy, Stewart L., Pittsburgh, Pa. Game apparatus. No. 1,030,108; June 18; Sp. p. 4443; Gaz. vol. 179; p. 767.

McDonald, Samuel F., et al. (See Schneider, Frederick, assignor.)

McElroy, James F., Albany, N. Y., assignor to Consolidated Car-Heating Company, Electric heating system for boilers. No. 1,030,672; June 25; Sp. p. 5890; Gaz. vol. 179; p. 1007.

McEntire, Alvin R., Folsom, Ga. Spring-wheel. No. 1,030,314; June 25; Sp. p. 4917; Gaz. vol. 179; p. 877.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass. Pegging-machine. No. 1,028,240; June 4; Sp. p. 392; Gaz. vol. 179; p. 56.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J., and Boston, Mass. Pulling-over machine. No. 1,029,387; June 11; Sp. p. 2862; Gaz. vol. 179; p. 482.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for working an upper over a last. No. 1,030,264; June 18; Sp. p. 4771; Gaz. vol. 179; p. 821.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tack-feeding mechanism. No. 1,030,315; June 25; Sp. p. 4919; Gaz. vol. 179; p. 878.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Pulling-over machine. No. 1,030,522; June 25; Sp. p. 5414; Gaz. vol. 179; p. 953.

McFeely, Ronald F., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Jack for shoe-machines. No. 1,030,827; June 25; Sp. p. 6368; Gaz. vol. 179; p. 1063.

McFeil, Judson, Chicago, Ill. Selective signaling system. No. 1,030,197; June 18; Sp. p. 4627; Gaz. vol. 179; p. 796.

McFerran, Robert B., et al. (See Ford, Frank W., assignor.)

McGee, James L., La Junta, Colo. Valve. No. 1,028,947; June 11; Sp. p. 1912; Gaz. vol. 179; p. 330.

McGibney, George E., et al. (See Dunn, Frederick W., assignor.)

McGrath, Thomas, Springfield, Mass. Crucible-cover. No. 1,029,815; June 18; Sp. p. 3801; Gaz. vol. 179; p. 667.

McGreevey, John A., Delphi, Ind. Driven wrench. No. 1,028,123; June 4; Sp. p. 62; Gaz. vol. 179; p. 14.

McGuiness, Benjamin F., Worcester, Mass., assignor to Crompton & Knowles Loom Works. Loom-protecting mechanism. No. 1,029,937; June 18; Sp. p. 4085; Gaz. vol. 179; p. 709.

McGuire, Peter J., Wilkinsburg, and H. J. Fronk, Monaca, assignors to United States Sanitary Manufacturing Company, Pittsburgh, Pa. Sink or basin stopper. No. 1,028,374; June 4; Sp. p. 682; Gaz. vol. 179; p. 103.

McGuire, William A., et al. (See Little, William A., assignor.)

McHench, Andrew, Fargo, N. D. Block-molding machine. No. 1,028,241; June 4; Sp. p. 401; Gaz. vol. 179; p. 56.

McIlvaine, Margaret, Irwin, Pa. Sieve. No. 1,030,673; June 25; Sp. p. 5895; Gaz. vol. 179; p. 1007.

McIntosh, Virginia C., Sharpsburg, Pa. Combined mop stick and wringer. No. 1,030,109; June 18; Sp. p. 4446; Gaz. vol. 179; p. 768.

McIntyre, John, Jersey City, N. J. Electromagnetic apparatus. No. 1,029,388; June 11; Sp. p. 2886; Gaz. vol. 179; p. 482.

McIntyre, John T., Jackson, Ala. Air-blower for forges. No. 1,030,418; June 25; Sp. p. 5141; Gaz. vol. 179; p. 916.

McIntyre, William J., Hartford, Conn. Caster. No. 1,029,705; June 18; Sp. p. 3567; Gaz. vol. 179; p. 630.

McIsaac, John T., East Weymouth, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Welt-guide. No. 1,030,741; June 25; Sp. p. 6049; Gaz. vol. 179; p. 1031.

McKee, Albert K., assignor of one-third to E. V. Bray and one-third to T. Cox, Jr., Coalinga, Cal. Well-tubing lock. No. 1,028,759; June 4; Sp. p. 1491; Gaz. vol. 179; p. 231.

McKee, Charles, Monticello, Ill. Corn-sheller. No. 1,029,451; June 11; Sp. p. 3012; Gaz. vol. 179; p. 504.

McKee, George E., and W. F. Schilling, Aspinwall, assignors to McKee-Schilling Permanent Mold Company, Pittsburgh, Pa. Casting apparatus. No. 1,030,198; June 18; Sp. p. 4638; Gaz. vol. 179; p. 797.

McKee-Schilling Permanent Mold Company. (See McKee and Schilling, assignors.)

McKeen Motor Car Company. (See McKeen, William R., Jr., assignor.)

McKeen, Thomas L., Easton, Pa. Platform-buffer for railway passenger-cars. No. 1,029,938; June 18; Sp. p. 4088; Gaz. vol. 179; p. 709.

McKeen, William R., Jr., assignor to McKeen Motor Car Company, Omaha, Nebr. Draft-sill construction for cars. No. 1,028,760; June 4; Sp. p. 1494; Gaz. vol. 179; p. 232.

McKesson, Elmer I., Toledo, Ohio. Anesthetic-administering apparatus. No. 1,028,582; June 4; Sp. p. 1130; Gaz. vol. 179; p. 172.

McKesson, Elmer I., Toledo, Ohio. Rebreathing-bag for anesthetizing apparatus. No. 1,028,583; June 4; Sp. p. 1135; Gaz. vol. 179; p. 172.

McKillip, George H. (See Purcell, George W., assignor.)

McKnight, Richard, Denver, Colo. Clamp for use in the production of screen and window frames, doors, &c. No. 1,028,584; June 4; Sp. p. 1137; Gaz. vol. 179; p. 173.

McKnight, Richard, Denver, Colo., assignor to The Steel Tenon Manufacturing Company. Metallic dowel-plate for use in the production of screen-frames, &c. No. 1,028,761; June 4; Sp. p. 1496; Gaz. vol. 179; p. 232.

McLaughlin, George A., et al. (See Christman, Matthias, assignor.)

McLean, Edward S., Marissa, Ill. Percolator. No. 1,029,939; June 18; Sp. p. 4090; Gaz. vol. 179; p. 710.

McLean, Joseph W., Tucson, Ariz. Derailment-preventer. No. 1,028,585; June 4; Sp. p. 1141; Gaz. vol. 179; p. 173.

McLellan, Robert B., Seattle, Wash. Oil-burner. No. 1,030,419; June 25; Sp. p. 5142; Gaz. vol. 179; p. 916.

McLeod, Nelson W., assignor to American Tire Company, St. Louis, Mo. Making pneumatic-tire casings. No. 1,029,307; June 11; Sp. p. 2676; Gaz. vol. 179; p. 464.

McMahan, Perry C., and E. L. King, Warren, Ohio. Extension-table. No. 1,030,853; June 25; Sp. p. 6445; Gaz. vol. 179; p. 1073.

McManaman, James H., Correctionville, and E. Greiner, Sioux City, Iowa. Car-bolt appliance. No. 1,030,476; June 25; Sp. p. 5279; Gaz. vol. 179; p. 936.

McMorrow, Peter J., St. Louis, Mo. Oven. No. 1,028,242; June 4; Sp. p. 403; Gaz. vol. 179; p. 57.

McMullan, David S., Cleveland, assignor of one-half to R. J. Coleman, Akron, Ohio. Shoe-retainer. No. 1,028,586; June 4; Sp. p. 1142; Gaz. vol. 179; p. 173.

McMyler Interstate Company, The. (See Lovell, Frederick W., assignor.)

McNitt, Robert J., Niagara Falls, assignor to The Chlorine Products Company, New York, N. Y. Producing chloride of tin. No. 1,030,110; June 18; Sp. p. 4447; Gaz. vol. 179; p. 768.

McReynolds, John E., Seattle, Wash. Amusement apparatus. No. 1,030,316; June 25; Sp. p. 4921; Gaz. vol. 179; p. 878.

Mead, Enoch P., Salt Lake City, Utah. Sole and heel plate. No. 1,030,003; June 18; Sp. p. 4214; Gaz. vol. 179; p. 730.

Meck, Virgil A. (See Echternach, Harry S., assignor.)

Meghan, Oliver P., Westerville, Ohio. Insulator-support. No. 1,029,207; June 11; Sp. p. 2464; Gaz. vol. 179; p. 419.

Meier, Albert J., Glendale, Mo. Bag-house. No. 1,030,477; June 25; Sp. p. 5281; Gaz. vol. 179; p. 937.

Meier, Charles. (See Langen and Meier.)

Meisaner, Edward C., St. Louis, Mo., assignor to Chicago Pneumatic Tool Company, Chicago, Ill. Pneumatic hammer. No. 1,028,124; June 4; Sp. p. 63; Gaz. vol. 179; p. 14.

Melhorn, Charles T., Amsbry, Pa. Wrench. No. 1,028,243; June 4; Sp. p. 405; Gaz. vol. 179; p. 57.

Melling, George, et al. (See Melling, Herman, assignor.)

Melling, George, assignor of one-third to H. W. Melling and one-third to L. Northrup, Jackson, Mich. Die-sinking or routing tool. No. 1,029,208; June 11; Sp. p. 2465; Gaz. vol. 179; p. 419.

Melling, Herman, assignor of one-third to L. Northrup and one-third to G. Melling, Jackson, Mich. Combined router and die-sinker. No. 1,028,125; June 4; Sp. p. 66; Gaz. vol. 179; p. 15.

Melling, Herman W., et al. (See Melling, George, assignor.)

Menendez, Gabriel A., assignor to The Goss Printing Press Company, Chicago, Ill. Brake mechanism for web-rolls. No. 1,028,244; June 4; Sp. p. 407; Gaz. vol. 179; p. 58.

Menger, Joseph R. W., Union Hill, N. J. Cigarette-box. No. 1,029,548; June 11; Sp. p. 3205; Gaz. vol. 179; p. 537.

Menningen, Joseph F., West Allis, Wis., assignor to Allis-Chalmers Company. Controller. No. 1,028,948; June 11; Sp. p. 1913; Gaz. vol. 179; p. 331.

Menus, Walter K., Malden, assignor to C. H. Pearson, Brookline, Mass. Electromagnetic instrument. No. 1,029,880; June 18; Sp. p. 3965; Gaz. vol. 179; p. 690.

Meredith, Samuel W., Philadelphia, Pa. Adjustable extension drill-socket. No. 1,028,126; June 4; Sp. p. 69; Gaz. vol. 179; p. 15.

Mergenthaler Linotype Company. (See Rogers, John R., assignor.)

Merikle, Edward D., Passaic, N. J. Garden-hose reel. No. 1,030,199; June 18; Sp. p. 4640; Gaz. vol. 179; p. 797.

Merkel, Benedict. (See Engelmann and Merkel.)

Merrifield, Charles W., Springvale, Me. Fly-killer. No. 1,030,004; June 18; Sp. p. 4214; Gaz. vol. 179; p. 730.

Merritt, Joseph. (See Lorenz and Merritt.)

Merritt, Joseph, Hartford, Conn., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Making paper bags. No. 1,029,706; June 18; Sp. p. 3569; Gaz. vol. 178; p. 630.

Merwin, John C., and J. W. Donovan, assignors to National Blank Book Company, Holyoke, Mass. Appliance for supplying ribbon gold to rotary-disk gilding-tools. No. 1,029,308; June 11; Sp. p. 2079; Gaz. vol. 179; p. 454.

Messacar, William E., assignor to The Apex Horseshoe Co., Albion, Mich. Horseshoe. No. 1,030,478; June 25: Sp. p. 5283; Gaz. vol. 179; p. 937.

Mesta Machine Company. (See Iversen, Lorenz, assignor.)

Metropolitan Engineering Company. (See Palmer, Granville E., assignor.)

Metzger, Amandus, Schenectady, N. Y., assignor to General Electric Company. Welding-machine. No. 1,029,389; June 11; Sp. p. 2887; Gaz. vol. 179; p. 482.

Metzger, Gaston, Kansas City, Mo. Polishing-brush. No. 1,029,077; June 11; Sp. p. 2178; Gaz. vol. 179; p. 375.

Meuche, Theodore, *et al.* (See Kohnle, Frederick, assignor.)

Meyer-Henniger, Firm of Gustav A. (See Kabitzsch, Herman O., assignor.)

Meyer, Peter, Cologne-Nippes, and K. Nuese, Altona, Germany; said Meyer assignor to said Nuese. Type-writing machine. No. 1,030,005; June 18: Sp. p. 4215; Gaz. vol. 179; p. 731.

Meyer, William C., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tension mechanism for sewing-machines. No. 1,030,742; June 25; Sp. p. 6051; Gaz. vol. 179; p. 1031.

Meyer, William C., Boston, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tension device for sewing-machines. No. 1,030,743; June 25; Sp. p. 6056; Gaz. vol. 179; p. 1032.

Meyers, Roddy F., Troy, Ill. Stacker. No. 1,030,420; June 25; Sp. p. 5143; Gaz. vol. 179; p. 916.

Meyrowitz Manufacturing Co. (See Higgins, Frederick L., assignor.)

Meyst, William H., Champaign, Ill. Awning structure. No. 1,030,421; June 25; Sp. p. 5150; Gaz. vol. 179; p. 916.

Michelson, Albert A., Chicago, Ill. Range-finder. No. 1,030,846; June 25; Sp. p. 6424; Gaz. vol. 179; p. 1070.

Micon, David, assignor of one-half to B. Goldman, Chicago, Ill. Spring-mattress. No. 1,029,881; June 18; Sp. p. 3968; Gaz. vol. 179; p. 690.

Middaugh, Carlisle H., Lawrenceville, Pa. Separating-case. No. 1,030,317; June 25; Sp. p. 4923; Gaz. vol. 179; p. 878.

Miles, Adrian, Quartz, Mont. Ironing-board. No. 1,030,006; June 18; Sp. p. 4218; Gaz. vol. 179; p. 731.

Miles, Casper W., Anderson township, Hamilton county, Ohio, assignor to S. S. Miles, Greensboro, N. C. Air and gas compressor. No. 1,029,309; June 11; Sp. p. 2682; Gaz. vol. 179; p. 455.

Miles, Stephen S. (See Miles, Casper W., assignor.)

Milewski, Marian, Carmel, N. Y. Telephone-holder. No. 1,029,390; June 11; Sp. p. 2800; Gaz. vol. 179; p. 483.

Millar, George W., St. Louis, Mo. Pipe and cable coupling and casing therefor. No. 1,028,245; June 4; Sp. p. 409; Gaz. vol. 179; p. 58.

Miller, Alonzo. (See Koher, John D., assignor.)

Miller, Charles J., Minneapolis, Minn. Store-service apparatus. No. 1,030,318; June 25; Sp. p. 4925; Gaz. vol. 179; p. 879.

Miller, George C., and W. J. Beattie, Fitchburg, Mass. Track-sanding device. No. 1,030,523; June 25; Sp. p. 5424; Gaz. vol. 179; p. 963.

Miller, Harry G., Milwaukee, Wis., assignor to Miller Saw-Trimmer Company of Michigan, Alma, Mich. Sawing and trimming machine with router and jig-saw attachment. No. 1,030,598; June 25; Sp. p. 5651; Gaz. vol. 179; p. 979.

Miller, Isadore H., assignor to J. Miller, Cleveland, Ohio. Cabinet. No. 1,030,111; June 18; Sp. p. 4449; Gaz. vol. 179; p. 769.

Miller, John, Jr., Beloit, Wis., assignor to Charles H. Besly & Company, Chicago, Ill. Disk-grinder. No. 1,029,882; June 18; Sp. p. 3969; Gaz. vol. 179; p. 690.

Miller, John C., Grantsville, Md. Stirrup. No. 1,028,763; June 4; Sp. p. 1498; Gaz. vol. 179; p. 232.

Miller, John H., New Weston, Ohio. Planter-marker. No. 1,028,375; June 4; Sp. p. 683; Gaz. vol. 179; p. 103.

Miller, John W., Waukegan, Ill., assignor to The American Steel & Wire Company of New Jersey, Hoboken, N. J. Tension appliance for bale-tie machines. No. 1,029,078; June 11; Sp. p. 2179; Gaz. vol. 179; p. 375.

Miller, Joseph. (See Miller, Isadore H., assignor.)

Miller, Nicholas C., Dodgeville, Wis. Clutch. No. 1,028,764; June 4; Sp. p. 1499; Gaz. vol. 179; p. 233.

Miller, Philip C., Chicago, Ill. Adjuster for blowpipe systems. No. 1,028,376; June 4; Sp. p. 684; Gaz. vol. 179; p. 104.

Miller Saw-Trimmer Company of Michigan. (See Miller, Harry G., assignor.)

Miller, Thomas S., South Orange, N. J. Engine. No. 1,028,127; June 4; Sp. p. 70; Gaz. vol. 179; p. 15.

Miller, Thomas S., South Orange, N. J. Marine cableway. No. 1,028,807; June 11; Sp. p. 1801; Gaz. vol. 179; p. 314.

Miller, Thomas W., assignor to The Faultless Rubber Company, Ashland, Ohio. Bathing-cap. No. 1,028,826; June 4; Sp. p. 1628; Gaz. vol. 179; p. 254.

Miller, William, St. Louis, Mo., assignor to Standard Railway Equipment Company, East St. Louis, Ill. Carline. No. 1,029,570; June 11; Sp. p. 3249; Gaz. vol. 179; p. 545.

Miller, William, assignor to Acme Pipe Clamp Company, St. Louis, Mo. Train-pipe clamp. No. 1,030,200; June 18; Sp. p. 4642; Gaz. vol. 179; p. 798.

Miller, William R., Southington, Conn. Light-fixture tripod. No. 1,030,007; June 18; Sp. p. 4219; Gaz. vol. 179; p. 731.

Millers Falls Company. (See Leland, John A., assignor.)

Million, Silas J., Rogers, Nebr. Traction-plow. No. 1,029,816; June 18; Sp. p. 3902; Gaz. vol. 179; p. 667.

Milliron, Russell D., Mount Pleasant, Pa. Tie and rail-fastener. No. 1,028,587; June 4; Sp. p. 1143; Gaz. vol. 179; p. 174.

Mills, Charles, assignor, by mesne assignments, to Saco-Pettee Company, Newton, Mass. Machine for attaching clothing to flats. No. 1,029,452; June 11; Sp. p. 3014; Gaz. vol. 179; p. 504.

Mills, Charles, and L. W. Penney, assignors, by mesne assignments, to Saco-Pettee Company, Newton, Mass. Lap-winder. No. 1,029,391; June 11; Sp. p. 2891; Gaz. vol. 179; p. 483.

Mills, Herbert S., Oak Park, Ill. Coin-chute for vending-machines. No. 1,029,209; June 11; Sp. p. 2466; Gaz. vol. 179; p. 420.

Mills Novelty Company. (See Hassmann, Carl G., assignor.)

Mills Novelty Company. (See Sandell, Henry K., assignor.)

Milne, Robert, Rockford, Ill. Change-speed mechanism. No. 1,029,549; June 11; Sp. p. 3206; Gaz. vol. 179; p. 538.

Milton, Richard H., Greensboro, N. C. Airship-propeller. No. 1,028,765; June 4; Sp. p. 1502; Gaz. vol. 179; p. 233.

Mineraliac Electric Company. (See Hall, Chester I., assignor.)

Minnick, Alfred, Coeur d'Alene, Idaho, assignor to Minnick Automatic Train Controller Company. Automatic brake-applying means for railways. No. 1,029,210; June 11; Sp. p. 2468; Gaz. vol. 179; p. 420.

Minnick Automatic Train Controller Company. (See Minnick, Alfred, assignor.)

Mitchell, Ardon M., Flushing, N. Y. Casualty-indicator. No. 1,029,550; June 11; Sp. p. 3210; Gaz. vol. 179; p. 538.

Mitchell, Ardon M., Flushing, assignor, by mesne assignments, of one-half to K. M. Widmer, New York, N. Y. Making fuel-briquets. No. 1,029,022; June 11; Sp. p. 2077; Gaz. vol. 179; p. 357.

Mitchell, Harry R., North Yakima, Wash. Permutation-lock. No. 1,029,707; June 18; Sp. p. 3571; Gaz. vol. 179; p. 630.

Mitchell, Henry J., Cincinnati, Ohio. Farm-gate. No. 1,028,588; June 4; Sp. p. 1144; Gaz. vol. 179; p. 174.

Mitchell, John R., Montclair, N. J. Thread-guide. No. 1,030,112; June 18; Sp. p. 4451; Gaz. vol. 179; p. 769.

Mitchell, Robert C., Mount Vernon, N. Y. Power-transmission mechanism. No. 1,028,128; June 4; Sp. p. 74; Gaz. vol. 179; p. 16.

Mitchell, Walter S., San Francisco, Cal. Removable flooring-strip. No. 1,029,940; June 18; Sp. p. 4091; Gaz. vol. 179; p. 710.

Moberg, John E., Stillwater, Minn. Padlock. No. 1,028,246; June 4; Sp. p. 410; Gaz. vol. 179; p. 58.

Mogyorosi, Steven, Stamford, Conn. Rail-tie or sleeper. No. 1,029,211; June 11; Sp. p. 2474; Gaz. vol. 179; p. 421.

Molnár, Steve, assignor of one-fourth to M. Kosztotanyi, one-fourth to J. Pentek, and one-fourth to C. Kuhn, Homestead, Pa. Rat-trap. No. 1,029,551; June 11; Sp. p. 3213; Gaz. vol. 179; p. 538.

Moltrup, James T., Beaver Falls, Pa. Metal-storage system. No. 1,029,139; June 11; Sp. p. 2323; Gaz. vol. 179; p. 396.

Monahan, Louis J., and R. Ziebell, Oshkosh, Wis. Molding-machine. No. 1,029,079; June 11; Sp. p. 2184; Gaz. vol. 179; p. 376.

Monarch Rotary Engine Company. (See Asbel, John T., assignor.)

Monarch Typewriter Company, The. (See Steele, Herbert H., assignor.)

Moneuse, Alphonse F., New Rochelle, N. Y. Coffee or tea urn. No. 1,029,392; June 11; Sp. p. 2896; Gaz. vol. 179; p. 483.

Monhaupt, Max, Altona-Ottensen, Germany. Manufacture of edible products from bassia seeds. No. 1,030,674; June 25; Sp. p. 5896; Gaz. vol. 179; p. 1007.

Monitor Drill Company, The. (See Rieske, Otto G., assignor.)

Monitor Gas Generator Company. (See Kilburn, Fairley, Kidner, Irvine, and Chestnut, assignors.)

Monosmith, David J., Spencer, Ohio. Incandescing element. No. 1,030,787; June 25; Sp. p. 6197; Gaz. vol. 179; p. 1048.

Monroe, Jefferson P., *et al.* (See Elkin, Warren, assignor.)

Montanye, Stanley S., Johnstown, Pa. Filter. No. 1,028,377; June 4; Sp. p. 686; Gaz. vol. 179; p. 104.

Montclair Manufacturing and Machine Company. (See McCabe, John S., assignor.)

Montgomery, Henry J., Silver Creek, N. Y. Locking device for beds. No. 1,030,008; June 18; Sp. p. 4220; Gaz. vol. 179; p. 731.

Montgomery, Walter L., Chicago, Ill. Conveying and feeding mechanism. No. 1,028,766; June 4; Sp. p. 1504; Gaz. vol. 179; p. 234.

Moon-Hopkins Billing Machine Company. (See Thieme, Otto, assignor.)

Mooney, Benjamin F., Findlay, Ohio. Duet piano-bench. No. 1,028,767; June 4; Sp. p. 1505; Gaz. vol. 179; p. 234.

Moore, Charles A., St. Paul, Minn., assignor to Moore Patent Car Co. Refrigerator-car. No. 1,030,524; June 25; Sp. p. 5427; Gaz. vol. 179; p. 953.

Moore, Frank E., assignor to Mathews Gravity Carrier Company, St. Paul, Minn. Gravity-carrier. No. 1,028,589; June 4; Sp. p. 1146; Gaz. vol. 179; p. 174.

Moore, James E. (See Van Devander and Moore.)

Moore, James H. (See Springsteen, Nelson E., assignor.)

Moore, Orlando, Visalia, Cal. Detachable tread. No. 1,030,113; June 18; Sp. p. 4453; Gaz. vol. 179; p. 769.

Moore Patent Car Co. (See Moore, Charles A., assignor.)

Moore, Robert H., assignor to American Creosoting Company, Chicago, Ill. Car-unloading device. No. 1,028,768; June 4; Sp. p. 1506; Gaz. vol. 179; p. 234.

Moore, Roswell A., Waterbury, Conn., and A. S. Sutcliffe, Newark, N. J., assignors to The Narrow Fabric Corporation, Orange, Conn. Reel for strip material. No. 1,029,212; June 11; Sp. p. 2474; Gaz. vol. 179; p. 421.

Moore, Roy, Adena, Ohio. Gate. No. 1,029,393; June 11; Sp. p. 2899; Gaz. vol. 179; p. 484.

Moors, George F., Mount Vernon, Ill. Rotary engine. No. 1,029,941; June 18; Sp. p. 4004; Gaz. vol. 179; p. 710.

Moran, Louis A., Grosse Pointe Farms, Mich. Garbage-receptacle. No. 1,028,898; June 11; Sp. p. 1807; Gaz. vol. 179; p. 314.

Morehouse, Eugene, assignor to B. A. Ballou and Company, Inc., Providence, R. I. Pin. No. 1,028,477; June 4; Sp. p. 922; Gaz. vol. 179; p. 138.

Morel, Lorenzo E., St. Hyacinthe, Quebec, Canada. Soetenuto attachment for electropneumatic instruments. No. 1,030,319; June 25; Sp. p. 4926; Gaz. vol. 179; p. 879.

Moreland, William E., Union City, Ga. Pipe-coupling. No. 1,029,453; June 11; Sp. p. 3016; Gaz. vol. 179; p. 505.

Morey, Harry J., and F. A. Brogden, Syracuse, N. Y. Electric switch. No. 1,030,788; June 25; Sp. p. 6199; Gaz. vol. 179; p. 1048.

Morey, Leonard D., Watertown, assignor of one-half to J. H. Bronson, Waterbury, Conn. Automatic sprinkler-closer. No. 1,028,247; June 4; Sp. p. 412; Gaz. vol. 179; p. 59.

Morgan, Charles, assignor to Arcade Manufacturing Company, Freeport, Ill. Molder's flask. No. 1,028,478; June 4; Sp. p. 923; Gaz. vol. 179; p. 138.

Morgan, Charles M., Los Angeles, Cal. Display-card. No. 1,028,479; June 4; Sp. p. 925; Gaz. vol. 179; p. 138.

Morgan, Horace M. (See Hopkins and Morgan.)

Morgan, John D., Summit, N. J., assignor to Goss Printing Press Company, Chicago, Ill. Folding-machine. No. 1,029,140; June 11; Sp. p. 2324; Gaz. vol. 179; p. 396.

Morgan, John H., Harrogate, England. Shelf and other like bracket. No. 1,028,590; June 4; Sp. p. 1148; Gaz. vol. 179; p. 174.

Morgan, Lewis N., *et al.* (See Dawson, Robert C., assignor.)

Morgan, Ralph L., Worcester, Mass. Means for loading and unloading motor-trucks. No. 1,030,320; June 25; Sp. p. 4932; Gaz. vol. 179; p. 880.

Morgan, William H. (See Kirk, Jesse S., assignor.)

Morgan, William H., Alliance, Ohio. Means for securing rails to metal ties. No. 1,028,248; June 4; Sp. p. 414; Gaz. vol. 179; p. 59.

Morgan, William H., Alliance, Ohio. Metal ties for railways. No. 1,028,249; June 4; Sp. p. 415; Gaz. vol. 179; p. 60.

Morgan, William H., Alliance, Ohio. Metal tie. No. 1,028,250; June 4; Sp. p. 417; Gaz. vol. 179; p. 60.

Morgan, William H., Alliance, Ohio. Metal ties for railways. No. 1,028,251; June 4; Sp. p. 418; Gaz. vol. 179; p. 60.

Morin, Leon J., Taunton, Mass. Spinning-machine. No. 1,028,480; June 4; Sp. p. 926; Gaz. vol. 179; p. 138.

Moriz, Georg, and G. P. Barschall, Rixdorf, near Berlin, Germany. Cap for stoppers of bottles. No. 1,028,769; June 4; Sp. p. 1508; Gaz. vol. 179; p. 235.

Morral, John, assignor of one-fourth to W. Drake and one-fourth to M. C. Clements, Larue, Ohio. Corn-butting machine. No. 1,029,213; June 11; Sp. p. 2475; Gaz. vol. 179; p. 421.

Morris, Fulton R., assignor to Morris Grain Drier and Salvage Company, Milwaukee, Wis. Grain-drier. No. 1,028,899; June 11; Sp. p. 1809; Gaz. vol. 179; p. 314.

Morris Grain Drier and Salvage Company. (See Morris, Fulton R., assignor.)

Morris, William H., Galena, Ill., A. Gruneisen and F. Hoppe, Platteville, Wis. Car-replacer. No. 1,029,394; June 11; Sp. p. 2901; Gaz. vol. 179; p. 484.

Morse, Orville M., deceased, Jackson, Mich.; S. G. Morse, special administratrix. Dust-collector. No. 1,029,214; June 11; Sp. p. 2479; Gaz. vol. 179; p. 422.

Morse, Sarah G., administratrix. (See Morse, Orville M.)

Morton, Arthur H., Cleveland, Ohio. Tire protector or shield. No. 1,029,215; June 11; Sp. p. 2482; Gaz. vol. 179; p. 422.

Moser, Fred J., Kane, Pa. Reel. No. 1,028,770; June 4; Sp. p. 1509; Gaz. vol. 179; p. 235.

Moss, Earl C., Chicago, Ill. Binder-frame. No. 1,030,675; June 25; Sp. p. 5897; Gaz. vol. 179; p. 1007.

Moulden, John C., and H. W. Webster, assignors to Central Zinc Company Limited, Seaton Carew, England. Zinc distillation. No. 1,030,676; June 25; Sp. p. 5899; Gaz. vol. 179; p. 1008.

Moxley, Frances M. (See Robinson, James H., assignor.)

Moyer, John B., Lucas, S. D. Disk-sharpener. No. 1,028,252; June 4; Sp. p. 419; Gaz. vol. 179; p. 60.

Moyes, John, Glasgow, and C. A. Stevenson, Edinburgh, Scotland. Signaling apparatus. No. 1,028,591; June 4; Sp. p. 1149; Gaz. vol. 179; p. 175.

Mueller, Philip, assignor to H. Mueller Manufacturing Company, Decatur, Ill. Branch connection for meter-testing machines. No. 1,028,481; June 4; Sp. p. 927; Gaz. vol. 179; p. 139.

Mueller, William A., Bath, S. D., assignor of one-half to J. L. Sullivan, Decatur, Ill. Engine-stop and speed limit. No. 1,029,023; June 11; Sp. p. 2079; Gaz. vol. 179; p. 358.

Muench, Herman G., San Francisco, Cal. Apparatus for inspecting bottles. No. 1,030,422; June 25; Sp. p. 5152; Gaz. vol. 179; p. 917.

Muldoon, Jerome. (See Bunting, Muldoon, and Springer.)

Müller, Arthur and E., Berlin, Germany. Fixing the tangs of table-cutlery, tools, and the like in their handles. No. 1,030,321; June 25; Sp. p. 4934; Gaz. vol. 179; p. 880.

Müller, Ernst. (See Müller, Arthur and E.)

Müller, Hans, Hagen, Germany. Manufacturing bolts, rivets, and similar articles. No. 1,029,395; June 11; Sp. p. 2903; Gaz. vol. 179; p. 485.

Müller, Walter, Grube Ilse, Lausitz, Germany. Press for making briquets and the like. No. 1,029,817; June 18; Sp. p. 3805; Gaz. vol. 179; p. 667.

Municipal Supplies Company. (See Delaney, Joseph P., assignor.)

Munton, Frederick T. (See Malcolm and Munton.)

Murphy, James J., assignor to Eagle Lock Co., Terryville, Conn. Suit-case lock. No. 1,028,482; June 4; Sp. p. 930; Gaz. vol. 179; p. 139.

Murphy Wall Bed Company. (See Murphy, William L., assignor. (Reissue.)

Murphy, Walter P., St. Louis, Mo. Car-roof. No 1,030,599; June 25; Sp. p. 5656; Gaz. vol. 179; p. 980.

Murphy, Walter P., Chicago, Ill. Car-roof. No. 1,030,600; June 25; Sp. p. 5658; Gaz. vol. 179; p. 980.

Murphy, Walter P., Chicago, Ill. Car-roof. No. 1,030,601; June 25; Sp. p. 5660; Gaz. vol. 179; p. 981.

Murphy, Walter P., Chicago, Ill. Car-roof. No. 1,030,602; June 25; Sp. p. 5664; Gaz. vol. 179; p. 981.

Murphy, Walter P., Chicago, Ill. Metal car-roof. No. 1,030,603; June 25; Sp. p. 5667; Gaz. vol. 179; p. 982.

Murphy, William L., assignor to Murphy Wall Bed Company, San Francisco, Cal. Disappearing bed. (Reissue.) No. 13,428; June 11; Sp. p. 3272; Gaz. vol. 179; p. 549.

Murphy, William L., San Francisco, Cal., assignor to Murphy Wall Bed Company. Disappearing bed. No. 1,030,201; June 18; Sp. p. 4643; Gaz. vol. 179; p. 798.

Murray, Aristides E., assignor to The Cincinnati Shaper Co., Cincinnati, Ohio. Driving mechanism. No. 1,028,771; June 4; Sp. p. 1510; Gaz. vol. 179; p. 235.

Murray, Edward T., *et al.* (See Murray, John F., assignor.)

Murray, Gordon B., Grant City, Mo. Culvert-mold. No. 1,029,024; June 11; Sp. p. 2081; Gaz. vol. 179; p. 358.

Murray, Harry D., assignor to The Bessemer Gas Engine Company, Grove City, Pa. Inlet-valve for compressors. No. 1,029,025; June 11; Sp. p. 2084; Gaz. vol. 179; p. 359.

Murray, John F. (See Shannon, Harris C., assignor.)

Murray, John F., assignor of one-third to G. A. Schrody and one-third to E. T. Murray, Colorado Springs, Colo. Match-box. No. 1,029,080; June 11; Sp. p. 2185; Gaz. vol. 179; p. 376.

Murray, Stephen D., Dallas, Tex. Huller-gin. No. 1,028,772; June 4; Sp. p. 1513; Gaz. vol. 179; p. 236.

Murray, Thomas E., New York, N. Y. Guard device. No. 1,028,253; June 4; Sp. p. 420; Gaz. vol. 179; p. 61.

Murray, Thomas E., New York, N. Y. Meter-testing cut-out. No. 1,028,254; June 4; Sp. p. 421; Gaz. vol. 179; p. 61.

Murray, Thomas E., New York, N. Y. Fuse-case. No. 1,028,255; June 4; Sp. p. 424; Gaz. vol. 179; p. 61.

Murray, Thomas E., New York, N. Y. Electric cut-out. No. 1,028,256; June 4; Sp. p. 425; Gaz. vol. 179; p. 61.

Murray, Thomas E., New York, N. Y. Joint for sheathed conductors. No. 1,028,257; June 4; Sp. p. 427; Gaz. vol. 179; p. 62.

Murray, Thomas E., New York, N. Y. Electric cut-out. No. 1,028,258; June 4; Sp. p. 428; Gaz. vol. 179; p. 62.

Murray, Thomas E., New York, N. Y. Connection device for circuit-conductors. No. 1,028,259; June 4; Sp. p. 429; Gaz. vol. 179; p. 62.

Murray, Thomas E., New York, N. Y. Junction-box for circuit-conductors. No. 1,028,260; June 4; Sp. p. 432; Gaz. vol. 179; p. 62.

Musser, John L., Lancaster, Pa. Apparatus for treating clay. No. 1,029,708; June 18; Sp. p. 3573; Gaz. vol. 179; p. 630.

Mussey, William H., Richmond Hill, N. Y. Basket-rack. No. 1,029,621; June 18; Sp. p. 3366; Gaz. vol. 179; p. 599.

Mussey, William H., Richmond Hill, N. Y. Suspension means for motor-generators. No. 1,029,622; June 18; Sp. p. 3367; Gaz. vol. 179; p. 599.

Myers, Elmer J., Martinsburg, assignor of one-half to C. F. Brown, Hollidaysburg, Pa. Valve-gear. No. 1,028,592; June 4; Sp. p. 1154; Gaz. vol. 179; p. 175.

Myers, Isaac N., Los Angeles, Cal. Life-saving device. No. 1,030,525; June 25; Sp. p. 5429; Gaz. vol. 179; p. 954.

Nagel-Chase Manufacturing Company, The. (See Granz, Joseph, assignor.)

Nagel, John. (See Starkweather and Nagel.)

Nalepka, Walenty, assignor of one-sixth to B. Zurek, one-sixth to K. Siewnak, and one-sixth to S. Wiernek, South Omaha, Nebr. Rail-joint. No. 1,028,483; June 4; Sp. p. 931; Gaz. vol. 179; p. 139.

Nalepka, Walenty, assignor of one-sixth to P. Zurek, one-sixth to K. Siewnak, and one-sixth to S. Wiernek, South Omaha, Nebr. Metallic tie. No. 1,028,484; June 4; Sp. p. 932; Gaz. vol. 179; p. 140.

Narrow Fabric Corporation, The. (See Moore and Sutcliffe, assignors.)

Nash Engineering Company. (See Nash, Lewis H., assignor.)

Nash, Lewis H., South Norwalk, Conn., assignor to Nash Engineering Company. Liquid-pump. No. 1,028,949; June 11; Sp. p. 1916; Gaz. vol. 179; p. 331.

National Blank Book Company. (See Merwin and Donovan, assignors.)

National Carbonated Liquid Co. (See Kennedy, Guy L., assignor.)

National Carbonated Liquid Co. (See Shattuck, Arthur E., assignor.)

National Clock & Electric Manufacturing Co. (See Wurmb and Baumann, assignors.)

National Coning Machinery Company. (See Marsh and Dill, assignors.)

National Dump Car Company. (See Yost, Winfield H., assignor.)

National Exchange Bank of Baltimore, The. (See Craggs, Rose V., assignor.)

National Fibre Products Company. (See Granville, Bernard, assignor.)

Naumann, Herman, Manitowoc, Wis. Rotary cheese-rack. No. 1,028,593; June 4; Sp. p. 1156; Gaz. vol. 179; p. 170.

Neal, Daniel E. (See Engle, Freeman, and Neal.)

Nearman, Charles A., Oakland, Cal. Water-heater for shaving outfits. No. 1,030,526; June 25; Sp. p. 5430; Gaz. vol. 179; p. 954.

Neckerman, Roy. (See Foell, Kusebauch, and Neckerman.)

Nehring Insulated Wire and Manufacturing Company. (See Nehring, Paul A., assignor.)

Nehring, Paul A., Sycamore, Ill., assignor to Nehring Insulated Wire and Manufacturing Company. Insulated-wire-saturating machine. No. 1,028,827; June 4; Sp. p. 1030; Gaz. vol. 179; p. 264.

Neil, James M., Toronto, Ontario, assignor to A. M. Hay, Toronto, Canada. Binder or cementing material. No. 1,030,114; June 18; Sp. p. 4454; Gaz. vol. 179; p. 769.

Neis, Peter, Calvary, Wis. Aerial carrier. No. 1,030,423; June 25; Sp. p. 5154; Gaz. vol. 179; p. 917.

Neller, Albert H., and R. B. Louden, Fairfield, Iowa. Door-hanger. No. 1,028,900; June 11; Sp. p. 1811; Gaz. vol. 179; p. 315.

Nelson, Charles, assignor to S. Sternau & Co., New York, N. Y. Traveler's companion. No. 1,028,901; June 11; Sp. p. 1813; Gaz. vol. 179; p. 315.

Nelson, De Witt, Minneapolis, Minn. Emergency-tire. No. 1,029,553; June 11; Sp. p. 3217; Gaz. vol. 179; p. 539.

Nelson, Lewis P., Kenosha, Wis. Fastening device for storm-windows or the like. No. 1,030,115; June 18; Sp. p. 4455; Gaz. vol. 179; p. 769.

Nelson, Milford A., Fowler, Colo. Clevis-lock. No. 1,030,527; June 25; Sp. p. 5431; Gaz. vol. 179; p. 954.

Nelson, Nathaniel, Chicago, Ill. Controlling mechanism for punch-presses and like machinery. No. 1,030,009; June 18; Sp. p. 4221; Gaz. vol. 179; p. 732.

Nelson Valve Company. (See Schmid and Mason, assignors.)

Nernst Lamp Company. (See Foell, Kusebauch, and Neckerman, assignors.)

Ness, Herbert A., Silverton, Oreg. Attachment for motor-vehicles. No. 1,029,763; June 18; Sp. p. 3679; Gaz. vol. 179; p. 649.

Neszter, Mihaly, Hartford, Wis. Elevator safety device. No. 1,028,504; June 4; Sp. p. 1159; Gaz. vol. 179; p. 176.

Neuhanser, David L., Chicago, Ill. Method and apparatus for shaping glass. No. 1,028,129; June 4; Sp. p. 78; Gaz. vol. 179; p. 16.

Neumann, Elenora, assignor of one-half to A. Zukor, New York, N. Y. Nursing-bottle holder for baby-carriages. No. 1,030,744; June 25; Sp. p. 6060; Gaz. vol. 179; p. 1032.

Neumayer, Clara, administratrix. (See Neumayer, Maximillian.)

Neumayer, Maximillian, deceased, Cincinnati, Ohio; C. Neumayer, administratrix. Centrifugal pump or blower. No. 1,029,554; June 11; Sp. p. 3219; Gaz. vol. 179; p. 540.

Nevill, Percy. (See Bucknall and Nevill.)

New York Scaffolding Co. (See Cavanagh, Eugene M. and D. F., assignors.)

Newell, Fred E., Westminster, assignor to Vermont Farm Machine Company, Bellows Falls, Vt. Cow-milking machine. No. 1,029,216; June 11; Sp. p. 2483; Gaz. vol. 179; p. 422.

Newell, Fred E., Westminster, assignor to Vermont Farm Machine Company, Bellows Falls, Vt. Cow-milking machine. No. 1,030,010; June 18; Sp. p. 4223; Gaz. vol. 179; p. 732.

Newell, Peter S. H., Leonia, N. J. Book. No. 1,028,130; June 4; Sp. p. 81; Gaz. vol. 179; p. 17.

Newman, Charles H., Blackstone, Va. Spark-regulator for explosion-engines. No. 1,029,026; June 11; Sp. p. 2085; Gaz. vol. 179; p. 350.

Newman, Hugo, New York, N. Y. Educational device. No. 1,028,378; June 4; Sp. p. 667; Gaz. vol. 179; p. 104.

Newpher, Alfred H. (See Hamm and Newpher.)

Newpher, Alfred H., assignor to The Adams & Westlake Company, Chicago, Ill. Window-sash. No. 1,029,217; June 11; Sp. p. 2485; Gaz. vol. 179; p. 423.

Newton, B. W., *et al.*, trustees. (See Converse, Newton B., assignor.)

Newton, John L., assignor to Hart & Crouse Company, Utica, N. Y. Boiler-grate. No. 1,028,902; June 11; Sp. p. 1815; Gaz. vol. 179; p. 316.

Nicholls, Hal M. (See Sellers and Nicholls.)

Nichols, Clara, Hillyard, Wash. Water-heater. No. 1,028,261; June 4; Sp. p. 433; Gaz. vol. 179; p. 63.

Nichols, Samuel F., Chicago, Ill. Motor-operated brake mechanism. No. 1,029,883; June 18; Sp. p. 3972; Gaz. vol. 179; p. 691.

Nicholson, James H. (See Johnson and Nicholson.)

Nickels, Frederick E. (See Butler, James A., assignor.)

Nicol, Thomas W., Kansas City, Mo. Grate. No. 1,030,528; June 25; Sp. p. 5434; Gaz. vol. 179; p. 955.

Nilditch, Isadore, Dorchester, Mass. Compound for railway time signal-fusees. No. 1,029,884; June 18; Sp. p. 3975; Gaz. vol. 179; p. 691.

Nielsen, Andreas, Copenhagen, assignor to H. Friis, Frederiksberg, near Copenhagen, Denmark. Meat-chopping machine. No. 1,029,141; June 11; Sp. p. 2330; Gaz. vol. 179; p. 397.

Nieman, Albert. (See Nieman, George and A.)

Nieman, George and A., Sayler Park, Ohio. Chicken-feeder. No. 1,029,623; June 18; Sp. p. 3369; Gaz. vol. 179; p. 600.

Nilsen, Ole E., Seattle, Wash. Distributing-valve. No. 1,030,604; June 25; Sp. p. 5670; Gaz. vol. 179; p. 982.

Nimmo, Thomas, South Portland, and A. G. Libby, Portland, Me. Match-making machine. No. 1,029,218; June 11; Sp. p. 2488; Gaz. vol. 179; p. 423.

Noble, William C. H., Los Angeles, Cal. Oil-burning apparatus. No. 1,029,818; June 18; Sp. p. 3808; Gaz. vol. 179; p. 668.

Noffsinger, Henry C., Jewell, Ohio. Lubricator. No. 1,029,454; June 11; Sp. p. 3019; Gaz. vol. 179; p. 505.

Noga, Joe, Pittsburgh, Pa. Cuspidor. No. 1,030,116; June 18; Sp. p. 4457; Gaz. vol. 179; p. 770.

Nohava, Joseph, Gregory, S. D. End-gate-rod lock. No. 1,030,117; June 18; Sp. p. 4458; Gaz. vol. 179; p. 770.

Noonan, David E. J., St. Louis, Mo. Faucet. No. 1,030,322; June 25; Sp. p. 4935; Gaz. vol. 179; p. 880.

Norden, Carl S., Wakefield, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting-machine. No. 1,029,396; June 11; Sp. p. 2905; Gaz. vol. 179; p. 485.

Norden, Carl S., Wakefield, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Assembling and heel-seat-lasting machine. No. 1,030,847; June 25; Sp. p. 6427; Gaz. vol. 179; p. 1071.

Norris, Henry M., assignor to The Cincinnati Bickford Tool Company, Cincinnati, Ohio. Friction-clutch. No. 1,030,424; June 25; Sp. p. 5155; Gaz. vol. 179; p. 918.

Norrlander, Verner, Rockford, Ill. Grocer's cabinet. No. 1,029,709; June 18; Sp. p. 3575; Gaz. vol. 179; p. 631.

North Indianapolis Cradle Works, The. (See Hewitt, Horace B., assignor.)

Northrup, Le Roy, *et al.* (See Melling, George, assignor.)

Northrup, Le Roy, *et al.* (See Melling, Herman, assignor.)

Norton, B. W., *et al.*, trustees. (See Converse, Newton B., assignor.)

Norton, John W., Lockney, and P. N. Sumrall, Quitaque, Tex. Spoke-tightener. No. 1,028,379; June 4; Sp. p. 090; Gaz. vol. 179; p. 105.

Nuese, Karl. (See Meyer and Nuese.)

Nu-Vo M'f'g. Co. (See Folger, Henry C., assignor.)

Nylander, John, Muskegon, Mich. Hose-coupling. No. 1,029,819; June 18; Sp. p. 3809; Gaz. vol. 179; p. 668.

O. A. Miller Treeing Machine Company. (See Hansen, John S., assignor.)

O'Brien, James F., Chicago, Ill. Explosive. No. 1,028,950; June 11; Sp. p. 1917; Gaz. vol. 179; p. 331.

O'Brien, James F., Chicago, Ill. Explosive. No. 1,028,951; June 11; Sp. p. 1918; Gaz. vol. 179; p. 332.

O'Brien, James F., Chicago, Ill. Explosive. No. 1,028,952; June 11; Sp. p. 1920; Gaz. vol. 179; p. 332.

O'Brien, John J., assignor of one-half to I. A. Rose, New York, N. Y. Perpetual calendar. No. 1,029,455; June 11; Sp. p. 3020; Gaz. vol. 179; p. 505.

O'Brien, William, Clairton, Pa. Folding umbrella. No. 1,028,262; June 4; Sp. p. 434; Gaz. vol. 179; p. 63.

O'Brien, William M., Salt Lake City, Utah. Separating apparatus. No. 1,028,131; June 4; Sp. p. 85; Gaz. vol. 179; p. 17.

O'Connell, Joseph W. (See Smith, Harvey M., assignor.)

O'Neil, Charley, assignor of one-half to J. W. Evans, Point Marion, Pa. Gas-burner. No. 1,030,118; June 18; Sp. p. 4459; Gaz. vol. 179; p. 770.

O'Neill, John T., Philadelphia, Pa. Safety-brake. No. 1,028,590; June 4; Sp. p. 1161; Gaz. vol. 179; p. 177.

Oblein, Henry. (See Oblein, James and H.)

Oblein, James and H., Lynn, Mass. Puzzle-bank. No. 1,029,820; June 18; Sp. p. 3811; Gaz. vol. 179; p. 669.

Office Appliance Manufacturing Company, The. (See White, Samuel B., assignor.) (Reissue.)

Olstad, Nicholas J., Riverside, Cal. Fruit-grader. No. 1,030,479; June 25; Sp. p. 5285; Gaz. vol. 179; p. 937.

Ohio Safe Deposit & Trust Company, The, trustee. (See Kohnle, Frederick, assignor.)

Ohio Varnish Company, The. (See Rae, Walter B., assignor.)

Okamoto, Kenzo, Hempstead, N. Y. Puzzle. No. 1,028,380; June 4; Sp. p. 601; Gaz. vol. 179; p. 105.

Okrassa, Roberto, Antigua, Guatemala. Coffee-separator. No. 1,029,624; June 18; Sp. p. 3372; Gaz. vol. 179; p. 600.

Olden, William Q., Joliet, Ill. Amusement device. No. 1,029,710; June 18; Sp. p. 3576; Gaz. vol. 179; p. 631.

Oldham, Joseph R., Cleveland, Ohio. Ship's hatches and decks. No. 1,028,263; June 4; Sp. p. 436; Gaz. vol. 179; p. 63.

Oliver Chilled Plow Works. (See Paul, William L., assignor.)

Oliver, Louis E., Maywood, and A. Cureton, Chicago, Ill. Adjusting apparatus for brake-rigging. No. 1,028,264; June 4; Sp. p. 441; Gaz. vol. 179; p. 64.

Olney, Oscar C., assignor of one-fourth to H. Ostholthoff, one-fourth to E. W. Herzog, Cincinnati, Ohio, and one-fourth to J. Braukmann, Covington, Ky. Pneumatic automobile-wheel. No. 1,029,625; June 18; Sp. p. 3373; Gaz. vol. 179; p. 600.

Olson, John O., and W. W. Grant, assignors to Spiral Radiator Company, St. Paul, Minn. Forming closed continuous spiral chambers from sheet metal. No. 1,029,310; June 11; Sp. p. 2686; Gaz. vol. 179; p. 456.

Olson, Thomas. (See Swanson, Arvid E., assignor.)

Olsson, Emil, assignor to Aktiebolaget Bofors-Gullspång, Bofors, Sweden. Valve for hydraulic brakes in guns with recoiling barrels. No. 1,029,555; June 11; Sp. p. 3222; Gaz. vol. 179; p. 540.

Olszewski, Konstantin von, Dresden, Germany. Tin-oxidizing furnace. No. 1,028,595; June 4; Sp. p. 1161; Gaz. vol. 179; p. 176.

Onderdonk, Lansing, New York, N. Y., assignor to Union Special Machine Company, Chicago, Ill. Gear-casing. No. 1,030,677; June 25; Sp. p. 5901; Gaz. vol. 179; p. 1008.

Oneida Community. (See Herrick, Paul B., assignor.)

Oneida Community. (See Scott, William, assignor.)

Onyons, Robert W., Boston, assignor of one-half to F. Pickering, Dorchester, Mass. Hinge. No. 1,028,953; June 11; Sp. p. 1921; Gaz. vol. 179; p. 332.

Oppenheimer, Albert, Notting Hill, London, England. Propeller apparatus for boats. No. 1,028,265; June 4; Sp. p. 443; Gaz. vol. 179; p. 64.

Oppenheimer, Fred. (See Spiegel, William G., assignor.)

Opsahl, Tidemand, Fillmore, assignor of thirty one-hundredths to W. E. McCampbell and G. E. Harpham, Los Angeles, Cal. Mechanical movement. No. 1,029,764; June 18; Sp. p. 3681; Gaz. vol. 179; p. 649.

Ormsby, Helen M., Xenia, Ohio. Guy for vehicle-tops. No. 1,028,266; June 4; Sp. p. 444; Gaz. vol. 179; p. 64.

Orr, Francis J., Buffalo, N. Y. Furnace for gas-generators. No. 1,030,202; June 18; Sp. p. 4644; Gaz. vol. 179; p. 798.

Osborn Manufacturing Company, The. (See Knowlton and Elliot, assignors.)

Osborne, William S., New York, N. Y., assignor to The Griscom Spencer Company. Apparatus for desiccating fluid substances. No. 1,028,267; June 4; Sp. p. 446; Gaz. vol. 179; p. 65.

Ostholthoff, Henry, *et al.* (See Olney, Oscar C., assignor.)

Ostrander, James H., Chicago, Ill. Nose-guard for eyeglasses. No. 1,028,773; June 4; Sp. p. 1517; Gaz. vol. 179; p. 236.

Otis Elevator Company. (See Brown, Thomas E., assignor.)

Otis Elevator Company. (See Ihlder, John D., assignor.)

Otis Elevator Company. (See Smith, Robert J., assignor.)

Ottmann, Heinrich, Munich, Germany. Making insulating building material. No. 1,028,903; June 11; Sp. p. 1816; Gaz. vol. 179; p. 316.

Overbeke, John, Cleveland, Ohio. Sprayer. No. 1,030,119; June 18; Sp. p. 4460; Gaz. vol. 179; p. 771.

Owen, Hugh W., Chicago, Ill. Making leather-covered hooks. No. 1,030,425; June 25; Sp. p. 5157; Gaz. vol. 179; p. 918.

Owens, Richard L., Minneapolis, Minn. Cleaning-rack for grain-separators. No. 1,029,507; June 11; Sp. p. 3118; Gaz. vol. 179; p. 523.

Owen, Thomas R., assignor of one-half to E. W. Peck, Los Angeles, Cal. Pencil-printing machine. No. 1,028,381; June 4; Sp. p. 692; Gaz. vol. 179; p. 105.

Packard, Frank H., Ceylon, Minn. Hollow-concrete-wall mold. No. 1,030,480; June 25; Sp. p. 5286; Gaz. vol. 179; p. 938.

Packard Motor Car Company. (See Huff, Russell, assignor.)

Packham, Frank R., assignor to The American Seeding Machine Company, Springfield, Ohio. Corn-planter. No. 1,029,711; June 18; Sp. p. 3578; Gaz. vol. 179; p. 631.

Packham, Frank R., assignor to The American Seeding Machine Company, Springfield, Ohio. Seeding-machine. No. 1,029,712; June 18; Sp. p. 3580; Gaz. vol. 179; p. 632.

Page, Albert A., East Haven, assignor to Sargent & Company, New Haven, Conn. Padlock. No. 1,029,942; June 18; Sp. p. 4097; Gaz. vol. 179; p. 711.

Painchaud, Ludger, Salem, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cutting-die. No. 1,030,529; June 25; Sp. p. 5436; Gaz. vol. 179; p. 955.

Pallas, Joseph, Jr., Thurston, Nebr. Railway-tie. No. 1,028,597; June 4; Sp. p. 1164; Gaz. vol. 179; p. 177.

Pallweber, Joseph, Mannheim, Germany. Portable cash-box. No. 1,030,265; June 18; Sp. p. 4783; Gaz. vol. 179; p. 821.

Palm, Robert L. G., Verona, N. J. Emergency-exit-door fastener. No. 1,029,626; June 18; Sp. p. 3375; Gaz. vol. 179; p. 601.

Palmer, Don H., Seattle, Wash. Speculum. No. 1,030,530; June 25; Sp. p. 5439; Gaz. vol. 179; p. 955.

Palmer, Granville E., Hartford, Conn., assignor, by mesne assignments, to The Metropolitan Engineering Company. Case for meter connection-blocks. No. 1,028,268; June 4; Sp. p. 451; Gaz. vol. 179; p. 65.

Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Couch-hammock. No. 1,030,481; June 25; Sp. p. 5290; Gaz. vol. 179; p. 938.

Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Couch-hammock. No. 1,030,482; June 25; Sp. p. 5291; Gaz. vol. 179; p. 938.

Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Bedstead-support for couch-hammocks. No. 1,030,483; June 25; Sp. p. 5294; Gaz. vol. 179; p. 939.

Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Reversible-mattress-securing means for couch-hammocks. No. 1,030,484; June 25; Sp. p. 5297; Gaz. vol. 179; p. 939.

Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Couch-hammock and frame therefor. No. 1,030,485; June 25; Sp. p. 5298; Gaz. vol. 179; p. 939.

Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Bedstead-support for couch-hammocks. No. 1,030,486; June 25; Sp. p. 5300; Gaz. vol. 179; p. 940.

Palmer, Isaac E., assignor to The I. E. Palmer Co., Middletown, Conn. Reversible-face couch-hammock. No. 1,030,487; June 25; Sp. p. 5003; Gaz. vol. 179; p. 940.

Palmer, John L., and C. N. Wheeler, Peoria, Ill. Lighting-fixture. No. 1,029,556; June 11; Sp. p. 3224; Gaz. vol. 179; p. 540.

Palmer, John L., and C. N. Wheeler, Peoria, Ill. Electric fixture. No. 1,029,557; June 11; Sp. p. 3225; Gaz. vol. 179; p. 541.

Palmer, John L., and C. N. Wheeler, Peoria, Ill. Electric fixture. No. 1,029,558; June 11; Sp. p. 3228; Gaz. vol. 179; p. 541.

Palmer, John M., assignor to Universal Tool Company, Chicago, Ill. Lathe attachment. No. 1,030,323; June 25; Sp. p. 4939; Gaz. vol. 179; p. 881.

Palmowsky, Stanislaus, New York, N. Y., assignor to The American Tobacco Company. Cigarette-machine. No. 1,029,397; June 11; Sp. p. 2908; Gaz. vol. 179; p. 485.

Paltridge, R. W., *et al.* (See Krag, Erik L., assignor.)

Pancoast, George E., New York, N. Y. Printing-press. No. 1,028,485; June 4; Sp. p. 933; Gaz. vol. 179; p. 140.

Pannier, William J., Jr., Pittsburgh, Pa. Stamp. No. 1,030,120; June 18; Sp. p. 4462; Gaz. vol. 179; p. 771.

Panther, Ferdinand C., Burlington, Iowa. Metallic receptacle. No. 1,030,121; June 18; Sp. p. 4463; Gaz. vol. 179; p. 771.

Pape, Wilhelm, Charlottenburg, Germany, assignor to General Electric Company. Governing mechanism for mixed-pressure turbines. No. 1,029,311; June 11; Sp. p. 2690; Gaz. vol. 179; p. 456.

Pape, Wilhelm, Charlottenburg, Germany, assignor to General Electric Company. Governing mechanism for turbines. No. 1,029,312; June 11; Sp. p. 2693; Gaz. vol. 179; p. 457.

Papp, George, New York, N. Y. Shoe-tongue supporter. No. 1,028,598; June 4; Sp. p. 1164; Gaz. vol. 179; p. 177.

Parke, Davis & Company. (See Beckwith, Charles P., assignor.)

Parker, Charles T., Alton, Ill. Machine for automatically regulating the flow of liquids. No. 1,028,132; June 4; Sp. p. 87; Gaz. vol. 179; p. 17.

Parker, George S., Janesville, Wis. Safety-cap for fountain-pens. No. 1,028,382; June 4; Sp. p. 694; Gaz. vol. 179; p. 105.

Parker, Harleigh S., Littlefork, Minn. Steam road-leer. No. 1,029,508; June 11; Sp. p. 3120; Gaz. vol. 179; p. 523.

Parker, John H. (See Balliett, Howard H., assignor.)

Parker, Robert B., Jr., Gloucester, Mass. Water-regulator. No. 1,028,599; June 4; Sp. p. 1165; Gaz. vol. 179; p. 178.

Parkhurst, Leon F., Pittsfield, Mass., assignor to General Electric Company. Electric heater. No. 1,028,383; June 4; Sp. p. 695; Gaz. vol. 179; p. 106.

Parmele, William G., Chetopa, Kans. Moldboard plowing-machine. No. 1,029,456; June 11; Sp. p. 3022; Gaz. vol. 179; p. 506.

Parmley, Lemuel M., Knoxville, Tenn. Locking mechanism for fluid-containers. No. 1,029,713; June 18; Sp. p. 3582; Gaz. vol. 179; p. 632.

Parsons, Charles A., J. H. Greaves, and A. R. Hemsted, Newcastle-upon-Tyne, England; said Greaves and Hemsted assignors to said Parsons. Manufacturing cables. No. 1,030,426; June 25; Sp. p. 5157; Gaz. vol. 179; p. 918.

Patent Electric Fuse Spitter Co. (See Bernardi and Sauve, assignors.)

Patten, Frank D., Portland, Oreg. Automatic gravity-lock. No. 1,030,848; June 25; Sp. p. 6431; Gaz. vol. 179; p. 1071.

Patterson, John W., Atlantic City, N. J. Observation-chair and extension-support. No. 1,029,821; June 18; Sp. p. 3818; Gaz. vol. 179; p. 669.

Patterson and Sons, C. R. (See Gordon, Clay, assignor.)

Paul, William G., Navarre, assignor of one-half to M. J. Bowler and A. J. Scharlo, Canton, Ohio. Rail-brace. No. 1,028,384; June 4; Sp. p. 696; Gaz. vol. 179; p. 106.

Paul, William G., Navarre, assignor of one-half to M. J. Bowler and A. J. Scharlo, Canton, Ohio. Railway-tie. No. 1,028,828; June 4; Sp. p. 1632; Gaz. vol. 179; p. 254.

Paul, William L., assignor to Oliver Chilled Plow Works, South Bend, Ind. Cultivator. No. 1,028,954; June 11; Sp. p. 1923; Gaz. vol. 179; p. 332.

Pauling, Harry, Gelsenkirchen, assignor to Salpetersaüre-Industrie-Gesellschaft G. m. b. H., Cologne, Germany. Electrode for producing gas reactions by means of the electric arc. No. 1,029,885; June 18; Sp. p. 3977; Gaz. vol. 179; p. 602.

Pauling, Harry, Gelsenkirchen, assignor to Salpetersaüre-Industrie-Gesellschaft G. m. b. H., Cologne, Germany. Electric furnace for producing gas reactions. No. 1,029,886; June 18; Sp p. 3978; Gaz. vol. 179; p. 602.

Paulsen, Christen, Copenhagen, Denmark. Pasteurizing apparatus. No. 1,030,203; June 18; Sp. p. 4646; Gaz. vol. 179; p. 799.

Pauly, Albert A., Youngstown, Ohio. Molding apparatus. No. 1,029,559; June 11; Sp. p. 3230; Gaz. vol. 179; p. 541.

Pauly, Albert A., Youngstown, Ohio. Molding apparatus. No. 1,029,560; June 11; Sp. p. 3231; Gaz. vol. 179; p. 541.

Pauly, Albert A., Youngstown, Ohio. Molding apparatus. No. 1,029,561; June 11; Sp. p. 3233; Gaz. vol. 179; p. 542.

Pawliczek, Albert, Athol, S. D. Penholder. No. 1,028,269; June 4; Sp. p. 453; Gaz. vol. 179; p. 65.

Paxton, Elmer E., Honolulu, Hawaii. Cane-cutter. No. 1,028,486; June 4; Sp. p. 938; Gaz. vol. 179; p. 140.

Payne, Thomas F., Nodaway county, Mo. Corn-coverer. No. 1,030,244; June 18; Sp. p. 4728; Gaz. vol. 179; p. 813.

Peacock, Samuel, assignor to American Acid Company, Baltimore, Md. Recovery of silica, alumina, and potash from feldspar. No. 1,030,122; June 18; Sp. p. 4464; Gaz. vol. 179; p. 771.

Pearce, Richard F., Liverpool, England. Collection of fume, flue-dust, and other matter suspended in gas. No. 1,028,487; June 4; Sp. p. 940; Gaz. vol. 179; p. 141.

Pearson, Charles H. (See Menns, Walter K., assignor.)

Pearson, Charles O., New York, N. Y. Traction-elevator. No. 1,029,627; June 18; Sp. p. 3377; Gaz. vol. 179; p. 602.

Pearson, John, Chicago, Ill. Door mechanism for hopper-cars or the like. No. 1,030,204; June 18; Sp. p. 4648; Gaz. vol. 179; p. 799.

Pearson, Marshall H., Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,029,887; June 18; Sp. p. 3979; Gaz. vol. 179; p. 692.

Pearson, Marshall H., Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Fastener supplying and delivering mechanism. No. 1,030,531; June 25; Sp. p. 5440; Gaz. vol. 179; p. 956.

Peck, E. W. (See Owen, Thomas R., assignor.)

Peck, Irving W., Bradentown, Fla. Cover for peach-baskets. No. 1,030,123; June 18; Sp. p. 4465; Gaz. vol. 179; p. 772.

Peck, Jacob G. (See Reichenbach and Peck.)

Pederson, Peder T., assignor of one-half to H. A. Rekstad, Willow Lake, S. D. Toy pistol. No. 1,030,532; June 25; Sp. p. 5444; Gaz. vol. 179; p. 956.

Pedrick, Howard A., assignor to H. B. Underwood & Company, Philadelphia, Pa. Cylinder-boring machine. No. 1,028,600; June 4; Sp. p. 1167; Gaz. vol. 179; p. 178.

Pelham, Alphonzo E. (See Sill, Richard V., assignor.)

Peloquin, Louis, Southbridge, Mass. Means for securing tips to billiard-cues. No. 1,029,943; June 18; Sp. p. 4098; Gaz. vol. 179; p. 711.

Pender, James E. P., Providence, R. I., assignor to Bristol Jewelry Company, Incorporated. Egg-cup. No. 1,030,324; June 25; Sp. p. 4941; Gaz. vol. 179; p. 881.

Penick, Walter H., Martin, Tenn. Lamp. No. 1,029,457; June 11; Sp. p. 3025; Gaz. vol. 179; p. 506.

Penisten, Charles E. (See Heflin and Penisten.)

Penn, Harry J., Madison, N. C. Container for plug-tobacco. No. 1,030,745; June 25; Sp. p. 6061; Gaz. vol. 179; p. 1032.

Penn, Harry J., Madison, N. C. Forming caddies of plug-tobacco. No. 1,030,746; June 25; Sp. p. 6063; Gaz. vol. 179; p. 1033.

Pennebaker, Edwin R., Rome, Ga. Safety attachment for watch-pockets. No. 1,030,488; June 25; Sp. p. 5305; Gaz. vol. 179; p. 940.

Penney, Loren W. (See Mills and Penney.)

Pentek, Joe, *et al.* (See Molnár, Steve, assignor.)

Peoples, Charles B., and A. E. Yelton, Butler, Ky. Milk-can. No. 1,030,325; June 25; Sp. p. 4943; Gaz. vol. 179; p. 881.

Peplowski, Wladyslaw, New York, N. Y. Bracket. No. 1,030,205; June 18; Sp. p. 4651; Gaz. vol. 179; p. 799.

Percy, Frank T., assignor to E. L. Huyck, Rochester, N. Y. Liquid-dispensing machine. No. 1,030,854; June 25; Sp. p. 6447; Gaz. vol. 179; p. 1074.

Perret, Auguste H., Paris, France. Extracting metals. No. 1,028,774; June 4; Sp. p. 1519; Gaz. vol. 179; p. 236.

Perrin, John G., Plattsburg, N. Y. Steering-post switch. No. 1,030,124; June 18; Sp. p. 4467; Gaz. vol. 179; p. 772.

Perrine, John R., assignor to The Cincinnati Lathe & Tool Company, Cincinnati, Ohio. Feed-gearing. No. 1,029,313; June 11; Sp. p. 2695; Gaz. vol. 179; p. 457.

Perry, Frederick H., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Trimming-machine. No. 1,030,605; June 25; Sp. p. 5671; Gaz. vol. 179; p. 982.

Perry, Frederick H., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating on shoe-soles. No. 1,030,606; June 25; Sp. p. 5680; Gaz. vol. 179; p. 983.

Perry, Frederick H., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating on the soles of shoes. No. 1,030,607; June 25; Sp. p. 5698; Gaz. vol. 179; p. 983.

Perry, Harry A. (See Svensson and Perry.)

Persohn, Frank A., assignor to Baltimore Optical Company, Baltimore, Md. Eyeglass-mounting. No. 1,030,828; June 25; Sp. p. 6373; Gaz. vol. 179; p. 1064.

Peru Electric Company. (See Fletcher, Olive L., assignor.)

Perryman, John W., *et al.* (See Thomas, Martin E., assignor.)

Peters, Heber C., Indianapolis, Ind., assignor, by mesne assignments, to Burroughs Adding Machine Company, Detroit, Mich. Calculating-machine. No. 1,028,133; June 4; Sp. p. 90; Gaz. vol. 179; p. 18.

Petersen, Hans, assignor to The Linograph Manufacturing Company, Minneapolis, Minn. Matrix for linotype-machines. No. 1,028,955; June 11; Sp. p. 1925; Gaz. vol. 179; p. 332.

Petersen, Hans, assignor to The Linograph Manufacturing Company, Minneapolis, Minn. Linotype-mold. No. 1,030,678; June 25; Sp. p. 5902; Gaz. vol. 179; p. 1008.

Peterson, Alfred W., Albertville, Wis. Railway-tie. No. 1,029,628; June 18; Sp. p. 3379; Gaz. vol. 179; p. 602.

Peterson, Andrew, Metaline, Wash. Saw-clamp. No. 1,028,775; June 4; Sp. p. 1522; Gaz. vol. 179; p. 237.

Peterson, Charles C., Oil City, Pa. Core-making machine. No. 1,030,326; June 25; Sp. p. 4944; Gaz. vol. 179; p. 882.

Peterson, James, American Fork, Utah. Rotary plow. No. 1,030,480; June 25; Sp. p. 5306; Gaz. vol. 179; p. 940.

Peterson, Lars M., Bingham Canyon, Utah. Combination-chair. No. 1,028,956; June 11; Sp. p. 1926; Gaz. vol. 179; p. 333.

Pfarrhofer, Joseph, Chicago, Ill. Music-sheet-turning device. No. 1,028,270; June 4; Sp. p. 455; Gaz. vol. 179; p. 66.

Pflager, Harry M. (See Frede and Pflager.)

Pflager, Harry M. (See Howard and Pflager.)

Phelps, Frank. (See Mackenzie, Alexander S., assignor.)

Phelps, James W., Detroit, Mich. Plug-socket. No. 1,028,957; June 11; Sp. p. 1928; Gaz. vol. 179; p. 333.

Philips, Roland L., *et al.* (See Jackson, Orin V., assignor.)

Phillips, Jesse L., Chicago, Ill. Chimney top or ventilator. No. 1,028,958; June 11; Sp. p. 1930; Gaz. vol. 179; p. 333.

Phillips, William T., Berkeley, Cal. Lamp-cover. No. 1,028,271; June 4; Sp. p. 456; Gaz. vol. 179; p. 66.

Philp, Casimir von, assignor to Bethlehem Steel Company, South Bethlehem, Pa. Forging-press. No. 1,029,081; June 11; Sp. p. 2186; Gaz. vol. 179; p. 376.

Phinney, Grover C., Marble Falls, Tex. Railway-switch. No. 1,028,776; June 4; Sp. p. 1524; Gaz. vol. 179; p. 237.

Pickering, Frank. (See Onyons, Robert W., assignor.)

Pickles, Charles K., St. Louis, Mo., assignor, by mesne assignments, to Chicago Pneumatic Tool Company, Chicago, Ill. Pneumatic impact-tool. No. 1,029,082; June 11; Sp. p. 2194; Gaz. vol. 179; p. 377.

Pierce, Charles H., assignor of one-half to W. Sturgill, New Marshfield, Ohio. Engine. No. 1,030,679; June 25; Sp. p. 5903; Gaz. vol. 179; p. 1009.

Pierce, Franklin H., Princeton, Ill. Gambrel. No. 1,029,314; June 11; Sp. p. 2697; Gaz. vol. 179; p. 457.

Pilsworth, Edward S. (See Desenberg and Pilsworth.)

Pinder, Joseph W., Oakland, Cal. Belt-concentrator. No. 1,030,427; June 25; Sp. p. 5159; Gaz. vol. 179; p. 918.

Pine, Samuel H., and L. Schneider, Baltimore, Md. Wrapping-paper-printing machine. No. 1,030,533; June 25; Sp. p. 5445; Gaz. vol. 179; p. 956.

Pinoli, Carlo, London, England, assignor of one-half to T. Giusti, Leghorn, Italy. Washing-machine. No. 1,030,855; June 25; Sp. p. 6449; Gaz. vol. 179; p. 1074.

Pipher, Edward, Port Hope, Ontario, Canada. Pattern. No. 1,028,601; June 4; Sp. p. 1168; Gaz. vol. 179; p. 178.

Pipher, Edward, Port Hope, Ontario, Canada. Pattern. No. 1,028,602; June 4; Sp. p. 1170; Gaz. vol. 179; p. 179.

Pipher, Edward, Port Hope, Ontario, Canada. Flask for the casting of metal bodies. No. 1,028,603; June 4; Sp. p. 1172; Gaz. vol. 179; p. 179.

Pittman, William T., assignor to Crescent Pump Works, Fort Worth, Tex. Double-acting pump-jack. No. 1,028,959; June 11; Sp. p. 1935; Gaz. vol. 179; p. 334.

Pivot Auto Light Co. (See Thomson, Arthur G., assignor.)

Plant, Thomas G., assignor to United Shoe Machinery Company, Boston, Mass. Sole-edge protector for boots and shoes. No. 1,029,219; June 11; Sp. p. 2491; Gaz. vol. 179; p. 423.

Pleins, Rudolph C., St. Paul, Minn. Hinge. No. 1,029,629; June 18; Sp. p. 3380; Gaz. vol. 179; p. 602.

Plummer, Adolph M. (See Darlington, Jesse, Jr., assignor.)

Plummer, William H., and J. Tresider, Coleraine, Minn. Method of and apparatus for charging powder. No. 1,029,630; June 18; Sp. p. 3381; Gaz. vol. 179; p. 602.

Pneumatic Scale Corporation Limited. (See Joplin, William A., assignor.)

Poll, George L., Brooklyn, N. Y. Specialist's chair. No. 1,029,315; June 11; Sp. p. 2697; Gaz. vol. 179; p. 458.

Ponkow, Ernst, Baltimore, Md. Box-binding machine. No. 1,029,509; June 11; Sp. p. 3121; Gaz. vol. 179; p. 523.

Pooler, Earl, Seattle, Wash. Filling-block for phonograph-record cabinets. No. 1,030,534; June 25; Sp. p. 5446; Gaz. vol. 179; p. 957.

Pooley, Henry, Birmingham, England. Weighing-machine. No. 1,028,604; June 4; Sp. p. 1174; Gaz. vol. 179; p. 179.

Pope, Ella M. (See Pope, Frederick and G. M., assignors.)

Pope, Frederick, New York, N. Y., and G. M. Pope, Mount Pleasant, Ga.; said G. M. Pope assignor to E. M. Pope, Boston, Mass. Apparatus and method for distilling wood. No. 1,030,011; June 18; Sp. p. 4227; Gaz. vol. 179; p. 732.

Pope, George M. (See Pope, Frederick and G. M.)

Pope, Joseph H., Brockton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for attaching heels. No. 1,030,680; June 25; Sp. p. 5905; Gaz. vol. 179; p. 1009.

Porteous, James, Fresno, Cal. Vineyard-plow. No. 1,029,765; June 18; Sp. p. 3682; Gaz. vol. 179; p. 649.

Porter, Ell Lawrence, Mass. Combination-padlock. No. 1,028,960; June 11; Sp. p. 1938; Gaz. vol. 179; p. 334.

Porter, George. (See Bamberger and Porter.)

Porter, James B., Kansas City, Mo. Oyster-fork. No. 1,028,961; June 11; Sp. p. 1940; Gaz. vol. 179; p. 335.

Pospisil, Rudolph E., Menominee, Mich. Sugar process. No. 1,028,272; June 4; Sp. p. 458; Gaz. vol. 179; p. 67.

Posson, Edward, assignor to Q. & H. Company, Chicago, Ill. Car-door hasp-fastener. No. 1,028,273; June 4; Sp. p. 459; Gaz. vol. 179; p. 67.

Post, William C., Estherville, Iowa. Wire-fastener. No. 1,028,962; June 11; Sp. p. 1941; Gaz. vol. 179; p. 335.

Potter, Henry N., New Rochelle, N. Y., assignor to G. Westinghouse, Pittsburgh, Pa. Carbosilicon. No. 1,030,327; June 25; Sp. p. 4948; Gaz. vol. 179; p. 882.

Potter, Henry N., Hollywood, Cal. Apparatus for the recovery of precious metals. No. 1,030,490; June 25; Sp. p. 5307; Gaz. vol. 179; p. 941.

Potter, James C., assignor to Potter & Johnston Machine Co., Pawtucket, R. I. Bar-turning tool. No. 1,028,605; June 4; Sp. p. 1176; Gaz. vol. 179; p. 180.

Potter & Johnston Machine Co. (See Potter, James C., assignor.)

Powell, Rawley H., Grafton, W. Va. Internal-combustion engine. No. 1,029,398; June 11; Sp. p. 2909; Gaz. vol. 179; p. 486.

Powell, William H., and R. B. Williamson, Milwaukee, Wis., assignors to Allis-Chalmers Company. Dynamo-electric machine. No. 1,028,963; June 11; Sp. p. 1942; Gaz. vol. 179; p. 335.

Power, John A., Babylon, N. Y. Evaporating apparatus. No. 1,028,777; June 4; Sp. p. 1525; Gaz. vol. 179; p. 237.

Powers, Henry K., Kittanning, Pa. Rail-fastening means for railway-ties. No. 1,029,458; June 11; Sp. p. 3026; Gaz. vol. 179; p. 506.

Powers, James, Newark, N. J., and J. G. Schofield, Washington, D. C. Tool for applying glaziers' points. No. 1,028,778; June 4; Sp. p. 1526; Gaz. vol. 179; p. 238.

Powyszenski, Frank, Chicago, Ill. Removable heel. No. 1,029,220; June 11; Sp. p. 2493; Gaz. vol. 179; p. 424.

Prahar, Lester L. (See Prahar, Louis B. and L. L.)

Prahar, Louis B., Massapequa, and L. L. Prahar, New York, N. Y. Frame for hand-bags, pocket-books, and the like. No. 1,029,221; June 11; Sp. p. 2494; Gaz. vol. 179; p. 424.

Prahar, Louis B., Massapequa, N. Y. Bag-fastener. No. 1,030,789; June 25; Sp. p. 6202; Gaz. vol. 179; p. 1048.

Prater, William I., Jasper, Ga. Adjustable subsoil attachment. No. 1,028,274; June 4; Sp. p. 460; Gaz. vol. 179; p. 67.

Prather, Edna R. (See Turner, Rose R., assignor.)

Pratt, Alphonso C., Montclair, N. J. Machine for making link mesh. No. 1,028,904; June 11; Sp. p. 1819; Gaz. vol. 179; p. 316.

Pratt, L. S. (See Bellhouse, Thomas F., assignor.)

Preis, George, Cambridge, Mass. Spring-gun. No. 1,030,535; June 25; Sp. p. 5447; Gaz. vol. 179; p. 957.

Prentiss, Frank S. R., San Francisco, Cal. Dust-collector for vacuum-cleaners. No. 1,029,562; June 11; Sp. p. 3235; Gaz. vol. 179; p. 542.

Prenzel, Adam H., Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J. Channeling-machine. No. 1,030,536; June 25; Sp. p. 5449; Gaz. vol. 179; p. 957.

Prenzel, Adam H., Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for embossing heels on shoes. No. 1,030,608; June 25; Sp. p. 5705; Gaz. vol. 179; p. 984.

Prenzel, Adam H., Halifax, Pa., assignor to United Shoe Machinery Company, Paterson, N. J. Making shoes. No. 1,030,609; June 25; Sp. p. 5707; Gaz. vol. 179; p. 984.

Presley, Jasper N., Sardis, Tenn. Ball-bearing washer. No. 1,030,125; June 18; Sp. p. 4468; Gaz. vol. 179; p. 772.

Press, Abraham, Norwood, Ohio, assignor to The Bullock Electric Manufacturing Company. Brush for dynamo-electric machines. No. 1,028,964; June 11; Sp. p. 1945; Gaz. vol. 179; p. 336.

Pressed Steel Car Company. (See Lockwood, Burns D., assignor.)

Presthye, Abraham H., Kalispell, Mont. Hydraulic stump-puller. No. 1,029,510; June 11; Sp. p. 3122; Gaz. vol. 179; p. 524.

Preston, Albert F., Boston, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Machine for making and driving fasteners. No. 1,030,829; June 25; Sp. p. 6374; Gaz. vol. 179; p. 1064.

Preus, Frederick C., Newark, N. J. Sawyer's clamp. No. 1,029,222; June 11; Sp. p. 2496; Gaz. vol. 179; p. 424.

Price-Campbell Cotton Picker Corporation. (See Calderwood, Benjamin C., assignor.)

Price-Campbell Cotton Picker Corporation. (See White, Bruce C., assignor.)

Price, Edgar, Schenectady, N. Y., assignor to General Electric Company. Electromagnet. No. 1,028,385; June 4; Sp. p. 697; Gaz. vol. 179; p. 106.

Price, George S., assignor of one-half to L. A. Young, Detroit, Mich. Upholstering-machine. No. 1,028,779; June 4; Sp. p. 1531; Gaz. vol. 179; p. 238.

Price, William G., New Castle, Pa. Brake-beam support. No. 1,028,386; June 4; Sp. p. 699; Gaz. vol. 179; p. 106.

Priddat, Ernst F., Chicago, Ill. Package-carrier and advertising device. No. 1,028,489; June 4; Sp. p. 943; Gaz. vol. 179; p. 141.

Pride, John P., Leicester, England, assignor to United Shoe Machinery Company, Paterson, N. J. Jack for shoe-machines. No. 1,030,012; June 18; Sp. p. 4229; Gaz. vol. 179; p. 733.

Priest, Augustus F., Chicago, Ill. Vehicle-wheel. No. 1,030,610; June 25; Sp. p. 5710; Gaz. vol. 179; p. 984.

Priester, Charles J., Hackensack, N. J., assignor of one-third to H. L. Rosenthal, New York, N. Y. Machine for piling textile fabrics. No. 1,029,316; June 11; Sp. p. 2700; Gaz. vol. 179; p. 458.

Prindle, Edwin J., East Orange, assignor to United Shoe Machinery Company, Paterson, N. J. Last and shoe-treeing machine. No. 1,030,206; June 18; Sp. p. 4652; Gaz. vol. 179; p. 800.

Prindle, Harry M., Boston, assignor to A. H. Hildreth, trustee, Cambridge, Mass. Developing photographic plates and films. No. 1,029,511; June 11; Sp. p. 3123; Gaz. vol. 179; p. 524.

Prindle, Harry M., Boston, assignor to A. H. Hildreth, trustee, Cambridge, Mass. Developing photographic plates and films. No. 1,029,512; June 11; Sp. p. 3124; Gaz. vol. 179; p. 524.

Pringle, Frank W., Mears, Mich. Wrench. No. 1,029,944; June 18; Sp. p. 4099; Gaz. vol. 179; p. 711.

Pritchard, Carl G., Warren, Ohio. Composing-machine. No. 1,029,317; June 11; Sp. p. 2705; Gaz. vol. 179; p. 458.

Proctor, George R., Grand View, Idaho. Irrigation-regulator. No. 1,028,780; June 4; Sp. p. 1532; Gaz. vol. 179; p. 238.

Proper, W. L., *et al.* (See Krag, Erik L., assignor.)

Prugh, Harry H., *et al.* (See Kohnle, Frederick, assignor.)

Pugh, Cortes V., assignor of four-eighteenths to E. Brockschmitt, four-eighteenths to A. A. Van Cleave, and four-eighteenths to J. Schuls, St. Louis, Mo. Grip-tread and mud-shoe for automobiles. No. 1,028,490; June 4; Sp. p. 944; Gaz. vol. 179; p. 141.

Pugh, John V., Allesley, England. Manufacture of wire-spoked rims. No. 1,030,428; June 25; Sp. p. 5163; Gaz. vol. 179; p. 919.

Purcell, George W., Toledo, Ohio, assignor, by mesne assignments, to G. H. McKillip. Combined mop holder and wringer. No. 1,028,491; June 4; Sp. p. 945; Gaz. vol. 179; p. 142.

Purcell, John J., Burke, Idaho. Automatic turning device for fluid hammer-drills. No. 1,028,275; June 4; Sp. p. 462; Gaz. vol. 179; p. 68.

Purvis, William J., and C. A. Wilson, Goodland, Kans. Flying-machine. No. 1,028,781; June 4; Sp. p. 1538; Gaz. vol. 179; p. 229.

Q. & H. Company. (See Posson, Edward, assignor.)

Q M S Company, The. (See Butz, Walter H., assignor.)

Quade, Fritz, assignor to Firm of J. A. Wülfing, Berlin, Germany. Producing water-soluble crystalline aluminum formate and product obtained thereby. No. 1,030,747; June 25; Sp. p. 6064; Gaz. vol. 179; p. 1033.

Quanstrom, Andrew E., Chicago, Ill. Tug-fastener. No. 1,029,888; June 18; Sp. p. 3981; Gaz. vol. 179; p. 883.

Quay, David M., assignor, by mesne assignments, to Van Kannel Revolving Door Company, New York, N. Y. Revolving door. No. 1,030,849; June 25; Sp. p. 6434; Gaz. vol. 179; p. 1072.

Quiggin, Daniel A., Liverpool, England. Apparatus for evaporating or heating water by steam. No. 1,029,631; June 18; Sp. p. 3383; Gaz. vol. 179; p. 603.

Quigley, John F., West Lynn, Mass. Sole-holding device. No. 1,029,459; June 11; Sp. p. 3027; Gaz. vol. 179; p. 507.

Quigley, Thomas D., San Francisco, Cal. Pneumatic vehicle-spring. No. 1,029,945; June 18; Sp. p. 4100; Gaz. vol. 179; p. 711.

Quinn, Michael J., Hibernia, N. J. Combination rein-holder and safety whip-socket. No. 1,030,245; June 18; Sp. p. 4729; Gaz. vol. 179; p. 814.

Quintal, Lewis, Cleveland, Ohio. Vehicle-tire. No. 1,030,537; June 25; Sp. p. 5452; Gaz. vol. 179; p. 958.

R. Hoe and Co. (See Cooper, Ellis W., assignor.)

R. Hoe and Co. (See Sheldon, Edward P., assignor.)

R. R. Donnelley & Sons Company. (See Beezley, Charles F., Jr., assignor.)

Raabe, Max, Cronberg in the Taunus, Germany. Automatic stabiliser for flying-machines. No. 1,028,782; June 4; Sp. p. 1536; Gaz. vol. 179; p. 239.

Rabeman, Curt T. L. von, Islington, England. Motor-cycle driving-belt. No. 1,028,783; June 4; Sp. p. 1537; Gaz. vol. 179; p. 239.

Rademacher, Johann, Pankow, near Berlin, Germany. Chain grate. No. 1,028,276; June 4; Sp. p. 464; Gaz. vol. 179; p. 68.

Rae, Walter R., Chicago, Ill., assignor to The Ohio Varnish Company, Cleveland, Ohio. Demonstrating-machine. No. 1,029,223; June 11; Sp. p. 2497; Gaz. vol. 179; p. 425.

Rafferty, Charles E., Washington, D. C. Wall construction. No. 1,029,822; June 18; Sp. p. 3821; Gaz. vol. 179; p. 670.

Rahe Match Company. (See Rahe, Samuel E., assignor.)

Rahe, Samuel E., assignor to Rahe Match Company, New York, N. Y. Match-making machine. No. 1,030,790; June 25; Sp. p. 6204; Gaz. vol. 179; p. 1049.

Ralston, Howard H., Norwood, Ohio, assignor to The Bullock Electric Manufacturing Company. Dynamo-electric machine. No. 1,028,965; June 11; Sp. p. 1947; Gaz. vol. 179; p. 336.

Ralston, Howard H., Norwood, Ohio, assignor to Allis-Chalmers Company and The Bullock Electric Manufacturing Company. Dynamo-electric machine. No. 1,030,013; June 18; Sp. p. 4232; Gaz. vol. 179; p. 733.

Ralston Steel Car Company, The. (See Becker, Anton, assignor.)

Ralston Steel Car Company, The. (See Irwin, Frank L., assignor.)

Ramondt, Karel O. S., Haarlem, Netherlands. Revolving door. No. 1,030,266; June 18; Sp. p. 4786; Gaz. vol. 179; p. 822.

Ramsaier, William J., New York, N. Y. Counting attachment for printing-presses. No. 1,028,905; June 11; Sp. p. 1821; Gaz. vol. 179; p. 316.

Ramsay, John C., St. Louis, Mo. Mechanical movement. No. 1,029,766; June 18; Sp. p. 3683; Gaz. vol. 179; p. 649.

Rand, Festus S., Providence, R. I., assignor to Universal Winding Company, Portland, Me. Yarn-guide. No. 1,029,809; June 11; Sp. p. 2911; Gaz. vol. 179; p. 486.

Rankeillor, Alexander, Saco, Me., assignor, by mesne assignments, to Saco-Pettee Company, Newton, Mass. Clock for roving or spinning machinery or the like. No. 1,029,400; June 11; Sp. p. 2913; Gaz. vol. 179; p. 486.

Rapp, William M., Philadelphia, Pa. Linotype-machine. No. 1,029,714; June 18; Sp. p. 3585; Gaz. vol. 179; p. 633.

Rath, Ernst J. (See Zitscher and Rath.)

Rath, Paul. (See Düchting, Wilhelm, assignor.)

Rauch and Lang Carriage Company, The. (See Cookingham and Hertner, assignors.)

Raupach, Fritz, Pulsnitz, Germany. Safety-pin. No. 1,028,784; June 4; Sp. p. 1539; Gaz. vol. 179; p. 240.

Rawitzer, Albert H., Omaha, Nebr. Pneumatic-tire protector. No. 1,029,027; June 11; Sp. p. 2086; Gaz. vol. 179; p. 359.

Rawlings, John J., Putney, London, and G. Sweetser, Upper Norwood, London, England. Electric switch. No. 1,030,207; June 18; Sp. p. 4656; Gaz. vol. 179; p. 800.

Raymaker, James H., Sheboygan, Wis. Valve. No. 1,028,134; June 4; Sp. p. 120; Gaz. vol. 179; p. 18.

Raymond, Alonzo C. (See Reynolds and Raymond.)

Rebolige, Joseph, Donora, Pa. Rail-joint. No. 1,030,126; June 18; Sp. p. 4469; Gaz. vol. 179; p. 772.

Reck, Anders B., Hellerup, Denmark. Appliance for smokeless combustion. No. 1,029,683; June 11; Sp. p. 2210; Gaz. vol. 179; p. 377.

Reckinger, Henry G., Aurora, Ill. Cement railway-tie. No. 1,029,318; June 11; Sp. p. 2712; Gaz. vol. 179; p. 450.

Red Cross Vacuum Cleaner Company. (See De Mattia, Constant, assignor.)

Redmon, Dillard, Washington, D. C. Boring-brace. No. 1,029,028; June 11; Sp. p. 2083; Gaz. vol. 179; p. 360.

Redrup, Charles B., Cardiff, England. Fluid-pressure engine. No. 1,029,460; June 11; Sp. p. 3030; Gaz. vol. 179; p. 507.

Redrup, Charles B., Cardiff, England. Counterbalancing device for valves. No. 1,029,461; June 11; Sp. p. 3031; Gaz. vol. 179; p. 507.

Redrup, Charles B., Canton, Cardiff, England. Magneto ignition device for internal-combustion engines. No. 1,030,127; June 18; Sp. p. 4470; Gaz. vol. 179; p. 772.

Redrup, Charles B., Canton, Cardiff, England. Cylinder for fluid-pressure engines or pumps. No. 1,030,681; June 25; Sp. p. 5900; Gaz. vol. 179; p. 1010.

Reece Button Hole Machine Company, The. (See Connors, John W., assignor.)

Reece Button Hole Machine Company. (See Klewicz, John, assignor.)

Reed, Samuel A., Brookston, Pa. Means for absorbing nicotin. No. 1,028,906; June 11; Sp. p. 1824; Gaz. vol. 179; p. 317.

Reed, William A., Chelsea, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Belt-shifter. No. 1,028,966; June 11; Sp. p. 1949; Gaz. vol. 179; p. 336.

Reed, William A., Chelsea, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Abrading device. No. 1,030,538; June 25; Sp. p. 5453; Gaz. vol. 179; p. 958.

Reeder, William J., Louisville, Ky. Trolley-adjuster. No. 1,028,785; June 4; Sp. p. 1540; Gaz. vol. 179; p. 240.

Reeves, Chester A., Laidlaw, Oreg. Wrench. No. 1,029,142; June 11; Sp. p. 2332; Gaz. vol. 179; p. 397.

Reeves, John T., Grant, Okla. Brush-ax. No. 1,030,429; June 25; Sp. p. 5167; Gaz. vol. 179; p. 919.

Reichenbach, George T., and J. G. Peck, assignors to H. O. Peck Automobile Wheel Company, Incorporated, Portland, Oreg. Resilient spoke. No. 1,029,401; June 11; Sp. p. 2915; Gaz. vol. 179; p. 487.

Reid, Marcellus, Cleveland, Ohio. Electroplating apparatus. No. 1,028,786; June 4; Sp. p. 1541; Gaz. vol. 179; p. 240.

Reid, Reginald. (See Cunningham and Reid.)

Rein, Robert, Berlin, Germany. Calculating-machine. No. 1,028,135; June 4; Sp. p. 121; Gaz. vol. 179; p. 18.

Reinartz, Johann J., Troisdorf, Germany. Sectional heater. No. 1,030,246; June 18; Sp. p. 4730; Gaz. vol. 179; p. 814.

Reinhard, Henry, assignor to Tubes Limited, Aston, Birmingham, England. Manufacture of metal tubes, rods, or the like. No. 1,029,513; June 11; Sp. p. 3125; Gaz. vol. 179; p. 524.

Reisinger, Edward G. (See Hohn and Reisinger.)

Reissig, Oskar, Charlottenburg, Germany. Water-cooled heat-power engine. No. 1,029,889; June 18; Sp. p. 3981; Gaz. vol. 179; p. 693.

Rekstad, Hans A. (See Pederson, Peder T., assignor.)

Remington Arms and Ammunition Company. (See Hoagland, Frank O., assignor.)

Remington, Thomas A., Crystal Lake, Ill. Combination-tool. No. 1,029,767; June 18; Sp. p. 3685; Gaz. vol. 179; p. 650.

Resch, Ralph R. (See Lambert and Resch.)

Renterdahl, Arvid, Boise, Idaho. Culvert. No. 1,028,829; June 4; Sp. p. 1634; Gaz. vol. 179; p. 255.

Reuterdahl, Arvid, Boise, Idaho. Culvert. No. 1,028,830; June 4; Sp. p. 1635; Gaz. vol. 179; p. 255.

Revell, William W., Walden, N. Y. Vehicle wheel-tire No. 1,029,632; June 18; Sp. p. 3584; Gaz. vol. 179; p 603.

Revell, William W., Walden, N. Y. Vehicle-wheel. No. 1,029,633; June 18; Sp. p. 3385; Gaz. vol. 179; p. 603.

Revere Rubber Company. (See Drobinski, Francis J., assignor.)

Rewi, Andrew, Baltimore, Md. Curtain-pole. No. 1,029,890; June 18; Sp. p. 3982; Gaz. vol. 179; p. 693.

Reyam, David. (See Dilks, Reyam, and Du Pont.)

Reynolds, Robert A., and A. C. Raymond, Detroit, Mich. Carriage for transporting and laying concrete beams. No. 1,029,224; June 11; Sp. p. 2501; Gaz. vol. 179; p. 425.

Rhoades, Lewis T., Mont Clare, Pa. Current-controlling mechanism for internal-combustion engines. No. 1,028,277; June 4; Sp. p. 467; Gaz. vol. 179; p. 68.

Rhoads, Joseph E., Wilmington, Del. Power-transmission belt. No. 1,030,682; June 25; Sp. p. 5911; Gaz. vol. 179; p. 1010.

Rhodes, Ewing B., Pittsburgh, Pa. Cleaning device for wind-shields. No. 1,028,843; June 4; Sp. p. 1664; Gaz. vol. 179; p. 259.

Rice, Marie R., Chicago, Ill., assignor to G. Keitel, New York, N. Y. Collar. No. 1,029,891; June 18; Sp. p. 3983; Gaz. vol. 179; p. 693.

Rich, Lester M., Cincinnati, Ohio. Pump-cap. No. 1,029,143; June 11; Sp. p. 2333; Gaz. vol. 179; p. 397.

Rich, Lester M., Indianapolis, Ind. Chicken-coop. No. 1,029,144; June 11; Sp. p. 2334; Gaz. vol. 179; p. 398.

Richard, Vernon I. (See Baltzley, Edwin, assignor.)

Richards, Lewis I., Crescent, Okla. Cotton-chopper. No. 1,028,278; June 4; Sp. p. 472; Gaz. vol. 179; p. 69.

Richardson, Edwin C., Grand Rapids, Mich. Lifting implement. No. 1,029,823; June 18; Sp. p. 3823; Gaz. vol. 179; p. 670.

Richardson, Josiah. (See Crews, Stephen R., assignor.)

Richardson, Milton C., and E. B. Cooke, assignors to The Highway Advertising Company, New Philadelphia, Ohio. Sign-post. No. 1,028,279; June 4; Sp. p. 473; Gaz. vol. 179; p. 69.

Richmond Casket Company. (See Holcomb, Charles C., assignor.)

Ricketts, James R., Longbeach, assignor to Los Angeles Trolley Catcher Company, Los Angeles, Cal. Trolley-catcher. No. 1,030,791; June 25; Sp. p. 6207; Gaz. vol. 179; p. 1049.

Rickie, Alexander J., Cossipur, Calcutta, India. Gas producer or generator. No. 1,029,084; June 11; Sp. p. 2212; Gaz. vol. 179; p. 378.

Riebe, Paul C. (See Hoge and Riebe.)

Riehemann, Frank H., and H. Boehning, St. Louis, Mo. Motor device for boiler-tube cleaners. No. 1,028,136; June 4; Sp. p. 126; Gaz. vol. 179; p. 19.

Riemann, Henry A., Hannibal, Mo. Concrete-pile-making machine. No. 1,030,207; June 18; Sp. p. 4788; Gaz. vol. 179; p. 822.

Rieske, Otto G., assignor to The Monitor Drill Company, St. Louis Park, Minneapolis, Minn. Disk attachment for drills. No. 1,030,247; June 18; Sp. p. 4731; Gaz. vol. 179; p. 814.

Rife, Stanford W., San Marcos, Tex. Shock-absorber. No. 1,029,402; June 11; Sp. p. 3032; Gaz. vol. 179; p. 508.

Rigaumont, Victor A., Pittsburgh, Pa. T-square and other drafting device. No. 1,029,225; June 11; Sp. p. 2503; Gaz. vol. 179; p. 425.

Riley, Charles E., Charlestown, Ind. Suit-case handle. No. 1,029,634; June 18; Sp. p. 3387; Gaz. vol. 179; p. 603.

Riley, William K., Los Angeles, assignor of one-half to P. Marx, Tehachapi, Cal. Bar for drills and the like. No. 1,030,830; June 25; Sp. p. 6381; Gaz. vol. 179; p. 1064.

Riley, William K., Los Angeles, assignor of one-half to P. Marx, Tehachapi, Cal. Drill-actuating mechanism. No. 1,030,832; June 25; Sp. p. 6384; Gaz. vol. 179; p. 1065.

Riley, William K., San Bernardino, assignor of one-half to P. Marx, Tehachapi, Cal. Formation of steel bars and the like. No. 1,030,831; June 25; Sp. p. 6382; Gaz. vol. 179; p. 1064.

Rinehart, Bentley L., Camden, N. J., assignor to Victor Talking Machine Company. Sound-box for talking-machines. No. 1,028,606; June 4; Sp. p. 1177; Gaz. vol. 179; p. 180.

Ringe, John C. (See Allen and Ringe.)

Rising, G. Frank, *et al.* (See Thomas, Frank M., assignor.)

Ritchell, Edward C., St. Paul, Minn., assignor to American Can Company, New York, N. Y. Lard-pail. No. 1,029,029; June 11; Sp. p. 2089; Gaz. vol. 179; p. 360.

Ritter, James H., Topeka, Ind. Cant-hook. No. 1,029,892; June 18; Sp. p. 3984; Gaz. vol. 179; p. 693.

Ritter, Richard H., Sedalia, Mo. Milling attachment for drill-presses. No. 1,029,402; June 11; Sp. p. 2916; Gaz. vol. 179; p. 487.

Roberson, Erastus E., assignor of two-thirds to W. A. Huelsdonk, Le Grand, Cal. Suction-dredger. No. 1,028,387; June 4; Sp. p. 701; Gaz. vol. 179; p. 107.

Roberts, Frank C., Wynnewood, Pa. Furnace-cooling. No. 1,030,792; June 25; Sp. p. 6210; Gaz. vol. 179; p. 1050.

Roberts, Judson O., Cripple Creek, Colo. Engine-starter. No. 1,030,430; June 25; Sp. p. 5168; Gaz. vol. 179; p. 919.

Roberts, William T. B. (See Bates and Roberts.)

Robinson, Charles S., Youngstown, Ohio. Furnace-cover. No. 1,029,319; June 11; Sp. p. 2713; Gaz. vol. 179; p. 459.

Robinson, Cyrus, assignor to Westinghouse Machine Company, Pittsburgh, Pa. Gas-engine. No. 1,028,492; June 4; Sp. p. 947; Gaz. vol. 179; p. 142.

Robinson, George E., Medford, Oreg. Automobile stay-strap. No. 1,030,539; June 25; Sp. p. 5456; Gaz. vol. 179; p. 958.

Robinson, Harry B., Muskegon, Mich. Hose-coupling. No. 1,029,715; June 18; Sp. p. 3586; Gaz. vol. 179; p. 633.

Robinson, James H., assignor of one-half to F. M. Moxley, Lewiston, Idaho. Safety-pin. No. 1,030,431; June 25; Sp. p. 5172; Gaz. vol. 179; p. 920.

Robinson, John H., Washington, D. C. Tariff-chart. No. 1,029,085; June 11; Sp. p. 2214; Gaz. vol. 179; p. 378.

Robinson, Roy, Portland, Oreg. Photo printing-frame. No. 1,030,540; June 25; Sp. p. 5456; Gaz. vol. 179; p. 959.

Robinson, William, Brooklyn, N. Y. Turbine. No. 1,030,328; June 25; Sp. p. 4949; Gaz. vol. 179; p. 882.

Robinson, William, Brooklyn, N. Y. Turbine. No. 1,030,329; June 25; Sp. p. 4952; Gaz. vol. 179; p. 883.

Rock, T. J. (See Tallman, Joseph H., assignor.)

Rockwell, Byrd C., Malvern, Ark. Door. No. 1,028,280; June 4; Sp. p. 474; Gaz. vol. 179; p. 69.

Roder, Robert, Mishawaka, Ind., assignor to V. E. Freeman, New York, N. Y. Support for incandescent mantles. No. 1,028,388; June 4; Sp. p. 702; Gaz. vol. 179; p. 107.

Rodger Ballast Car Company. (See Yost, Winfield H., assignor.)

Rodrigues, Manuel R., Brooklyn, N. Y. Tool for boring holes. No. 1,029,824; June 18; Sp. p. 3825; Gaz. vol. 179; p. 670.

Roe, Ernest S., assignor to Markham Air Rifle Company, Plymouth, Mich. Metallic bow for archery. No. 1,029,716; June 18; Sp. p. 3587; Gaz. vol. 179; p. 633.

Roeber, Herman, Milwaukee, Wis. Thill-coupling. No. 1,029,717; June 18; Sp. p. 3589; Gaz. vol. 179; p. 633.

Roenitz, Louis T., assignor to Fibre Container Company, Chicago, Ill. Pail and cover therefor. No. 1,028,967; June 11; Sp. p. 1951; Gaz. vol. 179; p. 337.

Roessler & Hasslacher Chemical Company, The. (See Brindley, George F., assignor.)

Rogers, Benjamin P., Millville, N. J. Game apparatus. No. 1,030,330; June 25; Sp. p. 4955; Gaz. vol. 179; p. 883.

Rogers, Frank R., assignor to Barcalo Manufacturing Company, Buffalo, N. Y. Machine for bending and twisting bars. No. 1,029,946; June 18; Sp. p. 4101; Gaz. vol. 179; p. 712.

Rogers, Homer S., East Orange, N. J., assignor to Kinetoplane Display Company, New York, N. Y. Picture-display machine. No. 1,030,611; June 25; Sp. p. 5713; Gaz. vol. 179; p. 985.

Rogers, John R., Brooklyn, N. Y., assignor to Mergenthaler Linotype Company. Line-casting machine. No. 1,028,137; June 4; Sp. p. 128; Gaz. vol. 179; p. 19.

Rogers, Nelson W. (See Hewitt and Rogers.)

Rohling, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Bolster. No. 1,029,086; June 11; Sp. p. 2216; Gaz. vol. 179; p. 379.

Rohling, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Bunk or body-bolster. No. 1,029,145; June 11; Sp. p. 2335; Gaz. vol. 179; p. 398.

Rohling, John M., assignor to American Car and Foundry Company, St. Louis, Mo. Collapsible chock for log-car bunks. No. 1,029,226; June 11; Sp. p. 2504; Gaz. vol. 179; p. 425.

Rohr, Moritz von, assignor to The Firm of C. Zeiss, Jena, Germany. Telescope-spectacle glass. No. 1,028,281; June 4; Sp. p. 476; Gaz. vol. 179; p. 69.

Rohr, Moritz von, assignor to Firm of C. Zeiss, Jena, Germany. Spectacle-glass. No. 1,030,128; June 18; Sp. p. 4472; Gaz. vol. 179; p. 773.

Rohrbacher, Edward J., Portland, Oreg. Lubricating-gun. No. 1,029,718; June 18; Sp. p. 3590; Gaz. vol. 179; p. 634.

Rollins, George L., Bridgewater, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for butting welts. No. 1,030,612; June 25; Sp. p. 5715; Gaz. vol. 179; p. 985.

Rollins, George L., Bridgewater, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Welt-butting machine. No. 1,030,613; June 25; Sp. p. 5719; Gaz. vol. 179; p. 986.

Rom, Joseph F. (See Stampahar and Rom.)

Romel, Oscar, trustee. (See Folger and Comstock, assignors.)

Rooney, Lawrence R., Hollidaysburg, Pa. Aeroplane. No. 1,028,968; June 11; Sp. p. 1953; Gaz. vol. 179; p. 337.

Ropp, Milton P. (See English, Peter, assignor.)

Rose, Edward E. (See Hadaway and Rose.)

Rose, Edwin G., Washington, D. C. Land-marker. No. 1,029,635; June 18; Sp. p. 3388; Gaz. vol. 179; p. 604.

Rose, Isaac A. (See O'Brien, John J., assignor.)

Rose, John A. (See Lauson and Rose.)

Rose, Marshall O., Portland, Oreg. Paper-cutter attachment. No. 1,030,014; June 18; Sp. p. 4233; Gaz. vol. 179; p. 733.

Rosenberger, Arthur, assignor to A. Horowitz, Berlin, Germany. Apparatus for producing vegetable extracts. No. 1,028,282; June 4; Sp. p. 477; Gaz. vol. 179; p. 70.

Rosenman, Jacob, New York, N. Y. Cuff-button. No. 1,030,541; June 25; Sp. p. 5458; Gaz. vol. 179; p. 959.

Rosenthal, August, West Allis, Wis. Straw elevator and stacker. No. 1,030,015; June 18; Sp. p. 4234; Gaz. vol. 179; p. 734.

Rosenthal, August, West Allis, Wis. Discharge-spout. No. 1,030,016; June 18; Sp. p. 4240; Gaz. vol. 179; p. 734.

Rosenthal, Harris L. (See Priester, Charles J., assignor.)

Rosenthal, Joseph, Munich, Germany. X-ray tube. No. 1,028,969; June 11; Sp. p. 1955; Gaz. vol. 179; p. 338.

Rosenthal, Morris G., Mentor, Ohio. Knitted fabric. No. 1,029,636; June 18; Sp. p. 3390; Gaz. vol. 179; p. 604.

Roskopf, Philip, Bryan, Ohio. Gambrel. No. 1,030,683; June 25; Sp. p. 5912; Gaz. vol. 179; p. 1010.

Ross, John G., South Easton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Channeling-machine. No. 1,029,227; June 11; Sp. p. 2506; Gaz. vol. 179; p. 426.

Ross, John G., South Easton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Channeling-machine. No. 1,030,614; June 25; Sp. p. 5723; Gaz. vol. 179; p. 986.

Rossi, Auguste J., Niagara Falls, assignor to The Titanium Alloy Manufacturing Company, New York, N. Y. Treating steel. No. 1,028,389; June 4; Sp. p. 704; Gaz. vol. 179; p. 107.

Rossi, Auguste J., Niagara Falls, assignor to The Titanium Alloy Manufacturing Company, New York, N. Y. Steel metal. No. 1,029,637; June 18; Sp. p. 3391; Gaz. vol. 179; p. 604.

Rossmeissl, Frank, assignor of one-half to H. W. Foster, Newark, N. J. Christmas-tree and standard holder. No. 1,028,787; June 4; Sp. p. 1546; Gaz. vol. 179; p. 241.

Roth, Adam J. (See Blechschmidt, Arthur F., assignor.)

Roth, Johann F., Basel, Switzerland. Thread-winding apparatus for spinning and doubling machines. No. 1,030,017; June 18; Sp. p. 4241; Gaz. vol. 179; p. 734.

Rotherham, Kevitt, Coventry, England. Flexible and expansible bracelet. No. 1,028,788; June 4; Sp. p. 1546; Gaz. vol. 179; p. 241.

Rothermel, Curtis J., Philadelphia, Pa. Fabric-roll protector. No. 1,029,947; June 18; Sp. p. 4103; Gaz. vol. 179; p. 712.

Rothschild, Max, New York, N. Y. Cigar-box-lid holder. No. 1,028,607; June 4; Sp. p. 1178; Gaz. vol. 179; p. 180.

Rothwell, John E., Denver, Colo. Separating device. No. 1,028,789; June 4; Sp. p. 1548; Gaz. vol. 179; p. 241.

Rottler, Hermenegild, Raymond, Iowa. Waste-plug lifter. No. 1,029,463; June 11; Sp. p. 3033; Gaz. vol. 179; p. 508.

Rowart, Eugène, Auvelais, near Namur, Belgium. Apparatus for the mechanical manufacture of glass in continuous sheets. No. 1,030,018; June 18; Sp. p. 4244; Gaz. vol. 179; p. 735.

Royal Typewriter Company. (See Hess, Edward B., assignor.)

Royal Typewriter Company. (See Utz, Anthony, assignor.)

Royce, Frederick H., Derby, England. Electric igniter. No. 1,030,432; June 25; Sp. p. 5174; Gaz. vol. 179; p. 920.

Royle, Vernon and V. E., Paterson, N. J. Bracket. No. 1,029,228; June 11; Sp. p. 2509; Gaz. vol. 179; p. 426.

Royle, Vernon E. (See Royle, Vernon and V. E.)

Ruel, Henry F., Kankakee, E. St. Aubin, Ganeer township, W. H. Dyer and C. B. Sawyer, Kankakee, Ill. Planting device for corn-planters. No. 1,030,331; June 25; Sp. p. 4958; Gaz. vol. 179; p. 884.

Rugh, Harry O., assignor to Sandwich Electric Company, Sandwich, Ill. Signaling system. No. 1,028,790; June 4; Sp. p. 1551; Gaz. vol. 179; p. 242.

Rumney, Fred A., Somerville, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Eyeleting-machine. No. 1,030,833; June 25; Sp. p. 6387; Gaz. vol. 179; p. 1065.

Rünkel, Friedrich, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Azo dye. No. 1,028,493; June 4; Sp. p. 949; Gaz. vol. 179; p. 143.

Rupley, George H., Schenectady, N. Y., assignor to General Electric Company. Winding-machine. No. 1,028,390; June 4; Sp. p. 707; Gaz. vol. 179; p. 107.

Rupp, Burton S., and J. W. Johnson, Salt Lake City, Utah, assignors to Universal Metallic Tie Company. Metallic tie. No. 1,028,791; June 4; Sp. p. 1552; Gaz. vol. 179; p. 242.

Rusby, John M., assignor to The United Gas Improvement Company, Philadelphia, Pa. Manufacture of carbureted water-gas. No. 1,030,332; June 25; Sp. p. 4959; Gaz. vol. 179; p. 884.

Rusby, John M., and O. B. Evans, assignors to The United Gas Improvement Company, Philadelphia, Pa. Distillation of bituminous coal and the like. No. 1,030,333; June 25; Sp. p. 4962; Gaz. vol. 179; p. 885.

Rush, R. H., *et al.* (See Bartley, Charles B., assignor.)

Russell, Claude S. J., Watertown, N. Y. Coin and bill carrier. No. 1,028,494; June 4; Sp. p. 950; Gaz. vol. 179; p. 143.

Russell, Clinton W., Detroit, Mich. Railway dump-car. No. 1,028,283; June 4; Sp. p. 479; Gaz. vol. 179; p. 70.

Russell, Frank, Adelaide, South Australia, Australia. Bottle-stopper. No. 1,028,907; June 11; Sp. p. 1825; Gaz. vol. 179; p. 317.

Russell, Frederick T., Philadelphia, Pa., assignor to A. H. Fox Gun Company. Hand-firearm. No. 1,029,229; June 11; Sp. p. 2509; Gaz. vol. 179; p. 427.

Russell, Henry H., New York, N. Y., assignor to W. D. Hodson, Janesville, Wis. Apparatus for heating electrical units. No. 1,029,230; June 11; Sp. p. 2512; Gaz. vol. 179; p. 427.

Russell, Jesse K., Marion, Ill. Wagon-cover. No. 1,028,608; June 4; Sp. p. 1180; Gaz. vol. 179; p. 181.

Russell, John S. (See Helderman and Russell.)

Rust, John C., Detroit, Mich. Cutting apparatus. No. 1,029,825; June 18; Sp. p. 3827; Gaz. vol. 179; p. 671.

Rust, Robert R., New York, N. Y. Molding apparatus. No. 1,029,563; June 11; Sp. p. 3236; Gaz. vol. 179; p. 542.

Ruth, John F., St. Louis, Mo. Metallic window. No. 1,028,391; June 4; Sp. p. 712; Gaz. vol. 179; p. 108.

Ruth, John F., St. Louis, Mo. Metallic window. No. 1,028,392; June 4; Sp. p. 717; Gaz. vol. 179; p. 108.

Ruth, John F., St. Louis, Mo. Metallic window. No. 1,028,393; June 4; Sp. p. 721; Gaz. vol. 179; p. 109.

Ruttan, Alfred A., and C. E. Hutchings, assignors to Eastman Kodak Co., Rochester, N. Y. Securing device for camera-backs. No. 1,030,433; June 25; Sp. p. 5175; Gaz. vol. 179; p. 921.

Ruud, Edwin, Pittsburgh, Pa. Water-heater. No. 1,028,284; June 4; Sp. p. 481; Gaz. vol. 179; p. 70.

Ruwell, William F., Philadelphia, Pa. Valve. No. 1,029,464; June 11; Sp. p. 3035; Gaz. vol. 179; p. 508.

Ryan, John, Winnipeg, Manitoba, Canada. Twisting-machine. No. 1,029,465; June 11; Sp. p. 3039; Gaz. vol. 179; p. 508.

Ryan, Oscar. (See Sunde and Ryan.)

Ryan, Wilbur E., Memphis, Tenn. File-cabinet. No. 1,029,231; June 11; Sp. p. 2515; Gaz. vol. 179; p. 427.

Rydberg, John T., Garwood, N. J. Aeroplane. No. 1,030,542; June 25; Sp. p. 5459; Gaz. vol. 179; p. 959.

Ryden, Claes, Providence, R. I., assignor to Universal Winding Company, Portland, Me. Winding-machine. No. 1,028,609; June 4; Sp. p. 1182; Gaz. vol. 179; p. 181.

Rylands, George F., *et al.* (See Bartley, Charles B., assignor.)

Ryon, Eppa H., Waltham, Mass., assignor to Crompton & Knowles Loom Works. Weft-replenishing loom. No. 1,029,948; June 18; Sp. p. 4105; Gaz. vol. 179; p. 712.

Ryon, Eppa H., Waltham, Mass., assignor to Crompton & Knowles Loom Works. Weft-replenishing loom. No. 1,030,748; June 25; Sp. p. 6065; Gaz. vol. 179; p. 1033.

S. C. Morgan Smith Company. (See Felthousen, John H., assignor.)

Saco-Pettee Company. (See Blake and Goldsmith, assignors.)

Saco-Pettee Company. (See Mills, Charles, assignor.)

Saco-Pettee Company. (See Mills and Penney, assignors.)

Saco-Pettee Company. (See Rankeillor, Alexander, assignor.)

Sadger, Adolf, Berlin, Germany, assignor to The American Rotary Machine Company, New York, N. Y. Rotary machine. No. 1,028,285; June 4; Sp. p. 485; Gaz. vol. 179; p. 71.

Safety-Armorite Conduit Company. (See Free, John W., assignor.)

Salenius, Anders G. G., assignor to Separator Aktiebolaget Fama, Stockholm, Sweden. Gearing. No. 1,030,208; June 18; Sp. p. 4659; Gaz. vol. 179; p. 800.

Salpetersaure-Industrie-Gesellschaft G. m. b. H. (See Pauling, Harry, assignor.)

Salsbury, J. (See Seely, George A., assignor.)

Salt Union Limited, The. (See Malcolm and Munton, assignors.)

Samaia, Dino D., Vicenza, Italy. Apparatus for actuating the conduit-covers of electric railways. No. 1,028,304; June 4; Sp. p. 723; Gaz. vol. 179; p. 109.

Sanborn Evaporator Company. (See Sanborn, Thornton F., assignor.)

Sanborn, Thornton F., Ensenada, Porto Rico, assignor to Sanborn Evaporator Company. Evaporating apparatus. No. 1,028,792; June 4; Sp. p. 1553; Gaz. vol. 179; p. 242.

Sandell, Henry K., assignor to Mills Novelty Company, Chicago, Ill. Electric self-playing violin. No. 1,028,495; June 4; Sp. p. 951; Gaz. vol. 179; p. 143.

Sandell, Henry K., assignor to Mills Novelty Company, Chicago, Ill. Piano. No. 1,028,496; June 4; Sp. p. 957; Gaz. vol. 179; p. 144.

Sander, Petrus, Moline, Ill. Apparatus for actuating water-motors. No. 1,029,030; June 11; Sp. p. 2090; Gaz. vol. 179; p. 360.

Sanders, Charles B., Montclair, N. J., assignor to Union Paper Bag Machine Company, Philadelphia, Pa. Paper bag. No. 1,029,893; June 18; Sp. p. 3986; Gaz. vol. 179; p. 694.

Sanders, William R., assignor of one-half to J. W. Harvey, Sunset, Tex. Steam-engine. No. 1,028,840; June 4; Sp. p. 1661; Gaz. vol. 179; p. 259.

Sandwich Electric Company. (See Rugh, Harry O., assignor.)

Sanford, Andrew J. (See Heisey and Sanford.)

Sangamo Electric Company. (See Bard, Jacob W., assignor.)

Sapp, William A., Elgin, Nebr. Dirigible light-support. No. 1,029,514; June 11; Sp. p. 3130; Gaz. vol. 179; p. 525.

Sargent & Company. (See Page, Albert A., assignor.)

Sargent & Company. (See Sargent, Edward R., assignor.)

Sargent, Edward R., assignor to Sargent & Company, New Haven, Conn. Casket-handle. No. 1,030,434; June 25; Sp. p. 5177; Gaz. vol. 179; p. 921.

Sargent, Fitz William, Mahwah, N. J., assignor to E. H. Fallows, New York, N. Y. Composite-face brake-shoe. No. 1,030,491; June 25; Sp. p. 5311; Gaz. vol. 179; p. 941.

Sarsfield, Timothy B., Penns Station, assignor of one-half to W. C. Kent, Pittsburgh, Pa. Lubricating or oiling device. No. 1,030,129; June 18; Sp. p. 4473; Gaz. vol. 179; p. 773.

Sass, George W., Minneapolis, Minn. Metallic shoe. No. 1,028,610; June 4; Sp. p. 1187; Gaz. vol. 179; p. 181.

Sattley, Clyde A., Indianapolis, assignor to Sattley Machinery Company, Indianapolis, Ind. Corn-harvesting machine. No. 1,030,015; June 25; Sp. p. 5726; Gaz. vol. 179; p. 987.

Sattley, Frederick L., assignor of one-half to C. Stanley, Indianapolis, Ind. Coin sorter and counter. No. 1,028,611; June 4; Sp. p. 1188; Gaz. vol. 179; p. 182.

Sattley Machinery Company. (See Sattley, Clyde A., assignor.)

Saucedo, Marshall, San Francisco, Cal. Sidewalk-box cover. No. 1,029,719; June 18; Sp. p. 3592; Gaz. vol. 179; p. 634.

Sauer, Gustave A., *et al.* (See Evers, Emile E., assignor.)

Saunders, Leslie R., Los Angeles, Cal. Syringe with electric attachment. No. 1,030,543; June 25; Sp. p. 5461; Gaz. vol. 179; p. 960.

Sauve, John B. (See Bernardi and Sauve.)

Sauvola, Gustaf, Astoria, Oreg. Conveying apparatus. No. 1,030,749; June 25; Sp. p. 6069; Gaz. vol. 179; p. 1034.

Savage, George E., assignor to Manning, Bowman & Company, Meriden, Conn. Chafing-dish stand. No. 1,030,019; June 18; Sp. p. 4248; Gaz. vol. 179; p. 735.

Savage, Harlow D., Ashland, Ky. Baffle-wall for locomotive fire-boxes. No. 1,030,258; June 18; Sp. p. 4755; Gaz. vol. 179; p. 818.

Savosick, Stanislaw, Ipswich, Mass. Feed-bag. No. 1,029,320; June 11; Sp. p. 2715; Gaz. vol. 179; p. 459.

Sawyer, Clifford B. (See Ruel, St. Aubin, Dyer, and Sawyer.)

Sawyer, Edward H., Jr., assignor of one-fourth to L. E. Smith and one-fourth to H. H. Geiglein, Baltimore, Md. Bowling-alley pin. No. 1,030,834; June 25; Sp. p. 6392; Gaz. vol. 179; p. 1065.

Sawyer, Lawrence T., Newton, Mass. Closure for weather-proof garments. No. 1,028,908; June 11; Sp. p. 1826; Gaz. vol. 179; p. 317.

Say, James, York, England. Gear-wheel. No. 1,028,909; June 11; Sp. p. 1828; Gaz. vol. 179; p. 318.

Schaefer, Frederick J., and E. Beyer, Newark, N. J. Air-pump. No. 1,029,232; June 11; Sp. p. 2516; Gaz. vol. 179; p. 427.

Schaffer, Jacob, New York, N. Y. Sheet-metal box. No. 1,029,321; June 11; Sp. p. 2716; Gaz. vol. 179; p. 460.

Schaffert, Adolf H., assignor to The General Fireproofing Company, Youngstown, Ohio. Metal-filing unit. No. 1,029,466; June 11; Sp. p. 3041; Gaz. vol. 179; p. 509.

Schaffert, Adolf H., assignor to The General Fireproofing Company, Youngstown, Ohio. Furniture construction. No. 1,029,467; June 11; Sp. p. 3042; Gaz. vol. 179; p. 509.

Schaffert, Annie, *et al.* (See Schaffert, Louis, assignor.)

Schaffert, Louis, assignor of two-thirds to A. Schaffert, New York, N. Y., and one-third to S. G. Conkling, Ridgewood, N. J. Non-refillable bottle. No. 1,029,826; June 18; Sp. p. 3828; Gaz. vol. 179; p. 671.

Schandein, Harry, and M. P. Lind, Philadelphia, Pa. Display-box. No. 1,030,209; June 18; Sp. p. 4659; Gaz. vol. 179; p. 801.

Scharlo, August J., *et al.* (See Paul, William G., assignor.)

Schatz, Herman W., assignor to The American Tool Works Company, Cincinnati, Ohio. Radial drill. No. 1,028,395; June 4; Sp. p. 727; Gaz. vol. 179; p. 110.

Schellenger, Elmer E., Riverside, Cal. Distributer for dumping wagons and cars. No. 1,029,894; June 18; Sp. p. 3988; Gaz. vol. 179; p. 694.

Schellenger, Elmer E., Riverside, Cal. Dumping-wagon. No. 1,029,895; June 18; Sp. p. 3992; Gaz. vol. 179; p. 694.

Schellenger, Newton C., Salt Lake City, Utah. Automatic firearm. No. 1,029,720; June 18; Sp. p. 3592; Gaz. vol. 179; p. 634.

Scheuch, Jacob J., assignor, to The White Tar Company, New York, N. Y. Closure for mothproof bags. No. 1,028,970; June 11; Sp. p. 1956; Gaz. vol. 179; p. 338.

Schick, Charles, Davenport, Iowa. Paper-baler. No. 1,028,396; June 4; Sp. p. 733; Gaz. vol. 179; p. 110.

Schild, Viktor, Brienz, Switzerland, assignor to J. Welter, Passaic, N. J. Electric sad-iron. No. 1,029,233; June 11; Sp. p. 2519; Gaz. vol. 179; p. 428.

Schilke, Arthur H., Wilmerding, Pa. Combination burner and blowpipe. No. 1,029,031; June 11; Sp. p. 2092; Gaz. vol. 179; p. 360.

Schilling, William F. (See McKee and Schilling.)

Schlager, Jacob R. (See Sheedy, Harry J., assignor.)

Schlatterer, Charles, Philadelphia, Pa. Faucet. No. 1,029,403; June 11; Sp. p. 2918; Gaz. vol. 179; p. 488.

Schleicher, William A., Cleveland, Ohio. Blanket-fastener. No. 1,028,138; June 4; Sp. p. 131; Gaz. vol. 179; p. 20.

Schlenker, Jakob, Schwenningen, Germany. Speed-recording apparatus for vehicles. No. 1,029,638; June 18; Sp. p. 3394; Gaz. vol. 179; p. 604.

Schmarsow, Herman, New York, N. Y. Safety jewel-chest. No. 1,028,910; June 11; Sp. p. 1829; Gaz. vol. 179; p. 318.

Schmid, John V., Philadelphia, and C. Mason, Wyndmoor, Pa., assignors to Nelson Valve Company. Valve. No. 1,028,497; June 4; Sp. p. 958; Gaz. vol. 179; p. 144.

Schmidt, Albert, assignor to Champion Ignition Company, Flint, Mich. Terminal fastening. No. 1,029,721; June 18; Sp. p. 3599; Gaz. vol. 179; p. 634.

Schmidt, Albrecht, Höchst-on-the-Main, and G. Kränzlein, Sindlingen, near Höchst-on-the-Main, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Manufacture of azo dyestuffs of the anthraquinone series and making same. No. 1,028,139; June 4; Sp. p. 132; Gaz. vol. 179; p. 20.

Schmidt, Albrecht, and K. Thiess, assignors to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Reddish-blue vat dyestuffs and making same. No. 1,028,911; June 11; Sp. p. 1831; Gaz. vol. 179; p. 318.

Schmidt, Jens E., Hessle, near Kingston-upon-Hull, England. Machine or appliance for dealing playing-cards. No. 1,028,286; June 4; Sp. p. 489; Gaz. vol. 179; p. 71.

Schmitt, Joseph A., Cleveland, Ohio. Type-writer keyboard. No. 1,030,020; June 18; Sp. p. 4250; Gaz. vol. 179; p. 736.

Schmitz & Co. G. m. b. H. (See Schmitz and Stalmann, assignors.)

Schmitz, Jacob, and G. Stalmann, Dusseldorf, Germany, assignors to Firm of Schmitz & Co. G. m. b. H. Manufacturing camphene. No. 1,030,334; June 25; Sp. p. 4966; Gaz. vol. 179; p. 885.

Schneider, Anthony, Jersey City, N. J., assignor to Seidenberg & Company, New York, N. Y. Wrapper for cigars. No. 1,028,498; June 4; Sp. p. 961; Gaz. vol. 179; p. 144.

Schneider, Charles J. and J., J. H. Loeffler, and C. Fleck, West Hoboken, N. J. Hose-conveyer. No. 1,028,612; June 4; Sp. p. 1193; Gaz. vol. 179; p. 182.

Schneider, Eberhard, New York, N. Y. Consecutive-view-perforating apparatus. No. 1,028,287; June 4; Sp. p. 492; Gaz. vol. 179; p. 72.

Schneider, Frederick, Fort Leavenworth, Kans., assignor of one-fourth to S. F. McDonald, Memphis, Tenn., and one-fourth to G. F. Weller, Leavenworth, Kans. Radiator. No. 1,029,468; June 11; Sp. p. 3044; Gaz. vol. 179; p. 509.

Schneider, Fritz, Madretsch, near Bienne, Switzerland. Fire-escape. No. 1,029,768; June 18; Sp. p. 3686; Gaz. vol. 179; p. 650.

Schneider, Harry, New York, N. Y. Raising beam-scale. No. 1,029,949; June 18; Sp. p. 4107; Gaz. vol. 179; p. 713.

Schneider, John. (See Schneider, Loeffler, and Fleck.)

Schneider, Lorenz, Jonesboro, Ark. Combination feed-trough and water-fountain. No. 1,030,130; June 18; Sp. p. 4475; Gaz. vol. 179; p. 773.

Schneider, Louis. (See Pine and Schneider.)

Schnitzler, Charles, Oil City, Cal. Automatic safety-trip for engines. No. 1,028,397; June 4; Sp. p. 735; Gaz. vol. 179; p. 111.

Schoenbroon, Sultan, Pittsburgh, Pa. Electric steam-generator. No. 1,028,912; June 11; Sp. p. 1833; Gaz. vol. 179; p. 318.

Schoenmehl, Charles B., Waterbury, Conn. Battery-element support. No. 1,028,613; June 4; Sp. p. 1195; Gaz. vol. 179; p. 182.

Schoenmehl, Charles B., Waterbury, Conn. Primary battery. No. 1,028,614; June 4; Sp. p. 1197; Gaz. vol. 179; p. 183.

Schoentag, David, Glasco, and E. J. Latus, Albany, N. Y. Liquid-hydrocarbon distributer for roads. No. 1,028,288; June 4; Sp. p. 495; Gaz. vol. 179; p. 72.

Schoenthaler, John. (See Drugan and Schoenthaler.)

Schofield, John G. (See Powers and Schofield.)

Scholl, Franz, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Black disazo dyestuff and making same. No. 1,028,140; June 4; Sp. p. 133; Gaz. vol. 179; p. 20.

Scholl, Franz, assignor to Farbwerke vorm. Meister Lucius & Brüning, Höchst-on-the-Main, Germany. Black disazo-dyestuffs and making same. No. 1,029,639; June 18; Sp. p. 3396; Gaz. vol. 179; p. 605.

Schönherr, Otto. (See Wielgolaski and Schönherr.)

Schott, Louis, assignor to Cincinnati Galvanizing Company, Cincinnati, Ohio. Can with self-closing lid. No. 1,028,499; June 4; Sp. p. 962; Gaz. vol. 179; p. 145.

Schowalter, Edward J. (See Flegel, Harrison D., assignor.)

Schravesande, Peter B., Montreal, Quebec, Canada. Container for small articles. No. 1,028,289; June 4; Sp. p. 498; Gaz. vol. 179; p. 73.

Schreiber, Carl, Chicago, Ill. Ellipsograph. No. 1,029,515; June 11; Sp. p. 3131; Gaz. vol. 179; p. 525.

Schrödel, Georg, Nuremberg, Germany. Toy gun. No. 1,029,469; June 11; Sp. p. 3047; Gaz. vol. 179; p. 510.

Schrody, George A., *et al.* (See Murray, John F., assignor.)

Schroeder, Albert, Piqua, Ohio. Engineer's combination-rod. No. 1,029,470; June 11; Sp. p. 3048; Gaz. vol. 179; p. 510.

Schulte, August J., Tacoma, Wash. Woodworking-clamp. No. 1,029,471; June 11; Sp. p. 3052; Gaz. vol. 179; p. 511.

Schultz, August. San Diego, Cal. Feed-bag. No. 1,029,148; June 11; Sp. p. 2345; Gaz. vol. 179; p. 399.

Schultz, Carl C., Victor, Iowa. Combination manure-spreader hitch. No. 1,028,500; June 4; Sp. p. 964; Gaz. vol. 179; p. 145.

Schultz, Hugo A., Dorchester, Wis. Fence-wire support. No. 1,030,131; June 18; Sp. p. 4477; Gaz. vol. 179; p. 774.

Schulz, Fritz A., Chicago, Ill. Split collar. No. 1,029,950; June 18; Sp. p. 4109; Gaz. vol. 179; p. 713.

Schulz, John, *et al.* (See Pugh, Cortez V., assignor.)

Schumacher, Gerard, Anniston, Ala. Street-light post and the like. No. 1,029,404; June 11; Sp. p. 2920; Gaz. vol. 179; p. 488.

Schumacher, Henry, Buffalo, N. Y. Steering-gear for vehicles. No. 1,030,793; June 25; Sp. p. 6211; Gaz. vol. 179; p. 1050.

Schuman Company, The. (See Schuman, James B., assignor.)

Schuman, James B., assignor to The Schuman Company, Indianapolis, Ind. Shock loader and unloader. No. 1,029,322; June 11; Sp. p. 2717; Gaz. vol. 179; p. 460.

Schuman, James B., assignor to The Schuman Company, Indianapolis, Ind. Shock loader and unloader. No. 1,030,021; June 18; Sp. p. 4251; Gaz. vol. 179; p. 736.

Schureman, Jacob L., assignor to J. L. Schureman Co., Chicago, Ill. Electrical starting device. No. 1,030,435; June 25; Sp. p. 5179; Gaz. vol. 179; p. 921.

Schussler, Herman W., Philadelphia, Pa. Telephone-stand. No. 1,030,684; June 25; Sp. p. 5913; Gaz. vol. 179; p. 1011.

Schuyler, Percival R., Paterson, N. J. Heat-insulating casing for bottles. No. 1,029,827; June 18; Sp. p. 3830; Gaz. vol. 179; p. 671.

Schwager, Henry G., Omaha, Nebr. Adjustable support for telephone-receivers. No. 1,029,640; June 18; Sp. p. 3397; Gaz. vol. 179; p. 605.

Schwartz, Morris, New York, N. Y. Garment-connecting device. No. 1,029,828; June 18; Sp. p. 3831; Gaz. vol. 179; p. 672.

Schwartz, Wilhelm, Bredeney, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Fuse-adjusting machine. No. 1,029,140; June 11; Sp. p. 2337; Gaz. vol. 179; p. 398.

Schwarz, Karl, Nuremberg, Germany. Two-stroke cycle combustion-engine. No. 1,028,615; June 4; Sp. p. 1199; Gaz. vol. 179; p. 183.

Schwenzow, Paul, Unkel-on-the-Rhine, Germany. Stamping-machine. No. 1,030,132; June 18; Sp. p. 4477; Gaz. vol. 179; p. 774.

Schwerin, Botho, Frankfort-on-the-Main, Germany. Separating substances in suspension by washing. No. 1,029,579; June 11; Sp. p. 3264; Gaz. vol. 179; p. 547.

Schwimmer, Oscar, Los Angeles, Cal. Eyeglass attachment. No. 1,030,545; June 25; Sp. p. 5464; Gaz. vol. 179; p. 960.

Schwing, Edward K., Middletown, Ohio. Rat-trap. No. 1,030,750; June 25; Sp. p. 6071; Gaz. vol. 179; p. 1034.

Scoggins, Jesse C., Wichita, Kans. Vehicle pole or shaft. No. 1,030,248; June 18; Sp. p. 4733; Gaz. vol. 179; p. 815.

Scott, Edwin, Newberry, Ind. Acetylene-gas generator. No. 1,029,722; June 18; Sp. p. 3600; Gaz. vol. 179; p. 635.

Scott, Henry E., Goldsboro, N. C. Scythe. No. 1,030,794; June 25; Sp. p. 6213; Gaz. vol. 179; p. 1050.

Scott, James E. (See Brown and Scott.)

Scott, Ray P. (See La Mountain, George C., assignor.)

Scott, Walker A., Evansville, Ind. Rug-stiffener. No. 1,030,685; June 25; Sp. p. 5915; Gaz. vol. 179; p. 1011.

Scott, William, Lititz, Pa., assignor to Oneida Community, Limited, Oneida, N. Y. Animal-trap. No. 1,029,087; June 11; Sp. p. 2219; Gaz. vol. 179; p. 379.

Scovel, James D., Detroit, Mich. Flexible shafting. No. 1,030,544; June 25; Sp. p. 5463; Gaz. vol. 179; p. 960.

Seowden, Edward W., Jamestown, N. Y. Inflatable life-saving equipment of soldiers. No. 1,028,141; June 4; Sp. p. 134; Gaz. vol. 179; p. 20.

Scullin-Gallagher Iron & Steel Company. (See Doerr, Harry E., assignor.)

Scutt, Leonard B., *et al.* (See Estes, Charles E., assignor.)

Seaman, Alonzo D., Milwaukee, Wis. Sanitary drinking device. No. 1,028,142; June 4; Sp. p. 137; Gaz. vol. 179; p. 21.

Searight, John W. (See Allen, Friend A., assignor.)

Seaver, Edward Jr., Pittsburgh, Pa. Transmission mechanism. No. 1,029,641; June 18; Sp. p. 3399; Gaz. vol. 179; p. 605.

Seely, George A., assignor, by mesne assignments, of one-half to J. Salsbury, San Francisco, Cal. Night-sight for firearms. No. 1,029,951; June 18; Sp. p. 4110; Gaz. vol. 179; p. 713.

Sefton Manufacturing Company, The. (See Ferres, Jeffrey T., assignor.)

Sego, Charles W., Ira, Iowa. Glass-fastener. No. 1,030,133; June 18; Sp. p. 4480; Gaz. vol. 179; p. 775.

Seidenberg & Company. (See Schneider, Anthony, assignor.)

Selden, George B., Rochester, N. Y. Road-engine. No. 1,028,501; June 4; Sp. p. 965; Gaz. vol. 179; p. 145.

Selig, William N. (See Hoglund, Gustav E., assignor.)

Sellard, Edmond B., Mexico, Mo. Gearing for motor-driven plows. No. 1,030,686; June 25; Sp. p. 5917; Gaz. vol. 179; p. 1011.

Sellard, Edmond B., Mexico, Mo. Gang and motor plow. No. 1,030,687; June 25; Sp. p. 5920; Gaz. vol. 179; p. 1012.

Sellers, Morris, and H. M. Nicholls, Chicago, Ill. Balling-furnace. No. 1,029,234; June 11; Sp. p. 2520; Gaz. vol. 179; p. 428.

Sellers, Morris, and H. M. Nicholls, Chicago, Ill. Balling scrap. No. 1,029,235; June 11; Sp. p. 2527; Gaz. vol. 179; p. 428.

Sells, William H., Buffalo, N. Y. Corn-husking machine. No. 1,028,616; June 4; Sp. p. 1200; Gaz. vol. 179; p. 183.

Separator Aktienbolaget Fama. (See Salenius, Anders G. G., assignor.)

Sessions, Albert L., Bristol, Conn. Washer. No. 1,028,290; June 4; Sp. p. 500; Gaz. vol. 179; p. 73.

Sessom, Robert L., Thyatria, Miss. Scrubbing-machine. No. 1,030,335; June 25; Sp. p. 4967; Gaz. vol. 179; p. 885.

Sexton, Frederick P. (See Frew and Sexton.)

Shackleford, Marion L., Oatman, Ariz. Flying-machine. No. 1,028,971; June 11; Sp. p. 1957; Gaz. vol. 179; p. 338.

Shaffer, George W., Buffalo, N. Y. Friction-clutch. No. 1,029,147; June 11; Sp. p. 2342; Gaz. vol. 179; p. 399.

Shaffer, Macarius E., Mount Savage, Md. Spike-puller. No. 1,028,291; June 4; Sp. p. 502; Gaz. vol. 179; p. 73.

Shaffer, Ora C., assignor of forty-five one-hundredths to G. Jones, Van Wert, Ohio. Hasp. No. 1,029,237; June 11; Sp. p. 2534; Gaz. vol. 179; p. 429.

Shank, Orey D., Philadelphia, Pa. Side-rein checking device. No. 1,030,022; June 18; Sp. p. 4253; Gaz. vol. 179; p. 736.

Shannon, Harris C., Cleveland, Ohio, assignor to J. F. Murray, Chicago, Ill. Safety-razor. No. 1,030,023; June 18; Sp. p. 4256; Gaz. vol. 179; p. 737.

Sharkey, Everett W., Brooklyn, N. Y. Window-cleaning device. No. 1,030,546; June 25; Sp. p. 5465; Gaz. vol. 179; p. 961.

Sharpe, Joseph K., Jr., assignor to The Indiana Manufacturing Company, Indianapolis, Ind. Pneumatic stacker. No. 1,028,793; June 4; Sp. p. 1556; Gaz. vol. 179; p. 243.

Shattuck, Arthur E., assignor to National Carbonated Liquid Co., San Francisco, Cal. Carbonator. No. 1,029,236; June 11; Sp. p. 2532; Gaz. vol. 179; p. 429.

Shattuck, Charles E., Nashua, N. H., assignor to United Shoe Machinery Company, Paterson, N. J. Pounding-up machine. No. 1,030,751; June 25; Sp. p. 6073; Gaz. vol. 179; p. 1035.

Shaw, W. I., *et al.* (See Thomas, Frank M., assignor.)

Shea, David E., assignor to D. S. Tinsman, Williamsport, Pa. Electric cigar-lighter. No. 1,029,723; June 18; Sp. p. 3601; Gaz. vol. 179; p. 635.

Sheedy, Harry J., assignor of one-half to J. R. Schlager, Scranton, Pa. Resilient vehicle-wheel. No. 1,029,323; June 11; Sp. p. 2721; Gaz. vol. 179; p. 460.

Sheehy, Jeremiah J., Everett, Mass. Autographic register. No. 1,030,616; June 25; Sp. p. 5732; Gaz. vol. 179; p. 987.

Sheldon, Edward P., assignor, by mesne assignments, to R. Hoe and Co., New York, N. Y. Printing-machine. No. 1,028,913; June 11; Sp. p. 1835; Gaz. vol. 179; p. 319.

Shenk, William S. (See Zell and Shenk.)

Shepard, William B., Beloit, Wis. Aeroplane. No. 1,028,143; June 4; Sp. p. 138; Gaz. vol. 179; p. 21.

Shepardson, Raymond D., Becket, Mass. Oil-can. No. 1,028,617; June 4; Sp. p. 1203; Gaz. vol. 179; p. 184.

Sherman, Charles A., New York, N. Y. Tea-brewing apparatus. No. 1,030,752; June 25; Sp. p. 6079; Gaz. vol. 179; p. 1035.

Sherman, George S., Great Neck, N. Y. Lamp attachment for vehicles. No. 1,028,144; June 4; Sp. p. 144; Gaz. vol. 179; p. 21.

Shields, Harry A., Grand Rapids, Mich. Machine for turning tubular fabrics. No. 1,030,336; June 25; Sp. p. 4969; Gaz. vol. 179; p. 886.

Shinn, Albert J., assignor of one-half to J. G. Gray, Wilmington, Del. Motor. No. 1,030,337; June 25; Sp. p. 4971; Gaz. vol. 179; p. 886.

Sholes, Zalmon G., New York, N. Y., assignor to Zalmon G. Sholes Typewriter Company, Type-writer. No. 1,029,324; June 11; Sp. p. 2723; Gaz. vol. 179; p. 461.

Shonkwiler, Francis M., and J. Thomi, Burns, Kans. Cultivating device. No. 1,029,472; June 11; Sp. p. 3053; Gaz. vol. 179; p. 511.

Shonnard, Harold W., East Orange, N. J. Automatic steering device for torpedoes. No. 1,030,134; June 18; Sp. p. 4480; Gaz. vol. 179; p. 775.

Shubert, Frank J., Portland, Oreg. Telephone-repeater. No. 1,029,724; June 18; Sp. p. 3603; Gaz. vol. 179; p. 636.

Sidman Company, The. (See Sidman, Edward D., assignor.)

Sidman, Edward D., Detroit, Mich., assignor to The Sidman Company, Rochester, N. Y. Dry-kiln. No. 1,028,292; June 4; Sp. p. 503; Gaz. vol. 179; p. 73.

Sidman, Edward D., Detroit, Mich., assignor to The Sidman Company, Rochester, N. Y. Curtain for dry-kilns. No. 1,028,293; June 4; Sp. p. 504; Gaz. vol. 179; p. 74.

Siede, Henry, *et al.* (See Evers, Emile E., assignor.)

Siegel, Joseph, Detroit, Mich. Corset. No. 1,030,338; June 25; Sp. p. 4973; Gaz. vol. 179; p. 886.

Siegel, Wellington L., Wilkes-Barre, Pa. Eraser-tool. No. 1,029,572; June 11; Sp. p. 3251; Gaz. vol. 179; p. 545.

Siewnak, Karol, *et al.* (See Nalepka, Walenty, assignor.)

Silfa, Bellsario, New York, N. Y. Spark-plug. No. 1,030,135; June 18; Sp. p. 4491; Gaz. vol. 179; p. 775.

Sill, Richard V., Newark, N. J., assignor of two-thirds to A. E. Pelham, New York, N. Y. Electric controller. No. 1,030,617; June 25; Sp. p. 5736; Gaz. vol. 179; p. 988.

Simmons, Ralph C., Beverly, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for operating upon soles. No. 1,030,618; June 25; Sp. p. 5740; Gaz. vol. 179; p. 988.

Simon, Carl F., Stolberg, Germany. Recording apparatus for measuring gaseous fluids. No. 1,028,145; June 4; Sp. p. 146; Gaz. vol. 179; p. 22.

Simon, Frederick R. (See Simon, Richard, W. G., and F. R.)

Simon, Morecz, East Chicago, Ind. Buffer for railway-cars. No. 1,029,088; June 11; Sp. p. 2221; Gaz. vol. 179; p. 379.

Simon, Richard, W. G., and F. R., Besford, Nottingham, England. Rotary drier. No. 1,030,210; June 18; Sp. p. 4661; Gaz. vol. 179; p. 801.

Simon, William G. (See Simon, Richard, W. G., and F. R.)

Simplex Electric Heating Company. (See Ayer, James I., assignor.)

Simplex Player Action Co. (See Brown, Theodore P., assignor.)

Simpson, Walter C., Punxsutawney, Pa. Collapsible concrete-form. No. 1,028,204; June 4; Sp. p. 505; Gaz. vol. 179; p. 74.

Sinclair, Moses T. (See Smith and Sinclair.)

Sinek, William J. (See Blome and Sinek.)

Singer Manufacturing Company, The. (See Allen, Edward B., assignor.)

Singer Manufacturing Company, The. (See Allen and Ringe, assignors.)

Single Service Package Corporation of America. (See Beadle, George W., assignor.)

Sjoman, Carl, Ramsay, Mich. Combined harrow and pulverizer. No. 1,028,398; June 4; Sp. p. 736; Gaz. vol. 179; p. 111.

Skelton, John H., Bayonne, N. J. Nut-lock. No. 1,030,136; June 18; Sp. p. 4494; Gaz. vol. 179; p. 776.

Skipp, Herbert J., Newark, N. J. Button-machine. No. 1,029,238; June 11; Sp. p. 2535; Gaz. vol. 179; p. 430.

Slack, Frank L., Inglewood, Cal. Aeroplane sighting device. No. 1,028,502; June 4; Sp. p. 970; Gaz. vol. 179; p. 146.

Slater, Frank. (See Herber and Slater.)

Slater, Jerome M., *et al.* (See Vickery, Charles H., assignor.)

Slater, Lillian M., *et al.* (See Vickery, Charles H., assignor.)

Slaughter, Albert J., Washington, Va. Bottle-stopper. No. 1,029,473; June 11; Sp. p. 3055; Gaz. vol. 179; p. 512.

Sleffel, William J., assignor to The Kirk-Latty Manufacturing Company, Cleveland, Ohio. Velocipede-frame. No. 1,028,399; June 4; Sp. p. 738; Gaz. vol. 179; p. 111.

Slick, Edwin E., Pittsburgh, Pa. Apparatus for finishing car-wheels and similar metal articles. No. 1,029,642; June 18; Sp. p. 3403; Gaz. vol. 179; p. 606.

Small, Chester C., Newton, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Nail-assorting mechanism. No. 1,028,972; June 11; Sp. p. 1960; Gaz. vol. 179; p. 338.

Smith, A. V., *et al.* (See Smith, Harold T., assignor.)

Smith, Bessie H., Chicago, assignor to G. A. Foster, Evanston, Ill. Powder-box. No. 1,028,618; June 4; Sp. p. 1204; Gaz. vol. 179; p. 184.

Smith, Charles W., Cincinnati, Ohio, assignor to Thomas Cusack Company, Jersey City, N. J. Sign. No. 1,030,339; June 25; Sp. p. 4974; Gaz. vol. 179; p. 887.

Smith, E. C. (See Baldwin, Charles E., assignor.)

Smith, Erick, Flagstaff, Ariz. Saw-gummer. No. 1,029,516; June 11; Sp. p. 3133; Gaz. vol. 179; p. 525.

Smith, Frank L., Chicago, Ill., and T. B. Williams, assignors to Leavitt Machine Company, Orange, Mass. Valve-seat-dressing tool. No. 1,028,295; June 4; Sp. p. 507; Gaz. vol. 179; p. 74.

Smith, George L., South Kaukauna, Wis. Curtain and shade holder. No. 1,030,340; June 25; Sp. p. 4975; Gaz. vol. 179; p. 887.

Smith, Harold T., Willis, assignor of one-third to B. L. Cornelius, Hutchinson, and one-third to A. V. Smith, Willis, Kans. Oil-burner. No. 1,028,973; June 11; Sp. p. 1964; Gaz. vol. 179; p. 339.

Smith, Harrison B., Bayside, N. Y. Brush. No. 1,030,137; June 18; Sp. p. 4495; Gaz. vol. 179; p. 776.

Smith, Harvey M., assignor of one-half to J. W. O'Connell, San Diego, Cal. Cable or track controlled hydroaeroplane. No. 1,030,024; June 18; Sp. p. 4257; Gaz. vol. 179; p. 737.

Smith, J. C., *et al.* (See Huntley, Stephen A., assignor.)

Smith, James, Ealing, England, assignor to Babcock & Wilcox Company, Bayonne, N. J. Apparatus for charging open-hearth furnaces, &c. No. 1,028,619; June 4; Sp. p. 1205; Gaz. vol. 179; p. 184.

Smith, James, Ealing, England, assignor to Babcock & Wilcox Company, Bayonne, N. J. Apparatus for charging open-hearth furnaces and the like. No. 1,028,620; June 4; Sp. p. 1207; Gaz. vol. 179; p. 185.

Smith, Louis E., *et al.* (See Sawyer, Edward H., Jr., assignor.)

Smith, Norman R., Pasco, Wash., assignor to Hydro Patent Power Co., Portland, Oreg. Current-power transmuter. No. 1,030,835; June 25; Sp. p. 6394; Gaz. vol. 179; p. 1066.

Smith, Oliver J. A., Piedmont, Mo. Stake or standard for wagon-bolsters. No. 1,028,621; June 4; Sp. p. 1208; Gaz. vol. 179; p. 185.

Smith, Paul H., Columbus, Ohio. Measuring-faucet. No. 1,029,725; June 18; Sp. p. 3607; Gaz. vol. 179; p. 636.

Smith, Philip E. (See Winship and Smith.)

Smith, Richard C., and M. T. Sinclair, Plymouth, W. Va. Railway-crossing. No. 1,028,622; June 4; Sp. p. 1209; Gaz. vol. 179; p. 185.

Smith, Robert J., Yonkers, N. Y., assignor to Otis Elevator Company, Jersey City, N. J. Air-drill socket. No. 1,028,623; June 4; Sp. p. 1210; Gaz. vol. 179; p. 185.

Smith, Thurston H., Peekskill, N. Y. Thermostatic device. No. 1,030,025; June 18; Sp. p. 4259; Gaz. vol. 179; p. 737.

Smith, Valdemar G., Copenhagen, Denmark. Apparatus for consuming smoke in boiler-furnaces. No. 1,029,952; June 18; Sp. p. 4111; Gaz. vol. 179; p. 713.

Smith, Wade H., Macon, Ga. Cover fastening and releasing device. No. 1,029,405; June 11; Sp. p. 2922; Gaz. vol. 179; p. 488.

Smith, Walter H., assignor to The Harris Automatic Press Company, Niles, Ohio. Dampening mechanism for printing-presses. No. 1,029,239; June 11; Sp. p. 2539; Gaz. vol. 179; p. 430.

Smith, Walter M., *et al.* (See Bamberger and Porter, assignors.)

Smith, Watson R., Jackson, Mich., and F. H. Hampton, Pullman, Ill., assignors to Jackson Cushion Edge Company, Jackson, Mich. Cushion edge pad. No. 1,030,795; June 25; Sp. p. 6216; Gaz. vol. 179; p. 1051.

Smith, Willard A., Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Machine for lacing shoe-uppers. No. 1,030,547; June 25; Sp. p. 5466; Gaz. vol. 179; p. 961.

Smith, Willard A., Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Knot-tying mechanism. No. 1,030,619; June 25; Sp. p. 5741; Gaz. vol. 179; p. 988.

Smith, Willard A., Melrose, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lacing-machine. No. 1,030,753; June 25; Sp. p. 6080; Gaz. vol. 179; p. 1035.

Smith, William, Winthrop, Mass. Stuffing-box. No. 1,029,474; June 11; Sp. p. 3056; Gaz. vol. 179; p. 512.

Smith, William H., Gayhead, N. Y. Fire-escape. No. 1,029,769; June 18; Sp. p. 3687; Gaz. vol. 179; p. 650.

Snedaker, Earl R., Philadelphia, Pa. Puzzle. No. 1,029,240; June 11; Sp. p. 2541; Gaz. vol. 179; p. 430.

Snow Dental Company, The. (See Snow, George B., assignor.)

Snow, George B., assignor to The Snow Dental Company, Buffalo, N. Y. Platform for dental articulators. No. 1,029,149; June 11; Sp. p. 2347; Gaz. vol. 179; p. 400.

Snow, George H. (See Crawford, Harvey F., assignor.)

Snyder, Augustus G., Utica, N. Y. Exhaust-muffler. No. 1,028,847; June 4; Sp. p. 1675; Gaz. vol. 179; p. 261.

Snyder, Augustus G., Utica, N. Y. Thill-coupling. No. 1,029,896; June 18; Sp. p. 3994; Gaz. vol. 179; p. 695.

Snyder, John F., Oakland, Cal. Sanitary eye-shield. No. 1,029,241; June 11; Sp. p. 2543; Gaz. vol. 179; p. 431.

Société Alsacienne De Constructions Mecaniques. (See Wenning, Jean C. A., assignor.)

Société Anonyme des Perfectionnements aux Lampes Electriques à Filaments Metalliques. (See Marietti, Silvio, assignor.)

Société Chimique Des Usines Du Rhone, anciennement Gilliard, P. Monnet et Cartier. (See Koetschet and Theumann, assignors.)

Societe Ribeyrolles & Cie. (See Henriod, Charles E., assignor.)

Société Sohier et Cie. (See Sohier, Louis, assignor.)

Society Compagnie Generale De Phonographes Cinematographes Et Appareils De Precision. (See Ivatts, Ernest A., assignor.)

Sohier, Louis, assignor to Société Sohier et Cie., Champigny-sur-Marne, Seine, France. Producing printed copies of kinematographic films and the like. No. 1,028,296; June 4; Sp. p. 500; Gaz. vol. 179; p. 74.

Sommer, Harry F. (See Balcom, Charles, assignor.)

Sommer, John L., Newark, N. J., assignor to J. L. Sommer Manufacturing Co. Nail-file. No. 1,030,492; June 25; Sp. p. 5312; Gaz. vol. 179; p. 941.

Sorenson, Edwin, assignor of one-half to L. L. Stevens, Los Angeles, Cal. Folding metallic awning. No. 1,030,493; June 25; Sp. p. 5313; Gaz. vol. 179; p. 941.

Spackman, Henry S., Ardmore, Pa., and E. W. Lazell, Wilmington, Del., assignors, by mesne assignments, to H. S. Spackman, Ardmore, Pa. Cementitious material. No. 1,029,953; June 18; Sp. p. 4112; Gaz. vol. 179; p. 714.

Spackman, Henry S., Ardmore, Pa., and E. W. Lazell, Wilmington, Del.; said Lazell assignor to said Spackman. Cementitious material. No. 1,029,954; June 18; Sp. p. 4120; Gaz. vol. 179; p. 714.

Spang and Company. (See Wise, James E., assignor.)

Spaulding, Roy L., Helena, Mont. Sterilizer. No. 1,028,297; June 4; Sp. p. 510; Gaz. vol. 179; p. 75.

Spear, Lorenza D. (See Hickie and Spear.)

Speice, Wilbert B., Payne, Ohio. Automobile-starter. No. 1,028,624; June 4; Sp. p. 1214; Gaz. vol. 179; p. 186.

Sperry, Herbert B., assignor to Dain Manufacturing Company of Iowa, Ottumwa, Iowa. Measuring-wheel for baling-presses. No. 1,028,974; June 11; Sp. p. 1965; Gaz. vol. 179; p. 339.

Spiegel, William G., assignor to F. Oppenheimer, New York, N. Y. Burglar-alarm. No. 1,030,138; June 18; Sp. p. 4497; Gaz. vol. 179; p. 776.

Spindler, Perry T., assignor to American Street and Station Indicator Company, Chicago, Ill. Operating device for street-indicators. No. 1,029,770; June 18; Sp. p. 3693; Gaz. vol. 179; p. 651.

Spiral Radiator Company. (See Olson and Grant, assignors.)

Sporleder, Michael, Colorado City, Colo., and W. Sporleder, Okemah, Okla. Balance-wheel. No. 1,028,794; June 4; Sp. p. 1557; Gaz. vol. 179; p. 243.

Sporleder, William. (See Sporleder, Michael and W.)

Sprado, Carl G., assignor to Allis-Chalmers Company, Milwaukee, Wis. Discharge-valve. No. 1,029,726; June 18; Sp. p. 3606; Gaz. vol. 179; p. 636.

Sprague Canning Machinery Company. (See Haight, James P., assignor.)

Sprague, Edmund C., and A. M. Williamson, assignors to International Acheson Graphite Company, Niagara Falls, N. Y. Treating carbon articles of low initial conductivity. No. 1,030,620; June 25; Sp. p. 5745; Gaz. vol. 179; p. 989.

Springer, Louis S. (See Bunting, Muldoon, and Springer.)

Springfield Metallic Casket Company, The. (See Hiser, Charles H., assignor.)

Springsteen, Nelson E., Royal Oak, assignor of one-half to J. H. Moore, Detroit, Mich. Inking mechanism. No. 1,030,026; June 18; Sp. p. 4260; Gaz. vol. 179; p. 738.

St. Aubin, Emile. (See Ruel, St. Aubin, Dyer, and Sawyer.)

St. Peters, George, Mattoon, Wis. Double-acting pump. No. 1,029,476; June 11; Sp. p. 3059; Gaz. vol. 179; p. 513.

Stafford, John E., Gilbert, W. Va. Refrigerator. No. 1,028,298; June 4; Sp. p. 512; Gaz. vol. 179; p. 75.

Stage, Floyd L., Hamburg, N. Y. Vehicle-signal. No. 1,030,027; June 18; Sp. p. 4263; Gaz. vol. 179; p. 739.

Stagg, John W., Anniston, Ala. Portable car-unloading chute. No. 1,028,831; June 4; Sp. p. 1636; Gaz. vol. 179; p. 255.

Staley, Jacob J., Dayton, Ohio. Cut-off for gas-pipes. No. 1,030,341; June 25; Sp. p. 4977; Gaz. vol. 179; p. 887.

Stalmann, Gerhard. (See Schmitz and Stalmann.)

Stamm, George T., Upland, Cal. Orange-boxing device. No. 1,030,342; June 25; Sp. p. 4978; Gaz. vol. 179; p. 887.

Stamm, Max, Solingen, Germany. Making steel punches. No. 1,028,299; June 4; Sp. p. 514; Gaz. vol. 179; p. 75.

Stampahar, Josef L., and J. F. Rom, Red Lodge, Mont. Spark-arrester. No. 1,030,028; June 18; Sp. p. 4264; Gaz. vol. 179; p. 739.

Stamper, Carter D., Beattyville, Ky. Registering seal-press. No. 1,028,914; June 11; Sp. p. 1842; Gaz. vol. 179; p. 319.

Stamps, Henry W., Rome, Ga. Clip. No. 1,029,820; June 18; Sp. p. 3832; Gaz. vol. 179; p. 672.

Stamps, Nathaniel C., Ocean Park, Cal. Carbureter. No. 1,030,343; June 25; Sp. p. 4981; Gaz. vol. 179; p. 888.

Stanbridge, Henry, Tinsley, near Sheffield, assignor to J. A. Hill, Sheffield, England. Projectile for ordnance. No. 1,029,517; June 11; Sp. p. 3134; Gaz. vol. 179; p. 525.

Standard Light Company. (See Conner, Herschel M., assignor.)

Standard Railway Equipment Company. (See Miller, William, assignor.)

Standard Textile Co. (See Gardinkle, Nathan, assignor.)

Stanhope, Philip R., Denver, Colo. Ore-concentrating launder. No. 1,029,089; June 11; Sp. p. 2222; Gaz. vol. 179; p. 379.

Stanley, Clarence. (See Sattley, Frederick L., assignor.)

Stanley, William E., Hawkinsville, Ga. Automobile. No. 1,028,975; June 11; Sp. p. 1967; Gaz. vol. 179; p. 340.

Stanton, Horace B., Boston, Mass. Shock-absorber. No. 1,028,400; June 4; Sp. p. 739; Gaz. vol. 179; p. 111.

Stapel, Adolf G., Montgomery, Ala. Accelerator for hot-water heating systems. No. 1,029,032; June 11; Sp. p. 2093; Gaz. vol. 179; p. 361.

Staples, Albert F., assignor to Superior Register Company, Canisteo, N. Y. Filing device. No. 1,028,300; June 4; Sp. p. 514; Gaz. vol. 179; p. 75.

Starkweather, Arthur C., and J. Nagel, Amherst, Ohio. Conveyer. No. 1,030,344; June 25; Sp. p. 4983; Gaz. vol. 179; p. 888.

State of Minnesota, The. (See Downing, John H., assignor.)

Statton, Samuel W., Minneola, Kans. Oil-burner. No. 1,030,211; June 18; Sp. p. 4662; Gaz. vol. 179; p. 801.

Staynes, William H., Leicester, England. Buffing-roll. No. 1,029,406; June 11; Sp. p. 2923; Gaz. vol. 179; p. 489.

Stebbins, Arthur C., assignor to Lansing Wheelbarrow Company, Lansing, Mich. Packing and package for disassembled wheelbarrows. No. 1,028,625; June 4; Sp. p. 1216; Gaz. vol. 179; p. 186.

Steel Tenon Manufacturing Company, The. (See McKnight, Richard, assignor.)

Steele, David R., Curtis Bay, assignor to H. D. Harvey, Baltimore, Md. Crucible-furnace. No. 1,029,090; June 11; Sp. p. 2224; Gaz. vol. 179; p. 380.

Steele, Herbert H., Marcellus, assignor to The Monarch Typewriter Company, Syracuse, N. Y. Type-writing machine. No. 1,030,029; June 18; Sp. p. 4265; Gaz. vol. 179; p. 739.

Steen, Halfdan A., Milwaukee, Wis., assignor to Allis-Chalmers Company. Time-element circuit-breaker. No. 1,030,030; June 18; Sp. p. 4271; Gaz. vol. 179; p. 740.

Steen, Halfdan A., Milwaukee, Wis., assignor to Allis-Chalmers Company. Motor-control system. No. 1,030,548; June 25; Sp. p. 5479; Gaz. vol. 179; p. 961.

Steen, Halfdan A., Milwaukee, Wis., assignor to Allis-Chalmers Company. Liquid rheostat. No. 1,030,850; June 25; Sp. p. 6439; Gaz. vol. 179; p. 1072.

Steer, Alfred G., assignor to Dairymen's Supply Co., Lansdowne, Pa. Bottle rinsing and sterilizing apparatus. No. 1,030,139; June 18; Sp. p. 4498; Gaz. vol. 179; p. 776.

Steinhouse, Clarence L. (See Steinhouse, Harry B. and C. L.)

Steinhouse, Harry B. and C. L., Cairo, Ill. Bolt. No. 1,028,795; June 4; Sp. p. 1560; Gaz. vol. 179; p. 244.

Stephenson, Charles G., Denver, Colo. Spring-frame for motor-cycles. No. 1,029,771; June 18; Sp. p. 3694; Gaz. vol. 179; p. 651.

Sternau & Co., S. (See Nelson, Charles, assignor.)

Sternberg, Harry, and J. Furby, Nashville, Ill. Gang or sulky plow. No. 1,029,033; June 11; Sp. p. 2095; Gaz. vol. 179; p. 361.

Stetson, Leon W., Whitman, Mass. Device for holding safety-razor blades. No. 1,028,626; June 4; Sp. p. 1218; Gaz. vol. 179; p. 187.

Stettiner Chamotte-Fabrik Actien-Gesellschaft vormals Didier. (See Jones, Arthur O., assignor.)

Steuart, Wilmot N., Brookfield, Ohio. Overshoe. No. 1,029,772; June 18; Sp. p. 3696; Gaz. vol. 179; p. 651.

Stevens, Byron, Oakland, Cal. Safety-valve. No. 1,028,627; June 4; Sp. p. 1219; Gaz. vol. 179; p. 187.

Stevens, Clement H., Las Palmas, Gran Canaria, Canary Islands. Pneumatic hand-hammer. No. 1,030,212; June 18; Sp. p. 4663; Gaz. vol. 179; p. 801.

Stevens, Lawrence L. (See Sorenson, Edwin, assignor.)

Stevens, Merton P., East Orange, N. J. Lamp-socket and shade-holder. No. 1,030,345; June 25; Sp. p. 4984; Gaz. vol. 179; p. 888.

Stevenson, Charles A. (See Moyes and Stevenson.)

Steward, Alden A. and G. H., Rutland, Vt. Engine-throttle. No. 1,030,140; June 18; Sp. p. 4500; Gaz. vol. 179; p. 777.

Steward, George H. (See Steward, Alden A. and G. H.)

Stewart, Alfred C., Los Angeles, Cal. Carbureter. No. 1,029,897; June 18; Sp. p. 3905; Gaz. vol. 179; p. 695.

Stewart, Alfred C., Los Angeles, Cal. Auxiliary air device for carbureters. No. 1,029,898; June 18; Sp. p. 3999; Gaz. vol. 179; p. 696.

Stewart, Alfred C., Los Angeles, Cal. Throttle for carbureters. No. 1,029,899; June 18; Sp. p. 4000; Gaz. vol. 179; p. 696.

Stewart, William C., Lynn, Mass., assignor, by mesne assignments, to United Shoe Machinery Company, Paterson, N. J. Machine for cutting leather. No. 1,030,621; June 25; Sp. p. 5748; Gaz. vol. 179; p. 989.

Stewart, William F., St. Louis, Mo. Instantaneous water-heater. No. 1,028,146; June 4; Sp. p. 148; Gaz. vol. 179; p. 22.

Steyding, William E., Lockport, N. Y. Currycomb. No. 1,030,141; June 18; Sp. p. 4503; Gaz. vol. 179; p. 777.

Stiles, Edward M. and T. H., Mount Pleasant, Iowa. Rind-removing attachment for meat-slicing machines. No. 1,028,796; June 4; Sp. p. 1560; Gaz. vol. 179; p. 244.

Stiles, Thomas G., Arlington, N. J. Circuit-controller. No. 1,030,622; June 25; Sp. p. 5753; Gaz. vol. 179; p. 989.

Stiles, Thomas H. (See Stiles, Edward M. and T. H.)

Stöger, Josef, Munich, Germany. Obstetrical device. No. 1,029,034; June 11; Sp. p. 2096; Gaz. vol. 179; p. 361.

Stolberg, Mason F., Toledo, Ohio. Tire-inflating apparatus. No. 1,028,628; June 4; Sp. p. 1221; Gaz. vol. 179; p. 187.

Stolp, Louis W., Washington, D. C. Safety appliance for flying-machines. No. 1,029,475; June 11; Sp. p. 3057; Gaz. vol. 179; p. 512.

Stone, Simon D., Somerville, Mass. Trolley. No. 1,028,629; June 4; Sp. p. 1222; Gaz. vol. 179; p. 188.

Stone, William E., Marblehead, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Sewing-machine. No. 1,030,836; June 25; Sp. p. 6400; Gaz. vol. 179; p. 1067.

Storm, Katherine L., Philadelphia, Pa. Abdominal supporter. No. 1,029,955; June 18; Sp. p. 4126; Gaz. vol. 179; p. 714.

Stott, Joseph, Worcester, Mass. Bed-bottom. No. 1,028,915; June 11; Sp. p. 1843; Gaz. vol. 179; p. 320.

Stoudt, William B., Bernhardts, Pa. Safety gas-burner. No. 1,029,830; June 18; Sp. p. 3834; Gaz. vol. 179; p. 672.

Strader, Perry T., Amarillo, Tex. Valve-controlling mechanism for train-air-brake systems. No. 1,029,477; June 11; Sp. p. 3061; Gaz. vol. 179; p. 513.

Stranders, Julien, assignor to American Lithographic Company, New York, N. Y. Collapsible display device. No. 1,028,147; June 4; Sp. p. 150; Gaz. vol. 179; p. 23.

Stranders, Julien, New York, N. Y., assignor to H. B. Kruger. Advertising display device. No. 1,030,031; June 18; Sp. p. 4272; Gaz. vol. 179; p. 740.

Strawn, Herman M., Marysville, Cal. Spring-wheel. No. 1,030,688; June 25; Sp. p. 5922; Gaz. vol. 179; p. 1012.

Strietelmeier, Henry W., Linton, Ind. Mold. No. 1,030,754; June 25; Sp. p. 6091; Gaz. vol. 179; p. 1036.

Stringer, James D. (See Chappel, Christopher C., assignor.)

Stroh, George, Detroit, Mich. Bung. No. 1,028,148; June 4; Sp. p. 151; Gaz. vol. 179; p. 23.

Stroh, George, Detroit, Mich. Tap. No. 1,029,727; June 18; Sp. p. 3610; Gaz. vol. 179; p. 636.

Stromberg-Carlson Telephone Manufacturing Company. (See Temple, David L., assignor.)

Stromberg, Fritz O., Seattle, Wash. Feeder for dry separators. No. 1,028,797; June 4; Sp. p. 1566; Gaz. vol. 179; p. 244.

Strong, Frederick A., Bridgeport, Conn., assignor to Weed Chain Tire Grip Company, New York, N. Y. Tire-repair device. No. 1,030,032; June 18; Sp. p. 4273; Gaz. vol. 179; p. 740.

Strouse, Frank L., Williamsport, Pa. Rail-joint. No. 1,030,549; June 25; Sp. p. 5481; Gaz. vol. 179; p. 962.

Stryker, Dick P. (See Stryker, John E. and D. P.)

Stryker, John E., New York, N. Y., and D. P. Stryker, Somerville, N. J. Fence-post. No. 1,028,630; June 4; Sp. p. 1223; Gaz. vol. 179; p. 188.

Stuber, Benjamin F., Gardiner, Me., assignor to United Shoe Machinery Company, Paterson, N. J. Lasting apparatus. No. 1,029,242; June 11; Sp. p. 2544; Gaz. vol. 179; p. 431.

Stumpf, Johann, Berlin, Germany. Steam-engine. No. 1,028,631; June 4; Sp. p. 1224; Gaz. vol. 179; p. 188.

Stumpf, Johann, Berlin, Germany. Steam-engine. No. 1,028,632; June 4; Sp. p. 1226; Gaz. vol. 179; p. 189.

Stunz, William P., Lansdowne, assignor to G. R. Webb, Baltimore, Md. Telephone instrument. No. 1,030,550; June 25; Sp. p. 5482; Gaz. vol. 179; p. 962.

Stunz, William P., Lansdowne, assignor to G. R. Webb, Baltimore, Md. Telephonic instrument, including transmitters. No. 1,030,551; June 25; Sp. p. 5484; Gaz. vol. 179; p. 962.

Sturgeon, Walter R., Sterling, Kans. Shock-absorber. No. 1,029,478; June 11; Sp. p. 3062; Gaz. vol. 179; p. 513.

Sturgill, William. (See Pierce, Charles H., assignor.)

Sturm, Charles A., Portland, Oreg. Elevator. No. 1,028,798; June 4; Sp. p. 1567; Gaz. vol. 179; p. 244.

Sturmey, John J. H., Coventry, England. Variable-speed gearing. No. 1,028,916; June 11; Sp. p. 1844; Gaz. vol. 179; p. 320.

Suchla, Thomas, Courtenay, N. D. Loading and unloading device. No. 1,028,841; June 4; Sp. p. 1662; Gaz. vol. 179; p. 259.

Suchy, Robert. (See Hoffmann and Suchy.)

Sullivan, John L. (See Mueller, William A., assignor.)

Sullivan Machinery Company. (See Gilman, George H., assignor.)

Summa, Victor M., assignor, by mesne assignments, to American Car and Foundry Company, St. Louis, Mo. Car structure. No. 1,029,091; June 11; Sp. p. 2226; Gaz. vol. 179; p. 380.

Sumrall, Perry N. (See Norton and Sumrall.)

Sunday, Lee A., Richmond, Va. Mortising-machine. No. 1,029,773; June 18; Sp. p. 3697; Gaz. vol. 179; p. 651.

Sunde, Ole, and O. Ryan, Seattle, Wash. Box-cover fastener. No. 1,029,092; June 11; Sp. p. 2229; Gaz. vol. 179; p. 381.

Superior Register Company. (See Staples, Albert F., assignor.)

Suren, Nathan H., Needham, Mass., assignor to The Gamewell Fire-Alarm Telegraph Company, New York, N. Y. Electromagnet. No. 1,029,150; June 11; Sp. p. 2347; Gaz. vol. 179; p. 400.

Suren, Nathan H., Needham, Mass., assignor to The Gamewell Fire-Alarm Telegraph Company, New York, N. Y. Signal-box. No. 1,029,956; June 18; Sp. p. 4128; Gaz. vol. 179; p. 715.

Susemihl, Theodor, and C. P. Carrington, New York, N. Y. Umbrella. (Reissue.) No. 13,430; June 18; Sp. p. 4797; Gaz. vol. 179; p. 824.

Sussman, Leon, Bayonne, N. J., assignor to F. Wolf, New York, N. Y. Corner-post fastening. No. 1,030,494; June 25; Sp. p. 5318; Gaz. vol. 179; p. 947.

Sutcliffe, Arthur S. (See Moore and Sutcliffe.)

Sutherland, Fred E., and J. A. Brown, Los Angeles, Cal. Shifter mechanism. No. 1,028,503; June 4; Sp. p. 972; Gaz. vol. 179; p. 146.

Sutherland, Luke, Louisville, Ky. Brake system. No. 1,028,301; June 4; Sp. p. 516; Gaz. vol. 179; p. 76.

Svensson, Carl L., and H. A. Perry, Topeka, Kans. Sanitary egg-separator. No. 1,030,346; June 25; Sp. p. 4987; Gaz. vol. 179; p. 889.

Svistounoff, Boris, St. Petersburg, Russia. Sighting device for machine-guns and the like. No. 1,028,917; June 11; Sp. p. 1847; Gaz. vol. 179; p. 320.

Swaine, Alvin R., Des Moines, Iowa. Hydrocarbon-burner. No. 1,028,976; June 11; Sp. p. 1969; Gaz. vol. 179; p. 340.

Swaine, Alvin R., Des Moines, Iowa. Hydrocarbon-lamp. No. 1,028,977; June 11; Sp. p. 1972; Gaz. vol. 179; p. 341.

Swales, John W., Fruitvale, Cal. Railway-rail chair. No. 1,028,504; June 4; Sp. p. 973; Gaz. vol. 179; p. 146.

Swalm, William E., Los Angeles, Cal., assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding-machine. No. 1,028,149; June 4; Sp. p. 153; Gaz. vol. 179; p. 23.

Swanson, Arvid E., Spokane, Wash., assignor of one-half to T. Olson, Dover, Idaho. Animal-trap. No. 1,028,633; June 4; Sp. p. 1229; Gaz. vol. 179; p. 189.

Swanton, Thomas J., *et al.* (See La May, Arthur C., assignor.)

Swearingen, Zachariah, Osceola, Iowa. Exhaust-silencer. No. 1,030,347; June 25; Sp. p. 4989; Gaz. vol. 179; p. 889.

Sweetser, George. (See Rawlings and Sweetser.)

T. Buettner & Co. (See Horváth, Guido, assignor.)

Tabulating Machine Company, The. (See Hollerith, Herman, assignor.)

Taicher, Adolph, Maribel, Wis. Draft attachment. No. 1,029,093; June 11; Sp. p. 2230; Gaz. vol. 179; p. 381.

Taintor, Charles C., Elizabeth, N. J. Framing-tool. No. 1,029,774; June 18; Sp. p. 3699; Gaz. vol. 179; p. 652.

Tallman, Joseph H., assignor, by mesne assignments, of one-half to T. J. Rock, Houston, Tex. Folding cabinet. No. 1,030,033; June 18; Sp. p. 4276; Gaz. vol. 179; p. 741.

Taylor, Burt E., Randolph, assignor to Borden's Condensed Milk Company, New York, N. Y. Can-capping machine and feeding device thereto adapted. No. 1,029,326; June 11; Sp. p. 2726; Gaz. vol. 179; p. 461.

Taylor, Cornelius L., Huntington, W. Va. Portable fireplace. No. 1,029,151; June 11; Sp. p. 2349; Gaz. vol. 179; p. 400.

Taylor, Daniel H., Tercio, Colo. Automatic coupling for mine-cars. No. 1,028,634; June 4; Sp. p. 1230; Gaz. vol. 179; p. 189.

Taylor, Edward R., Penn Yan, N. Y. Electrode-collar for electric furnaces. No. 1,028,150; June 4; Sp. p. 156; Gaz. vol. 179; p. 24.

Taylor, John, and D. H. Evans, Liverpool, England. Engine or like governor. No. 1,029,479; June 11; Sp. p. 3064; Gaz. vol. 179; p. 514.

Taylor, John D., Edgewood Park, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway-signal. No. 1,029,728; June 18; Sp. p. 3612; Gaz. vol. 179; p. 637.

Tebbetts, Lewis B., 2d, assignor of one-half to Hoyt Metal Company, St. Louis, Mo. Composite metal. No. 1,029,152; June 11; Sp. p. 2352; Gaz. vol. 179; p. 401.

Teed, Ralph L., Augusta, Me. Potato-digger. No. 1,029,831; June 18; Sp. p. 3835; Gaz. vol. 179; p. 673.

Temple, David L., Lewistown, Pa., assignor, by mesne assignments, to Stromberg-Carlson Telephone Manufacturing Company, Rochester, N. Y. Telephone system. No. 1,028,635; June 4; Sp. p. 1231; Gaz. vol. 179; p. 190.

Temple, Mabel C., Hopkinton Springs, Mass. Thread protector and cutter. No. 1,029,518; June 11; Sp. p. 3135; Gaz. vol. 179; p. 526.

Tetlow, Lewis J., West Springfield, Mass. Protective covering for pneumatic-tired wheels. No. 1,030,348; June 25; Sp. p. 4991; Gaz. vol. 179; p. 889.

Thatcher, Charles J., Upper Nyack, N. Y. Exhausting vessels. No. 1,028,636; June 4; Sp. p. 1236; Gaz. vol. 179; p. 190.

Thayer, D. N. (See Alexander, Jesse, assignor.)

Thermos-Aktiengesellschaft. (See Hartwig, Robert, assignor.)

Theumann, Max. (See Koetschet and Theumann.)

Thieme, Frederick J., Fort Wayne, Ind. Winding-machine for yarn or thread. No. 1,028,302; June 4; Sp. p. 519; Gaz. vol. 179; p. 76.

Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Platen-rotating means for type-writing machines. No. 1,028,505; June 4; Sp. p. 974; Gaz. vol. 179; p. 147.

Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Roll-support. No. 1,028,506; June 4; Sp. p. 975; Gaz. vol. 179; p. 147.

Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Tally-roll attachment for type-writing machines. No. 1,029,153; June 11; Sp. p. 2353; Gaz. vol. 179; p. 401.

Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Adjustable paper-guide finger for type-writing machines. No. 1,029,832; June 18; Sp. p. 3836; Gaz. vol. 179; p. 673.

Thieme, Otto, assignor to Moon-Hopkins Billing Machine Company, St. Louis, Mo. Motor-key lock for calculating-machines. No. 1,029,957; June 18; Sp. p. 4129; Gaz. vol. 179; p. 715.

Thierry, Charles V., Paris, France. Metallurgy of zinc. No. 1,030,349; June 25; Sp. p. 4992; Gaz. vol. 179; p. 890.

Thierry, Charles V., Paris, France. Metallurgy of zinc. No. 1,030,350; June 25; Sp. p. 4995; Gaz. vol. 179; p. 890.

Thierry, Charles V., Paris, France. Metallurgy of zinc. No. 1,030,351; June 25; Sp. p. 4999; Gaz. vol. 179; p. 891.

Thiess, Karl. (See Schmidt and Thiess.)

Thode, Gustav A., Grover, Colo. Plow. No. 1,029,833; June 18; Sp. p. 3837; Gaz. vol. 179; p. 673.

Thomas Cusack Company. (See Smith, Charles W., assignor.)

Thomas, Frank M., Troy, assignor, by mesne assignments, to J. Liddle, L. Haussler, G. F. Rising, and W. I. Shaw, Hoosick Falls, N. Y. Carbonator. No. 1,030,851; June 25; Sp. p. 6441; Gaz. vol. 179; p. 1073.

Thomas, John, Kenilworth, England. Smoke-consuming and fuel-economizing apparatus for furnaces and the like. No. 1,030,142; June 18; Sp. p. 4504; Gaz. vol. 179; p. 778.

Thomas, Martin E., assignor of one-half to W. F. Toops & Son, Bowling Green, and one-fourth to J. W. Perryman, South Union, Ky. Mowing-machine. No. 1,030,689; June 25; Sp. p. 5924; Gaz. vol. 179; p. 1012.

Thomaschewski, Paul, Vohwinkel, near Elberfeld, assignor to Farbenfabriken vorm. Friedr. Bayer & Co., Elberfeld, Germany. Vat dye. No. 1,028,637; June 4; Sp. p. 1240; Gaz. vol. 179; p. 190.

Thomi, John. (See Shonkiviler and Thomi.)

Thompson, Fred C., Granger, Wash. Pump. No. 1,028,401; June 4; Sp. p. 741; Gaz. vol. 179; p. 112.

Thompson, Harry, Pelican Rapids, Minn. Post-pointing machine. No. 1,029,958; June 18; Sp. p. 4132; Gaz. vol. 179; p. 715.

Thompson, John S., Chicago, Ill. Metal-pot for type-casting machines and the like. No. 1,029,243; June 11; Sp. p. 2547; Gaz. vol. 179; p. 432.

Thomson, Arthur G., assignor to Pivot Auto Light Co., San Francisco, Cal. Pivot-lamp attachment for automobiles. No. 1,030,352; June 25; Sp. p. 5001; Gaz. vol. 179; p. 891.
Thornton, Durword L., Monroe, Ga. Cotton chopper and cultivator. No. 1,028,402; June 4; Sp. p. 743; Gaz. vol. 179; p. 112.
Thorp, Rudolph. (See Hanson and Thorp.)
Thorsby, Karl J., assignor to California Corrugated Culvert Company, Oakland, Cal. Metallic culvert. No. 1,028,638; June 4; Sp. p. 1241; Gaz. vol. 179; p. 191.
Thorssell, Carl T., and N. K. E. Malmsten, Malmö, Sweden. Gearing. No. 1,030,034; June 18; Sp. p. 4277; Gaz. vol. 179; p. 741.
Thullen, Louis H., Edgewood Park, assignor to The Union Switch & Signal Company, Swissvale, Pa. Railway signaling system. No. 1,030,436; June 25; Sp. p. 5181; Gaz. vol. 179; p. 922.
Thurston, E. L., trustee. (See Dun Lany, William P., assignor.)
Tideman, Henry, Menominee, Mich. Gearing. No. 1,029,959; June 18; Sp. p. 4133; Gaz. vol. 179; p. 716.
Tiedebohl, Theodore C. (See Donahoe, Hedley J., assignor.)
Tiefel, Charles G. (See Todd and Tiefel.)
Tilson, William H., Plainview, Tex. Cutting mechanism for corn-harvesters. No. 1,028,799; June 4; Sp. p. 1569; Gaz. vol. 179; p. 245.
Tinsman, Drew S. (See Shea, David E., assignor.)
Tirrill, Allen A., Schenectady, N. Y. Insulated switch-cover. No. 1,028,639; June 4; Sp. p. 1242; Gaz. vol. 179; p. 191.
Tirrill, Allen A., Schenectady, N. Y., assignor to General Electric Company. Motor speed-regulator. No. 1,029,480; June 11; Sp. p. 3065; Gaz. vol. 179; p. 514.
Tisi, Vincent, San Francisco, Cal. Railway-tie. No. 1,029,244; June 11; Sp. p. 2550; Gaz. vol. 179; p. 432.
Titanium Alloy Manufacturing Company, The. (See Rossi, Auguste J., assignor.)
Tobbenboske, Frederick H., Quincy, Mass. Rack for patterns. No. 1,028,978; June 11; Sp. p. 1975; Gaz. vol. 179; p. 341.
Tobin, James, St. Bonifacius, Pa. Nut-lock. No. 1,029,775; June 18; Sp. p. 3703; Gaz. vol. 179; p. 652.
Toch, Henry M. (See Toch, Maximilian, assignor.)
Toch, Maximilian, assignor of one-half to H. M. Toch, New York, N. Y. Waterproof Portland cement and making it. No. 1,029,643; June 18; Sp. p. 3405; Gaz. vol. 179; p. 606.
Todd & Company, G. W. (See Todd and Tiefel, assignors.)
Todd, Libanus M., and C. G. Tiefel, assignors to G. W. Todd & Company, Rochester, N. Y. Check-protector. No. 1,030,690; June 25; Sp. p. 5927; Gaz. vol. 179; p. 1012.
Todd, Luther N. (See Malmgren, Todd, and Watson.)
Toledo Computing Scale Company. (See De Vilbiss, Allen, Jr., assignor.)
Toledo Computing Scale Company, The. (See Wetzel, Lewis C., assignor.)
Tominski, Theodor. (See Bingham and Tominski.)
Tone, Frank J., Niagara Falls, N. Y. Reduction of refractory ores. No. 1,028,151; June 4; Sp. p. 160; Gaz. vol. 179; p. 24.
Tone, Frank J., assignor to The Carborundum Company, Niagara Falls, N. Y. Silicon products. No. 1,028,303; June 4; Sp. p. 523; Gaz. vol. 179; p. 77.
Topham, Laurence E. (See Gordon and Topham.)
Tourangeau, Joseph R., Windsor, Ontario, Canada. Fuel-oil filter. No. 1,028,304; June 4; Sp. p. 524; Gaz. vol. 179; p. 77.
Tourtelot, E. C. (See Johnson, Gustavus J., assignor.)
Towle, Elmer E., Richmond, Ind., assignor to The American Seeding Machine Company, Springfield, Ohio. Seeding-machine. No. 1,028,403; June 4; Sp. p. 744; Gaz. vol. 179; p. 112.
Townsend, John L., Winfred, S. D. Flexible harrow. No. 1,029,154; June 11; Sp. p. 2355; Gaz. vol. 179; p. 401.
Trabue, Luther, Girard, assignor to Belleville Baler Company, Belleville, Ill. Baling-press. No. 1,028,404; June 4; Sp. p. 749; Gaz. vol. 179; p. 113.
Travers, Wm. J. (See Collins, Jacob, assignor.)
Travis, John M., St. Louis, Mo. Dispensing-fount. No. 1,030,353; June 25; Sp. p. 5093; Gaz. vol. 179; p. 891.
Traylor, Bruce W., New York, N. Y. Filter apparatus. No. 1,029,155; June 11; Sp. p. 2356; Gaz. vol. 179; p. 402.
Trayne, John H., *et al.* (See Chandler, Daniel L., assignor.)
Treber, Reuben, Portland, Oreg. Cash-register. No. 1,030,405; June 25; Sp. p. 5320; Gaz. vol. 179; p. 947.
Treece, William F., assignor to Compress Pad & Saddle Company, Statesville, N. C. Apparatus for making harness-saddles. No. 1,029,245; June 11; Sp. p. 2551; Gaz. vol. 179; p. 432.
Trémolières, Gustave H., Neuilly-sur-Seine, France. Piston lubrication. No. 1,030,218; June 18; Sp. p. 4667; Gaz. vol. 179; p. 802.
Trenton, Albert E., San Antonio, Tex. Revolving case and account-register. No. 1,030,691; June 25; Sp. p. 5932; Gaz. vol. 179; p. 1013.
Trenzen, Carl, Koeln-Braunsfeld, and E. Haagn; said Haagn assignor to W. C. Heraeus Gesellschaft mit Beschränkter Haftung, Hanau, Germany. Furnace for sintering metallic filaments for electric incandescent lamps. No. 1,028,852; June 4; Sp. p. 1641; Gaz. vol. 179; p. 256.
Tresider, John. (See Plummer and Tresider.)
Treude, Fritz, Berlin, Germany. Seat. No. 1,028,152; June 4; Sp. p. 161; Gaz. vol. 179; p. 25.
Trevisan, Richard, Baltimore, Md. Life-saving device. No. 1,029,729; June 18; Sp. p. 3618; Gaz. vol. 179; p. 637.
Tribe, George T., and J. M. Bemis, Worcester, Mass. Automatic headlight. No. 1,028,153; June 4; Sp. p. 162; Gaz. vol. 179; p. 25.
Trill, William L., Corry, Pa. Continuous indicator for engines. No. 1,028,154; June 4; Sp. p. 163; Gaz. vol. 179; p. 25.
Trill, William L., Corry, Pa. Continuous indicator for engines. No. 1,028,155; June 4; Sp. p. 171; Gaz. vol. 179; p. 26.
Trinks, Charles L. W., Pittsburgh, Pa. Barometric condenser. No. 1,028,156; June 4; Sp. p. 174; Gaz. vol. 179; p. 26.
Trinks, Charles L. W., Pittsburgh, Pa. Barometric condenser. No. 1,028,157; June 4; Sp. p. 177; Gaz. vol. 179; p. 26.
Trignet, Paul G., Paris, France. Apparatus for sterilizing liquids by means of ultra-violet rays. No. 1,030,692; June 25; Sp. p. 5934; Gaz. vol. 179; p. 1013.
Tritle, John F., Schenectady, N. Y., assignor to General Electric Company. Selective alternating-direct-current system. No. 1,028,405; June 4; Sp. p. 752; Gaz. vol. 179; p. 113.
Trott, Rolland S., Denver, Colo. Vehicle-spring. No. 1,029,730; June 18; Sp. p. 3619; Gaz. vol. 179; p. 638.
Trott, Rolland S., Denver, Colo. Vehicle-spring. No. 1,029,731; June 18; Sp. p. 3620; Gaz. vol. 179; p. 638.
Trott, Rolland S., Denver, Colo. Vehicle-spring. No. 1,029,732; June 18; Sp. p. 3622; Gaz. vol. 179; p. 638.
Trowbridge, Frank C. (See Kutter, Herman L., assignor.)
Troy Laundry Machinery Company. (See Bartholomew, William, assignor.)
Tubes Limited. (See Reinhard, Henry, assignor.)
Tully, Richard W., Alma, Cal. Stage apparatus for producing volcano effects. No. 1,030,035; June 18; Sp. p. 4279; Gaz. vol. 179; p. 741.
Tunks, Nelson H., Lima, Ohio. Seal. No. 1,028,800; June 4; Sp. p. 1571; Gaz. vol. 179; p. 245.
Türke, Bruno, Munich, Germany. Preparation for regenerating metals. No. 1,029,327; June 11; Sp. p. 2733; Gaz. vol. 179; p. 462.
Turnbull, Nicholas K., Manchester, England. Machine for remaking wire-drawing dies. No. 1,028,305; June 4; Sp. p. 525; Gaz. vol. 179; p. 77.
Turner, Emory, Peace Dale, R. I. Toy. No. 1,030,437; June 25; Sp. p. 5185; Gaz. vol. 179; p. 922.
Turner, Ernest, Dadeville, Ala. Valve-gear. No. 1,028,158; June 4; Sp. p. 179; Gaz. vol. 179; p. 27.
Turner, Frank A. (See Dunham and Turner.)
Turner, Giles M., Madison, Wis., assignor to Holm's Machine Manufacturing Company, Sparta, Mich. Means for supporting and driving electric generators. No. 1,030,354; June 25; Sp. p. 5007; Gaz. vol. 179; p. 892.
Turner, Joseph, and H. Dean, Huddersfield, England. Black coloring-matters. No. 1,028,306; June 4; Sp. p. 531; Gaz. vol. 179; p. 77.
Turner, Rose R., assignor to E. R. Prather, Spokane, Wash. Egg-beater. No. 1,030,796; June 25; Sp. p. 6217; Gaz. vol. 179; p. 1051.
Turner Tanning Machinery Company, The. (See Broughton, Winn E., assignor.)
Turner, Thomas E., and O. J. Heath, Springfield, Ohio, assignors to International Harvester Company. Hay-baling press. No. 1,029,156; June 11; Sp. p. 2358; Gaz. vol. 179; p. 402.
Turney, Eugene T., assignor to American Pneumatic Action Company, Davenport, Iowa. Motor for piano-players. No. 1,028,307; June 4; Sp. p. 532; Gaz. vol. 179; p. 77.
Turney, Eugene T., assignor to American Pneumatic Action Company, Davenport, Iowa. Piano-player. No. 1,028,308; June 4; Sp. p. 534; Gaz. vol. 179; p. 78.
Turney, Eugene T., assignor to American Pneumatic Action Company, Davenport, Iowa. Motor for piano-players. No. 1,028,309; June 4; Sp. p. 536; Gaz. vol. 179; p. 78.
Tusten, Walter D., New York, N. Y. Spring-joint. No. 1,030,143; June 18; Sp. p. 4507; Gaz. vol. 179; p. 778.
Tyden, Emil. (See Burton, Charles S., assignor.)
Tyden, Emil, Hastings, Mich. Knockdown extension-table. No. 1,030,438; June 25; Sp. p. 5187; Gaz. vol. 179; p. 922.
Tyne, John J., Chicago, Ill. Water-commingling head. No. 1,030,144; June 18; Sp. p. 4509; Gaz. vol. 179; p. 779.
Tyson, Andrew H., Washington, D. C. Bottle-stopper. No. 1,029,246; June 11; Sp. p. 2553; Gaz. vol. 179; p. 432.
Ullman, Rudolph, Oak Park, Ill. Pump or motor. No. 1,029,157; June 11; Sp. p. 2359; Gaz. vol. 179; p. 402.
Ullmann, Carl J., New York, N. Y. Receptacle for thread, cord, silk, and the like. No. 1,029,004; June 11; Sp. p. 2231; Gaz. vol. 179; p. 381.

Ulrichs, Ernst, Elberfeld, assignor to Company Wilhg, Dahl & Co., A. G., Barmen, Germany. Color-lake and manufacturing same. No. 1,028,239; June 4; Sp. p. 392; Gaz. vol. 179; p. 56.
Ulsh, Carl and G., Marion, Ohio. Railway-crossing. No. 1,029,035; June 11; Sp. p. 2097; Gaz. vol. 179; p. 362.
Ulsh, George. (See Ulsh, Carl and G.)
Underwood & Company, H. B. (See Pedrick, Howard A., assignor.)
Underwood, Joseph H., Roscoe, Pa. Rail-joint. No. 1,029,407; June 11; Sp. p. 2924; Gaz. vol. 179; p. 489.
Unger, Ernest. (See Grosert and Unger.)
Union Paper Bag Machine Company. (See Appel, Daniel, assignor.)
Union Paper Bag Machine Company. (See Lorenz, William A., assignor.)
Union Paper Bag Machine Company. (See Lorenz and Merritt, assignors.)
Union Paper Bag Machine Company. (See Merritt, Joseph, assignor.)
Union Paper Bag Machine Company. (See Sanders, Charles B., assignor.)
Union Special Machine Company. (See Onderdonk, Lansing, assignor.)
Union Switch & Signal Company, The. (See Taylor, John D., assignor.)
Union Switch & Signal Company, The. (See Thullen, Louis H., assignor.)
Union Switch & Signal Company, The. (See Zabel, William, assignor.)
Union Typewriter Company. (See Barron, Walter J., assignor.)
Union Typewriter Company. (See Clauder, Arthur W., assignor.)
Union Typewriter Company. (See Waldheim, John, assignor.)
United Gas Improvement Company, The. (See Rushy, John M., assignor.)
United Gas Improvement Company, The. (See Rusby and Evans, assignors.)
United Nut Lock Company. (See Bullard, James H. and E. W., assignors.)
United Shoe Machinery Company. (See Alexander, Alexander M., assignor.)
United Shoe Machinery Company. (See Alley, Frederick L., assignor.)
United Shoe Machinery Company. (See Ambler, George A., assignor.)
United Shoe Machinery Company. (See Ashton, Orrell, assignor.)
United Shoe Machinery Company. (See Barclay and Bates, assignors.)
United Shoe Machinery Company. (See Barton and Landry, assignors.)
United Shoe Machinery Company. (See Bates, Arthur, assignor.)
United Shoe Machinery Company. (See Bates and Roberts, assignors.)
United Shoe Machinery Company. (See Bayley, Charles H., assignor.)
United Shoe Machinery Company. (See Bazzoni, Lewis J., assignor.)
United Shoe Machinery Company. (See Beckman, Frank E., assignor.)
United Shoe Machinery Company. (See Bertrand, Frederic E., assignor.)
United Shoe Machinery Company. (See Braden, Albert R., assignor.)
United Shoe Machinery Company. (See Bresnahan, Maurice V., assignor.)
United Shoe Machinery Company. (See Briggs, Henry, assignor.)
United Shoe Machinery Company. (See Brock, Matthias, assignor.)
United Shoe Machinery Company. (See Brogan, Michael F., assignor.)
United Shoe Machinery Company. (See Brown, Louis M., assignor.)
United Shoe Machinery Company. (See Busell, John N., assignor.)
United Shoe Machinery Company. (See Carnes, George M., assignor.)
United Shoe Machinery Company. (See Casgrain, Louis A., assignor.)
United Shoe Machinery Company. (See Chaput, Wilfrid, assignor.)
United Shoe Machinery Company. (See Covell, George S., assignor.)
United Shoe Machinery Company. (See Davenport, Eugene F., assignor.)
United Shoe Machinery Company. (See Eaton, William G., assignor.)
United Shoe Machinery Company. (See Elliott, Alvin D., assignor.)
United Shoe Machinery Company. (See Engberg, Arvid L., assignor.)
United Shoe Machinery Company. (See Enslin, Herbert E., assignor.)
United Shoe Machinery Company. (See Eppler, Andrew, assignor.)
United Shoe Machinery Company. (See Flynt, Louis W. G., assignor.)
United Shoe Machinery Company. (See Follansbee, Minot F., assignor.)
United Shoe Machinery Company. (See Forsyth, William R., assignor.)
United Shoe Machinery Company. (See Fowler, Alfred B., assignor.)
United Shoe Machinery Company. (See Freese, Francis J., assignor.)
United Shoe Machinery Company. (See Furber, Frederick M., assignor.)
United Shoe Machinery Company. (See Gillespie, John J., assignor.)
United Shoe Machinery Company. (See Goddu, George, assignor.)
United Shoe Machinery Company. (See Gordon, William, assignor.)
United Shoe Machinery Company. (See Gordon and Topham, assignors.)
United Shoe Machinery Company. (See Gorsuch, George J., assignor.)
United Shoe Machinery Company. (See Hadaway, John B., assignor.)
United Shoe Machinery Company. (See Hallam, Harry, assignor.)
United Shoe Machinery Company. (See Hollander, Sven G., assignor.)
United Shoe Machinery Company. (See Holmes, Charles P., assignor.)
United Shoe Machinery Company. (See Housholder, Jack, assignor.)
United Shoe Machinery Company. (See Howe, Charles E., assignor.)
United Shoe Machinery Company. (See Keith, Thomas K., assignor.)
United Shoe Machinery Company. (See Keyes, Eugene L., assignor.)
United Shoe Machinery Company. (See La Chapelle, Fred, assignor.)
United Shoe Machinery Company. (See Lund, Thomas, assignor.)
United Shoe Machinery Company. (See Lynch, John M., assignor.)
United Shoe Machinery Company. (See Lyon, Harry, assignor.)
United Shoe Machinery Company. (See Macleod, Albert A., assignor.)
United Shoe Machinery Company. (See Mayo, Benjamin F., assignor.)
United Shoe Machinery Company. (See McFeely, Ronald F., assignor.)
United Shoe Machinery Company. (See McIsaac, John T., assignor.)
United Shoe Machinery Company. (See Meyer, William C., assignor.)
United Shoe Machinery Company. (See Norden, Carl S., assignor.)
United Shoe Machinery Company. (See Painchaud, Ludger, assignor.)
United Shoe Machinery Company. (See Pearson, Marshall H., assignor.)
United Shoe Machinery Company. (See Perry, Frederick H., assignor.)
United Shoe Machinery Company. (See Plant, Thomas G., assignor.)
United Shoe Machinery Company. (See Pope, Joseph H., assignor.)
United Shoe Machinery Company. (See Prenzel, Adam H., assignor.)
United Shoe Machinery Company. (See Preston, Albert F., assignor.)
United Shoe Machinery Company. (See Pride, John P., assignor.)
United Shoe Machinery Company. (See Prindle, Edwin J., assignor.)
United Shoe Machinery Company. (See Reed, William A., assignor.)
United Shoe Machinery Company. (See Rollins, George L., assignor.)
United Shoe Machinery Company. (See Ross, John G., assignor.)
United Shoe Machinery Company. (See Rumney, Fred A., assignor.)
United Shoe Machinery Company. (See Shattuck, Charles E., assignor.)
United Shoe Machinery Company. (See Simmons, Ralph C., assignor.)
United Shoe Machinery Company. (See Small, Chester C., assignor.)
United Shoe Machinery Company. (See Smith, Willard A., assignor.)
United Shoe Machinery Company. (See Stewart, William C., assignor.)
United Shoe Machinery Company. (See Stone, William E., assignor.)
United Shoe Machinery Company. (See Stuber, Benjamin F., assignor.)
United Shoe Machinery Company. (See Warren, Frank H., assignor.)
United Shoe Machinery Company. (See Wells and Darnill, assignors.)
United Shoe Machinery Company. (See Winter, Henry W., assignor.)
United Shoe Machinery Company. (See Wolfe, George F., assignor.)
United Shoe Machinery Company. (See Young, Edward J., assignor.)

United States Envelope Company. (See Laubscher, August, assignor.)
United States Gypsum Company, The. (See Utzman, Clarence W., assignor.)
United States Sanitary Manufacturing Company. (See McGuire and Fronk, assignors.)
United-Xpedite Finishing Company. (See Beaudry, Zotique, assignor.)
Universal Metallic Tie Company. (See Rupp and Johnson, assignors.)
Universal Tool Company. (See Palmer, John M., assignor.)
Universal Winding Company. (See Rand, Festus S., assignor.)
Universal Winding Company. (See Ryden, Claes, assignor.)
Upright Grain Printing Base Company. (See Hoge and Riebe, assignors.)
Upson, Maxwell M., Englewood, N. J. Dock or bulkhead construction. No. 1,030,496; June 25; Sp. p. 5324; Gaz. vol. 179; p. 943.
Upton, George W. (See Allyn, Newell O., assignor.)
Utech, William, Sanford, Fla. Harness-buckle. No. 1,029,834; June 18; Sp. p. 3830; Gaz. vol. 179; p. 674.
Utz, Anthony, Hartford, Conn., assignor to Royal Typewriter Company, New York, N. Y. Type-writing machine. No. 1,028,159; June 4; Sp. p. 181; Gaz. vol. 179; p. 27.
Utzman, Clarence W., assignor to The United States Gypsum Company, Chicago, Ill. Manufacturing plasterboard. No. 1,029,328; June 11; Sp. p. 2733; Gaz. vol. 179; p. 462.
V. M. Sales Co. (See Bryant, Cyrus A., assignor.)
Vadebonceur, Antoine F. (See Latulip, Fred, assignor.)
Vail, Arthur C., Selah, Wash. Pneumatic spring for vehicles. No. 1,029,644; June 18; Sp. p. 3406; Gaz. vol. 179; p. 606.
Valentine, Levi J., assignor of one-half to D. Heffelfinger and J. E. Lancaster, Plainview, Tex. Door-strip. No. 1,028,801; June 4; Sp. p. 1574; Gaz. vol. 179; p. 246.
Vallée, Georges T., Paris, France. Buffer for use with wood paving. No. 1,028,802; June 4; Sp. p. 1575; Gaz. vol. 179; p. 246.
Van Cleave, Arville A., *et al.* (See Pugh, Cortez V., assignor.)
Van den Heuvel, William, Los Angeles, Cal. Sluice-gate. No. 1,028,640; June 4; Sp. p. 1244; Gaz. vol. 179; p. 101.
Van Deursen, Cornelius W., Nimwegen, Netherlands. Propelling device for water and air vessels. No. 1,029,776; June 18; Sp. p. 3704; Gaz. vol. 179; p. 653.
Van Devander, Abram H., and J. E. Moore, Cedartown, Ga. Cloth-laying machine. No. 1,031,145; June 18; Sp. p. 4510; Gaz. vol. 179; p. 779.
Van Herdman, Albert, assignor to C. F. Werner, New York, N. Y. Ventilating-port for ships. No. 1,028,160; June 4; Sp. p. 182; Gaz. vol. 179; p. 27.
Van Houten, Frank H., Jr., assignor to Dutchess Tool Company, Fishkill-on-the-Hudson, N. Y. Dough-dividing machine. No. 1,028,406; June 4; Sp. p. 754; Gaz. vol. 179; p. 114.
Van Kannel Revolving Door Company. (See Quay, David M., assignor.)
Van Sickle, Emmett. (See Chase and Van Sickle.)
Van Sweringen, Frank H., Chicago, Ill. Car-truck. No. 1,029,325; June 11; Sp. p. 2725; Gaz. vol. 179; p. 461.
Van Valkenburg, Randall T., Geneva, N. Y. Gate. No. 1,028,641; June 4; Sp. p. 1246; Gaz. vol. 179; p. 192.
Van Viersen, Jacob H., The Hague, Netherlands. Non-capsizing boat. No. 1,028,644; June 4; Sp. p. 1252; Gaz. vol. 179; p. 193.
Vargo, Wendel. (See Walsh and Vargo.)
Vaucian, Samuel M., and G. R. Henderson, assignors to The Baldwin Locomotive Works, Philadelphia, Pa. Downdraft fire-box. No. 1,028,642; June 4; Sp. p. 1249; Gaz. vol. 179; p. 192.
Vaughan, Harry L., Chicago, Ill. Bottle-opener. No. 1,029,645; June 18; Sp. p. 3407; Gaz. vol. 179; p. 607.
Vender, Vesio, Milan, Italy. Making unfreezable explosives. No. 1,029,510; June 11; Sp. p. 3136; Gaz. vol. 179; p. 526.
Verdin, Innes T., Glendale, Ohio. Delivery-goods receiver. No. 1,028,918; June 11; Sp. p. 1849; Gaz. vol. 179; p. 321.
Vereinigte Glanzstoff-Fabriken A.-G. (See Bronnert, Emile, assignor.)
Vermont Farm Machine Company. (See Newell, Fred E., assignor.)
Vessière, Charles, Paris, France. Attachment for lamp-burners. No. 1,028,643; June 4; Sp. p. 1250; Gaz. vol. 179; p. 192.
Vickery, Charles H., assignor of one-fourth to J. M. Slater and one-fourth to L. M. Slater, Attica, N. Y. Street-indicator. No. 1,030,355; June 25; Sp. p. 5008; Gaz. vol. 179; p. 893.
Victor Talking Machine Company. (See Rinehart, Bentley L., assignor.)
Vincent, Jesse G., assignor to Burroughs Adding Machine Company, Detroit, Mich. Adding and subtracting machine. No. 1,028,161; June 4; Sp. p. 183; Gaz. vol. 179; p. 28.
Vincent, Jesse G., and R. E. Benner, assignors to Burroughs Adding Machine Company, Detroit, Mich. Adding and listing machine. No. 1,028,162; June 4; Sp. p. 201; Gaz. vol. 179; p. 28.
Virtue, Dennis E., Owatonna, Minn. Combined churn and butter-worker. No. 1,030,356; June 25; Sp. p. 5011; Gaz. vol. 179; p. 893.
Voell, Louis A., Fond du Lac, Wis. Igniting device. No. 1,029,158; June 11; Sp. p. 2361; Gaz. vol. 179; p. 402.
Voggenreiter, Louis, New York, N. Y. Rule. No. 1,028,507; June 4; Sp. p. 977; Gaz. vol. 179; p. 147.
Vogt, Alexander, Wilmersdorf, Germany. Signaling device for automobiles and the like. No. 1,030,214; June 18; Sp. p. 4668; Gaz. vol. 179; p. 802.
Vogtlandische Maschinen-Fabrik (vormals J. C. & H. Dietrich) A. G. (See Egli, Arnold, assignor.)
Voight, Henry G., New Britain, Conn. Door-controlling means. No. 1,028,833; June 4; Sp. p. 1643; Gaz. vol. 179; p. 256.
Voight, Henry G., and N. B. Hurd, assignors to The American Hardware Corporation, New Britain, Conn. Passage-door lock. No. 1,028,407; June 4; Sp. p. 757; Gaz. vol. 179; p. 114.
Vollmer, Charles, assignor of one-third to G. N. Hoffmann, St. Louis, Mo. Utensil cleaning and greasing machine. No. 1,029,733; June 18; Sp. p. 3624; Gaz. vol. 179; p. 639.
W. C. Heraeus Gesellschaft mit Beschränkter Haftung. (See Trenzen and Haagn, assignors.)
W. & E. T. Fitch Co., The. (See Wright, Louis W., assignor.)
W. F. Toops & Son *et al.* (See Thomas, Martin E., assignor.)
Waage, Alvin H. and C. P., Chicago, Ill. Sad-iron. No. 1,030,036; June 18; Sp. p. 4280; Gaz. vol. 179; p. 742.
Waage, Clarence P. (See Waage, Alvin H. and C. P.)
Wacker, Karl, and E. Hildenbrand, Pforzheim, Germany. Feed apparatus for use in the manufacture of cord-chains. No. 1,030,215; June 18; Sp. p. 4670; Gaz. vol. 179; p. 802.
Wade, Charles S. (See Weldon, John H., assignor.)
Wade, Lemuel D., Paul, Ala. Nut-lock. No. 1,030,146; June 18; Sp. p. 4513; Gaz. vol. 179; p. 779.
Wadham, Robert, Stockholm, Sweden. Heater for water. No. 1,028,979; June 11; Sp. p. 1978; Gaz. vol. 179; p. 341.
Wadhams, Darius T., assignor to N. Gray, Jr., Oswego, N. Y. Paper-cutting machine. No. 1,028,919; June 11; Sp. p. 1851; Gaz. vol. 179; p. 321.
Wadhams, Darius T., assignor to N. Gray, Jr., Oswego, N. Y. Paper-cutting machine. No. 1,028,920; June 11; Sp. p. 1857; Gaz. vol. 179; p. 322.
Wagenhals, William G., Detroit, Mich. Chassis. No. 1,030,357; June 25; Sp. p. 5012; Gaz. vol. 179; p. 894.
Waggoner, Orva L., Latham, Kans. Stacker. No. 1,029,520; June 11; Sp. p. 3138; Gaz. vol. 179; p. 526.
Wagner, Frank U., Milford, Ind. Picture-book. No. 1,028,921; June 11; Sp. p. 1860; Gaz. vol. 179; p. 322.
Wagner, Gustavus A., Jasper, Mich. Former or mold for forming concrete cisterns. No. 1,029,646; June 18; Sp. p. 3408; Gaz. vol. 179; p. 607.
Wagner, Henry, Louisa county, Iowa. Brace for fence-posts. No. 1,030,497; June 25; Sp. p. 5325; Gaz. vol. 179; p. 943.
Wagner, Hubert, Munich-Schwabing, assignor to Charlottenburger Farbwerke Aktien Gesellschaft, Charlottenburg, Germany. Lithographic stone. No. 1,029,835; June 18; Sp. p. 3841; Gaz. vol. 179; p. 674.
Wahl, Robert, Chicago, Ill. Sour liquid. No. 1,028,508; June 4; Sp. p. 980; Gaz. vol. 179; p. 148.
Waite, William T., assignor of one-half to S. M. Henley, Kansas City, Mo. Piano-player mechanism. No. 1,028,163; June 4; Sp. p. 245; Gaz. vol. 179; p. 29.
Waldheim, John, Newark, assignor, by mesne assignments, to Union Typewriter Company, Jersey City, N. J. Type-writing machine. No. 1,028,922; June 11; Sp. p. 1861; Gaz. vol. 179; p. 322.
Waldt, Andrew, St. Louis, Mo. Stereotyper's steam-table. No. 1,029,047; June 18; Sp. p. 3410; Gaz. vol. 179; p. 607.
Walhof, Charles A., assignor of one-half to I. S. Large, Rock Valley, Iowa. Projectoscope. No. 1,028,803; June 4; Sp. p. 1576; Gaz. vol. 179; p. 246.
Walker, Anthony J., *et al.* (See De Mars, Joseph, assignor.)
Walker, George, Raton, N. Mex. Lathe attachment. No. 1,030,439; June 25; Sp. p. 5189; Gaz. vol. 179; p. 923.
Walker, John H., Lexington, Ky. Trolley. No. 1,029,408; June 11; Sp. p. 2926; Gaz. vol. 179; p. 489.
Walker, Sallie B., South Berkeley, assignor of one-half to T. R. Goth, San Francisco, Cal. Curtain-holder. No. 1,028,164; June 4; Sp. p. 248; Gaz. vol. 179; p. 30.
Walker-Wells Company, The. (See Wells, George W., assignor.)
Walkup, Charles W. (See Walkup, John A. and C. W.)
Walkup, John A. and C. W., Waco, Tex. Evaporative cooler. No. 1,030,693; June 25; Sp. p. 5935; Gaz. vol. 179; p. 1014.
Wall, Patrick. (See Flitcroft, James E., assignor.)
Wallace, Edward L., Rochester, N. Y. Rope-buckle. No. 1,029,648; June 18; Sp. p. 3411; Gaz. vol. 179; p. 607.
Wallace, James N., West Didsbury, Manchester, England. Indicator for steam, gas, and other engines. No. 1,030,216; June 18; Sp. p. 4671; Gaz. vol. 179; p. 803.
Walmsley, William, Lowell, assignor to Draper Company, Hopedale, Mass. Bobbin-stripper. No. 1,028,408; June 4; Sp. p. 760; Gaz. vol. 179; p. 115.
Walscheid, J. Emil. (See Farkas, Karl, assignor.)

Walsh, Catherine V. W. (See Byrne, Patrick J., assignor.)
Walsh, Edward J., and W. Vargo, East Pittsburgh, Pa. Non-explosive oil-can. No. 1,029,329; June 11; Sp. p. 2736; Gaz. vol. 179; p. 462.
Walters, Gustave, Chicago, Ill., assignor of one-third to J. W. Galvin, San Francisco, Cal., and one-third to A. Weismann, Chicago, Ill. Hat-carton. No. 1,029,960; June 18; Sp. p. 4136; Gaz. vol. 179; p. 716.
Walther, Theodore A. (See Weiss and Walther.)
Warne, Cicero J., Auburn, N. Y. Coin-mailing card. No. 1,029,836; June 18; Sp. p. 3842; Gaz. vol. 179; p. 674.
Warren, Frank H., Swampscott, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Cementing-machine. No. 1,030,623; June 25; Sp. p. 5758; Gaz. vol. 179; p. 990.
Warren, George E., Boston, Mass., assignor to Campbell Bosworth Machinery Company, Portland, Me. Sewing-machine. No. 1,030,797; June 25; Sp. p. 6218; Gaz. vol. 179; p. 1032.
Waterbury Clock Co., The. (See Lux, Paul, assignor.)
Waterbury Farrel Foundry and Machine Company, The. (See Wilcox, Richard L., assignor.)
Waterman, Richard B., Athol, Mass. Soap-feeding shaving-brush. No. 1,030,440; June 25; Sp. p. 5190; Gaz. vol. 179; p. 923.
Watmough, Pendleton G., Jr., New Brighton, N. Y. Illuminated sign. No. 1,029,734; June 18; Sp. p. 3627; Gaz. vol. 179; p. 639.
Watres, Lewis S. and R., Scranton, Pa. Internal-combustion engine. No. 1,030,217; June 18; Sp. p. 4674; Gaz. vol. 179; p. 803.
Watres, Reyburn. (See Watres, Lewis S. and R.)
Watson, Charles, Glen Huon, Tasmania, Australia. Fruit-grader. No. 1,030,552; June 25; Sp. p. 5486; Gaz. vol. 179; p. 963.
Watson, Henry W. and W. W., Jamestown, N. Y. Metallic screen. No. 1,030,694; June 25; Sp. p. 5937; Gaz. vol. 179; p. 1014.
Watson, Samuel J. (See Malmgren, Todd, and Watson.)
Watson, William W. (See Watson, Henry W. and W. W.)
Waverley Manufacturing Company. (See Kitlitschko, Frank, assignor.)
Weaver, Frank E., Corning, Iowa. Seed-corn stringer. No. 1,028,645; June 4; Sp. p. 1253; Gaz. vol. 179; p. 193.
Weaver, Walter T., Alexandria county, Va., and G. L. Beard, Washington, D. C. Ice-cutting apparatus. No. 1,030,624; June 25; Sp. p. 5763; Gaz. vol. 179; p. 990.
Webb, George R. (See Stunz, William P., assignor.)
Webb, Jean F., Jr., assignor to The Electric Signagraph and Semaphore Company, Incorporated, New York, N. Y. Contact-maker. No. 1,030,441; June 25; Sp. p. 5192; Gaz. vol. 179; p. 923.
Weber-Bell, Susanne, Planegg, near Munich, Germany. Resonator for examining the human voice. No. 1,028,165; June 4; Sp. p. 249; Gaz. vol. 179; p. 30.
Weber, George W., assignor to American Can Company, New York, N. Y. Sardine-can. No. 1,030,358; June 25; Sp. p. 5014; Gaz. vol. 179; p. 894.
Weber, George W., assignor to American Can Company, New York, N. Y. Sardine-can cover. No. 1,030,359; June 25; Sp. p. 5016; Gaz. vol. 179; p. 894.
Webster, Edwin A., Groveland, assignor to Haverhill Shoe Machinery Co., Haverhill, Mass. Sole-channeling machine. No. 1,028,509; June 4; Sp. p. 982; Gaz. vol. 179; p. 148.
Webster, Harold W. (See Moulden and Webster.)
Weckbaugh, Joseph V., Denver, Colo. Pocket-knife. No. 1,029,564; June 11; Sp. p. 3238; Gaz. vol. 179; p. 543.
Weed Chain Tire Grip Company. (See Strong, Frederick A., assignor.)
Weekes, William E., Ashton, Idaho. Rail-joint. No. 1,030,695; June 25; Sp. p. 5939; Gaz. vol. 179; p. 1015.
Wefing, Otto, Ilmenau, Germany. Machine for cutting meat, lard, and the like by means of flat rotating knives. No. 1,028,510; June 4; Sp. p. 984; Gaz. vol. 179; p. 148.
Weide, Gustave, Sr., St. Paul, Minn. Decorator's stencil-holder. No. 1,030,498; June 25; Sp. p. 5327; Gaz. vol. 179; p. 943.
Weis, Joseph W. (See Knoerzer and Weis.)
Weis Manufacturing Company, The. (See Weis, William C., assignor.)
Weis, William C., assignor to The Weis Manufacturing Company, Monroe, Mich. File box or drawer. No. 1,030,625; June 25; Sp. p. 5768; Gaz. vol. 179; p. 991.
Weismann, Arnold, *et al.* (See Walters, Gustave, assignor.)
Weiss, Albert T., assignor to Yawman & Erbe Manufacturing Company, Rochester, N. Y. Labeling-machine. No. 1,029,900; June 18; Sp. p. 4001; Gaz. vol. 179; p. 696.
Weiss, Alfred H., Wilmette, assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Automatic ringing system. No. 1,029,649; June 18; Sp. p. 3412; Gaz. vol. 179; p. 608.
Weiss, Alfred H., Wilmette, assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Automatic ringing system. No. 1,030,037; June 18; Sp. p. 4281; Gaz. vol. 179; p. 742.
Weiss, Alfred H., Wilmette, assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Automatic ringing system. No. 1,030,038; June 18; Sp. p. 4286; Gaz. vol. 179; p. 742.
Weiss, Alfred H., Wilmette, assignor to Kellogg Switchboard and Supply Company, Chicago, Ill. Automatic ringing & Mining Co. Automatic ringing system. No. 1,030,039; June 18; Sp. p. 4292; Gaz. vol. 179; p. 743.
Weiss, Theodore, Chicago, Ill. Electrical signaling device. No. 1,029,521; June 11; Sp. p. 3142; Gaz. vol. 179; p. 527.
Weiss, Theodore, and T. A. Walther, Chicago, Ill.; said Walther assignor to said Weiss. Electrical signaling device. No. 1,028,980; June 11; Sp. p. 1982; Gaz. vol. 179; p. 342.
Weisz, Albert R. and G. R., New York, N. Y. Atmospheric engine. No. 1,028,511; June 4; Sp. p. 985; Gaz. vol. 179; p. 149.
Weisz, George R. (See Weisz, Albert R. and G. R.)
Weitzel, Jacob F., Columbus, Ohio. Drainage-gutter. No. 1,028,512; June 4; Sp. p. 987; Gaz. vol. 179; p. 149.
Weldon, John H., assignor of one-half to C. S. Wade, Comanche, Okla. Spring-wheel. No. 1,030,442; June 25; Sp. p. 5193; Gaz. vol. 179; p. 924.
Welker, Frederick, Williamsport, Pa. Self-adjusting clamp-bar for door and furniture clamps. No. 1,028,923; June 11; Sp. p. 1867; Gaz. vol. 179; p. 323.
Weller, George F., *et al.* (See Schneider, Frederick, assignor.)
Wells, Charles S., and W. W. Darnill, Leicester, England, assignors to United Shoe Machinery Company, Paterson, N. J. Machine for lacing uppers. No. 1,030,553; June 25; Sp. p. 5488; Gaz. vol. 179; p. 963.
Wells, George W., assignor of one-half to The Walker-Wells Company, Amesbury, Mass. Machine for bending metallic plates. No. 1,030,259; June 18; Sp. p. 4756; Gaz. vol. 179; p. 819.
Welter, James. (See Schlid, Viktor, assignor.)
Welty, Harrison W., Fort Wayne, Ind. Fly-escape for screens. No. 1,029,330; June 11; Sp. p. 2738; Gaz. vol. 179; p. 463.
Wenderoth, Otto H., New York, N. Y. Gas-controller for use with gas-engines. No. 1,029,650; June 18; Sp. p. 3417; Gaz. vol. 179; p. 608.
Wenning, Jean C. A., assignor to Société Alsacienne De Constructions Mecaniques, Mülhausen, Germany. Automatic weft-replenishing mechanism for looms. No. 1,028,513; June 4; Sp. p. 988; Gaz. vol. 179; p. 149.
Werbatus, Marie, Elster, Germany. Manufacturing wax flowers. No. 1,029,777; June 18; Sp. p. 3706; Gaz. vol. 179; p. 653.
Werner, Charles F. (See Van Herdman, Albert, assignor.)
West, John W., Braintree, Mass. Controlling device for winding-machines. No. 1,030,147; June 18; Sp. p. 4514; Gaz. vol. 179; p. 780.
West, Lewis, Monett, Mo. Washboiler. No. 1,029,778; June 18; Sp. p. 3706; Gaz. vol. 179; p. 653.
Westaway, Walter C., assignor, by mesne assignments, to Chicago Pneumatic Tool Company, Chicago, Ill. Igniter or the like. No. 1,028,514; June 4; Sp. p. 992; Gaz. vol. 179; p. 150.
Westerbeck, Frederick, St. Louis, Mo. Sheet-feeding mechanism for printing-presses. No. 1,029,159; June 11; Sp. p. 2362; Gaz. vol. 179; p. 403.
Westerfield, Newton C., Chicago, Ill., assignor to International Manufacturing & Mining Co. Dry-placer separator and concentrator. No. 1,029,651; June 18; Sp. p. 3419; Gaz. vol. 179; p. 609.
Westerman, Charles B., Columbia, Pa. Aeroplane. No. 1,028,409; June 4; Sp. p. 762; Gaz. vol. 179; p. 115.
Western Electric Company. (See Colpitts, Edwin H., assignor.)
Westinghouse Electric & Manufacturing Company. (See Conrad and Bradshaw, assignors.)
Westinghouse Electric & Manufacturing Company. (See Hadaway and Rose, assignors.)
Westinghouse Electric and Manufacturing Company. (See Haefely, Emil, assignor.)
Westinghouse Electric and Manufacturing Company. (See Harris, Ford W., assignor.)
Westinghouse Electric & Manufacturing Company. (See Heilmund, Rudolf E., assignor.)
Westinghouse Electric and Manufacturing Company. (See Kunkel, Fred R., assignor.)
Westinghouse Electric & Manufacturing Company. (See Mattice, Asa M., assignor.)
Westinghouse, George. (See Potter, Henry N., assignor.)
Westinghouse Machine Company. (See Robinson, Cyrus, assignor.)
Westlake, Charles T., and C. F. Frede, assignors to Double Body Bolster Company, St. Louis, Mo. Car-underframe. No. 1,030,360; June 25; Sp. p. 5017; Gaz. vol. 179; p. 895.
Westlake, Charles T., and C. F. Frede, assignors to Double Body Bolster Company, St. Louis, Mo. Car-underframe. No. 1,030,755; June 25; Sp. p. 6093; Gaz. vol. 179; p. 1036.
Wetherill Finished Castings Company. (See Wetherill, Samuel P., Jr., and J. P., Jr., assignors.)
Wetherill, John P., Jr. (See Wetherill, Samuel P., Jr., and J. P., Jr.)
Wetherill, Samuel P., Jr., and J. P., Jr., assignors to Wetherill Finished Castings Company, Philadelphia, Pa. Pneumatic casting apparatus. No. 1,029,565; June 11; Sp. p. 3240; Gaz. vol. 179; p. 543.
Wettlaufer, John L., Toronto, Ontario, Canada. Feeding apparatus for concrete-mixing machines. No. 1,030,361; June 25; Sp. p. 5019; Gaz. vol. 179; p. 895.

Wetzel, Lewis C., assignor to The Toledo Computing Scale Company, Toledo, Ohio. Weighing-scale. No. 1,030,362; June 25; Sp. p. 5021; Gaz. vol. 179; p. 896.
Weyrauch, William F., Chicago, Ill. Switchboard. No. 1,030,040; June 18; Sp. p. 4298; Gaz. vol. 179; p. 743.
Wharton, Samuel E., Everett, Wash. Game. No. 1,030,554; June 25; Sp. p. 5490; Gaz. vol. 179; p. 963.
Wheeler, Charles N. (See Palmer and Wheeler.)
Whitaker, Frederick E., and T. H. Cox, New Haven, Conn. Window-cleaner. No. 1,030,026; June 25; Sp. p. 5769; Gaz. vol. 179; p. 991.
White, Bruce C., Woonsocket, R. I., assignor to Price-Campbell Cotton Picker Corporation, Wilmington, Del. Seed-cotton cleaner. No. 1,030,249; June 18; Sp. p. 4735; Gaz. vol. 179; p. 815.
White, Ernest M., Globe, Ariz. Splash system of lubrication. No. 1,030,148; June 18; Sp. p. 4517; Gaz. vol. 179; p. 780.
White, Frank A. (See Kirkley and White.)
White, James M., Danville, Va. Bottle-indicator. No. 1,030,696; June 25; Sp. p. 5940; Gaz. vol. 179; p. 1015.
White, John H., Pittsburgh, Pa. Insulating material. No. 1,029,652; June 18; Sp. p. 3422; Gaz. vol. 179; p. 609.
White Knight Company, The. (See Campbell, Donald, assignor.)
White, Samuel B., Providence, R. I., assignor, by mesne assignments, to The Office Appliance Manufacturing Company. Stamp-affixing machine. (Reissue.) No. 13,435; June 25; Sp. p. 6459; Gaz. vol. 179; p. 1077.
White Tar Company, The. (See Scheuch, Jacob L., assignor.)
Whitford, John W., Jersey City, N. J., assignor to Davis-Bournonville Acetylene Development Company, Pierre, S. D. Welding or cutting apparatus. No. 1,028,166; June 4; Sp. p. 250; Gaz. vol. 179; p. 30.
Whitford, John W., Pontiac, R. I., assignor to Davis-Bournonville Acetylene Development Company, Pierre, S. D. Blowpipe. No. 1,028,410; June 4; Sp. p. 764; Gaz. vol. 179; p. 115.
Whitin Machine Works, The. (See Jarry, Hormidas, assignor.)
Whitlatch, Floyd E., Windsor, Ill. Aerostructural balance. No. 1,030,363 June 25; Sp. p. 5023; Gaz. vol. 179; p. 896.
Whitman, Irvin C., Dexter, Me. Printing-press punch. No. 1,029,481; June 11; Sp. p. 3068; Gaz. vol. 179; p. 514.
Whitman, James A., Grantwood, N. J. Apparatus for making phonograph-records. No. 1,030,364; June 25; Sp. p. 5024; Gaz. vol. 179; p. 896.
Whitney, Willie D., Holley, N. Y. Adjustable bracket. No. 1,028,515; June 4; Sp. p. 993; Gaz. vol. 179; p. 150.
Whittaker, Thomas R., and G. W. Leith, Methuen, Mass. Steam-trap. No. 1,030,697; June 25; Sp. p. 5941; Gaz. vol. 179; p. 1015.
Whittier, Walter H., assignor to Grand Rapids Refrigerator Co., Grand Rapids, Mich. Coupling-ring for refrigerator-linings. No. 1,028,310; June 4; Sp. p. 538; Gaz. vol. 179; p. 79.
Widmer, Kate M. (See Mitchell, Ardon M., assignor.)
Wiegel, Albert, Cassel, Germany. Scarf-holder. No. 1,028,311; June 4; Sp. p. 539; Gaz. vol. 179; p. 79.
Wieghard, Fritz, and H. Göbel, Jr., Heimburg, Germany. Machine for planting potatoes. No. 1,028,411; June 4; Sp. p. 767; Gaz. vol. 179; p. 116.
Wielgolaski, Franz H. A., and O. Schönherr, Christiania, Norway, assignors to Badische Anilin & Soda Fabrik, Ludwigshafen-on-the-Rhine, Germany. Production of continuous electric arcs and apparatus therefor. No. 1,028,516; June 4; Sp. p. 994; Gaz. vol. 179; p. 151.
Wiernek, Stanley, *et al.* (See Nalepka, Walenty, assignor.)
Wieser, Karl, Bredeney, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Mechanical time-fuse. No. 1,029,036; June 11; Sp. p. 2099; Gaz. vol. 179; p. 362.
Wikner, Franz, Vienna, Austria-Hungary. Artificial tooth. No. 1,029,160; June 11; Sp. p. 2367; Gaz. vol. 179; p. 403.
Wilber, Elmer J., Brooklyn, Mich. Mold. No. 1,029,095; June 11; Sp. p. 2232; Gaz. vol. 179; p. 381.
Wilbuschewitsch, Mose, Nischninovgorod, Kanavino, Russia. Manufacturing catalysts. No. 1,029,901; June 18; Sp. p. 4010; Gaz. vol. 179; p. 697.
Wilck, Ulrich, assignor to Fried. Krupp Aktiengesellschaft, Essen-on-the-Ruhr, Germany. Fuse and adjusting-key therefor. No. 1,028,924; June 11; Sp. p. 1869; Gaz. vol. 179; p. 323.
Wilcox, Albert C., Wheeling, W. Va. Glass-blowing apparatus. No. 1,029,779; June 18; Sp. p. 3708; Gaz. vol. 179; p. 654.
Wilcox, Frank E., *et al.* (See McCue, Charles T., assignor.)
Wilcox, John M., Chicago Heights, Ill., assignor, by mesne assignments, to The Kilbourne & Jacobs Manufacturing Company, Columbus, Ohio. Pneumatic cut-off for dump-cars. No. 1,029,247; June 11; Sp. p. 2553; Gaz. vol. 179; p. 432.
Wilcox, Richard L., assignor to The Waterbury Farrel Foundry and Machine Company, Waterbury, Conn. Slotting-machine. No. 1,029,653; June 18; Sp. p. 3425; Gaz. vol. 179; p. 609.
Wiley, Thomas F., *et al.* (See Dawson, Robert C., assignor.)
Wilkes-Barre Silk Company. (See Macfarlane, George F., assignor.)
Wilkes, Hardy T., Greenville, assignor of one-half to J. H. Boyd, Olustee, Fla. Gate-latch. No. 1,028,646; June 4; Sp. p. 1255; Gaz. vol. 179; p. 193.
Wilkin, William M., Erie, Pa. Log-turning mechanism. No. 1,029,482; June 11; Sp. p. 3069; Gaz. vol. 179; p. 514.
Wilkinson, Lafayette A., Philadelphia, Pa. Clasp. No. 1,029,654; June 18; Sp. p. 3429; Gaz. vol. 179; p. 610.
Wilkinson, Nathan, Milwaukee, Wis., assignor to Allis-Chalmers Company. Thermostatic time-element device. No. 1,030,555; June 25; Sp. p. 5491; Gaz. vol. 179; p. 963.
Wilks, John B. (See Burghoff and Wilks.)
Willard, Carl L., Denver, Colo. Parachute. No. 1,028,517; June 4; Sp. p. 998; Gaz. vol. 179; p. 151.
Willard, Otto H., Chicago, Ill. Egg-separator. No. 1,029,902; June 18; Sp. p. 4011; Gaz. vol. 179; p. 697.
Willet, Peter L., Shiloh, Ohio. Seed-cleaner. No. 1,030,260; June 18; Sp. p. 4758; Gaz. vol. 179; p. 819.
Willett, George R., Pittsburgh, Pa. Fuse. No. 1,028,647; June 4; Sp. p. 1256; Gaz. vol. 179; p. 193.
Williams, Brown and Earle. (See Holst, Lodewyk J. R., assignor.)
Williams, Charle C., assignor to The G. H. Williams Company, Cleveland, Ohio. Sparking device for internal-combustion engines. No. 1,029,903; June 18; Sp. p. 4012; Gaz. vol. 179; p. 697.
Williams, Charles A., assignor to Briscoe Manufacturing Company, Detroit, Mich. Machine for forming multiple-unit tubes. No. 1,028,312; June 4; Sp. p. 539; Gaz. vol. 179; p. 79.
Williams, Edwin J., Mount Vernon, N. Y. Indicating and swivel support for cameras. No. 1,028,167; June 4; Sp. p. 254; Gaz. vol. 179; p. 31.
Williams, George L., Americus, Ga. Measuring-machine. No. 1,028,313; June 4; Sp. p. 542; Gaz. vol. 179; p. 79.
Williams, Lewis A., Houston, Tex. Collapsible ventilated crate. No. 1,029,161; June 11; Sp. p. 2368; Gaz. vol. 179; p. 403.
Williams, Perry H., assignor of one-half to G. Gronauer, Memphis, Tenn. Stave-jointing machine. No. 1,028,648; June 4; Sp. p. 1257; Gaz. vol. 179; p. 194.
Williams, Peter K., and J. F. La Borde, Columbus, Ohio. Buttonhole-marking machine. No. 1,029,735; June 18; Sp. p. 3629; Gaz. vol. 179; p. 639.
Williams, Robert, Irondequoit, N. Y. Draftsman's appliance. No. 1,029,248; June 11; Sp. p. 2556; Gaz. vol. 179; p. 433.
Williams, Samuel, Elk City, Okla. Cotton-cleaner. No. 1,029,162; June 11; Sp. p. 2370; Gaz. vol. 179; p. 404.
Williams, Thomas, and A. Lewis, San Francisco, Cal. Automatic sprinkler and alarm. No. 1,030,443; June 25; Sp. p. 5195; Gaz. vol. 179; p. 924.
Williams, Thomas B. (See Smith and Williams.)
Williams, William G., Vinita, Okla. Attachment for bags, grips, valises, and the like. No. 1,028,168; June 4; Sp. p. 256; Gaz. vol. 179; p. 31.
Williams, Willis D., Kirkland, Ariz. Rail-joint. No. 1,030,365; June 25; Sp. p. 5026; Gaz. vol. 179; p. 897.
Williamson, Arthur M. (See Sprague and Williamson.)
Williamson, Robert B. (See Powell and Williamson.)
Williamson, Robert B., Milwaukee, Wis., assignor to Allis-Chalmers Company. Dynamo-electric machine. No. 1,030,041; June 18; Sp. p. 4301; Gaz. vol. 179; p. 744.
Williamson, Robert B., Milwaukee, Wis., assignor to Allis-Chalmers Company. Dynamo-electric machine. No. 1,030,556; June 25; Sp. p. 5493; Gaz. vol. 179; p. 963.
Williamson, Robert B., Milwaukee, Wis., assignor to Allis-Chalmers Company. Dynamo-electric machine. No. 1,030,557; June 25; Sp. p. 5496; Gaz. vol. 179; p. 964.
Wilmot, George W., Hazleton, and R. L. Hinkle, Upper Lehigh, Pa. Apparatus for separating refuse from coal. No. 1,030,042; June 18; Sp. p. 4303; Gaz. vol. 179; p. 744.
Wilmot, Harry C., Pekin, Ill. Flower-rack. No. 1,028,169; June 4; Sp. p. 257; Gaz. vol. 179; p. 31.
Wilson, Alexander G., Chicago, Ill. Ventilator. No. 1,028,518; June 4; Sp. p. 999; Gaz. vol. 179; p. 151.
Wilson, Charles A. (See Purvis and Wilson.)
Wilson, Harry C., New York, N. Y. Automatic razor-blade-sharpening machine. No. 1,028,170; June 4; Sp. p. 259; Gaz. vol. 179; p. 31.
Wilson, John W., Boston, Mass. Flying-machine. No. 1,028,981; June 11; Sp. p. 1984; Gaz. vol. 179; p. 342.
Wilson, Robert L., Chicago, Ill. Cork-extractor. No. 1,030,698; June 25; Sp. p. 5943; Gaz. vol. 179; p. 1015.
Wilson, William P., assignor to J. C. Beam, Shelby, N. C. Hay-baling press. No. 1,029,780; June 18; Sp. p. 3715; Gaz. vol. 179; p. 654.
Winchester Repeating Arms Co. (See Burton, Frank F., assignor.)
Winchester Repeating Arms Company. (See Johnson, Thomas C., assignor.)
Wingo, Richard T., assignor to Cadillac Motor Car Company, Detroit, Mich. Testing-jack. No. 1,029,163; June 11; Sp. p. 2373; Gaz. vol. 179; p. 404.
Wingquist, Sven G., assignor to Aktiebolaget Svenska Kullagerfabriken, Gottenborg, Sweden. Ball-bearing. No. 1,028,844; June 4; Sp. p. 1666; Gaz. vol. 179; p. 260.
Winkler, Otto, Köpenick, Germany, assignor to General Electric Company. Automatic lubricating device. No. 1,029,331; June 11; Sp. p. 2739; Gaz. vol. 179; p. 463.
Winkley, Erastus E., Lynn, Mass. Sole-machine. No. 1,028,982; June 11; Sp. p. 1985; Gaz. vol. 179; p. 343.

Winkley, Erastus E., Lynn, Mass. Welt-butting machine. No. 1,029,837; June 18; Sp. p. 3843; Gaz. vol. 179; p. 674.
Winkley, Erastus E., Lynn, Mass. Inseam sewing-machine. No. 1,030,043; June 18; Sp. p. 4306; Gaz. vol. 179; p. 744.
Winkley, Erastus E., Lynn, Mass. Machine for operating upon boots and shoes. No. 1,030,627; June 25; Sp. p. 5770; Gaz. vol. 179; p. 991.
Winkley, Erastus E., Lynn, Mass. Shank-stiffener. No. 1,030,628; June 25; Sp. p. 5782; Gaz. vol. 179; p. 992.
Winkley, Erastus E., Lynn, Mass. Lasting-machine. No. 1,030,629; June 25; Sp. p. 5783; Gaz. vol. 179; p. 992.
Winona Wagon Company. (See Kinney, Henry M., assignor.)
Winship, Richard D., and P. E. Smith, Chicago, Ill. Making composition butter. No. 1,028,804; June 4; Sp. p. 1581; Gaz. vol. 179; p. 247.
Winslow, Sidney W. (See Holmes, Charles P., assignor.)
Winter, Henry W., Methuen, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Lip-turning machine. No. 1,030,630; June 25; Sp. p. 5791; Gaz. vol. 179; p. 992.
Winters, David L., Chicago, Ill. Water-purifying apparatus. No. 1,030,366; June 25; Sp. p. 5028; Gaz. vol. 179; p. 897.
Wirth, Beck & Knauss. (See Wirth, Christoph, assignor.)
Wirth, Christoph, assignor to Firm of Wirth, Beck & Knauss, Nuremberg, Germany. Wireless-controlled current-distributer. No. 1,029,573; June 11; Sp. p. 3252; Gaz. vol. 179; p. 546.
Wirth, Georg, Augsburg, Germany. Machine for making cigar and cigarette holders. No. 1,029,164; June 11; Sp. p. 2376; Gaz. vol. 179; p. 405.
Wise, James E., assignor to Spang and Company, Butler, Pa. Ignition-tube heater. No. 1,028,412; June 4; Sp. p. 765; Gaz. vol. 179; p. 116.
Wise, Nathan, New York, N. Y. Thermostatic valve-controlling mechanism. No. 1,030,367; June 25; Sp. p. 5030; Gaz. vol. 179; p. 897.
Wishart, James M., Pasadena, Cal. Gold-saving machine. No. 1,030,499; June 25; Sp. p. 5328; Gaz. vol. 179; p. 944.
Witham Company, The. (See Witham, George S., Jr., assignor.)
Witham, George S., Jr., assignor to The Witham Company, Hudson Falls, N. Y. Carrier-chain. No. 1,029,566; June 11; Sp. p. 3243; Gaz. vol. 179; p. 544.
Wittbecker, William A., St. Paul, Minn. Inside-angle bead. No. 1,030,044; June 18; Sp. p. 4310; Gaz. vol. 179; p. 745.
Wittemann, Jacob F., Lakewood, N. J. Finishing and preparing beverages. No. 1,029,838; June 18; Sp. p. 3863; Gaz. vol. 179; p. 675.
Wittemann, Rudolph W., New York, N. Y. Pressure-regulator for pumps. No. 1,029,409; June 11; Sp. p. 2928; Gaz. vol. 179; p. 490.
Witzenmann, Emil, Pforzheim, Germany. Stick. No. 1,028,649; June 4; Sp. p. 1264; Gaz. vol. 179; p. 194.
Wm. L. Gilbert Clock Company. (See Alford, Frank R., assignor.)
Wohl, Maurice J., *et al.*, trustees. (See Betts, Lewis F., assignor.)
Wolf, Fannie. (See Sussman, Leon, assignor.)
Wolf, Otto A., assignor to G. B. Hurd & Company, New York, N. Y. Display-box. No. 1,029,096; June 11; Sp. p. 2234; Gaz. vol. 179; p. 381.
Wolfe, George F., New York, N. Y., assignor to United Shoe Machinery Company, Paterson, N. J. Edge gage for stock-fitting machines. No. 1,030,631; June 25; Sp. p. 5793; Gaz. vol. 179; p. 993.
Wolff, Peter J., Bedburg, Germany. Process of diffusion. No. 1,028,650; June 4; Sp. p. 1265; Gaz. vol. 179; p. 195.
Wolffradt, William von, Cleveland, Ohio. Window-sash-operating mechanism. No. 1,028,171; June 4; Sp. p. 263; Gaz. vol. 179; p. 32.
Wood, Fred H., Elgin, N. D. Ball-returning device. No. 1,030,558; June 25; Sp. p. 5499; Gaz. vol. 179; p. 964.
Wood, John M., Detroit, Mich. Tool-holder. No. 1,028,805; June 4; Sp. p. 1582; Gaz. vol. 179; p. 247.
Woodeson, William A., Gateshead, England. Steam-boiler. No. 1,030,218; June 18; Sp. p. 4676; Gaz. vol. 179; p. 804.
Woodman, George A. (See Carscadin, Charles A., assignor.)
Woods, William B., Baltimore, Md. Nut-lock. No. 1,028,806; June 4; Sp. p. 1584; Gaz. vol. 179; p. 247.
Woods, William J., assignor to Corning Glass Works, Corning, N. Y. Mold for forming glass articles. No. 1,028,413; June 4; Sp. p. 769; Gaz. vol. 179; p. 116.
Woodworth, Rose S., Cornish, Okla. Baking-pan. No. 1,029,483; June 11; Sp. p. 3071; Gaz. vol. 179; p. 515.
Woolen, Alfred, assignor to himself and F. O. Hellstrom, Grove, and M. Hiltner, Bismarck, N. D. Seal-lock. No. 1,028,834; June 4; Sp. p. 1646; Gaz. vol. 179; p. 257.
Wormser, Alfred, Paris, France. Bobbin. No. 1,030,219; June 18; Sp. p. 4677; Gaz. vol. 179; p. 804.
Worrest, Alfred H., Lancaster, Pa. Firearm. No. 1,029,781; June 18; Sp. p. 3716; Gaz. vol. 179; p. 654.
Worrest, Alfred H., Lancaster, Pa. Single-trigger mechanism for double-barrel guns. No. 1,029,782; June 18; Sp. p. 3719; Gaz. vol. 179; p. 655.
Worth, Robert J., Stockton-on-Tees, England. Winding-engine for collieries or like purposes. No. 1,029,410; June 11; Sp. p. 2929; Gaz. vol. 179; p. 490.
Wouters, Alfred H., Norwood, Ohio, assignor to Allis-Chalmers Company and The Bullock Electric Manufacturing Company. Winding-machine. No. 1,028,983; June 11; Sp. p. 1988; Gaz. vol. 179; p. 343.
Wright, Francis M., *et al.*, trustees. (See Converse, Newton B., assignor.)
Wright, George M., assignor to Wright Wire Company, Worcester, Mass. Clamp. No. 1,028,651; June 4; Sp. p. 1268; Gaz. vol. 179; p. 195.
Wright, James R., Trenton, Mo. Resilient wheel. No. 1,028,172; June 4; Sp. p. 265; Gaz. vol. 179; p. 33.
Wright, Louis W., assignor to The W. & E. T. Fitch Co., New Haven, Conn. Buckle. No. 1,030,632; June 25; Sp. p. 5794; Gaz. vol. 179; p. 993.
Wright Wire Company. (See Wright, George M., assignor.)
Wilfing, Firm of Johann A. (See Quade, Fritz, assignor.)
Wurmb, Theodore H., and R. Baumann, assignors to National Clock & Electric Manufacturing Co., St. Louis, Mo. Machine for winding wire on thermostatic springs. No. 1,028,519; June 4; Sp. p. 1001; Gaz. vol. 179; p. 152.
Wurmb, Theodore H., and R. Baumann, assignors to National Clock & Electric Manufacturing Co., St. Louis, Mo. Secondary electric clock. No. 1,030,368; June 25; Sp. p. 5034; Gaz. vol. 179; p. 898.
Wurzburg, Ludwig, San Francisco, Cal. Double-seaming and vacuumizing machine. No. 1,028,652; June 4; Sp. p. 1268; Gaz. vol. 179; p. 195.
Wyatt Company, The. (See Wyatt, Henry J., assignor.)
Wyatt, Henry J., assignor to The Wyatt Company, New York, N. Y. Mailing-wrapper. No. 1,030,633; June 25; Sp. p. 5795; Gaz. vol. 179; p. 993.
Wylie, Samuel W., Jamestown, N. D. Phonographic recording and reproducing device. No. 1,029,249; June 11; Sp. p. 2557; Gaz. vol. 179; p. 433.
Wyman, Horace, Worcester, Mass., assignor to Crompton & Knowles Loom Works. Shuttle-check. No. 1,029,961; June 18; Sp. p. 4137; Gaz. vol. 179; p. 716.
Y. & G. Electric Fuse & Engineering Company, The. (See Yates, Harry A., assignor.)
Yadu, Doichi, Sudamura, Japan. Automatic abacus. No. 1,029,655; June 18; Sp. p. 3430; Gaz. vol. 179; p. 610.
Yakligian, James, Fresno, Cal. Combination pocket knife and fork. No. 1,030,756; June 25; Sp. p. 6095; Gaz. vol. 179; p. 1036.
Yates, Harry A., New York, N. Y., assignor, by mesne assignments, to The Y. & G. Electric Fuse & Engineering Company. Safety-fuse. No. 1,028,173; June 4; Sp. p. 266; Gaz. vol. 179; p. 33.
Yawman & Erbe Manufacturing Company. (See Weiss, Albert T., assignor.)
Ybarrondo, Vincent C. de, Los Angeles, Cal. Power-generator. No. 1,028,414; June 4; Sp. p. 771; Gaz. vol. 179; p. 117.
Yelton, Albert E. (See Peoples and Yelton.)
Yost, Winfield H., Montreal, Quebec, Canada, assignor to National Dump Car Company, Chicago, Ill. Car-door-operating mechanism. No. 1,028,415; June 4; Sp. p. 773; Gaz. vol. 179; p. 117.
Yost, Winfield H., Montreal, Quebec, Canada, assignor to Rodger Ballast Car Company, Chicago, Ill. Car. No. 1,028,925; June 11; Sp. p. 1871; Gaz. vol. 179; p. 323.
Young, Charles A., near Enon, Ohio. Firearm. No. 1,029,037; June 11; Sp. p. 2100; Gaz. vol. 179; p. 363.
Young, Edward J., Haverhill, Mass., assignor to United Shoe Machinery Company, Paterson, N. J. Tack-saver for lasting-machines. No. 1,030,220; June 18; Sp. p. 4678; Gaz. vol. 179; p. 805.
Young, Fay H., Rockford, Ill. Acetylene-gas generator. No. 1,028,174; June 4; Sp. p. 268; Gaz. vol. 179; p. 33.
Young, Henry A., Providence, R. I. Toy handkerchief-box. No. 1,028,416; June 4; Sp. p. 774; Gaz. vol. 179; p. 117.
Young, Leonard A. (See Price, George S., assignor.)
Young, Lorin W., New York, N. Y. Invisible lighting unit No. 1,030,369; June 25; Sp. p. 5037; Gaz. vol. 179; p. 898.
Young, Lorin W., New York, N. Y. Holder for shades or globes. No. 1,030,370; June 25; Sp. p. 5038; Gaz. vol. 179; p. 898.
Young, Lorin W., New York, N. Y. Dust-collector for lamp-globes. No. 1,030,371; June 25; Sp. p. 5039; Gaz. vol. 179; p. 899.
Young-Manu-Averill Company. (See Young, Otis W., assignor.)
Young, Otis W., Chicago, Ill., assignor to Young-Mann-Averill Company. Locomotive valve-gear. No. 1,029,038; June 11; Sp. p. 2109; Gaz. vol. 179; p. 363.
Youngblood, David F., San Antonio, Tex. Door-operating means. No. 1,030,699; June 25; Sp. p. 5944; Gaz. vol. 179; p. 1016.
Zabel, William, Edgewood Park, assignor to The Union Switch & Signal Company, Swissvale, Pa. Corner-post for box-like structures. No. 1,030,444; June 25; Sp. p. 5197; Gaz. vol. 179; p. 924.
Zalinsky, Joseph, assignor to Illinois Watch Case Company, Elgin, Ill. Stem setting and winding watch. No. 1,028,314; June 4; Sp. p. 545; Gaz. vol. 179; p. 80.
Zalmon G. Sholes Typewriter Company. (See Sholes, Zalmon G., assignor.)

Zee Socket & Mfg. Co., The. (See Both, Tonjes A. C., assignor.)
Zelpen, Felix, Fordville, N. D. Refrigerator-room. No. 1,029,484; June 11; Sp. p. 3072; Gaz. vol. 179; p. 515.
Zeiss, Firm of Carl. (See Forstmann, Otto, assignor.)
Zeiss, Firm of Carl. (See Köhler, August, assignor.)
Zeiss, Firm of Carl. (See Rohr, Moritz von, assignor.)
Zell, George, and W. S. Shenk, Lancaster, Pa. Shears. No. 1,029,411; June 11; Sp. p. 2934; Gaz. vol. 179; p. 490.
Zellweger, John, St. Louis, Mo. Recuperative zinc-smelting furnace. No. 1,028,417; June 4; Sp. p. 775; Gaz. vol. 179; p. 117.
Zerbino, Pedro, Buenos Aires, Argentina. Sliding gate. No. 1,028,315; June 4; Sp. p. 550; Gaz. vol. 179; p. 81.
Zerk Manufacturing Company, The. (See Zerk, Oscar, assignor.)
Zerk, Oscar, assignor to The Zerk Manufacturing Company, Cleveland, Ohio. Grease-cup. No. 1,029,412; June 11; Sp. p. 2936; Gaz. vol. 179; p. 491.
Ziebell, Robert. (See Monahan and Ziebell.)
Ziemss, Henry, Jr., assignor to Chicago Railway Equipment Company, Chicago, Ill. Brake-beam. No. 1,030,757; June 25; Sp. p. 6096; Gaz. vol. 179; p. 1037.
Zill, Jacob, *et al.* (See Campbell, Howard S., assignor.)
Zimmerman, Albert P., Spring Valley, Minn. Bag-support. No. 1,028,520; June 4; Sp. p. 1003; Gaz. vol. 179; p. 152.
Zimmerman, Frederick J., Athens, Ill. Grain-elevator wagon-dump and conveyer mechanism. No. 1,029,332; June 11; Sp. p. 2740; Gaz. vol. 179; p. 464.
Zimmermann, William F. (See Eberhardt and Zimmermann.)
Zimmermann, William F., assignor to Gould & Eberhardt, Newark, N. J. Work-table for metal-working machines. No. 1,029,656; June 18; Sp. p. 3437; Gaz. vol. 179; p. 611.
Zitscher, Arthur, and E. J. Rath, Offenbach-on-the-Main, assignors to Chemische Fabrik Griesheim-Elektron, Frankfort-on-the-Main, Germany. Anthracene derivatives and making same. No. 1,028,521; June 4; Sp. p. 1004; Gaz. vol. 179; p. 152.
Zukor, Arnold. (See Neumann, Elenora, assignor.)
Zurbuchen, Fred, Alta Vista, Kans. Loader. No. 1,028,653; June 4; Sp. p. 1271; Gaz. vol. 179; p. 195.
Zurek, Paul, *et al.* (See Nalepka, Walenty, assignor.)
Zuzulin, Nicolas G., Minot, N. D. Combination clothesline and merry-go-round. No. 1,028,418; June 4; Sp. p. 779; Gaz. vol. 179; p. 118.

ALPHABETICAL LIST OF PATENTEES OF DESIGNS.

A. Leschen & Sons Rope Company. (See Leschen, Harry J., assignor.)
A. B. Stove Company. (See Alexander and Berry, assignors.)
A. H. Heisey & Co. (See Sanford, Andrew J., assignor.)
Aaron, Marcus, Pittsburgh, Pa. Plate. No. 42,616; June 18; Gaz. vol. 179; p. 825.
Alexander, John A., and F. K. Berry, assignors to A. B. Stove Company, Battle Creek, Mich. Gas-range. Nos. 42,570–1; June 4; Gaz. vol. 179; p. 261.
Alexander Smith & Sons Carpet Company. (See Heidl, Friedrich, assignor.)
Alexander Smith & Sons Carpet Company. (See Parton, Henry W., assignor.)
Alexander Smith & Sons Carpet Company. (See Stengel, George J., assignor.)
Alpha Embroidery Co. (See Rieger, Ida, assignor.)
Altenberg, George P., Cincinnati, Ohio. Carafe. No. 42,617; June 18; Gaz. vol. 179; p. 825.
Armstrong Cork Company. (See Humphreys, Charles F., assignor.)
Becker, August, Brooklyn, N. Y. Lace curtain. Nos. 42,599–600; June 11; Gaz. vol. 179; p. 550.
Berry, Frank K. (See Alexander and Berry.)
Bigelow Carpet Company. (See Merry, John, assignor.)
Bigelow Carpet Company. (See Riddell, Robert F., assignor.)
Bigelow Carpet Company. (See Sauer, Emil G., assignor.)
Bigelow Carpet Company. (See Schindler, Francis, assignor.)
Bigelow Carpet Company. (See Spring, William A., assignor.)
Birkin, Charles W., Nottingham, England. Levers lace. No. 42,662; June 25; Gaz. vol. 179; p. 1079.
Botts, William A. (See Van Sant, Richard L., assignor.)
Bromley & Sons, John. (See Petzold, Adolph, assignor.)
Bryce, Edwin W., Pittsburgh, Pa. Lamp-collar. No. 42,572; June 4; Gaz. vol. 179; p. 262.
Cahoone, George H. (See Wacha, John C., assignor.)
Central Oil & Gas Stove Company. (See Wilder and White, assignors.)
Colby, Edward H., assignor to Towle Manufacturing Company, Newburyport, Mass. Handle for spoons or analogous articles. No. 42,663; June 25; Gaz. vol. 179; p. 1079.
Collins, George W., Holyoke, Mass. Chair. No. 42,618; June 18; Gaz. vol. 179; p. 825.
Cress, Leonidas H., West Newton, assignor to Federal Tool Company, Everett, Mass. Knife. Nos. 42,619–20; June 18; Gaz. vol. 179; p. 825.
Curtis, Augustus D., Chicago, Ill., assignor to National X-Ray Reflector Company. Reflector holder-bowl for lighting-fixtures. No. 42,573; June 4; Gaz. vol. 179; p. 262.
Eagle Glass & Manufacturing Company. (See Paull, James, assignor.)
Ebelhare, William H., Syracuse, N. Y., and J. A. Freund, Waltham, Mass., assignors to The Keystone Watch Case Company, Philadelphia, Pa. Bridge-plate for watch-movements. No. 42,574; June 4; Gaz. vol. 179; p. 262.
Elwell, Lewis M., Zanesville, Ohio. Monument. No. 42,664; June 25; Gaz. vol. 179; p. 1079.
Farr, Edward A., assignor to Manning, Bowman & Company, Meriden, Conn. Percolator coffee-pot. No. 42,621; June 18; Gaz. vol. 179; p. 826.
Federal Tool Company. (See Cress, Leonidas H., assignor.)
Ferrall, John J., and E. Mackay, New York, N. Y. Tool for removing seals. No. 42,601; June 11; Gaz. vol. 179; p. 550.
Freund, Joseph A. (See Ebelhare and Freund.)
Friedberg, Joseph, New York, N. Y. Lamp-shade. Nos. 42,575–6; June 4; Gaz. vol. 179; p. 262.
Gafinowits, Goodman, Lawrence, Mass. Combined knife and fork. No. 42,622; June 18; Gaz. vol. 179; p. 826.
Garrison, William B., Washington, D. C. Fan. No. 42,623; June 18; Gaz. vol. 179; p. 826.
Hagen, Claude L., New York, N. Y. Stage-screw. No. 42,602; June 11; Gaz. vol. 179; p. 550.
Halderman, Bela R., Franklin Grove, Ill. Cigar-ash holder. No. 42,603; June 11; Gaz. vol. 179; p. 550.
Hall, Frank H., Yonkers, assignor to Strauss Manufacturing Company, New York, N. Y. Statuette. No. 42,624; June 18; Gaz. vol. 179; p. 826.
Haviland, Charles E., Limoges, France. Sauce-boat or similar article. No. 42,577; June 4; Gaz. vol. 179; p. 263.
Heidl, Friedrich, Yonkers, assignor to Alexander Smith & Sons Carpet Company, New York, N. Y. Rug. No. 42,578; June 4; Gaz. vol. 179; p. 263.
Heisey & Co., A. H. (See Heisey, Thomas C., assignor.)
Heisey, Thomas C., assignor to A. H. Heisey & Co., Newark, Ohio. Pitcher. No. 42,665; June 25; Gaz. vol. 179; p. 1079.
Holmberg, Gustaf, Omaha, Nebr. Machine-stand. No. 42,625; June 18; Gaz. vol. 179; p. 826.
Hotchkin, Paul M., Chicago, Ill., assignor to National X-Ray Reflector Company. Attachment for reflector holder-bowls for lighting-fixtures. No. 42,579; June 4; Gaz. vol. 179; p. 263.
Hotchkin, Paul M., Chicago, Ill., assignor to National X-Ray Reflector Company. Bracket for reflectors. No. 42,580; June 4; Gaz. vol. 179; p. 263.
Huff, Russell, assignor to Packard Motor Car Company, Detroit, Mich. Manifold for internal-combustion engines. No. 42,581; June 4; Gaz. vol. 179; p. 263.
Huml, Alois, Cleveland, Ohio. Hat-pin guard. No. 42,604; June 11; Gaz. vol. 179; p. 551.
Humphreys, Charles F., Lancaster, assignor to Armstrong Cork Company, Pittsburgh, Pa. Linoleum, oil-cloth, or floor-covering. Nos. 42,626–7; June 18; Gaz. vol. 179; p. 827.
Janes, George H., Philadelphia, Pa. Vase. No. 42,628; June 18; Gaz. vol. 179; p. 827.
Kendt, William F., assignor to G. C. Strauss, Buffalo, N. Y. Bicycle-frame. No. 42,605; June 11; Gaz. vol. 179; p. 551.
Kent, Arthur A., Philadelphia, Pa. Cap for contact-makers. No. 42,666; June 25; Gaz. vol. 179; p. 1080.
Keystone Watch Case Company, The. (See Ebelhare and Freund, assignors.)
Kiesel, William H., Omaha, Nebr. Sprocket-wheel. No. 42,629; June 18; Gaz. vol. 179; p. 827.
Kolb, Gustave F., Mount Vernon, N. Y. Birth-spoon. No. 42,630; June 18; Gaz. vol. 179; p. 828.
Kopp, Nicholas, assignor to Pittsburgh Lamp, Brass & Glass Company, Pittsburgh, Pa. Shade. Nos. 42,631–4; June 18; Gaz. vol. 179; p. 828.
Lack, Finis E., and E. Lackey, Paducah, Ky. Harness-rack. No. 42,635; June 18; Gaz. vol. 179; p. 828.
Lackey, Ernest. (See Lack and Lackey.)
Landers, Frary & Clark. (See Moberg, Oscar, assignor.)
Leschen, Harry J., assignor to A. Leschen & Sons Rope Company, St. Louis, Mo. Sign. No. 42,636; June 18; Gaz. vol. 179; p. 829.
Leslie, Hattie C., Duquesne, Pa. Linoleum. No. 42,582; June 4; Gaz. vol. 179; p. 263.
Levett, Edith E., New York, N. Y. Statuette. No. 42,606; June 11; Gaz. vol. 179; p. 551.
M. H. Birge & Sons Company. (See Mackintosh, Robert W., assignor.)
Mackay, Edmund. (See Ferrall and Mackay.)
Mackintosh, Robert W., assignor to M. H. Birge & Sons Company, Buffalo, N. Y. Wall-paper. Nos. 42,637–8; June 18; Gaz. vol. 179; p. 829.
Mallory, Frederick B., Portland, Oreg. Guard for pulleys. No. 42,667; June 25; Gaz. vol. 179; p. 1080.
Manning, Bowman & Company. (See Farr, Edward A., assignor.)
Marshall, Allan L., St. John, New Brunswick, Canada. Keyhole-finder. No. 42,639; June 18; Gaz. vol. 179; p. 829.
McKenna, Francis J., Valley Falls, R. I. Curtain-hanger. No. 42,640; June 18; Gaz. vol. 179; p. 829.
McLean, Walter M., assignor to W. B. McLean Mfg. Co., Pittsburgh, Pa. Chair. No. 42,641; June 18; Gaz. vol. 179; p. 829.
McNerney, Edward J., Kansas City, Mo. Statuette. No. 42,607; June 11; Gaz. vol. 179; p. 551.
Mellon, George A., St. Louis, Mo. Wire fabric. No. 42,642; June 18; Gaz. vol. 179; p. 829.
Merry, John, New York, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 42,668–70; June 25; Gaz. vol. 179; pp. 1080–1.
Meyers, Harry H., New York, N. Y. Gem-setting. No. 42,643; June 18; Gaz. vol. 179; p. 829.
Moberg, Oscar, assignor to Landers, Frary & Clark, New Britain, Conn. Display-stand. No. 42,644; June 18; Gaz. vol. 179; p. 830.
Morgan, Arthur J., Chicago, Ill., assignor to National X-Ray Reflector Company. Canopy for electric-light fixtures. No. 42,583; June 4; Gaz. vol. 179; p. 264.
Mueller, Samuel, Jersey City, N. J. Noodle or macaroni. No. 42,608; June 11; Gaz. vol. 179; p. 551.
National X-Ray Reflector Company. (See Curtis, Augustus D., assignor.)
National X-Ray Reflector Company. (See Hotchkin, Paul M., assignor.)
National X-Ray Reflector Company. (See Morgan, Arthur J., assignor.)
National X-Ray Reflector Company. (See Runion, George I., assignor.)

Packard Motor Car Company. (See Huff, Russell, assignor.)
Parker, Emma M., New York, N. Y., assignor to Parker, Stearns & Company, Brooklyn, N. Y. Rubber bathing-cap. No. 42,646; June 18; Gaz. vol. 179; p. 830.
Parker, Russell, New York, N. Y., assignor to Parker, Stearns & Company, Brooklyn, N. Y. Rubber bathing-cap. No. 42,645; June 18; Gaz. vol. 179; p. 830.
Parker, Stearns & Company. (See Parker, Emma M., assignor.)
Parker, Stearns & Company. (See Parker, Russell, assignor.)
Parton, Henry W., Yonkers, assignor to Alexander Smith & Sons Carpet Company, New York, N. Y. Rug. Nos. 42,609–10; June 11; Gaz. vol. 179; pp. 551–2.
Paull, James, assignor to Eagle Glass & Manufacturing Company, Wellsburg, W. Va. Molasses-jug. No. 42,647; June 18; Gaz. vol. 179; p. 830.
Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug. Nos. 42,584–9; June 4; Gaz. vol. 179; pp. 264–5.
Petzold, Adolph, assignor to J. Bromley & Sons, Philadelphia, Pa. Rug. Nos. 42,671–2; June 25; Gaz. vol. 179; p. 1081.
Pittsburgh Lamp, Brass & Glass Company. (See Kopp, Nicholas, assignor.)
Reichmuth, Erwin F., Denver, Colo. Combination bottle-opener and button-hook. No. 42,611; June 11; Gaz. vol. 179; p. 552.
Riddell, Robert F., Flushing, N. Y., assignor to Bigelow Carpet Company. Rug. No. 42,673; June 25; Gaz. vol. 179; p. 1081.
Rieger, Ida, New York, N. Y., assignor to Alpha Embroidery Co., West New York, N. J. Lace. No. 42,590; June 4; Gaz. vol. 179; p. 265.
Robbins, Rolland, Crafton, assignor to The Sanitary Fountain and Vending Machine Company, Pittsburgh, Pa. Stand for vending-machines. No. 42,591; June 4; Gaz. vol. 179; p. 265.
Robbins, Rolland, Crafton, assignor to Sanitary Fountain and Vending Machine Company, Pittsburgh, Pa. Vending-machine. No. 42,592; June 4; Gaz. vol. 179; p. 265.
Runion, George L., Elmhurst, Ill., assignor to National X-Ray Reflector Company. Reflector holder-bowl for lighting-fixtures. No. 42,593; June 4; Gaz. vol. 179; p. 265.
Sanford, Andrew J., Newark, Ohio. Cruet. No. 42,594; June 4; Gaz. vol. 179; p. 265.
Sanford, Andrew J., assignor to A. H. Heisey & Co., Newark, Ohio. Molasses-pitcher. No. 42,612; June 11; Gaz. vol. 179; p. 552.
Sanford, Andrew J., assignor to A. H. Heisey & Co., Newark, Ohio. Vase. No. 42,648; June 18; Gaz. vol. 179; p. 830.
Sanitary Fountain and Vending Machine Company, The. (See Robbins, Rolland, assignor.)
Sauer, Emil G., Richmond Hill, N. Y., assignor to Bigelow Carpet Company. Rug. No. 42,674; June 25; Gaz. vol. 179; p. 1081.
Savill, Thomas M., Philadelphia, Pa. Bib. No. 42,649; June 18; Gaz. vol. 179; p. 830.
Schindler, Francis, Scarsdale, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 42,675–6; June 25; Gaz. vol. 179; p. 1082.
Schlesinger, Leo, New York, N. Y. Horn. No. 42,650; June 18; Gaz. vol. 179; p. 830.
Schloss, Newton L., New York, N. Y. Elevator-signal-light box. No. 42,677; June 25; Gaz. vol. 179; p. 1082.
Slattery, Mary F., New York, N. Y. Badge. No. 42,651; June 18; Gaz. vol. 179; p. 831.
Sprague, Elizabeth B., Spokane, Wash. Stove-leg. No. 42,652; June 18; Gaz. vol. 179; p. 831.
Spring, William A., Brooklyn, N. Y., assignor to Bigelow Carpet Company. Rug. Nos. 42,678–9; June 25; Gaz. vol. 179; pp. 1082–3.
Stake, Leslie M., San Diego, Cal. Cribbage-board. No. 42,595; June 4; Gaz. vol. 179; p. 266.
Stengel, George J., Yonkers, assignor to Alexander Smith & Sons Carpet Company, New York, N. Y. Rug. Nos. 42,613–14; June 11; Gaz. vol. 179; p. 552.
Stickley, Gustav, Morris Plains, N. J. Andiron. No. 42,653; June 18; Gaz. vol. 179; p. 831.
Strauss, George C. (See Kendt, William F., assignor.)
Strauss Manufacturing Company. (See Hall, Frank H., assignor.)
Taylor, James S., Newburgh, N. Y. Directory. No. 42,596; June 4; Gaz. vol. 179; p. 266.
Terry, Reed A., Omaha, Nebr. Skirt-gage. No. 42,654; June 18; Gaz. vol. 179; p. 831.
Towle Manufacturing Company. (See Colby, Edward H., assignor.)
Trueblood, Walter L., Des Moines, Iowa. Badge. No. 42,680; June 25; Gaz. vol. 179; p. 1083.
Underwood, Jesse C., Missoula, Mont. Dish. No. 42,615; June 11; Gaz. vol. 179; p. 552.
Van Sant, Richard L., Ardmore, Pa., assignor of one-half to W. A. Botts, Llanerch, Del. Toy. No. 42,681; June 25; Gaz. vol. 179; p. 1083.
W. B. McLean Mfg. Co. (See McLean, Walter M., assignor.)
Wachs, John C., Providence, R. I., assignor to G. H. Cahoone Company. Display-stand for jewelry. Nos. 42,655–6; June 18; Gaz. vol. 179; p. 831.
Wachter, Louis E. F., Hartford, Conn. Wrist-watch and holder. No. 42,657; June 18; Gaz. vol. 179; p. 832.
Waldron, Richard, Brightwood, D. C. Jewel-case. No. 42,658; June 18; Gaz. vol. 179; p. 832.
Webster, John, East Providence, R. I. Hair-brush. No. 42,597; June 4; Gaz. vol. 179; p. 266.
White, Fred E. (See Wilder and White.)
White, James H., New York, N. Y. Step for poles. No. 42,598; June 4; Gaz. vol. 179; p. 266.
Wilder, William H., and F. E. White, Gardner, Mass., assignors to Central Oil & Gas Stove Company. Oven. No. 42,659; June 18; Gaz. vol. 179; p. 832.
Wirts, Stephen M., Detroit, Mich. Phonograph-table. No. 42,660; June 18; Gaz. vol. 179; p. 832.
Young, Lorin W., New York, N. Y. Lamp-shade. No. 42,661; June 18; Gaz. vol. 179; p. 832.

ALPHABETICAL LIST OF REGISTRANTS OF TRADE-MARKS.

A. C. Horn Company, New York, N. Y. Lime. No. 86,803; June 4; Gaz. vol. 179; p. 282.
Acker, Merrall & Condit Company, New York, N. Y. Canned vegetables, fruits, prepared wheat-flour, and prepared pancake-flour. No. 86,861; June 11; Gaz. vol. 179; p. 567.
Actien-Gesellschaft für Anilin-Fabrikation, Berlin, Germany. Wound-healing remedies. No. 86,768; June 4; Gaz. vol. 179; p. 281.
Adams Shoe Company, Lynn, Mass. Leather shoes. No. 86,862; June 11; Gaz. vol. 179; p. 567.
Adriance, Platt & Co., Poughkeepsie, N. Y. Cutlery, machinery, and tools and parts thereof. No. 86,863; June 11; Gaz. vol. 179; p. 567.
Ahlstrom, Charles A., Jamestown, N. Y. Player-pianos. No. 86,769; June 4; Gaz. vol. 179; p. 281.
Alart & McGuire Company, New York, N. Y. Pickles. No. 87,026; June 25; Gaz. vol. 179; p. 1101.
Alaska Fish Co., Seattle, Wash. Canned salmon. No. 86,864; June 11; Gaz. vol. 179; p. 567.
American Iron and Steel Manufacturing Company, Lebanon and Reading, Pa. Turnbuckles. Nos. 86,770–1; June 4; Gaz. vol. 179; p. 281.
American Iron and Steel Manufacturing Company, Lebanon and Reading, Pa. Structural forgings, bar iron and steel. Nos. 86,865–6; June 11; Gaz. vol. 179; p. 567.
American Manufacturing Company, Boston, Mass., and New York, N. Y. Bagging for baling cotton. No. 87,027; June 25; Gaz. vol. 179; p. 1101.
American Manufacturing Company, Boston, Mass., and New York, N. Y. Bagging for baling cotton. No. 87,031; June 25; Gaz. vol. 179; p. 1101.
American Recorder Company, Chicago, Ill. Recording apparatus. No. 86,867; June 11; Gaz. vol. 179; p. 567.
American Woolen Company, Jersey City, N. J., and Boston, Mass. Woolen piece goods. Nos. 87,028–30; June 25; Gaz. vol. 179; p. 1101.
Analgesol Chemical Company, Jersey City and Passaic, N. J. Medicinal tonics. No. 86,772; June 4; Gaz. vol. 179; p. 281.
Apex Fish Company, Anacortes, Wash. Canned salmon. No. 87,032; June 25; Gaz. vol. 179; p. 1101.
Astier, Placide A., Paris, France. Substitute for iodin and iodids. No. 86,974; June 18; Gaz. vol. 179; p. 847.
Atlanta Agricultural Works, Atlanta, Ga. Scrapers. No. 86,868; June 11; Gaz. vol. 179; p. 567.
Atlantic Maritime Company, Kittery, Me., and Boston, Mass. Wheat-flour. No. 86,869; June 11; Gaz. vol. 179; p. 567.
Atlas Portland Cement Company, The, Northampton, Pa. Portland cement. No. 86,973; June 18; Gaz. vol. 179; p. 847.
Auto Specialty Manufacturing Co., Inc., Indianapolis, Ind. Toy vehicles. No. 86,870; June 11; Gaz. vol. 179; p. 567.
Autoforce Ventilating System, Pierre, S. D., and Boston, Mass. Ventilating apparatus. No. 86,871; June 11; Gaz. vol. 179; p. 567.
Baer Bros., New York, N. Y. Paints and painters' material. No. 87,033; June 25; Gaz. vol. 179; p. 1101.
Baker, John W., Stamford, Conn. Game-scoring boards. No. 87,034; June 25; Gaz. vol. 179; p. 1101.
Ballard, James F., St. Louis, Mo. Certain medicines and pharmaceutical preparations. No. 87,035; June 25; Gaz. vol. 179; p. 1101.
Barrett Manufacturing Company, New York, N. Y. Pitch. No. 86,773; June 4; Gaz. vol. 179; p. 281.
Barrett Manufacturing Company, New York, N. Y. Disinfectants and insecticides. Nos. 86,774–5; June 4; Gaz. vol. 179; p. 281.
Barrett Manufacturing Company, New York, N. Y. Coal-tar oils. No. 86,872; June 11; Gaz. vol. 179; p. 567.
Bauer & Cie., Berlin, Germany. Dietetic preparations. No. 86,776; June 4; Gaz. vol. 179; p. 281.
Beecham, David E., Lapeer, Mich. Certain pharmaceutical preparations. No. 86,975; June 18; Gaz. vol. 179; p. 847.
Berdan & Company, Toledo, Ohio. Rolled oats and rice. No. 86,873; June 11; Gaz. vol. 179; p. 567.
Berndorf Metal Works Arthur Krupp, Berndorf, Austria-Hungary. Table-knives. Nos. 86,874–5; June 11; Gaz. vol. 179; p. 567.
Berry & Co., C., Boston, Mass. Whisky. No. 86,976; June 18; Gaz. vol. 179; p. 847.
Bird, Charles S., East Walpole, Mass. Roofing, waterproof sound and heat insulating papers. No. 86,876; June 11; Gaz. vol. 179; p. 567.
Birk Bros. Brewing Co., Chicago, Ill. Malt preparation. No. 86,777; June 4; Gaz. vol. 179; p. 281.
Bloom & Milliman, New York, N. Y. Dress and shirt waists. No. 86,877; June 11; Gaz. vol. 179; p. 567.
Boston Molasses Co., Boston, Mass. Molasses No. 87,036; June 25; Gaz. vol. 179; p. 1101.
Boston Rubber Shoe Company, Boston, Mass. Rubber boots and shoes. Nos. 86,778–9; June 4; Gaz. vol. 179; p. 281.
Boston Rubber Shoe Company, Boston, Mass. Rubber boots and shoes. No. 87,037; June 25; Gaz. vol. 179; p. 1101.
Brodbeck, John J., New York, N. Y. Headache remedy. No. 86,780; June 4; Gaz. vol. 179; p. 281.
Brown Bros., Baltimore, Md. Remedy for certain diseases. No. 86,781; June 4; Gaz. vol. 179; p. 281.
Brown Shoe Company, The, St. Louis, Mo. Women's shoes. No. 87,038; June 25; Gaz. vol. 179; p. 1101.
Caementium Sales Co., Boston, Mass. Adhesive cement. No. 86,782; June 4; Gaz. vol. 179; p. 281.
Cambrunnen Table Water Company, London, England. Mineral and aerated waters. No. 86,977; June 18; Gaz. vol. 179; p. 847.
Cannon, J. Randolph, Norfolk, Va. Remedy for rheumatism. No. 86,783; June 4; Gaz. vol. 179; p. 281.
Carlisle Crocker & Co., Montevideo, Uruguay. Certain piece goods, carpets, and rugs. No. 87,039; June 25; Gaz. vol. 179; p. 1101.
Chamberlin Metal Weather Strip Co., Detroit, Mich. Weather-strips. No. 86,784; June 4; Gaz. vol. 179; p. 281.
Charrington, Fredk. N., London, England. Finger-rings. No. 86,785; June 4; Gaz. vol. 179; p. 281.
Charter Oak Citrus Assn., Charter Oak, Cal. Oranges. No. 86,880; June 11; Gaz. vol. 179; p. 567.
Chemische Fabrik auf Actien (vorm. E. Schering), Berlin, Germany. Remedies for gout and rheumatism. No. 87,041; June 25; Gaz. vol. 179; p. 1101.
Christie-Collar Mfg. Co., Muskegon, Mich. Baking-powder. No. 86,786; June 4; Gaz. vol. 179; p. 281.
Citrolax Co., Valparaiso, Ind. Compound laxative preparation. No. 87,042; June 25; Gaz. vol. 179; p. 1101.
Clark Co., John W. M., The, Athol, Mass. Remedy for certain diseases. No. 87,043; June 25; Gaz. vol. 179; p. 1101.
Clarkson & Ford Company, The, New York, N. Y. Lubricating-oil. No. 86,881; June 11; Gaz. vol. 179; p. 567.
Cleveland, Heman C., Buffalo, N. Y. Medicinal tablets. No. 86,787; June 4; Gaz. vol. 179; p. 281.
Coal Tar Products Company, New York, N. Y. Roofing-cement. No. 86,882; June 11; Gaz. vol. 179; p. 567.
Coates, Lydia T., Kalamazoo, Mich. Certain medicines and pharmaceutical preparations. No. 87,044; June 25; Gaz. vol. 179; p. 1101.
Colebrook's Sons, W. H., Syracuse, N. Y. Certain construction materials. No. 86,788; June 4; Gaz. vol. 179; p. 281.
Coleman, Winona T., Boston, Mass. Bitumen. No. 86,789; June 4; Gaz. vol. 179; p. 281.
Columbia Phonograph Company, General, Washington, D. C. Sound-record blanks. No. 86,978; June 18; Gaz. vol. 179; p. 847.
Conover, Seth H., Plymouth, Wis. Cream-cheese. No. 87,045; June 25; Gaz. vol. 179; p. 1101.
Continuous Rail Company, Wilmington, Del., and New York, N. Y. Railway-rails. Nos. 86,883–4; June 11; Gaz. vol. 179; p. 567.
Crescent Macaroni and Cracker Co., Davenport, Iowa. Macaroni. No. 86,885; June 11; Gaz. vol. 179; p. 567.
Criswell, Francis M., Washington, D. C. Preparation for certain ailments. No. 87,046; June 25; Gaz. vol. 179; p. 1101.
Cudahy Packing Company, Chicago, Ill. Hams and bacon. No. 86,886; June 11; Gaz. vol. 179; p. 567.
Cummings, George K., New York, N. Y. Cereal breakfast foods. No. 86,887; June 11; Gaz. vol. 179; p. 567.
Daniel, Charles A., Philadelphia, Pa. Rubber and pneumatic tires. No. 87,047; June 25; Gaz. vol. 179; p. 1101.
Davidson, George, New York, N. Y. Mirror adjustable supports. No. 86,888; June 11; Gaz. vol. 179; p. 567.
Delano Company, Incorporated, The Syracuse, N. Y. Remedy for certain diseases. No. 87,048; June 25; Gaz. vol. 179; p. 1101.
Delta Oil Co., Greenville, Miss. Cotton-seed oil for cooking. No. 86,889; June 11; Gaz. vol. 179; p. 567.
Denny, Hilborn & Rosenbach, Philadelphia, Pa. Paints. Nos. 86,890–2; June 11; Gaz. vol. 179; p. 568.
Denny, Hilborn & Rosenbach, Philadelphia, Pa. Paints and painters' materials. No. 87,049; June 25; Gaz. vol. 179; p. 1101.

Deppe Söhne, Anton, Hamburg, Germany. Limonenes. No. 87,050; June 25; Gaz. vol. 179; p. 1101.
Detroit Insulated Wire Company, Detroit, Mich. Insulated electric wires. No. 87,051; June 25; Gaz. vol. 179; p. 1101.
Detroit Sanitary Supply Co., Detroit, Mich. Hardware and plumbing and steam-fitting supplies. No. 86,893; June 11; Gaz. vol. 179; p. 568.
Dodge Publishing Company, New York, N. Y. Calendars. Nos. 86,894–5; June 11; Gaz. vol. 179; p. 568.
Dooley, Smith & Company, New York, N. Y. Canned pears. No. 86,896; June 11; Gaz. vol. 179; p. 568.
Dörrenberg Söhne, Ed., Ründeroth, Germany. Steel bars, plates, castings, forgings, and ingots. No. 87,052; June 25; Gaz. vol. 179; p. 1101.
Dr. Arthur Erhard Gesellschaft mit beschränkter Haftung, Berlin, Germany. Remedy for certain diseases. No. 86,794; June 4; Gaz. vol. 179; p. 281.
Dralle, Georg, Hamburg, Germany. Hair-water. No. 86,979; June 18; Gaz. vol. 179; p. 847.
Du Mond, William R., New York, N. Y. Water-purifying and steam-boiler-cleaning compound. No. 86,791; June 4; Gaz. vol. 179; p. 281.
Duluth-Superior Milling Company, Duluth, Minn. Wheat-flour. No. 87,053; June 25; Gaz. vol. 179; p. 1102.
Duplex Adding Machine Company, The, St. Louis, Mo. Adding and calculating machines. No. 86,792; June 4; Gaz. vol. 179; p. 281.
Eagle Pencil Company, New York, N. Y. Lead-pencils. No. 86,897; June 11; Gaz. vol. 179; p. 568.
Elmer & Amend, New York, N. Y. Sphygmomanometers. No. 87,054; June 25; Gaz. vol. 179; p. 1102.
Eisenman Company, Charles, Cleveland Ohio. Certain clothing. No. 87,055; June 25; Gaz. vol. 179; p. 1102.
Elisabeth City Hosiery Co., Elizabeth City, N. C. Hosiery. No. 87,056; June 25; Gaz. vol. 179; p. 1102.
Ely & Walker Dry Goods Company, St. Louis, Mo. Certain fancy goods and notions. No. 86,981; June 18; Gaz. vol. 179; p. 847.
Empire Iron and Steel Company, Niles, Ohio. Metal ceilings, side walls, and skylights. No. 86,793; June 4; Gaz. vol. 179; p. 281.
F. A. Weck Co., The, San Francisco, Cal. Headache-powders. No. 86,847; June 4; Gaz. vol. 179; p. 283.
Faber, Firm of A. W., Stein, Germany. Pencils. No. 86,898; June 11; Gaz. vol. 179; p. 568.
Fabrik pharmaceutischer Präparate Karl Engelhard, Frankfort-on-the-Main, Germany. Wound-powder. No. 86,982; June 18; Gaz. vol. 179; p. 847.
Farbenfabriken of Elberfeld Company, New York, N. Y. Oil for finishing leather. No. 87,058; June 25; Gaz. vol. 179; p. 1102.
Federal Rubber Manufacturing Co., Cudahy, Wis. Certain belting, hose, machinery packing, and non-metallic tires. No. 86,795; June 4; Gaz. vol. 179; p. 281.
Feinberg, Maurice M., New York, N. Y. Certain pharmaceutical preparation. No. 87,059; June 25; Gaz. vol. 179; p. 1102.
Fiebert, Louis R., New York, N. Y. Hair-tonic. No. 86,797; June 4; Gaz. vol. 179; p. 281.
Finney, Thomas L., Birmingham, Ala. Syrup for beverages. No. 87,060; June 25; Gaz. vol. 179; p. 1102.
Florasel Manufacturing Company, New York, N. Y. Certain chemical preparation. No. 87,061; June 25; Gaz. vol. 179; p. 1102.
Fortuna Machine Co., New York, N. Y. Annular knives. No. 86,798; June 4; Gaz. vol. 179; p. 282.
Fox & Co., M. Ewing, New York, N. Y. Calcimines. No. 87,062; June 25; Gaz. vol. 179; p. 1102.
Francesconi, Callisto, Lucca, Italy. Olive-oil. No. 87,063; June 25; Gaz. vol. 179; p. 1102.
Frank, Cecelia A., Lincoln, Nebr. Remedies for certain diseases. No. 86,983; June 18; Gaz. vol. 179; p. 847.
Frankfurter Musikwerke-Fabrik, J. D. Philippe & Söhne A.-G., Frankfort-on-the-Main, Germany. Certain musical instruments and supplies. No. 86,984; June 18; Gaz. vol. 179; p. 847.
Gage, Edwin L., Portland, Oreg. Truck-scales. No. 87,064; June 25; Gaz. vol. 179; p. 1102.
Galitzki, Leo, Chicago, Ill. Hats. No. 86,799; June 4; Gaz. vol. 179; p. 282.
Geo. B. Carpenter & Co., Chicago, Ill. Cotton duck. No. 86,878; June 11; Gaz. vol. 179; p. 567.
Geo. B. Carpenter & Co., Chicago, Ill. Awning-stripes. No. 86,879; June 11; Gaz. vol. 179; p. 567.
Gillan & Gillan, Passaic, N. J. Stove-polish. No. 86,800; June 4; Gaz. vol. 179; p. 282.
Golden Gate Co., Baltimore, Md. Gin compound. No. 86,985; June 18; Gaz. vol. 179; p. 847.
Golden Gate Co., Baltimore, Md. Whisky-blend. No. 86,986; June 18; Gaz. vol. 179; p. 847.
Goodman & Son, A., New York, N. Y. Certain foods. No. 86,901; June 11; Gaz. vol. 179; p. 568.
Goodman & Son, A., New York, N. Y. Matzoths. No. 87,065; June 25; Gaz. vol. 179; p. 1102.
Grand River Canning Company, Markesan, Wis. Canned vegetables. No. 87,066; June 25; Gaz. vol. 179; p. 1102.
Granger & Houghton, Binghamton, N. Y. Ice-cream cones. No. 87,067; June 25; Gaz. vol. 179; p. 1102.
Green, George G., Woodbury, N. J. Remedy for certain diseases. No. 87,068; June 25; Gaz. vol. 179; p. 1102.
Griffin Wheel Company, Chicago, Ill. Cast-iron car-wheels. No. 86,902; June 11; Gaz. vol. 179; p. 568.
Grossfeld and Roe Company, Chicago, Ill. Canned salmon. No. 86,903; June 11; Gaz. vol. 179; p. 568.
Hagerstown Legging Company, The, Hagerstown, Md. Leggings and sandals. No. 86,801; June 4; Gaz. vol. 179; p. 282.
Haltiwanger-Taylor Drug Co., Atlanta, Ga. Remedy for certain ailments. No. 87,070; June 25; Gaz. vol. 179; p. 1102.
Harding, Tilton & Company, Boston, Mass. Cotton yarns. No. 86,837; June 4; Gaz. vol. 179; p. 283.
Hart, Joseph A., Rocky Ford, Colo. Cantaloup-seeds. No. 87,071; June 25; Gaz. vol. 179; p. 1102.
Hartford Bros., Decatur, Ill. Cigars. No. 86,904; June 11; Gaz. vol. 179; p. 568.
Hautzenroeder Co., The, Mansfield, Ohio. Cigars. No. 86,905; June 11; Gaz. vol. 179; p. 568.
Hawker, Arthur E., London, England. Certain chemical preparation. No. 86,988; June 18; Gaz. vol. 179; p. 847.
Haynes Henson Shoe Company, Knoxville, Tenn. Leather boots and shoes. No. 87,072; June 25; Gaz. vol. 179; p. 1102.
Heller & Long, New York, N. Y. Handkerchiefs. No. 86,906; June 11; Gaz. vol. 179; p. 568.
Heller & Long, New York, N. Y. Handkerchiefs. No. 86,989; June 18; Gaz. vol. 179; p. 847.
Henry K. Wampole and Company Incorporated, Philadelphia, Pa. Certain medicine and pharmaceutical preparations. No. 87,022; June 18; Gaz. vol. 179; p. 848.
Hercules Electric Company, Indianapolis, Ind. Magneto-electric generators. No. 86,802; June 4; Gaz. vol. 179; p. 282.
Hess Brothers Inc., New York, N. Y. Candy and chocolates. No. 86,907; June 11; Gaz. vol. 179; p. 568.
Hine, Reuben A., New York, N. Y. Antiseptic douche. No. 86,990; June 18; Gaz. vol. 179; p. 847.
Hoffman, Jacob J., New York, N. Y. Arm-bands and garters. No. 86,908; June 11; Gaz. vol. 179; p. 568.
Hohlfeld, Herman L., Philadelphia, Pa. Hammocks. No. 86,909; June 11; Gaz. vol. 179; p. 568.
Horlick, William, Jr., Racine, Wis. Condiment. No. 86,910; June 11; Gaz. vol. 179; p. 568.
Houghton, Joseph H., New York, N. Y. Portland cement. No. 86,804; June 4; Gaz. vol. 179; p. 282.
Hunyadi Laszlo Company, Chicago, Ill. Wheat-flour and cereal breakfast food. No. 86,914; June 11; Gaz. vol. 179; p. 568.
Hutchinson-Kansas Salt Company, The, Hutchinson, Kans. Salt. No. 86,991; June 18; Gaz. vol. 179; p. 847.
Ica Actien-Gesellschaft, Dresden, Germany. Certain measuring and scientific appliances. No. 87,075; June 25; Gaz. vol. 179; p. 1102.
Idaho Soap Company, Limited, Boise, Idaho. Washing-soap. No. 87,076; June 25; Gaz. vol. 179; p. 1102.
Illinois Iron & Bolt Co., Carpentersville, Ill. Steel carriage, wagon, and buggy axles. No. 86,992; June 18; Gaz. vol. 179; p. 847.
International Ink Co., Los Angeles, Cal. Writing fluid. No. 86,993; June 18; Gaz. vol. 179; p. 847.
Interstate Medical Company, The, Kingsley, Iowa. Antiseptic and germicidal ointments. No. 86,805; June 4; Gaz. vol. 179; p. 282.
Interwoven Stocking Company, New Brunswick, N. J. Hosiery. No. 86,994; June 18; Gaz. vol. 179; p. 847.
Ithaca Gun Company, The, Ithaca, N. Y. Rifles, shot-guns, and revolvers. No. 86,911; June 11; Gaz. vol. 179; p. 568.
J. Judd Mason & Co., East Orange, N. J., and New York, N. Y. Castor-oil. No. 87,086; June 25; Gaz. vol. 179; p. 1102.
J. B. Williams Company, Glastonbury, Conn. Shaving and toilet soaps. No. 86,854; June 4; Gaz. vol. 179; p. 283.
J. B. Williams Company, The, Glastonbury, Conn. Shaving and toilet soaps. No. 87,133; June 25; Gaz. vol. 179; p. 1104.
Jackson-Church-Wilcox Co., Saginaw, Mich. Steering-gears. No. 86,912; June 11; Gaz. vol. 179; p. 568.
Jackson Corset Company, Jackson, Mich. Corsets. No. 86,995; June 18; Gaz. vol. 179; p. 847.
Jackson-Eno Rubber Company, Los Angeles, Cal. Inner-shoe tire-casings for automobiles. No. 86,806; June 4; Gaz. vol. 179; p. 282.
Jafnel, Otto B., Liberty, N. Y. Remedy for the scalp. No. 86,808; June 4; Gaz. vol. 179; p. 282.
James McDougall Limited, Wednesbury, England. Pipes, tubes, and conduits. No. 86,796; June 4; Gaz. vol. 179; p. 281.
James R. Kelser, Inc., New York, N. Y. Handkerchiefs and kerchiefs. No. 87,080; June 25; Gaz. vol. 179; p. 1102.
Jaques Mfg. Co., Chicago, Ill. Baking-powder. No. 86,807; June 4; Gaz. vol. 179; p. 282.
Jaynes Drug Company, Boston, Mass. Cigars. No. 87,077; June 25; Gaz. vol. 179; p. 1102.
Jefferson, Edward Z., Pittsburgh, Pa. Belting, hose, and machinery packing. No. 86,856; June 4; Gaz. vol. 179; p. 283.
John C. Nichols Harness Manufacturing Company, Janesville, Wis. Harness. No. 86,931; June 11; Gaz. vol. 179; p. 569.

John V. Farwell Company, Chicago, Ill. Handkerchiefs. No. 86,809; June 11; Gaz. vol. 179; p. 568.
Kaas, Louis A., Newark, N. J. Roach-powder. No. 86,809; June 4; Gaz. vol. 179; p. 282.
Kamenstein, Myer, New York, N. Y. Washboilers. No. 87,078; June 25; Gaz. vol. 179; p. 1102.
Kansas City Automobile Supply Co., Kansas City, Mo. Spark-plugs. No. 86,913; June 11; Gaz. vol. 179; p. 568.
Kansas City Cotton Mills Company, Kansas City, Kans. Cotton duck. No. 87,079; June 25; Gaz. vol. 179; p. 1102.
Kent Manufacturing Company, New York, N. Y. Certain kinds of fabrics. No. 86,996; June 18; Gaz. vol. 179; p. 847.
Kirk-Dunning Co., Inc., Philadelphia, Pa. Shoes. No. 86,810; June 4; Gaz. vol. 179; p. 282.
Kratz, Paul, Louisville, Ky. Compound of the radical salicyl and carbonic with soda. No. 87,081; June 25; Gaz. vol. 179; p. 1102.
Landrock, Jacob, Omaha, Nebr. Laundry and toilet soap. No. 87,082; June 25; Gaz. vol. 179; p. 1102.
Latour, George E., Burlington, Vt. Medicinal tonics. No. 87,083; June 25; Gaz. vol. 179; p. 1102.
Leggett & Brother, New York, N. Y. Certain pharmaceutical preparations. No. 86,997; June 18; Gaz. vol. 179; p. 847.
Lehmann-Higginson Grocer Co., Wichita, Kans. Certain foods. No. 86,915; June 11; Gaz. vol. 179; p. 568.
Lexington Mill & Elevator Co., Lexington, Nebr. Wheat-flour. No. 86,916; June 11; Gaz. vol. 179; p. 568.
Liberty Paint Company Inc., Brooklyn, N. Y. Cold-water paint. No. 86,857; June 4; Gaz. vol. 179; p. 283.
Liberty Paint Company Inc., Brooklyn, N. Y. Cold-water calcimine. No. 86,858; June 4; Gaz. vol. 179; p. 283.
Lucas Produce Company, New York, N. Y., and Leipsic, Ohio. Eggs. No. 86,918; June 11; Gaz. vol. 179; p. 568.
Luneschloss, Alex, New York, N. Y. Sardines. No. 86,917; June 11; Gaz. vol. 179; p. 568.
M. W. Dunton Company, The, Providence, R. I. Friction-tape. No. 86,980; June 18; Gaz. vol. 179; p. 847.
Mac-Kae Manufacturing Company, Jamaica Plain, Mass. Spark-plugs, terminals, protectors, &c. No. 86,919; June 11; Gaz. vol. 179; p. 568.
Mack's Medical Co., Inc., Boston, Mass. Medical preparation for overperspiring and sore feet. No. 86,811; June 4; Gaz. vol. 179; p. 282.
Manatee Citrus Growers Association, Manatee, Fla. Oranges, grape-fruit, tangerines, lemons, and limes. No. 87,085; June 25; Gaz. vol. 179; p. 1102.
Mantovani, Firm of F., Milan, Italy. Powder for absorbing perspiration. No. 86,812; June 4; Gaz. vol. 179; p. 282.
Marshall Field & Company, Chicago, Ill. Cotton dress goods. No. 86,900; June 11; Gaz. vol. 179; p. 568.
Mason, Albert G., Cleveland, Ohio. Sewing-machines and their parts and attachments. No. 86,859; June 4; Gaz. vol. 179; p. 283.
Matt & Co., F., Newark, N. J. Leather blackings and dressings. No. 86,860; June 4; Gaz. vol. 179; p. 283.
Mayflower Mills, Fort Wayne, Ind. Wheat-flour. No. 87,088; June 25; Gaz. vol. 179; p. 1102.
McKinney Traction Cultivator Co., St. Louis, Mo. Traction-machines and parts thereof. No. 87,087; June 25; Gaz. vol. 179; p. 1102.
McMechen Preserving Company, Wheeling, W. Va. Catsup. No. 86,920; June 11; Gaz. vol. 179; p. 568.
McRae, Emily C., Spokane, Wash. Medicine for certain ailments. No. 86,998; June 18; Gaz. vol. 179; p. 847.
Menley & James, Limited, New York, N. Y., and London, England. Ointment. No. 86,813; June 4; Gaz. vol. 179; p. 282.
Merrell-Soule Co., Syracuse, N. Y. Mince-meat, infant food, and preserved eggs. No. 87,089; June 25; Gaz. vol. 179; p. 1102.
Metall-Regeno G. m. b. H., Munich, Germany. Preparation for regenerating metals. No. 86,814; June 4; Gaz. vol. 179; p. 282.
Miles & Co., Inc., Baltimore, Md. Fresh oysters. Nos. 86,921–2; June 11; Gaz. vol. 179; p. 568.
Mock, Adolph L., New York, N. Y. Children's, misses', and ladies' clothing. No. 86,816; June 4; Gaz. vol. 179; p. 282.
Mock, Adolph L., New York, N. Y. Toilet soaps. No. 87,090; June 25; Gaz. vol. 179; p. 1103.
Moe, Blanche W., New York, N. Y. Certain pharmaceutical preparations. No. 87,091; June 25; Gaz. vol. 179; p. 1103.
Moe, Blanche W., New York, N. Y. Foot-powder. No. 87,092; June 25; Gaz. vol. 179; p. 1103.
Molwitz, Ernest, New York, N. Y. Certain pharmaceutical preparations. No. 86,817; June 4; Gaz. vol. 179; p. 282.
Monica, Andrea D., New York, N. Y. Medicinal syrup. No. 86,818; June 4; Gaz. vol. 179; p. 282.
Morgan, Albert C. F., London, England. Port-wine. No. 86,999; June 18; Gaz. vol. 179; p. 847.
Morgan, Byron, New York, N. Y. Substitute for linseed-oil. No. 86,923; June 11; Gaz. vol. 179; p. 568.
Morgan Drug Co., The, Brooklyn, N. Y. Ointment, pomade, blood remedy, &c. No. 87,000; June 18; Gaz. vol. 179; p. 847.
Morgan Drug Co., Brooklyn, N. Y. Toilet and salt-water soap. No. 87,093; June 25; Gaz. vol. 179; p. 1103.
Morton, John T., Lynchburg, Va. Medicinal preparations for chapped skin, &c. No. 86,819; June 4; Gaz. vol. 179; p. 282.
Moyer, Malcolm B., Montevideo, Minn. Hay, feed, or litter carriers. No. 87,094; June 25; Gaz. vol. 179; p. 1103.
Mt. Pleasant Glove Manufacturing Co., Mount Pleasant, Iowa. Gloves and mittens. No. 87,095; June 25; Gaz. vol. 179; p. 1103.
Nagel-Chase Manufacturing Company, The, Chicago, Ill. Certain heating, lighting, and ventilating apparatus. No. 86,820; June 4; Gaz. vol. 179; p. 282.
Nashville Spring and Mattress Co., Nashville, Tenn. Mattresses, bed-springs, cots, and feather pillows. No. 86,821; June 4; Gaz. vol. 179; p. 282.
National Biscuit Company, Jersey City, N. J., and New York, N. Y. Biscuit. Nos. 86,924–9; June 11; Gaz. vol. 179; pp. 568–9.
National Essence for Coffee Co., Philadelphia, Pa. Coffee substitute. No. 86,930; June 11; Gaz. vol. 179; p. 569.
Newman, Harry T., Chicago, Ill. Metal-polish. No. 87,096; June 25; Gaz. vol. 179; p. 1103.
Newton Tea & Spice Co., The, Cincinnati, Ohio. Coffee, tea, and spices. No. 86,822; June 4; Gaz. vol. 179; p. 282.
Norddeutsche Wollkämmerei & Kammgarnspinnerei, Bremen and Delmenhorst, Germany. Toilet soap. No. 87,097; June 25; Gaz. vol. 179; p. 1103.
Northwestern Electric Equipment Company, Brooklyn, N. Y. Certain electrical apparatus and supplies. No. 86,932; June 11; Gaz. vol. 179; p. 569.
Northwestern Elevator and Mill Co., Toledo, Mount Vernon, and Loudonville, Ohio. Prepared cereal flour. No. 86,933; June 11; Gaz. vol. 179; p. 569.
Norton, Julia A., Los Angeles, Cal. Face cream and powder and hair-tonic. No. 86,823; June 4; Gaz. vol. 179; p. 282.
Nürnberger Abziehbilder-Fabrik Troeger & Bucking, Nuremberg, Germany. Transfer-pictures. No. 87,098; June 25; Gaz. vol. 179; p. 1103.
Oakes Manufacturing Company, Long Island City, N. Y., and Boston, Mass. Certain chemical preparation. No. 86,824; June 4; Gaz. vol. 179; p. 282.
Oddy, William, Bradford, England. Certain piece goods. No. 87,099; June 25; Gaz. vol. 179; p. 1103.
Old Bushmills Distillery Co., Ltd., The, Bushmills and Belfast, Ireland. Whisky. No. 86,825; June 4; Gaz. vol. 179; p. 282.
Olympia Brewing Co., Olympia, Wash. Beer. No. 87,001; June 18; Gaz. vol. 179; p. 847.
Owl Drug Company, San Francisco, Cal. Certain toilet preparations. No. 86,826; June 4; Gaz. vol. 179; p. 282.
Paramount Knitting Company, Chicago, Ill. Hosiery. No. 87,002; June 18; Gaz. vol. 179; p. 848.
Park, Grant and Morris, Fargo, N. D. Canned fruits, vegetables, fish, soups, and spices. No. 87,100; June 25; Gaz. vol. 179; p. 1103.
Patton Paint Company, Milwaukee, Wis. Ready-mixed paint used as a protective coating. No. 86,827; June 4; Gaz. vol. 179; p. 282.
Peerless Cork & Seal Co., New York, N. Y. Bottle-caps. No. 87,101; June 25; Gaz. vol. 179; p. 1103.
Pencarbon Co. Ltd., The, Leicester, England. Carbon-papers, pen copying-paper, and type-writer ribbons. No. 87,003; June 18; Gaz. vol. 179; p. 848.
People's Outfitting Company, Detroit, Mich. Pianos and organs. No. 87,004; June 18; Gaz. vol. 179; p. 848.
Peoria Electric Fixture Co., Peoria, Ill. Electrical apparatus and supplies. No. 87,102; June 25; Gaz. vol. 179; p. 1103.
Petty, William R., Fort Worth, Tex. Asphalt, macadam, concrete, and bituminous paving. No. 86,934; June 11; Gaz. vol. 179; p. 569.
Pfaffmann Egg Noodle Co., The, Cleveland, Ohio. Noodles for soups. No. 86,935; June 11; Gaz. vol. 179; p. 569.
Piedmont Mfg. Co., Piedmont, S. C. Sheetings and drillings. No. 87,103; June 25; Gaz. vol. 179; p. 1103.
Prest-O-Lite Company, The, Indianapolis, Ind. Starting device for explosive-engines. No. 87,005; June 18; Gaz. vol. 179; p. 848.
Progress Company, The, assignor to Uno Manufacturing Company, Chicago, Ill. Wood cleanser and polisher. No. 86,828; June 4; Gaz. vol. 179; p. 282.
R. Stock & Co., Spiralbohrer-Werkzeug und Maschinenfabrik Aktiengesellschaft, Marienfelde, near Berlin, Germany. Drills, reamers, and milling-cutters. No. 86,959; June 11; Gaz. vol. 179; p. 570.
R. Wedekind & Co. G. m. b. H. Uerdingen-on-the-Rhine, Germany. Dyes. No. 86,848; June 4; Gaz. vol. 179; p. 283.
Rahmann, George, New York, N. Y. Belt-dressing. No. 86,829; June 4; Gaz. vol. 179; p. 282.
Rainforth, Selden I., New York, N. Y. Ointment. No. 86,830; June 4; Gaz. vol. 179; p. 282.
Randall-Faichney Company, Boston, Mass. Oil-grease guns. No. 86,937; June 11; Gaz. vol. 179; p. 569.
Rath, Emil, Frankfort-on-the-Main, Germany. Remedy for diabetes. No. 86,831; June 4; Gaz. vol. 179; p. 282.
Regina Company, The, Rahway, N. J. Printing-presses. No. 87,006; June 18; Gaz. vol. 179; p. 848.

Republic Bag & Paper Co., New York, N. Y. Wrapping-paper. No. 86,935; June 11; Gaz. vol. 179; p. 569.
Reynold & Reynolds Company, The, Dayton, Ohio. Paper tablets and note-books. No. 87,007; June 18; Gaz. vol. 179; p. 848.
Richard Hudnut, New York, N. Y. Soap. Nos. 87,073–4; June 25; Gaz. vol. 179; p. 1102.
Richter, Carl H. F., London, England. Medicinal tonics, pills, and ointments. No. 87,008; June 18; Gaz. vol. 179; p. 848.
Robbins, John B., Malden, Mass. Chewing-gum. No. 86,939; June 11; Gaz. vol. 179; p. 569.
Robinson Bros. & Company, Incorporated, Portland, Me., and Malden, Mass. Toilet soap. No. 87,104; June 25; Gaz. vol. 179; p. 1103.
Robinson Bros. & Company Incorporated, Portland, Me., and Malden, Mass. Soap. No. 87,105; June 25; Gaz. vol. 179; p. 1103.
Roderick Lean Manufacturing Company, Mansfield, Ohio. Cultivators, harrows, and drills. No. 87,084; June 25; Gaz. vol. 179; p. 1102.
Rosenblatt & Son, Sigmund, Baltimore, Md. Men's suits. No. 87,009; June 18; Gaz. vol. 179; p. 848.
Rosenthal, Morris, Buffalo, N. Y. Rubber tires. No. 87,106; June 25; Gaz. vol. 179; p. 1103.
Rowley, Elmer H., Pittsburgh, Pa. Artificial limbs. No. 87,107; June 25; Gaz. vol. 179; p. 1103.
Rudy-Patrick Seed Co., Kansas City, Mo. Poultry feed. No. 86,940; June 11; Gaz. vol. 179; p. 569.
Ryff & Co., Berne, Switzerland. Certain article of clothing. No. 87,010; June 18; Gaz. vol. 179; p. 848.
S. A. Miniere Sciati Bituminosi di Meride e Besano, Meride, Switzerland. Ichthyol-surrogate and mineral oils. No. 87,108; June 25; Gaz. vol. 179; p. 1103.
Sanchez & Haya Co., Tampa, Fla. Cigars. No. 87,109; June 25; Gaz. vol. 179; p. 1103.
Sanderson Brothers & Newbould Limited, Sheffield, England. Certain cutlery, machinery, and tools and parts thereof. No. 86,941; June 11; Gaz. vol. 179; p. 569.
Sanitary Bedding Co., New York, N. Y. Mattresses. No. 86,832; June 4; Gaz. vol. 179; p. 283.
Schloss, Meyer W., New York, N. Y. Belts and hose-supporters. No. 86,942; June 11; Gaz. vol. 179; p. 569.
Schmid, Eugene, Cincinnati, Ohio. Bread. No. 86,943; June 11; Gaz. vol. 179; p. 569.
Schütte Bünemann & Co., New York, N. Y. Green coffee. No. 86,944; June 11; Gaz. vol. 179; p. 569.
Scout Suspender & Specialty Mfg. Co., The, Kalamazoo, Mich. Suspenders. No. 86,945; June 11; Gaz. vol. 179; p. 569.
Sct. Lucasbader Brunnen Actien-Gesellschaft, Budapest, Austria-Hungary. Natural mineral spring-waters. No. 87,011; June 18; Gaz. vol. 179; p. 848.
Shaw & Co., Alex. D., New York, N. Y. Sherry-wine. No. 87,012; June 18; Gaz. vol. 179; p. 848.
Shoe City Novelty Co., Lynn, Mass. Bows for shoes. No. 86,946; June 11; Gaz. vol. 179; p. 569.
Signature Company, The, New York, N. Y. Machines for writing a plurality of signatures. No. 87,110; June 25; Gaz. vol. 179; p. 1103.
Silver & Company, New York, N. Y. Certain hardware and plumbing and steam-fitting supplies. No. 86,833; June 4; Gaz. vol. 179; p. 283.
Silverberg Import Co., New York, N. Y. Hair-nets. Nos. 87,111–13; June 25; Gaz. vol. 179; p. 1103.
Silvex Company, The, Chicago, Ill. Polishing-cloths. Nos. 87,114–15; June 25; Gaz. vol. 179; p. 1103.
Sirubin-Werke G. m. b. H., Berlin, Germany. Emery, emery wheels, cloth, and paper. No. 86,834; June 4; Gaz. vol. 179; p. 283.
Smith, Kline & French Company, Philadelphia, Pa. Perfume and talcum powder. No. 87,013; June 18; Gaz. vol. 179; p. 848.
Smith Milling and Grain Company, Warsaw, Ind. Wheat-flour. No. 87,116; June 25; Gaz. vol. 179; p. 1103.
Société Anonyme des Celluloses Planchon, Lyon, France. Photographic chemicals. No. 86,835; June 4; Gaz. vol. 179; p. 283.
Société Anonyme Des Usines Remy, Wijgmael, Belgium. Starch. No. 86,947; June 11; Gaz. vol. 179; p. 569.
Society of Chemical Industry in Basle, Basel, Switzerland. Coal-tar colors. No. 87,014; June 18; Gaz. vol. 179; p. 848.
Society of Chemical Industry in Basle, Basel, Switzerland. Certain pharmaceutical preparation. Nos. 87,015–16; June 18; Gaz. vol. 179; p. 848.
Southwestern Medicine Co., Houston Heights, Tex. Remedies for certain ailments. No. 86,836; June 4; Gaz. vol. 179; p. 283.
St. Charles Condensing Company, St. Charles, Ill. Evaporated milk. No. 87,120; June 25; Gaz. vol. 179; p. 1103.
Stafolife Feed & Milling Co. Ltd., New Orleans, La. Stock feed. Nos. 86,948–50; June 11; Gaz. vol. 179; p. 569.
Standard Oil Co. of New York, New York, N. Y. Illuminating-oils. No. 87,018; June 18; Gaz. vol. 179; p. 848.
Standard Oil Co. of New York, New York, N. Y. Illuminating-oils. No. 87,118; June 25; Gaz. vol. 179; p. 1103.
Standard Oil Company, Bayonne, N. J. Oil for lighting, heating, and power purposes. Nos. 86,951–2; June 11; Gaz. vol. 179; p. 569.
Standard Oil Company, Bayonne, N. J. Gasolene and naphtha. No. 86,953; June 11; Gaz. vol. 179; p. 569.
Standard Oil Company, Bayonne, N. J. Benzin. No. 86,954; June 11; Gaz. vol. 179; p. 569.
Standard Oil Company, Bayonne, N. J. Naphtha. Nos. 86,955–6; June 11; Gaz. vol. 179; p. 569.
Standard Oil Company of New York, New York, N. Y. Naphtha. No. 87,017; June 18; Gaz. vol. 179; p. 848.
Standard Oil Company of New York, New York, N. Y. Petroleum for illuminating, heating, and power purposes. No. 87,117; June 25; Gaz. vol. 179; p. 1103.
Star Rubber Co., Akron, Ohio. Tobacco-pouches. No. 86,958; June 11; Gaz. vol. 179; p. 570.
Star Rubber Co., The, Akron, Ohio. Chair-tips. No. 86,957; June 11; Gaz. vol. 179; p. 569.
Starke's Dixie Plow Works, Inc., Richmond, Va. Plows. No. 87,119; June 25; Gaz. vol. 179; p. 1103.
Steinberg, Norman L., Chicago, Ill. Belting, hose, machinery packing, and non-metallic tires. No. 87,121; June 25; Gaz. vol. 179; p. 1103.
Stevenson & Son., Ltd., Dungannon, Ireland. Linen piece goods. No. 87,122; June 25; Gaz. vol. 179; p. 1103.
Stoughton, John A., South Windsor, Conn. Certain foods. No. 86,960; June 11; Gaz. vol. 179; p. 570.
Straus, Bodenheimer Saddlery Co., Houston, Tex. Horse-collars. No. 86,961; June 11; Gaz. vol. 179; p. 570.
Taft, Anna M., Chicago, Ill. Robes and manteaux. No. 86,962; June 11; Gaz. vol. 179; p. 570.
Tel-Til-Tip Co., The, Holland, Mich. Boots and shoes and tips therefor. No. 86,963; June 11; Gaz. vol. 179; p. 570.
Theo. Poehler Mercantile Co., The, Lawrence, Kans. Coffee. No. 86,956; June 11; Gaz. vol. 179; p. 569.
Thorpe, Harry S., Norfolk, Nebr. Furniture-polish. No. 87,123; June 25; Gaz. vol. 179; p. 1103.
Tisdale, Mark B., Bentonville, Ark. Beverage. No. 87,019; June 18; Gaz. vol. 179; p. 848.
Tower Manufacturing & Novelty Co., New York, N. Y. Certain dental, medical, and surgical appliances. No. 86,838; June 4; Gaz. vol. 179; p. 283.
Tower Manufacturing & Novelty Co., New York, N. Y. Crockery pin cups and trays. No. 86,964; June 11; Gaz. vol. 179; p. 570.
Towle, Nelson L., Chicago, Ill. Candies. No. 87,124; June 25; Gaz. vol. 179; p. 1103.
Traverse City Refrigerator Co., Traverse City, Mich. Fireless cookers. No. 87,125; June 25; Gaz. vol. 179; p. 1104.
Trenton Potteries Company, The, Trenton, N. J. Sanitary water-closets. No. 87,126; June 25; Gaz. vol. 179; p. 1104.
Trowbridge, William S., Meadville, Pa. Candy. No. 87,127; June 25; Gaz. vol. 179; p. 1104.
Tüshaus, Heinrich, Borken, Germany. Non-alcoholic beverages. No. 87,020; June 18; Gaz. vol. 179; p. 848.
U. S. Hame Company, Buffalo, N. Y. Hames. Nos. 86,839–40; June 4; Gaz. vol. 179; p. 283.
U-Va-Jee Manufacturing Co., Watertown, Wis. Medicinal salve. No. 86,841; June 4; Gaz. vol. 179; p. 283.
Union Bag and Paper Company, Jersey City, N. J., and New York, N. Y. Paper bags. No. 86,965; June 11; Gaz. vol. 179; p. 570.
Uno Manufacturing Company. (See Progress Company, The, assignor.)
Untermeyer-Robbins & Company, New York, N. Y. Thimbles. No. 86,966; June 11; Gaz. vol. 179; p. 570.
Utah Oil Refning Company, Salt Lake City, Utah. Gear-greases. No. 86,967; June 11; Gaz. vol. 179; p. 570.
Vacuum Oil Company, Rochester, N. Y. Illuminating-oils. No. 87,128; June 25; Gaz. vol. 179; p. 1104.
Valentin Blatz Brewing Co., Milwaukee, Wis. Beer. No. 86,842; June 4; Gaz. vol. 179; p. 283.
Vette & Zuncker, Chicago, Ill. Canned chop-soy. No. 86,968; June 11; Gaz. vol. 179; p. 570.
Vi-Stix Producta Company, The, Denver, Colo. Wheat-bread. No. 87,129; June 25; Gaz. vol. 179; p. 1104.
Victor Combination Kitchen Boiler Company, Oakland, Cal. Combination kitchen-boilers and gas water-heaters. No. 86,843; June 4; Gaz. vol. 179; p. 283.
Volunteer Mfg. Company, Nashville, Tenn. Overalls, jumpers, coats, and trousers. No. 87,021; June 18; Gaz. vol. 179; p. 848.
W. L. Milner & Company, The, Toledo, Ohio. Certain pharmaceutical preparations. No. 86,815; June 4; Gaz. vol. 179; p. 282.
W. T. Hanson Co., Schenectady, N. Y. Laxative pills. No. 86,987; June 18; Gaz. vol. 179; p. 847.
Wagner, Edward H., Mineral Wells, Tex. Certain medicine and pharmaceutical preparations. No. 87,130; June 25; Gaz. vol. 179; p. 1104.
Washington Chemical Co., The, Ltd., Washington Station, England. Magnesia. No. 86,844; June 4; Gaz. vol. 179; p. 283.
Watson, Porter, Giles & Company, New York, N. Y. Certain fancy goods, furnishings, and notions. No. 87,131; June 25; Gaz. vol. 179; p. 1104.
Watts Brothers Company, Inc., Lynchburg, Va. Outer and under shirts, drawers, hosiery, &c. No. 86,845; June 4; Gaz. vol. 179; p. 283.
Webber & Company, Homer L., Wenona, Ill. Shampoo-paste. No. 86,846; June 4; Gaz. vol. 179; p. 283.
Weber, John, Jr., Des Moines, Iowa. Whisky. No. 86,969; June 11; Gaz. vol. 179; p. 570.
Wellman, George O., Jr., Chicago, Ill. Liniments. No. 87,023; June 18; Gaz. vol. 179; p. 848.

West, Edward H., Birmingham, Ala. Sheet metal. No. 87,132; June 25; Gaz. vol. 179; p. 1104.
Western Grocer Company, Marshalltown, Iowa. Certain foods. No. 86,970; June 11; Gaz. vol. 179; p. 570.
Wheeler Chemical Co. Inc., Lynchburg, Va. Alkaline solution for the treatment of catarrh. No. 86,849; June 4; Gaz. vol. 179; p. 283.
White, Almond J., Chillicothe, Mo. Certain pharmaceutical preparation. No. 86,850; June 4; Gaz. vol. 179; p. 283.
White & Bagley Co., The, Worcester, Mass. Motor oils and lubricants. No. 86,851; June 4; Gaz. vol. 179; p. 283.
Whitmore, Geo. C., Leadville, Colo. Laxative and cathartic remedy. No. 87,024; June 18; Gaz. vol. 179; p. 848.
Wick Narrow Fabric Company, Philadelphia, Pa. Flannel piece goods. No. 87,025; June 18; Gaz. vol. 179; p. 848.
Wiedeke and Company, Gustav, Dayton, Ohio. Tube and flue expanders and cutters. No. 86,852; June 4; Gaz. vol. 179; p. 283.
Willcox & Gibbs Sewing Machine Co., New York, N. Y. Sewing-machines, their parts and attachments. No. 86,853; June 4; Gaz. vol. 179; p. 283.
Williams, Frank C., Easton, Pa. Prepared poultry food. No. 86,971; June 11; Gaz. vol. 179; p. 570.
Willis & Co., W. P., New York, N. Y. Open-weave cloth. No. 86,972; June 11; Gaz. vol. 179; p. 570.
Wm. Enders Manufacturing Company, Walden, N. Y. Abrasive, detergent, and polishing materials. No. 87,057; June 25; Gaz. vol. 179; p. 1102.
Ziemssen, Anna K., Philadelphia, Pa. Hair-oils and unguents. No. 86,855; June 4; Gaz. vol. 179; p. 283.

ALPHABETICAL LIST OF REGISTRANTS OF LABELS.

Adler Underwear & Hosiery Mfg. Co., The, Cincinnati, Ohio. "Eagle Brand Sweater Shirt." (For Shirts and Sweaters.) No. 16,373; June 11; Gaz. vol. 179; p. 571.

Alghieri Chef, Inc., Dover, Del., and Cambridge, Mass. "Alghieri's Soup." (For Soup.) No. 16,366; June 4; Gaz. vol. 179; p. 284.

American Biscuit Co., San Francisco, Cal. "Panama Creams." (For Crackers.) No. 16,416; June 25; Gaz. vol. 179; p. 1105.

Amiess, Frederick C., St. Louis, Mo. "Solidified Honey." (For Honey.) No. 16,396; June 18; Gaz. vol. 179; p. 849.

Ampt, Charles F., Cincinnati, Ohio. "Ampt's Toasted Corn Dainties." (For Toasted Corn-Flakes.) No. 16,374; June 11; Gaz. vol. 179; p. 571.

Brown Stamping Company, The, Toledo, Ohio. "Brown's High Grade Metal Ware." (For Sheet-Metal Ware.) No. 16,417; June 25; Gaz. vol. 179; p. 1105.

Burton Bros. & Co., New York, N. Y. "All-but-linen." (For Suiting.) No. 16,375; June 11; Gaz. vol. 179; p. 571.

C. Hascall & Co., Inc., Seattle, Wash. "Doctors Port." (For Wines.) No. 16,398; June 18; Gaz. vol. 179; p. 849.

C. B. Henschel Mfg. Co., Milwaukee, Wis. "Nordana." (For Cigars.) No. 16,367; June 4; Gaz. vol. 179; p. 284.

C. B. Henschel Mfg. Co., Milwaukee, Wis. "El Domar." (For Cigars.) No. 16,397; June 18; Gaz. vol. 179; p. 849.

Cokato Canning Co., Cokato, Minn. "Little Crow." (For Canned Corn.) No. 16,418; June 25; Gaz. vol. 179; p. 1105.

Curran, George E., Boston, Mass. "College." (For Toilet-Paper.) No. 16,376; June 11; Gaz. vol. 179; p. 571.

Curran, George E., Boston, Mass. "Opera." (For Toilet-Paper.) No. 16,377; June 11; Gaz. vol. 179; p. 571.

Denio Milling Company, J. W., Sheridan, Wyo. "Pride of Sheridan." (For Flour.) No. 16,378; June 11; Gaz. vol. 179; p. 571.

Denio Milling Company, J. W., Sheridan, Wyo. "Best Out West." (For Flour.) No. 16,379; June 11; Gaz. vol. 179; p. 571.

Froehlich & Son, S., Newark, N. J. "Black and Gold." (For Whisky.) No. 16,392; June 11; Gaz. vol. 179; p. 571.

Froehlich & Son, S., Newark, N. J. "Romeo & Juliet." (For Whisky.) No. 16,393; June 11; Gaz. vol. 179; p. 571.

Froehlich & Son, S., Newark, N. J. "Ginger-Brandy." (For Brandy.) No. 16,394; June 11; Gaz. vol. 179; p. 571.

Grossman, Max, Peoria, Ill. "Jefferson." (For Cigars.) No. 16,368; June 4; Gaz. vol. 179; p. 284.

Henschel & Co., A. C., Chicago, Ill. "Commercial Note." (For Cigars.) No. 16,365; June 4; Gaz. vol. 179; p. 284.

Hewitt Mercantile Company, The, St. Louis, Mo. "Hewitt Rye Whiskey." (For Whisky.) No. 16,419; June 25; Gaz. vol. 179; p. 1105.

Hewitt Mercantile Company, The, St. Louis, Mo. "Hewitt Bourbon Whiskey." (For Whisky.) No. 16,420; June 25; Gaz. vol. 179; p. 1105.

I. Rokeach & Sons, New York, N. Y. "Rokeach's Kosher Scouring Powder." (For Scouring-Powder.) No. 16,426; June 25; Gaz. vol. 179; p. 1105.

I. C. Shore & Co., Petersburg, Va. "Yellow Rose Pure Corn Whiskey." (For Corn Whisky.) No. 16,427; June 25; Gaz. vol. 179; p. 1105.

J. F. Pyle & Son, San Jose, Cal. "R-bet." (For California Fruits.) No. 16,425; June 25; Gaz. vol. 179; p. 1105.

Karlen, Jacob, Rome, N. Y. "Mohawk Valley." (For Limburger-Style Cheese.) No. 16,421; June 25; Gaz. vol. 179; p. 1105.

Kellogg Toasted Corn Flake Co., Battle Creek, Mich. "Kellogg's Toasted Wheat Biscuit." (For Biscuit.) No. 16,422; June 25; Gaz. vol. 179; p. 1105.

Kettering, Henry H., Pittsburgh, Pa. "Kettering's Worlds Catarrh Remedy." (For a Remedy for Catarrh.) No. 16,369; June 4; Gaz. vol. 179; p. 284.

Le Rouge Co., Chicago, Ill. "Le Rouge's Authentic-Hair-Auxiliary Soap." (For Soap.) No. 16,399; June 18; Gaz. vol. 179; p. 849.

Le Rouge Co., Chicago, Ill. "Le Rouge's Authentic-Hair-Auxiliary." (For Hair-Pomade.) No. 16,400; June 18; Gaz. vol. 179; p. 849.

Lewis, Harry C., Cleveland, Ohio. "Fort Lewis Club." (For Whisky.) No. 16,371; June 4; Gaz. vol. 179; p. 284.

Maxwell-McClure-Fitts D. G. Co., Kansas City, Mo. "Flax-bloom." (For Handkerchiefs.) No. 16,401; June 18; Gaz. vol. 179; p. 849.

Moehle Lithographic Company, The, New York, N. Y. "La Composa." (For Cigars.) No. 16,380; June 11; Gaz. vol. 179; p. 571.

Moehle Lithographic Company, The, New York, N. Y. "Baby Rose." (For Cigars.) No. 16,381; June 11; Gaz. vol. 179; p. 571.

Moehle Lithographic Company, The, New York, N. Y. "Loyal Order." (For Cigars.) No. 16,382; June 11; Gaz. vol. 179; p. 571.

Moehle Lithographic Company, The, New York, N. Y. "Chief Okee." (For Cigars.) No. 16,383; June 11; Gaz. vol. 179; p. 571.

Moehle Lithographic Company, The, New York, N. Y. "Rosa del Lago." (For Cigars.) No. 16,384; June 11; Gaz. vol. 179; p. 571.

New Method Varnish Company, Elmira, N. Y. "Uncle Hiram's Brighten-All." (For Brighteners and Polishes.) No. 16,370; June 4; Gaz. vol. 179; p. 284.

New Orleans Coffee Co., New Orleans, La. "Everybody's." (For Sugar-Syrup and Corn-Syrup.) No. 16,402; June 18; Gaz. vol. 179; p. 849.

New Orleans Coffee Co., New Orleans, La. "New South." (For Cane-Syrup.) No. 16,403; June 18; Gaz. vol. 179; p. 849.

New Orleans Coffee Co., New Orleans, La. "Cracker." (For Cane-Syrup.) No. 16,404; June 18; Gaz. vol. 179; p. 849.

New Orleans Coffee Co., New Orleans, La. "Sweetland." (For Sugar-Cane Products and Corn-Syrup.) No. 16,405; June 18; Gaz. vol. 179; p. 849.

New Orleans Coffee Co., New Orleans, La. "Alligator." (For Molasses.) No. 16,406; June 18; Gaz. vol. 179; p. 849.

New Orleans Coffee Co., New Orleans, La. "Goose Neck." (For Imitation Sorghum.) No. 16,407; June 18; Gaz. vol. 179; p. 849.

New Orleans Coffee Co., New Orleans, La. "Sparkle." (For Table-Syrup.) No. 16,408; June 18; Gaz. vol. 179; p. 849.

New Orleans Coffee Co., New Orleans, La. "Snow White." (For Corn-Syrup and Cane-Sugar Syrup.) No. 16,409; June 18; Gaz. vol. 179; p. 849.

Oshkosh Brewing Co., The, Oshkosh, Wis. "Oshkosh Special." (For Beer.) No. 16,385; June 11; Gaz. vol. 179; p. 571.

Paarman, Emil C. F., Lake Placid, N. Y., and Palm Beach, Fla. "Poinciana Cerate." (For Preparations for the Skin.) No. 16,423; June 25; Gaz. vol. 179; p. 1105.

Paris Chemical Co., New York, N. Y. "I. C. Prevention." (For Medicinal Preparation.) No. 16,410; June 18; Gaz. vol. 179; p. 849.

Pepper, John J., Addison, N. Y. "George L." (For Cigars.) No. 16,424; June 25; Gaz. vol. 179; p. 1105.

Robinson, Fred'k. H., Philadelphia, Pa. "Sniffle-Balm." (For Medicinal Preparation.) No. 16,386; June 11; Gaz. vol. 179; p. 571.

Royal Worcester Corset Co., Worcester, Mass. "Bon Ton The Most Perfect Fitting Corset in The World." For Corsets.) No. 16,387; June 11; Gaz. vol. 179; p. 571.

Russell Playing Card Company, The, Milltown, N. J., and New York, N. Y. "Blue Ribbon." (For Playing-Cards.) No. 16,388; June 11; Gaz. vol. 179; p. 571.

Sanborn-Cram Co., South Bend, Wash.; Astoria, Oreg., and Burnett, Alaska. "Knighthood Brand." (For Salmon.) No. 16,389; June 11; Gaz. vol. 179; p. 571.

Sanborn-Cram Co., South Bend, Wash.; Astoria, Oreg., and Burnett, Alaska. "Red Raven Brand." (For Salmon.) No. 16,390; June 11; Gaz. vol. 179; p. 571.

Schneider, Louis, Chicago, Ill. "The Staff of Life Nature's Bread." (For Bread.) No. 16,391; June 11; Gaz. vol. 179; p. 571.

Stevenson, William G., Philadelphia, Pa. "Albem-Oil." (For Oil for Type-Writers.) No. 16,372; June 4; Gaz. vol. 179; p. 284.

Taylor Provision Company, The, Trenton, N. J. "Taylor's Pork Goodies." (For a Pork Product.) No. 16,428; June 25; Gaz. vol. 179; p. 1105.

Ulrici, Charles J., New York, N. Y. "Dr. Ulrici's Compound Cordial of Cerebrine." (For a Pharmaceutical Preparation.) No. 16,429; June 25; Gaz. vol. 179; p. 1105.

Waldes & Co., Prague-Wrschowitz, Austria-Hungary. "Koh-i-noor Dress Fastener." (For Dress-Fastening Devices.) No. 16,395; June 11; Gaz. vol. 179; p. 571.

Whiting, H. H., Minneapolis, Minn. "Success." (For Wheat-Flour.) No. 16,411; June 18; Gaz. vol. 179; p. 849.

Whiting, H. H., Minneapolis, Minn. "Minnesota Belle." (For Wheat-Flour.) No. 16,412; June 18; Gaz. vol. 179; p. 849.

Whiting, H. H., Minneapolis, Minn. "La Farine Blanche." (For Wheat-Flour.) No. 16,413; June 18; Gaz. vol. 179; p. 849.

Whiting, H. H., Minneapolis, Minn. "Chancellor." (For Wheat-Flour.) No. 16,414; June 18; Gaz. vol. 179; p. 849.

Woolson Spice Company, The, Toledo, Ohio. "Karex Blend Golden Sun Coffee." (For Coffee.) No. 16,415; June 18; Gaz. vol. 179; p. 849.

Zimmerman Cigar Co., Chicago, Ill. "King Philip." (For Cigars.) No. 16,430; June 25; Gaz. vol. 179; p. 1105.

PRINTS.

American Art Works, Coshocton, Ohio. "My Wife Knows! She's solved my troubles for heels and toes." (For Hosiery.) No. 3,056; June 25; Gaz. vol. 179; p. 1105.

Boston Novelty Co., Boston, Mass. "My Hat is in the Ring." (For Teddy Hats.) No. 3,047; June 11; Gaz. vol. 179; p. 571.

Cluett, Peabody & Company, Troy, N. Y. "Arrow Collars and Shirts." (For Collars and Shirts.) No. 2,043; June 4; Gaz. vol. 179; p. 284.

Cream of Wheat Co., Minneapolis, Minn. "I Done Had To Frame Rastus." (For Wheat Breakfast Food.) No. 3,045; June 11; Gaz. vol. 179; p. 571.

Electric Cleaner Co., Indianapolis, Ind. "Electric Rug and Carpet Cleaner." (For Rug and Carpet Cleaner.) No. 3,049; June 11; Gaz. vol. 179; p. 571.

Fruit Dispatch Company, New York, N. Y. "Fruit Dispatch Company Import the Best." (For Bananas.) No. 3,050; June 18; Gaz. vol. 179; p. 849.

Garner Print Works and Bleachery, West Haverstraw, Wappingers Falls, and New York, N. Y. "Guarantee, This garment is made of Material printed by the Garner Process." (For Garments.) No. 3,057; June 25; Gaz. vol. 179; p. 1105.

George Frost Company, Boston, Mass. "Everyman." (For Men's Garters.) No. 3,044; June 4; Gaz. vol. 179; p. 284.

Marx & Haas Clothing Co., St. Louis, Mo. "The Wunder Waist-band." (For Trousers.) No. 3,045; June 4; Gaz. vol. 179; p. 284.

Tablet and Ticket Co., The, Chicago, Ill.; New York, N. Y., and San Francisco, Cal. "Gold Dust." (For a Cleansing Preparation.) No. 3,046; June 4; Gaz. vol. 179; p. 284.

Udolpho Wolfe Company, New York, N. Y. "Wolfe's Schnapps." (For Schnapps.) No. 3,051; June 18; Gaz. vol. 179; p. 849.

Whiting, H. H., Minneapolis, Minn. "La Farine Blanche." (For Wheat-Flour.) No. 3,052; June 18; Gaz. vol. 179; p. 849.

Whiting, H. H., Minneapolis, Minn. "Success." (For Wheat-Flour.) No. 3,053; June 18; Gaz. vol. 179; p. 849.

Whiting, H. H., Minneapolis, Minn. "Chancellor." (For Wheat-Flour.) No. 3,054; June 18; Gaz. vol. 179; p. 849.

Whiting, H. H., Minneapolis, Minn. "Minnesota Belle." (For Wheat-Flour.) No. 3,055; June 18; Gaz. vol. 179; p. 849.

DISCLAIMERS.

Doering, Charles, Jr., Chicago, Ill.; disclaimer filed by assignee, Adams & Elting Co. Apparatus for coating articles with pulverulent material. No. 976,443; disclaimer filed June 13, 1912; Gaz. vol. 179; p. 859.

ALPHABETICAL LIST OF INVENTIONS

FOR WHICH

PATENTS WERE ISSUED DURING THE MONTH OF JUNE, 1912.

[Abbreviations: "Sp."—Monthly Volume of Specifications; "Gaz."—Official Gazette.]

Abacus, Automatic. D. Yadu. No. 1,029,655; June 18; Sp. p. 3430; Gaz. vol. 179; p. 610.

Abdominal supporter. K. L. Storm. No. 1,029,955; June 18; Sp. p. 4126; Gaz. vol. 179; p. 714.

Abrading device. W. A. Reed. No. 1,030,538; June 25; Sp. p. 5453; Gaz. vol. 179; p. 958.

Abrading device. H. Hallam. No. 1,030,778; June 25; Sp. p. 6175; Gaz. vol. 179; p. 1044.

Account-register. J. L. Dulin. No. 1,030,289; June 25; Sp. p. 4849; Gaz. vol. 179; p. 868.

Accounting appliance, Credit-. A. L. Lambert. No. 1,030,785; June 25; Sp. p. 6193; Gaz. vol. 179; p. 1047.

Acetylene generating and storing apparatus. G. L. Eastman and A. Hicks. No. 1,028,658; June 4; Sp. p. 1081; Gaz. vol. 179; p. 164.

Acetylene-generator. J. Kilburn, J. W. Fairley, T. B. Kidner, W. H. Irvine, and W. T. Chestnut. No. 1,029,999; June 18; Sp. p. 4203; Gaz. vol. 179; p. 729.

Adding and listing machine. J. G. Vincent and R. E. Benner. No. 1,028,162; June 4; Sp. p. 201; Gaz. vol. 179; p. 28.

Adding and listing machine. E. L. Matthews. No. 1,028,896; June 11; Sp. p. 1790; Gaz. vol. 179; p. 313.

Adding and subtracting machine. J. G. Vincent. No. 1,028,161; June 4; Sp. p. 183; Gaz. vol. 179; p. 28.

Adding apparatus and pencil-box, Combined. G. Krüger. No. 1,028,227; June 4; Sp. p. 372; Gaz. vol. 179; p. 52.

Adding-machine. W. E. Swaim. No. 1,028,149; June 4; Sp. p. 153; Gaz. vol. 179; p. 28.

Addressing-machine. S. Elliott. No. 1,029,112; June 11; Sp. p. 2265; Gaz. vol. 179; p. 387.

Adjustable bracket. W. D. Whitney. No. 1,028,515; June 4; Sp. p. 993; Gaz. vol. 179; p. 150.

Adjustable chair. M. L. Cromer. No. 1,028,548; June 4; Sp. p. 1051; Gaz. vol. 179; p. 160.

Advertising device. J. J. Lepper. No. 1,029,618; June 18; Sp. p. 3361; Gaz. vol. 179; p. 598.

Advertising display device. J. Stranders. No. 1,030,031; June 18; Sp. p. 4272; Gaz. vol. 179; p. 740.

Advertising or display device. T. Kharas. No. 1,030,734; June 25; Sp. p. 6036; Gaz. vol. 179; p. 1028.

Aerial carrier. P. Nels. No. 1,030,423; June 25; Sp. p. 5154; Gaz. vol. 179; p. 917.

Aeroplane. W. B. Shepard. No. 1,028,143; June 4; Sp. p. 138; Gaz. vol. 179; p. 21.

Aeroplane. C. B. Westerman. No. 1,028,409; June 4; Sp. p. 762; Gaz. vol. 179; p. 115.

Aeroplane. H. J. Kraft. No. 1,028,887; June 11; Sp. p. 1776; Gaz. vol. 179; p. 310.

Aeroplane. L. R. Rooney. No. 1,028,968; June 11; Sp. p. 1953; Gaz. vol. 179; p. 337.

Aeroplane. J. R. Hendrickson. No. 1,029,754; June 18; Sp. p. 3663; Gaz. vol. 179; p. 646.

Aeroplane. H. Laprise. No. 1,030,312; June 25; Sp. p. 4912; Gaz. vol. 179; p. 877.

Aeroplane. J. R. Machado. No. 1,030,518; June 25; Sp. p. 5405; Gaz. vol. 179; p. 951.

Aeroplane. J. T. Rydberg. No. 1,030,542; June 25; Sp. p. 5459; Gaz. vol. 179; p. 959.

Aeroplane. L. F. Bancroft. No. 1,030,764; June 25; Sp. p. 6118; Gaz. vol. 179; p. 1039.

Aeroplane. D. R. Davis. No. 1,030,772; June 25; Sp. p. 6142; Gaz. vol. 179; p. 1042.

Aeroplane sighting device. F. L. Slack. No. 1,028,502; June 4; Sp. p. 970; Gaz. vol. 179; p. 146.

Aerostructural balance. F. E. Whitlatch. No. 1,030,363; June 25; Sp. p. 5023; Gaz. vol. 179; p. 896.

Agglomerating process. A. Folliet. No. 1,029,182; June 11; Sp. p. 2407; Gaz. vol. 179; p. 410.

Air and gas compressor. C. W. Miles. No. 1,029,309; June 11; Sp. p. 2682; Gaz. vol. 179; p. 455.

Air-brake. G. W. Hohn and E. G. Reisinger. No. 1,029,368; June 11; Sp. p. 2834; Gaz. vol. 179; p. 476.

Air-brake systems, Valve-controlling mechanism for train-. P. T. Strader. No. 1,029,477; June 11; Sp. p. 3061; Gaz. vol. 179; p. 518.

Air or water craft, Propeller for. A. Finch. No. 1,029,057; June 11; Sp. p. 2142; Gaz. vol. 179; p. 369.

Airship. W. D. Le Fevre. No. 1,028,891; June 11; Sp. p. 1782; Gaz. vol. 179; p. 311.

Airship. J. F. W. Bradshaw. No. 1,029,529; June 11; Sp. p. 3156; Gaz. vol. 179; p. 529.

Airship. A. Mayer. No. 1,030,826; June 25; Sp. p. 6365; Gaz. vol. 179; p. 1063.

Airship-propeller. R. H. Milton. No. 1,028,765; June 4; Sp. p. 1502; Gaz. vol. 179; p. 233.

Alarm: *See* Burglar-alarm.

Alkyl ether of isoures. M. Engelmann and B. Merkel. No. 1,028,936; June 11; Sp. p. 1891; Gaz. vol. 179; p. 327.

Aluminum formate and product obtained thereby, Producing water-soluble crystalline. F. Quade. No. 1,030,747; June 25; Sp. p. 6064; Gaz. vol. 179; p. 1033.

Aluminum or its alloys for soldering, Process of and composition for coating. B. D. Avis, Jr. No. 1,029,522; June 11; Sp. p. 3144; Gaz. vol. 179; p. 527.

Amusement apparatus. D. H. Cleghorn. No. 1,028,543; June 4; Sp. p. 1043; Gaz. vol. 179; p. 159.

Amusement apparatus. J. E. McReynolds. No. 1,030,316; June 25; Sp. p. 4921; Gaz. vol. 179; p. 878.

Amusement device. W. Q. Olden. No. 1,029,710; June 18; Sp. p. 3576; Gaz. vol. 179; p. 631.

Amusement device. N. W. Allegretti. No. 1,029,904; June 18; Sp. p. 4015; Gaz. vol. 179; p. 698.

Anchor. T. B. Butters. No. 1,028,673; June 4; Sp. p. 1312; Gaz. vol. 179; p. 202.

Anesthetic-administering apparatus. E. I. McKesson. No. 1,028,582; June 4; Sp. p. 1130; Gaz. vol. 179; p. 172.

Anesthetizing apparatus, Rebreathing-bag for. E. I. McKesson. No. 1,028,583; June 4; Sp. p. 1135; Gaz. vol. 179; p. 172.

Angle bead, Inside-. W. A. Wittbecker. No. 1,030,044; June 18; Sp. p. 4310; Gaz. vol. 179; p. 745.

Animal-throwing device. C. B. Halstead. No. 1,028,352; June 4; Sp. p. 638; Gaz. vol. 179; p. 95.

Animal-trap. J. B. Cessna. No. 1,028,435; June 4; Sp. p. 816; Gaz. vol. 179; p. 123.

Animal-trap. R. P. Brown. No. 1,028,538; June 4; Sp. p. 1034; Gaz. vol. 179; p. 157.

Animal-trap. A. E. Swanson. No. 1,028,633; June 4; Sp. p. 1229; Gaz. vol. 179; p. 189.

Animal-trap. W. Scott. No. 1,029,087; June 11; Sp. p. 2219; Gaz. vol. 179; p. 379.

Animal-trap. C. M. Harrington. No. 1,029,992; June 18; Sp. p. 4189; Gaz. vol. 179; p. 726.

Annunciator and cabinet for barber-shops. I. J. Bradshaw. No. 1,028,856; June 11; Sp. p. 1700; Gaz. vol. 179; p. 298.

Anthracene derivatives and making same. A. Zitscher and E. J. Rath. No. 1,028,521; June 4; Sp. p. 1004; Gaz. vol. 179; p. 152.

Antiskid device. R. Himeno. No. 1,030,238; June 18; Sp. p. 4716; Gaz. vol. 179; p. 812.

Arc-counteracting means. R. E. Hellmund. No. 1,028,112; June 4; Sp. p. 39; Gaz. vol. 179; p. 10.

Arms, Automatic hook for artificial. Q. D. Corley. No. 1,029,794; June 18; Sp. p. 3746; Gaz. vol. 179; p. 660.

Arseno compound. P. Ehrlich and L. Benda. No. 1,028,101; June 4; Sp. p. 19; Gaz. vol. 179; p. 6.

Ash-can, Noiseless. A. M. H. De Bruycker. No. 1,028,672; June 4; Sp. p. 1311; Gaz. vol. 179; p. 202.

Atmospheric engine. A. R. and G. R. Weiss. No. 1,028,511; June 4; Sp. p. 985; Gaz. vol. 179; p. 149.

Autographic register. J. J. Sheehy. No. 1,030,616; June 25; Sp. p. 5732; Gaz. vol. 179; p. 987.

Automatic sprinkler and alarm. T. Williams and A. Lewis. No. 1,030,448; June 25; Sp. p. 5195; Gaz. vol. 179; p. 924.

Automatic switch. E. E. Clement. No. 1,029,590; June 18; Sp. p. 3289; Gaz. vol. 179; p. 586.

Automobile. W. E. Stanley. No. 1,028,975; June 11; Sp. p. 1967; Gaz. vol. 179; p. 340.

Automobile alarm-pump. W. H. Garlock. No. 1,029,490; June 11; Sp. p. 3096; Gaz. vol. 179; p. 519.

Automobile-engines, Means for preventing the freezing of water in the circulating systems of. H. S. Campbell. No. 1,028,808; June 4; Sp. p. 1588; Gaz. vol. 179; p. 248.

Automobile-heater. E. W. Dilks, D. Reyam, and E. E. Du Pont. No. 1,028,553; June 4; Sp. p. 1068; Gaz. vol. 179; p. 162.

Automobile-jack. C. A. Hart. No. 1,029,993; June 18; Sp. p. 4191; Gaz vol. 179; p. 727.
Automobile-jack. C. A. Hart. No. 1,030,728; June 25; Sp. p. 6025; Gaz. vol. 179; p. 1026.
Automobile robe-rail lock. V. L. De Dontney. No. 1,029,493; June 11; Sp. p. 3086; Gaz. vol. 179; p. 518.
Automobile sleigh attachment. B. P. Frazee. No. 1,028,819; June 4; Sp. p. 1613; Gaz. vol. 179; p. 251.
Automobile-starter. W. B. Speice. No. 1,028,624; June 4; Sp. p. 1214; Gaz. vol. 179; p. 186.
Automobile stay-strap. G. E. Robinson. No. 1,030,539; June 25; Sp. p. 5456; Gaz. vol. 179; p. 958.
Automobile-wheel. Pneumatic. O. C. Olney. No. 1,029,625; June 18; Sp. p. 3373; Gaz. vol. 179; p. 600.
Automobiles, Combined lifting-jack and brake mechanism for. A. Kertész. No. 1,029,301; June 11; Sp. p. 2664; Gaz. vol. 179; p. 451.
Automobiles, Grip-tread and mud-shoe for. C. V. Pugh. No. 1,028,490; June 4; Sp. p. 944; Gaz. vol. 179; p. 141.
Automobiles, Mechanism for preventing excessive speeds of. E. Favary. No. 1,029,181; June 11; Sp. p. 2405; Gaz. vol. 179; p. 410.
Automobiles, Pivot-lamp attachment for. A. G. Thomson. No. 1,030,352; June 25; Sp. p. 5001; Gaz. vol. 179; p. 891.
Automobiles, Self-starter for. F. G. S. Hewitt. No. 1,030,583; June 25; Sp. p. 5609; Gaz. vol. 179; p. 974.
Awning. W. M. Bonney. No. 1,028,321; June 4; Sp. p. 562; Gaz. vol. 179; p. 83.
Awning, Folding metallic. E. Sorenson. No. 1,030,493; June 25; Sp. p. 5313; Gaz. vol. 179; p. 941.
Awning structure. W. H. Meyst. No. 1,030,421; June 25; Sp. p. 5150; Gaz. vol. 179; p. 916.
Ax, Brush-. J. T. Reeves. No. 1,030,429; June 25; Sp. p. 5167; Gaz. vol. 179; p. 919.
Back-rest, Portable. J. A. Freeman. No. 1,030,511; June 25; Sp. p. 5372; Gaz. vol. 179; p. 548.
Bag: *See* Feed-bag; Fruit-picking bag; Paper bag.
Bag closure, Mothproof-. J. J. Scheuch. No. 1,028,970; June 11; Sp. p. 1956; Gaz. vol. 179; p. 338.
Bag-fastener. L. B. Prahar. No. 1,030,789; June 25; Sp. p. 6202; Gaz. vol. 179; p. 1048.
Bag-frame-handle fastening. F. A. Fuller. No. 1,028,203; June 4; Sp. p. 328; Gaz. vol. 179; p. 44.
Bag-house. A. J. Meier. No. 1,030,477; June 25; Sp. p. 5281; Gaz. vol. 179; p. 937.
Bag-support. A. P. Zimmerman. No. 1,028,520; June 4; Sp. p. 1003; Gaz. vol. 179; p. 152.
Bags, grips, valises, and the like, Attachment for. W. G. Williams. No. 1,028,168; June 4; Sp. p. 256; Gaz. vol. 179; p. 31.
Baggage-carrying attachment. W. J. Batchelor. No. 1,028,178; June 4; Sp. p. 278; Gaz. vol. 179; p. 35.
Bakeries or the like, Conveying and discharging device for use in. A. Lutze. No. 1,028,762; June 4; Sp. p. 1497; Gaz. vol. 179; p. 232.
Baking-pan. R. S. Woodworth. No. 1,029,483; June 11; Sp. p. 3071; Gaz. vol. 179; p. 515.
Balance-wheel. M. and W. Sporleder. No. 1,028,794; June 4; Sp. p. 1557; Gaz. vol. 179; p. 243.
Bale-tie machines, Tension appliance for. J. W. Miller. No. 1,029,078; June 11; Sp. p. 2179; Gaz. vol. 179; p. 375.
Baler, Paper-. C. Schick. No. 1,028,396; June 4; Sp. p. 733; Gaz. vol. 179; p. 110.
Baling-press. L. Trabue. No. 1,028,404; June 4; Sp. p. 740; Gaz. vol. 179; p. 113.
Baling-press. F. B. Cramer. No. 1,030,648; June 25; Sp. p. 5833; Gaz. vol. 179; p. 999.
Baling press, Hay-. T. E. Turner and O. J. Heath. No. 1,029,156; June 11; Sp. p. 2358; Gaz. vol. 179; p. 402.
Baling press, Hay-. W. P. Wilson. No. 1,029,780; June 18; Sp. p. 3715; Gaz. vol. 179; p. 654.
Baling-press, Self-tying. C. Gobell. No. 1,030,398; June 25; Sp. p. 5096; Gaz. vol. 179; p. 908.
Baling-presses, Measuring-wheel for. H. B. Sperry. No. 1,028,974; June 11; Sp. p. 1965; Gaz. vol. 179; p. 339.
Ball-returning device. F. H. Wood. No. 1,030,558; June 25; Sp. p. 5499; Gaz. vol. 179; p. 964.
Balling-furnace. M. Sellers and H. M. Nicholls. No. 1,029,234; June 11; Sp. p. 2520; Gaz. vol. 179; p. 428.
Balling scrap. M. Sellers and H. M. Nicholls. No. 1,029,235; June 11; Sp. p. 2527; Gaz. vol. 179; p. 428.
Band-cutter and feeder. A. Dodd. No. 1,030,057; June 18; Sp. p. 4346; Gaz. vol. 179; p. 750.
Bar: *See* Grate-bar; Push-bar.
Bar bending and twisting machine. F. R. Rogers. No. 1,029,946; June 18; Sp. p. 4101; Gaz. vol. 179; p. 712.
Bar-turning tool. J. C. Potter. No. 1,028,605; June 4; Sp. p. 1176; Gaz. vol. 179; p. 180.
Basket cover, Peach-. I. W. Peck. No. 1,030,123; June 18; Sp. p. 4465; Gaz. vol. 179; p. 772.
Basket-rack. W. H. Mussey. No. 1,029,621; June 18; Sp. p. 3366; Gaz. vol. 179; p. 599.
Bath: *See* Pickling-bath.
Battery: *See* Electric battery; Galvanic battery; Primary battery; Secondary battery.
Battery-element support. C. B. Schoenmehl. No. 1,028,613; June 4; Sp. p. 1195; Gaz. vol. 179; p. 182.
Bearing, Ball-. S. G. Wingquist. No. 1,028,844; June 4; Sp. p. 1666; Gaz. vol. 179; p. 260.
Bearing cage, Roller-. C. A. Heinzelman. No. 1,030,400; June 25; Sp. p. 5103; Gaz. vol. 179; p. 909.
Bearing for submerged shafts, Self-cleaning. W. L. Forward. No. 1,028,564; June 4; Sp. p. 1090; Gaz. vol. 179; p. 166.
Bearing, Roller-. E. Dederick. No. 1,029,797; June 18; Sp. p. 3755; Gaz. vol. 179; p. 661.
Bearing, Roller-. C. A. Heinzelman. No. 1,030,401; June 25; Sp. p. 5104; Gaz. vol. 179; p. 910.
Bearing, Shaft-. A. M. Mattice. No. 1,028,122; June 4; Sp. p. 60; Gaz. vol. 179; p. 14.
Bearing, Vehicle wheel-. G. W. Keneaster. No. 1,029,690; June 18; Sp. p. 3514; Gaz. vol. 179; p. 623.
Bearing washer, Ball-. J. N. Presley. No. 1,030,125; June 18; Sp. p. 4468; Gaz. vol. 179; p. 772.
Bed-bottom. J. Stott. No. 1,028,915; June 11; Sp. p. 1843; Gaz. vol. 179; p. 320.
Bed, Disappearing. E. R. Brainerd. No. 1,029,167; June 11; Sp. p. 2383; Gaz. vol. 179; p. 406.
Bed, Disappearing. W. L. Murphy. (Reissue.) No. 13,428; June 11; Sp. p. 3272; Gaz. vol. 179; p. 549.
Bed, Disappearing. W. L. Murphy. No. 1,030,201; June 18; Sp. p. 4643; Gaz. vol. 179; p. 798.
Bed, Folding. W. H. McCarry. No. 1,028,372; June 4; Sp. p. 678; Gaz. vol. 179; p. 102.
Bed of the davenport style, Sofa-. H. Chessler. No. 1,028,541; June 4; Sp. p. 1040; Gaz. vol. 179; p. 158.
Bed, Sofa-. H. J. Jacobs. No. 1,030,730; June 25; Sp. p. 6027; Gaz. vol. 179; p. 1026.
Bed, Sofa-. H. J. Jacobs. No. 1,030,731; June 25; Sp. p. 6030; Gaz. vol. 179; p. 1027.
Bed-spring cover. I. M. Jacobs. No. 1,029,370; June 11; Sp. p. 2836; Gaz. vol. 179; p. 477.
Beds, Locking device for. H. J. Montgomery. No. 1,030,008; June 18; Sp. p. 4220; Gaz. vol. 179; p. 731.
Bedstead. D. K. Hall. No. 1,028,716; June 4; Sp. p. 1395; Gaz. vol. 179; p. 216.
Bell. G. W. Goff. No. 1,029,286; June 11; Sp. p. 2630; Gaz. vol. 179; p. 446.
Belt. D. Franks. No. 1,028,346; June 4; Sp. p. 622; Gaz. vol. 179; p. 92.
Belt. T. Hershkowitz. No. 1,030,779; June 25; Sp. p. 6178; Gaz. vol. 179; p. 1045.
Belt, Power-transmission. J. E. Rhoads. No. 1,030,682; June 25; Sp. p. 5911; Gaz. vol. 179; p. 1010.
Belt-shifter. W. A. Reed. No. 1,028,966; June 11; Sp. p. 1949; Gaz. vol. 179; p. 336.
Belt-shifter. E. E. Blake and W. H. Goldsmith, Jr. No. 1,029,338; June 11; Sp. p. 2764; Gaz. vol. 179; p. 466.
Belt-shifter. W. Elkin. No. 1,029,495; June 11; Sp. p. 3094; Gaz. vol. 179; p. 519.
Bench: *See* Piano-bench; Washbench.
Bending-machine. J. E. Erickson. No. 1,028,102; June 4; Sp. p. 20; Gaz. vol. 179; p. 6.
Bevel-protractor. J. Brandl. No. 1,028,425; June 4; Sp. p. 796; Gaz. vol. 179; p. 120.
Beveling machine, Automatic box-board-. L. S. Fletcher. No. 1,030,295; June 25; Sp. p. 4859; Gaz. vol. 179; p. 870.
Beverages, Finishing or preparing. J. F. Wittemann. No. 1,029,838; June 18; Sp. p. 3863; Gaz. vol. 179; p. 676.
Bicycle attachment. B. L. Howell. No. 1,030,844; June 25; Sp. p. 6421; Gaz. vol. 179; p. 1069.
Billiard-cues, Means for securing tips to. L. Peloquin. No. 1,029,943; June 18; Sp. p. 4098; Gaz. vol. 179; p. 711.
Binder-frame. E. C. Moss. No. 1,030,675; June 25; Sp. p. 5897; Gaz. vol. 179; p. 1007.
Binder, Grain-. B. R. Benjamin. No. 1,029,741; June 18; Sp. p. 3640; Gaz. vol. 179; p. 641.
Binder or cementing material. J. M. Neil. No. 1,030,114; June 18; Sp. p. 4454; Gaz. vol. 179; p. 769.
Bins, Discharging device for. W. Butler. No. 1,029,273; June 11; Sp. p. 2597; Gaz. vol. 179; p. 442.
Bird-trap. S. W. Evans. No. 1,029,053; June 11; Sp. p. 2137; Gaz. vol. 179; p. 368.
Blacking and polishing machine, Shoe. J. A. Bean. No. 1,030,702; June 25; Sp. p. 5953; Gaz. vol. 179; p. 1017.
Blanket, Animal-. W. M. Lyman. No. 1,028,581; June 4; Sp. p. 1129; Gaz. vol. 179; p. 172.
Blanket-fastener. W. A. Schleicher. No. 1,028,138; June 4; Sp. p. 131; Gaz. vol. 179; p. 20.
Blind, Window-. L. H. Manning. No. 1,029,814; June 18; Sp. p. 3799; Gaz. vol. 179; p. 667.
Block: *See* Building-block.
Block-molding machine. A. McHench. No. 1,028,241; June 4; Sp. p. 401; Gaz. vol. 179; p. 56.
Blower attachment, Soot-. A. V. Bayer. No. 1,028,180; June 4; Sp. p. 282; Gaz. vol. 179; p. 35.
Blower divided impeller. T. W. Green. No. 1,030,083; June 18; Sp. p. 4397; Gaz. vol. 179; p. 759.
Blower for forges, Air-. J. T. McIntyre. No. 1,030,418; June 25; Sp. p. 5141; Gaz. vol. 179; p. 916.
Blower, Positive. W. W. Green. No. 1,029,186; June 11; Sp. p. 2419; Gaz. vol. 179; p. 412.
Blowpipe. B. L. Kissel. No. 1,028,363; June 4; Sp. p. 659; Gaz. vol. 179; p. 99.
Blowpipe. J. W. Whitford. No. 1,028,410; June 4; Sp. p. 764; Gaz. vol. 179; p. 115.
Blowpipe. W. Kirkwood. No. 1,029,691; June 18; Sp. p. 3516; Gaz. vol. 179; p. 624.
Blowpipe-system adjuster. P. C. Miller. No. 1,028,376; June 4; Sp. p. 684; Gaz. vol. 179; p. 104.
Board: *See* Follower-board; Ironing-board; Plaster-board.
Boat, Non-capsizing. J. H. Van Viersin. No. 1,028,644; June 4; Sp. p. 1252; Gaz. vol. 179; p. 193.
Boat, Torpedo-. H. Maxim. No. 1,028,473; June 4; Sp. p. 909; Gaz. vol. 179; p. 136.
Bobbin. A. Wormser. No. 1,030,219; June 18; Sp. p. 4677; Gaz. vol. 179; p. 804.

Bobbin-stripper. W. Walmsley. No. 1,028,408; June 4; Sp. p. 760; Gaz. vol. 179; p. 115.
Bobbins and loopers, Mechanism for supplying thread to. F. Baker. No. 1,029,835; June 11; Sp. p. 2757; Gaz. vol. 179; p. 465.
Boiler: *See* Steam-boiler; Washboiler; Water-tube sectional boiler.
Boiler-cleaner. A. V. Bayer and G. P. Brown. No. 1,028,179; June 4; Sp. p. 280; Gaz. vol. 179; p. 35.
Boiler for heating apparatus and hot-water supply, Combination-. H. B. and E. S. Donald. No. 1,028,555; June 4; Sp. p. 1072; Gaz. vol. 179; p. 163.
Boiler-grate. J. L. Newton. No. 1,028,902; June 11; Sp. p. 1815; Gaz. vol. 179; p. 316.
Boiler or fluid-heater, Steam-. I. Benjamins. No. 1,029,908; June 18; Sp. p. 4023; Gaz. vol. 179; p. 699.
Boiler regulator, Liquid-. A. Carpenter. No. 1,029,975; June 18; Sp. p. 4162; Gaz. vol. 179; p. 721.
Boiler-tube cleaners, Motor device for. F. H. Riehemann and H. Boehning. No. 1,028,136; June 4; Sp. p. 126; Gaz. vol. 179; p. 19.
Boilers, Electric heating system for. J. F. McElroy. No. 1,030,672; June 25; Sp. p. 5890; Gaz. vol. 179; p. 1007.
Bolster. J. M. Rohling. No. 1,029,086; June 11; Sp. p. 2216; Gaz. vol. 179; p. 379.
Bolt: *See* Stay-bolt.
Bolt. H. B. and C. L. Steinhouse. No. 1,028,795; June 4; Sp. p. 1560; Gaz. vol. 179; p. 244.
Bolts, rivets, and similar articles, Manufacturing. H. Müller. No. 1,029,395; June 11; Sp. p. 2903; Gaz. vol. 179; p. 485.
Book. P. S. H. Newell. No. 1,028,130; June 4; Sp. p. 81; Gaz. vol. 179; p. 17.
Book and pamphlet making machine. C. Gitzendanner. No. 1,028,708; June 4; Sp. p. 1371; Gaz. vol. 179; p. 213.
Book-holder. I. M. Clark. No. 1,029,668; June 18; Sp. p. 3460; Gaz. vol. 179; p. 614.
Book, Loose-leaf. F. E. Housh. No. 1,029,369; June 11; Sp. p. 2835; Gaz. vol. 179; p. 476.
Book, Mechanical account-. W. G. Hopkins. No. 1,028,465; June 4; Sp. p. 885; Gaz. vol. 179; p. 133.
Book, Picture-. F. U. Wagner. No. 1,028,921; June 11; Sp. p. 1860; Gaz. vol. 179; p. 322.
Book-stack, Metallic. E. L. Krag. No. 1,030,472; June 25; Sp. p. 5271; Gaz. vol. 179; p. 935.
Boot and shoe stamping machine. W. Gordon and L. E. Topham. No. 1,028,567; June 4; Sp. p. 1093; Gaz. vol. 179; p. 166.
Boots and shoes, Beating-machine for finishing. F. L. Alley. No. 1,030,374; June 25; Sp. p. 5044; Gaz. vol. 179; p. 900.
Boots and shoes, Machine for operating on. L. J. Bazgoni. No. 1,029,842; June 18; Sp. p. 3877; Gaz. vol. 179; p. 676.
Boots and shoes, Machine for operating upon. E. E. Winkley. No. 1,030,627; June 25; Sp. p. 5770; Gaz. vol. 179; p. 991.
Boots and shoes, Machine for the manufacture of. O. Ashton. No. 1,030,762; June 25; Sp. p. 6110; Gaz. vol. 179; p. 1038.
Boring-brace. D. Redmon. No. 1,029,028; June 11; Sp. p. 2088; Gaz. vol. 179; p. 360.
Boring machine, Cylinder-. H. A. Pedrick. No. 1,028,600; June 4; Sp. p. 1167; Gaz. vol. 179; p. 178.
Boring-tool. M. R. Rodrigues. No. 1,029,824; June 18; Sp. p. 3825; Gaz. vol. 179; p. 670.
Bottle-capping machine. R. V. Craggs. No. 1,030,164; June 18; Sp. p. 4543; Gaz. vol. 179; p. 785.
Bottle-casing, Heat-insulating. P. R. Schuyler. No. 1,029,827; June 18; Sp. p. 3830; Gaz. vol. 179; p. 671.
Bottle-delivering mechanism. G. H. Hillyer. No. 1,030,180; June 18; Sp. p. 4575; Gaz. vol. 179; p. 791.
Bottle holder for baby-carriages, Nursing-. E. Neumann. No. 1,030,744; June 25; Sp. p. 6060; Gaz. vol. 179; p. 1032.
Bottle holder, Milk-. E. R. Bennett. No. 1,029,414; June 11; Sp. p. 2941; Gaz. vol. 179; p. 491.
Bottle holder, Milk-. J. Herber and F. Slater. No. 1,030,402; June 25; Sp. p. 5105; Gaz. vol. 179; p. 910.
Bottle-indicator. J. M. White. No. 1,030,696; June 25; Sp. p. 5940; Gaz. vol. 179; p. 1015.
Bottle-inspecting apparatus. H. G. Muench. No. 1,030,422; June 25; Sp. p. 5152; Gaz. vol. 179; p. 917.
Bottle, Non-refillable. A. Dryfoos. No. 1,029,348; June 11; Sp. p. 2782; Gaz. vol. 179; p. 469.
Bottle, Non-refillable. J. Lalli. No. 1,029,809; June 18; Sp. p. 3777; Gaz. vol. 179; p. 664.
Bottle, Non-refillable. L. Schaffert. No. 1,029,826; June 18; Sp. p. 3828; Gaz. vol. 179; p. 671.
Bottle, Non-refillable. B. H. and Z. J. Foley. No. 1,029,985; June 18; Sp. p. 4179; Gaz. vol. 179; p. 724.
Bottle, Non-refillable. W. E. Giroud. No. 1,030,074; June 18; Sp. p. 4377; Gaz. vol. 179; p. 755.
Bottle-opener. H. L. Vaughan. No. 1,029,645; June 18; Sp. p. 3407; Gaz. vol. 179; p. 607.
Bottle or jar closure. C. Hammer. No. 1,028,716; June 4; Sp. p. 1398; Gaz. vol. 179; p. 217.
Bottle rinsing and sterilizing apparatus. A. G. Steer. No. 1,030,139; June 18; Sp. p. 4498; Gaz. vol. 179; p. 776.
Bottle, Single-use. B. Erdale. No. 1,028,696; June 4; Sp. p. 1346; Gaz. vol. 179; p. 210.
Bottle-stopper. F. Russell. No. 1,028,907; June 11; Sp. p. 1825; Gaz. vol. 179; p. 317.
Bottle-stopper. A. H. Tyson. No. 1,029,246; June 11; Sp. p. 2563; Gaz. vol. 179; p. 432.
Bottle-stopper. A. J. Slaughter. No. 1,029,473; June 11; Sp. p. 3055; Gaz. vol. 179; p. 512.
Bottle-stopper cap. G. Moriz and G. P. Barschall. No. 1,028,769; June 4; Sp. p. 1508; Gaz. vol. 179; p. 235.
Bow for archery, Metallic. E. S. Roe. No. 1,029,716; June 18; Sp. p. 3587; Gaz. vol. 179; p. 633.
Bowling-alley pin. E. H. Sawyer, Jr. No. 1,030,834; June 25; Sp. p. 6392; Gaz. vol. 179; p. 1065.
Box: *See* Cash-box; Cigarette-box; Core-box; Display-box; File-box; Fire-box; Mail-box; Match-box; Miter-box; Outlet-box; Paper box; Powder-box; Sheet-metal box; Signal-box; Stuffing-box; Toy handkerchief-box.
Box. W. S. Adler. No. 1,030,758; June 25; Sp. p. 6098; Gaz. vol. 179; p. 1037.
Box-binding machine. E. Ponkow. No. 1,029,509; June 11; Sp. p. 3121; Gaz. vol. 179; p. 523.
Box-cover fastener. O. Sunde and O. Ryan. No. 1,029,092; June 11; Sp. p. 2229; Gaz. vol. 179; p. 381.
Box-covering machine. J. Alger. No. 1,028,421; June 4; Sp. p. 784; Gaz. vol. 179; p. 119.
Box-covering machine. J. Alger. No. 1,028,422; June 4; Sp. p. 788; Gaz. vol. 179; p. 119.
Box-gluing apparatus. G. R. Fosdick. No. 1,030,254; June 18; Sp. p. 4743; Gaz. vol. 179; p. 817.
Boxes and the like, Means for supporting the lids of. A. S. King. No. 1,030,188; June 18; Sp. p. 4608; Gaz. vol. 179; p. 794.
Brace: *See* Boring-brace; Fence-post-brace; Rail-brace.
Bracelet, Flexible and expansible. K. Rotherham. No. 1,028,788; June 4; Sp. p. 1546; Gaz. vol. 179; p. 241.
Bracket: *See* Adjustable bracket; Shade-bracket; Shelf and other like bracket; Shingle-bracket.
Bracket. V. and V. E. Royle. No. 1,029,228; June 11; Sp. p. 2509; Gaz. vol. 179; p. 426.
Bracket. W. Peplowski. No. 1,030,205; June 18; Sp. p. 4651; Gaz. vol. 179; p. 799.
Bracket and case. C. B. Corbin. No. 1,028,811; June 4; Sp. p. 1593; Gaz. vol. 179; p. 249.
Brake: *See* Air-brake; Cornice-brake; Safety-brake; Train-brake; Vehicle automatic brake.
Brake-beam. H. Ziemss, Jr. No. 1,030,757; June 25; Sp. p. 6096; Gaz. vol. 179; p. 1037.
Brake-beam support. W. G. Price. No. 1,028,386; June 4; Sp. p. 699; Gaz. vol. 179; p. 106.
Brake-beam suspension. N. H. Davis. No. 1,028,443; June 4; Sp. p. 846; Gaz. vol. 179; p. 126.
Brake mechanism, Motor-operated. S. F. Nichols. No. 1,029,883; June 18; Sp. p. 3972; Gaz. vol. 179; p. 691.
Brake-rigging-adjusting apparatus. L. E. Oliver and A. Cureton. No. 1,028,264; June 4; Sp. p. 441; Gaz. vol. 179; p. 64.
Brake-shoe adjuster. J. S. Ashworth. No. 1,030,150; June 18; Sp. p. 4519; Gaz. vol. 179; p. 781.
Brake-shoe, Composite-face. F. Sargent. No. 1,030,491; June 25; Sp. p. 5311; Gaz. vol. 179; p. 941.
Brake system. L. Sutherland. No. 1,028,301; June 4; Sp. p. 516; Gaz. vol. 179; p. 76.
Bread and sandwiches, Machine for cutting slices of buttered. S. A. Gagé. No. 1,029,357; June 11; Sp. p. 2797; Gaz. vol. 179; p. 472.
Brick-handling method and stack. W. H. Francis. No. 1,030,397; June 25; Sp. p. 5094; Gaz. vol. 179; p. 908.
Brine, Treatment of. G. W. Malcolm and F. T. Munton. No. 1,030,103; June 18; Sp. p. 4436; Gaz. vol. 179; p. 766.
Broaching-machine. R. R. Lapointe. No. 1,028,825; June 4; Sp. p. 1623; Gaz. vol. 179; p. 253.
Broaching mechanism. R. R. Lapointe. No. 1,028,824; June 4; Sp. p. 1621; Gaz. vol. 179; p. 253.
Brooder. A. E. Ford. No. 1,029,537; June 11; Sp. p. 3173; Gaz. vol. 179; p. 532.
Broom. G. C. Bemis. No. 1,028,182; June 4; Sp. p. 286; Gaz. vol. 179; p. 36.
Broom-bridle. J. A. Brown. No. 1,029,046; June 11; Sp. p. 2128; Gaz. vol. 179; p. 366.
Brush. G. W. Copeland. No. 1,028,547; June 4; Sp. p. 1049; Gaz. vol. 179; p. 160.
Brush. V. M. Le Mieux. No. 1,029,070; June 11; Sp. p. 2170; Gaz. vol. 179; p. 373.
Brush. H. B. Smith. No. 1,030,137; June 18; Sp. p. 4495; Gaz. vol. 179; p. 776.
Brush case, Tooth-. A. H. Flood. No. 1,029,536; June 11; Sp. p. 3172; Gaz. vol. 179; p. 532.
Brush, Fountain-. W. C. Cutler. No. 1,029,173; June 11; Sp. p. 2392; Gaz. vol. 179; p. 408.
Brush, Fountain-. E. Buschman. No. 1,030,383; June 25; Sp. p. 5064; Gaz. vol. 179; p. 903.
Brush-holder. C. T. Crocker. No. 1,030,571; June 25; Sp. p. 5555; Gaz. vol. 179; p. 969.
Brush, Nail-. R. M. Heath. No. 1,028,211; June 4; Sp. p. 341; Gaz. vol. 179; p. 47.
Brush, Polishing-. G. Metsger. No. 1,029,077; June 11; Sp. p. 2178; Gaz. vol. 179; p. 375.
Brush, Soap-feeding shaving. R. B. Waterman. No. 1,030,440; June 25; Sp. p. 5190; Gaz. vol. 179; p. 923.
Bubble-blower. F. H. Cordtmeyer. No. 1,028,994; June 11; Sp. p. 2021; Gaz. vol. 179; p. 347.
Buckle. W. Utech. No. 1,029,834; June 18; Sp. p. 3839; Gaz. vol. 179; p. 674.
Buckle. L. W. Wright. No. 1,030,632; June 25; Sp. p. 5794; Gaz. vol. 179; p. 993.
Buckle, Rope-. E. L. Wallace. No. 1,029,648; June 18; Sp. p. 3411; Gaz. vol. 179; p. 607.
Buffing-roll. W. H. Staynes. No. 1,029,406; June 11; Sp. p. 2923; Gaz. vol. 179; p. 489.

Building-block. F. W. Dunn. No. 1,028,814; June 4; Sp. p. 1508; Gaz. vol. 179; p. 250.
Building-block. F. Burchartz. No. 1,029,530; June 11; Sp. p. 3158; Gaz. vol. 179; p. 530.
Bung. G. Stroh. No. 1,028,148; June 4; Sp. p. 151; Gaz. vol. 179; p. 23.
Bunk or body-bolster. J. M. Rohlfing. No. 1,029,145; June 11; Sp. p. 2335; Gaz. vol. 179; p. 398.
Burglar-alarm. O. L. Davis. No. 1,029,281; June 11; Sp. p. 2622; Gaz. vol. 179; p. 445.
Burglar-alarm. W. G. Spiegel. No. 1,030,138; June 18; Sp. p. 4497; Gaz. vol. 179; p. 776.
Burglar-alarm. G. H. Lucier. No. 1,030,196; June 18; Sp. p. 4626; Gaz. vol. 179; p. 796.
Burglar-alarm. J. A. Carlson. No. 1,030,461; June 25; Sp. p. 5233; Gaz. vol. 179; p. 931.
Burglar-alarm, Automatic. W. W. Erwin. No. 1,030,067; June 18; Sp. p. 4364; Gaz. vol. 179; p. 753.
Burial apparatus. T. Keith. No. 1,028,735; June 4; Sp. p. 1436; Gaz. vol. 179; p. 223.
Burner: *See* Gas-burner; Hydrocarbon-burner; Lamp-burner; Oil-burner; Vapor-burner.
Burner. T. F. Kent. No. 1,030,824; June 25; Sp. p. 6361; Gaz. vol. 179; p. 1062.
Burner and blowpipe, Combination. A. H. Schilke. No. 1,029,031; June 11; Sp. p. 2092; Gaz. vol. 179; p. 360.
Burnishing-tool. Z. Beaudry. No. 1,030,049; June 18; Sp. p. 4327; Gaz. vol. 179; p. 747.
Bus-bar-connecting device. F. B. Adam. No. 1,030,798; June 25; Sp. p. 6225; Gaz. vol. 179; p. 1052.
Bushing, Outlet-. F. W. Erickson. No. 1,030,293; June 25; Sp. p. 4857; Gaz. vol. 179; p. 869.
Butter, Making composition. R. D. Winship and P. E. Smith. No. 1,028,804; June 4; Sp. p. 1581; Gaz. vol. 179; p. 247.
Butter-separator, Aerating. A. Fay. No. 1,028,869; June 11; Sp. p. 1734; Gaz. vol. 179; p. 303.
Button, Cuff-. J. Rosenman. No. 1,030,541; June 25; Sp. p. 5458; Gaz. vol. 179; p. 959.
Button, Illuminated vest or coat. E. S. Lagarde and P. A. Angenend, Jr. No. 1,030,516; June 25; Sp. p. 5396; Gaz. vol. 179; p. 950.
Button-machine. H. J. Skipp. No. 1,029,238; June 11; Sp. p. 2535; Gaz. vol. 179; p. 430.
Buttonhole-marking machine. P. K. Williams and J. F. La Borde. No. 1,029,735; June 18; Sp. p. 3629; Gaz. vol. 179; p. 639.
Cabinet. I. H. Miller. No. 1,030,111; June 18; Sp. p. 4449; Gaz. vol. 179; p. 769.
Cabinet, Collapsible. F. F. Burdick. No. 1,028,326; June 4; Sp. p. 570; Gaz. vol. 179; p. 85.
Cabinet, Folding. J. H. Tallman. No. 1,030,033; June 18; Sp. p. 4276; Gaz. vol. 179; p. 741.
Cabinet for holding manifolding devices. C. W. Byham. No. 1,029,576; June 11; Sp. p. 3257; Gaz. vol. 179; p. 547.
Cabinet, Grocer's. V. Norrlander. No. 1,029,709; June 18; Sp. p. 3575; Gaz. vol. 179; p. 631.
Cabinet, Grocery-. W. F. and T. H. Farley. No. 1,030,172; June 18; Sp. p. 4561; Gaz. vol. 179; p. 788.
Cabinet, Laundry-. J. B. Brochu. No. 1,029,585; June 18; Sp. p. 3280; Gaz. vol. 179; p. 584.
Cabinet or shelving, Knockdown extensible. R. H. Browne. No. 1,030,279; June 25; Sp. p. 4832; Gaz. vol. 179; p. 864.
Cabinet, Record-holding. A. Baecker. No. 1,030,376; June 25; Sp. p. 5048; Gaz. vol. 179; p. 900.
Cabinet, Ticket and label. C. W. De Laney. No. 1,029,346; June 11; Sp. p. 2780; Gaz. vol. 179; p. 468.
Cable-carrier-locking device. H. T. Fernald. No. 1,028,699; June 4; Sp. p. 1350; Gaz. vol. 179; p. 210.
Cables, Manufacturing. C. A. Parsons, J. H. Greaves, and A. R. Hemsted. No. 1,030,426; June 25; Sp. p. 5157; Gaz. vol. 179; p. 918.
Cableway, Marine. T. S. Miller. No. 1,028,897; June 11; Sp. p. 1801; Gaz. vol. 179; p. 314.
Cake-turner. E. M. Harper. No. 1,029,060; June 11; Sp. p. 2149; Gaz. vol. 179; p. 370.
Calculating-machine. H. C. Peters. No. 1,028,133; June 4; Sp. p. 90; Gaz. vol. 179; p. 18.
Calculating-machine. R. Rein. No. 1,028,135; June 4; Sp. p. 121; Gaz. vol. 179; p. 18.
Calculating-machine. D. E. Felt. No. 1,028,344; June 4; Sp. p. 309; Gaz. vol. 179; p. 92.
Calculating-machine. H. E. Goldberg. No. 1,029,678; June 18; Sp. p. 3490; Gaz. vol. 179; p. 618.
Calculating-machine. J. T. Howleson. No. 1,030,470; June 25; Sp. p. 5247; Gaz. vol. 179; p. 934.
Calculating-machines, Motor-key lock for. O. Thieme. No. 1,029,957; June 18; Sp. p. 4129; Gaz. vol. 179; p. 715.
Calendar, Perpetual. J. J. O'Brien. No. 1,029,455; June 11; Sp. p. 3020; Gaz. vol. 179; p. 505.
Camera-backs, Securing device for. A. A. Ruttan and C. E. Hutchings. No. 1,030,433; June 25; Sp. p. 5177; Gaz. vol. 179; p. 921.
Camera indicating and swivel support. E. J. Williams. No. 1,028,167; June 4; Sp. p. 254; Gaz. vol. 179; p. 31.
Camera, Photographic. C. Bornmann. No. 1,029,268; June 11; Sp. p. 2589; Gaz. vol. 179; p. 440.
Camera, Photographic. C. Bornmann. No. 1,029,269; June 11; Sp. p. 2591; Gaz. vol. 179; p. 440.
Camera, Photographic. C. Bornmann. No. 1,029,270; June 11; Sp. p. 2592; Gaz. vol. 179; p. 441.
Camera pin-journal, Photographic-. C. Bornmann. No. 1,029,267; June 11; Sp. p. 2587; Gaz. vol. 179; p. 440.
Camera winding-key, Photographic-. C. Bornmann. No. 1,029,266; June 11; Sp. p. 2586; Gaz. vol. 179; p. 440.
Camphene, Manufacturing. J. Schmitz and G. Stalmann. No. 1,030,334; June 25; Sp. p. 4966; Gaz. vol. 179; p. 885.
Can: *See* Ash-can; Friction-top can; Milk-can; Oil-can; Sardine-can; Sheet-metal can; Sugar-can.
Can. C. H. Campbell. No. 1,029,665; June 18; Sp. p. 3454; Gaz. vol. 179; p. 613.
Can-capping machine and feeding device thereto adapted. B. E. Taylor. No. 1,029,326; June 11; Sp. p. 2726; Gaz. vol. 179; p. 461.
Can-cover. A. H. Landwehr. No. 1,029,617; June 18; Sp. p. 3360; Gaz. vol. 179; p. 597.
Can cover, Sardine-. G. W. Weber. No. 1,030,359; June 25; Sp. p. 5016; Gaz. vol. 179; p. 894.
Can-filling machine. J. P. Haight. No. 1,029,681; June 18; Sp. p. 3495; Gaz. vol. 179; p. 619.
Can-lock. C. H. Campbell. No. 1,029,666; June 18; Sp. p. 3456; Gaz. vol. 179; p. 614.
Can-manipulating machine. B. Hausheer. No. 1,030,300; June 25; Sp. p. 4869; Gaz. vol. 179; p. 871.
Can opener and stopper. R. Hulme. No. 1,029,686; June 18; Sp. p. 3506; Gaz. vol. 179; p. 621.
Can with self-closing lid. L. Schott. No. 1,028,499; June 4; Sp. p. 962; Gaz. vol. 179; p. 145.
Canal-feeder. R. L. Martin. No. 1,029,505; June 11; Sp. p. 3115; Gaz. vol. 179; p. 522.
Canal-lock gates, Device or appliance for the protection of. N. W. Gowan. No. 1,030,580; June 25; Sp. p. 5602; Gaz. vol. 179; p. 973.
Cane-cutter. E. E. Paxton. No. 1,028,486; June 4; Sp. p. 938; Gaz. vol. 179; p. 140.
Cant-hook. J. H. Ritter. No. 1,029,892; June 18; Sp. p. 3984; Gaz. vol. 179; p. 693.
Cap, Bathing-. T. W. Miller. No. 1,028,826; June 4; Sp. p. 1628; Gaz. vol. 179; p. 254.
Car. W. H. Yost. No. 1,028,925; June 11; Sp. p. 1871; Gaz. vol. 179; p. 323.
Car. M. Epstein. No. 1,029,919; June 18; Sp. p. 4053; Gaz. vol. 179; p. 703.
Car automatic coupling, Mine-. D. H. Taylor. No. 1,028,634; June 4; Sp. p. 1230; Gaz. vol. 179; p. 189.
Car bolster, Railway-. E. D. Hillman. No. 1,029,291; June 11; Sp. p. 2638; Gaz. vol. 179; p. 448.
Car-bolt appliance. J. H. McManaman and E. Greiner. No. 1,030,476; June 25; Sp. p. 5279; Gaz. vol. 179; p. 936.
Car buffer, Railway-. M. Simon. No. 1,029,088; June 11; Sp. p. 2221; Gaz. vol. 179; p. 379.
Car-coupling. M. and J. Blaettnar. No. 1,028,531; June 4; Sp. p. 1025; Gaz. vol. 179; p. 156.
Car-door. J. F. Conner. No. 1,030,719; June 25; Sp. p. 6001; Gaz. vol. 179; p. 1023.
Car-door hasp-fastener. E. Posson. No. 1,028,273; June 4; Sp. p. 459; Gaz. vol. 179; p. 67.
Car-door-operating mechanism. W. H. Yost. No. 1,028,415; June 4; Sp. p. 773; Gaz. vol. 179; p. 117.
Car-draft-sill construction. W. R. McKeen, Jr. No. 1,028,760; June 4; Sp. p. 1494; Gaz. vol. 179; p. 232.
Car, Dump-. F. S. Ingoldsby. No. 1,028,116; June 4; Sp. p. 44; Gaz. vol. 179; p. 11.
Car, Dump-. F. S. Ingoldsby. No. 1,028,882; June 11; Sp. p. 1760; Gaz. vol. 179; p. 308.
Car, Dump-. F. L. Irwin. No. 1,028,941; June 11; Sp. p. 1899; Gaz. vol. 179; p. 328.
Car, Dump-. F. W. Hubbard. No. 1,029,194; June 11; Sp. p. 2431; Gaz. vol. 179; p. 414.
Car-fender. W. E. Crews. No. 1,029,976; June 18; Sp. p. 4164; Gaz. vol. 179; p. 721.
Car floor-support and bolster, Hopper-. A. Becker. No. 1,029,525; June 11; Sp. p. 3149; Gaz. vol. 179; p. 528.
Car platform-buffer, Railway-passenger-. T. L. McKeen. No. 1,029,938; June 18; Sp. p. 4088; Gaz. vol. 179; p. 709.
Car, Railway dump-. C. W. Russell. No. 1,028,283; June 4; Sp. p. 479; Gaz. vol. 179; p. 70.
Car, Rapid-transit. J. B. Barnett. No. 1,030,274; June 25; Sp. p. 4812; Gaz. vol. 179; p. 862.
Car-replacer. W. H. Morris, A. Grunelsen, and F. Hoppe. No. 1,029,394; June 11; Sp. p. 2901; Gaz. vol. 179; p. 484.
Car-roof. W. P. Murphy. No. 1,030,599; June 25; Sp. p. 5656; Gaz. vol. 179; p. 980.
Car-roof. W. P. Murphy. No. 1,030,600; June 25; Sp. p. 5658; Gaz. vol. 179; p. 980.
Car-roof. W. P. Murphy. No. 1,030,601; June 25; Sp. p. 5660; Gaz. vol. 179; p. 981.
Car-roof. W. P. Murphy. No. 1,030,602; June 25; Sp. p. 5664; Gaz. vol. 179; p. 981.
Car-roof, Metal. W. P. Murphy. No. 1,030,603; June 25; Sp. p. 5667; Gaz. vol. 179; p. 982.
Car-stake holder. C. E. Baldwin. No. 1,028,836; June 4; Sp. p. 1649; Gaz. vol. 179; p. 257.
Car-step, Folding. G. Kapp and B. S. Hyatt. No. 1,030,409; June 25; Sp. p. 5115; Gaz. vol. 179; p. 912.
Car structure. V. M. Summa. No. 1,029,091; June 11; Sp. p. 2226; Gaz. vol. 179; p. 380.
Car, Tank-. A. Becker. No. 1,028,181; June 4; Sp. p. 285; Gaz. vol. 179; p. 36.
Car-underframe. R. E. Frame. No. 1,029,115; June 11; Sp. p. 2272; Gaz. vol. 179; p. 388.

Car-underframe. C. T. Westlake and C. F. Frede. No. 1,030,360; June 25; Sp. p. 5017; Gaz. vol. 179; p. 895.
Car-underframe. C. T. Westlake and C. F. Frede. No. 1,030,755; June 25; Sp. p. 6003; Gaz. vol. 179; p. 1036.
Car-unloading device. R. H. Moore. No. 1,028,768; June 4; Sp. p. 1506; Gaz. vol. 179; p. 234.
Car-wheels and similar metal articles, Apparatus for finishing. E. E. Slick. No. 1,029,642; June 18; Sp. p. 3403; Gaz. vol. 179; p. 606.
Cars, &c., Door mechanism for hopper-. J. Pearson. No. 1,030,204; June 18; Sp. p. 4648; Gaz. vol. 179; p. 799.
Cars, Pneumatic cut-off for dump-. J. M. Wilcox. No. 1,029,247; June 11; Sp. p. 2553; Gaz. vol. 179; p. 432.
Carbon articles, Treating. E. C. Sprague and A. M. Williamson. No. 1,030,620; June 25; Sp. p. 5745; Gaz. vol. 179; p. 989.
Carbonating and dispensing apparatus, Liquid. G. L. Kennedy. No. 1,029,196; June 11; Sp. p. 2434; Gaz. vol. 179; p. 415.
Carbonating apparatus. A. L. Koenig. No. 1,028,365; June 4; Sp. p. 663; Gaz. vol. 179; p. 100.
Carbonator. A. E. Shattuck. No. 1,029,236; June 11; Sp. p. 2532; Gaz. vol. 179; p. 429.
Carbonator. F. M. Thomas. No. 1,030,851; June 25; Sp. p. 6441; Gaz. vol. 179; p. 1073.
Carbosilicon. H. N. Potter. No. 1,030,327; June 25; Sp. p. 4948; Gaz. vol. 179; p. 882.
Carbureter. H. and C. Hezinger. No. 1,028,723; June 4; Sp. p. 1405; Gaz. vol. 179; p. 219.
Carbureter. A. C. Stewart. No. 1,029,897; June 18; Sp. p. 3995; Gaz. vol. 179; p. 695.
Carbureter. N. C. Stamps. No. 1,030,343; June 25; Sp. p. 4981; Gaz. vol. 179; p. 888.
Carbureter-adjusting device. H. S. Echternach. No. 1,029,111; June 11; Sp. p. 2263; Gaz. vol. 179; p. 387.
Carbureter for internal-combustion motors. W. Grinewzki. No. 1,028,713; June 4; Sp. p. 1384; Gaz. vol. 179; p. 215.
Carbureters, Auxiliary air device for. A. C. Stewart. No. 1,029,898; June 18; Sp. p. 3999; Gaz. vol. 179; p. 696.
Carbureters, Throttle for. A. C. Stewart. No. 1,029,899; June 18; Sp. p. 4000; Gaz. vol. 179; p. 696.
Carbureters, Valve mechanism for. W. S. Guthrie. No. 1,029,606; June 18; Sp. p. 3331; Gaz. vol. 179; p. 593.
Carbureting apparatus for explosive-engines. M. Beck. No. 1,029,740; June 18; Sp. p. 3638; Gaz. vol. 179; p. 641.
Carcass-splitting device. A. Karhan. No. 1,028,468; June 4; Sp. p. 892; Gaz. vol. 179; p. 134.
Card, Record-. E. S. Maddock and J. M. Cobb. No. 1,029,702; June 18; Sp. p. 3560; Gaz. vol. 179; p. 628.
Cards, Machine or appliance for dealing playing-. J. E. Schmidt. No. 1,028,286; June 4; Sp. p. 489; Gaz. vol. 179; p. 71.
Carline. W. Miller. No. 1,029,570; June 11; Sp. p. 3249; Gaz. vol. 179; p. 545.
Carrier: *See* Aerial carrier; Coin and bill carrier; Egg-carrier; Ensilage-carrier; Feed and litter carrier; Gravity-carrier; Mail-carrier; Package-carrier; Tool-carrier; Wing-carrier.
Carrier. A. Keller. No. 1,028,469; June 4; Sp. p. 895; Gaz. vol. 179; p. 135.
Cart, Can-. P. E. Boyum. No. 1,029,045; June 11; Sp. p. 2126; Gaz. vol. 179; p. 366
Cart, Hand-. S. B. Hazard. No. 1,029,365; June 11; Sp. p. 2818; Gaz. vol. 179; p. 475.
Carton-coating machine. G. W. Beadle. No. 1,030,636; June 25; Sp. p. 5803; Gaz. vol. 179; p. 995.
Case: *See* Brush-case; Egg-case; Fuse-case; Revolving case; Separating-case; Watchcase.
Cash-box, Portable. J. Pallweber. No. 1,030,265; June 18; Sp. p. 4783; Gaz. vol. 179; p. 821.
Cash-register. R. Treber. No. 1,030,495; June 25; Sp. p. 5320; Gaz. vol. 179; p. 942.
Casket-handle. E. R. Sargent. No. 1,030,434; June 25; Sp. p. 5177; Gaz. vol. 179; p. 921.
Caster. W. J. McIntyre. No. 1,029,705; June 18; Sp. p. 3567; Gaz. vol. 179; p. 630.
Caster, Furniture-. C. F. Laun. No. 1,029,136; June 11; Sp. p. 2318; Gaz. vol. 179; p. 395.
Casters, Centering and retaining member for. N. S. Covey. No. 1,029,795; June 18; Sp. p. 3749; Gaz. vol. 179; p. 660.
Casting apparatus. G. F. McKee and W. F. Schilling. No. 1,030,198; June 18; Sp. p. 4638; Gaz. vol. 179; p. 997.
Casting apparatus, Pneumatic. S. P., Jr., and J. P. Wetherill, Jr. No. 1,029,565; June 11; Sp. p. 3240; Gaz. vol. 179; p. 543.
Casting curved printing-plates and the like, Method of and apparatus for. E. W. Cooper. No. 1,028,330; June 4; Sp. p. 576; Gaz. vol. 179; p. 86.
Casting of metal bodies, Flask for the. E. Pipher. No. 1,028,603; June 4; Sp. p. 1172; Gaz. vol. 179; p. 179.
Castings, Pouring-gate for. A. Erlandson. No. 1,030,066; June 18; Sp. p. 4362; Gaz. vol. 179; p. 752.
Casualty-indicator. A. M. Mitchell. No. 1,029,550; June 11; Sp. p. 3210; Gaz. vol. 179; p. 538.
Catalogue. C. F. Beesley, Jr. No. 1,029,526; June 11; Sp. p. 3151; Gaz. vol. 179; p. 528.
Catalysts, Manufacturing. M. Wilbuschewitsch. No. 1,029,901; June 18; Sp. p. 4010; Gaz. vol. 179; p. 697.
Cattle-guard. E. C. Feaster. No. 1,028,457; June 4; Sp. p. 871; Gaz. vol. 179; p. 131.
Cattle-guard. J. W. Cooper. No. 1,029,854; June 18; Sp. p. 3908; Gaz. vol. 179; p. 680.
Cellulose or solutions of the same into stable plastic solutions, Transforming formyl esters of. E. Bronnert. No. 1,029,341; June 11; Sp. p. 2771; Gaz. vol. 179; p. 467.
Cellulose products, Producing. E. Bronnert and M. Fremery. No. 1,030,251; June 18; Sp. p. 4739; Gaz. vol. 179; p. 816.
Cellulosic materials, Acetylation of. J. Koetschet and M. Theumann. No. 1,030,311; June 25; Sp. p. 4911; Gaz. vol. 179; p. 877.
Cement and making it, Waterproof Portland. M. Toch. No. 1,028,643; June 18; Sp. p. 3405; Gaz. vol. 179; p. 606.
Cement block and brick machine. W. I. Kennedy. No. 1,030,084; June 18; Sp. p. 4420; Gaz. vol. 179; p. 763.
Cementing apparatus. J. W. Barna. No. 1,030,377; June 25; Sp. p. 5050; Gaz. vol. 179; p. 901.
Cementing-machine. A. Bates and W. T. B. Roberts. No. 1,030,273; June 25; Sp. p. 4807; Gaz. vol. 179; p. 862.
Cementing-machine. F. H. Warren. No. 1,030,623; June 25; Sp. p. 5758; Gaz. vol. 179; p. 990.
Cementing-machine. C. E. Howe. No. 1,030,659; June 25; Sp. p. 5863; Gaz. vol. 179; p. 1003.
Cementing-machine. M. F. Brogan. No. 1,030,769; June 25; Sp. p. 6129; Gaz. vol. 179; p. 1041.
Cementitious material. H. S. Spackman and E. W. Lazell. No. 1,029,953; June 18; Sp. p. 4112; Gaz. vol. 179; p. 714.
Cementitious material. H. S. Spackman and E. W. Lazell. No. 1,029,954; June 18; Sp. p. 4120; Gaz. vol. 179; p. 714.
Centering-tool. C. Blomstrom. No. 1,028,855; June 11; Sp. p. 1699; Gaz. vol. 179; p. 297.
Centering tool and punch. G. U. Mays. No. 1,029,386; June 11; Sp. p. 2860; Gaz. vol. 179; p. 481.
Centrifugal machines, Combined conveyer and scraper for. B. D. Coppage. No. 1,028,934; June 11; Sp. p. 1887; Gaz. vol. 179; p. 326.
Ceramic-ware mold. D. Crossley. No. 1,030,389; June 25; Sp. p. 5078; Gaz. vol. 179; p. 905.
Chafing-dish stand. G. E. Savage. No. 1,030,019; June 18; Sp. p. 4248; Gaz. vol. 179; p. 735.
Chain, Carrier-. G. S. Witham, Jr. No. 1,029,566; June 11; Sp. p. 3243; Gaz. vol. 179; p. 544.
Chain-connector. A. Jacques. No. 1,028,217; June 4; Sp. p. 350; Gaz. vol. 179; p. 48.
Chain, Drive-. C. J. Luther. No. 1,028,893; June 11; Sp. p. 1785; Gaz. vol. 179; p. 312.
Chains, Feed apparatus for use in the manufacture of cord- K. Wecker and E. Hildenbrand. No. 1,030,215; June 18; Sp. p. 4670; Gaz. vol. 179; p. 802.
Chair: *See* Adjustable chair; Combination-chair; Folding chair; Observation-chair; Railway-rail chair; Safety chair; Specialist's chair; Wheel and carrying chair.
Chair. F. A. Hinsky. No. 1,029,807; June 18; Sp. p. 3774; Gaz. vol. 179; p. 664.
Chalice, Hygienic. C. J. Ljunggren. No. 1,028,752; June 4; Sp. p. 1480; Gaz. vol. 179; p. 229.
Channeling-machine. J. G. Ross. No. 1,029,227; June 11; Sp. p. 2506; Gaz. vol. 179; p. 426.
Channeling-machine. A. H. Prensel. No. 1,030,536; June 25; Sp. p. 5449; Gaz. vol. 179; p. 957.
Channeling-machine. J. G. Ross. No. 1,030,614; June 25; Sp. p. 5723; Gaz. vol. 179; p. 986.
Channeling-machine. F. E. Bertrand. No. 1,030,704; June 25; Sp. p. 5962; Gaz. vol. 179; p. 1018.
Channeling-machine. F. E. Bertrand. No. 1,030,705; June 25; Sp. p. 5969; Gaz. vol. 179; p. 1018.
Channeling-machine. F. E. Bertrand. No. 1,030,707; June 25; Sp. p. 5975; Gaz. vol. 179; p. 1019.
Channeling-machine. F. E. Bertrand. No. 1,030,708; June 25; Sp. p. 5977; Gaz. vol. 179; p. 1019.
Channeling-machine. F. E. Bertrand. No. 1,030,709; June 25; Sp. p. 5981; Gaz. vol. 179; p. 1019.
Channeling-machine. F. E. Bertrand. No. 1,030,710; June 25; Sp. p. 5983; Gaz. vol. 179; p. 1020.
Chart, Tariff-. J. H. Robinson. No. 1,029,085; June 11; Sp. p. 2214; Gaz. vol. 179; p. 378.
Chassis. W. G. Wagenhals. No. 1,030,357; June 25; Sp. p. 5012; Gaz. vol. 179; p. 894.
Check, Combination-. M. Daly. No. 1,028,684; June 4; Sp. p. 1329; Gaz. vol. 179; p. 205.
Check, Protective. E. M. Jones. No. 1,028,570; June 4; Sp. p. 1106; Gaz. vol. 179; p. 168.
Check-protector. L. M. Todd and C. G. Tiefel. No. 1,030,690; June 25; Sp. p. 5927; Gaz. vol. 179; p. 1012.
Check-rower, Wireless. W. N. Corbit. No. 1,029,595; June 18; Sp. p. 3310; Gaz. vol. 179; p. 588.
Checks and the like, Apparatus for issuing metal. W. G. Gilmore. No. 1,029,603; June 18; Sp. p. 3325; Gaz. vol. 179; p. 591.
Cheese-rack, Rotary. H. Naumann. No. 1,028,598; June 4; Sp. p. 1156; Gaz. vol. 179; p. 176.
Cherry-stemming machine. M. E. Dunkley. No. 1,029,918; June 18; Sp. p. 4048; Gaz. vol. 179; p. 703.
Chest: *See* Jewel-chest.
Chimney-cap. A. F. Lieske. No. 1,029,072; June 11; Sp. p. 2171; Gaz. vol. 179; p. 374.
Chimney-cleaner. D. Johnston. No. 1,030,733; June 25; Sp. p. 6034; Gaz. vol. 179; p. 1028.
Chimney-flues, Means for cleaning. C. F. Broadhurst. No. 1,030,456; June 25; Sp. p. 5222; Gaz. vol. 179; p. 929.
Chimney top or ventilator. J. L. Phillips. No. 1,028,958; June 11; Sp. p. 1930; Gaz. vol. 179; p. 333.

Chiropractic table. A. A. Griffin. No. 1,029,751; June 18; Sp. p. 3657; Gaz. vol. 179; p. 645.
Chocolate-coating machines, Flooding device for. T. G. Hollis and S. Gibney. No. 1,029,124; June 11; Sp. p. 2290; Gaz. vol. 179; p. 391.
Chopper: *See* Cotton-chopper.
Christmas-tree and standard holder. F. Rosameissl. No. 1,028,787; June 4; Sp. p. 1546; Gaz. vol. 179; p. 241.
Chuck. C. L. Fogleman. No. 1,028,562; June 4; Sp. p. 1088; Gaz. vol. 179; p. 165.
Chuck, Revoluble work-feeding. C. F. Coda. No. 1,030,283; June 25; Sp. p. 4839; Gaz. vol. 179; p. 866.
Churn and butter-worker, Combined. R. B. Disbrow. No. 1,029,798; June 18; Sp. p. 3756; Gaz. vol. 179; p. 661.
Churn and butter-worker, Combined. D. E. Virtue. No. 1,030,356; June 25; Sp. p. 5011; Gaz. vol. 179; p. 893.
Chute, Coal-. R. A. Dyer. No. 1,030,653; June 25; Sp. p. 5843; Gaz. vol. 179; p. 1001.
Chute, Portable car-unloading. J. W. Stagg. No. 1,028,831; June 4; Sp. p. 1636; Gaz. vol. 179; p. 255.
Cigar and cigarette holders, Machine for making. G. Wirth. No. 1,029,164; June 11; Sp. p. 2376; Gaz. vol. 179; p. 405.
Cigar-box-lid holder. M. Rothschild. No. 1,028,607; June 4; Sp. p. 1178; Gaz. vol. 179; p. 180.
Cigar cell or pocket. E. H. Ellis. No. 1,030,655; June 25; Sp. p. 5856; Gaz. vol. 179; p. 1001.
Cigar-lighter, Electric. D. E. Shea. No. 1,029,723; June 18; Sp. p. 3601; Gaz. vol. 179; p. 635.
Cigar-wrapper. A. Schneider. No. 1,028,498; June 4; Sp. p. 961; Gaz. vol. 179; p. 144.
Cigarette-box. B. Cohon. No. 1,028,438; June 4; Sp. p. 825; Gaz. vol. 179; p. 124.
Cigarette-box. J. R. W. Menger. No. 1,029,548; June 11; Sp. p. 3205; Gaz. vol. 179; p. 537.
Cigarette-machine. S. Palmowsky. No. 1,029,397; June 11; Sp. p. 2808; Gaz. vol. 179; p. 485.
Circuit-breaker. H. W. Cheney. No. 1,030,568; June 25; Sp. p. 5550; Gaz. vol. 179; p. 968.
Circuit-breaker, Time-element. H. A. Steen. No. 1,030,030; June 18; Sp. p. 4271; Gaz. vol. 179; p. 740.
Circuit-closing apparatus, Coin-controlled. J. E. Lewis. No. 1,028,232; June 4; Sp. p. 377; Gaz. vol. 179; p. 53.
Circuit-conductors, Connection device for. T. E. Murray. No. 1,028,259; June 4; Sp. p. 429; Gaz. vol. 179; p. 62.
Circuit-conductors, Junction-box for. T. E. Murray. No. 1,028,260; June 4; Sp. p. 432; Gaz. vol. 179; p. 62.
Circuit-controller. T. G. Stiles. No. 1,030,622; June 25; Sp. p. 5753; Gaz. vol. 179; p. 989.
Circuit-controlling device. F. Klistner. No. 1,028,360; June 4; Sp. p. 652; Gaz. vol. 179; p. 98.
Circuit-interrupter. F. W. Harris. No. 1,029,753; June 18; Sp. p. 3660; Gaz. vol. 179; p. 645.
Clamp: *See* Hose-clamp; Locking-clamp; Pipe-clamp; Rail-clamp; Saw-clamp; Sawyer's clamp; Wire-clamp; Woodworking-clamp.
Clamp. G. M. Wright. No. 1,028,651; June 4; Sp. p. 1268; Gaz. vol. 179; p. 195.
Clamps, Self-adjusting clamp-bar for door and furniture. F. Welker. No. 1,028,923; June 11; Sp. p. 1867; Gaz. vol. 179; p. 323.
Clasp: *See* Garment-clasp.
Clasp. L. A. Wilkinson. No. 1,029,654; June 18; Sp. p. 3429; Gaz. vol. 179; p. 610.
Clay-treating apparatus. J. L. Musser. No. 1,029,708; June 18; Sp. p. 3573; Gaz. vol. 179; p. 630.
Cleaner: *See* Boiler-cleaner; Chimney-cleaner; Cotton-cleaner; Seed-cleaner; Seed-cotton cleaner; Vacuum-cleaner; Window-cleaner.
Clevis-lock. M. A. Nelson. No. 1,030,527; June 25; Sp. p. 5431; Gaz. vol. 179; p. 954.
Cling-knife. G. W. Allen. No. 1,028,175; June 4; Sp. p. 269; Gaz. vol. 179; p. 33.
Clip: *See* Rope-clip; Somt-clip; Terminal clip.
Clip. H. W. Stamps. No. 1,029,829; June 18; Sp. p. 3832; Gaz. vol. 179; p. 672.
Clock. S. B. Bricker. No. 1,028,427; June 4; Sp. p. 800; Gaz. vol. 179; p. 121.
Clock, Alarm-. P. Lux. No. 1,029,305; June 11; Sp. p. 2672; Gaz. vol. 179; p. 453.
Clock-bank. C. H. Kelsea. No. 1,028,222; June 4; Sp. p. 362; Gaz. vol. 179; p. 50.
Clock for roving or spinning machinery or the like. A. Rankeillor. No. 1,029,400; June 11; Sp. p. 2913; Gaz. vol. 179; p. 486.
Clock, Secondary electric. T. H. Wurmb and R. Baumann. No. 1,030,368; June 25; Sp. p. 5034; Gaz. vol. 179; p. 898.
Closure-retaining device. C. Calver. No. 1,029,047; June 11; Sp. p. 2129; Gaz. vol. 179; p. 366.
Cloth-laying machine. A. H. Van Devander and J. E. Moore. No. 1,030,145; June 18; Sp. p. 4510; Gaz. vol. 179; p. 779.
Cloth strips, Machine for folding, ironing, and spooling. A. L. Adams. No. 1,029,962; June 18; Sp. p. 4139; Gaz. vol. 179; p. 717.
Clothes-drier. H. Herstein. No. 1,029,995; June 18; Sp. p. 4195; Gaz. vol. 179; p. 727.
Clothes-line and merry-go-round, Combination. N. G. Zuzulin. No. 1,028,418; June 4; Sp. p. 779; Gaz. vol. 179; p. 118.
Clothes-line controller. T. B. Devine. No. 1,028,099; June 4; Sp. p. 14; Gaz. vol. 179; p. 5.
Clothes-pin. F. Comeau. No. 1,030,386; June 25; Sp. p. 5072; Gaz. vol. 179; p. 904.
Clothing to flats, Machine for attaching. C. Mills. No. 1,029,452; June 11; Sp. p. 3014; Gaz. vol. 179; p. 504.
Clutch. N. C. Miller. No. 1,028,764; June 4; Sp. p. 1499; Gaz. vol. 179; p. 233.
Clutch. C. E. O. Hager. No. 1,029,607; June 18; Sp. p. 3334; Gaz. vol. 179; p. 594.
Clutch, Automatic. P. Leone. No. 1,028,750; June 4; Sp. p. 1475; Gaz. vol. 179; p. 228.
Clutch, Fluid-. G. G. Crane. No. 1,030,463; June 25; Sp. p. 5236; Gaz. vol. 179; p. 932.
Clutch, Friction-. G. W. Shaffer. No. 1,029,147; June 11; Sp. p. 2342; Gaz. vol. 179; p. 399.
Clutch, Friction-. H. M. Norris. No. 1,030,424; June 25; Sp. p. 5155; Gaz. vol. 179; p. 918.
Clutch mechanism. F. B. Allen. No. 1,030,373; June 25; Sp. p. 5041; Gaz. vol. 179; p. 899.
Clutch mechanism for gang-plow lifters. F. J. Bradberry. No. 1,029,272; June 11; Sp. p. 2596; Gaz. vol. 179; p. 441.
Coal, Apparatus for separating refuse from. G. W. Wilmot and R. L. Hinkle. No. 1,030,042; June 18; Sp. p. 4303; Gaz. vol. 179; p. 744.
Coal-handling plant. F. W. Lovell. No. 1,028,235; June 4; Sp. p. 382; Gaz. vol. 179; p. 54.
Coat. I. Hershberg. No. 1,028,113; June 4; Sp. p. 40; Gaz. vol. 179; p. 11.
Coat-hanger. A. H. Doyle. No. 1,030,253; June 18; Sp. p. 4742; Gaz. vol. 179; p. 816.
Cock, Gage-. C. E. Angier. No. 1,029,963; June 18; Sp. p. 4141; Gaz. vol. 179; p. 717.
Cock, Stop-. H. P. F. Hedger. No. 1,028,459; June 4; Sp. p. 875; Gaz. vol. 179; p. 132.
Coffee and making same, Cereal. F. W. Bortner. No. 1,030,711; June 25; Sp. p. 5987; Gaz. vol. 179; p. 1020.
Coffee-separator. R. Okrassa. No. 1,029,624; June 18; Sp. p. 3372; Gaz. vol. 179; p. 600.
Coffin-fastener. C. H. Hiser. No. 1,029,013; June 11; Sp. p. 2060; Gaz. vol. 179; p. 354.
Coin and bill carrier. C. S. J. Russell. No. 1,028,494; June 4; Sp. p. 950; Gaz. vol. 179; p. 143.
Coin-controlled lock. G. G. F. Boswell. No. 1,029,417; June 11; Sp. p. 2943; Gaz. vol. 179; p. 492.
Coin-holder. L. L. Joseph. No. 1,030,092; June 18; Sp. p. 4417; Gaz. vol. 179; p. 762.
Coin sorter and counter. F. L. Sattley. No. 1,028,611; June 4; Sp. p. 1188; Gaz. vol. 179; p. 182.
Coke-oven, Vertical. A. O. Jones. No. 1,028,569; June 4; Sp. p. 1105; Gaz. vol. 179; p. 167.
Collar. M. R. Rice. No. 1,029,891; June 18; Sp. p. 3983; Gaz. vol. 179; p. 693.
Collar, Split. F. A. Schulz. No. 1,029,950; June 18; Sp. p. 4109; Gaz. vol. 179; p. 713.
Color-lake and manufacturing same. E. Ulrichs. No. 1,028,239; June 4; Sp. p. 392; Gaz. vol. 179; p. 56.
Coloring-matters, Black. J. Turner and H. Dean. No. 1,028,306; June 4; Sp. p. 531; Gaz. vol. 179; p. 77.
Colter, Plow-. C. C. Chappel. No. 1,030,718; June 25; Sp. p. 6000; Gaz. vol. 179; p. 1023.
Comb: *See* Currycomb.
Comb embossing and cutting dies. J. E. Burghoff and J. B. Wilks. No. 1,029,488; June 11; Sp. p. 3077; Gaz. vol. 179; p. 516.
Comber, Heilmann. H. Jarry. No. 1,029,128; June 11; Sp. p. 2300; Gaz. vol. 179; p. 392.
Comber, Heilmann. H. Jarry. No. 1,029,129; June 11; Sp. p. 2303; Gaz. vol. 179; p. 393.
Combination-chair. L. M. Peterson. No. 1,028,956; June 11; Sp. p. 1926; Gaz. vol. 179; p. 333.
Combination or keyless lock. O. M. Farrand. No. 1,028,868; June 11; Sp. p. 1732; Gaz. vol. 179; p. 303.
Combustion, Appliance for smokeless. A. B. Reck. No. 1,029,083; June 11; Sp. p. 2210; Gaz. vol. 179; p. 377.
Combustion-engine, Two-stroke cycle. E. Schwarz. No. 1,028,615; June 4; Sp. p. 1199; Gaz. vol. 179; p. 183.
Compasses and pencil-case, Combined drawing-. V. Lampel. No. 1,028,228; June 4; Sp. p. 373; Gaz. vol. 179; p. 52.
Composing-machine. C. G. Pritchard. No. 1,029,317; June 11; Sp. p. 2705; Gaz. vol. 179; p. 458.
Compound. A. M. Bailey. No. 1,029,165; June 11; Sp. p. 2381; Gaz. vol. 179; p. 406.
Compressing-machine. T. Lund. No. 1,030,739; June 25; Sp. p. 6045; Gaz. vol. 179; p. 1030.
Concentrator, Belt. J. W. Pinder. No. 1,030,427; June 25; Sp. p. 5159; Gaz. vol. 179; p. 918.
Concrete beams, Apparatus for molding. E. Bianchi. No. 1,029,043; June 11; Sp. p. 2122; Gaz. vol. 179; p. 365.
Concrete beams, Carriage for transporting and laying. R. A. Reynolds and A. C. Raymond. No. 1,029,224; June 11; Sp. p. 2501; Gaz. vol. 179; p. 425.
Concrete cisterns, Former or mold for forming. G. A. Wagner. No. 1,029,646; June 18; Sp. p. 3408; Gaz. vol. 179; p. 607.
Concrete construction for hydraulic flumes, Reinforced. W. P. Brereton. No. 1,030,839; June 25; Sp. p. 6412; Gaz. vol. 179; p. 1068.
Concrete-form, Collapsible. W. C. Simpson. No. 1,028,294; June 4; Sp. p. 505; Gaz. vol. 179; p. 74.
Concrete-mixing machine. D. B. Hoover. No. 1,029,126; June 11; Sp. p. 2293; Gaz. vol. 179; p. 391.
Concrete-mixing machines, Feeding apparatus for. J. L. Wettlaufer. No. 1,030,361; June 25; Sp. p. 5019; Gaz. vol. 179; p. 895.
Concrete-pile-making machine. H. A. Riemann. No. 1,030,267; June 18; Sp. p. 4788; Gaz. vol. 179; p. 822.

Concrete roof-tile. F. Latulip. No. 1,030,590; June 25; Sp. p. 5630; Gaz. vol. 179; p. 976.
Concrete-wall mold, Hollow-. F. H. Packard. No. 1,030,480; June 25; Sp. p. 5286; Gaz. vol. 179; p. 938.
Condenser, Barometric. C. L. W. Trinks. No. 1,028,156; June 4; Sp. p. 174; Gaz. vol. 179; p. 26.
Condenser, Barometric. C. L. W. Trinks. No. 1,028,157; June 4; Sp. p. 177; Gaz. vol. 179; p. 26.
Condensers, Regulating resistance for electrolytic. E. E. F. Creighton. No. 1,029,344; June 11; Sp. p. 2777; Gaz. vol. 179; p. 468.
Conductor-joint, Sheathed. T. E. Murray. No. 1,028,257; June 4; Sp. p. 427; Gaz. vol. 179; p. 62.
Conductors, Protective covering for resistance-. J. T. H. Dempster. No. 1,028,444; June 4; Sp. p. 848; Gaz. vol. 179; p. 127.
Conduit. H. H. Balliett. No. 1,029,040; June 11; Sp. p. 2116; Gaz. vol. 179; p. 364.
Conduit-covers of electric railways, Apparatus for actuating. D. D. Samala. No. 1,028,394; June 4; Sp. p. 723; Gaz. vol. 179; p. 109.
Conduits and pipes, Connector for. G. A. Lutz. No. 1,028,579; June 4; Sp. p. 1125; Gaz. vol. 179; p. 171.
Connecting device between a draft and a drag member. J. A. Gregory. No. 1,029,439; June 11; Sp. p. 2987; Gaz. vol. 179; p. 500.
Contact-chamber. G. Eschellmann and A. Harmuth. No. 1,030,508; June 25; Sp. p. 5365; Gaz. vol. 179; p. 947.
Contact device. E. L. Aiken. No. 1,030,045; June 18; Sp. p. 4311; Gaz. vol. 179; p. 745.
Contact-maker. J. F. Webb, Jr. No. 1,030,441; June 25; Sp. p. 5192; Gaz. vol. 179; p. 923.
Container. F. B. Davidson. No. 1,028,195; June 4; Sp. p. 309; Gaz. vol. 179; p. 40.
Container for small articles. P. B. Schravesande. No. 1,028,289; June 4; Sp. p. 498; Gaz. vol. 179; p. 73.
Container, Pressure-medium. H. M. McCaslin. No. 1,028,373; June 4; Sp. p. 679; Gaz. vol. 179; p. 102.
Control system. J. L. Hall. No. 1,029,362; June 11; Sp. p. 2808; Gaz. vol. 179; p. 473.
Control system. L. E. Bogen. No. 1,030,050; June 18; Sp. p. 4332; Gaz. vol. 179; p. 748.
Controller. J. F. Menningen. No. 1,028,948; June 11; Sp. p. 1913; Gaz. vol. 179; p. 331.
Controller. H. W. Cheney. No. 1,030,569; June 25; Sp. p. 5551; Gaz. vol. 179; p. 969.
Controller-handles, Re-forming. F. Brostrom. No. 1,030,160; June 18; Sp. p. 4535; Gaz. vol. 179; p. 783.
Conveyer. C. W. Levalley. No. 1,028,751; June 4; Sp. p. 1478; Gaz. vol. 179; p. 228.
Conveyer. H. S. Gardner. No. 1,030,296; June 25; Sp. p. 4861; Gaz. vol. 179; p. 870.
Conveyer. A. C. Starkweather and J. Nagel. No. 1,030,344; June 25; Sp. p. 4983; Gaz. vol. 179; p. 888.
Conveyer for use in mines. F. Billings. No. 1,030,226; June 18; Sp. p. 4691; Gaz. vol. 179; p. 807.
Conveyers, Discharging apparatus for belt. T. A. Edison. (Reissue.) No. 13,434; June 25; Sp. p. 6457; Gaz. vol. 179; p. 1076.
Conveying and feeding mechanism. W. L. Montgomery. No. 1,028,766; June 4; Sp. p. 1504; Gaz. vol. 179; p. 234.
Conveying apparatus. P. R. Bannon. No. 1,030,451; June 25; Sp. p. 5208; Gaz. vol. 179; p. 927.
Conveying apparatus. G. Sauvola. No. 1,030,749; June 25; Sp. p. 6069; Gaz. vol. 179; p. 1034.
Cooker, Fireless. C. A. Lauson and J. A. Rose. No. 1,029,137; June 11; Sp. p. 2320; Gaz. vol. 179; p. 396.
Cooking utensil. H. P. Holm. No. 1,028,726; June 4; Sp. p. 1411; Gaz. vol. 179; p. 220.
Cooler: *See* Evaporative cooler; Liquid-cooler.
Coop, Chicken-. L. M. Rich. No. 1,029,144; June 11; Sp. p. 2334; Gaz. vol. 179; p. 398.
Coop, Knockdown chicken-. W. H. Compton. No. 1,028,933; June 11; Sp. p. 1886; Gaz. vol. 179; p. 326.
Cop-tube. H. Kellerman. No. 1,029,065; June 11; Sp. p. 2162; Gaz. vol. 179; p. 372.
Copy-holder. I. H. P. Colleen. No. 1,028,097; June 4; Sp. p. 9; Gaz. vol. 179; p. 4.
Copying apparatus, Letter-. E. A. Klaber. No. 1,028,885; June 11; Sp. p. 1770; Gaz. vol. 179; p. 309.
Copying apparatus, Letter-. A. D. Klaber. No. 1,030,310; June 25; Sp. p. 4907; Gaz. vol. 179; p. 876.
Core-box. W. K. Levering. No. 1,028,367; June 4; Sp. p. 668; Gaz. vol. 179; p. 100.
Core-making machine. C. C. Peterson. No. 1,030,326; June 25; Sp. p. 4944; Gaz. vol. 179; p. 882.
Core-oven. C. F. Frede and H. M. Pfager. No. 1,029,986; June 18; Sp. p. 4180; Gaz. vol. 179; p. 725.
Cork-extractor. R. L. Wilson. No. 1,030,698; June 25; Sp. p. 5943; Gaz. vol. 179; p. 1015.
Corn and the like, Heading device for Kafir. A. Drury No. 1,028,690; June 4; Sp. p. 1337; Gaz. vol. 179; p. 207.
Corn-butting machine. J. Morral. No. 1,029,213; June 11; Sp. p. 2475; Gaz. vol. 179; p. 421.
Corn-coverer. T. F. Payne. No. 1,030,244; June 18; Sp. p. 4728; Gaz. vol. 179; p. 813.
Corn-holder. H. Horton. No. 1,030,729; June 25; Sp. p. 6026; Gaz. vol. 179; p. 1026.
Corn-husking machine. W. H. Sells. No. 1,028,616; June 4; Sp. p. 1200; Gaz. vol. 179; p. 183.
Corn-husking rollers. B. Gronke. No. 1,030,467; June 25; Sp. p. 5243; Gaz. vol. 179; p. 933.
Corn-sheller. C. McKee. No. 1,029,451; June 11; Sp. p. 3012; Gaz. vol. 179; p. 504.
Corn-shredder feeder. C. Kibat. No. 1,028,739; June 4; Sp. p. 1450; Gaz. vol. 179; p. 224.
Corner-post fastening. L. Sussman. No. 1,030,494; June 25; Sp. p. 5318; Gaz. vol. 179; p. 942.
Corner-post for box-like structures. W. Zabel. No. 1,030,444; June 25; Sp. p. 5197; Gaz. vol. 179; p. 924.
Cornice-brake. H. Higgin. No. 1,029,012; June 11; Sp. p. 2058; Gaz. vol. 179; p. 354.
Corset. J. Siegel. No. 1,030,338; June 25; Sp. p. 4973; Gaz. vol. 179; p. 886.
Corset. E. F. Hume. No. 1,030,585; June 25; Sp. p. 5613; Gaz. vol. 179; p. 975.
Corset, Apparel-. D. Kops. No. 1,030,190; June 18; Sp. p. 4612; Gaz. vol. 179; p. 794.
Cotton-chopper. L. I. Richards. No. 1,028,278; June 4; Sp. p. 472; Gaz. vol. 179; p. 69.
Cotton-chopper. J. N. Cain. No. 1,029,587; June 18; Sp. p. 3284; Gaz. vol. 179; p. 585.
Cotton chopper and cultivator. D. L. Thornton. No. 1,028,402; June 4; Sp. p. 743; Gaz. vol. 179; p. 112.
Cotton chopper and cultivator. G. D. Fargason. No. 1,029,282; June 11; Sp. p. 2623; Gaz. vol. 179; p. 445.
Cotton-cleaner. S. Williams. No. 1,029,162; June 11; Sp. p. 2370; Gaz. vol. 179; p. 404.
Cotton-gin. J. R. Fordyce. No. 1,028,701; June 4; Sp. p. 1352; Gaz. vol. 179; p. 211.
Cotton, Machine for separating leaf and seed. B. C. Calderwood. No. 1,030,228; June 18; Sp. p. 4696; Gaz. vol. 179; p. 808.
Coupling: *See* Car-coupling; Car automatic coupling; Flexible coupling; Hose-coupling; Pipe-coupling; Pipe and cable coupling; Pump-rod coupling; Thill-coupling.
Cover fastening and releasing device. W. H. Smith. No. 1,029,405; June 11; Sp. p. 2922; Gaz. vol. 179; p. 488.
Cow-tail holder. F. E. Conant. No. 1,030,462; June 25; Sp. p. 5234; Gaz. vol. 179; p. 931.
Crabbing-machine. H. A. Fretts. No. 1,030,656; June 25; Sp. p. 5856; Gaz. vol. 179; p. 1002.
Cradle, Swinging. J. E. Burge. No. 1,028,186; June 4; Sp. p. 291; Gaz. vol. 179; p. 87.
Crate. L. B. Kauffmann. No. 1,030,845; June 25; Sp. p. 6422; Gaz. vol. 179; p. 1070.
Crate, Collapsible ventilated. L. A. Williams. No. 1,029,161; June 11; Sp. p. 2368; Gaz. vol. 179; p. 403.
Crate, Knockdown. A. V. Baumeister. No. 1,028,094; June 4; Sp. p. 2; Gaz. vol. 179; p. 3.
Cream-separator. E. R. Bailey. No. 1,029,785; June 18; Sp. p. 3725; Gaz. vol. 179; p. 656.
Crimping appliance. W. H. Addison. No. 1,028,654; June 4; Sp. p. 1273; Gaz. vol. 179; p. 196.
Cross-tie. W. G. Chipley. No. 1,030,230; June 18; Sp. p. 4700; Gaz. vol. 179; p. 808.
Crucible-cover. T. McGrath. No. 1,029,815; June 18; Sp. p. 3801; Gaz. vol. 179; p. 667.
Crucible-furnace. D. R. Steele. No. 1,029,090; June 11; Sp. p. 2224; Gaz. vol. 179; p. 380.
Crusher: *See* Gyratory crusher; Seed-crusher.
Crusher. W. H. Lieber. No. 1,030,194; June 18; Sp. p. 4619; Gaz. vol. 179; p. 795.
Crushing-machine. C. G. Buchanan. No. 1,029,910; June 18; Sp. p. 4030; Gaz. vol. 179; p. 700.
Culinary apparatus, Electrically-heated. W. S. Hadaway, Jr., and E. E. Rose. No. 1,028,107; June 4; Sp. p. 28; Gaz. vol. 179; p. 8.
Cultivating device. F. M. Shonkwiler and J. Thomi. No. 1,029,472; June 11; Sp. p. 3053; Gaz. vol. 179; p. 511.
Cultivator. W. L. Paul. No. 1,028,954; June 11; Sp. p. 1923; Gaz. vol. 179; p. 332.
Culvert. A. Reuterdahl. No. 1,028,829; June 4; Sp. p. 1634; Gaz. vol. 179; p. 255.
Culvert. A. Reuterdahl. No. 1,028,830; June 4; Sp. p. 1635; Gaz. vol. 179; p. 255.
Culvert. C. Haines. No. 1,030,298; June 25; Sp. p. 4866; Gaz. vol. 179; p. 871.
Culvert, Metallic. K. J. Thorsby. No. 1,028,638; June 4; Sp. p. 1241; Gaz. vol. 179; p. 191.
Culvert-mold. G. B. Murray. No. 1,029,024; June 11; Sp. p. 2081; Gaz. vol. 179; p. 358.
Cup: *See* Drinking-cup; Egg-cup; Grease-cup.
Cup holder, Drinking-. C. A. Bryant. No. 1,029,342; June 11; Sp. p. 2772; Gaz. vol. 179; p. 467.
Currency cutting and signing machine. A. C. La May. No. 1,029,199; June 11; Sp. p. 2445; Gaz. vol. 179; p. 416.
Current-distributer, Wireless-controlled. C. Wirth. No. 1,029,573; June 11; Sp. p. 3252; Gaz. vol. 179; p. 546.
Current motor, Alternating-. V. A. Fynn. (Reissue.) No. 13,426; June 11; Sp. p. 3267; Gaz. vol. 179; p. 548.
Current system, Selective alternating-direct-. J. F. Tritle. No. 1,028,405; June 4; Sp. p. 752; Gaz. vol. 179; p. 113.
Currycomb. W. E. Steyding. No. 1,030,141; June 18; Sp. p. 4503; Gaz. vol. 179; p. 777.
Curtain and shade holder. G. L. Smith. No. 1,030,340; June 25; Sp. p. 4975; Gaz. vol. 179; p. 887.
Curtain and shade rollers, Spring-mounting for. H. Czabor. No. 1,028,995; June 11; Sp. p. 2022; Gaz. vol. 179; p. 347.
Curtain-holder. S. B. Walker. No. 1,028,164; June 4; Sp. p. 248; Gaz. vol. 179; p. 30.
Curtain-pole. A. P. Geiser. No. 1,029,358; June 11; Sp. p. 2801; Gaz. vol. 179; p. 472.

Curtain-pile. E. B. King. No. 1,029,372; June 11; Sp. p. 2840; Gaz. vol. 179; p. 477.
Curtain-pole. A. Rewi. No. 1,029,890; June 18; Sp. p. 3982; Gaz. vol. 179; p. 603.
Curtain-pole. E. A. Brockway. No. 1,029,973; June 18; Sp. p. 4158; Gaz. vol. 179; p. 720.
Curtain-pole and shade-support, Combined. C. Margerison. No. 1,028,757; June 4; Sp. p. 1468; Gaz. vol. 179; p. 230.
Curtain rod, Window-. J. Geary. No. 1,028,706; June 4; Sp. p. 1362; Gaz. vol. 179; p. 213.
Curtain-support. C. Joseph. No. 1,029,871; June 18; Sp. p. 3939; Gaz. vol. 179; p. 686.
Cushion: *See* Heel-cushion.
Cushion edge pad. W. R. Smith and F. H. Hampton. No. 1,030,795; June 25; Sp. p. 6216; Gaz. vol. 179; p. 1051.
Cuspidor. J. Noga. No. 1,030,116; June 18; Sp. p. 4457; Gaz. vol. 179; p. 770.
Cuspidor, Adjustable flushing. J. T. Fowler. No. 1,030,722; June 25; Sp. p. 6006; Gaz. vol. 179; p. 1024.
Cut-off device, Automatic rain-water-. L. and J. L. Heflin and C. E. Penisten. No. 1,030,175; June 18; Sp. p. 4565; Gaz. vol. 179; p. 789.
Cut-out, Meter-testing. T. E. Murray. No. 1,028,254; June 4; Sp. p. 421; Gaz. vol. 179; p. 61.
Cutter: *See* Band-cutter; Cane-cutter; Gear-cutter; Glass-gage cutter; Potato-cutter.
Cutting and marking die. S. G. Hollander. No. 1,030,781; June 25; Sp. p. 6183; Gaz. vol. 179; p. 1046.
Cutting and printing machine. W. P. Marsh and H. E. Dill. No. 1,029,021; June 11; Sp. p. 2075; Gaz. vol. 179; p. 357.
Cutting apparatus. J. C. Rust. No. 1,029,825; June 18; Sp. p. 3827; Gaz. vol. 179; p. 671.
Cutting device. C. F. Billau. No. 1,028,667; June 4; Sp. p. 1302; Gaz. vol. 179; p. 200.
Cutting-die. L. Painchaud. No. 1,030,529; June 25; Sp. p. 5436; Gaz. vol. 179; p. 955.
Cutting meat, lard, &c., by means of flat rotating knives, Machine for. O. Wetting. No. 1,028,510; June 4; Sp. p. 984; Gaz. vol. 179; p. 148.
Cutlery, tools, and the like in their handles, Fixing the tangs of table-. A. and E. Müller. No. 1,030,321; June 25; Sp. p. 4934; Gaz. vol. 179; p. 880.
Cycle driving-belt, Motor-. C. T. L. von Rabenau. No. 1,028,783; June 4; Sp. p. 1537; Gaz. vol. 179; p. 239.
Cycle spring-frame, Motor-. C. G. Stephenson. No. 1,029,771; June 18; Sp. p. 3694; Gaz. vol. 179; p. 651.
Cycles, Resilient driving mechanism for motor-. A. A. Dove. No. 1,028,335; June 4; Sp. p. 587; Gaz. vol. 179; p. 88.
Dampening apparatus. G. H. Bishop. No. 1,030,380; June 25; Sp. p. 5056; Gaz. vol. 179; p. 902.
Dehydrated mixtures, Preparing. E. G. Acheson. No. 1,030,372; June 25; Sp. p. 5040; Gaz. vol. 179; p. 899.
Delivery-goods receiver. L. T. Verdin. No. 1,028,918; June 11; Sp. p. 1849; Gaz. vol. 179; p. 321.
Demonstrating-machine. W. R. Rae. No. 1,029,223; June 11; Sp. p. 2497; Gaz. vol. 179; p. 425.
Dental articulators, Platform for. G. B. Snow. No. 1,029,149; June 11; Sp. p. 2347; Gaz. vol. 179; p. 400.
Dental crown and backing. R. E. Campbell. No. 1,028,539; June 4; Sp. p. 1036; Gaz. vol. 179; p. 158.
Dental mirror. E. P. Beadles. No. 1,029,258; June 11; Sp. p. 2574; Gaz. vol. 179; p. 437.
Derailment-preventer. J. W. McLean. No. 1,028,585; June 4; Sp. p. 1141; Gaz. vol. 179; p. 173.
Derrick. H. A. Bowers. No. 1,030,640; June 25; Sp. p. 5809; Gaz. vol. 179; p. 986.
Derrick, Portable. M. G. Bean. No. 1,030,765; June 25; Sp. p. 6120; Gaz. vol. 179; p. 1039.
Desiccating fluid substances, Apparatus for. W. S. Osborne. No. 1,028,267; June 4; Sp. p. 446; Gaz. vol. 179; p. 65.
Desk. E. Baltsley. No. 1,028,424; June 4; Sp. p. 792; Gaz. vol. 179; p. 120.
Detonating composition. E. Goodwin. No. 1,029,287; June 11; Sp. p. 2631; Gaz. vol. 179; p. 446.
Diamond-set tool. F. J. Corvilain. No. 1,030,284; June 25; Sp. p. 4841; Gaz. vol. 179; p. 866.
Dictaphones, Back-spacer for. T. H. Macdonald. No. 1,030,740; June 25; Sp. p. 6047; Gaz. vol. 179; p. 1031.
Die: *See* Comb embossing and cutting die; Cutting-die; Cutting and marking die.
Die-sinking or routing tool. G. Melling. No. 1,029,206; June 11; Sp. p. 2465; Gaz. vol. 179; p. 419.
Die structure. B. Adriance and A. Calleson. No. 1,029,333; June 11; Sp. p. 2743; Gaz. vol. 179; p. 464.
Diffusion process. P. J. Wolff. No. 1,028,660; June 4; Sp. p. 1265; Gaz. vol. 179; p. 195.
Digger: *See* Post-hole digger; Potato-digger.
Dinking-block support. W. R. Forsyth. No. 1,030,396; June 25; Sp. p. 5092; Gaz. vol. 179; p. 906.
Dish-receptacle. M. E. Boice. No. 1,028,320; June 4; Sp. p. 559; Gaz. vol. 179; p. 83.
Dish-washing machine. L. A. Haustetter. No. 1,029,541; June 11; Sp. p. 3181; Gaz. vol. 179; p. 534.
Dispensing and forming apparatus. J. F. Leeper. No. 1,028,749; June 4; Sp. p. 1474; Gaz. vol. 179; p. 228.
Display-box. O. A. Wolf. No. 1,029,006; June 11; Sp. p. 2234; Gaz. vol. 179; p. 381.
Display-box. H. Schandein and M. P. Lind. No. 1,030,209; June 18; Sp. p. 4659; Gaz. vol. 179; p. 801.
Display-card. C. M. Morgan. No. 1,028,479; June 4; Sp. p. 925; Gaz. vol. 179; p. 138.
Display device. D. Marshall. No. 1,028,642; June 4; Sp. p. 1663; Gaz. vol. 179; p. 259.
Display device, Collapsible. J. Stranders. No. 1,028,147; June 4; Sp. p. 150; Gaz. vol. 179; p. 23.
Display device, Curtain and like. F. Frank. No. 1,028,565; June 4; Sp. p. 1091; Gaz. vol. 179; p. 166.
Display machine, Picture-. H. S. Bogers. No. 1,030,611; June 25; Sp. p. 5713; Gaz. vol. 179; p. 985.
Distillation of bituminous coal and the like. J. M. Rusby and O. B. Evans. No. 1,030,333; June 25; Sp. p. 4962; Gaz. vol. 179; p. 885.
Distilling, Process of and apparatus for. C. T. Hanna. No. 1,029,363; June 11; Sp. p. 2813; Gaz. vol. 179; p. 474.
Distilling wood, Apparatus and method for. F. and G. M. Pope. No. 1,030,011; June 18; Sp. p. 4227; Gaz. vol. 179; p. 732.
Ditcher and grader. G. W. Jory. No. 1,028,734; June 4; Sp. p. 1430; Gaz. vol. 179; p. 222.
Ditching-machine. E. Jeschke. No. 1,028,218; June 4; Sp. p. 352; Gaz. vol. 179; p. 49.
Ditching-machine. H. W. and A. G. Gribler. No. 1,029,496; June 11; Sp. p. 3160; Gaz. vol. 179; p. 520.
Divinyl, Producing. F. Hofmann and C. Ceutelle. No. 1,028,988; June 11; Sp. p. 1693; Gaz. vol. 179; p. 327.
Dock or bulkhead construction. M. M. Upson. No. 1,030,496; June 25; Sp. p. 5324; Gaz. vol. 179; p. 943.
Door. B. C. Rockwell. No. 1,028,280; June 4; Sp. p. 474; Gaz. vol. 179; p. 69.
Door-catch. F. S. Fleury. No. 1,028,561; June 4; Sp. p. 1087; Gaz. vol. 179; p. 165.
Door-check. W. H. Aspegrén. No. 1,028,850; June 11; Sp. p. 1687; Gaz. vol. 179; p. 295.
Door-check, Link. G. C. Klein. No. 1,029,698; June 18; Sp. p. 3520; Gaz. vol. 179; p. 624.
Door-check stop. W. K. Henry. No. 1,028,460; June 4; Sp. p. 877; Gaz. vol. 179; p. 132.
Door-controlling means. H. G. Voight. No. 1,028,883; June 4; Sp. p. 1643; Gaz. vol. 179; p. 256.
Door-fastener. E. A. Kutz. No. 1,030,192; June 18; Sp. p. 4615; Gaz. vol. 179; p. 795.
Door fastener, Emergency-exit-. R. L. G. Palm. No. 1,029,626; June 18; Sp. p. 3375; Gaz. vol. 179; p. 601.
Door, Grain-. J. Henry. No. 1,029,061; June 11; Sp. p. 2150; Gaz. vol. 179; p. 370.
Door-hanger. A. H. Neller and R. B. Louden. No. 1,028,900; June 11; Sp. p. 1811; Gaz. vol. 179; p. 315.
Door-hanger. Z. T. Crego. No. 1,029,913; June 18; Sp. p. 4036; Gaz. vol. 179; p. 701.
Door, hatch, or like closing device. G. Mazzolini. No. 1,029,620; June 18; Sp. p. 3364; Gaz. vol. 179; p. 599.
Door-lock. J. Caldwell. No. 1,028,929; June 11; Sp. p. 1879; Gaz. vol. 179; p. 324.
Door-lock. W. D. Markley. No. 1,030,313; June 25; Sp. p. 4916; Gaz. vol. 179; p. 877.
Door lock, Passage-. H. G. Voight and N. B. Hurd. No. 1,028,407; June 4; Sp. p. 757; Gaz. vol. 179; p. 114.
Door-mat. E. M. Forbes. No. 1,028,871; June 11; Sp. p. 1738; Gaz. vol. 179; p. 304.
Door-mat. L. Giclas. No. 1,029,802; June 18; Sp. p. 3767; Gaz. vol. 179; p. 662.
Door-operating means. D. F. Youngblood. No. 1,030,699; June 25; Sp. p. 5944; Gaz. vol. 179; p. 1016.
Door-operating mechanism. F. H. Gibbs. No. 1,030,808; June 25; Sp. p. 6252; Gaz. vol. 179; p. 1056.
Door-operating mechanism, Automatic. W. D. Baker. No. 1,029,255; June 11; Sp. p. 2569; Gaz. vol. 179; p. 435.
Door, Revolving. K. O. S. Ramondt. No. 1,030,266; June 18; Sp. p. 4736; Gaz. vol. 179; p. 822.
Door, Revolving. D. M. Quay. No. 1,030,849; June 25; Sp. p. 6434; Gaz. vol. 179; p. 1072.
Door, Sliding. C. Gordon. No. 1,029,288; June 11; Sp. p. 2632; Gaz. vol. 179; p. 446.
Door, Spring-. W. H. Jordan. No. 1,028,571; June 4; Sp. p. 1108; Gaz. vol. 179; p. 168.
Door-strip. L. J. Valentine. No. 1,028,801; June 4; Sp. p. 1574; Gaz. vol. 179; p. 246.
Door track and hanger. W. F. Hackney. No. 1,028,714; June 4; Sp. p. 1389; Gaz. vol. 179; p. 216.
Doubletree, Slide-equalizer. P. A. Larsen. No. 1,028,746; June 4; Sp. p. 1470; Gaz. vol. 179; p. 227.
Doubling and twisting machines, Attachment for thread. G. F. Macfarlane. No. 1,029,382; June 11; Sp. p. 2855; Gaz. vol. 179; p. 480.
Dough-dividing machine. F. H. Van Houten, Jr. No. 1,028,406; June 4; Sp. p. 754; Gaz. vol. 179; p. 114.
Dough-working apparatus. D. J. Hanna. No. 1,028,820; June 4; Sp. p. 1614; Gaz. vol. 179; p. 252.
Dowel-plate for use in the production of screen-frames, &c., Metallic. R. McKnight. No. 1,028,761; June 4; Sp. p. 1496; Gaz. vol. 179; p. 232.
Draft attachment. A. Talcher. No. 1,029,093; June 11; Sp. p. 2230; Gaz. vol. 179; p. 381.
Draft-equaliser. R. G. Gose. No. 1,030,078; June 18; Sp. p. 4386; Gaz. vol. 179; p. 756.
Draftsman's appliance. R. Williams. No. 1,029,248; June 11; Sp. p. 2556; Gaz. vol. 179; p. 433.
Drainage-gutter. J. F. Weitzel. No. 1,028,512; June 4; Sp. p. 987; Gaz. vol. 179; p. 149.
Drainer, Dish-. C. Andrews, Jr. No. 1,029,906; June 18; Sp. p. 4021; Gaz. vol. 179; p. 699.
Dredger, Suction-. E. E. Roberson. No. 1,028,387; June 4; Sp. p. 701; Gaz. vol. 179; p. 107.

Dressing-table. J. Lurtz. No. 1,029,812; June 18; Sp. p. 3797; Gaz. vol. 179; p. 666.
Drier: *See* Clothes-drier; Grain-drier; Rotary drier.
Drier. A. L. Griffin. No. 1,030,515; June 25; Sp. p. 5393; Gaz. vol. 179; p. 950.
Dry-kiln. E. D. Sidman. No. 1,028,292; June 4; Sp. p. 503; Gaz. vol. 179; p. 73.
Dry-kiln, Curtain for. E. D. Sidman. No. 1,028,293; June 4; Sp. p. 504; Gaz. vol. 179; p. 74.
Drying-table. F. I. Burgher. No. 1,030,281; June 25; Sp. p. 4835; Gaz. vol. 179; p. 865.
Drill: *See* Radial drill; Rock-drill.
Drill. E. F. Cortinas. No. 1,029,491; June 11; Sp. p. 3084; Gaz. vol. 179; p. 517.
Drill. W. H. Critten. No. 1,030,387; June 25; Sp. p. 5073; Gaz. vol. 179; p. 904.
Drill-actuating mechanism. W. K. Riley. No. 1,030,832; June 25; Sp. p. 6384; Gaz. vol. 179; p. 1065.
Drill-presses, Milling attachment for. R. H. Ritter. No. 1,029,402; June 11; Sp. p. 2916; Gaz. vol. 179; p. 487.
Drill-socket, Adjustable extension. S. W. Meredith. No. 1,028,126; June 4; Sp. p. 60; Gaz. vol. 179; p. 15.
Drill-socket, Air. R. J. Smith. No. 1,028,623; June 4; Sp. p. 1210; Gaz. vol. 179; p. 185.
Drills and the like, Bar for. W. K. Riley. No. 1,030,830; June 25; Sp. p. 6381; Gaz. vol. 179; p. 1064.
Drills, Automatic turning device for fluid hammer-. J. J. Purcell. No. 1,028,275; June 4; Sp. p. 462; Gaz. vol. 179; p. 68.
Drills, Disk attachment for. O. G. Rieske. No. 1,030,247; June 18; Sp. p. 4731; Gaz. vol. 179; p. 814.
Drilling-machine universal-joint coupling. J. P. Karns. No. 1,030,663; June 25; Sp. p. 5869; Gaz. vol. 179; p. 1004.
Drinking-cup. G. W. Beadle. No. 1,030,437; June 25; Sp. p. 5806; Gaz. vol. 179; p. 995.
Drinking device, Sanitary. A. D. Seaman. No. 1,028,142; June 4; Sp. p. 137; Gaz. vol. 179; p. 21.
Drive mechanism. J. H. App. No. 1,029,736; June 18; Sp. p. 3631; Gaz. vol. 179; p. 640.
Driven wrench. J. A. McGreevey. No. 1,028,123; June 4; Sp. p. 62; Gaz. vol. 179; p. 14.
Driving mechanism. A. R. Murray. No. 1,028,771; June 4; Sp. p. 1510; Gaz. vol. 179; p. 235.
Driving mechanism and differential, Combination. P. G. Ledeboer. No. 1,030,097; June 18; Sp. p. 4426; Gaz. vol. 179; p. 764.
Dust-collecting system. H. L. Day. No. 1,029,531; June 11; Sp. p. 3160; Gaz. vol. 179; p. 530.
Dust-collector. O. M. Morse. No. 1,029,214; June 11; Sp. p. 2479; Gaz. vol. 179; p. 422.
Dye, Azo. F. Rünkel. No. 1,028,493; June 4; Sp. p. 949; Gaz. vol. 179; p. 143.
Dye, Vat. P. Thomaschewski. No. 1,028,637; June 4; Sp. p. 1240; Gaz. vol. 179; p. 190.
Dyeing machine, Warp-. W. F. Haskell. No. 1,029,866; June 18; Sp. p. 3930; Gaz. vol. 179; p. 684.
Dyeing vegetable fibers with halogenated indigo and indigoid dyestuffs. A. Kertesz. No. 1,029,006; June 11; Sp. p. 2164; Gaz. vol. 179; p. 372.
Dyestuff and making same, Black disazo. F. Scholl. No. 1,028,140; June 4; Sp. p. 133; Gaz. vol. 179; p. 20.
Dyestuffs and making same, Black disazo. F. Scholl. No. 1,029,639; June 18; Sp. p. 3396; Gaz. vol. 179; p. 605.
Dyestuffs and making same, Reddish-blue vat. A. Schmidt and K. Thiess. No. 1,028,911; June 11; Sp. p. 1831; Gaz. vol. 179; p. 318.
Dyestuffs of the anthraquinone series and making same, Manufacture of azo. A. Schmidt and G. Krämslein. No. 1,028,139; June 4; Sp. p. 132; Gaz. vol. 179; p. 20.
Eccentric wheeler. L. W. G. Flynt. No. 1,030,576; June 25; Sp. p. 5584; Gaz. vol. 179; p. 971.
Edge-chamfering machine. W. G. Eaton. No. 1,029,178; June 11; Sp. p. 2400; Gaz. vol. 179; p. 409.
Edge gage for stock-fitting machines. G. F. Wolfe. No. 1,030,631; June 25; Sp. p. 5793; Gaz. vol. 179; p. 993.
Edible products from bassia seeds, Manufacture of. M. Monhaupt. No. 1,030,674; June 25; Sp. p. 5896; Gaz. vol. 179; p. 1007.
Educational appliance. J. Hegewald. No. 1,028,212; June 4; Sp. p. 342; Gaz. vol. 179; p. 47.
Educational device. H. Newman. No. 1,028,378; June 4; Sp. p. 687; Gaz. vol. 179; p. 104.
Egg-beater. R. R. Turner. No. 1,030,796; June 25; Sp. p. 6217; Gaz. vol. 179; p. 1051.
Egg-candler scoop. A. Brunnert. No. 1,030,280; June 25; Sp. p. 4834; Gaz. vol. 179; p. 865.
Egg-carrier. J. E. Herman. No. 1,029,542; June 11; Sp. p. 3184; Gaz. vol. 179; p. 534.
Egg carrier or receptacle. E. N. Gilfillan. No. 1,029,749; June 18; Sp. p. 3653; Gaz. vol. 179; p. 644.
Egg-case. J. Fritz. No. 1,028,702; June 4; Sp. p. 1355; Gaz. vol. 179; p. 211.
Egg-cup. J. E. P. Pender. No. 1,030,324; June 25; Sp. p. 4941; Gaz. vol. 179; p. 881.
Egg, Medicated nest-. A. F. Dice. No. 1,030,056; June 18; Sp. p. 4345; Gaz. vol. 179; p. 750.
Egg-separator. O. H. Willard. No. 1,029,902; June 18; Sp. p. 4011; Gaz. vol. 179; p. 697.
Egg-separator, Sanitary. C. L. Svensson and H. A. Perry. No. 1,030,346; June 25; Sp. p. 4967; Gaz. vol. 179; p. 889.
Electric apparatus, Gas or vapor. P. C. Hewitt and N. W. Rogers. No. 1,030,262; June 18; Sp. p. 4764; Gaz. vol. 179; p. 820.
Electric apparatus, Vapor. O. O. Kruh. No. 1,029,375; June 11; Sp. p. 2843; Gaz. vol. 179; p. 478.
Electric arcs and apparatus therefor, Production of continuous. F. H. A. Wielgolaski and O. Schönherr. No. 1,028,516; June 4; Sp. p. 904; Gaz. vol. 179; p. 151.
Electric battery. H. De Martis. No. 1,030,650; June 25; Sp. p. 5836; Gaz. vol. 179; p. 990.
Electric cables, Binding-post for connecting. G. Hesold. No. 1,030,817; June 25; Sp. p. 6287; Gaz. vol. 179; p. 1059.
Electric-circuit-controlling means. G. A. Burnham. No. 1,029,974; June 18; Sp. p. 4159; Gaz. vol. 179; p. 720.
Electric conduits, Outlet-box for. W. A. Bonnell. (Reissue.) No. 13,432; June 25; Sp. p. 6453; Gaz. vol. 179; p. 1075.
Electric controller. R. V. Sill. No. 1,030,617; June 25; Sp. p. 5736; Gaz. vol. 179; p. 988.
Electric cut-out. T. E. Murray. No. 1,028,253; June 4; Sp. p. 425; Gaz. vol. 179; p. 61.
Electric cut-out. T. E. Murray. No. 1,028,258; June 4; Sp. p. 428; Gaz. vol. 179; p. 62.
Electric fixture. J. L. Palmer and C. N. Wheeler. No. 1,029,557; June 11; Sp. p. 3225; Gaz. vol. 179; p. 541.
Electric fixture. J. L. Palmer and C. N. Wheeler. No. 1,029,558; June 11; Sp. p. 3228; Gaz. vol. 179; p. 541.
Electric furnace for producing gas reactions. H. Paulling. No. 1,029,886; June 18; Sp. p. 3978; Gaz. vol. 179; p. 692.
Electric generators, Means for supporting and driving. G. M. Turner. No. 1,030,354; June 25; Sp. p. 5007; Gaz. vol. 179; p. 892.
Electric heater. L. F. Parkhurst. No. 1,028,383; June 4; Sp. p. 695; Gaz. vol. 179; p. 106.
Electric-light arm. S. D. R. Braun. No. 1,030,642; June 25; Sp. p. 5814; Gaz. vol. 179; p. 990.
Electric line, Aerial. W. Ellingen. No. 1,030,060; June 18; Sp. p. 4350; Gaz. vol. 179; p. 750.
Electric lock. W. S. Henry. No. 1,028,563; June 4; Sp. p. 1102; Gaz. vol. 179; p. 167.
Electric-machine core structure, Dynamo-. E. R. Knight. No. 1,030,095; June 18; Sp. p. 4423; Gaz. vol. 179; p. 764.
Electric machine, Dynamo-. W. H. Powell and R. R. Williamson. No. 1,028,963; June 11; Sp. p. 1942; Gaz. vol. 179; p. 335.
Electric machine, Dynamo-. H. H. Ralston. No. 1,028,965; June 11; Sp. p. 1947; Gaz. vol. 179; p. 336.
Electric machine, Dynamo-. B. A. Behrend. No. 1,028,965; June 11; Sp. p. 1995; Gaz. vol. 179; p. 344.
Electric machine, Dynamo-. H. H. Ralston. No. 1,030,013; June 18; Sp. p. 4232; Gaz. vol. 179; p. 736.
Electric machine, Dynamo-. R. B. Whitaker. No. 1,030,041; June 18; Sp. p. 4301; Gaz. vol. 179; p. 744.
Electric machine, Dynamo-. H. Elsboff. No. 1,030,061; June 18; Sp. p. 4350; Gaz. vol. 179; p. 750.
Electric machine, Dynamo-. R. B. Williamson. No. 1,030,556; June 25; Sp. p. 5498; Gaz. vol. 179; p. 968.
Electric machine, Dynamo-. R. B. Williamson. No. 1,030,557; June 25; Sp. p. 5496; Gaz. vol. 179; p. 964.
Electric machine, Dynamo-. A. M. Gray. No. 1,030,581; June 25; Sp. p. 5603; Gaz. vol. 179; p. 973.
Electric machines, Brush for dynamo-. A. Press. No. 1,028,964; June 11; Sp. p. 1945; Gaz. vol. 179; p. 336.
Electric machines, Regulating dynamo-. G. H. Comfort. No. 1,029,276; June 11; Sp. p. 2607; Gaz. vol. 179; p. 443.
Electric magneto-machine. G. W. Foye. No. 1,028,202; June 4; Sp. p. 327; Gaz. vol. 179; p. 43.
Electric oscillations, Method of and apparatus for producing. R. C. Galletti. No. 1,028,204; June 4; Sp. p. 330; Gaz. vol. 179; p. 44.
Electric switch. M. Guett. No. 1,028,350; June 4; Sp. p. 635; Gaz. vol. 179; p. 94.
Electric switch. E. M. Hewlett. No. 1,029,366; June 11; Sp. p. 2823; Gaz. vol. 179; p. 475.
Electric switch. W. S. MacLewee. No. 1,030,102; June 18; Sp. p. 4434; Gaz. vol. 179; p. 766.
Electric switch. A. Jacobson. No. 1,030,185; June 18; Sp. p. 4605; Gaz. vol. 179; p. 793.
Electric switch. J. J. Rawlings and G. Sweetser. No. 1,030,207; June 18; Sp. p. 4656; Gaz. vol. 179; p. 800.
Electric switch. H. Morey, Jr., and F. A. Brogden. No. 1,030,788; June 25; Sp. p. 6190; Gaz. vol. 179; p. 1048.
Electric switch, High-potential. C. C. Badeau. No. 1,029,098; June 11; Sp. p. 2230; Gaz. vol. 179; p. 383.
Electric transmission systems, Automatic side-tracking sectionaliser for. F. C. Hirdler. No. 1,030,181; June 18; Sp. p. 4578; Gaz. vol. 179; p. 791.
Electrical distribution system. J. P. Crouch and J. Etchells. No. 1,029,428; June 11; Sp. p. 2965; Gaz. vol. 179; p. 496.
Electrical pendant switch. H. D. Gortner. No. 1,029,750; June 18; Sp. p. 3655; Gaz. vol. 179; p. 644.
Electrical starting device. J. L. Schureman. No. 1,030,435; June 25; Sp. p. 5179; Gaz. vol. 179; p. 921.
Electrical switch. A. J. Gifford. No. 1,029,676; June 18; Sp. p. 3465; Gaz. vol. 179; p. 617.
Electrode-collar for electric furnaces. E. R. Taylor. No. 1,028,150; June 4; Sp. p. 136; Gaz. vol. 179; p. 24.
Electrode for producing gas reactions by means of the electric arc. H. Paulling. No. 1,029,885; June 18; Sp. p. 3977; Gaz. vol. 179; p. 692.
Electrodes, Apparatus for graphitising large. P. L. T. Héroult. No. 1,029,121; June 11; Sp. p. 2282; Gaz. vol. 179; p. 390.

Electrodes, Graphitizing. P. L. T. Héroult. No. 1,029,122; June 11; Sp. p. 2284; Gaz. vol. 179; p. 390.
Electromagnet. E. Price. No. 1,028,385; June 4; Sp. p. 697; Gaz. vol. 179; p. 106.
Electromagnet. N. H. Suren. No. 1,029,150; June 11; Sp. p. 2347; Gaz. vol. 179; p. 400.
Electromagnetic apparatus. J. McIntyre. No. 1,029,388; June 11; Sp. p. 2886; Gaz. vol. 179; p. 482.
Electromagnetic instrument. W. K. Menns. No. 1,029,880; June 18; Sp. p. 3965; Gaz. vol. 179; p. 690.
Electroplating. J. W. Aylsworth. No. 1,029,965; June 18; Sp. p. 4144; Gaz. vol. 179; p. 718.
Electroplating apparatus. M. Reid. No. 1,028,786; June 4; Sp. p. 1541; Gaz. vol. 179; p. 240.
Electropneumatic instruments, Sostenuto attachment for. L. E. Morel. No. 1,030,319; June 25; Sp. p. 4926; Gaz. vol. 179; p. 879.
Electrotyping, Composition of matter for use in removing grease, &c., from molds used in. G. E. Dunton. No. 1,030,290; June 25; Sp. p. 4851; Gaz. vol. 179; p. 868.
Elevator: *See* Fire-fighting elevator; Fruit-elevator; Grain-elevator; Smoke-elevator; Straw-elevator; Traction-elevator.
Elevator. C. A. Sturm. No. 1,028,798; June 4; Sp. p. 1567; Gaz. vol. 179; p. 244.
Elevator safety device. W. H. Grant. No. 1,028,454; June 4; Sp. p. 864; Gaz. vol. 179; p. 129.
Elevator safety device. M. Neszton. No. 1,028,594; June 4; Sp. p. 1159; Gaz. vol. 179; p. 176.
Elevator safety device, Hydraulic-. T. E. Brown. No. 1,028,807; June 4; Sp. p. 1585; Gaz. vol. 179; p. 248.
Ellipsograph. C. Schreiber. No. 1,029,515; June 11; Sp. p. 3131; Gaz. vol. 179; p. 525.
Embroidery-hoop. L. Gibbs. No. 1,030,073; June 18; Sp. p. 4375; Gaz. vol. 179; p. 754.
Embroidery, Performing operations incidental to machine-. H. Boeshardt, Sr. No. 1,030,159; June 18; Sp. p. 4533; Gaz. vol. 179; p. 783.
End-gate-rod lock. J. Nohava. No. 1,030,117; June 18; Sp. p. 4458; Gaz. vol. 179; p. 770.
Engine: *See* Atmospheric engine; Combustion-engine; Fluid-pressure engine; Gas-engine; Internal-combustion engine; Power-engine; Road-engine; Rotary engine; Rotary steam-engine; Steam-engine; Traction-engine; Winding-engine.
Engine. T. S. Miller. No. 1,028,127; June 4; Sp. p. 70; Gaz. vol. 179; p. 15.
Engine. C. H. Pierce. No. 1,030,679; June 25; Sp. p. 5903; Gaz. vol. 179; p. 1009.
Engine-cooling means, Gas-. C. C. Jones. No. 1,028,359; June 4; Sp. p. 650; Gaz. vol. 179; p. 97.
Engine-houses, Smoke and gas collector for. H. Clasen. No. 1,028,437; June 4; Sp. p. 824; Gaz. vol. 179; p. 124.
Engine ignition device, Explosive-. C. T. Mason. No. 1,030,243; June 18; Sp. p. 4726; Gaz. vol. 179; p. 813.
Engine ignition system, Gas-. W. E. Dow. No. 1,030,288; June 25; Sp. p. 4847; Gaz. vol. 179; p. 867.
Engine indicator, Steam, gas, and other. J. N. Wallace. No. 1,030,216; June 18; Sp. p. 4671; Gaz. vol. 179; p. 803.
Engine spark-regulator, Explosion-. C. H. Newman. No. 1,029,026; June 11; Sp. p. 2085; Gaz. vol. 179; p. 359.
Engine sparking device, Internal-combustion-. C. C. Williams. No. 1,029,903; June 18; Sp. p. 4012; Gaz. vol. 179; p. 697.
Engine-starter. J. O. Roberts. No. 1,030,430; June 25; Sp. p. 5168; Gaz. vol. 179; p. 919.
Engine-starter, Pneumatic. J. A. Heany. No. 1,029,994; June 18; Sp. p. 4193; Gaz. vol. 179; p. 727.
Engine-starting mechanism, Internal-combustion-. J. L. and F. A. Barker. No. 1,030,799; June 25; Sp. p. 6227; Gaz. vol. 179; p. 1052.
Engine stop and speed limit. W. A. Mueller. No. 1,029,023; June 11; Sp. p. 2079; Gaz. vol. 179; p. 358.
Engine-stopping device. H. Alsterberg. No. 1,029,657; June 18; Sp. p. 3442; Gaz. vol. 179; p. 611.
Engine-throttle. A. A. and G. H. Steward. No. 1,030,140; June 18; Sp. p. 4500; Gaz. vol. 179; p. 777.
Engines, Automatic safety-trip for. C. Schnitzler. No. 1,028,397; June 4; Sp. p. 735; Gaz. vol. 179; p. 111.
Engines, Continuous indicator for. W. L. Trill. No. 1,028,154; June 4; Sp. p. 163; Gaz. vol. 179; p. 25.
Engines, Continuous indicator for. W. L. Trill. No. 1,028,155; June 4; Sp. p. 171; Gaz. vol. 179; p. 26.
Engines, Current-controlling mechanism for internal-combustion. L. T. Rhoades. No. 1,028,277; June 4; Sp. p. 467; Gaz. vol. 179; p. 68.
Engines, Fluid-mixer for gasolene-. S. La Mont. No. 1,029,810; June 18; Sp. p. 3778; Gaz. vol. 179; p. 665.
Engines, Gas-controller for use with gas-. O. H. Wenderoth. No. 1,029,650; June 18; Sp. p. 3417; Gaz. vol. 179; p. 608.
Engines, Magneto ignition device for internal-combustion. C. B. Redrup. No. 1,030,127; June 18; Sp. p. 4470; Gaz. vol. 179; p. 772.
Engines, Means for preliminarily heating internal-combustion. A. A. Low and H. Hertzberg. No. 1,029,380; June 11; Sp. p. 2351; Gaz. vol. 179; p. 479.
Engines, Motive-fluid mixer for internal-combustion. W. G. Cross. No. 1,030,388; June 25; Sp. p. 5074; Gaz. vol. 179; p. 904.
Engines or pumps, Cylinder for fluid-pressure. C. B. Redrup. No. 1,030,681; June 25; Sp. p. 5909; Gaz. vol. 179; p. 1010.
Engines, Water-cooling system for hydrocarbon-. R. Huff. No. 1,028,115; June 4; Sp. p. 43; Gaz. vol. 179; p. 11.
Engineer's combination-rod. A. Schroeder. No. 1,029,470; June 11; Sp. p. 3048; Gaz. vol. 179; p. 510.
Ensilage-carrier. O. Borgen. No. 1,028,988; June 11; Sp. p. 2001; Gaz. vol. 179; p. 345.
Envelop-fastener. A. E. Edmondson. No. 1,030,507; June 25; Sp. p. 5364; Gaz. vol. 179; p. 947.
Envelop-machines, Gum-roll governor for. A. Laubscher. No. 1,029,304; June 11; Sp. p. 2668; Gaz. vol. 179; p. 452.
Envelops, bags, boxes, and other articles, Fastening device for. W. and W. L. Joseph. No. 1,030,187; June 18; Sp. p. 4607; Gaz. vol. 179; p. 793.
Eraser-tool. W. L. Siegel. No. 1,029,572; June 11; Sp. p. 3251; Gaz. vol. 179; p. 545.
Evaporating and fumigating apparatus. J. W. Bates. No. 1,029,841; June 18; Sp. p. 3876; Gaz. vol. 179; p. 676.
Evaporating apparatus. P. Kestner. No. 1,028,738; June 4; Sp. p. 1442; Gaz. vol. 179; p. 224.
Evaporating apparatus. J. A. Power. No. 1,028,777; June 4; Sp. p. 1525; Gaz. vol. 179; p. 237.
Evaporating apparatus. T. F. Sanborn. No. 1,028,792; June 4; Sp. p. 1553; Gaz. vol. 179; p. 242.
Evaporation and apparatus therefor, Process of. P. Kestner. No. 1,028,737; June 4; Sp. p. 1439; Gaz. vol. 179; p. 223.
Evaporative cooler. J. A. and C. W. Walkup. No. 1,030,693; June 25; Sp. p. 5935; Gaz. vol. 179; p. 1014.
Exhaust-silencer. Z. Swearingen. No. 1,030,347; June 25; Sp. p. 4989; Gaz. vol. 179; p. 889.
Expansion-hoop. N. M. Brown. No. 1,028,325; June 4; Sp. p. 569; Gaz. vol. 179; p. 84.
Exploder, Delay-action. F. Bernardi and J. B. Sauve. No. 1,029,261; June 11; Sp. p. 2578; Gaz. vol. 179; p. 438.
Explosive. J. F. O'Brien. No. 1,028,950; June 11; Sp. p. 1917; Gaz. vol. 179; p. 331.
Explosive. J. F. O'Brien. No. 1,028,951; June 11; Sp. p. 1918; Gaz. vol. 179; p. 332.
Explosive. J. F. O'Brien. No. 1,028,952; June 11; Sp. p. 1920; Gaz. vol. 179; p. 332.
Explosive or combustible mixture of liquid fuel and air, Apparatus for producing an. C. E. Dawson. No. 1,029,796; June 18; Sp. p. 3752; Gaz. vol. 179; p. 660.
Explosives, Making unfreezable. V. Vender. No. 1,029,519; June 11; Sp. p. 3136; Gaz. vol. 179; p. 526.
Extension-rod, Telescopic. J. A. Leland. No. 1,030,592; June 25; Sp. p. 5635; Gaz. vol. 179; p. 977.
Extension-table. C. S. Burton. No. 1,030,459; June 25; Sp. p. 5227; Gaz. vol. 179; p. 930.
Extension-table. P. C. McMahan and E. L. King. No. 1,030,853; June 25; Sp. p. 6445; Gaz. vol. 179; p. 1078.
Extension-table, Knockdown. E. Tyden. No. 1,030,438; June 25; Sp. p. 5187; Gaz. vol. 179; p. 922.
Extractor: *See* Cork-extractor.
Extracts, Apparatus for producing vegetable. A. Rosenberger. No. 1,028,282; June 4; Sp. p. 477; Gaz. vol. 179; p. 70.
Eye-shield, Sanitary. J. F. Snyder. No. 1,029,241; June 11; Sp. p. 2543; Gaz. vol. 179; p. 431.
Eyeglass attachment. O. Schwimmer. No. 1,030,545; June 25; Sp. p. 5464; Gaz. vol. 179; p. 960.
Eyeglass-mounting. F. A. Persohn. No. 1,030,828; June 25; Sp. p. 6373; Gaz. vol. 179; p. 1064.
Eyeglass nose-guard. J. H. Ostrander. No. 1,028,773; June 4; Sp. p. 1517; Gaz. vol. 179; p. 236.
Eyeglasses, Finger-piece. E. C. Bernheim. No. 1,029,262; June 11; Sp. p. 2581; Gaz. vol. 179; p. 438.
Eyeleting-machine. F. A. Rumney. No. 1,030,833; June 25; Sp. p. 6387; Gaz. vol. 179; p. 1065.
Fabric: *See* Knitted fabric.
Fabric-cleaning machine. J. E. Baker. No. 1,028,317; June 4; Sp. p. 555; Gaz. vol. 179; p. 82.
Fabric-marking machine. G. Horváth. No. 1,029,543; June 11; Sp. p. 3186; Gaz. vol. 179; p. 534.
Fabric-marking machine. G. Horváth. No. 1,029,544; June 11; Sp. p. 3188; Gaz. vol. 179; p. 535.
Fabric-roll protector. C. J. Rothermel. No. 1,029,947; June 18; Sp. p. 4103; Gaz. vol. 179; p. 712.
Fabrics, Machine for piling textile. C. J. Priester. No. 1,029,316; June 11; Sp. p. 2700; Gaz. vol. 179; p. 458.
Fabrics, Machine for turning tubular. H. A. Shields. No. 1,030,336; June 25; Sp. p. 4969; Gaz. vol. 179; p. 886.
Fan. E. E. Blackmer and E. W. Johnson. No. 1,030,561; June 25; Sp. p. 5516; Gaz. vol. 179; p. 965.
Farm-gate. H. J. Mitchell. No. 1,028,588; June 4; Sp. p. 1144; Gaz. vol. 179; p. 174.
Fastener making and driving machine. A. F. Preston. No. 1,030,820; June 25; Sp. p. 6374; Gaz. vol. 179; p. 1064.
Fastener supplying and delivering mechanism. M. H. Pearson. No. 1,030,531; June 25; Sp. p. 5440; Gaz. vol. 179; p. 956.
Fastening-inserting machine. A. L. Engberg. No. 1,030,572; June 25; Sp. p. 5559; Gaz. vol. 179; p. 970.
Fastening-inserting machine. G. Goddu. No. 1,030,775; June 25; Sp. p. 6153; Gaz. vol. 179; p. 1043.
Fastening-inserting or other machines, Work-support mechanism for. L. A. Casgrain. No. 1,028,434; June 4; Sp. p. 811; Gaz. vol. 179; p. 123.
Faucet. H. Forsman. No. 1,029,354; June 11; Sp. p. 2791; Gaz. vol. 179; p. 471.
Faucet. C. Schlatterer. No. 1,029,403; June 11; Sp. p. 2918; Gaz. vol. 179; p. 488.

Faucet. D. E. J. Noonan. No. 1,030,322; June 25; Sp. p. 4935; Gaz. vol. 179; p. 880.
Faucet and support therefor. W. A. Hull. No. 1,030,306; June 25; Sp. p. 4897; Gaz. vol. 179; p. 874.
Faucet, Measuring-. P. H. Smith. No. 1,029,725; June 18; Sp. p. 3607; Gaz. vol. 179; p. 636.
Feather construction, Artificial-. N. Garfinkle. No. 1,030,072; June 18; Sp. p. 4373; Gaz. vol. 179; p. 754.
Feed and litter carrier. H. L. Ferris. No. 1,029,984; June 18; Sp. p. 4177; Gaz. vol. 179; p. 724.
Feed-bag. A. Schultz. No. 1,029,148; June 11; Sp. p. 2345; Gaz. vol. 179; p. 399.
Feed-bag. S. Savosick. No. 1,029,320; June 11; Sp. p. 2715; Gaz. vol. 179; p. 459.
Feed mechanism. W. A. Lorenz and J. Merritt. No. 1,029,760; June 18; Sp. p. 3673; Gaz. vol. 179; p. 648.
Feed-trough and water-fountain, Combination. L. Schneider. No. 1,030,130; June 18; Sp. p. 4475; Gaz. vol. 179; p. 773.
Feeder. Chicken-. G. and A. Nieman. No. 1,029,623; June 18; Sp. p. 3369; Gaz. vol. 179; p. 600.
Fence-post. J. E. and D. P. Stryker. No. 1,028,630; June 4; Sp. p. 1223; Gaz. vol. 179; p. 188.
Fence-post brace. H. Wagner. No. 1,030,497; June 25; Sp. p. 5325; Gaz. vol. 179; p. 943.
Fence-post, Metal. J. C. Larsen. No. 1,030,411; June 25; Sp. p. 5119; Gaz. vol. 179; p. 913.
Fence-posts, Staple-attaching device for molded. F. L. Flack. No. 1,029,859; June 18; Sp. p. 3918; Gaz. vol. 179; p. 682.
Fence-wire support. H. A. Schultz. No. 1,030,131; June 18; Sp. p. 4477; Gaz. vol. 179; p. 774.
Fender: *See* Car-fender.
Fender. W. Heinig. No. 1,028,119; June 4; Sp. p. 51; Gaz. vol. 179; p. 12.
Ferrules, Tool for inserting and withdrawing screwed. E. C. and J. Jenkins. No. 1,030,732; June 25; Sp. p. 6033; Gaz. vol. 179; p. 1027.
Fertilizers by aid of fermentation, Rendering mineral substances available as. G. F. Lawton. No. 1,029,378; June 11; Sp. p. 2848; Gaz. vol. 179; p. 479.
Filaments and other products obtained from cellulose compounds. L. Lederer. No. 1,028,748; June 4; Sp. p. 1472; Gaz. vol. 179; p. 227.
Filaments, Manufacturing incandescent-lamp. H. Kužel. No. 1,030,666; June 25; Sp. p. 5876; Gaz. vol. 179; p. 1005.
Filaments, Mounting and soldering electrical. S. Marietti. No. 1,029,383; June 11; Sp. p. 2857; Gaz. vol. 179; p. 481.
File box or drawer. W. C. Weis. No. 1,030,625; June 25; Sp. p. 5768; Gaz. vol. 179; p. 991.
File-cabinet. W. E. Ryan. No. 1,029,231; June 11; Sp. p. 2515; Gaz. vol. 179; p. 427.
File, Nail-. J. L. Sommer. No. 1,030,492; June 25; Sp. p. 5312; Gaz. vol. 179; p. 941.
Filing device. A. F. Staples. No. 1,028,300; June 4; Sp. p. 514; Gaz. vol. 179; p. 75.
Filing unit, Metal. A. H. Schaffert. No. 1,029,466; June 11; Sp. p. 3041; Gaz. vol. 179; p. 509.
Filling, weighing, and packing apparatus. N. B. Converse. No. 1,029,669; June 18; Sp. p. 3461; Gaz. vol. 179; p. 615.
Filter. S. S. Montanye. No. 1,028,377; June 4; Sp. p. 686; Gaz. vol. 179; p. 104.
Filter. G. de Brandner. No. 1,028,535; June 4; Sp. p. 1029; Gaz. vol. 179; p. 156.
Filter. B. Danziger. No. 1,029,915; June 18; Sp. p. 4042; Gaz. vol. 179; p. 702.
Filter apparatus. B. W. Traylor. No. 1,029,155; June 11; Sp. p. 2356; Gaz. vol. 179; p. 402.
Filter, Fuel-oil. J. R. Tourangeau. No. 1,028,304; June 4; Sp. p. 524; Gaz. vol. 179; p. 77.
Fire-alarm apparatus, Automatic. G. F. Emch. No. 1,029,179; June 11; Sp. p. 2401; Gaz. vol. 179; p. 409.
Fire-box, Downdraft. S. M. Vauclain and G. R. Henderson. No. 1,028,642; June 4; Sp. p. 1249; Gaz. vol. 179; p. 192.
Fire-door. T. E. Collins. No. 1,029,012; June 18; Sp. p. 4035; Gaz. vol. 179; p. 701.
Fire-escape. J. B. Glover. No. 1,028,453; June 4; Sp. p. 862; Gaz. vol. 179; p. 129.
Fire-escape. V. Denaro. No. 1,028,687; June 4; Sp. p. 1334; Gaz. vol. 179; p. 206.
Fire-escape. F. Schneider. No. 1,029,768; June 18; Sp. p. 3686; Gaz. vol. 179; p. 650.
Fire-escape. W. H. Smith. No. 1,029,769; June 18; Sp. p. 3687; Gaz. vol. 179; p. 650.
Fire-extinguishing apparatus. E. T. and E. W. Copeland. No. 1,029,277; June 11; Sp. p. 2613; Gaz. vol. 179; p. 443.
Fire-fighting elevator. E. H. Haney. No. 1,030,468; June 25; Sp. p. 5245; Gaz. vol. 179; p. 933.
Fire-hydrants and the like, Apparatus used in the construction of. M. Clarkson. No. 1,030,384; June 25; Sp. p. 5066; Gaz. vol. 179; p. 903.
Firearm. C. A. Young. No. 1,029,037; July 11; Sp. p. 2100; Gaz. vol. 179; p. 363.
Firearm. A. H. Worrest. No. 1,029,781; June 18; Sp. p. 3716; Gaz. vol. 179; p. 654.
Firearm, Automatic. I. Johnson. No. 1,028,884; June 11; Sp. p. 1767; Gaz. vol. 179; p. 309.
Firearm, Automatic. N. C. Schellenger. No. 1,029,720; June 18; Sp. p. 3592; Gaz. vol. 179; p. 634.
Firearm, Hand-. F. T. Russell. No. 1,029,229; June 11; Sp. p. 2509; Gaz. vol. 179; p. 427.
Firearms, Night-sight for. G. A. Seely. No. 1,029,951; June 18; Sp. p. 4110; Gaz. vol. 179; p. 713.
Fireplace, Portable. C. L. Taylor. No. 1,029,151; June 11; Sp. p. 2349; Gaz. vol. 179; p. 400.
Fireproof composition, Manufacturing. G. A. Cummings. No. 1,028,193; June 4; Sp. p. 306; Gaz. vol. 179; p. 40.
Fish handling and cutting machine. F. D. Cleveland. No. 1,030,646; June 25; Sp. p. 5826; Gaz. vol. 179; p. 998.
Fish-scaling device. O. Keil. No. 1,028,736; June 4; Sp. p. 1438; Gaz. vol. 179; p. 223.
Flanging-machine. H. McCabe. No. 1,030,416; June 25; Sp. p. 5133; Gaz. vol. 179; p. 915.
Flask: *See* Molder's flask.
Flat-iron stand and polisher. G. G. Hunt. No. 1,029,446; June 11; Sp. p. 3003; Gaz. vol. 179; p. 502.
Flexible coupling. W. J. Francke. No. 1,029,355; June 11; Sp. p. 2793; Gaz. vol. 179; p. 471.
Flood-gate. G. S. Gardner. No. 1,028,566; June 4; Sp. p. 1092; Gaz. vol. 179; p. 166.
Floor-covering, Wooden. G. Fulton. No. 1,028,703; June 4; Sp. p. 1356; Gaz. vol. 179; p. 212.
Floor-surfacing machine. J. Herr. No. 1,030,255; June 18; Sp. p. 4745; Gaz. vol. 179; p. 817.
Floor-sweep. H. L. Day. No. 1,029,532; June 11; Sp. p. 3162; Gaz. vol. 179; p. 531.
Floor-tread. F. Erlach. No. 1,029,675; June 18; Sp. p. 3484; Gaz. vol. 179; p. 617.
Floors, siding, scaffolds, &c., Tool for removing. H. C. Hunt. No. 1,030,660; June 25; Sp. p. 5866; Gaz. vol. 179; p. 1003.
Flooring-strip, Removable. W. S. Mitchell. No. 1,029,940; June 18; Sp. p. 4091; Gaz. vol. 179; p. 710.
Flower-rack. H. C. Wilmot. No. 1,028,169; June 4; Sp. p. 257; Gaz. vol. 179; p. 31.
Fluid-containers, Locking mechanism for. L. M. Parmley. No. 1,029,713; June 18; Sp. p. 3582; Gaz. vol. 179; p. 632.
Fluid-pressure control. F. E. Martin. No. 1,030,105; June 18; Sp. p. 4439; Gaz. vol. 179; p. 767.
Fluid-pressure engine. C. B. Redrup. No. 1,029,460; June 11; Sp. p. 3030; Gaz. vol. 179; p. 507.
Fluid-pressure motor. A. G. Elvin. No. 1,030,062; June 18; Sp. p. 4352; Gaz. vol. 179; p. 751.
Fluid-pressure motor. A. G. Elvin. No. 1,030,063; June 18; Sp. p. 4355; Gaz. vol. 179; p. 751.
Fluid-pressure motor for fire-box doors. A. G. Elvin. No. 1,030,234; June 18; Sp. p. 4706; Gaz. vol. 179; p. 810.
Fluid-pressure motor for fire-box doors or other reciprocating members. A. G. Elvin. No. 1,030,064; June 18; Sp. p. 4358; Gaz. vol. 179; p. 752.
Fluid-translating device. R. N. Ehrhart. No. 1,029,979; June 18; Sp. p. 4170; Gaz. vol. 179; p. 722.
Flush-tank cover. S. Drugan and J. Schoenthaler. No. 1,030,059; June 18; Sp. p. 4348; Gaz. vol. 179; p. 750.
Flushing apparatus, Tank-. W. Duiles. No. 1,028,108; June 4; Sp. p. 314; Gaz. vol. 179; p. 41.
Flushing device. C. F. Johnson. No. 1,029,687; June 18; Sp. p. 3507; Gaz. vol. 179; p. 622.
Flushing device. C. F. Johnson. No. 1,029,688; June 18; Sp. p. 3510; Gaz. vol. 179; p. 622.
Flushing-tank. H. Hartmann. No. 1,030,174; June 18; Sp. p. 4564; Gaz. vol. 179; p. 789.
Fly-catcher. H. Fingerhut. No. 1,029,001; June 11; Sp. p. 2035; Gaz. vol. 179; p. 350.
Fly-escape for screens. H. W. Welty. No. 1,029,330; June 11; Sp. p. 2738; Gaz. vol. 179; p. 463.
Fly-killer. C. W. Merrifield. No. 1,030,004; June 18; Sp. p. 4214; Gaz. vol. 179; p. 730.
Flying-machine. L. A. Leech. No. 1,028,120; June 4; Sp. p. 53; Gaz. vol. 179; p. 12.
Flying-machine. W. J. Purvis and C. A. Wilson. No. 1,028,781; June 4; Sp. p. 1533; Gaz. vol. 179; p. 239.
Flying-machine. V. E. D'Urso. No. 1,028,865; June 11; Sp. p. 1719; Gaz. vol. 179; p. 301.
Flying-machine. M. L. Shackleford. No. 1,028,971; June 11; Sp. p. 1957; Gaz. vol. 179; p. 338.
Flying-machine. J. W. Wilson. No. 1,028,981; June 11; Sp. p. 1984; Gaz. vol. 179; p. 342.
Flying-machine. S. Borman. No. 1,030,803; June 25; Sp. p. 6240; Gaz. vol. 179; p. 1054.
Flying-machine safety appliance. L. W. Stolp. No. 1,029,475; June 11; Sp. p. 3057; Gaz. vol. 179; p. 512.
Flying-machine-stabilizing device. W. Düchting. No. 1,028,336; June 4; Sp. p. 588; Gaz. vol. 179; p. 88.
Flying-machines, Automatic stabilizer for. M. Raabe. No. 1,028,782; June 4; Sp. p. 1536; Gaz. vol. 179; p. 239.
Folding chair. J. Kitak. No. 1,029,067; June 11; Sp. p. 2164; Gaz. vol. 179; p. 372.
Folding-machine. J. D. Morgan. No. 1,029,140; June 11; Sp. p. 2324; Gaz. vol. 179; p. 396.
Follower-board. H. K. Brooks. No. 1,030,277; June 25; Sp. p. 4828; Gaz. vol. 179; p. 864.
Footwear, Sanitary. A. Hale. No. 1,030,085; June 18; Sp. p. 4402; Gaz. vol. 179; p. 760.
Footwear, Ventilating-cushion for. F. J. Drobinski. No. 1,029,110; June 11; Sp. p. 2262; Gaz. vol. 179; p. 386.
Forging-press. C. von Philp. No. 1,029,081; June 11; Sp. p. 2186; Gaz. vol. 179; p. 376.
Fork: *See* Oyster-fork.
Form, Folding garment-. B. Cahn. No. 1,028,991; June 11; Sp. p. 2009; Gaz. vol. 179; p. 346.

Forming-press. E. Haefely. No. 1,028,108; June 4; Sp. p. 31; Gaz. vol. 179; p. 8.
Fount, Dispensing-. J. M. Travis. No. 1,030,353; June 25; Sp. p. 5003; Gaz. vol. 179; p. 891.
Fountain-tank. A. N. Eaton. No. 1,028,998; June 11; Sp. p. 2028; Gaz. vol. 179; p. 348.
Frame: *See* Binder-frame; Cycle spring-frame; Photo printing-frame; Truck-frame; Velocipede-frame; Velocipede spring-frame.
Framing-tool. C. C. Tainter. No. 1,029,774; June 18; Sp. p. 3690; Gaz. vol. 179; p. 652.
Frequency-responsive device. B. Frankenfield. No. 1,029,007; June 11; Sp. p. 2048; Gaz. vol. 179; p. 352.
Friction-top can, Compartment. H. W. Jones. No. 1,029,017; June 11; Sp. p. 2060; Gaz. vol. 179; p. 356.
Fruit-elevator. J. B. Horrell and A. S. Bryant. No. 1,028,823; June 4; Sp. p. 1618; Gaz. vol. 179; p. 252.
Fruit-grader. N. J. Ofstad. No. 1,030,479; June 25; Sp. p. 5285; Gaz. vol. 179; p. 937.
Fruit-grader. C. Watson. No. 1,030,552; June 25; Sp. p. 5486; Gaz. vol. 179; p. 963.
Fruit-picker's receptacle. J. S. Barnett. No. 1,029,581; June 18; Sp. p. 3276; Gaz. vol. 179; p. 583.
Fruit-picking bag. F. W. Burch. No. 1,029,486; June 11; Sp. p. 3075; Gaz. vol. 179; p. 516.
Fuel-briquets, Making. A. M. Mitchell. No. 1,029,022; June 11; Sp. p. 2077; Gaz. vol. 179; p. 357.
Fuel-feeding apparatus, Powdered-. W. R. Dunn. No. 1,028,997; June 11; Sp. p. 2026; Gaz. vol. 179; p. 348.
Funnel. A. J. Corsi. No. 1,028,680; June 4; Sp. p. 1322; Gaz. vol. 179; p. 204.
Fur. E. E. Evers. No. 1,029,858; June 18; Sp. p. 3917; Gaz. vol. 179; p. 682.
Furnace: *See* Balling-furnace; Crucible-furnace; Electric furnace; Gas-generator furnace; Smelting-furnace.
Furnace. J. Kauth. No. 1,028,572; June 4; Sp. p. 1109; Gaz. vol. 179; p. 168.
Furnace-cooling. F. C. Roberts. No. 1,030,792; June 25; Sp. p. 6210; Gaz. vol. 179; p. 1050.
Furnace-cover. C. S. Robinson. No. 1,029,319; June 11; Sp. p. 2713; Gaz. vol. 179; p. 459.
Furnace for sintering metallic filaments for electric incandescent lamps. C. Trenzen and E. Haagn. No. 1,028,832; June 4; Sp. p. 1641; Gaz. vol. 179; p. 256.
Furnace regulating and reversing apparatus, Regenerating gas-. H. Kopper. No. 1,029,606; June 18; Sp. p. 3529; Gaz. vol. 179; p. 625.
Furnace steam and air feeding device. G. A. Gustafson. No. 1,029,680; June 18; Sp. p. 3493; Gaz. vol. 179; p. 619.
Furnaces and the like, Apparatus for charging open-hearth. J. Smith. No. 1,028,620; June 4; Sp. p. 1207; Gaz. vol. 179; p. 185.
Furnaces, &c., Apparatus for charging open-hearth. J. Smith. No. 1,028,619; June 4; Sp. p. 1205; Gaz. vol. 179; p. 184.
Furnaces, Apparatus for consuming smoke in boiler-. V. G. Smith. No. 1,029,952; June 18; Sp. p. 4111; Gaz. vol. 179; p. 713.
Furnaces, Device for promoting combustion in. E. Heness. No. 1,028,879; June 11; Sp. p. 1755; Gaz. vol. 179; p. 307.
Furnaces, Means for controlling the air-supply to locomotive-boiler. J. H. Hume. No. 1,028,881; June 11; Sp. p. 1759; Gaz. vol. 179; p. 308.
Furnaces, Pot-filling apparatus for glass-. P. Hoffmann. No. 1,029,444; June 11; Sp. p. 2994; Gaz. vol. 179; p. 502.
Furniture construction. A. H. Schaffert. No. 1,029,467; June 11; Sp. p. 3042; Gaz. vol. 179; p. 509.
Furniture, Contact-piece for. B. F. Mayo. No. 1,030,596; June 25; Sp. p. 5646; Gaz. vol. 179; p. 978.
Fuse. G. R. Willett. No. 1,028,647; June 4; Sp. p. 1256; Gaz. vol. 179; p. 193.
Fuse-adjusting machine. W. Schwartz. No. 1,029,146; June 11; Sp. p. 2337; Gaz. vol. 179; p. 398.
Fuse and adjusting-key therefor. U. Wilck. No. 1,028,924; June 11; Sp. p. 1869; Gaz. vol. 179; p. 323.
Fuse-case. T. E. Murray. No. 1,028,255; June 4; Sp. p. 424; Gaz. vol. 179; p. 61.
Fuse, Electric. G. W. Christians. No. 1,028,328; June 4; Sp. p. 574; Gaz. vol. 179; p. 86.
Fuse, Mechanical time-. K. Wiener. No. 1,029,036; June 11; Sp. p. 2090; Gaz. vol. 179; p. 362.
Fuse, Safety-. H. A. Yates. No. 1,028,173; June 4; Sp. p. 266; Gaz. vol. 179; p. 33.
Fuses, Compound for railway time signal-. I. Niditch. No. 1,029,884; June 18; Sp. p. 3975; Gaz. vol. 179; p. 691.
Gage: *See* Marking-gage; Saw-gage; Saw-filing gage.
Galvanic battery. A. Heil. No. 1,028,354; June 4; Sp. p. 641; Gaz. vol. 179; p. 96.
Gambrel. F. H. Pierce. No. 1,029,314; June 11; Sp. p. 2697; Gaz. vol. 179; p. 457.
Gambrel. P. Roskopf. No. 1,030,683; June 25; Sp. p. 5912; Gaz. vol. 179; p. 1010.
Game. R. Kaerschke. No. 1,028,467; June 4; Sp. p. 891; Gaz. vol. 179; p. 134.
Game. E. P. Jessop. No. 1,029,448; June 11; Sp. p. 3007; Gaz. vol. 179; p. 503.
Game. S. E. Wharton. No. 1,030,554; June 25; Sp. p. 5490; Gaz. vol. 179; p. 963.
Game apparatus. J. D. Hirsch. No. 1,028,724; June 4; Sp. p. 1408; Gaz. vol. 179; p. 219.
Game apparatus. S. L. McCurdy. No. 1,030,108; June 18; Sp. p. 4443; Gaz. vol. 179; p. 767.
Game apparatus. B. P. Rogers. No. 1,030,330; June 25; Sp. p. 4955; Gaz. vol. 179; p. 883.
Game apparatus. H. K. Kirch and O. E. Clauss. No. 1,030,664; June 25; Sp. p. 5872; Gaz. vol. 179; p. 1004.
Game apparatus, Educational. R. W. Mansfield. No. 1,030,414; June 25; Sp. p. 5126; Gaz. vol. 179; p. 914.
Game apparatus, Puzzle. E. G. Johnston. No. 1,029,016; June 11; Sp. p. 2068; Gaz. vol. 179; p. 355.
Game-counter. W. L. Deming. No. 1,028,935; June 11; Sp. p. 1888; Gaz. vol. 179; p. 326.
Game of skill. H. Maxim. No. 1,030,521; June 25; Sp. p. 5410; Gaz. vol. 179; p. 962.
Game-table. R. Hockin. No. 1,028,463; June 4; Sp. p. 882; Gaz. vol. 179; p. 133.
Garbage-can holder. A. D. Gatchel. No. 1,028,705; June 4; Sp. p. 1359; Gaz. vol. 179; p. 212.
Garbage-pail holder. J. H. Farling. No. 1,028,698; June 4; Sp. p. 1349; Gaz. vol. 179; p. 210.
Garbage-receptacle. L. A. Moran. No. 1,028,898; June 11; Sp. p. 1807; Gaz. vol. 179; p. 314.
Garment, Burial-. C. C. Holcomb. No. 1,028,464; June 4; Sp. p. 884; Gaz. vol. 179; p. 133.
Garment-clasp. J. Lemay. No. 1,030,098; June 18; Sp. p. 4428; Gaz. vol. 179; p. 765.
Garment-closer. J. Hughes. No. 1,029,930; June 18; Sp. p. 4072; Gaz. vol. 179; p. 707.
Garment closure, Weatherproof-. L. T. Sawyer. No. 1,028,908; June 11; Sp. p. 1826; Gaz. vol. 179; p. 317.
Garment-connecting device. M. Schwartz. No. 1,029,828; June 18; Sp. p. 3831; Gaz. vol. 179; p. 672.
Garment-hook. H. Grant. No. 1,029,989; June 18; Sp. p. 4185; Gaz. vol. 179; p. 726.
Garment-receptacle. W. S. Gilmore. No. 1,028,206; June 4; Sp. p. 335; Gaz. vol. 179; p. 45.
Garment-receptacle. W. S. Gilmore. No. 1,028,207; June 4; Sp. p. 337; Gaz. vol. 179; p. 45.
Gas-burner. C. O'Neil. No. 1,030,118; June 18; Sp. p. 4459; Gaz. vol. 179; p. 779.
Gas-burner, Safety. W. B. Stoudt. No. 1,029,830; June 18; Sp. p. 3834; Gaz. vol. 179; p. 672.
Gas, Collection of fume, flue-dust, and other matter suspended in. R. F. Pearce. No. 1,028,487; June 4; Sp. p. 940; Gaz. vol. 179; p. 141.
Gas, Device for controlling from a distance the passage of. A. M. and J. M. Aubert. No. 1,028,657; June 4; Sp. p. 1282; Gaz. vol. 179; p. 197.
Gas-engine. C. Robinson. No. 1,028,492; June 4; Sp. p. 947; Gaz. vol. 179; p. 142.
Gas-generator. W. Kirkwood. No. 1,029,692; June 18; Sp. p. 3518; Gaz. vol. 179; p. 624.
Gas-generator. J. Kilburn, J. W. Fairley, T. B. Kidner, W. H. Irvine, and W. T. Chestnut. No. 1,029,872; June 18; Sp. p. 3940; Gaz. vol. 179; p. 686.
Gas generator, Acetylene-. F. H. Young. No. 1,028,174; June 4; Sp. p. 268; Gaz. vol. 179; p. 33.
Gas generator, Acetylene-. E. Scott. No. 1,029,722; June 18; Sp. p. 3600; Gaz. vol. 179; p. 635.
Gas generator, Acetylene-. J. Kilburn, J. W. Fairley, T. B. Kidner, W. H. Irvine, and W. T. Chestnut. No. 1,029,873; June 18; Sp. p. 3944; Gaz. vol. 179; p. 687.
Gas generator, Acetylene-. J. Kilburn, J. W. Fairley, T. B. Kidner, W. H. Irvine, and W. T. Chestnut. No. 1,029,874; June 18; Sp. p. 3948; Gaz. vol. 179; p. 687.
Gas-generator furnace. F. J. Orr. No. 1,030,202; June 18; Sp. p. 4644; Gaz. vol. 179; p. 798.
Gas-heater. L. F. Betts. No. 1,028,666; June 4; Sp. p. 1301; Gaz. vol. 179; p. 200.
Gas-lighter. E. Lamprecht. No. 1,029,135; June 11; Sp. p. 2316; Gaz. vol. 179; p. 395.
Gas, Manufacture of carbureted water-. J. M. Rusby. No. 1,030,332; June 25; Sp. p. 4959; Gaz. vol. 179; p. 884.
Gas-pipe cut-off. J. J. Staley. No. 1,030,341; June 25; Sp. p. 4977; Gaz. vol. 179; p. 887.
Gas-producer. C. J. Atkinson. No. 1,028,524; June 4; Sp. p. 1008; Gaz. vol. 179; p. 153.
Gas producer or generator. A. J. Rickie. No. 1,029,084; June 11; Sp. p. 2212; Gaz. vol. 179; p. 378.
Gas-producing apparatus, Hydrogen-. H. Lane. No. 1,028,366; June 4; Sp. p. 467; Gaz. vol. 179; p. 100.
Gas-purifier. C. H. Abbott. No. 1,028,419; June 4; Sp. p. 781; Gaz. vol. 179; p. 118.
Gas-saving device. F. W. Ford. No. 1,028,105; June 4; Sp. p. 26; Gaz. vol. 179; p. 7.
Gasket. J. Darlington, Jr. No. 1,030,055; June 18; Sp. p. 4344; Gaz. vol. 179; p. 749.
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Gate. R. T. Van Valkenburg. No. 1,028,641; June 4; Sp. p. 1246; Gaz. vol. 179; p. 192.
Gate. L. Martin. No. 1,029,306; June 11; Sp. p. 2675; Gaz. vol. 179; p. 453.
Gate. R. Moore. No. 1,029,393; June 11; Sp. p. 2899; Gaz. vol. 179; p. 484.
Gate. H. C. Anderson. No. 1,030,222; June 18; Sp. p. 4684; Gaz. vol. 179; p. 805.
Gear-casing. L. Onderdonk. No. 1,030,677; June 25; Sp. p. 5001; Gaz. vol. 179; p. 1008.
Gear-cutter, Universal. F. L. Eberhardt and W. F. Zimmermann. No. 1,028,815; June 4; Sp. p. 1500; Gaz. vol. 179; p. 250.
Gear-cutting machine, Multiple-. F. L. Eberhardt. No. 1,030,291; June 25; Sp. p. 4852; Gaz. vol. 179; p. 860.

Gear mechanism, Reverse-. A. B. Harrington. No. 1,029,610; June 18; Sp. p. 3839; Gaz. vol. 179; p. 595.
Gear-shaping machine. E. R. Fellows. No. 1,028,343; June 4; Sp. p. 601; Gaz. vol. 179; p. 91.
Gear-shifting mechanism. J. K. Boland. No. 1,028,532; June 4; Sp. p. 1026; Gaz. vol. 179; p. 156.
Gear-wheel. J. Say. No. 1,028,909; June 11; Sp. p. 1828; Gaz. vol. 179; p. 318.
Gearing. E. W. Blum. No. 1,028,095; June 4; Sp. p. 4; Gaz. vol. 179; p. 3.
Gearing. J. Dain. No. 1,028,441; June 4; Sp. p. 836; Gaz. vol. 179; p. 126.
Gearing. J. Dain. No. 1,028,442; June 4; Sp. p. 842; Gaz. vol. 179; p. 126.
Gearing. J. Dain. No. 1,028,551; June 4; Sp. p. 1057; Gaz. vol. 179; p. 161.
Gearing. H. Tideman. No. 1,029,959; June 18; Sp. p. 4133; Gaz. vol. 179; p. 716.
Gearing. C. T. Thorssell and M. K. E. Malmsten. No. 1,030,034; June 18; Sp. p. 4277; Gaz. vol. 179; p. 741.
Gearing. A. G. G. Salenius. No. 1,030,208; June 18; Sp. p. 4659; Gaz. vol. 179; p. 800.
Gearing. W. J. O. Astrup. No. 1,030,272; June 25; Sp. p. 4805; Gaz. vol. 179; p. 862.
Gearing. P. Lord. No. 1,030,758; June 25; Sp. p. 6042; Gaz. vol. 179; p. 1029.
Gearing, Differential. D. C. Cookingham and J. H. Hertner. No. 1,029,793; June 18; Sp. p. 3744; Gaz. vol. 179; p. 659.
Gearing, Feed-. J. R. Perrine. No. 1,029,313; June 11; Sp. p. 2695; Gaz. vol. 179; p. 457.
Gearing for motor-vehicles, Transmission-. R. G. Hardgrave and C. T. Adair. No. 1,028,876; June 11; Sp. p. 1749; Gaz. vol. 179; p. 306.
Gearing, Friction-. F. D. Leach. No. 1,028,944; June 11; Sp. p. 1905; Gaz. vol. 179; p. 329.
Gearing, Transmission-. A. F. Dickey. No. 1,029,109; June 11; Sp. p. 2259; Gaz. vol. 179; p. 386.
Gearing, Transmission-. A. Benson. No. 1,030,379; June 25; Sp. p. 5054; Gaz. vol. 179; p. 902.
Gearing, Variable-speed. J. J. H. Sturmey. No. 1,028,916; June 11; Sp. p. 1844; Gaz. vol. 179; p. 320.
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Gliding-tools, Appliance for supplying ribbon gold to rotary-disk. J. C. Merwin and J. W. Donovan. No. 1,029,308; June 11; Sp. p. 2679; Gaz. vol. 179; p. 454.
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Glass articles, Mold for forming. W. J. Woods. No. 1,028,413; June 4; Sp. p. 769; Gaz. vol. 179; p. 116.
Glass-blowing apparatus. A. C. Wilcox. No. 1,029,779; June 18; Sp. p. 3708; Gaz. vol. 179; p. 654.
Glass-fastener. C. W. Sego. No. 1,030,133; June 18; Sp. p. 4480; Gaz. vol. 179; p. 775.
Glass-gage cutter. E. F. Fletcher. No. 1,028,870; June 11; Sp. p. 1737; Gaz. vol. 179; p. 304.
Glass in continuous sheets, Apparatus for the mechanical manufacture of. E. Rowart. No. 1,030,018; June 18; Sp. p. 4244; Gaz. vol. 179; p. 735.
Glass, Method and apparatus for shaping. D. L. Neuhauser. No. 1,028,129; June 4; Sp. p. 78; Gaz. vol. 179; p. 16.
Glaziers' points, Tool for applying. J. Powers and J. G. Schofield. No. 1,028,778; June 4; Sp. p. 1526; Gaz. vol. 179; p. 238.
Globe and globe-holder. E. E. Frederick. No. 1,029,356; June 11; Sp. p. 2795; Gaz. vol. 179; p. 471.
Globe and shade holder. W. C. Homan. No. 1,029,298; June 11; Sp. p. 2658; Gaz. vol. 179; p. 450.
Globe-holder. J. E. Martin. No. 1,029,384; June 11; Sp. p. 2859; Gaz. vol. 179; p. 481.
Globe-holder. J. E. Martin. No. 1,029,385; June 11; Sp. p. 2860; Gaz. vol. 179; p. 481.
Gold-saving machine. J. M. Wishart. No. 1,030,490; June 25; Sp. p. 5328; Gaz. vol. 179; p. 944.
Governor, Engine or like. J. Taylor and D. H. Evans. No. 1,029,479; June 11; Sp. p. 3064; Gaz. vol. 179; p. 514.
Governor, Speed-. A. Kindberg. No. 1,029,302; June 11; Sp. p. 2665; Gaz. vol. 179; p. 452.
Grab, Automatic. E. Kraemer. No. 1,030,191; June 18; Sp. p. 4614; Gaz. vol. 179; p. 795.
Grain-binder. B. R. Benjamin. No. 1,029,659; June 18; Sp. p. 3445; Gaz. vol. 179; p. 612.
Grain-binder packer-arm. H. Bohlinger. No. 1,029,416; June 11; Sp. p. 2942; Gaz. vol. 179; p. 492.
Grain-cradle. H. B. Hewitt. No. 1,028,215; June 4; Sp. p. 348; Gaz. vol. 179; p. 48.
Grain-drier. F. R. Morris. No. 1,028,899; June 11; Sp. p. 1809; Gaz. vol. 179; p. 314.
Grain-elevator wagon-dump and conveyer mechanism. F. J. Zimmerman. No. 1,029,832; June 11; Sp. p. 2740; Gaz. vol. 179; p. 464.
Graphophone of the disk-record type, Automatic. J. L. Gemill. No. 1,028,707; June 4; Sp. p. 1362; Gaz. vol. 179; p. 213.
Grate. O. H. Krueger. No. 1,028,943; June 11; Sp. p. 1903; Gaz. vol. 179; p. 329.
Grate. F. S. Livingston. No. 1,030,002; June 18; Sp. p. 4211; Gaz. vol. 179; p. 730.
Grate. T. W. Nicol. No. 1,030,528; June 25; Sp. p. 5434; Gaz. vol. 179; p. 955.
Grate-bar. G. L. Hofer. No. 1,030,303; June 25; Sp. p. 4882; Gaz. vol. 179; p. 873.
Grate, Chain. J. Rademacher. No. 1,028,276; June 4; Sp. p. 464; Gaz. vol. 179; p. 68.
Gravity-carrier. F. E. Moore. No. 1,028,589; June 4; Sp. p. 1146; Gaz. vol. 179; p. 174.
Gravity-lock. J. H. Carlstedt. No. 1,028,860; June 11; Sp. p. 1710; Gaz. vol. 179; p. 300.
Gravity-lock, Automatic. F. D. Patten. No. 1,030,848; June 25; Sp. p. 6431; Gaz. vol. 179; p. 1071.
Grease-cup. O. Zerk. No. 1,029,412; June 11; Sp. p. 2936; Gaz. vol. 179; p. 491.
Grease-paint, burnt cork, &c., from the face, Compound for removing. E. J. M. Hart. No. 1,029,118; June 11; Sp. p. 2277; Gaz. vol. 179; p. 389.
Grinder, Disk. J. Miller, Jr. No. 1,029,882; June 18; Sp. p. 3960; Gaz. vol. 179; p. 690.
Grinding-machine. H. V. Joseph. No. 1,030,186; June 18; Sp. p. 4606; Gaz. vol. 179; p. 793.
Grinding-mill. W. R. Cunningham. No. 1,028,550; June 4; Sp. p. 1054; Gaz. vol. 179; p. 161.
Grinding-mill. W. P. Carson and J. J. Hubbard. No. 1,028,839; June 4; Sp. p. 1654; Gaz. vol. 179; p. 258.
Grinding-mill. G. S. Emerick. No. 1,028,867; June 11; Sp. p. 1728; Gaz. vol. 179; p. 302.
Grinding-mill crusher-head. E. S. Black. No. 1,028,530; June 4; Sp. p. 1023; Gaz. vol. 179; p. 155.
Grindstone attachment. F. W. Eggers. No. 1,028,693; June 4; Sp. p. 1342; Gaz. vol. 179; p. 209.
Grip device, Intermittent-. R. L. Lamberton. No. 1,028,574; June 4; Sp. p. 1115; Gaz. vol. 179; p. 169.
Grip device, Intermittent-. C. C. Butler. No. 1,030,460; June 25; Sp. p. 5232; Gaz. vol. 179; p. 931.
Gripper. C. A. Juengst. No. 1,029,130; June 11; Sp. p. 2307; Gaz. vol. 179; p. 393.
Gripper mechanism. O. Ashton. No. 1,030,838; June 25; Sp. p. 6409; Gaz. vol. 179; p. 1067.
Guard device. T. E. Murray. No. 1,028,253; June 4; Sp. p. 420; Gaz. vol. 179; p. 61.
Gun-sight. J. R. Jones. No. 1,028,219; June 4; Sp. p. 353; Gaz. vol. 179; p. 49.
Gun, Spring-. G. Preis. No. 1,030,535; June 25; Sp. p. 5447; Gaz. vol. 179; p. 957.
Gun to be mounted upon automobiles. N. Koch. No. 1,029,303; June 11; Sp. p. 2667; Gaz. vol. 179; p. 452.
Guns and the like, Sighting device for machine-. B. Svistounoff. No. 1,028,917; June 11; Sp. p. 1847; Gaz. vol. 179; p. 320.
Guns, Fluid-brake for recoil-. W. Heilemann. No. 1,028,939; June 11; Sp. p. 1894; Gaz. vol. 179; p. 327.
Guns, Fore-arm lock for. J. C. Kremer and A. H. Fox. No. 1,029,374; June 11; Sp. p. 2842; Gaz. vol. 179; p. 478.
Guns, Single-trigger mechanism for double-barrel. A. H. Worrest. No. 1,029,782; June 18; Sp. p. 3719; Gaz. vol. 179; p. 655.
Guns, Ventilated sighting-rib for. F. O. Hoagland. No. 1,029,292; June 11; Sp. p. 2640; Gaz. vol. 179; p. 448.
Guns with recoiling barrels, Valve for hydraulic brakes in. E. Olsson. No. 1,029,555; June 11; Sp. p. 3222; Gaz. vol. 179; p. 540.
Gyratory crusher. T. W. Capen. No. 1,029,742; June 18; Sp. p. 3641; Gaz. vol. 179; p. 642.
Hacksaw-machine. L. M. Fairbanks. No. 1,028,342; June 4; Sp. p. 598; Gaz. vol. 179; p. 90.
Hair and scalp treating instrument, Electrical. H. C. Folger. No. 1,029,861; June 18; Sp. p. 3920; Gaz. vol. 179; p. 682.
Hair, Apparatus for shampooing ladies'. W. Faerber. No. 1,028,341; June 4; Sp. p. 597; Gaz. vol. 179; p. 90.
Hair-spring tester. A. G. and A. A. Hamm. No. 1,029,608; June 18; Sp. p. 3336; Gaz. vol. 179; p. 594.
Hair-steaming device. T. Grosert and E. Unger. No. 1,029,361; June 11; Sp. p. 2806; Gaz. vol. 179; p. 473.
Hammer attachment, Claw-. J. R. Kidd. No. 1,029,934; June 18; Sp. p. 4082; Gaz. vol. 179; p. 708.
Hammer, Pneumatic. E. C. Meissner. No. 1,028,124; June 4; Sp. p. 63; Gaz. vol. 179; p. 14.
Hammer, Pneumatic hand-. C. H. Stevens. No. 1,030,212; June 18; Sp. p. 4603; Gaz. vol. 179; p. 801.
Hammer, Soft-metal. W. T. Bausmith. No. 1,029,739; June 18; Sp. p. 3637; Gaz. vol. 179; p. 641.
Hammers, &c., Safety attachment for drop-. B. Brearley. No. 1,030,381; June 25; Sp. p. 5058; Gaz. vol. 179; p. 902.
Hammock and frame therefor, Couch-. I. E. Palmer. No. 1,030,485; June 25; Sp. p. 5298; Gaz. vol. 179; p. 939.
Hammock, Couch-. I. E. Palmer. No. 1,030,481; June 25; Sp. p. 5290; Gaz. vol. 179; p. 938.
Hammock, Couch-. I. E. Palmer. No. 1,030,482; June 25; Sp. p. 5291; Gaz. vol. 179; p. 938.
Hammock, Reversible-face couch-. I. E. Palmer. No. 1,030,487; June 25; Sp. p. 5303; Gaz. vol. 179; p. 940.
Hammock-supporter. W. P. Hammond. No. 1,029,600; June 18; Sp. p. 3337; Gaz. vol. 179; p. 594.
Hammocks, Bedstead-support for couch-. I. E. Palmer. No. 1,030,483; June 25; Sp. p. 5294; Gaz. vol. 179; p. 939.
Hammocks, Bedstead-support for couch-. I. E. Palmer. No. 1,030,486; June 25; Sp. p. 5300; Gaz. vol. 179; p. 940.
Hammocks, Reversible-mattress-securing means for couch-. I. E. Palmer. No. 1,030,484; June 25; Sp. p. 5297; Gaz. vol. 179; p. 939.
Hand-bags, pocket-books, &c., Frame for. L. B. and L. L. Prahar. No. 1,029,221; June 11; Sp. p. 2494; Gaz. vol. 179; p. 424.
Handle: *See* Casket-handle; Suit-case handle.

Hanger: *See* Coat-hanger; Door-hanger.
Harness attachment. C. M. Green. No. 1,028,711; June 4; Sp. p. 1382; Gaz. vol. 179; p. 214.
Harness-hook. A. Denton. No. 1,029,347; June 11; Sp. p. 2781; Gaz. vol. 179; p. 469.
Harrow and pulverizer, Combined. C. Sjoman. No. 1,028,398; June 4; Sp. p. 736; Gaz. vol. 179; p. 111.
Harrow, Flexible. J. L. Townsend. No. 1,029,154; June 11; Sp. p. 2355; Gaz. vol. 179; p. 401.
Harvester. J. H. Downing. No. 1,030,652; June 25; Sp. p. 5840; Gaz. vol. 179; p. 1000.
Harvester, Marine. R. Brooks. No. 1,028,671; June 4; Sp. p. 1308; Gaz. vol. 179; p. 201.
Harvesters, Cutting mechanism for corn-. W. H. Tilson. No. 1,028,799; June 4; Sp. p. 1569; Gaz. vol. 179; p. 245.
Harvesting machine, Corn-. C. A. Sattley. No. 1,030,615; June 25; Sp. p. 5726; Gaz. vol. 179; p. 987.
Harvesting-machine pitman connection. J. H. Downing. No. 1,029,533; June 11; Sp. p. 3163; Gaz. vol. 179; p. 531.
Hasp. O. C. Shaffer. No. 1,029,237; June 11; Sp. p. 2534; Gaz. vol. 179; p. 429.
Hat-carton. G. Walters. No. 1,029,960; June 18; Sp. p. 4136; Gaz. vol. 179; p. 716.
Hat-pin guard. A. C. De Sheppard. No. 1,029,040; June 11; Sp. p. 2132; Gaz. vol. 179; p. 367.
Hat-pin-point protector. O. G. Lee. No. 1,029,379; June 11; Sp. p. 2850; Gaz. vol. 179; p. 479.
Hay and shock loader. C. Christiansen. No. 1,029,791; June 18; Sp. p. 3740; Gaz. vol. 179; p. 658.
Hay-loading device. L. W. Barnhart. No. 1,030,155; June 18; Sp. p. 4527; Gaz. vol. 179; p. 782.
Hay-presser. H. C. Cashon. No. 1,029,422; June 11; Sp. p. 2952; Gaz. vol. 179; p. 494.
Hay-presses, Power-whip for. H. Brown. No. 1,029,586; June 18; Sp. p. 3282; Gaz. vol. 179; p. 585.
Hay-rack, Wagon. P. Jess. No. 1,028,733; June 4; Sp. p. 1429; Gaz. vol. 179; p. 222.
Hay rake and loader. C. Christiansen. No. 1,029,790; June 18; Sp. p. 3737; Gaz. vol. 179; p. 658.
Headlight, Automatic. G. T. Tribe and J. M. Bemis. No. 1,028,153; June 4; Sp. p. 162; Gaz. vol. 179; p. 25.
Heat-insulated receptacles, Making. R. Hartwig. No. 1,029,364; June 11; Sp. p. 2816; Gaz. vol. 179; p. 474.
Heat, Saving. F. H. Daniels. No. 1,028,685; June 4; Sp. p. 1330; Gaz. vol. 179; p. 206.
Heater: *See* Automobile-heater; Boiler or fluid heater; Electric heater; Gas-heater; Sectional heater; Tool-heater; Tube-heater; Water-heater.
Heater. W. R. Jeavons. No. 1,029,757; June 18; Sp. p. 3667; Gaz. vol. 179; p. 647.
Heating electrical units, Apparatus for. H. H. Russell. No. 1,029,230; June 11; Sp. p. 2512; Gaz. vol. 179; p. 427.
Heating-furnace, Continuous. A. W. Grimth. No. 1,029,605; June 18; Sp. p. 3330; Gaz. vol. 179; p. 593.
Heating systems, Accelerator for hot-water. A. G. Stapel. No. 1,029,032; June 11; Sp. p. 2093; Gaz. vol. 179; p. 361.
Heel-attaching machine. M. F. Follansbee. No. 1,030,577; June 25; Sp. p. 5590; Gaz. vol. 179; p. 971.
Heel-attaching machine. J. H. Pope. No. 1,030,680; June 25; Sp. p. 5905; Gaz. vol. 179; p. 1009.
Heel-building machine. W. R. Barclay and A. Bates. No. 1,028,528; June 4; Sp. p. 1016; Gaz. vol. 179; p. 154.
Heel-cushion. G. W. Levan. No. 1,029,019; June 11; Sp. p. 2073; Gaz. vol. 179; p. 356.
Heel, Removable. F. Powyszenski. No. 1,029,220; June 11; Sp. p. 2493; Gaz. vol. 179; p. 424.
Heel-scouring machines, Guard for. G. B. Gardner. No. 1,029,538; June 11; Sp. p. 3175; Gaz. vol. 179; p. 533.
Heels of boots and shoes, Machine for concaving. J. N. Busell. No. 1,030,567; June 25; Sp. p. 5546; Gaz. vol. 179; p. 968.
Heels on shoes, Machine for embossing. A. H. Prenzel. No. 1,030,608; June 25; Sp. p. 5705; Gaz. vol. 179; p. 984.
Hinge. J. Gronek. No. 1,028,874; June 11; Sp. p. 1745; Gaz. vol. 179; p. 305.
Hinge. R. W. Onyons. No. 1,028,953; June 11; Sp. p. 1921; Gaz. vol. 179; p. 332.
Hinge. R. C. Pleins. No. 1,029,629; June 18; Sp. p. 3380; Gaz. vol. 179; p. 602.
Hinge. E. J. Berault. No. 1,030,801; June 25; Sp. p. 6236; Gaz. vol. 179; p. 1053.
Hinge-joint. J. Lilly. No. 1,029,699; June 18; Sp. p. 3547; Gaz. vol. 179; p. 627.
Hinge, Spring-. S. Lundberg. No. 1,029,876; June 18; Sp. p. 3952; Gaz. vol. 179; p. 688.
Hitch, Combination manure-spreader. C. C. Schultz. No. 1,028,500; June 4; Sp. p. 964; Gaz. vol. 179; p. 145.
Hoist, Fluid-operated. W. H. Butz. No. 1,029,849; June 18; Sp. p. 3895; Gaz. vol. 179; p. 678.
Hoisting apparatus. F. M. Daugherty. No. 1,030,771; June 25; Sp. p. 6140; Gaz. vol. 179; p. 1042.
Hook: *See* Cant-hook; Garment-hook; Harness-hook; Whiffletree-hook.
Hooks, Making leather-covered. H. W. Owen. No. 1,030,425; June 25; Sp. p. 5157; Gaz. vol. 179; p. 918.
Hoop: *See* Embroidery-hoop; Expansion-hoop.
Hopper, Feed-. H. W. Dewey. No. 1,028,445; June 4; Sp. p. 849; Gaz. vol. 179; p. 127.
Hopper, Feed-. F. Blanchett. No. 1,029,660; June 18; Sp. p. 3446; Gaz. vol. 179; p. 612.
Hoppers, Feed attachment for. W. A. Joplin. No. 1,029,998; June 18; Sp. p. 4202; Gaz. vol. 179; p. 729.
Horse boot or shoe. C. W. Conklin. No. 1,029,594; June 18; Sp. p. 3308; Gaz. vol. 179; p. 588.
Horse-overshoe. T. J. Gorman, Sr. No. 1,028,709; June 4; Sp. p. 1376; Gaz. vol. 179; p. 214.
Horse-overshoe. H. Kassik. No. 1,029,132; June 11; Sp. p. 2310; Gaz. vol. 179; p. 394.
Horse-releaser. J. G. Francis. No. 1,030,071; June 18; Sp. p. 4372; Gaz. vol. 179; p. 754.
Horseshoe. A. M. H. De Bruycker. No. 1,030,168; June 18; Sp. p. 4555; Gaz. vol. 179; p. 787.
Horseshoe. W. E. Messacar. No. 1,030,478; June 25; Sp. p. 5283; Gaz. vol. 179; p. 937.
Hose-clamp. F. H. Baldwin. No. 1,030,151; June 18; Sp. p. 4522; Gaz. vol. 179; p. 781.
Hose-conveyer. C. J. and J. Schneider, J. H. Loeffler, and C. Fleck. No. 1,028,612; June 4; Sp. p. 1193; Gaz. vol. 179; p. 182.
Hose-coupling. C. E. Campbell. No. 1,028,187; June 4; Sp. p. 292; Gaz. vol. 179; p. 37.
Hose-coupling. H. B. Robinson. No. 1,029,715; June 18; Sp. p. 3586; Gaz. vol. 179; p. 633.
Hose-coupling. J. Nylander. No. 1,029,819; June 18; Sp. p. 3809; Gaz. vol. 179; p. 668.
Hose-lock. O. V. Jackson. No. 1,030,184; June 18; Sp. p. 4603; Gaz. vol. 179; p. 793.
Hose reel, Garden-. E. D. Merikle. No. 1,030,199; June 18; Sp. p. 4640; Gaz. vol. 179; p. 797.
Hose to coupling-nipples, Clamping-band for attaching. J. W. Free. No. 1,028,937; June 11; Sp. p. 1892; Gaz. vol. 179; p. 327.
Hosiery-turner. C. H. Matthews. No. 1,030,520; June 25; Sp. p. 5409; Gaz. vol. 179; p. 952.
Hotel room-rack. D. B. Beatson. No. 1,030,766; June 25; Sp. p. 6122; Gaz. vol. 179; p. 1040.
House: *See* Bag-house.
Hub-plate for wheels. M. Christman. No. 1,028,677; June 4; Sp. p. 1317; Gaz. vol. 179; p. 203.
Hub, Pneumatic. N. E. Andrie. No. 1,028,656; June 4; Sp. p. 1280; Gaz. vol. 179; p. 197.
Hub, Spring-. G. H. Davis. No. 1,029,429; June 11; Sp. p. 2970; Gaz. vol. 179; p. 497.
Huller-gin. S. D. Murray. No. 1,028,772; June 4; Sp. p. 1513; Gaz. vol. 179; p. 236.
Husker. J. G. Fejfar. No. 1,029,055; June 11; Sp. p. 2139; Gaz. vol. 179; p. 368.
Hydraulic apparatus and means for operating the same. W. A. Doble. No. 1,028,197; June 4; Sp. p. 312; Gaz. vol. 179; p. 41.
Hydraulic press. W. P. Bettendorf. No. 1,028,986; June 11; Sp. p. 1996; Gaz. vol. 179; p. 344.
Hydraulic press, Steam. L. Iversen. No. 1,028,356; June 4; Sp. p. 645; Gaz. vol. 179; p. 97.
Hydraulic presses, Flipper for feed mechanism of. W. P. Bettendorf. No. 1,028,987; June 11; Sp. p. 1998; Gaz. vol. 179; p. 345.
Hydraulic transmission, Reversible. P. English. No. 1,028,451; June 4; Sp. p. 859; Gaz. vol. 179; p. 129.
Hydro-electric unit. W. A. Doble. No. 1,028,554; June 4; Sp. p. 1070; Gaz. vol. 179; p. 163.
Hydroaeroplane, Cable or track controlled. H. M. Smith. No. 1,030,024; June 18; Sp. p. 4257; Gaz. vol. 179; p. 737.
Hydrocarbon-burner. R. Liddell. No. 1,028,802; June 11; Sp. p. 1784; Gaz. vol. 179; p. 312.
Hydrocarbon-burner. A. R. Swaine. No. 1,028,976; June 11; Sp. p. 1969; Gaz. vol. 179; p. 340.
Hydrocarbon-burner. J. C. Dunham and F. A. Turner. No. 1,030,843; June 25; Sp. p. 6420; Gaz. vol. 179; p. 1069.
Hydrocarbons with more than one double bond, Producing aliphatic. F. Hofmann and C. Coutelle. No. 1,030,239; June 18; Sp. p. 4717; Gaz. vol. 179; p. 812.
Hydrogen by autocombustion, Preparation of. G. F. Jaubert. No. 1,029,064; June 11; Sp. p. 2158; Gaz. vol. 179; p. 372.
Ice-cutting apparatus. W. T. Weaver and G. L. Beard. No. 1,030,624; June 25; Sp. p. 5763; Gaz. vol. 179; p. 990.
Ice-cutting machine. J. S. Kohr. No. 1,029,133; June 11; Sp. p. 2312; Gaz. vol. 179; p. 394.
Ice-harvesting machine. S. M. Campbell. No. 1,028,992; June 11; Sp. p. 2011; Gaz. vol. 179; p. 346.
Igniter, Automatic. D. Heyman. No. 1,028,462; June 4; Sp. p. 880; Gaz. vol. 179; p. 132.
Igniter, Electric. F. H. Royce. No. 1,030,432; June 25; Sp. p. 5174; Gaz. vol. 179; p. 920.
Igniter or the like. W. C. Westaway. No. 1,028,514; June 4; Sp. p. 992; Gaz. vol. 179; p. 150.
Igniting device. L. A. Voell. No. 1,029,158; June 11; Sp. p. 2361; Gaz. vol. 179; p. 402.
Ignition apparatus. W. Baltrusch. No. 1,029,256; June 11; Sp. p. 2571; Gaz. vol. 179; p. 436.
Ignition device, Electric. J. J. Lombardi. No. 1,030,413; June 25; Sp. p. 5124; Gaz. vol. 179; p. 914.
Ignition systems, Switch for jump-spark. E. D. Bright. No. 1,028,536; June 4; Sp. p. 1030; Gaz. vol. 179; p. 157.
Illuminant and producing the same. J. H. James. No. 1,028,357; June 4; Sp. p. 648; Gaz. vol. 179; p. 97.
Illuminator. T. C. Heisey and A. J. Sanford. No. 1,028,721; June 4; Sp. p. 1402; Gaz. vol. 179; p. 218.

Images, Mechanism for electrically transmitting and reproducing. G. E. Hoglund. No. 1,030,240; June 18; Sp. p. 4719; Gaz. vol. 179; p. 812.
Impulse-transmitter. J. W. Lattig. No. 1,030,412; June 25; Sp. p. 5120; Gaz. vol. 179; p. 913.
Incandescent-mantle support. R. Roder. No. 1,028,388; June 4; Sp. p. 702; Gaz. vol. 179; p. 107.
Incandescing element. D. J. Monosmith. No. 1,030,787; June 25; Sp. p. 6197; Gaz. vol. 179; p. 1048.
Index device. G. E. Chatillon. No. 1,028,540; June 4; Sp. p. 1038; Gaz. vol. 179; p. 158.
Indicator: *See* Bottle-indicator; Casualty-indicator; Engine-indicator; Liquid-level indicator; Signal-indicator; Speed-indicator; Street-indicator; Valve-indicator.
Inhaler, Medical. J. Leach. No. 1,028,890; June 11; Sp. p. 1780; Gaz. vol. 179; p. 311.
Injector, Steam-. R. G. Brooke. No. 1,030,714; June 25; Sp. p. 5991; Gaz. vol. 179; p. 1021.
Ink-well. D. Hardie. No. 1,029,752; June 18; Sp. p. 3659; Gaz. vol. 179; p. 645.
Inking mechanism. N. E. Springsteen. No. 1,030,026; June 18; Sp. p. 4260; Gaz. vol. 179; p. 738.
Innersole for welted shoes. H. F. Crawford. No. 1,029,278; June 11; Sp. p. 2615; Gaz. vol. 179; p. 444.
Insect-trap, Electric suction. F. M. Britton. No. 1,029,972; June 18; Sp. p. 4157; Gaz. vol. 179; p. 720.
Insectifuge. O. R. Loewenthal. No. 1,029,203; June 11; Sp. p. 2460; Gaz. vol. 179; p. 419.
Insulated switch-cover. A. A. Tirrill. No. 1,028,639; June 4; Sp. p. 1242; Gaz. vol. 179; p. 191.
Insulated-wire-saturating machine. P. A. Nehring. No. 1,028,827; June 4; Sp. p. 1630; Gaz. vol. 179; p. 254.
Insulating building material, Making. H. Ottmann. No. 1,028,903; June 11; Sp. p. 1816; Gaz. vol. 179; p. 316.
Insulating material. J. H. White. No. 1,029,652; June 18; Sp. p. 3422; Gaz. vol. 179; p. 609.
Insulating-panel. G. B. Legnard and E. Formato. No. 1,028,575; June 4; Sp. p. 1118; Gaz. vol. 179; p. 170.
Insulator. C. C. Brady. No. 1,028,634; June 4; Sp. p. 1028; Gaz. vol. 179; p. 156.
Insulator. J. Ellis. No. 1,029,980; June 18; Sp. p. 4171; Gaz. vol. 179; p. 723.
Insulator, Strain-. O. L. Fletcher. No. 1,028,104; June 4; Sp. p. 25; Gaz. vol. 179; p. 7.
Insulator-support. O. P. Megahan. No. 1,029,207; June 11; Sp. p. 2464; Gaz. vol. 179; p. 419.
Insulator-supporting device. C. G. Ette. No. 1,030,574; June 25; Sp. p. 5581; Gaz. vol. 179; p. 970.
Internal-combustion engine. R. H. Powell. No. 1,029,398; June 11; Sp. p. 2909; Gaz. vol. 179; p. 486.
Internal-combustion engine. E. R. Burtnett. No. 1,029,419; June 11; Sp. p. 2947; Gaz. vol. 179; p. 493.
Internal-combustion engine. L. F. Hellmann. No. 1,029,929; June 18; Sp. p. 4070; Gaz. vol. 179; p. 707.
Internal-combustion engine. L. S. and R. Watres. No. 1,030,217; June 18; Sp. p. 4674; Gaz. vol. 179; p. 805.
Internal-combustion engine. C. L. Cook. No. 1,030,806; June 25; Sp. p. 6247; Gaz. vol. 179; p. 1055.
Invalid's rest. F. I. Belles. No. 1,028,664; June 4; Sp. p. 1299; Gaz. vol. 179; p. 199.
Invalid's table. F. J. Collins. No. 1,028,932; June 11; Sp. p. 1885; Gaz. vol. 179; p. 325.
Iron: *See* Sad-iron.
Ironing-board. A. Miles. No. 1,030,006; June 18; Sp. p. 4218; Gaz. vol. 179; p. 731.
Ironing-machine. C. T. Gilmore. No. 1,029,183; June 11; Sp. p. 2410; Gaz. vol. 179; p. 411.
Ironing-table. J. T. Fields. No. 1,029,056; June 11; Sp. p. 2141; Gaz. vol. 179; p. 369.
Irrigation-regulator. G. R. Proctor. No. 1,028,780; June 4; Sp. p. 1532; Gaz. vol. 179; p. 238.
Jack: *See* Automobile-jack; Lifting-jack; Pump-jack; Shoe-jack; Shoe-machine jack; Testing-jack.
Jewel-chest, Safety. H. Schmarsow. No. 1,028,910; June 11; Sp. p. 1829; Gaz. vol. 179; p. 318.
Joint: *See* Conductor-joint; Hinge-joint; Pipe-joint; Rail-joint; Spring-joint; Trolley-pole spring-joint.
Joint-fastening. J. W. Hawkins. No. 1,030,088; June 18; Sp. p. 4407; Gaz. vol. 179; p. 761.
Journal-box pedestal. B. D. Lockwood. No. 1,029,619; June 18; Sp. p. 3362; Gaz. vol. 179; p. 598.
Key: *See* Camera winding-key; Piano-key.
Key. W. E. Bowersock. No. 1,029,663; June 18; Sp. p. 3450; Gaz. vol. 179; p. 613.
Key-retaining device. G. E. Allen. No. 1,028,849; June 11; Sp. p. 1686; Gaz. vol. 179; p. 295.
Ketones of high boiling-points from acetone and homologues thereof, Producing. J. Hertkorn. No. 1,030,177; June 18; Sp. p. 4569; Gaz. vol. 179; p. 790.
Kiln: *See* Dry-kiln.
Kinematographic apparatus, Lens-diaphragm-controlling device for. E. A. Ivatts. No. 1,029,997; June 18; Sp. p. 4199; Gaz. vol. 179; p. 728.
Kinematographic films and the like, Producing printed copies of. L. Sohler. No. 1,028,296; June 4; Sp. p. 509; Gaz. vol. 179; p. 74.
Kite. H. P. Guillo. No. 1,029,010; June 11; Sp. p. 2056; Gaz. vol. 179; p. 353.
Knife: *See* Cling-knife; Pocket-knife.
Knife and fork, Combination pocket. J. Yakilgian. No. 1,030,756; June 25; Sp. p. 6095; Gaz. vol. 179; p. 1036.
Knife mounting, Stationary-. L. Brown. No. 1,029,168; June 11; Sp. p. 2385; Gaz. vol. 179; p. 406.
Knitted fabric. M. G. Rosenthal. No. 1,029,636; June 18; Sp. p. 3390; Gaz. vol. 179; p. 604.
Knitting-machine. E. Dubied. No. 1,029,404; June 11; Sp. p. 3089; Gaz. vol. 179; p. 518.
Knitting-machine stitch-length mechanism. J. L. MacAdams. No. 1,030,100; June 18; Sp. p. 4430; Gaz. vol. 179; p. 765.
Knob, Alarm door-. F. Colounese and C. Boccia. No. 1,030,841; June 25; Sp. p. 6417; Gaz. vol. 179; p. 1068.
Knockdown table. C. D. Kreider. No. 1,028,741; June 4; Sp. p. 1459; Gaz. vol. 179; p. 225.
Knot-tying, mechanism. H. D. Colman. No. 1,029,853; June 18; Sp. p. 3905; Gaz. vol. 179; p. 680.
Labeling-machine. A. T. Weiss. No. 1,029,900; June 18; Sp. p. 4001; Gaz. vol. 179; p. 696.
Labeling machine, Tag-. F. Kohnle. No. 1,028,226; June 4; Sp. p. 370; Gaz. vol. 179; p. 52.
Labels and the like, Roll-holder for. E. F. Connors and T. N. Barnsdall, 2d. No. 1,029,490; June 11; Sp. p. 3082; Gaz. vol. 179; p. 517.
Laces, Machine for tipping. E. A. Gallison. No. 1,030,513; June 25; Sp. p. 5378; Gaz. vol. 179; p. 949.
Laces, Machine for tipping. E. A. Gallison. No. 1,030,514; June 25; Sp. p. 5385; Gaz. vol. 179; p. 950.
Lacing-hooks, Machine for making. G. Goddu. No. 1,030,725; June 25; Sp. p. 6009; Gaz. vol. 179; p. 1025.
Lacing-machine. A. M. Alexander. No. 1,030,559; June 25; Sp. p. 5501; Gaz. vol. 179; p. 965.
Lacing-machine. W. A. Smith. No. 1,030,753; June 25; Sp. p. 6080; Gaz. vol. 179; p. 1035.
Lacing shoe-uppers, Machine for. W. A. Smith. No. 1,030,547; June 25; Sp. p. 5466; Gaz. vol. 179; p. 961.
Lacing shoe-uppers, Machine for. H. E. Emslin. No. 1,030,573; June 25; Sp. p. 5566; Gaz. vol. 179; p. 970.
Lacing uppers, Machine for. C. S. Wells and W. W. Darnill. No. 1,030,553; June 25; Sp. p. 5488; Gaz. vol. 179; p. 963.
Ladder, Combined step and extension. J. E. Duncan. No. 1,028,691; June 4; Sp. p. 1338; Gaz. vol. 179; p. 208.
Lamp. W. H. Penick. No. 1,029,457; June 11; Sp. p. 3025; Gaz. vol. 179; p. 506.
Lamp. J. Granz. No. 1,030,082; June 18; Sp. p. 4395; Gaz. vol. 179; p. 758.
Lamp attachment, Vehicle. H. A. Lewis. No. 1,028,231; June 4; Sp. p. 376; Gaz. vol. 179; p. 53.
Lamp burner and chimney. M. E. Bridges. No. 1,029,971; June 18; Sp. p. 4156; Gaz. vol. 179; p. 720.
Lamp-burner attachment. C. Vessière. No. 1,028,643; June 4; Sp. p. 1250; Gaz. vol. 179; p. 192.
Lamp chimney or globe. E. G. Johanson. No. 1,030,818; June 25; Sp. p. 6288; Gaz. vol. 179; p. 1059.
Lamp-cover. W. T. Phillips. No. 1,028,271; June 4; Sp. p. 456; Gaz. vol. 179; p. 66.
Lamp for inverted incandescent gas-light, Outside. M. Graetz. No. 1,030,080; June 18; Sp. p. 4391; Gaz. vol. 179; p. 757.
Lamp for search-lights, projectors, &c., Electric arc-. H. Beck. No. 1,029,787; June 18; Sp. p. 3729; Gaz. vol. 179; p. 656.
Lamp, Gas or vapor electric. P. C. Hewitt. No. 1,030,302; June 25; Sp. p. 4878; Gaz. vol. 179; p. 873.
Lamp-globes, Dust-collector for. L. W. Young. No. 1,030,371; June 25; Sp. p. 5039; Gaz. vol. 179; p. 899.
Lamp, Hydrocarbon-. A. R. Swaine. No. 1,028,977; June 11; Sp. p. 1972; Gaz. vol. 179; p. 341.
Lamp-igniting apparatus, Miner's-. E. A. Hallwood. No. 1,030,297; June 25; Sp. p. 4863; Gaz. vol. 179; p. 870.
Lamp, Incandescent multiple-circuit. C. Carangelo. No. 1,029,851; June 18; Sp. p. 3901; Gaz. vol. 179; p. 679.
Lamp, Inverted incandescent gas-. M. Graetz. No. 1,030,079; June 18; Sp. p. 4387; Gaz. vol. 179; p. 756.
Lamp, Metallic-filament. E. Farkas. No. 1,029,350; June 11; Sp. p. 2785; Gaz. vol. 179; p. 470.
Lamp-socket. W. S. MacLewee. No. 1,030,101; June 18; Sp. p. 4433; Gaz. vol. 179; p. 766.
Lamp socket and shade holder. M. P. Stevens. No. 1,030,345; June 25; Sp. p. 4984; Gaz. vol. 179; p. 888.
Lamp socket, Electric-. H. T. Hartwig. No. 1,028,719; June 4; Sp. p. 1400; Gaz. vol. 179; p. 217.
Lamp, Storage-battery. C. B. Bartley. No. 1,028,984; June 11; Sp. p. 1991; Gaz. vol. 179; p. 348.
Lamp, Tubular incandescent. E. R. Knowles. No. 1,028,118; June 4; Sp. p. 48; Gaz. vol. 179; p. 12.
Lamps, Heater and glower renewal for. O. Foell, A. Kusebauch, and R. Neckerman. No. 1,029,114; June 11; Sp. p. 2270; Gaz. vol. 179; p. 388.
Lantern and plates therefor. H. F. E. S. Dusseris and J. T. F. Conti. No. 1,028,692; June 4; Sp. p. 1340; Gaz. vol. 179; p. 208.
Lantern, Signal-. E. W. Beane. No. 1,029,041; June 11; Sp. p. 2117; Gaz. vol. 179; p. 364.
Last and shoe-treeing machine. E. J. Prindle. No. 1,030,206; June 18; Sp. p. 4052; Gaz. vol. 179; p. 800.
Last, Machine for working an upper over a. R. F. McFeely. No. 1,030,264; June 18; Sp. p. 4771; Gaz. vol. 179; p. 821.
Lasting apparatus. B. F. Stuber. No. 1,029,242; June 11; Sp. p. 2544; Gaz. vol. 179; p. 431.
Lasting-machine. L. M. Brown. No. 1,028,990; June 11; Sp. p. 2007; Gaz. vol. 179; p. 346.
Lasting-machine. E. L. Keyes. No. 1,029,197; June 11; Sp. p. 2441; Gaz. vol. 179; p. 415.
Lasting-machine. C. S. Norden. No. 1,029,396; June 11; Sp. p. 2905; Gaz. vol. 179; p. 485.
Lasting-machine. A. Bates. No. 1,029,840; June 18; Sp. p. 3869; Gaz. vol. 179; p. 675.
Lasting-machine. J. M. Barton and P. J. Landry. No. 1,030,048; June 18; Sp. p. 4323; Gaz. vol. 179; p. 747.

Lasting-machine. M. V. Bresnahan. No. 1,030,382; June 25; Sp. p. 5060; Gaz. vol. 179; p. 903.
Lasting-machine. M. Brock. No. 1,030,564; June 25; Sp. p. 5524; Gaz. vol. 179; p. 966.
Lasting-machine. E. E. Winkley. No. 1,030,629; June 25; Sp. p. 5783; Gaz. vol. 179; p. 992.
Lasting-machine. T. K. Keith. No. 1,030,820; June 25; Sp. p. 6309; Gaz. vol. 179; p. 1060.
Lasting-machine. T. K. Keith. No. 1,030,821; June 25; Sp. p. 6316; Gaz. vol. 179; p. 1061.
Lasting-machine. T. K. Keith. No. 1,030,822; June 25; Sp. p. 6322; Gaz. vol. 179; p. 1061.
Lasting machine, Assembling and heel-seat-. C. S. Norden. No. 1,030,847; June 25; Sp. p. 6427; Gaz. vol. 179; p. 1071.
Lasting-machine tack-saver. E. J. Young. No. 1,030,220; June 18; Sp. p. 4678; Gaz. vol. 179; p. 805.
Lasting mechanism. A. A. Macleod. No. 1,030,519; June 25; Sp. p. 5407; Gaz. vol. 179; p. 951.
Lasting mechanism, End-. M. Brock. No. 1,030,562; June 25; Sp. p. 5518; Gaz. vol. 179; p. 966.
Latch, Gate-. H. T. Wilkes. No. 1,028,646; June 4; Sp. p. 1255; Gaz. vol. 179; p. 193.
Latch, Sliding-door. J. A. Giese. No. 1,029,748; June 18; Sp. p. 3652; Gaz. vol. 179; p. 644.
Lath, Metallic. M. S. Goldsmith. No. 1,029,864; June 18; Sp. p. 3926; Gaz. vol. 179; p. 683.
Lathe attachment. R. Hughes. No. 1,028,728; June 4; Sp. p. 1415; Gaz. vol. 179; p. 220.
Lathe attachment. J. M. Palmer. No. 1,030,323; June 25; Sp. p. 4939; Gaz. vol. 179; p. 881.
Lathe attachment. G. Walker. No. 1,030,439; June 25; Sp. p. 5189; Gaz. vol. 179; p. 923.
Lathe screw-machine. G. K. Atkinson. No. 1,029,485; June 11; Sp. p. 3074; Gaz. vol. 179; p. 515.
Lavatory. E. E. Carter. No. 1,028,327; June 4; Sp. p. 572; Gaz. vol. 179; p. 85.
Leather-cutting machine. W. C. Stewart. No. 1,030,621; June 25; Sp. p. 5748; Gaz. vol. 179; p. 989.
Legging. G. Ciociola. No. 1,028,329; June 4; Sp. p. 574; Gaz. vol. 179; p. 86.
Lens-cutting machine. F. L. Higgins. No. 1,029,367; June 11; Sp. p. 2829; Gaz. vol. 179; p. 476.
Lens system, Liquid-. A. Köhler. No. 1,028,224; June 4; Sp. p. 366; Gaz. vol. 179; p. 51.
Level, Combination-. A. D. Desilets. No. 1,029,744; June 18; Sp. p. 3644; Gaz. vol. 179; p. 642.
Lid for cooking utensils. A. Gregory. No. 1,028,712; June 4; Sp. p. 1383; Gaz. vol. 179; p. 215.
Life-saving device. R. Trevisan. No. 1,029,729; June 18; Sp. p. 3618; Gaz. vol. 179; p. 637.
Life-saving device. I. N. Myers. No. 1,030,525; June 25; Sp. p. 5429; Gaz. vol. 179; p. 954.
Life-saving equipment of soldiers, Inflatable. E. W. Scowden. No. 1,028,141; June 4; Sp. p. 134; Gaz. vol. 179; p. 20.
Life-saving jacket, Marine. W. Carroll. No. 1,028,433; June 4; Sp. p. 810; Gaz. vol. 179; p. 123.
Lifting device. T. T. Hays. No. 1,029,683; June 18; Sp. p. 3502; Gaz. vol. 179; p. 620.
Lifting implement. E. C. Richardson. No. 1,029,823; June 18; Sp. p. 3823; Gaz. vol. 179; p. 670.
Lifting-jack. N. Jantzen. No. 1,029,447; June 11; Sp. p. 3005; Gaz. vol. 179; p. 503.
Lifting-jack, Fluid-actuated. W. R. Chandler. No. 1,029,423; June 11; Sp. p. 2957; Gaz. vol. 179; p. 494.
Light: *See* Pilot-light; Sidewalk-light.
Light, Apparatus for the electrical production of. P. C. Hewitt. No. 1,030,178; June 18; Sp. p. 4571; Gaz. vol. 179; p. 790.
Light post and the like, Street-. G. Schumacher. No. 1,029,404; June 11; Sp. p. 2920; Gaz. vol. 179; p. 488.
Light-support, Dirigible. W. A. Sapp. No. 1,029,514; June 11; Sp. p. 3130; Gaz. vol. 179; p. 525.
Lighting-fixture. J. L. Palmer and C. N. Wheeler. No. 1,029,556; June 11; Sp. p. 3224; Gaz. vol. 179; p. 540.
Lighting unit, Invisible. L. W. Young. No. 1,030,360; June 25; Sp. p. 5037; Gaz. vol. 179; p. 898.
Line-casting machine. J. R. Rogers. No. 1,028,137; June 4; Sp. p. 128; Gaz. vol. 179; p. 19.
Link mesh, Machine for making. A. C. Pratt. No. 1,028,904; June 11; Sp. p. 1819; Gaz. vol. 179; p. 316.
Linotype-machine. W. M. Rapp. No. 1,029,714; June 18; Sp. p. 3585; Gaz. vol. 179; p. 633.
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Linotype-machines, Matrix for. H. Petersen. No. 1,028,955; June 11; Sp. p. 1925; Gaz. vol. 179; p. 332.
Linotype-mold. H. Petersen. No. 1,030,678; June 25; Sp. p. 5902; Gaz. vol. 179; p. 1008.
Lip-turning machine. H. W. Winter. No. 1,030,630; June 25; Sp. p. 5791; Gaz. vol. 179; p. 992.
Liquid-cooler. W. and F. Fahrman and L. Bolton. No. 1,029,981; June 18; Sp. p. 4172; Gaz. vol. 179; p. 723.
Liquid-dispenser. W. C. Maloz. No. 1,029,076; June 11; Sp. p. 2176; Gaz. vol. 179; p. 375.
Liquid-dispensing machine. F. T. Percy. No. 1,030,854; June 25; Sp. p. 6447; Gaz. vol. 179; p. 1074.
Liquid from receptacles, Means for drawing. F. N. Christian. No. 1,028,542; June 4; Sp. p. 1042; Gaz. vol. 179; p. 158.
Liquid-level indicator. D. G. Davies. No. 1,029,598; June 18; Sp. p. 3314; Gaz. vol. 179; p. 589.
Liquid, Sour. R. Wahl. No. 1,028,508; June 4; Sp. p. 980; Gaz. vol. 179; p. 148.
Liquids by means of ultra-violet rays, Apparatus for sterilizing. P. G. Triquet. No. 1,030,692; June 25; Sp. p. 5934; Gaz. vol. 179; p. 1013.
Liquids in measured quantities, Apparatus for discharging. C. P. Beckwith. No. 1,030,378; June 25; Sp. p. 5052; Gaz. vol. 179; p. 901.
Liquids, Machine for automatically regulating the flow of. C. T. Parker. No. 1,028,132; June 4; Sp. p. 87; Gaz. vol. 179; p. 17.
Lithographic stone. H. Wagner. No. 1,029,835; June 18; Sp. p. 3841; Gaz. vol. 179; p. 674.
Loader. F. Zurbuchen. No. 1,028,653; June 4; Sp. p. 1271; Gaz. vol. 179; p. 195.
Loading and unloading device. T. Suchla. No. 1,028,841; June 4; Sp. p. 1662; Gaz. vol. 179; p. 259.
Loading apparatus. W. H. Lines. No. 1,028,576; June 4; Sp. p. 1120; Gaz. vol. 179; p. 170.
Lock: *See* Automobile robe-rail lock; Can-lock; Clevis-lock; Coin-controlled lock; Combination or keyless lock; Door-lock; Electric lock; End-gate-rod lock; Gravity-lock; Hose-lock; Nut-lock; Padlock; Permutation-lock; Rail-lock; Sash-lock; Seal-lock; Suit-case lock; Well-tubing lock; Whip-lock; Window-lock.
Lock. M. Lindner. No. 1,028,808; June 4; Sp. p. 671; Gaz. vol. 179; p. 100.
Lock. A. Arens. No. 1,028,423; June 4; Sp. p. 790; Gaz. vol. 179; p. 119.
Lock. J. A. Giese. No. 1,029,747; June 18; Sp. p. 3650; Gaz. vol. 179; p. 643.
Lock. J. C. Kinney. No. 1,030,189; June 18; Sp. p. 4609; Gaz. vol. 179; p. 704.
Locking-clamp and railway-tie for track-rails, Combined. R. A. Argabright. No. 1,029,658; June 18; Sp. p. 3443; Gaz. vol. 179; p. 611.
Locomotive fire-boxes, Baffle-wall for. H. D. Savage. No. 1,030,258; June 18; Sp. p. 4755; Gaz. vol. 179; p. 818.
Locomotives, Smoke and gas consumer for. D. Goff. No. 1,028,348; June 4; Sp. p. 629; Gaz. vol. 179; p. 93.
Log-car bunks, Collapsible chock for. J. M. Rohling. No. 1,029,226; June 11; Sp. p. 2504; Gaz. vol. 179; p. 425.
Log-turning mechanism. W. M. Wilkin. No. 1,029,482; June 11; Sp. p. 3069; Gaz. vol. 179; p. 514.
Loom. R. Jamieson. No. 1,029,756; June 18; Sp. p. 3665; Gaz. vol. 179; p. 646.
Loom-protecting mechanism. B. F. McGuineas. No. 1,029,937; June 18; Sp. p. 4085; Gaz. vol. 179; p. 709.
Loom, Weft-replenishing. E. H. Ryon. No. 1,029,948; June 18; Sp. p. 4105; Gaz. vol. 179; p. 712.
Loom, Weft-replenishing. A. A. Gordon, Jr. No. 1,030,077; June 18; Sp. p. 4382; Gaz. vol. 179; p. 756.
Loom, Weft-replenishing. E. H. Ryon. No. 1,030,748; June 25; Sp. p. 6065; Gaz. vol. 179; p. 1033.
Looms, Automatic weft-replenishing mechanism for. J. C. A. Wenning. No. 1,028,513; June 4; Sp. p. 988; Gaz. vol. 179; p. 149.
Looms, Bobbin for weaving-. A. Marazzi. No. 1,029,020; June 11; Sp. p. 2074; Gaz. vol. 179; p. 357.
Looms for weaving, Automatic weft-replenishing mechanism of. J. and R. Harling. No. 1,028,456; June 4; Sp. p. 868; Gaz. vol. 179; p. 130.
Looms, Reed and beating-up mechanism for. R. Farnworth and T. T. Jackson. No. 1,030,575; June 25; Sp. p. 5583; Gaz. vol. 179; p. 971.
Lubricant and preparing the same, Non-inflammable. J. W. Aylsworth. No. 1,028,926; June 11; Sp. p. 1874; Gaz. vol. 179; p. 324.
Lubricating device. G. A. Ambler. No. 1,028,176; June 4; Sp. p. 275; Gaz. vol. 179; p. 34.
Lubricating device. I. Larsen. No. 1,028,745; June 4; Sp. p. 1466; Gaz. vol. 179; p. 226.
Lubricating device, Automatic. O. Winkler. No. 1,029,331; June 11; Sp. p. 2739; Gaz. vol. 179; p. 463.
Lubricating-gun. E. J. Rohrbacher. No. 1,029,718; June 18; Sp. p. 3590; Gaz. vol. 179; p. 634.
Lubricating or oiling device. T. B. Sarsfield. No. 1,030,129; June 18; Sp. p. 4473; Gaz. vol. 179; p. 773.
Lubrication, Splash system of. E. M. White. No. 1,030,148; June 18; Sp. p. 4517; Gaz. vol. 179; p. 780.
Lubricator. H. C. Noffsinger. No. 1,029,454; June 11; Sp. p. 3019; Gaz. vol. 179; p. 505.
Lubricator. I. Larsen. No. 1,030,667; June 25; Sp. p. 5877; Gaz. vol. 179; p. 1005.
Magazines, pamphlets, sheet-music, &c., Cover for. E. Davidson. No. 1,029,280; June 11; Sp. p. 2619; Gaz. vol. 179; p. 444.
Magnesium and alloys thereof, Melting and casting. B. Hoffmann and R. Suchy. No. 1,028,216; June 4; Sp. p. 350; Gaz. vol. 179; p. 48.
Magneto interrupter and timer. C. Cuno. No. 1,029,914; June 18; Sp. p. 4037; Gaz. vol. 179; p. 701.
Magnifying small mechanical effects, Electrical means for. E. S. Heurtley. No. 1,029,123; June 11; Sp. p. 2286; Gaz. vol. 179; p. 390.
Mail-bag catcher and deliverer. G. Hall and J. Brand. No. 1,029,440; June 11; Sp. p. 2989; Gaz. vol. 179; p. 500.
Mail-box. R. L. Davis. No. 1,030,391; June 25; Sp. p. 5081; Gaz. vol. 179; p. 906.
Mail-carrier. C. Maar. No. 1,028,894; June 11; Sp. p. 1787; Gaz. vol. 179; p. 313.
Mail-handling apparatus. W. L. Mainer. No. 1,028,755; June 4; Sp. p. 1484; Gaz. vol. 179; p. 230.
Mail-receiving apparatus. W. L. Mainer. No. 1,028,756; June 4; Sp. p. 1486; Gaz. vol. 179; p. 230.
Mailing card, Coin-. C. J. Warne. No. 1,029,836; June 18; Sp. p. 3842; Gaz. vol. 179; p. 674.
Mailing-tube. D. S. Cole. No. 1,028,678; June 4; Sp. p. 1319; Gaz. vol. 179; p. 203.

Mailing-wrapper. H. J. Wyatt. No. 1,030,633; June 25; Sp. p. 5795; Gaz. vol. 179; p. 993.
Mains, pipes, &c., Apparatus for scraping and cleaning water. R. A. Adamson. No. 1,030,634; June 25; Sp. p. 5797; Gaz. vol. 179; p. 993.
Mantle-tying machine. S. Cohn. (Reissue.) No. 13,429; June 18; Sp. p. 4794; Gaz. vol. 179; p. 823.
Marker, Land-. E. G. Rose. No. 1,029,635; June 18; Sp. p. 3388; Gaz. vol. 179; p. 604.
Marking gage or tram. J. W. Hasburg. No. 1,028,720; June 4; Sp. p. 1401; Gaz. vol. 179; p. 218.
Massage apparatus. C. Endorf, Jr. No. 1,028,990; June 11; Sp. p. 2030; Gaz. vol. 179; p. 349.
Massage apparatus. F. R. Kunkel. No. 1,029,697; June 18; Sp. p. 3532; Gaz. vol. 179; p. 626.
Mat: *See* Door-mat.
Match-box. L. N. Forsyth. No. 1,028,166; June 4; Sp. p. 27; Gaz. vol. 179; p. 8.
Match-box. J. F. Murray. No. 1,029,080; June 11; Sp. p. 2185; Gaz. vol. 179; p. 376.
Match-making machine. T. Nimmo and A. G. Libby. No. 1,029,218; June 11; Sp. p. 2488; Gaz. vol. 179; p. 423.
Match-making machine. S. E. Rahe. No. 1,030,790; June 25; Sp. p. 6204; Gaz. vol. 179; p. 1049.
Matches in boxes, &c., Machine for measuring off and packing. H. A. Gsell. No. 1,028,349; June 4; Sp. p. 634; Gaz. vol. 179; p. 94.
Matcher-head. J. W. Gray. No. 1,029,185; June 11; Sp. p. 2417; Gaz. vol. 179; p. 411.
Mattress. J. L. Heffner. No. 1,029,928; June 18; Sp. p. 4068; Gaz. vol. 179; p. 707.
Mattress, Spring-. D. Micon. No. 1,029,881; June 18; Sp. p. 3908; Gaz. vol. 179; p. 690.
Mausoleum interment-crypt. E. N. Hatcher. No. 1,028,111; June 4; Sp. p. 37; Gaz. vol. 179; p. 10.
Maximum-indicating and watt-hour meter. C. I. Hall. No. 1,028,715; June 4; Sp. p. 1391; Gaz. vol. 179; p. 216.
Measuring gaseous fluids, Recording apparatus for. C. F. Simon. No. 1,028,145; June 4; Sp. p. 146; Gaz. vol. 179; p. 22.
Measuring instrument, Electrical. W. E. Beede. No. 1,029,042; June 11; Sp. p. 2120; Gaz. vol. 179; p. 365.
Measuring-machine. G. L. Williams. No. 1,028,313; June 4; Sp. p. 542; Gaz. vol. 179; p. 79.
Meat-chopping machine. A. Nielsen. No. 1,029,141; June 11; Sp. p. 2330; Gaz. vol. 179; p. 397.
Mechanical motor. G. W. Bunting. No. 1,030,566; June 25; Sp. p. 5544; Gaz. vol. 179; p. 967.
Mechanical movement. C. F. Knowlton and F. F. Elliot. No. 1,028,886; June 11; Sp. p. 1773; Gaz. vol. 179; p. 310.
Mechanical movement. T. Opsahl. No. 1,029,764; June 18; Sp. p. 3681; Gaz. vol. 179; p. 649.
Mechanical movement. J. C. Ramsay. No. 1,029,766; June 18; Sp. p. 3683; Gaz. vol. 179; p. 649.
Mechanical movement and electric-light socket. T. A. C. Both. No. 1,029,044; June 11; Sp. p. 2124; Gaz. vol. 179; p. 365.
Memorandum-pad support and lighting device, Combined. O. Knoerzer and J. W. Weis. No. 1,030,825; June 25; Sp. p. 6363; Gaz. vol. 179; p. 1062.
Metal, Composite L. B. Tebbetts, 2d. No. 1,029,152; June 11; Sp. p. 2352; Gaz. vol. 179; p. 401.
Metal-cutting-off device and the like. G. Gorton and C. R. Carpenter. No. 1,028,846; June 4; Sp. p. 1670; Gaz. vol. 179; p. 261.
Metal-cutting-off device, Rotary. G. Gorton. No. 1,028,710; June 4; Sp. p. 1377; Gaz. vol. 179; p. 214.
Metal tie. W. H. Morgan. No. 1,028,250; June 4; Sp. p. 417; Gaz. vol. 179; p. 60.
Metal tubes, rods, &c., Manufacture of. H. Reinhard. No. 1,029,513; June 11; Sp. p. 3125; Gaz. vol. 179; p. 524.
Metal-working machines, Work-table for. W. F. Zimmermann. No. 1,029,656; June 18; Sp. p. 3437; Gaz. vol. 179; p. 611.
Metals, Electrolytic deposition of. P. Marino. No. 1,028,895; June 11; Sp. p. 1789; Gaz. vol. 179; p. 313.
Metals, Extracting. A. H. Perret. No. 1,028,774; June 4; Sp. p. 1519; Gaz. vol. 179; p. 236.
Metals, Preparation for regenerating. B. Türke. No. 1,029,327; June 11; Sp. p. 2733; Gaz. vol. 179; p. 462.
Metallic plates, Machine for bending. G. W. Wells. No. 1,030,259; June 18; Sp. p. 4756; Gaz. vol. 179; p. 819.
Metallic screen. H. W. and W. W. Watson. No. 1,030,694; June 25; Sp. p. 5937; Gaz. vol. 179; p. 1014.
Metallic tie. W. Nalepka. No. 1,028,484; June 4; Sp. p. 932; Gaz. vol. 179; p. 140.
Metallic tie. B. S. Rupp and J. W. Johnson. No. 1,028,791; June 4; Sp. p. 1552; Gaz. vol. 179; p. 242.
Meter: *See* Maximum-indicating and watt-hour meter.
Meter connection-blocks, Case for. G. E. Palmer. No. 1,028,268; June 4; Sp. p. 451; Gaz. vol. 179; p. 65.
Meter-testing machines, Branch connection for. P. Mueller. No. 1,028,481; June 4; Sp. p. 927; Gaz. vol. 179; p. 139.
Metering system. F. Conrad and W. M. Bradshaw. No. 1,029,743; June 18; Sp. p. 3642; Gaz. vol. 179; p. 642.
Milk-can. C. B. Peoples and A. E. Yelton. No. 1,030,325; June 25; Sp. p. 4943; Gaz. vol. 179; p. 881.
Milk, cream, &c., Machine for homogenizing. F. P. Cribbins. No. 1,030,649; June 25; Sp. p. 5834; Gaz. vol. 179; p. 999.
Milk, Testing the freshness of. A. Faitelowitz. No. 1,030,171; June 18; Sp. p. 4560; Gaz. vol. 179; p. 788.
Milking machine, Cow-. F. E. Newell. No. 1,029,216; June 11; Sp. p. 2483; Gaz. vol. 179; p. 422.
Milking machine, Cow-. F. E. Newell. No. 1,030,010; June 18; Sp. p. 4223; Gaz. vol. 179; p. 732.
Mill: *See* Grinding-mill; Rod-mill; Rolling-mill; Spice-mill.
Mines, Device for preventing spread of explosions in coal-. J. Cosavello. No. 1,029,596; June 18; Sp. p. 3311; Gaz. vol. 179; p. 588.
Mirror-holder. R. H. Le Page. No. 1,029,071; June 11; Sp. p. 2170; Gaz. vol. 179; p. 374.
Mirror-support. C. S. Buzby. No. 1,029,420; June 11; Sp. p. 2949; Gaz. vol. 179; p. 493.
Miter-box. R. L. Macey. No. 1,030,474; June 25; Sp. p. 5277; Gaz. vol. 179; p. 936.
Mixer: *See* Motor-mixer.
Mold: *See* Ceramic-ware mold; Concrete-wall mold; Culvert-mold; Linotype-mold.
Mold. E. J. Wilber. No. 1,029,095; June 11; Sp. p. 2232; Gaz. vol. 179; p. 381.
Mold. M. Dunaghn. No. 1,029,474; June 18; Sp. p. 3482; Gaz. vol. 179; p. 617.
Mold. W. Binning. No. 1,030,638; June 25; Sp. p. 5807; Gaz. vol. 179; p. 995.
Mold. H. W. Strietelmeier. No. 1,030,754; June 25; Sp. p. 6091; Gaz. vol. 179; p. 1036.
Molder's flask. C. Morgan. No. 1,028,478; June 4; Sp. p. 923; Gaz. vol. 179; p. 138.
Molding apparatus. A. A. Pauly. No. 1,029,559; June 11; Sp. p. 3230; Gaz. vol. 179; p. 541.
Molding apparatus. A. A. Pauly. No. 1,029,560; June 11; Sp. p. 3231; Gaz. vol. 179; p. 541.
Molding apparatus. A. A. Pauly. No. 1,029,561; June 11; Sp. p. 3233; Gaz. vol. 179; p. 542.
Molding apparatus. R. R. Rust. No. 1,029,563; June 11; Sp. p. 3236; Gaz. vol. 179; p. 542.
Molding-machine. J. N. Battenfeld. No. 1,028,852; June 11; Sp. p. 1693; Gaz. vol. 179; p. 296.
Molding-machine. L. J. Monahan and R. Ziebell. No. 1,029,079; June 11; Sp. p. 2184; Gaz. vol. 179; p. 376.
Molding-press. J. A. Burleigh. No. 1,030,252; June 18; Sp. p. 4740; Gaz. vol. 179; p. 816.
Mop holder and wringer, Combined. G. W. Purcell. No. 1,028,491; June 4; Sp. p. 945; Gaz. vol. 179; p. 142.
Mop holder and wringer, Combined. P. Fuhrer. No. 1,029,436; June 11; Sp. p. 2983; Gaz. vol. 179; p. 499.
Mop stick and wringer, Combined. V. C. McIntosh. No. 1,030,109; June 18; Sp. p. 4446; Gaz. vol. 179; p. 768.
Mortar-mixer. P. L. Blystone. No. 1,030,250; June 18; Sp. p. 4736; Gaz. vol. 179; p. 815.
Mortising-machine. L. A. Sunday. No. 1,029,773; June 18; Sp. p. 3697; Gaz. vol. 179; p. 651.
Motor: *See* Current-motor; Fluid-pressure motor; Mechanical motor; Piano-player motor; Water-motor; Wave and current motor; Weight-motor.
Motor. A. J. Shinn. No. 1,030,337; June 25; Sp. p. 4971; Gaz. vol. 179; p. 886.
Motor-actuating apparatus, Water-. P. Sander. No. 1,029,030; June 11; Sp. p. 2090; Gaz. vol. 179; p. 360.
Motor control, Automatic. M. W. Day. No. 1,028,332; June 4; Sp. p. 580; Gaz. vol. 179; p. 87.
Motor-control system. H. A. Steen. No. 1,030,548; June 25; Sp. p. 5479; Gaz. vol. 179; p. 961.
Motor-control system. H. W. Cheney. No. 1,030,645; June 25; Sp. p. 5819; Gaz. vol. 179; p. 997.
Motor-controller. A. J. Loguin. No. 1,030,195; June 18; Sp. p. 4623; Gaz. vol. 179; p. 796.
Motor-controlling apparatus, Electric-. J. D. Ihlder. No. 1,028,731; June 4; Sp. p. 1421; Gaz. vol. 179; p. 221.
Motor-cranking device. F. Homolya. No. 1,029,868; June 18; Sp. p. 3933; Gaz. vol. 179; p. 684.
Motor, Four-phase, single-piston, valveless. C. N. Henriod. No. 1,029,192; June 11; Sp. p. 2428; Gaz. vol. 179; p. 414.
Motor-generators, Suspension means for. W. H. Mussey. No. 1,029,622; June 18; Sp. p. 3367; Gaz. vol. 179; p. 599.
Motor-operated switch. H. W. Cheney. No. 1,028,993; June 11; Sp. p. 2014; Gaz. vol. 179; p. 347.
Motor-reversing mechanism. J. W. Elsenhuth. No. 1,029,430; June 11; Sp. p. 2971; Gaz. vol. 179; p. 497.
Motors, Spring-box for spring-. P. Catucci. No. 1,029,852; June 18; Sp. p. 3903; Gaz. vol. 179; p. 679.
Mower grass-catcher, Lawn-. C. S. Bonham. No. 1,029,527; June 11; Sp. p. 3152; Gaz. vol. 179; p. 529.
Mowing-machine. M. E. Thomas. No. 1,030,689; June 25; Sp. p. 5924; Gaz. vol. 179; p. 1012.
Muck-shovel. N. Ebbley. No. 1,029,799; June 18; Sp. p. 3758; Gaz. vol. 179; p. 662.
Muffler, Exhaust-. A. G. Snyder. No. 1,028,847; June 4; Sp. p. 1675; Gaz. vol. 179; p. 261.
Music-sheet-turning device. J. Pfarrhofer. No. 1,028,270; June 4; Sp. p. 455; Gaz. vol. 179; p. 66.
Music-sheets, Machine for perforating. J. F. Kelly. No. 1,028,361; June 4; Sp. p. 655; Gaz. vol. 179; p. 98.
Musical instrument. T. P. Brown. No. 1,030,715; June 25; Sp. p. 5993; Gaz. vol. 179; p. 1022.
Nail-assorting mechanism. C. C. Small. No. 1,028,972; June 11; Sp. p. 1960; Gaz. vol. 179; p. 338.
Nail-driving device. F. A. Devereaux. No. 1,030,286; June 25; Sp. p. 4843; Gaz. vol. 179; p. 867.

Nail, Wire. S. E. Bell. No. 1,029,574; June 11; Sp. p. 3254; Gaz. vol. 179; p. 546.
Nailing-machine. A. D. Elliott. No. 1,030,654; June 25; Sp. p. 5844; Gaz. vol. 179; p. 1001.
Napping-machine drum, Planetary. H. S. Greene. No. 1,030,657; June 25; Sp. p. 5858; Gaz. vol. 179; p. 1002.
Nasal douche. J. E. MacWilliam. No. 1,029,813; June 18; Sp. p. 3798; Gaz. vol. 179; p. 666.
Nest, Trap-. H. Günzel. No. 1,029,924; June 18; Sp. p. 4062; Gaz. vol. 179; p. 705.
Nicotin, Means for absorbing. S. A. Reed. No. 1,028,906; June 11; Sp. p. 1824; Gaz. vol. 179; p. 317.
Nitrogen oxids, Absorbing. C. Bosch and H. Keller. No. 1,029,528; June 11; Sp. p. 3154; Gaz. vol. 179; p. 529.
Nozzle. G. H. Horlacher. No. 1,029,501; June 11; Sp. p. 3106; Gaz. vol. 179; p. 521.
Nozzle for humidifiers, Spray-. S. W. Cramer and W. B. Hodge. No. 1,028,813; June 4; Sp. p. 1596; Gaz. vol. 179; p. 250.
Nozzle, Spray-. E. C. Brown. No. 1,029,909; June 18; Sp. p. 4028; Gaz. vol. 179; p. 699.
Nozzle, Sprinkler-. R. M. Hunter. No. 1,028,940; June 11; Sp. p. 1896; Gaz. vol. 179; p. 327.
Nozzles, Making spray-. S. W. Cramer and W. B. Hodge. No. 1,028,812; June 4; Sp. p. 1595; Gaz. vol. 179; p. 249.
Nut, Grip-. A. Y. Davis. No. 1,028,196; June 4; Sp. p. 310; Gaz. vol. 179; p. 40.
Nut-lock. W. B. Woods. No. 1,028,806; June 4; Sp. p. 1584; Gaz. vol. 179; p. 247.
Nut-lock. W. M. Christianson. No. 1,029,103; June 11; Sp. p. 2252; Gaz. vol. 179; p. 384.
Nut-lock. F. D. Bozarth. No. 1,029,339; June 11; Sp. p. 2768; Gaz. vol. 179; p. 466.
Nut-lock. C. C. Blossom. (Reissue.) No. 13,425; June 11; Sp. p. 3265; Gaz. vol. 179; p. 548.
Nut-lock. W. P. Dally. No. 1,029,670; June 18; Sp. p. 3472; Gaz. vol. 179; p. 615.
Nut-lock. J. Tobin. No. 1,029,775; June 18; Sp. p. 3703; Gaz. vol. 179; p. 652.
Nut-lock. J. H. and E. W. Bullard. No. 1,029,846; June 18; Sp. p. 3888; Gaz. vol. 179; p. 677.
Nut-lock. J. H. Skelton. No. 1,030,136; June 18; Sp. p. 4494; Gaz. vol. 179; p. 776.
Nut-lock. L. D. Wade. No. 1,030,146; June 18; Sp. p. 4513; Gaz. vol. 179; p. 779.
Nut, Lock-. G. O. Doutbit. No. 1,030,464; June 25; Sp. p. 5237; Gaz. vol. 179; p. 932.
Nut-locking device. J. H. and E. W. Bullard. No. 1,028,859; June 11; Sp. p. 1708; Gaz. vol. 179; p. 299.
Nut-locking device. G. Mathews. No. 1,030,106; June 18; Sp. p. 4441; Gaz. vol. 179; p. 767.
Nut-tapping machine. C. Baerwalde. No. 1,028,526; June 4; Sp. p. 1010; Gaz. vol. 179; p. 154.
Nutcracker. A. M. Carlsen. No. 1,030,805; June 25; Sp. p. 6246; Gaz. vol. 179; p. 1054.
Observation-chair and extension-support. J. W. Patterson. No. 1,029,821; June 18; Sp. p. 3818; Gaz. vol. 179; p. 669.
Obstetrical device. J. Stöger. No. 1,029,034; June 11; Sp. p. 2096; Gaz. vol. 179; p. 361.
Oil-burner. L. Fetty. No. 1,028,345; June 4; Sp. p. 615; Gaz. vol. 179; p. 92.
Oil-burner. H. T. Smith. No. 1,028,973; June 11; Sp. p. 1964; Gaz. vol. 179; p. 339.
Oil-burner. J. B. Cowper. No. 1,029,048; June 11; Sp. p. 2130; Gaz. vol. 179; p. 367.
Oil-burner. H. M. Daggett. No. 1,029,174; June 11; Sp. p. 2393; Gaz. vol. 179; p. 408.
Oil-burner. J. J. Haskin. No. 1,029,927; June 18; Sp. p. 4067; Gaz. vol. 179; p. 706.
Oil-burner. S. W. Statton. No. 1,030,211; June 18; Sp. p. 4662; Gaz. vol. 179; p. 801.
Oil-burner. R. B. McLellan. No. 1,030,419; June 25; Sp. p. 5142; Gaz. vol. 179; p. 916.
Oil burner, Crude-. S. A. Mantonya. No. 1,030,104; June 18; Sp. p. 4438; Gaz. vol. 179; p. 766.
Oil-burning apparatus. W. C. H. Noble. No. 1,029,818; June 18; Sp. p. 3808; Gaz. vol. 179; p. 668.
Oil-cake pan. A. W. French. No. 1,029,435; June 11; Sp. p. 2981; Gaz. vol. 179; p. 499.
Oil-can. R. D. Shepardson. No. 1,028,617; June 4; Sp. p. 1203; Gaz. vol. 179; p. 184.
Oil-can. M. T. and W. C. Axelton. No. 1,028,835; June 4; Sp. p. 1648; Gaz. vol. 179; p. 257.
Oil-can, Non-explosive. E. J. Walsh and W. Vargo. No. 1,029,329; June 11; Sp. p. 2736; Gaz. vol. 179; p. 462.
Oil, Non-inflammable lubricating. J. W. Aylsworth. No. 1,029,254; June 11; Sp. p. 2567; Gaz. vol. 179; p. 435.
Oiler, Force-feed. A. Levedahl. No. 1,028,471; June 4; Sp. p. 897; Gaz. vol. 179; p. 135.
Oiler, Force-feed. A. Levedahl. No. 1,029,547; June 11; Sp. p. 3199; Gaz. vol. 179; p. 536.
Orange-boxing device. G. T. Stamm. No. 1,030,342; June 25; Sp. p. 4978; Gaz. vol. 179; p. 887.
Ordnance telescopic sight. O. Forstmann. No. 1,030,070; June 18; Sp. p. 4370; Gaz. vol. 179; p. 753.
Ore-concentrating launder. P. R. Stanhope. No. 1,029,080; June 11; Sp. p. 2222; Gaz. vol. 179; p. 379.
Ore-concentrator. L. E. Jones. No. 1,029,933; June 18; Sp. p. 4078; Gaz. vol. 179; p. 708.
Ore-grinding pans, Lifting mechanism for mullers of. G. A. Gellen. No. 1,029,863; June 18; Sp. p. 3924; Gaz. vol. 179; p. 683.
Ore-roasting furnace and cooling-hearth, Helixoidal combined. E. A. Clark and W. H. Davis. No. 1,029,667; June 18; Sp. p. 3458; Gaz. vol. 179; p. 614.
Ore, Treating zinc-bearing. J. O. Johnstone. No. 1,029,932; June 18; Sp. p. 4076; Gaz. vol. 179; p. 708.
Ores, Reduction of refractory. F. J. Tone. No. 1,028,151; June 4; Sp. p. 160; Gaz. vol. 179; p. 24.
Outlet-box, Electrical. W. F. Irish. No. 1,029,611; June 18; Sp. p. 3341; Gaz. vol. 179; p. 595.
Oven. P. J. McMorrow. No. 1,028,242; June 4; Sp. p. 403; Gaz. vol. 179; p. 57.
Oven. P. F. Carroll. No. 1,029,589; June 18; Sp. p. 3288; Gaz. vol. 179; p. 586.
Oven, Baker's. F. Kühtz. No. 1,029,134; June 11; Sp. p. 2314; Gaz. vol. 179; p. 394.
Overshoe. W. N. Steuart. No. 1,029,772; June 18; Sp. p. 3696; Gaz. vol. 179; p. 651.
Oxidizing furnace, Tin-. K. von Olszewski. No. 1,028,595; June 4; Sp. p. 1161; Gaz. vol. 179; p. 176.
Oxone, Apparatus for preparing. G. F. Brindley. No. 1,028,857; June 11; Sp. p. 1703; Gaz. vol. 179; p. 298.
Oyster-fork. J. B. Porter. No. 1,028,961; June 11; Sp. p. 1940; Gaz. vol. 179; p. 335.
Package-carrier and advertising device. E. F. Priddat. No. 1,028,489; June 4; Sp. p. 943; Gaz. vol. 179; p. 141.
Package of commodity. J. O. E. Krohn. No. 1,028,888; June 11; Sp. p. 1777; Gaz. vol. 179; p. 311.
Package-tiers, Socket for connecting. B. F. Inge. No. 1,030,661; June 25; Sp. p. 5868; Gaz. vol. 179; p. 1003.
Packaging-machine. F. W. Lev. No. 1,030,517; June 25; Sp. p. 5398; Gaz. vol. 179; p. 950.
Packing-table. W. E. Brock and S. H. Hubbard. No. 1,028,670; June 4; Sp. p. 1305; Gaz. vol. 179; p. 201.
Pad: *See* Cushion edge pad.
Padlock. J. E. Moberg. No. 1,028,246; June 4; Sp. p. 410; Gaz. vol. 179; p. 58.
Padlock. A. A. Page. No. 1,029,942; June 18; Sp. p. 4097; Gaz. vol. 179; p. 711.
Padlock, Combination-. E. Porter. No. 1,028,960; June 11; Sp. p. 1938; Gaz. vol. 179; p. 334.
Padlock, Permutation-. M. J. Lovett. No. 1,028,754; June 4; Sp. p. 1482; Gaz. vol. 179; p. 229.
Pail and cover therefor. L. T. Roenitz. No. 1,028,967; June 11; Sp. p. 1951; Gaz. vol. 179; p. 337.
Pail, Lard-. E. C. Ritchell. No. 1,029,029; June 11; Sp. p. 2089; Gaz. vol. 179; p. 360.
Pail, Milk-. L. Eubank. No. 1,028,339; June 4; Sp. p. 593; Gaz. vol. 179; p. 89.
Paint or other similar material, Machine for forming. J. W. Hasburg. No. 1,029,925; June 18; Sp. p. 4063; Gaz. vol. 179; p. 706.
Paint-package. J. W. Hasburg. No. 1,029,926; June 18; Sp. p. 4065; Gaz. vol. 179; p. 706.
Pan: *See* Baking-pan; Oil-cake pan.
Paper bag. D. Appel. No. 1,029,783; June 18; Sp. p. 3721; Gaz. vol. 179; p. 655.
Paper bag. C. B. Sanders. No. 1,029,893; June 18; Sp. p. 3986; Gaz. vol. 179; p. 694.
Paper-bag machine. W. A. Lorenz. No. 1,029,700; June 18; Sp. p. 3549; Gaz. vol. 179; p. 627.
Paper-bag machine. W. A. Lorenz and J. Merritt. No. 1,029,701; June 18; Sp. p. 3553; Gaz. vol. 179; p. 628.
Paper-bag machine. J. D. King and H. Irving. No. 1,030,783; June 25; Sp. p. 6188; Gaz. vol. 179; p. 1046.
Paper bags, Making. J. Merritt. No. 1,029,706; June 18; Sp. p. 3569; Gaz. vol. 179; p. 630.
Paper bags, Manufacture of. D. Appel. No. 1,029,784; June 18; Sp. p. 3723; Gaz. vol. 179; p. 655.
Paper box, Folding. J. T. Ferres. No. 1,030,294; June 25; Sp. p. 4858; Gaz. vol. 179; p. 869.
Paper-box machines, Paper-feeding mechanism for. H. Inman. No. 1,030,183; June 18; Sp. p. 4598; Gaz. vol. 179; p. 792.
Paper-cutter attachment. M. O. Rose. No. 1,030,014; June 18; Sp. p. 4233; Gaz. vol. 179; p. 733.
Paper-cutting machine. D. T. Wadhams. No. 1,028,919; June 11; Sp. p. 1851; Gaz. vol. 179; p. 321.
Paper-cutting machine. D. T. Wadhams. No. 1,028,920; June 11; Sp. p. 1857; Gaz. vol. 179; p. 322.
Paper cutting, ruling, and assembling machine for making tablets. G. F. McAdams. No. 1,028,476; June 4; Sp. p. 918; Gaz. vol. 179; p. 137.
Paper-making machine. H. L. Kutter. No. 1,028,573; June 4; Sp. p. 1112; Gaz. vol. 179; p. 169.
Papering-machine. J. W. McCrary. No. 1,030,417; June 25; Sp. p. 5139; Gaz. vol. 179; p. 915.
Parachute. C. L. Willard. No. 1,028,517; June 4; Sp. p. 998; Gaz. vol. 179; p. 151.
Pastes, Machine for cutting dried. K. Gammel. No. 1,029,059; June 11; Sp. p. 2146; Gaz. vol. 179; p. 370.
Pasteurizing apparatus. C. Paulsen. No. 1,030,203; June 18; Sp. p. 4646; Gaz. vol. 179; p. 709.
Pasteurizing-machine. G. A. Fischer. No. 1,028,818; June 4; Sp. p. 1612; Gaz. vol. 179; p. 251.
Pattern. E. Pipher. No. 1,028,601; June 4; Sp. p. 1168; Gaz. vol. 179; p. 178.
Pattern. E. Pipher. No. 1,028,602; June 4; Sp. p. 1170; Gaz. vol. 179; p. 179.
Pattern-rack. F. H. Tobbenboske. No. 1,028,978; June 11; Sp. p. 1975; Gaz. vol. 179; p. 341.
Pavement. R. S. Blome and W. J. Sinek. No. 1,029,575; June 11; Sp. p. 3255; Gaz. vol. 179; p. 546.
Paving. E. Alcott. No. 1,028,420; June 4; Sp. p. 783; Gaz. vol. 179; p. 118.

Paving, Buffer for use with wood. G. T. Vallée. No. 1,028,802; June 4; Sp. p. 1575; Gaz. vol. 179; p. 246.
Pegging-machine. R. F. McFeely. No. 1,028,240; June 4; Sp. p. 392; Gaz. vol. 179; p. 56.
Pen and pencil holder. G. P. Boardman. No. 1,029,415; June 11; Sp. p. 2941; Gaz. vol. 179; p. 492.
Pen, Drafting-. L. Bosi. No. 1,030,158; June 18; Sp. p. 4532; Gaz. vol. 179; p. 783.
Pen, Fountain-. G. H. Carter. No. 1,030,502; June 25; Sp. p. 5342; Gaz. vol. 179; p. 945.
Pens, Safety-cap for fountain-. G. S. Parker. No. 1,028,382; June 4; Sp. p. 694; Gaz. vol. 179; p. 105.
Penholder. A. Pawliczek. No. 1,028,269; June 4; Sp. p. 453; Gaz. vol. 179; p. 65.
Penholder. M. F. Gardner. No. 1,028,704; June 4; Sp. p. 1358; Gaz. vol. 179; p. 212.
Pencil-sharpener. A. D. Fisher. No. 1,029,801; June 18; Sp. p. 3764; Gaz. vol. 179; p. 662.
Percolator. E. S. McLean. No. 1,029,939; June 18; Sp. p. 4090; Gaz. vol. 179; p. 710.
Perforating apparatus, Consecutive-view-. E. Schneider. No. 1,028,287; June 4; Sp. p. 492; Gaz. vol. 179; p. 72.
Perforating machine, Sheet-. P. J. Dreher. No. 1,028,557; June 4; Sp. p. 1078; Gaz. vol. 179; p. 164.
Perfume preparation. G. L. Clarke. No. 1,029,105; June 11; Sp. p. 2254; Gaz. vol. 179; p. 385.
Permutation-lock. H. R. Mitchell. No. 1,029,707; June 18; Sp. p. 3571; Gaz. vol. 179; p. 630.
Petroleum, Treating. J. Collins. No. 1,028,439; June 4; Sp. p. 826; Gaz. vol. 179; p. 125.
Phonograph-record cabinet. A. A. Bottemiller. No. 1,029,969; June 18; Sp. p. 4151; Gaz. vol. 179; p. 719.
Phonograph-record cabinets, Filling-block for. E. Pooler. No. 1,030,534; June 25; Sp. p. 5446; Gaz. vol. 179; p. 957.
Phonograph-records, Apparatus for making. J. A. Whitman. No. 1,030,364; June 25; Sp. p. 5024; Gaz. vol. 179; p. 896.
Phonographic recording and reproducing device. S. W. Wylie. No. 1,029,249; June 11; Sp. p. 2557; Gaz. vol. 179; p. 433.
Photographic apparatus. H. Lill. No. 1,030,737; June 25; Sp. p. 6041; Gaz. vol. 179; p. 1029.
Photographic lenses. Automatic focusing apparatus for. L. J. R. Holst. No. 1,029,295; June 11; Sp. p. 2645; Gaz. vol. 179; p. 449.
Photographic lenses, Means for mechanically focusing. L. J. R. Holst. No. 1,029,296; June 11; Sp. p. 2651; Gaz. vol. 179; p. 449.
Photographic lenses, Means for mechanically focusing. L. J. R. Holst. No. 1,029,297; June 11; Sp. p. 2654; Gaz. vol. 179; p. 450.
Photographic plates and films, Developing. H. M. Prindle. No. 1,029,511; June 11; Sp. p. 3123; Gaz. vol. 179; p. 524.
Photographic plates and films, Developing. H. M. Prindle. No. 1,029,512; June 11; Sp. p. 3124; Gaz. vol. 179; p. 524.
Photographic-print washer. E. N. Burdick. No. 1,029,487; June 11; Sp. p. 3076; Gaz. vol. 179; p. 516.
Photographic-printing apparatus. M. W. Lowder. No. 1,028,369; June 4; Sp. p. 672; Gaz. vol. 179; p. 101.
Photography, Plate or film for color. G. Eastman. No. 1,028,337; June 4; Sp. p. 590; Gaz. vol. 179; p. 89.
Photo printing-frame. R. Robinson. No. 1,030,540; June 25; Sp. p. 5456; Gaz. vol. 179; p. 959.
Piano. H. K. Sandell. No. 1,028,496; June 4; Sp. p. 957; Gaz. vol. 179; p. 144.
Piano base-shield. C. Coleman. No. 1,028,544; June 4; Sp. p. 1045; Gaz. vol. 179; p. 159.
Piano-bench, Duet. B. F. Mooney. No. 1,028,767; June 4; Sp. p. 1505; Gaz. vol. 179; p. 234.
Piano-key. F. B. Long. No. 1,028,753; June 4; Sp. p. 1481; Gaz. vol. 179; p. 229.
Piano music-cabinet attachment. K. Farkas. No. 1,028,697; June 4; Sp. p. 1347; Gaz. vol. 179; p. 210.
Piano-player. E. T. Turney. No. 1,028,308; June 4; Sp. p. 534; Gaz. vol. 179; p. 78.
Piano, Player-. J. H. Dickinson. No. 1,028,996; June 11; Sp. p. 2024; Gaz. vol. 179; p. 348.
Piano-player mechanism. W. T. Walte. No. 1,028,163; June 4; Sp. p. 245; Gaz. vol. 179; p. 29.
Piano-player motor. E. T. Turney. No. 1,028,307; June 4; Sp. p. 532; Gaz. vol. 179; p. 77.
Piano-player motor. E. T. Turney. No. 1,028,309; June 4; Sp. p. 536; Gaz. vol. 179; p. 78.
Piano-players, Action for pneumatic. E. V. Carlson. No. 1,029,421; June 11; Sp. p. 2951; Gaz. vol. 179; p. 494.
Piano-players and player-pianos, Key-changing device for. M. F. Holderman. No. 1,030,182; June 18; Sp. p. 4586; Gaz. vol. 179; p. 792.
Pianos, Expression mechanism for. W. F. Cooper and E. P. Chase. No. 1,028,440; June 4; Sp. p. 828; Gaz. vol. 179; p. 125.
Picker: *See* Potato-picker.
Pickling-bath, Hot. F. F. Farnham. No. 1,029,351; June 11; Sp. p. 2787; Gaz. vol. 179; p. 470.
Pile-driving device. M. Cazin. No. 1,029,102; June 11; Sp. p. 2250; Gaz. vol. 179; p. 384.
Piling, Sheet-. A. R. Archer. No. 1,030,761; June 25; Sp. p. 6108; Gaz. vol. 179; p. 1038.
Pilot-light. G. Gilcher. No. 1,029,805; June 18; Sp. p. 3772; Gaz. vol. 179; p. 663.
Pin: *See* Bowling-alley pin; Clothes-pin; Safety-pin.
Pin. E. Morehouse. No. 1,028,477; June 4; Sp. p. 922; Gaz. vol. 179; p. 138.
Pin. C. F. Markham. No. 1,029,205; June 11; Sp. p. 2461; Gaz. vol. 179; p. 419.
Pipe: *See* Blowpipe; Service-pipe.
Pipe and cable coupling and casing therefor. G. W. Millar. No. 1,028,245; June 4; Sp. p. 409; Gaz. vol. 179; p. 58.
Pipe clamp, Train-. W. Miller. No. 1,030,200; June 18; Sp. p. 4642; Gaz. vol. 179; p. 798.
Pipe-coupling. W. E. Moreland. No. 1,029,453; June 11; Sp. p. 3016; Gaz. vol. 179; p. 505.
Pipe-coupling. W. L. McCormick. No. 1,030,107; June 18; Sp. p. 4442; Gaz. vol. 179; p. 767.
Pipe-cutting tool. B. Borden. No. 1,029,265; June 11; Sp. p. 2584; Gaz. vol. 179; p. 439.
Pipe-joint. A. G. Elvin. No. 1,030,065; June 18; Sp. p. 4361; Gaz. vol. 179; p. 752.
Pipe-joint. C. P. Hall. No. 1,030,237; June 18; Sp. p. 4715; Gaz. vol. 179; p. 811.
Pipe-laying machine. N. Anderson. No. 1,028,523; June 4; Sp. p. 1007; Gaz. vol. 179; p. 153.
Pipe-threading tool. B. Borden. No. 1,029,662; June 18; Sp. p. 3449; Gaz. vol. 179; p. 612.
Pipe-threading tool. B. Borden. No. 1,029,968; June 18; Sp. p. 4148; Gaz. vol. 179; p. 719.
Pipes, Machine for removing burs from metal. G. Berghausen. No. 1,029,584; June 18; Sp. p. 3279; Gaz. vol. 179; p. 584.
Piston lubrication. G. H. Trémolières. No. 1,030,213; June 18; Sp. p. 4667; Gaz. vol. 179; p. 802.
Pitman connection. B. R. Benjamin. No. 1,029,250; June 11; Sp. p. 2575; Gaz. vol. 179; p. 437.
Pitman connection. B. R. Benjamin. No. 1,029,260; June 11; Sp. p. 2576; Gaz. vol. 179; p. 437.
Placer separator and concentrator, Dry. N. C. Westerfield. No. 1,029,651; June 18; Sp. p. 3419; Gaz. vol. 179; p. 609.
Plaiting-machine. E. Diebold. No. 1,028,446; June 4; Sp. p. 850; Gaz. vol. 179; p. 127.
Planer, Metal-working. G. Langen and C. Meier. No. 1,029,875; June 18; Sp. p. 3951; Gaz. vol. 179; p. 688.
Planter. R. Allen. No. 1,030,759; June 25; Sp. p. 6099; Gaz. vol. 179; p. 1037.
Planter attachment. P. F. Hansen. No. 1,028,353; June 4; Sp. p. 640; Gaz. vol. 179; p. 96.
Planter, Corn-. A. H. Halstead. No. 1,028,110; June 4; Sp. p. 34; Gaz. vol. 179; p. 9.
Planter, Corn-. A. Grieves. No. 1,029,679; June 18; Sp. p. 3492; Gaz. vol. 179; p. 619.
Planter, Corn-. F. R. Packham. No. 1,029,711; June 18; Sp. p. 3578; Gaz. vol. 179; p. 631.
Planter, Corn and cotton. M. T. Hooper. No. 1,029,125; June 11; Sp. p. 2291; Gaz. vol. 179; p. 391.
Planter-marker. J. H. Miller. No. 1,028,375; June 4; Sp. p. 683; Gaz. vol. 179; p. 103.
Planter, Wireless check-row corn-. S. L. Goodin. No. 1,030,236; June 18; Sp. p. 4712; Gaz. vol. 179; p. 811.
Planters, Driving mechanism for. E. M. Cole. No. 1,029,592; June 18; Sp. p. 3304; Gaz. vol. 179; p. 587.
Planters, Planting device for corn-. H. F. Ruel, E. St. Aubin, W. H. Dyer, and C. B. Sawyer. No. 1,030,331; June 25; Sp. p. 4958; Gaz. vol. 179; p. 884.
Planting machine, Potato-. F. Wieghard and H. Göbel, Jr. No. 1,028,411; June 4; Sp. p. 767; Gaz. vol. 179; p. 116.
Plaster-board. D. A. Cameron. No. 1,028,931; June 11; Sp. p. 1883; Gaz. vol. 179; p. 325.
Plaster-board, Machine for making. D. A. Cameron. No. 1,028,930; June 11; Sp. p. 1881; Gaz. vol. 179; p. 325.
Plaster-board, Manufacturing. C. W. Utzman. No. 1,029,328; June 11; Sp. p. 2733; Gaz. vol. 179; p. 462.
Plating-machine. S. C. Catlin. No. 1,030,053; June 18; Sp. p. 4341; Gaz. vol. 179; p. 749.
Plow. G. A. Thode. No. 1,029,833; June 18; Sp. p. 3837; Gaz. vol. 179; p. 673.
Plow. P. Clancy. No. 1,030,282; June 25; Sp. p. 4837; Gaz. vol. 179; p. 865.
Plow and chopper. C. P. Bermes. No. 1,030,156; June 18; Sp. p. 4529; Gaz. vol. 179; p. 782.
Plow, Gang and motor. E. B. Sellard. No. 1,030,687; June 25; Sp. p. 5920; Gaz. vol. 179; p. 1012.
Plow, Gang or sulky. H. Sternberg and J. Furby. No. 1,029,033; June 11; Sp. p. 2095; Gaz. vol. 179; p. 361.
Plow gearing, Motor-driven-. E. B. Sellard. No. 1,030,686; June 25; Sp. p. 5917; Gaz. vol. 179; p. 1011.
Plow harrow attachment. A. S. Achenbach. No. 1,030,700; June 25; Sp. p. 5948; Gaz. vol. 179; p. 1016.
Plow, Motor-. J. W. Fuller. No. 1,029,601; June 18; Sp. p. 3319; Gaz. vol. 179; p. 590.
Plow, Rotary. J. Peterson. No. 1,030,489; June 25; Sp. p. 5306; Gaz. vol. 179; p. 940.
Plow, Traction-. S. J. Million. No. 1,029,816; June 18; Sp. p. 3802; Gaz. vol. 179; p. 667.
Plow, Vineyard-. J. Porteous. No. 1,029,765; June 18; Sp. p. 3682; Gaz. vol. 179; p. 649.
Plowing-machine, Moldboard. W. G. Parmele. No. 1,029,456; June 11; Sp. p. 3022; Gaz. vol. 179; p. 506.
Plowshare attachment. P. H. Hickle and L. D. Spear. No. 1,029,443; June 11; Sp. p. 2993; Gaz. vol. 179; p. 501.
Plug-socket. J. W. Phelps. No. 1,028,957; June 11; Sp. p. 1928; Gaz. vol. 179; p. 333.
Pocket-knife. J. V. Weckbaugh. No. 1,029,564; June 11; Sp. p. 3238; Gaz. vol. 179; p. 543.

Pocket-knife. E. Doles. No. 1,030,058; June 18; Sp. p. 4347; Gaz. vol. 179; p. 750.
Pocket, Watch-. E. R. Pennebaker. No. 1,030,488; June 25; Sp. p. 5305; Gaz. vol. 179; p. 940.
Pole or shaft, Vehicle. J. C. Scoggins. No. 1,030,248; June 18; Sp. p. 4733; Gaz. vol. 179; p. 815.
Pool-register. E. F. Manchester. No. 1,030,786; June 25; Sp. p. 6195; Gaz. vol. 179; p. 1047.
Post: *See* Corner-post; Fence-post; Light-post; Sign-post.
Post-hole digger. S. E. Broomall. No. 1,030,713; June 25; Sp. p. 5989; Gaz. vol. 179; p. 1021.
Post-hole digger and shovel. W. P. Fryckberg. No. 1,028,872; June 11; Sp. p. 1740; Gaz. vol. 179; p. 304.
Post-pointing machine. H. Thompson. No. 1,029,958; June 18; Sp. p. 4132; Gaz. vol. 179; p. 715.
Postal card, puzzle, boat, and box. Combined convertible souvenir and advertising. S. L. Lazaron. No. 1,029,069; June 11; Sp. p. 2167; Gaz. vol. 179; p. 373.
Potato cutter, Seed-. C. M. Barnebey. No. 1,030,154; June 18; Sp. p. 4526; Gaz. vol. 179; p. 782.
Potato-digger. R. L. Teed. No. 1,029,831; June 18; Sp. p. 3835; Gaz. vol. 179; p. 673.
Potato-picker. A. Gilmore. No. 1,028,205; June 4; Sp. p. 332; Gaz. vol. 179; p. 44.
Potato-vine arranger. J. P. Manson. No. 1,030,475; June 25; Sp. p. 5278; Gaz. vol. 179; p. 936.
Pottery-jigger. J. Crossley. No. 1,028,549; June 4; Sp. p. 1053; Gaz. vol. 179; p. 161.
Poultry-house equipment. A. F. Blechschmidt. No. 1,029,844; June 18; Sp. p. 3884; Gaz. vol. 179; p. 677.
Pounding-up machine. C. E. Shattuck. No. 1,030,751; June 25; Sp. p. 6073; Gaz. vol. 179; p. 1035.
Powder-box. B. H. Smith. No. 1,028,618; June 4; Sp. p. 1204; Gaz. vol. 179; p. 184.
Powder, Method of and apparatus for charging. W. H. Plummer and J. Tresider. No. 1,029,630; June 18; Sp. p. 3381; Gaz. vol. 179; p. 602.
Power engine, Water-cooled heat-. O. Reissig. No. 1,029,889; June 18; Sp. p. 3981; Gaz. vol. 179; p. 693.
Power-generator. V. C. de Ybarrondo. No. 1,028,414; June 4; Sp. p. 771; Gaz. vol. 179; p. 117.
Power plant, Soda-boiler steam-. R. D'Equevilley-Montjustin. No. 1,029,180; June 11; Sp. p. 2402; Gaz. vol. 179; p. 409.
Power-transmission mechanism. R. C. Mitchell. No. 1,028,128; June 4; Sp. p. 74; Gaz. vol. 179; p. 16.
Power transmuter, Current-. N. R. Smith. No. 1,030,835; June 25; Sp. p. 6394; Gaz. vol. 179; p. 1066.
Precious metals, Apparatus for the recovery of. H. N. Potter. No. 1,030,490; June 25; Sp. p. 5307; Gaz. vol. 179; p. 941.
Preserving or cooking fruits or vegetables. F. and A. Blassneck. No. 1,028,669; June 4; Sp. p. 1304; Gaz. vol. 179; p. 201.
Press: *See* Baling-press; Forging-press; Forming-press; Hay-press; Hydraulic press; Molding-press; Printing-press; Seal-press.
Press. W. E. Broughton. No. 1,028,324; June 4; Sp. p. 567; Gaz. vol. 179; p. 84.
Press. E. G. Jegge. No. 1,030,408; June 25; Sp. p. 5113; Gaz. vol. 179; p. 912.
Press. A. Bates. No. 1,030,800; June 25; Sp. p. 6231; Gaz. vol. 179; p. 1053.
Press for extracting liquid from materials. A. S. Mackenzie. No. 1,030,594; June 25; Sp. p. 5639; Gaz. vol. 179; p. 977.
Press for making briquets and the like. W. Müller. No. 1,029,817; June 18; Sp. p. 3805; Gaz. vol. 179; p. 667.
Pressure-recorder, Long-distance. J. W. Bard. No. 1,028,851; June 11; Sp. p. 1690; Gaz. vol. 179; p. 296.
Primary battery. C. B. Schoenmehl. No. 1,028,614; June 4; Sp. p. 1197; Gaz. vol. 179; p. 183.
Printing-machine. E. P. Sheldon. No. 1,028,913; June 11; Sp. p. 1835; Gaz. vol. 179; p. 319.
Printing machine, Pencil-. T. R. Owen. No. 1,028,381; June 4; Sp. p. 692; Gaz. vol. 179; p. 105.
Printing-machine, Rotary. M. R. Bunting, J. Muldoon, and L. S. Springer. No. 1,029,847; June 18; Sp. p. 3889; Gaz. vol. 179; p. 677.
Printing machine, Wrapping-paper-. S. H. Pine and L. Schneider. No. 1,030,533; June 25; Sp. p. 5445; Gaz. vol. 179; p. 956.
Printing-plate base. M. Hoge and P. C. Riebe. No. 1,028,821; June 4; Sp. p. 1616; Gaz. vol. 179; p. 252.
Printing plates, Production of lithographic-. L. Bassani. No. 1,029,337; June 11; Sp. p. 2763; Gaz. vol. 179; p. 466.
Printing-press. G. E. Pancoast. No. 1,028,485; June 4; Sp. p. 933; Gaz. vol. 179; p. 140.
Printing-press. W. F. C. Foster. No. 1,029,434; June 11; Sp. p. 2978; Gaz. vol. 179; p. 499.
Printing-press, Bed-and-cylinder. A. T. H. Brower. No. 1,029,100; June 11; Sp. p. 2244; Gaz. vol. 179; p. 383.
Printing-press dampening mechanism. W. H. Smith. No. 1,029,239; June 11; Sp. p. 2539; Gaz. vol. 179; p. 430.
Printing-press, Die. H. B. Croker. No. 1,028,191; June 4; Sp. p. 299; Gaz. vol. 179; p. 39.
Printing-press inking apparatus. W. K. Hodgman. No. 1,030,403; June 25; Sp. p. 5107; Gaz. vol. 179; p. 910.
Printing-press punch. I. C. Whitman. No. 1,029,481; June 11; Sp. p. 3068; Gaz. vol. 179; p. 514.
Printing-press roll-holder. A. A. Henzi. No. 1,028,213; June 4; Sp. p. 344; Gaz. vol. 179; p. 47.
Printing-press sheet-feeding mechanism. F. Westerbeck. No. 1,029,150; June 11; Sp. p. 2362; Gaz. vol. 179; p. 403.
Printing-press sheet-registering device. H. Honigmann. No. 1,029,445; June 11; Sp. p. 2999; Gaz. vol. 179; p. 502.
Printing-presses, Adjustable support for inking-rollers of. C. H. Brett. No. 1,030,712; June 25; Sp. p. 5988; Gaz. vol. 179; p. 1021.
Printing-presses, Counting attachment for. W. J. Ramsaier. No. 1,028,905; June 11; Sp. p. 1821; Gaz. vol. 179; p. 316.
Printing-presses, Plate-clamping mechanism for. W. Evensen. No. 1,028,340; June 4; Sp. p. 594; Gaz. vol. 179; p. 90.
Printing-surfaces, Means and process for producing intaglio. W. J. R. Bartlett. No. 1,028,177; June 4; Sp. p. 276; Gaz. vol. 179; p. 34.
Projectile, Ordnance-. H. Stanbridge. No. 1,029,517; June 11; Sp. p. 3134; Gaz. vol. 179; p. 525.
Projectoscope. C. A. Walhof. No. 1,028,803; June 4; Sp. p. 1576; Gaz. vol. 179; p. 246.
Propeller. E. B. Desenberg and E. S. Pilsworth. No. 1,028,333; June 4; Sp. p. 583; Gaz. vol. 179; p. 87.
Propeller. B. S. Ames. No. 1,030,047; June 18; Sp. p. 4321; Gaz. vol. 179; p. 746.
Propeller apparatus for boats. A. Oppenheimer. No. 1,028,265; June 4; Sp. p. 443; Gaz. vol. 179; p. 64.
Propeller mechanism. A. Ahlbrecht. No. 1,028,093; June 4; Sp. p. 1; Gaz. vol. 179; p. 3.
Propeller, Screw-. J. Kobus. No. 1,029,694; June 18; Sp. p. 3522; Gaz. vol. 179; p. 625.
Propeller-wheel. J. F. Arnold. No. 1,029,907; June 18; Sp. p. 4022; Gaz. vol. 179; p. 699.
Propelling device for water and air vessels. C. W. Van Deursen. No. 1,029,776; June 18; Sp. p. 3704; Gaz. vol. 179; p. 653.
Protector-inserting machine. G. A. Ambler. No. 1,030,760; June 25; Sp. p. 6100; Gaz. vol. 179; p. 1037.
Protractor, Combination bevel-. J. La Follette. No. 1,028,742; June 4; Sp. p. 1460; Gaz. vol. 179; p. 225.
Puller: *See* Spike-puller; Stump-puller.
Pulling-over machine. R. F. McFeely. No. 1,029,387; June 11; Sp. p. 2862; Gaz. vol. 179; p. 482.
Pulling-over machine. R. F. McFeely. No. 1,030,522; June 25; Sp. p. 5414; Gaz. vol. 179; p. 953.
Pulling-over machine. O. Ashton. No. 1,030,763; June 25; Sp. p. 6113; Gaz. vol. 179; p. 1039.
Pulley. R. W. Dull. No. 1,029,535; June 11; Sp. p. 3171; Gaz. vol. 179; p. 532.
Pulley cap, Sash-. R. F. Hamilton. No. 1,029,441; June 11; Sp. p. 2990; Gaz. vol. 179; p. 501.
Pulley, Sash-. J. H. Foote. No. 1,029,003; June 11; Sp. p. 2037; Gaz. vol. 179; p. 350.
Pulley, Sash-. J. H. Foote. No. 1,029,004; June 11; Sp. p. 2040; Gaz. vol. 179; p. 351.
Pulley, Sash-cord. J. H. Foote. No. 1,029,005; June 11; Sp. p. 2043; Gaz. vol. 179; p. 351.
Pulley, Sash-cord. J. H. Foote. No. 1,029,006; June 11; Sp. p. 2045; Gaz. vol. 179; p. 352.
Pulp from waste news print and other grades of paper, Recovery of. J. M. Burby. No. 1,029,848; June 18; Sp. p. 3893; Gaz. vol. 179; p. 678.
Pump. F. C. Thompson. No. 1,028,401; June 4; Sp. p. 741; Gaz. vol. 179; p. 112.
Pump. A. Bertelli. No. 1,028,665; June 4; Sp. p. 1300; Gaz. vol. 179; p. 200.
Pump. R. C. Dawson. No. 1,029,977; June 18; Sp. p. 4166; Gaz. vol. 179; p. 721.
Pump, Air-. F. J. Schaefer and E. Beyer. No. 1,029,232; June 11; Sp. p. 2516; Gaz. vol. 179; p. 427.
Pump, Air-lift. O. E. Harris. No. 1,028,209; June 4; Sp. p. 340; Gaz. vol. 179; p. 46.
Pump, Automatic tire-. A. Brest. No. 1,029,340; June 11; Sp. p. 2769; Gaz. vol. 179; p. 466.
Pump-cap. L. M. Rich. No. 1,029,143; June 11; Sp. p. 2333; Gaz. vol. 179; p. 397.
Pump. Double-setting. G. St. Peters. No. 1,029,476; June 11; Sp. p. 3050; Gaz. vol. 179; p. 513.
Pump, High-vacuum rotary. W. Gaede. No. 1,029,862; June 18; Sp. p. 3923; Gaz. vol. 179; p. 682.
Pump, Internal-combustion liquid-. E. B. Badcock. No. 1,029,039; June 11; Sp. p. 2114; Gaz. vol. 179; p. 361.
Pump-jack, Double-acting. W. T. Pittman. No. 1,028,959; June 11; Sp. p. 1935; Gaz. vol. 179; p. 334.
Pump, Liquid-. L. H. Nash. No. 1,028,949; June 11; Sp. p. 1916; Gaz. vol. 179; p. 331.
Pump, Lubricating-oil. R. Klinger. No. 1,030,665; June 25; Sp. p. 5874; Gaz. vol. 179; p. 1004.
Pump or blower, Centrifugal. M. Neumayer. No. 1,029,554; June 11; Sp. p. 3219; Gaz. vol. 179; p. 540.
Pump or motor. R. Ullman. No. 1,029,157; June 11; Sp. p. 2359; Gaz. vol. 179; p. 402.
Pump-plunger. F. V. Braymer. No. 1,028,426; June 4; Sp. p. 796; Gaz. vol. 179; p. 120.
Pump pressure-regulator. R. W. Wittemann. No. 1,029,409; June 11; Sp. p. 2928; Gaz. vol. 179; p. 490.
Pump-rod coupling. A. L. Douglass. No. 1,028,689; June 4; Sp. p. 1336; Gaz. vol. 179; p. 207.
Pump, Rotary. R. H. Danner. No. 1,030,166; June 18; Sp. p. 4551; Gaz. vol. 179; p. 786.
Pumps, Counteracting device for. J. O. Bane. No. 1,029,580; June 18; Sp. p. 3275; Gaz. vol. 179; p. 583.
Pumping apparatus. F. A. Allen. No. 1,029,413; June 11; Sp. p. 2938; Gaz. vol. 179; p. 491.
Pumping mechanism. A. Ellsworth, A. F. and R. C. Abbott. No. 1,028,338; June 4; Sp. p. 591; Gaz. vol. 179; p. 89.

Pumping mechanism, Well-. A. H. Honey. No. 1,028,822; June 4; Sp. p. 1617; Gaz. vol. 179; p. 252.
Punch-presses and like machinery, Controlling mechanism for. N. Nelson. No. 1,030,009; June 18; Sp. p. 4221; Gaz. vol. 179; p. 732.
Punches and like master metal surfaces, Machine for cutting. J. C. Grant and L. A. Legros. No. 1,030,399; June 25; Sp. p. 5100; Gaz. vol. 179; p. 909.
Punches, Making steel. M. Stamm. No. 1,028,299; June 4; Sp. p. 514; Gaz. vol. 179; p. 75.
Punching-press feed mechanism. V. H. Bien. No. 1,028,927; June 11; Sp. p. 1875; Gaz. vol. 179; p. 324.
Push-bar. J. W. Bodle. No. 1,030,630; June 25; Sp. p. 5808; Gaz. vol. 179; p. 995.
Putty, Wood-oil. C. Ellis. No. 1,029,800; June 18; Sp. p. 3762; Gaz. vol. 179; p. 662.
Puzzle. K. Okamoto. No. 1,028,380; June 4; Sp. p. 691; Gaz. vol. 179; p. 105.
Puzzle. E. R. Snedaker. No. 1,029,240; June 11; Sp. p. 2541; Gaz. vol. 179; p. 430.
Puzzle-bank. J. and H. Oblein. No. 1,029,820; June 18; Sp. p. 3811; Gaz. vol. 179; p. 669.
Rack: *See* Basket-rack; Cheese-rack; Flower-rack; Hay-rack; Hotel room-rack; Pattern-rack; Separator cleaning rack; Sewing-rack.
Radial drill. H. W. Schatz. No. 1,028,395; June 4; Sp. p. 727; Gaz. vol. 179; p. 110.
Radiator. F. Schneider. No. 1,029,468; June 11; Sp. p. 3044; Gaz. vol. 179; p. 509.
Radiator-tubes, Manufacture of. E. and H. Behringer. No. 1,029,099; June 11; Sp. p. 2241; Gaz. vol. 179; p. 383.
Rail-brace. W. G. Paul. No. 1,028,384; June 4; Sp. p. 696; Gaz. vol. 179; p. 106.
Rail-clamp. G. F. Ausburn. No. 1,029,964; June 18; Sp. p. 4143; Gaz. vol. 179; p. 717.
Rail-fastening. G. D. Hill. No. 1,028,878; June 11; Sp. p. 1752; Gaz. vol. 179; p. 307.
Rail-joint. W. Nalepka. No. 1,028,483; June 4; Sp. p. 931; Gaz. vol. 179; p. 139.
Rail-joint. G. A. Humason. No. 1,028,729; June 4; Sp. p. 1419; Gaz. vol. 179; p. 221.
Rail-joint. C. Everitt. No. 1,028,817; June 4; Sp. p. 1611; Gaz. vol. 179; p. 251.
Rail-joint. G. Fabrizi. No. 1,029,054; June 11; Sp. p. 2138; Gaz. vol. 179; p. 368.
Rail-joint. J. D. Koher. No. 1,029,068; June 11; Sp. p. 2165; Gaz. vol. 179; p. 373.
Rail-joint. J. H. Underwood. No. 1,029,407; June 11; Sp. p. 2924; Gaz. vol. 179; p. 489.
Rail-joint. F. E. Cottler. No. 1,029,492; June 11; Sp. p. 3085; Gaz. vol. 179; p. 518.
Rail-joint. J. Rebolige. No. 1,030,126; June 18; Sp. p. 4469; Gaz. vol. 179; p. 772.
Rail-joint. W. D. Williams. No. 1,030,365; June 25; Sp. p. 5026; Gaz. vol. 179; p. 897.
Rail-joint. F. L. Strouse. No. 1,030,549; June 25; Sp. p. 5481; Gaz. vol. 179; p. 962.
Rail-joint. W. E. Weekes. No. 1,030,695; June 25; Sp. p. 5939; Gaz. vol. 179; p. 1015.
Rail-joint. W. S. Dodson. No. 1,030,842; June 25; Sp. p. 6419; Gaz. vol. 179; p. 1069.
Rail lock, Float-. G. W. Clemmons. No. 1,028,810; June 4; Sp. p. 1592; Gaz. vol. 179; p. 249.
Rail splice-plate. A. P. Bamberger and G. Porter. No. 1,029,166; June 11; Sp. p. 2381; Gaz. vol. 179; p. 406.
Rail support, Third-. E. J. Blair. No. 1,028,668; June 4; Sp. p. 1303; Gaz. vol. 179; p. 200.
Rail-tie or sleeper. S. Mogyorosi. No. 1,029,211; June 11; Sp. p. 2474; Gaz. vol. 179; p. 421.
Rails to metal ties, Means for securing. W. H. Morgan. No. 1,028,248; June 4; Sp. p. 414; Gaz. vol. 179; p. 59.
Rails to ties, Device for securing. O. H. Courson. No. 1,029,426; June 11; Sp. p. 2962; Gaz. vol. 179; p. 495.
Railway-crossing. R. C. Smith and M. T. Sinclair. No. 1,028,622; June 4; Sp. p. 1209; Gaz. vol. 179; p. 185.
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Railway device, Safety. J. M. Galloway. No. 1,029,437; June 11; Sp. p. 2985; Gaz. vol. 179; p. 500.
Railway-rail chair. J. W. Swales. No. 1,028,504; June 4; Sp. p. 973; Gaz. vol. 179; p. 146.
Railway-signal. J. D. Taylor. No. 1,029,728; June 18; Sp. p. 3612; Gaz. vol. 179; p. 637.
Railway signal mechanism, Electric-. R. D. Beatty. No. 1,029,853; June 11; Sp. p. 1695; Gaz. vol. 179; p. 297.
Railway signaling apparatus. C. W. Coleman. No. 1,029,275; June 11; Sp. p. 2601; Gaz. vol. 179; p. 442.
Railway signaling system. L. H. Thullen. No. 1,030,436; June 25; Sp. p. 5181; Gaz. vol. 179; p. 922.
Railway-sleepers, Liner for fixing screw-spikes in. G. Lakhovsky. No. 1,028,743; June 4; Sp. p. 1461; Gaz. vol. 179; p. 225.
Railway-spike. O. B. Felts. No. 1,029,983; June 18; Sp. p. 4176; Gaz. vol. 179; p. 724.
Railway-switch. G. C. Phinney. No. 1,028,776; June 4; Sp. p. 1524; Gaz. vol. 179; p. 237.
Railway-switch. C. E. Estes. No. 1,029,349; June 11; Sp. p. 2784; Gaz. vol. 179; p. 469.
Railway-switch, Automatic. O. L. Lance. No. 1,029,200; June 11; Sp. p. 2452; Gaz. vol. 179; p. 417.
Railway switches, signals, &c., Safety-bolt to lock and release the levers serving to operate. C. Legrand and A. Armel. No. 1,029,202; June 11; Sp. p. 2456; Gaz. vol. 179; p. 418.
Railway system, Electric-. H. W. Leonard. No. 1,029,698; June 18; Sp. p. 3534; Gaz. vol. 179; p. 626.
Railway-tie. J. Pallas, Jr. No. 1,028,597; June 4; Sp. p. 1164; Gaz. vol. 179; p. 177.
Railway-tie. J. Caron. No. 1,028,674; June 4; Sp. p. 1313; Gaz. vol. 179; p. 202.
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Railway-tie. W. Iring. No. 1,029,195; June 11; Sp. p. 2433; Gaz. vol. 179; p. 414.
Railway-tie. V. Tisl. No. 1,029,244; June 11; Sp. p. 2550; Gaz. vol. 179; p. 432.
Railway-tie. A. W. Peterson. No. 1,029,628; June 18; Sp. p. 3370; Gaz. vol. 179; p. 602.
Railway-tie and clamp. C. L. Inman. No. 1,030,407; June 25; Sp. p. 5112; Gaz. vol. 179; p. 912.
Railway-tie and fastener. A. C. Candland. No. 1,028,432; June 4; Sp. p. 809; Gaz. vol. 179; p. 122.
Railway-tie and fastener. A. C. Candland. No. 1,028,809; June 4; Sp. p. 1500; Gaz. vol. 179; p. 248.
Railway-tie and fastener therefor. A. C. Candland. No. 1,028,431; June 4; Sp. p. 807; Gaz. vol. 179; p. 122.
Railway-tie, Cement. H. G. Reckinger. No. 1,029,318; June 11; Sp. p. 2712; Gaz. vol. 179; p. 459.
Railway-tie, Metal. J. S. Kirk. No. 1,028,223; June 4; Sp. p. 365; Gaz. vol. 179; p. 51.
Railway-tie, Metal. W. H. Morgan. No. 1,028,249; June 4; Sp. p. 415; Gaz. vol. 179; p. 60.
Railway-tie, Metal. W. H. Morgan. No. 1,028,251; June 4; Sp. p. 418; Gaz. vol. 179; p. 60.
Railway-tie, Metallic. W. S. Boyce. No. 1,029,970; June 18; Sp. p. 4152; Gaz. vol. 179; p. 719.
Railway-tie plate. J. S. Fox. No. 1,030,723; June 25; Sp. p. 6007; Gaz. vol. 179; p. 1024.
Railway-ties, Rail-fastening means for. H. K. Powers. No. 1,029,458; June 11; Sp. p. 3026; Gaz. vol. 179; p. 506.
Railway trains, System of operating steam-. G. H. Lutz. No. 1,030,669; June 25; Sp. p. 5880; Gaz. vol. 179; p. 1006.
Railways, Automatic brake-applying means for. A. Minick. No. 1,029,210; June 11; Sp. p. 2468; Gaz. vol. 179; p. 420.
Rake: *See* Hay-rake.
Rake. A. K. Gilson. No. 1,029,988; June 18; Sp. p. 4184; Gaz. vol 179; p. 725.
Rakes, Pusher attachment for sweep-. P. J. Englund. No. 1,030,292; June 25; Sp. p. 4855; Gaz. vol. 179; p. 869.
Range-finder. A. A. Michelson. No. 1,030,846; June 25; Sp. p. 6424; Gaz. vol. 179; p. 1070.
Rat-trap. S. Molnár. No. 1,029,551; June 11; Sp. p. 3213; Gaz. vol. 179; p. 538.
Rat-trap. E. K. Schwing. No. 1,030,750; June 25; Sp. p. 6071; Gaz. vol. 179; p. 1034.
Rat-trap, Electric. L. Karpów. No. 1,030,093; June 18; Sp. p. 4418; Gaz. vol. 179; p. 763.
Ratchet-wrench. J. F. Bosserman. No. 1,029,271; June 11; Sp. p. 2595; Gaz. vol. 179; p. 441.
Razor blades, Device for holding safety-. L. W. Stetson. No. 1,028,626; June 4; Sp. p. 1218; Gaz. vol. 179; p. 187.
Razor-honing machine. J. Kayetan. No. 1,030,256; June 18; Sp. p. 4750; Gaz. vol. 179; p. 817.
Razor, Safety-. S. Hetlyn. No. 1,028,461; June 4; Sp. p. 878; Gaz. vol. 179; p. 132.
Razor, Safety-. H. C. Shannon. No. 1,030,023; June 18; Sp. p. 4256; Gaz. vol. 179; p. 737.
Razor-stropping machine. I. Buchler. No. 1,029,911; June 18; Sp. p. 4032; Gaz. vol. 179; p. 700.
Receptacle for thread, cord, silk, and the like. C. J. Ulmann. No. 1,029,094; June 11; Sp. p. 2231; Gaz. vol. 179; p. 381.
Receptacle made of paper and similar sheet material. J. C. Coram. No. 1,030,163; June 18; Sp. p. 4542; Gaz. vol. 179; p. 785.
Receptacle, Metallic. F. C. Panther. No. 1,030,121; June 18; Sp. p. 4463; Gaz. vol. 179; p. 771.
Receptacle-support, Adjustable. H. H. Johnson. No. 1,030,090; June 18; Sp. p. 4413; Gaz. vol. 179; p. 762.
Receptacles, Manufacturing. W. R. Comings. (Reissue.) No. 13,433; June 25; Sp. p. 6456; Gaz. vol. 179; p. 1076.
Recorder: *See* Pressure-recorder.
Recording device. G. F. Hoover. No. 1,029,062; June 11; Sp. p. 2153; Gaz. vol. 179; p. 371.
Reel: *See* Hose-reel.
Reel. F. Joseph. No. 1,028,770; June 4; Sp. p. 1500; Gaz. vol. 179; p. 235.
Reel and rack for the exhibition of wall-paper, Combination. J. A. Hall. No. 1,029,806; June 18; Sp. p. 3773; Gaz. vol. 179; p. 664.
Reel for strip material. R. A. Moore and A. S. Sutcliffe. No. 1,029,212; June 11; Sp. p. 2474; Gaz. vol. 179; p. 421.
Refrigerating device. J. A. Anderson. No. 1,030,270; June 25; Sp. p. 4801; Gaz. vol. 179; p. 861.
Refrigerating-machine. M. Leblanc. No. 1,029,201; June 11; Sp. p. 2455; Gaz. vol. 179; p. 418.

Refrigerator. J. E. Stafford. No. 1,028,298; June 4; Sp. p. 512; Gaz. vol. 179; p. 75.
Refrigerator. E. D. Lochner. No. 1,030,668; June 25; Sp. p. 5879; Gaz. vol. 179; p. 1005.
Refrigerator-car. C. A. Moore. No. 1,030,524; June 25; Sp. p. 5427; Gaz. vol. 179; p. 953.
Refrigerator-car. S. Mason. No. 1,030,671; June 25; Sp. p. 5888; Gaz. vol. 179; p. 1006.
Refrigerator-linings, Coupling-ring for. W. H. Whittier. No. 1,028,310; June 4; Sp. p. 538; Gaz. vol. 179; p. 79.
Refrigerator-room. F. Zelpen. No. 1,029,484; June 11; Sp. p. 3072; Gaz. vol. 179; p. 515.
Register: *See* Account-register; Autographic register; Cash-register; Pool-register.
Registering apparatus. H. Hollerith. No. 1,030,304; June 25; Sp. p. 4882; Gaz. vol. 179; p. 873.
Regulator: *See* Boiler-regulator; Engine spark-regulator; Irrigation-regulator; Pump-pressure regulator; Speed-regulator; Water-regulator.
Rein checking device, Side-. O. D. Shank. No. 1,030,022; June 18; Sp. p. 4253; Gaz. vol. 179; p. 736.
Rein-holder and safety whip-socket, Combination. M. J. Quinn. No. 1,030,245; June 18; Sp. p. 4729; Gaz. vol. 179; p. 814.
Relay and circuits therefor. R. H. Manson. No. 1,030,415; June 25; Sp. p. 5128; Gaz. vol. 179; p. 914.
Relay, Polarized. W. S. Henry. No. 1,030,811; June 25; Sp. p. 6266; Gaz. vol. 179; p. 1056.
Releasing device. J. Irwin. No. 1,030,586; June 25; Sp. p. 5614; Gaz. vol. 179; p. 975.
Resilient wheel. J. R. Wright. No. 1,028,172; June 4; Sp. p. 265; Gaz. vol. 179; p. 33.
Resilient wheel. W. Black. No. 1,030,227; June 18; Sp. p. 4693; Gaz. vol. 179; p. 807.
Resin and forming same, Fusible phenol. J. W. Aylsworth. No. 1,029,737; June 18; Sp. p. 3632; Gaz. vol. 179; p. 640.
Resonator for examining the human voice. S. Weber-Bell. No. 1,028,165; June 4; Sp. p. 240; Gaz. vol. 179; p. 30.
Revolving case and account-register. A. E. Trenton. No. 1,030,691; June 25; Sp. p. 5932; Gaz. vol. 179; p. 1013.
Rheostat. W. H. Gaulke. No. 1,029,539; June 11; Sp. p. 3177; Gaz. vol. 179; p. 533.
Rheostat, Liquid. H. A. Steen. No. 1,030,850; June 25; Sp. p. 6439; Gaz. vol. 179; p. 1072.
Riddle. J. A. Islin. No. 1,030,241; June 18; Sp. p. 4724; Gaz. vol. 179; p. 813.
Rifles, Safety firing attachment for breech-loading. F. Hartney. No. 1,030,087; June 18; Sp. p. 4405; Gaz. vol. 179; p. 760.
Rims, Manufacture of wire-spoked. J. V. Pugh. No. 1,030,428; June 25; Sp. p. 5163; Gaz. vol. 179; p. 919.
Ringing system, Automatic. A. H. Weiss. No. 1,029,649; June 18; Sp. p. 3412; Gaz. vol. 179; p. 608.
Ringing system, Automatic. A. H. Weiss. No. 1,030,037; June 18; Sp. p. 4281; Gaz. vol. 179; p. 742.
Ringing system, Automatic. A. H. Weiss. No. 1,030,038; June 18; Sp. p. 4286; Gaz. vol. 179; p. 742.
Ringing system, Automatic. A. H. Weiss. No. 1,030,039; June 18; Sp. p. 4292; Gaz. vol. 179; p. 743.
Road-engine. G. B. Selden. No. 1,028,501; June 4; Sp. p. 965; Gaz. vol. 179; p. 145.
Road-leer, Steam. H. S. Parker. No. 1,029,508; June 11; Sp. p. 3120; Gaz. vol. 179; p. 523.
Road-scarifier. N. De Wind. No. 1,030,287; June 25; Sp. p. 4845; Gaz. vol. 179; p. 867.
Roads, Liquid-hydrocarbon distributer for. D. Schoentag and E. J. Latus. No. 1,028,288; June 4; Sp. p. 495; Gaz. vol. 179; p. 72.
Rock-drill. J. M. and J. L. Holman. No. 1,029,294; June 11; Sp. p. 2644; Gaz. vol. 179; p. 448.
Rock-drill. D. C. Demarest. No. 1,029,853; June 18; Sp. p. 3909; Gaz. vol. 179; p. 680.
Rock-gathering and excavating machine. D. A. Gilchrist. No. 1,029,359; June 11; Sp. p. 2802; Gaz. vol. 179; p. 472.
Rod: *See* Curtain-rod; Engineer's combination-rod; Extension-rod.
Rod-mill. F. H. Daniels. No. 1,029,673; June 18; Sp. p. 3480; Gaz. vol. 179; p. 617.
Roll, Collared spirally-wound. C. S. Lockwood. No. 1,029,075; June 11; Sp. p. 2175; Gaz. vol. 179; p. 374.
Roll-support. O. Thieme. No. 1,028,506; June 4; Sp. p. 975; Gaz. vol. 179; p. 147.
Roller: *See* Shade-roller.
Rolling iron or steel sheets. A. J. Maskrey. No. 1,029,936; June 18; Sp. p. 4084; Gaz. vol. 179; p. 709.
Rolling-mill. R. Ludwig. No. 1,028,236; June 4; Sp. p. 386; Gaz. vol. 179; p. 55.
Roof and wall structures, Securing-clip for. A. L. Johnson. No. 1,029,612; June 18; Sp. p. 3342; Gaz. vol. 179; p. 595.
Roof construction. E. F. Hodgson. No. 1,028,725; June 4; Sp. p. 1409; Gaz. vol. 179; p. 219.
Rope-clip. J. S. Crosland. No. 1,029,345; June 11; Sp. p. 2779; Gaz. vol. 179; p. 468.
Rope-making machine. W. Finlay. No. 1,030,235; June 18; Sp. p. 4709; Gaz. vol. 179; p. 810.
Rotary drier. R., W. G., and F. R. Simon. No. 1,030,210; June 18; Sp. p. 4661; Gaz. vol. 179; p. 801.
Rotary engine. N. O. Allyn. No. 1,028,316; June 4; Sp. p. 552; Gaz. vol. 179; p. 81.
Rotary engine. E. J. M. Madero. No. 1,028,371; June 4; Sp. p. 676; Gaz. vol. 179; p. 102.
Rotary engine. J. T. Aabel. No. 1,028,848; June 11; Sp. p. 1677; Gaz. vol. 179; p. 295.
Rotary engine. C. Gilsbach. No. 1,029,677; June 18; Sp. p. 3488; Gaz. vol. 179; p. 618.
Rotary engine. G. F. Moors. No. 1,029,941; June 18; Sp. p. 4094; Gaz. vol. 179; p. 710.
Rotary engine, Reversible. F. D. Lambert and R. R. Resch. No. 1,029,616; June 18; Sp. p. 3351; Gaz. vol. 179; p. 597.
Rotary machine. A. Sadger. No. 1,028,285; June 4; Sp. p. 485; Gaz. vol. 179; p. 71.
Rotary steam-engine. L. B. Gesner. No. 1,028,873; June 11; Sp. p. 1742; Gaz. vol. 179; p. 304.
Router and die-sinker, Combined. H. Melling. No. 1,028,125; June 4; Sp. p. 66; Gaz. vol. 179; p. 15.
Rubber, Curing india-. R. Derry. No. 1,030,651; June 25; Sp. p. 5837; Gaz. vol. 179; p. 999.
Rubber vehicle-spring. M. Handy. No. 1,029,190; June 11; Sp. p. 2427; Gaz. vol. 179; p. 413.
Rug-stiffener. W. A. Scott. No. 1,030,685; June 25; Sp. p. 5915; Gaz. vol. 179; p. 1011.
Rule. L. Voggenreiter. No. 1,028,507; June 4; Sp. p. 977; Gaz. vol. 179; p. 147.
Rule, Slide-. A. N. Lurie. No. 1,028,237; June 4; Sp. p. 388; Gaz. vol. 179; p. 55.
Ruling machines or printing-presses, Jogger for paper-. G. F. McAdams. No. 1,028,475; June 4; Sp. p. 916; Gaz. vol. 179; p. 137.
Sad-iron. G. W. Cann. No. 1,028,188; June 4; Sp. p. 294; Gaz. vol. 179; p. 38.
Sad-iron. A. H. and C. P. Waage. No. 1,030,036; June 18; Sp. p. 4280; Gaz. vol. 179; p. 742.
Sad-iron. H. Abramson. No. 1,030,221; June 18; Sp. p. 4681; Gaz. vol. 179; p. 805.
Sad-iron, Electric. E. H. Lux. No. 1,028,580; June 4; Sp. p. 1127; Gaz. vol. 179; p. 171.
Sad-iron, Electric. V. Schild. No. 1,029,233; June 11; Sp. p. 2519; Gaz. vol. 179; p. 428.
Sad-iron stand. O. H. Frank. No. 1,030,510; June 25; Sp. p. 5371; Gaz. vol. 179; p. 949.
Saddles, Apparatus for making harness-. W. F. Treece. No. 1,029,245; June 11; Sp. p. 2551; Gaz. vol. 179; p. 432.
Safe, Burglar-proof. J. H. Howard. No. 1,029,996; June 18; Sp. p. 4197; Gaz. vol. 179; p. 728.
Safety-brake. J. T. O'Neill. No. 1,028,596; June 4; Sp. p. 1161; Gaz. vol. 179; p. 177.
Safety-chair for window-cleaners. C. Blum. No. 1,028,319; June 4; Sp. p. 557; Gaz. vol. 179; p. 82.
Safety-pin. F. Raupach. No. 1,028,784; June 4; Sp. p. 1539; Gaz. vol. 179; p. 240.
Safety-pin. J. H. Robinson. No. 1,030,431; June 25; Sp. p. 5172; Gaz. vol. 179; p. 920.
Safety-pin coil-guard. M. T. Goldsmith. No. 1,030,076; June 18; Sp. p. 4381; Gaz. vol. 179; p. 756.
Salt-shaker. C. E. Bauermeister. No. 1,028,663; June 4; Sp. p. 1297; Gaz. vol. 179; p. 199.
Sample-folder. W. H. Britsch. No. 1,028,184; June 4; Sp. p. 288; Gaz. vol. 179; p. 37.
Sanding device. L. T. Duncan. No. 1,029,599; June 18; Sp. p. 3316; Gaz. vol. 179; p. 590.
Sanding-machine. J. W. Kroeze. No. 1,030,473; June 25; Sp. p. 5274; Gaz. vol. 179; p. 935.
Sardine-can. G. W. Weber. No. 1,030,358; June 25; Sp. p. 5014; Gaz. vol. 179; p. 894.
Sash-holder. W. A. Heil. No. 1,030,469; June 25; Sp. p. 5246; Gaz. vol. 179; p. 934.
Sash lock and antirattler. J. De Mars. No. 1,030,506; June 25; Sp. p. 5362; Gaz. vol. 179; p. 947.
Sash lock and lift. J. A. Giese. No. 1,029,803; June 18; Sp. p. 3768; Gaz. vol. 179; p. 663.
Sash lock, Window-. J. A. Giese. No. 1,029,804; June 18; Sp. p. 3770; Gaz. vol. 179; p. 663.
Sash-operating mechanism, Window-. W. von Wolffradt. No. 1,028,171; June 4; Sp. p. 263; Gaz. vol. 179; p. 32.
Sash, Window-. W. S. Hamm. No. 1,029,180; June 11; Sp. p. 2426; Gaz. vol. 179; p. 413.
Sash, Window-. A. H. Newpher. No. 1,029,217; June 11; Sp. p. 2485; Gaz. vol. 179; p. 423.
Sash, Window-. E. H. Lunken. No. 1,029,381; June 11; Sp. p. 2854; Gaz. vol. 179; p. 480.
Saw-clamp. A. Peterson. No. 1,028,775; June 4; Sp. p. 1522; Gaz. vol. 179; p. 237.
Saw-filing gage. J. and C. Bearden. No. 1,029,966; June 18; Sp. p. 4145; Gaz. vol. 179; p. 718.
Saw-filing tool, Crosscut-. M. J. Henderson. No. 1,030,176; June 18; Sp. p. 4568; Gaz. vol. 179; p. 790.
Saw-gage. T. Bemis. No. 1,028,529; June 4; Sp. p. 1021; Gaz. vol. 179; p. 155.
Saw-gummer. E. Smith. No. 1,029,516; June 11; Sp. p. 3133; Gaz. vol. 179; p. 525.
Saw, Pruning-. C. M. Leonard. No. 1,028,230; June 4; Sp. p. 375; Gaz. vol. 179; p. 53.
Saw-set. W. L. Hampton. No. 1,029,991; June 18; Sp. p. 4188; Gaz. vol. 179; p. 726.
Saw-setting machine. E. Johnson. No. 1,029,614; June 18; Sp. p. 3347; Gaz. vol. 179; p. 596.
Saw-tooth-leveling tool. E. Eastlund and J. A. Johnson. No. 1,028,448; June 4; Sp. p. 854; Gaz. vol. 179; p. 128.
Saw, Vertical friction-. H. A. Fergusson. No. 1,028,103; June 4; Sp. p. 23; Gaz. vol. 179; p. 7.
Sawing and trimming machine with router and jig-saw attachment. H. G. Miller. No. 1,030,598; June 25; Sp. p. 5651; Gaz. vol. 179; p. 979.

Sawmill-dog. A. A. De Loach. No. 1,028,863; June 11; Sp. p. 1715; Gaz. vol. 179; p. 301.
Sawyer's clamp. F. C. Preus. No. 1,029,222; June 11; Sp. p. 2496; Gaz. vol. 179; p. 424.
Scaffold-support. E. M. and D. F. Cavanagh. No. 1,030,643; June 25; Sp. p. 5815; Gaz. vol. 179; p. 997.
Scale, Adjustable dial-. H. D. Fiegel. No. 1,028,700; June 4; Sp. p. 1351; Gaz. vol. 179; p. 211.
Scale, Automatic weighing-. A Gauvin. No. 1,029,602; June 18; Sp. p. 3323; Gaz. vol. 179; p. 591.
Scale, Raising beam-. H. Schneider. No. 1,029,949; June 18; Sp. p. 4107; Gaz. vol. 179; p. 713.
Scale, Rapid-weighing. N. B. Converse. No. 1,029,170; June 11; Sp. p. 2387; Gaz. vol. 179; p. 407.
Scale-scoop. F. H. Martin. No. 1,029,138; June 11; Sp. p. 2321; Gaz. vol. 179; p. 396.
Scale, Track-. W. Dalton. No. 1,028,194; June 4; Sp. p. 306; Gaz. vol. 179; p. 40.
Scale, Weighing-. A. De Vilbiss, Jr. No. 1,028,552; June 4; Sp. p. 1064; Gaz. vol. 179; p. 162.
Scale, Weighing-. L. C. Wetzel. No. 1,030,362; June 25; Sp. p. 5021; Gaz. vol. 179; p. 896.
Scales, Chart for computing-. A. W. Loshbough. No. 1,028,946; June 11; Sp. p. 1908; Gaz. vol. 179; p. 330.
Scarf-holder. A. Wiegel. No. 1,028,311; June 4; Sp. p. 539; Gaz. vol. 179; p. 79.
Screen: *See* Metallic screen; Window-screen.
Screen and window frames, doors, &c., Clamp for use in the production of. R. McKnight. No. 1,028,584; June 4; Sp. p. 1137; Gaz. vol. 179; p. 173.
Screening or washing fibrous material, &c., Apparatus for. B. Granville. No. 1,029,990; June 18; Sp. p. 4187; Gaz. vol. 179; p. 726.
Screw-driver. B. B. Chase and E. Van Sickle. No. 1,028,675; June 4; Sp. p. 1314; Gaz. vol. 179; p. 202.
Screw guard, Set-. S. S. Cook. No. 1,028,546; June 4; Sp. p. 1048; Gaz. vol. 179; p. 160.
Scrubbing-machine. V. Ballard. No. 1,028,527; June 4; Sp. p. 1014; Gaz. vol. 179; p. 154.
Scrubbing-machine. R. L. Sessom. No. 1,030,335; June 25; Sp. p. 4967; Gaz. vol. 179; p. 885.
Scrubbing-machine. A. Degraw. No. 1,030,392; June 25; Sp. p. 5082; Gaz. vol. 179; p. 906.
Scythe. H. E. Scott. No. 1,030,794; June 25; Sp. p. 6213; Gaz. vol. 179; p. 1050.
Seal. N. H. Tunks. No. 1,028,800; June 4; Sp. p. 1571; Gaz. vol. 179; p. 245.
Seal, Bottle-. S. Baruch. No. 1,029,738; June 18; Sp. p. 3636; Gaz. vol. 179; p. 640.
Seal-lock. A. Woolen. No. 1,028,834; June 4; Sp. p. 1646; Gaz. vol. 179; p. 257.
Seal-plug. J. B. Kitts, Sr. No. 1,030,309; June 25; Sp. p. 4906; Gaz. vol. 179; p. 875.
Seal-press, Registering. C. D. Stamper. No. 1,028,914; June 11; Sp. p. 1842; Gaz. vol. 179; p. 319.
Seal, Snap-. E. J. Brooks. No. 1,030,457; June 25; Sp. p. 5223; Gaz. vol. 179; p. 929.
Seal, Snap-. E. J. Brooks. No. 1,030,458; June 25; Sp. p. 5225; Gaz. vol. 179; p. 930.
Seals, Tool for removing. J. J. Ferrall and E. Mackay. No. 1,029,578; June 11; Sp. p. 3262; Gaz. vol. 179; p. 547.
Sealing device, Bottle-. S. Krnka. No. 1,029,450; June 11; Sp. p. 3010; Gaz. vol. 179; p. 504.
Sealing device for wrappers. J. E. Lang. No. 1,029,377; June 11; Sp. p. 2846; Gaz. vol. 179; p. 478.
Seam and making chain-stitches, Chain-stitch. F. La Chapelle. No. 1,030,784; June 25; Sp. p. 6191; Gaz. vol. 179; p. 1047.
Seams, Forming chain-stitch. C. P. Holmes. No. 1,030,815; June 25; Sp. p. 6282; Gaz. vol. 179; p. 1058.
Seaming and vacuumizing machine, Double-. L. Wurzburg. No. 1,028,652; June 4; Sp. p. 1268; Gaz. vol. 179; p. 195.
Seat. F. Treude. No. 1,028,152; June 4; Sp. p. 161; Gaz. vol. 179; p. 25.
Secondary battery. G. J. Johnson. No. 1,029,015; June 11; Sp. p. 2064; Gaz. vol. 179; p. 355.
Sectional heater. J. J. Reinartz. No. 1,030,246; June 18; Sp. p. 4730; Gaz. vol. 179; p. 814.
Sectionized tank. A. N. Eaton. No. 1,029,745; June 18; Sp. p. 3645; Gaz. vol. 179; p. 643.
Seed-cleaner. P. L. Willet. No. 1,030,260; June 18; Sp. p. 4758; Gaz. vol. 179; p. 819.
Seed-corn stringer. F. E. Weaver. No. 1,028,645; June 4; Sp. p. 1253; Gaz. vol. 179; p. 193.
Seed-cotton cleaner. B. C. White. No. 1,030,249; June 18; Sp. p. 4735; Gaz. vol. 179; p. 815.
Seed crusher and distributer, Cotton-. J. A. Gardner. No. 1,029,987; June 18; Sp. p. 4182; Gaz. vol. 179; p. 725.
Seeds and the like, Apparatus for cleaning and separating. F. M. Dossor. No. 1,028,447; June 4; Sp. p. 853; Gaz. vol. 179; p. 127.
Seeding-machine. E. E. Towle. No. 1,028,403; June 4; Sp. p. 744; Gaz. vol. 179; p. 112.
Seeding-machine. F. R. Packham. No. 1,029,712; June 18; Sp. p. 3580; Gaz. vol. 179; p. 632.
Self-starting direct-connected generator. C. D. Knight and W. O. Lum. No. 1,028,364; June 4; Sp. p. 660; Gaz. vol. 179; p. 99.
Semaphore-pole. C. A. Helderman and J. S. Russell. No. 1,029,442; June 11; Sp. p. 2991; Gaz. vol. 179; p. 501.
Separating apparatus. W. M. O'Brien. No. 1,028,131; June 4; Sp. p. 85; Gaz. vol. 179; p. 17.
Separating apparatus. I. and H. K. Christ. No. 1,030,231; June 18; Sp. p. 4701; Gaz. vol. 179; p. 809.
Separating-case. C. H. Middaugh. No. 1,030,317; June 25; Sp. p. 4923; Gaz. vol. 179; p. 878.
Separating device. J. E. Rothwell. No. 1,028,789; June 4; Sp. p. 1548; Gaz. vol. 179; p. 241.
Separating substances in suspension by washing. B. Schwerin. No. 1,029,579; June 11; Sp. p. 3264; Gaz. vol. 179; p. 547.
Separator: *See* Butter-separator; Cream-separator; Egg-separator; Placer-separator.
Separator. H. L. Day. No. 1,029,571; June 11; Sp. p. 3250; Gaz. vol. 179; p. 545.
Separator cleaning-rack, Grain-. R. L. Owens. No. 1,029,507; June 11; Sp. p. 3118; Gaz. vol. 179; p. 523.
Separators, Feed and distributing means for. A. J. Arbuckle. No. 1,030,271; June 25; Sp. p. 4802; Gaz. vol. 179; p. 861.
Separators, Feeder for dry. F. O. Stromborg. No. 1,028,797; June 4; Sp. p. 1566; Gaz. vol. 179; p. 244.
Service-pipe for water-storage systems, &c. W. H. Allen. No. 1,030,447; June 25; Sp. p. 5202; Gaz. vol. 179; p. 925.
Serving apparatus. F. Korff. No. 1,028,942; June 11; Sp. p. 1900; Gaz. vol. 179; p. 328.
Sewed articles, Taped seam for. E. B. Allen. No. 1,030,446; June 25; Sp. p. 5200; Gaz. vol. 179; p. 925.
Sewing-machine. A. B. Fowler. No. 1,029,283; June 11; Sp. p. 2624; Gaz. vol. 179; p. 445.
Sewing-machine. M. H. Pearson. No. 1,029,887; June 18; Sp. p. 3979; Gaz. vol. 179; p. 692.
Sewing-machine. F. J. Freese. No. 1,030,512; June 25; Sp. p. 5375; Gaz. vol. 179; p. 949.
Sewing-machine. F. J. Freese. No. 1,030,774; June 25; Sp. p. 6147; Gaz. vol. 179; p. 1043.
Sewing-machine. G. E. Warren. No. 1,030,797; June 25; Sp. p. 6218; Gaz. vol. 179; p. 1052.
Sewing-machine. C. P. Holmes. No. 1,030,812; June 25; Sp. p. 6269; Gaz. vol. 179; p. 1057.
Sewing-machine. C. P. Holmes. No. 1,030,814; June 25; Sp. p. 6277; Gaz. vol. 179; p. 1058.
Sewing-machine. C. P. Holmes. No. 1,030,816; June 25; Sp. p. 6284; Gaz. vol. 179; p. 1059.
Sewing-machine. W. E. Stone. No. 1,030,836; June 25; Sp. p. 6400; Gaz. vol. 179; p. 1067.
Sewing-machine attachment. W. G. Dunham. No. 1,029,917; June 18; Sp. p. 4046; Gaz. vol. 179; p. 703.
Sewing-machine attachment, Chain-stitch-. F. La Chapelle. No. 1,030,736; June 25; Sp. p. 6039; Gaz. vol. 179; p. 1029.
Sewing machine, Buttonhole-. J. W. Connors. No. 1,030,570; June 25; Sp. p. 5554; Gaz. vol. 179; p. 969.
Sewing machine, Buttonhole-. J. Kiewicz. No. 1,030,589; June 25; Sp. p. 5618; Gaz. vol. 179; p. 975.
Sewing-machine buttonhole attachment. E. J. Boyler, P. R. and H. M. Greiat. No. 1,030,276; June 25; Sp. p. 4821; Gaz. vol. 179; p. 863.
Sewing-machine grooving device, Shoe-. F. E. Beckman. No. 1,030,767; June 25; Sp. p. 6124; Gaz. vol. 179; p. 1040.
Sewing-machine, Inseam. E. E. Winkley. No. 1,030,043; June 18; Sp. p. 4306; Gaz. vol. 179; p. 744.
Sewing-machine looper mechanism. H. Briggs. No. 1,030,804; June 25; Sp. p. 6244; Gaz. vol. 179; p. 1054.
Sewing-machine presser-foot mechanism. J. B. Hadaway. No. 1,030,582; June 25; Sp. p. 5605; Gaz. vol. 179; p. 973.
Sewing machine, Shoe-. A. B. Fowler. No. 1,029,920; June 18; Sp. p. 4054; Gaz. vol. 179; p. 704.
Sewing-machine shuttle. H. A. Bates. No. 1,029,257; June 11; Sp. p. 2572; Gaz. vol. 179; p. 436.
Sewing-machine take-up. F. J. Freese. No. 1,029,921; June 18; Sp. p. 4056; Gaz. vol. 179; p. 704.
Sewing-machine tension device. F. J. Freese. No. 1,029,923; June 18; Sp. p. 4061; Gaz. vol. 179; p. 705.
Sewing-machine tension device. W. C. Meyer. No. 1,030,743; June 25; Sp. p. 6056; Gaz. vol. 179; p. 1032.
Sewing-machine tension mechanism. W. C. Meyer. No. 1,030,742; June 25; Sp. p. 6051; Gaz. vol. 179; p. 1031.
Sewing-machine thread-cutting mechanism. E. B. Allen and J. C. Ringe. No. 1,028,655; June 4; Sp. p. 1275; Gaz. vol. 179; p. 196.
Sewing-machine welt-guide. F. J. Freese. No. 1,029,922; June 18; Sp. p. 4058; Gaz. vol. 179; p. 704.
Sewing-machine welt-guide, Shoe-. A. Eppler. No. 1,030,721; June 25; Sp. p. 6005; Gaz. vol. 179; p. 1024.
Sewing-rack. L. Jennings. No. 1,028,732; June 4; Sp. p. 1427; Gaz. vol. 179; p. 222.
Shade-bracket. J. M. King. No. 1,029,373; June 11; Sp. p. 2840; Gaz. vol. 179; p. 477.
Shade or globe holder. L. W. Young. No. 1,030,370; June 25; Sp. p. 5038; Gaz. vol. 179; p. 898.
Shade-roller and window-curtain fixture, Adjustable. R. A. Kottkay. No. 1,029,198; June 11; Sp. p. 2444; Gaz. vol. 179; p. 416.
Shades, Cord-holder for window-. W. B. Caswell. No. 1,029,169; June 11; Sp. p. 2386; Gaz. vol. 179; p. 406.
Shafting, Flexible. J. D. Scovel. No. 1,030,544; June 25; Sp. p. 5463; Gaz. vol. 179; p. 960.
Shafts, Bearing for vertical drive-. W. Bartholomew. No. 1,028,318; June 4; Sp. p. 556; Gaz. vol. 179; p. 82.
Shank-stiffener. E. E. Winkley. No. 1,030,628; June 25; Sp. p. 5782; Gaz. vol. 179; p. 992.
Sharpener, Disk-. J. B. Moyer. No. 1,028,252; June 4; Sp. p. 419; Gaz. vol. 179; p. 60.

Sharpening implement, Tool-. G. H. Johnson. No. 1,030,662; June 25; Sp. p. 5868; Gaz. vol. 179; p. 1003.
Sharpening machine, Automatic razor-blade-. H. C. Wilson. No. 1,028,170; June 4; Sp. p. 259; Gaz. vol. 179; p. 31.
Shears. G. Zell and W. S. Shenk. No. 1,029,411; June 11; Sp. p. 2934; Gaz. vol. 179; p. 490.
Sheet-metal articles, Machine for making. B. Adriance and A. Calleson. No. 1,029,334; June 11; Sp. p. 2747; Gaz. vol. 179; p. 464.
Sheet-metal box. J. Schaffer. No. 1,029,321; June 11; Sp. p. 2716; Gaz. vol. 179; p. 460.
Sheet-metal can. D. Bloom. No. 1,030,455; June 25; Sp. p. 5220; Gaz. vol. 179; p. 929.
Shelf and other like bracket. J. H. Morgan. No. 1,028,590; June 4; Sp. p. 1148; Gaz. vol. 179; p. 174.
Sheller: *See* Corn-sheller.
Shifter mechanism. F. E. Sutherland and J. A. Brown. No. 1,028,503; June 4; Sp. p. 972; Gaz. vol. 179; p. 146.
Shingle-bracket. V. D. King. No. 1,028,362; June 4; Sp. p. 658; Gaz. vol. 179; p. 90.
Ship's hatches and decks. J. R. Oldham. No. 1,028,263; June 4; Sp. p. 436; Gaz. vol. 179; p. 63.
Ships, Ventilating-port for. A. Van Herdman. No. 1,028,160; June 4; Sp. p. 182; Gaz. vol. 179; p. 27.
Shirt. R. Bartell. No. 1,029,336; June 11; Sp. p. 2762; Gaz. vol. 179; p. 465.
Shock-absorber. C. O. Browne. No. 1,028,185; June 4; Sp. p. 289; Gaz. vol. 179; p. 37.
Shock-absorber. H. B. Stanton. No. 1,028,400; June 4; Sp. p. 730; Gaz. vol. 179; p. 111.
Shock-absorber. O. B. Ames. No. 1,029,252; June 11; Sp. p. 2563; Gaz. vol. 179; p. 435.
Shock-absorber. S. W. Rife. No. 1,029,462; June 11; Sp. p. 3032; Gaz. vol. 179; p. 508.
Shock-absorber. W. R. Sturgeon. No. 1,029,478; June 11; Sp. p. 3062; Gaz. vol. 179; p. 513.
Shock loader and unloader. J. B. Schuman. No. 1,029,322; June 11; Sp. p. 2717; Gaz. vol. 179; p. 460.
Shock loader and unloader. J. B. Schuman. No. 1,030,021; June 18; Sp. p. 4251; Gaz. vol. 179; p. 736.
Shoe. M. Brock. No. 1,030,563; June 25; Sp. p. 5522; Gaz. vol. 179; p. 966.
Shoe-beating machine. J. Housholder. No. 1,030,584; June 25; Sp. p. 5611; Gaz. vol. 179; p. 974.
Shoe-beating machine. O. Ashton. No. 1,030,837; June 25; Sp. p. 6403; Gaz. vol. 179; p. 1067.
Shoe-cleaning device. V. M. Grab. No. 1,028,208; June 4; Sp. p. 339; Gaz. vol. 179; p. 46.
Shoe-finishing and other machine. A. Bates. No. 1,030,500; June 25; Sp. p. 5512; Gaz. vol. 179; p. 965.
Shoe-ironing apparatus. G. S. Covell. No. 1,030,647; June 25; Sp. p. 5831; Gaz. vol. 179; p. 998.
Shoe-jack. A. Eppler. No. 1,029,000; June 11; Sp. p. 2032; Gaz. vol. 179; p. 349.
Shoe-machine jack. J. P. Pride. No. 1,030,012; June 18; Sp. p. 4229; Gaz. vol. 179; p. 733.
Shoe-machine jack. R. F. McFeely. No. 1,030,827; June 25; Sp. p. 6368; Gaz. vol. 179; p. 1063.
Shoe, Metallic. G. W. Sass. No. 1,028,610; June 4; Sp. p. 1187; Gaz. vol. 179; p. 181.
Shoe ornament. C. P. Keighley. No. 1,029,371; June 11; Sp. p. 2837; Gaz. vol. 179; p. 477.
Shoe-polishing-machine operating mechanism. L. Levin. No. 1,030,001; June 18; Sp. p. 4208; Gaz. vol. 179; p. 730.
Shoe-retainer. D. S. McMullan. No. 1,028,586; June 4; Sp. p. 1142; Gaz. vol. 179; p. 173.
Shoe, Sewed. C. Balcom. No. 1,030,268; June 18; Sp. p. 4790; Gaz. vol. 179; p. 823.
Shoe-shaping machine. G. M. Carnes. No. 1,030,840; June 25; Sp. p. 6414; Gaz. vol. 179; p. 1068.
Shoe-support. T. K. Keith. No. 1,030,823; June 25; Sp. p. 6350; Gaz. vol. 179; p. 1062.
Shoe-tongue supporter. G. Papp. No. 1,028,598; June 4; Sp. p. 1164; Gaz. vol. 179; p. 177.
Shoe-uppers, Machine for beating out. W. Gordon. No. 1,030,578; June 25; Sp. p. 5504; Gaz. vol. 179; p. 972.
Shoes, Making. A. H. Prenzel. No. 1,030,609; June 25; Sp. p. 5707; Gaz. vol. 179; p. 984.
Shoes, Making sewed. C. Balcom. No. 1,030,269; June 18; Sp. p. 4792; Gaz. vol. 179; p. 823.
Shotgun. T. C. Johnson. No. 1,028,358; June 4; Sp. p. 648; Gaz. vol. 179; p. 97.
Shotgun. F. F. Burton. No. 1,028,430; June 4; Sp. p. 806; Gaz. vol. 179; p. 122.
Shovel: *See* Muck-shovel.
Shovel. S. Bolin and A. Jansson. No. 1,029,067; June 18; Sp. p. 4147; Gaz. vol. 179; p. 718.
Shuttle-check. H. Wyman. No. 1,029,961; June 18; Sp. p. 4137; Gaz. vol. 179; p. 716.
Shuttle, Hand-threading. A. Guldemann. No. 1,029,280; June 11; Sp. p. 2635; Gaz. vol. 179; p. 447.
Sidewalk-box cover. M. Saucedo. No. 1,029,719; June 18; Sp. p. 3592; Gaz. vol. 179; p. 634.
Sidewalk-cover. F. Kees. No. 1,030,410; June 25; Sp. p. 5118; Gaz. vol. 179; p. 913.
Sidewalk-light. F. L. Heughes. No. 1,030,301; June 25; Sp. p. 4877; Gaz. vol. 179; p. 872.
Sieve. M. McIlvaine. No. 1,030,673; June 25; Sp. p. 5895; Gaz. vol. 179; p. 1007.
Sifter, Flour-. W. W. Braren. No. 1,028,322; June 4; Sp. p. 564; Gaz. vol. 179; p. 88.
Sifter or analogous device, Ash-. J. S. Brown. No. 1,028,537; June 4; Sp. p. 1032; Gaz. vol. 179; p. 157.
Sifter-spout. F. B. Lucking. No. 1,028,577; June 4; Sp. p. 1122; Gaz. vol. 179; p. 170.
Sign. W. Farrah. No. 1,028,560; June 4; Sp. p. 1086; Gaz. vol. 179; p. 165.
Sign. C. W. Smith. No. 1,030,330; June 25; Sp. p. 4974; Gaz. vol. 179; p. 887.
Sign. E. Bambeck. No. 1,030,449; June 25; Sp. p. 5204; Gaz. vol. 179; p. 926.
Sign, Door-. E. F. Goodwin. No. 1,029,497; June 11; Sp. p. 3098; Gaz. vol. 179; p. 520.
Sign, Door-. E. McClung. No. 1,029,506; June 11; Sp. p. 3117; Gaz. vol. 179; p. 523.
Sign, Illuminated. P. G. Watmough, Jr. No. 1,029,734; June 18; Sp. p. 3627; Gaz. vol. 179; p. 639.
Sign-post. M. C. Richardson and E. B. Cooke. No. 1,028,279; June 4; Sp. p. 473; Gaz. vol. 179; p. 69.
Signal: *See* Railway-signal; Vehicle-signal.
Signal. I. L. Fake. No. 1,029,432; June 11; Sp. p. 2975; Gaz. vol. 179; p. 498.
Signal-box. N. H. Suren. No. 1,029,956; June 18; Sp. p. 4128; Gaz. vol. 179; p. 715.
Signal indicator, Train-air-. T. F. Bellhouse. No. 1,030,454; June 25; Sp. p. 5218; Gaz. vol. 179; p. 928.
Signaling and safety device, Submarine. C. Brown. No. 1,028,989; June 11; Sp. p. 2002; Gaz. vol. 179; p. 345.
Signaling apparatus. J. Moyes and C. A. Stevenson. No. 1,028,591; June 4; Sp. p. 1149; Gaz. vol. 179; p. 175.
Signaling apparatus. E. H. Long. No. 1,029,811; June 18; Sp. p. 3780; Gaz. vol. 179; p. 665.
Signaling device, Electrical. T. Weiss and T. A. Walther. No. 1,030,080; June 11; Sp. p. 1982; Gaz. vol. 179; p. 342.
Signaling device, Electrical. T. Weiss. No. 1,029,521; June 11; Sp. p. 3142; Gaz. vol. 179; p. 527.
Signaling device for automobiles and the like. A. Vogt. No. 1,030,214; June 18; Sp. p. 4668; Gaz. vol. 179; p. 804.
Signaling mechanism, Train. H. and L. R. Jarvis. No. 1,030,307; June 25; Sp. p. 4900; Gaz. vol. 179; p. 875.
Signaling system. H. O. Rugh. No. 1,028,790; June 4; Sp. p. 1551; Gaz. vol. 179; p. 242.
Signaling system, Selective. J. McFell. No. 1,030,197; June 18; Sp. p. 4627; Gaz. vol. 179; p. 796.
Silica, alumina, and potash from feldspar, Recovery of. S. Peacock. No. 1,030,122; June 18; Sp. p. 4464; Gaz. vol. 179; p. 771.
Silicon products. F. J. Tone. No. 1,028,303; June 4; Sp. p. 523; Gaz. vol. 179; p. 77.
Silo. A. O. Hubbard. No. 1,030,404; June 25; Sp. p. 5109; Gaz. vol. 179; p. 911.
Silo. A. O. Hubbard. No. 1,030,405; June 25; Sp. p. 5110; Gaz. vol. 179; p. 911.
Silo. A. O. Hubbard. No. 1,030,406; June 25; Sp. p. 5111; Gaz. vol. 179; p. 911.
Sink or basin stopper. P. J. McGuire and H. J. Fronk. No. 1,028,374; June 4; Sp. p. 682; Gaz. vol. 179; p. 103.
Sizing agent and making same. F. H. Kalbfleisch. No. 1,029,131; June 11; Sp. p. 2308; Gaz. vol. 179; p. 393.
Skimmer. E. I. Hallock. No. 1,028,717; June 4; Sp. p. 1397; Gaz. vol. 179; p. 217.
Skiving-machine. E. F. Davenport. No. 1,029,176; June 11; Sp. p. 2396; Gaz. vol. 179; p. 408.
Sled, Collapsible. J. M. Evans. No. 1,030,170; June 18; Sp. p. 4559; Gaz. vol. 179; p. 788.
Sled, Hauling-. C. Block. No. 1,029,661; June 18; Sp. p. 3448; Gaz. vol. 179; p. 612.
Slicing machines, Rind-removing attachment for meat-. E. M. and T. H. Stiles. No. 1,028,796; June 4; Sp. p. 1560; Gaz. vol. 179; p. 244.
Sliding gate. P. Zerbino. No. 1,028,315; June 4; Sp. p. 550; Gaz. vol. 179; p. 81.
Slotting-machine. R. L. Wilcox. No. 1,029,653; June 18; Sp. p. 3425; Gaz. vol. 179; p. 609.
Slugging or nailing machine. M. T. Denne. No. 1,029,108; June 11; Sp. p. 2257; Gaz. vol. 179; p. 385.
Sluice-gate. W. Van den Heuvel. No. 1,028,640; June 4; Sp. p. 1244; Gaz. vol. 179; p. 191.
Smelting furnace, Regenerative zinc-. J. Zellweger. No. 1,028,417; June 4; Sp. p. 775; Gaz. vol. 179; p. 117.
Smoke-consuming and fuel-economizing apparatus for furnaces, &c. J. Thomas. No. 1,030,142; June 18; Sp. p. 4504; Gaz. vol. 179; p. 778.
Smoke elevator and concentrator. W. F. Geyer. No. 1,029,438; June 11; Sp. p. 2986; Gaz. vol. 179; p. 500.
Snipping-machine. L. W. G. Flynt. No. 1,029,058; June 11; Sp. p. 2144; Gaz. vol. 179; p. 369.
Soap-filling machine. R. Balborn. No. 1,028,658; June 4; Sp. p. 1283; Gaz. vol. 179; p. 197.
Somit-clip. G. E. Escher. No. 1,028,559; June 4; Sp. p. 1084; Gaz. vol. 179; p. 165.
Soldering apparatus, Metal-. A. R. Braden. No. 1,030,641; June 25; Sp. p. 5811; Gaz. vol. 179; p. 996.
Soldering sheet-metal vessels, Machine for. G. H. Bennett. No. 1,030,225; June 18; Sp. p. 4689; Gaz. vol. 179; p. 806.
Sole and heel plate. E. P. Mead. No. 1,030,003; June 18; Sp. p. 4214; Gaz. vol. 179; p. 730.
Sole beveling and fleshing machine. J. J. Gillespie. No. 1,029,009; June 11; Sp. p. 2053; Gaz. vol. 179; p. 353.
Sole-channeling machine. E. A. Webster. No. 1,028,509; June 4; Sp. p. 982; Gaz. vol. 179; p. 148.

Sole-channeling tool. F. E. Bertrand. No. 1,030,706; June 25; Sp. p. 5973; Gaz. vol. 179; p. 1018.
Sole-edge protector for boots and shoes. T. C. Plant. No. 1,029,219; June 11; Sp. p. 2491; Gaz. vol. 179; p. 423.
Sole-holding device. J. F. Quigley. No. 1,029,459; June 11; Sp. p. 3027; Gaz. vol. 179; p. 507.
Sole-machine. E. E. Winkley. No. 1,028,982; June 11; Sp. p. 1985; Gaz. vol. 179; p. 343.
Sole-machine. F. E. Bertrand. No. 1,030,802; June 25; Sp. p. 6237; Gaz. vol. 179; p. 1053.
Soles, Machine for operating on shoe-. F. H. Perry. No. 1,030,606; June 25; Sp. p. 5680; Gaz. vol. 179; p. 983.
Soles, Machine for operating on shoe-. F. H. Perry. No. 1,030,607; June 25; Sp. p. 5696; Gaz. vol. 179; p. 983.
Soles, Machine for operating upon. R. C. Simmons. No. 1,030,618; June 25; Sp. p. 5740; Gaz. vol. 179; p. 988.
Soles, Machine for operating upon. W. Chaput. No. 1,030,644; June 25; Sp. p. 5818; Gaz. vol. 179; p. 997.
Soles, Machine for operating upon. F. E. Bertrand. No. 1,030,703; June 25; Sp. p. 5959; Gaz. vol. 179; p. 1017.
Soles, Machine for operating upon shoe-. L. A. Casgrain. No. 1,030,717; June 25; Sp. p. 5998; Gaz. vol. 179; p. 1023.
Sound-record support, Cylindrical-. F. X. Hafbauer. No. 1,029,808; June 18; Sp. p. 3775; Gaz. vol. 179; p. 664.
Spade arrangement. W. Hellemann and H. Kanonenberg. No. 1,029,191; June 11; Sp. p. 2428; Gaz. vol. 179; p. 413.
Spark-arrester. F. E. Brewer. No. 1,028,323; June 4; Sp. p. 565; Gaz. vol. 179; p. 84.
Spark-arrester. E. E. Ellsworth. No. 1,028,450; June 4; Sp. p. 857; Gaz. vol. 179; p. 128.
Spark-arrester. J. I. Stampahar and J. F. Rom. No. 1,030,028; June 18; Sp. p. 4264; Gaz. vol. 179; p. 739.
Spark-arrester for smoke-stacks. E. E. Ellsworth. No. 1,028,449; June 4; Sp. p. 856; Gaz. vol. 179; p. 128.
Spark-arrester, Locomotive. P. E. Cunningham and R. Reid. No. 1,028,683; June 4; Sp. p. 1328; Gaz. vol. 179; p. 205.
Spark-plug. C. C. Eldridge and E. J. Beebe. No. 1,028,200; June 4; Sp. p. 321; Gaz. vol. 179; p. 43.
Spark-plug. C. E. Johnson. No. 1,029,613; June 18; Sp. p. 3344; Gaz. vol. 179; p. 596.
Spark-plug. B. Silfa. No. 1,030,135; June 18; Sp. p. 4491; Gaz. vol. 179; p. 775.
Specialist's chair. G. L. Poll. No. 1,029,315; June 11; Sp. p. 2697; Gaz. vol. 179; p. 458.
Spectacle-glass. M. von Rohr. No. 1,030,128; June 18; Sp. p. 4472; Gaz. vol. 179; p. 773.
Speculum. D. H. Palmer. No. 1,030,530; June 25; Sp. p. 5439; Gaz. vol. 179; p. 955.
Speed-indicator, Magnetic. L. Le Pontois. No. 1,028,488; June 4; Sp. p. 942; Gaz. vol. 179; p. 141.
Speed mechanism, Change-. R. Milne. No. 1,029,549; June 11; Sp. p. 3206; Gaz. vol. 179; p. 538.
Speed-recording apparatus for vehicles. J. Schlenker. No. 1,029,638; June 18; Sp. p. 3394; Gaz. vol. 179; p. 604.
Speed-regulator, Motor. A. A. Tirrill. No. 1,029,480; June 11; Sp. p. 3065; Gaz. vol. 179; p. 514.
Speed-transmission device, Variable-. F. T. Adams. No. 1,028,522; June 4; Sp. p. 1005; Gaz. vol. 179; p. 153.
Speedometer. J. W. Jones. No. 1,028,220; June 4; Sp. p. 356; Gaz. vol. 179; p. 50.
Spice-mill. R. F. Cline. No. 1,029,702; June 18; Sp. p. 3743; Gaz. vol. 179; p. 650.
Spike-puller. M. E. Shaffer. No. 1,028,291; June 4; Sp. p. 502; Gaz. vol. 179; p. 73.
Spinning, doubling, and forming cops, Apparatus and means for. A. E. Drew, J. Arkinstall and W. Dean. No. 1,030,261; June 18; Sp. p. 4761; Gaz. vol. 179; p. 820.
Spinning, doubling, and twisting machine. S. Z. de Ferranti. No. 1,030,395; June 25; Sp. p. 5090; Gaz. vol. 179; p. 907.
Spinning-machine. L. J. Morin. No. 1,028,480; June 4; Sp. p. 926; Gaz. vol. 179; p. 138.
Spiral chambers from sheet metal, Forming closed continuous. J. O. Olson and W. W. Grant. No. 1,029,310; June 11; Sp. p. 2686; Gaz. vol. 179; p. 456.
Spoke, Resilient. G. T. Reichenbach and J. G. Peck. No. 1,029,401; June 11; Sp. p. 2915; Gaz. vol. 179; p. 487.
Spoke-tightener. J. W. Norton and P. N. Sumrall. No. 1,028,379; June 4; Sp. p. 690; Gaz. vol. 179; p. 105.
Spool attachment. I. Howard-O'Keeffe. No. 1,029,193; June 11; Sp. p. 2430; Gaz. vol. 179; p. 414.
Spool-package for silk, &c. P. B. Herrick. No. 1,028,877; June 11; Sp. p. 1751; Gaz. vol. 179; p. 306.
Spout, Discharge-. A. Rosenthal. No. 1,030,016; June 18; Sp. p. 4240; Gaz. vol. 179; p. 734.
Sprayer. J. Overbeke. No. 1,030,119; June 18; Sp. p. 4460; Gaz. vol. 179; p. 771.
Spring: *See* Rubber vehicle-spring; Vehicle-spring.
Spring coiling and cutting machine, Coil-. N. S. Harter. No. 1,029,540; June 11; Sp. p. 3179; Gaz. vol. 179; p. 533.
Spring-joint. W. D. Tusten. No. 1,030,143; June 18; Sp. p. 4507; Gaz. vol. 179; p. 778.
Spring-wheel. I. N. Harton. No. 1,028,210; June 4; Sp. p. 341; Gaz. vol. 179; p. 46.
Spring-wheel. W. T. Dulany, Jr. No. 1,029,177; June 11; Sp. p. 2398; Gaz. vol. 179; p. 409.
Spring-wheel. W. H. Howsley, Jr. No. 1,029,299; June 11; Sp. p. 2659; Gaz. vol. 179; p. 451.
Spring-wheel. R. Hood. No. 1,029,755; June 18; Sp. p. 3665; Gaz. vol. 179; p. 646.
Spring-wheel. V. E. Campbell. No. 1,029,789; June 18; Sp. p. 3735; Gaz. vol. 179; p. 657.
Spring-wheel. F. Homolya. No. 1,029,867; June 18; Sp. p. 3932; Gaz. vol. 179; p. 684.
Spring-wheel. A. R. McEntire. No. 1,030,314; June 25; Sp. p. 4917; Gaz. vol. 179; p. 877.
Spring-wheel. J. H. Weldon. No. 1,030,442; June 25; Sp. p. 5193; Gaz. vol. 179; p. 924.
Spring-wheel. H. M. Strawn. No. 1,030,688; June 25; Sp. p. 5922; Gaz. vol. 179; p. 1012.
Sprinkler: *See* Automatic sprinkler.
Sprinkler closer, Automatic-. L. D. Morey. No. 1,028,247; June 4; Sp. p. 412; Gaz. vol. 179; p. 59.
Sprinkler-head, Automatic. W. B. Hammond. No. 1,030,299; June 25; Sp. p. 4867; Gaz. vol. 179; p. 871.
Square and other drafting device, T-. V. A. Rigaumont. No. 1,029,225; June 11; Sp. p. 2503; Gaz. vol. 179; p. 425.
Stacker. O. L. Waggoner. No. 1,029,520; June 11; Sp. p. 3138; Gaz. vol. 179; p. 526.
Stacker. R. F. Meyers. No. 1,030,420; June 25; Sp. p. 5143; Gaz. vol. 179; p. 916.
Stacker, Pneumatic. J. K. Sharpe, Jr. No. 1,028,793; June 4; Sp. p. 1556; Gaz. vol. 179; p. 243.
Stage apparatus for producing volcano effect. R. W. Tully. No. 1,030,035; June 18; Sp. p. 4279; Gaz. vol. 179; p. 741.
Stamp. W. J. Pannier, Jr. No. 1,030,120; June 18; Sp. p. 4462; Gaz. vol. 179; p. 771.
Stamp-affixing machine. S. B. White. (Reissue.) No. 13,435; June 25; Sp. p. 6459; Gaz. vol. 179; p. 1077.
Stamp, Hand-. H. S. Folger and A. M. Comstock. No. 1,029,568; June 11; Sp. p. 3245; Gaz. vol. 179; p. 544.
Stamp supplying and affixing machine. P. G. E. Daniel and C. A. H. Bullock. No. 1,029,671; June 18; Sp. p. 3473; Gaz. vol. 179; p. 615.
Stamps, &c., Machine for applying and affixing. P. G. E. Daniel and C. A. H. Bullock. No. 1,029,672; June 18; Sp. p. 3478; Gaz. vol. 179; p. 616.
Stamping-machine. P. Schwenzow. No. 1,030,132; June 18; Sp. p. 4477; Gaz. vol. 179; p. 774.
Stamping-machine. L. A. Casgrain. No. 1,030,161; June 18; Sp. p. 4536; Gaz. vol. 179; p. 784.
Stanchion, Cattle-. G. Gleason. No. 1,030,724; June 25; Sp. p. 6008; Gaz. vol. 179; p. 1025.
Stand: *See* Chafing-dish stand; Flat-iron stand; Sad-iron stand; Telephone-stand.
Starting device. H. Henken. No. 1,029,290; June 11; Sp. p. 2636; Gaz. vol. 179; p. 447.
Stave-jointing machine. P. H. Williams. No. 1,028,648; June 4; Sp. p. 1257; Gaz. vol. 179; p. 194.
Stay-bolt. E. W. Clark. No. 1,029,104; June 11; Sp. p. 2262; Gaz. vol. 179; p. 385.
Steam-boiler. W. A. Woodeson. No. 1,030,218; June 18; Sp. p. 4676; Gaz. vol. 179; p. 804.
Steam-engine. C. A. Johnson. No. 1,028,466; June 4; Sp. p. 887; Gaz. vol. 179; p. 134.
Steam-engine. J. Stumpf. No. 1,028,631; June 4; Sp. p. 1224; Gaz. vol. 179; p. 188.
Steam-engine. J. Stumpf. No. 1,028,632; June 4; Sp. p. 1226; Gaz. vol. 179; p. 189.
Steam-engine. W. R. Sanders. No. 1,028,840; June 4; Sp. p. 1661; Gaz. vol. 179; p. 259.
Steam-engine. E. J. Armstrong. No. 1,029,253; June 11; Sp. p. 2566; Gaz. vol. 179; p. 435.
Steam-generator, Electric. S. Schoenbroon. No. 1,028,912; June 11; Sp. p. 1833; Gaz. vol. 179; p. 318.
Steam in turbine plants, Utilizing exhaust-. G. Forner. No. 1,029,353; June 11; Sp. p. 2789; Gaz. vol. 179; p. 470.
Steam-trap. G. C. La Mountain. No. 1,028,744; June 4; Sp. p. 1463; Gaz. vol. 179; p. 226.
Steam-trap. T. R. Whittaker and G. W. Leith. No. 1,030,697; June 25; Sp. p. 5941; Gaz. vol. 179; p. 1015.
Steel bars and the like, Formation of. W. K. Riley. No. 1,030,831; June 25; Sp. p. 6382; Gaz. vol. 179; p. 1064.
Steel, Hardening and tempering. J. M. Lynch. No. 1,029,877; June 18; Sp. p. 3953; Gaz. vol. 179; p. 688.
Steel metal. A. J. Rossi. No. 1,029,637; June 18; Sp. p. 3391; Gaz. vol. 179; p. 604.
Steel, Open-hearth process of refining. G. Barbanson and M. Lepersonne. No. 1,030,152; June 18; Sp. p. 4523; Gaz. vol. 179; p. 781.
Steel, Treating. A. J. Rossi. No. 1,028,380; June 4; Sp. p. 704; Gaz. vol. 179; p. 107.
Steering-gear. C. J. Engle, B. W. Freeman, and D. E. Neal. No. 1,029,052; June 11; Sp. p. 2135; Gaz. vol. 179; p. 368.
Steering-post switch. J. G. Perrin. No. 1,030,124; June 18; Sp. p. 4467; Gaz. vol. 179; p. 772.
Stencil-holder, Decorator's. G. Welde, Sr. No. 1,030,498; June 25; Sp. p. 5327; Gaz. vol. 179; p. 943.
Stereotype-plates, Machine for casting and finishing. A. Egli. No. 1,028,604; June 4; Sp. p. 1343; Gaz. vol. 179; p. 209.
Stereotyper's steam-table. A. Waldt. No. 1,029,647; June 18; Sp. p. 3410; Gaz. vol. 179; p. 607.
Sterilizer. R. L. Spaulding. No. 1,028,297; June 4; Sp. p. 510; Gaz. vol. 179; p. 75.
Stick. E. Witzenmann. No. 1,028,649; June 4; Sp. p. 1264; Gaz. vol. 179; p. 194.
Stirrup. J. C. Miller. No. 1,028,763; June 4; Sp. p. 1498; Gaz. vol. 179; p. 232.
Stitch-forming mechanism. E. B. Allen. No. 1,030,046; June 18; Sp. p. 4313; Gaz. vol. 179; p. 746.

Stitches, Forming chain-. C. P. Holmes. No. 1,030,813; June 25; Sp. p. 6275; Gaz. vol. 179; p. 1058.
Stop-plug-protecting cap. K. E. Cunningham. No. 1,030,390; June 25; Sp. p. 5086; Gaz. vol. 179; p. 906.
Stopper: *See* Bottle-stopper; Sink or basin stopper.
Storage system, Metal-. J. T. Moltrup. No. 1,029,139; June 11; Sp. p. 2323; Gaz. vol. 179; p. 396.
Store-service apparatus. C. J. Miller. No. 1,030,318; June 25; Sp. p. 4925; Gaz. vol. 179; p. 879.
Stove and furnace. F. A. Broussard. No. 1,028,928; June 11; Sp. p. 1878; Gaz. vol. 179; p. 324.
Stove, Gas-. L. Lebovitz. No. 1,030,000; June 18; Sp. p. 4207; Gaz. vol. 179; p. 729.
Strainer. A. T. Holton. No. 1,028,114; June 4; Sp. p. 41; Gaz. vol. 179; p. 11.
Strap: *See* Automobile stay-strap.
Strap-loop for bags, &c. S. Flaxbaum. No. 1,030,069; June 18; Sp. p. 4369; Gaz. vol. 179; p. 753.
Straw and tobacco cutters, Feeder for. M. Larsson. No. 1,029,759; June 18; Sp. p. 3671; Gaz. vol. 179; p. 647.
Straw elevator and stacker. A. Rosenthal. No. 1,030,015; June 18; Sp. p. 4234; Gaz. vol. 179; p. 734.
Street-indicator. C. H. Vickery. No. 1,030,355; June 25; Sp. p. 5008; Gaz. vol. 179; p. 893.
Street-indicator-operating device. P. T. Spindler. No. 1,029,770; June 18; Sp. p. 3693; Gaz. vol. 179; p. 651.
Street-sweepers, Dust-collecting tank for. E. S. Estlin. No. 1,030,773; June 25; Sp. p. 6145; Gaz. vol. 179; p. 1042.
Stuffing-box. G. W. Mason and F. Hammond. No. 1,028,758; June 4; Sp. p. 1489; Gaz. vol. 179; p. 231.
Stuffing-box. W. Smith. No. 1,029,474; June 11; Sp. p. 3056; Gaz. vol. 179; p. 512.
Stump-puller, Hydraulic. A. H. Prestbye. No. 1,029,510; June 11; Sp. p. 3122; Gaz. vol. 179; p. 524.
Submarine illuminating apparatus. P. J. Byrne. No. 1,030,052; June 18; Sp. p. 4339; Gaz. vol. 179; p. 748.
Subsoil attachment, Adjustable. W. I. Prater. No. 1,028,274; June 4; Sp. p. 460; Gaz. vol. 179; p. 67.
Sugar-can. R. E. Elliott and G. W. Cook, Jr. No. 1,029,431; June 11; Sp. p. 2973; Gaz. vol. 179; p. 497.
Sugar process. R. E. Pospisil. No. 1,028,272; June 4; Sp. p. 458; Gaz. vol. 179; p. 67.
Suit-case handle. C. E. Riley. No. 1,029,634; June 18; Sp. p. 3387; Gaz. vol. 179; p. 603.
Suit-case lock. J. J. Murphy. No. 1,028,482; June 4; Sp. p. 930; Gaz. vol. 179; p. 139.
Sulfuric anhydrid, Making. H. Howard. No. 1,028,880; June 11; Sp. p. 1758; Gaz. vol. 179; p. 308.
Suspensory and supporter, Convertible. A. Bauer. No. 1,030,224; June 18; Sp. p. 4687; Gaz. vol. 179; p. 806.
Swinging-fixture mounting. C. H. Driver. No. 1,028,864; June 11; Sp. p. 1717; Gaz. vol. 179; p. 301.
Switch: *See* Automatic switch; Electric switch; Electrical switch; Electrical pendant switch; Motor-operated switch; Railway-switch; Steering-post switch.
Switch. A. J. Loguin. No. 1,030,593; June 25; Sp. p. 5637; Gaz. vol. 179; p. 977.
Switch-operating mechanism, Electric-. A. B. Allen. No. 1,029,250; June 11; Sp. p. 2559; Gaz. vol. 179; p. 433.
Switchboard. W. F. Weyrauch. No. 1,030,040; June 18; Sp. p. 4298; Gaz. vol. 179; p. 743.
Swivel. C. Guise. No. 1,020,351; May 14; Sp. p. 637; Gaz. vol. 178; p. 95.
Swivel-plug attachment. A. W. Buell. No. 1,028,429; June 4; Sp. p. 803; Gaz. vol. 179; p. 122.
Sword and scabbard. E. F. Brunello. No. 1,028,428; June 4; Sp. p. 803; Gaz. vol. 179; p. 121.
Syringe, Vaginal. G. J. Kelley. No. 1,029,689; June 18; Sp. p. 3513; Gaz. vol. 179; p. 623.
Syringe with electrical attachment. L. R. Saunders. No. 1,030,543; June 25; Sp. p. 5461; Gaz. vol. 179; p. 960.
Table: *See* Chiropractic table; Dressing-table; Drying-table; Extension-table; Game-table; Invalid's table; Ironing-table; Knockdown table; Packing-table; Stereotyper's steam-table.
Table-leg, Extensible. J. T. Gregory. No. 1,030,658; June 25; Sp. p. 5861; Gaz. vol. 179; p. 1002.
Tabulating systems, Apparatus for use in. H. Hollerith. No. 1,030,305; June 25; Sp. p. 4887; Gaz. vol. 179; p. 874.
Tack-feeding mechanism. R. F. McFeely. No. 1,030,315; June 25; Sp. p. 4919; Gaz. vol. 179; p. 878.
Tack pulling and driving machine. J. B. Hadaway. No. 1,030,776; June 25; Sp. p. 6168; Gaz. vol. 179; p. 1044.
Tack-pulling machine. J. B. Hadaway. No. 1,030,777; June 25; Sp. p. 6172; Gaz. vol. 179; p. 1044.
Tack-pulling tool, Rotary. J. B. Hadaway. No. 1,028,455; June 4; Sp. p. 866; Gaz. vol. 179; p. 130.
Tack-saving device. A. L. Engberg. No. 1,029,857; June 18; Sp. p. 3913; Gaz. vol. 179; p. 681.
Tacking mechanism. H. Lyon. No. 1,028,238; June 4; Sp. p. 389; Gaz. vol. 179; p. 55.
Tacking mechanism. T. K. Keith. No. 1,030,819; June 25; Sp. p. 6290; Gaz. vol. 179; p. 1060.
Tag and label. F. Kohnle. No. 1,029,935; June 18; Sp. p. 4083; Gaz. vol. 179; p. 709.
Talking-machine sound-box. B. L. Rinehart. No. 1,028,606; June 4; Sp. p. 1177; Gaz. vol. 179; p. 180.
Talking-machines and the like, Sound-conduit or amplifying device for. A. Fischer. No. 1,029,002; June 11; Sp. p. 2036; Gaz. vol. 179; p. 350.
Tank: *See* Flushing-tank; Fountain-tank; Sectionized tank.
Tanning. J. Forster. No. 1,028,563; June 4; Sp. p. 1089; Gaz. vol. 179; p. 165.
Tap. G. Stroh. No. 1,029,727; June 18; Sp. p. 3610; Gaz. vol. 179; p. 636.
Target-throwing device. S. A. Huntley. No. 1,030,852; June 25; Sp. p. 6443; Gaz. vol. 179; p. 1073.
Tea-brewing apparatus. C. A. Sherman. No. 1,030,752; June 25; Sp. p. 6079; Gaz. vol. 179; p. 1035.
Telegram-blank. W. England. No. 1,028,695; June 4; Sp. p. 1345; Gaz. vol. 179; p. 209.
Telegraph system, Multiplex. J. F. D. Hoge. No. 1,030,780; June 25; Sp. p. 6179; Gaz. vol. 179; p. 1045.
Telegraphic instrument. C. C. Ferguson. No. 1,030,509; June 25; Sp. p. 5368; Gaz. vol. 179; p. 949.
Telephone attachment. T. I. Ludwig. No. 1,028,370; June 4; Sp. p. 674; Gaz. vol. 179; p. 101.
Telephone-directory. A. O. Johnson and J. A. Eby. No. 1,028,117; June 4; Sp. p. 46; Gaz. vol. 179; p. 11.
Telephone-exchange system. E. E. Clement. No. 1,029,577; June 11; Sp. p. 3258; Gaz. vol. 179; p. 547.
Telephone-exchange systems, Connecting-circuit for magneto. E. H. Colpitts. No. 1,029,593; June 18; Sp. p. 3305; Gaz. vol. 179; p. 587.
Telephone-holder. M. Milewski. No. 1,029,390; June 11; Sp. p. 2890; Gaz. vol. 179; p. 483.
Telephone installation. H. O. Kabitzsch. No. 1,030,308; June 25; Sp. p. 4901; Gaz. vol. 179; p. 875.
Telephone instrument. W. P. Stunz. No. 1,030,550; June 25; Sp. p. 5482; Gaz. vol. 179; p. 962.
Telephone pay-station. G. A. Long. No. 1,028,945; June 11; Sp. p. 1907; Gaz. vol. 179; p. 330.
Telephone-receiver shell. J. F. Barbour. No. 1,029,524; June 11; Sp. p. 3147; Gaz. vol. 179; p. 528.
Telephone-receivers, Adjustable support for. H. G. Schwager. No. 1,029,640; June 18; Sp. p. 3397; Gaz. vol. 179; p. 605.
Telephone-repeater. F. J. Shubert. No. 1,029,724; June 18; Sp. p. 3603; Gaz. vol. 179; p. 636.
Telephone-stand. H. W. Schussler. No. 1,030,684; June 25; Sp. p. 5913; Gaz. vol. 179; p. 1011.
Telephone system. D. L. Temple. No. 1,028,635; June 4; Sp. p. 1231; Gaz. vol. 179; p. 190.
Telephone system. E. R. Corwin. No. 1,030,505; June 25; Sp. p. 5357; Gaz. vol. 179; p. 946.
Telephone system, Party-line. W. W. Hawkins. No. 1,030,089; June 18; Sp. p. 4409; Gaz. vol. 179; p. 761.
Telephone system, Selective. W. F. Marten. No. 1,029,504; June 11; Sp. p. 3111; Gaz. vol. 179; p. 522.
Telephone systems, Electrical switching apparatus for. E. E. Clement. No. 1,029,591; June 18; Sp. p. 3295; Gaz. vol. 179; p. 586.
Telephonic instrument, including transmitters. W. P. Stunz. No. 1,030,551; June 25; Sp. p. 5484; Gaz. vol. 179; p. 962.
Telephony. E. R. Corwin. No. 1,030,504; June 25; Sp. p. 5351; Gaz. vol. 179; p. 946.
Telescope-spectacle glass. M. von Rohr. No. 1,028,281; June 4; Sp. p. 476; Gaz. vol. 179; p. 69.
Tellurian. G. T. Huff. No. 1,028,355; June 4; Sp. p. 642; Gaz. vol. 179; p. 96.
Tension device. B. F. Mayo. No. 1,028,474; June 4; Sp. p. 912; Gaz. vol. 179; p. 137.
Terminal clip. P. C. Hains, Jr. No. 1,029,499; June 11; Sp. p. 3103; Gaz. vol. 179; p. 521.
Terminal fastening. A. Schmidt. No. 1,029,721; June 18; Sp. p. 3599; Gaz. vol. 179; p. 634.
Testing-jack. R. T. Wingo. No. 1,029,163; June 11; Sp. p. 2373; Gaz. vol. 179; p. 404.
Thermostatic device. T. H. Smith. No. 1,030,025; June 18; Sp. p. 4259; Gaz. vol. 179; p. 737.
Thermostatic time-element device. N. Wilkinson. No. 1,030,555; June 25; Sp. p. 5491; Gaz. vol. 179; p. 963.
Thill-coupling. H. Roeber. No. 1,029,717; June 18; Sp. p. 3589; Gaz. vol. 179; p. 633.
Thill-coupling. A. G. Snyder. No. 1,029,896; June 18; Sp. p. 3994; Gaz. vol. 179; p. 695.
Thread-dressing machines and the like, Tension control for. H. J. Marx. No. 1,029,878; June 18; Sp. p. 3958; Gaz. vol. 179; p. 689.
Thread-guide. J. R. Mitchell. No. 1,030,112; June 18; Sp. p. 4451; Gaz. vol. 179; p. 769.
Thread protector and cutter. M. C. Temple. No. 1,029,518; June 11; Sp. p. 3135; Gaz. vol. 179; p. 526.
Thread-twisting machine. W. Hilden. No. 1,030,179; June 18; Sp. p. 4574; Gaz. vol. 179; p. 791.
Threads and other lathe-work, Device for cutting. J. F. Ivarson. No. 1,029,014; June 11; Sp. p. 2061; Gaz. vol. 179; p. 354.
Threshers, Tail-board for bean-. H. N. Alwood. No. 1,029,251; June 11; Sp. p. 2562; Gaz. vol. 179; p. 434.
Threshing-machine safety device. R. Gross. No. 1,020,117; June 11; Sp. p. 2277; Gaz. vol. 179; p. 389.
Ticket-handler. J. E. Barnaba. No. 1,028,661; June 4; Sp. p. 1294; Gaz. vol. 179; p. 198.
Ticket-issuing machine. W. P. Dun Lany. No. 1,028,199; June 4; Sp. p. 318; Gaz. vol. 179; p. 42.
Ticket, Pin-. I. Kaufman. No. 1,030,471; June 25; Sp. p. 5270; Gaz. vol. 179; p. 935.
Ticket, Transportation-. J. M. Hoffner. No. 1,029,293; June 11; Sp. p. 2641; Gaz. vol. 179; p. 448.
Ticketing machine, Pin-. F. Kohnle. No. 1,028,225; June 4; Sp. p. 367; Gaz. vol. 179; p. 51.
Ticketing machine, Pin-. F. Kohnle. No. 1,029,695; June 18; Sp. p. 3523; Gaz. vol. 179; p. 625.

Tie: *See* Cross-tie; Metal tie; Metallic tie; Rail-tie; Railway-tie.
Tie and rail-fastener. R. D. Milliron. No. 1,028,587; June 4; Sp. p. 1143; Gaz. vol. 179; p. 174.
Tie and rail-fastener. J. Krynock. No. 1,029,376; June 11; Sp. p. 2845; Gaz. vol. 179; p. 478.
Tie and rail-fastener. H. F. Besenberg. No. 1,030,157; June 18; Sp. p. 4531; Gaz. vol. 179; p. 783.
Tile-making machine. F. Latulip. No. 1,030,591; June 25; Sp. p. 5632; Gaz. vol. 179; p. 976.
Timepiece-regulating apparatus. F. R. Alford. No. 1,029,567; June 11; Sp. p. 3244; Gaz. vol. 179; p. 544.
Tin chlorids, Producing. R. J. McNitt. No. 1,030,110; June 18; Sp. p. 4447; Gaz. vol. 179; p. 768.
Tire. S. A. Matarazzo. No. 1,030,263; June 18; Sp. p. 4770; Gaz. vol. 179; p. 820.
Tire bolter, Wheel-. M. K. Barron. No. 1,028,662; June 4; Sp. p. 1295; Gaz. vol. 179; p. 198.
Tire casings, Making pneumatic. N. W. McLeod. No. 1,029,307; June 11; Sp. p. 2676; Gaz. vol. 179; p. 454.
Tire, Emergency-. D. Nelson. No. 1,029,553; June 11; Sp. p. 3217; Gaz. vol. 179; p. 539.
Tire for vehicles, Spring-. S. R. Crews. No. 1,030,233; June 18; Sp. p. 4705; Gaz. vol. 179; p. 809.
Tire for vehicle-wheels, Spring-cushion. A. J. Layhon. No. 1,028,889; June 11; Sp. p. 1779; Gaz. vol. 179; p. 311.
Tire-inflating apparatus. M. F. Stolberg. No. 1,028,628; June 4; Sp. p. 1221; Gaz. vol. 179; p. 187.
Tire protector or shield. A. H. Morton. No. 1,029,215; June 11; Sp. p. 2482; Gaz. vol. 179; p. 422.
Tire Protector, Pneumatic-. A. H. Rawitzer. No. 1,029,027; June 11; Sp. p. 2086; Gaz. vol. 179; p. 359.
Tire, Puncture-proof. M. De Viese. No. 1,028,334; June 4; Sp. p. 586; Gaz. vol. 179; p. 88.
Tire-repair device. F. A. Strong. No. 1,030,032; June 18; Sp. p. 4273; Gaz. vol. 179; p. 740.
Tire, Resilient vehicle-. E. M. Green. No. 1,030,809; June 25; Sp. p. 6255; Gaz. vol. 179; p. 1056.
Tire-securing mechanism. L. L. Gregg, Jr. No. 1,029,604; June 18; Sp. p. 3328; Gaz. vol. 179; p. 592.
Tire, Vehicle-. W. J. Cunningham. No. 1,028,331; June 4; Sp. p. 578; Gaz. vol. 179; p. 86.
Tire, Vehicle-. E. H. Bingham and T. Tominski. No. 1,029,263; June 11; Sp. p. 2582; Gaz. vol. 179; p. 438.
Tire, Vehicle-. A. Kleinatland. No. 1,029,569; June 11; Sp. p. 3247; Gaz. vol. 179; p. 545.
Tire, Vehicle-. L. Quintal. No. 1,030,537; June 25; Sp. p. 5452; Gaz. vol. 179; p. 958.
Tire, Vehicle wheel-. W. W. Revell. No. 1,029,632; June 18; Sp. p. 3384; Gaz. vol. 179; p. 603.
Tobacco caddies, Forming plug-. H. J. Penn. No. 1,030,746; June 25; Sp. p. 6063; Gaz. vol. 179; p. 1033.
Tobacco container, Plug-. H. J. Penn. No. 1,030,745; June 25; Sp. p. 6061; Gaz. vol. 179; p. 1032.
Toilet, Railway-. H. O. Johnson and J. H. Nicholson. No. 1,030,782; June 25; Sp. p. 6186; Gaz. vol. 179; p. 1046.
Tongue, Adjustable plow-. E. C. Bank. No. 1,030,450; June 25; Sp. p. 5207; Gaz. vol. 179; p. 926.
Tongues, Adjustable stub-bounds for wagon-. H. Ball. No. 1,028,659; June 4; Sp. p. 1285; Gaz. vol. 179; p. 198.
Tool carrier, Intrenching-. F. R. Batchelder. No. 1,030,223; June 18; Sp. p. 4685; Gaz. vol. 179; p. 806.
Tool, Combination-. T. A. Remington. No. 1,029,767; June 18; Sp. p. 3685; Gaz. vol. 179; p. 650.
Tool-heater. N. W. Lundy. No. 1,030,257; June 18; Sp. p. 4754; Gaz. vol. 179; p. 818.
Tool-holder. J. M. Wood. No. 1,028,805; June 4; Sp. p. 1582; Gaz. vol. 179; p. 247.
Tool holder, Machine-. R. B. Craig. No. 1,029,172; June 11; Sp. p. 2390; Gaz. vol. 179; p. 407.
Tool, Pneumatic impact-. C. K. Pickles. No. 1,029,082; June 11; Sp. p. 2194; Gaz. vol. 179; p. 377.
Tooth, Artificial. F. Wilkner. No. 1,029,160; June 11; Sp. p. 2367; Gaz. vol. 179; p. 403.
Torch. J. Z. Hanson and R. Thorp. No. 1,030,086; June 18; Sp. p. 4404; Gaz. vol. 179; p. 760.
Torch, Gasolene blow-. J. E. Flitcroft. No. 1,030,465; June 25; Sp. p. 5239; Gaz. vol. 179; p. 932.
Torch, Parade-. F. Dutcher. No. 1,029,051; June 11; Sp. p. 2134; Gaz. vol. 179; p. 367.
Torpedoes, Automatic steering device for. H. W. Shonnard. No. 1,030,134; June 18; Sp. p. 4480; Gaz. vol. 179; p. 775.
Toy. E. Turner. No. 1,030,437; June 25; Sp. p. 5185; Gaz. vol. 179; p. 922.
Toy gun. G. Schrödel. No. 1,029,460; June 11; Sp. p. 3047; Gaz. vol. 179; p. 510.
Toy handkerchief-box. H. A. Young. No. 1,028,416; June 4; Sp. p. 774; Gaz. vol. 179; p. 117.
Toy or game. D. Campbell. No. 1,029,588; June 18; Sp. p. 3286; Gaz. vol. 179; p. 585.
Toy parachute and shovel, Combination. S. Charles. No. 1,030,054; June 18; Sp. p. 4348; Gaz. vol. 179; p. 749.
Toy pistol. P. T. Pederson. No. 1,030,532; June 25; Sp. p. 5444; Gaz. vol. 179; p. 956.
Toy railway-cars, Automatic coupling for. C. A. Hotchkiss. No. 1,029,545; June 11; Sp. p. 3192; Gaz. vol. 179; p. 535.
Toy wagon. C. M. Harbison. No. 1,028,875; June 11; Sp. p. 1740; Gaz. vol. 179; p. 306.
Track-sander. M. J. Fowler. No. 1,029,284; June 11; Sp. p. 2627; Gaz. vol. 179; p. 445.
Track-sanding device. G. C. Miller and W. J. Beattie. No. 1,030,523; June 25; Sp. p. 5424; Gaz. vol. 179; p. 953.
Track-sanding mechanism for trolley-cars and locomotives. H. Hawthorne. No. 1,029,682; June 18; Sp. p. 3499; Gaz. vol. 179; p. 620.
Traction-elevator. C. O. Pearson. No. 1,029,627; June 18; Sp. p. 3377; Gaz. vol. 179; p. 602.
Traction-engine. O. M. Cox. No. 1,028,190; June 4; Sp. p. 296; Gaz. vol. 179; p. 38.
Train-brake. J. G. Buchanan and J. W. Kelker. No. 1,030,565; June 25; Sp. p. 5539; Gaz. vol. 179; p. 967.
Transformer. J. L. Johnson. No. 1,030,091; June 18; Sp. p. 4415; Gaz. vol. 179; p. 762.
Transmission and control system. H. M. Kinney. No. 1,029,018; June 11; Sp. p. 2070; Gaz. vol. 179; p. 356.
Transmission mechanism. E. Seaver, Jr. No. 1,029,641; June 18; Sp. p. 3399; Gaz. vol. 179; p. 605.
Transom. A. Knox. No. 1,030,096; June 18; Sp. p. 4425; Gaz. vol. 179; p. 764.
Trap: *See* Animal-trap; Bird-trap; Insect-trap; Rat-trap; Steam-trap.
Trap-holder. V. Crites. No. 1,030,165; June 18; Sp. p. 4549; Gaz. vol. 179; p. 785.
Traveler's companion. C. Nelson. No. 1,028,901; June 11; Sp. p. 1813; Gaz. vol. 179; p. 315.
Tread, Detachable. O. Moore. No. 1,030,113; June 18; Sp. p. 4453; Gaz. vol. 179; p. 769.
Treadle mechanism. F. M. Furber. No. 1,029,008; June 11; Sp. p. 2050; Gaz. vol. 179; p. 353.
Treeing-machine. J. S. Hansen. No. 1,030,727; June 25; Sp. p. 6018; Gaz. vol. 179; p. 1026.
Treeing-machine. J. S. Hansen. No. 1,030,810; June 25; Sp. p. 6256; Gaz. vol. 179; p. 1056.
Trees, Composition for treating. N. Longfeather. No. 1,028,233; June 4; Sp. p. 381; Gaz. vol. 179; p. 54.
Trimming-machine. O. Ashton. No. 1,030,375; June 25; Sp. p. 5047; Gaz. vol. 179; p. 900.
Trimming-machine. F. H. Perry. No. 1,030,605; June 25; Sp. p. 5671; Gaz. vol. 179; p. 982.
Tripod, Light-fixture. W. R. Miller. No. 1,030,007; June 18; Sp. p. 4219; Gaz. vol. 179; p. 731.
Trolley. S. D. Stone. No. 1,028,629; June 4; Sp. p. 1222; Gaz. vol. 179; p. 188.
Trolley. J. H. Walker. No. 1,029,408; June 11; Sp. p. 2926; Gaz. vol. 179; p. 489.
Trolley-adjuster. W. J. Reeder. No. 1,028,785; June 4; Sp. p. 1540; Gaz. vol. 179; p. 240.
Trolley-catcher. J. R. Ricketts. No. 1,030,791; June 25; Sp. p. 6207; Gaz. vol. 179; p. 1049.
Trolley-pole spring-joint. R. F. Coleman. No. 1,028,189; June 4; Sp. p. 295; Gaz. vol. 179; p. 38.
Trolley-wheel. E. U. Down. No. 1,029,050; June 11; Sp. p. 2133; Gaz. vol. 179; p. 367.
Trolley-wheel. J. S. McCabe. No. 1,030,597; June 25; Sp. p. 5648; Gaz. vol. 179; p. 979.
Trolley-wire-cleaning device. N. Malmgren, L. N. Todd, and S. J. Watson. No. 1,030,670; June 25; Sp. p. 5883; Gaz. vol. 179; p. 1006.
Trough: *See* Feed-trough.
Truck. C. F. Faulkner. No. 1,029,982; June 18; Sp. p. 4174; Gaz. vol. 179; p. 723.
Truck, Car-. F. H. Van Sweringen. No. 1,029,325; June 11; Sp. p. 2725; Gaz. vol. 179; p. 461.
Truck, Car-. A. Beasley. No. 1,029,582; June 18; Sp. p. 3277; Gaz. vol. 179; p. 583.
Truck, Elevator-. C. F. Ladwig. No. 1,029,758; June 18; Sp. p. 3670; Gaz. vol. 179; p. 647.
Truck for automobile-bodies. R. Bettermann. No. 1,029,843; June 18; Sp. p. 3883; Gaz. vol. 179; p. 676.
Truck for hydraulic presses, Feeding-. W. P. Bettendorf. No. 1,030,768; June 25; Sp. p. 6126; Gaz. vol. 179; p. 1040.
Truck, Four-wheel. H. E. Doerr. No. 1,030,394; June 25; Sp. p. 5088; Gaz. vol. 179; p. 907.
Truck frame, Car-. C. H. Howard and H. M. Pfager. No. 1,029,869; June 18; Sp. p. 3934; Gaz. vol. 179; p. 685.
Truck, Harvester-. J. H. Downing. No. 1,029,534; June 11; Sp. 3165; Gaz. vol. 179; p. 531.
Trucks, Means for loading and unloading. R. L. Morgan. No. 1,030,320; June 25; Sp. p. 4932; Gaz. vol. 179; p. 880.
Trumpet. J. M. Landon. No. 1,029,502; June 11; Sp. p. 3107; Gaz. vol. 179; p. 521.
Trunk-fastener. E. Bucknall, Jr., and P. Nevill. No. 1,029,845; June 18; Sp. p. 3886; Gaz. vol. 179; p. 677.
Tube: *See* Cop-tube; Mailing-tube; X-ray tube.
Tube heater, Ignition-. J. E. Wise. No. 1,028,412; June 4; Sp. p. 768; Gaz. vol. 179; p. 116.
Tubes, Machine for forming multiple-unit. C. A. Williams. No. 1,028,312; June 4; Sp. p. 539; Gaz. vol. 179; p. 79.
Tuft-making machine. D. L. Chandler. No. 1,028,436; June 4; Sp. p. 817; Gaz. vol. 179; p. 124.
Tug-fastener. A. E. Quanstrom. No. 1,029,888; June 18; Sp. p. 3981; Gaz. vol. 179; p. 693.
Turbine. J. H. Felthousen. No. 1,029,433; June 11; Sp. p. 2976; Gaz. vol. 179; p. 498.
Turbine. W. Robinson. No. 1,030,328; June 25; Sp. p. 4949; Gaz. vol. 179; p. 882.
Turbine. W. Robinson. No. 1,030,329; June 25; Sp. p. 4952; Gaz. vol. 179; p. 883.
Turbine, Fluid-pressure. A. W. Clarke. No. 1,029,489; June 11; Sp. p. 3080; Gaz. vol. 179; p. 516.

Turbine-governing mechanism. W. Pape. No. 1,029,312; June 11; Sp. p. 2693; Gaz. vol. 179; p. 457.
Turbine, Steam-. J. Brown and J. E. Scott. No. 1,030,278; June 25; Sp. p. 4831; Gaz. vol. 179; p. 864.
Turbines, Device to balance thrust in. A. Barbezat. No. 1,030,153; June 18; Sp. p. 4524; Gaz. vol. 179; p. 782.
Turbines, Governing mechanism for mixed-pressure. W. Pape. No. 1,029,311; June 11; Sp. p. 2690; Gaz. vol. 179; p. 456.
Turbo construction. E. Mattman. No. 1,030,595; June 25; Sp. p. 5645; Gaz. vol. 179; p. 978.
Turnstile registering device. J. C. Ewing. No. 1,030,068; June 18; Sp. p. 4368; Gaz. vol. 179; p. 753.
Twisting-machine. J. Ryan. No. 1,029,465; June 11; Sp. p. 3039; Gaz. vol. 179; p. 508.
Tying machine, Knot-. W. A. Smith. No. 1,030,619; June 25; Sp. p. 5741; Gaz. vol. 179; p. 988.
Type casting and composing machine. E. B. Barber. No. 1,028,660; June 4; Sp. p. 1286; Gaz. vol. 179; p. 198.
Type-casting machines, &c., Metal-pot for. J. S. Thompson. No. 1,029,243; June 11; Sp. p. 2547; Gaz. vol. 179; p. 432.
Type-writer. Z. G. Sholes. No. 1,029,324; June 11; Sp. p. 2723; Gaz. vol. 179; p. 461.
Type-writer keyboard. J. A. Schmitt. No. 1,030,020; June 18; Sp. p. 4250; Gaz. vol. 179; p. 736.
Type-writer line-spacing. J. Alexander. No. 1,030,445; June 25; Sp. p. 5198; Gaz. vol. 179; p. 925.
Type-writer line-spacing mechanism. P. J. Dreher. No. 1,028,845; June 4; Sp. p. 1668; Gaz. vol. 179; p. 260.
Type-writers and type-setting machines, Word-counting attachment for. E. F. Goin. No. 1,030,075; June 18; Sp. p. 4379; Gaz. vol. 179; p. 755.
Type-writers, Mechanism for feeding paper to. T. A. McCall. No. 1,029,206; June 11; Sp. p. 2462; Gaz. vol. 179; p. 417.
Type-writing and calculating machine. A. W. Harris. No. 1,029,500; June 11; Sp. p. 3105; Gaz. vol. 179; p. 521.
Type-writing machine. A. Utz. No. 1,028,159; June 4; Sp. p. 181; Gaz. vol. 179; p. 27.
Type-writing machine. E. B. Hess. No. 1,028,214; June 4; Sp. p. 346; Gaz. vol. 179; p. 48.
Type-writing machine. P. J. Dreher. No. 1,028,556; June 4; Sp. p. 1073; Gaz. vol. 179; p. 163.
Type-writing machine. J. Waldheim. No. 1,028,922; June 11; Sp. p. 1861; Gaz. vol. 179; p. 322.
Type-writing machine. A. T. Brown. No. 1,029,101; June 11; Sp. p. 2248; Gaz. vol. 179; p. 382.
Type-writing machine. P. Meyer and K. Nuese. No. 1,030,005; June 18; Sp. p. 4215; Gaz. vol. 179; p. 731.
Type-writing machine. H. H. Steele. No. 1,030,029; June 18; Sp. p. 4265; Gaz. vol. 179; p. 739.
Type-writing machine. W. J. Barron. No. 1,030,453; June 25; Sp. p. 5213; Gaz. vol. 179; p. 928.
Type-writing machine. A. T. Brown. No. 1,030,500; June 25; Sp. p. 5331; Gaz. vol. 179; p. 944.
Type-writing machine. A. W. Clauder. No. 1,030,503; June 25; Sp. p. 5344; Gaz. vol. 179; p. 945.
Type-writing machines, Adjustable paper-guide finger for. O. Thieme. No. 1,029,832; June 18; Sp. p. 3836; Gaz. vol. 179; p. 673.
Type-writing machines, Platen-rotating means for. O. Thieme. No. 1,028,505; June 4; Sp. p. 974; Gaz. vol. 179; p. 147.
Type-writing machines, Tally-roll attachment for. O. Thieme. No. 1,029,153; June 11; Sp. p. 2353; Gaz. vol. 179; p. 401.
Umbrella. T. Susemihl and C. P. Carrington. (Reissue.) No. 13,430; June 18; Sp. p. 4797; Gaz. vol. 179; p. 824.
Umbrella, Folding. W. O'Brien. No. 1,028,262; June 4; Sp. p. 434; Gaz. vol. 179; p. 63.
Umbrella structure. J. Kirkley and F. A. White. No. 1,029,449; June 11; Sp. p. 3009; Gaz. vol. 179; p. 504.
Underwear, Lady's. B. Bennett. No. 1,029,583; June 18; Sp. p. 3278; Gaz. vol. 179; p. 584.
Upholstering-machine. G. S. Price. No. 1,028,779; June 4; Sp. p. 1531; Gaz. vol. 179; p. 238.
Urn, Coffee or tea. A. F. Moneuse. No. 1,029,392; June 11; Sp. p. 2896; Gaz. vol. 179; p. 483.
Utensil cleaning and greasing machine. C. Vollmer. No. 1,029,733; June 18; Sp. p. 3624; Gaz. vol. 179; p. 639.
Vacuum apparatus. L. W. G. Flynt. No. 1,029,746; June 18; Sp. p. 3647; Gaz. vol. 179; p. 643.
Vacuum-cleaner. C. De Mattia. No. 1,029,916; June 18; Sp. p. 4045; Gaz. vol. 179; p. 702.
Vacuum-cleaners, Dust-collector for. F. S. R. Prentiss. No. 1,029,562; June 11; Sp. p. 3235; Gaz. vol. 179; p. 542.
Vacuum cleaning apparatus. G. W. MacKenzie. (Reissue.) No. 13,427; June 11; Sp. p. 3269; Gaz. vol. 179; p. 548.
Valve. J. H. Raymaker. No. 1,028,134; June 4; Sp. p. 120; Gaz. vol. 179; p. 18.
Valve. J. V. Schmid and C. Mason. No. 1,028,497; June 4; Sp. p. 958; Gaz. vol. 179; p. 144.
Valve. N. B. Creighton and S. Block. No. 1,028,681; June 4; Sp. p. 1323; Gaz. vol. 179; p. 204.
Valve. N. B. Creighton and S. Block. No. 1,028,682; June 4; Sp. p. 1326; Gaz. vol. 179; p. 205.
Valve. C. F. Laufer. No. 1,028,747; June 4; Sp. p. 1471; Gaz. vol. 179; p. 227.
Valve. J. L. McGee. No. 1,028,947; June 11; Sp. p. 1912; Gaz. vol. 179; p. 330.
Valve. H. E. Atkinson. No. 1,029,097; June 11; Sp. p. 2236; Gaz. vol. 179; p. 382.
Valve. F. P. Glassner. No. 1,029,184; June 11; Sp. p. 2416; Gaz. vol. 179; p. 411.
Valve. W. F. Ruwell. No. 1,029,464; June 11; Sp. p. 3035; Gaz. vol. 179; p. 508.
Valve. G. H. Gilman. No. 1,030,466; June 25; Sp. p. 5242; Gaz. vol. 179; p. 933.
Valve, Check-. A. Jensen. No. 1,029,931; June 18; Sp. p. 4075; Gaz. vol. 179; p. 708.
Valve-controlling mechanism. Thermostatic. N. Wise. No. 1,030,367; June 25; Sp. p. 5030; Gaz. vol. 179; p. 897.
Valve, Discharge-. C. G. Sprado. No. 1,029,726; June 18; Sp. p. 3608; Gaz. vol. 179; p. 636.
Valve, Distributing-. O. E. Nilsen. No. 1,030,604; June 25; Sp. p. 5670; Gaz. vol. 179; p. 982.
Valve, Engineer's. W. H. Lieber. No. 1,030,193; June 18; Sp. p. 4616; Gaz. vol. 179; p. 795.
Valve, Engineer's. H. W. Cheney. No. 1,030,229; June 18; Sp. p. 4098; Gaz. vol. 179; p. 808.
Valve for air-motors, Slide-. W. F. Cooper and E. P. Chase. No. 1,028,862; June 11; Sp. p. 1713; Gaz. vol. 179; p. 300.
Valve for compressors, Inlet-. H. D. Murray. No. 1,029,025; June 11; Sp. p. 2084; Gaz. vol. 179; p. 350.
Valve-gear. E. Turner. No. 1,028,158; June 4; Sp. p. 179; Gaz. vol. 179; p. 27.
Valve-gear. E. J. Myers. No. 1,028,592; June 4; Sp. p. 1154; Gaz. vol. 179; p. 175.
Valve-gear for steam-turbines. O. Banner. No. 1,029,786; June 18; Sp. p. 3727; Gaz. vol. 179; p. 656.
Valve-gear, Locomotive. O. W. Young. No. 1,029,038; June 11; Sp. p. 2109; Gaz. vol. 179; p. 363.
Valve indicator, Stop-. J. M. Foster. No. 1,029,600; June 18; Sp. p. 3315; Gaz. vol. 179; p. 590.
Valve, Oscillating. J. W. Davis. No. 1,030,167; June 18; Sp. p. 4553; Gaz. vol. 179; p. 786.
Valve, Pneumatically-controlled drain-. M. H. Hess. No. 1,028,722; June 4; Sp. p. 1403; Gaz. vol. 179; p. 218.
Valve, Pressure-regulating. J. P. Delaney. No. 1,028,098; June 4; Sp. p. 12; Gaz. vol. 179; p. 5.
Valve, Safety-. B. Stevens. No. 1,028,627; June 4; Sp. p. 1219; Gaz. vol. 179; p. 187.
Valve-seat-dressing tool. F. L. Smith and T. B. Williams. No. 1,028,295; June 4; Sp. p. 507; Gaz. vol. 179; p. 74.
Valve, Sliding stop-. C. G. Kleinschmidt. No. 1,029,615; June 18; Sp. p. 3348; Gaz. vol. 179; p. 596.
Valve, Tank-. D. W. Gorman. No. 1,029,360; June 11; Sp. p. 2805; Gaz. vol. 179; p. 473.
Valves, Counterbalancing device for. C. B. Redrup. No. 1,029,461; June 11; Sp. p. 3031; Gaz. vol. 179; p. 507.
Vamp-marking machine. C. H. Bayley. No. 1,030,275; June 25; Sp. p. 4814; Gaz. vol. 179; p. 863.
Vamp-pulling apparatus. G. J. Gorsuch. No. 1,030,579; June 25; Sp. p. 5598; Gaz. vol. 179; p. 972.
Vamp-trimming machine. J. B. Hadaway. No. 1,029,187; June 11; Sp. p. 2422; Gaz. vol. 179; p. 412.
Vapor-burner. A. I. Blanchard. No. 1,029,264; June 11; Sp. p. 2583; Gaz. vol. 179; p. 439.
Vapor-burner. H. M. Conner. No. 1,030,162; June 18; Sp. p. 4540; Gaz. vol. 179; p. 784.
Vault, Burial-. M. Clarkson. No. 1,030,385; June 25; Sp. p. 5070; Gaz. vol. 179; p. 904.
Vault, Straight. J. G. F. Lund. No. 1,028,578; June 4; Sp. p. 1123; Gaz. vol. 179; p. 171.
Vehicle attachment, Motor-. H. A. Ness. No. 1,029,763; June 18; Sp. p. 3679; Gaz. vol. 179; p. 649.
Vehicle automatic brake. J. T. Flight. No. 1,029,860; June 18; Sp. p. 3919; Gaz. vol. 179; p. 682.
Vehicle-controlling mechanism, Motor-. R. Huff. No. 1,029,685; June 18; Sp. p. 3503; Gaz. vol. 179; p. 621.
Vehicle cushioning device. T. A. Klenke. No. 1,028,740; June 4; Sp. p. 1451; Gaz. vol. 179; p. 224.
Vehicle driving-gear, Motor-. C. J. Gran. No. 1,030,081; June 18; Sp. p. 4393; Gaz. vol. 179; p. 758.
Vehicle, Motor-. R. Huff. No. 1,029,003; June 11; Sp. p. 2157; Gaz. vol. 179; p. 372.
Vehicle regenerative brake system. R. E. Brundege. No. 1,030,051; June 18; Sp. p. 4334; Gaz. vol. 179; p. 748.
Vehicle-runner, Detachable. G. B. Ambler. No. 1,030,448; June 25; Sp. p. 5203; Gaz. vol. 179; p. 926.
Vehicle running-gear. F. I. D. Hagenah. No. 1,030,726; June 25; Sp. p. 6017; Gaz. vol. 179; p. 1025.
Vehicle shock-absorber. C. Cabana. No. 1,029,664; June 18; Sp. p. 3451; Gaz. vol. 179; p. 613.
Vehicle-signal. E. J. Best and C. M. Fitch. No. 1,028,854; June 11; Sp. p. 1698; Gaz. vol. 179; p. 297.
Vehicle-signal. F. L. Stage. No. 1,030,027; June 18; Sp. p. 4263; Gaz. vol. 179; p. 739.
Vehicle-spring. R. S. Trott. No. 1,029,730; June 18; Sp. p. 3619; Gaz. vol. 179; p. 638.
Vehicle-spring. R. S. Trott. No. 1,029,731; June 18; Sp. p. 3620; Gaz. vol. 179; p. 638.
Vehicle-spring. R. S. Trott. No. 1,029,732; June 18; Sp. p. 3622; Gaz. vol. 179; p. 638.
Vehicle-spring, Pneumatic. A. C. Vail. No. 1,029,644; June 18; Sp. p. 3406; Gaz. vol. 179; p. 600.
Vehicle-spring, Pneumatic. T. D. Quigley. No. 1,029,945; June 18; Sp. p. 4100; Gaz. vol. 179; p. 711.
Vehicle steering-gear. H. Schumacher. No. 1,030,793; June 25; Sp. p. 6211; Gaz. vol. 179; p. 1050.
Vehicle-top guy. H. M. Ormsby. No. 1,028,266; June 4; Sp. p. 444; Gaz. vol. 179; p. 64.
Vehicle turning device. J. M. Radle. No. 1,028,866; June 11; Sp. p. 1728; Gaz. vol. 179; p. 302.

Vehicle-wheel. F. Housholder. No. 1,028,727; June 4; Sp. p. 1413; Gaz. vol. 179; p. 220.
Vehicle-wheel. W. W. Revell. No. 1,029,633; June 18; Sp. p. 3385; Gaz. vol. 179; p. 603.
Vehicle-wheel. A. F. Priest. No. 1,030,010; June 25; Sp. p. 5710; Gaz. vol. 179; p. 984.
Vehicle-wheel, Metallic. H. J. Donahoe. No. 1,029,856; June 18; Sp. p. 3912; Gaz. vol. 179; p. 681.
Vehicle-wheel, Resilient. H. J. Sheedy. No. 1,029,323; June 11; Sp. p. 2721; Gaz. vol. 179; p. 460.
Vehicles and the like, Starting device for motor-. M. Demonte. No. 1,028,686; June 4; Sp. p. 1332; Gaz. vol. 179; p. 206.
Vehicles, Lamp attachment for. G. S. Sherman. No. 1,028,144; June 4; Sp. p. 144; Gaz. vol. 179; p. 21.
Vehicles, Perch attachment for. C. T. McCue. No. 1,029,879; June 18; Sp. p. 3963; Gaz. vol. 179; p. 689.
Velocipede-frame. W. J. Siefel. No. 1,028,399; June 4; Sp. p. 738; Gaz. vol. 179; p. 111.
Velocipede spring-frame. F. Kitilitschko. No. 1,028,470; June 4; Sp. p. 896; Gaz. vol. 179; p. 135.
Vending-machine. H. W. Bowman. No. 1,028,096; June 4; Sp. p. 8; Gaz. vol. 179; p. 4.
Vending-machine. C. G. Hassmann. No. 1,028,458; June 4; Sp. p. 872; Gaz. vol. 179; p. 131.
Vending-machine. M. Elzas. No. 1,029,113; June 11; Sp. p. 2267; Gaz. vol. 179; p. 387.
Vending-machine coin-chute. H. S. Mills. No. 1,029,209; June 11; Sp. p. 2466; Gaz. vol. 179; p. 420.
Ventilator. J. Keith. No. 1,028,221; June 4; Sp. p. 360; Gaz. vol. 179; p. 50.
Ventilator. A. G. Wilson. No. 1,028,518; June 4; Sp. p. 999; Gaz. vol. 179; p. 151.
Vessel-closure. J. Conley. No. 1,029,424; June 11; Sp. p. 2958; Gaz. vol. 179; p. 495.
Vessel-raising device, Sunken-submarine-. H. Aronsen. No. 1,030,701; June 25; Sp. p. 5949; Gaz. vol. 179; p. 1016.
Vessel, War. H. Maxim. No. 1,028,472; June 4; Sp. p. 900; Gaz. vol. 179; p. 136.
Vessels, Construction of floating. J. W. Isherwood. No. 1,029,546; June 11; Sp. p. 3194; Gaz. vol. 179; p. 536.
Vessels, Exhausting. C. J. Thatcher. No. 1,028,636; June 4; Sp. p. 1236; Gaz. vol. 179; p. 190.
Violin. Electric self-playing. H. K. Sandell. No. 1,028,495; June 4; Sp. p. 951; Gaz. vol. 179; p. 143.
Vise. R. W. and L. H. Bateman. (Reissue.) No. 13,481; June 25; Sp. p. 6451; Gaz. vol. 179; p. 1075.
Vise and holder therefor, Hand-. H. Kindstrand. No. 1,030,242; June 18; Sp. p. 4724; Gaz. vol. 179; p. 813.
Vizor, eye-shade, and advertising device, Sun-. F. M. Haggerty. No. 1,030,173; June 18; Sp. p. 4563; Gaz. vol. 179; p. 789.
Voting-machine. J. A. Butler. No. 1,028,838; June 4; Sp. p. 1652; Gaz. vol. 179; p. 258.
Voting-machine-locking device. J. A. Butler. No. 1,028,837; June 4; Sp. p. 1651; Gaz. vol. 179; p. 258.
Vulcanizer. A. C. Hopkins and H. M. Morgan. No. 1,029,684; June 18; Sp. p. 3503; Gaz. vol. 179; p. 621.
Wagon-body extension. C. H. De Wolfe. No. 1,028,100; June 4; Sp. p. 17; Gaz. vol. 179; p. 5.
Wagon-bolsters, Stake or standard for. O. J. A. Smith. No. 1,028,621; June 4; Sp. p. 1208; Gaz. vol. 179; p. 185.
Wagon-cover. J. K. Russell. No. 1,028,608; June 4; Sp. p. 1180; Gaz. vol. 179; p. 181.
Wagon, Dump-. W. L. Collins. No. 1,029,343; June 11; Sp. p. 2774; Gaz. vol. 179; p. 467.
Wagon, Dumping-. J. Auth. No. 1,028,525; June 4; Sp. p. 1009; Gaz. vol. 179; p. 154.
Wagon, Dumping-. E. E. Schellenger. No. 1,029,895; June 18; Sp. p. 3992; Gaz. vol. 179; p. 694.
Wagon, Motor-. H. M. Kinney. No. 1,030,735; June 25; Sp. p. 6037; Gaz. vol. 179; p. 1029.
Wagon-standard. I. H. England. No. 1,028,816; June 4; Sp. p. 1609; Gaz. vol. 179; p. 251.
Wagons and cars, Distributer for dumping. E. E. Schellenger. No. 1,029,894; June 18; Sp. p. 3988; Gaz. vol. 179; p. 694.
Waist and blouse closure. W. Luft. No. 1,029,204; June 11; Sp. p. 2460; Gaz. vol. 179; p. 419.
Wall construction. C. E. Rafferty. No. 1,029,822; June 18; Sp. p. 3821; Gaz. vol. 179; p. 670.
Wall, Jumping-. O. Lotzing. No. 1,028,234; June 4; Sp. p. 381; Gaz. vol. 179; p. 54.
Walls, Metallic reinforcement for. W. L. Collins. No. 1,029,106; June 11; Sp. p. 2255; Gaz. vol. 179; p. 385.
Washer: *See* Bearing-washer; Photographic-print washer.
Washer. A. L. Sessions. No. 1,028,290; June 4; Sp. p. 590; Gaz. vol. 179; p. 73.
Washbench. W. J. Book. No. 1,028,533; June 4; Sp. p. 1027; Gaz. vol. 179; p. 156.
Washboiler. L. West. No. 1,029,778; June 18; Sp. p. 3706; Gaz. vol. 179; p. 653.
Washing-machine. C. Pinoli. No. 1,030,855; June 25; Sp. p. 6449; Gaz. vol. 179; p. 1074.
Washtrays, &c. Cover for. E. U. Danenhower. No. 1,029,175; June 11; Sp. p. 2394; Gaz. vol. 179; p. 408.
Waste-plug lifter. H. Rattler. No. 1,029,463; June 11; Sp. p. 3033; Gaz. vol. 179; p. 508.
Waste-treating apparatus. E. C. Emery. No. 1,030,169; June 18; Sp. p. 4556; Gaz. vol. 179; p. 787.
Watch, Stem setting and winding. J. Zalinsky. No. 1,028,314; June 4; Sp. p. 545; Gaz. vol. 179; p. 80.
Watch, Stem winding and setting. J. A. Freund. No. 1,029,116; June 11; Sp. p. 2275; Gaz. vol. 179; p. 388.
Watchcase. J. C. Humphreys. No. 1,028,730; June 4; Sp. p. 1420; Gaz. vol. 179; p. 221.
Water-balance, Self-acting. M. Llobet. No. 1,030,099; June 18; Sp. p. 4429; Gaz. vol. 179; p. 765.
Water by steam, Apparatus for evaporating or heating. D. A. Quiggin. No. 1,029,631; June 18; Sp. p. 3383; Gaz. vol. 179; p. 603.
Water-closet connection. J. J. Cosgrove. No. 1,029,425; June 11; Sp. p. 2960; Gaz. vol. 179; p. 495.
Water-closet-seat attachment. C. De Quillfeldt. No. 1,030,720; June 25; Sp. p. 6003; Gaz. vol. 179; p. 1024.
Water-commingling head. J. J. Tyne. No. 1,030,144; June 18; Sp. p. 4509; Gaz. vol. 179; p. 779.
Water-distributing system, High-pressure. G. W. Jackson. No. 1,030,587; June 25; Sp. p. 5615; Gaz. vol. 179; p. 975.
Water-heater. C. Nichols. No. 1,028,261; June 4; Sp. p. 433; Gaz. vol. 179; p. 63.
Water-heater. E. Ruud. No. 1,028,284; June 4; Sp. p. 451; Gaz. vol. 179; p. 70.
Water-heater. R. Wadham. No. 1,028,979; June 11; Sp. p. 1978; Gaz. vol. 179; p. 341.
Water-heater. W. H. Jones. No. 1,029,300; June 11; Sp. p. 2660; Gaz. vol. 179; p. 451.
Water-heater. H. S. Humphrey. No. 1,029,870; June 18; Sp. p. 3936; Gaz. vol. 179; p. 685.
Water-heater, Automatic electric. J. I. Ayer. No. 1,029,523; June 11; Sp. p. 3145; Gaz. vol. 179; p. 527.
Water-heater, Instantaneous. W. F. Stewart. No. 1,028,146; June 4; Sp. p. 148; Gaz. vol. 179; p. 22.
Water-heater for shaving outfits. C. A. Nearman. No. 1,030,526; June 25; Sp. p. 5480; Gaz. vol. 179; p. 954.
Water-motor, Impact. W. A. Doble. No. 1,030,393; June 25; Sp. p. 5084; Gaz. vol. 179; p. 906.
Water-power appliance. N. W. Jameson. No. 1,029,127; June 11; Sp. p. 2298; Gaz. vol. 179; p. 398.
Water-purifying apparatus. D. L. Winters. No. 1,030,366; June 25; Sp. p. 5028; Gaz. vol. 179; p. 897.
Water-regulator. R. B. Parker, Jr. No. 1,028,509; June 4; Sp. p. 1165; Gaz. vol. 179; p. 178.
Water system for domestic purposes, Pneumatic. H. M. Lofton. No. 1,028,121; June 4; Sp. p. 56; Gaz. vol. 179; p. 13.
Water-tube sectional boiler. H. Barlach. No. 1,030,452; June 25; Sp. p. 5211; Gaz. vol. 179; p. 927.
Watering device, Plant-. G. R. Couls. No. 1,029,107; June 11; Sp. p. 2256; Gaz. vol. 179; p. 385.
Wave and current motor. M. E. Boots. No. 1,029,788; June 18; Sp. p. 3732; Gaz. vol. 179; p. 657.
Wax flowers, Manufacturing. M. Werbatus. No. 1,029,777; June 18; Sp. p. 3706; Gaz. vol. 179; p. 653.
Weather-shield. C. A. Carscadin. No. 1,028,861; June 11; Sp. p. 1711; Gaz. vol. 179; p. 300.
Web-roll brake mechanism. G. A. Menendez. No. 1,028,244; June 4; Sp. p. 407; Gaz. vol. 179; p. 58.
Weighing apparatus, Registering. H. E. T. Haultain. No. 1,029,120; June 11; Sp. p. 2280; Gaz. vol. 179; p. 389.
Weighing-machine. H. Pooley. No. 1,028,604; June 4; Sp. p. 1174; Gaz. vol. 179; p. 179.
Weight-motor. A. C. Geiger. No. 1,029,285; June 11; Sp. p. 2629; Gaz. vol. 179; p. 446.
Weight-recording mechanism. H. E. T. Haultain. No. 1,029,119; June 11; Sp. p. 2278; Gaz. vol. 179; p. 389.
Welded wire chains, rings, &c., Machine for automatically manufacturing. C. L. Graves. No. 1,029,805; June 18; Sp. p. 3926; Gaz. vol. 179; p. 683.
Welding-machine. A. Metzger. No. 1,029,389; June 11; Sp. p. 2887; Gaz. vol. 179; p. 482.
Welding or cutting apparatus. J. W. Whitford. No. 1,028,166; June 4; Sp. p. 250; Gaz. vol. 179; p. 30.
Well-tubing lock. A. K. McKee. No. 1,028,750; June 4; Sp. p. 1491; Gaz. vol. 179; p. 231.
Well-tubing safety appliance. S. A. Guiberson, Jr. No. 1,030,084; June 18; Sp. p. 4400; Gaz. vol. 179; p. 759.
Welt-butting machine. E. E. Winkley. No. 1,029,837; June 18; Sp. p. 3843; Gaz. vol. 179; p. 674.
Welt-butting machine. G. L. Rollins. No. 1,030,612; June 25; Sp. p. 5715; Gaz. vol. 179; p. 985.
Welt-butting machine. G. L. Rollins. No. 1,030,613; June 25; Sp. p. 5719; Gaz. vol. 179; p. 986.
Welt-guide. P. A. Coupal. No. 1,030,285; June 25; Sp. p. 4842; Gaz. vol. 179; p. 866.
Welt-guide. J. T. McIsaac. No. 1,030,741; June 25; Sp. p. 6049; Gaz. vol. 179; p. 1031.
Wheel: *See* Automobile-wheel; Balance-wheel; Gear-wheel; Propeller-wheel; Resilient wheel; Spring-wheel; Trolley-wheel; Vehicle-wheel.
Wheel and carrying chair, Combination. T. B. Baldwin. No. 1,030,635; June 25; Sp. p. 5800; Gaz. vol. 179; p. 994.
Wheel and journal. L. Mayer. No. 1,029,762; June 18; Sp. p. 3678; Gaz. vol. 179; p. 648.
Wheel attachment, Vehicle. S. A. Cherry. No. 1,028,676; June 4; Sp. p. 1316; Gaz. vol. 179; p. 203.
Wheel construction. J. W. Dodd. No. 1,028,688; June 4; Sp. p. 1335; Gaz. vol. 179; p. 207.
Wheel-dishing device. J. S. Creighton. No. 1,029,279; June 11; Sp. p. 2618; Gaz. vol. 179; p. 444.
Wheel-rim, Detachable. J. J. Burney. No. 1,030,716; June 25; Sp. p. 5996; Gaz. vol. 179; p. 1022.
Wheel-rim, Vehicle. J. E. Hale. No. 1,028,109; June 4; Sp. p. 32; Gaz. vol. 179; p. 9.

Wheel-support. M. G. Bunnel. No. 1,030,501; June 25; Sp. p. 5338; Gaz. vol. 179; p. 945.
Wheels, Protective covering for pneumatic-tired. L. J. Tetlow. No. 1,030,348; June 25; Sp. p. 4991; Gaz. vol. 179; p. 889.
Wheelbarrows, Packing and package for disassembled. A. C. Stebbins. No. 1,028,625; June 4; Sp. p. 1216; Gaz. vol. 179; p. 186.
Whiffletree. G. F. Danielson. No. 1,029,597; June 18; Sp. p. 3313; Gaz. vol. 179; p. 589.
Whiffletree-hook. F. Collins. No. 1,028,545; June 4; Sp. p. 1047; Gaz. vol. 179; p. 159.
Whip-lock. G. Lipp. No. 1,029,073; June 11; Sp. p. 2172; Gaz. vol. 179; p. 374.
Whip-locking socket. A. A. Le Gendre. No. 1,028,229; June 4; Sp. p. 374; Gaz. vol. 179; p. 53.
Wind-shield-cleaning device. E. B. Rhodes. No. 1,028,843; June 4; Sp. p. 1664; Gaz. vol. 179; p. 259.
Winder, Lap-. C. Mills and L. W. Penney. No. 1,029,391; June 11; Sp. p. 2891; Gaz. vol. 179; p. 483.
Winding apparatus for spinning and doubling machines, Thread-. J. F. Roth. No. 1,030,017; June 18; Sp. p. 4241; Gaz. vol. 179; p. 734.
Winding-engine for collieries or like purposes. R. J. Worth. No. 1,029,410; June 11; Sp. p. 2929; Gaz. vol. 179; p. 490.
Winding-machine. G. H. Rupley. No. 1,028,390; June 4; Sp. p. 707; Gaz. vol. 179; p. 107.
Winding-machine. C. Ryden. No. 1,028,609; June 4; Sp. p. 1182; Gaz. vol. 179; p. 181.
Winding-machine. A. H. Wouters. No. 1,028,983; June 11; Sp. p. 1988; Gaz. vol. 179; p. 343.
Winding-machine. H. J. Marx. No. 1,029,703; June 18; Sp. p. 3561; Gaz. vol. 179; p. 629.
Winding-machine. H. J. Marx. No. 1,029,761; June 18; Sp. p. 3677; Gaz. vol. 179; p. 648.
Winding-machine controlling device. J. W. West. No. 1,030,147; June 18; Sp. p. 4515; Gaz. vol. 179; p. 780.
Winding-machine for yarn or thread. F. J. Thieme. No. 1,028,302; June 4; Sp. p. 519; Gaz. vol. 179; p. 76.
Winding mechanism. H. J. Marx. No. 1,029,704; June 18; Sp. p. 3565; Gaz. vol. 179; p. 629.
Winding mechanism, Line-. W. N. Cavileer. No. 1,030,770; June 25; Sp. p. 6139; Gaz. vol. 179; p. 1041.
Window. D. R. Caler. No. 1,029,274; June 11; Sp. p. 2599; Gaz. vol. 179; p. 442.
Window-cleaner. F. E. Whitaker and T. H. Cox. No. 1,030,626; June 25; Sp. p. 5760; Gaz. vol. 179; p. 991.
Window-cleaning device. E. W. Sharkey. No. 1,030,546; June 25; Sp. p. 5465; Gaz. vol. 179; p. 961.
Window-fastener. L. W. Gates. No. 1,028,452; June 4; Sp. p. 861; Gaz. vol. 179; p. 129.
Window-lock. R. K. Haldane. No. 1,029,011; June 11; Sp. p. 2057; Gaz. vol. 179; p. 354.
Window, Metallic. J. F. Ruth. No. 1,028,391; June 4; Sp. p. 712; Gaz. vol. 179; p. 108.
Window, Metallic. J. F. Ruth. No. 1,028,392; June 4; Sp. p. 717; Gaz. vol. 179; p. 108.
Window, Metallic. J. F. Ruth. No. 1,028,393; June 4; Sp. p. 721; Gaz. vol. 179; p. 109.
Window-screen. E. H. Crawford. No. 1,029,427; June 11; Sp. p. 2963; Gaz. vol. 179; p. 495.
Window-screen, Sheet-metal. A. Flink. No. 1,029,352; June 11; Sp. p. 2788; Gaz. vol. 179; p. 470.
Window-screen, Swinging. J. H. Cornelison. No. 1,028,679; June 4; Sp. p. 1320; Gaz. vol. 179; p. 204.
Window weather-guard. W. S. Hamm and A. H. Newpher. No. 1,029,188; June 11; Sp. p. 2425; Gaz. vol. 179; p. 413.
Windows or the like, Fastening for. L. P. Nelson. No. 1,030,115; June 18; Sp. p. 4455; Gaz. vol. 179; p. 769.
Wing-carrier. W. F. Brown. No. 1,028,858; June 11; Sp. p. 1706; Gaz. vol. 179; p. 299.
Wire-clamp. H. R. Booze. No. 1,028,183; June 4; Sp. p. 287; Gaz. vol. 179; p. 36.
Wire-drawing dies, Machine for remaking. N. K. Turnbull. No. 1,028,305; June 4; Sp. p. 525; Gaz. vol. 179; p. 77.
Wire-fastener. W. C. Post. No. 1,028,962; June 11; Sp. p. 1941; Gaz. vol. 179; p. 335.
Wire on thermostatic springs, Machine for winding. T. H. Wurmb and R. Baumann. No. 1,028,519; June 4; Sp. p. 1001; Gaz. vol. 179; p. 152.
Wire-stretcher. E. D. Jones. No. 1,030,588; June 25; Sp. p. 5616; Gaz. vol. 179; p. 975.
Wood, Preserving. C. Ellis. No. 1,028,201; June 4; Sp. p. 323; Gaz. vol. 179; p. 43.
Wooden pins or pegs, Machine for the manufacture of. C. Lumello. No. 1,029,503; June 11; Sp. p. 3109; Gaz. vol. 179; p. 522.
Woodworking-clamp. A. J. Schulte. No. 1,029,471; June 11; Sp. p. 3052; Gaz. vol. 179; p. 511.
Work-holder. D. L. Aitcheson. No. 1,030,140; June 18; Sp. p. 4518; Gaz. vol. 179; p. 780.
Work-supports, Actuating mechanism for. G. A. Ambler. No. 1,029,939; June 18; Sp. p. 3865; Gaz. vol. 179; p. 675.
Wrench: *See* Driven wrench; Ratchet-wrench.
Wrench. S. C. Cruzan. No. 1,028,192; June 4; Sp. p. 305; Gaz. vol. 179; p. 39.
Wrench. C. T. Melhorn. No. 1,028,243; June 4; Sp. p. 405; Gaz. vol. 179; p. 57.
Wrench. A. Iring. No. 1,028,883; June 11; Sp. p. 1765; Gaz. vol. 179; p. 308.
Wrench. W. A. Little. No. 1,029,074; June 11; Sp. p. 2173; Gaz. vol. 179; p. 374.
Wrench. C. A. Reeves. No. 1,029,142; June 11; Sp. p. 2332; Gaz. vol. 179; p. 397.
Wrench. J. R. Coyle. No. 1,029,171; June 11; Sp. p. 2389; Gaz. vol. 179; p. 407.
Wrench. C. E. Bradford. No. 1,029,418; June 11; Sp. p. 2945; Gaz. vol. 179; p. 492.
Wrench. G. Andersen. No. 1,029,905; June 18; Sp. p. 4018; Gaz. vol. 179; p. 698.
Wrench. F. W. Pringle. No. 1,029,944; June 18; Sp. p. 4099; Gaz. vol. 179; p. 711.
Wrench. W. C. Cole. No. 1,030,232; June 18; Sp. p. 4704; Gaz. vol. 179; p. 809.
Writing-machine. H. S. Frew and F. P. Sexton. No. 1,030,807; June 25; Sp. p. 6249; Gaz. vol. 179; p. 1055.
X-ray tube. J. Rosenthal. No. 1,028,969; June 11; Sp. p. 1955; Gaz. vol. 179; p. 338.
X-ray tube. E. W. Caldwell. No. 1,029,850; June 18; Sp. p. 3899; Gaz. vol. 179; p. 679.
Yarn-guide. F. S. Rand. No. 1,029,399; June 11; Sp. p. 2911; Gaz. vol. 179; p. 486.
Zinc distillation. J. C. Moulden and H. W. Webster. No. 1,030,676; June 25; Sp. p. 5899; Gaz. vol. 179; p. 1008.
Zinc, Metallurgy of. C. V. Thierry. No. 1,030,349; June 25; Sp. p. 4992; Gaz. vol. 179; p. 890.
Zinc, Metallurgy of. C. V. Thierry. No. 1,030,350; June 25; Sp. p. 4995; Gaz. vol. 179; p. 890.
Zinc, Metallurgy of. C. V. Thierry. No. 1,030,351; June 25; Sp. p. 4999; Gaz. vol. 179; p. 891.

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Andiron. G. Stickley. No. 42,653; June 18; Gaz. vol. 179; p. 831.
Badge. M. F. Slattery. No. 42,651; June 18; Gaz. vol. 179; p. 831.
Badge. W. L. Trueblood. No. 42,680; June 25; Gaz. vol. 179; p. 1083.
Bib. T. M. Savill. No. 42,649; June 18; Gaz. vol. 179; p. 830.
Bicycle-frame. W. F. Kendt. No. 42,605; June 11; Gaz. vol. 179; p. 551.
Bottle-opener and button-hook, Combination. E. F. Reichmuth. No. 42,611; June 11; Gaz. vol. 179; p. 552.
Brush, Air-. J. Webster. No. 42,597; June 4; Gaz. vol. 179; p. 266.
Carafe. G. P. Altenberg. No. 42,617; June 18; Gaz. vol. 179; p. 825.
Chair. G. W. Collins. No. 42,618; June 18; Gaz. vol. 179; p. 825.
Chair. W. M. McLean. No. 42,641; June 18; Gaz. vol. 179; p. 829.
Cigar-ash holder. B. R. Halderman. No. 42,603; June 11; Gaz. vol. 179; p. 550.
Contact-makers, Cap for. A. A. Kent. No. 42,666; June 25; Gaz. vol. 179; p. 1080.
Cribbage-board. L. M. Stake. No. 42,595; June 4; Gaz. vol. 179; p. 266.
Cruet. A. J. Sanford. No. 42,594; June 4; Gaz. vol. 179; p. 265.
Curtain-hanger. F. J. McKenna. No. 42,640; June 18; Gaz. vol. 179; p. 829.
Curtain, Lace. A. Becker. Nos. 42,599–600; June 11; Gaz. vol. 179; p. 550.
Directory. J. S. Taylor. No. 42,596; June 4; Gaz. vol. 179; p. 266.
Dish. J. C. Underwood. No. 42,615; June 11; Gaz. vol. 179; p. 552.
Display-stand. O. Moberg. No. 42,644; June 18; Gaz. vol. 179; p. 830.
Display-stand for jewelry. J. C. Wacha. Nos. 42,655–6; June 18; Gaz. vol. 179; p. 831.
Electric-light fixtures, Canopy for. A. J. Morgan. No. 42,583; June 4; Gaz. vol. 179; p. 264.
Elevator-signal-light box. N. L. Schloss. No. 42,677; June 25; Gaz. vol. 179; p. 1082.
Engines, Manifold for internal-combustion. R. Huff. No. 42,581; June 4; Gaz. vol. 179; p. 263.
Fan. W. B. Garrison. No. 42,623; June 18; Gaz. vol. 179; p. 826.
Gem-setting. H. H. Meyers. No. 42,643; June 18; Gaz. vol. 179; p. 829.
Harness-rack. F. E. Lack and E. Lackey. No. 42,635; June 18; Gaz. vol. 179; p. 828.
Hat-pin guard. A. Huml. No. 42,604; June 11; Gaz. vol. 179; p. 551.
Horn. L. Schlesinger. No. 42,650; June 18; Gaz. vol. 179; p. 830.
Jewel-case. R. Waldron. No. 42,658; June 18; Gaz. vol. 179; p. 832.
Keyhole-finder. A. L. Marshall. No. 42,639; June 18; Gaz. vol. 179; p. 829.
Knife. L. H. Cress. Nos. 42,619–20; June 18; Gaz. vol. 179; p. 825.
Knife and fork, Combined. G. Gafinowitz. No. 42,622; June 18; Gaz. vol. 179; p. 826.
Lace. I. Rieger. No. 42,590; June 4; Gaz. vol. 179; p. 265.
Lace, Levers. C. W. Birkin. No. 42,662; June 25; Gaz. vol. 179; p. 1079.
Lamp-collar. E. W. Bryce. No. 42,572; June 4; Gaz. vol. 179; p. 262.
Lamp-shade. J. Friedberg. Nos. 42,575–6; June 4; Gaz. vol. 179; p. 262.
Lamp-shade. L. W. Young. No. 42,661; June 18; Gaz. vol. 179; p. 832.
Linoleum. H. C. Leslie. No. 42,582; June 4; Gaz. vol. 179; p. 263.
Linoleum, oil-cloth, or floor-covering. C. F. Humphreys. Nos. 42,626–7; June 18; Gaz. vol. 179; p. 827.
Machine-stand. G. Holmberg. No. 42,625; June 18; Gaz. vol. 179; p. 826.
Molasses-jug. J. Paull. No. 42,647; June 18; Gaz. vol. 179; p. 830.
Monument. L. M. Elwell. No. 42,664; June 25; Gaz. vol. 179; p. 1079.
Noodle or macaroni. S. Mueller. No. 42,608; June 11; Gaz. vol. 179; p. 51.
Oven. W. H. Wilder and F. E. White. No. 42,659; June 18; Gaz. vol. 179; p. 832.
Paper, Wall-. R. W. Mackintosh. Nos. 42,637–8; June 18; Gaz. vol. 179; p. 829.
Percolator coffee-pot. E. A. Farr. No. 42,621; June 18; Gaz. vol. 179; p. 826.
Phonograph-table. S. M. Wirts. No. 42,660; June 18; Gaz. vol. 179; p. 832.
Pitcher. T. C. Heisey. No. 42,665; June 25; Gaz. vol. 179; p. 1079.
Pitcher, Molasses-. A. J. Sanford. No. 42,612; June 11; Gaz. vol. 179; p. 552.
Plate. M. Aaron. No. 42,616; June 18; Gaz. vol. 179; p. 825.
Pole-step. J. H. White. No. 42,598; June 4; Gaz. vol. 179; p. 266.
Pulley-guard. F. B. Mallory. No. 42,667; June 25; Gaz. vol. 179; p. 1080.
Range, Gas-. J. A. Alexander and F. K. Berry. Nos. 42,570–1; June 4; Gaz. vol. 179; p. 261.
Reflector-bracket. P. M. Hotchkin. No. 42,580; June 4; Gaz. vol. 179; p. 263.
Reflector holder-bowl for lighting-fixtures. A. D. Curtis. No. 42,573; June 4; Gaz. vol. 179; p. 262.
Reflector holder-bowl for lighting-fixtures. G. I. Runion. No. 42,593; June 4; Gaz. vol. 179; p. 265.
Reflector holder-bowls for lighting-fixtures, Attachment for. P. M. Hotchkin. No. 42,579; June 4; Gaz. vol. 179; p. 263.
Rubber bathing-cap. R. Parker. No. 42,645; June 18; Gaz. vol. 179; p. 830.
Rubber bathing-cap. E. M. Parker. No. 42,646; June 18; Gaz. vol. 179; p. 830.
Rug. F. Heidl. No. 42,578; June 4; Gaz. vol. 179; p. 263.
Rug. A. Petzold. Nos. 42,584–9; June 4; Gaz. vol. 179; pp. 264–5.
Rug. H. W. Parton. Nos. 42,609–10; June 11; Gaz. vol. 179; pp. 551–2.
Rug. G. J. Stengel. Nos. 42,613–14; June 11; Gaz. vol. 179; p. 552.
Rug. J. Merry. Nos. 42,668–70; June 25; Gaz. vol. 179; pp. 1080–1.
Rug. A. Petzold. Nos. 42,671–2; June 25; Gaz. vol. 179; p. 1081.
Rug. R. F. Riddell. No. 42,673; June 25; Gaz. vol. 179; p. 1081.
Rug. E. G. Sauer. No. 42,674; June 25; Gaz. vol. 179; p. 1081.
Rug. F. Schindler. Nos. 42,675–6; June 25; Gaz. vol. 179; p. 1082.
Rug. W. A. Spring. Nos. 42,678–9; June 25; Gaz. vol. 179; pp. 1082–3.
Sauce-boat or similar article. C. E. Haviland. No. 42,577; June 4; Gaz. vol. 179; p. 263.
Screw, Stage-. C. L. Hagen. No. 42,602; June 11; Gaz. vol. 179; p. 550.
Seals, Tool for removing. J. J. Ferrall and E. Mackay. No. 42,601; June 11; Gaz. vol. 179; p. 550.
Shade. N. Kopp. Nos. 42,631–4; June 18; Gaz. vol. 179; p. 828.
Sign. H. J. Leschen. No. 42,636; June 18; Gaz. vol. 179; p. 829.
Skirt-gage. R. A. Terry. No. 42,654; June 18; Gaz. vol. 179; p. 831.
Spoon, Birth-. G. F. Kolb. No. 42,630; June 18; Gaz. vol. 179; p. 828.
Spoons or analogous articles, Handle for. E. H. Colby. No. 42,663; June 25; Gaz. vol. 179; p. 1079.
Sprocket-wheel. W. H. Kissel. No. 42,629; June 18; Gaz. vol. 179; p. 827.
Statuette. E. E. Levett. No. 42,606; June 11; Gaz. vol. 179; p. 551.
Statuette. E. J. McNerney. No. 42,607; June 11; Gaz. vol. 179; p. 551.
Statuette. F. H. Hall. No. 42,624; June 18; Gaz. vol. 179; p. 826.
Stove-leg. E. B. Sprague. No. 42,652; June 18; Gaz. vol. 179; p. 831.
Toy. R. L. Van Sant. No. 42,681; June 25; Gaz. vol. 179; p. 1083.
Vase. G. H. Janes. No. 42,628; June 18; Gaz. vol. 179; p. 827.
Vase. A. J. Sanford. No. 42,648; June 18; Gaz. vol. 179; p. 830.
Vending-machine. R. Robbins. No. 42,592; June 4; Gaz. vol. 179; p. 265.
Vending-machine stand. R. Robbins. No. 42,591; June 4; Gaz. vol. 179; p. 265.
Watch and holder, Wrist-. L. E. F. Wachter. No. 42,657; June 18; Gaz. vol. 179; p. 832.
Watch-movements, Bridge-plate for. W. H. Ebelhare and J. A. Freund. No. 42,574; June 4; Gaz. vol. 179; p. 262.
Wire fabric. G. A. Mellon. No. 42,642; June 18; Gaz. vol. 179; p. 829.

ALPHABETICAL LIST OF TRADE-MARKS.

Abrasive, detergent, and polishing materials. Wm. Enders Manufacturing Company. No. 87,057; June 25; Gaz. vol. 179; p. 1102.

Adding and calculating machines. The Duplex Adding Machine Company. No. 86,792; June 4; Gaz. vol. 179; p. 281.

Antiseptic and germicidal ointments. The Interstate Medical Company. No. 86,805; June 4; Gaz. vol. 179; p. 282.

Antiseptic douche. R. A. Hine. No. 86,990; June 18; Gaz. vol. 179; p. 847.

Arm-bands and garters. J. J. Hoffman. No. 86,908; June 11; Gaz. vol. 179; p. 568.

Asphalt, macadam, concrete, and bituminous paving. W. R. Petty. No. 86,934; June 11; Gaz. vol. 179; p. 569.

Awning-stripes. Geo. B. Carpenter & Co. No. 86,879; June 11; Gaz. vol. 179; p. 567.

Axles, Steel carriage, wagon, and buggy. Illinois Iron & Bolt Co. No. 86,992; June 18; Gaz. vol. 179; p. 847.

Bagging for baling cotton. American Manufacturing Company. No. 87,027; June 25; Gaz. vol. 179; p. 1101.

Bagging for baling cotton. American Manufacturing Company. No. 87,031; June 25; Gaz. vol. 179; p. 1101.

Baking-powder. Christie-Collar Mfg. Co. No. 86,786; June 4; Gaz. vol. 179; p. 281.

Baking-powder. Jaques Mfg. Co. No. 86,807; June 4; Gaz. vol. 179; p. 282.

Beer. Valentin Blatz Brewing Co. No. 86,842; June 4; Gaz. vol. 179; p. 283.

Beer. Olympia Brewing Co. No. 87,001; June 18; Gaz. vol. 179; p. 847.

Belt-dressing. G. Rahmann. No. 86,829; June 4; Gaz. vol. 179; p. 282.

Belts and hose-supporters. M. W. Schloss. No. 86,942; June 11; Gaz. vol. 179; p. 569.

Belting, hose, and machinery packing. E. Z. Jefferson. No. 86,856; June 4; Gaz. vol. 179; p. 283.

Belting, hose, machinery packing, and non-metallic tires. Federal Rubber Manufacturing Co. No. 86,795; June 4; Gaz. vol. 179; p. 281.

Belting, hose, machinery packing, and non-metallic tires. N. L. Steinberg. No. 87,121; June 25; Gaz. vol. 179; p. 1103.

Benzin. Standard Oil Company. No. 86,954; June 11; Gaz. vol. 179; p. 569.

Beverage, Non-alcoholic. M. B. Tisdale. No. 87,019; June 18; Gaz. vol. 179; p. 848.

Beverages, Non-alcoholic. H. Tüshaus. No. 87,020; June 18; Gaz. vol. 179; p. 848.

Biscuit. National Biscuit Company. Nos. 86,924–9; June 11; Gaz. vol. 179; pp. 568–9.

Bitumen. W. T. Coleman. No. 86,789; June 4; Gaz. vol. 179; p. 281.

Boilers and gas water-heaters, Combination kitchen-. Victor Combination Kitchen Boiler Company. No. 86,843; June 4; Gaz. vol. 179; p. 283.

Boots and shoes and tips therefor. The Tel-Til-Tip Co. No. 86,963; June 11; Gaz. vol. 179; p. 570.

Boots and shoes, Leather. Haynes Henson Shoe Company. No. 87,072; June 25; Gaz. vol. 179; p. 1102.

Bottle-caps. Peerless Cork & Seal Co. No. 87,101; June 25; Gaz. vol. 179; p. 1103.

Bows for shoes. Shoe City Novelty Co. No. 86,946; June 11; Gaz. vol. 179; p. 569.

Bread. E. Schmid. No. 86,943; June 11; Gaz. vol. 179; p. 569.

Bread, Wheat-. The Vi-Stix Products Company. No. 87,129; June 25; Gaz. vol. 179; p. 1104.

Calcimine, Cold-water. Liberty Paint Company. No. 86,858; June 4; Gaz. vol. 179; p. 283.

Calcimines. M. E. Fox & Co. No. 87,062; June 25; Gaz. vol. 179; p. 1102.

Calendars. Dodge Publishing Company. Nos. 86,894–5; June 11; Gaz. vol. 179; p. 568.

Candles. N. L. Towle. No. 87,124; June 25; Gaz. vol. 179; p. 1103.

Candy. W. S. Trowbridge. No. 87,127; June 25; Gaz. vol. 179; p. 1104.

Candy and chocolates. Hess Brothers. No. 86,907; June 11; Gaz. vol. 179; p. 568.

Canned chop-soy. Vette & Zuncker. No. 86,968; June 11; Gaz. vol. 179; p. 570.

Canned fruits, vegetables, fish, soups, and spices. Park, Grant and Morris. No. 87,100; June 25; Gaz. vol. 179; p. 1103.

Canned pears. Dooley, Smith & Company. No. 86,896; June 11; Gaz. vol. 179; p. 568.

Canned salmon. Alaska Fish Co. No. 86,864; June 11; Gaz. vol. 179; p. 567.

Canned salmon. Grossfeld and Roe Company. No. 86,903; June 11; Gaz. vol. 179; p. 568.

Canned salmon. Apex Fish Company. No. 87,032; June 25; Gaz. vol. 179; p. 1101.

Canned vegetables. Grand River Canning Company. No. 87,066; June 25; Gaz. vol. 179; p. 1102.

Canned vegetables, fruits, prepared wheat-flour, and prepared pancake-flour. Acker, Merrall & Condit Company. No. 86,861; June 11; Gaz. vol. 179; p. 567.

Car-wheels, Cast-iron. Griffin Wheel Company. No. 86,902; June 11; Gaz. vol. 179; p. 568.

Castor-oil. J. Judd Mason & Co. No. 87,086; June 25; Gaz. vol. 179; p. 1102.

Catsup. McMechen Preserving Company. No. 86,920; June 11; Gaz. vol. 179; p. 568.

Ceilings, side walls, and skylights, Metal. The Empire Iron and Steel Company. No. 86,793; June 4; Gaz. vol. 179; p. 281.

Cement, Adhesive. Caementium Sales Co. No. 86,782; June 4; Gaz. vol. 179; p. 281.

Cement, Portland. J. H. Houghton. No. 86,804; June 4; Gaz. vol. 179; p. 282.

Cement, Portland. The Atlas Portland Cement Company. No. 86,973; June 18; Gaz. vol. 179; p. 847.

Cement, Roofing-. Coal Tar Product Company. No. 86,882; June 11; Gaz. vol. 179; p. 567.

Chair-tips. Star Rubber Co. No. 86,957; June 11; Gaz. vol. 179; p. 569.

Cheese, Cream-. S. H. Conover. No. 87,045; June 25; Gaz. vol. 179; p. 1101.

Chemical preparation, Certain. Oakes Manufacturing Company. No. 86,824; June 4; Gaz. vol. 179; p. 282.

Chemical preparation, Certain. A. E. Hawker. No. 86,988; June 18; Gaz. vol. 179; p. 847.

Chemical preparation, Certain. Florasel Mfg. Company. No. 87,061; June 25; Gaz. vol. 179; p. 1102.

Cigars. Hartford Bros. No. 86,904; June 11; Gaz. vol. 179; p. 568.

Cigars. The Hautzenroeder Co. No. 86,905; June 11; Gaz. vol. 179; p. 568.

Cigars. Jaynes Drug Company. No. 87,077; June 25; Gaz. vol. 179; p. 1102.

Cigars. Sanchez & Haya Co. No. 87,109; June 25; Gaz. vol. 179; p. 1103.

Cloth, Open-weave. W. P. Willis & Co. No. 86,972; June 11; Gaz. vol. 179; p. 570.

Clothing, Certain. C. Eisenman Company. No. 87,055; June 25; Gaz. vol. 179; p. 1102.

Clothing, Certain article of. Ryff & Co. No. 87,010; June 18; Gaz. vol. 179; p. 848.

Clothing, Children's, misses', and ladies'. A. L. Mock. No. 86,816; June 4; Gaz. vol. 179; p. 282.

Coffee. The Theo. Poehler Mercantile Co. No. 86,936; June 11; Gaz. vol. 179; p. 569.

Coffee, Green. Schütte Bünemann & Co. No. 86,944; June 11; Gaz. vol. 179; p. 569.

Coffee substitute. National Essence for Coffee Co. No. 86,930; June 11; Gaz. vol. 179; p. 569.

Coffee, tea, and spices. The Newton Tea & Spice Co. No. 86,822; June 4; Gaz. vol. 179; p. 282.

Colors, Coal-tar. Society of Chemical Industry in Basle. No. 87,014; June 18; Gaz. vol. 179; p. 848.

Compound of the radical salicyl and carbonic with soda. P. Kratz. No. 87,081; June 25; Gaz. vol. 179; p. 1102.

Condiment. W. Horlich, Jr. No. 86,910; June 11; Gaz. vol. 179; p. 568.

Construction materials, Certain. W. H. Colebrook's Sons. No. 86,788; June 4; Gaz. vol. 179; p. 281.

Cookers, Fireless. Traverse City Refrigerator Co. No. 87,125; June 25; Gaz. vol. 179; p. 1104.

Corsets. Jackson Corset Company. No. 86,995; June 18; Gaz. vol. 179; p. 847.

Cotton dress goods. Marshall Field & Company. No. 86,900; June 11; Gaz. vol. 179; p. 568.

Cotton duck. Geo. B. Carpenter & Co. No. 86,878; June 11; Gaz. vol. 179; p. 567.

Cotton duck. Kansas City Cotton Mills Company. No. 87,079; June 25; Gaz. vol. 179; p. 1102.

Cream and powder and hair-tonic, Face. J. A. Norton. No. 86,823; June 4; Gaz. vol. 179; p. 282.

Cultivators, harrows, and drills. Roderick Lean Manufacturing Company. No. 87,084; June 25; Gaz. vol. 179; p. 1102.

Cutlery, machinery, and tools and parts thereof. Adriance, Platt & Co. No. 86,863; June 11; Gaz. vol. 179; p. 567.

Cutlery, machinery, and tools and parts thereof, Certain. Sanderson Brothers & Newbould. No. 86,941; June 11; Gaz. vol. 179; p. 569.

Dental, medical, and surgical appliances, Certain. Tower Manufacturing & Novelty Co. No. 86,838; June 4; Gaz. vol. 179; p. 283.

Dietetic preparations. Bauer & Cie. No. 86,776; June 4; Gaz. vol. 179; p. 281.
Disinfectants and insecticides. Barrett Manufacturing Company. Nos. 86,774–5; June 4; Gaz. vol. 179; p. 281.
Drills, reamers, and milling-cutters. R. Stock & Co., Spiralbohrer-Werkzeug und Maschinenfabrik Aktiengesellschaft. No. 86,959; June 11; Gaz. vol. 179; p. 570.
Dyes. R. Wedekind & Co., G. m. b. H. No. 86,848; June 4; Gaz. vol. 179; p. 283.
Eggs. Lucas Produce Company. No. 86,918; June 11; Gaz. vol. 179; p. 568.
Electric generators, Magneto-. Hercules Electric Company. No. 86,802; June 4; Gaz. vol. 179; p. 282.
Electrical apparatus and supplies. Peoria Electric Fixture Co. No. 87,102; June 25; Gaz. vol. 179; p. 1103.
Electrical apparatus and supplies, Certain. Northwestern Electric Equipment Company. No. 86,932; June 11; Gaz. vol. 179; p. 569.
Emery, emery wheels, cloth, and paper. Siruhin-Werke G. m. b. H. No. 86,834; June 4; Gaz. vol. 179; p. 283.
Engine-starting devices, Explosive-. The Prest-O-Lite Company. No. 87,005; June 18; Gaz. vol. 179; p. 848.
Fabrics, Certain. Kent Manufacturing Company. No. 86,996; June 18; Gaz. vol. 179; p. 847.
Fancy goods and notions, Certain. Ely & Walker Dry Goods Company. No. 86,981; June 18; Gaz. vol. 179; p. 847.
Fancy goods, furnishings, and notions, Certain. Watson, Porter, Giles & Company. No. 87,131; June 25; Gaz. vol. 179; p. 1104.
Feed, Poultry. Rudy-Patrick Seed Co. No. 86,940; June 11; Gaz. vol. 179; p. 569.
Feed, Stock. Stafolife Feed & Milling Co. Nos. 86,948–50; June 11; Gaz. vol. 179; p. 569.
Flannel piece goods. Wick Narrow Fabric Company. No. 87,025; June 18; Gaz. vol. 179; p. 848.
Flour and cereal breakfast food, Whole-wheat. Hunyadi Laszlo Company. No. 86,914; June 11; Gaz. vol. 179; p. 568.
Flour, Prepared cereal. The Northwestern Elevator and Mill Co. No. 86,933; June 11; Gaz. vol. 179; p. 569.
Flour, Wheat-. Atlantic Maritime Company. No. 86,869; June 11; Gaz. vol. 179; p. 567.
Flour, Wheat-. Lexington Mill & Elevator Co. No. 86,916; June 11; Gaz. vol. 179; p. 568.
Flour, Wheat-. Duluth-Superior Milling Company. No. 87,053; June 25; Gaz. vol. 179; p. 1102.
Flour, Wheat-. Mayflower Mills. No. 87,088; June 25; Gaz. vol. 179; p. 1102.
Flour, Wheat-. The Smith Milling and Grain Company. No. 87,116; June 25; Gaz. vol. 179; p. 1103.
Food, Prepared poultry. F. C. Williams. No. 86,971; June 11; Gaz. vol. 179; p. 570.
Foods, Cereal breakfast. G. K. Cummings. No. 86,887; June 11; Gaz. vol. 179; p. 567.
Foods, Certain. A. Goodman & Son. No. 86,901; June 11; Gaz. vol. 179; p. 568.
Foods, Certain. Lehmann-Higginson Grocer Co. No. 86,915; June 11; Gaz. vol. 179; p. 568.
Foods, Certain. J. A. Stoughton. No. 86,960; June 11; Gaz. vol. 179; p. 570.
Foods, Certain. Western Grocer Company. No. 86,970; June 11; Gaz. vol. 179; p. 570.
Forgings, bar iron and steel, Structural. American Iron and Steel Manufacturing Company. Nos. 86,865–6; June 11; Gaz. vol. 179; p. 567.
Friction-tape. The M. W. Dunton Company. No. 86,980; June 18; Gaz. vol. 179; p. 847.
Furniture-polish. H. S. Thorpe. No. 87,123; June 25; Gaz. vol. 179; p. 1103.
Game-scoring boards. J. W. Baker. No. 87,034; June 25; Gaz. vol. 179; p. 1101.
Gasolene and naphtha. Standard Oil Company. No. 86,953; June 11; Gaz. vol. 179; p. 569.
Gin compound. Golden Gate Co. No. 86,985; June 18; Gaz. vol. 179; p. 847.
Gloves and mittens. Mt. Pleasant Glove Manufacturing Co. No. 87,095; June 25; Gaz. vol. 179; p. 1103.
Greases, Gear-. Utah Oil Refining Company. No. 86,967; June 11; Gaz. vol. 179; p. 570.
Gum, Chewing-. J. B. Robbins. No. 86,939; June 11; Gaz. vol. 179; p. 569.
Hair-nets. Silverberg Import Co. Nos. 87,111–13; June 25; Gaz. vol. 179; p. 1103.
Hair-oils and unguents. A. K. Ziemssen. No. 86,855; June 4; Gaz. vol. 179; p. 283.
Hair-tonic. L. R. Fiebert. No. 86,797; June 4; Gaz. vol. 179; p. 281.
Hair-water. G. Dralle. No. 86,979; June 18; Gaz. vol. 179; p. 847.
Hames. U. S. Hame Company. Nos. 86,839–40; June 4; Gaz. vol. 179; p. 283.
Hammocks. H. L. Hohlfeld. No. 86,909; June 11; Gaz. vol. 179; p. 568.
Hams and bacon. The Cudahy Packing Company No. 86,886; June 11; Gaz. vol. 179; p. 567.
Handkerchiefs. John V. Farwell Company. No. 86,899; June 11; Gaz. vol. 179; p. 568.
Handkerchiefs. Heller & Long. No. 86,906; June 11; Gaz. vol. 179; p. 568.
Handkerchiefs. Heller & Long. No. 86,989; June 18; Gaz. vol. 179; p. 847.
Handkerchiefs and kerchiefs. James R. Kelser, Inc. No. 87,080; June 25; Gaz. vol. 179; p. 1102.
Hardware and plumbing and steam-fitting supplies. Detroit Sanitary Supply Co. No. 86,893; June 11; Gaz. vol. 179; p. 568.
Harness. John C. Nichols Harness Manufacturing Company. No. 86,931; June 11; Gaz. vol. 179; p. 569.
Hats. L. Galitzki. No. 86,799; June 4; Gaz. vol. 179; p. 282.
Hay, feed, or litter carriers. M. B. Moyer. No. 87,094; June 25; Gaz. vol. 179; p. 1103.
Heating, lighting, and ventilating apparatus, Certain. The Nagel-Chase Manufacturing Company. No. 86,820; June 4; Gaz. vol. 179; p. 282.
Hooks, bath showers and sprays, bread-molds, &c. Silver & Company. No. 86,833; June 4; Gaz. vol. 179; p. 283.
Horse-collars. Straus, Bodenheimer Saddlery Co. No. 86,961; June 11; Gaz. vol. 179; p. 570.
Hosiery. Interwoven Stocking Company. No. 86,994; June 18; Gaz. vol. 179; p. 847.
Hosiery. Paramount Knitting Company. No. 87,002; June 18; Gaz. vol. 179; p. 848.
Hosiery. Elizabeth City Hosiery Co. No. 87,056; June 25; Gaz. vol. 179; p. 1102.
Ice-cream cones. Granger & Houghton. No. 87,067; June 25; Gaz. vol. 179; p. 1102.
Ichthyol-surrogate and mineral oils. S. A. Miniere Scisti Bituminosi di Meride e Besano. No. 87,108; June 25; Gaz. vol. 179; p. 1103.
Insulated electric wires. Detroit Insulated Wire Company. No. 87,051; June 25; Gaz. vol. 179; p. 1101.
Iodin and iodid substitute. P. A. Astier. No. 86,974; June 18; Gaz. vol. 179; p. 847.
Knives, Annular. Fortuna Machine Co. No. 86,798; June 4; Gaz. vol. 179; p. 282.
Knives, Table-. Berndorf Metal Works Arthur Krupp. Nos. 86,874–5; June 11; Gaz. vol. 179; p. 567.
Laxative preparation, Compound. Citrolax Co. No. 87,042; June 25; Gaz. vol. 179; p. 1101.
Leather blackings and dressings. F. Matt & Co. No. 86,860; June 4; Gaz. vol. 179; p. 283.
Leggings and sandals. The Hagerstown Legging Company. No. 86,801; June 4; Gaz. vol. 179; p. 282.
Limbs, Artificial. E. H. Rowley. No. 87,107; June 25; Gaz. vol. 179; p. 1103.
Lime. A. C. Horn Company. No. 86,803; June 4; Gaz. vol. 179; p. 282.
Limonenes. A. Deppe Söhne. No. 87,050; June 25; Gaz. vol. 179; p. 1101.
Linen piece goods. Stevenson & Son. No. 87,122; June 25; Gaz. vol. 179; p. 1103.
Liniments. G. O. Wellman, Jr. No. 87,023; June 18; Gaz. vol. 179; p. 848.
Macaroni. Crescent Macaroni and Cracker Co. No. 86,885; June 11; Gaz. vol. 179; p. 567.
Magnesia. The Washington Chemical Co. No. 86,844; June 4; Gaz. vol. 179; p. 283.
Malt preparation. Birk Bros. Brewing Co. No. 86,777; June 4; Gaz. vol. 179; p. 281.
Mattresses. The Sanitary Bedding Co. No. 86,832; June 4; Gaz. vol. 179; p. 283.
Mattresses, bed-springs, cots, and feather pillows. Nashville Spring and Mattress Co. No. 86,821; June 4; Gaz. vol. 179; p. 282.
Matzoths. A. Goodman & Son. No. 87,065; June 25; Gaz. vol. 179; p. 1102.
Measuring and scientific appliances, Certain. Ica Actien-Gesellschaft. No. 87,075; June 25; Gaz. vol. 179; p. 1102.
Medical preparation for overperspiring and sore feet. Mack's Medical Co. No. 86,811; June 4; Gaz. vol. 179; p. 282.
Medicinal preparation for chapped skin, sunburn, and hangnails. J. T. Morton. No. 86,810; June 4; Gaz. vol. 179; p. 282.
Medicinal salve. U-Va-Jee Manufacturing Co. No. 86,841; June 4; Gaz. vol. 179; p. 283.
Medicinal syrup. A. D. Monica. No. 86,818; June 4; Gaz. vol. 179; p. 282.
Medicinal tablets. H. C. Cleveland. No. 86,787; June 4; Gaz. vol. 179; p. 281.
Medicinal tonics. Analgesol Chemical Company. No. 86,772; June 4; Gaz. vol. 179; p. 281.
Medicinal tonics. G. E. Latour. No. 87,083; June 25; Gaz. vol. 179; p. 1102.
Medicinal tonics, pills, and ointments. C. H. F. Richter. No. 87,008; June 18; Gaz vol. 179; p. 848.
Medicine and pharmaceutical preparations, Certain. Henry K. Wampole and Company. No. 87,022; June 18; Gaz. vol. 179; p. 848.
Medicine and pharmaceutical preparations, Certain. E. H. Wagner. No. 87,130; June 25; Gaz. vol. 179; p. 1104.
Medicine for certain ailments. E. C. McRae. No. 86,998; June 18; Gaz. vol. 179; p. 847.
Medicines and pharmaceutical preparations, Certain. J. F. Ballard. No. 87,035; June 25; Gaz. vol. 179; p. 1101.
Medicines and pharmaceutical preparations, Certain. L. T. Coates. No. 87,044; June 25; Gaz. vol. 179; p. 1101.
Metal-polish. H. T. Newman. No. 87,096; June 25; Gaz. vol. 179; p. 1103.
Metal, Sheet. E. H. West. No. 87,132; June 25; Gaz. vol. 179; p. 1104.
Metals, Preparation for regenerating. Metall-Regeno G. m. b. H. No. 86,814; June 4; Gaz. vol. 179; p. 282.
Milk, Evaporated. St. Charles Condensing Company. No. 87,120; June 25; Gaz. vol. 179; p. 1103.

Mince-meat, infant food, and preserved eggs. Merrell-Soule Co. No. 87,089; June 25; Gaz. vol. 179; p. 1102.
Mirror-supports, Adjustable. G. Davidson. No. 86,888; June 11; Gaz. vol. 179; p. 567.
Molasses. Boston Molasses Co. No. 87,036; June 25; Gaz. vol. 179; p. 1101.
Musical instruments and supplies, Certain. Frankfurter Musikwerke-Fabrik, J. D. Philipps & Söhne A.-G. No. 86,984; June 18; Gaz. vol. 179; p. 847.
Naphtha. Standard Oil Company. Nos. 86,955–6; June 11; Gaz. vol. 179; p. 569.
Naphtha. Standard Oil Company of New York. No. 87,017; June 18; Gaz. vol. 179; p. 848.
Noodles for soups. The Pfaffmann Egg Noodle Co. No. 86,935; June 11; Gaz. vol. 179; p. 569.
Oil for cooking purposes, Cotton-seed. Delta Oil Co. No. 86,889; June 11; Gaz. vol. 179; p. 567.
Oil for finishing leather. Farbenfabriken of Elberfeld Company. No. 87,058; June 25; Gaz. vol. 179; p. 1102.
Oil for lighting, heating, and power purposes. Standard Oil Company. Nos. 86,951–2; June 11; Gaz. vol. 179; p. 569.
Oil-grease guns. The Randall-Faichney Company. No. 86,937; June 11; Gaz. vol. 179; p. 569.
Oil, Lubricating-. The Clarkson & Ford Company. No. 86,881; June 11; Gaz. vol. 179; p. 567.
Oil, Olive-. C. Francesconi. No. 87,063; June 25; Gaz. vol. 179; p. 1102.
Oil substitute, Linseed-. B. Morgan. No. 86,923; June 11; Gaz. vol. 179; p. 568.
Oils and lubricants, Motor. The White & Bagley Co. No. 86,851; June 4; Gaz. vol. 179; p. 283.
Oils, Coal-tar. Barrett Manufacturing Company. No. 86,872; June 11; Gaz. vol. 179; p. 567.
Oils, Illuminating-. Standard Oil Co. of New York. No. 87,018; June 18; Gaz. vol. 179; p. 848.
Oils, Illuminating-. Standard Oil Co. of New York. No. 87,118; June 25; Gaz. vol. 179; p. 1103.
Oils, Illuminating-. Vacuum Oil Company. No. 87,128; June 25; Gaz. vol. 179; p. 1104.
Ointment. Menley & James. No. 86,813; June 4; Gaz. vol. 179; p. 282.
Ointment. S. I. Rainforth. No. 86,830; June 4; Gaz. vol. 179; p. 282.
Ointment, pomade, blood remedy, &c. The Morgan Drug Co. No. 87,000; June 18; Gaz. vol. 179; p. 847.
Oranges. Charter Oak Citrus Assn. No. 86,880; June 11; Gaz. vol. 179; p. 567.
Oranges, grape-fruit, tangerines, lemons, and limes. Manatee Citrus Growers Association. No. 87,085; June 25; Gaz. vol. 179; p. 1102.
Overalls, jumpers, coats, and trousers. Volunteer Mfg. Company. No. 87,021; June 18; Gaz. vol. 179; p. 848.
Oysters, Fresh. Miles & Co. Nos. 86,921–2; June 11; Gaz. vol. 179; p. 568.
Paint, Cold-water. Liberty Paint Company. No. 86,857; June 4; Gaz. vol. 179; p. 283.
Paint used as a protective coating, Ready-mixed. Patton Paint Company. No. 86,827; June 4; Gaz. vol. 179; p. 282.
Paints. Denny, Hilborn & Rosenbach. Nos. 86,890–2; June 11; Gaz. vol. 179; p. 568.
Paints and painters' materials. Baer Bros. No. 87,033; June 25; Gaz. vol. 179; p. 1101.
Paints and painters' materials. Denny, Hilborn & Rosenbach. No. 87,049; June 25; Gaz. vol. 179; p. 1101.
Paper bags. The Union Bag and Paper Company. No. 86,965; June 11; Gaz. vol. 179; p. 570.
Paper tablets and note-books. The Reynolds & Reynolds Company. No. 87,007; June 18; Gaz. vol. 179; p. 848.
Paper, Wrapping-. Republic Bag & Paper Co. No. 86,938; June 11; Gaz. vol. 179; p. 569.
Papers and type-writer ribbons, Carbon and copying. Pencarbon Co. No. 87,003; June 18; Gaz. vol. 179; p. 848.
Papers, Roofing and waterproof insulating. C. S. Bird. No. 86,876; June 11; Gaz. vol. 179; p. 567.
Pencils. A. W. Faber. No. 86,898; June 11; Gaz. vol. 179; p. 568.
Pencils, Lead-. Eagle Pencil Company. No. 86,897; June 11; Gaz. vol. 179; p. 568
Perfume and talcum powder. Smith, Kline & French Company. No. 87,013; June 18; Gaz. vol. 179; p. 848.
Petroleum for illuminating, heating, and power purposes. Standard Oil Company of New York. No. 87,117; June 25; Gaz. vol. 179; p. 1103.
Pharmaceutical preparation, Certain. M. M. Feinberg. No. 87,059; June 25; Gaz. vol. 179; p. 1102.
Pharmaceutical preparations, Certain. The W. L. Milner & Company. No. 86,815; June 4; Gaz. vol. 179; p. 282.
Pharmaceutical preparations, Certain. E. Molwitz. No. 86,817; June 4; Gaz. vol. 179; p. 282.
Pharmaceutical preparations, Certain. A. J. White. No. 86,850; June 4; Gaz. vol. 179; p. 283.
Pharmaceutical preparations, Certain. Society of Chemical Industry in Basle. Nos. 87,015–16; June 18; Gaz. vol. 179; p. 848.
Pharmaceutical preparations, Certain. D. E. Beecham. No. 86,975; June 18; Gaz. vol. 179; p. 847.
Pharmaceutical preparations, Certain. Leggett & Brother. No. 86,997; June 18; Gaz. vol. 179; p. 847.
Pharmaceutical preparations, Certain. B. W. Moe. No. 87,091; June 25; Gaz. vol. 179; p. 1103.
Photographic chemicals. Société Anonyme des Celluloses Planchon. No. 86,835; June 4; Gaz. vol. 179; p. 283.
Pianos and organs. People's Outfitting Company. No. 87,004; June 18; Gaz. vol. 179; p. 848.
Pianos, Player-. C. A. Ahlstrom. No. 86,769; June 4; Gaz. vol. 179; p. 281.
Pickles. Alart & McGuire Company. No. 87,026; June 25; Gaz. vol. 179; p. 1101.
Pictures, Transfer-. Nürnberger Abziehbilder-Fabrik Troeger & Bücking. No. 87,098; June 25; Gaz. vol. 179; p. 1103.
Piece goods, carpets, and rugs. Carlisle, Crocker & Co. No. 87,039; June 25; Gaz. vol. 179; p. 1101.
Piece goods, Certain. W. Oddy. No. 87,099; June 25; Gaz. vol. 179; p. 1103.
Pills, Laxative. W. T. Hanson Co. No. 86,987; June 18; Gaz. vol. 179; p. 847.
Pin cups and trays, Crockery. Tower Manufacturing & Novelty Co. No. 86,964; June 11; Gaz. vol. 179; p. 570.
Pipes, tubes, and conduits. James McDougall Limited. No. 86,706; June 4; Gaz. vol. 179; p. 281.
Pitch, tar, and asphalt. Barrett Manufacturing Company. No. 86,773; June 4; Gaz. vol. 179; p. 281.
Plows. Starke's Dixie Plow Works. No. 87,119; June 25; Gaz. vol. 179; p. 1103.
Polishing-cloths. The Silvex Company. Nos. 87,114–15; June 25; Gaz. vol. 179; p. 1103.
Powder, Foot-. B. W. Moe. No. 87,092; June 25; Gaz. vol. 179; p. 1103.
Powder for absorbing perspiration. F. Mantovani. No. 86,812; June 4; Gaz. vol. 179; p. 282.
Powder, Roach-. L. A. Kaas. No. 86,809; June 4; Gaz. vol. 179; p. 282.
Powder, Wound-. Fabrik pharmaceutischer Präparate Karl Engelhard. No. 86,982; June 18; Gaz. vol. 179; p. 847.
Powders, Headache-. The F. A. Weck Co. No. 86,847; June 4; Gaz. vol. 179; p. 283.
Preparation for stomach disorders, headache, nervousness, &c. F. M. Criswell. No. 87,046; June 25; Gaz. vol. 179; p. 1101.
Printing-presses. The Regina Company. No. 87,006; June 18; Gaz. vol. 179; p. 848.
Railway-rails. Continuous Rail Company. Nos. 86,883–4; June 11; Gaz. vol. 179; p. 567.
Recording apparatus. American Recorder Company. No. 86,867; June 11; Gaz. vol. 179; p. 567.
Remedies for certain ailments. Southwestern Medicine Co. No. 86,836; June 4; Gaz. vol. 179; p. 283.
Remedies for certain diseases. C. A. Frank. No. 86,983; June 18; Gaz. vol. 179; p. 847.
Remedies for gout and rheumatism. Chemische Fabrik auf Actien (vorm. E. Schering). No. 87,041; June 25; Gaz. vol. 179; p. 1101.
Remedies, Wound-healing. Actien-Gesellschaft für Anilin-Fabrikation. No. 86,768; June 4; Gaz. vol. 179; p. 281.
Remedy for certain ailments. Haltiwanger-Taylor Drug Co. No. 87,070; June 25; Gaz. vol. 179; p. 1102.
Remedy for certain diseases. Brown Bros. No. 86,781; June 4; Gaz. vol. 179; p. 281.
Remedy for certain diseases. Dr. Arthur Erhard Gesellschaft mit beschränkter Haftung. No. 86,794; June 4; Gaz. vol. 179; p. 281.
Remedy for certain diseases. The J. W. M. Clark Co. No. 87,043; June 25; Gaz. vol. 179; p. 1101.
Remedy for certain diseases. The Delano Company. No. 87,048; June 25; Gaz. vol. 179; p. 1101.
Remedy for certain diseases. G. G. Green. No. 87,068; June 25; Gaz. vol. 179; p. 1102.
Remedy for diabetes. E. Rath. No. 86,831; June 4; Gaz. vol. 179; p. 282.
Remedy for rheumatism. J. R. Cannon. No. 86,783; June 4; Gaz. vol. 179; p. 281.
Remedy for the scalp. O. B. Jafnel. No. 86,808; June 4; Gaz. vol. 179; p. 282.
Remedy, Headache. J. J. Brodbeck. No. 86,780; June 4; Gaz. vol. 179; p. 281.
Remedy, Laxative and cathartic. G. C. Whitmore. No. 87,024; June 18; Gaz. vol. 179; p. 848.
Rifles, shotguns, and revolvers. The Ithaca Gun Company. No. 86,911; June 11; Gaz. vol. 179; p. 568.
Rings, Finger-. F. N. Charrington. No. 86,785; June 4; Gaz. vol. 179; p. 281.
Robes and manteaux. A. M. Taft. No. 86,962; June 11; Gaz. vol. 179; p. 570.
Rolled oats and rice. Berdan & Company. No. 86,873; June 11; Gaz. vol. 179; p. 567.
Rubber boots and shoes. Boston Rubber Shoe Company. Nos. 86,778–9; June 4; Gaz. vol. 179; p. 281.
Rubber boots and shoes. Boston Rubber Shoe Company. No. 87,037; June 25; Gaz. vol. 179; p. 1101.
Salt. The Hutchinson-Kansas Salt Company. No. 86,991; June 18; Gaz. vol. 179; p. 847.
Sardines. A. Luneschloss. No. 86,917; June 11; Gaz. vol. 179; p. 568.
Scales, Truck-. E. L. Gage. No. 87,064; June 25; Gaz. vol. 179; p. 1102.
Scrapes. Atlanta Agricultural Works. No. 86,868; June 11; Gaz. vol. 179; p. 567.
Seeds, Cantaloup-. J. A. Hart. No. 87,071; June 25; Gaz. vol. 179; p. 1102.
Sewing-machines, their parts and attachments. Willcox & Gibbs Sewing Machine Co. No. 86,853; June 4; Gaz. vol. 179; p. 283.
Sewing-machines, their parts and attachments. A. G. Mason. No. 86,859; June 4; Gaz. vol. 179; p. 283.

Shampoo-paste. H. L. Webber & Company. No. 86,846; June 4; Gaz. vol. 179; p. 283.
Sheetings and drillings. Piedmont Mfg. Co. No. 87,103; June 25; Gaz. vol. 179; p. 1103.
Shirts, undershirts, drawers, trousers, hosiery, &c. Watts Brothers Company. No. 86,845; June 4; Gaz. vol. 179; p. 283.
Shoes, Leather. Adams Shoe Company. No. 86,862; June 11; Gaz. vol. 179; p. 567.
Shoes, Leather and canvas. Kirk-Dunning Co. No. 86,810; June 4; Gaz. vol. 179; p. 282.
Shoes, Women's. The Brown Shoe Co. No. 87,038; June 25; Gaz. vol. 179; p. 1101.
Soap, Laundry and toilet. J. Landrock. No. 87,082; June 25; Gaz. vol. 179; p. 1102.
Soap, Solid and liquid. Richard Hudnut. Nos. 87,073–4; June 25; Gaz. vol. 179; p. 1102.
Soap, Toilet. Norddeutsche Wollkämmerei & Kammgarnspinnerei. No. 87,097; June 25; Gaz. vol. 179; p. 1103.
Soap, Toilet. Robinson Bros. & Company. No. 87,104; June 25; Gaz. vol. 179; p. 1103.
Soap, Toilet and laundry. Robinson Bros. & Company. No. 87,105; June 25; Gaz. vol. 179; p. 1103.
Soap, Toilet and salt-water. The Morgan Drug Co. No. 87,093; June 25; Gaz. vol. 179; p. 1103.
Soap, Washing-. Idaho Soap Company. No. 87,076; June 25; Gaz. vol. 179; p. 1102.
Soaps, Shaving and toilet. The J. B. Williams Company. No. 86,854; June 4; Gaz. vol. 179; p. 283.
Soaps, Shaving and toilet. The J. B. Williams Company. No. 87,133; June 25; Gaz. vol. 179; p. 1104.
Soaps, Toilet. A. L. Mock. No. 87,090; June 25; Gaz. vol. 179; p. 1103.
Solution for the treatment of catarrh, Alkaline. Wheeler Chemical Co. No. 86,849; June 4; Gaz. vol. 179; p. 283.
Sound-record blanks. Columbia Phonograph Company, General. No. 86,978; June 18; Gaz. vol. 179; p. 847.
Spark-plugs. The Kansas City Automobile Supply Co. No. 86,913; June 11; Gaz. vol. 179; p. 568.
Spark-plugs, terminals, protectors, &c. Mac-Kae Manufacturing Company. No. 86,919; June 11; Gaz. vol. 179; p. 568.
Sphygmomanometers. Elmer & Amend. No. 87,054; June 25; Gaz. vol. 179; p. 1102.
Starch. Société Anonyme Des Usines Remy. No. 86,947; June 11; Gaz. vol. 179; p. 569.
Steel bars, plates, castings, forgings, and ingots. E. Dörrenberg Söhne. No. 87,052; June 25; Gaz. vol. 179; p. 1101.
Steering-gears. Jackson-Church-Wilcox Co. No. 86,912; June 11; Gaz. vol. 179; p. 568.
Stove-polish. Gillan & Gillan. No. 86,800; June 4; Gaz. vol. 179; p. 282.
Suits, Men's outer. S. Rosenblatt & Son. No. 87,009; June 18; Gaz. vol. 179; p. 848.
Suspenders. The Scout Suspender & Specialty Mfg. Co. No. 86,945; June 11; Gaz. vol. 179; p. 569.
Syrup for beverages. T. L. Finney. No. 87,060; June 25; Gaz. vol. 179; p. 1102.
Syrup, sago, tapioca, and corn-starch. F. B. Chamberlain Company. No. 87,040; June 25; Gaz. vol. 179; p. 1101.
Thimbles. Untermeyer-Robbins & Company. No. 86,966; June 11; Gaz. vol. 179; p. 570.
Tire-casings for automobiles, Inner-shoe. Jackson-Eno Rubber Company. No. 86,806; June 4; Gaz. vol. 179; p. 282.
Tires, Rubber. M. Rosenthal. No. 87,106; June 25; Gaz. vol. 179; p. 1103.
Tires, Rubber and pneumatic. C. A. Daniel. No. 87,047; June 25; Gaz. vol. 179; p. 1101.
Tobacco-pouches. The Star Rubber Co. No. 86,958; June 11; Gaz. vol. 179; p. 570.
Toilet preparations. The Owl Drug Company. No. 86,826; June 4; Gaz. vol. 179; p. 282.
Toy vehicles. Auto Specialty Manufacturing Co. No. 86,870; June 11; Gaz. vol. 179; p. 567.
Traction-machines and parts thereof. McKinney Traction Cultivator Co. No. 87,087; June 25; Gaz. vol. 179; p. 1102.
Tube and flue expanders and cutters. G. Wiedeke and Company. No. 86,852; June 4; Gaz. vol. 179; p. 283.
Turnbuckles. American Iron and Steel Manufacturing Company. Nos. 86,770–1; June 4; Gaz. vol. 179; p. 281.
Ventilating apparatus Autoforce Ventilating System. No. 86,871; June 11; Gaz. vol. 179; p. 567.
Waists, Dress and shirt. Bloom & Millman. No. 86,877; June 11; Gaz. vol. 179; p. 567.
Washboilers. M. Kamenstein. No. 87,078; June 25; Gaz. vol. 179; p. 1102.
Water-closets, Sanitary. The Trenton Potteries Company. No. 87,126; June 25; Gaz. vol. 179; p. 1104.
Water-purifying and steam-boiler-cleaning compound. W. R. Du Mond. No. 86,791; June 4; Gaz. vol. 179; p. 281.
Waters, Mineral and aerated. The Cambrunnen Table Water Co. No. 86,977; June 18; Gaz. vol. 179; p. 847.
Waters, Natural mineral spring-. Sct. Lucasbader Brunnen Actien-Gesellschaft. No. 87,011; June 18; Gaz. vol. 179; p. 848.
Weather-strips. Chamberlin Metal Weather Strip Co. No. 86,784; June 4; Gaz. vol. 179; p. 281.
Whisky. The Old Bushmills Distillery Co. No. 86,825; June 4; Gaz. vol. 179; p. 282.
Whisky. J. Weber, Jr. No. 86,969; June 11; Gaz. vol. 179; p. 570.
Whisky. C. Berry & Co. No. 86,976; June 18; Gaz. vol. 179; p. 847.
Whisky-blend. Golden Gate Co. No. 86,986; June 18; Gaz. vol. 179; p. 847.
Wine, Port-. A. C. F. Morgan. No. 86,999; June 18; Gaz. vol. 179; p. 847.
Wine, Sherry-. A. D. Shaw & Co. No. 87,012; June 18; Gaz. vol. 179; p. 848.
Wood cleanser and polisher. The Progress Company. No. 86,828; June 4; Gaz. vol. 179; p. 282.
Woolen piece goods. American Woolen Company. Nos. 87,028–31; June 25; Gaz. vol. 179; p. 1101.
Writing fluid. International Ink Co. No. 86,993; June 18; Gaz. vol. 179; p. 847.
Writing-machines. The Signature Company. No. 87,110; June 25; Gaz. vol. 179; p. 1103.
Yarns, Cotton. Harding Tilton & Company. No. 86,837; June 4; Gaz. vol. 179; p. 283.

ALPHABETICAL LIST OF LABELS.

"Albem-Oil." (For Oil for Type-Writers.) W. G. Stevenson. No. 16,372; June 4; Gaz. vol. 179; p. 284.
"Alghieri's Soup." (For Soup.) Alghieri Chef. No. 16,366; June 4; Gaz. vol. 179; p. 284.
"All-But-Linen." (For Suiting.) Burton Bros. & Co. No. 16,375; June 11; Gaz. vol. 179; p. 571.
"Alligator." (For Molasses.) New Orleans Coffee Co. No. 16,406; June 18; Gaz. vol. 179; p. 849.
"Ampt's Toasted Corn Dainties." (For Toasted Corn-Flakes.) C. F. Ampt. No. 16,374; June 11; Gaz. vol. 179; p. 571.
"Baby Rose." (For Cigars.) The Moehle Lithographic Company. No. 16,381; June 11; Gaz. vol. 179; p. 571.
"Best Out West." (For Flour.) J. W. Denio Milling Company. No. 16,379; June 11; Gaz. vol. 179; p. 571.
"Black and Gold." (For Whisky.) S. Froehlich & Son. No. 16,392; June 11; Gaz. vol. 179; p. 571.
"Blue Ribbon." (For Playing-Cards.) The Russel Playing Card Company. No. 16,388; June 11; Gaz. vol. 179; p. 571.
"Bon Ton The Most Perfect Fitting Corset in The World." (For Corsets.) Royal Worcester Corset Co. No. 16,387; June 11; Gaz. vol. 179; p. 571.
"Brown's High Grade Metal Ware." (For Sheet-Metal Ware.) The Brown Stamping Company. No. 16,417; June 25; Gaz. vol. 179; p. 1105.
"Chancellor." (For Wheat-Flour.) H. H. Whiting. No. 16,414; June 18; Gaz. vol. 179; p. 849.
"Chief Okee." (For Cigars.) The Moehle Lithographic Company. No. 16,383; June 11; Gaz. vol. 179; p. 571.
"College." (For Toilet-Paper.) G. E. Curran. No. 16,376; June 11; Gaz. vol. 179; p. 571.
"Commercial Note." (For Cigars.) A. C. Henschel & Co. No. 16,365; June 4; Gaz. vol. 179; p. 284.
"Cracker." (For Cane-Syrup.) New Orleans Coffee Co. No. 16,404; June 18; Gaz. vol. 179; p. 849.
"Doctors Port." (For Wines.) C. Hascall & Co. No. 16,398; June 18; Gaz. vol. 179; p. 849.
"Dr. Ulrici's Compound Cordial of Cerebrine." (For a Pharmaceutical Preparation.) C. J. Ulrici. No. 16,429; June 25; Gaz. vol. 179; p. 1105.
"Eagle Brand Sweater Shirt." (For Shirts and Sweaters.) The Adler Underwear & Hosiery Mfg. Co. No. 16,373; June 11; Gaz. vol. 179; p. 571.
"El Domar." (For Cigars.) C. B. Henschel Mfg. Co. No. 16,397; June 18; Gaz. vol. 179; p. 849.
"Everybody's." (For Sugar-Syrup and Corn-Syrup.) New Orleans Coffee Co. No. 16,402; June 18; Gaz. vol. 179; p. 849.
"Flaxbloom." (For Handkerchiefs.) Maxwell-McClure-Fitts D. G. Co. No. 16,401; June 18; Gaz. vol. 179; p. 849.
"Fort Lewis Club." (For Whisky.) H. C. Lewis. No. 16,371; June 4; Gaz. vol. 179; p. 284.
"George L." (For Cigars.) J. J. Pepper. No. 16,424; June 25; Gaz. vol. 179; p. 1105.
"Ginger-Brandy." (For Brandy.) S. Froehlich & Son. No. 16,394; June 11; Gaz. vol. 179; p. 571.
"Goose Neck." (For Imitation Sorghum.) New Orleans Coffee Co. No. 16,407; June 18; Gaz. vol. 179; p. 849.
"Hewitt Bourbon Whiskey." (For Whisky.) The Hewitt Mercantile Company. No. 16,420; June 25; Gaz. vol. 179; p. 1105.
"Hewitt Rye Whiskey." (For Whisky.) The Hewitt Mercantile Company. No. 16,419; June 25; Gaz. vol. 179; p. 1105.
"I. C. Prevention." (For a Medicinal Preparation.) Paris Chemical Co. No. 16,410; June 18; Gaz. vol. 179; p. 849.
"Jefferson." (For Cigars.) M. Grossman. No. 16,368; June 4; Gaz. vol. 179; p. 284.
"Karex Blend Golden Sun Coffee." (For Coffee.) The Woolson Spice Company. No. 16,415; June 18; Gaz. vol. 179; p. 849.
"Kellogg's Toasted Wheat Biscuit." (For Biscuit.) Kellogg Toasted Corn Flake Co. No. 16,422; June 25; Gaz. vol. 179; p. 1105.
"Kettering's Worlds Catarrh Remedy." (For a Remedy for Catarrh.) H. H. Kettering. No. 16,369; June 4; Gaz. vol. 179; p. 284.
"King Philip." (For Cigars.) Zimmerman Cigar Co. No. 16,430; June 25; Gaz. vol. 179; p. 1105.
"Knighthood Brand." (For Salmon.) Sanborn-Cram Co. No. 16,389; June 11; Gaz. vol. 179; p. 571.
"Koh-I-noor Dress Fastener." (For Dress-Fastening Devices.) Waldes & Co. No. 16,395; June 11; Gaz. vol. 179; p. 571.
"La Composa." (For Cigars.) The Moehle Lithographic Company. No. 16,380; June 11; Gaz. vol. 179; p. 571.
"La Farine Blanche." (For Wheat-Flour.) H. H. Whiting. No. 16,413; June 18; Gaz. vol. 179; p. 849.
"Le Rouge's Authentic-Hair-Auxiliary." (For Hair-Pomade.) Le Rouge Co. No. 16,400; June 18; Gaz. vol. 179; p. 849.
"Le Rouge's Authentic-Hair-Auxiliary Soap." (For Soap.) Le Rouge Co. No. 16,309; June 18; Gaz. vol. 179; p. 849.
"Little Crow." (For Canned Corn.) Cokato Canning Co. No. 16,418; June 25; Gaz. vol. 179; p. 1105.
"Loyal Order." (For Cigars.) The Moehle Lithographic Company. No. 16,382; June 11; Gaz. vol. 179; p. 571.
"Minnesota Belle." (For Wheat-Flour.) H. H. Whiting. No. 16,412; June 18; Gaz. vol. 179; p. 849.
"Mohawk Valley Brand." (For Limburger-Style Cheese.) J. Karlen. No. 16,421; June 25; Gaz. vol. 179; p. 1105.
"New South." (For Cane-Syrup.) New Orleans Coffee Co. No. 16,403; June 18; Gaz. vol. 179; p. 849.
"Nordana." (For Cigars.) C. B. Henschel Mfg. Co. No. 16,367; June 4; Gaz. vol. 179; p. 284.
"Opera." (For Toilet-Paper.) G. E. Curran. No. 16,377; June 11; Gaz. vol. 179; p. 571.
"Oshkosh Special." (For Beer.) The Oshkosh Brewing Co. No. 16,385; June 11; Gaz. vol. 179; p. 571.
"Panama Creams." (For Crackers.) American Biscuit Co. No. 16,416; June 25; Gaz. vol. 179; p. 1105.
"Poinciana Cerate." (For Preparations for the Skin.) E. C. F. Paarman. No. 16,423; June 25; Gaz. vol. 179; p. 1105.
"Pride of Sheridan." (For Flour.) J. W. Denio Milling Company. No. 16,378; June 11; Gaz. vol. 179; p. 571.
"R-bst." (For California Fruits.) J. F. Pyle & Son. No. 16,425; June 25; Gaz. vol. 179; p. 1105.
"Red Raven Brand." (For Salmon.) Sanborn-Cram Co. No. 16,390; June 11; Gaz. vol. 179; p. 571.
"Rokeach's Kosher Scouring Powder." (For Scouring-Powder.) I. Rokeach's & Sons. No. 16,426; June 25; Gaz. vol. 179; p. 1105.
"Romeo & Juliet." (For Whisky.) S. Froehlich & Son. No. 16,393; June 11; Gaz. vol. 179; p. 571.
"Rosa del Lago." (For Cigars.) The Moehle Lithographic Company. No. 16,384; June 11; Gaz. vol. 179; p. 571.
"Sniffle-Balm." (For a Medicinal Preparation.) F. H. Robinson. No. 16,386; June 11; Gaz. vol. 179; p. 571.
"Snow White." (For Corn-Syrup and Cane-Sugar Syrup.) New Orleans Coffee Co. No. 16,409; June 18; Gaz. vol. 179; p. 849.
"Solidified Honey." (For Honey.) F. C. Ameiss. No. 16,396; June 18; Gaz. vol. 179; p. 849.
"Sparkle." (For Table-Syrup.) New Orleans Coffee Co. No. 16,408; June 18; Gaz. vol. 179; p. 849.
"Success." (For Wheat-Flour.) H. H. Whiting. No. 16,411; June 18; Gaz. vol. 179; p. 849.
"Sweetland." (For Sugar-Cane Products and Corn-Syrup.) New Orleans Coffee Co. No. 16,405; June 18; Gaz. vol. 179; p. 849.
"Taylor's Pork Goodies." (For a Pork Product.) The Taylor Provision Company. No. 16,428; June 25; Gaz. vol. 179; p. 1105.
"The Staff of Life Nature's Bread." (For Bread.) L. Schneider. No. 16,391; June 11; Gaz. vol. 179; p. 571.
"Uncle Hiram's Brighten-All." (For Brighteners and Polishes.) New Method Varnish Company. No. 16,370; June 4; Gaz. vol. 179; p. 284.
"Yellow Rose Pure Corn Whiskey." (For Whisky.) I. C. Shore & Co. No. 16,427; June 25; Gaz. vol. 179; p. 1105.

PRINTS.

"Arrow Collars and Shirts." (For Collars and Shirts.) Cluett, Peabody & Company. No. 3,043; June 4; Gaz. vol. 179; p. 284.

"Chancellor." (For Wheat-Flour.) H. H. Whiting. No. 3,054; June 18; Gaz. vol. 179; p. 849.

"Electric Rug and Carpet Cleaner." (For Rug and Carpet Cleaner.) Electric Cleaner Co. No. 3,049; June 11; Gaz. vol. 179; p. 571.

"Everyman." (For Men's Garters.) George Frost Company. No. 3,044; June 4; Gaz. vol. 179; p. 284.

"Fruit Dispatch Company Import the Best." (For Bananas.) Fruit Dispatch Company. No. 3,050; June 18; Gaz. vol. 179; p. 849.

"Gold Dust." (For a Cleansing Preparation.) The Tablet and Ticket Co. No. 3,046; June 4; Gaz. vol. 179; p. 284.

"Guarantee, This garment is made of Material printed by the Garner Process." (For Garments.) Garner Print Works and Bleachery. No. 3,057; June 25; Gaz. vol. 179; p. 1105.

"I Done Had To Frame Rastus." (For Wheat Breakfast Food.) Cream of Wheat Co. No. 3,048; June 11; Gaz. vol. 179; p. 571.

"La Farine Blanche." (For Wheat-Flour.) H. H. Whiting. No. 3,052; June 18; Gaz. vol. 179; p. 849.

"Minnesota Belle." (For Wheat-Flour.) H. H. Whiting. No. 3,055; June 18; Gaz. vol. 179; p. 849.

"My Hat is in the Ring." (For Teddy Hats.) Boston Novelty Co. No. 3,047; June 11; Gaz. vol. 179, p. 571.

"My Wife Knows: She's solved my troubles for heels and toes." (For Hosiery.) American Art Works. No. 3,056; June 25; Gaz. vol. 179; p. 1105.

"Success." (For Wheat-Flour.) H. H. Whiting. No. 3,053; June 18; Gaz. vol. 179; p. 849.

"The Wunder Waist-band." (For Trousers.) Marx & Haas Clothing Co. No. 3,045; June 4; Gaz. vol. 179; p. 284.

"Wolfe's Schnapps." (For Schnapps.) Udolpho Wolfe Company. No. 3,051; June 18; Gaz. vol. 179; p. 849.

DISCLAIMERS.

Coating articles with pulverulent material, Apparatus for. C. Doering, Jr. No. 976,143; date of patent Nov. 22, 1910; disclaimer filed June 13, 1912; Gaz. vol. 179; p. 859.

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